

DEPT. NAT. RES & ENV



PE901819

W 766

OIL and GAS DIVISION

2 8 OCT 1982

APPENDIX 2

SIDEWALL CORE DESCRIPTIONS

TRITON # 1 SIDETRACK

OTWAY BASIN





SERVICE CO SCHLUMBERGER IES RUN NO 2 SWC RUN NO 1 DATE 21/4/82

NO	DEPTH	REC	ROCK TYPE	MODIFIERS		CAL	COLOR	INDUR DEG	GRAIN SIZE	SRTG	RND	DISS CLAY	STAIN	FLOURESCENCE			CUT FLUOR		CUT RESIDUE		SHOW	PROB	REMARKS - GAS	
				4	5									6	7	8	9	10	11	12				13
11	3492	30	Ss	calc cmt pyrite	mod	white	fri	fg to good	a-	sa	-												Mudlog gas background 5.5 units	
12	3485	30	Ss	calc cmt. carb matl	mod	white	fri	fg to good	sa	-													Mudlog gas background 4 units	
13	3481.7	30	Ss	calc cmt carb matl pyrite	mod	white	fri	fg to good	sa	-													Mudlog gas background 5 units	
14	3472	30	Ss	calc cmt carb matl argillaceous laminae	mod	white	fri	fg to poor	sa-	-													Mudlog gas background 4 units	
15	3468	15	Ss	silica cmt occ carb matl	mod	white	hard	mg to poor	a														Mudlog gas background 2 units	
16	3464.5	NR																						
17	3457.5	30	Ss	carb matl abundant pyrite	v	lt gy	fri	fg	good	a-	sa												Mudlog gas background 4 units	

FORM R 217 372



NO.	DEPTH	REC	ROCK TYPE	MODIFIERS	CAL	COLOR	INDUR DEG	GRAIN SIZE	SRTG	FND	DISS CLAY	STAIN	FLOURESCENCE				CUT FLUOR.		CUT RESIDUE		SHOW	PROB PROD	REMARKS - GAS		
													% RK	DISTR	INTEN	COLOR	INTEN	COLOR	QUAN	COLOR					
1a	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		
23	3439.5	30	Ss	calc cmt; pyrite carb matl argillaceous matl	mod	white	fri	cg to	poor	a	-													Mudlog gas peak at 7 units	
24	3434.9	30	SS	calc cmt; pyrite carb.matl	v	white	fri	cg	poor	a	-													Mudlog gas peak at 9-14 units	
25	3430.5	NR																							
26	3425.0	30	SS	calc cmt pyrite abundant carb matl	v	white	fri	cg	poor	a	-													Mudlog gas peak nearby of 60 units	

FORM R 2173-2

NO.	DEPTH	REC	ROCK TYPE	MODIFIERS		CAL	COLOR	INDUR DEG	GRAIN SIZE	SRTG	RND	DISS CLAY	STAIN	FLOURESCENCE			CUT FLUOR.			CUT RESIDUE		SHOW	PROB PROD	REMARKS - GAS	
				1a	4									5	6	7	8	9	10	11	12				13
27	3415.0	20	Ss	pyrite;	v		white	fri	cg -	poor	a	-													Mudlog gas peak of 38 units
				calcareous			to		mg																
				cmt;			lt gy																		
				argillaceous																					
				matl.																					
28	3412.0	NR																							
29	3407.6	30	Ss/	qtze Ss	v		white	fri	cg -	poor	a	-													Mudlog gas background 2 units
			Shale	argillaceous			- dk	to	vfg																
				calc cmt			gy	v.hd																	
				carb.matl																					
				Shale																					
				argill;	sl		dk gy	fiss	-	-	-	-													
				micaceous;																					
				swelling clays																					
30	3397.9	20	Ss	majority	v		lt gy	fri	fg -	good	sa-	-													Mudlog gas peak of 30 units
				of rock					vfg		sr														
				calc cmt																					
				vfg carb.																					
				matl.																					

FORM R 281172



NO.	DEPTH	REC	ROCK TYPE	MODIFIERS		CAL	COLOR	INDUR DEG	GRAIN SIZE	SRTG	FND	DISS CLAY	STAIN	FLUORESCENCE			CUT FLUOR.		CUT RESIDUE		SHOW	PROB PROD	REMARKS - GAS		
				4	5									% RK	DISTR	INTEN	COLOR	INTEN	COLOR	QUAN				COLOR	
31	3383.0	NR																							
32	3360.0	NR																							
33	3328.9	3	Ss/ Sh	Shale:white mica	non	nd	dk	hd	-	-	-	-													Mudlog gas background 5 units
				Ss: carb. matl:calc cmt:pyrite	mod	clear	hd		fg - vfg	good	sa- sr														
34	3304.9	10	Calca- reous	carb matl qtz vfg	v	white	fri		fg - vfg	good	sa- sr														Mudlog gas background 6 units
35	3276.5	NR																							
36	3251.9	NR																							
37	3226.0	NR																							
38	3201.0	10	Calca- reous	carb matl qtz vfg	v	white	fri		fg - vfg	good	sa- sr														Mudlog gas background 6 units
				Silt- stone																					

FORM R 257 3 72



NO.	DEPTH	REC	ROCK TYPE	MODIFIERS	CAL	COLOR	INDUR DEG	GRAIN SIZE	SRTG	FND	DISS CLAY	STAIN	FLOURESCENCE			CUT FLUOR.			CUT RESIDUE		SHOW	PROB	REMARKS - GAS	
													% RK	DISTR	INTEN	COLOR	INTEN	COLOR	QUAN	COLOR				
1a	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
45	3028.0	20	Calc	argillaceous	md	md lt	firm	-	-	-	-													Mudlog gas background 1 unit
			Siltst	carb. fg	to	gy -	sub-																	
				matl		md gy	fiss																	
				dk argill																				
				bands.																				
				calc mtrx																				
				qtzose																				
46	3001.9	10	Calc	pyrite	md	md lt	firm	-	-	-	-													Mudlog gas background 1 unit
			Siltst	abndt	-	gy to																		
				vfg carb	very	md gy																		
				flecks																				
				calc mtrx																				
				qtzose																				
47	2974.9	NR																						
48	2951.0	15	Calca-	Carb lam-	v	md lt	soft	-	-	-	-													Mudlog gas background 1 unit
			reous-	inae;		gy -																		
			Silt-	qtzose		md gy																		
			stone	carb fleck-																				
				ing, vfg																				
49	2926.5	20	Cal art	Carb lam;	v	md lt	soft	-	-	-	-													Mudlog gas background 1 unit
			eous	qtzose;		gy -																		
			Silt-	carb. fleck-		md gy																		
			stone	ing.																				

FORM R 257 3 72



APPENDIX 3

OIL and GAS DIVISION

2 8 OCT 1982

APPENDIX 3

TRITON-1 SIDETRACK DEVIATION DATA

OTWAY BASIN

TRITON-1 SIDETRACK DEVIATION DATA

Triton-1 was sidetracked at 1467m due to hole instability. The survey data used to calculate true vertical depths was obtained from either of two sources:-

1. from 1467m MDKB to 2830m MDKB, and at 3276m MDKB; an Eastern Whipstock Inc., single shot tool was used.
2. at 3175m MDKB, 3386m MDKB and, 3545m MDKB; the surveys at these depths were made by a Totco tool, which gives a deviation angle but not deviation, so the directions at these depths were estimated.

TRITON-1 SIDETRACK

ZONE STATE	COUNTRY ARFA	WELL REF NUMBER	SIDETRACK NUMBER	SURVEYING COMPANY	TYPE OF SURVEY	ORIGIN CODE	INPUT UNITS	TARGET BEARING
55	160	ST1	1	EAST	SS		M	N 0. 0. E

BOTTOM HOLE LOCATION CALCULATIONS USING RADIUS OF CURVATURE

COURSE LENGTH	MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG MIN	DIRECTION		RECTANGULAR COORDINATES		POLAR COORDINATES		VERTICAL SECTION						
				DEG	MIN	NORTH/SOUTH	EAST/WEST	DISTANCE	DEG MIN							
	1457.14	1457.14	0. 15.	N	13.	0. 04	N	0.01	E	0.0	N	14. 2.	E	0.0		
17.27	1474.41	1474.41	1. 15.	S	89.	0. 17	N	0.17	E	0.2	N	46. 0.	E	0.2		
9.54	1483.95	1483.95	0. 45.	S	38.	0. 10	N	0.32	E	0.3	N	73. 6.	E	0.1		
9.05	1493.00	1493.00	1. 0.	S	38.	0. 01	S	0.40	E	0.4	S	88. 17.	E	-0.0		
10.51	1503.51	1503.50	1. 30.	S	10.	0. 22	S	0.50	E	0.5	S	66. 9.	E	-0.2		
9.64	1513.15	1513.14	1. 45.	S	7.	0. 49	S	0.50	E	0.7	S	45. 41.	E	-0.5		
8.95	1522.10	1522.08	2. 30.	S	17.	0. 82	S	0.53	E	1.0	S	32. 59.	E	-0.8		
8.80	1530.90	1530.87	3. 30.	S	11.	0. 27	S	0.64	E	1.4	S	26. 56.	E	-1.3		
12.34	1543.24	1543.18	4. 30.	S	22.	0. 09	S	0.89	E	2.3	S	23. 0.	E	-2.1		
18.78	1562.02	1561.90	5. 0.	S	27.	0. 51	S	1.53	E	3.8	S	23. 37.	E	-3.5		
28.37	1590.39	1590.16	4. 45.	S	29.	0. 63	S	2.66	E	6.2	S	25. 18.	E	-5.6		
56.82	1647.21	1646.80	4. 30.	S	29.	0. 64	S	4.89	E	10.8	S	26. 52.	E	-9.6		
**	1717.00	1716.41				14.21	S	6.97	E	15.8	S	26. 8.	E	-14.2		
**	1730.00	1729.38				15.00	S	7.24	E	16.7	S	25. 45.	E	-15.0		
						15.64	S	7.43	E	17.3	S	25. 25.	E	-15.6		
93.59	1740.80	1740.16	3. 30.	S	17.	0. 0	E	17.94	S	8.25	E	19.7	S	24. 41.	E	-17.9
37.34	1778.14	1777.42	4. 0.	S	22.	0. 0	E	21.14	S	9.08	E	23.0	S	23. 14.	E	-21.1
47.56	1825.70	1824.86	4. 0.	S	7.	0. 0	E	28.12	S	9.69	E	29.7	S	19. 0.	E	-28.1
94.46	1920.16	1919.06	4. 30.	S	3.	0. 0	E	50.79	S	10.08	E	51.8	S	11. 14.	E	-50.8
216.99	2137.15	2134.84	7. 30.	S	1.	0. 0	W	64.44	S	9.25	E	65.1	S	8. 10.	E	-64.4
104.85	2242.00	2238.79	7. 30.	S	6.	0. 0	W	77.31	S	7.09	E	77.6	S	5. 15.	E	-77.3
100.00	2342.00	2337.94	7. 30.	S	13.	0. 0	W	83.16	S	5.85	E	83.4	S	4. 1.	E	-83.2
55.00	2397.00	2392.60	5. 0.	S	11.	0. 0	W	92.70	S	3.12	E	92.7	S	1. 55.	E	-92.7
106.00	2503.00	2498.14	5. 45.	S	21.	0. 0	W	97.53	S	0.76	E	97.5	S	0. 27.	E	-97.5
57.45	2560.45	2555.33	5. 0.	S	31.	0. 0	W	101.32	S	2.20	W	101.3	S	1. 15.	W	-101.3
67.05	2627.50	2622.21	3. 15.	S	45.	0. 0	W	108.79	S	9.05	W	109.2	S	4. 45.	W	-108.8
202.13	2829.63	2824.08	2. 30.	S	40.	0. 0	W	123.99	S	18.73	W	125.4	S	8. 35.	W	-124.0
345.37	3175.00	3168.97	3. 30.	S	25.	0. 0	W	130.95	S	21.47	W	132.7	S	9. 19.	W	-131.0
101.00	3276.00	3269.69	5. 0.	S	18.	0. 0	W	138.93	S	24.07	W	141.0	S	9. 50.	W	-138.9
110.00	3386.00	3379.37	3. 45.	S	18.	0. 0	W	140.21	S	24.48	W	142.3	S	9. 54.	W	-140.2
**	3406.00	3399.32				151.12	S	28.03	W	153.7	S	10. 30.	W	-151.1		
159.00	3545.00	3537.85	5. 30.	S	18.	0. 0	W									

TOP UN-NAMED SANDS AND SILTS  
 TOP BELFAST MUDSTONE  
 TOP WAARRE FORMATION

PE901819 - 16  
 TRTN1-15/PE901819/P16

100000



TRITON-1 SIDETRACK

TRTN1-1S/PE901819/P17

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION		DIRECTION		RECTANGULAR COORDINATES		POLAR COORDINATES		VERTICAL SECTION					
		DEG	MIN	DEG	MIN	NORTH/SOUTH	EAST/WEST	DISTANCE	DEG MIN						
1493.00	1493.00	1.	0.	S	38.	0.	E	0.01 S	0.40 E	0.4	S	88.	17.	E	-0.0
1503.00	1502.99	1.	29.	S	11.	21.	E	0.21 S	0.49 E	0.5	S	67.	17.	E	-0.2
1513.00	1512.99	1.	45.	S	6.	44.	W	0.49 S	0.50 E	0.7	S	45.	58.	E	-0.5
1523.00	1522.98	2.	36.	S	16.	23.	E	0.86 S	0.54 E	1.0	S	32.	21.	E	-0.9
1533.00	1532.97	3.	40.	S	12.	52.	E	1.39 S	0.67 E	1.5	S	25.	41.	E	-1.4
1543.00	1542.94	4.	29.	S	21.	47.	E	2.07 S	0.88 E	2.3	S	23.	1.	E	-2.1
1553.00	1552.91	4.	46.	S	24.	36.	E	2.81 S	1.20 E	3.1	S	23.	5.	E	-2.8
1563.00	1562.87	4.	59.	S	27.	4.	E	3.58 S	1.57 E	3.9	S	23.	41.	E	-3.6
1573.00	1572.83	4.	54.	S	27.	46.	E	4.35 S	1.97 E	4.8	S	24.	22.	E	-4.3
1583.00	1582.80	4.	49.	S	28.	29.	E	5.09 S	2.37 E	5.6	S	24.	56.	E	-5.1
1593.00	1592.76	4.	44.	S	29.	0.	E	5.82 S	2.77 E	6.4	S	25.	26.	E	-5.8
1603.00	1602.73	4.	42.	S	29.	0.	E	6.54 S	3.17 E	7.3	S	25.	50.	E	-6.5
1613.00	1612.70	4.	39.	S	29.	0.	E	7.25 S	3.56 E	8.1	S	26.	9.	E	-7.3
1623.00	1622.66	4.	36.	S	29.	0.	E	7.96 S	3.95 E	8.9	S	26.	25.	E	-8.0
1633.00	1632.63	4.	34.	S	29.	0.	E	8.66 S	4.34 E	9.7	S	26.	38.	E	-8.7
1643.00	1642.60	4.	31.	S	29.	0.	E	9.35 S	4.72 E	10.5	S	26.	48.	E	-9.4
1653.00	1652.57	4.	26.	S	28.	15.	E	10.04 S	5.10 E	11.3	S	26.	57.	E	-10.0
1663.00	1662.54	4.	20.	S	26.	59.	E	10.71 S	5.46 E	12.0	S	26.	59.	E	-10.7
1673.00	1672.51	4.	13.	S	25.	42.	E	11.38 S	5.79 E	12.8	S	26.	57.	E	-11.4
1683.00	1682.49	4.	7.	S	24.	25.	E	12.04 S	6.09 E	13.5	S	26.	50.	E	-12.0
1693.00	1692.46	4.	1.	S	23.	8.	E	12.69 S	6.38 E	14.2	S	26.	41.	E	-12.7
1703.00	1702.44	3.	54.	S	21.	51.	E	13.33 S	6.64 E	14.9	S	26.	28.	E	-13.3
1713.00	1712.42	3.	48.	S	20.	34.	E	13.96 S	6.88 E	15.6	S	26.	14.	E	-14.0
1723.00	1722.39	3.	41.	S	19.	17.	E	14.57 S	7.10 E	16.2	S	25.	58.	E	-14.6
1733.00	1732.37	3.	35.	S	18.	0.	E	15.18 S	7.29 E	16.8	S	25.	40.	E	-15.2
1743.00	1742.35	3.	32.	S	17.	18.	E	15.77 S	7.47 E	17.4	S	25.	21.	E	-15.8
1753.00	1752.33	3.	40.	S	18.	38.	E	16.36 S	7.66 E	18.1	S	25.	6.	E	-16.4
1763.00	1762.31	3.	48.	S	19.	58.	E	16.98 S	7.88 E	18.7	S	24.	54.	E	-17.0
1773.00	1772.29	3.	56.	S	21.	19.	E	17.61 S	8.12 E	19.4	S	24.	45.	E	-17.6
1783.00	1782.27	4.	0.	S	20.	28.	E	18.26 S	8.37 E	20.1	S	24.	38.	E	-18.3
1793.00	1792.24	4.	0.	S	17.	19.	E	18.92 S	8.60 E	20.8	S	24.	26.	E	-18.9
1803.00	1802.22	4.	0.	S	14.	10.	E	19.59 S	8.78 E	21.5	S	24.	9.	E	-19.6
1813.00	1812.19	4.	0.	S	11.	0.	E	20.27 S	8.94 E	22.2	S	23.	48.	E	-20.3
1823.00	1822.17	4.	0.	S	7.	51.	E	20.96 S	9.05 E	22.8	S	23.	21.	E	-21.0
1833.00	1832.14	4.	2.	S	6.	41.	E	21.65 S	9.14 E	23.5	S	22.	53.	E	-21.7
1843.00	1842.12	4.	5.	S	6.	16.	E	22.36 S	9.22 E	24.2	S	22.	24.	E	-22.4
1853.00	1852.09	4.	9.	S	5.	51.	E	23.07 S	9.29 E	24.9	S	21.	56.	E	-23.1
1863.00	1862.07	4.	12.	S	5.	25.	E	23.79 S	9.36 E	25.6	S	21.	29.	E	-23.8
1873.00	1872.04	4.	15.	S	4.	60.	E	24.53 S	9.43 E	26.3	S	21.	2.	E	-24.5
1883.00	1882.01	4.	18.	S	4.	34.	E	25.27 S	9.49 E	27.0	S	20.	35.	E	-25.3
1893.00	1891.98	4.	21.	S	4.	9.	E	26.02 S	9.55 E	27.7	S	20.	9.	E	-26.0
1903.00	1901.95	4.	25.	S	3.	44.	E	26.79 S	9.60 E	28.5	S	19.	44.	E	-26.8
1913.00	1911.92	4.	28.	S	3.	18.	E	27.56 S	9.65 E	29.2	S	19.	18.	E	-27.6
1923.00	1921.89	4.	32.	S	2.	57.	E	28.34 S	9.70 E	30.0	S	18.	53.	E	-28.3
1933.00	1931.86	4.	41.	S	2.	46.	E	29.14 S	9.74 E	30.7	S	18.	28.	E	-29.1
1943.00	1941.83	4.	49.	S	2.	35.	E	29.97 S	9.78 E	31.5	S	18.	4.	E	-30.0

TRTN 1-15 / PE901819 / P18

TRITON-1 SIDETRACK

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION		DIRECTION		RECTANGULAR COORDINATES		POLAR COORDINATES		VERTICAL SECTION	
		DEG	MIN	DEG	MIN	NORTH/SOUTH	EAST/WEST	DISTANCE	DEG MIN		
1953.00	1951.79	4.	57.	S	2.	24. E	30.82 S	9.81 E	32.3	S 17. 40. E	-30.8
1963.00	1961.75	5.	6.	S	2.	13. E	31.69 S	9.85 E	33.2	S 17. 16. E	-31.7
1973.00	1971.71	5.	14.	S	2.	2. E	32.59 S	9.88 E	34.1	S 16. 52. E	-32.6
1983.00	1981.67	5.	22.	S	1.	50. E	33.52 S	9.91 E	35.0	S 16. 29. E	-33.5
1993.00	1991.62	5.	30.	S	1.	39. E	34.46 S	9.94 E	35.9	S 16. 6. E	-34.5
2003.00	2001.58	5.	39.	S	1.	28. E	35.43 S	9.97 E	36.8	S 15. 43. E	-35.4
2013.00	2011.53	5.	47.	S	1.	17. E	36.43 S	10.00 E	37.8	S 15. 21. E	-36.4
2023.00	2021.47	5.	55.	S	1.	6. E	37.45 S	10.02 E	38.8	S 14. 59. E	-37.4
2033.00	2031.42	6.	4.	S	0.	55. E	38.49 S	10.04 E	39.8	S 14. 37. E	-38.5
2043.00	2041.36	6.	12.	S	0.	44. E	39.56 S	10.06 E	40.8	S 14. 16. E	-39.6
2053.00	2051.30	6.	20.	S	0.	33. E	40.65 S	10.07 E	41.9	S 13. 55. E	-40.7
2063.00	2061.24	6.	28.	S	0.	22. E	41.77 S	10.09 E	43.0	S 13. 35. E	-41.8
2073.00	2071.18	6.	37.	S	0.	11. E	42.91 S	10.10 E	44.1	S 13. 14. E	-42.9
2083.00	2081.11	6.	45.	S	0.	0. W	44.07 S	10.10 E	45.2	S 12. 55. E	-44.1
2093.00	2091.04	6.	53.	S	0.	11. W	45.26 S	10.11 E	46.4	S 12. 35. E	-45.3
2103.00	2100.96	7.	2.	S	0.	22. W	46.47 S	10.11 E	47.6	S 12. 16. E	-46.5
2113.00	2110.89	7.	10.	S	0.	33. W	47.70 S	10.10 E	48.8	S 11. 57. E	-47.7
2123.00	2120.81	7.	18.	S	0.	44. W	48.96 S	10.10 E	50.0	S 11. 39. E	-49.0
2133.00	2130.72	7.	27.	S	0.	55. W	50.25 S	10.09 E	51.2	S 11. 21. E	-50.2
2143.00	2140.64	7.	30.	S	1.	17. W	51.55 S	10.07 E	52.5	S 11. 3. E	-51.5
2153.00	2150.55	7.	30.	S	1.	45. W	52.85 S	10.03 E	53.8	S 10. 45. E	-52.9
2163.00	2160.47	7.	30.	S	2.	14. W	54.16 S	9.99 E	55.1	S 10. 27. E	-54.2
2173.00	2170.38	7.	30.	S	2.	43. W	55.46 S	9.93 E	56.3	S 10. 9. E	-55.5
2183.00	2180.30	7.	30.	S	3.	11. W	56.77 S	9.86 E	57.6	S 9. 51. E	-56.8
2193.00	2190.21	7.	30.	S	3.	40. W	58.07 S	9.78 E	58.9	S 9. 34. E	-58.1
2203.00	2200.12	7.	30.	S	4.	8. W	59.37 S	9.70 E	60.2	S 9. 16. E	-59.4
2213.00	2210.04	7.	30.	S	4.	37. W	60.67 S	9.60 E	61.4	S 8. 59. E	-60.7
2223.00	2219.95	7.	30.	S	5.	6. W	61.97 S	9.49 E	62.7	S 8. 42. E	-62.0
2233.00	2229.87	7.	30.	S	5.	34. W	63.27 S	9.36 E	64.0	S 8. 25. E	-63.3
2243.00	2239.78	7.	30.	S	6.	4. W	64.57 S	9.23 E	65.2	S 8. 8. E	-64.6
2253.00	2249.70	7.	30.	S	6.	46. W	65.87 S	9.09 E	66.5	S 7. 51. E	-65.9
2263.00	2259.61	7.	30.	S	7.	28. W	67.16 S	8.92 E	67.8	S 7. 34. E	-67.2
2273.00	2269.53	7.	30.	S	8.	10. W	68.46 S	8.75 E	69.0	S 7. 17. E	-68.5
2283.00	2279.44	7.	30.	S	8.	52. W	69.75 S	8.55 E	70.3	S 6. 59. E	-69.7
2293.00	2289.35	7.	30.	S	9.	34. W	71.04 S	8.34 E	71.5	S 6. 42. E	-71.0
2303.00	2299.27	7.	30.	S	10.	16. W	72.32 S	8.12 E	72.8	S 6. 24. E	-72.3
2313.00	2309.18	7.	30.	S	10.	58. W	73.61 S	7.88 E	74.0	S 6. 7. E	-73.6
2323.00	2319.10	7.	30.	S	11.	40. W	74.88 S	7.62 E	75.3	S 5. 49. E	-74.9
2333.00	2329.01	7.	30.	S	12.	22. W	76.16 S	7.35 E	76.5	S 5. 31. E	-76.2
2343.00	2338.93	7.	27.	S	12.	58. W	77.43 S	7.06 E	77.8	S 5. 13. E	-77.4
2353.00	2348.85	7.	0.	S	12.	36. W	78.66 S	6.79 E	79.0	S 4. 56. E	-78.7
2363.00	2358.78	6.	33.	S	12.	14. W	79.81 S	6.53 E	80.1	S 4. 41. E	-79.8
2373.00	2368.72	6.	5.	S	11.	52. W	80.89 S	6.30 E	81.1	S 4. 27. E	-80.9
2383.00	2378.66	5.	38.	S	11.	31. W	81.89 S	6.10 E	82.1	S 4. 15. E	-81.9
2393.00	2388.62	5.	11.	S	11.	9. W	82.82 S	5.92 E	83.0	S 4. 5. E	-82.8
2403.00	2398.58	5.	3.	S	11.	34. W	83.68 S	5.75 E	83.9	S 3. 56. E	-83.7

TRITON-1 SIDETRACK

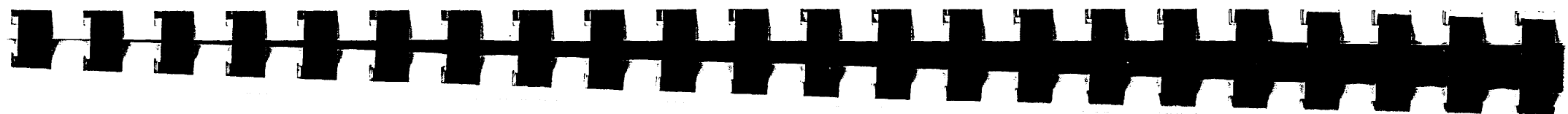
TRITON-1-15/PE901819/P19

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION		DIRECTION		RECTANGULAR COORDINATES		POLAR COORDINATES		VERTICAL SECTION		
		DEG	MIN	DEG	MIN	NORTH/SOUTH	EAST/WEST	DISTANCE	DEG MIN			
2413.00	2408.54	5.	7.	S	12.	31.	W	84.54 S	5.56 E	84.7 S	3. 46. E	-84.5
2423.00	2418.50	5.	11.	S	13.	27.	W	85.42 S	5.36 E	85.6 S	3. 35. E	-85.4
2433.00	2428.46	5.	15.	S	14.	24.	W	86.30 S	5.14 E	86.5 S	3. 25. E	-86.3
2443.00	2438.42	5.	20.	S	15.	20.	W	87.19 S	4.91 E	87.3 S	3. 13. E	-87.2
2453.00	2448.37	5.	24.	S	16.	17.	W	88.09 S	4.65 E	88.2 S	3. 1. E	-88.1
2463.00	2458.33	5.	28.	S	17.	14.	W	89.00 S	4.38 E	89.1 S	2. 49. E	-89.0
2473.00	2468.28	5.	32.	S	18.	10.	W	89.91 S	4.09 E	90.0 S	2. 36. E	-89.9
2483.00	2478.24	5.	37.	S	19.	7.	W	90.83 S	3.79 E	90.9 S	2. 23. E	-90.8
2493.00	2488.19	5.	41.	S	20.	3.	W	91.76 S	3.46 E	91.8 S	2. 10. E	-91.8
2503.00	2498.14	5.	45.	S	21.	0.	W	92.70 S	3.12 E	92.7 S	1. 55. E	-92.7
2513.00	2508.09	5.	37.	S	22.	44.	W	93.62 S	2.75 E	93.7 S	1. 41. E	-93.6
2523.00	2518.04	5.	29.	S	24.	29.	W	94.50 S	2.36 E	94.5 S	1. 26. E	-94.5
2533.00	2528.00	5.	22.	S	26.	13.	W	95.36 S	1.95 E	95.4 S	1. 10. E	-95.4
2543.00	2537.95	5.	14.	S	27.	58.	W	96.18 S	1.53 E	96.2 S	0. 55. E	-96.2
2553.00	2547.91	5.	6.	S	29.	42.	W	96.96 S	1.09 E	97.0 S	0. 39. E	-97.0
2563.00	2557.87	4.	56.	S	31.	32.	W	97.72 S	0.64 E	97.7 S	0. 23. E	-97.7
2573.00	2567.84	4.	40.	S	33.	37.	W	98.42 S	0.19 E	98.4 S	0. 7. E	-98.4
2583.00	2577.81	4.	25.	S	35.	43.	W	99.07 S	0.26 W	99.1 S	0. 9. W	-99.1
2593.00	2587.78	4.	9.	S	37.	48.	W	99.67 S	0.71 W	99.7 S	0. 24. W	-99.7
2603.00	2597.76	3.	53.	S	39.	53.	W	100.21 S	1.15 W	100.2 S	0. 39. W	-100.2
2613.00	2607.73	3.	38.	S	41.	58.	W	100.70 S	1.59 W	100.7 S	0. 54. W	-100.7
2623.00	2617.72	3.	22.	S	44.	4.	W	101.14 S	2.01 W	101.2 S	1. 8. W	-101.1
2633.00	2627.70	3.	14.	S	44.	52.	W	101.54 S	2.42 W	101.6 S	1. 22. W	-101.5
2643.00	2637.68	3.	12.	S	44.	37.	W	101.94 S	2.82 W	102.0 S	1. 35. W	-101.9
2653.00	2647.67	3.	9.	S	44.	22.	W	102.33 S	3.20 W	102.4 S	1. 48. W	-102.3
2663.00	2657.65	3.	7.	S	44.	7.	W	102.72 S	3.59 W	102.8 S	1. 60. W	-102.7
2673.00	2667.64	3.	5.	S	43.	52.	W	103.11 S	3.96 W	103.2 S	2. 12. W	-103.1
2683.00	2677.62	3.	3.	S	43.	38.	W	103.50 S	4.33 W	103.6 S	2. 24. W	-103.5
2693.00	2687.61	3.	0.	S	43.	23.	W	103.88 S	4.69 W	104.0 S	2. 35. W	-103.9
2703.00	2697.60	2.	58.	S	43.	8.	W	104.26 S	5.05 W	104.4 S	2. 46. W	-104.3
2713.00	2707.58	2.	56.	S	42.	53.	W	104.64 S	5.40 W	104.8 S	2. 57. W	-104.6
2723.00	2717.57	2.	54.	S	42.	38.	W	105.01 S	5.75 W	105.2 S	3. 8. W	-105.0
2733.00	2727.56	2.	52.	S	42.	23.	W	105.38 S	6.08 W	105.6 S	3. 18. W	-105.4
2743.00	2737.54	2.	49.	S	42.	9.	W	105.75 S	6.42 W	105.9 S	3. 28. W	-105.7
2753.00	2747.53	2.	47.	S	41.	54.	W	106.11 S	6.74 W	106.3 S	3. 38. W	-106.1
2763.00	2757.52	2.	45.	S	41.	39.	W	106.47 S	7.06 W	106.7 S	3. 48. W	-106.5
2773.00	2767.51	2.	43.	S	41.	24.	W	106.83 S	7.38 W	107.1 S	3. 57. W	-106.8
2783.00	2777.50	2.	40.	S	41.	9.	W	107.19 S	7.69 W	107.5 S	4. 6. W	-107.2
2793.00	2787.49	2.	38.	S	40.	54.	W	107.54 S	7.99 W	107.8 S	4. 15. W	-107.5
2803.00	2797.48	2.	36.	S	40.	40.	W	107.88 S	8.29 W	108.2 S	4. 24. W	-107.9
2813.00	2807.47	2.	34.	S	40.	25.	W	108.23 S	8.58 W	108.6 S	4. 32. W	-108.2
2823.00	2817.46	2.	31.	S	40.	10.	W	108.57 S	8.86 W	108.9 S	4. 40. W	-108.6
2833.00	2827.45	2.	31.	S	39.	51.	W	108.90 S	9.14 W	109.3 S	4. 48. W	-108.9
2843.00	2837.44	2.	32.	S	39.	25.	W	109.24 S	9.42 W	109.6 S	4. 56. W	-109.2
2853.00	2847.43	2.	34.	S	38.	59.	W	109.59 S	9.70 W	110.0 S	5. 4. W	-109.6
2863.00	2857.42	2.	36.	S	38.	33.	W	109.94 S	9.99 W	110.4 S	5. 11. W	-109.9

TRITON-1 SIDETRACK

TRTN 1-1S / PE 901819 / P20

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION		DIPECTION		RECTANGULAR COORDINATES		POLAR COORDINATES			VERTICAL SECTION		
		DEG	MIN	DEG	MIN	NORTH/SOUTH	EAST/WEST	DISTANCE	DEG	MIN			
2873.00	2867.41	2.	38.	S	38.	7.	W 110.30 S	10.27	W 110.8	S	5.	19.	W -110.3
2883.00	2877.40	2.	39.	S	37.	41.	W 110.66 S	10.55	W 111.2	S	5.	27.	W -110.7
2893.00	2887.39	2.	41.	S	37.	15.	W 111.03 S	10.84	W 111.6	S	5.	34.	W -111.0
2903.00	2897.38	2.	43.	S	36.	49.	W 111.40 S	11.12	W 112.0	S	5.	42.	W -111.4
2913.00	2907.36	2.	44.	S	36.	23.	W 111.78 S	11.40	W 112.4	S	5.	49.	W -111.8
2923.00	2917.35	2.	46.	S	35.	57.	W 112.17 S	11.69	W 112.8	S	5.	57.	W -112.2
2933.00	2927.34	2.	48.	S	35.	31.	W 112.57 S	11.97	W 113.2	S	6.	4.	W -112.6
2943.00	2937.33	2.	50.	S	35.	5.	W 112.97 S	12.26	W 113.6	S	6.	12.	W -113.0
2953.00	2947.32	2.	51.	S	34.	39.	W 113.37 S	12.54	W 114.1	S	6.	19.	W -113.4
2963.00	2957.30	2.	53.	S	34.	12.	W 113.79 S	12.83	W 114.5	S	6.	26.	W -113.8
2973.00	2967.29	2.	55.	S	33.	46.	W 114.20 S	13.11	W 115.0	S	6.	33.	W -114.2
2983.00	2977.28	2.	57.	S	33.	20.	W 114.63 S	13.40	W 115.4	S	6.	40.	W -114.6
2993.00	2987.26	2.	58.	S	32.	54.	W 115.06 S	13.68	W 115.9	S	6.	47.	W -115.1
3003.00	2997.25	3.	0.	S	32.	28.	W 115.50 S	13.96	W 116.3	S	6.	54.	W -115.5
3013.00	3007.24	3.	2.	S	32.	2.	W 115.94 S	14.25	W 116.8	S	7.	0.	W -115.9
3023.00	3017.22	3.	4.	S	31.	36.	W 116.39 S	14.53	W 117.3	S	7.	7.	W -116.4
3033.00	3027.21	3.	5.	S	31.	10.	W 116.84 S	14.81	W 117.8	S	7.	13.	W -116.8
3043.00	3037.19	3.	7.	S	30.	44.	W 117.31 S	15.09	W 118.3	S	7.	20.	W -117.3
3053.00	3047.18	3.	9.	S	30.	18.	W 117.78 S	15.37	W 118.8	S	7.	26.	W -117.8
3063.00	3057.16	3.	11.	S	29.	52.	W 118.25 S	15.66	W 119.3	S	7.	32.	W -118.2
3073.00	3067.15	3.	12.	S	29.	26.	W 118.73 S	15.93	W 119.8	S	7.	39.	W -118.7
3083.00	3077.13	3.	14.	S	28.	60.	W 119.22 S	16.21	W 120.3	S	7.	45.	W -119.2
3093.00	3087.12	3.	16.	S	28.	34.	W 119.71 S	16.49	W 120.8	S	7.	51.	W -119.7
3103.00	3097.10	3.	17.	S	28.	8.	W 120.21 S	16.77	W 121.4	S	7.	56.	W -120.2
3113.00	3107.08	3.	19.	S	27.	42.	W 120.72 S	17.05	W 121.9	S	8.	2.	W -120.7
3123.00	3117.07	3.	21.	S	27.	16.	W 121.23 S	17.32	W 122.5	S	8.	8.	W -121.2
3133.00	3127.05	3.	23.	S	26.	49.	W 121.75 S	17.59	W 123.0	S	8.	13.	W -121.7
3143.00	3137.03	3.	24.	S	26.	23.	W 122.27 S	17.87	W 123.6	S	8.	19.	W -122.3
3153.00	3147.01	3.	26.	S	25.	57.	W 122.80 S	18.14	W 124.1	S	8.	24.	W -122.8
3163.00	3157.00	3.	28.	S	25.	31.	W 123.34 S	18.41	W 124.7	S	8.	29.	W -123.3
3173.00	3166.98	3.	30.	S	25.	5.	W 123.88 S	18.68	W 125.3	S	8.	34.	W -123.9
3183.00	3176.96	3.	37.	S	24.	27.	W 124.44 S	18.94	W 125.9	S	8.	39.	W -124.4
3193.00	3186.94	3.	46.	S	23.	45.	W 125.03 S	19.20	W 126.5	S	8.	44.	W -125.0
3203.00	3196.91	3.	55.	S	23.	4.	W 125.64 S	19.47	W 127.1	S	8.	48.	W -125.6
3213.00	3206.89	4.	4.	S	22.	22.	W 126.29 S	19.74	W 127.8	S	8.	53.	W -126.3
3223.00	3216.86	4.	13.	S	21.	40.	W 126.95 S	20.01	W 128.5	S	8.	57.	W -127.0
3233.00	3226.84	4.	22.	S	20.	59.	W 127.65 S	20.28	W 129.3	S	9.	2.	W -127.6
3243.00	3236.81	4.	31.	S	20.	17.	W 128.37 S	20.56	W 130.0	S	9.	6.	W -128.4
3253.00	3246.77	4.	40.	S	19.	36.	W 129.12 S	20.84	W 130.8	S	9.	10.	W -129.1
3263.00	3256.74	4.	48.	S	18.	54.	W 129.90 S	21.11	W 131.6	S	9.	14.	W -129.9
3273.00	3266.70	4.	57.	S	18.	12.	W 130.70 S	21.39	W 132.4	S	9.	18.	W -130.7
3283.00	3276.67	4.	55.	S	18.	0.	W 131.53 S	21.66	W 133.3	S	9.	21.	W -131.5
3293.00	3286.63	4.	48.	S	18.	0.	W 132.33 S	21.92	W 134.1	S	9.	24.	W -132.3
3303.00	3296.60	4.	42.	S	18.	0.	W 133.12 S	22.18	W 135.0	S	9.	27.	W -133.1
3313.00	3306.56	4.	35.	S	18.	0.	W 133.89 S	22.43	W 135.8	S	9.	31.	W -133.9
3323.00	3316.53	4.	28.	S	18.	0.	W 134.64 S	22.67	W 136.5	S	9.	33.	W -134.6

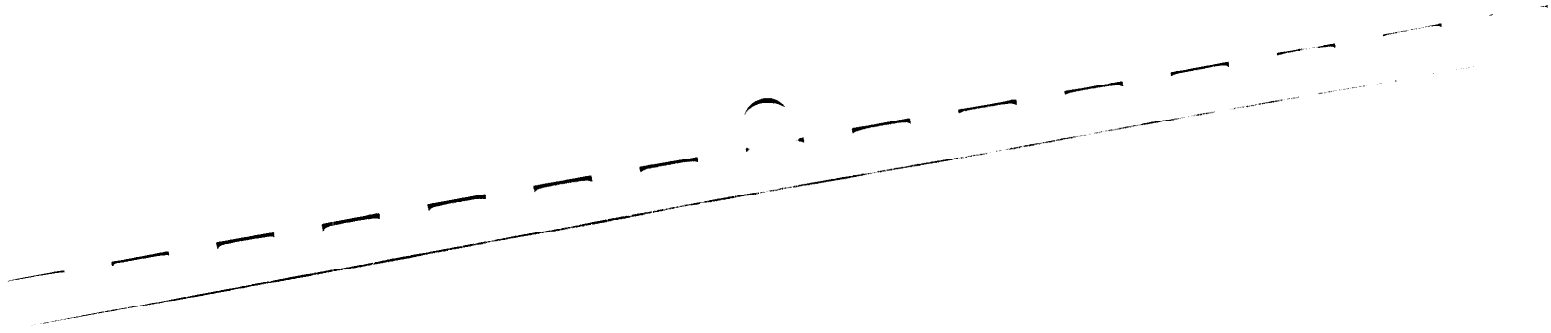


TRTN 1 - 1S / PE 901819 / P21

TRITON-1 SIDETRACK

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION		DIRECTION		RECTANGULAR COORDINATES		POLAR COORDINATES		VERTICAL SECTION	
		DEG	MIN	DEG	MIN	NORTH/SOUTH	EAST/WEST	DISTANCE	DEG MIN		
3333.00	3326.50	4.	21.	S	18.	0.	W 135.37 S	22.91 W	137.3 S	9. 36. W	-135.4
3343.00	3336.47	4.	14.	S	18.	0.	W 136.08 S	23.14 W	138.0 S	9. 39. W	-136.1
3353.00	3346.45	4.	8.	S	18.	0.	W 136.78 S	23.37 W	138.8 S	9. 42. W	-136.8
3363.00	3356.42	4.	1.	S	18.	0.	W 137.45 S	23.58 W	139.5 S	9. 44. W	-137.4
3373.00	3366.40	3.	54.	S	18.	0.	W 138.11 S	23.80 W	140.1 S	9. 47. W	-138.1
3383.00	3376.38	3.	47.	S	18.	0.	W 138.74 S	24.01 W	140.8 S	9. 49. W	-138.7
3393.00	3386.35	3.	50.	S	18.	0.	W 139.37 S	24.21 W	141.5 S	9. 51. W	-139.4
3403.00	3396.33	3.	56.	S	18.	0.	W 140.01 S	24.42 W	142.1 S	9. 54. W	-140.0
3413.00	3406.31	4.	3.	S	18.	0.	W 140.68 S	24.63 W	142.8 S	9. 56. W	-140.7
3423.00	3416.28	4.	9.	S	18.	0.	W 141.36 S	24.85 W	143.5 S	9. 58. W	-141.4
3433.00	3426.25	4.	16.	S	18.	0.	W 142.06 S	25.08 W	144.3 S	10. 1. W	-142.1
3443.00	3436.23	4.	23.	S	18.	0.	W 142.77 S	25.31 W	145.0 S	10. 3. W	-142.8
3453.00	3446.20	4.	29.	S	18.	0.	W 143.51 S	25.55 W	145.8 S	10. 6. W	-143.5
3463.00	3456.16	4.	36.	S	18.	0.	W 144.26 S	25.80 W	146.5 S	10. 8. W	-144.3
3473.00	3466.13	4.	42.	S	18.	0.	W 145.03 S	26.05 W	147.4 S	10. 11. W	-145.0
3483.00	3476.10	4.	49.	S	18.	0.	W 145.82 S	26.30 W	148.2 S	10. 13. W	-145.8
3493.00	3486.06	4.	56.	S	18.	0.	W 146.63 S	26.57 W	149.0 S	10. 16. W	-146.6
3503.00	3496.02	5.	2.	S	18.	0.	W 147.46 S	26.84 W	149.9 S	10. 19. W	-147.5
3513.00	3505.98	5.	9.	S	18.	0.	W 148.30 S	27.11 W	150.8 S	10. 22. W	-148.3
3523.00	3515.94	5.	15.	S	18.	0.	W 149.16 S	27.39 W	151.7 S	10. 24. W	-149.2
3533.00	3525.90	5.	22.	S	18.	0.	W 150.04 S	27.68 W	152.6 S	10. 27. W	-150.0
3543.00	3535.85	5.	29.	S	18.	0.	W 150.94 S	27.97 W	153.5 S	10. 30. W	-150.9

APPENDIX 4



OIL and GAS DIVISION

28 OCT 1982

APPENDIX 4

FORAMINIFERAL ANALYSIS

TRITON#1 AND TRITON#1 SIDETRACK

OTWAY BASIN

FORAMINIFERAL ANALYSIS, TRITON-1 AND TRITON-1 SIDETRACK

OTWAY BASIN

by

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Esso Australia Ltd

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## INTRODUCTION:

Eighty five (85) cuttings samples were processed for foraminiferal analysis in Triton-1 and Triton-1 Sidetrack from 270 to 3345 metres, 49 from the original hole and 36 from the sidetrack hole. The majority of the sidetrack samples were selected from the Belfast Formation. Both the planktonic and benthonic foraminiferal assemblages have been analysed. Downhole contamination in the cuttings samples was most apparent in the Belfast Formation in the original hole and the upper 50 metres of the Belfast Formation in the sidetrack hole (see Table 1).

Triton-1 penetrated a Tertiary section which is almost identical to that recorded in the nearby Nautilus-A1 well (see figure 1). A confident age assignment of the Tertiary section in Triton-1 was hampered by the total reliance on cuttings. Biostratigraphic control was therefore dependent on the last appearance or the first appearance downhole of planktonic foraminiferal species. Unfortunately the planktonic foraminiferal zonation scheme of Taylor (in prep.) is based predominantly on the first appearance (or the last appearance downhole) of taxa. Six reliable extinction datums can be used for zonal assignment in Triton-1 (see Figure 1). With the exception of the base of the Tertiary section between 1650 and 1720 metres (Zones J-1 and J-2) the majority of the carbonate sequence in Triton-1 cannot be given a refined biostratigraphic age. A more refined biostratigraphic breakdown is achieved by correlating the planktonic foraminiferal assemblages of Triton-1 with those recorded by Taylor (1968) and Deighton (1974) in Nautilus-A1. The Nautilus-A1 planktonic foraminiferal analyses were based on adequate sidewall core (31) and conventional core coverage (9) in addition to rotary cuttings. Two biostratigraphic breakdowns of Triton-1, one based on extinction datums and one based on correlation with Nautilus A-1, are shown in Figure 1.

The thick section of Belfast Formation in Triton-1 can be confidently assigned the Zone XA of Senonian age to at least a depth of 2860 metres using the zonal scheme of Taylor (1964). This zonation is based on benthonic foraminifera because planktonic foraminifera are rare and of no biostratigraphic value in the Upper Cretaceous of the Otway Basin. The yield, preservation and diversity of the benthonic foraminiferal faunas in Triton-1 is adequate between 1800 and 2860 metres. Meagre foraminiferal yields however occur above and below this level in the Belfast Formation.

Tables 1 & 2 provide a summary (Basic and Interpretative) of the palaeontological analyses in the Triton-1 and Triton-1 Sidetrack wells. Data from these wells have been combined for biostratigraphic and palaeoenvironmental assessment (see Figure 1 and range charts). A summary of the biostratigraphic breakdown of the stratigraphic units in Triton-1 is given below:

SUMMARY

DEPTH(m)	ZONE	AGE	UNIT
270- 320	D-2 to E-1	Mid Miocene	
370- 470	Indeterminate	Mid-Early Miocene	Port Campbell Limestone
520- 560	F	Early Miocene	
<hr/>			
600	F	Early Miocene	
650- 950	G	Early Miocene	
1000-1065	H-1	Early Miocene	
1100-1460	Indeterminate	Early Miocene- Late Oligocene	Gellibrand Marl
1460-1550	H-2 to I	Late Oligocene	
1590-1605	I	Late Oligocene	
1650-1690	J-1	Early Oligocene	
1710-1715	J-2	Early Oligocene	
<hr/>			
1720	J-2	Early Oligocene	Unnamed Sands/silts.
1725-1730	Indeterminate	-	
<hr/>			
1735	Indeterminate	-	
1740-2860	XA	Senonian	Belfast Formation
2900-3395	Indeterminate	-	
<hr/>			

## GEOLOGICAL COMMENTS

- 1) The Tertiary carbonate section in Triton-1 represents a continuous stratigraphic sequence that ranges in age from early Middle Miocene to Early Oligocene. There appears to be no major stratigraphic break between the deposition of the Port Campbell Limestone and the Gellibrand Marl Equivalent. The Gellibrand Marl Equivalent conformably overlies a sand/silt unit, the upper part of which is Early Oligocene in age. There appears to be no stratigraphic break across the terrigenous/carbonate boundary. The lower part of the terrigenous unit is predominantly silty and cannot be dated because the foraminiferal fauna is impoverished and poorly preserved. The Tertiary section in Triton-1 is almost identical to that recorded in the nearby Nautilus-A1 well.
  
- 2) There is a substantial unconformity between the Early Oligocene sands and silts and the Late Cretaceous Belfast Formation in both Triton-1 and Nautilus-1. The absence of Eocene to uppermost Cretaceous sediments in these wells is atypical for the Otway Basin. Most previous wells have been drilled closer to shore in shallower parts of the basin and record marginal marine terrigenous Eocene to uppermost Cretaceous sections. The Triton-1 and Nautilus-A1 wells are situated in a deeper part of the basin where a substantial period of non-deposition occurred during this interval. The presence of deep water globigerinid ooze at the base of the Tertiary carbonate section in these wells indicates that the unconformity occurred in a marine slope palaeoenvironment.

3) There is a thick section (approximately 1650 metres) of Late Cretaceous Belfast Formation in Triton-1, the upper 1100 metres of which is Senonian in age. No age determination is possible for the lower 500 metres of the unit because of very sparse foraminiferal yields. The Senonian section of Belfast Formation in Triton-1 is considerably thicker than that recorded in the Nautilus-A1 well. On foraminiferal evidence Taylor (1968) recognised 200 metres of Senonian and 68 metres of Turonian Belfast Formation in the Nautilus section. This represents a discrepancy of at least 900 metres between the two wells. Taylor's recognition of Turonian faunas between 1942 and 2010 metres (TD) in Nautilus-A1 is based on primarily on the presence of the Turonian index species Textularia trilobita. Other indigenous Turonian species of Zone XB including Colomia austrotrochus and Gavelinopsis cenomanica were not recorded. In Triton-1 rare occurrences of Textularia trilobita have been recorded at comparable levels (between 1800 and 2005 metres). The species is associated with the Senonian index species for Zone XB, Textularia semicomplanata. In other Otway Basin wells Textularia semicomplanata is well documented as phylogenetically replacing T. trilobita at the Turonian/Senonian boundary. Textularia semicomplanata has been recorded as low as 2815 metres in Triton-1 and another Senonian species, T. anceps, has been recorded at 2860 metres. Taylor has erroneously recorded Turonian far too high in the Belfast Formation in Nautilus-A1. Textularia trilobita apparently is not restricted to the Turonian interval in deeper parts of the Otway Basin where it may range well up into the Senonian. The species is facies controlled and together with the Belfast Formation represents a time transgressive entity.

- 4) In Triton-1 the Senonian part of the Belfast Formation was deposited rapidly (approximately 80-100 metres per million years) in a relatively deep marine palaeoenvironment. The dominance of agglutinated foraminifera over calcareous benthonic foraminifera and the very low planktonic foraminiferal yields in the unit is attributed to deposition in a partly anaerobic marine palaeoenvironment with substantial influx of fine terrigenous muds.

#### DISCUSSION OF ZONES

The Tertiary biostratigraphy in Triton-1 is based primarily on the foraminiferal investigation of the nearby Nautilus-A1 well by Taylor (1968) and Deighton (1974), and the Gippsland Basin planktonic foraminiferal scheme of Taylor (1972) and Taylor (in prep.). Studies by Jenkins (1960, 1971), Hornibrook (1961), Blow (1969, 1979), Postuma (1971) and Stainforth et al., (1976) have also been consulted.

The Cretaceous biostratigraphy is based primarily on Taylor (1964) and Taylor (1968). Other studies considered included Cushman (1946), Belford (1960) and Shell Development (Australia) Pty Ltd (1968).

ZONES D-2 and E-1: 270 - 320 metres.

The recognition of zones D-2 to E-1 in Triton-1 is dependent on correlation with Nautilus-A1 (see Figure 1). The occurrence of Orbulina suturalis at 270 and 320 metres is considered to be in situ because the species was recorded at a comparable level in Nautilus-A1 (in a sidewall core at 305 metres). Taylor (1972) records the extinction of Orbulina suturalis at the top of Zone D-2. On the basis of cuttings alone the interval between 270 and 320 metres must therefore be no younger than D-2. The presence of

Orbulina universa at 320 metres, if in situ, would indicate that the interval is D-2 in age. However it is possible that the species is a downhole contaminant because it was not recorded in Nautilus-A1. Since Orbulina suturalis defines the base of Zone E-1 it is proposed that the interval 270 to 320 metres is assignable to Zones D-2 and E-1.

INDETERMINATE INTERVAL: 370 - 470 metres

This interval could be assigned to Zones D-2, E-1, E-2 or F. The planktonic foraminiferal faunas within the interval are impoverished. The presence of Globigerinoides ruber at 470 metres puts a lower limit of Zone F to the level. The absence of Praeorbulina glomerosa (base Zone E-2), Orbulina suturalis (base Zone E-1) and Orbulina universa (base Zone D-2) does not necessarily preclude assignment to Zones D-2, E-1 or E-2. Depth correlation with Nautilus-A1 would favour assignment to Zones E or F.

ZONE F: 520 - 600 metres

The uphole appearance of Globigerinoides bisphericus and G. ruber at 600 metres defines the base of Zone F. These species make a comparable entry in Nautilus-A1 at 671 metres (see Figure 1). The extinction of Globigerina woodi connecta within Zone F is well defined in Triton-1, Nautilus-A1 (Deighton, 1974) and in Gippsland Basin wells (see Range Chart - Taylor, 1972).

ZONE G: 650 - 950 metres

The uphole appearance of Globigerinoides trilobus defines the base of Zone G. This datum occurs at comparable depths in Triton-1 (950 metres) and Nautilus-A1 (975 metres).

ZONE H-1: 1000 - 1065 metres

The presence of Globigerina woodi connecta and the absence of Globigerinoides trilobus within this interval defines Zone H-1.



Deighton (1974) records Zone H-I down to 1189 metres in Nautilus-A1. In Triton-1 the lower limit of Zone H-1 cannot be determined because of impoverished foraminiferal faunas between 1100 and 1450 metres. It is probable that Zone H-1 extends down to a level comparable with that recorded in Nautilus-A1.

INDETERMINATE INTERVAL: 1100 - 1460 metres

No zonal assignment is possible within this interval because of very impoverished planktonic foraminiferal yields. On the basis of superposition the interval could be assigned to Zones H-1, H-2 or I. Depth correlation with Nautilus-A1 favours assignment to Zones H-1 and H-2 (see Figure 1).

ZONES H-2 and I: 1460 and 1550 metres

The presence of Globigerina tripartita and the absence of Globigerina angiporoides within this interval indicates zonal assignment to H-2 or I. Taylor (1972) records the extinction of Globigerina tripartita in the Gippsland Basin within Zone H-2 (Late Oligocene) and Stainforth et al., (1976) also record its extinction in the Late Oligocene. The extinction uphole of Globigerina tripartita at 1460 metres is therefore considered to indicate an age no younger than Zone H-2. The absence of Globigerina angiporoides (which defines the top of Zone J-2) indicates an age no older than Zone I. Depth correlation with Nautilus-A1 favours assignment to Zone I.

ZONE I: 1590 - 1605 metres

The absence of Globigerina angiporoides and Globigerina woodi and the presence of Globigerina tripartita is typical of Zone I. The absence of the Zone I index species Globorotalia opima does not discount assignment to Zone I.

ZONE J-1: 1650 - 1690 metres

The presence of Globigerina angiporoides and the absence of Globigerina brevis and Globorotalia gemma clearly defines this interval as Zone J-1.

ZONE J-2: 1710 - 1720 metres

The common occurrence of Globigerina angiporoides in association with Globigerina brevis and Globorotalia gemma and the absence of Globigerina linaperta and Globigerinatheka within this interval represents a typical Gippsland Basin Zone J-2 assemblage.

INDETERMINATE INTERVAL: 1725 - 1735 metres

The lower part of this interval (1725 - 1730 metres) represents an unnamed sand/silt unit while the upper part (1735 metres) represents Belfast Formation. Downhole contamination is severe at 1725 and 1735 metres. The upper part of the unnamed sand/silt unit (1720 metres) is Early Oligocene (J-2) in age. No age assignment is possible for the lower part of the unit (1725 - 1730 metres) and there is no evidence of pre J-2 planktonic foraminifera within the interval.

The Belfast Formation at 1735 metres is barren of Late Cretaceous foraminifera. It may be Senonian (Zone XA) or Maastrichtian in age. An inferred Late Cretaceous age is assigned based on lithology.

ZONE X-A: 1740 - 2860 metres

Impoverished Late Cretaceous faunas are restricted to the upper part of the Belfast Formation in Triton-1 between 1740 and 1775 metres. The interval is assigned to Zone X-A despite the absence of the Senonian index species Textularia semicomplanata. Taylor (1968) noted a similar impoverished fauna in the upper part of the Belfast Formation in Nautilus-A1 and included it in Zone X-A. Definite Zone X-A benthonic foraminiferal assemblages occur between 1780 and 2860

metres in Triton-1. The Senonian index species Textularia semicomplanata ranges through most of the interval (between 1880 and 2750 metres). The occurrence of Textularia anceps, another species restricted to Zone X-A (Taylor 1964), defines the lower limit of the zone in Triton-1.

Planktonic foraminifera have a rare and sporadic distribution throughout Zone X-A. With the exception of Heterohelix striata, the Late Cretaceous planktonic foraminiferal species in Triton-1 are of no biostratigraphic value. The presence of Heterohelix striata at 1940 metres (if in situ) indicates an age no older than Santonian. Palynological evidence suggests a Campanian age for this level (Stacy, 1982). The occurrence of one specimen of Bolivinooides pustulatus at 1990 metres indicates a Lower Campanian age. Bolivinooides pustulatus is restricted to the Lower Campanian in Western Australia, Israel, British Isles and North America (Rexilius, in prep.). Palynological evidence confirms a Lower Campanian age at this level in Triton-1 (Stacy, 1982).

The rare occurrence of the Turonian index species Textularia trilobita at 1800, 1975 and 2005 metres in Triton-1 indicates the time transgressive nature of the species in the Otway Basin. Taylor (1968) erroneously recorded Turonian (Zone X-B) far too high in Nautilus-A1 on the basis of the rare occurrence of Textularia trilobita between 1942 and 2010 metres. The species is restricted to the Turonian in shallower parts of the Otway Basin but ranges well up into the Senonian in deeper parts of the basin (in Triton-1 and Nautilus-A1). In Triton-1 Textularia trilobita ranges as high as the Late Campanian where it occurs within the palynological Xenikoon australis Zone, defined by Stacy (1982).

INDETERMINATE INTERVAL: 2900 - 3345 metres

Very impoverished faunas below 2860 metres make zonal assignment impossible.

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MICROPALAEONTOLOGICAL DATA SHEET

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BASIN: OTWAY ELEVATION: KB: 21m GL: -100m  
 WELL NAME: TRITON-1 & TRITON SIDETRACK TOTAL DEPTH: 3545 metres

AGE	FORAM. ZONULES	HIGHEST DATA					LOWEST DATA					
		Preferred Depth	Rtg	Alternate Depth	Rtg	Two Way Time	Preferred Depth	Rtg	Alternate Depth	Rtg	Two Way Time	
PLEIS- TOCENE	A <sub>1</sub>											
	A <sub>2</sub>											
PLIO- CENE	A <sub>3</sub>											
	A <sub>4</sub>											
MIOCENE	LATE	B <sub>1</sub>										
		B <sub>2</sub>										
		C										
	MIDDLE	D <sub>1</sub>										
		D <sub>2</sub>	270	4				320	4			
		E <sub>1</sub>										
		E <sub>2</sub>										
	EARLY	F	520	4				600	4			
		G	650	4				950	4			
		H <sub>1</sub>	1000	4				1000	4			
		H <sub>2</sub>										
		I <sub>1</sub>	1590	4								
OLIGOCENE	LATE	I <sub>2</sub>					1605	4				
		J <sub>1</sub>	1650	3				1690	3			
	EARLY	J <sub>2</sub>	1710	3				1720	3			
		K										
ECC- ENE	Pre-K											

COMMENTS: Tertiary planktonic foraminiferal analysis based on 35 cutting samples.

Zonal assignment dependent primarily on correlation with planktonic foraminiferal investigation of the Nautilus-A-1 well by Taylor (1968) and Deighton (1974). Preservation and yield of planktonic foraminifera adequate except in the interval 1035-1550 metres.

CONFIDENCE RATING:

- 0: SWC or Core - Complete assemblage (very high confidence).
- 1: SWC or Core - Almost complete assemblage (high confidence).
- 2: SWC or Core - Close to zonule change but able to interpret (low confidence).
- 3: Cuttings - Complete assemblage (low confidence).
- 4: Cuttings - Incomplete assemblage, next to uninterpretable or SWC with depth suspicion (very low confidence).

NOTE: If an entry is given a 3 or 4 confidence rating, an alternative depth with a better confidence rating should be entered, if possible. If a sample cannot be assigned to one particular zone, then no entry should be made, unless a range of zones is given where the highest possible limit will appear in one zone and the lowest possible limit in another.

DATA RECORDED BY: J.P. REXILIUS

DATE: 1.5.82

DATA REVISED BY: J.P. REXILIUS

DATE: 22.7.82

TABLE-1

## SUMMARY OF PALAEOBIOLOGICAL ANALYSIS

TRITON-1, OTWAY BASIN

INTERPRETATIVE DATA

NATURE OF SAMPLE	DEPTH IN METRES	MICROFOSSIL YIELD	PRESERVATION	DIVERSITY	ZONE	CONFIDENCE RATING	AGE	COMMENTS
Cuttings	270	Low	Moderate	Low	D-2 to E-1	4	Mid Miocene	
Cuttings	320	Low	Good	Moderate	D-2 to E-1	4	Mid Miocene	
Cuttings	370	Low	Moderate	Low	Indeterminate	-		
Cuttings	400	Low	Moderate	Low	Indeterminate	-		
Cuttings	470	Low	Good	Low	Indeterminate	-		
Cuttings	520	High	Good	Moderate	F	4	Early Miocene	
Cuttings	560	High	Good	High	F	4	Early Miocene	
Cuttings	600	Moderate	Good	Moderate	F	4	Early Miocene	
Cuttings	650	High	Good	Moderate	G	4	Early Miocene	
Cuttings	700	Moderate	Good	Moderate	G	4	Early Miocene	
Cuttings	760	Moderate	Good	Moderate	G	4	Early Miocene	
Cuttings	820	High	Good	High	G	4	Early Miocene	
Cuttings	900	High	Good	Moderate	G	4	Early Miocene	
Cuttings	950	Moderate	Moderate	Moderate	G	4	Early Miocene	
Cuttings	1000	High	Good	Moderate	G	4	Early Miocene	
Cuttings	1035	Low	Poor	Low	H-1	4	Early Miocene	
Cuttings	1065	Low	Poor	Low	H-1	4	Early Miocene	
Cuttings	1100	Low	Poor	Low	Indeterminate	-		
Cuttings	1155	Low	Poor	Low	Indeterminate	-		
Cuttings	1200	Low	Poor	Low	Indeterminate	-		
Cuttings	128J	Moderate	Poor	Low	Indeterminate	-		
Cuttings	1360	Low	Poor	Low	Indeterminate	-		
Cuttings	1410	Low	Poor	Low	Indeterminate	-		
Cuttings	1460	Low	Poor	Low	Indeterminate	-		
Cuttings	1590	High	Moderate	Moderate	H-2 to I	4	Late Oligocene	
Cuttings	1605	Moderate	Moderate	Moderate	I	4	Late Oligocene	
Cuttings	1650	Moderate	Moderate	Moderately low	J-1	4	Late Oligocene	
Cuttings	1690	Moderate	Moderate	Moderate	J-1	3	Early Oligocene	
					J-1	3	Early Oligocene	

TABLE-1 CONT. / 2

## SUMMARY OF PALAEOONTOLOGICAL ANALYSIS

TRITON-1, OTWAY BASIN

INTERPRETATIVE DATA

NATURE OF SAMPLE	DEPTH IN METRES	MICROFOSSIL YIELD	PRESERVATION	DIVERSITY	ZONE	CONFIDENCE RATING	AGE	COMMENTS
Cuttings	1710	Very High	Moderate	High	J-2	3	Early Oligocene	
Cuttings	1715	High	Moderate	Moderate	J-2	3	Early Oligocene	
Cuttings	1720	Low	Good	Moderate	J-2	3	Early Oligocene	
Cuttings	1725	Very very Low	Poor	Low	Indeterminate	-		Severe downhole contamination
Cuttings	1730	Very very Low	Poor	Low	Indeterminate	-		
Cuttings	1760	Very Low	Poor	Very Low	X-A	4	Senonian	Moderate to severe downhole contamination.
Cuttings	1775	Low	Poor	Low	X-A	4	Senonian	"
Cuttings	1820	Moderate	Moderate	Low	X-A	4	Senonian	"
Cuttings	1880	Moderate	Moderate	Moderately low	X-A	3	Senonian	"
Cuttings	1940	Moderate	Moderate	Moderately low	X-A	3	Senonian	
Cuttings	1990	Moderate	Moderate	Moderate	X-A	3	Senonian	
Cuttings	2005	Moderate	Moderate	Moderate	X-A	3	Senonian	
Cuttings	2065	Moderately Low	Moderate	Low	X-A	3	Senonian	Moderate to severe downhole contamination.
Cuttings	2135	Moderately Low	Moderate	Low	X-A	3	Senonian	"
Cuttings	2140	Moderately Low	Moderate	Low	X-A	3	Senonian	"
Cuttings	2180	Low	Moderate	Low	X-A	4	Senonian	"
Cuttings	2215	Low	Moderate	Low	X-A	4	Senonian	Moderate downhole contamination
Cuttings	2340	Low	Poor	Low	X-A	4	Senonian	"
Cuttings	2390	Low	Poor	Low	X-A	4	Senonian	Minor downhole contamination
Cuttings	2610	Very Low	Poor	Very Low	X-A	4	Senonian	"
Cuttings	1680	Low	Poor	Moderately Low	X-A	4	Senonian	"



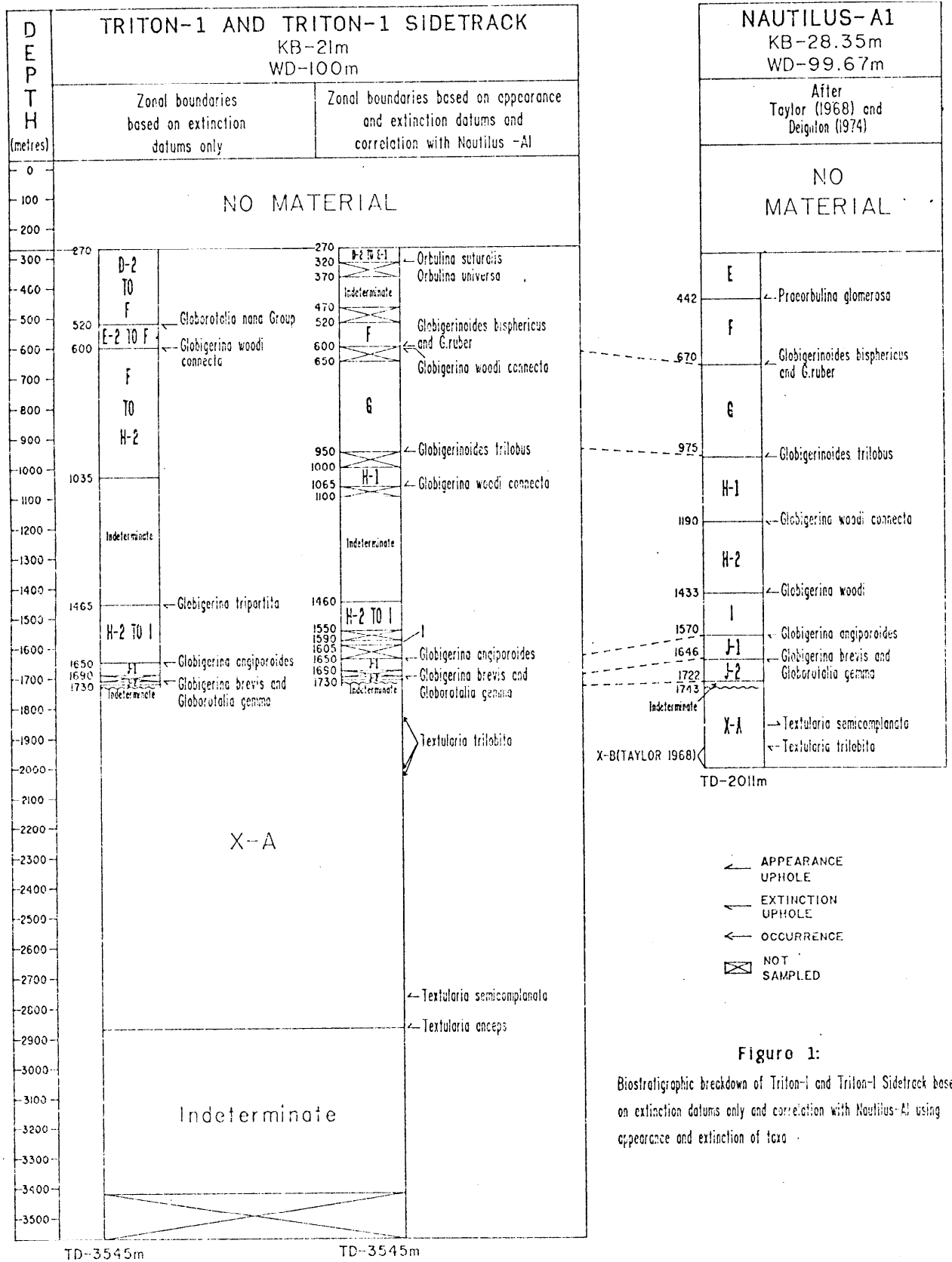
TABLE-2

## SUMMARY OF PALAEOONTOLOGICAL ANALYSIS

## TRITON-1 SIDETRACK, OTWAY BASIN

## INTERPRETATIVE DATA

NATURE OF SAMPLE	DEPTH IN METRES	MICROFOSSIL YIELD	PRESERVATION	DIVERSITY	ZONE	CONFIDENCE RATING	AGE	COMMENTS
Cuttings	1495	Low	Poor	Low	Indeterminate	-		
Cuttings	1550	Low	Poor	Low	H-2 to I	4		Moderate to severe downhole contamination.
Cuttings	1735	N.F.F.	-	-	-	-		"
Cuttings	1740	Low	Very Poor	Low	X-A	4	Senonian	"
Cuttings	1750	Very Low	Poor	Very Low	X-A	4	Senonian	"
Cuttings	1765	Low	Poor	Low	X-A	4	Senonian	"
Cuttings	1780	Very Low	Moderate	Low	X-A	4	Senonian	"
Cuttings	1800	Moderate	Poor	Moderate	X-A	4	Senonian	
Cuttings	1910	Moderate	Moderate	Mod. High	X-A	3	Senonian	
Cuttings	1930	Moderate	Moderate	Mod. High	X-A	3	Senonian	
Cuttings	1975	Moderate	Moderate	Moderate	X-A	3	Senonian	
Cuttings	2030	Moderately Low	Moderate	Mod. High	X-A	3	Senonian	
Cuttings	2080	Moderately Low	Moderate	Moderately High	X-A	3	Senonian	
Cuttings	2100	Moderately Low	Moderate	Moderate	X-A	3	Senonian	
Cuttings	2120	Moderately Low	Moderate	Moderate	X-A	3	Senonian	
Cuttings	2250	Moderately Low	Moderate	Moderate	X-A	3	Senonian	
Cuttings	2300	Low	Moderate	Moderate	X-A	3	Senonian	
Cuttings	2440	Low	Poor	Low	X-A	3	Senonian	
Cuttings	2500	Low	Poor	Low	X-A	4	Senonian	
Cuttings	2550	Low	Poor	Low	X-A	4	Senonian	
Cuttings	2750	Low	Poor	Low	X-A	3	Senonian	
Cuttings	2805	Low	Poor	Low	X-A	3	Senonian	
Cuttings	2815	Low	Poor	Low	X-A	3	Senonian	
Cuttings	2860	Very Low	Poor	Very Low	X-A	4	Senonian	
Cuttings	2900	Very Low	Poor	Very Low	Indeterminate	-		
Cuttings	2950	Very Low	Poor	Very Low	Indeterminate	-		
Cuttings	3005	Very Very Low	Poor	Very Very Low	Indeterminate	-		
Cuttings	3050	N.F.F.	-	-	Indeterminate	-		
Cuttings	3100	N.F.F.	-	-	Indeterminate	-		
Cuttings	3150	N.F.F.	-	-	Indeterminate	-		
Cuttings	3200	Very Very Low	Poor	Very Very Low	Indeterminate	-		
Cuttings	3265	N.F.F.	-	-	Indeterminate	-		
Cuttings	3280-85	N.F.F.	-	-	Indeterminate	-		
Cuttings	3315-20	N.F.F.	-	-	Indeterminate	-		
Cuttings	3355-60	N.F.F.	-	-	Indeterminate	-		
Cuttings	3390-95	N.F.F.	-	-	Indeterminate	-		



BASIC DATA

TABLE-1: FORAMINIFERAL DATA - TRITON-1

TABLE -2: FORAMINIFERAL DATA - TRITON-1 SIDETRACK

RANGE CHARTS: TERTIARY PLANTONIC FORAMINIFERA

RANGE CHARTS: TERTIARY BENTHONIC FORAMINIFERA

RANGE CHARTS: CRETACEOUS PLANKTONIC FORAMINIFERA

RANGE CHARTS: CRETACEOUS BENTHONIC FORAMINIFERA

TABLE-1  
FORAMINIFERAL DATA  
TRITON-1, OTWAY BASIN  
BASIC DATA

NATURE OF SAMPLE	DEPTH IN METRES	MICROFOSSIL YIELD	PRESERVATION	DIVERSITY	COMMENTS
Cuttings	270	Low	Moderate	Low	
Cuttings	320	Low	Good	Moderate	
Cuttings	370	Low	Moderate	Low	
Cuttings	400	Low	Moderate	Low	
Cuttings	470	Low	Good	Low	
Cuttings	520	High	Good	Moderate	
Cuttings	560	High	Good	High	
Cuttings	600	Moderate	Good	Moderate	
Cuttings	650	High	Good	Moderate	
Cuttings	700	Moderate	Good	Moderate	
Cuttings	760	Moderate	Good	Moderate	
Cuttings	820	High	Good	High	
Cuttings	900	High	Good	Moderate	
Cuttings	950	Moderate	Moderate	Moderate	
Cuttings	1000	High	Good	Moderate	
Cuttings	1035	Low	Poor	Low	
Cuttings	1065	Low	Poor	Low	
Cuttings	1100	Low	Poor	Low	
Cuttings	1155	Low	Poor	Low	
Cuttings	1200	Low	Poor	Low	
Cuttings	1280	Moderate	Poor	Low	
Cuttings	1360	Low	Poor	Low	
Cuttings	1410	Low	Poor	Low	
Cuttings	1460	Low	Poor	Low	
Cuttings	1590	High	Moderate	Moderate	
Cuttings	1605	Moderate	Moderate	Moderate	
Cuttings	1650	Moderate	Moderate	Moderate	
Cuttings	1690	Moderate	Moderate	Moderate	
Cuttings	1710	Very High	Moderate	High	
Cuttings	1715	High	Moderate	Moderate	
Cuttings	1720	Low	Good	Moderate	
Cuttings	1725	Very Very Low	Poor	Low	Severe downhole contamination
Cuttings	1730	Very Very Low	Poor	Low	" "
Cuttings	1760	Very Very Low	Poor	Very Low	Moderate to severe downhole contamination
Cuttings	1775	Low	Poor	Low	" "
Cuttings	1820	Moderate	Moderate	Low	" "
Cuttings	1880	Moderate	Moderate	Moderately Low	" "
Cuttings	1940	Moderate	Moderate	Moderately High	
Cuttings	1990	Moderate	Moderate	Moderate	
Cuttings	2005	Moderate	Moderate	Moderate	
Cuttings	2065	Moderately Low	Moderate	Low	Moderate to severe downhole contamination
Cuttings	2135	Moderately Low	Moderate	Low	
Cuttings	2140	Moderately Low	Moderate	Low	
Cuttings	2180	Low	Moderate	Low	
Cuttings	2215	Low	Moderate	Low	
Cuttings	2340	Low	Poor	Low	Moderate downhole contamination
Cuttings	2390	Low	Poor	Low	Minor downhole contamination
Cuttings	2160	Very Low	Poor	Very Low	" "
Cuttings	2680	Low	Poor	Low	

TABLE-2  
FORAMINIFERAL DATA  
TRITON-1 SIDETRACK, OIWAY BASIN  
BASIC DATA

NATURE OF SAMPLE	DEPTH IN METRES	MICROFOSSIL YIELD	PRESERVATION	DIVERSITY	COMMENTS
Cuttings	1495	Low	Poor	Low	
Cuttings	1550	Low	Poor	Low	
Cuttings	1735	N.F.F.	-	-	Moderate to severe downhole contamination
Cuttings	1740	Low	Very Poor	Low	" "
Cuttings	1750	Very Low	Poor	Very Low	" "
Cuttings	1765	Low	Poor	Low	" "
Cuttings	1780	Very Low	Moderate	Low	
Cuttings	1800	Moderate	Poor	Moderate	
Cuttings	1910	Moderate	Moderate	Moderately High	
Cuttings	1930	Moderate	Moderate	Moderately High	
Cuttings	1975	Moderate	Moderate	Moderate	
Cuttings	2030	Moderately Low	Moderate	Moderately High	
Cuttings	2080	Moderately Low	Moderate	Moderately High	
Cuttings	2100	Moderately Low	Moderate	Moderate	
Cuttings	2120	Moderately Low	Moderate	Moderate	
Cuttings	2250	Moderately Low	Moderate	Moderate	
Cuttings	2300	Low	Moderate	Moderate	
Cuttings	2440	Low	Poor	Low	
Cuttings	2500	Low	Poor	Low	
Cuttings	2550	Low	Poor	Low	
Cuttings	2750	Low	Poor	Low	
Cuttings	2805	Low	Poor	Low	
Cuttings	2815	Low	Poor	Low	
Cuttings	2860	Very Low	Poor	Very Low	
Cuttings	2900	Very Low	Poor	Very Low	
Cuttings	2950	Very Low	Poor	Very Low	
Cuttings	3005	Very Very Low	Poor	Very Very Low	
Cuttings	3050	N.F.F.	-	-	
Cuttings	3100	N.F.F.	-	-	
Cuttings	3150	N.F.F.	-	-	
Cuttings	3200	Very Very Low	Poor	Very Very Low	
Cuttings	3265	N.F.F.	-	-	
Cuttings	3280-85	N.F.F.	-	-	
Cuttings	3280-85	N.F.F.	-	-	
Cuttings	3280-85	N.F.F.	-	-	
Cuttings	3280-85	N.F.F.	-	-	

SAMPLE TYPE *	DEPTHS																																				
	Metres																																				
TERTIARY PLANKTONIC FORAMINIFERA	270	290	370	400	470	520	560	600	650	700	760	820	900	950	1000	1035	1065	1100	1155	1200	1280	1360	1410	1460	1495	1550	1590	1605	1650	1690	1710	1715	1720	1725	1750		
Indet. Globigerinids			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Globigerina anguloroides																																					
Globorotalia gemma																																					
Chiloquembelina cubensis																																					
G'ina ampliapertura-euapertura																																					
Globigerina brevis																																					
Globigerina euapertura																																					
Globigerina tripartita																																					
Globoquadrina Sp. 1																																					
Globorotaloides estarugosa																																					
Indet. Turborotalids																																					
Globoquadrina larmei																																					
Globigerina woodi	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Globigerina praebulloides																																					
Globigerina bulloides																																					
G'ina woodi connecta																																					
Globorotalia praemenardii																																					
Globigerina cf. eamesi																																					
Globorotalia mayeri group																																					
Globigerinoides triloba																																					
Globoquadrina dehiscens S.																																					
Globigerina ouachitaensis																																					
Globorotalia nana group																																					
Globigerinoides bisphericus																																					
G'alia miotumida miotumida c																																					
Globigerinoides ruber																																					
Globorotalia cf. panda																																					
Orbulina suturalis	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Orbulina universa	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Globigerinoides sacculifer																																					
G'alia miozea conoidea																																					

\* S = SIDEWALL CORE; T = CUTTINGS; TS = SIDETRACK CUTTING  
 C = CONTAMINATION  
 / - RARE (less than 5 specimens)  
 X - FEW (5-25 specimens)  
 [X] - COMMON (25-150 specimens)  
 [X] - ABUNDANT (more than 150 specimens)

DIST. CHART DWG. H07/OP/227



SAMPLE TYPE *	DEPTHS Metres	TERTIARY MIOCENE POMPHIENA	
		T	C
<i>Pyralina</i> sp. 1	270		
<i>Cibicides brevorlis</i>	320		
<i>Heterolentia linguata</i>	370		
<i>Gaudryina</i> sp. 2	400		
<i>Heterolentia</i> sp. 1	470		
<i>Alabamina tenuimarginata</i>	520		
<i>2Daihyella</i> sp. 1	560		
<i>Vaginulinopsis</i> aff. <i>notkarensis</i>	600		
<i>Margulinopsis</i> sp. 2	650		
<i>Vaginula</i> sp. 1	700		
<i>Toxularia</i> cf. <i>semicarinata</i>	760		
<i>Patellina</i> sp. 1	820		
<i>Robertina</i> cf. <i>pukawiensis</i>	900		
<i>Alabamina</i> sp. 1	950		
<i>Guttelina</i> sp. 2	1000		
<i>Lingulina meunensis</i>	1035		
<i>Vaginulinopsis</i> sp. 1	1065		
<i>Pyralina</i> sp. 2	1100		
<i>Opeculina victoriaensis</i>	1155		
<i>Karrosia</i> sp. 1	1200		
<i>Prondicularia</i> sp. 2	1280		
<i>Uvigerina</i> sp. 2	1360		
	1410		
	1460		
	1495		
	1550		
	1590		
	1605		
	1650		
	1690		
	1710		
	1715		
	1720		
	1725		
	1730		

\* S = SIDEWALL CORE; T = CUTTINGS; TS = SIDETRACK CUTTINGS  
C = CONTAMINATION

DIST. CHART

DWG. IIO7/OP/227

/ - rare (Less than 5 specimens)  
X - few (5-25 specimens)  
A - common (25-150 specimens)





SAMPLE TYPE *	DEPTHS		Metres	Ts	Ts	Ts	Ts	Ts	Ts	Ts	Ts	Ts	Ts	Ts	Ts	Ts	Ts	Ts	Ts	
CRETACEOUS PLANKTONIC FORAMINIFERA		2950																		
		3005																		
		3100																		
		3150																		
		3200																		
		3265																		
		3280-85																		
	3315-20																			
	3355-60																			
	3390-95																			
<i>G'oides ultramiera</i>																				
<i>Heterohelix globulosa</i>																				
<i>Heterohelix striata</i>																				
<i>Hedbergella trochoidea</i> group																				
<i>Hedbergella delrioensis</i>																				

\* S = SIDEWALL CORE; T = CUTTING; TS = SIDETRACK CUTTING  
C = CONTAMINATION.



SAMPLE TYPE *	DEPTHS Metres	TS	TS	CS	TS	TS	TS	TS	TS
CRETACEOUS BENTHONIC FORAMINIFERA	2950	/							
<i>Lenticulina</i> spp.	3005	/							
<i>Gyroidinoides nitida</i>	3050	/							
	3100								
	3150								
	3200								
	3265								
	3280-85								
	3315-20								
	3355-60								
	3390-95								

\* S = SIDEWALL CORE; T = CUTTING; TS = SIDETRACK CUTTING  
 C = CONTAMINATION

/ - rare (less than 5 specimens)

APPENDIX 5

OIL and GAS DIVISION

28 OCT 1982

APPENDIX 5

PALYNOLOGICAL ANALYSIS

TRITON#1 AND TRITON#1 SIDETRACK

OTWAY BASIN

PALYNOLOGICAL ANALYSIS OF TRITON-1  
AND TRITON-1 SIDETRACK  
OTWAY BASIN

By

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Paleontology Report 1982/24

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PART 1

INTERPRETATIVE DATA

Introduction

Summary Table

Geological Comments

Comments on Zones

Figure 1: Late Cretaceous Biostratigraphic Zones

Table 1: Interpretative Data Triton-1 Sidetrack

Table 2: Interpretative Data Triton-1



## INTRODUCTION:

A total of 79 samples were processed and examined for palynomorphs. These include 49 cutting samples and 24 sidewall cores from Triton-1 Sidetrack and 6 cutting samples from Triton-1. Recovery of fossils varied widely from sample to sample, with many barren or low yield samples. This variable recovery, combined with the fact that most of the age dates are derived from cutting samples, makes the reliability of the palynological zonation and age determination of the sequence in Triton-1 and Triton-1 Sidetrack dubious.

The palynologic zonation and probable geologic age equivalent is summarized below. The results of individual sample analysis are given in Table 1 and the occurrence and distribution of individual species is tabulated in the accompanying check charts.

SUMMARY

Depths cited in summary are all for Triton-1 Sidetrack

GEOLOGICAL AGE	SPORE-POLLEN ZONES	DINOFLAGELLATE ZONES	DEPTH IN METRES
Early Oligocene - Latest Eocene	<u>P. tuberculatus</u> Late <u>N. asperus</u>	Not zoned	1700-1730
UNCONFORMITY			
Maastrichtian - Campanian	<u>T. longus</u> to <u>T. lilliei</u>	Not zoned	1740-1750
Campanian - Santonian	<u>N. senectus</u> .....	<u>X. australis</u> <u>N. aceras</u>	1760-1945 1995-2395
Santonian - Coniacian - ?Turonian	Not possible to zone on spore-pollen	<u>I. cretaceum</u>	2495-2975
Turonian		Unzoned Interval	2995-3175
		<u>P. infusorioides</u>	3195-3385
Turonian - Cenomanian		Barren interval	3395-3527
		<u>C. muderongense</u> (Local Acme Zone)	3530-3545
			T.D. 3545

GEOLOGICAL COMMENTS:

1. Confidence in the palynological zonation and age dating of the sequence penetrated by Triton-1 and Triton-1 Sidetrack is low for the following reasons:
  - a. The palynological subdivision of this well section is based almost entirely on the floras extracted from ditch cuttings, thus only "tops" or extinction points can be used with any reliability. The regular zonation of the Late Cretaceous, as developed from sidewall and core samples in other wells and from outcrop sections, use the recognised stratigraphic range and both the "top" and "bottom" (i.e. first and last) occurrence of key species. The first occurrence, or "bottom" of a species range, often the most accurate and useful stratigraphic marker, cannot be applied with confidence to assemblages recovered from cutting samples. Sidewall core samples were available only from the bottom 625 metres of Triton-1 Sidetrack and recovery was so poor that little additional information could be added to that obtained from the assemblages of the ditch samples.
  - b. The concentration of palynomorphs in the preparations from most of the samples from the thick Belfast Mudstone was very low. Indeed, it is clear from both cuttings and sidewall cores, that the fossil bearing sediments mostly occur in thin bands, separated by much thicker rock layers that are either barren or very poorly fossiliferous.

- c. The occurrence of caved palynomorphs in the cuttings was also a problem. Cavings were particularly noticeable in the Triton-1 hole. In the Triton-1 Sidetrack, in contrast, there was little evidence of caving or mud contamination, although the possibility of caving must be considered when utilizing the lower occurrence of marker species.
2. Both dinoflagellates and spore-pollen are used to zone the upper part of the well, while dinoflagellates are used exclusively in the lower part of the well. Below 2900 metres diversity and abundance of all palynomorphs falls off, but this is particularly true for the spore-pollen, as shown clearly on the range chart. Because of this, it has not been possible to apply the Late Cretaceous spore-pollen zonation of Dettmann and Playford (1969). One key spore, Clavifera triplex, does occur in the deepest two samples, however its occurrence is discounted in favour of the dinoflagellate data as, subsequent to the work of Dettmann and Playford (1969), it has been shown to have a much earlier appearance than the base of the original C. triplex Zone (see Morgan 1980).
3. Although the dinoflagellate assemblages have been used to age date and zone the well they are not as diverse as assemblages found in wells further west along the southern margin of Australia or along the west coast. It is very noticeable that some genera and species have restricted ranges or are totally absent from the Port Campbell Embayment end of the Otway Basin. For example the various species of Diconodinium are absent including the important zone indicator, Diconodinium dispersum; while species of Cribroperidinium, which are a dominant element throughout most of the Late Cretaceous in Western Australia and Papua New Guinea, are restricted to the

local Cribroperidinium muderongense Acme Zone in the eastern Otway Basin and in the Triton-1 Sidetrack hole. These restrictions and absences of certain dinoflagellate species lower the confidence of the exact correlation to the scheme of Helby, Morgan and Partridge (in prep.) and thus to the geological time scale.

#### 4. Age Dating.

The best estimate for the correlation of the Triton-1 and Triton-1 Sidetrack sequence with the time scale, via the zonation of Helby, Morgan and Partridge (in prep.) is given in Figure-1, allowing for limitation of the spore-pollen and dinoflagellate data discussed above.

Correlation is relatively good between 1740 and 2975 metres, from the T. longus Zone to I. cretaceum Zone, as it is based on fairly diverse assemblages of both spores, pollen and dinoflagellates.

Below 3000 metres the correlation is poorer. The only definitive correlation point is the interval of the P. infusorioides Zone from 3195-3385 metres. This is most likely Turonian, however as it is bounded above and below by virtual barren intervals, it need not necessarily represent the whole of the zone, and this is shown as such in Figure-1.

The local C. muderongense Acme Zone is shown as equating with the Diconodinium dispersum Zone and hence the Cenomanian. This is an estimate only as it can have a possible age range of Turonian to Albian. Because of documented absences and restrictions in the ranges of key dinoflagellate species the age dating cannot be any more definitive.

In Figure-1 the 'Unzoned Interval' from 2895-3175 metres is shown as a possible correlative of the C. striatoconus Zone and overlying O. porifera Zone. This should not however be taken as meaning the section is complete, with these zones present but not represented by fossils. An alternative argument could be used, saying that since Conosphaeridium striatoconus is a distinctive fossil and known elsewhere in the Port Campbell Embayment its absence in this well implies absence of zone. It is similarly dangerous to imply too much from the 'Barren Interval' from 3385-3527 metres.

5. The Cribroperidinium muderongense Acme Zone is based on the top occurrence of named species and has been shown to have significance as a local marker by Stacy (1981). Its highest occurrence in Port Campbell-1 is at 1807 metres; in Port Campbell-2 at 2608 metres and Flaxmans-1 at 2104.5 metres. In these three wells this boundary lies within the Waarre Sandstone Formation. Although this is a likely correlation for this area it must be made with the knowledge that the species on which it is based has a longer range outside of this local area and potentially could have a longer range in the deeper more marine parts of the basin as at Triton-1.
6. Limited detailed palynological work has been done on the adjacent Nautilus-1 well, however the X. australis Zone is found in cores 9 and 10 between 1861 to 2009 metres, which is only marginally deeper than the equivalent zone in Triton-1 Sidetrack.

#### DISCUSSION OF ZONES:

The palynological zones recognized in the well are discussed in descending order because the most diagnostic assemblages were obtained from the ditch cuttings. Sidewall cores were only available for examination in the Sidetrack hole below 2910 metres.

The spore-pollen zones used follow Stover and Partridge (1973) while the dinoflagellate zonation conforms to the Australia wide scheme to be described in Helby, Morgan and Partridge (in preparation) modified in part for local use in Port Campbell Embayment following the study by Stacy (1981).

Proteacidites tuberculatus to

Late Northofagidites asperus Zones: 1700-1730 metres

The five cuttings samples from this 30 metre interval at the base of the Tertiary sequence contain mixed assemblages which can only be referred to a composite of the above two spore-pollen zones. The overall palynomorph assemblage has a P. tuberculatus Zone aspect which is consistent with the Early Oligocene, J2 foraminiferal zone identified by Rexilius (1982) at this level. The key species are Proteacidites stipplatus diagnostic but not restricted to the Late N. asperus Zone and Protoellipsodinium simplex m.s. diagnostic of P. tuberculatus Zone. Anomalous species include Cyathidites splendens not found above the Middle N. asperus while the dinoflagellates Deflandrea phosphoritica and Homotryblum sp. are not found above the Late N. asperus Zone

Tricolporites lilliei to Tricolpites longus Zones: 1740-1750 metres

The spore Ornamentifera sentosa and the pollen Triporopollenites sectilis, Tricolpites confessus and Proteacidites amolosexinus are consistent with an Late Cretaceous age no younger than these zones. Although no pollen restricted to the T. longus Zone were identified at either 1740 or 1750 metres, specimens of the zone species, Tricolpites longus were observed in cuttings from 1760, 1995 and 2095 metres which strongly suggest that the youngest part of the Cretaceous section extends into the T. longus Zone.

Xenikoon australis Dinoflagellate Zone and  
Nothofagidites senectus Spore-Pollen Zone: 1760-1945 metres.

The highest occurrence of Xenikoon australis in cuttings is taken as the top of this zone. Since in other sections documented on core material the extinction of X. australis equates with the boundary between the N. senectus and T. lilliei spore-pollen Zones this is also taken as the top of the N. senectus Zone in this well.

Nelsoniella aceras Zone: 1995-2395 metres

The highest occurrence of N. aceras in the cuttings is taken as the top of this zone in Triton-1 Sidetrack samples even though in some sequences in the Otway Basin N. aceras is known to overlap with the basal range of X. australis. An alternative top of this zone could be taken at the base of common X. australis at 2095 metres.

Isabelidium cretaceum Zone: 2495-2975 metres.

The top of the I. cretaceum Zone is taken at 2495 metres as this is the highest occurrence in cuttings of Amphidiadema denticulata and Isabelidium belfastense which, based on the good dinoflagellate sequence in Morum-1 from the western Otway Basin, are not known to overlap with the range of N. aceras (Partridge, 1975). The base of the I. cretaceum Zone is much more uncertain but is taken at 2975 metres at a good cuttings assemblage which appears to be in place and contains frequent I. cretaceum specimens.

Unzoned Interval: 2995-3175 metres

In the cuttings and sidewall zones between 2895 and 3175 metres there are no new occurrences of either dinoflagellate, spores or pollen species which are useful for defining zones. The samples



are not particularly rich and contain obvious down hole contaminants. It would be misrepresenting the data to attempt to recognise zones in this interval.

Palaeohystrichophora infusorioides Zone: 3195-3385 metres

Between 3195 and 3375 metres the cuttings samples but not the sidewall cores contain a number of new occurrences of dinoflagellate species. The interval is referred to the P. infusorioides Zone on the consistent occurrence of Microdinium ornatum which shows a distinct acme in this zone in certain offshore wells in Western Australia. Although the zone fossil Palaeohystrichophora infusorioides also occurs consistently in samples in this interval it has been shown in many other sections to have a much more extended range. It gives its name to the zone only because it is generally common. In the zonation proposed by Helby et al. (in prep.) the base of the P. infusorioides Zone is defined by extinction of zone indicators of the underlying D. dispersum Zone and the top defined by first appearance of Conosphaeridium striatoconus the zone species of the overlying zone. In Triton-1 Sidetrack these criteria do not work because of the absence of the key zone species. The P. infusorioides Zone can therefore only be identified on gross assemblage characteristics. Because of this and the fact that it is bounded by intervals which cannot be age dated or zoned the overall confidence in the zone identification is low.

Barren Interval: 3395-3527 metres

So few spores, pollen and dinoflagellates occur in either cuttings or sidewall cores in this interval that it is effectively barren and cannot be zoned. The reason the interval is virtually barren is considered to be the initial low palynomorph concentration in the sediment exacerbated by subsequent partial destruction of palynomorphs by carbonization.

Cribroperidinium muderongense Local Acme Zone: 3530-3545 metres

In the basal 15 metres in the Triton-1 Sidetrack hole the highest occurrence of the dinoflagellate, Cribroperidinium muderongense, was found. In the Port Campbell Embayment of the Otway Basin this has been previously shown to be an important local marker by Stacy (1981)

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Figure 1: Late Cretaceous Biostratigraphic Zones

AGE in Myr.	STAGE	SPORE-POLLEN ZONES Dettmann & Playford 1969 Stover & Partridge 1973	DINOFLAGELLATE ZONES Helby, Morgan & Partridge (in preparation)	ZONATION OF TRITON-1 SIDETRACK Depths in metres	
70	MAASTRICHTIAN	Tricolpites longus	Isabelidium druggii	Not present	
			Tricolporites lilliei	Isabelidium korojonense	T. longus to T. lilliei 1740 - 1750
	CAMPANIAN	Nothofagidites senectus	Xenicoon australis	X. australis 1760 - 1945	
			Nelsoniella aceras	N. aceras 1995 - 2395	
			SANTONIAN	Tricolpites pachyexinus	Isabelidium cretaceum
	CONIACIAN	Odontochitina porifera			Unzoned interval 2995 - 3175
			Conosphaeridium striatoconus		
	90	TURONIAN	Clavifera triplex	Palaeohystrichophora infusorioides	P. infusorioides 3195 - 3385
		CENOMANIAN	Appendicisporites distocarinatus	Diconodinium dispersum	Barren interval 3395 - 3527 C. muderongense 3530 - 3545 T.D.
	100			ALBIAN	Phimopollenites pannosus
		Coptospora paradoxa	Endoceratium ludbrookiae		

TABLE-1  
SUMMARY OF PALAEOLOGICAL ANALYSIS, TRITON-1 SIDETRACK, OTWAY BASIN

SAMPLE	DEPTH (METRES)	DEPTH (FEET)	ZONE	AGE	CONFIDENCE RATING	YIELD	SPORE-POLLEN DIVERSITY	DINOS DIVERSITY	COMMENTS
Cuttings	1700	5577.5	<u>P. tuberculatus</u> to <u>N. asperus</u>	Oligo-Miocene	3	Fair	Low	Moderate	Mixed <u>P. tuberculatus</u> - Late <u>N. asperus</u> assemblage
Cuttings	1710	5610	<u>P. tuberculatus</u> to <u>N. asperus</u>	Oligo-Miocene	3	Poor	Low	Low	Mixed <u>P. tuberculatus</u> - Late <u>N. asperus</u> assemblage
Cuttings	1715	56267.5	<u>P. tuberculatus</u> to <u>N. asperus</u>	Oligo-Miocene	3	Fair	Low	Moderate	Mixed <u>P. tuberculatus</u> - Late <u>N. asperus</u>
Cuttings	1720	5643	<u>P. tuberculatus</u> to <u>N. asperus</u>	Oligo-Miocene	3	Poor	Low	Low	assemblage
Cuttings	1730	5676	<u>P. tuberculatus</u> to <u>N. asperus</u>	Oligo-Miocene	3	Fair	Moderate	Low	Mixed <u>P. tuberculatus</u> - Late <u>N. asperus</u>
Cuttings	1740	5708.5	<u>T. longus</u> / <u>T. lilliei</u>	Maast.-Campanian	3	Good	High	Moderate	
Cuttings	1750	5741.5	<u>T. longus</u> / <u>T. lilliei</u>	Maast.-Campanian	3	Fair	Moderate	Low	
Cuttings	1760	5774	<u>X. australis</u>	Campanian-Santonian	3	Good	High	Low	
Cuttings	1795	5889	<u>X. australis</u>	Campanian-Santonian	3	Good	High	Moderate	
Cuttings	1895	6217	<u>X. australis</u>	Campanian-Santonian	3	Good	High	Moderate	
Cuttings	1945	6381	<u>X. australis</u>	Campanian-Santonian	3	Poor	Moderate	Low	
Cuttings	1995	6545	<u>N. aceras</u>	Campanian-Santonian	3	Fair	Moderate	Low	
Cuttings	2095	6873	<u>N. aceras</u>	Campanian-Santonian	3	Good	High	Moderate	
Cuttings	2395	7857.5	<u>N. aceras</u>	Campanian-Santonian	3	Poor	Low	Moderate	
Cuttings	2495	8185.5	<u>I. cretaceum</u>	Santonian	3	Fair	Low	Moderate	
Cuttings	2595	8514	<u>I. cretaceum</u>	Santonian	3	Fair	Low	Moderate	
Cuttings	2795	9170	Non diagnostic	?	4	Poor	Low	Low	
Cuttings	2805	9203	<u>I. cretaceum</u>	Santonian	3	Good	Moderate	High	
Cuttings	2810	9219	<u>I. cretaceum</u>	Santonian	3	Good	Moderate	High	
Cuttings	2895	9498	Non diagnostic	?	4	Poor	Low	None	
Cuttings	2910	9547	<u>I. cretaceum</u> ?	Santonian?	4	Fair	Low	Moderate	
SWC 51	2910	9547	Non diagnostic	?	4	Barren	-	-	
SWC 49	2926.5	9601.5	Non diagnostic	?	4	Barren	-	-	
SWC 48	2951	9682	Non diagnostic	?	4	Barren	-	-	
Cuttings	2975	9760.5	<u>I. cretaceum</u>	Santonian	3	Fair	Low	Moderate	<u>C. victoriensis</u>
Cuttings	2995	9826	Indeterminate	?	4	Poor	Low	Low	
SWC 46	3002	9849	Indeterminate	?	4	Barren	-	-	
SWC 45	3028	9934.5	Indeterminate	?	4	Barren	-	-	
Cuttings	3075	10088.5	Indeterminate	?	4	Fair	Low	Moderate	
Cuttings	3095	10154	Indeterminate	?	3	Fair	Low	Moderate	<u>C. victoriensis</u>
Cuttings	3110	10203.5	Indeterminate	?	4	Fair	Low	Moderate	
SWC 41	3125	10252.5	Indeterminate	?	4	Barren	-	-	
SWC 40	3151	10338	Indeterminate	?	4	Barren	-	-	
Cuttings	3175	10416.5	Indeterminate	?	4	Barren	-	-	
Cuttings	3195	10482	<u>P. infusorioides</u>	Turonian	4	Poor	None	Low	Highest occurrence of <u>M. ornatum</u>
Cuttings	3225	10581	<u>P. infusorioides</u>	Turonian	3	Good	High	High	<u>M. ornatum</u> ; <u>C. victoriensis</u>

Table-1 Cont.. /2

SAMPLE	DEPTH (METRES)	DEPTH (FEET)	ZONE	AGE	CONFIDENCE RATING	YIELD	SPORE-POLLEN DIVERSITY	DINOS DIVERSITY	COMMENTS
Cuttings	3240	10630	Non diagnostic	?	4	Poor	Low	Moderate	
Cuttings	3250	10663	<u>P. infusorioides</u>	Turonian	3	Good	Moderate	Moderate	<u>M. ornatum</u> , Lowest
Cuttings	3260	10695.5	Non diagnostic	?	4	Barren	-	-	
Cuttings	3270	10728	Non diagnostic	?	4	Very Poor	None	Low	
Cuttings	3275	10745	Non diagnostic	?	4	Poor	Low	Low	
Cuttings	3300	10827	<u>P. infusorioides</u>	?	4	Poor	Low	Low	<u>M. ornatum</u> ; Highest <u>Cribroperidium</u> sp.
SWC 34	3305	10843	Non diagnostic	?	4	Very Poor	Very Low	None	
Cuttings	3320	10892	<u>P. infusorioides</u>	Turonian?	3	Fair	Low	Moderate	<u>M. ornatum</u> ; <u>Ascodinium</u> sp.
Cuttings	3340	10958	<u>P. infusorioides</u>	Turonian?	3	Fair	Low	Moderate	
Cuttings	3360	11023.5	<u>P. infusorioides</u>	Turonian?	3	Good	Moderate	Moderate	<u>M. ornatum</u> ; <u>Ascodinium</u> sp.
Cuttings	3375	11073	<u>P. infusorioides</u>	Turonian?	3	Fair	Low	Moderate	<u>M. ornatum</u>
Cuttings	3385	11105.5	<u>P. infusorioides</u>		4	Poor	Low	Low	Base: <u>A. cruciformis</u>
Cuttings	3395	11138.5	Indeterminate	?	4	Very Poor	None	Low	
SWC-30	3398	11148	Indeterminate	?	4	Barren	-	-	
Cuttings	3400	11155	Indeterminate	?	4	Very Poor	Low	None	
SWC-29	3408	11181	Indeterminate	?	4	Barren	-	-	
Cuttings	3425	11237	Indeterminate	?	4	Poor	Low	Low	
SWC-26	3425	11237	Indeterminate	?	4	Barren	-	-	
SWC-24	3435	11269.5	Indeterminate	?	4	Barren	-	-	
SWC-20	3448.5	11314	Indeterminate	?	4	Barren	-	-	
Cuttings	3450	11319	Indeterminate	?	4	Poor	Low	None	
SWC-17	3457.5	11343.5	Indeterminate	?	4	Barren	-	-	
SWC-13	3481.7	11423	Indeterminate	?	4	Barren	-	-	
SWC-12	3485	11434	Indeterminate	?	4	Barren	-	-	
SWC-10	3495	11466.5	Indeterminate	?	4	Barren	-	-	
SWC-9	3498	11476	Indeterminate	?	4	Barren	-	-	
Cuttings	3500	11483	Indeterminate	?	4	Barren	-	-	
SWC-6	3506	11502.5	Indeterminate	?	4	Barren	-	-	
SWC-5	3515	11532	Indeterminate	?	4	Barren	-	-	
SWC-4	3520	11548.5	Indeterminate	?	4	Barren	-	-	
SWC 3	3524.5	11563	Indeterminate	?	4	Poor	None	Low	
SWC 2	3527	11571.5	Indeterminate	?	4	Barren	-	-	
Cuttings	3530	11581	<u>C. muderongense</u>	Turonian-Cenomanian	3	Poor	Low	Moderate	
SWC 1	3533.5	11593	Non diagnostic	?	4	Poor	Low	None	
Cuttings	3535	11598	Non diagnostic	?	4	Poor	Low	None	
Cuttings	3540	11614	<u>C. muderongensis</u>	Turonian-Cenomanian	3	Poor	Low	Low	
Cuttings	3545	11630.5	<u>C. muderongensis</u>	Turonian-Cenomanian	3	Fair	Low	Moderate	

TABLE-2  
SUMMARY OF PALAEOBIOLOGICAL ANALYSIS, TRITON-1, OIWAY BASIN

SAMPLE	DEPTH (METRES)	DEPTH (FEET)	ZONE	AGE	CONFIDENCE RATING	YIELD	SPORE-POLLEN DIVERSITY	DINOS DIVERSITY	COMMENTS
Cuttings	1750	5741.5	?	Late Cretaceous	4	Good	High	High	
Cuttings	1800	5905.5	X. australis?	Campanian	4	Good	High	High	
Cuttings	2620	8596	N. aceras?	Campanian?	4	Fair	Moderate	Moderate	
Cuttings	2660	8727	I. cretaceum?	Santonian?	4	Fair	Moderate	High	<u>I. nucula</u>
Cuttings	2710	8891	N. aceras or older	Campanian/Santonian	4	Fair	Low	Moderate	
Cuttings	2780	9121	I. cretaceum	Santonian	4	Fair	Low	Moderate	

PART II

BASIC DATA

Table-3: Basic Data Triton-1 Sidetrack

Table 4: Basic Data Triton-1  
Occurrence Charts



TABLE-3  
 BASIC DATA  
 SUMMARY OF PALAEOLOGICAL ANALYSIS,  
 TRITON-1 SIDETRACK, OTWAY BASIN

SAMPLE	DEPTH (METRES)	DEPTH (FEET)	YIELD	SPORE-POLLEN DIVERSITY	DINOS DIVERSITY
Cuttings	1700	5577.5	Fair	Low	Moderate
Cuttings	1710	56103	Poor	Low	Low
Cuttings	1715	56267.5	Fair	Low	Moderate
Cuttings	1720	5643	Poor	Low	Low
Cuttings	1730	5676	Fair	Moderate	Low
Cuttings	1740	5708.5	Good	High	Moderate
Cuttings	1750	5741.5	Fair	Moderate	Low
Cuttings	1760	5774	Good	High	Low
Cuttings	1795	5889	Good	High	Moderate
Cuttings	1895	6217	Good	High	Moderate
Cuttings	1945	6381	Poor	Moderate	Low
Cuttings	1995	6545	Fair	Moderate	Low
Cuttings	2095	6873	Good	High	Moderate
Cuttings	2395	7857.5	Poor	Low	Moderate
Cuttings	2495	8185.5	Fair	Low	Moderate
Cuttings	2595	8514	Fair	Low	Moderate
Cuttings	2795	9170	Poor	Low	Low
Cuttings	2805	9203	Good	Moderate	High
Cuttings	2810	9219	Good	Moderate	High
Cuttings	2895	9498	Poor	Low	None
Cuttings	2910	9547	Fair	Low	Moderate
SWC 51	2910	9547	Barren	-	-
SWC 49	2926.5	9601.5	Barren	-	-
SWC 48	2951	9682	Barren	-	-
Cuttings	2975	9760.5	Fair	Low	Moderate
Cuttings	2995	9826	Poor	Low	Low
SWC 46	3002	9849	Barren	-	-
SWC 45	3028	9934.5	Barren	-	-
Cuttings	3075	10088.5	Fair	Low	Moderate
Cuttings	3095	10154	Fair	Low	Moderate
Cuttings	3110	10203.5	Fair	Low	Moderate
SWC 41	3125	10252.5	Barren	-	-
SWC 40	3151	10338	Barren	-	-
Cuttings	3175	10416.5	Barren	-	-
Cuttings	3195	10482	Poor	None	Low
Cuttings	3225	10581	Good	High	High
Cuttings	3240	10630	Poor	Low	Moderate
Cuttings	3250	10663	Good	Moderate	Moderate
Cuttings	3260	10695.5	Barren	-	-
Cuttings	3270	10728	Very Poor	None	Low
Cuttings	3275	10745	Poor	Low	Low
Cuttings	3300	10827	Poor	Low	Low
SWC 34	3305	10843	Very Poor	Very Low	None
Cuttings	3320	10892	Fair	Low	Moderate
Cuttings	3340	10958	Fair	Low	Moderate
Cuttings	3360	11023.5	Good	Moderate	Moderate
Cuttings	3375	11073	Fair	Low	Moderate
Cuttings	3385	11105.5	Poor	Low	Low
Cuttings	3395	11138.5	Very Poor	None	Very Low
SWC 30	3398	11148	Barren	-	-
Cuttings	3400	11155	Very Poor	Very Low	None
SWC 29	3408	11181	Barren	-	-
Cuttings	3425	11237	Poor	Low	Low
SWC 26	3425	11237	Barren	-	-
SWC 24	3435	11269.5	Barren	-	-
SWC 20	3448.5	11314	Barren	-	-
Cuttings	3450	11319	Poor	Low	None

Table-3 Cont../2

SAMPLE	DEPTH (METRES)	DEPTH (FEET)	YIELD	SPORE-POLLEN DIVERSITY	DINOS DIVERSITY
SWC 17	3457.5	11343.5	Barren	-	-
SWC 13	3481.7	11423	Barren	-	-
SWC 12	3485	11434	Barren	-	-
SWC 10	3495	11466.5	Barren	-	-
SWC 9	3498	11476	Barren	-	-
Cuttings	3500	11483	Barren	-	-
SWC 6	3506	11502.5	Barren	-	-
SWC 5	3515	11532	Barren	-	-
SWC 4	3520	11548.5	Barren	-	-
SWC 3	3524.5	11563	Poor	None	Low
SWC 2	3527	11571.5	Barren	-	-
Cuttings	3530	11581	Poor	Low	Moderate
SWC 1	3533.5	11593	Poor	Low	None
Cuttings	3535	11598	Poor	Low	None
Cuttings	3540	11614	Poor	Low	Low
Cuttings	3545	11630.5	Fair	Low	Moderate

TABLE-4  
 BASIC DATA  
 SUMMARY OF PALAEOLOGICAL ANALYSIS, TRITON-1, OTWAY BASIN

SAMPLE	DEPTH (METRES)	DEPTH (FEET)	YIELD	SPORE-POLLEN DIVERSITY	DINOS DIVERSITY
Cuttings	1750	5741.5	Good	High	High
Cuttings	1800	5905.5	Good	High	High
Cuttings	2620	8596	Fair	Moderate	Moderate
Cuttings	2660	8727	Fair	Moderate	High
Cuttings	2710	8891	Fair	Low	Moderate
Cuttings	2780	9121	Fair	Low	Moderate

PE901820

This is an enclosure indicator page.  
The enclosure PE901820 is enclosure within the  
container PE901819 at this location in this document.

The enclosure PE901820 has the following characteristics:

ITEM_BARCODE	=	PE901820
CONTAINER_BARCODE	=	PE901819
NAME	=	Triton 1 Spore/Pollen Species list, Appendix 5
WCR vol 2		
BASIN	=	OTWAY
PERMIT	=	VIC/P15
TYPE	=	WELL
SUBTYPE	=	DIAGRAM
DESCRIPTION	=	Triton 1 Spore/Pollen Species list, Appendix 5
WCR vol 2		
DATE_CREATED	=	
DATE_RECEIVED	=	
W_NO	=	W766
WELL_NAME	=	Triton 1
CONTRACTOR	=	
CLIENT_OP_CO	=	ESSO AUSTRALIA LTD

PE901821

This is an enclosure indicator page.  
The enclosure PE901821 is enclosure within the  
container PE901819 at this location in this document.

The enclosure PE901821 has the following characteristics:

ITEM_BARCODE	=	PE901821
CONTAINER_BARCODE	=	PE901819
NAME	=	Triton 1 Dino. Species list, Appendix 5 WCR vol
2		
BASIN	=	OTWAY
PERMIT	=	VIC/P15
TYPE	=	WELL
SUBTYPE	=	DIAGRAM
DESCRIPTION	=	Triton 1 Dino. Species list, Appendix 5 WCR vol
2		
DATE_CREATED	=	
DATE_RECEIVED	=	
W_NO	=	W766
WELL_NAME	=	Triton 1
CONTRACTOR	=	
CLIENT_OP_CO	=	ESSO AUSTRALIA LTD

PE901822

This is an enclosure indicator page.  
The enclosure PE901822 is enclosure within the  
container PE901819 at this location in this document.

The enclosure PE901822 has the following characteristics:

ITEM_BARCODE	=	PE901822
CONTAINER_BARCODE	=	PE901819
NAME	=	Triton 1 sidetrack Spore/Pollen Species list, Appendix 5 WCR vol 2
BASIN	=	OTWAY
PERMIT	=	VIC/P15
TYPE	=	WELL
SUBTYPE	=	DIAGRAM
DESCRIPTION	=	Triton 1 sidetrack Spore/Pollen Species list, Appendix 5 WCR vol 2
DATE_CREATED	=	
DATE_RECEIVED	=	
W_NO	=	W766
WELL_NAME	=	Triton 1 sidetrack
CONTRACTOR	=	
CLIENT_OP_CO	=	ESSO AUSTRALIA LTD

PE901823

This is an enclosure indicator page.  
The enclosure PE901823 is enclosure within the  
container PE901819 at this location in this document.

The enclosure PE901823 has the following characteristics:

ITEM_BARCODE	=	PE901823
CONTAINER_BARCODE	=	PE901819
NAME	=	Triton 1 sidetrack Dino. Species list, Appendix 5
WCR vol 2		
BASIN	=	OTWAY
PERMIT	=	VIC/P15
TYPE	=	WELL
SUBTYPE	=	DIAGRAM
DESCRIPTION	=	Triton 1 sidetrack Dino. Species list, Appendix 5
WCR vol 2		
DATE_CREATED	=	
DATE_RECEIVED	=	
W_NO	=	W766
WELL_NAME	=	Triton 1 sidetrack
CONTRACTOR	=	
CLIENT_OP_CO	=	ESSO AUSTRALIA LTD

APPENDIX 6



TRITON-1 (Sidetrack)

LOG ANALYSIS

An analysis of wireline log data for the interval 3390 - 3533.5m of Triton-1 (Sidetrack) has been carried out using the HP41C "LOOKLOG II" analysis program. The analysed interval includes the bottom hole Waarre Sandstone section where several gas peaks were encountered.

LOGS AVAILABLE:

GR, LLD, MSFL, LDT, CNL, BHC.

LOGS USED:

GR, LLD, MSFL, LDT, CNL.

ANALYSIS AND SHALE PARAMETERS USED:

a	0.8
m	2
n	2
Matrix density limits	2.65-2.67 gm/cc
Fluid density	1.00 gm/cc
Apparent shale density	2.70 gm/cc
Apparent shale neutron porosity	18%
Apparent shale resistivity	15 ohm m
Gamma ray minimum	50 API units
Gamma ray maximum	100 API units.

SALINITIES:

Apparent formation water salinities were calculated from a number of representative water sands using the standard LOOKLOG II options ie. from ratioing resistivities and by backing out from the Archie relationship and from the Indonesia shaly sand relationship. Apparent formation water salinity could not be derived from the SP using the current LOOKLOG program as a KCl mud system was used. The LOOKLOG program assumes NaCl activity in the drilling fluid.

Salinities were derived from several water sands - none of which gave entirely satisfactory results. The Archie relationship appears to give anomalously high salinities, and for the purpose of this analysis, the technique is ignored. Salinities from Resistivity Ratioing and Indonesia Equation derived Rwa tended to be more consistent. A salinity of about 16,000 ppm was derived from both methods in one of the cleaner water sands available (V.shale = 13%). This salinity was used throughout the analysed interval with satisfactory water saturations resulting.

HYDROCARBONS:

The small amounts of gas encountered in the deep section of the well appear to be derived from shales or very tight sands. Log analysis shows no significant gas saturations.

  
L.J. FINLAYSON

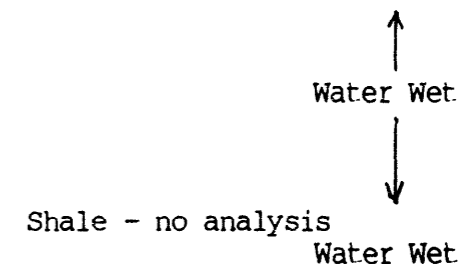
15th July, 1982.

TRITON-1 (sidetrack)

LOG ANALYSIS SUMMARY SHEET

Depth Interval	Thickness m	V. Shale %	Matrix Density gm/cc	Av. Porosity %	Sxo %	Sw %	Coment.
3390 - 3408m	18.0	84	-	-	-	-	108, 126 Gas Units
3408 - 3412m	4.0	94	-	-	-	-	26 Gas Units
3412 - 3414m	2.0	80	-	-	-	-	Shale - no analysis
3414 - 3416.5m	2.5	76	-	-	-	-	50 Gas Units
3416.5 - 3418m	1.5	34	2.66	5	71	71	
3418 - 3419.5m	1.5	48	2.67	5	88	88	
3419.5 - 3422m	2.5	31	2.64	7	91	89	
3422 - 3424.5m	2.5	60	2.66	6	97	77	Water Wet
3424.5 - 3426m	1.5	49	2.66	5	100	100	
3426 - 3428m	2.0	53	2.67	3	100	97	60 Gas Units
3428 - 3432m	4.0	98	-	-	-	-	Shale - no analysis
3432 - 3436m	4.0	90	-	-	-	-	Shale - no analysis
3436 - 3441m	5.0	63	2.67	2	100	80	
3441 - 3442.5m	1.5	53	2.67	4	100	83	
3442.5 - 3444m	1.5	69	2.67	1	100	95	Water Wet
3444 - 3446m	2.0	49	2.64	6	100	75	
3446 - 3449m	3.0	67	2.65	2	100	87	
3449 - 3455.5m	6.5	76	-	-	-	-	Shale - no analysis
3455.5 - 3458m	2.5	53	2.67	4	100	100	
3458 - 3460m	2.0	60	2.65	4	100	77	
3460 - 3461m	1.0	34	2.67	2	100	100	
3461 - 3464m	3.0	6	2.67	4	100	100	
3464 - 3467m	3.0	19	2.67	2	100	100	Water Wet
3467 - 3470m	3.0	13	2.64	5	100	70	
3470 - 3475.5m	5.5	72	2.67	2	100	84	
3475.5 - 3478.5m	3.0	13	2.66	4	100	100	
3478.5 - 3481m	2.5	53	2.66	1	77	77	
3481 - 3483.5m	2.5	75	-	-	-	-	Shale - no analysis
3483.5 - 3490m	6.5	77	-	-	-	-	Shale - no analysis
3490 - 3492.5m	2.5	70	2.66	3	100	100	
3492.5 - 3493.5m	1.0	71	2.67	4	86	83	Water Wet
3493.5 - 3495m	1.5	75	-	-	-	-	Water Wet
							Shale - no analysis

3495 - 3498m	3.0	73	2.66	2	86	86
3498 - 3499m	1.0	48	2.66	2	100	95
3499 - 3502.5m	3.5	26	2.66	4	100	100
3502.5 - 3511.5m	9.0	72	2.66	3	100	82
3511.5 - 3518.5m	7.0	74	2.67	1	98	98
3518.5 - 3522.5m	4.0	51	2.64	5	100	79
3522.5 - 3530.5m	8.0	94	-	-	-	-
3530.5 - 3533.5m	3.0	37	2.65	6	90	82



Remarks: No analysis carried out where V. Shale 75%.  
All depths are in metres KB.

L.J. Finlayson

15th July, 1982.

OIL and GAS DIVISION

28 OCT 1982

APPENDIX 6

QUANTITATIVE LOG EVALUATION

TRITON#1 SIDETRACK

OTWAY BASIN

APPENDIX 7

APPENDIX 7

ABNORMAL PRESSURE REPORT

TRITON#1 AND TRITON#1 SIDETRACK

OTWAY BASIN

## ABNORMAL PRESSURE SUMMARY

### TRITON-1 & TRITON-1 SIDETRACK

#### INTRODUCTION

During the drilling of Triton-1 Sidetrack the combination of increasing gas and deteriorating hole conditions indicated the presence of a zone of abnormal pressure. This study was done to provide a more accurate estimate of the interval over which the abnormal pressure exists, as well as the magnitude of the pore pressures.

The following Schlumberger wireline logs were plotted on the attached diagram, at the standard ESSO scales:

- a) the resistivity log: conductivity values were calculated from the "deep reading resistivity" log ie.  $\text{Conductivity} = \frac{1}{R} \times 1000$
- b) the density log: the density log was not run above 2810m.
- c) the sonic transit time log.

The log plots were then overlain by the standard world "Pressure Reader Overlays".

#### 1. METRIC PRESSURE READER OVERLAYS

Pressure Reader Overlays (modified for metric depth) have been used with the Pore Pressure Plots in order to estimate depth and extent of the abnormally pressured zone.

The overlays have been developed by the Exxon Corporation and are based on seismic data interpretation and observation. They have been generalised for world wide use. The application of these overlays in the Otway Basin (they have never been used in this basin before) and the pore pressure values should be regarded with caution.

The sonic transit time plot (acoustic reader) generally gives more consistent pressure values than the conductivity pressure plot because the wireline sonic tool is less affected by minute changes of lithology, well bore temperatures & formation salinities.

#### 2. DATA SOURCE

Basic data used in the construction of the Pore Pressure Plots has been taken from Schlumberger wireline logs (Resistivity, Density and Interval Transit Time). No additional corrections have been made to any log data.

All depths used are measured depths below the Kelly Bushing.

#### 3. CONDUCTIVITY PLOT

The conductivity plot indicates the top of abnormal pressure to be around 1750m. Pore pressure increases over the interval 1750 to 2950m from 8.3 to 16.8 ppg MWE. A maximum pore pressure of 16.8 ppg MWE is interpreted around 2925m. Between 2925 and 3400m, the plot returns to normal, but this cannot be regarded as correct because mudweights of up to 15.5 ppg were required to suppress gas units in this interval.

4. SHALE DENSITY PLOT

As a result of poor hole conditions in Triton-1 straight well, density logs were not run, and in the sidetracked well, they were only run from 3542 to 2810m. This lack of data has made it impossible to establish a normal trend. The small amount of data that has been plotted has a similar trend to the conductivity plot, suggesting a return to normal pore pressure. But for the same reason as for the conductivity plot, this cannot be regarded as correct.

5. SONIC TRANSIT TIME PLOT

The sonic transit time plot indicates the top of abnormal pressure to be at 1700m. From 1700 to 2200m abnormal pore pressure increases from 8.3 to 15.7 ppg MWE, with the maximum indicated pore pressure of 15.7 ppg MWE at 2200m. From 220 to 3400m, the pore pressure remains steady at approximately 15.0 ppg MWE.

6. CONCLUSIONS

- A. The top of the abnormal pressure appears to lie between 1700 and 1750m. The zone of abnormal pressure ranges from 1700 (approximately) to 3545m. Maximum indicated pore pressures in this depth range are 14.0 to 15.7 ppg MWE.
- B. All three plots confirm the presence of overpressure. The sonic transit time plot indicates that the overpressure is present to T.D. whereas the conductivity and shale density plots suggest a return to normal pore pressure between 3404m and T.D. The reason for this contradiction is not known.
- C. The presence of abnormal pressure is supported by the drilling parameters such as connection gas, trip gas, dc exponent (see Attachment 1: Corelab Extended Service Report-Geo-Plot) and general hole conditions. In Triton-1 there was sloughing and caving between 2000 and 2803m. Eventually it was necessary to sidetrack. By changing over to a KCL polymer mud system, the hole instability problem was greatly reduced, but there was still a problem with tight hole and bridging. In the lower part of the sidetracked well, there was connection gas, and influx of formation gas, making it necessary to raise mud weight up to 15.5 ppg.
- D. The overlays used with the pore pressure plots, are generalised for world wide use. The presence of abnormal pressure is plainly indicated, though the absolute value of pore pressure cannot be accurately estimated.

A. LINDSAY.

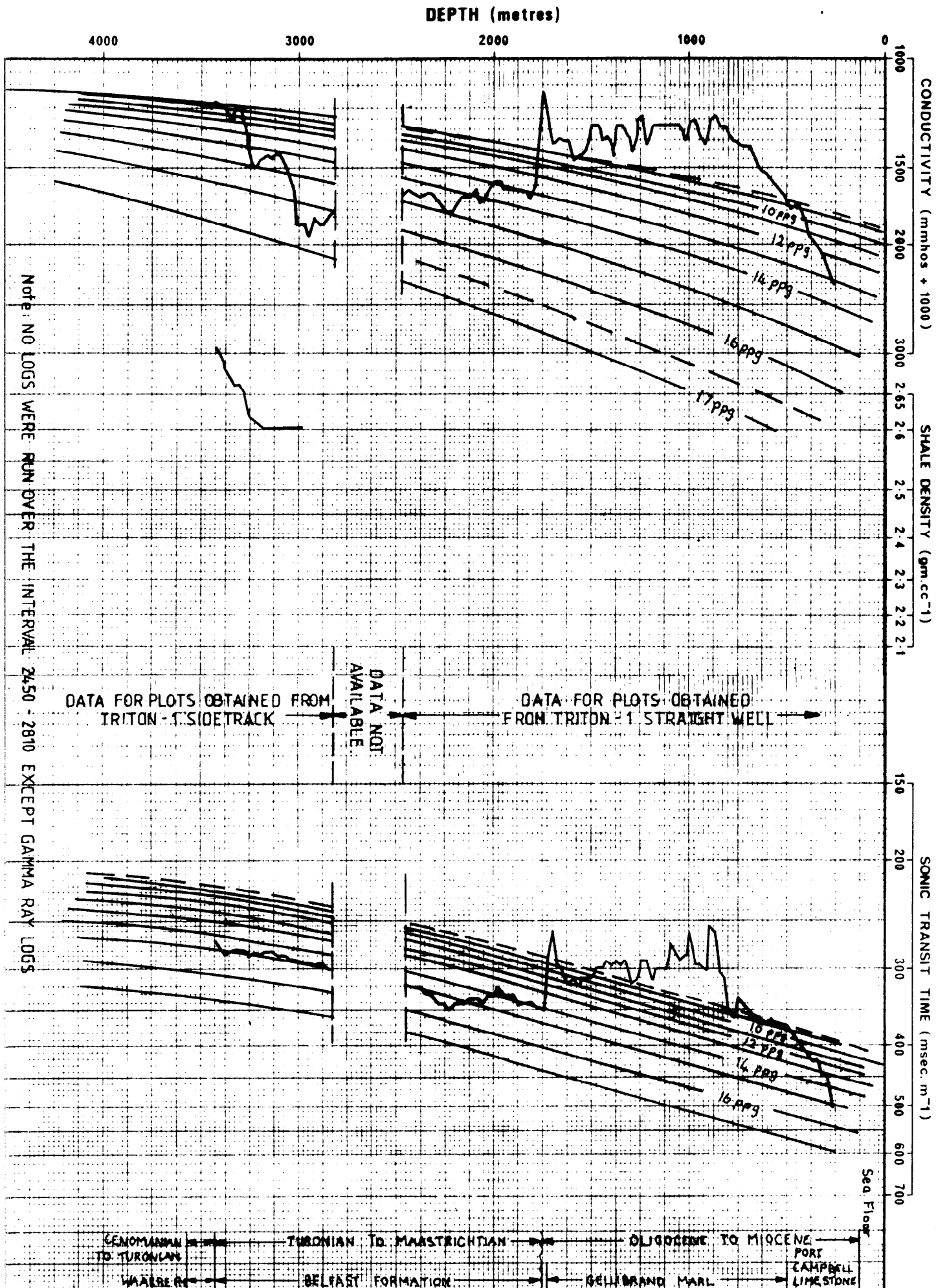
0158L



# PORE PRESSURE PLOT

TRITON 1 &  
WELL: TRITON 1 SIDETRACK PLOTTER: A. LINDSAY

DATE: 27-8-82



Note: NO LOGS WERE RUN OVER THE INTERVAL 2650 - 2810 EXCEPT GAMMA RAY LOGS

DATA FOR PLOTS OBTAINED FROM TRITON - T SIDETRACK

DATA NOT AVAILABLE

DATA FOR PLOTS OBTAINED FROM TRITON - 1 STRAIGHT WELL

LITHOLOGY	DEPTH (m)	MUD WT.	CASING PTS.	P.I.T. (M.W.e.)
GENOMANIAN TO TURONIAN	4000 - 3000	15.0	17.6	18
TURONIAN TO MAASTRICHTIAN	3000 - 2000	10.2	15.3	15
OLIGOCENE TO MIOCENE	2000 - 1000	8.9	20	15
PORT CAMPBELL LIMESTONE	1000 - 0	8.9	20	15



GEOCHEMICAL REPORT  
TRITON-1 AND TRITON-1 (SIDETRACK)  
OTWAY BASIN, VICTORIA

by

J.K. EMMETT

Esso Australia Ltd.  
Geochemical Report

0192L

August, 1982.

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10. " " " " " , 2700 - 2715m
11. " " " " " , 3060 - 3075m
12. " " " " " , 3360 - 3375m

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2. Vitrinite Reflectance Data - by A.C. Cook.

TRITON-1 (TRITON-1 SIDETRACK)

INTRODUCTION

Geochemical analyses were performed on samples of canned cuttings (composited over 15-metre intervals) collected during drilling of Triton-1, and canned cuttings and sidewall cores collected during drilling of the sidetracked hole, Triton-1 (Sidetrack). Due to the bad caving problem in the original Triton-1 hole, analysis of light hydrocarbon ( $C_{1-4}$ ) headspace gases from canned cuttings (from alternate 15-metre intervals) was suspended at 1800m, and resumed using more reliable material (again alternate 15-metre intervals) from the sidetracked hole, between 1470m and 3545m (T.D.). All other geochemical analyses were performed on samples from the sidetracked hole.

Succeeding alternate 15-metre intervals between 1605m and 3404m were analysed for  $C_{4-7}$  gasoline range hydrocarbons. Selected samples were hand picked for more detailed analyses, such as Total Organic Carbon (T.O.C.), kerogen isolation and elemental analysis and  $C_{15+}$  liquid and gas chromatography. Vitrinite reflectance ( $R_o$ ) measurements were carried out by Dr. A.C. Cook of Wollongong.

DISCUSSION OF RESULTS

The headspace  $C_{1-4}$  hydrocarbon gas analyses for the Triton-1 and Triton-1 (Sidetrack) canned cuttings are listed in Tables 1 and 2 respectively, and have been plotted in Figures 1 and 2 respectively. The entire section is generally lean of  $C_{1-4}$  cuttings gas, apart from two moderately rich zones, one in the Upper part of the Belfast Mudstone Formation between approximately 1900m and 2205m

and the other in the Waarre Formation from 3400 metres to T.D. The percentage wet ( $C_{2+}$ ) gas ranges from about 25-45% down to 2700m indicating a present day source potential for gas. From 2700 - 3200 metres the 'wet' fraction reaches over 50% indicating a top of maturation at about 2700m but the low 'total gas' indicates only a poor source rating. The Waarre Formation, from about 3400 m to Total Depth, shows an increase in total gas but it is predominantly methane with only minor ethane and has no indication of liquid hydrocarbons (either source or reservoir).

The detailed  $C_{4-7}$  gasoline range hydrocarbon data are presented in Appendix-1 and plotted in Figure 3. Values are moderately rich between 1800m and 2700m and rich between 2700m and 3404m. The significant increase in  $C_{4-7}$ , and in particular the  $C_{6-7}$  compounds below 2700m, again substantiates that these sediments have probably reached organic maturity. Based on  $C_{4-7}$  gasoline range hydrocarbon data, the Belfast Formation sediments between 1800m and 2700m have a fair-good hydrocarbon source potential, and those between 2700m and 3406m would be rated as having good hydrocarbon source potential. (No gasoline data is available for the interval 3400m-T.D.)

Vitrinite Reflectance ( $R_o$  max) information has been summarized in Table 3 and plotted against depth in Figure 4. The detailed data is included in Appendix-2. The straight line gradient shown in figure 4 indicates that there are no major breaks in the kerogen maturation profile. Taking the organic maturity window for significant hydrocarbon generation to be between  $R_o = 0.65$  and  $R_o = 1.3$ , then the sediments below approximately 2900m are presently mature (Table 3), which agrees fairly well with the  $C_{1-4}$  cuttings gas and  $C_{4-7}$  gasoline range hydrocarbon data.

Total Organic Carbon (T.O.C.) analyses performed on cuttings samples from the original hole, and on both cuttings and sidewall core samples from the sidetracked hole are presented in Tables 4 and 5 respectively. Samples from the Belfast Formation have moderately rich T.O.C. values (average T.O.C. is 1.31% and 1.29% from the original and sidetracked holes respectively) and might be expected to have some hydrocarbon source rock potential. However, elemental analysis of isolated kerogens (Tables 6 and 7) shows that the organic matter type in the Belfast Formation sediments is quite hydrogen-poor, with most samples only rating as gas prone.

The atomic ratios are described as "approximate", as the percentage oxygen was determined by difference and the amount of natural organic sulphur (usually only a few percent) was not determined.

Sediments from the other formations penetrated have low T.O.C. values (Table 5) and again contain organic matter with low hydrogen content (Tables 6 and 7) and would be considered as having poor source rock potential.

The atomic H/C and O/C ratios have been plotted against each other in Figure 5 on a modified Van Krevelen plot, delineating the basic kerogen types. Comparison of Figure 5 with Figure 6, a similar plot showing the "Principal Products of Kerogen Evolution" clearly indicates the generally poor quality (low hydrogen content) of the organic matter, although there are a few indications of oil and gas potential, particularly from samples at depths where maturity has been reached (i.e. below about 2800m)

The C<sub>15+</sub> liquid chromatography results from selected canned cuttings are listed in Table 8. All the samples are from the Late Cretaceous Belfast Formation and have fairly rich total extract values. The C<sub>15+</sub> chromatograms for all the samples are given in Figures 7 - 12, and exhibit typical features of dominantly terrestrial/non-marine organic matter becoming more mature with increasing depth. This is indicated by the gradual reduction in the amount of odd-over-even predominance in the high molecular weight (C<sub>22+</sub>) n-alkanes, the movement of the n-alkanes maxima from n-C<sub>29</sub> (Fig.7) through n-C<sub>23</sub> (Fig.10) to n-C<sub>19</sub> or n-C<sub>20</sub> (Fig.12), and the reduction of sterane/triterpane compounds from the high molecular weight region. Maturation is also indicated by the corresponding enhanced definition of a slight naphthene hump in the lower molecular region, with increasing sample depth, and, the increasing n-C<sub>17</sub>/pristane (a) ratio, with increasing sample depth.

Comparison of figure 10 with figures 11 and 12 shows that maturity is reached in the interval between 2715m and 3075m which also agrees with previous determinations of the top of organic maturity. The relatively high non-hydrocarbon (N.S.O. and Asphaltenes) contents in the samples from the mature zone (Table 8) confirms the poor oil-prone nature of the Belfast Formation organic matter, discussed previously.

#### CONCLUSIONS:

1. The Belfast Mudstone Formation particularly between 2700-3406m, has a good hydrocarbon source potential, but the nature of the organic matter in these sediments is gas-prone rather than oil-prone.



2. The top of organic maturity in Triton-1 (Sidetrack) occurs at about 2900m, and by T.D. (3545m) the sediments have reached the peak hydrocarbon generation zone.
3. The Waarre Formation sediments have a fair-poor hydrocarbon source potential.

TABLE 1: C1-C4 HYDROCARBON ANALYSES  
REPORT A - HEADSPACE GAS

BASIN - OTWAY  
WELL - TRITON 1

SAMPLE NO.	DEPTH	GAS CONCENTRATION (VOLUME GAS PER MILLION VOLUMES CUTTINGS)						GAS COMPOSITION (PERCENT)									
		METHANE C1	ETHANE C2	PROPANE C3	IBUTANE IC4	NBUTANE C4	WET C2-C4	TOTAL C1-C4	WET/TOTAL PERCENT	TOTAL GAS				WET GAS			
									M	E	P	IB	NB	E	P	IB	NB
720333A	270.00	3	0	0	0	0	0	3	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
720333B	300.00	0	0	0	0	11	11	11	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	100.00
720333C	330.00	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
720333D	350.00	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
720333E	390.00	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
720333F	420.00	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
720333G	450.00	0	0	0	0	0	0	0	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
720333H	480.00	0	0	0	0	0	0	0	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
720333I	510.00	0	0	0	0	0	0	0	33.33	67.33	33.00	0.00	0.00	100.00	0.00	0.00	0.00
720333J	540.00	0	0	0	0	0	0	0	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
720333K	570.00	0	0	0	0	0	0	0	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
720333L	600.00	0	0	0	0	0	0	0	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
720333M	630.00	0	0	0	0	0	0	0	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
720333N	660.00	0	0	0	0	0	0	0	16.67	83.33	17.00	0.00	0.00	100.00	0.00	0.00	0.00
720333O	690.00	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
720333P	720.00	0	0	0	0	0	0	0	33.33	66.67	11.00	2.00	0.00	33.33	6.00	0.00	0.00
720333Q	750.00	0	0	0	0	0	0	0	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
720333R	780.00	0	0	0	0	0	0	0	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
720333S	810.00	0	0	0	0	0	0	0	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
720333T	840.00	0	0	0	0	0	0	0	7.92	92.08	3.00	0.00	0.00	100.00	0.00	0.00	0.00
720333U	870.00	0	0	0	0	0	0	0	13.44	86.56	8.00	0.00	0.00	85.56	4.44	0.00	0.00
720333V	900.00	0	0	0	0	0	0	0	5.56	94.44	5.00	0.00	0.00	95.56	3.33	0.00	0.00
720333W	930.00	0	0	0	0	0	0	0	5.56	94.44	5.00	0.00	0.00	95.56	3.33	0.00	0.00
720333X	960.00	0	0	0	0	0	0	0	5.56	94.44	5.00	0.00	0.00	95.56	3.33	0.00	0.00
720333Y	990.00	0	0	0	0	0	0	0	5.56	94.44	5.00	0.00	0.00	95.56	3.33	0.00	0.00
720333Z	1020.00	0	0	0	0	0	0	0	16.70	83.30	15.00	1.00	0.00	88.00	7.00	0.00	0.00
720334A	1050.00	0	0	0	0	0	0	0	15.23	84.77	14.00	1.00	0.00	89.00	6.00	0.00	0.00
720334B	1080.00	0	0	0	0	0	0	0	11.12	88.88	11.00	2.00	0.00	87.50	5.00	0.00	0.00
720334C	1110.00	0	0	0	0	0	0	0	11.12	88.88	11.00	2.00	0.00	87.50	5.00	0.00	0.00
720334D	1140.00	0	0	0	0	0	0	0	11.12	88.88	11.00	2.00	0.00	87.50	5.00	0.00	0.00
720334E	1170.00	0	0	0	0	0	0	0	11.12	88.88	11.00	2.00	0.00	87.50	5.00	0.00	0.00
720334F	1200.00	0	0	0	0	0	0	0	11.12	88.88	11.00	2.00	0.00	87.50	5.00	0.00	0.00
720334G	1230.00	0	0	0	0	0	0	0	11.12	88.88	11.00	2.00	0.00	87.50	5.00	0.00	0.00
720334H	1260.00	0	0	0	0	0	0	0	11.12	88.88	11.00	2.00	0.00	87.50	5.00	0.00	0.00
720334I	1290.00	0	0	0	0	0	0	0	11.12	88.88	11.00	2.00	0.00	87.50	5.00	0.00	0.00
720334J	1320.00	0	0	0	0	0	0	0	11.12	88.88	11.00	2.00	0.00	87.50	5.00	0.00	0.00
720334K	1350.00	0	0	0	0	0	0	0	11.12	88.88	11.00	2.00	0.00	87.50	5.00	0.00	0.00
720334L	1380.00	0	0	0	0	0	0	0	11.12	88.88	11.00	2.00	0.00	87.50	5.00	0.00	0.00
720334M	1410.00	0	0	0	0	0	0	0	11.12	88.88	11.00	2.00	0.00	87.50	5.00	0.00	0.00
720334N	1440.00	0	0	0	0	0	0	0	11.12	88.88	11.00	2.00	0.00	87.50	5.00	0.00	0.00
720334O	1470.00	0	0	0	0	0	0	0	11.12	88.88	11.00	2.00	0.00	87.50	5.00	0.00	0.00
720334P	1500.00	0	0	0	0	0	0	0	11.12	88.88	11.00	2.00	0.00	87.50	5.00	0.00	0.00
720334Q	1530.00	0	0	0	0	0	0	0	11.12	88.88	11.00	2.00	0.00	87.50	5.00	0.00	0.00
720334R	1560.00	0	0	0	0	0	0	0	11.12	88.88	11.00	2.00	0.00	87.50	5.00	0.00	0.00
720334S	1590.00	0	0	0	0	0	0	0	11.12	88.88	11.00	2.00	0.00	87.50	5.00	0.00	0.00
720334T	1620.00	0	0	0	0	0	0	0	11.12	88.88	11.00	2.00	0.00	87.50	5.00	0.00	0.00
720334U	1650.00	0	0	0	0	0	0	0	11.12	88.88	11.00	2.00	0.00	87.50	5.00	0.00	0.00
720334V	1680.00	0	0	0	0	0	0	0	11.12	88.88	11.00	2.00	0.00	87.50	5.00	0.00	0.00

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TABLE 1 Cont'd: C1-C4 HYDROCARBON ANALYSES  
 REPORT A - HEADSPACE GAS

SAMPLE NO.	DEPTH	GAS CONCENTRATION (VOLUME GAS PER MILLION VOLUMES CUTTINGS)				WET C2-C4	TOTAL C1-C4	WET/TOTAL PERCENT	GAS COMPOSITION (PERCENT)								
		METHANE C1	ETHANE C2	PROPANE C3	IBUTANE IC4				NBUTANE C4	M	E	TOTAL P	IB	NB			
72369 P	1710.00	362	63	66	17	152	514	29.57	70.	12.	13.	3.	1.	41.	43.	11.	4.
72369 R	1740.00	381	53	22	7	844	465	18.13	82.	11.	5.	2.	0.	63.	26.	19.	2.
72369 T	1770.00	374	73	43	27	149	523	28.49	72.	14.	8.	5.	1.	49.	29.	18.	4.
72369 V	1800.00	397	65	50	25	147	544	27.02	73.	12.	9.	5.	1.	44.	34.	17.	5.



TABLE 3: VITRINITE REFLECTANCE REPORT

BASIN - OTWAY  
WELL - TRITON 1 SIDETRACK

SAMPLE NO.	DEPTH	AGE	FORMATION	AN	MAX. RO	FLUOR. COLOUR	NO.CNTS.	MACERAL TYPE
72382 D	1530.00	LATE OLIGOCENE	GELLIBRAND MARL EQUIVALENT	5	.33	YELL	4	I>V>E, RARE LIPTODETRINIT
72383 M	1995.00	LATE CRETACEOUS	BELFAST	5	.48	OR, GN-YELL	4	I>E>V, SPARSE EXINITE
72384 P	2325.00	LATE CRETACEOUS	BELFAST	5	.52	YELL-OR	5	I>E=V, RARE EXINITE
72385 H	2505.00	LATE CRETACEOUS	BELFAST	5	.59	YELL-OR	4	I>E>>V, INERTINITE COMMON
72386 L	2865.00	LATE CRETACEOUS	BELFAST	5	.55	OR	4	I>?V>E, RARE LIPTODET.
72380 H	3028.00	LATE CRETACEOUS	BELFAST	5	.71	OR?	18	I>V, SOME OXIDISED V.
72380 G	3125.00	LATE CRETACEOUS	BELFAST	5	.93	NONE	7	OXIDISED V>I>V, RARE V
72380 C	3520.00	LATE CRETACEOUS	WAARRE	5	.93	NONE	6	OXIDISED V>I>V
72380 B	3527.00	LATE CRETACEOUS	WAARRE	5	.99	NONE	5	OXIDISED V>I>V

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TABLE 4: TOTAL ORGANIC CARBON REPORT

BASIN - OTWAY  
WELL - TRITON 1

SAMPLE NO.	DEPTH	AGE	FORMATION	AN TOC%	AN TOC%	AN TOC%	AN TOC%	DESCRIPTION
72369 W	1935.00	LATE CRETACEOUS	BELFAST	1	1.37	1	1.32	DKGRYSH LTGRYSH LIBRLMST
72369 X	2025.00	LATE CRETACEOUS	BELFAST	1	1.53			MD-DK GRY SH
72369 Y	2145.00	LATE CRETACEOUS	BELFAST	1	1.52			DK GRY SH
====> DEPTH : 1934.00 TO 2145.00 METRES. <==== I ====>				AVERAGE TOC :		1.26 % EXCLUDING VALUES GREATER THAN 10.00 %		<====

TABLE 5: TOTAL ORGANIC CARBON REPORT

BASIN - OTWAY  
WELL - TRITON 1 SINETRACK

SAMPLE NO.	DEPTH	AGE	FORMATION	AN	TOC%	AN	TOC%	AN	TOC%	DESCRIPTION
72382 J	1620.00	OLIGOCENE	GELLIBRAND	2	.35					
72382 L	1640.00	OLIGOCENE	GELLIBRAND	2	.39					
72382 N	1690.00	EARLY OLIGOCENE	GELLIBRAND	2	.54					
72382 P	1710.00	EARLY OLIGOCENE	GELLIBRAND	2	.41					
====>	DEPTH :	.00 TO 1711.00 METRES.	==== I ===>	AVERAGE TOC :	.42 % EXCLUDING VALUES GREATER THAN 10.00 %	====				

72382 R	1740.00	PEARLY OLIGOCENE	UN NAMED SANDS/SILTS	2	1.66					
====>	DEPTH :	1739.00 TO 1741.00 METRES.	==== I ===>	AVERAGE TOC :	1.66 % EXCLUDING VALUES GREATER THAN 10.00 %	====				

72382 T	1785.00	LATE CRETACEOUS	BELFAST	2	1.06					
72382 B	1815.00	LATE CRETACEOUS	BELFAST	2	1.41					
72382 F	1845.00	LATE CRETACEOUS	BELFAST	2	1.44					
72382 H	1875.00	LATE CRETACEOUS	BELFAST	2	1.39					
72382 J	1905.00	LATE CRETACEOUS	BELFAST	2	1.40					
72382 K	1935.00	LATE CRETACEOUS	BELFAST	2	1.44					
72382 L	1965.00	LATE CRETACEOUS	BELFAST	2	1.53					
72382 M	2025.00	LATE CRETACEOUS	BELFAST	2	1.59					
72382 N	2055.00	LATE CRETACEOUS	BELFAST	2	1.55					
72382 P	2085.00	LATE CRETACEOUS	BELFAST	2	1.40					
72382 Q	2115.00	LATE CRETACEOUS	BELFAST	2	1.32					
72382 R	2145.00	LATE CRETACEOUS	BELFAST	2	1.44					
72382 S	2175.00	LATE CRETACEOUS	BELFAST	2	1.43					
72382 T	2205.00	LATE CRETACEOUS	BELFAST	2	1.66					
72382 U	2235.00	LATE CRETACEOUS	BELFAST	2	1.53					
72382 V	2265.00	LATE CRETACEOUS	BELFAST	2	1.39					
72382 W	2295.00	LATE CRETACEOUS	BELFAST	2	1.38					
72382 X	2325.00	LATE CRETACEOUS	BELFAST	2	1.45					
72382 Y	2355.00	LATE CRETACEOUS	BELFAST	2	1.40					
72382 Z	2385.00	LATE CRETACEOUS	BELFAST	2	1.40					
72383 A	2415.00	LATE CRETACEOUS	BELFAST	2	1.52					
72383 B	2445.00	LATE CRETACEOUS	BELFAST	2	1.49					
72383 C	2475.00	LATE CRETACEOUS	BELFAST	2	1.35					
72383 D	2505.00	LATE CRETACEOUS	BELFAST	2	1.41					
72383 E	2535.00	LATE CRETACEOUS	BELFAST	2	1.32					
72383 F	2565.00	LATE CRETACEOUS	BELFAST	2	1.41					
72383 G	2595.00	LATE CRETACEOUS	BELFAST	2	1.52					
72383 H	2625.00	LATE CRETACEOUS	BELFAST	2	1.41					
72383 I	2655.00	LATE CRETACEOUS	BELFAST	2	1.41					

DK GRY SLTST.  
 DK GRY SLST.MINOR RUST.  
 DK GRY SLTST.  
 DK GRY SLST.MINOR DOL.  
 DK GRY SLST.MINOR DOL.

TABLE 5 Cont'd:

TOTAL ORGANIC CARBON REPORT

BASIN - OTWAY  
WELL - TRITON 1 SIDETRACK

SAMPLE NO.	DEPTH	AGE	FORMATION	AN	TOC%	AN	TOC%	AN	TOC%	DESCRIPTION
*****	*****	***	*****	*****	*****	*****	*****	*****	*****	*****
723385 L	2565.00	LATE CRETACEOUS	BELFAST	2	1.37					DK GRY SLST.SL BUFF SLST
723385 M	2595.00	LATE CRETACEOUS	BELFAST	1	1.41					
723385 N	2625.00	LATE CRETACEOUS	BELFAST	1	1.29					
723385 P	2655.00	LATE CRETACEOUS	BELFAST	1	1.29					
723385 Q	2685.00	LATE CRETACEOUS	BELFAST	1	1.27					
723385 R	2715.00	LATE CRETACEOUS	BELFAST	1	1.23					
723385 S	2745.00	LATE CRETACEOUS	BELFAST	1	1.15					
723385 T	2775.00	LATE CRETACEOUS	BELFAST	1	1.26					
723385 U	2805.00	LATE CRETACEOUS	BELFAST	1	1.18					
723385 V	2835.00	LATE CRETACEOUS	BELFAST	1	1.39					
723385 W	2865.00	LATE CRETACEOUS	BELFAST	1	1.02					
723385 X	2895.00	LATE CRETACEOUS	BELFAST	1	1.04					
723385 Y	2925.00	LATE CRETACEOUS	BELFAST	1	1.01					
723385 Z	2955.00	LATE CRETACEOUS	BELFAST	1	1.09					
723386 A	2985.00	LATE CRETACEOUS	BELFAST	1	1.14					
723386 B	3015.00	LATE CRETACEOUS	BELFAST	1	1.04					
723386 C	3045.00	LATE CRETACEOUS	BELFAST	1	1.13					
723386 D	3075.00	LATE CRETACEOUS	BELFAST	1	1.09					
723386 E	3105.00	LATE CRETACEOUS	BELFAST	1	1.82					
723386 F	3125.00	LATE CRETACEOUS	BELFAST	1	1.91					
====> DEPTH : 1784.00 TO 3125.00 METRES. <=== I ==> AVERAGE TOC : 1.30 % EXCLUDING VALUES GREATER THAN 10.00 % <===										
LT OLGRY VVF SST.										
723380 F	3408.00	LATE CRETACEOUS	WAARRE	1	0.75					M GRY SLTST
723380 G	3472.00	LATE CRETACEOUS	WAARRE	1	0.37					LT GRY F SST
723380 H	3512.00	LATE CRETACEOUS	WAARRE	1	0.90					M-DK GRY SDY SLTST
723380 I	3520.00	LATE CRETACEOUS	WAARRE	1	0.64					OLGRY SLTST,MDY SAMPLE.
723380 J	3527.00	LATE CRETACEOUS	WAARRE	1	0.47					M GRY SDY SLTST
723380 K	3533.50	LATE CRETACEOUS	WAARRE	1	0.59					M GRY VVF SST,MICA,CALC.
====> DEPTH : 3407.00 TO 3533.50 METRES. <=== I ==> AVERAGE TOC : 0.62 % EXCLUDING VALUES GREATER THAN 10.00 % <===										



TABLE 6: KEROGEN ELEMENTAL ANALYSIS REPORT

BASIN - OTWAY  
WELL - TRITON 1 SIDETRACK

SAMPLE NO.	DEPTH	SAMPLE TYPE	ELEMENTAL % (ASH FREE)					COMMENTS	
			N%	C%	H%	S%	O%		ASH%
72380 J	1730.00	KEROGEN	2.25	64.41	3.64	.00	29.69	4.21	
72400 A	1750.00	KEROGEN	2.45	64.41	3.64	.00	29.49	4.21	
72380 Q	1845.00	KEROGEN	2.70	75.69	4.41	.00	17.20	5.65	
72380 P	1895.00	KEROGEN	2.83	69.90	3.95	.00	23.32	5.55	
72380 O	1945.00	KEROGEN	2.81	74.19	4.30	.00	18.70	3.92	
72380 R	1995.00	KEROGEN	2.61	75.84	4.32	.00	17.23	4.92	
72380 S	2095.00	KEROGEN	2.39	73.77	3.86	.00	19.98	4.87	
72380 U	2295.00	KEROGEN	2.56	80.30	4.54	.00	12.60	3.35	
72380 V	2395.00	KEROGEN	2.36	71.82	3.13	.00	22.69	2.56	
72380 W	2495.00	KEROGEN	2.43	81.49	4.50	.00	11.54	3.26	
72380 Y	2595.00	KEROGEN	2.01	83.50	4.55	.00	9.94	2.48	
72399 N	2795.00	KEROGEN	2.01	78.54	4.20	.00	15.25	6.43	
72380 Z	2895.00	KEROGEN	2.18	72.15	2.97	.00	22.70	2.11	
72399 P	2910.00	KEROGEN	1.87	72.31	5.09	.00	13.73	2.57	
72349 R	2995.00	KEROGEN	1.87	83.70	4.46	.00	9.97	2.22	
72349 S	3095.00	KEROGEN	1.79	78.47	3.98	.00	15.75	17.42	HIGH ASH
72349 T	3260.00	KEROGEN	1.76	72.80	2.80	.00	22.63	3.11	
72349 E	3280.00	KEROGEN	2.01	81.78	4.63	.00	11.58	2.42	
72349 F	3305.00	KEROGEN	1.89	80.50	3.55	.00	14.05	3.21	
72349 V	3325.00	KEROGEN	1.97	77.74	3.29	.00	17.01	2.34	
72349 X	3375.00	KEROGEN	2.18	85.95	4.42	.00	7.45	15.30	HIGH ASH
72380 F	3408.00	KEROGEN	1.87	82.15	5.14	.00	10.84	5.42	
72380 D	3515.00	KEROGEN	1.60	87.54	4.35	.00	6.50	2.37	
72380 A	3533.50	KEROGEN	2.20	83.78	4.48	.00	9.54	7.63	
72399 Y	4000.00	KEROGEN	1.85	76.05	2.93	.00	19.17	2.47	

TABLE 7: KERGEN ELEMENTAL ANALYSIS REPORT

BASIN - OTWAY TRITON 1 SIDETRACK

SAMPLE NO.	DEPTH	SAMPLE TYPE	AGE	FORMATION	ATOMIC RATIOS			COMMENTS
					H/C	O/C	N/C	
72380 J	1730.00	KEROGGEN	EARLY OLIIGOCENE	UN-NAMED SANDS AND SILTS	.68	.35	.03	
72400 A	1750.00	KEROGGEN	LATE CRETACEOUS	BELFAST FORMATION	.68	.34	.03	
72380 Q	1445.00	KEROGGEN	LATE CRETACEOUS	BELFAST FORMATION	.70	.17	.03	
72380 R	1595.00	KEROGGEN	LATE CRETACEOUS	BELFAST FORMATION	.68	.25	.03	
72380 S	1945.00	KEROGGEN	LATE CRETACEOUS	BELFAST FORMATION	.70	.17	.03	
72380 T	1995.00	KEROGGEN	LATE CRETACEOUS	BELFAST FORMATION	.63	.17	.03	
72380 U	2095.00	KEROGGEN	LATE CRETACEOUS	BELFAST FORMATION	.68	.20	.03	
72380 V	2295.00	KEROGGEN	LATE CRETACEOUS	BELFAST FORMATION	.52	.12	.03	
72380 W	2495.00	KEROGGEN	LATE CRETACEOUS	BELFAST FORMATION	.66	.11	.03	
72380 X	2795.00	KEROGGEN	LATE CRETACEOUS	BELFAST FORMATION	.65	.15	.02	
72380 Y	2895.00	KEROGGEN	LATE CRETACEOUS	BELFAST FORMATION	.49	.14	.02	
72380 Z	2910.00	KEROGGEN	LATE CRETACEOUS	BELFAST FORMATION	.77	.13	.02	
72380 AA	3095.00	KEROGGEN	LATE CRETACEOUS	BELFAST FORMATION	.64	.13	.02	
72380 AB	3260.00	KEROGGEN	LATE CRETACEOUS	BELFAST FORMATION	.61	.15	.02	
72380 AC	3370.00	KEROGGEN	LATE CRETACEOUS	BELFAST FORMATION	.46	.13	.02	HIGH ASH
72380 AD	3280.00	KEROGGEN	LATE CRETACEOUS	BELFAST FORMATION	.53	.11	.02	
72380 AE	3370.00	KEROGGEN	LATE CRETACEOUS	BELFAST FORMATION	.51	.16	.02	
72380 AF	3405.00	KEROGGEN	LATE CRETACEOUS	BELFAST FORMATION	.62	.07	.02	
72380 AG	3535.00	KEROGGEN	LATE CRETACEOUS	BELFAST FORMATION	.75	.10	.02	
72380 AH	3535.00	KEROGGEN	LATE CRETACEOUS	BELFAST FORMATION	.60	.06	.02	
72380 AI	3535.00	KEROGGEN	LATE CRETACEOUS	BELFAST FORMATION	.64	.09	.02	
72380 AJ	4000.00	KEROGGEN	LATE CRETACEOUS	BELFAST FORMATION	.46	.19	.02	

TABLE: 8 - TRITON-1 (Sidetrack)

C<sub>15+</sub> LIQUID CHROMATOGRAPHY DATA

TRTN 1-15/PE9018/19/P 103

DEPTH IN METRES	FORMATION/EQUIVALENT	AGE	TOTAL EXTRACT (ppm)	HC's (ppm)	NON HC's (ppm)	SULPHUR (ppm)	EXTRACT COMPOSITION %				
							SATS.	AROM.	N.S.O	ASPH.	SULPHUR
1785	Belfast Formation	Late Cretaceous	547	74	473	-	5.3	8.2	14.5	72.0	-
2085	Belfast Formation	Late Cretaceous	1030	129	901	-	3.9	8.6	15.0	72.5	-
2415	Belfast Formation	Late Cretaceous	682	92	590	-	3.8	9.7	11.4	75.1	-
2715	Belfast Formation	Late Cretaceous	517	103	414	5	5.6	14.3	12.6	66.5	1.0
3075	Belfast Formation	Late Cretaceous	734	167	567	-	8.6	14.3	13.3	63.9	-
3375	Belfast Formation	late Cretaceous	553	114	439	5	5.6	15.0	14.5	64.0	0.9

PE600595

This is an enclosure indicator page.  
The enclosure PE600595 is enclosed within the  
container PE901819 at this location in this  
document.

The enclosure PE600595 has the following characteristics:

- ITEM-BARCODE = PE600595
- CONTAINER\_BARCODE = PE901819
- NAME = FIGURE 1. C 1-4 CUTTINGS GAS LOG  
TRITON-1
- BASIN = OTWAY
- PERMIT = VIC/P15
- TYPE = WELL
- SUBTYPE = WELL-LOG
- DESCRIPTION = FIGURE 1. C 1-4 CUTTINGS GAS LOG  
TRITON-1
- REMARKS =
- DATE-CREATED =
- DATE-RECEIVED = 28/10/82
- W\_NO = W766
- WELL-NAME = TRITON-1
- CONTRACTOR = ESSO
- CLIENT\_OP\_CO = ESSO AUSTRALIA LTD

(Inserted by DNRE - Vic Govt Mines Dept)

PE600596

This is an enclosure indicator page.  
The enclosure PE600596 is enclosed within the  
container PE901819 at this location in this  
document.

The enclosure PE600596 has the following characteristics:

ITEM-BARCODE = PE600596  
CONTAINER\_BARCODE = PE901819  
NAME = FIGURE 2. C 1-4 CUTTINGS GAS LOG  
TRITON-1 (SIDETRACK)  
BASIN = OTWAY  
PERMIT = VIC/P15  
TYPE = WELL  
SUBTYPE = WELL-LOG  
DESCRIPTION = FIGURE 2. C 1-4 CUTTINGS GAS LOG  
TRITON-1 (SIDETRACK)  
REMARKS =  
DATE-CREATED' =  
DATE-RECEIVED = 28/10/82  
W\_NO = W766  
WELL-NAME = Triton 1 sidetrack  
CONTRACTOR = ESSO  
CLIENT\_OP\_CO = ESSO AUSTRALIA LTD

(Inserted by DNRE - Vic Govt Mines Dept)

PE600597

This is an enclosure indicator page.  
The enclosure PE600597 is enclosed within the  
container PE901819 at this location in this  
document.

The enclosure PE600597 has the following characteristics:

ITEM-BARCODE = PE600597  
CONTAINER\_BARCODE = PE901819  
NAME = FIGURE 3. C 4-7 GEOCHEMICAL LOG  
TRITON-1 (SIDETRACK)  
BASIN = OTWAY  
PERMIT = VIC/P15  
TYPE = WELL  
SUBTYPE = WELL-LOG  
DESCRIPTION = FIGURE 3. C 4-7 GEOCHEMICAL LOG  
TRITON-1 (SIDETRACK)  
REMARKS =  
DATE-CREATED =  
DATE-RECEIVED = 28/10/82  
W\_NO = W766  
WELL-NAME = Triton 1 sidetrack  
CONTRACTOR = ESSO  
CLIENT\_OP\_CO = ESSO AUSTRALIA LTD

(Inserted by DNRE - Vic Govt Mines Dept)

APPENDIX 8

GEOCHEMICAL REPORT

TRITON#1 AND TRITON#1 SIDETRACK

OTWAY BASIN





W 766

OIL and GAS DIVISION

28 OCT 1982

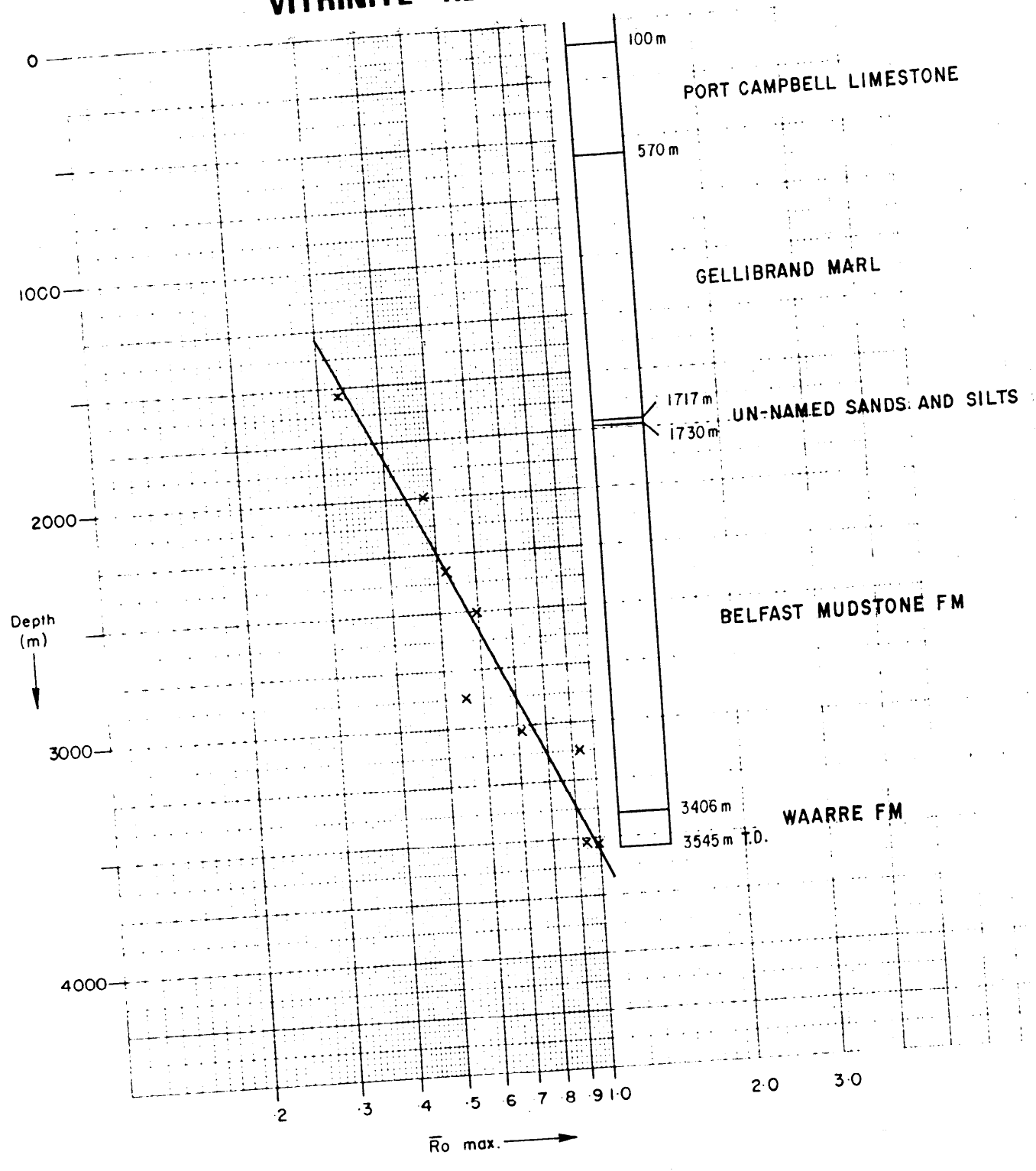
APPENDIX 9

S.E.M. ANALYSIS BY I.R. DUDDY

TRITON#1 SIDETRACK

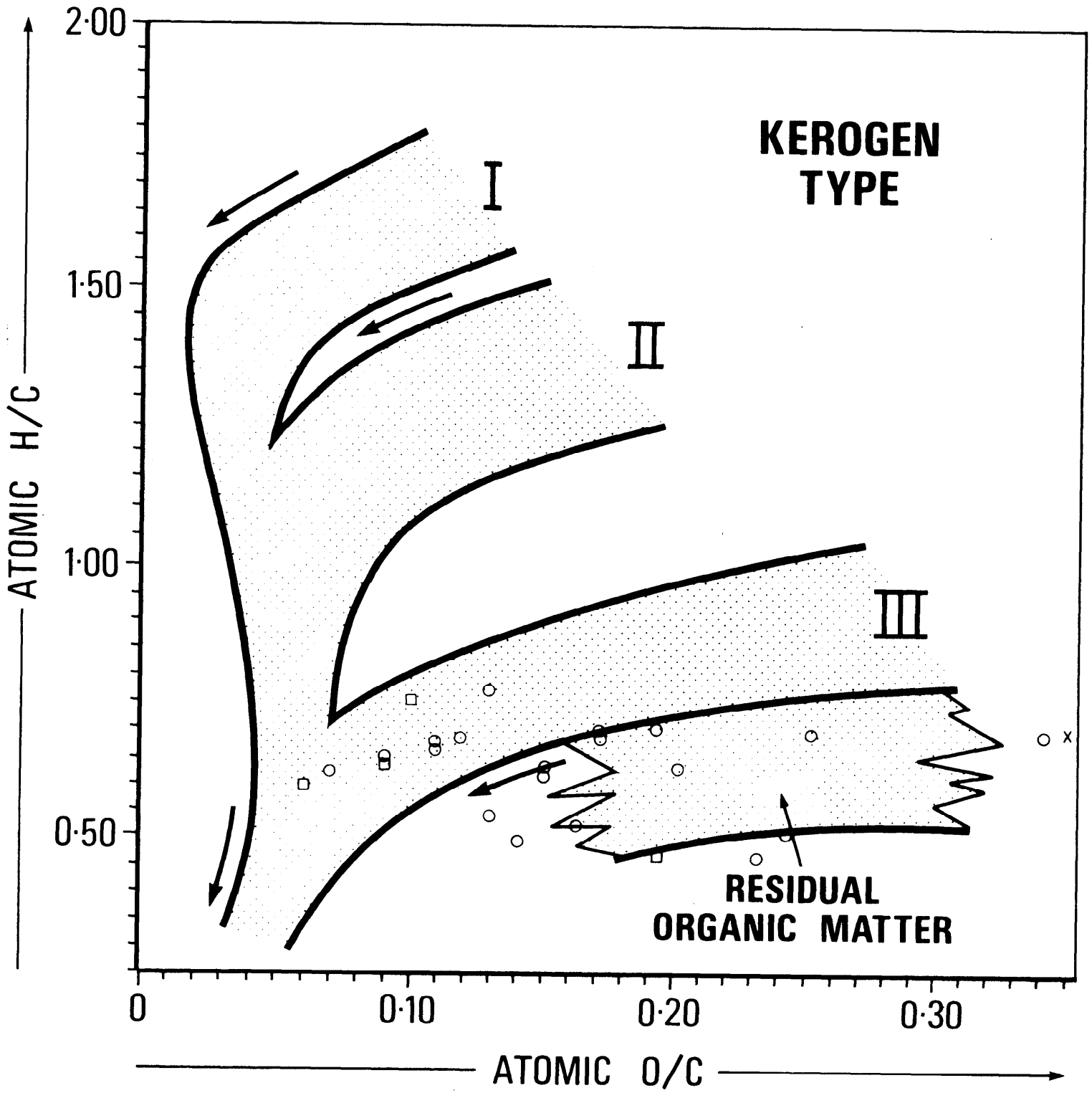
OTWAY BASIN

# TRITON-1 (SIDETRACK) VITRINITE REFLECTANCE vs DEPTH



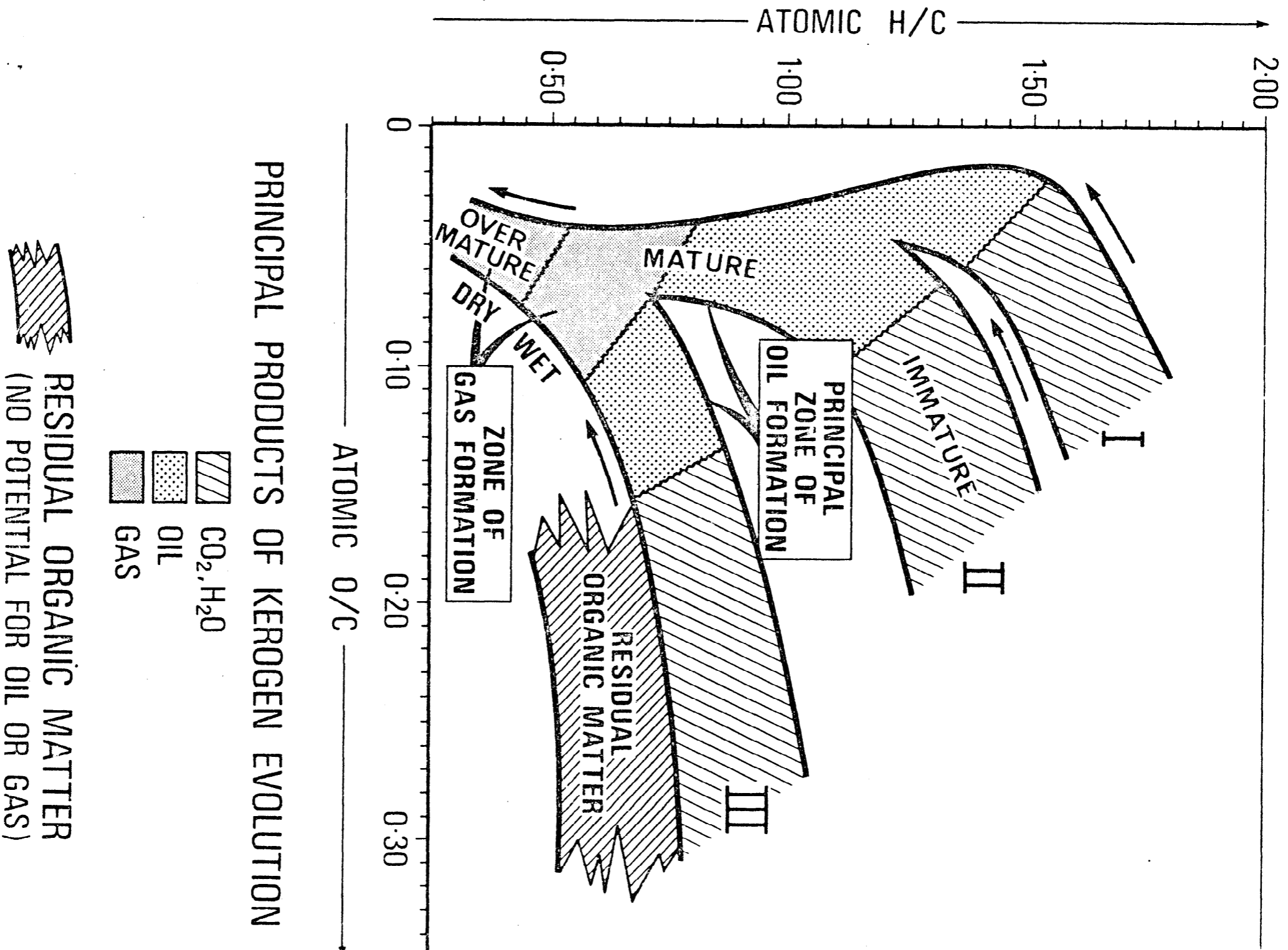
TRITON - 1 (SIDETRACK)

FIG. 5



- x UN-NAMED SANDS & SILTS
- o BELFAST FORMATION
- WAARRE FORMATION

FIGURE - 6



C<sub>15+</sub> Paraffin-Naphthene Hydrocarbons

GeoChem Sample No. E531-001

Exxon Identification No. 72382-T

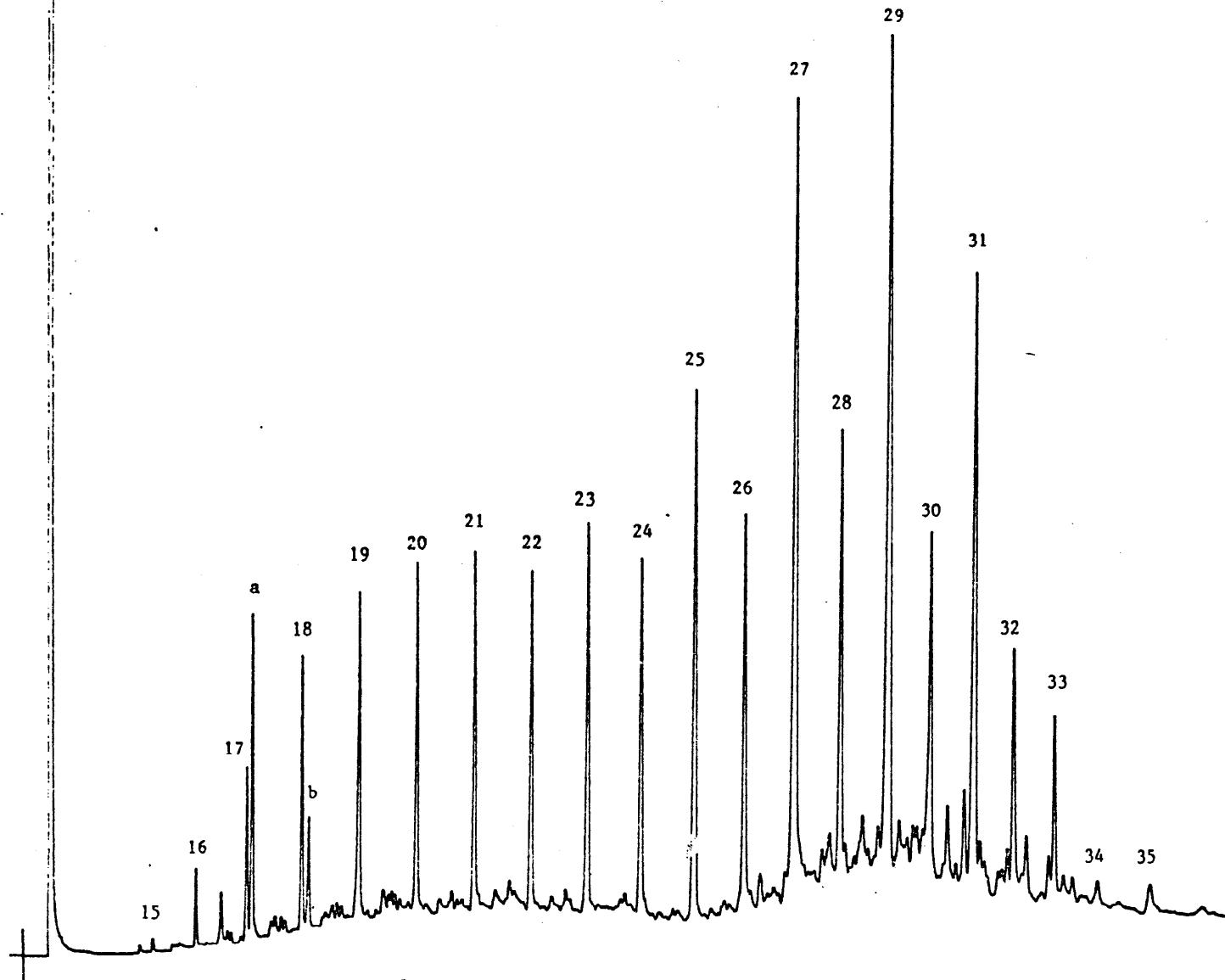


Figure 7: TRITON 1 (Sidetrack) 1760 - 1795- RELEASE FORMATION

C15+ Paraffin-Naphthene Hydrocarbons

GeoChem Sample No. E531-002

Exxon Identification No. 72383-T

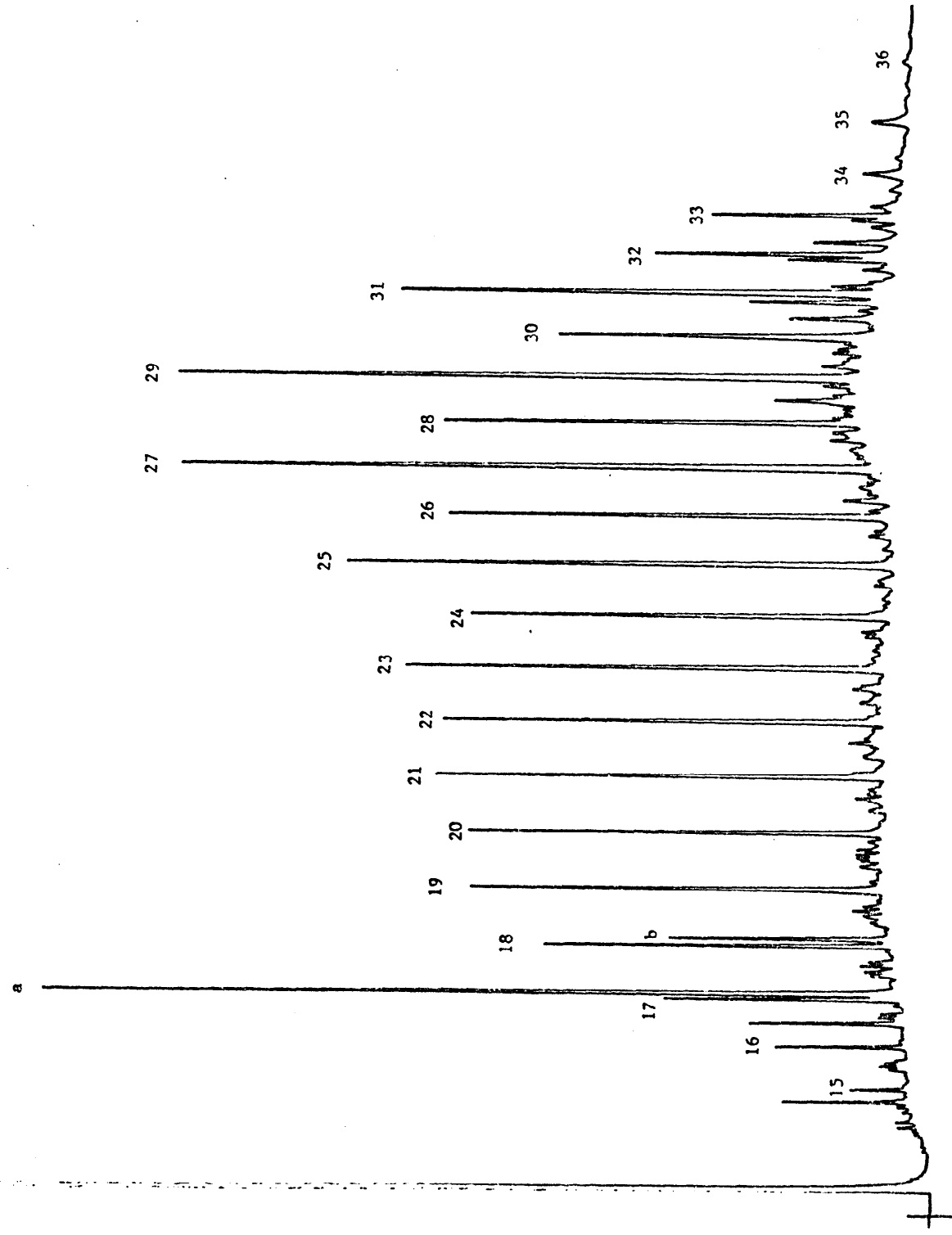


Figure 8: TRITON-1 (Sidetrack), 2060 - 2085m, BELFAST FORMATION

C<sub>15+</sub> Paraffin-Naphthene Hydrocarbons

GeoChem Sample No. E531-003

Exxon Identification No. 72385-B

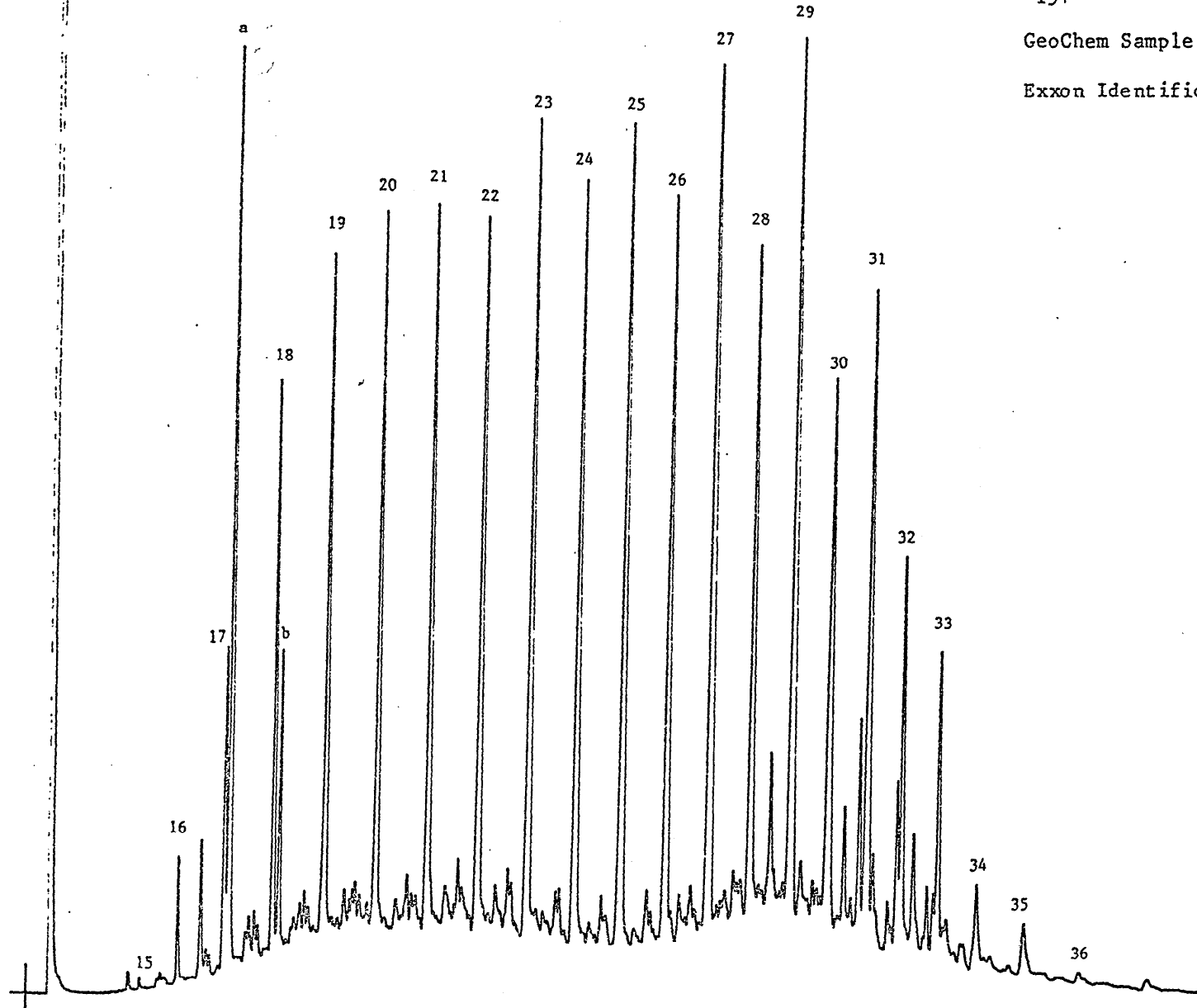


Figure 9: TRITON-1 (Sdi-track), 2400 - 2415m, BELFAST FORMATION

TRITON-1-15 / PE901819 / P112

C<sub>15+</sub> Paraffin-Naphthene Hydrocarbons

GeoChem Sample No. E531-004

Exxon Identification No. 72386-B

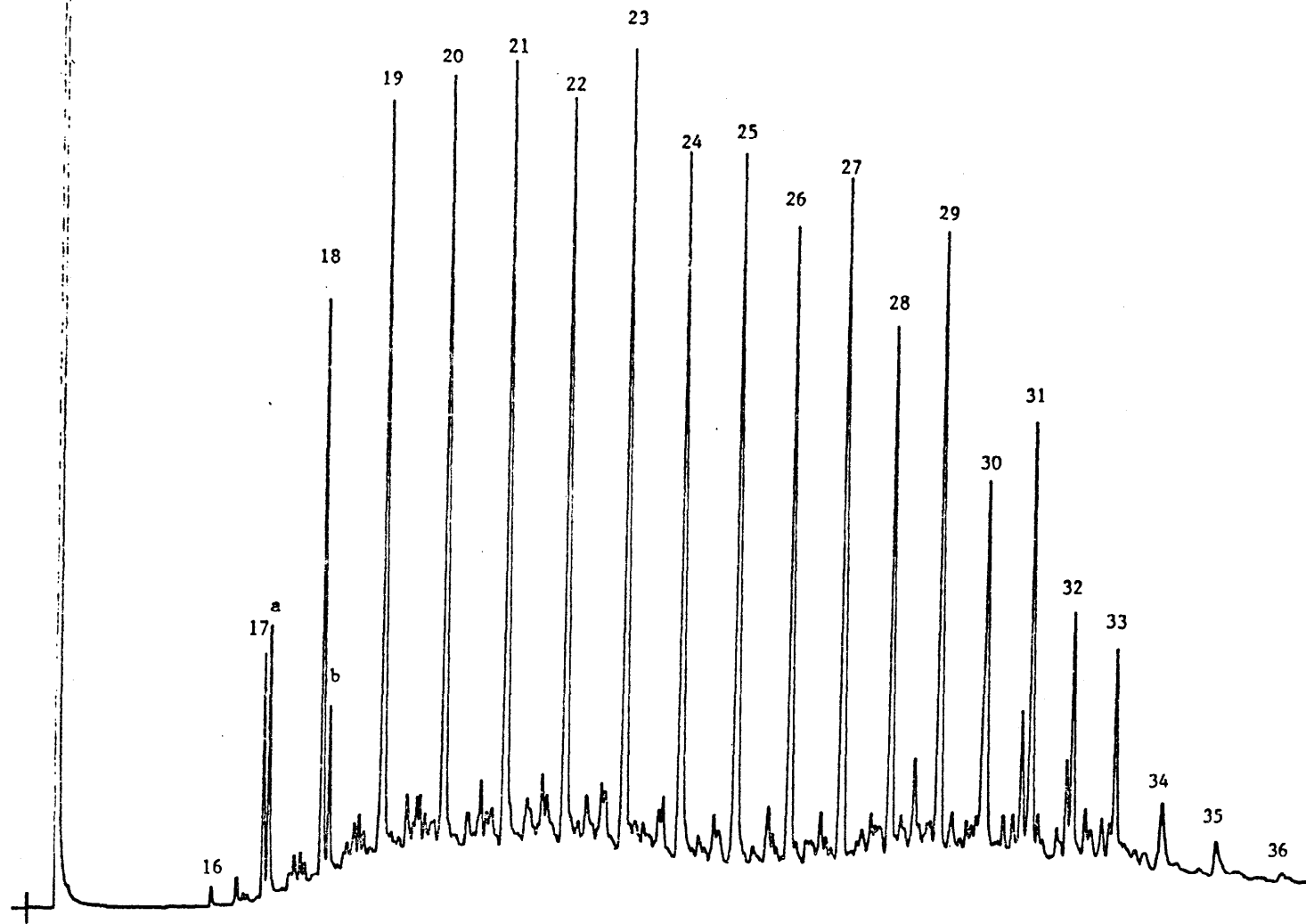


Figure 10: TRITON-1 (Sidetrack), 2700 - 2715m, BELFAST FORMATION



C<sub>15+</sub> Paraffin-Naphthene Hydrocarbons

GeoChem Sample No. E531-005

Exxon Identification No. 72387-F

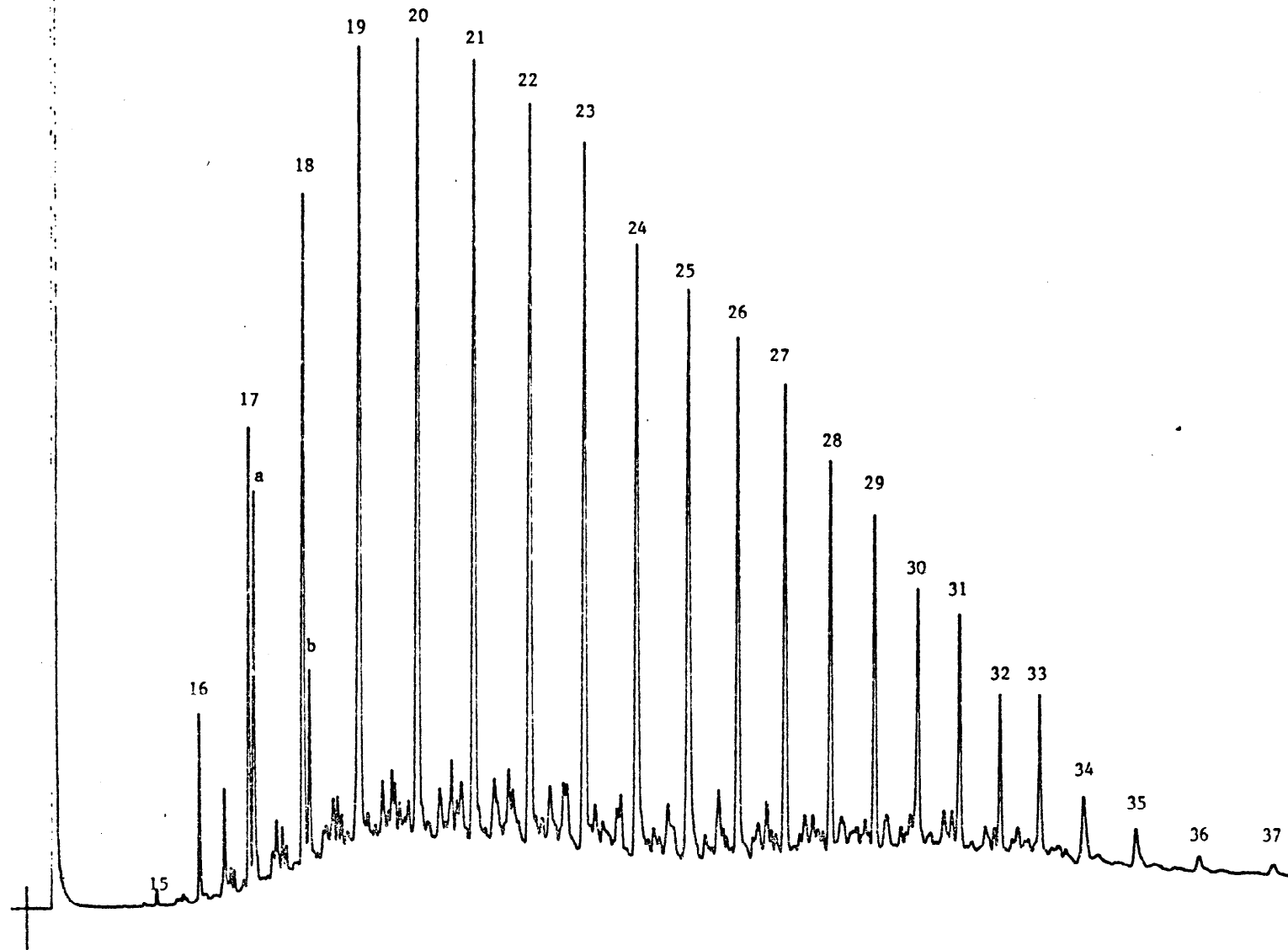


Figure 11: TRITON-1 (Sidetrack), 3060 - 3075m, BELFAST FORMATION

C<sub>15+</sub> Paraffin-Naphthene Hydrocarbons

GeoChem Sample No. E531-006

Exxon Identification No. 72388-F

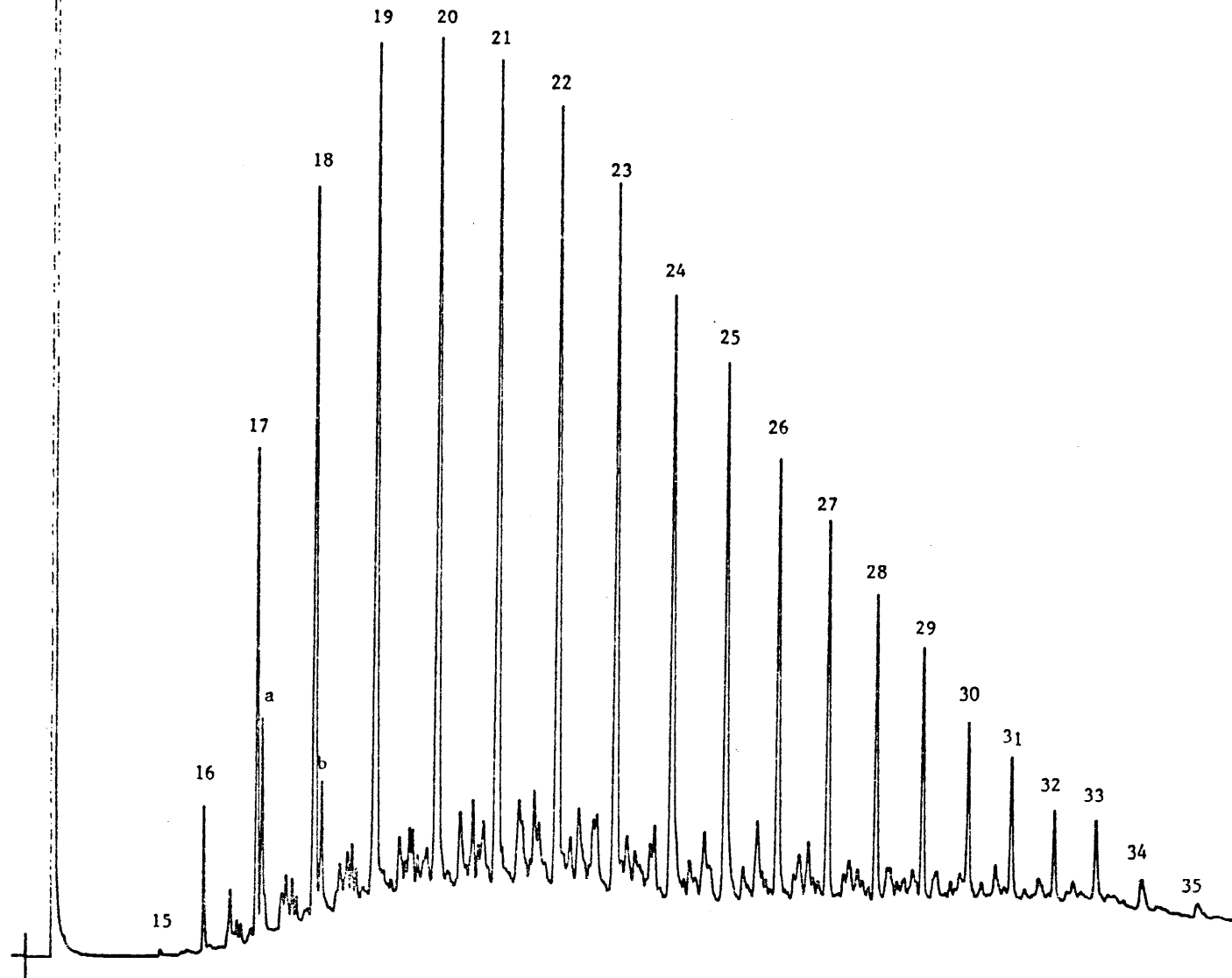


Figure 12: TRITON-1 (Sidetreck), 3360 - 3375m, BELFAST FORMATION

APPENDIX-1

14 JUN 82

72382L AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 1635-1650 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	0.0	0.00
ETHANE	30.6		1T2-DMCP	6.1	0.95
PROPANE	18.0		3-EPENT	0.0	0.00
IBUTANE	38.5	6.01	224-TMP	0.0	0.00
NBUTANE	30.4	4.75	NHEPTANE	53.4	8.34
IPENTANE	129.8	20.28	1C2-DMCP	0.0	0.00
NPENTANE	76.1	11.89	MCH	50.9	7.96
22-DMB	3.5	0.55			
CPENTANE	5.1	0.80			
23-DMB	7.3	1.14			
2-MP	60.2	9.41			
3-MP	26.3	4.11			
NHEXANE	61.0	9.54			
MCP	28.8	4.50			
22-IMP	0.0	0.00			
24-IMP	1.6	0.25			
223-TMB	0.0	0.00			
CHEXANE	19.5	3.04			
33-IMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	15.0	2.35			
23-DMP ,	9.0	1.40			
3-MHEX ,	14.4	2.26			
1C3-DMCP	3.2	0.50			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS	
ALL COMP	689.		C1/C2	2.24
GASOLINE	640.		A /D2	7.92
NAPHTHENES	114.	17.74	C1/D2	5.92
C6-7	263.	41.08	CH/MCP	0.68
			PENT/IPENT,	0.59

	PPB	NORM PERCENT
MCP	28.8	29.0
CH	19.5	19.6
MCH	50.9	51.3
TOTAL	99.2	100.0

PARAFFIN INDEX 1	3.180
PARAFFIN INDEX 2	31.113

14 JUN 82

72382N AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 1665-1680 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	4.4	0.44
ETHANE	28.4		1T2-DMCP	6.8	0.68
PROPANE	15.3		3-EPENT	0.0	0.00
IBUTANE	59.8	5.97	224-TMP	0.0	0.00
NBUTANE	62.4	6.22	NHEPTANE	74.3	7.42
IPENTANE	239.2	23.86	1C2-DMCP	0.0	0.00
NPENTANE	111.3	11.10	MCH	65.9	6.57
22-DMB	4.2	0.42			
CPENTANE	6.8	0.67			
23-DMB	15.4	1.54			
2-MP	92.7	9.25			
3-MP	33.3	3.32			
NHEXANE	86.7	8.65			
MCP	48.5	4.84			
22-DMP	0.0	0.00			
24-DMP	3.7	0.37			
223-TMB	0.0	0.00			
CHEXANE	26.9	2.68			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	22.5	2.24			
23-DMP ,	15.0	1.49			
3-MHEX ,	16.6	1.66			
1C3-DMCP	5.9	0.59			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS	
ALL COMP	1046.		C1/C2	1.76
GASOLINE	1002.		A /D2	9.68
NAPHTHENES	165.	16.48	C1/D2	6.93
C6-7	377.	37.65	CH/MCP	0.55
			PENT/IPENT,	0.47

	PPB	NORM PERCENT
MCP	48.5	34.3
CH	26.9	19.0
MCH	65.9	46.6
TOTAL	141.3	100.0

PARAFFIN INDEX 1 2.279  
PARAFFIN INDEX 2 31.176

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72382P AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 1695-1710 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	10.1	0.67
ETHANE	31.0		1T2-DMCP	15.5	1.03
PROPANE	29.0		3-EPENT	0.0	0.00
IBUTANE	69.5	4.61	224-TMP	0.0	0.00
NBUTANE	74.6	4.95	NHEPTANE	126.9	8.42
IPENTANE	325.5	21.60	1C2-DMCP	0.0	0.00
NPENTANE	145.5	9.65	MCH	122.5	8.13
22-DMB	6.9	0.46			
CPENTANE	13.5	0.89			
23-DMB	25.8	1.71			
2-MP	144.9	9.62			
3-MP	52.0	3.45			
NHEXANE	127.5	8.46			
MCP	84.9	5.63			
22-DMP	0.0	0.00			
24-DMP	7.3	0.48			
223-TMB	0.0	0.00			
CHEXANE	46.0	3.05			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	38.4	2.55			
23-DMP ,	26.5	1.76			
3-MHEX ,	28.3	1.88			
1C3-DMCP	15.4	1.02			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS	
ALL COMP	1567.		C1/C2	1.64
GASOLINE	1507.		A /D2	9.00
NAPHTHENES	308.	20.43	C1/D2	7.32
C6-7	649.	43.07	CH/MCP	0.54
			PENT/IPENT,	0.45

	PPB	NORM PERCENT
MCP	84.9	33.5
CH	46.0	18.1
MCH	122.5	48.4
TOTAL	253.4	100.0

PARAFFIN INDEX 1 1.624  
 PARAFFIN INDEX 2 29.541

14 JUN 82

72382R AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 1725-1740 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	111.8	2.63
ETHANE	192.7		1T2-DMCP	131.3	3.08
PROPANE	70.4		3-EPENT	0.0	0.00
IBUTANE	264.8	6.22	224-TMP	0.0	0.00
NBUTANE	194.6	4.57	NHEPTANE	327.2	7.69
IPENTANE	691.9	16.26	1C2-DMCP	15.6	0.37
NPENTANE	330.7	7.77	MCH	375.2	8.82
22-DMB	6.9	0.16			
CPENTANE	36.0	0.85			
23-DMB	74.6	1.75			
2-MP	389.0	9.14			
3-MP	130.6	3.07			
NHEXANE	307.8	7.23			
MCP	378.3	8.89			
22-DMP	0.0	0.00			
24-DMP	12.2	0.29			
223-TMB	0.0	0.00			
CHEXANE	85.7	2.01			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	84.9	2.00			
23-DMP ,	80.6	1.89			
3-MHEX ,	80.5	1.89			
1C3-DMCP	144.9	3.40			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS	
ALL COMP	4518.		C1/C2	0.70
GASOLINE	4255.		A /D2	7.89
NAPHTHENES	1279.	30.05	C1/D2	6.78
C6-7	2136.	50.20	CH/MCP	0.23
			PENT/IPENT,	0.48

	PPB	NORM PERCENT
MCP	378.3	45.1
CH	85.7	10.2
MCH	375.2	44.7
TOTAL	839.2	100.0

PARAFFIN INDEX 1	0.426
PARAFFIN INDEX 2	23.010

14 JUN 82

72382T AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 1770-1785 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	71.6	2.94
ETHANE	74.3		1T2-DMCP	43.1	1.77
PROPANE	55.9		3-EPENT	0.0	0.00
IBUTANE	209.0	8.57	224-TMP	0.0	0.00
NBUTANE	129.8	5.32	NHEPTANE	225.0	9.22
IPENTANE	317.5	13.02	1C2-DMCP	7.3	0.30
NPENTANE	219.5	9.00	MCH	214.4	8.79
22-DMB	1.7	0.07			
CPENTANE	26.7	1.09			
23-DMB	33.9	1.39			
2-MP	201.9	8.28			
3-MP	67.2	2.75			
NHEXANE	196.3	8.05			
MCP	228.5	9.37			
22-DMP	0.0	0.00			
24-DMP	6.6	0.27			
223-TMB	0.0	0.00			
CHEXANE	46.7	1.91			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	50.1	2.05			
23-DMP ,	43.8	1.80			
3-MHEX ,	44.7	1.83			
1C3-DMCP	53.7	2.20			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS	
ALL COMP	2569.		C1/C2	0.77
GASOLINE	2439.		A /D2	9.43
NAPHTHENES	692.	28.37	C1/D2	6.96
C6-7	1232.	50.50	CH/MCP	0.20
			PENT/IPENT,	0.69

	PPB	NORM PERCENT
MCP	228.5	46.7
CH	46.7	9.5
MCH	214.4	43.8
TOTAL	489.6	100.0

PARAFFIN INDEX 1 0.563  
 PARAFFIN INDEX 2 28.370



14 JUN 82

72383B AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 1800-1815 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	94.5	3.59
ETHANE	90.0		1T2-DMCP	60.7	2.30
PROPANE	32.8		3-EPENT	0.0	0.00
IBUTANE	158.9	6.03	224-TMP	0.0	0.00
NBUTANE	93.0	3.53	NHEPTANE	252.6	9.58
IPENTANE	307.2	11.65	1C2-DMCP	9.4	0.36
NPENTANE	223.2	8.47	MCH	267.3	10.14
22-DMB	2.1	0.08			
CPENTANE	24.3	0.92			
23-DMB	33.1	1.26			
2-MP	250.1	9.49			
3-MP	83.6	3.17			
NHEXANE	210.9	8.00			
MCP	269.1	10.21			
22-DMP	0.0	0.00			
24-DMP	8.6	0.33			
223-TMB	0.0	0.00			
CHEXANE	46.7	1.77			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	58.5	2.22			
23-DMP ,	55.4	2.10			
3-MHEX ,	54.3	2.06			
1C3-DMCP	72.7	2.76			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS	
ALL COMP	2759.		C1/C2	0.74
GASOLINE	2636.		A /D2	8.54
NAPHTHENES	845.	32.04	C1/D2	6.86
C6-7	1461.	55.41	CH/MCP	0.17
			PENT/IPENT,	0.73

	PPB	NORM PERCENT
MCP	269.1	46.2
CH	46.7	8.0
MCH	267.3	45.8
TOTAL	583.1	100.0

PARAFFIN INDEX 1	0.495
PARAFFIN INDEX 2	26.240

14 JUN 82

72383D AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 1830-1845 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	79.0	3.37
ETHANE	59.6		1T2-DMCP	53.2	2.27
PROPANE	27.0		3-EPENT	0.0	0.00
IBUTANE	138.5	5.90	224-TMP	0.0	0.00
NBUTANE	99.7	4.25	NHEPTANE	199.3	8.49
IPENTANE	317.7	13.53	1C2-DMCP	7.3	0.31
NPENTANE	225.3	9.59	MCH	197.8	8.42
22-DMB	1.1	0.05			
CPENTANE	27.0	1.15			
23-DMB	34.4	1.46			
2-MP	222.4	9.47			
3-MP	79.0	3.36			
NHEXANE	192.8	8.21			
MCP	243.4	10.36			
22-DMP	6.6	0.28			
24-DMP	0.0	0.00			
223-TMB	0.0	0.00			
CHEXANE	40.7	1.73			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	34.3	1.46			
23-DMP ,	39.6	1.69			
3-MHEX ,	46.7	1.99			
1C3-DMCP	62.9	2.68			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS	
ALL COMP	2435.		C1/C2	0.61
GASOLINE	2348.		A /D2	8.40
NAPHTHENES	711.	30.28	C1/D2	5.85
C6-7	1204.	51.24	CH/MCP	0.17
			PENT/IPENT,	0.71

	PPB	NORM PERCENT
MCP	243.4	50.5
CH	40.7	8.4
MCH	197.8	41.1
TOTAL	481.9	100.0

PARAFFIN INDEX 1	0.415
PARAFFIN INDEX 2	26.450

14 JUN 82

72383F AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 1860-1875 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	95.5	3.31
ETHANE	50.8		1T2-DMCP	65.6	2.27
PROPANE	58.1		3-EPENT	0.0	0.00
1BUTANE	255.0	8.84	224-TMP	0.0	0.00
NBUTANE	166.5	5.77	NHEPTANE	200.9	6.96
IPENTANE	442.2	15.32	1C2-DMCP	9.7	0.34
NPENTANE	265.8	9.21	MCH	219.9	7.62
22-DMB	3.0	0.11			
CPENTANE	33.1	1.15			
23-DMB	38.8	1.35			
2-MP	248.7	8.62			
3-MP	89.4	3.10			
NHEXANE	199.7	6.92			
MCP	288.7	10.01			
22-DMP	0.0	0.00			
24-DMP	6.1	0.21			
223-TMB	0.0	0.00			
CHEXANE	52.2	1.81			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	41.6	1.44			
23-DMP ,	45.2	1.57			
3-MHEX ,	48.7	1.69			
1C3-DMCP	69.3	2.40			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS	
ALL COMP	2995.		C1/C2	0.59
GASOLINE	2886.		A /D2	8.22
NAPHTHENES	834.	28.90	C1/D2	6.44
C6-7	1343.	46.55	CH/MCP	0.18
			PENT/IPENT,	0.60

	PPB	NORM PERCENT
MCP	288.7	51.5
CH	52.2	9.3
MCH	219.9	39.2
TOTAL	560.8	100.0

PARAFFIN INDEX 1	0.392
PARAFFIN INDEX 2	23.951

14 JUN 82

72383H AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 1890-1905 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	102.7	2.36
ETHANE	24.2		1T2-DMCP	146.2	3.36
PROPANE	130.4		3-EPENT	0.0	0.00
IBUTANE	335.3	7.70	224-TMP	0.0	0.00
NBUTANE	267.8	6.15	NHEPTANE	270.7	6.22
IPENTANE	657.6	15.10	1C2-DMCP	13.8	0.32
NPENTANE	404.2	9.28	MCH	323.5	7.43
22-DMB	3.6	0.08			
CPENTANE	62.9	1.44			
23-DMB	60.2	1.38			
2-MP	388.7	8.93			
3-MP	137.3	3.15			
NHEXANE	298.9	6.86			
MCP	456.9	10.49			
22-DMP	0.0	0.00			
24-DMP	10.6	0.24			
223-TMB	0.0	0.00			
CHEXANE	87.7	2.01			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	67.0	1.54			
23-DMP ,	65.7	1.51			
3-MHEX ,	85.3	1.96			
1C3-DMCP	107.9	2.48			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS	
ALL COMP	4509.		C1/C2	0.58
GASOLINE	4355.		A /D2	6.68
NAPHTHENES	1302.	29.89	C1/D2	5.61
C6-7	2037.	46.78	CH/MCP	0.19
			PENT/IPENT,	0.61

	PPB	NORM PERCENT
MCP	456.9	52.6
CH	87.7	10.1
MCH	323.5	37.3
TOTAL	868.1	100.0

PARAFFIN INDEX 1 0.427  
 PARAFFIN INDEX 2 21.540

14 JUN 82

72383J AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 1920-1935 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	67.8	1.79
ETHANE	48.6		1T2-DMCP	92.9	2.46
PROPANE	176.4		3-EPENT	0.0	0.00
IBUTANE	421.7	11.15	224-TMP	0.0	0.00
NBUTANE	283.9	7.50	NHEPTANE	200.8	5.31
IPENTANE	684.8	18.10	1C2-DMCP	9.2	0.24
NPENTANE	349.3	9.23	MCH	235.0	6.21
22-DMB	2.5	0.07			
CPENTANE	50.6	1.34			
23-DMB	50.8	1.34			
2-NP	305.8	8.09			
3-NP	114.8	3.04			
NHEXANE	234.3	6.19			
MCP	354.3	9.37			
22-DMP	0.0	0.00			
24-DMP	7.3	0.19			
223-TMB	0.0	0.00			
CHEXANE	65.4	1.73			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	59.3	1.57			
23-DMP ,	50.8	1.34			
3-MHEX ,	50.8	1.34			
1C3-DMCP	90.5	2.39			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS	
ALL COMP	4008.		C1/C2	0.58
GASOLINE	3783.		A /D2	8.56
NAPHTHENES	966.	25.53	C1/D2	7.07
C6-7	1518.	40.14	CH/MCP	0.18
			PENT/IPENT,	0.51

	PPB	NORM PERCENT
MCP	354.3	54.1
CH	65.4	10.0
MCH	235.0	35.9
TOTAL	654.7	100.0

PARAFFIN INDEX 1 0.438  
 PARAFFIN INDEX 2 21.984

14 JUN 82

72383L AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 1950-1965 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	110.1	1.84
ETHANE	79.9		1T2-DMCP	164.9	2.75
PROPANE	306.5		3-EPENT	0.0	0.00
IBUTANE	700.7	11.70	224-TMP	0.0	0.00
NBUTANE	492.9	8.23	NHEPTANE	283.0	4.73
IPENTANE	1046.3	17.47	1C2-DMCP	14.4	0.24
NPENTANE	552.5	9.23	MCH	362.9	6.06
22-DMB	5.5	0.09			
CPENTANE	76.1	1.27			
23-DMB	79.3	1.32			
2-MP	495.3	8.27			
3-MP	187.5	3.13			
NHEXANE	354.0	5.91			
MCP	546.3	9.12			
22-DMP	0.0	0.00			
24-DMP	10.9	0.18			
223-TMB	0.0	0.00			
CHEXANE	103.0	1.72			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	90.9	1.52			
23-DMP ,	77.4	1.29			
3-MHEX ,	118.8	1.98			
1C3-DMCP	116.4	1.94			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS	
ALL COMP	6376.		C1/C2	0.58
GASOLINE	5989.		A /D2	5.36
NAPHTHENES	1494.	24.95	C1/D2	4.69
C6-7	2353.	39.29	CH/MCP	0.19
			PENT/IPENT,	0.53

	PPB	NORM PERCENT
MCP	546.3	54.0
CH	103.0	10.2
MCH	362.9	35.9
TOTAL	1012.2	100.0

PARAFFIN INDEX 1	0.536
PARAFFIN INDEX 2	19.826

14 JUN 82

72383R AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 2040-2055 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	124.8	1.90
ETHANE	93.9		1T2-DMCP	187.6	2.86
PROPANE	358.6		3-EPENT	0.0	0.00
IBUTANE	739.8	11.27	224-TMP	0.0	0.00
NBUTANE	590.9	9.00	NHEPTANE	338.9	5.16
IPENTANE	1075.6	16.38	1C2-DMCP	17.2	0.26
NPENTANE	589.9	8.98	MCH	429.2	6.54
22-DMB	1.7	0.03			
CPENTANE	90.2	1.37			
23-DMB	80.0	1.22			
2-MP	511.8	7.79			
3-MP	213.0	3.24			
NHEXANE	384.6	5.86			
MCP	616.3	9.39			
22-DMP	0.0	0.00			
24-DMP	13.5	0.21			
223-TMB	0.0	0.00			
CHEXANE	131.8	2.01			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	92.3	1.41			
23-DMP ,	91.4	1.39			
3-MHEX ,	116.4	1.77			
1C3-DMCP	129.4	1.97			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS	
ALL COMP	7019.		C1/C2	0.61
GASOLINE	6566.		A /D2	6.22
NAPHTHENES	1726.	26.29	C1/D2	5.61
C6-7	2673.	40.71	CH/MCP	0.21
			PENT/IPENT,	0.55

	PPB	NORM PERCENT
MCP	616.3	52.3
CH	131.8	11.2
MCH	429.2	36.5
TOTAL	1177.3	100.0

PARAFFIN INDEX 1 0.472  
 PARAFFIN INDEX 2 20.642

14 JUN 82

72383N AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 1980-1995 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	124.1	1.88
ETHANE	93.1		1T2-DMCP	185.7	2.82
PROPANE	302.1		3-EPENT	0.0	0.00
IBUTANE	723.0	10.97	224-TMP	0.0	0.00
NBUTANE	566.0	8.59	NHEPTANE	354.3	5.38
IPENTANE	1049.7	15.93	1C2-DMCP	20.1	0.31
NPENTANE	604.5	9.17	MCH	466.3	7.08
22-DMB	2.5	0.04			
CPENTANE	95.4	1.45			
23-DMB	75.5	1.15			
2-MP	520.3	7.89			
3-MP	188.9	2.87			
NHEXANE	388.1	5.89			
MCP	620.8	9.42			
22-DMP	0.0	0.00			
24-DMP	11.2	0.17			
223-TMB	0.0	0.00			
CHEXANE	132.2	2.01			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	92.8	1.41			
23-DMP ,	86.2	1.31			
3-MHEX ,	155.8	2.36			
1C3-DMCP	126.9	1.93			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS	
ALL COMP	6986.		C1/C2	0.64
GASOLINE	6590.		A /D2	4.76
NAPHTHENES	1772.	26.88	C1/D2	4.44
C6-7	2765.	41.95	CH/MCP	0.21
			PENT/IPENT,	0.58

	PPB	NORM PERCENT
MCP	620.8	50.9
CH	132.2	10.8
MCH	466.3	38.2
TOTAL	1219.3	100.0

PARAFFIN INDEX 1	0.569
PARAFFIN INDEX 2	20.547



14 JUN 82

72383P AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 2010-2025 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	164.1	1.95
ETHANE	88.8		1T2-DMCP	244.4	2.90
PROPANE	426.2		3-EPENT	0.0	0.00
IBUTANE	930.5	11.06	224-TMP	0.0	0.00
NBUTANE	755.2	8.98	NHEPTANE	458.6	5.45
IPENTANE	1289.5	15.32	1C2-DMCP	25.9	0.31
NPENTANE	770.7	9.16	MCH	630.4	7.49
22-DMB	5.9	0.07			
CPENTANE	127.1	1.51			
23-DMB	97.8	1.16			
2-MP	638.9	7.59			
3-MP	238.2	2.83			
NHEXANE	486.0	5.78			
MCP	803.2	9.55			
22-DMP	0.0	0.00			
24-DMP	12.5	0.15			
223-TMB	0.0	0.00			
CHEXANE	178.7	2.12			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	122.4	1.46			
23-DMP ,	109.4	1.30			
3-MHEX ,	155.8	1.85			
1C3-DMCP	169.2	2.01			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS	
ALL COMP	8929.		C1/C2	0.66
GASOLINE	8414.		A /D2	6.06
NAPHTHENES	2343.	27.84	C1/D2	5.98
C6-7	3561.	42.32	CH/MCP	0.22
			PENT/IPENT,	0.60

	PPB	NORM PERCENT
MCP	803.2	49.8
CH	178.7	11.1
MCH	630.4	39.1
TOTAL	1612.3	100.0

PARAFFIN INDEX 1	0.482
PARAFFIN INDEX 2	20.536

14 JUN 82

72383T AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 2070-2085 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	94.8	1.66
ETHANE	0.0		1T2-DMCP	148.4	2.60
PROPANE	359.1		3-EPENT	0.0	0.00
IBUTANE	640.5	11.24	224-TMP	0.0	0.00
NBUTANE	551.2	9.67	NHEPTANE	243.4	4.27
IPENTANE	972.0	17.06	1C2-DMCP	8.1	0.14
NPENTANE	559.1	9.91	MCH	261.3	4.58
22-DMB	5.0	0.09			
CPENTANE	72.3	1.27			
23-DMB	68.8	1.21			
2-MP	496.1	8.71			
3-MP	200.7	3.52			
NHEXANE	339.0	5.95			
MCP	538.1	9.44			
22-DMP	0.0	0.00			
24-DMP	11.0	0.19			
223-TMB	0.0	0.00			
CHEXANE	117.7	2.07			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	93.2	1.63			
23-DMP ,	75.6	1.33			
3-MHEX ,	104.3	1.83			
1C3-DMCP	98.5	1.73			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS	
ALL COMP	6058.		C1/C2	0.53
GASOLINE	5699.		A /D2	5.58
NAPHTHENES	1339.	23.50	C1/D2	4.53
C6-7	2133.	37.43	CH/MCP	0.22
			PENT/IPENT,	0.58

	PPB	NORM PERCENT
MCP	538.1	58.7
CH	117.7	12.8
MCH	261.3	28.5
TOTAL	917.1	100.0

PARAFFIN INDEX 1	0.578
PARAFFIN INDEX 2	19.668

14 JUN 82

72384B AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 2100-2115 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	77.6	1.58
ETHANE	0.0		1T2-DMCP	56.7	1.15
PROPANE	251.0		3-EPENT	0.0	0.00
IBUTANE	516.3	10.49	224-TMP	0.0	0.00
NBUTANE	566.1	11.50	NHEPTANE	131.1	2.66
IPENTANE	945.2	19.20	1C2-DMCP	0.0	0.00
NPENTANE	578.8	11.76	MCH	93.3	1.90
22-DMB	11.6	0.23			
CPENTANE	59.4	1.21			
23-DMB	63.8	1.30			
2-MP	453.2	9.21			
3-MP	198.1	4.03			
NHEXANE	339.4	6.90			
MCP	432.3	8.78			
22-DMP	0.0	0.00			
24-DMP	13.2	0.27			
223-TMB	0.0	0.00			
CHEXANE	118.3	2.40			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	78.1	1.59			
23-DMP ,	55.3	1.12			
3-MHEX ,	76.1	1.55			
1C3-DMCP	58.1	1.18			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS	
ALL COMP	5173.		C1/C2	0.46
GASOLINE	4922.		A /D2	6.18
NAPHTHENES	896.	18.20	C1/D2	3.81
C6-7	1530.	31.08	CH/MCP	0.27
			PENT/IPENT,	0.61

	PPB	NORM PERCENT
MCP	432.3	67.1
CH	118.3	18.4
MCH	93.3	14.5
TOTAL	643.9	100.0

PARAFFIN INDEX 1	0.801
PARAFFIN INDEX 2	17.607

14 JUN 82

72384D AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 2130-2145 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	85.7	1.26
ETHANE	0.0		1T2-DMCP	130.9	1.93
PROPANE	242.9		3-EPENT	0.0	0.00
IBUTANE	439.7	6.48	224-TMP	0.0	0.00
NBUTANE	377.6	5.57	NHEPTANE	232.3	3.42
IPENTANE	799.7	11.79	1C2-DMCP	8.1	0.12
NPENTANE	456.4	6.73	MCH	2189.1	32.28
22-DMB	10.9	0.16			
CPENTANE	61.0	0.90			
23-DMB	69.2	1.02			
2-MP	418.8	6.17			
3-MP	177.1	2.61			
NHEXANE	334.0	4.93			
MCP	477.1	7.04			
22-DMP	0.0	0.00			
24-DMP	13.1	0.19			
223-TMB	0.0	0.00			
CHEXANE	148.7	2.19			
33-DMP ,	1.1	0.02			
11-DMCP	0.0	0.00			
2-MHEX ,	91.5	1.35			
23-DMP ,	67.6	1.00			
3-MHEX ,	100.0	1.47			
1C3-DMCP	92.3	1.36			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS	
ALL COMP	7025.		C1/C2	3.06
GASOLINE	6782.		A /D2	5.66
NAPHTHENES	3193.	47.08	C1/D2	24.30
C6-7	3972.	58.56	CH/MCP	0.31
			PENT/IPENT,	0.57

	PPB	NORM PERCENT
MCP	477.1	17.0
CH	148.7	5.3
MCH	2189.1	77.8
TOTAL	2814.9	100.0

PARAFFIN INDEX 1	0.620
PARAFFIN INDEX 2	7.398

14 JUN 82

72384F AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 2160-2175 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	82.6	0.95
ETHANE	0.0		1T2-DMCP	64.2	0.74
PROPANE	1125.8		3-EPENT	0.0	0.00
IBUTANE	1151.2	13.18	224-TMP	0.0	0.00
NBUTANE	1428.0	16.34	NHEPTANE	115.3	1.32
IPENTANE	1524.9	17.45	1C2-DMCP	0.0	0.00
NPENTANE	1120.8	12.83	MCH	80.1	0.92
22-DMB	38.3	0.44			
CPENTANE	115.5	1.32			
23-DMB	118.3	1.35			
2-MP	742.1	8.49			
3-MP	321.3	3.68			
NHEXANE	547.4	6.26			
MCP	638.6	7.31			
22-DMP	0.0	0.00			
24-DMP	19.8	0.23			
223-TMB	3.1	0.04			
CHEXANE	316.8	3.63			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	93.7	1.07			
23-DMP ,	66.2	0.76			
3-MHEX ,	95.4	1.09			
1C3-DMCP	54.0	0.62			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS	
ALL COMP	9863.		C1/C2	0.58
GASOLINE	8737.		A /D2	6.95
NAPHTHENES	1352.	15.47	C1/D2	5.14
C6-7	2177.	24.92	CH/MCP	0.50
			PENT/IPENT,	0.73

	PPB	NORM PERCENT
MCP	638.6	61.7
CH	316.8	30.6
MCH	80.1	7.7
TOTAL	1035.5	100.0

PARAFFIN INDEX 1	0.942
PARAFFIN INDEX 2	11.907

14 JUN 82

72384H AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 2190-2205 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	112.2	0.95
ETHANE	0.0		1T2-DMCP	188.1	1.59
PROPANE	1018.1		3-EPENT	0.0	0.00
IBUTANE	1193.3	10.10	224-TMP	0.0	0.00
NBUTANE	1894.8	16.04	NHEPTANE	333.4	2.82
IPENTANE	1889.5	16.00	1C2-DMCP	11.4	0.10
NPENTANE	1409.0	11.93	MCH	467.9	3.96
22-DMB	39.9	0.34			
CPENTANE	177.5	1.50			
23-DMB	128.2	1.09			
2-MP	841.1	7.12			
3-MP	379.8	3.22			
NHEXANE	656.0	5.55			
MCP	883.3	7.48			
22-DMP	0.0	0.00			
24-DMP	21.7	0.18			
223-TMB	3.2	0.03			
CHEXANE	647.9	5.48			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	146.9	1.24			
23-DMP ,	104.7	0.89			
3-MHEX ,	169.3	1.43			
1C3-DMCP	113.3	0.96			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS
ALL COMP	12830.		C1/C2 0.97
GASOLINE	11812.		A /D2 5.84
NAPHTHENES	2602.	22.02	C1/D2 7.46
C6-7	3859.	32.67	CH/MCP 0.73
			FENT/IPENT, 0.75

	PPB	NORM PERCENT
MCP	883.3	44.2
CH	647.9	32.4
MCH	467.9	23.4
TOTAL	1999.1	100.0

PARAFFIN INDEX 1 0.765  
 PARAFFIN INDEX 2 14.600

14 JUN 82

72384J AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 2220-2235 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	339.1	1.07
ETHANE	0.0		1T2-DMCP	603.3	1.91
PROPANE	849.6		3-EPENT	0.0	0.00
IBUTANE	1438.5	4.55	224-TMP	0.0	0.00
NBUTANE	2541.1	8.04	NHEPTANE	2668.0	8.44
IPENTANE	3594.2	11.37	1C2-DMCP	47.7	0.15
NPENTANE	2985.1	9.44	MCH	2407.7	7.62
22-DMB	156.9	0.50			
CPENTANE	372.0	1.18			
23-DMB	375.6	1.19			
2-MP	2485.8	7.86			
3-MP	1127.1	3.57			
NHEXANE	2466.9	7.80			
MCP	2546.7	8.06			
22-DMP	0.0	0.00			
24-DMP	189.2	0.60			
223-TMB	33.8	0.11			
CHEXANE	2420.8	7.66			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	1050.0	3.32			
23-DMP ,	543.6	1.72			
3-MHEX ,	968.1	3.06			
1C3-DMCP	251.5	0.80			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS	
ALL COMP	32462.		C1/C2	1.55
GASOLINE	31612.		A /D2	5.30
NAPHTHENES	8989.	28.43	C1/D2	6.07
C6-7	16536.	52.31	CH/MCP	0.95
			PENT/IPENT,	0.83

	PPB	NORM PERCENT
MCP	2546.7	34.5
CH	2420.8	32.8
MCH	2407.7	32.6
TOTAL	7375.2	100.0

PARAFFIN INDEX 1 1.690  
 PARAFFIN INDEX 2 23.711

14 JUN 82

72384L AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 2250-2265 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	383.2	1.05
ETHANE	0.0		1T2-DMCP	739.7	2.03
PROPANE	2213.7		3-EPENT	0.0	0.00
IBUTANE	2854.9	7.85	224-TMP	0.0	0.00
NBUTANE	4200.4	11.55	NHEPTANE	1739.3	4.78
IPENTANE	4731.9	13.01	1C2-DMCP	61.0	0.17
NPENTANE	3918.3	10.77	MCH	3511.8	9.66
22-DMB	145.9	0.40			
CPENTANE	370.7	1.02			
23-DMB	390.6	1.07			
2-MP	2768.0	7.61			
3-MP	1220.8	3.36			
NHEXANE	2420.0	6.65			
MCP	2420.0	6.65			
22-DMP	0.0	0.00			
24-DMP	105.0	0.29			
223-TMB	24.1	0.07			
CHEXANE	2242.6	6.17			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	599.0	1.65			
23-DMP ,	494.2	1.36			
3-MHEX ,	638.9	1.76			
1C3-DMCP	387.8	1.07			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS	
ALL COMP	38582.		C1/C2	1.59
GASOLINE	36368.		A /D2	6.51
NAPHTHENES	10117.	27.82	C1/D2	9.94
C6-7	15767.	43.35	CH/MCP	0.93
			PENT/IPENT,	0.83

	PPB	NORM PERCENT
MCP	2420.0	29.6
CH	2242.6	27.4
MCH	3511.8	43.0
TOTAL	8174.4	100.0

PARAFFIN INDEX 1	0.819
PARAFFIN INDEX 2	16.200



14 JUN 82

72384N AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 2280-2295 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	306.1	1.12
ETHANE	0.0		1T2-DMCP	575.5	2.11
PROPANE	1390.5		3-EPENT	0.0	0.00
IBUTANE	1674.4	6.12	224-TMP	0.0	0.00
NBUTANE	2582.1	9.44	NHEPTANE	1460.5	5.34
IPENTANE	3446.4	12.61	1C2-DMCP	66.7	0.24
NPENTANE	2944.7	10.77	MCH	2936.0	10.74
22-DMB	105.1	0.38			
CPENTANE	321.3	1.18			
23-DMB	304.9	1.12			
2-MP	2279.8	8.34			
3-MP	996.5	3.64			
NHEXANE	2055.3	7.52			
MCP	1876.4	6.86			
22-DMP	0.0	0.00			
24-DMP	87.5	0.32			
223-TMB	17.9	0.07			
CHEXANE	1581.5	5.78			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	497.3	1.82			
23-DMP ,	400.1	1.46			
3-MHEX ,	524.8	1.92			
1C3-DMCP	299.4	1.10			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS
ALL COMP	28730.		C1/C2 1.61
GASOLINE	27340.		A /D2 6.70
NAPHTHENES	7963.	29.12	C1/D2 9.56
C6-7	12685.	46.40	CH/MCP 0.84
			PENT/IPENT, 0.85

	PPB	NORM PERCENT
MCP	1876.4	29.3
CH	1581.5	24.7
MCH	2936.0	45.9
TOTAL	6393.9	100.0

PARAFFIN INDEX 1	0.865
PARAFFIN INDEX 2	17.020

14 JUN 82

72384P AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 2310-2325 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	144.0	1.06
ETHANE	0.0		1T2-DMCP	255.2	1.87
PROPANE	1317.1		3-EPENT	0.0	0.00
IBUTANE	1268.9	9.31	224-TMP	0.0	0.00
NBUTANE	1843.2	13.52	NHEPTANE	568.1	4.17
IPENTANE	1827.7	13.40	1C2-DMCP	23.3	0.17
NPENTANE	1584.2	11.62	MCH	1122.4	8.23
22-DMB	38.0	0.28			
CPENTANE	154.1	1.13			
23-DMB	145.3	1.07			
2-MP	1018.6	7.47			
3-MP	442.9	3.25			
NHEXANE	864.0	6.34			
MCP	892.6	6.55			
22-DMP	0.0	0.00			
24-DMP	33.3	0.24			
223-TMB	4.1	0.03			
CHEXANE	652.7	4.79			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	213.9	1.57			
23-DMP ,	145.8	1.07			
3-MHEX ,	251.2	1.84			
1C3-DMCP	141.8	1.04			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS	
ALL COMP	14953.		C1/C2	1.37
GASOLINE	13635.		A /D2	5.70
NAPHTHENES	3386.	24.83	C1/D2	7.92
C6-7	5312.	38.96	CH/MCP	0.73
			PENT/IPENT,	0.87

	PPB	NORM PERCENT
MCP	892.6	33.5
CH	652.7	24.5
MCH	1122.4	42.1
TOTAL	2667.7	100.0

PARAFFIN INDEX 1 0.860  
 PARAFFIN INDEX 2 16.254

14 JUN 82

72384R AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 2340-2355 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	4.8	0.06
ETHANE	0.0		1T2-DMCP	30.6	0.41
PROPANE	480.4		3-EPENT	0.0	0.00
IBUTANE	728.5	9.76	224-TMP	0.0	0.00
NBUTANE	820.2	10.98	NHEPTANE	385.9	5.17
IPENTANE	1162.8	15.57	1C2-DMCP	8.1	0.11
NPENTANE	938.4	12.56	MCH	625.8	8.38
22-DMB	32.0	0.43			
CPENTANE	82.0	1.10			
23-DMB	92.4	1.24			
2-MP	604.5	8.09			
3-MP	258.9	3.47			
NHEXANE	446.7	5.98			
MCP	344.4	4.61			
22-DMP	0.0	0.00			
24-DMP	16.7	0.22			
223-TMB	0.0	0.00			
CHEXANE	272.0	3.64			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	262.0	3.51			
23-DMP ,	40.8	0.55			
3-MHEX ,	268.9	3.60			
1C3-DMCP	41.6	0.56			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS
ALL COMP	7949.		C1/C2 2.70
GASOLINE	7468.		A /D2 3.10
NAPHTHENES	1409.	18.87	C1/D2 4.31
C6-7	2748.	36.80	CH/MCP 0.79
			PENT/IPENT, 0.81

	PPB	NORM PERCENT
MCP	344.4	27.7
CH	272.0	21.9
MCH	625.8	50.4
TOTAL	1242.2	100.0

PARAFFIN INDEX 1	6.890
PARAFFIN INDEX 2	19.970

14 JUN 82

72384T AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 2370-2385 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	7.4	0.05
ETHANE	0.0		1T2-DMCP	40.1	0.27
PROPANE	541.2		3-EPENT	0.0	0.00
IBUTANE	7457.2	50.44	224-TMP	0.0	0.00
NBUTANE	891.9	6.03	NHEPTANE	463.4	3.13
IPENTANE	1316.2	8.90	1C2-DMCP	14.2	0.10
NPENTANE	1019.3	6.89	MCH	561.3	3.80
22-DMB	41.1	0.28			
CPENTANE	92.3	0.62			
23-DMB	142.6	0.96			
2-MP	624.3	4.22			
3-MP	282.1	1.91			
NHEXANE	451.2	3.05			
MCP	378.6	2.56			
22-DMP	0.0	0.00			
24-DMP	22.0	0.15			
223-TMB	0.0	0.00			
CHEXANE	304.1	2.06			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	282.1	1.91			
23-DMP ,	45.7	0.31			
3-MHEX ,	302.2	2.04			
1C3-DMCP	46.0	0.31			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS	
ALL COMP	15327.		C1/C2	2.36
GASOLINE	14785.		A /D2	3.03
NAPHTHENES	1444.	9.77	C1/D2	3.80
C6-7	2918.	19.74	CH/MCP	0.80
			PENT/IPENT,	0.77

	PPB	NORM PERCENT
MCP	378.6	30.4
CH	304.1	24.4
MCH	561.3	45.1
TOTAL	1244.0	100.0

PARAFFIN INDEX 1	6.245
PARAFFIN INDEX 2	22.581

14 JUN 82

72385B AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 2400-2415 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	178.2	0.99
ETHANE	0.0		1T2-DMCP	330.4	1.83
PROPANE	653.8		3-EFENT	0.0	0.00
IBUTANE	997.3	5.53	224-TMP	0.0	0.00
NBUTANE	1494.5	8.28	NHEPTANE	769.5	4.26
IPENTANE	2621.5	14.53	1C2-DMCP	24.6	0.14
NPENTANE	2498.5	13.85	MCH	1099.0	6.09
22-DMB	64.0	0.35			
CPENTANE	280.4	1.55			
23-DMB	258.7	1.43			
2-MP	1741.2	9.65			
3-MP	761.8	4.22			
NHEXANE	1519.7	8.42			
MCP	1382.3	7.66			
22-DMP	0.0	0.00			
24-DMP	59.8	0.33			
223-TMB	9.9	0.05			
CHEXANE	896.0	4.97			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	321.1	1.78			
23-DMP ,	205.7	1.14			
3-MHEX ,	345.9	1.92			
1C3-DMCP	182.6	1.01			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS	
ALL COMP	18696.		C1/C2	1.10
GASOLINE	18042.		A /D2	6.62
NAPHTHENES	4374.	24.24	C1/D2	6.70
C6-7	7325.	40.60	CH/MCP	0.65
			PENT/IPENT,	0.95

	PPB	NORM PERCENT
MCP	1382.3	40.9
CH	896.0	26.5
MCH	1099.0	32.5
TOTAL	3377.3	100.0

PARAFFIN INDEX 1	0.965
PARAFFIN INDEX 2	17.778

14 JUN 82

72385D AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 2430-2445 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	162.8	0.92
ETHANE	0.0		1T2-DMCP	291.5	1.65
PROPANE	447.7		3-EPENT	0.0	0.00
IBUTANE	933.5	5.27	224-TMP	0.0	0.00
NBUTANE	1848.1	10.44	NHEPTANE	503.0	2.84
IPENTANE	2872.1	16.23	1C2-DMCP	13.7	0.08
NPENTANE	2797.0	15.80	MCH	509.1	2.88
22-DMB	64.9	0.37			
CPENTANE	0.0	0.00			
23-DMB	0.0	0.00			
2-MP	2316.6	13.09			
3-MP	852.2	4.82			
NHEXANE	1496.6	8.46			
MCP	1192.0	6.74			
22-DMP	0.0	0.00			
24-DMP	150.9	0.85			
223-TMB	18.5	0.10			
CHEXANE	709.5	4.01			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	265.5	1.50			
23-DMP ,	238.0	1.35			
3-MHEX ,	276.9	1.56			
1C3-DMCP	194.5	1.04			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS	
ALL COMP	18145.		C1/C2	0.80
GASOLINE	17697.		A /D2	7.22
NAPHTHENES	3063.	17.31	C1/D2	5.36
C6-7	6013.	33.98	CH/MCP	0.60
			PENT/IPENT,	0.97

	PPB	NORM PERCENT
MCP	1192.0	49.4
CH	709.5	29.4
MCH	509.1	21.1
TOTAL	2410.6	100.0

PARAFFIN INDEX 1	0.849
PARAFFIN INDEX 2	16.015

14 JUN 82

72385F AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 2460-2475 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	166.1	0.96
ETHANE	0.0		1T2-DMCP	294.6	1.70
PROPANE	716.8		3-EPENT	0.0	0.00
IBUTANE	1315.7	7.59	224-TMP	0.0	0.00
NBUTANE	1528.8	8.82	NHEPTANE	516.1	2.98
IPENTANE	2676.2	15.43	1C2-DMCP	14.1	0.08
NPENTANE	2521.8	14.54	MCH	517.7	2.99
22-DMB	68.4	0.39			
CPENTANE	287.4	1.66			
23-DMB	267.2	1.54			
2-MP	1752.6	10.11			
3-MP	858.6	4.95			
NHEXANE	1498.2	8.64			
MCP	1195.6	6.89			
22-DMP	0.0	0.00			
24-DMP	152.0	0.88			
223-TMB	19.0	0.11			
CHEXANE	713.4	4.11			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	266.9	1.54			
23-DMP ,	242.4	1.40			
3-MHEX ,	281.0	1.62			
1C3-DMCP	186.7	1.08			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS	
ALL COMP	18057.		C1/C2	0.81
GASOLINE	17341.		A /D2	7.17
NAPHTHENES	3376.	19.47	C1/D2	5.33
C6-7	6064.	34.97	CH/MCP	0.60
			PENT/IPENT,	0.94

	PPB	NORM PERCENT
MCP	1195.6	49.3
CH	713.4	29.4
MCH	517.7	21.3
TOTAL	2426.7	100.0

PARAFFIN INDEX 1	0.846
PARAFFIN INDEX 2	16.205

14 JUN 82

72385H AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 2490-2505 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	155.0	1.40
ETHANE	0.0		1T2-DMCP	297.4	2.68
PROPANE	491.3		3-EPENT	0.0	0.00
IBUTANE	779.8	7.02	224-TMP	0.0	0.00
NBUTANE	795.3	7.16	NHEPTANE	624.0	5.61
IPENTANE	996.1	8.96	1C2-DMCP	21.7	0.19
NPENTANE	996.7	8.97	MCH	1130.7	10.17
22-DMB	18.8	0.17			
CPENTANE	142.3	1.28			
23-DMB	115.9	1.04			
2-MP	988.9	8.90			
3-MP	468.1	4.21			
NHEXANE	923.6	8.31			
MCP	892.8	8.03			
22-DMP	0.0	0.00			
24-DMP	41.7	0.38			
223-TMB	6.2	0.06			
CHEXANE	795.3	7.16			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	275.4	2.48			
23-DMP ,	171.9	1.55			
3-MHEX ,	323.8	2.91			
1C3-DMCP	151.5	1.36			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS	
ALL COMP	11604.		C1/C2	1.45
GASOLINE	11113.		A /D2	4.78
NAPHTHENES	3587.	32.28	C1/D2	6.80
C6-7	5811.	52.29	CH/MCP	0.89
			PENT/IPENT,	1.00

	PPB	NORM PERCENT
MCP	892.8	31.7
CH	795.3	28.2
MCH	1130.7	40.1
TOTAL	2818.8	100.0

PARAFFIN INDEX 1	0.992
PARAFFIN INDEX 2	15.897



14 JUN 82

72385J AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 2520-2535 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	175.0	0.91
ETHANE	0.0		1T2-DMCP	330.1	1.72
PROPANE	1469.8		3-EPENT	0.0	0.00
IBUTANE	1640.5	8.54	224-TMP	0.0	0.00
NBUTANE	2421.6	12.61	NHEPTANE	683.6	3.56
IPENTANE	2510.0	13.07	1C2-DMCP	24.0	0.13
NPENTANE	2455.6	12.79	MCH	1287.2	6.70
22-DMB	31.1	0.16			
CPENTANE	244.0	1.27			
23-DMB	197.1	1.03			
2-MP	1593.5	8.30			
3-MP	708.9	3.69			
NHEXANE	1416.9	7.38			
MCP	1164.9	6.07			
22-DMP	0.0	0.00			
24-DMP	50.6	0.26			
223-TMB	5.2	0.03			
CHEXANE	1308.6	6.82			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	262.2	1.37			
23-DMP ,	237.9	1.24			
3-MHEX ,	298.1	1.55			
1C3-DMCP	154.3	0.80			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS
ALL COMP	20671.		C1/C2 1.55
GASOLINE	19201.		A /D2 7.05
NAPHTHENES	4688.	24.42	C1/D2 9.59
C6-7	7399.	38.53	CH/MCP 1.12
			PENT/IPENT, 0.98

	PPB	NORM PERCENT
MCP	1164.9	31.0
CH	1308.6	34.8
MCH	1287.2	34.2
TOTAL	3760.7	100.0

PARAFFIN INDEX 1	0.850
PARAFFIN INDEX 2	14.432

14 JUN 82

72385L AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 2550-2565 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	154.1	1.02
ETHANE	0.0		1T2-DMCP	312.0	2.07
PROPANE	1322.9		3-EPENT	0.0	0.00
IBUTANE	1091.2	7.25	224-TMP	0.0	0.00
NBUTANE	1844.1	12.26	NHEPTANE	785.2	5.22
IPENTANE	1513.1	10.06	1C2-DMCP	30.0	0.20
NPENTANE	1672.2	11.11	MCH	1897.6	12.61
22-DMB	17.8	0.12			
CPENTANE	172.1	1.14			
23-DMB	126.3	0.84			
2-MP	1077.8	7.16			
3-MP	481.4	3.20			
NHEXANE	998.0	6.63			
MCP	862.4	5.73			
22-DMP	0.0	0.00			
24-DMP	40.3	0.27			
223-TMB	2.7	0.02			
CHEXANE	1041.4	6.92			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	260.7	1.73			
23-DMP ,	178.9	1.19			
3-MHEX ,	336.9	2.24			
1C3-DMCP	150.7	1.00			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS	
ALL COMP	16369.		C1/C2	2.12
GASOLINE	15047.		A /D2	5.29
NAPHTHENES	4620.	30.71	C1/D2	9.50
C6-7	7051.	46.86	CH/MCP	1.21
			PENT/IPENT,	1.11

	PPB	NORM PERCENT
MCP	862.4	22.7
CH	1041.4	27.4
MCH	1897.6	49.9
TOTAL	3801.4	100.0

PARAFFIN INDEX 1	0.969
PARAFFIN INDEX 2	15.344

14 JUN 82

72385N AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 2580-2595 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	194.8	0.91
ETHANE	0.0		1T2-DMCP	391.3	1.82
PROPANE	1992.6		3-EPENT	0.0	0.00
IBUTANE	1769.0	8.22	224-TMP	0.0	0.00
NBUTANE	2481.8	11.53	NHEPTANE	1112.6	5.17
IPENTANE	2319.0	10.78	1C2-DMCP	30.6	0.14
NPENTANE	2188.7	10.17	MCH	2598.1	12.07
22-DMB	44.9	0.21			
CPENTANE	218.3	1.01			
23-DMB	197.8	0.92			
2-MF	1506.7	7.00			
3-MF	664.7	3.09			
NHEXANE	1443.9	6.71			
MCP	1196.5	5.56			
22-DMP	0.0	0.00			
24-DMP	62.8	0.29			
223-TMB	11.6	0.05			
CHEXANE	1886.3	8.77			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	346.9	1.61			
23-DMP ,	288.0	1.34			
3-MHEX ,	372.8	1.73			
1C3-DMCP	193.4	0.90			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS	
ALL COMP	23513.		C1/C2	2.41
GASOLINE	21520.		A /D2	6.86
NAPHTHENES	6709.	31.18	C1/D2	12.96
C6-7	10130.	47.07	CH/MCP	1.58
			FENT/IPENT,	0.94

	PPB	NORM PERCENT
MCP	1196.5	21.1
CH	1886.3	33.2
MCH	2598.1	45.7
TOTAL	5680.9	100.0

PARAFFIN INDEX 1	0.923
PARAFFIN INDEX 2	15.068

14 JUN 82

72385P AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 2610-2625 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	211.4	0.97
ETHANE	0.0		1T2-DMCP	414.5	1.89
PROPANE	1564.2		3-EPENT	0.0	0.00
IBUTANE	1665.2	7.60	224-TMP	0.0	0.00
NBUTANE	2201.1	10.05	NHEPTANE	1209.9	5.52
IPENTANE	2128.8	9.72	1C2-DMCP	36.6	0.17
NPENTANE	2217.8	10.13	MCH	2908.7	13.28
22-DMB	28.9	0.13			
CPENTANE	233.5	1.07			
23-DMB	201.3	0.92			
2-MP	1584.2	7.23			
3-MP	690.5	3.15			
NHEXANE	1514.4	6.91			
MCP	1222.5	5.58			
22-DMP	0.0	0.00			
24-DMP	64.5	0.29			
223-TMB	8.3	0.04			
CHEXANE	2110.0	9.63			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	360.5	1.65			
23-DMP ,	300.9	1.37			
3-MHEX ,	388.9	1.78			
1C3-DMCP	201.6	0.92			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS
ALL COMP	23468.		C1/C2 2.58
GASOLINE	21904.		A /D2 7.01
NAPHTHENES	7339.	33.50	C1/D2 13.83
C6-7	10953.	50.00	CH/MCP 1.73
			PENT/IPENT, 1.04

	PPB	NORM PERCENT
MCP	1222.5	19.6
CH	2110.0	33.8
MCH	2908.7	46.6
TOTAL	6241.2	100.0

PARAFFIN INDEX 1	0.906
PARAFFIN INDEX 2	14.925

14 JUN 82

72385R AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 2440-2655 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	231.4	0.88
ETHANE	0.0		1T2-DMCP	459.9	1.75
PROPANE	2317.0		3-EPENT	0.0	0.00
IBUTANE	2091.1	7.95	224-TMP	0.0	0.00
NBUTANE	2878.0	10.94	NHEPTANE	1330.1	5.05
IPENTANE	2437.9	9.26	1C2-DMCP	41.6	0.16
NPENTANE	2595.5	9.86	MCH	3871.3	14.71
22-DMB	43.8	0.17			
CPENTANE	260.5	0.99			
23-DMB	231.9	0.88			
2-MP	1765.3	6.71			
3-MP	778.5	2.96			
NHEXANE	1713.0	6.51			
MCP	1341.3	5.10			
22-DMP	0.0	0.00			
24-DMP	68.6	0.26			
223-TMB	11.4	0.04			
CHEXANE	2791.9	10.61			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	396.3	1.51			
23-DMP ,	336.4	1.28			
3-MHEX ,	426.3	1.62			
1C3-DMCP	215.2	0.82			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS	
ALL COMP	28634.		C1/C2	3.08
GASOLINE	26317.		A /D2	7.14
NAPHTHENES	9213.	35.01	C1/D2	16.56
C6-7	13235.	50.29	CH/MCP	2.08
			PENT/IPENT,	1.06

	PPB	NORM PERCENT
MCP	1341.3	16.8
CH	2791.9	34.9
MCH	3871.3	48.4
TOTAL	8004.5	100.0

PARAFFIN INDEX 1	0.907
PARAFFIN INDEX 2	13.223

14 JUN 82

72385T AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 2670-2685 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	229.6	0.88
ETHANE	0.0		1T2-DMCP	456.0	1.76
PROPANE	1962.0		3-EPENT	0.0	0.00
IBUTANE	2051.1	7.90	224-TMP	0.0	0.00
NBUTANE	2745.2	10.58	NHEPTANE	1316.4	5.07
IPENTANE	2439.6	9.40	1C2-DMCP	41.0	0.16
NPENTANE	2584.0	9.95	MCH	3786.1	14.59
22-DMB	43.0	0.17			
CPENTANE	258.5	1.00			
23-DMB	227.2	0.88			
2-MP	1755.4	6.76			
3-MP	769.8	2.97			
NHEXANE	1696.2	6.53			
MCP	1339.9	5.16			
22-DMP	0.0	0.00			
24-DMP	68.2	0.26			
223-TMB	11.6	0.04			
CHEXANE	2774.9	10.69			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	395.0	1.52			
23-DMP ,	334.5	1.29			
3-MHEX ,	422.2	1.63			
1C3-DMCP	212.9	0.82			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS
ALL COMP	27920.		C1/C2 3.05
GASOLINE	25958.		A /D2 7.14
NAPHTHENES	9099.	35.05	C1/D2 16.48
C6-7	13084.	50.41	CH/MCP 2.07
			PENT/IPENT, 1.06

	PPB	NORM PERCENT
MCP	1339.9	17.0
CH	2774.9	35.1
MCH	3786.1	47.9
TOTAL	7900.9	100.0

PARAFFIN INDEX 1	0.910
PARAFFIN INDEX 2	13.260

14 JUN 82

72386B AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 2700-2715 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	0.0	0.00
ETHANE	0.0		1T2-DMCP	0.0	0.00
PROPANE	0.0		3-EPENT	0.0	0.00
IBUTANE	107.8	14.26	224-TMP	0.0	0.00
NBUTANE	139.6	18.46	NHEPTANE	0.0	0.00
IPENTANE	122.4	16.19	1C2-DMCP	0.0	0.00
NPENTANE	129.7	17.15	MCH	0.0	0.00
22-DMB	0.0	0.00			
CPENTANE	9.0	1.19			
23-DMB	10.8	1.43			
2-MP	68.4	9.04			
3-MP	32.3	4.27			
NHEXANE	66.8	8.83			
MCP	32.4	4.28			
22-DMP	0.0	0.00			
24-DMP	0.0	0.00			
223-TMB	0.0	0.00			
CHEXANE	37.1	4.90			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	0.0	0.00			
23-DMP ,	0.0	0.00			
3-MHEX ,	0.0	0.00			
1C3-DMCP	0.0	0.00			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS
ALL COMP	756.		C1/C2 1.15
GASOLINE	756.		A /D2 999.99
NAPHTHENES	78.	10.37	C1/D2 999.99
C6-7	136.	18.02	CH/MCP 1.15
			PENT/IPENT, 1.06

	PPB	NORM PERCENT
MCP	32.4	46.6
CH	37.1	53.4
MCH	0.0	0.0
TOTAL	69.5	100.0

PARAFFIN INDEX 1	0.000
PARAFFIN INDEX 2	0.000

14 JUN 82

72386D AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 2730-2745 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	19.0	0.26
ETHANE	0.0		1T2-DMCP	30.9	0.42
PROPANE	901.7		3-EPENT	0.0	0.00
IBUTANE	869.1	11.76	224-TMP	0.0	0.00
NBUTANE	1344.8	18.19	NHEPTANE	101.6	1.37
IPENTANE	1212.3	16.40	1C2-DMCP	0.0	0.00
NPENTANE	1149.3	15.55	MCH	116.5	1.58
22-DMB	19.6	0.27			
CPENTANE	81.2	1.10			
23-DMB	98.3	1.33			
2-MP	660.8	8.94			
3-MP	288.1	3.90			
NHEXANE	571.7	7.73			
MCP	316.9	4.29			
22-DMP	0.0	0.00			
24-DMP	16.3	0.22			
223-TMB	0.0	0.00			
CHEXANE	322.4	4.36			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	64.4	0.87			
23-DMP ,	35.3	0.48			
3-MHEX ,	53.0	0.72			
1C3-DMCP	21.8	0.30			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS
ALL COMP	8295.		C1/C2 1.30
GASOLINE	7394.		A /D2 12.69
NAFHTHENES	909.	12.29	C1/D2 9.49
C6-7	1670.	22.59	CH/MCP 1.02
			PENT/IPENT, 0.95

	PPB	NORM PERCENT
MCP	316.9	41.9
CH	322.4	42.7
MCH	116.5	15.4
TOTAL	755.8	100.0

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72386F AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, <sup>2760-2775</sup>~~2790-2805~~ M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	145.7	0.62
ETHANE	0.0		1T2-DMCP	282.0	1.19
PROPANE	1728.9		3-EPENT	0.0	0.00
IBUTANE	1852.9	7.83	224-TMP	0.0	0.00
NBUTANE	3108.0	13.13	NHEPTANE	748.2	3.16
IPENTANE	2824.3	11.93	1C2-DMCP	17.9	0.08
NPENTANE	2997.7	12.66	MCH	1558.2	6.58
22-DMB	57.8	0.24			
CPENTANE	260.3	1.10			
23-DMB	268.9	1.14			
2-MP	1959.4	8.28			
3-MP	924.4	3.91			
NHEXANE	1825.6	7.71			
MCP	1362.5	5.76			
22-DMP	0.0	0.00			
24-DMP	76.4	0.32			
223-TMB	11.7	0.05			
CHEXANE	2243.5	9.48			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	338.9	1.43			
23-DMP ,	255.7	1.08			
3-MHEX ,	402.9	1.70			
1C3-DMCP	148.8	0.63			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS	
ALL COMP	25401.		C1/C2	2.12
GASOLINE	23672.		A /D2	6.39
NAPHTHENES	6019.	25.43	C1/D2	10.28
C6-7	9418.	39.79	CH/MCP	1.65
			PENT/IPENT,	1.06

	PPB	NORM PERCENT
MCP	1362.5	26.4
CH	2243.5	43.4
MCH	1558.2	30.2
TOTAL	5164.2	100.0

PARAFFIN INDEX 1	1.287
PARAFFIN INDEX 2	12.218

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72386H AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 2790-2805 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	81.9	0.45
ETHANE	0.0		1T2-DMCP	65.6	0.36
PROPANE	2241.0		3-EPENT	0.0	0.00
IBUTANE	1856.8	10.19	224-TMP	0.0	0.00
NBUTANE	3456.3	18.97	NHEPTANE	221.1	1.21
IPENTANE	2770.7	15.20	1C2-DMCP	0.0	0.00
NPENTANE	2937.7	16.12	MCH	294.2	1.61
22-DMB	61.6	0.34			
CPENTANE	191.4	1.05			
23-DMB	220.4	1.21			
2-MP	1537.2	8.44			
3-MP	716.9	3.93			
NHEXANE	1449.3	7.95			
MCP	807.5	4.43			
22-DMP	0.0	0.00			
24-DMP	44.2	0.24			
223-TMB	6.4	0.04			
CHEXANE	1047.0	5.75			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	168.5	0.92			
23-DMP ,	89.2	0.49			
3-MHEX ,	144.9	0.79			
1C3-DMCP	55.0	0.30			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS	
ALL COMP	20464.		C1/C2	1.49
GASOLINE	18223.		A /D2	11.53
NAPHTHENES	2543.	13.95	C1/D2	10.42
C6-7	4475.	24.55	CH/MCP	1.30
			PENT/IPENT,	1.06

	PPB	NORM PERCENT
MCP	807.5	37.6
CH	1047.0	48.7
MCH	294.2	13.7
TOTAL	2148.7	100.0

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72386J AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 2820-2835 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	775.4	0.80
ETHANE	0.0		1T2-DMCP	540.7	0.56
PROPANE	9463.0		3-EPENT	0.0	0.00
IBUTANE	6366.5	6.60	224-TMP	0.0	0.00
NBUTANE	12747.6	13.22	NHEPTANE	3622.1	3.76
IPENTANE	11251.6	11.67	1C2-DMCP	66.3	0.07
NPENTANE	13070.4	13.56	MCH	6267.3	6.50
22-DMB	247.0	0.26			
CPENTANE	1281.5	1.33			
23-DMB	1111.6	1.15			
2-MP	6453.3	6.69			
3-MP	3238.3	3.36			
NHEXANE	8426.3	8.74			
MCP	5970.9	6.19			
22-DMP	0.0	0.00			
24-DMP	203.3	0.21			
223-TMB	37.5	0.04			
CHEXANE	10989.4	11.40			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	1271.0	1.32			
23-DMP ,	792.3	0.82			
3-MHEX ,	1201.9	1.25			
1C3-DMCP	481.1	0.50			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS
ALL COMP	105876.		C1/C2 2.36
GASOLINE	96413.		A /D2 10.02
NAPHTHENES	26373.	27.35	C1/D2 15.41
C6-7	40645.	42.16	CH/MCP 1.84
			PENT/IPENT, 1.16

	PPB	NORM PERCENT
MCP	5970.9	25.7
CH	10989.4	47.3
MCH	6267.3	27.0
TOTAL	23227.6	100.0

PARAFFIN INDEX 1	1.376
PARAFFIN INDEX 2	13.963

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72386L AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 2850-2865 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	638.2	0.58
ETHANE	0.0		1T2-DMCP	1135.5	1.02
PROPANE	9137.6		3-EPENT	0.0	0.00
IBUTANE	6464.8	5.82	224-TMP	0.0	0.00
NBUTANE	13919.9	12.54	NHEPTANE	4671.0	4.21
IPENTANE	12483.1	11.25	1C2-DMCP	81.9	0.07
NPENTANE	14702.9	13.25	MCH	7380.1	6.65
22-DMB	285.9	0.26			
CPENTANE	0.0	0.00			
23-DMB	1447.4	1.30			
2-MP	8943.9	8.06			
3-MP	3834.0	3.45			
NHEXANE	10304.5	9.28			
MCP	6535.3	5.89			
22-DMP	0.0	0.00			
24-DMP	257.2	0.23			
223-TMB	47.0	0.04			
CHEXANE	13225.9	11.92			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	1601.9	1.44			
23-DMP ,	972.5	0.88			
3-MHEX ,	1512.3	1.36			
1C3-DMCP	542.9	0.49			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS	
ALL COMP	120126.		C1/C2	2.49
GASOLINE	110988.		A /D2	9.90
NAPHTHENES	29540.	26.62	C1/D2	14.68
C6-7	48906.	44.06	CH/MCP	2.02
			PENT/IPENT,	1.18

	PPB	NORM PERCENT
MCP	6535.3	24.1
CH	13225.9	48.7
MCH	7380.1	27.2
TOTAL	27141.3	100.0

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 PARAFFIN INDEX 2 14.744

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72386N AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 2880-2895 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	1599.8	0.70
ETHANE	0.0		1T2-DMCP	3128.0	1.38
PROPANE	10715.7		3-EPENT	0.0	0.00
IBUTANE	9122.4	4.01	224-TMP	0.0	0.00
NBUTANE	16820.9	7.39	NHEPTANE	13592.4	5.98
IPENTANE	19402.0	8.53	1C2-DMCP	368.0	0.16
NPENTANE	21737.4	9.56	MCH	40055.3	17.61
22-DMB	500.6	0.22			
CPENTANE	0.0	0.00			
23-DMB	1675.6	0.74			
2-MP	16655.2	7.32			
3-MP	6847.2	3.01			
NHEXANE	18240.0	8.02			
MCP	13749.9	6.04			
22-DMP	0.0	0.00			
24-DMP	285.0	0.13			
223-TMB	72.0	0.03			
CHEXANE	33083.9	14.54			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	3544.1	1.56			
23-DMP ,	2237.4	0.98			
3-MHEX ,	3536.8	1.55			
1C3-DMCP	1211.1	0.53			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS	
ALL COMP	238180.		C1/C2	3.82
GASOLINE	227465.		A /D2	9.00
NAPHTHENES	93196.	40.97	C1/D2	21.68
C6-7	134704.	59.22	CH/MCP	2.41
			PENT/IPENT,	1.12

	PPB	NORM PERCENT
MCP	13749.9	15.8
CH	33083.9	38.1
MCH	40055.3	46.1
TOTAL	86889.1	100.0

PARAFFIN INDEX 1	1.192
PARAFFIN INDEX 2	13.327

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72386P AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 2910-2925 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	1618.7	0.61
ETHANE	0.0		1T2-DMCP	3089.9	1.16
PROPANE	16190.2		3-EPENT	0.0	0.00
IBUTANE	12201.8	4.57	224-TMP	0.0	0.00
NBUTANE	34240.1	12.82	NHEPTANE	13528.5	5.07
IPENTANE	25241.2	9.45	1C2-DMCP	310.2	0.12
NPENTANE	30679.3	11.49	MCH	31160.0	11.67
22-DMB	663.7	0.25			
CPENTANE	0.0	0.00			
23-DMB	2589.7	0.97			
2-MP	19490.7	7.30			
3-MP	6204.6	3.07			
NHEXANE	22656.7	8.48			
MCP	15463.0	5.79			
22-DMP	0.0	0.00			
24-DMP	267.9	0.10			
223-TMB	86.7	0.03			
CHEXANE	34639.9	12.97			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	3598.8	1.35			
23-DMP ,	2248.8	0.84			
3-MHEX ,	3557.6	1.33			
1C3-DMCP	1500.0	0.56			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS
ALL COMP	283228.		C1/C2 3.16
GASOLINE	267038.		A /D2 10.17
NAPHTHENES	87782.	32.87	C1/D2 19.51
C6-7	133727.	50.08	CH/MCP 2.24
			PENT/IPENT, 1.22

	PPB	NORM PERCENT
MCP	15463.0	19.0
CH	34639.9	42.6
MCH	31160.0	38.3
TOTAL	81262.9	100.0

PARAFFIN INDEX 1	1.153
PARAFFIN INDEX 2	14.249

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72386R AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 2940-2955 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	1683.8	0.67
ETHANE	0.0		1T2-DMCP	3323.5	1.32
PROPANE	14148.1		3-EPENT	0.0	0.00
IBUTANE	10366.0	4.11	224-TMP	0.0	0.00
NBLITANE	18579.2	7.37	NHEPTANE	16546.9	6.56
IPENTANE	20583.2	8.16	1C2-DMCP	400.7	0.16
NPENTANE	23361.6	9.27	MCH	47531.4	18.85
22-DMB	603.1	0.24			
CPENTANE	0.0	0.00			
23-DMB	0.0	0.00			
2-MP	19114.4	7.58			
3-MP	6643.3	2.63			
NHEXANE	19684.1	7.81			
MCP	15347.7	6.09			
22-DMP	0.0	0.00			
24-DMP	134.2	0.05			
223-TMB	76.4	0.03			
CHEXANE	37302.2	14.79			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	3636.5	1.44			
23-DMP ,	2176.9	0.86			
3-MHEX ,	3673.8	1.46			
1C3-DMCP	1359.1	0.54			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS
ALL COMP	266276.		C1/C2 4.00
GASOLINE	252128.		A /D2 9.86
NAPHTHENES	106948.	42.42	C1/D2 24.08
C6-7	152877.	60.63	CH/MCP 2.43
			PENT/IPENT, 1.13

	PPB	NORM PERCENT
MCP	15347.7	15.3
CH	37302.2	37.2
MCH	47531.4	47.4
TOTAL	100181.3	100.0

PARAFFIN INDEX 1	1.148
PARAFFIN INDEX 2	14.114

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72386T AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 2970-2985 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	1286.4	0.70
ETHANE	0.0		1T2-DMCP	2620.2	1.43
PROPANE	6955.0		3-EPENT	0.0	0.00
IBUTANE	6952.6	3.80	224-TMP	0.0	0.00
NBUTANE	12914.4	7.06	NHEPTANE	11783.1	6.44
IPENTANE	14531.3	7.94	1C2-DMCP	331.2	0.18
NPENTANE	16401.4	8.96	MCH	34552.9	18.88
22-DMB	568.8	0.31			
CPENTANE	1163.2	0.64			
23-DMB	0.0	0.00			
2-MP	12185.8	6.66			
3-MP	5103.5	2.79			
NHEXANE	14263.3	7.80			
MCP	11242.8	6.14			
22-DMP	0.0	0.00			
24-DMP	249.7	0.14			
223-TMB	100.9	0.06			
CHEXANE	27703.7	15.14			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	2985.4	1.63			
23-DMP ,	1952.3	1.07			
3-MHEX ,	3004.8	1.64			
1C3-DMCP	1080.6	0.59			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS
ALL COMP	189933.		C1/C2 3.94
GASOLINE	182978.		A /D2 8.67
NAPHTHENES	79981.	43.71	C1/D2 21.71
C6-7	113157.	61.84	CH/MCP 2.46
			PENT/IPENT, 1.13

	PPB	NORM PERCENT
MCP	11242.8	15.3
CH	27703.7	37.7
MCH	34552.9	47.0
TOTAL	73499.4	100.0

PARAFFIN INDEX 1	1.201
PARAFFIN INDEX 2	13.549



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72387B AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 3000-3015 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	1294.3	0.62
ETHANE	0.0		1T2-DMCP	2547.4	1.22
PROPANE	16506.1		3-EPENT	0.0	0.00
IBUTANE	11410.4	5.46	224-TMP	0.0	0.00
NBUTANE	25008.9	11.96	NHEPTANE	12096.0	5.79
IPENTANE	18143.3	8.68	1C2-DMCP	287.7	0.14
NPENTANE	20228.3	9.67	MCH	30092.6	14.39
22-DMB	621.5	0.30			
CPENTANE	0.0	0.00			
23-DMB	1677.9	0.80			
2-MP	13348.6	6.38			
3-MP	5545.0	2.65			
NHEXANE	15919.2	7.61			
MCP	12140.3	5.81			
22-DMP	0.0	0.00			
24-DMP	291.7	0.14			
223-TMB	98.6	0.05			
CHEXANE	29140.1	13.94			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	3111.0	1.49			
23-DMP ,	1929.8	0.92			
3-MHEX ,	3086.6	1.48			
1C3-DMCP	1060.0	0.51			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS	
ALL COMP	225585.		C1/C2	3.60
GASOLINE	209079.		A /D2	9.08
NAPHTHENES	76562.	36.62	C1/D2	20.20
C6-7	113095.	54.09	CH/MCP	2.40
			PENT/IPENT,	1.11

	PPB	NORM PERCENT
MCP	12140.3	17.0
CH	29140.1	40.8
MCH	30092.6	42.2
TOTAL	71373.0	100.0

PARAFFIN INDEX 1	1.264
PARAFFIN INDEX 2	14.339

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72387D AUSTRALIA, TRITON-1 (SIDETRACK) UTWAY BASIN, 3030-3045 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	440.5	0.62
ETHANE	0.0		1T2-DMCP	811.0	1.14
PROPANE	3238.7		3-EPENT	0.0	0.00
IBUTANE	3224.2	4.55	224-TMP	0.0	0.00
NEUTANE	7047.7	9.94	NHEPTANE	3424.6	4.83
IPENTANE	6330.2	8.93	1C2-DMCP	90.7	0.13
NPENTANE	7351.0	10.37	MCH	9540.4	13.46
22-DMB	307.6	0.43			
CPENTANE	536.4	0.76			
23-DMB	669.6	0.94			
2-MP	4553.3	6.42			
3-MP	2362.0	3.33			
NHEXANE	6474.1	9.13			
MCP	5047.8	7.12			
22-DMP	0.0	0.00			
24-DMP	211.1	0.30			
223-TMB	58.5	0.08			
CHEXANE	8990.0	12.68			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	1179.1	1.66			
23-DMP ,	717.7	1.01			
3-MHEX ,	1137.8	1.60			
1C3-DMCP	393.1	0.55			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS
ALL COMP	74137.		C1/C2 2.91
GASOLINE	70898.		A /D2 8.70
NAPHTHENES	25850.	36.46	C1/D2 17.32
C6-7	38516.	54.33	CH/MCP 1.78
			PENT/IPENT, 1.16

	PPB	NORM PERCENT
MCP	5047.8	21.4
CH	8990.0	38.1
MCH	9540.4	40.5
TOTAL	23578.2	100.0

PARAFFIN INDEX 1	1.409
PARAFFIN INDFX 2	12.858

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72387F AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 3060-3075 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	1228.8	0.71
ETHANE	0.0		1T2-DMCP	2438.5	1.42
PROPANE	10290.6		3-EPENT	0.0	0.00
IBUTANE	7687.6	4.46	224-TMP	0.0	0.00
NBUTANE	15707.5	9.12	NHEPTANE	11427.4	6.63
IPENTANE	13386.0	7.77	1C2-DMCP	315.6	0.18
NPENTANE	15061.4	8.74	MCH	31699.4	18.40
22-DMB	465.7	0.27			
CPENTANE	1328.3	0.77			
23-DMB	0.0	0.00			
2-MP	10250.7	5.95			
3-MP	4468.7	2.59			
NHEXANE	12547.3	7.28			
MCP	11045.5	6.41			
22-DMP	0.0	0.00			
24-DMP	273.2	0.16			
223-TMB	91.7	0.05			
CHEXANE	24389.6	14.16			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	2834.0	1.65			
23-DMP ,	1805.1	1.05			
3-MHEX ,	2841.3	1.65			
1C3-DMCP	983.0	0.57			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS
ALL COMP	182567.		C1/C2 3.68
GASOLINE	172276.		A /D2 8.44
NAPHTHENES	73429.	42.62	C1/D2 20.74
C6-7	103920.	60.32	CH/MCP 2.21
			FENT/IPENT, 1.13

	PPB	NORM PERCENT
MCP	11045.5	16.5
CH	24389.6	36.3
MCH	31699.4	47.2
TOTAL	67134.5	100.0

PARAFFIN INDEX 1	1.220
PARAFFIN INDEX 2	14.348

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72387H AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 3090-3105 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	725.2	0.78
ETHANE	0.0		1T2-DMCP	1358.4	1.47
PROPANE	4598.1		3-EPENT	0.0	0.00
IBUTANE	3926.8	4.25	224-TMP	0.0	0.00
NBUTANE	8866.8	9.60	NHEPTANE	6444.1	6.97
IPENTANE	6878.4	7.44	1C2-DMCP	163.6	0.18
NPENTANE	8249.9	8.93	MCH	16241.7	17.58
22-DMB	308.7	0.33			
CPENTANE	628.1	0.68			
23-DMB	727.7	0.79			
2-MP	4771.5	5.16			
3-MP	2494.3	2.70			
NHEXANE	7233.1	7.83			
MCP	6030.1	6.53			
22-DMP	0.0	0.00			
24-DMP	229.3	0.25			
223-TMB	62.7	0.07			
CHEXANE	11914.9	12.90			
33-DMF ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	1743.1	1.89			
23-DMF ,	1058.8	1.15			
3-MHEX ,	1741.9	1.89			
1C3-DMCP	593.1	0.64			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS	
ALL COMP	96990.		C1/C2	3.37
GASOLINE	92392.		A /D2	7.85
NAPHTHENES	37655.	40.76	C1/D2	17.16
C6-7	55540.	60.11	CH/MCP	1.98
			PENT/IPENT,	1.20

	PPB	NORM PERCENT
MCP	6030.1	17.6
CH	11914.9	34.9
MCH	16241.7	47.5
TOTAL	34186.7	100.0

PARAFFIN INDEX 1 1.302  
 PARAFFIN INDEX 2 15.409

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72387J AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 3120-3135 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	660.9	1.09
ETHANE	0.0		1T2-DMCP	1238.6	2.04
PROPANE	390.6		3-EPENT	0.0	0.00
IBUTANE	747.3	1.23	224-TMP	0.0	0.00
NBUTANE	1699.0	2.80	NHEPTANE	6572.3	10.81
IPENTANE	2389.1	3.93	1C2-DMCP	177.6	0.29
NPENTANE	2966.4	4.88	MCH	17554.5	28.89
22-DMB	173.3	0.29			
CPENTANE	240.8	0.40			
23-DMB	428.5	0.71			
2-MP	2529.2	4.16			
3-MP	1439.4	2.37			
NHEXANE	4644.7	7.64			
MCP	4133.0	6.80			
22-DMP	0.0	0.00			
24-DMP	194.0	0.32			
223-TMB	54.0	0.09			
CHEXANE	8233.5	13.55			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	1611.1	2.65			
23-DMP ,	928.7	1.53			
3-MHEX ,	1635.4	2.69			
1C3-DMCP	521.0	0.86			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS	
ALL COMP	61163.		C1/C2	4.07
GASOLINE	60772.		A /D2	6.86
NAPHTHENES	32760.	53.91	C1/D2	16.75
C6-7	48159.	79.25	CH/MCP	1.99
			PENT/IPENT,	1.24

	PPB	NORM PERCENT
MCP	4133.0	13.8
CH	8233.5	27.5
MCH	17554.5	58.7
TOTAL	29921.0	100.0

PARAFFIN INDEX 1	1.341
PARAFFIN INDEX 2	16.871

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72367L AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 3150-3165 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	285.8	0.97
ETHANE	0.0		1T2-DMCP	552.8	1.88
PROPANE	342.8		3-EPENT	0.0	0.00
IBUTANE	812.7	2.77	224-TMP	0.0	0.00
NBUTANE	1172.5	4.00	NHEPTANE	2673.3	9.11
IPENTANE	2141.3	7.30	1C2-DMCP	53.6	0.18
NPENTANE	2053.9	7.00	MCH	4920.0	16.77
22-DMB	217.0	0.74			
CPENTANE	122.4	0.42			
23-DMB	350.3	1.19			
2-MP	1822.1	6.21			
3-MP	1002.2	3.42			
NHEXANE	2895.0	9.87			
MCP	2138.7	7.29			
22-DMP	0.0	0.00			
24-DMP	137.5	0.47			
223-TMB	44.2	0.15			
CHEXANE	3462.9	11.80			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	904.7	3.08			
23-DMP ,	514.9	1.75			
3-MHEX ,	873.8	2.98			
1C3-DMCP	193.5	0.66			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS
ALL COMP	29688.		C1/C2 2.88
GASOLINE	29345.		A /D2 6.37
NAPHTHENES	11730.	39.97	C1/D2 10.63
C6-7	19651.	66.96	CH/MCP 1.62
			PENT/IPENT, 0.96

	FPB	NORM PERCENT
MCP	2138.7	20.3
CH	3462.9	32.9
MCH	4920.0	46.8
TOTAL	10521.6	100.0

PARAFFIN INDEX 1	1.723
PARAFFIN INDEX 2	18.588

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72387N AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 3180-3195 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	766.5	1.61
ETHANE	0.0		1T2-DMCP	574.6	1.20
PROPANE	1487.5		3-EPENT	0.0	0.00
IBUTANE	1634.1	3.42	224-TMP	0.0	0.00
NBUTANE	3121.3	6.54	NHEPTANE	3157.2	6.61
IPENTANE	4221.2	8.84	1C2-DMCP	92.3	0.19
NPENTANE	3304.9	6.92	MCH	8267.6	17.32
22-DMB	376.1	0.79			
CPENTANE	230.9	0.48			
23-DMB	603.3	1.26			
2-MP	3224.2	6.75			
3-MP	1735.8	3.64			
NHEXANE	3476.5	7.28			
MCP	3617.9	7.58			
22-DMP	0.0	0.00			
24-DMP	227.5	0.48			
223-TMB	74.9	0.16			
CHEXANE	5081.3	10.64			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	1327.6	2.78			
23-DMP ,	823.7	1.73			
3-MHEX ,	1369.1	2.87			
1C3-DMCP	434.4	0.91			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS	
ALL COMP	49230.		C1/C2	2.68
GASOLINE	47743.		A /D2	4.85
NAPHTHENES	19065.	39.93	C1/D2	10.72
C6-7	29291.	61.35	CH/MCP	1.40
			PENT/IPENT,	0.78

	PPB	NORM PERCENT
MCP	3617.9	21.3
CH	5081.3	29.9
MCH	8267.6	48.7
TOTAL	16966.8	100.0

PARAFFIN INDEX 1	1.519
PARAFFIN INDEX 2	14.481

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72387P AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 3210-3225 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	122.7	0.61
ETHANE	0.0		1T2-DMCP	201.0	1.00
PROPANE	515.2		3-EPENT	0.0	0.00
IBUTANE	631.6	3.13	224-TMP	0.0	0.00
NBUTANE	931.7	4.62	NHEPTANE	812.4	4.03
IPENTANE	2118.3	10.50	1C2-DMCP	4.3	0.02
NPENTANE	2652.9	13.15	MCH	820.6	4.07
22-DMB	190.1	0.94			
CPENTANE	207.3	1.03			
23-DMB	347.8	1.72			
2-MP	2063.9	10.23			
3-MP	1040.5	5.16			
NHEXANE	2774.2	13.75			
MCP	1823.5	9.04			
22-DMP	0.0	0.00			
24-DMP	74.4	0.37			
223-TMB	26.1	0.13			
CHEXANE	2118.8	10.50			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	466.6	2.31			
23-DMP ,	238.0	1.18			
3-MHEX ,	416.9	2.07			
1C3-DMCP	88.8	0.44			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS	
ALL COMP	20687.		C1/C2	1.52
GASOLINE	20172.		A /D2	8.60
NAPHTHENES	5387.	26.71	C1/D2	8.17
C6-7	9988.	49.51	CH/MCP	1.16
			PENT/IPENT,	1.25

	PPB	NORM PERCENT
MCP	1823.5	38.3
CH	2118.8	44.5
MCH	820.6	17.2
TOTAL	4762.9	100.0

PARAFFIN INDEX 1	2.142
PARAFFIN INDEX 2	15.369



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72387R AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 3240-3255 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	169.9	0.56
ETHANE	0.0		1T2-DMCP	282.0	0.93
PROPANE	3136.1		3-EPENT	0.0	0.00
IBUTANE	2596.4	8.55	224-TMP	0.0	0.00
NBUTANE	4621.7	15.23	NHEPTANE	918.1	3.02
IPENTANE	4258.1	14.03	1C2-DMCP	20.7	0.07
NPENTANE	3440.6	11.34	MCH	1641.4	5.41
22-DMB	308.7	1.02			
CPENTANE	186.0	0.61			
23-DMB	398.0	1.31			
2-MP	2217.7	7.31			
3-MP	1128.2	3.72			
NHEXANE	2288.1	7.54			
MCP	1902.8	6.27			
22-DMP	0.0	0.00			
24-DMP	101.0	0.33			
223-TMB	40.9	0.13			
CHEXANE	2282.2	7.52			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	565.5	1.86			
23-DMP ,	325.3	1.07			
3-MHEX ,	535.0	1.76			
1C3-DMCP	124.5	0.41			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS	
ALL COMP	33489.		C1/C2	1.80
GASOLINE	30353.		A /D2	5.99
NAPHTHENES	6609.	21.78	C1/D2	8.39
C6-7	11197.	36.89	CH/MCP	1.20
			PENT/IPENT,	0.81

	PPB	NORM PERCENT
MCP	1902.8	32.7
CH	2282.2	39.2
MCH	1641.4	28.2
TOTAL	5826.4	100.0

PARAFFIN INDEX 1 1.909  
PARAFFIN INDEX 2 13.415

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72387T AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 3270-3285 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	294.3	0.94
ETHANE	0.0		1T2-DMCP	508.2	1.63
PROPANE	363.7		3-EPENT	0.0	0.00
IBUTANE	747.2	2.39	224-TMP	0.0	0.00
NBUTANE	1183.6	3.78	NHEPTANE	2154.4	6.89
IPENTANE	2310.0	7.39	1C2-DMCP	38.8	0.12
NPENTANE	2712.6	8.67	MCH	3552.4	11.36
22-DMB	218.1	0.70			
CPENTANE	266.5	0.85			
23-DMB	403.7	1.29			
2-MP	2325.5	7.44			
3-MP	1255.7	4.02			
NHEXANE	3412.8	10.91			
MCP	2915.1	9.32			
22-DMP	0.0	0.00			
24-DMP	124.3	0.40			
223-TMB	47.3	0.15			
CHEXANE	4268.0	13.65			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	917.9	2.93			
23-DMP ,	504.4	1.61			
3-MHEX ,	874.5	2.80			
1C3-DMCP	238.3	0.76			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS	
ALL COMP	31637.		C1/C2	2.19
GASOLINE	31274.		A /D2	6.37
NAPHTHENES	12082.	38.63	C1/D2	9.99
C6-7	19851.	63.47	CH/MCP	1.46
			PENT/IPENT,	1.17

	PPB	NORM PERCENT
MCP	2915.1	27.2
CH	4268.0	39.8
MCH	3552.4	33.1
TOTAL	10735.5	100.0

PARAFFIN INDEX 1	1.722
PARAFFIN INDEX 2	16.183

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72388F AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 3360-3375 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	276.0	1.04
ETHANE	0.0		1T2-DMCP	182.7	0.69
PROPANE	748.3		3-EPENT	0.0	0.00
IBUTANE	1584.9	5.99	224-TMP	0.0	0.00
NBUTANE	1811.5	6.84	NHEPTANE	768.0	2.90
IPENTANE	3859.7	14.58	1C2-DMCP	18.9	0.07
NPENTANE	2309.3	8.72	MCH	1522.2	5.75
22-DMB	614.2	2.32			
CPENTANE	152.7	0.58			
23-DMB	590.9	2.23			
2-MP	2602.0	9.83			
3-MP	1400.2	5.29			
NHEXANE	2093.5	7.91			
MCP	2182.7	8.25			
22-DMP	0.0	0.00			
24-DMP	206.3	0.78			
223-TMB	90.7	0.34			
CHEXANE	2015.7	7.61			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	798.5	3.02			
23-DMP ,	483.6	1.83			
3-MHEX ,	749.7	2.83			
1C3-DMCP	157.5	0.60			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS	
ALL COMP	27220.		C1/C2	1.54
GASOLINE	26471.		A /D2	3.82
NAPHTHENES	6508.	24.59	C1/D2	5.78
C6-7	11546.	43.62	CH/MCP	0.92
			PENT/IPENT,	0.60

	PPB	NORM PERCENT
MCP	2182.7	38.2
CH	2015.7	35.2
MCH	1522.2	26.6
TOTAL	5720.6	100.0

PARAFFIN INDEX 1	2.512
PARAFFIN INDEX 2	11.044

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72388D AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 3330-3345 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	556.2	1.10
ETHANE	0.0		1T2-DMCP	380.8	0.75
PROPANE	1379.7		3-EPENT	0.0	0.00
IBUTANE	1658.7	3.28	224-TMP	0.0	0.00
NBUTANE	4182.7	8.26	NHEPTANE	2596.0	5.13
IPENTANE	5608.2	11.07	1C2-DMCP	46.2	0.09
NPENTANE	5567.2	10.99	MCH	4142.2	8.18
22-DMB	445.1	0.88			
CPENTANE	456.8	0.90			
23-DMB	719.0	1.42			
2-MP	3929.5	7.76			
3-MP	2029.5	4.01			
NHEXANE	5211.7	10.29			
MCP	4132.1	8.16			
22-DMP	0.0	0.00			
24-DMP	192.2	0.38			
223-TMB	68.9	0.14			
CHEXANE	5480.0	10.82			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	1186.8	2.34			
23-DMP ,	640.1	1.26			
3-MHEX ,	1098.3	2.17			
1C3-DMCP	318.1	0.63			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS	
ALL COMP	52026.		C1/C2	1.99
GASOLINE	50646.		A /D2	7.11
NAPHTHENES	15512.	30.63	C1/D2	9.84
C6-7	26050.	51.43	CH/MCP	1.33
			FENT/IPENT,	0.99

	PPB	NORM PERCENT
MCP	4132.1	30.0
CH	5480.0	39.8
MCH	4142.2	30.1
TOTAL	13754.3	100.0

PARAFFIN INDEX 1	1.821
PARAFFIN INDEX 2	15.831

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72388B AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 3300-3315 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	118.8	0.64
ETHANE	0.0		1T2-DMCP	205.4	1.10
PROPANE	912.3		3-EPENT	0.0	0.00
IBUTANE	1586.4	8.52	224-TMP	0.0	0.00
NBUTANE	1799.5	9.66	NHEPTANE	624.4	3.35
IPENTANE	2689.5	14.44	1C2-DMCP	24.1	0.13
NPENTANE	1685.1	9.05	MCH	1938.2	10.41
22-DMB	254.4	1.37			
CPENTANE	99.6	0.53			
23-DMB	294.9	1.58			
2-MP	1399.9	7.52			
3-MP	730.7	3.92			
NHEXANE	1275.2	6.85			
MCP	1257.1	6.75			
22-DMP	0.0	0.00			
24-DMP	80.2	0.43			
223-TMB	33.9	0.18			
CHEXANE	1410.6	7.57			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	402.5	2.16			
23-DMP ,	238.0	1.28			
3-MHEX ,	383.6	2.06			
1C3-DMCP	94.0	0.50			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS	
ALL COMP	19539.		C1/C2	2.21
GASOLINE	18626.		A /D2	4.95
NAPHTHENES	5148.	27.64	C1/D2	9.78
C6-7	8086.	43.41	CH/MCP	1.12
			PENT/IPENT,	0.63

	PPB	NORM PERCENT
MCP	1257.1	27.3
CH	1410.6	30.6
MCH	1938.2	42.1
TOTAL	4605.9	100.0

PARAFFIN INDEX 1	1.880
PARAFFIN INDEX 2	11.530

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72388H AUSTRALIA, TRITON-1 (SIDETRACK) OTWAY BASIN, 3390-3404 M

	TOTAL PPB	NORM PERCENT		TOTAL PPB	NORM PERCENT
METHANE	0.0		1T3-DMCP	193.0	0.62
ETHANE	0.0		1T2-DMCP	320.6	1.03
PROPANE	1856.3		3-EPENT	0.0	0.00
IBUTANE	1947.0	6.26	224-TMP	0.0	0.00
NBUTANE	3544.1	11.40	NHEPTANE	1285.6	4.14
IPENTANE	4132.6	13.30	1C2-DMCP	27.2	0.09
NPENTANE	3559.1	11.45	MCH	2508.4	8.07
22-DMB	392.8	1.26			
CPENTANE	220.2	0.71			
23-DMB	469.6	1.51			
2-MP	2313.7	7.44			
3-MP	1193.7	3.84			
NHEXANE	2557.7	8.23			
MCP	2050.9	6.60			
22-DMP	0.0	0.00			
24-DMP	120.4	0.39			
223-TMB	49.4	0.16			
CHEXANE	2379.4	7.66			
33-DMP ,	0.0	0.00			
11-DMCP	0.0	0.00			
2-MHEX ,	663.3	2.13			
23-DMP ,	375.4	1.21			
3-MHEX ,	639.2	2.06			
1C3-DMCP	136.1	0.44			

	TOTALS PPB	NORM PERCENT	SIG COMP RATIOS	
ALL COMP	32936.		C1/C2	2.03
GASOLINE	31079.		A /D2	6.01
NAPHTHENES	7836.	25.21	C1/D2	8.68
C6-7	13307.	42.81	CH/MCP	1.16
			FENT/IPENT,	0.86

	PPB	NORM PERCENT
MCP	2050.9	29.6
CH	2379.4	34.3
MCH	2508.4	36.2
TOTAL	6938.7	100.0

PARAFFIN INDEX 1	2.005
PARAFFIN INDEX 2	15.123

APPENDIX-2

## APPENDIX - 2

A1/1

## TRITON No. 1

UW No.	Esso No.	Depth m	$\bar{R}_{.max}$ %	Range $R_{.max}$ %	N	Exinite fluorescence (Remarks)
15579	BS/TR5	1530 Ctgs	0.33	0.25-0.46	4	Very rare liptodetrinite, yellow. (Limestone and calcareous mudstone with sparse pyrite. D.o.m. rare I>V>E. Microfossils abundant, some fluoresce strongly.)
15580	BS/TR6	1995 Ctgs	0.48	0.42-0.52	4	Sparse exinite, sporinite orange, dinoflagellates greenish yellow. (Claystone and mudstone with common pyrite and abundant d.o.m., I>E>V. Inertinite abundant, vitrinite rare.)
15581	BS/TR7	2325 Ctgs	0.52	0.38-0.60	5	Rare liptodetrinite sporinite and dinoflagellates, yellow to orange. (Claystone and mudstone, calcareous, pyritic and d.o.m. common, I>E=V.)
15582	BS/TR8	2505 Ctgs	0.59	0.55-0.64	4	Sparse dinoflagellates and ?sporinite, yellow to orange. (Claystone and siltstone with carbonate abundant. Pyrite common. D.o.m. common, I>E>>V, Inertinite common.)
15583	BS/TR9	2585 Ctgs	<0.84		-	Rare dinoflagellates and ?sporinite, yellow to orange. (Similar to 15582 but d.o.m. sparse to common, I>E, no V found.)
15584	TR/BS10	2865 Ctgs	0.55	0.44-0.67	4	Rare liptodetrinite orange. (Siltstone and mudstone with abundant carbonate and common pyrite. D.o.m. sparse, I>?V>E. Vitrinite population poorly defined. Some grains contain iron oxides which appear to be an artefact possibly caused by excessive heat either during drilling or drying.)
15425	BS/TR4	3028 SWC	0.71	0.61-0.83	18	Possible trace of orange sporinite, but may be mineral matter. (Sandy siltstone with d.o.m. common to abundant, I>V. Inertinite population includes a significant proportion of oxidised vitrinite. Some of this has peat textures and has flowed in response to compaction. The oxidation must have been in the later stages of diagenesis in the restricted sense of this term. Some iron oxides are present in some of the barren grains. The oxidized vitrinite population ranges in reflectance from 1.08% to 1.76%. Sparse carbonate present.)
15426	BS/TR3	3125 SWC	0.93	0.83-1.06	7	No fluorescing exinite. (Silty claystone and siltstone with d.o.m. abundant, oxidised vitrinite I>V. Iron oxides are abundant and carbonates are more abundant as compared with 15425. The unaltered vitrinite population is rare and the reflectance obtained may be higher than would be found in sediments deposited under less oxidising conditions.)



## TRITON No. 1

UW No.	Esso No.	Depth m	$\bar{R}_{s,max}$ %	Range $R_{s,max}$ %	N	Exinite fluorescence (Remarks)
15427	BS/TR2	3520 SWC	0.93	0.83-1.02	6	No fluorescing exinite. (Siltstone with abundant d.o.m., oxidised vitrinite > I>V. As with 15426 the vitrinite reflectance may be slightly high due to an oxidising environment of deposition. Iron oxides abundant both as detrital grains and disseminated through the sediment. Carbonate is abundant and rare grains of detrital graphite are present. Oxidised vitrinite reflectances range from 1.2% to 1.74%.)
15428	BS/TR1	3527	0.99	0.87-1.15	5	No fluorescing exinite. (Siltstone with d.o.m. common, oxidised vitrinite > I>V. Iron oxides abundant as detrital grains and disseminated through the sediment. Carbonate also abundant. Trace of possible chalcopyrite and pyrrhotite. As with 15426,7, the reflectance may be high due to oxidising conditions during depositional and post-depositional conditions.)