

**Manta 2a**

Date : 04 Feb 2006

Geology Report Number : 9

(associated DDR # 13)

Well Details

Depth MDRT:	2,715.0m	Rig:	OCEAN PATRIOT	Date:	04 Feb 2006
Depth TVDBRT:	2,536.7m	RTE amsl:	21.5m	Report Start:	00:00
Depth TVDSS:	2,515.2m	GLE amsl:	133.3m	Report End:	24:00
Progress:	128.0m	Last Csg Size:	13.375in	Days On Location:	12.10
Hole Size:	12.250in	Last Csg Shoe:	948.5m	Days since Spud:	12.19
Hole Size Carbide:		F.I.T. / L.O.T.:	/ 14.50ppg		

Operations Summary

24hr Summary:	<p>Drilled ahead from 2487.0 mMDRT to section TD of 2715.0 mMDRT. Circulated hole clean.</p> <p>2487.0 - 2560.0 mMDRT Interbedded Sandstone, Siltstone and Claystone. ROP = 1.6 - 63.4 m/hr (14.1 m/hr)</p> <p>2560.0 - 2600.0 mMDRT Massive Sandstone. ROP = 1.1 - 63.3 m/hr (12.2 m/hr)</p> <p>2600.0 - 2650.0 mMDRT Interbedded Sandstone and Argillaceous Siltstone. ROP = 3.4 - 43.9 m/hr (9.2 m/hr)</p> <p>2650.0 - 2715.0 mMDRT Interbedded Sandstone and Siltstone with minor thin beds of Coal and Carbonaceous Siltstone. ROP = 4.0 - 83.6 m/hr (11.2 m/hr)</p>
Forward Plan:	Circulate hole clean and POOH to run casing.

WBM Data

Mud Type:	KCL/PHPA	Flowline Temp:	Cl:	43000mg/l	Low Gravity Solids:	Viscosity	62sec/qt
Sample From:	Pits	MWD Circ Temp:	Hard/Ca:	200mg/l	High Gravity Solids:	PV	20cp
Time:	2200	Glycol CP Temp:	MBT:	7.5	Solids (corrected):	YP	43lb/100ft ²
Weight:	9.75ppg	Glycol:	PM:	0.25	H2O:	Gels 10s	10
ECD TD:		Nitrates:	PF:	0.05	Oil:	Gels 10m	17
ECD Shoe:		Sulphites:	MF:	0.8	Sand:	Fann 003	9
ECD Cuttings:		API FL:	pH:	9	Barite:	Fann 006	12
KCl Equiv:	7%	API Cake:	PHPA Excess:			Fann 100	39
						Fann 200	54
						Fann 300	63
						Fann 600	83



Formation Tops

Formation	Prognosed		Actual		Diff.	Thickness MD	Pick Criteria
	MDRT	TVDS	MDRT	TVDS	+ / - TVD		
Sea Floor Gippsland Limestone	155.80m	134.30m	156.00m	134.50m	0.20m	1,476.00m	
Lakes Entrance Formation	1,625.90m	1,519.00m	1,632.00m	1,522.72m	3.72m	453.00m	LWD logs
Latrobe Group	2,081.40m	1,939.00m	2,085.00m	1,936.60m	-2.40m	90.00m	LWD and Samples
Base Tuna flounder Channel	2,171.40m	2,022.00m	2,175.00m	2,018.00m	-4.00m	410.00m	LWD and Samples
K2 Dolomite Sand Marker	2,578.00m	2,397.00m	2,585.00m	2,395.00m	-2.00m	0.00m	LWD and ROP
Ma2 Dolomitic Sand Marker	2,710.40m	2,518.00m					
Top Zone 2 Sand	2,784.80m	2,585.00m					
Top Zone 4 Sand	2,834.70m	2,630.00m					
Top Zone 7 Upper Sand	2,923.50m	2,710.00m					
Top Zone 7 Lower Sand	2,940.20m	2,725.00m					
Top Volcanics Unit 1	3,034.60m	2,810.00m					
Total Depth (TD)	3,101.60m	2,870.40m					

Gas

Depth Range	Gas Type	Total Gas (%)	C1 (ppm)	C2 (ppm)	C3 (ppm)	iC4 (ppm)	nC4 (ppm)	C5 (ppm)	C1/C2 (ppm)	C1/C3 (ppm)	C1/C5 (ppm)	* (ppm)	F2* (ppm)	F3* (ppm)
2487.00 - 2560.00	Background	0.17	1605	298	179	63	12	10	5.39	8.97	160.5	21.4	5.25	3,577.5
Comment:														
2560.00 - 2600.00	Background	0.15	919	166	119	62	25	20	5.54	7.72	45.95	10.56	2.48	1,239.75
Comment:														
2600.00 - 2650.00	Background	0.07	346	46	25	13	18	9	7.52	13.84	38.44	11.16	0.72	244.56
Comment:														
2650.00 - 2715.00	Background	0.06	459	58	27	15	13	9	7.91	17	51	16.39	1.15	264.44
Comment:														

F1*: C1 / (nC4 + iC4) F2*: iC4 + nC4 F3*: (C2 + C3) / (C5 / (iC4 + nC4))

Survey

MDRT (m)	Incl. (deg)	Corr. Az (deg)	TVDBRT (m)	'V' Sect (deg)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
2501.29	22.0	55.9	2338.95	791.5	2.4	566.5	566.5	MWD
2530.19	21.8	59.8	2365.77	802.3	1.5	572.2	575.6	MWD
2559.36	22.1	63.7	2392.82	813.1	1.5	577.4	585.2	MWD
2588.05	23.6	67.1	2419.26	824.0	2.0	582.0	595.4	MWD
2616.14	23.2	72.5	2445.04	834.7	2.3	585.9	605.8	MWD
2645.16	22.8	79.1	2471.75	834.7	2.7	588.6	616.8	MWD
2674.30	23.1	87.7	2498.60	855.1	3.4	589.9	628.1	MWD
2704.51	23.0	91.9	2526.40	864.7	1.6	590.0	639.9	MWD

06:00 Hrs Update

Time:	06:00 Hrs on 05 Feb 2006
Depth:	2715/2536
Progress Since Midnight:	0
Drilling Status:	Running in hole @2550m following wiper trip to 2060m.
Formation:	No drilling.
Lithology:	No drilling.
ROP:	No drilling.
Gas:	No drilling.

Wellsite Geologist(s)

(Days) - Rob Blackmore (Nights) - Mike Woodmansee

Lithology Report					
Depth Interval		Main Lithology	Lithology %	Qualifier	Description
Depth (mRT)	Depth Range				
2260.0	2270.0	Clyst	5	slyt	Claystone, lt gy, brnsh gy, Very soft, to Soft, amorphous, to dispersive, 75% siliceous clay, 20% siliceous silt, 5% siliceous sand, 0.1% Pyrite, 0.1% Coal,
2360.0	2370.0	Sst	90		Sandstone, clear, transl, occ wh, occ pk, , Loose, Sub-angular, to Sub-rounded, Poor sorted, Slightly Elongated, to Slightly Spherical, 100% siliceous sand, 15% fine grained, 70% medium grained, 5% coarse grained, 5% very coarse grained, 0.1% Pyrite, 20% porosity, no Hydrocarbon shows.
2360.0	2370.0	Sltst	10	arg	Siltstone, med gy, occ lt gy, Firm, sub-blocky, to blocky, 40% siliceous clay, 60% siliceous silt, 0.1% Mica, 0.1% Glauconite, 0.1% Pyrite,
2450.0	2455.0	Clyst	60		Claystone, brnsh gy, med gy, Very soft, to Firm, amorphous, to sub-blocky, 90% siliceous clay, 10% siliceous silt, 0.1% Pyrite, 0.2% Glauconite,
2485.0	2490.0	Sst	80		Sandstone, clr, transl, Loose, Sub-angular, to Sub-rounded, Poor sorted, Slightly Elongated, to Slightly Spherical, 100% siliceous sand, 5% very fine grained, 30% fine grained, 50% medium grained, 15% coarse grained, 0.1% Glauconite, 0.1% Pyrite, 0.1% Coal, 15% porosity, no Hydrocarbon shows.
2485.0	2490.0	Sltst	20	arg	Siltstone, brn-blk, grn-brn, Soft, to Firm, amorphous, to sub-blocky, 20% siliceous clay, 80% siliceous silt, 0.1% Glauconite, 0.1% Pyrite, 5% Coal, 5% porosity, no Hydrocarbon shows.
2520.0	2525.0	Sst	100		Sandstone, clr, transl, occ wh, Loose, Sub-angular, to Rounded, Very Poor sorted, to Moderately sorted, Slightly Elongated, to Slightly Spherical, 10% siliceous silt, 90% siliceous sand, 30% fine grained, 60% medium grained, 10% coarse grained, 1% Calcite cement, 0.1% Pyrite, 0.1% Coal, 20% porosity, no Hydrocarbon shows.
2545.0	2550.0	Clyst	100	slyt	Claystone, lt-med gy, brn-gy, Very soft, to Soft, amorphous, to sub-blocky, 70% siliceous clay, 30% siliceous silt, 0.1% Pyrite, 1% Coal, 5% porosity, no Hydrocarbon shows.
2565.0	2570.0	Sst	100		Sandstone, clr, transl, occ wh, Loose, Sub-angular, to Sub-rounded, Very Poor sorted, to Poor sorted, Slightly Elongated, to Slightly Spherical, 10% siliceous silt, 90% siliceous sand, 5% very fine grained, 25% fine grained, 55% medium grained, 10% coarse grained, 5% very coarse grained, 0.1% Pyrite, 0.1% Coal, 20% porosity, no Hydrocarbon shows.
2580.0	2585.0	Sst	100		Sandstone, clr, transl, occ wh, Loose, Sub-angular, to Sub-rounded, Very Poor sorted, to Poor sorted, Slightly Elongated, to Slightly Spherical, 100% siliceous sand, 10% fine grained, 70% medium grained, 15% coarse grained, 5% very coarse grained, 5% Calcite cement, 1% Pyrite, 15% porosity, no Hydrocarbon shows.
2680.0	2685.0	Sst	30		Sandstone, clr, transl, , Loose, Angular, to Sub-rounded, Moderately sorted, Slightly Elongated, to Spherical, 10% siliceous clay, 90% siliceous sand, 5% fine grained, 30% medium grained, 55% coarse grained, 5% very coarse grained, 5% granular grained, 0.1% Pyrite, 15% porosity, no Hydrocarbon shows.
2680.0	2685.0	Sltst	70		Siltstone, brnsh gy, rare brnsh blk, Soft, to Firm, sub-blocky, to sub-fissile, 20% siliceous clay, 80% siliceous silt, 0.1% Coal, 0.1% Pyrite, 0.1% Mica,
2700.0	2705.0	Sst	30		Sandstone, clr, transl, , Loose, Angular, to Sub-rounded, Very Poor sorted, to Poor sorted, Slightly Elongated, to Spherical, 5% siliceous clay, 95% siliceous sand, 5% fine grained, 40% medium grained, 40% coarse grained, 10% very coarse grained, 5% granular grained, 0.1% Pyrite, 15% porosity, no Hydrocarbon shows.
2700.0	2705.0	Sltst	70		Siltstone, brnsh gy, rare brnsh blk, Soft, to Firm, sub-blocky, to sub-fissile, 20% siliceous clay, 80% siliceous silt, 0.1% Coal, 0.1% Pyrite, 0.1% Mica,
2710.0	2715.0	Sltst	100	arg	Siltstone, brnsh gy, rare brnsh blk, Very soft, to Soft, amorphous, to sub-blocky, 20% siliceous clay, 80% siliceous silt, 1% Coal, 0.1% Pyrite, 0.1% Mica,