

PETROLEUM DIVISION

22 JUN 1990

FINAL WELL REPORT

ESSO AUSTRALIA PETROLEUM CO.

SAWBWELLY No.1

GIPPSLAND BASIN

March 1990

by

EXPLORATION LOGGING Australia LTD.

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1. INTRODUCTION

a. Well and Rig Data

Operator:	ESSO Australia Ltd.
Well Name:	Sawbelly No.1
Location:	Offshore Gippsland Basin, Bass Strait Victoria
Position:	Lat: 38° 22' 31.00" South Long: 147° 03' 05.90" East
Field:	Exploration
Permit:	VIC/P27
Rig:	Southseas "Southern Cross" Semi-submersible
RKB - MSL:	21 metres
RKB - SB:	84 metres
Spud Date:	4th March 1990
Total Depth:	3068 meters
Completion Date:	24th March 1990
Completion Status:	Plugged & Abandoned
Exlog Unit:	244, GEMDAS X
Crew - Gemdas:	T. Yap, D. New
Logging:	H.Naim, R, Tena

b. PROGNOSIS

Sawbelly-1 was a wildcat exploration well drilled 24 km to the north-east of the Marlin "A" platform in the Bass Strait by the semi-submersible drilling rig "Southern Cross". The well was programmed to reach a total depth of 3071m (RKB) and to take 29 days from spud to rig release. The closest wells are Conger No.1 (3.0 km to the northeast), Swordfish No.1 (3.4 km to the southwest) and Veilfin No.1 (5.7 km to the south-southwest).

Sawbelly-1 was proposed to evaluate the hydrocarbon content of the highside block of a fault closed east-west trending structure. The bounding fault is oriented east-west and shows evidence of partial inversion and strong compression. Such faults elsewhere in the basin form important fault-sealed hydrocarbon traps. The primary objectives of the well were thick, fault closed, intra-Latrobe, sandstones adjacent to the 60 M.Y. sequence boundary. Sandstones above this but below the 51.5 M.Y. sequence boundary (top of the fault closure) were considered secondary targets.

Exploration Logging will provide a Geological Engineering Monitoring and Data Acquisition System (GEMDAS) service, with formation logging and Pressure Evaluation services on Sawbelly-1 from 20" casing depth at 815m to total depth. Continuous evaluation of pressures and drilling progress from real time data will provide an aid in optimising drilling costs and ensure drilling continues with maximum safety to personnel, the well and equipment.

The operator will be continuously advised as to the status of these analyses. The printouts and plots of the results and services are contained in the appendices of this report.

2. DRILLING AND ENGINEERING

a. Well History

Sawbelly No.1 was spudded on the 4th March 1990 at 08:15 hours by the semi-submersible drilling rig "Southern Cross". All depths unless otherwise stated are in metres along hole below the RKB. RKB to mean sealevel was 21m and RKB to seafloor was 84m (sea depth 63m). The well was drilled using a total of 8 bits in 216.2 hrs (on bottom) at an average rate of penetration of 13.8 m/hr.

26" Hole Section : Spud to 205 metres.

After ballasting the rig to drilling depth and running the TGB, NB#1, a REED R1 26", with a 26" hole opener, spudded Sawbelly No.1 at 08:15 hrs on the 4th March 1990. This bit drilled to 205m, a distance of 131m in 9.5 hrs at an average rate of penetration of 12.5 m/hr. The drilling fluid was seawater with hi-vis sweeps being circulated on each connection. At 205m the hole was swept with a 100 bbl hi-vis pill and displaced with a 275 bbl hi-vis pill, a survey dropped and the bit tripped to the mudline where the survey was recovered (0.25"). The bit was tripped back to bottom with no fill, a 350 bbl hi-vis pill circulated and the bit tripped to run casing.

10 joints of Vetco X52 94 lb/ft 20" casing were then run and the shoe set at 198m. The casing was cemented with 750 sx class "G" with 2.5% gel lead slurry followed with 600 sx class "G" cement with 1.5% CaCl₂. The cement was displaced with 17 bbl seawater.

17.5" Hole Section: 205 - 815 metres

After running the marine riser and BOP stack the 17.5" BHA and NB#2, a HTC CX3A were picked up and run in the hole to the top of cement at 192m. The cement and shoe track were drilled to 205m and new hole drilled to 815m with 20 bbl hi-vis pills being pumped every second connection. At 815m bottoms-up were circulated, a survey dropped (2°), and a wiper trip made to surface. Fill of 3m was noted on the trip in and the hole was swept with a 100 bbl hi-vis pill. After the hole was conditioned, a slug was pumped and the bit tripped.

The 17.5" BHA was laid out and wireline logs were run (BHC-MSFL-GR-Cal) with no problems.

61 joints of K55, 54.5 lb/ft, 13.375" casing were then run with the shoe set at 799m. The casing was cemented with 1000 sacks of class "G" cement.

12.25" Hole Section: 815 - 3068 meters

After testing the stack and picking up the 12.25" BHA, NB#3 a HTC AT-J1, was run in and drilled cement and the shoe track from 772m. New hole was drilled to 818m where bottoms-up was circulated and a leak-off test taken to a gauge pressure of 540 psi. This gave a fracture pressure of 13.3 ppg EMW.

Drilling continued with NB#3 from 815m to 1915m where returns were circulated for 30 min, a survey dropped (2.5°) and the bit tripped. Tight hole was noted from the first 4 stands with a maximum overpull of 100 klb. The kelly was picked up at 1776m and singles pumped out to 1680m. The hole was still tight and the bit was tripped back to 1892m where the kelly was picked up and the interval 1892-1915m reamed. Returns were circulated while the mud weight was increased from 9.0 to 9.5 ppg. The bit was pulled out of the hole with only minor overpull being recorded.

The drilling fluid was seawater-gel to 1700m where it was converted to a KCL mud system. Mud weights varied from 9.0 to 9.5 ppg.

NB#3 drilled from 815m to 1915m, a distance of 1100m, in 33.9 hrs at an average rate of penetration of 32.4 m/hr and was graded T2 B4 G0. The lithology was limestone, grading to calcareous claystone below 1720m.

NB#4, a SEC S84F 12.25" was run in the hole to 1824m where a bridge was noted, the kelly picked up, and the interval 1824m -1915m reamed / washed. Drilling then continued with NB#4 at rates of penetration varying from 5 to 15 m/hr and averaging 8 m/hr through the calcareous claystones of the Gippsland Limestone. At 1996m the rate of penetration increased to 16 m/hr and a negative flow check was made at 2000m. By 2007m the rate of penetration had further increased to 25 m/hr and a second flow check was made (also negative). The lithology from these intervals was sandstone with no shows. Problems with the mud pumps meant that the interval 1964m -2040m was drilled with only one pump and that bit hydraulics were therefore sub-optimal. NB#4 then drilled through siltstones with interbedded sandstone and coal of the Latrobe Group at rates of penetration varying from 60 m/hr through the sandstones to less than 5 m/hr through the siltstones. High and often erratic torque was seen intermittently through this interval and was thought to be due to the stabilizer hanging up in rugose/undergauge hole or the effect of thin coal beds on the bit. The bit was pulled at 2320m due to high torque and bit hours after having drilled 404m in 31.3 hrs at an average rate of penetration of 12.9 m/hr. The bit was graded as T6 B8 G5/8".

NB#5, HTC AT-J22 12.25", and an MWD tool were then picked up and run in to 2269m where the kelly was picked up and undergauge hole reamed from 2269m-2320m. Drilling then proceeded through a dominantly siltstone / claystone sequence at rates of penetration varying from 20 m/hr to less than 1 m/hr. Torque was again high and erratic due to the stabilizer hanging up in rugose/undergauge hole. At 2373m the bit was pulled due to low rate of penetration after having only drilled 54m in 13.4 hrs (on bottom) at an average rate of penetration of 4.0 m/hr. The bit was graded as T5 B8 G1/8".

NB#6, REED HP53 12.25", with an MWD tool was run in to 2201m where the undergauge hole reamed from 2201m-2373m. Drilling continued through a dominantly siltstone and sandstone with occasionally thin coal interbeds. The rate of penetration varied from 35 m/hr to 4 m/hr. Apart from occasional coal seams, no high torque was encountered. At 2646m the bit was pulled after having drilled 273m in 34.4 hr (on bottom) at an average rate of penetration of 8.0 m/hr. The bit was graded as T2 B4 G1/8". Minor overpull of up to 30 klb was noted from the first 11 stands on the trip out. This was probably due to a balled up stabilizer hanging up.

NB#7, a Smith F27D, with an MWD tool, was run in, with the interval 2606m-2646m being reamed/washed on the trip in. This bit then drilled through the siltstones (with minor interbedded sandstone and coal) of the Latrobe Group at rates of penetration varying from 4 to 12 m/hr. At 2925m the rate of penetration decreased to less than one meter per hour and the bit was pulled. This bit drilled 279m in 52.7 hrs at an average rate of penetration of 5.3 m/hr and was graded as T2 B4 G0.

NB#8, a HTC AT-J33 was then picked up and run in the hole with no problems and drilled to 2823m where the rate of penetration increased to over 20 m/hr and a negative flow check was made. The rate of penetration remained at this rate to 2827m and as the MWD tool indicated possible hydrocarbons in the formation bottoms up were circulated. The lithology was coal underlain by a sandstone with no shows and drilling continued to 3068m (TD). Bottoms-up was circulated, the bit tripped with no problems, and wireline logs run. NB#8 drilled 143m through siltstone, sandstone and coal, in 20.9 hrs at an average rate of penetration of 6.8m/hr and was graded T3 B4 G0.

The following logs were then run:

Run 1: DLL-MSFL-CNL-LDT-SLS-GR-SP-Cal
Run 2: VSP
Run 3: WSC

No shows or fluorescence were noted from the 12.25" hole section, with all gas peaks being due to coal and all fluorescence being mineral fluorescence. Wireline data indicated that all sands were water saturated and it was decided to plug and abandon Sawbelly No.1. Cement plugs were then set and the rig released on the 24 March 1990.

b. Bit Optimisation

Bit performance was continuously monitored and the operator advised of cost performance, rate of penetration, torque and formation changes. Cost analysis was performed on the basis of bit cost, rig cost and an average tripping speed and are a guide only. A plot of the results and a bit record can be found in the attached appendices. No bits were pulled purely on a cost basis.

The 26" hole section was drilled with a Reed R1 (IADC 111) from 86m to 205m, a distance of 119m, in 9.5 hrs, at an average rate of penetration of 12.5 m/hr and was graded at T1 B1 G0 and could be rerun. The bit was pulled to run 20" casing.

The 17.5" hole section was drilled from 205m-815m, a distance of 610m, using NB#2 a HTC CX3A with 4 nozzles. The bit run was 29.5 hrs through argillaceous limestones of the Gippsland Limestone at an average rate of penetration was 20.7 m/hr. The bit was pulled to run 13.375" casing and was graded T2 B2 G0. On pulling the bit it was found that the center nozzle had washed out which meant that bit hydraulics were less than optimal. It is therefore probable that the rate of penetration was lower than it should have been.

The 12.25" section was drilled with 1 mill tooth and 5 insert tricone bits. This section was drilled from 815-3068m, a distance of 2253m, in 186.4 hrs at an average rate of penetration of 12.1 m/hr.

The first bit run in this section of hole was a HTC AT-J1 which drilled from 815-1915m, a distance of 1100m, in 34.0 hrs at an average rate of penetration of 32.4 m/hr. The bit was pulled at 2320m due to a decrease in rate of penetration and high bit hours. This bit suited the non-abrasive limestone through which it drilled and was graded as T2 B4 G0.

A SEC S84F (IADC 5174) was run next and drilled 404m in 31.3 hrs at an average rate of penetration of 12.9 m/hr and was graded T6 B8 G5/8". The bit was pulled at 2320m due to increased torque and high bit hours. This bit drilled through a dominantly sandstone section which appeared to be very abrasive causing the bit to go undergauge and probably contributing to the high bearing wear. A bit with stronger gauge protection may have performed better in this abrasive formation.

NB#5, a HTC AT-J22 (IADC 517) was run next but only drilled 53m in 13.4 hrs at an average rate of penetration of 4 m/hr. The rate of penetration throughout this bit run was generally lower than expected suggesting that the bit may have been damaged while reaming undergauge hole on the trip in. The bit was pulled at 2373m due to very low rate of penetration and was graded as T5 B8 G1/8. The formation drilled by this bit was dominantly siltstone of the Latrobe Group and did not appear abrasive or hard enough to cause the observed bit wear.

NB#6 was a Reed HP53 (IADC 537) which drilled 273m of siltstone with occasional thin interbedded sandstone and coal. Rates of penetration varied from over 20 m/hr in the sandstone to less than 5 m/hr in the siltstone and averaged 7.9 m/hr. The bit was pulled at 2646m due to low rate of penetration and high bit hours after drilling for 34.4 hrs (on bottom) and was graded T2 B4 G1/8. This bit suited the formation drilled and may have successful been run for longer.

NB#7 was a Smith F27D (IADC 527) which drilled through a dominantly siltstone section of the Latrobe Group at rates of penetration varying from 3 to 10 m/hr. This bit drilled for 52.7 hours at the low average rate of penetration of 5.3 m/hr and was pulled after drilling 279m due to bit hours and low rate of penetration. The bit was still in good condition, being graded as T2 B4 G0, and could also have been run for longer. The low tooth wear after such a long bit run indicates that the bit may have been too hard for the formation drilled and that a softer formation bit may be more economical through this lithology.

NB#8, a HTC AT-J33, was used to drill the remaining 143m of interbedded siltstone and sandstone to TD. The formation penetrated by this bit was more abrasive as the bit was graded T3 B4 G0 after only 20.9 hours (on bottom). More sand was drilled by this bit than NB#7 and this is reflected in the higher tooth wear and faster average rate of penetration (6.8 m/hr). The bit was pulled at 3068m to run wireline logs.

c. Hydraulic Optimisation

Hydraulic analyses were provided for ESSO Australia on a daily basis and as required. Results of these analyses are provided on the daily Gemdas report and on selected hydraulic printouts in Appendix D. The "Southern Cross" was equipped with two Oilwell A-1700PT triplex pumps (12" stroke) fitted with 6.5" liners to give a 5.00 gal/stk output at 97% efficiency for Sawbelly No.1.

The 26" hole section was drilled with seawater and high-viscosity sweeps. This along with moderately high annular velocities, ensured adequate hole cleaning through this interval. The hole was displaced with high viscosity mud prior to running casing and the riser.

The 17.5" section was initially drilled with seawater and high-viscosity sweeps on every second connection with flow rates of c. 1000 gpm. These flow rates were sufficient, with the hi-vis sweeps, to keep the hole clean but low enough to prevent any serious hole washout. As native low gravity drilling solids began to increase the mud density, the sand traps were dumped every connection and water was added constantly to maintain mud weights at c. 9.3 ppg. It was intended to use a bit with 18,16,10,15 jets to drill this section, however the center nozzle washed out as soon as circulation commenced and the actual nozzle configuration used to drill was probably 18,16,10,32. This meant that bit hydraulics for this interval were poor with the pressure drop across the bit being only 26% and the hydraulic power only 342 hp. The sub-optimal hydraulics meant that the rate of penetration was lower than might have been expected.

The 12.25" section was drilled with native clay and gel in seawater mud initially. Moderately high flow rates (750 to 850 gpm) were used above 2300m with mud weights varying from 9.0 ppg to 9.6 ppg giving near optimal bit hydraulics and hence good penetration rates. Carbide data run over this section indicated that the hole to 1900m was undergauge with a minimum hole diameter of 11.1" at 1424m. The mud weights had to be increased to 9.5 ppg at 1915m before the bit could be pulled out of the hole. This suggested that the undergauge hole was probably a function of the plastic nature of the formation.

At 1700m, the mud system was changed to a KCl-polymer mud in preparation for drilling into the Lakes Entrance Formation and the Latrobe Group. Mud density was maintained at 9.5-9.6 ppg and flow rates were approximately 600 gpm from 1915m to TD. Annular velocities through this section of hole were 170 ft/min at the collars and 35 ft/min in the riser. These appeared to be sufficient to maintain good hole cleaning without causing significant hole washout. Carbide data indicates that the average hole diameter below 1900m was around 13.3" and this was confirmed by wireline logs which indicated that hole washout was generally restricted to the coals and sandstones but that any such washout was generally comparatively minor.

Bit hydraulics through the lower part of the 12.25" hole section were generally only fair with comparatively low percentage pressure drop across the bit and low hydraulic power. Bit hydraulics may have been improved with the use of smaller nozzles but due to the increased system pressure loss caused by the MWD tool doing so would have increased total pressure loss above the safe operating capacity of the pumps at the required flow rates.

d. Borehole Condition

The borehole condition was monitored during drilling and tripping by observing the overpull or drag associated with tripping and connections which would indicate tight hole or other problems. Torque measurement was also utilised as an aid in bore hole analysis. Carbides were run periodically and the average open hole size for an interval calculated on the return of the maximum gas peak. Wireline caliper logs were examined to locate major washouts and to correlate these if possible with lithology.

No hole problems were seen while drilling either the 26" or 17.5" hole sections. 3m of fill were noted on the wipe trip at 815m and this was circulated out using a hi-vis pill. Maximum deviation was 0.25° in the 26" hole and 2° in the 17.5" hole.

The 12.25" hole was drilled to 1915m without problems. However carbides run at 1424m, 1750m and at 1850m all indicated that the hole was undergauge and tight hole was recorded on the trip out at 1915m. The undergauge/tight hole appears to have been caused by plastic formation hydrating or swelling slightly. Increasing the mud weight to 9.5 ppg and tripping through the hole appeared to stabilize this hole section and no further hole problems were seen.

Hole condition below 1915m was generally good with carbide and other lag data indicating an average hole diameter of c. 13.3". Only minor tight hole was seen on trips out, with a maximum overpull of 30 klb being noted from the first 11 stands of the trip out at 2646m. Wireline logs run over this interval indicated that hole washout was generally limited to coals and the upper Latrobe Group sands.

Torque was often high and erratic, particularly in the more coal top part of the Latrobe. This torque was due in part to coal packing-off at the bit and, in part, to the stabilizer hanging up in rugose or undergauge hole. NB#4 was 5/8" undergauge indicating the abrasive nature of the top Latrobe sands.

3. PRESSURE EVALUATION

a. Formation Fracture Pressure

Formation fracture pressures were calculated during drilling and recorded in the daily reports (Appendix C). Plotted data can be found in Appendix B (iv). Offset well data from Conger No.1 was used in the calculation of an initial overburden gradient for the well. Once density data became available from logs the overburden gradient was recalculated and this data used to determine the final fracture gradient.

One formation integrity test was performed as follows:-

Hole Depth (m)	Hole Size	Casing Shoe (m)	Mud Dens (ppg)	Fracture Press; EQMD(ppg) PSI
818	12 "	800	9.3	13.3 1812

Data from this test and the estimated overburden gradient was used to determine fracture pressures while drilling and the results of these calculations reported to the operator each morning or as required.

No significant down-hole mud losses were recorded while drilling Sawbelly No.1. The minimum estimated fracture pressure in the 12.25" hole section was 13.1 ppg EMW in the loose sands at the top of the Latrobe Group (at 2010m), this was significantly higher than the maximum equivalent circulating density of 9.8 ppg and mud losses due to hydraulic fracturing were therefore considered unlikely.

b. Formation Pore Pressure

Formation pore pressure indicators were monitored on a continuous basis while drilling and pore pressure estimates were reported to the operator daily, or whenever significant variations were encountered. Plots of the relevant pore pressure indicators are available in Appendix B (iv).

The 26" hole was drilled with returns to the seafloor and therefore no meaningful pressure analysis is possible for this section (84m -205m).

Although the 17.5" hole section (205m - 815m) was drilled with returns to the seabed the available pressure data (Dxc and hole condition) indicated that the formation pressure was normal at 8.5 ppg EMW.

The 12.25" hole section to 1480m appears to be normally pressured. Dxc exhibited a normal trend with only minor variation due to lithological changes. Gas values were generally fairly low and no connection or high trip gasses were recorded. Cutting were generally blocky and cavings were small, blocky and of only minor quantity. Flowline temperature was

damped and unresponsive due to heat loss in the riser and the frequent additions of new mud and water.

From 1480m-1540m the Dxc trend indicated a slight increase in pore pressure. However all other pressure indicators were normal and this change in DXC trend is attributed to a subtle change in lithology. The formation pressure through this section is estimated to be normal at 8.5 ppg EMW.

From 1540m to TD the well appeared to be normally pressured at 8.5 ppg EMW with a maximum pore pressure of 4411 psi at 3068m. Dxc over this interval showed a normal compaction trend although the Dxc values below c. 2300m indicated that the formation may have been overcompacted (ie. the rate of penetration was less than would have been expected given the depth and drilling parameters). Gas values were low throughout the well with the only significant peaks being produced by coal. Gas values rapidly returned to normal after any peaks and no connection or high trip gasses were seen.

Flowline temperature was damped due to heat loss in the riser but did show a steady increasing trend on the longer bit runs. Delta T remained relatively constant except where new mud was mixed or bit trips were made.

Hole condition was generally good however tight hole was noted on the trip out at 1915m and the mud weight had to be increased to 9.5 ppg before the bit could be pulled. It is probable that this tight hole was due to the slightly plastic nature of the lithology and not to any increase in pore pressure.

4. GEOLOGY AND SHOWS

Lagged cuttings samples were collected at 10m intervals from 815m to 1870m and then at 5m intervals to TD. Spot samples were also taken on all gas peaks or on bottoms-up from significant drilling breaks to aid in lithological identification. All regular samples were packaged by EXLOG personal and distributed as per Esso's requirements.

A FID total gas detector, FID chromatograph, CO2 detector and H2S sensors were used to analyze all formation gasses and the results shown on the mudlog. A fluoroscope was used to check for liquid hydrocarbons. No gas shows were recorded from any sand in the well and all fluorescence was proved to be mineral fluorescence. The absence of hydrocarbons was confirmed by wireline logs which indicated all sands to be water saturated.

All depths below RKB :	RKB to Mean sea level	21 metres
	RKB to Seabed	86 metres

Returns to seabed to 205 metres

205 - 815 metres

NO SAMPLES REQUIRED

815 - 1075 metres

LIMESTONE: light to medium grey, calcarenite to calcisiltite, firm to moderately hard, trace forams with common fossil fragments. Minor trace pyrite, occasionally micritic in part.

1075 - 1730 metres

LIMESTONE: medium to light grey, occasionally medium brown, occasional white, grading in part to dolomitic limestone though dominantly calcisiltite grading to calcarenite with minor trace of calcilutite. Micritic in part with common micro and macro fossil fragments.

1730 - 1950 metres

CALCAREOUS CLAYSTONE: light to dominantly medium grey, occasionally dark grey, very calcareous, trace silt to very fine quartz grains, trace to common micro and macro fossil fragments, trace pyrite and glauconite, soft to firm.

1950 - 2010 metres

CALCAREOUS CLAYSTONE: as above, dominantly dark grey with common pyrite and glauconite.

2010 - 2244 metres

SANDSTONE with interbedded **SILTSTONE** and **COAL**.

SANDSTONE: light grey-transparent, brown, hard, subangular-subrounded, medium-coarse, well sorted, poor cemented, with argillaceous matrix, trace pyrite, fair-good inferred porosity, trace coal, trace mineral fluorescence, no cut.

SILTSTONE: medium brown-grey brown, firm, blocky, very argillaceous to arenaceous in part, carbonaceous in part, trace micro micaceous, no fluorescence.

COAL: Black, blocky, hard, silty, sub vitreous, conchoidal.

2244 - 2396 metres

SILTSTONE with **SANDSTONE** and **COAL** interbeds.

SILTSTONE: light-medium-dark brownish grey, abundant micro micaceous, very carbonaceous grading to silty coal in part, arenaceous in part, trace pyrite, calcareous in part, firm, blocky to subfissile.

SANDSTONE: Off white, light brown, light grey, very fine to fine, occasionally coarse grain, subrounded, moderately sorted, moderate to commonly calcareous and dolomitic cement, moderate argillaceous matrix, trace to common carbonaceous flakes, trace feldspars and pyrite, very poor visual porosity, 50% mineral fluorescence, no cut, no crush cut.

COAL: black, blocky, occasionally silty, sub vitreous, trace pyrite, subconchoidal, friable, subfissile.

2396 - 2871 metres

SILTSTONE and **SANDSTONE** with **COAL** interbeds.

SILTSTONE: light to dominant medium grey, very fine arenaceous grading to very fine sandstone in part, moderate to very argillaceous, trace micro micaceous and pyrite, common carbonaceous specks, non to slight calcareous in part, blocky, firm to moderate hard.

SANDSTONE: light grey to brown, off white, fine to very fine, occasionally medium to coarse, moderate hard, subangular to angular, moderate well sorted, trace siliceous cement, common argillaceous matrix, common carbonaceous/coal detrital, trace pyrite, very poor visual porosity, no fluorescence.

COAL: black, subvitreous, subconchoidal to conchoidal, silty in part, subfissile to fissile, brittle.

2871 - 3068 metres

SANDSTONE with **SILTSTONE** and **COAL** interbeds.

SANDSTONE: light to dominant medium grey, light brownish grey, fine to coarse, commonly medium, loose quartz, subangular, poorly sorted, trace to moderate siliceous cement, trace argillaceous matrix, moderate carbonaceous detrital, trace micro micaceous and feldspar, friable, very poor visual porosity, no fluorescence,

SILTSTONE: light to medium grey, brown, rare dark brown, very carbonaceous in part, moderate to occasionally very argillaceous, common micro micaceous, slightly calcareous in part, trace pyrite, very fine arenaceous grading to very fine sandstone in part, firm to moderate hard, blocky to subfissile.

COAL: black, vitreous, sub to dominantly conchoidal, silty in part, occasionally pyritic, brittle to hard, subfissile to fissile.

5. TESTING AND EVALUATION

a. Wireline Logs

Sonic, Resistivity, and Density data are plotted on the Wireline Data Log in the accompanying Appendix Volume to this report.

Depth	Hole Size	Logs Run
815	17.5"	Run 1: BHC-GR-CAL
3068	12.25"	Run 1: DLL-CNL-LDL-GR-MSFL-SP-CAL Run 2: VSP Run 3: CST

b. Coring

No cores were cut during the drilling of Sawbelly No.1

c. Testing

No testing was carried out on Sawbelly No.1

6. DATA INVENTORY

The following were supplied to ESSO Australia ltd directly from the "Southern Cross":

- Weekly Geological and Engineering Report
- Daily Hydraulics Printouts
- Daily Engineering Reports
- Formation Evaluation Log (supplied as required)

- 3 sets of washed and dried cuttings samples
- 1 set geochemical samples
- 1 set air dried bulk sample

Data Backup Disk 5.25"DSHD

During and at the completion of the well, six copies of a Final Well Report was compiled by Exlog personnel. Five of these were forwarded to ESSO offices in Sydney and Sale. A copy was retained by Exlog in Perth. Exlog also retains at its Perth office copies of all data disks.

EXPLORATION LOGGING will use all reasonable diligence to maintain and store the listed information and items in a manner to reasonably prevent damage or loss. Provided, however, EXPLORATION LOGGING assumes no responsibility for the loss, damage or theft of the items or the information contained herein and shall not be liable to the operator in any such event, irrespective of cause, fault or the active or passive negligence of EXPLORATION LOGGING or its employees.

7. CONCLUSIONS

Sawbelly No.1 was an exploration well drilled to test the hydrocarbon potential of intra-Latrobe sands on the highside of a fault closed east-west trending structure. The prospective sands were intersected as prognosed with no shows and proved to be water saturated and the well was plugged and abandoned.

Sawbelly No.1 was spudded on the 4th March at 08:15 hrs 1990 and reached a total depth of 3068 metres at 16:30 hrs on the 21st March in a total of 18 days. A total of eight tricone bits were used in a cumulative drilling (on bottom) time of 216.2 hours at an overall average rate of penetration of 13.8 m/hr.

The normal pore pressure gradient was estimated as 8.5 ppg (fresh to brackish water) and all monitored pressure parameters indicated that the well was normally pressured throughout and no evidence of any overpressuring was seen. The fracture pressure was estimated using leak off test data and the constant effective stress ratio method. Fracture pressures were always greater than both the mud hydrostatic and effective circulating density and no downhole mud losses due to hydraulic fracturing were noted.

APPENDICES

A. TABLES

Table	Contents
1	Casing and Cementing Data
2	Drilling Fluid Properties
3	Bit Data
4	Hydraulics Data

Table 1. Casing and Cementing.

DEPTH metres	HOLE SIZE inches	CASING OD/ID	SHOT DEPTH metres	GRADE lb/ft	#JOINTS	CEMENTING
205	26"	20"/19.124"	198	X52 94	10	750 sx class "G" @ 13.2ppg with 2.5% gel and 600 sx class G with 1.5% CaCl at 15.3 ppg
815	17.5"	13.375"/12.61"	799	K55	61	1000 sx neat class "G" @ 15.5ppg

Table 2: Drilling Fluid Properties

Date	Time	Depth metres	NW ppg	Vis sec	PV/YP	Gel	Filt	fc	Sol %	Sand %	NBT	pH	Oil %	Cl ppm	Ca ppm
06/03	1200	321	9.1	30	3/7	5/7	-	-	3.0	Tr	8.0	9.0	-	16000	1400
06/03	2300	639	9.4	31	5/9	6/9	-	-	5.0	0.1	11.0	9.4	-	17000	1200
07/03	1100	790	9.3	35	4/17	8/12	-	-	5.0	Tr	14.0	10.0	-	19000	1300
07/03	1800	815	9.2	37	5/20	10/14	-	-	4.0	Tr	15.0	10.4	-	19000	1200
09/03	1130	1030	9.3	39	5/23	9/15	-	-	5.0	Tr	15.0	10.8	-	20000	1200
09/03	2400	1330	9.5	37	7/19	8/14	-	-	6.0	0.1	16.0	10.6	-	19000	1400
10/03	1300	1683	8.7	48	11/20	5/11	7.6	1	4.0	0	6.0	10.5	-	35000	140
10/03	2300	1885	9.0	42	10/16	4/10	6.4	1	6.0	Tr	9.0	10.3	-	32000	140
11/03	1300	1913	9.5	41	9/15	4/8	6.5	1	9.0	Tr	10.0	10.2	-	32000	220
11/03	2300	1964	9.5	40	8/14	3/8	6.2	1	9.0	Tr	11.0	10.0	-	35000	240
12/03	1200	2086	9.6	39	9/13	3/10	6.0	1	10.0	0.1	12.0	9.9	-	35000	360
12/03	2200	2223	9.6	40	9/15	4/11	5.8	1	10.0	0.1	12.0	10.2	-	36000	360
13/03	1130	2305	9.6	40	9/14	4/10	5.8	1	10.0	0.1	10.0	10.2	-	36000	280
13/03	2230	2320	9.5+	40	8/15	4/10	6.0	1	10.0	Tr	10.0	10.0	-	36000	240
14/03	1200	2353	9.5+	39	8/15	4/10	5.7	1	10.0	0.1	12.0	9.8	-	36000	160
14/03	2300	2373	9.5+	39	9/16	4/11	5.4	1	10.5	0.1	13.0	9.8	-	36000	140
15/03	1200	2373	9.5+	39	8/15	4/10	6.8	1	10.0	Tr	12.0	9.2	-	34000	260
15/03	2300	2407	9.5+	38	8/14	4/10	6.4	1	9.5	Tr	13.0	9.8	-	34000	260
16/03	1200	2521	9.5+	41	9/16	4/12	6.2	1	9.5	Tr	14.0	10.2	-	35000	200
16/03	2300	2583	9.6	41	10/16	4/12	6.0	1	10.0	Tr	14.0	10.2	-	35000	200
17/03	1200	2646	9.6	41	10/15	4/12	6.5	1	10.0	Tr	14.0	10.2	-	35000	200
17/03	2300	2651	9.6	41	10/15	4/12	6.0	1	10.0	Tr	14.0	10.0	-	35000	240
18/03	1200	2730	9.6	39	10/13	3/11	6.6	1	10.5	Tr	13.0	9.4	-	34000	200
18/03	2300	2778	9.6	39	10/13	4/11	6.4	1	10.5	Tr	13.0	9.8	-	34000	180
19/03	1130	2831	9.6	39	9/13	4/12	6.4	1	10.5	Tr	13.0	10.1	-	33000	60
19/03	2300	2886	9.6+	41	10/15	4/12	6.2	1	11.0	Tr	14.0	10.2	-	33000	100
20/03	1800	2925	9.6+	40	10/13	3/9	7.8	1	11.0	0.1	16.0	9.6	-	34000	140
20/03	2300	2968	9.6+	41	11/15	4/13	6.0	1	11.0	0.1	16.0	10.2	-	33000	60

Table 3. Bit Table

Bit #	Size ins	Type	IADC	Jets 32nds	Depth In	Bit n	Bit hrs	ROP avg	WOB klb	RPM	Torque avg-max	Pump pr(psi)	Grade T B G
NB1	26.0	REED R1	1 1 1	3x20	86	119	9.5	12.5	0-5	85-95	-	-	1 1 IN
NB2	17.5	HUGHES CX3A	1 1 4	18,16,15,10	205	610	29.5	20.7	25-35	100-120	50-350	1750	2 2 IN
NB3	12.25	HUGHES AT-J1	1 1 6	3x16	815	1100	34.0	25.4	10-50	100-140	250-650	2800	2 4 0
NB4	12.25	SEC S84F	5 1 7	2x16,1x14	1915	404	31.3	12.9	40-45	110-120	300-720	2800	6 8 5
NB5	12.25	HUGHES AT-J22	5 1 7	3x16	2320	53	13.4	4.0	45-55	80-100	350-550	2300	5 8 1
NB6	12.25	REED HP53	5 3 7	3x16	2373	273	34.4	7.9	45-50	100-110	280-600	2450	2 4 1
NB7	12.25	SMITH F27D	5 2 7	3x16	2646	279	52.7	5.3	45-55	100	200-350	2500	2 4 0
NB8	12.25	HUGHES AT-J33	5 3 7	3X16	2925	143	20.9	6.8	45-50	100	200-400	2500	2 3 0

Table 4. Hydraulics Data

BIT #	DEPTH n	HOLE DIAM inch	NOZZLES 32nds"	MUD WEIGHT PPG	ECD PPG	PV/YP	FLOW RATE gpm	PRESSURE LOSSES lbs per sq.in			ANNULAR VELs feet per min			CRIT DC VEL fpm	AT THE BIT			PUMP PRESSURE			
								Surf	Pipe	Ann Bit	Riser	Pipe	Coll		VEL f/s	HHP hp	IMP lbs	Bit %	Total Calc Act		
2	815	17.5	18,16,32 10	9.4	9.5	3/9	1050	117	493	3	558	62	91	114	213	258	342	1317	29	1172	1900
3	1330	12.25	3x16	9.5	9.8	7/19	790	675	625	30	1570	47	155	225	377	430	724	1672	54	2295	2900
3	1905	12.25	3x16	9.0	9.2	10/16	760	419	923	31	1733	45	149	216	347	414	611	1465	50	23921	2750
4	1964	12.25	16,16,14	9.5	9.6+	8/14	560	232	558	25	925	33	109	159	308	330	302	907	53	1544	1740
4	2246	12.25	16,16,14	9.6	9.8	9/15	710	266	935	33	1508	41	139	202	319	419	625	1480	54	2534	2800
4	2320	12.25	16,16,14	9.6	9.8	8/15	650	801	840	35	1074	38	127	185	320	354	407	1143	39	1998	2750
5	2373	12.25	16,16,16	9.5	9.6	8/15	585	734	721	34	861	35	115	167	322	319	294	916	37	1656	2350
6	2416	12.25	16,16,16	9.6	9.7+	8/14	600	638	847	38	915	35	118	171	306	327	320	974	38	2408	2400
6	2590	12.25	16,16,16	9.6	9.7+	10/16	590	629	864	39	885	35	116	168	333	321	305	942	36	2417	2440
7	2658	12.25	16,16,16	9.6	9.7+	10/15	595	637	900	37	897	35	116	169	319	324	311	955	36	2471	2500
7	2782	12.25	16,16,16	9.6	9.7	10/13	587	623	936	32	876	35	115	167	289	320	300	932	36	2466	2450
7	2891	12.25	16,16,16	9.6+	9.7+	10/15	590	632	948	40	889	35	116	168	318	321	306	946	36	2508	2500

* NOTE: NB#2 center nozzle washed out when started circulating. Values shown for this bit run are for the estimated actual nozzle size.

B. DATA PLOTS

1. Drilling Data Pressure Plot 1:2500

PE802284

This is an enclosure indicator page.
The enclosure PE802284 is enclosed within the container
PE802283 at this location in this document.

The enclosure PE802284 has the following characteristics:

ITEM_BARCODE = PE802284
CONTAINER_BARCODE = PE802283
NAME = Drilling Data Pressure Log
BASIN =
PERMIT =
TYPE = WELL
SUBTYPE = WELL_LOG
DESCRIPTION = Drilling Data Pressure Log, Scale
1:2500, (Enclosure from Final Well
Report), By Exlog for Esso Australia,
for Sawbelly-1
REMARKS =
DATE_CREATED =
DATE_RECEIVED = 22/06/90
WELL_NO = W1022
WELL_NAME = Sawbelly-1
CONTRACTOR = Exlog
CLIENT_OP_CO = Esso Australia

(Inserted by DNRE - Vic Govt Mines Dept)

ii. Temperature Data Pressure Plot 1:2500

PE802285

This is an enclosure indicator page.
The enclosure PE802285 is enclosed within the container
PE802283 at this location in this document.

The enclosure PE802285 has the following characteristics:

ITEM_BARCODE = PE802285
CONTAINER_BARCODE = PE802283
NAME = Temperature Analysis Plot
BASIN =
PERMIT =
TYPE = WELL
SUBTYPE = WELL_LOG
DESCRIPTION = Temperature Analysis Plot, Scale
1:2500, (Enclosure from Final Well
Report), By Exlog for Esso Australia,
for Sawbelly-1
REMARKS =
DATE_CREATED =
DATE_RECEIVED = 22/06/90
WELL_NO = W1022
WELL_NAME = Sawbelly-1
CONTRACTOR = Exlog
CLIENT_OP_CO = Esso Australia

(Inserted by DNRE - Vic Govt Mines Dept)

iii. Wireline Data Pressure Plot 1:2500

PE602922

This is an enclosure indicator page.
The enclosure PE602922 is enclosed within the container
PE802283 at this location in this document.

The enclosure PE602922 has the following characteristics:

ITEM_BARCODE = PE602922
CONTAINER_BARCODE = PE802283
NAME = Wireline Data Pressure Log
BASIN =
PERMIT =
TYPE = WELL
SUBTYPE = WELL_LOG
DESCRIPTION = Wireline Data Pressure Log, Scale
1:2500, (Enclosure from Final Well
Report), By Exlog for Esso Australia,
for Sawbelly-1
REMARKS =
DATE_CREATED =
DATE_RECEIVED = 22/06/90
WELL_NO = W1022
WELL_NAME = Sawbelly-1
CONTRACTOR = Exlog
CLIENT_OP_CO = Esso Australia

(Inserted by DNRE - Vic Govt Mines Dept)

iv. Pressure Evaluation Plot 1:5000

PE602923

This is an enclosure indicator page.
The enclosure PE602923 is enclosed within the container
PE802283 at this location in this document.

The enclosure PE602923 has the following characteristics:

ITEM_BARCODE = PE602923
CONTAINER_BARCODE = PE802283
NAME = Pressure Gradient Analysis Plot
BASIN =
PERMIT =
TYPE = WELL
SUBTYPE = WELL_LOG
DESCRIPTION = Pressure Gradient Analysis Plot, Scale
1:5000, (Enclosure from Final Well
Report), By Exlog for Esso Australia,
for Sawbelly-1
REMARKS =
DATE_CREATED =
DATE_RECEIVED = 22/06/90
WELL_NO = W1022
WELL_NAME = Sawbelly-1
CONTRACTOR = Exlog
CLIENT_OP_CO = Esso Australia

(Inserted by DNRE - Vic Govt Mines Dept)

v. Drilling Data Printout

4 1750 505.00 58.1:35.7 46.0 116 12.3 1610:489.40 8.80 8.85 996 ESSO AUSTRALIA: Sawbilly No.1
Data Printed at time 01:30 Date Mar 18 '90

Date Recorded at time 17:47 Date Mar 6 '90

F#	TIME	DEPTH	ROP:	TORQUE	RPM	WOB	PUMP:RTNS	MD lb/gal	FLOW/MIN	TEMP (C)	PVT:	-THIS BIT-	EST:	DXC	NXB	ECD	NXMD:
			m/hr:	AVG	MAX	AVG	AVG	PRES:	DEPTH	IN	OUT	IN	OUT	IN	OUT	hr	TW:
+ NB#2 HTC CX3A 17.5" with 18,16,10,15 jets. Start depth 205m.																	
+ NB: Center nozzle washedout. Actual nozzle size 18,16,10,32.																	
3	1749	504.01	37.9:20.3	41.0	117	13.0	1610:489.23	8.80 8.85	993	968	23.7	28.7	481: 299	5.4	1.00: .72	.57	9.14 8.50:D
4	1750	505.00	58.1:35.7	46.0	116	12.3	1610:489.40	8.80 8.85	996	1037	23.8	28.7	482: 300	5.5	1.00: .63	.48	9.14 8.50:D
5	1750	507.00	45.0:42.1	44.0	111	12.1	1610:489.42	8.80 8.85	996	982	23.8	28.7	483: 302	5.5	1.00: .68	.52	9.15 8.50:D
6	1751	509.00	43.0:34.4	50.0	112	11.8	1610:489.46	8.80 8.85	996	987	23.8	28.7	481: 304	5.5	1.00: .65	.53	9.15 8.50:D
7	1752	510.00	41.0:23.0	42.0	117	12.4	1610:490.20	8.80 8.85	997	981	23.8	28.7	484: 305	5.5	1.00: .69	.55	9.22 8.50:D
8	1753	511.03	47.4:7.99	18.0	117	13.7	1610:491.52	8.80 8.85	991	997	23.8	28.7	483: 306	5.5	1.00: .68	.53	9.20 8.50:D
9	1815	512.02	36.6:19.87	35.0	117	12.1	1620:503.76	8.80 8.85	995	966	24.1	28.9	507: 307	5.7	1.00: .72	.58	9.04 8.50:D
10	1818	513.07	50.6:15.71	9.00	119	32.0	1620:506.58	8.80 8.85	993	1009	24.1	28.9	505: 308	5.8	1.00: .93	.73	9.00 8.50:D
11	1819	514.02	65.8:15.40	7.00	119	33.3	1620:507.51	8.80 8.85	990	1056	24.1	28.9	506: 309	5.8	1.00: .88	.67	9.00 8.50:D
12	1822	515.01	69.9:15.53	9.00	118	31.5	960:505.74	8.80 8.85	831	911	24.2	28.9	510: 310	5.8	1.00: .85	.64	9.04 8.50:D†
13	1823	516.01	109:15.62	8.00	117	33.1	1610:505.74	8.80 8.85	985	1017	24.2	29.0	520: 311	5.8	1.00: .74	.54	9.05 8.50:D†
14	1827	517.04	187:19.37	22.0	121	29.3	1600:505.74	8.80 8.85	989	900	24.3	29.0	514: 312	5.9	1.00:1.14	.94	9.07 8.50:D
15	1828	518.02	90.2:11.2	17.0	118	31.0	1600:505.74	8.80 8.85	988	1133	24.3	29.0	515: 313	5.9	1.00: .78	.57	9.08 8.50:D
16	1844	519.00	26.3:23.4	57.0	120	27.0	1580:510.03	8.80 8.85	985	921	24.2	29.3	438: 314	6.0	1.00:1.04	.85	9.04 8.50:D
17	1846	520.03	31.9:37.3	58.0	120	29.0	1580:510.62	8.80 8.85	989	943	24.3	29.3	439: 315	6.1	1.00:1.02	.82	9.04 8.50:D
18	1847	521.01	81.7:37.5	50.0	118	26.0	1580:511.01	8.80 8.85	988	1106	24.3	29.3	437: 316	6.1	1.00: .77	.57	9.05 8.50:D
19	1849	522.06	37.5:150.7	127	119	25.4	1580:511.91	8.80 8.85	987	960	24.4	29.3	438: 317	6.1	1.00: .94	.75	9.05 8.50:D
20	1851	523.06	35.2:25.3	56.0	120	25.8	1580:512.47	8.80 8.85	990	955	24.4	30.0	435: 318	6.1	1.00: .96	.77	9.06 8.50:D
21	1851	524.02	136:16.4	36.0	117	28.3	1580:512.57	8.80 8.85	989	1286	24.4	30.0	435: 319	6.1	1.00: .66	.46	9.06 8.50:D
22	1852	528.00	141:7.18	13.0	117	28.4	1590:513.20	8.80 8.85	987	1301	24.4	30.0	433: 323	6.1	1.00: .65	.45	9.08 8.50:D†
23	1903	529.03	109:23.8	37.0	117	22.7	1570:514.46	8.80 8.85	984	1191	24.4	29.3	434: 324	6.2	1.00: .67	.49	9.11 8.50:D
24	1904	530.01	56.0:29.3	49.0	118	22.1	1570:514.46	8.80 8.85	984	1018	24.5	29.4	434: 325	6.2	1.00: .82	.63	9.13 8.50:D
25	1907	531.00	22.8:30.2	49.0	120	24.6	1570:514.46	8.80 8.85	986	911	24.5	29.4	435: 326	6.3	1.01:1.04	.85	9.15 8.50:D
26	1908	532.01	80.4:43.6	61.0	118	29.9	1580:514.93	8.80 8.85	993	1107	24.5	29.4	434: 327	6.3	1.01: .79	.59	9.16 8.50:D
27	1910	533.01	31.3:25.9	52.0	120	28.7	1580:515.27	8.80 8.85	985	938	24.6	29.4	434: 328	6.3	1.01:1.00	.81	9.17 8.50:D
28	1911	534.00	37.9:35.4	62.0	120	31.9	1570:516.78	8.80 8.85	986	960	24.6	29.4	433: 329	6.3	1.01: .98	.78	9.17 8.50:D
29	1912	535.00	64.0:40.2	48.0	119	33.2	1550:517.89	8.80 8.85	821	881	24.6	29.5	446: 330	6.4	1.01: .87	.66	9.16 8.50:D
30	1915	538.00	26.3:31.0	31.0	126	33.9	1590:520.30	8.80 8.85	986	847	24.6	29.5	453: 333	6.4	1.01:1.05	.85	9.14 8.50:D-
31	1925	539.03	23.4:38.6	71.0	121	33.2	1590:523.06	8.80 8.85	918	844	24.6	29.6	454: 334	6.5	1.01:1.12	.91	9.13 8.50:D†
32	1926	540.06	129:25.8	29.0	117	30.7	1590:523.06	8.80 8.85	961	1234	24.5	29.7	453: 335	6.5	1.01: .68	.48	9.14 8.50:D
33	1926	541.06	130:23.0	31.0	115	28.1	1590:523.06	8.80 8.85	969	1640	24.5	29.7	454: 336	6.5	1.01: .67	.46	9.17 8.50:D
34	1928	542.00	26.0:16.1	36.0	120	27.8	1590:523.67	8.80 8.85	984	919	24.6	29.7	454: 337	6.5	1.01:1.04	.84	9.18 8.50:D
35	1931	543.04	26.6:46.9	71.0	120	29.0	1590:525.99	8.80 8.85	980	917	24.7	29.9	450: 338	6.6	1.01:1.05	.85	9.15 8.50:D
36	1931	544.02	129:43.0	51.0	115	29.6	1590:526.05	8.80 8.85	981	1578	24.7	29.9	450: 339	6.6	1.01: .68	.48	9.15 8.50:D
37	1931	545.02	130:48.9	58.0	117	29.8	1590:526.14	8.80 8.85	982	1259	24.7	29.9	451: 340	6.6	1.01: .67	.47	9.18 8.50:D
38	1934	546.00	22.7:29.5	43.0	121	29.7	1590:528.02	8.80 8.85	986	910	24.7	29.8	450: 341	6.6	1.01:1.09	.89	9.17 8.50:D
39	1935	547.00	66.7:44.2	47.0	118	29.1	1590:528.34	8.80 8.85	983	1052	24.7	29.8	449: 342	6.6	1.01: .83	.63	9.17 8.50:D
40	1936	548.00	49.1:39.1	43.0	119	28.6	1590:529.19	8.80 8.85	982	993	24.7	29.7	450: 343	6.7	1.01: .89	.70	9.18 8.50:D
41	1947	549.01	63.2:35.3	67.0	118	28.7	1600:535.24	8.80 8.85	983	1040	24.7	29.7	449: 344	6.8	1.01: .84	.65	9.10 8.50:D†
42	1949	550.07	44.6:44.7	60.0	119	29.9	1600:535.24	8.80 8.85	984	980	24.7	29.7	449: 345	6.8	1.01: .93	.74	9.11 8.50:D
43	1950	551.02	51.3:50.5	88.0	119	28.5	1600:535.24	8.80 8.85	983	1001	24.7	29.7	448: 346	6.8	1.01: .89	.69	9.12 8.50:D
44	1951	552.00	82.8:38.2	72.0	118	28.8	1600:535.40	8.80 8.85	982	1104	24.7	29.7	450: 347	6.8	1.01: .78	.58	9.15 8.50:D
45	1952	553.06	39.2:37.0	56.0	119	27.3	1600:538.14	8.80 8.85	990	969	24.7	29.7	448: 348	6.8	1.01: .94	.75	9.12 8.50:D
46	1953	554.01	106:35.4	45.0	117	26.7	1600:538.27	8.80 8.85	986	1184	24.7	29.7	449: 349	6.8	1.01: .71	.51	9.13 8.50:D
47	1954	555.00	60.6:17.6	28.0	118	26.6	940:538.42	8.80 8.85	845	894	24.7	29.7	455: 350	6.9	1.01: .83	.64	9.14 8.50:D
48	2000	557.00	35.1:17.4	34.0	110	27.3	560:542.47	8.80 8.85	520	530	24.7	29.8	466: 352	6.9	1.01: .78	.57	9.00 8.50:D†

ESSO AUSTRALIA: Sawbelly No.1

Data Printed at time 03:52 Date Mar 15 '90
Data Recorded at time 20:12 Date Mar 6 '90

F#	TIME	DEPTH	ROP:	TORQUE	RPM	WOB	PUMP:RTRNS	MD lb/gal	FLOW/MIN	TEMP (C)	PVT:	-THIS BIT-	EST:	DXC	NXB	ECD	NXMD:						
:	h	m	m/hr:	AVG	MAX	AVG	PRES:DEPTH	IN	OUT	IN	OUT	IN	OUT	hr	TW	:	:						
50	2012	559.09	49.5	115.5	23.0	119	33.3	570	1545.32	8.80	8.85	550	527	24.3	30.0	469	354	7.0	1.01	.94	.73	9.09	8.50:D↑
51	2013	560.02	65.2	115.0	20.0	113	35.5	570	1545.47	8.80	8.85	545	529	24.3	29.9	471	355	7.0	1.01	.77	.56	9.09	8.50:D
52	2017	561.05	28.3	119.4	31.0	120	27.7	610	1545.47	8.80	8.85	567	553	24.3	29.9	469	256	7.0	1.01	1.01	.82	9.26	8.50:D
53	2018	562.08	65.8	123.6	42.0	118	26.5	610	1545.47	8.80	8.85	566	545	24.3	29.9	470	357	7.1	1.01	.80	.61	9.27	8.50:D
54	2022	563.00	14.8	122.1	48.0	121	25.4	610	1545.47	8.80	8.85	567	546	24.2	30.0	471	358	7.1	1.01	1.13	.94	9.29	8.50:D
55	2024	564.03	40.6	128.6	50.0	119	25.1	600	1545.50	8.80	8.85	567	546	24.1	30.0	472	359	7.2	1.01	.90	.71	9.30	8.50:D
56	2026	565.01	29.4	127.4	46.0	119	22.9	630	1546.12	8.80	8.85	568	548	24.1	30.0	472	360	7.2	1.01	.95	.77	9.31	8.50:D
57	2028	566.01	33.9	135.9	59.0	121	41.2	620	1547.44	8.80	8.85	567	558	24.0	30.1	472	361	7.2	1.01	1.07	.86	9.30	8.50:D
58	2033	567.00	19.0	126.9	47.0	120	19.3	610	1549.95	8.80	8.85	566	552	23.9	30.0	472	362	7.3	1.01	1.01	.83	9.27	8.50:D↑
59	2041	568.00	60.2	141.7	60.0	118	18.9	600	1551.62	8.80	8.85	565	612	23.7	30.0	471	363	7.3	1.01	.77	.59	9.12	8.50:D
60	2047	569.03	29.8	139.1	57.0	119	19.3	1160	1551.98	8.80	8.85	923	934	23.7	30.0	452	364	7.4	1.01	.92	.75	9.14	8.50:D
61	2048	570.01	95.2	145.5	76.0	117	24.1	1210	1551.98	8.80	8.85	955	941	23.7	30.0	449	365	7.4	1.01	.71	.52	9.15	8.50:D
62	2049	571.01	61.0	143.1	58.0	118	27.0	570	1551.98	8.80	8.85	813	863	23.7	30.0	459	366	7.4	1.01	.83	.64	9.17	8.50:D
63	2050	572.04	58.9	141.2	61.0	118	28.0	670	1552.14	8.80	8.85	720	707	23.7	30.0	475	367	7.4	1.01	.85	.65	9.18	8.50:D
64	2052	573.02	40.8	148.3	96.0	119	26.4	1460	1552.59	8.80	8.85	963	947	23.7	30.0	471	368	7.4	1.01	.92	.73	9.20	8.50:D↑
65	2053	574.05	65.7	134.9	61.0	117	18.1	1480	1553.30	8.80	8.85	962	966	23.7	30.0	469	369	7.5	1.01	.74	.56	9.20	8.50:D
66	2054	575.00	71.3	146.2	68.0	118	23.5	1560	1556.66	8.80	8.85	959	951	23.7	30.0	470	370	7.5	1.01	.77	.58	9.18	8.50:D
67	2056	576.06	38.4	136.1	58.0	120	28.0	1570	1560.93	8.80	8.85	987	967	23.7	30.0	469	371	7.5	1.01	.96	.76	9.11	8.50:D
68	2056	577.04	80.1	149.1	73.0	116	27.2	1590	1561.04	8.80	8.85	987	971	23.7	30.0	469	372	7.5	1.01	.77	.58	9.12	8.50:D
69	2106	578.04	70.4	144.1	79.0	118	27.0	1610	1563.97	8.80	8.85	978	964	23.7	30.1	458	373	7.6	1.01	.81	.61	9.10	8.50:D
70	2106	579.05	95.8	159.8	76.0	117	28.6	1610	1564.18	8.80	8.85	980	1144	23.8	30.1	458	374	7.6	1.01	.74	.55	9.11	8.50:D
71	2107	580.00	101	158.4	72.0	117	27.2	1610	1564.40	8.80	8.85	984	988	23.8	30.1	458	375	7.6	1.02	.72	.53	9.12	8.50
72	2108	581.00	84.0	169.7	81.0	118	28.6	1610	1564.80	8.80	8.85	979	965	23.8	30.1	456	376	7.6	1.02	.77	.58	9.13	8.50:u
73	2109	582.01	95.0	161.4	73.0	117	28.2	1610	1564.93	8.80	8.85	978	980	23.9	30.1	458	377	7.6	1.02	.74	.54	9.14	8.50:D
74	2109	583.04	66.4	157.6	71.0	118	28.4	1620	1564.93	8.80	8.85	978	958	23.9	30.1	457	378	7.6	1.02	.82	.63	9.16	8.50:D
75	2110	584.04	73.3	160.0	73.0	118	28.5	1620	1564.98	8.80	8.85	979	958	23.9	30.1	456	379	7.6	1.02	.80	.60	9.17	8.50:D
76	2111	585.02	62.2	161.5	72.0	118	28.2	1620	1565.11	8.80	8.85	979	982	23.9	30.1	457	380	7.6	1.02	.84	.64	9.18	8.50:D
77	2112	586.01	62.6	164.0	81.0	118	28.1	1620	1565.70	8.80	8.85	977	981	23.9	30.0	457	381	7.7	1.02	.83	.64	9.19	8.50:D
78	2124	587.08	84.4	153.8	80.0	117	22.6	1620	1570.97	8.80	8.85	974	980	23.7	30.1	465	382	7.7	1.02	.73	.54	9.13	8.50:D↑
79	2124	588.00	123	154.9	76.0	117	26.1	1620	1571.22	8.80	8.85	975	966	23.7	30.1	466	383	7.7	1.02	.67	.47	9.13	8.50:D
80	2125	589.03	44.5	153.4	74.0	119	28.5	1620	1572.58	8.80	8.85	982	963	23.6	30.3	467	384	7.8	1.02	.92	.73	9.13	8.50:D
81	2127	590.09	48.9	177.2	114	119	28.8	1010	1573.65	8.80	8.85	935	891	23.6	30.1	469	385	7.8	1.02	.90	.70	9.13	8.50:D
82	2128	591.00	53.7	110	121	119	28.6	1000	1574.41	8.80	8.85	767	730	23.5	30.1	487	386	7.8	1.02	.88	.68	9.13	8.50:D
83	2129	592.07	40.0	197.5	117	119	28.7	1570	1575.48	8.80	8.85	829	881	23.5	30.3	494	387	7.8	1.02	.95	.75	9.12	8.50:D
84	2130	593.01	62.0	115	139	118	28.9	1620	1575.48	8.80	8.85	960	951	23.4	30.2	493	388	7.9	1.02	.85	.65	9.14	8.50:D
85	2131	594.08	84.0	113	148	118	29.3	1630	1575.48	8.80	8.85	973	979	23.3	30.2	493	389	7.9	1.02	.78	.58	9.15	8.50:D
86	2132	595.00	57.6	129	146	119	29.4	1620	1575.48	8.80	8.85	976	960	23.3	30.2	494	390	7.9	1.02	.86	.67	9.17	8.50:D
87	2142	596.11	97.7	107	137	117	26.8	1620	1580.57	8.80	8.85	975	1145	23.0	30.1	511	391	8.0	1.02	.73	.53	9.12	8.50:D↑
88	2143	597.06	72.2	156	178	118	28.5	1620	1581.54	8.80	8.85	976	1062	23.0	30.1	511	392	8.0	1.02	.81	.61	9.11	8.50:D
89	2143	598.01	83.8	167	183	118	28.9	1620	1582.30	8.80	8.85	976	1101	23.0	30.1	512	393	8.0	1.02	.78	.58	9.12	8.50:D
90	2145	599.13	48.7	153	180	119	29.5	1620	1583.69	8.80	8.85	987	991	23.0	30.1	515	394	8.0	1.02	.91	.71	9.11	8.50:D
91	2145	600.05	101	144	171	117	28.7	800	1584.17	8.80	8.85	975	926	23.0	30.1	516	395	8.0	1.02	.73	.53	9.12	8.50:D
92	2146	601.00	94.9	137	144	117	29.2	820	1584.63	8.80	8.85	830	741	23.0	30.1	524	396	8.0	1.02	.75	.55	9.12	8.50:D
93	2146	602.01	77.6	126	146	118	27.6	830	1584.80	8.80	8.85	684	650	23.0	30.1	540	397	8.1	1.02	.78	.59	9.13	8.50:D
94	2147	603.11	67.1	137	159	118	29.4	1620	1584.80	8.80	8.85	757	827	23.0	30.2	523	398	8.1	1.02	.83	.63	9.14	8.50:D
95	2153	605.00	48.3	149	184	122	29.7	1610	1584.97	8.80	8.85	814	943	23.0	30.1	453	400	8.1	1.02	.91	.71	9.07	8.50:D↑
96	2158	606.00	72.0	125	151	118	29.5	1620	1586.78	8.80	8.85	974	1061	22.8	30.2	442	401	8.2	1.02	.81	.61	9.16	8.50:D
97	2159	607.03	43.9	199.9	144	119	30.2	1620	1588.01	8.80	8.85	-976	970	22.8	30.2	439	402	8.2	1.02	.94	.74	9.17	8.50:D↑

ESSO AUSTRALIA: Sawbilly No.1

Data Printed at time 03:53 Date Mar 15 '90
Data Recorded at time 22:00 Date Mar 6 '90

F#	TIME	DEPTH	ROP	TORQUE	RPM	WOB	PUMP:RTRNS	MD lb/gal	FLOW/MIN	TEMP (C)	PVT	-THIS	BIT-	EST	DXC	NXB	ECD	NXMD			
			#/hr	AVG	MAX	AVG	AVG	PRES:DEPTH	IN	OUT	IN	OUT	IN	OUT	hr	TW					
98	2200	608.00	74.5	122	133	118	30.4	1620:588.47	8.80	8.85	975	962	22.8	30.2	439:403	8.2	1.02	.81	.61	9.17	8.50:D
99	2201	609.00	48.3	117	151	119	30.1	1620:589.81	8.80	8.85	980	970	22.8	30.2	438:404	8.3	1.02	.91	.71	9.17	8.50:D
100	2204	610.00	28.0	83.5	109	121	30.8	1620:592.51	8.80	8.85	977	956	22.9	30.3	438:405	8.3	1.02	1.05	.85	9.14	8.50:D
101	2206	611.02	32.7	72.0	105	120	30.8	1620:594.19	8.80	8.85	990	970	23.0	30.6	430:406	8.3	1.02	1.02	.81	9.13	8.50:D
102	2208	612.00	24.2	56.6	91.0	121	30.2	1620:594.19	8.80	8.85	981	910	23.0	30.6	432:407	8.4	1.02	1.08	.88	9.14	8.50:D
103	2210	613.06	44.3	75.3	106	119	30.4	1620:594.19	8.80	8.85	977	972	23.1	30.7	434:408	8.4	1.02	.94	.74	9.16	8.50:D
104	2211	614.06	51.7	69.1	85.0	119	30.1	1620:594.75	8.80	8.85	984	989	23.1	30.6	435:409	8.4	1.02	.90	.70	9.17	8.50:D
105	2212	615.01	45.1	61.6	76.0	119	29.1	1620:596.66	8.80	8.85	979	982	23.1	30.5	436:410	8.4	1.02	.92	.72	9.15	8.50:D
106	2220	616.01	29.6	35.0	46.0	120	26.3	1630:602.40	8.80	8.85	948	896	23.0	29.8	452:411	8.5	1.02	1.00	.81	9.08	8.50:D↑
107	2222	617.13	63.0	25.5	49.0	118	26.5	1630:602.84	8.80	8.85	981	958	22.9	30.7	457:412	8.5	1.02	.83	.63	9.09	8.50:D
108	2223	618.05	60.3	38.5	44.0	118	26.4	1630:602.84	8.80	8.85	984	978	22.9	30.7	458:413	8.5	1.02	.84	.64	9.10	8.50:D
109	2224	619.00	48.2	44.7	52.0	119	26.7	1640:602.84	8.80	8.85	982	961	22.8	30.7	461:414	8.5	1.02	.89	.70	9.12	8.50:D
110	2225	620.00	55.6	50.3	58.0	119	27.2	1640:602.94	8.80	8.85	981	967	22.8	30.7	462:415	8.5	1.02	.86	.67	9.13	8.50:D
111	2227	621.01	37.9	45.1	59.0	120	27.6	860:604.43	8.80	8.85	696	667	22.7	30.7	492:416	8.6	1.02	.95	.76	9.12	8.50:D
112	2228	622.09	81.1	45.7	52.0	118	26.6	1660:604.77	8.80	8.85	994	920	22.7	30.4	493:417	8.6	1.02	.77	.57	9.12	8.50:D
113	2230	623.01	34.8	46.0	61.0	120	27.1	1640:606.14	8.80	8.85	975	939	22.7	30.4	492:418	8.6	1.02	.97	.77	9.13	8.50:D
114	2231	624.07	46.0	56.7	79.0	119	27.5	1630:606.99	8.80	8.85	978	979	22.6	30.3	493:419	8.6	1.02	.91	.71	9.13	8.50:D
115	2232	625.07	55.1	62.9	84.0	119	27.3	1640:607.43	8.80	8.85	981	972	22.6	30.4	493:420	8.7	1.02	.86	.67	9.14	8.50:D
116	2233	626.02	54.3	41.3	54.0	119	27.5	1640:607.82	8.80	8.85	981	962	22.6	30.4	495:421	8.7	1.02	.87	.67	9.14	8.50:D
117	2244	627.06	34.8	41.0	65.0	120	27.5	1640:610.87	8.80	8.85	973	957	22.6	30.3	449:422	8.8	1.02	.97	.78	9.12	8.50:D↑
118	2245	628.06	58.7	77.2	92.0	118	26.3	1640:611.92	8.80	8.85	977	1019	22.5	30.3	449:423	8.8	1.02	.84	.65	9.12	8.50:D
119	2247	629.09	36.5	62.0	85.0	120	26.9	1630:613.12	8.80	8.85	978	970	22.6	30.3	449:424	8.8	1.02	.96	.76	9.11	8.50:D
120	2248	630.13	45.5	39.6	67.0	112	26.2	1630:613.13	8.80	8.85	986	972	22.7	30.3	448:425	8.8	1.02	.92	.72	9.12	8.50:D
121	2253	631.03	31.3	30.6	47.0	120	24.7	1630:615.97	8.80	8.85	978	965	22.8	30.3	450:426	8.9	1.02	.96	.77	9.24	8.50:D
122	2255	632.01	28.7	48.6	66.0	120	27.0	1630:617.53	8.80	8.85	978	888	22.9	30.2	451:427	9.0	1.02	1.00	.81	9.23	8.50:D
123	2304	633.05	17.7	39.7	71.0	121	23.9	1630:624.33	8.80	8.85	979	959	23.1	30.2	455:428	9.1	1.02	1.09	.90	9.17	8.50:D-
124	2306	634.00	38.8	71.3	101	119	26.5	1630:624.56	8.80	8.85	979	958	23.2	30.2	455:429	9.1	1.03	.95	.75	9.02	8.50:D
125	2324	635.00	55.2	53.0	111	119	25.3	1640:630.14	8.80	8.85	968	878	23.1	30.3	468:430	9.2	1.03	.86	.67	8.96	8.50:D↑
126	2325	636.01	65.3	33.1	45.0	118	23.1	1640:630.32	8.80	8.85	985	895	23.0	30.3	466:431	9.3	1.03	.80	.61	8.97	8.50:D
127	2327	637.01	70.8	31.6	44.0	118	26.5	1640:630.50	8.80	8.85	988	967	23.0	30.3	466:432	9.3	1.03	.81	.61	8.98	8.50:D↑
128	2331	638.07	28.5	35.9	48.0	120	24.9	1640:631.19	8.80	8.85	985	991	23.0	30.3	467:433	9.3	1.03	1.01	.82	8.99	8.50:D
129	2333	639.02	37.2	50.4	60.0	120	26.1	1640:631.51	8.80	8.85	985	895	23.0	30.3	468:434	9.4	1.03	.96	.76	9.00	8.50:D
130	2335	640.01	36.0	40.6	56.0	120	27.2	1640:631.90	8.80	8.85	990	970	23.1	30.3	468:435	9.4	1.03	.98	.78	9.00	8.50:D↑
131	2338	641.05	34.9	27.5	46.0	120	27.9	1620:632.33	8.80	8.85	983	893	23.2	30.4	469:436	9.5	1.03	.99	.79	9.01	8.50:D
132	2342	642.00	25.4	33.7	69.0	121	27.2	1620:633.75	8.80	8.85	952	974	23.3	30.4	475:437	9.5	1.03	1.06	.86	9.00	8.50:D
133	2344	643.06	43.1	44.6	55.0	119	27.1	1620:633.75	8.80	8.85	978	964	23.3	30.4	476:438	9.6	1.03	.93	.73	9.02	8.50:D
134	2349	644.15	15.0	51.9	93.0	122	27.4	1630:633.75	8.80	8.85	963	873	23.3	30.4	506:439	9.7	1.03	1.18	.98	9.03	8.50:D
135	2352	645.10	26.8	85.2	106	120	25.7	1640:634.25	8.80	8.85	980	966	23.2	30.4	509:440	9.7	1.03	1.03	.83	9.04	8.50:D
Date Mar 7 '90																					
136	0010	646.00	51.2	75.9	100	119	32.2	1610:638.58	8.80	8.85	947	932	22.9	30.5	490:441	9.8	1.03	.93	.73	8.99	8.50:D↑
137	0014	647.04	61.7	65.4	111	119	29.1	1740:639.88	8.80	8.85	1004	1018	23.0	30.5	486:442	9.9	1.03	.86	.66	8.99	8.50:D↑
138	0017	648.01	44.7	37.9	67.0	119	28.5	1710:640.89	8.80	8.85	1027	937	23.2	30.5	488:443	9.9	1.03	.94	.74	8.99	8.50:D↑
139	0019	649.01	66.3	38.3	54.0	118	27.2	1720:641.66	8.80	8.85	1032	1019	23.3	30.5	488:444	10.0	1.03	.83	.63	8.99	8.50:D
140	0021	650.03	43.2	30.5	43.0	120	30.1	1720:642.09	8.80	8.85	1033	943	23.4	30.5	491:445	10.0	1.03	.96	.75	9.00	8.50:D
141	0024	651.01	42.5	30.6	43.0	120	29.4	1720:642.87	8.80	8.85	1029	1019	23.5	30.5	492:446	10.1	1.03	.95	.75	9.01	8.50:D↑
142	0027	652.14	45.2	33.6	47.0	119	30.4	1720:643.41	8.80	8.85	1028	1034	23.6	30.5	496:447	10.1	1.03	.95	.74	9.01	8.50:D
143	0029	653.01	33.4	38.2	66.0	120	29.4	1720:643.50	8.80	8.85	1029	939	23.6	30.5	495:448	10.1	1.03	1.01	.81	8.99	8.50:D
144	0031	654.00	34.2	40.7	54.0	120	28.3	1730:643.53	8.80	8.85	1031	941	23.6	30.6	500:449	10.2	1.03	1.00	.80	8.99	8.50:D↑

F#		TIME	DEPTH	ROP	TORQUE	RPM	WOB	PUMP:RTRMS	MD lb/gal	FLOW/MIN	TEMP (C)	PVT:	-THIS BIT-	EST:	DXC	NXB	ECD	NXMD:			
		m	m/hr	AVG	MAX	AVG	AVG	PRES:DEPTH	IN	OUT	IN	OUT	m	hr	TW						
145	0034	655.00	40.6	30.7	43.0	119	27.0	1730:644.78	8.80	8.85	1035	1021	23.6	30.6	498: 450	10.2	1.03	.95	.75	8.99	8.50:D
148	0057	657.02	18.9	52.3	73.0	122	29.2	1710:649.37	8.80	8.85	1032	942	23.6	30.7	483: 452	10.3	1.05	1.15	.95	8.95	8.50:D
149	0100	658.04	16.7	53.3	69.0	122	28.6	1710:650.43	8.80	8.85	1030	940	23.7	30.7	483: 453	10.3	1.13	1.18	.98	8.95	8.50:D
150	0104	659.05	13.5	62.6	87.0	122	28.5	1710:651.67	8.80	8.85	1032	942	23.9	30.7	490: 454	10.4	1.16	1.23	1.03	8.95	8.50:D
151	0106	660.00	26.5	76.4	88.0	121	29.1	1700:652.26	8.80	8.85	1033	943	24.0	30.7	493: 455	10.4	1.17	1.07	.87	8.95	8.50:D
152	0108	661.00	30.6	67.7	80.0	120	28.8	1700:652.83	8.80	8.85	1034	944	24.0	30.7	493: 456	10.4	1.19	1.03	.83	8.96	8.50:D
153	0112	662.01	17.5	65.3	89.0	122	30.4	500:653.67	8.80	8.85	545	512	24.2	30.8	522: 457	10.5	1.22	1.19	.98	8.95	8.50:D
154	0114	663.00	23.4	70.5	87.0	121	29.2	1700:654.27	8.80	8.85	1019	929	24.2	30.8	522: 458	10.5	1.24	1.10	.90	8.97	8.50:D
155	0127	664.01	21.7	57.4	90.0	121	28.7	1690:656.31	8.80	8.85	1022	982	24.0	30.9	497: 459	10.6	1.28	1.12	.91	8.95	8.50:D↑
156	0129	665.00	27.3	65.0	102	121	34.4	1690:657.05	8.80	8.85	1024	984	23.9	30.8	498: 460	10.6	1.30	1.11	.90	8.96	8.50:D
157	0130	666.01	52.9	68.3	81.0	119	34.1	1690:657.33	8.80	8.85	1027	987	23.9	30.8	498: 461	10.7	1.30	.94	.73	8.96	8.50:D
158	0132	667.03	32.6	62.3	89.0	121	33.9	1690:657.79	8.80	8.85	1024	984	23.9	30.8	498: 462	10.7	1.32	1.06	.85	8.97	8.50:D
159	0134	668.01	38.7	77.2	92.0	120	35.0	1690:658.35	8.80	8.85	1027	987	23.9	30.8	497: 463	10.7	1.33	1.03	.81	8.97	8.50:D
160	0135	669.01	42.8	78.0	95.0	120	33.6	1710:658.69	8.80	8.85	1032	992	24.0	30.8	498: 464	10.7	1.34	.99	.78	8.99	8.50:D
161	0137	670.01	37.5	107	174	120	35.0	1710:658.98	8.80	8.85	1031	991	24.0	30.8	498: 465	10.8	1.35	1.03	.82	8.99	8.50:D
162	0139	671.01	31.6	119	164	121	35.0	1710:659.75	8.80	8.85	1033	993	24.1	30.8	500: 466	10.8	1.37	1.07	.86	9.00	8.50:D
163	0141	672.01	23.5	130	182	122	36.0	1720:660.97	8.80	8.85	1037	997	24.2	30.8	499: 467	10.8	1.39	1.16	.94	9.00	8.50:D
164	0144	673.03	17.4	112	167	122	35.6	1720:662.27	8.80	8.85	1041	1001	24.3	30.8	501: 468	10.9	1.41	1.23	1.01	8.99	8.50:D
165	0147	674.01	25.5	106	138	121	34.5	1710:663.18	8.80	8.85	1038	998	24.4	30.9	499: 469	10.9	1.43	1.12	.91	8.99	8.50:D↑
166	0149	675.00	21.1	106	135	122	32.8	1720:663.80	8.80	8.85	1039	999	24.5	30.9	497: 470	11.0	1.45	1.16	.94	9.00	8.50:D
167	0202	677.24	62.3	150	191	116	32.5	1710:665.92	8.80	8.85	1036	996	24.3	31.0	458: 472	11.0	1.47	.85	.64	8.98	8.50:D↑
168	0203	678.00	50.5	119	178	119	32.8	1710:666.77	8.80	8.85	1035	995	24.2	31.1	459: 473	11.1	1.48	.94	.73	9.00	8.50
169	0212	679.07	29.2	148	197	121	33.4	1710:670.21	8.80	8.85	1037	997	24.4	31.0	461: 474	11.2	1.54	1.08	.87	8.97	8.50:D
170	0214	680.00	26.6	158	198	121	33.0	1710:670.73	8.80	8.85	1037	997	24.5	31.0	461: 475	11.2	1.56	1.10	.89	8.97	8.50:D
171	0217	681.01	18.3	122	165	122	33.7	1710:671.72	8.80	8.85	1037	997	24.6	31.0	463: 476	11.3	1.58	1.20	.98	8.97	8.50:D
172	0220	682.04	26.4	137	173	121	34.5	1710:672.37	8.80	8.85	1035	995	24.6	31.0	463: 477	11.3	1.60	1.12	.90	8.97	8.50:D
173	0222	683.00	27.9	128	187	121	34.9	1710:672.80	8.80	8.85	1033	993	24.7	31.0	464: 478	11.4	1.62	1.11	.89	8.98	8.50:D
174	0223	684.01	39.8	145	170	120	34.7	1710:672.84	8.80	8.85	1036	996	24.7	31.0	463: 479	11.4	1.63	1.01	.79	9.00	8.50:D
175	0226	685.00	21.8	139	229	122	34.7	1720:672.84	8.80	8.85	1036	996	24.8	31.0	464: 480	11.4	1.64	1.16	.94	9.01	8.50:D
176	0252	686.00	28.6	139	312	120	24.6	1700:678.78	8.80	8.85	1035	995	24.7	31.1	445: 481	11.7	1.73	1.01	.80	8.94	8.50:D
177	0255	687.00	19.7	184	259	122	31.2	1710:679.74	8.80	8.85	1031	991	24.8	31.1	442: 482	11.7	1.75	1.16	.95	8.95	8.50:D
178	0258	688.00	17.9	168	201	122	29.7	1700:680.95	8.80	8.85	1034	994	25.0	31.1	443: 483	11.8	1.77	1.17	.96	8.94	8.50:D
179	0301	689.00	22.0	168	200	121	29.9	1700:681.65	8.80	8.85	1034	994	25.1	31.1	442: 484	11.8	1.79	1.13	.91	8.95	8.50:D
180	0305	690.00	15.2	148	178	122	30.7	1690:682.30	8.80	8.85	1036	996	25.2	31.2	443: 485	11.9	1.81	1.22	1.00	8.95	8.50:D
181	0309	691.02	15.0	152	202	122	32.0	1700:684.26	8.80	8.85	1035	995	25.0	31.3	443: 486	11.9	1.84	1.24	1.02	8.93	8.50:D
182	0323	692.00	17.2	150	222	122	30.4	1730:685.18	8.80	8.85	1032	992	25.0	31.3	448: 487	12.0	1.86	1.19	.97	8.94	8.50:D↑
183	0326	693.00	22.3	171	229	122	33.5	1740:686.08	8.80	8.85	1048	1008	24.8	31.3	447: 488	12.1	1.88	1.16	.93	8.94	8.50:D
184	0328	694.00	22.5	183	253	121	30.9	1730:686.91	8.80	8.85	1046	1006	24.8	31.2	447: 489	12.1	1.89	1.13	.91	8.94	8.50:D
185	0332	695.00	15.3	163	199	122	30.5	1730:688.21	8.80	8.85	1047	1007	24.9	31.2	443: 490	12.2	1.92	1.22	1.00	8.94	8.50:D
186	0336	696.00	16.7	154	190	122	28.6	1720:689.28	8.80	8.85	1043	1003	25.1	31.2	440: 491	12.2	1.94	1.18	.96	8.94	8.50:D
187	0338	697.00	22.0	172	211	121	31.6	1730:689.92	8.80	8.85	1045	1005	25.2	31.2	442: 492	12.3	1.95	1.14	.92	8.94	8.50:D
188	0341	698.00	27.3	187	252	121	32.9	1730:690.59	8.80	8.85	1046	1006	25.4	31.2	442: 493	12.3	1.97	1.10	.87	8.94	8.50:D
189	0344	699.00	17.0	167	226	122	34.6	1730:691.47	8.80	8.85	1041	1001	25.5	31.2	443: 494	12.3	1.98	1.23	1.00	8.95	8.50:D
190	0347	700.00	17.2	167	203	122	33.4	1730:691.75	8.80	8.85	1042	1002	25.6	31.3	441: 495	12.4	2.00	1.22	.99	8.95	8.50:D
191	0404	702.00	30.3	175	237	121	30.8	1700:694.16	8.80	8.85	516	575	25.5	31.9	472: 497	12.5	2.03	1.06	.83	8.94	8.50:D
192	0406	703.02	22.8	192	247	121	31.7	1690:694.44	8.80	8.85	512	546	25.3	31.9	474: 498	12.5	2.05	1.13	.91	8.95	8.50:D
193	0409	704.02	25.0	186	227	121	31.6	1720:694.69	8.80	8.85	518	560	25.3	31.6	472: 499	12.6	2.06	1.11	.88	8.96	8.50:D
194	0411	705.00	23.5	199	232	121	31.9	1720:695.05	8.80	8.85	519	556	25.3	32.0	472: 500	12.6	2.08	1.12	.90	8.97	8.50

ESSO AUSTRALIA: Sawbelly No.1

Data Printed at time 04:00 Date Mar 15 '90
 Data Recorded at time 12:37 Date Mar 7 '90

F#	TIME	DEPTH	ROP	TORQUE		RPM		WOB	PUMP	RTNRS	MD lb/gal		FLOW/MIN		TEMP (C)		PVT	-THIS BIT-	EST	DXC	NXB	ECD	NXMD
			m/hr	AVG	MAX	AVG	AVG	AVG	PRES	DEPTH	IN	OUT	IN	OUT	IN	OUT		hr	TW				
1291	1237	802.01	17.5	174.7	100	123	45.2	1880	1797.15	8.80	8.85	1059	1039	31.7	34.9	330	597	17.3	3.52	1.33	1.04	8.91	8.50
1292	1243	803.01	10.3	164	308	125	44.8	1870	1797.15	8.80	8.85	1057	1033	32.3	35.2	317	598	17.4	3.54	1.47	1.18	8.92	8.50
1293	1246	804.00	16.2	289	336	123	45.1	1870	1797.15	8.80	8.85	1057	1034	32.4	35.3	312	599	17.4	3.56	1.34	1.05	8.93	8.50
1294	1254	806.13	19.4	279	318	123	43.7	1710	1798.13	8.80	8.85	1042	401	32.3	34.1	329	601	17.5	3.57	1.29	1.00	8.90	8.50
1295	1259	807.01	23.9	300	359	122	45.2	1910	1799.21	8.80	8.85	1019	1022	32.1	35.4	314	602	17.5	3.58	1.24	.94	8.94	8.50
1296	1303	808.00	14.3	312	398	124	43.6	1910	1800.36	8.80	8.85	1054	1015	32.4	35.4	313	603	17.6	3.61	1.36	1.07	8.94	8.50
1297	1309	809.00	9.8	312	464	125	44.0	1890	1801.20	8.80	8.85	1057	1043	32.5	35.4	313	604	17.7	3.63	1.47	1.18	8.93	8.50
1298	1313	810.01	21.3	329	444	122	33.0	1910	1802.11	8.80	8.85	1038	1058	32.2	35.5	324	605	17.8	3.64	1.16	.89	8.93	8.50
1299	1315	811.00	27.2	348	432	122	42.6	1900	1802.64	8.80	8.85	1010	1017	31.2	35.5	342	606	17.8	3.65	1.18	.89	8.94	8.50
1300	1317	812.00	23.8	333	383	122	45.3	1900	1803.24	8.80	8.85	1065	1049	30.6	35.5	361	607	17.8	3.67	1.24	.94	8.95	8.50
1301	1319	813.00	28.2	322	370	122	43.5	1900	1803.65	8.80	8.85	1022	1054	30.0	35.6	376	608	17.8	3.67	1.18	.88	8.96	8.50
1302	1328	814.01	24.2	291	354	122	40.4	1860	1804.14	8.80	8.85	1006	1025	30.0	31.9	393	609	17.9	3.69	1.19	.91	8.96	8.50
1303	1331	815.00	23.1	307	359	122	38.7	1860	1804.43	8.80	8.85	1056	1037	30.8	35.8	392	610	17.9	3.70	1.19	.91	8.96	8.50
+ NB#3 HTC AT-J1 12.25" with 3x16 jets. Start depth 815m.																							
Date Mar 9 '90																							
1305	0030	815.00	23.3	153	154	80	17.9	2650	1795.67	9.10	9.20	814	793	31.2	32.6	253	10.00	.1	.04	.92	.76	9.44	8.50
1306	0038	816.00	8.24	110	163	80	23.5	2800	1800.26	9.10	9.20	841	832	31.6	32.8	249	11.00	.1	.12	1.24	1.06	9.40	8.50
1307	0044	817.00	9.37	97.7	139	80	26.1	2800	1803.72	9.30	9.30	831	816	32.1	33.0	249	12.00	.2	.13	1.24	1.06	9.42	8.50
1308	0050	818.02	11.0	141	165	80	26.0	2800	1812.39	9.30	9.30	832	811	32.4	33.1	245	13.00	.3	.18	1.20	1.02	9.39	8.50
+ Circulate bottoms up at 818m and run leak off test.																							
1310	0203	819.00	16.4	237	305	80	19.7	2760	1818.13	9.30	9.30	832	814	34.7	34.5	234	14.00	.5	.21	1.02	.87	9.43	8.50
1311	0205	820.00	24.0	273	293	80	20.0	2760	1818.13	9.30	9.30	828	808	34.4	34.5	234	15.00	.5	.21	.94	.78	9.44	8.50
1312	0209	821.00	15.5	262	291	80	19.6	2760	1818.13	9.30	9.30	833	820	34.2	34.5	235	16.00	.6	.22	1.03	.88	9.45	8.50
1313	0221	822.00	11.3	207	323	80	18.7	2800	1818.13	9.30	9.30	833	812	34.7	34.7	227	17.00	.7	.24	1.09	.94	9.46	8.50
1314	0226	823.01	11.4	229	254	80	22.8	2790	1818.19	9.30	9.30	833	812	35.4	34.8	229	17.99	.8	.25	1.15	.98	9.47	8.50
1315	0230	824.00	15.1	228	250	81	25.2	2790	1819.49	9.30	9.30	847	844	35.7	34.8	230	19.00	.8	.26	1.11	.94	9.47	8.50
1316	0233	825.00	17.4	213	231	85	25.0	2790	1820.63	9.30	9.30	844	844	35.7	34.8	233	10.00	.9	.27	1.09	.92	9.47	8.50
1317	0236	826.00	19.1	221	239	85	25.5	2790	1821.07	9.30	9.30	834	837	35.8	34.9	238	11.00	1.0	.28	1.07	.90	9.48	8.50
1318	0239	827.01	25.3	228	242	85	26.1	2780	1821.25	9.30	9.30	848	831	35.6	34.9	241	12.00	1.0	.29	1.01	.83	9.48	8.50
1319	0241	828.00	24.2	224	242	85	25.8	2780	1821.92	9.30	9.30	841	825	35.8	35.0	245	13.00	1.0	.30	1.01	.84	9.49	8.50
1320	0245	829.00	14.6	221	240	85	26.8	2780	1822.64	9.30	9.30	832	811	35.9	35.0	249	14.00	1.1	.31	1.15	1.14	9.49	8.50
1321	0250	830.01	12.2	218	233	85	26.8	2760	1823.87	9.30	9.30	834	812	35.9	35.1	256	15.00	1.2	.32	1.19	1.14	9.49	8.50
1322	0300	831.00	20.3	218	246	85	25.5	2770	1825.17	9.30	9.30	830	821	35.7	35.3	265	16.00	1.3	.33	1.05	1.14	9.48	8.50
1323	0303	832.00	17.2	203	223	85	26.2	2820	1826.45	9.30	9.30	838	817	35.5	35.4	243	17.00	1.3	.34	1.10	.93	9.48	8.50
1324	0306	833.00	18.9	226	281	85	26.2	2810	1827.77	9.30	9.30	841	844	35.6	35.5	247	18.00	1.4	.35	1.08	.90	9.48	8.50
1325	0308	834.00	27.3	265	282	85	25.3	2810	1828.34	9.30	9.30	840	826	35.7	35.5	250	19.00	1.4	.36	.98	.81	9.48	8.50
1326	0311	835.00	23.0	261	276	85	25.3	2810	1828.96	9.30	9.30	839	825	35.8	35.6	254	20.00	1.5	.37	1.02	.85	9.49	8.50
1327	0315	836.00	13.6	261	318	85	26.9	2810	1829.84	9.30	9.30	840	826	36.1	35.7	260	21.00	1.5	.38	1.17	.99	9.49	8.50
1328	0318	837.00	25.9	239	262	85	25.1	2810	1830.12	9.30	9.30	840	844	36.2	35.7	264	22.00	1.6	.38	.99	.82	9.50	8.50
1329	0319	838.00	34.0	151	159	85	25.1	2810	1830.60	9.30	9.30	840	819	36.3	35.8	266	23.00	1.6	.39	.92	.75	9.50	8.50
1330	0321	839.01	34.8	219	271	85	25.6	2810	1831.21	9.30	9.30	843	828	36.3	35.8	269	24.00	1.6	.39	.92	.75	9.50	8.50
1331	0329	840.00	28.6	254	279	85	26.6	2810	1832.15	9.30	9.30	842	845	36.4	36.0	264	25.00	1.7	.40	.98	.80	9.49	8.50
1332	0333	841.00	15.8	257	276	85	27.2	2820	1833.73	9.30	9.30	841	819	36.2	36.1	208	26.00	1.7	.41	1.13	.95	9.50	8.50
1333	0335	842.00	28.4	263	277	85	26.7	2820	1834.68	9.30	9.30	843	822	36.2	36.1	210	27.00	1.8	.42	.98	.81	9.50	8.50
1334	0338	843.00	18.5	257	275	85	27.9	2810	1835.32	9.30	9.30	841	821	36.5	36.2	212	28.00	1.8	.43	1.10	.92	9.50	8.50
1335	0339	844.01	24.6	259	268	85	28.3	2810	1835.46	9.30	9.30	843	822	36.6	36.2	212	29.00	1.8	.43	1.03	.85	9.51	8.50
1336	0341	845.01	30.9	261	279	85	28.1	2810	1835.94	9.30	9.30	841	827	36.8	36.2	213	30.00	1.9	.43	.97	.79	9.52	8.50
1337	0342	846.00	36.3	262	276	85	28.0	2810	1836.65	9.30	9.30	841	846	36.9	36.2	213	31.00	1.9	.44	.93	.75	9.52	8.50

ESSO AUSTRALIA: Sawbelly No.1

Data Printed at time 04:02 Date Mar 15 '90
Data Recorded at time 03:45 Date Mar 9 '90

F#	TIME	DEPTH	ROP:		TORQUE		RPM	WOB		PUMP:RTNS		MD lb/gal		FLOW/MIN		TEMP (C)		PVT: -THIS	BIT-	EST: DXC	NXB	ECD NXMD:	
			m/hr:	AVG	MAX	AVG		AVG	PRES:	DEPTH	IN	OUT	IN	OUT	IN	OUT	m						hr
1338	0345	847.00	20.8	261	278	85	29.1	2810	1838.42	9.30	9.30	841	820	37.2	36.3	214	32.0	1.9	.44	1.08	.90	9.51	8.50
1339	0349	848.00	14.2	255	271	85	28.9	2810	1840.21	9.30	9.30	840	831	37.5	36.4	217	33.0	2.0	.46	1.18	1.00	9.50	8.50
1340	0352	849.00	24.0	194	266	85	28.6	2810	1841.02	9.30	9.30	839	825	37.7	36.5	219	34.0	2.1	.46	1.04	.86	9.51	8.50
1341	0356	850.00	14.7	146	159	93	29.3	960	1842.56	9.30	9.30	828	790	37.8	36.6	221	35.0	2.1	.48	1.20	1.01	9.50	8.50
1342	0410	851.01	17.4	116	157	120	25.6	2790	1844.98	9.30	9.30	607	698	37.7	36.8	237	36.0	2.2	.50	1.18	.99	9.47	8.50
1343	0413	852.01	18.7	179.3	93.0	120	27.0	2790	1846.53	9.30	9.30	837	843	37.1	36.9	237	37.0	2.2	.51	1.18	.99	9.48	8.50
1344	0415	853.01	33.1	107	159	120	30.5	2790	1846.95	9.30	9.30	839	825	37.1	37.0	234	38.0	2.3	.52	1.07	.88	9.49	8.50
1345	0417	854.01	28.7	157	163	120	30.0	2790	1847.41	9.30	9.30	840	830	37.0	37.0	237	39.0	2.3	.53	1.10	.91	9.49	8.50
1346	0420	855.01	24.4	140	164	124	32.0	2780	1848.17	9.30	9.30	838	841	37.0	37.1	241	40.0	2.4	.55	1.17	.97	9.49	8.50
1347	0422	856.01	25.7	151	157	131	31.3	2780	1849.00	9.30	9.30	843	822	37.1	37.1	247	41.0	2.4	.56	1.16	.96	9.50	8.50
1348	0423	857.00	42.3	151	156	129	30.0	2780	1849.32	9.30	9.30	843	830	37.1	37.2	249	42.0	2.4	.57	1.02	.82	9.50	8.50
1349	0426	858.00	20.6	161	263	131	31.5	2780	1849.81	9.30	9.30	843	821	37.2	37.2	256	43.0	2.5	.59	1.22	1.02	9.51	8.50
1350	0428	859.00	39.7	291	307	130	31.7	2780	1850.21	9.30	9.30	840	831	37.3	37.3	257	44.0	2.5	.60	1.05	.85	9.51	8.50
1351	0429	860.00	39.1	269	306	130	32.1	2780	1850.62	9.30	9.30	841	819	37.4	37.3	254	45.0	2.5	.60	1.06	.86	9.52	8.50
1352	0446	861.01	32.2	224	254	130	30.3	2760	1853.84	9.30	9.30	842	844	37.1	37.6	235	46.0	2.6	.63	1.09	.90	9.50	8.50
1353	0448	862.00	34.5	244	256	130	32.3	2810	1854.57	9.30	9.30	842	841	37.0	37.7	237	47.0	2.6	.64	1.10	.89	9.50	8.50
1354	0450	863.00	24.2	240	250	131	33.1	2810	1855.60	9.30	9.30	839	846	37.1	37.7	240	48.0	2.7	.65	1.20	.99	9.50	8.50
1355	0453	864.01	20.2	238	256	131	33.4	2810	1857.12	9.30	9.30	841	845	37.3	37.7	242	49.0	2.7	.67	1.25	1.04	9.48	8.50
1356	0455	865.02	35.2	244	257	130	33.0	2810	1857.56	9.30	9.30	831	849	37.5	37.8	243	50.0	2.7	.68	1.10	.89	9.50	8.50
1357	0457	866.00	33.0	245	270	130	33.3	2820	1858.44	9.30	9.30	839	842	37.6	37.8	245	51.0	2.8	.69	1.12	.91	9.51	8.50
1358	0458	867.02	37.4	241	264	130	32.7	2820	1859.71	9.30	9.30	838	871	37.7	37.8	247	52.0	2.8	.70	1.08	.87	9.50	8.50
1359	0500	868.01	30.0	217	248	130	31.9	2810	1859.93	9.30	9.30	841	814	37.9	37.9	249	53.0	2.8	.71	1.13	.92	9.51	8.50
1360	0502	869.00	28.7	164	233	130	32.6	2810	1859.93	9.30	9.30	846	825	38.0	37.9	251	54.0	2.9	.73	1.15	.94	9.52	8.50
1361	0524	870.00	21.9	120	174	131	28.5	2750	1864.47	9.30	9.30	838	817	37.9	38.3	217	55.0	3.1	.78	1.17	.97	9.48	8.50
1362	0527	871.00	19.6	237	285	131	32.8	2740	1866.03	9.30	9.30	837	840	37.9	38.3	218	56.0	3.2	.80	1.25	1.04	9.48	8.50
1363	0530	872.01	26.1	278	292	131	32.4	2740	1867.03	9.30	9.30	836	821	38.1	38.3	218	57.0	3.2	.81	1.17	.96	9.47	8.50
1364	0532	873.01	28.5	262	288	130	32.3	2740	1867.95	9.30	9.30	835	841	38.3	38.3	218	58.0	3.2	.82	1.15	.94	9.48	8.50
1365	0534	874.00	29.4	262	283	130	33.2	2740	1868.64	9.30	9.30	833	819	38.4	38.4	219	59.0	3.3	.83	1.15	.94	9.48	8.50
1366	0537	875.00	21.2	267	282	131	32.6	2740	1869.03	9.30	9.30	832	812	38.6	38.4	221	60.0	3.3	.85	1.23	1.02	9.48	8.50
1367	0539	876.00	21.8	267	285	131	32.4	2800	1869.14	9.30	9.30	842	834	38.8	38.5	222	61.0	3.4	.86	1.22	1.01	9.49	8.50
1368	0542	877.00	23.8	268	284	131	32.0	2800	1869.14	9.30	9.30	844	830	38.9	38.5	224	62.0	3.4	.87	1.19	.98	9.50	8.50
1369	0544	878.00	28.4	271	286	130	31.8	2800	1869.14	9.30	9.30	841	844	38.9	38.6	225	63.0	3.4	.88	1.14	.93	9.51	8.50
1370	0601	879.01	20.5	159	280	131	31.2	2790	1873.10	9.30	9.30	843	848	38.8	39.0	232	64.0	3.6	.93	1.22	1.01	9.48	8.50
1371	0602	880.01	41.3	135.9	44.0	130	32.9	2770	1873.78	9.30	9.30	842	820	38.7	39.0	233	65.0	3.6	.94	1.06	.85	9.49	8.50
1372	0604	881.00	38.6	138.2	56.0	130	32.0	2770	1874.32	9.30	9.30	841	826	38.8	39.0	233	66.0	3.7	.95	1.07	.85	9.49	8.50
1373	0605	882.01	46.2	148.7	58.0	129	31.9	2770	1874.83	9.30	9.30	840	820	38.8	39.0	234	67.0	3.7	.95	1.02	.81	9.50	8.50
1374	0606	883.00	48.0	152.1	65.0	129	33.0	2770	1875.25	9.30	9.30	841	819	38.8	39.0	234	68.0	3.7	.96	1.02	.80	9.50	8.50
1375	0608	884.00	32.0	153.3	67.0	130	32.1	2770	1875.97	9.30	9.30	840	818	38.9	39.1	235	69.0	3.7	.97	1.11	.90	9.51	8.50
1376	0611	885.00	24.1	145.4	54.0	131	32.6	2770	1876.94	9.30	9.30	841	843	39.1	39.1	236	70.0	3.8	.98	1.19	.98	9.51	8.50
1377	0613	886.00	28.2	139.9	48.0	130	32.4	2770	1877.94	9.30	9.30	839	819	39.2	39.1	237	71.0	3.8	.99	1.15	.94	9.51	8.50
1378	0615	887.00	23.9	146.4	53.0	131	32.2	2760	1878.51	9.30	9.30	841	832	39.4	39.2	238	72.0	3.9	1.00	1.19	.98	9.51	8.50
1379	0618	888.01	23.0	144.0	54.0	131	31.7	2800	1878.51	9.30	9.30	842	822	39.6	39.2	240	73.0	3.9	1.01	1.19	.98	9.52	8.50
1380	0634	889.01	26.2	154	161	131	32.2	2820	1881.85	9.30	9.30	841	830	39.3	39.5	247	74.0	4.0	1.06	1.17	.95	9.50	8.50
1381	0635	890.01	39.3	165	244	130	34.3	2820	1883.02	9.30	9.30	851	854	39.3	39.5	247	75.0	4.1	1.06	1.08	.86	9.49	8.50
1382	0636	891.00	53.5	270	289	129	33.7	2820	1883.59	9.30	9.30	851	829	39.3	39.5	247	76.0	4.1	1.07	1.00	.78	9.50	8.50
1383	0638	892.00	28.3	276	288	131	34.1	2820	1884.61	9.30	9.30	850	853	39.3	39.5	247	77.0	4.1	1.08	1.17	.95	9.50	8.50
1384	0641	893.00	22.0	271	283	131	34.1	2820	1885.81	9.30	9.30	849	834	39.5	39.5	249	78.0	4.2	1.09	1.23	1.02	9.50	8.50
1385	0643	894.00	29.1	274	286	130	33.4	2820	1886.67	9.30	9.30	851	854	39.6	39.5	249	79.0	4.2	1.10	1.15	.94	9.50	8.50

ESSO AUSTRALIA: Sawbelly No.1

Data Printed at time 04:07 Date Mar 15 '90
 Data Recorded at time 10:30 Date Mar 9 '90

F#	TIME	DEPTH	ROP	TORQUE		RPM		WOB	PUMP	RTRNS	MD lb/gal		FLOW/MIN		TEMP (C)		PVT	-THIS BIT-			EST	DXC	NXB	ECD	NXMD
				AVG	MAX	AVG	AVG				IN	OUT	IN	OUT	IN	OUT		m	hr	TW					
1482	1030	991.01	40.9	315	336	130	37.0	2820	1976.57	9.30	9.20	835	812	43.5	42.4	244	176	7.2	1.93	1.09	.84	9.56	8.50	D	
1483	1033	992.00	23.7	315	335	131	38.5	2740	1977.96	9.30	9.20	835	839	43.5	42.4	244	177	7.2	1.94	1.25	1.00	9.56	8.50	D	
1484	1035	993.00	31.3	319	333	131	38.8	2770	1978.83	9.30	9.20	836	823	43.6	42.3	244	178	7.3	1.94	1.18	.93	9.56	8.50	D	
1485	1036	994.00	42.5	290	324	130	38.8	2810	1979.66	9.30	9.20	836	827	43.6	42.3	243	179	7.3	1.95	1.09	.85	9.56	8.50	D	
1486	1042	995.02	58.4	211	280	129	36.5	2790	1980.87	9.30	9.20	830	825	43.6	42.3	239	180	7.3	1.96	1.99	.75	9.54	8.50	D	
1487	1043	996.01	56.5	264	277	129	36.7	2860	1981.33	9.30	9.20	829	826	43.6	42.2	239	181	7.3	1.96	1.00	.75	9.56	8.50	D	
1488	1044	997.01	50.2	285	312	129	38.1	2600	1981.95	9.30	9.20	838	817	43.6	42.2	238	182	7.3	1.96	1.04	.80	9.57	8.50	D	
1489	1045	998.01	37.5	308	323	130	38.6	2590	1983.01	9.30	9.20	838	824	43.6	42.2	239	183	7.4	1.97	1.13	.88	9.57	8.50	D	
1490	1047	999.01	30.0	304	322	131	38.2	2600	1984.59	9.30	9.20	838	818	43.7	42.1	238	184	7.4	1.98	1.18	.94	9.56	8.50	D	
1491	1049	1000.0	32.0	305	323	131	38.3	2610	1984.99	9.30	9.20	838	824	43.7	42.1	237	185	7.4	1.98	1.17	.92	9.56	8.50	D	
1492	1051	1001.0	32.1	308	326	131	38.2	2610	1986.59	9.30	9.20	838	829	43.7	42.1	236	186	7.5	1.99	1.17	.92	9.56	8.50	D	
1493	1052	1002.0	43.9	311	325	130	38.2	2590	1987.63	9.30	9.20	836	817	43.8	42.0	236	187	7.5	2.00	1.08	.83	9.56	8.50	D	
1494	1053	1003.0	57.3	315	329	129	37.4	2600	1988.33	9.30	9.20	838	818	43.8	42.0	236	188	7.5	2.00	1.00	.75	9.56	8.50	D	
1495	1055	1004.0	30.0	312	333	131	38.7	2580	1989.80	9.30	9.20	841	820	43.8	42.0	235	189	7.5	2.01	1.19	.94	9.56	8.50	D	
1496	1104	1005.0	27.8	283	325	131	36.2	2590	1992.81	9.30	9.20	830	823	43.8	41.9	232	190	7.6	2.02	1.19	.94	9.54	8.50	D	
1497	1106	1006.0	25.0	266	318	131	35.4	2600	1994.08	9.30	9.20	839	842	43.8	41.9	231	191	7.6	2.03	1.21	.96	9.54	8.50	D	
1498	1107	1007.0	51.5	309	323	129	34.6	2620	1994.92	9.30	9.20	845	832	43.8	41.9	230	192	7.6	2.03	1.01	.77	9.54	8.50	D	
1499	1108	1008.0	58.1	306	319	129	34.0	2610	1995.09	9.30	9.20	849	849	43.8	41.9	230	193	7.6	2.03	.97	.73	9.54	8.50	D	
1500	1109	1009.0	55.5	310	329	129	34.6	2620	1995.35	9.30	9.20	840	820	43.8	41.8	230	194	7.7	2.04	.99	.75	9.55	8.50	D	
1501	1111	1010.0	53.3	313	325	129	34.8	2630	1996.34	9.30	9.20	844	845	43.8	41.8	230	195	7.7	2.04	1.00	.76	9.55	8.50	D	
1502	1112	1011.0	47.0	314	331	129	35.8	2650	1997.33	9.30	9.20	836	814	43.8	41.8	230	196	7.7	2.05	1.04	.80	9.55	8.50	D	
1503	1113	1012.0	38.6	281	308	130	33.8	2640	1998.33	9.30	9.20	852	837	43.9	41.8	229	197	7.7	2.05	1.08	.83	9.55	8.50	D	
1504	1115	1013.0	42.0	301	322	130	35.0	2630	1999.07	9.30	9.20	840	824	43.9	41.7	229	198	7.8	2.06	1.06	.82	9.55	8.50	D	
1505	1116	1014.0	39.5	310	326	130	34.8	2650	1999.84	9.30	9.20	838	829	43.9	41.7	228	199	7.8	2.06	1.08	.84	9.56	8.50	D	
1506	1123	1015.0	35.2	291	316	130	35.5	2690	1002.1	9.30	9.20	826	809	43.9	41.6	225	200	7.8	2.07	1.12	.87	9.54	8.50	D	
1507	1125	1016.0	32.6	300	313	130	36.1	2670	1003.6	9.30	9.20	830	812	43.9	41.6	225	201	7.9	2.08	1.14	.90	9.54	8.50	D	
1508	1126	1017.0	49.9	312	330	129	36.3	2710	1004.2	9.30	9.20	830	832	43.9	41.6	225	202	7.9	2.08	1.03	.78	9.54	8.50	D	
1509	1128	1018.0	47.0	299	314	129	34.5	2690	1004.7	9.30	9.20	829	808	43.9	41.6	224	203	7.9	2.09	1.03	.79	9.55	8.50	D	
1510	1130	1019.0	28.8	295	308	131	36.2	2690	1004.9	9.20	9.20	829	808	44.0	41.5	224	204	7.9	2.09	1.18	.93	9.55	8.50	D	
1511	1131	1020.0	33.8	298	314	130	36.2	2690	1005.3	9.20	9.20	828	807	44.0	41.5	223	205	8.0	2.10	1.13	.89	9.56	8.50	D	
1512	1133	1021.0	40.4	305	323	130	36.3	2700	1005.8	9.20	9.20	829	831	44.1	41.5	221	206	8.0	2.10	1.09	.84	9.55	8.50	D	
1513	1134	1022.0	48.8	306	321	129	35.7	2700	1006.4	9.20	9.20	829	815	44.1	41.5	221	207	8.0	2.11	1.03	.78	9.55	8.50	D	
1514	1135	1023.0	61.6	305	318	129	35.5	2690	1007.2	9.20	9.20	827	812	44.0	41.4	221	208	8.0	2.11	.97	.72	9.55	8.50	D	
1515	1136	1024.0	53.3	269	321	129	35.2	2690	1008.2	9.20	9.20	827	807	43.9	41.4	224	209	8.0	2.11	1.00	.76	9.54	8.50	D	
1516	1153	1025.0	31.3	238	290	131	36.0	2630	1014.4	9.20	9.20	834	812	43.4	41.5	227	210	8.1	2.14	1.16	.91	9.45	8.50	D	
1517	1155	1026.0	38.4	245	258	130	34.8	2670	1014.9	9.20	9.20	834	814	43.4	41.5	228	211	8.2	2.14	1.10	.85	9.45	8.50	D	
1518	1156	1027.0	49.4	252	273	129	34.2	2670	1015.4	9.20	9.20	833	839	43.4	41.5	229	212	8.2	2.15	1.03	.78	9.45	8.50	D	
1519	1157	1028.0	48.9	245	267	129	33.6	2680	1016.1	9.20	9.20	834	814	43.5	41.6	229	213	8.2	2.15	1.02	.78	9.45	8.50	D	
1520	1159	1029.0	43.8	240	261	130	33.9	2670	1017.1	9.20	9.20	834	825	43.5	41.6	229	214	8.2	2.16	1.06	.81	9.45	8.50	D	
1521	1200	1030.0	37.7	238	259	130	33.9	2670	1017.9	9.20	9.20	833	835	43.5	41.6	228	215	8.2	2.16	1.10	.85	9.44	8.50	D	
1522	1202	1031.0	37.0	235	253	130	33.1	2630	1018.6	9.20	9.20	831	818	43.5	41.6	229	216	8.3	2.17	1.09	.85	9.44	8.50	D	
1523	1204	1032.0	33.9	248	261	130	36.3	2630	1019.5	9.20	9.20	834	814	43.5	41.7	229	217	8.3	2.17	1.15	.89	9.44	8.50	D	
1524	1212	1033.0	43.1	230	256	130	36.5	2650	1023.0	9.20	9.20	837	832	43.4	41.9	227	218	8.3	2.18	1.09	.83	9.41	8.50	D	
1525	1214	1034.0	42.4	245	285	130	32.8	2690	1023.0	9.20	9.20	849	826	43.4	41.9	229	219	8.4	2.19	1.06	.81	9.42	8.50	D	
1526	1215	1035.0	51.5	277	294	130	42.5	2710	1023.0	9.20	9.20	863	861	43.5	41.9	229	220	8.4	2.19	1.09	.82	9.44	8.50	D	
1527	1216	1036.0	61.3	253	265	129	37.5	2670	1023.1	9.20	9.20	854	828	43.5	42.0	229	221	8.4	2.20	1.00	.74	9.44	8.50	D	
1528	1217	1037.0	49.4	273	297	130	36.9	2670	1023.3	9.20	9.20	838	829	43.5	42.0	229	222	8.4	2.20	1.05	.79	9.45	8.50	D	
1529	1218	1038.0	44.4	273	290	130	36.4	2670	1023.8	9.20	9.20	851	854	43.5	42.0	229	223	8.4	2.20	1.07	.82	9.46	8.50	D	

ESSO AUSTRALIA: Sawbelly No.1

Data Printed at time 04:09 Date Mar 15 '90
Data Recorded at time 12:20 Date Mar 9 '90

F#	TIME	DEPTH	ROP:	TORQUE	RPM	WOB	PUMP:RTRNS	MD lb/gal	FLOW/MIN	TEMP (C)	PVT:	-THIS BIT-	EST:	DXC	NXB	ECD	NXMD:			
			■/hr:	AVG MAX	AVG	AVG	PRES:DEPTH	IN OUT	IN OUT	IN OUT	■ hr	TW:								
1530	1220	1039.0	30.7:	269	290	131	35.9	2630:1024.9	9.20	9.20	854	838	43.5	42.1	229: 224	8.5	2.21:1.17	.92	9.45	8.50:D
1531	1222	1040.0	33.0:	279	312	130	36.3	2630:1025.8	9.20	9.20	876	850	43.6	42.1	230: 225	8.5	2.22:1.15	.90	9.46	8.50:D
1532	1224	1041.0	28.8:	298	312	131	35.7	2610:1027.3	9.20	9.20	866	841	43.6	42.2	230: 226	8.5	2.22:1.18	.93	9.45	8.50:D
1533	1226	1042.0	31.0:	299	321	131	36.9	2610:1028.9	9.20	9.20	855	856	43.6	42.2	230: 227	8.6	2.23:1.18	.92	9.45	8.50:D
1534	1237	1043.0	37.5:	330	347	131	43.1	2580:1032.9	9.20	9.20	830	810	43.5	42.4	227: 228	8.6	2.24:1.18	.91	9.42	8.50:D
1535	1238	1044.0	43.4:	309	325	130	37.3	2580:1032.9	9.20	9.20	835	814	43.5	42.5	228: 229	8.6	2.25:1.09	.83	9.42	8.50:D
1536	1239	1045.0	57.5:	335	353	129	39.8	2560:1032.9	9.20	9.20	832	812	43.6	42.5	228: 230	8.7	2.25:1.03	.77	9.43	8.50:D
1537	1240	1046.0	53.0:	326	340	130	40.5	2570:1033.0	9.20	9.20	835	811	43.6	42.5	228: 231	8.7	2.25:1.06	.80	9.44	8.50:D
1538	1241	1047.0	59.3:	330	351	129	39.8	2580:1033.7	9.20	9.20	832	837	43.6	42.5	228: 232	8.7	2.26:1.02	.76	9.45	8.50:D
1539	1242	1048.0	48.8:	319	345	130	36.8	2580:1034.6	9.20	9.20	832	812	43.6	42.5	228: 233	8.7	2.26:1.05	.80	9.45	8.50:D
1540	1243	1049.0	51.4:	310	327	129	36.4	2590:1035.5	9.20	9.20	830	821	43.6	42.6	228: 234	8.7	2.27:1.03	.78	9.45	8.50:D
1541	1244	1050.0	59.5:	327	358	129	39.4	2560:1036.6	9.20	9.20	830	816	43.6	42.6	226: 235	8.7	2.27:1.02	.76	9.45	8.50:D
1542	1246	1051.0	48.0:	333	346	130	41.5	2570:1037.5	9.20	9.20	832	835	43.6	42.6	228: 236	8.8	2.27:1.10	.83	9.45	8.50:D
1543	1254	1052.0	53.7:	286	333	130	38.7	2590:1040.1	9.20	9.20	832	838	43.4	42.8	227: 237	8.8	2.28:1.04	.78	9.43	8.50:D
1544	1255	1053.0	56.1:	299	319	130	42.1	2610:1040.6	9.20	9.20	836	827	43.4	42.8	228: 238	8.8	2.29:1.06	.79	9.44	8.50:D
1545	1256	1054.0	52.7:	271	291	129	38.0	2610:1041.1	9.20	9.20	840	845	43.4	42.8	229: 239	8.8	2.29:1.04	.78	9.44	8.50:D
1546	1257	1055.0	40.0:	244	263	130	32.5	2610:1041.8	9.20	9.20	838	816	43.5	42.9	228: 240	8.9	2.29:1.07	.82	9.44	8.50:D
1547	1259	1056.0	32.7:	268	322	131	43.3	2610:1042.6	9.20	9.20	837	816	43.5	42.9	229: 241	8.9	2.30:1.22	.95	9.44	8.50:D
1548	1301	1057.0	34.2:	261	288	130	37.2	2580:1042.6	9.20	9.20	837	816	43.6	42.9	230: 242	8.9	2.31:1.15	.89	9.45	8.50:D
1549	1302	1058.0	41.3:	273	290	130	36.9	2560:1042.6	9.20	9.20	837	816	43.7	43.0	229: 243	8.9	2.31:1.10	.84	9.46	8.50:D
1550	1303	1059.0	47.2:	300	320	129	34.1	2580:1042.6	9.20	9.20	838	843	43.7	43.0	230: 244	9.0	2.32:1.04	.78	9.47	8.50:D
1551	1305	1060.0	53.3:	313	338	129	34.7	2580:1043.0	9.20	9.20	837	823	43.7	43.0	230: 245	9.0	2.32:1.01	.76	9.48	8.50:D
1552	1306	1061.0	46.2:	321	348	130	36.9	2600:1043.7	9.20	9.20	838	842	43.7	43.1	230: 246	9.0	2.32:1.06	.81	9.48	8.50:D
1553	1314	1062.0	50.0:	282	338	130	40.7	2630:1047.8	9.20	9.20	835	815	43.4	43.2	225: 247	9.0	2.33:1.08	.81	9.45	8.50:D
1554	1316	1063.0	36.2:	286	312	130	35.0	2630:1049.1	9.20	9.20	838	843	43.4	43.2	225: 248	9.1	2.33:1.12	.86	9.45	8.50:D
1555	1317	1064.0	43.3:	288	319	129	32.1	2620:1050.4	9.20	9.20	840	845	43.4	43.2	225: 249	9.1	2.34:1.04	.79	9.45	8.50:D
1556	1318	1065.0	45.2:	303	325	129	32.1	2630:1051.5	9.20	9.20	840	818	43.3	43.2	227: 250	9.1	2.34:1.03	.78	9.45	8.50:D
1557	1320	1066.0	47.9:	298	335	129	33.4	2630:1052.2	9.20	9.20	839	842	43.0	43.2	233: 251	9.1	2.35:1.03	.78	9.45	8.50:D
1558	1321	1067.0	46.9:	298	321	130	35.4	2630:1052.3	9.20	9.20	839	818	42.7	43.2	240: 252	9.2	2.35:1.05	.79	9.46	8.50:D
1559	1322	1068.0	48.5:	301	317	129	35.5	2620:1052.3	9.20	9.20	840	826	42.2	43.1	247: 253	9.2	2.35:1.04	.79	9.46	8.50:D
1560	1323	1069.0	41.3:	278	297	130	32.5	2610:1053.3	9.20	9.20	839	818	42.0	43.1	253: 254	9.2	2.36:1.06	.81	9.47	8.50:D
1561	1325	1070.0	41.7:	287	320	130	32.4	2630:1054.5	9.20	9.20	839	817	41.4	43.1	255: 255	9.2	2.36:1.05	.80	9.46	8.50:D
1562	1334	1071.0	39.8:	242	284	130	31.0	2610:1057.6	9.20	9.20	829	837	41.3	42.9	273: 256	9.3	2.37:1.05	.81	9.45	8.50:D
1563	1335	1072.0	63.0:	293	311	129	34.2	2610:1058.1	9.20	9.20	836	816	41.3	42.9	265: 257	9.3	2.38:1.96	.71	9.45	8.50:D
1564	1336	1073.0	44.2:	268	295	129	32.0	2620:1059.0	9.20	9.20	835	815	41.3	42.9	259: 258	9.3	2.38:1.04	.79	9.45	8.50:D
1565	1337	1074.0	53.4:	309	332	129	35.2	2610:1059.9	9.20	9.20	836	841	41.3	42.9	259: 259	9.3	2.38:1.01	.76	9.45	8.50:D
1566	1338	1075.0	50.0:	308	326	130	37.2	2620:1061.0	9.20	9.20	836	816	41.5	42.8	261: 260	9.3	2.39:1.05	.79	9.45	8.50:D
1567	1340	1076.0	49.2:	273	295	129	34.8	2610:1061.8	9.20	9.20	835	826	41.6	42.8	261: 261	9.4	2.39:1.03	.78	9.45	8.50:D
1568	1341	1077.0	51.5:	274	296	129	36.9	2610:1062.0	9.20	9.20	835	815	41.6	42.8	262: 262	9.4	2.39:1.04	.78	9.46	8.50:D
1569	1342	1078.0	42.5:	259	276	130	36.7	2630:1062.0	9.20	9.20	837	817	41.8	42.7	261: 263	9.4	2.40:1.09	.83	9.47	8.50:D
1570	1344	1079.0	44.8:	275	290	130	38.9	2610:1062.4	9.20	9.20	835	838	41.9	42.7	261: 264	9.4	2.40:1.09	.83	9.47	8.50:D
1571	1345	1080.0	44.2:	285	310	130	36.5	2600:1063.3	9.20	9.20	836	827	42.0	42.7	260: 265	9.4	2.41:1.07	.82	9.47	8.50:D
1572	1353	1081.0	50.9:	273	308	130	42.1	2610:1066.7	9.20	9.20	833	814	42.2	42.7	264: 266	9.5	2.42:1.08	.81	9.45	8.50:D
1573	1354	1082.0	47.6:	280	304	130	40.5	2640:1067.7	9.20	9.20	835	821	42.2	42.7	258: 267	9.5	2.42:1.09	.82	9.45	8.50:D
1574	1356	1083.0	38.0:	262	281	130	37.8	2590:1068.9	9.20	9.20	834	819	42.3	42.7	258: 268	9.5	2.42:1.13	.87	9.45	8.50:D
1575	1358	1084.0	33.6:	268	304	131	37.6	2590:1070.0	9.20	9.20	834	814	42.4	42.8	258: 269	9.6	2.43:1.16	.90	9.45	8.50:D
1576	1359	1085.0	39.8:	285	319	130	37.5	2600:1071.1	9.20	9.20	836	815	42.4	42.8	258: 270	9.6	2.44:1.11	.85	9.45	8.50:D
1577	1400	1086.0	45.9:	315	336	130	37.2	2590:1071.6	9.20	9.20	835	827	42.5	42.8	257: 271	9.6	2.44:1.07	.81	9.45	8.50:D

ESSO AUSTRALIA: Sawbelly No.1

Data Printed at time 04:16 Date Mar 15 '90
Data Recorded at time 19:42 Date Mar 9 '90

F#	TIME	DEPTH	ROP:	TORQUE		RPM		WOB	PUMP:RTRNS	MD lb/gal		FLOW/MIN		TEMP (C)		PVT:	-THIS BIT-		EST:	DXC	NXB	ECD NXMD:	
			m/hr:	AVG	MAX	AVG	AVG			PRE:	DEPTH	IN	OUT	IN	OUT		IN	OUT				m	hr
1722	1942	1231.0	39.4:	241	261	130	41.3	2830:	1214.4	9.20	9.20	791	781	42.9	40.9	243:	416	13.6	3.25:	1.15	.86	9.46	8.50:
1723	1944	1232.0	50.6:	245	261	130	41.0	2830:	1214.5	9.20	9.20	792	798	42.9	40.9	241:	417	13.6	3.25:	1.08	.78	9.46	8.50:
1724	1954	1233.0	50.7:	231	309	130	42.7	2850:	1217.3	9.20	9.20	794	782	43.0	41.1	243:	418	13.7	3.26:	1.09	.79	9.45	8.50:
1725	1955	1234.0	38.4:	224	244	130	39.7	2840:	1218.5	9.20	9.20	794	773	43.0	41.2	241:	419	13.7	3.26:	1.14	.85	9.45	8.50:
1726	1957	1235.0	51.7:	253	273	130	40.4	2840:	1219.3	9.20	9.20	795	786	43.0	41.2	238:	420	13.7	3.27:	1.07	.77	9.45	8.50:
1727	1958	1236.0	40.3:	240	254	130	39.7	2860:	1220.3	9.20	9.20	796	800	43.0	41.2	239:	421	13.7	3.27:	1.13	.84	9.45	8.50:
1728	2000	1237.0	32.7:	243	258	131	41.5	2840:	1221.7	9.20	9.20	793	798	43.0	41.2	239:	422	13.8	3.27:	1.21	.91	9.44	8.50:
1729	2001	1238.0	42.0:	246	260	130	40.7	2860:	1222.6	9.20	9.20	795	781	43.1	41.2	240:	423	13.8	3.28:	1.13	.83	9.45	8.50:
1730	2002	1239.0	55.5:	241	258	129	39.9	2840:	1223.2	9.20	9.20	794	797	43.1	41.2	238:	424	13.8	3.28:	1.04	.75	9.45	8.50:
1731	2004	1240.0	49.0:	238	263	130	39.8	2840:	1223.8	9.20	9.20	794	797	43.2	41.3	239:	425	13.8	3.28:	1.08	.79	9.45	8.50:
1732	2005	1241.0	46.2:	241	259	130	40.7	2850:	1224.0	9.20	9.20	794	785	43.2	41.3	239:	426	13.8	3.29:	1.10	.81	9.46	8.50:
1733	2016	1242.1	57.2:	239	286	129	35.4	2860:	1226.4	9.20	9.20	789	771	43.2	41.5	251:	427	13.9	3.30:	1.00	.72	9.44	8.50:
1734	2017	1243.0	51.5:	268	293	130	41.2	2860:	1227.1	9.20	9.20	794	797	43.1	41.5	239:	428	13.9	3.30:	1.07	.78	9.45	8.50:
1735	2019	1244.0	24.1:	233	255	131	36.4	2850:	1228.9	9.20	9.20	792	794	43.1	41.5	231:	429	13.9	3.31:	1.24	.96	9.44	8.50:
1736	2021	1245.0	41.6:	262	279	130	38.1	2860:	1230.2	9.20	9.20	794	797	43.1	41.5	235:	430	14.0	3.31:	1.11	.82	9.44	8.50:
1737	2022	1246.0	51.0:	269	296	130	39.0	2860:	1230.9	9.20	9.20	791	770	43.1	41.5	234:	431	14.0	3.32:	1.06	.77	9.44	8.50:
1738	2023	1247.0	43.4:	246	270	130	36.1	2860:	1231.9	9.20	9.20	790	793	43.2	41.6	231:	432	14.0	3.32:	1.08	.79	9.44	8.50:
1739	2025	1248.0	35.8:	256	285	130	38.2	2880:	1233.0	9.20	9.20	792	778	43.3	41.6	233:	433	14.0	3.32:	1.15	.86	9.44	8.50:
1740	2026	1249.0	40.5:	255	276	130	38.7	2880:	1233.3	9.20	9.20	790	768	43.3	41.6	232:	434	14.1	3.33:	1.12	.83	9.45	8.50:
1741	2028	1250.0	37.4:	263	297	130	38.9	2880:	1234.1	9.20	9.20	789	769	43.3	41.6	229:	435	14.1	3.33:	1.14	.85	9.45	8.50:
1742	2029	1251.0	41.9:	281	312	130	41.4	2850:	1234.1	9.20	9.20	790	795	43.3	41.7	230:	436	14.1	3.34:	1.13	.84	9.46	8.50:
1743	2039	1252.0	43.2:	312	361	130	38.6	2860:	1237.9	9.20	9.20	792	771	43.2	41.8	233:	437	14.1	3.34:	1.10	.81	9.43	8.50:
1744	2041	1253.0	48.6:	330	354	130	35.1	2870:	1238.6	9.20	9.20	792	795	43.2	41.8	228:	438	14.2	3.35:	1.07	.79	9.44	8.50:
1745	2042	1254.0	42.1:	331	351	130	35.4	2880:	1239.5	9.20	9.20	794	774	43.2	41.9	225:	439	14.2	3.35:	1.05	.76	9.44	8.50:
1746	2044	1255.0	36.6:	303	325	130	32.3	2870:	1240.8	9.20	9.20	795	780	43.2	41.9	227:	440	14.2	3.35:	1.09	.81	9.44	8.50:
1747	2045	1256.0	36.6:	298	326	130	31.1	2870:	1242.2	9.20	9.20	794	773	43.3	41.9	225:	441	14.2	3.36:	1.08	.80	9.43	8.50:
1748	2047	1257.0	41.5:	336	358	130	37.3	2870:	1243.1	9.20	9.20	793	773	43.4	41.9	224:	442	14.3	3.36:	1.10	.81	9.43	8.50:
1749	2048	1258.0	43.0:	326	349	130	35.7	2880:	1243.3	9.20	9.20	793	779	43.4	41.9	224:	443	14.3	3.36:	1.08	.79	9.44	8.50:
1750	2050	1259.0	34.5:	320	348	130	35.6	2890:	1243.3	9.20	9.20	794	780	43.5	42.0	224:	444	14.3	3.37:	1.13	.85	9.45	8.50:
1751	2051	1260.0	33.5:	305	321	130	33.7	2890:	1243.3	9.20	9.20	794	780	43.6	42.0	226:	445	14.3	3.37:	1.12	.84	9.45	8.50:
1752	2103	1261.0	35.3:	289	368	130	33.0	2860:	1246.8	9.20	9.20	778	793	43.7	42.2	252:	446	14.4	3.38:	1.11	.83	9.43	8.50:
1753	2104	1262.0	37.3:	316	334	130	36.2	2860:	1248.0	9.20	9.20	790	768	43.6	42.2	233:	447	14.4	3.38:	1.12	.84	9.43	8.50:
1754	2106	1263.0	35.0:	290	325	130	33.0	2850:	1249.2	9.20	9.20	793	771	43.5	42.2	218:	448	14.4	3.39:	1.11	.83	9.43	8.50:
1755	2108	1264.0	35.9:	276	299	130	32.9	2860:	1250.2	9.20	9.20	791	797	43.5	42.2	214:	449	14.5	3.39:	1.10	.82	9.43	8.50:
1756	2109	1265.0	41.5:	260	278	130	37.2	2860:	1251.1	9.20	9.20	791	777	43.5	42.3	215:	450	14.5	3.39:	1.10	.81	9.43	8.50:
1757	2111	1266.0	35.7:	251	266	130	38.3	2870:	1252.1	9.20	9.20	789	768	43.6	42.3	215:	451	14.5	3.40:	1.15	.86	9.43	8.50:
1758	2112	1267.0	33.7:	243	262	131	39.6	2870:	1253.0	9.20	9.20	789	768	43.6	42.3	215:	452	14.6	3.40:	1.18	.89	9.43	8.50:
1759	2114	1268.0	32.2:	236	255	131	38.4	2850:	1253.0	9.20	9.20	788	767	43.3	42.3	217:	453	14.6	3.41:	1.18	.89	9.44	8.50:
1760	2116	1269.0	34.1:	242	252	130	36.7	2860:	1253.0	9.20	9.20	790	768	43.2	42.4	216:	454	14.6	3.41:	1.15	.86	9.45	8.50:
1761	2118	1270.0	30.2:	251	266	131	38.7	2870:	1254.4	9.20	9.20	789	776	43.2	42.4	217:	455	14.6	3.42:	1.20	.91	9.45	8.50:
1762	2128	1271.0	29.5:	280	360	131	43.5	2850:	1257.8	9.20	9.20	786	766	42.9	42.6	224:	456	14.7	3.43:	1.25	.95	9.43	8.50:
1763	2130	1272.0	35.5:	319	334	131	39.9	2850:	1259.0	9.20	9.20	789	768	42.8	42.6	222:	457	14.7	3.44:	1.17	.87	9.42	8.50:
1764	2131	1273.0	33.8:	312	330	131	38.2	2840:	1260.1	9.20	9.20	789	793	42.6	42.6	222:	458	14.8	3.44:	1.17	.88	9.42	8.50:
1765	2133	1274.0	35.0:	310	331	130	36.5	2850:	1261.2	9.20	9.20	786	777	42.6	42.6	221:	459	14.8	3.44:	1.14	.85	9.42	8.50:
1766	2135	1275.0	35.0:	324	351	131	39.3	2850:	1262.0	9.20	9.20	786	789	42.6	42.7	225:	460	14.8	3.45:	1.17	.87	9.42	8.50:
1767	2137	1276.0	32.8:	322	345	131	40.2	2860:	1262.5	9.20	9.20	787	779	42.6	42.7	225:	461	14.8	3.45:	1.19	.90	9.43	8.50:
1768	2138	1277.0	36.6:	317	341	131	40.7	2850:	1262.5	9.20	9.20	788	768	42.6	42.7	224:	462	14.9	3.46:	1.17	.87	9.43	8.50:
1769	2140	1278.0	40.6:	263	304	130	38.8	2860:	1262.6	9.20	9.20	788	780	42.6	42.7	223:	463	14.9	3.46:	1.12	.83	9.44	8.50:

ESSO AUSTRALIA: Sawbelly No.1

Data Printed at time 04:20 Date Mar 15 '90
Data Recorded at time 23:48 Date Mar 9 '90

F#	TIME	DEPTH	ROP	TORQUE	RPM	WOB	PUMP:RTRNS	MD lb/gal	FLOW/MIN	TEMP (C)	PVT:	-THIS BIT-	EST:	DXC	NXB	ECD	NXMD:				
:	:	m	m/hr:	AVG	AVG	AVG	PRES:DEPTH	IN OUT	IN OUT	IN OUT	:	m	hr	TW:	:	:	:				
1818	2348	1327.0	38.4:	265	281	130	40.1	2860:1312.0	9.20	9.20	789	768	42.4	44.6	265:	512	16.4	3.68:1.15	.85	9.44	8.50:D
1819	2350	1328.0	40.1:	243	281	130	39.9	2850:1312.8	9.20	9.20	791	796	42.5	44.6	268:	513	16.4	3.69:1.13	.83	9.44	8.50:D
1820	2357	1329.0	41.3:	202	240	130	36.9	2840:1314.5	9.20	9.20	780	762	42.3	44.7	268:	514	16.5	3.69:1.10	.80	9.43	8.50:D
1821	2358	1330.0	37.6:	213	232	130	37.8	2880:1315.4	9.20	9.20	790	770	42.2	44.7	269:	515	16.5	3.70:1.13	.84	9.43	8.50:D
Date Mar 10 '90																					
1822	0000	1331.0	35.2:	210	230	131	38.1	2880:1316.1	9.20	9.20	792	772	42.2	44.8	268:	516	16.5	3.70:1.15	.86	9.43	8.50:D
1823	0002	1332.0	29.2:	206	226	131	38.9	2890:1317.0	9.20	9.20	789	792	42.2	44.8	272:	517	16.5	3.71:1.21	.91	9.44	8.50:D
1824	0004	1333.0	33.9:	187	203	131	38.5	2880:1317.8	9.20	9.20	790	768	42.2	44.8	270:	518	16.6	3.71:1.17	.87	9.44	8.50:D
1825	0006	1334.0	33.7:	187	209	131	39.1	2880:1318.8	9.20	9.20	791	782	42.3	44.8	276:	519	16.6	3.72:1.17	.87	9.44	8.50:D
1826	0007	1335.0	34.1:	185	209	131	38.6	2890:1319.6	9.20	9.20	790	778	42.3	44.8	270:	520	16.6	3.72:1.17	.87	9.44	8.50:D
1827	0009	1336.0	42.2:	185	202	130	38.0	2870:1320.3	9.20	9.20	792	797	42.3	44.8	274:	521	16.7	3.72:1.10	.80	9.44	8.50:D
1828	0010	1337.0	43.3:	173	184	130	38.7	2870:1320.5	9.20	9.20	790	776	42.4	44.9	271:	522	16.7	3.73:1.10	.80	9.45	8.50:D
1829	0017	1338.0	44.0:	175	196	130	38.6	2860:1321.4	9.20	9.20	745	755	42.3	45.0	260:	523	16.7	3.73:1.10	.80	9.44	8.50:D
1830	0018	1339.0	42.0:	190	200	130	37.7	2870:1322.2	9.20	9.20	788	776	42.2	45.0	258:	524	16.7	3.73:1.10	.80	9.45	8.50:D
1831	0020	1340.0	40.7:	171	191	130	37.4	2860:1323.1	9.20	9.20	788	793	42.3	45.0	258:	525	16.8	3.73:1.11	.81	9.45	8.50:D
1832	0021	1341.0	46.5:	196	213	130	38.5	2870:1323.9	9.20	9.20	787	778	42.3	45.0	258:	526	16.8	3.74:1.08	.78	9.45	8.50:D
1833	0022	1342.0	42.6:	181	213	130	38.6	2870:1324.8	9.20	9.20	787	790	42.3	45.0	259:	527	16.8	3.74:1.10	.80	9.45	8.50:D
1834	0024	1343.0	43.5:	171	187	130	36.3	2870:1325.6	9.20	9.20	788	780	42.4	45.0	256:	528	16.8	3.74:1.08	.78	9.45	8.50:D
1835	0025	1344.0	44.3:	174	186	130	38.7	2870:1326.3	9.20	9.20	787	772	42.4	45.1	256:	529	16.8	3.74:1.09	.79	9.45	8.50:D
1836	0027	1345.0	39.8:	165	186	130	39.2	2870:1327.3	9.20	9.20	787	767	42.5	45.1	253:	530	16.9	3.75:1.13	.83	9.45	8.50:D
1837	0028	1346.0	41.9:	167	183	130	38.5	2870:1328.1	9.20	9.20	788	792	42.6	45.1	257:	531	16.9	3.75:1.11	.81	9.46	8.50:D
1838	0029	1347.0	38.1:	169	197	130	39.0	2870:1329.2	9.20	9.20	787	768	42.7	45.1	257:	532	16.9	3.75:1.14	.84	9.46	8.50:D
1839	0036	1348.0	57.3:	168	188	129	39.0	2900:1330.1	9.20	9.20	788	792	42.7	45.1	253:	533	16.9	3.75:1.03	.72	9.45	8.50:D
1840	0037	1349.0	46.2:	155	184	130	38.5	2900:1330.8	9.20	9.20	790	770	42.6	45.2	254:	534	17.0	3.76:1.08	.78	9.46	8.50:D
1841	0038	1350.0	46.8:	131	157	130	39.7	2890:1331.6	9.20	9.20	791	797	42.6	45.2	252:	535	17.0	3.76:1.09	.78	9.46	8.50:D
1842	0040	1351.0	44.6:	113	129	130	40.4	2890:1332.3	9.20	9.20	791	771	42.6	45.2	252:	536	17.0	3.76:1.11	.80	9.46	8.50:D
1843	0041	1352.0	42.6:	185.9	115	130	39.7	2910:1333.1	9.20	9.20	789	794	42.5	45.2	252:	537	17.0	3.76:1.11	.81	9.46	8.50:D
1844	0042	1353.0	43.9:	182.4	125	130	40.0	2910:1333.8	9.20	9.20	789	769	42.6	45.2	252:	538	17.1	3.77:1.11	.80	9.47	8.50:D
1845	0044	1354.0	44.6:	163.1	74.0	130	40.3	2910:1334.4	9.20	9.20	790	770	42.6	45.2	253:	539	17.1	3.77:1.10	.80	9.47	8.50:D
1846	0045	1355.0	43.2:	155.5	62.0	130	40.4	2890:1335.3	9.20	9.20	790	776	42.6	45.3	253:	540	17.1	3.77:1.11	.81	9.47	8.50:D
1847	0046	1356.0	42.9:	163.9	78.0	130	40.1	2890:1336.0	9.20	9.20	789	775	42.6	45.3	251:	541	17.1	3.77:1.11	.81	9.47	8.50:D
1848	0048	1357.0	41.7:	166.0	73.0	130	39.9	2900:1336.8	9.20	9.20	790	770	42.7	45.3	252:	542	17.1	3.78:1.12	.82	9.47	8.50:D
1849	0055	1358.0	38.3:	170.4	81.0	130	36.3	2860:1339.3	9.20	9.20	786	793	42.3	45.4	258:	543	17.2	3.78:1.11	.82	9.46	8.50:D
1850	0056	1359.0	41.3:	171.5	80.0	130	37.3	2880:1339.4	9.20	9.20	785	772	41.7	45.4	262:	544	17.2	3.78:1.10	.80	9.47	8.50:D
1851	0058	1360.0	39.0:	185.6	108	130	37.2	2880:1339.9	9.20	9.20	788	791	41.3	45.4	270:	545	17.2	3.79:1.11	.82	9.47	8.50:D
1852	0059	1361.0	33.9:	188.7	103	130	36.9	2880:1341.1	9.20	9.20	787	768	41.1	45.4	275:	546	17.3	3.79:1.15	.85	9.47	8.50:D
1853	0101	1362.0	37.4:	184.1	105	130	37.2	2880:1342.2	9.20	9.20	789	774	41.0	45.4	277:	547	17.3	3.79:1.13	.83	9.47	8.50:D
1854	0102	1363.0	38.1:	100	129	130	37.0	2880:1343.4	9.20	9.20	785	790	41.1	45.4	280:	548	17.3	3.80:1.12	.82	9.47	8.50:D
1855	0104	1364.0	30.5:	114	144	131	37.5	2890:1344.8	9.20	9.20	786	790	41.0	45.4	284:	549	17.4	3.80:1.18	.89	9.46	8.50:D
1856	0106	1365.0	40.6:	144	150	130	37.9	2880:1345.9	9.20	9.20	788	773	40.8	45.4	290:	550	17.4	3.80:1.11	.81	9.46	8.50:D
1857	0107	1366.0	40.7:	150	160	130	37.5	2890:1347.0	9.20	9.20	788	767	40.9	45.4	290:	551	17.4	3.80:1.11	.81	9.46	8.50:D
1858	0119	1367.0	34.0:	156	185	131	37.4	2870:1349.1	9.26	9.20	786	793	40.9	45.4	271:	552	17.4	3.81:1.16	.86	9.42	8.50:D
1859	0120	1368.0	41.7:	189	222	130	35.6	2870:1349.9	9.30	9.20	778	770	40.6	45.4	244:	553	17.5	3.81:1.08	.79	9.45	8.50:D
1860	0122	1369.0	35.7:	101	182	130	35.1	2920:1351.1	9.30	9.20	788	793	40.4	45.4	211:	554	17.5	3.81:1.12	.83	9.46	8.50:D
1861	0123	1370.0	46.3:	196.8	143	130	37.5	2910:1352.2	9.30	9.20	789	768	40.2	45.3	207:	555	17.5	3.82:1.07	.77	9.46	8.50:D
1862	0125	1371.0	37.2:	142.0	59.0	130	39.4	2910:1353.4	9.30	9.20	792	783	40.1	45.3	208:	556	17.5	3.82:1.15	.84	9.47	8.50:D
1863	0126	1372.0	41.2:	144.5	69.0	130	40.9	2910:1354.4	9.30	9.20	792	797	40.2	45.3	209:	557	17.6	3.82:1.13	.82	9.47	8.50:D
1864	0128	1373.0	43.3:	151.5	72.0	130	41.3	2900:1355.4	9.30	9.20	791	770	40.2	45.3	209:	558	17.6	3.82:1.12	.81	9.47	8.50:D

ESSO AUSTRALIA: Sawbelly No.1

Data Printed at time 04:22 Date Mar 15 '90
Data Recorded at time 01:29 Date Mar 10 '90

Table with columns: F# TIME DEPTH ROP TORQUE RPM MOB PUMP/IRTRNS MD lb/gal FLOW/MIN TEMP (C) PVT -THIS BIT- EST: DXC NXB ECD NXMD. Rows contain detailed drilling data from 1865 to 1912.

ESSO AUSTRALIA: Sawbelly No.1

Data Printed at time 04:23 Date Mar 15 '90
Data Recorded at time 03:28 Date Mar 10 '90

Table with 20 columns: F#, TIME, DEPTH, ROP, TORQUE, RPM, WOB, PUMP:RTRMS, MD lb/gal, FLOW/MIN, TEMP (C), PVT, -THIS BIT-, EST, DXC, NXB, ECD, NXMD. Rows represent well logs for various depths from 1913 to 1960.

ESSO AUSTRALIA: Sawbelly No.1

Data Printed at time 04:25 Date Mar 15 '90
Data Recorded at time 05:22 Date Mar 10 '90

F#	TIME	DEPTH	ROP:	TORQUE		RPM		WOB	PUMP:RTRNS		MD lb/gal		FLOW/MIN		TEMP (C)		PVT:	-THIS BIT- EST:		DXC	NXB	ECD	NXMD:
			m/hr:	AVG	MAX	AVG	AVG		AVG	PRES:	DEPTH	IN	OUT	IN	OUT	IN		OUT	m				
1961	0522	1470.0	24.5:	254	269	131	40.1	2880:	1454.7	9.50	9.40	786	765	42.3	44.2	274:	655	20.4	4.14:	1.24	.93	9.72	8.50:D
1962	0524	1471.0	30.2:	259	274	131	40.5	2890:	1455.3	9.50	9.40	785	790	42.4	44.2	273:	656	20.4	4.14:	1.18	.88	9.73	8.50:D
1963	0542	1472.0	29.3:	233	324	131	39.1	2800:	1462.2	9.50	9.40	774	754	42.4	44.5	279:	657	20.5	4.15:	1.18	.88	9.69	8.50:D
1964	0543	1473.0	42.4:	349	371	130	41.2	2930:	1462.9	9.50	9.40	792	773	42.4	44.5	278:	658	20.6	4.15:	1.10	.79	9.69	8.50:D
1965	0545	1474.0	26.9:	326	367	131	43.1	2930:	1463.7	9.50	9.40	794	797	42.4	44.5	278:	659	20.6	4.15:	1.24	.93	9.69	8.50:D
1966	0547	1475.0	29.4:	339	353	131	43.0	2920:	1464.4	9.50	9.40	796	773	42.4	44.6	276:	660	20.6	4.16:	1.22	.90	9.69	8.50:D
1967	0549	1476.0	32.8:	341	357	131	42.9	2930:	1464.4	9.50	9.40	795	780	42.5	44.6	276:	661	20.7	4.16:	1.18	.87	9.70	8.50:D
1968	0551	1477.0	29.7:	340	351	131	43.4	2940:	1464.4	9.50	9.40	793	798	42.7	44.6	274:	662	20.7	4.16:	1.21	.90	9.71	8.50:D
1969	0553	1478.1	35.0:	338	353	131	42.5	2950:	1464.6	9.50	9.40	796	799	42.8	44.6	272:	663	20.7	4.17:	1.16	.85	9.71	8.50:D
1970	0555	1479.0	34.0:	340	353	131	42.7	2940:	1465.9	9.50	9.40	793	772	43.0	44.6	269:	664	20.8	4.17:	1.17	.86	9.71	8.50:D
1971	0556	1480.0	39.0:	343	357	130	42.5	2930:	1466.9	9.50	9.40	795	774	43.1	44.6	269:	665	20.8	4.17:	1.13	.82	9.71	8.50:D
1972	0558	1481.0	35.0:	298	352	131	42.5	2930:	1468.0	9.50	9.40	795	785	43.3	44.6	267:	666	20.8	4.18:	1.16	.85	9.71	8.50:D
1973	0607	1482.0	41.4:	250	285	130	40.5	2850:	1471.1	9.50	9.40	783	768	43.3	44.6	253:	667	20.9	4.20:	1.10	.79	9.69	8.50:D
1974	0608	1483.0	48.2:	278	290	130	42.5	2890:	1471.6	9.50	9.40	787	778	43.4	44.6	251:	668	20.9	4.21:	1.08	.76	9.70	8.50:D
1975	0610	1484.0	40.2:	276	285	130	42.9	2890:	1472.2	9.50	9.40	786	765	43.5	44.6	250:	669	20.9	4.21:	1.13	.81	9.70	8.50:D
1976	0611	1485.0	39.6:	279	295	130	43.0	2890:	1473.0	9.50	9.40	787	767	43.6	44.6	250:	670	20.9	4.21:	1.13	.82	9.70	8.50:D
1977	0613	1486.0	44.5:	269	288	130	42.7	2850:	1473.5	9.50	9.40	785	771	43.6	44.6	251:	671	20.9	4.21:	1.10	.78	9.70	8.50:D
1978	0614	1487.0	44.4:	273	287	130	43.0	2890:	1473.7	9.50	9.40	785	763	43.7	44.6	251:	672	21.0	4.22:	1.10	.78	9.71	8.50:D
1979	0615	1488.0	40.0:	306	362	130	42.9	2890:	1473.7	9.50	9.40	787	791	43.7	44.6	251:	673	21.0	4.22:	1.13	.81	9.72	8.50:D
1980	0617	1489.0	38.9:	350	366	130	42.4	2890:	1473.7	9.50	9.40	786	773	43.8	44.6	249:	674	21.0	4.22:	1.13	.82	9.72	8.50:D
1981	0618	1490.0	39.4:	355	370	130	42.7	2900:	1473.7	9.50	9.40	785	766	43.9	44.6	248:	675	21.0	4.22:	1.13	.81	9.73	8.50:D
1982	0631	1491.0	34.3:	315	368	130	40.9	2870:	1476.3	9.50	9.40	782	774	44.1	44.6	240:	676	21.2	4.23:	1.15	.84	9.72	8.50:D
1983	0633	1492.0	33.0:	301	318	130	39.4	2870:	1477.2	9.50	9.40	783	769	44.1	44.6	239:	677	21.2	4.23:	1.15	.84	9.72	8.50:D
1984	0635	1493.0	34.4:	310	326	131	41.6	2880:	1478.1	9.50	9.40	782	769	44.1	44.6	239:	678	21.2	4.24:	1.16	.84	9.72	8.50:D
1985	0636	1494.0	40.0:	304	319	130	41.5	2880:	1478.8	9.50	9.40	781	759	44.1	44.6	239:	679	21.2	4.24:	1.12	.80	9.72	8.50:D
1986	0638	1495.0	37.8:	281	307	130	41.3	2870:	1479.7	9.50	9.40	782	768	44.1	44.6	239:	680	21.3	4.24:	1.13	.82	9.72	8.50:D
1987	0639	1496.0	44.0:	266	280	130	41.4	2880:	1480.5	9.50	9.40	784	762	44.2	44.6	240:	681	21.3	4.24:	1.09	.78	9.73	8.50:D
1988	0641	1497.0	45.0:	259	284	130	42.2	2890:	1481.4	9.50	9.40	781	766	44.2	44.6	239:	682	21.3	4.25:	1.09	.77	9.73	8.50:D
1989	0642	1498.0	42.7:	241	256	130	42.1	2880:	1482.2	9.50	9.40	781	766	44.3	44.6	239:	683	21.3	4.25:	1.10	.79	9.73	8.50:D
1990	0644	1499.0	36.4:	239	252	130	41.8	2890:	1482.8	9.50	9.40	781	767	44.3	44.7	237:	684	21.4	4.25:	1.14	.83	9.73	8.50:D
1991	0645	1500.0	37.4:	220	259	130	41.7	2900:	1482.9	9.50	9.40	782	761	44.3	44.7	238:	685	21.4	4.25:	1.13	.82	9.74	8.50:D
1992	0658	1501.0	34.9:	297	337	130	36.3	2880:	1485.4	9.50	9.40	759	769	43.8	44.8	237:	686	21.4	4.26:	1.11	.81	9.72	8.50:D
1993	0700	1502.0	32.0:	325	346	130	36.3	2910:	1486.8	9.50	9.40	788	773	43.7	44.8	236:	687	21.4	4.26:	1.13	.83	9.72	8.50:D
1994	0702	1503.0	30.9:	321	339	130	35.3	2920:	1488.1	9.50	9.40	787	766	43.6	44.8	235:	688	21.5	4.26:	1.13	.83	9.72	8.50:D
1995	0704	1504.0	35.7:	325	348	130	36.3	2910:	1489.3	9.50	9.40	787	773	43.7	44.8	234:	689	21.5	4.27:	1.10	.80	9.72	8.50:D
1996	0706	1505.0	34.3:	318	334	130	36.9	2900:	1490.5	9.50	9.40	786	788	43.7	44.8	234:	690	21.5	4.27:	1.12	.81	9.72	8.50:D
1997	0707	1506.0	38.0:	245	310	130	37.5	2920:	1491.6	9.50	9.40	787	792	43.8	44.8	236:	691	21.6	4.27:	1.09	.79	9.72	8.50:D
1998	0709	1507.0	37.6:	227	264	130	37.8	2930:	1492.5	9.50	9.40	786	765	43.9	44.8	234:	692	21.6	4.27:	1.10	.80	9.72	8.50:D
1999	0710	1508.0	41.7:	294	317	130	37.8	2930:	1492.7	9.50	9.40	787	766	43.9	44.8	234:	693	21.6	4.28:	1.07	.77	9.72	8.50:D
1000	0712	1509.0	36.6:	322	344	130	37.6	2920:	1492.7	9.50	9.40	787	774	44.0	44.8	234:	694	21.6	4.28:	1.10	.80	9.73	8.50:D
1001	0713	1510.0	40.4:	330	348	130	37.8	2920:	1492.7	9.50	9.40	790	781	44.0	44.8	234:	695	21.7	4.28:	1.08	.78	9.74	8.50:D
1002	0720	1511.0	47.7:	303	340	129	34.2	2920:	1492.9	9.50	9.40	782	771	43.9	44.8	235:	696	21.7	4.29:	1.00	.71	9.74	8.50:D
1003	0722	1512.0	42.3:	345	365	130	36.3	2930:	1493.6	9.50	9.40	788	774	43.9	44.8	236:	697	21.7	4.29:	1.05	.75	9.74	8.50:D
1004	0723	1513.0	46.8:	344	356	129	35.2	2920:	1494.3	9.50	9.40	786	766	43.8	44.8	233:	698	21.7	4.29:	1.02	.72	9.74	8.50:D
1005	0724	1514.0	45.9:	344	361	129	35.8	2930:	1495.1	9.50	9.40	788	773	43.8	44.8	234:	699	21.8	4.29:	1.03	.73	9.75	8.50:D
1006	0725	1515.0	47.5:	342	355	129	36.2	2840:	1495.9	9.50	9.40	790	769	43.8	44.8	235:	700	21.8	4.29:	1.02	.72	9.75	8.50:D
1007	0727	1516.0	40.3:	338	356	130	36.6	2900:	1496.9	9.50	9.40	789	768	43.8	44.8	234:	701	21.8	4.30:	1.07	.77	9.75	8.50:D
1008	0728	1517.0	49.0:	342	354	129	36.7	2890:	1497.7	9.50	9.40	787	766	43.8	44.8	234:	702	21.8	4.30:	1.02	.72	9.75	8.50:D

ESSO AUSTRALIA: Sawbelly No.1

Data Printed at time 04:27 Date Mar 15 '90
Data Recorded at time 07:29 Date Mar 10 '90

F#	TIME	DEPTH	ROP	TORQUE		RPM	WOB	PUMP:RTNS	MD lb/gal	FLOW/MIN		TEMP (C)		PVT:	-THIS	BIT-	EST:	DXC	NXB	ECD	NXMD:		
				AVG	MAX					IN	OUT	IN	OUT		IN	OUT	m					hr	TW:
1009	0729	1518.0	59.4	351	369	129	36.8	2920	1498.5	9.50	9.40	786	765	43.9	44.8	234	703	21.8	4.30	.97	.67	9.75	8.50
1010	0731	1519.0	39.9	345	366	130	35.9	2920	1499.6	9.50	9.40	786	764	44.0	44.8	236	704	21.9	4.30	1.06	.77	9.75	8.50
1011	0738	1520.0	41.1	341	367	130	38.6	2930	1502.2	9.50	9.40	787	789	44.2	44.8	234	705	21.9	4.31	1.08	.77	9.74	8.50
1012	0739	1521.0	43.9	321	338	130	37.2	2920	1502.4	9.50	9.40	785	764	44.1	44.8	236	706	21.9	4.31	1.05	.75	9.74	8.50
1013	0741	1522.0	32.6	324	338	130	36.7	2900	1502.5	9.50	9.40	787	766	43.9	44.8	236	707	22.0	4.31	1.12	.82	9.75	8.50
1014	0742	1523.0	39.0	321	343	130	37.0	2930	1502.6	9.50	9.40	786	772	43.9	44.8	237	708	22.0	4.31	1.08	.78	9.76	8.50
1015	0744	1524.0	29.9	309	327	130	34.9	2930	1503.5	9.50	9.40	786	772	43.9	44.8	236	709	22.0	4.32	1.13	.83	9.76	8.50
1016	0747	1525.0	25.5	314	332	131	36.8	2930	1504.7	9.50	9.40	787	767	43.9	44.8	235	710	22.1	4.32	1.19	.89	9.76	8.50
1017	0748	1526.0	34.6	312	330	130	37.8	2930	1505.7	9.50	9.40	786	765	43.9	44.8	237	711	22.1	4.32	1.12	.81	9.76	8.50
1018	0751	1527.0	25.5	310	328	131	36.9	2930	1507.1	9.50	9.40	786	766	43.9	44.8	238	712	22.1	4.33	1.19	.89	9.75	8.50
1019	0752	1528.0	33.5	320	331	130	37.3	2920	1508.2	9.50	9.40	784	770	44.0	44.8	239	713	22.1	4.33	1.12	.82	9.75	8.50
1020	0755	1529.0	25.3	298	340	131	37.1	2930	1509.8	9.50	9.40	786	791	44.1	44.8	239	714	22.2	4.33	1.20	.89	9.75	8.50
1021	0802	1530.0	39.4	218	272	130	34.4	2910	1512.0	9.50	9.40	787	791	44.0	44.9	227	715	22.2	4.34	1.05	.76	9.74	8.50
3	0808	1534.0	45.2	242	257	129	36.9	2930	1515.4	9.50	9.40	789	779	43.6	44.9	230	719	22.3	4.35	1.04	.74	9.74	8.50
4	0810	1535.0	37.5	236	250	130	37.1	2930	1516.6	9.50	9.40	787	789	43.7	44.9	232	720	22.4	4.35	1.09	.79	9.74	8.50
5	0811	1536.0	44.9	235	254	130	37.6	2930	1517.5	9.50	9.40	786	792	43.8	44.9	232	721	22.4	4.35	1.05	.74	9.74	8.50
6	0813	1537.0	35.9	237	251	130	38.9	2940	1518.8	9.50	9.40	787	766	43.8	44.9	232	722	22.4	4.35	1.12	.81	9.74	8.50
7	0814	1538.0	38.3	246	259	130	38.6	2940	1520.1	9.50	9.40	787	774	43.9	45.0	234	723	22.4	4.35	1.10	.79	9.74	8.50
8	0822	1539.0	48.5	263	355	130	41.8	2920	1521.5	9.50	9.40	783	791	43.7	45.0	237	724	22.5	4.36	1.06	.75	9.73	8.50
9	0823	1540.0	43.8	325	346	130	37.2	2930	1521.9	9.50	9.40	781	785	43.6	45.0	238	725	22.5	4.36	1.05	.75	9.74	8.50
10	0824	1541.0	53.5	345	366	129	39.9	2920	1522.6	9.50	9.40	784	787	43.6	45.0	238	726	22.5	4.36	1.02	.71	9.74	8.50
11	0825	1542.0	40.7	332	353	130	39.4	2920	1523.5	9.50	9.40	783	788	43.5	45.0	239	727	22.5	4.37	1.09	.78	9.74	8.50
12	0827	1543.0	32.7	298	328	130	34.2	2930	1524.6	9.50	9.40	785	765	43.4	45.0	239	728	22.6	4.37	1.10	.80	9.74	8.50
13	0828	1544.0	55.8	276	317	129	38.9	2920	1525.2	9.50	9.40	785	771	43.5	45.0	241	729	22.6	4.37	1.00	.69	9.74	8.50
14	0830	1545.0	48.4	248	277	130	41.1	2930	1525.8	9.50	9.40	784	769	43.5	45.0	242	730	22.6	4.37	1.06	.74	9.75	8.50
15	0831	1546.0	43.3	268	302	130	40.3	2930	1526.5	9.50	9.40	784	764	43.6	45.0	242	731	22.6	4.37	1.08	.77	9.75	8.50
16	0832	1547.0	51.2	285	308	129	41.1	2930	1527.0	9.50	9.40	784	763	43.6	45.0	244	732	22.6	4.38	1.04	.73	9.75	8.50
17	0834	1548.0	39.4	258	273	130	37.7	2930	1527.8	9.50	9.40	783	788	43.7	45.0	245	733	22.7	4.38	1.08	.78	9.75	8.50
18	0841	1549.0	49.6	240	288	130	40.6	2920	1529.6	9.50	9.40	783	786	43.6	45.0	250	734	22.7	4.38	1.05	.73	9.75	8.50
19	0842	1550.0	46.7	234	246	130	41.9	2910	1530.3	9.50	9.40	781	784	43.5	45.0	251	735	22.7	4.39	1.07	.76	9.75	8.50
20	0844	1551.0	37.2	234	246	130	41.3	2920	1530.8	9.50	9.40	782	762	43.4	45.0	250	736	22.8	4.39	1.13	.81	9.75	8.50
21	0845	1552.0	43.2	239	250	130	41.3	2930	1531.0	9.50	9.40	784	787	43.4	45.0	251	737	22.8	4.39	1.09	.77	9.76	8.50
22	0847	1553.0	44.9	234	244	130	40.5	2940	1531.3	9.50	9.40	783	763	43.4	45.0	252	738	22.8	4.39	1.07	.76	9.76	8.50
23	0848	1554.0	50.7	235	249	129	41.2	2940	1531.8	9.50	9.40	784	770	43.4	45.0	253	739	22.8	4.39	1.04	.73	9.77	8.50
24	0849	1555.0	47.1	213	222	130	41.6	2920	1532.4	9.50	9.40	783	769	43.5	45.0	253	740	22.8	4.40	1.07	.75	9.77	8.50
25	0850	1556.0	44.9	213	229	130	42.1	2920	1533.1	9.50	9.40	784	789	43.5	45.0	253	741	22.9	4.40	1.08	.77	9.77	8.50
26	0852	1557.0	49.4	210	226	130	41.2	2920	1533.9	9.50	9.40	783	787	43.5	45.0	255	742	22.9	4.40	1.05	.74	9.77	8.50
27	0853	1558.0	48.0	194	230	130	41.8	2920	1534.7	9.50	9.40	783	786	43.6	45.0	256	743	22.9	4.40	1.06	.75	9.77	8.50
28	0900	1559.0	49.9	195	207	130	34.2	2940	1537.3	9.50	9.40	780	769	43.5	45.0	260	744	22.9	4.41	.99	.69	9.76	8.50
29	0901	1560.0	50.6	216	228	130	36.8	2940	1538.1	9.50	9.40	784	786	43.4	45.0	260	745	23.0	4.41	1.01	.70	9.76	8.50
30	0902	1561.0	55.3	211	225	130	36.4	2940	1538.7	9.50	9.40	784	788	43.4	44.9	261	746	23.0	4.41	.98	.68	9.77	8.50
31	0903	1562.0	49.2	214	228	130	36.4	2950	1539.5	9.50	9.40	786	766	43.3	44.9	261	747	23.0	4.41	1.01	.71	9.77	8.50
32	0905	1563.0	53.8	215	238	130	36.3	2930	1540.2	9.50	9.40	784	768	43.3	44.9	261	748	23.0	4.41	.99	.69	9.77	8.50
33	0906	1564.0	45.3	217	237	130	36.3	2940	1540.7	9.50	9.40	784	770	43.3	44.9	262	749	23.0	4.42	1.03	.73	9.77	8.50
34	0907	1565.0	49.4	221	235	130	36.5	2950	1540.7	9.50	9.40	783	774	43.3	44.9	263	750	23.1	4.42	1.01	.71	9.78	8.50
35	0908	1566.0	43.4	218	229	130	36.4	2940	1541.3	9.50	9.40	786	766	43.4	44.8	263	751	23.1	4.42	1.04	.74	9.78	8.50
36	0910	1567.0	42.1	224	234	130	35.8	2950	1542.2	9.50	9.40	785	771	43.4	44.8	263	752	23.1	4.42	1.05	.74	9.78	8.50
37	0917	1568.0	48.3	208	264	130	36.9	2940	1544.7	9.50	9.40	785	788	43.5	44.7	266	753	23.1	4.43	1.02	.72	9.77	8.50

F#	TIME	DEPTH	ROP m/hr	TORQUE		RPM	WOB AVG	PUMP:RTRNS PRES:DEPTH	MD lb/gal		FLOW/MIN		TEMP (C)		PVT:	-THIS BIT- EST: DXC			NXB	ECD	NXMD:
				AVG	MAX				IN	OUT	IN	OUT	IN	OUT		m	hr	TW:			
38	0918	1569.0	46.1	228	256	130	36.7	2940:1545.6	9.50	9.40	784	789	43.4	44.7	266:	754	23.2	4.43:1.03	.73	9.77	8.50:D
39	0919	1570.0	41.2	245	264	130	37.1	2940:1546.7	9.50	9.40	784	764	43.4	44.6	268:	755	23.2	4.43:1.06	.76	9.77	8.50:D
40	0921	1571.0	43.2	241	252	130	37.4	2910:1547.9	9.50	9.40	787	792	43.3	44.6	267:	756	23.2	4.43:1.05	.75	9.77	8.50:D
41	0922	1572.0	35.8	240	251	130	37.1	2940:1549.1	9.50	9.40	785	770	43.3	44.5	269:	757	23.2	4.43:1.10	.80	9.77	8.50:D
42	0924	1573.0	47.1	249	267	130	37.1	2940:1549.9	9.50	9.40	782	768	43.3	44.5	268:	758	23.2	4.44:1.03	.72	9.77	8.50:D
43	0925	1574.0	37.2	238	258	130	38.8	2940:1550.2	9.50	9.40	785	765	43.4	44.5	269:	759	23.3	4.44:1.11	.80	9.77	8.50:D
44	0926	1575.0	45.5	209	233	130	41.1	2940:1550.2	9.50	9.40	783	763	43.4	44.5	270:	760	23.3	4.44:1.07	.76	9.78	8.50:D
45	0928	1576.0	54.9	197	219	130	41.3	2920:1550.9	9.50	9.40	783	786	43.5	44.4	270:	761	23.3	4.44:1.02	.71	9.78	8.50:D
46	0929	1577.0	49.2	205	215	130	41.4	2920:1551.7	9.50	9.40	783	763	43.5	44.4	270:	762	23.3	4.45:1.05	.74	9.78	8.50:D
47	0936	1578.0	36.7	227	261	130	39.0	2850:1554.4	9.50	9.40	782	785	43.6	44.4	257:	763	23.4	4.45:1.11	.80	9.77	8.50:D
48	0937	1579.0	40.4	249	272	130	40.4	2930:1555.5	9.50	9.40	782	761	43.5	44.4	257:	764	23.4	4.45:1.10	.78	9.77	8.50:D
49	0939	1580.0	37.6	228	251	130	36.7	2930:1556.8	9.50	9.40	785	788	43.4	44.4	256:	765	23.4	4.45:1.08	.78	9.77	8.50:D
50	0940	1581.0	45.0	238	254	130	38.3	2950:1557.8	9.50	9.40	785	764	43.3	44.4	255:	766	23.4	4.46:1.05	.74	9.77	8.50:D
51	0941	1582.0	52.4	245	259	130	40.0	2940:1558.7	9.50	9.40	784	775	43.2	44.4	256:	767	23.5	4.46:1.02	.71	9.77	8.50:D
52	0943	1583.0	44.1	241	262	130	40.3	2940:1559.6	9.50	9.40	783	762	43.1	44.4	256:	768	23.5	4.46:1.07	.76	9.77	8.50:D
53	0944	1584.0	40.4	221	239	130	39.8	2940:1559.9	9.50	9.40	783	762	43.1	44.4	257:	769	23.5	4.46:1.09	.78	9.77	8.50:D
54	0946	1585.0	41.5	230	247	130	39.2	2940:1560.3	9.50	9.40	783	785	43.1	44.4	256:	770	23.5	4.46:1.08	.77	9.78	8.50:D
55	0947	1586.0	34.5	218	234	130	39.4	2930:1561.5	9.50	9.40	782	762	43.1	44.4	257:	771	23.6	4.47:1.13	.82	9.78	8.50:D
56	0954	1587.0	45.9	241	282	130	39.8	2920:1564.2	9.50	9.40	782	785	43.0	44.4	262:	772	23.6	4.47:1.06	.75	9.76	8.50:D
57	0955	1588.0	35.9	253	267	130	39.8	2930:1565.6	9.50	9.40	780	785	42.9	44.5	264:	773	23.6	4.47:1.13	.81	9.76	8.50:D
58	0957	1589.0	40.4	263	283	130	40.5	2920:1566.8	9.50	9.40	780	785	42.8	44.5	265:	774	23.6	4.48:1.10	.78	9.76	8.50:D
59	0958	1590.0	44.9	268	287	130	40.4	2910:1567.7	9.50	9.40	782	761	42.7	44.5	266:	775	23.7	4.48:1.07	.76	9.76	8.50:D
60	0959	1591.0	48.0	261	278	130	40.7	2920:1568.6	9.50	9.40	783	786	42.7	44.4	266:	776	23.7	4.48:1.05	.74	9.76	8.50:D
61	1001	1592.0	36.5	263	284	130	40.8	2940:1569.4	9.50	9.40	786	772	42.7	44.4	269:	777	23.7	4.48:1.13	.81	9.76	8.50:D
62	1003	1593.0	33.5	261	278	130	41.1	2940:1569.7	9.50	9.40	789	768	42.7	44.4	270:	778	23.7	4.49:1.15	.84	9.77	8.50:D
63	1004	1594.0	35.1	257	278	130	39.9	2950:1570.7	9.50	9.40	787	766	42.8	44.4	271:	779	23.8	4.49:1.13	.82	9.77	8.50:D
64	1006	1595.0	45.3	267	287	130	39.2	2950:1571.7	9.50	9.40	785	772	42.8	44.4	272:	780	23.8	4.49:1.06	.75	9.77	8.50:D
65	1007	1596.0	48.5	270	291	130	40.2	2950:1572.5	9.50	9.40	786	766	42.8	44.4	274:	781	23.8	4.49:1.05	.73	9.77	8.50:D
66	1013	1597.0	67.3	259	291	130	40.8	2920:1574.6	9.50	9.40	783	788	42.8	44.5	273:	782	23.8	4.50:1.96	.65	9.76	8.50:D
67	1015	1598.0	50.2	276	300	130	43.6	2910:1575.4	9.50	9.40	779	762	42.8	44.5	266:	783	23.9	4.50:1.07	.74	9.76	8.50:D
68	1016	1599.0	46.6	273	291	130	43.3	2930:1576.4	9.50	9.40	784	770	42.7	44.5	266:	784	23.9	4.50:1.08	.76	9.77	8.50:D
69	1017	1600.0	47.4	277	295	130	42.9	2920:1577.5	9.50	9.40	782	762	42.6	44.5	266:	785	23.9	4.50:1.08	.75	9.76	8.50:D
70	1018	1601.0	55.3	277	293	130	43.2	2910:1578.4	9.50	9.40	784	770	42.5	44.5	268:	786	23.9	4.51:1.04	.71	9.77	8.50:D
71	1019	1602.0	45.4	279	297	130	43.2	2930:1579.0	9.50	9.40	781	761	42.5	44.5	269:	787	23.9	4.51:1.09	.77	9.77	8.50:D
72	1021	1603.0	55.0	317	361	130	43.5	2920:1579.1	9.50	9.40	782	762	42.5	44.5	269:	788	24.0	4.51:1.04	.72	9.77	8.50:D
73	1022	1604.0	58.5	328	349	130	43.9	2920:1579.3	9.50	9.40	783	787	42.5	44.5	269:	789	24.0	4.51:1.02	.70	9.78	8.50:D
74	1023	1605.0	59.7	321	338	130	43.0	2930:1579.9	9.50	9.40	780	784	42.5	44.5	270:	790	24.0	4.51:1.01	.69	9.78	8.50:D
75	1029	1606.0	46.2	307	330	130	42.3	2940:1582.2	9.50	9.40	783	786	42.6	44.5	275:	791	24.0	4.52:1.08	.76	9.76	8.50:D
76	1031	1607.0	40.8	281	301	130	40.5	2950:1583.4	9.50	9.40	782	769	42.4	44.4	276:	792	24.1	4.52:1.10	.78	9.77	8.50:D
77	1032	1608.0	43.2	284	303	130	39.7	2950:1584.4	9.50	9.40	783	788	42.3	44.4	278:	793	24.1	4.52:1.07	.76	9.77	8.50:D
78	1033	1609.0	52.4	288	301	130	39.8	2950:1585.2	9.50	9.40	783	768	42.3	44.4	271:	794	24.1	4.52:1.02	.71	9.77	8.50:D
79	1035	1610.0	41.8	287	304	130	40.3	2960:1586.1	9.50	9.40	782	761	42.2	44.3	270:	795	24.1	4.53:1.09	.77	9.77	8.50:D
80	1036	1611.0	43.2	269	286	130	40.9	3010:1587.1	9.50	9.40	781	785	42.2	44.3	268:	796	24.1	4.53:1.08	.77	9.77	8.50:D
81	1038	1612.0	35.2	275	300	130	40.7	2810:1588.1	9.50	9.40	768	747	42.2	44.3	269:	797	24.2	4.53:1.14	.82	9.77	8.50:D
82	1039	1613.0	44.9	287	306	130	41.1	2800:1588.5	9.50	9.40	764	745	42.2	44.2	268:	798	24.2	4.53:1.07	.76	9.77	8.50:D
83	1040	1614.0	50.0	289	305	130	41.1	2810:1588.7	9.50	9.40	766	746	42.2	44.2	269:	799	24.2	4.54:1.05	.73	9.78	8.50:D
84	1041	1615.0	54.9	277	299	130	40.4	2810:1589.3	9.50	9.40	766	744	42.2	44.2	270:	800	24.2	4.54:1.01	.70	9.78	8.50:D
85	1050	1616.0	47.4	260	301	130	39.4	2740:1591.8	9.50	9.40	754	757	42.3	44.2	276:	801	24.3	4.54:1.05	.73	9.77	8.50:D

ESSO AUSTRALIA: Sawbilly No.1

Data Printed at time 04:40 Date Mar 15 '90
 Data Recorded at time 10:51 Date Mar 10 '90

F#	TIME	DEPTH	ROP:	TORQUE		RPM	WOB	PUMP:	RTNS	MD lb/gal		FLOW/MIN		TEMP (C)		PVT:	-THIS BIT-		EST:	DXC	NXB	ECD	NXMD:	
			m/hr:	AVG	MAX	AVG		AVG	PRES:	DEPTH	IN	OUT	IN	OUT	IN	OUT	IN	OUT	hr					TW:
86	1051	1617.0	37.8	279	302	130	40.2	2740	1592.9	9.50	9.40	753	756	42.2	44.1	258	802	24.3	4.54	1.11	.80	9.77	8.50	D
87	1053	1618.0	41.7	296	314	130	40.7	2740	1593.7	9.50	9.40	755	746	42.1	44.1	259	803	24.3	4.55	1.09	.77	9.77	8.50	D
88	1054	1619.0	50.2	297	315	130	40.4	2730	1594.3	9.50	9.40	754	746	42.0	44.0	260	804	24.3	4.55	1.04	.72	9.78	8.50	D
89	1055	1620.0	46.0	303	324	130	41.0	2730	1595.0	9.50	9.40	754	757	42.0	44.0	262	805	24.4	4.55	1.07	.75	9.78	8.50	D
90	1056	1621.0	45.0	298	316	130	40.4	2710	1595.8	9.50	9.40	756	743	42.0	44.0	263	806	24.4	4.55	1.07	.75	9.78	8.50	D
91	1058	1622.0	49.0	304	329	130	40.7	2770	1596.6	9.50	9.40	757	737	42.1	43.9	265	807	24.4	4.55	1.05	.73	9.78	8.50	D
92	1059	1623.0	45.3	312	338	130	40.4	2750	1597.6	9.50	9.42	757	743	42.1	43.9	265	808	24.4	4.56	1.07	.75	9.78	8.50	D
93	1100	1624.0	57.8	320	333	130	40.3	2740	1598.2	9.50	9.42	756	742	42.1	43.9	267	809	24.4	4.56	1.00	.68	9.78	8.50	D
94	1101	1625.0	59.2	323	337	130	40.7	2750	1598.4	9.50	9.50	757	736	42.1	43.9	269	810	24.5	4.56	1.00	.68	9.79	8.50	D
95	1108	1626.0	54.6	277	335	130	40.4	2760	1600.3	9.50	9.50	751	735	42.1	43.9	269	811	24.5	4.56	1.02	.70	9.78	8.50	D
96	1109	1627.0	50.9	277	299	130	38.5	2760	1601.1	9.50	9.50	756	737	42.0	43.8	266	812	24.5	4.57	1.02	.71	9.78	8.50	D
97	1111	1628.0	50.9	286	310	130	38.6	2770	1602.1	9.50	9.50	757	736	41.8	43.8	268	813	24.5	4.57	1.02	.71	9.78	8.50	D
98	1112	1629.0	47.0	277	301	130	37.0	2760	1603.1	9.50	9.50	760	763	41.8	43.7	269	814	24.5	4.57	1.03	.72	9.78	8.50	D
99	1113	1630.0	48.0	294	309	130	39.3	2760	1604.0	9.50	9.50	759	764	41.7	43.7	270	815	24.6	4.57	1.04	.73	9.78	8.50	D
100	1114	1631.0	47.7	291	315	130	38.9	2770	1604.9	9.50	9.50	756	742	41.7	43.7	272	816	24.6	4.57	1.04	.73	9.78	8.50	D
101	1116	1632.0	44.0	293	312	130	39.3	2770	1606.2	9.50	9.50	758	738	41.7	43.7	273	817	24.6	4.57	1.06	.75	9.78	8.50	D
102	1117	1633.0	49.8	295	309	130	39.4	2770	1607.2	9.50	9.50	758	738	41.7	43.7	274	818	24.6	4.58	1.03	.72	9.78	8.50	D
103	1118	1634.0	49.4	295	311	130	39.5	2760	1607.7	9.50	9.50	759	762	41.8	43.6	274	819	24.6	4.58	1.04	.72	9.78	8.50	D
104	1119	1635.0	54.8	275	304	130	38.7	2770	1607.9	9.50	9.50	758	743	41.8	43.6	276	820	24.7	4.58	1.00	.69	9.79	8.50	D
105	1126	1636.0	41.7	279	297	130	34.8	2740	1609.9	9.50	9.50	755	742	41.8	43.6	283	821	24.7	4.59	1.04	.74	9.78	8.50	D
106	1128	1637.0	37.0	283	306	130	35.5	2740	1611.2	9.50	9.50	753	758	41.7	43.5	285	822	24.7	4.59	1.08	.77	9.78	8.50	D
107	1130	1638.0	38.4	269	285	130	33.0	2740	1612.4	9.50	9.50	757	748	41.6	43.5	285	823	24.8	4.59	1.04	.75	9.78	8.50	D
108	1131	1639.0	39.0	269	289	130	32.5	2750	1613.3	9.50	9.50	755	740	41.6	43.5	287	824	24.8	4.59	1.04	.74	9.78	8.50	D
109	1132	1640.0	48.7	284	301	130	34.3	2750	1614.0	9.50	9.50	755	736	41.7	43.5	289	825	24.8	4.59	1.00	.69	9.78	8.50	D
110	1134	1641.0	44.0	285	300	130	35.3	2750	1615.1	9.50	9.50	756	735	41.7	43.5	289	826	24.8	4.60	1.03	.73	9.78	8.50	D
111	1135	1642.0	45.9	292	314	130	39.6	2750	1616.1	9.50	9.50	754	740	41.8	43.4	293	827	24.8	4.60	1.06	.74	9.78	8.50	D
112	1137	1643.0	28.1	267	279	130	35.4	2750	1617.5	9.50	9.50	755	759	41.8	43.4	293	828	24.9	4.60	1.15	.84	9.78	8.50	D
113	1139	1644.0	36.7	282	302	130	37.4	2750	1617.8	9.50	9.50	755	734	41.8	43.4	297	829	24.9	4.60	1.10	.79	9.78	8.50	D
114	1150	1645.0	38.1	258	294	130	35.5	2690	1621.6	9.50	9.50	746	751	41.8	43.4	310	830	25.0	4.61	1.07	.77	9.77	8.50	D
115	1151	1646.0	45.5	279	300	130	37.6	2690	1622.5	9.50	9.50	748	734	41.7	43.4	312	831	25.0	4.61	1.04	.73	9.77	8.50	D
116	1153	1647.0	30.6	251	266	130	35.5	2790	1624.1	9.50	9.50	761	743	41.5	43.4	313	832	25.0	4.61	1.13	.82	9.76	8.50	D
117	1155	1648.0	45.2	257	279	130	36.8	2790	1625.0	9.50	9.50	766	745	41.4	43.4	316	833	25.0	4.61	1.04	.73	9.76	8.50	D
118	1156	1649.0	47.0	258	281	130	40.5	2780	1626.2	9.50	9.50	763	743	41.4	43.3	316	834	25.0	4.62	1.06	.74	9.76	8.50	D
119	1157	1650.0	39.7	271	298	130	42.8	2780	1627.1	9.50	9.50	763	749	41.4	43.3	318	835	25.1	4.62	1.12	.80	9.77	8.50	D
120	1159	1651.0	47.0	269	289	130	42.5	2790	1627.2	9.50	9.50	764	751	41.5	43.3	318	836	25.1	4.62	1.07	.75	9.77	8.50	D
121	1201	1652.0	31.5	267	283	130	42.8	2790	1628.5	9.50	9.50	765	744	41.5	43.3	320	837	25.1	4.62	1.19	.86	9.77	8.50	D
122	1202	1653.0	36.3	269	288	130	42.2	2780	1629.9	9.50	9.50	764	743	41.6	43.3	322	838	25.2	4.63	1.14	.82	9.76	8.50	D
123	1203	1654.0	47.5	276	293	130	43.6	2800	1630.9	9.50	9.50	764	744	41.6	43.3	324	839	25.2	4.63	1.08	.75	9.76	8.50	D
124	1214	1655.0	39.5	245	286	130	41.1	2720	1636.2	9.50	9.50	752	758	41.5	43.2	302	840	25.2	4.64	1.11	.79	9.74	8.50	D
125	1216	1656.0	37.4	292	323	130	44.5	2720	1636.9	9.50	9.50	755	734	41.4	43.2	303	841	25.2	4.64	1.16	.83	9.74	8.50	D
126	1217	1657.0	33.7	302	322	130	45.0	2720	1637.1	9.50	9.50	753	740	41.3	43.2	305	842	25.3	4.64	1.19	.86	9.74	8.50	D
127	1219	1658.0	35.2	286	305	130	42.3	2720	1638.1	9.50	9.50	754	740	41.4	43.1	307	843	25.3	4.64	1.15	.83	9.74	8.50	D
128	1220	1659.0	47.7	274	297	130	40.8	2720	1638.9	9.50	9.50	754	732	41.4	43.1	309	844	25.3	4.65	1.06	.74	9.74	8.50	D
129	1222	1660.0	35.2	290	309	130	44.6	2710	1639.8	9.50	9.50	755	747	41.4	43.1	310	845	25.3	4.65	1.17	.84	9.74	8.50	D
130	1223	1661.0	44.5	282	305	130	43.4	2690	1640.7	9.50	9.50	752	738	41.4	43.1	312	846	25.4	4.65	1.10	.77	9.75	8.50	D
131	1225	1662.0	33.6	281	301	130	43.0	2720	1642.0	9.50	9.50	754	734	41.5	43.1	313	847	25.4	4.65	1.17	.85	9.74	8.50	D
132	1226	1663.0	43.7	279	304	130	41.5	2730	1643.0	9.50	9.50	753	733	41.6	43.1	317	848	25.4	4.66	1.09	.77	9.74	8.50	D
133	1228	1664.0	50.6	268	299	130	38.8	2720	1643.9	9.50	9.50	752	731	41.6	43.1	318	849	25.4	4.66	1.03	.71	9.74	8.50	D

ESSO AUSTRALIA: Sawbelly No.1

Data Printed at time 04:41 Date Mar 15 '90
Data Recorded at time 12:37 Date Mar 10 '90

F#	TIME	DEPTH	ROP:	TORQUE	RPM	WOB	PUMP:RTRNS	MD lb/gal		FLOW/MIN		TEMP (C)		PVT:	-THIS	BIT-	EST:	DXC	NXB	ECD	NXMD:			
			m/hr:	AVG	MAX	AVG	AVG	PRES:	DEPTH	IN	OUT	IN	OUT	IN	OUT	:	m	hr	TW:					
1134	1237	1665.0	39.11	293	367	130	44.4	2750	1646.7	9.50	9.50	755	734	41.4	43.1	321	850	25.5	4.66	1.14	.81	9.73	8.50	D
1135	1238	1666.0	43.51	363	381	130	46.5	2750	1646.7	9.50	9.50	755	760	41.3	43.1	322	851	25.5	4.66	1.13	.80	9.74	8.50	D
1136	1240	1667.0	44.81	342	372	130	43.3	2750	1646.7	9.50	9.50	757	764	41.3	43.1	322	852	25.5	4.67	1.10	.77	9.74	8.50	D
1137	1241	1668.0	36.41	320	355	130	40.7	2760	1647.1	9.50	9.50	758	744	41.3	43.1	294	853	25.6	4.67	1.13	.81	9.75	8.50	D
1138	1243	1669.0	32.41	313	334	130	40.1	2740	1648.3	9.50	9.50	757	742	41.2	43.1	269	854	25.6	4.67	1.16	.84	9.75	8.50	D
1139	1245	1670.0	40.91	319	351	130	40.2	2750	1649.1	9.50	9.50	755	760	41.2	43.1	270	855	25.6	4.67	1.10	.78	9.75	8.50	D
1140	1246	1671.0	39.41	334	357	130	46.3	2750	1650.2	9.50	9.50	756	759	41.2	43.1	272	856	25.6	4.68	1.16	.82	9.75	8.50	D
1141	1247	1672.0	41.11	310	353	130	43.9	2750	1651.2	9.50	9.50	756	759	41.3	43.1	275	857	25.7	4.68	1.12	.80	9.75	8.50	D
1142	1248	1673.0	52.21	345	363	130	43.6	2760	1652.0	9.50	9.50	756	735	41.3	43.0	276	858	25.7	4.68	1.06	.73	9.75	8.50	D
1143	1251	1674.0	27.81	314	350	130	43.9	2770	1653.3	9.50	9.50	758	738	41.4	43.0	278	859	25.7	4.68	1.23	.90	9.75	8.50	D
1144	1301	1675.0	43.21	339	362	130	43.0	2750	1656.4	9.50	9.50	757	743	41.2	43.0	292	860	25.8	4.69	1.11	.78	9.73	8.50	D
1145	1303	1676.0	45.01	337	371	130	42.5	2750	1656.4	9.50	9.50	758	750	41.0	43.0	291	861	25.8	4.70	1.09	.76	9.74	8.50	D
1146	1304	1677.0	57.91	332	372	130	43.4	2690	1656.4	9.50	9.50	758	737	40.9	43.0	294	862	25.8	4.70	1.03	.70	9.75	8.50	D
1147	1305	1678.0	32.81	301	322	130	40.4	2750	1656.6	9.50	9.50	756	748	40.9	43.0	297	863	25.8	4.70	1.16	.84	9.75	8.50	D
1148	1307	1679.0	39.21	303	323	130	40.6	2760	1657.3	9.50	9.50	757	748	40.9	43.0	298	864	25.8	4.70	1.11	.79	9.75	8.50	D
1149	1308	1680.0	42.21	300	347	130	43.1	2760	1658.1	9.50	9.50	756	759	40.9	43.0	298	865	25.9	4.71	1.11	.78	9.75	8.50	D
1150	1310	1681.0	36.61	314	335	130	48.0	2750	1659.1	9.50	9.50	757	736	41.0	42.9	301	866	25.9	4.71	1.19	.85	9.75	8.50	D
1151	1312	1682.0	34.81	302	321	130	42.3	2750	1660.2	9.50	9.50	756	736	41.0	42.9	301	867	25.9	4.71	1.16	.83	9.75	8.50	D
1152	1313	1683.0	34.41	314	332	130	42.4	2730	1661.1	9.50	9.50	758	737	41.0	42.9	302	868	25.9	4.71	1.16	.83	9.75	8.50	D
+ Displace w/KCL Polymer mud.																								
1154	1323	1684.0	43.01	277	319	130	37.0	2300	1664.9	8.90	9.50	668	647	40.7	43.0	571	869	26.0	4.72	1.06	.74	9.73	8.50	D↑
1155	1324	1685.0	37.71	284	306	130	38.8	2350	1665.8	8.90	9.50	665	643	34.8	42.9	401	870	26.0	4.72	1.11	.79	9.73	8.50	D
1156	1326	1686.0	39.91	288	304	130	38.2	2230	1666.2	8.90	9.50	666	671	23.4	42.9	401	871	26.0	4.72	1.09	.77	9.74	8.50	D
1157	1327	1687.0	40.51	297	317	130	40.1	2220	1666.2	8.90	9.50	669	647	20.8	42.9	401	872	26.1	4.73	1.10	.78	9.74	8.50	D
1158	1328	1688.0	50.21	300	319	130	41.3	2210	1666.2	8.90	9.50	668	660	20.8	42.9	401	873	26.1	4.73	1.05	.72	9.75	8.50	D
1159	1330	1689.0	44.91	293	306	130	40.8	2220	1666.6	8.90	9.50	668	647	19.7	42.9	401	874	26.1	4.73	1.07	.75	9.75	8.50	D
1160	1331	1690.0	40.41	266	292	130	37.9	2220	1667.4	8.90	9.50	667	646	19.7	42.9	401	875	26.1	4.73	1.08	.76	9.75	8.50	D
1161	1332	1691.0	41.51	291	328	130	38.3	1410	1668.1	8.90	9.50	507	507	18.9	42.9	401	876	26.1	4.73	1.07	.76	9.75	8.50	D
1162	1334	1692.0	36.31	306	328	130	40.1	1420	1668.9	8.90	9.50	511	514	18.9	42.9	401	877	26.2	4.74	1.13	.81	9.75	8.50	D
1163	1336	1693.0	38.21	309	328	130	42.2	1970	1669.6	8.90	9.50	625	622	17.2	42.9	401	878	26.2	4.74	1.13	.80	9.76	8.50	D
1164	1346	1694.0	53.41	270	317	130	41.0	1810	1673.1	8.90	9.50	650	653	15.4	42.9	401	879	26.2	4.80	1.03	.70	9.74	8.50	D↑
1165	1347	1695.0	42.71	283	313	130	40.5	1830	1673.9	8.90	9.50	651	637	16.4	42.9	401	880	26.3	4.80	1.09	.76	9.74	8.50	D
1166	1349	1696.0	38.01	290	306	130	41.5	1840	1674.9	8.90	9.50	648	627	15.4	42.9	401	881	26.3	4.80	1.13	.80	9.74	8.50	D
1167	1350	1697.0	53.91	305	341	130	40.6	1840	1675.4	8.90	9.50	649	655	15.4	42.9	401	882	26.3	4.80	1.02	.70	9.75	8.50	D
1168	1351	1698.0	57.11	322	343	130	40.4	1840	1675.7	8.90	9.50	648	651	14.9	42.9	401	883	26.3	4.80	1.01	.68	9.75	8.50	D
1169	1352	1699.0	52.71	320	336	130	40.9	1900	1675.9	8.90	9.50	650	653	14.9	42.9	401	884	26.3	4.81	1.03	.71	9.75	8.50	D
1170	1353	1700.0	42.11	312	336	130	40.0	1880	1675.9	8.90	9.50	651	629	14.3	42.9	401	885	26.4	4.81	1.08	.76	9.76	8.50	D
1171	1355	1701.0	47.41	308	329	130	41.6	1870	1675.9	8.90	9.50	648	628	14.9	42.9	401	886	26.4	4.81	1.06	.74	9.77	8.50	D
1172	1356	1702.0	47.31	305	325	130	41.5	1870	1676.1	8.90	9.50	650	631	15.2	42.8	401	887	26.4	4.81	1.06	.74	9.77	8.50	D
1173	1406	1703.0	34.61	288	321	130	40.2	2340	1679.9	8.90	9.50	764	753	14.4	42.8	401	888	26.4	4.82	1.14	.82	9.75	8.50	D↑
1174	1407	1704.0	36.41	307	331	130	38.9	2250	1680.9	8.90	9.50	769	760	14.0	42.8	401	889	26.5	4.82	1.12	.80	9.73	8.50	D
1175	1409	1705.0	35.91	319	335	130	41.0	2770	1682.1	8.90	9.50	811	816	13.7	42.7	401	890	26.5	4.82	1.14	.82	9.69	8.50	D
1176	1410	1706.0	44.71	305	335	130	39.7	2770	1683.0	8.90	9.50	878	883	13.6	42.7	401	891	26.5	4.82	1.07	.75	9.69	8.50	D
1177	1412	1707.0	46.71	304	326	130	38.6	2820	1683.9	8.90	9.50	881	860	13.7	42.7	401	892	26.5	4.83	1.06	.73	9.65	8.50	D
1178	1413	1708.0	33.31	311	330	130	40.7	2860	1685.2	8.90	9.50	877	855	14.1	42.7	401	893	26.6	4.83	1.17	.84	9.63	8.50	D
1179	1415	1709.0	39.31	315	332	130	41.2	2890	1685.7	8.90	9.50	875	854	14.1	42.7	401	894	26.6	4.83	1.13	.80	9.61	8.50	D
1180	1416	1710.0	36.01	281	301	130	41.1	2970	1685.7	8.90	9.50	864	842	14.2	42.6	401	895	26.6	4.83	1.16	.82	9.58	8.50	D
1181	1418	1711.0	33.51	277	299	130	40.7	2710	1686.2	8.90	9.50	825	801	13.9	42.6	401	896	26.7	4.84	1.18	.84	9.56	8.50	D

ESSO AUSTRALIA: Sawbelly No.1

Data Printed at time 04:43 Date Mar 15 '90
 Data Recorded at time 14:20 Date Mar 10 '90

F#	TIME	DEPTH	ROP		TORQUE		RPM	WOB	PUMP:RTRNS		MD lb/gal		FLOW/MIN		TEMP (C)	PVT:	-THIS BIT-		EST: DXC	NXB	ECD NXMD:		
			m/hr	AVG	MAX	AVG			PRES:	DEPTH	IN	OUT	IN	OUT			m	hr			TW		
182	1420	1712.0	39.4	289	302	130	42.2	2300	1687.3	8.90	9.50	756	733	13.8	42.6	40	897	26.7	4.84	1.15	.81	9.54	8.50
183	1429	1713.0	27.1	238	282	130	40.0	1890	1692.1	8.90	8.90	687	674	16.7	42.2	69	898	26.7	4.84	1.13	.83	9.43	8.50
184	1432	1714.0	23.9	245	262	130	38.0	1570	1694.0	8.90	8.90	627	630	31.1	42.2	111	899	26.8	4.85	1.19	.88	9.41	8.50
185	1434	1715.0	28.1	251	273	130	40.5	1550	1695.2	8.90	8.90	625	629	31.9	42.1	136	900	26.8	4.85	1.25	.91	9.38	8.50
186	1436	1716.0	25.0	247	266	130	40.3	250	1695.4	8.90	8.90	541	534	31.7	42.1	168	901	26.8	4.85	1.28	.94	9.37	8.50
187	1442	1717.0	22.7	263	295	130	43.5	1510	1697.1	8.90	8.90	613	604	30.2	41.9	182	902	26.9	4.86	1.35	1.00	9.31	8.50
188	1445	1718.0	18.9	246	267	130	41.2	1540	1699.5	8.90	8.90	613	593	29.5	41.8	198	903	27.0	4.86	1.38	1.04	9.26	8.50
189	1448	1719.0	24.2	261	288	130	40.9	1540	1701.5	8.90	8.90	613	592	28.6	41.8	212	904	27.0	4.87	1.32	.97	9.21	8.50
190	1451	1720.0	18.1	255	278	130	40.1	1720	1703.9	8.90	8.90	613	617	28.2	41.7	232	905	27.0	4.87	1.39	1.05	9.18	8.50
191	1454	1721.0	18.9	268	298	130	39.9	1850	1704.8	8.90	8.90	673	678	27.6	41.6	240	906	27.1	4.88	1.39	1.04	9.14	8.50
192	1456	1722.0	28.1	276	305	130	39.8	2010	1704.8	8.90	8.90	693	679	27.9	41.6	239	907	27.1	4.88	1.27	.93	9.13	8.50
193	1508	1723.0	17.8	258	339	130	44.3	1830	1708.6	8.90	8.90	675	654	29.3	41.4	234	908	27.2	4.91	1.46	1.10	9.11	8.50
194	1510	1724.0	26.6	268	288	130	41.5	1830	1709.6	8.90	8.90	675	661	29.6	41.4	232	909	27.3	4.92	1.31	.96	9.11	8.50
195	1512	1725.0	25.7	274	290	130	42.2	1820	1710.8	8.90	8.90	676	655	29.7	41.3	234	910	27.3	4.92	1.33	.97	9.11	8.50
196	1515	1726.0	21.3	258	273	130	39.9	1820	1712.1	8.90	8.90	677	682	30.0	41.3	231	911	27.4	4.92	1.36	1.01	9.10	8.50
197	1517	1727.0	27.1	264	285	130	41.0	1830	1713.1	8.90	8.90	677	656	30.1	41.2	235	912	27.4	4.93	1.30	.95	9.10	8.50
198	1519	1728.0	28.5	277	301	130	42.9	2030	1714.0	8.90	8.90	685	698	30.2	41.2	231	913	27.4	4.93	1.30	.95	9.10	8.50
199	1521	1729.0	30.9	274	298	130	42.1	2030	1714.1	8.90	8.90	712	714	30.4	41.2	231	914	27.5	4.93	1.27	.92	9.11	8.50
200	1524	1730.0	21.8	255	278	130	40.2	2020	1714.5	8.90	8.90	712	715	30.6	41.1	229	915	27.5	4.94	1.35	1.00	9.12	8.50
201	1526	1731.0	23.7	261	278	130	40.5	2030	1715.6	8.90	8.90	709	694	30.7	41.1	230	916	27.6	4.94	1.33	.98	9.12	8.50
202	1540	1732.0	25.5	254	302	130	39.2	2130	1718.4	8.90	8.90	719	705	31.2	41.0	221	917	27.6	4.95	1.30	.95	9.10	8.50
203	1542	1733.0	29.7	288	310	130	41.3	2130	1719.2	8.90	8.90	730	715	31.2	40.9	219	918	27.7	4.95	1.27	.92	9.11	8.50
204	1544	1734.0	29.9	290	328	130	42.6	2130	1720.0	8.90	8.90	730	710	31.3	40.9	219	919	27.7	4.95	1.29	.93	9.11	8.50
205	1546	1735.0	26.0	281	306	130	41.8	2200	1721.0	8.90	8.90	729	734	31.4	40.9	218	920	27.7	4.96	1.32	.96	9.11	8.50
206	1548	1736.0	29.4	284	306	130	41.1	2220	1721.7	8.90	8.90	749	728	31.5	40.8	217	921	27.8	4.96	1.28	.92	9.11	8.50
207	1550	1737.0	28.3	278	293	130	41.7	2230	1722.4	8.90	8.90	746	732	31.6	40.8	217	922	27.8	4.96	1.29	.94	9.11	8.50
208	1552	1738.0	26.4	273	303	130	41.5	2220	1723.5	8.90	8.90	746	732	31.8	40.8	217	923	27.8	4.97	1.31	.96	9.11	8.50
209	1554	1739.0	28.0	270	293	130	40.0	2520	1724.0	8.90	8.90	760	774	31.9	40.8	216	924	27.9	4.97	1.28	.93	9.11	8.50
210	1557	1740.0	23.6	284	317	130	40.1	2520	1724.0	8.90	8.90	798	800	32.0	40.8	215	925	27.9	4.97	1.33	.98	9.12	8.50
211	1559	1741.0	33.2	304	324	130	39.1	2540	1724.3	8.90	8.90	797	802	32.2	40.7	214	926	27.9	4.98	1.22	.87	9.13	8.50
212	1609	1742.0	30.8	298	331	130	43.9	2790	1727.3	8.90	8.90	827	824	32.4	40.7	211	927	28.0	4.98	1.29	.93	9.11	8.50
213	1611	1743.0	28.5	296	322	130	46.6	2750	1728.5	8.90	8.90	836	815	32.5	40.6	212	928	28.0	4.99	1.34	.97	9.11	8.50
214	1614	1744.0	18.7	254	285	130	39.5	2750	1730.3	8.90	8.90	835	826	32.6	40.6	211	929	28.1	4.99	1.39	1.04	9.11	8.50
215	1616	1745.0	33.0	272	305	130	37.7	2690	1731.2	8.90	8.90	836	839	32.7	40.6	210	930	28.1	4.99	1.21	.87	9.11	8.50
216	1618	1746.0	29.3	274	313	130	39.9	2700	1732.1	8.90	8.90	826	805	32.8	40.6	210	931	28.1	5.00	1.26	.91	9.11	8.50
217	1620	1747.0	27.9	322	351	130	39.0	2700	1733.1	8.90	8.90	826	804	32.9	40.5	210	932	28.2	5.00	1.27	.92	9.11	8.50
218	1622	1748.0	29.6	344	365	130	41.0	2690	1733.6	8.90	8.90	824	805	33.0	40.5	210	933	28.2	5.00	1.27	.92	9.11	8.50
219	1624	1749.0	34.0	361	384	130	42.9	2700	1733.6	8.90	8.90	824	802	33.1	40.5	210	934	28.2	5.01	1.25	.89	9.12	8.50
220	1626	1750.0	27.2	348	369	130	41.4	2690	1733.6	8.90	8.90	821	800	33.3	40.5	210	935	28.3	5.01	1.30	.95	9.12	8.50
221	1639	1751.0	26.6	326	371	130	41.4	2710	1738.0	8.90	8.90	821	807	33.7	40.5	204	936	28.3	5.03	1.31	.95	9.10	8.50
222	1641	1752.0	31.3	247	277	130	32.1	2710	1739.0	8.90	8.90	820	812	33.8	40.5	202	937	28.4	5.03	1.17	.84	9.10	8.50
223	1643	1753.0	22.5	217	235	130	41.7	2710	1740.3	8.90	8.90	822	803	33.8	40.4	203	938	28.4	5.03	1.36	1.00	9.10	8.50
224	1646	1754.0	24.0	226	248	130	41.0	2710	1741.4	8.90	8.90	823	802	33.9	40.4	202	939	28.4	5.04	1.34	.98	9.10	8.50
225	1648	1755.0	25.7	225	249	130	41.9	2720	1742.7	8.90	8.90	822	826	34.0	40.4	202	940	28.5	5.04	1.33	.97	9.10	8.50
226	1651	1756.0	19.0	207	231	130	40.4	2720	1743.5	8.90	8.90	820	824	34.2	40.4	201	941	28.5	5.04	1.40	1.04	9.10	8.50
227	1654	1757.0	23.8	219	234	130	42.5	2710	1743.5	8.90	8.90	820	807	34.3	40.4	202	942	28.6	5.05	1.35	.99	9.11	8.50
228	1656	1758.0	26.3	221	244	130	42.4	2710	1744.3	8.90	8.90	820	806	34.5	40.4	201	943	28.6	5.05	1.32	.96	9.11	8.50
229	1659	1759.0	22.1	210	229	130	37.2	2720	1745.4	8.90	8.90	821	825	34.6	40.4	200	944	28.7	5.05	1.32	.97	9.11	8.50

ESSO AUSTRALIA: Sawbelly No.1

Data Printed at time 04:45 Date Mar 15 '90
Data Recorded at time 17:01 Date Mar 10 '90

F#	TIME	DEPTH	ROP	TORQUE		RPM		MOB	PUMP:RTRNS		MD lb/gal		FLOW/MIN		TEMP (C)		PVT:	-THIS BIT-	EST:	DXC	NXB	ECD NXMD:	
	m		m/hr	AVG	MAX	AVG	AVG		PRES:	DEPTH	IN	OUT	IN	OUT	IN	OUT		m	hr	TW:			
1230	1701	1760.0	24.7	211	229	130	37.4	2720	1746.2	8.90	8.90	821	801	34.7	40.4	199	945	28.7	5.06	1.29	.94	9.11	8.50
1231	1716	1761.0	19.2	210	268	130	39.9	2770	1750.3	8.90	8.90	826	817	34.8	40.4	196	946	28.8	5.06	1.39	1.04	9.09	8.50
1232	1718	1762.0	29.9	247	267	130	40.4	2770	1751.2	8.90	8.90	825	803	34.8	40.4	197	947	28.8	5.07	1.27	.91	9.09	8.50
1233	1720	1763.0	28.9	244	264	130	41.7	2770	1752.2	8.90	8.90	825	805	34.8	40.3	196	948	28.8	5.07	1.29	.93	9.09	8.50
1234	1723	1764.0	26.7	242	266	130	42.7	2770	1752.8	8.90	8.90	823	814	34.9	40.3	196	949	28.9	5.07	1.32	.96	9.09	8.50
1235	1725	1765.0	29.6	238	253	130	42.0	2770	1752.9	8.90	8.90	824	804	35.0	40.3	196	950	28.9	5.08	1.28	.93	9.10	8.50
1236	1727	1766.0	25.2	235	253	130	41.7	2780	1752.9	8.90	8.90	824	803	35.0	40.3	196	951	28.9	5.08	1.33	.97	9.10	8.50
1237	1730	1767.0	23.2	229	255	130	42.2	2780	1753.5	8.90	8.90	825	810	35.2	40.3	195	952	29.0	5.08	1.36	1.00	9.11	8.50
1238	1732	1768.0	27.8	239	296	130	43.8	2770	1754.4	8.90	8.90	825	812	35.3	40.3	194	953	29.0	5.09	1.32	.96	9.11	8.50
1239	1733	1769.0	34.9	243	265	130	43.8	2770	1755.1	8.90	8.90	825	805	35.3	40.3	195	954	29.1	5.09	1.25	.89	9.11	8.50
1240	1745	1770.0	30.6	240	280	130	43.3	2760	1757.6	8.90	8.90	806	790	35.5	40.4	189	955	29.1	5.09	1.29	.92	9.10	8.50
1241	1747	1771.0	28.7	248	287	130	43.2	2820	1758.2	8.90	8.90	820	807	35.6	40.4	189	956	29.1	5.10	1.30	.94	9.10	8.50
1242	1749	1772.0	29.7	247	264	130	41.8	2820	1759.0	8.90	8.90	825	810	35.6	40.4	193	957	29.2	5.10	1.28	.92	9.10	8.50
1243	1751	1773.0	31.2	251	267	130	42.5	2820	1759.9	8.90	8.90	827	817	35.6	40.4	192	958	29.2	5.10	1.27	.91	9.10	8.50
1244	1753	1774.0	28.6	229	262	130	40.3	2810	1760.7	8.90	8.90	824	803	35.6	40.3	191	959	29.2	5.10	1.28	.92	9.10	8.50
1245	1755	1775.0	25.3	225	269	130	38.9	2810	1761.6	8.90	8.90	824	804	35.7	40.3	192	960	29.3	5.11	1.30	.95	9.10	8.50
1246	1758	1776.0	21.6	235	253	130	41.1	2800	1762.4	8.90	8.90	824	803	35.9	40.4	191	961	29.3	5.11	1.37	1.01	9.11	8.50
1247	1800	1777.0	23.2	235	263	130	40.5	2800	1762.4	8.90	8.90	825	811	35.8	40.4	198	962	29.4	5.12	1.34	.98	9.11	8.50
1248	1803	1778.0	25.7	230	249	130	39.1	2820	1762.6	8.90	8.90	823	802	35.4	40.4	200	963	29.4	5.12	1.29	.94	9.12	8.50
1249	1805	1779.0	21.7	219	260	130	37.5	2810	1763.7	8.90	8.90	826	813	35.2	40.4	205	964	29.4	5.12	1.33	.98	9.12	8.50
1255	1816	1780.0	20.8	214	295	130	41.4	2800	1767.0	8.90	8.90	821	800	34.4	40.4	220	965	29.5	5.13	1.38	1.02	9.10	8.50
1256	1819	1781.0	28.3	226	240	130	39.4	2790	1767.9	8.90	8.90	821	807	34.4	40.4	223	966	29.5	5.13	1.27	.92	9.10	8.50
1257	1820	1782.0	33.2	231	249	130	38.7	2800	1768.6	8.90	8.90	823	803	34.4	40.4	226	967	29.6	5.14	1.22	.87	9.10	8.50
1258	1823	1783.0	19.2	222	241	130	38.0	2800	1770.0	8.90	8.90	822	801	34.5	40.4	230	968	29.6	5.14	1.37	1.02	9.10	8.50
1259	1826	1784.0	26.4	235	279	130	39.0	2800	1771.3	8.90	8.90	822	802	34.5	40.4	233	969	29.7	5.14	1.29	.93	9.10	8.50
1260	1828	1785.0	30.2	226	245	130	37.5	2810	1771.8	8.90	8.90	822	801	34.6	40.4	237	970	29.7	5.15	1.23	.89	9.10	8.50
1261	1830	1786.0	24.6	233	279	130	38.4	2800	1771.8	8.90	8.90	823	825	34.6	40.5	241	971	29.7	5.15	1.30	.95	9.11	8.50
1262	1833	1787.0	20.6	229	281	130	36.9	2800	1772.6	8.90	8.90	821	807	34.7	40.5	244	972	29.8	5.15	1.33	.99	9.11	8.50
1263	1836	1788.0	20.9	235	280	130	38.5	2810	1774.0	8.90	8.90	823	829	34.8	40.5	248	973	29.8	5.16	1.35	1.00	9.11	8.50
1264	1849	1789.0	22.3	245	339	130	36.3	1470	1777.2	8.90	8.90	522	523	34.3	40.6	268	974	29.9	5.16	1.31	.96	9.08	8.50
1265	1851	1790.0	31.8	260	319	130	43.4	1470	1777.6	8.90	8.90	575	580	34.3	40.6	269	975	29.9	5.16	1.28	.91	9.09	8.50
1266	1854	1791.0	20.2	232	266	130	39.6	1470	1778.5	8.90	8.90	595	592	34.3	40.6	274	976	30.0	5.17	1.37	1.02	9.09	8.50
1267	1856	1792.0	20.6	233	255	130	39.8	1470	1779.3	8.90	8.90	575	555	34.2	40.6	278	977	30.0	5.17	1.37	1.01	9.09	8.50
1268	1900	1793.0	14.8	207	234	130	33.8	1470	1780.3	8.90	8.90	577	582	34.1	40.6	283	978	30.1	5.18	1.39	1.05	9.09	8.50
1269	1903	1794.0	25.0	234	279	130	36.8	1470	1781.0	8.90	8.90	576	567	34.2	40.6	282	979	30.1	5.18	1.28	.93	9.09	8.50
1270	1906	1795.0	21.5	237	261	130	38.2	1470	1781.3	8.90	8.90	576	562	34.4	40.6	283	980	30.2	5.18	1.34	.99	9.09	8.50
1271	1908	1796.0	29.6	259	298	130	41.7	1480	1781.3	8.90	8.90	576	567	34.5	40.6	283	981	30.2	5.19	1.28	.92	9.10	8.50
1272	1910	1797.0	23.4	271	305	130	45.7	1480	1781.3	8.90	8.90	575	561	34.6	40.6	283	982	30.2	5.19	1.39	1.02	9.11	8.50
1273	1912	1798.0	29.4	275	298	130	44.9	1480	1781.7	8.90	8.90	576	557	34.7	40.6	283	983	30.3	5.19	1.31	.94	9.11	8.50
1274	1923	1799.0	31.9	267	303	130	44.7	2770	1784.4	8.90	8.90	808	796	34.8	40.7	278	984	30.3	5.20	1.29	.92	9.11	8.50
1275	1924	1800.0	34.3	277	302	130	44.7	2760	1784.9	8.90	8.90	808	793	34.9	40.7	278	985	30.4	5.20	1.26	.89	9.11	8.50
1276	1926	1801.0	40.1	269	292	130	44.5	2770	1785.5	8.90	8.90	810	801	34.9	40.7	277	986	30.4	5.21	1.22	.85	9.12	8.50
1277	1928	1802.0	27.7	276	299	130	46.3	2780	1786.6	8.90	8.90	808	794	34.9	40.7	277	987	30.4	5.21	1.34	.97	9.12	8.50
1278	1930	1803.0	34.2	271	290	130	44.4	2780	1787.3	8.90	8.90	809	788	35.0	40.7	276	988	30.4	5.21	1.26	.89	9.12	8.50
1279	1931	1804.0	41.1	269	289	130	44.7	2780	1787.8	8.90	8.90	808	799	35.1	40.7	275	989	30.5	5.21	1.21	.84	9.12	8.50
1280	1933	1805.0	30.1	258	276	130	45.2	2790	1788.5	8.90	8.90	810	796	35.1	40.7	275	990	30.5	5.22	1.31	.94	9.12	8.50
1281	1935	1806.0	34.5	257	277	130	44.4	2790	1789.1	8.90	8.90	808	813	35.2	40.7	274	991	30.5	5.22	1.26	.89	9.12	8.50
1282	1937	1807.0	32.7	257	282	130	43.4	2790	1789.8	8.90	8.90	810	813	35.3	40.7	274	992	30.6	5.22	1.26	.90	9.13	8.50

ESSD AUSTRALIA: Sawbelly No.1

Data Printed at time 04:47 Date Mar 15 '90
Data Recorded at time 19:38 Date Mar 10 '90

FB	TIME	DEPTH	ROP		TORQUE		RPM	WOB	PUMP:RTRNS		MD lb/gal		FLOW/MIN		TEMP (C)	PVT:	-THIS BIT- EST: DXC			NXB	ECD NXMD:		
			m/hr	ft/hr	AVG	MAX			AVG	AVG	PRES:	DEPTH	IN	OUT			IN	OUT	IN		OUT	m	hr
1283	1938	1808.0	40.4	232	281	130	41.7	2800	1790.3	8.90	8.90	811	801	35.3	40.7	277	993	30.6	5.23	1.19	.83	9.13	8.50
1284	1949	1809.0	28.6	276	298	130	41.5	2840	1791.6	8.90	8.90	813	792	34.8	40.7	303	994	30.6	5.23	1.29	.92	9.13	8.50
1285	1950	1810.0	39.6	268	299	130	38.5	2850	1792.3	8.90	8.90	813	793	34.7	40.7	303	995	30.7	5.23	1.16	.81	9.13	8.50
1286	1952	1811.0	36.4	282	308	130	40.1	2860	1793.0	8.90	8.90	815	801	34.7	40.7	303	996	30.7	5.23	1.20	.84	9.13	8.50
1287	1953	1812.0	42.1	284	301	130	40.8	2850	1793.7	8.90	8.90	812	797	34.7	40.7	303	997	30.7	5.24	1.17	.81	9.13	8.50
1288	1954	1813.0	51.5	283	311	130	41.3	2850	1794.1	8.90	8.90	812	798	34.7	40.7	303	998	30.7	5.24	1.11	.75	9.14	8.50
1289	1956	1814.0	36.9	324	369	130	42.8	2860	1794.7	8.90	8.90	812	799	34.8	40.7	301	999	30.8	5.24	1.22	.86	9.14	8.50
1290	1957	1815.0	47.4	356	376	130	41.0	2850	1795.3	8.90	8.90	813	792	34.9	40.7	301	1000	30.8	5.24	1.13	.77	9.14	8.50
1291	1959	1816.0	38.0	353	368	130	41.4	2860	1796.2	8.90	8.90	812	798	35.0	40.7	301	1001	30.8	5.24	1.20	.84	9.14	8.50
1292	2000	1817.0	39.9	351	371	130	40.6	2850	1797.0	8.90	8.90	812	818	35.1	40.7	301	1002	30.8	5.25	1.18	.82	9.14	8.50
1293	2016	1818.0	33.6	287	351	130	41.1	2870	1801.4	8.90	8.90	815	802	35.5	40.7	293	1003	30.9	5.26	1.24	.87	9.12	8.50
1294	2017	1819.0	39.9	285	314	130	39.1	2880	1802.3	8.90	8.90	815	794	35.5	40.7	293	1004	30.9	5.26	1.17	.81	9.12	8.50
1295	2019	1820.0	39.2	294	316	130	42.7	2880	1803.2	8.90	8.90	815	819	35.5	40.6	294	1005	30.9	5.26	1.21	.84	9.12	8.50
1296	2021	1821.0	33.7	275	315	130	40.8	2880	1804.1	8.90	8.90	811	797	35.6	40.6	293	1006	31.0	5.26	1.23	.87	9.12	8.50
1297	2022	1822.0	39.7	287	307	130	43.9	2880	1804.9	8.90	8.90	814	804	35.6	40.6	293	1007	31.0	5.27	1.21	.84	9.12	8.50
1298	2024	1823.0	36.0	282	296	130	42.8	2880	1806.0	8.90	8.90	814	819	35.7	40.6	293	1008	31.0	5.27	1.23	.86	9.12	8.50
1299	2025	1824.0	32.3	276	292	130	42.5	2880	1807.0	8.90	8.90	813	793	35.7	40.6	293	1009	31.0	5.27	1.26	.89	9.12	8.50
1300	2027	1825.0	38.1	286	312	130	43.0	2880	1807.8	8.90	8.90	813	804	35.8	40.6	292	1010	31.1	5.27	1.22	.85	9.13	8.50
1301	2029	1826.0	34.2	264	285	130	40.0	2890	1808.8	8.90	8.90	813	799	35.8	40.6	293	1011	31.1	5.28	1.22	.86	9.13	8.50
1302	2037	1827.0	41.7	257	304	130	38.3	2910	1809.9	8.90	8.90	802	797	35.9	40.5	289	1012	31.1	5.28	1.15	.79	9.12	8.50
1303	2039	1828.0	29.0	283	301	130	42.1	2830	1810.4	8.90	8.90	805	785	36.0	40.5	289	1013	31.2	5.29	1.29	.92	9.13	8.50
1304	2042	1829.0	26.3	274	299	130	41.6	2590	1811.7	8.90	8.90	804	796	36.0	40.5	289	1014	31.2	5.29	1.31	.95	9.13	8.50
1305	2043	1830.0	44.2	270	286	130	40.8	2790	1812.7	8.90	8.90	803	794	35.9	40.5	288	1015	31.2	5.29	1.15	.79	9.13	8.50
1306	2044	1831.0	43.2	281	309	130	41.8	2810	1813.5	8.90	8.90	803	781	35.9	40.5	278	1016	31.2	5.29	1.17	.80	9.13	8.50
1307	2046	1832.0	36.6	275	295	130	40.9	2710	1814.8	8.90	8.90	802	781	35.9	40.5	264	1017	31.3	5.30	1.21	.85	9.12	8.50
1308	2048	1833.0	38.6	275	292	130	40.8	2830	1815.7	8.90	8.90	803	783	35.9	40.5	251	1018	31.3	5.30	1.19	.83	9.13	8.50
1309	2049	1834.0	38.0	271	287	130	41.1	2850	1816.9	8.90	8.90	803	794	35.9	40.4	235	1019	31.3	5.30	1.20	.84	9.12	8.50
1310	2051	1835.0	29.1	275	295	130	41.8	2850	1818.2	8.90	8.90	803	806	36.0	40.4	231	1020	31.4	5.30	1.28	.92	9.12	8.50
1311	2053	1836.0	30.4	275	297	130	42.4	2850	1819.1	8.90	8.90	803	790	36.0	40.4	231	1021	31.4	5.31	1.28	.91	9.12	8.50
1312	2104	1837.0	36.8	271	319	130	40.6	2760	1819.2	8.90	8.90	787	767	35.6	40.4	240	1022	31.4	5.31	1.20	.84	9.13	8.50
1313	2105	1838.0	38.2	284	316	130	38.6	2750	1819.2	8.90	8.90	789	793	35.6	40.4	241	1023	31.5	5.31	1.17	.82	9.13	8.50
1314	2106	1839.0	43.9	304	319	130	41.9	2750	1819.3	8.90	8.90	789	794	35.6	40.4	242	1024	31.5	5.31	1.16	.80	9.14	8.50
1315	2108	1840.0	46.1	310	323	130	42.7	2750	1819.8	8.90	8.90	788	792	35.5	40.4	242	1025	31.5	5.31	1.15	.79	9.14	8.50
1316	2109	1841.0	46.9	304	318	130	42.4	2750	1820.6	8.90	8.90	786	772	35.5	40.4	243	1026	31.5	5.32	1.15	.78	9.14	8.50
1317	2110	1842.0	50.1	298	321	130	41.3	2750	1821.3	8.90	8.90	788	768	35.4	40.4	244	1027	31.5	5.32	1.12	.76	9.14	8.50
1318	2112	1843.0	39.3	301	321	130	44.4	2750	1822.2	8.90	8.90	786	773	35.4	40.4	245	1028	31.6	5.32	1.22	.84	9.15	8.50
1319	2113	1844.0	41.3	286	310	130	41.1	2760	1823.0	8.90	8.90	787	774	35.5	40.4	246	1029	31.6	5.32	1.17	.81	9.15	8.50
1320	2115	1845.0	36.3	282	299	130	40.4	2760	1824.1	8.90	8.90	789	775	35.5	40.4	246	1030	31.6	5.32	1.20	.84	9.15	8.50
1321	2124	1846.0	37.6	281	332	130	43.8	2770	1827.6	8.90	8.90	780	786	35.3	40.4	251	1031	31.7	5.33	1.23	.86	9.13	8.50
1322	2126	1847.0	50.9	299	328	130	46.2	2750	1828.2	8.90	8.90	787	774	35.3	40.4	253	1032	31.7	5.33	1.16	.78	9.13	8.50
1323	2128	1848.0	25.2	275	308	130	40.9	2750	1828.8	8.90	8.90	786	772	35.4	40.3	254	1033	31.7	5.34	1.31	.95	9.13	8.50
1324	2130	1849.0	34.8	277	297	130	39.7	2750	1828.9	8.90	8.90	787	767	35.3	40.3	255	1034	31.7	5.34	1.21	.85	9.14	8.50
1325	2131	1850.0	39.6	296	321	130	42.9	2740	1829.2	8.90	8.90	784	770	35.3	40.3	256	1035	31.8	5.34	1.20	.83	9.14	8.50
1326	2133	1851.0	36.2	287	305	130	42.1	2750	1829.9	8.90	8.90	785	777	35.2	40.3	257	1036	31.8	5.34	1.22	.85	9.15	8.50
1327	2134	1852.0	39.3	289	306	130	41.9	2760	1830.6	8.90	8.90	785	790	35.2	40.3	258	1037	31.8	5.35	1.19	.83	9.15	8.50
1328	2136	1853.0	44.3	287	308	130	40.5	2760	1831.3	8.90	8.90	783	769	35.3	40.3	258	1038	31.8	5.35	1.15	.79	9.15	8.50
1329	2138	1854.0	27.6	283	304	130	41.4	2760	1832.8	8.90	8.90	784	762	35.3	40.3	259	1039	31.9	5.35	1.29	.93	9.15	8.50
1330	2139	1855.0	38.5	289	309	130	42.2	2760	1833.8	8.90	8.90	785	788	35.3	40.2	260	1040	31.9	5.35	1.20	.84	9.15	8.50

ESSO AUSTRALIA: Sawbilly No.1

Data Printed at time 04:49 Date Mar 15 '90
 Data Recorded at time 21:49 Date Mar 10 '90

F#	TIME	DEPTH	ROP	TORQUE		RPM	WOB	PUMP:RTRNS	MD lb/gal		FLOW/MIN		TEMP (C)	PVT:	-THIS BIT-	EST:	DXC	NXB	ECD	NXMD:	
			m/hr	AVG	MAX				AVG	IN	OUT	IN			OUT						m
1331	2149	1856.0	36.0	295	336	130	46.2	2770:1837.2	8.90	8.90	785	777	35.3	40.2	262:1041	32.0	5.36	1.26	.88	9.13	8.50:D↑
1332	2151	1857.0	36.8	295	318	130	44.6	2820:1838.0	8.90	8.90	792	798	35.3	40.1	263:1042	32.0	5.37	1.24	.87	9.13	8.50:D
1333	2152	1858.0	41.9	288	309	130	42.4	2820:1838.3	8.90	8.90	793	773	35.3	40.1	264:1043	32.0	5.37	1.18	.81	9.14	8.50:D
1334	2155	1859.0	24.8	290	327	130	42.8	2820:1838.3	8.90	8.90	792	783	35.2	40.1	265:1044	32.0	5.37	1.34	.97	9.14	8.50:D
1335	2157	1860.0	24.6	292	313	130	42.8	2820:1838.7	8.90	8.90	793	774	35.2	40.1	265:1045	32.1	5.37	1.34	.97	9.15	8.50:D
1336	2159	1861.0	28.8	304	328	130	42.3	2820:1840.0	8.90	8.90	793	778	35.2	40.0	266:1046	32.1	5.38	1.29	.92	9.15	8.50:D
1337	2200	1862.0	44.0	320	345	130	42.0	2820:1841.0	8.90	8.90	791	769	35.3	40.0	266:1047	32.1	5.38	1.16	.80	9.15	8.50:D
1338	2203	1863.0	24.2	351	385	130	44.1	2820:1842.9	8.90	8.90	792	770	35.4	40.0	266:1048	32.2	5.38	1.36	.99	9.14	8.50:D
1339	2205	1864.0	29.5	364	393	130	42.3	2820:1844.4	8.90	8.90	792	772	35.4	40.0	266:1049	32.2	5.39	1.28	.92	9.14	8.50:D
1340	2209	1865.0	35.3	352	378	130	42.3	2820:1846.8	8.90	8.90	795	780	35.5	39.9	267:1050	32.2	5.39	1.24	.87	9.03	8.50:D
1341	2215	1866.0	32.0	406	419	130	42.0	2810:1847.8	8.90	8.90	784	764	35.4	39.9	267:1051	32.3	5.39	1.25	.68	9.13	8.50:D↑
1342	2217	1867.0	29.2	370	393	130	43.6	2800:1847.8	8.90	8.90	787	766	35.5	39.9	269:1052	32.3	5.39	1.30	.93	9.13	8.50:D
1343	2218	1868.0	41.5	355	382	130	41.5	2800:1848.1	8.90	8.90	787	778	35.5	39.9	269:1053	32.3	5.40	1.18	.81	9.14	8.50:D
1344	2220	1869.0	31.2	353	380	130	41.3	2790:1849.0	8.90	8.90	788	793	35.4	39.9	268:1054	32.4	5.40	1.26	.89	9.14	8.50:D
1345	2223	1870.0	25.6	334	374	130	40.9	2780:1850.2	8.90	8.90	786	791	35.4	39.9	269:1055	32.4	5.40	1.31	.95	9.14	8.50:D
1346	2224	1871.0	38.0	334	350	130	41.8	2800:1851.0	8.90	8.90	787	774	35.4	39.9	269:1056	32.4	5.41	1.20	.84	9.14	8.50:D
1347	2226	1872.0	30.6	330	348	130	41.9	2810:1852.4	8.90	8.90	791	770	35.4	39.9	269:1057	32.4	5.41	1.27	.90	9.14	8.50:D
1348	2228	1873.0	36.9	335	370	130	39.5	2820:1853.4	8.90	8.90	788	792	35.5	39.8	269:1058	32.5	5.41	1.19	.83	9.14	8.50:D
1349	2230	1874.0	27.6	344	373	130	41.5	2810:1854.8	8.90	8.90	789	769	35.5	39.8	270:1059	32.5	5.41	1.29	.93	9.13	8.50:D
1350	2231	1875.0	37.9	340	367	130	42.2	2810:1855.6	8.90	8.90	789	770	35.5	39.8	270:1060	32.5	5.42	1.21	.84	9.14	8.50:D
1351	2245	1876.0	35.4	348	387	130	40.6	2800:1857.4	8.90	8.90	782	761	35.6	39.8	270:1061	32.6	5.42	1.22	.85	9.13	8.50:D↑
1352	2246	1877.0	32.3	354	380	130	41.9	2760:1858.5	8.90	8.90	765	739	35.7	39.8	271:1062	32.6	5.42	1.25	.89	9.13	8.50:D
1353	2248	1878.0	36.2	329	390	130	42.1	2710:1859.4	8.90	8.90	769	774	35.7	39.8	270:1063	32.6	5.42	1.22	.85	9.13	8.50:D
1354	2248	1879.0	35.0	312	322	130	43.7	2710:1859.5	8.90	8.90	771	751	35.6	39.8	270:1064	32.6	5.42	1.19	.81	9.13	8.50:D
1355	2250	1880.0	33.3	293	323	130	41.9	2700:1860.4	8.90	8.90	766	768	35.6	39.8	271:1065	32.7	5.43	1.24	.88	9.14	8.50:D
1356	2252	1881.0	36.5	287	313	130	40.4	2700:1861.1	8.90	8.90	766	752	35.6	39.8	270:1066	32.7	5.43	1.20	.84	9.14	8.50:D
1357	2253	1882.0	34.5	290	319	130	39.3	2700:1862.0	8.90	8.90	766	771	35.6	39.8	270:1067	32.7	5.43	1.21	.85	9.14	8.50:D
1358	2255	1883.0	35.7	291	307	130	39.9	2710:1862.9	8.90	8.90	768	748	35.7	39.8	270:1068	32.8	5.43	1.20	.84	9.14	8.50:D
1359	2256	1884.0	43.7	288	308	130	38.6	2710:1863.6	8.90	8.90	767	753	35.7	39.8	270:1069	32.8	5.44	1.14	.78	9.14	8.50:D
1360	2258	1885.0	30.5	298	323	130	44.1	2710:1864.6	8.90	8.90	765	745	35.8	39.7	269:1070	32.8	5.44	1.29	.92	9.14	8.50:D
1361	2306	1886.0	41.1	294	330	130	43.3	2750:1867.1	8.90	8.90	761	752	35.8	39.8	268:1071	32.8	5.44	1.20	.82	9.13	8.50:D↑
1362	2308	1887.0	42.1	309	328	130	42.3	2740:1867.3	8.90	8.90	769	756	35.8	39.8	269:1072	32.9	5.45	1.18	.81	9.13	8.50:D
1363	2309	1888.0	41.2	293	313	130	40.2	2740:1867.3	8.90	8.90	771	773	35.8	39.8	269:1073	32.9	5.45	1.17	.80	9.14	8.50:D
1364	2311	1889.0	32.2	287	318	130	39.8	2750:1868.0	8.90	8.90	767	754	35.8	39.8	268:1074	32.9	5.45	1.23	.87	9.14	8.50:D
1365	2313	1890.0	27.5	283	355	130	44.6	2740:1869.2	8.90	8.90	771	775	35.7	39.8	268:1075	33.0	5.45	1.32	.95	9.14	8.50:D
1366	2315	1891.0	29.6	268	289	130	41.0	2740:1870.5	8.90	8.90	769	772	35.7	39.8	268:1076	33.0	5.46	1.27	.90	9.14	8.50:D
1367	2317	1892.0	33.2	273	293	130	41.5	2750:1871.5	8.90	8.90	768	747	35.7	39.8	266:1077	33.0	5.46	1.24	.87	9.14	8.50:D
1368	2319	1893.0	26.0	274	299	130	42.7	2750:1872.6	8.90	8.90	769	749	35.8	39.8	267:1078	33.1	5.46	1.32	.95	9.14	8.50:D
1369	2321	1894.0	32.0	273	291	130	42.0	2760:1873.7	8.90	8.90	768	754	35.8	39.8	266:1079	33.1	5.47	1.26	.89	9.14	8.50:D
1370	2323	1895.0	38.0	269	285	130	42.1	2750:1874.6	8.90	8.90	768	754	35.8	39.8	267:1080	33.1	5.47	1.21	.84	9.14	8.50:D
1371	2334	1896.0	22.4	251	277	130	44.4	2700:1878.3	8.90	8.90	757	737	35.9	40.0	266:1081	33.2	5.47	1.39	.92	9.12	8.50:D
1372	2336	1897.0	28.2	262	283	130	39.8	2700:1878.3	8.90	8.90	759	737	35.9	40.0	266:1082	33.2	5.48	1.27	.83	9.13	8.50:D
1373	2339	1898.0	27.1	267	292	130	41.2	2700:1878.3	8.90	8.90	760	746	35.8	40.0	266:1083	33.3	5.48	1.30	.85	9.13	8.50:D
1374	2341	1899.0	26.9	268	286	130	41.7	2700:1878.7	8.90	8.90	759	750	35.7	40.0	266:1084	33.3	5.48	1.30	.85	9.14	8.50:D
1375	2343	1900.0	26.2	261	277	130	40.9	2700:1880.1	8.90	8.90	758	748	35.7	40.0	266:1085	33.3	5.48	1.30	.85	9.14	8.50:D
1376	2346	1901.0	22.1	261	288	130	41.9	2700:1881.6	8.90	8.90	758	764	35.8	40.0	265:1086	33.4	5.49	1.36	.91	9.13	8.50:D
1377	2348	1902.0	30.0	263	281	130	41.5	2700:1882.7	8.90	8.90	757	743	35.8	40.0	265:1087	33.4	5.49	1.27	.82	9.13	8.50:D
1378	2350	1903.0	23.4	264	284	130	42.0	2700:1884.2	8.90	8.90	758	762	35.8	40.0	265:1088	33.4	5.49	1.35	.89	9.13	8.50:D

ESSO AUSTRALIA: Sawbilly No.1

Data Printed at time 04:50 Date Mar 15 '90
 Data Recorded at time 23:52 Date Mar 10 '90

F#	TIME	DEPTH m	ROP m/hr	TORQUE		RPM	WOB AVG	PUMP:RTRNS PRES:DEPTH	MD lb/gal		FLOW/MIN		TEMP (C)		PVT:	-THIS BIT- EST:		DXC	NXB	ECD	NXMD:
				AVG	MAX				IN	OUT	IN	OUT	IN	OUT		m	hr				
1379	2352	1904.0	28.8	256	281	130	41.0	2710:1885.5	8.90	8.90	758	737	35.9	40.1	264:1089	33.5	5.50	1.28	.83	9.13	8.50:D
1380	2355	1905.0	23.7	260	282	130	42.2	2700:1887.0	8.90	8.90	758	763	36.0	40.1	264:1090	33.5	5.50	1.35	.89	9.12	8.50:D
Date Mar 11 '90																					
1381	0004	1906.0	27.3	258	286	130	41.6	2730:1888.8	8.90	8.90	759	751	36.0	40.2	265:1091	33.6	5.50	1.30	.85	9.12	8.50:D
1382	0006	1907.0	32.0	271	296	130	42.3	2730:1889.9	8.90	8.90	762	748	36.0	40.2	265:1092	33.6	5.50	1.26	.81	9.12	8.50:D
1383	0008	1908.0	29.2	264	278	130	41.9	2730:1891.1	8.90	8.90	759	764	36.0	40.2	265:1093	33.6	5.51	1.28	.83	9.12	8.50:D
1384	0010	1909.0	29.4	263	283	130	41.7	2730:1892.1	8.93	8.90	758	743	35.9	40.3	263:1094	33.7	5.51	1.28	.83	9.12	8.50:D
1385	0012	1910.0	28.2	263	284	130	41.9	2740:1893.1	9.00	8.90	759	763	35.9	40.3	262:1095	33.7	5.51	1.29	.84	9.12	8.50:D
1386	0014	1911.0	29.6	261	278	130	41.6	2740:1894.1	9.00	8.90	760	766	36.0	40.3	262:1096	33.7	5.51	1.28	.83	9.13	8.50:D
1387	0017	1912.0	27.8	262	279	130	41.6	2740:1895.1	9.00	8.90	761	739	36.0	40.3	262:1097	33.8	5.52	1.29	.84	9.13	8.50:D
1388	0019	1913.0	25.6	261	280	130	41.4	2730:1896.3	9.00	8.90	758	742	36.0	40.3	262:1098	33.8	5.52	1.32	.95	9.13	8.50:D
1389	0021	1914.0	23.8	250	274	130	41.4	2740:1897.5	9.00	9.00	760	738	36.1	40.4	261:1099	33.9	5.52	1.34	.97	9.14	8.50:D
+ Drill to 1905m, circulate 30min, drop survey and PODH.																					
+ NB#4 12.25" SEC SB4F, 16/16/14 jets, Starting depth 1915m.																					
+ Washed and reamed to bottom from 1824m.																					
1403	1830	1916.0	13.6	277	321	115	40.4	2930:1915.0	8.90	8.90	718	697	26.7	38.4	416:111.0	.5	.08	1.47	1.26	9.02	8.50:D
1404	1837	1917.0	8.70	310	350	115	43.1	2910:1915.0	8.90	8.90	720	700	27.4	38.3	416:112.0	.6	.09	1.63	1.42	9.03	8.50:D
1405	1844	1918.0	8.52	269	328	115	42.5	2900:1915.0	9.70	9.80	721	701	28.1	38.3	408:113.0	.8	.11	1.63	1.42	9.03	8.50:D
1406	1851	1919.0	8.76	251	280	106	40.2	2890:1915.0	9.70	9.80	721	700	28.7	38.2	404:114.0	.9	.13	1.55	1.35	9.13	8.50:D
1407	1858	1920.0	8.06	231	284	100	38.7	2890:1915.0	9.70	9.80	720	724	29.3	38.2	393:115.0	1.0	.14	1.52	1.33	9.25	8.50:D
1408	1903	1921.1	12.2	267	318	100	40.3	2880:1915.0	9.70	9.80	724	704	29.7	38.2	389:116.0	1.1	.15	1.41	1.22	9.34	8.50:D
1409	1908	1922.0	10.6	282	318	100	40.2	2930:1915.0	9.70	9.80	733	712	29.9	38.2	389:117.0	1.1	.17	1.44	1.24	9.41	8.50:D
1410	1909	1923.0	9.90	269	278	100	40.7	2940:1915.0	9.70	9.80	732	719	30.0	38.2	388:117.2	1.2	.17	1.46	1.27	9.44	8.50:D
1411	1912	1924.0	15.1	284	314	100	43.6	2940:1915.0	9.70	9.80	731	735	30.2	38.2	388:118.0	1.2	.18	1.36	1.16	9.50	8.50:D
1412	1913	1925.0	11.7	275	282	100	40.5	2940:1915.0	9.70	9.80	731	711	30.2	38.2	386:120.0	1.2	.18	1.40	1.21	9.50	8.50:D
1413	1940	1926.0	17.3	241	301	100	41.3	2910:1917.6	9.70	9.80	721	701	30.0	38.0	411:121.0	1.3	.19	1.27	1.08	9.73	8.50:D
1414	1945	1927.0	12.7	239	265	100	40.4	2900:1918.3	9.70	9.80	724	715	29.6	38.0	413:122.0	1.4	.20	1.33	1.15	9.81	8.50:D
1415	1950	1928.0	10.5	269	295	100	41.5	2880:1919.3	9.70	9.80	724	703	29.3	37.9	424:123.0	1.5	.22	1.39	1.20	9.86	8.50:D
1416	1955	1929.0	12.3	246	268	100	41.2	2870:1920.0	9.70	9.80	723	702	29.2	37.9	432:124.0	1.6	.23	1.34	1.16	9.87	8.50:D
1417	2000	1930.0	12.4	237	265	100	38.6	2880:1921.0	9.70	9.80	724	703	29.2	37.9	449:125.0	1.7	.24	1.31	1.13	9.87	8.50:D
1418	2004	1931.0	14.0	245	260	100	39.4	2870:1922.1	9.70	9.80	721	702	29.3	37.9	459:126.0	1.7	.25	1.29	1.11	9.86	8.50:D
1419	2009	1932.0	11.0	242	268	100	40.6	2930:1923.4	9.70	9.80	732	717	29.3	37.8	475:127.0	1.8	.26	1.37	1.18	9.86	8.50:D
1420	2014	1933.0	11.7	249	260	100	42.2	2940:1924.8	9.70	9.80	733	712	29.4	37.8	486:128.0	1.9	.28	1.37	1.18	9.86	8.50:D
1421	2020	1934.0	11.3	253	265	100	41.5	2930:1925.7	9.70	9.80	734	714	29.4	37.8	495:129.0	2.0	.29	1.37	1.18	9.86	8.50:D
1422	2025	1935.0	10.7	232	272	100	41.2	2930:1925.7	9.70	9.80	735	740	29.5	37.8	498:130.0	2.1	.30	1.38	1.19	9.87	8.50:D
1423	2042	1936.0	12.5	240	268	100	41.2	2930:1927.8	9.70	9.80	733	719	29.7	37.8	482:131.0	2.2	.32	1.34	1.15	9.86	8.50:D
1424	2047	1937.0	11.3	231	247	100	40.2	2920:1929.0	9.70	9.80	732	718	29.8	37.8	470:132.0	2.3	.33	1.36	1.17	9.86	8.50:D
1425	2052	1938.0	11.8	241	278	100	40.8	2920:1930.0	9.70	9.80	733	735	29.9	37.7	460:133.0	2.4	.35	1.35	1.17	9.86	8.50:D
1426	2057	1939.0	13.4	246	279	100	41.2	2920:1931.0	9.70	9.80	732	711	30.1	37.7	454:134.0	2.5	.36	1.32	1.13	9.86	8.50:D
1427	2102	1940.0	11.2	245	272	100	41.3	2920:1932.0	9.70	9.80	734	720	30.3	37.8	441:135.0	2.6	.37	1.37	1.18	9.86	8.50:D
1428	2108	1941.0	9.97	258	278	100	41.6	2930:1933.1	9.70	9.80	733	723	30.5	37.8	434:136.0	2.6	.38	1.40	1.22	9.86	8.50:D
1429	2112	1942.0	14.9	260	294	100	41.2	2930:1933.8	9.70	9.80	733	719	30.6	37.8	435:137.0	2.7	.39	1.29	1.11	9.86	8.50:D
1430	2118	1943.0	9.47	260	279	100	42.0	2930:1935.0	9.70	9.80	733	725	30.8	37.8	437:138.0	2.8	.41	1.42	1.23	9.86	8.50:D
1431	2124	1944.0	11.4	265	286	100	42.4	2930:1935.2	9.70	9.80	735	727	30.9	37.8	444:139.0	2.9	.42	1.38	1.19	9.86	8.50:D
1432	2136	1945.0	17.7	269	315	100	43.3	2600:1936.3	9.70	9.80	711	682	31.0	37.8	458:140.0	3.0	.43	1.26	1.08	9.86	8.50:D
1433	2142	1946.0	10.8	252	283	100	42.2	2680:1937.4	9.70	9.80	698	677	31.0	37.9	459:141.0	3.1	.45	1.39	1.20	9.86	8.50:D
1434	2146	1947.0	13.4	249	268	100	41.2	1160:1938.1	9.70	9.80	470	465	31.0	37.9	457:142.0	3.1	.46	1.32	1.13	9.86	8.50:D
1435	2153	1948.0	10.8	300	366	100	39.9	1300:1939.3	9.70	9.80	473	452	31.0	37.9	460:143.0	3.2	.47	1.36	1.18	9.85	8.50:D

ESSO AUSTRALIA: Sawbelly No.1

Data Printed at time 04:52 Date Mar 15 '90
 Data Recorded at time 21:59 Date Mar 11 '90

F#	TIME	DEPTH	ROP		TORQUE		RPM	WOB	PUMP:RTRNS		MD lb/gal		FLOW/MIN		TEMP (C)		PVT	-THIS BIT-		EST: DXC	NXB	ECD NXMD:	
			m/hr	ft/hr	AVG	MAX			AVG	AVG	PRES	DEPTH	IN	OUT	IN	OUT		IN	OUT			m	hr
1436	2159	1949.0	10.8	317	342	100	40.8	2750	1940.2	9.70	9.80	707	687	31.0	38.0	455	44.0	3.3	.48	1.37	1.19	9.86	8.50
1437	2204	1950.0	10.4	316	352	100	41.2	2750	1941.1	9.70	9.80	710	715	31.0	38.0	454	45.0	3.4	.50	1.39	1.20	9.86	8.50
1438	2210	1951.0	10.3	319	362	100	41.7	2750	1942.3	9.70	9.80	711	714	31.0	38.1	452	46.0	3.5	.51	1.40	1.21	9.86	8.50
1441	2220	1952.0	9.26	299	307	100	40.9	2760	1944.0	9.70	9.80	711	698	30.1	41.2	451	47.7	3.5	.51	1.47	1.28	9.86	8.50
1442	2226	1953.0	0.00	290	322	100	40.5	2760	1944.0	9.71	9.80	712	675	31.2	38.2	444	49.1	3.6	.52	1.35	1.22	9.86	8.50
1443	2227	1954.0	9.50	290	322	100	40.5	1780	1944.0	9.71	9.80	715	705	31.2	38.2	456	49.1	3.6	.52	1.38	1.20	9.86	8.50
1444	2242	1955.0	9.68	255	272	120	39.4	1770	1944.0	9.71	9.80	556	546	31.1	38.3	439	50.0	3.7	.53	1.48	1.29	9.22	8.50
1445	2248	1956.0	11.0	250	296	120	39.1	1780	1944.0	9.70	9.80	564	550	31.0	38.3	437	51.0	3.8	.55	1.43	1.24	9.28	8.50
1446	2252	1957.0	13.1	251	272	120	41.6	1620	1944.0	9.70	9.80	538	541	31.0	38.3	432	52.0	3.8	.56	1.40	1.21	9.34	8.50
1447	2258	1958.0	9.97	252	274	120	40.6	1630	1944.0	9.70	9.80	535	539	30.9	38.3	430	53.0	3.9	.57	1.46	1.26	9.43	8.50
1448	2303	1959.0	12.3	249	266	120	40.4	1630	1944.0	9.70	9.80	536	522	30.9	38.3	428	54.0	4.0	.58	1.39	1.19	9.49	8.50
1449	2310	1960.0	8.52	246	280	120	43.3	1630	1944.0	9.70	9.80	535	515	30.9	38.3	431	55.0	4.1	.60	1.53	1.34	9.58	8.50
1450	2316	1961.0	11.1	263	285	120	45.0	1630	1944.0	9.70	9.80	535	521	30.8	38.3	433	56.0	4.2	.61	1.49	1.29	9.65	8.50
1451	2322	1962.0	9.98	286	336	120	45.4	1630	1944.0	9.70	9.80	535	514	30.7	38.3	432	47.0	4.3	.62	1.52	1.32	9.71	8.50
1452	2329	1963.0	8.21	272	314	120	43.6	1630	1950.9	9.70	9.80	536	539	30.6	38.3	434	48.0	4.4	.64	1.54	1.34	9.79	8.50
1453	2352	1964.0	7.29	253	270	120	41.3	1430	1951.7	9.70	9.80	497	483	30.2	38.2	439	49.0	4.6	.67	1.53	1.34	9.87	8.50
Date Mar 12 '90																							
1454	0001	1965.0	6.82	257	296	120	35.0	1420	1953.1	9.70	9.80	497	502	30.0	38.1	446	50.0	4.8	.69	1.47	1.29	9.87	8.50
1455	0009	1966.0	7.96	258	285	120	44.8	1420	1954.4	9.70	9.80	498	501	29.8	38.1	445	51.0	4.9	.71	1.55	1.35	9.87	8.50
1456	0021	1967.0	7.07	242	278	120	44.8	1560	1955.8	9.70	9.80	523	528	29.7	38.0	469	52.0	5.0	.73	1.58	1.39	9.87	8.50
1457	0028	1968.0	7.67	240	262	120	45.0	1560	1957.1	9.70	9.80	522	501	29.6	38.0	484	53.0	5.2	.75	1.56	1.36	9.87	8.50
1458	0036	1969.0	7.84	237	264	120	45.4	1560	1962.0	9.70	9.80	522	508	29.5	37.9	483	54.0	5.3	.77	1.56	1.36	9.84	8.50
1459	0045	1970.0	6.98	237	260	120	45.6	1550	1962.8	9.70	9.80	523	526	29.5	37.8	481	55.0	5.4	.79	1.60	1.40	9.85	8.50
1460	0058	1971.0	7.29	234	258	120	44.5	1500	1963.7	9.70	9.80	514	499	29.5	37.7	477	56.0	5.6	.81	1.57	1.38	9.85	8.50
1461	0104	1972.0	9.05	225	254	120	42.8	2680	1963.8	9.70	9.80	698	683	29.5	37.6	470	57.0	5.7	.83	1.49	1.30	9.86	8.50
1462	0110	1973.0	10.7	246	266	120	45.8	2680	1964.2	9.70	9.80	700	691	29.5	37.5	467	58.0	5.8	.84	1.48	1.28	9.86	8.50
1463	0150	1974.0	15.3	266	311	120	41.8	1470	1964.9	9.70	9.80	487	484	29.6	37.5	461	59.0	6.0	.86	1.34	1.15	9.85	8.50
1464	0157	1975.0	13.1	320	341	120	44.2	1580	1965.4	9.70	9.80	526	506	29.2	36.8	450	60.0	6.1	.88	1.41	1.21	9.86	8.50
1465	0204	1976.0	8.77	310	372	120	48.4	1590	1966.0	9.70	9.80	529	515	28.9	36.6	443	61.0	6.2	.90	1.56	1.36	9.86	8.50
1466	0215	1977.0	10.3	306	356	115	49.5	1220	1966.6	9.70	9.80	491	481	28.8	36.5	436	62.0	6.3	.91	1.52	1.31	9.86	8.50
1467	0222	1978.0	9.60	323	379	100	49.0	1740	1967.1	9.70	9.80	579	573	28.9	36.4	433	63.0	6.4	.93	1.49	1.29	9.87	8.50
1468	0236	1979.0	7.81	268	324	100	44.9	1740	1968.3	9.70	9.80	555	560	29.2	36.2	431	64.0	6.5	.94	1.50	1.31	9.87	8.50
1469	0242	1980.0	9.50	247	275	100	45.9	1740	1971.3	9.70	9.80	559	561	29.3	36.2	431	65.0	6.6	.96	1.46	1.27	9.86	8.50
1470	0250	1981.0	7.68	260	300	100	45.7	1740	1972.0	9.70	9.80	560	563	29.3	36.1	428	66.0	6.7	.98	1.52	1.33	9.86	8.50
1471	0256	1982.0	10.7	275	290	100	45.2	1740	1972.6	9.70	9.80	559	544	29.4	36.1	429	67.0	6.8	.99	1.42	1.23	9.86	8.50
1472	0303	1983.0	8.25	274	304	100	46.0	1750	1973.1	9.70	9.80	559	564	29.5	36.1	423	68.0	7.0	1.01	1.50	1.31	9.86	8.50
1473	0320	1984.0	10.3	295	382	100	43.1	1750	1974.3	9.70	9.80	560	540	29.6	36.0	419	69.0	7.1	1.02	1.41	1.22	9.86	8.50
1474	0328	1985.0	8.14	299	326	100	44.6	1740	1975.2	9.70	9.80	558	549	29.5	35.9	416	70.0	7.2	1.04	1.49	1.30	9.86	8.50
1475	0341	1986.0	4.53	260	293	100	46.0	1740	1976.6	9.70	9.80	558	563	29.6	35.9	414	71.0	7.4	1.07	1.67	1.48	9.86	8.50
1476	0355	1987.0	4.16	274	362	100	47.4	1750	1978.1	9.70	9.80	558	563	29.8	35.9	416	72.0	7.6	1.11	1.71	1.51	9.86	8.50
1477	0409	1988.0	4.53	267	329	100	46.7	1740	1980.1	9.70	9.80	556	561	29.9	35.9	411	73.0	7.9	1.14	1.68	1.58	9.82	8.50
1478	0420	1989.0	5.42	246	275	100	45.3	1750	1981.5	9.60	9.80	557	537	30.0	35.9	411	74.0	8.0	1.17	1.62	1.47	9.81	8.50
1479	0428	1990.0	6.99	261	324	100	45.5	1740	1982.7	9.60	9.80	558	544	30.0	35.9	406	75.0	8.2	1.19	1.55	1.33	9.80	8.50
1480	0436	1991.0	7.71	292	327	100	46.1	1740	1983.5	9.60	9.80	560	539	30.1	35.9	405	76.0	8.3	1.21	1.53	1.31	9.79	8.50
1481	0442	1992.0	9.56	295	311	100	46.2	1740	1984.0	9.60	9.80	560	550	30.1	36.0	401	77.0	8.4	1.21	1.47	1.25	9.79	8.50
1482	0503	1993.0	8.53	262	317	100	46.7	1930	1985.0	9.60	9.80	695	675	29.9	36.0	390	78.0	8.5	1.20	1.51	1.28	9.77	8.50
1483	0508	1994.0	11.9	266	295	100	46.7	1800	1985.3	9.60	9.80	597	580	29.8	36.0	392	79.0	8.6	1.20	1.42	1.19	9.76	8.50
1484	0518	1995.0	9.98	288	325	100	48.2	1650	1985.8	9.60	9.80	539	519	29.6	36.0	403	80.0	8.7	1.20	1.49	1.26	9.75	8.50

ESSO AUSTRALIA: Sawbelly No.1

Data Printed at time 04:54 Date Mar 15 '90
Data Recorded at time 05:23 Date Mar 12 '90

F#	TIME	DEPTH	ROP		TORQUE		RPM	WOB	PUMP:RTRNS		MD lb/gal		FLOW/MIN		TEMP (C)	PVT:	-THIS	BIT-	EST:	DXC	NXB	ECD	NXMD:
			m/hr:	AVG	MAX	AVG			AVG	PRES:	DEPTH	IN	OUT	IN									
1485	0523	1996.0	10.2:	300	320	100	47.6	1620:	1986.3	9.60	9.80	540	519	29.5	36.0	405:	181.0	8.8	1.23:	1.48	1.24	9.75	8.50:D
1486	0527	1997.0	17.0:	304	346	100	48.0	1640:	1986.5	9.60	9.80	539	524	29.4	36.0	408:	182.0	8.8	1.23:	1.33	1.10	9.74	8.50:D
1487	0531	1998.0	14.3:	293	363	100	48.4	1640:	1986.9	9.60	9.80	539	518	29.4	36.0	410:	183.0	8.9	1.23:	1.39	1.16	9.74	8.50:D
1488	0536	1999.0	11.7:	287	363	100	48.4	1640:	1987.4	9.60	9.80	540	544	29.3	36.0	416:	184.0	9.0	1.24:	1.45	1.21	9.74	8.50:D
1489	0547	2000.0	11.4:	293	344	100	48.1	1750:	1988.4	9.60	9.80	778	773	29.1	36.1	421:	185.0	9.1	1.24:	1.45	1.22	9.75	8.50:D†
1490	0552	2001.0	13.6:	278	291	100	48.5	1730:	1989.2	9.60	9.80	787	773	29.0	36.0	424:	186.0	9.1	1.24:	1.40	1.17	9.75	8.50:D
1491	0600	2002.0	7.71:	275	307	100	48.4	1740:	1990.6	9.60	9.80	562	551	28.8	36.0	431:	187.0	9.3	1.24:	1.57	1.33	9.73	8.50:D
1492	0638	2003.0	12.1:	296	340	100	43.7	1720:	1992.6	9.60	9.80	560	546	27.5	35.9	462:	188.0	9.4	1.24:	1.39	1.17	9.73	8.50:D
1493	0643	2004.0	11.6:	322	338	100	44.8	1720:	1993.4	9.60	9.80	560	565	27.7	35.9	465:	189.0	9.5	1.25:	1.41	1.18	9.73	8.50:D
1494	0647	2005.0	14.0:	333	376	100	45.0	1730:	1994.2	9.60	9.80	560	546	27.9	35.9	467:	190.0	9.5	1.25:	1.36	1.13	9.73	8.50:D
1495	0653	2006.0	11.3:	335	352	100	44.1	1730:	1995.5	9.60	9.80	559	564	28.1	35.9	469:	191.0	9.6	1.25:	1.42	1.19	9.73	8.50:D
1496	0655	2007.0	25.8:	349	364	100	44.9	1730:	1996.1	9.60	9.80	559	546	28.2	35.9	470:	192.0	9.7	1.25:	1.19	.96	9.73	8.50:D
1497	0708	2008.0	21.3:	296	359	100	44.0	3170:	1997.5	9.60	9.80	708	720	28.4	35.9	466:	193.0	9.7	1.25:	1.24	1.01	9.74	8.50:D
1498	0710	2009.0	30.1:	264	292	100	44.8	2830:	1998.0	9.60	9.80	722	703	28.4	35.9	469:	194.0	9.7	1.25:	1.15	.92	9.74	8.50:D
1499	0712	2010.0	33.1:	260	291	100	44.7	2830:	1998.2	9.60	9.80	724	716	28.4	35.9	468:	195.0	9.8	1.25:	1.12	.89	9.75	8.50:D
1500	0715	2011.0	21.7:	256	298	100	45.3	2850:	1998.5	9.60	9.80	726	706	28.4	35.9	468:	196.0	9.8	1.25:	1.24	1.01	9.75	8.50:D
1501	0726	2012.0	24.3:	242	278	100	43.7	2880:	1999.6	9.60	9.80	726	718	28.5	35.9	472:	197.0	9.9	1.25:	1.20	.97	9.75	8.50:D†
1502	0728	2013.0	37.5:	262	287	100	43.4	2880:	1999.7	9.60	9.80	729	709	28.5	35.9	473:	198.0	9.9	1.25:	1.07	.85	9.75	8.50:D
1503	0729	2014.0	50.4:	269	303	100	45.2	2870:	1999.8	9.60	9.78	728	706	28.5	35.9	475:	199.0	9.9	1.25:	1.00	.77	9.76	8.50:D
1504	0730	2015.0	50.4:	267	288	100	45.0	2890:	1999.9	9.60	9.60	727	713	28.5	35.8	473:	100	9.9	1.26:	1.00	.77	9.76	8.50:D
1505	0731	2016.0	55.8:	264	285	100	45.5	2890:	2000.1	9.60	9.60	727	714	28.5	35.8	473:	101	10.0	1.26:	.98	.75	9.77	8.50:
1506	0732	2017.0	68.3:	267	295	100	44.5	2890:	2000.2	9.60	9.60	728	733	28.5	35.8	477:	102	10.0	1.26:	.91	.69	9.77	8.50:
1507	0733	2018.0	52.9:	265	288	100	45.8	2890:	2000.3	9.60	9.60	727	733	28.5	35.8	477:	103	10.0	1.26:	.99	.76	9.77	8.50:D
1508	0734	2019.0	70.2:	266	299	100	45.0	2890:	2000.3	9.60	9.60	731	711	28.6	35.8	476:	104	10.0	1.26:	.91	.68	9.78	8.50:D
1509	0735	2020.0	59.5:	269	293	100	45.3	2190:	2000.3	9.60	9.60	741	724	28.6	35.8	479:	105	10.0	1.26:	.96	.73	9.79	8.50:D
1510	0737	2021.0	34.6:	293	336	100	44.0	2200:	2000.3	9.60	9.60	752	739	28.6	35.8	479:	106	10.1	1.26:	1.10	.87	9.79	8.50:D
1511	0748	2022.0	29.6:	280	319	100	44.2	2180:	2000.3	9.60	9.60	742	724	28.7	35.8	483:	107	10.1	1.26:	1.14	.91	9.80	8.50:D
1512	0750	2023.0	49.3:	305	359	100	44.9	1790:	2000.3	9.52	9.60	747	747	28.8	35.8	484:	108	10.1	1.26:	1.00	.78	9.80	8.50:D
1513	0751	2024.0	40.7:	286	343	100	41.4	2200:	2000.4	9.50	9.60	706	716	28.8	35.7	483:	109	10.1	1.26:	1.03	.81	9.80	8.50:D
1514	0801	2025.0	46.9:	293	366	100	43.5	1770:	2001.1	9.50	9.60	550	550	28.8	35.7	494:	110	10.2	1.26:	1.01	.78	9.78	8.50:D†
1515	0802	2026.0	45.8:	293	325	100	42.1	1780:	2001.3	9.50	9.60	548	558	28.7	35.5	491:	111	10.2	1.26:	1.00	.78	9.80	8.50:D
1516	0804	2027.0	37.4:	288	359	100	44.5	1780:	2001.6	9.50	9.60	608	636	28.7	35.5	492:	112	10.2	1.26:	1.08	.85	9.80	8.50:D
1517	0805	2028.0	35.0:	289	332	100	44.9	1770:	2002.0	9.50	9.60	564	553	28.7	35.5	493:	113	10.2	1.26:	1.10	.87	9.80	8.50:D
1518	0807	2029.0	29.0:	270	294	100	44.0	1780:	2002.4	9.50	9.60	561	552	28.7	35.4	494:	114	10.3	1.26:	1.14	.92	9.80	8.50:D
1519	0819	2030.0	15.0:	284	371	100	43.8	1810:	2003.9	9.50	9.60	565	547	28.6	35.2	496:	115	10.3	1.26:	1.32	1.10	9.79	8.50:D
1520	0823	2031.0	14.6:	292	355	100	40.6	1820:	2005.1	9.50	9.60	569	554	28.6	35.2	497:	116	10.4	1.26:	1.30	1.08	9.78	8.50:D
1521	0825	2032.0	24.6:	304	440	100	42.8	1810:	2005.7	9.50	9.60	577	561	28.6	35.2	500:	117	10.5	1.26:	1.18	.96	9.78	8.50:D
1522	0831	2033.0	20.1:	312	576	100	37.4	1820:	2006.8	9.50	9.60	569	575	28.6	35.2	517:	118	10.5	1.27:	1.19	.97	9.77	8.50:D†
1523	0841	2034.0	9.16:	259	309	100	42.4	1770:	2009.6	9.50	9.60	560	565	28.2	35.3	539:	119	10.6	1.27:	1.45	1.23	9.75	8.50:D
1524	0848	2035.0	10.9:	291	577	100	44.6	1750:	2020.3	9.50	9.60	558	537	28.4	35.3	537:	120	10.7	1.28:	1.44	1.21	9.69	8.50:D†
1525	0850	2036.0	27.4:	353	541	100	45.5	1740:	2021.0	9.50	9.60	559	537	28.5	35.4	537:	121	10.7	1.29:	1.18	.95	9.69	8.50:D
1526	0853	2037.0	36.3:	399	578	100	43.5	1760:	2022.3	9.50	9.60	560	550	28.7	35.4	536:	122	10.8	1.29:	1.09	.86	9.68	8.50:D†
1527	0857	2038.0	34.9:	318	518	100	34.5	1750:	2024.2	9.50	9.60	559	562	28.7	35.4	538:	123	10.8	1.29:	1.03	.81	9.67	8.50:D†
1528	0900	2039.0	25.7:	337	555	100	42.1	1750:	2025.1	9.50	9.60	560	562	28.8	35.4	537:	124	10.8	1.29:	1.18	.95	9.67	8.50:D
1529	0920	2040.0	12.0:	311	480	100	43.2	2850:	2028.4	9.50	9.60	726	728	29.2	35.6	525:	125	11.0	1.30:	1.40	1.17	9.62	8.50:D
1530	0923	2041.0	27.7:	411	670	100	38.0	2860:	2029.7	9.50	9.60	728	735	29.3	35.7	523:	126	11.0	1.31:	1.12	.90	9.65	8.50:D
1531	0925	2042.0	28.0:	350	416	100	37.7	2870:	2030.3	9.50	9.60	731	732	29.3	35.7	523:	127	11.1	1.31:	1.12	.90	9.63	8.50:D
1532	0931	2043.0	9.06:	314	351	100	38.8	2880:	2030.8	9.50	9.60	725	716	29.6	35.7	520:	128	11.2	1.32:	1.43	1.21	9.65	8.5:

ESSO AUSTRALIA: Sawbelly No.1

Data Printed at time 04:56 Date Mar 15 '90
Data Recorded at time 09:34 Date Mar 12 '90

F#	TIME	DEPTH	ROP m/hr	TORQUE		RPM	WOB	PUMP:RTRNS	MD lb/gal		FLOW/MIN		TEMP (C)		PVT:	-THIS BIT-	EST:	DXC	NXB	ECD	NXMD:	
				AVG	MAX				IN	OUT	IN	OUT	IN	OUT								m
1533	0934	2044.0	20.8	297	320	100	39.3	2880:2031.3	9.50	9.60	739	753	29.6	35.7	520:	129	11.2	1.32	1.21	.99	9.65	8.50:D
1534	0937	2045.0	19.4	298	360	100	42.7	2890:2032.2	9.50	9.60	744	720	29.8	35.8	521:	130	11.3	1.33	1.26	1.03	9.65	8.50:D
1535	0939	2046.0	32.0	300	312	100	42.1	2890:2032.4	9.50	9.60	728	732	29.9	35.8	520:	131	11.3	1.33	1.12	.89	9.65	8.50:D
1536	0942	2047.0	22.1	291	321	100	42.4	2890:2032.7	9.50	9.60	736	718	30.0	35.8	518:	132	11.3	1.34	1.22	.99	9.66	8.50:D
1537	0947	2048.0	11.7	286	338	100	42.9	2890:2033.1	9.50	9.60	729	733	30.2	35.9	519:	133	11.4	1.34	1.40	1.17	9.66	8.50:D
1538	0958	2049.0	39.5	323	650	100	38.3	2880:2035.4	9.50	9.60	727	731	30.5	36.1	512:	134	11.5	1.35	1.03	.81	9.65	8.50:D
1539	1002	2050.0	13.7	288	363	100	39.9	2870:2036.8	9.50	9.60	724	703	30.6	36.1	510:	135	11.5	1.35	1.33	1.10	9.65	8.50:D
1540	1005	2051.0	19.4	286	328	100	40.0	2880:2038.2	9.50	9.60	725	728	30.6	36.1	510:	136	11.6	1.36	1.24	1.01	9.65	8.50:D
1541	1007	2052.0	28.5	304	339	100	40.0	2880:2038.7	9.50	9.60	723	709	30.7	36.2	509:	137	11.6	1.36	1.13	.91	9.65	8.50:D
1542	1009	2053.0	25.6	313	389	100	39.3	2880:2038.7	9.50	9.60	725	702	30.7	36.2	509:	138	11.6	1.37	1.15	.93	9.66	8.50:D
1543	1013	2054.0	16.6	414	596	100	42.1	2880:2038.8	9.50	9.60	723	726	30.8	36.2	507:	139	11.7	1.37	1.30	1.07	9.66	8.50:D
1544	1016	2055.0	22.1	366	577	100	43.3	2870:2039.1	9.50	9.60	725	728	30.9	36.3	509:	140	11.8	1.38	1.23	1.00	9.67	8.50:D
1545	1024	2056.1	23.4	374	642	110	38.3	2890:2042.0	9.50	9.60	726	716	31.2	36.4	507:	141	11.8	1.38	1.20	.97	9.66	8.50:D
1546	1026	2057.0	23.3	335	481	120	35.9	2890:2042.4	9.50	9.60	729	734	31.2	36.4	507:	142	11.8	1.38	1.20	.97	9.66	8.50:D
1547	1030	2058.0	15.8	310	504	120	39.9	2890:2043.6	9.50	9.60	725	704	31.4	36.5	505:	143	11.9	1.39	1.34	1.11	9.66	8.50:D
1548	1040	2059.0	31.8	307	440	120	38.3	2910:2046.0	9.50	9.60	729	716	31.5	36.7	501:	144	11.9	1.40	1.14	.91	9.65	8.50:D
1549	1042	2060.0	27.7	284	328	120	39.0	2910:2046.4	9.50	9.60	730	734	31.5	36.7	502:	145	12.0	1.40	1.18	.95	9.65	8.50:D
1550	1044	2061.0	32.0	352	519	120	38.7	2900:2046.7	9.50	9.60	731	709	31.6	36.7	502:	146	12.0	1.40	1.14	.91	9.66	8.50:D
1551	1046	2062.0	31.9	294	327	120	39.8	2910:2047.0	9.50	9.60	728	707	31.6	36.7	501:	147	12.0	1.41	1.15	.92	9.66	8.50:D
1552	1048	2063.0	34.2	292	325	120	39.5	2910:2047.8	9.50	9.60	729	715	31.6	36.7	501:	148	12.1	1.41	1.13	.90	9.66	8.50:D
1553	1049	2064.0	37.4	308	385	120	39.5	2890:2047.9	9.50	9.60	727	705	31.5	36.8	502:	149	12.1	1.42	1.10	.87	9.67	8.50:D
1554	1052	2065.0	25.0	273	328	120	38.9	2900:2047.9	9.50	9.60	730	734	31.6	36.8	500:	150	12.1	1.42	1.20	.97	9.67	8.50:D
1555	1054	2066.0	28.6	281	340	120	39.8	2910:2048.1	9.50	9.60	729	715	31.6	36.8	499:	151	12.2	1.42	1.18	.94	9.68	8.50:D
1556	1056	2067.0	26.2	306	504	120	38.2	2910:2049.0	9.50	9.60	730	709	31.6	36.8	497:	152	12.2	1.43	1.18	.96	9.68	8.50:D
1557	1106	2068.0	33.6	276	300	120	37.8	2880:2050.4	9.50	9.60	720	725	31.7	37.0	494:	153	12.2	1.43	1.11	.89	9.67	8.50:D
1558	1108	2069.0	26.2	280	297	120	38.4	2880:2051.3	9.50	9.60	724	710	31.7	37.0	495:	154	12.3	1.44	1.19	.96	9.68	8.50:D
1559	1110	2070.0	23.7	274	299	120	37.1	2880:2052.4	9.50	9.60	726	706	31.8	37.0	494:	155	12.3	1.44	1.20	.97	9.68	8.50:D
1560	1113	2071.0	26.4	265	299	120	36.0	2880:2053.0	9.50	9.60	726	716	31.8	37.0	493:	156	12.4	1.45	1.16	.94	9.68	8.50:D
1561	1114	2072.0	33.5	288	305	120	39.6	2880:2053.5	9.50	9.60	726	713	31.8	37.0	493:	157	12.4	1.45	1.13	.90	9.68	8.50:D
1562	1116	2073.0	32.9	303	321	120	41.8	2880:2054.2	9.50	9.60	726	705	31.8	37.0	493:	158	12.4	1.45	1.15	.92	9.68	8.50:D
1563	1119	2074.0	24.3	296	343	120	40.7	2880:2055.0	9.50	9.60	725	704	31.8	37.0	494:	159	12.5	1.46	1.23	.99	9.68	8.50:D
1564	1121	2075.0	24.2	285	304	120	40.0	2880:2055.3	9.50	9.60	725	704	31.9	37.1	493:	160	12.5	1.46	1.22	.99	9.69	8.50:D
1565	1123	2076.0	25.7	293	317	120	40.0	2880:2055.3	9.50	9.60	726	712	31.9	37.1	492:	161	12.5	1.47	1.20	.97	9.69	8.50:D
1566	1126	2077.0	23.5	300	358	120	39.9	2870:2055.9	9.50	9.60	725	704	31.9	37.1	492:	162	12.6	1.47	1.23	1.00	9.69	8.50:D
1567	1128	2078.0	22.7	348	375	120	39.1	2870:2056.6	9.50	9.60	727	713	32.0	37.1	493:	163	12.6	1.48	1.23	1.00	9.69	8.50:D
1568	1139	2079.0	19.3	313	349	120	38.2	2900:2057.9	9.50	9.60	725	706	32.1	37.2	490:	164	12.7	1.49	1.26	1.03	9.69	8.50:D
1569	1142	2080.0	21.3	345	446	120	38.5	2900:2059.3	9.50	9.60	728	719	32.1	37.2	490:	165	12.7	1.49	1.24	1.01	9.69	8.50:D
1570	1145	2081.0	18.9	313	335	120	37.9	2890:2061.0	9.50	9.60	729	731	32.1	37.2	489:	166	12.8	1.50	1.27	1.04	9.69	8.50:D
1571	1148	2082.0	19.5	319	335	120	38.2	2890:2062.6	9.50	9.60	729	733	32.2	37.2	488:	167	12.8	1.50	1.26	1.03	9.68	8.50:D
1572	1151	2083.0	22.8	337	349	120	39.8	2890:2064.0	9.50	9.60	729	708	32.2	37.3	487:	168	12.9	1.51	1.23	1.00	9.68	8.50:D
1573	1154	2084.0	21.0	341	365	120	39.9	2880:2065.3	9.50	9.60	730	734	32.3	37.3	486:	169	12.9	1.52	1.26	1.03	9.68	8.50:D
1574	1157	2085.0	17.3	340	504	120	38.4	2880:2066.9	9.50	9.60	727	730	32.3	37.3	487:	170	13.0	1.52	1.30	1.07	9.68	8.50:D
1575	1202	2086.0	13.8	311	567	120	35.1	2890:2067.3	9.50	9.60	729	732	32.4	37.3	486:	171	13.1	1.53	1.32	1.10	9.68	8.50:D
1576	1204	2087.0	22.5	339	367	120	38.4	2890:2068.6	9.50	9.60	730	716	32.5	37.3	484:	172	13.1	1.53	1.23	.99	9.68	8.50:D
1577	1215	2088.0	22.7	293	344	120	42.6	2880:2072.0	9.50	9.60	726	712	32.6	37.4	484:	173	13.2	1.54	1.26	1.03	9.67	8.50:D
1578	1218	2089.0	19.6	273	288	120	40.7	2880:2073.3	9.50	9.60	726	712	32.6	37.5	485:	174	13.2	1.55	1.29	1.05	9.66	8.50:D
1579	1221	2090.0	20.9	273	288	120	40.4	2880:2074.5	9.50	9.60	727	717	32.6	37.5	483:	175	13.3	1.55	1.27	1.03	9.66	8.50:D
1580	1224	2091.0	20.4	273	287	120	40.7	2880:2075.8	9.50	9.60	729	715	32.6	37.5	482:	176	13.3	1.56	1.28	1.04	9.66	8.50:D

F#	TIME	DEPTH	ROP	TORQUE		RPM		WOB	PUMP:RTRNS	MD lb/gal		FLOW/MIN		TEMP (C)		PVT:	-THIS	BIT-	EST:	DXC	NXB	ECD NXMD:		
			m/hr	AVG	MAX	AVG	AVG		PRES:DEPTH	IN	OUT	IN	OUT	IN	OUT		m	hr	TW:					
1581	1227	2092.0	19.6	277	293	120	42.4	2880	2076.9	9.50	9.60	726	706	32.6	37.5	481	177	13.4	1.57	1.30	1.06	9.66	8.50	D
1582	1230	2093.0	19.3	270	286	120	41.5	2880	2077.6	9.50	9.60	727	706	32.7	37.5	480	178	13.4	1.57	1.30	1.06	9.66	8.50	D
1583	1233	2094.0	19.8	268	287	120	41.7	2880	2077.6	9.50	9.60	726	705	32.7	37.5	481	179	13.5	1.58	1.29	1.05	9.67	8.50	D
1584	1237	2095.0	17.6	268	284	120	39.9	2870	2078.6	9.50	9.60	727	718	32.8	37.6	480	180	13.5	1.58	1.31	1.07	9.67	8.50	D
1585	1239	2096.0	20.7	281	298	120	40.8	2870	2079.5	9.50	9.60	726	717	32.9	37.6	481	181	13.6	1.59	1.27	1.04	9.67	8.50	D
1586	1242	2097.0	24.2	293	319	120	43.9	2900	2080.4	9.60	9.69	727	730	32.9	37.6	481	182	13.6	1.60	1.26	1.02	9.67	8.50	D
1587	1253	2098.0	22.6	272	336	120	42.7	2900	2082.7	9.60	9.70	727	718	33.0	37.7	476	183	13.7	1.60	1.27	1.03	9.67	8.50	D
1588	1256	2099.0	19.8	269	291	120	39.0	2900	2083.7	9.60	9.70	727	712	33.0	37.7	477	184	13.7	1.61	1.27	1.03	9.67	8.50	D
1589	1258	2100.0	26.7	290	324	120	40.6	2910	2084.4	9.60	9.70	726	706	33.0	37.7	477	185	13.7	1.61	1.20	.96	9.68	8.50	D
1590	1300	2101.0	28.4	288	308	120	45.8	2910	2084.9	9.60	9.70	727	707	33.0	37.7	477	186	13.8	1.62	1.23	.98	9.68	8.50	D
1591	1302	2102.0	24.7	283	300	120	44.1	2910	2085.3	9.60	9.70	726	704	33.0	37.7	477	187	13.8	1.62	1.25	1.01	9.69	8.50	D
1592	1305	2103.0	21.2	279	291	120	43.2	2910	2086.4	9.60	9.70	727	707	33.1	37.7	476	188	13.9	1.63	1.29	1.04	9.70	8.50	D
1593	1308	2104.0	20.6	279	292	120	42.7	2910	2086.6	9.60	9.70	728	714	33.1	37.7	476	189	13.9	1.63	1.29	1.05	9.70	8.50	D
1594	1310	2105.0	26.5	261	278	120	40.1	2920	2086.7	9.60	9.70	728	730	33.2	37.7	477	190	14.0	1.64	1.19	.96	9.72	8.50	D
1595	1313	2106.0	24.7	278	308	120	42.4	2910	2087.4	9.60	9.70	727	730	33.2	37.7	477	191	14.0	1.64	1.23	.99	9.72	8.50	D
1596	1324	2107.0	20.9	258	287	120	40.4	2940	2089.7	9.60	9.70	720	704	33.3	37.9	479	192	14.1	1.65	1.26	1.02	9.73	8.50	D
1597	1332	2108.0	13.9	244	291	120	43.4	1810	2091.5	9.60	9.70	480	505	33.3	37.9	486	193	14.1	1.66	1.40	1.16	9.70	8.50	D
1598	1335	2109.0	17.3	276	330	120	47.1	1810	2092.2	9.60	9.70	564	570	33.3	37.9	485	194	14.2	1.67	1.38	1.13	9.73	8.50	D
1599	1338	2110.0	20.1	285	328	120	44.2	1800	2093.0	9.60	9.70	563	544	33.2	37.9	485	195	14.2	1.68	1.31	1.06	9.74	8.50	D
1600	1340	2111.0	22.9	276	307	120	40.6	1800	2093.7	9.60	9.70	581	562	33.2	37.9	485	196	14.3	1.68	1.23	1.00	9.74	8.50	D
1601	1342	2112.0	28.3	268	296	120	39.4	2930	2094.2	9.60	9.70	686	694	33.2	38.0	483	197	14.3	1.68	1.17	.93	9.75	8.50	D
1602	1346	2113.0	31.3	242	285	120	39.9	2830	2095.5	9.60	9.70	729	715	33.2	38.0	482	198	14.3	1.69	1.14	.90	9.76	8.50	D
1603	1348	2114.0	29.6	280	317	120	45.1	2810	2096.2	9.60	9.70	729	732	33.2	38.0	484	199	14.4	1.69	1.20	.96	9.77	8.50	D
1604	1351	2115.0	24.8	285	301	120	45.6	2820	2096.5	9.60	9.70	729	709	33.3	38.0	485	200	14.4	1.70	1.25	1.01	9.77	8.50	D
1605	1354	2116.0	19.5	280	296	120	44.2	2810	2096.9	9.60	9.70	729	707	33.4	38.1	485	201	14.5	1.70	1.31	1.06	9.78	8.50	D
1606	1407	2117.0	21.2	271	316	120	44.3	2810	2100.3	9.60	9.70	724	728	33.5	38.2	484	202	14.5	1.71	1.29	1.04	9.77	8.50	D
1607	1410	2118.0	20.7	293	313	120	45.5	2820	2101.5	9.60	9.70	724	704	33.4	38.3	486	203	14.6	1.72	1.30	1.06	9.77	8.50	D
1608	1413	2119.0	17.7	288	306	120	45.1	2820	2102.7	9.60	9.70	746	734	33.4	38.3	485	204	14.6	1.73	1.35	1.10	9.77	8.50	D
1609	1417	2120.0	17.5	297	380	120	45.9	2800	2104.0	9.60	9.70	723	704	33.4	38.3	485	205	14.7	1.73	1.36	1.11	9.76	8.50	D
1610	1420	2121.0	18.4	336	432	120	46.8	2830	2105.4	9.60	9.70	722	713	33.4	38.3	486	206	14.8	1.74	1.35	1.10	9.76	8.50	D
1611	1423	2122.0	18.5	297	311	120	45.2	2820	2106.2	9.60	9.70	725	705	33.5	38.4	484	207	14.8	1.75	1.33	1.09	9.76	8.50	D
1612	1427	2123.0	17.0	297	315	120	45.3	2840	2106.3	9.60	9.70	725	711	33.6	38.4	486	208	14.9	1.75	1.36	1.11	9.77	8.50	D
1613	1434	2124.0	17.1	291	333	120	48.3	1400	2107.3	9.60	9.70	481	484	33.7	38.5	489	209	14.9	1.76	1.39	1.13	9.75	8.50	D
1614	1445	2125.0	15.3	325	510	120	42.1	1410	2109.6	9.60	9.70	483	469	33.7	38.6	487	210	15.0	1.77	1.37	1.12	9.68	8.50	D
1615	1451	2126.0	10.7	281	347	120	41.4	1390	2111.5	9.60	9.70	482	468	33.7	38.7	488	211	15.1	1.78	1.45	1.21	9.74	8.50	D
1616	1504	2127.0	12.8	276	337	120	42.0	1420	2113.5	9.60	9.70	480	471	33.7	38.8	484	212	15.2	1.79	1.41	1.16	9.74	8.50	D
1617	1509	2128.0	11.6	240	370	120	43.9	1410	2114.8	9.60	9.70	484	474	33.6	38.8	486	213	15.3	1.80	1.46	1.21	9.74	8.50	D
1618	1513	2129.0	15.2	119	179	120	44.7	1410	2115.7	9.60	9.70	481	486	33.6	38.8	482	214	15.3	1.81	1.39	1.14	9.74	8.50	D
1619	1518	2130.0	13.6	123	153	120	44.6	1400	2116.1	9.60	9.70	482	487	33.6	38.9	483	215	15.4	1.82	1.42	1.17	9.74	8.50	D
1620	1522	2131.0	17.1	131	153	120	46.7	1390	2116.1	9.60	9.70	484	480	33.6	38.9	486	216	15.5	1.83	1.37	1.12	9.74	8.50	D
1621	1527	2132.0	11.9	95.7	141	120	46.0	2900	2117.0	9.60	9.70	718	721	33.6	38.9	480	217	15.5	1.84	1.47	1.21	9.76	8.50	D
1622	1531	2133.0	13.8	95.8	148	120	44.8	2850	2118.3	9.60	9.70	719	698	33.6	39.0	480	218	15.6	1.84	1.41	1.16	9.76	8.50	D
1623	1534	2134.0	37.4	141.8	115	120	45.4	2850	2119.0	9.60	9.70	719	705	33.7	39.0	480	219	15.6	1.85	1.14	.89	9.76	8.50	D
1624	1536	2135.0	26.9	140.1	170	120	45.7	2840	2119.8	9.60	9.70	719	724	33.7	39.0	479	220	15.7	1.85	1.23	.98	9.76	8.50	D
1625	1539	2136.0	22.6	190.0	158	120	47.3	2840	2120.7	9.60	9.70	722	701	33.8	39.1	478	221	15.7	1.86	1.30	1.04	9.76	8.50	D
1626	1550	2137.0	28.4	182.4	123	120	46.8	2860	2122.4	9.60	9.70	724	704	33.8	39.2	478	222	15.8	1.86	1.23	.97	9.76	8.50	D
1627	1552	2138.0	32.7	135.2	117	120	44.4	2860	2122.8	9.60	9.70	723	702	33.8	39.2	478	223	15.8	1.87	1.17	.92	9.76	8.50	D
1628	1555	2139.0	50.9	123.8	79.0	120	41.2	2860	2123.5	9.60	9.70	722	701	33.8	39.2	478	224	15.8	1.87	1.02	.78	9.76	8.5	D

ESSO AUSTRALIA: Sawbilly No.1

Data Printed at time 04:59 Date Mar 15 '90
Data Recorded at time 15:57 Date Mar 12 '90

F#	TIME	DEPTH	ROP:	TORQUE		RPM	WOB	PUMP:RTRNS	MD lb/gal		FLOW/MIN		TEMP (C)		PVT:	-THIS BIT-			EST:	DXC	NXB	ECD	NXMD:	
			m/hr:	AVG	MAX				AVG	PRES:	DEPTH	IN	OUT	IN		OUT	IN	OUT						m
1629	1557	2140.0	36.8	162.1	118	120	45.2	2860	2123.6	9.60	9.70	723	702	33.8	39.2	477	225	15.8	1.87	1.14	.89	9.76	8.50	D
1630	1559	2141.0	31.3	152.9	93.0	120	45.7	2870	2123.8	9.60	9.70	723	727	33.8	39.2	478	226	15.9	1.88	1.19	.94	9.77	8.50	D
1631	1601	2142.0	28.4	159.9	138	120	45.4	2860	2124.5	9.60	9.70	724	726	33.8	39.3	478	227	15.9	1.88	1.21	.96	9.77	8.50	D†
1632	1605	2143.0	13.8	198.9	142	120	46.2	2870	2125.7	9.60	9.70	724	710	33.9	39.3	477	228	16.0	1.89	1.43	1.17	9.77	8.50	D
1633	1609	2144.0	14.3	193.1	120	120	45.8	2860	2126.1	9.60	9.70	723	728	33.8	39.3	477	229	16.0	1.90	1.41	1.16	9.77	8.50	D
1634	1612	2145.0	26.1	104	128	120	46.9	2860	2126.7	9.60	9.70	724	729	33.8	39.4	476	230	16.1	1.90	1.25	1.00	9.77	8.50	D
1635	1622	2146.0	16.1	104	177	120	39.5	2870	2129.1	9.60	9.70	690	713	34.0	39.5	477	231	16.1	1.91	1.32	1.07	9.76	8.50	D
1636	1625	2147.0	21.8	104	145	120	42.2	2860	2130.2	9.60	9.70	723	709	34.1	39.6	473	232	16.2	1.91	1.26	1.01	9.77	8.50	D
1637	1629	2148.0	16.0	105	135	120	42.0	2860	2131.2	9.60	9.70	723	702	34.1	39.6	477	233	16.3	1.92	1.34	1.10	9.77	8.50	D
1638	1633	2149.0	13.9	108	132	120	45.5	2860	2132.2	9.60	9.70	724	715	34.2	39.6	476	234	16.3	1.93	1.42	1.16	9.77	8.50	D
1639	1635	2150.0	35.0	102	134	120	43.6	2860	2132.7	9.60	9.70	723	726	34.2	39.6	477	235	16.4	1.93	1.14	.89	9.77	8.50	D
1640	1638	2151.0	21.9	107	128	120	43.8	2870	2133.7	9.60	9.70	724	726	34.2	39.7	478	236	16.4	1.94	1.27	1.02	9.77	8.50	D
1641	1641	2152.0	20.9	113	132	120	44.3	2900	2134.8	9.60	9.70	730	710	34.3	39.7	477	237	16.5	1.95	1.29	1.04	9.77	8.50	D
1642	1646	2153.0	10.5	202	265	120	43.8	2900	2135.7	9.60	9.70	732	710	34.4	39.8	477	238	16.5	1.96	1.48	1.23	9.77	8.50	D
1643	1649	2154.0	18.6	263	295	120	44.6	2910	2136.5	9.60	9.70	733	719	34.4	39.8	478	239	16.6	1.96	1.33	1.07	9.77	8.50	D
1644	1656	2155.0	9.24	266	301	120	46.7	2910	2139.4	9.60	9.70	730	709	34.5	39.9	477	240	16.7	1.98	1.54	1.29	9.76	8.50	D
1645	1710	2156.0	12.3	269	318	120	46.4	2850	2142.4	9.60	9.70	726	731	34.6	40.0	478	241	16.8	1.99	1.46	1.21	9.75	8.50	D
1646	1713	2157.0	23.7	296	340	120	45.2	2840	2143.0	9.60	9.70	725	704	34.6	40.0	478	242	16.8	2.00	1.27	1.01	9.75	8.50	D
1647	1716	2158.0	18.5	275	356	120	42.5	2840	2144.3	9.60	9.70	727	713	34.6	40.0	479	243	16.9	2.00	1.31	1.06	9.75	8.50	D
1648	1719	2159.0	20.0	289	356	120	42.2	2840	2145.1	9.60	9.70	726	705	34.6	40.0	479	244	17.0	2.01	1.29	1.04	9.75	8.50	D
1649	1722	2160.0	19.1	302	368	120	43.8	2840	2145.4	9.60	9.70	728	708	34.6	40.0	478	245	17.0	2.02	1.31	1.06	9.76	8.50	D
1650	1726	2161.0	15.6	354	468	120	42.9	2840	2146.3	9.60	9.70	725	703	34.7	40.1	479	246	17.1	2.02	1.36	1.11	9.76	8.50	D
1651	1729	2162.0	21.3	306	397	120	42.7	2840	2147.0	9.60	9.70	724	702	34.7	40.1	478	247	17.1	2.03	1.27	1.02	9.76	8.50	D
1652	1731	2163.0	25.7	332	394	120	43.4	2840	2147.6	9.60	9.70	727	718	34.7	40.1	478	248	17.2	2.03	1.23	.97	9.76	8.50	D
1653	1734	2164.0	21.9	363	410	120	42.4	2940	2148.2	9.60	9.70	734	741	34.8	40.1	479	249	17.2	2.04	1.26	1.01	9.76	8.50	D
1654	1747	2165.0	17.5	336	417	120	41.6	1340	2151.3	9.60	9.70	473	453	34.9	40.2	484	250	17.3	2.05	1.32	1.07	9.74	8.50	D†
1655	1749	2166.0	24.3	368	460	120	43.5	1340	2151.6	9.60	9.70	472	451	34.8	40.3	484	251	17.3	2.05	1.25	.99	9.74	8.50	D
1656	1752	2167.0	25.5	366	387	120	44.7	2840	2152.0	9.60	9.70	660	694	34.8	40.3	481	252	17.3	2.06	1.24	.99	9.75	8.50	D
1657	1754	2168.0	30.2	366	397	120	46.6	2850	2152.5	9.60	9.70	720	722	34.7	40.3	480	253	17.4	2.06	1.21	.95	9.76	8.50	D
1658	1756	2169.0	22.9	360	421	120	45.6	2850	2153.3	9.60	9.70	722	712	34.7	40.3	481	254	17.4	2.07	1.28	1.02	9.76	8.50	D
1659	1759	2170.0	18.6	390	505	120	45.1	2860	2153.8	9.60	9.70	723	727	34.7	40.3	480	255	17.5	2.07	1.33	1.08	9.76	8.50	D
1660	1802	2171.0	24.2	332	422	120	44.6	2850	2154.1	9.60	9.70	721	724	34.7	40.3	481	256	17.5	2.08	1.25	1.00	9.77	8.50	D
1661	1805	2172.0	22.0	310	342	120	44.3	2820	2154.6	9.60	9.70	716	701	34.7	40.3	481	257	17.6	2.08	1.28	1.02	9.77	8.50	D
1662	1807	2173.0	24.5	318	348	120	46.3	2820	2154.9	9.60	9.70	717	703	34.8	40.3	482	258	17.6	2.09	1.26	1.00	9.77	8.50	D
1663	1810	2174.0	20.8	310	349	120	45.9	2820	2154.9	9.60	9.70	716	720	34.8	40.4	482	259	17.6	2.09	1.31	1.05	9.78	8.50	D
1666	1832	2175.0	14.6	310	336	100	45.3	2770	2155.0	9.50	9.60	709	701	34.9	40.5	479	260	17.7	1.32	1.36	1.13	9.67	8.50	D
1667	1835	2176.0	14.0	308	333	100	44.2	2780	2155.0	9.50	9.60	711	701	34.9	40.5	481	261	17.7	1.33	1.36	1.13	9.67	8.50	D
1668	1835	2177.0	13.6	301	309	100	43.8	2790	2155.0	9.50	9.60	711	701	34.9	40.5	479	261	17.7	1.33	1.37	1.14	9.68	8.50	D
1669	1835	2178.0	0.00	319	320	100	45.8	2790	2157.0	9.50	9.60	711	701	34.9	40.5	478	263	17.7	1.33	1.35	1.12	9.68	8.50	D
1670	1839	2179.0	15.3	316	339	100	44.8	2790	2161.0	9.50	9.60	712	715	34.8	40.5	476	264	17.8	1.33	1.34	1.11	9.69	8.50	D
1671	1842	2180.0	16.3	344	379	100	45.3	2790	2162.0	9.50	9.60	712	691	34.9	40.6	479	265	17.8	1.34	1.33	1.10	9.70	8.50	D
1672	1847	2181.0	13.5	361	390	100	45.3	2780	2163.0	9.50	9.60	713	716	35.0	40.6	478	266	17.9	1.34	1.38	1.15	9.70	8.50	D
1673	1852	2182.0	15.5	376	436	100	44.7	2780	2164.0	9.50	9.60	713	692	35.2	40.6	479	267	18.0	1.35	1.34	1.10	9.71	8.50	D†
1674	1855	2183.0	20.7	402	421	100	47.2	2780	2165.0	9.50	9.60	715	702	35.3	40.7	481	268	18.0	1.35	1.28	1.04	9.71	8.50	D
1675	1932	2184.0	20.1	380	475	100	45.2	2840	2166.0	9.60	9.70	718	721	35.5	41.0	484	269	18.3	1.38	1.26	1.03	9.73	8.50	D†
1676	1933	2185.0	16.4	311	336	100	44.4	2840	2167.0	9.60	9.70	717	702	35.5	41.0	483	269	18.3	1.39	1.31	1.08	9.73	8.50	D
1677	1933	2186.0	23.4	310	324	100	44.4	2840	2168.0	9.60	9.70	717	696	35.5	41.0	483	269	18.3	1.39	1.21	.98	9.73	8.50	D
1678	1933	2187.0	13.0	313	330	100	44.1	2840	2169.0	9.60	9.70	717	703	35.5	41.0	483	269	18.3	1.39	1.37	1.14	9.73	8.50	D

ESSO AUSTRALIA: Sawbelly No.1

Data Printed at time 05:01 Date Mar 15 '90
 Data Recorded at time 19:33 Date Mar 12 '90

F#	TIME	DEPTH	ROP: m/hr	TORQUE AVG	RPM AVG	WOB AVG	PUMP:RTNS PRES:DEPTH	MD lb/gal IN OUT	FLOW/MIN IN OUT	TEMP (C) IN OUT	PVT:	-THIS BIT- m hr	EST: DXC TWI	NXB	ECD	NXMD:
1679	1933	2188.0	26.0	311	315	100	44.3	2840:2170.0	9.60 9.70	717 702	35.5 41.0	484: 269	18.3 1.39:1.18	.95	9.73	8.50:D
1680	1934	2189.0	14.5	314	309	100	45.2	2840:2171.0	9.60 9.70	717 722	35.6 41.0	484: 274	18.3 1.39:1.30	1.10	9.73	8.50:D
1681	1937	2190.0	17.9	327	355	100	45.9	2840:2172.1	9.60 9.70	716 720	35.6 41.0	484: 275	18.4 1.39:1.31	1.07	9.69	8.50:D
1682	1941	2191.0	15.2	339	374	100	45.4	2840:2173.4	9.60 9.70	714 706	35.7 41.0	484: 276	18.5 1.40:1.35	1.11	9.70	8.50:D
1683	1947	2192.0	9.96	364	435	100	47.0	2830:2175.0	9.60 9.70	718 723	35.8 41.1	485: 277	18.6 1.41:1.48	1.25	9.71	8.50:D
1684	1950	2193.0	15.4	369	392	100	45.9	2830:2175.8	9.60 9.70	719 697	35.9 41.1	484: 278	18.6 1.41:1.35	1.11	9.71	8.50:D
1685	2001	2194.0	17.4	418	565	100	45.4	2800:2177.6	9.60 9.70	714 717	36.0 41.3	484: 279	18.7 1.43:1.31	1.07	9.72	8.50:D
1686	2004	2195.0	20.3	372	484	100	43.6	2790:2178.7	9.60 9.70	712 697	36.0 41.3	483: 280	18.7 1.43:1.25	1.02	9.73	8.50:D
1687	2007	2196.0	25.7	373	422	100	44.8	2800:2179.7	9.60 9.70	711 702	36.0 41.3	482: 281	18.8 1.43:1.19	.96	9.73	8.50:D
1688	2009	2197.0	22.2	371	402	100	44.9	2800:2180.4	9.60 9.70	713 716	36.0 41.4	482: 282	18.8 1.44:1.23	1.00	9.74	8.50:D
1689	2011	2198.0	25.1	374	408	100	46.8	2800:2180.4	9.60 9.70	711 702	36.0 41.4	480: 283	18.8 1.44:1.21	.98	9.74	8.50:D
1690	2014	2199.0	21.3	367	400	100	47.4	2800:2180.4	9.60 9.70	713 691	36.1 41.4	482: 284	18.9 1.45:1.26	1.03	9.76	8.50:D
1691	2017	2200.0	18.5	361	396	100	46.9	2800:2180.4	9.60 9.70	712 718	36.1 41.4	483: 285	18.9 1.45:1.30	1.06	9.77	8.50:D
1692	2020	2201.0	20.8	363	405	100	46.2	2800:2180.4	9.60 9.70	713 716	36.2 41.5	482: 286	19.0 1.46:1.26	1.02	9.78	8.50:D
1693	2023	2202.0	21.2	380	516	100	46.7	2800:2180.4	9.60 9.70	711 690	36.3 41.5	483: 287	19.0 1.46:1.25	1.02	9.78	8.50:D
1694	2041	2203.0	13.5	324	448	100	33.9	2810:2193.5	9.60 9.70	712 717	36.1 41.7	496: 288	19.1 1.47:1.26	1.04	9.73	8.50:D
1695	2043	2204.0	25.1	391	436	100	44.9	2800:2194.1	9.60 9.70	712 691	36.1 41.7	497: 289	19.2 1.47:1.20	.96	9.73	8.50:D
1696	2046	2205.0	22.6	384	407	100	44.6	2800:2194.8	9.60 9.70	711 716	36.2 41.8	497: 290	19.2 1.48:1.23	.99	9.73	8.50:D
1697	2048	2206.0	22.9	381	405	100	44.0	2800:2195.3	9.60 9.70	710 714	36.2 41.8	497: 291	19.2 1.48:1.22	.98	9.73	8.50:D
1698	2051	2207.0	23.4	386	414	100	44.2	2800:2195.6	9.60 9.70	709 688	36.3 41.8	496: 292	19.3 1.49:1.21	.98	9.74	8.50:D
1699	2054	2208.0	19.4	395	437	100	44.0	2800:2196.4	9.60 9.70	712 703	36.4 41.8	498: 293	19.3 1.49:1.26	1.03	9.74	8.50:D
1700	2057	2209.0	20.3	385	467	100	42.9	2810:2196.8	9.60 9.70	710 689	36.4 41.9	497: 294	19.4 1.49:1.24	1.01	9.74	8.50:D
1701	2059	2210.0	24.6	390	421	100	45.3	2810:2196.9	9.60 9.70	708 700	36.5 41.9	497: 295	19.4 1.50:1.21	.97	9.75	8.50:D
1702	2100	2211.0	23.7	371	413	100	45.6	2810:2197.0	9.60 9.70	709 695	36.5 41.9	497: 296	19.4 1.50:1.22	.98	9.75	8.50:D
1703	2101	2212.0	18.0	364	379	100	44.2	2810:2197.2	9.60 9.70	710 715	36.5 42.0	497: 297	19.5 1.50:1.23	1.00	9.75	8.50:D
1705	2104	2213.0	18.9	369	404	100	42.2	2810:2198.3	9.60 9.70	713 698	36.6 42.0	497: 298	19.5 1.51:1.25	1.02	9.75	8.50:D
1706	2116	2214.0	15.8	347	572	100	40.5	2800:2202.3	9.60 9.70	710 713	36.7 42.2	497: 299	19.6 1.51:1.29	1.06	9.74	8.50:D
1707	2120	2215.0	15.6	310	356	100	43.6	2800:2203.7	9.60 9.70	708 687	36.7 42.2	497: 300	19.6 1.52:1.32	1.08	9.74	8.50:D
1708	2124	2216.0	15.5	292	320	100	39.3	2800:2205.1	9.60 9.70	709 695	36.7 42.2	497: 301	19.7 1.53:1.28	1.05	9.74	8.50:D
1709	2128	2217.0	15.7	337	413	100	44.3	2800:2206.3	9.60 9.70	707 710	36.7 42.2	496: 302	19.8 1.53:1.33	1.09	9.73	8.50:D
1710	2131	2218.0	19.0	332	402	100	48.2	2790:2206.7	9.60 9.70	710 696	36.8 42.3	496: 303	19.8 1.54:1.31	1.06	9.74	8.50:D
1711	2134	2219.0	19.0	321	359	100	45.4	2800:2206.9	9.60 9.70	710 696	36.8 42.3	491: 304	19.9 1.54:1.28	1.04	9.74	8.50:D
1712	2138	2220.0	15.7	298	382	100	44.3	2790:2206.9	9.60 9.70	709 711	36.8 42.3	492: 305	19.9 1.55:1.32	1.09	9.75	8.50:D
1713	2143	2221.0	12.8	309	369	100	46.0	2790:2208.4	9.60 9.70	708 688	36.9 42.3	492: 306	20.0 1.56:1.40	1.16	9.74	8.50:D
1714	2148	2222.0	11.8	311	388	100	48.4	2790:2210.5	9.60 9.70	707 686	37.0 42.4	492: 307	20.1 1.56:1.44	1.20	9.74	8.50:D
1715	2153	2223.0	17.0	312	444	100	44.7	2790:2212.7	9.60 9.70	708 687	37.0 42.4	492: 308	20.2 1.57:1.31	1.07	9.73	8.50:D
1716	2206	2224.0	29.0	322	351	100	44.2	1730:2215.3	9.60 9.70	544 530	37.0 42.5	492: 309	20.2 1.58:1.16	.92	9.71	8.50:D
1717	2208	2225.0	27.5	326	370	100	41.5	1740:2215.8	9.60 9.70	545 524	36.9 42.5	491: 310	20.3 1.58:1.15	.91	9.72	8.50:D
1718	2211	2226.0	23.8	314	345	100	42.6	2830:2216.4	9.60 9.70	707 696	36.9 42.5	489: 311	20.3 1.59:1.19	.96	9.73	8.50:D
1719	2212	2227.0	34.8	329	356	100	44.8	2830:2216.8	9.60 9.70	713 700	36.9 42.5	488: 312	20.4 1.59:1.11	.87	9.73	8.50:D
1720	2215	2228.0	20.5	313	340	100	42.4	2820:2217.1	9.60 9.70	710 702	36.9 42.5	488: 313	20.4 1.59:1.23	1.00	9.73	8.50:D
1721	2218	2229.0	23.8	319	354	100	43.4	2820:2217.1	9.60 9.70	710 713	36.9 42.5	487: 314	20.4 1.60:1.20	.96	9.74	8.50:D
1722	2229	2230.0	16.5	341	590	100	41.4	2840:2215.0	9.60 9.70	711 690	37.1 42.6	484: 315	20.5 1.60:1.28	1.05	9.73	8.50:D
1723	2231	2231.0	24.1	353	398	100	42.0	2820:2215.5	9.60 9.70	712 691	37.1 42.6	482: 316	20.5 1.61:1.18	.95	9.76	8.50:D
1724	2244	2232.0	13.4	328	481	100	39.7	2790:2218.8	9.60 9.70	704 693	37.1 42.6	485: 317	20.6 1.61:1.32	1.09	9.75	8.50:D
1725	2247	2233.0	20.0	329	364	100	40.2	2790:2220.1	9.60 9.70	707 712	37.0 42.6	485: 318	20.7 1.62:1.22	.99	9.74	8.50:D
1726	2250	2234.0	17.6	333	375	100	39.6	2790:2220.7	9.60 9.70	705 709	37.0 42.6	487: 319	20.7 1.62:1.25	1.02	9.75	8.50:D
1727	2254	2235.0	14.2	329	390	100	39.4	2780:2221.8	9.60 9.70	705 689	37.0 42.6	490: 320	20.8 1.63:1.30	1.07	9.75	8.5

ESSD AUSTRALIA: Sawbelly No.1

Data Printed at time 05:03 Date Mar 15 '90
 Data Recorded at time 22:58 Date Mar 12 '90

F#	TIME	DEPTH	ROP	TORQUE	RPM	WOB	PUMP:RTRNS	MD lb/gal	FLOW/MIN	TEMP (C)	PVT:	-THIS	BIT-	EST:	DXC	NXB	ECD	NXMD:
			m/hr	AVG MAX AVG	AVG	AVG	PRES:DEPTH	IN OUT	IN OUT	IN OUT		m	hr	TW:				
1728	2258	2236.0	16.2	331	421	100	2780:2222.9	9.60 9.70	703	683	37.0 42.6	489: 321	20.9	1.64:1.27	1.04	9.75	8.50	D
1729	2303	2237.0	10.9	267	306	100	2770:2225.2	9.60 9.70	704	684	37.0 42.6	486: 322	21.0	1.64:1.36	1.13	9.74	8.50	D
1730	2312	2238.0	7.13	279	342	100	2770:2229.9	9.60 9.70	705	710	37.0 42.6	487: 323	21.1	1.66:1.53	1.29	9.72	8.50	D
1731	2316	2239.0	14.0	306	383	100	2770:2232.5	9.60 9.70	705	696	37.0 42.7	488: 324	21.2	1.66:1.32	1.09	9.71	8.50	D
1732	2319	2240.0	22.7	307	333	100	2770:2233.9	9.60 9.70	705	696	37.0 42.7	487: 325	21.2	1.67:1.18	.95	9.71	8.50	D
1733	2330	2241.0	12.5	288	341	100	2780:2230.0	9.60 9.70	705	684	36.8 42.7	489: 326	21.3	1.68:1.35	1.12	9.73	8.50	D
1734	2335	2242.0	12.2	273	302	100	2820:2230.9	9.60 9.70	705	692	36.8 42.7	490: 327	21.4	1.68:1.38	1.15	9.74	8.50	D
1735	2338	2243.0	18.3	276	312	100	2830:2231.3	9.60 9.70	713	699	36.7 42.7	490: 328	21.4	1.69:1.28	1.04	9.74	8.50	D
1736	2345	2244.0	9.59	272	308	100	2820:2232.0	9.60 9.70	711	690	36.8 42.6	492: 329	21.5	1.70:1.47	1.23	9.74	8.50	D
1737	2351	2245.0	10.1	274	310	100	2820:2234.0	9.60 9.70	711	697	36.8 42.6	493: 330	21.6	1.71:1.46	1.21	9.74	8.50	D
1738	2358	2246.0	7.58	262	302	100	2810:2236.0	9.60 9.70	710	697	36.9 42.6	492: 331	21.8	1.72:1.54	1.30	9.73	8.50	D
Date Mar 13 '90																		
1739	0007	2247.0	6.89	275	340	100	2810:2237.6	9.60 9.70	711	717	36.9 42.6	497: 332	21.9	1.73:1.58	1.34	9.73	8.50	D
1740	0021	2248.0	4.23	284	333	100	2810:2240.6	9.60 9.70	710	701	36.9 42.6	498: 333	22.2	1.76:1.72	1.47	9.72	8.50	D
1741	0034	2249.0	4.99	320	361	100	2810:2242.5	9.60 9.70	711	697	36.9 42.6	501: 334	22.4	1.77:1.68	1.43	9.71	8.50	D
1742	0045	2250.0	5.00	356	528	100	2800:2244.6	9.60 9.70	709	689	37.0 42.6	504: 335	22.6	1.79:1.68	1.43	9.71	8.50	D
1743	0112	2251.0	5.86	327	371	100	2890:2247.3	9.60 9.70	723	728	36.9 42.6	502: 336	22.8	1.86:1.63	1.38	9.70	8.50	D
1744	0122	2252.0	5.96	360	565	100	2900:2248.0	9.60 9.70	723	703	37.1 42.6	499: 337	22.9	1.87:1.65	1.39	9.70	8.50	D
1745	0132	2253.0	5.68	244	278	100	2890:2248.8	9.60 9.70	723	714	37.2 42.6	503: 338	23.1	1.89:1.64	1.39	9.70	8.50	D
1746	0140	2254.0	7.77	261	327	100	2890:2249.6	9.60 9.70	723	709	37.3 42.6	505: 339	23.2	1.90:1.55	1.30	9.70	8.50	D
1747	0149	2255.0	6.69	262	327	100	2880:2250.2	9.60 9.70	723	704	37.3 42.6	507: 340	23.4	1.92:1.61	1.35	9.71	8.50	D
1748	0204	2256.0	3.96	268	392	100	2880:2250.7	9.60 9.70	723	727	37.3 42.7	511: 341	23.6	1.94:1.75	1.50	9.71	8.50	D
1749	0209	2257.0	13.1	322	399	100	2880:2251.1	9.60 9.70	723	703	37.3 42.7	511: 342	23.7	1.95:1.40	1.15	9.71	8.50	D
1750	0219	2258.0	17.6	307	358	100	2830:2251.9	9.60 9.70	717	695	37.3 42.7	512: 343	23.8	1.95:1.30	1.05	9.71	8.50	D
1751	0227	2259.0	7.08	310	426	100	2830:2252.5	9.60 9.70	716	702	37.2 42.7	513: 344	23.9	1.97:1.55	1.30	9.71	8.50	D
1752	0234	2260.0	3.03	263	334	100	2830:2253.3	9.60 9.70	716	696	37.2 42.7	515: 345	24.0	1.98:1.79	1.54	9.71	8.50	D
1753	0247	2261.0	3.03	264	331	100	2830:2255.1	9.60 9.70	715	695	37.3 42.7	517: 346	24.2	2.00:1.77	1.53	9.71	8.50	D
1754	0310	2262.0	4.21	258	344	100	2880:2256.7	9.60 9.70	724	703	37.3 42.7	516: 347	24.5	2.02:1.69	1.44	9.71	8.50	D
1755	0317	2263.0	9.51	307	366	100	2880:2258.0	9.60 9.70	724	728	37.3 42.7	518: 348	24.6	2.03:1.47	1.22	9.71	8.50	D
1756	0324	2264.0	8.36	281	375	100	2880:2259.5	9.60 9.70	723	709	37.4 42.7	518: 349	24.7	2.04:1.50	1.25	9.70	8.50	D
1757	0329	2265.0	12.7	255	317	100	2870:2260.1	9.60 9.70	721	724	37.4 42.7	520: 350	24.8	2.05:1.38	1.13	9.71	8.50	D
1758	0333	2266.0	13.9	256	309	100	2870:2260.4	9.60 9.70	722	709	37.5 42.7	520: 351	24.9	2.05:1.35	1.10	9.71	8.50	D
1759	0338	2267.0	12.7	251	306	100	2870:2260.7	9.60 9.70	722	701	37.5 42.7	519: 352	25.0	2.06:1.38	1.13	9.71	8.50	D
1760	0342	2268.0	14.5	279	342	100	2880:2261.0	9.60 9.70	721	706	37.6 42.8	519: 353	25.0	2.07:1.35	1.10	9.72	8.50	D
1761	0348	2269.0	8.99	293	402	100	2880:2261.5	9.60 9.70	723	703	37.6 42.8	523: 354	25.1	2.08:1.48	1.23	9.72	8.50	D
1762	0409	2270.0	2.83	284	423	100	2880:2262.6	9.60 9.70	724	729	37.8 42.8	525: 355	25.5	2.11:1.80	1.55	9.72	8.50	D
1763	0432	2271.0	3.69	269	368	100	2850:2266.0	9.60 9.70	716	721	37.8 42.9	529: 356	25.8	2.13:1.73	1.47	9.71	8.50	D
1764	0446	2272.0	4.27	257	318	100	2900:2269.2	9.60 9.70	727	718	37.8 42.9	529: 357	26.0	2.16:1.69	1.44	9.70	8.50	D
1765	0455	2273.0	6.18	270	405	100	2900:2269.8	9.60 9.70	726	705	37.8 42.9	530: 358	26.2	2.17:1.61	1.35	9.70	8.50	D
1766	0507	2274.0	5.20	285	369	100	2890:2270.4	9.60 9.70	725	704	37.9 42.9	531: 359	26.3	2.19:1.65	1.39	9.70	8.50	D
1767	0516	2275.0	6.83	350	472	100	2880:2271.0	9.60 9.70	722	702	37.9 43.0	531: 360	26.5	2.20:1.57	1.31	9.70	8.50	D
1768	0521	2276.0	10.5	339	401	100	2890:2271.1	9.60 9.70	723	702	37.9 43.0	531: 361	26.6	2.21:1.43	1.18	9.71	8.50	D
1769	0525	2277.0	16.0	356	457	100	2900:2271.3	9.60 9.70	724	703	38.0 43.0	531: 362	26.7	2.21:1.34	1.08	9.71	8.50	D
1770	0538	2278.0	20.7	437	645	100	2900:2272.2	9.60 9.70	724	729	38.0 43.0	529: 363	26.7	2.22:1.17	.93	9.71	8.50	D
1771	0544	2279.0	9.44	412	545	100	2920:2272.6	9.60 9.70	724	728	38.1 43.1	528: 364	26.8	2.23:1.50	1.24	9.71	8.50	D
1772	0557	2280.0	4.94	321	458	100	2890:2273.8	9.60 9.70	721	727	38.2 43.1	525: 365	27.0	2.25:1.66	1.40	9.71	8.50	D
1773	0608	2281.0	9.94	315	380	100	2920:2274.5	9.60 9.70	723	703	38.1 43.2	523: 366	27.1	2.26:1.44	1.19	9.71	8.50	D
1774	0618	2282.0	5.87	305	405	100	2920:2275.8	9.60 9.70	723	702	37.8 43.1	518: 367	27.3	2.28:1.62	1.36	9.71	8.50	D

ESSO AUSTRALIA: Sawbilly No.1

Data Printed at time 15:37 Date Mar 17 '90
 Data Recorded at time 06:30 Date Mar 13 '90

F#	TIME	DEPTH	ROP	TORQUE	RPM	WOB	PUMP	RTNS	MD	lb/gal	FLOW	TEMP	PVT	-THIS	BIT-	EST	DXC	NXB	ECD	NXMD				
		m	m/hr	AVG	MAX	AVG	AVG	PRES	DEPTH	IN	OUT	IN	OUT		m	hr	TW							
1775	0630	2283.0	4.93	332	538	100	45.9	2900	12277.8	9.60	9.70	722	725	38.1	43.1	514	368	27.5	2.30	1.67	1.41	9.71	8.50	D
1776	0643	2284.0	5.85	359	636	100	41.5	2910	12279.3	9.60	9.70	724	710	38.2	43.1	509	369	27.6	2.31	1.57	1.32	9.71	8.50	D
1777	0651	2285.0	6.88	308	361	100	45.9	2910	12280.5	9.60	9.70	724	715	38.2	43.1	507	370	27.8	2.32	1.58	1.31	9.70	8.50	D
1778	0654	2286.0	20.0	394	483	100	45.8	2910	12280.6	9.60	9.70	722	701	38.3	43.0	506	371	27.8	2.33	1.27	1.01	9.71	8.50	D
1779	0707	2287.0	7.82	326	481	107	46.1	2880	12281.3	9.60	9.70	717	709	38.3	43.1	508	372	28.0	2.34	1.56	1.30	9.71	8.50	D
1780	0715	2288.0	8.22	306	448	120	45.7	2880	12282.2	9.60	9.70	716	702	38.3	43.1	506	373	28.1	2.36	1.57	1.31	9.71	8.50	D
1781	0729	2289.0	4.31	295	386	120	46.6	2850	12283.5	9.60	9.70	715	706	38.3	43.1	501	374	28.3	2.38	1.77	1.50	9.71	8.50	D
1782	0754	2290.0	6.18	288	348	120	46.0	2850	12285.2	9.60	9.70	711	697	38.3	43.2	497	375	28.5	2.41	1.66	1.39	9.70	8.50	D
1783	0810	2291.0	5.56	333	588	120	42.7	2870	12287.5	9.60	9.70	719	697	38.6	43.3	497	376	28.7	2.43	1.65	1.39	9.70	8.50	D
1784	0820	2292.0	5.69	347	451	120	44.0	2880	12288.8	9.60	9.70	718	704	38.7	43.4	495	377	28.9	2.45	1.66	1.39	9.70	8.50	D
1785	0826	2293.0	14.8	423	664	120	31.0	2870	12289.1	9.60	9.70	718	697	38.7	43.4	491	378	28.9	2.46	1.25	1.01	9.70	8.50	D
1786	0834	2294.0	8.27	351	485	120	43.0	2880	12289.8	9.60	9.70	717	696	38.9	43.4	492	379	29.1	2.47	1.54	1.28	9.70	8.50	D
1787	0842	2295.0	9.11	401	665	120	36.2	2860	12290.4	9.60	9.70	717	694	38.9	43.4	493	380	29.2	2.48	1.44	1.19	9.70	8.50	D
1788	0851	2296.0	6.26	316	441	120	43.9	2870	12290.5	9.60	9.70	718	708	38.9	43.5	494	381	29.3	2.50	1.63	1.36	9.71	8.50	D
1789	0859	2297.0	8.14	356	448	120	44.1	2870	12290.8	9.60	9.70	716	702	38.9	43.6	496	382	29.5	2.51	1.56	1.29	9.71	8.50	D
1790	0908	2298.0	6.77	364	424	120	44.0	2860	12291.5	9.60	9.70	716	703	38.9	43.6	498	383	29.6	2.53	1.61	1.34	9.71	8.50	D
1791	0916	2299.0	7.35	387	577	120	43.0	2860	12292.3	9.60	9.70	718	697	38.9	43.7	500	384	29.7	2.54	1.57	1.31	9.71	8.50	D
1792	0924	2300.0	19.2	323	380	120	41.7	2890	12292.8	9.60	9.70	716	703	38.8	43.8	500	385	29.8	2.55	1.30	1.03	9.72	8.50	D
1793	0929	2301.0	10.3	397	525	120	44.1	2880	12293.8	9.60	9.70	717	695	38.7	43.8	501	386	29.9	2.56	1.49	1.22	9.72	8.50	D
1794	0932	2302.0	20.5	442	539	120	42.9	2870	12294.3	9.60	9.70	717	696	38.7	43.8	501	387	29.9	2.56	1.29	1.02	9.72	8.50	D
1795	0935	2303.0	23.3	451	544	120	42.0	2870	12294.6	9.60	9.70	717	697	38.7	43.8	501	388	30.0	2.57	1.25	.98	9.72	8.50	D
1796	0937	2304.0	23.5	442	513	120	43.3	2870	12295.0	9.60	9.70	717	723	38.7	43.8	502	389	30.0	2.57	1.26	.99	9.72	8.50	D
1797	0940	2305.0	21.9	438	554	120	42.5	2870	12295.2	9.60	9.70	718	723	38.7	43.8	502	390	30.0	2.58	1.27	1.00	9.73	8.50	D
1798	0951	2306.0	8.53	433	721	120	42.7	2870	12296.8	9.60	9.70	718	708	38.7	43.9	504	391	30.2	2.59	1.53	1.26	9.73	8.50	D
1799	1046	2307.0	9.18	389	721	120	29.0	2910	12306.6	9.60	9.70	723	728	38.5	44.2	515	392	30.3	2.60	1.35	1.11	9.68	8.50	D
1800	1055	2308.0	6.61	356	413	120	43.4	2910	12306.6	9.60	9.70	725	727	38.6	44.3	519	393	30.4	2.62	1.61	1.34	9.69	8.50	D
1801	1103	2309.0	7.36	322	389	120	41.3	2920	12306.7	9.60	9.70	724	715	38.5	44.3	520	394	30.6	2.63	1.56	1.29	9.69	8.50	D
1802	1121	2310.0	14.1	362	447	120	42.7	2930	12307.1	9.60	9.70	725	704	38.2	44.3	519	395	30.6	2.64	1.39	1.13	9.70	8.50	D
1803	1124	2311.0	19.3	358	412	120	42.3	2930	12307.1	9.60	9.70	725	712	38.2	44.3	521	396	30.7	2.65	1.30	1.03	9.70	8.50	D
1804	1127	2312.0	22.0	381	451	120	41.6	2930	12307.1	9.60	9.70	724	704	38.1	44.2	522	397	30.7	2.65	1.26	.99	9.71	8.50	D
1805	1215	2313.0	19.8	357	592	120	33.7	2910	12309.6	9.60	9.70	725	729	38.4	44.3	533	398	30.8	2.66	1.21	.96	9.70	8.50	D
1806	1218	2314.0	19.6	364	570	120	33.2	2900	12310.4	9.60	9.70	724	730	38.4	44.4	534	399	30.8	2.66	1.21	.96	9.70	8.50	D
1807	1225	2315.0	18.1	306	562	120	24.0	2900	12312.4	9.60	9.70	725	705	38.4	44.4	536	400	30.9	2.67	1.12	.89	9.69	8.50	D
1808	1316	2316.0	19.0	360	574	120	30.0	2810	12313.5	9.60	9.70	707	687	38.4	44.6	534	401	31.0	2.67	1.18	.94	9.69	8.50	D
1809	1319	2317.0	20.3	352	396	120	35.9	2820	12314.4	9.60	9.70	709	688	38.4	44.6	534	402	31.0	2.68	1.23	.97	9.69	8.50	D
1810	1330	2318.0	5.74	314	363	120	36.3	2830	12315.7	9.60	9.70	709	689	38.5	44.6	532	403	31.2	2.70	1.56	1.31	9.69	8.50	D
1811	1350	2319.0	7.69	352	549	120	31.1	2870	12315.7	9.60	9.70	715	701	38.4	44.7	533	404	31.3	2.71	1.42	1.17	9.70	8.50	D
+ NB#5 a HTC AT-J22 12.25" with 3x16 jets. Start depth 2320m.																								
! Run with MWD tool.																								
! Date Mar 14 '90																								
1816	0412	2320.0	10.2	264	610	120	4.69	1280	12288.8	9.60	9.70	374	378	32.4	30.1	498	-02	.1	.01	.87	.75	9.75	8.50	D
1817	0424	2321.0	6.29	291	328	120	21.1	1260	12313.3	9.60	9.70	367	369	32.8	30.5	488	1.00	.2	.05	1.32	1.16	9.70	8.50	D
1818	0521	2322.0	2.87	258	330	120	34.4	1900	12318.2	9.60	9.70	532	538	34.1	31.7	476	2.00	1.0	.28	1.72	1.53	9.69	8.50	D
1819	0526	2323.0	11.1	292	327	110	41.6	1870	12318.7	9.60	9.70	533	538	34.2	31.8	474	2.98	1.1	.30	1.43	1.22	9.69	8.50	D
1820	0537	2324.0	5.64	288	319	110	43.1	2100	12320.1	9.60	9.70	589	598	34.5	32.0	472	4.00	1.2	.34	1.63	1.42	9.70	8.50	D
1821	0546	2325.0	6.85	298	334	110	45.9	2580	12320.2	9.60	9.60	619	599	34.6	32.1	473	5.00	1.4	.35	1.60	1.39	9.70	8.50	D
1822	0557	2326.0	5.49	325	395	110	48.2	2510	12321.3	9.60	9.60	618	604	34.6	32.5	478	6.00	1.6	.35	1.69	1.48	9.70	8.50	D
1823	0605	2327.0	7.71	290	356	110	48.0	2320	12321.4	9.60	9.60	620	599	34.8	32.6	477	7.00	1.7	.36	1.59	1.38	9.71	8.50	D

F#	TIME	DEPTH	ROP:	TORQUE		RPM	WOB	PUMP:RTRNS		MD lb/gal		FLOW/MIN		TEMP (C)		PVT:	-THIS	BIT-	EST:	DXC	NXB	ECD	NXMD:	
			m/hr:	AVG	MAX			AVG	PRES:	DEPTH	IN	OUT	IN	OUT	IN	OUT	:	m	hr	TW:	:	:	:	:
1824	0611	2328.0	9.34	290	327	110	47.4	2220	2321.4	9.60	9.60	620	606	35.0	32.8	477	17.99	1.8	.38	1.53	1.32	9.71	8.50	D
1825	0621	2329.0	6.37	289	319	110	48.1	2250	2321.7	9.60	9.60	620	623	35.0	33.0	478	19.00	2.0	.42	1.65	1.44	9.71	8.50	D
1826	0628	2330.0	8.29	295	325	110	45.4	2260	2321.9	9.60	9.60	620	624	35.1	33.2	480	10.0	2.1	.45	1.54	1.33	9.72	8.50	D
1827	0631	2331.0	17.9	310	411	110	44.1	2240	2322.1	9.60	9.60	618	609	35.0	33.3	481	11.0	2.1	.46	1.31	1.11	9.72	8.50	D
1828	0711	2332.0	11.0	260	333	110	43.4	2350	2325.7	9.60	9.60	589	568	34.1	34.0	543	12.0	2.4	.51	1.44	1.24	9.71	8.50	D
1829	0720	2333.0	6.11	285	343	110	47.4	2360	2326.7	9.60	9.60	589	576	34.5	34.1	546	13.0	2.5	.54	1.65	1.44	9.71	8.50	D
1830	0728	2334.0	7.51	300	346	110	47.6	2360	2328.0	9.60	9.60	590	593	34.7	34.3	545	14.0	2.6	.57	1.60	1.38	9.71	8.50	D
1831	0734	2335.0	11.2	319	347	110	46.4	2330	2328.5	9.60	9.60	580	561	34.9	34.4	546	15.0	2.7	.59	1.47	1.25	9.71	8.50	D
1832	0738	2336.0	13.5	323	402	110	46.1	2240	2329.0	9.60	9.60	579	585	34.9	34.4	546	16.0	2.8	.61	1.41	1.20	9.71	8.50	D
1833	0747	2337.0	6.66	302	327	110	46.5	2290	2330.3	9.60	9.60	584	563	35.0	34.6	547	17.0	3.0	.64	1.62	1.40	9.71	8.50	D
1834	0754	2338.0	8.68	324	468	110	46.5	2270	2331.7	9.60	9.60	582	561	34.9	34.7	533	18.0	3.1	.67	1.54	1.33	9.71	8.50	D
1835	0801	2339.0	8.39	298	361	110	46.3	2270	2331.7	9.60	9.60	582	584	35.0	34.8	534	19.0	3.2	.70	1.55	1.33	9.71	8.50	D
1836	0807	2340.0	9.27	309	345	110	45.9	2330	2331.7	9.60	9.60	581	569	35.0	34.9	535	20.0	3.3	.72	1.52	1.30	9.72	8.50	D
1837	0832	2341.0	6.36	300	407	110	45.8	2390	2332.5	9.60	9.60	593	572	34.6	35.2	535	21.0	3.5	.76	1.62	1.40	9.72	8.50	D
1838	0838	2342.0	8.89	296	343	110	47.1	2340	2333.1	9.60	9.70	589	580	34.6	35.3	536	22.0	3.6	.79	1.54	1.32	9.72	8.50	D
1839	0847	2343.0	7.10	284	316	110	47.7	2370	2334.2	9.60	9.70	590	580	34.6	35.4	537	23.0	3.7	.82	1.61	1.39	9.72	8.50	D
1840	0854	2344.0	8.42	320	406	110	46.3	2240	2335.8	9.60	9.70	589	596	34.6	35.6	540	24.0	3.9	.85	1.55	1.33	9.72	8.50	D
1841	0900	2345.0	9.67	359	452	110	46.6	2410	2336.6	9.60	9.70	590	595	34.5	35.7	542	25.0	4.0	.87	1.51	1.29	9.72	8.50	D
1842	0910	2346.0	6.24	364	456	110	47.0	2360	2337.8	9.60	9.70	590	595	34.6	35.9	545	26.0	4.1	.90	1.64	1.42	9.72	8.50	D
1843	0913	2347.0	17.8	379	453	110	45.9	2350	2338.4	9.60	9.70	590	593	34.7	35.9	547	27.0	4.2	.92	1.33	1.11	9.72	8.50	D
1844	0925	2348.0	4.96	343	457	110	47.4	2390	2340.1	9.60	9.70	589	591	34.9	36.2	550	28.0	4.4	.96	1.71	1.48	9.71	8.50	D
1845	0957	2349.0	2.06	265	369	110	47.4	2310	2342.6	9.60	9.70	590	568	35.4	36.9	555	29.0	4.9	1.07	1.96	1.73	9.71	8.50	D
1846	1016	2350.0	5.62	305	434	110	47.9	2170	2344.9	9.60	9.70	590	581	35.5	37.2	547	30.0	5.1	1.11	1.68	1.45	9.70	8.50	D
1847	1033	2351.0	3.66	295	390	110	45.5	2340	2347.4	9.60	9.70	588	574	35.5	37.4	545	31.0	5.3	1.17	1.78	1.55	9.69	8.50	D
1848	1058	2352.0	2.49	281	359	105	47.8	2280	2348.4	9.60	9.70	587	593	35.6	37.6	542	32.0	5.8	1.25	1.90	1.67	9.69	8.50	D
1849	1316	2356.0	3.45	327	423	100	47.9	2250	2352.0	9.60	9.70	576	555	36.4	38.8	526	36.0	7.2	1.49	1.80	1.56	9.70	8.50	D
1850	1337	2357.0	2.88	325	411	100	47.4	2300	2352.2	9.60	9.70	578	558	36.3	39.1	523	37.0	7.6	1.55	1.84	1.60	9.70	8.50	D
1851	1351	2358.0	4.57	282	326	100	48.3	2240	2352.7	9.60	9.70	577	568	36.3	39.3	523	38.0	7.8	1.59	1.72	1.48	9.70	8.50	D
1852	1403	2359.0	4.62	277	356	100	45.7	2350	2352.9	9.60	9.70	578	556	36.3	39.5	520	39.0	8.0	1.63	1.69	1.44	9.71	8.50	D
1853	1432	2360.0	2.11	330	435	100	51.5	2270	2355.2	9.60	9.70	580	565	36.3	39.9	517	40.0	8.5	1.72	1.98	1.73	9.70	8.50	D
1854	1518	2361.0	2.23	310	405	100	50.0	2330	2358.0	9.60	9.70	590	569	36.2	40.5	522	41.0	9.1	1.83	1.95	1.70	9.69	8.50	D
1855	1551	2362.0	1.82	301	442	100	47.6	2360	2359.2	9.60	9.70	590	570	33.0	40.8	599	42.0	9.6	1.93	1.98	1.72	9.69	8.50	D
1856	1619	2363.0	2.15	298	404	100	51.5	2450	2359.9	9.60	9.70	590	576	33.4	41.1	597	43.0	10.1	2.01	1.98	1.72	9.69	8.50	D
1857	1646	2364.0	2.20	282	401	89	53.9	2120	2360.5	9.60	9.70	583	568	34.6	41.3	594	44.0	10.6	2.08	1.97	1.71	9.69	8.50	D
1858	1711	2365.0	2.43	300	440	80	53.7	2270	2361.3	9.60	9.70	583	573	35.2	41.3	592	45.0	11.0	2.14	1.91	1.64	9.69	8.50	D
1859	1725	2366.0	4.32	355	547	80	53.6	2290	2361.9	9.60	9.70	583	562	35.5	41.4	590	46.0	11.2	2.17	1.73	1.47	9.70	8.50	D
1860	1737	2367.0	4.93	419	559	80	55.3	2330	2362.3	9.60	9.70	584	563	35.9	41.4	588	47.0	11.4	2.19	1.71	1.44	9.70	8.50	D
1861	1741	2368.0	12.7	427	541	80	50.7	2260	2362.5	9.60	9.70	583	561	36.0	41.4	589	48.0	11.5	2.20	1.38	1.12	9.70	8.50	D
1862	1746	2369.0	12.1	456	578	80	53.4	2310	2362.6	9.60	9.70	582	568	36.1	41.4	586	49.0	11.6	2.21	1.42	1.16	9.71	8.50	D
1863	1750	2370.0	15.1	446	545	80	53.1	2350	2362.8	9.60	9.70	584	564	36.2	41.4	587	50.0	11.6	2.22	1.35	1.09	9.71	8.50	D
1864	1807	2371.0	13.7	411	528	80	52.5	2300	2363.2	9.60	9.70	583	568	36.4	41.4	524	51.0	11.8	2.24	1.38	1.11	9.71	8.50	D
1865	1822	2372.0	3.97	380	527	80	54.4	2310	2363.9	9.60	9.70	584	563	36.4	41.3	522	52.0	12.0	2.27	1.76	1.50	9.71	8.50	D
1866	1853	2373.0	1.88	356	586	80	55.5	2290	2365.9	9.60	9.70	585	571	36.6	41.4	519	53.0	12.5	2.34	2.00	1.73	9.71	8.50	D
+ NB#6, 12.25" Reed HP53, 3x16 jets, starting depth at 2373m.																								
: Ream to bottom from 2201.75m.																								
: Date Mar 15 '90																								
3	1837	2374.0	7.55	251	298	90	39.2	2220	2370.3	9.60	9.70	575	561	32.9	40.2	597	11.00	.1	.58	1.48	1.27	9.69	8.50	D
4	1844	2375.0	8.44	250	293	90	39.5	2280	2370.5	9.60	9.70	574	554	33.1	40.2	596	11.98	.2	.61	1.45	1.24	9.70	8.50	D

ESSD AUSTRALIA: Sawbelly No.1

Data Printed at time 02:36 Date Mar 18 '90
 Data Recorded at time 18:57 Date Mar 15 '90

F#	TIME	DEPTH	ROP:		TORQUE		RPM	WOB	PUMP:RTRNS		MD lb/gal		FLOW/MIN		TEMP (C)	PVT:	-THIS	BIT-	EST:	DXC	NXB	ECD	NXMD:	
			m/hr:	AVG	MAX	AVG			AVG	PRES:	DEPTH	IN	OUT	IN										OUT
5	1857	2376.0	4.84	229	282	90	34.2	2190	2371.2	9.60	9.70	573	578	33.4	40.2	596	2.99	.4	.64	1.51	1.32	9.70	8.50	D†
6	1903	2377.0	10.8	253	311	90	33.6	2220	2371.4	9.60	9.70	574	564	33.5	40.3	575	3.98	.5	.66	1.29	1.10	9.70	8.50	D
7	1907	2378.0	13.0	262	306	90	33.6	2140	2371.6	9.60	9.70	577	557	33.6	40.3	553	4.99	.6	.67	1.24	1.05	9.71	8.50	D
8	1937	2379.0	4.90	242	331	90	34.3	2190	2372.1	9.60	9.70	573	553	34.0	40.3	555	6.00	.9	.72	1.50	1.31	9.71	8.50	D†
9	1946	2380.0	6.53	245	314	90	37.1	2490	2372.5	9.60	9.70	603	589	34.1	40.3	554	6.98	1.1	.74	1.46	1.26	9.71	8.50	D
10	1954	2381.0	7.62	257	332	90	44.7	2370	2373.2	9.60	9.70	602	587	34.2	40.3	553	8.00	1.2	.76	1.50	1.29	9.71	8.50	D
11	1958	2382.0	13.6	275	328	90	44.6	2410	2373.9	9.60	9.70	602	588	34.3	40.3	555	8.98	1.3	.78	1.34	1.13	9.72	8.50	D
12	2001	2383.0	18.5	285	310	90	44.8	2450	2374.3	9.60	9.70	601	586	34.3	40.3	556	9.99	1.3	.79	1.26	1.04	9.72	8.50	D
13	2005	2384.0	17.5	284	306	90	43.9	2280	2374.9	9.60	9.70	599	604	34.3	40.3	558	11.0	1.4	.80	1.26	1.05	9.72	8.50	D
14	2008	2385.0	18.8	283	321	90	44.1	2350	2375.1	9.60	9.70	602	588	34.3	40.4	560	12.0	1.4	.81	1.24	1.03	9.72	8.50	D
15	2011	2386.0	19.9	282	333	90	44.6	2430	2375.3	9.60	9.70	601	604	34.3	40.4	562	13.0	1.5	.82	1.23	1.02	9.73	8.50	D
16	2023	2387.0	4.95	242	277	97	45.3	2380	2377.2	9.60	9.70	600	587	34.3	40.4	568	14.0	1.7	.86	1.65	1.43	9.72	8.50	D
17	2041	2388.0	8.60	253	298	100	44.9	2250	2378.0	9.60	9.70	587	591	34.3	40.4	571	15.0	1.8	.89	1.50	1.28	9.72	8.50	D
18	2044	2389.0	16.8	273	354	100	43.8	2320	2378.1	9.60	9.70	586	591	34.3	40.4	572	16.0	1.9	.90	1.30	1.08	9.73	8.50	D
19	2048	2390.0	13.7	245	289	100	43.5	2200	2378.4	9.60	9.70	591	577	34.2	40.4	573	17.0	2.0	.92	1.36	1.14	9.73	8.50	D
20	2057	2391.0	20.5	241	286	100	41.6	2320	2378.8	9.60	9.70	588	594	34.2	40.4	573	18.0	2.0	.93	1.23	1.01	9.73	8.50	D†
21	2101	2392.0	15.6	264	330	100	45.0	2120	2379.2	9.60	9.70	588	568	34.1	40.4	574	19.0	2.1	.94	1.33	1.11	9.74	8.50	D
22	2104	2393.0	19.4	273	328	100	43.5	2370	2379.5	9.60	9.70	588	580	34.1	40.4	574	20.0	2.1	.95	1.26	1.04	9.74	8.50	D
23	2110	2394.0	10.4	253	374	100	45.2	2360	2380.2	9.60	9.70	591	582	34.0	40.4	572	21.0	2.2	.97	1.45	1.22	9.74	8.50	D
24	2113	2395.0	19.4	261	298	100	45.0	2180	2380.6	9.60	9.70	587	573	34.0	40.4	571	22.0	2.3	.98	1.27	1.05	9.74	8.50	D
25	2127	2396.0	4.22	252	316	101	46.7	2330	2384.4	9.60	9.70	590	575	34.1	40.4	569	23.0	2.5	1.03	1.72	1.49	9.73	8.50	D
26	2139	2397.0	5.11	243	324	110	46.0	2140	2386.4	9.69	9.70	592	578	34.2	40.4	566	24.0	2.7	1.07	1.69	1.45	9.73	8.5	D
27	2155	2398.0	10.2	271	332	110	42.1	2340	2387.3	9.70	9.70	592	571	34.1	40.4	565	25.0	2.8	1.17	1.45	1.22	9.74	8.50	D
28	2158	2399.0	17.7	281	326	110	41.9	2240	2387.4	9.70	9.70	591	583	34.1	40.4	566	26.0	2.9	1.18	1.29	1.06	9.74	8.50	D
29	2201	2400.0	22.8	290	331	110	41.3	2260	2387.8	9.70	9.70	592	584	34.1	40.4	564	27.0	2.9	1.19	1.22	.99	9.75	8.50	D
30	2208	2401.0	8.80	258	317	110	42.4	2380	2389.2	9.70	9.70	591	578	34.1	40.4	563	28.0	3.0	1.21	1.49	1.26	9.76	8.50	D
31	2220	2402.0	4.99	242	285	110	44.5	2430	2392.2	9.70	9.70	591	594	34.2	40.5	560	29.0	3.2	1.26	1.67	1.43	9.76	8.50	D
32	2228	2403.0	7.35	249	331	110	44.6	2420	2393.9	9.70	9.70	591	577	34.3	40.5	557	30.0	3.4	1.29	1.56	1.32	9.77	8.50	D
33	2233	2404.0	10.8	256	313	110	43.6	2390	2395.0	9.70	9.70	590	593	34.3	40.5	556	31.0	3.5	1.31	1.44	1.20	9.78	8.50	D
34	2237	2405.0	15.5	268	328	110	43.5	2260	2395.3	9.70	9.70	591	572	34.3	40.5	556	32.0	3.5	1.32	1.34	1.10	9.79	8.50	D
35	2240	2406.0	22.9	282	309	110	43.4	2390	2395.4	9.70	9.70	591	572	34.3	40.5	555	33.0	3.6	1.33	1.23	.99	9.80	8.50	D
36	2304	2407.0	20.3	276	329	110	42.5	2370	2396.3	9.70	9.70	588	593	34.4	40.5	550	34.0	3.7	1.37	1.25	1.02	9.81	8.50	D†
37	2307	2408.0	19.7	292	335	110	40.4	2260	2396.5	9.70	9.70	590	595	34.3	40.5	549	35.0	3.7	1.38	1.24	1.01	9.82	8.50	D
38	2310	2409.0	23.3	302	319	110	41.3	2270	2396.7	9.70	9.70	589	576	34.3	40.5	549	36.0	3.8	1.39	1.20	.97	9.83	8.50	D
39	2313	2410.0	21.4	295	320	110	41.5	2380	2396.7	9.70	9.70	590	576	34.2	40.5	549	37.0	3.8	1.40	1.23	.99	9.83	8.50	D
40	2315	2411.0	21.7	300	370	110	41.2	2370	2396.9	9.70	9.70	588	591	34.2	40.5	547	38.0	3.9	1.41	1.22	.99	9.84	8.50	D
41	2318	2412.0	25.9	270	308	110	41.3	2300	2397.1	9.70	9.70	589	593	34.2	40.5	546	39.0	3.9	1.42	1.17	.94	9.84	8.50	D
42	2323	2413.0	11.3	258	290	110	41.9	2360	2398.2	9.70	9.70	589	591	34.3	40.5	545	40.0	4.0	1.44	1.40	1.17	9.84	8.50	D
43	2331	2414.0	7.77	255	318	110	43.4	2400	2400.3	9.70	9.70	588	574	34.3	40.5	542	41.0	4.1	1.46	1.52	1.28	9.84	8.50	D
44	2338	2415.0	8.18	236	269	110	44.4	2290	2401.0	9.70	9.70	588	567	34.4	40.5	542	42.0	4.2	1.49	1.52	1.28	9.84	8.50	D
45	2354	2416.0	7.01	234	288	110	44.3	2450	2402.2	9.70	9.70	593	581	34.4	40.5	532	43.0	4.3	1.53	1.56	1.32	9.84	8.50	D†
Date Mar 16 '90																								
46	0005	2417.0	5.76	250	288	110	44.9	2370	2404.1	9.70	9.70	597	584	34.2	40.6	532	44.0	4.5	1.57	1.62	1.38	9.84	8.50	D
47	0013	2418.0	7.67	247	281	110	44.7	2330	2406.2	9.70	9.70	598	577	34.2	40.6	531	45.0	4.6	1.60	1.54	1.29	9.83	8.50	D
48	0019	2419.0	9.35	253	298	117	44.9	2370	2406.3	9.70	9.70	596	577	34.2	40.6	528	46.0	4.7	1.62	1.50	1.25	9.83	8.50	D
49	0026	2420.0	8.25	251	275	120	44.8	2470	2408.4	9.70	9.70	596	601	34.3	40.6	529	47.0	4.9	1.65	1.54	1.29	9.83	8.50	D
50	0033	2421.0	8.90	267	319	120	49.9	2430	2411.0	9.70	9.70	597	577	34.3	40.6	528	48.0	5.0	1.68	1.58	1.32	9.82	8.50	D
51	0036	2422.0	19.8	278	313	120	49.6	2290	2412.0	9.70	9.70	597	577	34.3	40.7	529	49.0	5.0	1.70	1.35	1.09	9.82	8.50	D

ESSD AUSTRALIA: Sawbelly No.1

Data Printed at time 02:40 Date Mar 18 '90
 Data Recorded at time 00:37 Date Mar 16 '90

F#	TIME	DEPTH	ROP	TORQUE	RPM	WOB	PUMP	TRNS	MD	lb/gal	FLOW	TEMP	PVT	-THIS	BIT-	ESTI	DXC	NXB	ECD	NXMD				
			m/hr	AVG	MAX	AVG	PRESI	DEPTH	IN	OUT	IN	OUT	IN	OUT	m	hr	TW							
52	0037	2423.0	52.4	279	303	120	48.0	2430	2412.2	9.70	9.70	597	577	34.3	40.7	529	50.0	5.0	1.70	1.06	.80	9.83	8.50	D
53	0038	2424.0	44.2	295	310	120	46.8	2220	2412.4	9.70	9.70	597	599	34.3	40.7	529	51.0	5.1	1.71	1.10	.84	9.83	8.50	D
54	0040	2425.0	33.9	319	362	120	49.5	2360	2412.7	9.70	9.70	598	584	34.3	40.7	530	52.0	5.1	1.71	1.19	.93	9.83	8.50	D
55	0056	2426.0	33.2	307	360	120	49.1	2500	2413.7	9.70	9.70	602	582	34.2	40.7	529	53.0	5.1	1.72	1.19	.93	9.83	8.50	D
56	0100	2427.0	14.4	275	338	120	48.9	2360	2414.2	9.70	9.70	602	588	34.2	40.7	528	54.0	5.2	1.74	1.43	1.17	9.84	8.50	D
57	0107	2428.0	9.60	257	289	120	48.7	2400	2415.2	9.70	9.70	600	605	34.1	40.7	525	55.0	5.3	1.77	1.54	1.28	9.84	8.50	D
58	0114	2429.0	5.37	248	286	118	47.8	2430	2415.8	9.70	9.70	601	604	34.0	40.7	534	56.0	5.4	1.80	1.69	1.43	9.84	8.50	D
59	0123	2430.0	6.66	231	253	110	44.4	2490	2416.6	9.70	9.70	601	580	34.0	40.8	534	57.0	5.6	1.83	1.57	1.32	9.84	8.50	D
60	0134	2431.0	5.44	227	248	110	44.7	2340	2418.1	9.70	9.70	602	582	34.2	40.9	533	58.0	5.8	1.87	1.63	1.38	9.84	8.50	D
61	0147	2432.0	4.63	220	254	110	43.9	2340	2420.1	9.70	9.70	600	580	34.4	41.0	531	59.0	6.0	1.91	1.67	1.42	9.83	8.50	D
62	0159	2433.0	5.36	230	260	110	45.3	2390	2423.2	9.70	9.70	600	587	34.6	41.1	528	60.0	6.2	1.95	1.65	1.39	9.82	8.50	D
63	0210	2434.0	5.20	230	262	110	43.9	2450	2426.5	9.70	9.70	602	581	34.7	41.2	524	61.0	6.4	1.99	1.64	1.38	9.81	8.50	D
64	0221	2435.0	5.55	216	252	110	44.1	2330	2428.5	9.70	9.70	599	585	34.8	41.2	524	62.0	6.5	2.03	1.63	1.37	9.81	8.50	D
65	0233	2436.0	5.09	208	232	110	44.8	2380	2429.6	9.70	9.70	600	585	34.9	41.3	523	63.0	6.7	2.07	1.66	1.40	9.81	8.50	D
66	0248	2437.0	7.52	215	266	110	44.2	2400	2430.9	9.70	9.70	599	590	34.9	41.4	516	64.0	6.9	2.10	1.54	1.28	9.81	8.50	D
67	0253	2438.0	13.2	238	302	110	44.8	2380	2431.2	9.70	9.70	592	583	35.0	41.4	515	65.0	7.0	2.12	1.39	1.13	9.81	8.50	D
68	0256	2439.0	19.1	238	267	110	45.0	2330	2431.5	9.70	9.70	593	579	35.0	41.4	514	66.0	7.0	2.13	1.29	1.03	9.81	8.50	D
69	0301	2440.0	12.3	233	277	110	45.8	2430	2431.8	9.70	9.70	596	601	35.0	41.5	513	67.0	7.1	2.15	1.42	1.16	9.81	8.50	D
70	0309	2441.0	7.26	218	265	110	45.6	2350	2432.5	9.70	9.70	594	574	35.1	41.5	510	68.0	7.2	2.18	1.57	1.30	9.82	8.50	D
71	0313	2442.0	15.1	223	256	110	45.7	2440	2432.8	9.70	9.70	594	585	35.1	41.5	511	69.0	7.3	2.19	1.36	1.10	9.82	8.50	D
72	0317	2443.0	15.0	236	277	110	45.2	2300	2433.2	9.70	9.70	591	571	35.2	41.6	509	70.0	7.4	2.20	1.36	1.10	9.82	8.50	D
73	0322	2444.0	12.8	224	259	110	44.9	2400	2433.6	9.70	9.70	592	583	35.2	41.6	509	71.0	7.4	2.22	1.40	1.14	9.82	8.50	D
74	0328	2445.0	9.04	215	275	110	45.7	2400	2434.2	9.70	9.70	591	595	35.3	41.7	507	72.0	7.6	2.24	1.50	1.24	9.83	8.50	D
75	0338	2446.0	5.93	212	248	110	45.0	2310	2435.1	9.70	9.70	590	594	35.4	41.7	505	73.0	7.7	2.27	1.61	1.35	9.83	8.50	D
76	0349	2447.0	18.1	209	261	110	44.7	2330	2435.7	9.70	9.70	584	576	35.5	41.8	502	74.0	7.8	2.29	1.30	1.04	9.83	8.50	D
77	0353	2448.0	14.7	249	297	110	44.7	2310	2436.0	9.70	9.70	588	568	35.5	41.9	501	75.0	7.9	2.31	1.36	1.09	9.83	8.50	D
78	0358	2449.0	12.7	230	277	110	45.9	2300	2436.4	9.70	9.70	589	569	35.5	41.9	501	76.0	7.9	2.32	1.41	1.14	9.83	8.50	D
79	0403	2450.0	11.2	227	282	110	45.3	2160	2436.6	9.70	9.70	589	592	35.5	41.9	500	77.0	8.0	2.34	1.44	1.17	9.84	8.50	D
80	0412	2451.0	6.95	216	256	110	44.7	2280	2438.4	9.70	9.70	588	591	35.6	42.0	499	78.0	8.2	2.37	1.57	1.30	9.83	8.50	D
81	0415	2452.0	17.1	226	271	110	43.6	2390	2439.4	9.70	9.70	588	574	35.6	42.0	500	79.0	8.2	2.38	1.31	1.04	9.83	8.50	D
82	0420	2453.0	12.7	242	281	110	44.7	2150	2440.2	9.70	9.70	590	569	35.7	42.1	499	80.0	8.3	2.39	1.40	1.13	9.83	8.50	D
83	0424	2454.0	14.2	233	289	110	44.9	2380	2440.8	9.70	9.70	586	591	35.7	42.1	499	81.0	8.4	2.41	1.37	1.10	9.84	8.50	D
84	0429	2455.0	12.8	227	249	110	44.3	2290	2441.3	9.70	9.70	588	567	35.8	42.2	498	82.0	8.5	2.42	1.39	1.12	9.84	8.50	D
85	0443	2456.0	27.2	236	289	110	45.6	2380	2443.3	9.70	9.70	592	595	35.8	42.3	496	83.0	8.5	2.45	1.20	.92	9.83	8.50	D
86	0449	2457.0	10.6	235	279	110	44.3	2460	2444.3	9.70	9.70	593	572	35.8	42.3	495	84.0	8.6	2.47	1.44	1.17	9.83	8.50	D
87	0500	2458.0	5.26	218	268	110	46.0	2200	2445.6	9.70	9.70	593	574	35.7	42.4	495	85.0	8.8	2.51	1.66	1.38	9.83	8.50	D
88	0511	2459.0	5.70	224	271	110	45.1	2370	2446.8	9.70	9.70	594	573	35.8	42.4	498	86.0	9.0	2.54	1.63	1.35	9.83	8.50	D
89	0517	2460.0	9.26	258	329	110	45.8	2190	2448.3	9.70	9.70	592	572	35.8	42.4	499	87.0	9.1	2.56	1.50	1.22	9.83	8.50	D
90	0522	2461.0	11.5	266	310	110	46.9	2340	2449.3	9.70	9.70	591	595	35.9	42.3	501	88.0	9.2	2.58	1.45	1.17	9.83	8.50	D
91	0526	2462.0	15.1	263	291	110	46.0	2350	2449.8	9.70	9.70	592	573	35.9	42.3	502	89.0	9.3	2.59	1.36	1.09	9.83	8.50	D
92	0530	2463.0	17.9	275	302	110	45.1	2450	2450.2	9.70	9.70	594	585	36.0	42.3	501	90.0	9.3	2.60	1.31	1.03	9.83	8.50	D
93	0534	2464.0	13.1	260	294	110	45.6	2340	2450.7	9.70	9.70	592	597	36.0	42.3	504	91.0	9.4	2.62	1.40	1.12	9.84	8.50	D
94	0546	2465.0	12.7	262	310	110	44.4	2400	2452.7	9.70	9.70	583	567	36.1	42.3	505	92.0	9.5	2.64	1.40	1.12	9.83	8.50	DX
95	0604	2466.0	14.2	272	334	110	44.7	2350	2456.4	9.70	9.70	588	567	36.1	42.4	506	93.0	9.6	2.65	1.37	1.09	9.82	8.50	D
96	0617	2467.0	13.1	260	321	110	43.3	2420	2457.8	9.70	9.70	592	594	36.4	42.4	509	94.0	9.7	2.67	1.38	1.10	9.82	8.50	D
97	0620	2468.0	22.3	284	300	110	42.5	2440	2458.0	9.67	9.70	590	568	36.5	42.4	510	95.0	9.7	2.68	1.23	.95	9.82	8.50	D
98	0623	2469.0	20.4	286	314	110	43.5	2440	2458.3	9.60	9.70	591	577	36.6	42.4	510	96.0	9.8	2.68	1.26	.98	9.82	8.50	D
99	0626	2470.0	16.7	283	314	110	44.6	2320	2458.7	9.60	9.70	592	584	36.7	42.4	510	97.0	9.8	2.70	1.32	1.04	9.83	8.50	D

ESSO AUSTRALIA: Sawbelly No.1

Data Printed at time 02:44 Date Mar 18 '90

Data Recorded at time 06:29 Date Mar 16 '90

F#	TIME	DEPTH	ROP:		TORQUE		RPM	WOB	PUMP:RTNRS		MD lb/gal		FLOW/MIN		TEMP (C)		PVT:	-THIS BIT-		EST:	DXC	NXB	ECD	NXMD:
			m/hr:	AVG	MAX	AVG			PRES:	DEPTH	IN	OUT	IN	OUT	IN	OUT		m	hr					
100	0629	2471.0	21.7	285	309	110	44.7	2420	2458.9	9.60	9.70	590	574	36.9	42.5	510	98.0	9.9	2.71	1.25	.97	9.83	8.50	D
101	0632	2472.0	19.4	286	301	110	44.8	2390	2459.3	9.60	9.70	591	594	37.0	42.5	512	99.0	9.9	2.72	1.28	1.00	9.83	8.50	D
102	0635	2473.0	19.9	290	315	110	44.5	2350	2459.7	9.60	9.70	591	582	37.1	42.5	514	100	10.0	2.73	1.27	.99	9.83	8.50	D
103	0638	2474.0	23.2	292	314	110	43.9	2190	2460.1	9.60	9.70	590	581	37.2	42.5	513	101	10.0	2.73	1.23	.95	9.83	8.50	D
104	0648	2475.0	21.0	283	320	110	43.7	2350	2461.5	9.60	9.70	585	564	37.5	42.6	515	102	10.1	2.75	1.25	.97	9.82	8.50	DX
105	0651	2476.0	17.6	283	301	110	43.8	2210	2462.4	9.60	9.70	585	566	37.5	42.6	514	103	10.1	2.76	1.30	1.02	9.81	8.50	D
106	0654	2477.0	20.4	282	316	110	43.3	2410	2463.3	9.60	9.70	585	564	37.5	42.6	514	104	10.2	2.77	1.26	.98	9.81	8.50	D
107	0657	2478.0	19.1	291	312	110	42.8	2400	2463.9	9.60	9.70	585	564	37.5	42.6	518	105	10.2	2.78	1.27	.99	9.80	8.50	D
108	0702	2479.0	11.7	280	309	110	44.7	2320	2464.6	9.60	9.70	585	577	37.5	42.7	521	106	10.3	2.79	1.43	1.14	9.80	8.50	D
109	0706	2480.0	14.8	278	333	110	45.7	2320	2465.1	9.60	9.70	585	563	37.6	42.7	522	107	10.4	2.81	1.37	1.09	9.80	8.50	D
110	0713	2481.0	9.56	259	305	110	44.9	2370	2465.2	9.60	9.70	588	592	37.6	42.7	524	108	10.5	2.82	1.49	1.20	9.80	8.50	D
111	0717	2482.0	15.6	270	304	110	43.4	2390	2465.2	9.60	9.70	586	589	37.6	42.7	524	109	10.5	2.82	1.34	1.05	9.79	8.50	D
112	0720	2483.0	18.8	281	321	110	43.8	2190	2465.3	9.60	9.70	587	579	37.6	42.7	527	110	10.6	2.83	1.29	1.01	9.79	8.50	D
113	0731	2484.0	18.1	269	324	110	43.0	2420	2466.9	9.60	9.70	583	591	37.7	42.7	529	111	10.7	2.83	1.29	1.01	9.78	8.50	D
114	0735	2485.0	14.7	283	325	110	43.9	2350	2467.1	9.60	9.70	589	575	37.6	42.7	529	112	10.8	2.84	1.36	1.08	9.78	8.50	D
115	0743	2486.0	7.25	250	327	110	45.5	2440	2468.2	9.60	9.70	589	580	37.6	42.6	530	113	10.9	2.85	1.57	1.29	9.77	8.50	D
116	0753	2487.0	6.50	237	276	110	45.3	2370	2471.2	9.60	9.70	591	577	37.6	42.6	530	114	11.0	2.86	1.61	1.32	9.75	8.50	D
117	0758	2488.0	10.6	242	274	110	45.5	2310	2473.0	9.60	9.70	593	571	37.6	42.6	531	115	11.1	2.86	1.47	1.18	9.74	8.50	D
118	0806	2489.0	7.64	236	294	110	44.4	2400	2474.7	9.60	9.70	591	576	37.6	42.6	532	116	11.3	2.87	1.55	1.27	9.74	8.50	D
119	0814	2490.0	7.78	232	275	110	44.9	2430	2477.0	9.60	9.70	594	573	37.7	42.6	533	117	11.4	2.88	1.55	1.27	9.74	8.50	D
120	0819	2491.0	10.2	254	295	110	45.1	2340	2478.8	9.60	9.70	593	573	37.7	42.6	534	118	11.5	2.89	1.48	1.19	9.73	8.50	D
121	0826	2492.0	9.17	250	328	110	46.7	2380	2480.2	9.60	9.70	591	570	37.7	42.6	534	119	11.6	2.89	1.53	1.24	9.73	8.50	D
122	0830	2493.0	15.5	241	273	110	43.1	2290	2480.9	9.60	9.70	591	583	37.8	42.7	534	120	11.7	2.90	1.34	1.06	9.73	8.50	D
123	0851	2494.0	10.3	244	289	110	44.2	2420	2484.0	9.60	9.70	597	600	37.8	42.8	535	121	11.8	2.91	1.47	1.18	9.72	8.50	D
124	0854	2495.0	19.7	265	299	110	42.1	2490	2484.6	9.60	9.70	598	585	37.8	42.8	536	122	11.8	2.91	1.27	.99	9.72	8.50	D
125	0900	2496.0	8.75	254	291	110	42.9	2500	2485.6	9.60	9.70	596	587	37.8	42.8	537	123	12.0	2.92	1.50	1.21	9.72	8.50	D
126	0908	2497.0	7.23	249	320	110	46.8	2460	2486.4	9.60	9.70	596	587	37.9	42.8	539	124	12.1	2.93	1.60	1.30	9.72	8.50	D
127	0912	2498.0	14.9	244	268	110	44.1	2470	2486.8	9.60	9.70	596	576	38.0	42.8	538	125	12.2	2.93	1.37	1.08	9.73	8.50	D
128	0919	2499.0	8.94	246	284	110	44.5	2500	2488.1	9.60	9.70	596	587	38.1	42.9	541	126	12.3	2.94	1.51	1.22	9.73	8.50	D
129	0924	2500.0	11.3	250	281	110	43.3	2310	2488.7	9.60	9.70	596	601	38.2	42.9	541	127	12.4	2.94	1.43	1.15	9.73	8.50	D
130	0928	2501.0	14.6	257	315	110	42.9	2340	2489.2	9.60	9.70	595	575	38.2	43.0	543	128	12.4	2.95	1.36	1.07	9.73	8.50	D
131	0935	2502.0	9.69	248	316	110	44.7	2320	2490.0	9.60	9.70	595	575	38.3	43.0	543	129	12.5	2.95	1.49	1.20	9.73	8.50	D
132	0950	2503.0	9.21	228	270	110	41.8	2160	2491.6	9.60	9.70	590	586	38.6	43.1	542	130	12.7	2.96	1.47	1.19	9.73	8.50	D
133	0957	2504.0	7.95	254	300	110	44.7	2220	2493.3	9.60	9.70	596	600	38.7	43.1	542	131	12.8	2.97	1.55	1.26	9.72	8.50	D
134	1002	2505.0	11.4	240	319	110	43.5	2420	2493.5	9.60	9.70	595	587	38.7	43.1	541	132	12.9	2.98	1.43	1.14	9.73	8.50	D
135	1007	2506.0	12.8	302	346	110	41.5	2440	2493.6	9.60	9.70	594	597	38.7	43.1	542	133	12.9	2.98	1.38	1.10	9.73	8.50	D
136	1014	2507.0	8.13	311	336	110	44.9	2320	2495.2	9.60	9.70	595	586	38.7	43.1	544	134	13.1	2.99	1.54	1.25	9.73	8.50	D
137	1026	2508.0	5.20	303	341	110	44.8	2400	2496.8	9.60	9.70	591	596	38.9	43.1	546	135	13.3	3.00	1.67	1.37	9.73	8.50	D
138	1029	2509.0	18.1	339	379	110	43.2	2390	2497.1	9.60	9.70	592	583	38.9	43.1	548	136	13.3	3.00	1.30	1.01	9.73	8.50	D
139	1033	2510.0	16.9	302	368	110	41.1	2310	2497.9	9.60	9.70	593	573	38.9	43.1	550	137	13.4	3.01	1.30	1.02	9.73	8.50	D
140	1041	2511.0	6.65	287	324	110	44.7	2370	2499.4	9.60	9.70	595	574	39.0	43.2	550	138	13.5	3.02	1.59	1.30	9.73	8.50	D
141	1052	2512.0	5.52	284	321	110	44.2	2320	2501.8	9.60	9.70	594	580	39.1	43.2	552	139	13.7	3.03	1.64	1.35	9.72	8.50	D
142	1112	2513.0	6.01	281	359	110	43.9	2190	2503.1	9.60	9.70	589	568	39.0	43.3	552	140	13.9	3.04	1.62	1.32	9.72	8.50	D
143	1121	2514.0	6.81	287	363	110	45.2	1310	2504.3	9.60	9.70	537	506	39.0	43.3	552	141	14.1	3.05	1.60	1.30	9.72	8.50	D
144	1128	2515.0	8.66	284	344	110	43.4	2510	2505.5	9.60	9.70	601	586	39.0	43.4	549	142	14.2	3.06	1.51	1.22	9.72	8.50	D
145	1133	2516.0	13.4	337	394	110	44.5	2450	2506.5	9.60	9.70	601	581	39.1	43.4	547	143	14.2	3.06	1.40	1.11	9.72	8.50	D
146	1140	2517.0	8.45	334	401	110	45.0	2540	2507.3	9.60	9.70	604	607	39.0	43.5	549	144	14.4	3.07	1.53	1.24	9.72	8.50	D
147	1145	2518.0	11.8	337	410	110	45.4	2370	2507.7	9.60	9.70	592	572	38.9	43.5	545	145	14.4	3.08	1.44	1.15	9.72	8.50	D

ESSO AUSTRALIA: Sawbelly No.1

Data Printed at time 02:48 Date Mar 18 '90
 Data Recorded at time 11:50 Date Mar 16 '90

F#	TIME	DEPTH	ROP:	TORQUE		RPM	WOB	PUMP:RTRNS	MD lb/gal		FLOW/MIN		TEMP (C)		PVT:	-THIS	BIT-	EST:	DXC	NXB	ECD	NXMD:
			m/hr:	AVG	MAX				AVG	PRES:	DEPTH	IN	OUT	IN		OUT	IN	OUT				
148	1150	2519.0	10.6	336	427	110	45.7	2330:2508.4	9.60	9.70	592	572	39.0	43.6	549:	146	14.5	3.08	1.48	1.18	9.72	8.50
149	1155	2520.0	12.4	309	419	110	44.2	2410:2509.5	9.60	9.70	591	577	39.2	43.6	552:	147	14.6	3.09	1.42	1.12	9.72	8.50
150	1201	2521.0	9.81	322	382	110	45.2	2370:2510.7	9.60	9.70	592	582	39.4	43.7	547:	148	14.7	3.09	1.49	1.20	9.72	8.50
151	1218	2522.0	8.15	307	445	110	45.3	2340:2511.9	9.60	9.70	583	564	39.8	43.8	540:	149	14.9	3.10	1.55	1.25	9.72	8.50
152	1235	2523.0	4.53	281	327	110	48.3	2300:2513.1	9.60	9.70	582	560	40.0	43.9	542:	150	15.2	3.12	1.75	1.44	9.72	8.50
153	1244	2524.0	6.47	326	368	110	45.6	2370:2514.2	9.60	9.70	588	575	40.1	44.0	543:	151	15.3	3.13	1.61	1.32	9.72	8.50
154	1254	2525.0	6.02	256	317	110	44.7	2360:2516.1	9.60	9.70	583	570	40.1	44.1	540:	152	15.5	3.14	1.63	1.33	9.72	8.50
155	1303	2526.0	6.54	269	301	110	44.4	2340:2517.7	9.60	9.70	582	562	40.2	44.2	539:	153	15.6	3.15	1.60	1.30	9.71	8.50
156	1308	2527.0	10.8	279	313	110	44.4	2330:2518.3	9.60	9.70	583	569	40.2	44.2	538:	154	15.7	3.16	1.46	1.16	9.71	8.50
157	1317	2528.0	7.01	268	301	110	44.4	2370:2520.1	9.60	9.70	583	562	40.3	44.3	537:	155	15.9	3.16	1.58	1.28	9.71	8.50
158	1325	2529.0	7.29	270	286	110	44.5	2350:2521.5	9.60	9.70	582	573	40.4	44.3	537:	156	16.0	3.17	1.57	1.27	9.71	8.50
159	1331	2530.0	10.8	281	353	110	44.4	2160:2521.7	9.60	9.70	583	573	40.4	44.4	534:	157	16.1	3.18	1.46	1.16	9.71	8.50
160	1339	2531.0	7.01	270	305	110	46.0	2310:2522.1	9.60	9.70	584	586	40.4	44.5	530:	158	16.2	3.19	1.60	1.30	9.72	8.50
161	1401	2532.0	3.58	274	301	110	39.8	2400:2523.3	9.60	9.70	583	592	40.5	44.5	527:	159	16.4	3.20	1.71	1.42	9.71	8.50
162	1403	2533.0	24.4	297	354	110	43.2	2470:2523.5	9.60	9.70	589	592	40.5	44.6	527:	160	16.5	3.20	1.22	.93	9.72	8.50
163	1413	2534.0	6.37	316	342	110	43.6	2460:2524.6	9.60	9.70	590	595	40.5	44.5	528:	161	16.6	3.21	1.60	1.30	9.72	8.50
164	1419	2535.0	8.93	319	341	110	43.8	2250:2525.3	9.60	9.70	587	592	40.6	44.6	528:	162	16.7	3.22	1.50	1.21	9.72	8.50
165	1425	2536.0	10.7	325	365	110	43.1	2410:2525.9	9.60	9.70	587	566	40.7	44.6	529:	163	16.8	3.22	1.45	1.15	9.72	8.50
166	1432	2537.0	8.59	310	359	110	43.1	2430:2527.1	9.60	9.70	587	592	40.8	44.6	530:	164	16.9	3.23	1.51	1.21	9.72	8.50
167	1437	2538.0	10.9	320	387	110	44.4	2360:2527.8	9.60	9.70	587	566	40.8	44.6	533:	165	17.0	3.24	1.45	1.16	9.72	8.50
168	1451	2539.0	4.48	296	325	110	43.8	2210:2529.5	9.60	9.70	588	573	40.8	44.6	536:	166	17.2	3.25	1.70	1.40	9.72	8.50
169	1505	2540.0	4.24	277	303	110	44.2	2380:2531.7	9.60	9.70	586	571	40.8	44.6	538:	167	17.5	3.26	1.72	1.42	9.71	8.50
170	1522	2541.0	3.49	249	273	110	44.6	2440:2533.1	9.60	9.70	588	575	40.9	44.5	535:	168	17.8	3.28	1.78	1.48	9.71	8.50
171	1544	2542.0	4.33	250	278	110	43.6	2420:2535.4	9.60	9.70	587	579	40.9	44.5	531:	169	18.0	3.30	1.71	1.41	9.71	8.50
172	1600	2543.0	3.67	248	272	110	43.9	2280:2538.2	9.60	9.70	587	578	41.0	44.5	535:	170	18.3	3.31	1.76	1.46	9.70	8.50
173	1607	2544.0	9.31	266	288	110	44.4	2360:2538.8	9.60	9.70	584	570	40.9	44.5	541:	171	18.4	3.32	1.50	1.20	9.70	8.50
174	1618	2545.0	5.38	256	281	110	44.9	2330:2539.5	9.60	9.70	585	588	40.7	44.5	546:	172	18.6	3.33	1.66	1.36	9.70	8.50
175	1623	2546.0	11.3	298	363	110	44.1	2380:2539.8	9.60	9.70	586	573	40.7	44.5	546:	173	18.7	3.34	1.44	1.14	9.70	8.50
176	1630	2547.0	8.24	319	337	110	43.9	2310:2540.4	9.60	9.70	586	566	40.7	44.5	547:	174	18.8	3.35	1.53	1.23	9.71	8.50
177	1642	2548.0	5.24	305	344	110	44.6	2370:2541.0	9.60	9.70	584	563	40.9	44.5	544:	175	19.0	3.36	1.66	1.36	9.71	8.50
178	1658	2549.0	3.69	297	327	110	45.0	2360:2541.8	9.60	9.70	585	571	41.2	44.5	542:	176	19.3	3.37	1.77	1.46	9.71	8.50
179	1712	2550.0	4.26	309	330	110	44.7	2360:2542.8	9.60	9.70	585	590	41.3	44.5	541:	177	19.5	3.39	1.72	1.42	9.71	8.50
180	1731	2551.0	5.78	329	408	110	44.1	2450:2544.4	9.60	9.70	590	597	41.3	44.5	537:	178	19.7	3.40	1.63	1.33	9.71	8.50
181	1744	2552.0	4.41	306	378	110	44.6	2450:2545.9	9.60	9.70	595	582	41.1	44.4	550:	179	19.9	3.41	1.71	1.41	9.70	8.50
182	1751	2553.0	8.13	308	353	110	43.8	2390:2547.0	9.60	9.70	594	573	41.0	44.4	549:	180	20.0	3.42	1.53	1.23	9.70	8.50
183	1803	2554.0	5.03	247	266	110	44.4	2460:2548.1	9.60	9.70	593	572	41.1	44.4	547:	181	20.2	3.43	1.67	1.37	9.70	8.50
184	1818	2555.0	4.11	242	266	110	44.3	2430:2549.0	9.60	9.70	593	584	41.2	44.4	543:	182	20.5	3.45	1.73	1.42	9.70	8.50
185	1828	2556.0	5.97	249	285	110	43.8	2370:2549.7	9.60	9.70	593	584	41.4	44.4	544:	183	20.6	3.46	1.62	1.32	9.70	8.50
186	1835	2557.0	8.28	264	298	110	44.1	2390:2550.3	9.60	9.70	593	595	41.4	44.4	544:	184	20.7	3.46	1.53	1.23	9.71	8.50
187	1845	2558.0	5.68	302	332	110	44.2	2520:2551.1	9.60	9.70	593	596	41.5	44.4	539:	185	20.9	3.47	1.64	1.33	9.71	8.50
188	1854	2559.0	6.86	319	344	110	44.8	2480:2551.8	9.60	9.70	592	571	41.6	44.4	538:	186	21.1	3.48	1.59	1.28	9.71	8.50
189	1908	2560.0	4.20	297	331	110	45.6	2450:2553.2	9.60	9.70	593	578	41.6	44.4	536:	187	21.3	3.50	1.74	1.43	9.71	8.50
190	1935	2561.0	4.09	266	327	110	44.0	2410:2554.6	9.60	9.70	587	593	41.5	44.3	531:	188	21.6	3.51	1.73	1.42	9.70	8.50
191	1945	2562.0	6.20	254	324	110	45.2	2450:2555.3	9.60	9.70	585	565	41.4	44.2	530:	189	21.7	3.52	1.62	1.32	9.71	8.50
192	1955	2563.0	5.89	245	272	110	45.2	2250:2556.3	9.60	9.70	588	566	41.4	44.2	537:	190	21.9	3.53	1.64	1.33	9.71	8.50
193	2004	2564.0	6.62	249	288	110	45.1	2490:2557.4	9.60	9.70	587	573	41.3	44.2	538:	191	22.0	3.54	1.60	1.30	9.71	8.50
194	2012	2565.0	7.49	251	270	110	45.4	2440:2558.1	9.60	9.70	587	573	41.2	44.2	537:	192	22.2	3.55	1.57	1.26	9.71	8.50
195	2025	2566.0	4.89	247	298	110	45.6	2320:2559.5	9.60	9.70	586	589	41.3	44.3	535:	193	22.4	3.56	1.70	1.38	9.71	8.50

ESSO AUSTRALIA: Sawbelly No.1

Data Printed at time 02:52 Date Mar 18 '90
 Data Recorded at time 20:35 Date Mar 16 '90

F#	TIME	DEPTH	ROP		TORQUE		RPM	WOB	PUMP:RTRNS		MD lb/gal		FLOW/MIN		TEMP (C)	PVT:	-THIS BIT- EST: DXC			NXB	ECD	NXMD:	
			m/hr	AVG	MAX	AVG			PRES:	DEPTH	IN	OUT	IN	OUT			m	hr	TW:				
196	2035	2567.0	5.67	244	262	110	45.9	2330	2560.2	9.60	9.70	587	578	41.4	44.3	533	194	22.5	3.57	1.66	1.35	9.71	8.50
197	2046	2568.0	5.68	250	295	110	45.7	2460	2560.6	9.60	9.70	587	567	41.4	44.3	530	195	22.7	3.59	1.65	1.34	9.71	8.50
198	2053	2569.0	8.44	251	282	110	45.0	2320	2561.2	9.60	9.70	587	567	41.5	44.4	529	196	22.8	3.59	1.54	1.22	9.71	8.50
199	2118	2570.0	9.46	267	294	110	44.8	2320	2563.0	9.60	9.70	586	578	41.5	44.5	527	197	23.1	3.61	1.50	1.19	9.71	8.50
200	2130	2571.0	5.00	270	343	110	45.1	2410	2564.1	9.60	9.70	587	567	41.2	44.6	540	198	23.3	3.62	1.68	1.37	9.71	8.50
201	2133	2572.0	20.4	293	346	110	45.5	2250	2564.4	9.60	9.70	587	591	41.2	44.6	539	199	23.3	3.62	1.29	.98	9.71	8.50
202	2139	2573.0	8.99	275	302	110	45.1	2430	2565.3	9.60	9.70	588	591	41.2	44.7	538	200	23.4	3.63	1.52	1.21	9.71	8.50
203	2148	2574.0	6.55	268	296	110	44.5	2420	2566.0	9.60	9.70	586	565	41.4	44.8	537	201	23.6	3.64	1.60	1.29	9.71	8.50
204	2155	2575.0	9.74	277	311	110	45.0	2330	2566.6	9.60	9.70	586	572	41.4	44.9	536	202	23.7	3.64	1.49	1.18	9.71	8.50
205	2159	2576.0	12.7	291	322	110	45.0	2430	2567.0	9.60	9.70	586	592	41.5	45.0	535	203	23.7	3.65	1.42	1.11	9.72	8.50
206	2205	2577.0	10.9	282	307	110	44.6	2390	2567.5	9.60	9.70	589	575	41.6	45.0	535	204	23.8	3.65	1.46	1.15	9.72	8.50
207	2211	2578.0	9.18	276	306	110	45.4	2480	2568.1	9.60	9.70	586	565	41.7	45.1	532	205	23.9	3.66	1.51	1.20	9.72	8.50
208	2231	2579.0	4.90	262	289	110	44.3	2440	2569.9	9.60	9.70	583	565	41.8	45.3	528	206	24.2	3.67	1.68	1.37	9.72	8.50
209	2240	2580.0	6.59	273	295	110	44.5	2330	2570.1	9.60	9.70	585	592	41.7	45.4	525	207	24.3	3.68	1.60	1.29	9.72	8.50
210	2245	2581.0	10.8	292	362	110	45.1	2400	2570.7	9.60	9.70	586	591	41.7	45.4	526	208	24.4	3.69	1.46	1.15	9.72	8.50
211	2251	2582.0	10.4	284	350	110	44.2	2460	2571.1	9.60	9.70	586	566	41.8	45.4	528	209	24.5	3.69	1.47	1.15	9.72	8.50
212	2259	2583.0	7.86	273	302	110	44.7	2200	2572.6	9.60	9.70	582	587	41.7	45.5	534	210	24.6	3.70	1.55	1.24	9.72	8.50
213	2305	2584.0	9.24	281	305	110	44.9	2370	2573.6	9.60	9.70	582	561	41.6	45.5	532	211	24.7	3.71	1.51	1.19	9.72	8.50
214	2313	2585.0	8.22	288	314	110	44.9	2370	2574.4	9.60	9.70	581	584	41.6	45.6	531	212	24.9	3.71	1.54	1.23	9.72	8.50
215	2320	2586.0	7.76	283	301	110	44.2	2220	2575.7	9.60	9.70	581	561	41.7	45.7	529	213	25.0	3.72	1.55	1.24	9.72	8.50
216	2332	2587.0	5.38	291	353	110	44.5	2370	2577.6	9.60	9.70	581	559	41.8	45.8	528	214	25.2	3.73	1.65	1.34	9.72	8.50
217	2340	2588.0	7.41	279	299	110	44.3	2430	2578.6	9.60	9.70	579	565	41.9	45.8	526	215	25.3	3.74	1.56	1.25	9.72	8.50
218	2356	2589.0	6.24	298	345	110	45.5	2410	2579.2	9.60	9.70	582	594	42.0	45.9	532	216	25.5	3.75	1.63	1.31	9.70	8.50
Date Mar 17 '90																							
219	0005	2590.0	6.74	292	328	110	44.0	2420	2580.0	9.60	9.70	591	582	41.8	46.0	521	217	25.6	3.76	1.58	1.27	9.72	8.50
220	0017	2591.0	4.61	283	318	110	43.5	2390	2582.0	9.60	9.70	589	594	41.7	46.0	519	218	25.8	3.77	1.68	1.37	9.72	8.50
221	0029	2592.0	5.01	299	392	110	44.7	2350	2583.7	9.60	9.70	587	590	41.7	46.1	517	219	26.0	3.78	1.68	1.36	9.71	8.50
222	0037	2593.0	7.94	298	325	110	44.3	2380	2584.7	9.60	9.70	588	573	41.7	46.1	517	220	26.1	3.79	1.54	1.23	9.71	8.50
223	0048	2594.0	5.18	316	344	110	44.2	2460	2586.2	9.60	9.70	587	573	41.8	46.2	513	221	26.3	3.80	1.66	1.35	9.71	8.50
224	0055	2595.0	8.93	321	344	110	43.5	2240	2586.7	9.60	9.70	587	567	41.8	46.2	510	222	26.5	3.81	1.50	1.19	9.71	8.50
225	0108	2596.0	4.54	306	340	110	43.9	2430	2588.3	9.60	9.70	585	564	41.9	46.3	508	223	26.7	3.82	1.70	1.38	9.71	8.50
226	0119	2597.0	5.77	283	311	110	43.9	2510	2589.4	9.60	9.70	588	566	42.0	46.4	505	224	26.8	3.83	1.63	1.31	9.71	8.50
227	0134	2598.0	10.2	308	360	110	43.8	2350	2590.8	9.60	9.70	587	567	41.9	46.6	501	225	27.0	3.84	1.47	1.15	9.71	8.50
228	0135	2599.0	6.38	277	335	110	41.7	2480	2590.9	9.60	9.70	587	579	41.9	46.6	499	226	27.0	3.84	1.57	1.26	9.71	8.50
229	0143	2600.0	8.28	280	307	110	43.0	2370	2591.5	9.60	9.70	590	581	41.9	46.6	501	227	27.1	3.85	1.52	1.20	9.71	8.50
230	0157	2601.0	4.15	269	299	110	45.1	2450	2593.0	9.60	9.70	586	591	42.0	46.7	501	228	27.3	3.86	1.73	1.42	9.71	8.50
231	0206	2602.0	6.35	291	338	110	43.1	2470	2594.1	9.60	9.70	588	574	42.0	46.7	501	229	27.5	3.87	1.59	1.28	9.71	8.50
232	0213	2603.0	8.88	291	324	110	44.2	2370	2594.7	9.60	9.70	586	566	42.0	46.8	500	230	27.6	3.88	1.51	1.19	9.71	8.50
233	0222	2604.0	6.54	281	316	110	44.2	2230	2596.3	9.60	9.70	587	578	42.0	46.8	500	231	27.8	3.88	1.60	1.28	9.71	8.50
234	0234	2605.0	5.35	266	360	110	44.6	2400	2597.1	9.60	9.70	585	588	42.0	46.9	500	232	27.9	3.90	1.66	1.34	9.71	8.50
235	0236	2606.0	25.2	276	345	110	42.5	2410	2597.3	9.60	9.70	587	591	42.0	46.9	500	233	28.0	3.90	1.21	.89	9.71	8.50
236	0246	2607.0	6.05	261	292	110	45.4	2440	2598.5	9.60	9.70	586	565	42.0	46.9	501	234	28.2	3.91	1.63	1.31	9.71	8.50
237	0255	2608.0	6.78	262	288	110	46.0	2370	2599.2	9.60	9.70	588	579	42.0	46.9	501	235	28.3	3.92	1.61	1.28	9.71	8.50
238	0308	2609.0	10.9	264	298	110	44.4	2490	2600.5	9.60	9.70	586	568	41.9	46.9	499	236	28.4	3.92	1.46	1.14	9.71	8.50
239	0316	2610.0	7.16	271	298	110	46.3	2340	2601.0	9.60	9.70	585	564	41.9	46.8	501	237	28.5	3.93	1.60	1.27	9.71	8.50
240	0324	2611.0	7.31	261	287	110	46.8	2270	2601.6	9.60	9.70	583	569	41.9	46.8	501	238	28.7	3.94	1.59	1.27	9.72	8.50
241	0331	2612.0	8.57	252	275	110	45.3	2410	2602.5	9.60	9.70	580	565	41.9	46.7	502	239	28.8	3.95	1.53	1.21	9.72	8.50
242	0340	2613.0	6.86	257	300	110	46.5	2460	2603.6	9.60	9.70	581	561	41.9	46.7	500	240	28.9	3.95	1.61	1.28	9.72	8.50

F#	TIME	DEPTH	ROP:		TORQUE		RPM	WOB	PUMP:RTNS		MD lb/gal		FLOW/MIN		TEMP (C)	PVT:	-THIS BIT-		EST:	DXC	NXB	ECD	NXMD:	
			m/hr:	AVG	MAX	AVG			AVG	PRES:	DEPTH	IN	OUT	IN			OUT	m						hr
1243	0346	2614.0	10.8	256	280	110	44.1	2350	2604.2	9.60	9.70	581	586	41.9	46.6	499	241	29.0	3.96	1.46	1.14	9.72	8.50	D
1244	0358	2615.0	4.82	252	278	110	45.8	2320	2605.3	9.60	9.70	581	560	42.0	46.6	500	242	29.2	3.97	1.70	1.38	9.73	8.50	D
1245	0407	2616.0	6.65	254	279	110	45.4	2450	2607.1	9.60	9.70	578	557	42.0	46.6	500	243	29.4	3.98	1.60	1.28	9.72	8.50	D
1246	0414	2617.0	8.69	264	293	110	46.0	2330	2607.6	9.60	9.70	578	558	42.0	46.6	501	244	29.5	3.99	1.54	1.21	9.72	8.50	D
1247	0429	2618.0	9.68	265	292	110	45.5	2510	2608.6	9.60	9.70	595	581	42.0	46.6	501	245	29.6	4.00	1.50	1.18	9.73	8.50	D
1248	0442	2619.0	4.73	265	295	110	45.6	2460	2610.4	9.60	9.70	595	581	42.0	46.6	501	246	29.8	4.01	1.70	1.38	9.72	8.50	D
1249	0446	2620.0	12.8	282	333	110	44.3	2390	2611.0	9.60	9.70	594	585	42.0	46.6	503	247	29.9	4.01	1.41	1.09	9.72	8.50	D
1250	0454	2621.0	7.34	265	295	110	45.8	2490	2612.1	9.60	9.70	594	574	42.0	46.6	504	248	30.0	4.02	1.58	1.26	9.72	8.50	D
1251	0515	2622.0	2.97	244	279	110	46.1	2450	2614.8	9.60	9.70	595	585	42.0	46.5	504	249	30.4	4.04	1.84	1.51	9.72	8.50	D
1252	0526	2623.0	5.31	255	281	110	45.7	2510	2615.6	9.60	9.70	594	600	42.0	46.5	503	250	30.6	4.05	1.67	1.35	9.72	8.50	D
1253	0542	2624.0	3.65	248	296	110	46.6	2470	2617.9	9.60	9.70	596	575	42.2	46.5	502	251	30.8	4.07	1.79	1.46	9.71	8.50	D
1254	0551	2625.0	7.02	250	269	110	46.3	2510	2618.5	9.60	9.70	590	592	42.0	46.5	503	252	31.0	4.08	1.60	1.27	9.71	8.50	D
1255	0604	2626.0	4.43	250	287	110	46.0	2470	2619.9	9.60	9.70	594	599	41.8	46.4	506	253	31.2	4.09	1.73	1.40	9.71	8.50	D
1256	0614	2627.0	6.18	246	274	110	44.8	2380	2621.3	9.60	9.70	594	596	41.9	46.3	508	254	31.4	4.10	1.62	1.29	9.71	8.50	D
1257	0634	2628.0	6.43	259	290	110	45.9	2410	2622.0	9.60	9.70	589	592	41.9	46.2	506	255	31.5	4.11	1.62	1.29	9.71	8.50	D
1258	0645	2629.0	5.38	260	287	110	45.4	2450	2622.7	9.60	9.70	588	574	42.0	46.1	513	256	31.7	4.12	1.67	1.34	9.71	8.50	D
1259	0653	2630.0	7.77	286	335	110	45.1	2290	2623.4	9.60	9.70	586	564	42.1	46.1	514	257	31.8	4.13	1.56	1.23	9.71	8.50	D
1260	0704	2631.0	5.65	311	345	110	45.3	2510	2624.2	9.60	9.70	589	567	42.2	46.1	514	258	32.0	4.14	1.65	1.32	9.71	8.50	D
1261	0715	2632.0	5.26	317	341	110	45.4	2460	2625.2	9.60	9.70	593	586	42.3	46.2	512	259	32.2	4.15	1.67	1.34	9.71	8.50	D
1262	0722	2633.0	8.90	323	347	110	45.6	2220	2625.8	9.60	9.70	587	567	42.3	46.2	512	260	32.3	4.16	1.53	1.20	9.72	8.50	D
1263	0735	2634.0	4.42	307	337	110	46.3	2410	2627.0	9.60	9.70	585	571	42.4	46.3	509	261	32.5	4.17	1.73	1.40	9.72	8.50	D
1264	0749	2635.0	4.35	311	351	110	48.3	2450	2627.7	9.60	9.70	587	573	42.4	46.3	504	262	32.8	4.18	1.76	1.42	9.72	8.50	D
1265	0800	2636.0	5.52	325	357	110	47.2	2470	2628.7	9.60	9.70	588	593	42.4	46.3	504	263	33.0	4.19	1.68	1.34	9.72	8.50	D
1266	0814	2637.0	4.35	321	344	110	43.9	2230	2630.3	9.60	9.70	592	582	42.4	46.3	499	264	33.2	4.21	1.71	1.38	9.71	8.50	D
1267	0831	2638.0	8.25	281	334	110	43.0	2490	2631.5	9.60	9.70	591	598	42.3	46.3	487	265	33.3	4.22	1.52	1.19	9.72	8.50	D
1268	0839	2639.0	6.99	280	317	110	43.9	2480	2632.3	9.60	9.70	593	590	42.4	46.3	485	266	33.5	4.23	1.57	1.25	9.71	8.50	D
1269	0843	2640.0	16.2	289	325	110	43.8	2450	2632.8	9.60	9.70	591	599	42.4	46.3	486	267	33.5	4.23	1.34	1.01	9.72	8.50	D
1270	0847	2641.0	12.9	276	386	110	45.2	2490	2633.5	9.60	9.70	591	570	42.4	46.3	485	268	33.6	4.24	1.42	1.09	9.72	8.50	D
1271	0859	2642.0	4.89	322	373	110	47.8	2400	2634.3	9.60	9.70	591	577	42.5	46.4	484	269	33.8	4.25	1.72	1.38	9.72	8.50	D
1272	0907	2643.0	8.50	309	353	110	41.6	2490	2634.8	9.60	9.70	591	571	42.5	46.4	485	270	33.9	4.26	1.49	1.17	9.72	8.50	D
1273	0911	2644.0	14.1	327	360	110	44.0	2460	2635.2	9.60	9.70	592	579	42.2	46.4	488	271	34.0	4.26	1.38	1.05	9.72	8.50	D
1274	0920	2645.0	6.62	293	316	110	43.4	2500	2635.9	9.60	9.70	592	571	42.1	46.4	488	272	34.1	4.27	1.58	1.25	9.72	8.50	D
1275	0933	2646.0	4.44	315	347	110	45.9	2400	2637.0	9.60	9.70	592	583	42.1	46.4	490	273	34.4	4.28	1.72	1.39	9.72	8.50	D
+ NB#7 Smith F27D 12.25" with 3x16 jets. Start depth 2646m.																								
! Run with MWD tool.																								
1282	2027	2647.1	1.80	266	322	97	21.7	2450	2627.3	9.60	9.70	585	571	31.1	46.9	460	1.08	.4	.04	1.56	1.40	9.77	8.50	D
1283	2208	2648.2	2.31	284	348	90	29.9	2270	2627.3	9.60	9.70	589	570	33.0	45.0	440	2.18	.8	.06	1.62	1.45	9.77	8.50	D
1284	2229	2649.0	2.38	286	325	90	32.4	2480	2640.2	9.60	9.70	591	594	34.7	45.4	453	3.00	1.2	.08	1.66	1.48	9.72	8.50	D
1285	2248	2650.0	3.10	281	322	90	33.6	2460	2643.2	9.60	9.70	589	568	36.7	46.3	468	3.98	1.5	.10	1.61	1.43	9.71	8.50	D
1286	2257	2651.0	6.56	301	341	99	40.8	2500	2643.4	9.60	9.70	588	568	37.3	46.6	471	5.00	1.7	.11	1.53	1.33	9.72	8.50	D
1287	2306	2652.0	7.17	315	376	110	44.7	2520	2643.6	9.60	9.70	590	569	37.9	46.7	465	5.98	1.8	.12	1.58	1.38	9.72	8.50	D
1288	2318	2653.0	5.03	306	346	110	45.0	2500	2643.9	9.60	9.70	590	581	38.5	46.7	459	7.00	2.0	.14	1.68	1.48	9.72	8.50	D
1289	2326	2654.0	6.80	311	379	110	44.6	2510	2644.2	9.60	9.70	590	569	38.9	46.7	455	7.99	2.2	.15	1.59	1.39	9.73	8.50	D
1290	2331	2655.0	13.1	337	405	110	44.6	2460	2644.3	9.60	9.70	590	567	39.1	46.7	455	8.98	2.2	.15	1.41	1.20	9.73	8.50	D
1291	2345	2656.0	8.98	362	434	101	45.0	2390	2644.8	9.60	9.70	593	597	39.3	46.9	446	10.0	2.4	.17	1.49	1.29	9.73	8.50	D
1292	2350	2657.0	12.9	375	472	100	45.2	2420	2645.0	9.60	9.70	594	573	39.4	46.9	443	11.0	2.4	.17	1.39	1.19	9.74	8.50	D
1293	2358	2658.0	7.74	363	419	100	45.6	2500	2645.3	9.60	9.70	593	572	39.5	46.9	445	12.0	2.6	.18	1.53	1.33	9.74	8.50	D
! Date Mar 18 '90																								

ESSO AUSTRALIA: Sawbilly No.1

Data Printed at time 18:27 Date Mar 21 '90
 Data Recorded at time 00:09 Date Mar 18 '90

F#	TIME	DEPTH	ROP: m/hr	TORQUE		RPM	WOB	PUMP:RTRNS	MD lb/gal		FLOW/MIN		TEMP (C)		PVT:	-THIS BIT-	EST:	DXC	NXB	ECD	NXMD:
				AVG	MAX				IN	OUT	IN	OUT	IN	OUT							
1294	0009	2659.0	5.20	357	413	100	43.0	2370:2645.8	9.60	9.70	593	580	39.6	46.9	449:13.0	2.8	.19:1.61	1.42	9.74	8.50:D	
1295	0019	2660.0	6.15	277	350	100	40.2	2460:2646.8	9.60	9.70	593	578	39.9	46.9	454:14.0	2.9	.21:1.54	1.34	9.74	8.50:D	
1296	0028	2661.0	6.83	321	377	100	40.3	2420:2647.9	9.60	9.70	591	594	40.0	46.9	458:15.0	3.1	.22:1.51	1.32	9.74	8.50:D	
1297	0033	2662.0	11.3	350	425	100	44.1	2400:2648.5	9.60	9.70	595	598	40.0	46.9	461:16.0	3.2	.22:1.41	1.21	9.74	8.50:D	
1298	0039	2663.0	9.45	381	431	100	50.0	2490:2648.9	9.60	9.70	592	584	40.1	46.9	466:17.0	3.3	.23:1.52	1.31	9.74	8.50:D	
1299	0046	2664.0	8.95	373	484	100	49.7	2440:2649.5	9.60	9.70	591	571	40.1	46.8	480:18.0	3.4	.24:1.53	1.33	9.75	8.50:D	
1300	0051	2665.0	12.2	380	437	100	49.9	2420:2650.3	9.60	9.70	593	577	40.2	46.8	491:19.0	3.5	.25:1.45	1.24	9.75	8.50:D	
1301	0104	2666.0	9.89	311	407	100	43.0	2250:2651.7	9.60	9.70	574	561	40.0	46.9	496:20.0	3.5	.25:1.44	1.24	9.74	8.50:D	
1302	0114	2667.0	5.61	320	422	83	39.9	2380:2653.2	9.60	9.70	587	592	39.9	46.9	504:21.0	3.7	.26:1.51	1.32	9.74	8.50:D	
1303	0125	2668.0	5.53	311	378	80	40.9	2420:2654.7	9.60	9.70	585	565	40.0	46.9	506:22.0	3.9	.27:1.51	1.32	9.74	8.50:D	
1304	0135	2669.0	6.18	308	382	80	40.9	2410:2655.4	9.60	9.70	589	592	40.1	46.9	508:23.0	4.0	.28:1.48	1.29	9.74	8.50:D	
1305	0148	2670.0	4.82	364	452	80	57.2	2400:2657.0	9.60	9.70	589	575	40.3	46.9	510:24.0	4.3	.29:1.73	1.52	9.74	8.50:D	
1306	0109	2671.0	3.01	309	418	79	49.9	2410:2660.4	9.60	9.70	591	583	40.6	46.9	513:25.0	4.6	.31:1.79	1.58	9.73	8.50:D	
1307	0133	2672.0	2.51	265	343	60	40.1	2370:2663.0	9.60	9.70	590	577	40.9	47.0	510:26.0	5.0	.32:1.64	1.46	9.72	8.50:D	
1308	0142	2673.0	6.99	314	399	60	50.2	2330:2663.6	9.60	9.70	590	569	41.1	47.0	508:27.0	5.2	.33:1.47	1.27	9.72	8.50:D	
1309	0150	2674.0	7.12	345	410	60	49.4	2340:2664.7	9.60	9.70	591	577	41.3	47.1	507:28.0	5.3	.33:1.45	1.26	9.72	8.50:D	
1310	0202	2675.0	5.06	332	424	80	49.7	2330:2665.7	9.60	9.70	590	570	41.5	47.3	505:29.0	5.5	.34:1.64	1.43	9.72	8.50:D	
1311	0226	2676.0	3.79	326	401	80	50.6	2430:2667.0	9.60	9.70	594	573	41.6	47.6	503:30.0	5.8	.36:1.73	1.53	9.72	8.50:D	
1312	0237	2677.0	5.13	338	397	80	50.8	2280:2667.4	9.60	9.70	593	572	41.6	47.7	501:31.0	6.0	.37:1.65	1.44	9.73	8.50:D	
1313	0247	2678.0	12.3	345	548	80	41.5	2480:2667.7	9.60	9.70	593	595	41.6	47.8	500:32.0	6.1	.37:1.30	1.11	9.73	8.50:D	
1314	0254	2679.0	7.78	349	406	85	47.2	2260:2668.0	9.60	9.70	592	572	41.6	47.8	499:33.0	6.3	.38:1.51	1.30	9.73	8.50:D	
1315	0305	2680.0	5.88	348	455	100	48.5	2440:2669.0	9.60	9.70	592	597	41.6	47.9	497:34.0	6.4	.40:1.65	1.43	9.73	8.50:D	
1316	0321	2681.0	3.74	324	400	100	47.9	2340:2670.6	9.60	9.70	593	598	41.6	48.0	495:35.0	6.7	.42:1.77	1.56	9.73	8.50:D	
1317	0337	2682.0	3.57	335	404	100	47.5	2450:2671.7	9.60	9.70	589	592	41.5	48.1	495:36.0	7.0	.44:1.78	1.56	9.73	8.50:D	
1318	0400	2683.0	2.91	337	398	100	48.6	2500:2673.2	9.60	9.70	593	572	41.3	48.1	497:37.0	7.3	.46:1.85	1.64	9.73	8.50:D	
1319	0416	2684.0	3.47	321	402	100	48.0	2420:2675.2	9.60	9.70	591	582	41.3	48.1	497:38.0	7.6	.48:1.79	1.58	9.72	8.50:D	
1320	0422	2685.0	5.07	353	454	100	45.9	2470:2675.7	9.60	9.70	589	568	41.3	48.1	499:39.0	7.7	.49:1.45	1.24	9.72	8.50:D	
1321	0433	2686.0	13.6	367	472	100	48.1	2510:2676.3	9.60	9.70	593	579	41.1	48.2	497:40.0	7.8	.50:1.40	1.19	9.73	8.50:D	
1322	0438	2687.0	14.3	371	459	100	46.8	2550:2676.6	9.60	9.70	595	580	41.1	48.1	498:41.0	7.9	.50:1.37	1.16	9.73	8.50:D	
1323	0442	2688.0	15.1	349	402	100	46.9	2520:2676.9	9.60	9.70	594	573	41.0	48.1	498:42.0	7.9	.51:1.36	1.15	9.73	8.50:D	
1324	0448	2689.0	11.2	358	431	100	48.5	2530:2677.3	9.60	9.70	593	579	41.0	48.0	498:43.0	8.0	.52:1.46	1.25	9.73	8.50:D	
1325	0505	2690.0	3.59	284	372	100	47.6	2550:2678.2	9.60	9.70	594	573	40.9	47.8	498:44.0	8.3	.54:1.78	1.56	9.73	8.50:D	
1326	0513	2691.0	7.52	287	367	100	45.6	2380:2678.7	9.60	9.70	595	581	40.9	47.7	499:45.0	8.5	.55:1.54	1.33	9.74	8.50:D	
1327	0517	2692.0	14.4	297	342	100	47.1	2490:2678.9	9.60	9.70	595	582	40.9	47.7	498:46.0	8.5	.55:1.37	1.16	9.74	8.50:D	
1328	0527	2693.0	5.96	285	355	100	47.0	2460:2679.4	9.60	9.70	593	598	40.9	47.6	500:47.0	8.7	.56:1.62	1.41	9.74	8.50:D	
1329	0538	2694.0	5.62	285	365	100	46.7	2280:2680.0	9.60	9.70	593	580	40.9	47.5	500:48.0	8.9	.58:1.64	1.42	9.74	8.50:D	
1330	0556	2695.0	8.55	292	366	100	46.8	2450:2681.6	9.60	9.70	589	568	40.8	47.4	498:49.0	9.0	.59:1.52	1.30	9.74	8.50:D	
1331	0603	2696.0	8.52	313	386	100	47.8	2480:2683.3	9.60	9.70	588	567	40.7	47.3	499:50.0	9.1	.60:1.53	1.31	9.74	8.50:D	
1332	0617	2697.0	4.14	286	360	100	47.6	2490:2685.5	9.60	9.70	589	575	40.7	47.2	499:51.0	9.4	.61:1.74	1.52	9.73	8.50:D	
1333	0635	2698.0	3.45	286	372	100	48.8	2360:2686.4	9.60	9.70	588	574	40.6	47.2	461:52.0	9.7	.63:1.80	1.58	9.73	8.50:D	
1334	0648	2699.0	4.39	288	367	100	47.8	2400:2688.9	9.60	9.70	587	578	40.4	47.0	468:53.0	9.9	.65:1.72	1.50	9.73	8.50:D	
1335	0701	2700.0	4.93	288	369	100	47.1	2400:2689.7	9.60	9.70	586	574	40.4	46.9	468:54.0	10.1	.67:1.68	1.46	9.73	8.50:D	
1336	0706	2701.0	10.2	292	382	100	47.4	2370:2690.6	9.60	9.70	587	565	40.4	46.8	466:55.0	10.2	.67:1.48	1.26	9.73	8.50:D	
1337	0717	2702.0	5.54	294	410	100	47.2	2250:2691.1	9.60	9.70	587	590	40.5	46.7	467:56.0	10.4	.69:1.65	1.43	9.73	8.50:D	
1338	0723	2703.0	10.6	306	415	100	46.5	2390:2691.7	9.60	9.70	586	565	40.5	46.7	465:57.0	10.5	.69:1.46	1.24	9.73	8.50:D	
1339	0731	2704.0	7.10	299	363	100	46.5	2410:2692.7	9.60	9.70	586	590	40.5	46.7	467:58.0	10.6	.70:1.57	1.35	9.73	8.50:D	
1340	0751	2705.0	5.28	304	390	100	45.8	2450:2693.6	9.60	9.70	588	568	40.3	46.5	466:59.0	10.8	.72:1.65	1.43	9.73	8.50:D	
1341	0808	2706.0	3.73	303	372	100	49.0	2430:2694.6	9.60	9.70	588	579	40.3	46.5	467:60.0	11.1	.74:1.78	1.56	9.73	8.50:D	

ESSO AUSTRALIA: Sawbelly No.1

Data Printed at time 18:29 Date Mar 21 '90
 Data Recorded at time 08:14 Date Mar 18 '90

F#	TIME	DEPTH	ROP		TORQUE		RPM	WOB	PUMP:RTRNS		MD lb/gal		FLOW/MIN		TEMP (C)	PVT	-THIS	BIT-	EST-	DXC	NXB	ECD	NYMD	
			m/hr	AVG	MAX	AVG			PRES	DEPTH	IN	OUT	IN	OUT										IN
1342	0814	2707.0	10.0	290	364	100	44.8	2470	2695.1	9.60	9.70	588	594	40.2	46.5	471	161.0	11.2	.74	1.45	1.24	9.73	8.50	D
1343	0816	2708.0	29.9	310	450	100	46.5	2300	2695.3	9.60	9.70	589	569	40.2	46.5	473	162.0	11.2	.75	1.16	.94	9.74	8.50	D
1344	0821	2709.0	10.2	310	393	100	44.6	2430	2695.7	9.60	9.70	590	570	40.1	46.4	473	163.0	11.3	.75	1.45	1.23	9.74	8.50	D
1345	0829	2710.0	7.28	290	353	100	46.3	2390	2696.7	9.60	9.70	590	576	40.1	46.4	474	164.0	11.5	.76	1.56	1.34	9.74	8.50	D
1346	0844	2711.0	4.19	283	365	100	48.2	2480	2698.3	9.60	9.70	586	565	40.0	46.3	475	165.0	11.7	.78	1.74	1.51	9.74	8.50	D
1347	0905	2712.0	2.82	270	362	100	47.5	2480	2700.5	9.60	9.70	588	579	40.1	46.3	482	166.0	12.1	.81	1.84	1.62	9.73	8.50	D
1348	0923	2713.0	3.38	278	350	100	48.0	2420	2701.8	9.60	9.70	587	578	39.7	46.3	502	167.0	12.3	.83	1.80	1.57	9.73	8.50	D
1349	0950	2714.0	5.43	278	348	100	47.4	2500	2704.4	9.60	9.70	589	571	39.5	46.3	501	168.0	12.6	.84	1.66	1.43	9.72	8.50	D
1350	0952	2716.0	10.5	287	384	100	51.6	2360	2704.9	9.60	9.70	592	570	39.5	46.3	499	170.0	12.6	.84	1.47	1.25	9.72	8.50	D
1351	1014	2718.0	9.67	259	376	100	50.6	2460	2710.6	9.60	9.70	589	574	39.6	46.0	515	172.0	13.0	.91	1.49	1.27	9.74	8.50	D
1352	1033	2720.0	11.4	317	335	100	49.1	2310	2711.4	9.60	9.70	589	592	39.5	46.2	506	174.0	13.3	.89	1.50	1.28	9.74	8.50	D
1353	1042	2722.0	9.43	256	276	100	50.2	2530	2710.6	9.60	9.70	590	569	39.5	46.2	509	176.0	13.5	.90	1.49	1.26	9.74	8.50	D
1354	1050	2723.0	6.67	271	285	100	49.5	2510	2710.6	9.60	9.70	589	575	39.5	46.0	513	177.0	13.6	.91	1.62	1.39	9.74	8.50	D
1355	1108	2724.0	5.87	285	399	100	46.7	2360	2710.9	9.60	9.70	584	589	39.5	45.9	515	178.0	13.8	.93	1.62	1.40	9.74	8.50	D
1356	1118	2725.0	6.31	280	344	100	44.7	2330	2712.4	9.60	9.70	584	564	39.5	45.9	516	179.0	13.9	.94	1.58	1.36	9.74	8.50	D
1357	1124	2726.0	10.4	296	417	100	48.8	2210	2714.5	9.60	9.70	585	565	39.4	45.8	514	180.0	14.0	.94	1.48	1.25	9.73	8.50	D
1358	1133	2727.0	6.55	286	407	100	50.0	2250	2716.1	9.60	9.70	584	575	39.5	45.8	514	181.0	14.2	.96	1.63	1.40	9.73	8.50	D
1359	1148	2728.0	3.96	324	416	100	50.7	2320	2717.7	9.60	9.70	586	564	39.6	45.7	508	182.0	14.4	.97	1.79	1.55	9.73	8.50	D
1360	1200	2729.0	5.04	333	447	100	50.7	2460	2719.7	9.60	9.70	584	570	39.7	45.6	507	183.0	14.6	.99	1.72	1.48	9.72	8.50	D
1361	1213	2730.0	4.65	313	420	100	50.6	2420	2721.6	9.60	9.70	584	569	39.7	45.6	510	184.0	14.9	1.00	1.74	1.50	9.72	8.50	D
1362	1227	2731.0	4.35	317	418	100	51.8	2380	2722.6	9.60	9.70	585	589	39.7	45.6	513	185.0	15.1	1.02	1.77	1.54	9.72	8.50	D
1363	1244	2732.0	3.57	314	393	100	51.4	2350	2724.3	9.60	9.70	586	566	39.7	45.6	509	186.0	15.4	1.04	1.83	1.59	9.72	8.50	D
1364	1254	2733.0	6.07	316	418	100	51.0	2330	2725.7	9.60	9.70	585	565	39.8	45.6	512	187.0	15.5	1.05	1.67	1.43	9.72	8.50	D
1365	1325	2734.0	5.70	310	398	100	48.8	2480	2727.3	9.60	9.70	588	574	39.6	45.7	512	188.0	15.9	1.08	1.66	1.43	9.71	8.50	D
1366	1336	2735.0	5.38	302	387	100	49.3	2420	2727.9	9.60	9.70	586	572	39.7	45.7	516	189.0	16.1	1.09	1.68	1.45	9.71	8.50	D
1367	1347	2736.0	6.51	307	409	100	49.5	2360	2728.6	9.60	9.70	587	565	39.7	45.7	522	190.0	16.3	1.11	1.69	1.45	9.72	8.50	D
1368	1357	2737.0	6.55	313	455	100	49.7	2370	2729.0	9.60	9.70	589	579	39.8	45.7	518	191.0	16.5	1.12	1.63	1.39	9.72	8.50	D
1369	1407	2738.0	6.01	309	417	100	49.8	2470	2729.4	9.60	9.70	588	568	39.8	45.8	520	192.0	16.6	1.13	1.66	1.42	9.72	8.50	D
1370	1422	2739.0	3.79	305	409	100	50.1	2510	2730.3	9.60	9.70	588	591	40.0	45.8	521	193.0	16.9	1.15	1.79	1.55	9.72	8.50	D
1371	1439	2740.0	3.62	296	406	100	50.9	2350	2732.4	9.60	9.70	588	593	40.1	45.9	521	194.0	17.2	1.17	1.82	1.58	9.72	8.50	D
1372	1456	2741.0	3.60	302	413	100	51.4	2480	2733.9	9.60	9.70	587	566	40.3	45.9	520	195.0	17.4	1.19	1.82	1.58	9.71	8.50	D
1373	1510	2742.0	4.30	307	385	100	50.1	2420	2735.1	9.60	9.70	585	591	40.3	45.9	526	196.0	17.7	1.20	1.76	1.52	9.71	8.50	D
1374	1531	2743.0	4.36	310	399	100	48.3	2360	2737.1	9.60	9.70	586	576	40.3	45.9	524	197.0	17.9	1.22	1.73	1.49	9.71	8.50	D
1375	1545	2744.0	4.13	319	381	100	48.4	2470	2738.0	9.60	9.70	588	567	40.3	45.9	524	198.0	18.2	1.24	1.75	1.51	9.71	8.50	D
1376	1554	2745.0	6.60	338	425	100	49.8	2430	2738.5	9.60	9.70	587	567	40.4	45.8	524	199.0	18.3	1.25	1.63	1.39	9.71	8.50	D
1377	1607	2746.0	4.63	328	429	100	49.3	2360	2739.4	9.60	9.70	587	567	40.5	45.8	523	200	18.5	1.26	1.73	1.49	9.71	8.50	D
1378	1618	2747.0	5.38	328	418	100	50.3	2470	2740.0	9.60	9.70	586	565	40.7	45.8	522	201	18.7	1.28	1.69	1.45	9.71	8.50	D
1379	1626	2748.0	8.19	338	446	100	49.1	2450	2740.5	9.60	9.70	587	565	40.9	45.8	520	202	18.8	1.28	1.56	1.32	9.72	8.50	D
1380	1635	2749.0	6.70	338	438	100	50.0	2540	2741.1	9.60	9.70	585	588	41.0	45.8	521	203	19.0	1.29	1.63	1.38	9.72	8.50	D
1381	1642	2750.0	7.94	360	447	100	50.3	2440	2741.6	9.60	9.70	587	567	41.2	45.9	521	204	19.1	1.30	1.58	1.34	9.72	8.50	D
1382	1650	2751.0	8.00	351	447	100	49.8	2440	2741.8	9.60	9.70	587	591	41.4	45.9	520	205	19.2	1.31	1.57	1.33	9.72	8.50	D
1383	1705	2752.0	10.8	355	493	100	49.0	2480	2742.8	9.60	9.70	558	576	41.5	45.9	526	206	19.4	1.32	1.48	1.24	9.72	8.50	D
1384	1714	2753.0	6.23	342	440	100	48.3	2410	2743.4	9.60	9.70	582	561	41.3	45.8	536	207	19.5	1.33	1.63	1.39	9.72	8.50	D
1385	1729	2754.0	4.10	316	387	100	48.3	2440	2744.7	9.60	9.70	582	585	41.2	45.8	533	208	19.8	1.35	1.75	1.51	9.72	8.50	D
1386	1746	2755.0	3.65	317	390	100	48.3	2500	2746.1	9.60	9.70	582	568	41.4	45.8	531	209	20.0	1.37	1.78	1.54	9.72	8.50	D
1387	1802	2756.0	3.69	333	407	100	50.7	2430	2748.0	9.60	9.70	581	560	41.5	45.8	530	210	20.3	1.39	1.81	1.56	9.72	8.50	D
1388	1818	2757.0	3.65	333	446	100	50.9	2320	2750.2	9.60	9.70	582	561	41.6	45.8	530	211	20.6	1.41	1.81	1.57	9.71	8.50	D
1389	1835	2758.0	3.58	338	420	100	50.8	2480	2751.7	9.60	9.70	582	562	41.6	45.9	529	212	20.9	1.42	1.82	1.57	9.71	8.50	D

ESSD AUSTRALIA: Sawbelly No.1

Data Printed at time 18:31 Date Mar 21 '90
 Data Recorded at time 18:42 Date Mar 18 '90

F#	TIME	DEPTH	ROP:		TORQUE		RPM	WOB	PUMP:RTRS	MD lb/gal		FLOW/MIN		TEMP (C)	PVT:	-THIS	BIT-	EST:	DXC	NXB	ECD	NXMD:		
			m/hr:	AVG	MAX	AVG				AVG	PRES:	DEPTH	IN										OUT	IN
1390	1842	2759.0	8.24	351	458	100	49.3	2400	2752.5	9.60	9.70	581	584	41.6	45.9	529	113	21.0	1.43	1.56	1.31	9.71	8.50	D
1391	1846	2760.0	16.6	333	444	100	48.4	2510	2752.8	9.60	9.70	580	559	41.6	45.9	529	114	21.0	1.44	1.35	1.10	9.71	8.50	D
1392	1858	2761.0	11.8	320	396	100	46.3	2530	2753.2	9.60	9.70	591	569	41.5	46.0	528	115	21.1	1.44	1.42	1.18	9.72	8.50	D
1393	1914	2762.0	8.92	337	459	100	47.7	2450	2753.9	9.60	9.70	592	584	41.3	46.0	524	116	21.3	1.45	1.52	1.28	9.72	8.50	D
1394	1922	2763.0	8.60	339	427	100	47.8	2500	2754.4	9.60	9.70	592	578	41.2	46.0	491	117	21.4	1.46	1.53	1.29	9.72	8.50	D
1395	1943	2764.0	3.18	316	443	100	49.2	1930	2755.6	9.60	9.70	520	518	40.8	45.9	532	118	21.7	1.48	1.83	1.59	9.71	8.50	D
1396	1957	2765.0	4.44	320	420	100	49.3	1810	2756.4	9.60	9.70	526	508	40.4	46.0	533	119	21.9	1.50	1.74	1.49	9.72	8.50	D
1397	2012	2766.0	3.89	310	370	100	49.5	1950	2757.2	9.60	9.70	520	500	40.6	46.0	534	120	22.2	1.51	1.78	1.53	9.72	8.50	D
1398	2034	2767.0	2.78	311	398	100	49.4	1930	2760.3	9.60	9.70	520	511	40.7	45.9	531	121	22.5	1.54	1.88	1.63	9.71	8.50	D
1399	2056	2768.0	2.94	316	411	100	49.2	2450	2762.5	9.60	9.70	579	557	40.8	46.0	528	122	22.9	1.56	1.86	1.61	9.71	8.50	D
1400	2109	2769.0	4.80	327	428	100	49.1	2370	2763.1	9.60	9.70	583	561	40.8	46.1	526	123	23.1	1.58	1.71	1.46	9.71	8.50	D
1401	2121	2770.0	6.18	322	417	100	48.5	1790	2763.6	9.60	9.70	520	500	40.9	46.1	529	124	23.3	1.59	1.63	1.38	9.71	8.50	D
1402	2137	2771.0	7.03	319	459	100	49.6	1940	2764.6	9.60	9.70	519	506	40.9	46.2	526	125	23.4	1.60	1.61	1.36	9.71	8.50	D
1403	2150	2772.0	4.53	317	402	100	49.0	1970	2765.4	9.60	9.70	524	510	40.7	46.2	526	126	23.6	1.61	1.73	1.48	9.71	8.50	D
1404	2201	2773.0	5.49	307	421	100	48.9	1880	2765.8	9.60	9.70	523	526	40.7	46.2	525	127	23.8	1.62	1.67	1.42	9.71	8.50	D
1405	2216	2774.0	3.96	313	390	100	49.9	2320	2766.7	9.60	9.70	575	554	40.7	46.2	522	128	24.1	1.64	1.78	1.52	9.71	8.50	D
1406	2234	2775.0	3.44	339	426	100	48.1	2370	2767.4	9.60	9.70	579	582	40.8	46.3	530	129	24.4	1.66	1.80	1.55	9.72	8.50	D
1407	2241	2776.0	8.37	350	445	100	48.5	2420	2767.9	9.60	9.70	581	561	40.8	46.2	532	130	24.5	1.67	1.55	1.29	9.72	8.50	D
1408	2251	2777.0	5.70	348	464	100	49.6	2380	2769.0	9.60	9.70	581	586	40.7	46.1	538	131	24.7	1.68	1.67	1.41	9.72	8.50	D
1409	2300	2778.0	7.08	354	466	100	49.4	1920	2770.0	9.60	9.70	552	535	40.8	46.1	537	132	24.8	1.69	1.60	1.35	9.72	8.50	D
1410	2307	2779.0	8.57	354	446	100	49.1	2410	2770.4	9.60	9.70	586	572	40.8	46.1	537	133	24.9	1.70	1.55	1.29	9.72	8.50	D
1411	2326	2780.0	4.92	339	454	100	49.2	2470	2771.8	9.60	9.70	576	567	40.9	46.1	537	134	25.1	1.71	1.71	1.45	9.72	8.50	D
1412	2345	2781.0	3.18	323	425	100	47.3	2280	2773.3	9.60	9.70	580	572	40.9	46.2	535	135	25.5	1.73	1.81	1.56	9.72	8.50	D
Date Mar 19 '90																								
1413	0001	2782.0	3.62	340	422	100	48.6	2420	2774.2	9.60	9.70	580	558	41.1	46.3	535	136	25.7	1.75	1.79	1.53	9.72	8.50	D
1414	0010	2783.0	6.48	354	431	100	47.9	2330	2775.2	9.60	9.70	579	559	41.2	46.3	534	137	25.9	1.76	1.61	1.36	9.72	8.50	D
1415	0018	2784.0	7.70	355	440	100	46.8	2480	2775.9	9.60	9.70	581	572	41.2	46.4	533	138	26.0	1.77	1.55	1.30	9.72	8.50	D
1416	0038	2785.0	2.86	309	441	100	48.7	2340	2778.6	9.60	9.70	583	562	41.4	46.5	531	139	26.3	1.79	1.86	1.60	9.71	8.50	D
1417	0056	2786.0	3.41	294	375	100	47.3	2500	2779.6	9.60	9.70	583	561	41.5	46.6	530	140	26.6	1.81	1.79	1.54	9.71	8.50	D
1418	0101	2787.0	10.8	325	411	100	46.2	2310	2779.8	9.60	9.70	583	562	41.5	46.6	530	141	26.7	1.81	1.45	1.20	9.71	8.50	D
1419	0105	2788.0	15.7	313	359	100	46.4	2400	2780.0	9.60	9.70	581	572	41.6	46.6	529	142	26.8	1.82	1.35	1.09	9.72	8.50	D
1420	0122	2789.0	3.62	287	351	100	47.6	2440	2780.9	9.60	9.70	582	568	41.7	46.7	527	143	27.1	1.83	1.78	1.52	9.72	8.50	D
1421	0138	2790.0	5.84	299	394	100	49.6	2390	2782.2	9.60	9.70	584	564	41.7	46.9	525	144	27.2	1.85	1.66	1.40	9.72	8.50	D
1422	0143	2791.0	2.17	359	398	100	53.7	2530	2782.8	9.60	9.70	584	570	41.7	46.9	526	145	27.3	1.85	2.00	1.73	9.72	8.50	D
1423	0156	2792.0	4.82	248	362	100	48.2	2380	2783.9	9.60	9.70	585	571	41.7	46.9	525	146	27.5	1.86	1.70	1.44	9.72	8.50	D
1424	0208	2793.0	5.02	269	330	100	47.2	2390	2784.3	9.60	9.70	585	592	41.8	46.9	528	147	27.7	1.88	1.68	1.42	9.71	8.50	D
1425	0227	2794.0	3.16	277	356	100	48.6	2500	2785.5	9.60	9.70	585	564	42.0	46.9	522	148	28.0	1.90	1.83	1.57	9.72	8.50	D
1426	0244	2795.0	3.39	268	386	100	47.4	2510	2787.8	9.60	9.70	586	571	42.1	46.9	521	149	28.3	1.92	1.79	1.53	9.71	8.50	D
1427	0250	2796.0	10.5	278	342	100	45.6	2560	2788.3	9.60	9.70	585	589	42.1	46.9	521	150	28.4	1.92	1.45	1.20	9.72	8.50	D
1428	0259	2797.0	7.04	288	375	100	45.6	2490	2789.1	9.60	9.70	587	573	42.2	46.9	520	151	28.6	1.93	1.56	1.31	9.72	8.50	D
1429	0309	2798.0	5.68	314	385	100	47.3	2480	2789.9	9.60	9.70	585	590	42.3	46.9	519	152	28.7	1.94	1.64	1.39	9.72	8.50	D
1430	0317	2799.0	7.65	306	386	100	45.2	2320	2790.5	9.60	9.70	585	572	42.4	46.9	519	153	28.9	1.95	1.54	1.28	9.72	8.50	D
1431	0324	2800.0	7.87	315	388	100	46.5	2380	2791.1	9.60	9.70	586	572	42.4	46.9	518	154	29.0	1.96	1.54	1.28	9.72	8.50	D
1432	0356	2801.0	3.16	242	343	100	47.6	2410	2792.9	9.60	9.70	587	592	42.3	46.7	518	155	29.3	1.98	1.81	1.55	9.72	8.50	D
1433	0411	2802.0	3.93	332	417	100	47.4	2450	2793.6	9.60	9.70	585	571	42.5	46.7	516	156	29.6	2.00	1.75	1.49	9.72	8.50	D
1434	0420	2803.0	7.25	343	422	100	48.2	2450	2794.9	9.60	9.70	586	579	42.7	46.7	516	157	29.7	2.00	1.58	1.32	9.72	8.50	D
1435	0431	2804.0	5.46	347	424	100	48.5	2530	2796.3	9.60	9.70	587	572	42.8	46.7	514	158	29.9	2.02	1.67	1.41	9.72	8.50	D
1436	0441	2805.0	5.73	331	417	100	46.6	2370	2797.0	9.60	9.70	587	573	42.9	46.8	513	159	30.1	2.03	1.63	1.37	9.72	8.50	D

ESSO AUSTRALIA: Sawbelly No.1

Data Printed at time 18:33 Date Mar 21 '90
 Data Recorded at time 04:51 Date Mar 19 '90

F#	TIME	DEPTH	ROP:	TORQUE		RPM	WOB	PUMP:RTNS		MD lb/gal		FLOW/MIN		TEMP (C)		PVT:	-THIS	BIT-	EST:	DXC	NXB	ECD	NXMD:	
			m/hr:	AVG	MAX			AVG	AVG	AVG	IN	OUT	IN	OUT	IN		OUT	m	hr					TW:
1437	0451	2806.0	7.01	356	552	100	45.9	2420	2798.5	9.70	9.70	586	565	43.0	46.8	513	160	30.3	2.04	1.57	1.31	9.72	8.50	D
1438	0501	2807.0	5.99	328	408	100	48.0	2440	2799.1	9.70	9.70	587	572	43.1	46.8	514	161	30.4	2.05	1.64	1.37	9.72	8.50	D
1439	0511	2808.0	6.02	339	422	100	49.2	2510	2799.2	9.70	9.70	586	565	43.2	46.9	512	162	30.6	2.06	1.65	1.38	9.74	8.50	D
1440	0521	2809.0	6.17	339	429	100	49.1	2460	2799.8	9.70	9.70	587	577	43.3	46.9	512	163	30.7	2.07	1.64	1.37	9.75	8.50	D
1441	0544	2810.0	4.47	339	437	100	49.5	2570	2801.3	9.70	9.70	590	595	43.4	47.1	509	164	31.0	2.09	1.73	1.46	9.77	8.50	D
1442	0600	2811.0	3.58	334	424	100	48.5	2640	2803.0	9.70	9.70	593	596	43.4	47.1	509	165	31.3	2.10	1.78	1.51	9.79	8.50	D
1443	0619	2812.0	3.19	334	403	100	51.1	2530	2804.8	9.70	9.70	595	575	43.5	47.3	507	166	31.6	2.12	1.84	1.57	9.81	8.50	D
1444	0633	2813.0	4.36	328	387	100	50.7	2530	2806.1	9.70	9.70	595	573	43.5	47.4	506	167	31.8	2.14	1.74	1.47	9.81	8.50	D
1445	0651	2814.0	3.36	322	415	100	51.1	2490	2808.0	9.70	9.70	596	599	43.5	47.6	504	168	32.1	2.16	1.82	1.55	9.81	8.50	D
1446	0710	2815.0	3.13	326	416	100	50.8	1850	2808.9	9.70	9.70	507	486	43.4	47.8	506	169	32.4	2.18	1.84	1.57	9.80	8.50	D
1447	0728	2816.0	3.18	333	407	100	50.5	1790	2809.8	9.70	9.70	506	488	43.2	47.9	503	170	32.7	2.20	1.83	1.56	9.80	8.50	D
1448	0745	2817.0	3.49	342	425	100	51.9	2420	2810.7	9.70	9.70	588	567	43.1	47.9	499	171	33.0	2.22	1.82	1.55	9.81	8.50	D
1449	0756	2818.0	5.39	353	427	100	52.0	2470	2811.3	9.70	9.70	589	574	43.1	48.0	497	172	33.2	2.23	1.70	1.42	9.81	8.50	D
1450	0816	2819.0	2.98	333	423	100	51.3	2430	2812.6	9.70	9.70	589	575	43.2	47.9	497	173	33.5	2.25	1.86	1.59	9.81	8.50	D
1453	0857	2821.0	6.20	334	431	100	50.3	2240	2815.5	9.60	9.70	577	563	43.0	47.9	496	175	33.7	2.26	1.65	1.38	9.71	8.50	D
1454	0859	2822.0	24.9	339	383	100	51.1	2300	2815.6	9.60	9.70	577	580	43.0	47.9	495	176	33.8	2.26	1.26	.98	9.71	8.50	D
1455	0913	2823.0	7.59	339	450	100	48.1	2440	2816.1	9.60	9.70	592	577	42.8	47.8	504	177	33.9	2.27	1.57	1.30	9.71	8.50	D
1456	0920	2824.0	9.32	351	424	100	51.1	2500	2816.4	9.60	9.70	592	579	42.6	47.7	505	178	34.0	2.28	1.54	1.27	9.72	8.50	D
1457	0927	2825.0	8.08	348	410	100	50.7	2500	2816.9	9.60	9.70	589	569	42.3	47.6	506	179	34.1	2.29	1.58	1.30	9.72	8.50	D
1458	0934	2826.0	9.24	331	412	100	46.7	2460	2817.2	9.60	9.70	589	580	42.3	47.5	508	180	34.2	2.29	1.50	1.23	9.72	8.50	D
1459	0940	2827.0	9.93	346	410	100	48.7	2300	2817.6	9.60	9.70	589	594	42.3	47.5	509	181	34.3	2.30	1.50	1.23	9.72	8.50	D
1460	1100	2828.0	8.63	340	412	100	49.8	2580	2826.1	9.60	9.70	592	595	44.6	47.8	509	182	34.6	2.31	1.56	1.28	9.69	8.50	D
1461	1105	2829.0	10.0	353	410	100	52.3	2560	2826.9	9.60	9.70	589	580	44.7	47.9	513	183	34.7	2.32	1.54	1.26	9.69	8.50	D
1462	1121	2830.0	7.12	329	386	100	50.6	2450	2827.0	9.60	9.70	582	561	44.8	48.0	514	184	34.9	2.33	1.62	1.34	9.70	8.50	D
1463	1128	2831.0	8.83	318	352	100	47.6	2300	2827.0	9.60	9.70	582	573	44.7	48.0	513	185	35.0	2.34	1.52	1.25	9.70	8.50	D
1464	1134	2832.0	10.6	341	436	100	52.3	2470	2827.0	9.60	9.70	582	587	44.6	48.0	514	186	35.1	2.34	1.52	1.24	9.70	8.50	D
1465	1142	2833.0	7.38	305	419	100	51.0	2390	2827.0	9.60	9.70	582	568	44.5	48.0	513	187	35.2	2.35	1.61	1.33	9.71	8.50	D
1466	1153	2834.0	5.12	288	339	100	51.4	2450	2827.0	9.60	9.70	580	584	44.3	48.0	515	188	35.4	2.36	1.72	1.44	9.71	8.50	D
1467	1208	2835.0	4.08	286	406	100	52.3	2490	2827.0	9.60	9.70	583	585	44.2	48.1	515	189	35.6	2.38	1.80	1.52	9.72	8.50	D
1468	1219	2836.0	5.25	290	399	100	51.7	2590	2827.0	9.60	9.70	581	586	44.1	48.2	514	190	35.8	2.39	1.72	1.43	9.72	8.50	D
1469	1229	2837.0	6.03	297	419	100	51.6	2500	2827.9	9.60	9.70	579	564	44.1	48.2	516	191	36.0	2.40	1.67	1.39	9.72	8.50	D
1470	1235	2838.0	9.83	303	424	100	50.6	2460	2828.8	9.60	9.70	581	568	44.1	48.2	516	192	36.1	2.41	1.52	1.24	9.72	8.50	D
1471	1253	2839.0	6.20	284	435	100	51.3	2520	2830.0	9.60	9.70	590	571	43.9	48.3	514	193	36.3	2.42	1.66	1.38	9.72	8.50	D
1472	1258	2840.0	12.8	282	323	100	49.5	2690	2830.9	9.60	9.70	592	572	43.9	48.3	513	194	36.4	2.43	1.43	1.16	9.72	8.50	D
1473	1307	2841.0	16.8	295	339	100	49.4	2430	2831.7	9.60	9.70	581	585	43.8	48.3	513	195	36.4	2.43	1.35	1.08	9.72	8.50	D
1474	1323	2842.0	3.77	288	390	100	51.2	2530	2833.6	9.60	9.70	583	569	43.5	48.3	517	196	36.7	2.45	1.81	1.53	9.72	8.50	D
1475	1331	2843.0	7.16	295	366	100	51.1	2490	2834.1	9.60	9.70	583	562	43.5	48.3	518	197	36.8	2.46	1.62	1.34	9.72	8.50	D
1476	1348	2844.0	3.79	284	411	100	51.9	2440	2835.3	9.60	9.70	584	564	43.5	48.3	518	198	37.1	2.47	1.81	1.53	9.72	8.50	D
1477	1357	2845.0	6.23	290	429	100	50.9	2490	2836.2	9.60	9.70	583	561	43.6	48.4	518	199	37.3	2.48	1.66	1.37	9.72	8.50	D
1478	1404	2846.0	8.07	301	429	100	51.4	2370	2837.0	9.60	9.70	583	569	43.6	48.5	516	200	37.4	2.49	1.59	1.30	9.72	8.50	D
1479	1415	2847.0	5.53	290	434	100	51.8	2480	2838.4	9.60	9.70	583	562	43.7	48.5	520	201	37.6	2.50	1.70	1.42	9.72	8.50	D
1480	1428	2848.0	4.65	278	434	100	52.0	2390	2839.6	9.60	9.70	582	568	43.8	48.5	514	202	37.8	2.52	1.76	1.47	9.72	8.50	D
1481	1516	2849.0	1.87	243	388	100	49.1	2270	2843.6	9.60	9.70	583	562	43.6	48.2	514	203	38.4	2.55	1.99	1.70	9.71	8.50	D
1482	1527	2850.0	5.23	265	403	100	48.8	2540	2844.7	9.60	9.70	591	579	43.7	48.2	513	204	38.6	2.56	1.69	1.40	9.71	8.50	D
1483	1537	2851.0	6.18	271	372	100	48.7	2630	2845.9	9.60	9.70	608	587	43.8	48.1	524	205	38.7	2.57	1.64	1.36	9.71	8.50	D
1484	1548	2852.0	5.28	261	321	100	49.4	2650	2847.0	9.60	9.70	610	596	43.7	48.1	525	206	38.9	2.58	1.69	1.41	9.71	8.50	D
1485	1606	2853.0	3.39	252	312	100	49.6	2280	2848.0	9.60	9.70	581	561	43.9	48.1	519	207	39.2	2.60	1.82	1.54	9.70	8.50	D
1486	1625	2854.0	3.15	255	399	100	49.9	2290	2848.3	9.60	9.70	583	562	44.1	48.1	520	208	39.5	2.62	1.85	1.56	9.71	8.50	D

ESSO AUSTRALIA: Sawbelly No.1

Data Printed at time 18:35 Date Mar 21 '90
 Data Recorded at time 16:50 Date Mar 19 '90

F#	TIME	DEPTH	ROP m/hr	TORQUE		RPM	WOB	PUMP:RTNS	MD lb/gal		FLOW/MIN		TEMP (C)		PVT	-THIS BIT- EST		DXC	NXB	ECD	NXMD			
				AVG	MAX				IN	OUT	IN	OUT	IN	OUT		m	hr					TW		
1487	1650	2855.0	2.45	249	302	100	49.6	2450	2849.6	9.60	9.70	584	569	44.2	47.9	517	209	39.9	2.65	1.91	1.63	9.71	8.50	D
1488	1717	2856.0	2.18	247	304	100	48.4	2400	2852.0	9.60	9.70	582	561	44.2	47.7	523	210	40.4	2.67	1.94	1.65	9.70	8.50	D
1489	1738	2857.0	2.83	253	334	100	47.8	2440	2853.2	9.60	9.70	583	569	44.2	47.7	523	211	40.8	2.69	1.85	1.57	9.70	8.50	D
1490	1755	2858.0	13.3	257	353	100	46.7	2510	2853.7	9.60	9.70	301	306	44.3	47.7	519	212	40.9	2.70	1.40	1.12	9.68	8.50	D
1491	1759	2859.0	17.9	266	294	100	48.7	2410	2853.8	9.60	9.70	356	323	44.3	47.7	519	213	40.9	2.70	1.33	1.05	9.69	8.50	D
1492	1814	2860.0	6.26	278	384	100	49.4	2430	2854.3	9.60	9.70	582	588	44.2	47.5	520	214	41.1	2.71	1.64	1.35	9.71	8.50	D
1493	1825	2861.0	5.52	264	329	100	49.5	2400	2854.7	9.60	9.70	581	561	44.3	47.4	517	215	41.3	2.72	1.68	1.39	9.71	8.50	D
1494	1839	2862.0	4.05	262	348	100	50.2	2590	2855.3	9.60	9.70	595	599	44.4	47.4	522	216	41.5	2.74	1.78	1.49	9.71	8.50	D
1495	1848	2863.0	7.46	260	361	100	49.4	2550	2855.6	9.60	9.70	594	580	44.4	47.3	521	217	41.6	2.75	1.59	1.30	9.71	8.50	D
1496	1856	2864.0	16.7	272	339	100	49.5	2460	2855.8	9.60	9.70	586	572	44.4	47.3	520	218	41.7	2.75	1.36	1.07	9.72	8.50	D
1497	1916	2865.0	3.10	261	373	100	49.2	2320	2856.5	9.60	9.70	585	564	44.5	47.3	522	219	42.0	2.77	1.84	1.55	9.72	8.50	D
1498	1920	2866.0	12.1	274	385	100	48.2	2340	2856.9	9.60	9.70	585	571	44.5	47.3	521	220	42.1	2.77	1.44	1.15	9.72	8.50	D
1499	1928	2867.0	7.53	279	392	100	49.7	2440	2857.6	9.60	9.70	586	566	44.5	47.2	522	221	42.2	2.78	1.59	1.30	9.72	8.50	D
1500	1943	2868.1	10.0	274	329	100	49.5	2520	2858.9	9.60	9.70	583	574	44.5	47.2	518	222	42.3	2.78	1.65	1.45	9.72	8.50	D
1501	1946	2869.0	20.1	297	365	100	50.0	2460	2859.4	9.60	9.70	588	591	44.4	47.2	518	223	42.3	2.79	1.40	1.09	9.72	8.50	D
1502	2003	2870.0	3.42	261	364	100	51.0	2450	2861.1	9.60	9.70	585	570	44.4	47.2	512	224	42.6	2.81	1.83	1.54	9.72	8.50	D
1503	2023	2871.0	3.11	261	385	100	50.6	2400	2862.4	9.60	9.70	582	563	44.6	47.2	511	225	42.9	2.82	1.86	1.56	9.72	8.50	D
1504	2048	2872.0	2.37	245	316	100	51.7	2300	2865.1	9.60	9.70	586	573	44.4	47.3	545	226	43.4	2.85	1.95	1.66	9.71	8.50	D
1505	2113	2873.0	2.34	256	371	100	51.3	2550	2869.0	9.60	9.70	588	568	43.7	47.7	569	227	43.8	2.88	1.95	1.66	9.70	8.50	D
1506	2127	2874.0	4.54	257	351	100	51.8	2490	2869.8	9.60	9.70	589	568	43.5	47.8	586	228	44.0	2.89	1.76	1.46	9.70	8.50	D
1507	2138	2875.0	5.46	251	337	100	50.5	2470	2870.3	9.60	9.70	587	590	43.5	48.0	588	229	44.2	2.90	1.69	1.40	9.70	8.50	D
1508	2146	2876.0	7.56	266	407	100	50.7	2420	2870.8	9.60	9.70	590	576	43.6	48.1	594	230	44.3	2.91	1.60	1.30	9.71	8.50	D
1509	2201	2877.0	11.8	283	399	100	48.6	2520	2871.3	9.60	9.70	594	596	43.9	48.1	593	231	44.5	2.92	1.45	1.16	9.71	8.50	D
1510	2205	2878.0	16.1	311	403	100	52.7	2500	2871.4	9.60	9.70	587	592	43.9	48.1	593	232	44.5	2.92	1.40	1.10	9.71	8.50	D
1511	2211	2879.0	8.69	293	387	100	52.8	2490	2871.7	9.60	9.70	585	570	44.0	48.1	593	233	44.6	2.93	1.58	1.28	9.71	8.50	D
1512	2218	2880.0	9.62	303	377	100	53.7	2490	2871.9	9.60	9.70	586	573	44.2	48.0	593	234	44.7	2.93	1.56	1.26	9.72	8.50	D
1513	2224	2881.0	9.25	300	398	100	53.3	2430	2872.3	9.60	9.70	584	589	44.3	48.0	593	235	44.9	2.94	1.57	1.26	9.72	8.50	D
1514	2230	2882.0	9.75	308	419	100	53.8	2390	2872.5	9.60	9.70	584	570	44.4	48.0	593	236	45.0	2.95	1.55	1.25	9.72	8.50	D
1515	2237	2883.0	8.41	289	386	100	52.8	2550	2872.7	9.60	9.70	585	564	44.5	48.0	593	237	45.1	2.96	1.59	1.29	9.73	8.50	D
1516	2245	2884.0	7.53	290	352	100	52.7	2470	2873.0	9.60	9.70	583	586	44.7	47.9	592	238	45.2	2.96	1.62	1.32	9.73	8.50	D
1517	2253	2885.0	8.01	298	408	100	53.9	2440	2873.5	9.60	9.70	583	562	44.8	47.9	591	239	45.3	2.97	1.61	1.31	9.73	8.50	D
1518	2301	2886.0	7.21	287	397	100	53.3	2400	2874.2	9.60	9.70	585	575	45.0	47.9	591	240	45.5	2.98	1.64	1.33	9.73	8.50	D
1521	2314	2887.3	11.3	295	351	100	53.4	2440	2875.0	9.60	9.70	586	571	44.4	47.2	571	241	45.6	2.79	1.51	1.21	9.73	8.50	D
1522	2321	2888.0	6.70	290	375	100	51.1	2340	2875.0	9.60	9.70	590	576	45.1	47.9	571	242	45.7	2.80	1.64	1.34	9.74	8.50	D
1523	2329	2889.0	7.03	286	363	100	50.9	2490	2875.0	9.60	9.70	588	566	45.2	47.9	570	243	45.8	2.81	1.62	1.33	9.74	8.50	D
1524	2337	2890.0	7.77	285	354	100	49.9	2530	2875.0	9.60	9.70	589	569	45.3	48.0	571	244	46.0	2.82	1.58	1.29	9.74	8.50	D
1525	2349	2891.0	4.98	263	347	100	50.1	2490	2875.0	9.60	9.70	585	576	45.4	48.1	570	245	46.2	2.83	1.71	1.42	9.75	8.50	D
Date Mar 20 '90																								
1526	0010	2892.0	2.88	248	279	100	51.5	2570	2880.2	9.60	9.70	586	573	45.7	48.2	569	246	46.5	2.85	1.89	1.59	9.73	8.50	D
1527	0030	2893.0	3.01	248	291	100	50.7	2310	2881.6	9.60	9.70	589	576	45.9	48.4	567	247	46.8	2.87	1.86	1.57	9.73	8.50	D
1528	0044	2894.0	4.06	258	357	100	50.2	2350	2885.9	9.60	9.70	586	566	46.0	48.4	565	248	47.1	2.88	1.77	1.48	9.72	8.50	D
1529	0052	2895.0	7.56	265	350	100	50.7	2450	2886.5	9.60	9.70	587	567	46.1	48.5	569	249	47.2	2.89	1.60	1.30	9.72	8.50	D
1530	0106	2896.0	11.1	271	369	100	50.5	2500	2887.3	9.60	9.70	588	579	46.1	48.6	568	250	47.3	2.90	1.48	1.19	9.72	8.50	D
1531	0111	2897.0	4.59	294	406	100	51.4	2550	2887.7	9.60	9.70	589	575	46.0	48.7	569	251	47.4	2.90	1.75	1.45	9.72	8.50	D
1532	0121	2898.0	5.25	259	340	100	50.3	2320	2888.1	9.60	9.70	587	573	46.1	48.7	567	252	47.6	2.91	1.70	1.40	9.72	8.50	D
1533	0129	2899.0	8.14	283	356	100	50.0	2500	2890.2	9.60	9.70	588	567	46.1	48.7	567	253	47.7	2.92	1.57	1.27	9.72	8.50	D
1534	0143	2900.0	4.35	267	368	100	49.8	2320	2890.7	9.60	9.70	587	590	46.0	48.7	530	254	48.0	2.94	1.75	1.45	9.72	8.50	D
1537	0208	2901.0	4.21	262	304	100	50.3	2480	2865.5	9.60	9.70	586	591	45.7	48.9	531	255	48.2	2.94	1.75	1.46	9.78	8.50	D

ESSO AUSTRALIA: Sawbelly No.1

Data Printed at time 18:37 Date Mar 21 '90
 Data Recorded at time 02:10 Date Mar 20 '90

F#	TIME	DEPTH	ROP:		TORQUE		RPM	WOB	PUMP:RTRNS		MD lb/gal		FLOW/MIN		TEMP (C)		PVT:	-THIS BIT-		EST:	DXC	NXB	ECD	NXMD:
			m	m/hr	AVG	MAX			AVG	AVG	PRES:	DEPTH	IN	OUT	IN	OUT		IN	OUT					
1538	0210	2902.0	8.86	263	315	100	49.8	2630	2866.1	9.60	9.70	587	566	45.7	48.9	531	256	48.3	2.94	1.53	1.23	9.82	8.50	D
1539	0223	2903.0	4.63	257	334	100	50.7	2510	2897.3	9.60	9.70	586	566	45.6	49.0	532	257	48.5	2.96	1.74	1.45	9.71	8.50	D
1540	0239	2904.0	3.71	259	413	100	50.0	2460	2898.5	9.60	9.70	588	567	45.6	49.1	534	258	48.7	2.97	1.80	1.50	9.71	8.50	D
1541	0316	2906.0	6.26	269	358	100	51.4	2390	2901.8	9.60	9.70	586	570	45.3	49.0	537	260	49.1	3.00	1.66	1.36	9.70	8.50	D
1542	0323	2907.0	5.70	259	314	100	49.7	2480	2902.1	9.60	9.70	588	570	45.2	49.0	537	261	49.2	3.00	1.67	1.37	9.70	8.50	D
1543	0333	2908.0	5.86	265	346	100	49.8	2290	2902.6	9.60	9.70	588	575	45.1	49.0	538	262	49.4	3.02	1.67	1.37	9.71	8.50	D
1544	0341	2909.0	7.70	272	352	100	49.8	2490	2903.0	9.60	9.70	587	566	45.2	49.1	540	263	49.5	3.02	1.59	1.29	9.71	8.50	D
1545	0350	2910.0	6.63	271	344	100	50.2	2360	2903.5	9.60	9.70	588	595	45.2	49.2	540	264	49.7	3.03	1.63	1.33	9.71	8.50	D
1546	0359	2911.0	6.54	266	336	100	49.5	2440	2903.9	9.60	9.70	589	568	45.2	49.2	543	265	49.8	3.04	1.63	1.33	9.71	8.50	D
1547	0412	2912.0	4.94	263	326	100	50.6	2360	2904.6	9.60	9.70	588	574	45.2	49.3	544	266	50.0	3.05	1.72	1.42	9.71	8.50	D
1548	0425	2913.0	4.37	263	373	100	51.4	2520	2905.2	9.60	9.70	587	590	45.2	49.3	545	267	50.3	3.07	1.77	1.46	9.72	8.50	D
1549	0431	2914.0	9.98	265	394	100	50.9	2470	2905.5	9.60	9.70	588	573	45.2	49.3	547	268	50.4	3.07	1.52	1.22	9.72	8.50	D
1550	0435	2915.0	13.8	248	276	100	49.3	2560	2905.8	9.60	9.70	587	579	45.2	49.4	547	269	50.4	3.08	1.41	1.11	9.72	8.50	D
1551	0452	2916.0	22.2	258	336	100	45.0	2510	2906.3	9.60	9.70	583	586	44.9	49.4	550	270	50.6	3.08	1.24	.95	9.72	8.50	D
1552	0457	2917.0	12.7	275	376	100	50.2	2430	2906.7	9.60	9.70	583	562	44.7	49.4	551	271	50.6	3.09	1.44	1.14	9.72	8.50	D
1553	0512	2918.0	4.10	257	335	100	50.4	2490	2908.2	9.60	9.70	584	563	44.4	49.2	555	272	50.9	3.10	1.77	1.47	9.72	8.50	D
1554	0529	2919.0	3.39	252	308	100	50.9	2340	2910.1	9.60	9.70	582	562	44.4	49.1	557	273	51.2	3.12	1.83	1.53	9.72	8.50	D
1555	0547	2920.0	6.20	270	380	100	50.1	2540	2911.8	9.60	9.70	589	580	44.7	48.9	559	274	51.4	3.13	1.65	1.35	9.72	8.50	D
1556	0556	2921.0	6.81	282	381	100	50.4	2400	2912.6	9.60	9.70	588	568	44.8	48.9	545	275	51.5	3.14	1.63	1.32	9.72	8.50	D
1557	0606	2922.0	5.99	284	357	100	49.5	2280	2913.6	9.60	9.70	587	591	44.9	49.0	541	276	51.7	3.15	1.65	1.35	9.72	8.50	D
1558	0613	2923.0	7.74	289	352	100	48.9	2480	2915.2	9.60	9.70	590	582	44.9	49.0	541	277	51.8	3.15	1.57	1.27	9.72	8.50	D
1559	0623	2924.0	6.30	285	351	100	49.8	2580	2916.4	9.60	9.70	590	569	45.0	49.1	540	278	52.0	3.16	1.64	1.34	9.71	8.50	D
1560	0703	2925.0	1.43	208	228	100	50.2	2270	2919.0	9.60	9.70	589	574	45.1	49.4	534	279	52.7	3.20	2.08	1.77	9.71	8.50	D
+ NB#8 HTC AT-J33 12.25" with 3x16 jets. Start depth 2925m.																								
1571	1738	2926.0	5.39	259	353	83	31.0	2420	2925.0	9.60	9.70	578	558	30.3	48.9	515	11.00	.2	.01	1.46	1.29	9.69	8.50	D
1572	1756	2927.0	3.47	265	298	83	29.8	2360	2923.4	9.60	9.70	582	573	33.5	50.0	514	2.00	.5	.03	1.51	1.34	9.70	8.50	D
1573	1810	2928.0	4.09	261	311	85	40.4	2380	2923.9	9.60	9.70	580	584	36.1	51.5	517	3.00	.7	.04	1.61	1.43	9.70	8.50	D
1574	1824	2929.0	4.47	295	424	100	50.3	2440	2924.4	9.60	9.70	582	586	37.7	52.8	517	3.99	1.0	.06	1.75	1.55	9.70	8.50	D
1575	1830	2930.0	9.00	296	389	100	50.1	2460	2924.6	9.60	9.70	585	565	38.4	53.2	518	5.00	1.1	.07	1.54	1.34	9.71	8.50	D
1576	1836	2931.0	10.9	296	350	100	49.6	2350	2924.8	9.60	9.70	585	590	39.2	53.5	519	6.00	1.2	.07	1.48	1.28	9.71	8.50	D
1577	1840	2932.0	13.5	298	436	100	49.7	2360	2925.0	9.60	9.70	583	574	39.5	53.4	519	7.00	1.2	.08	1.42	1.22	9.71	8.50	D
1578	1844	2933.0	14.7	293	359	100	49.7	2380	2925.1	9.60	9.70	586	577	39.8	53.1	521	8.00	1.3	.09	1.40	1.19	9.72	8.50	D
1579	1849	2934.2	13.0	279	432	100	49.5	2510	2925.3	9.60	9.70	583	589	40.5	53.1	526	9.20	1.4	.09	1.42	1.20	9.72	8.50	D
1580	1903	2935.0	12.7	305	381	100	51.3	2450	2925.6	9.60	9.70	585	590	41.1	52.8	526	10.0	1.5	.10	1.45	1.25	9.72	8.50	D
1581	1908	2936.0	12.6	295	368	100	49.9	2390	2925.8	9.60	9.70	585	572	41.3	52.4	530	11.0	1.6	.11	1.44	1.24	9.72	8.50	D
1582	1912	2937.0	14.8	301	379	100	49.8	2480	2925.9	9.60	9.70	583	569	41.4	52.2	541	12.0	1.6	.11	1.39	1.19	9.73	8.50	D
1583	1917	2938.0	12.0	304	369	100	50.0	2440	2926.1	9.60	9.70	582	563	41.5	52.1	547	13.0	1.7	.12	1.46	1.25	9.73	8.50	D
1584	1921	2939.0	13.3	297	363	100	49.4	2420	2926.3	9.60	9.70	583	574	41.6	52.1	549	14.0	1.8	.12	1.42	1.22	9.73	8.50	D
1585	1926	2940.0	13.2	296	369	100	50.1	2490	2926.7	9.60	9.70	582	561	41.6	52.0	548	15.0	1.9	.13	1.43	1.22	9.74	8.50	D
1586	1930	2941.0	14.1	307	400	100	50.5	2430	2926.9	9.60	9.70	585	588	41.7	51.8	549	16.0	1.9	.14	1.41	1.21	9.74	8.50	D
1587	1935	2942.0	12.4	299	410	100	50.5	2400	2927.3	9.60	9.70	583	574	41.7	51.7	548	17.0	2.0	.14	1.45	1.24	9.74	8.50	D
1588	1939	2943.0	12.9	314	416	100	50.0	2440	2927.6	9.60	9.70	583	574	41.8	51.6	546	18.0	2.1	.15	1.43	1.23	9.74	8.50	D
1589	1956	2944.0	11.7	308	518	100	50.7	2430	2928.5	9.60	9.70	584	575	42.6	51.4	553	19.0	2.2	.16	1.47	1.26	9.74	8.50	D
1590	2006	2945.0	15.5	308	490	100	49.3	2380	2929.5	9.60	9.70	586	565	42.9	51.4	552	20.0	2.3	.17	1.37	1.17	9.74	8.50	D
1591	2011	2946.0	13.8	327	412	100	50.2	2430	2930.2	9.60	9.70	587	567	43.2	51.5	555	21.0	2.4	.17	1.41	1.21	9.75	8.50	D
1592	2022	2947.0	12.3	318	521	100	47.0	2370	2932.7	9.60	9.70	584	571	43.6	51.6	552	22.0	2.6	.18	1.42	1.22	9.74	8.50	D
1593	2027	2948.0	12.0	320	417	100	50.6	2340	2933.9	9.60	9.70	586	574	43.9	51.6	552	23.0	2.6	.19	1.46	1.25	9.74	8.50	D
1594	2032	2949.0	11.9	308	392	100	51.7	2400	2934.0	9.60	9.70	585	576	44.1	51.7	550	24.0	2.7	.20	1.47	1.26	9.74	8.50	D

ESSO AUSTRALIA: Sawbelly No.1

Data Printed at time 18:39 Date Mar 21 '90
 Data Recorded at time 20:35 Date Mar 20 '90

F#	TIME	DEPTH	ROP		TORQUE		RPM	WOB	PUMP:RTRNS		MD lb/gal		FLOW/MIN		TEMP (C)		PVT:	-THIS BIT-	EST:	DXC	NXB	ECD	NXMD:	
			m/hr	AVG	MAX	AVG			AVG	PRES:	DEPTH	IN	OUT	IN	OUT	IN								OUT
1595	2035	2950.0	16.11	279	397	100	50.3	2350	2934.4	9.60	9.70	584	563	44.2	51.7	550	25.0	2.8	20	11.37	1.16	9.74	8.50	D
1596	2037	2951.0	30.41	270	287	100	50.1	2480	2934.9	9.60	9.70	585	571	44.4	51.7	550	26.0	2.8	20	11.19	.98	9.75	8.50	D
1597	2040	2952.0	23.61	270	286	100	52.2	2420	2935.4	9.60	9.70	585	569	44.5	51.8	549	27.0	2.9	21	11.28	1.07	9.75	8.50	D
1598	2056	2953.0	14.61	269	404	100	48.5	2370	2937.5	9.60	9.70	591	578	44.8	52.1	548	28.0	3.0	22	11.38	1.18	9.74	8.50	D
1599	2109	2954.0	4.461	284	349	100	50.2	2490	2940.5	9.60	9.70	590	570	45.2	52.3	547	29.0	3.2	23	11.74	1.53	9.74	8.50	D
1600	2117	2955.0	8.011	299	381	100	50.4	2470	2942.2	9.60	9.70	588	573	45.4	52.5	552	30.0	3.4	24	11.58	1.37	9.73	8.50	D
1601	2121	2956.0	14.61	330	405	100	51.4	2440	2943.1	9.60	9.70	589	568	45.5	52.5	547	31.0	3.4	25	11.41	1.20	9.73	8.50	D
1602	2126	2957.0	11.41	327	414	100	52.1	2560	2943.2	9.60	9.70	588	573	45.8	52.6	547	32.0	3.5	26	11.49	1.28	9.74	8.50	D
1603	2133	2958.0	8.571	316	424	100	51.7	2500	2943.8	9.60	9.70	587	573	46.0	52.7	546	33.0	3.6	27	11.57	1.36	9.74	8.50	D
1604	2140	2959.0	9.171	317	388	100	52.3	2450	2944.3	9.60	9.70	586	565	46.2	52.8	547	34.0	3.7	28	11.56	1.34	9.74	8.50	D
1605	2146	2960.0	10.21	304	422	100	51.5	2480	2945.6	9.60	9.70	586	565	46.4	52.9	546	35.0	3.8	28	11.52	1.30	9.74	8.50	D
1606	2151	2961.0	11.91	314	427	100	52.4	2400	2945.8	9.60	9.70	586	565	46.6	52.9	546	36.0	3.9	29	11.48	1.27	9.74	8.50	D
1607	2156	2962.0	11.11	302	409	100	51.9	2590	2946.5	9.60	9.70	591	576	46.6	52.9	546	37.0	4.0	30	11.49	1.28	9.74	8.50	D
1608	2208	2963.0	11.51	300	401	100	50.7	2510	2948.3	9.60	9.70	587	567	46.6	53.0	543	38.0	4.1	31	11.47	1.26	9.74	8.50	D
1609	2215	2964.0	9.071	327	380	100	50.2	2330	2950.3	9.60	9.70	588	591	46.7	53.0	543	39.0	4.2	31	11.54	1.33	9.74	8.50	D
1610	2223	2965.0	7.221	304	400	100	49.7	2450	2952.5	9.60	9.70	588	579	46.9	53.0	545	40.0	4.4	32	11.60	1.39	9.73	8.50	D
1611	2236	2966.0	4.701	275	408	100	50.2	2590	2953.4	9.60	9.70	587	568	46.9	53.1	542	41.0	4.6	34	11.73	1.52	9.73	8.50	D
1612	2245	2967.0	6.521	291	412	100	50.3	2630	2954.0	9.60	9.70	586	591	46.9	53.3	544	42.0	4.7	35	11.63	1.42	9.73	8.50	D
1613	2252	2968.0	9.101	285	376	100	50.6	2640	2955.4	9.60	9.70	586	590	47.0	53.4	545	43.0	4.8	36	11.54	1.33	9.73	8.50	D
1614	2258	2969.0	9.901	286	407	100	48.8	2470	2956.5	9.60	9.70	586	565	47.0	53.4	547	44.0	4.9	37	11.50	1.29	9.73	8.50	D
1615	2304	2970.0	10.31	282	397	100	48.8	2650	2957.4	9.60	9.70	587	573	47.1	53.5	549	45.0	5.0	38	11.49	1.28	9.73	8.50	D
1616	2318	2971.0	4.151	281	399	100	50.3	2630	2959.7	9.60	9.70	587	566	47.5	53.6	549	46.0	5.3	40	11.77	1.55	9.73	8.50	D
1617	2339	2972.0	3.571	280	373	100	50.3	2270	2962.4	9.60	9.70	585	589	48.0	53.8	545	47.0	5.5	41	11.81	1.60	9.72	8.50	D
1618	2355	2973.0	3.681	283	385	100	46.4	2540	2964.7	9.60	9.70	587	573	48.2	53.8	545	48.0	5.8	43	11.76	1.55	9.72	8.50	D
Date Mar 21 '90																								
1619	0012	2974.0	3.511	282	369	100	47.4	2530	2966.2	9.60	9.70	584	570	48.5	53.9	545	49.0	6.1	46	11.78	1.57	9.71	8.50	D
1620	0030	2975.0	3.381	285	381	100	52.2	2480	2968.7	9.60	9.70	584	563	48.7	54.0	551	50.0	6.4	48	11.85	1.63	9.71	8.50	D
1621	0039	2976.0	6.591	274	360	100	49.3	2500	2970.1	9.60	9.70	583	573	48.7	54.1	547	51.0	6.5	49	11.63	1.41	9.71	8.50	D
1622	0045	2977.0	10.81	274	315	100	49.3	2250	2970.4	9.60	9.70	582	588	48.8	54.1	549	52.0	6.6	50	11.48	1.27	9.71	8.50	D
1623	0100	2978.0	3.821	280	348	100	52.1	2420	2971.5	9.60	9.70	584	563	48.9	54.3	550	53.0	6.9	52	11.82	1.60	9.71	8.50	D
1624	0113	2979.0	4.691	278	358	100	51.6	2510	2972.0	9.60	9.70	584	568	49.0	54.4	552	54.0	7.1	53	11.75	1.53	9.71	8.50	D
1625	0117	2980.0	12.51	266	354	100	49.6	2440	2972.3	9.60	9.70	585	564	49.0	54.4	552	55.0	7.1	54	11.44	1.23	9.71	8.50	D
1626	0124	2981.0	9.331	284	363	100	52.1	2400	2972.7	9.60	9.70	585	590	49.1	54.5	553	56.0	7.3	55	11.55	1.33	9.72	8.50	D
1627	0139	2982.0	5.811	279	361	100	52.5	2470	2973.4	9.60	9.70	589	568	49.2	54.6	553	57.0	7.4	56	11.70	1.47	9.72	8.50	D
1628	0155	2983.0	3.641	275	347	100	51.1	2440	2974.2	9.60	9.70	590	575	49.5	54.5	554	58.0	7.7	58	11.82	1.60	9.72	8.50	D
1629	0211	2984.0	3.691	283	378	100	51.8	2460	2975.4	9.60	9.70	589	574	49.8	54.5	554	59.0	7.9	60	11.82	1.60	9.72	8.50	D
1630	0225	2985.0	4.461	272	374	100	51.6	2400	2977.2	9.60	9.70	589	569	50.0	54.5	551	60.0	8.1	62	11.76	1.54	9.71	8.50	D
1631	0238	2986.0	4.431	270	357	100	50.5	2470	2978.1	9.60	9.70	587	592	50.0	54.5	552	61.0	8.4	64	11.75	1.53	9.72	8.50	D
1632	0249	2987.0	5.581	283	356	100	50.7	2410	2979.2	9.60	9.70	590	568	50.1	54.5	552	62.0	8.6	65	11.69	1.47	9.71	8.50	D
1633	0305	2988.0	3.711	281	374	100	52.5	2570	2981.7	9.60	9.70	590	570	50.2	54.5	551	63.0	8.8	67	11.83	1.60	9.71	8.50	D
1634	0321	2989.0	3.811	279	374	100	52.0	2490	2982.5	9.60	9.70	588	568	50.2	54.5	551	64.0	9.1	69	11.82	1.59	9.71	8.50	D
1635	0336	2990.0	4.021	282	356	100	51.9	2430	2983.5	9.60	9.70	589	569	50.2	54.4	552	65.0	9.3	71	11.80	1.57	9.71	8.50	D
1636	0348	2991.0	4.111	273	348	100	51.1	2470	2984.4	9.60	9.70	587	573	50.2	54.4	551	66.0	9.5	73	11.78	1.56	9.71	8.50	D
1637	0412	2992.0	4.421	286	377	100	52.4	2330	2985.8	9.60	9.70	582	586	50.2	54.3	546	67.0	9.8	75	11.78	1.55	9.71	8.50	D
1638	0425	2993.0	4.471	291	385	100	52.4	2510	2987.1	9.60	9.70	583	574	50.2	54.2	547	68.0	10.0	76	11.77	1.54	9.71	8.50	D
1639	0438	2994.0	4.691	276	355	100	51.0	2320	2988.0	9.60	9.70	583	562	50.3	54.2	546	69.0	10.3	78	11.74	1.51	9.71	8.50	D
1640	0450	2995.0	4.791	276	368	100	51.0	2390	2988.8	9.60	9.70	583	573	50.3	54.2	547	70.0	10.5	79	11.74	1.51	9.71	8.50	D
1641	0500	2996.0	6.611	278	367	100	51.0	2320	2989.5	9.60	9.70	584	564	50.4	54.2	549	71.0	10.6	81	11.64	1.41	9.71	8.50	D

ESSO AUSTRALIA: Sawbelly No.1

Data Printed at time 18:42 Date Mar 21 '90
 Data Recorded at time 05:02 Date Mar 21 '90

F#	TIME	DEPTH	ROP:	TORQUE		RPM	WOB	PUMP:RTRNS	MD lb/gal		FLOW/MIN		TEMP (C)		PVT:	-THIS BIT-	EST:	DXC	NXB	ECD	NXMD:
			m/hr:	AVG	MAX				AVG	PRES:	DEPTH	IN	OUT	IN		OUT					
1642	0502	2997.0	23.81	267	282	100	50.3	2540:2989.6	9.60	9.70	583	589	50.4	54.2	549:72.0	10.7	.81:1.26	1.03	9.71	8.50:0	
1643	0505	2998.0	22.11	263	273	100	50.0	2480:2989.9	9.60	9.70	583	575	50.3	54.2	549:73.0	10.7	.81:1.28	1.05	9.72	8.50:0	
1644	0518	2999.0	24.71	242	275	100	41.2	2590:2990.4	9.60	9.70	582	562	50.2	54.1	548:74.0	10.8	.82:1.17	.96	9.72	8.50:0	
1645	0521	3000.0	23.61	272	294	100	50.3	2500:2990.5	9.60	9.70	581	561	50.2	54.1	547:75.0	10.8	.82:1.26	1.04	9.72	8.50:0	
1646	0527	3001.0	10.21	277	360	100	49.6	2580:2991.0	9.60	9.70	579	565	50.0	54.1	546:76.0	10.9	.83:1.50	1.27	9.72	8.50:0	
1647	0546	3002.0	8.361	274	354	100	50.6	2620:2991.7	9.60	9.70	593	578	49.8	53.9	546:77.0	11.1	.84:1.57	1.34	9.72	8.50:0	
1648	0548	3003.0	30.21	290	341	100	48.1	2630:2991.7	9.60	9.70	593	579	49.8	53.9	547:78.0	11.1	.84:1.17	.95	9.73	8.50:0	
1649	0557	3004.0	5.801	289	346	100	51.5	2600:2992.3	9.60	9.70	591	577	49.8	53.9	546:79.0	11.3	.86:1.68	1.45	9.73	8.50:0	
1650	0609	3005.0	4.101	283	365	100	52.1	2620:2993.2	9.60	9.70	591	594	49.8	53.8	546:80.0	11.5	.87:1.79	1.56	9.73	8.50:0	
1651	0618	3006.0	6.731	291	392	100	50.7	2620:2993.9	9.60	9.70	594	572	49.9	53.8	545:81.0	11.6	.88:1.63	1.40	9.73	8.50:0	
1652	0632	3007.0	4.431	277	352	100	50.6	2650:2995.0	9.60	9.70	592	595	49.9	53.7	537:82.0	11.9	.90:1.75	1.52	9.73	8.50:0	
1653	0643	3008.0	5.521	283	385	100	52.0	2740:2997.2	9.60	9.70	592	594	50.0	53.7	536:83.0	12.0	.91:1.70	1.47	9.73	8.50:0	
1654	0649	3009.0	9.771	288	386	100	51.3	2560:2998.2	9.60	9.70	592	571	50.1	53.7	536:84.0	12.1	.92:1.53	1.30	9.73	8.50:0	
1655	0656	3010.0	8.321	281	354	100	49.0	2600:3000.4	9.60	9.70	591	571	50.0	53.6	534:85.0	12.3	.93:1.55	1.32	9.72	8.50:0	
1656	0713	3011.0	4.881	243	331	100	51.9	2630:3001.2	9.60	9.70	589	593	49.7	53.6	534:86.0	12.4	.94:1.74	1.50	9.72	8.50:0	
1657	0723	3012.0	6.161	292	392	100	52.6	2650:3003.5	9.60	9.70	588	566	49.7	53.5	533:87.0	12.6	.96:1.68	1.44	9.72	8.50:0	
1658	0729	3013.0	10.31	288	330	100	50.3	2550:3003.9	9.60	9.70	589	568	49.8	53.5	533:88.0	12.7	.96:1.50	1.27	9.72	8.50:0	
1659	0734	3014.0	10.11	295	373	100	52.6	2710:3004.4	9.60	9.70	589	592	49.8	53.5	531:89.0	12.8	.97:1.53	1.30	9.72	8.50:0	
1660	0742	3015.0	7.761	278	362	100	49.6	2720:3004.9	9.60	9.70	589	568	49.8	53.5	530:90.0	12.9	.98:1.58	1.35	9.72	8.50:0	
1661	0754	3016.0	4.911	282	344	100	52.4	2760:3006.2	9.60	9.70	589	568	49.7	53.5	529:91.0	13.1	.99:1.74	1.51	9.72	8.50:0	
1662	0803	3017.0	7.061	282	364	100	49.8	2770:3006.7	9.60	9.70	588	591	49.7	53.5	530:92.0	13.3	1.00:1.61	1.38	9.72	8.50:0	
1663	0811	3018.0	6.861	297	371	100	52.0	2540:3007.4	9.60	9.70	588	574	49.7	53.5	529:93.0	13.4	1.01:1.64	1.40	9.72	8.50:0	
1664	0825	3019.0	4.461	274	353	100	50.5	2690:3009.2	9.60	9.70	589	592	49.7	53.5	527:94.0	13.6	1.03:1.75	1.51	9.72	8.50:0	
1665	0836	3020.0	5.371	286	368	100	52.2	2660:3010.9	9.60	9.70	590	569	49.7	53.5	526:95.0	13.8	1.04:1.71	1.48	9.72	8.50:0	
1666	0851	3021.0	9.051	293	380	100	49.3	2760:3011.2	9.60	9.70	590	575	49.5	53.5	526:96.0	14.0	1.05:1.53	1.30	9.72	8.50:0	
1667	0856	3022.0	12.31	326	393	100	51.1	2770:3011.8	9.60	9.70	590	593	49.5	53.4	526:97.0	14.0	1.06:1.46	1.22	9.72	8.50:0	
1668	0902	3023.0	9.881	325	388	100	51.2	2820:3012.8	9.60	9.70	588	567	49.5	53.4	526:98.0	14.1	1.07:1.53	1.29	9.72	8.50:0	
1669	0909	3024.0	8.491	308	394	100	51.2	2890:3014.0	9.60	9.70	589	580	49.6	53.3	525:99.0	14.3	1.08:1.57	1.33	9.72	8.50:0	
1670	0916	3025.0	9.221	284	373	100	51.2	2960:3014.8	9.60	9.70	588	591	49.7	53.3	526:100	14.4	1.08:1.55	1.31	9.72	8.50:0	
1671	0923	3026.0	7.501	320	390	100	50.8	2730:3015.5	9.60	9.70	586	572	49.7	53.3	526:101	14.5	1.09:1.60	1.36	9.72	8.50:0	
1672	0934	3027.0	5.521	342	410	100	50.8	2870:3016.5	9.60	9.70	587	564	49.7	53.3	525:102	14.7	1.11:1.69	1.45	9.72	8.50:0	
1673	0944	3028.0	6.551	360	424	100	50.7	2840:3017.6	9.60	9.70	584	571	49.7	53.3	526:103	14.8	1.12:1.64	1.40	9.72	8.50:0	
1674	0949	3029.0	10.91	356	411	100	49.3	2910:3018.2	9.60	9.70	584	570	49.7	53.3	524:104	14.9	1.12:1.48	1.24	9.72	8.50:0	
1675	1002	3030.0	10.91	334	421	100	50.4	2480:3018.9	9.60	9.70	587	592	49.7	53.3	522:105	15.1	1.13:1.49	1.25	9.73	8.50:0	
1676	1008	3031.0	9.451	336	428	100	49.9	2590:3019.3	9.60	9.70	585	571	49.6	53.3	523:106	15.2	1.14:1.52	1.29	9.73	8.50:0	
1677	1015	3032.0	4.931	342	418	100	51.4	2650:3020.1	9.60	9.70	587	565	49.6	53.2	525:107	15.3	1.15:1.73	1.49	9.73	8.50:0	
1678	1027	3033.0	4.961	338	415	100	50.5	2530:3021.3	9.60	9.70	586	590	49.7	53.2	524:108	15.5	1.16:1.72	1.48	9.73	8.50:0	
1679	1041	3034.0	4.161	319	399	100	51.4	2680:3023.8	9.60	9.70	584	571	49.7	53.2	523:109	15.7	1.18:1.78	1.54	9.72	8.50:0	
1680	1056	3035.0	4.071	337	402	100	50.9	2590:3025.8	9.60	9.70	585	564	49.7	53.2	523:110	16.0	1.20:1.78	1.54	9.72	8.50:0	
1681	1103	3036.0	8.361	331	456	100	51.7	2540:3026.7	9.60	9.70	585	571	49.8	53.2	523:111	16.1	1.21:1.58	1.34	9.72	8.50:0	
1682	1113	3037.0	5.881	325	413	100	51.1	2410:3027.6	9.60	9.70	585	572	49.9	53.2	523:112	16.3	1.22:1.68	1.43	9.72	8.50:0	
1683	1128	3038.0	4.341	335	416	100	52.2	2520:3029.9	9.60	9.70	584	588	50.1	53.2	522:113	16.5	1.23:1.78	1.53	9.71	8.50:0	
1684	1141	3039.0	4.341	372	461	100	55.3	2570:3031.4	9.60	9.70	584	589	50.3	53.1	526:114	16.7	1.25:1.81	1.56	9.71	8.50:0	
1685	1214	3040.0	4.151	360	449	100	54.1	2600:3033.8	9.60	9.70	589	592	50.5	53.1	525:115	17.0	1.27:1.81	1.57	9.71	8.50:0	
1686	1224	3041.0	6.391	311	445	100	51.2	2650:3034.5	9.60	9.70	589	593	50.8	53.1	523:116	17.2	1.28:1.65	1.41	9.71	8.50:0	
1687	1233	3042.0	6.201	323	449	100	51.4	2810:3035.2	9.60	9.70	611	598	51.0	53.1	523:117	17.3	1.29:1.67	1.42	9.71	8.50:0	
1688	1243	3043.0	6.371	332	445	100	51.1	2630:3036.4	9.60	9.70	611	592	51.2	53.1	523:118	17.5	1.31:1.65	1.41	9.71	8.50:0	
1689	1255	3044.0	5.631	371	474	100	51.0	2600:3037.6	9.60	9.70	610	596	51.5	53.1	522:119	17.7	1.32:1.69	1.44	9.71	8.50:0	

ESSO AUSTRALIA: Sawbelly No.1

Data Printed at time 18:45 Date Mar 21 '90
 Data Recorded at time 13:04 Date Mar 21 '90

F#	TIME	DEPTH	ROP	TORQUE		RPM	WOB	PUMP	RTNS	MD lb/gal		FLOW/MIN		TEMP (C)	PVT	-THIS	BIT-	EST	DXC	NXB	ECD	NXMD		
			m/hr	AVG	MAX			AVG	PRES	DEPTH	IN	OUT	IN			OUT	m	hr					TW	
1690	1304	3045.0	6.51	324	422	100	51.3	2830	3038.2	9.60	9.70	610	602	51.6	53.2	521	120	17.8	1.33	1.65	1.40	9.71	8.50	D
1691	1311	3046.0	8.10	333	472	100	51.5	2660	3038.8	9.60	9.70	611	597	51.5	53.2	520	121	18.0	1.34	1.59	1.34	9.71	8.50	D
1692	1320	3047.0	6.79	325	392	100	50.4	2760	3039.4	9.60	9.70	610	597	51.6	53.3	520	122	18.1	1.35	1.63	1.38	9.71	8.50	D
1693	1327	3048.0	8.91	321	363	100	50.4	2860	3039.6	9.60	9.70	612	592	51.7	53.3	520	123	18.2	1.36	1.55	1.30	9.72	8.50	D
1694	1343	3049.0	7.27	332	437	100	50.7	2670	3040.0	9.60	9.70	610	612	52.0	53.3	520	124	18.4	1.37	1.61	1.36	9.72	8.50	D†
1695	1353	3050.0	5.97	316	394	100	50.7	2670	3040.9	9.60	9.70	586	565	52.1	53.3	519	125	18.6	1.38	1.67	1.42	9.72	8.50	D
1696	1402	3051.0	6.89	304	391	100	51.5	2580	3041.9	9.60	9.70	585	565	52.2	53.3	518	126	18.7	1.39	1.63	1.39	9.72	8.50	D
1697	1409	3052.0	8.30	299	391	100	50.8	2580	3042.8	9.60	9.70	584	570	52.2	53.3	518	127	18.8	1.40	1.57	1.33	9.72	8.50	D
1698	1416	3053.0	8.69	334	435	100	51.4	2640	3043.2	9.60	9.70	586	592	52.2	53.2	517	128	18.9	1.41	1.56	1.32	9.72	8.50	D
1699	1424	3054.0	7.23	343	443	100	51.3	2550	3044.0	9.60	9.70	586	566	52.3	53.2	518	129	19.1	1.42	1.62	1.37	9.72	8.50	D
1700	1435	3055.0	5.49	351	443	100	52.0	2660	3045.0	9.60	9.70	586	567	52.4	53.2	519	130	19.2	1.43	1.71	1.46	9.72	8.50	D
1701	1449	3056.0	4.49	346	418	100	51.3	2560	3046.6	9.60	9.70	586	589	52.5	53.2	519	131	19.5	1.44	1.76	1.51	9.72	8.50	D
1702	1502	3057.0	4.65	323	410	100	52.0	2580	3048.2	9.60	9.70	586	572	52.6	53.2	518	132	19.7	1.46	1.76	1.50	9.72	8.50	D
1703	1506	3058.5	4.10	357	398	100	50.4	2620	3048.6	9.60	9.70	588	574	52.6	53.2	519	134	19.7	1.46	1.76	1.54	9.72	8.50	D
1704	1529	3060.0	7.87	332	433	100	49.8	2760	3050.2	9.60	9.70	591	577	52.7	53.2	517	135	20.0	1.48	1.58	1.33	9.72	8.50	D
1705	1534	3061.0	10.5	334	407	100	49.7	2650	3051.0	9.60	9.70	594	573	52.7	53.1	516	136	20.1	1.49	1.49	1.24	9.72	8.50	D
1706	1539	3062.0	14.2	341	397	100	49.9	2580	3051.5	9.60	9.70	592	572	52.7	53.1	517	137	20.2	1.50	1.41	1.16	9.72	8.50	D
1707	1545	3063.0	9.54	346	445	100	50.5	2630	3052.5	9.60	9.70	591	595	52.7	53.1	516	138	20.3	1.50	1.53	1.28	9.72	8.50	D
1708	1550	3064.0	11.0	311	416	100	50.5	2490	3053.4	9.60	9.70	592	597	52.8	53.1	516	139	20.4	1.51	1.49	1.24	9.72	8.50	D
1709	1555	3065.0	11.7	302	375	100	50.2	2600	3054.0	9.60	9.70	592	596	52.8	53.1	515	140	20.5	1.51	1.47	1.22	9.73	8.50	D
1710	1609	3066.0	4.54	306	395	100	51.0	2660	3055.6	9.60	9.70	592	570	53.0	53.2	514	141	20.7	1.53	1.75	1.50	9.72	8.50	D
1711	1614	3067.0	10.9	302	409	100	49.2	2500	3056.0	9.60	9.70	592	578	53.0	53.2	514	142	20.8	1.54	1.48	1.23	9.73	8.50	D
1712	1621	3068.0	8.74	302	418	100	50.9	2760	3056.7	9.60	9.70	591	594	53.1	53.2	516	143	20.9	1.54	1.56	1.31	9.73	8.50	D

+ TD at 3068.0m on 21st March 1990.
 : Circulate bottoms up.
 : Run E-logs.

vi. Drill Data Plot 1:2500

PE602924

This is an enclosure indicator page.
The enclosure PE602924 is enclosed within the container
PE802283 at this location in this document.

The enclosure PE602924 has the following characteristics:

ITEM_BARCODE = PE602924
CONTAINER_BARCODE = PE802283
 NAME = Drilling Data Plot
 BASIN =
 PERMIT =
 TYPE = WELL
 SUBTYPE = WELL_LOG
DESCRIPTION = Drilling Data Plot, Scale 1:2500,
 (Enclosure from Final Well Report), By
 Exlog for Esso Australia, for Sawbelly-
 1
REMARKS =
DATE_CREATED =
DATE_RECEIVED = 22/06/90
WELL_NO = W1022
WELL_NAME = Sawbelly-1
CONTRACTOR = Exlog
CLIENT_OP_CO = Esso Australia

(Inserted by DNRE - Vic Govt Mines Dept)

vii. Drill Cost Plot 1:2500

PE602925

This is an enclosure indicator page.
The enclosure PE602925 is enclosed within the container
PE802283 at this location in this document.

The enclosure PE602925 has the following characteristics:

ITEM_BARCODE = PE602925
CONTAINER_BARCODE = PE802283
NAME = Drilling Data Cost Plot
BASIN =
PERMIT =
TYPE = WELL
SUBTYPE = WELL_LOG
DESCRIPTION = Drilling Data Cost Plot, Scale 1:2500,
(Enclosure from Final Well Report), By
Exlog for Esso Australia, for Sawbelly-
1
REMARKS =
DATE_CREATED =
DATE_RECEIVED = 22/06/90
WELL_NO = W1022
WELL_NAME = Sawbelly-1
CONTRACTOR = Exlog
CLIENT_OP_CO = Esso Australia

(Inserted by DNRE - Vic Govt Mines Dept)

C. ENGINEERING DATA

i. Daily Geological-Engineering Reports



GEMDAS LOGGING REPORT NO. 1

COMPANY ESSO AUST. WELL SAWBELLY No 1
 DATE 7TH MARCH. TIME 00:00
 DEPTH 644m LAST REPORT DEPTH —
 RIG OPERATIONS DRILLING 17 1/2" HOLE.
 REPORT BY D. NEW. REPORT RECEIVED BY _____ (OPERATOR)
 SIGNED _____

DRILLING REPORT

Bit No.: 2 Type: HTC CX3A Size: 17 1/2 Jets: 18, 16, 15, 10.
 On Bit: Footage: 439m Hours: 15.75 ROP: 27.9m WOB: 25-30 RPM: 120
 Pump Press: 1700 SPM: 207 Torque: 50-200 TBR: 113,000 CP I: \$ _____ CP B: \$ _____

HYDRAULICS REPORT

Mud Density In: 8.8 Mud Density Out: 8.9 ECD: 9.0 PV/YP: 4/16
 Gels: 7/11 Salinity: 10,000 PPM Cl Solids: 2%
 Hole Volume: 729 BBL Annular Volume: 659 BBL Tubing Volume: 33 BBL Displaced Volume: 38 BBL
 Carbide Lag—Calculated Lag: — Flowrate: 1035 GPM.
 Drillpipe Annular Vel (Max. Dia. Sec.): 61 FT/MIN Drillpipe Annular Vel (Open Hole): 90.2 FT/MIN
 Drill Collar Annular Vel (Open Hole): (9") 112.6 FT/MIN Critical Vel: 323 FT/MIN.
 Pressure Loss System: 529 psi Pressure Loss Bit: 1798* % Pressure Loss: —
 Nozzel Vel: 478 FT/SEC Jet Impact Force: 2255 HHP: 1085

PRESSURE PARAMETERS

Drilling Exponent: 0.7 - 1.2 (NORMAL) Flowline Temperature: 34°C
 Shale Density: — Shale Factor: —
 Background Gas: 10-15u Max. Formation Gas: — @ _____ Trip Gas: — @ _____
 Other Gas: NIL
 Fill: NIL Tight Hole: NIL
 Cavings: Est %: UP TO 10% Average Size: SMALL.

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: — Min. Estimated Fracture Pressure (Open Hole): —
 Estimated Pore Pressure: 8.5 Min. Estimated Pore Pressure (Open Hole): 8.5 @ 198m.
 Max. Estimated Pore Pressure (Open Hole): 8.5 @ 644 Estimated Fracture Pressure at TD: —

Comments:

*** NOTE: PRESSURE LOSS AT BIT APPARENTLY GREATER THAN PUMP PR. THIS WOULD SUGGEST THAT ONE OF THE NOZZELS MAY BE WASHED OUT.**



GEMDAS LOGGING REPORT NO. 2

COMPANY ESSO AUST. WELL SAWBELLY
 DATE 8TH MARCH 1990 TIME 00:00
 DEPTH 815m LAST REPORT DEPTH 644m
 RIG OPERATIONS RUNNING WIRELINE LOGS
 REPORT BY D. NEW REPORT RECEIVED BY _____ (OPERATOR)
 SIGNED _____

DRILLING REPORT

Bit No.: NB#2 Type: HTC CX3A Size: 17 1/2" Jets: 18, 16, 10, 15*
 On Bit: Footage: 610 Hours: 29 1/2 ROP: 20.7 WOB: 35-40 RPM: 120
 Pump Press: 1900 SPM: 210 Torque: 100-350 TBR: 213000 CP I: \$ _____ CP B: \$ _____

HYDRAULICS REPORT

Mud Density In: 9.4 Mud Density Out: 9.4⁺ ECD: 9.5 PV/YP: 3/9
 Gels: 6/9 Salinity: 17000 PPM Cl Solids: _____ %
 Hole Volume: 850 BBL Annular Volume: 769 BBL Tubing Volume: 40 BBL Displaced Volume: 41 BBL
 Carbide Lag—Calculated Lag: — Flowrate: 1050 GPM
 Drillpipe Annular Vel (Max. Dia. Sec.): 61.9 FT/MIN Drillpipe Annular Vel (Open Hole): 91.5 FT/MIN
 Drill Collar Annular Vel (Open Hole): 9" 114.3 FT/MIN Critical Vel: 212.9 FT/MIN
 Pressure Loss System: 1342 Pressure Loss Bit: 1977 / 558 % Pressure Loss: 29.3%
 Nozzel Vel: 485 / 258 Jet Impact Force: 2479 / 1317 HHP: 1211 / 342

PRESSURE PARAMETERS

Drilling Exponent: 1.1 - 1.3 Flowing Temperature: 35.5°C
 Shale Density: 2.3 (EST) Shale Factor: _____
 Background Gas: 10-20 u Max. Formation Gas: _____ @ _____ Trip Gas: NIL @ _____
 Other Gas: NIL
 Fill: NIL 4m Tight Hole: NIL
 Cavings: Est %: MINOR Average Size: _____

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: — Min. Estimated Fracture Pressure (Open Hole): —
 Estimated Pore Pressure: 8.5 ppq Min. Estimated Pore Pressure (Open Hole): 8.5 @ 198m
 Max. Estimated Pore Pressure (Open Hole): 8.5 ppq @ 815m Estimated Fracture Pressure at TD: —

Comments: * NOTE CENTER NOZZEL WASHED OUT / MISSING.
ACTUAL NOZZEL SIZE PROBABLY 18, 16, 10, 32.



GEMDAS LOGGING REPORT NO. 3

COMPANY ESSO AUST. WELL SAWRBULLY No 1
 DATE 9TH MARCH. TIME 00:00 HRS
 DEPTH 815m LAST REPORT DEPTH 815m
 RIG OPERATIONS DRILLING SHOE TRACH
 REPORT BY D. NEW REPORT RECEIVED BY _____ (OPERATOR)
 SIGNED _____

DRILLING REPORT

Bit No.: NB# 3 Type: HTC AT-31 Size: 12 1/4 Jets: 3x16
 On Bit: Footage: - Hours: - ROP: - WOB: - RPM: -
 Pump Press: 2800 SPM: 168 Torque: - TBR: - CP I: \$ - CP B: \$ -

HYDRAULICS REPORT

Mud Density In: 9.3 Mud Density Out: 9.3 ECD: 9.54 PV/YP: 5/26
 Gels: 12/18 Salinity: 19,000 PPM Cl Solids: 5% %
 Hole Volume: 485 Annular Volume: 402 Tubing Volume: 39 Displaced Volume: 44 BBL
 Carbide Lag—Calculated Lag: - Flowrate: 840 GPM
 Drillpipe Annular Vel (Max. Dia. Sec.): 49.5 FT/MIN Drillpipe Annular Vel (Open Hole): -
 Drill Collar Annular Vel (Open Hole): 239.2 FT/MIN Critical Vel: 461 FT/MIN
 Pressure Loss System: 1062 Pressure Loss Bit: 1738 PSI % Pressure Loss: 62%
 Nozzel Vel: 457 FT/SEC Jet Impact Force: 1850 LB HHP: 852 HP.

PRESSURE PARAMETERS

Drilling Exponent: _____ Flowline Temperature: _____
 Shale Density: _____ Shale Factor: _____
 Background Gas: _____ Max. Formation Gas: _____ @ _____ Trip Gas: _____ @ _____
 Other Gas: _____
 Fill: _____ Tight Hole: _____
 Cavings: Est %: _____ Average Size: _____

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: - Min. Estimated Fracture Pressure (Open Hole): -
 Estimated Pore Pressure: 8.5 ppg EMW Min. Estimated Pore Pressure (Open Hole): 8.5 @ 799m
 Max. Estimated Pore Pressure (Open Hole): 8.5 @ 815m Estimated Fracture Pressure at TD: _____

Comments: RUN AND CEMENT 13 3/8 CASING.
TEST BOP'S
RIM



GEMDAS LOGGING REPORT NO. 4

COMPANY ESSO AUST. WELL SAWBELLY No 1
 DATE 10TH MARCH TIME 00:00
 DEPTH 1330m. LAST REPORT DEPTH 815m.
 RIG OPERATIONS DRILLING 12 1/4" HOLE.
 REPORT BY D. NEW REPORT RECEIVED BY _____ SIGNED _____ (OPERATOR)

DRILLING REPORT

Bit No.: NB#3 Type: HTC AT-J1 Size: 12 1/4 Jets: 3x16
 On Bit: Footage: 515m Hours: 16.5 (ON BIT) ROP: 31.2 M/HR (AVE) WOB: 40 RPM: 130
 Pump Press: 2900 SPM: 158 Torque: 150-250TBR: 140,000 CP I: \$ 92 CP B: \$ 115

HYDRAULICS REPORT

Mud Density In: 9.5 Mud Density Out: 9.5 ECD: 9.8 PV/YP: 7/19.
 Gels: 8/14 Salinity: 19,000 PPM Cl Solids: 6 %
 Hole Volume: 73 BBL Annular Volume: 608 BBL Tubing Volume: 68 BBL Displaced Volume: 56 BBL
 Carbide Lag—Calculated Lag: 0" (HOLE IN GAUGE ±) Flowrate: 790 GPM
 Drillpipe Annular Vel (Max. Dia. Sec.): 46.5 FT/MIN Drillpipe Annular Vel (Open Hole): 154.8 FT/MIN.
 Drill Collar Annular Vel (Open Hole): 225 FT/MIN Critical Vel: 377.1 FT/MIN.
 Pressure Loss System: 1330 psi Pressure Loss Bit: 1570 psi % Pressure Loss: 54%
 Nozzel Vel: 430.3 FT/SEC Jet Impact Force: 1671.5 LB HHP: 723.8 HP.

PRESSURE PARAMETERS

Drilling Exponent: 1.1-1.2 (NORMAL) Flowline Temperature: 45°C
 Shale Density: 10-20u Shale Factor: —
 Background Gas: 0.2% - 0.4% Max. Formation Gas: 0.65% @ 1055m (32u) Trip Gas: N/A @ —
 Other Gas: NIL
 Fill: NIL Tight Hole: NIL
 Cavings: Est %: MINOR (<10%) Average Size: SMALL, BLOCKY

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 2.4 PPG Min. Estimated Fracture Pressure (Open Hole): 13.3 ppg EMW
 Estimated Pore Pressure: 8.5 ppg EMW Min. Estimated Pore Pressure (Open Hole): 8.5 @ 799m
 Max. Estimated Pore Pressure (Open Hole): 8.5 @ 1330m Estimated Fracture Pressure at TD: 14.0 ppg

Comments: PRESSURE TRENDS NORMAL.



GEMDAS LOGGING REPORT NO. 5

COMPANY ESSO AUST. WELL SAWBELLY No 1
 DATE 11th MARCH 1990 TIME 00:00
 DEPTH 1905m LAST REPORT DEPTH 1330m
 RIG OPERATIONS DRILLING 12 1/4" HOLE.
 REPORT BY D. NEW REPORT RECEIVED BY _____ SIGNED _____ (OPERATOR)

DRILLING REPORT

Bit No.: NB#3 Type: HTC AT-J1 Size: 12 1/4 Jets: 3 x 16
 On Bit: Footage: 1090m Hours: 33.5 ROP: 32.5m/HR WOB: 40 RPM: 130
 Pump Press: 2750 SPM: 152 Torque: 150-350 TBR: 269000 CP I: \$ 122 CP B: \$ 107

HYDRAULICS REPORT

Mud Density In: 9.0 Mud Density Out: 9.0 ECD: 9.16 PV/YP: 10/16
 Gels: 4/10 Salinity: 31,000 PPM Cl Solids: 6%
 Hole Volume: 1011 BBL Annular Volume: 841 BBL Tubing Volume: 100 BBL Displaced Volume: 70 BBL
 Carbide Lag—Calculated Lag: 0 -78 (12" AVG HOLE DIA) Flowrate: 760 GPM
 Drillpipe Annular Vel (Max. Dia. Sec.): 44.8 FT/MIN Drillpipe Annular Vel (Open Hole): 148.9 FT/MIN
 Drill Collar Annular Vel (Open Hole): 216.4 FT/MIN Critical Vel: 347 FT/MIN
 Pressure Loss System: 1373 PSI Pressure Loss Bit: 1377 PSI % Pressure Loss: 50%
 Nozzel Vel: 413.9 FT/SEC Jet Impact Force: 1465 LB HHP: 610.5 HP

PRESSURE PARAMETERS

Drilling Exponent: 1.15-1.35 Flowline Temperature: 41°C
 Shale Density: — Shale Factor: —
 Background Gas: 0.08-0.13 Max. Formation Gas: — @ — Trip Gas: — @ —
 Other Gas: NIL
 Fill: NIL Tight Hole: NIL
 Cavings: Est %: MINOR Average Size: SMALL BLOCKY, RARE SPLINTERY

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 1.8 ppg. Min. Estimated Fracture Pressure (Open Hole): 13.3 ppg EMW
 Estimated Pore Pressure: 8.5 ppg EMW Min. Estimated Pore Pressure (Open Hole): 8.5 @ 799m
 Max. Estimated Pore Pressure (Open Hole): 8.5 @ 1905m Estimated Fracture Pressure at TD: 14.5

Comments: A DECREASE IN DXC AT 1480m MAY SUGGEST A SLIGHT INCREASE IN PORE PRESSURE AT THIS DEPTH. HOWEVER NO OTHER INDICATIONS OF INCREASED PORE PR WERE NOTED AND THE CHANGE IN DXC IS ATTRIBUTED TO A SUBTLE CHANGE IN LITNOLOGY
TOP LAKES ENTRENCE FM AT 1720m (±)



GEMDAS LOGGING REPORT NO. 6

COMPANY ESSO AUST WELL SAWBELLY No 1
 DATE 12TH MARCH 1990 TIME 00:00 MRS
 DEPTH 1964m LAST REPORT DEPTH 1905m
 RIG OPERATIONS DRILLING 12 1/4"
 REPORT BY D. NEW REPORT RECEIVED BY _____ (OPERATOR)
 SIGNED _____

DRILLING REPORT

Bit No.: NB#4 Type: SEC Size: 12 1/4" Jets: 16, 16, 14
 On Bit: Footage: 49m Hours: 4.6 ROP: 10.6m/HR. WOB: 45 RPM: 120
 Pump Press: 1740 SPM: 112 Torque: 150-250 TBR: 27500 CP I: \$ 830 CP B: \$ 566

HYDRAULICS REPORT

Mud Density In: 9.5 Mud Density Out: 9.5 ECD: 9.62 PV/YP: 8/14
 Gels: 3/8 Salinity: _____ PPM Cl Solids: 9% %
 Hole Volume: 1034 BBL Annular Volume: 860 BBL Tubing Volume: 103 BBL Displaced Volume: 71 BBL
 Carbide Lag—Calculated Lag: -78 STKS Flowrate: 560 GPM
 Drillpipe Annular Vel (Max. Dia. Sec.): 32.9 FT/HR Drillpipe Annular Vel (Open Hole): 109.5 FT/MIN
 Drill Collar Annular Vel (Open Hole): 159 FT/MIN Critical Vel: 308 FT/MIN.
 Pressure Loss System: 815 PSI Pressure Loss Bit: 925 PSI % Pressure Loss: 53%
 Nozzel Vel: 330 FT/SEC Jet Impact Force: 907 LB HHP: 302 HP

PRESSURE PARAMETERS

Drilling Exponent: 1.3-1.6 (NORMAL) Flowline Temperature: 38°C
 Shale Density: _____ Shale Factor: _____
 Background Gas: 0.02-0.03 Max. Formation Gas: _____ @ _____ Trip Gas: 0.28% @ 1915m
 Other Gas: NIL
 Fill: NIL Tight Hole: UP TO 100HRS O/PULL ON TRIP OUT AT 1915m
 Cavings: Est %: MINOR (<10%) Average Size: SMALL BLOCKY

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 1.45 Min. Estimated Fracture Pressure (Open Hole): 13.3 ppg EMW
 Estimated Pore Pressure: 8.5 ppg Min. Estimated Pore Pressure (Open Hole): 8.5 @ SHO
 Max. Estimated Pore Pressure (Open Hole): 8.5 ppg @ 1964m Estimated Fracture Pressure at TD: 14.6

Comments: PRESSURE TRENDS NORMAL



GEMDAS LOGGING REPORT NO. 7

COMPANY ESSO AUST. WELL SAWBELLY No 1
 DATE 13TH MARCH 1990. TIME 00:00 MRS.
 DEPTH 2246m LAST REPORT DEPTH 1964m
 RIG OPERATIONS DRILL 12 1/4" MOLE.
 REPORT BY D. NEW REPORT RECEIVED BY _____ (OPERATOR)
 SIGNED _____

DRILLING REPORT

Bit No.: NB#4 Type: SEC 584F Size: 12 1/4" Jets: 16, 16, 14
 On Bit: Footage: 331 Hours: 21.8 ROP: 15.2 m/hr. WOB: 45 RPM: 100
 Pump Press: 2800 SPM: 142 Torque: 200-600 TBR: 102000 CP I: \$ 900 CP B: \$ 275

HYDRAULICS REPORT

Mud Density In: 9.6 Mud Density Out: 9.7 ECD: 9.8 PV/YP: 9/15
 Gels: 4/11 Salinity: 36,000 PPM Cl Solids: 10%
 Hole Volume: 1169 BBL Annular Volume: 973 BBL Tubing Volume: 119 BBL Displaced Volume: 78 BBL
 Carbide Lag—Calculated Lag: +700 STHS. Flowrate: 710 GPM
 Drillpipe Annular Vel (Max. Dia. Sec.): 41.5 FT/MIN Drillpipe Annular Vel (Open Hole): 139.1 FT/MIN
 Drill Collar Annular Vel (Open Hole): 202.2 FT/MIN Critical Vel: 319.4 FT/MIN
 Pressure Loss System: 1292 psi Pressure Loss Bit: 1508 psi % Pressure Loss: 53.8%
 Nozzel Vel: 419.5 FT/SEC Jet Impact Force: 1480 LB HHP: 625 HP.

PRESSURE PARAMETERS

Drilling Exponent: 1.0 (SGT) - 1.6 (SLTST) Flowline Temperature: 42.6 °C
 Shale Density: (1-2u) Shale Factor: -
 Background Gas: 0.02-0.04% Max. Formation Gas: 0.55% @ 2150m Trip Gas: - @ -
 Other Gas: NIL
 Fill: NIL Tight Hole: NIL
 Cavings: Est %: MINOR (<10%) Average Size: SMALL, BLOCKY

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 1.3 ppg. Min. Estimated Fracture Pressure (Open Hole): 13.7 ppg AT 2010m
 Estimated Pore Pressure: 8.5 ppg EMW Min. Estimated Pore Pressure (Open Hole): 8.5 @ SHOE
 Max. Estimated Pore Pressure (Open Hole): 8.5 @ 2246m Estimated Fracture Pressure at TD: 13.5

Comments: 1.3
PRESSURE TRENDS NORMAL.
NO SHOWS IN TOP LATROBE.
ALL GAS PEAKS FROM COAL.



GEMDAS LOGGING REPORT NO. 8

COMPANY ESSO Aust. WELL SAWBELLY No 1
 DATE 14TH MARCH 1990 TIME 00:00
 DEPTH 2320m LAST REPORT DEPTH 2246m
 RIG OPERATIONS RIH WITH NBH4
 REPORT BY D. NEW REPORT RECEIVED BY _____ (OPERATOR)
 SIGNED _____

DRILLING REPORT

Bit No.: NBHS Type: HTC AJ-J22 Size: 12 1/4" Jets: 3x16
 On Bit: Footage: NB44 → 404m Hours: 31.3 HRS ROP: 12.9 AVG WOB: 40-45 RPM: 100-120
 Pump Press: NB4 → 2800 SPM: 150 Torque: UP TO 650 TBR: _____ CP I: \$ _____ CP B: \$ _____

HYDRAULICS REPORT

Mud Density In: 9.6 Mud Density Out: 9.6+ ECD: 9.75 PV/YP: 8/15
 Gels: 4/10 Salinity: 36,000 PPM Cl Solids: 10%
 Hole Volume: 120S Annular Volume: 996 BBL Tubing Volume: 121 BBL Displaced Volume: 88 BBL
 Carbide Lag—Calculated Lag: +700 STHS Flowrate: 650 GPM
 Drillpipe Annular Vel (Max. Dia. Sec.): 38 FT/MIN Drillpipe Annular Vel (Open Hole): 127 FT/MIN
 Drill Collar Annular Vel (Open Hole): 185 FT/MIN Critical Vel: 320 FT/MIN
 Pressure Loss System: 1942 Pressure Loss Bit: 1074 PSI % Pressure Loss: 39%
 Nozzel Vel: 354 FT/SEC Jet Impact Force: 1144 LB HHP: 407HP

PRESSURE PARAMETERS

Drilling Exponent: 1.3 - 1.7 (NORMAL) Flowline Temperature: 45°C
 Shale Density: _____ Shale Factor: _____
 Background Gas: 0.0 1.5u Max. Formation Gas: 9u @ 2277m Trip Gas: _____ @ _____
 Other Gas: NIL
 Fill: NIL Tight Hole: REAM UNDERGAUGE MOLE FROM 2267m ON TRIP IN.
 Cavings: Est %: UP TO 20% COAL Average Size: BLOCKY

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 1.3 Min. Estimated Fracture Pressure (Open Hole): 13.1 AT 2010
 Estimated Pore Pressure: 8.5 ppq Min. Estimated Pore Pressure (Open Hole): 8.5 @ 799
 Max. Estimated Pore Pressure (Open Hole): 8.5 ppq @ 2320 Estimated Fracture Pressure at TD: 14.9 ppq

Comments:

TRIP GAS 11u AT 2320m



GEMDAS LOGGING REPORT NO. 9

COMPANY ESSO AUST WELL SAWBELLY No 1
 DATE 15TH MARCH 1990 TIME 00:00
 DEPTH 2373m LAST REPORT DEPTH 2320m
 RIG OPERATIONS POOM WITH NBHS
 REPORT BY D. NEW REPORT RECEIVED BY _____ (OPERATOR)
SIGNED

DRILLING REPORT

Bit No.: NBHS Type: HTC AT-51 Size: 12 1/4 Jets: 16, 16, 16
 On Bit: Footage: 53m Hours: 13.4 ROP: 3.9 m/hr WOB: 4555 RPM: 80-120
 Pump Press: 2350 SPM: 117 Torque: 200-650 TBR: 78300 CP I: \$ 4820 CP B: \$ 1112

HYDRAULICS REPORT

Mud Density In: 9.5+ Mud Density Out: 9.7 ppg ECD: 9.7 ppg PV/YP: 9/16
 Gels: 4/11 Salinity: 36,000 PPM Cl Solids: 10.5%
 Hole Volume: 1230 BBL Annular Volume: 1017 BBL Tubing Volume: 124 BBL Displaced Volume: 8913 BBL
 Carbide Lag—Calculated Lag: 650 gths (12.9" AVG DIA) Flowrate: 585 GPM
 Drillpipe Annular Vel (Max. Dia. Sec.): 34.5 FT/MIN Drillpipe Annular Vel (Open Hole): 114.6 FT/MIN
 Drill Collar Annular Vel (Open Hole): 166.6 FT/MIN Critical Vel: 322.6 FT/MIN
 Pressure Loss System: 1489 psi Pressure Loss Bit: 861 psi % Pressure Loss: 36.6%
 Nozzel Vel: 319 FT/SEC Jet Impact Force: 916 LB HHP: 294 HP

PRESSURE PARAMETERS

Drilling Exponent: 1.7 - 2.1 Flowline Temperature: 42°C
 Shale Density: — Shale Factor: —
 Background Gas: 1.5-2u Max. Formation Gas: 18u @ 2357m Trip Gas: — @ —
 Other Gas: NIL
 Fill: NIL Tight Hole: NIL
 Cavings: Est %: LESS THAN 10% Average Size: SMALL BLOCKY

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 1.25 Min. Estimated Fracture Pressure (Open Hole): 13.1 AT 2010
 Estimated Pore Pressure: 8.5 ppg Min. Estimated Pore Pressure (Open Hole): 8.5 @ 5MOE
 Max. Estimated Pore Pressure (Open Hole): 8.5 @ 2373m Estimated Fracture Pressure at TD: 15.0

Comments: PRESSURE TRENDS NORMAL.



GEMDAS LOGGING REPORT NO. 10

COMPANY ESSO AUST WELL SAWBELLY No 1
 DATE 16TH MARCH 1990 TIME 00:00
 DEPTH 2416m. LAST REPORT DEPTH 2373m
 RIG OPERATIONS DRILLING 12 1/4" HOLE.
 REPORT BY D. NEW. REPORT RECEIVED BY _____ (OPERATOR)
 SIGNED _____

DRILLING REPORT

Bit No.: NB#6 Type: REED HP53 Size: 12 1/4" Jets: 3x16
 On Bit: Footage: 43m Hours: 4.3 ROP: 10m/HR WOB: 45-50 RPM: 110-120
 Pump Press: 2400 SPM: 120 Torque: 100-250 TBR: 70,000 CP I: \$ 519 CP B: \$ 561

HYDRAULICS REPORT

Mud Density In: 9.6 ppg Mud Density Out: 9.6+ ECD: 9.7+ PV/YP: 8/14
 Gels: 4/10 Salinity: 34,000 PPM Cl Solids: 9.5%
 Hole Volume: 1250 Annular Volume: 1030 BBL Tubing Volume: 126 BBL Displaced Volume: 94 BBL
 Carbide Lag—Calculated Lag: + 650 STHS Flowrate: 600 GPM
 Drillpipe Annular Vel (Max. Dia. Sec.): 35 FT/MIN Drillpipe Annular Vel (Open Hole): 118 FT/MIN
 Drill Collar Annular Vel (Open Hole): 171 FT/MIN Critical Vel: 306 FT/MIN.
 Pressure Loss System: 1485 PSI Pressure Loss Bit: 915 PSI % Pressure Loss: 38.1%
 Nozzel Vel: 326.8 FT/SEC Jet Impact Force: 974 LB HHP: 320 HP

PRESSURE PARAMETERS

Drilling Exponent: 1.5 (SST) = 2.3 (SUST) Flowline Temperature: 40.5°C
 Shale Density: _____ Shale Factor: _____
 Background Gas: 2u Max. Formation Gas: 22u @ 2390m Trip Gas: 12u @ 2373m
 (FROM COAL)
 Other Gas: NIL
 Fill: NIL Tight Hole: REAM UNDERGAUGE HOLE FROM 2201m
 Cavings: Est %: UP TO 20% Average Size: SMALL, BLOCKY.

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 1.2 ppg. Min. Estimated Fracture Pressure (Open Hole): 14.8 ppg EMW
 Estimated Pore Pressure: 8.5 ppg EMW Min. Estimated Pore Pressure (Open Hole): 1127 PSI @ 800m
 Max. Estimated Pore Pressure (Open Hole): 3497 PSI @ 2416m Estimated Fracture Pressure at TD: _____

Comments: PRESSURE TRENDS NORMAL.
LITHOLOGY: SILTSTONE WITH INTERBEDDED
COAL AND SANDSTONE.
- NB#5: 53m IN 13.4 HRS AT AN AVG OF 4m/HR -



GEMDAS LOGGING REPORT NO. 11

COMPANY ESSO AUST. WELL SAWBELLY No 1
 DATE 17TH MARCH. 1990 TIME 00:00 HRS
 DEPTH 2590m LAST REPORT DEPTH 2416m
 RIG OPERATIONS DRILL 12 1/4" MOLE
 REPORT BY D. NEW REPORT RECEIVED BY _____ (OPERATOR)
 SIGNED _____

DRILLING REPORT

Bit No.: NB#6 Type: REED HPS3 Size: 12 1/4 Jets: 3x16
 On Bit: Footage: 217m Hours: 25.6 HRS ROP: 8.5 M/HR. WOB: 45 RPM: 110
 Pump Press: 2440 SPM: 118 Torque: 200-250 TBR: 212000 CP I: \$ 522 CP B: \$ 456

HYDRAULICS REPORT

Mud Density In: 9.6 Mud Density Out: 9.7 ECD: 9.73 PV/YP: 10/16
 Gels: 4/12 Salinity: 35,000 PPM Cl Solids: 10.0 %
 Hole Volume: 1334 BBL Annular Volume: 1099 BBL Tubing Volume: 136 BBL Displaced Volume: 99 BBL
 Carbide Lag—Calculated Lag: +7175 THS (13.2" AVG HOLE DIA) Flowrate: 590 GPM
 Drillpipe Annular Vel (Max. Dia. Sec.): 34.8 FT/MIN Drillpipe Annular Vel (Open Hole): 115.6 FT/MIN
 Drill Collar Annular Vel (Open Hole): 168.0 FT/MIN Critical Vel: 332.9 FT/MIN
 Pressure Loss System: 1553 psi Pressure Loss Bit: 885 psi % Pressure Loss: 36.2%
 Nozzel Vel: 321.4 FT/SEC Jet Impact Force: 942.1 LB HHP: 304.7 HP

PRESSURE PARAMETERS

Drilling Exponent: 1.2 - 1.8 (NORMAL) Flowline Temperature: 46°C
 Shale Density: - Shale Factor: -
 Background Gas: 1-2 u. Max. Formation Gas: 38 u. @ 2425m Trip Gas: - @ -
 Other Gas: NIL (COAL)
 Fill: NIL Tight Hole: NIL
 Cavings: Est %: UP TO 20% Average Size: SMALL, BLOCKY

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 1.13 Min. Estimated Fracture Pressure (Open Hole): 13.7 ppg EMW
 Estimated Pore Pressure: 8.5 ppg EMW Min. Estimated Pore Pressure (Open Hole): 1127 @ 800m
 Max. Estimated Pore Pressure (Open Hole): 3749 psi @ 2590 Estimated Fracture Pressure at TD: 15.00 ppg

Comments: PRESSURE TRENDS NORMAL.
LITHOLOGY: SILTSTONE WITH INTERBEDDED SANDSTONE AND COAL (NO SHOWS)



GEMDAS LOGGING REPORT NO. 12

COMPANY ESSO AUST WELL SAWBELLY No 1
 DATE 18TH MARCH 1990 TIME 00:00 HRS
 DEPTH 2658m. LAST REPORT DEPTH 2590
 RIG OPERATIONS DRILL 12 1/4" HOLE
 REPORT BY D. NEW REPORT RECEIVED BY _____ SIGNED _____ (OPERATOR)

DRILLING REPORT

Bit No.: NB#7 Type: SMITH F27D Size: 12 1/4 Jets: 3x16
 On Bit: Footage: 12m Hours: 2.6 HRS ROP: 4.6 m/HR WOB: 45-50 RPM: 100
 Pump Press: 2500 SPM: 119 Torque: 250-500 TBR: 46,000 CP I: \$ 624 CP B: \$ 1120

HYDRAULICS REPORT

Mud Density In: 9.6 ppg Mud Density Out: 9.7 ppg ECD: 9.74 PV/YP: 10/15
 Gels: 4/12 Salinity: 35,000 PPM Cl Solids: 10.0%
 Hole Volume: 1366 Annular Volume: 1126 BBL Tubing Volume: 140 BBL Displaced Volume: 100 BBL
 Carbide Lag—Calculated Lag: +717 STHS (13.3 AVG HOLE) Flowrate: 595 GPM
 Drillpipe Annular Vel (Max. Dia. Sec): 35 FT/MIN Drillpipe Annular Vel (Open Hole): 116 FT/MIN
 Drill Collar Annular Vel (Open Hole): 169 FT/MIN Critical Vel: 319 FT/MIN
 Pressure Loss System: 1603 PSI Pressure Loss Bit: 897 PSI % Pressure Loss: 35.9%
 Nozzel Vel: 323 FT/SEC Jet Impact Force: 955 LB HHP: 311 HP

PRESSURE PARAMETERS

Drilling Exponent: 1.3 (SST) - 1.8 (SLTST) Flowline Temperature: 47°C
 Shale Density: _____ Shale Factor: _____
 Background Gas: 1-2 u Max. Formation Gas: 10 u @ 2645m Trip Gas: 6 @ 2646m
 Other Gas: NIL (COAL)
 Fill: NIL Tight Hole: UP TO 304LB O/P ON TRIP OUT AT 2646m
 Cavings: Est %: UP TO 20% Average Size: SMALL, BLOCKY

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 1.1 ppg EMW Min. Estimated Fracture Pressure (Open Hole): 13.1 ppg AT 2010m
 Estimated Pore Pressure: 8.5 ppg EMW Min. Estimated Pore Pressure (Open Hole): 1127 PSI @ 800m
 Max. Estimated Pore Pressure (Open Hole): 3847 PSI @ 2648m Estimated Fracture Pressure at TD: 15.1 ppg

Comments: PRESSURE TRENDS NORMAL

NB#6: 273m IN 34.4 HRS AT 7.9 M/HR

LITHOLOGY: SILTSTONE WITH MINOR INTERBEDDED SANDSTONE AND COAL



GEMDAS LOGGING REPORT NO. 13

COMPANY ESSO AUSTR. WELL SAWBELLY No 1
 DATE 19th MARCH. TIME 00:00
 DEPTH 2782m LAST REPORT DEPTH 2658m
 RIG OPERATIONS DRILLING 12 1/4" HOLE.
 REPORT BY D. NEW REPORT RECEIVED BY _____ (OPERATOR)
SIGNED

DRILLING REPORT

Bit No.: NBH 7 Type: SMITH F2TD Size: 12 1/4" Jets: 3x16
 On Bit: Footage: 136m Hours: 25.6 ROP: 5.3 m/hr WOB: 45-50 RPM: 100
 Pump Press: 2450 SPM: 117 Torque: 250-350 TBR: 176000 CP I: \$ 572 CP B: \$ 749

HYDRAULICS REPORT

Mud Density In: 9.6 Mud Density Out: 9.6+ ECD: 9.7 ppg PV/YP: 10/13
 Gels: 411 Salinity: 34,000 PPM Cl Solids: 10.5%
 Hole Volume: 1426 BBL Annular Volume: 1175 BBL Tubing Volume: 147 BBL Displaced Volume: 104 BBL
 Carbide Lag—Calculated Lag: +7175THS (13.3" HOLE DIA) Flowrate: 590
 Drillpipe Annular Vel (Max. Dia. Sec.): 34.6 FT/MIN Drillpipe Annular Vel (Open Hole): 115.0 FT/MIN
 Drill Collar Annular Vel (Open Hole): 167.1 FT/MIN Critical Vel: 289.5 FT/MIN
 Pressure Loss System: 1574 Pressure Loss Bit: 876 ppi % Pressure Loss: 35.7%
 Nozzel Vel: 319.6 FT/SEC Jet Impact Force: 931.9 LB HHP: 299.8 HP.

PRESSURE PARAMETERS

Drilling Exponent: 1.3 (SST) - 1.8 (SLTST) Flowline Temperature: 46°C
 Shale Density: _____ Shale Factor: _____
 Background Gas: 1-2u Max. Formation Gas: 9u @ 2770m Trip Gas: _____ @ _____
 Other Gas: NIL
 Fill: NIL Tight Hole: NIL
 Cavings: Est %: UP TO 20% Average Size: SMALL, BLOCKY.

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 1.05 ppg Min. Estimated Fracture Pressure (Open Hole): 13.1 AT 2010m.
 Estimated Pore Pressure: 8.5 ppg EMW Min. Estimated Pore Pressure (Open Hole): 1127 ppi @ 800m
 Max. Estimated Pore Pressure (Open Hole): 3995 ppi @ 2782m Estimated Fracture Pressure at TD: 15.13 ppg

Comments: PRESSURE TRENDS NORMAL.
LITHOLOGY: SILTSTONES WITH OCC INTERBEDDED SANDSTONE AND COAL.



GEMDAS LOGGING REPORT NO. 14

COMPANY ESSO AUST. WELL SAWBELLY No 1
 DATE 20th MARCH 1990 TIME 00:00
 DEPTH 2891m LAST REPORT DEPTH 2782m
 RIG OPERATIONS DRILLING 12 1/4" HOLE
 REPORT BY D. NEW REPORT RECEIVED BY _____ (OPERATOR)
 SIGNED _____

DRILLING REPORT

Bit No.: NBH 7 Type: SMITH F27D Size: 12 1/4" Jets: 3x16
 On Bit: Footage: 245 Hours: 46.2 ROP: 5.3 m/hr WOB: 50 RPM: 100
 Pump Press: 2500 SPM: 118 Torque: 200-350 TBR: 272,000 CP I: \$ 554 CP B: \$ 691

HYDRAULICS REPORT

Mud Density In: 9.6T Mud Density Out: 9.6T ECD: 9.74 PV/YP: 10/15
 Gels: 4/12 Salinity: 33,000 PPM Cl Solids: 10.5%
 Hole Volume: 1478 BBL Annular Volume: 1218 BBL Tubing Volume: 153 BBL Displaced Volume: 106 BBL
 Carbide Lag—Calculated Lag: 717 STHS (13-3" HOLE DIA) Flowrate: 590 GPM.
 Drillpipe Annular Vel (Max. Dia. Sec.): 34.8 FT/MIN Drillpipe Annular Vel (Open Hole): 115.6 FT/MIN
 Drill Collar Annular Vel (Open Hole): 168.0 FT/MIN Critical Vel: 318.0 FT/MIN.
 Pressure Loss System: 1611 PSI Pressure Loss Bit: 889 PSI % Pressure Loss: 35.5%
 Nozzel Vel: 321.4 FT/SEC Jet Impact Force: 946 LB HHP: 306 HP.

PRESSURE PARAMETERS

Drilling Exponent: 1.4-1.8 (NORMAL) Flowline Temperature: 46.2°C
 Shale Density: - Shale Factor: -
 Background Gas: 1-3u. Max. Formation Gas: 1.53% @ 2869m Trip Gas: - @ -
 Other Gas: NIL 76.5u
 Fill: NIL Tight Hole: NIL
 Cavings: Est %: UP TO 20% Average Size: SMALL BLOCKY

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 1.02 ppg EMW Min. Estimated Fracture Pressure (Open Hole): 13.1 ppg AT 2010
 Estimated Pore Pressure: 8.5 ppg EMW Min. Estimated Pore Pressure (Open Hole): 1127 PSI @ 800m
 Max. Estimated Pore Pressure (Open Hole): 4154 PSI @ 2891m Estimated Fracture Pressure at TD: 13.6 (SST)

Comments: PRESSURE TRENDS NORMAL.

LITHOLOGY: SILTSTONE WITH MINOR INTERBEDDED SANDSTONE AND COAL.



GEMDAS LOGGING REPORT NO. 15

COMPANY ESSO AUST. WELL SAWBELLY No 1
 DATE 21st MARCH 1990 TIME 00:00
 DEPTH 2973m. LAST REPORT DEPTH 2891m.
 RIG OPERATIONS DRILLING 12 1/4" MOLE
 REPORT BY D. NEW REPORT RECEIVED BY _____ (OPERATOR)
 SIGNED _____

DRILLING REPORT

Bit No.: NB#8 Type: HTC AT-J33 Size: 12 1/4" Jets: 3x16
 On Bit: Footage: 48m Hours: 5.8 ROP: 8.3 m/HR WOB: 50 RPM: 100
 Pump Press: 2500 SPM: 117 Torque: 200-350 TBR: 61000 CP I: \$ 664 CP B: \$ 743

HYDRAULICS REPORT

Mud Density In: 9.6† Mud Density Out: 9.6† ECD: 9.7 PV/YP: 11/15
 Gels: 4/13 Salinity: 33,000 PPM Cl Solids: 11.0%
 Hole Volume: 1517 BBL Annular Volume: 1251 BBL Tubing Volume: 157 BBL Displaced Volume: 109 BBL
 Carbide Lag—Calculated Lag: +900 gths Flowrate: 583 GPM
 Drillpipe Annular Vel (Max. Dia. Sec.): 34.4 FT/MIN Drillpipe Annular Vel (Open Hole): 114.3 FT/MIN
 Drill Collar Annular Vel (Open Hole): 166 FT/MIN Critical Vel: 319 FT/MIN
 Pressure Loss System: 1635 psi Pressure Loss Bit: 865 psi % Pressure Loss: 34%
 Nozzel Vel: 318 FT/SEC Jet Impact Force: 920 LB HHP: 294 HP

PRESSURE PARAMETERS

Drilling Exponent: 1.4 (SST) - 1.9 (SLTST) Flowline Temperature: 53°C
 Shale Density: _____ Shale Factor: _____
 Background Gas: 2-3u. Max. Formation Gas: 51u @ 2915m Trip Gas: 19u @ 2925m
 Other Gas: NIL
 Fill: NIL Tight Hole: NIL
 Cavings: Est %: UP TO 20% Average Size: SMALL, BLOCKY.

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 1.00 ppq Min. Estimated Fracture Pressure (Open Hole): 13.1 AT 2010
 Estimated Pore Pressure: 8.5 ppq EMW Min. Estimated Pore Pressure (Open Hole): 1127 @ 800m.
 Max. Estimated Pore Pressure (Open Hole): 4272 psi @ 2973m. Estimated Fracture Pressure at TD: 15.6 ppq

Comments: PRESSURE TRENDS NORMAL.

NB#7: 279m / 52.7 hrs AUG ROP 5.3 m/HR.

LITHOLOGY: SILTSTONE WITH MINOR INTERBEDDED SANDSTONE AND COAL.



GEMDAS LOGGING REPORT NO. 16

COMPANY ESSO AUST. WELL SAWBELLY No1
 DATE 22ND MARCH TIME 00:00
 DEPTH 3068m. LAST REPORT DEPTH 2973m.
 RIG OPERATIONS RIG UP TO RUN WIRELINE LOGS
 REPORT BY D. NEW REPORT RECEIVED BY _____ (OPERATOR)
 SIGNED _____

DRILLING REPORT

Bit No.: NB#8 Type: HTC AT-333 Size: 12 1/4" Jets: 3x16
 On Bit: Footage: 143 Hours: 20.9 ROP: 6.8m/HR WOB: 45-50 RPM: 100
 Pump Press: 2600 SPM: 119 Torque: 200-400 TBR: 125311 CP I: \$ 427 CP B: \$ 600

HYDRAULICS REPORT

Mud Density In: 9.6 Mud Density Out: 9.6+ ECD: 9.7 PV/YP: 11/15
 Gels: 4/13 Salinity: 33,000 PPM Cl Solids: 11%
 Hole Volume: 1562 Annular Volume: 1289 Tubing Volume: 163BBL Displaced Volume: 111BBL
 Carbide Lag—Calculated Lag: +900STHS Flowrate: 595 GPM
 Drillpipe Annular Vel (Max. Dia. Sec.): 35 FT/MIN Drillpipe Annular Vel (Open Hole): 116 FT/MIN
 Drill Collar Annular Vel (Open Hole): 169 FT/MIN Critical Vel: 319 FT/MIN
 Pressure Loss System: 170G Pressure Loss Bit: 894 PSI % Pressure Loss: 34.3%
 Nozzel Vel: 323 FT/SEC Jet Impact Force: 952 LB HHP: 309 HP

PRESSURE PARAMETERS

Drilling Exponent: 1.8 (SLTST) NORMAL Flowline Temperature: 54°C
 Shale Density: - Shale Factor: -
 Background Gas: S-10u Max. Formation Gas: 140u @ 2998m Trip Gas: - @ -
 Other Gas: NIL
 Fill: NIL Tight Hole: NIL
 Cavings: Est %: UP TO 10% Average Size: SMALL, BLOCKY

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 0.96 ppg EMW Min. Estimated Fracture Pressure (Open Hole): 13.1 AT 2010
 Estimated Pore Pressure: 8.5 ppg EMW Min. Estimated Pore Pressure (Open Hole): 1127 PSI @ 800m
 Max. Estimated Pore Pressure (Open Hole): 4411 PSI @ 3068m Estimated Fracture Pressure at TD: 15.6

Comments: PRESSURE TRENDS NORMAL
LITHOLOGY: INTERBEDDED SILTSTONE SANDSTONE AND COAL.
NB#8: 143m / 20.9HR AT 6.8m/HR
INCREASED BACKGROUND GAS DUE TO CARBONACEOUS SILTSTONE / COAL IN FORMATION

ii. Weekly Geological-Engineering Reports

ESSO AUSTRALIA Ltd.

Spud - 1964 meters

Sawbelly No.1

EXLOG U244 D. New, T. Yap

OPERATIONS SUMMARY

Sawbelly No.1 was spudded on the 4th March 1990 at 08:15 hours by the semi-submersible drilling rig "Southern Cross". All depths unless otherwise stated are in metres along hole below the RKB. RKB to mean sealevel was 21m and RKB to seafloor was 84 metres (sea depth 63m).

26" Hole Section : Spud to 205 metres.

After ballasting the rig to drilling depth and running the TGB, NB#1, a REED R1 26" run with a 26" hole opener, was picked up and spudded Sawbelly No.1 at 08:15 hrs on the 4th March 1990. This bit drilled to 205m, a distance of 119m in 9.5 hrs at an average rate of penetration of 12.5 m/hr. The drilling fluid was seawater with Hi Vis sweeps being circulated on each connection. At 205m the hole was swept with a 100 bbl Hi Vis pill and displaced with a 275 bbl Hi Vis pill, a survey dropped and the bit tripped to the mudline where the survey was recovered (Dev = 0.25 deg). The bit was tripped back to bottom with no fill, 350 bbl Hi Vis pill circulated and the bit pulled to run casing.

10 joints of Vetco X52 94 lb/ft 20" casing were then run and the shoe set at 198m. The casing was cemented with 750 sx class "G" with 2.5% gel lead slurry followed with 600 sx class "G" cement with 1.5% CaCl₂. The cement was displaced with 17 bbl seawater.

17.5" Hole Section: 205 - 815 meters

After running the marine riser and BOP stack the 17.5" BHA and NB#2, a HTC CX3A were picked up and run in the hole to the top of cement at 192m. The cement and shoe track were drilled to 205m and new hole drilled to 815m with 20 bbl Hi Vis pills being pumped every second connection. At 815m bottoms up were circulated, a survey dropped (dev = 2 deg at 815m), and a wiper trip made to surface. 3m of fill were noted on the trip in and the hole was swept with a 100 bbl Hi Vis pill. After conditioning the hole a slug was pumped and the bit pulled. The 17.5" BHA was laid out and wireline logs were run (BHC-MSFL-GR-Cal) with no problems. 61 joints of K55, 54.5 lb/ft, 13.375" casing were then run with the shoe set at 799m. The casing was cemented with 1000 sacks of class "G" cement.

12.25" Hole Section: 815 - 1964 meters

After testing the stack and picking up the 12.25" BHA, NB#3 a HTC AT-J1, was run in the hole and drilled cement and the shoe track from 772m. New hole was drilled to 818m where bottoms were circulated and a leak off test taken to a gauge pressure of 540 psi to give a fracture pressure of 13.3 ppg EMW.

Drilling continued with NB#3 to 1915m where returns were circulated for 30 min, a survey dropped (dev = 2.5 deg at 1915m) and the bit pulled. Tight hole was noted from the first 4 stands with a maximum overpull of 100 klb. The kelly was picked up at 1776m and singles pumped out to 1680m. The hole was still tight and the bit was tripped back to 1892m where the kelly was picked up and the interval 1892 - 1915m reamed. Returns were circulated while the mud weight was increased from 9.0 to 9.5 ppg. The bit was pulled out of the hole with only minor overpull being recorded.

The drilling fluid was seawater-gel down to 1700m where the mud was converted to a KCL mud system. Mud weights varied from 9.0 to 9.5 ppg.

NB#3 drilled from 815m to 1915m, a distance of 1100m, in 33.9 hrs at an average rate of penetration of 32.4 m/hr and was graded T2 B4 G0. The lithology was limestone grading to calcareous claystone below 1720m.

NB#4, a SEC S84F 12.25" was picked up and run in the hole to 1824m where a bridge was noted, the kelly picked up, and the interval 1824m - 1915m reamed / washed. Drilling continued with no problems to 1965m at an average rate of penetration of 10.4 m/hr. The lithology was calcareous claystone.

BOREHOLE CONDITION

No hole problems were seen while drilling either the 26" or 17.5" hole sections. 3m of fill were noted on the wipe trip at 815m and this was circulated out using a Hi Vis pill.

The 12.25" hole was drilled to 1915m with no problems. However carbides run at 1424m, 1750m and 1850m all indicated that the hole was undergauge and tight hole was recorded on the trip out at 1915m. The undergauge/tight hole appears to have been caused by plastic formation hydrating or swelling slightly. Increasing the mud weight to 9.5 ppg and tripping through the hole appeared to stabilize this hole section and no further hole problems were seen.

FORMATION PRESSURE

a) Pore Pressure.

As the 26" hole was drilled with returns to the seafloor and therefore no meaningful pressure analysis is possible for this section (84m - 205m).

The formation pressure through the 17.5" hole section appears to be normal at 8.5 ppg EMW and no evidence of abnormal pressuring was seen.

The 12.25" hole section to 1480m appears to be normally pressured. DXC exhibited a normal trend with only minor variation due to lithological changes. Gas values were generally fairly low and no connection or high trip gasses were recorded. Cuttings were generally blocky and cavings were small, blocky and of only minor quantity. Flowline temperature was damped and unresponsive due to heat loss in the riser and the frequent additions of new mud and water.

From 1480m - 1540m the DXC trend indicated a slight increase in pore pressure. However all other pressure indicators were normal and this change in DXC trend is attributed to a subtle change in lithology and the formation pressure through this section is estimated to be normal at 8.5 ppg EMW.

From 1540m to 1964m all pressure indicators were normal and this interval appears to also be normally pressured at 8.5 ppg EMW.

b) Fracture Pressure

A leak off test was run at 818m and taken to a surface pressure of 540 psi with a 9.3 ppg mud weight to give a formation fracture pressure of 13.3 ppg EMW.

Estimated fracture pressures for this hole interval increased from 13.3 ppg EMW at the shoe to 14.6 ppg EMW and 1964m and at all times were significantly greater than the 9.0 - 9.5 ppg mud weights used to drill this section.

Current operation as at 00:00 hrs 12th March 1990 is drill ahead with NB#4 at 1964m.

ESSO AUSTRALIA Ltd.

1964 - 2782 meters

Sawbelly No.1

EXLOG U244 D. New, T. Yap

OPERATIONS SUMMARY

Drilling continued with NB#4 at rates of penetration varying from 5 to 15 m/hr and averaging 8 m/hr through the calcareous claystones of the Gippsland Limestone. At 1996m the rate of penetration increased to 16 m/hr and a negative flow check was made at 2000m. By 2007m the rate of penetration had further increased to 25 m/hr and a second flow check was made (also negative). The lithology from these intervals was sandstone with no shows. Problems with the mud pumps meant that the interval 1964m - 2040m was drilled with only one pump and that bit hydraulics were therefore sub-optimal. NB#4 then drilled through siltstones with interbedded sandstone and coal of the Latrobe Group at rates of penetration varying from 60 m/hr through the sandstones to less than 5 m/hr through the siltstones. High and often erratic torque was seen intermittently through this interval and was thought to be due to the stabilizer hanging up in rugose/undergauge hole or the effect of thin coal beds on the bit. The bit was pulled at 2320m due to high torque and bit hours after having drilled 404m in 31.3 hrs at an average rate of penetration of 12.9 m/hr. The bit was graded as T6 B8 G5/8.

NB#5, a HTC AT-J22 12.25", and the MWD tool were then picked up and run in the hole to 2269m where the kelly was picked up and undergauge hole reamed from 2269m - 2320m. Drilling then proceeded through a dominantly siltstone/claystone sequence at rates of penetration varying from 20 m/hr to less than 1 m/hr. Torque was again high and erratic due to the stabilizer hanging up in rugose/undergauge hole. At 2373m the bit was pulled due to low rate of penetration after having only drilled 54m in 13.4 hrs (on bottom) at an average rate of penetration of 4.0 m/hr. The bit was graded as T5 B8 G1/8". The poor condition of the bit was probably due to the bit being damaged while reaming to bottom.

NB#6, a REED HP53 12.25", with the MWD tool were run in the hole to 2201m where undergauge hole was reamed from 2201m - 2373m. Drilling then continued through a dominantly siltstone section with minor interbedded sandstone and coal. The rate of penetration varied from 35 m/hr to 4 m/hr. Torque was generally low with only occasional erratic high torque encountered when coals were drilled. At 2646m the bit was pulled, due to bit hours, after having drilled 273m in 34.4 hr (on bottom) at an average rate of penetration of 8.0 m/hr. The bit was graded as T2 B4 G1/8". Minor overpull of up to 30 klb was noted from the first 11 stands on the trip out. This was probably due to a balled up stabilizer hanging up.

NB#7, a Smith F27D was then picked up (with the MWD tool) and run in the hole with the interval 2606m - 2646m being reamed/washed on the

trip in. This bit then drilled through the siltstones (with minor interbedded sandstone and coal) of the Latrobe Group at rates of penetration varying from 4 to 12 m/hr. The average rate of penetration from 2646m - 2782m was 5.1 m/hr.

No shows or fluorescence have been noted from the interval 1964m - 2782m with all gas peaks being due to coal and all fluorescence being mineral fluorescence.

BOREHOLE CONDITION

Hole condition was generally good with carbide and other lag data indicating an average hole diameter of around 13.3". Only minor tight hole was seen on trips out, with a maximum overpull of 30 klb being noted from the first 11 stands of the trip out at 2646m.

Torque was often high and erratic, particularly in the more coaly top part of the Latrobe. This torque was due in part to coal packing off round the bit and in part to the stabilizer hanging up in rugose or undergauge hole. NB#4 was 5/8" undergauge indicating the abrasive nature of the top Latrobe sands.

The interval 1964m - 2782m was drilled using a KCL-polymer mud system with mud weights of between 9.5 and 9.7 ppg.

FORMATION PRESSURE

a) Pore Pressure.

The 12.25" hole section from 1964m to 2782m appears to be normally pressured and no evidence of overpressuring was seen. DXC exhibited a normal trend over this interval with any variation being due to lithological changes. Gas values were generally fairly low and no connection or high trip gasses were recorded. Cuttings were generally blocky and cavings were small, blocky and of only minor quantity. Flowline temperature was damped and unresponsive due to heat loss in the riser.

The estimated pore pressure at 2782m is 3995 psi and the estimated overballance is 552 psi.

b) Fracture Pressure

A leak off test was run at 818m and taken to a surface pressure of 540 psi with a 9.3 ppg mud weight to give a formation fracture pressure of 13.3 ppg EMW at 800m.

Estimated fracture pressures for this hole interval increased from 13.3 ppg EMW at the shoe to 14.6 ppg EMW and 2000m where the first good sand was drilled. This sand has an estimated fracture pressure of 13.1 ppg EMW at 2010m, still significantly greater than the 9.5 - 9.7 ppg mud weights being used.

Current operation as at 00:00 hrs 19th March 1990 is drilling ahead with NB#7 at 2782m.

iii. Hydraulics Printouts

HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY 4.00 cP
 YIELD POINT 16.00 lb/cft²
 POWER LAW k 3.9527
 POWER LAW n .2630
 DEPTH 691.90 m
 VERTICAL DEPTH 691.90 m
 DEPTH OF RETURNS 684.85 m
 CUTTINGS BULK DENSITY 2.20 spc grv
 MUD DENSITY 8.80 lb/gal
 ACTIVE SURFACE MUD VOLUME 470 bbl
 FLOW RATE 1035 gal/min
 BOOSTER FLOW 0 gal/min
 PUMP PRESSURE 1700 psi
 PUMP CAPACITY 5.00 gal/stk
 BIT NOZZLES 18, 16, 10, 15

CALCULATED RESULTS:

FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VEL. ft/min	CRIT VEL. ft/min	FLOW REGIME	PRESS LOSS psi
2.50	84.00	81.50	21.000/ 5.000	61.0	291.1	LAMINAR	.5
84.00	198.00	114.00	19.124/ 5.000	74.5	297.1	LAMINAR	.8
198.00	493.66	295.66	17.500/ 5.000	90.2	303.0	LAMINAR	2.5
493.66	576.68	83.02	17.500/ 5.000	90.2	303.0	LAMINAR	.7
576.68	670.58	93.90	17.500/ 8.000	104.7	317.9	LAMINAR	1.2
670.58	691.90	21.32	17.500/ 9.000	112.6	323.7	LAMINAR	.3

MUD HYDROSTATIC 8.80 lb/gal
 FLOW CONTRIBUTION .05 lb/gal
 CUTTINGS CONTRIBUTION .10 lb/gal
 EQUIVALENT CIRCULATING DENSITY 8.95 lb/gal

SURFACE PRESSURE LOSS 107 psi NOZZLE VELOCITY 478.4 ft/sec
 PIPEBORE PRESSURE LOSS 416 psi HYDRAULIC POWER 1085.8 hp
 ANNULAR PRESSURE LOSS 6 psi JET IMPACT FORCE 2255.3 lb
 BIT PRESSURE LOSS 1798 psi % OF PRESS LOSS AT BIT 77
 TOTAL CALC. PRESS LOSS 2327 psi

VOLUMES:	gal	bbl	Strokes	Minutes @ 207 s.p.m.
1) Pipe Capacity	1377	33	275	1.3
2) Pipe Displacement	1589	38	318	1.5
3) Total Annulus	27672	659	5534	26.7 <- LAG
4) Mud in active pits	19723	470	3945	19.1
Circulation (1) + (3)	29048	692	5810	28.1
Hole Volume (1)+(2)+(3)	30637	729	6127	29.6
Total Mud Circulation	48771	1161	9754	47.1

ESSO AUSTRALIA: Sawbelly No.1
 Date : 8 Mar 87 Time : 05:12

HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY 3.00 cP
 YIELD POINT 9.00 lb/cft²
 POWER LAW k 1.6481
 POWER LAW n .3219
 DEPTH 815.00 m
 VERTICAL DEPTH 815.00 m
 DEPTH OF RETURNS 811.20 m
 CUTTINGS BULK DENSITY 2.30 spc grv
 MUD DENSITY 9.40 lb/gal
 ACTIVE SURFACE MUD VOLUME 392 bbl
 FLOW RATE 1050 gal/min
 BOOSTER FLOW 0 gal/min
 PUMP PRESSURE 1900 psi
 PUMP CAPACITY 5.00 gal/stk
 BIT NOZZLES 18, 16, 15, 10

CALCULATED RESULTS:

FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VEL. ft/min	CRIT VEL. ft/min	FLOW REGIME	PRESS LOSS psi
2.50	84.00	81.50	21.000/ 5.000	61.9	186.3	LAMINAR	.2
84.00	198.00	114.00	19.124/ 5.000	75.5	191.2	LAMINAR	.4
198.00	616.76	418.76	17.500/ 5.000	91.5	196.0	LAMINAR	1.8
616.76	699.78	83.02	17.500/ 5.000	91.5	196.0	LAMINAR	.4
699.78	793.68	93.90	17.500/ 8.000	106.2	208.1	LAMINAR	.6
793.68	815.00	21.32	17.500/ 9.000	114.3	212.9	LAMINAR	.2

MUD HYDROSTATIC 9.40 lb/gal
 FLOW CONTRIBUTION .03 lb/gal
 CUTTINGS CONTRIBUTION .05 lb/gal
 EQUIVALENT CIRCULATING DENSITY 9.47 lb/gal

SURFACE PRESSURE LOSS 117 psi NOZZLE VELOCITY 485.3 ft/sec
 PIPEBORE PRESSURE LOSS 493 psi HYDRAULIC POWER 1211.0 hp
 ANNULAR PRESSURE LOSS 3 psi JET IMPACT FORCE 2479.4 lb
 BIT PRESSURE LOSS 1977 psi % OF PRESS LOSS AT BIT 76
 TOTAL CALC. PRESS LOSS 2591 psi

VOLUMES:	gal	bbl	Strokes	Minutes @ 210 s.p.m.
1) Pipe Capacity	1664	40	333	1.6
2) Pipe Displacement	1713	41	343	1.6
3) Total Annulus	32306	769	6461	30.8 <- LAG
4) Mud in active pits	16464	392	3293	15.7
Circulation (1) + (3)	33970	809	6794	32.4
Hole Volume (1)+(2)+(3)	35683	850	7137	34.0
Total Mud Circulation	50434	1201	10087	48.0

ESSO AUSTRALIA: Sawbelly No.1
 Date : 8 Mar 87 Time : 05:18

HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY 3.00 cP
 YIELD POINT 9.00 lb/cft²
 POWER LAW k 1.6481
 POWER LAW n .3219
 DEPTH 815.00 m
 VERTICAL DEPTH 815.00 m
 DEPTH OF RETURNS 811.20 m
 CUTTINGS BULK DENSITY 2.30 spc grv
 MUD DENSITY 9.40 lb/gal
 ACTIVE SURFACE MUD VOLUME 392 bbl
 FLOW RATE 1050 gal/min
 BOOSTER FLOW 0 gal/min
 PUMP PRESSURE 1900 psi
 PUMP CAPACITY 5.00 gal/stk
 BIT NOZZLES 18, 16, 32, 10

CALCULATED RESULTS:

FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VEL. ft/min	CRIT VEL. ft/min	FLOW REGIME	PRESS LOSS psi
2.50	84.00	81.50	21.000/ 5.000	61.9	186.3	LAMINAR	.2
84.00	198.00	114.00	19.124/ 5.000	75.5	191.2	LAMINAR	.4
198.00	616.76	418.76	17.500/ 5.000	91.5	196.0	LAMINAR	1.8
616.76	699.78	83.02	17.500/ 5.000	91.5	196.0	LAMINAR	.4
699.78	793.68	93.90	17.500/ 8.000	106.2	208.1	LAMINAR	.6
793.68	815.00	21.32	17.500/ 9.000	114.3	212.9	LAMINAR	.2

MUD HYDROSTATIC 9.40 lb/gal
 FLOW CONTRIBUTION .03 lb/gal
 CUTTINGS CONTRIBUTION .05 lb/gal
 EQUIVALENT CIRCULATING DENSITY 9.47 lb/gal

SURFACE PRESSURE LOSS 117 psi NOZZLE VELOCITY 257.8 ft/sec
 PIPEBORE PRESSURE LOSS 493 psi HYDRAULIC POWER 341.6 hp
 ANNULAR PRESSURE LOSS 3 psi JET IMPACT FORCE 1316.8 lb
 BIT PRESSURE LOSS 558 psi % OF PRESS LOSS AT BIT 48
 TOTAL CALC. PRESS LOSS 1172 psi

VOLUMES:	gal	bbl	Strokes	Minutes @ 210 s.p.m.
1) Pipe Capacity	1664	40	333	1.6
2) Pipe Displacement	1713	41	343	1.6
3) Total Annulus	32306	769	6461	30.8 ← LAG
4) Mud in active pits	16464	392	3293	15.7
Circulation (1) + (3)	33970	809	6794	32.4
Hole Volume (1)+(2)+(3)	35683	850	7137	34.0
Total Mud Circulation	50434	1201	10087	48.0

ESSO AUSTRALIA: Sawbelly No.1
 Date : 9 Mar 90 . Time : 03:54

HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY 5.00 cP
 YIELD POINT 26.00 lb/cft²
 POWER LAW k 8.2086
 POWER LAW n .2157
 DEPTH 815.00 m
 VERTICAL DEPTH 815.00 m
 DEPTH OF RETURNS 812.40 m
 CUTTINGS BULK DENSITY 2.40 spc grv
 MUD DENSITY 9.30 lb/gal
 ACTIVE SURFACE MUD VOLUME 218 bbl
 FLOW RATE 840 gal/min
 BOOSTER FLOW 0 gal/min
 PUMP PRESSURE 2800 psi
 PUMP CAPACITY 5.00 gal/stk
 BIT NOZZLES 16, 16, 16

CALCULATED RESULTS:

FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VEL. ft/min	CRIT VEL. ft/min	FLOW REGIME	PRESS LOSS psi
2.50	84.00	81.50	21.000/ 5.000	49.5	388.9	LAMINAR	.8
84.00	590.80	506.80	12.615/ 5.000	153.5	428.2	LAMINAR	16.2
590.80	673.82	83.02	12.615/ 5.000	153.5	428.2	LAMINAR	2.7
673.82	799.56	125.74	12.615/ 8.000	216.4	457.0	LAMINAR	8.0
799.56	815.00	15.44	12.250/ 8.000	239.2	461.7	LAMINAR	1.1

MUD HYDROSTATIC 9.30 lb/gal
 FLOW CONTRIBUTION .21 lb/gal
 CUTTINGS CONTRIBUTION .03 lb/gal
 EQUIVALENT CIRCULATING DENSITY 9.54 lb/gal

SURFACE PRESSURE LOSS 77 psi NOZZLE VELOCITY 457.5 ft/sec
 PIPEBORE PRESSURE LOSS 365 psi HYDRAULIC POWER 851.8 hp
 ANNULAR PRESSURE LOSS 29 psi JET IMPACT FORCE 1850.0 lb
 BIT PRESSURE LOSS 1738 psi % OF PRESS LOSS AT BIT 79
 TOTAL CALC. PRESS LOSS 2209 psi

VOLUMES:	gal	bbl	Strokes	Minutes @ 168 s.p.m.
1) Pipe Capacity	1631	39	326	1.9
2) Pipe Displacement	1833	44	367	2.2
3) Total Annulus	16898	402	3380	20.1 ← LAG
4) Mud in active pits	9160	218	1832	10.9
Circulation (1) + (3)	18530	441	3706	22.1
Hole Volume (1)+(2)+(3)	20363	485	4073	24.2
Total Mud Circulation	27690	659	5538	33.0

ESSO AUSTRALIA: Sawbelly No.1
 Date : 10 Mar 90 Time : 01:34

HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY 7.00 cP
 YIELD POINT 19.00 lb/cft²
 POWER LAW k 3.1165
 POWER LAW n .3440
 DEPTH 1330.00 m
 VERTICAL DEPTH 1330.00 m
 DEPTH OF RETURNS 1311.40 m
 CUTTINGS BULK DENSITY 2.40 spc grv
 MUD DENSITY 9.50 lb/gal
 ACTIVE SURFACE MUD VOLUME 212 bbl
 FLOW RATE 790 gal/min
 BOOSTER FLOW 0 gal/min
 PUMP PRESSURE 2900 psi
 PUMP CAPACITY 5.00 gal/stk
 BIT NOZZLES 16, 16, 16

CALCULATED RESULTS:

FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VEL. ft/min	CRIT VEL. ft/min	FLOW REGIME	PRESS LOSS psi
2.50	84.00	81.50	21.000/ 5.000	46.5	282.2	LAMINAR	.4
84.00	799.56	715.56	12.615/ 5.000	144.4	332.2	LAMINAR	14.0
799.56	1105.8	306.24	12.250/ 5.000	154.8	335.7	LAMINAR	6.5
1105.8	1188.8	83.02	12.250/ 5.000	154.8	335.7	LAMINAR	1.8
1188.8	1330.0	141.18	12.250/ 8.000	225.0	377.1	LAMINAR	7.1

MUD HYDROSTATIC 9.50 lb/gal
 FLOW CONTRIBUTION .13 lb/gal
 CUTTINGS CONTRIBUTION .15 lb/gal
 EQUIVALENT CIRCULATING DENSITY 9.79 lb/gal

SURFACE PRESSURE LOSS 70 psi NOZZLE VELOCITY 430.3 ft/sec
 PIPEBORE PRESSURE LOSS 625 psi HYDRAULIC POWER 723.8 hp
 ANNULAR PRESSURE LOSS 30 psi JET IMPACT FORCE 1671.5 lb
 BIT PRESSURE LOSS 1570 psi % OF PRESS LOSS AT BIT 68
 TOTAL CALC. PRESS LOSS 2295 psi

VOLUMES:	gal	bbl	Strokes	Minutes @ 158 s.p.m.
1) Pipe Capacity	2836	68	567	3.6
2) Pipe Displacement	2352	56	470	3.0
3) Total Annulus	25519	608	5104	32.3 <- LAG
4) Mud in active pits	8896	212	1779	11.3
Circulation (1) + (3)	28355	675	5671	35.9
Hole Volume (1)+(2)+(3)	30707	731	6141	38.9
Total Mud Circulation	37250	887	7450	47.2

ESSO AUSTRALIA: Sawbelly No.1
 Date : 11 Mar 90 Time : 01:01

HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY 10.00 cP
 YIELD POINT 16.00 lb/cft²
 POWER LAW k 1.4354
 POWER LAW n .4695
 DEPTH 1915.00 m
 VERTICAL DEPTH 1915.00 m
 DEPTH OF RETURNS 1904.61 m
 CUTTINGS BULK DENSITY 2.40 spc grv
 MUD DENSITY 9.00 lb/gal
 ACTIVE SURFACE MUD VOLUME 278 bbl
 FLOW RATE 760 gal/min
 BOOSTER FLOW 0 gal/min
 PUMP PRESSURE 2750 psi
 PUMP CAPACITY 5.00 gal/stk
 BIT NOZZLES 16, 16, 16

CALCULATED RESULTS:

FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VEL. ft/min	CRIT VEL. ft/min	FLOW REGIME	PRESS LOSS psi
2.50	84.00	81.50	21.000/ 5.000	44.8	227.3	LAMINAR	.2
84.00	799.56	715.56	12.615/ 5.000	138.9	288.5	LAMINAR	10.0
799.56	1690.8	891.24	12.250/ 5.000	148.9	293.0	LAMINAR	13.8
1690.8	1773.8	83.02	12.250/ 5.000	148.9	293.0	LAMINAR	1.3
1773.8	1915.0	141.18	12.250/ 8.000	216.4	347.2	LAMINAR	5.8

MUD HYDROSTATIC 9.00 lb/gal
 FLOW CONTRIBUTION .10 lb/gal
 CUTTINGS CONTRIBUTION .06 lb/gal
 EQUIVALENT CIRCULATING DENSITY 9.16 lb/gal

SURFACE PRESSURE LOSS 62 psi NOZZLE VELOCITY 413.9 ft/sec
 PIPEBORE PRESSURE LOSS 923 psi HYDRAULIC POWER 610.5 hp
 ANNULAR PRESSURE LOSS 31 psi JET IMPACT FORCE 1465.5 lb
 BIT PRESSURE LOSS 1377 psi % OF PRESS LOSS AT BIT 58
 TOTAL CALC. PRESS LOSS 2393 psi

VOLUMES:	gal	bbl	Strokes	Minutes @ 152 s.p.m.
1) Pipe Capacity	4204	100	841	5.5
2) Pipe Displacement	2941	70	588	3.9
3) Total Annulus	35312	841	7062	46.5 <- LAG
4) Mud in active pits	11680	278	2336	15.4
Circulation (1) + (3)	39516	941	7903	52.0
Hole Volume (1)+(2)+(3)	42457	1011	8491	55.9
Total Mud Circulation	51196	1219	10239	67.4

HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY 8.00 cP
 YIELD POINT 14.00 lb/cft²
 POWER LAW k 1.3915
 POWER LAW n .4475
 DEPTH 1964.00 m
 VERTICAL DEPTH 1964.00 m
 DEPTH OF RETURNS 1956.00 m
 CUTTINGS BULK DENSITY 2.40 spc grv
 MUD DENSITY 9.50 lb/gal
 ACTIVE SURFACE MUD VOLUME 430 bbl
 FLOW RATE 559 gal/min
 BOOSTER FLOW 0 gal/min
 PUMP PRESSURE 1740 psi
 PUMP CAPACITY 5.00 gal/stk
 BIT NOZZLES 16, 16, 14

CALCULATED RESULTS:

FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VEL. ft/min	CRIT VEL. ft/min	FLOW REGIME	PRESS LOSS psi
2.50	84.00	81.50	21.000/ 5.000	32.9	206.7	LAMINAR	.2
84.00	799.56	715.56	12.615/ 5.000	102.1	258.6	LAMINAR	7.8
799.56	1739.8	940.24	12.250/ 5.000	109.5	262.4	LAMINAR	11.4
1739.8	1822.8	83.02	12.250/ 5.000	109.5	262.4	LAMINAR	1.0
1822.8	1964.0	141.18	12.250/ 8.000	159.2	307.9	LAMINAR	4.4

MUD HYDROSTATIC 9.50 lb/gal
 FLOW CONTRIBUTION .07 lb/gal
 CUTTINGS CONTRIBUTION .05 lb/gal
 EQUIVALENT CIRCULATING DENSITY 9.62 lb/gal

SURFACE PRESSURE LOSS 37 psi NOZZLE VELOCITY 330.2 ft/sec
 PIPEBORE PRESSURE LOSS 558 psi HYDRAULIC POWER 301.6 hp
 ANNULAR PRESSURE LOSS 25 psi JET IMPACT FORCE 907.4 lb
 BIT PRESSURE LOSS 925 psi % OF PRESS LOSS AT BIT 60
 TOTAL CALC. PRESS LOSS 1544 psi

VOLUMES:	gal	bbl	Strokes	Minutes @ 112 s.p.m.
1) Pipe Capacity	4318	103	864	7.7
2) Pipe Displacement	2991	71	598	5.4
3) Total Annulus	36132	860	7226	64.7 <- LAG
4) Mud in active pits	18052	430	3610	32.3
Circulation (1) + (3)	40450	963	8090	72.4
Hole Volume (1)+(2)+(3)	43441	1034	8688	77.7
Total Mud Circulation	58502	1393	11700	104.7

ESSO AUSTRALIA: Sawbelly No.1
 Date : 13 Mar 90 Time : 02:57

HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY 9.00 cP
 YIELD POINT 15.00 lb/cft²
 POWER LAW k 1.4099
 POWER LAW n .4594
 DEPTH 2246.00 m
 VERTICAL DEPTH 2246.00 m
 DEPTH OF RETURNS 2231.80 m
 CUTTINGS BULK DENSITY 2.50 spc grv
 MUD DENSITY 9.60 lb/gal
 ACTIVE SURFACE MUD VOLUME 522 bbl
 FLOW RATE 710 gal/min
 BOOSTER FLOW 0 gal/min
 PUMP PRESSURE 2800 psi
 PUMP CAPACITY 5.00 gal/stk
 BIT NOZZLES 16, 16, 14

CALCULATED RESULTS:

FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VEL. ft/min	CRIT VEL. ft/min	FLOW REGIME	PRESS LOSS psi
2.50	84.00	81.50	21.000/ 5.000	41.8	211.5	LAMINAR	.2
84.00	799.56	715.56	12.615/ 5.000	129.7	266.7	LAMINAR	9.2
799.56	2021.8	1222.2	12.250/ 5.000	139.1	270.8	LAMINAR	17.4
2021.8	2104.8	83.02	12.250/ 5.000	139.1	270.8	LAMINAR	1.2
2104.8	2246.0	141.18	12.250/ 8.000	202.2	319.4	LAMINAR	5.3

MUD HYDROSTATIC 9.60 lb/gal
 FLOW CONTRIBUTION .09 lb/gal
 CUTTINGS CONTRIBUTION .08 lb/gal
 EQUIVALENT CIRCULATING DENSITY 9.77 lb/gal

SURFACE PRESSURE LOSS 58 psi NOZZLE VELOCITY 419.5 ft/sec
 PIPEBORE PRESSURE LOSS 935 psi HYDRAULIC POWER 624.8 hp
 ANNULAR PRESSURE LOSS 33 psi JET IMPACT FORCE 1479.9 lb
 BIT PRESSURE LOSS 1508 psi % OF PRESS LOSS AT BIT 60
 TOTAL CALC. PRESS LOSS 2534 psi

VOLUMES:	gal	bbl	Strokes	Minutes @ 142 s.p.m.
1) Pipe Capacity	4978	119	996	7.0
2) Pipe Displacement	3275	78	655	4.6
3) Total Annulus	40853	973	8171	57.5 ← LAG
4) Mud in active pits	21937	522	4387	30.9
Circulation (1) + (3)	45830	1091	9166	64.5
Hole Volume (1)+(2)+(3)	49105	1169	9821	69.2
Total Mud Circulation	67767	1614	13553	95.4

HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY 8.00 cP
 YIELD POINT 15.00 lb/cft²
 POWER LAW k 1.6141
 POWER LAW n .4306
 DEPTH 2320.00 m
 VERTICAL DEPTH 2320.00 m
 DEPTH OF RETURNS 2309.17 m
 CUTTINGS BULK DENSITY 2.50 spc grv
 MUD DENSITY 9.60 lb/gal
 ACTIVE SURFACE MUD VOLUME 491 bbl
 FLOW RATE 650 gal/min
 BOOSTER FLOW 0 gal/min
 PUMP PRESSURE 2750 psi
 PUMP CAPACITY 5.00 gal/stk
 BIT NOZZLES 16, 16, 16

CALCULATED RESULTS:

FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VEL. ft/min	CRIT VEL. ft/min	FLOW REGIME	PRESS LOSS psi
2.50	84.00	81.50	21.000/ 5.000	38.3	219.1	LAMINAR	.2
84.00	799.56	715.56	12.615/ 5.000	118.8	271.3	LAMINAR	9.1
799.56	2044.9	1245.3	12.250/ 5.000	127.4	275.1	LAMINAR	17.6
2044.9	2127.9	83.02	12.250/ 5.000	127.4	275.1	LAMINAR	1.2
2127.9	2320.0	192.07	12.250/ 8.000	185.1	320.3	LAMINAR	6.9

MUD HYDROSTATIC 9.60 lb/gal
 FLOW CONTRIBUTION .09 lb/gal
 CUTTINGS CONTRIBUTION .06 lb/gal
 EQUIVALENT CIRCULATING DENSITY 9.75 lb/gal

SURFACE PRESSURE LOSS 49 psi NOZZLE VELOCITY 354.0 ft/sec
 PIPEBORE PRESSURE LOSS 840 psi HYDRAULIC POWER 407.4 hp
 ANNULAR PRESSURE LOSS 35 psi JET IMPACT FORCE 1143.5 lb
 BIT PRESSURE LOSS 1074 psi % OF PRESS LOSS AT BIT 54
 TOTAL CALC. PRESS LOSS 1998 psi

VOLUMES:	gal	bbl	Strokes	Minutes @ 130 s.p.m.
1) Pipe Capacity	5086	121	1017	7.8
2) Pipe Displacement	3680	88	736	5.7
3) Total Annulus	41826	996	8365	64.3 ← LAG
4) Mud in active pits	20618	491	4124	31.7
Circulation (1) + (3)	46911	1117	9382	72.2
Hole Volume (1)+(2)+(3)	50592	1205	10118	77.8
Total Mud Circulation	67529	1608	13506	103.9

HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY 8.00 cP
 YIELD POINT 15.00 lb/cft²
 POWER LAW k 1.6141
 POWER LAW n .4306
 DEPTH 2373.00 m
 VERTICAL DEPTH 2372.78 m
 DEPTH OF RETURNS 2371.60 m
 CUTTINGS BULK DENSITY 2.50 spc grv
 MUD DENSITY 9.50 lb/gal
 ACTIVE SURFACE MUD VOLUME 542 bbl
 FLOW RATE 585 gal/min
 BOOSTER FLOW 0 gal/min
 PUMP PRESSURE 2350 psi
 PUMP CAPACITY 5.00 gal/stk
 BIT NOZZLES 16, 16, 16

CALCULATED RESULTS:

FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VEL. ft/min	CRIT VEL. ft/min	FLOW REGIME	PRESS LOSS psi
2.50	84.00	81.50	21.000/ 5.000	34.5	220.5	LAMINAR	.2
84.00	799.56	715.56	12.615/ 5.000	106.9	273.1	LAMINAR	8.7
799.56	2097.9	1298.3	12.250/ 5.000	114.6	276.9	LAMINAR	17.5
2097.9	2180.9	83.02	12.250/ 5.000	114.6	276.9	LAMINAR	1.1
2180.9	2373.0	192.07	12.250/ 8.000	166.6	322.5	LAMINAR	6.6

MUD HYDROSTATIC 9.50 lb/gal
 FLOW CONTRIBUTION .08 lb/gal
 CUTTINGS CONTRIBUTION .01 lb/gal
 EQUIVALENT CIRCULATING DENSITY 9.59 lb/gal

SURFACE PRESSURE LOSS 40 psi NOZZLE VELOCITY 318.6 ft/sec
 PIPEBORE PRESSURE LOSS 721 psi HYDRAULIC POWER 293.9 hp
 ANNULAR PRESSURE LOSS 34 psi JET IMPACT FORCE 916.5 lb
 BIT PRESSURE LOSS 861 psi % OF PRESS LOSS AT BIT 52
 TOTAL CALC. PRESS LOSS 1656 psi

VOLUMES:	gal	bbl	Strokes	Minutes @ 117 s.p.m.
1) Pipe Capacity	5210	124	1042	8.9
2) Pipe Displacement	3733	89	747	6.4
3) Total Annulus	42713	1017	8543	73.0 <- LAG
4) Mud in active pits	22768	542	4554	38.9
Circulation (1) + (3)	47923	1141	9585	81.9
Hole Volume (1)+(2)+(3)	51656	1230	10331	88.3
Total Mud Circulation	70691	1683	14138	120.8

HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY 10.00 cP
 YIELD POINT 16.00 lb/cft²
 POWER LAW k 1.4354
 POWER LAW n .4695
 DEPTH 2590.00 m
 VERTICAL DEPTH 2590.00 m
 DEPTH OF RETURNS 2581.17 m
 CUTTINGS BULK DENSITY 2.50 spc grv
 MUD DENSITY 9.60 lb/gal
 ACTIVE SURFACE MUD VOLUME 500 bbl
 FLOW RATE 590 gal/min
 BOOSTER FLOW 0 gal/min
 PUMP PRESSURE 2440 psi
 PUMP CAPACITY 5.00 gal/stk
 BIT NOZZLES 16, 16, 16

CALCULATED RESULTS:

FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VEL. ft/min	CRIT VEL. ft/min	FLOW REGIME	PRESS LOSS psi
2.50	84.00	81.50	21.000/ 5.000	34.8	217.9	LAMINAR	.2
84.00	799.56	715.56	12.615/ 5.000	107.8	276.6	LAMINAR	9.0
799.56	2314.9	1515.4	12.250/ 5.000	115.6	280.9	LAMINAR	21.3
2314.9	2397.9	83.02	12.250/ 5.000	115.6	280.9	LAMINAR	1.2
2397.9	2590.0	192.07	12.250/ 8.000	168.0	332.9	LAMINAR	7.0

MUD HYDROSTATIC 9.60 lb/gal
 FLOW CONTRIBUTION .09 lb/gal
 CUTTINGS CONTRIBUTION .04 lb/gal
 EQUIVALENT CIRCULATING DENSITY 9.73 lb/gal

SURFACE PRESSURE LOSS 629 psi NOZZLE VELOCITY 321.4 ft/sec
 PIPEBORE PRESSURE LOSS 864 psi HYDRAULIC POWER 304.7 hp
 ANNULAR PRESSURE LOSS 39 psi JET IMPACT FORCE 942.1 lb
 BIT PRESSURE LOSS 885 psi % OF PRESS LOSS AT BIT 37
 TOTAL CALC. PRESS LOSS 2417 psi

VOLUMES:	gal	bbl	Strokes	Minutes @ 118 s.p.m.
1) Pipe Capacity	5717	136	1143	9.7
2) Pipe Displacement	4143	99	829	7.0
3) Total Annulus	46154	1099	9231	78.2 <- LAG
4) Mud in active pits	21017	500	4203	35.6
Circulation (1) + (3)	51871	1235	10374	87.9
Hole Volume (1)+(2)+(3)	56015	1334	11203	94.9
Total Mud Circulation	72888	1735	14578	123.5

HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY 10.00 cP
 YIELD POINT 15.00 lb/cft²
 POWER LAW k 1.2508
 POWER LAW n .4854
 DEPTH 2658.00 m
 VERTICAL DEPTH 2658.00 m
 DEPTH OF RETURNS 2647.00 m
 CUTTINGS BULK DENSITY 2.60 spc grv
 MUD DENSITY 9.60 lb/gal
 ACTIVE SURFACE MUD VOLUME 499 bbl
 FLOW RATE 594 gal/min
 BOOSTER FLOW 0 gal/min
 PUMP PRESSURE 2510 psi
 PUMP CAPACITY 5.00 gal/stk
 BIT NOZZLES 16, 16, 16

CALCULATED RESULTS:

FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VEL. ft/min	CRIT VEL. ft/min	FLOW REGIME	PRESS LOSS psi
2.50	84.00	81.50	21.000/ 5.000	35.0	204.9	LAMINAR	.2
84.00	799.56	715.56	12.615/ 5.000	108.5	262.8	LAMINAR	8.3
799.56	2382.9	1583.3	12.250/ 5.000	116.4	267.1	LAMINAR	20.5
2382.9	2465.9	83.02	12.250/ 5.000	116.4	267.1	LAMINAR	1.1
2465.9	2658.0	192.07	12.250/ 8.000	169.2	318.9	LAMINAR	6.5

MUD HYDROSTATIC 9.60 lb/gal
 FLOW CONTRIBUTION .08 lb/gal
 CUTTINGS CONTRIBUTION .06 lb/gal
 EQUIVALENT CIRCULATING DENSITY 9.74 lb/gal

SURFACE PRESSURE LOSS 637 psi NOZZLE VELOCITY 323.5 ft/sec
 PIPEBORE PRESSURE LOSS 900 psi HYDRAULIC POWER 310.9 hp
 ANNULAR PRESSURE LOSS 37 psi JET IMPACT FORCE 954.9 lb
 BIT PRESSURE LOSS 897 psi % OF PRESS LOSS AT BIT 36
 TOTAL CALC. PRESS LOSS 2471 psi

VOLUMES:	gal	bbl	Strokes	Minutes @ 119 s.p.m.
1) Pipe Capacity	5876	140	1175	9.9
2) Pipe Displacement	4217	100	843	7.1
3) Total Annulus	47287	1126	9457	79.6 <- LAG
4) Mud in active pits	20962	499	4192	35.3
Circulation (1) + (3)	53163	1266	10633	89.5
Hole Volume (1)+(2)+(3)	57380	1366	11476	96.6
Total Mud Circulation	74125	1765	14825	124.8

HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY 10.00 cP
 YIELD POINT 13.00 lb/cft²
 POWER LAW k .9248
 POWER LAW n .5208
 DEPTH 2782.00 m
 VERTICAL DEPTH 2782.00 m
 DEPTH OF RETURNS 2774.00 m
 CUTTINGS BULK DENSITY 2.60 spc grv
 MUD DENSITY 9.60 lb/gal
 ACTIVE SURFACE MUD VOLUME 516 bbl
 FLOW RATE 587 gal/min
 BOOSTER FLOW 0 gal/min
 PUMP PRESSURE 2410 psi
 PUMP CAPACITY 5.00 gal/stk
 BIT NOZZLES 16, 16, 16

CALCULATED RESULTS:

FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VEL. ft/min	CRIT VEL. ft/min	FLOW REGIME	PRESS LOSS psi
2.50	84.00	81.50	21.000/ 5.000	34.6	178.3	LAMINAR	.1
84.00	799.56	715.56	12.615/ 5.000	107.2	234.2	LAMINAR	6.9
799.56	2506.9	1707.4	12.250/ 5.000	115.0	238.4	LAMINAR	18.4
2506.9	2589.9	83.02	12.250/ 5.000	115.0	238.4	LAMINAR	.9
2589.9	2782.0	192.07	12.250/ 8.000	167.1	289.5	LAMINAR	5.6

MUD HYDROSTATIC 9.60 lb/gal
 FLOW CONTRIBUTION .07 lb/gal
 CUTTINGS CONTRIBUTION .04 lb/gal
 EQUIVALENT CIRCULATING DENSITY 9.71 lb/gal

SURFACE PRESSURE LOSS 623 psi NOZZLE VELOCITY 319.6 ft/sec
 PIPEBORE PRESSURE LOSS 936 psi HYDRAULIC POWER 299.8 hp
 ANNULAR PRESSURE LOSS 32 psi JET IMPACT FORCE 931.9 lb
 BIT PRESSURE LOSS 876 psi % OF PRESS LOSS AT BIT 36
 TOTAL CALC. PRESS LOSS 2466 psi

VOLUMES:	gal	bbl	Strokes	Minutes @ 117 s.p.m.
1) Pipe Capacity	6166	147	1233	10.5
2) Pipe Displacement	4352	104	870	7.4
3) Total Annulus	49353	1175	9871	84.1 <- LAG
4) Mud in active pits	21668	516	4334	36.9
Circulation (1) + (3)	55519	1322	11104	94.6
Hole Volume (1)+(2)+(3)	59871	1426	11974	102.0
Total Mud Circulation	77187	1838	15437	131.5

HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY 10.00 cP
 YIELD POINT 15.00 lb/cft²
 POWER LAW k 1.2508
 POWER LAW n .4854
 DEPTH 2891.00 m
 VERTICAL DEPTH 2890.20 m
 DEPTH OF RETURNS 2886.18 m
 CUTTINGS BULK DENSITY 2.50 spc grv
 MUD DENSITY 9.64 lb/gal
 ACTIVE SURFACE MUD VOLUME 541 bbl
 FLOW RATE 590 gal/min
 BOOSTER FLOW 0 gal/min
 PUMP PRESSURE 2500 psi
 PUMP CAPACITY 5.00 gal/stk
 BIT NOZZLES 16, 16, 16

CALCULATED RESULTS:

FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VEL. ft/min	CRIT VEL. ft/min	FLOW REGIME	PRESS LOSS psi
2.50	84.00	81.50	21.000/ 5.000	34.8	204.4	LAMINAR	.2
84.00	799.56	715.56	12.615/ 5.000	107.8	262.1	LAMINAR	8.3
799.56	2615.9	1816.4	12.250/ 5.000	115.6	266.4	LAMINAR	23.5
2615.9	2698.9	83.02	12.250/ 5.000	115.6	266.4	LAMINAR	1.1
2698.9	2891.0	192.07	12.250/ 8.000	168.0	318.0	LAMINAR	6.5

MUD HYDROSTATIC 9.64 lb/gal
 FLOW CONTRIBUTION .08 lb/gal
 CUTTINGS CONTRIBUTION .02 lb/gal
 EQUIVALENT CIRCULATING DENSITY 9.74 lb/gal

SURFACE PRESSURE LOSS 632 psi NOZZLE VELOCITY 321.4 ft/sec
 PIPEBORE PRESSURE LOSS 948 psi HYDRAULIC POWER 306.0 hp
 ANNULAR PRESSURE LOSS 40 psi JET IMPACT FORCE 946.0 lb
 BIT PRESSURE LOSS 889 psi % OF PRESS LOSS AT BIT 35
 TOTAL CALC. PRESS LOSS 2508 psi

VOLUMES:	gal	bbl	Strokes	Minutes @ 118 s.p.m.
1) Pipe Capacity	6421	153	1284	10.9
2) Pipe Displacement	4471	106	894	7.6
3) Total Annulus	51169	1218	10234	86.7 <- LAG
4) Mud in active pits	22714	541	4543	38.5
Circulation (1) + (3)	57590	1371	11518	97.6
Hole Volume (1)+(2)+(3)	62060	1478	12412	105.2
Total Mud Circulation	80303	1912	16061	136.1

HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY 11.00 cP
 YIELD POINT 15.00 lb/cft²
 POWER LAW k 1.1246
 POWER LAW n .5090
 DEPTH 2973.00 m
 VERTICAL DEPTH 2973.00 m
 DEPTH OF RETURNS 2965.00 m
 CUTTINGS BULK DENSITY 2.60 spc grv
 MUD DENSITY 9.60 lb/gal
 ACTIVE SURFACE MUD VOLUME 546 bbl
 FLOW RATE 583 gal/min
 BOOSTER FLOW 0 gal/min
 PUMP PRESSURE 2500 psi
 PUMP CAPACITY 5.00 gal/stk
 BIT NOZZLES 16, 16, 16

CALCULATED RESULTS:

FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VEL. ft/min	CRIT VEL. ft/min	FLOW REGIME	PRESS LOSS psi
2.50	84.00	81.50	21.000/ 5.000	34.4	199.2	LAMINAR	.2
84.00	799.56	715.56	12.615/ 5.000	106.5	259.5	LAMINAR	8.0
799.56	2697.9	1898.4	12.250/ 5.000	114.3	264.0	LAMINAR	23.8
2697.9	2780.9	83.02	12.250/ 5.000	114.3	264.0	LAMINAR	1.0
2780.9	2973.0	192.07	12.250/ 8.000	166.1	318.8	LAMINAR	6.5

MUD HYDROSTATIC 9.60 lb/gal
 FLOW CONTRIBUTION .08 lb/gal
 CUTTINGS CONTRIBUTION .04 lb/gal
 EQUIVALENT CIRCULATING DENSITY 9.71 lb/gal

SURFACE PRESSURE LOSS 616 psi NOZZLE VELOCITY 317.6 ft/sec
 PIPEBORE PRESSURE LOSS 991 psi HYDRAULIC POWER 294.1 hp
 ANNULAR PRESSURE LOSS 39 psi JET IMPACT FORCE 920.2 lb
 BIT PRESSURE LOSS 865 psi % OF PRESS LOSS AT BIT 34
 TOTAL CALC. PRESS LOSS 2510 psi

VOLUMES:	gal	bbl	Strokes	Minutes @ 117 s.p.m.
1) Pipe Capacity	6613	157	1323	11.3
2) Pipe Displacement	4560	109	912	7.8
3) Total Annulus	52535	1251	10507	90.1 <- LAG
4) Mud in active pits	22932	546	4586	39.3
Circulation (1) + (3)	59148	1408	11830	101.4
Hole Volume (1)+(2)+(3)	63707	1517	12741	109.3
Total Mud Circulation	82080	1954	16416	140.8

ESSO AUSTRALIA: Sawbelly No.1
 Date : 22 Mar 90 Time : 04:18

HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY 11.00 cP
 YIELD POINT 15.00 lb/cft²
 POWER LAW k 1.1246
 POWER LAW n .5090
 DEPTH 3068.00 m
 VERTICAL DEPTH 3067.30 m
 DEPTH OF RETURNS 3064.00 m
 CUTTINGS BULK DENSITY 2.50 spc grv
 MUD DENSITY 9.60 lb/gal
 ACTIVE SURFACE MUD VOLUME 299 bbl
 FLOW RATE 593 gal/min
 BOOSTER FLOW 0 gal/min
 PUMP PRESSURE 2600 psi
 PUMP CAPACITY 5.00 gal/stk
 BIT NOZZLES 16, 16, 16

CALCULATED RESULTS:

FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VEL. ft/min	CRIT VEL. ft/min	FLOW REGIME	PRESS LOSS psi
2.50	84.00	81.50	21.000/ 5.000	34.9	199.2	LAMINAR	.2
84.00	799.56	715.56	12.615/ 5.000	108.4	259.5	LAMINAR	8.1
799.56	2792.9	1993.4	12.250/ 5.000	116.2	264.0	LAMINAR	25.2
2792.9	2875.9	83.02	12.250/ 5.000	116.2	264.0	LAMINAR	1.0
2875.9	3068.0	192.07	12.250/ 8.000	168.9	318.8	LAMINAR	6.5

MUD HYDROSTATIC 9.60 lb/gal
 FLOW CONTRIBUTION .08 lb/gal
 CUTTINGS CONTRIBUTION .02 lb/gal
 EQUIVALENT CIRCULATING DENSITY 9.70 lb/gal

SURFACE PRESSURE LOSS 635 psi NOZZLE VELOCITY 323.0 ft/sec
 PIPEBORE PRESSURE LOSS 1041 psi HYDRAULIC POWER 309.4 hp
 ANNULAR PRESSURE LOSS 41 psi JET IMPACT FORCE 951.8 lb
 BIT PRESSURE LOSS 894 psi % OF PRESS LOSS AT BIT 34
 TOTAL CALC. PRESS LOSS 2612 psi

VOLUMES:	gal	bbl	Strokes	Minutes @ 119 s.p.m.
1) Pipe Capacity	6835	163	1367	11.5
2) Pipe Displacement	4663	111	933	7.9
3) Total Annulus	54117	1289	10823	91.3 ← LAG
4) Mud in active pits	12571	299	2514	21.2
Circulation (1) + (3)	60952	1451	12190	102.8
Hole Volume (1)+(2)+(3)	65616	1562	13123	110.6
Total Mud Circulation	73523	1751	14705	124.0

PE602926

This is an enclosure indicator page.
The enclosure PE602926 is enclosed within the container
PE802283 at this location in this document.

The enclosure PE602926 has the following characteristics:

ITEM_BARCODE = PE602926
CONTAINER_BARCODE = PE802283
NAME = Well Progress Plot
BASIN =
PERMIT =
TYPE = WELL
SUBTYPE = WELL_LOG
DESCRIPTION = Well Progress Plot, (Enclosure from
Final Well Report), By Exlog for Esso
Australia, for Sawbelly-1
REMARKS =
DATE_CREATED =
DATE_RECEIVED = 22/06/90
WELL_NO = W1022
WELL_NAME = Sawbelly-1
CONTRACTOR = Exlog
CLIENT_OP_CO = Esso Australia

(Inserted by DNRE - Vic Govt Mines Dept)

D. FORMATION EVALUATION LOG

PE600960

This is an enclosure indicator page.
The enclosure PE600960 is enclosed within the container
PE802283 at this location in this document.

The enclosure PE600960 has the following characteristics:

ITEM_BARCODE = PE600960
CONTAINER_BARCODE = PE802283
NAME = Exlog Mud Log for Sawbelly-1
BASIN =
PERMIT =
TYPE = WELL
SUBTYPE = MUD_LOG
DESCRIPTION = Exlog Mud Log, (Enclosure from Final
Well Report), By Exlog for Esso
Australia, for Sawbelly-1
REMARKS =
DATE_CREATED =
DATE_RECEIVED = 21/03/90
WELL_NO = W1022
WELL_NAME = Sawbelly-1
CONTRACTOR = Exlog
CLIENT_OP_CO = Esso Australia

(Inserted by DNRE - Vic Govt Mines Dept)