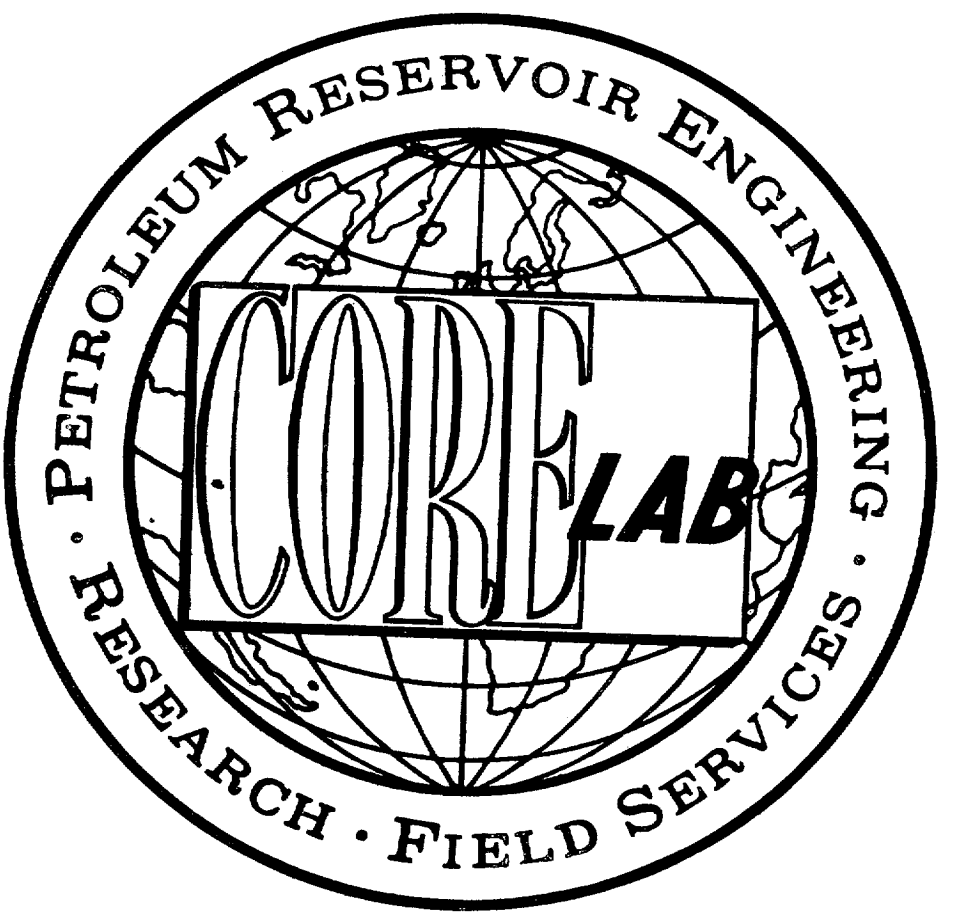
ATTACHMENT TO WCR

[redacted]

FINAL WELL REPORT

WHITING-2
(W903)



MUDLOGGING REPORT

ESSO AUSTRALIA LIMITED

WHITING #2 - 7 OCT 1985

MUDLOGGING REPORT (W903)

INDEX

INTRODUCTION

WHITING #2 was drilled by ESSO AUSTRALIA LIMITED, in the Bass Strait, Australia.

Well co-ordinates were :

Latitude : 38°15' 04.676"S
Longitude : 147°51' 14.541"E

The well was drilled by South Seas Drilling Company's semi-submersible rig "Southern Cross", and monitored by Core Laboratories Extended Service Field Laboratory 2007.

WHITING #2 was spudded on 23rd April 1985 and reached a total depth of 3550 metres on 7th June 1985, a total drilling time of 46 days. The main objective of the well was to confirm platform development of Whiting by testing the south western part of the Whiting structure.

Elevations were :

Kelly bushings to mean sea level ..... 21 metres
Water depth ..... 53 metres
Kelly bushibngs to mean sea bed ..... 74 metres

All depths used in this report and accompanying logs refer to depth below rotary kelly bushings (RKB).

Core Laboratories personnel involved in the logging of WHITING #2 were as follows :

B. Paulet	-	Unit Supervisor
T. Wyeth	-	Pressure Engineer
T. Charles	-	Relief Engineer
B. Giftson	-	Logging Crew Chief
P. Landry	-	Well Logger
D. Mackay	-	Well Logger
P. Gribben	-	Well Logger
R. Poltorak	-	Tritium Operator
J. Van Tienen	-	Tritium Operator
A. Harwood	-	Tritium Operator
J. Gibb	-	Tritium Operator

2. PIG SPECIFICATIONS

RIG INFORMATION SHEET

COMPANY ESSO AUSTRALIA LIMITED

WELL WHITING #2

OWNER	SOUTH SEAS DRILLING COMPANY
NAME AND NUMBER	SOUTHERN CROSS (N° 107)
TYPE	SEMI-SUBMERSIBLE, TWIN HULLED
DERRICK, DRILL FLOOR & SUBSTRUCTURE	DERRICK: LEE C MOORE, 152' HIGH X 40' AT BASE. LOAD CAPICITY OF 1,000,000 lbs
DRAWWORKS	OILWELL E-2000 DRIVEN BY 2 GE 752 ELECTRIC MOTORS
CROWN BLOCK	LEE C MOORE 27458 C. CAPACITY 500 SHORT TONS
TRAVELING BLOCK	OILWELL A 500
SWIVEL	OILWELL PC 425
ELEVATORS	BYRON JACKSON MODEL GG CAPACITY 350 TON
KELLY & KELLY SPINNER	DRILLCO 5¼" x 50' HEX KELLY
ROTARY TABLE	OILWELL A 37½ SINGLE ELECTRIC MOTOR
ROTARY SLIPS	VARCO DCS-L
MUD PUMPS	TWO OILWELL A 1700PT. RATED AT 1600HP
MUD SYSTEM	FOUR MUD TANKS HAVING A TOTAL CAPACITY OF 1200 BBL, AND ONE PILL TANK HAVING A CAPAICTY OF 105 BBL. TWO MUD HOPPERS POWERED BY 2 MISSION 6 x 8" CENTRIFUGAL BY TWO 100HP ELECTRIC MOTORS. DESANDER: 1 DEMCO 4 CONE 12" MODEL N° 124 DESILTER: 1 DEMCO 4"-16H 16 CONE DEGASSER: 1 SWACO MODEL N° 36 SHALE SHAKERS: 2 BRANDT DUAL UNIT TANDEM - GHI DUAL UNIT
BLOW OUT PREVENTORS	THREE SHAFFER L.W.S. 18 3/4" - 10,000 psi TWO HYDRIL G.L. 18 3/4" - 5,000 psi
WELL CONTROL EQUIP.	FOUR VALV CON ACCUMULATORS CHOKES:2 C.I.W. ABJ H2 2 1/16" - 10,000 psi, 1 SWACO SUPER CHOKE 2" - 10,000 psi
TUBULAR DRILLING EQUIPMENT	DC: 6¼" x 2 13/16" (4" IF TJ) 8" x 2 13/16" (6 5/8" H90 TJ) 9 3/4" x 3" (7 5/8" H90 YJ) HWDP: 5" 50lb/ft GRADE G (6½")) 4½" IF TJ) DP : 5" 19½lb/ft GRADE G & E (6 3/8" OO 4½" IF TJ)
CEMENTING UNIT	HALLIBURTON HT-400 UNIT
MONITORING EQUIPMENT	MARTIN DECKER: MUD VOLUME TOTALIZER 6 CHANNEL DRILLING RECORDER 4 PRESSURE GAUGES FLOWSHOW INDICATOR
POWER SUPPLY	2 EMD MD 18 DIESEL ENGINES RATED AT 1950 HP EACH 1 EMD MD 13 DIESEL ENGINE RATED AT 1500 HP
DIRECTIONAL EQUIP.	-

MISCELLANEOUS (E.G. RISER, COMPENSATION SYSTEM, PIPE RACKER, DP EQUIPMENT)

RISER:REGAN FC-7 TELESCOPIC 21" ID. PLUS FLOW DIVERTOR.
CASING POWER TONGS:ECKEL 13 3/8" (20,000 ft lbs), 20" (35,000 ft lbs)
CMT BULK TANKS:3 x 1570cu ft. RISER TENSIONER: 6 WESTERN GEAR, 50' STROKE, 80,000 lbs.
MUD BULK TANKS: 3 x 1570 cu ft. GUIDE LINE TENSIONERS: 4 WESTERN GEAR 16,000 lbs, 40' STROKE

3. WELL INFORMATION, PROGRESS AND HISTORY

WELL INFORMATION SHEET

COMPANY ESSO AUSTRALIA LIMITED
WELL WHITING #2

WELL NAME Whiting #2

OPERATOR Esso Australia Limited
PARTNERS BHP Petroluem

RIG	OWNER	South Seas Drilling Company		
	NAME OR NUMBER	Southern Cross		
	TYPE	Semi Submersible		
LOCATION	LATITUDE (X)	38°15'04.676"S	LONGITUDE (Y)	147°51'14.541"E
	FIELD	Gippsland Basin	AREA	Gippsland Basin
	COUNTY	Bass Strait	STATE	Victoria
	COUNTRY	Australia		
	DESCRIPTION	Delineation of Whiting prospect		
DATUM	Mean Water Depth 53 metres		RKB to Water Level	21 metres
DATES	SPUD	23rd April 1985	TOTAL DEPTH	7th June 1985

HOLE SIZES	Depth From	Depth To	Bit Size (Inches)	No. of Bits	No. of Reamers	Date From	Date To	Cased	Logged
	74	224	26	1	-	23/4/85	23/4/85	Y	N
	224	815	17½	1	-	24/4/85	25/4/85	Y	Y
	815	3350	12¼"	12	-	26/5/85	28/5/85	Y	Y
	3350	3550	8½"	2	-	2/6/85	7/6/85	N	Y

DRILLING FLUIDS	Depth From	Depth To	Weights			Type
	74	224	8.7	TO	8.7	Seawater
	224	815	8.9	TO	9.1	Seawater Drill Solids
	815	3550	8.7	TO	11.0	Seawater-Gel-Polymer

WIRELINE LOGGING	Depth From	Depth To	Hole Size	Date Run	Logs Run
	807	70	17½"	26/4/85	BHC-GR
	1668	1235	12¼"	1/5/85	MSFL-LDT-CNT) Combo
	1668	800	12¼"	1/5/85	DLT-GR-CAL-SP)
	1668	800	12¼"	1/5/85	BHC-GR
	-	-	12¼"	1/5/85	WST-GR
	-	-	12¼"	1-2/5/85	RFT's 1-18
	2919	1625	12¼"	17/5/85	DLL-MSFL-GR-SP-CAL
	2921	1625	12¼"	17/5/85	CNL-FDC-GR-CAL

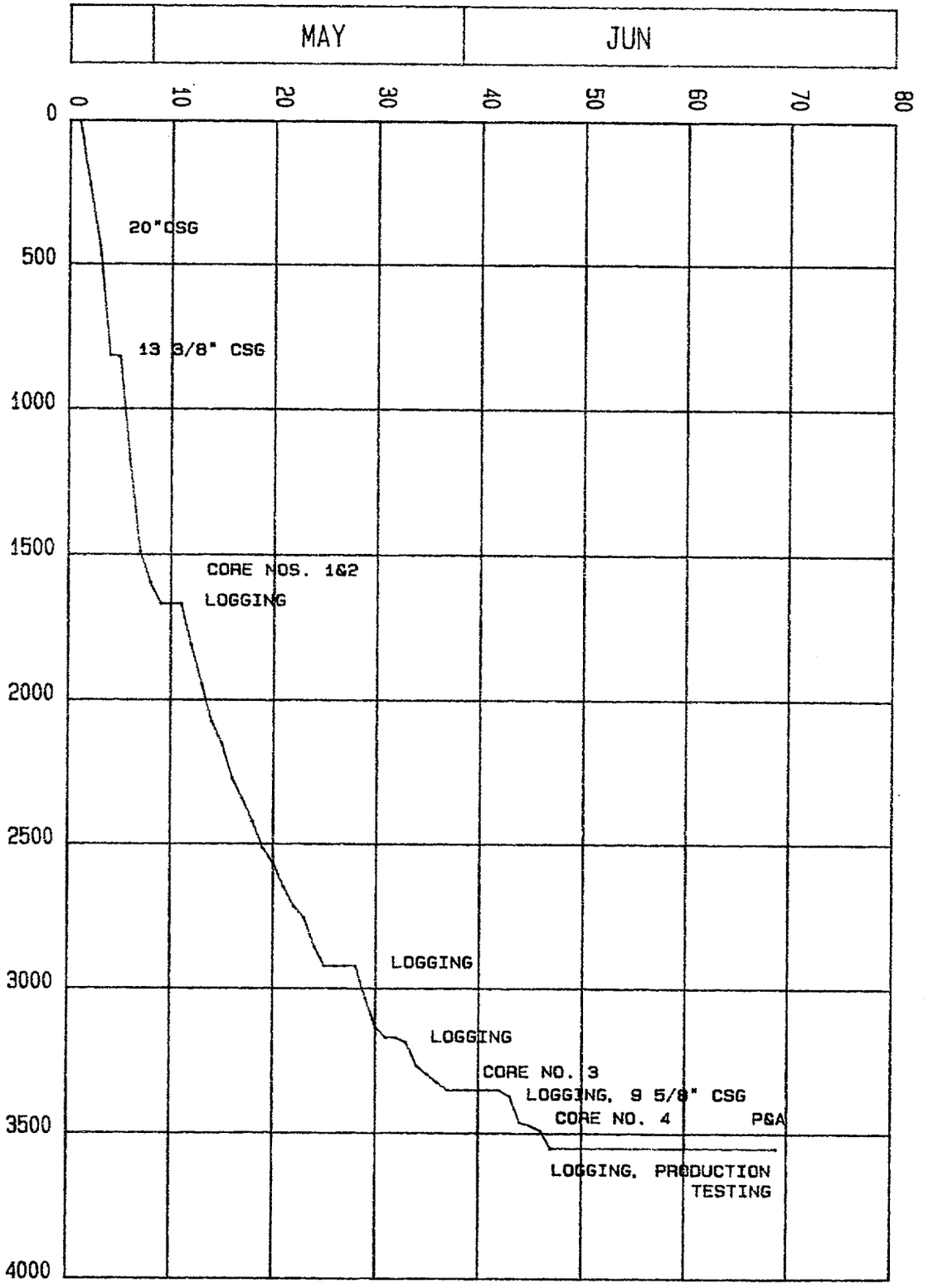
RISER CASING & LINER	Depth From	Depth To	OD (Ins)	ID (Ins)	Weight	Grade	Thread	Date Run	Cement	Stages	Excess
	0	74	22	21	----------Riser----------						
	74	203	20	19.124	94.4	X52	JV Box	24/4/85	"G"	1	-
	74	800	13 3/8	12.615	54.5	K55	BUTT	26/4/85	"G"	1	-
	74	3339	9 5/8	8.681	47.0	N80	BUTT	1/6/85	"G"	2	-

WELL INFORMATION SHEET
(SUPPLEMENTARY)

COMPANY ESSO AUSTRALIA LIMITED
WELL WHITING #2

Depth from (m)	Depth to (m)	Hole size (ins.)	Date run	Logs run
-	-	12¼"	17/5/85	RFT #5 Pretests
-	-	12¼"	18/5/85	RFT's 6-10
-	-	12¼"	19/5/85	RFT #11
3163	2846	12¼"	22/5/85	Composite: DLL-MSFL-GR LDTC-CNTM-SGR
-	-	12¼"	23-24/5/85	RFT Nos 12-16
3348	3100	12¼"	29/5/85	DLTE-MSFL-GR
3351.1	3100	12¼"	29/5/85	LDTC-CNTH-SGR
3350	1600	12¼"	29/5/85	DDBHC-GR
3340	1225	12¼"	30/5/85	HDT-GR
3300	2900	12¼"	30/5/85	WST-GR (13 levels)
-	-	12¼"	30/5/85	RFT #18
3334	1260	12¼"	30-31/5/85	CST-GR
3550	3339	8½"	8/6/85	DLT-MSFL-GR-CAL
3550	3339	8½"	8/6/85	LDT-CNT-NGT-CAL
3550	3339	8½"	8/6/85	BHC-GR
3548.2	3357	8½"	8/6/85	CST-GR (30 shots)
3324	2000	8.681"	12/6/85	CET-GR
1650	1100	8.681"	12/6/85	CET-GR

PROGRESS LOG
ESSO AUSTRALIA LTD. WHITING No.2



WELL HISTORY
WHITING #2

23RD APR 1985	Arrived on location; ran anchors; spudded in, drilled the 26" section of the well (down to 224 metres).
24TH APR 1985	Set 20" casing; ran stack and riser; and drilled 17½" hole to 436 metres.
25TH APR 1985	Completed the 17½" section of the hole (815 metres).
26TH APR 1985	Logged the hole; set the 13 3/8" casing; leak-off test (17.9 ppg) at the shoe.
27TH APR 1985	Drilled 12¼" hole; L.O.T. at the shoe again (17.2 ppg).
28TH APR 1985	Drilled 12¼" hole to 1489 metres. L.O.T. again - the first sand (1275 metres) leaked-off at 12.0 ppg.
29TH APR 1985	Cut cores nos. 1 and 2.
30TH APR 1985	Drilled to 1668 metres.
1ST-2ND MAY 1985	Ran electric logs and RFT's.
3RD MAY 1985	Waited on industrial union meeting. Continued drilling 12¼" hole (down to 1809 metres).
4TH-16TH MAY 1985	Drilled down to the prognosed T.D. of 2921 metres, not having encountered any further core points.
17TH-18TH MAY 1985	Logged the hole.
19TH MAY 1985	Completed logging, then extended the drilling program.
20TH-22ND MAY 1985	Drilled to 3169 metres, encountering good hydrocarbon shows along the way.
23RD-24TH MAY 1985	Logged at 3169 metres, then drilled ahead. Mud weight was increased (to 10.0 ppg) to counteract spalling shales.
25TH-28TH MAY 1985	Drilled to 3350 metres, cutting core no. 3 between 3317 - 3326 metres.
29TH-31ST MAY 1985	Logged the hole.
1ST-2ND JUN 1985	Set 9 5/8" casing at 3339 metres.

3RD-4TH JUN 1985	Drilled 8½" hole; P.I.T. at shoe was 17.9 ppg (no leak off).
5TH JUN 1985	Cut core no. 4 (3470 - 3472 metres).
6TH JUN 1985	Industrial meeting. Then drilled ahead to 3489 metres. Raised the mud weight (to 10.5 ppg) to counteract high formation pressures.
7TH JUN 1985	Drilled to T.D. (3550 metres) - but in the process the mud weight had to be increased to 11.0 ppg.
8TH JUN 1985	Logged the hole.
9TH-10TH JUN 1985	Plugged certain sections of the hole in preparation of the production tests.
11TH JUN 1985	Repaired BOP's.
12TH-28TH JUN 1985	Production testing program.
29TH-30TH JUN 1985	Plugged and abandoned the well.

4. LITHOLOGY AND CORE-O-GRAPHS

LITHOLOGY SUMMARY

Gippsland Limestone (225 metres - 1,000 metres)

Calcarenite down to 700 metres, then Calcisiltite down to 1,000 metres. Minor siltstones were encountered between 600 and 650 metres.

Lakes Entrance Formation (1,000 metres - 1,266 metres)

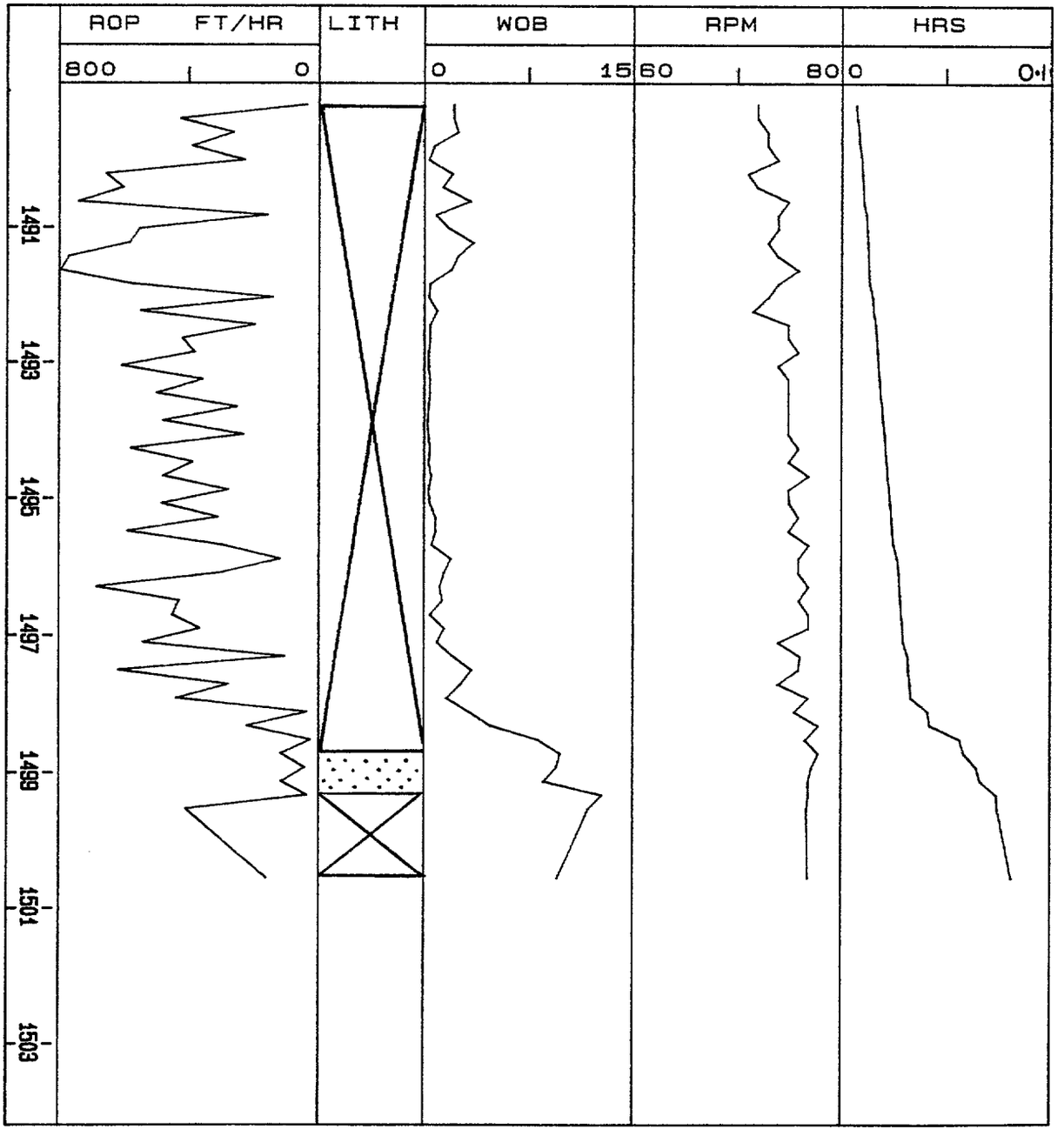
Interbedded Calcilutite, silty Limestone and calcareous Sandstone. Up to 15 units of gas were detected.

Latrobe Group (1,266 metres - 3,550 metres)

This was a stratigraphic sequence of non-marine and near-shore deposits consisting of interbedded Sandstone, Siltstone and Coal, with minor Shales, Claystones and Volcanics/Metamorphics. Gas peaked at 760 units at the top of the Latrobe, but averaged 20 - 50 units down to T.D.

CORE-O-GRAPH

CLIENT:	ESSO AUSTRALIA LTD.
WELL:	WHITING No.2
CORE NO.:	1
INTERVAL CORED FROM	1489.0m. TO 1500.4m.
CUT: 9.2m .	RECOVERED: 0.3m. (3.3%)
FORMATION:	LATROBE GROUP
BIT MAKE & TYPE:	CHRIS RC4
CORE BARREL SIZE:	7.00in.x 5.00in.x 9.20m.
BIT SIZE: 9.88	MUD WT.: 9.5



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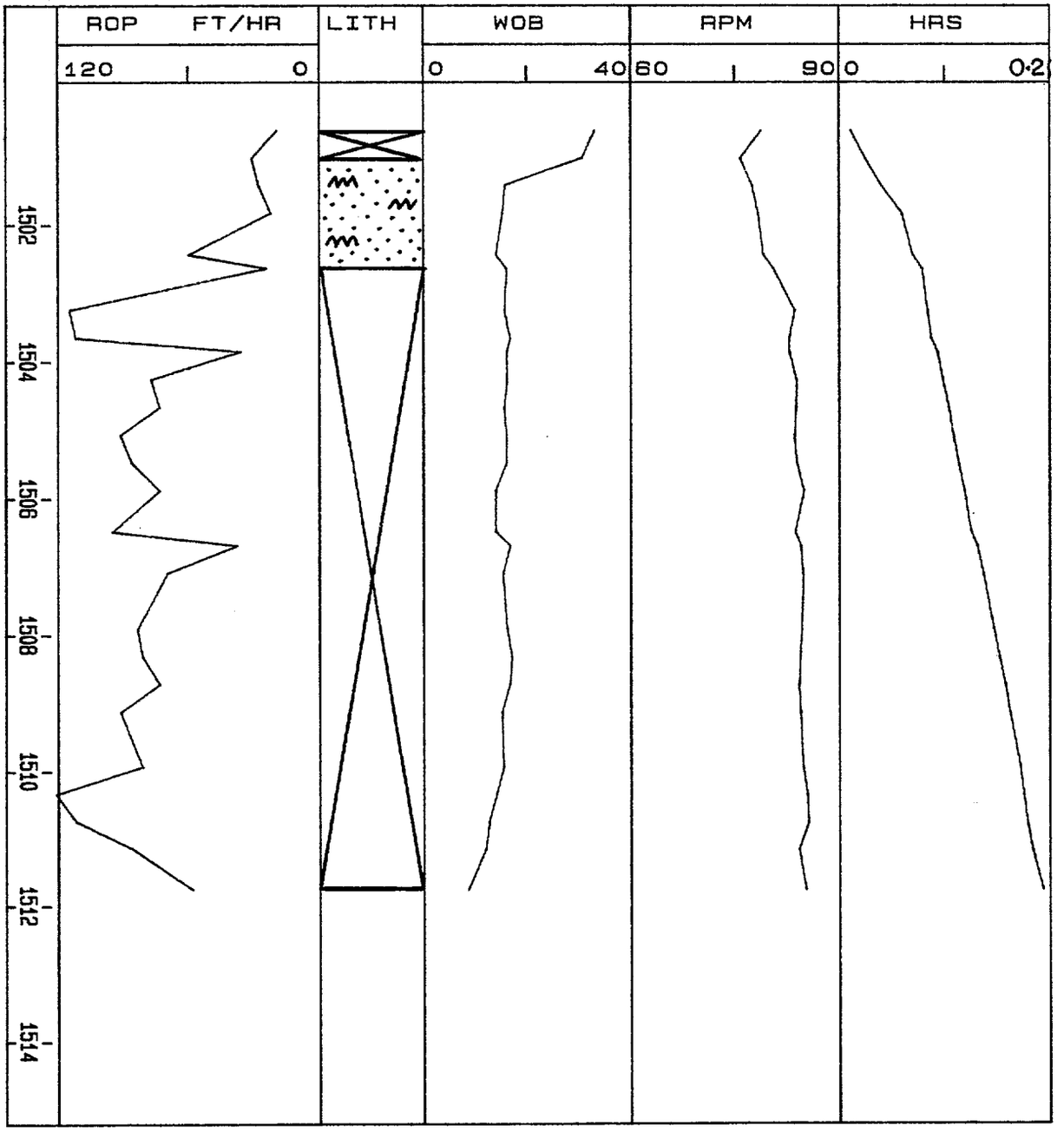
CORE-O-GRAPH

CLIENT:	ESSO AUSTRALIA LTD.
WELL:	WHITING No.2
CORE NO.:	2
INTERVAL CORED FROM	1500.4m. TO 1511.6m.
CUT: 9.2m .	RECOVERED: 1.8m. (19.6%)
FORMATION:	LATROBE GROUP
BIT MAKE & TYPE:	CHRIS RC4
CORE BARREL SIZE:	7.00in.x 5.00in.x 9.20m.
BIT SIZE: 9.88	MUD WT.: 9.5



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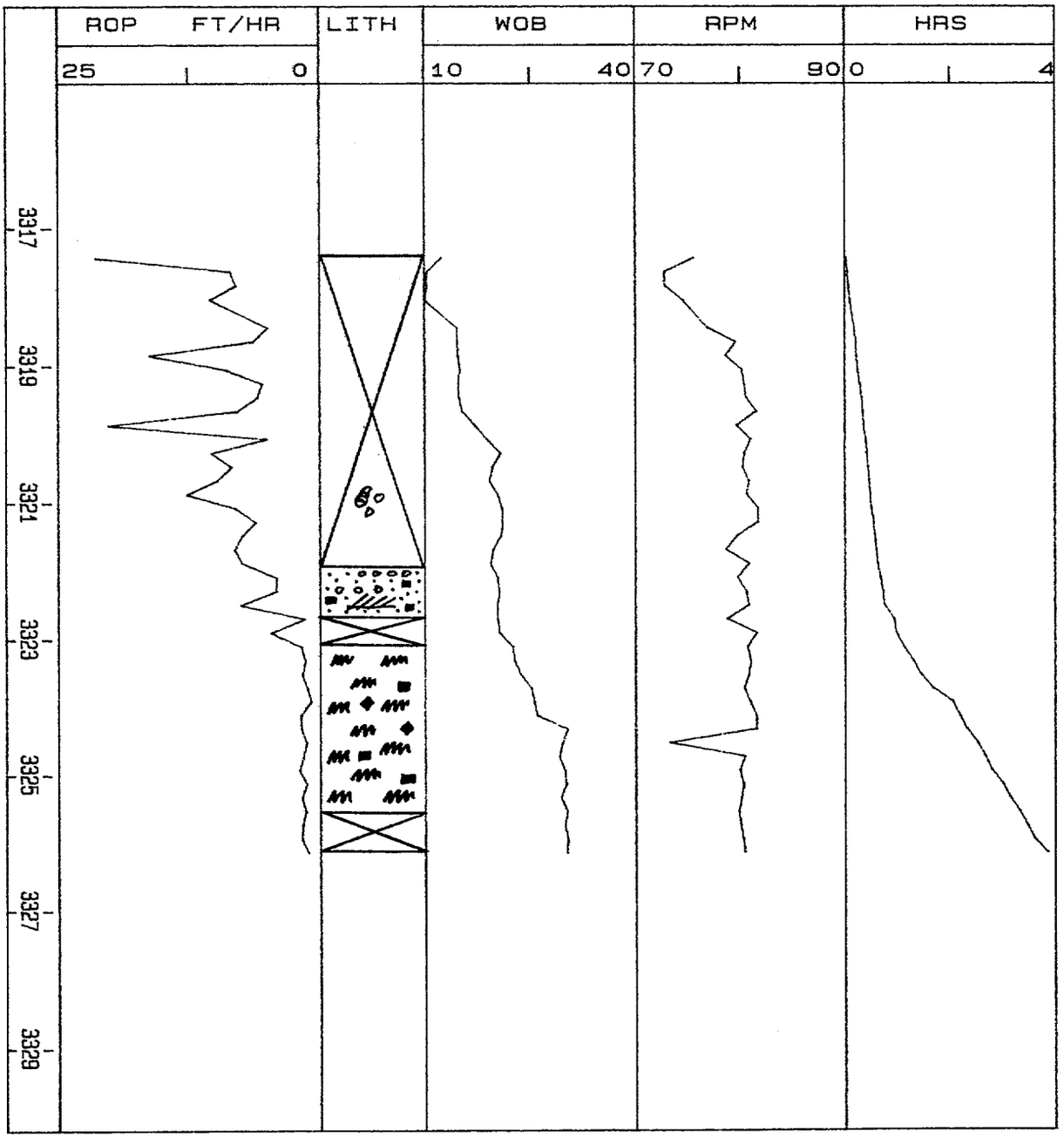
CORE-O-GRAPH

CLIENT:	ESSO AUSTRALIA LTD.
WELL:	WHITING No.2
CORE NO.:	3
INTERVAL CORED FROM	3317.1m. TO 3326.0m.
CUT: 8.9m .	RECOVERED: 3.2m. (36.0%)
FORMATION:	LATROBE GROUP
BIT MAKE & TYPE:	CHRIS C-23
CORE BARREL SIZE:	7.00in.x 5.00in.x 9.20m.
BIT SIZE: 9.84	MUD WT.: 10.0



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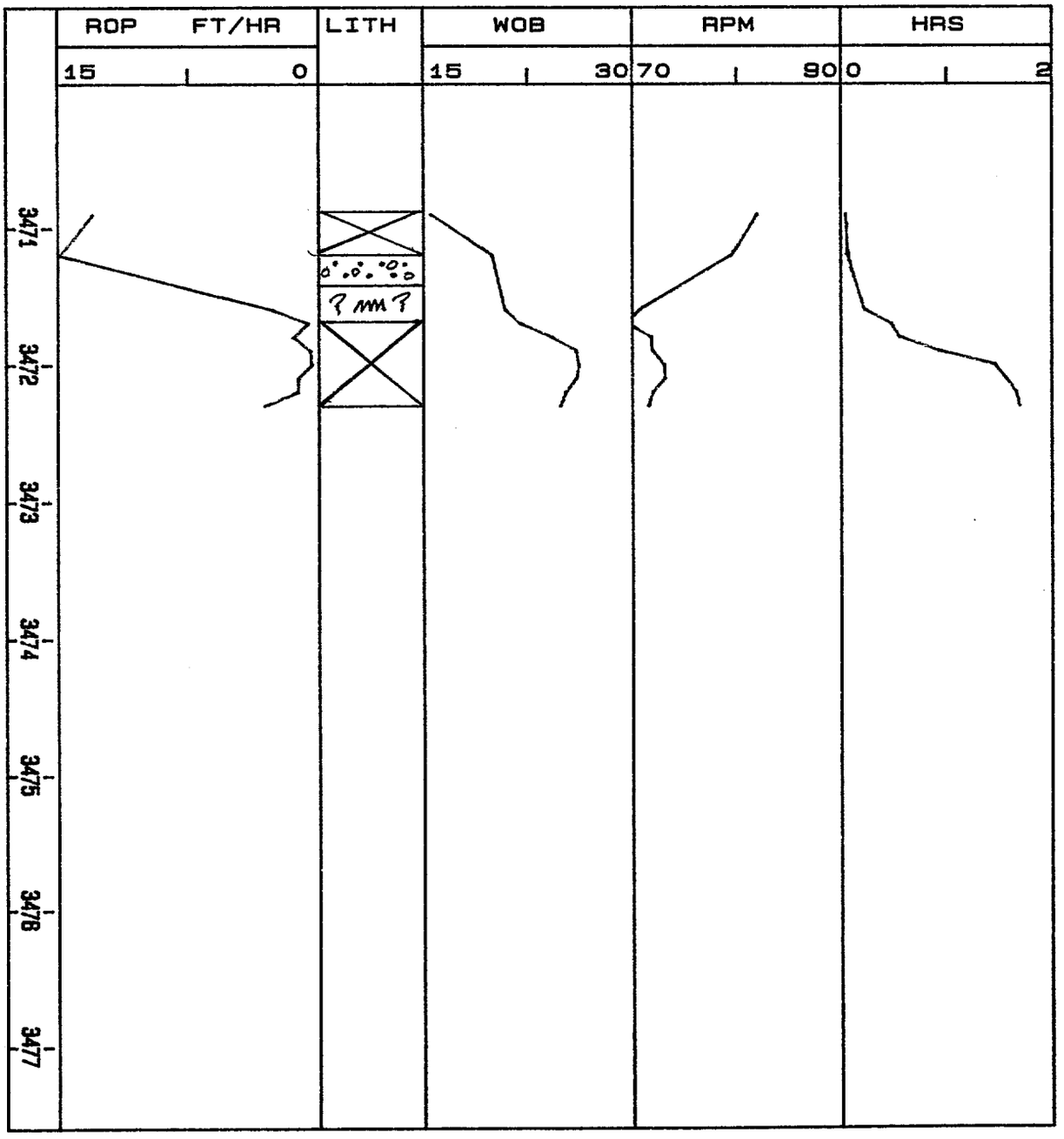
CORE-O-GRAPH

CLIENT:	ESSO AUSTRALIA LTD.
WELL:	WHITING NO.2
CORE NO.:	4
INTERVAL CORED FROM	3470.4m. TO 3472.3m.
CUT: 1.9m .	RECOVERED: 0.3m. (15.8%)
FORMATION:	LATROBE GROUP
BIT MAKE & TYPE:	CHRIS C201
CORE BARREL SIZE:	8.25in.x 4.00in.x 18.82m.
BIT SIZE: 8.50	MUD WT.: 10.5



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5. EXTENDED SERVICE PACKAGE

EXTENDED SERVICE INTRODUCTION

The Core Laboratories Extended Service Package includes sensors, recorders and computer facilities useful in the drilling operation, for the detection of abnormal formation pressure, and the optimization of drilling.

Presented graphically on Core Laboratories E.S. logs (discussed individually in the following section of this report) are the various functions necessary for well control, abnormal formation pressure detection and drilling optimization.

Other available services include electric log interpretation programs for the wellsite geologist, hydraulics (synthesis and analysis), well kill, cost per foot, bit nozzle selection, swab and surge created by pipe movement, and bit performance programs for the drilling engineer.

Core Laboratories E.S. logs include the following :

E.S. PRESSURE LOG

Information plotted on this log includes formation pore pressure, mud weight in and formation fracture pressure. This is plotted on linear graph paper at a vertical scale of 1:5000. The formation pore pressure and fracture pressure gradients are based on all available information. This is the conclusion log, therefore the information may be modified by results from formation drill stem tests, data from adjacent wells, kicks, R.F.T.'s, and formation breakdown tests.

CORE LAB DRILL DATA PLOT

This plot, which is drawn while drilling is in progress, is the primary tool by which formation overpressure is detected. Drawn on a 1:5000 scale it is particularly useful in that five plots are drawn side by side, and thus any trend can be readily recognised.

The main plot is that of the corrected "d"exponent, which is presented on a logarithmic scale. The "d" exponent was first developed by Jorden and Shirley in 1966 to assist in interpreting rate of penetration data by normalizing for rotary speed and weight-on-bit per inch of bit diameter.

The modified "dc" exponent was proposed by Rhem and McClendon to compensate for increases in mud weight. This involves multiplying the standard "d" exponent value by the inverse ratio of the mud weight. A multiple of 9 ppg was used for convenience to return the magnitude of the "dc" to a comparable value of it's uncorrected state. In this case, a multiplier of 10 ppg was used. The equation for "dc" is therefore :

$$'dc' = \frac{\text{Log}\left(\frac{ROP}{RPM \times 60}\right)}{\text{Log}\left(\frac{WOB \times 12}{\text{Bit diam} \times 1000}\right)} \times \frac{10}{MDI}$$

Deviations from the normal "dc"s trend may be interpreted as being due to a change in formation pore pressure. An equation derived by Eaton is used in an attempt to evaluate pore pressure from deviations in the "dc"s plot. This method of overpressure detection can be fairly accurate for homogeneous shales, but where the sand/silt/shale ratio varies a great deal, inaccuracies often occur.

The other main plots are a logarithmic rate of penetration, which complements the "dc"s plot and a linear plot of total mud gas.

Shale densities are also plotted on a linear scale in order to show up a decreasing density trend, and hence a possible transition into abnormally pressured shales. The points are determined by measuring the density of air-dried shale samples in an accurately calibrated liquid density column.

An interpreted lithology column is also included on the log, as is a plot of mud density in , to assist in interpretation. All relevant information, such as casing points, bit runs, etc. are also included.

E.S. GEO-PLOT LOG

This is plotted by the computer while drilling is in progress. At a later date this plot can be re-run on different scales to suit the client. The data is stored on magnetic tape during the drilling operations. Functions plotted on this log are : rate of penetration, corrected "d" exponent, break-even analysis, formation pore pressure, mud density in and formation fracture pressure.
A Geo-plot is included in this report, at a scale of 1:5000.

E.S. FLOWLINE TEMPERATURE, FLOWLINE TEMPERATURE END-TO-END PLOTS

Flowline temperature and end-to-end plot of flowline temperature are the two main plots relating to the temperature of the returning drilling fluid. These are plotted on a vertical scale of 1:5000. The use of these plots as an indicator of the presence of over-pressure takes secondary role to the E.S. drill log. Continuous observation of flowline temperature may indicate an increase in geothermal gradient. Factors affecting temperature are noted on the log, such as new bit runs, changes in the circulation rates, circulating cuttings out and the addition of water and chemicals to the active mud system. Since the goal of the end-to-end plot is to provide a representation of the geothermal gradient, all surface changes which would cause artificial changes in ths flowline temperature are disregarded.

ELECTRIC LOG PLOT

A plot of shale resistivity (ohm-metres squared/metre), sonic travel time (microseconds per foot), bulk density (gm/cc) and neutron porosity (%), may be made using data supplied by Schlumberger. Two-cycle semi-log paper is used, with a vertical scale of 1:10000. As far as possible only clean shale points are selected and plotted. The relatively compressed vertical scale makes deviations from the normal compaction trend easier to identify.

PROGRESS LOG

This is the traditional presentation of footage against elapsed time in days. It shows actual drilling time from spud to total depth.

DATA RECORDING

Data is recorded on tape while drilling, both as raw input numbers and computer calculated numbers. This data can be accessed later for use in interpretative programs or to review data. Comprehensive data lists are included in this report.

MUD DATA SHEETS

These are a record of the mud properties while drilling, and are derived from the mud engineer's daily report.

DRILLING PARAMETER PLOT

The drilling parameter plot shows : rate of penetration, weight-on-bit, rotary speed, pump pressure, hydraulic horsepower, impact force and jet velocity. This plot is drawn by the computer and is designed to aid the drilling engineer in drilling optimization. The scale chosen here is 1:5000.

HYDRAULIC ANALYSES

During drilling, routine hydraulic analyses are calculated by the computer, and these are made available to the drilling engineer. This report includes a sample hydraulics for each 100 metres.

GAS COMPOSITION ANALYSIS

For each significant gas show the chromatograph results are analysed using two techniques :-

1. Log plot

2. Triangulation plot

Both plots are included in this report.

GRAPHOLOG

This is plotted on the industry-standard form on a vertical scale of 1:500. Rate of penetration is plotted in metres per hour, together with mud gas chromatography results. Total gas is also plotted, and a percentage lithology log is drawn. A lithology description is presented in an abbreviated form. All relevant drilling data is included, as is bit and mud data.

MISCELLANEOUS

Various data collected from this well are also included in this report for reference. These include formation leak-off test data, R.F.T. and well test data where appropriate.

CORE LABORATORIES EQUIPMENT

Core Laboratories Field Laboratory 2007 monitoring equipment includes the following :

A. MUD LOGGING

1. T.H.M. total gas detector and recorder.
2. F.I.D. (Flame Ionization Detector) chromatograph and recorder.
3. Cuttings gas detector.
4. Gas trap and support equipment for the above.
5. Pit volume totalizer and recorder.
6. Digital depth counter.
7. Two integrated pump stroke counters.
8. Ultra-violet fluoroscope.
9. Binocular microscope.
10. Calcimeter.
11. Steam-still gas analyzer.

B. EXTENDED SERVICE PACKAGE

1. HEWLETT PACKARD 9825B desktop computer.
2. HEWLETT PACKARD 9872B plotter
3. HEWLETT PACKARD 2631A printer.
4. Two HEWLETT PACKARD 2621P visual display units, (one located in the client's office).
5. Hookload/weight-on-bit transducer and recorder.
6. Rotary speed sensor and recorder.
7. Stand-pipe pump pressure transducer and recorder.
8. Mud flow out sensor and recorder.
9. Mud temperature sensors and recorders (in and out).
10. Mud conductivity sensors and recorders (in and out).
11. Mud density sensors (in and out) and recorders.
12. Rotary torque sensor and recorder.
13. Shale density apparatus.
14. Hydrogen sulphide gas detector.
15. Carbon dioxide gas detector.
16. DATALOGGER computer, monitor and impact printer.
17. DIGITAL remote paging display (located in the client's office).
18. Casing pressure transducer and recorder.

All the above sensors and gas detectors have displays on the DATALOGGER monitors except the Cuttings gas detector and steam-still.

CORE LABORATORIES MONITORING EQUIPMENT

DEPTH

Depth registered every 0.1 metres and rate of penetration calculated each metre (or every 0.2m while coring); ROP displayed on the computer monitor and chart.

WEIGHT-ON-BIT

A DeLaval 0-5000 psi, solid state pressure transducer is connected to the rig's deadline anchor. The weight-on-bit is calculated in the Datalogger, and displayed (with hookload) on the computer monitor and recorder chart.

ROTARY SPEED

This is a proximity limit switch which pulses once for every revolution of the rotary drive shaft. The value is displayed on the computer monitor and a recorder chart.

PUMP PRESSURE

This is a DeLaval 0-5000 psi transducer mounted on the stand-pipe manifold. The pressure is displayed on the computer monitor and recorder chart.

CASING PRESSURE

This is a DeLaval 0-5000 psi transducer mounted on the choke manifold. The signal is displayed on the computer monitor and on a recorder chart.

PIT VOLUME

Four individual pits are displayed on the monitor. The pit volume total is calculated by the Datalogger and displayed on the monitor. The sensors are vertical floats triggering magnetic switches accurate to +/- 1 barrel.
In addition, a sensor is fitted to the rig's trip tank, so that hole fill-up during trips may be closely monitored. A recorder chart displays the levels of the active pits, the pit volume total, and the trip tank.

PUMP STROKES

These are the limit switch type, counting individual strokes. The pump rates per minute are displayed on the monitor.

ROTARY TORQUE

An American Aerospace Controls bi-directional current sensor is clamped over the power cable of the rotary table motor. Torque is displayed on the computer monitor and recorder chart.

MUD TEMPERATURE

This is a platinum probe resistance thermometer, and an electronics module calibrated 0-100 deg.C. Temperature in and out is displayed on the monitor and recorder.

MUD CONDUCTIVITY

A Balsbaugh electrode-less conductivity sensor contains two toroidally-wound coils and a thermistor enclosed in a donut-shaped housing. Current is induced into the mud by the primary coil and is sampled by the secondary coil, the amplitude of the current being directly proportional to the conductivity of the mud.

MUD DENSITY

Two density sensors (in and out) located in the possum belly and in the pit room, operate on a system of differential pressure. This function is displayed on both chart and monitor.

All the sensors are 12 to 36V DC powered with the exception of the air driven gas trap. Along with monitoring and maintaining the above equipment, Core Lab performed other duties...

CUTTINGS

Microscopic and ultra-violet inspection of cuttings samples at predetermined intervals. Samples were washed, dried, sacked and boxed where necessary. Geochemical samples were canned and boxed.

GAS

1. Flame Ionization Total Hydrocarbon gas detector.
   The T.H.M. accurately determines hydrocarbon concentrations up to 100% saturation.

2. Flame Ionization Detector chromatograph.
   The F.I.D. is capable of accurate determination of hydrocarbon concentration from C1 to C6+.

3. Cuttings gas detector (Wheatstone Bridge type).
   An auxiliary system for total gas detection.

4. Hydrogen Sulphide detector.
   Two sensors are located at the shale-shakers and in the pit room, linked to a TAC 404B H2S monitor, to detect H2S emanating from the drilling fluid.

5. Carbon Dioxide detector.
   An Infra-red gas analyzer determines the percentage of CO2 present in gas samples broken out of the mud by the gas trap.

SHALE DENSITY

Manual determination of shale density in an accurately calibrated variable density liquid column.

6. ESP PLOT DISCUSSIONS AND CONCLUSIONS

ESP PLOT DISCUSSION AND CONCLUSIONS
(with particular reference to Pore Pressure)

The following discussion assesses formation pressures as determined by Core Laboratories' hydrocarbon well logging extended services.

Whiting #2 was drilled in the Gippsland Basin region of the Bass Strait, and evidence of abnormal pressure had been found in this structure in the previous well, so abnormal pressures were anticipated.

The "Drill Data Plot" (see logs at end of report) is a useful tool in the detection of pore pressure changes in the well. The plot illustrates ROP, Gas, 'd' c exponent and mud weight plotted against lithology.

Whiting #2 indicated a normal trend sequence associated with the Gippsland Basin down to 3170 metres where any irregularities were associated with lithological changes rather than abnormal pressure (see table).

The interval below 3170 metres indicates drilling into an abnormally pressured structure. The increase in background gas from 5 - 15 units over the interval 3038 - 3169 metres, to 10 - 20 units in the interval 3169 - 3326 metres and a trip gas reading of 3-245-29 units at 3290 metres indicated a possible increase of pore pressure to 8.8 ppg E.M.W. The drilling fluid at this stage was increased from 9.5 - 10 ppg to ensure that if further pressure was encountered as in Whiting #1 it could be drilled with a margin of safety.

9 5/8" casing was set at 3339 metres to enable drilling to continue with higher mud weights. The leak off test gave a fracture gradient of 17.9 ppg E.M.W. with no leak off.

The interval 3326 - 3470 metres showed a further increase in the pore pressure from 8.8 to 9.3 ppg (0.458 - 0.484 psi/ft). This rise was indicated by the rise in background gas, trip gas and connection gas at 3463 metres (11-60-28 μ). A trip gas reading of 15-2500-16 μ at 3472 metres prompted an increase in mud weight from 10.0 to 10.5 ppg.

Further rises in the pore pressure were seen in the interval from 3470 to 3499 metres where it was estimated that the pressure went from 9.3 - 10.1 ppg E.M.W. (0.484 - 0.525 psi/ft) with the observance of correction gas at 3482 metres (20-100-19 μ) and 3492 metres (8-120-24 μ) indicating this rise.

The interval 3499 - 3550 metres shows a further increase in pore pressure from 10.1 - 10.5 ppg (0.525 - 0.546 psi/ft). This was indicated by a rise in background gas of 12 - 30 units and the observation of connection gas throughout this interval (detailed in table). The mud weight was increased from 10.5 to 11.0 ppg at 3518 metres to suppress the connection gas.

The 'Drill Data Plot' did not indicate the 'd' c trend in the lower interval as would normally be expected when drilling into a pressured formation due to the lithology being of an interbedded, unhomogeneous nature.

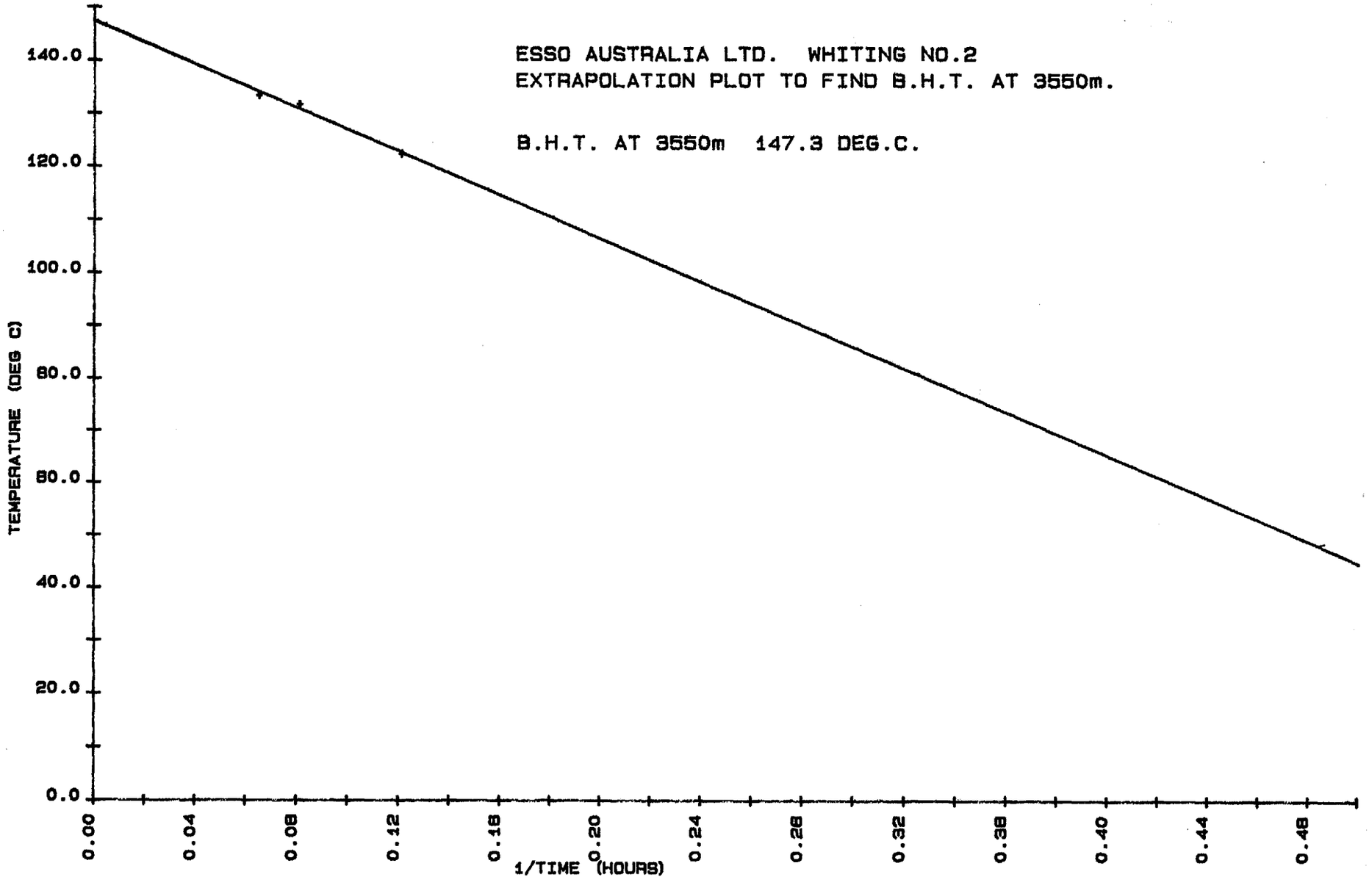
The 'Temperature Plot' shows no conclusive indications of abnormal pressure due to the treatment of the mud system frequently by adding water and barite. The thermal gradient of Whiting #2 was calculated to be 1.69°F/100 ft. The bottom hole temperature at 3550 metres was extrapolated to 147.3°C (297.1°F).

The 'Pressure Plot' is the pressure conclusion for the well. The plot shows the estimated pore pressure along with the mud weight and fracture gradient.

As can be seen from the plot the well was drilled overbalanced throughout. The fracture gradient curve is based on the U.S. Gulf Coast Basin curve and is offset to match local data.

Depth (m)	Background Gas	C.G.	Trip Gas	M.W.	Predicted Pore Pressure E.M.W.	Gradient psi/ft
74 - 2738	0 - 10			8.6-9.5	8.4	0.437
2738 - 3038	5 - 10			9.5	8.5	0.442
3038 - 3169	5 - 15			9.5	8.6	0.447
3169 - 3326	10 - 20		3-245-29	9.5-10 10.0 @ 3171 m	8.8	0.458
3326 - 3350	20 - 35		7-295-22	10.0	9.0	0.468
3350 - 3422	10 - 20		3-64-3	10.0	9.1	0.473
3422 - 3470	10 - 15	3463 m 11-60-28	15-2500-16	10-10.5 10.5 @ 3472 m	9.3	0.484
3470 - 3478	20 - 25		34-1340-13	10.5	9.5	0.494
3478 - 3488	10 - 20	3482 m 20-100-19		10.5	9.8	0.510
3488 - 3499	10 - 15	3492 m 8-120-24		10.5	10.1	0.525
3499 - 3550	12 - 30	3502 m 50-121-37 3512 m 70-122-70 3521 m 12-35-26 3531 m 12-17-12 3540 m 43-89-47	4-37-7	10.5-11.0 11.0 @ 3518 m	10.5	0.546

7. B.H.T. ESTIMATION


ESSO AUSTRALIA LTD. WHITING NO.2
EXTRAPOLATION PLOT TO FIND B.H.T. AT 3550m.
B.H.T. AT 3550m 147.3 DEG.C.
TEMPERATURE (DEG C)
140.0
120.0
100.0
80.0
60.0
40.0
20.0
0.0
0.00
0.04
0.08
0.12
0.16
0.20
0.24
0.28
0.32
0.36
0.40
0.44
0.48
1/TIME (HOURS)

CORE LAB
========

STRAIGHT LINE LEAST SQUARES BEST FIT

1/TIME ON A LINEAR SCALE AGAINST
TEMP ON A LINEAR SCALE

ENTERED DATA:

DATA SET #	1/TIME	TEMP
1	0.065	133.3
2	0.081	131.6
3	0.121	122.2

COEFFICIENT & CONSTANT:

Y = m.X + c where m = -2.0528846E 02 and c = 1.4730401E 02

INTERPOLATED DATA:

1/TIME	TEMP
0.000	147.3

8. OVERBURDEN GRADIENT CALCULATIONS AND PLOT

OVERBURDEN GRADIENT CALCULATIONS

DEPTH . . . . . .metres

BULK DENSITY . . . . . .gm/cc

OVERBURDEN PRESSURE INCREMENT. .psi

CUMULATIVE OVERBURDEN PRESSURE .psi

OVERBURDEN PRESSURE GRADIENT . .psi/ft

OVERBURDEN EQUIVALENT DENSITY. .Pounds per gallon

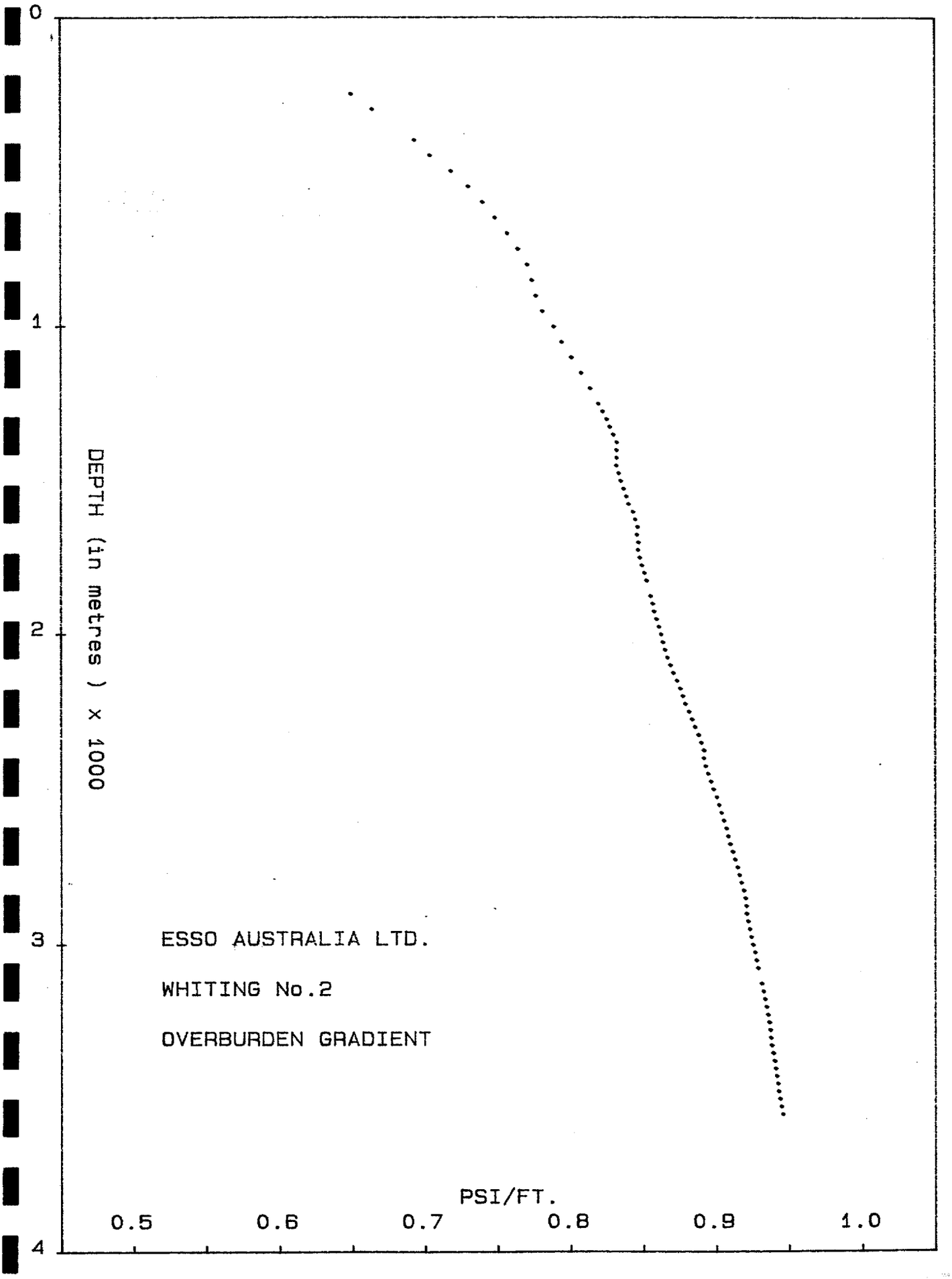
BULK DENSITY TAKEN FROM AVERAGED F.D.C. LOG, OR FROM SONIC LOG FOR SECTIONS WHERE THE F.D.C. LOG IS NOT AVAILABLE.

OVERBURDEN GRADIENT CALCULATIONS

DEPTH from	DEPTH to	AVR.BULK DENSITY	O/BURDEN INC.	O/BURDEN CUMM.	O/BURDEN GRAD.	O/BURDEN GRAD.
metres	metres	gm/cc	psi	psi	psi/ft	ppg
0	74	1.02	107.23	107.23	0.442	8.49
74	250	1.70	425.04	532.27	0.649	12.48
250	300	1.70	120.75	653.02	0.663	12.76
300	400	1.80	255.71	908.73	0.692	13.32
400	450	1.82	129.27	1038.00	0.703	13.52
450	500	1.96	139.22	1177.22	0.718	13.80
500	550	1.96	139.22	1316.44	0.730	14.03
550	600	1.96	139.22	1455.66	0.739	14.22
600	650	1.96	139.22	1594.88	0.748	14.38
650	700	2.00	142.06	1736.94	0.756	14.54
700	750	2.00	142.06	1879.00	0.764	14.69
750	800	2.00	142.06	2021.06	0.770	14.81
800	850	1.90	134.96	2156.02	0.773	14.87
850	900	1.90	134.96	2290.97	0.776	14.92
900	950	1.99	141.35	2432.32	0.780	15.01
950	1000	2.16	153.42	2585.75	0.788	15.16
1000	1050	2.08	147.74	2733.49	0.793	15.26
1050	1100	2.18	154.85	2888.33	0.800	15.39
1100	1150	2.20	156.27	3044.60	0.807	15.52
1150	1200	2.20	156.27	3200.87	0.813	15.64
1200	1250	2.21	156.98	3357.84	0.819	15.75
1250	1275	2.23	79.20	3437.04	0.822	15.80
1275	1300	2.22	78.84	3515.88	0.824	15.85
1300	1325	2.17	77.07	3592.95	0.827	15.89
1325	1350	2.20	78.13	3671.08	0.829	15.94
1350	1375	2.21	78.49	3749.57	0.831	15.98
1375	1400	1.90	67.48	3817.05	0.831	15.98
1400	1425	1.92	68.19	3885.24	0.831	15.98
1425	1450	1.90	67.48	3952.72	0.831	15.98
1450	1475	2.15	76.36	4029.08	0.833	16.01
1475	1500	2.11	74.94	4104.01	0.834	16.04
1500	1525	2.20	78.13	4182.15	0.836	16.07
1525	1550	2.20	78.13	4260.28	0.838	16.11
1550	1575	2.15	76.36	4336.64	0.839	16.14
1575	1600	2.40	85.24	4421.87	0.842	16.20
1600	1625	2.16	76.71	4498.58	0.844	16.23
1625	1650	2.19	77.78	4576.36	0.845	16.26
1650	1675	1.90	67.48	4643.84	0.845	16.25
1675	1700	2.12	75.29	4719.13	0.846	16.27
1700	1725	1.90	67.48	4786.61	0.846	16.26
1725	1750	2.15	76.36	4862.97	0.847	16.29
1750	1775	2.18	77.42	4940.39	0.848	16.31
1775	1800	2.25	79.91	5020.30	0.850	16.35
1800	1825	2.20	78.13	5098.43	0.852	16.38
1825	1850	2.26	80.26	5178.70	0.853	16.41

DEPTH from	DEPTH to	AVR.BULK DENSITY	O/BURDEN INC.	O/BURDEN CUMM.	O/BURDEN GRAD.	O/BURDEN GRAD.
metres	metres	gm/cc	psi	psi	psi/ft	ppg
1850	1875	2.15	76.36	5255.05	0.854	16.43
1875	1900	2.24	79.55	5334.61	0.856	16.46
1900	1925	2.13	75.65	5410.25	0.857	16.47
1925	1950	2.28	80.97	5491.23	0.858	16.51
1950	1975	2.30	81.68	5572.91	0.860	16.54
1975	2000	2.26	80.26	5653.18	0.862	16.57
2000	2025	2.23	79.20	5732.37	0.863	16.59
2025	2050	2.29	81.33	5813.70	0.864	16.62
2050	2075	2.31	82.04	5895.74	0.866	16.65
2075	2100	2.41	85.59	5981.33	0.868	16.70
2100	2125	2.39	84.88	6066.22	0.870	16.73
2125	2150	2.50	88.79	6155.00	0.873	16.78
2150	2175	2.45	87.01	6242.01	0.875	16.82
2175	2200	2.38	84.53	6326.54	0.877	16.86
2200	2225	2.39	84.88	6411.42	0.878	16.89
2225	2250	2.52	89.50	6500.92	0.881	16.94
2250	2275	2.47	87.72	6588.64	0.883	16.98
2275	2300	2.48	88.08	6676.72	0.885	17.02
2300	2325	2.59	91.98	6768.70	0.887	17.06
2325	2350	2.42	85.95	6854.65	0.889	17.10
2350	2375	2.46	87.37	6942.01	0.891	17.13
2375	2400	2.04	72.45	7014.47	0.891	17.13
2400	2425	2.32	82.39	7096.86	0.892	17.15
2425	2450	2.47	87.72	7184.58	0.894	17.19
2450	2475	2.51	89.14	7273.72	0.896	17.23
2475	2500	2.49	88.43	7362.16	0.898	17.26
2500	2525	2.58	91.63	7453.79	0.900	17.30
2525	2550	2.45	87.01	7540.80	0.901	17.33
2550	2575	2.46	87.37	7628.16	0.903	17.36
2575	2600	2.49	88.43	7716.60	0.905	17.40
2600	2625	2.50	88.79	7805.38	0.906	17.43
2625	2650	2.38	84.53	7889.91	0.907	17.45
2650	2675	2.45	87.01	7976.92	0.909	17.48
2675	2700	2.52	89.50	8066.42	0.911	17.51
2700	2725	2.51	89.14	8155.56	0.912	17.54
2725	2750	2.53	89.85	8245.41	0.914	17.57
2750	2775	2.43	86.30	8331.72	0.915	17.60
2775	2800	2.44	86.66	8418.37	0.916	17.62
2800	2825	2.55	90.56	8508.94	0.918	17.66
2825	2850	2.43	86.30	8595.24	0.919	17.68
2850	2875	2.30	81.68	8676.92	0.920	17.69
2875	2900	2.15	76.36	8753.28	0.920	17.69
2900	2925	2.42	85.95	8839.23	0.921	17.71
2925	2950	2.41	85.59	8924.82	0.922	17.73
2950	2975	2.42	85.95	9010.76	0.923	17.75
2975	3000	2.48	88.08	9098.84	0.924	17.78
3000	3025	2.52	89.50	9188.34	0.926	17.80
3025	3050	2.41	85.59	9273.93	0.927	17.82
3050	3075	2.47	87.72	9361.65	0.928	17.85
3075	3100	2.49	88.43	9450.08	0.929	17.87

DEPTH from	DEPTH to	AVR.BULK DENSITY	O/BURDEN INC.	O/BURDEN CUMM.	O/BURDEN GRAD.	O/BURDEN GRAD.
metres	metres	gm/cc	psi	psi	psi/ft	ppg
3100	3125	2.53	89.85	9539.94	0.930	17.89
3125	3150	2.51	89.14	9629.08	0.932	17.92
3150	3175	2.41	85.59	9714.67	0.933	17.93
3175	3200	2.52	89.50	9804.17	0.934	17.96
3200	3225	2.45	87.01	9891.18	0.935	17.98
3225	3250	2.40	85.24	9976.41	0.936	17.99
3250	3275	2.35	83.46	10059.88	0.936	18.01
3275	3300	2.30	81.68	10141.56	0.937	18.01
3300	3325	2.32	82.39	10223.95	0.937	18.02
3325	3350	2.52	89.50	10313.45	0.938	18.05
3350	3375	2.45	87.01	10400.46	0.939	18.06
3375	3400	2.40	85.24	10485.70	0.940	18.08
3400	3425	2.38	84.53	10570.23	0.941	18.09
3425	3450	2.42	85.95	10656.17	0.941	18.10
3450	3475	2.35	83.46	10739.63	0.942	18.12
3475	3500	2.50	88.79	10828.42	0.943	18.13
3500	3525	2.48	88.08	10916.50	0.944	18.15
3525	3550	2.52	89.50	11005.99	0.945	18.17


0
1
2
3
4
DEPTH (in metres) x 1000
ESSO AUSTRALIA LTD.
WHITING No.2
OVERBURDEN GRADIENT
PSI/FT.
0.5
0.6
0.7
0.8
0.9
1.0

9. GAS ANALYSES

SIDEWALL CORE GAS ANALYSIS DATA SHEET

COMPANY ESSO AUSTRALIA LIMITED
WELL WHITING #2

No.	DEPTH (M)	C1	C2	C3	C4	C5	C6	COMMENTS
		PPM	PPM	PPM	PPM	PPM	PPM	
15	3229.5	346	221	593	645	371	276	
17	3207.5	307	186	484	562	333	267	
19	3165.0	806	166	140	156	134	175	
26	3075.0	288	269	1,664	2,080	1,280	957	
29	2981.0	499	269	915	1,123	794	718	
22	3124.5	461	205	437	582	473	515	
2	3330.0	883	192	177	148	99	110	
6	3300.5	1,536	52	113	94	80	101	
13	3249.0	1,036	461	977	977	588	562	
12	3255.0	749	230	603	759	473	368	
8	3282.0	1,318	1,100	276	208	179	263	
11	3259.5	1,209	422	624	770	832	515	
5	3307.5	16	-					
14	3235.0	294	48	30	10	TR		
42	2608.0	441	96	61	36	10	TR	
48	2485.0	1,012	212	78	31	10	TR	
66	2073.0	TR	-					
82	1730.0	148	60	31	9	TR		

GAS COMPOSITION ANALYSIS

The composition of entrained reservoir gas in the mud is significant in determining the origin and the value of a show. Two graphical methods are employed for processing the mud gas chromatography results. These techniques however are empirical and by no means definitive.

LOG PLOT

The ratios of C1/C2, C1/C3, C1/C4, C1/C5, and C1/C6 are plotted on three-cycle log paper for each hydrocarbon show. The plots can be evaluated by the following criteria :

1. Productive dry gas zones may show only C1, but abnormally high shows of C1 are usually indicative of saltwater.

2. A ratio of C1/C2 between approximately 2 and 15 indicates oil and between 15 and 65, gas. If the C1/C2 ratio is below about 2, or above about 65, the zone is probably non-productive.

   The actual values of the gas/oil/water limits will vary from area to area.

3. If the C1/C2 ratio is low in the oil section and the C1/C4 ratio is high in the gas section, the zone is probably non-productive.

4. If any ratio (with the exception of C1/C5, if oil is used in the mud) is lower than the preceding ratio, the zone is probably non-productive.

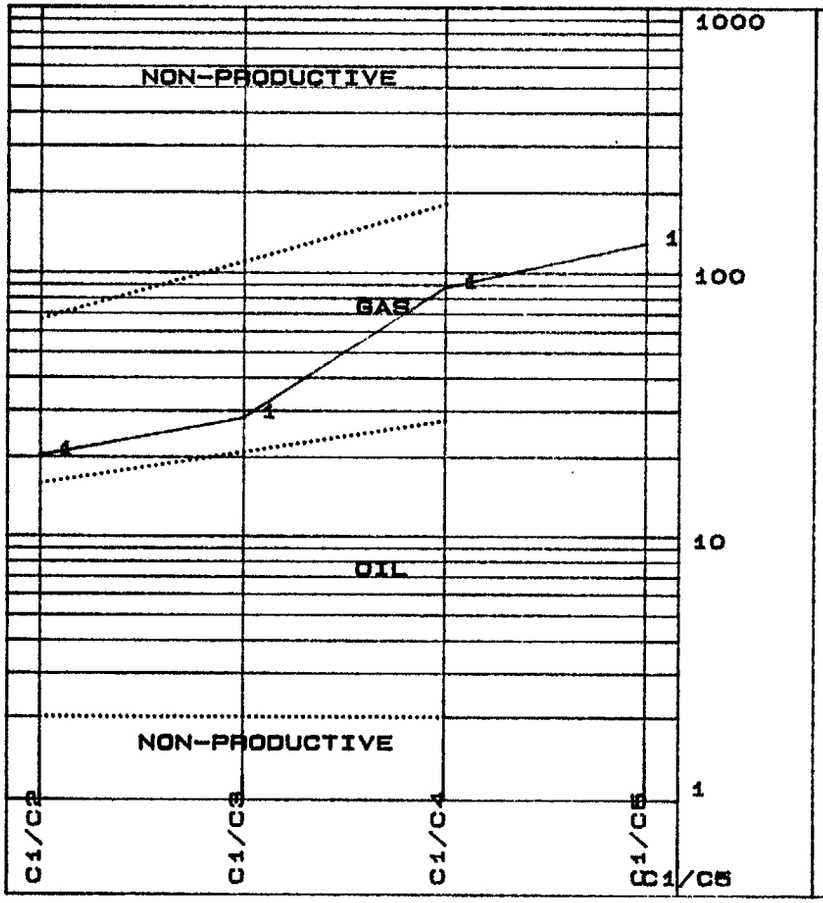
5. The ratios may not be definitive for low permeability zones; however, steep ratio plots may indicate a tight zone.

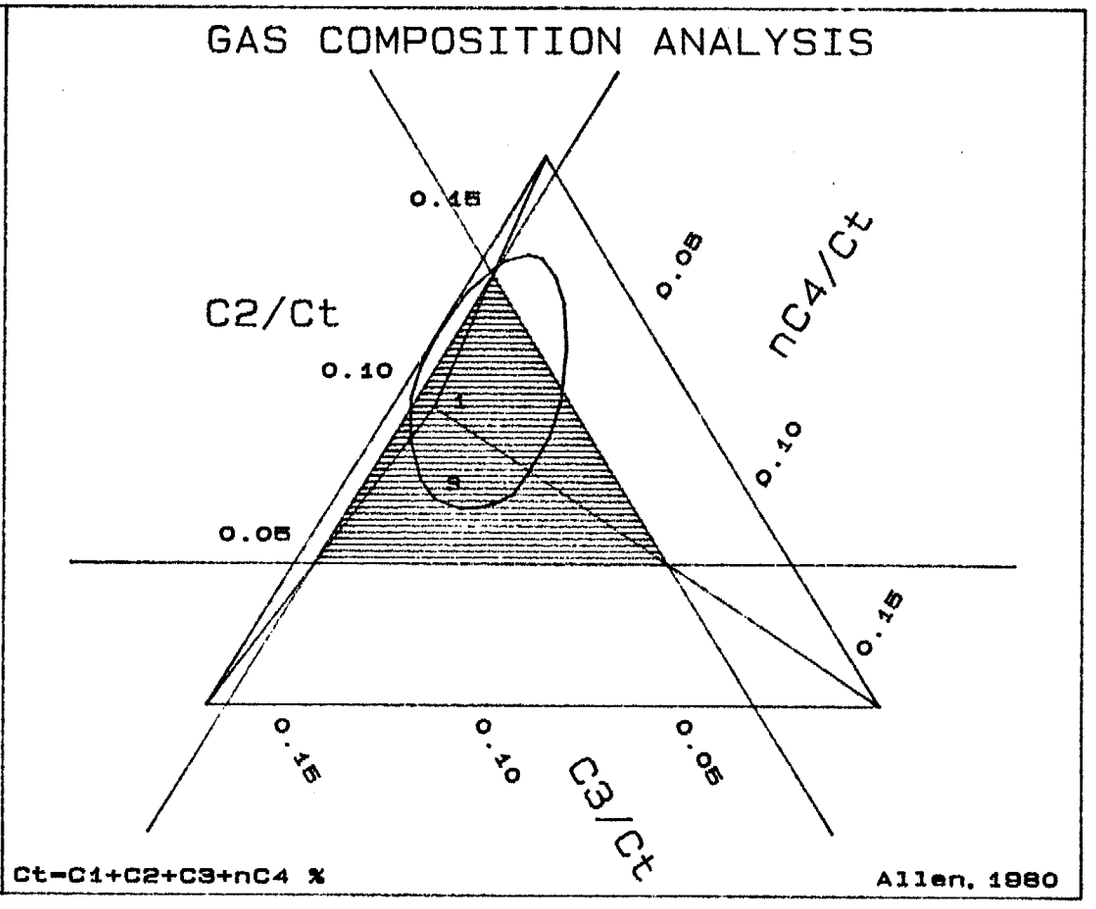
TRIANGULATION PLOT

The triangulation diagram is obtained by tracing lines on three scales at 120 degrees to each other, corresponding respectively to the ratios of C2, C3 and normal C4 to the total gas (C1 to C4). The scales are arranged in such a way that if the apex of the triangle is upward, a gas zone is indicated, while if the apex points downward, an oil zone is suggested.

A large triangle plot represents dry gas or low GOR oil, while small triangles represent wet gases or high GOR oils. The homothetic centre of the plot should fall inside the top part of the triangle, otherwise the heavier hydrocarbon is abnormal and may indicate a dead show, (or coal gas).

CORE LAB. INTL. LTD. Client: ESSO AUSTRALIA LTD. Well: WHITING NO.2

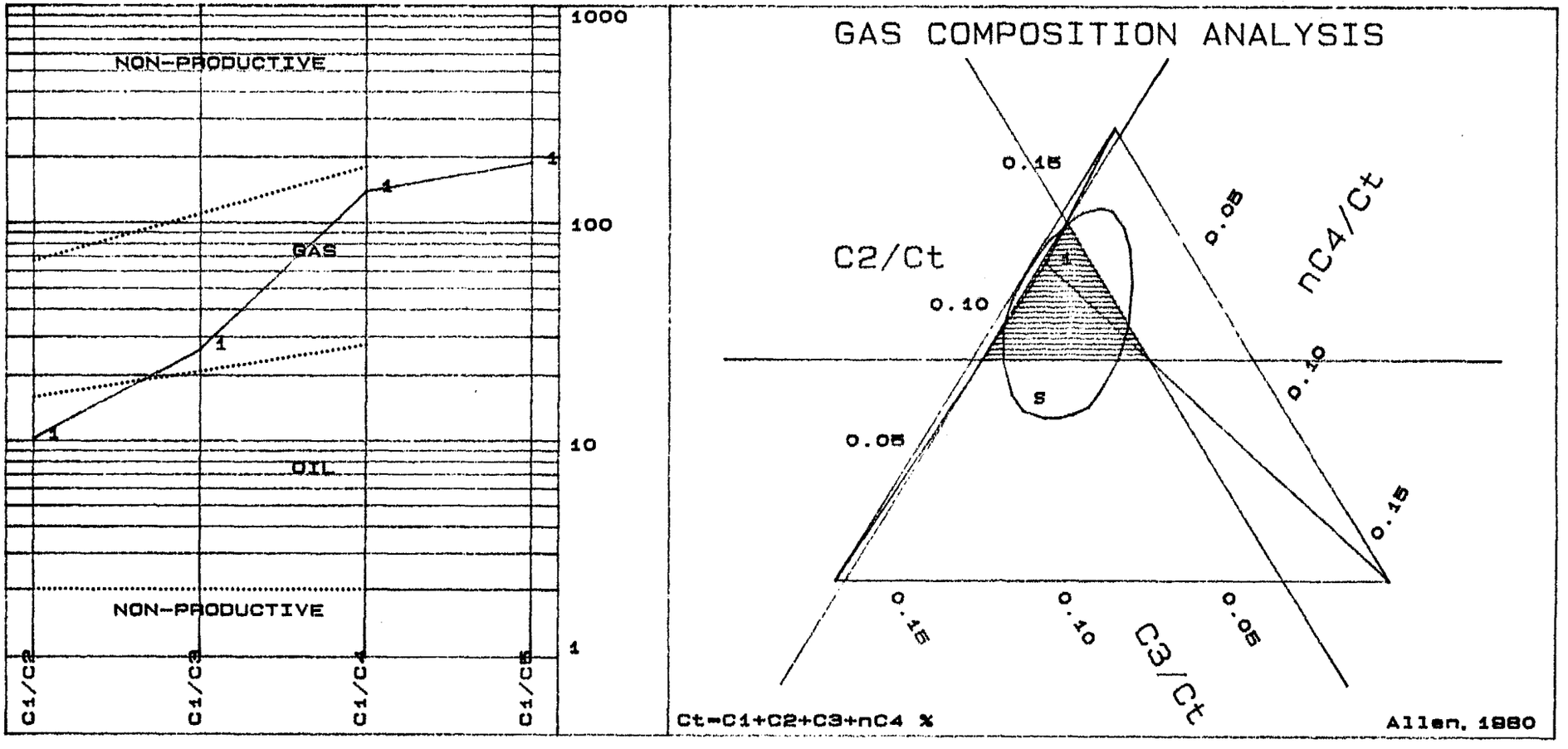




NO.	DEPTH	C1	C2	C3	iC4	nC4	C5	C6 %	Ct	C1/C2	C1/C3	C1/C4	C1/C5
1	1278	11.142	0.548	0.384	0.083	0.083	0.086	0.028	12.147	20	28	68	130

CONCLUSION: PRODUCTIVE GAS ZONE

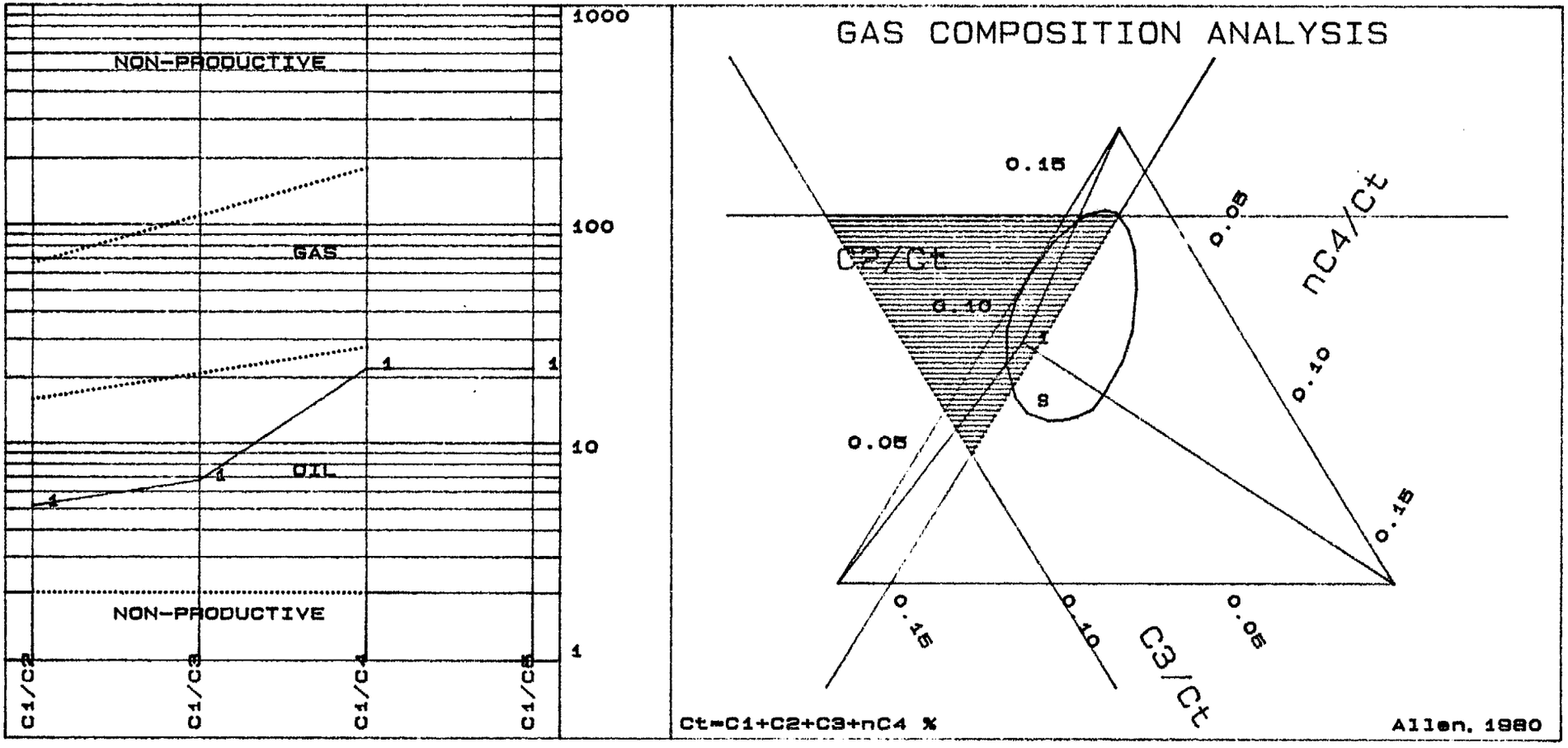
CORE LAB. INTL. LTD. Client: ESSO AUSTRALIA LTD. Well: WHITING NO.2



NO.	DEPTH	C1	C2	C3	iC4	nC4	C5	C6 %	Ct	C1/C2	C1/C3	C1/C4	C1/C5
1	1758	5.283	0.515	0.201	0.019	0.019	0.028	0.018	8.018	10	28	138	188

CONCLUSION: PRODUCTIVE GAS ZONE

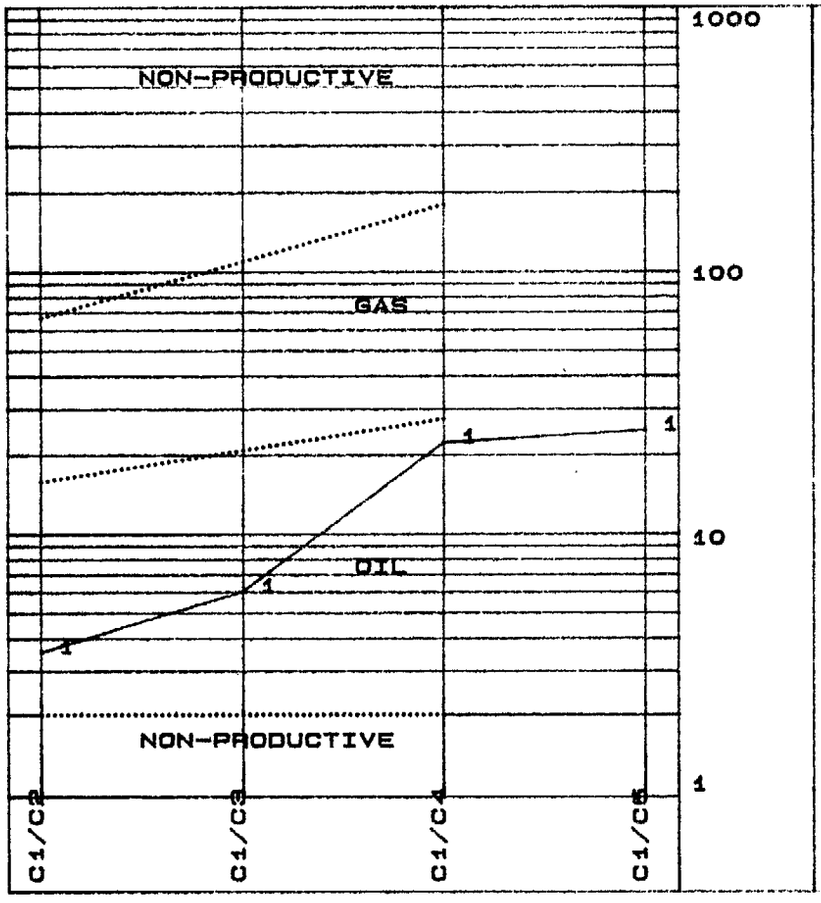
CORE LAB. INTL. LTD. Client: ESSO AUSTRALIA LTD. Well: WHITING NO.2

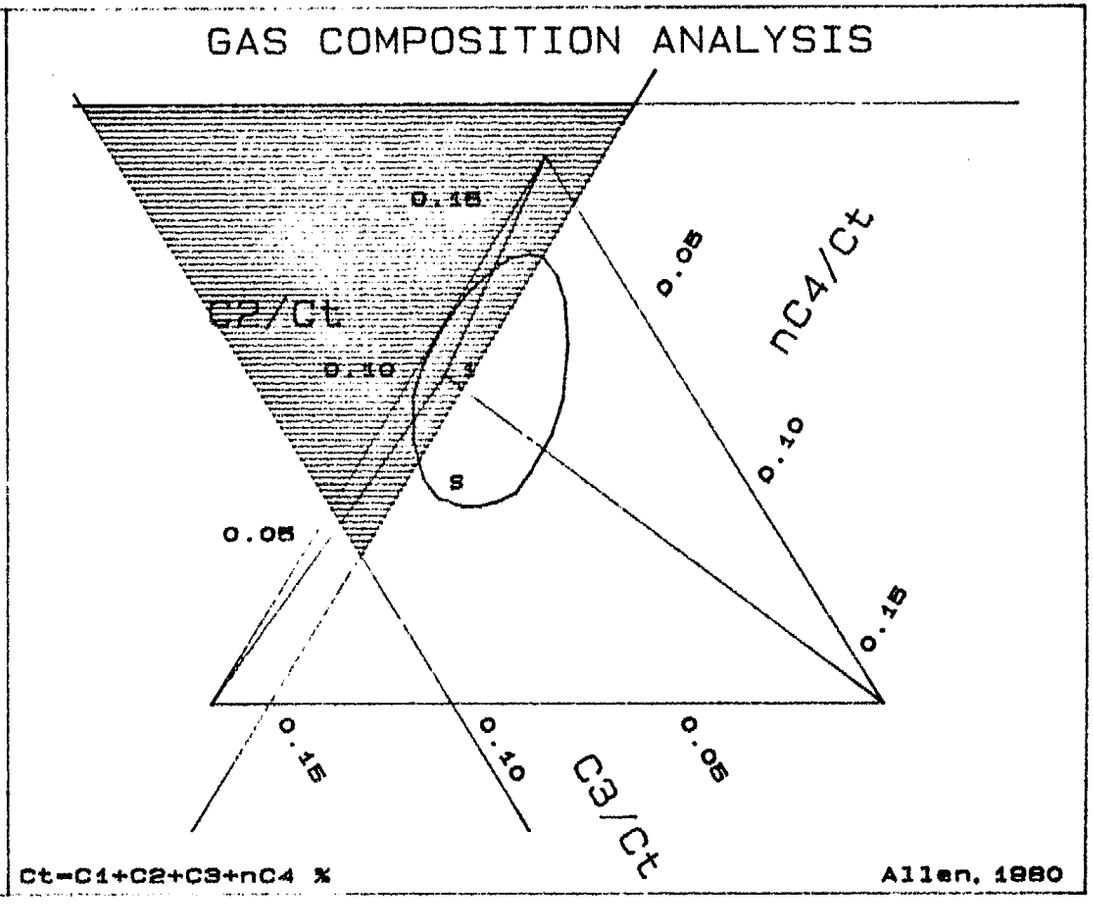


NO.	DEPTH	C1	C2	C3	iC4	nC4	C5	C6 %	Ct	C1/C2	C1/C3	C1/C4	C1/C5
1	1784	0.088	0.017	0.013	0.002	0.002	0.004	0.004	0.120	5	7	22	22

CONCLUSION: OIL ZONE

CORE LAB. INTL. LTD. Client: ESSO AUSTRALIA LTD. Well: WHITING NO.2

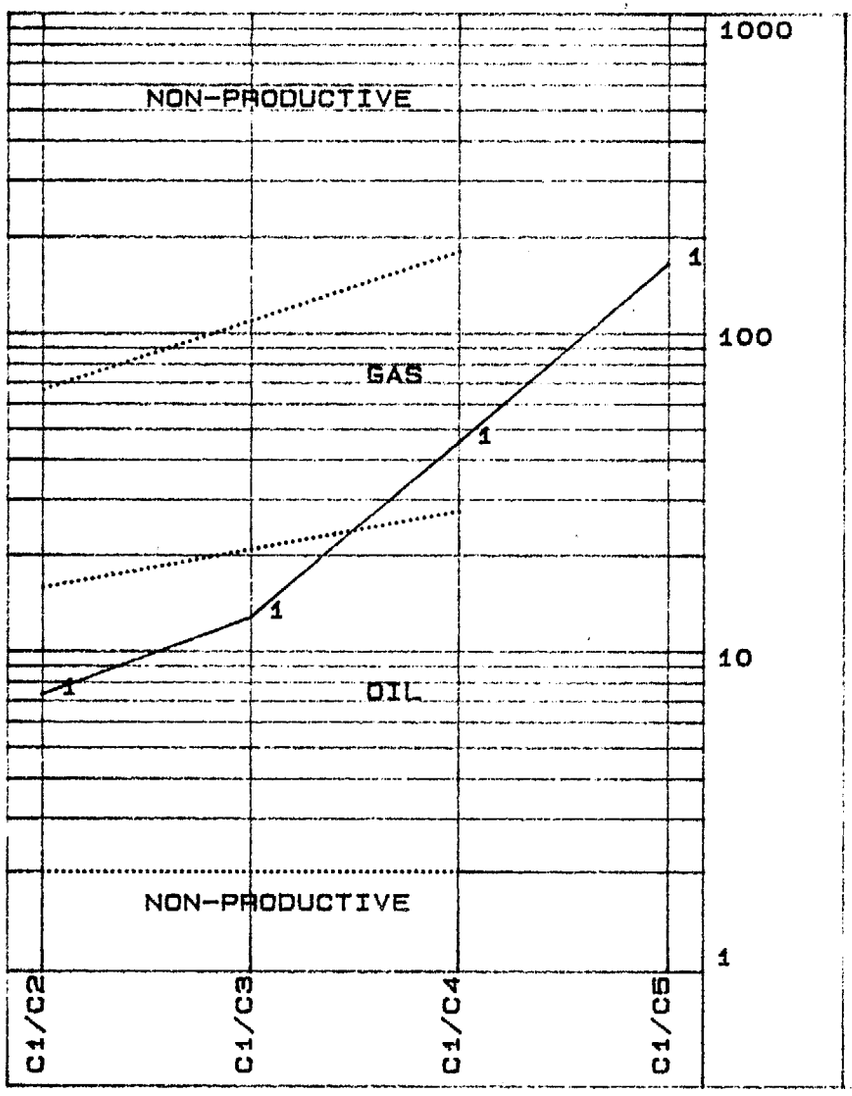


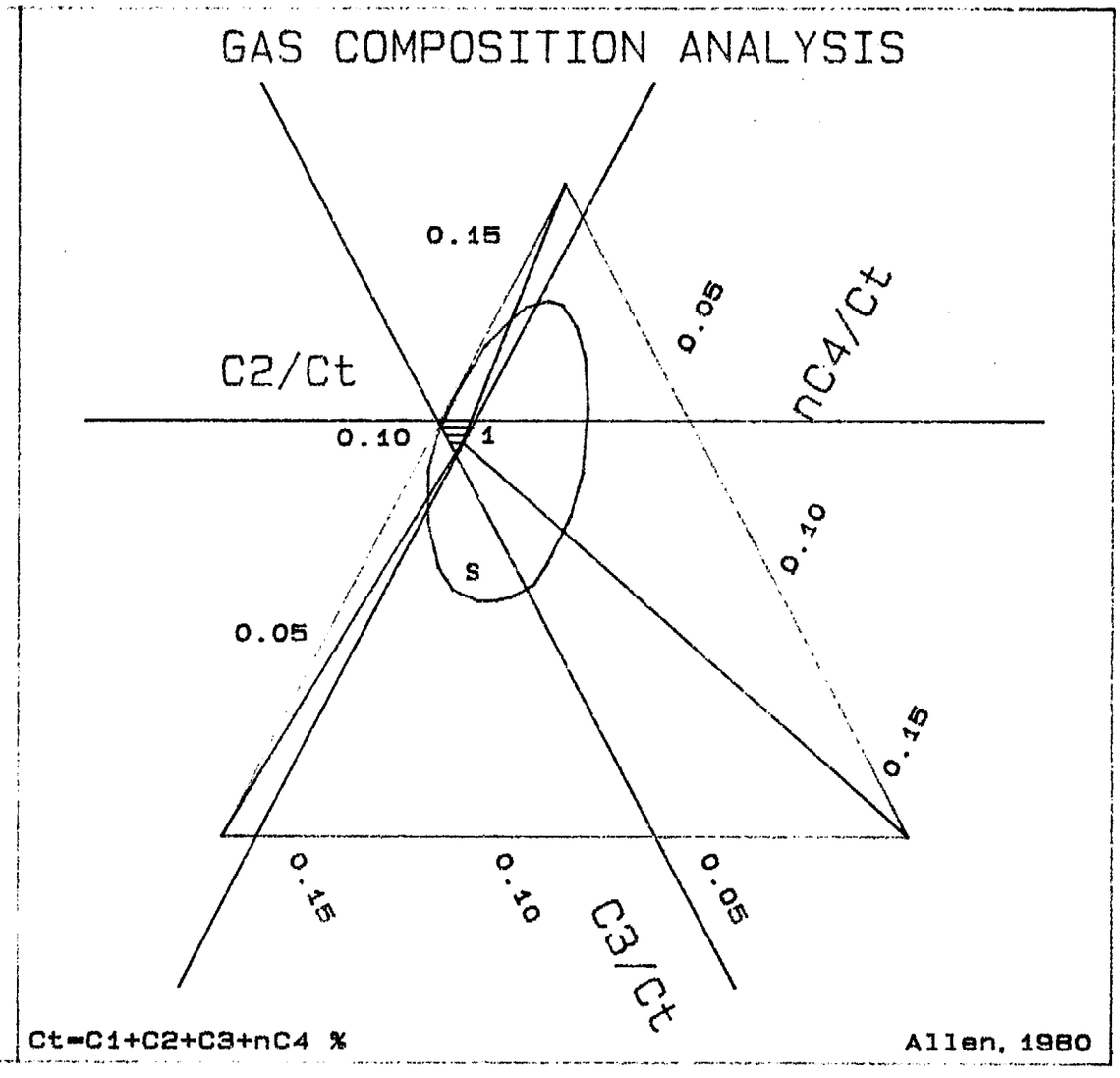


NO.	DEPTH	C1	C2	C3	iC4	nC4	C5	C6 %	Ct	C1/C2	C1/C3	C1/C4	C1/C5
1	1788	0.224	0.063	0.037	0.005	0.005	0.009	0.008	0.928	4	6	22	25

CONCLUSION: OIL ZONE

CORE LAB. INTL. LTD. Client: ESSO AUSTRALIA LTD Well: WHITING NO.2





NO.	DEPTH	C1	C2	C3	iC4	nC4	C5	C6 %	Ct	C1/C2	C1/C3	C1/C4	C1/C5
1	3124	4.478	0.612	0.352	0.050	0.050	0.027	0.011	5.492	7	13	45	165

CONCLUSION: TIGHT OIL ZONE, WITH HIGH G.O.R.

10. SAMPLES COLLECTED

SAMPLES FROM WHITING #2

A. Production Testing Samples from PWT's 1, 2, 3 & 3A

(55) 1 litre fluid cans of oil sample
(24) 5 litre fluid cans of oil sample
(1) 5 gall plastic bottle
(1) 5 gall jerry can
(2) Otis gas sample bottles

B. RFT Samples

(41) Containers of fluid samples

C. Air Dried Cuttings

(1) Sack 200 m - 1590 m
(1) Sack 1590 m - 2565 m
(1) Sack 2565 m - 3550 m

D. Oven Dried Cuttings

To Esso (1) Set 200 m - 2565 m
(1) Set 2565 m - 3550 m

To V.D.I.T.R. and B.M.R. (as above)

E. Fission Track Samples

(2) Sets 1160 m - 3550 m

F. Geochem Samples

(1) Set 225 - 3550 m

G. Cores

Core No. 1	(1)	PVC length
Core No. 2	(3)	PVC length
Core No. 3	(4)	Core boxes
Core No. 4	(1)	Core Box

H. Mud Samples

(1) Set 1199 m - 3521 m

11. CORELAB DATA SHEETS

BIT RECORD

BIT SIZE . . . . . Inches

BIT COST . . . . . Australian dollars

JET SIZE . . . . . Thirty-seconds of an inch

DEPTHS . . . . . Metres

HOLE MADE. . . . . Metres

DRILLING TIME. . . . . Hours

AVERAGE ROP. . . . . Metres/hour

AVERAGE COST/METRE . . Australian dollars

BIT CONDITION. . . . . Teeth

Bearings

Gauge . . . . Inches

BIT RECORD

COMPANY ESSO AUSTRALIA LIMITED
WELL WHITING #2

Sheet No. 1

Ser No.	Bit No.	Make	Type	IADC Code	Size (Inches)	Jets	Depth In Metres	Hole Made (m)	Drill Time	On Bottom Hours	On Bottom Turns K	Condition T B G	Remarks
LJ 321	1	HTC	OSC3AJ + HO	111	26	20/20/20	74	150	7	Not logged		1-1-I	Pulled to run 20" CSG
VD 439	1	HTC	OSC 3AJ	111	17½	20/20/20	224	591	23.75	18.73	140.6	2-2-I	Pulled to run 13 3/8" CSG
DL 464	2	HTC	J1	116	12¼	18/18/18	815	360	19	14.41	86.4	4-3-I	Pulled due to high torque
ZC 958	3	HTC	J22	517	12¼	16/16/18	1175	314	16	11.66	61.7	2-2-I	Pulled to cut core #1
82 B0801	3	CHRIS	RC4	4	9 7/8	15/15/15	1489	11.4	5 min	0.08	0.35	2%	Pulled to retrieve core #1
82 B0801	3	CHRIS	RC4	4	9 7/8	15/15/15	1500.4	11.2	11 min	0.19	0.95	4%	Pulled to retrieve core #2
205 XS	4	HTC	J22	517	12¼	16/16/16	1511.6	156.4	26.92	24.37	74.8	8-6-¼	Pulled due to high torque
607 PK	5	HTC	J44	617	12¼	16/16/16	1668	479	75.37	66.28	201.9	2-4-I	Pulled due to high hours
174 XS	6	HTC	J22	517	12¼	16/16/16	2147	193.5	40.75	35.97	107.5	6-4-1/16	Pulled due to low ROP's
TD 589	7	HTC	J33	537	12¼	16/16/16	2340.5	196.8	43.75	41.90	126.0	3-5-1/8	Pulled due to low ROP's
608 PK	8	HTC	J44	617	12¼	16/16/16	2537.3	198.6	60.00	55.17	167.6	3-4-1/8	Pulled due to high hours
175 FS	9	HTC	J33	537	12¼	16/16/16	2735.9	185.2	47.25	43.20	129.5	2-5-1/8	Pulled at T.D.
059 WX	10	HTC	J22	517	12¼	16/16/16	2921.1	247.8	58.25	54.61	164.2	6-6-1/8	Dulled
209 XS	11	HTC	J22	517	12¼	16/16/16	3168.9	119.7	38.50	35.11	107.2	8-4-I	Teeth worn out by conglomerates
204 RK	12	HTC	J44	617	12¼	16/16/16	3288.6	28.5	11	9.88	29.2	1-1-I	Out at core point (#3)
80E 505	12	CHRIS	C23	4	9.84	15/15/15	3317.1	8.9	4	3.86	18.5	100%	Out to recover core #3
921 SS	13	HTC	J44	617	12¼	16/16/16	3326.0	24	7.07	7.07	23.8	1-1-I	Pulled to run logs
327 GK	14	HTC	J7	316	8½	12/12/12	3350	5	5.0	3.33	11.9	7-5-I	Pulled after drilling shoe
373 SA	15	HTC	J33	537	8½	12/12/12	3355	115.4	31.27	27.58	85.6	7-4-I	Pulled to cut core #4
1440 618	15	CHRIS	C201	4	8½	15/15/15	3470.4	1.9	2.75	1.69	7.3	2%	Pulled due to jammed core
387 VS	16	HTC	J33	537	8½	12/12/12	3472.3	77.7	22.75	21.42	68.7	3-4-I	Pulled at T.D

BIT RECORD

COMPANY ESSO AUSTRALIA LIMITED
WELL WHITING #2

Sheet No. 1

Ser No.	Bit No.	Make	Type	IADC Code	Size (Inches)	Cost A$	Jets	Depth In (m)	Depth Out (m)	Hole Made m	Drill Time	On Bottom Hours	On Bottom TurnsK	Avg ROP	Avg Cost/m	Condition T B G
LJ 321	1	HTC	OSC 3AJ + HO	111	26	0	20/20/20	74	224	150	7	----------Not Logged----------				1-1-I
VD 439	1	HTC	OSC 3AJ	111	17½	4978	20/20/20	224	815	591	23.75	18.73	140.6	31.6	131.20	2-2-I
DL 464	2	HTC	J1	116	12¼	2566	18/18/18	815	1175	360	19	14.41	86.4	25.0	191.83	4-3-I
ZC 958	3	HTC	J22	517	12¼	8520	16/16/18	1175	1489	314	16	11.66	61.7	26.9	215.06	2-2-I
82 B0801	3	CHRIS	RC4	4	9 7/8	0	15/15/15	1489	1500.4	11.4	5 min	0.08	0.35	142.5	1691	2%
82 B0801	3	CHRIS	RC4	4	9 7/8	0	15/15/15	1500.4	1511.6	11.2	11 min	0.19	0.95	58.9	1759	4%
205 XS	4	HTC	J22	517	12¼	8520	16/16/16	1511.6	1668	156.4	26.92	24.37	74.8	6.4	747.19	8-6-¼
607 PK	5	HTC	J44	617	12¼	6919	16/16/16	1668	2147	479	75.37	66.28	201.9	7.2	562.47	2-4-I
174 XS	6	HTC	J22	517	12¼	8520	16/16/16	2147	2340.5	193.5	40.75	35.97	107.5	5.4	847.47	6-4-1/16
TD 589	7	HTC	J33	537	12¼	8266	16/16/16	2340.5	2537.3	196.8	43.75	41.90	126.0	4.7	953.15	3-5-1/8
608 PK	8	HTC	J44	617	12¼	6919	16/16/16	2537.3	2735.9	198.6	60.00	55.17	167.6	3.6	1196.45	3-4-1/8
175 FS	9	HTC	J33	537	12¼	8266	16/16/16	2735.9	2921.1	185.2	47.25	43.20	129.5	4.3	1064.12	2-5-1/8
059 WX	10	HTC	J22	517	12¼	8520	16/16/16	2921.1	3168.9	247.8	58.25	54.61	164.2	4.5	966.40	6-6-1/8
209 XS	11	HTC	J22	517	12¼	8520	16/16/16	3168.9	3288.6	119.7	38.50	35.11	107.2	3.4	1416.96	8-4-I
204 RK	12	HTC	J44	617	12¼	6919	16/16/16	3288.6	3317.1	28.5	11	9.88	29.2	2.9	2662.06	1-1-I
80E 505	12	CHRIS	C-23	4	9.84	0	15/15/15	3317.1	3326.0	8.9	4	3.86	18.5	2.3	5276.93	100%
921 SS	13	HTC	J44	617	12¼	6919	16/16/16	3326.0	3350.0	24	7.07	7.07	23.8	3.4	2749.00	1-1-I
327 GK	14	HTC	J7	316	8½	1475	12/12/12	3350	3355	5	5.0	3.33	11.9	1.5	9374.00	7-5-I
373 SA	15	HTC	J33	537	8½	4455	12/12/12	3355	3470.4	115.4	31.27	27.58	85.6	4.2	1199.00	7-4-I
1440618	15	CHRIS	C-201	4	8½	0	15/15/15	3470.4	3472.3	1.9	2.75	1.69	7.3	1.1	22469.41	2%
387 VS	16	HTC	J33	537	8½	4455	12/12/12	3472.3	3550.0	77.7	22.75	21.42	68.7	3.6	1524.72	3-4-I

MUD INFORMATION SHEETS

DEPTH . . . . . Metres

MUD WEIGHT . . . . . Pounds per gallon

FUNNEL VISCOSITY . . . A.P.I.seconds

PLASTIC VISCOSITY. . . Centipoise

YIELD POINT. . . . . Pounds/100 square feet

GEL : INITIAL/10 min . Pounds/100 square feet

FILTRATE . . . . . A.P.I. c.c.

CAKE THICKNESS . . . . Thirty-seconds of an inch

SALINITY : Ca/Cl . . . ppm

SOLIDS/SAND/OIL. . . . Percentage

MUD INFORMATION SHEET

COMPANY ESSO AUSTRALIA LIMITED
WELL WHITING #2

Sheet No. 1

DEPTH	224	406	770	815	1177	1455
DATE	23/4/85	24/4/85	25/4/85	26/4/85	27/4/85	28/4/85
TIME		23:00	16:00	13:00	16:00	14:30
WEIGHT	8.7	9.0	9.0	9.0	9.0	9.6
FUNNEL VISCOSITY		33	37	37	38	40
PV/YP	S	4/8	3/18	3/20	4/17	5/15
N/K	E	0.41/0.90	0.19/6.32	0.18/7.64	0.25/4.38	0.32/2.69
GEL: INITIAL/10 MIN	A	4/5	11/14	11/14	6/11	-
pH	W	9.6	9.5	9.2	10.0	10.0
FILTRATE:API/API HTHP	A	-	-	-	11/20	10/18
CAKE	T	-	-	-	1	1
SALINITY (PPM)	E	21,000	19,000	19,000	18,500	18,000
SAND	R	0.5	TR	TR	TR	TR
SOLIDS		5	5	5	7	7
OIL		0	0	0	0	0
TRITIUM (DPM)					3035	3157
REMARKS:	Spud	20" CSG		13 3/8" CSG		
		Drill 17½" hole		Drill 12¼" hole		

DEPTH	1515	1656	1668	1668	1785	1893
DATE	29/4/85	30/4/85	1/5/85	2/5/85	3/5/85	4/5/85
TIME	15:10	14:40	13:00	13:00	21:00	13:00
WEIGHT	9.6	9.5	9.5	9.6	9.5	9.6
FUNNEL VISCOSITY	38	45	44	48	47	45
PV/YP	5/11	9/12	8/16	7/21	10/19	10/20
N/K	0.39/1.39	0.51/0.85	0.41/1.81	0.32/3.76	0.43/2.02	0.41/2.26
GEL: INITIAL/10 MIN	11/23	5/18	10/21	11/26	10/28	12/39
pH	10.5	10.6	10.2	10.8	10.6	10.8
FILTRATE:API/API HTHP	14/22	8.5/15	9/16	8/15	7/15	8/17
CAKE	1	1	1	1	1	1
SALINITY (PPM)	18,000	18,000	18,000	18,000	17,000	16,000
SAND	TR	TR	TR	TR	TR	TR
SOLIDS	7	8	7	7	8	8
OIL	0	0	0	0	0	0
TRITIUM (DPM)	3046	3215	-	3168	3062	3149
REMARKS:	Core #1		-------Logging------		Drill 12¼" hole	
	Core #2					
	-----12¼" hole-----					

MUD INFORMATION SHEET

COMPANY ESSO AUSTRALIA LIMITED
WELL WHITING #2

Sheet No. 2

DEPTH	2020	2135	2230	2330	2340	2479
DATE	5/5/85	6/5/85	7/5/85	8/5/85	9/5/85	10/5/85
TIME	14:00	11:30	17:30	14:00	16:20	21:00
WEIGHT	9.5	9.5	9.5	9.4+	9.5	9.5
FUNNEL VISCOSITY	48	50	50	49	47	40
PV/YP	10/26	14/28	13/28	12/30	12/24	9/20
N/K	0.35/3.97	0.41/3.16	0.40/3.45	0.36/4.38	0.41/2.71	0.39/2.55
GEL: INITIAL/10 MIN	15/42	24/95	16/40	21/36	11/30	11/24
pH	11.0	10.4	10.3	10.8	10.2	10.3
FILTRATE:API/API HTHP	8/17	7.5/17	7.5/17	8.5/19	8.5/20	8.5/19
CAKE	1	1	1	1	1	1
SALINITY (PPM)	15,000	16,000	16,000	17,000	18,000	20,000
SAND	TR	TR	TR	TR	TR	TR
SOLIDS	8	7	6	7	7	8
OIL	0	0	-	-	-	-
TRITIUM (DPM)	3245	3210	3208	3238	3162	3200

REMARKS: ----------Drilled 12¼" hole----------

DEPTH	2542	2623	2680	2738	2828	2920
DATE	11/5/85	12/5/85	13/5/85	14/5/85	15/5/85	16/5/85
TIME	18:20	16:00	15:30	19:00	15:20	18:45
WEIGHT	9.4+	9.4+	9.5	9.5+	9.5+	9.5+
FUNNEL VISCOSITY	42	39	42	42	41	41
PV/YP	9/22	7/18	10/20	11/21	14/24	15/20
N/K	0.37/3.13	0.36/2.72	0.41/2.26	0.43/2.25	0.45/2.26	0.51/1.42
GEL: INITIAL/10 MIN	9/22	11/23	14/30	7.5/22	12/29	10/25
pH	10.4	10.5	10.1	10.5	10.5	10.5
FILTRATE:API/API HTHP	9/22	8.5/20	9/22	7.5/19	9/22	8.5/20
CAKE	1	1	1	1	1	1
SALINITY (PPM)	22,000	23,000	23,000	24,000	25,000	25,000
SAND	TR	TR	TR	TR	TR	TR
SOLIDS	8	8	8	8	9	9
OIL	-	-	-	-	-	-
TRITIUM (DPM)	3239	3191	3241	3214	3226	3250

REMARKS: Drilled 12¼" hole

MUD INFORMATION SHEET

COMPANY ESSO AUSTRALIA LIMITED
WELL WHITING #2

Sheet No. 3

DEPTH	2921	2921	2923	2987	3095	3168
DATE	17/5/85	18/5/85	19/5/85	20/5/85	21/5/85	22/5/85
TIME	PIT	01:30	19:40	13:00	13:00	13:00
WEIGHT	9.5	9.4+	9.5+	9.5+	9.5	9.6
FUNNEL VISCOSITY	40	59	44	38	37	37
PV/YP	15/21	14/22	14/24	11/21	10/24	10/21
N/K	0.50/1.57	0.47/1.88	0.45/2.26	0.43/2.25	0.37/3.35	0.40/2.51
GEL: INITIAL/10 MIN	9/25	9/25	9/21	12/30	16/39	15/37
pH	10.3	10.3	10.6	10.0	10.5	9.8
FILTRATE:API/API HTHP	8.5/20	8.5/20	9/21	8/18	12/24	9/18
CAKE	1	1	1	1	1	1
SALINITY (PPM)	25,000	25,000	24,000	19,000	21,000	22,000
SAND	TR	TR	TR	TR	TR	TR
SOLIDS	8	8	8	8	8	8
OIL	-	-	-	-	-	0
TRITIUM (DPM)			3203	3202	3099	3212
REMARKS:	----Logging------		----------12¼"hole----------			Logged

DEPTH	3168	3236	3290	3317	3335	3350
DATE	23/5/85	25/5/85	26/5/85	27/5/85	28/5/85	29/5/85
TIME	01:00	18:00	22:00	20:00	18:00	14:00
WEIGHT	9.5	10.0	10.0	10.0	10.1	10.0
FUNNEL VISCOSITY	37	37	41	39	37	43
PV/YP	9/21	10/23	10/25	10/25	10/25	10/25
N/K	0.38/2.83	0.38/3.05	0.36/3.65	0.36/3.65	0.36/3.65	0.36/3.65
GEL: INITIAL/10 MIN	14/36	16/38	16/41	16/35	16/37	18/43
pH	10.4	10.5	10.5	10.5	10.6	10.5
FILTRATE:API/API HTHP	8/17	7/15	6/13	5/13	5/13	5/13
CAKE	1	1	1	1	1	1
SALINITY (PPM)	22,000	22,000	22,000	22,000	22,000	22,000
SAND	TR	TR	TR	TR	TR	TR
SOLIDS	8	8	8	8	8	8
OIL	0	0	0	0	0	0
TRITIUM (DPM)	3212	3114	3168	3109	3059	-
REMARKS:	Logged	Drilled 12¼" hole		Cut Core #3		
				Drilled 12¼" hole		Logged

MUD INFORMATION SHEET

COMPANY ESSO AUSTRALIA LIMITED
WELL WHITING #2

Sheet No. 4

DEPTH	3350	3350	3350	3350	3360	3429
DATE	30/5/85	31/5/85	1/6/85	2/6/85	3/6/85	4/6/85
TIME	13:00	11:20	13:00	13:00	22:00	15:00
WEIGHT	10.0	10.0	10.0	10.0	9.9	10.0
FUNNEL VISCOSITY	44	37	36	38	43	42
PV/YP	10/25	8/17	8/16	8/17	10/22	11/21
N/K	0.36/3.65	0.40/2.06	0.41/1.81	0.40/2.06	0.39/2.77	0.43/2.25
GEL: INITIAL/10 MIN	18/43	12/28	12/27	12/27	17/30	15/25
pH	10.5	9.8	9.8	10.0	11.0	10.5
FILTRATE:API/API HTHP	5/13	5/13	5/13	5/13	5/14	5.5/13
CAKE	1	1	1	1	1	1
SALINITY (PPM)	22,000	22,000	22,000	22,000	23,000	23,000
SAND	TR	TR	TR	TR	TR	TR
SOLIDS	8	7	7	7	10	10
OIL	0	0	0	0	0	0
TRITIUM (DPM)	-	-	-	-	3079	3205
REMARKS:	Logged	Wiper Trip	Ran 9 5/8" CSG	Drilled Cement	Drilled 8½" hole	

DEPTH	3470	3474	3496	3550	3550	3331
DATE	5/6/85	6/6/85	7/6/85	8/6/85	9/6/85	10/6/85
TIME	18:20	19:00	19:50	00:30	04:15	14:30
WEIGHT	10	10.5	11.0	10.9+	19.9+	10.0
FUNNEL VISCOSITY	44	45	45	47	47	48
PV/YP	12/21	14/22	14/22	14/24	14/22	14/16
N/K	0.45/2.03	0.47/1.88	0.47/1.88	0.45/2.26	0.47/1.88	0.57/0.89
GEL: INITIAL/10 MIN	11/23	15/30	17/32	18/33	15/30	6/17
pH	10.5	10.5	10.3	10.6	10.3	11.0
FILTRATE:API/API HTHP	5.5/13	5.5/14	6.0/15	6.0/14	6.0/14	9/-
CAKE	1	1	1	1	1	1
SALINITY (PPM)	25,000	26,000	26,000	26,000	26,000	20,000
SAND	TR	TR	TR	TR	TR	TR
SOLIDS	11	13	14	14	14	12
OIL	-	-	-	-	-	-
TRITIUM (DPM)	3242	3148	3229	3205	3204	3180
REMARKS:	----------Drill 8½" hole----------				Logging	P & A

R.F.T. DATA

R.F.T. SAMPLING DATA SHEET

COMPANY ESSO AUSTRALIA LIMITED
WELL WHITING #2

Sheet No. 1

RUN No.	2	2	3	3	4	4
SEAT No.	16	16	17	17	18	18
CHAMBER CAPACITY (litres)	22.7	10.4	22.7	10.4	22.7	3.8
DEPTH (metres)	1278.0	1278.0	1490.0	1490.0	1451.5	1451.5
RECOVERY VOLUMES						
GAS (Cu Ft)	1.25	0.1	3.6	Preserved	2	Preserved
OIL (cc)	Scum	Scum	21,750		21,000	
WATER/FILTRATE (cc)	21,750	9,250			1,600	
OTHER (cc)					Mud Scum	
SURFACE PRESSURE (PSI)	250	45	55		35	
GAS COMPOSITION						
C1 (PPM)	93,736	Insufficient	175,247		52,981	
C2 (PPM)	9,504	sample	13,824		42,624	
C3 (PPM)	1,873		7,729		38,883	
C4 (PPM)	1,158		2,780		24,558	
C5 (PPM)	420		911		16,819	
C6 (PPM)	232		175		19,195	
CO2 (%)	TR		1		TR	
H2S (PPM)	8		160		>200	
OIL PROPERTIES						
DENSITY (°API at 60°F)	39.5 RI	38 RI	56.4		55.2	
COLOUR	Rust bn	Dark bn & tan	Plum		Dark bn-tan	
FLUORESCENCE	Grey/white	Grey/white	White		White	
POUR POINT (°C)	-	-	-			
WATER PROPERTIES						
RESISTIVITY (Ωm)	0.323/20°C	0.323/20°C	-		0.542/21°C	
Cl (frm resis) (PPM)	21,000	21,000	-		12,000	
Cl (frm titrat) (PPM)	13,300	14,000	-		-	
NITRATES (PPM)						
pH						
TRITIUM (DPM) Drill	3466	3466			2950	
Sample	2850	2860			110	
COMMENTS			Oil density 53° API @ 60°F by R.I.		Oil density 53° API @ 60°F by R.I.	

R.F.T. SAMPLING DATA SHEET

COMPANY ESSO AUSTRALIA LIMITED
WELL WHITING #2

Sheet No. 2

RUN No.	6	6	7	7	8	8
SEAT No.	47	47	48	48	49	49
CHAMBER CAPACITY (litres)	22.7	10.4	22.7	10.4	22.7	10.4
DEPTH (metres)	2632.5	2632.5	2615.5	2615.5	1538.0	1538.0
RECOVERY VOLUMES						
GAS (Cu Ft)	2.6	4.5	36.8	40.6	2.1	1.2
OIL (cc)	Scum	500	-	-	21,000	9,200
WATER/FILTRATE (cc)	11,750	2,800	15,750	1,000	-	-
OTHER (cc)			100 (cond)	200 (cond)	-	-
SURFACE PRESSURE (PSI)	100	250	1,650	1,800	<100	<100
GAS COMPOSITION						
C1 (PPM)	NO	293,785	350,208	357,990	51,750	NO
C2 (PPM)		91,852	103,629	80,077	11,776	
C3 (PPM)	S	61,286	21,888	21,401	9,728	S
C4 (PPM)	A	41,932	6,336	10,137	691	A
C5 (PPM)	M	19,430	1,549	985	282	M
C6 (PPM)	P	843	545	496	87	P
CO2 (%)	L	4	12	14	-	L
H2S (PPM)	E	-	-	-	-	E
OIL PROPERTIES						
DENSITY (°API at 60°F)	39	38	44.5	44.3	59	59
COLOUR	Pale brn	Pale brn	Straw yel	Straw yel	Lt brn	Lt brn
FLUORESCENCE	Blue/yel	Blue/yel	Bright wh	Bright wh	Blue/wh	Blue/wh
POUR POINT (°C)						
WATER PROPERTIES						
RESISTIVITY (Ωm)	0.211 @ 17.5 °C	0.2275 @ 18.5 °C	0.208 @ 22°C	0.210 @ 22°C		
Cl (frm resis) (PPM)	36,000	34,000	33,000	33,000		
Cl (frm titrat) (PPM)	23,000	23,000	23,000	23,000		
NITRATES (PPM)						
pH						
TRITIUM (DPM) Drill	3170	3170	3185	3185		
Sample	3063	3033	3010	3034		
COMMENTS	Waxy	Waxy	Filtrate	Filtrate		

R.F.T. SAMPLING DATA SHEET

COMPANY ESSO AUSTRALIA LIMITED
WELL WHITING #2

Sheet No. 3

RUN No.	9	9	10	10	11	11
SEAT No.	50	50	54	55	56	57
CHAMBER CAPACITY (litres)	22.7	10.4	22.7	10.4	22.7	10.4
DEPTH (metres)	2360	2360	2256.5	1723.5	2256.5	2256.5
RECOVERY VOLUMES						
GAS (Cu Ft)	77.3	49.3	5.6	0.7	68.5	45.3
OIL (cc)						
WATER/FILTRATE (cc)	8,000	1,200	-	9,500	6,700	1,500
OTHER (cc) (Cond)	250	150	(mud) 22.4	-	Film	Film
SURFACE PRESSURE (PSI)	1,860	1,820	1,000	300	1,500	1,750
GAS COMPOSITION						
C1 (PPM)	194,560	381,338	225,690	338,534	354,099	365,773
C2 (PPM)	80,077	32,973	68,301	82,432	75,366	75,366
C3 (PPM)	18,483	12,160	33,075	25,293	27,238	24,320
C4 (PPM)	14,285	3,802	11,981	21,427	9,446	9,216
C5 (PPM)	7,373	1,197	5,210	9,856	3,379	3,590
C6 (PPM)	3,373	446	2,778	2,207	1,091	1,388
CO2 (%)	14	16	4	1	12	15
H2S (PPM)	-	-	-	-	-	TR
OIL PROPERTIES						
DENSITY (°API at 60°C)	47	47				50
COLOUR	Clr yell	Clr yell				Clear
FLUORESCENCE	Wh/blue	Wh/blue				Blue/wh
POUR POINT (°C)						
WATER PROPERTIES						
RESISTIVITY (Ωm)	0.210 @ 20°C	0.223 @ 20°C			0.218 @ 17°C	0.244 @ 13°C
Cl (frm resis) (PPM)	34,000	32,000			36,000	36,000
Cl (frm titrat) (PPM)	23,000	23,000		13,000	23,000	23,000
NITRATES (PPM)						
pH						
TRITIUM (DPM) Drill	3103	3103		3200	3142	3142
Sample	2956	2697		1357	2907	2851

COMMENTS

R.F.T. SAMPLING DATA SHEET

COMPANY ESSO AUSTRALIA LIMITED
WELL WHITING #2

Sheet No. 4

RUN No.	12	12	13	13	15	15
SEAT No.	58	58	61	61	82	82
CHAMBER CAPACITY (litres)	45.4	10.4	45.4	10.4	45.4	10.4
DEPTH (metres)	2617	2617	2829.1	2629.1	3052.2	3052.2
RECOVERY VOLUMES						
GAS (Cu Ft)	228	58.2				
OIL (cc)			500	2,000		
WATER/FILTRATE (cc)	7,000	580	15,000	4,250	7,500	5,250
OTHER (cc) (Cond)	1,100	270				
SURFACE PRESSURE (PSI)	1,900	1,900	100	800		
GAS COMPOSITION						
C1 (PPM)	561,971	632,217		52,826		
C2 (PPM)	80,936	72,417		76,212		
C3 (PPM)	35,225	24,657		28,962		
C4 (PPM)	9,062	4,648		9,279		
C5 (PPM)	5,811	2,620		7,588		
C6 (PPM)	1,104	607		1,766		
CO2 (%)	2	12		5		
H2S (PPM)						
OIL PROPERTIES						
DENSITY (°API at 60°F)	49	52	40	42		
COLOUR	Clear	Clear	Dk brn	Dk brn		
FLUORESCENCE	Brt wh	Brt wh	Blue/wh	Blue/wh		
POUR POINT (°C)						
WATER PROPERTIES						
RESISTIVITY (Ωm)	0.217	0.251	0.222	0.271	0.238	0.213
Cl (frm resis) (PPM)	33,000	27,800	32,000	25,416	29,333	33,250
Cl (frm titrat) (PPM)	21,000	18,000	20,000	19,000	18,000	22,000
NITRATES (PPM)						
pH						
TRITIUM (DPM) Drill	3255	3255	3255	3255	3035	3035
Sample	2954	2458	2960	2729	2847	3245
COMMENTS	45 API by R.I. @ 60°F	45 API by R.I. @ 60°F	41 API by R.I. @ 60°F	43 API by R.I. @ 60°F		

R.F.T. SAMPLING DATA SHEET

COMPANY ESSO AUSTRALIA LIMITED
WELL WHITING #2

Sheet No. 5

RUN No.	16	16	17	17	18	18
SEAT No.	83	83	89	89	90	90
CHAMBER CAPACITY (litres)	45.4	10.4	45.4	10.4	45.4	10.4
DEPTH (metres)	2954	2954	2606.0	2606.0	3207.5	3207.5
RECOVERY VOLUMES						
GAS (Cu Ft)	56.55	37.5	-	-	1.0	0.20
OIL (cc)						
WATER/FILTRATE (cc)	18,500	4,000	1,500	-	34,000	9,000
OTHER (cc) (Cond)	300	200	-	-	-	-
SURFACE PRESSURE (PSI)	810	1,800	-	-	<100	300
GAS COMPOSITION						
C1 (PPM)	632,217	642,755	-	-	-	-
C2 (PPM)	68,157	72,417	-	-	-	-
C3 (PPM)	22,896	24,657	-	-	-	-
C4 (PPM)	3,058	3,625	-	-	-	-
C5 (PPM)	299	454	-	-	-	-
C6 (PPM)	69	76	-	-	-	-
CO2 (%)	2	7	-	-	-	-
H2S (PPM)	-	-	-	-	-	-
OIL PROPERTIES						
DENSITY (°API at 60°F)	50	51	-	-	-	-
COLOUR	Lt pink	Clear	-	-	-	-
FLUORESCENCE	Brt wh	Brt wh	-	-	-	-
POUR POINT (°C)						
WATER PROPERTIES						
RESISTIVITY (Ωm)	0.184	0.218	0.418	-	0.209	0.187
Cl (frm resis) (PPM)	39,250	32,750	16,250	-	34,250	38,000
Cl (frm titrat) (PPM)			10,000	-	24,000	24,000
NITRATES (PPM)						
pH						
TRITIUM (DPM) Drill	3218	3218	3213	-	3114	3114
Sample	3030	2780	1300	-	3000	2930
COMMENTS	47° API by R.I. @ 60°F	46° API by R.I. @ 60°F	Very Tight			

PORE PRESSURE DATA SHEET

COMPANY : ESSO AUSTRALIA LTD. DATA FROM RFT'S

WELL : WHITING No.2

DEPTH (FROM RKB)	DEPTH (FROM MSL)	PORE PRESS	PORE PRESS GRADIENT E.M.W.(MSL)	PORE PRESS GRADIENT
METRES	TVD. METRES	PSIA	PPG	PSI/M
1278.0	1257.0	1785.70	8.327	1.421
1278.2	1257.2	1785.60	8.325	1.420
1280.5	1259.5	1787.70	8.320	1.419
1356.5	1335.5	1895.00	8.317	1.419
1411.5	1390.5	1971.90	8.312	1.418
1451.5	1430.5	2032.90	8.330	1.421
1451.5	1430.5	2033.50	8.332	1.422
1455.0	1434.0	2037.20	8.327	1.421
1490.0	1469.0	2083.80	8.315	1.419
1490.0	1469.0	2086.80	8.327	1.421
1493.0	1472.0	2086.40	8.308	1.417
1538.0	1517.0	2149.00	8.304	1.417
1538.0	1517.0	2150.00	8.307	1.417
1543.5	1522.5	2155.90	8.300	1.416
1620.5	1599.5	2264.80	8.300	1.416
1620.5	1599.5	2263.30	8.294	1.415
1693.0	1672.0	2369.40	8.307	1.417
1720.0	1699.0	2414.30	8.329	1.421
1723.5	1702.5	2416.00	8.318	1.419
1723.5	1702.5	2418.30	8.326	1.420
1735.0	1714.0	2434.70	8.326	1.420
1738.0	1717.0	2437.40	8.321	1.420
1747.5	1726.5	2450.50	8.320	1.419
2067.0	2046.0	2922.00	8.371	1.428
2214.0	2193.0	3130.50	8.367	1.427
2254.0	2233.0	3199.00	8.397	1.433
2254.0	2233.0	3202.00	8.405	1.434
2256.5	2235.5	3208.00	8.412	1.435
2256.5	2235.5	3204.00	8.401	1.433
2256.5	2235.5	3202.00	8.396	1.432
2279.5	2258.5	3220.80	8.359	1.426
2360.0	2339.0	3361.00	8.423	1.437
2432.0	2411.0	3425.30	8.328	1.421
2489.0	2468.0	3549.30	8.430	1.438
2537.5	2516.5	3578.20	8.335	1.422
2583.0	2562.0	3703.80	8.474	1.446
2600.5	2579.5	3707.30	8.424	1.437
2615.5	2594.5	3736.00	8.441	1.440

DEPTH (FROM RKB)	DEPTH (FROM MSL)	PORE PRESS	PORE PRESS GRADIENT E.M.W.(MSL)	PORE PRESS GRADIENT
METRES	TVD. METRES	PSIA	PPG	PSI/M
2617.0	2596.0	3718.20	8.395	1.432
2617.0	2596.0	3701.30	8.357	1.426
2629.1	2608.1	3715.30	8.350	1.425
2630.0	2609.0	3744.00	8.412	1.435
2632.5	2611.5	3744.00	8.404	1.434
2633.0	2612.0	3740.00	8.393	1.432
2701.5	2680.5	3835.30	8.387	1.431
2756.5	2735.5	3974.90	8.517	1.453
2954.0	2933.0	4194.30	8.382	1.430
3052.2	3031.2	4335.30	8.383	1.430
3207.5	3186.5	4944.30	9.095	1.552

PRODUCTION TEST DATA

PRODUCTION TEST DATA SHEET (LIQUIDS)

COMPANY ESSO AUSTRALIA LIMITED — WELL WHITING #2
TEST NO. 1 — PERFORATIONS 3325.1 m - 3315.2 m
FLOW PERIOD REVERSE CIRCULATION — DATE 16/6/85 — SHEET NO. 1

PUMP STROKES	SAMPLING POINT	SHAKE-OUT (%) OIL	H_2O	SOLIDS	°API at 60°F	COLOUR	POUR POINT	WATER Chlor	Trit	pH	COMMENTS
200	CHOKE MAN				35.6						Diesel
250	CHOKE MAN				36.6						Diesel
300	CHOKE MAN				36.5						Diesel
350	CHOKE MAN				36.6						Diesel
400	CHOKE MAN				36.4						Diesel
425	CHOKE MAN				36.5						Diesel
450	CHOKE MAN				36.3						Diesel
475	CHOKE MAN				36.5						Diesel
500	CHOKE MAN				36.3						Diesel
525	CHOKE MAN				36.6						Diesel
550	CHOKE MAN				37.9	Gry brn					Diesel & trace solid
575	CHOKE MAN				38.5	Dk gry brn					Diesel & water
600	CHOKE MAN				39.2	V dk gry brn					Diesel & water
600-690	CHOKE MAN				38.3			4,500	2,328	6.9	Muddy water
725	CHOKE MAN				-			14,000	2,330	7.0	Drilling mu
750	CHOKE MAN				-			13,500	1,871	7.0	Drilling mu

PRODUCTION WELL TEST DATA SHEET

COMPANY ESSO AUSTRALIA LIMITED
WELL WHITING #2 PWT # 1 (REVERSE CIRCULATION)
PERFORATIONS 3325.1 - 3315.2 m (FM.RKB)

DATE 16/6/85

PUMP STROKES	SAMPLING POINT	C1	C2	C3	C4	C5	C6	CO2	H2S
HH:MM		PPM	PPM	PPM	PPM	PPM	PPM	%	PPM
500	CHOKE MAN	158,413	84,480	50,483	10,014	784	134	7	-
542	CHOKE MAN	124,293	57,446	2,970	273	142	41	10	-
575	CHOKE MAN	170,598	81,101	46,028	7,928	553	116	-	-

PRODUCTION TEST DATA SHEET (LIQUIDS)

COMPANY ESSO AUSTRALIA LIMITED — WELL WHITING #2
TEST NO. 2 — PERFORATIONS 3123.5 m - 3129 m
FLOW PERIOD — DATE 19/6/85 — SHEET NO. 1

TIME	SAMPLING POINT	SHAKE-OUT (%) OIL	SHAKE-OUT (%) H_2O	SHAKE-OUT (%) SOLIDS	°API at 60°F	COLOUR	POUR POINT	WATER Chlor	WATER Trit	WATER pH	COMMENTS
08:45	2,900 m							10,000	1,776	6.6	Bot hole Sample
PUMP STROKES	REVERSE CIRCULATION										
43	CHOKE MAN				36.6						Diesel
86	CHOKE MAN				36.5						Diesel
129	CHOKE MAN				36.4						Diesel
172	CHOKE MAN				36.6						Diesel
215	CHOKE MAN				36.7						Diesel
258	CHOKE MAN				36.7						Diesel
301	CHOKE MAN				36.6						Diesel
344	CHOKE MAN				37.4						Diesel/gas/ mud
387	CHOKE MAN							1,750	238	6.4	Muddy diese
430	CHOKE MAN							15,000	2,651	6.8	Muddy water
450	CHOKE MAN							18,000	2,722	6.7	Muddy water
473	CHOKE MAN							14,000	2,527	7.5	Muddy water
490	CHOKE MAN							12,400	2,491	7.9	Mud
516	CHOKE MAN							12,400	2,596	7.9	Mud
559	CHOKE MAN							13,000	2,512	7.2	Mud
602	CHOKE MAN							14,000	2,586	8.4	Mud

PRODUCTION TEST DATA SHEET (LIQUIDS)

COMPANY ESSO AUSTRALIA LIMITED — WELL WHITING #2
TEST NO. 3 — PERFORATIONS 2627 m - 2634 m
FLOW PERIOD — DATE 21/6/85 — SHEET NO. 1

TIME	SAMPLING POINT	SHAKE-OUT (%) OIL	H_2O	SOLIDS	°API at 60°F	COLOUR	POUR POINT	WATER Chlor	Trit	pH	COMMENTS
17:52	CHOKE MAN				42		24°C				
18:12	CHOKE MAN				42		24°C				
18:45	CHOKE MAN				39.8		25°C				
19:00	CHOKE MAN				39.1		24°C				
19:15	CHOKE MAN				38.9		24°C				
19:30	CHOKE MAN				37.6		23.5°C				
19:45	CHOKE MAN	No Sample Available (Insufficient Flow)									
20:00	CHOKE MAN				35.4		24°C				
20:15	CHOKE MAN	60	0	40	40.5		24°C				
20:30	CHOKE MAN	60	10	30	38.9		23.4°C	15,000		7.8	
20:45	CHOKE MAN	99.5	-	0.5	40.8		26°C				
21:00	CHOKE MAN	99.5	-	0.5	41.2		25°C				
21:15	CHOKE MAN	No Sample Available (Insufficient Flow)									
21:30	CHOKE MAN	No Sample Available (Insufficient Flow)									

PRODUCTION WELL TEST DATA SHEET

Sheet No.

COMPANY ESSO AUSTRALIA LIMITED
WELL WHITING #2 PWT # 3 DATE
PERFORATIONS 2627 - 2634 m (FM.RKB)

TIME	SAMPLING POINT	C1	C2	C3	C4	C5	C6	CO2	H2S
HH:MM		PPM	PPM	PPM	PPM	PPM	PPM	%	PPM
16:50	CHOKE MAN	10	8	16	80	134	56	Tr	Tr
17:52	CHOKE MAN	238,838	42,240	25,242	6,468	1,284	162	Tr	Tr
18:30	CHOKE MAN	146,227	50,688	50,483	23,267	7,421	1,725	Tr	Tr
19:00	CHOKE MAN	-	-	-	-	-	-	10	Nil
19:15	CHOKE MAN	-	-	-	-	-	-	-	-
19:30	CHOKE MAN	182,784	47,309	35,635	15,022	3,710	862	8	Nil

PRODUCTION TEST DATA SHEET (LIQUIDS)

COMPANY ESSO AUSTRALIA LIMITED
TEST NO. 3
FLOW PERIOD REVERSE CIRCULATION DATE 21/6/85

WELL WHITING #2
PERFORATIONS 2627 m - 2634 m
SHEET NO. 1

PUMP STROKES	SAMPLING POINT	SHAKE-OUT (%) OIL	H_2O	SOLIDS	°API at 60°F	COLOUR	POUR POINT	WATER Chlor	Trit	pH	COMMENTS
86	CHOKE MAN							13,500	2,986	7.3	
129	CHOKE MAN							13,500	3,064	7.7	
172	CHOKE MAN							13,500	3,090	8.4	
215	CHOKE MAN							15,000	2,934	7.6	
258	CHOKE MAN							14,000	3,245	7.6	
301	CHOKE MAN	20	70 mud	10	39.4		23°C	13,500	3,030	7.4	
344	CHOKE MAN	10	82 mud	8	37.5		23°C	14,000	3,398	7.0	
387	CHOKE MAN	20	75 mud	5	39.8		24°C	13,500	3,322	7.3	
430	CHOKE MAN							14,000	3,331	7.5	

PRODUCTION TEST DATA SHEET (LIQUIDS)

COMPANY ESSO AUSTRALIA LIMITED — WELL WHITING #2
TEST NO. 3A — PERFORATIONS 2627 m - 2634 m
FLOW PERIOD — DATE 25/6/85 — SHEET NO. 1

TIME	SAMPLING POINT	SHAKE-OUT (%) OIL	H_2O	SOLIDS	°API at 60°F	COLOUR	POUR POINT	WATER Chlor	Trit	pH	COMMENTS
19:00	CHOKE MAN	50	-	50	30.4		24 °C				
19:15	CHOKE MAN	99.5	0.4	0.1	41.3		23 °C				
19:30	CHOKE MAN	99.5	0.4	0.1	40.9		24 °C				
19:45	CHOKE MAN	99.5	0.4	0.1	41.0		22.5 °C				
20:00	CHOKE MAN	98	1.5	0.5	40.0		24 °C				
20:30	CHOKE MAN	No Sample (Insufficient Flow)									
21:00	CHOKE MAN	98	1.5	0.5	40.0		22.5 °C				
21:30	CHOKE MAN	95	3.5	1.5	38.1		24 °C				
22:00	CHOKE MAN	99	0.7	0.3	39.8		23.5 °C				
22:30	CHOKE MAN	99.7	-	0.7	40.0		23.0 °C				
23:00	CHOKE MAN	99.6	0.3	0.1	38.3		24 °C				
	Shut in at 23:07 hours - re-open at 02:49 hours						26/6/85				
03:30	CHOKE MAN	99.6	0.3	0.1	41.9		24.58 °C				
04:00	CHOKE MAN	No Sample Available (Gas only)									
04:45	CHOKE MAN	99.5	0.4	0.1	42.1		24 °C				
05:30	CHOKE MAN	99.1	0.2	0.7	41.9		23.5 °C				
06:00	CHOKE MAN	99.4	0.3	0.3	41.9		24 °C				
06:30	CHOKE MAN	99.4	0.4	0.2	42.4		24 °C				
07:00	CHOKE MAN	99.4	0.4	0.2	41.9		24 °C				
07:30	CHOKE MAN	99.7	0.3	0.1	42.0		23.5 °C				
08:00	CHOKE MAN	99.5	0.4	0.1	41.7		24 °C				
08:30	CHOKE MAN	99.5	0.4	0.1	38.6		23 °C				
09:00	CHOKE MAN	99.1	0.5	0.4	38.3		25 °C				
09:30	CHOKE MAN	99.2	0.4	0.2	38.0		23 °C				
10:00	CHOKE MAN	99.5	0.3	0.2	37.8		23 °C				
10:30	CHOKE MAN	99.6	0.2	0.2	39.0		24.5 °C				
11:00	CHOKE MAN	99.1	0.8	0.7	38.2		25 °C				
11:30	CHOKE MAN	99.3	0.4	0.3	39.2		23 °C				
12:00	CHOKE MAN	99.5	0.3	0.2	40.1		25 °C				
12:30	CHOKE MAN	95.0	1.5	3.5	40.7		24 °C				
13:00	CHOKE MAN	96.0	1.0	3.0	40.8		23 °C				
13:30	CHOKE MAN	99.5	0.3	0.2	39.6		24 °C				
	Shut in at 13:35 hours										

PRODUCTION WELL TEST DATA SHEET

Sheet No. 1

COMPANY ESSO AUSTRALIA LIMITED
WELL WHITING #2 PWT # 3A DATE
PERFORATIONS 2627 - 2634 m (FM.RKB)

TIME	SAMPLING POINT	C1	C2	C3	C4	C5	C6	CO2	H2S
HH:MM		PPM	PPM	PPM	PPM	PPM	PPM	%	PPM
18:03	CHOKE MAN	24,371	1,320	905	260	160	39	TR	Nil
18:15	CHOKE MAN	24,016	1,278	869	312	180	40	TR	Nil
18:30	CHOKE MAN	23,261	1,186	891	416	280	46	TR	Nil
18:45	CHOKE MAN	20,715	739	603	625	749	647	12	Nil
19:15	CHOKE MAN	20,106	1,320	1,090	913	892	323	12	Nil
19:45	CHOKE MAN	-	-	-	-	-	-	11	Nil
20:15	CHOKE MAN	-	-	-	-	-	-	11	Nil
20:45	CHOKE MAN	-	-	-	-	-	-	11	Nil
21:45	CHOKE MAN	-	-	-	-	-	-	11	Nil
22:45	CHOKE MAN	-	-	-	-	-	-	11	Nil
	Shut in at 23:07 hours, re-open at 02:49 hours, 26/6/85								
03:23	CHOKE MAN	17,669	1,267	1,021	834	999	215	11	Nil
04:00	CHOKE MAN	18,583	1,320	1,067	886	999	431	11	Nil
04:45	CHOKE MAN	18,288	1,162	1,021	886	999	647	11	Nil
05:30	CHOKE MAN	19,163	1,320	1,068	834	1,070	647	11	Nil
06:30	CHOKE MAN	17,059	1,109	881	782	784	647	11.5	Nil
07:30	CHOKE MAN	17,060	1,108	881	782	784	647	11	Nil
08:30	CHOKE MAN	18,496	1,286	1,056	789	831	647	11	Nil
09:30	CHOKE MAN	-	-	-	-	-	-	11	Nil
10:30	CHOKE MAN	18,278	1,376	986	892	649	776	12	Nil
11:30	CHOKE MAN	18,329	1,186	1,072	826	1,019	686	12	Nil
12:30	CHOKE MAN	18,426	1,396	1,248	926	1,026	786	12	Nil
13:30	CHOKE MAN	-	-	-	-	-	-	12	Nil

APPENDICES

COMPUTER DATA LISTINGS

Data is fed to the computer while drilling is in progress, using the DRILL program and is stored on a tape at 10, 5, 1, or 0.2m intervals. This data is then available at a later date for use in other programs (for example KICK, SURGE, COST, OPTBIT, and HYDRL).

The data can also be accessed by the REPORT program, which allows the operator to list both raw and calculated data in various formats. Either detailed data or data averaged over any particular depth interval, may be listed.

In addition, the data may be plotted in various formats, at any scale the operator desires.

The following data lists have been made for this well :

(a). Bit record and bit initialization data

(b). Hydraulic analyses

(c). Data list A

(d). Data list B

(e). Data list C

(f). Data list D

COMPUTER PLOTS

Using the REPORT program, hte following plots have been drawn for this well :

GEOPLOT - 1:5000 SCALE - 2m averages

Since all the data is stored on tape, further data lists or plots are available at any time on request.

(a). BIT RECORD AND BIT INITIALIZATION DATA

BIT SIZE . . . . . Inches

BIT COST . . . . . Australian dollars

JET SIZE . . . . . Thirty-seconds of an inch

DEPTHS . . . . . Metres

HOLE MADE. . . . . Metres

DRILLING TIME. . . . . Hours

AVERAGE ROP. . . . . Metres/hour

AVERAGE COST/METRE . . Australian dollars

BIT CONDITION. . . . . Teeth

Bearings

Gauge . . . . Inches

WELL: WHITING No.2

BIT RECORD

BIT No.	IADC CODE	MAKE & TYPE	SIZE	COST	NOZZLES	DEPTH IN	DEPTH OUT	BIT RUN	TOTAL HOURS	AROP	TRIP TIME	CCOST	TOTAL TURNS	CONDITION T	B	G
1	111	HTC OSC 3AJ	17.500	0.00	20 20 20	224.0	815.0	591.0	18.73	31.6	2.5	131.19	140604	0	0	0.000
2	116	HTC J1	12.250	2566.00	18 18 18	815.0	1175.0	360.0	14.41	25.0	3.8	191.86	86422	4	3	0.000
3	517	HTC J22	12.250	8520.00	16 16 18	1175.0	1489.0	314.0	11.66	26.9	4.5	215.08	61746	2	2	0.000
3	4	CHRIST RC4	9.875	0.00	15 15 15	1489.0	1500.4	11.4	0.08	142.5	5.2	1691.45	370	0	0	0.000
3	4	CHRIST RC4	9.875	0.00	15 15 15	1500.4	1511.6	11.2	0.19	58.9	5.2	1757.53	953	0	0	0.000
4	517	HTC J22	12.250	8520.00	16 16 16	1511.6	1668.0	156.4	24.37	6.4	5.3	747.28	74831	8	6	0.250
5	617	HTC J44	12.250	6919.00	16 16 16	1668.0	2147.0	479.0	66.28	7.2	5.6	562.47	201979	2	4	0.000

WELL: WHITING No.2

BIT RECORD

BIT No.	IADC CODE	MAKE & TYPE	SIZE	COST	NOZZLES	DEPTH IN	DEPTH OUT	BIT RUN	TOTAL HOURS	AROP	TRIP TIME	CCOST	TOTAL TURNS	CONDITION T	B	G
6	517	HTC J22	12.250	8520.00	16 16 16	2147.0	2340.5	193.5	35.97	5.4	6.6	847.47	107506	6	4	0.062
7	537	HTC J33	12.250	8266.00	16 16 16	2340.5	2537.3	196.8	41.90	4.7	7.2	953.15	126033	3	5	0.125
8	617	HTC J44	12.250	6919.00	16 16 16	2537.3	2735.9	198.6	55.17	3.6	8.0	1196.45	167594	3	4	0.125
9	537	HTC J33	12.250	8266.00	16 16 16	2735.9	2921.1	185.2	43.20	4.3	8.5	1064.12	129459	0	0	0.000
10	517	HTC J22	12.250	8266.00	16 16 16	2921.1	3168.9	247.8	54.61	4.5	8.7	966.40	164197	0	0	0.000
11	517	HTC J22	12.250	8520.00	16 16 16	3168.9	3288.6	119.7	35.11	3.4	9.0	1416.96	107188	8	4	0.000
12	617	HTC J44	12.250	6919.00	16 16 16	3288.6	3317.1	28.5	9.88	2.9	9.0	2662.06	29231	1	1	0.000
12	4	CHRIS C-23	9.844	0.00	15 15 15	3317.1	3326.0	8.9	3.86	2.3	9.0	5275.11	18474	0	0	1.000
13	617	HTC J44	12.250	6919.00	16 16 16	3326.0	3350.0	24.0	7.07	3.4	9.1	2748.83	23757	1	1	0.000
14	316	HTC J7	8.500	1475.00	12 12 12	3350.0	3355.0	5.0	3.33	1.5	9.1	9373.87	11909	7	5	0.000
15	537	HTC J33	8.500	4455.00	12 12 12	3355.0	3470.4	115.4	27.58	4.2	9.1	1199.40	85649	7	4	0.000
15	4	CHRIS C.201	8.500	0.00	14 14 15	3470.4	3472.3	1.9	1.69	1.1	10.0	22469.41	7315	0	0	0.000
16	537	HTC J33	8.500	4455.00	12 12 12	3472.3	3550.0	77.7	21.42	3.6	9.8	1524.72	68742	3	4	0.000

BIT NUMBER: 1 IADC CODE 111 HTC OSC 3AJ

STARTING DEPTH.....	224.0		
BIT COST, RIG COST/HOUR.....	0.00	3652.00	
TRIP TIME.....	2.5		
BIT DIAMETER.....	17.500		
NOZZLES.....	20	20	20
HW DRILL COLLAR LENGTH, OD, ID....	23.00	9.750	3.062
DRILL COLLAR LENGTH, OD, ID.....	94.51	8.000	2.813
HW DRILL PIPE LENGTH, OD, ID.....	74.10	5.000	3.125
DRILL PIPE OD, ID.....		5.000	4.276
CASING DEPTH, ID.....	203.00	19.124	
RISER LENGTH, ID.....	74.00	21.000	
PUMP VOLUMES 1 AND 2.....	0.119	0.119	
PORE PRESSURE CALC EXPONENT.....	1.20		
NORMAL PORE PRESSURE.....	8.4		
OVERBURDEN GRADIENT MODIFIER.....	0.00		
STRESS RATIO MODIFIER.....	0.14		
"d" EXPONENT CORRECTION FACTOR....	10.0		
CUTTINGS DIAMETER, DENSITY.....	2.0	2.00	
FINISHING DEPTH.....	815.0		
CUMULATIVE HOURS, TURNS.....	18.73	140A04	
BIT CONDITION OUT.....	T 0	B 0	G 0.000

BIT NUMBER: 2 IADC CODE 116 HTC J1

STARTING DEPTH.....	815.0		
BIT COST, RIG COST/HOUR.....	2566.00	3652.00	
TRIP TIME.....	3.8		
BIT DIAMETER.....	12.250		
NOZZLES.....	18	18	18
DRILL COLLAR LENGTH, OD, ID.....	145.35	8.000	2.813
HW DRILL PIPE LENGTH, OD, ID.....	83.20	5.000	3.125
DRILL PIPE OD, ID.....		5.000	4.276
CASING DEPTH, ID.....	800.00	12.615	
RISER LENGTH, ID.....	74.00	21.000	
PUMP VOLUMES 1 AND 2.....	0.119	0.119	
PORE PRESSURE CALC EXPONENT.....	1.20		
NORMAL PORE PRESSURE.....	8.4		
OVERBURDEN GRADIENT MODIFIER.....	0.00		
STRESS RATIO MODIFIER.....	0.14		
"d" EXPONENT CORRECTION FACTOR....	10.0		
CUTTINGS DIAMETER, DENSITY.....	2.0	2.00	
FINISHING DEPTH.....	1175.0		
CUMULATIVE HOURS, TURNS.....	14.41	86422	
BIT CONDITION OUT.....	T 4	B 3	G 0.000

BIT NUMBER: 3	IADC CODE 517	HTC J22		
STARTING DEPTH.....	1175.0			
BIT COST, RIG COST/HOUR.....	8520.00	3652.00		
TRIP TIME.....	4.5			
BIT DIAMETER.....	12.250			
NOZZLES.....	16	16	18	
DRILL COLLAR LENGTH, OD, ID.....	172.92	8.000	2.813	
HW DRILL PIPE LENGTH, OD, ID.....	83.20	5.000	3.125	
DRILL PIPE OD, ID.....		5.000	4.276	
CASING DEPTH, ID.....	800.00	12.615		
RISER LENGTH, ID.....	74.00	21.000		
PUMP VOLUMES 1 AND 2.....	0.119	0.119		
PORE PRESSURE CALC EXPONENT.....	1.20			
NORMAL PORE PRESSURE.....	8.4			
OVERBURDEN GRADIENT MODIFIER.....	0.00			
STRESS RATIO MODIFIER.....	0.14			
"d" EXPONENT CORRECTION FACTOR....	10.0			
CUTTINGS DIAMETER, DENSITY.....	2.0	2.10		
FINISHING DEPTH.....	1489.0			
CUMULATIVE HOURS, TURNS.....	11.66	61746		
BIT CONDITION OUT.....	T 2	B 2	G 0.000	

BIT NUMBER: 3	IADC CODE 4	CHRIST RC4		
STARTING DEPTH.....	1489.0			
BIT COST, RIG COST/HOUR.....	0.00	3652.00		
TRIP TIME.....	5.2			
BIT DIAMETER.....	9.875			
NOZZLES.....	15	15	15	
DRILL COLLAR LENGTH, OD, ID.....	153.86	8.000	2.813	
HW DRILL PIPE LENGTH, OD, ID.....	83.20	5.000	3.125	
DRILL PIPE OD, ID.....		5.000	4.276	
CASING DEPTH, ID.....	800.00	12.615		
RISER LENGTH, ID.....	74.00	21.000		
PUMP VOLUMES 1 AND 2.....	0.119	0.119		
PORE PRESSURE CALC EXPONENT.....	1.20			
NORMAL PORE PRESSURE.....	8.4			
OVERBURDEN GRADIENT MODIFIER.....	0.00			
STRESS RATIO MODIFIER.....	0.14			
"d" EXPONENT CORRECTION FACTOR....	10.0			
CUTTINGS DIAMETER, DENSITY.....	2.0	2.20		
FINISHING DEPTH.....	1500.4			
CUMULATIVE HOURS, TURNS.....	0.08	370		
BIT CONDITION OUT.....	T 0	B 0	G 0.000	

BIT NUMBER: 3 IADC CODE 4 CHRIST RC4

STARTING DEPTH.....	1500.4		
BIT COST, RIG COST/HOUR.....	0.00	3652.00	
TRIP TIME.....	5.2		
BIT DIAMETER.....	9.875		
NOZZLES.....	15	15	15
DRILL COLLAR LENGTH, OD, ID.....	153.86	8.000	2.813
HW DRILL PIPE LENGTH, OD, ID.....	83.20	5.000	3.125
DRILL PIPE OD, ID.....		5.000	4.276
CASING DEPTH, ID.....	800.00	12.615	
RISER LENGTH, ID.....	74.00	21.000	
PUMP VOLUMES 1 AND 2.....	0.119	0.119	
PORE PRESSURE CALC EXPONENT.....	1.20		
NORMAL PORE PRESSURE.....	8.4		
OVERBURDEN GRADIENT MODIFIER.....	0.00		
STRESS RATIO MODIFIER.....	0.14		
"d" EXPONENT CORRECTION FACTOR....	10.0		
CUTTINGS DIAMETER, DENSITY.....	2.0	2.20	
FINISHING DEPTH.....	1511.6		
CUMULATIVE HOURS, TURNS.....	0.19	953	
BIT CONDITION OUT.....	T 0	B 0	G 0.000

BIT NUMBER: 4 IADC CODE 517 HTC J22

STARTING DEPTH.....	1511.6		
BIT COST, RIG COST/HOUR.....	8520.00	3652.00	
TRIP TIME.....	5.3		
BIT DIAMETER.....	12.250		
NOZZLES.....	16	16	16
DRILL COLLAR LENGTH, OD, ID.....	172.92	8.000	2.813
HW DRILL PIPE LENGTH, OD, ID.....	83.20	5.000	3.125
DRILL PIPE OD, ID.....		5.000	4.276
CASING DEPTH, ID.....	800.00	12.615	
RISER LENGTH, ID.....	74.00	21.000	
PUMP VOLUMES 1 AND 2.....	0.119	0.119	
PORE PRESSURE CALC EXPONENT.....	1.20		
NORMAL PORE PRESSURE.....	8.4		
OVERBURDEN GRADIENT MODIFIER.....	0.00		
STRESS RATIO MODIFIER.....	0.14		
"d" EXPONENT CORRECTION FACTOR....	10.0		
CUTTINGS DIAMETER, DENSITY.....	2.0	2.30	
FINISHING DEPTH.....	1668.0		
CUMULATIVE HOURS, TURNS.....	24.37	74831	
BIT CONDITION OUT.....	T 8	B 6	G 0.250

BIT NUMBER: 5 IADC CODE 617 HTC J44

STARTING DEPTH.....	1668.0		
BIT COST, RIG COST/HOUR.....	6919.00	3652.00	
TRIP TIME.....	5.6		
BIT DIAMETER.....	12.250		
NOZZLES.....	16	16	16
DRILL COLLAR LENGTH, OD, ID.....	172.92	8.000	2.813
HW DRILL PIPE LENGTH, OD, ID.....	83.20	5.000	3.125
DRILL PIPE OD, ID.....		5.000	4.276
CASING DEPTH, ID.....	800.00	12.615	
RISER LENGTH, ID.....	74.00	21.000	
PUMP VOLUMES 1 AND 2.....	0.119	0.119	
PORE PRESSURE CALC EXPONENT.....	1.20		
NORMAL PORE PRESSURE.....	8.4		
OVERBURDEN GRADIENT MODIFIER.....	0.00		
STRESS RATIO MODIFIER.....	0.14		
"d" EXPONENT CORRECTION FACTOR....	10.0		
CUTTINGS DIAMETER, DENSITY.....	2.0	2.30	
FINISHING DEPTH.....	2147.0		
CUMULATIVE HOURS, TURNS.....	66.28	201979	
BIT CONDITION OUT.....	T 2	B 4	G 0.000

BIT NUMBER: 6 IADC CODE 517	HTC J22		
STARTING DEPTH	2147.0		
BIT COST, RIG COST/HOUR	8520.00	3652.00	
TRIP TIME	6.6		
BIT DIAMETER	12.250		
NOZZLES	16	16	16
DRILL COLLAR LENGTH, OD, ID	172.92	8.000	2.813
HW DRILL PIPE LENGTH, OD, ID	83.20	5.000	3.125
DRILL PIPE OD, ID		5.000	4.276
CASING DEPTH, ID	800.00	12.615	
RISER LENGTH, ID	74.00	21.000	
PUMP VOLUMES 1 AND 2	0.119	0.119	
PORE PRESSURE CALC EXPONENT	1.20		
NORMAL PORE PRESSURE	8.4		
OVERBURDEN GRADIENT MODIFIER	0.00		
STRESS RATIO MODIFIER	0.14		
"d" EXPONENT CORRECTION FACTOR	10.0		
CUTTINGS DIAMETER, DENSITY	2.0	2.40	
FINISHING DEPTH	2340.5		
CUMULATIVE HOURS, TURNS	35.97	107506	
BIT CONDITION OUT	T 6	B 4	G 0.062

BIT NUMBER: 7 IADC CODE 537	HTC J33		
STARTING DEPTH	2340.5		
BIT COST, RIG COST/HOUR	8266.00	3652.00	
TRIP TIME	7.2		
BIT DIAMETER	12.250		
NOZZLES	16	16	16
DRILL COLLAR LENGTH, OD, ID	172.92	8.000	2.813
HW DRILL PIPE LENGTH, OD, ID	83.20	5.000	3.125
DRILL PIPE OD, ID		5.000	4.276
CASING DEPTH, ID	800.00	12.615	
RISER LENGTH, ID	74.00	21.000	
PUMP VOLUMES 1 AND 2	0.119	0.119	
PORE PRESSURE CALC EXPONENT	1.20		
NORMAL PORE PRESSURE	8.4		
OVERBURDEN GRADIENT MODIFIER	0.00		
STRESS RATIO MODIFIER	0.14		
"d" EXPONENT CORRECTION FACTOR	10.0		
CUTTINGS DIAMETER, DENSITY	1.8	2.40	
FINISHING DEPTH	2537.3		
CUMULATIVE HOURS, TURNS	41.90	126033	
BIT CONDITION OUT	T 3	B 5	G 0.125

BIT NUMBER: 8 IADC CODE 617 HTC J44

STARTING DEPTH.....	2537.3		
BIT COST, RIG COST/HOUR.....	6919.00	3652.00	
TRIP TIME.....	8.0		
BIT DIAMETER.....	12.250		
NOZZLES.....	16	16	16
DRILL COLLAR LENGTH, OD, ID.....	172.92	8.000	2.813
HW DRILL PIPE LENGTH, OD, ID.....	83.20	5.000	3.125
DRILL PIPE OD, ID.....		5.000	4.276
CASING DEPTH, ID.....	800.00	12.615	
RISER LENGTH, ID.....	74.00	21.000	
PUMP VOLUMES 1 AND 2.....	0.119	0.119	
PORE PRESSURE CALC EXPONENT.....	1.20		
NORMAL PORE PRESSURE.....	8.4		
OVERBURDEN GRADIENT MODIFIER.....	0.00		
STRESS RATIO MODIFIER.....	0.14		
"d" EXPONENT CORRECTION FACTOR....	10.0		
CUTTINGS DIAMETER, DENSITY.....	1.5	2.50	
FINISHING DEPTH.....	2735.9		
CUMULATIVE HOURS, TURNS.....	55.17	167594	
BIT CONDITION OUT.....	T 3	B 4	G 0.125

BIT NUMBER: 9 IADC CODE 537 HTC J33

STARTING DEPTH.....	2735.9		
BIT COST, RIG COST/HOUR.....	8266.00	3652.00	
TRIP TIME.....	8.5		
BIT DIAMETER.....	12.250		
NOZZLES.....	16	16	16
DRILL COLLAR LENGTH, OD, ID.....	172.92	8.000	2.813
HW DRILL PIPE LENGTH, OD, ID.....	83.20	5.000	3.125
DRILL PIPE OD, ID.....		5.000	4.276
CASING DEPTH, ID.....	800.00	12.615	
RISER LENGTH, ID.....	74.00	21.000	
PUMP VOLUMES 1 AND 2.....	0.119	0.119	
PORE PRESSURE CALC EXPONENT.....	1.20		
NORMAL PORE PRESSURE.....	8.4		
OVERBURDEN GRADIENT MODIFIER.....	0.00		
STRESS RATIO MODIFIER.....	0.14		
"d" EXPONENT CORRECTION FACTOR....	10.0		
CUTTINGS DIAMETER, DENSITY.....	1.8	2.60	
FINISHING DEPTH.....	2921.1		
CUMULATIVE HOURS, TURNS.....	43.20	129459	
BIT CONDITION OUT.....	T 0	B 0	G 0.000

BIT NUMBER: 10 IADC CODE 517 HTC J22

STARTING DEPTH.....	2921.1		
BIT COST, RIG COST/HOUR.....	8266.00	3652.00	
TRIP TIME.....	8.7		
BIT DIAMETER.....	12.250		
NOZZLES.....	16	16	16
DRILL COLLAR LENGTH, OD, ID.....	172.92	8.000	2.813
HW DRILL PIPE LENGTH, OD, ID.....	83.20	5.000	3.125
DRILL PIPE OD, ID.....		5.000	4.276
CASING DEPTH, ID.....	800.00	12.615	
RISER LENGTH, ID.....	74.00	21.000	
PUMP VOLUMES 1 AND 2.....	0.119	0.119	
PORE PRESSURE CALC EXPONENT.....	1.20		
NORMAL PORE PRESSURE.....	8.4		
OVERBURDEN GRADIENT MODIFIER.....	0.00		
STRESS RATIO MODIFIER.....	0.14		
"d" EXPONENT CORRECTION FACTOR....	10.0		
CUTTINGS DIAMETER, DENSITY.....	2.1	2.60	
FINISHING DEPTH.....	3168.9		
CUMULATIVE HOURS, TURNS.....	54.61	164197	
BIT CONDITION OUT.....	T 0	B 0	G 0.000

BIT NUMBER: 11 IADC CODE 517 HTC J22

STARTING DEPTH.....	3168.9		
BIT COST, RIG COST/HOUR.....	8520.00	3652.00	
TRIP TIME.....	9.0		
BIT DIAMETER.....	12.250		
NOZZLES.....	16	16	16
DRILL COLLAR LENGTH, OD, ID.....	172.98	8.000	2.813
HW DRILL PIPE LENGTH, OD, ID.....	83.20	5.000	3.125
DRILL PIPE OD, ID.....		5.000	4.276
CASING DEPTH, ID.....	800.00	12.615	
RISER LENGTH, ID.....	74.00	21.000	
PUMP VOLUMES 1 AND 2.....	0.119	0.119	
PORE PRESSURE CALC EXPONENT.....	1.20		
NORMAL PORE PRESSURE.....	8.4		
OVERBURDEN GRADIENT MODIFIER.....	0.00		
STRESS RATIO MODIFIER.....	0.14		
"d" EXPONENT CORRECTION FACTOR....	10.0		
CUTTINGS DIAMETER, DENSITY.....	2.0	2.55	
FINISHING DEPTH.....	3288.6		
CUMULATIVE HOURS, TURNS.....	35.11	107188	
BIT CONDITION OUT.....	T 8	B 4	G 0.000

BIT NUMBER: 12 IADC CODE 617 HTC J44

STARTING DEPTH	3288.6		
BIT COST, RIG COST/HOUR	6919.00	3652.00	
TRIP TIME	9.0		
BIT DIAMETER	12.250		
NOZZLES	16	16	16
DRILL COLLAR LENGTH, OD, ID	172.98	8.000	2.813
HW DRILL PIPE LENGTH, OD, ID	83.20	5.000	3.125
DRILL PIPE OD, ID		5.000	4.276
CASING DEPTH, ID	800.00	12.615	
RISER LENGTH, ID	74.00	21.000	
PUMP VOLUMES 1 AND 2	0.119	0.119	
PORE PRESSURE CALC EXPONENT	1.20		
NORMAL PORE PRESSURE	8.4		
OVERBURDEN GRADIENT MODIFIER	0.00		
STRESS RATIO MODIFIER	0.14		
"d" EXPONENT CORRECTION FACTOR	10.0		
CUTTINGS DIAMETER, DENSITY	2.0	2.55	
FINISHING DEPTH	3317.1		
CUMULATIVE HOURS, TURNS	9.88	29231	
BIT CONDITION OUT	T 1	B 1	G 0.000

BIT NUMBER: 12 IADC CODE 4 CHRIS C-23

STARTING DEPTH	3317.1		
BIT COST, RIG COST/HOUR	0.00	3652.00	
TRIP TIME	9.0		
BIT DIAMETER	9.844		
NOZZLES	15	15	15
DRILL COLLAR LENGTH, OD, ID	153.86	8.000	2.813
HW DRILL PIPE LENGTH, OD, ID	83.20	5.000	3.125
DRILL PIPE OD, ID		5.000	4.276
LINER DEPTH, TOP, ID	3317.10	800.00	12.250
CASING ID	12.615		
RISER LENGTH, ID	74.00	21.000	
PUMP VOLUMES 1 AND 2	0.119	0.119	
PORE PRESSURE CALC EXPONENT	1.20		
NORMAL PORE PRESSURE	8.4		
OVERBURDEN GRADIENT MODIFIER	0.00		
STRESS RATIO MODIFIER	0.14		
"d" EXPONENT CORRECTION FACTOR	10.0		
CUTTINGS DIAMETER, DENSITY	2.0	2.55	
FINISHING DEPTH	3326.0		
CUMULATIVE HOURS, TURNS	3.86	18474	
BIT CONDITION OUT	T 0	B 0	G 1.000

BIT NUMBER: 13 IADC CODE 617 HTC J44

STARTING DEPTH.....	3326.0		
BIT COST, RIG COST/HOUR.....	6919.00	3652.00	
TRIP TIME.....	9.1		
BIT DIAMETER.....	12.250		
NOZZLES.....	16	16	16
DRILL COLLAR LENGTH, OD, ID.....	172.92	8.000	2.813
HW DRILL PIPE LENGTH, OD, ID.....	83.20	5.000	3.125
DRILL PIPE OD, ID.....		5.000	4.276
CASING DEPTH, ID.....	800.00	12.615	
RISER LENGTH, ID.....	74.00	21.000	
PUMP VOLUMES 1 AND 2.....	0.119	0.119	
PORE PRESSURE CALC EXPONENT.....	1.20		
NORMAL PORE PRESSURE.....	8.4		
OVERBURDEN GRADIENT MODIFIER.....	0.00		
STRESS RATIO MODIFIER.....	0.14		
"d" EXPONENT CORRECTION FACTOR....	10.0		
CUTTINGS DIAMETER, DENSITY.....	2.0	2.55	
FINISHING DEPTH.....	3350.0		
CUMULATIVE HOURS, TURNS.....	7.07	23757	
BIT CONDITION OUT.....	T 1	B 1	G 0.000

BIT NUMBER: 14 IADC CODE 316 HTC J7

STARTING DEPTH.....	3350.0		
BIT COST, RIG COST/HOUR.....	1475.00	3652.00	
TRIP TIME.....	9.1		
BIT DIAMETER.....	8.500		
NOZZLES.....	12	12	12
DRILL COLLAR LENGTH, OD, ID.....	259.43	6.250	2.813
HW DRILL PIPE LENGTH, OD, ID.....	83.20	5.000	3.125
DRILL PIPE OD, ID.....		5.000	4.276
CASING DEPTH, ID.....	3339.00	8.681	
RISER LENGTH, ID.....	74.00	21.000	
PUMP VOLUMES 1 AND 2.....	0.119	0.119	
PORE PRESSURE CALC EXPONENT.....	1.20		
NORMAL PORE PRESSURE.....	8.4		
OVERBURDEN GRADIENT MODIFIER.....	0.00		
STRESS RATIO MODIFIER.....	0.14		
"d" EXPONENT CORRECTION FACTOR....	10.0		
CUTTINGS DIAMETER, DENSITY.....	2.0	2.55	
FINISHING DEPTH.....	3355.0		
CUMULATIVE HOURS, TURNS.....	3.33	11909	
BIT CONDITION OUT.....	T 7	B 5	G 0.000

BIT NUMBER: 15 IADC CODE 537 HTC J33

STARTING DEPTH.....	3355.0		
BIT COST, RIG COST/HOUR.....	4455.00	3652.00	
TRIP TIME.....	9.1		
BIT DIAMETER.....	8.500		
NOZZLES.....	12	12	12
DRILL COLLAR LENGTH, OD, ID.....	262.83	6.250	2.813
HW DRILL PIPE LENGTH, OD, ID.....	83.20	5.000	3.125
DRILL PIPE OD, ID.....		5.000	4.276
CASING DEPTH, ID.....	3339.00	8.681	
RISER LENGTH, ID.....	74.00	21.000	
PUMP VOLUMES 1 AND 2.....	0.119	0.119	
PORE PRESSURE CALC EXPONENT.....	1.20		
NORMAL PORE PRESSURE.....	8.4		
OVERBURDEN GRADIENT MODIFIER.....	0.00		
STRESS RATIO MODIFIER.....	0.14		
"d" EXPONENT CORRECTION FACTOR....	10.0		
CUTTINGS DIAMETER, DENSITY.....	2.0	2.55	
FINISHING DEPTH.....	3470.4		
CUMULATIVE HOURS, TURNS.....	27.58	85649	
BIT CONDITION OUT.....	T 7	B 4	G 0.000

BIT NUMBER: 15 IADC CODE 4 CHRIS C.201

STARTING DEPTH.....	3470.4		
BIT COST, RIG COST/HOUR.....	0.00	3652.00	
TRIP TIME.....	10.0		
BIT DIAMETER.....	8.500		
NOZZLES.....	14	14	15
DRILL COLLAR LENGTH, OD, ID.....	248.00	6.250	2.813
HW DRILL PIPE LENGTH, OD, ID.....	83.20	5.000	3.125
DRILL PIPE OD, ID.....		5.000	4.276
CASING DEPTH, ID.....	3339.00	8.681	
RISER LENGTH, ID.....	74.00	21.000	
PUMP VOLUMES 1 AND 2.....	0.119	0.119	
PORE PRESSURE CALC EXPONENT.....	1.20		
NORMAL PORE PRESSURE.....	8.4		
OVERBURDEN GRADIENT MODIFIER.....	0.00		
STRESS RATIO MODIFIER.....	0.14		
"d" EXPONENT CORRECTION FACTOR....	10.0		
CUTTINGS DIAMETER, DENSITY.....	1.0	2.55	
FINISHING DEPTH.....	3472.3		
CUMULATIVE HOURS, TURNS.....	1.69	7315	
BIT CONDITION OUT.....	T 0	B 0	G 0.000

BIT NUMBER: 16 IADC CODE 537 HTC J33

STARTING DEPTH.....	3472.3		
BIT COST, RIG COST/HOUR.....	4455.00	3652.00	
TRIP TIME.....	9.8		
BIT DIAMETER.....	8.500		
NOZZLES.....	12	12	12
DRILL COLLAR LENGTH, OD, ID.....	263.68	6.250	2.813
HW DRILL PIPE LENGTH, OD, ID.....	83.20	5.000	3.125
DRILL PIPE OD, ID.....		5.000	4.276
CASING DEPTH, ID.....	3339.00	8.681	
RISER LENGTH, ID.....	74.00	21.000	
PUMP VOLUMES 1 AND 2.....	0.119	0.119	
PORE PRESSURE CALC EXPONENT.....	1.20		
NORMAL PORE PRESSURE.....	8.4		
OVERBURDEN GRADIENT MODIFIER.....	0.00		
STRESS RATIO MODIFIER.....	0.14		
"d" EXPONENT CORRECTION FACTOR....	10.0		
CUTTINGS DIAMETER, DENSITY.....	2.0	2.60	
FINISHING DEPTH.....	3550.0		
CUMULATIVE HOURS, TURNS.....	21.42	68742	
BIT CONDITION OUT.....	T 3	B 4	G 0.000

(b). HYDRAULIC ANALYSIS

Data listed from the tape every 100m for each bit run.

DEPTH. . . . . Metres

FLOW RATE. . . . . Rate of mud flow into the well, in gallons per minute.

ANNULAR VOLUMES. . . . Barrels, Barrels/metre

ANNULAR VELOCITIES . . Metres/minute

CRITICAL VELOCITIES. . The annular velocity above which the flow becomes turbulent

SLIP VELOCITY. . . . . The rate of slip of cuttings in the annulus under laminar flow

ASCENT VELOCITY. . . . The rate of ascent of cuttings in the annulus under laminar flow

PRESSURE UNITS . . . . Pounds per square inch

IMPACT FORCE . . . . . The impact force at the bit, in foot-pounds per second squared.

H.H.P. . . . . Hydraulic horsepower at the bit

JET VELOCITY . . . . . The velocity of mud through the bit nozzles, in metres per second.

DENSITY UNITS. . . . . Pounds per gallon

CORE LAB

HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 300.0 AND TVD 300.0

SPM 1 98 SPM 2 93 FLOW RATE 954

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
HWDC/OH	0.673	15	34	77	LAMINAR	0	34	0.2
DC/OH	0.772	57	29	75	LAMINAR	0	29	0.4
DC/CSG	0.961	20	24	74	LAMINAR	0	24	0.1
HWDP/CSG	1.085	80	21	72	LAMINAR	0	21	0.2
DP/CSG	1.085	37	21	72	LAMINAR	0	21	0.1
DP/RIS	1.325	98	17	71	LAMINAR	0	17	0.2
TOTAL VOLUME		308			TOTAL PRESSURE DROP			1.1

LAG: 13.6 MINUTES 1327 STROKES #1 AND 1263 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	880.8	HHP	490	IMPACT FORCE	1462
% SURFACE PRESSURE	43.2	HHP/sqin	2.04	JET VELOCITY	101

PRESSURE BREAKDOWN:

SURFACE	67.8		
STRING	492.8		
BIT	880.8		
ANNULUS	1.1		
TOTAL	1442.5	PUMP PRESSURE 2036.8	% DIFFERENCE 29.2

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	8.90	HYDROSTATIC PRESSURE	455.5
CIRCULATING:	ECD	8.92	CIRCULATING PRESSURE	456.6
PULLING OUT:	TRIP MARGIN	0.04	ESTIMATED SWAB	2.2
	EFFECTIVE MUD WEIGHT	8.86	BOTTOM HOLE PRESSURE	453.3

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 401.0 AND TVD 401.0

SPM 1 98 SPM 2 98 FLOW RATE 978

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
HWDC/OH	0.673	15	35	71	LAMINAR	0	34	0.2
DC/OH	0.772	73	30	68	LAMINAR	0	30	0.4
HWDP/OH	0.896	66	26	65	LAMINAR	0	26	0.2
DP/OH	0.896	6	26	65	LAMINAR	0	26	0.0
DP/CSG	1.085	140	21	64	LAMINAR	0	21	0.3
DP/RIS	1.325	98	18	63	LAMINAR	0	18	0.1
TOTAL VOLUME		399			TOTAL PRESSURE DROP			1.3

LAG: 17.1 MINUTES 1672 STROKES #1 AND 1678 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	936.5	HHP	535	IMPACT FORCE	1555
% SURFACE PRESSURE	43.2	HHP/sqin	2.22	JET VELOCITY	104

PRESSURE BREAKDOWN:

SURFACE	75.8				
STRING	595.1				
BIT	936.5				
ANNULUS	1.3				
TOTAL	1608.6	PUMP PRESSURE	2168.7	% DIFFERENCE	25.8

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.00	HYDROSTATIC PRESSURE	615.7
CIRCULATING:	ECD	9.02	CIRCULATING PRESSURE	617.8
PULLING OUT:	TRIP MARGIN	0.04	ESTIMATED SWAB	2.5
	EFFECTIVE MUD WEIGHT	8.96	BOTTOM HOLE PRESSURE	613.2

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 500.0 AND TVD 500.0

SPM 1 99 SPM 2 99 FLOW RATE 992

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
HWDC/OH	0.673	15	35	71	LAMINAR	0	35	0.2
DC/OH	0.772	73	31	68	LAMINAR	0	30	0.4
HWDP/OH	0.896	66	26	65	LAMINAR	0	26	0.2
DP/OH	0.896	94	26	65	LAMINAR	0	26	0.3
DP/CSG	1.085	140	22	64	LAMINAR	0	22	0.3
DP/RIS	1.325	98	18	63	LAMINAR	0	18	0.1
TOTAL VOLUME		487			TOTAL PRESSURE DROP			1.6

LAG: 20.6 MINUTES 2051 STROKES #1 AND 2044 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	962.7	HHP	557	IMPACT FORCE	1598
% SURFACE PRESSURE	42.8	HHP/sqin	2.32	JET VELOCITY	105

PRESSURE BREAKDOWN:

SURFACE	77.7		
STRING	654.4		
BIT	962.7		
ANNULUS	1.6		
TOTAL	1696.4	PUMP PRESSURE 2248.3	% DIFFERENCE 24.5

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.00	HYDROSTATIC PRESSURE	767.7
CIRCULATING:	ECD	9.02	CIRCULATING PRESSURE	769.3
PULLING OUT:	TRIP MARGIN	0.04	ESTIMATED SWAB	3.1
	EFFECTIVE MUD WEIGHT	8.96	BOTTOM HOLE PRESSURE	764.6

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 600.0 AND TVD 600.0

SPM 1 98 SPM 2 100 FLOW RATE 987

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
HWDC/OH	0.673	15	35	71	LAMINAR	0	35	0.2
DC/OH	0.772	73	30	68	LAMINAR	0	30	0.4
HWDP/OH	0.896	66	26	65	LAMINAR	0	26	0.2
DP/OH	0.896	184	26	65	LAMINAR	0	26	0.6
DP/CSG	1.085	140	22	64	LAMINAR	0	22	0.3
DP/RIS	1.325	98	18	63	LAMINAR	0	18	0.1
TOTAL VOLUME		577			TOTAL PRESSURE DROP			1.8

LAG: 24.5 MINUTES 2404 STROKES #1 AND 2444 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	954.2	HHP	550	IMPACT FORCE	1584
% SURFACE PRESSURE	43.6	HHP/sqin	2.29	JET VELOCITY	105

PRESSURE BREAKDOWN:

SURFACE	77.0		
STRING	693.6		
BIT	954.2		
ANNULUS	1.8		
TOTAL	1726.6	PUMP PRESSURE 2190.3	% DIFFERENCE 21.2

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.00	HYDROSTATIC PRESSURE	921.3
CIRCULATING:	ECD	9.02	CIRCULATING PRESSURE	923.1
PULLING OUT:	TRIP MARGIN	0.04	ESTIMATED SWAB	3.7
	EFFECTIVE MUD WEIGHT	8.96	BOTTOM HOLE PRESSURE	917.6

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 700.0 AND TVD 700.0

SPM 1 99 SPM 2 99 FLOW RATE 988

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
HWDC/OH	0.673	15	35	71	LAMINAR	0	35	0.2
DC/OH	0.772	73	30	68	LAMINAR	0	30	0.4
HWDP/OH	0.896	66	26	65	LAMINAR	0	26	0.2
DP/OH	0.896	274	26	65	LAMINAR	0	26	0.9
DP/CSG	1.085	140	22	64	LAMINAR	0	22	0.3
DP/RIS	1.325	98	18	63	LAMINAR	0	18	0.1
TOTAL VOLUME		667			TOTAL PRESSURE DROP			2.1

LAG: 28.3 MINUTES 2806 STROKES #1 AND 2795 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	954.3	HHP	550	IMPACT FORCE	1584
% SURFACE PRESSURE	40.1	HHP/sqin	2.29	JET VELOCITY	105

PRESSURE BREAKDOWN:

SURFACE	77.1		
STRING	738.1		
BIT	954.3		
ANNULUS	2.1		
TOTAL	1771.6	PUMP PRESSURE 2377.8	% DIFFERENCE 25.5

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.00	HYDROSTATIC PRESSURE	1074.8
CIRCULATING:	ECD	9.02	CIRCULATING PRESSURE	1076.9
PULLING OUT:	TRIP MARGIN	0.04	ESTIMATED SWAB	4.3
	EFFECTIVE MUD WEIGHT	8.96	BOTTOM HOLE PRESSURE	1070.5

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 800.0 AND TVD 800.0

SPM 1 98 SPM 2 99 FLOW RATE 982

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
HWDC/OH	0.673	15	35	71	LAMINAR	0	35	0.2
DC/OH	0.772	73	30	68	LAMINAR	0	30	0.4
HWDP/OH	0.896	66	26	65	LAMINAR	0	26	0.2
DP/OH	0.896	363	26	65	LAMINAR	0	26	1.2
DP/CSG	1.085	140	22	64	LAMINAR	0	21	0.3
DP/RIS	1.325	98	18	63	LAMINAR	0	18	0.1
TOTAL VOLUME		756				TOTAL PRESSURE DROP		2.4

LAG: 32.3 MINUTES 3165 STROKES #1 AND 3188 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	943.2	HHP	540	IMPACT FORCE	1566
% SURFACE PRESSURE	37.8	HHP/sqin	2.25	JET VELOCITY	104

PRESSURE BREAKDOWN:

SURFACE	76.2		
STRING	774.3		
BIT	943.2		
ANNULUS	2.4		
TOTAL	1796.2	PUMP PRESSURE 2496.8	% DIFFERENCE 28.1

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.00	HYDROSTATIC PRESSURE	1228.3
CIRCULATING:	ECD	9.02	CIRCULATING PRESSURE	1230.8
PULLING OUT:	TRIP MARGIN	0.04	ESTIMATED SWAB	4.9
	EFFECTIVE MUD WEIGHT	8.96	BOTTOM HOLE PRESSURE	1223.5

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 900.0 AND TVD 900.0

SPM 1 94 SPM 2 92 FLOW RATE 929

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.274	27	81	145	LAMINAR	0	80	5.6
DC/CSG	0.303	14	73	145	LAMINAR	0	73	2.3
HWDP/CSG	0.427	36	52	146	LAMINAR	0	52	2.2
DP/CSG	0.427	255	52	146	LAMINAR	0	52	15.6
DP/RIS	1.325	98	17	148	LAMINAR	0	17	0.7
TOTAL VOLUME		430				TOTAL PRESSURE DROP		26.4

LAG: 19.4 MINUTES 1831 STROKES #1 AND 1783 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1286.9	HHP	697	IMPACT FORCE	1730
% SURFACE PRESSURE	47.3	HHP/sqin	5.92	JET VELOCITY	122

PRESSURE BREAKDOWN:

SURFACE	65.2				
STRING	800.4				
BIT	1286.9				
ANNULUS	26.4				
TOTAL	2178.7	PUMP PRESSURE	2718.5	% DIFFERENCE	19.9

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.00	HYDROSTATIC PRESSURE	1381.9
CIRCULATING:	ECD	9.17	CIRCULATING PRESSURE	1408.2
PULLING OUT:	TRIP MARGIN	0.34	ESTIMATED SWAB	52.7
	EFFECTIVE MUD WEIGHT	8.66	BOTTOM HOLE PRESSURE	1329.2

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 1000.0 AND TVD 1000.0

SPM 1 94 SPM 2 91 FLOW RATE 925

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.274	40	80	145	LAMINAR	0	80	8.2
HWDP/OH	0.398	22	55	146	LAMINAR	0	55	1.5
HWDP/CSG	0.427	12	52	146	LAMINAR	0	51	0.7
DP/CSG	0.427	298	52	146	LAMINAR	0	51	18.2
DP/RIS	1.325	98	17	148	LAMINAR	0	17	0.7
TOTAL VOLUME		470				TOTAL PRESSURE DROP		29.3

LAG: 21.3 MINUTES 2006 STROKES #1 AND 1943 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1277.3	HHP	690	IMPACT FORCE	1718
% SURFACE PRESSURE	45.3	HHP/sqin	5.85	JET VELOCITY	121

PRESSURE BREAKDOWN:

SURFACE	64.7		
STRING	832.3		
BIT	1277.3		
ANNULUS	29.3		
TOTAL	2203.7	PUMP PRESSURE 2819.9	% DIFFERENCE 21.9

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.00	HYDROSTATIC PRESSURE	1535.4
CIRCULATING:	ECD	9.17	CIRCULATING PRESSURE	1564.8
PULLING OUT:	TRIP MARGIN	0.34	ESTIMATED SWAB	58.7
	EFFECTIVE MUD WEIGHT	8.66	BOTTOM HOLE PRESSURE	1476.8

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 1100.0 AND TVD 1100.0

SPM 1 94 SPM 2 92 FLOW RATE 930

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.274	40	81	145	LAMINAR	0	80	8.2
HWDP/OH	0.398	33	56	146	LAMINAR	0	55	2.3
DP/OH	0.398	28	56	146	LAMINAR	0	55	2.0
DP/CSG	0.427	310	52	146	LAMINAR	0	52	19.0
DP/RIS	1.325	98	17	148	LAMINAR	0	17	0.7
TOTAL VOLUME		510					TOTAL PRESSURE DROP	32.2

LAG: 23.0 MINUTES 2173 STROKES #1 AND 2111 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1290.4	HHP	700	IMPACT FORCE	1735
% SURFACE PRESSURE	50.4	HHP/sqin	5.94	JET VELOCITY	122

PRESSURE BREAKDOWN:

SURFACE	65.3
STRING	877.6
BIT	1290.4
ANNULUS	32.2
TOTAL	2265.5

PUMP PRESSURE 2560.1 % DIFFERENCE 11.5

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.00	HYDROSTATIC PRESSURE	1689.0
CIRCULATING:	ECD	9.17	CIRCULATING PRESSURE	1721.1
PULLING OUT:	TRIP MARGIN	0.34	ESTIMATED SWAB	64.3
	EFFECTIVE MUD WEIGHT	8.66	BOTTOM HOLE PRESSURE	1624.6

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 1200.0 AND TVD 1200.0

SPM 1 89 SPM 2 89 FLOW RATE 895

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.274	47	78	128	LAMINAR	0	77	8.1
HWDP/OH	0.398	33	53	126	LAMINAR	0	53	1.8
DP/OH	0.398	57	53	126	LAMINAR	0	53	3.1
DP/CSG	0.427	310	50	126	LAMINAR	0	50	14.6
DP/RIS	1.325	98	16	123	LAMINAR	0	16	0.4
TOTAL VOLUME		546				TOTAL PRESSURE DROP		28.1

LAG: 25.6 MINUTES 2295 STROKES #1 AND 2295 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1613.3	HHP	842	IMPACT FORCE	1866
% SURFACE PRESSURE	54.7	HHP/sqin	7.14	JET VELOCITY	136

PRESSURE BREAKDOWN:

SURFACE	64.5				
STRING	969.9				
BIT	1613.3				
ANNULUS	28.1				
TOTAL	2675.8	PUMP PRESSURE	2948.3	% DIFFERENCE	9.2

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.00	HYDROSTATIC PRESSURE	1842.5
CIRCULATING:	ECD	9.14	CIRCULATING PRESSURE	1870.6
PULLING OUT:	TRIP MARGIN	0.27	ESTIMATED SWAB	56.2
	EFFECTIVE MUD WEIGHT	8.73	BOTTOM HOLE PRESSURE	1786.3

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 1300.0 AND TVD 1300.0

SPM 1 85 SPM 2 85 FLOW RATE 850

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.274	47	74	125	LAMINAR	0	73	8.0
HWDP/OH	0.398	33	51	122	LAMINAR	0	51	1.8
DP/OH	0.398	97	51	122	LAMINAR	0	51	5.3
DP/CSG	0.427	310	47	122	LAMINAR	0	47	14.4
DP/RIS	1.325	98	15	119	LAMINAR	0	15	0.4
TOTAL VOLUME		586					TOTAL PRESSURE DROP	29.9

LAG: 28.9 MINUTES 2455 STROKES #1 AND 2470 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1538.4	HHP	763	IMPACT FORCE	1779
% SURFACE PRESSURE	51.7	HHP/sqin	6.48	JET VELOCITY	129

PRESSURE BREAKDOWN:

SURFACE	61.5		
STRING	959.7		
BIT	1538.4		
ANNULUS	29.9		
TOTAL	2589.5	PUMP PRESSURE 2974.1	% DIFFERENCE 12.9

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.50	HYDROSTATIC PRESSURE	2106.9
CIRCULATING:	ECD	9.63	CIRCULATING PRESSURE	2136.8
PULLING OUT:	TRIP MARGIN	0.27	ESTIMATED SWAB	59.8
	EFFECTIVE MUD WEIGHT	9.23	BOTTOM HOLE PRESSURE	2047.2

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 1400.0 AND TVD 1400.0

SPM 1 86 SPM 2 80 FLOW RATE 826

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.274	47	72	125	LAMINAR	0	71	7.9
HWDP/OH	0.398	33	49	122	LAMINAR	0	49	1.8
DP/OH	0.398	137	49	122	LAMINAR	0	49	7.3
DP/CSG	0.427	310	46	122	LAMINAR	0	46	14.3
DP/RIS	1.325	98	15	119	LAMINAR	0	15	0.4
TOTAL VOLUME		626					TOTAL PRESSURE DROP	31.8

LAG: 31.8 MINUTES 2721 STROKES #1 AND 2538 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1451.5	HHP	699	IMPACT FORCE	1679
% SURFACE PRESSURE	53.6	HHP/sqin	5.93	JET VELOCITY	126

PRESSURE BREAKDOWN:

SURFACE	58.3
STRING	944.3
BIT	1451.5
ANNULUS	31.8
TOTAL	2485.9

PUMP PRESSURE 2705.6 % DIFFERENCE 8.1

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.50	HYDROSTATIC PRESSURE	2269.0
CIRCULATING:	ECD	9.63	CIRCULATING PRESSURE	2300.8
PULLING OUT:	TRIP MARGIN	0.27	ESTIMATED SWAB	63.6
	EFFECTIVE MUD WEIGHT	9.23	BOTTOM HOLE PRESSURE	2205.4

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 1500.4 AND TVD 1500.4

SPM 1 32 SPM 2 0 FLOW RATE 160

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.107	16	36	120	LAMINAR	1	35	14.4
HWDP/OH	0.231	19	16	111	LAMINAR	0	16	1.7
DP/OH	0.231	107	16	111	LAMINAR	0	16	9.5
DP/CSG	0.427	310	9	107	LAMINAR	0	9	6.8
DP/RIS	1.325	98	3	101	LAMINAR	0	3	0.2
TOTAL VOLUME		551			TOTAL PRESSURE DROP			32.6

LAG: 144.7 MINUTES 4630 STROKES #1 AND 0 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	83.5	HHP	8	IMPACT FORCE	78
% SURFACE PRESSURE	208.7	HHP/sqin	0.10	JET VELOCITY	30

PRESSURE BREAKDOWN:

SURFACE	3.2				
STRING	51.0				
BIT	83.5				
ANNULUS	32.6				
TOTAL	170.3	PUMP PRESSURE	40.0	% DIFFERENCE	325.7

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.50	HYDROSTATIC PRESSURE	2431.7
CIRCULATING:	ECD	9.63	CIRCULATING PRESSURE	2464.3
PULLING OUT:	TRIP MARGIN	0.25	ESTIMATED SWAB	65.2
	EFFECTIVE MUD WEIGHT	9.25	BOTTOM HOLE PRESSURE	2366.6

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 1600.0 AND TVD 1600.0

SPM 1 83 SPM 2 83 FLOW RATE 830

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.274	47	72	91	LAMINAR	1	71	5.0
HWDP/OH	0.398	33	50	84	LAMINAR	0	49	1.0
DP/OH	0.398	217	50	84	LAMINAR	0	49	6.4
DP/CSG	0.427	310	46	84	LAMINAR	0	46	7.8
DP/RIS	1.325	98	15	76	LAMINAR	0	15	0.2
TOTAL VOLUME		706			TOTAL PRESSURE DROP			20.3

LAG: 35.7 MINUTES 2948 STROKES #1 AND 2981 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1755.5	HHP	850	IMPACT FORCE	1865
% SURFACE PRESSURE	59.7	HHP/sqin	7.21	JET VELOCITY	137

PRESSURE BREAKDOWN:

SURFACE	62.1				
STRING	1076.3				
BIT	1755.5				
ANNULUS	20.3				
TOTAL	2914.1	PUMP PRESSURE	2941.7	% DIFFERENCE	0.9

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.60	HYDROSTATIC PRESSURE	2620.5
CIRCULATING:	ECD	9.67	CIRCULATING PRESSURE	2640.7
PULLING OUT:	TRIP MARGIN	0.15	ESTIMATED SWAB	40.5
	EFFECTIVE MUD WEIGHT	9.45	BOTTOM HOLE PRESSURE	2579.9

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 1700.0 AND TVD 1700.0

SPM 1 80 SPM 2 83 FLOW RATE 815

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.274	47	71	131	LAMINAR	0	70	9.4
HWDP/OH	0.398	33	49	122	LAMINAR	0	49	1.8
DP/OH	0.398	257	49	122	LAMINAR	0	49	14.2
DP/CSG	0.427	310	45	121	LAMINAR	0	45	14.5
DP/RIS	1.325	98	15	108	LAMINAR	0	15	0.3
TOTAL VOLUME		745				TOTAL PRESSURE DROP		40.2

LAG: 38.4 MINUTES 3088 STROKES #1 AND 3176 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1673.4	HHP	795	IMPACT FORCE	1778
% SURFACE PRESSURE	53.9	HHP/sqin	6.75	JET VELOCITY	135

PRESSURE BREAKDOWN:

SURFACE	68.3				
STRING	1224.8				
BIT	1673.4				
ANNULUS	40.2				
TOTAL	3006.8	PUMP PRESSURE	3106.0	% DIFFERENCE	3.2

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.50	HYDROSTATIC PRESSURE	2755.2
CIRCULATING:	ECD	9.64	CIRCULATING PRESSURE	2795.5
PULLING OUT:	TRIP MARGIN	0.28	ESTIMATED SWAB	80.5
	EFFECTIVE MUD WEIGHT	9.22	BOTTOM HOLE PRESSURE	2674.8

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 1800.0 AND TVD 1800.0

SPM 1 80 SPM 2 82 FLOW RATE 808

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.274	47	70	123	LAMINAR	0	70	8.4
HWDP/OH	0.398	33	48	113	LAMINAR	0	48	1.6
DP/OH	0.398	296	48	113	LAMINAR	0	48	14.4
DP/CSG	0.427	310	45	112	LAMINAR	0	45	12.7
DP/RIS	1.325	98	15	99	LAMINAR	0	14	0.3
TOTAL VOLUME		785			TOTAL PRESSURE DROP			37.4

LAG: 40.8 MINUTES 3250 STROKES #1 AND 3349 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1646.8	HHP	776	IMPACT FORCE	1750
% SURFACE PRESSURE	54.0	HHP/sqin	6.59	JET VELOCITY	134

PRESSURE BREAKDOWN:

SURFACE	67.4				
STRING	1246.2				
BIT	1646.8				
ANNULUS	37.4				
TOTAL	2997.8	PUMP PRESSURE	3051.6	% DIFFERENCE	1.8

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.50	HYDROSTATIC PRESSURE	2917.3
CIRCULATING:	ECD	9.62	CIRCULATING PRESSURE	2954.8
PULLING OUT:	TRIP MARGIN	0.24	ESTIMATED SWAB	74.9
	EFFECTIVE MUD WEIGHT	9.26	BOTTOM HOLE PRESSURE	2842.4

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 1900.0 AND TVD 1900.0

SPM 1 79 SPM 2 79 FLOW RATE 790

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.274	47	69	127	LAMINAR	0	68	8.8
HWDP/OH	0.398	33	47	117	LAMINAR	0	47	1.7
DP/OH	0.398	336	47	117	LAMINAR	0	47	17.3
DP/CSG	0.427	310	44	116	LAMINAR	0	44	13.5
DP/RIS	1.325	98	14	104	LAMINAR	0	14	0.3
TOTAL VOLUME		825					TOTAL PRESSURE DROP	41.5

LAG: 43.8 MINUTES 3450 STROKES #1 AND 3484 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1574.9	HHP	726	IMPACT FORCE	1673
% SURFACE PRESSURE	52.2	HHP/sqin	6.16	JET VELOCITY	131

PRESSURE BREAKDOWN:

SURFACE	64.7				
STRING	1234.3				
BIT	1574.9				
ANNULUS	41.5				
TOTAL	2915.5	PUMP PRESSURE	3014.2	% DIFFERENCE	3.3

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.50	HYDROSTATIC PRESSURE	3079.4
CIRCULATING:	ECD	9.63	CIRCULATING PRESSURE	3120.9
PULLING OUT:	TRIP MARGIN	0.26	ESTIMATED SWAB	83.1
	EFFECTIVE MUD WEIGHT	9.24	BOTTOM HOLE PRESSURE	2996.3

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 2000.0 AND TVD 2000.0

SPM 1 78 SPM 2 79 FLOW RATE 787

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.274	47	68	128	LAMINAR	0	68	8.8
HWDP/OH	0.398	33	47	119	LAMINAR	0	47	1.7
DP/OH	0.398	376	47	119	LAMINAR	0	47	19.8
DP/CSG	0.427	310	44	119	LAMINAR	0	44	13.9
DP/RIS	1.325	98	14	107	LAMINAR	0	14	0.3
TOTAL VOLUME		865				TOTAL PRESSURE DROP		44.6

LAG: 46.2 MINUTES 3602 STROKES #1 AND 3667 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1562.0	HHP	717	IMPACT FORCE	1660
% SURFACE PRESSURE	50.5	HHP/sqin	6.09	JET VELOCITY	130

PRESSURE BREAKDOWN:

SURFACE	62.9				
STRING	1235.9				
BIT	1562.0				
ANNULUS	44.6				
TOTAL	2905.4	PUMP PRESSURE	3091.7	% DIFFERENCE	6.0

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.50	HYDROSTATIC PRESSURE	3241.5
CIRCULATING:	ECD	9.63	CIRCULATING PRESSURE	3286.0
PULLING OUT:	TRIP MARGIN	0.26	ESTIMATED SWAB	89.1
	EFFECTIVE MUD WEIGHT	9.24	BOTTOM HOLE PRESSURE	3152.3

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 2100.0 AND TVD 2100.0

SPM 1 76 SPM 2 77 FLOW RATE 767

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.274	47	67	150	LAMINAR	0	66	11.5
HWDP/OH	0.398	33	46	142	LAMINAR	0	46	2.3
DP/OH	0.398	416	46	142	LAMINAR	0	46	29.5
DP/CSG	0.427	310	43	141	LAMINAR	0	43	18.7
DP/RIS	1.325	98	14	130	LAMINAR	0	14	0.5
TOTAL VOLUME		905				TOTAL PRESSURE DROP		62.4

LAG: 49.5 MINUTES 3777 STROKES #1 AND 3826 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1483.6	HHP	664	IMPACT FORCE	1576
% SURFACE PRESSURE	50.0	HHP/sqin	5.63	JET VELOCITY	127

PRESSURE BREAKDOWN:

SURFACE	61.3				
STRING	1240.4				
BIT	1483.6				
ANNULUS	62.4				
TOTAL	2847.8	PUMP PRESSURE	2967.8	% DIFFERENCE	4.0

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.50	HYDROSTATIC PRESSURE	3403.5
CIRCULATING:	ECD	9.67	CIRCULATING PRESSURE	3466.0
PULLING OUT:	TRIP MARGIN	0.35	ESTIMATED SWAB	124.9
	EFFECTIVE MUD WEIGHT	9.15	BOTTOM HOLE PRESSURE	3278.?

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 2200.0 AND TVD 2200.0

SPM 1 74 SPM 2 77 FLOW RATE 757

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.274	47	66	145	LAMINAR	0	65	10.8
HWDP/OH	0.398	33	45	134	LAMINAR	0	45	2.1
DP/OH	0.398	456	45	134	LAMINAR	0	45	29.1
DP/CSG	0.427	310	42	133	LAMINAR	0	42	16.7
DP/RIS	1.325	98	14	119	LAMINAR	0	14	0.4
TOTAL VOLUME		945			TOTAL PRESSURE DROP			59.1

LAG: 52.4 MINUTES 3895 STROKES #1 AND 4043 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1445.7	HHP	639	IMPACT FORCE	1536
% SURFACE PRESSURE	49.2	HHP/sqin	5.42	JET VELOCITY	125

PRESSURE BREAKDOWN:

SURFACE	62.1		
STRING	1292.7		
BIT	1445.7		
ANNULUS	59.1		
TOTAL	2859.6	PUMP PRESSURE 2937.8	% DIFFERENCE 2.7

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.50	HYDROSTATIC PRESSURE	3565.6
CIRCULATING:	ECD	9.66	CIRCULATING PRESSURE	3624.7
PULLING OUT:	TRIP MARGIN	0.32	ESTIMATED SWAB	118.2
	EFFECTIVE MUD WEIGHT	9.18	BOTTOM HOLE PRESSURE	3447.4

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 2300.0 AND TVD 2300.0

SPM 1 74 SPM 2 77 FLOW RATE 753

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.274	47	65	145	LAMINAR	0	65	10.8
HWDP/OH	0.398	33	45	134	LAMINAR	0	45	2.1
DP/OH	0.398	496	45	134	LAMINAR	0	45	31.5
DP/CSG	0.427	310	42	133	LAMINAR	0	42	16.7
DP/RIS	1.325	98	14	119	LAMINAR	0	14	0.4
TOTAL VOLUME		984				TOTAL PRESSURE DROP		61.5

LAG: 54.9 MINUTES 4056 STROKES #1 AND 4217 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1430.4	HHP	629	IMPACT FORCE	1520
% SURFACE PRESSURE	50.0	HHP/sqin	5.33	JET VELOCITY	125

PRESSURE BREAKDOWN:

SURFACE	61.5				
STRING	1315.9				
BIT	1430.4				
ANNULUS	61.5				
TOTAL	2869.3	PUMP PRESSURE	2863.1	% DIFFERENCE	0.2

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.50	HYDROSTATIC PRESSURE	3727.7
CIRCULATING:	ECD	9.66	CIRCULATING PRESSURE	3789.2
PULLING OUT:	TRIP MARGIN	0.31	ESTIMATED SWAB	123.0
	EFFECTIVE MUD WEIGHT	9.19	BOTTOM HOLE PRESSURE	3604.6

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 2400.0 AND TVD 2400.0

SPM 1 74 SPM 2 77 FLOW RATE 753

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.274	47	65	151	LAMINAR	0	65	11.5
HWDP/OH	0.398	33	45	144	LAMINAR	0	45	2.4
DP/OH	0.398	535	45	144	LAMINAR	0	45	38.8
DP/CSG	0.427	310	42	143	LAMINAR	0	42	19.2
DP/RIS	1.325	98	14	134	LAMINAR	0	14	0.5
TOTAL VOLUME		1024				TOTAL PRESSURE DROP		72.4

LAG: 57.1 MINUTES 4210 STROKES #1 AND 4397 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1430.6	HHP	629	IMPACT FORCE	1520
% SURFACE PRESSURE	48.3	HHP/sqin	5.33	JET VELOCITY	125

PRESSURE BREAKDOWN:

SURFACE	58.1
STRING	1276.0
BIT	1430.6
ANNULUS	72.4
TOTAL	2837.1

PUMP PRESSURE 2961.6 % DIFFERENCE 4.2

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.50	HYDROSTATIC PRESSURE	3889.8
CIRCULATING:	ECD	9.68	CIRCULATING PRESSURE	3962.1
PULLING OUT:	TRIP MARGIN	0.35	ESTIMATED SWAB	144.7
	EFFECTIVE MUD WEIGHT	9.15	BOTTOM HOLE PRESSURE	3745.8

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 2500.0 AND TVD 2500.0

SPM 1 75 SPM 2 77 FLOW RATE 756

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.274	47	66	141	LAMINAR	0	65	10.2
HWDP/OH	0.398	33	45	135	LAMINAR	0	45	2.1
DP/OH	0.398	575	45	135	LAMINAR	0	45	36.9
DP/CSG	0.427	310	42	134	LAMINAR	0	42	17.0
DP/RIS	1.325	98	14	126	LAMINAR	0	14	0.4
TOTAL VOLUME		1064				TOTAL PRESSURE DROP		66.6

LAG: 59.1 MINUTES 4407 STROKES #1 AND 4536 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1440.7	HHP	635	IMPACT FORCE	1531
% SURFACE PRESSURE	47.3	HHP/sqin	5.39	JET VELOCITY	125

PRESSURE BREAKDOWN:

SURFACE	57.1				
STRING	1287.1				
BIT	1440.7				
ANNULUS	66.6				
TOTAL	2851.6	PUMP PRESSURE	3047.2	% DIFFERENCE	6.4

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.50	HYDROSTATIC PRESSURE	4051.8
CIRCULATING:	ECD	9.66	CIRCULATING PRESSURE	4118.4
PULLING OUT:	TRIP MARGIN	0.31	ESTIMATED SWAB	133.1
	EFFECTIVE MUD WEIGHT	9.19	BOTTOM HOLE PRESSURE	3918.7

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 2600.0 AND TVD 2600.0

SPM 1 74 SPM 2 77 FLOW RATE 751

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.274	47	65	127	LAMINAR	0	65	8.6
HWDP/OH	0.398	33	45	117	LAMINAR	0	45	1.7
DP/OH	0.398	615	45	117	LAMINAR	0	45	30.9
DP/CSG	0.427	310	42	116	LAMINAR	0	42	13.2
DP/RIS	1.325	98	13	103	LAMINAR	0	13	0.3
TOTAL VOLUME		1104			TOTAL PRESSURE DROP			54.7

LAG: 61.8 MINUTES 4547 STROKES #1 AND 4730 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1425.7	HHP	624	IMPACT FORCE	1515
% SURFACE PRESSURE	48.6	HHP/sqin	5.30	JET VELOCITY	124

PRESSURE BREAKDOWN:

SURFACE	59.1				
STRING	1366.9				
BIT	1425.7				
ANNULUS	54.7				
TOTAL	2906.4	PUMP PRESSURE	2934.5	% DIFFERENCE	1.0

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.53	HYDROSTATIC PRESSURE	4227.3
CIRCULATING:	ECD	9.65	CIRCULATING PRESSURE	4282.0
PULLING OUT:	TRIP MARGIN	0.25	ESTIMATED SWAB	109.4
	EFFECTIVE MUD WEIGHT	9.28	BOTTOM HOLE PRESSURE	4118.0

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 2700.0 AND TVD 2700.0

SPM 1 73 SPM 2 78 FLOW RATE 756

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.274	47	66	122	LAMINAR	0	65	7.9
HWDP/OH	0.398	33	45	115	LAMINAR	0	45	1.6
DP/OH	0.398	655	45	115	LAMINAR	0	45	31.8
DP/CSG	0.427	310	42	115	LAMINAR	0	42	12.8
DP/RIS	1.325	98	14	106	LAMINAR	0	14	0.3
TOTAL VOLUME		1144				TOTAL PRESSURE DROP		54.5

LAG: 63.6 MINUTES 4640 STROKES #1 AND 4972 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1442.6	HHP	636	IMPACT FORCE	1533
% SURFACE PRESSURE	49.0	HHP/sqin	5.40	JET VELOCITY	125

PRESSURE BREAKDOWN:

SURFACE	55.7				
STRING	1318.6				
BIT	1442.6				
ANNULUS	54.5				
TOTAL	2871.4	PUMP PRESSURE	2946.9	% DIFFERENCE	2.6

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.52	HYDROSTATIC PRESSURE	4384.0
CIRCULATING:	ECD	9.64	CIRCULATING PRESSURE	4438.5
PULLING OUT:	TRIP MARGIN	0.24	ESTIMATED SWAB	109.0
	EFFECTIVE MUD WEIGHT	9.28	BOTTOM HOLE PRESSURE	4275.0

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 2800.0 AND TVD 2798.9

SPM 1 75 SPM 2 74 FLOW RATE 741

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.274	47	64	127	LAMINAR	0	64	8.6
HWDP/OH	0.398	33	44	116	LAMINAR	0	44	1.7
DP/OH	0.398	695	44	116	LAMINAR	0	44	34.7
DP/CSG	0.427	310	41	116	LAMINAR	0	41	13.1
DP/RIS	1.325	98	13	103	LAMINAR	0	13	0.3
TOTAL VOLUME		1184				TOTAL PRESSURE DROP		58.4

LAG: 67.1 MINUTES 5015 STROKES #1 AND 4931 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1400.4	HHP	606	IMPACT FORCE	1488
% SURFACE PRESSURE	48.3	HHP/sqin	5.14	JET VELOCITY	123

PRESSURE BREAKDOWN:

SURFACE	58.2		
STRING	1411.1		
BIT	1400.4		
ANNULUS	58.4		
TOTAL	2928.0	PUMP PRESSURE 2900.6	% DIFFERENCE 0.9

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.60	HYDROSTATIC PRESSURE	4585.8
CIRCULATING:	ECD	9.73	CIRCULATING PRESSURE	4644.2
PULLING OUT:	TRIP MARGIN	0.24	ESTIMATED SWAB	116.7
	EFFECTIVE MUD WEIGHT	9.36	BOTTOM HOLE PRESSURE	4469.1

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 2900.0 AND TVD 2898.8

SPM 1 71 SPM 2 72 FLOW RATE 713

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.274	47	62	140	LAMINAR	0	62	10.0
HWDP/OH	0.398	33	43	127	LAMINAR	0	42	1.9
DP/OH	0.398	735	43	127	LAMINAR	0	42	41.6
DP/CSG	0.427	310	40	126	LAMINAR	0	40	14.8
DP/RIS	1.325	98	13	110	LAMINAR	0	13	0.3
TOTAL VOLUME		1223					TOTAL PRESSURE DROP	68.6

LAG: 72.1 MINUTES 5107 STROKES #1 AND 5174 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1284.7	HHP	534	IMPACT FORCE	1365
% SURFACE PRESSURE	44.8	HHP/sqin	4.53	JET VELOCITY	118

PRESSURE BREAKDOWN:

SURFACE	57.6				
STRING	1431.0				
BIT	1284.7				
ANNULUS	68.6				
TOTAL	2841.9	PUMP PRESSURE	2866.7	% DIFFERENCE	0.9

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.52	HYDROSTATIC PRESSURE	4708.1
CIRCULATING:	ECD	9.66	CIRCULATING PRESSURE	4776.6
PULLING OUT:	TRIP MARGIN	0.28	ESTIMATED SWAB	137.1
	EFFECTIVE MUD WEIGHT	9.24	BOTTOM HOLE PRESSURE	4570.9

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 3000.0 AND TVD 2998.3

SPM 1 72 SPM 2 72 FLOW RATE 715

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.274	47	62	133	LAMINAR	0	62	9.2
HWDP/OH	0.398	33	43	120	LAMINAR	0	43	1.7
DP/OH	0.398	774	43	120	LAMINAR	0	43	40.1
DP/CSG	0.427	310	40	119	LAMINAR	0	40	13.5
DP/RIS	1.325	98	13	103	LAMINAR	0	13	0.3
TOTAL VOLUME		1263				TOTAL PRESSURE DROP		64.8

LAG: 74.2 MINUTES 5309 STROKES #1 AND 5308 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1301.1	HHP	543	IMPACT FORCE	1382
% SURFACE PRESSURE	44.5	HHP/sqin	4.61	JET VELOCITY	118

PRESSURE BREAKDOWN:

SURFACE	57.4				
STRING	1458.2				
BIT	1301.1				
ANNULUS	64.8				
TOTAL	2881.4	PUMP PRESSURE	2925.1	% DIFFERENCE	1.5

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.58	HYDROSTATIC PRESSURE	4902.6
CIRCULATING:	ECD	9.71	CIRCULATING PRESSURE	4967.4
PULLING OUT:	TRIP MARGIN	0.25	ESTIMATED SWAB	129.6
	EFFECTIVE MUD WEIGHT	9.33	BOTTOM HOLE PRESSURE	4773.0

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 3100.0 AND TVD 3092.9

SPM 1 71 SPM 2 72 FLOW RATE 714

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.274	47	62	147	LAMINAR	0	62	10.7
HWDP/OH	0.398	33	43	138	LAMINAR	0	43	2.2
DP/OH	0.398	814	43	138	LAMINAR	0	43	53.4
DP/CSG	0.427	310	40	137	LAMINAR	0	40	17.3
DP/RIS	1.325	98	13	126	LAMINAR	0	13	0.4
TOTAL VOLUME		1303				TOTAL PRESSURE DROP		84.1

LAG: 76.7 MINUTES 5460 STROKES #1 AND 5491 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1280.9	HHP	533	IMPACT FORCE	1361
% SURFACE PRESSURE	42.8	HHP/sqin	4.53	JET VELOCITY	118

PRESSURE BREAKDOWN:

SURFACE	53.7		
STRING	1397.0		
BIT	1280.9		
ANNULUS	84.1		
TOTAL	2815.7	PUMP PRESSURE 2991.3	% DIFFERENCE 5.9

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.47	HYDROSTATIC PRESSURE	5004.9
CIRCULATING:	ECD	9.63	CIRCULATING PRESSURE	5088.9
PULLING OUT:	TRIP MARGIN	0.32	ESTIMATED SWAB	168.2
	EFFECTIVE MUD WEIGHT	9.15	BOTTOM HOLE PRESSURE	4836.7

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 3200.0 AND TVD 3197.6

SPM 1 70 SPM 2 75 FLOW RATE 722

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.274	47	63	123	LAMINAR	0	62	8.5
HWDP/OH	0.398	33	43	113	LAMINAR	0	43	1.6
DP/OH	0.398	854	43	113	LAMINAR	0	43	42.2
DP/CSG	0.427	310	40	112	LAMINAR	0	40	13.0
DP/RIS	1.325	98	13	100	LAMINAR	0	13	0.3
TOTAL VOLUME		1343				TOTAL PRESSURE DROP		65.6

LAG: 78.2 MINUTES 5437 STROKES #1 AND 5849 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1394.7	HHP	587	IMPACT FORCE	1482
% SURFACE PRESSURE	45.0	HHP/sqin	4.98	JET VELOCITY	119

PRESSURE BREAKDOWN:

SURFACE	57.7		
STRING	1532.0		
BIT	1394.7		
ANNULUS	65.6		
TOTAL	3050.0	PUMP PRESSURE 3102.2	% DIFFERENCE 1.7

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	10.09	HYDROSTATIC PRESSURE	5505.6
CIRCULATING:	ECD	10.21	CIRCULATING PRESSURE	5571.2
PULLING OUT:	TRIP MARGIN	0.24	ESTIMATED SWAB	131.2
	EFFECTIVE MUD WEIGHT	9.85	BOTTOM HOLE PRESSURE	5374.4

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 3300.0 AND TVD 3297.3

SPM 1 71 SPM 2 67 FLOW RATE 691

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.274	47	60	135	LAMINAR	0	60	9.7
HWDP/OH	0.398	33	41	126	LAMINAR	0	41	1.9
DP/OH	0.398	894	41	126	LAMINAR	0	41	52.0
DP/CSG	0.427	310	38	125	LAMINAR	0	38	15.3
DP/RIS	1.325	98	12	114	LAMINAR	0	12	0.4
TOTAL VOLUME		1383				TOTAL PRESSURE DROP		79.3

LAG: 84.1 MINUTES 5952 STROKES #1 AND 5669 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1267.7	HHP	511	IMPACT FORCE	1347
% SURFACE PRESSURE	42.6	HHP/sqin	4.33	JET VELOCITY	114

PRESSURE BREAKDOWN:

SURFACE	53.0
STRING	1437.5
BIT	1267.7
ANNULUS	79.3
TOTAL	2837.5

PUMP PRESSURE 2974.1 % DIFFERENCE 4.6

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	10.01	HYDROSTATIC PRESSURE	5630.7
CIRCULATING:	ECD	10.15	CIRCULATING PRESSURE	5710.0
PULLING OUT:	TRIP MARGIN	0.28	ESTIMATED SWAB	158.6
	EFFECTIVE MUD WEIGHT	9.73	BOTTOM HOLE PRESSURE	5472.1

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 3400.0 AND TVD 3397.1

SPM 1 96 SPM 2 0 FLOW RATE 480

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.106	6	108	137	LAMINAR	1	107	9.4
DC/CSG	0.116	23	99	135	LAMINAR	1	98	26.8
HWDP/CSG	0.160	13	71	125	LAMINAR	0	71	5.3
DP/CSG	0.160	478	71	125	LAMINAR	0	71	188.8
DP/RIS	1.325	98	9	97	LAMINAR	0	9	0.2
TOTAL VOLUME		619				TOTAL PRESSURE DROP		230.5

LAG: 54.2 MINUTES 5204 STROKES #1 AND 0 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1945.8	HHP	545	IMPACT FORCE	1163
% SURFACE PRESSURE	64.1	HHP/sqin	9.60	JET VELOCITY	141

PRESSURE BREAKDOWN:

SURFACE	28.2				
STRING	874.9				
BIT	1945.8				
ANNULUS	230.5				
TOTAL	3079.4	PUMP PRESSURE	3037.3	% DIFFERENCE	1.4

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	10.00	HYDROSTATIC PRESSURE	5839.4
CIRCULATING:	ECD	10.47	CIRCULATING PRESSURE	6069.9
PULLING OUT:	TRIP MARGIN	0.80	ESTIMATED SWAB	461.1
	EFFECTIVE MUD WEIGHT	9.28	BOTTOM HOLE PRESSURE	5378.3

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 3500.0 AND TVD 3496.9

SPM 1 92 SPM 2 0 FLOW RATE 462

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.106	17	104	143	LAMINAR	1	103	27.8
DC/CSG	0.116	12	95	141	LAMINAR	1	94	15.2
HWDP/CSG	0.160	13	68	129	LAMINAR	0	68	5.7
DP/CSG	0.160	494	68	129	LAMINAR	0	68	211.6
DP/RIS	1.325	98	8	95	LAMINAR	0	8	0.2
TOTAL VOLUME		634				TOTAL PRESSURE DROP		260.5

LAG: 57.7 MINUTES 5330 STROKES #1 AND 0 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1873.1	HHP	504	IMPACT FORCE	1119
% SURFACE PRESSURE	63.7	HHP/sqin	8.89	JET VELOCITY	136

PRESSURE BREAKDOWN:

SURFACE	28.4		
STRING	900.9		
BIT	1873.1		
ANNULUS	260.5		
TOTAL	3063.0	PUMP PRESSURE 2938.4	% DIFFERENCE 4.2

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	10.48	HYDROSTATIC PRESSURE	6254.0
CIRCULATING:	ECD	10.92	CIRCULATING PRESSURE	6514.5
PULLING OUT:	TRIP MARGIN	0.87	ESTIMATED SWAB	521.1
	EFFECTIVE MUD WEIGHT	9.61	BOTTOM HOLE PRESSURE	5732.9

(c). COMPUTER DATA LISTING : LIST A

INTERVAL . . . . . All depth records (data not averaged)

DEPTH. . . . . Well depth, in metres

ROP. . . . . Rate of penetration, in metres/hour

WOB. . . . . Weight-on-bit, in thousands of pounds

RPM. . . . . Rotary speed, in revolutions per minute

MW . . . . . Mud weight in, in pounds per gallon

'dc' . . . . . Calculated 'd' exponent, corrected for variations in mud weight in, using a correction factor of 10 ppg.

HOURS. . . . . Cumulative bit hours. The number of hours that the bit has actually been on bottom, recorded in decimal hours.

TURNS. . . . . Cumulative bit turns. The number of turns made by the bit, while actually on bottom

ICOST. . . . . Incremental cost per metre, calculated from the rate of penetration, in Australian dollars.

CCOST. . . . . Cumulative cost per metre, calculated from the drilling time, in A dollars.

PP . . . . . Pore pressure gradient, in equivalent pounds per gallon. The pressure exerted by the fluid in the pore spaces of the formation.

FG . . . . . Fracture gradient, in equivalent pounds per gallon. The pressure required to fracture the formation, calculated by the DRILL program using Eaton's equation.

It is dependent on the pore pressure, the overburden gradient and the matrix stress. this value may be modified by leak-off information.

BIT NUMBER	1	IADC CODE	111	INTERVAL	224.0- 815.0
HTC OSC 3AJ		SIZE	17.500	NOZZLES	20 20 20
COST	0.00	TRIP TIME	2.5	BIT RUN	591.0
TOTAL HOURS	18.73	TOTAL TURNS	140604	CONDITION	T0 B0 G0.000

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
225.0	128.0	9.0	75	8.9	0.52	0.01	35	29	9159	8.3	12.4
226.0	92.3	9.9	75	8.9	0.61	0.02	84	40	4599	8.3	12.4
227.0	189.5	9.2	75	8.9	0.44	0.02	108	19	3072	8.3	12.4
228.0	150.0	9.3	75	8.9	0.49	0.03	138	24	2310	8.3	12.4
229.0	225.0	9.5	75	8.9	0.40	0.04	158	16	1852	8.3	12.4
230.0	156.5	10.5	75	8.9	0.49	0.04	186	23	1547	8.3	12.4
231.0	30.6	8.0	75	8.9	0.82	0.07	333	119	1343	8.3	12.4
233.0	21.2	7.3	75	8.9	0.88	0.17	758	172	1083	8.3	12.4
235.0	130.9	9.9	75	8.9	0.53	0.18	827	27.90	891.02	8.3	12.5
236.0	171.4	9.3	75	8.9	0.46	0.19	853	21.30	818.54	8.3	12.5
237.0	163.6	10.1	75	8.9	0.48	0.20	881	22.32	757.29	8.3	12.5
238.0	189.5	10.3	75	8.9	0.45	0.20	905	19.27	704.58	8.3	12.5
239.0	144.0	10.9	75	8.9	0.52	0.21	936	25.36	659.30	8.3	12.5
240.0	133.3	8.6	75	8.9	0.51	0.22	970	27.39	619.80	8.3	12.5
241.0	97.3	12.0	75	8.9	0.62	0.23	1016	37.53	585.55	8.3	12.5
242.0	102.9	12.7	75	8.9	0.61	0.24	1060	35.51	554.99	8.3	12.5
243.0	43.9	9.0	76	8.9	0.76	0.26	1164	83.18	530.16	8.3	12.5
245.0	171.4	9.5	115	8.9	0.56	0.27	1244	21.30	481.70	8.3	12.5
247.0	160.0	10.7	122	8.9	0.60	0.28	1335	22.83	441.80	8.3	12.5
249.0	153.2	12.1	122	8.9	0.63	0.30	1431	23.84	408.36	8.3	12.5
250.0	200.0	10.1	118	8.9	0.54	0.30	1466	18.26	393.36	8.3	12.5
251.0	87.8	11.7	118	8.9	0.75	0.31	1547	41.59	380.33	8.3	12.5
253.0	72.0	8.9	122	8.9	0.76	0.34	1749	50.72	357.60	8.3	12.5
254.0	40.9	7.1	123	8.9	0.85	0.36	1930	89.27	348.65	8.3	12.5
255.0	150.0	12.4	126	8.9	0.64	0.37	1981	24.35	338.19	8.3	12.5
256.0	163.6	12.8	126	8.9	0.63	0.38	2027	22.32	328.32	8.3	12.5
257.0	112.5	12.2	127	8.9	0.71	0.39	2094	32.46	319.35	8.3	12.5
258.0	124.1	11.2	126	8.9	0.67	0.39	2155	29.42	310.83	8.3	12.5
259.0	105.9	13.7	126	8.9	0.74	0.40	2227	34.49	302.93	8.3	12.5
260.0	180.0	14.4	128	8.9	0.62	0.41	2269	20.29	295.08	8.3	12.6
261.0	112.5	14.2	128	8.9	0.74	0.42	2338	32.46	287.98	8.3	12.6
262.0	102.9	12.3	111	8.9	0.70	0.43	2403	35.51	281.34	8.3	12.6
263.0	46.2	11.3	129	8.9	0.91	0.45	2570	79.13	276.15	8.3	12.6
264.0	78.3	12.2	129	8.9	0.80	0.46	2669	46.66	270.42	8.3	12.6
265.0	70.6	15.4	128	8.9	0.87	0.48	2778	51.74	265.08	8.3	12.6
266.0	171.4	16.0	128	8.9	0.65	0.48	2823	21.30	259.28	8.3	12.6
267.0	69.2	12.9	128	8.9	0.84	0.50	2934	52.75	254.48	8.3	12.6
268.0	67.9	14.1	128	8.9	0.86	0.51	3047	53.77	249.91	8.3	12.6
269.0	97.3	16.4	129	8.9	0.80	0.52	3127	37.53	245.19	8.3	12.6
270.0	80.0	16.9	128	8.9	0.85	0.53	3223	45.65	240.86	8.3	12.6
271.0	92.3	15.2	128	8.9	0.80	0.54	3306	39.56	236.57	8.3	12.6
272.0	34.3	12.9	125	8.9	1.00	0.57	3525	106.52	233.86	8.3	12.6
273.0	47.4	14.7	131	8.9	0.96	0.59	3690	77.10	230.66	8.3	12.6

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
274.0	46.8	16.0	130	8.9	0.98	0.62	3857	78.11	227.61	8.3	12.6
275.0	64.3	15.1	130	8.9	0.89	0.63	3979	56.81	224.26	8.3	12.6
276.0	72.0	16.3	130	8.9	0.87	0.65	4087	50.72	220.93	8.3	12.6
277.0	52.2	16.5	130	8.9	0.96	0.66	4237	70.00	218.08	8.3	12.6
279.0	104.3	17.0	130	8.9	0.79	0.68	4386	35.00	211.42	8.3	12.6
280.0	66.7	15.2	130	8.9	0.88	0.70	4503	54.78	208.62	8.3	12.6
282.0	80.0	14.8	128	8.9	0.83	0.72	4695	45.65	203.00	8.3	12.6
283.0	94.7	16.8	128	8.9	0.81	0.73	4776	38.55	200.22	8.3	12.6
284.0	120.0	16.0	129	8.9	0.74	0.74	4841	30.43	197.39	8.3	12.6
285.0	76.6	17.3	128	8.9	0.87	0.76	4941	47.68	194.93	8.3	12.6
286.0	102.9	18.2	129	8.9	0.80	0.77	5016	35.51	192.36	8.3	12.7
287.0	85.7	16.9	129	8.9	0.84	0.78	5107	42.61	189.98	8.3	12.7
288.0	76.6	16.7	129	8.9	0.86	0.79	5208	47.68	187.76	8.3	12.7
289.0	81.8	15.3	129	8.9	0.83	0.80	5303	44.64	185.56	8.3	12.7
290.0	81.8	15.0	129	8.9	0.83	0.81	5397	44.64	183.42	8.3	12.7
291.0	77.1	16.0	126	8.9	0.85	0.83	5496	47.34	181.39	8.3	12.7
292.0	85.7	14.0	126	8.9	0.80	0.84	5584	42.61	179.35	8.3	12.7
293.0	81.8	16.5	127	8.9	0.84	0.85	5677	44.64	177.40	8.3	12.7
294.0	87.8	14.5	127	8.9	0.80	0.86	5764	41.59	175.46	8.3	12.7
295.0	87.8	14.4	127	8.9	0.80	0.87	5850	41.59	173.57	8.3	12.7
296.0	144.0	17.1	127	8.9	0.70	0.88	5903	25.36	171.52	8.3	12.7
297.0	94.7	16.8	127	8.9	0.81	0.89	5984	38.55	169.69	8.3	12.7
298.0	102.9	18.1	127	8.9	0.80	0.90	6058	35.51	167.88	8.3	12.7
299.0	87.8	17.6	127	8.9	0.83	0.91	6145	41.59	166.20	8.3	12.7
300.0	102.9	15.5	127	8.9	0.77	0.92	6219	35.51	164.48	8.3	12.7
301.0	63.2	13.9	121	8.9	0.86	0.94	6334	57.82	163.09	8.3	12.7
302.0	100.0	17.7	129	8.9	0.80	0.95	6411	36.52	161.47	8.3	12.7
303.0	59.0	17.5	128	8.9	0.93	0.97	6541	61.88	160.21	8.3	12.7
304.0	73.5	17.8	128	8.9	0.88	0.98	6646	49.71	158.83	8.3	12.7
305.0	62.1	18.6	128	8.9	0.93	1.00	6769	58.84	157.59	8.3	12.7
306.0	112.5	18.0	128	8.9	0.78	1.00	6838	32.46	156.07	8.3	12.7
307.0	97.3	18.9	128	8.9	0.82	1.01	6916	37.53	154.64	8.3	12.7
308.0	116.1	18.7	128	8.9	0.77	1.02	6982	31.45	153.17	8.3	12.7
309.0	57.1	19.7	128	8.9	0.97	1.04	7117	63.91	152.12	8.3	12.7
310.0	27.1	18.5	124	8.9	1.14	1.08	7391	134.92	151.92	8.3	12.7
312.0	41.6	17.2	128	8.9	1.02	1.13	7759	87.75	150.46	8.3	12.7
313.0	105.9	17.7	128	8.9	0.79	1.14	7832	34.49	149.16	8.3	12.8
314.0	156.5	17.8	128	8.9	0.69	1.14	7881	23.33	147.76	8.3	12.8
315.0	51.4	18.8	128	8.9	0.99	1.16	8030	71.01	146.92	8.3	12.8
316.0	87.8	16.6	128	8.9	0.82	1.17	8118	41.59	145.77	8.3	12.8
317.0	116.1	16.6	128	8.9	0.75	1.18	8184	31.45	144.55	8.3	12.8
318.0	60.0	17.3	128	8.9	0.93	1.20	8313	60.87	143.65	8.3	12.8
319.0	97.3	16.0	129	8.9	0.79	1.21	8392	37.53	142.54	8.3	12.8
320.0	69.2	13.1	125	8.9	0.83	1.22	8500	52.75	141.60	8.3	12.8
321.0	83.7	12.5	129	8.9	0.79	1.23	8592	43.62	140.59	8.3	12.8
322.0	75.0	16.4	128	8.9	0.86	1.25	8695	48.69	139.65	8.3	12.8
323.0	112.5	16.4	129	8.9	0.76	1.26	8763	32.46	138.57	8.3	12.8
324.0	109.1	17.2	129	8.9	0.78	1.27	8834	33.48	137.52	8.3	12.8
325.0	128.6	16.3	128	8.9	0.73	1.27	8894	28.40	136.44	8.3	12.8
326.0	87.8	17.2	128	8.9	0.83	1.28	8982	41.59	135.51	8.3	12.8

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
328.0	87.8	17.5	128	8.9	0.84	1.31	9158	41.59	133.70	8.3	12.8
331.0	65.8	15.4	128	8.9	0.88	1.35	9509	55.50	131.51	8.3	12.8
333.0	64.3	15.2	128	8.9	0.88	1.38	9747	56.81	130.14	8.3	12.8
335.0	51.1	18.0	128	8.9	0.98	1.42	10047	71.52	129.08	8.3	12.8
336.0	63.2	17.0	127	8.9	0.91	1.44	10168	57.82	128.45	8.3	12.8
337.0	94.7	18.2	127	8.9	0.82	1.45	10249	38.55	127.65	8.3	12.8
338.0	8.8	18.6	126	8.9	1.43	1.56	11109	414.91	130.17	8.3	12.8
339.0	21.3	18.9	125	8.9	1.21	1.61	11460	171.44	130.53	8.3	12.8
340.0	46.8	19.5	127	8.9	1.02	1.63	11624	78.11	130.08	8.3	12.9
341.0	37.5	18.1	127	8.9	1.06	1.66	11827	97.39	129.80	8.3	12.9
342.0	44.4	18.5	128	8.9	1.02	1.68	12000	82.17	129.40	8.3	12.9
343.0	30.8	19.1	128	8.9	1.12	1.71	12249	118.69	129.31	8.3	12.9
344.0	42.9	17.9	128	8.9	1.02	1.74	12429	85.21	128.94	8.3	12.9
345.0	21.4	20.2	129	8.9	1.23	1.78	12789	170.43	129.28	8.3	12.9
346.0	28.3	19.8	129	9.0	1.14	1.82	13062	128.83	129.28	8.3	12.9
347.0	18.8	19.9	129	9.0	1.25	1.87	13476	194.77	129.81	8.3	12.9
348.0	83.7	17.2	129	9.0	0.84	1.88	13568	43.62	129.12	8.3	12.9
349.0	32.1	16.4	124	9.0	1.05	1.92	13800	113.62	128.99	8.3	12.9
350.0	69.2	20.4	128	9.0	0.92	1.93	13912	52.75	128.39	8.3	12.9
351.0	39.6	19.6	128	9.0	1.05	1.95	14106	92.31	128.10	8.3	12.9
353.0	35.6	20.9	128	9.0	1.09	2.01	14537	102.46	127.71	8.3	12.9
354.0	67.9	19.7	128	9.0	0.91	2.03	14649	53.77	127.14	8.3	12.9
355.0	50.7	19.9	128	9.0	0.99	2.05	14801	72.03	126.72	8.3	12.9
356.0	42.9	19.9	128	9.0	1.03	2.07	14980	85.21	126.40	8.3	12.9
357.0	30.8	19.6	128	9.0	1.12	2.10	15229	118.69	126.34	8.3	12.9
360.0	44.7	15.9	127	9.0	0.97	2.17	15740	81.66	125.36	8.3	12.9
361.0	19.1	17.6	127	9.0	1.21	2.22	16139	190.72	125.83	8.3	12.9
362.0	83.7	15.8	128	9.0	0.82	2.23	16230	43.62	125.24	8.3	12.9
363.0	56.2	19.0	128	9.0	0.95	2.25	16367	64.92	124.81	8.3	12.9
364.0	49.3	20.3	128	9.0	1.00	2.27	16522	74.05	124.44	8.3	12.9
365.0	40.4	19.7	128	9.0	1.05	2.30	16713	90.29	124.20	8.3	12.9
366.0	62.1	19.6	128	9.0	0.94	2.31	16837	58.84	123.74	8.3	12.9
367.0	41.4	19.8	128	9.0	1.04	2.34	17023	88.26	123.49	8.3	12.9
368.0	33.0	18.6	123	9.0	1.08	2.37	17247	110.57	123.40	8.3	13.0
370.0	49.0	18.9	127	9.0	0.99	2.41	17559	74.56	122.73	8.3	13.0
371.0	67.9	21.9	127	9.0	0.94	2.42	17672	53.77	122.26	8.3	13.0
372.0	52.2	19.9	127	9.0	0.98	2.44	17818	70.00	121.91	8.3	13.0
373.0	64.3	21.8	127	9.0	0.95	2.46	17936	56.81	121.47	8.3	13.0
374.0	29.0	21.2	127	9.0	1.15	2.49	18199	125.79	121.50	8.3	13.0
375.0	57.1	21.8	127	9.0	0.98	2.51	18332	63.91	121.12	8.3	13.0
376.0	42.4	20.5	127	9.0	1.04	2.53	18512	86.23	120.89	8.3	13.0
378.0	35.3	21.6	132	9.0	1.11	2.59	18961	103.47	120.67	8.3	13.0
379.0	45.0	20.9	130	9.0	1.04	2.61	19135	81.16	120.41	8.3	13.0
380.0	35.6	20.9	130	9.0	1.10	2.64	19353	102.46	120.30	8.3	13.0
382.0	38.9	19.9	129	9.0	1.06	2.69	19752	93.84	119.96	8.3	13.0
383.0	52.9	21.9	130	9.0	1.01	2.71	19898	68.98	119.64	8.3	13.0
384.0	50.7	20.8	130	9.0	1.01	2.73	20052	72.03	119.34	8.3	13.0
385.0	78.3	21.8	130	9.0	0.90	2.74	20151	46.66	118.89	8.3	13.0
386.0	52.2	21.5	130	9.0	1.01	2.76	20301	70.00	118.59	8.3	13.0
387.0	52.2	19.3	130	9.0	0.98	2.78	20450	70.00	118.29	8.3	13.0

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
388.0	44.4	20.4	125	9.0	1.03	2.80	20619	82.17	118.07	8.3	13.0
389.0	38.7	20.8	129	9.0	1.07	2.83	20819	94.34	117.93	8.3	13.0
390.0	40.4	19.8	129	9.0	1.05	2.85	21010	90.29	117.76	8.3	13.0
391.0	39.6	19.7	129	9.0	1.05	2.88	21205	92.31	117.61	8.3	13.0
392.0	30.0	19.6	129	9.0	1.12	2.91	21463	121.73	117.63	8.3	13.0
393.0	34.3	20.0	129	9.0	1.10	2.94	21688	106.52	117.57	8.3	13.0
394.0	43.9	18.5	129	9.0	1.01	2.96	21864	83.18	117.36	8.3	13.0
395.0	33.6	19.1	129	9.0	1.09	2.99	22094	108.55	117.31	8.3	13.0
396.0	52.2	18.2	129	9.0	0.97	3.01	22242	70.00	117.04	8.3	13.1
397.0	40.4	19.7	125	9.0	1.04	3.04	22428	90.29	116.88	8.3	13.1
398.0	63.2	20.1	129	9.0	0.94	3.05	22550	57.82	116.54	8.3	13.1
399.0	28.8	21.2	129	9.0	1.16	3.09	22818	126.81	116.60	8.3	13.1
401.0	24.2	20.7	129	9.0	1.20	3.17	23457	151.15	116.99	8.3	13.1
403.0	20.3	21.3	129	9.0	1.25	3.27	24218	179.56	117.69	8.3	13.1
404.0	60.0	20.2	130	9.0	0.96	3.29	24348	60.87	117.38	8.3	13.1
405.0	32.7	20.7	130	9.0	1.12	3.32	24586	111.59	117.34	8.3	13.1
406.0	22.8	20.0	130	9.0	1.20	3.36	24927	160.28	117.58	8.3	13.1
407.0	18.9	19.4	126	9.0	1.24	3.41	25327	192.74	117.99	8.3	13.1
408.0	43.9	19.6	129	9.0	1.03	3.44	25502	83.18	117.80	8.3	13.1
409.0	72.1	21.6	129	9.0	0.92	3.45	25609	50.65	117.44	8.3	13.1
410.0	49.3	20.9	129	9.0	1.01	3.47	25766	74.05	117.21	8.3	13.1
412.0	61.0	20.1	129	9.0	0.95	3.50	26019	59.85	116.60	8.3	13.1
413.0	102.9	19.1	129	9.0	0.80	3.51	26094	35.51	116.17	8.3	13.1
414.0	73.5	20.8	129	9.0	0.91	3.53	26200	49.71	115.82	8.3	13.1
415.0	57.1	19.7	129	9.0	0.96	3.54	26335	63.91	115.54	8.3	13.1
416.0	72.0	13.8	119	9.0	0.81	3.56	26434	50.72	115.21	8.3	13.1
417.0	30.3	19.8	124	9.0	1.11	3.59	26679	120.72	115.24	8.3	13.1
418.0	73.5	19.5	124	9.0	0.88	3.60	26780	49.71	114.90	8.3	13.1
419.0	78.3	19.1	123	9.0	0.86	3.62	26875	46.66	114.55	8.3	13.1
420.0	34.0	20.8	123	9.0	1.10	3.65	27093	107.53	114.51	8.3	13.1
421.0	51.4	20.5	123	9.0	0.98	3.67	27236	71.01	114.29	8.3	13.1
422.0	76.6	20.0	123	9.0	0.88	3.68	27333	47.68	113.96	8.3	13.1
423.0	61.0	20.0	123	9.0	0.93	3.69	27454	59.85	113.68	8.3	13.1
424.0	29.3	21.5	124	9.0	1.15	3.73	27708	124.78	113.74	8.3	13.1
425.0	54.5	18.9	128	9.0	0.96	3.75	27848	66.95	113.51	8.3	13.2
426.0	19.9	22.0	124	9.0	1.25	3.80	28222	183.61	113.85	8.3	13.2
427.0	66.7	19.8	123	9.0	0.91	3.81	28333	54.78	113.56	8.3	13.2
428.0	36.0	19.1	123	9.0	1.06	3.84	28538	101.44	113.50	8.3	13.2
429.0	73.5	20.1	122	9.0	0.88	3.85	28637	49.71	113.19	8.3	13.2
430.0	34.6	21.7	123	9.0	1.10	3.88	28851	105.50	113.15	8.3	13.2
431.0	30.5	21.6	123	9.0	1.13	3.92	29092	119.70	113.19	8.3	13.2
432.0	39.1	21.3	122	9.0	1.06	3.94	29279	93.33	113.09	8.3	13.2
433.0	78.3	22.2	123	9.0	0.89	3.95	29373	46.66	112.77	8.3	13.2
434.0	112.5	15.8	122	9.0	0.73	3.96	29438	32.46	112.39	8.3	13.2
435.0	128.6	20.5	121	9.0	0.74	3.97	29495	28.40	111.99	8.3	13.2
437.0	24.0	19.5	126	9.0	1.17	4.05	30122	152.17	112.37	8.3	13.2
438.0	32.1	11.7	128	9.0	0.99	4.08	30362	113.62	112.38	8.3	13.2
439.0	63.2	16.0	129	9.0	0.89	4.10	30484	57.82	112.12	8.3	13.2
441.0	38.5	19.7	129	9.0	1.06	4.15	30885	94.85	111.96	8.3	13.2
442.0	48.6	20.4	129	9.0	1.01	4.17	31044	75.07	111.79	8.3	13.2

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
443.0	42.4	21.3	129	9.0	1.06	4.20	31227	86.23	111.68	8.3	13.2
445.0	51.1	18.7	125	9.0	0.97	4.24	31521	71.52	111.31	8.3	13.2
446.0	38.7	22.6	129	9.0	1.10	4.26	31721	94.34	111.24	8.3	13.2
447.0	49.3	19.8	129	9.0	1.00	4.28	31878	74.05	111.07	8.3	13.2
448.0	56.2	19.0	129	9.0	0.96	4.30	32015	64.92	110.86	8.3	13.2
449.0	87.8	19.2	128	9.0	0.84	4.31	32103	41.59	110.56	8.3	13.2
450.0	21.4	21.1	128	9.0	1.23	4.36	32463	170.43	110.82	8.3	13.2
451.0	59.0	19.9	128	9.0	0.95	4.37	32593	61.88	110.61	8.3	13.2
452.0	75.0	19.5	129	9.0	0.89	4.39	32696	48.69	110.33	8.3	13.2
453.0	21.1	20.8	129	9.0	1.23	4.44	33064	173.47	110.61	8.3	13.2
454.0	27.1	20.2	129	9.0	1.16	4.47	33349	134.92	110.71	8.3	13.2
455.0	29.5	17.3	126	9.0	1.09	4.51	33605	123.76	110.77	8.3	13.3
456.0	30.5	21.6	128	9.0	1.14	4.54	33856	119.70	110.81	8.3	13.3
457.0	72.0	20.4	127	9.0	0.90	4.55	33962	50.72	110.55	8.3	13.3
458.0	35.0	19.1	127	9.0	1.08	4.58	34181	104.49	110.53	8.3	13.3
459.0	59.0	16.3	127	9.0	0.91	4.60	34311	61.88	110.32	8.3	13.3
460.0	37.9	18.1	127	9.0	1.04	4.63	34512	96.37	110.26	8.3	13.3
461.0	45.0	19.4	128	9.0	1.02	4.65	34683	81.16	110.14	8.3	13.3
462.0	37.1	18.3	128	9.0	1.05	4.67	34890	98.40	110.09	8.3	13.3
463.0	76.6	18.3	128	9.0	0.87	4.69	34990	47.68	109.83	8.3	13.3
465.0	34.1	19.9	124	9.0	1.09	4.75	35428	107.02	109.80	8.3	13.3
466.0	85.7	20.1	124	9.0	0.85	4.76	35514	42.61	109.53	8.3	13.3
467.0	25.0	20.9	124	9.0	1.18	4.80	35812	146.08	109.68	8.3	13.3
468.0	116.1	19.6	125	9.0	0.77	4.81	35877	31.45	109.36	8.3	13.3
469.0	34.3	20.4	124	9.0	1.09	4.84	36094	106.52	109.34	8.3	13.3
470.0	59.0	20.7	125	9.0	0.95	4.85	36221	61.88	109.15	8.3	13.3
471.0	37.1	20.4	124	9.0	1.07	4.88	36422	98.40	109.11	8.3	13.3
472.0	32.7	22.7	125	9.0	1.13	4.91	36651	111.59	109.12	8.3	13.3
473.0	48.6	18.1	124	9.0	0.97	4.93	36804	75.07	108.98	8.3	13.3
475.0	41.1	19.6	121	9.0	1.03	4.98	37157	88.76	108.82	8.3	13.3
476.0	43.4	17.7	123	9.0	0.99	5.00	37326	84.20	108.72	8.3	13.3
477.0	43.9	20.1	123	9.0	1.02	5.02	37495	83.18	108.62	8.3	13.3
478.0	40.0	21.7	124	9.0	1.07	5.05	37681	91.30	108.55	8.3	13.3
479.0	48.6	25.3	124	9.0	1.05	5.07	37834	75.07	108.42	8.3	13.3
480.0	57.1	23.0	125	9.0	0.99	5.09	37965	63.91	108.25	8.3	13.3
481.0	80.0	22.6	125	9.0	0.89	5.10	38059	45.65	108.00	8.3	13.3
482.0	46.8	21.7	124	9.0	1.03	5.12	38218	78.11	107.89	8.3	13.3
483.0	50.0	23.8	124	9.0	1.03	5.14	38368	73.04	107.75	8.3	13.3
484.0	85.7	21.1	89	9.0	0.77	5.15	38429	42.61	107.50	8.3	13.3
486.0	56.2	21.1	125	9.0	0.97	5.19	38696	64.92	107.18	8.3	13.4
487.0	41.4	20.7	126	9.0	1.05	5.21	38878	88.26	107.11	8.3	13.4
488.0	72.0	24.0	125	9.0	0.94	5.23	38983	50.72	106.89	8.3	13.4
489.0	36.0	18.8	124	9.0	1.06	5.25	39189	101.44	106.87	8.3	13.4
490.0	35.6	19.3	124	9.0	1.07	5.28	39398	102.46	106.86	8.3	13.4
491.0	31.9	20.6	124	9.0	1.11	5.31	39632	114.63	106.88	8.3	13.4
492.0	38.3	19.7	124	9.0	1.05	5.34	39827	95.36	106.84	8.3	13.4
493.0	43.9	19.4	124	9.0	1.01	5.36	39996	83.18	106.75	8.3	13.4
494.0	27.1	21.7	123	9.0	1.17	5.40	40268	134.92	106.86	8.3	13.4
495.0	90.0	18.4	125	9.0	0.82	5.41	40351	40.58	106.61	8.3	13.4
496.0	31.9	18.1	124	9.0	1.08	5.44	40586	114.63	106.64	8.3	13.4

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
497.0	26.1	21.8	125	9.0	1.18	5.48	40872	139.99	106.77	8.3	13.4
498.0	59.0	22.0	125	9.0	0.97	5.50	40999	61.88	106.60	8.3	13.4
499.0	58.1	22.2	125	9.0	0.98	5.52	41129	62.90	106.44	8.3	13.4
500.0	20.2	21.6	119	9.0	1.24	5.56	41483	180.57	106.71	8.3	13.4
501.0	32.4	21.6	125	9.0	1.12	5.60	41714	112.60	106.73	8.3	13.4
502.0	29.3	21.8	125	9.0	1.15	5.63	41970	124.78	106.80	8.3	13.4
503.0	46.2	20.6	113	9.0	0.99	5.65	42117	79.13	106.70	8.3	13.4
504.0	37.9	19.6	125	9.0	1.06	5.68	42316	96.37	106.66	8.3	13.4
505.0	29.5	19.9	126	9.0	1.13	5.71	42571	123.76	106.72	8.3	13.4
506.0	55.4	19.0	125	9.0	0.95	5.73	42706	65.94	106.58	8.3	13.4
507.0	22.9	20.0	125	9.0	1.19	5.77	43033	159.27	106.76	8.3	13.4
508.0	63.2	19.9	126	9.0	0.93	5.79	43152	57.82	106.59	8.3	13.4
509.0	40.4	19.4	125	9.0	1.04	5.81	43337	90.29	106.53	8.3	13.4
510.0	37.5	20.1	125	9.0	1.07	5.84	43538	97.39	106.50	8.3	13.4
511.0	30.5	19.2	125	9.0	1.11	5.87	43784	119.70	106.55	8.3	13.4
513.0	23.5	21.0	122	9.0	1.19	5.96	44404	155.21	106.88	8.3	13.4
514.0	32.7	22.0	125	9.0	1.12	5.99	44633	111.59	106.90	8.3	13.4
515.0	21.4	20.7	124	9.0	1.22	6.04	44981	170.43	107.12	8.3	13.5
517.0	24.7	19.8	124	9.0	1.17	6.12	45585	147.60	107.40	8.3	13.5
518.0	36.0	20.3	124	9.0	1.08	6.14	45791	101.44	107.38	8.3	13.5
519.0	18.5	20.9	124	9.0	1.26	6.20	46193	197.82	107.68	8.3	13.5
521.0	23.5	20.8	124	9.0	1.20	6.28	46830	155.72	108.01	8.3	13.5
522.0	28.3	19.9	124	9.0	1.14	6.32	47093	128.83	108.08	8.3	13.5
523.0	5.9	20.7	124	9.0	1.55	6.49	48349	618.81	109.78	8.3	13.5
525.0	21.6	22.8	119	9.0	1.23	6.58	49014	169.41	110.18	8.3	13.5
526.0	41.9	31.8	96	9.0	1.08	6.60	49151	87.24	110.10	8.3	13.5
527.0	28.1	32.9	94	9.0	1.20	6.64	49351	129.85	110.17	8.3	13.5
528.0	31.3	32.4	94	9.0	1.17	6.67	49531	116.66	110.19	8.3	13.5
529.0	33.6	32.8	94	9.0	1.15	6.70	49699	108.55	110.18	8.3	13.5
530.0	20.0	32.9	91	9.0	1.30	6.75	49972	182.60	110.42	8.3	13.5
531.0	38.7	31.3	91	9.0	1.09	6.78	50114	94.34	110.37	8.3	13.5
532.0	18.3	31.5	91	9.0	1.31	6.83	50413	199.85	110.66	8.3	13.5
533.0	31.9	30.8	91	9.0	1.14	6.86	50585	114.63	110.67	8.3	13.5
534.0	24.3	30.1	91	9.0	1.21	6.91	50809	150.14	110.80	8.3	13.5
535.0	20.6	33.3	92	9.0	1.29	6.95	51077	177.53	111.01	8.3	13.5
536.0	32.1	34.5	92	9.0	1.17	6.98	51249	113.62	111.02	8.3	13.5
537.0	17.6	34.3	91	9.0	1.35	7.04	51561	207.96	111.33	8.3	13.5
538.0	29.0	31.4	92	9.0	1.18	7.08	51751	125.79	111.38	8.3	13.5
539.0	24.0	30.9	99	9.0	1.25	7.12	51998	152.17	111.51	8.3	13.5
540.0	29.3	30.2	101	9.0	1.19	7.15	52206	124.78	111.55	8.3	13.5
541.0	12.9	31.6	102	9.0	1.44	7.23	52681	284.04	112.09	8.3	13.5
542.0	43.9	31.9	97	9.0	1.08	7.25	52814	83.18	112.00	8.3	13.5
543.0	28.3	31.0	102	9.0	1.21	7.29	53031	128.83	112.06	8.3	13.5
544.0	19.5	24.4	108	9.0	1.25	7.34	53363	187.67	112.29	8.3	13.5
545.0	13.7	23.5	124	9.0	1.38	7.41	53907	266.80	112.77	8.3	13.5
546.0	37.9	22.6	137	9.0	1.12	7.44	54123	96.37	112.72	8.3	13.6
547.0	13.7	21.0	137	9.0	1.36	7.51	54720	265.78	113.20	8.3	13.6
548.0	25.2	29.9	137	9.0	1.31	7.55	55046	145.07	113.29	8.3	13.6
549.0	34.0	27.5	137	9.0	1.20	7.58	55287	107.53	113.28	8.3	13.6
550.0	48.6	29.3	137	9.0	1.12	7.60	55456	75.07	113.16	8.3	13.6

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
552.0	36.0	30.0	136	9.0	1.21	7.66	55911	101.44	113.09	8.3	13.6
554.0	30.3	30.4	137	9.0	1.27	7.72	56452	120.72	113.13	8.3	13.6
555.0	27.9	28.6	137	9.0	1.27	7.76	56746	130.86	113.19	8.3	13.6
556.0	40.9	27.5	137	9.0	1.15	7.78	56946	89.27	113.12	8.3	13.6
557.0	28.8	27.6	137	9.0	1.25	7.82	57231	126.81	113.16	8.3	13.6
558.0	40.9	27.6	137	9.0	1.15	7.84	57431	89.27	113.09	8.3	13.6
559.0	23.1	28.0	137	9.0	1.32	7.89	57786	158.25	113.22	8.3	13.6
560.0	31.6	28.3	137	9.0	1.23	7.92	58046	115.65	113.23	8.3	13.6
561.0	18.0	29.8	136	9.0	1.41	7.97	58498	202.89	113.49	8.3	13.6
562.0	52.9	28.0	136	9.0	1.08	7.99	58652	68.98	113.36	8.3	13.6
564.0	45.0	28.8	136	9.0	1.14	8.04	59014	81.16	113.17	8.3	13.6
566.0	46.2	29.9	136	9.0	1.14	8.08	59366	79.13	112.97	8.3	13.6
567.0	21.6	32.1	136	9.0	1.38	8.13	59744	169.41	113.14	8.3	13.6
568.0	53.7	31.0	136	9.0	1.11	8.14	59895	67.97	113.01	8.3	13.6
569.0	34.3	26.7	136	9.0	1.19	8.17	60133	106.52	112.99	8.3	13.6
570.0	33.6	28.3	136	9.0	1.21	8.20	60375	108.55	112.98	8.3	13.6
571.0	30.5	23.5	109	9.0	1.13	8.24	60590	119.70	112.99	8.3	13.6
572.0	25.7	22.0	123	9.0	1.19	8.28	60878	142.02	113.08	8.3	13.6
573.0	38.7	28.1	123	9.0	1.14	8.30	61069	94.34	113.02	8.3	13.6
574.0	29.0	28.1	123	9.0	1.22	8.34	61324	125.79	113.06	8.3	13.6
575.0	55.4	28.0	123	9.0	1.04	8.35	61458	65.94	112.93	8.3	13.6
576.0	28.6	28.5	123	9.0	1.23	8.39	61717	127.82	112.97	8.3	13.6
577.0	48.0	27.5	123	9.0	1.08	8.41	61871	76.08	112.86	8.3	13.6
578.0	32.7	28.2	123	9.0	1.19	8.44	62097	111.59	112.86	8.3	13.7
579.0	51.4	28.1	123	9.0	1.06	8.46	62241	71.01	112.74	8.3	13.7
580.0	34.3	27.4	116	9.0	1.15	8.49	62444	106.52	112.73	8.3	13.7
581.0	56.2	27.0	135	9.0	1.05	8.51	62588	64.92	112.59	8.3	13.7
582.0	45.6	25.1	136	9.0	1.09	8.53	62767	80.14	112.50	8.3	13.7
583.0	73.5	28.3	136	9.0	0.99	8.54	62878	49.71	112.33	8.3	13.7
584.0	47.4	28.7	136	9.0	1.12	8.56	63049	77.10	112.23	8.3	13.7
585.0	57.1	29.3	131	9.0	1.06	8.58	63186	63.91	112.09	8.3	13.7
586.0	41.4	29.5	128	9.0	1.15	8.60	63372	88.26	112.03	8.3	13.7
587.0	42.9	28.2	136	9.0	1.14	8.63	63562	85.21	111.95	8.3	13.7
588.0	28.6	31.1	136	9.0	1.29	8.66	63848	127.82	112.00	8.3	13.7
589.0	45.0	32.4	136	9.0	1.17	8.69	64029	81.16	111.91	8.3	13.7
591.0	37.9	30.2	131	9.0	1.19	8.74	64443	96.37	111.83	8.3	13.7
592.0	37.1	29.4	136	9.0	1.20	8.76	64662	98.40	111.79	8.3	13.7
593.0	36.4	30.1	136	9.0	1.21	8.79	64887	100.43	111.76	8.3	13.7
594.0	33.3	32.1	136	9.0	1.26	8.82	65132	109.56	111.76	8.3	13.7
595.0	41.9	29.9	136	9.0	1.17	8.85	65326	87.24	111.69	8.3	13.7
596.0	31.9	29.5	136	9.0	1.24	8.88	65583	114.63	111.70	8.3	13.7
597.0	37.5	29.5	136	9.0	1.19	8.90	65800	97.39	111.66	8.3	13.7
598.0	32.4	31.0	136	9.0	1.25	8.94	66052	112.60	111.66	8.3	13.7
599.0	51.4	32.0	136	9.0	1.13	8.95	66211	71.01	111.55	8.3	13.7
600.0	45.6	30.7	124	9.0	1.12	8.98	66374	80.14	111.47	8.3	13.7
601.0	52.2	29.8	136	9.0	1.10	9.00	66530	70.00	111.36	8.3	13.7
602.0	35.6	29.8	135	9.0	1.21	9.02	66758	102.46	111.34	8.3	13.7
604.0	36.9	28.8	136	9.0	1.19	9.08	67198	98.91	111.27	8.3	13.7
605.0	37.9	29.5	136	9.0	1.19	9.10	67413	96.37	111.23	8.3	13.7
606.0	24.8	30.0	136	9.0	1.32	9.14	67741	147.09	111.33	8.3	13.7

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
607.0	49.3	31.5	136	9.0	1.13	9.16	67906	74.05	111.23	8.3	13.7
608.0	38.3	29.8	136	9.0	1.19	9.19	68118	95.36	111.19	8.3	13.7
610.0	57.7	32.3	134	9.0	1.09	9.23	68397	63.29	110.94	8.3	13.7
611.0	41.9	31.4	135	9.0	1.18	9.25	68590	87.24	110.88	8.3	13.8
612.0	28.8	30.7	135	9.0	1.28	9.28	68871	126.81	110.92	8.3	13.8
613.0	43.9	29.4	135	9.0	1.15	9.31	69056	83.18	110.85	8.3	13.8
614.0	20.1	31.1	135	9.0	1.39	9.36	69459	181.59	111.03	8.3	13.8
615.0	24.5	31.3	135	9.0	1.33	9.40	69789	149.12	111.13	8.3	13.8
616.0	31.3	29.3	135	9.0	1.24	9.43	70048	116.66	111.14	8.3	13.8
618.0	32.3	30.2	135	9.0	1.24	9.49	70551	113.11	111.15	8.3	13.8
619.0	42.4	27.8	135	9.0	1.14	9.52	70743	86.23	111.09	8.3	13.8
620.0	48.0	31.2	136	9.0	1.14	9.54	70912	76.08	111.00	8.3	13.8
621.0	26.5	30.5	136	9.0	1.30	9.57	71220	137.96	111.07	8.3	13.8
622.0	34.0	30.5	136	9.0	1.23	9.60	71460	107.53	111.06	8.3	13.8
623.0	32.4	30.2	136	9.0	1.24	9.63	71711	112.60	111.06	8.3	13.8
624.0	50.7	31.2	136	9.0	1.12	9.65	71872	72.03	110.96	8.3	13.8
625.0	29.8	32.4	136	9.0	1.29	9.69	72146	122.75	110.99	8.3	13.8
626.0	41.9	31.0	136	9.0	1.18	9.71	72341	87.24	110.93	8.3	13.8
627.0	24.8	30.8	136	9.0	1.33	9.75	72669	147.09	111.02	8.3	13.8
628.0	33.0	29.9	136	9.0	1.24	9.78	72916	110.57	111.02	8.3	13.8
629.0	25.9	29.8	131	9.0	1.29	9.82	73221	141.01	111.10	8.3	13.8
630.0	35.6	30.3	135	9.0	1.22	9.85	73448	102.46	111.08	8.3	13.8
631.0	27.3	30.9	135	9.0	1.30	9.89	73746	133.91	111.13	8.3	13.8
632.0	27.1	29.8	135	9.0	1.29	9.92	74045	134.92	111.19	8.3	13.8
633.0	40.9	29.5	135	9.0	1.17	9.95	74244	89.27	111.14	8.3	13.8
635.0	26.4	31.8	135	9.0	1.32	10.02	74860	138.47	111.27	8.3	13.8
636.0	26.9	31.5	136	9.0	1.31	10.06	75163	135.94	111.33	8.3	13.8
637.0	26.5	31.6	135	9.0	1.32	10.10	75470	137.96	111.39	8.3	13.8
638.0	18.1	28.6	132	9.0	1.38	10.15	75907	201.87	111.61	8.3	13.8
639.0	26.9	34.2	135	9.0	1.34	10.19	76208	135.94	111.67	8.3	13.8
640.0	19.8	35.2	135	9.0	1.44	10.24	76616	184.63	111.85	8.3	13.8
642.0	22.3	33.7	135	9.0	1.39	10.33	77341	163.83	112.10	8.3	13.8
643.0	28.6	35.4	135	9.0	1.33	10.37	77624	127.82	112.13	8.3	13.8
644.0	24.2	33.8	135	9.0	1.36	10.41	77958	151.15	112.23	8.3	13.9
645.0	39.1	35.4	135	9.0	1.24	10.43	78165	93.33	112.18	8.3	13.9
646.0	26.7	33.8	135	9.0	1.34	10.47	78468	136.95	112.24	8.3	13.9
648.0	35.1	32.5	134	9.0	1.24	10.53	78925	103.98	112.20	8.3	13.9
649.0	16.5	35.0	135	9.0	1.49	10.59	79417	221.15	112.46	8.3	13.9
650.0	30.0	33.6	136	9.0	1.30	10.62	79689	121.73	112.48	8.3	13.9
652.0	23.4	34.7	132	9.0	1.38	10.71	80364	156.22	112.68	8.3	13.9
653.0	17.4	35.6	127	9.0	1.47	10.76	80802	209.99	112.91	8.3	13.9
654.0	22.4	36.0	126	9.0	1.39	10.81	81140	163.33	113.03	8.3	13.9
655.0	27.5	33.9	125	9.0	1.31	10.84	81414	132.89	113.07	8.3	13.9
656.0	30.0	33.3	125	9.0	1.27	10.88	81665	121.73	113.09	8.3	13.9
657.0	33.0	33.8	121	9.0	1.24	10.91	81884	110.57	113.09	8.3	13.9
658.0	32.1	33.0	126	9.0	1.25	10.94	82119	113.62	113.09	8.3	13.9
659.0	24.5	33.7	126	9.0	1.34	10.98	82427	149.12	113.17	8.3	13.9
661.0	24.2	36.1	125	9.0	1.37	11.06	83050	151.15	113.35	8.3	13.9
662.0	33.3	35.6	125	9.0	1.27	11.09	83276	109.56	113.34	8.3	13.9
663.0	18.4	35.6	125	9.0	1.44	11.15	83685	198.83	113.53	8.3	13.9

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
664.0	32.4	34.6	125	9.0	1.27	11.18	83917	112.60	113.53	8.3	13.9
665.0	20.2	34.8	125	9.0	1.41	11.23	84290	180.57	113.68	8.3	13.9
666.0	28.1	34.2	125	9.0	1.30	11.26	84557	129.85	113.72	8.3	13.9
667.0	31.3	33.1	119	9.0	1.25	11.30	84786	116.66	113.72	8.3	13.9
668.0	15.7	35.7	126	9.0	1.50	11.36	85269	232.31	113.99	8.3	13.9
669.0	19.0	34.5	126	9.0	1.42	11.41	85666	191.73	114.17	8.3	13.9
670.0	24.5	35.0	126	9.0	1.35	11.45	85975	149.12	114.24	8.3	13.9
671.0	28.8	34.7	126	9.0	1.30	11.49	86237	126.81	114.27	8.3	13.9
672.0	20.1	36.2	126	9.0	1.43	11.54	86613	181.59	114.42	8.3	13.9
673.0	23.2	35.3	126	9.0	1.37	11.58	86938	157.24	114.52	8.3	13.9
674.0	20.0	36.0	126	9.0	1.42	11.63	87316	182.60	114.67	8.3	13.9
675.0	36.4	33.6	126	9.0	1.22	11.66	87524	100.43	114.64	8.3	13.9
676.0	24.2	32.8	126	9.0	1.33	11.70	87837	151.15	114.72	8.3	13.9
677.0	26.3	32.6	123	9.0	1.30	11.74	88117	138.98	114.77	8.3	13.9
678.0	26.3	32.5	126	9.0	1.31	11.77	88404	138.98	114.83	8.3	14.0
679.0	15.5	32.2	126	9.0	1.46	11.84	88894	236.37	115.09	8.3	14.0
680.0	22.0	31.4	127	9.0	1.35	11.88	89240	166.37	115.21	8.3	14.0
681.0	22.1	30.7	127	9.0	1.34	11.93	89585	165.35	115.32	8.3	14.0
683.0	21.0	32.3	127	9.0	1.37	12.03	90313	173.98	115.57	8.3	14.0
684.0	22.1	32.8	127	9.0	1.36	12.07	90659	165.35	115.68	8.3	14.0
685.0	12.9	31.8	127	9.0	1.51	12.15	91254	284.04	116.04	8.3	14.0
686.0	18.7	30.1	124	9.0	1.37	12.20	91651	195.79	116.22	8.3	14.0
687.0	22.6	32.4	125	9.0	1.35	12.25	91983	161.30	116.31	8.3	14.0
688.0	18.9	31.9	125	9.0	1.39	12.30	92379	192.74	116.48	8.3	14.0
689.0	23.4	32.3	125	9.0	1.34	12.34	92699	156.22	116.56	8.3	14.0
690.0	17.5	31.6	125	9.0	1.41	12.40	93128	208.98	116.76	8.3	14.0
691.0	30.5	32.5	125	9.0	1.26	12.43	93374	119.70	116.77	8.3	14.0
692.0	17.1	32.5	125	9.0	1.43	12.49	93812	213.03	116.97	8.3	14.0
693.0	22.4	32.7	125	9.0	1.35	12.53	94148	163.33	117.07	8.3	14.0
694.0	16.4	31.7	125	9.0	1.43	12.60	94604	222.16	117.30	8.3	14.0
695.0	23.8	33.7	125	9.0	1.35	12.64	94919	153.18	117.37	8.3	14.0
696.0	14.2	32.2	123	9.0	1.48	12.71	95442	257.67	117.67	8.3	14.0
697.0	23.7	34.0	126	9.0	1.35	12.75	95760	154.20	117.75	8.3	14.0
698.0	16.1	33.0	126	9.0	1.45	12.81	96227	226.22	117.98	8.3	14.0
699.0	22.0	30.1	126	9.0	1.33	12.86	96571	166.37	118.08	8.3	14.0
700.0	15.9	30.1	126	9.0	1.42	12.92	97044	229.26	118.31	8.3	14.0
701.0	24.5	29.6	126	9.0	1.29	12.96	97352	149.12	118.38	8.3	14.0
702.0	20.6	29.6	126	9.0	1.34	13.01	97719	177.53	118.50	8.3	14.0
703.0	18.9	30.0	126	9.0	1.37	13.06	98117	192.74	118.66	8.3	14.0
704.0	13.8	30.2	126	9.0	1.47	13.14	98663	263.76	118.96	8.3	14.0
706.0	21.1	29.2	124	9.0	1.33	13.23	99370	172.96	119.18	8.3	14.0
708.0	23.2	29.3	126	9.0	1.31	13.32	100022	157.24	119.34	8.3	14.0
709.0	19.8	28.8	126	9.0	1.35	13.37	100404	184.63	119.47	8.3	14.0
710.0	24.2	29.6	126	9.0	1.30	13.41	100718	151.15	119.54	8.3	14.0
712.0	20.2	30.1	126	9.0	1.36	13.51	101469	181.08	119.79	8.3	14.0
713.0	15.2	30.5	126	9.0	1.44	13.57	101967	240.42	120.04	8.3	14.1
714.0	25.9	30.3	126	9.0	1.29	13.61	102259	141.01	120.08	8.3	14.1
716.0	21.3	28.8	126	9.0	1.33	13.71	102970	171.44	120.29	8.3	14.1
717.0	26.3	29.5	127	9.0	1.28	13.74	103260	138.98	120.33	8.3	14.1
718.0	20.1	29.1	127	9.0	1.35	13.79	103640	181.59	120.45	8.3	14.1

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
719.0	37.9	28.3	127	9.0	1.16	13.82	103840	96.37	120.40	8.3	14.1
720.0	13.1	30.3	127	9.0	1.48	13.90	104420	277.96	120.72	8.3	14.1
721.0	25.4	30.8	127	9.0	1.30	13.94	104720	144.05	120.77	8.3	14.1
722.0	14.7	31.1	127	9.0	1.46	14.00	105237	248.54	121.02	8.3	14.1
723.0	23.5	31.1	127	9.0	1.33	14.05	105561	155.21	121.09	8.3	14.1
724.0	17.6	30.6	127	9.0	1.41	14.10	105995	207.96	121.27	8.3	14.1
725.0	20.9	30.1	123	9.0	1.34	14.15	106348	174.48	121.37	8.3	14.1
726.0	14.5	30.0	127	9.0	1.45	14.22	106872	251.58	121.63	8.3	14.1
727.0	20.5	31.1	127	9.0	1.37	14.27	107244	178.54	121.74	8.3	14.1
728.0	16.1	30.9	127	9.0	1.43	14.33	107717	227.24	121.95	8.3	14.1
729.0	27.3	30.9	127	9.0	1.28	14.37	107996	133.91	121.98	8.3	14.1
730.0	20.3	30.7	127	9.0	1.36	14.42	108370	179.56	122.09	8.3	14.1
731.0	25.4	30.7	127	9.0	1.30	14.46	108670	144.05	122.13	8.3	14.1
732.0	17.0	31.5	127	9.0	1.42	14.51	109117	215.06	122.32	8.3	14.1
733.0	19.5	31.9	127	9.0	1.39	14.57	109508	187.67	122.45	8.3	14.1
734.0	15.1	31.5	127	9.0	1.46	14.63	110012	242.45	122.68	8.3	14.1
735.0	14.2	30.2	124	9.0	1.45	14.70	110535	256.65	122.94	8.3	14.1
736.0	24.3	31.5	126	9.0	1.32	14.74	110846	150.14	123.00	8.3	14.1
737.0	16.5	30.9	126	9.0	1.42	14.80	111305	221.15	123.19	8.3	14.1
738.0	22.6	31.3	126	9.0	1.34	14.85	111639	161.30	123.26	8.3	14.1
739.0	15.3	31.8	126	9.0	1.46	14.91	112133	238.39	123.49	8.3	14.1
740.0	26.7	31.7	126	9.0	1.29	14.95	112417	136.95	123.51	8.3	14.1
741.0	15.3	32.0	126	9.0	1.46	15.02	112913	239.41	123.74	8.3	14.1
742.0	22.6	32.4	126	9.0	1.35	15.06	113247	161.30	123.81	8.3	14.1
743.0	14.4	32.2	126	9.0	1.48	15.13	113772	253.61	124.06	8.3	14.1
745.0	13.1	31.8	125	9.0	1.50	15.28	114918	278.46	124.65	8.3	14.1
747.0	22.0	31.9	126	9.0	1.35	15.37	115606	165.86	124.81	8.3	14.1
748.0	25.7	31.4	126	9.0	1.30	15.41	115900	142.02	124.84	8.3	14.2
749.0	16.6	32.1	126	9.0	1.44	15.47	116357	220.13	125.02	8.3	14.2
750.0	18.4	32.7	127	9.0	1.42	15.53	116771	198.83	125.16	8.3	14.2
751.0	15.4	33.0	127	9.0	1.47	15.59	117265	237.38	125.38	8.3	14.2
753.0	16.4	32.8	127	9.0	1.45	15.71	118191	222.67	125.74	8.3	14.2
754.0	22.2	30.4	118	9.0	1.31	15.76	118509	164.34	125.82	8.3	14.2
755.0	19.1	32.0	121	9.0	1.38	15.81	118888	190.72	125.94	8.3	14.2
757.0	15.8	31.3	121	9.0	1.43	15.94	119802	230.79	126.33	8.3	14.2
759.0	16.2	33.0	123	9.0	1.45	16.06	120718	225.71	126.70	8.3	14.2
760.0	16.2	33.0	125	9.0	1.45	16.12	121180	225.21	126.89	8.3	14.2
761.0	24.3	33.1	125	9.0	1.33	16.16	121488	150.14	126.93	8.3	14.2
762.0	15.7	32.8	125	9.0	1.46	16.23	121965	232.31	127.13	8.3	14.2
763.0	21.8	33.0	125	9.0	1.36	16.27	122308	167.38	127.20	8.3	14.2
764.0	14.9	31.5	133	9.0	1.48	16.34	122843	245.50	127.42	8.3	14.2
765.0	23.8	33.0	132	9.0	1.35	16.38	123176	153.18	127.47	8.3	14.2
766.0	15.1	32.3	127	9.0	1.47	16.45	123681	242.45	127.68	8.3	14.2
767.0	28.6	30.9	127	9.0	1.27	16.48	123947	127.82	127.68	8.3	14.2
768.0	23.2	30.5	127	9.0	1.32	16.53	124274	157.24	127.74	8.3	14.2
769.0	27.7	30.3	127	9.0	1.27	16.56	124548	131.88	127.74	8.3	14.2
770.0	14.8	31.3	127	9.0	1.46	16.63	125061	246.51	127.96	8.3	14.2
771.0	34.3	31.4	127	9.0	1.22	16.66	125283	106.52	127.92	8.3	14.2
773.0	15.2	30.8	125	9.0	1.44	16.79	126275	240.93	128.33	8.3	14.2
774.0	21.1	30.0	127	9.0	1.34	16.84	126636	173.47	128.42	8.3	14.2

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
775.0	23.1	30.3	127	9.0	1.32	16.88	126965	158.25	128.47	8.3	14.2
777.0	29.6	30.0	127	9.0	1.25	16.95	127479	123.26	128.45	8.3	14.2
779.0	22.9	30.6	127	9.0	1.33	17.04	128145	159.78	128.56	8.3	14.2
780.0	20.1	31.7	127	9.0	1.38	17.09	128524	181.59	128.66	8.3	14.2
781.0	15.5	31.3	127	9.0	1.45	17.15	129017	236.37	128.85	8.3	14.2
782.0	24.0	31.9	127	9.0	1.33	17.19	129334	152.17	128.89	8.3	14.2
783.0	27.9	28.3	117	9.0	1.22	17.23	129584	130.86	128.90	8.3	14.2
784.0	17.8	29.7	127	9.0	1.39	17.29	130012	204.92	129.03	8.3	14.2
785.0	25.9	30.7	127	9.0	1.29	17.32	130305	141.01	129.05	8.3	14.3
786.0	16.5	31.0	127	9.0	1.43	17.39	130765	221.15	129.22	8.3	14.3
787.0	22.1	30.4	127	9.0	1.34	17.43	131110	165.35	129.28	8.3	14.3
788.0	16.8	30.4	127	9.0	1.41	17.49	131562	217.09	129.44	8.3	14.3
789.0	23.5	31.1	127	9.0	1.33	17.53	131885	155.21	129.48	8.3	14.3
790.0	16.8	31.6	127	9.0	1.43	17.59	132337	217.09	129.64	8.3	14.3
791.0	22.9	31.7	127	9.0	1.34	17.64	132669	159.27	129.69	8.3	14.3
792.0	18.5	30.8	121	9.0	1.38	17.69	133061	197.82	129.81	8.3	14.3
793.0	21.2	30.8	119	9.0	1.33	17.74	133399	172.46	129.89	8.3	14.3
794.0	26.7	31.5	119	9.0	1.27	17.77	133667	136.95	129.90	8.3	14.3
795.0	22.6	31.1	118	9.0	1.32	17.82	133979	161.30	129.95	8.3	14.3
796.0	34.6	31.1	117	9.0	1.19	17.85	134182	105.50	129.91	8.3	14.3
797.0	27.3	30.8	118	9.0	1.26	17.88	134441	133.91	129.92	8.3	14.3
798.0	34.6	29.8	118	9.0	1.18	17.91	134645	105.50	129.87	8.3	14.3
799.0	18.7	30.5	117	9.0	1.36	17.97	135022	195.79	129.99	8.3	14.3
800.0	23.7	32.3	117	9.0	1.32	18.01	135320	154.20	130.03	8.3	14.3
801.0	15.2	32.6	118	9.0	1.45	18.07	135785	240.42	130.22	8.3	14.3
803.0	16.9	30.8	122	9.0	1.41	18.19	136649	216.08	130.52	8.3	14.3
804.0	24.2	32.5	121	9.0	1.32	18.23	136951	151.15	130.55	8.3	14.3
806.0	19.3	32.5	121	9.0	1.39	18.34	137703	189.19	130.76	8.3	14.3
807.0	15.9	32.9	121	9.0	1.45	18.40	138159	229.26	130.93	8.3	14.3
808.0	32.1	32.4	121	9.0	1.24	18.43	138385	113.62	130.90	8.3	14.3
809.0	24.5	32.0	121	9.0	1.31	18.47	138681	149.12	130.93	8.3	14.3
810.0	23.5	32.2	121	9.0	1.32	18.52	138990	155.21	130.97	8.3	14.3
811.0	16.0	32.8	121	9.0	1.44	18.58	139443	228.25	131.13	8.3	14.3
812.0	22.6	31.6	119	9.0	1.32	18.62	139759	161.30	131.19	8.3	14.3
813.0	29.3	31.3	128	9.0	1.27	18.66	140022	124.78	131.17	8.3	14.3
814.0	24.3	31.6	128	9.0	1.32	18.70	140338	150.14	131.21	8.3	14.3
815.0	28.8	30.9	128	9.0	1.27	18.73	140604	126.81	131.20	8.3	14.3

BIT NUMBER	2	IADC CODE	116	INTERVAL	815.0- 1175.0
HTC J1		SIZE	12.250	NOZZLES	18 18 18
COST	2566.00	TRIP TIME	3.8	BIT RUN	360.0
TOTAL HOURS	14.41	TOTAL TURNS	86422	CONDITION	T4 B3 G0.000

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
816.0	52.0	15.0	49	9.0	0.75	0.02	57	70	16514	8.3	14.3
817.0	30.0	16.0	66	9.0	0.99	0.05	189	122	8318	8.3	14.3
818.0	15.5	15.4	79	9.0	1.20	0.12	495	236	5624	8.3	14.3

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
819.0	27.3	16.7	92	9.0	1.11	0.15	697	134	4251	8.3	14.3
820.0	34.0	15.9	93	9.0	1.04	0.18	861	108	3423	8.3	14.3
821.0	25.7	14.1	84	9.0	1.06	0.22	1058	142	2876	8.3	14.3
822.0	13.2	18.3	76	9.0	1.28	0.30	1400	276	2504	8.3	14.4
823.0	32.1	18.8	77	9.0	1.05	0.33	1543	114	2206	8.3	14.4
825.0	28.1	18.9	85	9.0	1.12	0.40	1907	130	1790	8.3	14.4
826.0	20.0	19.2	88	9.0	1.23	0.45	2172	183	1644	8.3	14.4
827.0	21.4	19.7	88	9.0	1.22	0.50	2419	170	1521	8.3	14.4
828.0	13.2	17.5	88	9.0	1.32	0.57	2821	277	1426	8.3	14.4
829.0	27.3	19.1	89	9.0	1.14	0.61	3016	134	1333	8.3	14.4
831.0	28.5	20.2	88	9.0	1.14	0.68	3385	128	1183	8.3	14.4
832.0	22.9	18.4	88	9.0	1.18	0.72	3615	159	1123	8.3	14.4
833.0	52.2	19.4	88	9.0	0.96	0.74	3716	70	1064	8.3	14.4
834.0	32.7	19.4	87	9.0	1.09	0.77	3876	112	1014	8.3	14.4
835.0	41.9	20.0	87	9.0	1.03	0.80	4001	87.24	967.64	8.3	14.4
836.0	27.7	20.5	87	9.0	1.15	0.83	4189	131.89	927.84	8.3	14.4
837.0	36.0	19.4	87	9.0	1.06	0.86	4334	101.44	890.28	8.3	14.4
838.0	21.4	21.6	87	9.0	1.24	0.91	4577	170.43	858.98	8.3	14.4
839.0	37.5	22.1	87	9.0	1.09	0.93	4716	97.39	827.25	8.3	14.4
840.0	25.9	22.1	83	9.0	1.18	0.97	4908	141.01	799.80	8.3	14.4
841.0	15.9	21.1	85	9.0	1.31	1.04	5226	229.26	777.85	8.3	14.4
842.0	18.4	21.5	83	9.0	1.27	1.09	5497	198.83	756.41	8.3	14.4
844.0	20.7	21.5	85	9.0	1.24	1.19	5989	176.51	716.41	8.3	14.4
845.0	26.5	21.3	85	9.0	1.17	1.22	6182	137.96	697.13	8.3	14.4
846.0	20.7	21.1	86	9.0	1.24	1.27	6431	176.51	680.34	8.3	14.4
847.0	26.5	22.8	86	9.0	1.19	1.31	6626	137.81	663.38	8.3	14.4
848.0	19.1	21.6	87	9.0	1.27	1.36	6897	190.72	649.06	8.3	14.4
849.0	30.8	21.0	87	9.0	1.13	1.39	7067	118.69	633.46	8.3	14.4
850.0	24.0	22.7	87	9.0	1.23	1.44	7285	152.17	619.71	8.3	14.4
852.0	31.2	23.2	88	9.0	1.16	1.50	7625	117.17	592.55	8.3	14.4
853.0	18.4	23.6	89	9.0	1.32	1.56	7916	198.83	582.19	8.3	14.4
854.0	43.4	23.9	89	9.0	1.07	1.58	8039	84.20	569.42	8.3	14.4
856.0	29.5	23.4	89	9.0	1.18	1.65	8399	123.76	547.68	8.3	14.4
857.0	28.6	24.0	88	9.0	1.19	1.68	8584	127.82	537.68	8.3	14.4
858.0	70.6	30.0	88	9.0	0.99	1.70	8659	51.74	526.38	8.3	14.4
859.0	31.3	33.1	84	9.0	1.26	1.73	8820	116.66	517.07	8.3	14.4
860.0	44.4	30.7	88	9.0	1.14	1.75	8939	82.17	507.40	8.3	14.5
861.0	37.1	34.3	88	9.0	1.23	1.78	9080	98.40	498.51	8.3	14.5
862.0	57.1	34.3	88	9.0	1.09	1.79	9172	63.91	489.27	8.3	14.5
863.0	45.6	34.2	88	9.0	1.17	1.82	9288	80.14	480.74	8.3	14.5
865.0	44.4	33.7	89	9.0	1.17	1.86	9528	82.28	464.80	8.3	14.5
867.0	58.1	33.7	89	9.0	1.09	1.90	9712	62.90	449.35	8.3	14.5
868.0	58.1	33.4	89	9.0	1.08	1.91	9804	62.90	442.05	8.3	14.5
869.0	59.0	32.4	85	9.0	1.05	1.93	9890	61.88	435.01	8.3	14.5
870.0	48.6	32.5	91	9.0	1.14	1.95	10002	75.07	428.47	8.3	14.5
871.0	56.2	34.2	92	9.0	1.11	1.97	10100	64.92	421.98	8.3	14.5
872.0	37.1	35.4	92	9.0	1.26	1.99	10249	98.40	416.30	8.3	14.5
874.0	38.9	33.6	92	9.0	1.23	2.05	10532	93.84	405.37	8.3	14.5
876.0	41.9	32.3	91	9.0	1.18	2.09	10793	87.24	394.94	8.3	14.5
877.0	48.6	35.2	91	9.0	1.17	2.11	10905	75.07	389.78	8.3	14.5

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
878.0	46.8	34.9	83	9.0	1.15	2.14	11012	78.11	384.83	8.3	14.5
879.0	45.0	34.7	91	9.0	1.19	2.16	11134	81.16	380.09	8.3	14.5
880.0	34.3	31.3	92	9.0	1.24	2.19	11295	106.52	375.88	8.3	14.5
881.0	23.8	32.2	93	9.0	1.37	2.23	11530	153.18	372.51	8.3	14.5
882.0	42.9	31.8	94	9.0	1.18	2.25	11662	85.21	368.22	8.3	14.5
883.0	37.1	30.6	94	9.0	1.21	2.28	11813	98.40	364.25	8.3	14.5
884.0	62.1	32.0	94	9.0	1.06	2.30	11903	58.84	359.82	8.3	14.5
885.0	44.4	33.4	94	9.0	1.19	2.32	12030	82.17	355.86	8.3	14.5
886.0	66.7	33.1	93	9.0	1.05	2.33	12114	54.78	351.62	8.3	14.5
887.0	46.8	33.2	93	9.0	1.17	2.35	12234	78.11	347.82	8.3	14.5
888.0	59.0	31.9	84	9.0	1.05	2.37	12319	61.88	343.90	8.3	14.5
889.0	50.0	33.5	92	9.0	1.14	2.39	12430	73.04	340.24	8.3	14.5
890.0	64.3	32.9	92	9.0	1.06	2.41	12516	56.81	336.46	8.3	14.5
891.0	49.3	33.0	93	9.0	1.14	2.43	12629	74.05	333.01	8.3	14.5
892.0	59.0	33.9	93	9.0	1.10	2.44	12723	61.88	329.49	8.3	14.5
893.0	46.8	35.1	93	9.0	1.18	2.47	12843	78.11	326.26	8.3	14.5
894.0	58.1	37.0	93	9.0	1.13	2.48	12939	62.90	322.93	8.3	14.5
895.0	40.4	37.2	94	9.0	1.26	2.51	13078	90.29	320.02	8.3	14.5
897.0	52.2	37.1	91	9.0	1.16	2.55	13288	70.00	313.92	8.3	14.5
898.0	61.0	36.5	91	9.0	1.10	2.56	13378	59.85	310.86	8.3	14.5
899.0	47.4	36.2	91	9.0	1.19	2.58	13493	77.10	308.08	8.3	14.6
900.0	59.0	36.3	91	9.0	1.11	2.60	13586	61.88	305.18	8.3	14.6
901.0	54.5	37.9	92	9.0	1.16	2.62	13687	66.95	302.41	8.3	14.6
902.0	29.0	39.0	89	9.0	1.37	2.65	13871	125.79	300.38	8.3	14.6
903.0	34.6	39.4	83	9.0	1.29	2.68	14016	105.50	298.17	8.3	14.6
904.0	38.7	39.6	83	9.0	1.25	2.71	14144	94.34	295.88	8.3	14.6
905.0	31.3	39.7	82	9.0	1.33	2.74	14302	116.66	293.89	8.3	14.6
906.0	42.9	39.3	83	9.0	1.22	2.76	14417	85.21	291.59	8.3	14.6
907.0	71.8	37.4	81	9.0	1.02	2.78	14485	50.86	288.98	8.3	14.6
908.0	45.1	36.9	86	9.0	1.19	2.80	14599	80.98	286.74	8.3	14.6
909.0	66.4	35.7	89	9.0	1.06	2.81	14680	55.00	284.28	8.3	14.6
910.0	44.8	37.6	91	9.0	1.22	2.84	14802	81.52	282.14	8.3	14.6
911.0	61.9	37.0	90	9.0	1.10	2.85	14889	59.00	279.82	8.3	14.6
912.0	34.7	37.0	91	9.0	1.30	2.88	15046	105.24	278.02	8.3	14.6
913.0	71.4	36.5	90	9.0	1.05	2.90	15122	51.15	275.70	8.3	14.6
914.0	50.3	36.5	90	9.0	1.16	2.92	15229	72.60	273.65	8.3	14.6
915.0	75.2	36.6	90	9.0	1.03	2.93	15301	48.56	271.40	8.3	14.6
916.0	48.1	36.7	90	9.0	1.18	2.95	15413	75.93	269.46	8.3	14.6
917.0	52.0	35.0	90	9.0	1.14	2.97	15517	70.23	267.51	8.3	14.6
918.0	73.0	36.2	89	9.0	1.03	2.98	15590	50.03	265.40	8.3	14.6
919.0	40.9	37.1	91	9.0	1.24	3.01	15724	89.29	263.71	8.3	14.6
920.0	55.5	39.4	91	9.0	1.16	3.03	15822	65.80	261.82	8.3	14.6
921.0	33.4	39.4	91	9.0	1.33	3.06	15986	109.34	260.38	8.3	14.6
922.0	35.9	41.0	91	9.0	1.33	3.08	16138	101.73	258.90	8.3	14.6
923.0	33.4	40.7	91	9.0	1.35	3.11	16301	109.34	257.52	8.3	14.6
924.0	54.7	39.4	91	9.0	1.17	3.13	16401	66.76	255.77	8.3	14.6
925.0	30.7	40.3	92	9.0	1.38	3.16	16581	118.96	254.52	8.3	14.6
926.0	57.3	35.8	90	9.0	1.11	3.18	16675	63.73	252.80	8.3	14.6
927.0	31.2	38.3	88	9.0	1.33	3.21	16844	117.05	251.59	8.3	14.6
928.0	53.4	39.0	89	9.0	1.16	3.23	16944	68.39	249.97	8.3	14.6

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
929.0	39.9	38.5	90	9.0	1.26	3.26	17080	91.53	248.58	8.3	14.6
930.0	36.9	39.6	90	9.0	1.30	3.28	17226	98.97	247.28	8.3	14.6
931.0	22.6	40.8	91	9.0	1.48	3.33	17468	161.59	246.54	8.3	14.6
932.0	36.5	41.0	90	9.0	1.32	3.36	17616	100.05	245.29	8.3	14.6
933.0	19.4	43.1	90	9.0	1.56	3.41	17894	188.25	244.80	8.3	14.6
934.0	47.3	40.8	91	9.0	1.23	3.43	18009	77.21	243.40	8.3	14.6
935.0	36.2	41.2	90	9.0	1.32	3.46	18159	100.88	242.21	8.3	14.6
936.0	40.1	36.0	91	9.0	1.24	3.48	18295	91.07	240.96	8.3	14.6
937.0	45.1	37.6	90	9.0	1.21	3.50	18414	80.98	239.65	8.3	14.6
938.0	46.8	37.6	92	9.0	1.21	3.52	18532	78.11	238.34	8.3	14.6
939.0	60.0	37.7	92	9.0	1.12	3.54	18624	60.87	236.90	8.3	14.7
940.0	29.3	39.9	92	9.0	1.39	3.58	18813	124.78	236.01	8.3	14.7
941.0	34.3	40.9	92	9.0	1.34	3.60	18973	106.52	234.98	8.3	14.7
942.0	27.1	42.0	91	9.0	1.44	3.64	19176	134.92	234.19	8.3	14.7
943.0	53.7	41.0	91	9.0	1.19	3.66	19278	67.97	232.89	8.3	14.7
944.0	47.4	39.2	91	9.0	1.21	3.68	19393	77.10	231.69	8.3	14.7
945.0	59.0	38.4	91	9.0	1.13	3.70	19486	61.88	230.38	8.3	14.7
946.0	36.7	41.8	83	9.0	1.30	3.73	19622	99.42	229.38	8.3	14.7
947.0	70.6	38.5	91	9.0	1.07	3.74	19699	51.74	228.03	8.3	14.7
948.0	43.9	37.8	91	9.0	1.23	3.76	19824	83.18	226.94	8.3	14.7
949.0	65.5	37.6	91	9.0	1.09	3.78	19908	55.79	225.67	8.3	14.7
951.0	57.1	37.9	91	9.0	1.14	3.81	20099	63.91	223.29	8.3	14.7
952.0	37.5	38.7	91	9.0	1.29	3.84	20244	97.39	222.37	8.3	14.7
953.0	55.4	38.7	90	9.0	1.15	3.86	20342	65.94	221.24	8.3	14.7
954.0	28.1	39.6	90	9.0	1.39	3.89	20535	129.85	220.58	8.3	14.7
957.0	31.5	37.4	91	9.0	1.33	3.99	21056	116.10	218.37	8.3	14.7
958.0	45.6	36.2	90	9.0	1.19	4.01	21175	80.14	217.40	8.3	14.7
959.0	20.9	36.7	89	9.0	1.46	4.06	21431	174.48	217.11	8.3	14.7
960.0	35.6	37.3	89	9.0	1.28	4.09	21580	102.46	216.32	8.3	14.7
961.0	24.0	37.0	89	9.0	1.41	4.13	21802	152.17	215.88	8.3	14.7
962.0	46.2	36.5	89	9.0	1.19	4.15	21918	79.13	214.95	8.3	14.7
963.0	30.8	36.4	89	9.0	1.32	4.18	22092	118.69	214.30	8.3	14.7
964.0	31.9	36.4	89	9.0	1.31	4.21	22258	114.63	213.63	8.3	14.7
965.0	24.5	33.4	83	9.0	1.34	4.25	22462	149.12	213.20	8.3	14.7
966.0	27.9	31.7	91	9.0	1.31	4.29	22657	130.86	212.65	8.3	14.7
967.0	32.4	31.2	94	9.0	1.27	4.32	22831	112.60	211.99	8.3	14.7
968.0	25.6	30.6	99	9.0	1.35	4.36	23064	142.66	211.54	8.3	14.7
969.0	27.7	31.9	100	9.0	1.34	4.40	23280	131.88	211.02	8.3	14.7
970.0	32.7	33.1	100	9.0	1.30	4.43	23463	111.59	210.38	8.3	14.7
971.0	34.0	35.4	100	9.0	1.32	4.46	23641	107.53	209.72	8.3	14.7
972.0	31.0	35.8	100	9.0	1.35	4.49	23835	117.68	209.14	8.3	14.7
973.0	31.6	35.1	101	9.0	1.34	4.52	24026	115.65	208.54	8.3	14.7
974.0	43.4	35.8	101	9.0	1.24	4.54	24165	84.20	207.76	8.3	14.7
976.0	40.0	34.4	93	9.0	1.23	4.59	24443	91.30	206.32	8.3	14.7
977.0	30.5	36.4	90	9.0	1.33	4.63	24621	119.70	205.78	8.3	14.7
978.0	36.0	36.5	91	9.0	1.28	4.65	24772	101.44	205.14	8.3	14.7
979.0	25.0	37.0	90	9.0	1.40	4.69	24988	146.08	204.78	8.3	14.7
980.0	38.7	37.0	90	9.0	1.26	4.72	25127	94.34	204.11	8.3	14.7
982.0	33.3	37.4	91	9.0	1.31	4.78	25453	109.56	202.98	8.3	14.8
983.0	42.4	36.1	90	9.0	1.22	4.80	25581	86.23	202.28	8.3	14.8

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
984.0	58.1	34.0	90	9.0	1.09	4.82	25674	62.90	201.46	8.3	14.8
985.0	99.5	33.9	73	9.0	0.85	4.83	25718	36.70	200.49	8.3	14.8
986.0	43.4	35.0	92	9.0	1.20	4.85	25845	84.20	199.81	8.3	14.8
987.0	58.1	34.7	92	9.0	1.10	4.87	25939	62.90	199.01	8.3	14.8
988.0	35.6	34.9	91	9.0	1.26	4.90	26093	102.46	198.46	8.3	14.8
989.0	43.4	35.5	91	9.0	1.21	4.92	26219	84.20	197.80	8.3	14.8
990.0	27.7	36.8	91	9.0	1.37	4.96	26415	131.88	197.42	8.3	14.8
991.0	42.4	37.2	91	9.0	1.23	4.98	26544	86.23	196.79	8.3	14.8
992.0	30.5	37.0	91	9.0	1.34	5.01	26722	119.70	196.35	8.3	14.8
993.0	46.8	37.0	91	9.0	1.20	5.04	26839	78.11	195.69	8.3	14.8
994.0	28.8	36.8	91	9.0	1.36	5.07	27029	126.81	195.31	8.3	14.8
995.0	38.7	37.4	91	9.0	1.26	5.10	27169	94.34	194.74	8.3	14.8
996.0	43.2	36.6	100	9.0	1.25	5.12	27309	84.54	194.14	8.3	14.8
997.0	31.0	36.6	101	9.0	1.37	5.15	27504	117.68	193.72	8.3	14.8
1000.0	32.9	37.5	102	9.0	1.36	5.24	28062	110.91	192.37	8.3	14.8
1001.0	20.7	38.7	102	9.0	1.53	5.29	28358	176.51	192.29	8.3	14.8
1002.0	37.9	38.0	102	9.0	1.32	5.32	28520	96.37	191.78	8.3	14.8
1003.0	30.3	37.5	102	9.0	1.39	5.35	28723	120.72	191.40	8.3	14.8
1004.0	20.9	36.7	99	9.0	1.49	5.40	29008	174.48	191.31	8.3	14.8
1005.0	24.3	31.4	104	9.0	1.39	5.44	29264	150.14	191.09	8.3	14.8
1006.0	28.8	30.8	104	9.0	1.33	5.47	29480	126.81	190.75	8.3	14.8
1007.0	48.6	29.7	104	9.0	1.15	5.49	29608	75.07	190.15	8.3	14.8
1008.0	35.3	28.8	104	9.0	1.24	5.52	29785	103.47	189.70	8.3	14.8
1009.0	37.9	29.2	104	9.0	1.22	5.55	29949	96.37	189.22	8.3	14.8
1010.0	19.5	31.0	104	9.0	1.46	5.60	30270	187.67	189.21	8.3	14.8
1011.0	29.0	31.6	103	9.0	1.34	5.63	30484	125.79	188.89	8.3	14.8
1012.0	21.2	31.3	104	9.0	1.43	5.68	30778	172.46	188.81	8.3	14.8
1013.0	28.8	31.9	101	9.0	1.33	5.72	30988	126.81	188.49	8.3	14.8
1015.0	29.4	31.5	101	9.0	1.32	5.78	31400	124.27	187.85	8.3	14.8
1016.0	48.6	29.7	102	9.0	1.15	5.81	31526	75.07	187.29	8.3	14.8
1017.0	38.3	28.7	102	9.0	1.21	5.83	31686	95.36	186.84	8.3	14.8
1018.0	43.4	28.8	102	9.0	1.17	5.85	31828	84.20	186.33	8.3	14.8
1019.0	36.4	28.8	103	9.0	1.23	5.88	31997	100.43	185.91	8.3	14.8
1020.0	40.0	29.3	103	9.0	1.20	5.91	32151	91.30	185.45	8.3	14.8
1021.0	35.0	29.6	103	9.0	1.25	5.94	32327	104.49	185.05	8.3	14.8
1022.0	43.9	29.2	103	9.0	1.17	5.96	32468	83.18	184.56	8.3	14.8
1023.0	42.4	29.7	87	9.0	1.14	5.98	32591	86.23	184.09	8.3	14.9
1024.0	49.3	30.1	103	9.0	1.15	6.00	32717	74.05	183.56	8.3	14.9
1025.0	28.6	29.7	103	9.0	1.32	6.04	32933	127.82	183.30	8.3	14.9
1026.0	47.4	29.5	103	9.0	1.15	6.06	33063	77.10	182.79	8.3	14.9
1027.0	34.0	29.5	103	9.0	1.26	6.09	33245	107.53	182.44	8.3	14.9
1028.0	42.4	29.7	103	9.0	1.19	6.11	33391	86.23	181.99	8.3	14.9
1029.0	32.4	29.8	103	9.0	1.28	6.14	33581	112.60	181.66	8.3	14.9
1030.0	41.1	30.7	103	9.0	1.21	6.17	33731	88.86	181.23	8.3	14.9
1031.0	31.9	30.5	103	9.0	1.29	6.20	33925	114.63	180.92	8.3	14.9
1032.0	44.4	30.3	103	9.0	1.18	6.22	34064	82.17	180.47	8.3	14.9
1033.0	30.6	36.3	101	9.0	1.36	6.25	34262	119.20	180.19	8.3	14.9
1034.0	25.4	32.3	102	9.0	1.38	6.29	34503	144.05	180.02	8.3	14.9
1036.0	30.0	31.8	103	9.0	1.32	6.36	34913	121.73	179.49	8.3	14.9
1037.0	36.7	31.4	102	9.0	1.25	6.39	35080	99.42	179.13	8.3	14.9

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1038.0	30.3	31.4	103	9.0	1.32	6.42	35284	120.72	178.87	8.3	14.9
1040.0	23.4	32.5	102	9.0	1.41	6.51	35810	156.22	178.67	8.3	14.9
1041.0	31.9	31.8	102	9.0	1.31	6.54	36003	114.63	178.39	8.3	14.9
1042.0	19.5	32.2	103	9.0	1.47	6.59	36319	187.67	178.43	8.3	14.9
1043.0	28.6	31.4	102	9.0	1.33	6.62	36533	127.82	178.21	8.3	14.9
1044.0	24.5	31.5	104	9.0	1.39	6.66	36788	149.12	178.08	8.3	14.9
1046.0	29.8	31.8	105	9.0	1.33	6.73	37210	122.75	177.60	8.3	14.9
1047.0	30.5	32.5	105	9.0	1.33	6.76	37416	119.70	177.35	8.3	14.9
1048.0	13.7	34.0	104	9.0	1.61	6.84	37872	265.78	177.73	8.3	14.9
1049.0	26.9	33.2	105	9.0	1.38	6.87	38106	135.94	177.55	8.3	14.9
1050.0	48.0	31.0	105	9.0	1.17	6.89	38237	76.08	177.12	8.3	14.9
1052.0	25.3	30.6	100	9.0	1.36	6.97	38712	144.56	176.84	8.3	14.9
1053.0	17.9	33.2	104	9.0	1.51	7.03	39059	203.90	176.96	8.3	14.9
1054.0	21.4	33.1	104	9.0	1.45	7.08	39350	170.43	176.93	8.3	14.9
1055.0	28.1	32.3	104	9.0	1.36	7.11	39572	129.85	176.73	8.3	14.9
1056.0	18.2	33.1	104	9.0	1.51	7.17	39915	200.86	176.83	8.3	14.9
1057.0	41.4	31.7	104	9.0	1.23	7.19	40066	88.26	176.47	8.3	14.9
1058.0	40.4	31.1	104	9.0	1.23	7.22	40220	90.29	176.11	8.3	14.9
1059.0	40.4	30.8	104	9.0	1.22	7.24	40375	90.29	175.76	8.3	14.9
1060.0	25.2	31.1	104	9.0	1.38	7.28	40623	145.07	175.64	8.3	14.9
1061.0	29.3	31.9	104	9.0	1.34	7.31	40836	124.78	175.43	8.3	14.9
1062.0	20.7	32.5	103	9.0	1.45	7.36	41134	176.51	175.43	8.3	14.9
1063.0	29.5	32.2	104	9.0	1.34	7.40	41345	123.76	175.23	8.3	14.9
1064.0	25.2	31.7	103	9.0	1.38	7.44	41591	145.07	175.11	8.3	14.9
1065.0	27.3	32.1	103	9.0	1.36	7.47	41817	133.91	174.94	8.3	14.9
1066.0	25.5	32.1	104	9.0	1.38	7.51	42060	143.04	174.81	8.3	14.9
1067.0	41.9	31.7	105	9.0	1.22	7.54	42210	87.24	174.47	8.3	15.0
1068.0	27.7	31.7	104	9.0	1.35	7.57	42435	131.88	174.30	8.3	15.0
1069.0	36.7	31.2	105	9.0	1.26	7.60	42605	99.42	174.00	8.3	15.0
1070.0	18.1	32.7	104	9.0	1.50	7.65	42950	201.87	174.11	8.3	15.0
1072.0	24.7	31.9	105	9.0	1.39	7.74	43459	147.82	173.91	8.3	15.0
1073.0	24.0	31.9	104	9.0	1.40	7.78	43719	152.17	173.82	8.3	15.0
1074.0	36.0	32.0	104	9.0	1.27	7.81	43892	101.44	173.54	8.3	15.0
1075.0	25.9	31.9	104	9.0	1.38	7.84	44133	141.01	173.42	8.3	15.0
1077.0	23.2	32.9	105	9.0	1.43	7.93	44676	157.75	173.30	8.3	15.0
1078.0	31.3	32.6	104	9.0	1.33	7.96	44876	116.66	173.08	8.3	15.0
1079.0	18.8	32.9	104	9.0	1.49	8.02	45208	193.76	173.16	8.3	15.0
1080.0	26.1	33.1	104	9.0	1.39	8.05	45447	139.99	173.04	8.3	15.0
1082.0	21.9	33.2	103	9.0	1.44	8.14	46009	166.82	172.99	8.3	15.0
1083.0	23.7	34.3	104	9.0	1.43	8.19	46272	154.20	172.92	8.3	15.0
1084.0	14.5	31.8	104	9.0	1.56	8.26	46700	251.58	173.21	8.3	15.0
1086.0	15.2	32.1	104	9.0	1.55	8.39	47522	240.93	173.71	8.3	15.0
1088.0	21.9	31.2	103	9.0	1.42	8.48	48089	166.88	173.66	8.3	15.0
1089.0	34.0	30.6	104	9.0	1.27	8.51	48272	107.53	173.42	8.3	15.0
1090.0	20.0	30.6	104	9.0	1.44	8.56	48583	182.60	173.45	8.3	15.0
1091.0	26.1	31.3	95	9.0	1.34	8.60	48802	139.99	173.33	8.3	15.0
1092.0	40.9	29.7	103	9.0	1.20	8.62	48953	89.27	173.03	8.3	15.0
1093.0	34.6	28.9	104	9.0	1.25	8.65	49132	105.50	172.79	8.3	15.0
1094.0	41.9	29.1	104	9.0	1.19	8.67	49281	87.24	172.48	8.3	15.0
1095.0	20.3	29.9	104	9.0	1.43	8.72	49588	179.56	172.51	8.3	15.0

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1096.0	27.9	31.3	105	9.0	1.35	8.76	49813	130.86	172.36	8.3	15.0
1097.0	12.5	33.1	104	9.0	1.63	8.84	50312	292.16	172.78	8.3	15.0
1098.0	20.6	29.7	104	9.0	1.42	8.89	50615	177.53	172.80	8.3	15.0
1099.0	18.1	27.5	103	9.0	1.43	8.94	50958	201.87	172.90	8.3	15.0
1100.0	23.1	28.1	99	9.0	1.35	8.99	51217	158.25	172.85	8.3	15.0
1101.0	12.4	26.8	103	9.0	1.54	9.07	51717	295.20	173.28	8.3	15.0
1102.0	22.4	27.8	104	9.0	1.37	9.11	51995	163.33	173.24	8.3	15.0
1103.0	12.9	28.2	104	9.0	1.54	9.19	52478	282.02	173.62	8.3	15.0
1104.0	20.8	27.9	104	9.0	1.39	9.24	52777	175.50	173.63	8.3	15.0
1106.0	25.7	36.0	110	9.0	1.45	9.32	53291	142.02	173.41	8.3	15.0
1107.0	32.1	36.8	113	9.0	1.39	9.35	53501	113.62	173.20	8.3	15.0
1108.0	21.8	36.1	113	9.0	1.51	9.39	53811	167.38	173.19	8.3	15.0
1109.0	16.1	36.8	113	9.0	1.62	9.45	54232	227.24	173.37	8.3	15.0
1110.0	77.1	35.0	112	9.0	1.08	9.47	54319	47.34	172.94	8.3	15.0
1111.0	8.2	34.7	112	9.0	1.81	9.59	55139	444.33	173.86	8.3	15.0
1112.0	19.5	33.9	112	9.0	1.52	9.64	55485	187.67	173.91	8.3	15.1
1113.0	5.6	34.3	113	9.0	1.93	9.82	56688	649.24	175.50	8.3	15.1
1114.0	23.8	35.2	113	9.0	1.47	9.86	56972	153.62	175.43	8.3	15.1
1115.0	14.6	35.2	113	9.0	1.63	9.93	57434	249.55	175.67	8.3	15.1
1116.0	20.6	35.2	113	9.0	1.52	9.98	57762	177.53	175.68	8.3	15.1
1117.0	8.5	35.6	114	9.0	1.82	10.09	58567	429.65	176.52	8.3	15.1
1118.0	11.0	35.0	116	9.0	1.73	10.19	59200	332.00	177.03	8.3	15.1
1119.0	12.0	35.0	114	9.0	1.70	10.27	59770	304.33	177.45	8.3	15.1
1120.0	24.6	34.3	110	9.0	1.44	10.31	60039	148.62	177.36	8.3	15.1
1121.0	20.7	34.1	104	9.0	1.48	10.36	60341	176.51	177.36	8.3	15.1
1122.0	20.8	34.7	104	9.0	1.48	10.41	60641	175.50	177.35	8.3	15.1
1123.0	11.5	36.1	107	9.0	1.71	10.49	61202	318.83	177.81	8.3	15.1
1124.0	14.9	39.4	112	9.0	1.68	10.56	61653	245.50	178.03	8.3	15.1
1125.0	9.4	38.4	111	9.0	1.82	10.67	62360	388.03	178.71	8.3	15.1
1127.0	18.5	38.0	104	9.0	1.57	10.77	63036	197.48	178.83	8.3	15.1
1128.0	18.0	34.7	104	9.0	1.53	10.83	63382	202.89	178.90	8.3	15.1
1129.0	11.0	37.4	104	9.0	1.73	10.92	63948	331.72	179.39	8.3	15.1
1130.0	33.2	35.4	89	9.0	1.29	10.95	64109	109.90	179.17	8.3	15.1
1131.0	10.7	38.2	99	9.0	1.74	11.04	64665	339.84	179.68	8.3	15.1
1132.0	8.1	38.6	102	9.0	1.84	11.17	65416	450.41	180.53	8.3	15.1
1133.0	18.9	38.6	108	9.0	1.58	11.22	65760	193.23	180.57	8.3	15.1
1134.0	11.7	37.7	109	9.0	1.73	11.31	66319	311.43	180.98	8.3	15.1
1135.0	19.3	37.4	111	9.0	1.56	11.36	66665	189.70	181.01	8.3	15.1
1136.0	12.2	38.2	111	9.0	1.73	11.44	67213	299.26	181.38	8.3	15.1
1137.0	18.6	37.8	112	9.0	1.58	11.49	67573	196.80	181.42	8.3	15.1
1138.0	15.7	37.7	111	9.0	1.64	11.56	67998	232.31	181.58	8.3	15.1
1139.0	17.1	34.9	111	9.0	1.57	11.62	68386	213.03	181.68	8.3	15.1
1140.0	44.1	1.3	106	9.0	0.63	11.64	68531	82.81	181.38	8.3	15.1
1141.0	18.3	35.8	112	9.0	1.56	11.69	68898	199.85	181.43	8.3	15.1
1142.0	19.6	35.6	113	9.0	1.54	11.74	69244	186.66	181.45	8.3	15.1
1143.0	10.7	35.1	113	9.0	1.73	11.84	69872	339.84	181.93	8.3	15.1
1145.0	15.7	34.0	114	9.0	1.60	11.97	70747	233.32	182.24	8.3	15.1
1146.0	20.0	36.7	113	9.0	1.55	12.02	71086	182.60	182.24	8.3	15.1
1147.0	74.0	37.2	114	9.0	1.12	12.03	71179	49.35	181.84	8.3	15.1
1148.0	30.8	37.5	108	9.0	1.40	12.06	71388	118.57	181.65	8.3	15.1

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1149.0	10.6	34.9	114	9.0	1.74	12.16	72035	344.91	182.14	8.3	15.1
1150.0	12.8	36.2	114	9.0	1.69	12.23	72571	286.07	182.45	8.3	15.1
1151.0	11.5	37.2	114	9.0	1.75	12.32	73168	318.54	182.86	8.3	15.1
1152.0	23.7	37.0	114	9.0	1.50	12.36	73457	154.20	182.77	8.3	15.1
1153.0	23.7	37.1	114	9.0	1.50	12.41	73746	154.20	182.69	8.3	15.1
1154.0	20.7	37.4	114	9.0	1.55	12.45	74078	176.51	182.67	8.3	15.1
1155.0	14.7	37.4	114	9.0	1.66	12.52	74543	248.54	182.86	8.3	15.1
1156.0	24.6	37.8	114	9.0	1.50	12.56	74822	148.46	182.76	8.3	15.1
1157.0	13.2	37.2	114	9.0	1.70	12.64	75340	275.93	183.03	8.3	15.1
1159.0	14.3	37.5	106	9.0	1.65	12.78	76224	254.63	183.45	8.3	15.2
1160.0	19.0	37.0	110	9.0	1.56	12.83	76572	192.21	183.48	8.3	15.2
1161.0	13.6	37.5	108	9.0	1.68	12.90	77049	268.32	183.72	8.3	15.2
1162.0	9.1	36.5	98	9.0	1.76	13.01	77695	402.73	184.35	8.3	15.2
1163.0	5.4	37.0	100	9.0	1.95	13.20	78806	676.30	185.77	8.3	15.2
1164.0	12.4	38.0	102	9.0	1.69	13.28	79300	294.52	186.08	8.3	15.2
1165.0	40.6	41.3	109	9.0	1.35	13.30	79461	89.95	185.80	8.3	15.2
1166.0	6.2	38.6	111	9.0	1.96	13.47	80533	589.39	186.95	8.3	15.2
1167.0	8.5	38.2	113	9.0	1.86	13.58	81329	428.77	187.64	8.3	15.2
1168.0	21.1	38.7	112	9.0	1.55	13.63	81646	173.08	187.60	8.3	15.2
1169.0	4.9	39.2	113	9.0	2.06	13.83	83024	744.60	189.17	8.3	15.2
1170.0	9.3	39.2	113	9.0	1.84	13.94	83752	391.58	189.74	8.3	15.2
1171.0	8.6	39.1	113	9.0	1.87	14.06	84541	424.04	190.40	8.3	15.2
1172.0	7.3	36.9	103	9.0	1.86	14.19	85381	497.08	191.26	8.3	15.2
1173.0	31.0	39.6	69	9.0	1.27	14.23	85515	117.68	191.05	8.3	15.2
1174.0	10.4	40.6	81	9.0	1.71	14.32	85979	351.00	191.50	8.3	15.2
1175.0	11.8	41.1	87	9.0	1.70	14.41	86422	310.42	191.83	8.3	15.2

BIT NUMBER	3	IADC CODE	517	INTERVAL	1175.0- 1489.0
HTC J22		SIZE	12.250	NOZZLES	16 16 18
COST	8520.00	TRIP TIME	4.5	BIT RUN	314.0
TOTAL HOURS	11.66	TOTAL TURNS	61746	CONDITION	T2 B2 G0.000

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1176.0	12.9	25.2	69	9.0	1.38	0.08	321	283	25237	8.3	15.2
1177.0	6.9	10.1	71	9.0	1.26	0.22	941	530	12883	8.3	15.2
1178.0	8.4	16.1	69	9.0	1.34	0.34	1432	436	8734	8.3	15.2
1181.0	6.7	37.5	62	9.0	1.72	0.79	3083	542	4638	8.3	15.2
1182.0	7.9	28.6	64	9.0	1.55	0.91	3567	463	4042	8.3	15.2
1183.0	5.8	24.9	73	9.0	1.63	1.09	4327	630	3615	8.3	15.2
1184.0	6.1	25.5	74	9.0	1.63	1.25	5057	600	3280	8.3	15.2
1185.0	4.8	24.1	77	9.0	1.69	1.46	6025	763	3028	8.3	15.2
1186.0	10.7	25.1	76	9.0	1.46	1.55	6449	342	2784	8.3	15.2
1188.0	16.9	28.9	77	9.0	1.38	1.67	6995	216	2389	8.3	15.2
1189.0	16.4	27.9	77	9.0	1.38	1.73	7277	222	2234	8.3	15.2
1190.0	26.9	28.2	77	9.0	1.23	1.77	7450	136	2094	8.3	15.2
1191.0	16.0	28.1	77	9.0	1.39	1.83	7741	228	1978	8.3	15.2
1192.0	25.7	27.9	77	9.0	1.23	1.87	7919	142	1870	8.3	15.2

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1197.0	22.7	28.1	78	9.0	1.28	2.09	8949	161	1481	8.3	15.2
1199.0	21.6	28.9	78	9.0	1.31	2.18	9382	169	1372	8.3	15.2
1200.0	15.8	28.6	78	9.0	1.40	2.25	9678	231	1326	8.3	15.2
1202.0	16.5	29.6	78	9.0	1.40	2.37	10245	222	1245	8.3	15.2
1204.0	17.3	29.0	78	9.0	1.38	2.48	10784	210	1173	8.3	15.2
1205.0	27.5	29.9	75	9.0	1.23	2.52	10949	133	1139	8.3	15.2
1206.0	15.6	29.9	78	9.0	1.42	2.58	11248	234	1109	8.3	15.3
1207.0	14.3	29.6	78	9.0	1.44	2.65	11575	256	1083	8.3	15.3
1208.0	20.7	29.9	78	9.0	1.33	2.70	11800	177	1055	8.3	15.3
1209.0	13.2	30.2	77	9.0	1.48	2.78	12152	277	1032	8.3	15.3
1210.0	17.1	30.1	78	9.0	1.39	2.84	12423	213	1009	8.3	15.3
1211.0	14.0	30.1	78	9.0	1.46	2.91	12756	260.71	988.23	8.3	15.3
1215.0	25.7	30.6	78	9.0	1.27	3.06	13485	142.02	903.61	8.3	15.3
1216.0	21.1	30.0	79	9.0	1.33	3.11	13709	173.47	885.80	8.3	15.3
1217.0	14.1	30.0	82	9.0	1.47	3.18	14057	258.68	870.87	8.3	15.3
1218.0	22.4	29.8	91	9.0	1.36	3.23	14302	163.33	854.41	8.3	15.3
1219.0	15.8	29.6	93	9.0	1.47	3.29	14653	231.29	840.25	8.3	15.3
1220.0	24.0	29.6	93	9.0	1.34	3.33	14886	152.17	824.96	8.3	15.3
1221.0	18.1	29.7	93	9.0	1.43	3.39	15196	201.87	811.42	8.3	15.3
1222.0	23.1	29.8	93	9.0	1.35	3.43	15438	158.25	797.52	8.3	15.3
1223.0	16.1	29.7	93	9.0	1.47	3.49	15786	227.24	785.64	8.3	15.3
1224.0	25.2	29.5	94	9.0	1.32	3.53	16010	145.07	772.57	8.3	15.3
1225.0	16.0	29.1	92	9.0	1.45	3.60	16356	228.25	761.68	8.3	15.3
1226.0	22.1	28.4	94	9.0	1.35	3.64	16612	165.35	749.99	8.3	15.3
1227.0	18.1	28.6	94	9.0	1.42	3.70	16925	201.87	739.45	8.3	15.3
1228.0	31.3	29.1	94	9.0	1.25	3.73	17105	116.66	727.70	8.3	15.3
1229.0	17.6	29.3	94	9.0	1.44	3.78	17427	207.96	718.07	8.3	15.3
1230.0	25.2	29.6	94	9.0	1.33	3.82	17652	145.07	707.65	8.3	15.3
1231.0	22.1	28.9	95	9.0	1.36	3.87	17908	165.35	697.97	8.3	15.3
1232.0	24.8	29.6	94	9.0	1.33	3.91	18137	147.09	688.30	8.3	15.3
1235.0	22.0	29.8	94	9.0	1.37	4.05	18907	165.69	662.17	8.3	15.3
1237.0	19.2	30.1	95	9.0	1.42	4.15	19499	190.21	646.95	8.3	15.3
1238.0	22.5	29.6	95	9.0	1.36	4.19	19752	162.31	639.26	8.3	15.3
1239.0	19.4	29.7	94	9.0	1.41	4.25	20045	188.69	632.22	8.3	15.3
1241.0	19.7	30.1	94	9.0	1.41	4.35	20618	185.14	618.67	8.3	15.3
1243.0	18.3	30.7	94	9.0	1.44	4.46	21235	199.34	606.33	8.3	15.3
1244.0	20.6	30.2	88	9.0	1.38	4.51	21492	177.53	600.12	8.3	15.3
1245.0	23.2	30.3	92	9.0	1.35	4.55	21728	157.24	593.79	8.3	15.3
1246.0	16.4	30.0	92	9.0	1.46	4.61	22064	222.16	588.56	8.3	15.3
1247.0	23.4	30.5	92	9.0	1.35	4.65	22300	156.22	582.55	8.3	15.3
1248.0	12.6	31.1	92	9.0	1.56	4.73	22738	290.13	578.55	8.3	15.3
1249.0	25.4	31.0	92	9.0	1.33	4.77	22955	144.05	572.68	8.3	15.3
1250.0	18.2	29.7	91	9.0	1.42	4.83	23257	200.86	567.72	8.3	15.3
1251.0	21.7	30.7	92	9.0	1.38	4.87	23510	168.40	562.47	8.3	15.3
1252.0	13.3	31.3	91	9.0	1.54	4.95	23921	273.90	558.72	8.3	15.3
1253.0	16.7	31.2	92	9.0	1.47	5.01	24249	218.11	554.35	8.3	15.3
1254.0	13.0	29.8	90	9.0	1.52	5.08	24664	281.00	550.89	8.3	15.3
1255.0	12.4	27.2	93	9.0	1.51	5.16	25117	295.20	547.69	8.3	15.4
1256.0	13.6	27.7	94	9.0	1.49	5.24	25531	268.83	544.25	8.3	15.4
1257.0	17.1	28.4	96	9.0	1.44	5.30	25867	214.05	540.23	8.3	15.4

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1258.0	10.8	29.3	105	9.0	1.62	5.39	26450	338.82	537.80	8.3	15.4
1259.0	15.2	29.0	105	9.1	1.49	5.46	26866	240.42	534.26	8.3	15.4
1260.0	8.7	29.1	99	9.5	1.58	5.57	27549	419.98	532.91	8.3	15.4
1261.0	12.3	29.0	98	9.5	1.47	5.65	28023	296.22	530.16	8.3	15.4
1262.0	9.4	29.0	98	9.5	1.55	5.76	28648	388.53	528.53	8.3	15.4
1263.0	14.0	30.8	98	9.5	1.46	5.83	29071	261.73	525.50	8.3	15.4
1264.0	14.0	30.3	94	9.5	1.44	5.90	29475	261.73	522.54	8.3	15.4
1265.0	6.7	30.2	94	9.5	1.66	6.05	30312	541.71	522.75	8.3	15.4
1266.0	9.5	30.5	94	9.5	1.56	6.15	30900	382.45	521.21	8.3	15.4
1267.0	8.0	29.8	94	9.5	1.60	6.28	31606	458.53	520.53	8.3	15.4
1268.0	14.3	29.8	94	9.5	1.43	6.35	31999	255.64	517.68	8.3	15.4
1269.0	9.0	29.8	93	9.5	1.56	6.46	32621	405.78	516.49	8.3	15.4
1270.0	14.1	29.9	93	9.5	1.43	6.53	33019	259.70	513.79	8.3	15.4
1271.0	13.5	29.1	92	9.5	1.43	6.61	33431	270.86	511.26	8.3	15.4
1272.0	20.5	28.6	92	9.5	1.30	6.66	33701	178.54	507.83	8.3	15.4
1273.0	34.3	25.9	88	9.5	1.10	6.68	33855	106.52	503.73	8.3	15.4
1274.0	23.2	27.3	89	9.5	1.24	6.73	34086	157.24	500.23	8.3	15.4
1275.0	27.9	27.6	93	9.5	1.20	6.76	34285	130.86	496.54	8.3	15.4
1276.0	15.4	25.8	89	9.5	1.33	6.83	34630	237.38	493.97	8.3	15.4
1277.0	48.6	25.1	94	9.5	1.01	6.85	34746	75.07	489.86	8.3	15.4
1278.0	81.8	22.5	94	9.5	0.84	6.86	34815	44.64	485.54	8.3	15.4
1279.0	138.5	25.3	95	9.5	0.72	6.87	34856	26.38	481.13	8.3	15.4
1281.0	130.9	24.6	95	9.5	0.73	6.88	34943	27.90	472.58	8.3	15.4
1282.0	85.7	23.2	95	9.5	0.84	6.90	35009	42.61	468.56	8.3	15.4
1284.0	115.7	23.5	93	9.5	0.75	6.91	35105	31.56	460.54	8.3	15.4
1285.0	112.5	19.5	92	9.5	0.72	6.92	35154	32.46	456.65	8.3	15.4
1286.0	103.4	31.8	94	9.5	0.85	6.93	35208	35.32	452.85	8.3	15.4
1287.0	138.5	30.2	92	9.5	0.75	6.94	35248	26.38	449.04	8.3	15.4
1288.0	62.1	30.2	93	9.5	0.99	6.95	35338	58.84	445.59	8.3	15.4
1289.0	138.5	28.2	92	9.5	0.73	6.96	35378	26.38	441.91	8.3	15.4
1290.0	109.1	19.0	92	9.5	0.72	6.97	35428	33.48	438.36	8.3	15.4
1291.0	115.9	30.2	94	9.5	0.80	6.98	35477	31.51	434.85	8.3	15.4
1292.0	63.2	28.7	79	9.5	0.92	7.00	35551	57.82	431.63	8.3	15.4
1293.0	83.7	27.7	93	9.5	0.88	7.01	35618	43.62	428.34	8.3	15.4
1294.0	109.1	28.5	93	9.5	0.81	7.02	35669	33.48	425.02	8.3	15.4
1295.0	120.0	29.4	93	9.5	0.79	7.02	35715	30.43	421.74	8.3	15.4
1296.0	171.4	27.8	93	9.5	0.67	7.03	35748	21.30	418.43	8.3	15.4
1299.0	150.0	27.3	94	9.5	0.71	7.05	35860	24.35	408.89	8.3	15.4
1300.0	80.0	30.2	94	9.5	0.92	7.06	35930	45.65	405.99	8.3	15.4
1302.0	154.3	30.4	91	9.5	0.71	7.08	36001	23.67	399.97	8.3	15.4
1303.0	120.0	31.4	92	9.5	0.80	7.08	36047	30.43	397.08	8.3	15.4
1305.0	205.7	28.6	93	9.5	0.62	7.09	36101	17.75	391.24	8.3	15.5
1306.0	112.5	24.6	94	9.5	0.77	7.10	36151	32.46	388.50	8.3	15.5
1307.0	112.5	30.9	94	9.5	0.82	7.11	36201	32.46	385.81	8.3	15.5
1308.0	171.4	24.2	94	9.5	0.65	7.12	36234	21.30	383.07	8.3	15.5
1309.0	144.0	27.4	94	9.5	0.72	7.12	36273	25.36	380.40	8.3	15.5
1311.0	84.7	23.5	91	9.5	0.83	7.15	36402	43.11	375.44	8.3	15.5
1312.0	128.6	28.0	94	9.5	0.76	7.16	36446	28.40	372.90	8.3	15.5
1314.0	108.0	25.9	93	9.5	0.79	7.17	36550	33.81	368.03	8.3	15.5
1315.0	150.0	28.8	94	9.5	0.72	7.18	36587	24.35	365.57	8.3	15.5

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1316.0	163.6	26.7	94	9.5	0.68	7.19	36622	22.32	363.14	8.3	15.5
1319.0	180.0	25.3	93	9.5	0.64	7.20	36715	20.29	355.99	8.3	15.5
1325.0	317.7	21.0	94	9.5	0.46	7.22	36821	11.50	342.21	8.3	15.5
1330.0	45.0	23.1	96	9.5	1.02	7.33	37463	81.16	333.79	8.3	15.5
1332.0	225.0	18.7	89	9.5	0.52	7.34	37511	16.23	329.75	8.3	15.5
1335.0	135.0	27.6	117	9.5	0.81	7.37	37666	27.05	324.07	8.3	15.5
1336.0	18.1	28.8	121	9.5	1.42	7.42	38067	201.87	323.31	8.3	15.5
1337.0	14.0	28.7	121	9.5	1.49	7.49	38585	260.71	322.93	8.3	15.5
1338.0	38.7	28.0	121	9.5	1.18	7.52	38773	94.34	321.52	8.3	15.5
1339.0	81.8	26.1	121	9.5	0.95	7.53	38862	44.64	319.84	8.3	15.5
1341.0	92.0	25.8	119	9.5	0.91	7.55	39017	39.70	316.46	8.3	15.5
1342.0	100.0	24.9	120	9.5	0.88	7.56	39089	36.52	314.78	8.3	15.5
1344.0	130.9	26.5	120	9.5	0.81	7.58	39199	27.90	311.39	8.3	15.5
1345.0	189.5	26.8	120	9.5	0.71	7.58	39237	19.27	309.67	8.3	15.5
1346.0	189.5	19.4	120	9.5	0.65	7.59	39275	19.27	307.97	8.3	15.5
1348.0	232.3	22.2	119	9.5	0.62	7.60	39337	15.72	304.59	8.3	15.5
1351.0	257.1	18.3	119	9.5	0.56	7.61	39420	14.20	299.64	8.3	15.5
1352.0	30.8	27.4	120	9.5	1.24	7.64	39654	118.69	298.62	8.3	15.5
1353.0	46.2	27.2	120	9.5	1.12	7.66	39810	79.13	297.39	8.3	15.5
1354.0	31.0	28.2	120	9.5	1.25	7.69	40041	117.68	296.38	8.3	15.5
1355.0	81.8	26.9	120	9.5	0.95	7.71	40129	44.64	294.99	8.3	15.5
1356.0	34.6	27.2	120	9.5	1.20	7.74	40337	105.50	293.94	8.3	15.5
1357.0	20.5	29.9	120	9.5	1.40	7.78	40690	178.54	293.30	8.3	15.5
1361.0	54.9	30.2	120	9.5	1.10	7.86	41215	66.50	288.43	8.3	15.6
1362.0	87.8	27.5	120	9.5	0.94	7.87	41298	41.59	287.11	8.3	15.6
1363.0	37.5	28.1	120	9.5	1.19	7.89	41490	97.39	286.10	8.3	15.6
1364.0	138.5	27.2	120	9.5	0.80	7.90	41543	26.38	284.72	8.3	15.6
1365.0	83.7	20.9	120	9.5	0.89	7.91	41629	43.62	283.46	8.3	15.6
1366.0	62.1	27.2	120	9.5	1.04	7.93	41745	58.84	282.28	8.3	15.6
1367.0	28.8	27.3	121	9.5	1.26	7.96	41996	126.81	281.47	8.3	15.6
1368.0	36.4	29.2	121	9.5	1.22	7.99	42195	100.43	280.53	8.3	15.6
1370.0	16.1	31.8	121	9.5	1.49	8.12	43095	227.24	279.98	8.3	15.6
1371.0	97.3	30.2	121	9.5	0.93	8.13	43170	37.53	278.75	8.3	15.6
1373.0	21.2	32.0	118	9.5	1.41	8.22	43841	172.46	277.67	8.3	15.6
1374.0	22.6	28.9	100	9.5	1.30	8.27	44107	161.30	277.09	8.3	15.6
1375.0	49.3	26.9	99	9.5	1.04	8.29	44228	74.05	276.07	8.3	15.6
1376.0	29.8	29.1	100	9.5	1.22	8.32	44429	122.75	275.31	8.3	15.6
1377.0	51.4	28.9	100	9.5	1.05	8.34	44545	71.01	274.30	8.3	15.6
1378.0	20.2	30.0	98	9.5	1.34	8.39	44836	180.57	273.84	8.3	15.6
1380.0	67.5	26.2	96	9.5	0.94	8.42	45008	54.10	271.69	8.3	15.6
1382.0	35.0	24.9	94	9.5	1.10	8.48	45329	104.49	270.08	8.3	15.6
1383.0	24.3	25.9	87	9.5	1.20	8.52	45544	150.14	269.50	8.3	15.6
1384.0	22.1	28.9	96	9.5	1.29	8.56	45805	165.35	269.00	8.3	15.6
1385.0	18.8	30.2	100	9.5	1.37	8.61	46122	193.76	268.65	8.3	15.6
1386.0	42.4	28.3	105	9.5	1.12	8.64	46271	86.23	267.78	8.3	15.6
1387.0	36.0	28.0	105	9.5	1.16	8.67	46446	101.44	267.00	8.3	15.6
1389.0	43.6	27.2	99	9.5	1.08	8.71	46719	83.69	265.28	8.3	15.6
1390.0	65.5	27.7	87	9.5	0.93	8.73	46799	55.79	264.31	8.3	15.6
1391.0	8.1	15.3	65	9.5	1.25	8.85	47279	450.41	265.17	8.3	15.6
1392.0	66.7	25.0	83	9.5	0.89	8.87	47354	54.78	264.20	8.3	15.6

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1393.0	37.5	25.9	85	9.5	1.07	8.89	47490	97.39	263.44	8.3	15.6
1394.0	20.7	33.7	87	9.5	1.34	8.94	47743	176.51	263.04	8.3	15.6
1395.0	11.8	35.9	88	9.5	1.55	9.03	48189	309.41	263.25	8.3	15.6
1396.0	37.5	35.1	88	9.5	1.17	9.05	48330	97.39	262.50	8.3	15.6
1397.0	21.1	34.0	88	9.5	1.34	9.10	48581	173.47	262.10	8.3	15.6
1398.0	12.6	36.2	88	9.5	1.53	9.18	49000	290.13	262.22	8.3	15.6
1399.0	37.5	29.1	86	9.5	1.10	9.21	49137	97.39	261.49	8.3	15.6
1400.0	25.5	32.3	90	9.5	1.27	9.24	49349	143.04	260.96	8.3	15.6
1401.0	16.4	35.1	90	9.5	1.44	9.31	49679	222.16	260.79	8.3	15.6
1403.0	25.4	34.8	90	9.5	1.30	9.38	50106	144.05	259.77	8.3	15.6
1404.0	67.9	32.3	91	9.5	0.97	9.40	50186	53.77	258.87	8.3	15.6
1405.0	26.3	32.1	91	9.5	1.26	9.44	50394	138.98	258.34	8.3	15.6
1406.0	17.8	34.0	92	9.5	1.41	9.49	50702	204.92	258.11	8.3	15.6
1407.0	24.2	34.9	92	9.5	1.32	9.53	50929	151.15	257.65	8.3	15.6
1408.0	92.3	31.9	92	9.5	0.88	9.55	50989	39.56	256.72	8.3	15.6
1409.0	48.6	31.1	85	9.5	1.05	9.57	51094	75.07	255.94	8.3	15.6
1410.0	17.3	33.7	91	9.5	1.41	9.62	51411	211.00	255.75	8.3	15.6
1411.0	42.9	35.4	92	9.5	1.15	9.65	51540	85.21	255.03	8.3	15.6
1412.0	53.7	32.9	93	9.5	1.06	9.67	51644	67.97	254.24	8.3	15.7
1414.0	102.9	28.2	93	9.5	0.82	9.69	51752	35.51	252.41	8.3	15.7
1415.0	171.4	31.4	93	9.5	0.69	9.69	51784	21.30	251.44	8.3	15.7
1416.0	60.0	30.0	93	9.5	1.00	9.71	51877	60.87	250.65	8.3	15.7
1419.0	87.8	33.5	98	9.5	0.93	9.74	52078	41.59	248.08	8.3	15.7
1420.0	36.4	32.1	95	9.5	1.18	9.77	52235	100.43	247.48	8.3	15.7
1421.0	26.9	33.7	99	9.5	1.30	9.81	52456	135.94	247.03	8.3	15.7
1422.0	20.7	33.1	95	9.5	1.36	9.86	52731	176.51	246.74	8.3	15.7
1423.0	73.5	31.3	92	9.5	0.95	9.87	52806	49.71	245.95	8.3	15.7
1424.0	70.6	30.3	92	9.5	0.95	9.88	52885	51.74	245.17	8.3	15.7
1426.0	76.6	28.8	92	9.5	0.91	9.91	53030	47.68	243.59	8.3	15.7
1427.0	70.6	31.2	98	9.5	0.97	9.92	53113	51.74	242.83	8.3	15.7
1428.0	29.8	32.9	93	9.5	1.24	9.96	53301	122.75	242.36	8.3	15.7
1429.0	21.8	33.7	93	9.5	1.34	10.00	53556	167.38	242.06	8.3	15.7
1430.0	20.7	36.1	94	9.5	1.39	10.05	53828	176.51	241.80	8.3	15.7
1431.0	30.3	31.9	89	9.5	1.21	10.08	54005	120.72	241.33	8.3	15.7
1432.0	48.0	29.9	91	9.5	1.06	10.10	54118	76.08	240.69	8.3	15.7
1433.0	19.1	33.2	90	9.5	1.37	10.16	54401	190.72	240.50	8.3	15.7
1435.0	22.0	33.5	89	9.5	1.33	10.25	54886	166.37	239.92	8.3	15.7
1437.0	33.2	31.4	86	9.5	1.17	10.31	55199	110.07	238.93	8.3	15.7
1439.0	96.9	27.5	92	9.5	0.83	10.33	55313	37.68	237.41	8.3	15.7
1440.0	18.8	30.1	92	9.5	1.34	10.38	55606	193.76	237.24	8.3	15.7
1441.0	20.9	32.9	88	9.5	1.33	10.43	55859	174.48	237.01	8.3	15.7
1442.0	17.9	29.2	84	9.5	1.32	10.49	56139	203.90	236.88	8.3	15.7
1443.0	30.3	29.3	83	9.5	1.16	10.52	56303	120.72	236.45	8.3	15.7
1444.0	28.1	28.6	83	9.5	1.17	10.55	56480	129.85	236.05	8.3	15.7
1445.0	22.8	29.6	83	9.5	1.25	10.60	56698	160.28	235.77	8.3	15.7
1446.0	16.8	29.9	83	9.5	1.34	10.66	56993	217.09	235.71	8.3	15.7
1447.0	220.0	35.7	68	9.5	0.55	10.66	57012	16.60	234.90	8.3	15.7
1448.0	30.3	27.6	86	9.5	1.15	10.70	57183	120.72	234.48	8.3	15.7
1449.0	34.0	29.5	86	9.5	1.14	10.72	57335	107.53	234.02	8.3	15.7
1450.0	14.9	33.6	86	9.5	1.44	10.79	57682	244.48	234.06	8.3	15.7

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1451.0	171.4	29.4	87	9.5	0.66	10.80	57713	21.30	233.29	8.3	15.7
1452.0	120.0	26.0	87	9.5	0.74	10.81	57756	30.43	232.55	8.3	15.7
1453.0	200.0	22.9	87	9.5	0.57	10.81	57782	18.26	231.78	8.3	15.7
1454.0	144.0	29.3	86	9.5	0.71	10.82	57818	25.36	231.04	8.3	15.7
1455.0	189.5	29.7	86	9.5	0.63	10.82	57845	19.27	230.29	8.3	15.7
1458.0	149.0	25.2	88	9.5	0.68	10.84	57952	24.52	228.10	8.3	15.7
1460.0	175.6	29.8	88	9.5	0.66	10.85	58012	20.80	226.65	8.3	15.7
1461.0	234.0	28.6	88	9.5	0.57	10.86	58035	15.61	225.91	8.3	15.7
1462.0	268.7	27.6	88	9.5	0.52	10.86	58054	13.59	225.17	8.3	15.7
1463.0	160.0	28.4	88	9.5	0.68	10.87	58087	22.83	224.47	8.3	15.7
1464.0	171.4	24.0	88	9.5	0.63	10.87	58118	21.30	223.77	8.3	15.7
1465.0	180.0	24.0	88	9.5	0.62	10.88	58148	20.29	223.06	8.3	15.7
1466.0	19.0	32.4	84	9.5	1.34	10.93	58412	191.73	222.96	8.3	15.7
1467.0	13.2	33.0	79	9.5	1.44	11.01	58770	275.93	223.14	8.3	15.8
1468.0	39.1	32.6	78	9.5	1.10	11.03	58890	93.33	222.70	8.3	15.8
1469.0	163.6	28.6	80	9.5	0.64	11.04	58919	22.32	222.01	8.3	15.8
1471.0	218.2	27.2	79	9.5	0.55	11.05	58963	16.74	220.63	8.3	15.8
1472.0	211.8	28.7	79	9.5	0.57	11.05	58985	17.25	219.94	8.3	15.8
1473.0	124.1	30.2	82	9.5	0.74	11.06	59025	29.42	219.30	8.3	15.8
1474.0	156.5	31.7	80	9.5	0.68	11.07	59055	23.33	218.65	8.3	15.8
1475.0	87.8	26.2	63	9.5	0.74	11.08	59099	41.59	218.06	8.3	15.8
1476.0	277.0	20.5	77	9.5	0.44	11.08	59115	13.18	217.38	8.3	15.8
1477.0	180.0	19.1	83	9.5	0.56	11.09	59143	20.29	216.72	8.3	15.8
1478.0	289.0	24.1	87	9.5	0.48	11.09	59161	12.64	216.05	8.3	15.8
1479.0	69.2	26.9	88	9.5	0.91	11.11	59237	52.75	215.51	8.3	15.8
1480.0	47.4	28.9	88	9.5	1.04	11.13	59349	77.10	215.06	8.3	15.8
1481.0	30.3	32.5	89	9.5	1.22	11.16	59525	120.72	214.75	8.3	15.8
1482.0	51.4	29.4	89	9.5	1.02	11.18	59629	71.01	214.28	8.3	15.8
1483.0	11.9	32.0	79	9.5	1.46	11.26	60025	307.38	214.59	8.3	15.8
1484.0	9.1	32.8	82	9.5	1.56	11.37	60566	399.69	215.18	8.3	15.8
1485.0	12.6	30.1	78	9.5	1.41	11.45	60937	289.84	215.43	8.3	15.8
1486.0	11.9	27.7	64	9.5	1.34	11.54	61259	305.78	215.72	8.3	15.8
1487.0	14.7	27.5	67	9.5	1.29	11.61	61532	248.44	215.82	8.3	15.8
1488.0	22.1	27.4	68	9.5	1.17	11.65	61717	165.35	215.66	8.3	15.8
1489.0	133.3	21.6	64	9.5	0.59	11.66	61746	27.39	215.06	8.3	15.8

BIT NUMBER	3	IADC CODE	4	INTERVAL	1489.0- 1500.4
CHRIST RC4		SIZE	9.875	NOZZLES	15 15 15
COST	0.00	TRIP TIME	5.2	BIT RUN	11.4
TOTAL HOURS	0.08	TOTAL TURNS	370	CONDITION	T0 B0 G0.000

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1489.2	28.5	2.2	72	9.5	0.68	0.01	30	128	95080	8.3	15.8
1489.4	418.6	2.2	72	9.5	0.20	0.01	32	9	47544	8.3	15.8
1489.6	253.5	2.5	73	9.5	0.30	0.01	36	14	31701	8.3	15.8
1489.8	381.0	0.8	73	9.5	0.19	0.01	38	10	23778	8.3	15.8
1490.0	218.8	0.4	74	9.5	0.25	0.01	42	17	19026	8.3	15.8

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1490.2	648.6	2.1	71	9.5	0.12	0.01	44	6	15856	8.3	15.8
1490.4	595.0	1.4	72	9.5	0.13	0.01	45	6	13592	8.3	15.8
1490.6	734.7	3.4	75	9.5	0.12	0.01	46	5	11893	8.3	15.8
1490.8	148.5	0.9	74	9.5	0.34	0.01	52	25	10575	8.3	15.8
1491.0	545.5	1.9	74	9.5	0.16	0.01	54	7	9518	8.3	15.8
1491.2	576.0	3.6	73	9.5	0.16	0.01	55	6	8653	8.3	15.8
1491.4	766.0	2.5	74	9.5	0.10	0.01	56	5	7932	8.3	15.8
1491.6	791.2	2.0	76	9.5	0.10	0.01	58	5	7323	8.3	15.8
1491.8	571.4	0.5	74	9.5	0.12	0.01	59	6	6800	8.3	15.8
1492.0	132.1	0.4	73	9.5	0.32	0.02	66	28	6348	8.3	15.8
1492.2	541.4	1.0	72	9.5	0.14	0.02	67	7	5952	8.3	15.8
1492.4	186.0	0.5	75	9.5	0.28	0.02	72	20	5603	8.3	15.8
1492.6	411.4	0.5	75	9.5	0.17	0.02	74	9	5292	8.3	15.8
1492.8	373.1	0.4	76	9.5	0.18	0.02	77	10	5014	8.3	15.8
1493.0	600.0	0.4	74	9.5	0.11	0.02	78	6	4764	8.3	15.8
1493.2	347.8	0.5	75	9.5	0.20	0.02	81	11	4538	8.3	15.8
1493.4	489.8	0.5	75	9.5	0.15	0.02	83	7	4332	8.3	15.8
1493.6	240.0	0.4	75	9.5	0.24	0.02	87	15	4144	8.3	15.8
1493.8	470.6	0.3	75	9.5	0.14	0.02	88	8	3972	8.3	15.8
1494.0	220.9	0.4	75	9.5	0.25	0.02	93	17	3813	8.3	15.8
1494.2	571.4	0.5	76	9.5	0.13	0.02	94	6	3667	8.3	15.8
1494.4	378.9	0.4	75	9.5	0.18	0.02	96	10	3532	8.3	15.8
1494.6	470.6	0.6	77	9.5	0.16	0.02	98	8	3406	8.3	15.8
1494.8	267.7	0.4	75	9.5	0.23	0.02	102	14	3289	8.3	15.8
1495.0	473.7	0.5	75	9.5	0.15	0.02	104	8	3179	8.3	15.8
1495.2	300.0	0.9	76	9.5	0.24	0.02	107	12	3077	8.3	15.8
1495.4	580.6	0.9	75	9.5	0.13	0.02	108	6	2981	8.3	15.8
1495.6	286.9	0.6	77	9.5	0.23	0.03	112	13	2891	8.3	15.8
1495.8	108.4	2.0	76	9.5	0.45	0.03	120	34	2807	8.3	15.8
1496.0	295.1	1.5	76	9.5	0.26	0.03	123	12	2727	8.3	15.8
1496.2	679.2	1.2	77	9.5	0.12	0.03	124	5	2652	8.3	15.8
1496.4	421.1	1.4	76	9.5	0.20	0.03	127	9	2580	8.3	15.8
1496.6	441.7	0.5	77	9.5	0.16	0.03	129	8	2513	8.3	15.8
1496.8	356.4	1.5	77	9.5	0.23	0.03	131	10	2448	8.3	15.8
1497.0	533.3	1.0	74	9.5	0.15	0.03	133	7	2387	8.3	15.8
1497.2	92.4	2.2	76	9.5	0.48	0.03	143	40	2330	8.3	15.8
1497.4	610.2	3.5	76	9.5	0.16	0.03	144	6	2275	8.3	15.8
1497.6	266.7	2.7	74	9.5	0.30	0.03	148	14	2222	8.3	15.8
1497.8	428.6	1.7	77	9.5	0.20	0.03	150	9	2172	8.3	15.8
1498.0	25.1	3.3	76	9.5	0.77	0.04	186	145	2127	8.3	15.8
1498.2	210.5	4.9	78	9.5	0.39	0.04	190	17	2081	8.3	15.8
1498.4	14.1	8.3	77	9.5	1.05	0.06	256	259	2042	8.3	15.8
1498.6	105.9	9.9	78	9.5	0.62	0.06	264	34	2000	8.3	15.8
1498.8	33.4	9.6	77	9.5	0.89	0.06	292	109	1962	8.3	15.8
1499.0	104.7	8.7	77	9.5	0.60	0.07	301	35	1923	8.3	15.8
1499.2	26.0	12.9	77	9.5	1.01	0.07	337	140	1888	8.3	15.8
1499.4	400.0	11.9	77	9.5	0.31	0.07	339	9	1852	8.3	15.8
1500.4	150.0	9.7	77	9.5	0.53	0.08	370	24	1692	8.3	15.8

BIT NUMBER	3	IADC CODE	4	INTERVAL	1500.4- 1511.6
CHRIST RC4		SIZE	9.875	NOZZLES	15 15 15
COST	0.00	TRIP TIME	5.2	BIT RUN	11.2
TOTAL HOURS	0.19	TOTAL TURNS	953	CONDITION	T0 B0 G0.000

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1500.6	17.8	33.5	79	9.5	1.45	0.01	53	205	95157	8.3	15.8
1501.0	29.4	31.0	76	9.5	1.24	0.02	115	124	31802	8.3	15.8
1501.4	26.2	16.0	78	9.5	1.07	0.04	186	139	19137	8.3	15.8
1501.8	20.6	15.5	79	9.5	1.13	0.06	278	178	13720	8.3	15.8
1502.4	58.4	14.3	79	9.5	0.83	0.07	327	63	9623	8.3	15.8
1502.6	22.5	16.4	81	9.5	1.12	0.08	370	162	8763	8.3	15.8
1503.2	113.7	16.0	84	9.5	0.69	0.08	397	32	6892	8.3	15.8
1503.6	110.8	17.1	83	9.5	0.71	0.09	415	33	6035	8.3	15.8
1503.8	34.3	16.4	83	9.5	1.02	0.09	444	107	5686	8.3	15.8
1504.2	75.8	16.6	84	9.5	0.81	0.10	470	48	5092	8.3	15.8
1504.6	72.0	15.9	84	9.5	0.82	0.10	498	51	4612	8.3	15.8
1505.0	90.0	16.4	84	9.5	0.76	0.11	521	41	4215	8.3	15.8
1505.4	84.7	16.4	84	9.5	0.78	0.11	544	43	3881	8.3	15.8
1505.8	72.0	14.2	85	9.5	0.80	0.12	573	51	3597	8.3	15.8
1506.4	93.9	14.2	84	9.5	0.72	0.13	605	39	3241	8.3	15.8
1506.6	36.0	17.1	85	9.5	1.02	0.13	633	101	3140	8.3	15.8
1507.0	68.6	15.7	85	9.5	0.83	0.14	663	53	2953	8.3	15.8
1507.8	82.3	16.5	85	9.5	0.79	0.15	713	44	2639	8.3	15.8
1508.2	80.0	17.4	85	9.5	0.81	0.15	738	46	2506	8.3	15.8
1508.6	72.0	17.0	84	9.5	0.83	0.16	766	51	2386	8.3	15.8
1509.0	90.0	15.5	85	9.5	0.75	0.16	789	41	2277	8.3	15.8
1509.8	80.0	15.8	85	9.5	0.79	0.17	840	46	2087	8.3	15.8
1510.2	120.0	14.3	86	9.5	0.67	0.17	857	30	2003	8.3	15.8
1510.6	110.8	12.9	86	9.5	0.67	0.18	875	33	1926	8.3	15.8
1511.0	84.7	12.2	84	9.5	0.73	0.18	899	43	1855	8.3	15.8
1511.6	56.8	8.8	85	9.5	0.77	0.19	953	64	1759	8.3	15.8

BIT NUMBER	4	IADC CODE	517	INTERVAL	1511.6- 1668.0
HTC J22		SIZE	12.250	NOZZLES	16 16 16
COST	8520.00	TRIP TIME	5.3	BIT RUN	156.4
TOTAL HOURS	24.37	TOTAL TURNS	74831	CONDITION	T8 B6 G0.250

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1512.0	133.9	1.6	85	9.6	0.40	0.00	15	27	69716	8.3	15.8
1513.0	76.6	3.6	84	9.6	0.55	0.02	81	48	19953	8.3	15.8
1514.0	78.2	27.0	85	9.6	0.86	0.03	146	47	11659	8.3	15.8
1515.0	83.1	21.7	83	9.6	0.79	0.04	206	44	8243	8.3	15.8
1516.0	22.5	30.0	84	9.6	1.25	0.09	430	162	6406	8.3	15.8
1517.0	10.4	26.2	84	9.6	1.42	0.18	917	353	5285	8.3	15.8
1518.0	8.3	30.7	76	9.6	1.52	0.30	1466	442	4528	8.3	15.8

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1519.0	9.3	42.5	56	9.6	1.54	0.41	1826	395	3970	8.3	15.8
1520.0	5.8	40.0	55	9.6	1.66	0.58	2395	630	3572	8.3	15.8
1521.0	6.6	42.1	53	9.6	1.63	0.73	2872	552	3251	8.3	15.8
1522.0	12.1	41.8	52	9.6	1.42	0.82	3128	302	2967	8.3	15.8
1523.0	56.2	36.9	51	9.6	0.88	0.84	3183	65	2713	8.3	15.8
1524.0	76.6	39.8	52	9.6	0.81	0.85	3224	48	2498	8.3	15.8
1525.0	60.0	36.1	52	9.6	0.86	0.86	3276	61	2316	8.3	15.9
1526.0	124.1	37.1	52	9.6	0.64	0.87	3301	29	2157	8.3	15.9
1527.0	21.6	35.0	52	9.6	1.17	0.92	3445	169	2028	8.3	15.9
1528.0	20.8	40.1	51	9.6	1.22	0.97	3592	176	1915	8.3	15.9
1529.0	10.6	40.7	52	9.6	1.45	1.06	3885	345	1825	8.3	15.9
1530.0	12.7	40.4	52	9.6	1.39	1.14	4130	288	1741	8.3	15.9
1531.0	7.7	41.0	51	9.6	1.56	1.27	4530	474	1676	8.3	15.9
1532.0	27.5	40.6	52	9.6	1.14	1.31	4643	133	1600	8.3	15.9
1533.0	5.4	39.2	51	9.6	1.65	1.49	5213	680	1557	8.3	15.9
1534.0	20.0	39.4	50	9.6	1.22	1.54	5362	183	1496	8.3	15.9
1535.0	7.6	38.5	51	9.6	1.53	1.68	5768	483	1453	8.3	15.9
1536.0	6.8	38.1	52	9.6	1.56	1.82	6225	538	1415	8.3	15.9
1537.0	8.5	35.8	52	9.6	1.47	1.94	6594	430	1376	8.3	15.9
1538.0	72.0	30.7	56	9.6	0.79	1.95	6640	51	1326	8.3	15.9
1539.0	73.0	31.0	56	9.6	0.79	1.97	6687	50	1280	8.3	15.9
1540.0	82.0	32.0	56	9.6	0.76	1.98	6728	45	1236	8.3	15.9
1541.0	90.9	38.4	56	9.6	0.77	1.99	6764	40	1195	8.3	15.9
1542.0	102.9	35.6	56	9.6	0.71	2.00	6797	36	1157	8.3	15.9
1543.0	78.3	8.7	55	9.6	0.56	2.01	6839	47	1122	8.3	15.9
1544.0	171.4	34.0	55	9.6	0.54	2.02	6858	21	1088	8.3	15.9
1545.0	81.8	38.2	55	9.6	0.79	2.03	6898	45	1057	8.3	15.9
1546.0	144.0	39.8	56	9.6	0.63	2.04	6922	25	1027	8.3	15.9
1547.0	8.3	42.7	52	9.6	1.56	2.16	7298	439	1010	8.3	15.9
1548.0	7.9	40.5	52	9.6	1.55	2.28	7694	460.56	995.03	8.3	15.9
1549.0	15.3	39.6	52	9.6	1.32	2.35	7897	239.41	974.83	8.3	15.9
1550.0	34.0	38.0	51	9.6	1.05	2.38	7988	107.53	952.24	8.3	15.9
1551.0	55.4	37.6	52	9.6	0.90	2.40	8045	65.94	929.75	8.3	15.9
1552.0	60.0	37.6	51	9.6	0.87	2.41	8096	60.87	908.24	8.3	15.9
1553.0	35.3	33.6	49	9.6	0.99	2.44	8180	103.47	888.80	8.3	15.9
1554.0	52.9	36.4	51	9.6	0.89	2.46	8237	68.98	869.47	8.3	15.9
1555.0	39.1	28.5	50	9.6	0.92	2.49	8314	93.33	851.59	8.3	15.9
1556.0	156.5	18.3	51	9.6	0.46	2.49	8334	23.33	832.93	8.3	15.9
1557.0	133.3	8.9	51	9.6	0.43	2.50	8357	27.39	815.19	8.3	15.9
1558.0	124.8	31.0	51	9.6	0.60	2.51	8381	29.26	798.25	8.3	15.9
1559.0	62.6	15.1	49	9.6	0.66	2.53	8428	58.33	782.64	8.3	15.9
1560.0	61.2	30.0	51	9.6	0.80	2.54	8478	59.67	767.70	8.3	15.9
1561.0	59.5	32.6	51	9.6	0.83	2.56	8529	61.37	753.40	8.3	15.9
1562.0	56.2	30.0	50	9.6	0.82	2.58	8583	64.98	739.74	8.3	15.9
1563.0	86.7	15.9	50	9.6	0.59	2.59	8617	42.10	726.17	8.3	15.9
1564.0	75.0	27.0	51	9.6	0.72	2.60	8658	48.69	713.24	8.3	15.9
1565.0	112.5	34.4	51	9.6	0.65	2.61	8685	32.46	700.49	8.3	15.9
1566.0	100.0	29.8	50	9.6	0.66	2.62	8715	36.52	688.29	8.3	15.9
1567.0	27.9	36.5	51	9.6	1.10	2.66	8824	130.86	678.23	8.3	15.9
1568.0	6.1	41.9	51	9.6	1.64	2.82	9326	599.54	676.83	8.3	15.9

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1569.0	8.5	42.1	51	9.6	1.54	2.94	9689	431.14	672.55	8.3	15.9
1570.0	8.1	40.0	51	9.6	1.53	3.06	10067	450.86	668.76	8.3	15.9
1571.0	95.6	42.0	51	9.6	0.74	3.07	10099	38.20	658.14	8.3	15.9
1572.0	59.0	13.3	52	9.6	0.67	3.09	10152	61.88	648.27	8.3	15.9
1573.0	48.6	28.2	49	9.6	0.85	3.11	10212	75.07	638.93	8.3	15.9
1574.0	69.1	37.2	52	9.6	0.83	3.12	10258	52.85	629.54	8.3	15.9
1575.0	52.9	37.1	50	9.6	0.90	3.14	10315	68.98	620.70	8.3	15.9
1576.0	30.0	39.9	51	9.6	1.10	3.18	10417	121.73	612.95	8.3	15.9
1577.0	83.7	38.8	51	9.6	0.77	3.19	10454	43.62	604.25	8.3	15.9
1578.0	9.4	39.0	51	9.6	1.47	3.29	10779	388.51	601.00	8.3	15.9
1579.0	33.8	39.0	51	9.6	1.06	3.32	10870	108.05	593.68	8.3	15.9
1580.0	4.4	41.1	50	9.6	1.73	3.55	11547	830.83	597.15	8.3	15.9
1581.0	3.6	42.3	54	9.6	1.83	3.83	12434	1003	603	8.3	15.9
1582.0	2.6	41.3	53	9.6	1.92	4.21	13641	1398	614	8.3	15.9
1583.0	5.9	41.9	52	9.6	1.66	4.38	14175	622.87	614.42	8.3	15.9
1584.0	3.5	44.6	51	9.6	1.85	4.66	15034	1035	620	8.3	15.9
1585.0	3.5	45.0	53	9.6	1.88	4.95	15942	1043	626	8.3	16.0
1586.0	5.8	43.9	52	9.6	1.69	5.12	16480	632.00	626.07	8.3	16.0
1587.0	6.4	42.1	53	9.6	1.64	5.28	16975	572.15	625.35	8.3	16.0
1588.0	4.3	43.0	52	9.6	1.78	5.51	17707	854.16	628.35	8.3	16.0
1589.0	3.1	43.0	52	9.6	1.88	5.83	18713	1178	635	8.3	16.0
1590.0	4.5	42.7	51	9.6	1.75	6.06	19399	818.66	637.79	8.3	16.0
1591.0	5.8	42.0	51	9.6	1.66	6.23	19927	629.66	637.69	8.3	16.0
1592.0	4.9	40.7	50	9.6	1.69	6.43	20538	741.05	638.97	8.3	16.0
1593.0	7.0	30.3	53	9.6	1.46	6.58	20993	523.45	637.55	8.3	16.0
1594.0	2.3	36.7	50	9.6	1.87	7.01	22289	1581	649	8.3	16.0
1595.0	5.0	39.5	49	9.6	1.66	7.21	22876	734.46	650.03	8.3	16.0
1596.0	1.7	39.7	50	9.6	2.01	7.80	24623	2136	668	8.3	16.0
1596.5	3.0	39.4	50	9.6	1.83	7.96	25127	1219	671	8.3	16.0
1597.0	5.9	39.2	50	9.6	1.61	8.05	25382	616.78	670.57	8.3	16.0
1597.5	2.2	39.4	52	9.6	1.94	8.27	26084	1635	676	8.3	16.0
1598.0	2.5	39.3	52	9.6	1.90	8.47	26707	1460	681	8.3	16.0
1599.0	4.1	38.7	51	9.6	1.72	8.71	27441	884.60	683.05	8.3	16.0
1600.0	6.9	38.2	51	9.6	1.55	8.86	27882	527.51	681.29	8.3	16.0
1600.5	3.6	39.8	53	9.6	1.80	9.00	28330	1029	683	8.3	16.0
1601.0	6.6	39.3	53	9.6	1.60	9.08	28572	553.89	682.52	8.3	16.0
1602.0	6.3	39.1	53	9.6	1.61	9.23	29079	577.22	681.36	8.3	16.0
1602.5	1.2	39.4	54	9.6	2.16	9.66	30463	3137	695	8.3	16.0
1603.0	1.6	39.4	54	9.6	2.06	9.98	31487	2303	704	8.3	16.0
1604.0	2.0	39.3	54	9.6	1.97	10.47	33061	1788	715	8.3	16.0
1604.5	1.4	39.3	54	9.6	2.10	10.83	34240	2662	726	8.3	16.0
1605.0	2.3	33.7	52	9.6	1.84	11.05	34917	1581	730	8.3	16.0
1605.5	25.7	25.2	70	9.6	1.10	11.07	34998	142.02	727.32	8.3	16.0
1606.0	26.1	30.5	61	9.6	1.11	11.09	35068	139.99	724.21	8.3	16.0
1606.5	45.0	29.2	56	9.6	0.91	11.10	35105	81.16	720.82	8.3	16.0
1607.0	72.0	26.8	73	9.6	0.84	11.11	35135	50.72	717.31	8.3	16.0
1608.0	65.5	13.8	73	9.6	0.73	11.12	35202	55.79	710.45	8.3	16.0
1608.5	40.0	22.9	73	9.6	0.96	11.13	35257	91.30	707.25	8.3	16.0
1609.0	39.1	24.4	62	9.6	0.94	11.15	35305	93.33	704.10	8.3	16.0
1609.5	52.9	20.8	68	9.6	0.85	11.16	35344	68.98	700.86	8.3	16.0

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1610.0	24.3	21.8	65	9.6	1.05	11.18	35423	150.14	698.06	8.3	16.0
1610.5	81.8	27.4	75	9.6	0.81	11.18	35451	44.64	694.75	8.3	16.0
1611.0	78.3	27.7	74	9.6	0.82	11.19	35480	46.66	691.49	8.3	16.0
1611.5	13.3	25.7	46	9.6	1.17	11.23	35584	273.90	689.40	8.3	16.0
1612.0	12.4	34.6	59	9.6	1.37	11.27	35726	294.19	687.44	8.3	16.0
1613.0	6.0	29.9	50	9.6	1.48	11.43	36228	613.74	686.71	8.3	16.0
1613.5	8.9	31.7	51	9.6	1.39	11.49	36399	409.84	685.35	8.3	16.0
1614.0	1.1	39.5	51	9.6	2.16	11.94	37790	3293	698	8.3	16.0
1614.5	2.0	40.6	52	9.6	1.99	12.19	38569	1828	704	8.3	16.0
1615.0	3.0	40.8	45	9.6	1.82	12.36	39025	1219	706	8.3	16.0
1615.5	3.7	37.4	47	9.6	1.72	12.50	39411	1000	707	8.3	16.0
1616.0	4.3	42.8	49	9.6	1.75	12.61	39751	839.96	708.12	8.3	16.0
1616.5	13.8	43.3	50	9.6	1.38	12.65	39860	263.76	706.00	8.3	16.0
1617.0	35.3	41.6	51	9.6	1.06	12.66	39903	103.47	703.14	8.3	16.0
1617.5	40.0	39.3	51	9.6	1.00	12.67	39941	91.30	700.25	8.3	16.0
1618.0	10.3	33.9	51	9.6	1.38	12.72	40088	353.03	698.62	8.3	16.0
1618.5	10.1	29.8	51	9.6	1.33	12.77	40239	361.14	697.04	8.3	16.0
1619.0	11.7	31.2	51	9.6	1.31	12.81	40370	312.45	695.25	8.3	16.0
1619.5	12.4	31.3	51	9.6	1.29	12.85	40492	294.19	693.39	8.3	16.0
1620.0	12.7	28.2	49	9.6	1.24	12.89	40609	288.10	691.52	8.3	16.0
1620.5	10.2	27.5	51	9.6	1.30	12.94	40758	357.08	689.99	8.3	16.0
1621.0	14.5	27.2	50	9.6	1.19	12.98	40862	251.58	687.98	8.3	16.0
1622.0	18.8	28.2	51	9.6	1.13	13.03	41024	193.76	683.51	8.3	16.0
1622.5	12.4	28.2	51	9.6	1.25	13.07	41147	294.19	681.75	8.3	16.0
1623.0	64.3	32.6	50	9.6	0.81	13.08	41170	56.81	678.95	8.3	16.0
1623.5	66.7	40.7	50	9.6	0.85	13.09	41193	54.78	676.16	8.3	16.0
1624.0	69.2	40.1	50	9.6	0.83	13.09	41215	52.75	673.39	8.3	16.0
1625.0	60.0	38.7	50	9.6	0.87	13.11	41265	60.87	667.98	8.3	16.0
1625.5	78.3	39.0	50	9.6	0.78	13.12	41284	46.66	665.26	8.3	16.0
1626.0	81.8	38.6	50	9.6	0.77	13.12	41303	44.64	662.54	8.3	16.0
1626.5	64.3	35.9	50	9.6	0.83	13.13	41326	56.81	659.91	8.3	16.0
1627.0	90.0	40.9	56	9.6	0.79	13.13	41345	40.58	657.22	8.3	16.0
1627.5	6.8	44.3	52	9.6	1.64	13.21	41574	539.68	656.72	8.3	16.0
1628.0	3.6	44.0	51	9.6	1.84	13.35	42000	1008	658	8.3	16.0
1629.0	3.3	43.7	51	9.6	1.86	13.65	42914	1094	662	8.3	16.0
1629.5	5.3	41.3	49	9.6	1.67	13.74	43191	687.79	662.05	8.3	16.0
1630.0	3.2	42.4	50	9.6	1.85	13.90	43657	1142	664	8.3	16.0
1631.0	3.1	39.6	51	9.6	1.83	14.22	44651	1197	669	8.3	16.0
1632.0	3.7	39.6	50	9.6	1.77	14.49	45462	981.98	671.14	8.3	16.0
1632.5	2.7	40.0	50	9.6	1.88	14.68	46024	1361	674	8.3	16.0
1633.0	2.1	39.8	50	9.6	1.96	14.92	46749	1777	679	8.3	16.0
1633.5	2.7	39.3	50	9.6	1.86	15.11	47292	1331	681	8.3	16.0
1634.0	2.7	40.1	50	9.6	1.88	15.29	47853	1377	684	8.3	16.0
1635.0	1.6	41.7	49	9.6	2.07	15.94	49722	2343	698	8.3	16.0
1636.0	5.4	33.7	43	9.6	1.52	16.12	50197	673.59	697.31	8.3	16.0
1636.5	3.3	39.8	50	9.6	1.80	16.27	50645	1102	699	8.3	16.0
1637.0	2.5	48.8	49	9.6	2.02	16.47	51236	1459	702	8.3	16.0
1638.0	3.6	45.9	48	9.6	1.84	16.75	52032	1016	704	8.3	16.0
1639.0	6.8	47.1	51	9.6	1.67	16.90	52485	540.70	703.16	8.3	16.0
1640.0	2.6	47.3	50	9.6	1.99	17.28	53642	1410	709	8.3	16.0

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1641.0	2.9	42.8	52	9.6	1.91	17.63	54737	1278	713	8.3	16.0
1641.5	3.7	49.3	55	9.6	1.93	17.77	55185	996.18	714.16	8.3	16.0
1642.0	2.0	48.4	55	9.6	2.12	18.02	56001	1808	718	8.3	16.0
1642.5	3.1	47.9	55	9.6	1.97	18.18	56541	1197	720	8.3	16.0
1643.0	6.4	47.6	53	9.6	1.71	18.26	56792	572.15	719.62	8.3	16.0
1643.5	4.1	46.5	49	9.6	1.81	18.38	57143	880.54	720.23	8.3	16.0
1644.0	4.2	48.3	52	9.6	1.85	18.50	57515	874.45	720.81	8.3	16.0
1644.5	4.5	47.0	52	9.6	1.81	18.61	57864	819.67	721.18	8.3	16.0
1645.0	2.0	47.1	52	9.6	2.09	18.86	58648	1836	725	8.3	16.0
1645.5	2.6	48.0	51	9.6	2.00	19.05	59232	1400	728	8.3	16.0
1646.0	3.0	47.7	52	9.6	1.96	19.22	59758	1223	730	8.3	16.0
1646.5	2.4	47.7	51	9.6	2.03	19.43	60406	1532	733	8.3	16.1
1647.0	8.9	46.6	51	9.6	1.57	19.49	60579	409.84	731.50	8.3	16.1
1647.5	45.0	45.9	51	9.6	1.02	19.50	60613	81.16	729.11	8.3	16.1
1648.0	23.5	43.2	50	9.6	1.20	19.52	60677	155.21	727.01	8.3	16.1
1649.0	7.2	44.6	53	9.6	1.63	19.66	61118	509.25	725.42	8.3	16.1
1649.5	85.7	38.4	52	9.6	0.76	19.67	61136	42.61	722.95	8.3	16.1
1650.0	12.5	45.3	51	9.6	1.44	19.71	61258	292.16	721.39	8.3	16.1
1651.0	57.1	44.3	51	9.6	0.93	19.72	61312	63.91	716.67	8.3	16.1
1651.5	51.4	43.5	50	9.6	0.95	19.73	61341	71.01	714.37	8.3	16.1
1652.0	51.4	42.9	51	9.6	0.95	19.74	61371	71.01	712.08	8.3	16.1
1653.0	56.2	43.2	50	9.6	0.92	19.76	61425	64.92	707.50	8.3	16.1
1653.5	47.4	36.2	43	9.6	0.88	19.77	61452	77.10	705.28	8.3	16.1
1654.0	7.9	32.0	43	9.6	1.38	19.83	61616	462.59	704.43	8.3	16.1
1655.0	3.9	44.7	51	9.6	1.82	20.09	62394	928.22	705.99	8.3	16.1
1655.5	3.6	48.0	51	9.6	1.89	20.23	62818	1004	707	8.3	16.1
1656.0	4.9	47.0	51	9.6	1.77	20.33	63128	742.57	707.15	8.3	16.1
1656.5	3.7	47.1	51	9.6	1.88	20.46	63548	1000	708	8.3	16.1
1657.0	4.0	48.1	51	9.6	1.86	20.59	63933	921.12	708.89	8.3	16.1
1657.5	2.4	46.5	46	9.6	1.98	20.80	64512	1538	712	8.3	16.1
1658.0	31.0	47.9	51	9.6	1.16	20.82	64561	117.68	709.70	8.3	16.1
1659.0	21.4	46.1	51	9.6	1.27	20.86	64704	170.43	706.04	8.3	16.1
1659.5	32.1	43.2	51	9.6	1.11	20.88	64752	113.62	704.04	8.3	16.1
1660.0	1.9	46.0	51	9.6	2.09	21.14	65566	1927	708	8.3	16.1
1660.5	6.0	46.1	52	9.6	1.70	21.23	65823	604.61	707.81	8.3	16.1
1661.0	3.2	47.3	52	9.6	1.93	21.38	66309	1146	709	8.3	16.1
1661.5	6.2	47.0	51	9.6	1.70	21.46	66558	590.41	708.89	8.3	16.1
1662.0	3.5	48.0	52	9.6	1.91	21.61	67005	1055	710	8.3	16.1
1662.5	7.5	46.5	50	9.6	1.62	21.68	67205	486.93	709.30	8.3	16.1
1663.0	4.5	46.6	48	9.6	1.78	21.79	67523	805.47	709.61	8.3	16.1
1663.5	13.5	43.4	49	9.6	1.38	21.82	67632	269.84	708.17	8.3	16.1
1664.0	9.1	47.3	49	9.6	1.56	21.88	67794	399.69	707.15	8.3	16.1
1664.5	1.6	48.3	51	9.6	2.18	22.20	68772	2331	712	8.3	16.1
1665.0	10.7	48.2	51	9.6	1.53	22.24	68917	342.88	711.26	8.3	16.1
1665.5	3.7	48.8	49	9.6	1.89	22.38	69319	992.13	712.17	8.3	16.1
1666.0	1.6	48.7	47	9.6	2.16	22.70	70217	2339	717	8.3	16.1
1666.5	0.9	45.4	46	9.6	2.28	23.24	71730	3962	728	8.3	16.1
1667.0	1.7	47.9	46	9.6	2.11	23.53	72531	2124	732	8.3	16.1
1668.0	1.2	47.0	46	9.6	2.22	24.37	74831	3043	747	8.3	16.1

BIT NUMBER	5	IADC CODE	617	INTERVAL	1668.0- 2147.0				
HTC J44		SIZE	12.250	NOZZLES	16 16 16				
COST	6919.00	TRIP TIME	5.6	BIT RUN	479.0				
TOTAL HOURS	66.28	TOTAL TURNS	201979	CONDITION	T2 B4 G0.000				

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1669.0	4.3	49.0	55	9.5	1.89	0.23	765	847	28217	8.3	16.1
1670.0	5.2	48.6	56	9.5	1.83	0.43	1416	707	14462	8.3	16.1
1671.0	5.4	47.8	56	9.5	1.80	0.61	2037	675	9866	8.3	16.1
1672.0	11.1	47.8	56	9.5	1.56	0.70	2343	330	7482	8.3	16.1
1673.0	9.5	47.5	56	9.5	1.61	0.81	2699	384	6063	8.3	16.1
1674.0	14.1	48.1	55	9.5	1.47	0.88	2934	259	5095	8.3	16.1
1675.0	35.0	45.1	56	9.5	1.14	0.91	3031	104	4382	8.3	16.1
1676.0	37.1	44.3	57	9.5	1.12	0.93	3122	98	3847	8.3	16.1
1677.0	27.5	44.3	56	9.5	1.22	0.97	3245	133	3434	8.3	16.1
1678.0	43.4	43.7	57	9.5	1.06	0.99	3324	84	3099	8.3	16.1
1679.0	24.5	45.0	55	9.5	1.26	1.03	3460	149	2831	8.3	16.1
1680.0	31.3	43.9	57	9.5	1.17	1.06	3568	117	2605	8.3	16.1
1681.0	31.6	45.4	54	9.5	1.17	1.10	3671	116	2413	8.3	16.1
1682.0	50.7	46.8	56	9.5	1.02	1.12	3737	72	2246	8.3	16.1
1683.0	75.0	45.5	56	9.5	0.88	1.13	3781	49	2100	8.3	16.1
1684.0	62.1	50.1	55	9.5	0.98	1.15	3835	59	1972	8.3	16.1
1685.0	20.7	48.4	55	9.5	1.34	1.19	3995	177	1866	8.3	16.1
1686.0	32.1	47.2	55	9.5	1.18	1.22	4098	114	1769	8.3	16.1
1687.0	51.4	46.0	55	9.5	1.01	1.24	4162	71	1680	8.3	16.1
1688.0	28.2	45.5	55	9.5	1.21	1.28	4279	129	1602	8.3	16.1
1690.0	34.4	46.6	58	9.5	1.17	1.34	4482	106	1466	8.3	16.1
1691.0	24.5	46.7	58	9.5	1.29	1.38	4625	149	1409	8.3	16.1
1692.0	40.4	47.0	58	9.5	1.12	1.40	4711	90	1354	8.3	16.1
1693.0	20.0	46.9	59	9.5	1.36	1.45	4888	183	1307	8.3	16.1
1694.0	36.0	46.4	62	9.5	1.18	1.48	4992	101	1261	8.3	16.1
1695.0	26.9	48.9	61	9.5	1.29	1.52	5130	136	1219	8.3	16.1
1696.0	34.3	49.5	61	9.5	1.21	1.55	5237	107	1179	8.3	16.1
1697.0	19.4	50.0	61	9.5	1.42	1.60	5427	189	1145	8.3	16.1
1698.0	25.7	49.0	61	9.5	1.31	1.64	5570	142	1112	8.3	16.1
1699.0	18.2	45.8	62	9.5	1.40	1.69	5774	201	1082	8.3	16.1
1700.0	34.0	45.9	62	9.5	1.19	1.72	5883	108	1052	8.3	16.1
1701.0	24.3	47.0	61	9.5	1.31	1.76	6033	150	1025	8.3	16.1
1702.0	7.3	49.0	61	9.5	1.74	1.90	6535	500	1009	8.3	16.1
1703.0	7.8	48.8	61	9.5	1.72	2.03	7005	468.25	993.69	8.3	16.1
1704.0	13.2	48.1	61	9.5	1.53	2.10	7281	276.94	973.78	8.3	16.1
1705.0	30.0	47.7	61	9.5	1.24	2.14	7403	121.73	950.75	8.3	16.1
1706.0	19.7	47.6	61	9.5	1.38	2.19	7588	185.64	930.62	8.3	16.1
1707.0	17.6	48.1	59	9.5	1.42	2.25	7790	206.95	912.06	8.3	16.1
1708.0	19.0	46.5	61	9.5	1.38	2.30	7981	191.73	894.05	8.3	16.1
1709.0	11.2	48.5	60	9.5	1.58	2.39	8301	325.64	880.19	8.3	16.1
1710.0	9.0	48.5	60	9.5	1.66	2.50	8699	407.81	868.94	8.3	16.1
1711.0	12.5	48.0	60	9.5	1.54	2.58	8986	293.17	855.55	8.3	16.2
1712.0	4.1	49.4	60	9.5	1.94	2.82	9858	885.61	856.24	8.3	16.2

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1713.0	3.6	49.1	61	9.5	1.99	3.10	10874	1016	860	8.3	16.2
1714.0	5.6	49.1	61	9.5	1.84	3.28	11527	651.27	855.26	8.3	16.2
1715.0	11.1	48.1	61	9.5	1.59	3.37	11856	328.68	844.06	8.3	16.2
1716.0	16.3	44.9	60	9.5	1.42	3.43	12075	224.19	831.15	8.3	16.2
1717.0	19.1	47.9	62	9.5	1.41	3.48	12270	190.72	818.08	8.3	16.2
1718.0	32.0	46.3	63	9.5	1.22	3.51	12388	114.13	804.00	8.3	16.2
1719.0	30.3	44.9	63	9.5	1.23	3.55	12512	120.72	790.60	8.3	16.2
1720.0	50.7	43.7	63	9.5	1.04	3.57	12587	72.03	776.78	8.3	16.2
1721.0	29.0	43.6	63	9.5	1.23	3.60	12716	125.79	764.50	8.3	16.2
1722.0	40.4	44.1	63	9.5	1.12	3.63	12809	90.29	752.01	8.3	16.2
1724.0	37.7	43.8	63	9.5	1.14	3.68	13009	96.88	728.62	8.3	16.2
1726.0	38.7	40.6	61	9.5	1.10	3.73	13200	94.34	706.74	8.3	16.2
1727.0	37.1	43.1	61	9.5	1.13	3.76	13299	98.40	696.43	8.3	16.2
1728.0	31.9	44.8	61	9.5	1.20	3.79	13415	114.63	686.74	8.3	16.2
1730.0	6.0	49.4	60	9.5	1.81	4.12	14610	609.68	684.25	8.3	16.2
1731.0	18.0	49.1	50	9.5	1.36	4.18	14776	202.89	676.61	8.3	16.2
1732.0	19.5	48.7	50	9.5	1.33	4.23	14929	187.67	668.97	8.3	16.2
1733.0	30.0	47.9	50	9.5	1.17	4.26	15028	121.73	660.55	8.3	16.2
1734.0	24.7	47.3	50	9.5	1.24	4.30	15149	148.11	652.79	8.3	16.2
1735.0	7.8	49.3	49	9.5	1.65	4.43	15524	466.64	650.01	8.3	16.2
1736.0	31.0	45.9	49	9.5	1.14	4.46	15619	117.68	642.18	8.3	16.2
1737.0	28.8	46.3	50	9.5	1.17	4.50	15723	126.81	634.71	8.3	16.2
1738.0	55.4	45.5	50	9.5	0.95	4.52	15777	65.94	626.59	8.3	16.2
1739.0	39.1	44.3	50	9.5	1.06	4.54	15853	93.33	619.08	8.3	16.2
1740.0	36.0	44.4	50	9.5	1.08	4.57	15936	101.44	611.89	8.3	16.2
1741.0	31.3	45.3	50	9.5	1.14	4.60	16032	116.66	605.10	8.3	16.2
1742.0	10.3	45.2	50	9.5	1.51	4.70	16321	355.06	601.72	8.3	16.2
1743.0	40.9	44.8	50	9.5	1.04	4.72	16394	89.27	594.89	8.3	16.2
1744.0	31.6	44.9	50	9.5	1.13	4.75	16488	115.65	588.58	8.3	16.2
1745.0	98.2	47.1	49	9.5	0.75	4.76	16518	37.20	581.42	8.3	16.2
1746.0	24.3	45.6	49	9.5	1.22	4.81	16638	150.14	575.89	8.3	16.2
1747.0	41.9	46.2	48	9.5	1.04	4.83	16707	87.24	569.71	8.3	16.2
1748.0	23.8	46.4	48	9.5	1.23	4.87	16829	153.18	564.50	8.3	16.2
1749.0	31.0	46.8	48	9.5	1.14	4.90	16923	117.68	558.99	8.3	16.2
1750.0	20.1	46.8	49	9.5	1.29	4.95	17068	181.59	554.38	8.3	16.2
1751.0	37.5	45.6	49	9.5	1.07	4.98	17146	97.39	548.88	8.3	16.2
1752.0	18.2	47.5	49	9.5	1.34	5.03	17307	200.86	544.73	8.3	16.2
1753.0	11.6	50.4	49	9.5	1.52	5.12	17560	314.48	542.03	8.3	16.2
1755.0	16.7	47.8	51	9.5	1.38	5.24	17923	218.11	534.58	8.3	16.2
1756.0	4.9	50.5	51	9.5	1.83	5.44	18542	743.59	536.95	8.3	16.2
1757.0	14.6	50.0	51	9.5	1.45	5.51	18750	249.55	533.72	8.3	16.2
1758.0	16.0	49.5	51	9.5	1.41	5.57	18939	228.25	530.33	8.3	16.2
1759.0	16.9	49.9	51	9.5	1.40	5.63	19119	216.08	526.88	8.3	16.2
1760.0	15.9	49.5	51	9.5	1.41	5.70	19310	229.26	523.64	8.3	16.2
1762.0	8.2	49.8	51	9.5	1.65	5.94	20053	445.34	521.98	8.3	16.2
1763.0	6.7	49.9	51	9.5	1.72	6.09	20507	543.74	522.21	8.3	16.2
1764.0	6.8	49.9	51	9.5	1.71	6.24	20952	534.61	522.33	8.3	16.2
1765.0	13.2	53.5	50	9.5	1.51	6.31	21181	276.94	519.81	8.3	16.2
1766.0	3.3	51.8	51	9.5	1.99	6.62	22109	1113	526	8.3	16.2
1767.0	5.4	49.4	49	9.5	1.77	6.80	22647	674.61	527.36	8.3	16.2

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1768.0	3.8	48.9	46	9.5	1.88	7.07	23390	972.85	531.81	8.3	16.2
1769.0	31.6	45.6	47	9.5	1.12	7.10	23478	115.65	527.69	8.3	16.2
1770.0	22.4	41.4	47	9.5	1.20	7.14	23605	163.33	524.12	8.3	16.2
1771.0	31.9	46.4	46	9.5	1.12	7.18	23692	114.63	520.15	8.3	16.2
1773.0	33.0	38.9	47	9.5	1.05	7.24	23862	110.57	512.34	8.3	16.2
1774.0	36.7	41.9	46	9.5	1.03	7.26	23937	99.42	508.45	8.3	16.2
1775.0	5.3	49.4	50	9.5	1.79	7.45	24503	685.76	510.11	8.3	16.2
1776.0	5.3	50.5	51	9.5	1.81	7.64	25080	687.79	511.75	8.3	16.2
1777.0	14.7	42.9	52	9.5	1.38	7.71	25292	248.54	509.34	8.3	16.3
1778.0	30.0	47.1	52	9.5	1.18	7.74	25395	121.73	505.81	8.3	16.3
1779.0	18.2	46.7	52	9.5	1.35	7.80	25565	200.86	503.07	8.3	16.3
1780.0	35.0	48.0	52	9.5	1.14	7.82	25654	104.49	499.51	8.3	16.3
1781.0	24.8	48.4	52	9.5	1.26	7.86	25779	147.09	496.39	8.3	16.3
1782.0	26.5	47.2	52	9.5	1.23	7.90	25896	137.96	493.24	8.3	16.3
1784.0	34.4	47.9	52	9.5	1.14	7.96	26076	106.01	486.57	8.3	16.3
1785.0	30.5	45.9	50	9.5	1.15	7.99	26174	119.70	483.43	8.3	16.3
1786.0	32.4	46.7	51	9.5	1.15	8.02	26268	112.60	480.29	8.3	16.3
1787.0	21.1	46.1	51	9.5	1.29	8.07	26414	173.47	477.71	8.3	16.3
1788.0	47.4	45.9	51	9.5	1.01	8.09	26479	77.10	474.37	8.3	16.3
1789.0	36.0	48.0	51	9.5	1.12	8.12	26563	101.44	471.29	8.3	16.3
1791.0	27.0	49.1	51	9.5	1.23	8.19	26791	135.43	465.83	8.3	16.3
1793.0	21.1	49.6	51	9.5	1.32	8.29	27082	172.96	461.14	8.3	16.3
1795.0	32.7	51.5	50	9.5	1.17	8.35	27266	111.59	455.64	8.3	16.3
1796.0	15.5	52.3	52	9.5	1.46	8.41	27469	235.35	453.92	8.3	16.3
1797.0	29.5	50.6	52	9.5	1.22	8.45	27575	123.76	451.36	8.3	16.3
1798.0	12.2	51.3	53	9.5	1.54	8.53	27833	298.25	450.18	8.3	16.3
1799.0	7.5	53.3	53	9.5	1.73	8.66	28255	487.95	450.47	8.3	16.3
1800.0	5.3	51.7	53	9.5	1.84	8.85	28854	691.85	452.30	8.3	16.3
1801.0	5.6	52.9	53	9.5	1.83	9.03	29418	650.26	453.79	8.3	16.3
1803.0	5.6	53.3	53	9.5	1.84	9.39	30561	653.81	456.75	8.3	16.3
1804.0	11.6	51.6	46	9.5	1.51	9.48	30798	315.49	455.71	8.3	16.3
1805.0	4.8	52.3	47	9.5	1.84	9.68	31381	754.75	457.89	8.3	16.3
1806.0	22.4	48.7	47	9.5	1.26	9.73	31507	163.33	455.76	8.3	16.3
1807.0	11.9	50.7	47	9.5	1.50	9.81	31745	307.38	454.69	8.3	16.3
1808.0	3.9	50.7	47	9.5	1.89	10.07	32466	930.25	458.09	8.3	16.3
1809.0	4.0	50.6	51	9.5	1.91	10.31	33222	905.90	461.26	8.3	16.3
1810.0	3.6	50.3	51	9.5	1.95	10.59	34078	1024	465	8.3	16.3
1811.0	10.7	49.8	51	9.5	1.56	10.69	34364	342.88	464.37	8.3	16.3
1812.0	19.5	49.0	51	9.5	1.34	10.74	34521	187.67	462.45	8.3	16.3
1813.0	37.2	48.3	51	9.5	1.11	10.77	34603	98.06	459.93	8.3	16.3
1814.0	17.6	47.7	51	9.5	1.36	10.82	34777	206.95	458.20	8.3	16.3
1815.0	23.5	48.1	51	9.5	1.27	10.87	34907	155.21	456.14	8.3	16.3
1816.0	21.4	47.9	51	9.5	1.30	10.91	35050	170.43	454.21	8.3	16.3
1817.0	9.9	47.3	51	9.5	1.56	11.01	35361	370.27	453.65	8.3	16.3
1818.0	15.1	47.5	52	9.5	1.36	11.07	35533	201.87	451.97	8.3	16.3
1819.0	25.7	48.3	52	9.5	1.25	11.11	35654	142.02	449.91	8.3	16.3
1820.0	5.9	50.0	52	9.5	1.77	11.28	36183	617.80	451.02	8.3	16.3
1822.0	31.7	46.3	51	9.5	1.15	11.34	36374	115.14	446.66	8.3	16.3
1823.0	24.0	46.3	52	9.5	1.25	11.38	36503	152.17	444.76	8.3	16.3
1824.0	33.3	46.9	52	9.5	1.14	11.41	36596	109.56	442.61	8.3	16.3

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1825.0	22.1	47.3	52	9.5	1.29	11.46	36736	165.35	440.84	8.3	16.3
1826.0	31.0	47.2	52	9.5	1.17	11.49	36837	117.68	438.80	8.3	16.3
1827.0	23.7	47.1	52	9.5	1.26	11.53	36968	154.20	437.01	8.3	16.3
1828.0	35.6	46.7	52	9.5	1.12	11.56	37056	102.46	434.92	8.3	16.3
1829.0	25.7	46.4	52	9.5	1.23	11.60	37178	142.02	433.10	8.3	16.3
1830.0	37.1	46.5	52	9.5	1.11	11.63	37262	98.40	431.03	8.3	16.3
1831.0	4.6	50.1	52	9.5	1.86	11.84	37944	796.34	433.27	8.3	16.3
1832.0	29.8	48.1	53	9.5	1.20	11.88	38051	122.75	431.38	8.3	16.3
1833.0	6.0	49.3	58	9.5	1.80	12.04	38636	608.67	432.45	8.3	16.3
1834.0	5.2	51.2	56	9.5	1.86	12.24	39293	709.10	434.12	8.3	16.3
1835.0	3.1	54.9	50	9.5	2.04	12.56	40243	1165	438	8.3	16.3
1836.0	4.5	53.1	49	9.5	1.89	12.78	40901	818.66	440.76	8.3	16.3
1837.0	6.1	53.2	49	9.5	1.78	12.94	41383	597.51	441.68	8.3	16.3
1838.0	6.7	53.4	49	9.5	1.74	13.09	41820	541.71	442.27	8.3	16.3
1839.0	3.4	53.5	49	9.5	1.99	13.39	42681	1073	446	8.3	16.3
1841.0	3.9	53.5	49	9.5	1.94	13.90	44169	931.26	451.57	8.3	16.3
1842.0	5.7	52.7	48	9.5	1.79	14.07	44670	638.09	452.65	8.3	16.3
1843.0	6.6	52.3	47	9.5	1.73	14.22	45097	552.87	453.22	8.3	16.3
1844.0	3.7	53.8	48	9.5	1.95	14.49	45871	980.97	456.22	8.3	16.3
1845.0	6.0	53.5	49	9.5	1.79	14.66	46360	611.71	457.10	8.3	16.4
1846.0	4.2	53.5	49	9.5	1.91	14.90	47051	866.34	459.39	8.3	16.4
1847.0	13.7	53.3	49	9.5	1.49	14.97	47263	265.78	458.31	8.3	16.4
1848.0	5.6	53.3	49	9.5	1.81	15.15	47787	657.36	459.42	8.3	16.4
1849.0	6.9	53.2	49	9.5	1.73	15.29	48208	527.51	459.79	8.3	16.4
1850.0	3.3	53.9	49	9.5	2.01	15.60	49097	1116	463	8.3	16.4
1852.0	8.3	53.3	48	9.5	1.67	15.84	49799	441.28	463.16	8.3	16.4
1853.0	3.7	53.8	49	9.5	1.96	16.11	50588	983.00	465.97	8.3	16.4
1854.0	12.5	53.6	49	9.5	1.53	16.19	50823	293.17	465.04	8.3	16.4
1856.0	32.3	53.0	49	9.5	1.18	16.25	51004	113.04	461.30	8.3	16.4
1857.0	8.9	53.5	49	9.5	1.65	16.37	51334	411.86	461.03	8.3	16.4
1858.0	27.7	52.9	49	9.5	1.23	16.40	51440	131.88	459.30	8.3	16.4
1859.0	6.1	53.8	49	9.5	1.79	16.57	51923	603.59	460.06	8.3	16.4
1860.0	3.9	54.0	49	9.5	1.94	16.82	52665	930.25	462.51	8.3	16.4
1861.0	6.1	53.2	49	9.5	1.77	16.98	53140	595.48	463.19	8.3	16.4
1862.0	6.0	53.7	49	9.5	1.79	17.15	53628	607.65	463.94	8.3	16.4
1863.0	24.3	52.8	49	9.5	1.28	17.19	53748	150.14	462.33	8.3	16.4
1864.0	20.6	52.2	49	9.5	1.34	17.24	53891	177.53	460.88	8.3	16.4
1865.0	9.4	53.8	49	9.5	1.63	17.35	54202	387.52	460.50	8.3	16.4
1866.0	10.1	53.6	49	9.5	1.60	17.45	54493	363.17	460.01	8.3	16.4
1867.0	38.7	51.3	49	9.5	1.11	17.47	54569	94.34	458.18	8.3	16.4
1868.0	21.1	51.9	49	9.5	1.32	17.52	54708	173.47	456.75	8.3	16.4
1869.0	27.9	52.2	49	9.5	1.23	17.56	54814	130.86	455.13	8.3	16.4
1870.0	9.9	53.4	49	9.5	1.61	17.66	55109	368.24	454.70	8.3	16.4
1871.0	28.1	51.7	48	9.5	1.22	17.69	55212	129.85	453.10	8.3	16.4
1872.0	18.7	50.9	48	9.5	1.35	17.75	55367	195.79	451.84	8.3	16.4
1873.0	15.7	52.4	48	9.5	1.43	17.81	55552	233.32	450.77	8.3	16.4
1874.0	3.3	51.8	49	9.5	1.98	18.11	56443	1114	454	8.3	16.4
1875.0	5.9	51.4	49	9.5	1.76	18.28	56935	614.75	454.77	8.3	16.4
1876.0	3.3	52.6	49	9.5	1.99	18.59	57825	1112	458	8.3	16.4
1877.0	5.3	51.8	53	9.5	1.84	18.78	58425	691.85	459.05	8.3	16.4

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1878.0	4.2	54.0	57	9.5	1.97	19.01	59241	868.36	461.00	8.3	16.4
1879.0	6.5	53.8	59	9.5	1.83	19.17	59782	557.94	461.46	8.3	16.4
1880.0	12.4	52.7	59	9.5	1.59	19.25	60066	294.19	460.67	8.3	16.4
1881.0	10.3	52.4	56	9.5	1.63	19.34	60392	355.06	460.17	8.3	16.4
1882.0	8.3	52.4	69	9.5	1.78	19.46	60888	439.25	460.07	8.3	16.4
1883.0	3.3	55.4	68	9.5	2.14	19.77	62125	1107	463	8.3	16.4
1884.0	6.0	54.4	53	9.5	1.83	19.93	62657	605.62	463.74	8.3	16.4
1885.0	4.8	54.4	53	9.5	1.91	20.14	63320	754.75	465.08	8.3	16.4
1886.0	6.1	54.4	53	9.5	1.82	20.30	63844	597.51	465.69	8.3	16.4
1887.0	13.3	54.4	55	9.5	1.55	20.38	64091	273.90	464.81	8.3	16.4
1888.0	5.0	48.0	52	9.5	1.81	20.58	64715	730.40	466.02	8.3	16.4
1889.0	78.0	48.0	67	9.5	0.95	20.59	64767	46.82	464.12	8.3	16.4
1890.0	157.0	51.0	50	9.5	0.62	20.60	64786	23.26	462.14	8.3	16.4
1891.0	4.4	44.0	50	9.5	1.79	20.83	65468	830.00	463.79	8.3	16.4
1892.0	3.1	47.5	50	9.5	1.95	21.15	66440	1184	467	8.3	16.4
1893.0	4.9	48.7	50	9.5	1.81	21.35	67053	745.62	468.24	8.3	16.4
1895.0	3.6	48.7	50	9.5	1.92	21.92	68737	1025	473	8.3	16.4
1896.0	3.0	48.7	50	9.5	1.97	22.24	69725	1203	476	8.3	16.4
1897.0	3.6	41.3	57	9.5	1.86	22.52	70672	1011	479	8.3	16.4
1898.0	4.1	49.6	55	9.5	1.92	22.77	71491	898.80	480.51	8.3	16.4
1899.0	4.5	60.3	50	9.5	1.98	22.99	72164	819.67	481.98	8.3	16.4
1900.0	3.2	60.6	50	9.5	2.11	23.31	73106	1146	485	8.3	16.4
1901.0	4.9	61.4	50	9.5	1.96	23.51	73720	746.63	485.97	8.3	16.4
1902.0	7.3	61.1	50	9.5	1.81	23.65	74131	501.14	486.03	8.3	16.4
1903.0	29.5	60.2	50	9.5	1.28	23.68	74233	123.76	484.49	8.3	16.4
1904.0	4.1	62.8	50	9.5	2.04	23.92	74961	885.61	486.19	8.3	16.4
1905.0	21.7	60.4	50	9.5	1.39	23.97	75099	168.40	484.85	8.3	16.4
1906.0	8.7	61.4	50	9.5	1.74	24.08	75442	417.95	484.57	8.3	16.4
1907.0	10.5	60.5	50	9.5	1.67	24.18	75729	348.97	484.00	8.3	16.4
1908.0	3.6	61.1	50	9.5	2.07	24.46	76568	1021	486	8.3	16.4
1909.0	6.5	59.7	50	9.5	1.83	24.61	77029	562.00	486.55	8.3	16.4
1910.0	7.9	56.0	50	9.5	1.72	24.74	77407	459.54	486.44	8.3	16.4
1911.0	4.5	59.9	50	9.5	1.98	24.96	78080	819.67	487.81	8.3	16.4
1912.0	6.1	61.3	50	9.5	1.88	25.13	78575	601.57	488.28	8.3	16.4
1913.0	3.5	60.9	50	9.5	2.08	25.41	79431	1043	491	8.3	16.4
1914.0	4.2	61.0	50	9.5	2.01	25.65	80138	860.25	492.04	8.3	16.4
1915.0	3.0	59.4	50	9.5	2.12	25.98	81138	1217	495	8.3	16.4
1916.0	5.5	58.8	50	9.5	1.88	26.16	81682	661.42	495.65	8.3	16.5
1917.0	6.5	58.8	50	9.5	1.83	26.32	82145	564.03	495.93	8.3	16.5
1918.0	5.0	59.0	50	9.5	1.93	26.52	82751	737.50	496.89	8.3	16.5
1920.0	4.2	60.7	50	9.5	2.01	27.00	84182	870.90	499.86	8.3	16.5
1921.0	3.1	61.0	50	9.5	2.12	27.32	85150	1178	503	8.3	16.5
1922.0	4.7	61.2	50	9.5	1.97	27.53	85788	777.02	503.62	8.3	16.5
1923.0	6.9	61.7	50	9.5	1.83	27.68	86222	527.51	503.72	8.3	16.5
1924.0	5.1	61.4	50	9.5	1.94	27.87	86810	716.20	504.55	8.3	16.5
1925.0	3.0	61.5	50	9.5	2.14	28.21	87809	1216	507	8.3	16.5
1926.0	14.0	61.1	50	9.5	1.56	28.28	88023	260.71	506.36	8.3	16.5
1928.0	14.5	61.4	50	9.5	1.55	28.42	88439	252.60	504.41	8.3	16.5
1929.0	5.7	62.2	50	9.5	1.91	28.59	88962	637.07	504.92	8.3	16.5
1930.0	14.3	61.1	50	9.5	1.55	28.66	89171	254.63	503.96	8.3	16.5

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1931.0	16.7	61.7	50	9.5	1.50	28.72	89351	219.12	502.88	8.3	16.5
1932.0	15.8	62.2	50	9.5	1.53	28.78	89541	231.29	501.85	8.3	16.5
1933.0	9.2	61.9	50	9.5	1.73	28.89	89867	396.65	501.45	8.3	16.5
1934.0	19.4	61.0	50	9.5	1.44	28.94	90022	188.25	500.27	8.3	16.5
1935.0	51.0	48.0	50	9.5	0.99	28.96	90081	71.61	498.67	8.3	16.5
1936.0	28.1	56.4	50	9.5	1.27	29.00	90187	129.85	497.29	8.3	16.5
1937.0	16.7	58.0	50	9.5	1.47	29.06	90367	219.12	496.26	8.3	16.5
1938.0	3.5	59.8	50	9.5	2.06	29.34	91213	1030	498	8.3	16.5
1939.0	4.3	57.9	50	9.5	1.97	29.58	91917	857.21	499.56	8.3	16.5
1940.0	12.8	57.1	50	9.5	1.56	29.65	92152	285.06	498.77	8.3	16.5
1941.0	15.8	56.6	50	9.5	1.48	29.72	92342	231.29	497.79	8.3	16.5
1942.0	15.0	56.7	50	9.5	1.50	29.78	92542	243.47	496.86	8.3	16.5
1943.0	3.3	57.5	50	9.5	2.06	30.09	93455	1112	499	8.3	16.5
1945.0	3.9	57.5	50	9.5	2.00	30.60	94998	938.92	502.27	8.3	16.5
1946.0	10.4	57.3	50	9.5	1.64	30.70	95287	352.01	501.73	8.3	16.5
1947.0	12.0	56.7	50	9.5	1.58	30.78	95536	303.32	501.02	8.3	16.5
1948.0	24.5	56.6	50	9.5	1.32	30.82	95659	149.12	499.77	8.3	16.5
1949.0	22.2	48.0	50	9.5	1.28	30.87	95794	164.50	498.57	8.3	16.5
1950.0	27.9	55.3	50	9.5	1.26	30.90	95901	130.96	497.27	8.3	16.5
1952.0	21.0	55.9	50	9.5	1.37	31.00	96187	173.98	494.99	8.3	16.5
1953.0	18.4	56.9	50	9.5	1.43	31.05	96351	198.83	493.95	8.3	16.5
1954.0	29.3	57.7	50	9.5	1.26	31.09	96453	124.78	492.66	8.3	16.5
1955.0	15.1	57.5	50	9.5	1.50	31.15	96652	242.45	491.79	8.3	16.5
1956.0	30.5	54.8	50	9.5	1.22	31.19	96751	119.70	490.50	8.3	16.5
1957.0	5.6	58.6	50	9.5	1.88	31.37	97291	657.36	491.08	8.3	16.5
1958.0	9.5	57.3	50	9.5	1.67	31.47	97605	382.45	490.70	8.3	16.5
1959.0	22.5	57.8	50	9.5	1.36	31.52	97738	162.31	489.57	8.3	16.5
1961.0	7.6	59.1	50	9.5	1.77	31.78	98524	478.31	489.50	8.3	16.5
1962.0	4.0	59.1	50	9.5	2.01	32.03	99282	922.13	490.97	8.3	16.5
1963.0	7.9	58.9	50	9.5	1.75	32.16	99663	463.60	490.87	8.3	16.5
1964.0	4.5	58.9	50	9.5	1.96	32.38	100331	813.58	491.96	8.3	16.5
1965.0	14.6	58.4	50	9.5	1.52	32.45	100536	249.55	491.15	8.3	16.5
1966.0	4.6	59.1	50	9.5	1.96	32.67	101188	793.30	492.16	8.3	16.5
1967.0	3.2	59.1	50	9.5	2.09	32.98	102118	1132	494	8.3	16.5
1968.0	3.1	59.2	50	9.5	2.11	33.30	103101	1197	497	8.3	16.5
1969.0	4.4	59.1	50	9.5	1.97	33.53	103784	830.83	497.76	8.3	16.5
1970.0	3.6	59.1	50	9.5	2.04	33.81	104615	1012	499	8.3	16.5
1971.0	4.3	59.7	50	9.5	1.99	34.04	105313	849.09	500.61	8.3	16.5
1972.0	3.7	58.3	50	9.5	2.03	34.31	106124	987.05	502.21	8.3	16.5
1973.0	3.8	58.6	50	9.5	2.02	34.57	106916	963.72	503.73	8.3	16.5
1974.0	4.3	58.5	50	9.5	1.98	34.81	107617	854.16	504.87	8.3	16.5
1975.0	4.1	58.3	50	9.5	1.99	35.05	108352	894.74	506.14	8.3	16.5
1976.0	2.9	58.6	50	9.5	2.12	35.40	109379	1250	509	8.3	16.5
1977.0	4.0	58.7	50	9.5	2.00	35.64	110124	905.90	509.84	8.3	16.5
1978.0	4.7	58.3	50	9.5	1.93	35.85	110755	768.95	510.68	8.3	16.5
1979.0	25.7	57.1	50	9.5	1.30	35.89	110872	142.02	509.49	8.3	16.5
1980.0	17.1	58.4	50	9.5	1.46	35.95	111048	214.05	508.55	8.3	16.5
1981.0	21.1	59.0	50	9.5	1.39	36.00	111190	173.47	507.48	8.3	16.5
1982.0	8.6	59.3	50	9.5	1.73	36.12	111541	427.08	507.22	8.3	16.5
1983.0	12.0	59.4	50	9.5	1.61	36.20	111792	305.35	506.58	8.3	16.5

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1984.0	0.9	60.0	50	9.5	2.59	37.37	115293	4261	518	8.3	16.5
1985.0	5.0	59.9	50	9.5	1.93	37.57	115892	729.39	519.12	8.3	16.5
1986.0	3.4	59.8	50	9.5	2.07	37.86	116767	1065	521	8.3	16.5
1987.0	10.2	60.1	50	9.5	1.67	37.96	117062	359.11	520.33	8.3	16.5
1988.0	9.7	59.8	50	9.5	1.69	38.06	117372	376.36	519.88	8.3	16.5
1990.0	21.4	59.2	50	9.5	1.39	38.15	117652	170.43	517.71	8.3	16.6
1991.0	26.9	57.0	50	9.5	1.29	38.19	117764	135.94	516.53	8.3	16.6
1992.0	25.9	61.0	50	9.5	1.33	38.23	117879	141.01	515.37	8.3	16.6
1993.0	22.4	58.7	50	9.5	1.37	38.27	118014	163.33	514.29	8.3	16.6
1994.0	17.9	57.9	50	9.5	1.44	38.33	118181	203.90	513.34	8.3	16.6
1995.0	29.0	57.6	50	9.5	1.26	38.36	118285	125.79	512.15	8.3	16.6
1996.0	19.7	57.1	50	9.5	1.40	38.41	118437	185.64	511.16	8.3	16.6
1997.0	29.3	58.7	50	9.5	1.27	38.45	118540	124.78	509.98	8.3	16.6
1998.0	24.7	58.8	50	9.5	1.33	38.49	118661	148.11	508.89	8.3	16.6
1999.0	9.4	59.4	50	9.5	1.70	38.60	118981	389.55	508.53	8.3	16.6
2000.0	13.5	59.8	50	9.5	1.56	38.67	119204	270.86	507.81	8.3	16.6
2001.0	3.1	60.3	50	9.5	2.12	38.99	120168	1174	510	8.3	16.6
2002.0	6.0	59.7	50	9.5	1.86	39.16	120666	606.64	510.10	8.3	16.6
2003.0	3.3	60.0	50	9.5	2.09	39.46	121575	1106	512	8.3	16.6
2004.0	4.8	59.8	50	9.5	1.94	39.67	122195	754.75	512.60	8.3	16.6
2005.0	4.4	59.6	50	9.5	1.98	39.90	122882	836.92	513.56	8.3	16.6
2006.0	8.5	59.9	50	9.5	1.74	40.01	123234	428.10	513.31	8.3	16.6
2007.0	5.1	60.1	50	9.5	1.93	40.21	123820	713.15	513.90	8.3	16.6
2008.0	3.5	60.7	50	9.5	2.07	40.49	124676	1042	515	8.3	16.6
2009.0	4.8	60.1	50	9.5	1.95	40.70	125306	766.92	516.19	8.3	16.6
2010.0	3.3	60.8	50	9.5	2.10	41.00	126209	1099	518	8.3	16.6
2011.0	6.0	61.2	50	9.5	1.88	41.17	126711	610.70	518.16	8.3	16.6
2012.0	7.1	60.9	50	9.5	1.81	41.31	127132	512.29	518.15	8.3	16.6
2013.0	4.3	59.7	50	9.5	1.99	41.55	127832	852.13	519.11	8.3	16.6
2014.0	3.7	60.2	50	9.5	2.05	41.82	128642	986.04	520.46	8.3	16.6
2016.0	4.4	60.4	50	9.5	1.99	42.27	130006	829.82	522.24	8.3	16.6
2018.0	4.1	60.3	50	9.5	2.01	42.75	131453	880.54	524.29	8.3	16.6
2019.0	5.2	60.2	50	9.5	1.92	42.94	132032	704.02	524.80	8.3	16.6
2020.0	3.4	60.3	50	9.5	2.08	43.24	132919	1079	526	8.3	16.6
2021.0	15.6	52.0	50	9.5	1.44	43.30	133111	234.10	525.55	8.3	16.6
2022.0	11.1	59.3	50	9.5	1.63	43.39	133380	327.67	524.99	8.3	16.6
2024.0	20.6	61.2	50	9.5	1.42	43.49	133672	177.53	523.04	8.3	16.6
2025.0	30.0	61.8	50	9.5	1.28	43.52	133772	121.73	521.91	8.3	16.6
2026.0	18.7	60.2	50	9.5	1.45	43.58	133933	195.79	521.00	8.3	16.6
2027.0	3.3	63.8	50	9.5	2.14	43.88	134852	1118	523	8.3	16.6
2028.0	6.2	64.7	50	9.5	1.90	44.05	135334	586.35	522.84	8.3	16.6
2029.0	4.9	63.3	50	9.5	1.98	44.25	135952	751.70	523.48	8.3	16.6
2030.0	5.6	63.9	50	9.5	1.94	44.43	136490	655.33	523.84	8.3	16.6
2031.0	4.2	62.2	50	9.5	2.03	44.67	137212	878.51	524.82	8.3	16.6
2032.0	10.0	61.1	50	9.5	1.69	44.77	137513	366.21	524.38	8.3	16.6
2034.0	4.6	61.9	50	9.5	1.99	45.21	138828	799.89	525.89	8.3	16.6
2035.0	5.8	61.5	50	9.5	1.90	45.38	139344	628.96	526.17	8.3	16.6
2036.0	4.7	59.8	50	9.5	1.96	45.59	139983	777.06	526.85	8.3	16.6
2037.0	5.7	60.9	50	9.5	1.90	45.77	140513	645.19	527.17	8.3	16.6
2038.0	3.2	61.0	50	9.5	2.11	46.08	141452	1142	529	8.3	16.6

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2039.0	3.7	61.1	50	9.5	2.06	46.36	142268	993.14	530.08	8.3	16.6
2040.0	3.5	60.5	50	9.5	2.07	46.64	143127	1046	531	8.3	16.6
2041.0	4.9	60.0	50	9.5	1.94	46.85	143736	741.56	532.03	8.3	16.6
2042.0	4.3	60.3	50	9.5	1.99	47.08	144428	841.99	532.86	8.3	16.6
2043.0	5.0	61.3	50	9.5	1.95	47.27	145025	726.34	533.38	8.3	16.6
2044.0	7.8	59.9	50	9.5	1.77	47.40	145408	465.63	533.20	8.3	16.6
2045.0	4.8	61.0	50	9.5	1.96	47.61	146037	765.91	533.82	8.3	16.6
2046.0	2.9	60.3	50	9.5	2.14	47.96	147079	1269	536	8.3	16.6
2047.0	5.2	60.5	50	9.5	1.93	48.15	147660	707.07	536.21	8.3	16.6
2048.0	5.2	61.0	50	9.5	1.93	48.35	148237	702.31	536.65	8.3	16.6
2049.0	5.5	61.1	50	9.5	1.91	48.53	148785	667.50	536.99	8.3	16.6
2050.0	5.7	61.5	50	9.5	1.90	48.70	149313	643.16	537.27	8.3	16.6
2051.0	6.8	61.1	50	9.5	1.83	48.85	149754	536.64	537.27	8.3	16.6
2052.0	2.6	60.9	50	9.5	2.19	49.24	150923	1424	540	8.3	16.6
2053.0	3.9	61.0	50	9.5	2.04	49.50	151692	936.41	549.61	8.3	16.6
2054.0	4.5	60.9	50	9.5	1.98	49.72	152358	811.56	541.31	8.3	16.6
2055.0	5.1	61.0	50	9.5	1.94	49.92	152946	716.08	541.76	8.3	16.6
2056.0	4.1	60.7	50	9.5	2.01	50.16	153673	885.61	542.65	8.3	16.6
2057.0	4.6	60.9	50	9.5	1.97	50.37	154319	787.21	543.28	8.3	16.6
2058.0	3.4	60.9	50	9.5	2.08	50.66	155189	1060	545	8.3	16.6
2059.0	4.9	60.8	50	9.5	1.95	50.87	155799	743.59	545.11	8.3	16.6
2060.0	2.7	60.8	50	9.5	2.17	51.23	156891	1331	547	8.3	16.6
2061.0	4.7	61.9	50	9.5	1.98	51.45	157531	780.11	547.71	8.3	16.6
2062.0	8.7	61.0	50	9.5	1.74	51.56	157876	419.77	547.39	8.3	16.6
2063.0	9.8	60.7	50	9.5	1.69	51.66	158182	373.82	546.95	8.3	16.6
2064.0	15.5	59.4	50	9.5	1.51	51.73	158375	235.35	546.16	8.3	16.6
2065.0	8.5	60.9	50	9.5	1.74	51.84	158726	428.10	545.86	8.3	16.7
2066.0	3.8	61.1	50	9.5	2.05	52.11	159511	956.62	546.89	8.3	16.7
2067.0	8.6	61.0	50	9.5	1.74	52.22	159859	425.05	546.59	8.3	16.7
2068.0	16.3	60.1	50	9.5	1.50	52.28	160043	224.19	545.78	8.3	16.7
2069.0	33.6	59.0	50	9.5	1.22	52.31	160132	108.69	544.69	8.3	16.7
2070.0	26.8	59.9	50	9.5	1.31	52.35	160244	136.44	543.68	8.3	16.7
2071.0	24.3	59.8	50	9.5	1.34	52.39	160367	150.14	542.70	8.3	16.7
2072.0	23.5	61.2	50	9.5	1.37	52.44	160495	155.21	541.74	8.3	16.7
2073.0	23.4	62.3	50	9.5	1.38	52.48	160623	156.22	540.79	8.3	16.7
2074.0	7.4	63.0	50	9.5	1.82	52.61	161028	494.03	540.67	8.3	16.7
2075.0	12.5	60.3	50	9.5	1.60	52.69	161268	293.17	540.07	8.3	16.7
2076.0	6.7	62.1	50	9.5	1.85	52.84	161714	543.74	540.07	8.3	16.7
2077.0	4.9	61.6	50	9.5	1.96	53.05	162325	744.60	540.58	8.3	16.7
2078.0	17.5	61.0	50	9.5	1.48	53.10	162496	208.98	539.77	8.3	16.7
2079.0	13.7	60.8	50	9.5	1.57	53.18	162715	266.80	539.10	8.3	16.7
2080.0	9.3	61.7	50	9.5	1.72	53.28	163036	391.58	538.74	8.3	16.7
2081.0	7.5	59.9	50	9.5	1.78	53.42	163436	487.95	538.62	8.3	16.7
2082.0	5.7	55.7	50	9.5	1.84	53.59	163964	643.16	538.87	8.3	16.7
2083.0	4.4	56.0	50	9.5	1.94	53.82	164648	833.87	539.58	8.3	16.7
2084.0	8.4	55.7	50	9.5	1.70	53.94	165003	433.17	539.33	8.3	16.7
2085.0	4.3	56.2	50	9.5	1.94	54.17	165697	847.06	540.07	8.3	16.7
2086.0	4.3	58.2	50	9.5	1.97	54.40	166391	847.06	540.80	8.3	16.7
2087.0	3.1	58.2	50	9.5	2.09	54.73	167369	1192	542	8.3	16.7
2088.0	3.8	58.0	50	9.5	2.01	54.99	168156	959.66	543.35	8.3	16.7

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2089.0	2.9	58.3	50	9.5	2.11	55.34	169184	1255	545	8.3	16.7
2090.0	4.3	58.4	50	9.5	1.97	55.57	169881	850.10	545.76	8.3	16.7
2091.0	5.3	58.2	50	9.5	1.89	55.76	170442	683.74	546.09	8.3	16.7
2092.0	13.6	58.0	50	9.5	1.54	55.83	170662	268.83	545.43	8.3	16.7
2093.0	12.4	58.6	50	9.5	1.58	55.91	170903	294.19	544.84	8.3	16.7
2094.0	14.4	54.9	50	9.5	1.49	55.98	171111	253.61	544.16	8.3	16.7
2095.0	21.2	54.0	50	9.5	1.35	56.03	171253	172.26	543.29	8.3	16.7
2096.0	17.3	55.3	50	9.5	1.43	56.09	171426	211.00	542.51	8.3	16.7
2097.0	18.8	57.3	50	9.5	1.42	56.14	171585	193.76	541.70	8.3	16.7
2098.0	15.9	55.6	50	9.5	1.46	56.20	171773	229.26	540.97	8.3	16.7
2099.0	17.2	56.2	50	9.5	1.44	56.26	171946	212.02	540.21	8.3	16.7
2100.0	16.4	56.8	50	9.5	1.46	56.32	172129	222.16	539.47	8.3	16.7
2101.0	19.9	57.7	50	9.5	1.40	56.37	172279	183.61	538.65	8.3	16.7
2102.0	13.7	57.5	50	9.5	1.54	56.44	172498	266.80	538.02	8.3	16.7
2103.0	22.1	57.1	50	9.5	1.36	56.49	172633	165.35	537.17	8.3	16.7
2104.0	3.9	57.6	50	9.5	2.00	56.75	173409	946.48	538.11	8.3	16.7
2105.0	18.6	57.1	50	9.5	1.42	56.80	173571	196.80	537.33	8.3	16.7
2106.0	5.6	58.3	50	9.5	1.87	56.98	174104	650.26	537.58	8.3	16.7
2107.0	4.3	58.3	50	9.5	1.97	57.21	174802	851.12	538.30	8.3	16.7
2108.0	3.1	58.5	50	9.5	2.09	57.53	175756	1165	540	8.3	16.7
2109.0	11.5	58.0	50	9.5	1.61	57.62	176017	317.57	539.22	8.3	16.7
2110.0	6.4	58.3	50	9.5	1.83	57.78	176489	574.68	539.30	8.3	16.7
2111.0	6.7	58.2	50	9.5	1.81	57.93	176935	544.76	539.31	8.3	16.7
2112.0	14.0	56.1	50	9.5	1.52	58.00	177150	261.73	538.68	8.3	16.7
2113.0	20.7	58.0	50	9.5	1.39	58.05	177295	176.43	537.87	8.3	16.7
2114.0	7.2	43.0	50	9.5	1.61	58.18	177712	507.22	537.80	8.3	16.7
2115.0	5.9	58.0	50	9.5	1.85	58.35	178220	618.98	537.98	8.3	16.7
2116.0	6.0	60.5	50	9.5	1.87	58.52	178717	605.12	538.13	8.3	16.7
2117.0	5.1	63.6	50	9.5	1.97	58.72	179303	714.17	538.53	8.3	16.7
2118.0	6.1	63.3	50	9.5	1.90	58.88	179798	603.59	538.67	8.3	16.7
2119.0	5.3	63.5	50	9.5	1.95	59.07	180366	692.87	539.01	8.3	16.7
2120.0	4.0	63.3	50	9.5	2.06	59.32	181121	920.10	539.85	8.3	16.7
2122.0	4.5	60.8	50	9.5	1.98	59.77	182450	809.86	541.04	8.3	16.7
2123.0	2.8	59.3	50	9.5	2.14	60.13	183529	1316	543	8.3	16.7
2124.0	6.5	58.6	50	9.5	1.82	60.28	183988	559.97	542.78	8.3	16.7
2125.0	3.5	58.9	50	9.5	2.05	60.56	184840	1039	544	8.3	16.7
2126.0	3.7	58.9	50	9.5	2.03	60.83	185646	983.00	544.83	8.3	16.7
2127.0	2.7	58.9	50	9.5	2.15	61.20	186753	1349	547	8.3	16.7
2128.0	8.4	58.9	50	9.5	1.73	61.32	187109	434.18	546.34	8.3	16.7
2129.0	4.1	60.1	50	9.5	2.01	61.57	187845	897.78	547.10	8.3	16.7
2130.0	4.7	59.1	50	9.5	1.95	61.78	188487	782.14	547.61	8.3	16.7
2131.0	3.4	58.8	50	9.5	2.06	62.07	189355	1059	549	8.3	16.7
2132.0	7.5	59.0	50	9.5	1.77	62.20	189754	485.92	548.58	8.3	16.7
2133.0	2.9	59.5	50	9.5	2.13	62.55	190776	1246	550	8.3	16.7
2134.0	4.1	59.4	50	9.5	2.00	62.79	191514	899.81	550.83	8.3	16.7
2135.0	2.8	60.8	50	9.5	2.15	63.14	192567	1284	552	8.3	16.7
2136.0	8.1	59.3	50	9.5	1.75	63.27	192937	451.43	552.18	8.3	16.7
2137.0	3.1	59.7	50	9.5	2.11	63.59	193904	1178	554	8.3	16.7
2138.0	3.1	60.6	50	9.5	2.12	63.91	194865	1171	555	8.3	16.7
2139.0	2.8	59.7	50	9.5	2.14	64.26	195928	1295	556	8.3	16.7

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2140.0	14.5	55.3	50	9.5	1.50	64.33	196136	252.60	555.76	8.3	16.7
2141.0	5.1	60.6	50	9.5	1.94	64.53	196729	722.28	556.11	8.3	16.7
2142.0	6.3	60.6	50	9.5	1.86	64.69	197207	583.31	556.17	8.3	16.7
2143.0	2.9	64.5	50	9.5	2.19	65.03	198225	1242	558	8.3	16.7
2144.0	4.1	63.6	50	9.5	2.05	65.28	198963	899.81	558.33	8.3	16.8
2145.0	2.6	62.0	50	9.5	2.20	65.66	200110	1399	560	8.3	16.8
2146.0	4.4	61.2	50	9.5	2.00	65.89	200793	832.86	560.66	8.3	16.8
2147.0	2.5	59.9	50	9.5	2.19	66.28	201979	1446	563	8.3	16.8

BIT NUMBER	6	IADC CODE	517	INTERVAL	2147.0- 2340.5
HTC J22		SIZE	12.250	NOZZLES	16 16 16
COST	8520.00	TRIP TIME	6.6	BIT RUN	193.5
TOTAL HOURS	35.97	TOTAL TURNS	107506	CONDITION	T6 B4 G0.062

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2148.0	3.3	31.1	40	9.5	1.63	0.31	733	1115	33738	8.4	16.8
2149.0	3.7	47.1	42	9.5	1.83	0.58	1414	999	17369	8.4	16.8
2150.0	2.5	54.6	50	9.5	2.12	0.98	2603	1451	12063	8.4	16.8
2151.0	4.0	50.0	50	9.5	1.90	1.23	3353	913	9275	8.4	16.8
2152.0	3.9	50.2	50	9.5	1.91	1.48	4119	934	7607	8.4	16.8
2153.0	4.7	48.9	50	9.5	1.83	1.69	4755	776	6469	8.4	16.8
2154.0	3.4	48.9	50	9.5	1.94	1.99	5633	1071	5697	8.4	16.8
2155.0	5.2	48.8	50	9.5	1.79	2.18	6208	702	5073	8.4	16.8
2156.0	4.4	49.0	50	9.5	1.85	2.41	6886	827	4601	8.4	16.8
2157.0	6.5	49.3	50	9.5	1.72	2.56	7343	558	4197	8.4	16.8
2158.0	3.1	49.5	50	9.5	1.98	2.88	8312	1183	3923	8.4	16.8
2159.0	4.6	49.4	50	9.5	1.84	3.10	8960	792	3662	8.4	16.8
2160.0	4.1	49.5	50	9.5	1.88	3.35	9698	901	3450	8.4	16.8
2161.0	7.4	49.9	50	9.5	1.68	3.48	10104	496	3239	8.4	16.8
2162.0	5.7	51.4	50	9.5	1.79	3.66	10629	641	3065	8.4	16.8
2163.0	5.0	52.0	50	9.5	1.84	3.86	11229	730	2920	8.4	16.8
2164.0	4.0	52.0	50	9.5	1.92	4.11	11971	906	2801	8.4	16.8
2165.0	5.0	53.0	50	9.5	1.85	4.31	12571	730	2686	8.4	16.8
2166.0	8.8	57.5	50	9.5	1.70	4.42	12911	415	2567	8.4	16.8
2167.0	12.0	60.0	50	9.5	1.61	4.50	13161	304	2453	8.4	16.8
2168.0	20.0	60.0	50	9.5	1.42	4.55	13311	183	2345	8.4	16.8
2169.0	26.3	56.5	50	9.5	1.29	4.59	13424	139	2245	8.4	16.8
2170.0	26.3	55.5	50	9.5	1.28	4.63	13538	139	2153	8.4	16.8
2171.0	20.0	61.4	50	9.5	1.43	4.68	13688	183	2071	8.4	16.8
2172.0	12.2	59.5	50	9.5	1.60	4.76	13932	298	2000	8.4	16.8
2173.0	3.1	60.3	50	9.5	2.11	5.08	14885	1164	1968	8.4	16.8
2174.0	6.1	59.6	50	9.5	1.86	5.24	15375	598	1917	8.4	16.8
2175.0	5.0	60.0	50	9.5	1.93	5.44	15975	730	1875	8.4	16.8
2176.0	5.2	59.7	50	9.5	1.91	5.63	16546	697	1834	8.4	16.8
2177.0	4.3	59.9	50	9.5	1.99	5.87	17248	858	1802	8.4	16.8
2178.0	6.7	61.4	50	9.5	1.84	6.02	17696	547	1761	8.4	16.8
2179.0	4.6	59.8	50	9.5	1.96	6.24	18349	797	1731	8.4	16.8
2180.0	7.5	59.2	50	9.5	1.77	6.37	18746	484	1693	8.4	16.8
2181.0	6.8	59.9	50	9.5	1.82	6.52	19184	536	1659	8.4	16.8
2182.0	9.9	59.8	50	9.5	1.68	6.62	19488	370	1623	8.4	16.8
2183.0	14.1	57.9	50	9.5	1.53	6.69	19700	259	1585	8.4	16.8
2184.0	14.0	60.0	50	9.5	1.55	6.76	19914	261	1549	8.4	16.8
2185.0	14.2	59.4	50	9.5	1.54	6.83	20125	257	1515	8.4	16.8
2186.0	15.9	59.7	50	9.5	1.50	6.89	20313	229	1482	8.4	16.8
2187.0	15.5	58.9	50	9.5	1.50	6.96	20506	235	1451	8.4	16.8
2188.0	5.5	60.6	50	9.5	1.91	7.14	21051	664	1432	8.4	16.8
2189.0	4.9	60.1	50	9.5	1.94	7.34	21657	740	1415	8.4	16.8
2190.0	16.4	59.6	50	9.5	1.49	7.40	21839	222	1387	8.4	16.8

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2191.0	16.5	59.8	50	9.5	1.49	7.46	22020	221	1361	8.4	16.8
2192.0	13.3	58.0	50	9.5	1.55	7.54	22245	275	1337	8.4	16.8
2193.0	29.0	57.6	50	9.5	1.26	7.57	22349	126	1310	8.4	16.8
2194.0	4.0	59.6	50	9.5	2.01	7.82	23094	910	1302	8.4	16.8
2195.0	3.2	60.7	50	9.5	2.10	8.13	24018	1126	1298	8.4	16.8
2196.0	3.7	60.4	50	9.5	2.05	8.40	24818	977	1292	8.4	16.8
2197.0	31.3	58.1	50	9.5	1.24	8.43	24914	117	1268	8.4	16.8
2198.0	4.6	59.5	50	9.5	1.96	8.65	25563	792	1259	8.4	16.8
2199.0	21.6	59.7	50	9.5	1.39	8.69	25702	169	1238	8.4	16.8
2200.0	4.8	58.1	50	9.5	1.93	8.90	26328	763	1229	8.4	16.8
2201.0	6.9	59.7	50	9.5	1.81	9.05	26762	531	1216	8.4	16.8
2202.0	6.3	60.9	50	9.5	1.86	9.21	27241	583	1205	8.4	16.8
2203.0	6.2	59.9	50	9.5	1.86	9.37	27727	593	1194	8.4	16.8
2204.0	3.9	59.9	50	9.5	2.03	9.63	28495	936	1189	8.4	16.8
2205.0	5.6	60.2	50	9.5	1.89	9.80	29031	653	1180	8.4	16.8
2206.0	3.9	60.1	50	9.5	2.02	10.06	29790	926	1176	8.4	16.8
2207.0	9.6	59.9	50	9.5	1.69	10.16	30101	379	1162	8.4	16.8
2208.0	5.8	59.4	50	9.5	1.87	10.33	30616	628	1154	8.4	16.8
2209.0	5.0	60.0	50	9.5	1.93	10.53	31216	730	1147	8.4	16.8
2210.0	8.6	59.8	50	9.5	1.73	10.65	31566	427	1135	8.4	16.8
2211.0	8.3	58.4	50	9.5	1.73	10.77	31929	442	1124	8.4	16.8
2212.0	15.9	57.5	50	9.5	1.48	10.84	32117	230	1111	8.4	16.8
2213.0	5.1	58.4	50	9.5	1.91	11.03	32703	714	1105	8.4	16.8
2214.0	11.2	58.3	50	9.5	1.62	11.12	32971	327	1093	8.4	16.8
2215.0	20.1	57.1	50	9.5	1.39	11.17	33120	182	1080	8.4	16.8
2216.0	8.3	56.7	50	9.5	1.71	11.29	33482	441	1070	8.4	16.9
2217.0	13.5	57.5	50	9.5	1.54	11.37	33704	271	1059	8.4	16.9
2218.0	34.3	56.2	50	9.5	1.19	11.39	33791	107	1046	8.4	16.9
2219.0	20.1	57.6	50	9.5	1.40	11.44	33940	182	1034	8.4	16.9
2220.0	13.5	59.0	50	9.5	1.56	11.52	34162	271	1023	8.4	16.9
2221.0	4.8	61.6	50	9.5	1.97	11.73	34791	767	1020	8.4	16.9
2222.0	7.1	59.7	50	9.5	1.80	11.87	35214	516	1013	8.4	16.9
2223.0	5.0	60.0	50	9.5	1.93	12.07	35814	730	1009	8.4	16.9
2224.0	4.2	61.5	50	9.5	2.01	12.31	36519	860	1007	8.4	16.9
2225.0	7.1	59.9	50	9.5	1.80	12.45	36943	516	1001	8.4	16.9
2226.0	4.7	59.8	50	9.5	1.96	12.66	37587	784.17	998.25	8.4	16.9
2227.0	5.9	59.8	50	9.5	1.87	12.83	38092	614.75	993.46	8.4	16.9
2228.0	4.0	60.1	50	9.5	2.02	13.08	38835	904.88	992.36	8.4	16.9
2229.0	5.8	59.6	50	9.5	1.88	13.25	39356	635.04	988.00	8.4	16.9
2230.0	5.1	59.4	50	9.5	1.92	13.45	39946	719.24	984.77	8.4	16.9
2231.0	5.3	59.7	50	9.5	1.91	13.64	40516	693.88	981.30	8.4	16.9
2232.0	5.0	60.0	50	9.5	1.93	13.84	41116	730.40	978.35	8.4	16.9
2233.0	5.7	60.8	50	9.5	1.89	14.01	41638	636.56	974.38	8.4	16.9
2234.0	3.2	60.8	50	9.5	2.11	14.33	42587	1155	976	8.4	16.9
2235.0	5.3	60.6	50	9.5	1.92	14.52	43148	682.72	973.12	8.4	16.9
2236.0	4.0	59.7	50	9.5	2.01	14.77	43898	914.01	972.46	8.4	16.9
2237.0	5.2	59.4	50	9.5	1.91	14.96	44473	702.00	969.45	8.4	16.9
2238.0	5.0	60.0	50	9.5	1.93	15.16	45073	730.40	966.82	8.4	16.9
2239.0	4.4	59.9	50	9.5	1.98	15.38	45750	824.74	965.28	8.4	16.9
2240.0	5.0	59.5	50	9.5	1.93	15.58	46346	726.34	962.71	8.4	16.9

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2241.0	3.5	59.7	50	9.5	2.06	15.87	47191	1031	963	8.4	16.9
2242.0	6.1	59.4	50	9.5	1.86	16.03	47686	603.59	959.65	8.4	16.9
2243.0	3.9	59.5	50	9.5	2.03	16.29	48464	948.51	959.53	8.4	16.9
2244.0	6.6	59.3	50	9.5	1.82	16.44	48917	551.86	955.33	8.4	16.9
2245.0	5.7	59.2	50	9.5	1.88	16.62	49443	642.14	952.13	8.4	16.9
2246.0	7.3	59.5	50	9.5	1.79	16.75	49855	503.16	947.60	8.4	16.9
2247.0	7.4	60.0	50	9.5	1.79	16.89	50260	493.51	943.06	8.4	16.9
2248.0	7.5	60.1	50	9.5	1.78	17.02	50659	486.93	938.54	8.4	16.9
2249.0	6.5	57.6	50	9.5	1.81	17.18	51118	559.97	934.83	8.4	16.9
2250.0	9.3	57.4	50	9.5	1.68	17.28	51440	393.60	929.57	8.4	16.9
2251.0	8.0	60.0	50	9.5	1.76	17.41	51815	456.50	925.02	8.4	16.9
2252.0	5.4	59.5	50	9.5	1.90	17.60	52371	677.65	922.67	8.4	16.9
2253.0	8.8	58.0	50	9.5	1.70	17.71	52709	412.88	917.86	8.4	16.9
2254.0	22.8	57.0	50	9.5	1.35	17.75	52841	160.28	910.78	8.4	16.9
2255.0	15.4	57.0	50	9.5	1.49	17.82	53035	237.38	904.54	8.4	16.9
2256.0	18.8	57.5	50	9.5	1.42	17.87	53194	193.76	898.02	8.4	16.9
2257.0	9.4	56.7	50	9.5	1.66	17.98	53511	386.50	893.37	8.4	16.9
2258.0	5.0	60.0	50	9.5	1.93	18.18	54111	730.40	891.90	8.4	16.9
2259.0	4.5	58.2	50	9.5	1.95	18.40	54776	811.56	891.19	8.4	16.9
2260.0	5.0	60.0	50	9.5	1.93	18.60	55376	730.40	889.76	8.4	16.9
2261.0	5.4	58.2	50	9.5	1.88	18.78	55926	671.79	887.85	8.4	16.9
2262.0	7.6	58.3	50	9.5	1.76	18.91	56322	482.88	884.33	8.4	16.9
2263.0	4.1	58.6	50	9.5	1.99	19.16	57056	895.75	884.43	8.4	16.9
2264.0	5.9	58.2	50	9.5	1.85	19.33	57567	622.87	882.19	8.4	16.9
2265.0	5.2	57.9	50	9.5	1.89	19.52	58138	696.92	880.62	8.4	16.9
2266.0	8.0	55.5	50	9.5	1.71	19.65	58513	457.51	877.07	8.4	16.9
2267.0	5.5	55.2	50	9.5	1.84	19.83	59053	659.39	875.25	8.4	16.9
2268.0	4.0	59.5	50	9.5	2.01	20.08	59809	921.12	875.63	8.4	16.9
2269.0	4.9	59.0	50	9.5	1.93	20.28	60422	747.65	874.58	8.4	16.9
2270.0	4.7	58.7	50	9.5	1.94	20.50	61059	776.05	873.78	8.4	16.9
2271.0	5.5	58.9	50	9.5	1.89	20.68	61605	666.49	872.11	8.4	16.9
2272.0	3.3	59.5	50	9.5	2.08	20.98	62502	1094	874	8.4	16.9
2273.0	11.3	58.5	50	9.5	1.62	21.07	62767	322.59	869.51	8.4	16.9
2274.0	13.1	57.9	50	9.5	1.56	21.14	62996	278.97	864.86	8.4	16.9
2275.0	20.7	58.1	50	9.5	1.39	21.19	63140	176.51	859.48	8.4	16.9
2276.0	16.0	56.7	50	9.5	1.47	21.25	63328	228.25	854.59	8.4	16.9
2277.0	14.6	58.0	50	9.4	1.53	21.32	63533	250.14	849.94	8.4	16.9
2278.0	9.8	59.4	50	9.5	1.68	21.42	63840	374.33	846.31	8.4	16.9
2279.0	9.5	60.0	50	9.5	1.70	21.53	64156	384.42	842.81	8.4	16.9
2280.0	18.5	58.0	50	9.5	1.43	21.58	64318	197.82	837.96	8.4	16.9
2281.0	21.7	57.6	50	9.5	1.37	21.63	64456	168.40	832.96	8.4	16.9
2282.0	20.3	60.0	50	9.5	1.41	21.68	64604	179.90	828.12	8.4	16.9
2283.0	12.1	60.0	50	9.5	1.61	21.76	64852	301.82	824.25	8.4	16.9
2284.0	8.1	59.3	50	9.5	1.75	21.89	65222	450.75	821.53	8.4	16.9
2285.0	4.7	59.6	50	9.5	1.95	22.10	65859	778.08	821.21	8.4	16.9
2286.0	5.1	59.5	50	9.5	1.92	22.30	66449	719.24	820.48	8.4	16.9
2287.0	3.6	59.5	50	9.5	2.05	22.57	67285	1019	822	8.4	16.9
2288.0	4.4	59.6	50	9.5	1.98	22.80	67964	828.80	821.94	8.4	16.9
2289.0	4.1	59.5	50	9.5	2.00	23.05	68696	892.71	822.44	8.4	16.9
2290.0	5.9	59.2	50	9.5	1.87	23.22	69206	621.85	821.04	8.4	16.9

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2291.0	6.7	59.1	50	9.5	1.82	23.37	69653	544.76	819.12	8.4	16.9
2292.0	5.2	59.5	50	9.5	1.91	23.56	70230	703.01	818.32	8.4	16.9
2293.0	3.2	59.3	50	9.5	2.09	23.87	71157	1131	820	8.4	16.9
2294.0	6.7	59.3	50	9.5	1.82	24.02	71601	541.71	818.57	8.4	16.9
2295.0	5.3	59.1	50	9.5	1.91	24.21	72171	694.89	817.73	8.4	16.9
2296.0	5.9	59.7	50	9.5	1.87	24.37	72675	614.75	816.37	8.4	16.9
2297.0	2.9	60.0	50	9.5	2.14	24.72	73710	1259	819	8.4	16.9
2298.0	4.5	59.3	50	9.5	1.96	24.94	74371	806.48	819.24	8.4	16.9
2299.0	5.8	59.3	50	9.5	1.87	25.11	74886	628.96	817.98	8.4	17.0
2300.0	9.1	58.7	50	9.5	1.70	25.22	75216	402.73	815.27	8.4	17.0
2301.0	3.7	59.5	50	9.5	2.03	25.49	76016	975.90	816.31	8.4	17.0
2302.0	3.2	60.0	50	9.5	2.10	25.80	76941	1129	818	8.4	17.0
2303.0	2.9	59.8	50	9.5	2.13	26.14	77973	1260	821	8.4	17.0
2304.0	4.1	59.9	50	9.5	2.00	26.39	78697	883.58	821.56	8.4	17.0
2305.0	12.4	59.7	50	9.5	1.59	26.47	78939	295.20	818.23	8.4	17.0
2306.0	5.2	59.7	50	9.5	1.91	26.66	79509	695.91	817.46	8.4	17.0
2307.0	3.9	60.0	50	9.5	2.02	26.91	80267	926.19	818.14	8.4	17.0
2308.0	3.9	60.8	50	9.5	2.04	27.17	81043	946.48	818.93	8.4	17.0
2309.0	10.6	59.0	50	9.5	1.65	27.26	81325	344.91	816.01	8.4	17.0
2310.0	4.5	59.4	50	9.5	1.96	27.48	81984	804.45	815.94	8.4	17.0
2311.0	8.4	59.4	50	9.5	1.74	27.60	82341	436.21	813.62	8.4	17.0
2312.0	8.7	59.0	50	9.5	1.72	27.72	82686	420.99	811.24	8.4	17.0
2313.0	4.1	59.8	50	9.5	2.00	27.96	83409	882.57	811.67	8.4	17.0
2314.0	4.4	64.0	50	9.5	2.03	28.19	84091	830.00	811.78	8.4	17.0
2315.0	3.3	60.8	50	9.5	2.10	28.49	84991	1099	813	8.4	17.0
2316.0	2.7	60.3	50	9.5	2.17	28.87	86118	1375	817	8.4	17.0
2317.0	3.5	59.9	50	9.5	2.07	29.15	86981	1055	818	8.4	17.0
2318.0	10.0	59.3	50	9.5	1.67	29.25	87280	364.19	815.56	8.4	17.0
2319.0	8.2	58.6	50	9.5	1.73	29.38	87644	444.33	813.40	8.4	17.0
2320.0	7.4	59.3	50	9.5	1.78	29.51	88048	493.02	811.55	8.4	17.0
2321.0	5.0	60.0	50	9.5	1.94	29.71	88651	736.49	811.12	8.4	17.0
2322.0	6.0	60.9	50	9.5	1.88	29.88	89149	608.67	809.96	8.4	17.0
2323.0	4.0	64.0	50	9.5	2.06	30.13	89899	913.00	810.55	8.4	17.0
2324.0	2.3	60.5	50	9.5	2.23	30.56	91199	1588	815	8.4	17.0
2325.0	4.8	60.1	50	9.5	1.95	30.77	91820	757.79	814.61	8.4	17.0
2326.0	1.6	63.5	50	9.5	2.40	31.39	93680	2271	823	8.4	17.0
2327.0	2.7	62.9	50	9.5	2.19	31.76	94771	1331	826	8.4	17.0
2328.0	2.7	62.6	50	9.5	2.19	32.12	95862	1331	828	8.4	17.0
2329.0	3.6	62.2	50	9.5	2.09	32.40	96703	1026	829	8.4	17.0
2330.0	2.5	62.5	50	9.5	2.23	32.81	97922	1488	833	8.4	17.0
2331.0	8.8	55.3	50	9.5	1.68	32.92	98261	413.89	830.77	8.4	17.0
2332.0	12.4	64.0	50	9.5	1.63	33.00	98503	294.52	827.88	8.4	17.0
2333.0	2.8	63.5	50	9.5	2.20	33.36	99578	1311	830	8.4	17.0
2334.0	6.1	64.0	50	9.5	1.90	33.53	100069	598.69	829.24	8.4	17.0
2335.0	2.7	63.9	50	9.5	2.21	33.89	101160	1331	832	8.4	17.0
2336.0	3.4	63.7	50	9.5	2.13	34.19	102049	1085	833	8.4	17.0
2337.0	3.2	63.4	50	9.5	2.15	34.51	102997	1156	835	8.4	17.0
2338.0	2.4	64.5	54	9.5	2.31	34.93	104386	1553	839	8.4	17.0
2339.0	1.8	63.7	50	9.5	2.36	35.48	106028	1995	845	8.4	17.0
2340.0	4.2	64.5	50	9.5	2.05	35.72	106742	867.35	844.85	8.4	17.0

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2340.5	2.0	63.4	50	9.5	2.33	35.97	107506	1856	847	8.4	17.0

BIT NUMBER	7	IADC CODE	537	INTERVAL	2340.5- 2537.3
HTC J33		SIZE	12.250	NOZZLES	16 16 16
COST	8266.00	TRIP TIME	7.2	BIT RUN	196.8
TOTAL HOURS	41.90	TOTAL TURNS	126033	CONDITION	T3 B5 G0.125

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2342.0	11.1	59.8	50	9.5	1.64	0.14	407	330	23370	8.4	17.0
2343.0	3.8	60.5	50	9.5	2.04	0.40	1202	964	14407	8.4	17.0
2344.0	6.0	60.0	50	9.5	1.87	0.57	1702	609	10465	8.4	17.0
2345.0	4.3	60.0	50	9.5	1.99	0.80	2399	849	8328	8.4	17.0
2346.0	12.2	60.0	50	9.5	1.60	0.88	2645	299	6868	8.4	17.0
2347.0	3.5	60.0	50	9.5	2.07	1.17	3502	1043	5972	8.4	17.0
2348.0	5.4	60.0	50	9.5	1.91	1.35	4058	676	5266	8.4	17.0
2349.0	13.1	59.5	50	9.5	1.57	1.43	4288	279	4679	8.4	17.0
2350.0	1.5	59.5	50	9.5	2.38	2.10	6312	2455	4445	8.4	17.0
2351.0	6.5	59.3	50	9.5	1.83	2.25	6775	563	4075	8.4	17.0
2352.0	4.0	60.0	50	9.5	2.02	2.50	7525	913	3800	8.4	17.0
2353.0	5.6	60.0	50	9.5	1.89	2.68	8061	652	3549	8.4	17.0
2354.0	3.2	60.0	50	9.5	2.10	3.00	8999	1141	3370	8.4	17.0
2355.0	9.4	60.0	50	9.5	1.70	3.10	9318	389	3165	8.4	17.0
2356.0	6.5	60.0	50	9.5	1.84	3.26	9779	562	2997	8.4	17.0
2357.0	12.9	59.8	50	9.5	1.58	3.33	10013	284	2832	8.4	17.0
2358.0	21.2	58.9	50	9.5	1.39	3.38	10155	172	2680	8.4	17.0
2359.0	14.0	60.0	50	9.5	1.55	3.45	10370	261	2550	8.4	17.0
2360.0	20.0	60.0	50	9.5	1.42	3.50	10520	183	2428	8.4	17.0
2361.0	12.0	60.0	50	9.5	1.61	3.59	10770	304	2325	8.4	17.0
2362.0	36.0	60.0	50	9.5	1.20	3.61	10853	101	2221	8.4	17.0
2363.0	20.0	60.3	50	9.5	1.42	3.66	11004	183	2131	8.4	17.0
2364.0	3.7	58.5	50	9.5	2.03	3.93	11816	984	2082	8.4	17.0
2365.0	6.9	60.0	50	9.5	1.82	4.08	12251	528	2018	8.4	17.0
2365.1	2.4	60.4	50	9.5	2.22	4.12	12378	1542	2016	8.4	17.0
2366.0	18.7	58.8	50	9.5	1.44	4.17	12522	195	1952	8.4	17.0
2367.0	5.7	60.6	50	9.5	1.89	4.34	13048	637	1903	8.4	17.0
2368.0	4.0	60.3	50	9.5	2.02	4.59	13803	917	1867	8.4	17.0
2369.0	4.2	60.0	50	9.5	2.00	4.83	14518	870	1832	8.4	17.0
2370.0	4.5	60.0	50	9.5	1.97	5.05	15184	812	1797	8.4	17.0
2371.0	4.7	60.4	50	9.5	1.97	5.27	15829	783	1764	8.4	17.0
2372.0	9.5	59.2	50	9.5	1.69	5.37	16146	384	1720	8.4	17.0
2373.0	7.0	60.0	50	9.5	1.81	5.52	16574	522	1683	8.4	17.0
2374.0	6.6	59.4	50	9.5	1.83	5.67	17031	555	1650	8.4	17.0
2376.0	7.4	58.8	50	9.5	1.78	5.94	17843	494	1584	8.4	17.0
2377.0	5.4	59.1	50	9.5	1.90	6.12	18400	677	1560	8.4	17.0
2378.0	13.5	58.5	50	9.5	1.55	6.20	18623	271	1525	8.4	17.0
2379.0	11.3	58.9	50	9.5	1.62	6.29	18889	324	1494	8.4	17.0
2380.0	7.3	58.8	50	9.5	1.78	6.42	19300	500	1469	8.4	17.0

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2381.0	8.7	59.0	50	9.5	1.72	6.54	19647	422	1443	8.4	17.0
2382.0	6.2	59.0	50	9.5	1.85	6.70	20134	592	1422	8.4	17.0
2383.0	10.2	56.9	50	9.5	1.64	6.80	20430	359	1397	8.4	17.0
2384.0	5.3	58.9	50	9.5	1.90	6.99	20999	692	1381	8.4	17.0
2385.0	17.6	58.4	50	9.5	1.45	7.05	21170	208	1355	8.4	17.0
2386.0	4.0	60.1	50	9.5	2.02	7.30	21929	923	1345	8.4	17.1
2387.0	4.6	59.1	50	9.5	1.96	7.52	22587	798	1334	8.4	17.1
2388.0	3.3	59.1	50	9.5	2.08	7.82	23501	1103	1329	8.4	17.1
2389.0	4.4	59.1	50	9.5	1.97	8.05	24181	827	1318	8.4	17.1
2390.0	3.1	59.3	50	9.5	2.10	8.36	25140	1165	1315	8.4	17.1
2391.0	4.8	60.1	50	9.5	1.95	8.57	25770	765	1304	8.4	17.1
2392.0	4.0	60.0	50	9.5	2.02	8.82	26520	913	1297	8.4	17.1
2393.0	3.8	61.0	50	9.5	2.05	9.09	27307	955	1290	8.4	17.1
2394.0	3.4	62.1	50	9.5	2.10	9.38	28189	1070	1286	8.4	17.1
2395.0	5.6	62.2	50	9.5	1.92	9.56	28724	649	1274	8.4	17.1
2396.0	8.4	61.9	50	9.5	1.76	9.68	29082	435	1259	8.4	17.1
2397.0	4.0	60.0	50	9.5	2.02	9.93	29832	913	1253	8.4	17.1
2398.0	5.0	62.2	50	9.5	1.96	10.13	30436	733	1244	8.4	17.1
2399.0	3.7	62.4	50	9.5	2.08	10.40	31252	990	1240	8.4	17.1
2400.0	3.0	62.4	50	9.5	2.15	10.73	32243	1203	1239	8.4	17.1
2401.0	3.7	62.5	50	9.5	2.08	11.00	33063	995	1235	8.4	17.1
2402.0	3.9	59.5	50	9.5	2.02	11.25	33826	925	1230	8.4	17.1
2403.0	2.9	53.7	50	9.5	2.06	11.60	34866	1263	1231	8.4	17.1
2404.0	4.0	60.0	50	9.5	2.02	11.85	35616	913	1226	8.4	17.1
2405.0	3.8	55.2	50	9.5	1.98	12.11	36405	957	1221	8.4	17.1
2406.0	6.7	57.7	50	9.5	1.80	12.26	36855	545	1211	8.4	17.1
2407.0	3.6	58.8	50	9.5	2.05	12.54	37699	1024	1208	8.4	17.1
2408.0	6.5	58.8	50	9.5	1.82	12.69	38159	558	1199	8.4	17.1
2409.0	5.1	58.9	50	9.5	1.92	12.89	38748	714	1192	8.4	17.1
2410.0	4.5	59.1	50	9.5	1.96	13.11	39412	803	1186	8.4	17.1
2411.0	4.6	59.0	50	9.5	1.95	13.32	40063	789	1180	8.4	17.1
2412.0	9.0	59.3	50	9.5	1.71	13.43	40397	405	1170	8.4	17.1
2413.0	5.2	58.9	50	9.5	1.91	13.63	40979	705	1163	8.4	17.1
2414.0	6.0	60.7	50	9.5	1.88	13.80	41483	611	1156	8.4	17.1
2415.0	3.7	60.2	50	9.5	2.05	14.07	42305	996	1154	8.4	17.1
2416.0	5.3	59.3	50	9.5	1.91	14.26	42876	693	1147	8.4	17.1
2417.0	5.0	60.0	50	9.5	1.93	14.46	43476	730	1142	8.4	17.1
2418.0	5.2	60.0	50	9.5	1.92	14.65	44053	702	1136	8.4	17.1
2419.0	4.6	60.0	50	9.5	1.97	14.87	44706	794	1132	8.4	17.1
2420.0	5.0	57.6	50	9.5	1.91	15.07	45308	730	1127	8.4	17.1
2421.0	3.7	62.5	50	9.5	2.07	15.33	46114	976	1125	8.4	17.1
2422.0	4.5	61.1	50	9.5	1.99	15.56	46779	805	1121	8.4	17.1
2423.0	6.2	59.6	50	9.5	1.85	15.72	47268	592	1115	8.4	17.1
2424.0	6.3	59.4	50	9.5	1.85	15.88	47749	583	1108	8.4	17.1
2425.0	6.0	60.0	50	9.5	1.87	16.04	48249	609	1102	8.4	17.1
2426.0	10.5	59.3	50	9.5	1.65	16.14	48535	346	1094	8.4	17.1
2427.0	8.8	60.1	50	9.5	1.72	16.25	48876	413	1086	8.4	17.1
2428.0	15.2	58.2	50	9.5	1.51	16.32	49074	240	1076	8.4	17.1
2429.0	21.6	59.0	50	9.5	1.39	16.36	49214	169	1066	8.4	17.1
2430.0	60.0	60.0	50	9.5	1.01	16.38	49264	61	1055	8.4	17.1

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2431.0	45.0	60.0	50	9.5	1.12	16.40	49331	81	1044	8.4	17.1
2432.0	25.0	60.0	50	9.5	1.34	16.44	49451	146	1034	8.4	17.1
2433.0	25.0	60.6	50	9.5	1.34	16.48	49571	146	1024	8.4	17.1
2434.0	29.0	58.1	50	9.5	1.27	16.52	49675	126	1015	8.4	17.1
2435.0	16.9	59.9	50	9.5	1.48	16.58	49854	216	1006	8.4	17.1
2436.0	3.5	60.3	50	9.5	2.07	16.86	50708	1035	1007	8.4	17.1
2437.0	3.2	60.9	50	9.5	2.12	17.18	51661	1156	1008	8.4	17.1
2438.0	3.3	60.3	50	9.5	2.09	17.48	52562	1094	1009	8.4	17.1
2439.0	3.2	60.0	50	9.5	2.10	17.79	53500	1141	1010	8.4	17.1
2440.0	3.6	59.9	50	9.5	2.06	18.07	54339	1018	1010	8.4	17.1
2441.0	4.0	60.2	50	9.5	2.02	18.32	55094	915	1010	8.4	17.1
2442.0	3.4	61.4	50	9.5	2.10	18.61	55989	1085	1010	8.4	17.1
2443.0	4.0	60.1	50	9.5	2.02	18.87	56746	918	1009	8.4	17.1
2444.0	3.5	60.2	50	9.5	2.07	19.15	57613	1051	1010	8.4	17.1
2445.0	5.2	60.8	50	9.5	1.93	19.35	58190	699	1007	8.4	17.1
2446.0	3.8	60.8	50	9.5	2.04	19.61	58973	950	1006	8.4	17.1
2447.0	7.1	60.1	50	9.5	1.81	19.75	59398	515	1002	8.4	17.1
2448.0	3.1	60.4	50	9.5	2.12	20.07	60368	1176	1003	8.4	17.1
2449.0	3.5	60.0	50	9.5	2.07	20.35	61225	1043	1004	8.4	17.1
2450.0	4.0	60.1	50	9.5	2.02	20.60	61971	905	1003	8.4	17.1
2451.0	4.4	61.3	50	9.5	2.00	20.83	62653	826	1001	8.4	17.1
2452.0	3.1	60.2	50	9.5	2.12	21.15	63628	1182	1003	8.4	17.1
2453.0	4.9	60.7	50	9.5	1.95	21.35	64239	741	1000	8.4	17.1
2454.0	3.2	61.2	50	9.5	2.11	21.66	65172	1131	1002	8.4	17.1
2455.0	4.2	60.4	50	9.5	2.00	21.90	65884	862	1000	8.4	17.1
2456.0	3.2	60.2	50	9.5	2.10	22.21	66818	1132	1001	8.4	17.1
2457.0	4.3	61.1	50	9.5	2.00	22.44	67513	842	1000	8.4	17.1
2458.0	3.7	60.2	50	9.5	2.05	22.71	68334	994	1000	8.4	17.1
2459.0	5.0	60.0	50	9.5	1.93	22.91	68934	730.40	997.80	8.4	17.1
2460.0	6.1	60.5	50	9.5	1.87	23.08	69429	601.06	994.48	8.4	17.1
2461.0	5.9	60.5	50	9.5	1.88	23.25	69941	620.50	991.38	8.4	17.1
2462.0	6.0	60.2	50	9.5	1.87	23.41	70444	609.68	988.24	8.4	17.1
2463.0	4.6	60.5	50	9.5	1.97	23.63	71092	786.19	986.59	8.4	17.1
2464.0	4.0	60.6	50	9.5	2.03	23.88	71855	924.16	986.08	8.4	17.1
2465.0	4.0	60.0	50	9.5	2.02	24.13	72605	913.00	985.50	8.4	17.1
2466.0	4.3	60.5	50	9.5	2.00	24.36	73302	846.05	984.38	8.4	17.1
2467.0	4.6	61.9	50	9.5	1.99	24.58	73956	793.30	982.87	8.4	17.1
2468.0	3.3	60.9	50	9.5	2.10	24.89	74869	1108	984	8.4	17.1
2469.0	4.4	60.5	50	9.5	1.99	25.11	75557	834.89	982.69	8.4	17.1
2470.0	6.2	60.3	50	9.5	1.86	25.27	76042	588.38	979.65	8.4	17.1
2471.0	4.0	60.4	50	9.5	2.02	25.52	76793	910.97	979.12	8.4	17.1
2472.0	7.3	60.2	50	9.5	1.80	25.66	77203	497.08	975.46	8.4	17.1
2473.0	15.9	59.9	50	9.5	1.50	25.72	77392	229.26	969.83	8.4	17.1
2474.0	3.7	59.4	50	9.5	2.04	26.00	78214	997.20	970.03	8.4	17.2
2475.0	4.2	60.5	50	9.5	2.00	26.23	78923	860.25	969.21	8.4	17.2
2476.0	3.7	60.5	50	9.5	2.05	26.50	79738	988.07	969.35	8.4	17.2
2477.0	5.0	60.0	50	9.5	1.93	26.70	80338	730.40	967.60	8.4	17.2
2478.0	6.2	60.6	50	9.5	1.86	26.86	80826	591.42	964.87	8.4	17.2
2479.0	4.2	60.3	50	9.5	2.01	27.10	81550	878.51	964.24	8.4	17.2
2480.0	4.0	60.0	50	9.5	2.02	27.35	82300	913.00	963.88	8.4	17.2

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2481.0	5.0	60.0	50	9.5	1.93	27.55	82900	730.40	962.21	8.4	17.2
2482.0	5.0	60.0	50	9.5	1.93	27.75	83500	730.40	960.58	8.4	17.2
2483.0	5.9	61.2	50	9.5	1.89	27.93	84014	623.88	958.21	8.4	17.2
2484.0	4.2	61.1	50	9.5	2.01	28.16	84725	861.26	957.54	8.4	17.2
2485.0	4.5	60.0	50	9.5	1.97	28.38	85391	811.56	956.53	8.4	17.2
2486.0	3.5	61.1	50	9.5	2.08	28.67	86251	1042	957	8.4	17.2
2487.0	6.9	60.7	50	9.5	1.83	28.81	86690	531.57	954.21	8.4	17.2
2488.0	11.5	58.5	50	9.5	1.61	28.90	86952	318.54	949.90	8.4	17.2
2489.0	8.7	60.4	50	9.5	1.73	29.02	87297	417.95	946.32	8.4	17.2
2490.0	3.6	61.0	50	9.5	2.07	29.29	88131	1010	947	8.4	17.2
2491.0	6.1	60.8	50	9.5	1.87	29.46	88623	595.48	944.41	8.4	17.2
2492.0	3.4	61.1	50	9.5	2.09	29.75	89498	1060	945	8.4	17.2
2493.0	3.5	61.3	50	9.5	2.09	30.03	90361	1047	946	8.4	17.2
2494.0	3.5	61.2	50	9.5	2.08	30.32	91218	1039	946	8.4	17.2
2495.0	8.1	61.0	50	9.5	1.77	30.44	91591	451.43	943.24	8.4	17.2
2496.0	6.2	60.3	50	9.5	1.86	30.60	92080	592.44	940.99	8.4	17.2
2497.0	4.1	60.3	50	9.5	2.01	30.85	92812	887.64	940.65	8.4	17.2
2498.0	6.1	61.8	50	9.5	1.88	31.01	93307	599.54	938.48	8.4	17.2
2499.0	4.9	61.6	50	9.5	1.96	31.22	93926	748.66	937.28	8.4	17.2
2500.0	4.2	61.2	50	9.5	2.01	31.45	94639	864.31	936.83	8.4	17.2
2501.0	3.5	61.8	50	9.5	2.09	31.74	95505	1050	938	8.4	17.2
2502.0	5.3	62.8	46	9.5	1.91	31.93	96020	687.79	935.98	8.4	17.2
2503.0	3.1	68.5	50	9.5	2.22	32.25	96995	1183	938	8.4	17.2
2504.0	3.0	60.0	50	9.5	2.12	32.59	97995	1217	939	8.4	17.2
2505.0	3.4	51.3	49	9.5	1.96	32.88	98865	1074	940	8.4	17.2
2506.0	4.1	55.1	50	9.5	1.96	33.13	99608	900.83	939.80	8.4	17.2
2507.0	3.0	60.0	50	9.5	2.12	33.46	100608	1217	941	8.4	17.2
2508.0	2.8	57.1	50	9.5	2.12	33.82	101695	1318	944	8.4	17.2
2509.0	2.0	57.1	50	9.4	2.25	34.32	103216	1843	949	8.4	17.2
2510.0	2.9	56.9	50	9.5	2.11	34.68	104272	1280	951	8.4	17.2
2511.0	4.0	60.0	50	9.5	2.02	34.93	105022	913.00	950.78	8.4	17.2
2512.0	4.0	56.9	50	9.4	1.99	35.17	105773	909.45	950.54	8.4	17.2
2513.0	4.2	57.0	50	9.4	1.97	35.41	106482	860.25	950.01	8.4	17.2
2514.0	2.5	56.9	50	9.4	2.16	35.81	107675	1446	953	8.4	17.2
2515.0	3.0	60.0	50	9.5	2.12	36.14	108675	1217	954	8.4	17.2
2516.0	4.7	56.2	50	9.5	1.93	36.35	109321	783.15	953.41	8.4	17.2
2517.0	4.2	58.0	50	9.4	1.99	36.59	110046	877.49	952.98	8.4	17.2
2518.0	4.8	58.4	50	9.4	1.95	36.80	110679	766.92	951.93	8.4	17.2
2519.0	4.5	60.1	50	9.4	1.99	37.03	111355	819.67	951.19	8.4	17.2
2520.0	3.0	60.0	50	9.5	2.12	37.36	112355	1217	953	8.4	17.2
2521.0	3.8	60.7	50	9.4	2.06	37.63	113150	962.71	952.73	8.4	17.2
2522.0	4.0	60.0	50	9.5	2.02	37.88	113900	913.00	952.51	8.4	17.2
2523.0	4.1	60.3	50	9.5	2.02	38.12	114634	889.16	952.16	8.4	17.2
2524.0	3.2	60.0	50	9.5	2.10	38.43	115571	1141	953	8.4	17.2
2525.0	3.6	59.6	50	9.5	2.06	38.71	116417	1025	954	8.4	17.2
2526.0	4.6	59.9	50	9.5	1.97	38.93	117071	792.28	952.71	8.4	17.2
2527.0	2.5	59.8	50	9.5	2.20	39.33	118274	1458	955	8.4	17.2
2528.0	3.5	60.3	50	9.5	2.08	39.62	119144	1055	956	8.4	17.2
2529.0	2.6	61.8	50	9.5	2.20	40.00	120286	1384	958	8.4	17.2
2530.0	3.8	60.0	50	9.5	2.04	40.26	121079	960.68	958.23	8.4	17.2

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2531.0	2.8	59.8	50	9.5	2.16	40.62	122159	1309	960	8.4	17.2
2532.0	8.8	60.0	50	9.5	1.73	40.73	122502	415.92	957.23	8.4	17.2
2533.0	2.3	60.0	50	9.5	2.24	41.17	123836	1616	961	8.4	17.2
2534.0	3.2	60.0	50	9.5	2.10	41.49	124773	1141	962	8.4	17.2
2535.0	3.3	60.1	50	9.5	2.10	41.79	125690	1111	962	8.4	17.2
2536.0	47.4	60.8	50	9.5	1.11	41.81	125754	77.10	957.83	8.4	17.2
2537.0	12.4	57.0	50	9.5	1.58	41.89	125997	295.20	954.46	8.4	17.2
2537.3	25.1	53.6	50	9.4	1.29	41.90	126033	145.40	953.22	8.4	17.2

BIT NUMBER	8	IADC CODE	617	INTERVAL	2537.3- 2735.9
HTC J44		SIZE	12.250	NOZZLES	16 16 16
COST	6919.00	TRIP TIME	8.0	BIT RUN	198.6
TOTAL HOURS	55.17	TOTAL TURNS	167594	CONDITION	T3 B4 G0.125

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2538.0	3.4	21.4	50	9.4	1.54	0.21	624	1085	52707	8.4	17.2
2539.0	12.0	50.0	50	9.5	1.51	0.29	874	304	21882	8.4	17.2
2540.0	16.0	50.0	50	9.5	1.41	0.35	1062	228	13862	8.4	17.2
2541.0	25.7	51.2	50	9.5	1.26	0.39	1178	142	10154	8.4	17.2
2542.0	4.0	53.0	50	9.6	1.92	0.65	1937	923	8190	8.4	17.2
2543.0	48.0	52.9	50	9.6	1.04	0.67	1999	76	6766	8.4	17.2
2544.0	20.0	48.3	50	9.6	1.31	0.72	2149	183	5784	8.4	17.2
2545.0	11.5	51.6	50	9.6	1.53	0.80	2410	317	5074	8.4	17.2
2546.0	3.9	53.2	50	9.5	1.94	1.06	3180	937	4598	8.4	17.2
2547.0	4.0	60.0	50	9.5	2.02	1.31	3930	913	4218	8.4	17.2
2548.0	5.1	61.2	50	9.5	1.94	1.51	4523	722	3892	8.4	17.2
2549.0	4.7	61.2	50	9.5	1.97	1.72	5168	785	3626	8.4	17.2
2550.0	2.5	58.5	50	9.5	2.16	2.12	6357	1448	3455	8.4	17.2
2551.0	5.0	60.0	50	9.5	1.93	2.32	6957	730	3256	8.4	17.2
2552.0	18.0	58.1	50	9.5	1.44	2.37	7124	203	3048	8.4	17.2
2553.0	4.2	58.3	50	9.5	1.97	2.61	7840	871	2909	8.4	17.2
2554.0	4.7	57.8	50	9.5	1.92	2.82	8473	771	2781	8.4	17.2
2555.0	6.9	58.6	50	9.5	1.79	2.97	8910	533	2654	8.4	17.2
2556.0	3.2	58.2	50	9.5	2.07	3.28	9844	1136	2573	8.4	17.2
2557.0	3.2	58.5	50	9.5	2.07	3.59	10786	1141	2500	8.4	17.2
2558.0	5.8	58.3	50	9.5	1.86	3.77	11305	629	2410	8.4	17.2
2559.0	6.7	58.4	50	9.5	1.81	3.92	11757	548	2324	8.4	17.2
2560.0	9.5	58.2	50	9.6	1.67	4.02	12075	385	2239	8.4	17.2
2561.0	4.8	58.5	50	9.6	1.92	4.23	12702	761	2176	8.4	17.2
2562.0	2.4	57.6	50	9.6	2.17	4.65	13957	1522	2150	8.4	17.2
2563.0	3.2	58.4	50	9.5	2.07	4.96	14892	1133	2110	8.4	17.2
2564.0	1.6	59.5	50	9.5	2.35	5.60	16832	2354	2119	8.4	17.2
2565.0	3.0	60.0	50	9.5	2.12	5.93	17832	1217	2087	8.4	17.3
2566.0	2.2	57.8	50	9.5	2.21	6.39	19205	1664	2072	8.4	17.3
2567.0	10.3	59.0	50	9.6	1.64	6.49	19498	355	2014	8.4	17.3
2568.0	0.8	59.3	50	9.5	2.61	7.77	23363	4687	2101	8.4	17.3
2569.0	15.0	58.2	50	9.6	1.50	7.84	23563	243	2043	8.4	17.3

BIT NUMBER	10	IADC CODE	517	INTERVAL	2921.1- 3168.9
HTC J22		SIZE	12.250	NOZZLES	16 16 16
COST	8266.00	TRIP TIME	8.7	BIT RUN	247.8
TOTAL HOURS	54.61	TOTAL TURNS	164197	CONDITION	T0 B0 G0.000

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2922.0	3.6	22.8	58	9.5	1.57	0.25	865	1007	45494	8.5	17.6
2923.0	4.3	32.8	66	9.5	1.73	0.48	1799	858	22001	8.5	17.6
2924.0	8.3	45.1	59	9.5	1.65	0.60	2232	442	14567	8.5	17.6
2925.0	4.9	53.8	56	9.5	1.91	0.81	2926	749	11024	8.5	17.6
2926.0	3.8	58.8	52	9.5	2.04	1.07	3746	954	8969	8.5	17.6
2927.0	3.8	62.9	53	9.5	2.10	1.34	4588	970	7613	8.5	17.6
2928.0	7.8	59.3	53	9.5	1.78	1.46	4992	468	6578	8.5	17.6
2929.0	7.4	59.6	53	9.5	1.80	1.60	5416	492	5807	8.5	17.6
2930.0	6.5	62.6	52	9.5	1.88	1.75	5901	564	5218	8.5	17.6
2931.0	7.3	60.8	54	9.5	1.83	1.89	6343	497	4741	8.5	17.6
2932.0	4.8	59.1	54	9.5	1.97	2.10	7016	764	4376	8.5	17.6
2933.0	4.4	59.0	53	9.5	1.99	2.32	7738	822	4078	8.5	17.6
2934.0	4.1	59.2	53	9.5	2.02	2.57	8520	894	3831	8.5	17.6
2935.0	4.0	59.1	52	9.5	2.03	2.82	9312	919	3621	8.5	17.6
2936.0	5.2	58.7	51	9.5	1.92	3.01	9909	706	3426	8.5	17.6
2937.0	5.2	58.6	52	9.5	1.91	3.20	10502	698	3254	8.5	17.6
2938.0	4.5	58.6	52	9.5	1.97	3.43	11187	809	3109	8.5	17.6
2939.0	4.1	59.7	52	9.5	2.01	3.67	11935	883	2985	8.5	17.6
2940.0	4.3	58.9	50	9.5	1.97	3.90	12625	843	2872	8.5	17.6
2941.0	3.6	58.8	51	9.5	2.05	4.17	13474	1006	2778	8.5	17.7
2942.0	3.4	57.8	55	9.5	2.09	4.47	14443	1073	2696	8.5	17.7
2943.0	4.3	58.7	54	9.5	2.00	4.70	15196	845	2612	8.5	17.7
2944.0	6.5	57.9	58	9.5	1.87	4.85	15727	561	2522	8.5	17.7
2945.0	4.9	57.7	49	9.5	1.91	5.06	16337	752	2448	8.5	17.7
2946.0	3.1	58.6	46	9.5	2.06	5.38	17214	1169	2397	8.5	17.7
2947.0	11.7	57.0	49	9.5	1.59	5.46	17468	311	2316	8.5	17.7
2948.0	14.0	56.5	49	9.6	1.50	5.54	17679	261	2240	8.5	17.7
2949.0	22.4	42.3	42	9.6	1.16	5.58	17791	163	2165	8.5	17.7
2950.0	28.8	40.5	42	9.6	1.07	5.61	17880	127	2095	8.5	17.7
2951.0	18.5	45.0	45	9.6	1.27	5.67	18025	198	2031	8.5	17.7
2952.0	25.0	55.4	45	9.5	1.25	5.71	18133	146	1970	8.5	17.7
2953.0	5.9	59.8	45	9.5	1.83	5.88	18592	618	1928	8.5	17.7
2954.0	5.8	59.3	46	9.5	1.85	6.05	19074	633	1889	8.5	17.7
2955.0	4.8	59.7	46	9.5	1.92	6.26	19654	765	1856	8.5	17.7
2956.0	4.3	58.5	46	9.5	1.95	6.49	20301	851	1827	8.5	17.7
2957.0	7.2	57.3	46	9.5	1.75	6.63	20689	510	1790	8.5	17.7
2958.0	4.4	57.8	45	9.5	1.91	6.86	21306	836	1764	8.5	17.7
2959.0	3.9	59.9	43	9.5	1.96	7.12	21972	935	1742	8.5	17.7
2960.0	5.0	59.1	43	9.5	1.87	7.32	22495	732	1716	8.5	17.7
2961.0	4.5	59.9	44	9.5	1.92	7.54	23083	812	1694	8.5	17.7
2962.0	3.9	59.4	44	9.5	1.96	7.79	23749	926	1675	8.5	17.7
2963.0	3.8	60.3	44	9.5	1.99	8.06	24449	967	1658	8.5	17.7
2964.0	2.9	59.8	45	9.5	2.08	8.40	25356	1240	1648	8.5	17.7

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2965.0	5.1	58.9	44	9.6	1.86	8.60	25882	719	1627	8.5	17.7
2966.0	4.8	58.6	45	9.5	1.88	8.81	26442	765	1608	8.5	17.7
2967.0	2.6	59.6	45	9.5	2.13	9.20	27484	1423	1604	8.5	17.7
2968.0	4.5	59.6	46	9.5	1.94	9.42	28097	812	1587	8.5	17.7
2969.0	5.6	55.2	50	9.5	1.84	9.60	28641	657	1568	8.5	17.7
2970.0	4.7	56.1	50	9.5	1.91	9.81	29279	770	1551	8.5	17.7
2971.0	6.0	60.2	50	9.5	1.86	9.97	29783	610	1532	8.5	17.7
2972.0	4.7	58.1	50	9.6	1.93	10.19	30432	782	1518	8.5	17.7
2973.0	4.8	56.4	51	9.6	1.90	10.40	31066	764	1503	8.5	17.7
2974.0	4.7	55.5	51	9.6	1.89	10.61	31707	770	1489	8.5	17.7
2975.0	6.6	54.0	51	9.6	1.76	10.76	32168	556	1472	8.5	17.7
2976.0	4.8	56.8	51	9.5	1.91	10.97	32801	762	1459	8.5	17.7
2977.0	5.9	55.7	51	9.5	1.82	11.14	33315	616	1444	8.5	17.7
2978.0	7.7	56.1	48	9.5	1.72	11.27	33693	476	1427	8.5	17.7
2979.0	6.3	53.9	47	9.6	1.75	11.43	34140	583	1412	8.5	17.7
2980.0	5.0	55.3	48	9.6	1.85	11.63	34709	723	1401	8.5	17.7
2981.0	3.1	55.8	48	9.5	2.03	11.95	35625	1167	1397	8.5	17.7
2982.0	3.7	54.2	48	9.5	1.96	12.22	36411	994	1390	8.5	17.7
2983.0	3.9	54.9	49	9.6	1.94	12.47	37161	937	1383	8.5	17.7
2984.0	4.9	55.2	49	9.6	1.86	12.68	37758	749	1373	8.5	17.7
2985.0	5.8	56.0	49	9.6	1.82	12.85	38267	632	1361	8.5	17.7
2986.0	5.4	57.2	49	9.6	1.85	13.04	38804	671	1351	8.5	17.7
2987.0	3.1	57.8	49	9.6	2.06	13.36	39744	1173	1348	8.5	17.7
2988.0	8.8	55.8	46	9.6	1.64	13.47	40056	413	1334	8.5	17.7
2989.0	4.9	57.5	47	9.6	1.88	13.68	40631	748	1325	8.5	17.7
2990.0	3.5	57.8	47	9.5	2.01	13.96	41432	1043	1321	8.5	17.7
2991.0	2.7	58.3	47	9.6	2.10	14.33	42456	1333	1321	8.5	17.7
2992.0	2.9	58.4	48	9.5	2.10	14.67	43462	1273	1321	8.5	17.7
2993.0	2.7	58.2	52	9.5	2.15	15.05	44623	1368	1321	8.5	17.7
2994.0	4.9	58.1	53	9.5	1.94	15.25	45278	750	1313	8.5	17.7
2995.0	4.0	57.9	52	9.5	2.01	15.51	46065	921	1308	8.5	17.7
2996.0	3.7	58.0	52	9.5	2.04	15.78	46922	998	1304	8.5	17.7
2997.0	4.9	57.9	52	9.5	1.93	15.98	47562	743	1297	8.5	17.7
2998.0	7.6	60.8	52	9.5	1.80	16.12	47973	483	1286	8.5	17.7
2999.0	5.4	61.8	50	9.5	1.92	16.30	48537	680	1278	8.5	17.7
3000.0	3.3	58.4	51	9.6	2.06	16.60	49459	1097	1276	8.5	17.7
3001.0	3.9	58.3	52	9.6	2.00	16.86	50254	934	1272	8.5	17.7
3002.0	3.5	58.7	52	9.6	2.05	17.15	51145	1050	1269	8.5	17.7
3003.0	4.0	58.7	52	9.6	2.00	17.40	51925	919	1265	8.5	17.7
3004.0	4.1	58.5	52	9.6	1.98	17.64	52676	887	1260	8.5	17.7
3005.0	4.4	58.6	51	9.6	1.96	17.87	53384	837	1255	8.5	17.7
3006.0	3.3	58.8	52	9.6	2.07	18.17	54326	1112	1253	8.5	17.7
3007.0	2.7	58.3	51	9.6	2.12	18.54	55445	1347	1254	8.5	17.7
3008.0	3.5	53.4	51	9.6	1.97	18.83	56317	1033	1252	8.5	17.7
3009.0	3.9	54.9	51	9.6	1.96	19.08	57113	947	1248	8.5	17.7
3010.0	3.8	58.3	51	9.6	2.01	19.35	57921	964	1245	8.5	17.7
3011.0	7.0	58.1	51	9.6	1.78	19.49	58355	519	1237	8.5	17.7
3012.0	3.5	58.4	50	9.6	2.04	19.78	59220	1045	1235	8.5	17.7
3013.0	4.0	58.7	50	9.6	1.99	20.03	59970	909	1231	8.5	17.7
3014.0	3.4	58.4	50	9.6	2.05	20.32	60867	1085	1230	8.5	17.7

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2570.0	2.5	59.4	50	9.6	2.18	8.24	24779	1474	2025	8.4	17.3
2571.0	3.7	58.7	50	9.6	2.02	8.51	25599	994	1995	8.4	17.3
2572.0	5.0	60.0	50	9.5	1.93	8.71	26199	730	1958	8.4	17.3
2573.0	4.8	60.0	50	9.5	1.95	8.92	26824	761	1925	8.4	17.3
2574.0	5.0	59.1	50	9.5	1.92	9.12	27422	725	1892	8.4	17.3
2575.0	3.0	59.9	50	9.5	2.12	9.45	28428	1217	1874	8.4	17.3
2576.0	3.3	59.5	50	9.5	2.07	9.75	29331	1096	1854	8.4	17.3
2577.0	2.8	59.5	50	9.5	2.14	10.11	30401	1300	1840	8.4	17.3
2578.0	8.9	58.9	50	9.5	1.70	10.22	30739	410	1805	8.4	17.3
2579.0	7.2	59.1	50	9.5	1.79	10.36	31159	509	1774	8.4	17.3
2580.0	11.0	59.1	50	9.5	1.63	10.45	31432	332	1740	8.4	17.3
2581.0	12.0	60.0	50	9.5	1.61	10.54	31682	304	1707	8.4	17.3
2582.0	12.8	58.9	50	9.5	1.57	10.61	31918	286	1676	8.4	17.3
2583.0	15.4	58.1	50	9.5	1.50	10.68	32113	237	1644	8.4	17.3
2584.0	15.7	58.5	50	9.5	1.49	10.74	32306	233	1614	8.4	17.3
2585.0	15.0	60.0	50	9.5	1.53	10.81	32506	243	1585	8.4	17.3
2586.0	12.2	58.9	50	9.5	1.59	10.89	32752	299	1559	8.4	17.3
2587.0	4.5	59.9	50	9.5	1.97	11.11	33422	813	1544	8.4	17.3
2588.0	3.3	59.6	50	9.5	2.08	11.42	34336	1109	1535	8.4	17.3
2589.0	3.7	59.8	50	9.5	2.04	11.69	35153	992	1525	8.4	17.3
2590.0	2.7	59.8	50	9.5	2.16	12.06	36281	1370	1522	8.4	17.3
2591.0	2.9	59.8	50	9.5	2.13	12.41	37334	1278	1517	8.4	17.3
2592.0	2.7	60.0	50	9.5	2.15	12.78	38443	1353	1514	8.4	17.3
2593.0	3.7	59.4	50	9.5	2.03	13.05	39250	985	1505	8.4	17.3
2594.0	2.9	66.2	50	9.5	2.20	13.40	40276	1254	1500	8.4	17.3
2595.0	2.3	65.9	50	9.6	2.28	13.83	41570	1579	1502	8.4	17.3
2596.0	8.4	61.9	50	9.5	1.75	13.95	41927	436	1483	8.4	17.3
2597.0	9.0	60.8	50	9.5	1.72	14.06	42261	407	1465	8.4	17.3
2598.0	12.5	68.7	50	9.5	1.67	14.14	42501	293	1446	8.4	17.3
2599.0	14.1	65.7	50	9.5	1.59	14.21	42713	259	1427	8.4	17.3
2600.0	19.5	64.9	50	9.5	1.47	14.26	42867	188	1407	8.4	17.3
2601.0	2.5	67.7	50	9.5	2.28	14.66	44065	1460	1408	8.4	17.3
2602.0	4.9	66.3	50	9.5	2.00	14.87	44670	739	1398	8.4	17.3
2603.0	2.9	71.9	50	9.5	2.28	15.21	45712	1271	1396	8.4	17.3
2604.0	5.3	56.8	50	9.5	1.87	15.40	46273	684	1385	8.4	17.3
2605.0	7.9	58.4	50	9.5	1.74	15.53	46652	462	1371	8.4	17.3
2606.0	3.9	59.1	50	9.5	2.01	15.78	47413	928	1365	8.4	17.3
2607.0	2.2	59.1	50	9.5	2.22	16.24	48776	1662	1369	8.4	17.3
2608.0	4.7	58.9	50	9.5	1.94	16.45	49418	782	1361	8.4	17.3
2609.0	6.1	58.8	50	9.5	1.84	16.61	49908	599	1350	8.4	17.3
2610.0	10.3	58.6	50	9.5	1.64	16.71	50198	353	1336	8.4	17.3
2611.0	7.5	58.7	50	9.5	1.76	16.84	50598	488	1325	8.4	17.3
2612.0	14.1	58.8	50	9.5	1.53	16.92	50810	259	1311	8.4	17.3
2613.0	9.7	59.0	50	9.5	1.67	17.02	51119	377	1298	8.4	17.3
2614.0	18.4	58.8	50	9.5	1.44	17.07	51282	199	1284	8.4	17.3
2615.0	15.0	60.0	50	9.5	1.53	17.14	51482	243	1271	8.4	17.3
2616.0	13.6	57.6	50	9.5	1.53	17.21	51703	269	1258	8.4	17.3
2617.0	2.1	63.3	50	9.4	2.31	17.69	53130	1740	1264	8.4	17.3
2618.0	3.6	61.7	50	9.4	2.09	17.97	53972	1027	1261	8.4	17.3
2619.0	2.3	63.1	50	9.4	2.28	18.41	55290	1608	1265	8.4	17.3

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2620.0	4.4	61.1	50	9.4	2.00	18.64	55967	826	1260	8.4	17.3
2621.0	2.2	61.2	50	9.4	2.27	19.09	57311	1638	1264	8.4	17.3
2622.0	5.4	61.8	50	9.4	1.94	19.27	57862	672	1257	8.4	17.3
2623.0	2.6	61.7	50	9.5	2.20	19.65	59016	1405	1259	8.4	17.3
2624.0	4.2	60.0	50	9.5	2.00	19.89	59730	870	1255	8.4	17.3
2625.0	3.5	60.0	50	9.5	2.07	20.18	60587	1043	1252	8.4	17.3
2626.0	3.5	60.0	50	9.6	2.04	20.46	61440	1039	1250	8.4	17.3
2627.0	4.3	59.6	50	9.6	1.96	20.70	62137	850	1245	8.4	17.3
2628.0	17.8	59.1	50	9.6	1.44	20.75	62305	205	1234	8.4	17.3
2629.0	13.0	59.2	50	9.6	1.55	20.83	62536	281	1224	8.4	17.3
2630.0	7.8	59.6	50	9.6	1.74	20.96	62921	470	1215	8.4	17.3
2631.0	10.2	58.5	50	9.6	1.63	21.05	63214	357	1206	8.4	17.3
2632.0	18.3	58.7	50	9.6	1.43	21.11	63379	200	1196	8.4	17.3
2633.0	5.4	59.7	50	9.6	1.88	21.29	63932	674	1190	8.4	17.3
2634.0	3.4	59.5	50	9.6	2.04	21.59	64809	1067	1189	8.4	17.3
2635.0	2.6	59.4	50	9.6	2.14	21.96	65942	1381	1191	8.4	17.3
2636.0	4.4	59.3	50	9.6	1.95	22.19	66631	839	1187	8.4	17.3
2637.0	3.0	59.1	50	9.6	2.09	22.53	67637	1224	1188	8.4	17.3
2638.0	3.0	60.0	50	9.5	2.12	22.86	68637	1217	1188	8.4	17.3
2639.0	3.9	59.4	50	9.5	2.02	23.12	69415	947	1186	8.4	17.3
2640.0	4.7	59.3	50	9.5	1.94	23.33	70051	775	1182	8.4	17.3
2641.0	2.5	58.9	50	9.5	2.17	23.73	71254	1464	1184	8.4	17.3
2642.0	4.4	57.7	50	9.5	1.95	23.96	71937	832	1181	8.4	17.3
2643.0	2.7	57.5	50	9.5	2.13	24.33	73043	1346	1183	8.4	17.3
2644.0	4.1	57.2	50	9.5	1.97	24.58	73783	901	1180	8.4	17.3
2645.0	2.7	57.3	50	9.5	2.12	24.95	74886	1343	1181	8.4	17.3
2646.0	3.5	59.8	50	9.5	2.07	25.23	75753	1055	1180	8.4	17.3
2647.0	2.3	58.5	50	9.5	2.20	25.67	77067	1599	1184	8.4	17.3
2648.0	2.8	57.6	50	9.5	2.11	26.03	78129	1292	1185	8.4	17.3
2649.0	4.5	57.4	50	9.5	1.94	26.25	78799	814	1182	8.4	17.3
2650.0	6.2	57.4	50	9.5	1.83	26.41	79284	590	1176	8.4	17.3
2651.0	3.2	52.5	50	9.5	2.01	26.73	80235	1156	1176	8.4	17.3
2652.0	3.4	51.5	50	9.5	1.97	27.02	81123	1079	1175	8.4	17.3
2653.0	2.2	54.2	50	9.5	2.15	27.47	82462	1628	1179	8.4	17.3
2654.0	3.4	51.6	50	9.5	1.97	27.76	83337	1064	1178	8.4	17.3
2655.0	2.1	52.0	50	9.5	2.15	28.24	84779	1752	1183	8.4	17.3
2656.0	2.5	54.9	50	9.5	2.13	28.64	85980	1461	1186	8.4	17.3
2657.0	2.4	57.5	50	9.5	2.17	29.05	87222	1509	1188	8.4	17.4
2658.0	2.4	60.0	50	9.5	2.21	29.47	88472	1522	1191	8.4	17.4
2659.0	2.5	57.5	50	9.5	2.16	29.87	89664	1449	1193	8.4	17.4
2660.0	3.9	56.7	50	9.5	1.99	30.13	90442	945	1191	8.4	17.4
2661.0	7.4	53.9	50	9.5	1.72	30.26	90849	494	1186	8.4	17.4
2662.0	2.3	52.1	50	9.5	2.11	30.70	92164	1597	1189	8.4	17.4
2663.0	3.4	52.1	50	9.5	1.97	30.99	93040	1065	1188	8.4	17.4
2664.0	2.9	52.1	50	9.5	2.03	31.34	94090	1275	1189	8.4	17.4
2665.0	4.4	52.0	50	9.6	1.88	31.57	94776	833	1186	8.4	17.4
2666.0	2.0	58.1	50	9.6	2.23	32.06	96265	1810	1191	8.4	17.4
2667.0	4.1	59.2	50	9.6	1.98	32.30	96990	881	1188	8.4	17.4
2668.0	3.3	59.5	50	9.6	2.07	32.61	97913	1121	1188	8.4	17.4
2669.0	2.3	59.8	50	9.6	2.20	33.04	99207	1571	1191	8.4	17.4

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2670.0	2.2	59.7	50	9.6	2.22	33.49	100549	1631	1194	8.4	17.4
2671.0	2.9	60.2	50	9.6	2.13	33.84	101599	1275	1195	8.4	17.4
2672.0	4.3	62.7	50	9.6	2.01	34.07	102297	848	1192	8.4	17.4
2673.0	2.0	61.4	50	9.6	2.29	34.58	103836	1869	1197	8.4	17.4
2674.0	2.4	59.4	50	9.6	2.18	35.00	105085	1518	1199	8.4	17.4
2675.0	2.5	59.3	50	9.6	2.17	35.39	106283	1456	1201	8.4	17.4
2676.0	3.9	59.7	50	9.6	2.01	35.65	107060	943	1199	8.4	17.4
2677.0	0.7	59.8	50	9.6	2.67	37.17	111622	5539	1230	8.4	17.4
2678.0	3.1	59.8	50	9.6	2.09	37.49	112579	1163	1230	8.4	17.4
2679.0	2.8	61.1	50	9.6	2.15	37.84	113644	1292	1230	8.4	17.4
2680.0	4.2	60.9	50	9.6	2.00	38.08	114365	875	1228	8.4	17.4
2681.0	4.1	62.8	50	9.6	2.02	38.32	115093	885	1225	8.4	17.4
2682.0	3.7	62.9	50	9.6	2.06	38.59	115899	978	1224	8.4	17.4
2683.0	2.6	63.1	50	9.6	2.20	38.97	117051	1399	1225	8.4	17.4
2684.0	2.9	63.4	50	9.6	2.16	39.32	118088	1259	1225	8.4	17.4
2685.0	1.7	63.3	50	9.6	2.36	39.90	119835	2120	1231	8.4	17.4
2686.0	3.0	63.1	50	9.5	2.16	40.23	120826	1203	1231	8.4	17.4
2687.0	1.9	63.0	50	9.5	2.33	40.75	122404	1916	1236	8.4	17.4
2688.0	2.7	63.3	50	9.5	2.21	41.13	123532	1366	1236	8.4	17.4
2689.0	1.4	63.7	50	9.5	2.44	41.82	125615	2525	1245	8.4	17.4
2690.0	3.0	60.0	50	9.5	2.12	42.15	126615	1217	1245	8.4	17.4
2691.0	2.0	60.0	50	9.5	2.28	42.65	128115	1826	1249	8.4	17.4
2692.0	2.0	63.4	50	9.5	2.33	43.16	129637	1844	1252	8.4	17.4
2693.0	1.9	60.9	50	9.5	2.30	43.67	131191	1885	1256	8.4	17.4
2694.0	4.1	62.0	50	9.5	2.03	43.92	131932	899	1254	8.4	17.4
2695.0	5.6	61.9	50	9.5	1.91	44.10	132474	657	1250	8.4	17.4
2696.0	10.1	61.0	50	9.5	1.68	44.20	132771	361	1245	8.4	17.4
2697.0	8.5	58.9	50	9.5	1.73	44.32	133126	430	1240	8.4	17.4
2698.0	15.0	58.8	50	9.5	1.51	44.38	133327	243	1234	8.4	17.4
2699.0	12.5	55.0	50	9.5	1.55	44.46	133568	292	1228	8.4	17.4
2700.0	15.1	54.0	50	9.5	1.47	44.53	133768	243	1222	8.4	17.4
2701.0	14.3	57.5	50	9.5	1.52	44.60	133978	255	1216	8.4	17.4
2702.0	29.5	57.5	50	9.5	1.26	44.63	134080	124	1209	8.4	17.4
2703.0	7.4	58.3	50	9.5	1.77	44.77	134486	492	1205	8.4	17.4
2704.0	7.0	60.0	50	9.5	1.81	44.91	134914	522	1201	8.4	17.4
2705.0	8.8	58.8	50	9.5	1.71	45.03	135258	416	1196	8.4	17.4
2706.0	5.2	60.4	50	9.5	1.92	45.22	135833	697	1193	8.4	17.4
2707.0	2.4	60.3	50	9.5	2.21	45.63	137071	1502	1195	8.4	17.4
2708.0	3.5	60.3	50	9.5	2.07	45.91	137934	1047	1194	8.4	17.4
2709.0	2.9	60.9	50	9.5	2.15	46.26	138983	1272	1194	8.4	17.4
2710.0	2.7	61.5	50	9.5	2.18	46.64	140106	1362	1195	8.4	17.4
2711.0	3.2	60.5	50	9.5	2.10	46.95	141044	1138	1195	8.4	17.4
2712.0	7.9	60.0	50	9.5	1.76	47.07	141427	464	1191	8.4	17.4
2713.0	2.5	60.9	50	9.5	2.19	47.47	142611	1436	1192	8.4	17.4
2714.0	2.4	59.9	50	9.5	2.21	47.89	143883	1543	1194	8.4	17.4
2715.0	1.7	59.8	50	9.5	2.32	48.46	145610	2094	1199	8.4	17.4
2716.0	3.0	60.0	50	9.5	2.12	48.80	146610	1217	1199	8.4	17.4
2717.0	2.6	58.1	50	9.5	2.15	49.18	147760	1394	1201	8.4	17.4
2718.0	3.3	57.8	50	9.5	2.07	49.48	148677	1112	1200	8.4	17.4
2719.0	4.8	58.2	50	9.5	1.93	49.69	149298	754	1198	8.4	17.4

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2720.0	1.9	58.4	50	9.5	2.27	50.21	150868	1903	1201	8.4	17.4
2721.0	3.4	58.1	50	9.5	2.06	50.50	151744	1062	1201	8.4	17.4
2722.0	2.5	58.3	50	9.5	2.17	50.90	152939	1449	1202	8.4	17.4
2723.0	2.8	58.4	50	9.5	2.12	51.25	154002	1289	1202	8.4	17.4
2724.0	1.8	58.3	50	9.5	2.30	51.81	155685	2042	1207	8.4	17.4
2725.0	3.1	58.4	50	9.5	2.09	52.13	156640	1160	1207	8.4	17.4
2726.0	3.2	58.6	59	9.5	2.14	52.44	157727	1128	1206	8.4	17.4
2727.0	2.8	58.2	60	9.5	2.20	52.80	159025	1315	1207	8.4	17.4
2728.0	2.8	61.6	60	9.5	2.23	53.15	160297	1288	1207	8.4	17.4
2729.0	7.7	62.6	60	9.5	1.87	53.28	160767	477	1204	8.4	17.4
2730.0	5.5	63.6	60	9.5	2.00	53.46	161421	661	1201	8.4	17.4
2731.0	4.1	62.5	60	9.5	2.10	53.70	162297	887	1199	8.4	17.4
2732.0	2.9	62.2	60	9.5	2.23	54.05	163547	1266	1199	8.4	17.4
2733.0	4.5	62.2	60	9.5	2.07	54.27	164350	814	1197	8.4	17.4
2734.0	3.2	62.0	60	9.5	2.18	54.58	165465	1129	1197	8.4	17.4
2735.0	4.7	62.5	60	9.6	2.05	54.80	166236	781	1195	8.4	17.4
2735.9	2.4	62.3	60	9.5	2.30	55.17	167594	1528	1197	8.4	17.4

BIT NUMBER	9	IADC CODE	537	INTERVAL	2735.9- 2921.1
HTC J33		SIZE	12.250	NOZZLES	16 16 16
COST	8266.00	TRIP TIME	8.5	BIT RUN	185.2
TOTAL HOURS	43.20	TOTAL TURNS	129459	CONDITION	T0 B0 G0.000

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2738.0	3.1	57.5	47	9.4	2.07	0.68	1920	1187	19905	8.5	17.4
2739.0	2.3	58.0	50	9.5	2.19	1.12	3218	1580	13994	8.5	17.4
2740.0	6.6	60.4	50	9.5	1.83	1.27	3674	555	10716	8.5	17.4
2741.0	4.8	61.2	50	9.5	1.96	1.48	4304	767	8765	8.5	17.4
2742.0	4.9	63.2	50	9.5	1.98	1.68	4914	743	7450	8.5	17.4
2743.0	4.3	62.2	50	9.4	2.03	1.92	5619	858	6522	8.5	17.4
2744.0	6.1	59.9	50	9.4	1.88	2.08	6113	601	5791	8.5	17.4
2745.0	2.5	59.5	50	9.4	2.20	2.48	7307	1454	5314	8.5	17.4
2746.0	8.2	59.5	50	9.4	1.76	2.60	7672	444	4832	8.5	17.5
2747.0	4.8	61.2	50	9.5	1.97	2.81	8292	755	4465	8.5	17.5
2748.0	3.2	58.9	50	9.5	2.09	3.12	9230	1142	4190	8.5	17.5
2749.0	3.7	58.7	50	9.5	2.03	3.39	10041	987	3946	8.5	17.5
2750.0	3.8	58.2	50	9.5	2.02	3.65	10833	964	3734	8.5	17.5
2751.0	5.4	57.4	50	9.5	1.88	3.84	11386	674	3531	8.5	17.5
2752.0	3.1	58.3	50	9.5	2.09	4.16	12342	1164	3384	8.5	17.5
2753.0	5.3	58.1	50	9.5	1.90	4.35	12913	695	3227	8.5	17.5
2754.0	2.9	55.6	50	9.5	2.07	4.69	13930	1239	3117	8.5	17.5
2755.0	29.3	54.4	50	9.5	1.24	4.72	14033	125	2960	8.5	17.5
2756.0	9.9	54.2	50	9.5	1.63	4.82	14336	369	2832	8.5	17.5
2757.0	15.7	52.3	50	9.5	1.44	4.88	14527	232	2708	8.5	17.5
2758.0	9.5	57.4	50	9.5	1.67	4.99	14843	384	2603	8.5	17.5
2759.0	3.6	55.1	50	9.5	2.00	5.26	15665	1001	2534	8.5	17.5
2760.0	6.2	54.8	50	9.5	1.80	5.42	16147	586	2453	8.5	17.5
2761.0	10.7	54.8	50	9.5	1.61	5.52	16428	342	2369	8.5	17.5
2762.0	10.3	54.5	50	9.5	1.62	5.62	16720	355	2292	8.5	17.5
2763.0	19.5	54.2	50	9.5	1.39	5.67	16874	188	2214	8.5	17.5
2764.0	14.9	53.9	50	9.5	1.48	5.73	17075	245	2144	8.5	17.5
2765.0	21.1	54.0	50	9.5	1.35	5.78	17218	173	2076	8.5	17.5
2766.0	8.6	55.8	50	9.5	1.69	5.90	17567	425	2022	8.5	17.5
2767.0	12.1	57.2	50	9.5	1.58	5.98	17815	301	1966	8.5	17.5
2768.0	8.0	60.0	50	9.5	1.76	6.11	18190	457	1919	8.5	17.5
2769.0	7.6	54.7	50	9.5	1.72	6.24	18583	479	1876	8.5	17.5
2770.0	6.0	55.0	50	9.5	1.81	6.40	19080	606	1838	8.5	17.5
2771.0	15.3	54.8	50	9.5	1.48	6.47	19277	239	1793	8.5	17.5
2772.0	3.5	55.6	50	9.5	2.02	6.76	20143	1054	1772	8.5	17.5
2773.0	3.9	55.4	50	9.5	1.97	7.01	20911	935	1750	8.5	17.5
2774.0	6.9	55.1	50	9.5	1.76	7.16	21348	532	1718	8.5	17.5
2775.0	6.2	55.5	50	9.5	1.80	7.32	21830	587	1689	8.5	17.5
2776.0	9.8	53.5	50	9.5	1.62	7.42	22138	374	1656	8.5	17.5
2777.0	12.3	57.4	50	9.5	1.58	7.50	22382	297	1623	8.5	17.5
2778.0	8.3	52.4	50	9.5	1.67	7.62	22745	442	1595	8.5	17.5
2779.0	10.1	55.4	50	9.5	1.62	7.72	23041	360	1566	8.5	17.5
2780.0	8.1	55.5	50	9.5	1.71	7.85	23412	451	1541	8.5	17.5

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2781.0	7.1	55.9	50	9.5	1.76	7.99	23832	511	1518	8.5	17.5
2782.0	5.2	55.7	50	9.5	1.87	8.18	24410	703	1501	8.5	17.5
2783.0	6.5	55.6	50	9.5	1.79	8.33	24870	560	1481	8.5	17.5
2784.0	5.3	55.6	50	9.5	1.86	8.52	25438	692	1464	8.5	17.5
2785.0	12.7	53.8	50	9.5	1.53	8.60	25674	287	1440	8.5	17.5
2786.0	13.9	54.6	50	9.5	1.51	8.67	25890	263	1417	8.5	17.5
2787.0	11.5	55.2	50	9.5	1.58	8.76	26150	317	1395	8.5	17.5
2788.0	7.9	55.6	50	9.5	1.71	8.89	26528	461	1377	8.5	17.5
2789.0	10.7	55.1	50	9.5	1.60	8.98	26810	343	1358	8.5	17.5
2790.0	11.2	55.4	50	9.5	1.59	9.07	27078	327	1339	8.5	17.5
2791.0	7.9	55.5	50	9.5	1.71	9.19	27457	462	1323	8.5	17.5
2792.0	14.8	55.3	50	9.5	1.48	9.26	27660	248	1304	8.5	17.5
2793.0	12.6	55.0	50	9.6	1.53	9.34	27898	289	1286	8.5	17.5
2794.0	7.5	55.6	50	9.5	1.73	9.47	28295	484	1272	8.5	17.5
2795.0	15.3	55.3	50	9.5	1.47	9.54	28492	239	1255	8.5	17.5
2796.0	2.9	55.8	50	9.5	2.07	9.88	29520	1252	1255	8.5	17.5
2797.0	5.0	55.7	50	9.5	1.88	10.08	30125	736	1246	8.5	17.5
2798.0	6.9	55.4	50	9.5	1.76	10.23	30559	528	1235	8.5	17.5
2799.0	5.8	55.7	50	9.6	1.82	10.40	31080	635	1225	8.5	17.5
2800.0	3.6	55.5	50	9.6	1.98	10.68	31905	1004	1222	8.5	17.5
2801.0	5.7	55.5	50	9.6	1.82	10.85	32434	643	1213	8.5	17.5
2802.0	3.2	60.1	50	9.5	2.09	11.16	33365	1133	1211	8.5	17.5
2803.0	9.2	55.2	50	9.6	1.65	11.27	33690	397	1199	8.5	17.5
2804.0	5.6	56.6	50	9.6	1.84	11.45	34228	654	1191	8.5	17.5
2805.0	11.3	57.7	50	9.5	1.61	11.54	34493	323	1179	8.5	17.5
2806.0	7.6	57.1	50	9.6	1.74	11.67	34890	483	1169	8.5	17.5
2807.0	17.8	56.5	50	9.6	1.42	11.73	35058	205	1155	8.5	17.5
2808.0	10.0	56.9	50	9.5	1.64	11.83	35359	366	1144	8.5	17.5
2809.0	15.6	56.7	50	9.5	1.48	11.89	35551	234	1132	8.5	17.5
2810.0	3.0	60.0	50	9.5	2.12	12.23	36551	1217	1133	8.5	17.5
2811.0	2.4	57.5	50	9.6	2.16	12.65	37813	1536	1138	8.5	17.5
2812.0	1.7	62.2	50	9.6	2.35	13.23	39576	2146	1152	8.5	17.5
2813.0	2.3	64.7	50	9.6	2.27	13.67	40888	1598	1157	8.5	17.5
2814.0	1.9	59.3	50	9.5	2.28	14.21	42496	1958	1168	8.5	17.5
2815.0	5.1	57.8	50	9.6	1.89	14.40	43085	716	1162	8.5	17.5
2816.0	2.3	57.8	50	9.5	2.18	14.83	44366	1559	1167	8.5	17.5
2817.0	4.2	57.6	50	9.5	1.97	15.07	45086	877	1163	8.5	17.5
2818.0	3.2	57.5	50	9.5	2.06	15.38	46019	1135	1163	8.5	17.5
2819.0	4.9	58.1	50	9.5	1.91	15.59	46628	742	1158	8.5	17.5
2820.0	4.0	60.0	50	9.5	2.02	15.84	47378	913	1155	8.5	17.5
2821.0	3.8	57.6	50	9.5	2.00	16.10	48167	960	1153	8.5	17.5
2822.0	3.4	57.5	50	9.5	2.04	16.39	49056	1082	1152	8.5	17.5
2823.0	4.5	57.7	50	9.5	1.94	16.62	49725	815	1148	8.5	17.5
2824.0	4.6	57.7	50	9.5	1.93	16.83	50376	792	1144	8.5	17.5
2825.0	3.2	57.9	50	9.5	2.07	17.14	51304	1130	1144	8.5	17.5
2826.0	4.5	58.0	50	9.5	1.95	17.37	51970	811	1140	8.5	17.5
2827.0	3.3	57.8	50	9.5	2.05	17.66	52868	1093	1140	8.5	17.5
2828.0	4.5	58.2	50	9.5	1.95	17.89	53534	812	1136	8.5	17.5
2829.0	3.6	58.0	50	9.5	2.03	18.17	54371	1019	1135	8.5	17.5
2830.0	4.6	57.8	50	9.5	1.94	18.38	55023	794	1131	8.5	17.5

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2831.0	3.3	58.0	50	9.5	2.06	18.69	55943	1119	1131	8.5	17.5
2832.0	4.7	58.0	50	9.5	1.92	18.90	56577	772	1127	8.5	17.5
2833.0	4.9	58.1	50	9.5	1.91	19.11	57189	746	1123	8.5	17.5
2834.0	5.6	58.2	50	9.5	1.87	19.28	57727	654	1119	8.5	17.5
2835.0	2.2	63.3	50	9.5	2.27	19.73	59077	1643	1124	8.5	17.5
2836.0	3.2	59.7	50	9.6	2.08	20.05	60021	1149	1124	8.5	17.5
2837.0	3.0	58.5	50	9.6	2.10	20.39	61036	1236	1125	8.5	17.5
2838.0	4.2	59.3	50	9.6	1.98	20.62	61747	865	1123	8.5	17.5
2839.0	2.4	59.4	50	9.6	2.19	21.05	63019	1549	1127	8.5	17.5
2840.0	4.0	60.0	50	9.5	2.02	21.30	63769	913	1125	8.5	17.6
2841.0	3.0	59.7	50	9.5	2.11	21.63	64767	1215	1126	8.5	17.5
2842.0	6.0	59.5	50	9.6	1.85	21.80	65271	613	1121	8.5	17.6
2843.0	2.7	63.3	50	9.6	2.20	22.18	66401	1376	1123	8.5	17.6
2844.0	13.0	55.7	50	9.6	1.53	22.25	66631	281	1115	8.5	17.6
2845.0	2.0	61.5	50	9.6	2.28	22.75	68122	1815	1122	8.5	17.6
2846.0	3.4	60.9	50	9.6	2.08	23.05	69017	1090	1122	8.5	17.6
2847.0	2.9	56.7	50	9.6	2.08	23.39	70050	1258	1123	8.5	17.6
2848.0	3.9	60.5	50	9.6	2.02	23.65	70825	943	1121	8.5	17.6
2849.0	2.5	58.7	50	9.6	2.16	24.05	72021	1456	1124	8.5	17.6
2850.0	3.6	56.8	50	9.6	2.01	24.33	72861	1023	1123	8.5	17.6
2851.0	2.2	59.0	50	9.6	2.21	24.78	74205	1636	1128	8.5	17.6
2852.0	4.0	57.9	50	9.6	1.98	25.03	74959	918	1126	8.5	17.6
2853.0	2.6	58.9	50	9.6	2.15	25.41	76103	1392	1128	8.5	17.6
2854.0	10.1	57.5	50	9.6	1.64	25.51	76399	361	1122	8.5	17.6
2855.0	3.8	58.2	50	9.5	2.01	25.77	77193	966	1120	8.5	17.6
2856.0	4.8	63.0	50	9.5	1.98	25.98	77820	764	1117	8.5	17.6
2857.0	3.8	58.8	50	9.5	2.02	26.25	78610	962	1116	8.5	17.6
2858.0	6.9	56.2	50	9.5	1.77	26.39	79048	533	1111	8.5	17.6
2859.0	5.2	52.1	50	9.5	1.82	26.58	79627	705	1108	8.5	17.6
2860.0	6.0	52.8	50	9.5	1.78	26.75	80124	606	1104	8.5	17.6
2861.0	4.0	53.6	50	9.5	1.94	27.00	80874	913	1102	8.5	17.6
2862.0	6.1	56.2	50	9.5	1.82	27.17	81369	602	1098	8.5	17.6
2863.0	3.7	59.7	50	9.5	2.04	27.44	82187	996	1098	8.5	17.6
2864.0	3.4	58.4	50	9.5	2.06	27.74	83081	1088	1098	8.5	17.6
2865.0	4.4	58.9	50	9.5	1.97	27.96	83756	822	1095	8.5	17.6
2866.0	4.0	60.0	50	9.5	2.02	28.21	84506	913	1094	8.5	17.6
2867.0	3.5	58.6	50	9.5	2.05	28.49	85352	1030	1094	8.5	17.6
2868.0	5.5	56.8	50	9.5	1.87	28.67	85894	659	1090	8.5	17.6
2869.0	4.4	54.9	50	9.5	1.92	28.90	86570	823	1088	8.5	17.6
2870.0	4.7	57.3	50	9.5	1.93	29.11	87208	777	1086	8.5	17.6
2871.0	2.7	58.0	50	9.5	2.14	29.48	88313	1345	1088	8.5	17.6
2872.0	6.7	53.8	50	9.5	1.76	29.63	88764	549	1084	8.5	17.6
2873.0	4.2	60.0	50	9.5	2.00	29.87	89478	870	1082	8.5	17.6
2874.0	3.2	61.2	50	9.5	2.12	30.18	90417	1143	1083	8.5	17.6
2875.0	3.6	59.4	50	9.5	2.06	30.46	91258	1024	1082	8.5	17.6
2876.0	3.0	59.5	50	9.5	2.13	30.80	92269	1231	1083	8.5	17.6
2877.0	3.6	58.2	50	9.5	2.04	31.08	93104	1016	1083	8.5	17.6
2878.0	3.2	59.3	50	9.4	2.11	31.39	94045	1145	1083	8.5	17.6
2879.0	7.6	59.4	50	9.5	1.78	31.52	94438	479	1079	8.5	17.6
2880.0	2.9	60.4	50	9.5	2.15	31.87	95475	1262	1080	8.5	17.6

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2881.0	4.0	60.0	50	9.5	2.02	32.12	96225	913	1079	8.5	17.6
2882.0	6.1	60.2	50	9.5	1.87	32.28	96715	597	1076	8.5	17.6
2883.0	4.7	64.2	50	9.4	2.01	32.49	97347	769	1074	8.5	17.6
2884.0	3.3	61.7	50	9.4	2.13	32.80	98267	1121	1074	8.5	17.6
2885.0	3.4	60.1	50	9.4	2.09	33.09	99143	1066	1074	8.5	17.6
2886.0	3.2	59.7	50	9.5	2.10	33.40	100085	1146	1075	8.5	17.6
2887.0	3.8	60.1	50	9.5	2.03	33.67	100869	955	1074	8.5	17.6
2888.0	2.0	60.3	50	9.5	2.27	34.15	102337	1787	1079	8.5	17.6
2889.0	4.2	59.7	50	9.5	2.00	34.39	103052	869	1077	8.5	17.6
2890.0	3.7	60.0	50	9.5	2.05	34.67	103872	999	1077	8.5	17.6
2891.0	3.2	63.3	50	9.5	2.14	34.98	104818	1151	1077	8.5	17.6
2892.0	5.3	55.8	50	9.5	1.86	35.17	105382	686	1075	8.5	17.6
2893.0	3.7	53.3	50	9.5	1.97	35.44	106197	993	1074	8.5	17.6
2894.0	5.3	57.9	50	9.5	1.89	35.63	106761	686	1072	8.5	17.6
2895.0	3.5	57.3	50	9.5	2.04	35.92	107620	1046	1071	8.5	17.6
2896.0	7.3	59.6	50	9.5	1.79	36.05	108028	497	1068	8.5	17.6
2897.0	3.4	58.7	50	9.5	2.06	36.34	108901	1062	1068	8.5	17.6
2898.0	3.8	57.5	50	9.5	2.01	36.61	109696	968	1067	8.5	17.6
2899.0	2.4	56.4	50	9.5	2.16	37.03	110955	1533	1070	8.5	17.6
2900.0	3.7	54.7	50	9.5	1.98	37.30	111762	983	1070	8.5	17.6
2901.0	2.6	55.5	50	9.5	2.11	37.68	112907	1394	1072	8.5	17.6
2902.0	3.4	57.8	50	9.5	2.05	37.98	113802	1090	1072	8.5	17.6
2903.0	2.0	56.5	50	9.5	2.22	38.47	115285	1805	1076	8.5	17.6
2904.0	2.7	56.3	50	9.5	2.11	38.84	116398	1355	1078	8.5	17.6
2905.0	3.4	57.7	50	9.5	2.03	39.13	117271	1062	1078	8.5	17.6
2906.0	4.3	53.9	50	9.5	1.91	39.37	117970	851	1076	8.5	17.6
2907.0	2.8	55.3	50	9.6	2.08	39.73	119053	1319	1078	8.5	17.6
2908.0	3.4	51.7	50	9.5	1.97	40.02	119945	1085	1078	8.5	17.6
2909.0	3.8	50.9	50	9.5	1.92	40.29	120728	954	1077	8.5	17.6
2910.0	7.0	55.2	50	9.5	1.75	40.43	121157	522	1074	8.5	17.6
2911.0	4.9	53.7	50	9.6	1.86	40.63	121770	747	1072	8.5	17.6
2912.0	3.5	55.0	50	9.5	1.99	40.92	122625	1041	1072	8.5	17.6
2913.0	4.5	57.1	50	9.5	1.93	41.14	123290	810	1070	8.5	17.6
2914.0	3.6	56.5	50	9.5	2.01	41.42	124119	1009	1070	8.5	17.6
2915.0	3.7	55.9	50	9.5	1.99	41.68	124923	978	1069	8.5	17.6
2916.0	4.0	56.5	50	9.6	1.96	41.93	125665	904	1069	8.5	17.6
2917.0	3.8	57.8	50	9.6	2.00	42.19	126453	959	1068	8.5	17.6
2918.0	4.3	58.8	50	9.6	1.96	42.43	127152	851	1067	8.5	17.6
2919.0	7.4	57.0	50	9.6	1.74	42.56	127557	493	1064	8.5	17.6
2920.0	3.4	56.3	50	9.5	2.02	42.85	128435	1069	1064	8.5	17.6
2921.0	3.4	57.0	50	9.6	2.02	43.14	129306	1060	1064	8.5	17.6
2921.1	2.0	55.4	50	9.6	2.21	43.20	129459	1856	1064	8.5	17.6

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
3015.0	3.9	58.6	50	9.6	1.99	20.58	61638	935	1227	8.5	17.7
3016.0	3.7	59.1	50	9.6	2.02	20.85	62448	983	1224	8.5	17.7
3017.0	4.7	58.3	48	9.6	1.91	21.06	63068	784	1220	8.5	17.7
3018.0	4.8	58.2	49	9.6	1.90	21.27	63676	755	1215	8.5	17.7
3019.0	5.2	59.0	49	9.6	1.88	21.46	64239	700	1210	8.5	17.7
3020.0	6.8	58.5	49	9.6	1.78	21.61	64674	540	1203	8.5	17.7
3021.0	7.2	58.6	49	9.6	1.76	21.75	65081	504	1196	8.5	17.7
3022.0	5.6	58.8	49	9.6	1.86	21.93	65608	653	1190	8.5	17.7
3023.0	4.8	58.9	49	9.6	1.92	22.14	66223	764	1186	8.5	17.7
3024.0	5.4	59.1	49	9.6	1.88	22.32	66774	682	1181	8.5	17.7
3025.0	7.3	58.8	49	9.6	1.76	22.46	67177	500	1175	8.5	17.7
3026.0	5.6	59.1	49	9.5	1.87	22.64	67704	652	1170	8.5	17.7
3027.0	5.5	58.6	48	9.6	1.86	22.82	68226	658	1165	8.5	17.7
3028.0	6.4	60.2	49	9.6	1.83	22.97	68690	573	1159	8.5	17.7
3029.0	9.4	58.8	49	9.6	1.67	23.08	69004	389	1152	8.5	17.7
3030.0	8.4	58.5	49	9.6	1.71	23.20	69354	434	1146	8.5	17.7
3031.0	7.0	58.7	49	9.6	1.78	23.34	69773	518	1140	8.5	17.7
3032.0	8.6	58.4	49	9.6	1.70	23.46	70117	424	1134	8.5	17.7
3033.0	9.8	58.5	50	9.6	1.66	23.56	70422	374	1127	8.5	17.7
3034.0	6.9	58.7	50	9.6	1.78	23.70	70853	528	1121	8.5	17.7
3035.0	4.5	58.6	51	9.5	1.96	23.93	71533	812	1119	8.5	17.7
3036.0	4.4	58.9	51	9.5	1.96	24.15	72215	822	1116	8.5	17.7
3037.0	4.6	58.5	49	9.6	1.93	24.37	72862	797	1113	8.5	17.7
3038.0	3.0	58.5	51	9.6	2.09	24.70	73871	1214	1114	8.6	17.8
3039.0	3.8	58.5	50	9.6	2.00	24.96	74658	950	1113	8.6	17.8
3040.0	2.4	58.7	51	9.6	2.17	25.37	75902	1496	1116	8.6	17.8
3041.0	3.9	58.5	51	9.6	2.00	25.63	76689	946	1115	8.6	17.8
3042.0	4.8	59.1	50	9.5	1.94	25.84	77324	767	1112	8.6	17.8
3043.0	5.4	59.8	50	9.5	1.90	26.03	77880	672	1108	8.6	17.8
3044.0	8.4	59.7	50	9.5	1.74	26.14	78239	435	1103	8.6	17.8
3045.0	8.6	59.9	50	9.5	1.73	26.26	78590	424	1097	8.6	17.8
3046.0	13.1	57.8	49	9.5	1.55	26.34	78812	278	1091	8.6	17.8
3047.0	10.5	58.6	52	9.5	1.67	26.43	79112	349	1085	8.6	17.8
3048.0	4.4	59.9	52	9.5	2.00	26.66	79828	833	1083	8.6	17.8
3049.0	5.7	58.9	52	9.5	1.89	26.84	80378	641	1079	8.6	17.8
3050.0	13.2	58.1	52	9.5	1.57	26.91	80615	277	1073	8.6	17.8
3051.0	14.7	59.5	52	9.5	1.54	26.98	80826	249	1067	8.6	17.8
3052.0	10.5	58.8	52	9.5	1.66	27.08	81123	349	1061	8.6	17.8
3053.0	9.9	58.1	52	9.5	1.68	27.18	81439	369	1056	8.6	17.8
3054.0	5.5	58.2	52	9.5	1.90	27.36	82012	670	1053	8.6	17.8
3055.0	6.4	65.3	52	9.5	1.91	27.52	82498	567	1049	8.6	17.8
3056.0	4.3	60.6	54	9.5	2.02	27.75	83239	842	1048	8.6	17.8
3057.0	4.5	61.1	53	9.5	2.01	27.97	83944	805	1046	8.6	17.8
3058.0	4.0	61.7	53	9.5	2.06	28.21	84735	903	1045	8.6	17.8
3059.0	5.3	61.2	53	9.5	1.95	28.40	85338	686	1043	8.6	17.8
3060.0	4.1	60.9	53	9.5	2.05	28.65	86119	890	1041	8.6	17.8
3061.0	4.0	59.9	54	9.5	2.05	28.90	86933	921	1041	8.6	17.8
3062.0	4.4	59.0	53	9.5	1.99	29.12	87648	826	1039	8.6	17.8
3063.0	5.0	58.6	48	9.5	1.91	29.32	88226	727	1037	8.6	17.8
3064.0	5.2	59.5	48	9.5	1.91	29.52	88788	708	1035	8.6	17.8

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
3065.0	5.1	59.0	47	9.5	1.89	29.71	89337	712	1032	8.6	17.8
3066.0	4.5	60.1	47	9.5	1.95	29.94	89969	818	1031	8.6	17.8
3067.0	4.1	59.4	47	9.5	1.97	30.18	90655	887	1030	8.6	17.8
3068.0	6.3	59.6	47	9.5	1.82	30.34	91104	582	1027	8.6	17.8
3069.0	4.3	58.5	47	9.5	1.95	30.57	91766	857	1026	8.6	17.8
3070.0	4.9	58.1	47	9.5	1.90	30.78	92339	743	1024	8.6	17.8
3071.0	5.8	57.8	47	9.5	1.83	30.95	92824	628	1021	8.6	17.8
3072.0	3.7	58.1	47	9.5	2.00	31.22	93596	998	1021	8.6	17.8
3073.0	5.1	58.7	47	9.5	1.89	31.42	94152	721	1019	8.6	17.8
3074.0	5.1	58.5	47	9.5	1.89	31.61	94705	717	1017	8.6	17.8
3075.0	8.3	59.3	51	9.5	1.75	31.73	95074	438	1013	8.6	17.8
3076.0	10.6	59.1	51	9.5	1.65	31.83	95363	346	1009	8.6	17.8
3077.0	6.9	60.8	49	9.5	1.82	31.97	95792	531	1006	8.6	17.8
3078.0	5.4	60.4	50	9.5	1.91	32.16	96346	673	1004	8.6	17.8
3079.0	5.1	59.5	50	9.5	1.93	32.36	96940	721	1002	8.6	17.8
3080.0	4.4	58.6	50	9.5	1.97	32.58	97621	827	1001	8.6	17.8
3081.0	4.3	58.9	50	9.5	1.98	32.82	98319	848.08	999.87	8.6	17.8
3082.0	4.7	61.5	51	9.5	1.98	33.03	98957	768.95	998.44	8.6	17.8
3083.0	5.0	60.9	50	9.5	1.95	33.23	99563	734.46	996.81	8.6	17.8
3084.0	5.8	60.5	49	9.5	1.88	33.40	100070	624.90	994.52	8.6	17.8
3085.0	6.1	58.9	52	9.5	1.86	33.56	100584	601.57	992.13	8.6	17.8
3086.0	4.5	59.8	51	9.5	1.98	33.78	101262	804.45	990.99	8.6	17.8
3087.0	7.8	58.3	52	9.5	1.77	33.91	101657	465.63	987.82	8.6	17.8
3088.0	11.6	58.8	50	9.5	1.62	34.00	101918	315.49	983.79	8.6	17.8
3089.0	15.8	60.0	49	9.5	1.50	34.06	102102	231.29	979.31	8.6	17.8
3090.0	9.2	58.2	50	9.5	1.69	34.17	102427	398.68	975.87	8.6	17.8
3091.0	4.9	56.6	53	9.5	1.93	34.37	103070	742.57	974.50	8.6	17.8
3092.0	4.4	58.1	52	9.5	1.98	34.60	103768	820.69	973.60	8.6	17.8
3093.0	5.1	57.5	52	9.5	1.92	34.79	104377	719.24	972.12	8.6	17.8
3094.0	4.6	58.1	51	9.5	1.95	35.01	105045	800.40	971.13	8.6	17.8
3095.0	4.9	57.7	52	9.5	1.94	35.22	105689	751.70	969.87	8.6	17.8
3096.0	4.1	57.7	51	9.5	2.00	35.46	106443	892.71	969.42	8.6	17.8
3097.0	3.3	57.0	51	9.5	2.07	35.77	107383	1113	970	8.6	17.8
3098.0	3.5	57.7	52	9.5	2.06	36.05	108271	1031	971	8.6	17.8
3099.0	3.5	58.3	53	9.5	2.07	36.33	109167	1037	971	8.6	17.8
3100.0	3.2	58.8	53	9.5	2.11	36.64	110155	1131	972	8.6	17.8
3101.0	3.8	58.1	53	9.5	2.04	36.91	110994	970.82	971.84	8.6	17.8
3102.0	4.3	58.7	52	9.5	1.99	37.14	111712	843.00	971.13	8.6	17.8
3103.0	3.6	59.6	51	9.5	2.07	37.42	112569	1017	971	8.6	17.8
3104.0	8.4	56.5	49	9.5	1.71	37.54	112922	436.21	968.46	8.6	17.8
3105.0	5.2	56.2	53	9.5	1.90	37.73	113534	706.05	967.03	8.6	17.8
3106.0	4.8	58.6	53	9.5	1.96	37.94	114195	762.86	965.93	8.6	17.8
3107.0	5.3	58.7	52	9.5	1.92	38.13	114775	685.76	964.42	8.6	17.8
3108.0	8.0	58.4	50	9.5	1.76	38.25	115155	458.53	961.71	8.6	17.8
3109.0	9.0	58.4	50	9.5	1.71	38.37	115491	405.78	958.76	8.6	17.8
3110.0	18.8	57.1	48	9.5	1.41	38.42	115644	194.77	954.71	8.6	17.8
3111.0	6.5	57.9	50	9.5	1.82	38.57	116108	562.00	952.64	8.6	17.8
3112.0	4.6	58.1	51	9.5	1.95	38.79	116770	793.30	951.81	8.6	17.8
3113.0	5.8	59.3	48	9.5	1.86	38.96	117265	630.98	950.14	8.6	17.8
3114.0	7.4	60.0	51	9.5	1.80	39.10	117680	493.02	947.77	8.6	17.8

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
3115.0	7.1	59.9	51	9.5	1.81	39.24	118108	515.34	945.54	8.6	17.8
3116.0	4.2	61.2	50	9.5	2.02	39.48	118825	872.42	945.16	8.6	17.8
3117.0	4.1	60.5	50	9.5	2.02	39.72	119567	896.77	944.92	8.6	17.8
3118.0	4.0	59.8	50	9.5	2.01	39.97	120307	903.87	944.71	8.6	17.8
3119.0	3.6	59.8	50	9.5	2.05	40.25	121136	1016	945	8.6	17.8
3120.0	5.0	59.9	50	9.5	1.94	40.45	121744	734.46	944.01	8.6	17.8
3121.0	5.1	59.9	51	9.5	1.93	40.65	122335	712.14	942.85	8.6	17.8
3122.0	7.6	58.7	50	9.5	1.77	40.78	122734	480.85	940.55	8.6	17.8
3123.0	11.2	56.5	47	9.5	1.58	40.87	122987	326.65	937.51	8.6	17.8
3124.0	45.0	56.0	51	9.5	1.10	40.89	123054	81.16	933.29	8.6	17.8
3125.0	34.3	54.7	46	9.5	1.15	40.92	123135	106.52	929.24	8.6	17.8
3126.0	11.7	58.5	52	9.5	1.61	41.00	123402	313.46	926.23	8.6	17.8
3127.0	12.0	59.0	51	9.5	1.61	41.09	123659	305.35	923.21	8.6	17.8
3128.0	3.3	57.5	49	9.5	2.04	41.39	124538	1093	924	8.6	17.8
3129.0	4.7	57.9	51	9.5	1.94	41.60	125195	783.15	923.36	8.6	17.8
3130.0	2.8	58.0	51	9.5	2.13	41.96	126282	1300	925	8.6	17.8
3131.0	3.7	58.4	52	9.5	2.04	42.23	127132	993.14	925.48	8.6	17.8
3132.0	4.1	58.7	50	9.5	1.98	42.47	127855	883.58	925.28	8.6	17.8
3133.0	4.0	58.3	51	9.5	1.99	42.72	128614	907.93	925.20	8.6	17.8
3134.0	2.9	59.0	49	9.5	2.11	43.06	129624	1246	927	8.6	17.8
3135.0	2.3	58.1	49	9.5	2.19	43.49	130898	1576	930	8.6	17.8
3136.0	2.7	57.9	49	9.5	2.13	43.86	131989	1345	932	8.6	17.8
3137.0	2.8	57.8	49	9.5	2.12	44.22	133053	1318	933	8.6	17.8
3138.0	2.7	58.8	49	9.5	2.14	44.59	134139	1343	935	8.6	17.9
3139.0	3.3	59.7	49	9.5	2.08	44.89	135032	1101	936	8.6	17.9
3140.0	2.3	60.8	49	9.5	2.22	45.32	136306	1570	939	8.6	17.9
3141.0	3.8	60.1	49	9.5	2.04	45.58	137084	959.66	939.10	8.6	17.9
3142.0	4.9	58.0	49	9.5	1.92	45.79	137696	752.72	938.26	8.6	17.9
3143.0	2.6	57.7	50	9.5	2.15	46.17	138847	1405	940	8.6	17.9
3144.0	4.1	57.5	51	9.5	1.98	46.42	139581	884.60	940.11	8.6	17.9
3145.0	3.7	58.5	50	9.5	2.03	46.68	140387	976.91	940.28	8.6	17.9
3146.0	3.3	59.4	50	9.4	2.09	46.98	141290	1093	941	8.6	17.9
3147.0	3.1	61.1	50	9.5	2.13	47.30	142249	1170	942	8.6	17.9
3148.0	5.4	59.5	50	9.5	1.90	47.49	142804	675.62	940.79	8.6	17.9
3149.0	6.5	60.0	50	9.5	1.84	47.64	143265	565.05	939.14	8.6	17.9
3150.0	4.0	61.9	50	9.5	2.03	47.89	144001	903.87	938.99	8.6	17.9
3151.0	3.8	58.2	52	9.5	2.01	48.15	144810	949.52	939.03	8.6	17.9
3152.0	2.8	60.5	50	9.5	2.15	48.50	145872	1285	941	8.6	17.9
3153.0	2.2	62.6	50	9.5	2.27	48.96	147243	1675	944	8.6	17.9
3154.0	2.1	62.1	49	9.5	2.27	49.43	148617	1710	947	8.6	17.9
3155.0	3.9	55.3	50	9.5	1.96	49.68	149374	930.25	946.92	8.6	17.9
3156.0	2.8	57.5	50	9.5	2.12	50.04	150450	1317	948	8.6	17.9
3157.0	2.8	58.6	50	9.5	2.13	50.40	151512	1302	950	8.6	17.9
3158.0	2.9	60.1	49	9.5	2.13	50.74	152516	1239	951	8.6	17.9
3159.0	2.8	60.1	50	9.5	2.16	51.10	153603	1315	953	8.6	17.9
3160.0	2.7	59.5	51	9.5	2.17	51.47	154735	1361	954	8.6	17.9
3161.0	2.4	51.8	51	9.4	2.13	51.90	156040	1552	957	8.6	17.9
3162.0	4.5	58.0	50	9.4	1.97	52.12	156713	813.58	956.35	8.6	17.9
3163.0	4.7	58.6	50	9.4	1.96	52.33	157346	773.01	955.59	8.6	17.9
3164.0	3.9	58.3	50	9.4	2.03	52.59	158117	939.38	955.52	8.6	17.9

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
3165.0	3.2	58.5	49	9.4	2.11	52.90	159041	1148	956	8.6	17.9
3166.0	2.3	59.1	48	9.3	2.24	53.34	160311	1603	959	8.6	17.9
3167.0	2.1	56.7	51	9.4	2.24	53.81	161748	1706	962	8.6	17.9
3168.0	2.5	58.7	51	9.4	2.20	54.20	162960	1439	964	8.6	17.9
3168.9	2.2	58.9	51	9.4	2.25	54.61	164197	1643	966	8.6	17.9

BIT NUMBER	11	IADC CODE	517	INTERVAL	3168.9- 3288.6
HTC J22		SIZE	12.250	NOZZLES	16 16 16
COST	8520.00	TRIP TIME	9.0	BIT RUN	119.7
TOTAL HOURS	35.11	TOTAL TURNS	107188	CONDITION	T8 B4 G0.000

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
3169.0	4.0	34.5	62	9.5	1.75	0.03	93	913	414793	8.8	17.9
3170.0	3.3	54.3	51	9.5	2.03	0.33	1030	1119	38726	8.8	17.9
3171.0	4.1	54.9	50	9.5	1.95	0.57	1760	881	20704	8.8	17.9
3172.0	3.7	55.1	50	9.7	1.95	0.84	2564	985	14343	8.8	17.9
3173.0	5.0	56.1	47	9.9	1.78	1.04	3126	724	11021	8.8	17.9
3174.0	5.0	56.4	52	9.9	1.82	1.24	3754	733	9004	8.8	17.9
3175.0	3.3	56.2	53	9.9	1.97	1.54	4701	1099	7708	8.8	17.9
3176.0	3.6	56.5	53	9.8	1.97	1.82	5590	1012	6765	8.8	17.9
3177.0	3.4	56.1	52	10.0	1.94	2.11	6504	1068	6062	8.8	17.9
3178.0	4.2	56.3	52	10.1	1.86	2.35	7253	876	5492	8.8	17.9
3179.0	4.3	58.4	53	10.1	1.88	2.59	7995	855	5033	8.8	17.9
3180.0	7.3	59.0	54	10.1	1.70	2.72	8437	501	4625	8.8	17.9
3181.0	9.1	58.8	53	10.1	1.62	2.83	8786	403	4276	8.8	17.9
3182.0	5.6	59.1	54	10.1	1.80	3.01	9368	657	4000	8.8	17.9
3183.0	4.0	57.7	51	10.1	1.88	3.26	10126	905	3780	8.8	17.9
3184.0	4.7	57.8	50	10.1	1.82	3.48	10768	783	3582	8.8	17.9
3185.0	3.4	58.4	50	10.1	1.94	3.77	11659	1085	3427	8.8	17.9
3186.0	3.8	58.5	50	10.1	1.89	4.03	12439	952	3282	8.8	17.9
3187.0	4.4	57.8	50	10.1	1.84	4.26	13124	833	3146	8.8	17.9
3188.0	5.2	59.3	50	10.1	1.80	4.45	13700	699	3018	8.8	17.9
3189.0	4.6	59.4	50	10.1	1.84	4.67	14352	790	2908	8.8	17.9
3190.0	3.3	58.5	51	10.1	1.95	4.97	15274	1111	2822	8.8	17.9
3191.0	4.2	57.3	52	10.1	1.87	5.21	16024	875	2734	8.8	17.9
3192.0	3.6	56.7	52	10.1	1.92	5.50	16909	1029	2660	8.8	17.9
3193.0	3.5	59.0	52	10.1	1.96	5.78	17814	1056	2594	8.8	17.9
3194.0	3.3	58.4	52	10.1	1.97	6.09	18773	1118	2535	8.8	17.9
3195.0	3.4	58.4	52	10.0	1.96	6.39	19700	1083	2479	8.8	17.9
3196.0	3.6	58.3	52	10.1	1.93	6.66	20564	1011	2425	8.8	17.9
3197.0	6.1	56.9	52	10.1	1.73	6.83	21076	599	2360	8.8	17.9
3198.0	3.7	58.3	52	10.0	1.93	7.10	21915	987	2313	8.8	17.9
3199.0	4.5	58.8	52	10.1	1.86	7.32	22605	815	2263	8.8	17.9
3200.0	4.3	56.8	52	10.1	1.85	7.55	23326	850	2218	8.8	17.9
3201.0	3.3	57.5	55	10.1	1.98	7.86	24347	1123	2184	8.8	17.9
3202.0	3.6	58.5	56	10.1	1.97	8.14	25293	1026	2149	8.8	17.9
3203.0	5.1	58.4	56	10.1	1.84	8.34	25958	721	2107	8.8	17.9

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
3204.0	7.9	57.0	56	10.1	1.67	8.47	26382	464	2060	8.8	17.9
3205.0	11.2	58.4	56	10.1	1.56	8.56	26680	326	2012	8.8	17.9
3206.0	12.8	54.1	55	10.1	1.48	8.63	26938	285	1965	8.8	17.9
3207.0	9.8	56.9	54	10.1	1.59	8.74	27268	373	1924	8.8	17.9
3208.0	9.4	55.4	54	10.1	1.59	8.84	27616	391	1884	8.8	17.9
3209.0	15.1	56.8	49	10.1	1.41	8.91	27813	241	1843	8.8	17.9
3210.0	3.6	57.9	50	10.1	1.92	9.19	28653	1015	1823	8.8	17.9
3211.0	2.6	62.5	50	10.1	2.08	9.57	29807	1393	1813	8.8	17.9
3212.0	4.9	57.5	52	10.1	1.82	9.77	30440	749	1788	8.8	17.9
3213.0	3.9	60.0	51	10.1	1.92	10.03	31230	938	1769	8.8	17.9
3214.0	4.6	59.9	51	10.1	1.85	10.25	31887	786	1747	8.8	17.9
3215.0	3.5	62.4	51	10.1	1.99	10.53	32772	1053	1732	8.8	17.9
3216.0	4.1	60.9	51	10.0	1.92	10.78	33523	894	1714	8.8	17.9
3217.0	3.0	58.3	51	10.0	2.00	11.12	34552	1227	1704	8.8	17.9
3218.0	3.8	58.5	51	10.0	1.92	11.38	35364	967	1689	8.8	17.9
3219.0	4.0	57.0	51	10.0	1.89	11.63	36139	917	1674	8.8	17.9
3220.0	3.7	57.7	51	10.0	1.92	11.90	36970	991	1661	8.8	17.9
3221.0	3.0	58.2	50	10.0	1.99	12.23	37960	1212	1652	8.8	17.9
3222.0	2.8	57.7	51	10.0	2.02	12.59	39054	1303	1645	8.8	17.9
3223.0	4.4	57.8	51	10.0	1.86	12.82	39751	831	1630	8.8	17.9
3224.0	3.1	60.0	51	10.0	2.01	13.14	40722	1160	1622	8.8	17.9
3225.0	4.9	58.4	51	10.0	1.84	13.34	41350	749	1606	8.8	17.9
3226.0	3.2	58.8	51	10.0	1.99	13.65	42309	1134	1598	8.8	17.9
3227.0	5.1	59.2	53	10.0	1.84	13.85	42926	710	1583	8.8	17.9
3228.0	10.4	59.3	53	10.0	1.60	13.94	43234	350	1562	8.8	17.9
3229.0	5.4	59.1	53	10.0	1.82	14.13	43821	674	1547	8.8	17.9
3230.0	5.0	56.3	55	10.0	1.83	14.33	44484	732	1534	8.8	17.9
3231.0	4.4	58.0	54	10.0	1.88	14.55	45213	828	1522	8.8	17.9
3232.0	4.5	57.7	53	10.0	1.86	14.77	45916	805	1511	8.8	18.0
3233.0	3.9	58.7	53	10.0	1.93	15.03	46734	940	1502	8.8	18.0
3234.0	4.8	59.1	53	10.0	1.86	15.24	47395	756	1491	8.8	18.0
3235.0	4.2	58.9	55	10.0	1.93	15.48	48192	876	1481	8.8	18.0
3236.0	3.7	59.7	54	10.0	1.98	15.75	49065	978	1474	8.8	18.0
3237.0	3.0	60.7	55	10.0	2.07	16.08	50175	1227	1470	8.8	18.0
3238.0	5.3	60.0	53	10.0	1.83	16.27	50770	687	1459	8.8	18.0
3239.0	5.1	59.6	53	10.0	1.84	16.47	51393	711	1448	8.8	18.0
3240.0	6.0	59.4	53	10.1	1.78	16.63	51923	614	1436	8.8	18.0
3241.0	4.6	59.4	52	10.1	1.87	16.85	52604	793	1428	8.8	18.0
3242.0	4.4	60.2	53	10.0	1.89	17.08	53320	829	1419	8.8	18.0
3243.0	3.9	60.9	57	10.0	1.98	17.33	54195	940	1413	8.8	18.0
3244.0	2.9	61.0	57	10.0	2.10	17.68	55396	1273	1411	8.8	18.0
3245.0	3.7	60.1	54	10.0	1.98	17.95	56275	985	1405	8.8	18.0
3246.0	3.3	60.6	53	10.0	2.01	18.25	57240	1101	1401	8.8	18.0
3247.0	3.9	60.6	53	10.0	1.95	18.51	58058	941	1396	8.8	18.0
3248.0	14.9	60.4	53	10.0	1.47	18.58	58271	244	1391	8.8	18.0
3249.0	24.3	60.2	51	10.0	1.29	18.62	58395	150	1366	8.8	18.0
3250.0	3.0	61.8	52	10.0	2.05	18.96	59439	1226	1364	8.8	18.0
3251.0	2.6	61.5	52	10.0	2.09	19.34	60628	1388	1364	8.8	18.0
3252.0	4.7	59.7	53	10.0	1.87	19.55	61296	773	1357	8.8	18.0
3253.0	1.9	59.2	53	10.0	2.17	20.06	62920	1875	1363	8.8	18.0

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
3254.0	2.6	60.2	53	10.0	2.09	20.45	64149	1409	1364	8.8	18.0
3255.0	3.1	59.7	53	10.0	2.02	20.77	65171	1168	1362	8.8	18.0
3256.0	2.7	58.6	53	10.0	2.06	21.14	66364	1365	1362	8.8	18.0
3257.0	6.1	57.9	53	10.0	1.77	21.30	66887	598	1353	8.8	18.0
3258.0	9.6	54.9	51	10.0	1.56	21.41	67204	379	1342	8.8	18.0
3259.0	9.0	53.1	52	10.0	1.58	21.52	67549	408	1332	8.8	18.0
3260.0	9.6	54.2	52	10.0	1.57	21.62	67871	380	1321	8.8	18.0
3261.0	6.0	55.1	52	10.0	1.74	21.79	68394	609	1313	8.8	18.0
3262.0	3.6	56.0	53	10.0	1.94	22.07	69282	1013	1310	8.8	18.0
3263.0	3.1	56.3	53	9.9	1.99	22.39	70299	1167	1309	8.8	18.0
3264.0	1.8	56.7	53	9.9	2.19	22.94	72049	2007	1316	8.8	18.0
3265.0	2.6	57.1	53	9.9	2.07	23.32	73280	1404	1317	8.8	18.0
3266.0	1.1	57.9	42	9.9	2.29	24.19	75458	3184	1336	8.8	18.0
3267.0	1.9	56.9	45	9.9	2.14	24.72	76907	1940	1342	8.8	18.0
3268.0	4.4	59.7	53	9.9	1.93	24.95	77639	838	1337	8.8	18.0
3269.0	4.5	59.9	53	9.9	1.91	25.18	78342	809	1332	8.8	18.0
3270.0	1.3	60.4	54	9.9	2.38	25.95	80833	2815	1347	8.8	18.0
3271.0	1.2	59.3	51	9.9	2.36	26.75	83310	2949	1362	8.8	18.0
3272.0	1.3	60.4	40	9.9	2.27	27.53	85190	2842	1377	8.8	18.0
3273.0	9.9	62.1	42	9.9	1.58	27.63	85444	369	1367	8.8	18.0
3274.0	23.5	56.0	38	9.9	1.18	27.68	85540	155	1355	8.8	18.0
3275.0	5.2	60.0	33	9.9	1.70	27.87	85926	704	1349	8.8	18.0
3276.0	2.6	61.0	33	9.9	1.96	28.25	86699	1410	1350	8.8	18.0
3277.0	1.2	60.2	39	9.9	2.28	29.06	88586	2956	1365	8.8	18.0
3278.0	1.2	59.3	49	9.9	2.36	29.92	91082	3109	1381	8.8	18.0
3279.0	1.2	59.6	51	10.0	2.36	30.78	93738	3144	1397	8.8	18.0
3280.0	5.4	60.5	53	10.0	1.84	30.96	94330	682	1390	8.8	18.0
3281.0	15.0	60.5	52	10.0	1.47	31.03	94539	243	1380	8.8	18.0
3282.0	9.5	58.1	51	10.0	1.60	31.13	94861	385	1371	8.8	18.0
3283.0	4.6	58.7	53	10.0	1.87	31.35	95545	787	1366	8.8	18.0
3284.0	3.5	59.2	53	10.0	1.97	31.64	96455	1052	1363	8.8	18.0
3285.0	4.0	59.2	52	10.0	1.92	31.89	97238	909	1360	8.8	18.0
3286.0	7.8	59.0	46	10.0	1.64	32.02	97592	467	1352	8.8	18.0
3287.0	0.9	59.1	52	10.0	2.44	33.13	101073	4082	1375	8.8	18.0
3288.0	0.9	60.3	52	10.0	2.43	34.19	104368	3869	1396	8.8	18.0
3288.6	0.7	59.6	51	10.0	2.55	35.11	107188	5585	1417	8.8	18.0

BIT NUMBER	12	IADC CODE	617	INTERVAL	3288.6- 3317.1
HTC J44		SIZE	12.250	NOZZLES	16 16 16
COST	6919.00	TRIP TIME	9.0	BIT RUN	28.5
TOTAL HOURS	9.88	TOTAL TURNS	29231	CONDITION	T1 B1 G0.000

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
3289.0	3.9	18.7	37	9.9	1.30	0.10	225	936	100404	8.8	18.0
3290.0	1.6	50.4	51	9.8	2.15	0.73	2128	2288	30321	8.8	18.0
3291.0	2.2	51.0	50	9.9	2.04	1.18	3485	1640	18371	8.8	18.0
3292.0	6.1	45.8	50	9.9	1.63	1.34	3980	598	13143	8.8	18.0

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
3293.0	6.2	41.1	51	9.9	1.58	1.50	4480	592	10291	8.8	18.0
3294.0	4.9	49.5	51	10.0	1.73	1.71	5104	744	8523	8.8	18.0
3295.0	2.1	48.8	51	10.0	2.00	2.19	6569	1746	7464	8.8	18.0
3296.0	2.4	49.1	50	10.0	1.96	2.61	7837	1535	6663	8.8	18.0
3297.0	1.8	56.7	47	10.0	2.14	3.15	9364	1982	6105	8.8	18.0
3298.0	2.2	55.1	49	10.0	2.05	3.60	10672	1641	5631	8.8	18.0
3299.0	2.3	53.1	50	10.0	2.03	4.04	11998	1619	5245	8.8	18.0
3300.0	2.7	59.7	53	10.0	2.06	4.41	13156	1333	4902	8.8	18.0
3301.0	2.1	59.8	53	10.0	2.15	4.87	14632	1709	4644	8.8	18.0
3302.0	2.3	58.7	52	10.0	2.10	5.30	15980	1570	4415	8.8	18.0
3303.0	1.9	59.6	52	10.0	2.17	5.82	17605	1894	4240	8.8	18.0
3304.0	2.3	54.9	48	10.1	2.02	6.26	18852	1598	4068	8.8	18.0
3305.0	2.5	54.3	46	10.0	1.97	6.66	19945	1449	3909	8.8	18.0
3306.0	4.0	53.9	46	10.0	1.82	6.91	20634	921	3737	8.8	18.0
3307.0	3.1	54.3	45	10.0	1.90	7.23	21499	1161	3597	8.8	18.0
3308.0	3.6	56.6	47	10.0	1.89	7.50	22283	1010	3463	8.8	18.0
3309.0	3.8	58.5	49	10.0	1.90	7.76	23048	953	3340	8.8	18.0
3310.0	3.3	59.3	49	10.1	1.96	8.07	23936	1111	3236	8.8	18.0
3311.0	4.8	59.3	48	10.1	1.82	8.28	24541	762	3126	8.8	18.0
3312.0	2.2	59.4	49	10.0	2.11	8.74	25889	1680	3064	8.8	18.0
3313.0	2.2	59.0	49	10.1	2.10	9.20	27244	1674	3007	8.8	18.0
3314.0	2.4	57.7	50	10.1	2.05	9.61	28462	1496	2948	8.8	18.0
3315.0	7.4	58.1	49	10.1	1.67	9.74	28859	494	2855	8.8	18.0
3316.0	14.5	57.4	43	10.1	1.38	9.81	29038	252	2760	8.8	18.0
3317.0	16.9	56.8	47	10.1	1.35	9.87	29204	216	2670	8.8	18.0
3317.1	7.5	58.3	34	10.1	1.53	9.88	29231	487	2662	8.8	18.0

BIT NUMBER	12	IADC CODE	4	INTERVAL	3317.1- 3326.0
CHRIS C-23		SIZE	9.844	NOZZLES	15 15 15
COST	0.00	TRIP TIME	9.0	BIT RUN	8.9
TOTAL HOURS	3.86	TOTAL TURNS	18474	CONDITION	T0 B0 G1.000

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
3317.4	21.2	12.6	75	10.0	1.00	0.01	64	172	109732	8.8	18.0
3317.6	8.2	10.5	73	10.0	1.17	0.04	171	446	66018	8.8	18.0
3317.8	7.7	10.5	73	10.0	1.18	0.06	285	477	47292	8.8	18.0
3318.0	10.1	10.1	74	10.0	1.12	0.08	373	360	36863	8.8	18.0
3318.4	4.7	14.7	77	10.0	1.42	0.17	768	784	25761	8.8	18.0
3318.6	6.1	14.8	80	10.0	1.37	0.20	926	604	22407	8.8	18.0
3318.8	16.0	14.9	79	10.0	1.12	0.22	985	228	19798	8.8	18.0
3319.0	8.7	15.2	80	10.0	1.29	0.24	1096	421	17758	8.8	18.0
3319.2	5.2	14.9	80	10.0	1.41	0.28	1282	705	16134	8.8	18.0
3319.4	5.6	15.1	81	10.0	1.40	0.31	1454	649	14788	8.8	18.0
3319.6	7.6	15.6	82	10.0	1.34	0.34	1583	482	13643	8.8	18.0
3319.8	20.0	17.3	80	10.0	1.11	0.35	1631	183	12646	8.8	18.0
3320.0	4.7	19.0	81	10.0	1.53	0.39	1839	781	11828	8.8	18.0
3320.2	10.0	21.0	80	10.0	1.36	0.41	1936	365	11088	8.8	18.0

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
3320.4	8.1	19.8	80	10.0	1.40	0.44	2055	451	10444	8.8	18.0
3320.6	9.5	19.3	81	10.0	1.35	0.46	2157	385	9869	8.8	18.0
3320.8	12.4	20.6	81	10.0	1.30	0.47	2235	294	9351	8.8	18.0
3321.0	7.7	21.2	82	10.0	1.44	0.50	2362	472	8896	8.8	18.0
3321.2	5.8	21.2	82	10.0	1.52	0.53	2531	629	8493	8.8	18.0
3321.4	7.1	21.0	80	10.0	1.45	0.56	2665	512	8121	8.8	18.0
3321.6	7.8	19.8	79	10.0	1.40	0.59	2785	467	7781	8.8	18.0
3321.8	7.1	19.5	81	10.0	1.43	0.62	2923	517	7472	8.8	18.0
3322.0	3.8	20.6	80	10.0	1.62	0.67	3174	959	7206	8.8	18.0
3322.2	3.8	20.8	81	10.0	1.62	0.72	3428	959	6961	8.8	18.0
3322.4	7.3	20.5	81	10.0	1.44	0.75	3561	502	6718	8.8	18.0
3322.6	1.1	20.6	79	10.0	1.95	0.93	4412	3287	6593	8.8	18.0
3322.8	4.3	20.8	82	10.0	1.59	0.98	4638	842	6391	8.8	18.0
3323.0	1.5	22.7	81	10.0	1.93	1.11	5298	2490	6259	8.8	18.0
3323.2	1.1	22.9	81	10.0	2.02	1.30	6194	3363	6164	8.8	18.0
3323.4	1.4	23.8	81	10.0	1.97	1.44	6901	2663	6053	8.8	18.0
3323.6	0.9	25.4	80	10.0	2.13	1.66	7961	4012	5990	8.8	18.0
3323.8	0.5	25.8	81	10.0	2.29	2.04	9808	6944	6018	8.8	18.0
3324.0	1.5	26.2	82	10.0	1.99	2.17	10452	2399	5913	8.8	18.0
3324.2	1.5	30.5	82	10.0	2.10	2.31	11120	2496	5817	8.8	18.0
3324.4	1.0	29.8	73	10.0	2.17	2.51	12020	3743	5760	8.8	18.0
3324.6	1.3	29.3	80	10.0	2.10	2.67	12764	2815	5682	8.8	18.0
3324.8	1.7	30.1	80	10.0	2.05	2.79	13336	2176	5591	8.8	18.0
3325.0	1.0	30.3	80	10.0	2.23	3.00	14339	3804	5546	8.8	18.0
3325.2	1.4	29.6	80	10.0	2.09	3.14	15007	2536	5471	8.8	18.0
3325.4	1.1	30.4	80	10.0	2.20	3.32	15896	3388	5421	8.8	18.0
3325.6	1.4	30.1	80	10.0	2.11	3.47	16589	2638	5356	8.8	18.0
3325.8	1.4	30.5	80	10.0	2.11	3.60	17257	2531	5291	8.8	18.0
3326.0	0.8	30.4	80	10.0	2.29	3.86	18478	4616	5275	8.8	18.0

BIT NUMBER	13	IADC CODE	617	INTERVAL	3326.0- 3350.0
HTC J44		SIZE	12.250	NOZZLES	16 16 16
COST	6919.00	TRIP TIME	9.1	BIT RUN	24.0
TOTAL HOURS	7.07	TOTAL TURNS	23757	CONDITION	T1 B1 G0.000

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
3327.0	4.2	47.9	50	10.0	1.76	0.24	713	873	41026	9.0	18.0
3328.0	2.2	50.6	52	10.0	2.02	0.70	2136	1668	21347	9.0	18.0
3329.0	2.5	51.5	52	10.0	1.99	1.09	3387	1457	14717	9.0	18.0
3330.0	2.6	51.8	52	10.0	1.98	1.47	4572	1383	11383	9.0	18.0
3331.0	3.8	51.5	56	10.0	1.87	1.74	5461	968	9300	9.0	18.1
3332.0	7.7	52.6	57	10.1	1.64	1.87	5906	477	7830	9.0	18.1
3333.0	8.6	52.8	57	10.1	1.60	1.99	6302	425	6772	9.0	18.1
3334.0	2.6	57.1	56	10.1	2.04	2.37	7592	1397	6100	9.0	18.1
3335.0	3.6	56.4	55	10.1	1.92	2.65	8513	1017	5535	9.0	18.1
3336.0	2.6	56.4	55	10.1	2.04	3.03	9787	1399	5122	9.0	18.1
3337.0	2.8	57.1	56	10.1	2.04	3.39	11009	1328	4777	9.0	18.1

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
3338.0	11.4	54.2	59	10.1	1.54	3.48	11318	321	4405	9.0	18.1
3339.0	6.3	50.4	57	10.1	1.67	3.64	11863	579	4111	9.0	18.1
3340.0	18.4	53.6	59	10.1	1.37	3.69	12057	199	3832	9.0	18.1
3341.0	5.5	51.7	58	10.1	1.75	3.88	12689	664	3620	9.0	18.1
3342.0	2.5	56.6	59	10.0	2.09	4.27	14093	1453	3485	9.0	18.1
3343.0	2.4	57.7	58	10.1	2.10	4.69	15549	1536	3370	9.0	18.1
3344.0	2.4	55.2	57	10.1	2.06	5.11	16973	1534	3268	9.0	18.1
3345.0	3.6	55.3	56	10.1	1.92	5.39	17901	1015	3150	9.0	18.1
3346.0	2.8	54.4	57	10.1	2.00	5.74	19104	1284	3056	9.0	18.1
3347.0	2.9	54.8	57	10.1	1.99	6.09	20281	1253	2971	9.0	18.1
3348.0	2.8	54.8	57	10.1	2.00	6.44	21511	1307	2895	9.0	18.1
3349.0	3.3	54.7	60	10.1	1.97	6.75	22597	1109	2817	9.0	18.1
3350.0	3.1	53.6	60	10.1	1.97	7.07	23757	1171	2749	9.0	18.1

BIT NUMBER	14	IADC CODE	316	INTERVAL	3350.0- 3355.0
HTC J7		SIZE	8.500	NOZZLES	12 12 12
COST	1475.00	TRIP TIME	9.1	BIT RUN	5.0
TOTAL HOURS	3.33	TOTAL TURNS	11909	CONDITION	T7 B5 G0.000

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
3351.0	1.9	35.9	59	9.9	2.16	0.54	1905	1965	36673	9.1	18.1
3352.0	1.4	31.6	59	9.6	2.24	1.27	4487	2685	19679	9.1	18.1
3354.0	1.4	28.1	59	10.2	2.03	2.69	9510	2582	11130	9.1	18.1
3355.0	1.6	30.7	62	10.2	2.06	3.33	11909	2347	9374	9.1	18.1

BIT NUMBER	15	IADC CODE	537	INTERVAL	3355.0- 3470.4
HTC J33		SIZE	8.500	NOZZLES	12 12 12
COST	4455.00	TRIP TIME	9.1	BIT RUN	115.4
TOTAL HOURS	27.58	TOTAL TURNS	85649	CONDITION	T7 B4 G0.000

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
3356.0	7.1	30.0	59	10.4	1.53	0.14	501	514	38202	9.1	18.1
3357.0	3.6	29.8	66	10.4	1.77	0.42	1602	1012	19607	9.1	18.1
3358.0	3.1	30.1	64	10.1	1.86	0.75	2853	1197	13471	9.1	18.1
3359.0	2.3	30.3	61	10.2	1.93	1.18	4447	1583	10499	9.1	18.1
3360.0	4.7	30.0	55	10.0	1.69	1.39	5145	773	8553	9.1	18.1
3361.0	6.5	33.6	54	10.0	1.66	1.55	5645	564	7222	9.1	18.1
3362.0	3.6	37.3	52	10.0	1.90	1.82	6513	1015	6335	9.1	18.1
3363.0	3.4	37.7	51	10.0	1.92	2.12	7415	1075	5678	9.1	18.1
3364.0	5.9	37.0	51	10.0	1.72	2.29	7936	620	5116	9.1	18.1
3365.0	11.8	35.5	51	10.0	1.46	2.37	8196	308	4635	9.1	18.1
3366.0	17.8	34.4	54	10.0	1.32	2.43	8377	205	4232	9.1	18.1
3367.0	10.6	34.6	48	10.0	1.46	2.52	8649	345	3908	9.1	18.1
3368.0	7.6	32.3	51	10.0	1.56	2.65	9053	483	3645	9.1	18.1

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
3369.0	20.7	32.2	52	10.0	1.24	2.70	9202	177	3397	9.1	18.1
3370.0	8.6	36.2	52	10.0	1.59	2.82	9564	427	3199	9.1	18.1
3371.0	3.1	43.3	52	10.0	2.06	3.14	10567	1177	3073	9.1	18.1
3372.0	3.0	41.2	52	9.9	2.03	3.47	11599	1210	2963	9.1	18.1
3373.0	4.4	41.2	52	10.0	1.90	3.70	12305	830	2845	9.1	18.1
3374.0	13.1	38.9	52	10.0	1.48	3.78	12542	278	2710	9.1	18.1
3375.0	10.1	40.0	52	10.0	1.58	3.88	12851	361	2592	9.1	18.1
3376.0	9.4	41.5	50	10.0	1.61	3.98	13172	389	2487	9.1	18.1
3377.0	3.6	39.5	50	10.1	1.91	4.26	14012	1013	2420	9.1	18.1
3378.0	4.9	38.6	51	10.1	1.78	4.47	14638	752	2348	9.1	18.1
3379.0	4.1	38.8	51	10.2	1.83	4.71	15373	883	2287	9.1	18.1
3380.0	2.8	39.2	51	10.2	1.96	5.06	16459	1304	2247	9.1	18.1
3381.0	2.9	40.8	51	10.2	1.99	5.41	17509	1257	2209	9.1	18.1
3382.0	2.9	42.4	51	10.1	2.02	5.75	18575	1265	2174	9.1	18.1
3383.0	3.1	42.7	51	10.1	2.01	6.08	19577	1195	2139	9.1	18.1
3384.0	2.2	42.4	52	10.2	2.11	6.53	20955	1627	2122	9.1	18.1
3385.0	5.4	39.5	51	10.2	1.76	6.71	21528	678	2073	9.1	18.1
3386.0	7.6	37.9	47	10.2	1.59	6.84	21899	479	2022	9.1	18.1
3387.0	13.7	38.4	50	10.2	1.42	6.92	22117	266	1967	9.1	18.1
3388.0	8.8	38.4	51	10.2	1.58	7.03	22466	413	1920	9.1	18.1
3389.0	10.3	39.3	51	10.1	1.54	7.13	22766	355	1874	9.1	18.1
3390.0	7.7	39.6	51	10.1	1.65	7.26	23167	474	1834	9.1	18.1
3391.0	15.1	37.5	51	10.1	1.39	7.32	23371	241	1790	9.1	18.1
3392.0	4.4	39.1	51	10.1	1.84	7.55	24076	839	1764	9.1	18.1
3393.0	4.2	39.7	51	10.0	1.87	7.79	24810	872	1741	9.1	18.1
3394.0	15.4	39.0	51	10.1	1.41	7.86	25009	237	1702	9.1	18.1
3395.0	5.1	39.9	51	10.1	1.79	8.05	25610	720	1677	9.1	18.1
3396.0	3.8	40.6	51	10.2	1.89	8.32	26416	970	1660	9.1	18.1
3397.0	5.9	40.7	51	10.1	1.74	8.49	26930	616	1635	9.1	18.1
3398.0	9.4	40.7	51	10.1	1.59	8.59	27254	390	1606	9.1	18.1
3399.0	12.0	40.3	50	10.1	1.50	8.68	27505	304	1577	9.1	18.1
3400.0	7.5	41.2	50	10.1	1.67	8.81	27903	486	1553	9.1	18.1
3401.0	8.0	41.5	50	10.1	1.66	8.94	28282	459	1529	9.1	18.1
3402.0	11.3	39.9	47	10.1	1.50	9.03	28535	325	1503	9.1	18.1
3403.0	9.4	41.4	51	10.1	1.60	9.13	28859	388	1480	9.1	18.1
3404.0	26.5	39.9	51	10.1	1.23	9.17	28975	138	1453	9.1	18.1
3405.0	42.4	37.3	45	10.1	1.00	9.19	29039	86	1425	9.1	18.1
3406.0	11.0	40.0	49	10.1	1.51	9.28	29304	333	1404	9.1	18.1
3407.0	6.1	40.4	51	10.1	1.74	9.45	29807	598	1388	9.1	18.1
3408.0	7.0	40.6	51	10.0	1.70	9.59	30242	518	1372	9.1	18.1
3409.0	5.2	40.7	51	10.0	1.82	9.78	30839	709	1360	9.1	18.1
3410.0	3.8	41.4	51	10.0	1.94	10.05	31655	965	1352	9.1	18.1
3411.0	4.4	41.1	51	10.0	1.88	10.27	32351	824	1343	9.1	18.1
3412.0	2.5	43.1	51	10.1	2.10	10.67	33570	1447	1345	9.1	18.1
3413.0	7.0	41.4	51	10.0	1.72	10.81	34008	518	1331	9.1	18.1
3414.0	3.9	42.6	51	10.0	1.95	11.07	34800	936	1324	9.1	18.1
3415.0	5.3	42.7	51	10.0	1.84	11.26	35384	692	1313	9.1	18.1
3416.0	3.2	42.1	52	10.0	2.02	11.57	36371	1155	1311	9.1	18.1
3417.0	4.1	47.7	52	10.0	2.02	11.82	37136	894	1304	9.1	18.1
3418.0	2.7	45.7	52	10.0	2.14	12.19	38301	1362	1305	9.1	18.1

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
3419.0	2.9	39.5	52	10.0	2.01	12.54	39390	1267	1304	9.1	18.1
3420.0	3.2	36.0	52	10.0	1.91	12.85	40380	1153	1302	9.1	18.1
3421.0	2.9	37.1	52	10.0	1.96	13.20	41455	1252	1301	9.1	18.1
3422.0	4.4	41.4	52	10.0	1.90	13.43	42171	835	1294	9.1	18.1
3423.0	12.4	39.1	52	10.0	1.50	13.51	42423	294	1280	9.3	18.1
3424.0	10.8	39.2	47	10.0	1.51	13.60	42682	337	1266	9.3	18.1
3425.0	3.6	40.9	53	10.0	1.96	13.87	43563	1005	1262	9.3	18.1
3426.0	2.1	41.8	54	10.0	2.18	14.36	45118	1761	1269	9.3	18.1
3427.0	3.1	42.1	54	10.0	2.04	14.68	46160	1177	1268	9.3	18.1
3428.0	2.9	44.3	54	10.0	2.10	15.02	47258	1245	1268	9.3	18.1
3429.0	2.2	44.7	53	10.0	2.22	15.48	48727	1682	1273	9.3	18.2
3430.0	2.6	45.0	53	10.0	2.16	15.87	49967	1427	1275	9.3	18.2
3431.0	2.0	44.1	53	10.0	2.22	16.36	51530	1804	1282	9.3	18.2
3432.0	2.5	42.9	53	10.0	2.12	16.76	52801	1461	1285	9.3	18.2
3433.0	3.8	43.2	53	10.0	1.98	17.03	53644	965	1280	9.3	18.2
3434.0	4.0	43.8	51	10.0	1.95	17.28	54398	906	1276	9.3	18.2
3435.0	4.1	44.3	52	10.0	1.96	17.52	55161	894	1271	9.3	18.2
3436.0	3.3	42.3	51	10.0	2.00	17.83	56097	1113	1269	9.3	18.2
3437.0	3.4	43.6	51	10.0	2.01	18.12	56992	1064	1266	9.3	18.2
3438.0	6.3	42.4	51	10.0	1.77	18.28	57480	579	1258	9.3	18.2
3439.0	9.3	41.2	51	10.0	1.62	18.38	57808	393	1248	9.3	18.2
3440.0	10.0	37.1	51	10.0	1.54	18.48	58116	365	1238	9.3	18.2
3441.0	9.4	43.7	51	10.0	1.65	18.59	58442	389	1228	9.3	18.2
3442.0	3.9	42.9	51	10.0	1.95	18.84	59225	930	1224	9.3	18.2
3443.0	7.0	43.1	51	10.0	1.75	18.99	59663	521	1216	9.3	18.2
3444.0	5.7	44.2	44	10.0	1.77	19.16	60121	639	1210	9.3	18.2
3445.0	8.4	41.6	52	10.0	1.67	19.28	60495	437	1201	9.3	18.2
3446.0	10.7	42.1	51	10.0	1.58	19.38	60782	341	1192	9.3	18.2
3447.0	13.1	41.7	50	10.0	1.50	19.45	61012	278	1182	9.3	18.2
3448.0	6.2	41.5	52	10.0	1.77	19.61	61511	588	1175	9.3	18.2
3449.0	6.0	41.9	52	10.0	1.79	19.78	62027	609	1169	9.3	18.2
3450.0	3.4	42.7	52	10.0	2.01	20.07	62955	1079	1168	9.3	18.2
3451.0	3.2	42.1	53	10.0	2.02	20.38	63929	1129	1168	9.3	18.2
3452.0	3.7	43.1	53	10.0	1.99	20.65	64786	978	1166	9.3	18.2
3453.0	3.1	45.9	51	10.0	2.09	20.98	65778	1192	1166	9.3	18.2
3454.0	3.6	44.8	52	10.0	2.03	21.26	66646	1017	1165	9.3	18.2
3455.0	2.8	44.5	52	10.0	2.12	21.62	67777	1322	1166	9.3	18.2
3456.0	2.7	43.5	52	10.0	2.11	21.99	68940	1360	1168	9.3	18.2
3457.0	7.7	41.2	52	10.0	1.70	22.12	69345	476	1162	9.3	18.2
3458.0	4.9	39.9	52	10.0	1.84	22.33	69986	748	1158	9.3	18.2
3459.0	3.4	44.4	52	10.0	2.04	22.62	70897	1066	1157	9.3	18.2
3460.0	2.5	45.2	52	9.9	2.18	23.03	72165	1488	1160	9.3	18.2
3461.0	1.8	46.5	52	10.0	2.31	23.58	73891	2029	1168	9.3	18.2
3462.0	1.9	45.0	51	10.0	2.25	24.10	75470	1885	1175	9.3	18.2
3463.0	2.0	40.5	50	9.9	2.15	24.59	76949	1790	1180	9.3	18.2
3464.0	12.1	31.9	47	9.9	1.39	24.67	77183	302	1172	9.3	18.2
3465.0	4.1	42.1	48	9.9	1.92	24.92	77899	901	1170	9.3	18.2
3466.0	1.8	45.9	48	10.0	2.25	25.46	79480	1984	1177	9.3	18.2
3467.0	1.2	46.6	48	10.0	2.42	26.30	81916	3064	1194	9.3	18.2
3468.0	1.4	46.8	45	9.9	2.37	27.03	83891	2652	1207	9.3	18.2

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
3469.0	2.0	41.8	53	10.0	2.20	27.52	85488	1817	1212	9.3	18.2
3470.0	21.8	39.1	50	10.0	1.29	27.57	85625	167	1203	9.3	18.2
3470.4	28.2	33.7	29	10.0	0.97	27.58	85649	129	1199	9.3	18.2

BIT NUMBER	15	IADC CODE	4	INTERVAL	3470.4- 3472.3
CHRIS C.201		SIZE	8.500	NOZZLES	14 14 15
COST	0.00	TRIP TIME	10.0	BIT RUN	1.9
TOTAL HOURS	1.69	TOTAL TURNS	7315	CONDITION	T0 B0 G0.000

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
3470.9	12.9	15.6	82	9.9	1.25	0.04	191	284	73324	9.5	18.2
3471.2	14.8	20.0	80	9.9	1.29	0.06	288	247	45920	9.5	18.2
3471.6	2.5	21.0	71	10.0	1.78	0.22	965	1461	31100	9.5	18.2
3471.7	0.4	22.0	69	10.0	2.32	0.47	2004	9130	29410	9.5	18.2
3471.8	1.2	24.3	72	10.0	2.07	0.55	2351	2952	27520	9.5	18.2
3471.9	0.3	26.1	72	10.0	2.57	0.92	3938	13452	26583	9.5	18.2
3472.0	0.2	26.3	73	10.0	2.70	1.45	6284	19579	26145	9.5	18.2
3472.1	1.0	26.1	73	9.9	2.20	1.56	6734	3743	24827	9.5	18.2
3472.2	1.0	25.3	72	9.9	2.17	1.66	7167	3672	23652	9.5	18.2
3472.3	2.9	24.9	71	9.9	1.84	1.69	7315	1258	22473	9.5	18.2

BIT NUMBER	16	IADC CODE	537	INTERVAL	3472.3- 3550.0
HTC J33		SIZE	8.500	NOZZLES	12 12 12
COST	4455.00	TRIP TIME	9.8	BIT RUN	77.7
TOTAL HOURS	21.42	TOTAL TURNS	68742	CONDITION	T3 B4 G0.000

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
3473.3	1.4	19.0	60	10.5	1.76	0.70	2516	2546	42791	9.5	18.2
3474.0	3.2	27.0	57	10.5	1.69	0.91	3256	1136	25639	9.5	18.2
3475.0	10.8	30.4	57	10.5	1.38	1.01	3573	338	16268	9.5	18.2
3476.0	14.8	31.2	57	10.6	1.29	1.08	3805	248	11938	9.5	18.2
3477.0	12.9	26.8	52	10.6	1.24	1.15	4045	282	9458	9.5	18.2
3478.0	3.2	25.8	55	10.6	1.63	1.46	5068	1136	7998	9.5	18.2
3479.0	6.3	31.7	55	10.6	1.54	1.62	5592	581	6891	9.8	18.2
3480.0	17.6	32.1	57	10.6	1.24	1.68	5787	208	6023	9.8	18.2
3481.0	10.4	30.1	60	10.6	1.39	1.78	6131	351	5371	9.8	18.2
3482.0	5.4	32.6	59	10.6	1.62	1.96	6784	677	4887	9.8	18.2
3483.0	2.7	32.9	54	10.6	1.81	2.33	7979	1335	4555	9.8	18.2
3484.0	3.0	33.4	53	10.6	1.77	2.66	9024	1201	4269	9.8	18.2
3485.0	3.4	34.6	51	10.7	1.75	2.95	9941	1085	4018	9.8	18.2
3486.0	2.8	34.0	54	10.6	1.82	3.32	11121	1328	3822	9.8	18.2
3487.0	2.6	33.2	54	10.6	1.83	3.70	12359	1400	3657	9.8	18.2
3488.0	6.1	33.9	53	10.6	1.57	3.86	12874	595	3462	9.8	18.2
3489.0	3.2	34.1	53	10.6	1.78	4.18	13876	1151	3324	10.1	18.2

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
3490.0	1.7	30.3	54	10.6	1.91	4.78	15814	2203	3260	10.1	18.2
3491.0	1.4	29.4	55	10.5	1.97	5.50	18197	2642	3227	10.1	18.2
3492.0	1.2	29.1	55	10.6	1.99	6.33	20913	3008	3216	10.1	18.2
3493.0	1.0	30.5	54	10.5	2.07	7.31	24100	3593	3234	10.1	18.2
3494.0	2.6	30.6	56	10.5	1.82	7.70	25403	1407	3150	10.1	18.2
3495.0	11.6	28.4	57	10.4	1.34	7.78	25697	315	3025	10.1	18.2
3496.0	14.0	27.2	48	10.5	1.21	7.86	25905	262	2909	10.1	18.2
3497.0	14.3	28.5	53	10.5	1.25	7.93	26125	255	2801	10.1	18.2
3498.0	5.3	25.2	53	10.5	1.49	8.12	26725	694	2719	10.1	18.2
3499.0	6.4	30.2	52	10.5	1.51	8.27	27214	568	2639	10.1	18.2
3500.0	4.8	30.0	53	10.5	1.60	8.48	27865	754	2571	10.5	18.2
3501.0	5.7	30.1	52	10.5	1.54	8.65	28413	639	2503	10.5	18.2
3502.0	4.5	29.7	52	10.5	1.61	8.88	29113	816	2446	10.5	18.2
3504.0	3.7	31.4	52	10.5	1.70	9.42	30823	1000	2355	10.5	18.2
3505.0	4.8	28.3	52	10.5	1.56	9.63	31470	758	2306	10.5	18.2
3506.0	4.6	30.3	52	10.5	1.61	9.85	32143	787	2261	10.5	18.2
3507.0	7.1	30.4	52	10.5	1.48	9.99	32585	517	2211	10.5	18.2
3508.0	5.2	31.2	52	10.5	1.59	10.18	33188	706	2169	10.5	18.2
3509.0	2.7	32.2	52	10.5	1.80	10.55	34329	1334	2146	10.5	18.2
3510.0	2.1	31.9	52	10.6	1.87	11.03	35840	1762	2136	10.5	18.2
3511.0	2.6	30.6	52	10.6	1.78	11.42	37054	1414	2117	10.5	18.3
3512.0	8.9	30.1	52	10.6	1.39	11.53	37405	410	2074	10.5	18.3
3513.0	6.5	30.1	51	10.6	1.49	11.68	37883	565	2037	10.5	18.3
3514.0	9.6	29.8	52	10.7	1.36	11.79	38210	381	1997	10.5	18.3
3515.0	7.2	30.4	52	10.7	1.45	11.93	38645	508	1963	10.5	18.3
3516.0	2.6	31.3	52	10.8	1.75	12.31	39849	1399	1950	10.5	18.3
3517.0	3.0	30.8	52	10.9	1.69	12.64	40899	1219	1933	10.5	18.3
3518.0	2.8	31.3	53	11.0	1.71	13.01	42042	1323	1920	10.5	18.3
3519.0	2.2	31.5	52	11.1	1.75	13.45	43445	1636	1914	10.5	18.3
3520.0	3.8	34.9	54	11.2	1.65	13.71	44294	953	1894	10.5	18.3
3521.0	2.2	35.5	55	11.2	1.83	14.17	45814	1680	1889	10.5	18.3
3522.0	5.2	34.1	48	11.2	1.50	14.37	46370	698	1865	10.5	18.3
3523.0	6.1	34.4	58	11.2	1.52	14.53	46944	601	1840	10.5	18.3
3524.0	6.8	34.4	58	11.2	1.49	14.68	47455	534	1815	10.5	18.3
3525.0	3.5	35.2	57	11.2	1.69	14.96	48417	1031	1800	10.5	18.3
3526.0	2.4	38.0	56	11.2	1.84	15.37	49798	1511	1795	10.5	18.3
3527.0	2.8	35.5	56	11.2	1.76	15.73	51009	1318	1786	10.5	18.3
3528.0	2.3	35.5	56	11.2	1.82	16.17	52485	1605	1783	10.5	18.3
3529.0	2.7	34.4	56	11.2	1.75	16.54	53729	1348	1775	10.5	18.3
3530.0	3.8	34.6	56	11.2	1.65	16.80	54616	959	1761	10.5	18.3
3531.0	2.7	36.1	56	11.2	1.78	17.18	55884	1367	1754	10.5	18.3
3532.0	4.0	34.6	53	11.2	1.62	17.43	56679	912	1740	10.5	18.3
3533.0	16.8	29.3	52	11.2	1.13	17.49	56863	217	1715	10.5	18.3
3534.0	14.7	34.9	50	11.2	1.22	17.56	57067	249	1691	10.5	18.3
3535.0	9.9	34.0	52	11.2	1.34	17.66	57383	367	1670	10.5	18.3
3536.0	8.1	33.3	52	11.2	1.39	17.78	57770	450	1651	10.5	18.3
3537.0	5.8	33.3	52	11.2	1.49	17.95	58307	629	1635	10.5	18.3
3538.0	14.0	35.0	52	11.2	1.25	18.02	58529	261	1614	10.5	18.3
3539.0	4.9	35.0	52	11.2	1.56	18.23	59165	744	1601	10.5	18.3
3540.0	5.6	35.3	52	11.2	1.53	18.41	59721	650	1587	10.5	18.3

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
3541.0	4.5	34.2	50	11.2	1.57	18.63	60388	816	1576	10.5	18.3
3542.0	7.3	33.2	48	11.2	1.40	18.77	60786	502	1561	10.5	18.3
3543.0	5.8	33.8	48	11.2	1.48	18.94	61286	631	1548	10.5	18.3
3544.0	2.5	33.4	48	11.1	1.72	19.33	62433	1441	1546	10.5	18.3
3545.0	3.8	37.1	48	11.1	1.66	19.60	63196	962	1538	10.5	18.3
3546.0	2.7	35.8	48	11.1	1.75	19.97	64286	1375	1536	10.5	18.3
3547.0	3.1	35.4	49	11.1	1.70	20.30	65238	1194	1531	10.5	18.3
3548.0	3.3	36.2	50	11.1	1.70	20.61	66160	1123	1526	10.5	18.3
3549.0	2.2	34.9	53	11.1	1.82	21.05	67566	1627	1527	10.5	18.3
3550.0	2.7	34.3	53	11.0	1.76	21.42	68742	1352	1525	10.5	18.3

(d). COMPUTER DATA LISTING : LIST B

INTERVAL . . . . . 10m averages.

DEPTH. . . . . Well depth, in metres.

ROP. . . . . Rate of penetration, in metres per hour.

BIT RUN. . . . . Depth interval drilled by the bit, in metres.

HOURS. . . . . Cumulative bit hours. The number of hours that the bit has actually been 'on bottom', recorded in decimal hours.

TURNS. . . . . Cumulative bit turns. The number of turns made by the bit, while actually 'on bottom'.

TOTAL COST . . . . . Cumulative bit cost, in A dollars.

ICOST. . . . . Incremental cost per metre, calculated from the drilling time, in A dollars.

CCOST. . . . . Cumulative cost per metre, calculated from the drilling time, in A dollars.

IC . . . . . ICOST minus CCOST, expressed as a positive or negative sign. When the bit becomes worn, (and therefore uneconomic), this should change from negative to positive.

BIT NUMBER	1	IADC CODE	111	INTERVAL	224.0- 815.0
HTC OSC 3AJ		SIZE	17.500	NOZZLES	20 20 20
COST	0.00	TRIP TIME	2.5	BIT RUN	591.0
TOTAL HOURS	18.73	TOTAL TURNS	140604	CONDITION	T0 B0 G0.000

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
230.0	144.8	6.0	0.04	186	9281.28	25	1547	-
240.0	57.5	16.0	0.22	970	9916.83	63.55	619.80	-
250.0	117.6	26.0	0.30	1466	10227.25	31.04	393.36	-
260.0	92.3	36.0	0.41	2269	10622.88	39.56	295.08	-
270.0	80.0	46.0	0.53	3223	11079.38	45.65	240.86	-
280.0	60.5	56.0	0.70	4503	11682.98	60.36	208.62	-
290.0	86.3	66.0	0.81	5397	12106.00	42.30	183.42	-
300.0	92.6	76.0	0.92	6219	12500.28	39.43	164.48	-
310.0	64.6	86.0	1.08	7391	13065.33	56.50	151.92	-
320.0	69.1	96.0	1.22	8500	13593.85	52.85	141.60	-
340.0	48.8	116.0	1.63	11624	15089.26	74.77	130.08	-
350.0	33.6	126.0	1.93	13912	16176.75	108.75	128.39	-
360.0	41.9	136.0	2.17	15740	17048.66	87.19	125.36	-
370.0	42.0	146.0	2.41	17559	17919.05	87.04	122.73	-
380.0	43.1	156.0	2.64	19353	18766.12	84.71	120.30	-
390.0	46.7	166.0	2.85	21010	19548.25	78.21	117.76	-
410.0	32.4	186.0	3.47	25766	21800.25	112.60	117.21	-
420.0	56.7	196.0	3.65	27093	22444.42	64.42	114.51	-
430.0	42.2	206.0	3.88	28851	23309.74	86.53	113.15	-
450.0	42.1	226.0	4.36	32463	25045.46	86.79	110.82	-
460.0	37.4	236.0	4.63	34512	26021.35	97.59	110.26	-
470.0	44.0	246.0	4.85	36221	26851.17	82.98	109.15	-
480.0	42.5	256.0	5.09	37965	27711.42	86.02	108.25	-
490.0	51.3	266.0	5.28	39398	28423.56	71.21	106.86	-
500.0	35.5	276.0	5.56	41483	29452.20	102.86	106.71	-
510.0	36.3	286.0	5.84	43538	30459.55	100.73	106.50	-
530.0	21.9	306.0	6.75	49972	33788.95	166.47	110.42	+
540.0	25.0	316.0	7.15	52206	35249.75	146.08	111.55	+
550.0	22.3	326.0	7.60	55456	36890.11	164.04	113.16	+
560.0	31.6	336.0	7.92	58046	38044.55	115.44	113.23	+
570.0	35.0	346.0	8.20	60375	39089.43	104.49	112.98	-
580.0	35.1	356.0	8.49	62444	40130.25	104.08	112.73	-
600.0	41.0	376.0	8.98	66374	41912.62	89.12	111.47	-
610.0	40.1	386.0	9.23	68397	42822.36	90.97	110.94	
620.0	32.2	396.0	9.54	70912	43955.50	113.31	111.00	+
630.0	32.0	406.0	9.85	73448	45096.75	114.13	111.08	+
640.0	25.5	416.0	10.24	76616	46528.13	143.14	111.85	+
650.0	26.3	426.0	10.62	79689	47915.89	138.78	112.48	+
670.0	24.0	446.0	11.45	85975	50953.13	151.86	114.24	+
680.0	23.1	456.0	11.88	89240	52533.64	158.05	115.21	+
690.0	19.4	466.0	12.40	93128	54411.37	187.77	116.76	
700.0	19.2	476.0	12.92	97044	56316.50	190.51	118.31	+
710.0	20.5	486.0	13.41	100718	58095.84	177.93	119.54	+

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
720.0	20.5	496.0	13.90	104420	59877.20	178.14	120.72	+
730.0	19.2	506.0	14.42	108370	61778.27	190.11	122.09	+
740.0	18.7	516.0	14.95	112417	63732.09	195.38	123.51	+
750.0	17.4	526.0	15.53	116771	65836.05	210.40	125.16	+
760.0	16.8	536.0	16.12	121180	68012.03	217.60	126.89	+
770.0	19.7	546.0	16.63	125061	69866.44	185.44	127.96	+
780.0	21.9	556.0	17.09	128524	71534.18	166.77	128.66	+
790.0	19.8	566.0	17.59	132337	73375.40	184.12	129.64	+
800.0	24.0	576.0	18.01	135320	74898.08	152.27	130.03	+
810.0	19.7	586.0	18.52	138990	76747.41	184.93	130.97	+
815.0	23.1	591.0	18.73	140604	77538.68	158.25	131.20	+

BIT NUMBER	2	IADC CODE	116	INTERVAL	815.0- 1175.0
HTC J1		SIZE	12.250	NOZZLES	18 18 18
COST	2566.00	TRIP TIME	3.8	BIT RUN	360.0
TOTAL HOURS	14.41	TOTAL TURNS	86422	CONDITION	T4 B3 G0.000

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
820.0	27.3	5.0	0.18	861	17112.86	134	3423	-
840.0	25.3	25.0	0.97	4908	19994.90	144.10	799.80	-
850.0	21.5	35.0	1.44	7285	21689.88	169.50	619.71	-
860.0	31.9	45.0	1.75	8939	22833.16	114.33	507.40	-
870.0	49.8	55.0	1.95	10002	23565.81	73.27	428.47	-
880.0	42.2	65.0	2.19	11295	24432.15	86.63	375.88	-
890.0	45.5	75.0	2.41	12516	25234.57	80.24	336.46	-
900.0	51.7	85.0	2.60	13586	25940.63	70.61	305.18	-
910.0	42.3	95.0	2.84	14802	26803.45	86.28	282.14	-
920.0	53.1	105.0	3.03	15822	27491.29	68.78	261.82	-
930.0	38.6	115.0	3.28	17226	28437.09	94.58	247.28	-
940.0	34.3	125.0	3.58	18813	29500.88	106.38	236.01	-
960.0	39.2	145.0	4.09	21580	31365.77	93.24	216.32	-
970.0	29.4	155.0	4.43	23463	32609.10	124.33	210.38	-
980.0	34.2	165.0	4.72	25127	33678.32	106.92	204.11	-
990.0	41.9	175.0	4.96	26415	34548.90	87.06	197.42	-
1000.0	35.1	185.0	5.24	28062	35589.04	104.01	192.37	-
1010.0	27.9	195.0	5.60	30270	36896.66	130.76	189.21	-
1020.0	32.6	205.0	5.91	32151	38016.61	111.99	185.45	-
1030.0	38.5	215.0	6.17	33731	38964.70	94.81	181.23	-
1040.0	29.5	225.0	6.51	35810	40200.80	123.61	178.67	-
1050.0	25.7	235.0	6.89	38237	41623.05	142.23	177.12	-
1060.0	25.9	245.0	7.28	40623	43031.10	140.80	175.64	-
1070.0	26.7	255.0	7.65	42950	44398.57	136.75	174.11	-
1080.0	25.1	265.0	8.05	45447	45854.73	145.62	173.04	-
1090.0	19.8	275.0	8.56	48583	47699.90	184.52	173.45	+
1100.0	23.4	285.0	8.99	51217	49262.14	156.22	172.85	-
1110.0	20.8	295.0	9.47	54319	51017.81	175.57	172.94	+
1120.0	11.9	305.0	10.31	60039	54094.34	307.65	177.36	+

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
1130.0	15.6	315.0	10.95	64109	56438.17	234.38	179.17	+
1140.0	14.6	325.0	11.64	68531	58947.00	250.88	181.38	+
1150.0	16.8	335.0	12.23	72571	61121.49	217.45	182.45	+
1160.0	16.8	345.0	12.83	76572	63299.32	217.78	183.48	+
1170.0	9.0	355.0	13.94	83752	67358.56	405.92	189.74	+
1175.0	10.7	360.0	14.41	86422	69058.77	340.04	191.83	+

BIT NUMBER	3	IADC CODE	517	INTERVAL	1175.0- 1489.0
HTC J22		SIZE	12.250	NOZZLES	16 16 18
COST	8520.00	TRIP TIME	4.5	BIT RUN	314.0
TOTAL HOURS	11.66	TOTAL TURNS	61746	CONDITION	T2 B2 G0.000

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
1190.0	8.5	15.0	1.77	7450	31415.57	431	2094	-
1200.0	20.9	25.0	2.25	9678	33161.88	175	1326	-
1210.0	17.0	35.0	2.84	12423	35315.55	215	1009	-
1220.0	20.2	45.0	3.33	14886	37123.29	180.77	824.96	-
1230.0	20.3	55.0	3.82	17652	38920.89	179.76	707.65	-
1250.0	20.0	75.0	4.83	23257	42578.97	182.90	567.72	-
1260.0	13.4	85.0	5.57	27549	45297.68	271.87	532.91	-
1270.0	10.4	95.0	6.53	33019	48809.69	351.20	513.79	-
1290.0	45.6	115.0	6.97	35428	50411.54	80.09	438.36	-
1300.0	108.4	125.0	7.06	35930	50748.39	33.69	405.99	-
1330.0	110.7	155.0	7.33	37463	51737.80	32.98	333.79	-
1370.0	51.1	195.0	8.12	43095	54597.00	71.48	279.98	-
1380.0	33.2	205.0	8.42	45008	55697.33	110.03	271.69	-
1390.0	32.3	215.0	8.73	46799	56826.41	112.91	264.31	-
1400.0	19.3	225.0	9.24	49349	58716.32	188.99	260.96	-
1410.0	26.4	235.0	9.62	51411	60101.04	138.47	255.75	-
1420.0	68.7	245.0	9.77	52235	60632.61	53.16	247.48	-
1430.0	35.5	255.0	10.05	53828	61660.24	102.76	241.80	-
1440.0	30.2	265.0	10.38	55606	62869.75	120.95	237.24	-
1450.0	24.4	275.0	10.79	57682	64365.41	149.57	234.06	-
1460.0	158.9	285.0	10.85	58012	64595.18	22.98	226.65	-
1480.0	73.2	305.0	11.13	59349	65593.12	49.90	215.06	-
1489.0	17.0	314.0	11.66	61746	67528.72	215.07	215.06	+

BIT NUMBER	3	IADC CODE	4	INTERVAL	1489.0- 1500.4
CHRIST RC4		SIZE	9.875	NOZZLES	15 15 15
COST	0.00	TRIP TIME	5.2	BIT RUN	11.4
TOTAL HOURS	0.08	TOTAL TURNS	370	CONDITION	T0 B0 G0.000

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
1490.0	102.8	1.0	0.01	42	19025.91	36	19026	-

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
1500.4	145.2	11.4	0.08	370	19287.47	25	1692	-

BIT NUMBER	3	IADC CODE	4	INTERVAL	1500.4- 1511.6
CHRIST RC4		SIZE	9.875	NOZZLES	15 15 15
COST	0.00	TRIP TIME	5.2	BIT RUN	11.2
TOTAL HOURS	0.19	TOTAL TURNS	953	CONDITION	T0 B0 G0.000

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
1511.6	57.8	11.2	0.19	953	19697.92	63	1759	-

BIT NUMBER	4	IADC CODE	517	INTERVAL	1511.6- 1668.0
HTC J22		SIZE	12.250	NOZZLES	16 16 16
COST	8520.00	TRIP TIME	5.3	BIT RUN	156.4
TOTAL HOURS	24.37	TOTAL TURNS	74831	CONDITION	T8 B6 G0.250

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
1520.0	14.4	8.4	0.58	2395	30006.25	254	3572	-
1530.0	17.9	18.4	1.14	4130	32040.97	203	1741	-
1540.0	11.9	28.4	1.98	6728	35105.82	306	1236	-
1550.0	25.0	38.4	2.38	7988	36566.20	146.04	952.24	-
1560.0	61.8	48.4	2.54	8478	37156.78	59.06	767.70	-
1570.0	19.2	58.4	3.06	10067	39055.31	189.85	668.76	-
1580.0	20.4	68.4	3.55	11547	40845.04	178.97	597.15	-
1590.0	4.0	78.4	6.06	19399	50002.63	915.76	637.79	+
1600.0	3.6	88.4	8.86	27882	60226.39	1022	681	+
1610.0	4.3	98.4	11.18	35423	68688.89	846.25	698.06	+
1620.0	5.8	108.4	12.89	40609	74961.20	627.23	691.52	-
1630.0	10.0	118.4	13.90	43657	78626.39	366.52	664.07	-
1640.0	3.0	128.4	17.28	53642	90992.97	1237	709	+
1650.0	4.1	138.4	19.71	61258	99840.45	884.75	721.39	+
1660.0	7.0	148.4	21.14	65566	105091.21	525.08	708.16	-
1668.0	2.5	156.4	24.37	74831	116859.78	1471	747	+

BIT NUMBER	5	IADC CODE	617	INTERVAL	1668.0- 2147.0
HTC J44		SIZE	12.250	NOZZLES	16 16 16
COST	6919.00	TRIP TIME	5.6	BIT RUN	479.0
TOTAL HOURS	66.28	TOTAL TURNS	201979	CONDITION	T2 B4 G0.000

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
1670.0	4.7	2.0	0.43	1416	28924.33	777	14462	-
1680.0	15.7	12.0	1.06	3568	31257.55	233	2605	-
1690.0	36.6	22.0	1.34	4482	32255.39	100	1466	-
1700.0	26.0	32.0	1.72	5883	33660.39	141	1052	-
1710.0	12.9	42.0	2.50	8699	36495.64	283.52	868.94	-
1720.0	9.4	52.0	3.57	12587	40392.63	389.70	776.78	-
1730.0	18.0	62.0	4.12	14610	42423.55	203.09	684.25	-
1740.0	22.4	72.0	4.57	15936	44055.79	163.22	611.89	-
1750.0	26.0	82.0	4.95	17068	45459.44	140.37	554.38	-
1760.0	13.4	92.0	5.70	19310	48175.11	271.57	523.64	-
1770.0	6.9	102.0	7.14	23605	53460.37	528.53	524.12	+
1780.0	14.7	112.0	7.82	25654	55944.74	248.44	499.51	-
1800.0	19.4	132.0	8.85	28854	59703.76	187.93	452.30	-
1810.0	5.7	142.0	10.59	34078	66061.80	635.85	465.22	+
1820.0	14.6	152.0	11.28	36183	68554.96	249.32	451.02	-
1830.0	28.7	162.0	11.63	37262	69827.07	127.21	431.03	-
1850.0	5.0	182.0	15.60	49097	84338.70	725.58	463.40	+
1860.0	8.2	192.0	16.82	52665	88801.10	446.24	462.51	-
1870.0	12.0	202.0	17.66	55109	91849.50	304.84	454.70	-
1880.0	6.3	212.0	19.25	60066	97661.26	581.18	460.67	+
1890.0	7.4	222.0	20.60	64786	102594.58	493.33	462.14	+
1900.0	3.7	232.0	23.31	73106	112483.95	988.94	484.84	+
1910.0	7.0	242.0	24.74	77407	117718.48	523.45	486.44	+
1920.0	4.4	252.0	27.00	84182	125964.90	824.64	499.86	+
1930.0	6.0	262.0	28.66	89171	132037.62	607.27	503.96	+
1940.0	10.1	272.0	29.65	92152	135665.43	362.78	498.77	-
1950.0	8.0	282.0	30.90	95901	140229.78	456.44	497.27	-
1970.0	6.9	302.0	33.81	104615	150836.81	530.35	499.46	+
1980.0	4.7	312.0	35.95	111048	158666.29	782.95	508.55	+
1990.0	4.5	322.0	38.15	117652	166703.74	803.74	517.71	+
2000.0	19.3	332.0	38.67	119204	168592.63	188.89	507.81	-
2010.0	4.3	342.0	41.00	126209	177119.04	852.64	517.89	+
2020.0	4.5	352.0	43.24	132919	185284.30	816.53	526.38	+
2030.0	8.4	362.0	44.43	136490	189629.95	434.56	523.84	-
2040.0	4.5	372.0	46.64	143127	197706.95	807.70	531.47	+
2050.0	4.8	382.0	48.70	149313	205237.49	753.05	537.27	+
2060.0	4.0	392.0	51.23	156891	214469.91	923.24	547.12	+
2070.0	8.9	402.0	52.35	160244	218558.05	408.81	543.68	-
2080.0	10.7	412.0	53.28	163036	221962.53	340.45	538.74	-
2090.0	4.4	422.0	55.57	169881	230311.41	834.89	545.76	+
2100.0	13.3	432.0	56.32	172129	233052.24	274.08	539.47	-
2110.0	6.9	442.0	57.78	176489	238369.50	531.73	539.30	-
2120.0	6.5	452.0	59.32	181121	244014.46	564.50	539.85	.

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
2130.0	4.1	462.0	61.78	188487	252995.00	898.05	547.61	+
2140.0	3.9	472.0	64.33	196136	262317.74	932.27	555.76	+
2147.0	3.6	479.0	66.28	201979	269442.18	1018	563	+

BIT NUMBER	6	IADC CODE	517	INTERVAL	2147.0- 2340.5
HTC J22		SIZE	12.250	NOZZLES	16 16 16
COST	8520.00	TRIP TIME	6.6	BIT RUN	193.5
TOTAL HOURS	35.97	TOTAL TURNS	107506	CONDITION	T6 B4 G0.062

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
2150.0	3.1	3.0	0.98	2603	36187.85	1188	12063	-
2160.0	4.2	13.0	3.35	9698	44845.11	866	3450	-
2170.0	7.8	23.0	4.63	13538	49528.97	468	2153	-
2180.0	5.7	33.0	6.37	18746	55884.47	636	1693	-
2190.0	9.7	43.0	7.40	21839	59658.09	377	1387	-
2200.0	6.7	53.0	8.90	26328	65133.73	548	1229	-
2210.0	5.7	63.0	10.65	31566	71521.68	639	1135	-
2220.0	11.5	73.0	11.52	34162	74687.76	317	1023	-
2230.0	5.2	83.0	13.45	39946	81735.62	704.79	984.77	-
2240.0	4.7	93.0	15.58	46346	89532.13	779.65	962.71	-
2250.0	5.9	103.0	17.28	51440	95746.09	621.40	929.57	-
2260.0	7.6	113.0	18.60	55376	100543.40	479.73	889.76	-
2270.0	5.3	123.0	20.50	61059	107475.33	693.19	873.78	-
2280.0	9.2	133.0	21.58	64318	111448.42	397.31	837.96	-
2290.0	6.1	143.0	23.22	69206	117408.48	596.01	821.04	-
2300.0	5.0	153.0	25.22	75216	124736.20	732.77	815.27	-
2310.0	4.4	163.0	27.48	81984	132997.83	826.16	815.94	+
2320.0	4.9	173.0	29.51	88048	140397.88	740.00	811.55	-
2330.0	3.0	183.0	32.81	97922	152448.47	1205	833	+
2340.0	3.4	193.0	35.72	106742	163055.71	1061	845	+
2340.5	2.0	193.5	35.97	107506	163983.93	1856	847	+

BIT NUMBER	7	IADC CODE	537	INTERVAL	2340.5- 2537.3
HTC J33		SIZE	12.250	NOZZLES	16 16 16
COST	8266.00	TRIP TIME	7.2	BIT RUN	196.8
TOTAL HOURS	41.90	TOTAL TURNS	126033	CONDITION	T3 B5 G0.125

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
2350.0	4.5	9.5	2.10	6312	42229.63	807	4445	-
2360.0	7.1	19.5	3.50	10520	47349.35	512	2428	-
2370.0	6.4	29.5	5.05	15184	53014.41	567	1797	-
2380.0	7.3	39.5	6.42	19300	58017.43	500	1469	-
2390.0	5.2	49.5	8.36	25140	65106.37	709	1315	-
2400.0	4.2	59.5	10.73	32243	73733.21	863	1239	-
2410.0	4.2	69.5	13.11	39412	82430.04	870	1186	-
2420.0	5.1	79.5	15.07	45308	89585.84	716	1127	-
2430.0	7.6	89.5	16.38	49264	94382.14	480	1055	-
2440.0	5.9	99.5	18.07	54339	100541.67	616	1010	-
2450.0	3.9	109.5	20.60	61971	109799.37	926	1003	-
2460.0	4.0	119.5	23.08	69429	118840.60	904.12	994.48	-

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
2470.0	4.6	129.5	25.27	76042	126864.52	802.39	979.65	-
2480.0	4.8	139.5	27.35	82300	134460.68	759.62	963.88	-
2490.0	5.2	149.5	29.29	88131	141538.46	707.78	946.75	-
2500.0	4.6	159.5	31.45	94639	149423.74	788.53	936.83	-
2510.0	3.1	169.5	34.68	104272	161194.80	1177	951	+
2520.0	3.7	179.5	37.36	112355	171004.98	981.02	952.67	+
2530.0	3.5	189.5	40.26	121079	181585.13	1058	958	+
2537.3	4.4	196.8	41.90	126033	187594.19	823.16	953.22	-

BIT NUMBER	8	IADC CODE	617	INTERVAL	2537.3- 2735.9
HTC J44		SIZE	12.250	NOZZLES	16 16 16
COST	6919.00	TRIP TIME	8.0	BIT RUN	198.6
TOTAL HOURS	55.17	TOTAL TURNS	167594	CONDITION	T3 B4 G0.125

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
2540.0	7.6	2.7	0.35	1062	37427.40	479	13862	-
2550.0	5.7	12.7	2.12	6357	43873.69	645	3455	-
2560.0	5.3	22.7	4.02	12075	50821.62	695	2239	-
2570.0	2.4	32.7	8.24	24779	66230.69	1541	2025	-
2580.0	4.5	42.7	10.45	31432	74304.66	807	1740	-
2590.0	6.2	52.7	12.06	36281	80191.48	589	1522	-
2600.0	4.5	62.7	14.26	42867	88223.85	803	1407	-
2610.0	4.1	72.7	16.71	50198	97162.12	894	1336	-
2620.0	5.2	82.7	18.64	55967	104197.80	704	1260	-
2630.0	4.3	92.7	20.96	62921	112670.15	847	1215	-
2640.0	4.2	102.7	23.33	70051	121351.26	868	1182	-
2650.0	3.3	112.7	26.41	79284	132587.24	1124	1176	-
2660.0	2.7	122.7	30.13	90442	146153.92	1357	1191	+
2670.0	3.0	132.7	33.49	100549	158431.74	1228	1194	+
2680.0	2.2	142.7	38.08	114365	175209.63	1678	1228	+
2690.0	2.5	152.7	42.15	126615	190078.35	1487	1245	+
2700.0	4.2	162.7	44.53	133768	198759.62	868	1222	-
2710.0	4.7	172.7	46.64	140106	206449.15	769	1195	-
2720.0	2.8	182.7	50.21	150868	219504.03	1305	1201	+
2730.0	3.1	192.7	53.46	161421	231375.06	1187	1201	-
2735.9	3.4	198.6	55.17	167594	237627.08	1060	1197	-

BIT NUMBER	9	IADC CODE	537	INTERVAL	2735.9- 2921.1
HTC J33		SIZE	12.250	NOZZLES	16 16 16
COST	8266.00	TRIP TIME	8.5	BIT RUN	185.2
TOTAL HOURS	43.20	TOTAL TURNS	129459	CONDITION	T0 B0 G0.000

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
2740.0	3.2	4.1	1.27	3674	43935.73	1129	10716	-
2750.0	4.2	14.1	3.65	10833	52650.05	871	3734	-
2760.0	5.6	24.1	5.42	16147	59119.16	647	2453	-
2770.0	10.2	34.1	6.40	19080	62690.01	357	1838	-
2780.0	6.9	44.1	7.85	23412	67963.09	527	1541	-
2790.0	8.2	54.1	9.07	27078	72425.63	446	1339	-
2800.0	6.2	64.1	10.68	31905	78302.31	588	1222	-
2810.0	6.5	74.1	12.23	36551	83958.03	566	1133	-
2820.0	2.8	84.1	15.84	47378	97137.69	1318	1155	+
2830.0	3.9	94.1	18.38	55023	106444.71	931	1131	-
2840.0	3.4	104.1	21.30	63769	117091.30	1065	1125	-
2850.0	3.3	114.1	24.33	72861	128159.06	1107	1123	-
2860.0	4.1	124.1	26.75	80124	137000.96	884	1104	-
2870.0	4.2	134.1	29.11	87208	145624.24	862	1086	-
2880.0	3.6	144.1	31.87	95475	155687.17	1006	1080	-
2890.0	3.6	154.1	34.67	103872	165910.23	1022	1077	-
2900.0	3.8	164.1	37.30	111762	175514.99	960	1070	-
2910.0	3.2	174.1	40.43	121157	186951.21	1144	1074	+
2920.0	4.1	184.1	42.85	128435	195811.37	886	1064	-
2921.1	3.2	185.2	43.20	129459	197057.10	1132	1064	+

BIT NUMBER	10	IADC CODE	517	INTERVAL	2921.1- 3168.9
HTC J22		SIZE	12.250	NOZZLES	16 16 16
COST	8266.00	TRIP TIME	8.7	BIT RUN	247.8
TOTAL HOURS	54.61	TOTAL TURNS	164197	CONDITION	T0 B0 G0.000

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
2930.0	5.1	8.9	1.75	5901	46440.81	719	5218	-
2940.0	4.7	18.9	3.90	12625	54274.35	783	2872	-
2950.0	5.8	28.9	5.61	17880	60542.46	627	2095	-
2960.0	5.9	38.9	7.32	22495	66767.09	622	1716	-
2970.0	4.0	48.9	9.81	29279	75857.30	909	1551	-
2980.0	5.5	58.9	11.63	34709	82498.87	664	1401	-
2990.0	4.3	68.9	13.96	41432	91024.26	853	1321	-
3000.0	3.8	78.9	16.60	49459	100669.60	965	1276	-
3010.0	3.6	88.9	19.35	57921	110699.41	1003	1245	-
3020.0	4.4	98.9	21.61	64674	118954.96	826	1203	-
3030.0	6.3	108.9	23.20	69354	124764.68	581	1146	-
3040.0	4.6	118.9	25.37	75902	132699.67	793	1116	-
3050.0	6.5	128.9	26.91	80615	138321.72	562	1073	-

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
3060.0	5.8	138.9	28.65	86119	144650.84	633	1041	-
3070.0	4.7	148.9	30.78	92339	152431.63	778	1024	-
3080.0	5.5	158.9	32.58	97621	159031.60	660	1001	-
3090.0	6.3	168.9	34.17	102427	164825.09	579.35	975.87	-
3100.0	4.0	178.9	36.64	110155	173863.79	903.87	971.85	-
3110.0	5.6	188.9	38.42	115644	180345.08	648.13	954.71	-
3120.0	4.9	198.9	40.45	121744	187763.71	741.86	944.01	-
3130.0	6.6	208.9	41.96	126282	193265.04	550.13	925.16	-
3140.0	3.0	218.9	45.32	136306	205548.95	1228	939	
3150.0	3.9	228.9	47.89	144001	214934.59	938.56	938.99	-
3160.0	2.8	238.9	51.47	154735	228017.88	1308	954	+
3168.9	2.8	247.8	54.61	164197	239471.97	1287	966	+

BIT NUMBER	11	IADC CODE	517	INTERVAL	3168.9- 3288.6
HTC J22		SIZE	12.250	NOZZLES	16 16 16
COST	8520.00	TRIP TIME	9.0	BIT RUN	119.7
TOTAL HOURS	35.11	TOTAL TURNS	107188	CONDITION	T8 B4 G0.000

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
3170.0	3.3	1.1	0.33	1030	42598.23	1100	38726	-
3180.0	4.2	11.1	2.72	8437	51333.61	874	4625	-
3190.0	4.4	21.1	4.97	15274	59551.63	822	2822	-
3200.0	3.9	31.1	7.55	23326	68974.80	942	2218	-
3210.0	6.1	41.1	9.19	28653	74939.74	596	1823	-
3220.0	3.7	51.1	11.90	36970	84854.92	992	1661	-
3230.0	4.1	61.1	14.33	44484	93708.99	885	1534	-
3240.0	4.3	71.1	16.63	51923	102131.92	842	1436	-
3250.0	4.3	81.1	18.96	59439	110615.38	848	1364	-
3260.0	3.7	91.1	21.62	67871	120358.10	974	1321	-
3270.0	2.3	101.1	25.95	80833	136142.86	1578	1347	+
3280.0	2.0	111.1	30.96	94330	154463.73	1832	1390	+
3288.6	2.1	119.7	35.11	107188	169609.38	1761	1417	+

BIT NUMBER	12	IADC CODE	617	INTERVAL	3288.6- 3317.1
HTC J44		SIZE	12.250	NOZZLES	16 16 16
COST	6919.00	TRIP TIME	9.0	BIT RUN	28.5
TOTAL HOURS	9.88	TOTAL TURNS	29231	CONDITION	T1 B1 G0.000

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
3290.0	1.9	1.4	0.73	2128	42449.14	1902	30321	-
3300.0	2.7	11.4	4.41	13156	55879.37	1343	4902	-
3310.0	2.7	21.4	8.07	23936	69254.82	1338	3236	-
3317.1	3.9	28.5	9.88	29231	75877.11	933	2662	-

BIT NUMBER	12	IADC CODE	4	INTERVAL	3317.1- 3326.0
CHRIS C-23		SIZE	9.844	NOZZLES	15 15 15
COST	0.00	TRIP TIME	9.0	BIT RUN	8.9
TOTAL HOURS	3.86	TOTAL TURNS	18474	CONDITION	T0 B0 G1.000

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
3320.0	7.4	2.9	0.39	1839	34300.40	494	11828	-
3326.0	1.7	8.9	3.86	18478	46951.53	2109	5275	-

BIT NUMBER	13	IADC CODE	617	INTERVAL	3326.0- 3350.0
HTC J44		SIZE	12.250	NOZZLES	16 16 16
COST	6919.00	TRIP TIME	9.1	BIT RUN	24.0
TOTAL HOURS	7.07	TOTAL TURNS	23757	CONDITION	T1 B1 G0.000

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
3330.0	2.7	4.0	1.47	4572	45532.81	1345	11383	-
3340.0	4.5	14.0	3.69	12057	53642.28	811	3832	-
3350.0	3.0	24.0	7.07	23757	65967.78	1233	2749	-

BIT NUMBER	14	IADC CODE	316	INTERVAL	3350.0- 3355.0
HTC J7		SIZE	8.500	NOZZLES	12 12 12
COST	1475.00	TRIP TIME	9.1	BIT RUN	5.0
TOTAL HOURS	3.33	TOTAL TURNS	11909	CONDITION	T7 B5 G0.000

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
3355.0	1.5	5.0	3.33	11909	46869.36	2432	9374	-

BIT NUMBER	15	IADC CODE	537	INTERVAL	3355.0- 3470.4
HTC J33		SIZE	8.500	NOZZLES	12 12 12
COST	4455.00	TRIP TIME	9.1	BIT RUN	115.4
TOTAL HOURS	27.58	TOTAL TURNS	85649	CONDITION	T7 B4 G0.000

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
3360.0	3.6	5.0	1.39	5145	42767.19	1016	8553	-
3370.0	7.0	15.0	2.82	9564	47986.50	522	3199	-
3380.0	4.5	25.0	5.06	16459	56181.52	820	2247	-
3390.0	4.6	35.0	7.26	23167	64189.55	801	1834	-
3400.0	6.4	45.0	8.81	27903	69865.36	568	1553	-
3410.0	8.1	55.0	10.05	31655	74382.68	452	1352	-
3420.0	3.6	65.0	12.85	40380	84631.62	1025	1302	-

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
3430.0	3.3	75.0	15.87	49967	95646.45	1101	1275	-
3440.0	3.8	85.0	18.48	58116	105189.33	954	1238	-
3450.0	6.3	95.0	20.07	62955	111001.09	581	1168	-
3460.0	3.4	105.0	23.03	72165	121777.53	1078	1160	-
3470.0	2.2	115.0	27.57	85625	138368.77	1659	1203	+
3470.4	28.2	115.4	27.58	85649	138420.50	129	1199	-

BIT NUMBER	15	IADC CODE	4	INTERVAL	3470.4- 3472.3
CHRIS C.201		SIZE	8.500	NOZZLES	14 14 15
COST	0.00	TRIP TIME	10.0	BIT RUN	1.9
TOTAL HOURS	1.69	TOTAL TURNS	7315	CONDITION	T0 B0 G0.000

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
3472.3	1.1	1.9	1.69	7315	42698.98	3252	22473	-

BIT NUMBER	16	IADC CODE	537	INTERVAL	3472.3- 3550.0
HTC J33		SIZE	8.500	NOZZLES	12 12 12
COST	4455.00	TRIP TIME	9.8	BIT RUN	77.7
TOTAL HOURS	21.42	TOTAL TURNS	68742	CONDITION	T3 B4 G0.000

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
3480.0	4.6	7.7	1.68	5787	46378.95	797	6023	-
3490.0	3.2	17.7	4.78	15814	57706.23	1133	3260	-
3500.0	2.7	27.7	8.48	27865	71203.42	1350	2571	-
3510.0	3.9	37.7	11.03	35840	80522.21	932	2136	-
3520.0	3.7	47.7	13.71	44294	90330.88	981	1894	-
3530.0	3.2	57.7	16.80	54616	101613.53	1128	1761	-
3540.0	6.2	67.7	18.41	59721	107459.77	585	1587	-
3550.0	3.3	77.7	21.42	68742	118481.71	1102	1525	-

(e). COMPUTER DATA LISTING : LIST C

INTERVAL . . . . . 10m averages.

DEPTH. . . . . Well depth, in metres.

FLOW RATE. . . . . Mud flow into the well, in gallons per minute.

PSP. . . . . Pump pressure, in pounds per square inch.

PBIT . . . . . Bit pressure drop, in pounds per square inch.

%PSP . . . . . Percentage of surface pressure dropped at the bit.

H.H.P. . . . . Bit hydraulic horsepower.

HHP/SQ IN. . . . . Bit hydraulic horsepower per square inch of bit diameter.

IMPACT FORCE . . . . . Bit impact force, in foot-pounds per second squared.

JET VELOCITY . . . . . Mud velocity through the bit nozzles, in metres per second.

BIT NUMBER	1	IADC CODE	111	INTERVAL	224.0- 815.0
HTC OSC 3AJ		SIZE	17.500	NOZZLES	20 20 20
COST	0.00	TRIP TIME	2.5	BIT RUN	591.0
TOTAL HOURS	18.73	TOTAL TURNS	140604	CONDITION	T0 B0 G0.000

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
230.0	954	1995.7	879.9	44.1	490	2.04	1461	101
240.0	954	2012.9	881.4	43.8	491	2.04	1463	101
250.0	946	1985.4	866.0	43.6	478	1.99	1438	100
260.0	942	1974.2	857.9	43.5	471	1.96	1424	100
270.0	959	2037.3	889.8	43.7	498	2.07	1477	102
280.0	956	2023.8	884.1	43.7	493	2.05	1468	101
290.0	956	2038.5	884.1	43.4	493	2.05	1468	101
300.0	954	2036.8	880.8	43.2	490	2.04	1462	101
310.0	962	2066.3	895.2	43.3	502	2.09	1486	102
320.0	982	2130.4	933.1	43.8	535	2.22	1549	104
340.0	980	2119.3	929.0	43.8	531	2.21	1542	104
350.0	986	2124.2	950.9	44.8	547	2.27	1579	104
360.0	950	1993.4	883.1	44.3	489	2.03	1466	101
370.0	982	2118.0	943.0	44.5	540	2.25	1565	104
380.0	983	2128.7	946.1	44.4	543	2.26	1571	104
390.0	983	2173.0	945.5	43.5	542	2.25	1570	104
410.0	981	2183.0	941.1	43.1	538	2.24	1562	104
420.0	982	2204.4	943.5	42.8	541	2.25	1566	104
430.0	982	2213.0	944.5	42.7	541	2.25	1568	104
450.0	985	2232.7	948.4	42.5	545	2.26	1574	104
460.0	979	2208.4	938.5	42.5	536	2.23	1558	104
470.0	978	2211.4	935.5	42.3	534	2.22	1553	104
480.0	990	2237.5	959.5	42.9	554	2.30	1593	105
490.0	980	2220.1	939.3	42.3	537	2.23	1559	104
500.0	992	2248.3	962.7	42.8	557	2.32	1598	105
510.0	977	2269.6	934.0	41.2	532	2.21	1551	104
530.0	978	2212.3	936.5	42.3	535	2.22	1555	104
540.0	982	2262.1	944.5	41.8	541	2.25	1568	104
550.0	989	2247.2	956.5	42.6	552	2.29	1588	105
560.0	980	2227.1	940.3	42.2	538	2.24	1561	104
570.0	980	2209.5	940.1	42.5	538	2.24	1561	104
580.0	995	2206.1	968.1	43.9	562	2.34	1607	105
600.0	987	2190.3	954.2	43.6	550	2.29	1584	105
610.0	605	953.5	357.9	37.5	126	0.52	594	64
620.0	969	2150.9	918.7	42.7	519	2.16	1525	103
630.0	974	2202.0	928.6	42.2	528	2.19	1542	103
640.0	982	2267.4	944.4	41.6	541	2.25	1568	104
650.0	981	2273.4	940.7	41.4	538	2.24	1562	104
670.0	983	2313.1	946.3	40.9	543	2.26	1571	104
680.0	984	2336.6	947.5	40.6	544	2.26	1573	104
690.0	987	2358.5	953.3	40.4	549	2.28	1583	105
700.0	988	2377.8	954.3	40.1	550	2.29	1584	105
710.0	986	2383.5	952.2	39.9	548	2.28	1581	105

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
720.0	982	2375.8	943.3	39.7	540	2.25	1566	104
730.0	981	2387.7	940.8	39.4	538	2.24	1562	104
740.0	982	2410.9	944.1	39.2	541	2.25	1567	104
750.0	980	2436.0	940.6	38.6	538	2.24	1562	104
760.0	983	2468.5	945.5	38.3	542	2.25	1570	104
770.0	986	2492.0	950.9	38.2	547	2.27	1579	104
780.0	981	2490.5	941.2	37.8	539	2.24	1563	104
790.0	979	2480.6	938.3	37.8	536	2.23	1558	104
800.0	982	2496.8	943.2	37.8	540	2.25	1566	104
810.0	980	2496.4	940.6	37.7	538	2.24	1561	104
815.0	981	2502.8	941.4	37.6	539	2.24	1563	104

BIT NUMBER	2	IADC CODE	116	INTERVAL	815.0- 1175.0
HTC J1		SIZE	12.250	NOZZLES	18 18 18
COST	2566.00	TRIP TIME	3.8	BIT RUN	360.0
TOTAL HOURS	14.41	TOTAL TURNS	86422	CONDITION	T4 B3 G0.000

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
820.0	961	2745.5	1376.7	50.1	772	6.55	1851	126
840.0	937	2659.5	1308.5	49.2	715	6.07	1760	123
850.0	928	2617.4	1283.7	49.0	695	5.90	1726	121
860.0	946	2718.2	1335.6	49.1	737	6.26	1796	124
870.0	933	2688.3	1299.6	48.3	708	6.01	1748	122
880.0	911	2586.3	1238.6	47.9	659	5.59	1666	119
890.0	924	2680.1	1274.6	47.6	687	5.83	1714	121
900.0	929	2718.5	1286.9	47.3	697	5.92	1730	122
910.0	935	2740.0	1302.7	47.5	710	6.03	1752	122
920.0	935	2756.0	1302.7	47.3	710	6.03	1752	122
930.0	935	2767.0	1302.7	47.1	710	6.03	1752	122
940.0	933	2789.2	1298.0	46.5	706	5.99	1745	122
960.0	929	2800.2	1287.6	46.0	698	5.92	1731	122
970.0	938	2853.7	1311.5	46.0	718	6.09	1764	123
980.0	925	2802.5	1274.8	45.5	688	5.83	1714	121
990.0	922	2798.2	1266.9	45.3	681	5.78	1704	121
1000.0	925	2819.9	1277.3	45.3	690	5.85	1718	121
1010.0	924	2846.9	1273.7	44.7	687	5.83	1713	121
1020.0	927	2883.3	1282.0	44.5	693	5.88	1724	121
1030.0	929	2917.8	1286.1	44.1	697	5.91	1729	121
1040.0	924	2910.7	1274.6	43.8	687	5.83	1714	121
1050.0	926	2928.7	1279.1	43.7	691	5.86	1720	121
1060.0	925	2940.1	1276.9	43.4	689	5.85	1717	121
1070.0	923	2948.9	1271.6	43.1	685	5.81	1710	121
1080.0	928	2979.3	1284.5	43.1	695	5.90	1727	121
1090.0	929	2993.7	1286.5	43.0	697	5.92	1730	122
1100.0	930	2560.1	1290.4	50.4	700	5.94	1735	122
1110.0	934	2711.9	1301.2	48.0	709	6.02	1750	122
1120.0	975	2914.9	1417.3	48.6	806	6.84	1906	128

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
1130.0	976	2891.3	1421.2	49.2	809	6.87	1911	128
1140.0	979	2817.8	1430.2	50.8	817	6.93	1923	128
1150.0	978	2938.6	1425.5	48.5	813	6.90	1917	128
1160.0	975	2920.0	1416.6	48.5	805	6.83	1905	128
1170.0	977	2939.0	1424.7	48.5	812	6.89	1916	128
1175.0	977	2901.7	1423.0	49.0	811	6.88	1914	128

BIT NUMBER	3	IADC CODE	517	INTERVAL	1175.0- 1489.0
HTC J22		SIZE	12.250	NOZZLES	16 16 18
COST	8520.00	TRIP TIME	4.5	BIT RUN	314.0
TOTAL HOURS	11.66	TOTAL TURNS	61746	CONDITION	T2 B2 G0.000

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
1190.0	892	2911.6	1602.5	55.0	834	7.07	1853	136
1200.0	895	2948.3	1613.3	54.7	842	7.14	1866	136
1210.0	891	2927.3	1599.1	54.6	831	7.05	1849	135
1220.0	891	2928.9	1599.0	54.6	831	7.05	1849	135
1230.0	886	2935.4	1582.7	53.9	818	6.94	1830	135
1250.0	876	2926.6	1547.9	52.9	791	6.71	1790	133
1260.0	885	2996.7	1665.1	55.6	859	7.29	1926	135
1270.0	854	2853.9	1550.4	54.3	772	6.55	1793	130
1290.0	856	2973.6	1559.0	52.4	779	6.61	1803	130
1300.0	850	2974.1	1538.4	51.7	763	6.48	1779	129
1330.0	847	2993.4	1525.0	50.9	753	6.39	1764	129
1370.0	850	2917.2	1536.5	52.7	762	6.46	1777	129
1380.0	853	2901.0	1547.6	53.3	770	6.53	1790	130
1390.0	852	2782.1	1545.7	55.6	769	6.52	1788	130
1400.0	826	2705.6	1451.5	53.6	699	5.93	1679	126
1410.0	848	2902.9	1530.6	52.7	757	6.43	1770	129
1420.0	847	2896.3	1528.0	52.8	755	6.41	1767	129
1430.0	854	2960.6	1552.2	52.4	773	6.56	1795	130
1440.0	850	2947.1	1538.8	52.2	763	6.48	1780	129
1450.0	855	2988.0	1555.4	52.1	776	6.58	1799	130
1460.0	849	2954.2	1533.5	51.9	760	6.44	1774	129
1480.0	857	2958.1	1563.0	52.8	782	6.63	1808	130
1489.0	850	2888.7	1537.0	53.2	762	6.47	1778	129

BIT NUMBER	3	IADC CODE	4	INTERVAL	1489.0- 1500.4
CHRIST RC4		SIZE	9.875	NOZZLES	15 15 15
COST	0.00	TRIP TIME	5.2	BIT RUN	11.4
TOTAL HOURS	0.08	TOTAL TURNS	370	CONDITION	T0 B0 G0.000

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
1490.0	190	60.0	117.7	196.2	13	0.17	110	36

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
1500.4	160	40.0	83.5	208.7	8	0.10	78	30

BIT NUMBER	3	IADC CODE	4	INTERVAL	1500.4- 1511.6
CHRIST RC4		SIZE	9.875	NOZZLES	15 15 15
COST	0.00	TRIP TIME	5.2	BIT RUN	11.2
TOTAL HOURS	0.19	TOTAL TURNS	953	CONDITION	T0 B0 G0.000

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
1511.6	179	291.6	104.9	36.0	11	0.14	98	34

BIT NUMBER	4	IADC CODE	517	INTERVAL	1511.6- 1668.0
HTC J22		SIZE	12.250	NOZZLES	16 16 16
COST	8520.00	TRIP TIME	5.3	BIT RUN	156.4
TOTAL HOURS	24.37	TOTAL TURNS	74831	CONDITION	T8 B6 G0.250

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
1520.0	815	3100.0	1691.2	54.6	804	6.82	1797	135
1530.0	814	3008.3	1689.7	56.2	803	6.81	1795	135
1540.0	815	3048.0	1691.2	55.5	804	6.82	1797	135
1550.0	816	3073.4	1697.8	55.2	809	6.86	1804	135
1560.0	815	3012.0	1691.2	56.1	804	6.82	1797	135
1570.0	820	3110.0	1712.0	55.0	819	6.95	1819	136
1580.0	808	3023.7	1665.5	55.1	786	6.67	1770	134
1590.0	823	3125.6	1725.1	55.2	828	7.03	1833	136
1600.0	830	2941.7	1755.5	59.7	850	7.21	1865	137
1610.0	823	2943.8	1724.3	58.6	828	7.02	1832	136
1620.0	543	1299.7	751.7	57.8	238	2.02	799	90
1630.0	828	2953.8	1744.9	59.1	842	7.15	1854	137
1640.0	822	2950.8	1720.0	58.3	824	7.00	1827	136
1650.0	812	2880.9	1680.5	58.3	796	6.76	1786	134
1660.0	823	2952.7	1726.2	58.5	829	7.03	1834	136
1668.0	830	2915.0	1754.0	60.2	849	7.20	1864	137

BIT NUMBER	5	IADC CODE	617	INTERVAL	1668.0- 2147.0
HTC J44		SIZE	12.250	NOZZLES	16 16 16
COST	6919.00	TRIP TIME	5.6	BIT RUN	479.0
TOTAL HOURS	66.28	TOTAL TURNS	201979	CONDITION	T2 B4 G0.000

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
1670.0	807	3013.6	1640.8	54.4	772	6.55	1743	134
1680.0	806	3109.1	1636.2	52.6	769	6.52	1738	133
1690.0	810	3120.2	1654.7	53.0	782	6.64	1758	134
1700.0	815	3106.0	1673.4	53.9	795	6.75	1778	135
1710.0	821	3045.5	1701.3	55.9	815	6.92	1808	136
1720.0	813	2978.5	1665.8	55.9	790	6.70	1770	135
1730.0	810	2953.4	1654.3	56.0	782	6.63	1758	134
1740.0	817	3015.9	1684.1	55.8	803	6.81	1789	135
1750.0	809	2969.5	1650.8	55.6	779	6.61	1754	134
1760.0	810	2993.7	1652.7	55.2	781	6.62	1756	134
1770.0	813	2959.1	1665.1	56.3	789	6.70	1769	135
1780.0	810	2950.7	1654.8	56.1	782	6.64	1758	134
1800.0	808	3051.6	1646.8	54.0	776	6.59	1750	134
1810.0	805	3032.8	1632.9	53.8	767	6.50	1735	133
1820.0	810	3092.1	1652.4	53.4	780	6.62	1756	134
1830.0	810	3109.9	1656.0	53.2	783	6.64	1760	134
1850.0	804	3073.8	1631.4	53.1	766	6.50	1733	133
1860.0	800	3039.1	1613.0	53.1	753	6.39	1714	132
1870.0	798	3047.7	1607.0	52.7	748	6.35	1707	132
1880.0	796	3093.1	1598.7	51.7	743	6.30	1699	132
1890.0	795	3109.0	1592.4	51.2	738	6.26	1692	132
1900.0	790	3014.2	1574.9	52.2	726	6.16	1673	131
1910.0	792	2944.3	1582.5	53.7	731	6.21	1681	131
1920.0	714	2490.2	1285.8	51.6	536	4.55	1366	118
1930.0	788	2979.0	1567.6	52.6	721	6.12	1666	131
1940.0	792	3038.5	1583.3	52.1	732	6.21	1682	131
1950.0	791	3000.2	1576.4	52.5	727	6.17	1675	131
1970.0	787	3041.6	1563.1	51.4	718	6.09	1661	130
1980.0	789	3029.5	1568.1	51.8	721	6.12	1666	131
1990.0	784	3031.5	1550.5	51.1	709	6.02	1647	130
2000.0	787	3091.7	1562.0	50.5	717	6.09	1660	130
2010.0	791	3170.7	1577.7	49.8	728	6.18	1676	131
2020.0	775	3176.1	1515.3	47.7	685	5.81	1610	128
2030.0	771	3054.0	1499.2	49.1	674	5.72	1593	128
2040.0	659	3036.3	1096.2	36.1	422	3.58	1165	109
2050.0	555	1588.0	778.0	49.0	252	2.14	827	92
2060.0	787	2966.3	1560.4	52.6	716	6.08	1658	130
2070.0	783	2955.2	1546.0	52.3	706	5.99	1643	130
2080.0	772	2942.9	1503.0	51.1	677	5.74	1597	128
2090.0	769	2974.2	1492.7	50.2	670	5.69	1586	127
2100.0	767	2967.8	1483.6	50.0	664	5.63	1576	127
2110.0	767	2974.7	1483.6	49.9	664	5.63	1576	127
2120.0	767	3044.5	1484.0	48.7	664	5.64	1577	127

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
2130.0	764	3071.8	1473.7	48.0	657	5.58	1566	127
2140.0	770	3196.5	1496.0	46.8	672	5.70	1590	128
2147.0	737	2942.1	1369.4	46.5	589	5.00	1455	122

BIT NUMBER	6	IADC CODE	517	INTERVAL	2147.0- 2340.5
HTC J22		SIZE	12.250	NOZZLES	16 16 16
COST	8520.00	TRIP TIME	6.6	BIT RUN	193.5
TOTAL HOURS	35.97	TOTAL TURNS	107506	CONDITION	T6 B4 G0.062

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
2150.0	737	2828.0	1371.3	48.5	590	5.01	1457	122
2160.0	750	2860.0	1418.0	49.6	620	5.26	1507	124
2170.0	752	2821.0	1426.9	50.6	626	5.31	1516	125
2180.0	758	2888.9	1447.7	50.1	640	5.43	1538	125
2190.0	760	2934.5	1457.9	49.7	647	5.49	1549	126
2200.0	757	2937.8	1445.7	49.2	639	5.42	1536	125
2210.0	758	2965.8	1447.8	48.8	640	5.43	1538	125
2220.0	760	3054.7	1457.2	47.7	646	5.48	1548	126
2230.0	758	3005.9	1447.8	48.2	640	5.43	1538	125
2240.0	755	2981.1	1438.4	48.2	634	5.38	1528	125
2250.0	764	2976.0	1471.6	49.5	656	5.57	1564	126
2260.0	570	1800.0	818.6	45.5	272	2.31	870	94
2270.0	757	2872.5	1445.3	50.3	638	5.42	1536	125
2280.0	759	2898.5	1451.8	50.1	643	5.45	1543	126
2290.0	755	2884.7	1436.0	49.8	632	5.36	1526	125
2300.0	753	2863.1	1430.4	50.0	629	5.33	1520	125
2310.0	516	1368.7	670.1	49.0	202	1.71	712	85
2320.0	753	2882.7	1429.0	49.6	628	5.33	1518	125
2330.0	754	2888.8	1434.2	49.6	631	5.35	1524	125
2340.0	757	2888.2	1443.9	50.0	637	5.41	1534	125
2340.5	757	2880.6	1443.6	50.1	637	5.41	1534	125

BIT NUMBER	7	IADC CODE	537	INTERVAL	2340.5- 2537.3
HTC J33		SIZE	12.250	NOZZLES	16 16 16
COST	8266.00	TRIP TIME	7.2	BIT RUN	196.8
TOTAL HOURS	41.90	TOTAL TURNS	126033	CONDITION	T3 B5 G0.125

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
2350.0	753	2897.2	1431.3	49.4	629	5.34	1521	125
2360.0	750	2910.0	1417.3	48.7	620	5.26	1506	124
2370.0	755	2962.0	1436.2	48.5	632	5.37	1526	125
2380.0	752	2994.7	1427.1	47.7	626	5.31	1516	125
2390.0	753	2980.7	1428.6	47.9	627	5.32	1518	125
2400.0	753	2961.6	1430.6	48.3	629	5.33	1520	125
2410.0	752	2926.3	1425.8	48.7	626	5.31	1515	125
2420.0	760	2920.4	1457.2	49.9	646	5.48	1548	126
2430.0	750	2951.0	1417.3	48.0	620	5.26	1506	124
2440.0	759	2918.9	1454.3	49.8	644	5.47	1545	126
2450.0	761	2948.7	1459.0	49.5	648	5.49	1550	126
2460.0	762	3024.2	1463.8	48.4	651	5.52	1555	126

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
2470.0	760	3054.7	1456.1	47.7	646	5.48	1547	126
2480.0	760	3102.0	1455.3	46.9	645	5.47	1546	126
2490.0	739	2887.6	1377.8	47.7	594	5.04	1464	122
2500.0	756	3047.2	1440.7	47.3	635	5.39	1531	125
2510.0	756	2994.0	1433.4	47.9	632	5.36	1523	125
2520.0	545	1601.0	748.4	46.7	238	2.02	795	90
2530.0	550	1615.0	760.4	47.1	244	2.07	808	91
2537.3	755	2927.0	1428.0	48.8	629	5.34	1517	125

BIT NUMBER	8	IADC CODE	617	INTERVAL	2537.3- 2735.9
HTC J44		SIZE	12.250	NOZZLES	16 16 16
COST	6919.00	TRIP TIME	8.0	BIT RUN	198.6
TOTAL HOURS	55.17	TOTAL TURNS	167594	CONDITION	T3 B4 G0.125

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
2540.0	740	3011.0	1379.7	45.8	595	5.05	1466	122
2550.0	751	3017.0	1427.7	47.3	625	5.31	1517	124
2560.0	748	2901.9	1419.4	48.9	620	5.26	1508	124
2570.0	747	2921.6	1415.4	48.4	617	5.24	1504	124
2580.0	744	2884.3	1400.6	48.6	608	5.16	1488	123
2590.0	744	2864.3	1402.7	49.0	609	5.17	1490	123
2600.0	751	2934.5	1425.7	48.6	624	5.30	1515	124
2610.0	749	2933.9	1421.0	48.4	621	5.27	1510	124
2620.0	757	2923.0	1437.7	49.2	635	5.39	1528	125
2630.0	760	2882.2	1475.5	51.2	654	5.55	1568	126
2640.0	756	2898.8	1445.3	49.9	638	5.41	1536	125
2650.0	611	1887.6	942.2	49.9	336	2.85	1001	101
2660.0	758	2873.2	1451.4	50.5	642	5.45	1542	126
2670.0	754	2862.7	1442.1	50.4	634	5.38	1532	125
2680.0	745	2844.3	1411.2	49.6	614	5.21	1499	123
2690.0	755	2840.0	1436.2	50.6	632	5.37	1526	125
2700.0	756	2946.9	1442.6	49.0	636	5.40	1533	125
2710.0	745	2938.9	1401.9	47.7	609	5.17	1490	123
2720.0	749	2901.5	1411.7	48.7	617	5.23	1500	124
2730.0	745	2919.3	1399.7	47.9	608	5.16	1487	123
2735.9	745	2898.6	1403.4	48.4	610	5.17	1491	123

BIT NUMBER	9	IADC CODE	537	INTERVAL	2735.9- 2921.1
HTC J33		SIZE	12.250	NOZZLES	16 16 16
COST	8266.00	TRIP TIME	8.5	BIT RUN	185.2
TOTAL HOURS	43.20	TOTAL TURNS	129459	CONDITION	T0 B0 G0.000

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
2740.0	539	1749.0	733.7	41.9	231	1.96	780	89
2750.0	544	1841.3	742.8	40.3	236	2.00	789	90
2760.0	736	2862.0	1363.2	47.6	585	4.97	1448	122
2770.0	740	2909.7	1378.6	47.4	595	5.05	1465	123
2780.0	528	1469.8	704.1	47.9	217	1.84	748	87
2790.0	742	2856.8	1389.5	48.6	601	5.10	1476	123
2800.0	741	2900.6	1400.4	48.3	606	5.14	1488	123
2810.0	740	2951.0	1379.7	46.8	595	5.05	1466	122
2820.0	725	2895.0	1324.3	45.7	560	4.75	1407	120
2830.0	709	2755.2	1270.2	46.1	525	4.46	1350	117
2840.0	745	2805.0	1398.4	49.9	608	5.16	1486	123
2850.0	723	2793.9	1324.5	47.4	558	4.74	1407	120
2860.0	743	2955.8	1394.2	47.2	604	5.13	1481	123
2870.0	736	2868.9	1362.1	47.5	585	4.96	1447	122
2880.0	721	2776.9	1306.4	47.0	550	4.67	1388	119
2890.0	731	2898.7	1347.1	46.5	575	4.87	1431	121
2900.0	713	2866.7	1284.7	44.8	534	4.53	1365	118
2910.0	710	2754.5	1273.8	46.2	527	4.47	1353	117
2920.0	711	2705.0	1282.2	47.4	532	4.51	1362	118
2921.1	709	2704.9	1276.8	47.2	529	4.48	1357	117

BIT NUMBER	10	IADC CODE	517	INTERVAL	2921.1- 3168.9
HTC J22		SIZE	12.250	NOZZLES	16 16 16
COST	8266.00	TRIP TIME	8.7	BIT RUN	247.8
TOTAL HOURS	54.61	TOTAL TURNS	164197	CONDITION	T0 B0 G0.000

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
2930.0	696	2830.1	1222.4	43.2	497	4.21	1299	115
2940.0	709	2923.1	1269.1	43.4	525	4.46	1348	117
2950.0	706	2928.0	1264.8	43.2	521	4.42	1344	117
2960.0	700	2931.2	1239.8	42.3	506	4.30	1317	116
2970.0	707	3028.3	1262.5	41.7	521	4.42	1341	117
2980.0	540	1789.4	740.2	41.4	233	1.98	786	89
2990.0	710	2934.4	1277.0	43.5	529	4.49	1357	118
3000.0	715	2925.1	1301.1	44.5	543	4.61	1382	118
3010.0	710	2816.3	1282.2	45.5	531	4.51	1362	118
3020.0	708	2810.9	1274.7	45.3	527	4.47	1354	117
3030.0	709	2810.5	1277.1	45.4	529	4.49	1357	117
3040.0	713	2814.9	1294.6	46.0	539	4.57	1376	118
3050.0	703	2833.9	1244.1	43.9	510	4.33	1322	116

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
3060.0	720	2948.3	1306.1	44.3	549	4.66	1388	119
3070.0	712	2914.1	1278.3	43.9	531	4.51	1358	118
3080.0	718	2950.8	1299.8	44.0	545	4.62	1381	119
3090.0	719	2983.4	1300.1	43.6	545	4.63	1381	119
3100.0	714	2991.3	1280.9	42.8	533	4.53	1361	118
3110.0	712	2987.4	1273.3	42.6	529	4.49	1353	118
3120.0	714	3013.0	1285.4	42.7	536	4.54	1366	118
3130.0	718	3051.2	1303.2	42.7	546	4.63	1385	119
3140.0	717	2951.2	1298.7	44.0	543	4.61	1380	119
3150.0	720	2998.8	1312.0	43.7	551	4.68	1394	119
3160.0	713	2930.8	1278.2	43.6	532	4.51	1358	118
3168.9	719	3110.0	1292.6	41.6	542	4.60	1373	119

BIT NUMBER	11	IADC CODE	517	INTERVAL	3168.9- 3288.6
HTC J22		SIZE	12.250	NOZZLES	16 16 16
COST	8520.00	TRIP TIME	9.0	BIT RUN	119.7
TOTAL HOURS	35.11	TOTAL TURNS	107188	CONDITION	T8 B4 G0.000

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
3170.0	707	2972.8	1261.7	42.4	521	4.42	1341	117
3180.0	710	2937.5	1348.1	45.9	558	4.74	1432	117
3190.0	707	2961.0	1343.7	45.4	554	4.70	1428	117
3200.0	722	3102.2	1394.7	45.0	587	4.98	1482	119
3210.0	713	3070.4	1361.6	44.3	567	4.81	1447	118
3220.0	713	2987.5	1354.1	45.3	564	4.78	1439	118
3230.0	722	2975.2	1381.6	46.4	582	4.93	1468	119
3240.0	715	2966.4	1365.2	46.0	569	4.83	1450	118
3250.0	712	2830.1	1351.6	47.8	562	4.76	1436	118
3260.0	710	2943.8	1336.1	45.4	554	4.70	1420	118
3270.0	718	3131.6	1349.3	43.1	565	4.79	1434	119
3280.0	711	3019.7	1341.1	44.4	556	4.72	1425	118
3288.6	713	3089.9	1352.2	43.8	562	4.77	1437	118

BIT NUMBER	12	IADC CODE	617	INTERVAL	3288.6- 3317.1
HTC J44		SIZE	12.250	NOZZLES	16 16 16
COST	6919.00	TRIP TIME	9.0	BIT RUN	28.5
TOTAL HOURS	9.88	TOTAL TURNS	29231	CONDITION	T1 B1 G0.000

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
3290.0	691	2945.4	1245.4	42.3	502	4.26	1323	114
3300.0	691	2974.1	1267.7	42.6	511	4.33	1347	114
3310.0	690	2951.8	1270.8	43.1	512	4.34	1350	114
3317.1	693	3020.0	1284.2	42.5	519	4.40	1364	115

BIT NUMBER	12	IADC CODE	4	INTERVAL	3317.1- 3326.0
CHRIS C-23		SIZE	9.844	NOZZLES	15 15 15
COST	0.00	TRIP TIME	9.0	BIT RUN	8.9
TOTAL HOURS	3.86	TOTAL TURNS	18474	CONDITION	T0 B0 G1.000

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
3320.0	210	747.9	151.0	20.2	18	0.24	141	40
3326.0	287	1343.6	281.8	21.0	47	0.62	263	54

BIT NUMBER	13	IADC CODE	617	INTERVAL	3326.0- 3350.0
HTC J44		SIZE	12.250	NOZZLES	16 16 16
COST	6919.00	TRIP TIME	9.1	BIT RUN	24.0
TOTAL HOURS	7.07	TOTAL TURNS	23757	CONDITION	T1 B1 G0.000

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
3330.0	681	2925.3	1231.4	42.1	489	4.15	1308	113
3340.0	690	2949.7	1274.4	43.2	513	4.35	1354	114
3350.0	702	2997.7	1324.9	44.2	543	4.61	1408	116

BIT NUMBER	14	IADC CODE	316	INTERVAL	3350.0- 3355.0
HTC J7		SIZE	8.500	NOZZLES	12 12 12
COST	1475.00	TRIP TIME	9.1	BIT RUN	5.0
TOTAL HOURS	3.33	TOTAL TURNS	11909	CONDITION	T7 B5 G0.000

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
3355.0	498	2937.7	2121.0	72.2	616	10.85	1268	146

BIT NUMBER	15	IADC CODE	537	INTERVAL	3355.0- 3470.4
HTC J33		SIZE	8.500	NOZZLES	12 12 12
COST	4455.00	TRIP TIME	9.1	BIT RUN	115.4
TOTAL HOURS	27.58	TOTAL TURNS	85649	CONDITION	T7 B4 G0.000

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
3360.0	480	2915.4	1938.3	66.5	543	9.57	1158	141
3370.0	477	2850.4	1906.0	66.9	531	9.35	1139	140
3380.0	478	3053.2	1957.7	64.1	546	9.63	1170	141
3390.0	487	3117.2	2017.2	64.7	574	10.11	1206	143
3400.0	480	3037.3	1945.8	64.1	545	9.60	1163	141
3410.0	482	3005.0	1951.6	64.9	548	9.67	1166	142
3420.0	481	2993.8	1942.7	64.9	545	9.60	1161	141

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
3430.0	479	2901.7	1919.5	66.2	537	9.46	1147	141
3440.0	481	3016.3	1944.7	64.5	546	9.62	1162	142
3450.0	489	3073.3	2000.4	65.1	570	10.05	1196	144
3460.0	482	2942.9	1939.0	65.9	545	9.61	1159	142
3470.0	481	2880.2	1931.6	67.1	542	9.55	1154	142
3470.4	481	2907.6	1934.5	66.5	543	9.56	1156	142

BIT NUMBER	15	IADC CODE	4	INTERVAL	3470.4- 3472.3
CHRIS C.201		SIZE	8.500	NOZZLES	14 14 15
COST	0.00	TRIP TIME	10.0	BIT RUN	1.9
TOTAL HOURS	1.69	TOTAL TURNS	7315	CONDITION	T0 B0 G0.000

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
3472.3	241	1054.5	237.5	22.5	33	0.59	203	50

BIT NUMBER	16	IADC CODE	537	INTERVAL	3472.3- 3550.0
HTC J33		SIZE	8.500	NOZZLES	12 12 12
COST	4455.00	TRIP TIME	9.8	BIT RUN	77.7
TOTAL HOURS	21.42	TOTAL TURNS	68742	CONDITION	T3 B4 G0.000

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
3480.0	463	3091.0	1907.1	61.7	515	9.07	1140	136
3490.0	455	3055.9	1845.1	60.4	490	8.64	1103	134
3500.0	462	2938.4	1873.1	63.7	504	8.89	1119	136
3510.0	461	2908.8	1891.3	65.0	509	8.97	1130	136
3520.0	436	2942.9	1788.6	60.8	455	8.02	1069	128
3530.0	441	2940.6	1832.0	62.3	471	8.30	1095	130
3540.0	444	3020.4	1851.2	61.3	479	8.45	1106	131
3550.0	459	3077.9	1949.5	63.3	522	9.20	1165	135

(f). COMPUTER DATA LISTING : LIST D

INTERVAL . . . . . 10m averages.

DEPTH . . . . . Well depth, in metres.

SPM1 . . . . . Stroke rate per minute, for Pump no.1

SPM2 . . . . . Stroke rate per minute, for Pump no.2.

FLOW RATE . . . . . Mud flow rate into the well, in gallons per minute.

ANNULAR VELOCITIES : (in metres per minute)

DC/OH - Between drill collars and the open hole.

DC/CSG - Between drill collars and casing.

HW/OH - Between heavyweight drill pipe and the open hole.

HW/CSG - Between heavyweight drill pipe and casing.

DP/OH - Between drill pipe and open hole.

DP/CSG - Between drill pipe and casing.

DP/RIS - Between drill pipe and riser.

BIT NUMBER	1	IADC CODE	111	INTERVAL	224.0- 815.0
HTC OSC 3AJ		SIZE	17.500	NOZZLES	20 20 20
COST	0.00	TRIP TIME	2.5	BIT RUN	591.0
TOTAL HOURS	18.73	TOTAL TURNS	140604	CONDITION	T0 B0 G0.000

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
230.0	97	94	954	29	24		21			17
240.0	97	94	954	29	24		21			17
250.0	96	93	946	29	23		21			17
260.0	96	93	942	29	23		21			17
270.0	98	94	959	30	24		21		21	17
280.0	98	93	956	29	24		21		21	17
290.0	97	94	956	29	24		21		21	17
300.0	98	93	954	29	24		21		21	17
310.0	98	94	962	30	24		21		21	17
320.0	98	99	982	30	24		22		22	18
340.0	98	98	980	30		26	21		21	18
350.0	98	99	986	30		26	22		22	18
360.0	98	92	950	29		25	21		21	17
370.0	98	99	982	30		26	22		22	18
380.0	98	99	983	30		26	22		22	18
390.0	98	99	983	30		26	22		22	18
410.0	98	98	981	30		26		26	22	18
420.0	98	98	982	30		26		26	22	18
430.0	98	99	982	30		26		26	22	18
450.0	99	98	985	30		26		26	22	18
460.0	98	98	979	30		26		26	21	18
470.0	97	99	978	30		26		26	21	18
480.0	98	100	990	31		26		26	22	18
490.0	98	99	980	30		26		26	21	18
500.0	99	99	992	31		26		26	22	18
510.0	98	98	977	30		26		26	21	18
530.0	98	98	978	30		26		26	21	18
540.0	98	99	982	30		26		26	22	18
550.0	99	99	989	31		26		26	22	18
560.0	98	98	980	30		26		26	22	18
570.0	98	98	980	30		26		26	22	18
580.0	101	98	995	31		26		26	22	18
600.0	98	100	987	30		26		26	22	18
610.0	121	0	605	19		16		16	13	11
620.0	98	96	969	30		26		26	21	17
630.0	98	97	974	30		26		26	21	18
640.0	98	99	982	30		26		26	22	18
650.0	98	98	981	30		26		26	22	18
670.0	98	99	983	30		26		26	22	18
680.0	99	98	984	30		26		26	22	18
690.0	99	99	987	30		26		26	22	18
700.0	99	99	988	30		26		26	22	18
710.0	99	99	986	30		26		26	22	18

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
720.0	98	99	982	30		26		26	22	18
730.0	97	99	981	30		26		26	22	18
740.0	98	98	982	30		26		26	22	18
750.0	98	98	980	30		26		26	22	18
760.0	98	99	983	30		26		26	22	18
770.0	99	99	986	30		26		26	22	18
780.0	98	98	981	30		26		26	22	18
790.0	98	98	979	30		26		26	21	18
800.0	98	99	982	30		26		26	22	18
810.0	98	98	980	30		26		26	22	18
815.0	98	98	981	30		26		26	22	18

BIT NUMBER	2	IADC CODE	116	INTERVAL	815.0- 1175.0
HTC J1		SIZE	12.250	NOZZLES	18 18 18
COST	2566.00	TRIP TIME	3.8	BIT RUN	360.0
TOTAL HOURS	14.41	TOTAL TURNS	86422	CONDITION	T4 B3 G0.000

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
820.0	97	96	961	83	75		54		54	17
840.0	95	93	937	81	74		52		52	17
850.0	95	91	928	81	73		52		52	17
860.0	95	95	946	82	74		53		53	17
870.0	93	94	933	81	73		52		52	17
880.0	92	90	911	79	72		51		51	16
890.0	94	91	924	80	73		52		52	17
900.0	94	92	929	81	73		52		52	17
910.0	95	92	935	81	73		52		52	17
920.0	95	92	935	81	73		52		52	17
930.0	95	92	935	81	73		52		52	17
940.0	95	92	933	81	73		52		52	17
960.0	94	92	929	81		56	52		52	17
970.0	96	91	938	81		56	52		52	17
980.0	93	92	925	80		55	52		52	17
990.0	94	91	922	80		55	51		51	17
1000.0	94	91	925	80		55	52		52	17
1010.0	94	91	924	80		55	51		51	17
1020.0	95	91	927	81		55	52		52	17
1030.0	95	91	929	81		55		55	52	17
1040.0	94	91	924	80		55		55	52	17
1050.0	94	91	926	80		55		55	52	17
1060.0	95	91	925	80		55		55	52	17
1070.0	94	91	923	80		55		55	51	17
1080.0	94	92	928	81		55		55	52	17
1090.0	94	92	929	81		56		56	52	17
1100.0	94	92	930	81		56		56	52	17
1110.0	95	92	934	81		56		56	52	17
1120.0	98	98	975	85		58		58	54	18

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
1130.0	98	98	976	85		58		58	54	18
1140.0	98	98	979	85		59		59	55	18
1150.0	98	98	978	85		58		58	54	18
1160.0	97	98	975	85		58		58	54	18
1170.0	98	98	977	85		58		58	54	18
1175.0	97	98	977	85		58		58	54	18

BIT NUMBER	3	IADC CODE	517	INTERVAL	1175.0- 1489.0
HTC J22		SIZE	12.250	NOZZLES	16 16 18
COST	8520.00	TRIP TIME	4.5	BIT RUN	314.0
TOTAL HOURS	11.66	TOTAL TURNS	61746	CONDITION	T2 B2 G0.000

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
1190.0	89	89	892	77		53		53	50	16
1200.0	89	89	895	78		53		53	50	16
1210.0	89	89	891	77		53		53	50	16
1220.0	89	89	891	77		53		53	50	16
1230.0	89	89	886	77		53		53	49	16
1250.0	88	88	876	76		52		52	49	16
1260.0	90	87	885	77		53		53	49	16
1270.0	85	86	854	74		51		51	48	15
1290.0	86	86	856	74		51		51	48	15
1300.0	85	85	850	74		51		51	47	15
1330.0	85	85	847	74		51		51	47	15
1370.0	85	85	850	74		51		51	47	15
1380.0	85	85	853	74		51		51	48	15
1390.0	85	85	852	74		51		51	47	15
1400.0	86	80	826	72		49		49	46	15
1410.0	85	85	848	74		51		51	47	15
1420.0	85	84	847	74		51		51	47	15
1430.0	86	85	854	74		51		51	48	15
1440.0	85	85	850	74		51		51	47	15
1450.0	85	86	855	74		51		51	48	15
1460.0	85	85	849	74		51		51	47	15
1480.0	86	85	857	74		51		51	48	15
1489.0	85	85	850	74		51		51	47	15

BIT NUMBER	3	IADC CODE	4	INTERVAL	1489.0- 1500.4
CHRIST RC4		SIZE	9.875	NOZZLES	15 15 15
COST	0.00	TRIP TIME	5.2	BIT RUN	11.4
TOTAL HOURS	0.08	TOTAL TURNS	370	CONDITION	T0 B0 G0.000

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
1490.0	38	0	190	42		20		20	11	3

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
1500.4	32	0	160	36		16		16	9	3

BIT NUMBER	3	IADC CODE	4	INTERVAL	1500.4- 1511.6
CHRIST RC4		SIZE	9.875	NOZZLES	15 15 15
COST	0.00	TRIP TIME	5.2	BIT RUN	11.2
TOTAL HOURS	0.19	TOTAL TURNS	953	CONDITION	T0 B0 G0.000

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
1511.6	36	0	179	40		18		18	10	3

BIT NUMBER	4	IADC CODE	517	INTERVAL	1511.6- 1668.0
HTC J22		SIZE	12.250	NOZZLES	16 16 16
COST	8520.00	TRIP TIME	5.3	BIT RUN	156.4
TOTAL HOURS	24.37	TOTAL TURNS	74831	CONDITION	T8 B6 G0.250

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
1520.0	81	82	815	71		49		49	45	15
1530.0	81	82	814	71		49		49	45	15
1540.0	81	82	815	71		49		49	45	15
1550.0	81	82	816	71		49		49	45	15
1560.0	82	81	815	71		49		49	45	15
1570.0	81	83	820	71		49		49	46	15
1580.0	80	82	808	70		48		48	45	15
1590.0	81	84	823	71		49		49	46	15
1600.0	83	83	830	72		50		50	46	15
1610.0	81	84	823	71		49		49	46	15
1620.0	109	0	543	47		32		32	30	10
1630.0	82	83	828	72		49		49	46	15
1640.0	83	82	822	71		49		49	46	15
1650.0	80	82	812	71		49		49	45	15
1660.0	81	84	823	71		49		49	46	15
1668.0	81	85	830	72		50		50	46	15

BIT NUMBER	5	IADC CODE	617	INTERVAL	1668.0- 2147.0
HTC J44		SIZE	12.250	NOZZLES	16 16 16
COST	6919.00	TRIP TIME	5.6	BIT RUN	479.0
TOTAL HOURS	66.28	TOTAL TURNS	201979	CONDITION	T2 B4 G0.000

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
1670.0	80	81	807	70		48		48	45	14
1680.0	79	82	806	70		48		48	45	14
1690.0	80	82	810	70		48		48	45	15
1700.0	80	83	815	71		49		49	45	15
1710.0	81	83	821	71		49		49	46	15
1720.0	81	82	813	71		49		49	45	15
1730.0	80	82	810	70		48		48	45	15
1740.0	80	83	817	71		49		49	46	15
1750.0	80	82	809	70		48		48	45	15
1760.0	80	82	810	70		48		48	45	15
1770.0	80	83	813	71		49		49	45	15
1780.0	80	82	810	70		48		48	45	15
1800.0	80	82	808	70		48		48	45	15
1810.0	79	82	805	70		48		48	45	14
1820.0	80	82	810	70		48		48	45	15
1830.0	81	81	810	70		48		48	45	15
1850.0	80	81	804	70		48		48	45	14
1860.0	80	80	800	69		48		48	45	14
1870.0	80	80	798	69		48		48	44	14
1880.0	80	79	796	69		48		48	44	14
1890.0	79	80	795	69		47		47	44	14
1900.0	79	79	790	69		47		47	44	14
1910.0	78	80	792	69		47		47	44	14
1920.0	86	57	714	62		43		43	40	13
1930.0	77	80	788	68		47		47	44	14
1940.0	78	80	792	69		47		47	44	14
1950.0	78	80	791	69		47		47	44	14
1970.0	77	80	787	68		47		47	44	14
1980.0	78	80	789	68		47		47	44	14
1990.0	78	79	784	68		47		47	44	14
2000.0	78	79	787	68		47		47	44	14
2010.0	78	80	791	69		47		47	44	14
2020.0	76	79	775	67		46		46	43	14
2030.0	76	78	771	67		46		46	43	14
2040.0	54	78	659	57		39		39	37	12
2050.0	111	0	555	48		33		33	31	10
2060.0	78	79	787	68		47		47	44	14
2070.0	78	78	783	68		47		47	44	14
2080.0	77	78	772	67		46		46	43	14
2090.0	76	78	769	67		46		46	43	14
2100.0	76	77	767	67		46		46	43	14
2110.0	76	78	767	67		46		46	43	14
2120.0	76	77	767	67		46		46	43	14

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
2130.0	75	78	764	66		46		46	43	14
2140.0	77	77	770	67		46		46	43	14
2147.0	73	74	737	64		44		44	41	13

BIT NUMBER	6	IADC CODE	517	INTERVAL	2147.0- 2340.5
HTC J22		SIZE	12.250	NOZZLES	16 16 16
COST	8520.00	TRIP TIME	6.6	BIT RUN	193.5
TOTAL HOURS	35.97	TOTAL TURNS	107506	CONDITION	T6 B4 G0.062

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
2150.0	72	76	737	64		44		44	41	13
2160.0	73	77	750	65		45		45	42	13
2170.0	73	77	752	65		45		45	42	14
2180.0	74	77	758	66		45		45	42	14
2190.0	75	78	760	66		45		45	42	14
2200.0	74	77	757	66		45		45	42	14
2210.0	74	77	758	66		45		45	42	14
2220.0	74	78	760	66		45		45	42	14
2230.0	74	78	758	66		45		45	42	14
2240.0	74	77	755	66		45		45	42	14
2250.0	75	78	764	66		46		46	43	14
2260.0	114	0	570	49		34		34	32	10
2270.0	74	77	757	66		45		45	42	14
2280.0	74	77	759	66		45		45	42	14
2290.0	74	77	755	66		45		45	42	14
2300.0	74	77	753	65		45		45	42	14
2310.0	0	103	516	45		31		31	29	9
2320.0	74	77	753	65		45		45	42	14
2330.0	74	77	754	65		45		45	42	14
2340.0	74	77	757	66		45		45	42	14
2340.5	74	77	757	66		45		45	42	14

BIT NUMBER	7	IADC CODE	537	INTERVAL	2340.5- 2537.3
HTC J33		SIZE	12.250	NOZZLES	16 16 16
COST	8266.00	TRIP TIME	7.2	BIT RUN	196.8
TOTAL HOURS	41.90	TOTAL TURNS	126033	CONDITION	T3 B5 G0.125

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
2350.0	74	76	753	65		45		45	42	14
2360.0	74	76	750	65		45		45	42	13
2370.0	74	77	755	66		45		45	42	14
2380.0	75	75	752	65		45		45	42	14
2390.0	74	76	753	65		45		45	42	14
2400.0	74	77	753	65		45		45	42	14
2410.0	74	77	752	65		45		45	42	14
2420.0	74	78	760	66		45		45	42	14
2430.0	74	76	750	65		45		45	42	13
2440.0	75	77	759	66		45		45	42	14
2450.0	75	78	761	66		45		45	42	14
2460.0	74	78	762	66		46		46	42	14

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
2470.0	75	77	760	66		45		45	42	14
2480.0	78	74	760	66		45		45	42	14
2490.0	59	89	739	64		44		44	41	13
2500.0	75	77	756	66		45		45	42	14
2510.0	75	77	756	66		45		45	42	14
2520.0	109	0	545	47		33		33	30	10
2530.0	110	0	550	48		33		33	31	10
2537.3	75	76	755	66		45		45	42	14

BIT NUMBER	8	IADC CODE	617	INTERVAL	2537.3- 2735.9
HTC J44		SIZE	12.250	NOZZLES	16 16 16
COST	6919.00	TRIP TIME	8.0	BIT RUN	198.6
TOTAL HOURS	55.17	TOTAL TURNS	167594	CONDITION	T3 B4 G0.125

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
2540.0	74	74	740	64		44		44	41	13
2550.0	74	77	751	65		45		45	42	13
2560.0	74	76	748	65		45		45	42	13
2570.0	73	77	747	65		45		45	42	13
2580.0	73	76	744	65		44		44	41	13
2590.0	73	76	744	65		44		44	41	13
2600.0	74	77	751	65		45		45	42	13
2610.0	75	75	749	65		45		45	42	13
2620.0	74	78	757	66		45		45	42	14
2630.0	74	78	760	66		45		45	42	14
2640.0	74	77	756	66		45		45	42	14
2650.0	122	0	611	53		37		37	34	11
2660.0	74	78	758	66		45		45	42	14
2670.0	74	77	754	65		45		45	42	14
2680.0	74	76	745	65		45		45	42	13
2690.0	74	77	755	66		45		45	42	14
2700.0	73	78	756	66		45		45	42	14
2710.0	73	76	745	65		45		45	41	13
2720.0	74	76	749	65		45		45	42	13
2730.0	73	76	745	65		44		44	41	13
2735.9	73	76	745	65		44		44	41	13

BIT NUMBER	9	IADC CODE	537	INTERVAL	2735.9- 2921.1
HTC J33		SIZE	12.250	NOZZLES	16 16 16
COST	8266.00	TRIP TIME	8.5	BIT RUN	185.2
TOTAL HOURS	43.20	TOTAL TURNS	129459	CONDITION	T0 B0 G0.000

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
2740.0	108	0	539	47		32		32	30	10
2750.0	109	0	544	47		32		32	30	10
2760.0	72	75	736	64		44		44	41	13
2770.0	73	75	740	64		44		44	41	13
2780.0	0	106	528	46		32		32	29	9
2790.0	73	75	742	64		44		44	41	13
2800.0	75	74	741	64		44		44	41	13
2810.0	74	74	740	64		44		44	41	13
2820.0	70	75	725	63		43		43	40	13
2830.0	70	72	709	62		42		42	39	13
2840.0	75	74	745	65		45		45	41	13
2850.0	71	74	723	63		43		43	40	13
2860.0	74	74	743	64		44		44	41	13
2870.0	75	72	736	64		44		44	41	13
2880.0	71	73	721	63		43		43	40	13
2890.0	73	73	731	63		44		44	41	13
2900.0	71	72	713	62		43		43	40	13
2910.0	68	74	710	62		42		42	40	13
2920.0	70	72	711	62		43		43	40	13
2921.1	70	72	709	62		42		42	40	13

BIT NUMBER	10	IADC CODE	517	INTERVAL	2921.1- 3168.9
HTC J22		SIZE	12.250	NOZZLES	16 16 16
COST	8266.00	TRIP TIME	8.7	BIT RUN	247.8
TOTAL HOURS	54.61	TOTAL TURNS	164197	CONDITION	T0 B0 G0.000

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
2930.0	69	70	696	60		42		42	39	13
2940.0	71	71	709	62		42		42	40	13
2950.0	69	72	706	61		42		42	39	13
2960.0	69	71	700	61		42		42	39	13
2970.0	69	73	707	61		42		42	39	13
2980.0	108	0	540	47		32		32	30	10
2990.0	71	71	710	62		42		42	40	13
3000.0	72	72	715	62		43		43	40	13
3010.0	71	72	710	62		42		42	40	13
3020.0	70	72	708	62		42		42	39	13
3030.0	71	71	709	62		42		42	40	13
3040.0	70	73	713	62		43		43	40	13
3050.0	69	71	703	61		42		42	39	13

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
3060.0	71	73	720	63		43		43	40	13
3070.0	70	72	712	62		43		43	40	13
3080.0	72	72	718	62		43		43	40	13
3090.0	72	72	719	62		43		43	40	13
3100.0	71	72	714	62		43		43	40	13
3110.0	71	71	712	62		43		43	40	13
3120.0	71	72	714	62		43		43	40	13
3130.0	71	73	718	62		43		43	40	13
3140.0	70	73	717	62		43		43	40	13
3150.0	70	74	720	63		43		43	40	13
3160.0	70	73	713	62		43		43	40	13
3168.9	73	71	719	62		43		43	40	13

BIT NUMBER	11	IADC CODE	517	INTERVAL	3168.9- 3288.6
HTC J22		SIZE	12.250	NOZZLES	16 16 16
COST	8520.00	TRIP TIME	9.0	BIT RUN	119.7
TOTAL HOURS	35.11	TOTAL TURNS	107188	CONDITION	T8 B4 G0.000

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
3170.0	71	71	707	61		42		42	39	13
3180.0	71	71	710	62		42		42	40	13
3190.0	70	71	707	61		42		42	39	13
3200.0	70	75	722	63		43		43	40	13
3210.0	71	72	713	62		43		43	40	13
3220.0	71	72	713	62		43		43	40	13
3230.0	71	73	722	63		43		43	40	13
3240.0	71	72	715	62		43		43	40	13
3250.0	71	72	712	62		43		43	40	13
3260.0	70	72	710	62		42		42	40	13
3270.0	71	73	718	62		43		43	40	13
3280.0	71	71	711	62		42		42	40	13
3288.6	71	72	713	62		43		43	40	13

BIT NUMBER	12	IADC CODE	617	INTERVAL	3288.6- 3317.1
HTC J44		SIZE	12.250	NOZZLES	16 16 16
COST	6919.00	TRIP TIME	9.0	BIT RUN	28.5
TOTAL HOURS	9.88	TOTAL TURNS	29231	CONDITION	T1 B1 G0.000

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
3290.0	68	70	691	60		41		41	38	12
3300.0	71	67	691	60		41		41	38	12
3310.0	71	68	690	60		41		41	38	12
3317.1	71	68	693	60		41		41	39	12

BIT NUMBER	12	IADC CODE	4	INTERVAL	3317.1- 3326.0
CHRIS C-23		SIZE	9.844	NOZZLES	15 15 15
COST	0.00	TRIP TIME	9.0	BIT RUN	8.9
TOTAL HOURS	3.86	TOTAL TURNS	18474	CONDITION	T0 B0 G1.000

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
3320.0	42	0	210	48					12	4
3326.0	0	57	287	65					16	5

BIT NUMBER	13	IADC CODE	617	INTERVAL	3326.0- 3350.0
HTC J44		SIZE	12.250	NOZZLES	16 16 16
COST	6919.00	TRIP TIME	9.1	BIT RUN	24.0
TOTAL HOURS	7.07	TOTAL TURNS	23757	CONDITION	T1 B1 G0.000

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
3330.0	67	69	681	59		41		41	38	12
3340.0	67	71	690	60		41		41	38	12
3350.0	69	71	702	61		42		42	39	13

BIT NUMBER	14	IADC CODE	316	INTERVAL	3350.0- 3355.0
HTC J7		SIZE	8.500	NOZZLES	12 12 12
COST	1475.00	TRIP TIME	9.1	BIT RUN	5.0
TOTAL HOURS	3.33	TOTAL TURNS	11909	CONDITION	T7 B5 G0.000

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
3355.0	100	0	498	112	102		74		74	9

BIT NUMBER	15	IADC CODE	537	INTERVAL	3355.0- 3470.4
HTC J33		SIZE	8.500	NOZZLES	12 12 12
COST	4455.00	TRIP TIME	9.1	BIT RUN	115.4
TOTAL HOURS	27.58	TOTAL TURNS	85649	CONDITION	T7 B4 G0.000

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
3360.0	96	0	480	108	99		71		71	9
3370.0	95	0	477	107	98		71		71	9
3380.0	96	0	478	108	98		71		71	9
3390.0	0	98	487	110	100		72		72	9
3400.0	96	0	480	108	99		71		71	
3410.0	96	0	482	108	99		71		71	9
3420.0	96	0	481	108	99		71		71	9

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
3430.0	96	0	479	108	99		71		71	9
3440.0	96	0	481	108	99		71		71	9
3450.0	98	0	489	110	101		73		73	9
3460.0	96	0	482	109	99		72		72	9
3470.0	96	0	481	108	99		71		71	9
3470.4	96	0	481	108	99		71		71	9

BIT NUMBER	15	IADC CODE	4	INTERVAL	3470.4- 3472.3
CHRIS C.201		SIZE	8.500	NOZZLES	14 14 15
COST	0.00	TRIP TIME	10.0	BIT RUN	1.9
TOTAL HOURS	1.69	TOTAL TURNS	7315	CONDITION	T0 B0 G0.000

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
3472.3	48	0	241	54	50		36		36	4

BIT NUMBER	16	IADC CODE	537	INTERVAL	3472.3- 3550.0
HTC J33		SIZE	8.500	NOZZLES	12 12 12
COST	4455.00	TRIP TIME	9.8	BIT RUN	77.7
TOTAL HOURS	21.42	TOTAL TURNS	68742	CONDITION	T3 B4 G0.000

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
3480.0	93	0	463	104	95		69		69	8
3490.0	91	0	455	103	94		68		68	8
3500.0	92	0	462	104	95		68		68	8
3510.0	92	0	461	104	95		68		68	8
3520.0	87	0	436	98	90		65		65	8
3530.0	88	0	441	99	91		65		65	8
3540.0	89	0	444	100	91		66		66	8
3550.0	92	0	459	103	95		68		68	8

PE603944

This is an enclosure indicator page.
The enclosure PE603944 is enclosed within the container PE905524 at this location in this document.

The enclosure PE603944 has the following characteristics:

ITEM_BARCODE	= PE603944
CONTAINER_BARCODE	= PE905524
NAME	= Drill Data Plot
BASIN	= GIPPSLAND
PERMIT	= VIC/L2
TYPE	= WELL
SUBTYPE	= WELL_LOG
DESCRIPTION	= Drill Data Plot (from Final Well Report) for Whiting-2
REMARKS	=
DATE_CREATED	= 7/06/85
DATE_RECEIVED	= 7/10/85
W_NO	= W903
WELL_NAME	= WHITING-2
CONTRACTOR	= CORE LABORATORIES
CLIENT_OP_CO	= ESSO AUSTRALIA LIMITED

(Inserted by DNRE - Vic Govt Mines Dept)

PE603945

This is an enclosure indicator page.
The enclosure PE603945 is enclosed within the container PE905524 at this location in this document.

The enclosure PE603945 has the following characteristics:

ITEM_BARCODE	= PE603945
CONTAINER_BARCODE	= PE905524
NAME	= Temperature Plot
BASIN	= GIPPSLAND
PERMIT	= VIC/L2
TYPE	= WELL
SUBTYPE	= WELL_LOG
DESCRIPTION	= Temperature Plot (from Final Well Report) for Whiting-2
REMARKS	=
DATE_CREATED	= 7/06/85
DATE_RECEIVED	= 7/10/85
W_NO	= W903
WELL_NAME	= WHITING-2
CONTRACTOR	= CORE LABORATORIES
CLIENT_OP_CO	= ESSO AUSTRALIA LIMITED

(Inserted by DNRE - Vic Govt Mines Dept)

PE603946

This is an enclosure indicator page.
The enclosure PE603946 is enclosed within the container PE905524 at this location in this document.

The enclosure PE603946 has the following characteristics:

ITEM_BARCODE	= PE603946
CONTAINER_BARCODE	= PE905524
NAME	= Mudlog (Grapholog)
BASIN	= GIPPSLAND
PERMIT	= VIC/L2
TYPE	= WELL
SUBTYPE	= MUD_LOG
DESCRIPTION	= Mudlog (grapholog) from Final Well report, for Whiting-2
REMARKS	=
DATE_CREATED	= 7/06/85
DATE_RECEIVED	= 7/10/85
W_NO	= W903
WELL_NAME	= WHITING-2
CONTRACTOR	= CORE LABORATORIES
CLIENT_OP_CO	= ESSO AUSTRALIA LIMITED

(Inserted by DNRE - Vic Govt Mines Dept)

PE603947

This is an enclosure indicator page.
The enclosure PE603947 is enclosed within the container PE905524 at this location in this document.

The enclosure PE603947 has the following characteristics:

ITEM_BARCODE	= PE603947
CONTAINER_BARCODE	= PE905524
NAME	= Pressure plot
BASIN	= GIPPSLAND
PERMIT	= VIC/L2
TYPE	= WELL
SUBTYPE	= WELL_LOG
DESCRIPTION	= Pressure plot (from Final Well Report) for Whiting-2
REMARKS	=
DATE_CREATED	= 7/06/85
DATE_RECEIVED	= 7/10/85
W_NO	= W903
WELL_NAME	= WHITING-2
CONTRACTOR	= CORE LABORATORIES
CLIENT_OP_CO	= ESSO AUSTRALIA LIMITED

(Inserted by DNRE - Vic Govt Mines Dept)

PE603948

This is an enclosure indicator page.
The enclosure PE603948 is enclosed within the container PE905524 at this location in this document.

The enclosure PE603948 has the following characteristics:

ITEM_BARCODE	= PE603948
CONTAINER_BARCODE	= PE905524
NAME	= Geoplot
BASIN	= GIPPSLAND
PERMIT	= VIC/L2
TYPE	= WELL
SUBTYPE	= WELL_LOG
DESCRIPTION	= Geoplot (from Final Well Report) for Whiting-2
REMARKS	=
DATE_CREATED	= 7/06/85
DATE_RECEIVED	= 7/10/85
W_NO	= W903
WELL_NAME	= WHITING-2
CONTRACTOR	= CORE LABORATORIES
CLIENT_OP_CO	= ESSO AUSTRALIA LIMITED

(Inserted by DNRE - Vic Govt Mines Dept)

PE603949

This is an enclosure indicator page.
The enclosure PE603949 is enclosed within the container PE905524 at this location in this document.

The enclosure PE603949 has the following characteristics:

ITEM_BARCODE	= PE603949
CONTAINER_BARCODE	= PE905524
NAME	= Tritium Plot
BASIN	= GIPPSLAND
PERMIT	= VIC/L2
TYPE	= WELL
SUBTYPE	= WELL_LOG
DESCRIPTION	= Tritium Plot (from Final well report) for Whiting-2
REMARKS	= Tritium concentration scale changes with depth
DATE_CREATED	= 7/06/85
DATE_RECEIVED	= 7/10/85
W_NO	= W903
WELL_NAME	= WHITING-2
CONTRACTOR	= CORE LABORATORIES
CLIENT_OP_CO	= ESSO AUSTRALIA LIMITED

(Inserted by DNRE - Vic Govt Mines Dept)