DAILY GEOLOGICAL REPORT

Date:	09 December 2008	**Rig:**	Ocean Patriot
Report Number:	14	**Bit Diameter:**	216 mm
Report Period:	06:00 - 06:00 Hours	**Last Casing:**	340mm Casing @ 1546.3 mMDRT
Spud Date:	27-Nov-2008 13:00 Hours	**FIT:**	1.65 sg EMW @ 1546.3 mMDRT
Days From Spud:	11.7	**Mud Weight:**	1.15 sg
Depth @ 0600 Hrs:	4430.0 mMDRT -4294.2 mTVDAHD	**ECD:**	1.24 sg
		Mud Type:	KCL / Polymer
Lag Depth:	4370.0 mMDRT	**Mud Chlorides:**	62000.00 mg/L
Last Depth:	3911.0 mMDRT	**Est. Pore Pressure:**	1.04 sg
Progress:	519.0 m	**Last Survey:**	4425.48 mMDRT
Water Depth:	392.6 m	**Deviation:**	Inc. 23.18°
RT:	21.5 m		Az. 3.16°

OPERATIONS SUMMARY

24 HOUR SUMMARY:	Directionally drilled ahead to 4430.0 mMDRT.
NEXT 24 HOURS:	Directionally drill ahead 216 mm hole to TD. Backream out of hole to 3337.0 mMDRT and pull out of hole on elevators.
CURRENT OPERATION @ 06:00 HRS (09-Dec-2008):	Directionally drilling ahead new 216 mm open hole at 4430.0 mMDRT.

GEOLOGICAL SUMMARY

LITHOLOGY

INTERVAL: 3810.0 to 4100.0 mMDRT (-3721.4 to -3996.0 mTVDAHD)
ROP (Range): 14.0 to 125.0 m/h
Av. ROP: 62.0 m/h

SILTSTONE with interbedded SANDSTONE
SANDSTONE (10 to 80%): clear to translucent, medium grey aggregates in part, very fine to coarse, dominantly very fine to fine, common medium, minor coarse, well to very well sorted, rounded to sub-angular, dominantly sub-angular to sub-rounded, minor weak to moderate calcareous cement, trace residual pyrite cement, common to abundant olive grey silty matrix and commonly grading to a SILTY SANDSTONE at top of section, minor light grey argillaceous matrix, common carbonaceous specks, common lithics, minor reworked glauconitic material, rare mica flakes, dominantly disaggregated, minor moderately hard to hard aggregates, very poor visible porosity, poor inferred porosity, no hydrocarbon fluorescence.
SILTSTONE (20 to 90%): Olive black to greyish black, arenaceous, increasing argillaceous with depth, common carbonaceous laminae and specks, trace micromicaceous, minor calcareous material, minor lithics, trace very fine glauconite, trace pyrite, soft to hard, dominantly brittle to moderately hard, minor soft to firm, common brittle and hard, sub-blocky to sub-fissile.

INTERVAL: 4100.0 to 4170.0 mMDRT (-3996.0 to -4059.7 mTVDAHD)
ROP (Range): 33.0 to 101.0 m/h
Av. ROP: 60.0 m/h

SILTSTONE with minor SANDSTONE interbeds
SANDSTONE (10 to 15%): Clear to translucent, medium light grey to medium grey aggregates, very fine to fine, very well sorted, sub-rounded to sub-angular, dominantly moderately strong calcareous cement, trace moderately strong siliceous cement in part, abundant argillaceous matrix, common lithics, trace very fine carbonaceous material, dominantly brittle to hard aggregates, abundant disaggregated, very poor visible porosity, poor inferred porosity, hydrocarbon fluorescence.
SILTSTONE (85 to 90%): Olive black, argillaceous, abundant arenaceous, trace dolomitic, micromicaceous, minor very fine carbonaceous material, trace lithics, trace nodular and disseminated pyrite, trace calcareous fragments, soft to moderately hard, dominantly brittle, abundant moderately hard, common firm and soft, sub-blocky to sub-fissile, dominantly sub-blocky.

INTERVAL: 4170.0 to 4370.0 mMDRT (-4059.7 to -4239.1 mTVDAHD)
ROP (Range): 16.0 to 136.0 m/h
Av. ROP: 55.0 m/h

Massive SILTSTONE
SILTSTONE (100%): Olive black, dominantly argillaceous, common arenaceous, micromicaceous, trace mica flakes, rare very fine carbonaceous material, trace lithics, trace nodular and disseminated pyrite, trace very fine glauconite, firm to moderately hard, dominantly firm to brittle, minor moderately hard, sub-blocky to sub-fissile, dominantly sub-blocky.

HYDROCARBON FLUORESCENCE
4100.0 to 4160.0 mMDRT (Trace to 5%) Dull to moderately bright patchy to even yellowish green fluorescence associated with calcareous cemented aggregates, very slow yellowish green streaming cut, thin residue ring (>5 minutes to form ring).

GAS SUMMARY

Background Gas							
INTERVAL (mMDRT)	**Total Gas (%)**	**C1 (ppm)**	**C2 (ppm)**	**C3 (ppm)**	**iC4 (ppm)**	**nC4 (ppm)**	**C5 (ppm)**
3810.0 - 4100.0	0.06	410	16	6	1	2	1
4100.0 - 4170.0	0.09	679	33	12	2	2	2
4170.0 - 4370.0	0.13	864	61	34	5	8	5

Gas Peak							
INTERVAL (mMDRT)	**Total Gas (%)**	**C1 (ppm)**	**C2 (ppm)**	**C3 (ppm)**	**iC4 (ppm)**	**nC4 (ppm)**	**C5 (ppm)**
4045.0	0.62	1987	116	44	19	16	16
4259.0	0.42	2059	152	76	15	22	20

SAMPLE QUALITY
Good sample returns.
Collected 10 m sample intervals from 3850.0 m to 4230.0 mMDRT.
Collected 5 m sample intervals from 4230.0 m to 4290.0 mMDRT.
Collected 10 m sample intervals from 4290.0 m to 4370.0 mMDRT.

MUDLOGGING EQUIPMENT / PERSONNEL
All systems operational. Visean computer locked up and no data being sent.

MWD
Run #6, Bit Run #4RR1: 216 mm LWD Tool offsets to bit:

Tool	Serial #	Distance to bit (m)
Direction and Inclination	Telescope MWD	12.08
Gamma Ray	GVR LWD	17.72
Ring Resistivity	GVR LWD	18.08
Button Resistivity	GVR LWD	18.25
Sonic	ISONIC	25.09
Neutron Density	ADN LWD	31.70
Neutron Porosity	ADN LWD	32.66

Backup tools on board.

Issues with Xceed tool and error messages received. GR looks to be reading too high with the reading on the last run around 110 GAPI and on resuming drilling the reading was over 200 GAPI. Rechecking the mud resistivities and environmental corrections has not made an impact.

Intermittent real time communication issues with MWD tool and real time data quality deteriorated to the point where no usable real time data was available from 4200.0 mMDRT. Downlinked at 4286.0 mMDRT and changed Telemetry rate from 12 Hertz and 3 bits/sec to 12 Hertz and 1.5 bits/sec in an attempt to acquire better quality data.

REMARKS

Directionally drilled ahead new 216 mm open hole from 3911.0 m to 4286.0 mMDRT with intermittent real time communication issues with the MWD tool, resulting in little useable data being recorded from 4200.0 mMDRT. At 4286.0 mMDRT, a short trip to 4200.0 mMDRT was carried out, and the interval from 4200.0 mMDRT to 4286.0 mMDRT was relogged in MAD pass at 30 m/hr due to data density requirements. Continued to directionally drill ahead new 216 mm open hole from 4286.0 m to 4430.0 mMDRT.

WELLSITE GEOLOGISTS

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