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NUMBER 7075/2

PEL 5 AND PEL 6, MOOMBA BLOCK

EROMANGA AND COOPER BASINS

WAUKATANNA 1

TEST REPORTS

Submitted by

Santos Ltd
1988

MINES AND ENERGY
SOUTH AUSTRALIA

Enquiries: Information Services Branch
Mines and Energy South Australia
191 Greenhill Road, Parkside 5063
Telephone: (08) 274 7687
Facsimile: (08) 272 7597

ENVELOPE 7075/2

TENEMENT: PEL 5 and PEL 6, Moomba Block; Eromanga and Cooper Basins

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

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L20

00003

WAUKATANNA
LEASE NAME

1
WELL NO.

1
TEST NO.

8169.1 - 8228.0
TESTED INTERVAL

SANTOS LTD.
LEASE OWNER/COMPANY NAME

LEGAL LOCATION
SEC. - TWP. - RNG.
SEE REMARKS

FIELD
AREA
COOPER BASIN

COUNTY
SOUTH AUSTRALIA

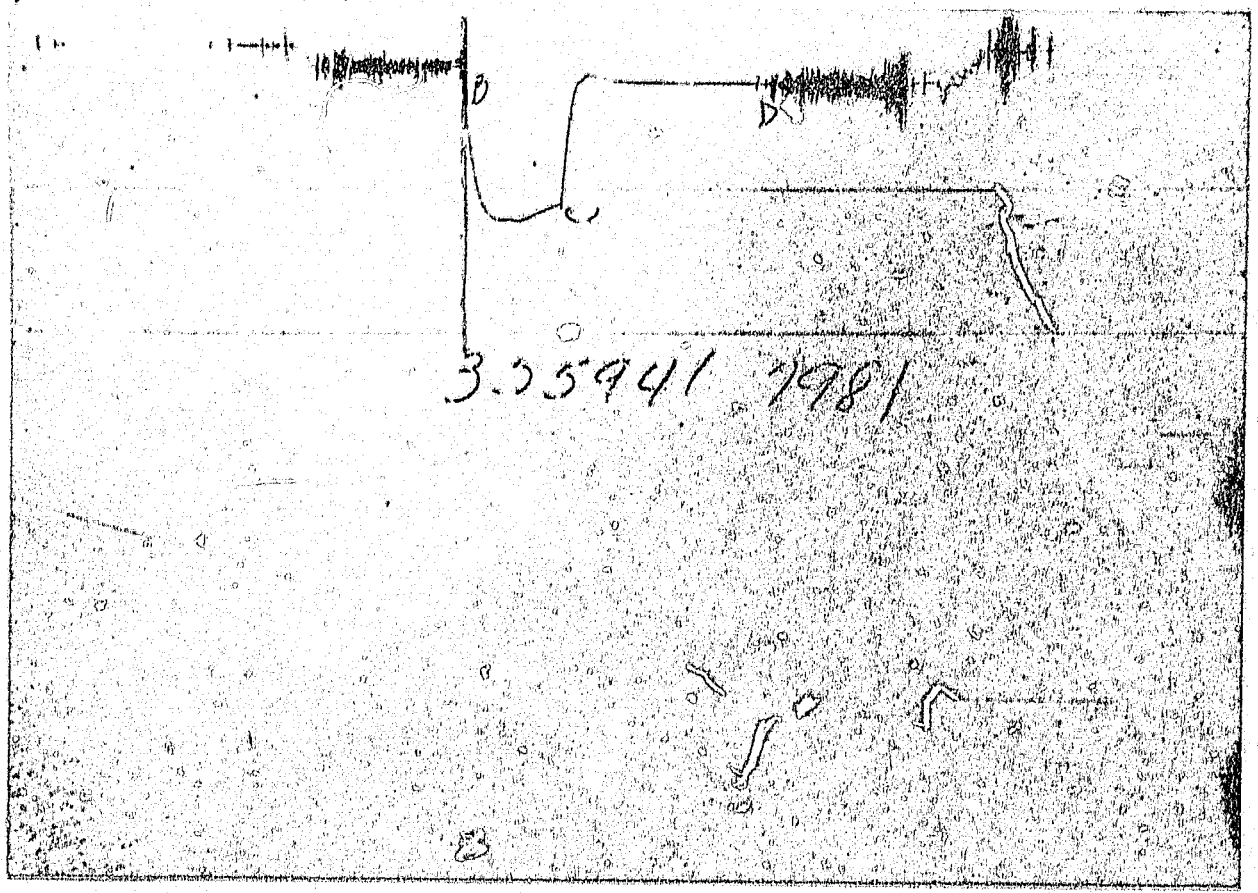
STATE
AUSTRALIA SM

HALLIBURTON
SERVICES

TICKET NO. 35594100
30-AUG-88
MOOMBA

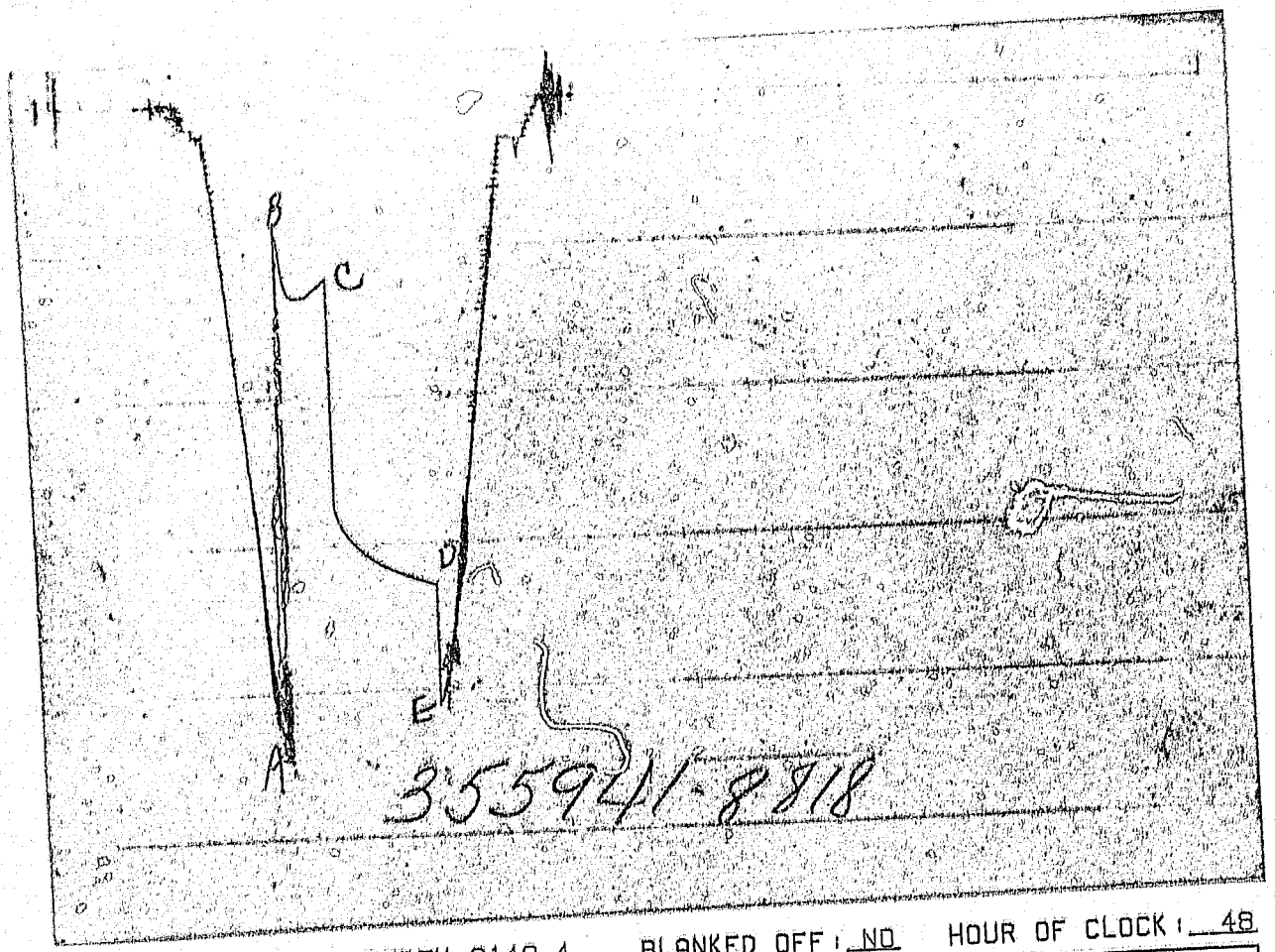
FORMATION TESTING SERVICE REPORT

00004



GAUGE NO: 7981 DEPTH: 8123 BLANKED OFF: NO HOUR OF CLOCK: 24

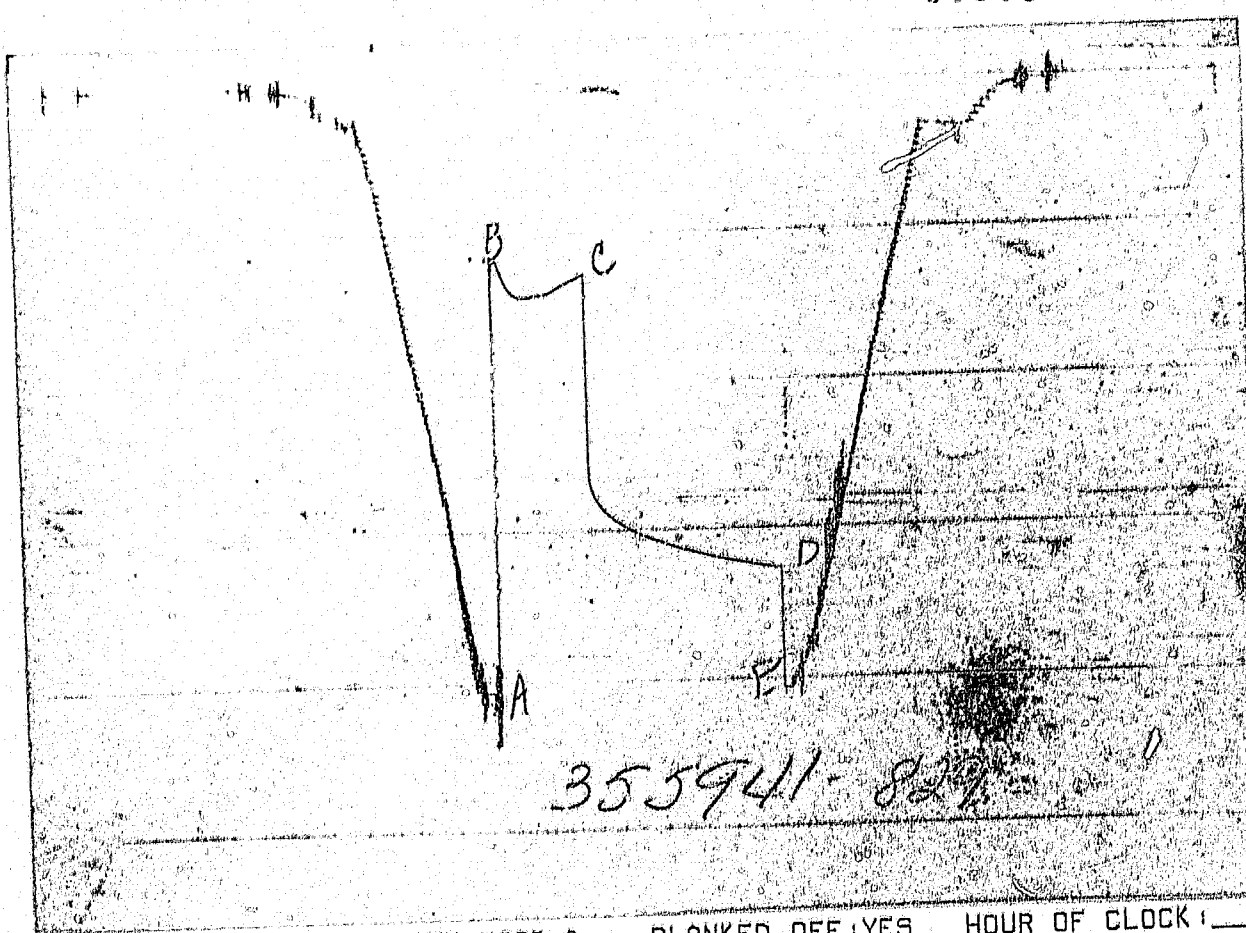
ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC					
B	INITIAL FIRST FLOW		337.1	120.0	120.5	F
C	FINAL FIRST FLOW		1098.0			
C	INITIAL FIRST CLOSED-IN		1098.0	240.0	239.5	C
D	FINAL FIRST CLOSED-IN	252	250.9			
E	FINAL HYDROSTATIC					



GAUGE NO: 8818 DEPTH: 8148.4 BLANKED OFF: NO HOUR OF CLOCK: 48

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	4072	4005.6			
B	INITIAL FIRST FLOW	893	900.6	120.0	120.5	F
C	FINAL FIRST FLOW	1192	1203.0			
C	INITIAL FIRST CLOSED-IN	1192	1203.0	240.0	239.5	C
D	FINAL FIRST CLOSED-IN	3284	3294.8			
E	FINAL HYDROSTATIC	4082	4004.3			

00006



GAUGE NO: 829 DEPTH 8225.0 BLANKED OFF: YES HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	4123	4073.5			
B	INITIAL FIRST FLOW	1240	1189.3	120.0	120.5	F
C	FINAL FIRST FLOW	1275	1277.6			
C	INITIAL FIRST CLOSED-IN	1275	1277.6	240.0	239.5	C
D	FINAL FIRST CLOSED-IN		3271.2			
E	FINAL HYDROSTATIC	4104	4073.0			

EQUIPMENT & HOLE DATA

FORMATION TESTED: PATCHAWARRA
NET PAY (ft):
GROSS TESTED FOOTAGE: 58.9
ALL DEPTHS MEASURED FROM: KELLY BUSHING
CASING PERFS. (ft):
HOLE OR CASING SIZE (in): 8.500
ELEVATION (ft): 108.0
TOTAL DEPTH (ft): 8228.0
PACKER DEPTH(S) (ft): 8161, 8169
FINAL SURFACE CHOKE (in): 0.50000
BOTTOM HOLE CHOKE (in): 0.750
MUD WEIGHT (lb/gal): 9.50
MUD VISCOSITY (sec): 37
ESTIMATED HOLE TEMP. (°F):
ACTUAL HOLE TEMP. (°F): 270 @ 8224.0 ft

TICKET NUMBER: 35594100

DATE: 7-14-87 TEST NO: 1

TYPE DST: OPEN HOLE

HALLIBURTON CAMP: MOOMBA

TESTER: D. HARRISON

WITNESS: WILKINSON

DRILLING CONTRACTOR: D.D. AND E. RIG #5

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
WATER (FT)	240.0	8.40

RECOVERED:

90 FEET OF CONDENSATE AND WATER CUSHION
370 FEET OF MUDDY CONDENSATE

MEASURED FROM TESTER VALVE

REMARKS:

LEGAL LOCATION: 028 DEGRESS, 22', 02.0"S. LAT.
140 DEGREES, 04', 43.8"E. LONG.

TYPE & SIZE MEASURING DEVICE: 6" CERAMIC SURFACE CHOKE | TICKET NO: 35594100

TIME	CHOKE SIZE	SURFACE PRESSURE PSI	GAS RATE MCF	LIQUID RATE BPD	REMARKS
7-14-87					
0310					MADE UP TOOLS
0430					RAN IN HOLE WITH COLLARS AND
					FLEX WEIGHT PIPE
0520					MADE UP TEST HEAD ON SINGLE
0530					LAID OUT TEST HEAD
0535					RAN IN HOLE WITH DRILL PIPE
0803					PICKED UP TEST HEAD
0808					MADE UP SURFACE EQUIPMENT
0816					TAGGED BOTTOM
0817					SET 30,000# ON TOOL
0820	.25				OPENED TOOL WITH WEAK TO
					MODERATE BLOW
0821	.25				STRONG BLOW
0823	.25	200			STRONG BLOW
0824	.25	250			GAS TO THE SURFACE, FLARING
0825	.50	300			GAS TO SURFACE, FLARING, CHANGED
					TO 1/2" CHOKE
0831	.5	600			GAS AT SURFACE, FLARING
0835	.5	675			GAS AT SURFACE, FLARING
0836	.5	700			GAS AT SURFACE, FLARING
0840	.5	725			GAS AT SURFACE, FLARING
0845	.5	800			GAS AT SURFACE, FLARING
0850	.5	810			GAS AT SURFACE, FLARING
0855	.5	840			GAS AT SURFACE, FLARING
0900	.5	850			GAS AT SURFACE, FLARING
0905	.5	850			GAS AT SURFACE, FLARING
0910	.5	850			GAS AT SURFACE, FLARING
0915	.5	820			GAS AT SURFACE, FLARING
0920	.5	820			GAS AT SURFACE, FLARING
0930	.5	820			GAS AT SURFACE, FLARING
0940	.5	820			GAS AT SURFACE, FLARING
0945	.5	810			GAS AT SURFACE, FLARING
0950	.5	800			GAS AT SURFACE, FLARING
0955	.5	800			GAS AT SURFACE, FLARING
1000	.5	800			GAS AT SURFACE, FLARING
1010	.5	780			GAS AT SURFACE, FLARING

TYPE & SIZE MEASURING DEVICE: 6" CERAMIC SURFACE CHOKE | TICKET NO: 35594100

TIME	CHOKE SIZE	SURFACE PRESSURE PSI	GAS RATE MCF	LIQUID RATE BPD	REMARKS
1020	.5	780			GAS AT SURFACE, FLARING
					CLOSED TOOL
1420					OPENED BYPASS AND LAID OUT HEAD
1430					PULLED OUT OF HOLE
1740					PICKED UP TEST HEAD AND RIGGED
					UP FLOOR MANIFOLD AND LINES TO
					REVERSE FLUID IN PIPE
1807					DROPPED REVERSING BAR
1808					PIN BROKE AND STARTED REVERSING
1825					LAID OUT HEAD AND BROKE DOWN
					SURFACE EQUIPMENT
1830					PULLED OUT OF HOLE
1910					TOOL AT FLOOR
2015					TOOLS BROKEN DOWN AND LAID OUT

TICKET NO: 35594100

CLOCK NO: 7273 HOUR: 24

GAUGE NO: 7981

DEPTH: 8127.3

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	337.1			
2	20.0	1091.8	754.7		
3	40.0	1214.6	122.9		
4	60.0	1216.8	2.2		
5	80.0	1195.5	-21.4		
6	100.0	1143.6	-51.9		
C 7	120.5	1098.0	-45.6		
		FIRST CLOSED-IN			
C 1	0.0	1098.0			
D 2	239.5	250.9	-847.1	80.2	0.177

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

REMARKS:

TICKET NO: 35594100	GAUGE NO: 8818
CLOCK NO: 10878 HOUR: 48	DEPTH: 8148.4

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	900.6			
	2	20.0	1225.0	324.4		
	3	40.0	1324.2	99.2		
	4	60.0	1322.9	-1.3		
	5	80.0	1298.2	-24.7		
	6	100.0	1250.8	-47.4		
C	7	120.5	1203.0	-47.8		
			FIRST CLOSED-IN			
C	1	0.0	1203.0			
	2	10.0	2841.5	1638.5	9.2	1.115
	3	20.0	2903.2	1700.2	17.2	0.846
	4	30.0	2947.6	1744.5	24.0	0.701
	5	40.0	2983.7	1780.6	30.0	0.604
	6	50.0	3017.4	1814.3	35.4	0.533
	7	60.0	3043.5	1840.5	40.1	0.478
	8	70.0	3070.1	1867.1	44.3	0.435
	9	80.0	3092.5	1889.5	48.1	0.399
	10	90.1	3113.8	1910.8	51.5	0.369
	11	100.0	3132.6	1929.6	54.6	0.344
	12	110.0	3148.7	1945.7	57.5	0.321
	13	120.0	3164.3	1961.2	60.1	0.302
	14	130.0	3178.5	1975.5	62.5	0.285
	15	140.0	3193.0	1990.0	64.8	0.270
	16	150.0	3204.7	2001.7	66.8	0.256
	17	160.0	3215.9	2012.9	68.7	0.244
	18	170.0	3227.1	2024.1	70.5	0.233
	19	180.0	3237.2	2034.1	72.2	0.223
	20	190.0	3247.9	2044.8	73.7	0.213
	21	200.0	3257.8	2054.7	75.2	0.205
	22	210.0	3267.2	2064.2	76.6	0.197
	23	220.0	3277.4	2074.4	77.9	0.190
	24	230.0	3286.4	2083.3	79.1	0.183
D	25	239.5	3294.8	2091.8	80.2	0.177

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

REMARKS:

TICKET NO: 35594100

CLOCK NO: 32069 HOUR: 24

GAUGE NO: 829

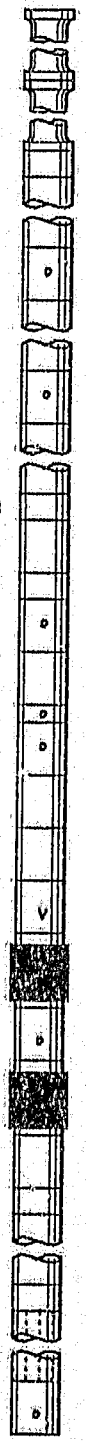
DEPTH: 8225.0

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	1189.3			
	2	20.0	1349.5	160.2		
	3	40.0	1428.1	78.6		
	4	60.0	1411.2	-16.9		
	5	80.0	1384.0	-27.2		
	6	100.0	1326.7	-57.3		
C	7	120.5	1277.6	-49.0		
			FIRST CLOSED-IN			
C	1	0.0	1277.6			
	2	10.0	2784.5	1506.8	9.2	1.117
	3	20.0	2858.7	1581.0	17.1	0.847
	4	30.0	2910.3	1632.6	24.0	0.701
	5	40.0	2951.1	1673.5	30.0	0.603
	6	50.0	2986.7	1709.1	35.3	0.533
	7	60.0	3016.6	1739.1	40.0	0.478
	8	70.0	3041.9	1764.2	44.3	0.435
	9	80.0	3063.7	1786.1	48.1	0.399
	10	90.0	3083.7	1806.1	51.5	0.369
	11	100.0	3102.9	1825.2	54.7	0.343
	12	110.0	3120.4	1842.8	57.5	0.321
	13	120.0	3137.1	1859.4	60.1	0.302
	14	130.0	3151.4	1873.8	62.5	0.285
	15	140.0	3166.0	1888.3	64.8	0.270
	16	150.0	3178.8	1901.1	66.8	0.256
	17	160.0	3191.5	1913.9	68.7	0.244
	18	170.0	3203.5	1925.9	70.5	0.233
	19	180.0	3214.4	1936.7	72.2	0.223
	20	190.0	3223.8	1946.2	73.8	0.213
	21	200.0	3235.0	1957.3	75.2	0.205
	22	210.0	3244.9	1967.3	76.6	0.197
	23	220.0	3254.2	1976.5	77.9	0.190
	24	230.0	3263.3	1985.6	79.1	0.183
D	25	239.5	3271.2	1993.6	80.2	0.177

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

REMARKS:

TICKET NO. 35594100



		O.D.	I.D.	LENGTH	DEPTH
1	DRILL PIPE	4.500	3.826	7601.1	
4	FLEX WEIGHT	4.500	2.764	179.2	
5	CROSSOVER	6.500	2.875	2.5	
3	DRILL COLLARS	6.500	2.875	215.8	
51	PUMP OUT REVERSING SUB	6.000	3.000	1.0	8368.7
3	DRILL COLLARS	6.500	2.875	91.9	
50	IMPACT REVERSING SUB	6.000	3.000	1.0	8051.6
3	DRILL COLLARS	6.500	2.875	30.8	
258	BAR CATCHER SUB	5.750	1.120	1.0	
80	AP RUNNING CASE	5.000	2.250	4.1	8127.3
5	CROSSOVER	5.000	2.200	1.0	
12	DUAL CIP VALVE	5.000	0.870	4.9	
202	SAMPLE CHAMBER	5.000	2.500	4.9	
33	DRAIN VALVE	5.000	2.200	0.9	
60	HYDROSPRING TESTER	5.000	0.750	5.3	8144.9
80	AP RUNNING CASE	5.000	2.250	4.1	8148.4
15	JAR	5.000	1.750	5.0	
16	VR SAFETY JOINT	5.000	1.000	2.8	
70	OPEN HOLE PACKER	7.500	1.530	5.8	8161.3
18	DISTRIBUTOR VALVE	5.000	1.680	2.0	
70	OPEN HOLE PACKER	7.500	1.530	5.8	8169.1
19	ANCHOR PIPE SAFETY JOINT	5.000	1.500	4.3	
5	CROSSOVER	5.750		1.0	
3	DRILL COLLARS	6.500	2.875	30.7	
5	CROSSOVER	5.750		1.0	
20	FLUSH JOINT ANCHOR	5.000	2.370	16.0	
81	BLANKED-OFF RUNNING CASE	5.000		4.1	8225.0
	TOTAL DEPTH				8228.0

EQUIPMENT DATA

LIV

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WAUKATANNA	1	2	8309.1 - 8353.0	SANTOS LTD.
LEASE NAME	WELL NO.	TEST NO.	TESTED INTERVAL	LEASE OWNER/COMPANY NAME

LEGAL LOCATION SEC. - TWP. - RNG.	SEE REMARKS	FIELD AREA	COOPER BASIN	COUNTY	SOUTH AUSTRALIA	STATE	AUSTRALIA SM
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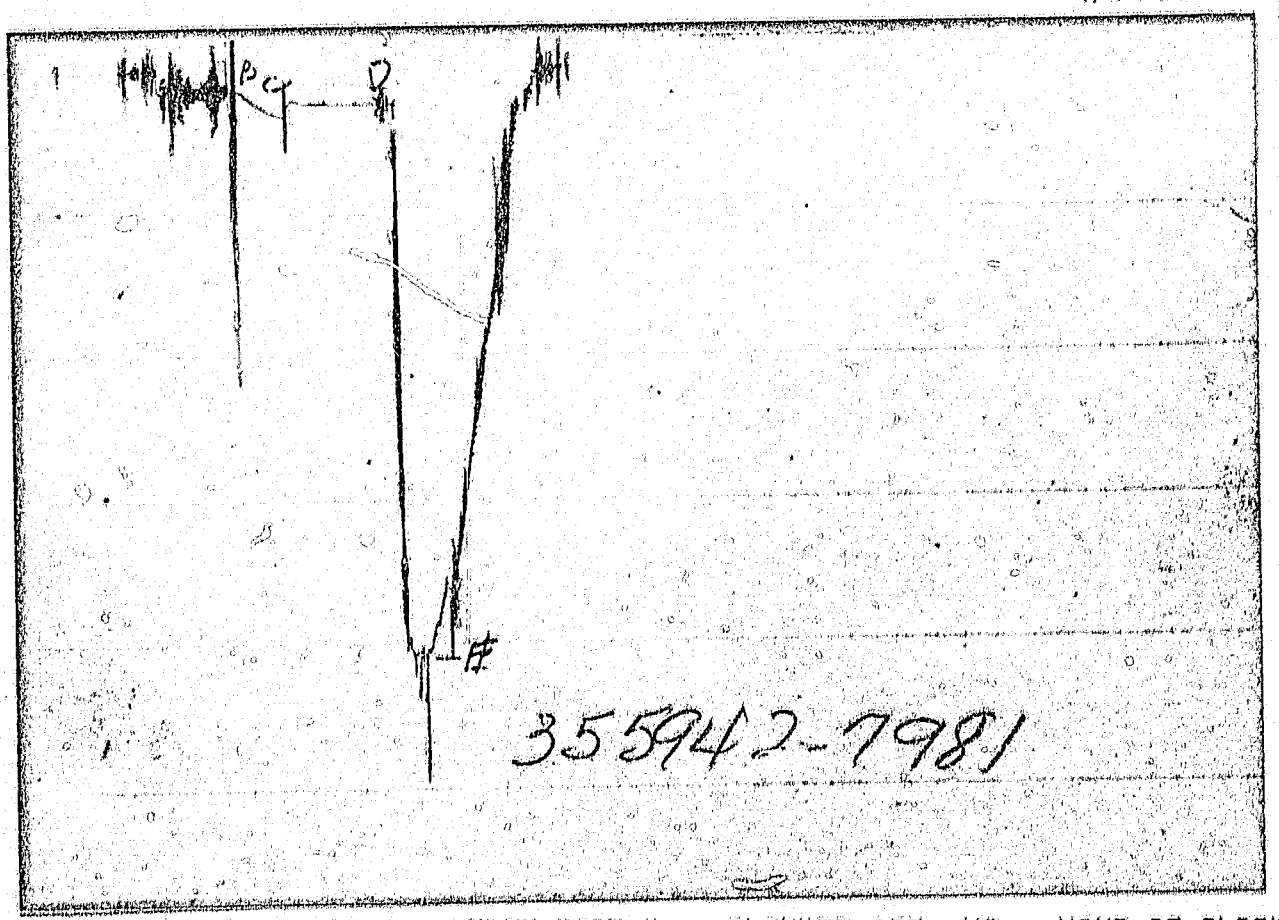
HALLIBURTON SERVICES

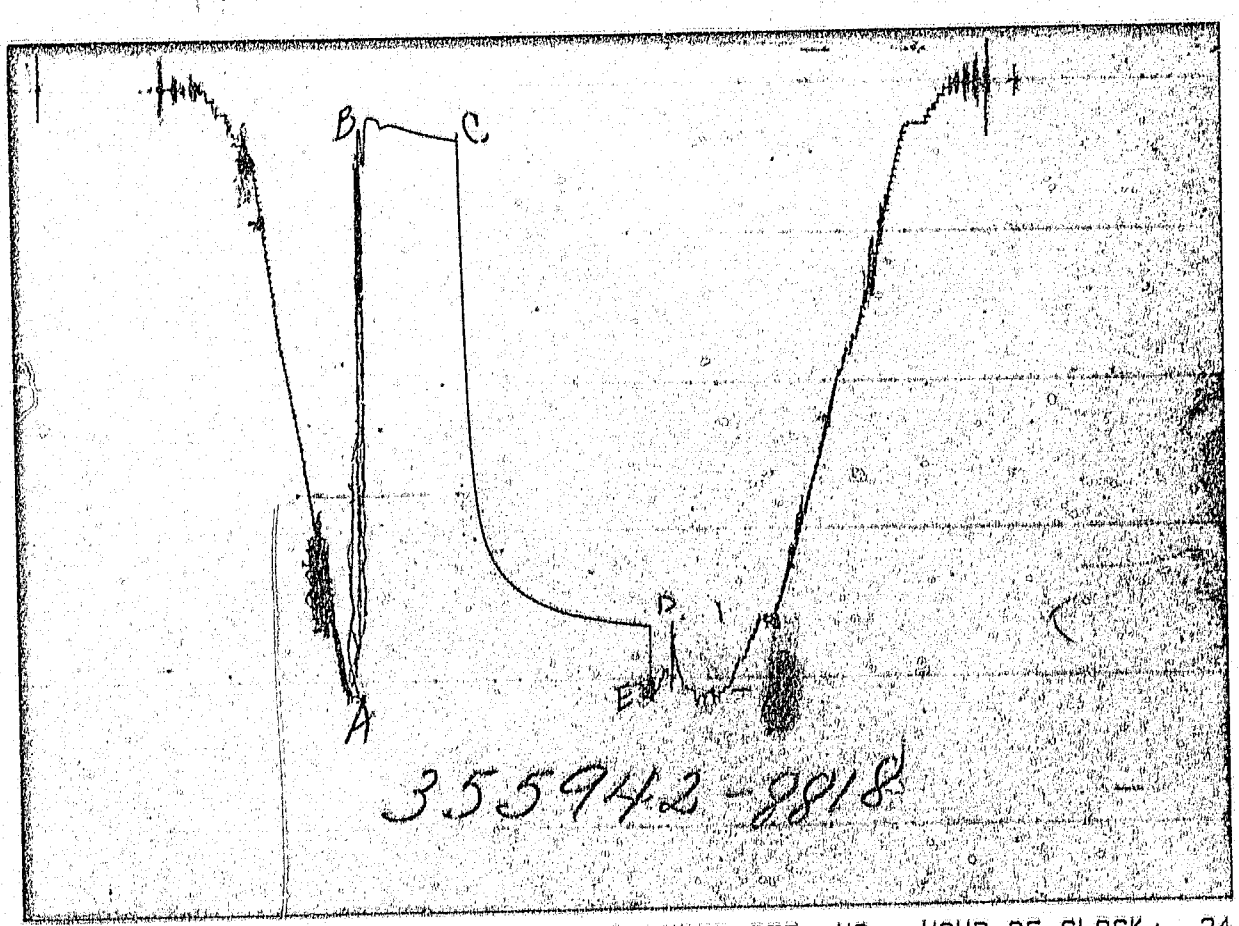
TICKET NO. 35594200
31-AUG-88
MOOMBA

FORMATION TESTING SERVICE REPORT



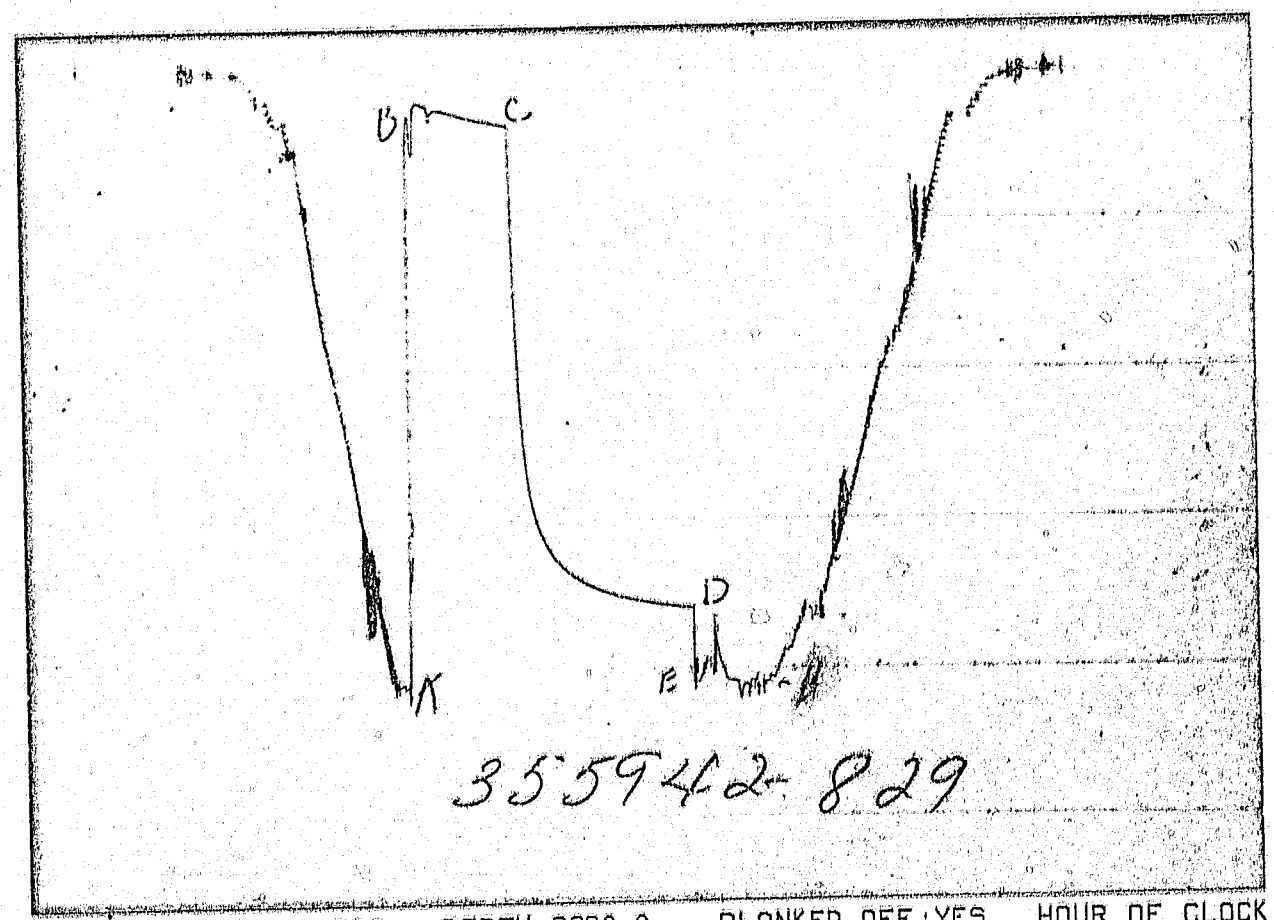
GAUGE NO: 7981 DEPTH: 8267.3 BLANKED OFF: NO HOUR OF CLOCK: 48

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC					
B	INITIAL FIRST FLOW		150.5	120.0	121.9	F
C	FINAL FIRST FLOW		338.6			
C	INITIAL FIRST CLOSED-IN		338.6	240.0	238.1	C
D	FINAL FIRST CLOSED-IN	266	240.5			
E	FINAL HYDROSTATIC		4090.9			



GAUGE NO: 8818 DEPTH: 8288.4 BLANKED OFF: NO HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	4108	4103.4			
B	INITIAL FIRST FLOW	295	303.3	120.0	121.9	F
C	FINAL FIRST FLOW	374	364.2			
C	INITIAL FIRST CLOSED-IN	374	364.2	240.0	238.1	C
D	FINAL FIRST CLOSED-IN	3653	3652.7			
E	FINAL HYDROSTATIC	4098	4092.9			



GAUGE NO: 829 DEPTH: 8360.0 BLANKED OFF: YES HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	4133	4120.3			
B	INITIAL FIRST FLOW	324	309.3	120.0	121.9	F
C	FINAL FIRST FLOW	388	372.4			
C	INITIAL FIRST CLOSED-IN	388	372.4	240.0	238.1	C
D	FINAL FIRST CLOSED-IN	3616	3604.9			
E	FINAL HYDROSTATIC	4104	4091.7			

T81

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EQUIPMENT & HOLE DATA

FORMATION TESTED: PATCHAWARRA
NET PAY (ft):
GROSS TESTED FOOTAGE: 53.9
ALL DEPTHS MEASURED FROM: KB
CASING PERFS. (ft):
HOLE OR CASING SIZE (in): 8.500
ELEVATION (ft): 108.0
TOTAL DEPTH (ft): 8363.0
PACKER DEPTH(S) (ft): 8301, 8309
FINAL SURFACE CHOKE (in): 0.25000
BOTTOM HOLE CHOKE (in): 0.750
MUD WEIGHT (lb/gal): 9.50
MUD VISCOSITY (sec): 38
ESTIMATED HOLE TEMP. (°F): 270
ACTUAL HOLE TEMP. (°F): 272 @ 8359.0 ft

TICKET NUMBER: 35594200
DATE: 7-15-87 TEST NO: 2
TYPE DST: OPEN HOLE
HALLIBURTON CAMP: MOOMBA
TESTER: D. HARRISON
WITNESS: WILKINSON
DRILLING CONTRACTOR: D.D.AND E RIG #5

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
WATER (FT)	240.0	8.40

RECOVERED:

1420 FEET OF MUDDY WATER

MEASURED FROM TESTER VALVE

REMARKS:

LEGAL LOCATION: 028 DEG 22' 02.0"S. LAT.
140 DEG 04' 43.8"E. LONG.

TYPE & SIZE MEASURING DEVICE: 6" CERAMIC SURFACE CHOKE | TICKET NO: 35594200

TIME	CHOKE SIZE	SURFACE PRESSURE PSI	GAS RATE MCF	LIQUID RATE BPD	REMARKS
7-15-87					
1248					MADE UP TOOLS
1404					RAN IN HOLE WITH COLLARS AND
					FLEX WEIGHT PIPE
1446					PICKED UP HEAD AND BROKE TO
					LOAD DROP BAR
1456					LAID OUT TEST HEAD
1500					RAN IN HOLE WITH DRILL PIPE
1710					PICKED UP HEAD AND MADE UP
1712					MADE UP LINES TO SURFACE
					EQUIPMENT
1723					TAGGED BOTTOM
1724					SET 30,000# ON TOOL
1726	.5				TOOL OPENED WITH WEAK BLOW
1729	.5				STRONG BLOW
1730	.5				STRONG BLOW
1733	.25				CHANGED TO 1/4", STRONG BLOW
1735	.25				STRONG BLOW
1740	.25				CLEARED BLOCKAGE IN MANIFOLD
1742	.25	17			STRONG BLOW
1745	.25	23			GAS TO THE SURFACE, FLARING
1750	.25	30			GAS TO THE SURFACE, FLARING
1755	.25	39			SAME
1800	.25	48			SAME
1805	.25	57			SAME
1810	.25	65			SAME
1815	.25	73			SAME
1820	.25	81			SAME
1827	.25	94			SAME
1830	.25	99			SAME
1840	.25	110			SAME
1845	.25	114			SAME
1850	.25	121			SAME
1900	.25	130			SAME
1905	.25	135			SAME
1910	.25	139			SAME
1915	.25	142			SAME

TYPE & SIZE MEASURING DEVICE: 6" CERAMIC SURFACE CHOKE | TICKET NO: 35594200

TIME	CHOKE SIZE	SURFACE PRESSURE PSI	GAS RATE MCF	LIQUID RATE BPD	REMARKS
1920	.25	145			SAME
1925	.25	150			SAME
1926	.25	151			CLOSED TOOL
1926					OPENED BYPASS
2326					LAID OUT TEST HEAD
2329					PULLED 3 STANDS OF DRILL PIPE
2333					MADE UP TEST HEAD AND LINES
2343					TO REVERSE
					DROPPED REVERSING BAR
2350					PIN BROKE, STARTED REVERSING
2351					
7-16-87					LAID OUT HEAD AND RIGGED
0050					DOWN SURFACE EQUIPMENT
					PULLED OUT OF HOLE
0100					TOOL AT FLOOR
0545					BROKE DOWN AND LAID OUT
0650					

TICKET NO: 35594200

CLOCK NO: 10878 HOUR: 48

GAUGE NO: 7981

DEPTH: 8267.3

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	150.5			
	2	20.0	173.4	22.9		
	3	40.0	226.0	52.6		
	4	60.0	264.3	38.3		
	5	80.0	295.9	31.6		
	6	100.0	319.8	24.0		
C	7	121.9	338.6	18.8		
			FIRST CLOSED-IN			
C	1	0.0	338.6			
D	2	238.1	240.5	-98.1	80.6	0.180

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

REMARKS:

TICKET NO: 35594200	GAUGE NO: 8818
CLOCK NO: 7273 HOUR: 24	DEPTH: 8288.4

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	303.3			
	2	20.0	213.2	-90.1		
	3	40.0	259.6	46.4		
	4	60.0	291.7	32.1		
	5	80.0	322.5	30.8		
	6	100.0	344.0	21.5		
C	7	121.9	364.2	20.2		
			FIRST CLOSED-IN			
C	1	0.0	364.2			
	2	10.0	2146.6	1782.5	9.2	1.122
	3	20.0	2783.3	2419.1	17.2	0.851
	4	30.0	3051.5	2687.2	24.1	0.704
	5	40.0	3183.4	2819.2	30.1	0.607
	6	50.0	3271.8	2907.5	35.5	0.536
	7	60.0	3339.0	2974.7	40.2	0.482
	8	70.0	3388.6	3024.4	44.5	0.438
	9	80.0	3429.5	3065.3	48.3	0.402
	10	90.0	3464.0	3099.7	51.8	0.372
	11	100.0	3492.2	3128.0	54.9	0.345
	12	110.0	3514.7	3150.4	57.8	0.324
	13	120.0	3534.4	3170.1	60.5	0.304
	14	140.0	3567.6	3203.3	65.2	0.272
	15	160.0	3591.3	3227.1	69.2	0.246
	16	180.0	3610.8	3246.6	72.7	0.225
	17	200.0	3627.1	3262.9	75.7	0.207
	18	220.0	3641.3	3277.1	78.4	0.191
D	19	238.1	3652.7	3288.5	80.6	0.180

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

REMARKS:

TICKET NO: 35594200

CLOCK NO: 32069 HOUR: 24

GAUGE NO: 829

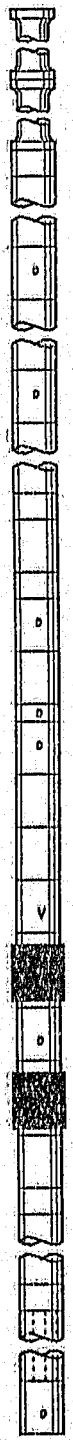
DEPTH: 8360.0

	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	309.3			
	2	20.0	228.9	-80.4		
	3	40.0	267.7	38.8		
	4	60.0	297.2	29.5		
	5	80.0	327.9	30.7		
	6	100.0	348.9	20.9		
C	7	121.9	372.4	23.5		
			FIRST CLOSED-IN			
C	1	0.0	372.4			
	2	10.0	2100.3	1727.9	9.2	1.121
	3	20.0	2718.8	2346.3	17.2	0.851
	4	30.0	2984.9	2612.5	24.0	0.705
	5	40.0	3132.6	2760.2	30.1	0.607
	6	50.0	3227.8	2855.4	35.4	0.537
	7	60.0	3296.3	2923.9	40.2	0.481
	8	70.0	3348.1	2975.7	44.5	0.438
	9	80.0	3389.8	3017.4	48.3	0.402
	10	90.0	3421.4	3049.0	51.8	0.372
	11	100.0	3448.7	3076.3	54.9	0.346
	12	110.0	3471.4	3099.0	57.8	0.324
	13	120.0	3490.4	3118.0	60.5	0.304
	14	140.0	3521.5	3149.1	65.2	0.272
	15	160.0	3545.7	3173.3	69.2	0.246
	16	180.0	3565.1	3192.7	72.7	0.225
	17	200.0	3581.4	3209.0	75.7	0.207
	18	220.0	3595.5	3223.1	78.4	0.191
D	19	238.1	3604.9	3232.5	80.6	0.180

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

REMARKS:

TICKET NO. 35594200



		O.D.	I.D.	LENGTH	DEPTH
1	DRILL PIPE	4.500	3.826	7741.1	
4	FLEX WEIGHT	6.063	2.764	179.2	
5	CROSSOVER	6.500	2.875	2.5	
3	DRILL COLLARS	6.500	2.875	184.9	
51	PUMP OUT REVERSING SUB	6.000	3.000	1.0	8108.7
3	DRILL COLLARS	6.500	2.875	91.9	
50	IMPACT REVERSING SUB	6.000	3.000	1.0	8201.7
3	DRILL COLLARS	6.500	2.875	61.7	
258	BAR CATCHER SUB	5.750	1.120	1.0	
80	AP RUNNING ASE	5.000	2.250	4.1	8267.3
5	CROSSOVER	5.000	2.200	1.0	
12	DUAL CIP VALVE	5.000	0.870	4.9	
202	SAMPLE CHAMBER	5.000	2.500	4.9	
33	DRAIN VALVE	5.000	2.200	0.9	
60	HYDROSPRING TESTER	5.000	0.750	5.3	8284.9
80	AP RUNNING CASE	5.000	2.250	4.1	8288.4
15	JAR	5.000	1.750	5.0	
16	VR SAFETY JOINT	5.000	1.000	2.8	
70	OPEN HOLE PACKER	7.500	1.530	5.8	8301.3
18	DISTRIBUTOR VALVE	5.000	1.680	2.0	
70	OPEN HOLE PACKER	7.500	1.530	5.8	8309.1
18	ANCHOR PIPE SAFETY JOINT	5.000	1.500	4.3	
5	CROSSOVER	5.750	2.250	1.0	
3	DRILL COLLARS	6.500	2.875	30.7	
5	CROSSOVER	5.750	2.250	1.0	
20	FLUSH JOINT ANCHOR	5.000	2.370	11.0	
81	BLANKED-OFF RUNNING CASE	5.000		4.1	8360.0
	TOTAL DEPTH				8363.0

EQUIPMENT DATA

WAUKATANNA NO. 1

A1/1

K.K. No.	Depth (ft)	$\bar{R}_v$max	Range	N	Description Including Exinite Fluorescence
x8471	5370-5390 Ctgs	0.62	0.54-0.71	11	Common sporinite and liptodetrinite, orange, sparse cutinite, yellow to orange, rare Botryococcus related telalginite, bright orange. (Siltstone>sandstone>carbonate>coal. Coal rare, V. Vitrite. Dom abundant, I>E>V. Inertinite and cutinite common, vitrinite sparse. Rare thucholites. Iron oxide sparse. Pyrite sparse.)
					Birkhead Formation
x8472	6100-6130 Ctgs	0.59	0.48-0.73	27	Common sporinite and liptodetrinite, orange to dull orange, sparse cutinite, orange to dull orange, sparse suberinite, weak brown, rare resinite, yellow. (Sandstone>siltstone>claystone>coal>shaly coal. Coal abundant, V>E>>I. Vitrite>clarite. Shaly coal common, V>E. Clarite. Dom abundant, V=I>E. All three maceral groups common. Micrinite abundant in some coals. Weak brown fluorescence from desmocollinite. Sparse dull orange fluorescing bitumen and bright yellow ?oil drops. Cavings common. Iron oxide rare. Pyrite sparse.)
x8473	6190-6210	0.59	0.46-0.75	27	Sparse sporinite and cutinite, orange to dull orange, rare resinite, yellow. (Sandstone>siltstone>claystone>carbonate>coal. Coal rare, V. Vitrite. Dom common, E>V>I. All three maceral groups common. Some coal cavings. Iron oxide rare. Pyrite sparse.)
					Poolowanna Beds
x8474	6470-6500 Ctgs	0.63	0.52-0.76	27	Sparse sporinite and liptodetrinite, orange to dull orange, rare cutinite, orange. (Sandstone>siltstone>claystone>coal. Coal sparse, V. Vitrite. Dom common, I>E>V. Inertinite common, exinite and vitrinite sparse. Micrinite abundant in some coals. Weak brown fluorescence from desmocollinite. Iron oxide common. Pyrite sparse.)
					Toolachee Formation
x8475	6470-6490 Ctgs	0.83	0.70-1.02	28	Abundant sporinite and common cutinite, orange to dull orange, sparse Reinschia related telalginite, bright orange, rare resinite, yellow. (Sandstone>coal>siltstone=carbonate>shaly coal. Coal major, I>V>E. Clarodurite>duroclarite>durite=vitrinertite(V). Shaly coal common, I>V>E. Clarodurite. Dom sparse, I>V>E. Inertinite and vitrinite sparse, exinite rare. Weak brown fluorescence from desmocollinite. Iron oxide rare. Pyrite sparse.)
x8476	7060-7090 Ctgs	0.87	0.77-1.01	28	Common sporinite, orange to dull orange, sparse cutinite, dull orange. (Sandstone>coal>siltstone>carbonate. Coal major, V>I>E. Duroclarite>vitrite>inertite>clarodurite=vitrinertite(V). Dom common, I>V>E. Inertinite common, vitrinite and exinite sparse. Micrinite abundant in some coals. Weak brown fluorescence from desmocollinite. Some vitrinite resinous. Iron oxide rare. Pyrite sparse.)

7075/2

WAUKATANNA NO. 1

K.K. No.	Depth (ft)	$\bar{R}_v$max	Range	N	Description Including Exinite Fluorescence
					Daralingie Formation
x8477	7180-7210 Ctgs	0.92	0.79-1.05	29	Abundant sporinite and sparse cutinite, dull orange. (Coal>siltstone>sandstone>shaly coal=carbonate. Coal dominant, V>I>E. Vitrite>duroclarite>clarite=vitrinertite(V)>clarodurite. Shaly coal major, V>I>E. Duroclarite>vitrinertite(V). Inertinite and vitrinite common, exinite sparse. Weak brown fluorescence from desmocollinite. Mineral matter fluorescence moderate. Iron oxide rare. Pyrite sparse.)
					Roseneath Shale Formation
x8478	7440-7470 Ctgs	0.92	0.82-1.12	19	Sparse sporinite and rare cutinite, weak brown. (Siltstone>carbonate>claystone>coal. Coal sparse, I>V>E. Inertite>clarodurite. Dom abundant, I>V=E. Inertinite abundant, vitrinite and exinite sparse. Rare to sparse, weak brown fluorescing bitumen. Rare thucholites. Iron oxide rare. Pyrite common.)
					Epsilon Formation
x8479	7650-7680 Ctgs	1.02	0.91-1.17	32	Sparse sporinite and rare cutinite, weak brown, rare resinite, yellow. (Siltstone>coal>sandstone>carbonate>shaly coal. Coal dominant, V>I>>E. Vitrite>vitrinertite(V)>vitrinertite(I)>duroclarite=clarodurite. Shaly coal abundant, I>V. Vitrinertite. Dom abundant, I>V>>E. Inertinite abundant, vitrinite common, exinite rare. Weak brown fluorescence from desmocollinite. Micrinite abundant in some coals. Dead green oil cuts from some coals. Iron oxide rare. Pyrite sparse.)
					Murteree Shale
x8480	7810-7840 Ctgs	1.10	0.95-1.19	28	Rare sporinite, weak brown. (Siltstone>carbonate>sandstone>claystone=coal. Coal abundant, V>>I>>E. Vitrite>vitrinertite(V). Dom abundant, I>V. Inertinite abundant, vitrinite sparse, exinite absent. Weak brown fluorescence from desmocollinite. Mineral matter fluorescence moderate. Iron oxide rare. Pyrite sparse.)
					Patchawarra Formation
x8481	8190-8220 Ctgs	1.23	1.10-1.34	29	Sparse sporinite and rare cutinite, weak brown. (Sandstone>coal>claystone>siltstone=shaly coal>carbonate. Coal dominant, V>I>>E. Vitrite>vitrinertite(V)>vitrinertite(I)=inertite>clarodurite. Shaly coal abundant, V>I. Vitrinertite. Dom common, V>I. Vitrinite common, inertinite sparse, exinite absent. Micrinite abundant in some coals. Mineral matter fluorescence moderate. Weak brown fluorescence from desmocollinite. Iron oxide rare. Pyrite sparse.)
x8482	8280-8310 Ctgs	1.26	1.11-1.36	29	Rare sporinite, weak brown. (Coal>sandstone>siltstone>shaly coal>claystone. Coal dominant, V>I>>E. Vitrinertite(V)>vitrinertite(I)>vitrite>inertite. Shaly coal major, V>I. Vitrinertite(I)=vitrite>vitrinertite(V). Dom common, I>V. Inertinite and vitrinite common, exinite absent. Live green oil cuts from some coal. Very weak brown fluorescence from desmocollinite. Iron oxide sparse. Pyrite sparse.)

WAUKATANNA NO. 1

K.K. No.	Depth (ft)	$\bar{R}_v$max	Range	N	Description Including Exinite Fluorescence	
x8483	8400-8430 Ctgs	1.32	1.22-1.40	28	Rare sporinite, weak brown. (Coal>sandstone>shaly coal>siltstone>carbonate. Coal dominant, V>I>>E. Vitrinertite(V)>vitrite>vitrinertite(I)>inertite. Shaly coal major, V>I. Vitrinertite(V)>vitrinertite(I). Dom common, I>V. Inertinite common, vitrinite sparse, exinite absent. Micrinite abundant in some coals. Dead green oil cuts from some coals. Iron oxide rare. Pyrite sparse.)	

ABUNDANCE FACTORS

TOTAL COUNT N= 50

KK No.	PROJECT	FORMATION	DEPTH	TYPE
x8471	Waukatanna-1	Murta	5370' 5390'	etgs

COAL — PERCENTAGE IN COAL

	V	I	E
TOTAL COAL % Tr	100	0	0

MICROLITHOTYPES Vitrite

SHALY COAL — PERCENTAGE IN SHALY COAL *

* CALCULATED ON A MINERAL MATTER FREE BASIS

	V	I	E
TOTAL SHALY COAL % —	—	—	—

RELATED MICROLITHOTYPES

DOM (GRAINS IN ABUNDANCE CATEGORIES)	VITRINITE %	VITRINITE CUM %	INERTINITE %	INERTINITE CUM %	EXINITE %	EXINITE CUM %	TOTAL DOM %	TOTAL DOM CUM %
>10% (MAJOR)	0	0	0	0	0	0	2	2
>2% (ABUNDANT)	0	0	24	24	20	20	32	34
>0.5% (COMMON)	6	6	12	36	16	36	10	44
>0.1% (SPARSE)	12	18	6	42	6	42	6	50
APPROXIMATE ABUNDANCE	0.1		1.3		1.2		Abundant	
APPROXIMATE % OF DOM	4		50'		46		APPROX. 2.6 % % OF SAMPLE	

PERCENTAGE OF ROCK TYPES	SANDSTONE	SILTSTONE	CLAYSTONE	SHALY COAL	COAL	CARBONATE	OTHERS (SPECIFY)
	40	42	0	0	Tr.	18	—

ABUNDANCE FACTORS

TOTAL COUNT N= 50

KK No.	PROJECT	FORMATION	DEPTH	TYPE
x8472	Waikatanna-1	Birkhead	6100', 6130'	cttgs.

PERCENTAGE IN COAL

COAL	V	L	E
TOTAL COAL % 4	75	Tr	25
MICROLITHOTYPES	Vitrite > clarite		

PERCENTAGE IN SHALY COAL *

* CALCULATED ON A MINERAL MATTER FREE BASIS

SHALY COAL	V	L	E
TOTAL SHALY COAL % 2	70	0	30
RELATED MICROLITHOTYPES	Clarite.		

DOM (GRAINS IN ABUNDANCE CATEGORIES)	VITRINITE %	VITRINITE CUM %	INERTINITE %	INERTINITE CUM %	EXINITE %	EXINITE CUM %	TOTAL DOM %	TOTAL DOM CUM %
>10% (MAJOR)	0	0	0	0	0	0	4	4
>2% (ABUNDANT)	14	14	12	12	14	14	28	32
>0.5% (COMMON)	8	22	16	28	4	18	8	40
>0.1% (SPARSE)	6	28	8	36	4	22	6	46
APPROXIMATE ABUNDANCE	0·8		0·8		0·7		abundant	
APPROXIMATE % OF DOM	35		35		30		APPROX. 2-3 % % OF SAMPLE	

PERCENTAGE OF ROCK TYPES	SANDSTONE	SILTSTONE	CLAYSTONE	SHALY COAL	COAL	CARBONATE	OTHERS (SPECIFY)
	46	38	10	2	4	-	

ABUNDANCE FACTORS

TOTAL COUNT N= 50

KK No.	PROJECT	FORMATION	DEPTH	TYPE
x8473	Waukatenna-1	Birkhead	6190', 6210'	cttgs.

PERCENTAGE IN COAL

COAL	V	L	E
TOTAL COAL % Tr	100	-	-
MICROLITHOTYPES	Vitrite.		

PERCENTAGE IN SHALY COAL *

* CALCULATED ON A MINERAL MATTER FREE BASIS

SHALY COAL	V	L	E
TOTAL SHALY COAL % ___	___	___	___
RELATED MICROLITHOTYPES			

DOM (GRAINS IN ABUNDANCE CATEGORIES)	VITRINITE %	VITRINITE CUM %	INERTINITE %	INERTINITE CUM %	EXINITE %	EXINITE CUM %	TOTAL DOM %	TOTAL DOM CUM %
>10% (MAJOR)	0	0	0	0	0	0	0	0
>2% (ABUNDANT)	8	8	8	8	12	12	26	26
>0.5% (COMMON)	16	24	12	20	8	20	16	42
>0.1% (SPARSE)	8	32	6	26	10	30	6	48
APPROXIMATE ABUNDANCE	0.6		0.5		0.7		common	
APPROXIMATE % OF DOM	33		28		39		APPROX. 1.8 % % OF SAMPLE	

PERCENTAGE OF ROCK TYPES	SANDSTONE	SILTSTONE	CLAYSTONE	SHALY COAL	COAL	CARBONATE	OTHERS (SPECIFY)
	52	34	10	0	Tr	4	___

ABUNDANCE FACTORS

TOTAL COUNT N= 50

KK No.	PROJECT	FORMATION	DEPTH	TYPE
x8474	Wankatanna-1	Poolowanna	6470', 6500'	cttgs

COAL — PERCENTAGE IN COAL

	V	L	E
TOTAL COAL % Tr	100	-	-

MICROLITHOTYPES Vitrite.

SHALY COAL — PERCENTAGE IN SHALY COAL *

* CALCULATED ON A MINERAL MATTER FREE BASIS

	V	L	E
TOTAL SHALY COAL %			

RELATED MICROLITHOTYPES

DOM (GRAINS IN ABUNDANCE CATEGORIES)	VITRINITE %	VITRINITE CUM %	INERTINITE %	INERTINITE CUM %	EXINITE %	EXINITE CUM %	TOTAL DOM %	TOTAL DOM CUM %
>10% (MAJOR)	0	0	0	0	0	0	0	0
>2% (ABUNDANT)	2	2	12	12	6	6	14	14
>0.5% (COMMON)	4	6	6	18	6	12	4	18
>0.1% (SPARSE)	4	10	4	22	4	16	4	22
APPROXIMATE ABUNDANCE	0.2		0.7		0.4		Common	
APPROXIMATE % OF DOM	15		55		30		APPROX. 1.3 % OF SAMPLE	

PERCENTAGE OF ROCK TYPES	SANDSTONE	SILTSTONE	CLAYSTONE	SHALY COAL	COAL	CARBONATE	OTHERS (SPECIFY)
	82	14	4	0	Tr		

ABUNDANCE FACTORS

TOTAL COUNT N- 50

KK No.	PROJECT	FORMATION	DEPTH	TYPE
x8475	Waukatanna-1	Toolachee	6470', 6490'	etgs.

COAL — PERCENTAGE IN COAL

		V	I	E
TOTAL COAL %	24	37	53	10

MICROLITHOTYPES Clarodurite > duroclarite > durite = vitrinite (y)

SHALY COAL — PERCENTAGE IN SHALY COAL *

* CALCULATED ON A MINERAL MATTER FREE BASIS

		V	I	E
TOTAL SHALY COAL %	2	15	80	5

RELATED MICROLITHOTYPES Clarodurite.

DOM (GRAINS IN ABUNDANCE CATEGORIES)	VITRINITE %	VITRINITE CUM %	INERTINITE %	INERTINITE CUM %	EXINITE %	EXINITE CUM %	TOTAL DOM %	TOTAL DOM CUM %
>10% (MAJOR)	0	0	0	0	0	0	0	0
>2% (ABUNDANT)	2	2	6	6	0	0	8	8
>0.5% (COMMON)	2	4	0	6	4	4	0	8
>0.1% (SPARSE)	2	6	0	6	0	4	0	8
APPROXIMATE ABUNDANCE	0.1		0.3		<0.1		Sparse	
APPROXIMATE % OF DOM	23		68		9		APPROX. 0.4 % % OF SAMPLE	

PERCENTAGE OF ROCK TYPES	SANDSTONE	SILTSTONE	CLAYSTONE	SHALY COAL	COAL	CARBONATE	OTHERS (SPECIFY)
	62	6	-	2	24	6	

ABUNDANCE FACTORS

TOTAL COUNT N- 50

KK No.	PROJECT	FORMATION	DEPTH	TYPE
x8476	Waukatenna-1	Toolachee	7060' 7090'	cttgs

PERCENTAGE IN COAL

COAL	V	I	E	
TOTAL COAL % 22	64.5	33.2	2.3	Vitrinertite(V)
MICROLITHOTYPES	Durodarite > Vitrite > inertite > Clarodurite =			

PERCENTAGE IN SHALY COAL *

* CALCULATED ON A MINERAL MATTER FREE BASIS

SHALY COAL	V	I	E
TOTAL SHALY COAL % —	—	—	—
RELATED MICROLITHOTYPES			

DOM (GRAINS IN ABUNDANCE CATEGORIES)	VITRINITE %	VITRINITE CUM %	INERTINITE %	INERTINITE CUM %	EXINITE %	EXINITE CUM %	TOTAL DOM %	TOTAL DOM CUM %
>10% (MAJOR)	0	0	2	2	0	0	2	2
>2% (ABUNDANT)	2	2	8	10	0	0	8	10
>0.5% (COMMON)	8	10	0	10	4	4	0	10
>0.1% (SPARSE)	0	10	0	10	6	10	0	10
APPROXIMATE ABUNDANCE	0.2		0.7		0.1		common	
APPROXIMATE % OF DOM	20		70		10		APPROX. 1.0 % OF SAMPLE	

PERCENTAGE OF ROCK TYPES	SANDSTONE	SILTSTONE	CLAYSTONE	SHALY COAL	COAL	CARBONATE	OTHERS (SPECIFY)
	62	14	0	0	22	2	—

ABUNDANCE FACTORS

TOTAL COUNT N= 50

KK No.	PROJECT	FORMATION	DEPTH	TYPE
x8477	Waukatemna-1	Daralingie	7180' 7210'	Cttgs.

COAL — PERCENTAGE IN COAL

		V	L	E
TOTAL COAL %	32	81.0	13.7	5.3

MICROLITHOTYPES Vitrite > durodarite > clarite-Vitrinertite(v) > clarodurite

SHALY COAL — PERCENTAGE IN SHALY COAL *

* CALCULATED ON A MINERAL MATTER FREE BASIS

		V	L	E
TOTAL SHALY COAL %	12	72	24	4

RELATED MICROLITHOTYPES Durclarite > Vitrinertite(v)

DOM (GRAINS IN ABUNDANCE CATEGORIES)	VITRINITE %	VITRINITE CUM %	INERTINITE %	INERTINITE CUM %	EXINITE %	EXINITE CUM %	TOTAL DOM %	TOTAL DOM CUM %
>10% (MAJOR)	0	0	4	4	0	0	8	8
>2% (ABUNDANT)	10	10	22	26	2	2	22	30
>0.5% (COMMON)	14	24	2	28	12	14	2	32
>0.1% (SPARSE)	0	24	0	28	2	16	0	32
APPROXIMATE ABUNDANCE	0.6		1.7		0.2		Abundant	
APPROXIMATE % OF DOM	24		68		8		APPROX. 2.5 % % OF SAMPLE	

PERCENTAGE OF ROCK TYPES	SANDSTONE	SILTSTONE	CLAYSTONE	SHALY COAL	COAL	CARBONATE	OTHERS (SPECIFY)
	16	28	0	12	32	12	

ABUNDANCE FACTORS

TOTAL COUNT N= 50

KK No.	PROJECT	FORMATION	DEPTH	TYPE
x8478	Waikatanna - 1	Roseneath	7440', 7470'	cttgs.

COAL — PERCENTAGE IN COAL

	V	I	E
TOTAL COAL % Tr	20	80	Tr

MICROLITHOTYPES Inertite > clarodurite.

SHALY COAL — PERCENTAGE IN SHALY COAL *

* CALCULATED ON A MINERAL MATTER FREE BASIS

	V	I	E
TOTAL SHALY COAL % 0			

RELATED MICROLITHOTYPES

DOM (GRAINS IN ABUNDANCE CATEGORIES)	VITRINITE %	VITRINITE CUM %	INERTINITE %	INERTINITE CUM %	EXINITE %	EXINITE CUM %	TOTAL DOM %	TOTAL DOM CUM %
>10% (MAJOR)	0	0	2	2	0	0	2	2
>2% (ABUNDANT)	0	0	76	78	0	0	78	80
>0.5% (COMMON)	6	6	16	94	6	6	14	94
>0.1% (SPARSE)	6	12	2	96	20	26	2	96
APPROXIMATE ABUNDANCE	0·1		4·3		0·1		Abundant	
APPROXIMATE % OF DOM	2		96·		2		APPROX. 4·5 % % OF SAMPLE	

PERCENTAGE OF ROCK TYPES	SANDSTONE	SILTSTONE	CLAYSTONE	SHALY COAL	COAL	CARBONATE	OTHERS (SPECIFY)
	0	76	2	0	Tr	22	

ABUNDANCE FACTORS

TOTAL COUNT N= 50

KK No.	PROJECT	FORMATION	DEPTH	TYPE
x8479	Waukatanna	Epsilon	7650/7680'	etgs.

PERCENTAGE IN COAL

COAL	V	I	E	
TOTAL COAL % 36	67.5	31.9	0.6	clarodurite

MICROLITHOTYPES Vitrite > vitrinertite(I) > vitrinertite(v) > durodurite

PERCENTAGE IN SHALY COAL *

* CALCULATED ON A MINERAL MATTER FREE BASIS

SHALY COAL	V	I	E
TOTAL SHALY COAL % 4	45	55	-

RELATED MICROLITHOTYPES Vitrinertite

DOM (GRAINS IN ABUNDANCE CATEGORIES)	VITRINITE %	VITRINITE CUM %	INERTINITE %	INERTINITE CUM %	EXINITE %	EXINITE CUM %	TOTAL DOM %	TOTAL DOM CUM %
>10% (MAJOR)	0	0	6	6	0	0	10	10
>2% (ABUNDANT)	10	10	28	34	0	0	26	36
>0.5% (COMMON)	14	24	6	40	0	0	4	40
>0.1% (SPARSE)	0	24	2	42	2	2	4	44
APPROXIMATE ABUNDANCE	0.6		2.4		<0.1		Abundant	
APPROXIMATE % OF DOM	20		80		Tr		APPROX. 3.0 % % OF SAMPLE	

PERCENTAGE OF ROCK TYPES	SANDSTONE	SILTSTONE	CLAYSTONE	SHALY COAL	COAL	CARBONATE	OTHERS (SPECIFY)
	10	42	-	4	36	8	

ABUNDANCE FACTORS

TOTAL COUNT N= 50

KK No.	PROJECT	FORMATION	DEPTH	TYPE
x8480	Waukatanna	Murtevee	7810' 7840'	ctgs.

PERCENTAGE IN COAL

COAL	V	I	E
TOTAL COAL % 6	98	2	Tr

MICROLITHOTYPES Vitrite > Vitrinertite (V)

PERCENTAGE IN SHALY COAL *

* CALCULATED ON A MINERAL MATTER FREE BASIS

SHALY COAL	V	I	E
TOTAL SHALY COAL % 0			

RELATED MICROLITHOTYPES

DOM (GRAINS IN ABUNDANCE CATEGORIES)	VITRINITE %	VITRINITE CUM %	INERTINITE %	INERTINITE CUM %	EXINITE %	EXINITE CUM %	TOTAL DOM %	TOTAL DOM CUM %
>10% (MAJOR)	0	0	0	0	0	0	2	2
>2% (ABUNDANT)	4	4	68	68	0	0	66	68
>0.5% (COMMON)	20	24	4	72	0	0	8	76
>0.1% (SPARSE)	2	26	2	74	0	0	2	78
APPROXIMATE ABUNDANCE	0.4		3.4		0		Abundant	
APPROXIMATE % OF DOM	11		89		0		APPROX. 3.8 % OF SAMPLE	

PERCENTAGE OF ROCK TYPES	SANDSTONE	SILTSTONE	CLAYSTONE	SHALY COAL	COAL	CARBONATE	OTHERS (SPECIFY)
	8	68	6		6	12	

ABUNDANCE FACTORS

TOTAL COUNT N= 50

KK No.	PROJECT	FORMATION	DEPTH	TYPE
X8431	Waukatanna-1	Patchawarra	8190', 8220'	etqs

PERCENTAGE IN COAL

COAL	V	L	E	
TOTAL COAL % 32	55.5	44	0.5	claroduite.

MICROLITHOTYPES Vitrite > Vitrinertite(V) > Vitrinertite(I) = inertite > ∧

PERCENTAGE IN SHALY COAL *

* CALCULATED ON A MINERAL MATTER FREE BASIS

SHALY COAL	V	L	E
TOTAL SHALY COAL % 4	55	45	–

RELATED MICROLITHOTYPES Vitrinertite.

DOM (GRAINS IN ABUNDANCE CATEGORIES)	VITRINITE %	VITRINITE CUM %	INERTINITE %	INERTINITE CUM %	EXINITE %	EXINITE CUM %	TOTAL DOM %	TOTAL DOM CUM %
>10% (MAJOR)	4	4	0	0	0	0	6	6
>2% (ABUNDANT)	8	12	8	8	0	0	10	16
>0.5% (COMMON)	0	12	4	12	0	0	0	16
>0.1% (SPARSE)	0	12	0	12	0	0	0	16
APPROXIMATE ABUNDANCE	10		0.4		0		common	
APPROXIMATE % OF DOM	71		29		0		APPROX. 14 % OF SAMPLE	

PERCENTAGE OF ROCK TYPES	SANDSTONE	SILTSTONE	CLAYSTONE	SHALY COAL	COAL	CARBONATE	OTHERS (SPECIFY)
	46	4	12	4	32	2	

ABUNDANCE FACTORS

TOTAL COUNT N= 50

KK No.	PROJECT	FORMATION	DEPTH	TYPE
X8482	Waukatanna	Patchawarra	8280', 8310'	etqs

PERCENTAGE IN COAL

COAL		V	I	E
TOTAL COAL %	52	57	43	Tr

MICROLITHOTYPES Vitrinertite(V) > Vitrinertite(I) > Vitrite > inertite

PERCENTAGE IN SHALY COAL *

* CALCULATED ON A MINERAL MATTER FREE BASIS

SHALY COAL		V	I	E
TOTAL SHALY COAL %	10	72	28	0

RELATED MICROLITHOTYPES Vitrinertite(I) = Vitrite > Vitrinertite(V)

DOM (GRAINS IN ABUNDANCE CATEGORIES)	VITRINITE %	VITRINITE CUM %	INERTINITE %	INERTINITE CUM %	EXINITE %	EXINITE CUM %	TOTAL DOM %	TOTAL DOM CUM %
>10% (MAJOR)	0	0	2	2	0	0	4	4
>2% (ABUNDANT)	12	12	8	10	0	0	14	18
>0.5% (COMMON)	2	14	4	14	0	0	0	18
>0.1% (SPARSE)	0	14	0	14	0	0	0	18
APPROXIMATE ABUNDANCE	0.6		0.7		0		Common	
APPROXIMATE % OF DOM	46		54		0		APPROX. 13 % % OF SAMPLE	

PERCENTAGE OF ROCK TYPES	SANDSTONE	SILTSTONE	CLAYSTONE	SHALY COAL	COAL	CARBONATE	OTHERS (SPECIFY)
	20	16	2	10	52	—	—

ABUNDANCE FACTORS

TOTAL COUNT N= 50

KK No.	PROJECT	FORMATION	DEPTH	TYPE
x8483	Waikatanne-1	Patchawarra	8400', 8430'	cttgs

COAL — PERCENTAGE IN COAL

		V	I	E
TOTAL COAL %	48	70	30	Tr

MICROLITHOTYPES Vdrineohite(V) > Vitrite > Vdrineohite(I) > inertite

SHALY COAL — PERCENTAGE IN SHALY COAL *

* CALCULATED ON A MINERAL MATTER FREE BASIS

		V	I	E
TOTAL SHALY COAL %	10	64	36	-

RELATED MICROLITHOTYPES Vdrineohite (V) > Vdrineohite (I)

DOM (GRAINS IN ABUNDANCE CATEGORIES)	VITRINITE %	VITRINITE CUM %	INERTINITE %	INERTINITE CUM %	EXINITE %	EXINITE CUM %	TOTAL DOM %	TOTAL DOM CUM %
>10% (MAJOR)	0	0	4	4	0	0	4	4
>2% (ABUNDANT)	6	6	2	6	0	0	4	8
>0.5% (COMMON)	0	6	2	8	0	0	2	10
>0.1% (SPARSE)	0	6	0	8	0	0	0	10
APPROXIMATE ABUNDANCE		0.3		6.7		0		Common
APPROXIMATE % OF DOM		30		70		0		APPROX. 1.0 % % OF SAMPLE

PERCENTAGE OF ROCK TYPES	SANDSTONE	SILTSTONE	CLAYSTONE	SHALY COAL	COAL	CARBONATE	OTHERS (SPECIFY)
	32	8	-	10	48	2	