



DAILY GEOLOGICAL REPORT

Date:	04 August 2009	Rig:	Ocean Patriot
Report Number:	12	Bit Diameter:	216 mm
Report Period:	00:00 - 24:00 Hours	Last Casing:	244 mm @ 2910.9 mMDRT
Spud Date:	22-Jul-2009 03:00 Hours	FIT:	1.56 sg EMW @ 2910.9 mMDRT
Days From Spud:	13.9	Mud Weight:	1.14 sg
Depth @ 2400 Hrs:	3798 mMDRT	ECD:	1.24 sg
	3200.6 mTVDR	Mud Type:	KCl-KlaStop-Polymer
	3179.1 mTVDMSL	Mud Chlorides:	44,000 mg/L
Lag Depth:	3779 mMDRT	Est. Pore Pressure:	
Last Depth:	3537 mMDRT	DXC:	
Progress:	261 m	Last Survey:	3865.97 mMDRT
Water Depth:	154.2 m	Deviation:	Inc. 25.15°
RT:	21.5 m		Az. 155.10°

OPERATIONS SUMMARY

24 HOUR SUMMARY: Ran in hole with bit and new BHA to 2810 mMDRT. Slipped and cut drill line. Ran in hole to 3710 mMDRT and washed to bottom. Drilled 216 mm (8 1/2") hole from 3537 to 3798 mMDRT.

NEXT 24 HOURS: Drill 216mm hole to section TD. Circulate and clean hole. Pull out of hole and run wireline logs.

CURRENT OPERATION @ 06:00 HRS (05-Aug-2009): Drilling 216 mm (8 1/2") hole at 3885 mMDRT.

GEOLOGICAL SUMMARY

LITHOLOGY

INTERVAL: 3531 to 3535 mMDRT (-2950.8 to -2954.1 mTVDMSL)
ROP (Range): 23 to 29 m/hr
Av. ROP: 27 m/hr

Not recovered due to a downhole mud motor failure. Bottoms-up were not circulated out.

INTERVAL: 3535 to 3573 mMDRT (-2954.1 to -2985.6 mTVDMSL)
ROP (Range): 8 to 43 m/hr
Av. ROP: 27 m/hr

ARGILLACEOUS SILTSTONE (56 to 79%) : dominantly medium grey to brownish grey, occasional light grey and very dark grey, soft to firm, occasional crumbly, amorphous to sub blocky, dispersive, 25 to 30% siliceous clay, 10 to 20% very fine quartz, trace pyrite, trace to 5% carbonaceous fragments and laminae.

SANDSTONE (20 to 40%) : translucent to opaque, medium light grey to brown grey, dominantly friable to firm, loose, very fine to coarse, dominantly fine, trace to occasional 10% medium, trace to occasional 5% coarse, sub-angular to rounded, poorly sorted, slightly spherical to slightly elongated, 10 to 20% light grey to very light brown grey siliceous clay, trace pyrite, poor visible to occasional fair inferred porosity, trace shows, see below.

COAL (Trace to 10%) : black, occasional brown black, sub-bituminous to bituminous, firm to moderately hard, brittle, blocky to occasional sub-fissile, dull to vitreous lustre, occasional sub-conchoidal fracture.



INTERVAL: 3573 to 3582 mMDRT (-2985.6 to -2993.2 mTVDMSL)
ROP (Range): 20 to 37 m/hr
Av. ROP: 30 m/hr

SANDSTONE (40 to 50%) : translucent to opaque, occasional medium light grey to brown grey, occasional friable to firm, dominantly loose, very fine to coarse, dominantly medium to coarse, poorly to moderately sorted, sub-angular to rounded, slightly spherical to slightly elongated, occasional 10 to 20% light grey to very light brown grey siliceous clay, trace pyrite, poor visible to fair inferred porosity, trace shows, see below.

ARGILLACEOUS SILTSTONE (40 to 50%) : dominantly medium grey to brownish grey, occasional light grey and very dark grey, soft to firm, occasional crumbly, amorphous to sub blocky, dispersive, 25 to 30% siliceous clay, 10 to 20% very fine quartz, trace pyrite, trace to 5% carbonaceous fragments and laminae.

COAL (10%) : black, sub-bituminous to bituminous, firm to moderately hard, brittle, blocky to occasional sub-fissile, dull to vitreous lustre, occasional sub-conchoidal fracture.

INTERVAL: 3582 to 3612 mMDRT (-2993.2 to -3018.3 mTVDMSL)
ROP (Range): 20 to 50 m/hr
Av. ROP: 34 m/hr

SANDSTONE (70 to 95%) : translucent to opaque, loose, fine to very coarse, dominantly medium to coarse, trace very coarse, poorly to moderately sorted, sub-angular to rounded, slightly spherical to slightly elongated, trace pyrite, good inferred porosity, no shows.

ARGILLACEOUS SILTSTONE (5 to 30%) : dominantly medium grey to brownish grey, occasional light grey and very dark grey, soft to firm, occasional crumbly, amorphous to sub blocky, dispersive, 25 to 30% siliceous clay, 10 to 20% very fine quartz, trace pyrite, trace to 5% carbonaceous fragments and laminae.

COAL (Trace to 5%) : black, sub-bituminous to bituminous, firm to moderately hard, brittle, blocky to occasional sub-fissile, dull to vitreous lustre, occasional sub-conchoidal fracture.

INTERVAL: 3612 to 3621 mMDRT (-3018.3 to -3025.9 mTVDMSL)
ROP (Range): 16 to 71 m/hr
Av. ROP: 31 m/hr

SANDSTONE (50 to 75%) : translucent to opaque, loose, fine to very coarse, dominantly medium to coarse, trace very coarse, poorly to moderately sorted, sub-angular to rounded, slightly spherical to slightly elongated, trace pyrite, good inferred porosity, no shows.

ARGILLACEOUS SILTSTONE (20 to 30%) : dominantly medium grey to brownish grey, occasional light grey and very dark grey, soft to firm, occasional crumbly, amorphous to sub blocky, dispersive, 25 to 30% siliceous clay, 10 to 20% very fine quartz, trace pyrite, trace to 5% carbonaceous fragments and laminae.

COAL (5 to 30%) : black, sub-bituminous to bituminous, firm to moderately hard, brittle, blocky to occasional sub-fissile, dull to vitreous lustre, occasional sub-conchoidal fracture.

INTERVAL: 3621 to 3663 mMDRT (-3025.9 to -3061.5 mTVDMSL)
ROP (Range): 23 to 102 m/hr
Av. ROP: 47 m/hr

ARGILLACEOUS SILTSTONE: (20 - 80%) dominantly medium grey to brownish grey, occasional light grey and very dark grey, soft to firm, occasional crumbly, amorphous to sub blocky, dispersive, 25 to 30% siliceous clay, 10 to 20% very fine quartz, trace pyrite, trace to 5% carbonaceous fragments and laminae.

SANDSTONE: (19 - 70%) translucent to opaque, frosted in part, very light grey to medium light grey, brown grey, dominantly friable to firm, loose, very fine to coarse, dominantly fine to medium, trace to occasional 10% medium, trace to occasional 10% coarse, angular to rounded, common fractured grains in places, poorly to well sorted, slightly to moderately spherical, slightly elongated in part, 10 to 20% light grey to very light brown grey siliceous clay, trace pyrite, poor visible to occasional fair to moderate inferred porosity, trace to 50% shows, see below.

COAL: (0 - 30%) black, sub-bituminous to bituminous, firm to moderately hard, brittle, blocky to occasional sub-fissile, dull to vitreous lustre, occasional sub-conchoidal fracture.



INTERVAL: 3663 to 3700 mMDRT (-3061.5 to -3093.3 mTVDMSL)
ROP (Range): 3 to 81 m/hr
Av. ROP: 38 m/hr

ARGILLACEOUS SILTSTONE: (25 to 75%) dominantly medium grey to brownish grey, occasional light grey and very dark grey, soft to firm, occasional crumbly, amorphous to sub blocky, dispersive, 25 to 30% siliceous clay, 10 to 20% very fine quartz, trace pyrite, trace to 5% carbonaceous fragments and laminae.

SANDSTONE: (10 to 35%) clear to very light grey, transparent to translucent, dominantly loose in part friable, fine to medium grained, trace coarse, moderate to well sorted, sub-rounded, moderately spherical, trace white siliceous matrix, trace nodular pyrite, moderate inferred porosity, trace to 10% shows, see below.

COAL: (5 to 50%) black, sub-bituminous to bituminous, firm to moderately hard, brittle, blocky to occasional sub-fissile, dull to vitreous lustre, occasional sub-conchoidal fracture.

INTERVAL: 3700 to 3726 mMDRT (-3093.3 to -3115.8 mTVDMSL)
ROP (Range): 4 to 82 m/hr
Av. ROP: 31 m/hr

ARGILLACEOUS SILTSTONE: (30 to 80%) dominantly medium grey to brownish grey, occasional light grey and very dark grey, soft to firm, occasional crumbly, amorphous to sub blocky, dispersive, 25 to 30% siliceous clay, 10 to 20% very fine quartz, trace pyrite, trace to 5% carbonaceous fragments and laminae.

SANDSTONE: (10 to 55%) clear to very light grey, transparent to translucent, dominantly loose in part friable, fine to medium grained, trace coarse, moderate to well sorted, sub-rounded, moderately spherical, trace white siliceous matrix, trace nodular pyrite, moderate inferred porosity, trace to 5% shows, see below.

COAL: (2 to 40%) black, sub-bituminous to bituminous, firm to moderately hard, brittle, blocky to occasional sub-fissile, dull to vitreous lustre, occasional sub-conchoidal fracture

INTERVAL: 3726 to 3773 mMDRT (-3115.8 to -3157 mTVDMSL)
ROP (Range): 12 to 81 m/hr
Av. ROP: 32 m/hr

COAL: (1 to 40%) black, sub-bituminous to bituminous, firm to moderately hard, brittle, blocky to occasional sub-fissile, dull to vitreous lustre, occasional sub-conchoidal fracture.

SANDSTONE: (20 to 79%) light grey, transparent to translucent, dominantly loose, rare friable, fine to coarse, very fine, dominantly fine to medium, in part coarse, trace to 10% rock flour, moderately to well sorted, sub-rounded, rounded in places, sub-spherical to sub-elongate, rare soft white siliceous matrix, trace pyrite, poor visible to moderate inferred porosity, trace to 35% shows, see below.

ARGILLACEOUS SILTSTONE: (20 to 70%) medium grey to moderately dark brownish grey, occasional light grey and very dark grey, soft to very firm, occasional crumbly, occasionally slightly hard, sub blocky to blocky, slightly dispersive in part, 25 to 30% siliceous clay, 10 to 20% very fine quartz, trace pyrite, trace to 5% carbonaceous fragments and laminae.

INTERVAL: 3773 to 3798 mMDRT (-3157 to -3179.1 mTVDMSL)
ROP (Range): 13 to 43 m/hr
Av. ROP: 26 m/hr

COAL: (1 to 40%) black, sub-bituminous to bituminous, firm to moderately hard, brittle, blocky to occasional sub-fissile, dull to vitreous lustre, occasional sub-conchoidal fracture.

SANDSTONE: (10 to 35%) very light grey, translucent to opaque, frosted in part, loose, very fine to medium and coarse, dominantly medium, trace coarse, moderately to well sorted, sub-rounded to occasionally rounded, sub-spherical, rare white weak siliceous matrix, trace pyrite, trace rock flour, poor to moderate inferred porosity, trace to 10% shows, see below.

ARGILLACEOUS SILTSTONE: (25 to 85%) medium grey to moderately dark brownish grey, occasional light grey and very dark grey, soft to very firm, occasional crumbly, occasionally slightly hard, sub blocky to blocky, slightly dispersive in part, 25 to 30% siliceous clay, 10 to 20% very fine quartz, trace pyrite, trace to 5% carbonaceous fragments and laminae.

**HYDROCARBON FLUORESCENCE**

3538 to 3559 m Trace to 1% very dull green yellow spotted to patchy fluorescence with a very weak diffuse to very slow streaming cut fluorescence and a thin dull green yellow ring residue fluorescence.

3573 to 3582 m Trace very dull green yellow spotted to patchy fluorescence with a very weak diffuse to very slow streaming cut fluorescence and a thin dull green yellow ring residue fluorescence.

3621 to 3663 m (Trace to 50%) Very dull to dull yellow to yellowish-gold direct fluorescence, nil to very slow diffuse to streaming milky-white to yellowish-white cut fluorescence, local instant streaming bright white cut fluorescence, dull white to moderately bright yellow-white residual fluorescence, no natural cut, nil to very light tan natural residue.

3663 to 3700 m (0 to 10%) Very dull to dull greenish-yellow to yellow-white direct fluorescence commonly associated with coal seams, occasional moderately bright yellow direct fluorescence, nil to very weak diffuse-very slow weak streaming milky-white cut fluorescence, very weak dull yellowish residual fluorescence, no natural residue.

3700 to 3726 m (0 to 5%) Very dull greenish yellow to moderately bright yellow direct fluorescence, nil to very weak streaming milky-white cut fluorescence, very weak dull yellow to yellowish-white residual ring fluorescence, no natural cut, no natural residue.

3726 to 3773 m (1 to 35%) very dull to dull in part patchy greenish-yellow and yellow to yellowish-gold direct fluorescence, nil to very weak slow diffuse to streaming milky-white cut fluorescence, no natural cut, very weak dull to moderately bright yellow to yellow-white residual fluorescence, no natural residue.

3773 to 3798 m (Trace to 10%) Patchy dull yellow to yellowish-green direct fluorescence, nil to very weak diffuse to locally very slow to slow streaming milky-white cut fluorescence, locally dull weak to moderate yellow-white residual fluorescence, no natural cut, no natural residue.

GAS SUMMARY

Background Gas							
INTERVAL (mMDRT)	Total Gas (%)	C1 (ppm)	C2 (ppm)	C3 (ppm)	iC4 (ppm)	nC4 (ppm)	C5 (ppm)
3535 - 3573	0.21	1248	163	74	11	19	11
3573 - 3582	0.27	1668	188	80	11	20	12
3582 - 3612	0.2	1635	226	126	21	38	25
3612 - 3621	0.13	444	44	21	3	7	5
3621 - 3663	0.35	2437	336	188	31	57	38
3663 - 3700	0.23	1293	152	69	11	21	15
3700 - 3726	0.31	863	130	75	13	25	18
3726 - 3773	0.25	1059	153	81	14	26	19
3773 - 3798	0.31	1421	159	57	8	14	10

Gas Peak							
INTERVAL (mMDRT)	Total Gas (%)	C1 (ppm)	C2 (ppm)	C3 (ppm)	iC4 (ppm)	nC4 (ppm)	C5 (ppm)
3547	0.41	1483	234	134	22	38	23
3585	0.69	3892	471	230	34	57	31
3629	0.53	990	114	38	5	13	5
3646	0.81	3916	411	183	26	45	26
3658	0.51	2588	399	225	36	65	41
3722	0.53	2001	318	186	31	57	38
3758	0.57	2794	383	196	33	56	39
3789	0.65	2406	289	121	17	29	18

**SAMPLE QUALITY**

Good sample quality, fair quantity as much is being washed off the shakers.

MUDLOGGING EQUIPMENT / PERSONNEL

2 Data Engineers, 2 Mudloggers, 2 Sample Catchers on board

2 Flair Engineers on board.

MWD

2 Directional Drillers, 3 LWD Engineers on board.

Sensor distances behind the bit:

Gamma Ray 11.04 m

Resistivity 11.57 m

Direction 17.54 m

WIRELINE

2 Engineers, 5 Operators on board.

PROVISIONAL FORMATION TOPS

Formation Name	Prognosed Depths			Actual Depths			Diff. TVT (m)	Picks Based On
	MD (m)	TVDRT (m)	TVDMSL (m)	MD (m)	TVDRT (m)	TVDMSL (m)		
Gippsland Limestone	176.5	176.5	(155.0)	175.7	175.7	(154.2)	0.8 H	
Lakes Entrance Fm	2094.8	1816.4	(1794.9)	2100.0	1824.4	(1802.9)	8 L	Subtle change in lithology
Top Latrobe Group	2501.2	2142.3	(2120.8)	2495.0	2137.4	(2115.9)	4.9 H	Increase in GR & RES
K2 Sandstone Marker (revised)	3034.0	2571.0	(2549.5)	3054.0	2588.0	(2566.5)	17.1 L	GR & RES drop
Zone 0	3545.4	2985.4	(2963.9)	3545	2985	(2963.5)	0.4 H	LWD GR
Zone 2	3658.1	3076.3	(3054.8)	3643	3067	(3045.5)	9.3 H	LWD GR
Zone 6	3835.3	3219.1	(3197.6)				-	
Top Volcanics	3901.0	3272.0	(3250.5)				-	
Total Depth	3951.0	3312.3	(3290.8)				-	

SURVEY DATA

MD (m)	Inc (°)	Azi (°)	TVD (m)	TVDSS (m)	V.Sec (m)	Dogleg (°/30m)	E/W (m)	N/S (m)
3548.8	33.92	153.76	2987.0	2965.5	1762.33	0.92	860.70	-1537.86
3577.5	33.10	154.00	3010.9	2989.4	1778.13	0.87	867.67	-1552.06
3608.7	32.91	154.09	3037.1	3015.6	1795.10	0.19	875.10	-1567.34
3635.1	32.09	154.39	3059.4	3037.9	1809.27	0.95	881.28	-1580.13
3663.5	31.58	154.62	3083.5	3062.0	1824.23	0.55	887.73	-1593.66
3692.5	30.55	154.89	3108.3	3086.8	1839.15	1.08	894.11	-1607.19
3721	29.79	154.69	3133.0	3111.5	1853.45	0.81	900.21	-1620.15
3750.3	28.74	155.11	3158.5	3137.0	1867.71	1.10	906.28	-1633.10
3779.9	27.87	155.09	3184.5	3163.0	1881.71	0.88	912.19	-1645.83
3810	26.69	155.49	3211.3	3189.8	1895.46	1.19	917.95	-1658.36
3837.3	25.88	155.01	3235.8	3214.3	1907.52	0.92	923.02	-1669.35
3866	25.15	155.10	3261.7	3240.2	1919.84	0.76	928.23	-1680.55



REMARKS

Note K2 Sandstone revised tops, based on geophysical review.

WELLSITE GEOLOGISTS

Ian Walker / Joann Cooper / Shane Robbie