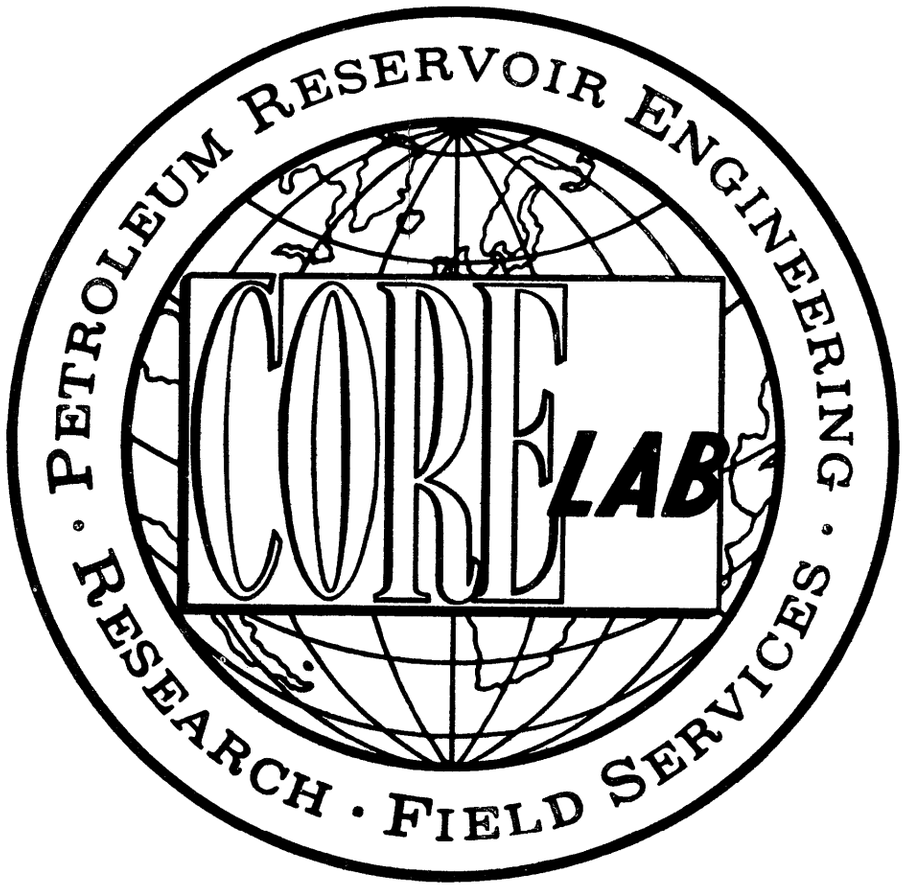
[redacted]

Attachment to WCR
IES well Report (part 2)
WIRRAH-1 (W782)



WIRRAH NO. 1

ESSO AUSTRALIA LTD

IES WELL REPORT

PART 2 OF 2

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, the 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: WIRRAH NO.1

BIT RECORD

BIT No.	IADC CODE	SIZE	NOZZLES	DEPTH IN	BIT RUN	TOTAL HOURS	AROP	TOTAL TURNS	CONDITION T	B	G
1	111	26.000	20 20 20	70.0	136.0	4.05	33.6	19130	2	4	0.000
2	111	17.500	20 20 20	206.0	593.0	16.15	36.7	131732	2	2	0.000
2	111	17.500	20 20 20	799.0	46.0	20.26	11.2	166233	2	2	0.000
3	114	12.250	18 18 18	845.0	643.2	31.23	20.6	256700	5	4	0.000
3	4	8.500	15 15 14	1488.2	12.4	0.77	16.1	4311	0	0	0.450
3	4	8.500	15 15 14	1500.6	12.8	2.01	10.3	11652	0	0	0.500
3	4	8.500	15 15 14	1513.4	13.6	3.44	9.5	20205	0	0	0.600
4	114	12.250	18 18 18	1527.0	46.4	2.60	17.8	21816	4	2	0.000
4	4	8.500	15 15 14	1573.4	12.2	4.48	2.7	27120	0	0	0.050
4	4	8.500	15 15 14	1585.6	11.0	7.40	3.8	46239	0	0	0.200
5	427	12.250	18 18 18	1596.6	31.8	7.37	4.3	27564	8	2	0.000
6	417	12.250	18 18 18	1628.4	142.0	11.42	12.4	41273	1	2	0.125
7	517	12.250	18 18 18	1770.4	275.6	28.23	9.8	94223	2	2	0.000
7	4	8.500	15 15 14	2046.0	15.2	11.42	3.8	72504	0	0	0.200
8	517	12.250	18 18 18	2061.2	743.8	43.41	17.1	129120	1	2	0.000
9	517	12.250	18 18 18	2321.0	280.0	66.68	4.2	216428	3	4	0.125
10	517	12.250	18 18 18	2601.0	75.0	29.22	2.6	103159	8	2	0.125
11	537	12.250	18 18 18	2676.0	121.0	28.28	4.3	96582	8	8	0.000
12	316	8.500	12 12 12	2799.0	3.0	0.54	5.6	2345	7	2	0.000
13	316	8.500	12 12 12	2802.0	3.0	0.46	6.5	1522	3	2	0.000
13	4	8.469	13 13 13	2805.0	2.8	2.61	1.1	12808	0	0	1.000
14	537	8.500	12 12 12	2807.8	52.2	11.73	4.5	40486	4	4	0.125
15	537	8.500	12 12 12	2860.0	54.0	11.17	4.8	38909	5	4	0.125
15	4	8.469	13 13 13	2914.0	2.0	1.89	1.1	9369	0	0	0.900
16	617	8.500	12 12 12	2916.0	56.0	16.84	3.3	59660	2	4	0.000
17	617	8.500	12 12 12	2972.0	54.0	10.43	5.2	35559	2	2	0.000

BIT NUMBER: 1 IADC CODE 111 HTC OSC3AJ&26"HO

STARTING DEPTH.....	70.0		
BIT COST, RIG COST/HOUR.....	6350.00	4449.00	
TRIP TIME.....	2.4		
BIT DIAMETER.....	26.000		
NOZZLES.....	20	20	20
HW DRILL COLLAR LENGTH, OD, ID....	22.08	9.750	3.000
DRILL COLLAR LENGTH, OD, ID.....	39.67	8.000	2.813
HW DRILL PIPE LENGTH, OD, ID.....	30.39	5.000	4.276
DRILL PIPE OD, ID.....		5.000	4.276
CASING DEPTH, ID.....	0.00	0.000	
RISER LENGTH, ID.....	70.00	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.....	0.05		
"d" EXPONENT CORRECTION FACTOR....	10.0		
CUTTINGS DIAMETER, DENSITY.....	4.0	2.00	
FINISHING DEPTH.....	206.0		
CUMULATIVE HOURS, TURNS.....	4.05	19130	
BIT CONDITION OUT.....	T 2	B 4	G 0.000

BIT NUMBER: 2 IADC CODE 111 HTC OSC 3AJ

STARTING DEPTH.....	206.0		
BIT COST, RIG COST/HOUR.....	4442.00	4449.00	
TRIP TIME.....	3.7		
BIT DIAMETER.....	17.500		
NOZZLES.....	20	20	20
HW DRILL COLLAR LENGTH, OD, ID....	20.50	9.750	3.000
DRILL COLLAR LENGTH, OD, ID.....	96.42	8.000	2.813
HW DRILL PIPE LENGTH, OD, ID.....	27.21	5.000	3.000
DRILL PIPE OD, ID.....		5.000	4.276
CASING DEPTH, ID.....	191.00	19.124	
RISER LENGTH, ID.....	70.00	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.....	0.05		
"d" EXPONENT CORRECTION FACTOR....	10.0		
CUTTINGS DIAMETER, DENSITY.....	3.0	2.10	
FINISHING DEPTH.....	799.0		
CUMULATIVE HOURS, TURNS.....	16.15	131732	
BIT CONDITION OUT.....	T 2	B 2	G 0.000

BIT NUMBER: 2	IADC CODE 111	HTC OSC 3AJ		
STARTING DEPTH.....	799.0			
BIT COST, RIG COST/HOUR.....	4442.00	4449.00		
TRIP TIME.....	3.8			
BIT DIAMETER.....	17.500			
NOZZLES.....	20	20	20	
HW DRILL COLLAR LENGTH, OD, ID....	19.88	9.750	3.000	
DRILL COLLAR LENGTH, OD, ID.....	29.62	8.000	2.813	
HW DRILL PIPE LENGTH, OD, ID.....	28.62	5.000	3.000	
DRILL PIPE OD, ID.....		5.000	4.276	
CASING DEPTH, ID.....	191.00	19.124		
RISER LENGTH, ID.....	70.00	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.....	0.05			
"d" EXPONENT CORRECTION FACTOR....	10.0			
CUTTINGS DIAMETER, DENSITY.....	3.0	2.10		
FINISHING DEPTH.....	845.0			
CUMULATIVE HOURS, TURNS.....	4.11	34501		
BIT CONDITION OUT.....	T 2	B 2	G 0.000	

BIT NUMBER: 3	IADC CODE 114	HTC X3A		
STARTING DEPTH.....	845.0			
BIT COST, RIG COST/HOUR.....	2201.00	4449.00		
TRIP TIME.....	5.2			
BIT DIAMETER.....	12.250			
NOZZLES.....	18	18	18	
DRILL COLLAR LENGTH, OD, ID.....	144.00	8.000	2.813	
HW DRILL PIPE LENGTH, OD, ID.....	28.62	5.000	3.000	
DRILL PIPE OD, ID.....		5.000	4.276	
CASING DEPTH, ID.....	830.00	12.615		
RISER LENGTH, ID.....	70.00	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.....	0.05			
"d" EXPONENT CORRECTION FACTOR....	10.0			
CUTTINGS DIAMETER, DENSITY.....	3.0	2.10		
FINISHING DEPTH.....	1488.2			
CUMULATIVE HOURS, TURNS.....	31.23	256700		
BIT CONDITION OUT.....	T 5	B 4	G 0.000	

BIT NUMBER: 3 IADC CODE 4 CHRIS RC4

STARTING DEPTH	1488.2		
BIT COST, RIG COST/HOUR	13000.00	4449.00	
TRIP TIME	5.2		
BIT DIAMETER	8.500		
NOZZLES	15	15	14
DRILL COLLAR LENGTH, OD, ID	134.10	8.000	2.813
HW DRILL PIPE LENGTH, OD, ID	28.62	5.000	3.000
DRILL PIPE OD, ID		5.000	4.276
LINER DEPTH, TOP, ID	1488.20	830.00	12.250
CASING ID	12.615		
RISER LENGTH, ID	70.00	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	0.05		
"d" EXPONENT CORRECTION FACTOR	10.0		
CUTTINGS DIAMETER, DENSITY	3.0	2.10	
FINISHING DEPTH	1500.6		
CUMULATIVE HOURS, TURNS	0.77	4311	
BIT CONDITION OUT	T 0	B 0	G 0.450

BIT NUMBER: 3 IADC CODE 4 CHRIS RC4

STARTING DEPTH	1500.6		
BIT COST, RIG COST/HOUR	13000.00	4449.00	
TRIP TIME	5.2		
BIT DIAMETER	8.500		
NOZZLES	15	15	14
DRILL COLLAR LENGTH, OD, ID	134.10	8.000	2.813
HW DRILL PIPE LENGTH, OD, ID	28.62	5.000	3.000
DRILL PIPE OD, ID		5.000	4.276
LINER DEPTH, TOP, ID	1488.20	830.00	12.250
CASING ID	12.615		
RISER LENGTH, ID	70.00	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	0.05		
"d" EXPONENT CORRECTION FACTOR	10.0		
CUTTINGS DIAMETER, DENSITY	3.0	2.20	
FINISHING DEPTH	1513.4		
CUMULATIVE HOURS, TURNS	1.24	7341	
BIT CONDITION OUT	T 0	B 0	G 0.500

BIT NUMBER: 3 IADC CODE 4 CHRIS RC4

STARTING DEPTH.....	1513.4		
BIT COST, RIG COST/HOUR.....	13000.00	4449.00	
TRIP TIME.....	5.2		
BIT DIAMETER.....	8.500		
NOZZLES.....	15	15	14
DRILL COLLAR LENGTH, OD, ID.....	134.10	8.000	2.813
HW DRILL PIPE LENGTH, OD, ID.....	28.62	5.000	3.000
DRILL PIPE OD, ID.....		5.000	4.276
LINER DEPTH, TOP, ID.....	1488.20	830.00	12.250
CASING ID.....	12.615		
RISER LENGTH, ID.....	70.00	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.....	0.05		
"d" EXPONENT CORRECTION FACTOR....	10.0		
CUTTINGS DIAMETER, DENSITY.....	3.0	2.20	
FINISHING DEPTH.....	1527.0		
CUMULATIVE HOURS, TURNS.....	1.43	8553	
BIT CONDITION OUT.....	T 0	B 0	G 0.600

BIT NUMBER: 4 IADC CODE 114 HTC X3A

STARTING DEPTH.....	1527.0		
BIT COST, RIG COST/HOUR.....	2201.00	4449.00	
TRIP TIME.....	5.3		
BIT DIAMETER.....	12.250		
NOZZLES.....	18	18	18
DRILL COLLAR LENGTH, OD, ID.....	144.33	8.000	2.813
HW DRILL PIPE LENGTH, OD, ID.....	28.62	5.000	3.000
DRILL PIPE OD, ID.....		5.000	4.276
CASING DEPTH, ID.....	830.00	12.615	
RISER LENGTH, ID.....	70.00	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.....	0.05		
"d" EXPONENT CORRECTION FACTOR....	10.0		
CUTTINGS DIAMETER, DENSITY.....	3.0	2.20	
FINISHING DEPTH.....	1573.4		
CUMULATIVE HOURS, TURNS.....	2.60	21816	
BIT CONDITION OUT.....	T 4	B 2	G 0.000

BIT NUMBER: 4 IADC CODE 4 CHRIS RC3

STARTING DEPTH.....	1573.4		
BIT COST, RIG COST/HOUR.....	13000.00	4449.00	
TRIP TIME.....	5.4		
BIT DIAMETER.....	8.500		
NOZZLES.....	15	15	14
DRILL COLLAR LENGTH, OD, ID.....	114.59	8.000	2.813
HW DRILL PIPE LENGTH, OD, ID.....	28.62	5.000	3.000
DRILL PIPE OD, ID.....		5.000	4.276
LINER DEPTH, TOP, ID.....	1573.40	830.00	12.250
CASING ID.....	12.615		
RISER LENGTH, ID.....	70.00	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.....	0.05		
"d" EXPONENT CORRECTION FACTOR....	10.0		
CUTTINGS DIAMETER, DENSITY.....	3.0	2.20	
FINISHING DEPTH.....	1585.6		
CUMULATIVE HOURS, TURNS.....	4.48	27120	
BIT CONDITION OUT.....	T 0	B 0	G 0.050

BIT NUMBER: 4 IADC CODE 4 CHRIS RC3

STARTING DEPTH.....	1585.6		
BIT COST, RIG COST/HOUR.....	13000.00	4449.00	
TRIP TIME.....	5.4		
BIT DIAMETER.....	8.500		
NOZZLES.....	15	15	14
DRILL COLLAR LENGTH, OD, ID.....	114.00	8.000	2.813
HW DRILL PIPE LENGTH, OD, ID.....	28.62	5.000	3.000
DRILL PIPE OD, ID.....		5.000	4.276
LINER DEPTH, TOP, ID.....	1573.40	830.00	12.250
CASING ID.....	12.615		
RISER LENGTH, ID.....	70.00	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.....	0.05		
"d" EXPONENT CORRECTION FACTOR....	10.0		
CUTTINGS DIAMETER, DENSITY.....	3.0	2.20	
FINISHING DEPTH.....	1596.6		
CUMULATIVE HOURS, TURNS.....	2.92	19119	
BIT CONDITION OUT.....	T 0	B 0	G 0.200

BIT NUMBER: 5 IADC CODE 427 HTC J11			
STARTING DEPTH.....	1596.6		
BIT COST, RIG COST/HOUR.....	6788.00	4449.00	
TRIP TIME.....	5.5		
BIT DIAMETER.....	12.250		
NOZZLES.....	18	18	18
DRILL COLLAR LENGTH, OD, ID.....	144.98	8.000	2.813
HW DRILL PIPE LENGTH, OD, ID.....	28.62	5.000	3.000
DRILL PIPE OD, ID.....		5.000	4.276
CASING DEPTH, ID.....	830.00	12.615	
RISER LENGTH, ID.....	70.00	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.....	0.05		
"d" EXPONENT CORRECTION FACTOR....	10.0		
CUTTINGS DIAMETER, DENSITY.....	3.0	2.20	
FINISHING DEPTH.....	1628.4		
CUMULATIVE HOURS, TURNS.....	7.37	27564	
BIT CONDITION OUT.....	T 8	B 2	G 0.000

BIT NUMBER: 6 IADC CODE 417 HTC J22			
STARTING DEPTH.....	1628.4		
BIT COST, RIG COST/HOUR.....	6788.00	4449.00	
TRIP TIME.....	5.8		
BIT DIAMETER.....	12.250		
NOZZLES.....	18	18	18
DRILL COLLAR LENGTH, OD, ID.....	144.33	8.000	2.813
HW DRILL PIPE LENGTH, OD, ID.....	28.62	5.000	3.000
DRILL PIPE OD, ID.....		5.000	4.276
CASING DEPTH, ID.....	830.00	12.615	
RISER LENGTH, ID.....	70.00	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.....	0.05		
"d" EXPONENT CORRECTION FACTOR....	10.0		
CUTTINGS DIAMETER, DENSITY.....	3.0	2.20	
FINISHING DEPTH.....	1770.4		
CUMULATIVE HOURS, TURNS.....	11.42	41273	
BIT CONDITION OUT.....	T 1	B 2	G 0.125

BIT NUMBER: 7 IADC CODE 517 HTC J22

STARTING DEPTH.....	1770.4		
BIT COST, RIG COST/HOUR.....	6788.00	4449.00	
TRIP TIME.....	6.3		
BIT DIAMETER.....	12.250		
NOZZLES.....	18	18	18
DRILL COLLAR LENGTH, OD, ID.....	146.47	8.000	2.813
HW DRILL PIPE LENGTH, OD, ID.....	27.21	5.000	3.000
DRILL PIPE OD, ID.....		5.000	4.276
CASING DEPTH, ID.....	830.00	12.615	
RISER LENGTH, ID.....	70.00	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.....	0.05		
"d" EXPONENT CORRECTION FACTOR....	10.0		
CUTTINGS DIAMETER, DENSITY.....	3.0	2.30	
FINISHING DEPTH.....	2046.0		
CUMULATIVE HOURS, TURNS.....	28.35	93771	
BIT CONDITION OUT.....	T 2	B 2	G 0.000

BIT NUMBER: 7 IADC CODE 4 CHRIS RC3

STARTING DEPTH.....	2046.0		
BIT COST, RIG COST/HOUR.....	13000.00	4449.00	
TRIP TIME.....	6.4		
BIT DIAMETER.....	8.500		
NOZZLES.....	15	15	14
DRILL COLLAR LENGTH, OD, ID.....	135.61	8.000	2.813
HW DRILL PIPE LENGTH, OD, ID.....	27.21	5.000	3.000
DRILL PIPE OD, ID.....		5.000	4.276
LINER DEPTH, TOP, ID.....	2046.00	830.00	12.250
CASING ID.....	12.615		
RISER LENGTH, ID.....	70.00	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.....	0.05		
"d" EXPONENT CORRECTION FACTOR....	10.0		
CUTTINGS DIAMETER, DENSITY.....	3.0	2.40	
FINISHING DEPTH.....	2061.2		
CUMULATIVE HOURS, TURNS.....	4.02	26265	
BIT CONDITION OUT.....	T 0	B 0	G 0.200

BIT NUMBER: 8 IADC CODE 517 HTC J22

STARTING DEPTH.....	2061.2		
BIT COST, RIG COST/HOUR.....	6788.00	4449.00	
TRIP TIME.....	6.9		
BIT DIAMETER.....	12.250		
NOZZLES.....	18	18	18
DRILL COLLAR LENGTH, OD, ID.....	146.47	8.000	2.813
HW DRILL PIPE LENGTH, OD, ID.....	27.21	5.000	3.000
DRILL PIPE OD, ID.....		5.000	4.276
CASING DEPTH, ID.....	830.00	12.615	
RISER LENGTH, ID.....	70.00	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.....	0.05		
"d" EXPONENT CORRECTION FACTOR....	10.0		
CUTTINGS DIAMETER, DENSITY.....	3.0	2.30	
FINISHING DEPTH.....	2321.0		
CUMULATIVE HOURS, TURNS.....	43.41	129120	
BIT CONDITION OUT.....	T 1	B 2	G 0.000

BIT NUMBER: 9	IADC CODE 517	HTC J22		
STARTING DEPTH		2321.0		
BIT COST, RIG COST/HOUR		6788.00	4449.00	
TRIP TIME		7.5		
BIT DIAMETER		12.250		
NOZZLES		18	18	18
DRILL COLLAR LENGTH, OD, ID		174.93	8.000	2.813
HW DRILL PIPE LENGTH, OD, ID		27.21	5.000	3.000
DRILL PIPE OD, ID			5.000	4.276
CASING DEPTH, ID		830.00	12.615	
RISER LENGTH, ID		70.00	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		0.05		
"d" EXPONENT CORRECTION FACTOR		10.0		
CUTTINGS DIAMETER, DENSITY		3.0	2.30	
FINISHING DEPTH		2601.0		
CUMULATIVE HOURS, TURNS		66.68	216428	
BIT CONDITION OUT		T 3	B 3	G 0.125

BIT NUMBER: 10	IADC CODE 517	HTC J22		
STARTING DEPTH		2601.0		
BIT COST, RIG COST/HOUR		6788.00	4449.00	
TRIP TIME		8.0		
BIT DIAMETER		12.250		
NOZZLES		18	18	18
DRILL COLLAR LENGTH, OD, ID		178.07	8.000	2.813
HW DRILL PIPE LENGTH, OD, ID		27.21	5.000	3.000
DRILL PIPE OD, ID			5.000	4.276
CASING DEPTH, ID		830.00	12.615	
RISER LENGTH, ID		70.00	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		0.05		
"d" EXPONENT CORRECTION FACTOR		10.0		
CUTTINGS DIAMETER, DENSITY		3.0	2.30	
FINISHING DEPTH		2676.0		
CUMULATIVE HOURS, TURNS		29.22	103159	
BIT CONDITION OUT		T 8	B 3	G 0.125

BIT NUMBER: 11 IADC CODE 537 HTC J33

STARTING DEPTH.....	2676.0		
BIT COST, RIG COST/HOUR.....	6637.00	4449.00	
TRIP TIME.....	7.9		
BIT DIAMETER.....	12.250		
NOZZLES.....	18	18	18
DRILL COLLAR LENGTH, OD, ID.....	178.80	8.000	2.813
HW DRILL PIPE LENGTH, OD, ID.....	27.21	5.000	3.000
DRILL PIPE OD, ID.....		5.000	4.276
CASING DEPTH, ID.....	830.00	12.615	
RISER LENGTH, ID.....	70.00	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.....	0.05		
"d" EXPONENT CORRECTION FACTOR....	10.0		
CUTTINGS DIAMETER, DENSITY.....	3.0	2.40	
FINISHING DEPTH.....	2797.0		
CUMULATIVE HOURS, TURNS.....	28.28	96582	
BIT CONDITION OUT.....	T 8	B 8	G 0.000

BIT NUMBER: 12 IADC CODE 316 HTC J7

STARTING DEPTH	2799.0		
BIT COST, RIG COST/HOUR	1260.00	4449.00	
TRIP TIME	7.9		
BIT DIAMETER	8.500		
NOZZLES	12	12	12
DRILL COLLAR LENGTH, OD, ID	272.71	6.250	2.813
HW DRILL PIPE LENGTH, OD, ID	27.21	5.000	3.000
DRILL PIPE OD, ID		5.000	4.276
CASING DEPTH, ID	2788.00	8.681	
RISER LENGTH, ID	70.00	21.000	
PUMP VOLUMES 1 AND 2	0.119	0.119	
PORE PRESSURE CALC EXPONENT	1.20		
NORMAL PORE PRESSURE	8.5		
OVERBURDEN GRADIENT MODIFIER	0.00		
STRESS RATIO MODIFIER	0.04		
"d" EXPONENT CORRECTION FACTOR	10.0		
CUTTINGS DIAMETER, DENSITY	1.5	2.50	
FINISHING DEPTH	2802.0		
CUMULATIVE HOURS, TURNS	0.54	2345	
BIT CONDITION OUT	T 7	B 2	G 0.000

BIT NUMBER: 13 IADC CODE 316 HTC J7

STARTING DEPTH	2802.0		
BIT COST, RIG COST/HOUR	1260.00	4449.00	
TRIP TIME	7.9		
BIT DIAMETER	8.500		
NOZZLES	12	12	12
DRILL COLLAR LENGTH, OD, ID	272.71	6.250	2.813
HW DRILL PIPE LENGTH, OD, ID	27.21	5.000	3.000
DRILL PIPE OD, ID		5.000	4.276
CASING DEPTH, ID	2788.00	8.681	
RISER LENGTH, ID	70.00	21.000	
PUMP VOLUMES 1 AND 2	0.119	0.119	
PORE PRESSURE CALC EXPONENT	1.20		
NORMAL PORE PRESSURE	8.5		
OVERBURDEN GRADIENT MODIFIER	0.00		
STRESS RATIO MODIFIER	0.04		
"d" EXPONENT CORRECTION FACTOR	10.0		
CUTTINGS DIAMETER, DENSITY	1.5	2.50	
FINISHING DEPTH	2805.0		
CUMULATIVE HOURS, TURNS	0.46	1522	
BIT CONDITION OUT	T 3	B 2	G 0.000

BIT NUMBER: 13 IADC CODE 4 CHRISTENSEN C-20

STARTING DEPTH	2805.0		
BIT COST, RIG COST/HOUR	13000.00	4449.00	
TRIP TIME	8.0		
BIT DIAMETER	8.469		
NOZZLES	13	13	13
DRILL COLLAR LENGTH, OD, ID	261.30	6.250	2.813
HW DRILL PIPE LENGTH, OD, ID	27.21	5.000	3.000
DRILL PIPE OD, ID		5.000	4.276
CASING DEPTH, ID	2788.00	8.681	
RISER LENGTH, ID	70.00	21.000	
PUMP VOLUMES 1 AND 2	0.119	0.119	
PORE PRESSURE CALC EXPONENT	1.20		
NORMAL PORE PRESSURE	8.5		
OVERBURDEN GRADIENT MODIFIER	0.00		
STRESS RATIO MODIFIER	0.04		
"d" EXPONENT CORRECTION FACTOR	10.0		
CUTTINGS DIAMETER, DENSITY	1.5	2.50	
FINISHING DEPTH	2807.8		
CUMULATIVE HOURS, TURNS	2.61	12808	
BIT CONDITION OUT	T 0	B 0	G 1.000

BIT NUMBER: 14 IADC CODE 537 HTC J33

STARTING DEPTH	2807.8		
BIT COST, RIG COST/HOUR	3703.00	4449.00	
TRIP TIME	8.1		
BIT DIAMETER	8.500		
NOZZLES	12	12	12
DRILL COLLAR LENGTH, OD, ID	273.65	6.250	2.813
HW DRILL PIPE LENGTH, OD, ID	27.21	0.000	3.000
DRILL PIPE OD, ID		5.000	4.276
CASING DEPTH, ID	2788.00	8.681	
RISER LENGTH, ID	70.00	21.000	
PUMP VOLUMES 1 AND 2	0.119	0.119	
PORE PRESSURE CALC EXPONENT	1.20		
NORMAL PORE PRESSURE	8.5		
OVERBURDEN GRADIENT MODIFIER	0.00		
STRESS RATIO MODIFIER	0.04		
"d" EXPONENT CORRECTION FACTOR	10.0		
CUTTINGS DIAMETER, DENSITY	1.5	2.50	
FINISHING DEPTH	2860.0		
CUMULATIVE HOURS, TURNS	11.73	40486	
BIT CONDITION OUT	T 4	B 4	G 0.125

BIT NUMBER: 15	IADC CODE 537	HTC J33		
STARTING DEPTH.....	2860.0			
BIT COST, RIG COST/HOUR.....	3703.00	4449.00		
TRIP TIME.....	8.2			
BIT DIAMETER.....	8.500			
NOZZLES.....	12	12	12	
DRILL COLLAR LENGTH, OD, ID.....	273.65	6.250	2.813	
HW DRILL PIPE LENGTH, OD, ID.....	27.21	5.000	3.000	
DRILL PIPE OD, ID.....		5.000	4.276	
CASING DEPTH, ID.....	2788.00	8.681		
RISER LENGTH, ID.....	70.00	21.000		
PUMP VOLUMES 1 AND 2.....	0.119	0.119		
PORE PRESSURE CALC EXPONENT.....	1.20			
NORMAL PORE PRESSURE.....	8.5			
OVERBURDEN GRADIENT MODIFIER.....	0.00			
STRESS RATIO MODIFIER.....	0.04			
"d" EXPONENT CORRECTION FACTOR....	10.0			
CUTTINGS DIAMETER, DENSITY.....	2.5	2.50		
FINISHING DEPTH.....	2914.0			
CUMULATIVE HOURS, TURNS.....	11.17	38909		
BIT CONDITION OUT.....	T 5	B 4	G 0.125	

BIT NUMBER: 15	IADC CODE 4	CHRIS C-20		
STARTING DEPTH.....	2914.0			
BIT COST, RIG COST/HOUR.....	13000.00	4449.00		
TRIP TIME.....	8.2			
BIT DIAMETER.....	8.469			
NOZZLES.....	13	13	13	
DRILL COLLAR LENGTH, OD, ID.....	261.30	6.250	2.813	
HW DRILL PIPE LENGTH, OD, ID.....	27.21	5.000	3.000	
DRILL PIPE OD, ID.....		5.000	4.276	
CASING DEPTH, ID.....	2788.00	8.681		
RISER LENGTH, ID.....	70.00	21.000		
PUMP VOLUMES 1 AND 2.....	0.119	0.119		
PORE PRESSURE CALC EXPONENT.....	1.20			
NORMAL PORE PRESSURE.....	8.5			
OVERBURDEN GRADIENT MODIFIER.....	0.00			
STRESS RATIO MODIFIER.....	0.04			
"d" EXPONENT CORRECTION FACTOR....	10.0			
CUTTINGS DIAMETER, DENSITY.....	2.0	2.50		
FINISHING DEPTH.....	2916.0			
CUMULATIVE HOURS, TURNS.....	1.89	9369		
BIT CONDITION OUT.....	T 0	B 0	G 0.900	

BIT NUMBER: 16 IADC CODE 617 HTC J44

STARTING DEPTH.....	2916.0		
BIT COST, RIG COST/HOUR.....	3304.00	4449.00	
TRIP TIME.....	8.3		
BIT DIAMETER.....	8.500		
NOZZLES.....	12	12	12
DRILL COLLAR LENGTH, OD, ID.....	273.93	6.250	2.813
HW DRILL PIPE LENGTH, OD, ID.....	27.21	5.000	3.000
DRILL PIPE OD, ID.....		5.000	4.276
CASING DEPTH, ID.....	2788.00	8.681	
RISER LENGTH, ID.....	70.00	21.000	
PUMP VOLUMES 1 AND 2.....	0.119	0.119	
PORE PRESSURE CALC EXPONENT.....	1.20		
NORMAL PORE PRESSURE.....	8.5		
OVERBURDEN GRADIENT MODIFIER.....	0.00		
STRESS RATIO MODIFIER.....	0.04		
"d" EXPONENT CORRECTION FACTOR....	10.0		
CUTTINGS DIAMETER, DENSITY.....	2.0	2.50	
FINISHING DEPTH.....	2972.0		
CUMULATIVE HOURS, TURNS.....	16.84	59660	
BIT CONDITION OUT.....	T 2	B 4	G 0.000

BIT NUMBER: 17 IADC CODE 617 HTC J44

STARTING DEPTH.....	2972.0		
BIT COST, RIG COST/HOUR.....	3304.00	4449.00	
TRIP TIME.....	8.4		
BIT DIAMETER.....	8.500		
NOZZLES.....	12	12	12
DRILL COLLAR LENGTH, OD, ID.....	273.93	6.250	2.813
HW DRILL PIPE LENGTH, OD, ID.....	27.21	5.000	3.000
DRILL PIPE OD, ID.....		5.000	4.276
CASING DEPTH, ID.....	2788.00	8.681	
RISER LENGTH, ID.....	70.00	21.000	
PUMP VOLUMES 1 AND 2.....	0.119	0.119	
PORE PRESSURE CALC EXPONENT.....	1.20		
NORMAL PORE PRESSURE.....	8.5		
OVERBURDEN GRADIENT MODIFIER.....	0.00		
STRESS RATIO MODIFIER.....	0.04		
"d" EXPONENT CORRECTION FACTOR....	10.0		
CUTTINGS DIAMETER, DENSITY.....	2.0	2.50	
FINISHING DEPTH.....	3026.0		
CUMULATIVE HOURS, TURNS.....	10.43	35559	
BIT CONDITION OUT.....	T 2	B 2	G 0.000

(b). HYDRAULIC ANALYSIS

Data listed from the data 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
ASCEND 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

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 100.0 AND TVD 100.0

SPM 1 130 SPM 2 0 FLOW RATE 650

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
HWDC/OH	1.851	41	8	30	LAMINAR	0	8	0.0
DC/OH	1.950	15	8	29	LAMINAR	0	8	0.0
DC/RIS	1.201	38	13	33	LAMINAR	0	12	0.0
HWDP/RIS	1.325	40	12	31	LAMINAR	0	11	0.0
DP/RIS	1.325	10	12	31	LAMINAR	0	11	0.0
TOTAL VOLUME		145			TOTAL PRESSURE DROP			0.0

LAG: 9.4 MINUTES 1220 STROKES #1 AND 0 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	394.7	HHP	150	IMPACT FORCE	655
% SURFACE PRESSURE	78.9	HHP/sqin	0.28	JET VELOCITY	69

PRESSURE BREAKDOWN:

SURFACE	35.0				
STRING	91.8				
BIT	394.7				
ANNULUS	0.0				
TOTAL	521.5	PUMP PRESSURE	500.0	% DIFFERENCE	4.3

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	8.60	HYDROSTATIC PRESSURE	146.7
CIRCULATING:	ECD	8.60	CIRCULATING PRESSURE	146.8
PULLING OUT:	TRIP MARGIN	0.01	ESTIMATED SWAB	0.1
	EFFECTIVE MUD WEIGHT	8.59	BOTTOM HOLE PRESSURE	146.6

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 200.0 AND TVD 200.0

SPM 1 120 SPM 2 0 FLOW RATE 600

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
HWDC/OH	1.851	41	8	30	LAMINAR	0	8	0.0
DC/OH	1.950	77	7	29	LAMINAR	0	7	0.0
HWDP/OH	2.074	63	7	28	LAMINAR	0	7	0.0
DP/OH	2.074	79	7	28	LAMINAR	0	7	0.0
DP/RIS	1.325	93	11	31	LAMINAR	0	11	0.0
TOTAL VOLUME		353				TOTAL PRESSURE DROP		0.1

LAG: 24.7 MINUTES 2962 STROKES #1 AND 0 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	336.3	HHP	118	IMPACT FORCE	558
% SURFACE PRESSURE	74.7	HHP/sqin	0.22	JET VELOCITY	64

PRESSURE BREAKDOWN:

SURFACE	30.3				
STRING	96.9				
BIT	336.3				
ANNULUS	0.1				
TOTAL	463.6	PUMP PRESSURE	450.0	% DIFFERENCE	3.0

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	8.60	HYDROSTATIC PRESSURE	293.4
CIRCULATING:	ECD	8.60	CIRCULATING PRESSURE	293.5
PULLING OUT:	TRIP MARGIN	0.00	ESTIMATED SWAB	0.1
	EFFECTIVE MUD WEIGHT	8.60	BOTTOM HOLE PRESSURE	293.3

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 300.0 AND TVD 300.0

SPM 1 100 SPM 2 105 FLOW RATE 1025

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
HWDC/OH	0.673	14	36	133	LAMINAR	0	36	0.4
DC/OH	0.772	68	32	133	LAMINAR	0	31	1.3
DC/CSG	0.961	8	25	134	LAMINAR	0	25	0.1
HWDP/CSG	1.085	30	22	134	LAMINAR	0	22	0.2
DP/CSG	1.085	93	22	134	LAMINAR	0	22	0.7
DP/RIS	1.325	93	18	135	LAMINAR	0	18	0.5

TOTAL VOLUME 305 TOTAL PRESSURE DROP 3.2

LAG: 12.5 MINUTES 1251 STROKES #1 AND 1314 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	970.1	HHP	580	IMPACT FORCE	1611
% SURFACE PRESSURE	46.2	HHP/sqin	2.41	JET VELOCITY	109

PRESSURE BREAKDOWN:

SURFACE	68.5
STRING	448.7
BIT	970.1
ANNULUS	3.2
TOTAL	1490.5

PUMP PRESSURE 2100.0 % DIFFERENCE 29.0

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	8.50	HYDROSTATIC PRESSURE	435.0
CIRCULATING:	ECD	8.56	CIRCULATING PRESSURE	438.2
PULLING OUT:	TRIP MARGIN	0.13	ESTIMATED SWAB	6.4
	EFFECTIVE MUD WEIGHT	8.37	BOTTOM HOLE PRESSURE	428.6

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 400.0 AND TVD 400.0

SPM 1 110 SPM 2 105 FLOW RATE 1075

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
HWDC/OH	0.673	14	38	129	LAMINAR	0	38	0.4
DC/OH	0.772	74	33	130	LAMINAR	0	33	1.4
HWDP/OH	0.896	24	29	130	LAMINAR	0	28	0.3
DP/OH	0.896	58	29	130	LAMINAR	0	28	0.7
DP/CSG	1.085	131	24	131	LAMINAR	0	23	1.0
DP/RIS	1.325	93	19	131	LAMINAR	0	19	0.5
TOTAL VOLUME		395				TOTAL PRESSURE DROP		4.3

LAG: 15.4 MINUTES 1697 STROKES #1 AND 1620 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1129.8	HHP	708	IMPACT FORCE	1876
% SURFACE PRESSURE	50.7	HHP/sqin	2.94	JET VELOCITY	114

PRESSURE BREAKDOWN:

SURFACE	78.1		
STRING	556.8		
BIT	1129.8		
ANNULUS	4.3		
TOTAL	1769.0	PUMP PRESSURE 2230.0	% DIFFERENCE 20.7

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.00	HYDROSTATIC PRESSURE	614.2
CIRCULATING:	ECD	9.06	CIRCULATING PRESSURE	618.4
PULLING OUT:	TRIP MARGIN	0.12	ESTIMATED SWAB	8.5
	EFFECTIVE MUD WEIGHT	8.88	BOTTOM HOLE PRESSURE	605.7

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 500.0 AND TVD 500.0

SPM 1 105 SPM 2 100 FLOW RATE 1025

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
HWDC/OH	0.673	14	36	128	LAMINAR	0	36	0.4
DC/OH	0.772	74	32	129	LAMINAR	0	31	1.4
HWDP/OH	0.896	24	27	130	LAMINAR	0	27	0.3
DP/OH	0.896	148	27	130	LAMINAR	0	27	1.7
DP/CSG	1.085	131	22	130	LAMINAR	0	22	1.0
DP/RIS	1.325	93	18	130	LAMINAR	0	18	0.5
TOTAL VOLUME		484			TOTAL PRESSURE DROP			5.2

LAG: 19.9 MINUTES 2085 STROKES #1 AND 1986 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1038.6	HHP	621	IMPACT FORCE	1724
% SURFACE PRESSURE	34.6	HHP/sqin	2.58	JET VELOCITY	109

PRESSURE BREAKDOWN:

SURFACE	72.3		
STRING	557.3		
BIT	1038.6		
ANNULUS	5.2		
TOTAL	1673.4	PUMP PRESSURE 3005.0	% DIFFERENCE 44.3

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.10	HYDROSTATIC PRESSURE	776.2
CIRCULATING:	ECD	9.16	CIRCULATING PRESSURE	781.5
PULLING OUT:	TRIP MARGIN	0.12	ESTIMATED SWAB	10.5
	EFFECTIVE MUD WEIGHT	8.98	BOTTOM HOLE PRESSURE	765.8

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 600.0 AND TVD 600.0

SPM 1 105 SPM 2 100 FLOW RATE 1025

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
HWDC/OH	0.673	14	36	127	LAMINAR	0	36	0.4
DC/OH	0.772	74	32	128	LAMINAR	0	31	1.4
HWDP/OH	0.896	24	27	129	LAMINAR	0	27	0.3
DP/OH	0.896	237	27	129	LAMINAR	0	27	2.7
DP/CSG	1.085	131	22	129	LAMINAR	0	22	1.0
DP/RIS	1.325	93	18	130	LAMINAR	0	18	0.5
TOTAL VOLUME		574			TOTAL PRESSURE DROP			6.3

LAG: 23.5 MINUTES 2471 STROKES #1 AND 2353 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1050.0	HHP	628	IMPACT FORCE	1743
% SURFACE PRESSURE	35.4	HHP/sqin	2.61	JET VELOCITY	109

PRESSURE BREAKDOWN:

SURFACE	72.9		
STRING	604.2		
BIT	1050.0		
ANNULUS	6.3		
TOTAL	1733.4	PUMP PRESSURE 2970.0	% DIFFERENCE 41.6

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.20	HYDROSTATIC PRESSURE	941.7
CIRCULATING:	ECD	9.26	CIRCULATING PRESSURE	948.0
PULLING OUT:	TRIP MARGIN	0.12	ESTIMATED SWAB	12.5
	EFFECTIVE MUD WEIGHT	9.08	BOTTOM HOLE PRESSURE	929.2

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 700.0 AND TVD 700.0

SPM 1 100 SPM 2 100 FLOW RATE 1000

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
HWDC/OH	0.673	14	35	129	LAMINAR	0	35	0.4
DC/OH	0.772	74	31	128	LAMINAR	0	31	1.4
HWDP/OH	0.896	24	27	128	LAMINAR	0	26	0.3
DP/OH	0.896	327	27	128	LAMINAR	0	26	3.7
DP/CSG	1.085	131	22	127	LAMINAR	0	22	1.0
DP/RIS	1.325	93	18	127	LAMINAR	0	18	0.5
TOTAL VOLUME		664				TOTAL PRESSURE DROP		7.2

LAG: 27.9 MINUTES 2788 STROKES #1 AND 2788 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	999.4	HHP	583	IMPACT FORCE	1659
% SURFACE PRESSURE	37.7	HHP/sqin	2.42	JET VELOCITY	106

PRESSURE BREAKDOWN:

SURFACE	80.2		
STRING	710.1		
BIT	999.4		
ANNULUS	7.2		
TOTAL	1796.9	PUMP PRESSURE 2650.0	% DIFFERENCE 32.2

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.20	HYDROSTATIC PRESSURE	1098.7
CIRCULATING:	ECD	9.26	CIRCULATING PRESSURE	1105.9
PULLING OUT:	TRIP MARGIN	0.12	ESTIMATED SWAB	14.4
	EFFECTIVE MUD WEIGHT	9.08	BOTTOM HOLE PRESSURE	1084.3

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 800.0 AND TVD 800.0

SPM 1 110 SPM 2 100 FLOW RATE 1050

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
HWDC/OH	0.673	13	37	133	LAMINAR	0	37	0.4
DC/OH	0.772	23	32	133	LAMINAR	0	32	0.5
HWDP/OH	0.896	26	28	132	LAMINAR	0	28	0.3
DP/OH	0.896	476	28	132	LAMINAR	0	28	5.8
DP/CSG	1.085	131	23	132	LAMINAR	0	23	1.1
DP/RIS	1.325	93	19	131	LAMINAR	0	19	0.5
TOTAL VOLUME		762				TOTAL PRESSURE DROP		8.6

LAG: 30.5 MINUTES 3353 STROKES #1 AND 3048 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1113.8	HHP	682	IMPACT FORCE	1849
% SURFACE PRESSURE	38.0	HHP/sqin	2.84	JET VELOCITY	111

PRESSURE BREAKDOWN:

SURFACE	88.3				
STRING	615.0				
BIT	1113.8				
ANNULUS	8.6				
TOTAL	1825.7	PUMP PRESSURE	2930.0	% DIFFERENCE	37.7

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.30	HYDROSTATIC PRESSURE	1269.3
CIRCULATING:	ECD	9.36	CIRCULATING PRESSURE	1277.9
PULLING OUT:	TRIP MARGIN	0.13	ESTIMATED SWAB	17.3
	EFFECTIVE MUD WEIGHT	9.17	BOTTOM HOLE PRESSURE	1252.0

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 800.0 AND TVD 800.0

SPM 1 110 SPM 2 100 FLOW RATE 1050

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
HWDC/OH	0.673	13	37	133	LAMINAR	0	37	0.4
DC/OH	0.772	23	32	133	LAMINAR	0	32	0.5
HWDP/OH	0.896	26	28	132	LAMINAR	0	28	0.3
DP/OH	0.896	476	28	132	LAMINAR	0	28	5.8
DP/CSG	1.085	131	23	132	LAMINAR	0	23	1.1
DP/RIS	1.325	93	19	131	LAMINAR	0	19	0.5
TOTAL VOLUME		762			TOTAL PRESSURE DROP			8.6

LAG: 30.5 MINUTES 3353 STROKES #1 AND 3048 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1113.8	MHP	682	IMPACT FORCE	1849
% SURFACE PRESSURE	38.0	MHP/sqin	2.84	JET VELOCITY	111

PRESSURE BREAKDOWN:

SURFACE	88.3		
STRING	615.0		
BIT	1113.8		
ANNULUS	8.6		
TOTAL	1825.7	PUMP PRESSURE 2930.0	% DIFFERENCE 37.7

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.30	HYDROSTATIC PRESSURE	1269.3
CIRCULATING:	ECD	9.36	CIRCULATING PRESSURE	1277.9
PULLING OUT:	TRIP MARGIN	0.13	ESTIMATED SWAB	17.3
	EFFECTIVE MUD WEIGHT	9.17	BOTTOM HOLE PRESSURE	1252.0

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 900.0 AND TVD 900.0

SPM 1 92 SPM 2 91 FLOW RATE 915

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.274	19	79	158	LAMINAR	1	79	4.8
DC/CSG	0.303	22	72	158	LAMINAR	1	71	4.5
HWDP/CSG	0.427	12	51	155	LAMINAR	0	51	0.8
DP/CSG	0.427	281	51	155	LAMINAR	0	51	19.5
DP/RIS	1.325	93	16	151	LAMINAR	0	16	0.6
TOTAL VOLUME		428				TOTAL PRESSURE DROP		30.3

LAG: 19.6 MINUTES 1810 STROKES #1 AND 1783 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1219.9	HHP	651	IMPACT FORCE	1640
% SURFACE PRESSURE	50.8	HHP/sqin	5.52	JET VELOCITY	120

PRESSURE BREAKDOWN:

SURFACE	71.5		
STRING	807.2		
BIT	1219.9		
ANNULUS	30.3		
TOTAL	2128.9	PUMP PRESSURE 2400.0	% DIFFERENCE 11.3

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	8.80	HYDROSTATIC PRESSURE	1351.2
CIRCULATING:	ECD	9.00	CIRCULATING PRESSURE	1381.5
PULLING OUT:	TRIP MARGIN	0.39	ESTIMATED SWAB	60.6
	EFFECTIVE MUD WEIGHT	8.41	BOTTOM HOLE PRESSURE	1290.6

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 1000.0 AND TVD 1000.0

SPM 1 92 SPM 2 92 FLOW RATE 920

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.274	39	80	160	LAMINAR	1	79	10.0
HWDP/OH	0.398	10	55	157	LAMINAR	0	55	0.8
HWDP/CSG	0.427	1	51	157	LAMINAR	0	51	0.1
DP/CSG	0.427	324	51	157	LAMINAR	0	51	22.5
DP/RIS	1.325	93	17	152	LAMINAR	0	16	0.6
TOTAL VOLUME		467				TOTAL PRESSURE DROP		34.0

LAG: 21.3 MINUTES 1971 STROKES #1 AND 1956 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1206.6	HHP	648	IMPACT FORCE	1623
% SURFACE PRESSURE	47.3	HHP/sqin	5.50	JET VELOCITY	120

PRESSURE BREAKDOWN:

SURFACE	71.0		
STRING	842.0		
BIT	1206.6		
ANNULUS	34.0		
TOTAL	2153.6	PUMP PRESSURE 2550.0	% DIFFERENCE 15.5

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	8.60	HYDROSTATIC PRESSURE	1467.2
CIRCULATING:	ECD	8.80	CIRCULATING PRESSURE	1501.2
PULLING OUT:	TRIP MARGIN	0.40	ESTIMATED SWAB	68.0
	EFFECTIVE MUD WEIGHT	8.20	BOTTOM HOLE PRESSURE	1399.2

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 1100.0 AND TVD 1100.0

SPM 1 91 SPM 2 91 FLOW RATE 910

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.274	39	79	129	LAMINAR	1	78	7.1
HWDP/OH	0.398	11	54	125	LAMINAR	0	54	0.6
DP/OH	0.398	39	54	125	LAMINAR	0	54	2.2
DP/CSG	0.427	325	51	125	LAMINAR	0	50	15.6
DP/RIS	1.325	93	16	120	LAMINAR	0	16	0.4
TOTAL VOLUME		507				TOTAL PRESSURE DROP		26.0

LAG: 23.4 MINUTES 2127 STROKES #1 AND 2135 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1248.8	HHP	663	IMPACT FORCE	1679
% SURFACE PRESSURE	48.0	HHP/sqin	5.63	JET VELOCITY	119

PRESSURE BREAKDOWN:

SURFACE	70.2		
STRING	873.1		
BIT	1248.8		
ANNULUS	26.0		
TOTAL	2218.0	PUMP PRESSURE 2600.0	% DIFFERENCE 14.7

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.10	HYDROSTATIC PRESSURE	1707.7
CIRCULATING:	ECD	9.24	CIRCULATING PRESSURE	1733.7
PULLING OUT:	TRIP MARGIN	0.28	ESTIMATED SWAB	52.0
	EFFECTIVE MUD WEIGHT	8.82	BOTTOM HOLE PRESSURE	1655.8

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 1200.0 AND TVD 1200.0

SPM 1 91 SPM 2 91 FLOW RATE 909

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.274	39	79	123	LAMINAR	1	78	6.3
HWDP/OH	0.398	11	54	121	LAMINAR	0	54	0.6
DP/OH	0.398	79	54	121	LAMINAR	0	54	4.0
DP/CSG	0.427	325	51	121	LAMINAR	0	50	14.3
DP/RIS	1.325	93	16	117	LAMINAR	0	16	0.4
TOTAL VOLUME		547				TOTAL PRESSURE DROP		25.6

LAG: 25.3 MINUTES 2309 STROKES #1 AND 2288 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1233.5	HHP	655	IMPACT FORCE	1659
% SURFACE PRESSURE	45.7	HHP/sqin	5.55	JET VELOCITY	119

PRESSURE BREAKDOWN:

SURFACE	66.4		
STRING	865.0		
BIT	1233.5		
ANNULUS	25.6		
TOTAL	2190.6	PUMP PRESSURE 2700.0	% DIFFERENCE 18.9

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.00	HYDROSTATIC PRESSURE	1842.5
CIRCULATING:	ECD	9.13	CIRCULATING PRESSURE	1868.1
PULLING OUT:	TRIP MARGIN	0.25	ESTIMATED SWAB	51.2
	EFFECTIVE MUD WEIGHT	8.75	BOTTOM HOLE PRESSURE	1791.3

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 1300.0 AND TVD 1300.0

SPM 1 92 SPM 2 91 FLOW RATE 912

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.274	39	79	122	LAMINAR	1	78	6.3
HWDP/OH	0.398	11	54	119	LAMINAR	0	54	0.6
DP/OH	0.398	118	54	119	LAMINAR	0	54	6.1
DP/CSG	0.427	325	51	119	LAMINAR	0	50	14.3
DP/RIS	1.325	93	16	116	LAMINAR	0	16	0.4
TOTAL VOLUME		587				TOTAL PRESSURE DROP		27.6

LAG: 27.0 MINUTES 2484 STROKES #1 AND 2448 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1267.2	HHP	674	IMPACT FORCE	1704
% SURFACE PRESSURE	43.7	HHP/sqin	5.72	JET VELOCITY	119

PRESSURE BREAKDOWN:

SURFACE	67.9
STRING	923.5
BIT	1267.2
ANNULUS	27.6
TOTAL	2286.3

PUMP PRESSURE 2900.0 % DIFFERENCE 21.2

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.20	HYDROSTATIC PRESSURE	2040.4
CIRCULATING:	ECD	9.32	CIRCULATING PRESSURE	2068.1
PULLING OUT:	TRIP MARGIN	0.25	ESTIMATED SWAB	55.3
	EFFECTIVE MUD WEIGHT	8.95	BOTTOM HOLE PRESSURE	1985.1

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 1400.0 AND TVD 1400.0

SPM 1 100 SPM 2 89 FLOW RATE 946

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.274	39	82	119	LAMINAR	1	81	6.4
HWDP/OH	0.398	11	57	116	LAMINAR	0	56	0.6
DP/OH	0.398	158	57	116	LAMINAR	0	56	8.2
DP/CSG	0.427	325	53	116	LAMINAR	0	52	14.4
DP/RIS	1.325	93	17	112	LAMINAR	0	17	0.4
TOTAL VOLUME		627			TOTAL PRESSURE DROP			30.0

LAG: 27.8 MINUTES 2783 STROKES #1 AND 2484 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1439.7	HHP	795	IMPACT FORCE	1936
% SURFACE PRESSURE	48.8	HHP/sqin	6.75	JET VELOCITY	124

PRESSURE BREAKDOWN:

SURFACE	75.8				
STRING	1074.1				
BIT	1439.7				
ANNULUS	30.0				
TOTAL	2619.6	PUMP PRESSURE	2950.0	% DIFFERENCE	11.2

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.70	HYDROSTATIC PRESSURE	2316.8
CIRCULATING:	ECD	9.83	CIRCULATING PRESSURE	2346.8
PULLING OUT:	TRIP MARGIN	0.25	ESTIMATED SWAB	59.9
	EFFECTIVE MUD WEIGHT	9.45	BOTTOM HOLE PRESSURE	2256.8

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 1500.0 AND TVD 1500.0

SPM 1 50 SPM 2 0 FLOW RATE 250

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.026	0	226	142	TURBULENT			25.4
DC/LIN	0.274	34	22	128	LAMINAR	0	21	4.5
HWDP/LIN	0.398	11	15	125	LAMINAR	0	15	0.5
DP/LIN	0.398	202	15	125	LAMINAR	0	15	8.5
DP/CSG	0.427	325	14	125	LAMINAR	0	14	11.8
DP/RIS	1.325	93	4	121	LAMINAR	0	4	0.3
TOTAL VOLUME		665			TOTAL PRESSURE DROP			51.0

LAG: 111.7 MINUTES 5587 STROKES #1 AND 0 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	229.6	HHP	33	IMPACT FORCE	205
% SURFACE PRESSURE	35.3	HHP/sqin	0.59	JET VELOCITY	49

PRESSURE BREAKDOWN:

SURFACE	7.3		
STRING	104.6		
BIT	229.6		
ANNULUS	51.0		
TOTAL	392.4	PUMP PRESSURE	650.0

% DIFFERENCE 39.6

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.80	HYDROSTATIC PRESSURE	2507.9
CIRCULATING:	ECD	10.00	CIRCULATING PRESSURE	2558.9
PULLING OUT:	TRIP MARGIN	0.40	ESTIMATED SWAB	102.0
	EFFECTIVE MUD WEIGHT	9.40	BOTTOM HOLE PRESSURE	2405.9

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 1600.0 AND TVD 1600.0

SPM 1 86 SPM 2 78 FLOW RATE 819

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	71	110	LAMINAR	1	70	6.0
HWDP/OH	0.398	11	49	101	LAMINAR	0	49	0.5
DP/OH	0.398	238	49	101	LAMINAR	0	49	9.9
DP/CSG	0.427	325	46	100	LAMINAR	0	45	11.4
DP/RIS	1.325	93	15	90	LAMINAR	0	15	0.2
TOTAL VOLUME		706			TOTAL PRESSURE DROP			28.0

LAG: 36.2 MINUTES 3105 STROKES #1 AND 2830 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1089.5	HHP	521	IMPACT FORCE	1465
% SURFACE PRESSURE	43.6	HHP/sqin	4.42	JET VELOCITY	107

PRESSURE BREAKDOWN:

SURFACE	67.7		
STRING	1039.5		
BIT	1089.5		
ANNULUS	28.0		
TOTAL	2224.7	PUMP PRESSURE 2500.0	% DIFFERENCE 11.0

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.80	HYDROSTATIC PRESSURE	2675.1
CIRCULATING:	ECD	9.90	CIRCULATING PRESSURE	2703.1
PULLING OUT:	TRIP MARGIN	0.21	ESTIMATED SWAB	56.1
	EFFECTIVE MUD WEIGHT	9.59	BOTTOM HOLE PRESSURE	2619.0

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 1700.0 AND TVD 1700.0

SPM 1 88 SPM 2 85 FLOW RATE 869

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	75	84	LAMINAR	1	74	4.2
HWDP/OH	0.398	11	52	73	LAMINAR	1	51	0.3
DP/OH	0.398	278	52	73	LAMINAR	1	51	7.4
DP/CSG	0.427	325	48	72	LAMINAR	1	48	7.2
DP/RIS	1.325	93	16	59	LAMINAR	0	16	0.1
TOTAL VOLUME		746			TOTAL PRESSURE DROP			19.3

LAG: 36.1 MINUTES 3188 STROKES #1 AND 3083 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1214.2	HHP	616	IMPACT FORCE	1633
% SURFACE PRESSURE	42.6	HHP/sqin	5.22	JET VELOCITY	114

PRESSURE BREAKDOWN:

SURFACE	76.5
STRING	1216.8
BIT	1214.2
ANNULUS	19.3
TOTAL	2526.7

PUMP PRESSURE 2850.0 % DIFFERENCE 11.3

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.70	HYDROSTATIC PRESSURE	2813.2
CIRCULATING:	ECD	9.77	CIRCULATING PRESSURE	2832.5
PULLING OUT:	TRIP MARGIN	0.13	ESTIMATED SWAB	30.5
	EFFECTIVE MUD WEIGHT	9.57	BOTTOM HOLE PRESSURE	2774.7

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 1800.0 AND TVD 1800.0

SPM 1 86 SPM 2 88 FLOW RATE 869

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	75	78	LAMINAR	2	74	4.3
HWDP/OH	0.398	11	52	62	LAMINAR	1	51	0.3
DP/OH	0.398	317	52	62	LAMINAR	1	51	7.4
DP/CSG	0.427	325	48	61	LAMINAR	1	48	6.2
DP/RIS	1.325	93	16	45	LAMINAR	0	16	0.1
TOTAL VOLUME		786				TOTAL PRESSURE DROP		18.3

LAG: 38.0 MINUTES 3271 STROKES #1 AND 3332 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1227.4	HHP	623	IMPACT FORCE	1651
% SURFACE PRESSURE	49.1	HHP/sqin	5.28	JET VELOCITY	114

PRESSURE BREAKDOWN:

SURFACE	84.3				
STRING	1393.0				
BIT	1227.4				
ANNULUS	18.3				
TOTAL	2723.0	PUMP PRESSURE	2500.0	% DIFFERENCE	8.9

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.80	HYDROSTATIC PRESSURE	3009.4
CIRCULATING:	ECD	9.86	CIRCULATING PRESSURE	3027.7
PULLING OUT:	TRIP MARGIN	0.12	ESTIMATED SWAB	36.5
	EFFECTIVE MUD WEIGHT	9.68	BOTTOM HOLE PRESSURE	2972.9

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 1900.0 AND TVD 1899.9

SPM 1 83 SPM 2 86 FLOW RATE 845

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	73	73	TURBULENT			3.7
HWDP/OH	0.398	11	50	60	LAMINAR	1	50	0.2
DP/OH	0.398	357	50	60	LAMINAR	1	50	7.4
DP/CSG	0.427	325	47	58	LAMINAR	1	46	5.5
DP/RIS	1.325	93	15	44	LAMINAR	0	15	0.1
TOTAL VOLUME		826			TOTAL PRESSURE DROP			16.9

LAG: 41.1 MINUTES 3407 STROKES #1 AND 3531 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1146.8	HHP	565	IMPACT FORCE	1542
% SURFACE PRESSURE	41.0	HHP/sqin	4.79	JET VELOCITY	111

PRESSURE BREAKDOWN:

SURFACE	75.6				
STRING	1293.5				
BIT	1146.8				
ANNULUS	16.9				
TOTAL	2532.8	PUMP PRESSURE	2800.0	% DIFFERENCE	9.5

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.70	HYDROSTATIC PRESSURE	3144.1
CIRCULATING:	ECD	9.75	CIRCULATING PRESSURE	3161.0
PULLING OUT:	TRIP MARGIN	0.10	ESTIMATED SWAB	33.8
	EFFECTIVE MUD WEIGHT	9.60	BOTTOM HOLE PRESSURE	3110.2

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 2000.0 AND TVD 1999.9

SPM 1 84 SPM 2 88 FLOW RATE 860

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	75	72	TURBULENT			3.9
HWDP/OH	0.398	11	51	59	LAMINAR	1	51	0.2
DP/OH	0.398	397	51	59	LAMINAR	1	51	8.3
DP/CSG	0.427	325	48	58	LAMINAR	1	47	5.6
DP/RIS	1.325	93	15	44	LAMINAR	0	15	0.1
TOTAL VOLUME		865				TOTAL PRESSURE DROP		18.0

LAG: 42.3 MINUTES 3563 STROKES #1 AND 3710 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1201.0	HHP	603	IMPACT FORCE	1615
% SURFACE PRESSURE	41.4	HHP/sqin	5.11	JET VELOCITY	113

PRESSURE BREAKDOWN:

SURFACE	78.7				
STRING	1392.4				
BIT	1201.0				
ANNULUS	18.0				
TOTAL	2690.2	PUMP PRESSURE	2900.0	% DIFFERENCE	7.2

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.80	HYDROSTATIC PRESSURE	3343.6
CIRCULATING:	ECD	9.85	CIRCULATING PRESSURE	3361.6
PULLING OUT:	TRIP MARGIN	0.11	ESTIMATED SWAB	36.1
	EFFECTIVE MUD WEIGHT	9.69	BOTTOM HOLE PRESSURE	3307.5

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 2100.0 AND TVD 2099.8

SPM 1 85 SPM 2 81 FLOW RATE 829

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	72	97	LAMINAR	1	71	5.6
HWDP/OH	0.398	11	50	81	LAMINAR	0	49	0.3
DP/OH	0.398	437	50	81	LAMINAR	0	49	13.9
DP/CSG	0.427	325	46	79	LAMINAR	0	46	8.5
DP/RIS	1.325	93	15	61	LAMINAR	0	15	0.1
TOTAL VOLUME		905			TOTAL PRESSURE DROP			28.5

LAG: 45.8 MINUTES 3898 STROKES #1 AND 3710 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1117.0	HHP	541	IMPACT FORCE	1502
% SURFACE PRESSURE	41.4	HHP/sqin	4.59	JET VELOCITY	109

PRESSURE BREAKDOWN:

SURFACE	79.5				
STRING	1451.9				
BIT	1117.0				
ANNULUS	28.5				
TOTAL	2676.9	PUMP PRESSURE	2700.0	% DIFFERENCE	0.9

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.80	HYDROSTATIC PRESSURE	3510.6
CIRCULATING:	ECD	9.88	CIRCULATING PRESSURE	3539.1
PULLING OUT:	TRIP MARGIN	0.16	ESTIMATED SWAB	56.9
	EFFECTIVE MUD WEIGHT	9.64	BOTTOM HOLE PRESSURE	3453.7

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 2200.0 AND TVD 2199.7

SPM 1 81 SPM 2 80 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	40	70	94	LAMINAR	1	69	5.3
HWDP/OH	0.398	11	48	75	LAMINAR	0	48	0.3
DP/OH	0.398	477	48	75	LAMINAR	0	48	13.8
DP/CSG	0.427	325	45	73	LAMINAR	0	45	7.7
DP/RIS	1.325	93	15	54	LAMINAR	0	14	0.1
TOTAL VOLUME		945				TOTAL PRESSURE DROP		27.3

LAG: 49.2 MINUTES 3987 STROKES #1 AND 3956 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1059.3	HHP	499	IMPACT FORCE	1424
% SURFACE PRESSURE	35.9	HHP/sqin	4.23	JET VELOCITY	106

PRESSURE BREAKDOWN:

SURFACE	78.4		
STRING	1477.7		
BIT	1059.3		
ANNULUS	27.3		
TOTAL	2642.7	PUMP PRESSURE 2950.0	% DIFFERENCE 10.4

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.80	HYDROSTATIC PRESSURE	3677.7
CIRCULATING:	ECD	9.87	CIRCULATING PRESSURE	3705.0
PULLING OUT:	TRIP MARGIN	0.15	ESTIMATED SWAB	54.6
	EFFECTIVE MUD WEIGHT	9.65	BOTTOM HOLE PRESSURE	3623.2

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 2300.0 AND TVD 2299.7

SPM 1 81 SPM 2 81 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	40	70	94	LAMINAR	1	69	5.3
HWDP/OH	0.398	11	48	75	LAMINAR	0	48	0.3
DP/OH	0.398	516	48	75	LAMINAR	0	48	15.0
DP/CSG	0.427	325	45	73	LAMINAR	0	45	7.7
DP/RIS	1.325	93	15	54	LAMINAR	0	14	0.1
TOTAL VOLUME		985			TOTAL PRESSURE DROP			28.4

LAG: 51.2 MINUTES 4147 STROKES #1 AND 4130 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1060.1	HHP	500	IMPACT FORCE	1426
% SURFACE PRESSURE	35.9	HHP/sqin	4.24	JET VELOCITY	106

PRESSURE BREAKDOWN:

SURFACE	78.5				
STRING	1524.0				
BIT	1060.1				
ANNULUS	28.4				
TOTAL	2691.0	PUMP PRESSURE	2950.0	% DIFFERENCE	8.8

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.80	HYDROSTATIC PRESSURE	3844.8
CIRCULATING:	ECD	9.87	CIRCULATING PRESSURE	3873.3
PULLING OUT:	TRIP MARGIN	0.15	ESTIMATED SWAB	56.9
	EFFECTIVE MUD WEIGHT	9.65	BOTTOM HOLE PRESSURE	3787.9

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 2400.0 AND TVD 2399.5

SPM 1 79 SPM 2 81 FLOW RATE 801

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.274	48	70	102	LAMINAR	1	69	6.9
HWDP/OH	0.398	11	48	85	LAMINAR	0	47	0.4
DP/OH	0.398	545	48	85	LAMINAR	0	47	18.3
DP/CSG	0.427	325	45	84	LAMINAR	0	44	9.0
DP/RIS	1.325	93	14	65	LAMINAR	0	14	0.1

TOTAL VOLUME 1021 TOTAL PRESSURE DROP 34.7

LAG: 53.5 MINUTES 4247 STROKES #1 AND 4335 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1042.8	HHP	488	IMPACT FORCE	1402
% SURFACE PRESSURE	35.3	HHP/sqin	4.14	JET VELOCITY	105

PRESSURE BREAKDOWN:

SURFACE	74.7
STRING	1573.1
BIT	1042.8
ANNULUS	34.7
TOTAL	2725.3

PUMP PRESSURE 2950.0 % DIFFERENCE 7.6

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.80	HYDROSTATIC PRESSURE	4011.8
CIRCULATING:	ECD	9.88	CIRCULATING PRESSURE	4046.5
PULLING OUT:	TRIP MARGIN	0.17	ESTIMATED SWAB	69.4
	EFFECTIVE MUD WEIGHT	9.63	BOTTOM HOLE PRESSURE	3942.3

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 2500.0 AND TVD 2499.3

SPM 1 79 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	48	68	102	LAMINAR	1	67	6.8
HWDP/OH	0.398	11	47	86	LAMINAR	0	47	0.4
DP/OH	0.398	585	47	86	LAMINAR	0	47	19.4
DP/CSG	0.427	325	44	84	LAMINAR	0	43	8.9
DP/RIS	1.325	93	14	66	LAMINAR	0	14	0.1

TOTAL VOLUME 1061 TOTAL PRESSURE DROP 35.7

LAG: 56.7 MINUTES 4452 STROKES #1 AND 4465 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	994.3	HHP	456	IMPACT FORCE	1337
% SURFACE PRESSURE	34.3	HHP/sqin	3.87	JET VELOCITY	103

PRESSURE BREAKDOWN:

SURFACE	71.7				
STRING	1550.1				
BIT	994.3				
ANNULUS	35.7				
TOTAL	2651.7	PUMP PRESSURE	2900.0	% DIFFERENCE	8.6

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.70	HYDROSTATIC PRESSURE	4136.0
CIRCULATING:	ECD	9.78	CIRCULATING PRESSURE	4171.6
PULLING OUT:	TRIP MARGIN	0.17	ESTIMATED SWAB	71.3
	EFFECTIVE MUD WEIGHT	9.53	BOTTOM HOLE PRESSURE	4064.7

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HYDRAULICS ANALYSIS PROGRAM /

HYDRAULICS CALCULATIONS AT DEPTH 2600.0 AND TVD 2599.2

SPM 1 78 SPM 2 80 FLOW RATE 792

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.274	48	69	125	LAMINAR	1	68	8.9
HWDP/OH	0.398	11	47	114	LAMINAR	0	47	0.5
DP/OH	0.398	625	47	114	LAMINAR	0	47	31.3
DP/CSG	0.427	325	44	113	LAMINAR	0	44	13.7
DP/RIS	1.325	93	14	99	LAMINAR	0	14	0.3
TOTAL VOLUME		1101			TOTAL PRESSURE DROP			54.8

LAG: 58.4 MINUTES 4579 STROKES #1 AND 4673 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1007.8	HHP	466	IMPACT FORCE	1355
% SURFACE PRESSURE	34.2	HHP/sqin	3.95	JET VELOCITY	104

PRESSURE BREAKDOWN:

SURFACE	67.3		
STRING	1494.4		
BIT	1007.8		
ANNULUS	54.8		
TOTAL	2624.3	PUMP PRESSURE 2950.0	% DIFFERENCE 11.0

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.70	HYDROSTATIC PRESSURE	4301.2
CIRCULATING:	ECD	9.82	CIRCULATING PRESSURE	4356.0
PULLING OUT:	TRIP MARGIN	0.25	ESTIMATED SWAB	109.5
	EFFECTIVE MUD WEIGHT	9.45	BOTTOM HOLE PRESSURE	4191.7

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 2700.0 AND TVD 2699.0

SPM 1 79 SPM 2 79 FLOW RATE 789

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.274	49	69	120	LAMINAR	1	68	8.6
HWDP/OH	0.398	11	47	106	LAMINAR	0	47	0.5
DP/OH	0.398	663	47	106	LAMINAR	0	47	30.0
DP/CSG	0.427	325	44	105	LAMINAR	0	44	12.3
DP/RIS	1.325	93	14	89	LAMINAR	0	14	0.2

TOTAL VOLUME 1140 TOTAL PRESSURE DROP 51.6

LAG: 60.7 MINUTES 4794 STROKES #1 AND 4789 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1000.4	HHP	460	IMPACT FORCE	1345
% SURFACE PRESSURE	33.9	HHP/sqin	3.91	JET VELOCITY	103

PRESSURE BREAKDOWN:

SURFACE	69.1		
STRING	1584.9		
BIT	1000.4		
ANNULUS	51.6		
TOTAL	2706.0	PUMP PRESSURE 2950.0	% DIFFERENCE 8.3

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.70	HYDROSTATIC PRESSURE	4466.4
CIRCULATING:	ECD	9.81	CIRCULATING PRESSURE	4518.0
PULLING OUT:	TRIP MARGIN	0.22	ESTIMATED SWAB	103.2
	EFFECTIVE MUD WEIGHT	9.48	BOTTOM HOLE PRESSURE	4363.2

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 2797.0 AND TVD 2795.8

SPM 1 78 SPM 2 79 FLOW RATE 784

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.274	49	68	103	LAMINAR	1	67	6.8
HWDP/OH	0.398	11	47	88	LAMINAR	0	46	0.4
DP/OH	0.398	702	47	88	LAMINAR	0	46	23.9
DP/CSG	0.427	325	44	87	LAMINAR	0	43	9.2
DP/RIS	1.325	93	14	71	LAMINAR	0	14	0.1
TOTAL VOLUME		1179			TOTAL PRESSURE DROP			40.4

LAG: 63.1 MINUTES 4926 STROKES #1 AND 4981 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	988.8	HHP	452	IMPACT FORCE	1330
% SURFACE PRESSURE	33.5	HHP/sqin	3.84	JET VELOCITY	103

PRESSURE BREAKDOWN:

SURFACE	68.4		
STRING	1606.5		
BIT	988.8		
ANNULUS	40.4		
TOTAL	2704.1	PUMP PRESSURE 2950.0	% DIFFERENCE 8.3

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.70	HYDROSTATIC PRESSURE	4626.6
CIRCULATING:	ECD	9.78	CIRCULATING PRESSURE	4667.1
PULLING OUT:	TRIP MARGIN	0.17	ESTIMATED SWAB	80.8
	EFFECTIVE MUD WEIGHT	9.53	BOTTOM HOLE PRESSURE	4545.8

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 2800.0 AND TVD 2798.8

SPM 1 48 SPM 2 0 FLOW RATE 242

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.106	1	55	113	LAMINAR	1	54	0.9
DC/CSG	0.116	30	50	111	LAMINAR	0	49	16.9
HWDP/CSG	0.160	4	36	101	LAMINAR	0	36	0.8
DP/CSG	0.160	390	36	101	LAMINAR	0	36	72.0
DP/RIS	1.325	93	4	73	LAMINAR	0	4	0.1
TOTAL VOLUME		518			TOTAL PRESSURE DROP			90.7

LAG: 89.8 MINUTES 4356 STROKES #1 AND 0 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	453.4	HHP	64	IMPACT FORCE	271
% SURFACE PRESSURE	33.3	HHP/sqin	1.13	JET VELOCITY	71

PRESSURE BREAKDOWN:

SURFACE	7.4				
STRING	198.7				
BIT	453.4				
ANNULUS	90.7				
TOTAL	750.1	PUMP PRESSURE	1360.0	% DIFFERENCE	44.8

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.20	HYDROSTATIC PRESSURE	4392.9
CIRCULATING:	ECD	9.39	CIRCULATING PRESSURE	4483.5
PULLING OUT:	TRIP MARGIN	0.38	ESTIMATED SWAB	181.4
	EFFECTIVE MUD WEIGHT	8.82	BOTTOM HOLE PRESSURE	4211.5

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 2805.0 AND TVD 2803.8

SPM 1 98 SPM 2 0 FLOW RATE 492

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.106	2	111	113	LAMINAR	1	110	1.8
DC/CSG	0.116	30	101	111	LAMINAR	1	100	23.5
HWDP/CSG	0.160	4	73	101	LAMINAR	0	73	1.1
DP/CSG	0.160	391	73	101	LAMINAR	0	73	102.4
DP/RIS	1.325	93	9	73	LAMINAR	0	9	0.1
TOTAL VOLUME		519			TOTAL PRESSURE DROP			129.0

LAG: 44.3 MINUTES 4363 STROKES #1 AND 0 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1869.3	HHP	537	IMPACT FORCE	1117
% SURFACE PRESSURE	66.8	HHP/sqin	9.46	JET VELOCITY	145

PRESSURE BREAKDOWN:

SURFACE	26.3				
STRING	711.7				
BIT	1869.3				
ANNULUS	129.0				
TOTAL	2736.4	PUMP PRESSURE	2800.0	% DIFFERENCE	2.3

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.20	HYDROSTATIC PRESSURE	4400.7
CIRCULATING:	ECD	9.47	CIRCULATING PRESSURE	4529.7
PULLING OUT:	TRIP MARGIN	0.54	ESTIMATED SWAB	258.0
	EFFECTIVE MUD WEIGHT	8.66	BOTTOM HOLE PRESSURE	4142.7

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 2807.0 AND TVD 2805.8

SPM 1 0 SPM 2 60 FLOW RATE 301

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.104	2	69	114	LAMINAR	1	68	1.7
DC/CSG	0.116	28	62	111	LAMINAR	1	61	17.5
HWDP/CSG	0.160	4	45	101	LAMINAR	0	44	0.9
DP/CSG	0.160	393	45	101	LAMINAR	0	44	80.7
DP/RIS	1.325	93	5	73	LAMINAR	0	5	0.1
TOTAL VOLUME		520				TOTAL PRESSURE DROP		100.8

LAG: 72.6 MINUTES 0 STROKES #1 AND 4369 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	507.2	HHP	89	IMPACT FORCE	356
% SURFACE PRESSURE	36.2	HHP/sqin	1.58	JET VELOCITY	75

PRESSURE BREAKDOWN:

SURFACE	10.9				
STRING	289.0				
BIT	507.2				
ANNULUS	100.8				
TOTAL	907.8	PUMP PRESSURE	1400.0	% DIFFERENCE	35.2

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.20	HYDROSTATIC PRESSURE	4403.8
CIRCULATING:	ECD	9.41	CIRCULATING PRESSURE	4504.7
PULLING OUT:	TRIP MARGIN	0.42	ESTIMATED SWAB	201.7
	EFFECTIVE MUD WEIGHT	8.78	BOTTOM HOLE PRESSURE	4202.2

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 2850.0 AND TVD 2848.7

SPM 1 102 SPM 2 0 FLOW RATE 508

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.106	7	114	108	TURBULENT			6.7
DC/CSG	0.116	24	105	106	LAMINAR	1	104	18.1
HWDP/CSG	0.240	7	50	80	LAMINAR	0	50	0.2
DP/CSG	0.160	398	75	97	LAMINAR	1	75	97.5
DP/RIS	1.325	93	9	70	LAMINAR	0	9	0.1
TOTAL VOLUME		528			TOTAL PRESSURE DROP			122.6

LAG: 43.7 MINUTES 4437 STROKES #1 AND 0 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1990.7	HHP	590	IMPACT FORCE	1190
% SURFACE PRESSURE	72.4	HHP/sqin	10.39	JET VELOCITY	150

PRESSURE BREAKDOWN:

SURFACE	27.2				
STRING	743.6				
BIT	1990.7				
ANNULUS	122.6				
TOTAL	2884.2	PUMP PRESSURE	2750.0	% DIFFERENCE	4.9

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.20	HYDROSTATIC PRESSURE	4471.2
CIRCULATING:	ECD	9.45	CIRCULATING PRESSURE	4593.9
PULLING OUT:	TRIP MARGIN	0.50	ESTIMATED SWAB	245.3
	EFFECTIVE MUD WEIGHT	8.70	BOTTOM HOLE PRESSURE	4225.9

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 2900.0 AND TVD 2898.6

SPM 1 0 SPM 2 99 FLOW RATE 494

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.106	12	111	123	LAMINAR	2	109	13.8
DC/CSG	0.116	19	102	121	LAMINAR	2	100	17.0
HWDP/CSG	0.160	4	73	111	LAMINAR	1	72	1.3
DP/CSG	0.160	406	73	111	LAMINAR	1	72	122.7
DP/RIS	1.325	93	9	81	LAMINAR	0	9	0.1
TOTAL VOLUME		533			TOTAL PRESSURE DROP			155.0

LAG: 45.4 MINUTES 0 STROKES #1 AND 4482 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1883.2	HHP	543	IMPACT FORCE	1125
% SURFACE PRESSURE	64.5	HHP/sqin	9.56	JET VELOCITY	145

PRESSURE BREAKDOWN:

SURFACE	27.1
STRING	747.5
BIT	1883.2
ANNULUS	155.0
TOTAL	2812.7

PUMP PRESSURE 2920.0 % DIFFERENCE 3.7

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.20	HYDROSTATIC PRESSURE	4549.6
CIRCULATING:	ECD	9.51	CIRCULATING PRESSURE	4704.5
PULLING OUT:	TRIP MARGIN	0.63	ESTIMATED SWAB	309.9
	EFFECTIVE MUD WEIGHT	8.57	BOTTOM HOLE PRESSURE	4239.6

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HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 2915.0 AND TVD 2813.6

SPM 1 60 SPM 2 0 FLOW RATE 298

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.104	13	68	124	LAMINAR	1	67	12.6
DC/CSG	0.116	16	61	121	LAMINAR	1	61	11.1
HWDP/CSG	0.160	4	44	111	LAMINAR	0	44	1.0
DP/CSG	0.160	410	44	111	LAMINAR	0	44	97.1
DP/RIS	1.325	93	5	81	LAMINAR	0	5	0.1
TOTAL VOLUME		536			TOTAL PRESSURE DROP			121.9

LAG: 75.5 MINUTES 4504 STROKES #1 AND 0 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	498.8	HHP	87	IMPACT FORCE	350
% SURFACE PRESSURE	32.2	HHP/sqin	1.54	JET VELOCITY	75

PRESSURE BREAKDOWN:

SURFACE	10.9		
STRING	297.5		
BIT	498.8		
ANNULUS	121.9		
TOTAL	929.2	PUMP PRESSURE 1550.0	% DIFFERENCE 40.1

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.20	HYDROSTATIC PRESSURE	4416.1
CIRCULATING:	ECD	9.45	CIRCULATING PRESSURE	4538.0
PULLING OUT:	TRIP MARGIN	0.51	ESTIMATED SWAB	243.8
	EFFECTIVE MUD WEIGHT	8.69	BOTTOM HOLE PRESSURE	4172.2

CORE LAB

HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 2950.0 AND TVD 2948.6

SPM 1 100 SPM 2 0 FLOW RATE 499

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	112	132	LAMINAR	1	111	22.0
DC/CSG	0.116	13	103	130	LAMINAR	1	102	13.0
HWDP/CSG	0.160	4	74	120	LAMINAR	1	73	1.5
DP/CSG	0.160	414	74	120	LAMINAR	1	73	141.7
DP/RIS	1.325	93	9	91	LAMINAR	0	9	0.2
TOTAL VOLUME		541				TOTAL PRESSURE DROP		178.4

LAG: 45.5 MINUTES 4546 STROKES #1 AND 0 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1925.3	HHP	561	IMPACT FORCE	1151
% SURFACE PRESSURE	70.3	HHP/sqin	9.89	JET VELOCITY	147

PRESSURE BREAKDOWN:

SURFACE	27.6
STRING	770.7
BIT	1925.3
ANNULUS	178.4
TOTAL	2902.0

PUMP PRESSURE 2740.0 % DIFFERENCE 5.9

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	9.20	HYDROSTATIC PRESSURE	4627.9
CIRCULATING:	ECD	9.55	CIRCULATING PRESSURE	4806.3
PULLING OUT:	TRIP MARGIN	0.71	ESTIMATED SWAB	356.8
	EFFECTIVE MUD WEIGHT	8.49	BOTTOM HOLE PRESSURE	4271.1

CORE LAB

HYDRAULICS ANALYSIS PROGRAM

HYDRAULICS CALCULATIONS AT DEPTH 3000.0 AND TVD 2998.5

SPM 1 0 SPM 2 91 FLOW RATE 455

ANNULAR HYDRAULICS:

ANNULUS TYPE	VOL/ UNIT	VOL	ANN VEL	CRIT VEL	TYPE OF FLOW	SLIP VEL	ASCEND VEL	PRESSURE DROP
DC/OH	0.106	22	102	120	LAMINAR	1	101	31.9
DC/CSG	0.116	7	94	117	LAMINAR	1	93	7.7
HWDP/CSG	0.160	4	67	99	LAMINAR	0	67	1.4
DP/CSG	0.160	422	67	99	LAMINAR	0	67	133.5
DP/RIS	1.325	93	8	56	LAMINAR	0	8	0.1
TOTAL VOLUME		548			TOTAL PRESSURE DROP			174.5

LAG: 50.6 MINUTES 0 STROKES #1 AND 4609 STROKES #2

BIT HYDRAULICS:

PRESSURE DROP	1943.6	HHP	516	IMPACT FORCE	1162
% SURFACE PRESSURE	69.7	HHP/sqin	9.09	JET VELOCITY	134

PRESSURE BREAKDOWN:

SURFACE	31.4				
STRING	884.5				
BIT	1943.6				
ANNULUS	174.5				
TOTAL	3034.0	PUMP PRESSURE	2790.0	% DIFFERENCE	8.7

BOTTOM HOLE PRESSURES:

		DENSITY UNITS		PRESSURE UNITS
NOT CIRCULATING:	MUD WEIGHT	11.20	HYDROSTATIC PRESSURE	5729.3
CIRCULATING:	ECD	11.54	CIRCULATING PRESSURE	5903.8
PULLING OUT:	TRIP MARGIN	0.68	ESTIMATED SWAB	349.0
	EFFECTIVE MUD WEIGHT	10.52	BOTTOM HOLE PRESSURE	5380.3

(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 A 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	70.0- 206.0
HTC OSC3AJ&26"HO		SIZE	26.000	NOZZLES	20 20 20
COST	6350.00	TRIP TIME	2.4	BIT RUN	136.0
TOTAL HOURS	4.05	TOTAL TURNS	19130	CONDITION	T2 B4 G0.000

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
75.0	10.0	4.0	50	8.6	0.83	0.50	1500	445	3850	8.4	11.1
80.0	30.0	5.0	80	8.6	0.74	0.67	2300	148	1999	8.4	11.2
85.0	72.0	5.0	80	8.6	0.58	0.74	2633	62	1354	8.4	11.2
90.0	94.0	8.0	60	8.6	0.51	0.79	2825	47	1027	8.4	11.2
95.0	109.0	8.0	60	8.6	0.48	0.84	2990	40.82	829.73	8.4	11.2
100.0	120.0	6.0	80	8.6	0.49	0.88	3190	37.08	697.62	8.4	11.3
105.0	137.0	6.0	80	8.6	0.47	0.91	3365	32.47	602.60	8.4	11.3
110.0	82.0	5.0	60	8.6	0.50	0.97	3585	54.26	534.06	8.4	11.3
115.0	70.0	5.0	60	8.6	0.53	1.05	3842	63.56	481.78	8.4	11.3
120.0	62.0	8.0	55	8.6	0.58	1.13	4108	71.76	440.78	8.4	11.3
125.0	55.0	8.0	55	8.6	0.60	1.22	4408	80.89	408.06	8.4	11.4
130.0	52.0	10.0	65	8.6	0.68	1.31	4783	85.56	381.19	8.4	11.4
135.0	46.0	10.0	65	8.6	0.70	1.42	5207	96.72	359.30	8.4	11.4
140.0	20.0	8.0	90	8.6	0.92	1.67	6557	222.45	349.53	8.4	11.4
145.0	16.0	8.0	90	8.6	0.96	1.98	8244	278.06	344.76	8.4	11.4
150.0	29.0	9.0	86	8.6	0.85	2.16	9134	153.41	332.80	8.4	11.5
155.0	21.0	10.0	85	8.6	0.93	2.40	10348	211.86	325.69	8.4	11.5
160.0	20.0	10.0	85	8.6	0.94	2.65	11623	222.45	319.95	8.4	11.5
165.0	34.0	8.0	80	8.6	0.78	2.79	12329	130.85	310.00	8.4	11.5
170.0	34.0	8.0	80	8.6	0.78	2.94	13035	130.85	301.04	8.4	11.5
175.0	31.0	9.0	100	8.6	0.86	3.10	14003	143.52	293.54	8.4	11.6
180.0	31.0	9.0	100	8.6	0.86	3.26	14971	143.52	286.72	8.4	11.6
185.0	43.0	10.0	96	8.6	0.80	3.38	15640	103.47	278.76	8.4	11.6
190.0	47.0	9.0	95	8.6	0.77	3.48	16247	94.66	271.09	8.4	11.6
195.0	29.0	9.0	85	8.6	0.84	3.66	17126	153.41	266.38	8.4	11.6
200.0	35.0	9.0	85	8.6	0.80	3.80	17855	127.11	261.02	8.4	11.6
206.0	24.0	9.0	85	8.6	0.88	4.05	19130	185.38	257.68	8.4	11.7

BIT NUMBER	2	IADC CODE	111	INTERVAL	206.0- 799.0
HTC OSC 3AJ		SIZE	17.500	NOZZLES	20 20 20
COST	4442.00	TRIP TIME	3.7	BIT RUN	593.0
TOTAL HOURS	16.15	TOTAL TURNS	131732	CONDITION	T2 B2 G0.000

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
210.0	55.0	7.0	78	8.5	0.72	0.07	340	81	5307	8.4	11.7
215.0	82.0	7.0	78	8.5	0.63	0.13	626	54	2389	8.4	11.7
220.0	82.0	8.0	94	8.5	0.69	0.19	970	54	1555	8.4	11.7
225.0	44.0	8.0	94	8.5	0.83	0.31	1611	101	1172	8.4	11.7
230.0	52.0	8.0	130	8.5	0.86	0.40	2361	85.56	945.95	8.4	11.8
235.0	23.0	8.0	130	8.5	1.05	0.62	4056	193.43	816.21	8.4	11.8
240.0	66.0	7.0	130	8.5	0.79	0.70	4647	67.41	706.09	8.4	11.8
245.0	48.0	7.0	130	8.5	0.86	0.80	5460	92.69	627.45	8.4	11.8
250.0	48.0	10.0	130	8.5	0.92	0.91	6272	92.69	566.68	8.4	11.8
255.0	70.0	10.0	130	8.5	0.83	0.98	6829	63.56	515.34	8.4	11.9
260.0	70.0	10.0	130	8.5	0.83	1.05	7386	63.56	473.51	8.4	11.9
265.0	120.0	10.0	130	8.5	0.71	1.09	7711	37.08	436.52	8.4	11.9
270.0	120.0	10.0	130	8.5	0.71	1.13	8036	37.08	405.32	8.4	11.9
275.0	128.0	10.0	130	8.5	0.69	1.17	8341	34.76	378.46	8.4	11.9
280.0	128.0	10.0	130	8.5	0.69	1.21	8646	34.76	355.24	8.4	11.9
285.0	77.0	10.0	130	8.5	0.81	1.28	9152	57.78	336.41	8.4	12.0
290.0	70.0	10.0	125	8.5	0.82	1.35	9688	63.56	320.17	8.4	12.0
295.0	108.0	10.0	125	8.5	0.72	1.39	10035	41.19	304.50	8.4	12.0
300.0	100.0	10.0	130	8.5	0.75	1.44	10425	44.49	290.67	8.4	12.0
305.0	173.0	10.0	130	8.5	0.62	1.47	10651	25.72	277.29	8.4	12.0
310.0	173.0	9.0	127	8.5	0.60	1.50	10871	25.72	265.19	8.4	12.1
315.0	165.0	9.0	127	8.5	0.61	1.53	11102	26.96	254.26	8.4	12.1
320.0	165.0	10.0	130	8.5	0.63	1.56	11338	26.96	244.30	8.4	12.1
325.0	60.0	10.0	130	8.7	0.85	1.64	11988	74.15	237.15	8.4	12.1
330.0	63.0	10.0	125	8.7	0.83	1.72	12583	70.62	230.43	8.4	12.1
335.0	171.0	10.0	125	8.7	0.60	1.75	12803	26.02	222.51	8.4	12.1
340.0	171.0	10.0	125	9.0	0.58	1.78	13022	26.02	215.18	8.4	12.2
345.0	94.0	10.0	125	9.0	0.71	1.84	13421	47.33	209.14	8.4	12.2
350.0	94.0	8.0	127	9.0	0.68	1.89	13826	47.33	203.52	8.4	12.2
355.0	67.0	8.0	127	9.0	0.76	1.96	14395	66.40	198.92	8.4	12.2
360.0	67.0	10.0	130	9.0	0.80	2.04	14977	66.40	194.62	8.4	12.2
365.0	68.0	10.0	130	9.0	0.79	2.11	15550	65.43	190.55	8.4	12.2
370.0	68.0	7.0	130	9.0	0.74	2.19	16124	65.43	186.74	8.4	12.3
375.0	30.0	9.0	130	9.0	0.95	2.35	17424	148.30	185.60	8.4	12.3
380.0	40.0	9.0	130	9.0	0.89	2.48	18399	111.23	183.47	8.4	12.3
385.0	41.0	10.0	130	9.0	0.91	2.60	19350	108.51	181.37	8.4	12.3
390.0	41.0	10.0	130	9.0	0.91	2.72	20301	108.51	179.39	8.4	12.3
395.0	40.0	11.0	125	9.0	0.92	2.85	21239	111.23	177.59	8.4	12.4
400.0	60.0	11.0	130	9.0	0.84	2.93	21889	74.15	174.92	8.4	12.4
405.0	46.0	11.0	130	9.0	0.90	3.04	22737	96.72	172.96	8.4	12.4
410.0	36.0	12.0	130	9.0	0.97	3.18	23820	123.58	171.75	8.4	12.4
415.0	36.0	12.0	130	9.0	0.97	3.32	24903	123.58	170.59	8.4	12.4
420.0	49.0	20.0	125	9.0	1.00	3.42	25669	90.80	168.73	8.4	12.4

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
425.0	25.0	20.0	125	9.0	1.17	3.62	27169	177.96	168.94	8.4	12.5
430.0	26.0	16.0	120	9.0	1.09	3.81	28553	171.12	168.99	8.4	12.5
435.0	35.0	17.0	120	9.0	1.03	3.95	29582	127.11	168.08	8.4	12.5
440.0	35.0	17.0	120	9.0	1.03	4.10	30611	127.11	167.20	8.4	12.5
445.0	33.0	14.0	130	9.0	1.02	4.25	31792	134.82	166.52	8.4	12.5
450.0	33.0	14.0	130	9.0	1.02	4.40	32974	134.82	165.87	8.4	12.5
455.0	19.0	14.0	130	9.0	1.15	4.66	35027	234.16	167.24	8.4	12.6
460.0	17.0	14.0	130	9.0	1.18	4.96	37321	261.71	169.10	8.4	12.6
465.0	17.0	20.0	140	9.1	1.28	5.25	39791	261.71	170.89	8.4	12.6
470.0	44.0	20.0	140	9.1	1.04	5.36	40746	101.11	169.57	8.4	12.6
475.0	57.0	21.0	130	9.1	0.97	5.45	41430	78.05	167.87	8.4	12.6
480.0	46.0	21.0	130	9.1	1.02	5.56	42278	96.72	166.57	8.4	12.6
485.0	30.0	21.0	140	9.1	1.15	5.73	43678	148.30	166.24	8.4	12.6
490.0	23.0	21.0	140	9.1	1.22	5.94	45504	193.43	166.72	8.4	12.7
495.0	37.0	23.0	140	9.1	1.12	6.08	46639	120.24	165.92	8.4	12.7
500.0	58.0	23.0	140	9.1	1.00	6.17	47363	76.71	164.40	8.4	12.7
505.0	58.0	23.0	140	9.1	1.00	6.25	48088	76.71	162.93	8.4	12.7
510.0	41.0	23.0	140	9.1	1.09	6.37	49112	108.51	162.04	8.4	12.7
515.0	40.0	23.0	130	9.1	1.08	6.50	50087	111.23	161.22	8.4	12.7
520.0	31.0	23.0	130	9.1	1.15	6.66	51345	143.52	160.93	8.4	12.8
525.0	40.0	25.0	130	9.1	1.10	6.78	52320	111.23	160.16	8.4	12.8
530.0	36.0	25.0	130	9.1	1.13	6.92	53403	123.58	159.59	8.4	12.8
535.0	50.0	24.0	130	9.1	1.03	7.02	54183	88.98	158.52	8.4	12.8
540.0	35.0	24.0	130	9.3	1.10	7.17	55298	127.11	158.05	8.4	12.8
545.0	20.0	23.0	140	9.3	1.26	7.42	57398	222.45	159.00	8.4	12.8
550.0	29.0	26.0	140	9.3	1.20	7.59	58846	153.41	158.92	8.4	12.9
555.0	31.0	26.0	140	9.3	1.18	7.75	60201	143.52	158.70	8.4	12.9
560.0	32.0	28.0	140	9.1	1.22	7.91	61513	139.03	158.42	8.4	12.9
565.0	35.0	28.0	140	9.1	1.19	8.05	62713	127.11	157.98	8.4	12.9
570.0	31.0	23.0	145	9.1	1.18	8.21	64116	143.52	157.78	8.4	12.9
575.0	29.0	23.0	145	9.1	1.20	8.38	65616	153.41	157.72	8.4	12.9
580.0	42.0	28.0	144	9.1	1.15	8.50	66645	105.93	157.03	8.4	12.9
585.0	42.0	28.0	144	9.1	1.15	8.62	67674	105.93	156.36	8.4	13.0
590.0	32.0	28.0	144	9.2	1.21	8.78	69024	139.03	156.13	8.4	13.0
595.0	32.0	28.0	144	9.2	1.21	8.93	70374	139.03	155.91	8.4	13.0
600.0	45.0	28.0	144	9.2	1.12	9.04	71334	98.87	155.19	8.4	13.0
605.0	45.0	28.0	144	9.2	1.12	9.16	72294	98.87	154.48	8.4	13.0
610.0	43.0	28.0	144	9.2	1.13	9.27	73298	103.47	153.85	8.4	13.0
615.0	43.0	28.0	144	9.2	1.13	9.39	74303	103.47	153.24	8.4	13.0
620.0	31.0	29.0	144	9.2	1.23	9.55	75696	143.52	153.12	8.4	13.1
625.0	31.0	29.0	145	9.2	1.23	9.71	77100	143.52	153.00	8.4	13.1
630.0	22.0	29.0	145	9.2	1.33	9.94	79077	202.23	153.58	8.4	13.1
635.0	21.0	35.0	145	9.2	1.41	10.18	81148	211.86	154.26	8.4	13.1
640.0	21.0	35.0	145	9.2	1.41	10.41	83220	211.86	154.93	8.4	13.1
645.0	21.0	30.0	145	9.2	1.35	10.65	85291	211.86	155.57	8.4	13.1
650.0	21.0	30.0	145	9.2	1.35	10.89	87363	211.86	156.21	8.4	13.1
655.0	28.0	35.0	145	9.2	1.33	11.07	88916	158.89	156.24	8.4	13.2
660.0	27.0	35.0	145	9.2	1.34	11.25	90527	164.78	156.33	8.4	13.2
665.0	21.0	40.0	145	9.2	1.46	11.49	92599	211.86	156.94	8.4	13.2
670.0	24.0	40.0	145	9.2	1.42	11.70	94411	185.38	157.24	8.4	13.2

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
675.0	26.0	40.0	145	9.2	1.40	11.89	96084	171.12	157.39	8.4	13.2
680.0	31.0	40.0	145	9.2	1.34	12.05	97488	143.52	157.25	8.4	13.2
685.0	29.0	35.0	145	9.2	1.32	12.23	98988	153.41	157.21	8.4	13.2
690.0	28.0	35.0	145	9.2	1.33	12.41	100541	158.89	157.22	8.4	13.3
695.0	30.0	31.0	145	9.2	1.26	12.57	101991	148.30	157.13	8.4	13.3
700.0	28.0	30.0	145	9.2	1.27	12.75	103545	158.89	157.15	8.4	13.3
705.0	32.0	29.0	145	9.2	1.23	12.91	104904	139.03	156.97	8.4	13.3
710.0	68.0	38.0	140	9.2	1.08	12.98	105522	65.43	156.06	8.4	13.3
715.0	78.0	40.0	140	9.2	1.06	13.04	106060	57.04	155.09	8.4	13.3
720.0	21.0	40.0	140	9.2	1.45	13.28	108060	211.86	155.64	8.4	13.3
725.0	22.0	45.0	140	9.2	1.49	13.51	109969	202.23	156.09	8.4	13.4
730.0	34.0	40.0	141	9.2	1.31	13.66	111213	130.85	155.85	8.4	13.4
735.0	40.0	40.0	141	9.2	1.26	13.78	112271	111.23	155.43	8.4	13.4
740.0	33.0	40.0	141	9.2	1.32	13.93	113553	134.82	155.23	8.4	13.4
745.0	45.0	42.0	142	9.2	1.24	14.04	114499	98.87	154.71	8.4	13.4
750.0	33.0	42.0	142	9.2	1.34	14.20	115790	134.82	154.53	8.4	13.4
755.0	31.0	42.0	142	9.2	1.36	14.36	117165	143.52	154.43	8.4	13.4
760.0	45.0	41.0	144	9.2	1.24	14.47	118125	98.87	153.93	8.4	13.5
765.0	27.0	40.0	143	9.2	1.38	14.65	119713	164.78	154.02	8.4	13.5
770.0	17.0	38.0	140	9.2	1.49	14.95	122184	261.71	154.98	8.4	13.5
775.0	21.0	39.0	140	9.2	1.44	15.19	124184	211.86	155.48	8.4	13.5
780.0	23.0	35.0	130	9.2	1.35	15.40	125880	193.43	155.81	8.4	13.5
785.0	24.0	33.0	130	9.3	1.30	15.61	127505	185.38	156.06	8.4	13.5
790.0	20.0	33.0	130	9.3	1.36	15.86	129455	222.45	156.63	8.4	13.5
795.0	28.0	28.0	130	9.3	1.21	16.04	130848	158.89	156.65	8.4	13.5
799.0	38.0	20.0	140	9.3	1.06	16.15	131732	117.08	156.38	8.4	13.6

BIT NUMBER	2	IADC CODE	111	INTERVAL	799.0- 845.0
HTC OSC 3AJ		SIZE	17.500	NOZZLES	20 20 20
COST	4442.00	TRIP TIME	3.8	BIT RUN	46.0
TOTAL HOURS	4.11	TOTAL TURNS	34501	CONDITION	T2 B2 G0.000

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FC
800.0	38.0	20.0	150	9.3	1.07	0.03	237	117	21465	8.4	13.6
805.0	23.0	27.0	140	9.3	1.27	0.24	2063	193	3739	8.4	13.6
810.0	25.0	27.0	140	9.3	1.25	0.44	3743	178	2120	8.4	13.6
815.0	30.0	20.0	140	9.3	1.11	0.61	5143	148	1504	8.4	13.6
820.0	44.0	30.0	140	9.3	1.13	0.72	6097	101	1170	8.4	13.6
825.0	12.0	31.0	140	9.3	1.50	1.14	9597	371	1016	8.4	13.6
830.0	9.0	40.0	140	9.3	1.69	1.70	14264	494.33	932.09	8.4	13.6
835.0	10.0	40.0	140	9.3	1.66	2.20	18464	444.90	864.42	8.4	13.6
840.0	5.0	40.0	140	9.3	1.87	3.20	26864	889.80	867.52	8.4	13.7
845.0	5.5	39.0	140	9.4	1.80	4.11	34501	808.91	861.15	8.4	13.7

BIT NUMBER	3	IADC CODE	114	INTERVAL	845.0- 1488.2
HTC X3A		SIZE	12.250	NOZZLES	18 18 18
COST	2201.00	TRIP TIME	5.2	BIT RUN	643.2
TOTAL HOURS	31.23	TOTAL TURNS	256700	CONDITION	T5 B4 G0.000

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
846.0	3.1	20.0	100	9.3	1.74	0.32	1923	1426	26762	8.4	13.7
847.0	3.7	20.0	100	9.3	1.69	0.59	3536	1196	13979	8.4	13.7
848.0	3.3	25.0	100	9.3	1.83	0.90	5375	1363	9774	8.4	13.7
849.0	6.6	25.0	100	9.3	1.63	1.05	6285	675	7499	8.4	13.7
850.0	8.3	25.0	100	9.3	1.56	1.17	7008	536	6106	8.4	13.7
851.0	11.4	25.0	100	9.3	1.47	1.26	7533	389	5154	8.4	13.7
852.0	11.7	30.0	130	9.0	1.67	1.34	8199	380	4472	8.4	13.7
853.0	19.8	30.0	130	9.0	1.51	1.39	8593	225	3941	8.4	13.7
854.0	16.8	30.0	130	9.0	1.56	1.45	9057	264	3532	8.4	13.7
855.0	21.2	30.0	130	9.0	1.49	1.50	9425	210	3200	8.4	13.7
856.0	20.1	30.0	130	9.0	1.50	1.55	9813	221	2929	8.4	13.7
857.0	20.9	30.0	130	9.0	1.49	1.60	10186	213	2703	8.4	13.7
858.0	21.2	30.0	130	9.0	1.49	1.64	10554	210	2511	8.4	13.7
859.0	19.3	28.0	140	9.0	1.51	1.69	10991	231	2348	8.4	13.7
860.0	16.6	28.0	140	9.0	1.56	1.76	11497	268	2210	8.4	13.7
861.0	22.1	28.0	140	9.0	1.47	1.80	11877	201	2084	8.4	13.7
862.0	18.1	28.0	140	9.0	1.53	1.86	12342	246	1976	8.4	13.7
863.0	12.4	27.0	140	9.0	1.63	1.94	13018	358	1886	8.4	13.7
864.0	15.9	27.0	140	9.0	1.55	2.00	13546	279	1802	8.4	13.7
865.0	18.2	27.0	140	9.0	1.51	2.05	14008	245	1724	8.4	13.7
866.0	27.5	27.0	140	9.0	1.39	2.09	14313	162	1649	8.4	13.7
867.0	14.1	27.0	140	9.0	1.59	2.16	14911	316	1589	8.4	13.7
868.0	21.8	27.0	140	9.0	1.46	2.21	15296	204	1529	8.4	13.7
869.0	36.4	35.0	140	9.0	1.40	2.23	15527	122	1470	8.4	13.7
870.0	25.2	35.0	140	9.0	1.52	2.27	15860	177	1418	8.4	13.7
871.0	37.9	35.0	140	9.0	1.39	2.30	16082	117	1368	8.4	13.7
872.0	21.4	35.0	140	9.0	1.58	2.35	16474	208	1325	8.4	13.7
873.0	20.6	35.0	140	9.0	1.59	2.40	16882	216	1286	8.4	13.7
874.0	19.0	35.0	140	9.0	1.61	2.45	17323	234	1249	8.4	13.7
875.0	22.2	35.0	140	9.0	1.56	2.49	17701	200	1214	8.4	13.7
876.0	23.5	35.0	140	9.0	1.54	2.54	18058	189	1181	8.4	13.7
877.0	26.9	35.0	140	8.5	1.59	2.57	18371	166	1150	8.4	13.8
878.0	24.5	35.0	140	8.5	1.62	2.61	18714	182	1120	8.4	13.8
879.0	29.3	35.0	140	8.5	1.56	2.65	19001	152	1092	8.4	13.8
880.0	37.1	35.0	140	8.5	1.48	2.68	19227	120	1064	8.4	13.8
881.0	34.0	35.0	140	8.5	1.51	2.70	19475	131	1038	8.4	13.8
882.0	37.1	35.0	140	8.5	1.48	2.73	19701	120	1013	8.4	13.8
883.0	36.0	45.0	140	8.5	1.61	2.76	19934	123.58	989.81	8.4	13.8
884.0	35.6	45.0	140	8.5	1.61	2.79	20170	124.82	967.63	8.4	13.8
885.0	37.1	45.0	140	8.5	1.60	2.81	20396	119.88	946.44	8.4	13.8
886.0	45.0	45.0	140	8.5	1.52	2.84	20583	98.87	925.77	8.4	13.8
887.0	35.6	45.0	140	8.5	1.61	2.86	20819	124.82	906.70	8.4	13.8
888.0	13.9	45.0	140	8.5	1.97	2.94	21423	320.08	893.05	8.4	13.8

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
889.0	35.0	45.0	140	8.5	1.62	2.97	21663	127.29	875.65	8.4	13.8
890.0	30.8	45.0	140	8.5	1.67	3.00	21936	144.59	859.40	8.4	13.8
891.0	29.0	45.0	140	8.5	1.69	3.03	22226	153.24	844.05	8.4	13.8
892.0	30.8	45.0	140	8.5	1.67	3.06	22499	144.59	829.17	8.4	13.8
893.0	36.0	45.0	140	8.5	1.61	3.09	22732	123.58	814.47	8.4	13.8
894.0	30.0	45.0	140	8.5	1.68	3.13	23012	148.30	800.88	8.4	13.8
895.0	32.7	45.0	140	8.5	1.64	3.16	23269	135.94	787.58	8.4	13.8
896.0	15.1	45.0	136	9.0	1.82	3.22	23808	294.13	777.90	8.4	13.8
897.0	37.5	45.0	136	9.0	1.49	3.25	24026	118.64	765.22	8.4	13.8
898.0	36.7	45.0	136	8.8	1.53	3.28	24248	121.11	753.07	8.4	13.8
899.0	44.4	45.0	136	8.8	1.47	3.30	24431	100.10	740.98	8.4	13.8
900.0	38.7	45.0	136	8.8	1.52	3.32	24642	114.93	729.60	8.4	13.8
901.0	37.9	45.0	136	8.8	1.52	3.35	24858	117.40	718.66	8.4	13.8
902.0	41.4	45.0	136	8.9	1.47	3.38	25055	107.52	707.94	8.4	13.8
903.0	38.3	45.0	136	8.9	1.50	3.40	25268	116.17	697.74	8.4	13.8
904.0	40.9	45.0	136	8.9	1.48	3.43	25467	108.75	687.76	8.4	13.8
905.0	37.1	45.0	136	8.9	1.51	3.45	25687	119.88	678.29	8.4	13.8
906.0	34.6	45.0	136	8.9	1.54	3.48	25923	128.53	669.28	8.4	13.8
907.0	22.1	45.0	136	8.9	1.70	3.53	26292	201.44	661.73	8.4	13.8
908.0	39.1	45.0	136	8.9	1.49	3.55	26501	113.70	653.03	8.4	13.8
909.0	32.7	45.0	136	8.9	1.56	3.58	26750	135.94	644.96	8.4	13.8
910.0	46.2	45.0	136	8.9	1.44	3.60	26927	96.40	636.52	8.4	13.8
911.0	43.4	45.0	136	8.9	1.46	3.63	27115	102.57	628.43	8.4	13.8
912.0	48.6	45.0	136	8.9	1.42	3.65	27283	91.45	620.41	8.4	13.8
913.0	41.4	45.0	136	8.9	1.47	3.67	27480	107.52	612.87	8.4	13.8
914.0	46.8	45.0	136	8.9	1.43	3.69	27655	95.16	605.37	8.4	13.8
915.0	43.9	45.0	136	8.9	1.45	3.72	27841	101.34	598.17	8.4	13.8
916.0	28.8	45.0	136	8.9	1.60	3.75	28124	154.48	591.92	8.4	13.8
917.0	35.3	45.0	136	8.9	1.53	3.78	28355	126.06	585.45	8.4	13.8
918.0	34.6	45.0	136	8.9	1.54	3.81	28591	128.53	579.19	8.4	13.9
919.0	35.0	45.0	136	8.9	1.54	3.84	28824	127.29	573.08	8.4	13.9
920.0	40.4	45.0	136	8.9	1.48	3.86	29026	109.99	566.91	8.4	13.9
921.0	42.4	45.0	136	8.9	1.47	3.89	29219	105.05	560.83	8.4	13.9
922.0	39.1	45.0	136	8.9	1.49	3.91	29427	113.70	555.02	8.4	13.9
923.0	27.7	45.0	136	8.9	1.62	3.95	29722	160.66	549.97	8.4	13.9
924.0	33.3	45.0	136	8.9	1.55	3.98	29967	133.47	544.69	8.4	13.9
925.0	35.3	45.0	136	8.9	1.53	4.01	30198	126.06	539.46	8.4	13.9
926.0	32.7	45.0	136	8.7	1.59	4.04	30447	135.94	534.48	8.4	13.9
927.0	30.0	45.0	140	8.7	1.64	4.07	30727	148.30	529.77	8.4	13.9
928.0	28.5	45.0	136	8.7	1.65	4.10	31013	156.02	525.27	8.4	13.9
929.0	30.5	45.0	136	8.7	1.62	4.14	31281	145.83	520.75	8.4	13.9
930.0	30.5	45.0	136	8.7	1.62	4.17	31548	145.83	516.34	8.4	13.9
931.0	27.5	45.0	136	8.7	1.66	4.21	31845	161.89	512.22	8.4	13.9
932.0	34.6	45.0	136	8.7	1.57	4.24	32081	128.53	507.81	8.4	13.9
933.0	25.9	45.0	136	8.7	1.68	4.27	32396	171.78	503.99	8.4	13.9
934.0	19.1	45.0	136	8.7	1.79	4.33	32822	232.34	500.94	8.4	13.9
935.0	20.9	45.0	136	8.7	1.76	4.37	33212	212.56	497.73	8.4	13.9
936.0	26.1	45.0	140	8.7	1.69	4.41	33534	170.55	494.14	8.4	13.9
937.0	46.2	45.0	140	8.7	1.48	4.43	33716	96.40	489.81	8.4	13.9
938.0	36.4	45.0	140	8.7	1.57	4.46	33947	122.35	485.86	8.4	13.9

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
939.0	41.4	45.0	140	8.7	1.52	4.49	34150	107.52	481.84	8.4	13.9
940.0	49.3	45.0	140	8.7	1.45	4.51	34320	90.22	477.71	8.4	13.9
941.0	44.4	45.0	140	8.7	1.49	4.53	34509	100.10	473.78	8.4	13.9
942.0	46.8	45.0	140	8.7	1.47	4.55	34689	95.16	469.88	8.4	13.9
943.0	45.0	45.0	140	8.7	1.49	4.57	34876	98.87	466.09	8.4	13.9
944.0	47.4	45.0	140	8.7	1.47	4.59	35053	93.92	462.33	8.4	13.9
945.0	22.5	45.0	140	8.7	1.74	4.64	35426	197.73	459.69	8.4	13.9
946.0	26.5	45.0	140	8.7	1.68	4.68	35744	168.07	456.80	8.4	13.9
947.0	27.1	45.0	140	8.7	1.68	4.71	36054	164.37	453.93	8.4	13.9
948.0	33.0	45.0	140	8.7	1.60	4.74	36308	134.71	450.83	8.4	13.9
949.0	19.6	45.0	140	8.7	1.79	4.79	36738	227.39	448.68	8.4	13.9
950.0	31.9	45.0	140	8.7	1.62	4.83	37001	139.65	445.74	8.4	13.9
951.0	20.6	45.0	140	8.7	1.78	4.87	37410	216.27	443.58	8.4	13.9
952.0	21.1	45.0	140	8.7	1.77	4.92	37809	211.33	441.41	8.4	13.9
953.0	22.5	45.0	140	8.7	1.74	4.97	38182	197.73	439.15	8.4	13.9
954.0	12.8	45.0	140	8.7	1.95	5.04	38838	347.27	438.31	8.4	13.9
955.0	28.6	45.0	140	8.7	1.66	5.08	39132	155.72	435.74	8.4	13.9
956.0	22.2	45.0	140	8.7	1.75	5.12	39510	200.21	433.62	8.4	13.9
957.0	22.2	45.0	140	8.7	1.75	5.17	39888	200.21	431.53	8.4	13.9
958.0	22.5	45.0	140	8.7	1.74	5.21	40261	197.73	429.46	8.4	13.9
959.0	35.0	45.0	140	8.7	1.58	5.24	40501	127.29	426.81	8.4	13.9
960.0	39.6	45.0	140	8.7	1.54	5.27	40714	112.46	424.08	8.4	13.9
961.0	26.9	45.0	140	8.7	1.68	5.30	41026	165.60	421.85	8.4	14.0
962.0	40.4	45.0	140	8.7	1.53	5.33	41234	109.99	419.18	8.4	14.0
963.0	25.2	45.0	140	8.7	1.70	5.37	41568	176.72	417.13	8.4	14.0
964.0	30.0	45.0	140	8.7	1.64	5.40	41848	148.30	414.87	8.4	14.0
965.0	36.4	45.0	140	8.7	1.57	5.43	42079	122.35	412.43	8.4	14.0
966.0	38.3	45.0	140	8.7	1.55	5.46	42298	116.17	409.98	8.4	14.0
967.0	43.4	45.0	140	8.7	1.50	5.48	42492	102.57	407.47	8.4	14.0
968.0	43.4	45.0	140	8.7	1.50	5.50	42685	102.57	404.99	8.4	14.0
969.0	46.2	45.0	140	8.7	1.48	5.52	42867	96.40	402.50	8.4	14.0
970.0	40.4	45.0	140	8.7	1.53	5.55	43075	109.99	400.16	8.4	14.0
971.0	37.5	45.0	140	8.7	1.56	5.57	43299	118.64	397.92	8.4	14.0
972.0	30.0	45.0	140	8.7	1.64	5.61	43579	148.30	395.96	8.4	14.0
973.0	21.1	45.0	140	8.6	1.79	5.66	43978	211.33	394.52	8.4	14.0
974.0	26.1	45.0	140	8.6	1.71	5.69	44300	170.55	392.78	8.4	14.0
975.0	37.1	45.0	140	8.6	1.58	5.72	44526	119.88	390.68	8.4	14.0
976.0	22.6	45.0	140	8.6	1.76	5.77	44897	196.50	389.20	8.4	14.0
977.0	22.4	45.0	140	8.6	1.77	5.81	45273	198.97	387.76	8.4	14.0
978.0	29.5	45.0	140	8.6	1.66	5.84	45558	150.77	385.97	8.4	14.0
979.0	19.1	45.0	140	8.6	1.82	5.90	45996	232.34	384.83	8.4	14.0
980.0	24.2	45.0	140	8.6	1.74	5.94	46344	184.14	383.34	8.4	14.0
981.0	23.7	45.0	140	8.6	1.74	5.98	46699	187.85	381.90	8.4	14.0
982.0	18.7	45.0	140	8.6	1.83	6.03	47149	238.52	380.86	8.4	14.0
983.0	31.3	45.0	140	8.6	1.64	6.07	47417	142.12	379.13	8.4	14.0
984.0	36.4	45.0	140	8.6	1.58	6.09	47648	122.35	377.28	8.4	14.0
985.0	27.9	45.0	140	8.6	1.68	6.13	47949	159.42	375.72	8.4	14.0
986.0	25.2	45.0	140	8.6	1.72	6.17	48283	176.72	374.31	8.4	14.0
987.0	21.8	45.0	140	8.6	1.77	6.21	48668	203.91	373.11	8.4	14.0
988.0	24.3	45.0	140	8.6	1.73	6.26	49013	182.90	371.78	8.4	14.0

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
989.0	29.8	45.0	140	8.6	1.66	6.29	49296	149.54	370.24	8.4	14.0
990.0	23.1	45.0	140	8.6	1.75	6.33	49660	192.79	369.02	8.4	14.0
991.0	29.0	45.0	140	8.6	1.67	6.37	49949	153.24	367.54	8.4	14.0
992.0	19.5	45.0	140	8.6	1.82	6.42	50381	228.63	366.59	8.4	14.0
993.0	24.7	45.0	140	8.6	1.73	6.46	50721	180.43	365.33	8.4	14.0
994.0	21.3	45.0	140	8.6	1.78	6.51	51116	208.86	364.28	8.4	14.0
995.0	16.1	45.0	140	8.6	1.89	6.57	51636	275.59	363.69	8.4	14.0
996.0	23.4	45.0	140	8.6	1.75	6.61	51995	190.32	362.55	8.4	14.0
997.0	13.6	45.0	140	8.6	1.95	6.68	52614	327.50	362.31	8.4	14.0
998.0	17.7	45.0	140	8.6	1.85	6.74	53087	250.87	361.59	8.4	14.0
999.0	14.9	45.0	140	8.6	1.92	6.81	53652	299.07	361.18	8.4	14.0
1000.0	14.5	45.0	140	8.6	1.93	6.88	54231	306.49	360.83	8.4	14.0
1001.0	20.1	45.0	140	8.6	1.81	6.93	54648	221.21	359.93	8.4	14.0
1002.0	16.0	45.0	140	8.6	1.89	6.99	55173	278.06	359.41	8.4	14.0
1003.0	14.7	45.0	140	8.6	1.92	7.06	55745	302.78	359.05	8.4	14.0
1004.0	17.8	45.0	140	9.0	1.77	7.11	56216	249.64	358.36	8.4	14.1
1005.0	15.1	45.0	140	9.0	1.83	7.18	56772	294.13	357.96	8.4	14.1
1006.0	13.9	45.0	140	9.0	1.86	7.25	57376	320.08	357.73	8.4	14.1
1007.0	21.8	43.0	140	9.0	1.67	7.30	57761	203.91	356.78	8.4	14.1
1008.0	18.4	43.0	140	9.1	1.71	7.35	58218	242.22	356.08	8.4	14.1
1009.0	18.5	43.0	140	9.1	1.71	7.41	58673	240.99	355.37	8.4	14.1
1010.0	13.3	43.0	140	9.1	1.83	7.48	59306	334.91	355.25	8.4	14.1
1011.0	20.0	43.0	140	9.1	1.68	7.53	59726	222.45	354.45	8.4	14.1
1012.0	13.7	43.0	140	9.1	1.82	7.60	60339	325.02	354.27	8.4	14.1
1013.0	17.1	43.0	140	9.1	1.74	7.66	60832	260.76	353.72	8.4	14.1
1014.0	17.6	43.0	140	9.1	1.73	7.72	61308	252.11	353.12	8.4	14.1
1015.0	19.8	43.0	140	9.1	1.69	7.77	61732	224.92	352.36	8.4	14.1
1016.0	15.3	43.0	140	9.1	1.78	7.83	62281	290.42	352.00	8.4	14.1
1017.0	13.5	43.0	140	9.1	1.82	7.91	62901	328.73	351.86	8.4	14.1
1018.0	17.1	43.0	140	9.1	1.74	7.97	63394	260.76	351.34	8.4	14.1
1019.0	19.3	42.0	140	9.1	1.68	8.02	63830	231.10	350.65	8.4	14.1
1020.0	15.7	42.0	140	9.1	1.76	8.08	64367	284.24	350.27	8.4	14.1
1021.0	17.6	42.0	140	9.1	1.72	8.14	64845	253.35	349.72	8.4	14.1
1022.0	15.9	42.0	140	9.1	1.75	8.20	65372	279.30	349.32	8.4	14.1
1023.0	14.5	42.0	140	9.1	1.78	8.27	65953	307.72	349.08	8.4	14.1
1024.0	20.3	42.0	140	9.1	1.67	8.32	66366	218.74	348.36	8.4	14.1
1025.0	16.7	42.0	140	9.1	1.73	8.38	66868	265.70	347.90	8.4	14.1
1026.0	14.6	42.0	140	9.1	1.78	8.45	67442	304.01	347.65	8.4	14.1
1027.0	18.0	45.0	140	9.1	1.75	8.50	67909	247.17	347.10	8.4	14.1
1028.0	14.3	45.0	140	9.1	1.83	8.57	68497	311.43	346.91	8.4	14.1
1029.0	18.6	45.0	140	9.1	1.73	8.63	68949	239.75	346.33	8.4	14.1
1030.0	17.1	45.0	140	9.1	1.76	8.69	69439	259.52	345.86	8.4	14.1
1031.0	23.8	45.0	140	9.1	1.65	8.73	69792	186.61	345.00	8.4	14.1
1032.0	20.3	45.0	140	9.1	1.70	8.78	70205	218.74	344.32	8.4	14.1
1033.0	22.5	45.0	140	9.1	1.67	8.82	70578	197.73	343.55	8.4	14.1
1034.0	17.1	45.0	140	9.1	1.76	8.88	71068	259.52	343.10	8.4	14.1
1035.0	18.5	45.0	140	9.1	1.74	8.93	71523	240.99	342.56	8.4	14.1
1036.0	18.5	45.0	140	9.1	1.74	8.99	71978	240.99	342.03	8.4	14.1
1037.0	15.3	45.0	140	9.1	1.80	9.05	72526	290.42	341.76	8.4	14.1
1038.0	13.6	45.0	140	9.1	1.84	9.13	73142	326.26	341.68	8.4	14.1

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1039.0	17.6	45.0	140	9.1	1.75	9.18	73618	252.11	341.22	8.4	14.1
1040.0	18.1	45.0	140	9.1	1.74	9.24	74083	245.93	340.73	8.4	14.1
1041.0	37.5	45.0	140	9.1	1.49	9.27	74307	118.64	339.60	8.4	14.1
1042.0	21.6	45.0	140	9.1	1.68	9.31	74696	206.38	338.92	8.4	14.1
1043.0	23.4	45.0	140	9.1	1.65	9.36	75056	190.32	338.17	8.4	14.1
1044.0	20.0	45.0	140	9.1	1.71	9.41	75476	222.45	337.59	8.4	14.1
1045.0	25.0	45.0	140	9.1	1.63	9.45	75812	177.96	336.79	8.4	14.1
1046.0	22.5	45.0	140	9.1	1.67	9.49	76185	197.73	336.10	8.4	14.1
1047.0	20.9	45.0	140	9.1	1.69	9.54	76586	212.56	335.49	8.4	14.1
1048.0	20.6	45.0	140	9.1	1.70	9.59	76995	216.27	334.90	8.4	14.1
1049.0	19.0	45.0	140	9.1	1.73	9.64	77436	233.57	334.40	8.4	14.2
1050.0	23.7	45.0	140	9.1	1.65	9.68	77790	187.85	333.69	8.4	14.2
1051.0	17.8	45.0	140	9.1	1.75	9.74	78262	249.64	333.28	8.4	14.2
1052.0	13.7	45.0	140	9.1	1.84	9.81	78873	323.79	333.24	8.4	14.2
1053.0	14.1	45.0	140	9.1	1.83	9.88	79468	315.14	333.15	8.4	14.2
1054.0	13.2	45.0	140	9.1	1.85	9.96	80103	336.15	333.16	8.4	14.2
1055.0	16.4	45.0	140	9.1	1.78	10.02	80616	271.88	332.87	8.4	14.2
1056.0	15.6	45.0	140	9.1	1.80	10.08	81155	285.48	332.65	8.4	14.2
1057.0	20.5	45.0	140	9.1	1.70	10.13	81566	217.51	332.10	8.4	14.2
1058.0	17.5	45.0	140	9.1	1.76	10.19	82046	254.58	331.74	8.4	14.2
1059.0	14.9	45.0	140	9.1	1.81	10.25	82611	299.07	331.59	8.4	14.2
1060.0	16.0	45.0	140	9.1	1.79	10.32	83136	278.06	331.34	8.4	14.2
1061.0	32.4	45.0	140	9.1	1.54	10.35	83395	137.18	330.44	8.4	14.2
1062.0	23.5	45.0	140	9.1	1.65	10.39	83752	189.08	329.79	8.4	14.2
1063.0	25.5	45.0	140	9.1	1.62	10.43	84081	174.25	329.07	8.4	14.2
1064.0	22.8	45.0	140	9.1	1.66	10.47	84450	195.26	328.46	8.4	14.2
1065.0	24.3	45.0	140	9.1	1.64	10.51	84795	182.90	327.80	8.4	14.2
1066.0	23.5	45.0	140	9.1	1.65	10.56	85152	189.08	327.17	8.4	14.2
1067.0	12.5	45.0	140	9.1	1.87	10.64	85822	354.68	327.30	8.4	14.2
1068.0	27.9	45.0	140	9.1	1.59	10.67	86123	159.42	326.55	8.4	14.2
1069.0	12.6	45.0	140	9.1	1.87	10.75	86790	353.45	326.67	8.4	14.2
1070.0	25.2	45.0	140	9.1	1.63	10.79	87124	176.72	326.00	8.4	14.2
1071.0	13.6	45.0	140	9.1	1.84	10.87	87742	327.50	326.01	8.4	14.2
1072.0	17.8	45.0	140	9.1	1.75	10.92	88213	249.64	325.67	8.4	14.2
1073.0	14.4	45.0	140	9.1	1.82	10.99	88797	308.96	325.60	8.4	14.2
1074.0	28.1	45.0	140	9.1	1.59	11.03	89095	158.19	324.86	8.4	14.2
1075.0	15.5	45.0	140	9.1	1.80	11.09	89639	287.95	324.70	8.4	14.2
1076.0	20.3	45.0	140	9.1	1.70	11.14	90052	218.74	324.25	8.4	14.2
1077.0	23.5	45.0	140	9.1	1.65	11.18	90409	189.08	323.66	8.4	14.2
1078.0	23.1	45.0	140	9.1	1.66	11.23	90773	192.79	323.10	8.4	14.2
1079.0	31.0	45.0	140	9.1	1.55	11.26	91044	143.36	322.33	8.4	14.2
1080.0	17.0	45.0	140	9.1	1.77	11.32	91538	262.00	322.08	8.4	14.2
1081.0	27.1	45.0	140	9.1	1.60	11.35	91849	164.37	321.41	8.4	14.2
1082.0	20.7	45.0	140	9.1	1.70	11.40	92255	215.04	320.96	8.4	14.2
1083.0	15.9	45.0	140	9.1	1.79	11.47	92784	280.53	320.79	8.4	14.2
1084.0	15.5	45.0	140	9.1	1.80	11.53	93326	286.71	320.65	8.4	14.2
1085.0	14.6	45.0	140	9.1	1.82	11.60	93902	305.25	320.58	8.4	14.2
1086.0	20.8	45.0	140	9.1	1.69	11.65	94306	213.80	320.14	8.4	14.2
1087.0	14.2	45.0	140	9.1	1.83	11.72	94898	313.90	320.11	8.4	14.2
1088.0	24.7	45.0	140	9.1	1.63	11.76	95239	180.43	319.54	8.4	14.2

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1089.0	14.9	45.0	140	9.1	1.81	11.83	95801	297.84	319.45	8.4	14.2
1090.0	17.5	45.0	135	9.1	1.74	11.88	96265	254.58	319.19	8.4	14.2
1091.0	13.6	45.0	135	9.1	1.83	11.96	96859	326.26	319.21	8.4	14.2
1092.0	17.7	45.0	135	9.1	1.74	12.01	97316	250.87	318.94	8.4	14.2
1093.0	16.4	45.0	135	9.1	1.77	12.07	97811	271.88	318.75	8.4	14.2
1094.0	14.7	45.0	135	9.1	1.80	12.14	98362	302.78	318.68	8.4	14.2
1095.0	17.6	45.0	135	9.1	1.74	12.20	98821	252.11	318.42	8.4	14.3
1096.0	18.9	45.0	135	9.1	1.71	12.25	99248	234.81	318.08	8.4	14.3
1097.0	11.6	45.0	135	9.1	1.89	12.34	99948	384.34	318.35	8.4	14.3
1098.0	16.6	45.0	135	9.1	1.76	12.40	100436	268.18	318.15	8.4	14.3
1099.0	12.3	45.0	135	9.1	1.87	12.48	101093	360.86	318.32	8.4	14.3
1100.0	18.5	45.0	135	9.1	1.72	12.53	101532	240.99	318.01	8.4	14.3
1101.0	12.9	45.0	135	9.1	1.85	12.61	102158	343.56	318.11	8.4	14.3
1102.0	12.0	45.0	135	9.1	1.88	12.69	102835	371.99	318.32	8.4	14.3
1103.0	12.6	45.0	135	9.2	1.84	12.77	103478	353.45	318.46	8.4	14.3
1104.0	16.1	45.0	135	9.2	1.75	12.83	103980	275.59	318.29	8.4	14.3
1105.0	11.7	45.0	135	9.2	1.86	12.92	104675	381.87	318.54	8.4	14.3
1106.0	13.0	45.0	135	9.2	1.83	13.00	105299	342.33	318.63	8.4	14.3
1107.0	16.1	45.0	135	9.2	1.75	13.06	105800	275.59	318.47	8.4	14.3
1108.0	16.1	45.0	135	9.2	1.75	13.12	106304	276.83	318.31	8.4	14.3
1109.0	16.3	45.0	135	9.2	1.75	13.18	106802	273.12	318.14	8.4	14.3
1110.0	13.3	45.0	135	9.2	1.82	13.26	107409	333.68	318.19	8.4	14.3
1111.0	13.6	45.0	135	9.1	1.83	13.33	108005	327.50	318.23	8.4	14.3
1112.0	17.5	45.0	135	9.1	1.74	13.39	108469	254.58	317.99	8.4	14.3
1113.0	12.2	45.0	135	9.1	1.87	13.47	109135	365.81	318.17	8.4	14.3
1114.0	24.5	45.0	135	9.1	1.62	13.51	109466	181.67	317.66	8.4	14.3
1115.0	11.3	45.0	135	9.1	1.90	13.60	110183	394.23	317.95	8.4	14.3
1116.0	16.7	45.0	135	9.1	1.76	13.66	110667	265.70	317.75	8.4	14.3
1117.0	12.9	45.0	135	9.1	1.85	13.74	111295	344.80	317.85	8.4	14.3
1118.0	17.4	45.0	135	9.1	1.74	13.80	111761	255.82	317.62	8.4	14.3
1119.0	12.7	45.0	135	9.1	1.86	13.87	112400	350.98	317.75	8.4	14.3
1120.0	14.6	45.0	135	9.1	1.81	13.94	112953	304.01	317.70	8.4	14.3
1121.0	15.7	45.0	135	9.1	1.78	14.01	113471	284.24	317.58	8.4	14.3
1122.0	11.5	45.0	135	9.1	1.89	14.09	114175	386.82	317.83	8.4	14.3
1123.0	12.1	45.0	135	9.1	1.87	14.18	114843	367.04	318.00	8.4	14.3
1124.0	14.8	45.0	135	9.1	1.80	14.24	115392	301.54	317.94	8.4	14.3
1125.0	19.9	45.0	135	9.1	1.70	14.29	115799	223.69	317.61	8.4	14.3
1126.0	18.6	45.0	135	9.1	1.72	14.35	116236	239.75	317.33	8.4	14.3
1127.0	17.5	45.0	135	9.1	1.74	14.41	116699	254.58	317.11	8.4	14.3
1128.0	14.9	45.0	135	9.1	1.80	14.47	117242	297.84	317.04	8.4	14.3
1129.0	17.9	45.0	135	9.1	1.73	14.53	117694	248.40	316.80	8.4	14.3
1130.0	12.9	45.0	137	9.1	1.86	14.61	118333	346.03	316.90	8.4	14.3
1131.0	16.5	45.0	137	9.2	1.75	14.67	118831	269.41	316.73	8.4	14.3
1132.0	15.5	45.0	137	9.2	1.77	14.73	119361	286.71	316.63	8.4	14.3
1133.0	18.3	45.0	137	9.2	1.71	14.79	119811	243.46	316.38	8.4	14.3
1134.0	17.2	45.0	137	9.2	1.73	14.84	120288	258.29	316.17	8.4	14.3
1135.0	23.8	45.0	137	9.2	1.62	14.89	120633	186.61	315.73	8.4	14.3
1136.0	25.7	45.0	137	9.2	1.59	14.92	120952	173.02	315.24	8.4	14.3
1137.0	26.9	45.0	137	9.2	1.58	14.96	121258	165.60	314.72	8.4	14.3
1138.0	20.6	45.0	137	9.2	1.67	15.01	121658	216.27	314.39	8.4	14.3

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1139.0	17.4	45.0	137	9.2	1.73	15.07	122130	255.82	314.19	8.4	14.3
1140.0	21.2	45.0	137	9.2	1.66	15.11	122519	210.09	313.84	8.4	14.3
1141.0	23.4	45.0	137	9.2	1.63	15.16	122870	190.32	313.42	8.4	14.3
1142.0	16.4	45.0	137	9.2	1.75	15.22	123370	270.65	313.28	8.4	14.4
1143.0	17.6	45.0	137	9.2	1.73	15.28	123838	253.35	313.07	8.4	14.4
1144.0	18.5	45.0	137	9.2	1.71	15.33	124284	240.99	312.83	8.4	14.4
1145.0	22.4	45.0	137	9.2	1.64	15.37	124651	198.97	312.45	8.4	14.4
1146.0	21.7	45.0	137	9.2	1.65	15.42	125030	205.15	312.10	8.4	14.4
1147.0	22.4	45.0	137	9.2	1.64	15.47	125398	198.97	311.72	8.4	14.4
1148.0	21.4	45.0	137	9.2	1.66	15.51	125781	207.62	311.38	8.4	14.4
1149.0	28.8	45.0	137	9.2	1.55	15.55	126067	154.48	310.86	8.4	14.4
1150.0	20.9	45.0	137	9.2	1.67	15.59	126460	212.56	310.54	8.4	14.4
1151.0	18.5	45.0	137	9.2	1.71	15.65	126905	240.99	310.31	8.4	14.4
1152.0	23.1	45.0	137	9.2	1.63	15.69	127261	192.79	309.93	8.4	14.4
1153.0	20.7	45.0	137	9.2	1.67	15.74	127658	215.04	309.62	8.4	14.4
1154.0	15.0	45.0	137	9.2	1.78	15.81	128206	296.60	309.58	8.4	14.4
1155.0	15.1	45.0	137	9.2	1.78	15.87	128752	295.36	309.53	8.4	14.4
1156.0	15.5	45.0	137	9.2	1.77	15.94	129284	287.95	309.46	8.4	14.4
1157.0	17.2	45.0	137	9.2	1.73	16.00	129761	258.29	309.30	8.4	14.4
1158.0	13.0	45.0	137	9.2	1.83	16.07	130394	342.33	309.41	8.4	14.4
1159.0	12.8	45.0	137	9.2	1.84	16.15	131035	347.27	309.53	8.4	14.4
1160.0	19.0	45.0	137	9.2	1.70	16.20	131467	233.57	309.29	8.4	14.4
1161.0	13.5	45.0	137	9.2	1.82	16.28	132074	328.73	309.35	8.4	14.4
1162.0	15.5	45.0	137	9.2	1.77	16.34	132604	286.71	309.28	8.4	14.4
1163.0	13.1	45.0	137	9.2	1.83	16.42	133232	339.85	309.37	8.4	14.4
1164.0	15.2	45.0	137	9.2	1.78	16.48	133773	292.89	309.32	8.4	14.4
1165.0	16.7	45.0	137	9.2	1.75	16.54	134266	266.94	309.19	8.4	14.4
1166.0	21.4	45.0	137	9.2	1.66	16.59	134650	207.62	308.87	8.4	14.4
1167.0	25.7	45.0	137	9.2	1.59	16.63	134970	173.02	308.45	8.4	14.4
1168.0	22.0	45.0	137	9.2	1.65	16.68	135344	202.68	308.12	8.4	14.4
1169.0	10.8	45.0	137	9.2	1.90	16.77	136107	412.77	308.45	8.4	14.4
1170.0	21.1	45.0	137	9.2	1.66	16.82	136497	211.33	308.15	8.4	14.4
1171.0	14.8	45.0	137	9.0	1.83	16.88	137052	300.31	308.12	8.4	14.4
1172.0	11.2	45.0	137	9.0	1.93	16.97	137785	396.70	308.39	8.4	14.4
1173.0	16.1	45.0	137	9.0	1.80	17.03	138294	275.59	308.29	8.4	14.4
1174.0	19.9	45.0	137	9.0	1.72	17.08	138707	223.69	308.04	8.4	14.4
1175.0	20.3	45.0	137	9.0	1.71	17.13	139112	218.74	307.77	8.4	14.4
1176.0	18.8	45.0	137	9.0	1.74	17.19	139550	237.28	307.55	8.4	14.4
1177.0	20.1	45.0	137	9.0	1.72	17.24	139959	221.21	307.29	8.4	14.4
1178.0	23.5	45.0	137	9.0	1.66	17.28	140308	189.08	306.94	8.4	14.4
1179.0	19.0	45.0	137	9.0	1.74	17.33	140740	233.57	306.72	8.4	14.4
1180.0	11.9	45.0	136	9.0	1.90	17.42	141425	373.87	306.92	8.4	14.4
1181.0	15.3	45.0	136	9.0	1.81	17.48	141959	290.78	306.87	8.4	14.4
1182.0	10.9	45.0	136	9.0	1.93	17.57	142707	408.17	307.17	8.4	14.4
1183.0	13.4	45.0	136	9.0	1.86	17.65	143316	332.01	307.24	8.4	14.4
1184.0	13.8	45.0	136	9.0	1.85	17.72	143907	322.39	307.29	8.4	14.4
1185.0	17.9	45.0	136	9.0	1.76	17.78	144363	248.55	307.12	8.4	14.4
1186.0	15.4	45.0	136	9.0	1.81	17.84	144893	288.90	307.06	8.4	14.4
1187.0	18.0	45.0	136	9.0	1.75	17.90	145347	247.17	306.89	8.4	14.4
1188.0	14.0	45.0	136	9.0	1.84	17.97	145929	317.79	306.92	8.4	14.4

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1189.0	14.4	45.0	136	9.0	1.83	18.04	146496	308.96	306.93	8.4	14.4
1190.0	20.5	45.0	136	9.0	1.71	18.09	146895	217.51	306.67	8.4	14.4
1191.0	15.0	45.0	136	9.0	1.82	18.15	147439	296.60	306.64	8.4	14.4
1192.0	19.0	45.0	136	9.0	1.73	18.21	147867	233.57	306.43	8.4	14.5
1193.0	19.3	45.0	136	9.0	1.73	18.26	148291	231.10	306.21	8.4	14.5
1194.0	24.8	45.0	136	9.0	1.64	18.30	148620	179.20	305.85	8.4	14.5
1195.0	21.2	45.0	136	9.0	1.70	18.34	149005	210.09	305.57	8.4	14.5
1196.0	28.8	45.0	140	9.0	1.60	18.38	149297	154.48	305.14	8.4	14.5
1197.0	24.8	45.0	140	9.0	1.65	18.42	149635	179.20	304.78	8.4	14.5
1198.0	23.8	45.0	140	9.0	1.66	18.46	149988	186.61	304.45	8.4	14.5
1199.0	24.3	45.0	140	9.0	1.66	18.50	150333	182.90	304.11	8.4	14.5
1200.0	25.9	45.0	140	9.0	1.64	18.54	150657	171.78	303.73	8.4	14.5
1201.0	17.1	45.0	140	9.0	1.78	18.60	151150	260.76	303.61	8.4	14.5
1202.0	17.2	45.0	140	9.0	1.78	18.66	151637	258.29	303.49	8.4	14.5
1203.0	16.1	45.0	140	9.0	1.80	18.72	152160	276.83	303.41	8.4	14.5
1204.0	18.9	45.0	140	9.0	1.75	18.77	152603	234.81	303.22	8.4	14.5
1205.0	24.3	45.0	140	9.0	1.66	18.81	152949	182.90	302.89	8.4	14.5
1206.0	35.6	45.0	140	9.0	1.52	18.84	153184	124.82	302.39	8.4	14.5
1207.0	27.3	45.0	140	9.0	1.62	18.88	153492	163.13	302.01	8.4	14.5
1208.0	26.5	46.0	135	9.0	1.63	18.92	153798	168.07	301.64	8.4	14.5
1209.0	27.5	46.0	135	9.0	1.61	18.95	154093	161.89	301.26	8.4	14.5
1210.0	21.1	46.0	135	9.0	1.71	19.00	154478	211.33	301.01	8.4	14.5
1211.0	20.0	46.0	135	9.0	1.73	19.05	154883	222.45	300.79	8.4	14.5
1212.0	29.0	45.0	140	9.0	1.59	19.08	155172	153.41	300.39	8.4	14.5
1213.0	23.0	45.0	140	9.0	1.68	19.13	155538	193.43	300.10	8.4	14.5
1214.0	25.0	45.0	140	9.0	1.65	19.17	155874	177.96	299.77	8.4	14.5
1215.0	24.0	45.0	140	9.0	1.66	19.21	156224	185.38	299.46	8.4	14.5
1216.0	18.0	45.0	140	9.0	1.76	19.27	156690	247.17	299.32	8.4	14.5
1217.0	19.0	45.0	140	9.0	1.75	19.32	157132	234.16	299.15	8.4	14.5
1218.0	20.0	45.0	140	9.0	1.73	19.37	157552	222.45	298.94	8.4	14.5
1219.0	26.0	45.0	140	9.0	1.63	19.41	157875	171.12	298.60	8.4	14.5
1220.0	33.0	45.0	140	9.0	1.55	19.44	158130	134.82	298.16	8.4	14.5
1223.0	20.7	45.0	140	9.1	1.70	19.58	159348	215.04	297.50	8.4	14.5
1224.0	23.8	45.0	140	9.1	1.65	19.62	159700	186.61	297.21	8.4	14.5
1225.0	25.0	45.0	140	9.1	1.63	19.66	160036	177.96	296.90	8.4	14.5
1226.0	20.7	45.0	140	9.1	1.70	19.71	160442	215.04	296.68	8.4	14.5
1227.0	15.2	45.0	140	9.1	1.80	19.78	160995	292.89	296.67	8.4	14.5
1228.0	23.1	45.0	140	9.1	1.66	19.82	161359	192.79	296.40	8.4	14.5
1229.0	15.9	45.0	140	9.1	1.79	19.88	161887	279.30	296.35	8.4	14.5
1230.0	30.8	45.0	140	9.1	1.56	19.92	162160	144.59	295.96	8.4	14.5
1231.0	34.3	45.0	140	9.1	1.52	19.95	162405	129.76	295.53	8.4	14.5
1232.0	25.0	45.0	140	9.1	1.63	19.99	162741	177.96	295.23	8.4	14.5
1233.0	37.9	45.0	140	9.1	1.48	20.01	162962	117.40	294.77	8.4	14.5
1234.0	33.6	45.0	140	9.1	1.52	20.04	163212	132.23	294.35	8.4	14.5
1235.0	26.3	45.0	140	9.1	1.61	20.08	163532	169.31	294.03	8.4	14.5
1236.0	18.6	45.0	140	9.1	1.73	20.13	163984	239.75	293.89	8.4	14.5
1237.0	25.4	45.0	140	9.1	1.62	20.17	164316	175.49	293.59	8.4	14.5
1238.0	20.0	45.0	140	9.1	1.71	20.22	164736	222.45	293.41	8.4	14.5
1239.0	27.5	45.0	140	9.1	1.60	20.26	165041	161.89	293.07	8.4	14.5
1240.0	23.7	45.0	140	9.1	1.65	20.30	165396	187.85	292.81	8.4	14.5

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1241.0	30.5	45.0	140	9.1	1.56	20.33	165671	145.83	292.44	8.4	14.5
1242.0	31.0	45.0	140	9.1	1.55	20.37	165942	143.36	292.06	8.4	14.6
1243.0	27.7	45.0	140	9.1	1.59	20.40	166245	160.66	291.73	8.4	14.6
1244.0	25.9	45.0	140	9.1	1.62	20.44	166570	171.78	291.43	8.4	14.6
1245.0	23.2	45.0	140	9.1	1.66	20.48	166931	191.55	291.18	8.4	14.6
1246.0	19.4	45.0	140	9.1	1.72	20.54	167365	229.87	291.03	8.4	14.6
1247.0	27.5	45.0	140	9.1	1.60	20.57	167671	161.89	290.71	8.4	14.6
1248.0	24.0	45.0	140	9.1	1.64	20.61	168021	185.38	290.44	8.4	14.6
1249.0	30.3	45.0	140	9.1	1.56	20.65	168299	147.06	290.09	8.4	14.6
1250.0	27.7	45.0	140	9.1	1.59	20.68	168602	160.66	289.77	8.4	14.6
1251.0	26.5	45.0	140	9.1	1.61	20.72	168919	168.07	289.47	8.4	14.6
1252.0	17.4	45.0	140	9.1	1.76	20.78	169402	255.82	289.39	8.4	14.6
1253.0	18.0	45.0	140	9.1	1.75	20.83	169869	247.17	289.28	8.4	14.6
1254.0	18.9	45.0	140	9.1	1.73	20.89	170312	234.81	289.15	8.4	14.6
1255.0	14.5	45.0	140	9.1	1.82	20.96	170893	307.72	289.20	8.4	14.6
1256.0	17.7	45.0	140	9.1	1.75	21.01	171367	250.87	289.10	8.4	14.6
1257.0	23.8	45.0	140	9.1	1.65	21.05	171719	186.61	288.85	8.4	14.6
1258.0	17.9	45.0	140	9.1	1.75	21.11	172188	248.40	288.76	8.4	14.6
1259.0	25.9	45.0	140	9.1	1.62	21.15	172513	171.78	288.47	8.4	14.6
1260.0	31.9	45.0	140	9.1	1.54	21.18	172776	139.65	288.12	8.4	14.6
1261.0	17.9	45.0	140	9.1	1.75	21.24	173245	248.40	288.02	8.4	14.6
1262.0	21.6	45.0	140	9.1	1.68	21.28	173635	206.38	287.82	8.4	14.6
1263.0	21.2	45.0	140	9.1	1.69	21.33	174032	210.09	287.64	8.4	14.6
1264.0	24.3	45.0	140	9.1	1.64	21.37	174377	182.90	287.39	8.4	14.6
1265.0	38.7	45.0	140	9.1	1.48	21.40	174594	114.93	286.98	8.4	14.6
1266.0	19.8	45.0	140	9.1	1.71	21.45	175019	224.92	286.83	8.4	14.6
1267.0	15.1	45.0	140	9.1	1.81	21.51	175576	295.36	286.85	8.4	14.6
1268.0	15.5	45.0	140	9.1	1.80	21.58	176120	287.95	286.85	8.4	14.6
1269.0	15.4	45.0	140	9.1	1.80	21.64	176666	289.19	286.86	8.4	14.6
1270.0	21.1	45.0	140	9.1	1.69	21.69	177065	211.33	286.68	8.4	14.6
1271.0	22.5	45.0	140	9.1	1.67	21.74	177438	197.73	286.47	8.4	14.6
1272.0	19.0	45.0	140	9.2	1.71	21.79	177879	233.57	286.35	8.4	14.6
1273.0	16.6	45.0	140	9.2	1.75	21.85	178386	268.18	286.31	8.4	14.6
1274.0	24.3	45.0	140	9.2	1.62	21.89	178731	182.90	286.06	8.4	14.6
1275.0	25.7	45.0	140	9.2	1.60	21.93	179058	173.02	285.80	8.4	14.6
1276.0	34.0	45.0	140	9.2	1.51	21.96	179305	131.00	285.44	8.4	14.6
1277.0	24.7	45.0	140	9.2	1.62	22.00	179646	180.43	285.20	8.4	14.6
1278.0	31.9	45.0	140	9.2	1.53	22.03	179909	139.65	284.86	8.4	14.6
1279.0	38.3	45.0	140	9.2	1.46	22.06	180129	116.17	284.47	8.4	14.6
1280.0	30.8	45.0	140	9.2	1.54	22.09	180402	144.59	284.15	8.4	14.6
1281.0	32.7	45.0	140	9.2	1.52	22.12	180658	135.94	283.81	8.4	14.6
1282.0	35.0	45.0	140	9.2	1.50	22.15	180899	127.29	283.45	8.4	14.6
1283.0	22.9	45.0	140	9.2	1.64	22.19	181265	194.03	283.25	8.4	14.6
1284.0	20.3	45.0	140	9.2	1.68	22.24	181678	218.74	283.10	8.4	14.6
1285.0	13.8	45.0	140	9.2	1.82	22.31	182285	321.32	283.19	8.4	14.6
1286.0	22.9	45.0	140	9.2	1.64	22.36	182651	194.03	282.99	8.4	14.6
1287.0	19.3	45.0	140	9.2	1.70	22.41	183087	231.10	282.87	8.4	14.6
1288.0	28.1	45.0	140	9.2	1.57	22.44	183386	158.19	282.59	8.4	14.6
1289.0	23.4	45.0	140	9.2	1.64	22.49	183745	190.32	282.38	8.4	14.6
1290.0	26.3	45.0	140	9.2	1.59	22.52	184065	169.31	282.13	8.4	14.6

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1291.0	37.1	45.0	140	9.2	1.47	22.55	184291	119.88	281.76	8.4	14.6
1292.0	36.0	45.0	140	9.2	1.48	22.58	184525	123.58	281.41	8.4	14.6
1293.0	36.0	45.0	140	9.2	1.48	22.61	184758	123.58	281.06	8.4	14.6
1294.0	31.9	45.0	140	9.2	1.53	22.64	185022	139.65	280.74	8.4	14.7
1295.0	31.6	45.0	140	9.2	1.53	22.67	185288	140.89	280.43	8.4	14.7
1296.0	27.7	45.0	140	9.2	1.58	22.71	185591	160.66	280.17	8.4	14.7
1297.0	32.1	45.0	140	9.2	1.52	22.74	185852	138.41	279.85	8.4	14.7
1298.0	31.3	45.0	140	9.2	1.53	22.77	186121	142.12	279.55	8.4	14.7
1299.0	29.3	45.0	140	9.2	1.56	22.80	186408	152.01	279.27	8.4	14.7
1300.0	24.7	45.0	140	9.2	1.62	22.84	186748	180.43	279.05	8.4	14.7
1301.0	24.8	45.0	140	9.2	1.61	22.88	187087	179.20	278.83	8.4	14.7
1302.0	19.1	45.0	140	9.2	1.70	22.94	187525	232.34	278.73	8.4	14.7
1303.0	40.0	45.0	140	9.2	1.45	22.96	187735	111.23	278.36	8.4	14.7
1304.0	22.1	45.0	140	9.2	1.65	23.01	188116	201.44	278.20	8.4	14.7
1305.0	20.6	45.0	140	9.2	1.68	23.06	188524	216.27	278.06	8.4	14.7
1306.0	18.8	45.0	140	9.2	1.71	23.11	188972	237.28	277.97	8.4	14.7
1307.0	29.3	45.0	140	9.2	1.56	23.14	189259	152.01	277.70	8.4	14.7
1308.0	22.5	45.0	140	9.2	1.65	23.19	189632	197.73	277.53	8.4	14.7
1309.0	26.7	45.0	140	9.2	1.59	23.22	189947	166.84	277.29	8.4	14.7
1310.0	15.0	45.0	140	9.2	1.79	23.29	190507	296.60	277.33	8.4	14.7
1311.0	23.1	45.0	140	9.2	1.64	23.33	190871	192.79	277.15	8.4	14.7
1312.0	20.0	45.0	140	9.2	1.69	23.38	191291	222.45	277.03	8.4	14.7
1313.0	18.8	45.0	140	9.2	1.71	23.44	191739	237.28	276.95	8.4	14.7
1314.0	16.1	45.0	140	9.2	1.77	23.50	192262	276.83	276.95	8.4	14.7
1315.0	29.8	45.0	140	9.2	1.55	23.53	192544	149.54	276.68	8.4	14.7
1316.0	25.2	45.0	140	9.2	1.61	23.57	192878	176.72	276.46	8.4	14.7
1317.0	27.5	45.0	140	9.2	1.58	23.61	193184	161.89	276.22	8.4	14.7
1318.0	32.4	45.0	140	9.2	1.52	23.64	193443	137.18	275.93	8.4	14.7
1319.0	23.4	45.0	140	9.2	1.64	23.68	193802	190.32	275.75	8.4	14.7
1320.0	30.8	45.0	140	9.2	1.54	23.72	194075	144.59	275.47	8.4	14.7
1321.0	38.3	45.0	140	9.2	1.46	23.74	194294	116.17	275.14	8.4	14.7
1322.0	30.8	45.0	140	9.2	1.54	23.77	194567	144.59	274.86	8.4	14.7
1323.0	25.7	45.0	140	9.2	1.60	23.81	194894	173.02	274.65	8.4	14.7
1324.0	32.1	45.0	140	9.2	1.52	23.84	195155	138.41	274.36	8.4	14.7
1325.0	25.4	45.0	140	9.2	1.61	23.88	195487	175.49	274.16	8.4	14.7
1326.0	21.4	45.0	140	9.2	1.67	23.93	195879	207.62	274.02	8.4	14.7
1327.0	30.0	45.0	140	9.2	1.55	23.96	196159	148.30	273.76	8.4	14.7
1328.0	31.3	45.0	140	9.2	1.53	24.00	196427	142.12	273.49	8.4	14.7
1329.0	21.8	45.0	140	9.2	1.66	24.04	196812	203.91	273.34	8.4	14.7
1330.0	30.8	45.0	140	9.2	1.54	24.07	197085	144.59	273.08	8.4	14.7
1331.0	30.5	45.0	140	9.2	1.54	24.11	197360	145.83	272.82	8.4	14.7
1332.0	33.6	45.0	140	9.2	1.51	24.14	197610	132.23	272.53	8.4	14.7
1333.0	26.7	45.0	140	9.2	1.59	24.17	197925	166.84	272.31	8.4	14.7
1334.0	27.9	45.0	140	9.5	1.52	24.21	198226	159.42	272.08	8.4	14.7
1335.0	24.2	45.0	140	9.5	1.57	24.25	198574	184.14	271.90	8.4	14.7
1336.0	23.2	45.0	140	9.5	1.59	24.29	198935	191.55	271.74	8.4	14.7
1337.0	28.3	45.0	140	9.5	1.52	24.33	199232	156.95	271.50	8.4	14.7
1338.0	16.4	45.0	140	9.5	1.70	24.39	199743	270.65	271.50	8.4	14.7
1339.0	26.5	45.0	140	9.5	1.54	24.43	200060	168.07	271.29	8.4	14.7
1340.0	33.3	45.0	140	9.5	1.46	24.46	200312	133.47	271.01	8.4	14.7

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1341.0	21.2	45.0	140	9.5	1.62	24.51	200709	210.09	270.89	8.4	14.7
1342.0	22.4	45.0	140	9.5	1.60	24.55	201084	198.97	270.75	8.4	14.7
1343.0	28.3	45.0	140	9.5	1.52	24.59	201381	156.95	270.52	8.4	14.7
1344.0	34.3	45.0	140	9.5	1.45	24.61	201626	129.76	270.24	8.4	14.7
1345.0	31.0	45.0	140	9.5	1.49	24.65	201896	143.36	269.98	8.4	14.7
1346.0	26.7	45.0	140	9.5	1.54	24.68	202211	166.84	269.78	8.4	14.7
1347.0	21.8	45.0	140	9.5	1.61	24.73	202596	203.91	269.65	8.4	14.7
1348.0	30.3	45.0	140	9.5	1.50	24.76	202874	147.06	269.40	8.4	14.7
1349.0	33.3	45.0	140	9.5	1.46	24.79	203126	133.47	269.13	8.4	14.8
1350.0	35.6	45.0	140	9.5	1.44	24.82	203362	124.82	268.85	8.4	14.8
1351.0	33.3	45.0	140	9.5	1.46	24.85	203614	133.47	268.58	8.4	14.8
1352.0	34.3	45.0	140	9.5	1.45	24.88	203859	129.76	268.30	8.4	14.8
1353.0	27.7	45.0	140	9.5	1.53	24.92	204162	160.66	268.09	8.4	14.8
1354.0	30.3	45.0	140	9.5	1.50	24.95	204440	147.06	267.85	8.4	14.8
1355.0	30.5	45.0	140	9.5	1.49	24.98	204715	145.83	267.62	8.4	14.8
1356.0	26.7	45.0	140	9.5	1.54	25.02	205030	166.84	267.42	8.4	14.8
1357.0	31.6	45.0	140	9.5	1.48	25.05	205296	140.89	267.17	8.4	14.8
1358.0	24.5	45.0	140	9.5	1.57	25.09	205639	181.67	267.00	8.4	14.8
1359.0	31.9	45.0	140	9.5	1.48	25.12	205903	139.65	266.76	8.4	14.8
1360.0	29.8	45.0	140	9.5	1.50	25.16	206185	149.54	266.53	8.4	14.8
1361.0	31.6	45.0	140	9.5	1.48	25.19	206451	140.89	266.29	8.4	14.8
1362.0	27.9	45.0	140	9.5	1.52	25.23	206752	159.42	266.08	8.4	14.8
1363.0	30.8	45.0	140	9.5	1.49	25.26	207025	144.59	265.84	8.4	14.8
1364.0	20.6	45.0	140	9.7	1.59	25.31	207433	216.27	265.75	8.4	14.8
1365.0	31.6	45.0	140	9.7	1.45	25.34	207699	140.89	265.51	8.4	14.8
1366.0	22.9	45.0	140	9.7	1.56	25.38	208066	194.03	265.37	8.4	14.8
1367.0	18.5	45.0	140	9.7	1.63	25.44	208521	240.99	265.32	8.4	14.8
1368.0	13.5	45.0	140	9.7	1.73	25.51	209144	329.97	265.45	8.4	14.8
1369.0	12.3	45.0	140	9.7	1.76	25.59	209825	360.86	265.63	8.4	14.8
1370.0	20.8	45.0	140	9.7	1.59	25.64	210229	213.80	265.53	8.4	14.8
1371.0	30.8	45.0	140	9.7	1.46	25.67	210502	144.59	265.30	8.4	14.8
1372.0	22.4	45.0	140	9.7	1.57	25.72	210877	198.97	265.18	8.4	14.8
1373.0	21.2	45.0	140	9.7	1.58	25.76	211274	210.09	265.07	8.4	14.8
1374.0	19.5	45.0	140	9.7	1.61	25.81	211706	228.63	265.00	8.4	14.8
1375.0	30.8	45.0	140	9.7	1.46	25.85	211979	144.59	264.78	8.4	14.8
1376.0	17.3	44.0	140	9.7	1.64	25.91	212464	257.05	264.76	8.4	14.8
1377.0	23.8	44.0	140	9.7	1.53	25.95	212816	186.61	264.61	8.4	14.8
1378.0	34.6	44.0	140	9.7	1.41	25.98	213059	128.53	264.36	8.4	14.8
1379.0	24.7	44.0	140	9.7	1.52	26.02	213400	180.43	264.20	8.4	14.8
1380.0	34.3	44.0	140	9.7	1.41	26.05	213645	129.76	263.95	8.4	14.8
1381.0	25.9	44.0	140	9.7	1.51	26.08	213969	171.78	263.78	8.4	14.8
1382.0	23.2	44.0	140	9.7	1.54	26.13	214331	191.55	263.64	8.4	14.8
1383.0	24.0	44.0	140	9.7	1.53	26.17	214681	185.38	263.50	8.4	14.8
1384.0	20.7	44.0	140	9.7	1.58	26.22	215087	215.04	263.41	8.4	14.8
1385.0	20.2	44.0	140	9.7	1.59	26.27	215502	219.98	263.33	8.4	14.8
1386.0	20.1	44.0	140	9.7	1.59	26.32	215920	221.21	263.25	8.4	14.8
1387.0	16.3	44.0	140	9.7	1.66	26.38	216435	273.12	263.27	8.4	14.8
1388.0	26.3	44.0	140	9.7	1.50	26.42	216755	169.31	263.10	8.4	14.8
1389.0	27.5	44.0	140	9.7	1.49	26.45	217061	161.89	262.91	8.4	14.8
1390.0	30.8	44.0	140	9.7	1.45	26.48	217334	144.59	262.69	8.4	14.8

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1391.0	26.7	44.0	140	9.7	1.50	26.52	217649	166.84	262.52	8.4	14.8
1392.0	29.3	44.0	140	9.7	1.47	26.56	217936	152.01	262.31	8.4	14.8
1393.0	25.9	44.0	140	9.7	1.51	26.60	218260	171.78	262.15	8.4	14.8
1394.0	30.0	44.0	140	9.7	1.46	26.63	218540	148.30	261.94	8.4	14.8
1395.0	28.1	44.0	140	9.7	1.48	26.66	218839	158.19	261.75	8.4	14.8
1396.0	30.3	44.0	140	9.7	1.46	26.70	219116	147.06	261.55	8.4	14.8
1397.0	30.0	44.0	140	9.7	1.46	26.73	219396	148.30	261.34	8.4	14.8
1398.0	17.4	44.0	140	9.7	1.64	26.79	219879	255.82	261.33	8.4	14.8
1399.0	18.8	44.0	140	9.7	1.61	26.84	220327	237.28	261.29	8.4	14.8
1400.0	22.8	44.0	140	9.7	1.55	26.89	220696	195.26	261.17	8.4	14.8
1401.0	26.5	44.0	140	9.7	1.50	26.92	221013	168.07	261.00	8.4	14.8
1402.0	23.4	44.0	140	9.7	1.54	26.97	221373	190.32	260.87	8.4	14.8
1403.0	13.2	44.0	140	9.7	1.73	27.04	222007	336.15	261.01	8.4	14.8
1404.0	18.2	44.0	140	9.7	1.62	27.10	222469	244.70	260.98	8.4	14.9
1405.0	16.5	44.0	140	9.7	1.65	27.16	222978	269.41	260.99	8.4	14.9
1406.0	14.8	44.0	140	9.7	1.69	27.22	223547	301.54	261.07	8.4	14.9
1407.0	18.3	44.0	140	9.7	1.62	27.28	224007	243.46	261.04	8.4	14.9
1408.0	21.2	44.0	140	9.7	1.57	27.33	224404	210.09	260.94	8.4	14.9
1409.0	21.6	44.0	140	9.7	1.57	27.37	224793	206.38	260.85	8.4	14.9
1410.0	28.8	44.0	140	9.7	1.47	27.41	225085	154.48	260.66	8.4	14.9
1411.0	26.3	44.0	140	9.7	1.50	27.45	225405	169.31	260.50	8.4	14.9
1412.0	28.1	44.0	140	9.7	1.48	27.48	225703	158.19	260.32	8.4	14.9
1413.0	32.7	44.0	140	9.7	1.43	27.51	225960	135.94	260.10	8.4	14.9
1414.0	27.5	44.0	140	9.7	1.49	27.55	226266	161.89	259.93	8.4	14.9
1415.0	33.0	44.0	140	9.7	1.43	27.58	226520	134.71	259.71	8.4	14.9
1416.0	20.2	44.0	140	9.7	1.59	27.63	226935	219.98	259.64	8.4	14.9
1417.0	23.1	44.0	140	9.7	1.54	27.67	227299	192.79	259.52	8.4	14.9
1418.0	22.8	44.0	140	9.7	1.55	27.72	227668	195.26	259.41	8.4	14.9
1419.0	20.6	44.0	140	9.7	1.58	27.76	228076	216.27	259.33	8.4	14.9
1420.0	22.4	44.0	140	9.7	1.55	27.81	228452	198.97	259.23	8.4	14.9
1421.0	19.7	44.0	140	9.7	1.60	27.86	228879	226.16	259.17	8.4	14.9
1422.0	20.9	44.0	140	9.7	1.58	27.91	229280	212.56	259.09	8.4	14.9
1423.0	15.6	44.0	140	9.8	1.66	27.97	229819	285.48	259.14	8.4	14.9
1424.0	24.5	44.0	140	9.8	1.51	28.01	230162	181.67	259.00	8.4	14.9
1425.0	20.7	44.0	140	9.8	1.56	28.06	230568	215.04	258.93	8.4	14.9
1426.0	17.5	44.0	140	9.8	1.62	28.12	231049	254.58	258.92	8.4	14.9
1427.0	24.2	44.0	140	9.8	1.51	28.16	231397	184.14	258.79	8.4	14.9
1428.0	26.5	44.0	140	9.8	1.48	28.20	231714	168.07	258.63	8.4	14.9
1429.0	27.5	44.0	140	9.8	1.47	28.23	232020	161.89	258.47	8.4	14.9
1430.0	27.1	44.0	140	9.8	1.48	28.27	232330	164.37	258.31	8.4	14.9
1431.0	32.1	44.0	140	9.8	1.42	28.30	232591	138.41	258.10	8.4	14.9
1432.0	18.8	44.0	140	9.8	1.60	28.35	233039	237.28	258.07	8.4	14.9
1433.0	26.3	44.0	140	9.8	1.49	28.39	233359	169.31	257.92	8.4	14.9
1434.0	24.2	44.0	140	9.8	1.51	28.43	233707	184.14	257.79	8.4	14.9
1435.0	28.1	44.0	140	9.8	1.46	28.47	234005	158.19	257.62	8.4	14.9
1436.0	20.6	44.0	140	9.8	1.57	28.52	234414	216.27	257.55	8.4	14.9
1437.0	24.8	44.0	140	9.8	1.50	28.56	234752	179.20	257.42	8.4	14.9
1438.0	18.9	44.0	140	9.8	1.59	28.61	235195	234.81	257.38	8.4	14.9
1439.0	21.4	44.0	140	9.8	1.55	28.66	235587	207.62	257.30	8.4	14.9
1440.0	19.4	44.0	140	9.8	1.59	28.71	236021	229.87	257.25	8.4	14.9

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1441.0	18.0	44.0	140	9.8	1.61	28.77	236488	247.17	257.24	8.4	14.9
1442.0	20.2	44.0	140	9.8	1.57	28.81	236903	219.98	257.17	8.4	14.9
1443.0	20.9	44.0	140	9.8	1.56	28.86	237305	212.56	257.10	8.4	14.9
1444.0	26.7	44.0	140	9.8	1.48	28.90	237620	166.84	256.95	8.4	14.9
1445.0	27.1	44.0	140	9.8	1.48	28.94	237930	164.37	256.79	8.4	14.9
1446.0	15.3	44.0	140	9.7	1.68	29.00	238481	291.66	256.85	8.4	14.9
1447.0	25.7	44.0	140	9.7	1.51	29.04	238807	173.02	256.71	8.4	14.9
1448.0	29.3	44.0	140	9.7	1.47	29.08	239094	152.01	256.54	8.4	14.9
1449.0	25.9	44.0	140	9.7	1.51	29.11	239419	171.78	256.40	8.4	14.9
1450.0	23.7	44.0	140	9.7	1.54	29.16	239773	187.85	256.28	8.4	14.9
1451.0	20.0	44.0	140	9.7	1.59	29.21	240193	222.45	256.23	8.4	14.9
1452.0	21.8	44.0	140	9.7	1.56	29.25	240578	203.91	256.14	8.4	14.9
1453.0	19.7	44.0	140	9.7	1.60	29.30	241005	226.16	256.09	8.4	14.9
1454.0	12.9	44.0	140	9.7	1.73	29.38	241654	343.56	256.24	8.4	14.9
1455.0	15.6	45.0	135	9.7	1.67	29.44	242174	285.48	256.29	8.4	14.9
1456.0	18.5	45.0	135	9.7	1.62	29.50	242613	240.99	256.26	8.4	14.9
1457.0	17.4	45.0	135	9.7	1.64	29.56	243078	255.82	256.26	8.4	14.9
1458.0	17.0	45.0	135	9.7	1.64	29.61	243555	262.00	256.27	8.4	14.9
1459.0	23.4	45.0	135	9.7	1.54	29.66	243902	190.32	256.16	8.4	14.9
1460.0	19.1	45.0	135	9.7	1.60	29.71	244325	232.34	256.12	8.4	14.9
1461.0	17.8	45.0	135	9.7	1.63	29.77	244779	249.64	256.11	8.4	14.9
1462.0	19.4	45.0	135	9.7	1.60	29.82	245198	229.87	256.07	8.4	15.0
1463.0	17.2	45.0	135	9.7	1.64	29.88	245668	258.29	256.07	8.4	15.0
1464.0	12.7	45.0	135	9.7	1.74	29.95	246307	350.98	256.23	8.4	15.0
1465.0	14.8	45.0	135	9.7	1.69	30.02	246856	301.54	256.30	8.4	15.0
1466.0	20.6	45.0	135	9.7	1.58	30.07	247250	216.27	256.24	8.4	15.0
1467.0	19.9	45.0	135	9.7	1.59	30.12	247657	223.69	256.18	8.4	15.0
1468.0	14.3	45.0	135	9.7	1.70	30.19	248224	311.43	256.27	8.4	15.0
1469.0	17.6	45.0	135	9.7	1.63	30.25	248685	253.35	256.27	8.4	15.0
1470.0	17.1	45.0	135	9.7	1.64	30.31	249158	259.52	256.27	8.4	15.0
1471.0	17.7	45.0	135	9.7	1.63	30.36	249615	250.87	256.26	8.4	15.0
1472.0	15.8	45.0	135	9.7	1.67	30.43	250128	281.77	256.30	8.4	15.0
1473.0	13.0	44.0	140	9.7	1.73	30.50	250774	342.23	256.44	8.4	15.0
1474.0	19.8	45.0	135	9.7	1.59	30.55	251183	224.92	256.39	8.4	15.0
1475.0	14.2	45.0	135	9.7	1.70	30.62	251752	312.67	256.48	8.4	15.0
1476.0	21.4	45.0	135	9.7	1.57	30.67	252130	207.62	256.40	8.4	15.0
1477.0	19.4	45.0	135	9.7	1.60	30.72	252549	229.87	256.36	8.4	15.0
1478.0	17.7	45.0	135	9.7	1.63	30.78	253006	250.87	256.35	8.4	15.0
1479.0	13.3	45.0	135	9.7	1.73	30.85	253615	334.91	256.48	8.4	15.0
1480.0	12.5	45.0	135	9.7	1.75	30.93	254263	355.92	256.63	8.4	15.0
1481.0	17.6	45.0	135	9.7	1.63	30.99	254722	252.11	256.63	8.4	15.0
1482.0	17.2	45.0	135	9.7	1.64	31.05	255193	258.29	256.63	8.4	15.0
1483.0	19.5	45.0	135	9.7	1.60	31.10	255609	228.63	256.58	8.4	15.0
1484.0	22.1	45.0	135	9.7	1.56	31.15	255976	201.44	256.50	8.4	15.0
1485.0	45.6	45.0	135	9.7	1.32	31.17	256153	97.63	256.25	8.4	15.0
1486.0	57.1	45.0	135	9.7	1.24	31.18	256295	77.86	255.97	8.4	15.0
1487.0	56.2	45.0	135	9.7	1.25	31.20	256439	79.09	255.70	8.4	15.0
1488.0	48.0	45.0	135	9.7	1.30	31.22	256608	92.69	255.44	8.4	15.0
1488.2	17.6	45.0	135	9.7	1.63	31.23	256700	253.35	255.44	8.4	15.0

BIT NUMBER	3	IADC CODE	4	INTERVAL	1488.2- 1500.6
CHRIS RC4		SIZE	8.500	NOZZLES	15 15 14
COST	13000.00	TRIP TIME	5.2	BIT RUN	12.4
TOTAL HOURS	0.77	TOTAL TURNS	4311	CONDITION	T0 B0 G0.450

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1488.4	11.1	10.0	80	9.8	1.17	0.02	86	401	181075	8.4	15.0
1488.6	11.3	10.0	80	9.8	1.16	0.04	171	394	90734	8.4	15.0
1488.8	15.3	10.0	80	9.8	1.09	0.05	234	291	60586	8.4	15.0
1489.0	13.6	10.0	80	9.8	1.12	0.06	305	327	45522	8.4	15.0
1489.2	16.7	10.0	80	9.8	1.07	0.08	362	266	36471	8.4	15.0
1489.4	14.4	10.0	80	9.8	1.11	0.09	429	309	30444	8.4	15.0
1489.6	21.8	10.0	80	9.8	1.01	0.10	473	204	26124	8.4	15.0
1489.8	17.6	10.0	80	9.8	1.06	0.11	528	253	22890	8.4	15.0
1490.0	18.5	10.0	80	9.8	1.05	0.12	579	240	20373	8.4	15.0
1490.2	14.1	10.0	80	9.8	1.11	0.13	647	316	18367	8.4	15.0
1490.4	13.1	10.0	80	9.8	1.13	0.15	721	340	16729	8.4	15.0
1490.6	16.7	10.0	80	9.8	1.07	0.16	778	266	15357	8.4	15.0
1490.8	16.4	10.0	80	9.8	1.08	0.17	837	271	14196	8.4	15.0
1491.0	14.4	10.0	80	9.8	1.11	0.19	903	309	13204	8.4	15.0
1491.2	12.6	10.0	80	9.8	1.14	0.20	980	353	12348	8.4	15.0
1491.4	17.1	10.0	80	9.8	1.07	0.22	1036	260	11592	8.4	15.0
1491.6	23.2	10.0	80	9.8	0.99	0.22	1077	192	10922	8.4	15.0
1491.8	20.0	10.0	80	9.8	1.03	0.23	1125	222	10327	8.4	15.0
1492.0	18.0	10.0	80	9.8	1.05	0.25	1179	247	9797	8.4	15.0
1492.2	22.5	10.0	80	9.8	1.00	0.25	1221	198	9317	8.4	15.0
1492.4	18.0	10.0	100	9.8	1.11	0.27	1288	247	8885	8.4	15.0
1492.6	20.6	10.0	100	9.8	1.07	0.28	1346	216	8491	8.4	15.0
1492.8	18.5	12.0	100	9.8	1.15	0.29	1411	240	8132	8.4	15.0
1493.0	30.0	12.0	100	9.8	1.03	0.29	1451	148	7799	8.4	15.0
1493.2	18.9	12.0	100	9.8	1.14	0.30	1514	235	7497	8.4	15.0
1493.4	14.4	12.0	100	9.8	1.21	0.32	1598	309	7220	8.4	15.0
1493.6	16.7	12.0	100	9.8	1.18	0.33	1670	266	6963	8.4	15.0
1493.8	20.6	12.0	100	9.8	1.12	0.34	1728	216	6722	8.4	15.0
1494.0	18.5	12.0	100	9.8	1.15	0.35	1793	240	6498	8.4	15.0
1494.2	16.0	12.0	100	9.8	1.19	0.36	1868	278	6291	8.4	15.0
1494.4	14.1	12.0	100	9.8	1.22	0.38	1953	316	6098	8.4	15.0
1494.6	25.7	12.0	100	9.8	1.07	0.38	2000	173	5913	8.4	15.0
1494.8	16.4	12.0	100	9.8	1.18	0.40	2073	271	5742	8.4	15.0
1495.0	16.7	12.0	100	9.8	1.18	0.41	2145	266	5581	8.4	15.0
1495.2	15.0	12.0	100	9.8	1.20	0.42	2225	297	5430	8.4	15.0
1495.4	16.7	12.0	100	9.8	1.18	0.43	2296	266	5287	8.4	15.0
1495.6	17.6	12.0	100	9.8	1.16	0.44	2365	253	5151	8.4	15.0
1495.8	14.1	12.0	100	9.8	1.22	0.46	2450	316	5023	8.4	15.0
1496.0	17.6	12.0	100	9.8	1.16	0.47	2518	253	4901	8.4	15.0
1496.2	17.6	12.0	100	9.8	1.16	0.48	2586	253	4785	8.4	15.0
1496.4	17.1	12.0	100	9.8	1.17	0.49	2656	260	4674	8.4	15.0
1496.6	20.6	12.0	100	9.8	1.12	0.50	2715	216	4568	8.4	15.0
1496.8	16.0	12.0	100	9.8	1.19	0.52	2790	278	4469	8.4	15.0

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1497.0	21.2	12.0	100	9.8	1.12	0.53	2846	210	4372	8.4	15.0
1497.2	34.3	12.0	100	9.8	0.99	0.53	2881	130	4278	8.4	15.0
1497.4	18.0	12.0	100	9.8	1.16	0.54	2948	247	4190	8.4	15.0
1497.6	16.7	12.0	100	9.8	1.18	0.55	3020	266	4106	8.4	15.0
1497.8	17.6	12.0	100	9.8	1.16	0.57	3088	253	4026	8.4	15.0
1498.0	17.6	12.0	100	9.8	1.16	0.58	3156	253	3949	8.4	15.0
1498.2	17.1	12.0	100	9.8	1.17	0.59	3226	260	3875	8.4	15.0
1498.4	21.2	12.0	100	9.8	1.12	0.60	3283	210	3803	8.4	15.0
1498.6	16.0	12.0	100	9.8	1.19	0.61	3358	278	3736	8.4	15.0
1498.8	31.3	12.0	100	9.8	1.02	0.62	3396	142	3668	8.4	15.0
1499.0	16.7	12.0	100	9.8	1.18	0.63	3468	266	3605	8.4	15.0
1499.2	10.4	12.0	100	9.8	1.29	0.65	3583	428	3547	8.4	15.0
1499.4	8.8	12.0	100	9.8	1.34	0.67	3720	506	3493	8.4	15.0
1499.6	6.4	12.0	100	9.8	1.42	0.70	3907	695	3444	8.4	15.0
1499.8	15.7	12.0	100	9.8	1.19	0.71	3984	283	3389	8.4	15.0
1500.0	14.1	12.0	100	9.8	1.22	0.73	4069	316	3337	8.4	15.0
1500.2	15.3	12.0	100	9.8	1.20	0.74	4147	291	3286	8.4	15.0
1500.4	14.4	12.0	100	9.8	1.21	0.76	4231	309	3238	8.4	15.0
1500.6	15.0	12.0	100	9.8	1.20	0.77	4311	297	3190	8.4	15.0

BIT NUMBER	3	IADC CODE	4	INTERVAL	1500.6- 1513.4
CHRIS RC4		SIZE	8.500	NOZZLES	15 15 14
COST	13000.00	TRIP TIME	5.2	BIT RUN	12.8
TOTAL HOURS	2.01	TOTAL TURNS	11652	CONDITION	T0 B0 G0.500

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1500.8	14.0	10.0	100	9.8	1.17	0.78	4397	318	198120	8.4	15.0
1501.0	7.9	10.0	100	9.8	1.30	0.81	4549	563	99342	8.4	15.0
1501.2	11.8	10.0	100	9.8	1.21	0.83	4650	377	66354	8.4	15.0
1501.4	8.1	10.0	100	9.8	1.30	0.85	4798	549	49902	8.4	15.0
1501.6	20.0	10.0	100	9.8	1.08	0.86	4858	222	39966	8.4	15.0
1501.8	8.3	10.0	100	9.8	1.29	0.89	5003	536	33395	8.4	15.0
1502.0	12.4	10.0	100	9.8	1.20	0.90	5100	359	28675	8.4	15.0
1502.2	10.9	10.0	100	9.8	1.23	0.92	5210	408	25142	8.4	15.0
1502.4	16.0	12.0	100	9.8	1.19	0.93	5285	278	22379	8.4	15.0
1502.6	17.6	12.0	100	9.8	1.16	0.94	5353	253	20167	8.4	15.0
1502.8	12.4	12.0	100	9.8	1.25	0.96	5450	359	18366	8.4	15.0
1503.0	15.7	12.0	100	9.8	1.19	0.97	5526	283	16859	8.4	15.0
1503.2	21.2	12.0	100	9.8	1.12	0.98	5583	210	15578	8.4	15.0
1503.4	13.3	12.0	100	9.8	1.23	1.00	5673	335	14489	8.4	15.0
1503.6	21.8	12.0	100	9.8	1.11	1.01	5728	204	13537	8.4	15.0
1503.8	36.0	12.0	100	9.8	0.98	1.01	5761	124	12699	8.4	15.0
1504.0	20.0	12.0	100	9.8	1.13	1.02	5821	222	11965	8.4	15.0
1504.2	28.8	12.0	100	9.8	1.04	1.03	5863	154	11309	8.4	15.0
1504.4	34.3	12.0	100	9.8	0.99	1.03	5898	130	10720	8.4	15.0
1504.6	42.4	12.0	100	9.8	0.94	1.04	5926	105	10190	8.4	15.0
1504.8	40.0	12.0	100	9.8	0.96	1.04	5956	111	9710	8.4	15.0
1505.0	30.0	14.0	100	9.8	1.07	1.05	5996	148	9275	8.4	15.0
1505.2	48.0	14.0	100	9.8	0.95	1.06	6021	93	8876	8.4	15.0
1505.4	36.0	14.0	100	9.8	1.02	1.06	6055	124	8511	8.4	15.0
1505.6	36.0	14.0	100	9.8	1.02	1.07	6088	124	8176	8.4	15.0
1505.8	32.7	14.0	100	9.8	1.05	1.07	6125	136	7866	8.4	15.0
1506.0	25.7	14.0	100	9.8	1.11	1.08	6172	173	7581	8.4	15.0
1506.2	45.0	14.0	100	9.8	0.96	1.08	6198	99	7314	8.4	15.0
1506.4	32.7	14.0	100	9.8	1.05	1.09	6235	136	7067	8.4	15.0
1506.6	65.5	14.0	100	9.8	0.87	1.09	6253	68	6833	8.4	15.0
1506.8	36.0	14.0	100	9.8	1.02	1.10	6287	124	6617	8.4	15.0
1507.0	18.5	14.0	100	9.8	1.19	1.11	6351	240	6418	8.4	15.0
1507.2	18.5	14.0	100	9.8	1.19	1.12	6416	240	6231	8.4	15.0
1507.4	18.5	14.0	100	9.8	1.19	1.13	6481	240	6054	8.4	15.0
1507.6	20.6	14.0	100	9.8	1.17	1.14	6539	216	5888	8.4	15.0
1507.8	9.6	14.0	100	9.8	1.37	1.16	6664	463	5737	8.4	15.0
1508.0	3.4	14.0	100	9.8	1.64	1.22	7017	1309	5617	8.4	15.0
1508.2	1.2	16.0	100	9.8	1.97	1.39	8017	3708	5567	8.4	15.0
1508.4	2.6	16.0	100	9.8	1.76	1.46	8479	1711	5468	8.4	15.0
1508.6	6.4	16.0	100	9.7	1.54	1.50	8666	695	5349	8.4	15.0
1508.8	21.8	16.0	100	9.7	1.20	1.51	8721	204	5223	8.4	15.0
1509.0	4.4	16.0	100	9.7	1.64	1.55	8994	1011	5123	8.4	15.0
1509.2	3.0	25.0	80	9.7	1.91	1.62	9314	1483	5038	8.4	15.0

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1509.4	6.2	17.0	100	9.7	1.57	1.65	9508	718	4940	8.4	15.0
1509.6	13.6	17.0	100	9.7	1.35	1.66	9596	327	4838	8.4	15.0
1509.8	5.6	17.0	100	9.7	1.60	1.70	9810	794	4750	8.4	15.0
1510.0	7.9	17.0	100	9.7	1.50	1.73	9962	563	4661	8.4	15.0
1510.2	10.9	16.0	100	9.7	1.39	1.74	10072	408	4572	8.4	15.0
1510.4	7.3	16.0	100	9.7	1.50	1.77	10237	609	4491	8.4	15.0
1510.6	10.7	16.0	100	9.7	1.40	1.79	10349	416	4410	8.4	15.0
1510.8	14.4	16.0	100	9.7	1.32	1.80	10432	309	4329	8.4	15.0
1511.0	5.5	16.0	100	9.7	1.58	1.84	10650	809	4262	8.4	15.0
1511.2	11.4	16.0	100	9.7	1.38	1.86	10755	390	4189	8.4	15.0
1511.4	20.0	16.0	100	9.7	1.23	1.87	10815	222	4115	8.4	15.0
1511.6	11.1	16.0	100	9.7	1.39	1.89	10924	401	4048	8.4	15.0
1511.8	22.5	16.0	100	9.7	1.20	1.89	10977	198	3979	8.4	15.0
1512.0	10.6	16.0	100	9.7	1.40	1.91	11090	420	3916	8.4	15.0
1512.2	10.1	16.0	100	9.7	1.41	1.93	11209	440	3856	8.4	15.0
1512.4	10.4	16.0	100	9.7	1.41	1.95	11324	428	3798	8.4	15.0
1512.6	17.1	16.0	100	9.7	1.27	1.96	11395	260	3739	8.4	15.0
1512.8	10.7	10.0	100	9.7	1.24	1.98	11507	416	3685	8.4	15.0
1513.0	11.4	10.0	100	9.7	1.23	2.00	11612	390	3632	8.4	15.0
1513.2	40.0	10.0	100	9.7	0.92	2.01	11642	111	3576	8.4	15.0
1513.4	120.0	10.0	100	9.7	0.66	2.01	11652	37	3521	8.4	15.0

BIT NUMBER	3	IADC CODE	4	INTERVAL	1513.4- 1527.0
CHRIS RC4		SIZE	8.500	NOZZLES	15 15 14
COST	13000.00	TRIP TIME	5.2	BIT RUN	13.6
TOTAL HOURS	3.44	TOTAL TURNS	20205	CONDITION	T0 B0 G0.600

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1513.6	2.0	10.0	100	9.8	1.63	2.11	12252	2225	227611	8.4	15.0
1513.8	4.5	10.0	100	9.8	1.44	2.15	12517	982	114297	8.4	15.0
1514.0	5.3	12.0	100	9.8	1.46	2.19	12744	840	76478	8.4	15.0
1514.2	7.9	12.0	100	9.8	1.36	2.22	12895	562	57499	8.4	15.0
1514.4	1.7	12.0	100	9.8	1.74	2.33	13584	2552	46510	8.4	15.0
1514.6	25.7	12.0	100	9.8	1.07	2.34	13630	173	38787	8.4	15.0
1514.8	26.7	12.0	100	9.8	1.06	2.35	13675	167	33270	8.4	15.0
1515.0	15.7	12.0	100	9.8	1.19	2.36	13752	284	29147	8.4	15.0
1515.2	3.8	12.0	100	9.7	1.56	2.41	14067	1168	26038	8.4	15.0
1515.4	10.3	12.0	100	9.7	1.31	2.43	14184	433	23477	8.4	15.0
1515.6	4.4	15.0	100	9.7	1.61	2.48	14459	1020	21436	8.4	15.0
1515.8	8.1	15.0	100	9.7	1.45	2.50	14607	550	19695	8.4	15.0
1516.0	11.6	15.0	100	9.7	1.35	2.52	14710	383	18210	8.4	15.0
1516.2	51.4	15.0	100	9.7	0.96	2.52	14734	87	16915	8.4	15.0
1516.4	6.1	15.0	100	9.7	1.53	2.56	14930	729	15836	8.4	15.0
1516.6	34.3	15.0	100	9.7	1.06	2.56	14965	130	14854	8.4	15.0
1516.8	27.7	15.0	100	9.7	1.12	2.57	15009	161	13990	8.4	15.0
1517.0	26.7	15.0	100	9.7	1.13	2.58	15054	167	13222	8.4	15.0
1517.2	30.0	15.0	100	9.7	1.10	2.58	15094	148	12534	8.4	15.0
1517.4	30.0	15.0	100	9.7	1.10	2.59	15134	148	11915	8.4	15.0
1517.6	20.0	15.0	100	9.7	1.21	2.60	15194	222	11358	8.4	15.0
1517.8	37.9	15.0	100	9.7	1.04	2.61	15225	117	10847	8.4	15.0
1518.0	20.0	15.0	100	9.7	1.21	2.62	15285	222	10385	8.4	15.0
1518.2	28.8	5.0	100	9.7	0.86	2.62	15327	154	9959	8.4	15.0
1518.4	18.5	5.0	100	9.7	0.96	2.63	15392	241	9570	8.4	15.0
1518.6	18.5	5.0	100	9.7	0.96	2.64	15457	241	9211	8.4	15.0
1518.8	24.0	5.0	100	9.7	0.90	2.65	15507	185	8877	8.4	15.0
1519.0	9.6	5.0	100	9.7	1.09	2.67	15632	463	8577	8.4	15.0
1519.2	3.2	5.0	100	9.7	1.32	2.74	16005	1384	8328	8.4	15.0
1519.4	6.9	5.0	100	9.7	1.16	2.76	16180	649	8073	8.4	15.0
1519.6	9.1	5.0	100	9.7	1.10	2.79	16312	488	7828	8.4	15.0
1519.8	8.8	5.0	100	9.7	1.11	2.81	16449	507	7599	8.4	15.0
1520.0	4.4	5.0	100	9.7	1.25	2.85	16719	1001	7399	8.4	15.0
1520.2	4.0	5.0	100	9.7	1.27	2.90	17019	1112	7214	8.4	15.0
1520.4	3.3	5.0	100	9.7	1.31	2.96	17382	1347	7047	8.4	15.0
1520.6	2.8	5.0	100	9.7	1.35	3.04	17809	1582	6895	8.4	15.0
1520.8	55.4	5.0	100	9.7	0.73	3.04	17830	80	6711	8.4	15.0
1521.0	5.3	10.0	100	9.7	1.41	3.08	18057	840	6556	8.4	15.0
1521.2	14.1	10.0	100	9.7	1.18	3.09	18142	315	6396	8.4	15.0
1521.4	36.0	10.0	100	9.7	0.95	3.10	18175	124	6239	8.4	15.0
1521.6	24.0	10.0	100	9.7	1.05	3.11	18225	185	6092	8.4	15.0
1521.8	37.9	10.0	100	9.7	0.94	3.11	18257	117	5949	8.4	15.0
1522.0	23.2	10.0	100	9.7	1.06	3.12	18309	192	5815	8.4	15.1

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1522.2	22.5	10.0	100	9.7	1.06	3.13	18362	198	5688	8.4	15.1
1522.4	27.7	10.0	100	9.7	1.01	3.14	18405	161	5565	8.4	15.1
1522.6	30.0	10.0	100	9.7	0.99	3.14	18445	148	5447	8.4	15.1
1522.8	40.0	10.0	100	9.7	0.92	3.15	18475	111	5334	8.4	15.1
1523.0	16.7	10.0	100	9.7	1.14	3.16	18547	266	5228	8.4	15.1
1523.2	15.3	10.0	100	9.7	1.16	3.17	18625	290	5127	8.4	15.1
1523.4	24.0	10.0	100	9.7	1.05	3.18	18675	185	5029	8.4	15.1
1523.6	12.9	10.0	100	9.7	1.20	3.20	18769	346	4937	8.4	15.1
1523.8	15.3	10.0	100	9.7	1.16	3.21	18847	290	4847	8.4	15.1
1524.0	15.7	10.0	100	9.7	1.15	3.22	18924	284	4761	8.4	15.1
1524.2	16.4	10.0	100	9.7	1.14	3.23	18997	272	4678	8.4	15.1
1524.4	17.1	10.0	100	9.7	1.13	3.25	19067	260	4598	8.4	15.1
1524.6	16.4	10.0	100	9.7	1.14	3.26	19140	272	4521	8.4	15.1
1524.8	13.6	10.0	100	9.7	1.19	3.27	19229	327	4447	8.4	15.1
1525.0	19.5	10.0	100	9.7	1.10	3.28	19290	229	4374	8.4	15.1
1525.2	14.1	10.0	100	9.7	1.18	3.30	19375	315	4305	8.4	15.1
1525.4	18.0	10.0	100	9.7	1.12	3.31	19442	247	4238	8.4	15.1
1525.6	8.7	10.0	100	9.7	1.29	3.33	19580	513	4177	8.4	15.1
1525.8	12.6	10.0	100	9.7	1.20	3.35	19675	352	4115	8.4	15.1
1526.0	13.8	10.0	100	9.7	1.18	3.36	19762	321	4055	8.4	15.1
1526.2	18.0	10.0	100	9.7	1.12	3.37	19829	247	3995	8.4	15.1
1526.4	11.6	10.0	100	9.7	1.22	3.39	19932	383	3940	8.4	15.1
1526.6	13.8	10.0	100	9.7	1.18	3.40	20019	321	3885	8.4	15.1
1526.8	9.9	10.0	100	9.7	1.26	3.42	20140	451	3834	8.4	15.1
1527.0	18.5	10.0	100	9.7	1.11	3.44	20205	241	3781	8.4	15.1

BIT NUMBER	4	IADC CODE	114	INTERVAL	1527.0- 1573.4
HTC X3A		SIZE	12.250	NOZZLES	18 18 18
COST	2201.00	TRIP TIME	5.3	BIT RUN	46.4
TOTAL HOURS	2.60	TOTAL TURNS	21816	CONDITION	T4 B2 G0.000

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1528.0	80.0	40.0	140	9.8	1.09	0.01	105	56	25836	8.4	15.1
1529.0	23.2	40.0	140	9.8	1.48	0.06	467	192	13014	8.4	15.1
1530.0	56.2	40.0	140	9.8	1.20	0.07	616	79	8702	8.4	15.1
1531.0	40.0	40.0	140	9.8	1.31	0.10	826	111	6555	8.4	15.1
1532.0	63.2	40.0	140	9.8	1.17	0.11	959	70	5258	8.4	15.1
1533.0	62.1	40.0	140	9.8	1.17	0.13	1094	72	4393	8.4	15.1
1534.0	70.6	40.0	140	9.8	1.13	0.14	1213	63	3775	8.4	15.1
1535.0	70.6	40.0	140	9.8	1.13	0.16	1332	63	3311	8.4	15.1
1536.0	83.7	40.0	140	9.8	1.08	0.17	1433	53	2949	8.4	15.1
1537.0	81.8	40.0	140	9.8	1.08	0.18	1535	54	2659	8.4	15.1
1538.0	83.7	40.0	140	9.8	1.08	0.19	1636	53	2422	8.4	15.1
1539.0	76.6	40.0	140	9.8	1.11	0.21	1745	58	2225	8.4	15.1
1540.0	65.5	40.0	140	9.8	1.15	0.22	1874	68	2059	8.4	15.1
1541.0	58.1	40.0	140	9.8	1.19	0.24	2018	77	1918	8.4	15.1
1542.0	43.9	40.0	140	9.8	1.28	0.26	2210	101	1797	8.4	15.1
1543.0	53.7	40.0	140	9.8	1.22	0.28	2366	83	1690	8.4	15.1
1544.0	52.9	40.0	140	9.8	1.22	0.30	2525	84	1595	8.4	15.1
1545.0	53.7	40.0	140	9.8	1.22	0.32	2681	83	1511	8.4	15.1
1546.0	58.1	40.0	140	9.8	1.19	0.34	2826	77	1436	8.4	15.1
1547.0	40.0	40.0	140	9.8	1.31	0.36	3036	111	1369	8.4	15.1
1548.0	70.6	40.0	140	9.8	1.13	0.38	3155	63	1307	8.4	15.1
1549.0	56.2	40.0	140	9.8	1.20	0.39	3304	79	1251	8.4	15.1
1550.0	39.1	40.0	140	9.8	1.32	0.42	3519	114	1202	8.4	15.1
1551.0	40.0	40.0	140	9.8	1.31	0.44	3729	111	1156	8.4	15.1
1552.0	67.9	40.0	140	9.8	1.14	0.46	3852	65	1113	8.4	15.1
1553.0	18.8	40.0	140	9.8	1.55	0.51	4298	236	1079	8.4	15.1
1554.0	24.8	40.0	140	9.8	1.46	0.55	4636	179	1046	8.4	15.1
1555.0	57.1	40.0	140	9.8	1.20	0.57	4783	78	1011	8.4	15.1
1556.0	57.1	40.0	140	9.8	1.20	0.59	4930	77.86	979.04	8.4	15.1
1557.0	9.1	40.0	140	9.8	1.78	0.70	5850	486.92	962.63	8.4	15.1
1558.0	48.0	40.0	140	9.8	1.25	0.72	6025	92.69	934.57	8.4	15.1
1559.0	49.3	40.0	140	9.8	1.24	0.74	6195	90.22	908.18	8.4	15.1
1560.0	35.3	40.0	140	9.8	1.35	0.77	6433	126.06	884.48	8.4	15.1
1561.0	48.6	40.0	140	9.8	1.25	0.79	6606	91.45	861.16	8.4	15.1
1562.0	47.4	40.0	140	9.8	1.26	0.81	6783	93.92	839.24	8.4	15.1
1563.0	41.9	40.0	140	9.8	1.30	0.83	6984	106.28	818.88	8.4	15.1
1563.8	31.0	40.0	140	9.8	1.39	0.86	7201	143.67	804.20	8.4	15.1
1565.0	4.6	45.0	140	9.9	2.04	1.12	9381	962.41	809.19	8.4	15.1
1566.0	2.6	40.0	140	9.9	2.15	1.50	12629	1720	833	8.4	15.1
1567.0	2.2	30.0	140	9.9	2.02	1.96	16468	2033	863	8.4	15.1
1568.0	5.3	35.0	140	9.9	1.85	2.15	18059	842.84	862.08	8.4	15.1
1569.0	5.6	35.0	140	9.9	1.84	2.33	19564	797.11	860.54	8.4	15.1
1570.0	7.3	40.0	140	9.9	1.83	2.47	20721	612.97	854.78	8.4	15.1

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1571.0	15.5	44.0	140	9.9	1.64	2.53	21265	287.95	841.90	8.4	15.1
1572.0	44.4	44.0	140	9.9	1.30	2.55	21454	100.10	825.41	8.4	15.1
1573.0	36.7	44.0	140	9.9	1.36	2.58	21683	121.11	810.10	8.4	15.1
1573.4	25.3	44.0	140	9.9	1.48	2.60	21816	176.11	804.64	8.4	15.1

BIT NUMBER	4	IADC CODE	4	INTERVAL	1573.4- 1585.6
CHRIS RC4		SIZE	8.500	NOZZLES	15 15 14
COST	13000.00	TRIP TIME	5.4	BIT RUN	12.2
TOTAL HOURS	4.48	TOTAL TURNS	27120	CONDITION	T0 B0 G0.050

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1573.6	0.2	10.0	100	9.8	2.18	1.00	6000	22245	207368	8.4	15.1
1573.8	4.4	10.0	80	9.8	1.39	1.05	6216	1001	104185	8.4	15.1
1574.0	18.5	10.0	80	9.8	1.05	1.06	6268	241	69537	8.4	15.1
1574.2	51.4	10.0	80	9.8	0.80	1.06	6287	87	52174	8.4	15.1
1574.4	72.0	10.0	80	9.8	0.72	1.06	6300	62	41752	8.4	15.1
1574.6	60.0	10.0	80	9.8	0.76	1.07	6316	74	34805	8.4	15.1
1574.8	11.4	10.0	100	9.8	1.22	1.08	6421	389	29889	8.4	15.1
1575.0	13.1	10.0	100	9.8	1.18	1.10	6513	340	26195	8.4	15.1
1575.2	24.8	10.0	100	9.8	1.03	1.11	6561	179	23305	8.4	15.1
1575.4	4.1	10.0	100	9.8	1.46	1.16	6853	1081	21082	8.4	15.1
1575.6	4.3	10.0	100	9.8	1.45	1.20	7129	1026	19259	8.4	15.1
1575.8	1.2	10.0	100	9.8	1.75	1.36	8096	3584	17953	8.4	15.1
1576.0	8.5	10.0	100	9.8	1.29	1.39	8238	525	16612	8.4	15.1
1576.2	1.1	10.0	100	9.8	1.77	1.56	9293	3911	15705	8.4	15.1
1576.4	18.9	10.0	100	9.8	1.09	1.57	9356	235	14674	8.4	15.1
1576.6	18.5	10.0	100	9.8	1.10	1.58	9421	241	13772	8.4	15.1
1576.8	26.7	10.0	100	9.8	1.01	1.59	9466	167	12971	8.4	15.1
1577.0	15.3	10.0	100	9.8	1.15	1.60	9544	290	12267	8.4	15.1
1577.2	8.3	10.0	100	9.8	1.29	1.63	9689	538	11649	8.4	15.1
1577.4	2.5	10.0	100	9.8	1.58	1.71	10174	1798	11157	8.4	15.1
1577.6	7.5	10.0	100	9.8	1.32	1.74	10334	593	10654	8.4	15.1
1577.8	14.4	10.0	100	9.8	1.16	1.75	10418	309	10184	8.4	15.1
1578.0	16.7	10.0	100	9.8	1.12	1.76	10489	266	9752	8.4	15.1
1578.2	15.0	10.0	100	9.8	1.15	1.77	10569	297	9358	8.4	15.1
1578.4	10.4	10.0	100	9.8	1.24	1.79	10684	426	9001	8.4	15.1
1578.6	7.7	10.0	100	9.8	1.31	1.82	10841	581	8677	8.4	15.1
1578.8	22.5	10.0	100	9.8	1.05	1.83	10894	198	8363	8.4	15.1
1579.0	13.3	10.0	100	9.8	1.18	1.84	10984	334	8076	8.4	15.1
1579.2	14.1	10.0	100	9.8	1.16	1.86	11069	315	7809	8.4	15.1
1579.4	18.5	10.0	100	9.8	1.10	1.87	11134	241	7557	8.4	15.1
1579.6	26.7	10.0	100	9.8	1.01	1.88	11179	167	7318	8.4	15.1
1579.8	11.4	10.0	110	9.8	1.24	1.89	11295	389	7102	8.4	15.1
1580.0	6.1	10.0	110	9.8	1.39	1.93	11511	729	6909	8.4	15.1
1580.2	6.3	15.0	110	9.8	1.53	1.96	11720	704	6726	8.4	15.1
1580.4	12.4	15.0	110	9.8	1.35	1.97	11826	358	6544	8.4	15.1
1580.6	1.4	15.0	110	9.8	1.92	2.12	12754	3127	6449	8.4	15.1
1580.8	8.8	15.0	110	9.8	1.44	2.14	12904	507	6289	8.4	15.1
1581.0	1.0	15.0	110	9.8	2.00	2.33	14166	4251	6235	8.4	15.1
1581.2	5.2	15.0	110	9.8	1.58	2.37	14421	859	6097	8.4	15.1
1581.4	2.3	15.0	100	9.8	1.77	2.46	14954	1977	5994	8.4	15.1
1581.6	5.1	15.0	100	9.8	1.56	2.50	15189	871	5869	8.4	15.1
1581.8	2.4	15.0	100	9.8	1.76	2.58	15691	1860	5774	8.4	15.1
1582.0	5.0	10.0	100	9.8	1.42	2.62	15932	896	5660	8.4	15.1

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1582.2	3.6	10.0	100	9.8	1.49	2.67	16262	1223	5559	8.4	15.1
1582.4	5.9	10.0	100	9.8	1.38	2.71	16467	760	5453	8.4	15.1
1582.6	5.1	10.0	100	9.8	1.41	2.75	16704	877	5353	8.4	15.1
1582.8	6.3	10.0	100	9.8	1.36	2.78	16896	711	5255	8.4	15.1
1583.0	1.5	10.0	100	9.8	1.70	2.91	17697	2972	5207	8.4	15.1
1583.2	6.7	10.0	100	9.8	1.34	2.94	17877	667	5114	8.4	15.1
1583.4	1.5	10.0	100	9.8	1.70	3.07	18661	2904	5070	8.4	15.1
1583.6	5.4	10.0	100	9.8	1.40	3.11	18884	828	4987	8.4	15.1
1583.8	1.5	10.0	100	9.8	1.71	3.25	19699	3022	4949	8.4	15.1
1584.0	5.3	10.0	100	9.8	1.40	3.29	19927	847	4872	8.4	15.1
1584.2	2.0	10.0	100	9.8	1.63	3.38	20519	2194	4822	8.4	15.2
1584.4	5.1	10.0	100	9.8	1.41	3.42	20754	871	4750	8.4	15.2
1584.6	0.7	10.0	100	9.8	1.89	3.72	22537	6612	4784	8.4	15.2
1584.8	3.0	10.0	100	9.8	1.54	3.79	22939	1489	4726	8.4	15.2
1585.0	0.5	10.0	100	9.8	1.98	4.21	25477	9411	4807	8.4	15.2
1585.2	2.2	10.0	100	9.8	1.61	4.30	26029	2045	4760	8.4	15.2
1585.4	2.2	10.0	100	9.8	1.61	4.39	26574	2022	4714	8.4	15.2
1585.6	2.2	10.0	100	9.8	1.61	4.48	27120	2022	4670	8.4	15.2

BIT NUMBER	4	IADC CODE	4	INTERVAL	1585.6- 1596.6
CHRIS RC3		SIZE	8.500	NOZZLES	15 15 14
COST	13000.00	TRIP TIME	5.4	BIT RUN	11.0
TOTAL HOURS	7.40	TOTAL TURNS	46239	CONDITION	T0 B0 G0.200

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1585.8	15.0	5.0	100	9.8	0.99	4.49	27200	297	285077	8.4	15.2
1586.0	12.6	5.0	100	10.6	0.95	4.51	27295	352	142715	8.4	15.2
1586.2	31.3	5.0	100	9.8	0.84	4.52	27333	142	95191	8.4	15.2
1586.4	216.0	5.0	100	9.8	0.44	4.52	27339	21	71398	8.4	15.2
1586.6	65.5	5.0	100	9.8	0.69	4.52	27357	68	57132	8.4	15.2
1586.8	90.0	5.0	100	9.8	0.62	4.52	27371	49	47618	8.4	15.2
1587.0	30.0	5.0	100	9.8	0.85	4.53	27411	148	40837	8.4	15.2
1587.2	80.0	5.0	100	9.8	0.64	4.53	27426	56	35739	8.4	15.2
1587.4	72.0	5.0	100	9.8	0.67	4.53	27442	62	31775	8.4	15.2
1587.6	80.0	5.0	100	9.8	0.64	4.54	27457	56	28603	8.4	15.2
1587.8	55.4	5.0	100	9.8	0.72	4.54	27479	80	26010	8.4	15.2
1588.0	21.8	5.0	100	9.8	0.91	4.55	27534	204	23860	8.4	15.2
1588.2	31.3	5.0	100	9.8	0.84	4.56	27572	142	22035	8.4	15.2
1588.4	13.3	5.0	100	9.8	1.01	4.57	27662	334	20485	8.4	15.2
1588.6	7.6	10.0	110	9.8	1.34	4.60	27836	587	19159	8.4	15.2
1588.8	11.8	10.0	110	9.8	1.23	4.61	27948	377	17985	8.4	15.2
1589.0	9.4	10.0	100	9.8	1.26	4.64	28077	476	16955	8.4	15.2
1589.2	13.6	10.0	100	9.8	1.17	4.65	28165	327	16031	8.4	15.2
1589.4	2.3	10.0	100	9.8	1.60	4.74	28695	1965	15291	8.4	15.2
1589.6	6.3	10.0	100	9.8	1.36	4.77	28885	704	14561	8.4	15.2
1589.8	3.2	10.0	110	9.8	1.54	4.83	29292	1372	13933	8.4	15.2
1590.0	8.7	10.0	110	9.8	1.30	4.85	29444	513	13323	8.4	15.2
1590.2	2.7	10.0	110	9.8	1.59	4.93	29941	1675	12817	8.4	15.2
1590.4	18.0	10.0	110	9.8	1.13	4.94	30014	247	12293	8.4	15.2
1590.6	5.5	10.0	110	9.8	1.41	4.98	30253	803	11833	8.4	15.2
1590.8	6.9	10.0	110	9.8	1.36	5.01	30443	643	11403	8.4	15.2
1591.0	2.4	10.0	110	9.8	1.61	5.09	30986	1829	11048	8.4	15.2
1591.2	6.1	10.0	110	9.8	1.39	5.12	31204	735	10680	8.4	15.2
1591.4	8.1	10.0	110	9.8	1.32	5.15	31367	550	10331	8.4	15.2
1591.6	22.5	10.0	110	9.8	1.08	5.15	31426	198	9993	8.4	15.2
1591.8	21.2	10.0	110	9.8	1.09	5.16	31488	210	9677	8.4	15.2
1592.0	9.4	10.0	110	9.8	1.29	5.19	31629	476	9390	8.4	15.2
1592.2	6.5	10.0	110	9.8	1.37	5.22	31833	686	9126	8.4	15.2
1592.4	6.9	10.0	110	9.8	1.36	5.25	32025	649	8877	8.4	15.2
1592.6	2.8	10.0	110	9.8	1.58	5.32	32497	1588	8669	8.4	15.2
1592.8	4.8	10.0	110	9.8	1.45	5.36	32772	927	8454	8.4	15.2
1593.0	1.3	10.0	110	9.8	1.76	5.51	33802	3473	8319	8.4	15.2
1593.2	4.1	10.0	110	9.8	1.48	5.56	34123	1081	8128	8.4	15.2
1593.4	5.3	10.0	110	9.8	1.42	5.60	34372	840	7942	8.4	15.2
1593.6	1.6	10.0	110	9.8	1.71	5.72	35184	2737	7811	8.4	15.2
1593.8	0.8	10.0	110	9.8	1.89	5.99	36942	5926	7765	8.4	15.2
1594.0	6.7	10.0	110	9.8	1.37	6.02	37139	661	7596	8.4	15.2
1594.2	2.6	10.0	110	9.8	1.60	6.10	37652	1730	7460	8.4	15.2

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1594.4	21.8	10.0	110	9.8	1.08	6.11	37712	204	7295	8.4	15.2
1594.6	16.4	10.0	110	9.8	1.15	6.12	37793	272	7139	8.4	15.2
1594.8	20.0	10.0	110	9.8	1.10	6.13	37859	222	6989	8.4	15.2
1595.0	17.6	10.0	110	9.8	1.14	6.14	37934	253	6845	8.4	15.2
1595.2	32.7	10.0	110	9.8	0.99	6.15	37975	136	6705	8.4	15.2
1595.4	1.1	15.0	110	9.8	1.98	6.32	39139	3924	6649	8.4	15.2
1595.6	4.3	15.0	110	9.8	1.63	6.37	39449	1044	6537	8.4	15.2
1595.8	0.4	15.0	110	9.8	2.26	6.87	42743	11104	6626	8.4	15.2
1596.0	2.5	15.0	110	9.8	1.77	6.95	43269	1773	6533	8.4	15.2
1596.2	4.0	15.0	110	9.8	1.65	7.00	43599	1112	6431	8.4	15.2
1596.4	1.0	15.0	110	9.8	2.01	7.20	44919	4449	6394	8.4	15.2
1596.6	1.0	15.0	110	9.8	2.01	7.40	46239	4449	6359	8.4	15.2

BIT NUMBER	5	IADC CODE	427	INTERVAL	1596.6- 1628.4
HTC J11		SIZE	12.250	NOZZLES	18 18 18
COST	6788.00	TRIP TIME	5.5	BIT RUN	31.8
TOTAL HOURS	7.37	TOTAL TURNS	27564	CONDITION	T8 B2 G0.000

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1597.0	19.6	15.0	100	9.8	1.10	0.02	122	227	78370	8.4	15.2
1598.0	11.6	40.0	100	9.8	1.59	0.11	639	383	22665	8.4	15.2
1599.0	2.5	44.3	70	9.8	2.03	0.51	2325	1786	13965	8.4	15.2
1600.0	3.7	40.0	100	9.8	1.96	0.78	3953	1207	10213	8.4	15.2
1601.0	1.2	40.0	60	9.8	2.15	1.61	6932	3682	8729	8.4	15.2
1604.0	24.8	45.0	60	9.8	1.24	1.73	7367	179	5263	8.4	15.2
1605.0	2.1	45.0	60	9.8	2.05	2.22	9123	2170	4894	8.4	15.2
1606.0	42.9	45.0	60	9.8	1.06	2.24	9207	104	4385	8.4	15.2
1607.0	46.8	45.0	60	9.8	1.03	2.26	9284	95	3972	8.4	15.2
1608.0	21.1	45.0	60	9.8	1.29	2.31	9455	211	3642	8.4	15.2
1609.0	29.3	45.0	60	9.8	1.18	2.34	9578	152	3361	8.4	15.2
1610.0	34.3	45.0	60	9.8	1.13	2.37	9683	130	3120	8.4	15.2
1611.0	45.0	45.0	60	9.8	1.04	2.39	9763	99	2910	8.4	15.2
1612.0	3.3	45.0	60	9.7	1.92	2.70	10857	1352	2809	8.4	15.2
1613.0	1.9	45.0	60	9.7	2.10	3.22	12730	2315	2779	8.4	15.2
1614.0	3.0	45.0	50	9.7	1.89	3.56	13743	1503	2705	8.4	15.2
1615.0	1.9	45.0	50	9.7	2.05	4.09	15353	2386	2688	8.4	15.2
1616.0	3.1	35.0	80	9.7	1.88	4.41	16893	1427	2623	8.4	15.2
1617.0	18.8	35.0	80	9.7	1.33	4.47	17147	236	2506	8.4	15.2
1618.0	8.7	40.0	60	9.7	1.54	4.58	17561	512	2413	8.4	15.2
1619.0	7.1	40.0	65	9.7	1.63	4.72	18112	628	2333	8.4	15.2
1620.0	17.3	40.0	65	9.7	1.35	4.78	18337	257	2244	8.4	15.2
1621.0	2.0	40.0	65	9.7	2.03	5.28	20278	2213	2243	8.4	15.2
1622.0	14.9	40.0	65	9.7	1.39	5.34	20539	298	2167	8.4	15.2
1623.0	4.4	40.0	65	9.7	1.78	5.57	21426	1012	2123	8.4	15.2
1624.0	6.5	40.0	65	9.7	1.66	5.73	22026	685	2070	8.4	15.2
1625.0	1.9	45.0	60	9.8	2.07	6.24	23877	2288	2078	8.4	15.2
1626.0	4.3	46.0	50	9.8	1.76	6.47	24570	1028	2042	8.4	15.2
1627.0	2.6	46.0	50	9.8	1.93	6.85	25721	1707	2031	8.4	15.2
1628.0	2.3	40.0	60	9.8	1.95	7.30	27317	1973	2029	8.4	15.2
1628.4	5.8	40.0	60	9.8	1.65	7.37	27564	763	2013	8.4	15.2

BIT NUMBER	6	IADC CODE	417	INTERVAL	1628.4- 1770.4
HTC J22		SIZE	12.250	NOZZLES	18 18 18
COST	6788.00	TRIP TIME	5.8	BIT RUN	142.0
TOTAL HOURS	11.42	TOTAL TURNS	41273	CONDITION	T1 B2 G0.125

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1629.0	5.1	45.0	70	9.7	1.83	0.12	495	874	55195	8.4	15.2
1630.0	8.7	45.0	70	9.7	1.65	0.23	977	510	21017	8.4	15.2
1631.0	11.7	45.0	70	9.7	1.55	0.32	1336	381	13080	8.4	15.2
1632.0	33.3	45.0	70	9.7	1.20	0.35	1462	133	9484	8.4	15.2
1633.0	60.0	45.0	70	9.7	1.01	0.36	1532	74	7438	8.4	15.2
1634.0	50.0	45.0	70	9.7	1.07	0.38	1616	89	6126	8.4	15.2
1635.0	5.2	40.0	50	9.7	1.65	0.58	2195	857	5328	8.4	15.2
1636.0	17.4	40.0	50	9.7	1.26	0.64	2367	256	4660	8.4	15.2
1637.0	10.5	40.0	50	9.7	1.42	0.73	2652	423	4167	8.4	15.2
1638.0	65.5	40.0	50	9.7	0.84	0.75	2698	68	3740	8.4	15.2
1639.0	48.0	40.0	50	9.7	0.94	0.77	2760	93	3396	8.4	15.2
1640.0	35.6	40.0	50	9.7	1.03	0.79	2845	125	3114	8.4	15.2
1641.0	49.3	40.0	50	9.7	0.93	0.81	2905	90	2874	8.4	15.2
1642.0	19.5	40.0	50	9.7	1.23	0.87	3060	229	2680	8.4	15.2
1643.0	5.6	44.0	60	9.7	1.73	1.04	3699	790	2550	8.4	15.2
1644.0	7.1	45.0	60	9.7	1.66	1.18	4206	627	2427	8.4	15.2
1645.0	52.9	35.0	60	9.7	0.93	1.20	4274	84	2286	8.4	15.2
1646.0	23.7	35.0	80	9.7	1.26	1.25	4476	188	2167	8.4	15.2
1647.0	8.0	35.0	80	9.7	1.59	1.37	5079	559	2080	8.4	15.2
1648.0	12.1	40.0	60	9.7	1.43	1.45	5376	367	1993	8.4	15.2
1649.0	25.0	40.0	60	9.7	1.20	1.49	5520	178	1905	8.4	15.3
1650.0	19.9	40.0	60	9.7	1.28	1.54	5701	224	1827	8.4	15.3
1651.0	16.3	40.0	60	9.7	1.34	1.61	5922	273	1758	8.4	15.3
1652.0	8.1	40.0	60	9.7	1.56	1.73	6366	549	1707	8.4	15.3
1653.0	18.7	40.0	60	9.7	1.30	1.78	6559	239	1647	8.4	15.3
1654.0	20.9	40.0	60	9.7	1.26	1.83	6731	213	1591	8.4	15.3
1655.0	17.1	40.0	60	9.7	1.32	1.89	6941	260	1541	8.4	15.3
1656.0	15.5	40.0	60	9.7	1.36	1.95	7173	287	1496	8.4	15.3
1657.0	18.5	40.0	60	9.7	1.30	2.01	7368	241	1452	8.4	15.3
1658.0	17.4	40.0	60	9.7	1.32	2.06	7575	256	1411	8.4	15.3
1659.0	20.1	40.0	60	9.7	1.27	2.11	7754	221	1372	8.4	15.3
1660.0	17.9	40.0	60	9.7	1.31	2.17	7955	248	1337	8.4	15.3
1661.0	17.1	40.0	60	9.7	1.33	2.23	8166	261	1304	8.4	15.3
1662.0	17.4	40.0	60	9.7	1.32	2.29	8373	256	1273	8.4	15.3
1663.0	10.4	40.0	60	9.7	1.48	2.38	8720	429	1248	8.4	15.3
1664.0	19.0	40.0	60	9.7	1.29	2.43	8909	234	1220	8.4	15.3
1665.0	22.0	40.0	60	9.7	1.24	2.48	9073	203	1192	8.4	15.3
1666.0	24.0	40.0	60	9.7	1.22	2.52	9223	185	1165	8.4	15.3
1667.0	9.3	40.0	60	9.7	1.52	2.63	9612	481	1148	8.4	15.3
1668.0	15.3	40.0	60	9.7	1.36	2.70	9848	292	1126	8.4	15.3
1669.0	17.1	40.0	60	9.7	1.32	2.75	10058	260	1105	8.4	15.3
1670.0	18.6	40.0	60	9.7	1.30	2.81	10252	240	1084	8.4	15.3
1671.0	20.2	40.0	60	9.7	1.27	2.86	10430	220	1063	8.4	15.3

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1672.0	35.0	40.0	60	9.7	1.10	2.89	10533	127	1042	8.4	15.3
1673.0	33.3	40.0	60	9.7	1.11	2.92	10641	133	1022	8.4	15.3
1674.0	28.3	40.0	60	9.7	1.16	2.95	10768	157	1003	8.4	15.3
1675.0	21.7	40.0	60	9.7	1.25	3.00	10934	205.15	985.57	8.4	15.3
1676.0	27.9	40.0	60	9.7	1.17	3.03	11063	159.42	968.22	8.4	15.3
1677.0	31.3	40.0	60	9.7	1.13	3.07	11178	142.12	951.22	8.4	15.3
1678.0	37.1	40.0	60	9.7	1.08	3.09	11275	119.88	934.46	8.4	15.3
1679.0	39.6	40.0	60	9.7	1.06	3.12	11366	112.46	918.21	8.4	15.3
1680.0	75.0	40.0	60	9.7	0.85	3.13	11414	59.32	901.57	8.4	15.3
1681.0	78.3	40.0	60	9.7	0.84	3.14	11460	56.85	885.51	8.4	15.3
1682.0	26.5	40.0	60	9.7	1.19	3.18	11596	168.07	872.12	8.4	15.3
1683.0	15.7	40.0	60	9.7	1.35	3.25	11826	284.24	861.36	8.4	15.3
1684.0	18.4	40.0	60	9.7	1.30	3.30	12022	242.22	850.22	8.4	15.3
1685.0	28.6	40.0	60	9.7	1.16	3.33	12148	155.72	837.95	8.4	15.3
1686.0	10.3	40.0	60	9.7	1.48	3.43	12496	430.07	830.87	8.4	15.3
1687.0	26.1	40.0	60	9.7	1.19	3.47	12634	170.55	819.60	8.4	15.3
1688.0	18.6	40.0	60	9.7	1.30	3.52	12828	239.75	809.87	8.4	15.3
1689.0	7.8	40.0	60	9.7	1.57	3.65	13289	569.72	805.91	8.4	15.3
1690.0	13.2	40.0	60	9.7	1.41	3.73	13562	337.38	798.30	8.4	15.3
1691.0	19.7	40.0	60	9.7	1.28	3.78	13745	226.16	789.16	8.4	15.3
1692.0	4.1	40.0	60	9.7	1.78	4.02	14627	1090	794	8.4	15.3
1693.0	6.7	40.0	60	9.7	1.62	4.17	15166	666.11	791.92	8.4	15.3
1694.0	8.4	40.0	60	9.7	1.55	4.29	15596	531.41	787.95	8.4	15.3
1695.0	7.2	40.0	60	9.7	1.60	4.43	16099	621.62	785.45	8.4	15.3
1696.0	5.8	40.0	60	9.7	1.67	4.61	16723	771.16	785.24	8.4	15.3
1697.0	9.9	40.0	60	9.7	1.50	4.71	17087	449.84	780.35	8.4	15.3
1698.0	4.3	40.0	60	9.7	1.76	4.94	17918	1027	784	8.4	15.3
1699.0	12.0	40.0	60	9.7	1.44	5.02	18218	370.75	778.04	8.4	15.3
1700.0	11.4	40.0	60	9.7	1.45	5.11	18535	391.76	772.64	8.4	15.3
1701.0	12.9	40.0	60	9.7	1.41	5.19	18813	343.56	766.73	8.4	15.3
1702.0	3.1	40.0	60	9.7	1.87	5.51	19969	1429	776	8.4	15.3
1703.0	4.7	40.0	60	9.7	1.74	5.72	20741	954.06	778.12	8.4	15.3
1704.0	5.1	40.0	60	9.7	1.71	5.92	21450	876.21	779.42	8.4	15.3
1705.0	5.3	45.0	60	9.7	1.76	6.11	22130	840.37	780.21	8.4	15.3
1706.0	43.4	45.0	60	9.7	1.07	6.13	22213	102.57	771.48	8.4	15.3
1707.0	43.4	45.0	60	9.7	1.07	6.15	22296	102.57	762.97	8.4	15.3
1708.0	33.0	45.0	60	9.7	1.16	6.18	22405	134.71	755.08	8.4	15.3
1709.0	43.9	45.0	60	9.7	1.06	6.21	22487	101.34	746.96	8.4	15.3
1710.0	42.4	45.0	60	9.7	1.07	6.23	22572	105.05	739.10	8.4	15.3
1711.0	41.4	45.0	60	9.7	1.08	6.25	22659	107.52	731.45	8.4	15.3
1712.0	43.4	45.0	60	9.7	1.07	6.28	22742	102.57	723.93	8.4	15.3
1713.0	37.9	45.0	60	9.7	1.11	6.30	22837	117.40	716.76	8.4	15.3
1714.0	24.7	45.0	60	9.7	1.25	6.34	22983	180.43	710.49	8.4	15.3
1715.0	51.4	45.0	60	9.7	1.01	6.36	23053	86.51	703.29	8.4	15.3
1716.0	43.4	45.0	60	9.7	1.07	6.39	23136	102.57	696.43	8.4	15.4
1717.0	50.0	45.0	60	9.7	1.02	6.41	23208	88.98	689.58	8.4	15.4
1718.0	19.0	45.0	60	9.7	1.34	6.46	23397	233.57	684.49	8.4	15.4
1719.0	14.7	45.0	60	9.7	1.42	6.53	23642	302.78	680.27	8.4	15.4
1720.0	20.9	45.0	60	9.7	1.31	6.58	23814	212.56	675.17	8.4	15.4
1721.0	31.9	45.0	60	9.7	1.17	6.61	23927	139.65	669.38	8.4	15.4

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1722.0	81.8	45.0	60	9.7	0.86	6.62	23971	54.38	662.81	8.4	15.4
1723.0	7.0	45.0	60	9.7	1.67	6.76	24488	638.93	662.56	8.4	15.4
1724.0	3.4	45.0	60	9.7	1.91	7.06	25555	1319	669	8.4	15.4
1725.0	5.1	45.0	60	9.7	1.78	7.26	26264	876.21	671.56	8.4	15.4
1726.0	3.2	45.0	60	9.7	1.92	7.57	27379	1378	679	8.4	15.4
1727.0	33.6	45.0	60	9.7	1.15	7.60	27486	132.23	673.26	8.4	15.4
1728.0	48.0	45.0	60	9.7	1.03	7.62	27561	92.69	667.43	8.4	15.4
1729.0	50.7	45.0	60	9.7	1.02	7.64	27632	87.74	661.67	8.4	15.4
1730.0	48.6	45.0	60	9.7	1.03	7.66	27706	91.45	656.05	8.4	15.4
1731.0	61.0	45.0	60	9.7	0.95	7.67	27765	72.91	650.37	8.4	15.4
1732.0	24.0	45.0	60	9.7	1.26	7.71	27915	185.38	645.88	8.4	15.4
1733.0	13.3	45.0	60	9.7	1.46	7.79	28186	334.91	642.91	8.4	15.4
1734.0	18.8	45.0	60	9.7	1.34	7.84	28378	237.28	639.07	8.4	15.4
1735.0	9.4	45.0	60	9.7	1.57	7.95	28760	472.09	637.50	8.4	15.4
1736.0	30.5	45.0	60	9.7	1.18	7.98	28878	145.83	632.93	8.4	15.4
1737.0	35.6	45.0	60	9.7	1.13	8.01	28979	124.82	628.25	8.4	15.4
1738.0	37.9	45.0	60	9.7	1.11	8.04	29074	117.40	623.59	8.4	15.4
1739.0	36.4	45.0	60	9.7	1.13	8.06	29173	122.35	619.06	8.4	15.4
1740.0	40.4	45.0	60	9.7	1.09	8.09	29262	109.99	614.50	8.4	15.4
1741.0	49.3	45.0	60	9.7	1.02	8.11	29335	90.22	609.84	8.4	15.4
1742.0	7.6	45.0	60	9.7	1.64	8.24	29811	588.26	609.65	8.4	15.4
1743.0	10.2	45.0	60	9.7	1.55	8.34	30164	436.25	608.14	8.4	15.4
1744.0	8.5	45.0	60	9.7	1.61	8.46	30589	525.23	607.42	8.4	15.4
1745.0	3.5	45.0	60	9.8	1.88	8.74	31613	1265	613	8.4	15.4
1746.0	4.5	45.0	60	9.8	1.80	8.96	32415	991.14	616.28	8.4	15.4
1747.0	5.2	45.0	60	9.8	1.75	9.16	33104	851.49	618.26	8.4	15.4
1748.0	3.4	45.0	60	9.8	1.89	9.45	34154	1298	624	8.4	15.4
1749.0	4.9	45.0	60	9.8	1.77	9.65	34894	914.52	626.35	8.4	15.4
1750.0	18.6	45.0	60	9.8	1.33	9.71	35088	239.75	623.18	8.4	15.4
1751.0	5.8	45.0	60	9.8	1.72	9.88	35712	771.16	624.38	8.4	15.4
1752.0	5.0	45.0	60	9.8	1.76	10.08	36430	887.33	626.51	8.4	15.4
1753.0	24.8	45.0	60	9.8	1.24	10.12	36575	179.20	622.92	8.4	15.4
1754.0	35.6	45.0	60	9.8	1.12	10.15	36676	124.82	618.95	8.4	15.4
1755.0	33.3	45.0	60	9.8	1.14	10.18	36784	133.47	615.12	8.4	15.4
1756.0	35.0	45.0	60	9.8	1.13	10.21	36887	127.29	611.30	8.4	15.4
1757.0	13.9	45.0	60	9.8	1.43	10.28	37146	320.08	609.03	8.4	15.4
1758.0	23.1	45.0	60	9.8	1.26	10.32	37302	192.79	605.82	8.4	15.4
1759.0	17.6	45.0	60	9.8	1.35	10.38	37506	252.11	603.11	8.4	15.4
1760.0	26.5	45.0	60	9.8	1.22	10.42	37642	168.07	599.81	8.4	15.4
1761.0	10.1	45.0	60	9.8	1.53	10.52	37998	439.96	598.60	8.4	15.4
1762.0	18.5	45.0	60	9.8	1.34	10.57	38193	240.99	595.92	8.4	15.4
1763.0	32.1	45.0	60	9.8	1.15	10.60	38305	138.41	592.52	8.4	15.4
1764.0	28.6	45.0	60	9.8	1.19	10.64	38431	155.72	589.30	8.4	15.4
1765.0	18.4	45.0	60	9.8	1.34	10.69	38627	242.22	586.76	8.4	15.4
1766.0	20.2	45.0	60	9.8	1.31	10.74	38805	219.98	584.10	8.4	15.4
1767.0	17.1	45.0	60	9.8	1.36	10.80	39016	260.76	581.76	8.4	15.4
1768.0	7.5	45.0	60	9.8	1.63	10.93	39496	593.20	581.85	8.4	15.4
1769.0	6.2	45.0	60	9.8	1.69	11.09	40079	720.49	582.83	8.4	15.4
1770.0	4.3	45.0	60	9.8	1.81	11.33	40923	1043	586	8.4	15.4
1770.4	4.1	45.0	60	9.8	1.83	11.42	41273	1081	587	8.4	15.4

BIT NUMBER	7	IADC CODE	517	INTERVAL	1770.4- 2046.0
HTC J22		SIZE	12.250	NOZZLES	18 18 18
COST	6788.00	TRIP TIME	6.3	BIT RUN	275.6
TOTAL HOURS	28.23	TOTAL TURNS	94223	CONDITION	T2 B2 G0.000

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1771.0	19.2	45.0	60	9.8	1.32	0.03	113	232	58260	8.4	15.4
1772.0	35.6	45.0	60	9.8	1.12	0.06	214	125	21925	8.4	15.4
1773.0	52.2	45.0	60	9.8	1.00	0.08	283	85	13525	8.4	15.4
1774.0	51.4	45.0	60	9.8	1.00	0.10	353	87	9792	8.4	15.4
1775.0	13.9	45.0	60	9.8	1.43	0.17	612	320	7733	8.4	15.4
1776.0	3.7	45.0	60	9.8	1.86	0.44	1584	1201	6567	8.4	15.4
1777.0	4.2	45.0	60	9.8	1.82	0.68	2434	1050	5731	8.4	15.4
1778.0	6.4	45.0	60	9.8	1.68	0.83	2998	697	5069	8.4	15.4
1779.0	18.7	45.0	60	9.8	1.33	0.89	3190	238	4507	8.4	15.4
1780.0	23.0	45.0	60	9.8	1.26	0.93	3347	194	4058	8.4	15.4
1781.0	28.0	45.0	60	9.8	1.20	0.97	3475	159	3690	8.4	15.4
1782.0	50.0	45.0	60	9.8	1.01	0.99	3547	89	3379	8.4	15.4
1783.0	22.9	40.0	70	9.8	1.27	1.03	3731	195	3127	8.4	15.5
1784.0	13.7	35.0	70	9.8	1.37	1.10	4038	325	2921	8.4	15.5
1785.0	20.0	35.0	70	9.8	1.26	1.15	4248	222	2736	8.4	15.5
1786.0	18.7	35.0	70	9.8	1.28	1.21	4473	239	2576	8.4	15.5
1787.0	6.0	35.0	70	9.8	1.62	1.37	5173	742	2465	8.4	15.5
1788.0	6.7	35.0	70	9.8	1.59	1.52	5803	667	2363	8.4	15.5
1789.0	7.7	35.0	70	9.8	1.55	1.65	6349	578	2267	8.4	15.5
1790.0	7.1	35.0	70	9.8	1.57	1.79	6943	629	2184	8.4	15.5
1791.0	5.3	35.0	70	9.8	1.66	1.98	7737	842	2118	8.4	15.5
1792.0	10.1	35.0	70	9.8	1.47	2.08	8155	442	2041	8.4	15.5
1793.0	22.9	35.0	70	9.8	1.22	2.13	8338	194	1959	8.4	15.5
1794.0	5.9	38.0	70	9.8	1.67	2.29	9047	751	1908	8.4	15.5
1795.0	2.6	38.0	70	9.8	1.93	2.69	10692	1743	1901	8.4	15.5
1796.0	2.3	38.0	70	9.8	1.96	3.12	12509	1924	1902	8.4	15.5
1797.0	3.5	38.0	70	9.8	1.83	3.41	13715	1278	1879	8.4	15.5
1798.0	11.3	38.0	70	9.8	1.47	3.50	14089	395	1825	8.4	15.5
1799.0	23.8	38.0	70	9.8	1.24	3.54	14265	187	1768	8.4	15.5
1800.0	27.3	38.0	70	9.8	1.19	3.57	14419	163	1713	8.4	15.5
1801.0	27.4	38.0	70	9.8	1.19	3.61	14572	162	1663	8.4	15.5
1802.0	25.2	38.0	70	9.8	1.22	3.65	14739	177	1616	8.4	15.5
1803.0	28.1	38.0	70	9.8	1.18	3.69	14888	158	1571	8.4	15.5
1804.0	33.6	38.0	70	9.8	1.13	3.72	15013	132	1528	8.4	15.5
1805.0	26.3	38.0	70	9.8	1.20	3.75	15173	169	1489	8.4	15.5
1806.0	14.8	38.0	70	9.8	1.38	3.82	15456	300	1455	8.4	15.5
1807.0	5.4	42.0	55	9.8	1.67	4.01	16068	824	1438	8.4	15.5
1808.0	6.2	42.0	55	9.8	1.63	4.17	16601	719	1419	8.4	15.5
1809.0	6.3	42.0	55	9.8	1.62	4.33	17126	707	1401	8.4	15.5
1810.0	5.7	45.0	60	9.8	1.72	4.50	17757	780	1385	8.4	15.5
1811.0	5.4	42.0	60	9.8	1.70	4.69	18420	819	1371	8.4	15.5
1812.0	5.2	42.0	60	9.8	1.71	4.88	19108	850	1359	8.4	15.5
1813.0	5.4	42.0	60	9.8	1.70	5.06	19779	829	1346	8.4	15.5

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1814.0	8.5	42.0	60	9.8	1.55	5.18	20202	523	1327	8.4	15.5
1815.0	18.5	42.0	60	9.8	1.31	5.24	20397	241	1303	8.4	15.5
1816.0	46.8	42.0	60	9.8	1.01	5.26	20474	95	1276	8.4	15.5
1817.0	45.0	40.0	60	9.8	1.01	5.28	20554	99	1251	8.4	15.5
1818.0	17.9	42.0	60	9.8	1.32	5.33	20755	249	1230	8.4	15.5
1819.0	21.7	42.0	60	9.8	1.25	5.38	20921	205	1209	8.4	15.5
1820.0	29.8	42.0	60	9.8	1.15	5.41	21042	150	1188	8.4	15.5
1821.0	45.0	42.0	60	9.8	1.02	5.44	21122	99	1166	8.4	15.5
1822.0	42.4	42.0	60	9.8	1.04	5.46	21207	105	1146	8.4	15.5
1823.0	33.0	42.0	60	9.8	1.12	5.49	21316	135	1126	8.4	15.5
1824.0	35.6	42.0	60	9.8	1.10	5.52	21417	125	1108	8.4	15.5
1825.0	34.3	42.0	60	9.8	1.11	5.55	21522	130	1090	8.4	15.5
1826.0	22.5	42.0	60	9.8	1.24	5.59	21682	198	1074	8.4	15.5
1827.0	14.5	42.0	60	9.8	1.38	5.66	21930	306	1060	8.4	15.5
1828.0	31.0	42.0	60	9.8	1.14	5.69	22046	143	1044	8.4	15.5
1829.0	46.8	42.0	60	9.8	1.01	5.71	22123	95	1028	8.4	15.5
1830.0	25.5	42.0	60	9.8	1.20	5.75	22264	174	1014	8.4	15.5
1831.0	31.3	42.0	60	9.8	1.14	5.79	22379	142.12	999.31	8.4	15.5
1832.0	53.7	42.0	60	9.8	0.96	5.80	22446	82.80	984.43	8.4	15.5
1833.0	37.1	42.0	60	9.8	1.08	5.83	22543	119.88	970.62	8.4	15.5
1834.0	40.9	42.0	60	9.8	1.05	5.86	22631	108.75	957.07	8.4	15.5
1835.0	40.4	42.0	60	9.8	1.06	5.88	22720	109.99	943.96	8.4	15.5
1836.0	15.0	42.0	60	9.8	1.37	5.95	22960	296.60	934.09	8.4	15.5
1837.0	19.7	42.0	60	9.8	1.29	6.00	23143	226.16	923.46	8.4	15.5
1838.0	16.2	42.0	60	9.8	1.35	6.06	23365	274.36	913.86	8.4	15.5
1839.0	20.9	42.0	60	9.8	1.27	6.11	23537	212.56	903.63	8.4	15.5
1840.0	16.2	42.0	60	9.8	1.35	6.17	23759	274.36	894.59	8.4	15.5
1841.0	18.8	42.0	60	9.8	1.30	6.22	23951	237.28	885.28	8.4	15.5
1842.0	19.4	42.0	60	9.8	1.29	6.27	24137	229.87	876.13	8.4	15.5
1843.0	26.7	42.0	60	9.8	1.19	6.31	24272	166.84	866.36	8.4	15.5
1844.0	16.3	42.0	60	9.8	1.35	6.37	24493	273.12	858.30	8.4	15.5
1845.0	15.7	42.0	60	9.8	1.36	6.44	24722	283.01	850.59	8.4	15.5
1846.0	11.6	42.0	60	9.8	1.46	6.52	25033	384.34	844.42	8.4	15.5
1847.0	8.4	42.0	60	9.8	1.56	6.64	25463	531.41	840.33	8.4	15.5
1848.0	8.1	42.0	60	9.8	1.57	6.77	25910	552.42	836.62	8.4	15.5
1849.0	7.8	42.0	60	9.8	1.58	6.90	26374	573.43	833.27	8.4	15.5
1850.0	6.0	42.0	60	9.8	1.67	7.06	26979	747.68	832.20	8.4	15.5
1851.0	5.8	42.0	60	9.8	1.68	7.24	27599	766.22	831.38	8.4	15.5
1852.0	5.9	42.0	60	9.8	1.67	7.41	28209	753.86	830.43	8.4	15.5
1853.0	3.8	42.0	60	9.8	1.81	7.67	29163	1179	835	8.4	15.5
1854.0	3.7	42.0	60	9.8	1.82	7.94	30126	1190	839	8.4	15.6
1855.0	5.0	42.0	60	9.8	1.73	8.14	30850	894.74	839.56	8.4	15.6
1856.0	6.6	42.0	60	9.8	1.64	8.29	31399	678.47	837.68	8.4	15.6
1857.0	7.5	42.0	60	9.8	1.59	8.42	31879	593.20	834.86	8.4	15.6
1858.0	9.3	42.0	60	9.8	1.52	8.53	32265	477.03	830.77	8.4	15.6
1859.0	18.3	42.0	60	9.8	1.31	8.59	32462	243.46	824.14	8.4	15.6
1860.0	31.0	42.0	60	9.8	1.14	8.62	32578	143.36	816.54	8.4	15.6
1861.0	15.1	42.0	60	9.8	1.37	8.69	32817	295.36	810.79	8.4	15.6
1862.0	29.8	42.0	60	9.8	1.15	8.72	32938	149.54	803.57	8.4	15.6
1863.0	41.4	42.0	60	9.8	1.05	8.74	33025	107.52	796.06	8.4	15.6

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1864.0	33.0	42.0	60	9.8	1.12	8.77	33134	134.71	788.99	8.4	15.6
1865.0	31.6	42.0	60	9.8	1.13	8.81	33248	140.89	782.14	8.4	15.6
1866.0	20.3	42.0	60	9.8	1.28	8.85	33425	218.74	776.25	8.4	15.6
1867.0	39.6	42.0	60	9.8	1.06	8.88	33516	112.46	769.38	8.4	15.6
1868.0	53.7	42.0	60	9.8	0.96	8.90	33583	82.80	762.34	8.4	15.6
1869.0	29.5	42.0	60	9.7	1.17	8.93	33705	150.77	756.14	8.4	15.6
1870.0	50.0	42.0	60	9.7	1.00	8.95	33777	88.98	749.44	8.4	15.6
1871.0	32.1	42.0	60	9.7	1.14	8.98	33889	138.41	743.37	8.4	15.6
1872.0	27.1	42.0	60	9.7	1.20	9.02	34022	164.37	737.67	8.4	15.6
1873.0	47.4	42.0	60	9.7	1.02	9.04	34098	93.92	731.39	8.4	15.6
1874.0	23.7	42.0	60	9.7	1.24	9.08	34250	187.85	726.15	8.4	15.6
1875.0	39.1	42.0	60	9.7	1.08	9.11	34342	113.70	720.29	8.4	15.6
1876.0	29.5	42.0	60	9.7	1.17	9.14	34464	150.77	714.90	8.4	15.6
1877.0	24.8	42.0	60	9.7	1.22	9.18	34609	179.20	709.87	8.4	15.6
1878.0	25.5	42.0	60	9.7	1.22	9.22	34750	174.25	704.89	8.4	15.6
1879.0	23.7	42.0	60	9.7	1.24	9.26	34902	187.85	700.13	8.4	15.6
1880.0	25.2	42.0	60	9.7	1.22	9.30	35045	176.72	695.36	8.4	15.6
1881.0	14.6	42.0	60	9.7	1.40	9.37	35292	305.25	691.83	8.4	15.6
1882.0	13.9	42.0	60	9.7	1.41	9.44	35551	320.08	688.50	8.4	15.6
1883.0	36.4	42.0	60	9.7	1.10	9.47	35650	122.35	683.47	8.4	15.6
1884.0	19.4	42.0	60	9.7	1.30	9.52	35836	229.87	679.48	8.4	15.6
1885.0	29.3	45.0	60	9.7	1.20	9.56	35959	152.01	674.88	8.4	15.6
1886.0	14.6	45.0	60	9.7	1.43	9.63	36205	304.01	671.67	8.4	15.6
1887.0	30.8	45.0	55	9.7	1.15	9.66	36312	144.45	667.15	8.4	15.6
1888.0	23.7	45.0	55	9.7	1.24	9.70	36451	187.72	663.07	8.4	15.6
1889.0	9.3	45.0	55	9.7	1.55	9.81	36806	478.39	661.51	8.4	15.6
1890.0	15.3	45.0	55	9.7	1.38	9.87	37022	290.78	658.41	8.4	15.6
1891.0	14.0	45.0	55	9.7	1.41	9.95	37257	317.79	655.59	8.4	15.6
1892.0	6.3	45.0	55	9.7	1.68	10.10	37781	706.19	656.00	8.4	15.6
1893.0	8.8	45.0	55	9.7	1.56	10.22	38156	505.57	654.78	8.4	15.6
1894.0	10.4	45.0	55	9.7	1.51	10.31	38474	427.79	652.94	8.4	15.6
1895.0	4.3	45.0	55	9.7	1.80	10.55	39241	1035	656	8.4	15.6
1896.0	5.3	45.0	55	9.7	1.73	10.74	39864	839.43	657.46	8.4	15.6
1897.0	3.7	45.0	55	9.7	1.85	11.01	40755	1202	662	8.4	15.6
1898.0	5.6	45.0	55	9.7	1.71	11.18	41345	794.46	662.81	8.4	15.6
1899.0	4.5	45.0	55	9.7	1.79	11.41	42078	988.67	665.34	8.4	15.6
1900.0	5.7	45.0	55	9.7	1.71	11.58	42657	780.53	666.23	8.4	15.6
1901.0	6.3	45.0	55	9.7	1.68	11.74	43181	706.19	666.54	8.4	15.6
1902.0	24.0	45.0	55	9.7	1.23	11.78	43318	185.38	662.88	8.4	15.6
1903.0	14.6	45.0	55	9.7	1.40	11.85	43544	304.73	660.18	8.4	15.6
1904.0	29.0	45.0	55	9.7	1.17	11.89	43658	153.41	656.39	8.4	15.6
1905.0	19.5	45.0	55	9.7	1.30	11.94	43827	228.15	653.21	8.4	15.6
1906.0	7.3	45.0	55	9.7	1.63	12.07	44279	609.45	652.88	8.4	15.6
1907.0	5.6	45.0	55	9.7	1.71	12.25	44869	794.46	653.92	8.4	15.6
1908.0	6.4	45.0	55	9.7	1.67	12.41	45384	695.16	654.22	8.4	15.6
1909.0	4.5	45.0	50	9.7	1.75	12.63	46051	988.67	656.63	8.4	15.6
1910.0	5.0	45.0	50	9.7	1.72	12.83	46651	889.80	658.30	8.4	15.6
1911.0	3.7	45.0	50	9.7	1.82	13.10	47462	1202	662	8.4	15.6
1912.0	5.7	45.0	50	9.7	1.68	13.28	47988	780.53	663.01	8.4	15.6
1913.0	4.4	45.0	50	9.7	1.76	13.50	48670	1011	665	8.4	15.6

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1914.0	4.9	45.0	50	9.7	1.73	13.71	49282	907.96	667.14	8.4	15.6
1915.0	4.7	45.0	50	9.7	1.74	13.92	49921	946.60	669.07	8.4	15.6
1916.0	6.5	45.0	50	9.7	1.63	14.07	50382	684.46	669.18	8.4	15.6
1917.0	6.6	45.0	50	9.8	1.61	14.23	50840	678.47	669.24	8.4	15.6
1918.0	23.7	45.0	50	9.8	1.19	14.27	50966	187.85	665.98	8.4	15.6
1919.0	26.5	45.0	50	9.8	1.16	14.31	51080	168.07	662.63	8.4	15.6
1920.0	29.8	45.0	50	9.8	1.12	14.34	51180	149.54	659.20	8.4	15.6
1921.0	27.7	45.0	50	9.8	1.14	14.38	51289	160.66	655.89	8.4	15.6
1922.0	28.4	45.0	50	9.8	1.13	14.41	51394	156.54	652.59	8.4	15.6
1923.0	35.0	45.0	50	9.8	1.07	14.44	51480	127.29	649.15	8.4	15.6
1924.0	16.3	45.0	50	9.8	1.32	14.50	51664	273.12	646.70	8.4	15.6
1925.0	7.9	45.0	50	9.8	1.55	14.63	52043	561.07	646.15	8.4	15.6
1926.0	4.6	45.0	50	9.8	1.73	14.84	52693	963.95	648.19	8.4	15.6
1927.0	12.5	45.0	50	9.8	1.40	14.92	52932	354.68	646.32	8.4	15.6
1928.0	10.7	45.0	50	9.8	1.46	15.02	53213	417.71	644.87	8.4	15.6
1929.0	12.5	45.0	50	9.8	1.40	15.10	53453	355.92	643.05	8.4	15.7
1930.0	15.0	45.0	50	9.8	1.34	15.16	53653	296.60	640.87	8.4	15.7
1931.0	55.4	45.0	50	9.8	0.92	15.18	53708	80.33	637.38	8.4	15.7
1932.0	14.6	45.0	50	9.8	1.35	15.25	53913	304.01	635.32	8.4	15.7
1933.0	24.7	45.0	50	9.8	1.18	15.29	54034	180.43	632.52	8.4	15.7
1934.0	25.9	45.0	50	9.8	1.16	15.33	54150	171.78	629.71	8.4	15.7
1935.0	21.2	45.0	50	9.8	1.23	15.38	54292	210.09	627.16	8.4	15.7
1936.0	24.3	45.0	50	9.8	1.19	15.42	54415	182.90	624.48	8.4	15.7
1937.0	21.7	45.0	50	9.8	1.22	15.46	54553	205.15	621.96	8.4	15.7
1938.0	19.6	45.0	50	9.8	1.26	15.52	54707	227.39	619.60	8.4	15.7
1939.0	20.7	45.0	50	9.8	1.24	15.56	54852	215.04	617.20	8.4	15.7
1940.0	25.7	45.0	50	9.8	1.17	15.60	54968	173.02	614.59	8.4	15.7
1941.0	22.0	45.0	50	9.8	1.22	15.65	55105	202.68	612.17	8.4	15.7
1942.0	24.8	45.0	50	9.8	1.18	15.69	55226	179.20	609.65	8.4	15.7
1943.0	26.7	45.0	50	9.8	1.16	15.73	55338	166.84	607.08	8.4	15.7
1944.0	24.5	45.0	50	9.8	1.18	15.77	55461	181.67	604.63	8.4	15.7
1945.0	5.6	45.0	50	9.8	1.67	15.95	56001	800.82	605.76	8.4	15.7
1946.0	4.2	45.0	50	9.8	1.76	16.19	56718	1063	608	8.4	15.7
1947.0	3.5	45.0	50	9.8	1.82	16.47	57568	1262	612	8.4	15.7
1948.0	5.8	45.0	50	9.8	1.65	16.64	58082	761.27	612.90	8.4	15.7
1949.0	15.0	45.0	50	9.8	1.34	16.71	58282	296.60	611.13	8.4	15.7
1950.0	8.0	45.0	50	9.8	1.55	16.83	58658	557.36	610.83	8.4	15.7
1951.0	8.7	45.0	50	9.8	1.52	16.95	59004	514.11	610.29	8.4	15.7
1952.0	26.5	45.0	50	9.8	1.16	16.99	59118	168.07	607.86	8.4	15.7
1953.0	25.7	45.0	50	9.8	1.17	17.02	59234	173.02	605.48	8.4	15.7
1954.0	26.5	45.0	50	9.8	1.16	17.06	59348	168.07	603.09	8.4	15.7
1955.0	24.2	45.0	50	9.8	1.19	17.10	59472	184.14	600.82	8.4	15.7
1956.0	27.5	45.0	50	9.8	1.15	17.14	59581	161.89	598.46	8.4	15.7
1957.0	17.9	45.0	50	9.8	1.29	17.20	59748	248.40	596.58	8.4	15.7
1958.0	29.3	45.0	50	9.8	1.13	17.23	59851	152.01	594.21	8.4	15.7
1959.0	12.8	45.0	50	9.8	1.40	17.31	60086	348.51	592.91	8.4	15.7
1960.0	23.8	45.0	50	9.8	1.19	17.35	60212	186.61	590.77	8.4	15.7
1961.0	13.5	45.0	50	9.8	1.38	17.42	60433	328.73	589.39	8.4	15.7
1962.0	6.5	45.0	50	9.8	1.62	17.58	60897	687.12	589.90	8.4	15.7
1963.0	4.1	45.0	50	9.8	1.77	17.82	61630	1088	592	8.4	15.7

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
1964.0	5.3	45.0	50	9.8	1.68	18.01	62194	836.66	593.75	8.4	15.7
1965.0	4.1	45.0	50	9.8	1.77	18.25	62922	1079	596	8.4	15.7
1966.0	6.6	45.0	50	9.8	1.61	18.41	63377	674.77	596.64	8.4	15.7
1967.0	4.5	45.0	50	9.8	1.74	18.63	64049	997.32	598.68	8.4	15.7
1968.0	7.2	45.0	50	9.8	1.58	18.77	64464	615.45	598.77	8.4	15.7
1969.0	5.3	45.0	50	9.8	1.69	18.96	65034	845.31	600.01	8.4	15.7
1970.0	3.2	45.0	50	9.8	1.85	19.27	65964	1379	604	8.4	15.7
1971.0	4.6	45.0	50	9.8	1.73	19.48	66610	957.77	605.67	8.4	15.7
1972.0	4.0	45.0	50	9.8	1.77	19.73	67355	1105	608	8.4	15.7
1973.0	6.7	45.0	50	9.8	1.61	19.88	67805	667.35	608.44	8.4	15.7
1974.0	14.2	45.0	50	9.8	1.36	19.95	68016	312.67	606.99	8.4	15.7
1975.0	18.3	45.0	50	9.8	1.28	20.01	68180	243.46	605.21	8.4	15.7
1976.0	30.5	45.0	50	9.8	1.11	20.04	68278	145.83	602.98	8.4	15.7
1977.0	19.6	45.0	50	9.8	1.26	20.09	68432	227.39	601.16	8.4	15.7
1978.0	14.4	45.0	50	9.8	1.36	20.16	68640	308.96	599.75	8.4	15.7
1979.0	18.2	45.0	50	9.8	1.28	20.22	68805	244.70	598.05	8.4	15.7
1980.0	24.3	44.0	50	9.8	1.18	20.26	68928	182.90	596.07	8.4	15.7
1981.0	27.5	44.0	50	9.8	1.14	20.29	69038	161.89	594.01	8.4	15.7
1982.0	22.1	44.0	50	9.8	1.21	20.34	69173	201.44	592.15	8.4	15.7
1983.0	23.4	44.0	50	9.8	1.19	20.38	69302	190.32	590.26	8.4	15.7
1984.0	5.9	44.0	50	9.8	1.64	20.55	69808	750.15	591.01	8.4	15.7
1985.0	5.1	44.0	50	9.8	1.69	20.75	70398	874.97	592.34	8.4	15.7
1986.0	4.6	44.0	50	9.8	1.72	20.96	71052	970.13	594.09	8.4	15.7
1988.0	3.9	44.0	50	9.8	1.77	21.47	72579	1132	599	8.4	15.7
1989.0	3.3	44.0	50	9.8	1.82	21.77	73485	1343	602	8.4	15.7
1990.0	4.7	44.0	50	9.8	1.71	21.99	74121	944.18	604.00	8.4	15.7
1991.0	5.3	44.0	50	9.8	1.67	22.17	74683	832.95	605.03	8.4	15.7
1992.0	15.3	44.0	50	9.8	1.33	22.24	74880	291.66	603.62	8.4	15.7
1993.0	13.2	44.0	50	9.8	1.37	22.32	75106	336.15	602.42	8.4	15.7
1994.0	15.7	44.0	50	9.8	1.32	22.38	75298	284.24	601.00	8.4	15.7
1995.0	20.9	44.0	50	9.8	1.23	22.43	75441	212.56	599.27	8.4	15.7
1996.0	19.4	44.0	50	9.8	1.25	22.48	75596	229.87	597.63	8.4	15.7
1997.0	13.7	44.0	50	9.8	1.36	22.55	75815	323.79	596.42	8.4	15.7
1998.0	18.5	44.0	50	9.8	1.27	22.61	75977	240.99	594.86	8.4	15.7
1999.0	22.0	44.0	50	9.8	1.21	22.65	76114	202.68	593.14	8.4	15.7
2000.0	15.1	44.0	50	9.8	1.33	22.72	76313	295.36	591.85	8.4	15.7
2001.0	7.6	44.0	50	9.8	1.55	22.85	76708	585.79	591.82	8.4	15.7
2002.0	4.0	44.0	50	9.8	1.77	23.10	77467	1126	594	8.4	15.7
2003.0	8.7	44.0	50	9.8	1.51	23.22	77813	512.87	593.78	8.4	15.7
2004.0	11.5	44.0	50	9.8	1.42	23.30	78074	386.82	592.89	8.4	15.7
2005.0	15.0	44.0	50	9.8	1.33	23.37	78274	296.60	591.63	8.4	15.7
2006.0	21.5	44.0	50	9.8	1.22	23.42	78413	207.00	589.99	8.4	15.8
2007.0	10.3	44.0	50	9.8	1.46	23.51	78704	431.31	589.32	8.4	15.8
2008.0	10.9	44.0	50	9.8	1.44	23.61	78980	409.06	588.57	8.4	15.8
2009.0	7.2	44.0	55	9.8	1.60	23.74	79436	614.21	588.67	8.4	15.8
2010.0	18.4	44.0	55	9.8	1.30	23.80	79615	242.22	587.23	8.4	15.8
2011.0	17.3	44.0	55	9.8	1.32	23.86	79806	257.05	585.85	8.4	15.8
2012.0	22.4	44.0	55	9.8	1.24	23.90	79954	198.97	584.25	8.4	15.8
2013.0	14.7	44.0	55	9.8	1.37	23.97	80178	302.78	583.09	8.4	15.8
2014.0	18.2	44.0	55	9.8	1.30	24.02	80360	244.70	581.70	8.4	15.8

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2015.0	21.6	44.0	55	9.8	1.25	24.07	80513	206.38	580.17	8.4	15.8
2016.0	13.1	44.0	55	9.8	1.41	24.15	80765	339.85	579.19	8.4	15.8
2017.0	17.6	44.0	55	9.8	1.31	24.20	80953	253.35	577.87	8.4	15.8
2018.0	22.6	44.0	55	9.8	1.23	24.25	81099	196.50	576.33	8.4	15.8
2019.0	22.6	44.0	55	9.8	1.23	24.29	81244	196.50	574.80	8.4	15.8
2020.0	5.7	44.0	55	9.8	1.68	24.47	81826	784.75	575.64	8.4	15.8
2021.0	9.7	44.0	55	9.8	1.51	24.57	82166	458.49	575.17	8.4	15.8
2022.0	21.2	44.0	55	9.8	1.25	24.62	82322	210.09	573.72	8.4	15.8
2023.0	15.6	44.0	55	9.8	1.35	24.68	82534	285.48	572.58	8.4	15.8
2024.0	8.6	44.0	55	9.8	1.54	24.80	82917	516.58	572.36	8.4	15.8
2025.0	25.0	44.0	55	9.8	1.20	24.84	83049	177.96	570.81	8.4	15.8
2026.0	12.9	44.0	55	9.8	1.41	24.92	83306	346.03	569.93	8.4	15.8
2027.0	14.2	44.0	55	9.8	1.38	24.99	83539	313.90	568.94	8.4	15.8
2028.0	14.3	44.0	55	9.8	1.38	25.06	83769	310.19	567.93	8.4	15.8
2029.0	16.1	44.0	55	9.8	1.34	25.12	83974	276.83	566.81	8.4	15.8
2030.0	19.1	44.0	55	9.8	1.29	25.17	84146	232.34	565.52	8.4	15.8
2031.0	9.9	44.0	55	9.8	1.50	25.27	84478	447.37	565.06	8.4	15.8
2032.0	3.1	44.0	55	9.8	1.87	25.59	85537	1427	568	8.4	15.8
2033.0	3.1	44.0	55	9.8	1.88	25.92	86603	1437	572	8.4	15.8
2034.0	3.2	44.0	55	9.8	1.86	26.23	87623	1375	575	8.4	15.8
2035.0	3.7	44.0	55	9.8	1.82	26.50	88513	1200	577	8.4	15.8
2036.0	3.0	44.0	55	9.8	1.88	26.83	89601	1466	580	8.4	15.8
2037.0	3.2	44.0	55	9.8	1.87	27.14	90628	1385	583	8.4	15.8
2038.0	4.1	44.0	55	9.8	1.78	27.38	91424	1073	585	8.4	15.8
2039.0	6.0	44.0	55	9.8	1.66	27.55	91977	745.21	585.87	8.4	15.8
2040.0	9.1	44.0	55	9.8	1.53	27.66	92341	490.63	585.52	8.4	15.8
2041.0	9.1	44.0	55	9.8	1.53	27.77	92704	489.39	585.16	8.4	15.8
2042.0	17.4	44.0	55	9.8	1.32	27.82	92893	255.82	583.95	8.4	15.8
2043.0	8.1	44.0	55	9.8	1.56	27.95	93299	547.47	583.82	8.4	15.8
2044.0	6.6	44.0	55	9.8	1.63	28.10	93801	676.00	584.15	8.4	15.8
2045.0	20.3	44.0	55	9.8	1.27	28.15	93963	218.74	582.82	8.4	15.8
2046.0	12.7	44.0	55	9.8	1.42	28.23	94223	350.98	581.98	8.4	15.8

BIT NUMBER	7	IADC CODE	4	INTERVAL	2046.0- 2061.2
CHRIS RC3		SIZE	8.500	NOZZLES	15 15 14
COST	13000.00	TRIP TIME	6.4	BIT RUN	15.2
TOTAL HOURS	11.42	TOTAL TURNS	72504	CONDITION	T0 B0 G0.200

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2046.4	4.4	10.0	80	9.8	1.39	7.49	46674	1007	186998	8.4	15.8
2046.6	16.7	10.0	80	9.8	1.07	7.50	46731	266	124754	8.4	15.8
2046.8	28.8	10.0	80	9.8	0.94	7.51	46764	154	93604	8.4	15.8
2047.0	14.7	10.0	100	9.8	1.16	7.52	46846	303	74944	8.4	15.8
2047.2	34.3	10.0	100	9.8	0.95	7.53	46881	130	62475	8.4	15.8
2047.4	17.1	10.0	100	9.8	1.12	7.54	46951	260	53587	8.4	15.8
2047.6	13.6	10.0	100	9.8	1.17	7.56	47039	327	46929	8.4	15.8
2047.8	48.0	10.0	100	9.8	0.87	7.56	47064	93	41725	8.4	15.8
2048.0	15.0	10.0	100	9.8	1.15	7.57	47144	297	37582	8.4	15.8
2048.2	14.1	10.0	100	9.8	1.16	7.59	47229	315	34195	8.4	15.8
2048.4	26.7	10.0	100	9.8	1.01	7.59	47274	167	31359	8.4	15.8
2048.6	20.0	10.0	100	9.8	1.08	7.60	47334	222	28964	8.4	15.8
2048.8	6.7	10.0	100	9.8	1.34	7.63	47514	667	26943	8.4	15.8
2049.0	11.8	10.0	100	9.8	1.21	7.65	47616	377	25172	8.4	15.8
2049.2	3.7	10.0	110	9.7	1.52	7.71	47972	1199	23673	8.4	15.8
2049.4	16.4	10.0	110	9.7	1.16	7.72	48052	272	22297	8.4	15.8
2049.6	2.8	10.0	110	9.7	1.59	7.79	48527	1600	21147	8.4	15.8
2049.8	6.5	10.0	110	9.7	1.39	7.82	48729	680	20070	8.4	15.8
2050.0	7.1	10.0	110	9.7	1.37	7.85	48914	624	19097	8.4	15.8
2050.2	5.8	10.0	110	9.7	1.42	7.88	49143	772	18225	8.4	15.8
2050.4	2.9	10.0	110	9.7	1.58	7.95	49600	1539	17466	8.4	15.8
2050.6	4.4	10.0	110	9.7	1.48	8.00	49899	1007	16751	8.4	15.8
2050.8	4.8	10.0	110	9.7	1.46	8.04	50174	927	16091	8.4	15.8
2051.0	2.9	10.0	110	9.7	1.58	8.11	50628	1532	15509	8.4	15.8
2051.2	3.1	10.0	110	9.7	1.57	8.17	51057	1446	14968	8.4	15.8
2051.4	3.2	10.0	110	9.7	1.56	8.24	51472	1396	14465	8.4	15.8
2051.6	3.0	10.0	110	9.7	1.57	8.30	51908	1471	14001	8.4	15.8
2051.8	27.7	10.0	110	9.7	1.04	8.31	51956	161	13524	8.4	15.8
2052.0	2.5	10.0	110	9.7	1.62	8.39	52491	1804	13133	8.4	15.8
2052.2	6.0	10.0	110	9.7	1.41	8.42	52711	741	12734	8.4	15.8
2052.4	3.1	10.0	110	9.7	1.57	8.49	53136	1434	12381	8.4	15.8
2052.6	5.2	10.0	110	9.7	1.44	8.53	53389	853	12031	8.4	15.8
2052.8	4.7	10.0	110	9.7	1.47	8.57	53672	952	11705	8.4	15.8
2053.0	3.3	10.0	110	9.7	1.55	8.63	54068	1335	11409	8.4	15.8
2053.2	1.9	10.0	110	9.7	1.68	8.73	54759	2330	11157	8.4	15.8
2053.4	5.9	10.0	110	9.7	1.41	8.77	54984	760	10876	8.4	15.8
2053.6	3.1	10.0	110	9.7	1.57	8.83	55411	1440	10628	8.4	15.8
2053.8	3.1	10.0	110	9.7	1.57	8.90	55844	1458	10392	8.4	15.8
2054.0	5.0	15.0	110	9.7	1.61	8.94	56110	896	10155	8.4	15.8
2054.2	3.0	15.0	110	9.7	1.74	9.01	56550	1483	9944	8.4	15.8
2054.4	2.0	15.0	110	9.7	1.85	9.11	57214	2237	9760	8.4	15.8
2054.6	4.2	15.0	110	9.7	1.65	9.15	57525	1050	9557	8.4	15.8
2054.8	2.2	15.0	110	9.7	1.83	9.24	58130	2039	9387	8.4	15.8

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2055.0	24.8	15.0	110	9.7	1.18	9.25	58183	179	9182	8.4	15.8
2055.2	2.9	15.0	110	9.7	1.75	9.32	58636	1526	9016	8.4	15.8
2055.4	3.2	15.0	110	9.7	1.72	9.38	59047	1384	8853	8.4	15.8
2055.6	4.2	15.0	110	9.7	1.65	9.43	59360	1057	8691	8.4	15.8
2055.8	4.9	15.0	110	9.7	1.61	9.47	59632	915	8532	8.4	15.8
2056.0	1.3	15.0	110	9.7	1.97	9.63	60658	3460	8431	8.4	15.8
2056.2	3.4	15.0	110	9.7	1.71	9.69	61049	1316	8291	8.4	15.8
2056.4	2.3	15.0	110	9.7	1.81	9.77	61617	1916	8169	8.4	15.8
2056.6	6.5	15.0	110	9.7	1.53	9.80	61819	680	8027	8.4	15.8
2056.8	2.8	15.0	110	9.7	1.76	9.88	62296	1607	7908	8.4	15.8
2057.0	8.0	15.0	110	9.7	1.48	9.90	62461	556	7775	8.4	15.8
2057.2	3.0	15.0	110	9.7	1.74	9.97	62899	1477	7662	8.4	15.8
2057.4	4.8	15.0	110	9.7	1.61	10.01	63172	921	7544	8.4	15.8
2057.6	4.2	15.0	110	9.7	1.65	10.06	63489	1069	7432	8.4	15.8
2057.8	6.2	15.0	110	9.7	1.55	10.09	63702	717	7318	8.4	15.8
2058.0	4.7	15.0	110	9.7	1.62	10.13	63984	952	7212	8.4	15.8
2058.2	1.6	15.0	110	9.7	1.90	10.25	64789	2713	7139	8.4	15.8
2058.4	4.4	15.0	110	9.7	1.64	10.30	65090	1013	7040	8.4	15.8
2058.6	1.6	15.0	110	9.7	1.91	10.43	65924	2812	6973	8.4	15.8
2058.8	3.1	15.0	110	9.7	1.73	10.49	66349	1434	6886	8.4	15.8
2059.0	3.1	15.0	110	9.7	1.73	10.55	66774	1434	6802	8.4	15.8
2059.2	4.9	15.0	110	9.7	1.61	10.60	67044	908	6713	8.4	15.8
2059.4	1.1	15.0	110	9.7	2.00	10.77	68225	3979	6672	8.4	15.8
2059.6	5.5	15.0	110	9.7	1.58	10.81	68467	816	6586	8.4	15.8
2059.8	1.7	15.0	110	9.7	1.89	10.93	69222	2546	6527	8.4	15.8
2060.0	10.4	15.0	110	9.7	1.41	10.94	69348	426	6440	8.4	15.8
2060.2	2.5	15.0	110	9.7	1.79	11.03	69882	1798	6375	8.4	15.8
2060.4	3.5	15.0	110	9.7	1.70	11.08	70260	1273	6304	8.4	15.8
2060.6	1.8	15.0	110	9.7	1.87	11.19	70976	2416	6251	8.4	15.8
2060.8	8.6	15.0	110	9.7	1.46	11.21	71130	519	6173	8.4	15.8
2061.0	1.4	15.0	110	9.7	1.94	11.35	72045	3083	6132	8.4	15.8
2061.2	2.9	15.0	110	9.7	1.75	11.42	72504	1545	6072	8.4	15.8

BIT NUMBER	8	IADC CODE	517	INTERVAL	2061.2- 2321.0
HTC J22		SIZE	12.250	NOZZLES	18 18 18
COST	6788.00	TRIP TIME	6.9	BIT RUN	259.8
TOTAL HOURS	43.41	TOTAL TURNS	129120	CONDITION	T1 B2 G0.000

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2062.0	5.8	45.0	50	9.8	1.65	0.14	413	766	47624	8.4	15.8
2063.0	4.3	45.0	50	9.8	1.75	0.37	1113	1037	21742	8.4	15.8
2064.0	4.4	45.0	50	9.8	1.75	0.60	1802	1022	14342	8.4	15.8
2065.0	4.7	45.0	55	9.8	1.76	0.81	2508	953	10819	8.4	15.8
2066.0	4.2	45.0	55	9.8	1.79	1.05	3299	1065	8787	8.4	15.8
2067.0	4.3	45.0	55	9.8	1.78	1.29	4062	1029	7449	8.4	15.8
2068.0	5.5	45.0	55	9.8	1.70	1.47	4664	812	6473	8.4	15.8
2069.0	4.0	45.0	55	9.8	1.80	1.72	5481	1101	5784	8.4	15.8
2070.0	3.9	45.0	55	9.8	1.82	1.97	6333	1148	5258	8.4	15.8
2071.0	3.6	45.0	55	9.8	1.84	2.25	7258	1247	4848	8.4	15.8
2072.0	4.3	45.0	55	9.8	1.78	2.49	8025	1034	4495	8.4	15.8
2073.0	3.8	45.0	55	9.8	1.82	2.75	8891	1168	4213	8.4	15.8
2074.0	3.6	45.0	55	9.8	1.84	3.03	9808	1236	3981	8.4	15.8
2075.0	4.9	50.0	45	9.8	1.73	3.23	10360	910	3758	8.4	15.8
2076.0	5.6	50.0	45	9.8	1.69	3.41	10841	792	3558	8.4	15.8
2077.0	7.3	50.0	45	9.8	1.60	3.55	11211	611	3371	8.4	15.8
2078.0	16.4	50.0	45	9.8	1.32	3.61	11375	271	3187	8.4	15.8
2079.0	22.2	50.0	45	9.8	1.22	3.65	11497	200	3019	8.4	15.8
2080.0	21.6	50.0	45	9.8	1.23	3.70	11622	206	2869	8.4	15.8
2081.0	8.0	45.0	45	9.8	1.52	3.82	11961	559	2753	8.4	15.8
2082.0	15.7	45.0	45	9.8	1.30	3.89	12134	284	2634	8.4	15.8
2083.0	17.4	45.0	45	9.8	1.26	3.95	12289	256	2525	8.4	15.8
2084.0	13.1	45.0	45	9.8	1.35	4.02	12494	339	2429	8.4	15.8
2085.0	4.3	45.0	45	9.8	1.71	4.25	13116	1025	2370	8.4	15.8
2086.0	8.4	45.0	45	9.8	1.50	4.37	13436	528	2296	8.4	15.8
2087.0	6.4	45.0	45	9.8	1.59	4.53	13858	695	2234	8.4	15.8
2088.0	25.7	45.0	45	9.8	1.13	4.57	13963	173	2157	8.4	15.8
2089.0	24.5	45.0	45	9.8	1.15	4.61	14073	182	2086	8.4	15.8
2090.0	20.0	45.0	45	9.8	1.22	4.66	14208	222	2021	8.4	15.9
2091.0	20.0	45.0	45	9.8	1.22	4.71	14343	222	1961	8.4	15.9
2092.0	17.7	45.0	45	9.8	1.26	4.76	14496	252	1905	8.4	15.9
2093.0	22.2	45.0	45	9.8	1.18	4.81	14618	200	1851	8.4	15.9
2094.0	25.2	45.0	45	9.8	1.14	4.85	14725	177	1800	8.4	15.9
2095.0	15.3	45.0	45	9.8	1.30	4.91	14901	290	1756	8.4	15.9
2096.0	13.7	45.0	45	9.8	1.34	4.99	15098	324	1715	8.4	15.9
2097.0	8.4	45.0	45	9.8	1.50	5.10	15418	528	1681	8.4	15.9
2098.0	8.9	45.0	45	9.8	1.48	5.22	15720	498	1649	8.4	15.9
2099.0	13.6	45.0	45	9.8	1.34	5.29	15918	326	1614	8.4	15.9
2100.0	8.2	45.0	45	9.8	1.51	5.41	16247	541	1587	8.4	15.9
2101.0	3.7	45.0	45	9.8	1.77	5.68	16981	1210	1577	8.4	15.9
2102.0	6.2	45.0	45	9.8	1.60	5.85	17419	722	1556	8.4	15.9
2103.0	5.2	45.0	45	9.8	1.65	6.04	17936	851	1539	8.4	15.9
2104.0	23.1	45.0	45	9.8	1.17	6.08	18053	193	1508	8.4	15.9

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2105.0	26.1	45.0	45	9.8	1.13	6.12	18156	171	1477	8.4	15.9
2106.0	24.2	45.0	45	9.8	1.15	6.16	18268	184	1448	8.4	15.9
2107.0	29.5	45.0	45	9.8	1.09	6.19	18360	151	1420	8.4	15.9
2108.0	25.9	45.0	45	9.8	1.13	6.23	18464	172	1393	8.4	15.9
2109.0	27.7	45.0	45	9.8	1.11	6.27	18561	161	1368	8.4	15.9
2110.0	24.8	45.0	45	9.8	1.14	6.31	18670	179	1343	8.4	15.9
2111.0	10.2	45.0	45	9.8	1.44	6.41	18935	436	1325	8.4	15.9
2112.0	18.8	45.0	45	9.8	1.24	6.46	19079	237	1304	8.4	15.9
2113.0	17.6	45.0	45	9.8	1.26	6.52	19233	253	1283	8.4	15.9
2114.0	20.9	45.0	45	9.8	1.20	6.57	19362	213	1263	8.4	15.9
2115.0	17.3	45.0	45	9.8	1.26	6.62	19518	257	1244	8.4	15.9
2116.0	20.9	45.0	45	9.8	1.20	6.67	19647	213	1226	8.4	15.9
2117.0	18.0	45.0	45	9.8	1.25	6.73	19797	247	1208	8.4	15.9
2118.0	8.4	45.0	45	9.8	1.50	6.85	20120	533	1196	8.4	15.9
2119.0	12.2	45.0	45	9.8	1.38	6.93	20342	366	1182	8.4	15.9
2120.0	8.8	45.0	45	9.8	1.48	7.04	20648	504	1170	8.4	15.9
2121.0	15.1	45.0	45	9.8	1.31	7.11	20826	294	1156	8.4	15.9
2122.0	12.5	45.0	45	9.8	1.37	7.19	21043	357	1143	8.4	15.9
2123.0	10.1	45.0	45	9.8	1.44	7.29	21312	442	1131	8.4	15.9
2124.0	10.0	40.0	45	9.8	1.39	7.39	21581	444	1120	8.4	15.9
2125.0	10.2	45.0	45	9.8	1.44	7.49	21846	436	1110	8.4	15.9
2126.0	11.3	45.0	45	9.8	1.40	7.57	22086	395	1098	8.4	15.9
2127.0	13.1	45.0	45	9.8	1.35	7.65	22292	340	1087	8.4	15.9
2128.0	22.4	45.0	45	9.8	1.18	7.70	22413	199	1074	8.4	15.9
2129.0	24.5	45.0	45	9.8	1.15	7.74	22523	182	1061	8.4	15.9
2130.0	10.6	45.0	45	9.7	1.44	7.83	22778	420	1051	8.4	15.9
2131.0	5.2	45.0	45	9.7	1.67	8.02	23294	850	1048	8.4	15.9
2132.0	5.4	45.0	45	9.7	1.66	8.21	23791	819	1045	8.4	15.9
2133.0	8.6	45.0	45	9.7	1.51	8.32	24104	515	1038	8.4	15.9
2134.0	13.4	45.0	45	9.7	1.36	8.40	24305	331	1028	8.4	15.9
2135.0	7.0	45.0	45	9.7	1.58	8.54	24692	638	1023	8.4	15.9
2136.0	4.4	45.0	45	9.7	1.73	8.77	25311	1021	1023	8.4	15.9
2137.0	6.5	45.0	45	9.7	1.60	8.92	25727	685	1018	8.4	15.9
2138.0	13.1	45.0	45	9.7	1.37	9.00	25932	339	1009	8.4	15.9
2139.0	20.5	45.0	45	9.7	1.22	9.05	26064	217.51	999.21	8.4	15.9
2140.0	26.3	45.0	45	9.7	1.14	9.09	26167	169.31	988.68	8.4	15.9
2141.0	27.9	45.0	45	9.7	1.12	9.12	26264	159.42	978.29	8.4	15.9
2142.0	29.0	45.0	45	9.7	1.10	9.16	26357	153.24	968.08	8.4	15.9
2143.0	21.2	45.0	50	9.7	1.24	9.20	26498	210.09	958.81	8.4	15.9
2144.0	6.1	45.0	50	9.7	1.66	9.37	26992	731.61	956.07	8.4	15.9
2145.0	16.2	45.0	50	9.7	1.33	9.43	27177	274.36	947.93	8.4	15.9
2146.0	24.0	45.0	50	9.7	1.20	9.47	27302	185.38	938.94	8.4	15.9
2147.0	23.8	45.0	50	9.7	1.20	9.51	27428	186.61	930.17	8.4	15.9
2148.0	19.0	45.0	50	9.7	1.28	9.57	27585	233.57	922.15	8.4	15.9
2149.0	24.3	45.0	50	9.7	1.20	9.61	27708	182.90	913.73	8.4	15.9
2150.0	22.9	45.0	50	9.7	1.22	9.65	27839	194.03	905.62	8.4	15.9
2151.0	24.5	45.0	50	9.7	1.20	9.69	27962	181.67	897.56	8.4	15.9
2152.0	22.9	45.0	50	9.7	1.22	9.73	28093	194.03	889.81	8.4	15.9
2153.0	25.0	45.0	50	9.7	1.19	9.77	28213	177.96	882.06	8.4	15.9
2154.0	25.9	45.0	50	9.7	1.18	9.81	28328	171.78	874.40	8.4	15.9

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2155.0	7.8	45.0	50	9.7	1.57	9.94	28713	570.96	871.17	8.4	15.9
2156.0	8.1	45.0	50	9.7	1.56	10.06	29083	547.47	867.75	8.4	15.9
2157.0	9.7	45.0	50	9.7	1.50	10.17	29393	459.73	863.50	8.4	15.9
2158.0	7.5	45.0	50	9.7	1.58	10.30	29791	590.73	860.68	8.4	15.9
2159.0	8.4	45.0	50	9.7	1.55	10.42	30148	530.17	857.30	8.4	15.9
2160.0	25.5	45.0	50	9.7	1.18	10.46	30266	174.25	850.38	8.4	15.9
2161.0	27.9	45.0	50	9.7	1.15	10.49	30373	159.42	843.46	8.4	15.9
2162.0	21.4	45.0	50	9.7	1.24	10.54	30513	207.62	837.15	8.4	15.9
2163.0	8.9	45.0	50	9.7	1.53	10.65	30852	501.75	833.86	8.4	15.9
2164.0	3.1	45.0	50	9.7	1.88	10.97	31812	1424	840	8.4	15.9
2165.0	6.8	45.0	50	9.7	1.62	11.12	32253	654.99	837.82	8.4	15.9
2166.0	16.6	45.0	50	9.7	1.32	11.18	32435	268.79	832.39	8.4	15.9
2167.0	12.2	45.0	50	9.7	1.43	11.26	32681	365.81	827.98	8.4	15.9
2168.0	14.7	45.0	50	9.7	1.36	11.33	32886	302.78	823.06	8.4	15.9
2169.0	9.0	45.0	50	9.7	1.53	11.44	33219	494.33	820.01	8.4	15.9
2170.0	12.7	45.0	50	9.7	1.41	11.52	33456	350.98	815.70	8.4	15.9
2171.0	7.0	45.0	50	9.7	1.61	11.66	33881	631.51	814.02	8.4	15.9
2172.0	14.2	45.0	50	9.7	1.38	11.73	34093	313.90	809.51	8.4	15.9
2173.0	19.0	45.0	50	9.7	1.28	11.79	34251	233.57	804.36	8.4	16.0
2174.0	6.6	45.0	50	9.7	1.63	11.94	34708	678.47	803.24	8.4	16.0
2175.0	3.6	45.0	50	9.7	1.83	12.22	35553	1253	807	8.4	16.0
2176.0	5.4	45.0	50	9.7	1.70	12.41	36111	828.01	807.38	8.4	16.0
2177.0	6.7	45.0	50	9.7	1.62	12.56	36558	662.41	806.12	8.4	16.0
2178.0	4.2	45.0	50	9.8	1.76	12.79	37266	1050	808	8.4	16.0
2179.0	5.5	45.0	50	9.8	1.67	12.97	37807	802.06	808.16	8.4	16.0
2180.0	4.4	45.0	50	9.8	1.75	13.20	38496	1022	810	8.4	16.0
2181.0	4.1	45.0	50	9.8	1.77	13.44	39223	1078	812	8.4	16.0
2182.0	3.7	45.0	50	9.8	1.80	13.72	40036	1205	815	8.4	16.0
2183.0	3.8	45.0	50	9.8	1.79	13.98	40827	1174	818	8.4	16.0
2184.0	5.9	45.0	50	9.8	1.65	14.15	41333	750.15	817.84	8.4	16.0
2185.0	6.9	45.0	50	9.8	1.60	14.29	41768	645.11	816.44	8.4	16.0
2186.0	9.2	45.0	50	9.8	1.50	14.40	42095	484.45	813.78	8.4	16.0
2187.0	12.9	45.0	50	9.8	1.39	14.48	42326	343.56	810.04	8.4	16.0
2188.0	12.5	45.0	50	9.8	1.40	14.56	42566	355.92	806.46	8.4	16.0
2189.0	17.4	45.0	50	9.8	1.30	14.62	42739	255.82	802.15	8.4	16.0
2190.0	17.6	45.0	50	9.8	1.29	14.67	42910	253.35	797.89	8.4	16.0
2191.0	14.6	45.0	50	9.8	1.35	14.74	43116	305.25	794.10	8.4	16.0
2192.0	4.6	45.0	50	9.8	1.73	14.96	43766	963.95	795.40	8.4	16.0
2193.0	4.1	45.0	50	9.8	1.77	15.21	44505	1096	798	8.4	16.0
2194.0	3.6	45.0	50	9.8	1.81	15.48	45341	1241	801	8.4	16.0
2195.0	10.0	45.0	50	9.8	1.48	15.58	45641	444.90	798.35	8.4	16.0
2196.0	7.9	45.0	50	9.8	1.55	15.71	46019	559.83	796.58	8.5	16.0
2197.0	8.8	45.0	50	9.8	1.52	15.82	46361	507.93	794.46	8.5	16.0
2198.0	11.3	45.0	50	9.8	1.44	15.91	46626	392.99	791.52	8.5	16.0
2199.0	15.8	45.0	50	9.8	1.33	15.98	46816	281.77	787.82	8.5	16.0
2200.0	17.6	45.0	50	9.8	1.29	16.03	46986	252.11	783.97	8.5	16.0
2201.0	15.2	45.0	50	9.8	1.34	16.10	47184	292.48	780.45	8.5	16.0
2202.0	17.3	45.0	50	9.8	1.30	16.16	47357	257.05	776.73	8.5	16.0
2203.0	9.7	45.0	50	9.8	1.49	16.26	47668	460.97	774.51	8.5	16.0
2204.0	7.1	45.0	50	9.8	1.59	16.40	48092	629.04	773.49	8.5	16.0

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2205.0	5.0	45.0	50	9.8	1.70	16.60	48695	894.74	774.33	8.5	16.0
2206.0	4.2	45.0	50	9.8	1.76	16.84	49404	1050	776	8.5	16.0
2207.0	6.3	45.0	50	9.8	1.63	17.00	49883	710.60	775.79	8.5	16.0
2208.0	3.6	45.0	50	9.8	1.81	17.27	50707	1222	779	8.5	16.0
2209.0	4.3	45.0	50	9.8	1.75	17.50	51402	1031	781	8.5	16.0
2210.0	3.9	45.0	50	9.8	1.78	17.76	52171	1141	783	8.5	16.0
2211.0	3.9	45.0	50	9.8	1.78	18.02	52937	1136	785	8.5	16.0
2212.0	4.3	45.0	50	9.8	1.75	18.25	53640	1043	787	8.5	16.0
2213.0	3.4	45.0	50	9.8	1.83	18.54	54513	1294	790	8.5	16.0
2214.0	3.9	45.0	50	9.8	1.78	18.80	55281	1139	793	8.5	16.0
2215.0	6.4	45.0	50	9.8	1.62	18.95	55750	695.77	792.01	8.5	16.0
2216.0	3.6	45.0	50	9.8	1.81	19.23	56581	1232	795	8.5	16.0
2217.0	3.5	45.0	50	9.8	1.82	19.51	57428	1257	798	8.5	16.0
2218.0	3.5	45.0	50	9.8	1.82	19.80	58291	1279	801	8.5	16.0
2219.0	4.5	45.0	50	9.8	1.74	20.02	58953	982.49	802.04	8.5	16.0
2220.0	3.4	45.0	50	9.8	1.83	20.31	59826	1294	805	8.5	16.0
2221.0	6.0	45.0	50	9.8	1.64	20.48	60323	737.79	804.71	8.5	16.0
2222.0	4.5	45.0	50	9.8	1.74	20.70	60995	996.08	805.90	8.5	16.0
2223.0	3.7	45.0	50	9.8	1.80	20.97	61797	1190	808	8.5	16.0
2224.0	5.0	45.0	50	9.8	1.70	21.17	62394	884.86	808.75	8.5	16.0
2225.0	4.5	45.0	50	9.8	1.74	21.39	63067	997.32	809.90	8.5	16.0
2226.0	4.8	45.0	50	9.8	1.71	21.60	63686	918.22	810.56	8.5	16.0
2227.0	8.4	45.0	50	9.8	1.53	21.72	64042	528.94	808.86	8.5	16.0
2228.0	11.4	45.0	50	9.8	1.43	21.81	64305	389.29	806.34	8.5	16.0
2229.0	13.8	45.0	50	9.8	1.37	21.88	64522	322.55	803.46	8.5	16.0
2230.0	11.4	45.0	50	9.8	1.43	21.97	64785	389.29	801.01	8.5	16.0
2231.0	10.7	45.0	50	9.8	1.46	22.06	65067	417.71	798.75	8.5	16.0
2232.0	14.0	45.0	50	9.8	1.37	22.13	65281	317.61	795.93	8.5	16.0
2233.0	14.1	45.0	50	9.8	1.36	22.20	65494	316.37	793.14	8.5	16.0
2234.0	5.9	45.0	50	9.8	1.65	22.37	65999	748.91	792.88	8.5	16.0
2235.0	4.2	45.0	50	9.8	1.76	22.61	66720	1069	794	8.5	16.0
2236.0	4.3	45.0	50	9.8	1.75	22.84	67417	1033	796	8.5	16.0
2237.0	5.5	45.0	50	9.8	1.67	23.02	67959	804.53	795.89	8.5	16.0
2238.0	15.1	45.0	50	9.8	1.34	23.09	68157	294.13	793.05	8.5	16.0
2239.0	18.6	45.0	50	9.8	1.27	23.14	68319	239.75	789.94	8.5	16.0
2240.0	18.4	45.0	50	9.8	1.28	23.20	68482	242.22	786.87	8.5	16.0
2241.0	13.3	45.0	50	9.8	1.38	23.27	68707	333.68	784.35	8.5	16.0
2242.0	12.3	45.0	50	9.8	1.41	23.35	68951	360.86	782.01	8.5	16.1
2243.0	20.1	45.0	50	9.8	1.25	23.40	69100	221.21	778.93	8.5	16.1
2244.0	5.6	45.0	50	9.8	1.66	23.58	69632	788.46	778.98	8.5	16.1
2245.0	4.1	45.0	50	9.8	1.76	23.82	70355	1073	781	8.5	16.1
2246.0	4.0	45.0	50	9.8	1.78	24.07	71109	1118	782	8.5	16.1
2247.0	4.7	45.0	50	9.8	1.72	24.29	71745	942.94	783.27	8.5	16.1
2248.0	4.2	45.0	50	9.8	1.76	24.53	72467	1070	785	8.5	16.1
2249.0	4.6	45.0	50	9.8	1.73	24.74	73117	963.95	785.76	8.5	16.1
2250.0	5.3	45.0	50	9.8	1.68	24.93	73682	837.90	786.04	8.5	16.1
2251.0	7.2	45.0	50	9.8	1.58	25.07	74098	617.92	785.15	8.5	16.1
2252.0	3.2	45.0	50	9.8	1.85	25.38	75041	1398	788	8.5	16.1
2253.0	4.7	45.0	50	9.8	1.72	25.60	75676	941.71	789.16	8.5	16.1
2254.0	4.4	45.0	50	9.8	1.74	25.82	76357	1010	790	8.5	16.1

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2255.0	4.3	45.0	50	9.8	1.75	26.06	77061	1044	792	8.5	16.1
2256.0	2.6	45.0	50	9.8	1.92	26.44	78220	1719	796	8.5	16.1
2257.0	2.8	45.0	50	9.8	1.89	26.80	79275	1565	800	8.5	16.1
2258.0	2.8	45.0	50	9.8	1.89	27.15	80351	1595	804	8.5	16.1
2259.0	3.1	45.0	50	9.8	1.85	27.47	81306	1416	807	8.5	16.1
2260.0	4.1	45.0	50	9.8	1.77	27.72	82040	1089	809	8.5	16.1
2261.0	2.7	45.0	50	9.8	1.90	28.08	83132	1620	813	8.5	16.1
2262.0	3.5	45.0	50	9.8	1.82	28.37	83994	1278	815	8.5	16.1
2263.0	3.2	45.0	50	9.8	1.85	28.68	84937	1399	818	8.5	16.1
2264.0	2.7	45.0	50	9.8	1.90	29.05	86038	1633	822	8.5	16.1
2265.0	3.1	45.0	50	9.8	1.85	29.37	86992	1415	825	8.5	16.1
2266.0	3.4	45.0	50	9.8	1.83	29.66	87877	1312	827	8.5	16.1
2267.0	3.5	45.0	50	9.8	1.82	29.95	88746	1288	830	8.5	16.1
2268.0	4.3	45.0	50	9.8	1.75	30.18	89441	1031	831	8.5	16.1
2269.0	7.8	45.0	50	9.8	1.56	30.31	89826	570.96	829.38	8.5	16.1
2270.0	5.1	45.0	50	9.8	1.70	30.51	90420	880.53	829.63	8.5	16.1
2271.0	4.9	45.0	50	9.8	1.71	30.72	91038	916.99	830.04	8.5	16.1
2272.0	3.3	45.0	50	9.8	1.83	31.02	91936	1332	832	8.5	16.1
2273.0	4.0	45.0	50	9.8	1.77	31.26	92677	1099	834	8.5	16.1
2274.0	5.1	45.0	50	9.8	1.70	31.46	93270	878.68	833.89	8.5	16.1
2275.0	6.1	45.0	50	9.8	1.64	31.62	93761	729.14	833.40	8.5	16.1
2276.0	5.1	45.0	50	9.8	1.69	31.82	94345	865.08	833.55	8.5	16.1
2277.0	3.9	45.0	50	9.8	1.78	32.07	95112	1138	835	8.5	16.1
2278.0	3.9	45.0	50	9.8	1.79	32.33	95890	1153	836	8.5	16.1
2279.0	3.1	45.0	50	9.8	1.86	32.66	96871	1456	839	8.5	16.1
2280.0	2.2	45.0	50	9.8	1.96	33.11	98205	1979	844	8.5	16.1
2281.0	3.5	45.0	50	9.8	1.82	33.39	99055	1261	846	8.5	16.1
2282.0	4.0	45.0	50	9.8	1.77	33.64	99798	1101	848	8.5	16.1
2283.0	3.6	45.0	50	9.8	1.81	33.92	100641	1251	849	8.5	16.1
2284.0	3.2	45.0	50	9.8	1.85	34.23	101574	1383	852	8.5	16.1
2285.0	2.7	45.0	50	9.8	1.91	34.60	102700	1671	855	8.5	16.1
2286.0	4.1	45.0	50	9.8	1.76	34.85	103425	1075	856	8.5	16.1
2287.0	3.1	45.0	50	9.8	1.86	35.17	104395	1437	859	8.5	16.1
2288.0	3.1	45.0	50	9.8	1.85	35.49	105350	1418	861	8.5	16.1
2289.0	3.6	45.0	50	9.8	1.81	35.76	106181	1232	863	8.5	16.1
2290.0	6.2	45.0	50	9.8	1.63	35.92	106663	714.31	862.39	8.5	16.1
2291.0	8.4	45.0	50	9.8	1.53	36.04	107020	528.94	860.94	8.5	16.1
2292.0	6.8	45.0	50	9.8	1.60	36.19	107462	656.23	860.05	8.5	16.1
2293.0	9.1	45.0	50	9.8	1.51	36.30	107791	488.15	858.45	8.5	16.1
2294.0	10.5	45.0	50	9.8	1.46	36.40	108077	423.89	856.58	8.5	16.1
2295.0	9.2	45.0	50	9.8	1.50	36.51	108405	485.68	854.99	8.5	16.1
2296.0	11.1	45.0	50	9.8	1.44	36.60	108675	400.41	853.06	8.5	16.1
2297.0	5.2	45.0	50	9.8	1.69	36.79	109256	862.61	853.10	8.5	16.1
2298.0	4.4	45.0	50	9.8	1.75	37.02	109942	1017	854	8.5	16.1
2299.0	3.0	45.0	50	9.8	1.87	37.35	110929	1463	856	8.5	16.1
2300.0	3.2	45.0	50	9.8	1.85	37.66	111856	1375	859	8.5	16.1
2301.0	2.8	45.0	50	9.8	1.89	38.01	112933	1597	862	8.5	16.1
2302.0	3.1	45.0	50	9.8	1.86	38.34	113907	1445	864	8.5	16.1
2303.0	2.9	45.0	50	9.8	1.88	38.69	114953	1551	867	8.5	16.1
2304.0	3.6	45.0	50	9.8	1.81	38.96	115782	1230	868	8.5	16.1

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2305.0	3.2	45.0	50	9.8	1.85	39.28	116725	1398	871	8.5	16.1
2306.0	2.9	45.0	50	9.8	1.88	39.62	117762	1539	873	8.5	16.1
2307.0	4.1	45.0	50	9.8	1.77	39.87	118497	1090	874	8.5	16.1
2308.0	16.6	45.0	50	9.8	1.31	39.93	118678	268.18	871.69	8.5	16.1
2309.0	4.1	45.0	50	9.8	1.77	40.17	119405	1079	873	8.5	16.1
2310.0	3.7	45.0	50	9.8	1.80	40.44	120220	1209	874	8.5	16.1
2311.0	3.0	45.0	50	9.8	1.87	40.78	121232	1500	876	8.5	16.1
2312.0	3.4	45.0	50	9.8	1.83	41.08	122118	1314	878	8.5	16.1
2313.0	4.0	45.0	50	9.8	1.77	41.33	122866	1110	879	8.5	16.1
2314.0	2.6	45.0	50	9.8	1.92	41.72	124035	1733	882	8.5	16.1
2315.0	3.6	45.0	50	9.8	1.81	41.99	124870	1238	884	8.5	16.1
2316.0	3.7	45.0	50	9.8	1.80	42.26	125682	1205	885	8.5	16.1
2317.0	5.6	45.0	50	9.8	1.66	42.44	126214	788.46	884.71	8.5	16.1
2318.0	6.6	45.0	50	9.8	1.61	42.59	126666	671.06	883.88	8.5	16.1
2319.0	5.2	45.0	50	9.8	1.69	42.78	127239	849.02	883.74	8.5	16.1
2320.0	3.5	45.0	50	9.8	1.82	43.07	128086	1257	885	8.5	16.1
2321.0	2.9	45.0	50	9.8	1.88	43.41	129120	1534	888	8.5	16.1

BIT NUMBER	9	IADC CODE	517	INTERVAL	2321.0- 2601.0
HTC J22		SIZE	12.250	NOZZLES	18 18 18
COST	6788.00	TRIP TIME	7.5	BIT RUN	280.0
TOTAL HOURS	66.68	TOTAL TURNS	216428	CONDITION	T3 B3 G0.125

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2322.0	6.7	10.0	25	9.8	0.93	0.15	223	661	40817	8.5	16.1
2323.0	4.4	15.0	25	9.8	1.12	0.38	563	1007	20912	8.5	16.1
2324.0	5.2	40.0	40	9.8	1.56	0.57	1028	863	14229	8.5	16.1
2325.0	5.0	40.0	40	9.8	1.57	0.77	1513	898	10896	8.5	16.1
2326.0	2.7	40.0	40	9.8	1.76	1.14	2393	1633	9044	8.5	16.1
2327.0	4.2	45.0	40	9.8	1.69	1.38	2966	1062	7713	8.5	16.1
2328.0	5.0	45.0	40	9.8	1.63	1.58	3449	896	6739	8.5	16.1
2329.0	3.1	45.0	50	9.8	1.86	1.90	4428	1451	6078	8.5	16.1
2330.0	2.3	45.0	50	9.8	1.95	2.33	5714	1907	5615	8.5	16.2
2331.0	3.9	45.0	50	9.8	1.78	2.59	6484	1143	5168	8.5	16.2
2332.0	2.8	45.0	50	9.8	1.89	2.94	7538	1562	4840	8.5	16.2
2333.0	2.8	45.0	50	9.8	1.89	3.29	8600	1576	4568	8.5	16.2
2334.0	2.4	45.0	50	9.8	1.95	3.72	9871	1885	4361	8.5	16.2
2335.0	2.9	46.0	50	9.8	1.90	4.07	10912	1544	4160	8.5	16.2
2336.0	3.3	46.0	50	9.8	1.86	4.37	11834	1367	3974	8.5	16.2
2337.0	4.1	46.0	50	9.8	1.78	4.62	12562	1080	3793	8.5	16.2
2338.0	3.2	46.0	60	9.8	1.92	4.93	13693	1398	3652	8.5	16.2
2339.0	4.0	46.0	60	9.8	1.85	5.18	14588	1106	3511	8.5	16.2
2340.0	3.3	46.0	60	9.8	1.91	5.48	15675	1343	3397	8.5	16.2
2341.0	3.9	46.0	60	9.8	1.85	5.73	16587	1127	3283	8.5	16.2
2342.0	3.8	46.0	60	9.8	1.86	6.00	17530	1165	3182	8.5	16.2
2343.0	3.5	45.0	60	9.8	1.88	6.28	18560	1273	3096	8.5	16.2
2344.0	3.9	45.0	60	9.8	1.85	6.54	19493	1153	3011	8.5	16.2
2345.0	3.5	45.0	60	9.8	1.88	6.83	20533	1285	2939	8.5	16.2
2346.0	2.7	45.0	60	9.8	1.96	7.20	21862	1642	2887	8.5	16.2
2347.0	3.8	45.0	60	9.8	1.86	7.47	22822	1186	2822	8.5	16.2
2348.0	4.1	45.0	60	9.8	1.83	7.71	23701	1086	2758	8.5	16.2
2349.0	4.1	45.0	60	9.8	1.83	7.95	24578	1084	2698	8.5	16.2
2350.0	4.2	45.0	60	9.8	1.82	8.19	25443	1069	2642	8.5	16.2
2351.0	5.4	45.0	60	9.8	1.74	8.38	26111	826	2581	8.5	16.2
2352.0	3.3	45.0	60	9.8	1.89	8.68	27191	1335	2541	8.5	16.2
2353.0	3.7	45.0	60	9.8	1.86	8.95	28170	1210	2499	8.5	16.2
2354.0	5.8	45.0	60	9.8	1.72	9.12	28794	771	2447	8.5	16.2
2355.0	2.8	45.0	60	9.8	1.95	9.48	30073	1581	2421	8.5	16.2
2356.0	3.6	45.0	60	9.8	1.87	9.76	31067	1228	2387	8.5	16.2
2357.0	3.4	45.0	60	9.8	1.89	10.05	32117	1298	2357	8.5	16.2
2358.0	4.6	45.0	60	9.8	1.79	10.26	32898	965	2319	8.5	16.2
2359.0	14.2	45.0	60	9.8	1.42	10.33	33151	313	2267	8.5	16.2
2360.0	3.5	45.0	60	9.8	1.87	10.62	34166	1254	2241	8.5	16.2
2361.0	3.1	45.0	60	9.8	1.92	10.94	35315	1420	2220	8.5	16.2
2362.0	3.8	45.0	60	9.8	1.85	11.20	36271	1181	2195	8.5	16.2
2363.0	2.9	46.0	56	9.8	1.93	11.55	37431	1536	2179	8.5	16.2
2364.0	2.8	47.0	55	9.8	1.95	11.90	38592	1566	2165	8.5	16.2

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2365.0	3.3	47.0	55	9.8	1.90	12.20	39603	1362	2147	8.5	16.2
2366.0	7.0	47.0	55	9.8	1.65	12.35	40076	639	2113	8.5	16.2
2367.0	5.2	47.0	55	9.8	1.74	12.54	40710	854	2086	8.5	16.2
2368.0	4.7	47.0	55	9.8	1.78	12.75	41411	945	2062	8.5	16.2
2369.0	4.4	47.0	55	9.8	1.80	12.98	42168	1021	2040	8.5	16.2
2370.0	5.0	47.0	55	9.8	1.76	13.18	42830	892	2016	8.5	16.2
2371.0	4.9	47.0	55	9.8	1.77	13.39	43508	913	1994	8.5	16.2
2372.0	4.7	47.0	55	9.8	1.78	13.60	44205	940	1974	8.5	16.2
2373.0	4.2	47.0	55	9.8	1.82	13.84	44991	1059	1956	8.5	16.2
2374.0	4.5	48.0	55	9.8	1.81	14.06	45724	989	1938	8.5	16.2
2375.0	2.9	48.0	55	9.8	1.96	14.41	46879	1557	1931	8.5	16.2
2376.0	4.1	48.0	55	9.8	1.84	14.66	47691	1095	1916	8.5	16.2
2377.0	3.8	48.0	55	9.8	1.86	14.92	48552	1160	1902	8.5	16.2
2378.0	3.2	48.0	55	9.8	1.92	15.23	49583	1390	1893	8.5	16.2
2379.0	3.4	48.0	55	9.8	1.90	15.52	50551	1305	1883	8.5	16.2
2380.0	2.9	48.0	55	9.8	1.95	15.86	51680	1521	1877	8.5	16.2
2381.0	4.9	48.0	55	9.8	1.78	16.07	52356	912	1861	8.5	16.2
2382.0	6.4	48.0	55	9.8	1.69	16.23	52871	693	1842	8.5	16.2
2383.0	4.1	48.0	55	9.8	1.84	16.47	53684	1096	1830	8.5	16.2
2384.0	5.2	48.0	55	9.8	1.76	16.66	54318	855	1814	8.5	16.2
2385.0	3.9	45.0	55	9.8	1.81	16.92	55163	1139	1804	8.5	16.2
2386.0	6.4	45.0	55	9.8	1.65	17.08	55680	697	1787	8.5	16.2
2387.0	6.0	45.0	55	9.8	1.68	17.24	56232	744	1771	8.5	16.2
2388.0	9.7	45.0	55	9.8	1.52	17.35	56571	457	1751	8.5	16.2
2389.0	4.3	45.0	55	9.8	1.78	17.58	57341	1038	1741	8.5	16.2
2390.0	3.0	45.0	55	9.8	1.90	17.92	58448	1493	1737	8.5	16.2
2391.0	3.8	45.0	55	9.8	1.83	18.18	59327	1184	1729	8.5	16.2
2392.0	7.0	45.0	55	9.8	1.62	18.32	59797	634	1714	8.5	16.2
2393.0	6.3	45.0	55	9.8	1.66	18.48	60320	706	1700	8.5	16.2
2394.0	12.1	45.0	55	9.8	1.44	18.57	60593	367	1682	8.5	16.2
2395.0	13.4	45.0	55	9.8	1.41	18.64	60838	331	1663	8.5	16.2
2396.0	12.9	45.0	55	9.8	1.42	18.72	61094	345	1646	8.5	16.2
2397.0	5.4	45.0	55	9.8	1.71	18.90	61706	826	1635	8.5	16.2
2398.0	4.8	48.0	56	9.8	1.79	19.11	62406	927	1626	8.5	16.2
2399.0	4.9	48.0	56	9.8	1.78	19.32	63092	908	1617	8.5	16.2
2400.0	10.8	48.0	55	9.8	1.51	19.41	63398	412	1601	8.5	16.2
2401.0	3.2	48.0	55	9.8	1.92	19.72	64429	1390	1599	8.5	16.2
2402.0	3.4	50.0	56	9.8	1.93	20.01	65419	1312	1595	8.5	16.2
2403.0	3.1	50.0	56	9.8	1.97	20.34	66513	1448	1593	8.5	16.2
2404.0	3.4	50.0	56	9.8	1.93	20.63	67495	1300	1590	8.5	16.2
2405.0	3.0	50.0	56	9.8	1.97	20.97	68619	1488	1589	8.5	16.2
2406.0	3.0	50.0	56	9.8	1.97	21.30	69744	1490	1587	8.5	16.2
2407.0	10.1	50.0	56	9.8	1.56	21.40	70077	440	1574	8.5	16.2
2408.0	10.7	50.0	56	9.8	1.54	21.49	70390	415	1561	8.5	16.2
2409.0	12.2	50.0	56	9.8	1.50	21.58	70666	366	1547	8.5	16.2
2410.0	7.5	50.0	56	9.8	1.66	21.71	71113	591	1536	8.5	16.2
2411.0	8.0	47.0	55	9.8	1.60	21.83	71526	557	1526	8.5	16.2
2412.0	2.8	47.0	55	9.8	1.95	22.19	72695	1576	1526	8.5	16.2
2413.0	4.8	47.0	55	9.8	1.77	22.40	73385	931	1520	8.5	16.2
2414.0	4.6	47.0	55	9.8	1.78	22.61	74100	964	1514	8.5	16.2

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2415.0	3.2	47.0	55	9.8	1.91	22.93	75145	1409	1513	8.5	16.2
2416.0	3.0	47.0	55	9.8	1.93	23.26	76240	1477	1512	8.5	16.2
2417.0	3.5	47.0	55	9.8	1.88	23.55	77193	1284	1510	8.5	16.2
2418.0	3.7	47.0	55	9.8	1.86	23.82	78090	1210	1507	8.5	16.2
2419.0	4.0	47.0	55	9.8	1.83	24.07	78906	1100	1503	8.5	16.2
2420.0	5.2	47.0	55	9.8	1.75	24.26	79543	859	1496	8.5	16.2
2421.0	3.8	47.0	55	9.8	1.85	24.53	80410	1169	1493	8.5	16.3
2422.0	4.1	47.0	55	9.8	1.83	24.77	81222	1094	1489	8.5	16.3
2423.0	5.4	45.0	50	9.8	1.68	24.96	81780	828	1482	8.5	16.3
2424.0	6.6	45.0	50	9.8	1.61	25.11	82237	678	1475	8.5	16.3
2425.0	6.1	45.0	50	9.8	1.64	25.28	82730	730	1467	8.5	16.3
2426.0	6.2	46.0	50	9.8	1.65	25.44	83217	723	1460	8.5	16.3
2427.0	5.8	46.0	50	9.8	1.66	25.61	83731	761	1454	8.5	16.3
2428.0	3.3	46.0	50	9.8	1.85	25.91	84630	1333	1453	8.5	16.3
2429.0	2.7	46.0	50	9.8	1.92	26.28	85733	1636	1454	8.5	16.3
2430.0	2.6	46.0	50	9.8	1.93	26.66	86890	1715	1457	8.5	16.3
2431.0	3.3	46.0	50	9.8	1.86	26.97	87809	1363	1456	8.5	16.3
2432.0	4.4	46.0	50	9.8	1.76	27.20	88493	1015	1452	8.5	16.3
2433.0	6.7	46.0	50	9.8	1.62	27.35	88939	661	1445	8.5	16.3
2434.0	6.5	46.0	50	9.8	1.63	27.50	89404	690	1438	8.5	16.3
2435.0	5.8	46.0	50	9.8	1.67	27.67	89924	771	1432	8.5	16.3
2436.0	14.2	46.0	50	9.8	1.37	27.74	90136	314	1423	8.5	16.3
2437.0	6.5	46.0	50	9.8	1.63	27.90	90600	688	1416	8.5	16.3
2438.0	5.9	46.0	50	9.8	1.66	28.07	91106	750	1410	8.5	16.3
2439.0	3.9	46.0	50	9.8	1.80	28.32	91878	1146	1408	8.5	16.3
2440.0	9.4	46.0	50	9.8	1.51	28.43	92197	472	1400	8.5	16.3
2441.0	4.4	46.0	50	9.8	1.76	28.66	92882	1017	1397	8.5	16.3
2442.0	3.2	46.0	50	9.8	1.86	28.97	93817	1385	1397	8.5	16.3
2443.0	3.2	45.0	55	9.7	1.90	29.28	94851	1394	1397	8.5	16.3
2444.0	3.3	45.0	55	9.7	1.89	29.58	95842	1337	1397	8.5	16.3
2445.0	3.6	45.0	55	9.7	1.86	29.86	96755	1230	1395	8.5	16.3
2446.0	2.9	45.0	55	9.7	1.93	30.20	97881	1519	1396	8.5	16.3
2447.0	3.2	45.0	55	9.7	1.90	30.51	98911	1389	1396	8.5	16.3
2448.0	5.1	45.0	55	9.7	1.74	30.71	99556	869	1392	8.5	16.3
2449.0	12.8	45.0	55	9.7	1.44	30.79	99813	347	1384	8.5	16.3
2450.0	6.2	45.0	55	9.7	1.68	30.95	100348	720	1379	8.5	16.3
2451.0	6.2	45.0	55	9.7	1.68	31.11	100879	716	1374	8.5	16.3
2452.0	4.9	45.0	55	9.7	1.76	31.32	101558	916	1370	8.5	16.3
2453.0	4.1	45.0	55	9.7	1.82	31.56	102367	1091	1368	8.5	16.3
2454.0	4.4	45.0	55	9.7	1.79	31.79	103110	1001	1365	8.5	16.3
2455.0	3.7	45.0	55	9.7	1.85	32.06	104006	1209	1364	8.5	16.3
2456.0	11.2	47.0	56	9.7	1.51	32.15	104307	398	1357	8.5	16.3
2457.0	4.7	47.0	56	9.7	1.80	32.36	105015	938	1354	8.5	16.3
2458.0	4.2	47.0	56	9.7	1.84	32.60	105818	1063	1352	8.5	16.3
2459.0	4.5	47.0	56	9.7	1.82	32.82	106565	989	1349	8.5	16.3
2460.0	3.3	47.0	56	9.7	1.92	33.12	107586	1352	1349	8.5	16.3
2461.0	3.3	47.0	56	9.7	1.92	33.43	108611	1358	1349	8.5	16.3
2462.0	3.6	47.0	56	9.7	1.89	33.71	109540	1230	1348	8.5	16.3
2463.0	3.8	48.0	56	9.7	1.88	33.97	110416	1160	1347	8.5	16.3
2464.0	2.9	48.0	56	9.7	1.98	34.32	111592	1557	1348	8.5	16.3

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2465.0	3.5	48.0	56	9.7	1.91	34.60	112550	1268	1348	8.5	16.3
2466.0	5.5	48.0	56	9.7	1.76	34.78	113158	805	1344	8.5	16.3
2467.0	4.6	48.0	56	9.7	1.82	35.00	113887	965	1342	8.5	16.3
2468.0	3.2	48.0	56	9.7	1.95	35.31	114944	1400	1342	8.5	16.3
2469.0	3.7	48.0	56	9.7	1.89	35.58	115845	1193	1341	8.5	16.3
2470.0	4.9	48.0	56	9.7	1.80	35.79	116534	913	1338	8.5	16.3
2471.0	5.3	48.0	56	9.7	1.78	35.98	117173	845	1335	8.5	16.3
2472.0	7.7	48.0	56	9.7	1.65	36.11	117608	576	1330	8.5	16.3
2473.0	4.6	48.0	56	9.7	1.83	36.33	118343	974	1327	8.5	16.3
2474.0	2.6	48.0	56	9.7	2.02	36.72	119652	1733	1330	8.5	16.3
2475.0	2.4	48.0	56	9.7	2.05	37.14	121069	1876	1334	8.5	16.3
2476.0	2.5	48.0	56	9.7	2.02	37.53	122392	1752	1336	8.5	16.3
2477.0	2.6	48.0	56	9.7	2.01	37.91	123677	1702	1339	8.5	16.3
2478.0	3.5	48.0	56	9.7	1.92	38.20	124647	1284	1338	8.5	16.3
2479.0	3.1	48.0	56	9.7	1.95	38.52	125724	1426	1339	8.5	16.3
2480.0	5.3	48.0	56	9.7	1.78	38.71	126360	842	1336	8.5	16.3
2481.0	7.2	48.0	56	9.7	1.67	38.85	126825	617	1331	8.5	16.3
2482.0	6.7	48.0	56	9.7	1.70	39.00	127327	665	1327	8.5	16.3
2483.0	2.5	50.0	56	9.7	2.06	39.40	128671	1778	1330	8.5	16.3
2484.0	2.9	50.0	56	9.7	2.00	39.74	129816	1516	1331	8.5	16.3
2485.0	6.6	50.0	56	9.7	1.72	39.89	130322	670	1327	8.5	16.3
2486.0	8.0	50.0	56	9.7	1.66	40.02	130743	557	1322	8.5	16.3
2487.0	5.8	50.0	56	9.7	1.77	40.19	131326	772	1319	8.5	16.3
2488.0	3.7	50.0	56	9.7	1.92	40.46	132241	1212	1318	8.5	16.3
2489.0	8.8	50.0	56	9.7	1.63	40.58	132625	508	1314	8.5	16.3
2490.0	5.3	50.0	56	9.7	1.80	40.76	133259	839	1311	8.5	16.3
2491.0	4.7	50.0	56	9.7	1.84	40.98	133969	940	1309	8.5	16.3
2492.0	7.1	50.0	56	9.7	1.70	41.12	134444	629	1305	8.5	16.3
2493.0	6.9	50.0	56	9.7	1.71	41.26	134933	648	1301	8.5	16.3
2494.0	4.8	50.0	56	9.7	1.83	41.47	135637	932	1299	8.5	16.3
2495.0	8.7	50.0	56	9.7	1.63	41.59	136021	509	1294	8.5	16.3
2496.0	8.5	50.0	50	9.7	1.60	41.70	136374	523	1290	8.5	16.3
2497.0	8.5	50.0	50	9.7	1.60	41.82	136727	524	1285	8.5	16.3
2498.0	3.4	50.0	50	9.7	1.92	42.12	137618	1321	1286	8.5	16.3
2499.0	3.5	50.0	50	9.7	1.90	42.41	138478	1275	1286	8.5	16.3
2500.0	2.6	50.0	50	9.7	2.00	42.79	139619	1692	1288	8.5	16.3
2501.0	2.7	50.0	50	9.7	1.99	43.16	140731	1650	1290	8.5	16.3
2502.0	2.8	50.0	50	9.7	1.97	43.51	141786	1563	1291	8.5	16.3
2503.0	3.0	50.0	50	9.7	1.96	43.85	142802	1508	1292	8.5	16.3
2504.0	2.0	50.0	50	9.7	2.09	44.35	144306	2231	1298	8.5	16.3
2505.0	4.6	50.0	50	9.7	1.81	44.57	144957	965	1296	8.5	16.3
2506.0	4.1	50.0	50	9.7	1.85	44.81	145692	1090	1295	8.5	16.3
2507.0	5.9	50.0	50	9.7	1.72	44.98	146199	751	1292	8.5	16.3
2508.0	2.8	50.0	50	9.7	1.97	45.33	147256	1567	1293	8.5	16.3
2509.0	5.2	50.0	50	9.7	1.77	45.52	147835	859	1291	8.5	16.3
2510.0	8.4	50.0	50	9.7	1.60	45.64	148192	530	1287	8.5	16.3
2511.0	6.3	50.0	50	9.7	1.70	45.80	148668	706	1284	8.5	16.3
2512.0	8.3	50.0	50	9.7	1.61	45.92	149030	536	1280	8.5	16.3
2513.0	4.5	50.0	50	9.6	1.84	46.15	149696	989	1278	8.5	16.3
2514.0	4.9	50.0	50	9.6	1.81	46.35	150309	908	1276	8.5	16.3

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2515.0	2.3	50.0	50	9.6	2.07	46.78	151613	1934	1280	8.5	16.4
2516.0	2.8	50.0	50	9.6	2.00	47.14	152684	1589	1281	8.5	16.4
2517.0	3.3	50.0	50	9.6	1.94	47.44	153584	1335	1282	8.5	16.4
2518.0	2.8	50.0	50	9.6	2.00	47.80	154669	1609	1283	8.5	16.4
2519.0	2.8	50.0	50	9.6	2.00	48.16	155744	1594	1285	8.5	16.4
2520.0	3.6	50.0	50	9.6	1.91	48.44	156580	1240	1285	8.5	16.4
2521.0	3.7	50.0	50	9.6	1.90	48.71	157383	1190	1284	8.5	16.4
2522.0	2.9	50.0	50	9.6	1.99	49.06	158434	1560	1286	8.5	16.4
2523.0	3.3	50.0	50	9.6	1.95	49.36	159351	1359	1286	8.5	16.4
2524.0	3.2	50.0	50	9.6	1.95	49.67	160278	1375	1286	8.5	16.4
2525.0	3.7	50.0	50	9.6	1.90	49.94	161085	1196	1286	8.5	16.4
2526.0	2.6	50.0	50	9.7	2.00	50.32	162222	1686	1288	8.5	16.4
2527.0	2.6	50.0	50	9.7	2.00	50.70	163373	1707	1290	8.5	16.4
2528.0	2.5	50.0	50	9.7	2.01	51.10	164558	1757	1292	8.5	16.4
2529.0	3.3	50.0	50	9.7	1.92	51.40	165464	1345	1293	8.5	16.4
2530.0	3.4	50.0	50	9.7	1.91	51.69	166342	1301	1293	8.5	16.4
2531.0	3.8	50.0	50	9.7	1.88	51.96	167138	1181	1292	8.5	16.4
2532.0	4.0	50.0	50	9.7	1.86	52.21	167897	1125	1291	8.5	16.4
2533.0	4.3	50.0	50	9.7	1.83	52.45	168595	1036	1290	8.5	16.4
2534.0	4.2	50.0	50	9.7	1.84	52.69	169318	1071	1289	8.5	16.4
2535.0	3.1	50.0	50	9.7	1.94	53.01	170275	1420	1290	8.5	16.4
2536.0	5.0	52.0	56	9.7	1.84	53.21	170948	891	1288	8.5	16.4
2537.0	3.3	52.0	56	9.7	1.98	53.51	171961	1341	1288	8.5	16.4
2538.0	2.8	56.0	56	9.7	2.09	53.86	173150	1574	1289	8.5	16.4
2539.0	3.0	56.0	56	9.7	2.07	54.19	174255	1463	1290	8.5	16.4
2540.0	2.8	56.0	56	9.7	2.09	54.54	175444	1574	1291	8.5	16.4
2541.0	4.9	56.0	56	9.7	1.90	54.75	176136	916	1290	8.5	16.4
2542.0	11.0	56.0	56	9.7	1.61	54.84	176442	405	1286	8.5	16.4
2543.0	7.5	56.0	56	9.7	1.75	54.97	176892	597	1283	8.5	16.4
2544.0	8.2	56.0	56	9.7	1.71	55.10	177300	540	1279	8.5	16.4
2545.0	7.6	56.0	56	9.7	1.74	55.23	177745	588	1276	8.5	16.4
2546.0	8.9	56.0	56	9.7	1.68	55.34	178122	499	1273	8.5	16.4
2547.0	10.4	56.0	56	9.7	1.63	55.44	178444	426	1269	8.5	16.4
2548.0	9.3	56.0	56	9.7	1.67	55.54	178806	480	1266	8.5	16.4
2549.0	7.5	56.0	56	9.7	1.75	55.68	179255	594	1263	8.5	16.4
2550.0	8.8	56.0	56	9.7	1.69	55.79	179636	505	1259	8.5	16.4
2551.0	10.1	52.0	56	9.7	1.60	55.89	179970	441	1256	8.5	16.4
2552.0	7.5	52.0	56	9.7	1.70	56.02	180417	592	1253	8.5	16.4
2553.0	8.5	52.0	56	9.7	1.66	56.14	180814	526	1250	8.5	16.4
2554.0	6.3	52.0	56	9.7	1.76	56.30	181349	708	1247	8.5	16.4
2555.0	8.1	52.0	56	9.7	1.68	56.42	181764	549	1244	8.5	16.4
2556.0	9.2	52.0	56	9.7	1.63	56.53	182128	482	1241	8.5	16.4
2557.0	6.3	52.0	56	9.7	1.77	56.69	182665	712	1239	8.5	16.4
2558.0	4.3	52.0	56	9.7	1.89	56.92	183445	1033	1238	8.5	16.4
2559.0	4.0	52.0	56	9.7	1.92	57.18	184293	1122	1238	8.5	16.4
2560.0	3.5	52.0	56	9.7	1.97	57.47	185261	1282	1238	8.5	16.4
2561.0	2.6	55.0	55	9.7	2.10	57.85	186536	1719	1240	8.5	16.4
2562.0	4.2	55.0	55	9.7	1.93	58.09	187322	1060	1239	8.5	16.4
2563.0	3.0	55.0	55	9.7	2.05	58.42	188415	1473	1240	8.5	16.4
2564.0	3.9	55.0	55	9.7	1.96	58.68	189255	1132	1240	8.5	16.4

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2565.0	6.7	55.0	55	9.7	1.77	58.82	189747	664	1237	8.5	16.4
2566.0	3.1	55.0	55	9.7	2.04	59.15	190813	1437	1238	8.5	16.4
2567.0	2.5	58.0	55	9.7	2.16	59.55	192131	1777	1240	8.5	16.4
2568.0	5.5	58.0	55	9.7	1.87	59.73	192732	809	1238	8.5	16.4
2569.0	5.6	58.0	55	9.7	1.87	59.91	193320	793	1237	8.5	16.4
2570.0	7.0	58.0	55	9.7	1.79	60.05	193794	639	1234	8.5	16.4
2571.0	3.0	56.0	60	9.7	2.10	60.39	195006	1498	1235	8.5	16.4
2572.0	3.2	56.0	60	9.7	2.07	60.70	196132	1392	1236	8.5	16.4
2573.0	2.2	56.0	60	9.7	2.21	61.16	197793	2053	1239	8.5	16.4
2574.0	2.9	56.0	60	9.7	2.10	61.50	199022	1519	1240	8.5	16.4
2575.0	3.8	56.0	60	9.7	2.01	61.77	199971	1173	1240	8.5	16.4
2576.0	10.3	56.0	60	9.7	1.66	61.86	200320	431	1237	8.5	16.4
2577.0	16.0	56.0	60	9.7	1.50	61.93	200545	278	1233	8.5	16.4
2578.0	12.2	56.0	60	9.7	1.60	62.01	200841	366	1230	8.5	16.4
2579.0	3.2	56.0	60	9.7	2.08	62.32	201978	1405	1230	8.5	16.4
2580.0	2.6	56.0	60	9.7	2.15	62.71	203368	1718	1232	8.5	16.4
2581.0	3.4	56.0	60	9.7	2.05	63.01	204433	1316	1233	8.5	16.4
2582.0	4.0	56.0	56	9.7	1.97	63.26	205278	1118	1232	8.5	16.4
2583.0	2.0	56.0	56	9.7	2.22	63.77	206983	2258	1236	8.5	16.4
2584.0	2.8	56.0	56	9.7	2.09	64.12	208171	1573	1237	8.5	16.4
2585.0	4.4	56.0	56	9.7	1.94	64.35	208936	1013	1236	8.5	16.4
2586.0	7.0	56.0	56	9.7	1.77	64.49	209414	633	1234	8.5	16.4
2587.0	5.5	56.0	52	9.7	1.83	64.67	209978	805	1233	8.5	16.4
2588.0	7.8	56.0	52	9.7	1.71	64.80	210378	570	1230	8.5	16.4
2589.0	5.7	56.0	52	9.7	1.82	64.97	210925	780	1228	8.5	16.4
2590.0	4.8	56.0	52	9.7	1.88	65.18	211573	924	1227	8.5	16.4
2591.0	4.0	56.0	52	9.7	1.94	65.43	212353	1112	1227	8.5	16.4
2592.0	9.7	56.0	52	9.7	1.63	65.53	212675	460	1224	8.5	16.4
2593.0	12.1	56.0	52	9.7	1.55	65.62	212934	368	1221	8.5	16.4
2594.0	11.2	56.0	55	9.7	1.60	65.71	213228	397	1218	8.5	16.4
2595.0	7.4	56.0	55	9.7	1.75	65.84	213675	603	1216	8.5	16.4
2596.0	5.0	56.0	55	9.7	1.89	66.04	214341	897	1214	8.5	16.4
2597.0	6.8	56.0	55	9.7	1.77	66.19	214826	654	1212	8.5	16.4
2598.0	6.9	56.0	55	9.7	1.77	66.34	215305	646	1210	8.5	16.4
2599.0	8.6	56.0	55	9.7	1.69	66.45	215687	515	1208	8.5	16.4
2600.0	9.2	56.0	55	9.7	1.67	66.56	216045	482	1205	8.5	16.4
2601.0	8.6	46.0	55	9.7	1.58	66.68	216428	517	1203	8.5	16.4

BIT NUMBER	10	IADC CODE	517	INTERVAL	2601.0- 2676.0
HTC J22		SIZE	12.250	NOZZLES	18 18 18
COST	6788.00	TRIP TIME	8.0	BIT RUN	75.0
TOTAL HOURS	29.22	TOTAL TURNS	103159	CONDITION	T8 B3 G0.125

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2602.0	5.3	20.0	40	9.7	1.29	0.19	450	834	43214	8.5	16.4
2603.0	5.4	20.0	40	9.7	1.29	0.37	898	830	22022	8.5	16.4
2604.0	4.5	28.0	50	9.7	1.53	0.60	1571	999	15014	8.5	16.4
2605.0	9.1	28.0	50	9.7	1.32	0.71	1901	488	11383	8.5	16.4
2606.0	5.8	35.0	50	9.7	1.55	0.88	2422	774	9261	8.5	16.4
2607.0	5.8	50.0	55	9.7	1.76	1.06	2993	770	7846	8.5	16.4
2608.0	11.0	50.0	55	9.7	1.54	1.15	3294	405	6783	8.5	16.4
2609.0	5.0	50.0	50	9.7	1.78	1.35	3896	894	6047	8.5	16.4
2610.0	5.1	50.0	50	9.7	1.78	1.55	4490	880	5473	8.5	16.4
2611.0	9.9	50.0	50	9.7	1.55	1.65	4794	451	4970	8.5	16.5
2612.0	11.7	50.0	60	9.7	1.55	1.73	5103	382	4553	8.5	16.5
2613.0	9.3	55.0	70	9.7	1.74	1.84	5553	477	4214	8.5	16.5
2614.0	7.7	55.0	50	9.7	1.69	1.97	5943	578	3934	8.5	16.5
2615.0	13.4	55.0	50	9.7	1.49	2.04	6167	331	3677	8.5	16.5
2616.0	4.8	55.0	50	9.7	1.85	2.25	6792	927	3493	8.5	16.5
2617.0	6.4	50.0	60	9.7	1.76	2.41	7352	692	3318	8.5	16.5
2618.0	13.8	50.0	60	9.7	1.50	2.48	7613	323	3142	8.5	16.5
2619.0	19.7	50.0	80	9.7	1.47	2.53	7857	226	2980	8.5	16.5
2620.0	13.4	50.0	80	9.7	1.60	2.61	8215	332	2841	8.5	16.5
2621.0	14.6	52.0	50	9.7	1.43	2.67	8420	304	2714	8.5	16.5
2622.0	13.8	52.0	50	9.7	1.45	2.75	8637	321	2600	8.5	16.5
2623.0	15.1	52.0	70	9.7	1.54	2.81	8915	294	2495	8.5	16.5
2624.0	11.4	52.0	70	9.7	1.64	2.90	9284	391	2404	8.5	16.5
2625.0	15.3	52.0	70	9.7	1.53	2.97	9558	290	2316	8.5	16.5
2626.0	31.6	52.0	70	9.7	1.28	3.00	9691	141	2229	8.5	16.5
2627.0	20.1	50.0	80	9.7	1.47	3.05	9930	221	2151	8.5	16.5
2628.0	14.9	50.0	80	9.7	1.57	3.11	10253	299	2083	8.5	16.5
2629.0	20.0	50.0	80	9.7	1.47	3.16	10493	222	2016	8.5	16.5
2630.0	28.3	50.0	80	9.7	1.35	3.20	10662	157	1952	8.5	16.5
2631.0	27.3	50.0	80	9.7	1.36	3.24	10838	163	1893	8.5	16.5
2632.0	25.2	50.0	80	9.7	1.39	3.28	11029	177	1837	8.5	16.5
2633.0	20.9	50.0	80	9.7	1.45	3.32	11258	213	1786	8.5	16.5
2634.0	22.1	50.0	80	9.7	1.43	3.37	11475	201	1738	8.5	16.5
2635.0	7.2	50.0	80	9.7	1.82	3.51	12143	619	1706	8.5	16.5
2636.0	4.9	50.0	80	9.7	1.95	3.71	13126	911	1683	8.5	16.5
2637.0	4.6	50.0	80	9.7	1.97	3.93	14179	976	1663	8.5	16.5
2638.0	3.1	48.0	70	9.7	2.03	4.25	15524	1425	1657	8.5	16.5
2639.0	1.5	54.0	70	9.7	2.38	4.94	18408	3055	1694	8.5	16.5
2640.0	1.2	50.0	50	9.7	2.27	5.78	20923	3729	1746	8.5	16.5
2641.0	1.4	40.0	60	9.7	2.13	6.51	23544	3239	1783	8.5	16.5
2642.0	1.9	50.0	70	9.7	2.23	7.04	25809	2400	1798	8.5	16.5
2643.0	1.5	50.0	70	9.7	2.31	7.71	28609	2966	1826	8.5	16.5
2644.0	1.6	50.0	70	9.7	2.29	8.34	31249	2797	1848	8.5	16.5

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2645.0	2.0	50.0	60	9.7	2.15	8.84	33037	2210	1857	8.5	16.5
2646.0	1.4	50.0	60	9.7	2.28	9.56	35646	3224	1887	8.5	16.5
2647.0	1.7	50.0	60	9.7	2.20	10.14	37713	2554	1902	8.5	16.5
2648.0	1.3	50.0	60	9.7	2.30	10.90	40468	3405	1934	8.5	16.5
2649.0	1.6	50.0	60	9.7	2.23	11.52	42711	2772	1951	8.5	16.5
2650.0	1.6	50.0	60	9.7	2.22	12.13	44906	2713	1967	8.5	16.5
2651.0	1.7	50.0	60	9.7	2.20	12.71	46969	2550	1978	8.5	16.5
2652.0	1.6	50.0	60	9.7	2.24	13.35	49279	2855	1995	8.5	16.5
2653.0	1.7	50.0	60	9.7	2.21	13.93	51389	2608	2007	8.5	16.5
2654.0	2.1	50.0	60	9.7	2.14	14.41	53091	2103	2009	8.5	16.5
2655.0	1.6	50.0	60	9.7	2.24	15.04	55370	2816	2024	8.5	16.5
2656.0	1.6	50.0	60	9.7	2.22	15.65	57572	2721	2037	8.5	16.5
2657.0	1.7	48.0	60	9.7	2.18	16.24	59696	2625	2047	8.5	16.5
2658.0	1.7	50.0	60	9.7	2.21	16.82	61780	2575	2056	8.5	16.5
2659.0	1.8	50.0	60	9.7	2.20	17.39	63835	2540	2065	8.5	16.5
2660.0	1.8	50.0	60	9.7	2.18	17.93	65782	2406	2071	8.5	16.5
2661.0	1.8	50.0	60	9.7	2.19	18.48	67747	2428	2077	8.5	16.5
2662.0	1.6	50.0	60	9.8	2.20	19.09	69937	2706	2087	8.5	16.5
2663.0	1.4	48.0	60	9.8	2.22	19.80	72509	3178	2104	8.5	16.5
2664.0	1.9	48.0	70	9.8	2.17	20.32	74668	2288	2107	8.5	16.5
2665.0	1.9	50.0	50	9.8	2.09	20.84	76240	2331	2111	8.5	16.5
2666.0	1.6	50.0	50	9.8	2.14	21.45	78087	2739	2120	8.5	16.5
2667.0	2.4	50.0	50	9.8	2.01	21.88	79347	1870	2117	8.5	16.5
2668.0	1.3	50.0	50	9.8	2.23	22.67	81731	3534	2138	8.5	16.5
2669.0	1.6	50.0	50	9.8	2.15	23.30	83632	2819	2148	8.5	16.5
2670.0	0.8	60.0	55	9.7	2.58	24.50	87578	5320	2194	8.5	16.5
2671.0	1.2	60.0	55	9.7	2.44	25.31	90262	3619	2214	8.5	16.5
2672.0	1.1	60.0	55	9.7	2.48	26.22	93262	4045	2240	8.5	16.5
2673.0	2.7	60.0	55	9.7	2.15	26.59	94484	1648	2232	8.5	16.5
2674.0	1.2	52.0	55	9.7	2.33	27.43	97234	3708	2252	8.5	16.5
2675.0	2.0	52.0	55	9.7	2.15	27.93	98884	2225	2252	8.5	16.5
2676.0	0.8	52.0	55	9.7	2.48	29.22	103159	5763	2298	8.5	16.5

BIT NUMBER	11	IADC CODE	537	INTERVAL	2676.0- 2797.0
HTC J33		SIZE	12.250	NOZZLES	18 18 18
COST	6637.00	TRIP TIME	7.9	BIT RUN	121.0
TOTAL HOURS	28.28	TOTAL TURNS	96582	CONDITION	T8 B8 G0.000

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2677.0	2.8	40.0	50	9.7	1.84	0.36	1074	1593	43377	8.5	16.5
2678.0	2.3	40.0	50	9.7	1.90	0.79	2373	1927	22652	8.5	16.5
2679.0	2.5	40.0	50	9.7	1.88	1.19	3565	1767	15690	8.5	16.5
2680.0	3.6	45.0	50	9.7	1.83	1.46	4391	1226	12074	8.5	16.5
2681.0	3.6	45.0	50	9.7	1.83	1.75	5236	1253	9910	8.5	16.5
2682.0	9.8	48.0	50	9.7	1.53	1.85	5543	455	8334	8.5	16.5
2683.0	12.3	48.0	50	9.7	1.45	1.93	5786	361	7195	8.5	16.5
2684.0	14.0	48.0	50	9.7	1.41	2.00	6001	318	6335	8.5	16.5
2685.0	14.9	48.0	50	9.7	1.39	2.07	6201	298	5665	8.5	16.5
2686.0	26.7	48.0	50	9.7	1.19	2.10	6314	167	5115	8.5	16.5
2687.0	20.3	48.0	50	9.7	1.28	2.15	6461	219	4670	8.5	16.5
2688.0	8.5	48.0	50	9.7	1.58	2.27	6815	524	4324	8.5	16.5
2689.0	5.5	48.0	50	9.7	1.72	2.45	7359	807	4054	8.5	16.5
2690.0	3.5	48.0	50	9.7	1.88	2.74	8214	1268	3855	8.5	16.5
2691.0	4.5	48.0	50	9.7	1.79	2.96	8882	991	3664	8.5	16.5
2692.0	3.7	48.0	50	9.7	1.86	3.23	9691	1200	3510	8.5	16.5
2693.0	6.5	48.0	50	9.7	1.67	3.39	10156	688	3344	8.5	16.5
2694.0	19.3	48.0	50	9.7	1.30	3.44	10311	231	3171	8.5	16.5
2695.0	16.6	48.0	50	9.7	1.35	3.50	10492	268	3018	8.5	16.5
2696.0	10.7	48.0	50	9.7	1.50	3.59	10774	418	2888	8.5	16.5
2697.0	4.8	48.0	50	9.7	1.77	3.80	11396	922	2794	8.5	16.5
2698.0	2.5	48.0	50	9.7	1.99	4.20	12594	1777	2748	8.5	16.5
2699.0	2.9	48.0	50	9.7	1.94	4.54	13628	1534	2695	8.5	16.5
2700.0	3.6	48.0	50	9.7	1.86	4.82	14456	1227	2634	8.5	16.5
2701.0	4.3	50.0	53	9.7	1.85	5.05	15201	1043	2571	8.5	16.5
2702.0	5.8	50.0	53	9.7	1.75	5.23	15752	771	2501	8.5	16.5
2703.0	7.9	50.0	53	9.7	1.64	5.35	16156	565	2430	8.5	16.5
2704.0	4.9	50.0	53	9.7	1.81	5.56	16806	910	2375	8.5	16.5
2705.0	5.9	50.0	53	9.7	1.75	5.73	17347	758	2320	8.5	16.5
2706.0	5.5	50.0	53	9.7	1.77	5.91	17930	816	2269	8.5	16.5
2707.0	6.1	50.0	53	9.7	1.73	6.08	18453	732	2220	8.5	16.5
2708.0	4.6	50.0	53	9.7	1.83	6.29	19145	968	2181	8.5	16.5
2709.0	7.1	50.0	53	9.7	1.68	6.43	19593	627	2134	8.5	16.6
2710.0	5.1	50.0	53	9.7	1.80	6.63	20221	879	2097	8.5	16.6
2711.0	7.9	50.0	53	9.7	1.64	6.76	20621	560	2053	8.5	16.6
2712.0	5.6	50.0	53	9.7	1.76	6.94	21191	797	2018	8.5	16.6
2713.0	6.6	50.0	53	9.7	1.71	7.09	21675	677	1982	8.5	16.6
2714.0	6.4	50.0	53	9.7	1.72	7.25	22173	697	1948	8.5	16.6
2715.0	6.3	50.0	53	9.7	1.72	7.40	22679	708	1916	8.5	16.6
2716.0	5.3	50.0	53	9.7	1.78	7.59	23275	833	1889	8.5	16.6
2717.0	5.5	45.0	50	9.7	1.69	7.77	23817	805	1863	8.5	16.6
2718.0	6.3	45.0	50	9.7	1.65	7.93	24296	711	1835	8.5	16.6
2719.0	5.6	45.0	50	9.7	1.68	8.11	24830	792	1811	8.5	16.6

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2720.0	5.7	50.0	55	9.7	1.77	8.29	25414	787	1788	8.5	16.6
2721.0	5.5	50.0	55	9.7	1.78	8.47	26018	813	1766	8.5	16.6
2722.0	5.6	50.0	55	9.7	1.77	8.65	26608	796	1745	8.5	16.6
2723.0	5.7	50.0	55	9.7	1.77	8.82	27184	776	1724	8.5	16.6
2724.0	6.0	50.0	55	9.7	1.75	8.99	27734	742	1704	8.5	16.6
2725.0	7.6	50.0	70	9.7	1.75	9.12	28289	588	1681	8.5	16.6
2726.0	4.4	50.0	70	9.7	1.94	9.35	29233	1000	1667	8.5	16.6
2727.0	5.7	50.0	70	9.7	1.85	9.52	29964	775	1650	8.5	16.6
2728.0	5.7	50.0	70	9.7	1.85	9.70	30698	777	1633	8.5	16.6
2729.0	7.0	50.0	57	9.7	1.71	9.84	31186	635	1614	8.5	16.6
2730.0	9.9	48.0	55	9.7	1.56	9.94	31518	447	1593	8.5	16.6
2731.0	4.5	48.0	55	9.7	1.82	10.16	32245	980	1582	8.5	16.6
2732.0	6.8	48.0	75	9.7	1.79	10.31	32909	656	1565	8.5	16.6
2733.0	6.1	48.0	60	9.7	1.75	10.47	33499	729	1550	8.5	16.6
2734.0	6.8	50.0	55	9.7	1.71	10.62	33984	654	1535	8.5	16.6
2735.0	5.5	50.0	55	9.7	1.78	10.80	34584	809	1523	8.5	16.6
2736.0	5.1	50.0	55	9.7	1.81	11.00	35231	872	1512	8.5	16.6
2737.0	4.7	50.0	55	9.7	1.83	11.21	35933	947	1502	8.5	16.6
2738.0	5.2	50.0	55	9.7	1.80	11.40	36568	856	1492	8.5	16.6
2739.0	4.8	50.0	55	9.7	1.83	11.61	37256	927	1483	8.5	16.6
2740.0	7.5	50.0	55	9.7	1.67	11.74	37694	592	1469	8.5	16.6
2741.0	4.4	50.0	55	9.7	1.86	11.97	38452	1021	1462	8.5	16.6
2742.0	5.2	50.0	55	9.7	1.80	12.16	39089	859	1453	8.5	16.6
2743.0	4.0	50.0	55	9.7	1.89	12.42	39916	1115	1448	8.5	16.6
2744.0	5.3	50.0	55	9.7	1.79	12.60	40536	837	1439	8.5	16.6
2745.0	4.2	50.0	55	9.7	1.87	12.84	41320	1057	1434	8.5	16.6
2746.0	2.7	46.0	70	9.7	2.05	13.21	42872	1644	1437	8.5	16.6
2747.0	1.6	46.0	70	9.7	2.23	13.85	45549	2836	1456	8.5	16.6
2748.0	7.5	48.0	56	9.7	1.66	13.98	45996	592	1444	8.5	16.6
2749.0	6.1	48.0	56	9.7	1.73	14.15	46548	730	1434	8.5	16.6
2750.0	5.3	48.0	56	9.7	1.78	14.33	47184	843	1426	8.5	16.6
2751.0	6.0	48.0	56	9.7	1.73	14.50	47743	740	1417	8.5	16.6
2752.0	4.5	48.0	56	9.7	1.83	14.73	48496	997	1412	8.5	16.6
2753.0	7.5	48.0	56	9.7	1.66	14.86	48943	591	1401	8.5	16.6
2754.0	5.5	48.0	56	9.7	1.76	15.04	49551	806	1393	8.5	16.6
2755.0	6.4	48.0	56	9.7	1.71	15.19	50073	691	1385	8.5	16.6
2756.0	5.6	48.0	56	9.7	1.76	15.37	50674	796	1377	8.5	16.6
2757.0	5.7	48.0	56	9.7	1.75	15.55	51260	776	1370	8.5	16.6
2758.0	4.7	48.0	56	9.7	1.82	15.76	51978	950	1365	8.5	16.6
2759.0	5.6	57.0	56	9.7	1.86	15.94	52580	797	1358	8.5	16.6
2760.0	5.1	57.0	56	9.7	1.89	16.13	53233	865	1352	8.5	16.6
2761.0	3.6	57.0	56	9.7	2.02	16.42	54175	1247	1351	8.5	16.6
2762.0	3.5	57.0	56	9.7	2.03	16.70	55138	1275	1350	8.5	16.6
2763.0	5.7	57.0	56	9.7	1.85	16.88	55723	775	1343	8.5	16.6
2764.0	3.9	57.0	56	9.7	1.99	17.14	56596	1156	1341	8.5	16.6
2765.0	3.2	57.0	56	9.7	2.06	17.44	57632	1372	1341	8.5	16.6
2766.0	5.0	57.0	56	9.7	1.90	17.65	58310	897	1337	8.5	16.6
2767.0	4.9	50.0	65	9.7	1.88	17.85	59111	915	1332	8.5	16.6
2768.0	5.4	50.0	60	9.7	1.82	18.04	59780	827	1326	8.5	16.6
2769.0	4.0	50.0	60	9.7	1.92	18.29	60680	1112	1324	8.5	16.6

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2770.0	3.3	50.0	56	9.7	1.96	18.59	61686	1332	1324	8.5	16.6
2771.0	2.7	50.0	56	9.7	2.03	18.96	62926	1641	1328	8.5	16.6
2772.0	3.9	50.0	56	9.7	1.91	19.21	63794	1149	1326	8.5	16.6
2773.0	4.2	48.0	56	9.7	1.86	19.45	64599	1067	1323	8.5	16.6
2774.0	4.9	48.0	56	9.7	1.80	19.66	65283	906	1319	8.5	16.6
2775.0	2.5	48.0	56	9.7	2.03	20.06	66622	1772	1323	8.5	16.6
2776.0	3.4	48.0	56	9.7	1.92	20.35	67607	1305	1323	8.5	16.6
2777.0	2.8	48.0	56	9.7	1.99	20.71	68807	1588	1326	8.5	16.6
2778.0	6.5	48.0	56	9.7	1.71	20.86	69325	686	1320	8.5	16.6
2779.0	2.3	48.0	60	9.7	2.08	21.30	70904	1951	1326	8.5	16.6
2780.0	2.1	50.0	50	9.7	2.07	21.77	72318	2097	1333	8.5	16.6
2781.0	1.9	50.0	50	9.7	2.10	22.29	73866	2296	1342	8.5	16.6
2782.0	2.6	50.0	50	9.7	2.00	22.67	75011	1698	1346	8.5	16.6
2783.0	1.8	50.0	50	9.7	2.13	23.23	76695	2498	1356	8.5	16.6
2784.0	3.1	48.0	56	9.7	1.96	23.56	77796	1457	1357	8.5	16.6
2785.0	2.6	48.0	56	9.7	2.01	23.94	79086	1708	1361	8.5	16.6
2786.0	4.9	48.0	56	9.7	1.80	24.14	79768	903	1356	8.5	16.6
2787.0	3.5	48.0	56	9.7	1.92	24.43	80731	1275	1356	8.5	16.6
2788.0	3.6	48.0	56	9.7	1.91	24.71	81678	1253	1355	8.5	16.6
2789.0	3.3	48.0	56	9.7	1.94	25.02	82702	1357	1355	8.5	16.6
2790.0	2.6	50.0	75	9.7	2.14	25.40	84427	1705	1358	8.5	16.6
2791.0	5.2	50.0	75	9.7	1.91	25.59	85292	855	1353	8.5	16.6
2792.0	3.2	50.0	75	9.7	2.07	25.90	86677	1369	1354	8.5	16.6
2793.0	5.1	50.0	75	9.7	1.91	26.10	87555	868	1349	8.5	16.6
2794.0	2.6	50.0	75	9.7	2.14	26.47	89254	1679	1352	8.5	16.6
2795.0	2.4	50.0	75	9.7	2.18	26.90	91167	1892	1357	8.5	16.6
2796.0	2.0	50.0	75	9.7	2.23	27.39	93385	2192	1364	8.5	16.6
2797.0	1.1	28.0	60	9.7	1.97	28.28	96582	3951	1385	8.5	16.6

BIT NUMBER	12	IADC CODE	316	INTERVAL	2799.0- 2802.0
HTC J7		SIZE	8.500	NOZZLES	12 12 12
COST	1260.00	TRIP TIME	7.9	BIT RUN	3.0
TOTAL HOURS	0.54	TOTAL TURNS	2345	CONDITION	T7 B2 G0.000

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FC
2800.0	7.8	20.0	65	9.2	1.53	0.13	502	573	36980	8.5	16.5
2801.0	7.1	25.0	65	9.2	1.66	0.27	1049	624	18802	8.5	16.5
2802.0	3.7	25.0	80	9.2	1.94	0.54	2345	1201	12935	8.5	16.5

BIT NUMBER	13	IADC CODE	316	INTERVAL	2802.0- 2805.0
HTC J7		SIZE	8.500	NOZZLES	12 12 12
COST	1260.00	TRIP TIME	7.9	BIT RUN	3.0
TOTAL HOURS	0.46	TOTAL TURNS	1522	CONDITION	T3 B2 G0.000

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2803.0	6.3	20.0	55	9.2	1.55	0.16	527	711	37118	8.5	16.5
2804.0	8.0	20.0	55	9.2	1.47	0.28	940	556	18837	8.5	16.5
2805.0	5.7	20.0	55	9.2	1.58	0.46	1522	785	12820	8.5	16.5

BIT NUMBER	13	IADC CODE	4	INTERVAL	2805.0- 2807.8
CHRISTENSEN C-20		SIZE	8.469	NOZZLES	13 13 13
COST	13000.00	TRIP TIME	8.0	BIT RUN	2.8
TOTAL HOURS	2.61	TOTAL TURNS	12808	CONDITION	T0 B0 G1.000

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2805.2	1.2	10.0	80	9.2	1.81	0.17	800	3708	246668	8.5	16.6
2805.4	0.5	10.0	80	9.2	2.05	0.58	2801	9275	127971	8.5	16.6
2805.6	4.0	15.0	80	9.2	1.66	0.63	3039	1100	85681	8.5	16.6
2805.8	1.7	20.0	82	9.2	2.06	0.75	3602	2546	64897	8.5	16.6
2806.0	1.8	20.0	82	9.2	2.05	0.86	4137	2422	52402	8.5	16.6
2806.2	3.5	20.0	80	9.2	1.84	0.91	4413	1279	43882	8.5	16.6
2806.4	1.8	20.0	80	9.2	2.04	1.02	4943	2453	37963	8.5	16.6
2806.6	0.6	19.0	81	9.2	2.36	1.37	6607	7619	34170	8.5	16.6
2806.8	0.7	20.0	80	9.2	2.35	1.67	8041	6643	31112	8.5	16.6
2807.0	2.3	20.0	80	9.2	1.97	1.75	8453	1909	28191	8.5	16.6
2807.2	1.1	19.0	80	9.2	2.17	1.94	9357	4189	26009	8.5	16.6
2807.4	0.9	19.0	80	9.2	2.22	2.16	10426	4956	24255	8.5	16.6
2807.6	2.2	19.0	80	9.2	1.95	2.25	10862	2021	22545	8.5	16.6
2807.8	0.6	15.0	91	9.2	2.26	2.61	12808	7928	21501	8.5	16.6

BIT NUMBER	14	IADC CODE	537	INTERVAL	2807.8- 2860.0
HTC J33		SIZE	8.500	NOZZLES	12 12 12
COST	3703.00	TRIP TIME	8.1	BIT RUN	52.2
TOTAL HOURS	11.73	TOTAL TURNS	40486	CONDITION	T4 B4 G0.125

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2808.0	1.1	10.0	40	9.2	1.66	0.18	436	4045	202744	8.5	16.6
2809.0	8.2	20.0	40	9.2	1.37	0.30	729	543	34243	8.5	16.6
2810.0	2.6	25.0	40	9.2	1.83	0.69	1652	1711	19456	8.5	16.6
2811.0	4.0	25.0	40	9.2	1.69	0.94	2247	1102	13720	8.5	16.6
2812.0	5.6	30.0	55	9.2	1.78	1.11	2836	794	10643	8.5	16.6
2813.0	4.0	30.0	55	9.2	1.90	1.36	3661	1112	8810	8.5	16.6
2814.0	7.0	30.0	55	9.2	1.71	1.51	4132	636	7491	8.5	16.6
2815.0	4.0	30.0	55	9.2	1.90	1.76	4957	1112	6605	8.5	16.6
2816.0	5.5	30.0	55	9.2	1.79	1.94	5557	809	5899	8.5	16.6
2817.0	2.9	29.0	55	9.2	1.99	2.29	6708	1551	5426	8.5	16.6
2818.0	4.0	29.0	55	9.2	1.88	2.54	7535	1115	5003	8.5	16.6
2819.0	5.3	29.0	55	9.2	1.78	2.73	8157	839	4631	8.5	16.6
2820.0	5.0	29.0	56	9.2	1.81	2.93	8835	897	4325	8.5	16.6
2821.0	5.2	29.0	56	9.2	1.80	3.12	9484	860	4063	8.5	16.6
2822.0	6.7	29.0	56	9.2	1.71	3.27	9985	664	3824	8.5	16.6
2823.0	4.8	29.0	56	9.2	1.83	3.48	10692	936	3634	8.5	16.6
2824.0	4.7	29.0	56	9.2	1.83	3.69	11408	948	3468	8.5	16.6
2825.0	5.5	30.0	55	9.2	1.79	3.88	12006	806	3313	8.5	16.6
2826.0	4.2	30.0	55	9.2	1.88	4.11	12783	1048	3189	8.5	16.6
2827.0	5.9	30.0	55	9.2	1.77	4.28	13347	760	3062	8.5	16.6
2828.0	4.6	30.0	55	9.2	1.85	4.50	14063	965	2958	8.5	16.6
2829.0	3.7	30.0	55	9.2	1.93	4.77	14967	1219	2876	8.5	16.6
2830.0	4.3	30.0	55	9.2	1.87	5.00	15730	1029	2793	8.5	16.6
2831.0	4.0	29.0	56	9.2	1.89	5.25	16571	1113	2721	8.5	16.6
2832.0	3.8	29.0	56	9.2	1.90	5.52	17451	1165	2656	8.5	16.6
2833.0	3.4	29.0	56	9.2	1.94	5.81	18439	1308	2603	8.5	16.6
2834.0	4.9	29.0	56	9.2	1.82	6.01	19124	907	2538	8.5	16.6
2835.0	7.0	29.0	70	9.2	1.77	6.16	19722	634	2468	8.5	16.6
2836.0	6.2	29.0	70	9.2	1.81	6.32	20400	718	2406	8.5	16.6
2837.0	5.9	29.0	70	9.2	1.83	6.49	21118	760	2350	8.5	16.6
2838.0	5.7	29.0	70	9.2	1.84	6.67	21856	782	2298	8.5	16.6
2839.0	6.3	29.0	70	9.2	1.81	6.82	22520	703	2247	8.5	16.6
2840.0	9.4	30.0	90	9.2	1.78	6.93	23095	473	2192	8.5	16.6
2841.0	6.1	30.0	70	9.2	1.84	7.09	23782	728	2147	8.5	16.6
2842.0	6.8	30.0	55	9.2	1.72	7.24	24270	659	2104	8.5	16.6
2843.0	4.1	30.0	55	9.2	1.89	7.48	25070	1078	2075	8.5	16.6
2844.0	6.2	30.0	70	9.2	1.83	7.64	25744	714	2037	8.5	16.6
2845.0	4.6	30.0	70	9.2	1.94	7.86	26667	978	2009	8.5	16.6
2846.0	6.7	30.0	70	9.2	1.81	8.01	27297	667	1974	8.5	16.6
2847.0	7.0	30.0	70	9.2	1.79	8.16	27898	636	1940	8.5	16.6
2848.0	7.3	30.0	70	9.2	1.77	8.29	28470	607	1906	8.5	16.6
2849.0	9.3	28.0	70	9.2	1.66	8.40	28923	480	1872	8.5	16.6
2850.0	10.3	30.0	70	9.2	1.66	8.50	29333	434	1838	8.5	16.6

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2851.0	7.2	30.0	70	9.2	1.78	8.64	29916	618	1809	8.5	16.6
2852.0	8.7	30.0	70	9.2	1.72	8.75	30399	512	1780	8.5	16.6
2853.0	4.6	30.0	70	9.2	1.94	8.97	31318	974	1762	8.5	16.6
2854.0	7.8	30.0	70	9.2	1.75	9.10	31854	567	1736	8.5	16.6
2855.0	6.3	29.0	70	9.2	1.81	9.26	32526	712	1715	8.5	16.6
2856.0	3.0	30.0	50	9.2	1.97	9.59	33532	1493	1710	8.5	16.6
2857.0	3.5	30.0	50	9.2	1.92	9.88	34401	1288	1701	8.5	16.6
2858.0	2.4	29.0	51	9.2	2.03	10.31	35696	1883	1705	8.5	16.6
2859.0	1.8	29.0	56	9.2	2.16	10.87	37583	2499	1721	8.5	16.6
2860.0	1.2	30.0	56	9.2	2.33	11.73	40486	3843	1761	8.5	16.6

BIT NUMBER	15	IADC CODE	537	INTERVAL	2860.0- 2914.0
HTC J33		SIZE	8.500	NOZZLES	12 12 12
COST	3703.00	TRIP TIME	8.2	BIT RUN	54.0
TOTAL HOURS	11.17	TOTAL TURNS	38909	CONDITION	T5 B4 G0.125

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2861.0	3.5	20.0	55	9.2	1.73	0.29	945	1274	41459	8.5	16.6
2862.0	2.6	30.0	60	9.2	2.07	0.67	2311	1688	21574	8.5	16.6
2863.0	5.3	30.0	60	9.2	1.84	0.86	2996	847	14665	8.5	16.6
2864.0	4.0	28.0	60	9.2	1.89	1.10	3890	1105	11275	8.5	16.6
2865.0	4.6	28.0	60	9.2	1.84	1.32	4675	970	9214	8.5	16.6
2866.0	4.3	28.0	60	9.2	1.86	1.55	5504	1025	7849	8.5	16.6
2867.0	5.1	28.0	60	9.2	1.81	1.75	6207	869	6852	8.5	16.6
2868.0	4.6	25.0	60	9.2	1.78	1.97	6992	970	6117	8.5	16.6
2869.0	4.8	30.0	60	9.2	1.86	2.17	7735	918	5539	8.5	16.6
2870.0	5.0	30.0	60	9.2	1.86	2.37	8461	897	5075	8.5	16.6
2871.0	4.6	30.0	60	9.2	1.88	2.59	9241	964	4701	8.5	16.6
2872.0	6.4	30.0	60	9.2	1.77	2.75	9801	692	4367	8.5	16.6
2873.0	3.4	30.0	60	9.2	1.99	3.04	10857	1305	4131	8.5	16.6
2874.0	4.2	30.0	60	9.2	1.91	3.28	11712	1057	3912	8.5	16.6
2875.0	4.7	30.0	60	9.2	1.87	3.49	12472	939	3714	8.5	16.6
2876.0	3.8	30.0	60	9.2	1.95	3.75	13420	1172	3555	8.5	16.6
2877.0	5.8	30.0	60	9.2	1.80	3.92	14041	767	3391	8.5	16.6
2878.0	5.4	30.0	60	9.2	1.82	4.11	14702	817	3248	8.5	16.6
2879.0	4.2	30.0	60	9.2	1.92	4.35	15568	1070	3133	8.5	16.6
2880.0	6.3	30.0	60	9.2	1.78	4.51	16142	709	3012	8.5	16.6
2881.0	7.1	30.0	60	9.2	1.73	4.65	16649	627	2898	8.5	16.6
2882.0	5.7	30.0	60	9.2	1.81	4.82	17276	775	2802	8.5	16.6
2883.0	6.2	30.0	60	9.2	1.78	4.98	17853	713	2711	8.5	16.6
2884.0	6.5	30.0	60	9.2	1.76	5.14	18407	685	2627	8.5	16.6
2885.0	8.6	30.0	60	9.2	1.67	5.25	18826	518	2542	8.5	16.6
2886.0	7.2	30.0	60	9.2	1.73	5.39	19326	618	2468	8.5	16.6
2887.0	5.2	30.0	60	9.2	1.84	5.58	20017	854	2408	8.5	16.6
2888.0	5.1	30.0	50	9.2	1.78	5.78	20602	868	2353	8.5	16.6
2889.0	4.6	30.0	50	9.2	1.82	6.00	21260	975	2306	8.5	16.6
2890.0	4.7	29.0	51	9.2	1.80	6.21	21913	950	2261	8.5	16.6
2891.0	3.7	30.0	55	9.2	1.93	6.48	22809	1207	2227	8.5	16.6
2892.0	5.2	30.0	60	9.2	1.84	6.68	23506	861	2184	8.5	16.6
2893.0	5.8	30.0	60	9.2	1.80	6.85	24128	769	2141	8.5	16.6
2894.0	5.2	30.0	55	9.2	1.81	7.04	24761	853	2103	8.5	16.6
2895.0	5.6	30.0	55	9.2	1.79	7.22	25351	796	2066	8.5	16.6
2896.0	6.5	30.0	55	9.2	1.74	7.38	25862	690	2028	8.5	16.6
2897.0	5.4	30.0	55	9.2	1.80	7.56	26470	819	1995	8.5	16.6
2898.0	4.7	30.0	55	9.2	1.85	7.77	27180	957	1968	8.5	16.6
2899.0	5.8	30.0	55	9.2	1.77	7.95	27746	764	1937	8.5	16.6
2900.0	5.0	30.0	55	9.2	1.82	8.15	28407	891	1911	8.5	16.6
2901.0	4.3	30.0	55	9.2	1.87	8.38	29172	1032	1889	8.5	16.6
2902.0	4.1	30.0	50	9.2	1.86	8.63	29912	1097	1870	8.5	16.6
2903.0	4.7	30.0	50	9.2	1.81	8.84	30553	950	1849	8.5	16.6

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2904.0	3.3	30.0	50	9.2	1.94	9.14	31467	1354	1838	8.5	16.6
2905.0	3.6	30.0	50	9.2	1.90	9.42	32298	1233	1824	8.5	16.6
2906.0	5.6	30.0	60	9.2	1.81	9.60	32941	795	1802	8.5	16.6
2907.0	6.1	30.0	65	9.2	1.81	9.76	33580	729	1779	8.5	16.6
2908.0	8.0	30.0	65	9.2	1.72	9.89	34070	559	1754	8.5	16.7
2909.0	3.5	30.0	65	9.2	2.00	10.17	35185	1272	1744	8.5	16.7
2910.0	2.4	30.0	65	9.2	2.13	10.59	36816	1861	1746	8.5	16.7
2911.0	4.4	30.0	60	9.2	1.90	10.82	37631	1007	1732	8.5	16.7
2912.0	6.7	30.0	60	9.2	1.75	10.97	38165	660	1711	8.5	16.7
2913.0	11.5	30.0	60	9.2	1.57	11.05	38478	387	1686	8.5	16.7
2914.0	8.4	30.0	60	9.2	1.68	11.17	38909	533	1665	8.5	16.7

BIT NUMBER	15	IADC CODE	4	INTERVAL	2914.0- 2916.0
CHRIS C-20		SIZE	8.469	NOZZLES	13 13 13
COST	13000.00	TRIP TIME	8.2	BIT RUN	2.0
TOTAL HOURS	1.89	TOTAL TURNS	9369	CONDITION	T0 B0 G0.900

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2914.2	0.4	12.0	75	9.2	2.17	0.50	2250	11123	258532	8.5	16.7
2914.4	1.1	15.0	75	9.2	2.01	0.68	3060	4004	131268	8.5	16.6
2914.6	1.5	15.0	75	9.2	1.92	0.81	3654	2935	88490	8.5	16.6
2914.8	2.3	15.0	75	9.2	1.81	0.90	4053	1971	66860	8.5	16.6
2915.0	1.8	18.0	90	9.2	2.02	1.01	4644	2435	53975	8.5	16.6
2915.2	1.2	16.0	90	9.2	2.08	1.18	5574	3831	45618	8.5	16.6
2915.4	1.4	16.0	90	9.2	2.02	1.32	6321	3077	39541	8.5	16.6
2915.6	1.1	16.0	90	9.2	2.09	1.50	7273	3924	35089	8.5	16.6
2915.8	0.7	16.0	90	9.2	2.21	1.77	8745	6062	31863	8.5	16.6
2916.0	1.7	15.0	90	9.2	1.94	1.89	9369	2571	28934	8.5	16.6

BIT NUMBER	16	IADC CODE	617	INTERVAL	2916.0- 2972.0
HTC J44		SIZE	8.500	NOZZLES	12 12 12
COST	3304.00	TRIP TIME	8.3	BIT RUN	56.0
TOTAL HOURS	16.84	TOTAL TURNS	59660	CONDITION	T2 B4 G0.000

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2917.0	3.7	25.0	52	9.2	1.81	0.27	855	1219	41450	8.5	16.7
2918.0	4.9	30.0	51	9.2	1.80	0.48	1480	908	21179	8.5	16.7
2919.0	6.9	25.0	51	9.2	1.60	0.62	1923	645	14334	8.5	16.7
2920.0	2.9	25.0	50	9.2	1.87	0.97	2955	1530	11133	8.5	16.7
2921.0	5.4	30.0	50	9.2	1.77	1.15	3513	828	9072	8.5	16.7
2922.0	3.3	30.0	50	9.2	1.93	1.46	4426	1353	7786	8.5	16.7
2923.0	6.8	30.0	50	9.2	1.69	1.61	4869	657	6767	8.5	16.7
2924.0	6.1	30.0	50	9.2	1.72	1.77	5361	729	6013	8.5	16.7
2925.0	5.5	30.0	54	9.2	1.78	1.95	5946	803	5434	8.5	16.7
2926.0	6.2	30.0	54	9.2	1.74	2.11	6465	713	4962	8.5	16.7
2927.0	6.7	30.0	55	9.2	1.73	2.26	6961	669	4571	8.5	16.7
2928.0	6.3	30.0	55	9.2	1.74	2.42	7484	706	4249	8.5	16.7
2929.0	6.3	30.0	55	9.2	1.74	2.58	8006	703	3977	8.5	16.7
2930.0	4.7	30.0	55	9.2	1.84	2.79	8706	944	3760	8.5	16.7
2931.0	7.0	30.0	55	9.2	1.71	2.93	9176	633	3551	8.5	16.7
2932.0	6.2	30.0	55	9.2	1.75	3.09	9710	720	3375	8.5	16.7
2933.0	5.6	31.0	55	9.2	1.80	3.27	10299	793	3223	8.5	16.7
2934.0	6.6	31.0	55	9.2	1.75	3.42	10799	675	3081	8.5	16.7
2935.0	5.3	31.0	55	9.2	1.82	3.61	11424	843	2963	8.5	16.7
2936.0	4.9	31.0	55	9.2	1.85	3.82	12103	916	2861	8.5	16.7
2937.0	5.2	31.0	55	9.2	1.83	4.01	12739	856	2765	8.5	16.7
2938.0	4.2	32.0	54	9.2	1.92	4.25	13514	1064	2688	8.5	16.7
2939.0	3.6	32.0	54	9.2	1.97	4.53	14417	1241	2625	8.5	16.7
2940.0	2.6	31.0	55	9.3	2.04	4.91	15663	1679	2586	8.5	16.7
2941.0	5.2	30.0	56	9.3	1.79	5.10	16303	848	2516	8.5	16.7
2942.0	4.0	30.0	55	9.3	1.88	5.35	17123	1105	2462	8.5	16.7
2943.0	5.1	30.0	55	9.3	1.80	5.54	17774	879	2403	8.5	16.7
2944.0	4.5	30.0	55	9.3	1.84	5.77	18515	999	2353	8.5	16.7
2945.0	5.1	30.0	55	9.3	1.80	5.96	19164	875	2302	8.5	16.7
2946.0	3.8	30.0	55	9.3	1.90	6.23	20033	1171	2265	8.5	16.7
2947.0	3.1	30.0	55	9.3	1.97	6.55	21097	1435	2238	8.5	16.7
2948.0	4.1	30.0	55	9.3	1.87	6.79	21892	1072	2201	8.5	16.7
2949.0	3.3	26.0	56	9.2	1.88	7.09	22902	1337	2175	8.5	16.7
2950.0	4.3	27.0	56	9.2	1.82	7.33	23689	1042	2142	8.5	16.7
2951.0	4.0	30.0	60	9.2	1.93	7.58	24596	1121	2113	8.5	16.7
2952.0	2.2	30.0	55	9.2	2.10	8.03	26077	1997	2109	8.5	16.7
2953.0	1.5	30.0	65	9.2	2.29	8.68	28611	2891	2131	8.5	16.7
2954.0	1.9	30.0	60	9.2	2.18	9.19	30462	2288	2135	8.5	16.7
2955.0	1.6	30.0	55	9.2	2.22	9.82	32532	2791	2151	8.5	16.7
2956.0	3.0	35.0	65	9.2	2.17	10.15	33846	1499	2135	8.5	16.7
2957.0	2.2	35.0	65	9.2	2.27	10.60	35603	2005	2132	8.5	16.7
2958.0	2.5	35.0	65	9.2	2.23	11.00	37163	1780	2124	8.5	16.7
2959.0	2.1	35.0	65	9.2	2.29	11.48	39028	2128	2124	8.5	16.7

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2960.0	2.2	35.0	65	9.2	2.27	11.93	40769	1986	2121	8.5	16.7
2961.0	2.7	35.0	65	9.2	2.19	12.29	42193	1624	2110	8.5	16.7
2962.0	5.8	35.0	65	9.2	1.93	12.47	42870	772	2080	8.5	16.7
2963.0	13.2	35.0	65	9.2	1.63	12.54	43166	337	2043	9.8	16.9
2964.0	83.7	35.0	65	9.2	0.96	12.56	43212	53	2002	9.8	16.9
2965.0	6.0	35.0	65	10.6	1.66	12.72	43860	738	1976	9.8	16.9
2967.0	1.4	35.0	65	10.6	2.11	14.11	49260	3080	2019	9.8	16.9
2968.0	1.2	35.0	65	10.6	2.16	14.94	52508	3705	2052	9.8	16.9
2969.0	1.9	32.0	65	10.6	1.96	15.46	54547	2326	2057	9.8	16.9
2970.0	2.0	34.0	65	10.6	1.99	15.96	56502	2231	2060	9.8	16.9
2971.0	2.1	34.0	60	10.6	1.94	16.43	58189	2085	2061	9.8	16.9
2972.0	2.4	34.0	60	10.6	1.90	16.84	59660	1818	2056	9.8	16.9

BIT NUMBER	17	IADC CODE	617	INTERVAL	2972.0- 3026.0
HTC J44		SIZE	8.500	NOZZLES	12 12 12
COST	3304.00	TRIP TIME	8.4	BIT RUN	54.0
TOTAL HOURS	10.43	TOTAL TURNS	35559	CONDITION	T2 B2 G0.000

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
2973.0	3.2	45.0	50	10.6	1.94	0.31	938	1390	42066	10.6	17.0
2974.0	2.2	45.0	50	10.6	2.06	0.77	2301	2022	22044	10.6	17.0
2975.0	1.7	45.0	60	10.6	2.21	1.36	4419	2617	15568	10.6	17.0
2976.0	2.4	45.0	60	10.6	2.10	1.77	5919	1854	12140	10.6	17.0
2977.0	13.8	45.0	60	10.6	1.50	1.84	6180	322	9776	10.6	17.0
2978.0	3.9	45.0	60	10.6	1.93	2.10	7103	1141	8337	10.6	17.0
2979.0	6.4	45.0	60	10.7	1.74	2.26	7665	695	7245	10.6	17.0
2980.0	7.6	45.0	60	10.7	1.69	2.39	8139	585	6413	10.6	17.0
2981.0	6.8	45.0	60	10.7	1.72	2.54	8668	654	5773	10.6	17.0
2982.0	5.0	45.0	60	10.7	1.83	2.74	9388	890	5285	10.6	17.0
2983.0	5.7	45.0	60	10.7	1.78	2.91	10020	781	4875	10.6	17.0
2984.0	6.4	45.0	60	10.7	1.74	3.07	10582	695	4527	10.6	17.0
2985.0	17.8	45.0	60	10.7	1.40	3.12	10785	250	4198	10.6	17.0
2986.0	23.7	45.0	60	10.7	1.30	3.17	10937	188	3911	10.6	17.0
2987.0	7.2	45.0	60	10.7	1.70	3.30	11437	618	3692	10.6	17.0
2988.0	6.4	45.0	50	10.7	1.68	3.46	11905	695	3505	10.6	17.0
2989.0	8.6	45.0	50	10.7	1.58	3.58	12254	517	3329	10.6	17.0
2990.0	6.2	45.0	50	10.7	1.69	3.74	12738	718	3184	10.6	17.0
2991.0	16.1	45.0	50	10.7	1.37	3.80	12924	276	3031	10.6	17.0
2992.0	8.1	45.0	50	10.7	1.60	3.92	13295	549	2907	10.6	17.1
2993.0	11.1	45.0	50	11.2	1.43	4.01	13565	401	2787	10.6	17.1
2994.0	7.7	45.0	50	11.2	1.55	4.14	13955	578	2687	10.6	17.1
2995.0	9.4	45.0	50	11.2	1.48	4.25	14274	473	2591	10.6	17.1
2996.0	2.0	45.0	50	11.2	1.98	4.75	15774	2225	2575	10.6	17.1
2997.0	3.1	45.0	55	11.2	1.87	5.07	16838	1435	2530	10.6	17.1
2998.0	9.2	45.0	55	11.2	1.52	5.18	17197	484	2451	10.6	17.1
2999.0	5.9	45.0	55	11.2	1.66	5.35	17756	754	2388	10.6	17.1
3000.0	4.1	45.0	60	11.2	1.81	5.60	18634	1085	2342	10.6	17.1
3001.0	2.6	44.0	65	11.2	1.97	5.98	20134	1711	2320	10.6	17.1
3002.0	2.3	44.0	65	11.2	2.01	6.41	21830	1934	2307	10.6	17.1
3003.0	12.6	44.0	65	11.2	1.46	6.49	22140	353	2244	10.6	17.1
3004.0	2.2	44.0	65	11.2	2.02	6.95	23912	2022	2237	10.6	17.1
3005.0	5.0	45.0	65	11.2	1.77	7.15	24692	890	2196	10.6	17.1
3006.0	11.1	45.0	65	11.2	1.51	7.24	25044	401	2144	10.6	17.1
3007.0	7.0	45.0	55	11.2	1.61	7.38	25515	636	2100	10.6	17.1
3008.0	6.3	45.0	55	11.2	1.64	7.54	26039	706	2062	10.6	17.1
3009.0	15.8	45.0	55	11.2	1.35	7.60	26248	282	2014	10.6	17.1
3010.0	5.0	45.0	55	11.2	1.72	7.80	26908	890	1984	10.6	17.1
3011.0	3.7	45.0	55	11.2	1.82	8.07	27800	1202	1964	10.6	17.1
3012.0	5.8	45.0	55	11.2	1.67	8.25	28369	767	1934	10.6	17.1
3013.0	10.5	45.0	55	11.2	1.48	8.34	28683	424	1897	10.6	17.1
3014.0	6.3	45.0	54	11.2	1.64	8.50	29197	706	1869	10.6	17.1
3015.0	14.3	45.0	54	11.2	1.37	8.57	29424	311	1833	10.6	17.1

DEPTH	ROP	WOB	RPM	MW	"d"c	HOURS	TURNS	ICOST	CCOST	PP	FG
3016.0	5.9	45.0	55	11.2	1.66	8.74	29983	754	1808	10.6	17.1
3017.0	5.6	45.0	55	11.2	1.68	8.92	30572	794	1786	10.6	17.1
3018.0	4.7	45.0	55	11.2	1.74	9.13	31274	947	1767	10.6	17.1
3019.0	16.8	45.0	55	11.2	1.33	9.19	31471	265	1735	10.6	17.1
3020.0	4.2	45.0	55	11.2	1.77	9.43	32257	1059	1721	10.6	17.1
3021.0	4.8	45.0	55	11.2	1.73	9.64	32944	927	1705	10.6	17.1
3022.0	4.3	45.0	55	11.2	1.77	9.87	33712	1035	1692	10.6	17.1
3023.0	6.2	45.0	55	11.2	1.65	10.03	34244	718	1673	10.6	17.1
3024.0	25.2	45.0	55	11.2	1.19	10.07	34375	177	1644	10.7	17.1
3025.0	4.1	45.0	55	11.2	1.78	10.31	35180	1085	1633	10.7	17.1
3026.0	8.7	45.0	55	11.2	1.54	10.43	35559	511	1612	10.7	17.1

(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	70.0- 206.0
HTC OSC3AJ&26"HO		SIZE	26.000	NOZZLES	20 20 20
COST	6350.00	TRIP TIME	2.4	BIT RUN	136.0
TOTAL HOURS	4.05	TOTAL TURNS	19130	CONDITION	T2 B4 G0.000

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
80.0	15.0	10.0	0.67	2300	19993.60	297	1999	-
90.0	81.5	20.0	0.79	2825	20539.21	55	1027	-
100.0	114.2	30.0	0.88	3190	20928.66	38.95	697.62	-
110.0	102.6	40.0	0.97	3585	21362.32	43.37	534.06	-
120.0	65.8	50.0	1.13	4108	22038.89	67.66	440.78	-
130.0	53.5	60.0	1.31	4783	22871.14	83.22	381.19	-
140.0	27.9	70.0	1.67	6557	24466.97	159.58	349.53	-
150.0	20.6	80.0	2.16	9134	26624.36	215.74	332.80	-
160.0	20.5	90.0	2.65	11623	28795.89	217.15	319.95	-
170.0	34.0	100.0	2.94	13035	30104.42	130.85	301.04	-
180.0	31.0	110.0	3.26	14971	31539.58	143.52	286.72	-
190.0	44.9	120.0	3.48	16247	32530.20	99.06	271.09	-
200.0	31.7	130.0	3.80	17855	33932.85	140.26	261.02	-
206.0	24.0	136.0	4.05	19130	35045.10	185.38	257.68	-

BIT NUMBER	2	IADC CODE	111	INTERVAL	206.0- 799.0
HTC OSC 3AJ		SIZE	17.500	NOZZLES	20 20 20
COST	4442.00	TRIP TIME	3.7	BIT RUN	593.0
TOTAL HOURS	16.15	TOTAL TURNS	131732	CONDITION	T2 B2 G0.000

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
210.0	55.0	4.0	0.07	340	21226.86	81	5307	-
220.0	82.0	14.0	0.19	970	21769.42	54	1555	-
230.0	47.7	24.0	0.40	2361	22702.78	93.34	945.95	-
240.0	34.1	34.0	0.70	4647	24007.00	130.42	706.09	-
250.0	48.0	44.0	0.91	6272	24933.88	92.69	566.68	-
260.0	70.0	54.0	1.05	7386	25569.45	63.56	473.51	-
270.0	120.0	64.0	1.13	8036	25940.20	37.08	405.32	-
280.0	128.0	74.0	1.21	8646	26287.78	34.76	355.24	-
290.0	73.3	84.0	1.35	9688	26894.46	60.67	320.17	-
300.0	103.8	94.0	1.44	10425	27322.88	42.84	290.67	-
310.0	173.0	104.0	1.50	10871	27580.05	25.72	265.19	-
320.0	165.0	114.0	1.56	11338	27849.68	26.96	244.30	-
330.0	61.5	124.0	1.72	12583	28573.53	72.38	230.43	-
340.0	171.0	134.0	1.78	13022	28833.70	26.02	215.18	-
350.0	94.0	144.0	1.89	13826	29307.00	47.33	203.52	-
360.0	67.0	154.0	2.04	14977	29971.03	66.40	194.62	-
370.0	68.0	164.0	2.19	16124	30625.30	65.43	186.74	-
380.0	34.3	174.0	2.48	18399	31922.92	129.76	183.47	-
390.0	41.0	184.0	2.72	20301	33008.04	108.51	179.39	-
400.0	48.0	194.0	2.93	21889	33934.92	92.69	174.92	-
410.0	40.4	204.0	3.18	23820	35036.42	110.15	171.75	-
420.0	41.5	214.0	3.42	25669	36108.32	107.19	168.73	-
430.0	25.5	224.0	3.81	28553	37853.70	174.54	168.99	+
440.0	35.0	234.0	4.10	30611	39124.84	127.11	167.20	-
450.0	33.0	244.0	4.40	32974	40473.02	134.82	165.87	-
460.0	17.9	254.0	4.96	37321	42952.34	247.93	169.10	+
470.0	24.5	264.0	5.36	40746	44766.44	181.41	169.57	+
480.0	50.9	274.0	5.56	42278	45640.29	87.39	166.57	-
490.0	26.0	284.0	5.94	45504	47348.96	170.87	166.72	+
500.0	45.2	294.0	6.17	47363	48333.71	98.48	164.40	-
510.0	48.0	304.0	6.37	49112	49259.81	92.61	162.04	-
520.0	34.9	314.0	6.66	51345	50533.51	127.37	160.93	-
530.0	37.9	324.0	6.92	53403	51707.55	117.40	159.59	-
540.0	41.2	334.0	7.17	55298	52788.03	108.05	158.05	-
550.0	23.7	344.0	7.59	58846	54667.34	187.93	158.92	+
560.0	31.5	354.0	7.91	61513	56080.08	141.27	158.42	-
570.0	32.9	364.0	8.21	64116	57433.23	135.32	157.78	-
580.0	34.3	374.0	8.50	66645	58729.94	129.67	157.03	-
590.0	36.3	384.0	8.78	69024	59954.74	122.48	156.13	-
600.0	37.4	394.0	9.04	71334	61144.23	118.95	155.19	-
610.0	44.0	404.0	9.27	73298	62155.89	101.17	153.85	-
620.0	36.0	414.0	9.55	75696	63390.80	123.49	153.12	-
630.0	25.7	424.0	9.94	79077	65119.52	172.87	153.58	+

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
640.0	21.0	434.0	10.41	83220	67238.09	211.86	154.93	+
650.0	21.0	444.0	10.89	87363	69356.66	211.86	156.21	+
660.0	27.5	454.0	11.25	90527	70975.01	161.84	156.33	+
670.0	22.4	464.0	11.70	94411	72961.17	198.62	157.24	+
680.0	28.3	474.0	12.05	97488	74534.33	157.32	157.25	+
690.0	28.5	484.0	12.41	100541	76095.86	156.15	157.22	-
700.0	29.0	494.0	12.75	103545	77631.83	153.60	157.15	-
710.0	43.5	504.0	12.98	105522	78654.12	102.23	156.06	-
720.0	33.1	514.0	13.28	108060	79998.59	134.45	155.64	-
730.0	26.7	524.0	13.66	111213	81664.00	166.54	155.85	+
740.0	36.2	534.0	13.93	113553	82894.21	123.02	155.23	-
750.0	38.1	544.0	14.20	115790	84062.64	116.84	154.53	-
760.0	36.7	554.0	14.47	118125	85274.55	121.19	153.93	-
770.0	20.9	564.0	14.95	122184	87406.97	213.24	154.98	+
780.0	22.0	574.0	15.40	125880	89433.43	202.65	155.81	+
790.0	21.8	584.0	15.86	129455	91472.55	203.91	156.63	+
799.0	31.7	593.0	16.15	131732	92735.33	140.31	156.38	-

BIT NUMBER	2	IADC CODE	111	INTERVAL	799.0- 845.0
HTC OSC 3AJ		SIZE	17.500	NOZZLES	20 20 20
COST	4442.00	TRIP TIME	3.8	BIT RUN	46.0
TOTAL HOURS	4.11	TOTAL TURNS	34501	CONDITION	T2 B2 G0.000

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
800.0	38.0	1.0	0.03	237	21465.28	117	21465	-
810.0	24.0	11.0	0.44	3743	23322.25	186	2120	-
820.0	35.7	21.0	0.72	6097	24569.32	125	1170	-
830.0	10.3	31.0	1.70	14264	28894.74	432.54	932.09	-
840.0	6.7	41.0	3.20	26864	35568.24	667.35	867.52	-
845.0	5.5	46.0	4.11	34501	39612.78	808.91	861.15	-

BIT NUMBER	3	IADC CODE	114	INTERVAL	845.0- 1488.2
HTC X3A		SIZE	12.250	NOZZLES	18 18 18
COST	2201.00	TRIP TIME	5.2	BIT RUN	643.2
TOTAL HOURS	31.23	TOTAL TURNS	256700	CONDITION	T5 B4 G0.000

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
850.0	4.3	5.0	1.17	7008	30532.17	1039	6106	-
860.0	17.0	15.0	1.76	11497	33144.10	261	2210	-
870.0	19.3	25.0	2.27	15860	35455.11	231	1418	-
880.0	24.9	35.0	2.68	19227	37238.42	178	1064	-
890.0	31.0	45.0	3.00	21936	38673.22	143.48	859.40	-
900.0	30.6	55.0	3.32	24642	40127.80	145.46	729.60	-
910.0	35.7	65.0	3.60	26927	41373.52	124.57	636.52	-
920.0	38.9	75.0	3.86	29026	42517.90	114.44	566.91	-
930.0	32.5	85.0	4.17	31548	43888.75	137.08	516.34	-
940.0	29.8	95.0	4.51	34320	45382.87	149.41	477.71	-
950.0	31.3	105.0	4.83	37001	46802.84	142.00	445.74	-
960.0	22.6	115.0	5.27	40714	48769.05	196.62	424.08	-
970.0	35.6	125.0	5.55	43075	50019.72	125.07	400.16	-
980.0	25.7	135.0	5.94	46344	51751.12	173.14	383.34	-
990.0	25.3	145.0	6.33	49660	53507.24	175.61	369.02	-
1000.0	18.4	155.0	6.88	54231	55928.24	242.10	360.83	-
1010.0	16.6	165.0	7.48	59306	58616.17	268.79	355.25	-
1020.0	16.6	175.0	8.08	64367	61296.70	268.05	350.27	-
1030.0	16.6	185.0	8.69	69439	63983.40	268.67	345.86	-
1040.0	18.1	195.0	9.24	74083	66442.71	245.93	340.73	-
1050.0	22.7	205.0	9.68	77790	68406.45	196.37	333.69	-
1060.0	15.7	215.0	10.32	83136	71237.74	283.13	331.34	-
1070.0	21.1	225.0	10.79	87124	73349.78	211.20	326.00	-
1080.0	19.0	235.0	11.32	91538	75687.98	233.82	322.08	-
1090.0	17.7	245.0	11.88	96265	78200.42	251.24	319.19	-
1100.0	15.4	255.0	12.53	101532	81093.51	289.31	318.01	-
1110.0	13.8	265.0	13.26	107409	84321.51	322.80	318.19	+
1120.0	14.6	275.0	13.94	112953	87366.60	304.51	317.70	-
1130.0	15.1	285.0	14.61	118333	90316.53	294.99	316.90	-
1140.0	19.6	295.0	15.11	122519	92581.82	226.53	313.84	-
1150.0	20.9	305.0	15.59	126460	94714.87	213.30	310.54	-
1160.0	16.4	315.0	16.20	131467	97425.05	271.02	309.29	-
1170.0	16.3	325.0	16.82	136497	100147.59	272.25	308.15	-
1180.0	16.7	335.0	17.42	141425	102817.63	267.00	306.92	-
1190.0	14.9	345.0	18.09	146895	105799.85	298.22	306.67	-
1200.0	22.0	355.0	18.54	150657	107825.38	202.55	303.73	-
1210.0	21.8	365.0	19.00	154478	109868.21	204.28	301.01	-
1220.0	22.9	375.0	19.44	158130	111810.55	194.23	298.16	-
1230.0	20.8	385.0	19.92	162160	113944.84	213.43	295.96	-
1240.0	26.0	395.0	20.30	165396	115658.94	171.41	292.81	-
1250.0	26.2	405.0	20.68	168602	117356.97	169.80	289.77	-
1260.0	20.1	415.0	21.18	172776	119567.88	221.09	288.12	-
1270.0	19.6	425.0	21.69	177065	121839.34	227.15	286.68	-

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
1280.0	25.2	435.0	22.09	180402	123606.58	176.72	284.15	-
1290.0	22.9	445.0	22.52	184065	125546.84	194.03	282.13	-
1300.0	31.3	455.0	22.84	186748	126968.05	142.12	279.05	-
1310.0	22.3	465.0	23.29	190507	128958.98	199.09	277.33	-
1320.0	23.5	475.0	23.72	194075	130848.57	188.96	275.47	-
1330.0	27.9	485.0	24.07	197085	132442.79	159.42	273.08	-
1340.0	26.0	495.0	24.46	200312	134151.95	170.92	271.01	-
1350.0	27.5	505.0	24.82	203362	135767.18	161.52	268.85	-
1360.0	29.8	515.0	25.16	206185	137262.54	149.54	266.53	-
1370.0	20.8	525.0	25.64	210229	139404.24	214.17	265.53	-
1380.0	24.6	535.0	26.05	213645	141213.50	180.93	263.95	-
1390.0	22.8	545.0	26.48	217334	143167.35	195.39	262.69	-
1400.0	25.0	555.0	26.89	220696	144948.19	178.08	261.17	-
1410.0	19.1	565.0	27.41	225085	147272.79	232.46	260.66	-
1420.0	24.9	575.0	27.81	228452	149056.10	178.33	259.23	-
1430.0	21.7	585.0	28.27	232330	151110.05	205.40	258.31	-
1440.0	22.8	595.0	28.71	236021	153065.14	195.51	257.25	-
1450.0	22.4	605.0	29.16	239773	155052.36	198.72	256.28	-
1460.0	18.1	615.0	29.71	244325	157515.38	246.30	256.12	-
1470.0	16.8	625.0	30.31	249158	160169.95	265.46	256.27	+
1480.0	15.9	635.0	30.93	254263	162961.60	279.17	256.63	+
1488.2	27.3	643.2	31.23	256700	164300.01	163.22	255.44	

BIT NUMBER	3	IADC CODE	4	INTERVAL	1488.2- 1500.6
CHRIS RC4		SIZE	8.500	NOZZLES	15 15 14
COST	13000.00	TRIP TIME	5.2	BIT RUN	12.4
TOTAL HOURS	0.77	TOTAL TURNS	4311	CONDITION	T0 B0 G0.450

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
1490.0	14.9	1.8	0.12	579	36671.83	298	20373	-
1500.0	16.4	11.8	0.73	4069	39378.15	271	3337	-
1500.6	14.9	12.4	0.77	4311	39557.42	299	3190	-

BIT NUMBER	3	IADC CODE	4	INTERVAL	1500.6- 1513.4
CHRIS RC4		SIZE	8.500	NOZZLES	15 15 14
COST	13000.00	TRIP TIME	5.2	BIT RUN	12.8
TOTAL HOURS	2.01	TOTAL TURNS	11652	CONDITION	T0 B0 G0.500

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
1510.0	9.8	9.4	1.73	9962	43810.14	452	4661	-
1513.4	12.1	12.8	2.01	11652	45063.15	369	3521	-

BIT NUMBER	3	IADC CODE	4	INTERVAL	1513.4- 1527.0
CHRIS RC4		SIZE	8.500	NOZZLES	15 15 14
COST	13000.00	TRIP TIME	5.2	BIT RUN	13.6
TOTAL HOURS	3.44	TOTAL TURNS	20205	CONDITION	T0 B0 G0.600

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
1520.0	7.8	6.6	2.85	16719	48834.22	569	7399	-
1527.0	12.0	13.6	3.44	20205	51419.59	369	3781	-

BIT NUMBER	4	IADC CODE	114	INTERVAL	1527.0- 1573.4
HTC X3A		SIZE	12.250	NOZZLES	18 18 18
COST	2201.00	TRIP TIME	5.3	BIT RUN	46.4
TOTAL HOURS	2.60	TOTAL TURNS	21816	CONDITION	T4 B2 G0.000

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
1530.0	40.9	3.0	0.07	616	26106.96	109	8702	-
1540.0	66.8	13.0	0.22	1874	26773.07	67	2059	-
1550.0	51.1	23.0	0.42	3519	27644.34	87	1202	-
1560.0	28.8	33.0	0.77	6433	29187.89	154.36	884.48	-
1570.0	5.9	43.0	2.47	20721	36755.52	756.76	854.78	-
1573.4	26.1	46.4	2.60	21816	37335.12	170.47	804.64	-

BIT NUMBER	4	IADC CODE	4	INTERVAL	1573.4- 1585.6
CHRIS RC4		SIZE	8.500	NOZZLES	15 15 14
COST	13000.00	TRIP TIME	5.4	BIT RUN	12.2
TOTAL HOURS	4.48	TOTAL TURNS	27120	CONDITION	T0 B0 G0.050

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
1580.0	3.4	6.6	1.93	11511	45596.34	1299	6909	-
1585.6	2.2	12.2	4.48	27120	56974.10	2032	4670	-

BIT NUMBER	4	IADC CODE	4	INTERVAL	1585.6- 1596.6
CHRIS RC3		SIZE	8.500	NOZZLES	15 15 14
COST	13000.00	TRIP TIME	5.4	BIT RUN	11.0
TOTAL HOURS	7.40	TOTAL TURNS	46239	CONDITION	T0 B0 G0.200

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
1590.0	11.7	4.4	4.85	29444	58622.44	379	13323	-
1596.6	2.6	11.0	7.40	46239	69943.90	1715	6359	-

BIT NUMBER	5	IADC CODE	427	INTERVAL	1596.6- 1628.4
HTC J11		SIZE	12.250	NOZZLES	18 18 18
COST	6788.00	TRIP TIME	5.5	BIT RUN	31.8
TOTAL HOURS	7.37	TOTAL TURNS	27564	CONDITION	T8 B2 G0.000

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
1600.0	4.4	3.4	0.78	3953	34724.42	1020	10213	-
1610.0	6.3	13.4	2.37	9683	41805.75	708	3120	-
1620.0	4.2	23.4	4.78	18337	52520.84	1072	2244	-
1628.4	3.2	31.8	7.37	27564	64029.23	1370	2013	-

BIT NUMBER	6	IADC CODE	417	INTERVAL	1628.4- 1770.4
HTC J22		SIZE	12.250	NOZZLES	18 18 18
COST	6788.00	TRIP TIME	5.8	BIT RUN	142.0
TOTAL HOURS	11.42	TOTAL TURNS	41273	CONDITION	T1 B2 G0.125

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
1630.0	6.9	1.6	0.23	977	33627.21	647	21017	-
1640.0	17.8	11.6	0.79	2845	36125.76	250	3114	-
1650.0	13.3	21.6	1.54	5701	39460.03	333	1827	-
1660.0	16.0	31.6	2.17	7955	42246.22	279	1337	-
1670.0	15.7	41.6	2.81	10252	45084.93	284	1084	-
1680.0	31.0	51.6	3.13	11414	46520.97	143.60	901.57	-
1690.0	16.8	61.6	3.73	13562	49175.54	265.46	798.30	-
1700.0	7.2	71.6	5.11	18535	55321.34	614.58	772.64	-
1710.0	8.9	81.6	6.23	22572	60310.40	498.91	739.10	-
1720.0	29.0	91.6	6.58	23814	61845.30	153.49	675.17	-
1730.0	9.2	101.6	7.66	27706	66655.17	480.99	656.05	-
1740.0	23.1	111.6	8.09	29262	68578.12	192.30	614.50	-
1750.0	6.2	121.6	9.71	35088	75778.09	720.00	623.18	+
1760.0	14.1	131.6	10.42	37642	78934.41	315.63	599.81	-
1770.0	11.0	141.6	11.33	40923	82989.17	405.48	586.08	-
1770.4	4.1	142.0	11.42	41273	83421.72	1081	587	+

BIT NUMBER	7	IADC CODE	517	INTERVAL	1770.4- 2046.0
HTC J22		SIZE	12.250	NOZZLES	18 18 18
COST	6788.00	TRIP TIME	6.3	BIT RUN	275.6
TOTAL HOURS	28.35	TOTAL TURNS	93771	CONDITION	T2 B2 G0.000

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
1780.0	10.3	9.6	0.93	3347	38952.62	431	4058	-
1790.0	11.6	19.6	1.79	6943	42797.39	384	2184	-
1800.0	5.6	29.6	3.57	14419	50716.61	792	1713	-
1810.0	10.8	39.6	4.50	17757	54845.84	413	1385	-
1820.0	11.0	49.6	5.41	21042	58905.86	406	1188	-
1830.0	29.5	59.6	5.75	22264	60416.05	151	1014	-
1840.0	24.1	69.6	6.17	23759	62263.62	184.76	894.59	-
1850.0	11.2	79.6	7.06	26979	66243.00	397.94	832.20	-
1860.0	6.4	89.6	8.62	32578	73162.43	691.94	816.54	-
1870.0	30.0	99.6	8.95	33777	74644.20	148.18	749.44	
1880.0	28.4	109.6	9.30	35045	76211.23	156.70	695.36	-
1890.0	17.6	119.6	9.87	37022	78746.14	253.49	658.41	-
1900.0	5.9	129.6	11.58	42657	86343.65	759.75	666.23	+
1910.0	8.0	139.6	12.83	46651	91899.05	555.54	658.30	-
1920.0	6.6	149.6	14.34	51180	98616.09	671.70	659.20	+
1930.0	12.1	159.6	15.16	53653	102283.63	366.75	640.87	-
1940.0	22.8	169.6	15.60	54968	104233.77	195.01	614.59	-
1950.0	8.1	179.6	16.83	58658	109704.81	547.10	610.83	-
1960.0	19.3	189.6	17.35	60212	112009.64	230.48	590.77	-
1970.0	5.2	199.6	19.27	65964	120540.59	853.10	603.91	+
1980.0	10.1	209.6	20.26	68928	124936.45	439.59	596.07	-
1990.0	5.8	219.6	21.99	74121	132637.55	770.11	604.00	+
2000.0	13.7	229.6	22.72	76313	135887.79	325.02	591.85	-
2010.0	9.2	239.6	23.80	79615	140699.51	481.17	587.23	-
2020.0	14.9	249.6	24.47	81826	143680.34	298.08	575.64	-
2030.0	14.2	259.6	25.17	84146	146808.23	312.79	565.52	-
2040.0	4.0	269.6	27.66	92341	157855.34	1105	586	+
2046.0	10.5	275.6	28.23	94223	160393.75	423.07	581.98	-

BIT NUMBER	7	IADC CODE	4	INTERVAL	2046.0- 2061.2
CHRIS RC3		SIZE	8.500	NOZZLES	15 15 14
COST	13000.00	TRIP TIME	6.4	BIT RUN	15.2
TOTAL HOURS	11.42	TOTAL TURNS	72504	CONDITION	T0 B0 G0.200

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
2050.0	8.9	4.0	7.85	48914	76389.60	498	19097	-
2060.0	3.2	14.0	10.94	69348	90164.20	1377	6440	-
2061.2	2.5	15.2	11.42	72504	92291.07	1772	6072	-

BIT NUMBER	8	IADC CODE	517	INTERVAL	2061.2- 2321.0
HTC J22		SIZE	12.250	NOZZLES	18 18 18
COST	6788.00	TRIP TIME	6.9	BIT RUN	259.8
TOTAL HOURS	43.41	TOTAL TURNS	129120	CONDITION	T1 B2 G0.000

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
2070.0	4.5	8.8	1.97	6333	46266.70	998	5258	-
2080.0	5.8	18.8	3.70	11622	53941.22	767	2869	-
2090.0	10.4	28.8	4.66	14208	58202.99	426	2021	-
2100.0	13.2	38.8	5.41	16247	61561.68	336	1587	-
2110.0	11.1	48.8	6.31	18670	65554.66	399	1343	-
2120.0	13.7	58.8	7.04	20648	68813.55	326	1170	-
2130.0	12.7	68.8	7.83	22778	72323.31	351	1051	-
2140.0	8.0	78.8	9.09	26167	77908.05	558.47	988.68	-
2150.0	17.7	88.8	9.65	27839	80419.26	251.12	905.62	-
2160.0	12.4	98.8	10.46	30266	84018.01	359.87	850.38	-
2170.0	9.4	108.8	11.52	33456	88748.16	473.02	815.70	-
2180.0	6.0	118.8	13.20	38496	96223.71	747.56	809.96	-
2190.0	6.8	128.8	14.67	42910	102768.69	654.50	797.89	-
2200.0	7.4	138.8	16.03	46986	108814.38	604.57	783.97	-
2210.0	5.8	148.8	17.76	52171	116503.33	768.89	782.95	-
2220.0	3.9	158.8	20.31	59826	127855.28	1135	805	+
2230.0	6.0	168.8	21.97	64785	135209.72	735.44	801.01	-
2240.0	8.1	178.8	23.20	68482	140693.12	548.34	786.87	-
2250.0	5.8	188.8	24.93	73682	148403.48	771.04	786.04	-
2260.0	3.6	198.8	27.72	82040	160798.89	1240	809	+
2270.0	3.6	208.8	30.51	90420	173225.81	1243	830	+
2280.0	3.9	218.8	33.11	98205	184772.20	1155	844	+
2290.0	3.5	228.8	35.92	106663	197314.67	1254	862	+
2300.0	5.8	238.8	37.66	111856	205016.39	770.17	858.53	-
2310.0	3.6	248.8	40.44	120220	217420.45	1240	874	+
2320.0	3.8	258.8	43.07	128086	229085.48	1167	885	+
2321.0	2.9	259.8	43.41	129120	230619.15	1534	888	+

BIT NUMBER	9	IADC CODE	517	INTERVAL	2321.0- 2601.0
HTC J22		SIZE	12.250	NOZZLES	18 18 18
COST	6788.00	TRIP TIME	7.5	BIT RUN	280.0
TOTAL HOURS	66.68	TOTAL TURNS	216428	CONDITION	T3 B3 G0.125

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
2330.0	3.9	9.0	2.33	5714	50533.10	1153	5615	-
2340.0	3.2	19.0	5.48	15675	64536.33	1400	3397	-
2350.0	3.7	29.0	8.19	25443	76607.95	1207	2642	-
2360.0	4.1	39.0	10.62	34166	87388.12	1078	2241	-
2370.0	3.9	49.0	13.18	42830	98804.75	1142	2016	-
2380.0	3.7	59.0	15.86	51680	110735.66	1193	1877	-
2390.0	4.9	69.0	17.92	58448	119861.06	913	1737	
2400.0	6.7	79.0	19.41	63398	126499.99	664	1601	-
2410.0	4.3	89.0	21.71	71113	136740.41	1024	1536	-
2420.0	3.9	99.0	24.26	79543	148106.37	1137	1496	-
2430.0	4.2	109.0	26.66	86890	158775.32	1067	1457	-
2440.0	5.7	119.0	28.43	92197	166645.11	787	1400	-
2450.0	4.0	129.0	30.95	100348	177852.88	1121	1379	-
2460.0	4.6	139.0	33.12	107586	187524.51	967	1349	-
2470.0	3.8	149.0	35.79	116534	199373.68	1185	1338	-
2480.0	3.4	159.0	38.71	126360	212383.30	1301	1336	-
2490.0	4.9	169.0	40.76	133259	221518.58	914	1311	-
2500.0	4.9	179.0	42.79	139619	230511.74	899	1288	-
2510.0	3.5	189.0	45.64	148192	243225.46	1271	1287	-
2520.0	3.6	199.0	48.44	156580	255665.10	1244	1285	-
2530.0	3.1	209.0	51.69	166342	270141.65	1448	1293	+
2540.0	3.5	219.0	54.54	175444	282818.83	1268	1291	-
2550.0	8.0	229.0	55.79	179636	288370.19	555	1259	-
2560.0	6.0	239.0	57.47	185261	295817.32	745	1238	-
2570.0	3.9	249.0	60.05	193794	307321.70	1150	1234	-
2580.0	3.8	259.0	62.71	203368	319153.56	1183	1232	-
2590.0	4.0	269.0	65.18	211573	330143.83	1099	1227	-
2600.0	7.3	279.0	66.56	216045	336278.51	613	1205	-
2601.0	8.6	280.0	66.68	216428	336795.08	517	1203	-

BIT NUMBER	10	IADC CODE	517	INTERVAL	2601.0- 2676.0
HTC J22		SIZE	12.250	NOZZLES	18 18 18
COST	6788.00	TRIP TIME	8.0	BIT RUN	75.0
TOTAL HOURS	29.22	TOTAL TURNS	103159	CONDITION	T8 B3 G0.125

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
2610.0	5.8	9.0	1.55	4490	49253.71	764	5473	-
2620.0	9.4	19.0	2.61	8215	53973.35	472	2841	-
2630.0	16.8	29.0	3.20	10662	56615.15	264	1952	-
2640.0	3.9	39.0	5.78	20923	68083.69	1147	1746	-
2650.0	1.6	49.0	12.13	44906	96363.26	2828	1967	+
2660.0	1.7	59.0	17.93	65782	122162.52	2580	2071	+
2670.0	1.5	69.0	24.50	87578	151375.67	2921	2194	+
2676.0	1.3	75.0	29.22	103159	172381.21	3501	2298	+

BIT NUMBER	11	IADC CODE	537	INTERVAL	2676.0- 2797.0
HTC J33		SIZE	12.250	NOZZLES	18 18 18
COST	6637.00	TRIP TIME	7.9	BIT RUN	121.0
TOTAL HOURS	28.28	TOTAL TURNS	96582	CONDITION	T8 B8 G0.000

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
2680.0	2.7	4.0	1.46	4391	48296.63	1628	12074	-
2690.0	7.8	14.0	2.74	8214	53965.40	567	3855	-
2700.0	4.8	24.0	4.82	14456	63221.79	926	2634	-
2710.0	5.5	34.0	6.63	20221	71287.77	807	2097	-
2720.0	6.0	44.0	8.29	25414	78654.57	737	1788	-
2730.0	6.1	54.0	9.94	31518	86004.07	735	1593	-
2740.0	5.5	64.0	11.74	37694	94025.89	802	1469	-
2750.0	3.9	74.0	14.33	47184	105558.68	1153	1426	-
2760.0	5.6	84.0	16.13	53233	113568.12	801	1352	-
2770.0	4.1	94.0	18.59	61686	124475.59	1091	1324	-
2780.0	3.1	104.0	21.77	72318	138638.24	1416	1333	+
2790.0	2.8	114.0	25.40	84427	154789.34	1615	1358	+
2797.0	2.4	121.0	28.28	96582	167596.28	1830	1385	+

BIT NUMBER	12	IADC CODE	316	INTERVAL	2799.0- 2802.0
HTC J7		SIZE	8.500	NOZZLES	12 12 12
COST	1260.00	TRIP TIME	7.9	BIT RUN	3.0
TOTAL HOURS	0.54	TOTAL TURNS	2345	CONDITION	T7 B2 G0.000

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
2800.0	7.8	1.0	0.13	502	36980.22	573	36980	-
2802.0	4.9	3.0	0.54	2345	38805.54	913	12935	-

BIT NUMBER	13	IADC CODE	316	INTERVAL	2802.0- 2805.0
HTC J7		SIZE	8.500	NOZZLES	12 12 12
COST	1260.00	TRIP TIME	7.9	BIT RUN	3.0
TOTAL HOURS	0.46	TOTAL TURNS	1522	CONDITION	T3 B2 G0.000

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
2805.0	6.5	3.0	0.46	1522	38458.58	684	12820	-

BIT NUMBER	13	IADC CODE	4	INTERVAL	2805.0- 2807.8
CHRISTENSEN C-20		SIZE	8.469	NOZZLES	13 13 13
COST	13000.00	TRIP TIME	8.0	BIT RUN	2.8
TOTAL HOURS	2.61	TOTAL TURNS	12808	CONDITION	T0 B0 G1.000

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
2807.8	1.1	2.8	2.61	12808	60201.42	4146	21501	-

BIT NUMBER	14	IADC CODE	537	INTERVAL	2807.8- 2860.0
HTC J33		SIZE	8.500	NOZZLES	12 12 12
COST	3703.00	TRIP TIME	8.1	BIT RUN	52.2
TOTAL HOURS	11.73	TOTAL TURNS	40486	CONDITION	T4 B4 G0.125

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
2810.0	3.2	2.2	0.69	1652	42802.52	1392	19456	-
2820.0	4.5	12.2	2.93	8835	52769.96	997	4325	-
2830.0	4.8	22.2	5.00	15730	62004.72	923	2793	-
2840.0	5.2	32.2	6.93	23095	70569.05	856	2192	-
2850.0	6.4	42.2	8.50	29333	77549.03	698	1838	-
2860.0	3.1	52.2	11.73	40486	91937.84	1439	1761	-

BIT NUMBER	15	IADC CODE	537	INTERVAL	2860.0- 2914.0
HTC J33		SIZE	8.500	NOZZLES	12 12 12
COST	3703.00	TRIP TIME	8.2	BIT RUN	54.0
TOTAL HOURS	11.17	TOTAL TURNS	38909	CONDITION	T5 B4 G0.125

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
2870.0	4.2	10.0	2.37	8461	50747.78	1056	5075	-
2880.0	4.7	20.0	4.51	16142	60240.21	949	3012	-
2890.0	5.9	30.0	6.21	21913	67822.05	758	2261	-
2900.0	5.2	40.0	8.15	28407	76428.39	861	1911	-
2910.0	4.1	50.0	10.59	36816	87311.14	1088	1746	-
2914.0	6.9	54.0	11.17	38909	89897.74	647	1665	-

BIT NUMBER	15	IADC CODE	4	INTERVAL	2914.0- 2916.0
CHRIS C-20		SIZE	8.469	NOZZLES	13 13 13
COST	13000.00	TRIP TIME	8.2	BIT RUN	2.0
TOTAL HOURS	1.89	TOTAL TURNS	9369	CONDITION	T0 B0 G0.900

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
2916.0	1.1	2.0	1.89	9369	57868.17	4193	28934	-

BIT NUMBER	16	IADC CODE	617	INTERVAL	2916.0- 2972.0
HTC J44		SIZE	8.500	NOZZLES	12 12 12
COST	3304.00	TRIP TIME	8.3	BIT RUN	56.0
TOTAL HOURS	16.84	TOTAL TURNS	59660	CONDITION	T2 B4 G0.000

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
2920.0	4.1	4.0	0.97	2955	44532.94	1076	11133	-
2930.0	5.5	14.0	2.79	8706	52638.78	811	3760	-
2940.0	4.7	24.0	4.91	15663	62059.53	942	2586	-
2950.0	4.1	34.0	7.33	23689	72821.37	1076	2142	-
2960.0	2.2	44.0	11.93	40769	93304.89	2048	2121	-
2970.0	2.5	54.0	15.96	56502	111252.28	1795	2060	-
2972.0	2.3	56.0	16.84	59660	115155.04	1951	2056	-

BIT NUMBER	17	IADC CODE	617	INTERVAL	2972.0- 3026.0
HTC J44		SIZE	8.500	NOZZLES	12 12 12
COST	3304.00	TRIP TIME	8.4	BIT RUN	54.0
TOTAL HOURS	10.43	TOTAL TURNS	35559	CONDITION	T2 B2 G0.000

DEPTH	ROP	BIT RUN	HOURS	TURNS	TOTAL COST	ICOST	CCOST	I-C
2980.0	3.3	8.0	2.39	8139	51302.71	1328	6413	-
2990.0	7.4	18.0	3.74	12738	57308.10	601	3184	-
3000.0	5.4	28.0	5.60	18634	65568.03	826	2342	-
3010.0	4.5	38.0	7.80	26908	75392.66	982	1984	-
3020.0	6.2	48.0	9.43	32257	82622.42	723	1721	-
3026.0	6.0	54.0	10.43	35559	87074.57	742	1612	-

(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	70.0- 206.0
HTC OSC3AJ&26"HO		SIZE	26.000	NOZZLES	20 20 20
COST	6350.00	TRIP TIME	2.4	BIT RUN	136.0
TOTAL HOURS	4.05	TOTAL TURNS	19130	CONDITION	T2 B4 G0.000

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
80.0	650	500.0	394.7	78.9	150	0.28	655	69
90.0	650	500.0	394.7	78.9	150	0.28	655	69
100.0	650	500.0	394.7	78.9	150	0.28	655	69
110.0	650	500.0	394.7	78.9	150	0.28	655	69
120.0	650	500.0	394.7	78.9	150	0.28	655	69
130.0	650	500.0	394.7	78.9	150	0.28	655	69
140.0	650	500.0	394.7	78.9	150	0.28	655	69
150.0	650	500.0	394.7	78.9	150	0.28	655	69
160.0	650	500.0	394.7	78.9	150	0.28	655	69
170.0	600	450.0	336.3	74.7	118	0.22	558	64
180.0	600	450.0	336.3	74.7	118	0.22	558	64
190.0	600	450.0	336.3	74.7	118	0.22	558	64
200.0	600	450.0	336.3	74.7	118	0.22	558	64
206.0	600	450.0	336.3	74.7	118	0.22	558	64

BIT NUMBER	2	IADC CODE	111	INTERVAL	206.0- 799.0
HTC OSC 3AJ		SIZE	17.500	NOZZLES	20 20 20
COST	4442.00	TRIP TIME	3.7	BIT RUN	593.0
TOTAL HOURS	16.15	TOTAL TURNS	131732	CONDITION	T2 B2 G0.000

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
210.0	1050	1500.0	1018.0	67.9	623	2.59	1690	111
220.0	1050	1500.0	1018.0	67.9	623	2.59	1690	111
230.0	1050	1500.0	1018.0	67.9	623	2.59	1690	111
240.0	1060	1960.0	1037.5	52.9	641	2.67	1722	112
250.0	550	590.0	279.3	47.3	90	0.37	464	58
260.0	570	640.0	300.0	46.9	100	0.41	498	60
270.0	570	640.0	300.0	46.9	100	0.41	498	60
280.0	1050	1990.0	1018.0	51.2	623	2.59	1690	111
290.0	1050	1990.0	1018.0	51.2	623	2.59	1690	111
300.0	1025	2100.0	970.1	46.2	580	2.41	1611	109
310.0	1025	2100.0	970.1	46.2	580	2.41	1611	109
320.0	1025	2100.0	970.1	46.2	580	2.41	1611	109
330.0	1025	2100.0	993.0	47.3	594	2.47	1648	109
340.0	1025	2700.0	1027.2	38.0	614	2.55	1705	109
350.0	1025	2700.0	1027.2	38.0	614	2.55	1705	109
360.0	1025	2700.0	1027.2	38.0	614	2.55	1705	109
370.0	1025	2200.0	1027.2	46.7	614	2.55	1705	109
380.0	1025	2200.0	1027.2	46.7	614	2.55	1705	109
390.0	1075	2230.0	1129.8	50.7	708	2.94	1876	114
400.0	1075	2230.0	1129.8	50.7	708	2.94	1876	114
410.0	1075	2170.0	1129.8	52.1	708	2.94	1876	114
420.0	950	2520.0	882.4	35.0	489	2.03	1465	101
430.0	1075	2860.0	1129.8	39.5	708	2.94	1876	114
440.0	1075	2860.0	1129.8	39.5	708	2.94	1876	114
450.0	975	2540.0	929.4	36.6	528	2.20	1543	103
460.0	975	2540.0	929.4	36.6	528	2.20	1543	103
470.0	985	2890.0	959.1	33.2	551	2.29	1592	104
480.0	950	2890.0	892.2	30.9	494	2.06	1481	101
490.0	1025	3005.0	1038.6	34.6	621	2.58	1724	109
500.0	1025	3005.0	1038.6	34.6	621	2.58	1724	109
510.0	1025	3005.0	1038.6	34.6	621	2.58	1724	109
520.0	1025	3005.0	1038.6	34.6	621	2.58	1724	109
530.0	1025	3005.0	1038.6	34.6	621	2.58	1724	109
540.0	1000	2880.0	1010.3	35.1	589	2.45	1677	106
550.0	1000	2880.0	1010.3	35.1	589	2.45	1677	106
560.0	1050	3060.0	1089.9	35.6	667	2.77	1809	111
570.0	1050	3060.0	1089.9	35.6	667	2.77	1809	111
580.0	1050	3060.0	1089.9	35.6	667	2.77	1809	111
590.0	1025	2970.0	1050.0	35.4	628	2.61	1743	109
600.0	1025	2970.0	1050.0	35.4	628	2.61	1743	109
610.0	1025	2970.0	1050.0	35.4	628	2.61	1743	109
620.0	990	2980.0	979.5	32.9	566	2.35	1626	105
630.0	990	2980.0	979.5	32.9	566	2.35	1626	105

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
640.0	975	3000.0	950.1	31.7	540	2.25	1577	103
650.0	975	3000.0	950.1	31.7	540	2.25	1577	103
660.0	1075	2630.0	1155.0	43.9	724	3.01	1917	114
670.0	1075	2630.0	1155.0	43.9	724	3.01	1917	114
680.0	1025	2700.0	1050.0	38.9	628	2.61	1743	109
690.0	1000	2650.0	999.4	37.7	583	2.42	1659	106
700.0	1000	2650.0	999.4	37.7	583	2.42	1659	106
710.0	1000	2900.0	999.4	34.5	583	2.42	1659	106
720.0	1000	3000.0	999.4	33.3	583	2.42	1659	106
730.0	1000	3000.0	999.4	33.3	583	2.42	1659	106
740.0	1000	3000.0	999.4	33.3	583	2.42	1659	106
750.0	1000	2830.0	999.4	35.3	583	2.42	1659	106
760.0	1000	2830.0	999.4	35.3	583	2.42	1659	106
770.0	1000	2830.0	999.4	35.3	583	2.42	1659	106
780.0	1000	2830.0	999.4	35.3	583	2.42	1659	106
790.0	1000	2930.0	1010.3	34.5	589	2.45	1677	106
799.0	1000	2930.0	1010.3	34.5	589	2.45	1677	106

BIT NUMBER	2	IADC CODE	111	INTERVAL	799.0- 845.0
HTC OSC 3AJ		SIZE	17.500	NOZZLES	20 20 20
COST	4442.00	TRIP TIME	3.8	BIT RUN	46.0
TOTAL HOURS	4.11	TOTAL TURNS	34501	CONDITION	T2 B2 G0.000

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
800.0	1050	2930.0	1113.8	38.0	682	2.84	1849	111
810.0	1045	2350.0	1103.3	46.9	672	2.80	1832	111
820.0	1045	2350.0	1103.3	46.9	672	2.80	1832	111
830.0	1045	2350.0	1103.3	46.9	672	2.80	1832	111
840.0	575	1000.0	334.0	33.4	112	0.47	555	61
845.0	965	2000.0	950.9	47.5	535	2.22	1579	102

BIT NUMBER	3	IADC CODE	114	INTERVAL	845.0- 1488.2
HTC X3A		SIZE	12.250	NOZZLES	18 18 18
COST	2201.00	TRIP TIME	5.2	BIT RUN	643.2
TOTAL HOURS	31.23	TOTAL TURNS	256700	CONDITION	T5 B4 G0.000

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
850.0	919	2450.0	1301.9	53.1	698	5.92	1751	120
860.0	912	2200.0	1239.9	56.4	660	5.60	1667	119
870.0	936	1700.0	1306.0	76.8	713	6.05	1756	122
880.0	914	2450.0	1177.9	48.1	628	5.33	1584	120
890.0	906	2450.0	1157.3	47.2	612	5.19	1556	119
900.0	915	2400.0	1219.9	50.8	651	5.52	1640	120
910.0	917	2400.0	1239.8	51.7	663	5.63	1667	120
920.0	919	2400.0	1244.2	51.8	667	5.66	1673	120
930.0	914	2400.0	1203.8	50.2	642	5.45	1619	120
940.0	1002	2500.0	1447.6	57.9	846	7.18	1947	131
950.0	918	2500.0	1215.7	48.6	651	5.53	1635	120
960.0	926	2550.0	1236.5	48.5	668	5.67	1663	121
970.0	917	2550.0	1211.6	47.5	648	5.50	1629	120
980.0	925	2550.0	1219.9	47.8	659	5.59	1640	121
990.0	922	2550.0	1211.1	47.5	651	5.53	1629	121
1000.0	920	2550.0	1206.6	47.3	648	5.50	1623	120
1010.0	920	2600.0	1276.9	49.1	686	5.82	1717	120
1020.0	918	2600.0	1269.6	48.8	680	5.77	1707	120
1030.0	922	2600.0	1280.5	49.3	688	5.84	1722	121
1040.0	914	2600.0	1261.0	48.5	673	5.71	1696	120
1050.0	969	2600.0	1417.1	54.5	801	6.80	1906	127
1060.0	912	2600.0	1255.3	48.3	668	5.67	1688	119
1070.0	909	2600.0	1245.2	47.9	660	5.60	1674	119
1080.0	908	2600.0	1244.2	47.9	659	5.59	1673	119
1090.0	907	2600.0	1239.9	47.7	656	5.57	1667	119
1100.0	910	2600.0	1248.8	48.0	663	5.63	1679	119
1110.0	912	2640.0	1268.6	48.1	675	5.73	1706	119
1120.0	778	2640.0	913.3	34.6	415	3.52	1228	102
1130.0	901	2580.0	1224.1	47.4	643	5.46	1646	118
1140.0	893	2580.0	1215.7	47.1	633	5.37	1635	117
1150.0	895	2580.0	1222.2	47.4	639	5.42	1644	117
1160.0	911	2580.0	1266.2	49.1	673	5.71	1703	119
1170.0	916	2650.0	1279.4	48.3	684	5.80	1720	120
1180.0	910	2600.0	1234.0	47.5	655	5.56	1659	119
1190.0	910	2600.0	1234.0	47.5	655	5.56	1659	119
1200.0	909	2700.0	1233.5	45.7	655	5.55	1659	119
1210.0	911	2700.0	1236.8	45.8	657	5.58	1663	119
1220.0	731	2700.0	797.7	29.5	340	2.89	1073	96
1230.0	914	2600.0	1259.1	48.4	671	5.70	1693	120
1240.0	908	2600.0	1243.1	47.8	659	5.59	1672	119
1250.0	906	2600.0	1237.5	47.6	654	5.55	1664	119
1260.0	989	2800.0	1474.5	52.7	851	7.22	1983	129
1270.0	921	2800.0	1279.4	45.7	688	5.83	1720	121

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
1280.0	910	2800.0	1261.7	45.1	670	5.68	1697	119
1290.0	918	2900.0	1286.0	44.3	689	5.85	1729	120
1300.0	912	2900.0	1267.2	43.7	674	5.72	1704	119
1310.0	948	2950.0	1369.8	46.4	758	6.43	1842	124
1320.0	960	2950.0	1405.2	47.6	787	6.68	1890	126
1330.0	890	2950.0	1208.2	41.0	628	5.32	1625	116
1340.0	886	2900.0	1235.1	42.6	638	5.42	1661	116
1350.0	896	2900.0	1264.0	43.6	661	5.61	1700	117
1360.0	860	2900.0	1163.7	40.1	584	4.95	1565	112
1370.0	856	3000.0	1177.8	39.3	588	4.99	1584	112
1380.0	891	2950.0	1277.3	43.3	664	5.64	1718	117
1390.0	894	2950.0	1284.7	43.5	670	5.69	1727	117
1400.0	946	2950.0	1439.7	48.8	795	6.75	1936	124
1410.0	910	2950.0	1332.2	45.2	708	6.00	1791	119
1420.0	886	2950.0	1260.4	42.7	651	5.52	1695	116
1430.0	893	2950.0	1295.5	43.9	675	5.73	1742	117
1440.0	897	2950.0	1306.0	44.3	683	5.80	1756	117
1450.0	889	2950.0	1269.5	43.0	658	5.59	1707	116
1460.0	905	3000.0	1315.0	43.8	694	5.89	1768	118
1470.0	898	3000.0	1295.8	43.2	679	5.76	1742	117
1480.0	918	3000.0	1353.2	45.1	724	6.15	1820	120
1488.2	871	2833.9	1219.0	43.0	619	5.26	1639	114

BIT NUMBER	3	IADC CODE	4	INTERVAL	1488.2- 1500.6
CHRIS RC4		SIZE	8.500	NOZZLES	15 15 14
COST	13000.00	TRIP TIME	5.2	BIT RUN	12.4
TOTAL HOURS	0.77	TOTAL TURNS	4311	CONDITION	T0 B0 G0.450

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
1490.0	250	650.0	229.6	35.3	33	0.59	205	49
1500.0	250	650.0	229.6	35.3	33	0.59	205	49
1500.6	250	650.0	229.6	35.3	33	0.59	205	49

BIT NUMBER	3	IADC CODE	4	INTERVAL	1500.6- 1513.4
CHRIS RC4		SIZE	8.500	NOZZLES	15 15 14
COST	13000.00	TRIP TIME	5.2	BIT RUN	12.8
TOTAL HOURS	2.01	TOTAL TURNS	11652	CONDITION	T0 B0 G0.500

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
1510.0	275	600.0	275.0	45.8	44	0.78	246	54
1513.4	275	600.0	275.0	45.8	44	0.78	246	54

BIT NUMBER	3	IADC CODE	4	INTERVAL	1513.4- 1527.0
CHRIS RC4		SIZE	8.500	NOZZLES	15 15 14
COST	13000.00	TRIP TIME	5.2	BIT RUN	13.6
TOTAL HOURS	3.44	TOTAL TURNS	20205	CONDITION	T0 B0 G0.600

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
1520.0	279	550.0	282.9	51.4	46	0.81	253	55
1527.0	289	550.0	304.4	55.4	51	0.91	272	57

BIT NUMBER	4	IADC CODE	114	INTERVAL	1527.0- 1573.4
HTC X3A		SIZE	12.250	NOZZLES	18 18 18
COST	2201.00	TRIP TIME	5.3	BIT RUN	46.4
TOTAL HOURS	2.60	TOTAL TURNS	21816	CONDITION	T4 B2 G0.000

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
1530.0	752	2100.0	917.5	43.7	402	3.41	1234	98
1540.0	782	2200.0	992.7	45.1	453	3.84	1335	102
1550.0	784	2300.0	998.1	43.4	457	3.87	1342	103
1560.0	674	2000.0	738.1	36.9	290	2.46	993	88
1570.0	885	2300.0	1283.5	55.8	662	5.62	1726	116
1573.4	806	2400.0	1065.0	44.4	501	4.25	1432	105

BIT NUMBER	4	IADC CODE	4	INTERVAL	1573.4- 1585.6
CHRIS RC4		SIZE	8.500	NOZZLES	15 15 14
COST	13000.00	TRIP TIME	5.4	BIT RUN	12.2
TOTAL HOURS	4.48	TOTAL TURNS	27120	CONDITION	T0 B0 G0.050

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
1580.0	230	560.0	194.3	34.7	26	0.46	174	45
1585.6	225	350.0	186.0	53.1	24	0.43	166	44

BIT NUMBER	4	IADC CODE	4	INTERVAL	1585.6- 1596.6
CHRIS RC3		SIZE	8.500	NOZZLES	15 15 14
COST	13000.00	TRIP TIME	5.4	BIT RUN	11.0
TOTAL HOURS	7.40	TOTAL TURNS	46239	CONDITION	T0 B0 G0.200

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
1590.0	165	420.0	100.0	23.8	10	0.17	89	32
1596.6	175	400.0	112.5	28.1	11	0.20	101	34

BIT NUMBER	5	IADC CODE	427	INTERVAL	1596.6- 1628.4
HTC J11		SIZE	12.250	NOZZLES	18 18 18
COST	6788.00	TRIP TIME	5.5	BIT RUN	31.8
TOTAL HOURS	7.37	TOTAL TURNS	27564	CONDITION	T8 B2 G0.000

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
1600.0	819	2500.0	1089.5	43.6	521	4.42	1465	107
1610.0	802	2500.0	1043.8	41.8	488	4.14	1404	105
1620.0	820	2500.0	1080.7	43.2	517	4.39	1453	107
1628.4	664	2500.0	715.8	28.6	277	2.35	963	87

BIT NUMBER	6	IADC CODE	417	INTERVAL	1628.4- 1770.4
HTC J22		SIZE	12.250	NOZZLES	18 18 18
COST	6788.00	TRIP TIME	5.8	BIT RUN	142.0
TOTAL HOURS	11.42	TOTAL TURNS	41273	CONDITION	T1 B2 G0.125

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
1630.0	888	2700.0	1268.9	47.0	658	5.58	1706	116
1640.0	904	3000.0	1312.4	43.7	692	5.87	1765	118
1650.0	903	3000.0	1309.7	43.7	690	5.85	1761	118
1660.0	899	3000.0	1299.8	43.3	682	5.79	1748	118
1670.0	890	3000.0	1274.2	42.5	662	5.62	1713	116
1680.0	891	3000.0	1275.1	42.5	663	5.62	1715	117
1690.0	889	3000.0	1270.1	42.3	659	5.59	1708	116
1700.0	869	2850.0	1214.2	42.6	616	5.22	1633	114
1710.0	878	2850.0	1237.8	43.4	634	5.38	1664	115
1720.0	877	2850.0	1235.5	43.3	632	5.36	1661	115
1730.0	870	2850.0	1217.0	42.7	618	5.24	1636	114
1740.0	884	3000.0	1256.3	41.9	648	5.50	1689	116
1750.0	901	2900.0	1317.0	45.4	692	5.87	1771	118
1760.0	817	2500.0	1082.8	43.3	516	4.38	1456	107
1770.0	737	2000.0	882.8	44.1	380	3.22	1187	96
1770.4	735	2000.0	876.6	43.8	376	3.19	1179	96

BIT NUMBER	7	IADC CODE	517	INTERVAL	1770.4- 2046.0
HTC J22		SIZE	12.250	NOZZLES	18 18 18
COST	6788.00	TRIP TIME	6.3	BIT RUN	275.6
TOTAL HOURS	28.35	TOTAL TURNS	93771	CONDITION	T2 B2 G0.000

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
1780.0	875	2950.0	1242.8	42.1	634	5.38	1671	114
1790.0	797	2500.0	1030.5	41.2	479	4.06	1386	104
1800.0	869	2500.0	1227.4	49.1	623	5.28	1651	114
1810.0	870	2950.0	1229.0	41.7	624	5.29	1653	114
1820.0	875	2950.0	1243.0	42.1	634	5.38	1672	114
1830.0	870	2950.0	1229.6	41.7	624	5.30	1653	114
1840.0	876	2950.0	1245.0	42.2	636	5.40	1674	115
1850.0	880	2950.0	1258.1	42.6	646	5.48	1692	115
1860.0	879	2950.0	1253.4	42.5	642	5.45	1685	115
1870.0	869	2950.0	1213.1	41.1	615	5.22	1631	114
1880.0	872	2950.0	1221.2	41.4	621	5.27	1642	114
1890.0	795	2500.0	1015.1	40.6	471	3.99	1365	104
1900.0	845	2800.0	1146.8	41.0	565	4.79	1542	111
1910.0	850	2900.0	1160.4	40.0	575	4.88	1560	111
1920.0	851	2900.0	1175.8	40.5	584	4.95	1581	111
1930.0	834	2900.0	1130.8	39.0	551	4.67	1521	109
1940.0	834	2900.0	1130.1	39.0	550	4.67	1520	109
1950.0	839	2900.0	1141.9	39.4	559	4.74	1535	110
1960.0	843	2900.0	1153.6	39.8	567	4.81	1551	110
1970.0	840	2900.0	1145.3	39.5	561	4.76	1540	110
1980.0	837	2900.0	1138.3	39.3	556	4.72	1531	110
1990.0	850	2900.0	1172.6	40.4	581	4.93	1577	111
2000.0	860	2900.0	1201.0	41.4	603	5.11	1615	113
2010.0	850	2900.0	1173.5	40.5	582	4.94	1578	111
2020.0	845	2900.0	1160.4	40.0	572	4.86	1560	111
2030.0	847	2900.0	1164.7	40.2	575	4.88	1566	111
2040.0	850	2900.0	1172.4	40.4	581	4.93	1577	111
2046.0	837	2900.0	1138.9	39.3	556	4.72	1532	110

BIT NUMBER	7	IADC CODE	4	INTERVAL	2046.0- 2061.2
CHRIS RC3		SIZE	8.500	NOZZLES	15 15 14
COST	13000.00	TRIP TIME	6.4	BIT RUN	15.2
TOTAL HOURS	11.42	TOTAL TURNS	72504	CONDITION	T0 B0 G0.200

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
2050.0	205	350.0	153.5	43.8	18	0.32	137	40
2060.0	200	425.0	144.9	34.1	17	0.30	130	39
2061.2	204	425.0	151.3	35.6	18	0.32	135	40

BIT NUMBER	8	IADC CODE	517	INTERVAL	2061.2- 2321.0
HTC J22		SIZE	12.250	NOZZLES	18 18 18
COST	6788.00	TRIP TIME	6.9	BIT RUN	259.8
TOTAL HOURS	43.41	TOTAL TURNS	129120	CONDITION	T1 B2 G0.000

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
2070.0	827	2700.0	1109.7	41.1	535	4.54	1492	108
2080.0	830	2700.0	1119.0	41.4	542	4.60	1505	109
2090.0	830	2700.0	1117.8	41.4	541	4.59	1503	109
2100.0	829	2700.0	1117.0	41.4	541	4.59	1502	109
2110.0	827	2700.0	1111.0	41.1	536	4.55	1494	108
2120.0	835	2700.0	1132.7	42.0	552	4.68	1523	109
2130.0	831	2700.0	1110.2	41.1	538	4.57	1493	109
2140.0	817	2700.0	1072.5	39.7	511	4.34	1442	107
2150.0	818	2900.0	1074.6	37.1	513	4.35	1445	107
2160.0	819	2900.0	1078.8	37.2	516	4.38	1451	107
2170.0	818	2950.0	1075.6	36.5	513	4.36	1446	107
2180.0	815	2950.0	1079.9	36.6	514	4.36	1452	107
2190.0	817	2950.0	1084.7	36.8	517	4.39	1459	107
2200.0	808	2950.0	1059.3	35.9	499	4.23	1424	106
2210.0	477	2950.0	369.0	12.5	103	0.87	496	62
2220.0	814	2950.0	1077.1	36.5	512	4.34	1448	107
2230.0	812	2950.0	1070.8	36.3	507	4.30	1440	106
2240.0	814	2950.0	1075.1	36.4	510	4.33	1446	106
2250.0	810	2950.0	1064.6	36.1	503	4.27	1432	106
2260.0	811	2950.0	1068.2	36.2	505	4.29	1436	106
2270.0	811	2950.0	1069.4	36.3	506	4.30	1438	106
2280.0	821	2950.0	1095.5	37.1	525	4.45	1473	107
2290.0	813	2950.0	1072.8	36.4	509	4.32	1443	106
2300.0	808	2950.0	1060.1	35.9	500	4.24	1426	106
2310.0	804	2950.0	1049.3	35.6	492	4.18	1411	105
2320.0	805	2950.0	1052.0	35.7	494	4.19	1415	105
2321.0	808	2950.0	1061.5	36.0	501	4.25	1427	106

BIT NUMBER	9	IADC CODE	517	INTERVAL	2321.0- 2601.0
HTC J22		SIZE	12.250	NOZZLES	18 18 18
COST	6788.00	TRIP TIME	7.5	BIT RUN	280.0
TOTAL HOURS	66.68	TOTAL TURNS	216428	CONDITION	T3 B3 G0.125

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
2330.0	785	2900.0	1001.9	34.5	459	3.90	1347	103
2340.0	788	2925.0	1007.4	34.4	463	3.93	1355	103
2350.0	796	2900.0	1030.2	35.5	479	4.06	1385	104
2360.0	793	2900.0	1020.4	35.2	472	4.00	1372	104
2370.0	791	2950.0	1016.6	34.5	469	3.98	1367	104
2380.0	791	2950.0	1015.4	34.4	468	3.97	1365	103
2390.0	789	2950.0	1011.7	34.3	466	3.95	1360	103
2400.0	801	2950.0	1042.8	35.3	488	4.14	1402	105
2410.0	803	2650.0	1047.7	39.5	491	4.17	1409	105
2420.0	769	2900.0	960.5	33.1	431	3.66	1292	101
2430.0	493	1400.0	395.0	28.2	114	0.96	531	65
2440.0	713	2900.0	825.9	28.5	344	2.92	1111	93
2450.0	801	2950.0	1031.5	35.0	482	4.09	1387	105
2460.0	790	2900.0	1003.5	34.6	463	3.92	1349	103
2470.0	792	2900.0	1007.7	34.7	465	3.95	1355	104
2480.0	801	2900.0	1032.5	35.6	483	4.10	1388	105
2490.0	788	2900.0	997.6	34.4	459	3.89	1341	103
2500.0	787	2900.0	994.3	34.3	456	3.87	1337	103
2510.0	795	2900.0	1015.1	35.0	471	3.99	1365	104
2520.0	791	2900.0	996.0	34.3	460	3.90	1339	104
2530.0	795	2900.0	1016.5	35.1	472	4.00	1367	104
2540.0	795	2900.0	1014.9	35.0	471	3.99	1365	104
2550.0	785	2900.0	989.4	34.1	453	3.84	1330	103
2560.0	792	2900.0	1007.0	34.7	465	3.95	1354	104
2570.0	789	2900.0	1001.2	34.5	461	3.91	1346	103
2580.0	780	2900.0	978.3	33.7	445	3.78	1316	102
2590.0	783	2950.0	985.1	33.4	450	3.82	1325	102
2600.0	792	2950.0	1007.8	34.2	466	3.95	1355	104
2601.0	794	2950.0	1012.6	34.3	469	3.98	1362	104

BIT NUMBER	10	IADC CODE	517	INTERVAL	2601.0- 2676.0
HTC J22		SIZE	12.250	NOZZLES	18 18 18
COST	6788.00	TRIP TIME	8.0	BIT RUN	75.0
TOTAL HOURS	29.22	TOTAL TURNS	103159	CONDITION	T8 B3 G0.125

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
2610.0	784	2900.0	989.1	34.1	453	3.84	1330	103
2620.0	774	2900.0	963.8	33.2	435	3.69	1296	101
2630.0	780	2950.0	978.7	33.2	446	3.78	1316	102
2640.0	780	2950.0	977.5	33.1	445	3.77	1314	102
2650.0	782	2900.0	983.3	33.9	449	3.81	1322	102
2660.0	792	2950.0	1008.8	34.2	466	3.96	1357	104
2670.0	789	2950.0	1000.1	33.9	460	3.90	1345	103
2676.0	782	2950.0	983.7	33.3	449	3.81	1323	102

BIT NUMBER	11	IADC CODE	537	INTERVAL	2676.0- 2797.0
HTC J33		SIZE	12.250	NOZZLES	18 18 18
COST	6637.00	TRIP TIME	7.9	BIT RUN	121.0
TOTAL HOURS	28.28	TOTAL TURNS	96582	CONDITION	T8 B8 G0.000

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
2680.0	788	2900.0	997.4	34.4	458	3.89	1341	103
2690.0	785	2900.0	989.7	34.1	453	3.84	1331	103
2700.0	789	2950.0	1000.4	33.9	460	3.91	1345	103
2710.0	779	2950.0	975.5	33.1	443	3.76	1312	102
2720.0	773	2950.0	960.4	32.6	433	3.68	1291	101
2730.0	781	2950.0	981.4	33.3	447	3.80	1320	102
2740.0	781	2950.0	980.5	33.2	447	3.79	1319	102
2750.0	793	2950.0	1011.6	34.3	468	3.97	1360	104
2760.0	785	2950.0	990.6	33.6	454	3.85	1332	103
2770.0	665	1900.0	710.5	37.4	276	2.34	955	87
2780.0	788	2950.0	996.8	33.8	458	3.89	1340	103
2790.0	784	2950.0	987.9	33.5	452	3.83	1328	103
2797.0	784	2950.0	988.8	33.5	452	3.84	1330	103

BIT NUMBER	12	IADC CODE	316	INTERVAL	2799.0- 2802.0
HTC J7		SIZE	8.500	NOZZLES	12 12 12
COST	1260.00	TRIP TIME	7.9	BIT RUN	3.0
TOTAL HOURS	0.54	TOTAL TURNS	2345	CONDITION	T7 B2 G0.000

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
2800.0	242	1360.0	453.4	33.3	64	1.13	271	71
2802.0	332	1410.0	849.2	60.2	164	2.90	508	98

BIT NUMBER	13	IADC CODE	316	INTERVAL	2802.0- 2805.0
HTC J7		SIZE	8.500	NOZZLES	12 12 12
COST	1260.00	TRIP TIME	7.9	BIT RUN	3.0
TOTAL HOURS	0.46	TOTAL TURNS	1522	CONDITION	T3 B2 G0.000

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
2805.0	492	2800.0	1869.3	66.8	537	9.46	1117	145

BIT NUMBER	13	IADC CODE	4	INTERVAL	2805.0- 2807.8
CHRISTENSEN C-20		SIZE	8.469	NOZZLES	13 13 13
COST	13000.00	TRIP TIME	8.0	BIT RUN	2.8
TOTAL HOURS	2.61	TOTAL TURNS	12808	CONDITION	T0 B0 G1.000

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
2807.8	259	1870.0	376.3	20.1	57	1.01	264	65

BIT NUMBER	14	IADC CODE	537	INTERVAL	2807.8- 2860.0
HTC J33		SIZE	8.500	NOZZLES	12 12 12
COST	3703.00	TRIP TIME	8.1	BIT RUN	52.2
TOTAL HOURS	11.73	TOTAL TURNS	40486	CONDITION	T4 B4 G0.125

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
2810.0	491	2600.0	1861.5	71.6	533	9.40	1113	145
2820.0	509	2800.0	1996.3	71.3	592	10.44	1193	150
2830.0	504	2720.0	1961.9	72.1	577	10.17	1173	148
2840.0	509	2800.0	1998.1	71.4	593	10.45	1194	150
2850.0	508	2750.0	1990.7	72.4	590	10.39	1190	150
2860.0	508	2910.0	1993.3	68.5	591	10.42	1191	150

BIT NUMBER	15	IADC CODE	537	INTERVAL	2860.0- 2914.0
HTC J33		SIZE	8.500	NOZZLES	12 12 12
COST	3703.00	TRIP TIME	8.2	BIT RUN	54.0
TOTAL HOURS	11.17	TOTAL TURNS	38909	CONDITION	T5 B4 G0.125

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
2870.0	484	2850.0	1807.2	63.4	510	8.99	1080	142
2880.0	494	2900.0	1883.8	65.0	543	9.57	1126	145
2890.0	505	3000.0	1967.7	65.6	580	10.22	1176	149
2900.0	494	2920.0	1883.2	64.5	543	9.56	1125	145
2910.0	495	2960.0	1889.5	63.8	545	9.61	1129	146
2914.0	495	2960.0	1889.6	63.8	546	9.61	1129	146

BIT NUMBER	15	IADC CODE	4	INTERVAL	2914.0- 2916.0
CHRIS C-20		SIZE	8.469	NOZZLES	13 13 13
COST	13000.00	TRIP TIME	8.2	BIT RUN	2.0
TOTAL HOURS	1.89	TOTAL TURNS	9369	CONDITION	T0 B0 G0.900

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
2916.0	298	1800.0	499.1	27.7	87	1.54	350	75

BIT NUMBER	16	IADC CODE	617	INTERVAL	2916.0- 2972.0
HTC J44		SIZE	8.500	NOZZLES	12 12 12
COST	3304.00	TRIP TIME	8.3	BIT RUN	56.0
TOTAL HOURS	16.84	TOTAL TURNS	59660	CONDITION	T2 B4 G0.000

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
2920.0	466	2450.0	1675.2	68.4	455	8.02	1001	137
2930.0	474	2520.0	1736.3	68.9	480	8.47	1038	140
2940.0	494	2660.0	1904.5	71.6	549	9.67	1138	145
2950.0	499	2740.0	1925.3	70.3	561	9.89	1151	147
2960.0	485	2690.0	1814.0	67.4	513	9.04	1084	143
2970.0	458	2900.0	1863.9	64.3	498	8.77	1114	135
2972.0	460	2900.0	1880.1	64.8	504	8.89	1124	135

BIT NUMBER	17	IADC CODE	617	INTERVAL	2972.0- 3026.0
HTC J44		SIZE	8.500	NOZZLES	12 12 12
COST	3304.00	TRIP TIME	8.4	BIT RUN	54.0
TOTAL HOURS	10.43	TOTAL TURNS	35559	CONDITION	T2 B2 G0.000

DEPTH	FLOW RATE	PSP	PBIT	%PSP	HHP	HHP/ sqin	IMPACT FORCE	JET VELOCITY
2980.0	450	2830.0	1816.2	64.2	477	8.40	1085	132
2990.0	450	2800.0	1816.2	64.9	477	8.40	1085	132
3000.0	455	2790.0	1943.6	69.7	516	9.09	1162	134
3010.0	460	2840.0	1986.5	69.9	533	9.39	1187	135
3020.0	450	2800.0	1901.1	67.9	499	8.79	1136	132
3026.0	450	2820.0	1901.1	67.4	499	8.79	1136	132

(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	70.0- 206.0
HTC OSC3AJ&26"HO		SIZE	26.000	NOZZLES	20 20 20
COST	6350.00	TRIP TIME	2.4	BIT RUN	136.0
TOTAL HOURS	4.05	TOTAL TURNS	19130	CONDITION	T2 B4 G0.000

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
80.0	130	0	650							
90.0	130	0	650							
100.0	130	0	650	8						12
110.0	130	0	650	8						12
120.0	130	0	650	8						12
130.0	130	0	650	8						12
140.0	130	0	650	8		7				12
150.0	130	0	650	8		7				12
160.0	130	0	650	8		7				12
170.0	120	0	600	7		7		7		11
180.0	120	0	600	7		7		7		11
190.0	120	0	600	7		7		7		11
200.0	120	0	600	7		7		7		11
206.0	120	0	600	7		7		7		11

BIT NUMBER	2	IADC CODE	111	INTERVAL	206.0- 799.0
HTC OSC 3AJ		SIZE	17.500	NOZZLES	20 20 20
COST	4442.00	TRIP TIME	3.7	BIT RUN	593.0
TOTAL HOURS	16.15	TOTAL TURNS	131732	CONDITION	T2 B2 G0.000

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
210.0	110	100	1050		26		23			19
220.0	110	100	1050	32	26		23		23	19
230.0	110	100	1050	32	26		23		23	19
240.0	112	100	1060	33	26		23		23	19
250.0	0	110	550	17	14		12		12	10
260.0	0	114	570	18	14		12		12	10
270.0	0	114	570	18	14		12		12	10
280.0	100	110	1050	32	26		23		23	19
290.0	100	110	1050	32	26		23		23	19
300.0	100	105	1025	32	25		22		22	18
310.0	100	105	1025	32		27	22		22	18
320.0	100	105	1025	32		27	22		22	18
330.0	100	105	1025	32		27	22		22	18
340.0	100	105	1025	32		27		27	22	18
350.0	100	105	1025	32		27		27	22	18
360.0	100	105	1025	32		27		27	22	18
370.0	100	105	1025	32		27		27	22	18
380.0	100	105	1025	32		27		27	22	18
390.0	110	105	1075	33		29		29	24	19
400.0	110	105	1075	33		29		29	24	19
410.0	110	105	1075	33		29		29	24	19
420.0	110	80	950	29		25		25	21	17
430.0	110	105	1075	33		29		29	24	19
440.0	110	105	1075	33		29		29	24	19
450.0	95	100	975	30		26		26	21	18
460.0	95	100	975	30		26		26	21	18
470.0	100	97	985	30		26		26	22	18
480.0	95	95	950	29		25		25	21	17
490.0	105	100	1025	32		27		27	22	18
500.0	105	100	1025	32		27		27	22	18
510.0	105	100	1025	32		27		27	22	18
520.0	105	100	1025	32		27		27	22	18
530.0	105	100	1025	32		27		27	22	18
540.0	100	100	1000	31		27		27	22	18
550.0	100	100	1000	31		27		27	22	18
560.0	110	100	1050	32		28		28	23	19
570.0	110	100	1050	32		28		28	23	19
580.0	110	100	1050	32		28		28	23	19
590.0	105	100	1025	32		27		27	22	18
600.0	105	100	1025	32		27		27	22	18
610.0	105	100	1025	32		27		27	22	18
620.0	100	98	990	31		26		26	22	18
630.0	100	98	990	31		26		26	22	18

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
640.0	100	95	975	30		26		26	21	18
650.0	100	95	975	30		26		26	21	18
660.0	100	115	1075	33		29		29	24	19
670.0	100	115	1075	33		29		29	24	19
680.0	100	105	1025	32		27		27	22	18
690.0	100	100	1000	31		27		27	22	18
700.0	100	100	1000	31		27		27	22	18
710.0	100	100	1000	31		27		27	22	18
720.0	100	100	1000	31		27		27	22	18
730.0	100	100	1000	31		27		27	22	18
740.0	100	100	1000	31		27		27	22	18
750.0	100	100	1000	31		27		27	22	18
760.0	100	100	1000	31		27		27	22	18
770.0	100	100	1000	31		27		27	22	18
780.0	100	100	1000	31		27		27	22	18
790.0	100	100	1000	31		27		27	22	18
799.0	100	100	1000	31		27		27	22	18

BIT NUMBER	2	IADC CODE	111	INTERVAL	799.0- 845.0
HTC OSC 3AJ		SIZE	17.500	NOZZLES	20 20 20
COST	4442.00	TRIP TIME	3.8	BIT RUN	46.0
TOTAL HOURS	4.11	TOTAL TURNS	34501	CONDITION	T2 B2 G0.000

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
800.0	110	100	1050	32		28		28	23	19
810.0	109	100	1045	32		28		28	23	19
820.0	109	100	1045	32		28		28	23	19
830.0	109	100	1045	32		28		28	23	19
840.0	115	0	575	18		15		15	13	10
845.0	98	95	965	30		26		26	21	17

BIT NUMBER	3	IADC CODE	114	INTERVAL	845.0- 1488.2
HTC X3A		SIZE	12.250	NOZZLES	18 18 18
COST	2201.00	TRIP TIME	5.2	BIT RUN	643.2
TOTAL HOURS	31.23	TOTAL TURNS	256700	CONDITION	T5 B4 G0.000

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
850.0	92	92	919	80	72		51		51	17
860.0	92	91	912	79	72		51		51	16
870.0	94	93	936	81	74		52		52	17
880.0	92	91	914	79	72		51		51	16
890.0	91	90	906	79	71		51		51	16
900.0	92	91	915	79	72		51		51	16
910.0	92	91	917	80	72		51		51	16
920.0	92	92	919	80	72		51		51	17
930.0	92	91	914	79	72		51		51	16
940.0	98	102	1002	87	79		56		56	18
950.0	92	91	918	80	72		51		51	16
960.0	93	93	926	80	73		52		52	17
970.0	92	91	917	80	72		51		51	16
980.0	94	92	925	80		55	52		52	17
990.0	94	90	922	80		55	51		51	17
1000.0	92	92	920	80		55	51		51	17
1010.0	93	91	920	80		55		55	51	17
1020.0	93	91	918	80		55		55	51	16
1030.0	93	92	922	80		55		55	51	17
1040.0	93	90	914	79		55		55	51	16
1050.0	97	96	969	84		58		58	54	17
1060.0	92	91	912	79		55		55	51	16
1070.0	91	90	909	79		54		54	51	16
1080.0	91	91	908	79		54		54	51	16
1090.0	91	90	907	79		54		54	51	16
1100.0	91	91	910	79		54		54	51	16
1110.0	92	91	912	79		55		55	51	16
1120.0	59	97	778	68		47		47	43	14
1130.0	91	89	901	78		54		54	50	16
1140.0	90	89	893	78		53		53	50	16
1150.0	90	89	895	78		54		54	50	16
1160.0	91	91	911	79		54		54	51	16
1170.0	92	91	916	80		55		55	51	16
1180.0	92	90	910	79		54		54	51	16
1190.0	92	90	910	79		54		54	51	16
1200.0	91	91	909	79		54		54	51	16
1210.0	92	90	911	79		54		54	51	16
1220.0	73	73	731	64		44		44	41	13
1230.0	92	91	914	79		55		55	51	16
1240.0	91	90	908	79		54		54	51	16
1250.0	91	90	906	79		54		54	50	16
1260.0	100	98	989	86		59		59	55	18
1270.0	93	91	921	80		55		55	51	17

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
1280.0	91	91	910	79		54		54	51	16
1290.0	93	91	918	80		55		55	51	17
1300.0	92	91	912	79		54		54	51	16
1310.0	94	95	948	82		57		57	53	17
1320.0	98	94	960	83		57		57	53	17
1330.0	90	88	890	77		53		53	50	16
1340.0	89	88	886	77		53		53	49	16
1350.0	91	88	896	78		54		54	50	16
1360.0	89	83	860	75		51		51	48	15
1370.0	91	80	856	74		51		51	48	15
1380.0	92	87	891	77		53		53	50	16
1390.0	92	87	894	78		53		53	50	16
1400.0	100	89	946	82		57		57	53	17
1410.0	94	88	910	79		54		54	51	16
1420.0	89	88	886	77		53		53	49	16
1430.0	92	87	893	78		53		53	50	16
1440.0	91	88	897	78		54		54	50	16
1450.0	91	86	889	77		53		53	50	16
1460.0	93	88	905	79		54		54	50	16
1470.0	92	88	898	78		54		54	50	16
1480.0	94	89	918	80		55		55	51	16
1488.2	89	85	871	76		52		52	49	16

BIT NUMBER	3	IADC CODE	4	INTERVAL	1488.2- 1500.6
CHRIS RC4		SIZE	8.500	NOZZLES	15 15 14
COST	13000.00	TRIP TIME	5.2	BIT RUN	12.4
TOTAL HOURS	0.77	TOTAL TURNS	4311	CONDITION	T0 B0 G0.450

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
1490.0	50	0	250	226					14	4
1500.0	50	0	250	226					14	4
1500.6	50	0	250	226					14	4

BIT NUMBER	3	IADC CODE	4	INTERVAL	1500.6- 1513.4
CHRIS RC4		SIZE	8.500	NOZZLES	15 15 14
COST	13000.00	TRIP TIME	5.2	BIT RUN	12.8
TOTAL HOURS	2.01	TOTAL TURNS	11652	CONDITION	T0 B0 G0.500

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
1510.0	55	0	275	249					15	5
1513.4	55	0	275	249					15	5

BIT NUMBER	3	IADC CODE	4	INTERVAL	1513.4- 1527.0
CHRIS RC4		SIZE	8.500	NOZZLES	15 15 14
COST	13000.00	TRIP TIME	5.2	BIT RUN	13.6
TOTAL HOURS	3.44	TOTAL TURNS	20205	CONDITION	T0 B0 G0.600

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
1520.0	56	0	279	253					16	5
1527.0	58	0	289	262					16	5

BIT NUMBER	4	IADC CODE	114	INTERVAL	1527.0- 1573.4
HTC X3A		SIZE	12.250	NOZZLES	18 18 18
COST	2201.00	TRIP TIME	5.3	BIT RUN	46.4
TOTAL HOURS	2.60	TOTAL TURNS	21816	CONDITION	T4 B2 G0.000

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
1530.0	76	74	752	65		45		45	42	14
1540.0	80	77	782	68		47		47	44	14
1550.0	81	76	784	68		47		47	44	14
1560.0	67	68	674	59		40		40	38	12
1570.0	89	88	885	77		53		53	49	16
1573.4	82	79	806	70		48		48	45	14

BIT NUMBER	4	IADC CODE	4	INTERVAL	1573.4- 1585.6
CHRIS RC4		SIZE	8.500	NOZZLES	15 15 14
COST	13000.00	TRIP TIME	5.4	BIT RUN	12.2
TOTAL HOURS	4.48	TOTAL TURNS	27120	CONDITION	T0 B0 G0.050

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
1580.0	46	0	230	208					13	4
1585.6	45	0	225	204					13	4

BIT NUMBER	4	IADC CODE	4	INTERVAL	1585.6- 1596.6
CHRIS RC3		SIZE	8.500	NOZZLES	15 15 14
COST	13000.00	TRIP TIME	5.4	BIT RUN	11.0
TOTAL HOURS	7.40	TOTAL TURNS	46239	CONDITION	T0 B0 G0.200

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
1590.0	33	0	165	149					9	3
1596.6	35	0	175	158					10	3

BIT NUMBER	5	IADC CODE	427	INTERVAL	1596.6- 1628.4
HTC J11		SIZE	12.250	NOZZLES	18 18 18
COST	6788.00	TRIP TIME	5.5	BIT RUN	31.8
TOTAL HOURS	7.37	TOTAL TURNS	27564	CONDITION	T8 B2 G0.000

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
1600.0	86	78	819	71		49		49	46	15
1610.0	82	79	802	70		48		48	45	14
1620.0	80	84	820	71		49		49	46	15
1628.4	71	61	664	58		40		40	37	12

BIT NUMBER	6	IADC CODE	417	INTERVAL	1628.4- 1770.4
HTC J22		SIZE	12.250	NOZZLES	18 18 18
COST	6788.00	TRIP TIME	5.8	BIT RUN	142.0
TOTAL HOURS	11.42	TOTAL TURNS	41273	CONDITION	T1 B2 G0.125

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
1630.0	92	86	888	77		53		53	50	16
1640.0	90	90	904	78		54		54	50	16
1650.0	91	90	903	78		54		54	50	16
1660.0	90	90	899	78		54		54	50	16
1670.0	89	89	890	77		53		53	50	16
1680.0	88	90	891	77		53		53	50	16
1690.0	89	89	889	77		53		53	50	16
1700.0	88	85	869	75		52		52	48	16
1710.0	90	85	878	76		52		52	49	16
1720.0	90	86	877	76		52		52	49	16
1730.0	90	85	870	76		52		52	48	16
1740.0	90	87	884	77		53		53	49	16
1750.0	89	91	901	78		54		54	50	16
1760.0	82	81	817	71		49		49	45	15
1770.0	74	73	737	64		44		44	41	13
1770.4	74	73	735	64		44		44	41	13

BIT NUMBER	7	IADC CODE	517	INTERVAL	1770.4- 2046.0
HTC J22		SIZE	12.250	NOZZLES	18 18 18
COST	6788.00	TRIP TIME	6.3	BIT RUN	275.6
TOTAL HOURS	28.35	TOTAL TURNS	93771	CONDITION	T2 B2 G0.000

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
1780.0	88	87	875	76		52		52	49	16
1790.0	82	77	797	69		48		48	44	14
1800.0	86	88	869	75		52		52	48	16
1810.0	86	88	870	76		52		52	48	16
1820.0	87	88	875	76		52		52	49	16
1830.0	86	88	870	76		52		52	48	16
1840.0	87	88	876	76		52		52	49	16
1850.0	87	89	880	76		53		53	49	16
1860.0	87	89	879	76		53		53	49	16
1870.0	86	88	869	75		52		52	48	16
1880.0	86	89	872	76		52		52	49	16
1890.0	79	80	795	69		47		47	44	14
1900.0	83	86	845	73		50		50	47	15
1910.0	84	86	850	74		51		51	47	15
1920.0	85	85	851	74		51		51	47	15
1930.0	82	85	834	72		50		50	46	15
1940.0	85	82	834	72		50		50	46	15
1950.0	82	86	839	73		50		50	47	15
1960.0	84	85	843	73		50		50	47	15
1970.0	83	85	840	73		50		50	47	15
1980.0	83	85	837	73		50		50	47	15
1990.0	83	87	850	74		51		51	47	15
2000.0	84	88	860	75		51		51	48	15
2010.0	83	87	850	74		51		51	47	15
2020.0	83	86	845	73		51		51	47	15
2030.0	81	88	847	74		51		51	47	15
2040.0	84	86	850	74		51		51	47	15
2046.0	82	86	837	73		50		50	47	15

BIT NUMBER	7	IADC CODE	4	INTERVAL	2046.0- 2061.2
CHRIS RC3		SIZE	8.500	NOZZLES	15 15 14
COST	13000.00	TRIP TIME	6.4	BIT RUN	15.2
TOTAL HOURS	11.42	TOTAL TURNS	72504	CONDITION	T0 B0 G0.200

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
2050.0	41	0	205	186					11	4
2060.0	0	40	200	181					11	4
2061.2	0	41	204	185					11	4

BIT NUMBER	8	IADC CODE	517	INTERVAL	2061.2- 2321.0
HTC J22		SIZE	12.250	NOZZLES	18 18 18
COST	6788.00	TRIP TIME	6.9	BIT RUN	259.8
TOTAL HOURS	43.41	TOTAL TURNS	129120	CONDITION	T1 B2 G0.000

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
2070.0	85	81	827	72		49		49	46	15
2080.0	85	81	830	72		50		50	46	15
2090.0	85	81	830	72		50		50	46	15
2100.0	85	81	829	72		50		50	46	15
2110.0	84	81	827	72		49		49	46	15
2120.0	86	81	835	73		50		50	47	15
2130.0	87	79	831	72		50		50	46	15
2140.0	84	80	817	71		49		49	46	15
2150.0	83	81	818	71		49		49	46	15
2160.0	85	79	819	71		49		49	46	15
2170.0	84	80	818	71		49		49	46	15
2180.0	85	78	815	71		49		49	45	15
2190.0	82	81	817	71		49		49	46	15
2200.0	81	80	808	70		48		48	45	15
2210.0	0	95	477	41		28		28	27	9
2220.0	82	81	814	71		49		49	45	15
2230.0	81	82	812	71		49		49	45	15
2240.0	81	82	814	71		49		49	45	15
2250.0	82	80	810	70		48		48	45	15
2260.0	77	85	811	70		48		48	45	15
2270.0	81	81	811	70		48		48	45	15
2280.0	81	83	821	71		49		49	46	15
2290.0	81	82	813	71		49		49	45	15
2300.0	81	81	808	70		48		48	45	15
2310.0	80	81	804	70		48		48	45	14
2320.0	80	81	805	70		48		48	45	14
2321.0	81	81	808	70		48		48	45	15

BIT NUMBER	9	IADC CODE	517	INTERVAL	2321.0- 2601.0
HTC J22		SIZE	12.250	NOZZLES	18 18 18
COST	6788.00	TRIP TIME	7.5	BIT RUN	280.0
TOTAL HOURS	66.68	TOTAL TURNS	216428	CONDITION	T3 B3 G0.125

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
2330.0	78	79	785	68		47		47	44	14
2340.0	79	78	788	68		47		47	44	14
2350.0	78	81	796	69		48		48	44	14
2360.0	80	79	793	69		47		47	44	14
2370.0	79	79	791	69		47		47	44	14
2380.0	78	80	791	69		47		47	44	14
2390.0	79	79	789	69		47		47	44	14
2400.0	79	81	801	70		48		48	45	14
2410.0	80	81	803	70		48		48	45	14
2420.0	76	78	769	67		46		46	43	14
2430.0	97	2	493	43		29		29	27	9
2440.0	57	85	713	62		43		43	40	13
2450.0	80	81	801	70		48		48	45	14
2460.0	79	79	790	69		47		47	44	14
2470.0	79	80	792	69		47		47	44	14
2480.0	81	80	801	70		48		48	45	14
2490.0	80	78	788	68		47		47	44	14
2500.0	79	79	787	68		47		47	44	14
2510.0	79	80	795	69		47		47	44	14
2520.0	79	79	791	69		47		47	44	14
2530.0	80	79	795	69		48		48	44	14
2540.0	80	79	795	69		47		47	44	14
2550.0	78	79	785	68		47		47	44	14
2560.0	80	78	792	69		47		47	44	14
2570.0	79	79	789	69		47		47	44	14
2580.0	78	78	780	68		47		47	43	14
2590.0	78	79	783	68		47		47	44	14
2600.0	78	80	792	69		47		47	44	14
2601.0	79	80	794	69		47		47	44	14

BIT NUMBER	10	IADC CODE	517	INTERVAL	2601.0- 2676.0
HTC J22		SIZE	12.250	NOZZLES	18 18 18
COST	6788.00	TRIP TIME	8.0	BIT RUN	75.0
TOTAL HOURS	29.22	TOTAL TURNS	103159	CONDITION	T8 B3 G0.125

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
2610.0	78	79	784	68		47		47	44	14
2620.0	76	79	774	67		46		46	43	14
2630.0	78	78	780	68		47		47	43	14
2640.0	78	78	780	68		47		47	43	14
2650.0	77	79	782	68		47		47	44	14
2660.0	80	78	792	69		47		47	44	14
2670.0	79	79	789	69		47		47	44	14
2676.0	78	79	782	68		47		47	44	14

BIT NUMBER	11	IADC CODE	537	INTERVAL	2676.0- 2797.0
HTC J33		SIZE	12.250	NOZZLES	18 18 18
COST	6637.00	TRIP TIME	7.9	BIT RUN	121.0
TOTAL HOURS	28.28	TOTAL TURNS	96582	CONDITION	T8 B8 G0.000

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
2680.0	79	79	788	68		47		47	44	14
2690.0	79	78	785	68		47		47	44	14
2700.0	79	79	789	69		47		47	44	14
2710.0	78	78	779	68		47		47	43	14
2720.0	76	79	773	67		46		46	43	14
2730.0	78	78	781	68		47		47	44	14
2740.0	78	78	781	68		47		47	44	14
2750.0	79	79	793	69		47		47	44	14
2760.0	79	78	785	68		47		47	44	14
2770.0	100	33	665	58		40		40	37	12
2780.0	79	79	788	68		47		47	44	14
2790.0	79	78	784	68		47		47	44	14
2797.0	78	79	784	68		47		47	44	14

BIT NUMBER	12	IADC CODE	316	INTERVAL	2799.0- 2802.0
HTC J7		SIZE	8.500	NOZZLES	12 12 12
COST	1260.00	TRIP TIME	7.9	BIT RUN	3.0
TOTAL HOURS	0.54	TOTAL TURNS	2345	CONDITION	T7 B2 G0.000

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
2800.0	48	0	242	55	50		36		36	4
2802.0	66	0	332	75	68		49		49	6

BIT NUMBER	13	IADC CODE	316	INTERVAL	2802.0- 2805.0		
HTC J7		SIZE	8.500	NOZZLES	12 12 12		
COST	1260.00	TRIP TIME	7.9	BIT RUN	3.0		
TOTAL HOURS	0.46	TOTAL TURNS	1522	CONDITION	T3 B2 G0.000		

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
2805.0	98	0	492	111	101		73		73	9

BIT NUMBER	13	IADC CODE	4	INTERVAL	2805.0- 2807.8
CHRISTENSEN C-20		SIZE	8.469	NOZZLES	13 13 13
COST	13000.00	TRIP TIME	8.0	BIT RUN	2.8
TOTAL HOURS	2.61	TOTAL TURNS	12808	CONDITION	T0 B0 G1.000

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
2807.8	0	52	259	59	53		38		38	5

BIT NUMBER	14	IADC CODE	537	INTERVAL	2807.8- 2860.0
HTC J33		SIZE	8.500	NOZZLES	12 12 12
COST	3703.00	TRIP TIME	8.1	BIT RUN	52.2
TOTAL HOURS	11.73	TOTAL TURNS	40486	CONDITION	T4 B4 G0.125

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
2810.0	0	98	491	111	101		49		73	9
2820.0	0	102	509	115	105		50		75	9
2830.0	0	101	504	114	104		50		75	9
2840.0	102	0	509	115	105		50		76	9
2850.0	102	0	508	114	105		50		75	9
2860.0	102	0	508	114	105		50		75	9

BIT NUMBER	15	IADC CODE	537	INTERVAL	2860.0- 2914.0
HTC J33		SIZE	8.500	NOZZLES	12 12 12
COST	3703.00	TRIP TIME	8.2	BIT RUN	54.0
TOTAL HOURS	11.17	TOTAL TURNS	38909	CONDITION	T5 B4 G0.125

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
2870.0	97	0	484	109	100		72		72	9
2880.0	99	0	494	111	102		73		73	9
2890.0	0	101	505	114	104		75		75	9
2900.0	0	99	494	111	102		73		73	9
2910.0	0	99	495	111	102		73		73	9
2914.0	0	99	495	111	102		73		73	

BIT NUMBER	15	IADC CODE	4	INTERVAL	2914.0- 2916.0
CHRIS C-20		SIZE	8.469	NOZZLES	13 13 13
COST	13000.00	TRIP TIME	8.2	BIT RUN	2.0
TOTAL HOURS	1.89	TOTAL TURNS	9369	CONDITION	T0 B0 G0.900

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
2916.0	60	0	298	68	61		44		44	5

BIT NUMBER	16	IADC CODE	617	INTERVAL	2916.0- 2972.0
HTC J44		SIZE	8.500	NOZZLES	12 12 12
COST	3304.00	TRIP TIME	8.3	BIT RUN	56.0
TOTAL HOURS	16.84	TOTAL TURNS	59660	CONDITION	T2 B4 G0.000

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
2920.0	0	93	466	105	96		69		69	8
2930.0	0	95	474	107	98		70		70	9
2940.0	99	0	494	111	102		73		73	9
2950.0	100	0	499	112	103		74		74	9
2960.0	0	97	485	109	100		72		72	9
2970.0	0	92	458	103	94		68		68	8
2972.0	0	92	460	104	95		68		68	8

BIT NUMBER	17	IADC CODE	617	INTERVAL	2972.0- 3026.0
HTC J44		SIZE	8.500	NOZZLES	12 12 12
COST	3304.00	TRIP TIME	8.4	BIT RUN	54.0
TOTAL HOURS	10.43	TOTAL TURNS	35559	CONDITION	T2 B2 G0.000

DEPTH	SPM1	SPM2	FLOW RATE	DC/ OH	DC/ CSG	HW/ OH	HW/ CSG	DP/ OH	DP/ CSG	DP/ RIS
2980.0	0	90	450	101	93		67		67	8
2990.0	90	0	450	101	93		67		67	8
3000.0	0	91	455	102	94		67		67	8
3010.0	92	0	460	104	95		68		68	8
3020.0	90	0	450	101	93		67		67	8
3026.0	90	0	450	101	93		67		67	8

PE603953

This is an enclosure indicator page.
The enclosure PE603953 is enclosed within the container PE905526 at this location in this document.

The enclosure PE603953 has the following characteristics:

ITEM_BARCODE	= PE603953
CONTAINER_BARCODE	= PE905526
NAME	= Drill Data Plot
BASIN	= GIPPSLAND
PERMIT	= VIC/L2
TYPE	= WELL
SUBTYPE	= WELL_LOG
DESCRIPTION	= Wirrah-1 Drill Data Plot of Mud Log Report
REMARKS	=
DATE_CREATED	= 18/11/82
DATE_RECEIVED	= 7/06/83
W_NO	= W782
WELL_NAME	= WIRRAH-1
CONTRACTOR	= CORE LABORATORIES
CLIENT_OP_CO	= ESSO AUSTRALIA LIMITED

(Inserted by DNRE - Vic Govt Mines Dept)

PE603954

This is an enclosure indicator page.
The enclosure PE603954 is enclosed within the container PE905526 at this location in this document.

The enclosure PE603954 has the following characteristics:

ITEM_BARCODE	= PE603954
CONTAINER_BARCODE	= PE905526
NAME	= Geoplot
BASIN	= GIPPSLAND
PERMIT	= VIC/L2
TYPE	= WELL
SUBTYPE	= WELL_LOG
DESCRIPTION	= Wirrah-1 Geoplot of Mud Log Report
REMARKS	=
DATE_CREATED	= 18/11/82
DATE_RECEIVED	= 7/06/83
W_NO	= W782
WELL_NAME	= WIRRAH-1
CONTRACTOR	= CORE LABORATORIES
CLIENT_OP_CO	= ESSO AUSTRALIA LIMITED

(Inserted by DNRE - Vic Govt Mines Dept)

PE603955

This is an enclosure indicator page.
The enclosure PE603955 is enclosed within the container PE905526 at this location in this document.

The enclosure PE603955 has the following characteristics:

ITEM_BARCODE	= PE603955
CONTAINER_BARCODE	= PE905526
NAME	= Temperature Plot
BASIN	= GIPPSLAND
PERMIT	= VIC/L2
TYPE	= WELL
SUBTYPE	= WELL_LOG
DESCRIPTION	= Wirrah-1 Temperature Plot of Mud Log Report
REMARKS	=
DATE_CREATED	= 18/11/82
DATE_RECEIVED	= 7/06/83
W_NO	= W782
WELL_NAME	= WIRRAH-1
CONTRACTOR	= CORE LABORATORIES
CLIENT_OP_CO	= ESSO AUSTRALIA LIMITED

(Inserted by DNRE - Vic Govt Mines Dept)

PE603957

This is an enclosure indicator page.
The enclosure PE603957 is enclosed within the container PE905526 at this location in this document.

The enclosure PE603957 has the following characteristics:

ITEM_BARCODE	= PE603957
CONTAINER_BARCODE	= PE905526
NAME	= Pressure Plot
BASIN	= GIPPSLAND
PERMIT	= VIC/L2
TYPE	= WELL
SUBTYPE	= WELL_LOG
DESCRIPTION	= Wirrah-1 Pressure Plot of Mud Log Report
REMARKS	=
DATE_CREATED	= 18/11/82
DATE_RECEIVED	= 7/06/83
W_NO	= W782
WELL_NAME	= WIRRAH-1
CONTRACTOR	= CORE LABORATORIES
CLIENT_OP_CO	= ESSO AUSTRALIA LIMITED

(Inserted by DNRE - Vic Govt Mines Dept)

PE603956

This is an enclosure indicator page.
The enclosure PE603956 is enclosed within the container PE905526 at this location in this document.

The enclosure PE603956 has the following characteristics:

ITEM_BARCODE	= PE603956
CONTAINER_BARCODE	= PE905526
NAME	= Mud Log (Grapholog)
BASIN	= GIPPSLAND
PERMIT	= VIC/L2
TYPE	= WELL
SUBTYPE	= MUD_LOG
DESCRIPTION	= Wirrah-1 Drill Grapholog of Mud Log Report
REMARKS	=
DATE_CREATED	= 18/11/82
DATE_RECEIVED	= 7/06/83
W_NO	= W782
WELL_NAME	= WIRRAH-1
CONTRACTOR	= CORE LABORATORIES
CLIENT_OP_CO	= ESSO AUSTRALIA LIMITED

(Inserted by DNRE - Vic Govt Mines Dept)