

SOUTH AUSTRALIA
DEPARTMENT OF MINES AND ENERGY



OPEN FILE ENVELOPE NO. 5928

PEL 5 AND PEL 6, NAPPACOONGEE-MURTEREE BLOCK

EROMANGA BASIN

ALWYN 1

TEST REPORTS

Submitted by

Delhi Petroleum Pty Ltd

1991

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ENVELOPE 5928

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

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

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Halliburton Services, 1985. Formation testing service report - DST 1A (11 June 1985).	5928 R 2 Pgs 10-19
Halliburton Services, 1985. Formation testing service report - DST 2 (20 June 1985).	5928 R 3 Pgs 20-29
Halliburton Services, 1985. Formation testing service report - DST 3 (21 June 1985).	5928 R 4 Pgs 30-41
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Halliburton Services, 1985. Formation testing service report - DST 5 (9 October 1985).	5928 R 6 Pgs 55-67
Halliburton Services, 1985. DST evaluation (liquid) - DST 1A (21 June 1985).	5928 R 7 Pg. 68
Santos Ltd, 1989. Well production water analysis report (Mooimba Laboratory, 29 April 1989).	5928 R 8 Pgs 69-70
Sargeant, R., 1990. Results of wellbore static pressure gradient survey run on 3 April 1990. (Expertest Pty Ltd report for Santos Ltd, dated 4 April 1990).	5928 R 9 Pgs 71-75
McAllister, D.J., 1991. Results of wellbore static pressure gradient survey run on 21 July 1991. (Expertest Pty Ltd report for Santos Ltd).	5928 R 10 Pgs 76-80

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00003



TICKET NO. 34603500
21-JUN-85
MOOMBA

FORMATION TESTING SERVICE REPORT

ALWYN		1		1		DELHI PETROLEUM PTY. LTD.	
LEASE NAME		WELL NO.		TEST NO.		LEASE OWNER/COMPANY NAME	
LEGAL LOCATION SEC. - TYP. - RING.	SEE REMARKS	FIELD AREA	COOPER BASIN	COUNTY	SOUTH AUSTRALIA	STATE	AUSTRALIA OR
				TESTED INTERVAL			

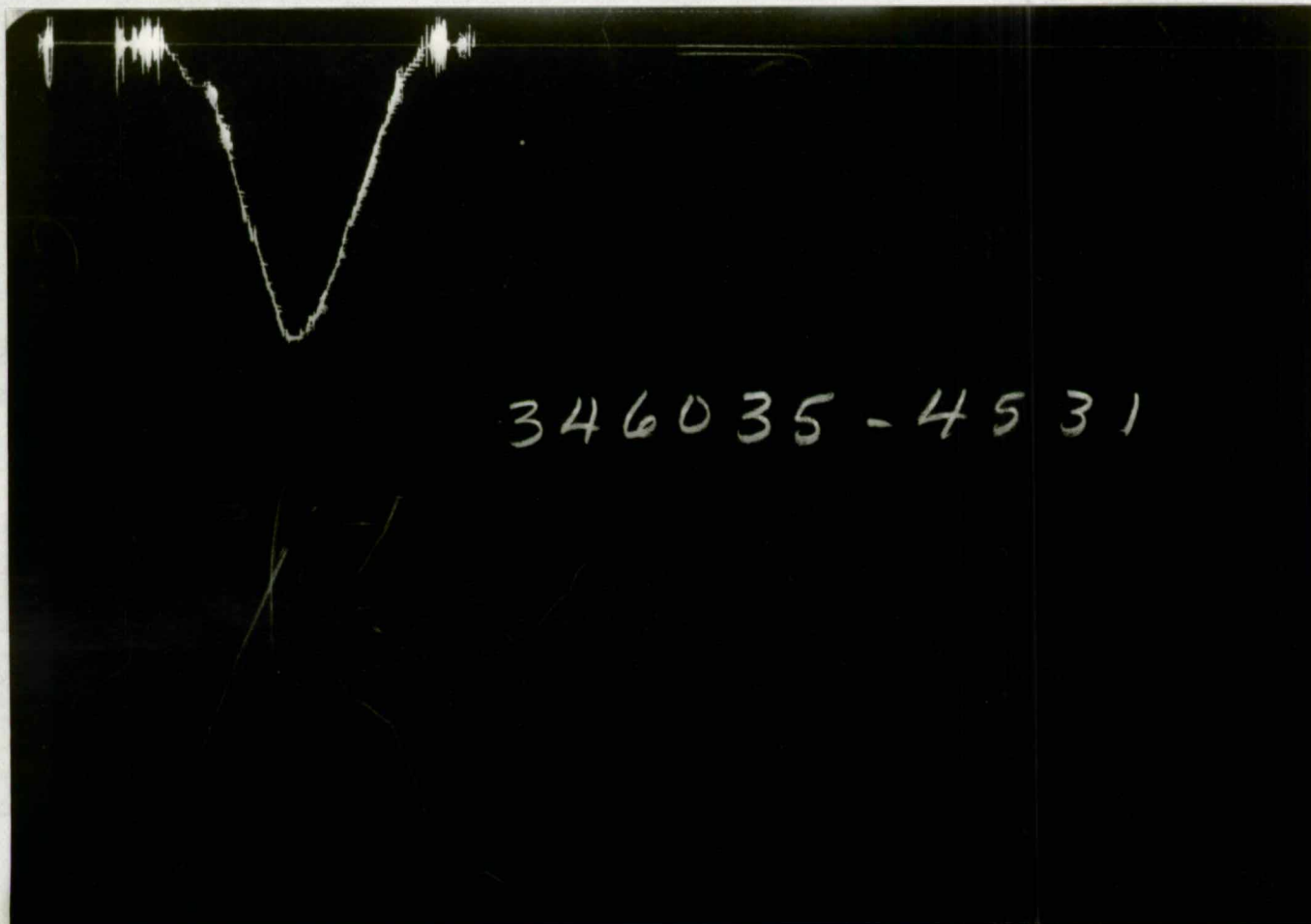
346035-4530

GAUGE NO: 4530 DEPTH: _____ BLANKED OFF: NO HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	FAILED TO REACH BOTTOM					

0000

00005 677

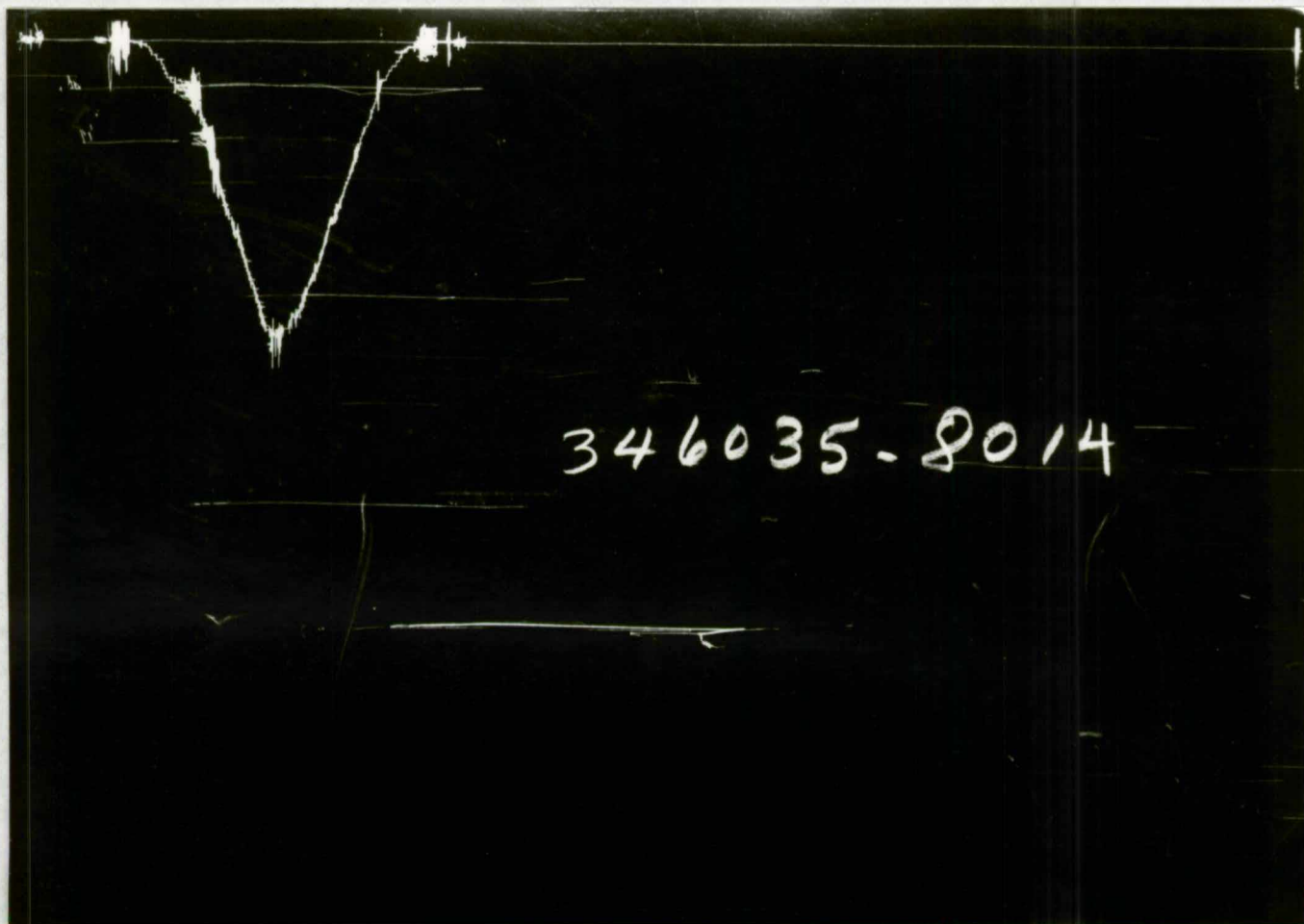


GAUGE NO: 4531 DEPTH: _____ BLANKED OFF: NO HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	FAILED TO REACH BOTTOM					

00006

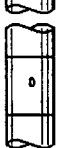
081

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

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	FAILED TO REACH BOTTOM					

EQUIPMENT & HOLE DATA			TICKET NUMBER: <u>34603500</u>	
FORMATION TESTED: <u>MURTA</u>			DATE: <u>3-17-85</u> TEST NO: <u>1</u>	
NET PAY (ft): <u>27.0</u>			TYPE DST: <u>OPEN HOLE</u>	
GROSS TESTED FOOTAGE: _____			HALLIBURTON CAMP: _____	
ALL DEPTHS MEASURED FROM: <u>KELLY BUSHING</u>			MOOMBA	
CASING PERFS. (ft): _____			TESTER: <u>KEN MEE</u>	
HOLE OR CASING SIZE (in): <u>8.500</u>			WITNESS: <u>AL GARRIES</u>	
ELEVATION (ft): <u>100.0</u> GL <u>113</u> KB			DRILLING CONTRACTOR: _____	
TOTAL DEPTH (ft): <u>3937.0</u>			S & T DRILLING	
PACKER DEPTH(S) (ft): _____				
FINAL SURFACE CHOKE (in): _____				
BOTTOM HOLE CHOKE (in): <u>0.750</u>				
MUD WEIGHT (lb/gal): <u>9.10</u>				
MUD VISCOSITY (sec): <u>35</u>				
ESTIMATED HOLE TEMP. (°F): <u>180</u>				
ACTUAL HOLE TEMP. (°F): <u>190</u> @ _____ ft				
FLUID PROPERTIES FOR RECOVERED MUD & WATER			SAMPLER DATA	
SOURCE	RESISTIVITY	CHLORIDES	P _{sig} AT SURFACE: _____	
_____	_____ @ _____ °F	_____ ppm	cu.ft. OF GAS: _____	
_____	_____ @ _____ °F	_____ ppm	cc OF OIL: _____	
_____	_____ @ _____ °F	_____ ppm	cc OF WATER: _____	
_____	_____ @ _____ °F	_____ ppm	cc OF MUD: _____	
_____	_____ @ _____ °F	_____ ppm	TOTAL LIQUID cc: _____	
HYDROCARBON PROPERTIES			CUSHION DATA	
OIL GRAVITY (°API): _____ @ _____ °F			TYPE	AMOUNT WEIGHT
GAS/OIL RATIO (cu.ft. per bbl): _____			_____	_____
GAS GRAVITY: _____			_____	_____
RECOVERED:				MEASURED FROM TESTER VALVE
REMARKS:				
TEST WAS CONDUCTED 17-MARCH-1985				
LEGAL LOCATION: LAT. 28 DEGREES 29' 54.6"S, LONG. 140 DEGREES 19' 50.6 E				
MISRUN-UNABLE TO TAG BOTTOM DUE TO 42' OF FILL				
ATTEMPTED TO TEST FROM 3910'-3937'				
AMOUNT OF COLLARS BELOW AND BETWEEN REVERSING SUBS WAS NOT SPECIFICALLY REPORTED. TOTAL AMOUNT OF COLLARS IN HOLE WAS 427.8'				

[illegible]

		O.D.	I.D.	LENGTH	DEPTH
1		DRILL PIPE.....	4.500	3.826	
3		DRILL COLLARS.....	6.250	2.813	
51		PUMP OUT REVERSING SUB.....	6.000	3.000	1.0
3		DRILL COLLARS.....	6.250	2.813	
50		IMPACT REVERSING SUB.....	6.000	3.000	1.0
3		DRILL COLLARS.....	6.250	2.813	
5		CROSSOVER.....	5.650	2.600	1.0
80		AP RUNNING CASE.....	5.000	2.250	4.1
5		CROSSOVER.....	4.800	2.600	1.0
12		DUAL CIP VALVE.....	5.000	0.870	4.9
11		HANDLING SUB & CHOKE ASSEMBLY...	5.000	2.370	4.0
33		DRAIN VALVE.....	5.000	2.200	0.9
60		HYDROSPRING TESTER.....	5.000	0.750	5.3
80		AP RUNNING CASE.....	5.000	2.250	4.1
15		JAR.....	5.000	1.750	5.0
16		VR SAFETY JOINT.....	5.000	1.000	2.8
70		OPEN HOLE PACKER.....	7.750	1.530	5.8
18		DISTRIBUTOR VALVE.....	5.000	1.680	2.0
70		OPEN HOLE PACKER.....	7.750	1.530	5.8
19		ANCHOR PIPE SAFETY JOINT.....	5.000	1.500	4.3
20		FLUSH JOINT ANCHOR.....	5.000	2.370	18.0
81		BLANKED-OFF RUNNING CASE.....	5.000		4.1

TOTAL DEPTH

3937.0

EQUIPMENT DATA

00010



TICKET NO. 34603800
11-JUN-85
MOOMBA

FORMATION TESTING SERVICE REPORT

ALWYN		1		1A		3902.0 - 3937.0		DELHI/SANTOS	
LEASE NAME		WELL NO.		TEST NO.		TESTED INTERVAL		LEASE OWNER/COMPANY NAME	
LEGAL LOCATION SEC. - TWP. - RANG.	SEE REMARKS			FIELD AREA	COOPER BASIN			COUNTY	SOUTH AUSTRALIA
								STATE	AUSTRALIA
								IC	

00011

080

B

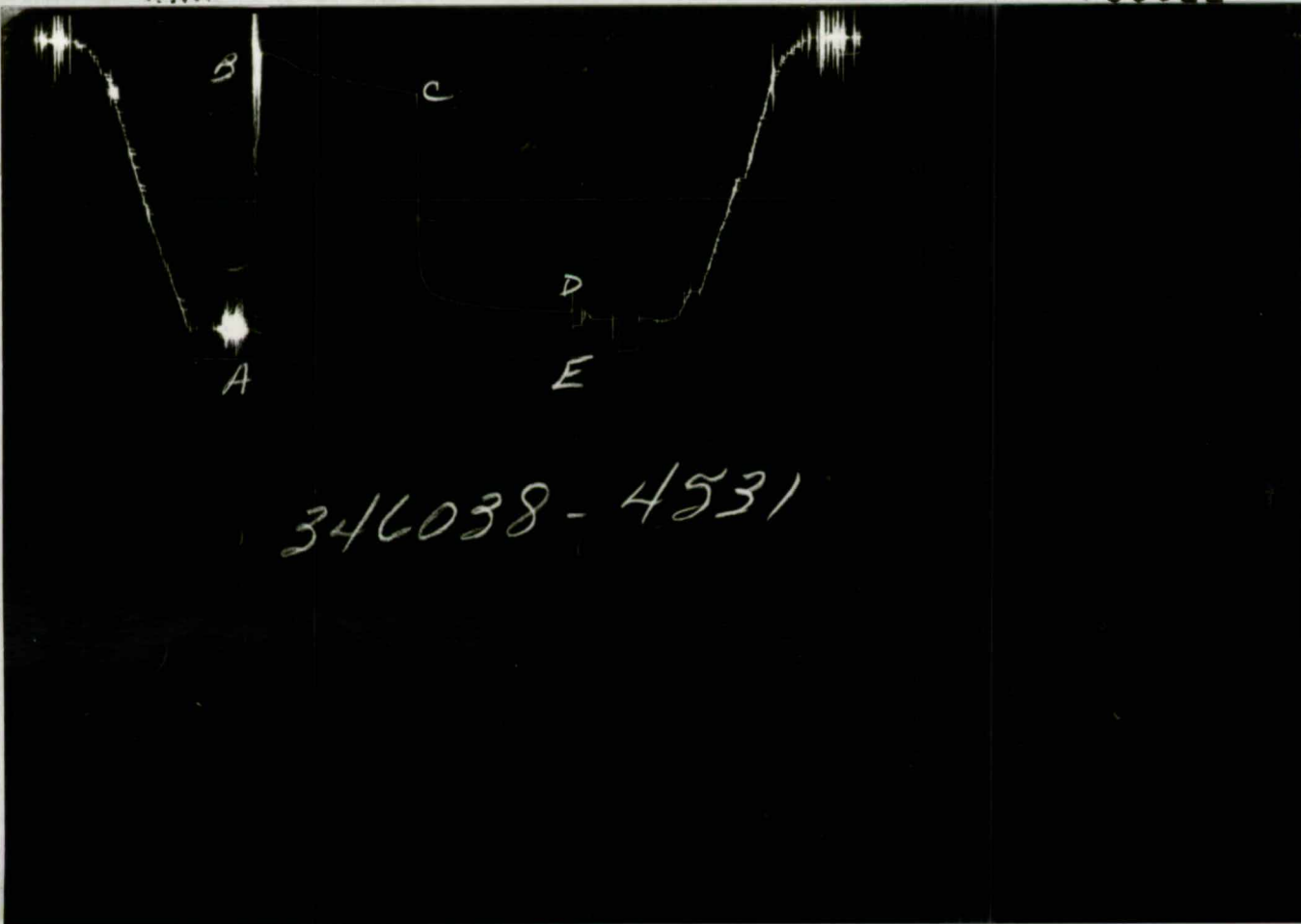
C

D

346038-4530

GAUGE NO: 4530 DEPTH: 3857.0 BLANKED OFF: NO HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC					
B	INITIAL FIRST FLOW		53.8			
C	FINAL FIRST FLOW	327	324.7	190.0	189.9	F
C	INITIAL FIRST CLOSED-IN	327	324.7			
D	FINAL FIRST CLOSED-IN		322.4	180.0	180.1	C
E	FINAL HYDROSTATIC		1758.8			

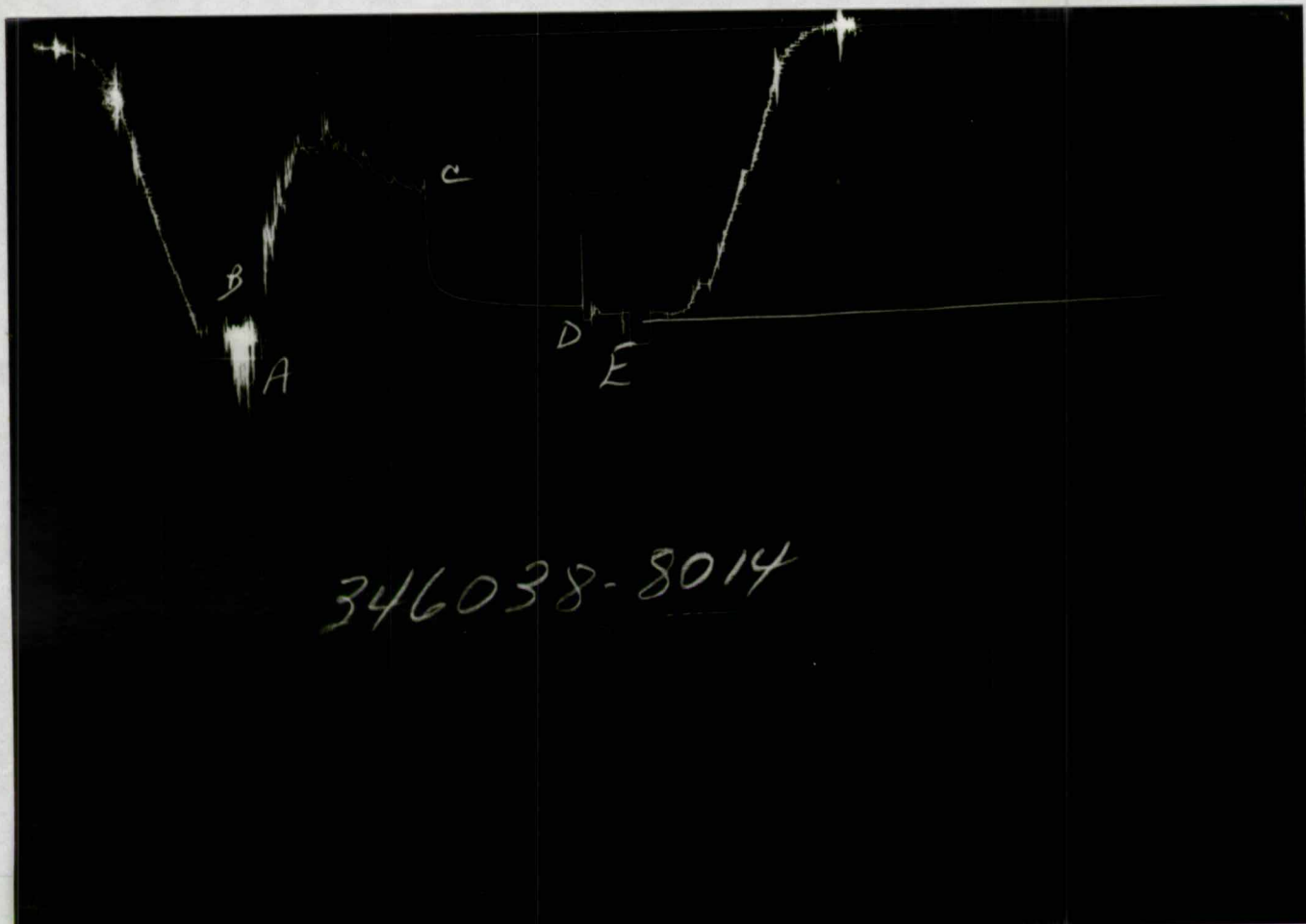


GAUGE NO: 4531 DEPTH: 3878.0 BLANKED OFF: NO HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	1808	1838.9			
B	INITIAL FIRST FLOW	82	33.4			
C	FINAL FIRST FLOW	346	342.7	190.0	189.9	F
C	INITIAL FIRST CLOSED-IN	346	342.7			
D	FINAL FIRST CLOSED-IN	1726	1738.1	180.0	180.1	C
E	FINAL HYDROSTATIC	1808	1826.7			

00013

280



346038-8014

GAUGE NO: 8014 DEPTH: 3926.0 BLANKED OFF: YES HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	1837	1873.0			
B	INITIAL FIRST FLOW		1167.9			
C	FINAL FIRST FLOW		912.1	190.0	189.9	F
C	INITIAL FIRST CLOSED-IN		912.1			
D	FINAL FIRST CLOSED-IN	1754	1758.7	180.0	180.1	C
E	FINAL HYDROSTATIC	1837	1851.1			

00014

EQUIPMENT & HOLE DATA

FORMATION TESTED: MURTA
 NET PAY (ft): _____
 GROSS TESTED FOOTAGE: 35.0
 ALL DEPTHS MEASURED FROM: KELLY BUSHING
 CASING PERFS. (ft): _____
 HOLE OR CASING SIZE (in): 8.500
 ELEVATION (ft): 100.0 GL - 113' KB
 TOTAL DEPTH (ft): 3937.0
 PACKER DEPTH(S) (ft): 3894. 3902
 FINAL SURFACE CHOKE (in): 0.50000
 BOTTOM HOLE CHOKE (in): 0.750
 MUD WEIGHT (lb/gal): 9.10
 MUD VISCOSITY (sec): 36
 ESTIMATED HOLE TEMP. (°F): 180
 ACTUAL HOLE TEMP. (°F): 192 @ 3925.0 ft

TICKET NUMBER: 34603800

DATE: 3-18-85 TEST NO: 1A

TYPE DST: OPEN HOLE

HALLIBURTON CAMP:
MOOMBA

TESTER: KEN MEE

WITNESS: AL GARRITH

DRILLING CONTRACTOR:
S AND T DRILLING

FLUID PROPERTIES FOR RECOVERED MUD & WATER

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

SAMPLER DATA

Pstg 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:

695 FEET OF FROTHY OIL - SLIGHTLY MUD CUT
 (FIELD TOP CHART READING ESTIMATE)
 1747 FEET OF FROTHY OIL - SLIGHTLY MUD CUT
 (PUMP STROKE COUNT)

MEASURED FROM
 TESTER VALVE

REMARKS:

TEST WAS CONDUCTED ON 18 MARCH, 1985.
 LEGAL LOCATION: LAT. 28 DEG., 29', 54.6"S; LONG. 140 DEG., 19', 50.6"E.
 TOOLS WERE SET 8' UP HOLE FROM T.D. DUE TO HOLE CONDITONS. THE TOTAL AMOUNT OF COLLARS IN THE HOLE WAS 427.8'.
 CHARTS INDICATE SEVERE PLUGGING OF ANCHOR PERFORATIONS DURING THE FLOW.

[illegible]

1000

00016

TICKET NO: 34603800

GAUGE NO: 4530

CLOCK NO: 9394 HOUR: 24

DEPTH: 3857.0



REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$	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	53.8								
	2	10.0	69.2	15.4							
	3	20.0	90.8	21.6							
	4	30.0	117.5	26.7							
	5	40.0	152.0	34.5							
	6	50.0	178.1	26.0							
	7	60.0	188.1	10.0							
	8	70.0	203.3	15.2							
	9	80.0	212.9	9.7							
	10	90.0	230.3	17.3							
	11	100.0	239.1	8.8							
	12	110.0	251.7	12.6							
	13	120.0	263.0	11.3							
	14	130.0	268.7	5.7							
	15	140.0	279.7	11.0							
	16	150.0	289.5	9.8							
	17	160.0	300.8	11.3							
	18	170.0	310.5	9.7							
	19	180.0	320.3	9.8							
C	20	189.9	324.7	4.4							
FIRST CLOSED-IN											
C	1	0.0	324.7								
D	2	180.1	322.4	-2.3	92.4 0.313						

REMARKS:

00017

980

TICKET NO: 34603800

GAUGE NO: 4531

CLOCK NO: 16055 HOUR: 24

DEPTH: 3878.0



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	33.4			
2	10.0	81.8	48.4		
3	20.0	92.8	11.0		
4	30.0	113.6	20.8		
5	40.0	139.9	26.4		
6	50.0	175.0	35.0		
7	60.0	195.6	20.6		
8	70.0	207.0	11.5		
9	80.0	224.7	17.7		
10	90.0	234.2	9.5		
11	100.0	248.0	13.7		
12	110.0	261.2	13.3		
13	120.0	277.4	16.2		
14	130.0	280.7	3.3		
15	140.0	291.3	10.6		
16	150.0	300.3	9.0		
17	160.0	314.1	13.7		
18	170.0	321.4	7.4		
19	180.0	332.9	11.5		
C 20	189.9	342.7	9.8		
FIRST CLOSED-IN.					
C 1	0.0	342.7			
2	1.0	1392.1	1049.4	1.0	2.279
3	2.0	1451.2	1108.5	2.0	1.980
4	3.0	1486.0	1143.3	3.0	1.807
5	4.0	1506.4	1163.7	4.0	1.681
6	5.0	1522.2	1179.5	4.8	1.594
7	6.0	1534.6	1191.9	5.8	1.517
8	7.0	1548.6	1205.9	6.8	1.448
9	8.0	1557.3	1214.6	7.7	1.393
10	9.0	1567.9	1225.2	8.6	1.344
11	10.0	1578.6	1235.9	9.5	1.302
12	12.0	1592.4	1249.7	11.3	1.224
13	14.0	1603.6	1260.9	13.0	1.164
14	16.0	1612.9	1270.1	14.7	1.110
15	18.0	1622.1	1279.4	16.5	1.062
16	20.0	1630.0	1287.3	18.1	1.021
17	22.0	1635.4	1292.7	19.7	0.983
18	24.0	1640.2	1297.5	21.3	0.950
19	26.0	1645.8	1303.1	22.9	0.919
20	28.0	1650.2	1307.5	24.4	0.891
21	30.0	1655.0	1312.3	25.9	0.865
22	35.0	1663.3	1320.5	29.6	0.808
23	40.0	1670.5	1327.8	33.1	0.759
24	45.0	1676.9	1334.2	36.4	0.717
25	50.0	1682.4	1339.7	39.6	0.681
26	55.0	1686.7	1343.9	42.7	0.648
27	60.0	1692.1	1349.4	45.6	0.620
28	70.0	1700.0	1357.3	51.1	0.570

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
FIRST CLOSED-IN - CONTINUED					
29	80.0	1705.8	1363.0	56.3	0.528
30	90.0	1711.5	1368.8	61.0	0.493
31	100.0	1714.5	1371.8	65.5	0.462
32	110.0	1718.8	1376.1	69.7	0.435
33	120.0	1724.1	1381.3	73.5	0.412
34	135.0	1728.5	1385.8	78.9	0.381
35	150.0	1732.6	1389.9	83.8	0.355
36	165.0	1735.6	1392.9	88.3	0.333
D 37	180.1	1738.1	1395.3	92.4	0.313

REMARKS:

00018

TICKET NO: 34603800

CLOCK NO: 29507 HOUR: 24



GAUGE NO: 8014

DEPTH: 3926.0

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$	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	1167.9								
C	2	189.9	912.1	-255.8							
FIRST CLOSED-IN											
C	1	0.0	912.1								
	2	1.0	1399.5	487.4	1.0	2.282					
	3	2.0	1470.2	558.1	1.9	1.990					
	4	3.0	1504.8	592.7	2.9	1.810					
	5	4.0	1526.0	613.8	4.0	1.681					
	6	5.0	1543.4	631.3	4.9	1.590					
	7	6.0	1557.7	645.6	5.8	1.513					
	8	7.0	1568.9	656.8	6.8	1.447					
	9	8.0	1580.4	668.2	7.7	1.393					
	10	9.0	1588.4	676.2	8.6	1.343					
	11	10.0	1594.2	682.1	9.5	1.302					
	12	12.0	1611.1	699.0	11.3	1.226					
	13	14.0	1621.8	709.7	13.1	1.162					
	14	16.0	1630.8	718.7	14.7	1.110					
	15	18.0	1638.9	726.8	16.4	1.063					
	16	20.0	1646.4	734.3	18.1	1.020					
	17	22.0	1653.1	741.0	19.7	0.983					
	18	24.0	1658.2	746.1	21.3	0.950					
	19	26.0	1663.9	751.8	22.9	0.919					
	20	28.0	1667.6	755.4	24.4	0.890					
	21	30.0	1672.2	760.1	25.9	0.865					
	22	35.0	1681.0	768.9	29.5	0.808					
	23	40.0	1688.9	776.7	33.0	0.759					
	24	45.0	1696.5	784.4	36.4	0.717					
	25	50.0	1701.5	789.4	39.6	0.681					
	26	55.0	1707.5	795.4	42.7	0.648					
	27	60.0	1711.3	799.2	45.6	0.620					
	28	70.0	1719.0	806.8	51.2	0.570					
	29	80.0	1726.0	813.8	56.3	0.528					
	30	90.0	1731.9	819.8	61.0	0.493					
	31	100.0	1736.1	824.0	65.5	0.462					
	32	110.0	1740.4	828.3	69.6	0.436					
	33	120.0	1744.3	832.1	73.5	0.412					
	34	135.0	1748.6	836.5	78.9	0.381					
	35	150.0	1752.9	840.8	83.8	0.355					
	36	165.0	1756.2	844.1	88.3	0.333					
D	37	180.1	1758.7	846.6	92.4	0.313					

REMARKS:

FLOW PERIOD WAS NOT SEGMENTED DUE TO PLUGGING.

		O.D.	I.D.	LENGTH	DEPTH
1		DRILL PIPE.....	4.500	3.826	
3		DRILL COLLARS.....	6.250	2.812	
51		PUMP OUT REVERSING SUB.....	6.000	3.000	1.0
3		DRILL COLLARS.....	6.250	2.812	
50		IMPACT REVERSING SUB.....	6.000	3.000	1.0
3		DRILL COLLARS.....	6.250	2.812	
5		CROSSOVER.....	5.650	2.600	1.0
80		AP RUNNING CASE.....	5.000	2.250	4.1 3857.0
5		CROSSOVER.....	4.800	2.600	1.0
12		DUAL CIP VALVE.....	5.000	0.870	4.9
11		HANDLING SUB & CHOKE ASSEMBLY...	5.000	2.370	4.0
33		DRAIN VALVE.....	5.000	2.200	0.9
60		HYDROSPRING TESTER.....	5.000	0.750	5.3 3876.0
80		AP RUNNING CASE.....	5.000	2.250	4.1 3878.0
15		JAR.....	5.000	1.750	5.0
16		VR SAFETY JOINT.....	5.000	1.000	2.8
70		OPEN HOLE PACKER.....	7.750	1.530	5.8 3894.0
18		DISTRIBUTOR VALVE.....	5.000	1.680	2.0
70		OPEN HOLE PACKER.....	7.750	1.530	5.8 3902.0
19		ANCHOR PIPE SAFETY JOINT.....	5.000	1.500	4.3
20		FLUSH JOINT ANCHOR.....	5.000	2.370	18.0
81		BLANKED-OFF RUNNING CASE.....	5.000		4.1 3926.0
TOTAL DEPTH					3937.0

EQUIPMENT DATA

00020



TICKET NO. 34603900
20-JUN-85
MOOMBA

FORMATION TESTING SERVICE REPORT

ALVYN	1	2	4035.0 - 4058.0	DELHI/SANTOS
LEASE NAME	WELL NO.	TEST NO.	TESTED INTERVAL	LEASE OWNER/COMPANY NAME
LEGAL LOCATION SEC. - TYP. - RNG.	SEE REMARKS	FIELD AREA	COOPER BASIN	COUNTY SOUTH AUSTRALIA
				STATE AUSTRALIA
				PY

00021

218

B C

D

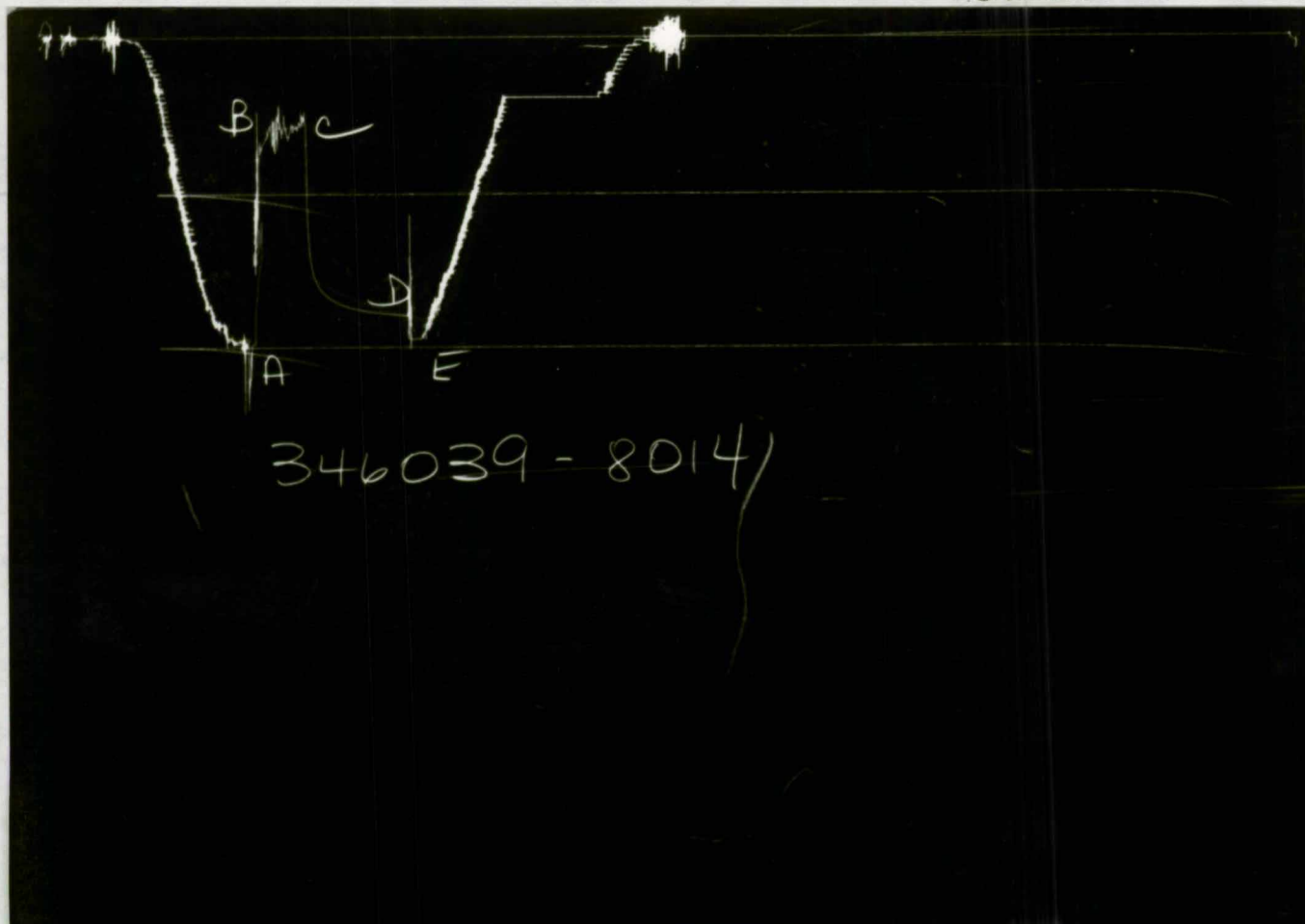
346039-4530

GAUGE NO: 4530 DEPTH: 3992.1 BLANKED OFF: NO HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC					
B	INITIAL FIRST FLOW		6.5			
C	FINAL FIRST FLOW		62.7	60.0	60.0	F
C	INITIAL FIRST CLOSED-IN		62.7			
D	FINAL FIRST CLOSED-IN	56	62.8	120.0	120.0	C
E	FINAL HYDROSTATIC					

00023

718



GAUGE NO: 8014 DEPTH: 4050.0 BLANKED OFF: YES HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	1970	1962.7			
B	INITIAL FIRST FLOW	487	477.1	60.0	60.0	F
C	FINAL FIRST FLOW	503	552.4			
C	INITIAL FIRST CLOSED-IN	503	552.4	120.0	120.0	C
D	FINAL FIRST CLOSED-IN	1790	1793.7			
E	FINAL HYDROSTATIC	1940	1945.3			

00024

EQUIPMENT & HOLE DATA

FORMATION TESTED: NAMUR
 NET PAY (ft): 18.0
 GROSS TESTED FOOTAGE: 23.0
 ALL DEPTHS MEASURED FROM: KB
 CASING PERFS. (ft): _____
 HOLE OR CASING SIZE (in): 8.500
 ELEVATION (ft): 113.0 K.B. - G.L. + 100'
 TOTAL DEPTH (ft): 4058.0
 PACKER DEPTH(S) (ft): 4028, 4035
 FINAL SURFACE CHOKE (in): 0.50000
 BOTTOM HOLE CHOKE (in): 0.750
 MUD WEIGHT (lb/gal): 9.10
 MUD VISCOSITY (sec): 32
 ESTIMATED HOLE TEMP. (°F): 195
 ACTUAL HOLE TEMP. (°F): 182 @ 4049.0 ft

TICKET NUMBER: 34603900DATE: 3-19-85 TEST NO: 2TYPE DST: OPEN HOLEHALLIBURTON CAMP:
MOOMBATESTER: KEN MEE
GARY WILINSKIWITNESS: AL GARRIESDRILLING CONTRACTOR:
S & T DRILLING COMPANYFLUID PROPERTIES FOR
RECOVERED MUD & WATER

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

SAMPLER DATA

Pstg 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:

13 FEET OF SLIGHTLY MUD CUT OIL
 110 FEET OF SLIGHTY WATER CUT MUD

MEASURED FROM
TESTER VALVE

REMARKS:

- 1) TEST WAS CONDUCTED ON 19-MARCH, 1985
- 2) LEGAL LOCATION: LAT. 28 DEGREES - 29' - 54.6" SOUTH
LONG. 140 DEGREES - 19' - 50.6" EAST
- 3) TESTER REPORTED 5' OF FILL WAS BENEATH BOTTOM GAUGE. PACKER WAS SET 5' UP HOLE FROM PLANNED SETTING DEPTH.
- 4) AMOUNT OF COLLARS BELOW AND BETWEEN THE REVERSING SUBS WAS NOT SPECIFICALLY REPORTED. THE TOTAL AMOUNT OF COLLARS IN HOLE WAS 427.8'
- 5) CHARTS INDICATE PLUGGING OCCURRED DURING THE FLOW PERIOD

[illegible]

25000

00026

TICKET NO: 34603900

GAUGE NO: 4530

CLOCK NO: 9394 HOUR: 24

DEPTH: 3992.1



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	6.5			
2	10.0	21.6	15.1		
3	20.0	32.1	10.5		
4	30.0	40.1	8.0		
5	40.0	46.8	6.7		
6	50.0	55.8	9.0		
C 7	60.0	62.7	6.9		
FIRST CLOSED-IN					
C 1	0.0	62.7			
D 2	120.0	62.8	0.2	40.0	0.176

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

REMARKS:

00027

TICKET NO: 34603900

CLOCK NO: 16055 HOUR: 24



GAUGE NO: 4531

DEPTH: 4012.2

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	30.8			
2	10.0	35.0	4.3		
3	20.0	42.4	7.4		
4	30.0	51.4	9.0		
5	40.0	59.6	8.2		
6	50.0	67.6	8.0		
C 7	60.0	76.8	9.2		
FIRST CLOSED-IN					
C 1	0.0	76.8			
2	8.0	1504.8	1428.0	7.1	0.929
3	16.0	1604.4	1527.7	12.6	0.678
4	24.0	1651.4	1574.6	17.1	0.544
5	32.0	1680.4	1603.6	20.9	0.459
6	40.0	1702.8	1626.0	24.0	0.398
7	48.0	1718.1	1641.4	26.7	0.352
8	56.0	1731.1	1654.4	29.0	0.316
9	64.0	1738.7	1662.0	31.0	0.287
10	72.0	1748.1	1671.3	32.7	0.263
11	80.0	1755.2	1678.4	34.3	0.243
12	88.0	1763.1	1686.3	35.7	0.226
13	96.0	1768.2	1691.4	36.9	0.211
14	104.0	1771.8	1695.1	38.1	0.198
15	112.0	1775.0	1698.2	39.1	0.186
D 16	120.0	1777.4	1700.7	40.0	0.176

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

REMARKS:

00028

TICKET NO: 34603900

CLOCK NO: 29507 HOUR: 24



GAUGE NO: 8014

DEPTH: 4050.0

REF	MINUTES	PRESSURE	ΔP	$\frac{1 \times \Delta t}{1 + \Delta t}$	$\log \frac{1 + \Delta t}{\Delta t}$	REF	MINUTES	PRESSURE	ΔP	$\frac{1 \times \Delta t}{1 + \Delta t}$	$\log \frac{1 + \Delta t}{\Delta t}$
FIRST FLOW											
B	1	0.0	477.1								
C	2	60.0	552.4	75.3							
FIRST CLOSED-IN											
C	1	0.0	552.4								
	2	8.0	1530.0	977.6	7.1	0.928					
	3	16.0	1628.8	1076.4	12.7	0.676					
	4	24.0	1673.7	1121.4	17.1	0.544					
	5	32.0	1703.2	1150.8	20.9	0.459					
	6	40.0	1725.6	1173.3	24.0	0.398					
	7	48.0	1740.6	1188.2	26.7	0.352					
	8	56.0	1752.9	1200.6	29.0	0.317					
	9	64.0	1762.4	1210.0	31.0	0.287					
	10	72.0	1769.7	1217.4	32.7	0.263					
	11	80.0	1776.2	1223.8	34.3	0.243					
	12	88.0	1781.7	1229.3	35.7	0.226					
	13	96.0	1785.9	1233.5	36.9	0.211					
	14	104.0	1790.5	1238.2	38.1	0.198					
	15	112.0	1794.0	1241.7	39.1	0.186					
D	16	120.0	1793.7	1241.3	40.0	0.176					

REMARKS:

00029

028

TICKET NO. 34603900

		O.D.	I.D.	LENGTH	DEPTH
1		DRILL PIPE.....	4.500	3.826	
3		DRILL COLLARS.....	6.250	2.813	
51		PUMP OUT REVERSING SUB.....	6.000	3.000	1.0
3		DRILL COLLARS.....	6.250	2.813	
50		IMPACT REVERSING SUB.....	6.000	3.000	1.0
3		DRILL COLLARS.....	6.250	3.000	
5		CROSSOVER.....	5.640		1.0
80		AP RUNNING CASE.....	5.000	2.250	4.1 3992.1
5		CROSSOVER.....	4.500	2.580	1.0
12		DUAL CIP VALVE.....	5.000	0.870	4.9
11		HANDLING SUB & CHOKER ASSEMBLY...	5.000	2.370	4.0
33		DRAIN VALVE.....	5.000	2.200	0.9
60		HYDROSPRING TESTER.....	5.000	0.750	5.3 4010.1
80		AP RUNNING CASE.....	5.000	2.250	4.1 4012.2
15		JAR.....	5.000	1.750	5.0
16		VR SAFETY JOINT.....	5.000	1.000	2.8
70		OPEN HOLE PACKER.....	7.750	1.530	5.8 4027.5
18		DISTRIBUTOR VALVE.....	5.000	1.680	2.0
70		OPEN HOLE PACKER.....	7.750	1.530	5.8 4035.0
19		ANCHOR PIPE SAFETY JOINT.....	5.000	1.500	4.3
20		FLUSH JOINT ANCHOR.....	5.000	2.370	8.0
81		BLANKED-OFF RUNNING CASE.....	5.000		4.1 4050.0
TOTAL DEPTH					4058.0

EQUIPMENT DATA

00030

LEGAL LOCATION SEC. - TWP. - RNG.	SEE REMARKS	FIELD AREA	COOPER BASIN	COUNTRY SOUTH AUSTRALIA	STATE AUSTRALIA	IC
ALVYN	1	3	4061.0 - 4076.3	DELHI/SANTOS		
LEASE NAME	WELL NO.	TEST NO.	TESTED INTERVAL	LEASE OWNER/COMPANY NAME		



TICKET NO. 34598700

21-JUN-85

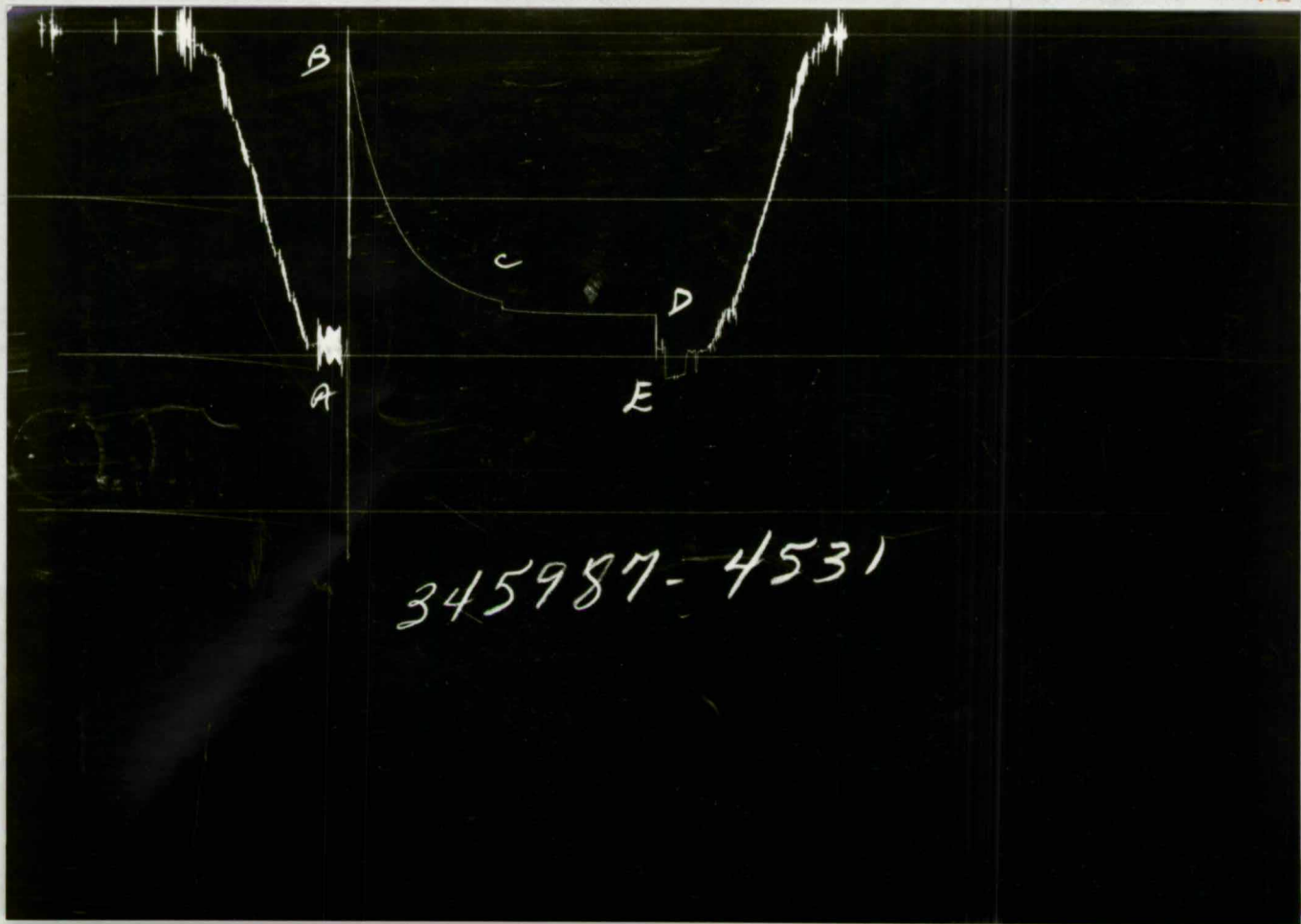
MOOMBA

FORMATION TESTING SERVICE REPORT

345987-4530

GAUGE NO: 4530 DEPTH: 3903.0 BLANKED OFF: NO HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC					
B	INITIAL FIRST FLOW		87.1			
C	FINAL FIRST FLOW		1691.6	180.0	180.6	F
C	INITIAL FIRST CLOSED-IN		1691.6			
D	FINAL FIRST CLOSED-IN	1682	1686.7	180.0	179.4	C
E	FINAL HYDROSTATIC					
F	HYDROSTATIC RELEASE					



GAUGE NO: 4531 DEPTH: 3913.0 BLANKED OFF: NO HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	1955	1964.1			
B	INITIAL FIRST FLOW	99	105.6			
C	FINAL FIRST FLOW	1661	1684.8	180.0	180.6	F
C	INITIAL FIRST CLOSED-IN	1661	1684.8			
D	FINAL FIRST CLOSED-IN	1759	1764.7	180.0	179.4	C
E	FINAL HYDROSTATIC	1955	1980.4			
F	HYDROSTATIC RELEASE					

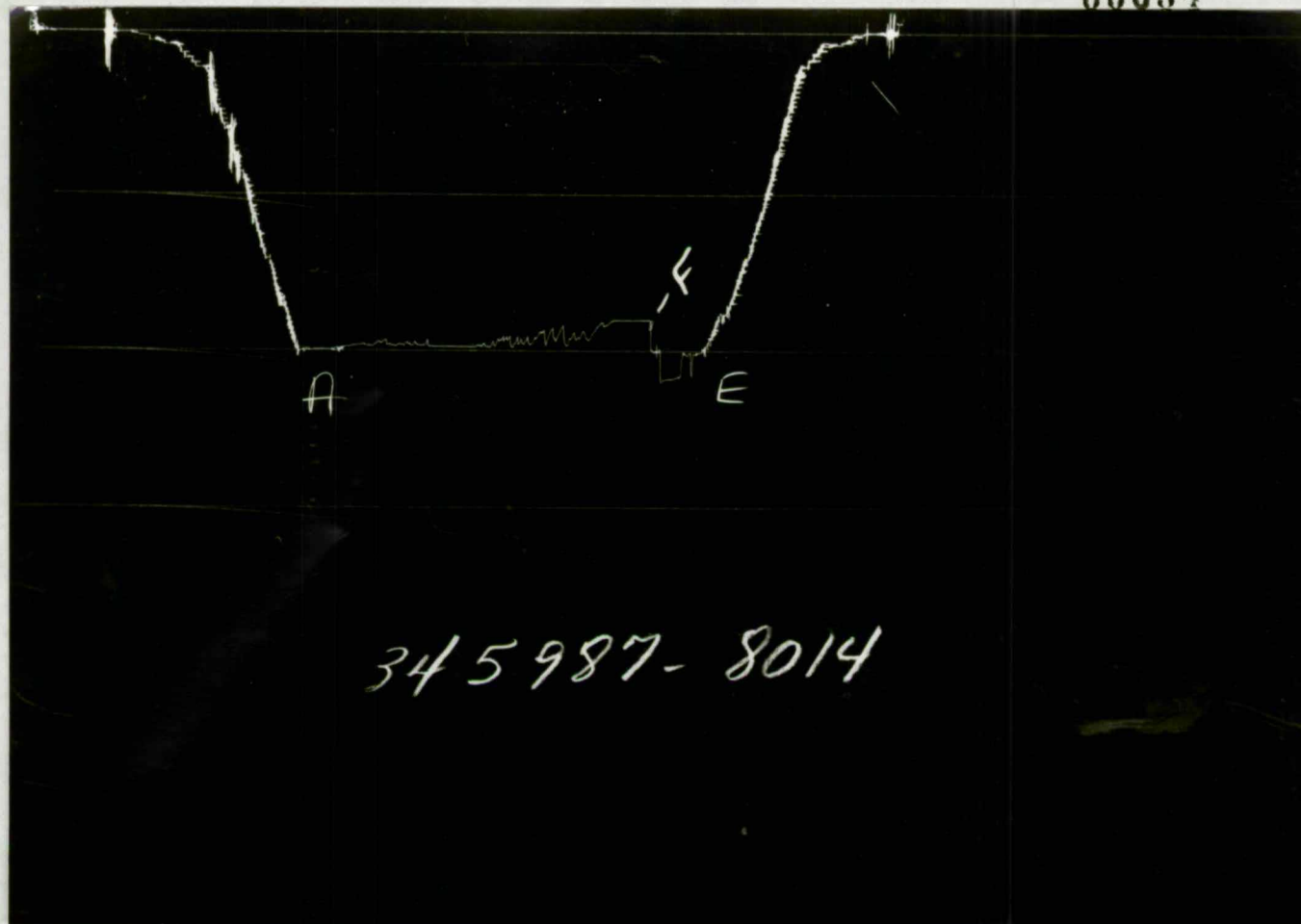
345987-4532

GAUGE NO: 4532 DEPTH: 4083.0 BLANKED OFF: YES HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	2036	2039.0			
B	INITIAL FIRST FLOW	277	285.1	180.0	180.6	F
C	FINAL FIRST FLOW	1743	1742.2			
C	INITIAL FIRST CLOSED-IN	1743	1742.2	180.0	179.4	C
D	FINAL FIRST CLOSED-IN	1808	1825.9			
E	FINAL HYDROSTATIC	2036	2047.1			
F	HYDROSTATIC RELEASE					

00034

879

GAUGE NO: 8014 DEPTH: 4088.0 BLANKED OFF: YES HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	2036	2025.7			
B	INITIAL FIRST FLOW			180.0		F
C	FINAL FIRST FLOW					
C	INITIAL FIRST CLOSED-IN			180.0		C
D	FINAL FIRST CLOSED-IN					
E	FINAL HYDROSTATIC		2033.1			
F	HYDROSTATIC RELEASE		1830.6			

00035

EQUIPMENT & HOLE DATA

FORMATION TESTED: NAMUR
 NET PAY (ft): _____
 GROSS TESTED FOOTAGE: 15.3
 ALL DEPTHS MEASURED FROM: KELLY BUSHING
 CASING PERFS. (ft): _____
 HOLE OR CASING SIZE (in): 8.500
 ELEVATION (ft): 113.0 K.B. - 100 G.L.
 TOTAL DEPTH (ft): 5216.0
 PACKER DEPTH(S) (ft): 4061. 4076
 FINAL SURFACE CHOKE (in): 0.50000
 BOTTOM HOLE CHOKE (in): 0.750
 MUD WEIGHT (lb/gal): 9.60
 MUD VISCOSITY (sec): 35
 ESTIMATED HOLE TEMP. (°F): _____
 ACTUAL HOLE TEMP. (°F): 185 @ 4087.0 ft

TICKET NUMBER: 34598700DATE: 3-23-85 TEST NO: 3TYPE DST: HYDROFL.STRADDLEHALLIBURTON CAMP:
MOOMBATESTER: D. BURT
W. WILTSHIREWITNESS: AL GARRIESDRILLING CONTRACTOR:
S AND T #21**FLUID PROPERTIES FOR
RECOVERED MUD & WATER**

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

SAMPLER DATA

Pstg 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:

FULL STRING OF WATER WITH A TRACE OF OIL

MEASURED FROM
TESTER VALVE**REMARKS:**

TEST WAS CONDUCTED 23 MARCH, 1985.

LEGAL LOCATION: LATITUDE - 28 DEGREES, 29', 54.6" SOUTH;
 LONGITUDE - 140 DEGREES, 19', 50.6" EAST.

00036

TYPE & SIZE MEASURING DEVICE: 6" CERAMIC CHOKE SURFACE MANIFOLD TICKET NO: 34598700

[illegible]

00037

TICKET NO: 34598700

CLOCK NO: 9394 HOUR: 24



GAUGE NO: 4530

DEPTH: 3903.0

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	87.1			
2	10.0	426.4	339.3		
3	20.0	673.6	247.3		
4	30.0	869.7	196.1		
5	40.0	1025.9	156.2		
6	50.0	1151.9	125.9		
7	60.0	1249.9	98.1		
8	70.0	1333.2	83.3		
9	80.0	1400.0	66.8		
10	90.0	1456.7	56.7		
11	100.0	1505.0	48.3		
12	110.0	1543.8	38.7		
13	120.0	1576.0	32.3		
14	130.0	1601.9	25.9		
15	140.0	1626.4	24.5		
16	150.0	1646.0	19.6		
17	160.0	1662.9	16.9		
18	170.0	1678.3	15.4		
C 19	180.6	1691.6	13.3		
FIRST CLOSED-IN					
C 1	0.0	1691.6			
D 2	179.4	1686.7	-4.9	90.0	0.303

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

REMARKS:

1600F

00038

L L S

TICKET NO: 34598700

CLOCK NO: 16055 · HOUR: 24



GAUGE NO: 4531

DEPTH: 3913.0

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	105.6			
2	10.0	415.5	310.0		
3	20.0	657.3	241.7		
4	30.0	845.3	188.1		
5	40.0	998.9	153.5		
6	50.0	1123.9	125.0		
7	60.0	1235.3	111.4		
8	70.0	1319.6	84.3		
9	80.0	1390.8	71.2		
10	90.0	1449.4	58.6		
11	100.0	1497.2	47.8		
12	110.0	1533.4	36.2		
13	120.0	1565.7	32.3		
14	130.0	1592.9	27.2		
15	140.0	1615.8	22.9		
16	150.0	1636.6	20.8		
17	160.0	1655.4	18.8		
18	170.0	1670.2	14.8		
C 19	180.6	1684.8	14.7		

FIRST CLOSED-IN

C 1	0.0	1684.8			
2	10.0	1738.6	53.7	9.5	1.278
3	20.0	1744.5	59.6	18.0	1.001
4	30.0	1747.6	62.8	25.7	0.847
5	40.0	1751.2	66.4	32.7	0.742
6	50.0	1753.4	68.5	39.2	0.664
7	60.0	1755.0	70.2	45.0	0.603
8	70.0	1756.7	71.8	50.5	0.554
9	80.0	1758.5	73.6	55.4	0.513
10	90.0	1760.1	75.3	60.1	0.478
11	100.0	1761.6	76.8	64.3	0.448
12	110.0	1761.6	76.8	68.4	0.422
13	120.0	1761.6	76.8	72.1	0.399
14	129.9	1762.3	77.4	75.6	0.378
15	140.0	1763.3	78.4	78.9	0.360
16	150.0	1763.9	79.1	82.0	0.343
17	160.0	1764.1	79.2	84.8	0.328
18	170.0	1764.1	79.2	87.6	0.314
D 19	179.4	1764.7	79.9	90.0	0.303

REMARKS:

00039

TICKET NO: 34598700

CLOCK NO: 16139 HOUR: 24



GAUGE NO: 4532

DEPTH: 4083.0

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	285.1			
2	10.0	508.4	223.3		
3	20.0	733.5	225.1		
4	30.0	916.5	183.0		
5	40.0	1064.0	147.5		
6	50.0	1186.6	122.6		
7	60.0	1287.2	100.7		
8	70.0	1371.0	83.8		
9	80.0	1439.0	67.9		
10	90.0	1498.4	59.4		
11	100.0	1546.8	48.4		
12	110.0	1587.7	40.9		
13	120.0	1621.4	33.7		
14	130.0	1652.2	30.8		
15	140.0	1676.8	24.5		
16	150.0	1697.7	20.9		
17	160.0	1714.9	17.2		
18	170.0	1728.2	13.3		
C 19	180.6	1742.2	14.1		

FIRST CLOSED-IN

C 1	0.0	1742.2			
2	10.0	1796.6	54.3	9.5	1.278
3	20.0	1804.9	62.7	18.0	1.001
4	30.0	1808.5	66.3	25.7	0.846
5	40.0	1811.0	68.7	32.8	0.741
6	50.0	1814.6	72.3	39.2	0.664
7	60.0	1816.0	73.8	45.1	0.603
8	70.0	1817.0	74.8	50.4	0.554
9	80.0	1818.8	76.6	55.4	0.513
10	90.0	1820.1	77.9	60.1	0.478
11	100.0	1821.9	79.7	64.4	0.448
12	110.0	1822.4	80.2	68.4	0.422
13	120.0	1822.9	80.7	72.1	0.399
14	130.0	1823.9	81.7	75.6	0.378
15	140.0	1823.9	81.7	78.9	0.360
16	150.0	1824.7	82.5	81.9	0.343
17	160.0	1825.2	83.0	84.8	0.328
18	170.0	1825.2	83.0	87.6	0.314
D 19	179.4	1825.9	83.6	90.0	0.303

REMARKS:

		O.D.	I.D.	LENGTH	DEPTH	
1		DRILL PIPE.....	4.500	3.826	3622.8	
3		DRILL COLLARS.....	6.250	2.375	184.4	
51		PUMP OUT REVERSING SUB.....	6.250	3.000	1.0	3807.6
3		DRILL COLLARS.....	6.250	2.375	61.3	
50		IMPACT REVERSING SUB.....	6.250	3.000	1.0	3869.9
3		DRILL COLLARS.....	6.250	2.375	30.4	
5		CROSSOVER.....	6.250		1.0	
80		AP RUNNING CASE.....	5.000	2.250	4.2	3903.0
61		INDEXING HYDROSPRING TESTER.....	5.000	0.750	5.3	3910.3
80		AP RUNNING CASE.....	5.000	2.250	4.2	3912.5
5		CROSSOVER.....	6.250	2.250	1.0	
3		DRILL COLLARS.....	6.250	2.375	29.5	
5		CROSSOVER.....	6.250	2.250	1.0	
14		EXTENSION JOINT.....	5.000	0.750	7.1	
14		EXTENSION JOINT.....	5.000	0.750	7.1	
5		CROSSOVER.....	6.250	2.250	1.0	
3		DRILL COLLARS.....	6.250	2.375	61.3	
5		CROSSOVER.....	6.250	2.250	1.0	
15		JAR.....	5.000	1.750	5.0	
16		VR SAFETY JOINT.....	5.000	1.000	3.5	
26		PUMP ASSEMBLY.....	5.000	0.880	7.1	
27		SCREEN ASSEMBLY.....	5.000	1.000	4.4	
25		TORQUE LIMITER ASSEMBLY.....	5.000	1.000	4.9	
16		VR SAFETY JOINT.....	5.000	2.250	5.3	
74		TOP HYDROFLATE PACKER.....	7.000	1.080	8.3	4061.0
28		PORT ASSEMBLY.....	5.000		3.4	
22		BLANK ANCHOR.....	5.000	3.060	8.0	
75		LOWER HYDROFLATE PACKER.....	7.000	2.000	8.1	4076.3

CONTINUED

EQUIPMENT DATA

00041 TICKET NO. 34598700

		O.D.	I.D.	LENGTH	DEPTH
85		BELLY SPRINGS W/ B.O. GAUGE CASE	7.250	3.7	4083.1
81		BLANKED-OFF RUNNING CASE.....	5.000	4.7	4087.8
TOTAL DEPTH					5216.0

EQUIPMENT DATA

00042



TICKET NO. 34598800

16-JUL-85

MOOMBA

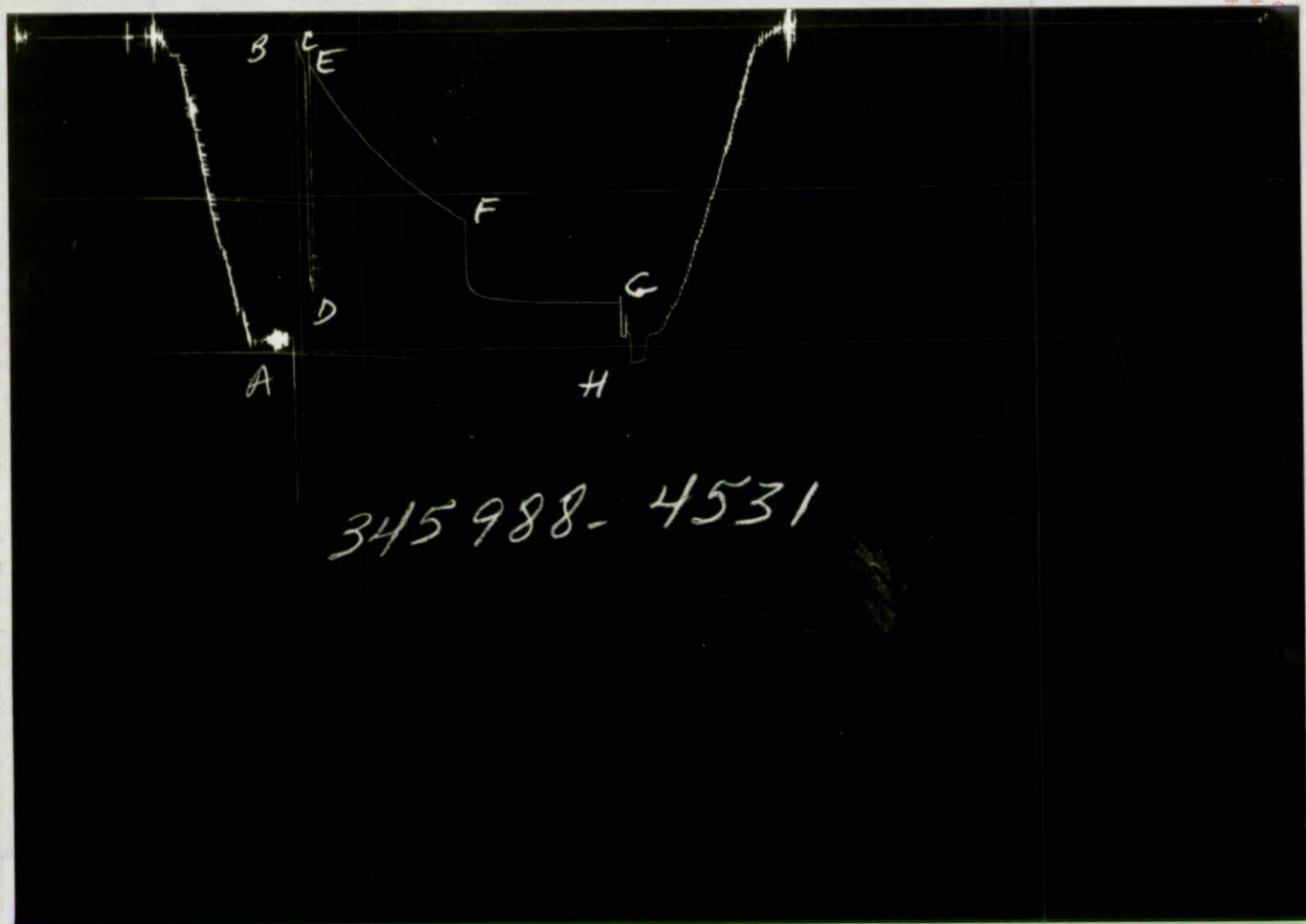
FORMATION TESTING SERVICE REPORT

LEASE NAME	WELL NO.	TEST NO.	TESTED INTERVAL	LEASE OWNER/COMPANY NAME
ALMYN	1	4	4041.0 - 4063.4	DELHI/SANIOS
LEGAL LOCATION SEC. - TWP. - RNG.	SEE REMARKS	FIELD AREA	COOPER BRIN	COUNTY SOUTH AUSTRALIA
				STATE AUSTRALIA
				IC

345988-4530

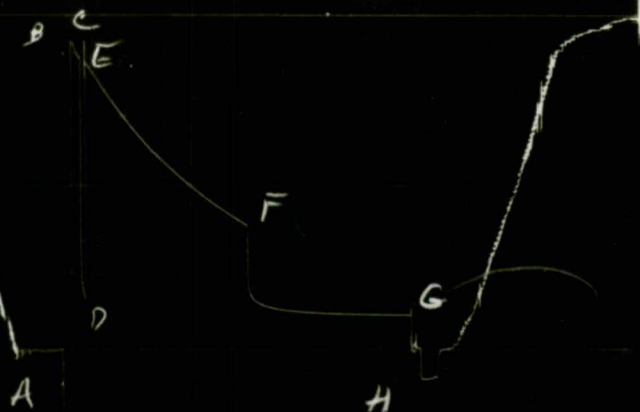
GAUGE NO: 4530 DEPTH: 3883.0 BLANKED OFF: NO HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC					
B	INITIAL FIRST FLOW		7.0			
C	FINAL FIRST FLOW		187.9	10.0	10.2	F
C	INITIAL FIRST CLOSED-IN		187.9			
D	FINAL FIRST CLOSED-IN		191.2	5.0	5.0	C
E	INITIAL SECOND FLOW		193.9			
F	FINAL SECOND FLOW	1227	1207.9	180.0	179.1	F
F	INITIAL SECOND CLOSED-IN	1227	1207.9			
G	FINAL SECOND CLOSED-IN		1215.6	180.0	180.7	C
H	FINAL HYDROSTATIC					
I	HYDROSTATIC RELEASE					



GAUGE NO: 4531 DEPTH: 3892.5 BLANKED OFF: NO HOUR OF CLOCK: 24

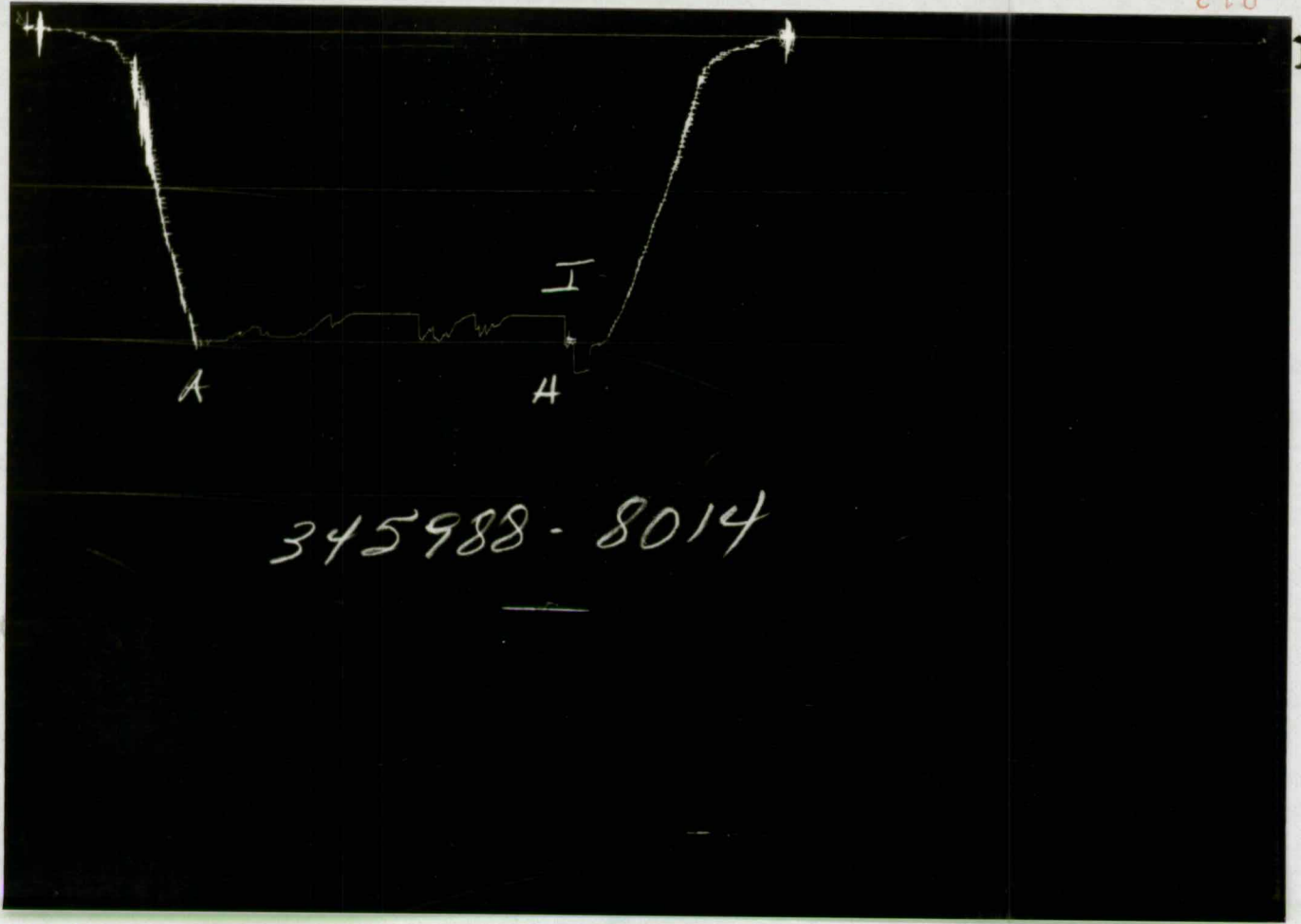
ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	1939	1940.0			
B	INITIAL FIRST FLOW	42	42.4	10.0	10.2	F
C	FINAL FIRST FLOW	181	183.1			
C	INITIAL FIRST CLOSED-IN	181	183.1	5.0	5.0	C
D	FINAL FIRST CLOSED-IN	1644	1648.4			
E	INITIAL SECOND FLOW	207	207.7	180.0	179.1	F
F	FINAL SECOND FLOW	1203	1202.3			
F	INITIAL SECOND CLOSED-IN	1203	1202.3	180.0	180.7	C
G	FINAL SECOND CLOSED-IN	1743	1746.1			
H	FINAL HYDROSTATIC	1939	1957.5			
I	HYDROSTATIC RELEASE					



345988-4532

GAUGE NO: 4532 DEPTH: 4070.1 BLANKED OFF: YES HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	2019	2028.7			
B	INITIAL FIRST FLOW	147	158.3			
C	FINAL FIRST FLOW	261	262.9	10.0	10.2	F
C	INITIAL FIRST CLOSED-IN	261	262.9			
D	FINAL FIRST CLOSED-IN	1711	1720.0	5.0	5.0	C
E	INITIAL SECOND FLOW	277	295.5			
F	FINAL SECOND FLOW	1272	1271.7	180.0	179.1	F
F	INITIAL SECOND CLOSED-IN	1272	1271.7			
G	FINAL SECOND CLOSED-IN	1808	1819.0	180.0	180.7	C
H	FINAL HYDROSTATIC	2019	2032.6			
I	HYDROSTATIC RELEASE					



GAUGE NO: 8014 DEPTH: 4074.8 BLANKED OFF: YES HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	2036	2035.2			
B	INITIAL FIRST FLOW			10.0		F
C	FINAL FIRST FLOW					
C	INITIAL FIRST CLOSED-IN			5.0		C
D	FINAL FIRST CLOSED-IN					
E	INITIAL SECOND FLOW			180.0		F
F	FINAL SECOND FLOW					
F	INITIAL SECOND CLOSED-IN			180.0		C
G	FINAL SECOND CLOSED-IN					
H	FINAL HYDROSTATIC	2036	2042.2			
I	HYDROSTATIC RELEASE		1846.3			

00047

EQUIPMENT & HOLE DATA

FORMATION TESTED: NAMUR
 NET PAY (ft): _____
 GROSS TESTED FOOTAGE: 22.4
 ALL DEPTHS MEASURED FROM: KELLY BUSHING
 CASING PERFS. (ft): _____
 HOLE OR CASING SIZE (in): 8.500
 ELEVATION (ft): 113.0
 TOTAL DEPTH (ft): 5216.0
 PACKER DEPTH(S) (ft): 4041. 4063
 FINAL SURFACE CHOKE (in): 0.50000
 BOTTOM HOLE CHOKE (in): 0.750
 MUD WEIGHT (lb/gal): 9.60
 MUD VISCOSITY (sec): 35
 ESTIMATED HOLE TEMP. (°F): 185
 ACTUAL HOLE TEMP. (°F): _____ @ _____ ft

TICKET NUMBER: 34598800DATE: 3-24-85 TEST NO: 4TYPE DST: HYDROF. STRADDLEHALLIBURTON CAMP:
MOOMBATESTER: D. BURT
W. WILTSHIREWITNESS: AL GARRIETDRILLING CONTRACTOR:
S AND T RIG #21FLUID 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): 41.4 @ 60°F
 GAS/OIL RATIO (cu.ft. per bbl): _____
 GAS GRAVITY: _____

CUSHION DATA

TYPE	AMOUNT	WEIGHT
_____	_____	_____
_____	_____	_____

RECOVERED:

20 FEET OF HEAVILY MUD CUT AND GAS CUT OIL
 570 FEET OF MUDDY WATER
 2200 FEET OF FRESH FORMATION WATER

MEASURED FROM
TESTER VALVE

REMARKS:

TEST DATE IS MARCH 24, 1985.

LEGAL LOCATION: LAT. 28 DEG., 29', 54.6"S; LONG. 140 DEG., 19', 50.6"E.

00043

TYPE & SIZE MEASURING DEVICE: 6" CERAMIC CHOKE SURFACE MANIFOLD					TICKET NO: 34598800
TIME	CHOKE SIZE	SURFACE PRESSURE PSI	GAS RATE MCF	LIQUID RATE BPD	REMARKS
3-24-85					
0220					LOADED BLANKED OFF B.T.
0225					LOADED BOTTOM B.T.
0330					LOADED TOP B.T.
0335					LOADED MIDDLE B.T.
0345					RAN IN HOLE
0535					HEAD UP AND RIGGED MANIFOLD
0550					BEGAN ROTATING AT 70 RPM TO
					INFLATE PACKERS
0610					CHECKED FOR PACKER SEAT-OK
0617					HOOKED UP LINES TO HEAD
0619					SET WEIGHT ON TOOL
0628	.5	0			TOOL GAVE SLIGHT INDICATION
					AT SURFACE THAT IT ACTUALLY
					OPENED - NO BLOW IN BUCKET -
					WAS NOT SURE TOOL HAD OPENED -
0638					PICKED UP TO FREE POINT
0639					SET WEIGHT ON TOOL AGAIN
0643	.5	0			OPENED TOOL - NO BLOW IN BUCKET
0646		0			WEAK BLOW
0648		0			INCREASING-MODERATE TO STRONG
0650		0			STRONG BLOW
0653		1			SAME
0655		1			SAME - INCREASING
0700		1			SAME
0705		2			SAME
0710		2			SAME
0715		2			SAME
0720		3			SAME
0725		3			SAME
0730		3.5			SAME
0735		4			SAME
0740		4			INCREASING STRONG BLOW
0745		4.5			SAME
0750		5			SAME
0755		5			SAME
0758		2			STRONG BLOW

[illegible]

00050

REMARKS:

00051

TICKET NO: 34598800

CLOCK NO: 16055 HOUR: 24



GAUGE NO: 4531

DEPTH: 3892.5

REF	MINUTES	PRESSURE	ΔP	$\frac{1 \times \Delta t}{1 + \Delta t}$	$\log \frac{1 + \Delta t}{\Delta t}$
FIRST FLOW					
B 1	0.0	42.4			
2	2.0	76.1	33.7		
3	4.0	115.2	39.1		
4	6.0	146.6	31.4		
5	8.0	163.7	17.0		
C 6	10.2	183.1	19.5		
FIRST CLOSED-IN					
C 1	0.0	183.1			
2	1.0	1534.8	1351.6	0.9	1.049
3	2.0	1573.6	1390.5	1.6	0.791
4	3.0	1613.2	1430.0	2.3	0.644
5	4.0	1634.6	1451.5	2.9	0.550
D 6	5.0	1648.4	1465.3	3.4	0.483
SECOND FLOW					
E 1	0.0	207.7			
2	10.0	283.5	75.8		
3	20.0	369.6	86.1		
4	30.0	451.4	81.8		
5	40.0	525.0	73.6		
6	50.0	592.8	67.8		
7	60.0	662.4	69.6		
8	70.0	729.0	66.6		
9	80.0	777.7	48.8		
10	90.0	834.0	56.3		
11	100.0	887.9	53.8		
12	110.0	936.5	48.6		
13	120.0	978.2	41.7		
14	130.0	1023.2	45.0		
15	140.0	1063.1	39.9		
16	150.0	1100.3	37.2		
17	160.0	1136.9	36.6		
18	170.0	1176.8	39.9		
F 19	179.1	1202.3	25.5		
SECOND CLOSED-IN					
F 1	0.0	1202.3			
2	1.0	1573.6	371.3	1.0	2.295
3	2.0	1605.1	402.8	2.0	1.977
4	3.0	1621.7	419.4	3.0	1.801
5	4.0	1633.3	431.0	3.9	1.684
6	5.0	1642.7	440.4	4.8	1.592
7	6.0	1648.4	446.1	5.8	1.513
8	7.0	1653.9	451.6	6.7	1.450
9	8.0	1661.6	459.3	7.7	1.390

REF	MINUTES	PRESSURE	ΔP	$\frac{1 \times \Delta t}{1 + \Delta t}$	$\log \frac{1 + \Delta t}{\Delta t}$
SECOND CLOSED-IN - CONTINUED					
10	9.0	1664.7	462.4	8.6	1.344
11	10.0	1668.5	466.2	9.5	1.298
12	12.0	1676.1	473.8	11.3	1.225
13	14.0	1681.2	478.9	13.1	1.161
14	16.0	1687.3	485.0	14.8	1.108
15	18.0	1691.6	489.3	16.4	1.061
16	20.0	1693.9	491.6	18.1	1.019
17	22.0	1697.7	495.4	19.7	0.982
18	24.0	1700.8	498.5	21.3	0.948
19	26.0	1703.5	501.2	22.8	0.918
20	28.0	1706.1	503.8	24.4	0.890
21	30.0	1707.9	505.6	25.9	0.864
22	35.0	1710.5	508.2	29.5	0.807
23	40.0	1714.7	512.4	33.0	0.758
24	45.0	1718.6	516.3	36.3	0.717
25	50.0	1721.9	519.6	39.5	0.680
26	55.0	1724.7	522.4	42.6	0.647
27	60.0	1727.0	524.7	45.5	0.619
28	70.0	1729.7	527.3	51.1	0.569
29	80.0	1733.1	530.8	56.2	0.527
30	90.0	1739.5	537.2	61.0	0.492
31	100.0	1738.4	536.1	65.4	0.461
32	110.0	1739.4	537.1	69.6	0.435
33	120.0	1741.0	538.7	73.4	0.411
34	135.0	1741.4	539.0	78.8	0.381
35	150.0	1744.3	542.0	83.7	0.354
36	165.0	1745.6	543.3	88.1	0.332
G 37	180.7	1746.1	543.8	92.5	0.311

REMARKS:

00052

TICKET NO: 34598800

CLOCK NO: 16139 HOUR: 24



GAUGE NO: 4532

DEPTH: 4070.1

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	158.3			
2	2.0	170.5	12.2		
3	4.0	203.9	33.4		
4	6.0	230.6	26.7		
5	8.0	248.0	17.3		
C 6	10.2	262.9	14.9		
FIRST CLOSED-IN					
C 1	0.0	262.9			
2	1.0	1616.5	1353.6	0.9	1.059
3	2.0	1656.8	1393.9	1.7	0.783
4	3.0	1685.9	1423.0	2.3	0.645
5	4.0	1709.8	1446.9	2.9	0.549
D 6	5.0	1720.0	1457.1	3.4	0.483
SECOND FLOW					
E 1	0.0	295.5			
2	10.0	361.6	66.1		
3	20.0	444.4	82.8		
4	30.0	522.0	77.6		
5	40.0	598.9	76.8		
6	50.0	666.9	68.1		
7	60.0	734.7	67.7		
8	70.0	796.8	62.1		
9	80.0	850.6	53.8		
10	90.0	905.5	54.9		
11	100.0	954.6	49.1		
12	110.0	1001.1	46.5		
13	120.0	1047.8	46.6		
14	130.0	1091.3	43.5		
15	140.0	1132.6	41.2		
16	150.0	1171.4	38.8		
17	160.0	1209.2	37.8		
18	170.0	1242.4	33.2		
F 19	179.1	1271.7	29.3		
SECOND CLOSED-IN					
F 1	0.0	1271.7			
2	1.0	1639.4	367.8	1.0	2.277
3	2.0	1670.5	398.9	2.0	1.978
4	3.0	1689.9	418.2	3.0	1.800
5	4.0	1699.5	427.8	3.9	1.685
6	5.0	1711.3	439.6	4.9	1.587
7	6.0	1718.7	447.0	5.8	1.512
8	7.0	1724.4	452.7	6.7	1.451
9	8.0	1730.6	458.9	7.7	1.393

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
SECOND CLOSED-IN - CONTINUED					
10	9.0	1736.2	464.5	8.6	1.343
11	10.0	1738.8	467.1	9.5	1.299
12	12.0	1745.3	473.6	11.2	1.226
13	14.0	1751.7	480.0	13.0	1.163
14	16.0	1756.5	484.8	14.8	1.107
15	18.0	1761.5	489.9	16.5	1.061
16	20.0	1765.3	493.6	18.1	1.020
17	22.0	1768.7	497.1	19.7	0.982
18	24.0	1772.8	501.1	21.3	0.949
19	26.0	1775.8	504.1	22.8	0.918
20	28.0	1777.4	505.7	24.4	0.890
21	30.0	1780.0	508.3	25.9	0.863
22	35.0	1784.9	513.3	29.6	0.806
23	40.0	1789.5	517.8	33.0	0.758
24	45.0	1793.1	521.4	36.4	0.716
25	50.0	1794.9	523.2	39.6	0.680
26	55.0	1798.0	526.4	42.6	0.647
27	60.0	1800.5	528.8	45.5	0.619
28	70.0	1804.1	532.4	51.1	0.569
29	80.0	1807.0	535.4	56.2	0.527
30	90.0	1810.0	538.3	61.0	0.492
31	100.0	1811.5	539.8	65.4	0.461
32	110.0	1812.4	540.8	69.6	0.435
33	120.0	1813.4	541.7	73.4	0.411
34	135.0	1815.2	543.5	78.8	0.381
35	150.0	1816.7	545.0	83.7	0.354
36	165.0	1817.2	545.5	88.2	0.332
G 37	180.7	1819.0	547.3	92.5	0.311

REMARKS:

00053

TICKET NO. 34598800

		O.D.	I.D.	LENGTH	DEPTH	
1		DRILL PIPE.....	4.500	3.826	3602.8	
3		DRILL COLLARS.....	6.250	2.375	184.4	
51		PUMP OUT REVERSING SUB.....	6.250	3.000	1.0	3787.6
3		DRILL COLLARS.....	6.250	2.375	61.3	
50		IMPACT REVERSING SUB.....	6.250	3.000	1.0	3849.9
3		DRILL COLLARS.....	6.250	2.375	30.4	
5		CROSSOVER.....	6.250	2.500	1.0	
80		AP RUNNING CASE.....	5.000	2.250	4.2	3883.0
61		INDEXING HYDROSPRING TESTER.....	5.000	0.750	5.3	3890.3
80		AP RUNNING CASE.....	5.000	2.250	4.2	3892.5
5		CROSSOVER.....	6.250	2.250	1.0	
3		DRILL COLLARS.....	6.250	2.375	29.5	
5		CROSSOVER.....	6.250	2.250	1.0	
14		EXTENSION JOINT.....	5.000	0.750	7.1	
14		EXTENSION JOINT.....	5.000	0.750	7.1	
5		CROSSOVER.....	6.250	2.250	1.0	
3		DRILL COLLARS.....	6.250	2.375	61.3	
5		CROSSOVER.....	6.250	2.250	1.0	
15		JAR.....	5.000	1.750	5.0	
16		VR SAFETY JOINT.....	5.000	1.000	3.5	
26		PUMP ASSEMBLY.....	5.000	0.880	7.1	
27		SCREEN ASSEMBLY.....	5.000	1.000	4.4	
25		TORQUE LIMITER ASSEMBLY.....	5.000	1.000	4.9	
16		VR SAFETY JOINT.....	5.000	2.250	5.3	
74		TOP HYDROFLATE PACKER.....	7.000	1.080	8.3	4041.0
28		PORT ASSEMBLY.....	5.000		3.4	
22		BLANK ANCHOR.....	5.000	3.060	15.0	
75		LOWER HYDROFLATE PACKER.....	7.000	2.000	8.1	4063.4

CONTINUED

EQUIPMENT DATA

TICKET NO. 34598800

		O.D.	I.D.	LENGTH	DEPTH	
85		BELLY SPRINGS W/ B.O. GAUGE CASE	7.250	2.250	3.7	4070.1
81		BLANKED-OFF RUNNING CASE.....	5.000		4.7	4074.8
TOTAL DEPTH						5216.0

EQUIPMENT DATA

00055

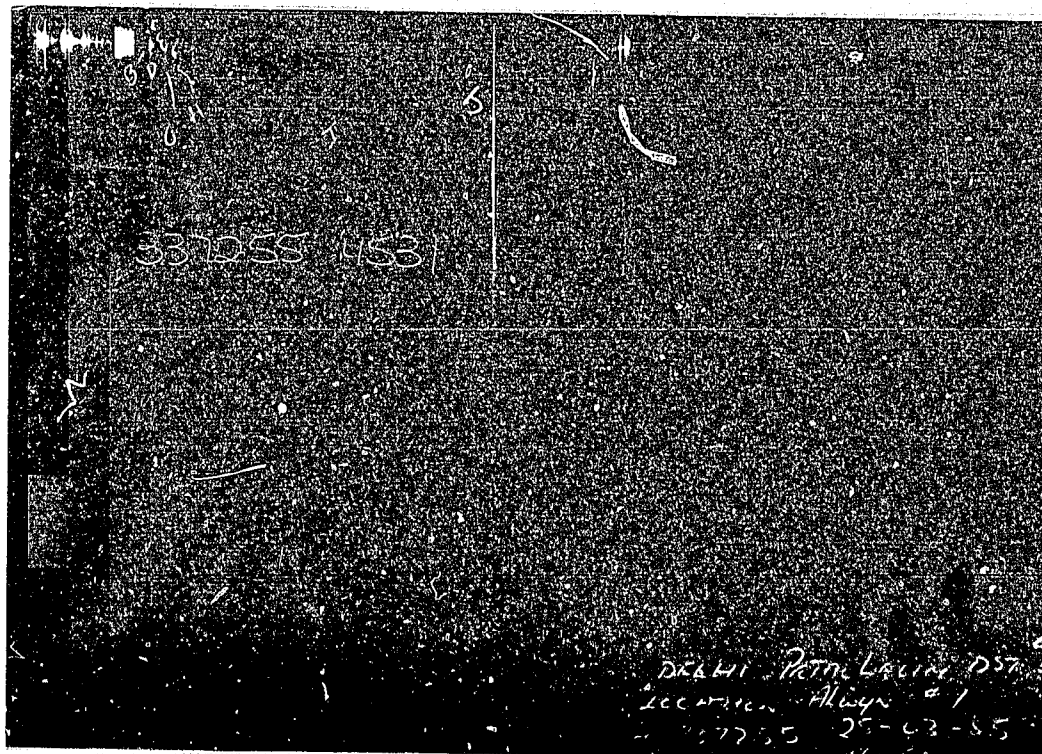
149



TICKET NO. 33725500
09-OCT-85
MOONBA

AL WYN	1	5	3932.0 - 3982.0	DELHI/SANTOS
LEASE NAME	WELL NO.	TEST NO.	TESTED INTERVAL	LEASE OWNER/CONTRACT NAME
LEGAL LOCATION SEC. - TWP. - RANG.	SEE REMARKS	FIELD BENCH	COOPER BASIN	COUNTRY SOUTH AUSTRIA, IA STATE AUSTRIA, IA PV

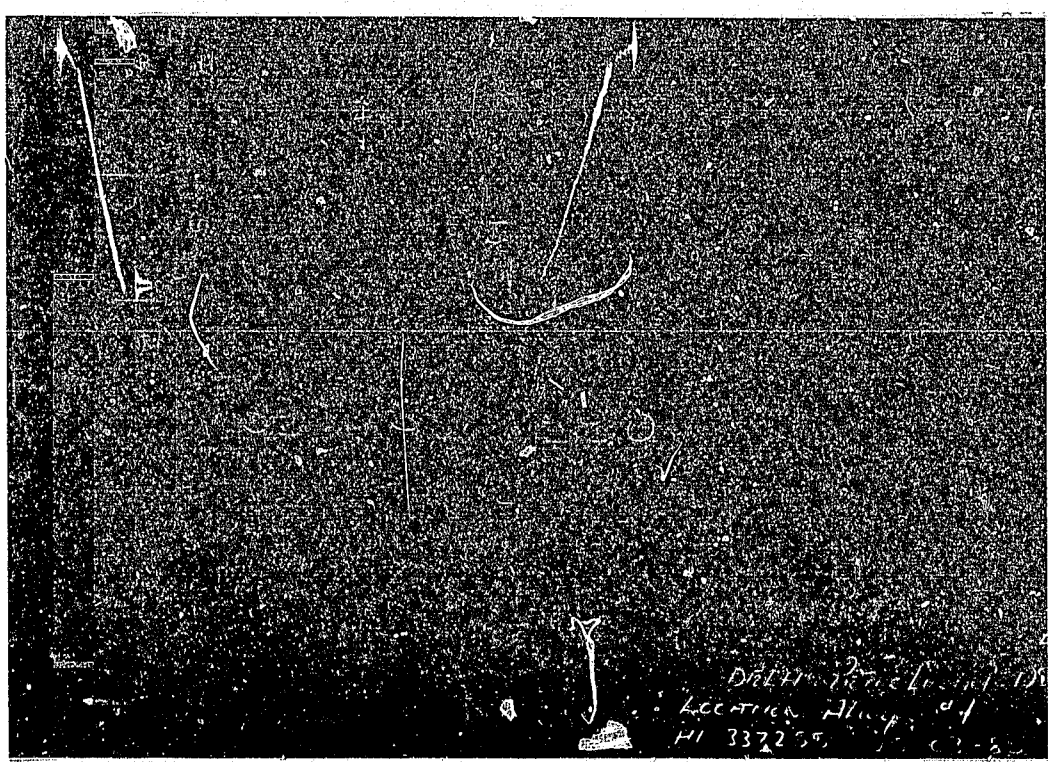
FORMATION TESTING SERVICE REPORT



56

GAUGE NO: 4531 DEPTH: 3773.8 BLANKED OFF: NO HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC					
B	INITIAL FIRST FLOW		19.8			
C	FINAL FIRST FLOW		22.4	3.0	3.5	F
C	INITIAL FIRST CLOSED-IN		22.4			
D	FINAL FIRST CLOSED-IN		40.4	6.0	6.2	C
E	INITIAL SECOND FLOW		50.4			
F	FINAL SECOND FLOW		134.0	12.0	11.6	F
F	INITIAL SECOND CLOSED-IN		134.0			
G	FINAL SECOND CLOSED-IN		136.7	3.0	3.6	C
H	INITIAL THIRD FLOW		140.4			
I	FINAL THIRD FLOW	597	581.3	240.0	239.8	F
I	INITIAL THIRD CLOSED-IN	597	581.3			
J	FINAL THIRD CLOSED-IN		590.0	240.0	239.3	C
K	FINAL HYDROSTATIC					
L	HYDROSTATIC RELEASE					



GAUGE NO: 4530 DEPTH: 3782.3 BLANKED OFF: NO HOUR OF CLOCK: 24

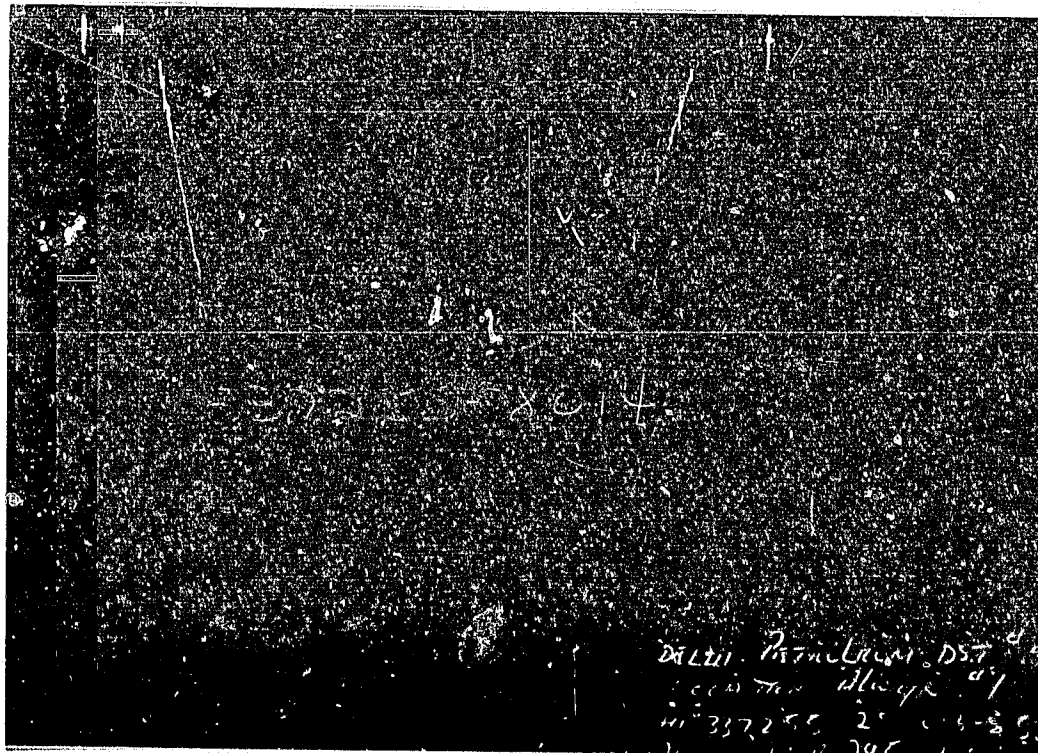
ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	1888	1886.2			
B	INITIAL FIRST FLOW	20	21.1			
C	FINAL FIRST FLOW	38	38.6	3.0	3.5	F
C	INITIAL FIRST CLOSED-IN	38	38.6			
D	FINAL FIRST CLOSED-IN	1566	1562.7	6.0	6.2	C
E	INITIAL SECOND FLOW	62	61.0			
F	FINAL SECOND FLOW	134	134.0	12.0	11.6	F
F	INITIAL SECOND CLOSED-IN	134	134.0			
G	FINAL SECOND CLOSED-IN	1263	1279.3	3.0	3.6	C
H	INITIAL THIRD FLOW	146	145.7			
I	FINAL THIRD FLOW	597	597.2	240.0	239.8	F
I	INITIAL THIRD CLOSED-IN	597	597.2			
J	FINAL THIRD CLOSED-IN	1634	1631.8	240.0	239.3	C
K	FINAL HYDROSTATIC	1899	1886.2			
L	HYDROSTATIC RELEASE					



058

GAUGE NO: 4532 DEPTH: 3987.9 BLANKED OFF: YES HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	1968	1968.2			
B	INITIAL FIRST FLOW	144	149.4			
C	FINAL FIRST FLOW	144	140.4	3.0	3.5	F
C	INITIAL FIRST CLOSED-IN	144	140.4			
D	FINAL FIRST CLOSED-IN	1627	1627.5	6.0	6.2	C
E	INITIAL SECOND FLOW	177	179.6			
F	FINAL SECOND FLOW	221	219.4	12.0	11.6	F
F	INITIAL SECOND CLOSED-IN	221	219.4			
G	FINAL SECOND CLOSED-IN	1333	1335.8	3.0	3.6	C
H	INITIAL THIRD FLOW	245	241.3			
I	FINAL THIRD FLOW	670	665.6	240.0	239.8	F
I	INITIAL THIRD CLOSED-IN	670	665.6			
J	FINAL THIRD CLOSED-IN	1705	1702.0	240.0	239.3	C
K	FINAL HYDROSTATIC	1968	1968.2			
L	HYDROSTATIC RELEASE					



059

GAUGE NO: 6014 DEPTH: 3992.3 BLANKED OFF: YES HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	1954	1962.2			
B	INITIAL FIRST FLOW					
C	FINAL FIRST FLOW			3.0		F
C	INITIAL FIRST CLOSED-IN					
D	FINAL FIRST CLOSED-IN			6.0		C
E	INITIAL SECOND FLOW					
F	FINAL SECOND FLOW			12.0		F
F	INITIAL SECOND CLOSED-IN					
G	FINAL SECOND CLOSED-IN			3.0		C
H	INITIAL THIRD FLOW					
I	FINAL THIRD FLOW			240.0		F
I	INITIAL THIRD CLOSED-IN					
J	FINAL THIRD CLOSED-IN			240.0		C
K	FINAL HYDROSTATIC	1954	1962.2			
L	HYDROSTATIC RELEASE		1788.5			

00060

154

EQUIPMENT & HOLE DATA		
FORMATION TESTED: <u>MURTA</u>		
NET PAY (ft): _____		
GROSS TESTED FOOTAGE: <u>50.0</u>		
ALL DEPTHS MEASURED FROM: <u>R.K.B.</u>		
CASING PERFS. (ft): _____		
HOLE OR CASING SIZE (in): <u>8.500</u>		
ELEVATION (ft): <u>113.0</u> <u>KELLY BUSHING</u>		
TOTAL DEPTH (ft): <u>5216.0</u>		
PACKER DEPTH(S) (ft): <u>3932.3982</u>		
FINAL SURFACE CHOKE (in): <u>0.50000</u>		
BOTTOM HOLE CHOKE (in): <u>0.750</u>		
MUD WEIGHT (lb/gal): <u>9.60</u>		
MUD VISCOSITY (sec): <u>25</u>		
ESTIMATED HOLE TEMP. (°F): _____		
ACTUAL HOLE TEMP. (°F): <u>180.0</u> <u>3991.3</u> ft		
TICKET NUMBER: <u>33725500</u>		
DATE: <u>3-25-85</u> TEST NO: <u>5</u>		
TYPE DST: <u>HYDROFLATE STD.</u>		
HALLIBURTON CAMP: <u>MOOMBA</u>		
TESTER: <u>W. WILTSHIRE</u> <u>D. BURT</u>		
WITNESS: <u>AL GARRIES</u>		
DRILLING CONTRACTOR: <u>S & T RIG #21</u>		
FLUID PROPERTIES FOR RECOVERED MUD & WATER		
SOURCE	RESISTIVITY	CHLORIDES
_____	_____ °F	_____ ppm
_____	_____ °F	_____ ppm
_____	_____ °F	_____ ppm
_____	_____ °F	_____ ppm
_____	_____ °F	_____ ppm
_____	_____ °F	_____ ppm
SAMPLER DATA		
Pstg 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:		
20 FEET OF OIL		
2680 FEET OF WATER		
REMARKS:		
TEST WAS CONDUCTED ON 25 MARCH, 1985		
LEGAL LOCATION: 28 DEGREES - 29' - 54.6" SOUTH		
140 DEGREES - 19' - 50.6" EAST		

MEASURED FROM
TESTER VALVE

000000

997

00061

TYPE & SIZE MEASURING DEVICE: 6" CERAMIC CHOKE (SURFACE MANIFOLD)					TICKET NO: 33725500
TIME	CHOKE SIZE	SURFACE PRESSURE PSI	GAS RATE MCF	LIQUID RATE BPD	REMARKS
3-25-85					
0200					PICKED-UP TEST TOOLS
0330					TOOLS MADE UP AND THROUGH
					R.K.B.
0510					MADE-UP HEAD
0518					ROTATED STRING AT 60 TO 70 RPM
0544					STOPPED ROTATION
0552					HOOKE UP FLOW LINE AND OPENED
					MASTER VALVE.
0555					PICKED WEIGHT UP ON PACKERS TO
					CHECK PACKER SEAT - OKAY
					SET DOWN ON PACKERS TO OPEN
0608					TOOL (TOOL DID NOT OPEN) NO
					INDICATION.
0611					PICKED-UP ON TOOL
0617					SET WEIGHT BACK ON TOOL
					TOOL GAVE NO INDICATION OF OPENING
0624					PICKED-UP ON TOOL AGAIN
0630					SET WEIGHT BACK ON TOOL AGAIN
0632					OPENED TOOL - GOOD INDICATION
0633	.50"				NO BUBBLES AT SURFACE
0643					3 BUBBLES AT SURFACE BUCKET
0645					INTERMITTENT BUBBLES
0650					INTERMITTENT BUBBLES
0700					NO BUBBLES
0719					VERY WEAK BUBBLE
0720		1			MODERATE TO STRONG BLOW
0725		1			STRONG BLOW
0730		1			"
0735		1			"
0740		1			"
0745		1			"
0750		1			"
0800		.50			MODERATE BLOW
0807		0			"
0812					"
0820					"

50000

157

00063

TICKET NO: 33725500
CLOCK NO: 16055 HOUR: 24



GAUGE NO: 4531
DEPTH: 3773.8

REF	MINUTES	PRESSURE	ΔP	$\frac{1 \times \Delta P}{1 + \Delta P}$	$\log \frac{1 + \Delta P}{\Delta P}$	REF	MINUTES	PRESSURE	ΔP	$\frac{1 \times \Delta P}{1 + \Delta P}$	$\log \frac{1 + \Delta P}{\Delta P}$
FIRST FLOW						THIRD FLOW - CONTINUED					
B	1	0.0	19.8			22	210.0	543.4	15.9		
	2	1.0	18.8	-1.0		23	220.0	556.0	12.6		
	3	2.0	20.1	1.3		24	230.0	568.9	13.9		
C	4	3.5	22.4	2.3		I 25	239.8	581.3	11.5		
FIRST CLOSED-IN						THIRD CLOSED-IN					
C	1	0.0	22.4			I	1	0.0	581.3		
D	2	6.2	40.4	18.0	2.2 0.193	J	2	239.3	590.0	6.7 123.4 0.315	
SECOND FLOW											
E	1	0.0	50.4								
	2	2.0	56.1	5.7							
	3	4.0	67.8	11.6							
	4	6.0	81.5	13.7							
	5	8.0	100.0	18.5							
	6	10.0	120.3	20.3							
F	7	11.6	134.0	13.7							
SECOND CLOSED-IN											
F	1	0.0	134.0								
G	2	3.6	136.7	2.6	2.9 0.718						
THIRD FLOW											
H	1	0.0	140.4								
	2	10.0	170.7	30.3							
	3	20.0	194.4	23.7							
	4	30.0	216.4	21.9							
	5	40.0	237.0	20.6							
	6	50.0	257.4	20.5							
	7	60.0	278.7	21.3							
	8	70.0	300.0	21.3							
	9	80.0	322.7	22.7							
	10	90.0	342.8	19.8							
	11	100.0	361.0	19.3							
	12	110.0	379.4	17.5							
	13	120.0	396.6	17.2							
	14	130.0	414.1	17.5							
	15	140.0	429.8	15.7							
	16	150.0	444.7	14.9							
	17	160.0	461.5	16.9							
	18	170.0	479.7	18.2							
	19	180.0	497.2	17.5							
	20	190.0	512.1	14.9							
	21	200.0	527.5	15.4							

REMARKS:

00064 857

TICKET NO: 33725500
CLOCK NO: 9294 HOUR: 24



GAUGE NO: 4530
DEPTH: 3782.3

REF	MINUTES	PRESSURE	ΔP	$\frac{1 \times \Delta t}{1 + \Delta t}$	$\log \frac{1 + \Delta t}{\Delta t}$	REF	MINUTES	PRESSURE	ΔP	$\frac{1 \times \Delta t}{1 + \Delta t}$	$\log \frac{1 + \Delta t}{\Delta t}$
FIRST FLOW						THIRD FLOW - CONTINUED					
B 1	0.0	21.1				15	140.0	444.0	17.3		
2	1.0	19.1	-2.0			16	150.0	461.0	17.0		
3	2.0	24.4	5.2			17	160.0	477.4	16.4		
C 4	3.5	38.6	14.2			18	170.0	493.2	15.9		
FIRST CLOSED-IN						19	180.0	508.5	15.2		
C 1	0.0	98.6				20	190.0	524.4	15.9		
2	1.0	1975.0	1336.4	0.8	0.657	21	200.0	539.1	14.7		
3	2.0	1455.3	1416.6	1.3	0.442	22	210.0	554.7	15.5		
4	3.0	1496.6	1458.0	1.6	0.398	23	220.0	568.7	14.1		
5	4.0	1527.1	1488.4	1.9	0.275	24	230.0	583.5	14.7		
6	5.0	1554.0	1515.9	2.1	0.231	I 25	239.8	597.2	13.7		
D 7	7.2	1562.7	1524.1	2.2	0.193	THIRD CLOSED-IN					
SECOND FLOW						I 1	0.0	597.2			
E 1	0.0	61.0				2	10.0	1299.5	702.3	9.6	1.424
2	2.0	60.4	-0.7			3	20.0	1388.6	792.4	18.6	1.137
3	4.0	71.7	11.3			4	30.0	1437.3	840.1	26.9	0.977
4	6.0	86.9	15.2			5	40.0	1467.6	870.4	34.6	0.867
5	8.0	101.0	14.1			6	50.0	1491.7	894.5	41.8	0.785
6	10.0	120.1	19.1			7	60.0	1511.0	913.8	48.6	0.720
F 7	11.6	134.0	13.9			8	70.0	1526.7	929.5	54.9	0.667
SECOND CLOSED-IN						9	80.0	1539.9	942.7	60.9	0.622
F 1	0.0	134.0				10	90.0	1552.5	955.9	66.5	0.584
2	1.0	1033.1	899.0	0.9	1.223	11	100.0	1562.1	964.9	71.8	0.550
3	2.0	1184.0	1049.9	1.8	0.925	12	110.0	1570.5	973.3	76.8	0.521
G 4	3.6	1279.3	1145.2	2.9	0.718	13	120.0	1578.6	981.4	81.6	0.495
THIRD FLOW						14	130.0	1585.6	988.4	86.1	0.471
H 1	0.0	145.7				15	140.0	1592.1	994.8	90.3	0.450
2	10.0	174.1	28.4			16	150.0	1597.9	1000.7	94.4	0.431
3	20.0	201.8	27.7			17	160.0	1602.6	1005.4	98.3	0.414
4	30.0	226.5	24.7			18	170.0	1607.0	1009.8	102.0	0.398
5	40.0	249.4	22.9			19	180.0	1611.7	1014.5	105.5	0.383
6	50.0	272.0	22.6			20	190.0	1615.4	1018.2	108.9	0.369
7	60.0	292.8	20.8			21	200.0	1619.6	1022.4	112.1	0.357
8	70.0	312.8	20.0			22	210.0	1623.8	1026.6	115.1	0.345
9	80.0	332.7	20.0			23	220.0	1626.1	1028.9	118.1	0.334
10	90.0	352.4	19.6			24	230.0	1629.1	1032.9	120.9	0.324
11	100.0	371.3	19.1			J 25	239.3	1631.8	1034.5	123.4	0.315
12	110.0	390.8	19.3								
13	120.0	408.7	17.8								
14	130.0	428.7	18.0								

REMARKS:

TICKET NO: 33725500
CLOCK NO: 16139 HOUR: 24



GAUGE NO: 4532
DEPTH: 3987.9

REF	MINUTES	PRESSURE	ΔP	$\frac{1 \times \Delta P}{1 + \Delta P}$	$\log \frac{1 + \Delta P}{\Delta P}$	REF	MINUTES	PRESSURE	ΔP	$\frac{1 \times \Delta P}{1 + \Delta P}$	$\log \frac{1 + \Delta P}{\Delta P}$
FIRST FLOW						THIRD FLOW - CONTINUED					
B 1	0.0	149.4				15	140.0	514.1	16.7		
2	1.0	140.7	-8.8			16	150.0	530.3	16.2		
3	2.0	139.1	-1.6			17	160.0	546.5	16.2		
C 4	3.5	140.4	1.3			18	170.0	563.5	17.0		
FIRST CLOSED-IN						19	180.0	579.3	15.7		
C 1	0.0	140.4				20	190.0	595.3	16.0		
2	1.0	1171.5	1031.2	0.8	0.663	21	200.0	609.1	13.8		
3	2.0	1392.3	1252.0	1.3	0.435	22	210.0	625.3	17.2		
4	3.0	1503.8	1363.4	1.6	0.336	23	220.0	635.9	13.6		
5	4.0	1557.6	1417.3	1.9	0.272	24	230.0	652.8	13.0		
6	5.0	1597.2	1456.9	2.1	0.232	I 25	239.8	665.6	12.8		
D 7	6.2	1627.5	1487.1	2.2	0.193	THIRD CLOSED-IN					
SECOND FLOW						I 1	0.0	665.6			
E 1	0.0	179.6				2	10.0	1358.3	692.6	9.6	1.422
2	2.0	172.3	-7.3			3	20.0	1446.5	780.8	18.6	1.137
3	4.0	177.6	5.3			4	30.0	1494.6	829.0	26.8	0.978
4	6.0	184.6	7.0			5	40.0	1527.7	861.5	34.6	0.868
5	8.0	194.5	9.9			6	50.0	1553.4	887.7	41.8	0.785
6	10.0	209.6	15.1			7	60.0	1574.1	908.5	48.6	0.720
F 7	11.6	219.4	9.9			8	70.0	1590.7	925.0	54.9	0.667
SECOND CLOSED-IN						9	80.0	1603.6	938.0	60.9	0.622
F 1	0.0	219.4				10	90.0	1616.7	951.1	66.5	0.583
2	1.0	1053.5	834.1	0.9	1.205	11	100.0	1626.5	960.9	71.8	0.550
3	2.0	1229.6	1010.2	1.8	0.930	12	110.0	1634.5	968.9	76.8	0.521
G 4	3.6	1335.8	1116.4	2.9	0.718	13	120.0	1643.7	978.1	81.6	0.495
THIRD FLOW						14	130.0	1651.1	985.4	86.1	0.471
H 1	0.0	241.3				15	140.0	1657.8	992.1	90.4	0.450
2	10.0	262.4	21.1			16	150.0	1664.2	998.5	94.4	0.431
3	20.0	286.5	24.1			17	160.0	1668.4	1002.8	98.3	0.414
4	30.0	307.6	21.1			18	170.0	1673.8	1008.2	102.0	0.398
5	40.0	327.7	20.1			19	180.0	1678.7	1013.1	105.5	0.383
6	50.0	348.9	21.2			20	190.0	1683.0	1017.3	108.9	0.369
7	60.0	368.4	19.4			21	200.0	1687.7	1022.1	112.1	0.357
8	70.0	387.8	19.4			22	210.0	1691.0	1025.4	115.1	0.345
9	80.0	407.9	20.1			23	220.0	1694.4	1028.8	118.1	0.334
10	90.0	426.7	13.8			24	230.0	1698.5	1032.9	120.9	0.324
11	100.0	445.9	19.1			J 25	239.3	1702.0	1036.3	123.4	0.319
12	110.0	463.4	17.5								
13	120.0	480.4	17.0								
14	130.0	497.4	17.0								

REMARKS:

00066

091

TICKET NO. 33725500

		O.D.	I.D.	LENGTH	DEPTH	
1		DRILL PIPE.....	4.500	3.826	3464.6	
3		DRILL COLLARS.....	6.250	2.375	244.4	
51		PUMP OUT REVERSING SUB.....	6.250	3.000	1.0	3709.0
3		DRILL COLLARS.....	6.250	2.375	30.6	
50		IMPACT REVERSING SUB.....	6.250	3.000	1.0	3740.6
3		DRILL COLLARS.....	6.250	2.375	30.7	
5		CROSSOVER.....	6.250		1.0	
80		AP RUNNING CASE.....	5.000	2.250	4.2	3773.8
61		INDEXING HYDROSPRING TESTER.....	5.000	0.750	5.3	3780.8
80		AP RUNNING CASE.....	5.000	2.250	4.2	3782.3
3		CROSSOVER.....	6.250	2.250	1.0	
3		DRILL COLLARS.....	6.250	2.375	30.8	
5		CROSSOVER.....	6.250	2.250	1.0	
11		EXTENSION JOINT.....	5.000	0.870	7.1	
14		EXTENSION JOINT.....	5.000	0.870	7.1	
5		CROSSOVER.....	6.250	2.250	1.0	
3		DRILL COLLARS.....	6.250	2.375	59.9	
5		CROSSOVER.....	6.250	2.250	1.0	
15		JAR.....	5.000	1.750	5.0	
6		VR SAFETY JOINT.....	5.000	1.000	3.5	
26		PUMP ASSEMBLY.....	5.000	0.880	7.1	
27		SCREEN ASSEMBLY.....	5.000	1.000	4.4	
25		TORQUE LIMITER ASSEMBLY.....	5.000	1.000	4.8	
16		VR SAFETY JOINT.....	5.000	2.250	5.3	
74		TOP HYDROFLATE PACKER.....	7.000	1.080	8.3	3832.0
28		PORT ASSEMBLY.....	5.000		9.4	
22		BLANK ANCHOR.....	5.000	2.250	10.0	

CONTINUED

EQUIPMENT DATA

00067

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TICKET NO. 33725500

		O.D.	I.D.	LENGTH	DEPTH	
5		CROSSOVER.....	6.250	2.250	1.0	
3		DRILL COLLARS.....	6.250	2.375	30.4	
5		CROSSOVER.....	6.250	2.250	1.0	
75		LOWER HYDROFLATE PACKER.....	7.000	2.000	8.1	3981.8
65		BELLY SPRINGS W/ B.O. GAUGE CASE	7.250	3.080	3.7	3987.9
5		CROSSOVER.....	4.750	2.250	1.0	
61		BLANKED-OFF RUNNING CASE.....	5.000		4.0	3992.3
TOTAL DEPTH						5215.0

EQUIPMENT DATA

D.S.T. EVALUATION (LIQUID)

00068

(Ticket No. 346038)

Field ALWYN Well No. 1 D.S.T. No. 1AInterval Tested 3902' - 3929' Date tested 22.4.85Formation Tested MURTARecorder Depth (D): Mid 3878 ft KB Bottom 3926' ft/KB

Recorder Used: Mid / Bottom

COMMENTS

RESERVOIR PARAMETERS ARE PRELIMINARY AND WERE DETERMINED BY A QUICK-LOOK ESTIMATION OF LOG DATA.

THE CALCULATED PROPERTIES ARE SIMILAR TO THOSE DETERMINED ON BIALA NO.1. ALWYN IS ANTICIPATED TO NEED STIMULATION TO REMOVE THE SLIGHTLY DAMAGED CONDITION AND ATTAIN AN ECONOMIC RATE.

THE FEET OF FLUID RECOVERY WAS DETERMINED BY THE FINAL PRESSURE OF 359.7 PSI AND A .36 PSI/FT GRADIENT OF MUDDY FROTHY OIL. THIS VALUE WAS 999', AS OPPOSED TO 693' REPORTED BY HALLIBURTON BASED ON A MUD GRADIENT, OR 1747' REPORTED BY HALLIBURTON DETERMINED FROM THEIR PUMP STROKE COUNT.

DATA:

Flow rate (q)
 Surface pressure (p_{tf})
 Choke size
 KB elevation (Z_{KB})
 Wellbore radius (r_w)
 Reservoir temperature (T_R)

CALCULATED	83	bb1/D
	0	psia
	0.5	in
	113	ft ASL
	354	ft
	652	$^{\circ}R$

SCANNED

MOOMBA LABORATORY - WATER ANALYSIS REPORT

REGISTRATION NUMBER : WB201

SAMPLE NAME : ALWYN #1

SAMPLE POINT :

DATE SAMPLED : 27.04.89

DATE ANALYSED : 29.04.89

CHEMICAL COMPOSITION		mg/L	me/L
CATIONS			
SODIUM	[Na]	890.0	38.71
POTASSIUM	[K]	36.0	.92
MAGNESIUM	[Mg]	1.1	.09
CALCIUM	[Ca]	8.0	.40
ANIONS			
BICARBONATE	[HCO ₃]	1761.8	28.87
CHLORIDE	[Cl]	491.7	13.87
SULPHATE	[SO ₄]	20.7	.43

PHYSICAL REACTION

pH	7.62
CONDUCTIVITY (micro S/cm)	3980
TEMPERATURE (C)	25
CONDUCTIVITY (micro S/cm @ 25 C)	4000
RESISTIVITY (ohm.m @ 25 C)	2.5

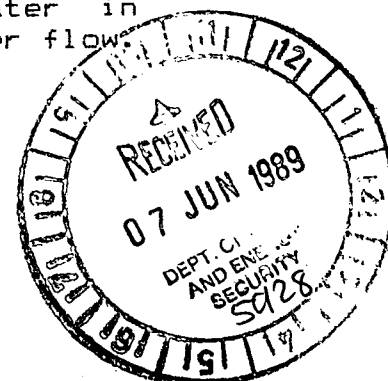
DERIVED DATA	mg/L
TOTAL DISSOLVED SOLIDS	
A. BASED ON CONDUCTIVITY	2500
B. CALCULATED (HCO ₃ =CO ₃)	2314
TOTAL HARDNESS (as CaCO ₃)	24
CARBONATE HARDNESS (as CaCO ₃)	24
NON-CARBONATE HARDNESS (as CaCO ₃)	0
TOTAL ALKALINITY (as CaCO ₃)	1445

TOTALS AND BALANCE	me/L
CATIONS	40.12
ANIONS	43.17
DIFFERENCE	3.05
SUM	83.29
DIFF*100/SUM	3.70
SODIUM / TOTAL CATION	96.50

The reported conductivity and resistivity are based on the sample as received and represent the produced water in so far as the sample is representative of well water flow.

COMMENTS :

ANALYST : JM

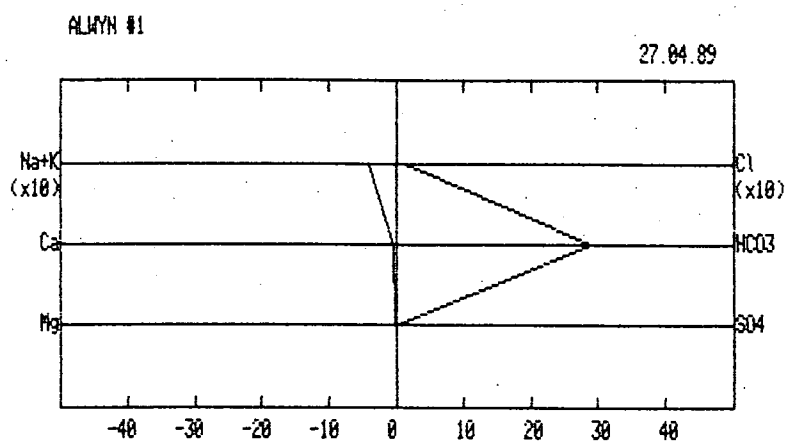


MOOMBA LABORATORY - WATER ANALYSIS REPORT

REGISTRATION NUMBER : WB201

00070

STIFF DIAGRAM



EXPERTEST PTY. LTD.

SEQUENCE OF EVENTS

CUSTOMER : SANTOS

PERFORATIONS: 3900' - 3938'

PAGE: 1 OF 1

WELL NAME: ALYN #1

FORMATION : MORTA

DATE: 4.4.90

TEST TYPE : STATIC GRADIENT

OPR : R. SARGEANT

DATE / TIME

DESCRIPTION OF EVENTS

ARRIVE ON LOCATION, WAIT ON RIG

RIG UP SLICK LINE EQUIPMENT

RIG WITH 1.75" BLIND BOX

TAG PSTD AT 4316' KB - TUBING & PERFORATIONS CLEAR OF OBSTRUCTIONS

POOH

AT SURFACE - PREPARE PRESSURE ELEMENT WITH 342 CLOCKS

RIG WITH GAUGES & PERFORM STATIC GRADIENT

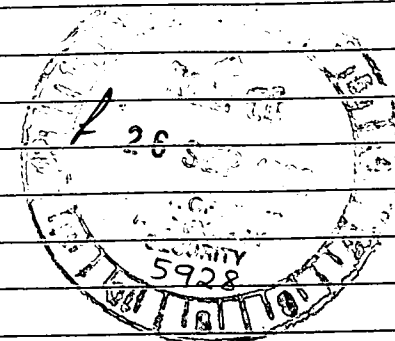
BOTTOM SURVEY DEPTH AT 3919' KB

POOH

BOTH CHARTS GOOD RIG DOWN

MADE OFF.

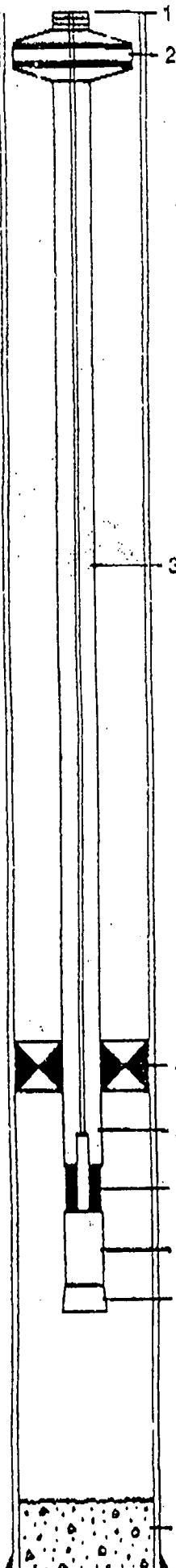
Same



DOWNHOLE INSTALLATION

ALWYN 1

00072



ITEM NO.	DESCRIPTION	LENGTH (ft)	DEPTH K.B. (ft)	MIN. I.D. (in)
1	K.B. to top of tubinghead spool	13.00	0.00	
2	2 7/8" EUE C.I.W. FBB-EN tubing hanger	0.70	13.00	
3	118 joints 2 7/8" EUE J55 6.5# tubing	3709.30		
4	2 7/8" x 7" Guiberson TM tubing anchor	3.35		
5	1 joint 2 7/8" EUE J55 6.5# tubing	31.50		
6	2 7/8" pump seating nipple c/w collar	1.10	3757.85	2.28
7	1 joint 2 7/8" EUE J55 6.5# tubing	31.37		
8	Re-entry guide	1.23		
	End of tailpipe		3791.55	
9	Sand fill (as at 22/9/1989)		4313.00	
	Rod string from bottom up:			
	25-200-RWAC-20-5 rod insert pump c/w			
	sand check valve & slotted nipple.			
	Max stroke = 180 1/4"			
	(Serial No. A511)			
	4 1 1/2" K-bars			
	145 3/4" grade D sucker rods			
	1 x 2', 2 x 6' & 2 x 4' 3/4" grade D pony rods			
	1 28' x 1 1/4" Tuffr polished rod			
	(1' stick-up above polished rod clamp			
	with pump 2' off top)			

PERFORATED INTERVALS:

GUN:

CHARGES:

FORMATION	INTERVAL	SIZE	TYPE	S.P.F.	TYPE	WT(g)
MURTA	3900' - 3938'					

REMARKS:

ANNULUS FLUID:	2% KCl brine
INDICATED STRING WEIGHT:	21,000# (with blocks - 26,000#)
CALCULATED STRING WEIGHT:	21,000# (with blocks - 26,000#)
ANCHOR SHEAR RELEASE:	80,000#
TENSION:	12,000#

NOT TO SCALE	WELLSITE SUPERVISOR	B. Assels
PROPOSED	DATE OF INSTALLATION	22/9/1989
RE-COMPLETION	DRAFTED	E. Coppins
COMPLETION	REVISD	DATE 7/11/1989

P.B.T.D. 4805' KB

EXPERTEST

WIRELINE & WELL TESTING SERVICE

PO BOX 354 COWANDILLA 5033

PH. (08) 354 0488 TELEX RA87183

FAX (08) 43 7408

130 RICHMOND ROAD MARLESTON

SOUTH AUSTRALIA 5033

Tested Tuesday, 3rd April 1990.

dates & close together.

probably a mistake or something.

CLIENT	LOCATION	FORMATION
Santos Ltd.	ALWYN 1	MURTA

STATIC PRESSURE GRADIENT REPORT

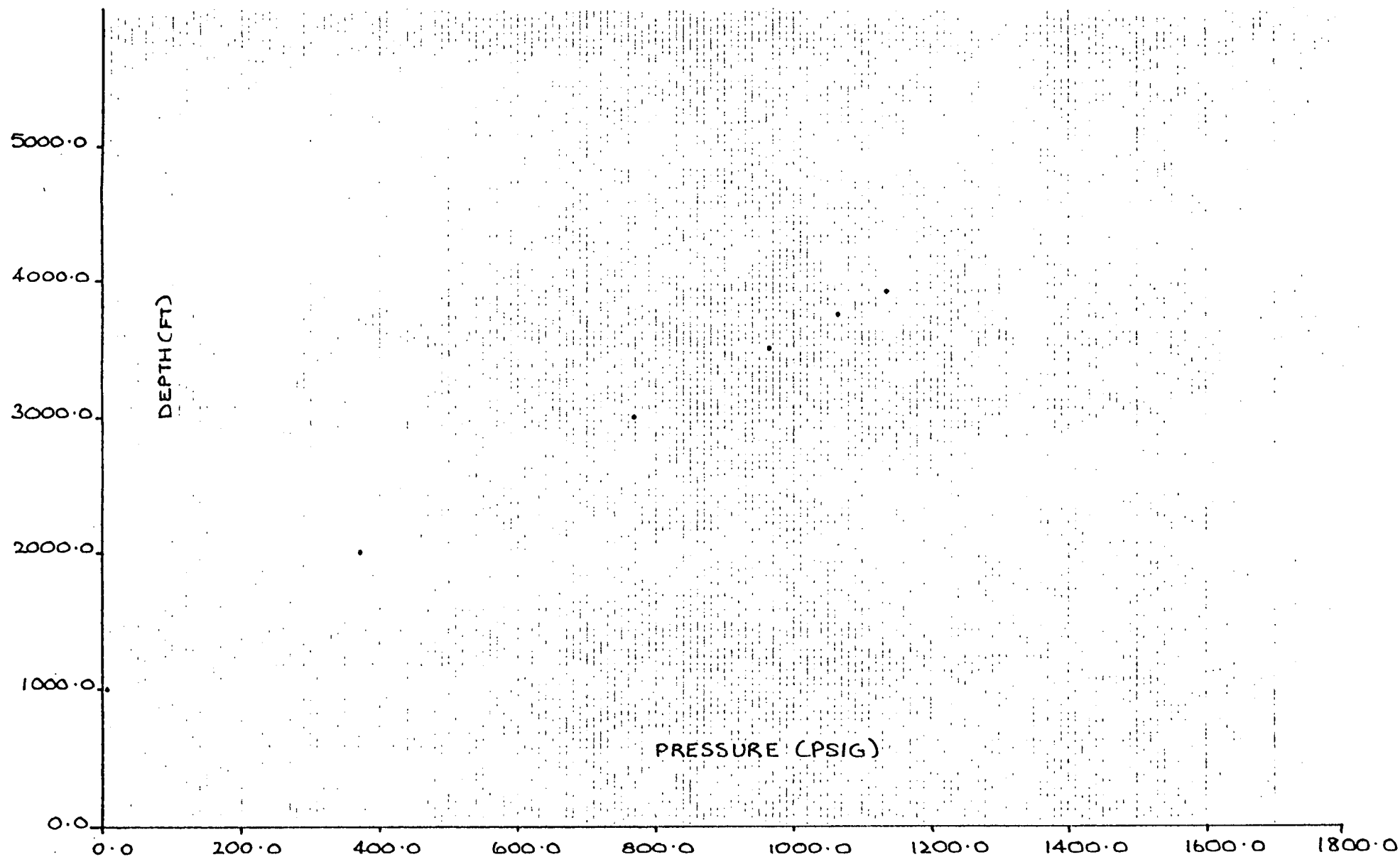
PRESSURE ELEMENT DATA			
POSITION	SERIAL NO.	RANGE	CALIBRATED
Top	28515	3000	17/ 2/90
Bottom	56429	3000	17/ 2/90

WELL DATA	
PARAMETER	VALUE
DWT In	0
DWT Out	0
Max BHT	200F

TOP ELEMENT				BOTTOM ELEMENT		
DEPTH FT KB	DEFLECTION INCHES	PRESSURE PSIG	GRADIENT PSI/FT	DEFLECTION INCHES	PRESSURE PSIG	GRADIENT PSI/FT
1000	0.0000	3.7	0.000	0.0050	5.8	0.008
2000	0.2430	370.2	0.367	0.2470	378.9	0.373
3000	0.5010	767.1	0.397	0.5010	769.7	0.391
3500	0.6270	962.5	0.391	0.6280	965.1	0.391
3750	0.6920	1063.6	0.404	0.6930	1065.2	0.400
3919	0.7380	1135.1	0.424	0.7390	1136.1	0.419

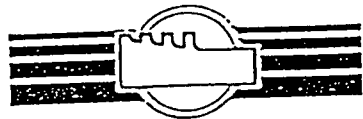
GENERAL REMARKS

ALWYN # 1 — STATIC PRESSURE GRADIENT — 3/4/90
ELEMENT # 28515/3000 (TOP)



00074

EXPERTEST PTY. LTD.



BHP/BHT GAUGE RUN DATA

CUSTOMER : SANTOS

PERFORATIONS: 39100' - 3938'

PAGE: 1 OF 1

WELL NAME: ALWYN # 1

FORMATION : MURTA

DATE: 4.4.90

TEST TYPE : STATIC GRADIENT

OPR : N. SARCEANT

GAUGE DATA

UPPER
PRESSURE
GAUGELOWER
PRESSURE
GAUGETEMPERATURE
GAUGE

RUN DATA

TIME
(HOURS)TUBING
PRESSURE
(PSI/KPa)ANNULUS
PRESSURE
(PSI/KPa)

ELEMENT SERIAL NO.

26515

56429

N/A

DATE

3.4.90

ELEMENT RANGE

3000 psi

5000 psi

PRESSURE LUBRICATOR

RECORDING SECTION SERIAL NO.

13027

14628

RUN IN HOLE

DATE OF CALIBRATION:

17.2.90

17.2.90

ON DEPTH AT

3919 FT/M

CLOCK SERIAL NO.

2279

2180

DATE

3.4.90

CLOCK RANGE

3H2

3H2

PULL OUT OF HOLE

LEAD SCREW TYPE

AT SURFACE

DEPRESSURE LUBRICATOR

ENGAGE SYLUS DATE

3.4.90

TIME

19:45

19:45

MAXIMUM BHT AT 3919 FT/M = 200 °F/°C

DISENGAGE SYLUS DATE

3.4.90

TIME

21:20

21:20

N.B. ALL DEPTHS ARE MEASURED FROM K.B.

REMARKS

DATE

TIME

00077

**EXPERTEST**

WIRELINE & WELL TESTING SERVICE

PO BOX 354 COWANDILLA 5033

PH. (08) 354 0489 TELEX A807183

FAX (08) 43 7408

138 RICHMOND ROAD MARLESTON
SOUTH AUSTRALIA 5033

Tested Sunday, 21st July 1991.

CLIENT	LOCATION	FORMATION
Santos Ltd.	ALWYN # 1	MURTA

STATIC PRESSURE GRADIENT REPORT

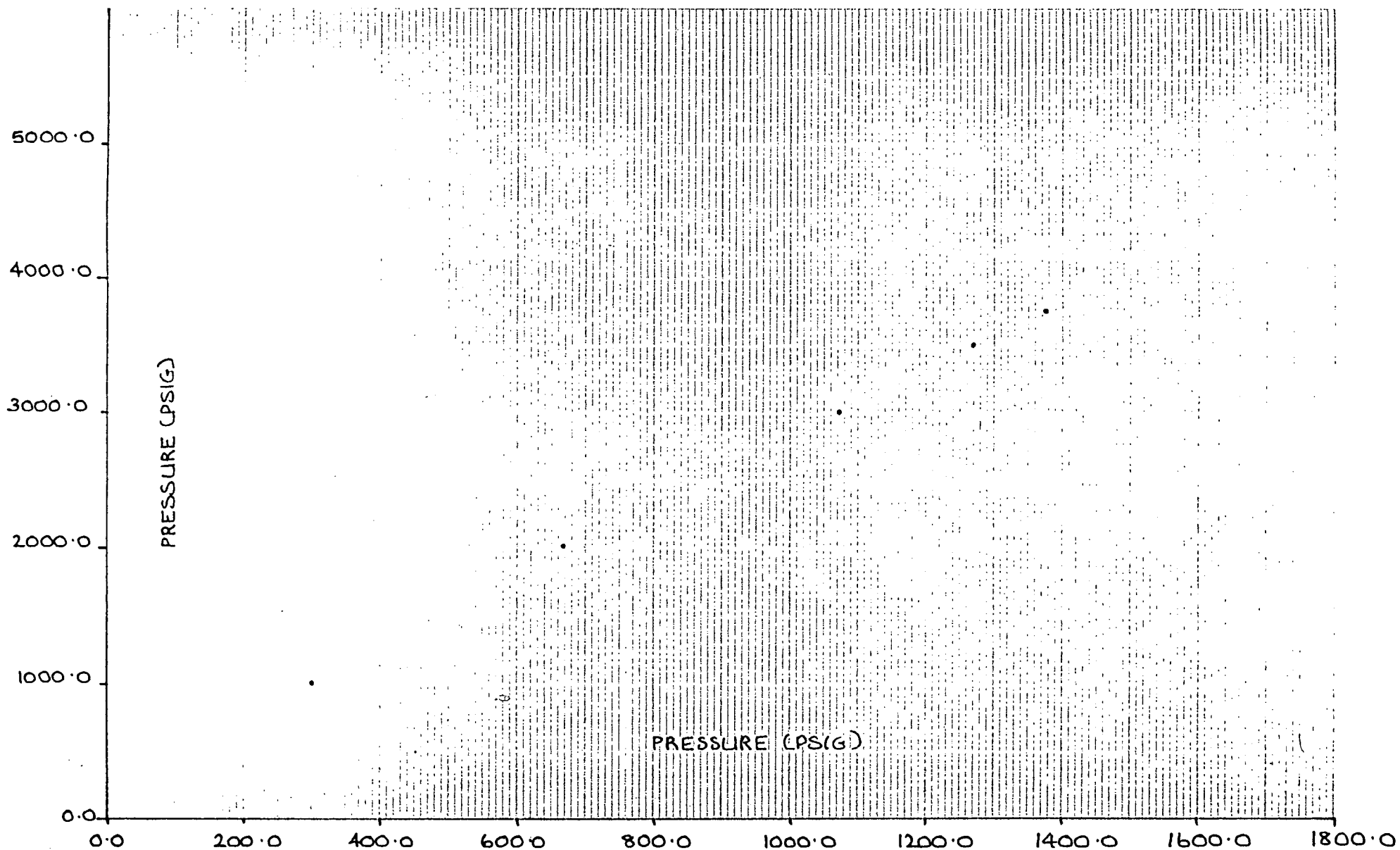
PRESSURE ELEMENT DATA			
POSITION	SERIAL NO.	RANGE	CALIBRATED
Top	57413	3000	13/ 7/91
Bottom	24708	3300	13/ 7/91

WELL DATA	
PARAMETER	VALUE
DWT In	0 PSIG
DWT Out	0 PSIG
Max BHT	195 F

TOP ELEMENT				BOTTOM ELEMENT		
DEPTH FT KB	DEFLECTION INCHES	PRESSURE PSIG	GRADIENT PSI/FT	DEFLECTION INCHES	PRESSURE PSIG	GRADIENT PSI/FT
1000	0.1960	301.3	0.304	0.1870	301.3	0.310
2000	0.4320	667.0	0.366	0.4110	668.2	0.367
3000	0.6900	1066.9	0.400	0.6580	1071.6	0.403
3500	0.8180	1265.3	0.397	0.7790	1269.6	0.396
3750	0.8860	1370.8	0.422	0.8430	1374.6	0.420

GENERAL REMARKS

ALWYN # 1 — STATIC PRESSURE GRADIENT — 21/7/91
ELEMENT # 24708/ 3300 (BOT)



	PERFORATIONS:
--	---------------

WELL NAME: ALWYN #1

FORMATION : murta

DATE: 21-7-91

OPR : D.J. McALLISTER

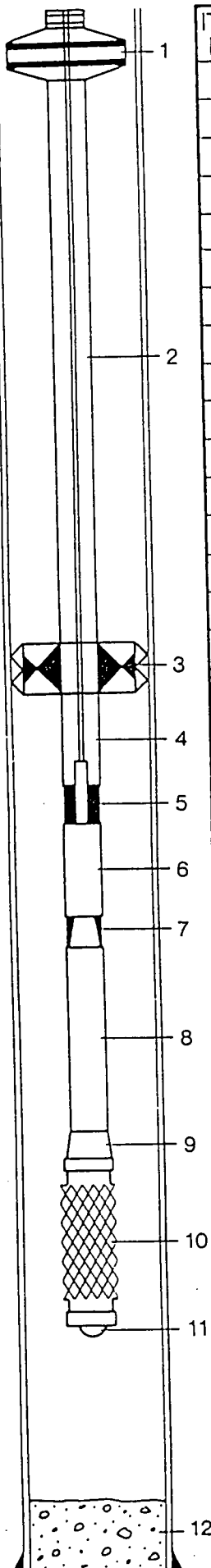
GAUGE DATA		UPPER PRESSURE GAUGE	LOWER PRESSURE GAUGE	TEMPERATURE GAUGE	RUN DATA	TIME (HOURS)	TUBING PRESSURE ./KPa)	ANNULUS PRESSURE ./KPa)
ELEMENT SERIAL NO.	57413	24708			DATE : 21-7-91			
ELEMENT RANGE	3000 PSI	3300 PSI			PRESSURE LUBRICATOR :	1741	φ	N/A
RECORDING SECTION SERIAL NO.	61127	12960			RUN IN HOLE :	1751	φ	N/A
DATE OF CALIBRATION:	13-7-91	13-7-91			ON DEPTH AT : 3750 KB FT/	1823	φ	N/A
CLOCK SERIAL NO.	A15012	A14044			DATE : 21-7-91			
CLOCK RANGE	3 HR	3 HR			PULL OUT OF HOLE :	1833	φ	N/A
LEAD SCREW TYPE	15 TLS	15 TLS			AT SURFACE :	1847	φ	N/A
					DEPRESSURE LUBRICATOR :	1857	φ	N/A
ENGAGE STYLUS	DATE 21-7-91	TIME 1729	1729		MAXIMUM BHT AT FT/ = 195 °F/			
DISENGAGE STYLUS	DATE 21-7-91	TIME 1902	1902		N.B. ALL DEPTHS ARE MEASURED FROM K.B.			

[illegible]



DOWNHOLE INSTALLATION

ALWYN 1



ITEM NO.	DESCRIPTION	LENGTH (ft)	DEPTH K.B. (ft)	MIN. I.D. (in)		
	K.B. to top of tubinghead spool	13.00	0.00			
1	C.I.W. 2 7/8" EUE FBB-EN tubing hanger	0.70	13.00			
2	116 joints 2 7/8" EUE J55 6-5# tubing	3646.40				
3	7" x 2 7/8" Guiberson TM tubing anchor	3.37	3660.10			
4	1 joint 2 7/8" EUE J55 6-5# tubing	31.50				
5	2 7/8" EUE pump seating nipple	1.10	3694.97			
6	1 joint 2 7/8" EUE J55 6-5# tubing	31.37				
7	2 7/8" EUE GP Baker shear release	1.00	3727.44			
	(43,000# shear release)					
8	2 joints 2 7/8" EUE J55 6-5# tubing	62.90				
9	X-over 2 7/8" EUE box x 3 1/2" NU pin	0.50				
10	3 1/2" NU sand screen (top collar O.D. = 4.5")	12.08				
11	3 1/2" NU box bull plug	0.68				
	Bottom of screen		3804.60			
12	Sand fill (as at 3/4/1990)	@	4316.00			
	Rod string from bottom up :					
	25-200-RWAC-20-5 insert pump c/w SCV					
	4 1 1/2" K-bars					
	142 3/4" grade D sucker rods					
	1 x 6' & 1 x 2' grade D pony rods					
	1 26' x 1 1/4" grade T polished rod					
	(6' stick-up, 2' off tap)					
PERFORATED INTERVALS:						
FORMATION		INTERVAL		GUN:	CHARGES:	
		SIZE	TYPE	S.P.F.	TYPE	WT(g)
MURTA 39-4		3900' - 3938'				
REMARKS:						
ANNULUS FLUID :		Murta oil				
INDICATED STRING WEIGHT :		23,000#				
CALCULATED STRING WEIGHT :		23,000#				
SLACK-OFF WEIGHT :		50,000#				
TENSION :		10,000#				
NOT TO SCALE		WELLSITE SUPERVISOR		W. Baer		
PROPOSED		DATE OF INSTALLATION		4/4/1990		
RE-COMPLETION		✓	DRAFTED		E. Coppins	
COMPLETION			REVISED		DATE 31/5/1990	
				DATE		

P.B.T.D.

ENVELOPE 5928

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

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

CONTENTS

REPORTS:	SADME NO.
Halliburton Services, 1985. Formation testing service report - DST 1 (21 June 1985).	5928 R 1 Pgs 3-9
Halliburton Services, 1985. Formation testing service report - DST 1A (11 June 1985).	5928 R 2 Pgs 10-19
Halliburton Services, 1985. Formation testing service report - DST 2 (20 June 1985).	5928 R 3 Pgs 20-29
Halliburton Services, 1985. Formation testing service report - DST 3 (21 June 1985).	5928 R 4 Pgs 30-41
Halliburton Services, 1985. Formation testing service report - DST 4 (16 July 1985).	5928 R 5 Pgs 42-54
Halliburton Services, 1985. Formation testing service report - DST 5 (9 October 1985).	5928 R 6 Pgs 55-67
Halliburton Services, 1985. DST evaluation (liquid) - DST 1A (22 April 1985).	5928 R 7 Pg. 68
Santos Ltd, 1989. Well production water analysis report (Moomba Laboratory, 29 April 1989).	5928 R 8 Pgs 69-70
Sargeant, R., 1990. Results of wellbore static pressure gradient survey run on 3 April 1990. (Expertest Pty Ltd report for Santos Ltd, dated 4 April 1990).	5928 R 9 Pgs 71-75
McAllister, D.J., 1991. Results of wellbore static pressure gradient survey run on 21 July 1991. (Expertest Pty Ltd report for Santos Ltd).	5928 R 10 Pgs 76-80

END OF CONTENTS

TABLE 2

Summary of Physical Property and Sulphur Data

Date of Job: OCTOBER 1985

Sample	API Gravity	ZSulphur(w/w)	Viscosity(25°C)	Viscosity(60°C)
JENA 1 DST 3	nd	nd	nd	nd
ULANDI 1 DST 2	nd	nd	nd	nd
ALWYN 1 DST 1A	nd	nd	nd	nd

TABLE 2

Summary of Liquid Chromatography(Compositional Data)

Date of Job: OCTOBER 1985

Sample	-----Hydrocarbons-----			-----Nonhydrocarbons-----			SAT	ASPH	HC
	ZSAT.	ZAROM.	ZHC's	ZNSO's	ZASPH.	ZNon HC's	AROM	NSO	Non HC
JENA 1 DST 3	92.3	5.0	97.3	2.7	nd	2.7	18.50	nd	36.4
ULANDI 1 DST 2	91.2	4.7	95.9	4.1	nd	4.1	19.59	nd	23.2
ALWYN 1 DST 1A	92.3	4.1	96.5	3.5	nd	3.5	22.27	nd	27.5

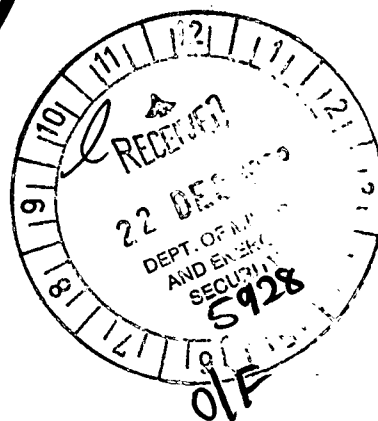
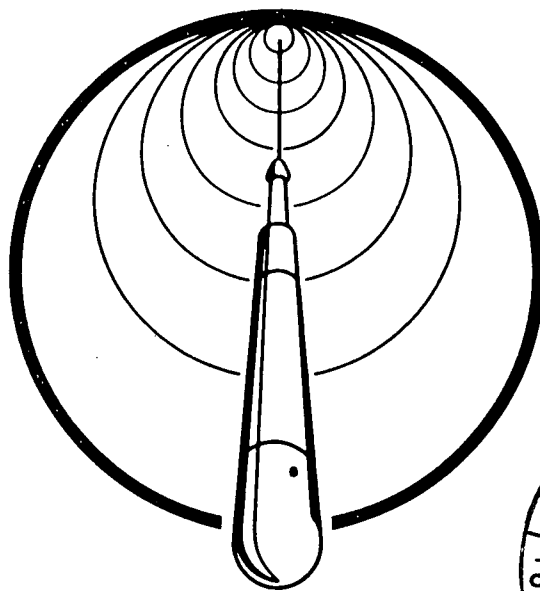
na = not applicable nd = no data

COPY

9 JUL 1993

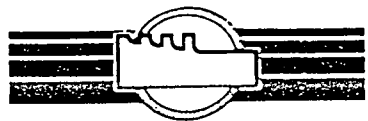
EXPERTEST PTY LTD

ELECTRIC WIRELINE SERVICE



Customer: SANTOS LTD
Well: ALWYN #1
Formation: MURTA
Test Type: BHP
Date: 17/06/93

EXPERTEST PTY. LTD.



SEQUENCE OF EVENTS

CUSTOMER : SANTOS

PERFORATIONS: 3900' - 3938'KB

PAGE: 1 OF 1

WELL NAME: ALWYN #1

Static G
rs

FORMATION : MURTA

DATE: 17/06/93

TEST TYPE : BHP

OPR : N HAY

DATE/TIME

DESCRIPTION OF EVENTS

17/06/93

08:40

RIG UP WIRELINE UNIT AND TOOL STRING

08:46

RIH WITH 1.75" BLIND BOX

09:04

TAG SAND SCREEN AT 3812'KB

09:05

POOH

08:14

AT SURFACE

RIG UP A SINGLE McALLISTER GAUGE

09:30

RIH WITH GAUGE

09:42

AT HANG DEPTH 3750'KB

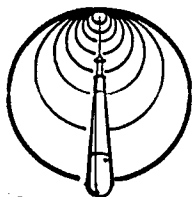
10:02

POOH

10:15

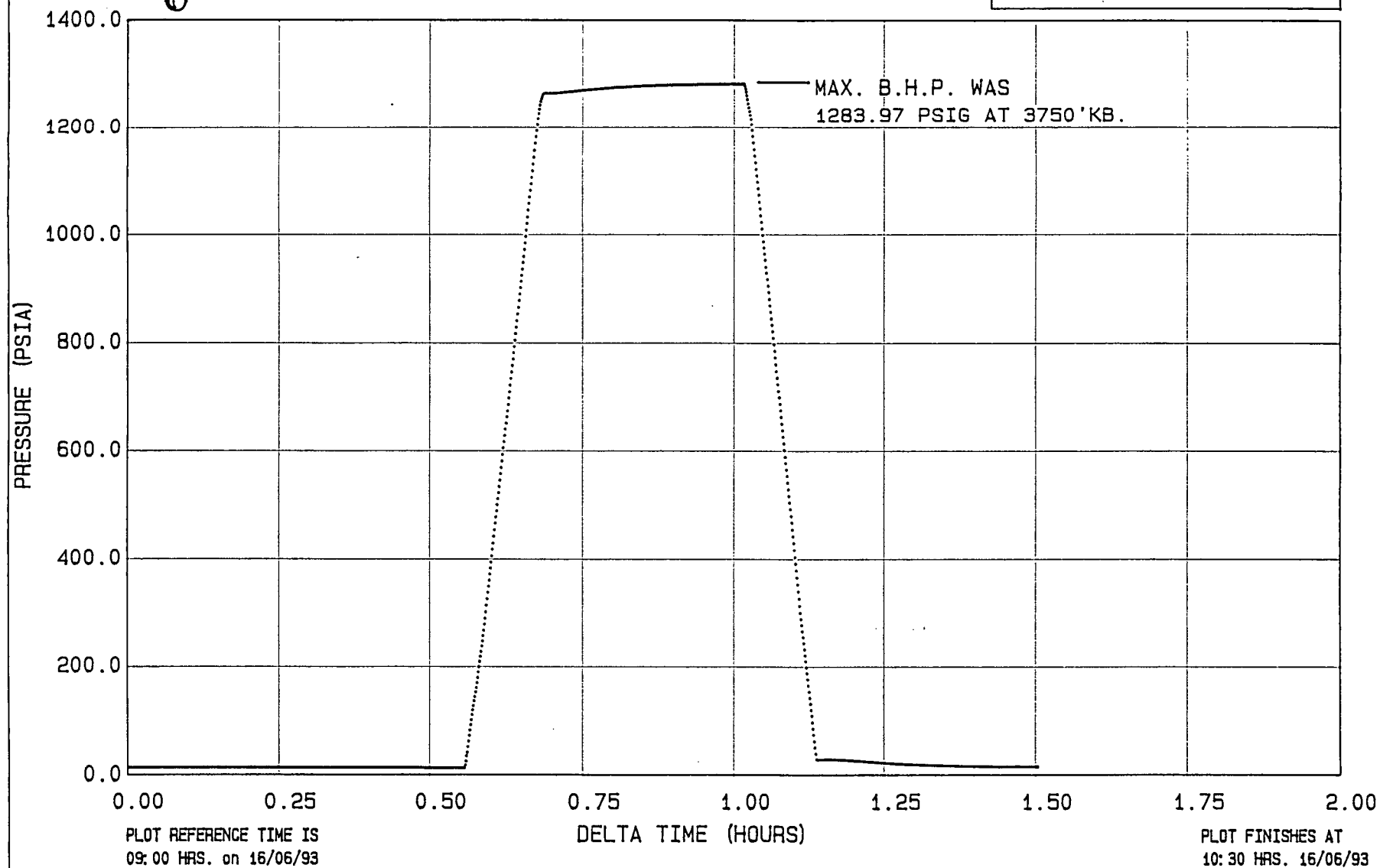
AT SURFACE AND RIG OUT GAUGE

RIG DOWN MOVE OUT



EXPERTEST PTY. LTD.
ELECTRIC WIRELINE SERVICE
LINEAR PLOT

SANTOS LTD
WELL: ALWYN #1
ZONE: MURTA
B.H.P.



22002

EXPERTEST PTY. LTD.

ELECTRONIC BHP/BHT GAUGE QUALITY CONTROL SHEET



CUSTOMER: Santos Ltd

PERFORATIONS: 3900' - 3938' KB

PAGE: 1 OF 1

WELL NAME: ALWYN #1

FORMATIONS: MURTA

DATE: 7/6/93

TEST TYPE: B.H.P

GAUGE SERIAL No.: #488

OPR: N HAY

INSTRUMENT DEPARTMENT REPORT	DATE	LAB. COND.	GAUGE RESPONSE	GAUGE FREQUENCY	FIELD OPERATOR REPORT	TIME (HOURS)	PRESSURE WELL SITE	PRESSURE GAUGE
PRE-JOB LAB. CHECK / PERFORMED BY	7/6/93	1/1			DATE	17-6-93		
PRESS PSI/KG		0	0.017		ATMOSPHERIC CHECK	09:00	0 PSIG	-1 PSIG
TEMP °F/°C		68.90	68.70		PRESSURE LUBRICATOR	09:30	0 PSIG	-1 PSIG
PRE-JOB CAL. CHECK / PERFORMED BY	4/6/93	1/1			DATE			
PRESS PSI/KG		2489.03	2486.42		MAX. RECORDED BHP	10:01		1283.9 PSIG
TEMP °F/°C		235.4	236.57		MAX. RECORDED BHT	10:01		191.3°F
POST-JOB LAB. CHECK / PERFORMED BY	17/6/93	C HAY			DATE	17-6-93		
PRESS PSI/KG		0	-0.5		DEPRESSURE LUBRICATOR	10:15	0 PSIG	7 PSIG
TEMP °F/°C		77	77.3		ATMOSPHERIC CHECK	10:30	0 PSIG	1.3 PSIG
POST-JOB REDRESS CAL. CHECK / PERFORMED BY					FIELD OPERATOR'S SIGNATURE			N HAY
PRESS PSI A/G					COMMENTS:			
TEMP °F/°C								
CALIBRATION DATE	16/1/93							
BATTERY SERIAL No.: #24								
PRE-JOB VOLTS: 11.69								
POST-JOB VOLTS: 11.10								
(PRE-JOB) TOTAL HOURS: 1.7					This sheet is submitted as "Original" and is not typed.			
					Field staff please note units of measure.			