SOUTH AUSTRALIA

DEPARTMENT OF MINES AND ENERGY

OPEN FILE ENVELOPE NO. 7139/2

PEL 5 AND PEL 6, NAPPACOONGEE-MURTEREE BLOCK

EROMANGA AND COOPER BASINS

CHILCARRIE 1

TEST REPORTS

Submitted by

Santos Ltd

1988

ENVELOPE 7139/2

TENEMENT: PEL 5 and PEL 6, Nappacoongee-Murteree Block; Eromanga and Cooper Basins

TENEMENT HOLDER: Santos Ltd (operator), Delhi Petroleum Pty Ltd, Crusader Oil NL, Vamgas Ltd and South Australian Oil and Gas Corporation Pty Ltd

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00003

HALLIBURTON SERVICES

TICKET NO. 35654800
15-SEP-88
MOOMBA

RMO

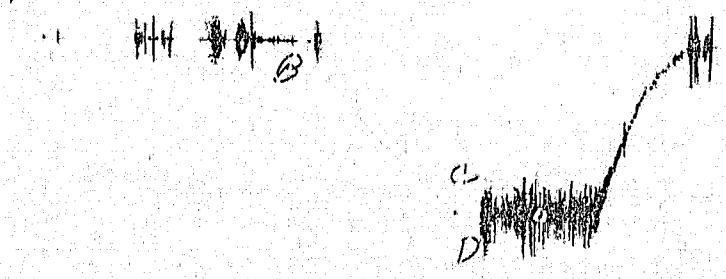
7139/2

FORMATION TESTING SERVICE REPORT

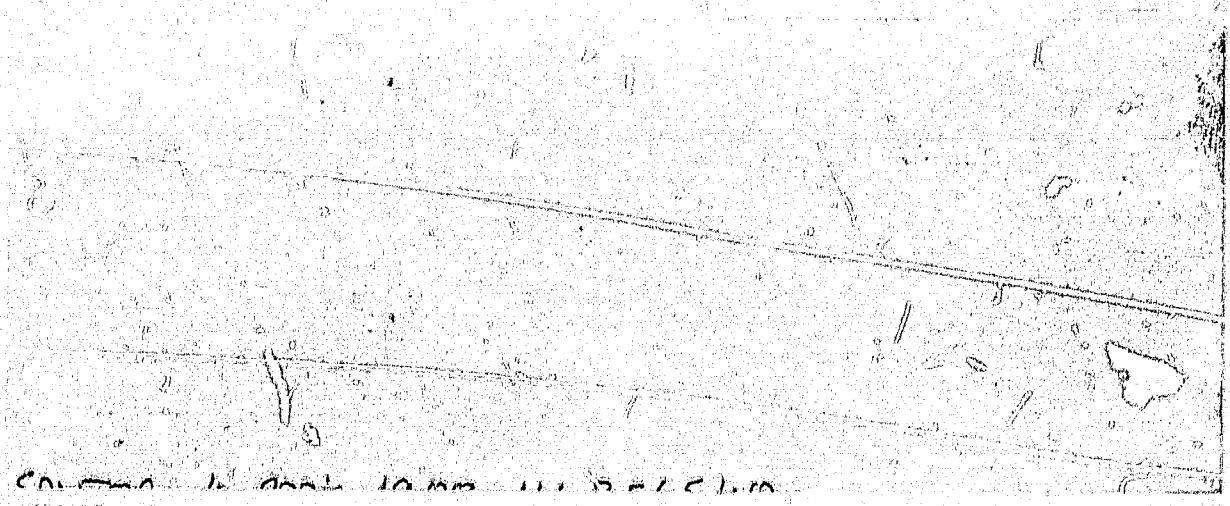
CHILCARRIE — LEASE NAME — 1 — WELL NO. — JR 2 — TEST NO.

6394.1 - 5426.2 — TESTED IN (PERFS) — SANTOS LIMITED — LEASE OWNER/COMPANY NAME

LEGAL LOCATION SEC. - TWP. - RNG. — SEE REMARKS — FIELD AREA — COOPER BASIN — COUNTY — SOUTH AUSTRALIA — STATE — AUSTRALIA IC

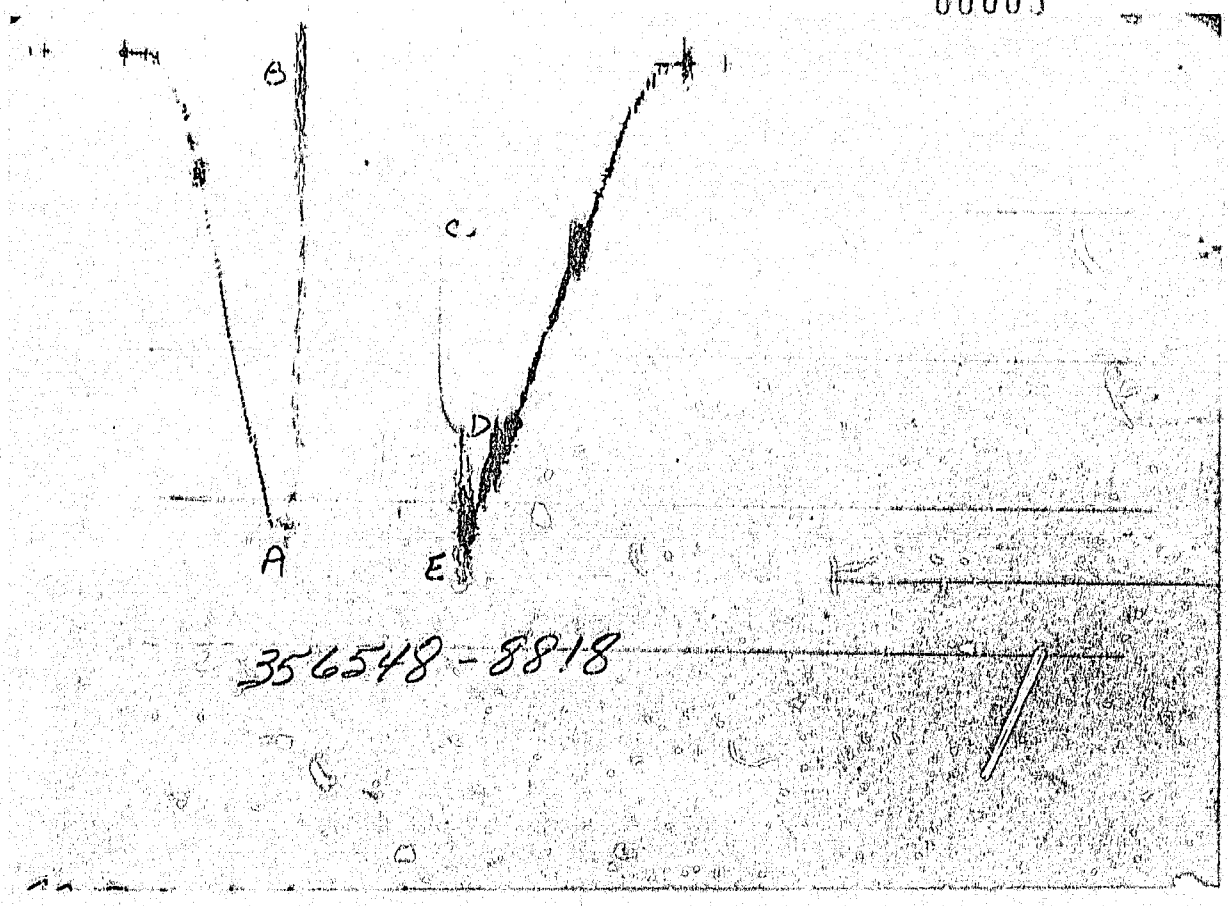


35654/8. 8723



GAUGE NO: 8723 DEPTH: 6349 ft BLANKED OFF: NO HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC					
B	INITIAL FIRST FLOW		23.1	180.0	180.8	F
C	FINAL FIRST FLOW		1137.3			
C	INITIAL FIRST CLOSED-IN		1137.3	30.0	29.2	C
D	FINAL FIRST CLOSED-IN	1139	1139.3			
E	FINAL HYDROSTATIC					

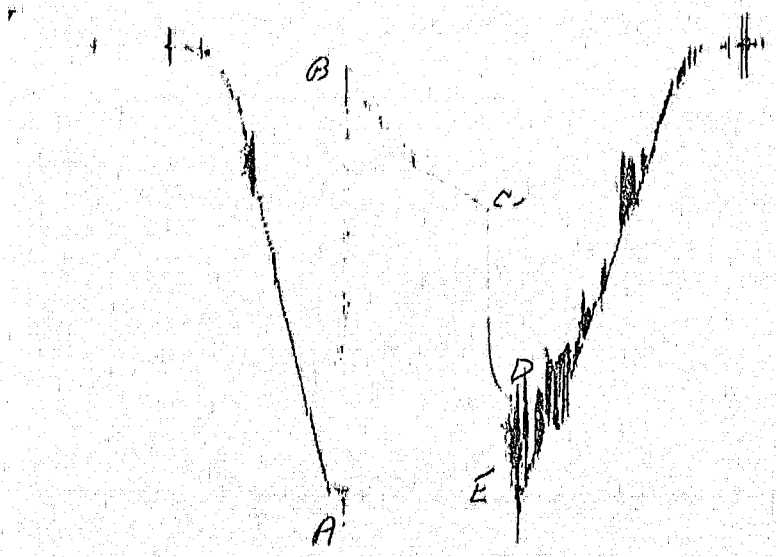


356548-8818

GAUGE NO: 8818 DEPTH: 6370.0 BLANKED OFF: NO HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	3144	3169.6			
B	INITIAL FIRST FLOW	82	120.3	180.0	180.8	F
C	FINAL FIRST FLOW	1175	1170.9			
C	INITIAL FIRST CLOSED-IN	1175	1170.9	30.0	29.2	C
D	FINAL FIRST CLOSED-IN	2554	2534.1			
E	FINAL HYDROSTATIC	3144	3155.8			

00006

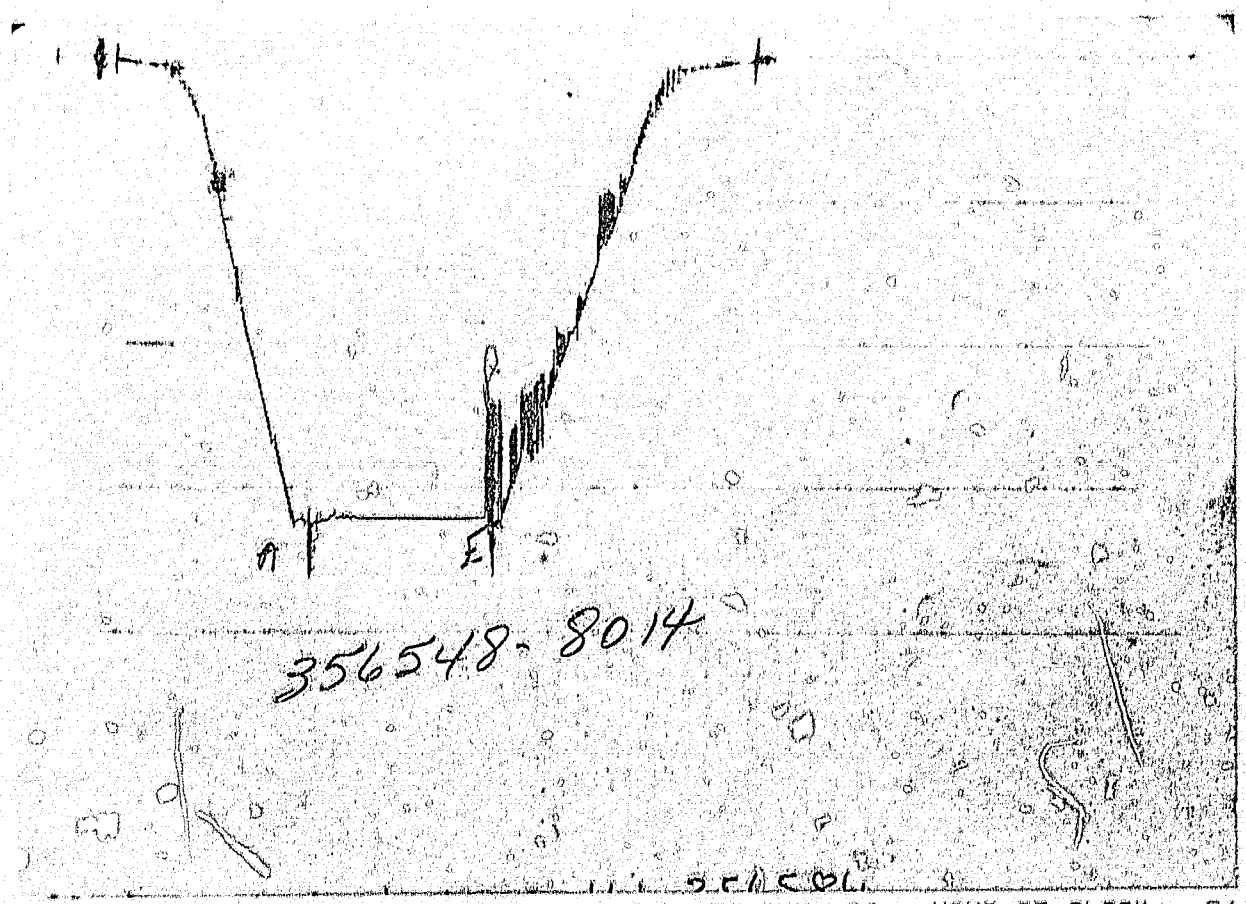


356548-7983

GAUGE NO: 7983 DEPTH: 6422.0 BLANKED OFF: YES HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE REPORTED	PRESSURE CALCULATED	TIME REPORTED	TIME CALCULATED	TYPE
A	INITIAL HYDROSTATIC	3193	3208.7			
B	INITIAL FIRST FLOW	168	166.5	180.0	180.8	F
C	FINAL FIRST FLOW	1196	1191.1			
C	INITIAL FIRST CLOSED-IN	1196	1191.1	30.0	29.2	C
D	FINAL FIRST CLOSED-IN	2574	2571.9			
E	FINAL HYDROSTATIC	3189	3183.4			

00007



GAUGE NO: 8014 DEPTH: 6502.0 BLANKED OFF: YES HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	3236	3229.5			
B	INITIAL FIRST FLOW			180.0		F
C	FINAL FIRST FLOW					
C	INITIAL FIRST CLOSED-IN			30.0		C
D	FINAL FIRST CLOSED-IN					
E	FINAL HYDROSTATIC	3236	3216.8			

00005

EQUIPMENT & HOLE DATA

FORMATION TESTED: TOOLACHEE
NET PAY (ft): _____
GROSS TESTED FOOTAGE: 32.7
ALL DEPTHS MEASURED FROM: KELLY BUSHING
CASING PERFS. (ft): _____
HOLE OR CASING SIZE (in): 8.500
ELEVATION (ft): 178.0
TOTAL DEPTH (ft): 6505.0
PACKER DEPTH(S) (ft): 6386, 6394, 6427, 6435
FINAL SURFACE CHOKE (in): 0.50000
BOTTOM HOLE CHOKE (in): 0.750
MUD WEIGHT (lb/gal): 9.30
MUD VISCOSITY (sec): 46
ESTIMATED HOLE TEMP. (°F): _____
ACTUAL HOLE TEMP. (°F): 225 @ 6501.0 ft

TICKET NUMBER: 35654800

DATE: 4-4-88 TEST NO: 1A

TYPE DST: ON BTM. STRADDLE

HALLIBURTON CAMP: MOOMBA

TESTER: N. COWLEY

WITNESS: ???

DRILLING CONTRACTOR: O.D. & E. RIG #12

FLUID PROPERTIES FOR RECOVERED MUD & WATER

SOURCE	RESISTIVITY	CHLORIDES
_____	_____ @ _____ °F	_____ ppm
_____	_____ @ _____ °F	_____ ppm
_____	_____ @ _____ °F	_____ ppm
_____	_____ @ _____ °F	_____ ppm
_____	_____ @ _____ °F	_____ ppm

SAMPLER DATA

Psig AT SURFACE: _____
cu.ft. OF GAS: _____
cc OF OIL: _____
cc OF WATER: _____
cc OF MUD: _____
TOTAL LIQUID cc: _____

HYDROCARBON PROPERTIES

OIL GRAVITY (°API): _____ @ _____ °F
GAS/OIL RATIO (cu.ft. per bbl): _____
GAS GRAVITY: _____

CUSHION DATA

TYPE	AMOUNT	WEIGHT
_____	_____	_____
_____	_____	_____

RECOVERED:

2594 FEET OF WATER (32 BBLS)
200 FEET OF MUDDY WATER (3 BBLS)

MEASURED FROM TESTER VALVE

REMARKS:

LEGAL LOCATION: LAT. 28 DEG., 21', 17.6"S; LONG. 140 DEG., 27', 49.7"E.

DST #1 WAS A MISRUN....CHARTS INDICATE PLUGGING OF THE ANCHOR PIPE PERFORATIONS.

00009

TYPE & SIZE MEASURING DEVICE: 6" CERAMIC SURFACE CHOKE					TICKET NO: 35654800
TIME	CHOKE SIZE	SURFACE PRESSURE PSI	GAS RATE MCF	LIQUID RATE BPD	REMARKS
4-4-88					
0330					MADE UP TOOL
0500					TOOL MADE UP - TRIPPED IN HOLE
0745					HEAD UP TO FLOOR MANIFOLD
0801					SET PACKERS WITH 30000#
0809	.5				OPENED TOOL WITH WEAK BLOW
0815					BLOW INCREASED TO MODERATE
0835					MODERATE TO STRONG BLOW
0920					BLOW INCREASED TO STRONG
0945		1			
1015					BLOW DECREASED TO WEAK
1030					BLOW STILL WEAK
1100					SAME BLOW
1109					CLOSED TOOL
1139					OPENED BYPASS AND PULLED FREE
					HAD 65000# OVERPULL - PULLED
					OUT OF HOLE
1600					TOOL AT FLOOR
1730					TOOL BROKEN DOWN - JOB COMPLETED

00010

TICKET NO: 35654800	GAUGE NO: 8723
CLOCK NO: 32066 HOUR: 24	DEPTH: 6349.0

	REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$
			FIRST FLOW			
B	1	0.0	23.1			
	2	10.0	182.9	159.8		
	3	20.0	283.0	100.2		
	4	30.0	351.9	68.9		
	5	40.0	410.3	58.3		
	6	50.0	469.1	58.8		
	7	60.0	531.2	62.1		
	8	70.0	589.9	58.7		
	9	80.0	644.5	54.7		
	10	90.0	697.7	53.2		
	11	100.0	750.0	52.3		
	12	110.0	803.1	53.1		
	13	120.0	853.5	50.5		
	14	130.0	900.0	46.5		
	15	140.0	949.2	49.2		
	16	150.0	997.4	48.2		
	17	160.0	1046.1	50.6		
	18	170.0	1089.3	41.2		
C	19	180.8	1137.3	48.1		
			FIRST CLOSED-IN			
C	1	0.0	1137.3			
D	2	29.2	1139.3	1.9	25.1	0.857

REMARKS:

00011

TICKET NO: 35654800	GAUGE NO: 8818
CLOCK NO: 30343 HOUR: 24	DEPTH: 6370.0

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
		FIRST FLOW			
B	0.0	120.3			
2	10.0	236.1	115.8		
3	20.0	326.6	90.4		
4	30.0	401.3	74.8		
5	40.0	460.4	59.1		
6	50.0	511.9	51.5		
7	60.0	567.1	55.2		
8	70.0	623.5	56.4		
9	80.0	680.8	57.2		
10	90.0	734.7	54.1		
11	100.0	785.7	51.0		
12	110.0	839.9	54.2		
13	120.0	890.7	50.8		
14	130.0	938.4	47.7		
15	140.0	988.9	50.5		
16	150.0	1033.9	44.9		
17	160.0	1080.5	46.6		
18	170.0	1122.5	42.0		
C 19	180.8	1170.9	48.4		
		FIRST CLOSED-IN			
C 1	0.0	1170.9			
2	2.0	2205.6	1034.7	2.0	1.960
3	4.0	2301.3	1130.4	3.9	1.664
4	6.0	2360.5	1189.7	5.8	1.492
5	8.0	2397.7	1226.8	7.7	1.372
6	10.0	2429.2	1258.3	9.5	1.280
7	12.0	2450.8	1279.9	11.2	1.207
8	14.0	2468.7	1297.8	13.0	1.144
9	16.0	2486.5	1315.5	14.7	1.089
10	18.0	2501.0	1330.0	16.4	1.044
11	20.0	2514.6	1343.6	18.0	1.002
12	22.0	2526.0	1355.1	19.7	0.964
13	24.0	2536.2	1365.3	21.2	0.931
14	26.0	2544.0	1373.0	22.7	0.901
15	28.0	2551.9	1381.0	24.2	0.873
D 16	29.2	2554.1	1383.2	25.1	0.857

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$

REMARKS:

00012

TICKET NO: 35654800	GAUGE NO: 7983
CLOCK NO: 12462 HOUR: 24	DEPTH: 6422.0

REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$
			FIRST FLOW			
B	1	0.0	166.5			
	2	10.0	251.8	85.3		
	3	20.0	343.9	92.1		
	4	30.0	427.9	84.0		
	5	40.0	489.3	61.4		
	6	50.0	554.5	65.2		
	7	60.0	620.9	66.4		
	8	70.0	676.7	55.9		
	9	80.0	734.5	57.8		
	10	90.0	894.7	160.2		
	11	100.0	921.2	26.6		
	12	110.0	947.1	25.9		
	13	120.0	989.3	42.2		
	14	130.0	1001.2	11.9		
	15	140.0	1033.4	32.2		
	16	150.0	1076.7	43.3		
	17	160.0	1116.3	39.6		
	18	170.0	1155.8	39.6		
C	19	180.8	1191.1	35.3		
			FIRST CLOSED-IN			
C	1	0.0	1131.1			
	2	2.0	2281.9	1090.8	2.0	1.967
	3	4.0	2348.3	1158.2	3.9	1.664
	4	6.0	2394.8	1203.7	5.8	1.490
	5	8.0	2429.0	1237.9	7.7	1.372
	6	10.0	2452.1	1261.0	9.6	1.279
	7	12.0	2471.7	1280.6	11.2	1.206
	8	14.0	2490.3	1299.2	13.0	1.144
	9	16.0	2506.3	1315.2	14.7	1.089
	10	18.0	2518.4	1327.3	16.4	1.043
	11	20.0	2532.0	1340.9	18.0	1.001
	12	22.0	2542.7	1351.6	19.6	0.964
	13	24.0	2550.3	1359.2	21.2	0.931
	14	26.0	2560.0	1368.9	22.8	0.900
	15	28.0	2567.7	1376.6	24.2	0.873
D	16	29.2	2571.9	1380.8	25.1	0.857

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$

REMARKS:

00013

TICKET NO. 35654800

		O.D.	I.D.	LENGTH	DEPTH
1	DRILL PIPE	4.500	3.826	5734.7	
4	FLEX WEIGHT	4.500	2.764	182.1	
3	DRILL COLLARS	6.250	2.812	306.1	
51	PUMP OUT REVERSING SUB	6.000	3.000	1.0	6222.9
3	DRILL COLLARS	6.250	2.812	90.8	
50	IMPACT REVERSING SUB	6.000	3.000	1.0	3314.7
3	DRILL COLLARS	6.250	2.812	31.1	
258	BAR CATCHER SUB	6.000	3.000	1.0	
80	AP RUNNING CASE	5.000	2.250	4.1	6349.0
5	CROSSOVER	5.000	2.200	1.0	
12	DUAL CIP VALVE	5.000	0.870	4.9	
202	SAMPLE CHAMBER	5.000	2.250	4.9	
33	DRAIN VALVE	5.000	2.200	0.9	
60	HYDROSPRING TESTER	5.000	0.750	5.3	6368.0
80	AP RUNNING CASE	5.000	2.250	4.1	6370.0
15	JAR	5.000	1.750	5.0	
16	VR SAFETY JOINT	5.000	2.780	2.8	
17	PRESSURE EQUALIZING CROSSOVER	4.870	0.750	1.0	
70	OPEN HOLE PACKER	7.500	1.530	5.8	6386.3
18	DISTRIBUTOR VALVE	5.000	1.680	2.0	
70	OPEN HOLE PACKER	7.500	1.530	5.9	6394.1
20	FLUSH JOINT ANCHOR	5.000	2.370	25.0	
17	PRESSURE EQUALIZING CROSSOVER	4.620	2.750	1.0	
81	BLANKED-OFF RUNNING CASE	5.000		4.1	6422.0
70	OPEN HOLE PACKER	7.5[illegible]	1.530	5.8	6426.8
18	DISTRIBUTOR VALVE	5.000	1.680	2.0	
70	OPEN HOLE PACKER	7.500	1.530	5.8	6434.7

CONTINUED

EQUIPMENT DATA

0001 TICKET NO. 35654800

		O.D.	I.D.	LENGTH	DEPTH
5	CROSSOVER	4.870	2.200	1.0	
13	ANCHOR PIPE SAFETY JOINT	5.000	1.500	4.3	
20	FLUSH JOINT ANCHOR	5.000	2.370	24.0	
5	CROSSOVER	5.750	2.250	1.0	
3	DRILL COLLARS	6.250	2.812	30.5	
5	CROSSOVER	5.750	2.200	1.0	
81	FLANKED-OFF RUNNING CASE	5.000		4.1	6502.0
	TOTAL DEPTH				6505.0

EQUIPMENT DATA

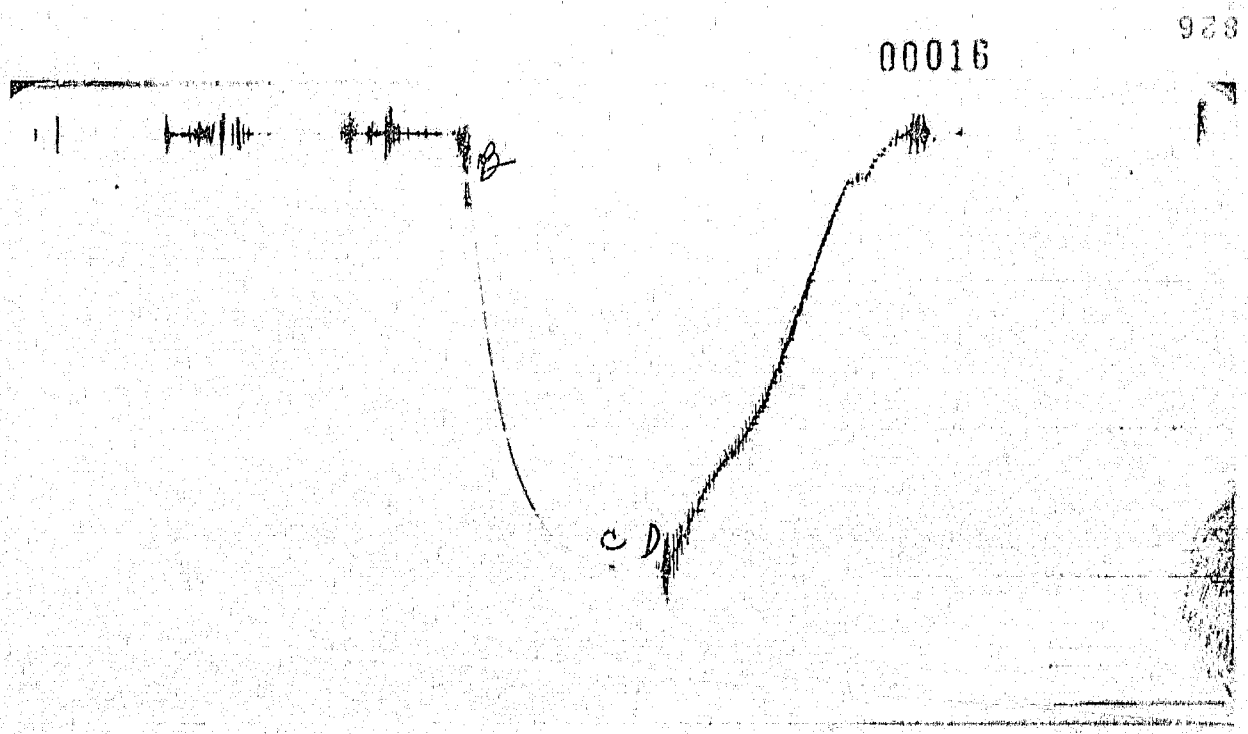
00015

HALLIBURTON SERVICES

TICKET NO. 85654900
15-SEP-88
MOOMBA

FORMATION TESTING SERVICE REPORT

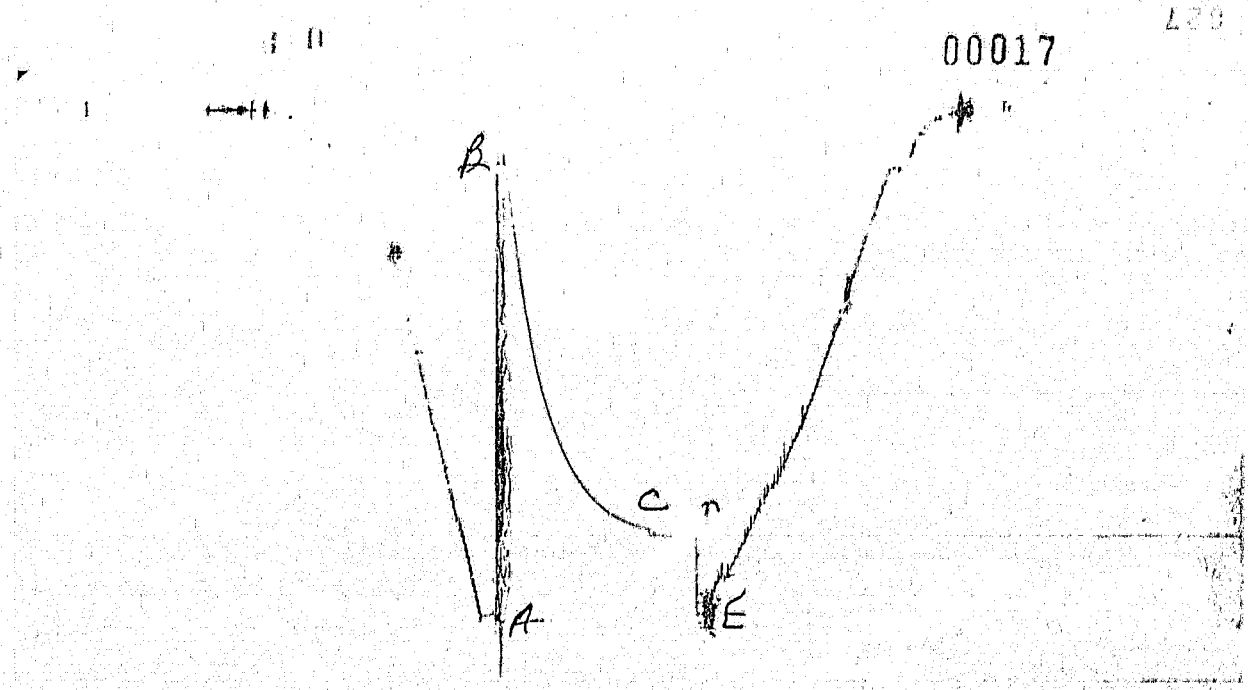
CHILCARRIE	1	2	3
LEASE NAME	WELL NO.	TEST NO.	
LEGAL LOCATION SEC. - TWP. - RNG	SEE REMARKS	FIELD AREA	
COOPER BASIN	SOUTH AUSTRALIA	STATE AUSTRALIA DR	
COUNTY			
7033.9 - 7174.5	SANTOS LIMITED		
TESTED INTERVAL	LEASE OR COMPANY NAME		



356549-8723

GAUGE NO: 8723 DEPTH: 6989.0 BLANKED OFF: NO HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC					
B	INITIAL FIRST FLOW		98.2			
C	FINAL FIRST FLOW		2935.2	181.0	179.5	F
C	INITIAL FIRST CLOSED-IN		2935.2			
D	FINAL FIRST CLOSED-IN	2944	2935.2	59.0	60.3	C
E	FINAL HYDROSTATIC					
F	HYDROSTATIC RELEASE					

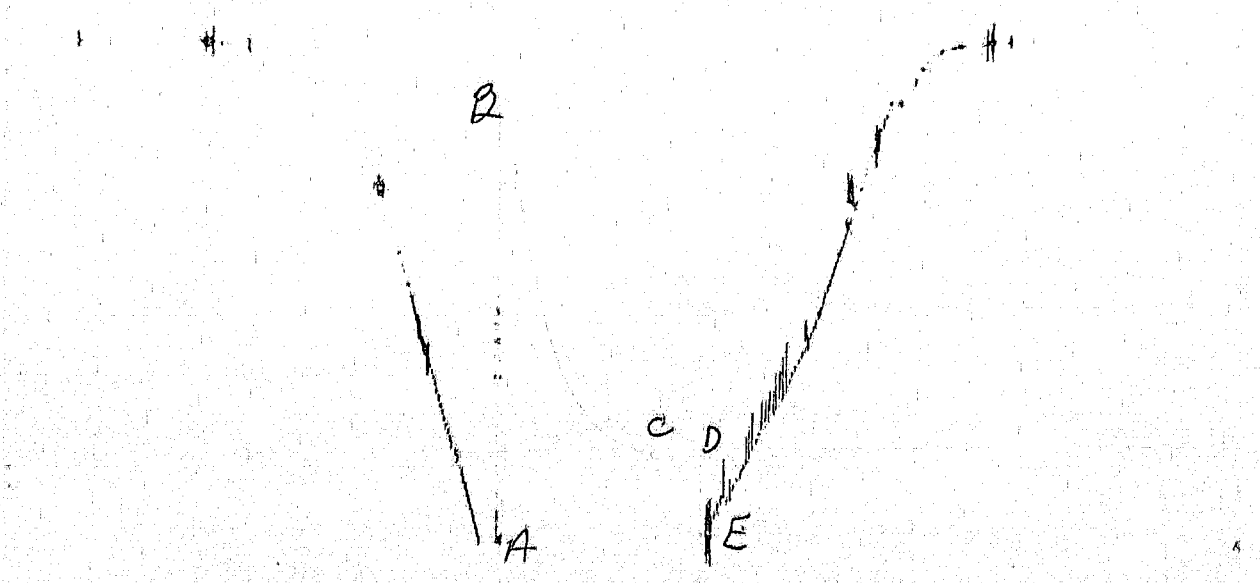


356549-8014

GAUGE NO: 8014 DEPTH: 7010.0 BLANKED OFF: NO HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	3526	3534.4			
B	INITIAL FIRST FLOW	424	307.5	181.0	179.5	F
C	FINAL FIRST FLOW	2932	2948.3			
C	INITIAL FIRST CLOSED-IN	2932	2948.3	59.0	60.5	C
D	FINAL FIRST CLOSED-IN	3005	3008.0			
E	FINAL HYDROSTATIC	3526	3535.0			
F	HYDROSTATIC RELEASE					

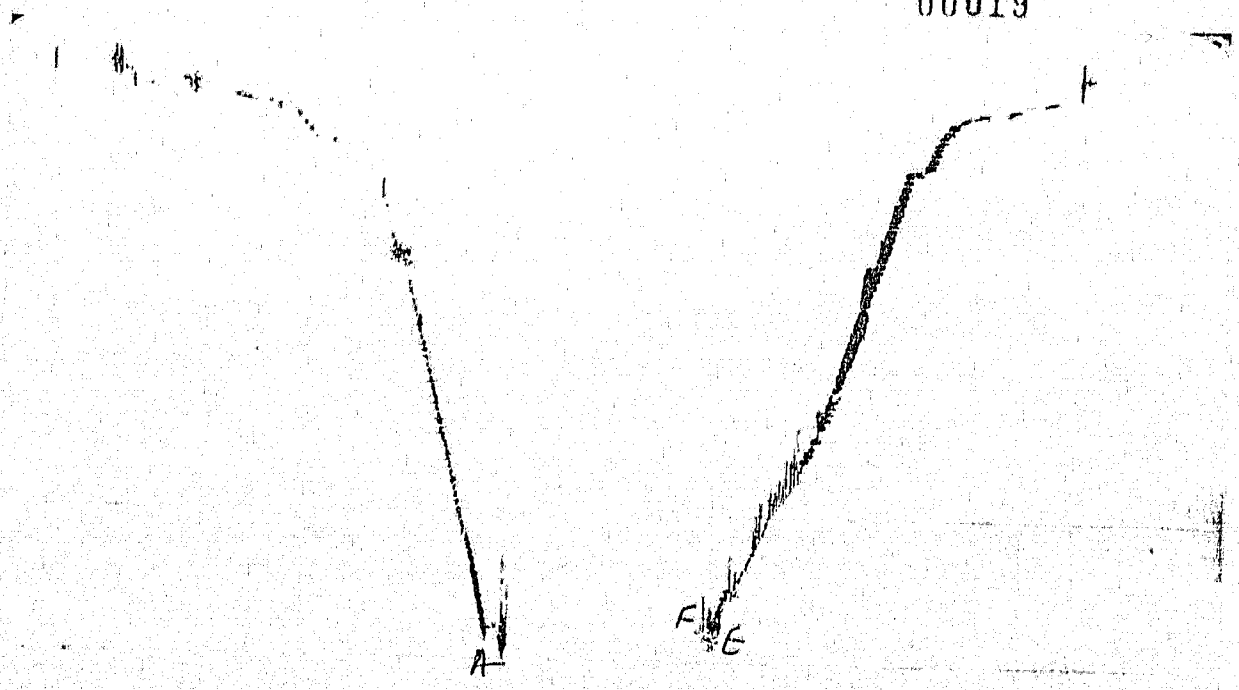
00018



356549-7983

GAUGE NO: 7983 DEPTH: 7072.0 BLANKED OFF: YES HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	3602	3619.5			
B	INITIAL FIRST FLOW	472	429.5	181.0	179.5	F
C	FINAL FIRST FLOW	2983	3015.5			
C	INITIAL FIRST CLOSED-IN	2983	3015.5	59.0	60.5	C
D	FINAL FIRST CLOSED-IN	3045	3076.5			
E	FINAL HYDROSTATIC	3580	3616.9			
F	HYDROSTATIC RELEASE					



356549-8818

GAUGE NO: 8818 DEPTH: 7517.0 BLANKED OFF: YES HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	3778	3787.4			
B	INITIAL FIRST FLOW					
C	FINAL FIRST FLOW			181.0		F
C	INITIAL FIRST CLOSED-IN					
D	FINAL FIRST CLOSED-IN			59.0		C
E	FINAL HYDROSTATIC	3778	3748.2			
F	HYDROSTATIC RELEASE		3783.0			

EQUIPMENT & HOLE DATA

FORMATION TESTED: PATCHAWARRA
NET PAY (ft): _____
GROSS TESTED FOOTAGE: 140.7
ALL DEPTHS MEASURED FROM: KELLY BUSHING
CASING PERFS. (ft): _____
HOLE OR CASING SIZE (in): 8.500
ELEVATION (ft): 161.0
TOTAL DEPTH (ft): 7520.2
PACKER DEPTH(S) (ft): 7026, 7034, 7175, 7182
FINAL SURFACE CHOKE (in): 0.50000
BOTTOM HOLE CHOKE (in): 0.750
MUD WEIGHT (lb/gal): 9.50
MUD VISCOSITY (sec): 42
ESTIMATED HOLE TEMP. (°F): _____
ACTUAL HOLE TEMP. (°F): 245 @ 7516.0 ft

TICKET NUMBER: 35654900

DATE: 4-11-88 TEST NO: 2

TYPE DST: ON BT. STRADDLE

HALLIBURTON CAMP: MOOMBA

TESTER: N. COWLEY / F. OBORN

WITNESS: RAY EEL

DRILLING CONTRACTOR: O.D.& E. #12

FLUID PROPERTIES FOR RECOVERED MUD & WATER

SOURCE	RESISTIVITY	CHLORIDES
_____	_____ @ ____ °F	_____ ppm
_____	_____ @ ____ °F	_____ ppm
_____	_____ @ ____ °F	_____ ppm
_____	_____ @ ____ °F	_____ ppm
_____	_____ @ ____ °F	_____ ppm
_____	_____ @ ____ °F	_____ ppm

SAMPLER DATA

Psig AT SURFACE: _____
cu.ft. OF GAS: _____
cc OF OIL: _____
cc OF WATER: _____
cc OF MUD: _____
TOTAL LIQUID cc: _____

HYDROCARBON PROPERTIES

OIL GRAVITY (°API): _____ @ ____ °F
GAS/OIL RATIO (cu.ft. per bbl): _____
GAS GRAVITY: _____

CUSHION DATA

TYPE	AMOUNT	WEIGHT
_____	_____	_____
_____	_____	_____

RECOVERED:

540' (7 BBLS.) OF MUD
270' (4 BBLS.) OF MUDDY WATER
6050' (82 BBLS.) OF WATER

MEASURED FROM: TESTER VALVE

REMARKS:

LEGAL LOCATION: LAT. 28 DEGREES 21' 17.6" S. AND LONG. 140 DEGREES 27' 49.7" E.

00021

TYPE & SIZE MEASURING DEVICE: 6" CERAMIC SURFACE CHOKE					TICKET NO: 35654900
TIME	CHOKE SIZE	SURFACE PRESSURE PSI	GAS RATE MCF	LIQUID RATE BPD	REMARKS
4-11-38					
0000					PICKED UP TOOL
0230					TOOL MADE UP AND RUN IN HOLE
0650					HEAD UP TO FLOOR MANIFOLD
0710					WORKED PIPE
0720					SEATED PACKERS WITH 30,000#
0726	.50				OPENED TOOL WITH A WEAK BLOW
0745		3			BLOW INCREASED TO MODERATE
0748		2			BLOW DECREASING TO A WEAK BLOW
0800		1			BLOW DECREASING TO A VERY WEAK
					BLOW
0820		0			VERY WEAK BLOW
0835					SLIGHT FLUCTUATION BETWEEN
					WEAK AND MODERATE
0930					VERY WEAK BLOW
1015					BLOW FLUCTUATING
1027					CLOSED TOOL
1126					OPENED BYPASS, PACKERS FREE.
					15,000# OVERPULL
1535					TOOL AT FLOOR, STARTED BREAKING
					DOWN
1900					TOOL BROKEN DOWN AND LAID OUT
					JOB COMPLETED

00022

TICKET NO: 35654900	GAUGE NO: 8723
CLOCK NO: 12462 HOUR: 24	DEPTH: 6989.0

	REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
			FIRST FLOW			
B	1	0.0	98.?			
	2	10.0	724.0	625.7		
	3	20.0	1160.6	436.6		
	4	30.0	1543.4	382.8		
	5	40.0	1828.5	285.2		
	6	50.0	2058.5	230.0		
	7	60.0	2243.2	184.7		
	8	70.0	2380.3	137.1		
	9	80.0	2500.3	120.0		
	10	90.0	2597.4	97.1		
	11	100.0	2676.5	79.0		
	12	110.1	2742.6	66.1		
	13	120.0	2789.8	47.3		
	14	130.0	2829.8	40.0		
	15	140.0	2861.8	31.9		
	16	150.0	2885.3	23.5		
	17	160.0	2906.1	20.8		
	18	170.0	2922.3	16.1		
C	19	178.5	2935.2	12.9		
			FIRST CLOSED-IN			
C	1	0.0	2935.2			
D	2	5? 5	2935.2	0.0	45.2	0.599

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$

REMARKS:

00023

TICKET NO: 35654300	GAUGE NO: 8014
CLOCK NO: 32066 HOUR: 24	DEPTH: 7010.0

REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$
			FIRST FLOW			
B	1	0.0	307.5			
	2	10.0	738.0	431.6		
	3	20.0	1182.5	443.5		
	4	30.0	1528.1	345.6		
	5	40.0	1825.4	297.3		
	6	50.0	2049.0	223.6		
	7	60.0	2230.6	181.6		
	8	70.0	2377.7	147.2		
	9	80.0	2493.4	115.6		
	10	90.0	2591.0	97.7		
	11	100.0	2671.9	80.9		
	12	110.0	2739.5	67.6		
	13	120.0	2790.7	51.2		
	14	130.0	2834.7	44.0		
	15	140.0	2867.1	32.4		
	16	150.0	2894.7	27.6		
	17	160.0	2916.9	22.3		
	18	170.0	2934.9	17.9		
C	19	179.5	2948.3	13.5		
			FIRST CLOSED-IN			
C	1	0.0	2948.3			
	2	6.0	2987.4	39.0	5.8	1.492
	3	12.0	2991.5	43.2	11.3	1.202
	4	18.0	2994.9	46.5	16.4	1.040
	5	24.0	2997.3	49.0	21.2	0.929
	6	30.0	3000.7	52.3	25.7	0.844
	7	36.0	3002.4	54.1	30.0	0.777
	8	42.0	3004.7	56.4	34.0	0.722
	9	48.0	3005.4	57.0	37.8	0.676
	10	54.0	3007.0	58.7	41.5	0.636
D	11	60.5	3008.0	59.6	45.2	0.599

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$

REMARKS:

00024

TICKET NO: 35654900	GAUGE NO: 7983
CLOCK NO: 30347 HOUR: 24	DEPTH: 7072.0

	REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
			FIRST FLOW			
B	1	0.0	429.5			
	2	10.0	917.9	488.5		
	3	20.0	1332.0	414.1		
	4	30.0	1682.5	350.5		
	5	40.0	1934.1	251.6		
	6	50.0	2178.3	244.2		
	7	60.0	2351.7	173.4		
	8	70.0	2495.9	144.1		
	9	80.0	2593.9	98.0		
	10	90.0	2686.9	93.0		
	11	100.0	2762.4	75.5		
	12	110.0	2820.7	58.3		
	13	120.0	2868.9	48.1		
	14	130.0	2909.7	40.8		
	15	140.0	2937.6	27.9		
	16	150.0	2963.4	25.9		
	17	160.0	2985.2	21.8		
	18	170.0	3002.9	17.7		
C	19	179.5	3015.9	12.6		
			FIRST CLOSED-IN			
C	1	0.0	3015.5			
	2	6.0	3056.0	40.5	5.8	1.490
	3	12.0	3061.1	45.9	11.3	1.203
	4	18.0	3063.6	48.1	15.4	1.040
	5	24.0	3066.2	50.7	21.2	0.928
	6	30.0	3068.6	53.1	25.7	0.844
	7	36.0	3070.3	54.8	30.6	0.777
	8	42.0	3073.4	57.9	34.1	0.722
	9	48.0	3074.8	59.3	37.9	0.676
	10	54.0	3075.7	60.2	41.5	0.636
D	11	60.5	3076.5	61.0	45.2	0.593

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$

REMARKS:

00023

TICKET NO. 35654900

		O.D.	I.D.	LENGTH	DEPTH
1	DRILL PIPE	4.500	3.826	6621.7	
3	DRILL COLLARS	6.500	2.813	271.9	
51	PUMP OUT REVERSING SUB	6.000	3.000	1.0	6893.6
3	DRILL COLLARS	6.500	2.813	61.6	
50	IMPACT REVERSING SUB	6.000	3.000	1.0	6956.2
3	DRILL COLLARS	6.500	2.813	29.5	
258	BAR CATCHER SUB	5.750	1.120	1.0	
80	AP RUNNING CASE	5.000	2.250	4.1	6989.0
5	CROSSOVER	5.000	2.250	1.0	
12	DUAL CIP VALVE	5.000	0.870	4.9	
202	SAMPLE CHAMBER	5.000	2.250	4.9	
33	DRAIN VALVE	5.000	2.200	0.9	
60	HYDROSPRING TESTER	5.000	0.750	5.3	7008.0
80	AP RUNNING CASE	5.000	2.250	4.1	7010.0
15	JAR	5.000	1.750	5.0	
16	VR SAFETY JOINT	5.000	2.780	2.8	
17	PRESSURE EQUALIZING CROSSOVER	4.870	0.750	1.0	
70	OPEN HOLE PACKER	7.500	1.530	5.8	7025.1
18	DISTRIBUTOR VALVE	5.000	1.680	2.0	
70	OPEN HOLE PACKER	7.500	1.530	5.8	7033.9
20	FLUSH JOINT ANCHOR	5.000	2.370	34.0	
17	PRESSURE EQUALIZING CROSSOVER	4.620	2.750	1.0	
81	BLANKED-OFF RUNNING CASE	5.000		4.1	7072.0
5	CROSSOVER	4.800	2.200	1.0	
5	CROSSOVER	6.000	2.250	1.0	
3	DRILL COLLARS	6.500	2.813	92.9	
5	CROSSOVER	6.000	2.250	1.0	
5	CROSSOVER	4.800	2.200	1.0	
70	OPEN HOLE PACKER	7.500	1.530	5.8	7174.5

CONTINUED

EQUIPMENT DATA

00026 TICKET NO. 35654900

		O.D.	I.D.	LENGTH	DEPTH
18	DISTRIBUTOR VALVE	5.000	1.880	2.0	
70	OPEN HOLE PACKER	7.500	1.530	5.8	7182.4
3	CROSSOVER	4.800	2.200	1.0	
19	ANCHOR PIPE SAFETY JOINT	5.000	1.500	4.3	
20	FLUSH JOINT ANCHOR	5.000	2.370	18.0	
5	CROSSOVER	6.000	2.250	1.0	
4	FLEX WEIGHT	4.500	2.812	182.1	
3	DRILL COLLARS	6.500	2.813	121.7	
5	CROSSOVER	6.000	2.250	1.0	
81	BLANKED-OFF RUNNING CASE	5.000		4.1	7517.0

TOTAL DEPTH 7529.0

EQUIPMENT DATA