

DAILY GEOLOGICAL REPORT

Date:	04 December 2008	Rig:	Ocean Patriot
Report Number:	9	Bit Diameter:	311 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:	6.7	Mud Weight:	1.15 sg
Depth @ 0600 Hrs:	2706.0 mMDRT	ECD:	1.19 sg
	-2684.4 mTVDAHD	Mud Type:	KCL / Polymer
Lag Depth:	2620.0 mMDRT	Mud Chlorides:	60000.00 mg/L
Last Depth:	1764.0 mMDRT	Est. Pore Pressure:	1.04 sg
Progress:	942.0 m	Last Survey:	2634.30 mMDRT
Water Depth:	392.6 m	Deviation:	Inc. 0.03°
RT:	21.5 m		Az. 95.44°

OPERATIONS SUMMARY

24 HOUR SUMMARY: Drilled ahead new 311 mm (12 1/4") open hole.

NEXT 24 HOURS: Drill ahead 311 mm (12 1/4") hole.

CURRENT OPERATION

@ 06:00 HRS (04-Dec-2008): Drilling ahead new 311 mm (12 1/4") open hole at 2706.0 mMDRT.

GEOLOGICAL SUMMARY

LITHOLOGY

INTERVAL: 1700.0 to 1800.0 mMDRT (-1678.5 to -1778.5 mTVDAHD)

ROP (Range): 31.0 to 204.0 m/h

Av. ROP: 66.0 m/h

CALCARENITE with interbedded CALCILUTITE and CALCISILTITE with DOLOMITE stringers

CALCARENITE (20 to 70%): Medium light grey, very fine to medium quartz grains, dominantly very fine to fine, well sorted, round to sub-angular, dominantly rounded, abundant argillaceous matrix and commonly grading to CALCISILTITE, minor dark lithics, trace glauconitic material, trace mica flakes, common micro-fossils, soft to disaggregated, very poor visible porosity, poor inferred porosity, no hydrocarbon fluorescence.

CALCILUTITE (20 to 40%): Medium light grey to medium grey, minor medium light grey, minor olive grey, minor to commonly silty and grading to CALCISILTITE, argillaceous and grading to CALCAREOUS CLAYSTONE in part, minor dark lithics, minor glauconitic material, common micro-fossils, minor very hard orange brown crystalline calcite fragments, sticky in part, soft to firm, dominantly soft, minor firm, sub-blocky to amorphous, dominantly sub-blocky, common amorphous.

CALCISILTITE (Nil to 60%): Medium grey to olive grey, common argillaceous matrix and grading to CALCILUTITE, minor dark lithics, minor glauconitic material, common micro-fossils, minor micromicaceous, soft to firm, dominantly firm, minor soft, sub-blocky.

DOLOMITE (Nil to Trace%): Trace only medium grey, argillaceous, very hard, blocky.

INTERVAL: 1800.0 to 1900.0 mMDRT (-1778.5 to -1878.5 mTVDAHD)

ROP (Range): 42.0 to 193.0 m/h

Av. ROP: 75.0 m/h

Interbedded CALCISILTITE, CALCAREOUS CLAYSTONE, CALCARENITE, CALCILUTITE with DOLOMITE stringers

CALCILUTITE (10 to 50%): Light grey to medium light grey, common medium grey, minor olive grey, silty and grading to CALCISILTITE, argillaceous and grading to CALCAREOUS CLAYSTONE, minor dark lithics, minor glauconitic material, common micro-fossils, soft to firm, dominantly firm, minor soft, sub-blocky.

CALCAREOUS CLAYSTONE (10 to 40%): Medium dark grey to olive grey, grading to ARGILLACEOUS CALCILUTITE, trace dark lithics, soft to firm, sub-blocky.

CALCISILTITE (30 to 45%): Medium grey to olive grey, abundant argillaceous matrix, grading to **CALCAREOUS SILTSTONE**, minor dark lithics, minor glauconitic material, common micro-fossils, minor micromicaceous, soft to firm, dominantly firm, minor soft, sub-blocky.

CALCARENITE (10 to 35%): Medium light grey, very fine to medium quartz grains, dominantly very fine to fine, well sorted, round to sub-angular, dominantly rounded, abundant argillaceous matrix, minor dark lithics, trace glauconitic material, trace micro-fossils, soft to disaggregated, dominantly soft, minor firm, very poor visible porosity, poor inferred porosity, no hydrocarbon fluorescence.

DOLOMITE (Nil to 5%): Olive grey to dark yellowish brown, minor medium grey, trace argillaceous, crystalline, grades to **DOLOMITIC LIMESTONE**, hard to brittle, dominantly blocky, fissile in part.

INTERVAL: 1900.0 to 1980.0 mMDRT (-1878.5 to -1958.5 mTVDAHD)
ROP (Range): 38.0 to 251.0 m/h
Av. ROP: 76.0 m/h

CALCAREOUS SILTSTONE with interbedded CALCAREOUS CLAYSTONE and CALCARENITE

CALCAREOUS SILTSTONE (40 to 70%): Medium grey to olive grey, common medium light grey, abundant argillaceous matrix, grading to **CALCISILTITE**, trace dark lithics, trace glauconitic material, minor micromicaceous, soft to firm, dominantly firm, minor soft, sub-blocky.

CALCAREOUS CLAYSTONE (20%): Medium grey to olive grey, grading to **CALCILUTITE**, silty and grading to **CALCISILTITE**, trace dark lithics, trace glauconitic material, soft to firm, dominantly firm, minor soft, sub-blocky.

CALCARENITE (10 to 40%): Medium light grey, very fine to medium quartz grains, dominantly very fine to fine, well sorted, round to sub-angular, dominantly rounded, abundant argillaceous matrix, minor dark lithics, nil to minor mica, soft to disaggregated, dominantly soft, minor firm, very poor visible porosity, poor inferred porosity, no hydrocarbon fluorescence.

INTERVAL: 1980.0 to 2210.0 mMDRT (-1958.5 to -2188.4 mTVDAHD)
ROP (Range): 22.0 to 105.0 m/h
Av. ROP: 55.0 m/h

Massive CALCAREOUS SILTSTONE and CALCAREOUS CLAYSTONE with very minor CALCAREOUS SANDSTONE and DOLOMITE

CALCAREOUS SILTSTONE (40 to 80%): Medium grey to olive grey, grading to **CALCISILTITE**, abundant argillaceous matrix and grading to **CALCAREOUS CLAYSTONE**, trace dolomitic, minor dark lithics, trace micromicaceous, nil to trace ooids, trace calcareous fragments, trace glauconite material, trace very fine quartz grains, grading very fine **CALCARENITE** in part, firm to brittle, dominantly firm, common brittle, blocky to sub-blocky, dominantly sub-blocky, minor blocky.

CALCAREOUS CLAYSTONE (20 to 60%): Medium grey to olive grey, common medium light grey, grading to **CALCILUTITE**, silty and grading to **CALCAREOUS SILTSTONE**, trace dark lithics, soft to firm, dominantly firm, minor soft, sub-blocky.

CALCAREOUS SANDSTONE (Nil to 5%): Olive grey, very fine to fine, well sorted, round to sub-rounded, common calcareous cement, abundant argillaceous and silty matrix, trace dark lithics, trace glauconite, hard, very poor visible porosity, no hydrocarbon fluorescence.

DOLOMITE (Nil to 5%): Olive grey, argillaceous, microcrystalline in part, hard, blocky to fissile.

INTERVAL: 2210.0 to 2380.0 mMDRT (-2188.4 to -2358.4 mTVDAHD)
ROP (Range): 13.0 to 94.0 m/h
Av. ROP: 46.0 m/h

Dominantly CALCAREOUS SILTSTONE with CALCAREOUS CLAYSTONE interbeds

CALCAREOUS SILTSTONE (30 to 90%): dominantly off white to olive grey with mottled appearance, light to medium grey, abundant argillaceous matrix, common dark lithics, commonly very finely arenaceous, common floating quartz grains, minor microcrystalline, minor very fine glauconitic material, firm to very hard, dominantly hard, blocky to sub-blocky.

CALCAREOUS CLAYSTONE (10 to 70%): dominantly off white, medium light grey to olive grey, silty and grading to a **CALCAREOUS SILTSTONE** in part, common dark lithics, trace very fine quartz grains, commonly microcrystalline, minor micro-fossils, increasingly common very fine glauconite, firm to hard, dominantly moderately hard, sub-blocky.

INTERVAL: 2380.0 to 2620.0 mMDRT (-2358.4 to -2598.4 mTVDAHD)
ROP (Range): 23.0 to 120.0 m/h

Av. ROP: 53.0 m/h

Massive CALCAREOUS CLAYSTONE

CALCAREOUS CLAYSTONE (100%): light olive grey to olive grey, off white to light greenish grey, commonly calcareous and grading to MARL, minor silty in part, common carbonaceous specks, silty in part, common loose fine quartz grains, common micro-fossils and crystalline fragments, rare disseminated pyrite and glauconitic material, firm to moderately hard, sub-blocky to blocky.

HYDROCARBON FLUORESCENCE

No Shows

GAS SUMMARY

Background Gas							
INTERVAL (mMDRT)	Total Gas (%)	C1 (ppm)	C2 (ppm)	C3 (ppm)	iC4 (ppm)	nC4 (ppm)	C5 (ppm)
1700.0 - 1800.0	0.07						
1800.0 - 1900.0	0.09						
1900.0 - 1980.0	0.12						
1980.0 - 2210.0	0.06						
2210.0 - 2380.0	0.06						
2380.0 - 2620.0	0.04						

Note: No chromatograph gas due to panel failure.

SAMPLE QUALITY

Good sample returns. Sample rate dictated by ROP.
Collected 20 m sample intervals from 1600.0 m to 2040.0 mMDRT.
Collected 10 m sample intervals from 2040.0 to 2620.0 mMDRT.

MUDLOGGING EQUIPMENT / PERSONNEL

All drilling systems operational. Replacement chromatograph ordered and will be on rig today. Total Gas working.

MWD

Run #4, Bit Run #3: 311 mm LWD Tool offsets to bit:

Tool	Serial #	Distance to bit (m)
Pressure w/- Drilling	ARC LWD	10.47
Resistivity	ARC LWD	11.18
Gamma Ray	ARC LWD	11.23
Direction and Inclination Telescope	MWD	18.99
Sonic	Sonic Vision	28.01
Gamma Ray	GVR LWD	31.5
Ring Resistivity	GVR LWD	31.76
Sonic / Density Caliper	SADN LWD	38.17
Neutron Density	SADN LWD	38.43
Neutron Porosity	SADN LWD	40.17

Sonic tool failed from the outset of drilling. No sonic data. Unit UPS failed. Replacement to be dispatched.

Tool configuration does not allow real time data for the SADN (Density and Porosity) tool to be displayed as there are no extenders connecting them to the communications tool. No real time data from GVR-8 (GeoVision Resistivity) will be displayed. The recorded sonic data cannot be processed on the rig and will be sent back to town processing.

REMARKS

Drilled ahead new 311 mm (12 1/4") open hole from 1764.0 at 2706.0 mMDRT.

WELLSITE GEOLOGISTS

Greg Fawns / Adam Cruickshank