

SANTOS – AWE – MITSUI

COMPILED FOR

SANTOS LIMITED

(A.B.N. 80 007 550 923)

MARTHA 1

BASIC DATA REPORT

**PREPARED BY:
J.Pitman
(Consultant)
December 2004**

MARTHA-1

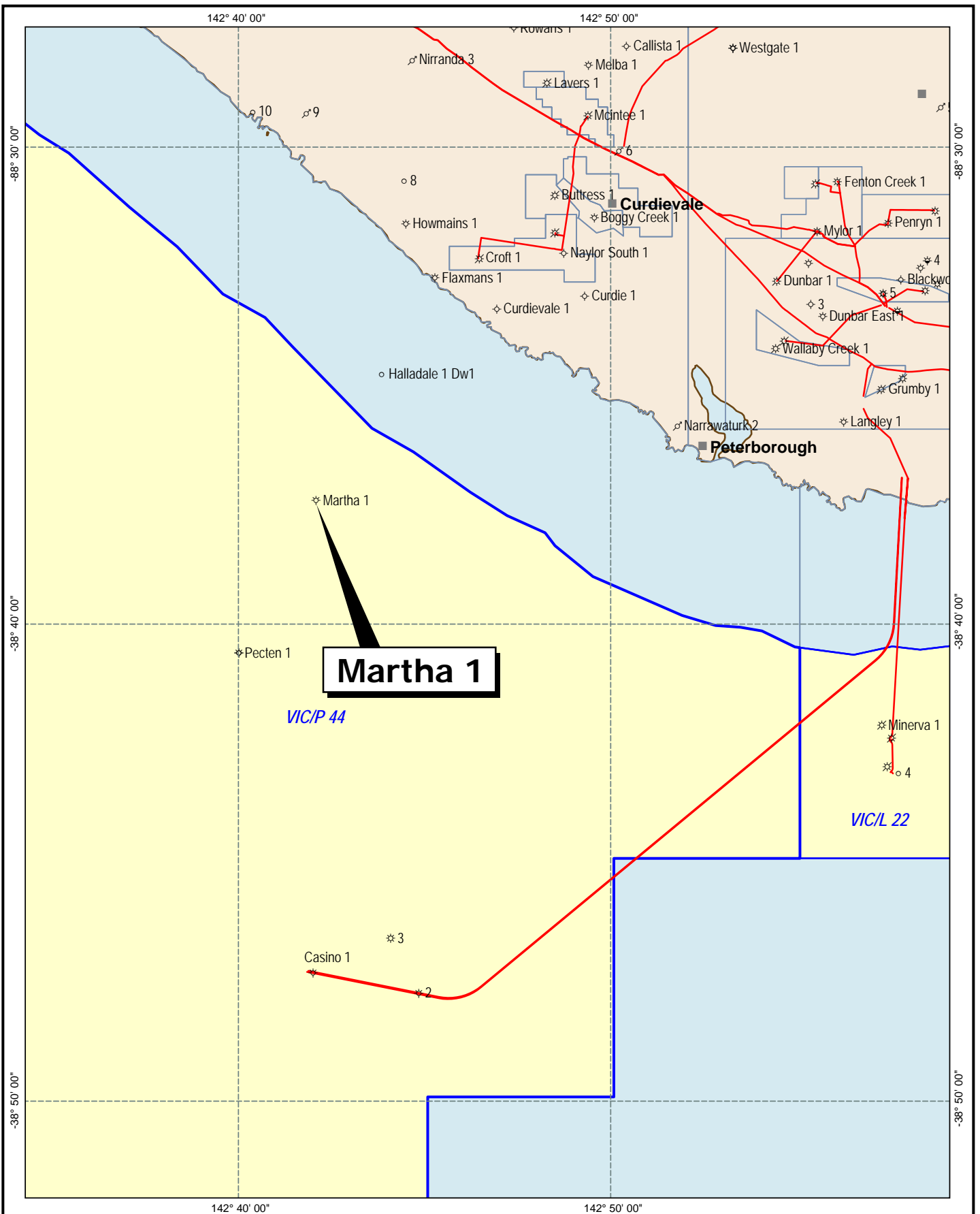
BASIC DATA REPORT

TABLE OF CONTENTS

PAGE

LOCATION MAP		
GENERAL DATA CARD		
SECTION 1:	WELL HISTORY	
	1.1 INTRODUCTION	1
	1.2 GENERAL DATA	2
	1.3 DRILLING SUMMARY	3
SECTION 2:	LITHOLOGICAL DESCRIPTIONS:	
	2.1 CUTTINGS DESCRIPTIONS	
	2.2 CORE DESCRIPTIONS	
	2.3 SIDEWALL CORES DESCRIPTIONS	
	2.4 ROTARY SIDEWALL CORE DESCRIPTIONS	
	2.5 CATALOGUE OF WELLSITE SAMPLES	
SECTION 3:	WIRELINE LOGGING REPORTS	
	3.1 LOGGING ORDER FORM	
	3.2 FIELD ELECTRIC LOGGING REPORT	
	3.3 ELECTRIC LOGGING TIME SUMMARY	
	3.4 RCI PRESSURE SURVEY RESULTS	
	3.4.1 RCI SAMPLE ANALYSES	
	3.5 LWD END OF WELL REPORT (SPERRY SUN)	
	3.6 BOREHOLE SEISMIC ANALYSIS	
SECTION 4:	PRODUCTION TEST REPORT (EXPRO)	
SECTION 5:	DAILY GEOLOGICAL REPORTS	
SECTION 6:	DAILY DRILLING REPORTS	
SECTION 7:	TIME / DEPTH CURVE	
SECTION 8:	BHA SUMMARY	
SECTION 9:	BIT RECORD AND PERFORMANCE SUMMARY	
SECTION 10:	DRILLING FLUIDS REPORT	
SECTION 11:	CASING & CEMENTING SUMMARY	
SECTION 12:	MUDLOGGING WELL REPORT	
SECTION 13:	RIG POSITIONING REPORT	
SECTION 14:	WELL ABANDONMENT AND PLUG REPORTS	
SECTION 15:	DEVIATION SUMMARY	
SECTION 16:	PALYNOLOGY REPORT	

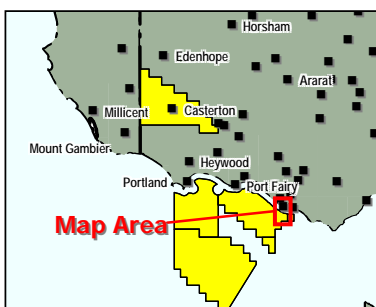
LOCATION MAP



Martha 1

VIC/P 44

VIC/L 22



Legend
 Santos Permit

Santos

VIC/P 44 - Victoria
 Martha 1
 Location Map



Date: April 2005, File No. OTWAY 639



GENERAL DATA CARD

WELL: MARTHA-1	WELL CATEGORY: OFFSHORE GAS EXP	SPUD: 20/10/04 TD REACHED: 29/10/04		
	WELL INTENT: GAS	RIG RELEASED: 5/11/04 CMPLT: RIG: OCEAN PATRIOT		
SURFACE LOCATION: LAT: 38° 37' 24.33" S LONG: 142° 42' 05.02" E (GDA94) NORTHING: 5 723 638.2m EASTING: 648 109.3m		STATUS: ABANDONED WELL GAS SHOWS (ABGS)		
SEISMIC STATION: 2001 Casino-3D, 17418 X3290		REMARKS:		
ELEVATION SEA FLOOR: -54.7m LAT RT +21.5m LAT				
BLOCK/LICENCE: Otway Basin - VIC / P 44				
TD	N/A m (Logr Extrap) 1800 m (Drlr)			
PBTD	m (Logr) m (Drlr)	HOLE SIZE	CASING SIZE	SHOE DEPTH
TYPE STRUCTURE: Tilted Fault Block				TYPE
TYPE COMPLETION:		914mm	762mm	121m
ZONE(S):		445mm	340mm	620.8
				461.3 kg/m N80
				101 kg/m L80

LOG	SUITE/ RUN	INTERVAL (m)	BHT/TIME COMMENTS
GRAND - SLAM GR DLL MLL ZDL CN SP CAL MAC	1 / 1	1756 – Surface 1785 – 621 1790 – 621 1766 – 621 1766 – 621 1747 – 621 1790 – 621 1771 – 621	66°C / 8 hours 30 minutes
RCI-GR	1 / 2	1258.6 – 1613	71.1°C / 24 hours 35 pretests attempted, 17 normal, 9 lost seal, 2 tool plugged, 6 curtailed, 1 failure. 4 x 850cc samples @ 1488.6m, 2 x 850cc samples @ 1258.7m
VELOCITY SURVEY	1 / 3	1785 – Seabed	Total levels 115 at 15m intervals
RCOR-GR	1 / 4	-	Run aborted due to tool failure No cores cut
SIDEWALL CORES	1 / 5	1728.9 – 1307.2	25 cores attempted, 25 recovered (100%)

LOG (MWD)	SUITE/ RUN	INTERVAL (m)	BHT/TIME COMMENTS
GR-RES-PWD-SURVEYS	1 / 1	621 – 1262	51°C BHT while circulating
GR-RES-PWD-SURVEYS	1 / 2	1262 – 1800	67°C BHT while circulating

SECTION 1 : WELL HISTORY

1.1 INTRODUCTION

Martha-1 was proposed as an Otway Basin gas exploration wildcat well in the VIC/P44 Licence. The well is located approximately 26 km west of Port Campbell, 24km WNW from of the Minerva gas field, and 18 km north of the Casino gas field. The proposed location is 9.5 km from the nearest coastline in approximately 55 metres of water. The nearest well control is the onshore Flaxmans-1 (9.8 km NNE) and Pecten-1A (6.5 km SSW).

The Martha Prospect lies within the interpreted Waarre Play fairway, and is situated on the northern edge of the greater Pecten High and the western flank of the Shipwreck Trough. The prospect is partially covered by the 01Casino3D seismic survey and partially by the OH94, OH91 and OE80a 2D seismic surveys.

The primary target of Martha-1 was the Waarre Formation, which has been proven as a petroleum play in the vicinity of the Shipwreck Trough by the discoveries at Casino, Minerva and La Bella. The top Waarre Sandstone seismic reflector in the Martha Prospect exhibits a strong Class 3 AVO anomaly, which has proven a good indicator of gas accumulations within this reservoir interval throughout the region.

The Martha structure is a tilted fault block with three way dip closure and up dip fault closure, and forms the highest point on the greater Pecten High. The Martha structure has vertical relief from crest to structural spill point of 380m over an area of up to 6,675 acres (27.0 km²) at the Waarre Formation primary target. The Martha-1 location is near crestal, and has also been located to test a seismically imaged “flatspot” which may be indicative of a gas-water contact in the primary objective.

The objectives of Martha-1 were to:

1. Discover a new hydrocarbon resource within the Waarre Formation
2. Determine whether thick, potentially good productivity Waarre Unit C sands are present as prognosed
3. Test whether the seismic flatspot is indicative of a gas-water contact within the Waarre Formation. DST this interval to establish productivity and gas composition
4. Determine whether an Intra-Belfast seismic event is indicative of a gas-charged reservoir (secondary target)

The risks on Martha-1 were:

1. The amplitude anomaly or the flat spot observed in the Waarre section is a function of residual gas saturations, due to seal breach
2. The greater closure as mapped on 2-D seismic data is not present, limiting potential pool volumes
3. The high productivity Waarre C interval is not as prognosed, but is thin or absent

The impact of a successful well as prognosed is:

1. A mean OGIP of approximately 246 BCF (133 BCF Recoverable) could be defined – this equates to the deterministic volumetric mapping down to the flatspot using mean rock property parameters.
2. The possibility of an early tie-back into the proposed Casino development could be realised.

Martha 1 was drilled by the semi-submersible drilling rig "Diamond Offshore Ocean Patriot".

1.2 GENERAL DATA

Well Name:	MARTHA-1
Well Classification:	Offshore Gas Exploration
Interest Holders:	Santos Ltd 50% AWE Ltd 25% Mitsui & Co Ltd 25%
Participating Interests:	Santos Ltd 50% AWE Ltd 25% Mitsui & Co Ltd 25%
Operator:	Santos Ltd.
Location:	Offshore Victoria – Otway Basin VIC / P44.
Surveyed Location (GDA94)	Latitude: 38° 37' 24.33" South Longitude: 142° 42' 05.02" East Northing: 5 723638.23m Easting: 648109.28m
Seismic Location:	Inline 17418 X3290
Seismic Survey:	2001 Casino 3D
Elevations:	Water Depth 54.7m LAT Rotary Table 21.5m LAT
Total Depth:	Driller : 1800m RT Logger : 1791m (9m of fill) Logger Extrapolated : 2135m RT
Status:	Abandoned Well with Gas Shows (ABGS)
License:	VIC/P44 Offshore Victoria
Date Drilling Commenced:	23:00 hours on 20 th October 2004.
Date Drilling Completed:	22:30 hours on 29 th October 2004.
Date Rig Released:	24:00 hours on 5 th November 2004.
Total Well Time:	17 days
Contractor:	Diamond Offshore
Rig:	Ocean Patriot (Semi-submersible)

1.3 DRILLING SUMMARY

(a) Drilling Summary (All Depths Driller's RT)

Martha-1 was spudded at 23:00 hrs on 20th October 2004 utilising the semi-submersible drilling facility "Ocean Patriot".

Bit 1, a 660mm (26") Smith MSDS SHC, was run with a 914mm (36") hole opener. The 914mm (36") hole section was drilled from seafloor at 76.2mRT to section total depth at 122.5m with all returns to the seafloor. Hi-vis mud sweeps were pumped at each ½ stand to aid annular cleaning. The hole was displaced to PHG mud prior to pulling out and running the surface conductor casing. A string of 762mm (30") (461.3 kg/m N80) casing was run and cemented with the shoe set at 121m.

Bit 2, a Smith XRTC was run into the hole tagging the top of cement at 114.5m. The cement and shoe track were drilled and the rat hole cleaned out to 122.5m. The 445mm (17 ½") hole section was drilled in one bit run to section total depth at 628m utilising seawater and hi-vis mud sweeps pumped every half stand. Prior to pulling out of hole the well was swept with hi-vis and displaced with PHG mud. The 340mm (13 3/8") casing string consisting of 40 joints of 101.2 kg/m L80 casing was run with the shoe set at 620.8m. The casing was successfully cemented with cement returns indicated at the seafloor.

The blow out preventer and marine riser were run and function tested. Enough drill pipe to reach total depth was picked up and made up into stands prior to making up the 311mm (12¼") bottom hole assembly.

Bit 3, a Reed TCI TD43HKPRDH, was made up with the LWD tools and run into the hole tagging the top of cement at 570m. The cement, wiper plugs, shoe track and casing shoe were drilled. The rat hole was cleaned to 628m while displacing the well to a KCl/PHPA/Glycol mud system. 3m of new formation were drilled to 631m, the hole was circulated and a leak-off test (LOT) conducted yielding an Equivalent Mud Weight (EMW) of 2.6sg (21.6ppg). Drilling 311mm (12 ¼") hole was about to commence when the rig generators shut-down. The bit remained inside the casing shoe and the well was circulated utilising the cement pumps.

After rig repairs Bit 3 commenced drilling the 311mm (12¼") hole from 631m to 1262m. Formations were intersected high to prognosis. The Timboon Sandstone was intersected 65.5m high to prognosis and after the percentage of pyrite in the cuttings samples decreased the bit was pulled from the hole replacing the TCI for a PDC bit.

Bit 4, a Hycalog DSX104 PDC was run into the hole drilling the remainder of the 311mm (12¼") hole section to total depth at 1800m. Total depth was reached at 22:30 hours on the 29th October 2004. The hole was circulated clean and the bit was pulled from the hole to conduct Suite 1 wireline logs. While pulling from the hole tight spots were washed and reamed from 1364m to 1491m through the Belfast Mudstone.

Baker Atlas were rigged up and the following wireline logs were attempted. Run 1: DLL-MLL-ZDL-CN-GR-SP-MAC. Run 1 was run into the hole but was unable to pass 1466m. The tool was worked and the caliper opened and closed attempting to work through the obstruction without success. Run 1 tools were pulled from the hole and the Baker Atlas wireline rigged down.

A clean-out assembly was made up and run into the hole for a wiper trip. The pipe took weight at 1464m. The hole was washed and reamed from 1464m to 1507m, 1582m to 1591m, 1630m to 1651m, 1717m to 1733m and 1764m to 1790m. Bottoms up was circulated twice at total depth with a moderate volume of siltstone and sandstone cavings observed at the shale shakers. The clean out assembly was pulled from the hole with no tight spots observed in the well while tripping from the hole.

Baker Atlas were again rigged up and the following wireline logs were conducted. Run 1: DLL-MLL-ZDL-CN-GR-SP-MAC, Run 2: RCI-GR (35 pretests attempted, 17 normal, 9 lost seal, 2 tool plugged, 6 curtailed, 1 failure), Run 3: Velocity Survey 115 levels at 15m intervals, Run 4: RCOR-GR, tool failed, Run 5: SWC-GR, 25 cores attempted, 25 recovered (100%).

Following wireline logs the well was plugged and abandoned as per program. Plug 1: 1790m to 1600m, Plug 2: 1600m to 1400m and Plug 3: 1400m to 1200m, Plug 4: 655m to 570m, cement retainer set at 166m, Plug 5: 166m to 114m. The rig was released at 24:00 hours on 5th November, 2004.

(b) Mudlogging Services

Mudlogging services were provided by Sperry Sun Unit 197 with the following parameters monitored:

1. Total Gas
2. Chromatographic Gas Breakdown
3. Hydrogen Sulphide Levels
4. Depth/Rate of Penetration.
5. Pipe Speed/Block Position
6. Top drive RPM
7. Top drive Torque
8. Hook Load/Weight On Bit
9. Standpipe Pressure
10. Casing Shut-in Pressure
11. Mud Pump Rate (3 pumps)
12. Mud Flow Out
13. Mud Pit Levels (8 pits including the trip tank)
14. Mud Weight In and Out
15. Mud Temperature In and Out
16. Resistivity In and Out
17. Carbon Dioxide Detector

Ditch cuttings were collected at 5m intervals in the 311mm (12-1/4") phase from 628m to 1265m, 3m intervals from 1265m to 1620m and 5m intervals from 1620m to total depth at 1800m. In addition to microscopic examination of all drilled cuttings, samples were examined under the fluoroscope for hydrocarbon indications. Additional information pertinent to Mudlogging is presented in Sperry-Suns report in SECTION 12: MUDLOGGING WELL REPORT. Details of all wellsite samples is found in Section 2.5: CATALOGUE OF WELLSITE SAMPLES

(c) **LWD Data**

Logging While Drilling (LWD) was acquired by Sperry-Sun in Martha-1. LWD services consisted of Gamma Ray, Resistivity, Directional Module and Pressure While Drilling (PWD). LWD data was acquired in the 311mm (12-1/4") phase from 628m to Total Depth at 1800m in two runs. Sperry Sun's detailed report is attached in Section 3.5: LWD END OF WELL REPORT

(d) **Testing**

No post logging production tests were conducted at Martha 1.

(e) **Coring**

No full hole cores were cut at the Martha-1 location.

(f) **Biostratigraphy**

Samples were forwarded for analysis. Results can be found in Martha 1 Interpretative Data Report.

(g) Electric Logging

Electric Logging Services were provided by Baker Atlas. One suite of electric logs were conducted at Martha-1 as follows:

TABLE 1

LOG	SUITE/ RUN	INTERVAL (m)	BHT/TIME COMMENTS
GRAND - SLAM	1 / 1		
GR		1756 – Surface	66°C / 8 hours 30 minutes
DLL		1785 – 621	
MLL		1790 – 621	
ZDL		1766 – 621	
CN		1766 – 621	
SP		1747 – 621	
CAL		1790 – 621	
MAC		1771 – 621	
RCI-GR	1 / 2	1258.6 – 1613	71.1°C / 24 hours 35 pretests attempted, 17 normal, 9 lost seal, 2 tool plugged, 6 curtailed, 1 failure. 4 x 850cc samples @ 1488.6m, 2 x 850cc samples @ 1258.7m
VELOCITY SURVEY	1 / 3	1785 – Seabed	Total levels 115 at 15m intervals
RCOR-GR	1 / 4	-	Run aborted due to tool failure No cores cut
SIDEWALL CORES	1 / 5	1728.9 – 1307.2	25 cores attempted, 25 recovered (100%)

(h) RCI Pressure Data

An RCI pressure survey was conducted at the Martha-1 location. A total of 35 pre-tests were attempted of which 17 were normal tests, 9 were lost seals, 6 were curtailed, 2 tool plugged and 1 tool failure. In addition, samples were collected at 1258.7m and at 1488.6m. The RCI Pressure Survey data are presented in Section 3.4: s PRESSURE SURVEY RESULTS.

(i) Hole Deviation

Martha-1 was drilled as a vertical hole. Deviation Surveys were recorded using MWD/LWD tools in the 311mm (12.25") section while drilling. Survey Data are presented in Section 15: DEVIATION SUMMARY.

At Total Depth, the estimated displacement from the wellhead was 40.54m to 112.2°(T). The TVD at total depth was calculated at 1799m (Drl).

(j) Velocity Surveys

A velocity survey was conducted by Baker Atlas during Suite 1 wireline logs at total depth. A total of 115 levels were conducted at 15m intervals from 1785m to seabed at 76.2m.

(k) Casing & Cementing Summary

The following Table-3 summarises casing sizes, depths and cementing details for Martha-1. Casing and Cementing Reports for each casing run are detailed in Section 11: CASING & CEMENTING SUMMARY.

TABLE 3

HOLE SIZE	DEPTH	CASING SIZE	CASING DEPTH	JOINTS	CASING TYPE	CEMENT
914mm (36")	122.5m	762mm (30")	121m	4	461.3 kg/m N80	750 sacks class "G" cement of total volume 24.5m ³ (154 bbl), 20.3m ³ (128bbl) of mixwater, mixed to a slurry weight of 1.9sg (15.8ppg).
445mm (17.5")	628m	340 mm (13.375")	620.8m	40	101.2kg/m L80 BTC	<u>Lead</u> : 34.6 MT class "G" cement mixed to a slurry volume of 51.4 m ³ at 1.5sg. <u>Tail</u> : 39.1 MT class "G" cement mixed to a slurry volume of 30.05 m ³ at 1.9sg.

SECTION 2 : LITHOLOGICAL DESCRIPTIONS

SECTION 2.1: CUTTINGS DESCRIPTIONS

2.1 MARTHA-1 - LITHOLOGICAL DESCRIPTIONS

(Depths are referenced to Loggers Depth)

Depth From (m)	Depth To (m)	%	Lithology and Shows
Martha 1 was spudded on 20 th October 2004 utilising the semi submersible drilling facility "Ocean Patriot". Note: All returns were to the seafloor prior to running the 13 3/8" casing, blow out preventer and marine riser at 628m.			
628	630	100	Cement
630	635	100	CALCAREOUS CLAYSTONE: medium dark grey, medium to dark brownish grey, trace glauconite, minor forams, soft to firm, sub blocky to blocky.
635	640	80	CALCAREOUS CLAYSTONE: medium grey, medium brownish grey, generally as above.
		20	CALCARENITE: light brown to off white, very pale cream, slightly silty in part, trace fossil / shell fragments, friable to moderately hard, nil to very poor inferred porosity, blocky.
640	645	100	CALCAREOUS CLAYSTONE: medium to dark brownish grey, rare fine grained glauconite, common fossil fragments, trace carbonaceous material, soft to firm, sub blocky to blocky.
645	650	40	CALCAREOUS CLAYSTONE: med grey, light to medium brownish grey, medium dark brownish grey in part, minor fossil fragments, rare forams, trace very fine glauconite, firm, blocky to sub blocky.
		60	SANDSTONE: very light brown, very light grey white, off white, white, very fine to fine grained, trace medium, well sorted, sub round to sub angular, common moderately strong calcareous cement, minor white argillaceous matrix, moderately hard, very poor inferred porosity, no fluorescence.
650	655	20	CALCAREOUS CLAYSTONE: medium to dark grey, generally as above.
		80	SANDSTONE: white, off white, very light brownish grey, very fine to medium grained, moderately well sorted, sub angular to occasionally sub round, moderately strong calcareous cement, common white argillaceous matrix, trace fine carbonaceous material, friable to moderately hard aggregates, tight to very poor inferred porosity, no fluorescence.
655	660	50	SILTSTONE: medium brownish grey, light to medium grey, arenaceous, grading to very fine sandstone in part, common fine grained glauconite, trace forams, friable, sub blocky to blocky.
		50	SANDSTONE: very light brown, off white, white, translucent and clear in part, fine to medium predominantly fine grained, sub angular to sub round, moderately strong calcareous cement, rare off white argillaceous matrix, friable to moderately hard aggregates, very poor to poor inferred porosity, no fluorescence.
660	665	70	SILTSTONE: as above, becoming argillaceous.

Depth From (m)	Depth To (m)	%	Lithology and Shows
		30	SANDSTONE: as above.
665	670	100	SANDSTONE: medium orange yellow, orange brown, occasionally clear - translucent, fine to medium grained, fair sorting, angular to subrounded, moderately strong calcareous cement, abundant Fe-staining, moderately hard aggregates, friable in part, poor inferred porosity, no fluorescence.
670	675	100	SANDSTONE: medium orange brown, occasionally clear and translucent, fine to medium grained, trace coarse, sub angular to sub round, moderately strong calcareous cement, abundant orange Fe staining, rare fine grained glauconite, moderately hard aggregates, friable in part, fair inferred porosity, no fluorescence.
675	680	100	SANDSTONE: common orange brown FE stain, translucent, clear, medium to coarse predominantly medium grained, rare fine grained, sub angular to sub round, rare weak calcareous cement, trace light grey silty matrix, trace very fine glauconite, trace forams, rare limestone fragments, trace fine grained lithics, friable to predominantly loose, good inferred porosity, no fluorescence.
680	685	100	SANDSTONE: as above.
685	690	100	SANDSTONE: as above, orange brown Fe stain, translucent, clear, medium to coarse trace fine grained, sub angular to sub round, occasionally well rounded, moderately sorted, trace weak calcareous cement, trace forams, trace fine glauconite, trace limestone fragments, trace fine grained lithics, loose, good inferred porosity, no fluorescence.
690	710		Shale shakers blinded out by sand. Samples lost.
710	715	100	SANDSTONE: as above.
715	720	100	SANDSTONE: as above, becoming predominantly fine to medium grained.
720	725	100	SANDSTONE: as above, 50% clear, translucent, 50% orange brown Fe stain.
725	730	80 20	SANDSTONE: as above. orange brown, translucent, clear. CALCARENITE: white, slightly argillaceous (rock flour?), friable to moderately hard, blocky.
730	735	30 trace- 10% 70	SANDSTONE: as above. CALCARENITE: as above. CLAYSTONE: glauconite, light to medium greenish grey, minor very fine grained glauconite, trace forams, slightly arenaceous in part, soft to firm, sub blocky to blocky.
735	740	10	CLAYSTONE: glauconitic as above.

Depth From (m)	Depth To (m)	%	Lithology and Shows
740	745	90	SANDSTONE: (1) 50% orange brown translucent, clear as above. SANDSTONE: (2) white, very light grey white, fine to medium grained, sub angular to predominantly sub round, moderately strong calcareous cement, minor white argillaceous matrix, friable to moderately hard aggregates, tight visual porosity, no fluorescence.
		80	SILTSTONE: medium to dark brown, medium to dark brownish grey, very finely arenaceous in part, argillaceous in part grading to CLAYSTONE, trace very fine glauconite, trace fine lithics, firm, sub blocky to blocky.
		20	SANDSTONE: white, off white, very light grey, translucent, very fine to fine grained, trace medium, moderately well sorted, sub angular to sub round, common calcareous cement, minor white argillaceous matrix, trace very fine glauconite, friable to moderately hard aggregates, very poor inferred porosity, no fluorescence.
745	750	30	CLAYSTONE: glauconite, light to medium greenish grey, minor very fine grained glauconite, trace forams, slightly arenaceous in part, soft to firm, sub blocky to blocky.
		70	SILTSTONE: medium to dark brown, medium to dark brownish grey, very finely arenaceous in part, argillaceous in part grading to CLAYSTONE, trace very fine glauconite, trace fine lithics, firm, sub blocky to blocky.
750	755	10	SILTSTONE: medium to dark brown, medium to dark brownish grey, very finely arenaceous in part, argillaceous in part grading to CLAYSTONE, trace very fine glauconite, trace fine lithics, firm, sub blocky to blocky.
		90	SANDSTONE: clear, translucent, fine to coarse predominantly medium to coarse, fair sorting, sub angular to predominantly sub round, predominantly loose clean quartz grains, good inferred porosity, no fluorescence.
755	760	20	SILTSTONE: medium to dark brown, medium to dark brownish grey, very finely arenaceous in part, argillaceous in part grading to CLAYSTONE, trace very fine glauconite, trace fine lithics, firm, sub blocky to blocky.
		80	SANDSTONE: clear, translucent, fine to coarse predominantly medium to coarse, fair sorting, sub angular to predominantly sub round, predominantly loose clean quartz grains, good inferred porosity, no fluorescence.
760	765	100	SANDSTONE: clear, translucent, fine to coarse predominantly medium to coarse, fair sorting, sub angular to predominantly sub round, trace mica, predominantly loose clean quartz grains, trace calcareous grains / fragments, good inferred porosity, no fluorescence.
765	770	80	SILTSTONE: medium to dark brown, dark brownish grey, very finely arenaceous, trace very fine glauconite, trace very fine glauconite, soft to firm, blocky.
		20	SANDSTONE: as above.

Depth From (m)	Depth To (m)	%	Lithology and Shows
770	775	60	SILTSTONE: medium to dark brown, dark brownish grey, very finely arenaceous, trace very fine glauconite, trace very fine glauconite, soft to firm, blocky.
		40	SANDSTONE: clear, translucent, fine to predominantly medium, moderately well sorted, sub angular to predominantly sub round, minor nodular pyrite, predominantly loose clean quartz grains, trace calcareous grains / fragments, good inferred porosity, no fluorescence.
775	780	100	SANDSTONE: clear, translucent, fine to coarse predominantly medium to coarse, fair sorting, sub angular to predominantly sub round, predominantly loose clean quartz grains, trace calcareous grains / fragments, good inferred porosity, no fluorescence.
780	785	100	SANDSTONE: clear, translucent, fine to coarse predominantly medium, sub angular to sub round, predominantly loose clean quartz grains, good inferred porosity, no fluorescence.
785	790	100	SANDSTONE: as above, trace nodular pyrite, trace mica.
790	795	70	SANDSTONE: clear, translucent, very light grey, fine to predominantly very coarse, sub angular to sub round, moderately sorted, predominantly loose quartz grains, minor nodular pyrite, good inferred porosity, no fluorescence.
		30	SILTSTONE: medium to dark brownish grey, argillaceous in part, arenaceous, trace very fine glauconite, trace fine grained lithics, firm, sub blocky to blocky.
795	800	100 trace	SANDSTONE: clear translucent, fine to very coarse as above. SILTSTONE: as above.
800	805	80	SANDSTONE: translucent, clear, light grey in part, very fine to medium grained, trace coarse, sub angular to sub round, trace weak siliceous cement, rare mica, trace nodular pyrite, trace very fine lithics, predominantly loose quartz grains, good inferred porosity, no fluorescence.
		20	SILTSTONE: as above.
805	810	100	SANDSTONE: as above, minor coarse to very coarse.
810	815	90	SANDSTONE: as above.
		10	SILTSTONE: as above.
815	820	100	SANDSTONE: clear, translucent, very fine to medium trace coarse grains, moderately sorted, sub angular to sub round, trace weak siliceous cement, rare light brownish grey silty matrix, trace very fine glauconite, minor nodular pyrite, trace fossil fragments, rare mica, trace lithics, friable to predominantly loose, fair to good inferred porosity, no fluorescence.
820	825	100	SANDSTONE: generally as above, predominantly medium grained, loose clean quartz grains.

Depth From (m)	Depth To (m)	%	Lithology and Shows
825	830	100	SANDSTONE: clear, translucent, very fine to medium, trace coarse grained, sub angular to sub round, moderately sorted, trace light grey silty matrix, trace calcareous fragments, trace fine grained glauconite, trace very fine lithics, friable to predominantly loose, good inferred porosity, no fluorescence.
830	835	100	SANDSTONE: clear, translucent, very fine to medium, trace coarse grained, predominantly medium grained, sub angular to round, moderately sorted, rare light grey silty matrix, trace to common calcareous fragments, trace fine grained glauconite, trace very fine lithics, rare pyrite, friable to predominantly loose, good inferred porosity, no fluorescence.
835	840	90	SANDSTONE: clear, translucent, very fine to medium, trace coarse grained, sub angular to round, moderately sorted, rare light grey silty matrix, trace to common calcareous fragments, trace fine grained glauconite, trace very fine lithics, rare pyrite, friable to predominantly loose, good inferred porosity, no fluorescence.
840	845	10	SILTSTONE: medium dark grey, brownish grey to olive grey, dark green grey, argillaceous, weak to moderately calcareous, trace very fine glauconite, trace carbonaceous specks, firm, sub blocky to blocky.
		60	SANDSTONE: clear, translucent, very fine to medium, trace coarse grained, sub angular to round, moderately sorted, rare light grey silty matrix, trace to common calcareous fragments, trace fine grained glauconite, trace very fine lithics, rare pyrite, friable to predominantly loose, good inferred porosity, no fluorescence.
845	850	40	SILTSTONE: medium dark grey, brownish grey to olive grey, dark green grey, argillaceous, weak to moderately calcareous, trace very fine glauconite, trace carbonaceous specks, firm, sub blocky to blocky.
		100	SANDSTONE: clear, translucent, fine to coarse grained, predominantly medium to coarse grained, sub angular to round, moderately sorted, rare light grey to white silty matrix, trace to common calcareous fragments, rare fine grained glauconite, trace very fine lithics, trace carbonaceous inclusions, friable to predominantly loose, good inferred porosity, no fluorescence.
850	855	100	SANDSTONE: clear, translucent, fine to coarse grained, predominantly medium to coarse grained, sub angular to round, moderately sorted, rare light grey silty matrix, trace to common calcareous fragments, rare fine grained glauconite, trace very fine lithics, trace carbonaceous inclusions, rare pyrite, friable to predominantly loose, good inferred porosity, no fluorescence.
855	860	100	SANDSTONE: clear, translucent, fine to coarse grained, predominantly medium to coarse grained, sub angular to sub round, common rounded grains, moderately sorted, rare light grey silty matrix, trace to common calcareous fragments, rare fine grained glauconite, trace very fine lithics, trace carbonaceous inclusions, friable to predominantly loose, good inferred porosity, no fluorescence.

Depth From (m)	Depth To (m)	%	Lithology and Shows
860	865	100	SANDSTONE: clear, translucent, fine to coarse grained, predominantly medium to coarse grained, sub angular to sub round, common rounded grains, moderately sorted, rare light grey silty matrix, trace to common calcareous fragments, rare fine grained glauconite, trace very fine lithics, trace carbonaceous inclusions, rare friable aggregates, predominantly loose, good inferred porosity, no fluorescence.
865	870	100	SANDSTONE: clear, translucent, fine to coarse grained, predominantly medium to coarse grained, sub angular to sub round, common rounded grains, moderately sorted, rare light grey silty matrix, trace to common calcareous fragments, rare fine grained glauconite, trace very fine lithics, trace carbonaceous inclusions, rare friable aggregates, predominantly loose, good inferred porosity, no fluorescence.
870	875	100	SANDSTONE: clear, translucent, fine to coarse grained, predominantly medium to coarse grained, sub angular to sub round, common rounded grains, moderately sorted, rare light grey silty matrix, trace to common calcareous fragments, rare fine grained glauconite, trace very fine lithics, trace carbonaceous inclusions, rare friable aggregates, predominantly loose, good inferred porosity, no fluorescence.
875	880	100	SANDSTONE: clear, translucent, fine to coarse grained, predominantly medium to coarse grained, sub angular to sub round, common rounded grains, moderately sorted, rare light grey silty matrix, trace to common calcareous fragments, rare fine grained glauconite, trace very fine lithics, trace carbonaceous inclusions, rare friable aggregates, predominantly loose, good inferred porosity, no fluorescence.
880	885	100	SANDSTONE: clear, translucent, fine to coarse grained, predominantly medium to coarse grained, sub angular sub round, common rounded grains, moderate to well sorted, rare light grey silty matrix, trace to common calcareous fragments, trace very fine lithics, trace carbonaceous inclusions, rare pyrite, loose, good inferred porosity, no fluorescence.
885	890	100	SANDSTONE: clear, translucent, fine to coarse grained, predominantly medium to very coarse grained, sub angular to rounded grains, moderate to well sorted, rare light grey silty matrix, trace to common calcareous fragments, trace very fine lithics, trace carbonaceous inclusions, loose, good inferred porosity, no fluorescence.
890	895	100	SANDSTONE: clear, translucent, fine to coarse grained, predominantly medium to very coarse grained, sub angular to rounded grains, moderate to well sorted, rare light grey silty matrix, trace to common calcareous fragments, trace very fine lithics, trace carbonaceous inclusions, loose, good inferred porosity, no fluorescence.

Depth From (m)	Depth To (m)	%	Lithology and Shows
895	900	100	SANDSTONE: clear, translucent, fine to coarse grained, predominantly medium to very coarse grained, sub angular to rounded grains, moderate to well sorted, rare light grey silty matrix, trace to common calcareous fragments, trace very fine lithics, trace carbonaceous inclusions, loose, good inferred porosity, no fluorescence.
900	905	100	SANDSTONE: clear, translucent, fine to coarse grained, predominantly medium to coarse, sub angular to rounded, fair to moderately sorted, trace light grey silty matrix, trace calcareous fragments, trace lithics, rare nodular pyrite, trace carbonaceous material, loose, good inferred porosity, no fluorescence.
905	910	100	SANDSTONE: as above, predominantly coarse grained.
910	915	100	SANDSTONE: as above, predominantly coarse grained.
915	920	100	SANDSTONE: as above, predominantly medium to coarse.
920	925	100	SANDSTONE: translucent, clear, white, fine to very coarse, poor sorting, sub angular to rounded, trace nodular pyrite, trace fine grained glauconite, predominantly loose clean quartz grains, good inferred porosity, no fluorescence.
925	930	100 trace	SANDSTONE: as above, trace forams. SILTSTONE: medium brownish grey, arenaceous, trace very fine lithics, soft to firm, blocky.
930	935	100 trace	SANDSTONE: as above, coarse – very coarse. SILTSTONE: medium brownish grey, arenaceous, trace very fine lithics, soft to firm, blocky.
935	940	100	SANDSTONE: translucent, clear, white, light grey in part, fine to very coarse, predominantly coarse to very coarse, sub rounded to rounded, predominantly loose clean quartz grains, good inferred porosity, no fluorescence.
940	945	100	SANDSTONE: translucent, clear, fine to very coarse predominantly medium to coarse.
945	950	90 10	SANDSTONE: predominantly medium to coarse as above. SILTSTONE: medium to dark brownish grey, arenaceous, trace very fine lithics, trace calcareous fragments, friable to soft, sub blocky to blocky.
950	955	100 trace	SANDSTONE: as above. SILTSTONE: as above.
955	960	90	SANDSTONE: translucent, clear, light yellow brown Fe stain in part, fine to very coarse predominantly medium to coarse, sub angular to sub rounded, trace light grey silty matrix, predominantly loose clean quartz grains, good inferred porosity, no fluorescence.

Depth From (m)	Depth To (m)	%	Lithology and Shows
		10	SILTSTONE: medium to predominantly dark grey, medium to dark brownish grey, arenaceous, trace very fine lithics, firm to occasionally moderately hard, sub blocky to blocky.
960	965	90	SANDSTONE: as above.
		10	SILTSTONE: as above.
965	970	100	SANDSTONE: as above.
970	975	100	SANDSTONE: translucent, clear, light yellow brown Fe stain in part, fine to very coarse predominantly medium to coarse, sub angular to sub rounded, trace light grey silty matrix, predominantly loose clean quartz grains, good inferred porosity, no fluorescence.
975	980	100	SANDSTONE: clear, translucent, light grey, white, fine to very coarse predominantly medium to coarse, sub angular to sub rounded, trace light grey silty matrix, trace nodular pyrite, predominantly loose clean quartz grains, good inferred porosity, no fluorescence.
		trace	SILTSTONE: medium to predominantly dark brownish grey, arenaceous in part, trace very fine lithics, moderately hard, sub blocky to blocky.
980	985	100	SANDSTONE: as above.
		trace	SILTSTONE: as above.
985	990	60	SANDSTONE: predominantly medium to coarse as above.
		40	SILTSTONE: medium to predominantly dark brownish grey, arenaceous in part, trace very fine lithics, moderately hard, sub blocky to blocky, occasionally soft and dispersive.
990	995	70	SANDSTONE: as above.
		30	SILTSTONE: as above, trace very fine glauconite, rare nodular pyrite.
995	1000	70	SANDSTONE: as above.
		30	SILTSTONE: as above, trace very fine glauconite, rare nodular pyrite.
1000	1005	50	SILTSTONE: medium to dark brownish grey, very finely arenaceous, interlaminated with very fine SANDSTONE, friable, blocky.
		50	SANDSTONE: clear, translucent, very fine to medium predominantly fine grained, sub angular to sub rounded, interlaminated with siltstone as above, predominantly loose quartz grains, poor inferred porosity, no fluorescence.
1005	1010	70	SILTSTONE: medium to dark brownish grey, very finely arenaceous, rare nodular pyrite, trace very fine glauconite, interlaminated with very fine SANDSTONE, friable, blocky.
		30	SANDSTONE: clear, translucent, very fine to medium predominantly fine grained, sub angular to sub rounded, interlaminated with siltstone as above, predominantly loose quartz grains, poor inferred porosity, no fluorescence.
1010	1015	70	SILTSTONE: as above.

Depth From (m)	Depth To (m)	%	Lithology and Shows
1015	1020	30	SANDSTONE: fine grained as above.
		80	SILTSTONE: medium to dark brownish grey, very finely arenaceous, rare nodular pyrite, trace very fine glauconite, interlaminated with very fine SANDSTONE, friable, blocky.
		20	SANDSTONE: clear, translucent, very fine to medium predominantly fine grained, sub angular to sub rounded, interlaminated with siltstone as above, predominantly loose quartz grains, poor inferred porosity, no fluorescence.
1020	1025	70	SILTSTONE: as above.
		30	SANDSTONE: fine grained as above.
1025	1030	50	SILTSTONE: as above.
		50	SANDSTONE: fine grained as above.
1030	1035	60	SILTSTONE: as above.
		40	SANDSTONE: fine grained as above.
1035	1040	30	SILTSTONE: medium to dark brownish grey, very finely arenaceous, rare nodular pyrite, trace very fine glauconite, interlaminated with very fine SANDSTONE, friable, blocky.
		70	SANDSTONE: clear, translucent, very fine to medium predominantly fine grained, sub angular to sub rounded, interlaminated with siltstone as above, rare moderately strong siliceous cement, predominantly loose quartz grains, poor inferred porosity, no fluorescence.
1040	1045	60	SANDSTONE: clear, translucent, light olive grey to brown grey, fine to coarse grained, dominantly medium to coarse grained, common very coarse grains, poor to moderately sorted, sub angular to sub rounded, common rounded, trace to common glauconite, trace carbonaceous specks, rare pyrite, trace lithics, rare friable to firm aggregates, dominantly loose, fair inferred porosity, no fluorescence.
		40	SILTSTONE: medium to dark grey, olive black to green black, brown grey, argillaceous, moderately calcareous, trace very fine glauconite, trace carbonaceous specks, firm to moderately hard, sub blocky to blocky.
1045	1050	90	SANDSTONE: clear, translucent, light olive grey to brown grey, very fine to coarse grained, dominantly medium to coarse grained, common very coarse grains, poor to moderately sorted, moderate siliceous cement, sub angular to sub rounded, common rounded, trace to common glauconite, trace carbonaceous specks, rare pyrite, trace lithics, rare friable to firm aggregates, dominantly loose, fair inferred porosity, no fluorescence.
		10	SILTSTONE: medium to dark grey, olive black to green black, brown grey, argillaceous, moderately calcareous, trace very fine glauconite, trace carbonaceous specks, firm to moderately hard, sub blocky to blocky.

Depth From (m)	Depth To (m)	%	Lithology and Shows
1050	1055	80	SANDSTONE: clear, translucent, light olive grey to brown grey, fine to coarse grained, dominantly medium to coarse grained, common very coarse grains, moderate siliceous cement, poor to moderately sorted, sub angular to sub rounded, common rounded, trace to common glauconite, trace carbonaceous specks, rare pyrite, trace lithics, rare friable to firm aggregates, dominantly loose, fair inferred porosity, no fluorescence.
		20	SILTSTONE: medium to dark grey, olive black to green black, brown grey, argillaceous, moderately calcareous, trace very fine glauconite, trace carbonaceous specks, firm to moderately hard, sub blocky to blocky.
1055	1060	90	SANDSTONE: clear, translucent, light olive grey to brown grey, fine to coarse grained, dominantly medium to coarse grained, common very coarse grains, moderate to strong siliceous cement, trace pyritic cement, moderately sorted, sub angular to sub rounded, common rounded, weak to moderately siliceous cement, weak calcareous cement, trace to common glauconite, trace carbonaceous specks, trace pyrite, trace fossile fragments, trace lithics, moderately hard aggregates, dominantly loose, fair inferred porosity, no fluorescence.
		10	SILTSTONE: medium to dark grey, olive black to green black, brown grey, argillaceous, moderately calcareous, trace very fine glauconite, trace carbonaceous specks, firm to moderately hard, sub blocky to blocky.
1060	1065	70	SANDSTONE: clear, translucent, light olive grey to brown grey, fine to medium grained, common coarse to very coarse grained, moderately sorted, sub angular to sub rounded, common rounded, weak calcareous cement, weak to moderate siliceous cement, rare pyritic cement, trace light brown argillaceous to silty matrix, trace very fine glauconite, trace to locally common pyrite, trace carbonaceous specks, moderately hard aggregates, predominantly loose, poor to fair inferred and visual porosity, no fluorescence.
		30	SILTSTONE: medium to dark grey, olive black to green black, brown grey, argillaceous, moderately calcareous, trace very fine glauconite, trace carbonaceous specks, firm to moderately hard, sub blocky to blocky.
1065	1070	60	SANDSTONE: clear, translucent, light olive grey to brown grey, fine to coarse grained, common very coarse grained, poor to moderately sorted, sub angular to sub rounded, common rounded, weak calcareous cement, weak to moderate siliceous cement, rare pyritic cement, trace light brown argillaceous to silty matrix, trace very fine glauconite, trace pyrite, trace carbonaceous specks, moderately hard aggregates, predominantly loose, poor to fair inferred and visual porosity, no fluorescence.
		40	SILTSTONE: olive grey to olive black, brown black, medium to dark grey, arenaceous, loc grading to a very fine Sandstone, weakly calcareous, trace glauconite, trace to common carbonaceous specks, trace pyrite, firm to loc moderately hard, sub blocky to blocky.

Depth From (m)	Depth To (m)	%	Lithology and Shows
1070	1075	40	SANDSTONE: clear, translucent, light olive grey to brown grey, fine to coarse grained, common very coarse grained, poor to moderately sorted, sub angular to sub rounded, common rounded, weak calcareous cement, weak to moderate siliceous cement, rare pyritic cement, trace light brown argillaceous to silty matrix, trace very fine glauconite, trace pyrite, trace carbonaceous specks, moderately hard aggregates, predominantly loose, poor to fair inferred and visual porosity, no fluorescence.
		60	SILTSTONE: olive grey to olive black, brown black, medium to dark grey, arenaceous, locally grading to a very fine Sandstone, weakly calcareous, trace glauconite, trace to common carbonaceous specks, trace to locally common pyrite, firm to locally moderately hard, sub blocky to blocky.
1075	1080	60	SANDSTONE: clear, translucent, fine to coarse grained, poor to moderately sorted, sub angular to sub round, rare weak siliceous and calcareous cement, trace light brown grey siliceous matrix, trace to common glauconite, trace pyrite, trace carbonaceous specks, loose, rare moderately hard aggregates, poor to fair inferred porosity, no fluorescence.
		40	SILTSTONE: olive grey to olive black, brown black, medium to dark grey, arenaceous, locally grading to a very fine Sandstone, weakly calcareous, trace glauconite, trace to common carbonaceous specks, trace to locally common pyrite, firm to locally moderately hard, sub blocky to blocky.
1080	1085	60	SANDSTONE: clear, translucent, fine to coarse grained, poor to moderately sorted, sub angular to sub round, rare weak siliceous and calcareous cement, trace light brown grey siliceous matrix, trace to common glauconite, trace to common pyrite, trace carbonaceous specks, loose, rare moderately hard aggregates, poor to fair inferred porosity, no fluorescence.
		40	SILTSTONE: olive grey to olive black, brown black, medium to dark grey, arenaceous, locally grading to a very fine Sandstone, weakly calcareous, trace glauconite, trace to common carbonaceous specks, trace to locally common pyrite, firm to locally moderately hard, sub blocky to blocky.
1085	1090	80	SANDSTONE: clear, translucent, light brown to light olive grey, fine to very coarse grained, dominantly medium to coarse grained, poor to moderately sorted, sub angular to rounded, weak to moderate calcareous cement, trace weak siliceous cement, trace siliceous cement, trace to common pyrite, trace to common very fine to fine glauconite, trace carbonaceous specks, trace lithics, predominantly loose, trace moderately hard aggregates, poor to fair inferred and visual porosity, no fluorescence.
		20	SILTSTONE: olive grey to olive black, brown black, medium to dark grey, arenaceous, locally grading to a very fine Sandstone, weakly calcareous, trace glauconite, trace to common carbonaceous specks, trace to locally common pyrite, firm to locally moderately hard, sub blocky to blocky.

Depth From (m)	Depth To (m)	%	Lithology and Shows
1090	1095	70	SANDSTONE: clear, translucent, light brown to light olive grey, fine to very coarse grained, dominantly medium to coarse grained, poor to moderately sorted, sub angular to rounded, weak to moderate calcareous cement, trace weak siliceous cement, trace siliceous cement, trace to common pyrite, trace to common very fine to fine glauconite, trace carbonaceous specks, trace lithics, predominantly loose, trace moderately hard aggregates, poor to fair inferred and visual porosity, no fluorescence.
		30	SILTSTONE: olive grey to olive black, brown black, medium to dark grey, arenaceous, locally grading to a very fine Sandstone, in part moderately calcareous, trace to common pyrite, trace carbonaceous specks, trace glauconite, firm to moderately hard, sub blocky to blocky.
1095	1100	90	SANDSTONE: clear, translucent, light brown to light olive grey, fine to very coarse grained, dominantly medium to coarse grained, poor to moderately sorted, sub angular to rounded, weak to moderate calcareous cement, trace weak siliceous cement, trace siliceous matrix, trace to common pyrite, trace to common very fine to fine glauconite, trace carbonaceous specks, trace lithics, predominantly loose, trace moderately hard aggregates, poor to fair inferred and visual porosity, no fluorescence.
		10	SILTSTONE: olive grey to olive black, brown black, medium to dark grey, arenaceous, locally grading to a very fine Sandstone, in part moderately calcareous, trace pyrite, trace carbonaceous specks, trace glauconite, firm to moderately hard, sub blocky to blocky.
1100	1105	80	SANDSTONE: clear, translucent, light brown to light olive grey, very fine to fine grained, common medium to coarse grained, poor to moderately sorted, sub angular to rounded, weak to moderate calcareous cement, trace weak siliceous cement, trace siliceous matrix, trace to common pyrite, trace to common very fine to fine glauconite, trace carbonaceous specks, trace lithics, rare fossile fragments, predominantly loose, trace moderately hard aggregates, poor to fair inferred and visual porosity, no fluorescence.
		20	SILTSTONE: olive grey to olive black, brown black, medium to dark grey, arenaceous, locally grading to a very fine Sandstone, in part moderately calcareous, trace pyrite, trace carbonaceous specks, trace glauconite, firm to moderately hard, sub blocky to blocky.
1105	1110	60	SANDSTONE: clear, translucent, light brown to light olive grey, very fine to fine grained, common medium to coarse grained, poor to moderately sorted, sub angular to rounded, weak to moderate calcareous cement, trace weak siliceous cement, trace siliceous matrix, trace to common pyrite, trace to common very fine to fine glauconite, trace carbonaceous specks, trace lithics, rare fossile fragments, predominantly loose, trace moderately hard aggregates, poor to fair inferred and visual porosity, no fluorescence.
		40	SILTSTONE: olive grey to olive black, brown black, medium to dark grey, arenaceous, locally grading to a very fine Sandstone, in part moderately calcareous, trace pyrite, trace carbonaceous specks, trace glauconite, firm to moderately hard, sub blocky to blocky.

Depth From (m)	Depth To (m)	%	Lithology and Shows
1110	1115	90	SANDSTONE: clear, translucent, light brown to light olive grey, very fine to fine grained, common medium to coarse grained, poor to moderately sorted, sub angular to rounded, weak to moderate calcareous cement, trace weak siliceous cement, trace siliceous matrix, trace to common pyrite, trace to common very fine to fine glauconite, trace carbonaceous specks, trace lithics, rare fossile fragments, predominantlly loose, trace moderately hard aggregates, poor to fair inferred and visual porosity, no fluorescence.
		10	SILTSTONE: olive grey to olive black, brown black, medium to dark grey, arenaceous, locally grading to a very fine Sandstone, in part moderately calcareous, trace pyrite, trace carbonaceous specks, trace glauconite, firm to moderately hard, sub blocky to blocky.
1115	1120	70	SANDSTONE: clear, translucent, light brown to light olive grey, very fine to fine grained, common medium to coarse grained, poor to moderately sorted, sub angular to rounded, weak to moderate calcareous cement, trace weak siliceous cement, trace siliceous matrix, trace to common pyrite, trace to common very fine to fine glauconite, trace carbonaceous specks, trace lithics, rare fossile fragments, trace Limestone fragments, predominantlly loose, trace moderately hard aggregates, poor to fair inferred and visual porosity, no fluorescence.
		30	SILTSTONE: olive grey to olive black, brown black, medium to dark grey, arenaceous, locally grading to a very fine Sandstone, in part moderately calcareous, trace pyrite, trace carbonaceous specks, trace glauconite, firm to moderately hard, sub blocky to blocky.
1120	1125	60	SANDSTONE: clear, translucent, light brown to light olive grey, very fine to medium grained, common coarse grained, moderately sorted, sub angular to rounded, weak to moderate calcareous cement, trace weak siliceous cement, trace glauconitic matrix, common to abundant glauconite, trace pyrite, trace carbonaceous specks, trace lithics, rare fossile fragments, predominantlly loose, trace moderately hard aggregates, poor to fair inferred and visual porosity, no fluorescence.
		40	SILTSTONE: olive grey to olive black, brown black, medium to dark grey, arenaceous, locally grading to a very fine Sandstone, in part moderately calcareous, trace pyrite, trace carbonaceous specks, trace glauconite, firm to moderately hard, sub blocky to blocky.
1125	1130	80	SANDSTONE: clear, translucent, light brown to light olive grey, very fine to medium grained, common coarse grained, moderately sorted, sub angular to rounded, weak to moderate calcareous cement, trace weak siliceous cement, trace glauconitic matrix, common to abundant glauconite, trace pyrite, trace carbonaceous specks, trace lithics, rare fossile fragments, predominantlly loose, trace moderately hard aggregates, poor to fair inferred and visual porosity, no fluorescence.
		20	SILTSTONE: olive grey to olive black, brown black, medium to dark grey, arenaceous, locally grading to a very fine Sandstone, in part moderately calcareous, trace pyrite, trace carbonaceous specks, trace glauconite, firm to moderately hard, sub blocky to blocky.

Depth From (m)	Depth To (m)	%	Lithology and Shows
1130	1135	70	SANDSTONE: clear, translucent, light brown to light olive grey, fine to medium grained, common coarse grained, moderately sorted, sub angular to sub round, moderate calcareous cement, common argillaceous to siliceous matrix, trace to locally common pyrite, common glauconite, trace carbonaceous specks, trace lithics, common moderately hard aggregates, predominantly loose, poor to fair inferred porosity, no fluorescence.
		30	SILTSTONE: olive grey to olive black, brown black, medium to dark grey, arenaceous, locally grading to a very fine Sandstone, in part moderately calcareous, trace pyrite, trace carbonaceous specks, trace glauconite, firm to moderately hard, sub blocky to blocky.
1135	1140	80	SANDSTONE: clear, translucent, light brown to light olive grey, fine to medium grained, common coarse grained, moderately sorted, sub angular to sub round, moderate calcareous cement, common argillaceous to siliceous matrix, trace to locally common pyrite, common glauconite, trace carbonaceous specks, trace lithics, common moderately hard aggregates, predominantly loose, poor to fair inferred porosity, no fluorescence.
		20	SILTSTONE: olive grey to olive black, brown black, medium to dark grey, arenaceous, locally grading to a very fine Sandstone, in part moderately calcareous, trace pyrite, trace carbonaceous specks, trace glauconite, firm to moderately hard, sub blocky to blocky.
1140	1145	60	SANDSTONE: clear, translucent, light brown, very fine to medium grained, predominantly fine to medium grained, poorly sorted, sub angular to sub round, weak siliceous cement, common to abundant argillaceous to siliceous cement, loc grading to a Siltstone, trace glauconite, trace pyrite, trace to common carbonaceous specks, rare lithics, predominantly loose, rare friable to moderately hard aggregates, poor visual and inferred porosity, no fluorescence.
		40	SILTSTONE: medium to medium dark grey, olive grey, brown grey, argillaceous to arenaceous, locally grading a very fine Sandstone, trace carbonaceous specks, trace glauconite, firm to moderately hard, sub blocky to blocky.
1145	1150	40	SANDSTONE: clear, translucent, light brown, very fine to medium grained, predominantly fine to medium grained, poorly sorted, sub angular to sub round, weak siliceous cement, common to abundant argillaceous to siliceous cement, loc grading to a Siltstone, trace glauconite, trace pyrite, trace to common carbonaceous specks, rare lithics, predominantly loose, rare friable to moderately hard aggregates, poor visual and inferred porosity, no fluorescence.
		60	SILTSTONE: medium to medium dark grey, olive grey, brown grey, argillaceous to arenaceous, locally grading a very fine Sandstone, trace carbonaceous specks, trace glauconite, firm to moderately hard, sub blocky to blocky.

Depth From (m)	Depth To (m)	%	Lithology and Shows
1150	1155	60	SANDSTONE: clear, translucent, light brown, very fine to medium grained, predominantly fine to medium grained, poorly sorted, sub angular to sub round, weak siliceous cement, common to abundant argillaceous to siliceous cement, loc grading to a Siltstone, trace glauconite, trace pyrite, trace to common carbonaceous specks, rare lithics, predominantly loose, rare friable to moderately hard aggregates, poor visual and inferred porosity, no fluorescence.
		40	SILTSTONE: medium to medium dark grey, olive grey, brown grey, argillaceous to arenaceous, locally grading a very fine Sandstone, trace carbonaceous specks, trace glauconite, firm to moderately hard, sub blocky to blocky.
1155	1160	50	SANDSTONE: clear, translucent, light brown, very fine to medium grained, predominantly fine to medium grained, poorly sorted, sub angular to sub round, weak siliceous cement, common to abundant argillaceous to siliceous cement, loc grading to a Siltstone, trace glauconite, trace pyrite, trace to common carbonaceous specks, rare lithics, predominantly loose, rare friable to moderately hard aggregates, poor visual and inferred porosity, no fluorescence.
		50	SILTSTONE: medium to medium dark grey, olive grey, brown grey, argillaceous to arenaceous, locally grading a very fine Sandstone, trace carbonaceous specks, trace glauconite, firm to moderately hard, sub blocky to blocky.
1160	1165	40	SANDSTONE: clear, translucent, light brown, very fine to medium grained, predominantly fine to medium grained, poorly sorted, sub angular to sub round, weak siliceous cement, common to abundant argillaceous to siliceous cement, loc grading to a Siltstone, trace glauconite, trace pyrite, trace to common carbonaceous specks, rare lithics, predominantly loose, rare friable to moderately hard aggregates, poor visual and inferred porosity, no fluorescence.
		60	SILTSTONE: medium to medium dark grey, olive grey, brown grey, argillaceous to arenaceous, locally grading a very fine Sandstone, trace carbonaceous specks, trace glauconite, firm to moderately hard, sub blocky to blocky.
1165	1170	30	SANDSTONE: clear, translucent, light brown, very fine to medium grained, predominantly fine to medium grained, poorly sorted, sub angular to sub round, weak siliceous cement, common to abundant argillaceous to siliceous cement, loc grading to a Siltstone, trace glauconite, trace pyrite, trace to common carbonaceous specks, rare lithics, predominantly loose, rare friable to moderately hard aggregates, poor visual and inferred porosity, no fluorescence.
		70	SILTSTONE: medium to medium dark grey, olive grey, brown grey, argillaceous to arenaceous, locally grading a very fine Sandstone, trace carbonaceous specks, trace glauconite, firm to moderately hard, sub blocky to blocky.

Depth From (m)	Depth To (m)	%	Lithology and Shows
1170	1175	20	SANDSTONE: clear, translucent, light brown, very fine to medium grained, predominantly fine grained, poorly sorted, sub angular to sub round, weak siliceous cement, common to abundant argillaceous to siliceous cement, locally grading to a Siltstone, trace glauconite, trace pyrite, trace to common carbonaceous specks, rare lithics, predominantly loose, rare friable to moderately hard aggregates, poor visual and inferred porosity, no fluorescence.
		80	SILTSTONE: medium to medium dark grey, olive grey, brown grey, argillaceous to arenaceous, locally grading a very fine Sandstone, trace carbonaceous specks, trace glauconite, firm to moderately hard, sub blocky to blocky.
1175	1180	30	SANDSTONE: clear, translucent, light brown, very fine to medium grained, predominantly fine grained, poorly sorted, sub angular to sub round, weak siliceous cement, common to abundant argillaceous to siliceous cement, locally grading to a Siltstone, trace glauconite, trace pyrite, trace to common carbonaceous specks, rare lithics, predominantly loose, rare friable to moderately hard aggregates, poor visual and inferred porosity, no fluorescence.
		70	SILTSTONE: medium to medium dark grey, olive grey, brown grey, argillaceous to arenaceous, locally grading a very fine Sandstone, trace carbonaceous specks, trace glauconite, firm to moderately hard, sub blocky to blocky.
1180	1185	40	SANDSTONE: clear, translucent, light brown, very fine to medium grained, predominantly fine grained, occasionally coarse grained, poorly sorted, sub angular to sub round, weak siliceous cement, common to abundant argillaceous to siliceous cement, locally grading to a Siltstone, trace to common glauconite, trace pyrite, trace to common carbonaceous specks, rare lithics, predominantly loose, rare friable to moderately hard aggregates, poor visual and inferred porosity, no fluorescence.
		60	SILTSTONE: medium to medium dark grey, olive grey, brown grey, argillaceous to arenaceous, locally grading a very fine Sandstone, trace carbonaceous specks, trace glauconite, firm to moderately hard, sub blocky to blocky.
1185	1190	30	SANDSTONE: clear, translucent, light brown, very fine to medium grained, predominantly fine grained, occasionally coarse grained, poorly sorted, sub angular to sub round, weak siliceous cement, common to abundant argillaceous to siliceous cement, locally grading to a Siltstone, trace to common glauconite, trace to common carbonaceous specks, rare lithics, predominantly loose, rare friable to moderately hard aggregates, poor visual and inferred porosity, no fluorescence.
		70	SILTSTONE: medium to medium dark grey, olive grey, brown grey, argillaceous to arenaceous, locally grading a very fine Sandstone, trace carbonaceous specks, trace glauconite, firm to moderately hard, sub blocky to blocky.

Depth From (m)	Depth To (m)	%	Lithology and Shows
1190	1195	70	SANDSTONE: clear, translucent, light brown, very fine to coarse grained, dominantly fine to medium grained, poorly sorted, sub angular to sub round, weak siliceous cement, common to abundant argillaceous to siliceous cement, locally grading to a Siltstone, trace to common glauconite, trace to common carbonaceous specks, trace fossile fragments, rare lithics, predominantlly loose, rare friable to moderately hard aggregates, poor visual and inferred porosity, no fluorescence.
		30	SILTSTONE: medium to medium dark grey, olive grey, brown grey, argillaceous to arenaceous, locally grading a very fine Sandstone, trace carbonaceous specks, trace glauconite, firm to moderately hard, sub blocky to blocky.
1195	1200	70	SANDSTONE: clear, translucent, light brown, very fine to coarse grained, dominantly fine to medium grained, poorly sorted, sub angular to sub round, weak siliceous cement, common to abundant argillaceous to siliceous cement, locally grading to a Siltstone, trace to common glauconite, trace to common carbonaceous specks, trace to common pyrite, trace fossile fragments, rare lithics, predominantlly loose, rare friable to moderately hard aggregates, poor visual and inferred porosity, no fluorescence.
		30	SILTSTONE: medium to medium dark grey, olive grey, brown grey, argillaceous to arenaceous, locally grading a very fine Sandstone, trace carbonaceous specks, trace glauconite, firm to moderately hard, sub blocky to blocky.
1200	1205	60	SANDSTONE: clear, translucent, light brown, very fine to coarse grained, dominantly fine to medium grained, poorly sorted, sub angular to sub round, common angular, weak siliceous cement, common to abundant argillaceous to siliceous cement, locally grading to a Siltstone, trace to common glauconite, trace to common carbonaceous specks, trace to common pyrite, trace fossile fragments, rare lithics, predominantlly loose, rare friable to moderately hard aggregates, poor visual and inferred porosity, no fluorescence.
		40	SILTSTONE: medium to medium dark grey, olive grey, brown grey, argillaceous to arenaceous, locally grading a very fine Sandstone, trace carbonaceous specks, trace glauconite, trace pyrite, firm to moderately hard, sub blocky to blocky.
1205	1210	50	SANDSTONE: clear, translucent, light brown, very fine to coarse grained, dominantly fine to medium grained, poorly sorted, sub angular to sub round, common angular, weak siliceous cement, common to abundant argillaceous to siliceous cement, locally grading to a Siltstone, trace to common glauconite, trace to common carbonaceous specks, trace to common pyrite, trace fossile fragments, rare lithics, predominantlly loose, rare friable to moderately hard aggregates, poor visual and inferred porosity, no fluorescence.
		50	SILTSTONE: medium to medium dark grey, olive grey, brown grey, argillaceous to arenaceous, locally grading a very fine Sandstone, trace carbonaceous specks, trace glauconite, trace pyrite, firm to moderately hard, sub blocky to blocky.

Depth From (m)	Depth To (m)	%	Lithology and Shows
1210	1215	70	SANDSTONE: clear, translucent, light brown, very fine to coarse grained, dominantly fine to medium grained, poorly sorted, sub angular to sub round, common angular, weak siliceous cement, common to abundant argillaceous to siliceous cement, locally grading to a Siltstone, trace to common glauconite, trace to common carbonaceous specks, trace pyrite, trace fossile fragments, rare lithics, predominantly loose, rare friable to moderately hard aggregates, poor visual and inferred porosity, no fluorescence.
		30	SILTSTONE: medium to medium dark grey, olive grey, dark brown grey, argillaceous to arenaceous, locally grading a very fine Sandstone, trace carbonaceous specks, trace glauconite, trace pyrite, firm to moderately hard, sub blocky to blocky.
1215	1220	60	SANDSTONE: clear, translucent, light brown, very fine to coarse grained, dominantly fine to medium grained, poorly sorted, sub angular to sub round, common angular, weak siliceous cement, common to abundant argillaceous to siliceous cement, locally grading to a Siltstone, trace to common glauconite, trace to common carbonaceous specks, trace pyrite, trace fossile fragments, rare lithics, predominantly loose, rare friable to moderately hard aggregates, poor visual and inferred porosity, no fluorescence.
		40	SILTSTONE: medium to medium dark grey, olive grey, dark brown grey, argillaceous to arenaceous, locally grading a very fine Sandstone, trace carbonaceous specks, trace glauconite, trace pyrite, firm to moderately hard, sub blocky to blocky.
1220	1225	80	SANDSTONE: clear to translucent, light brown to light olive grey, fine to coarse grained, predominantly medium grained, moderately sorted, weak to moderately calcareous cement, trace argillaceous to siliceous matrix, trace very fine glauconite, trace pyrite, trace carbonaceous inclusions, loose, rare friable aggregates, poor to fair inferred porosity, no fluorescence.
		20	SILTSTONE: light to medium brown grey, dark olive grey, medium to medium dark grey, argillaceous to arenaceous, trace carbonaceous specks and micro laminations, trace glauconite, rare pyrite, firm to moderately hard, sub blocky to blocky.
1225	1230	70	SANDSTONE: clear to translucent, light brown to light olive grey, fine to coarse grained, predominantly medium grained, poor to moderately sorted, weak to moderately calcareous cement, trace argillaceous to siliceous matrix, trace very fine glauconite, trace pyrite, trace carbonaceous inclusions, loose, rare friable aggregates, poor to fair inferred porosity, no fluorescence.
		30	SILTSTONE: light to medium brown grey, dark olive grey, medium to medium dark grey, argillaceous to arenaceous, trace carbonaceous specks and micro laminations, trace glauconite, rare pyrite, firm to moderately hard, sub blocky to blocky.

Depth From (m)	Depth To (m)	%	Lithology and Shows
1230	1235	70	SANDSTONE: clear to translucent, light brown to light olive grey, very fine to medium grained, common coarse grained, predominantly very fine to fine grained, poor to moderately sorted, weak to moderately calcareous cement, trace to common argillaceous to siliceous matrix, trace very fine glauconite, rare pyrite, trace carbonaceous inclusions, loose, trace friable aggregates, poor to fair inferred porosity, no fluorescence.
		30	SILTSTONE: light to medium brown grey, dark olive grey, medium to medium dark grey, argillaceous to arenaceous, trace carbonaceous specks and micro laminations, trace glauconite, rare pyrite, firm to moderately hard, sub blocky to blocky.
1235	1240	70	SANDSTONE: clear to translucent, light brown to light olive grey, very fine to medium grained, common coarse grained, predominantly very fine to fine grained, poor to moderately sorted, weak to moderately calcareous cement, trace to common argillaceous to siliceous matrix, trace very fine glauconite, rare pyrite, trace carbonaceous inclusions, loose, trace friable aggregates, poor to fair inferred porosity, no fluorescence.
		30	SILTSTONE: light to medium brown grey, dark olive grey, medium to dark grey, argillaceous to arenaceous, trace carbonaceous specks and micro laminations, trace glauconite, rare pyrite, firm to moderately hard, sub blocky to blocky.
1240	1245	60	SANDSTONE: clear to translucent, light brown to light olive grey, very fine to medium grained, common coarse grained, predominantly very fine to fine grained, poor to moderately sorted, weak to moderately calcareous cement, trace to common argillaceous to siliceous matrix, trace very fine glauconite, rare pyrite, trace carbonaceous inclusions, loose, trace friable aggregates, poor to fair inferred porosity, no fluorescence.
		40	SILTSTONE: dark grey, olive black, dark brown grey to brown black, medium grey, argillaceous to arenaceous, trace carbonaceous specks, trace micro micaceous, firm to moderately hard, locally hard, sub blocky to blocky.
1245	1250	90	SANDSTONE: clear, translucent, light brown to olive grey, very fine to medium grained, predominantly fine to medium, minor coarse to very coarse grained, moderately sorted, trace glauconite, trace carbonaceous specks, rare pyrite, rare fossile fragments, rare lithics, loose, fair inferred porosity, no fluorescence.
		10	SILTSTONE: dark grey, olive black, dark brown grey to brown black, medium grey, argillaceous to arenaceous, trace carbonaceous specks, trace micro micaceous, firm to moderately hard, locally hard, sub blocky to blocky.

Depth From (m)	Depth To (m)	%	Lithology and Shows
1250	1255	70	SANDSTONE: clear, translucent, light brown to olive grey, very fine to medium grained, predominantly fine to medium, minor coarse to very coarse grained, poor to moderately sorted, trace glauconite, trace carbonaceous specks, rare pyrite, rare fossil fragments, rare lithics, loose, fair inferred porosity, no fluorescence.
		30	SILTSTONE: dark grey, olive black, dark brown grey to brown black, medium grey, argillaceous to arenaceous, trace carbonaceous specks, trace micro micaceous, firm to moderately hard, locally hard, sub blocky to blocky.
1255	1260	80	SANDSTONE: clear, translucent, light brown to olive grey, very fine to medium grained, predominantly fine to medium, minor coarse grained, poor to moderately sorted, trace glauconite, trace carbonaceous specks, rare pyrite, rare fossil fragments, rare lithics, loose, fair inferred porosity, no fluorescence.
		20	SILTSTONE: dark grey, olive black, dark brown grey to brown black, medium grey, argillaceous to arenaceous, trace carbonaceous specks, trace micro micaceous, firm to moderately hard, locally hard, sub blocky to blocky.
1260	1265	70	SANDSTONE: clear, translucent, light brown to olive grey, very fine to medium grained, predominantly fine to medium, minor coarse grained, poor to moderately sorted, trace glauconite, trace carbonaceous specks, rare pyrite, rare fossil fragments, rare lithics, loose, fair inferred porosity, no fluorescence.
		30	SILTSTONE: dark grey, olive black, dark brown grey to brown black, medium grey, argillaceous to arenaceous, trace carbonaceous specks, trace micro micaceous, firm to moderately hard, locally hard, sub blocky to blocky.
1265	1268	60	SANDSTONE: clear, translucent, very fine to coarse grained, predominantly fine to medium grained, poorly sorted, sub angular to sub round, trace to common glauconite, trace to common carbonaceous specks, rare pyrite, trace lithics, trace fossil fragments, loose, poor inferred porosity, no fluorescence.
		40	SILTSTONE: dark grey, olive black, dark brown grey to brown black, medium grey, argillaceous to arenaceous, trace carbonaceous specks, trace micro micaceous, firm to moderately hard, locally hard, sub blocky to blocky.
1268	1271	70	SANDSTONE: clear, translucent, very fine to coarse grained, predominantly fine to medium grained, poorly sorted, sub angular to sub round, trace weak to moderately calcareous cement, trace argillaceous to siliceous matrix, trace to common glauconite, trace to common carbonaceous specks, rare pyrite, trace lithics, trace fossil fragments, loose, trace moderately hard aggregates, poor inferred porosity, no fluorescence.
		30	SILTSTONE: dark grey, olive black, dark brown grey to brown black, medium grey, argillaceous to arenaceous, trace carbonaceous specks, trace micro micaceous, trace disseminated pyrite, firm to moderately hard, locally hard, sub blocky to blocky.

Depth From (m)	Depth To (m)	%	Lithology and Shows
1271	1274	80	SANDSTONE: clear, translucent, light brown to light olive grey, very fine to medium grained, predominantly fine to medium grained, moderately sorted, sub angular to round, trace to common carbonaceous specks, trace glauconite, trace calcite grains, rare fossile fragments, rare lithics, loose, poor to fair inferred porosity, no fluorescence.
		20	SILTSTONE: dark grey, olive black, dark brown grey to brown black, medium grey, argillaceous to arenaceous, trace carbonaceous specks, trace micro micaceous, trace disseminated pyrite, firm to moderately hard, locally hard, sub blocky to blocky.
1274	1277	70	SANDSTONE: clear, translucent, light brown to light olive grey, very fine to medium grained, predominantly fine to medium grained, moderately sorted, sub angular to round, trace to common carbonaceous specks, trace glauconite, trace calcite grains, rare fossile fragments, rare lithics, loose, poor to fair inferred porosity, no fluorescence.
		30	SILTSTONE: medium dark grey, olive grey, brown grey, medium grey, argillaceous to arenaceous, trace carbonaceous specks, trace micro micaceous, trace disseminated pyrite, firm to moderately hard, locally hard, sub blocky to blocky.
1277	1280	60	SANDSTONE: clear, translucent, light brown to light olive grey, very fine to medium grained, predominantly fine to medium grained, moderately sorted, sub angular to round, trace to common carbonaceous specks, trace glauconite, trace calcite grains, rare fossile fragments, rare lithics, loose, poor to fair inferred porosity, no fluorescence.
		40	SILTSTONE: medium dark grey, olive grey, brown grey, argillaceous to arenaceous, trace carbonaceous specks, trace micro micaceous, trace disseminated pyrite, firm to moderately hard, locally hard, sub blocky to blocky.
1280	1283	40	SANDSTONE: clear, translucent, light brown to light olive grey, very fine to medium grained, predominantly fine to medium grained, moderately sorted, sub angular to round, trace to common carbonaceous specks, trace glauconite, trace calcite grains, rare fossile fragments, rare lithics, loose, poor to fair inferred porosity, no fluorescence.
		60	SILTSTONE: medium dark grey, olive grey, brown grey, argillaceous to arenaceous, trace carbonaceous specks, trace micro micaceous, trace disseminated pyrite, firm to moderately hard, locally hard, sub blocky to blocky.
1283	1286		Sample missed, fast ROP.
1286	1289	80	SANDSTONE: clear, translucent, light brown to light olive grey, very fine to medium grained, predominantly fine to medium grained, moderately sorted, minor weak siliceous cement, trace light brown to brown grey argillaceous to silty matrix, sub angular to round, trace to common carbonaceous specks, trace glauconite, trace calcite grains, rare fossile fragments, rare lithics, loose, minor friable aggregates, poor to fair inferred porosity, no fluorescence.

Depth From (m)	Depth To (m)	%	Lithology and Shows
1289	1292	20	SILTSTONE: medium dark grey, olive grey, brown grey, argillaceous to arenaceous, trace carbonaceous specks, trace micro micaceous, trace disseminated pyrite, firm to moderately hard, locally hard, sub blocky to blocky.
		80	SANDSTONE: clear, translucent, light brown to light olive grey, very fine to medium grained, predominantly fine to medium grained, moderately sorted, minor weak siliceous cement, trace light brown to brown grey argillaceous to silty matrix, sub angular to round, trace to common carbonaceous specks, trace glauconite, trace calcite grains, rare fossile fragments, rare lithics, loose, minor friable aggregates, poor to fair inferred porosity, no fluorescence.
1292	1295	20	SILTSTONE: medium dark grey, olive grey, brown grey, argillaceous to arenaceous, trace carbonaceous specks, trace micro micaceous, trace disseminated pyrite, firm to moderately hard, locally hard, sub blocky to blocky.
		80	SANDSTONE: clear, translucent, light brown to light olive grey, very fine to medium grained, predominantly fine to medium grained, moderately sorted, minor weak siliceous cement, trace light brown to brown grey argillaceous to silty matrix, sub angular to round, trace to common carbonaceous specks, trace glauconite, trace calcite grains, rare fossile fragments, rare pyrite, rare lithics, loose, minor friable aggregates, poor to fair inferred porosity, no fluorescence.
1295	1298	20	SILTSTONE: medium dark grey, olive grey, brown grey, argillaceous to arenaceous, trace carbonaceous specks, trace micro micaceous, trace disseminated pyrite, firm to moderately hard, locally hard, sub blocky to blocky.
		80	SANDSTONE: clear, translucent, light brown to light olive grey, very fine to medium grained, predominantly fine to medium grained, moderately sorted, minor weak siliceous cement, trace light brown to brown grey argillaceous to silty matrix, sub angular to round, trace to common carbonaceous specks, trace glauconite, trace calcite grains, rare fossile fragments, rare pyrite, rare lithics, loose, minor friable aggregates, poor to fair inferred porosity, no fluorescence.
1298	1301	20	SILTSTONE: medium dark grey, olive grey, brown grey, argillaceous to arenaceous, trace carbonaceous specks, trace micro micaceous, trace disseminated pyrite, firm to moderately hard, locally hard, sub blocky to blocky.
		80	SANDSTONE: clear, translucent, light brown to light olive grey, very fine to medium grained, predominantly fine to medium grained, moderately sorted, minor weak siliceous cement, trace light brown to brown grey argillaceous to silty matrix, sub angular to round, trace to common carbonaceous specks, trace to common glauconite, trace calcite grains, rare fossile fragments, rare pyrite, rare lithics, loose, minor friable aggregates, poor to fair inferred porosity, no fluorescence.

Depth From (m)	Depth To (m)	%	Lithology and Shows
1301	1304	20	SILTSTONE: medium dark grey, olive grey, brown grey, argillaceous to arenaceous, trace carbonaceous specks, trace micro micaceous, trace disseminated pyrite, firm to moderately hard, locally hard, sub blocky to blocky.
		70	SANDSTONE: clear, translucent, light brown to light olive grey, very fine to medium grained, predominantly fine to medium grained, occasionally coarse grains, moderately sorted, minor weak siliceous cement, trace light brown to brown grey argillaceous to silty matrix, sub angular to round, trace to common carbonaceous specks, trace to common glauconite, trace calcite grains, rare fossile fragments, rare pyrite, rare lithics, loose, minor friable aggregates, fair inferred porosity, no fluorescence.
1304	1307	30	SILTSTONE: medium dark grey, olive grey, brown grey, argillaceous to arenaceous, trace carbonaceous specks, trace micro micaceous, trace disseminated pyrite, firm to moderately hard, locally hard, sub blocky to blocky.
		90	SANDSTONE: clear, translucent, light brown, very fine to medium grained, predominantly fine to medium grained, occasionally coarse grains, moderately sorted, minor weak siliceous cement, trace light brown to brown grey argillaceous to silty matrix, sub angular to round, trace to common carbonaceous specks, trace to common glauconite, trace calcite grains, rare fossile fragments, rare pyrite, rare lithics, loose, minor friable aggregates, fair inferred porosity, no fluorescence.
1307	1310	10	SILTSTONE: medium dark grey, olive grey, brown grey, argillaceous to arenaceous, trace carbonaceous specks, trace micro micaceous, trace disseminated pyrite, firm to moderately hard, locally hard, sub blocky to blocky.
		90	SANDSTONE: clear, translucent, light brown, very fine to medium grained, predominantly fine to medium grained, occasionally coarse grains, moderately sorted, minor weak siliceous cement, trace light brown to brown grey argillaceous to silty matrix, sub angular to round, trace to common carbonaceous specks, trace to common glauconite, trace calcite grains, rare fossile fragments, rare pyrite, rare lithics, loose, minor friable aggregates, fair inferred porosity, no fluorescence.
1310	1313	10	SILTSTONE: medium dark grey, olive grey, brown grey, argillaceous to arenaceous, trace carbonaceous specks, trace micro micaceous, trace disseminated pyrite, firm to moderately hard, locally hard, sub blocky to blocky.
		70	SANDSTONE: clear, translucent, light brown, very fine to medium grained, predominantly fine to medium grained, occasionally coarse grains, moderately sorted, minor weak siliceous cement, trace light brown to brown grey argillaceous to silty matrix, sub angular to round, trace to common carbonaceous specks, trace to common glauconite, trace calcite grains, rare fossile fragments, rare pyrite, rare lithics, loose, minor friable aggregates, fair inferred porosity, no fluorescence.

Depth From (m)	Depth To (m)	%	Lithology and Shows
1313	1316	30	SILTSTONE: medium dark grey, olive grey, brown grey, argillaceous to arenaceous, trace carbonaceous specks, trace micro micaceous, trace disseminated pyrite, firm to moderately hard, locally hard, sub blocky to blocky.
		40	SANDSTONE: clear, translucent, light brown, very fine to medium grained, predominantly fine to medium grained, occasionally coarse to very coarse grains, moderately sorted, minor weak siliceous cement, trace sideritic cement, trace light brown to brown grey argillaceous to silty matrix, sub angular to round, trace to common carbonaceous specks, trace to common glauconite, trace calcite grains, trace fossil fragments, rare pyrite, rare lithics, loose, minor friable aggregates, fair inferred porosity, no fluorescence.
1316	1319	60	SILTSTONE: medium dark grey, olive grey, brown grey, argillaceous to arenaceous, trace carbonaceous specks, trace micro micaceous, trace disseminated pyrite, firm to moderately hard, locally hard, sub blocky to blocky.
		40	SANDSTONE: clear, translucent, light brown, very fine to medium grained, predominantly fine to medium grained, occasionally coarse to very coarse grains, moderately sorted, minor weak siliceous cement, trace sideritic cement, trace light brown to brown grey argillaceous to silty matrix, sub angular to round, trace to common carbonaceous specks, trace to common glauconite, trace calcite grains, trace fossil fragments, rare pyrite, rare lithics, loose, minor friable aggregates, fair inferred porosity, no fluorescence.
1319	1322	60	SILTSTONE: medium dark grey, olive grey, brown grey, argillaceous to arenaceous, trace carbonaceous specks, trace micro micaceous, trace disseminated pyrite, firm to moderately hard, locally hard, sub blocky to blocky.
		50	SANDSTONE: clear, translucent, light brown, very fine to medium grained, predominantly fine to medium grained, occasionally coarse to very coarse grains, moderately sorted, minor weak siliceous cement, moderate sideritic cement, trace light brown to brown grey argillaceous to silty matrix, sub angular to round, trace to common carbonaceous specks, trace to common glauconite, trace calcite grains, trace fossil fragments, rare pyrite, rare lithics, loose, common friable to moderately hard aggregates, poor inferred and visual porosity, no fluorescence.
1322	1325	50	SILTSTONE: medium dark grey, olive grey, brown grey, argillaceous to arenaceous, trace carbonaceous specks, trace micro micaceous, trace disseminated pyrite, firm to moderately hard, locally hard, sub blocky to blocky.
		40	SANDSTONE: clear, translucent, light brown, very fine to medium grained, predominantly fine to medium grained, common coarse to very coarse grains, moderately sorted, minor weak siliceous cement, moderate sideritic cement, trace light brown to brown grey argillaceous to silty matrix, sub angular to round, trace to common carbonaceous specks, trace to common glauconite, trace calcite grains, trace fossil fragments, rare pyrite, rare lithics, loose, common friable to moderately hard aggregates, poor inferred and visual porosity, no fluorescence.

Depth From (m)	Depth To (m)	%	Lithology and Shows
1325	1328	60	SILTSTONE: medium dark to dark grey, grey black, dark brown grey, olive grey, arenaceous to argillaceous, locally common carbonaceous specks and micro laminations, trace micro micaceous, moderately hard to hard, sub blocky to blocky.
		20	SANDSTONE: clear, translucent, light brown, very fine to medium grained, predominantly fine to medium grained, common coarse to very coarse grains, moderately sorted, minor weak siliceous cement, moderate sideritic cement, trace light brown to brown grey argillaceous to silty matrix, sub angular to round, trace to common carbonaceous specks, trace to common glauconite, trace calcite grains, trace fossil fragments, rare pyrite, rare lithics, loose, common friable to moderately hard aggregates, poor inferred and visual porosity, no fluorescence.
1328	1331	80	SILTSTONE: medium dark to dark grey, grey black, dark brown grey, olive grey, arenaceous to argillaceous, locally common carbonaceous specks and micro laminations, trace micro micaceous, moderately hard to hard, sub blocky to blocky.
		30	SANDSTONE: clear, translucent, light brown, very fine to medium grained, predominantly fine to medium grained, common coarse to very coarse grains, moderately sorted, minor weak siliceous cement, moderate sideritic cement, trace light brown to brown grey argillaceous to silty matrix, sub angular to round, trace to common carbonaceous specks, trace to common glauconite, trace calcite grains, trace fossil fragments, rare pyrite, rare lithics, loose, common friable to moderately hard aggregates, poor inferred and visual porosity, no fluorescence.
1331	1334	70	SILTSTONE: medium dark to dark grey, grey black, dark brown grey, olive grey, arenaceous to argillaceous, locally common carbonaceous specks and micro laminations, trace micro micaceous, moderately hard to hard, sub blocky to blocky.
		60	SANDSTONE: clear, translucent, light brown, very fine to medium grained, predominantly fine to medium grained, common coarse to very coarse grains, moderately sorted, minor weak siliceous cement, moderate sideritic cement, trace light brown to brown grey argillaceous to silty matrix, sub angular to round, trace to common carbonaceous specks, trace to common glauconite, trace calcite grains, trace fossil fragments, rare pyrite, rare lithics, loose, common friable to moderately hard aggregates, poor inferred and visual porosity, no fluorescence.
1334	1337	40	SILTSTONE: medium dark to dark grey, grey black, dark brown grey, olive grey, arenaceous to argillaceous, locally common carbonaceous specks and micro laminations, trace micro micaceous, moderately hard to hard, sub blocky to blocky.
		20	SANDSTONE: clear, translucent, light brown, very fine to medium grained, predominantly fine to medium grained, common coarse to very coarse grains, moderately sorted, minor weak siliceous cement, moderate sideritic cement, trace light brown to brown grey argillaceous to silty matrix, sub angular to round, trace to common carbonaceous specks, trace to common glauconite, trace calcite grains, trace fossil fragments, rare pyrite, rare lithics, loose, common friable to moderately hard aggregates, poor inferred and visual porosity, no fluorescence.

Depth From (m)	Depth To (m)	%	Lithology and Shows
1337	1340	80	SILTSTONE: medium dark to dark grey, grey black, dark brown grey, olive grey, arenaceous to argillaceous, locally trace to common carbonaceous specks and micro laminations, trace micro micaceous, moderately hard to hard, sub blocky to blocky.
		30	SANDSTONE: clear, translucent, light brown, fine to medium grained, common coarse to very coarse grains, moderately sorted, minor weak siliceous cement, moderate sideritic cement, trace light brown to brown grey argillaceous to silty matrix, sub angular to round, trace to common carbonaceous specks, trace to common glauconite, trace calcite grains, rare fossile fragments, rare pyrite, rare lithics, loose, common friable to moderately hard aggregates, poor inferred and visual porosity, no fluorescence.
1340	1343	70	SILTSTONE: medium dark to dark grey, grey black, dark brown grey, olive grey, arenaceous to argillaceous, locally trace to common carbonaceous specks and micro laminations, trace micro micaceous, moderately hard to hard, sub blocky to blocky.
		20	SANDSTONE: clear, translucent, light brown, fine to medium grained, common coarse to very coarse grains, moderately sorted, minor weak siliceous cement, moderate sideritic cement, trace light brown to brown grey argillaceous to silty matrix, sub angular to round, trace to common carbonaceous specks, trace to common glauconite, trace calcite grains, rare fossile fragments, rare pyrite, rare lithics, loose, common friable to moderately hard aggregates, poor inferred and visual porosity, no fluorescence.
1343	1346	80	SILTSTONE: medium dark to dark grey, grey black, dark brown grey, olive grey, arenaceous to argillaceous, locally trace to common carbonaceous specks and micro laminations, trace micro micaceous, moderately hard to hard, sub blocky to blocky.
		20	SANDSTONE: clear, translucent, light brown, fine to medium grained, common coarse to very coarse grains, moderately sorted, minor weak siliceous cement, moderate sideritic cement, trace light brown to brown grey argillaceous to silty matrix, sub angular to round, trace to common carbonaceous specks, trace to common glauconite, trace calcite grains, rare fossile fragments, rare pyrite, rare lithics, loose, common friable to moderately hard aggregates, poor inferred and visual porosity, no fluorescence.
1346	1349	80	SILTSTONE: medium dark to dark grey, grey black, dark brown grey, olive grey, arenaceous to argillaceous, locally trace to common carbonaceous specks and micro laminations, trace micro micaceous, moderately hard to hard, sub blocky to blocky.
		20	SANDSTONE: clear, translucent, light brown, fine to medium grained, common coarse to very coarse grains, moderately sorted, minor weak siliceous cement, moderate sideritic cement, trace light brown to brown grey argillaceous to silty matrix, sub angular to round, trace to common carbonaceous specks, trace to common glauconite, trace calcite grains, rare fossile fragments, rare pyrite, rare lithics, loose, common friable to moderately hard aggregates, poor inferred and visual porosity, no fluorescence.

Depth From (m)	Depth To (m)	%	Lithology and Shows
1349	1352	80	SILTSTONE: medium dark to dark grey, grey black, dark brown grey, olive grey, arenaceous to argillaceous, locally trace to common carbonaceous specks and micro laminations, trace micro micaceous, moderately hard to hard, sub blocky to blocky.
		10	SANDSTONE: clear, translucent, light brown, fine to medium grained, common coarse to very coarse grains, moderately sorted, minor weak siliceous cement, moderate sideritic cement, trace light brown to brown grey argillaceous to silty matrix, sub angular to round, trace to common carbonaceous specks, trace to common glauconite, trace calcite grains, rare fossile fragments, rare pyrite, rare lithics, loose, common friable to moderately hard aggregates, poor inferred and visual porosity, no fluorescence.
1352	1355	90	SILTSTONE: medium to dark grey, brown black to olive black, argillaceous, locally arenaceous, trace carbonaceous specks, trace micro micaceous, rare glauconite, firm to moderately hard, sub blocky to blocky.
		10	SANDSTONE: clear, translucent, light brown, fine to medium grained, common coarse to very coarse grains, moderately sorted, minor weak siliceous cement, moderate sideritic cement, trace light brown to brown grey argillaceous to silty matrix, sub angular to round, trace to common carbonaceous specks, trace to common glauconite, trace calcite grains, rare fossile fragments, rare pyrite, rare lithics, loose, common friable to moderately hard aggregates, poor inferred and visual porosity, no fluorescence.
1355	1358	90	SILTSTONE: medium to dark grey, brown black to olive black, argillaceous, locally arenaceous, trace carbonaceous specks, trace micro micaceous, rare glauconite, firm to moderately hard, sub blocky to blocky.
		100	SILTSTONE: medium to dark grey, brown black to olive black, argillaceous, locally arenaceous, trace carbonaceous specks, trace micro micaceous, rare glauconite, firm to moderately hard, sub blocky to blocky.
1358	1361	100	SILTSTONE: medium to dark grey, brown black to olive black, argillaceous, locally arenaceous, trace carbonaceous specks, trace micro micaceous, rare glauconite, firm to moderately hard, sub blocky to blocky.
1361	1364	80	SANDSTONE: clear, translucent, very fine to fine grained, occasionally medium grained, moderately sorted, sub angular to round, rare sideritic cement, trace argillaceous to silty matrix, trace very fine glauconite, trace carbonaceous specks, rare lithics, rare fossile fragments, loose, fair inferred porosity, no fluorescence.
		20	SILTSTONE: medium to dark grey, brown black to olive black, argillaceous, locally arenaceous, trace carbonaceous specks, trace micro micaceous, rare glauconite, firm to moderately hard, sub blocky to blocky.

Depth From (m)	Depth To (m)	%	Lithology and Shows
1364	1367	60	SANDSTONE: clear, translucent, very fine to fine grained, occasionally medium grained, moderately sorted, sub angular to round, rare sideritic cement, trace argillaceous to silty matrix, trace very fine glauconite, trace carbonaceous specks, rare lithics, rare fossile fragments, loose, fair inferred porosity, no fluorescence.
		40	SILTSTONE: medium to dark grey, brown black to olive black, argillaceous, locally arenaceous, trace carbonaceous specks, trace micro micaceous, rare glauconite, firm to moderately hard, sub blocky to blocky.
1367	1370	10	SANDSTONE: clear, translucent, very fine to fine grained, occasionally medium grained, moderately sorted, sub angular to round, rare sideritic cement, trace argillaceous to silty matrix, trace very fine glauconite, trace carbonaceous specks, rare lithics, rare fossile fragments, loose, fair inferred porosity, no fluorescence.
		90	SILTSTONE: medium to dark grey, brown black to olive black, argillaceous, locally arenaceous, trace carbonaceous specks, trace micro micaceous, rare glauconite, firm to moderately hard, sub blocky to blocky.
1370	1373	20	SANDSTONE: clear, translucent, very fine to medium grained, occasionally coarse grained, moderately sorted, sub angular to sub round, trace sideritic cement, trace to common argillaceous to silty matrix, trace very fine glauconite, trace carbonaceous specks, rare lithics, rare fossile fragments, predominantly loose, common moderately hard to hard aggregates, poor inferred and visual porosity, no fluorescence.
		80	SILTSTONE: medium to dark grey, brown black to olive black, argillaceous, locally arenaceous, trace carbonaceous specks, trace micro micaceous, rare glauconite, firm to moderately hard, sub blocky to blocky.
1373	1376	30	SANDSTONE: clear, translucent, very fine to medium grained, occasionally coarse grained, moderately sorted, sub angular to sub round, trace sideritic cement, trace to common argillaceous to silty matrix, trace very fine glauconite, trace carbonaceous specks, rare lithics, rare fossile fragments, predominantly loose, common moderately hard to hard aggregates, poor inferred and visual porosity, no fluorescence.
		70	SILTSTONE: medium to dark grey, brown black to olive black, argillaceous, locally arenaceous, trace carbonaceous specks, trace micro micaceous, rare glauconite, firm to moderately hard, sub blocky to blocky.
1376	1379	20	SANDSTONE: clear, translucent, light brown to olive grey, fine to medium grained, common coarse grained, moderately sorted, sub angular to sub round, trace sideritic cement, trace argillaceous to silty matrix, trace glauconite, trace fossile fragments, trace carbonaceous specks, loose, moderately hard aggregates, poor to fair inferred porosity, no fluorescence.

Depth From (m)	Depth To (m)	%	Lithology and Shows
1379	1382	80	SILTSTONE: medium to dark grey, brown black to olive black, argillaceous, locally arenaceous, trace carbonaceous specks, trace micro micaceous, rare glauconite, firm to moderately hard, sub blocky to blocky.
		40	SANDSTONE: clear, translucent, light brown to olive grey, fine to medium grained, common coarse grained, moderately sorted, sub angular to sub round, trace sideritic cement, trace argillaceous to silty matrix, trace glauconite, trace fossile fragments, trace carbonaceous specks, loose, moderately hard aggregates, poor to fair inferred porosity, no fluorescence.
1382	1385	60	SILTSTONE: medium to dark grey, brown black to olive black, argillaceous, locally arenaceous, trace carbonaceous specks, trace micro micaceous, rare glauconite, firm to moderately hard, sub blocky to blocky.
		80	SANDSTONE: clear, translucent, very fine to medium grained, occasionally coarse grained, moderately sorted, sub angular to round, rare sideritic cement, trace argillaceous to silty matrix, trace very fine glauconite, trace carbonaceous specks, rare lithics, rare fossile fragments, loose, fair inferred porosity, no fluorescence.
1385	1388	20	SILTSTONE: medium to dark grey, brown black to olive black, argillaceous, locally arenaceous, trace carbonaceous specks, trace micro micaceous, rare glauconite, firm to moderately hard, sub blocky to blocky.
		70	SANDSTONE: clear, translucent, very fine to medium grained, occasionally coarse grained, moderately sorted, sub angular to round, rare sideritic cement, trace argillaceous to silty matrix, trace very fine glauconite, trace carbonaceous specks, rare lithics, rare fossile fragments, loose, fair inferred porosity, no fluorescence.
1388	1391	30	SILTSTONE: medium to dark grey, brown black to olive black, argillaceous, locally arenaceous, trace carbonaceous specks, trace micro micaceous, rare glauconite, firm to moderately hard, sub blocky to blocky.
		70	SANDSTONE: clear, translucent, very fine to medium grained, common medium to coarse grained, moderately sorted, sub angular to round, rare sideritic cement, trace argillaceous to silty matrix, trace very fine glauconite, trace carbonaceous specks, rare lithics, rare fossile fragments, loose, fair inferred porosity, no fluorescence.
1391	1394	30	SILTSTONE: medium to dark grey, brown black to olive black, argillaceous, locally arenaceous, trace carbonaceous specks, trace micro micaceous, rare glauconite, firm to moderately hard, sub blocky to blocky.
		50	SANDSTONE: clear, translucent, very fine to medium grained, common medium to coarse grained, moderately sorted, sub angular to round, rare sideritic cement, trace argillaceous to silty matrix, trace very fine glauconite, trace carbonaceous specks, rare lithics, rare fossile fragments, loose, fair inferred porosity, no fluorescence.

Depth From (m)	Depth To (m)	%	Lithology and Shows
1394	1397	50	SILTSTONE: medium to dark grey, brown black to olive black, argillaceous, locally arenaceous, trace carbonaceous specks, trace micro micaceous, rare glauconite, firm to moderately hard, sub blocky to blocky.
		40	SANDSTONE: clear, translucent, very fine to medium grained, common medium to coarse grained, moderately sorted, sub angular to round, rare sideritic cement, trace argillaceous to silty matrix, trace very fine glauconite, trace carbonaceous specks, rare lithics, rare fossile fragments, loose, fair inferred porosity, no fluorescence.
1397	1400	60	SILTSTONE: medium to dark grey, brown black to olive black, argillaceous, locally arenaceous, trace carbonaceous specks, trace micro micaceous, rare glauconite, firm to moderately hard, sub blocky to blocky.
		10	SANDSTONE: clear, translucent, very fine to medium grained, common medium to coarse grained, moderately sorted, sub angular to round, rare sideritic cement, trace argillaceous to silty matrix, trace very fine glauconite, trace carbonaceous specks, rare lithics, rare fossile fragments, loose, fair inferred porosity, no fluorescence.
1400	1403	90	SILTSTONE: medium to dark grey, brown black to olive black, argillaceous, locally arenaceous, trace carbonaceous specks, trace micro micaceous, rare glauconite, firm to moderately hard, sub blocky to blocky.
		100	SILTSTONE: as above.
1403	1406	100	SILTSTONE: dark, grey, medium grey in part, very dark brownish grey, argillaceous, slightly arenaceous in part, trace fine carbonaceous specks, locally trace micro mica, trace very fine glauconite, moderately hard, sub blocky to blocky.
1406	1409	100	SILTSTONE: as above.
1409	1412	90	SILTSTONE: as above, trace fossil fragments.
		10	SANDSTONE: clear, translucent, slightly Fe stain in part, very fine to medium predominantly fine grained, moderately well sub rounded, sub angular to predominantly sub rounded, trace light grey argillaceous / silty matrix, trace very fine glauconite, trace carbonaceous specks, rare lithics, minor fossil fragments, predominantly loose, fair inferred porosity, no fluorescence.
1412	1415	100	SILTSTONE: dark brownish grey, dark grey, argillaceous, slightly arenaceous in part with trace very fine sandstone laminae, rare very fine carbonaceous specks, minor fossil fragments, uniform, moderately hard, sub blocky to blocky, trace sub fissile.
1415	1418	100	SILTSTONE: as above.
1418	1421	100	SILTSTONE: as above.

Depth From (m)	Depth To (m)	%	Lithology and Shows
1421	1424	100	SILTSTONE: dark brownish grey, medium to dark grey, argillaceous, slightly arenaceous in part with trace very fine sandstone laminae, rare very fine carbonaceous specks, minor fossil fragments, uniform, moderately hard, sub blocky to blocky, trace sub fissile.
1424	1427	100	SILTSTONE: medium to dark brownish grey, dark grey, argillaceous, slightly arenaceous in part with thin very fine sandstone laminae, trace fine carbonaceous specks, minor shell fragments, trace coarse loose clear quartz grains, firm to moderately hard, sub blocky to blocky, occasionally sub fissile.
1427	1430	100	SILTSTONE: medium to dark brownish grey, dark grey, argillaceous, slightly arenaceous in part, rare very fine glauconite, rare fossil fragments, trace nodular pyrite, trace loose coarse quartz grains, firm to moderately hard, sub blocky to blocky.
1430	1433	90 10	SILTSTONE: generally as above, common fossil fragments. SANDSTONE: clear, translucent, very fine to medium predominantly fine grained, sub angular to predominantly sub rounded, moderately well sorted, trace weak calcareous cement, slightly silty matrix in part, friable to loose, fair to good inferred porosity, no fluorescence.
1433	1436	100	SILTSTONE: dark brownish grey, dark grey, generally as above, common fossil fragments, rare loose coarse quartz grains.
1436	1439	90 10	SILTSTONE: medium to predominantly dark brownish grey, dark grey black in part, argillaceous, slightly arenaceous in part, rare very fine glauconite, minor fossil fragments, trace nodular pyrite, trace loose coarse quartz grains, firm to moderately hard, sub blocky to blocky. SANDSTONE: clear, translucent, very fine to medium predominantly fine grained, sub angular to predominantly sub rounded, moderately well sorted, trace weak calcareous cement, slightly silty matrix in part, friable to loose, fair to good inferred porosity, no fluorescence.
1439	1442	100 trace	SILTSTONE: medium dark grey, medium to dark brownish grey, argillaceous, rare glauconite, rare fossil fragments, trace carbonaceous flecks, firm to moderately hard, sub blocky to occasionally sub fissile. SANDSTONE: as above, trace – 5%.
1442	1445	100	SILTSTONE: medium dark grey, medium to dark brownish grey, argillaceous, rare glauconite, trace nodular pyrite, rare fossil fragments, trace carbonaceous flecks, firm to moderately hard, sub blocky to occasionally sub fissile.
1445	1448	100	SILTSTONE: medium dark grey, medium to dark brownish grey, argillaceous, rare glauconite, trace nodular pyrite, rare fossil fragments, trace carbonaceous flecks, firm to moderately hard, sub blocky to occasionally sub fissile.
1448	1451	100	SILTSTONE: as above, medium dark brownish grey.

Depth From (m)	Depth To (m)	%	Lithology and Shows
1451	1454	100	SILTSTONE: medium to dark brownish grey, argillaceous, minor fine grained glauconite, trace nodular pyrite, rare fossil fragments, firm to moderately hard, sub blocky to occasionally sub fissile.
1454	1457	100 trace – 5%	SILTSTONE: as above. SANDSTONE: as above, clear, translucent, very fine to medium predominantly fine grained, sub angular to predominantly sub rounded, moderately well sorted, trace weak calcareous cement, slightly silty matrix in part, friable to loose, fair to good inferred porosity, no fluorescence.
1457	1460	90	SILTSTONE: medium to dark brownish grey, argillaceous, common glauconite, trace nodular pyrite, rare fossil fragments, firm to occasionally moderately hard, sub blocky to blocky.
		10	SANDSTONE: clear, translucent, very fine to medium predominantly fine grained, rare coarse grain, sub angular to sub rounded, trace light grey silty matrix, trace glauconite, trace nodular pyrite, rare fossil fragments, friable to predominantly loose, fair to good inferred porosity, no fluorescence.
1460	1463	100	SILTSTONE: medium to dark brownish grey, argillaceous, common glauconite, trace nodular pyrite, rare fossil fragments, firm to occasionally moderately hard, sub blocky to blocky.
1463	1466	100	SILTSTONE: medium to dark brownish grey, argillaceous, common glauconite, trace nodular pyrite, rare fossil fragments, firm to occasionally moderately hard, sub blocky to blocky.
1466	1469	100	SILTSTONE: medium to dark brownish grey, dark grey, common glauconite, trace to rare nodular pyrite, trace fossil fragments, firm to moderately hard, sub blocky to sub fissile.
1469	1472	100	SILTSTONE: medium to dark brownish grey, dark grey, common glauconite, trace to rare nodular pyrite, trace fossil fragments, firm to moderately hard, sub blocky to sub fissile.
1472	1475	100	SILTSTONE: medium to dark brownish grey, dark grey, common glauconite, trace to rare nodular pyrite, trace fossil fragments, firm to moderately hard, sub blocky to sub fissile.
1475	1478	100	SILTSTONE: medium to dark brownish grey, dark grey, common glauconite, trace to rare nodular pyrite, trace fossil fragments, firm to moderately hard, sub blocky to sub fissile.
1478	1481	80	SILTSTONE: medium dark brownish grey, common glauconite, generally as above.
		20	SANDSTONE: clear, translucent, very fine to medium predominantly fine grained, sub angular to sub rounded, predominantly loose quartz grains, fair to good inferred porosity, no fluorescence.

Depth From (m)	Depth To (m)	%	Lithology and Shows
1481	1484	70 30	SILTSTONE: as above. SANDSTONE: translucent, clear, fine to medium predominantly fine grained, moderately well sorted, sub rounded to occasionally sub angular, rare medium grey silty matrix, minor carbonaceous fragments, rare glauconite, trace fossil fragments, trace cream lithics, friable to predominantly loose, fair inferred porosity, no fluorescence.
1484	1487	60 40	SILTSTONE: medium brownish grey, medium dark brownish grey, argillaceous, common fine grained glauconite, trace nodular pyrite, trace lithics, firm to occasionally moderately hard, sub blocky to blocky, occasionally sub fissile. SANDSTONE: clear, translucent, fine to medium, trace medium to coarse, moderately well sorted, sub angular to sub rounded, common carbonaceous fragments, trace very fine glauconite, trace fine grained lithics, predominantly loose clean quartz grains, fair to good inferred porosity, no fluorescence.
1487	1490	60 40	SILTSTONE: as above. SANDSTONE: clear, translucent, fine to medium grained, trace medium to coarse, moderately well sorted, sub angular to sub rounded, trace light grey silty matrix, common carbonaceous fragments, minor fine lithics, rare glauconite, trace fossil fragments, friable to predominantly loose, predominantly loose quartz grains, fair to good inferred porosity, no fluorescence.
1490	1493	40 60	SILTSTONE: as above. SANDSTONE: clear, translucent, slightly yellow stain in part, fine to coarse predominantly medium grained, sub angular to sub rounded, weak calcareous cement, minor white argillaceous matrix, trace light grey silty matrix, common carbonaceous fragments, trace very fine glauconite, trace fossil fragments, predominantly loose, friable to locally moderately hard aggregates in part, fair to good inferred porosity, no fluorescence.
1493	1496	40 60	SILTSTONE: as above. SANDSTONE: clear, translucent, slightly yellow stain in part, fine to coarse predominantly medium grained, sub angular to sub rounded, weak calcareous cement, minor white argillaceous matrix, trace light grey silty matrix, common carbonaceous fragments, trace very fine glauconite, trace fossil fragments, predominantly loose, friable to locally moderately hard aggregates in part, fair to good inferred porosity, no fluorescence.
1496	1499	30	SILTSTONE: medium dark grey, becoming light to medium grey, argillaceous, very finely arenaceous, trace shelly fragments, minor carbonaceous flecks, grading to CLAYSTONE in part, firm, blocky to sub blocky.

Depth From (m)	Depth To (m)	%	Lithology and Shows
		70	SANDSTONE: clear, translucent, light grey, very fine to medium predominantly fine grained, trace coarse grains, rare siliceous cement, predominantly loose, common carbonaceous fragments, trace cream / orange lithics, rare fossil fragments, fair to good inferred porosity, no fluorescence.
1499	1502	100	SANDSTONE: clear, translucent, very fine to fine grained, moderately well sorted, sub angular to sub rounded, common light grey silty matrix, common fine carbonaceous specks, trace fossil fragments, rare very fine lithics, fair inferred porosity, no fluorescence.
1502	1505	100	SANDSTONE: light grey, translucent, clear, very fine to fine occasionally medium grained, moderately well sorted, sub angular to sub rounded, rare weak siliceous cement, common very light brownish grey / greenish grey argillaceous to silty matrix, common fine carbonaceous specks / fragments, trace very fine lithics, trace fossil / shell fragments, friable, poor inferred porosity, no fluorescence.
1505	1508	80	SANDSTONE: as above, becoming predominantly loose.
		20	SILTSTONE: light greenish grey, very light brownish grey, arenaceous grading to silty very fine SANDSTONE, rare very fine lithics, trace fine carbonaceous specks, soft to firm, sub blocky.
1508	1511	80	SANDSTONE: as above, becoming predominantly loose and fine grained.
		20	SILTSTONE: light greenish grey, very light brownish grey, arenaceous grading to silty very fine SANDSTONE, rare very fine lithics, trace fine carbonaceous specks, soft to firm, sub blocky.
1511	1514	70	SANDSTONE: light grey, translucent, clear, very fine to fine occasionally medium grained, trace coarse, moderately well sorted, sub angular to sub rounded, rare weak siliceous cement, common very light brownish grey argillaceous to silty matrix, common fine carbonaceous fragments, trace very fine lithics, trace fossil fragments, friable, poor to fair inferred porosity, no fluorescence.
		30	SILTSTONE: light greenish grey, very light brownish grey, arenaceous grading to silty very fine SANDSTONE, rare very fine lithics, trace fine carbonaceous specks, soft to firm, sub blocky.
1514	1517	40	SANDSTONE: as above, light grey, translucent clear, very fine to fine grained, moderately well sorted, sub angular to sub rounded, common light grey silty / argillaceous matrix, minor fine carbonaceous specks, trace lithics, friable to firm aggregates, loose in part, poor inferred porosity, no fluorescence.
		60	SILTSTONE: light to medium grey, argillaceous, very finely arenaceous, rare fine carbonaceous specks, trace very fine lithics, soft to firm, blocky.

Depth From (m)	Depth To (m)	%	Lithology and Shows
1517	1520	70	SANDSTONE: translucent, clear, light brown, light grey, very fine to fine grained, sub angular to predominantly sub rounded, minor light grey silty matrix, trace fine lithics, rare fine carbonaceous specks, trace micro mica, friable to loose, poor to fair inferred porosity, no fluorescence.
		30	SILTSTONE: argillaceous as above.
1520	1523	80	SANDSTONE: generally as above, rare medium grained.
		20	SILTSTONE: as above.
1523	1526	80	SANDSTONE: generally as above, translucent, clear, light brown, light grey, very fine to predominantly fine grained, trace medium, sub angular to predominantly sub rounded, rare light grey silty matrix, trace fine lithics, rare fine carbonaceous specks, trace micro mica, friable to loose, poor to fair inferred porosity, no fluorescence.
		20	SILTSTONE: as above, light to medium grey, argillaceous, very finely arenaceous, rare fine carbonaceous specks, trace very fine lithics, soft to firm, blocky.
1526	1529	80	SANDSTONE: translucent, clear, light brown, fine to medium, moderately well sorted, sub angular to predominantly sub rounded, trace light grey silty matrix, trace fine lithics, rare fine carbonaceous specks, trace fossil fragments, friable to predominantly loose, poor to fair inferred porosity, no fluorescence.
		20	SILTSTONE: generally as above, light to medium grey, light brownish grey, argillaceous, very finely arenaceous, rare fine carbonaceous specks, minor, very fine lithics, soft to firm, blocky.
1529	1532	90	SANDSTONE: fine to medium, translucent, clear, as above.
		10	SILTSTONE: light grey as above.
1532	1535	70	SANDSTONE: as above.
		30	SILTSTONE: as above, light to medium grey, light brownish grey, argillaceous, very finely arenaceous, rare fine carbonaceous specks, minor, very fine lithics, soft to firm, blocky.
1535	1538	70	SANDSTONE: as above, translucent, clear, light brown, fine to medium, moderately well sorted, sub angular to predominantly sub rounded, trace light grey silty matrix, trace fine lithics, rare fine carbonaceous specks, trace fossil fragments, friable to predominantly loose, poor to fair inferred porosity, no fluorescence.
		30	SILTSTONE: as above.
1538	1541	70	SANDSTONE: as above.
		30	SILTSTONE: as above.
1541	1544	90	SANDSTONE: translucent, clear, light brown, fine to medium, moderately well sorted, sub angular to predominantly sub rounded, trace light grey silty matrix, trace fine lithics, rare fine carbonaceous specks, trace fossil fragments, friable to predominantly loose, poor to fair inferred porosity, no fluorescence.

Depth From (m)	Depth To (m)	%	Lithology and Shows
		10	SILTSTONE: as above.
1544	1547	90	SANDSTONE: translucent, clear, fine grained, loose generally as above.
		10	SILTSTONE: as above.
1547	1550	60	SANDSTONE: as above.
		40	SILTSTONE: as above.
1550	1553	40	SANDSTONE: as above.
		60	SILTSTONE: as above.
1553	1556	30	SANDSTONE: translucent, clear, light grey, very fine to medium predominantly fine grained, sub angular to sub rounded, rare siliceous cement, minor light grey argillaceous matrix, rare carbonaceous specks, trace very fine lithics, friable aggregates, commonly loose, poor to fair inferred porosity, no fluorescence.
		70	SILTSTONE: light to occasionally medium grey, light brownish grey, argillaceous, very finely arenaceous, rare fine carbonaceous specks, minor, very fine lithics, soft to firm, blocky.
1556	1559	60	SANDSTONE: light grey, light brownish grey, translucent, very fine to fine occasionally medium grained, sub angular to sub rounded, moderately well sorted, rare weak siliceous cement, common light grey argillaceous to silty matrix, trace fine carbonaceous specks, trace fossil fragments, firm to friable, occasionally loose, poor inferred porosity, no fluorescence.
		40	SILTSTONE: light grey as above.
1559	1562	70	SANDSTONE: as above, becoming translucent, clear in part.
		30	SILTSTONE: light grey, light brownish grey, very finely arenaceous as above.
1562	1565	50	SANDSTONE: light grey, translucent, clear, very fine to fine occasionally medium grained, moderately well sorted, generally as above.
		50	SILTSTONE: light grey, light brownish grey, light brown in part, very finely arenaceous, trace very fine lithics, trace fine carbonaceous specks, soft to firm, sub blocky.
1565	1568	50	SANDSTONE: light grey, translucent, clear, very fine to fine trace medium grained, sub angular to sub rounded, weak siliceous cement in part, common light grey argillaceous matrix, trace very fine carbonaceous specks, trace nodular pyrite, trace very fine lithics, trace calcareous fragments, firm to friable, occasionally loose, poor inferred porosity, no fluorescence.
		50	SILTSTONE: very finely arenaceous as above.

Depth From (m)	Depth To (m)	%	Lithology and Shows
1568	1571	40	SANDSTONE: light grey, translucent, clear, very fine to fine trace medium grained, sub angular to sub rounded, weak siliceous cement in part, common light grey argillaceous matrix, trace very fine carbonaceous specks, trace nodular pyrite, trace very fine lithics, trace calcareous fragments, firm to friable, occasionally loose, poor inferred porosity, no fluorescence.
		60	SILTSTONE: light grey, light brownish grey, light brown in part, very finely arenaceous, trace very fine lithics, trace fine carbonaceous specks, soft to firm, sub blocky.
1571	1574	30	SANDSTONE: light grey, translucent, clear, very fine to fine, trace medium grained, sub angular to sub rounded, weak siliceous cement in part, common light grey argillaceous matrix, trace very fine carbonaceous specks, trace nodular pyrite, trace very fine lithics, trace calcareous fragments, firm to friable, occasionally loose, poor inferred porosity, no fluorescence.
		70	SILTSTONE: light to medium grey, light brownish grey, light brown in part, very finely arenaceous, trace very fine lithics, trace fine carbonaceous specks, soft to firm, sub blocky.
1574	1577	40	SANDSTONE: light grey, translucent, clear, very fine to fine, trace medium grained, sub angular to sub rounded, weak siliceous cement in part, common light grey argillaceous matrix, trace very fine carbonaceous specks, trace glauconite, rare pyrite, trace very fine lithics, trace calcareous fragments, firm to friable, occasionally loose, poor inferred porosity, no fluorescence.
		60	SILTSTONE: light to medium grey, light brownish grey, light brown in part, very finely arenaceous, trace very fine lithics, trace fine carbonaceous specks, soft to firm, sub blocky.
1577	1580	30	SANDSTONE: light grey, translucent, clear, very fine to fine, trace medium grained, sub angular to sub rounded, weak siliceous cement in part, common light grey argillaceous matrix, trace very fine carbonaceous specks, trace glauconite, rare pyrite, trace very fine lithics, trace calcareous fragments, firm to friable, occasionally loose, poor inferred porosity, no fluorescence.
		70	SILTSTONE: light to medium grey, light brownish grey, light brown in part, very finely arenaceous, trace very fine lithics, trace fine carbonaceous specks, soft to firm, sub blocky.
1580	1583	20	SANDSTONE: light grey, translucent, clear, very fine to fine, trace medium grained, sub angular to sub rounded, weak siliceous cement in part, common light grey argillaceous matrix, trace very fine carbonaceous specks, trace glauconite, rare pyrite, trace very fine lithics, trace calcareous fragments, firm to friable, occasionally loose, poor inferred porosity, no fluorescence.
		80	SILTSTONE: light to medium grey, light brownish grey, light brown in part, very finely arenaceous, trace very fine lithics, trace fine carbonaceous specks, soft to firm, sub blocky.

Depth From (m)	Depth To (m)	%	Lithology and Shows
1583	1586	20	SANDSTONE: light grey, translucent, clear, very fine to fine, trace medium grained, sub angular to sub rounded, weak siliceous cement in part, common light grey argillaceous matrix, trace very fine carbonaceous specks, trace glauconite, rare pyrite, trace very fine lithics, trace calcareous fragments, firm to friable, occasionally loose, poor inferred porosity, no fluorescence.
		80	SILTSTONE: light to medium grey, light brownish grey, light brown in part, very finely arenaceous, trace very fine lithics, trace fine carbonaceous specks, soft to firm, sub blocky.
1586	1589	40	SANDSTONE: light grey, translucent, clear, very fine to fine, trace medium grained, sub angular to sub rounded, weak siliceous cement in part, common to abundant light grey argillaceous to silty matrix, in part grading to an Arenaceous Siltstone, trace very fine carbonaceous specks, trace glauconite, rare pyrite, trace very fine lithics, trace calcareous fragments, firm to friable, occasionally loose, poor inferred porosity, no fluorescence.
		60	SILTSTONE: light to medium grey, light brownish grey, light brown in part, very finely arenaceous, trace very fine lithics, trace fine carbonaceous specks, soft to firm, sub blocky.
1589	1592	50	SANDSTONE: light grey, translucent, clear, very fine to fine, trace medium grained, sub angular to sub rounded, weak siliceous cement in part, common to abundant light grey argillaceous to silty matrix, in part grading to an Arenaceous Siltstone, trace very fine carbonaceous specks, trace glauconite, rare nodular pyrite, trace very fine lithics, trace calcareous fragments, firm to friable, occasionally loose, poor inferred porosity, no fluorescence.
		50	SILTSTONE: light to medium grey, light brownish grey, light brown in part, very finely arenaceous, trace very fine lithics, trace fine carbonaceous specks, soft to firm, sub blocky.
1592	1595	60	SANDSTONE: light grey, translucent, clear, very fine to fine, trace medium grained, sub angular to sub rounded, weak siliceous cement in part, common to abundant light grey argillaceous to silty matrix, in part grading to an Arenaceous Siltstone, trace very fine carbonaceous specks, trace glauconite, rare nodular pyrite, trace very fine lithics, trace calcareous fragments, firm to friable, occasionally loose, poor inferred porosity, no fluorescence.
		40	SILTSTONE: light to medium grey, light brownish grey, light brown in part, very finely arenaceous, trace very fine lithics, trace fine carbonaceous specks, soft to firm, sub blocky.
1595	1598	50	SANDSTONE: light grey, translucent, clear, very fine to fine, trace medium grained, sub angular to sub rounded, weak siliceous cement in part, common to abundant light grey argillaceous to silty matrix, in part grading to an Arenaceous Siltstone, trace very fine carbonaceous specks, trace glauconite, rare nodular pyrite, trace very fine lithics, trace calcareous fragments, firm to friable, occasionally loose, poor inferred porosity, no fluorescence.

Depth From (m)	Depth To (m)	%	Lithology and Shows
1598	1601	50	SILTSTONE: light to medium grey, light brownish grey, light brown in part, very finely arenaceous, trace very fine lithics, trace fine carbonaceous specks, soft to firm, sub blocky.
		60 40	SANDSTONE: light grey as above. SILTSTONE: very fine arenaceous as above.
1601	1604	60	SANDSTONE: light grey as above.
		40	SILTSTONE: very fine arenaceous as above.
1604	1607	80	SANDSTONE: translucent, clear, light grey, light greenish grey in part, fine grained, trace medium, sub angular to sub round, weak siliceous cement in part, rare to minor light grey argillaceous matrix, occasionally grading to arenaceous siltstone, rare carbonaceous specks / fragments, rare fine grained lithics, firm to friable, loose in part, poor to fair inferred porosity, no fluorescence.
		20	SILTSTONE: as above, light to medium grey, light brownish grey, light brown in part, very finely arenaceous, trace very fine lithics, trace fine carbonaceous specks, soft to firm, sub blocky.
1607	1610	90	SANDSTONE: translucent, clear, light grey, light greenish grey in part, fine grained, trace medium, sub angular to sub round, weak siliceous cement in part, rare to minor light grey argillaceous matrix, occasionally grading to arenaceous siltstone, rare carbonaceous specks / fragments, rare fine grained lithics, firm to friable, loose in part, poor to fair inferred porosity, no fluorescence.
		10	SILTSTONE: as above, light to medium grey, light brownish grey, light brown in part, very finely arenaceous, trace very fine lithics, trace fine carbonaceous specks, soft to firm, sub blocky.
1610	1613	90	SANDSTONE: translucent, clear, light grey, light greenish grey in part, fine grained, trace medium, sub angular to sub round, weak siliceous cement in part, rare to minor light grey argillaceous matrix, occasionally grading to arenaceous siltstone, rare carbonaceous specks / fragments, rare fine grained lithics, firm to friable, loose in part, poor to fair inferred porosity, no fluorescence.
		10	SILTSTONE: as above, light to medium grey, light brownish grey, light brown in part, very finely arenaceous, trace very fine lithics, trace fine carbonaceous specks, soft to firm, sub blocky.
1613	1620		Stop control drilling. Continue with 5m sample interval.
		90 10	SANDSTONE: translucent, clear, light grey in part, trace orange stain, very fine to medium predominantly fine grained, sub angular to sub round, trace siliceous cement, trace light grey silty matrix, trace lithics, trace fine carbonaceous flecks, friable to predominantly loose, fair inferred porosity, no fluorescence. SILTSTONE: light grey, medium grey in part, light brownish grey, arenaceous, trace lithics, trace micro micaceous, firm to moderately hard, sub blocky.

Depth From (m)	Depth To (m)	%	Lithology and Shows
1620	1625	90 10	SANDSTONE: as above. SILTSTONE: as above.
1625	1630	90 10	SANDSTONE: as above. SILTSTONE: as above.
1630	1635	80 20	SANDSTONE: as above. SILTSTONE: as above.
1635	1640	80 20	SANDSTONE: translucent, clear, light grey in part, trace orange stain, fine to medium grained, common medium to coarse grained, sub angular to sub round, trace siliceous cement, trace light grey silty matrix, trace lithics, trace fine carbonaceous flecks, friable to predominantly loose, fair inferred porosity, no fluorescence. SILTSTONE: light grey, medium grey in part, light brownish grey, arenaceous, trace lithics, trace micro micaceous, firm to moderately hard, sub blocky.
1640	1645	70 30	SANDSTONE: translucent, clear, light grey in part, trace orange stain, fine to medium grained, common medium to coarse grained, sub angular to sub round, trace siliceous cement, rare calcareous cement, trace light grey silty matrix, trace lithics, trace fine carbonaceous flecks, friable to predominantly loose, fair inferred porosity, no fluorescence. SILTSTONE: light grey, medium grey in part, light brownish grey, arenaceous, trace lithics, trace micro micaceous, firm to moderately hard, sub blocky.
1645	1650	70 30	SANDSTONE: translucent, clear, light grey in part, rare orange stain, fine to medium grained, common medium to coarse grained, sub angular to sub round, trace siliceous cement, rare calcareous cement, trace light grey silty matrix, trace lithics, trace fine carbonaceous flecks, friable to predominantly loose, fair inferred porosity, no fluorescence. SILTSTONE: light grey, medium grey in part, light brownish grey, arenaceous, trace lithics, trace micro micaceous, firm to moderately hard, sub blocky.
1650	1655	80 20	SANDSTONE: translucent, clear, light grey in part, rare orange stain, fine to medium grained, common medium to coarse grained, sub angular to sub round, trace siliceous cement, rare calcareous cement, trace light grey silty matrix, trace lithics, trace fine carbonaceous flecks, rare nodular pyrite, friable to predominantly loose, fair inferred porosity, no fluorescence. SILTSTONE: light grey, medium grey in part, light brownish grey, arenaceous, trace lithics, trace micro micaceous, firm to moderately hard, sub blocky.
1655	1660	80	SANDSTONE: translucent, clear, light grey in part, rare orange stain, fine to medium grained, common medium to coarse grained, sub angular to sub round, trace siliceous cement, rare calcareous cement, trace light grey silty matrix, trace lithics, trace fine carbonaceous flecks, rare nodular pyrite, friable to predominantly loose, fair inferred porosity, no fluorescence.

Depth From (m)	Depth To (m)	%	Lithology and Shows
1660	1665	20	SILTSTONE: light grey, medium grey in part, light brownish grey, arenaceous, trace lithics, trace micro micaceous, firm to moderately hard, sub blocky.
		70	SANDSTONE: translucent, clear, light grey in part, rare orange stain, fine to medium grained, common medium to coarse grained, sub angular to sub round, trace siliceous cement, rare calcareous cement, trace light grey silty matrix, trace lithics, trace fine carbonaceous flecks, rare nodular pyrite, friable to predominantly loose, fair inferred porosity, no fluorescence.
1665	1670	30	SILTSTONE: light grey, medium grey in part, light brownish grey, arenaceous, trace lithics, trace micro micaceous, firm to moderately hard, sub blocky.
		70	SANDSTONE: translucent, clear, light grey in part, rare orange stain, fine to medium grained, common medium to coarse grained, sub angular to sub round, trace siliceous cement, rare calcareous cement, trace light grey silty matrix, trace lithics, trace fine carbonaceous flecks, rare nodular pyrite, friable to predominantly loose, fair inferred porosity, no fluorescence.
1670	1675	30	SILTSTONE: light grey, medium grey in part, light brownish grey, arenaceous, trace lithics, trace micro micaceous, firm to moderately hard, sub blocky.
		80	SANDSTONE: translucent, clear, light grey in part, rare orange stain, fine to medium grained, common medium to coarse grained, sub angular to sub round, trace siliceous cement, rare calcareous cement, trace light grey silty matrix, trace lithics, trace fine carbonaceous flecks, rare nodular pyrite, friable to predominantly loose, fair inferred porosity, no fluorescence.
1675	1680	20	SILTSTONE: light grey, medium grey in part, light brownish grey, arenaceous, trace lithics, trace micro micaceous, firm to moderately hard, sub blocky.
		80	SANDSTONE: translucent, clear, light grey in part, rare orange stain, very fine to medium grained, minor coarse grained, sub angular to sub round, trace siliceous cement, rare calcareous cement, trace light grey silty matrix, trace lithics, trace fine carbonaceous flecks, rare nodular pyrite, friable to predominantly loose, fair inferred porosity, no fluorescence.
1680	1685	20	SILTSTONE: light grey, medium grey in part, light brownish grey, arenaceous, trace lithics, trace micro micaceous, firm to moderately hard, sub blocky.
		70	SANDSTONE: translucent, clear, light grey in part, rare orange stain, very fine to medium grained, minor coarse grained, sub angular to sub round, trace siliceous cement, rare calcareous cement, trace light grey silty matrix, trace lithics, trace fine carbonaceous flecks, rare nodular pyrite, friable to predominantly loose, fair inferred porosity, no fluorescence.

Depth From (m)	Depth To (m)	%	Lithology and Shows
1685	1690	30	SILTSTONE: light grey, medium grey in part, light brownish grey, arenaceous, trace lithics, trace micro micaceous, firm to moderately hard, sub blocky.
		80	SANDSTONE: translucent, clear, light grey in part, rare orange stain, very fine to medium grained, moderately sorted, minor coarse grained, sub angular to sub round, trace siliceous cement, rare calcareous cement, trace light grey silty matrix, trace lithics, trace fine carbonaceous flecks, rare nodular pyrite, friable to predominantly loose, fair inferred porosity, no fluorescence.
1690	1695	20	SILTSTONE: light grey, medium grey in part, light brownish grey, arenaceous, trace lithics, trace micro micaceous, firm to moderately hard, sub blocky.
		70	SANDSTONE: translucent, clear, frosted, light grey in part, fine to medium grained, minor coarse grained, moderately sorted, sub angular to sub round, trace siliceous cement, rare calcareous cement, trace light grey silty matrix, trace lithics, trace fine carbonaceous flecks, rare nodular pyrite, friable to predominantly loose, fair inferred porosity, no fluorescence.
1695	1700	30	SILTSTONE: light grey, light olive grey, medium grey, medium brown grey, argillaceous to arenaceous, trace carbonaceous specks, rare micro micaceous, firm to moderately hard sub blocky to blocky.
		60	SANDSTONE: translucent, clear, frosted, light grey in part, fine to medium grained, minor coarse grained, moderately sorted, sub angular to sub round, trace siliceous cement, rare calcareous cement, trace light grey silty matrix, trace lithics, trace fine carbonaceous flecks, rare nodular pyrite, friable to predominantly loose, fair inferred porosity, no fluorescence.
1700	1705	40	SILTSTONE: light grey, light olive grey, medium grey, medium brown grey, argillaceous to arenaceous, trace carbonaceous specks, rare micro micaceous, firm to moderately hard sub blocky to blocky.
		60	SANDSTONE: translucent, clear, frosted, light grey in part, fine to medium grained, minor coarse grained, moderately sorted, sub angular to sub round, trace siliceous cement, rare calcareous cement, trace light grey silty matrix, trace lithics, trace fine carbonaceous flecks, rare nodular pyrite, friable to predominantly loose, fair inferred porosity, no fluorescence.
1705	1710	40	SILTSTONE: light grey, light olive grey, medium grey, medium brown grey, argillaceous to arenaceous, trace carbonaceous specks, rare micro micaceous, firm to moderately hard sub blocky to blocky.
		50	SANDSTONE: translucent, clear, frosted, light grey in part, fine to medium grained, minor coarse grained, moderately sorted, sub angular to sub round, trace siliceous cement, rare calcareous cement, trace light grey silty matrix, trace lithics, trace fine carbonaceous flecks, rare nodular pyrite, friable to predominantly loose, fair inferred porosity, no fluorescence.

Depth From (m)	Depth To (m)	%	Lithology and Shows
1710	1715	50	SILTSTONE: light grey, light olive grey, medium grey, medium brown grey, argillaceous to arenaceous, trace carbonaceous specks, rare micro micaceous, firm to moderately hard sub blocky to blocky.
		70	SANDSTONE: translucent, clear, frosted, light grey in part, fine to medium grained, minor coarse grained, moderately sorted, sub angular to sub round, trace siliceous cement, rare calcareous cement, trace light grey silty matrix, trace lithics, trace fine carbonaceous flecks, rare nodular pyrite, friable to predominantly loose, fair inferred porosity, no fluorescence.
1715	1720	30	SILTSTONE: light grey, light olive grey, medium grey, medium brown grey, argillaceous to arenaceous, trace carbonaceous specks, rare micro micaceous, firm to moderately hard sub blocky to blocky.
		40	SANDSTONE: translucent, clear, frosted, light grey in part, fine to medium grained, minor coarse grained, moderately sorted, sub angular to sub round, trace siliceous cement, rare calcareous cement, trace light grey silty matrix, trace lithics, trace fine carbonaceous flecks, rare nodular pyrite, friable to predominantly loose, fair inferred porosity, no fluorescence.
1720	1725	60	SILTSTONE: light grey, light olive grey, medium grey, medium brown grey, argillaceous to arenaceous, trace carbonaceous specks, rare micro micaceous, firm to moderately hard sub blocky to blocky.
		30	SANDSTONE: translucent, clear, frosted, light grey in part, fine to medium grained, minor coarse grained, moderately sorted, sub angular to sub round, trace siliceous cement, rare calcareous cement, trace light grey silty matrix, trace lithics, trace fine carbonaceous flecks, rare nodular pyrite, friable to predominantly loose, fair inferred porosity, no fluorescence.
1725	1730	70	SILTSTONE: light grey, light olive grey, medium grey, medium brown grey, argillaceous to arenaceous, trace carbonaceous specks, rare micro micaceous, firm to moderately hard sub blocky to blocky.
		30	SANDSTONE: translucent, clear, frosted, light grey in part, fine to medium grained, minor coarse grained, moderately sorted, sub angular to sub round, trace siliceous cement, rare calcareous cement, trace light grey silty matrix, trace lithics, trace fine carbonaceous flecks, rare nodular pyrite, friable to predominantly loose, fair inferred porosity, no fluorescence.
1730	1735	70	SILTSTONE: light grey, light olive grey, medium grey, medium brown grey, argillaceous to arenaceous, trace carbonaceous specks, rare micro micaceous, firm to moderately hard sub blocky to blocky.
		20	SANDSTONE: translucent, clear, frosted, light grey in part, fine to medium grained, minor coarse grained, moderately sorted, sub angular to sub round, trace siliceous cement, rare calcareous cement, trace light grey silty matrix, trace lithics, trace fine carbonaceous flecks, rare nodular pyrite, friable to predominantly loose, fair inferred porosity, no fluorescence.

Depth From (m)	Depth To (m)	%	Lithology and Shows
1735	1740	80	SILTSTONE: light grey, light olive grey, medium grey, medium brown grey, argillaceous to arenaceous, trace carbonaceous specks, rare micro micaceous, firm to moderately hard sub blocky to blocky.
		10	SANDSTONE: translucent, clear, frosted, light grey in part, fine to medium grained, minor coarse grained, moderately sorted, sub angular to sub round, trace siliceous cement, rare calcareous cement, trace light grey silty matrix, trace lithics, trace fine carbonaceous flecks, rare nodular pyrite, friable to predominantly loose, fair inferred porosity, no fluorescence.
1740	1745	90	SILTSTONE: light grey, olive grey, medium grey, medium brown grey, argillaceous to arenaceous, trace carbonaceous specks, rare micro micaceous, firm to moderately hard sub blocky to blocky.
		100	SILTSTONE: light grey, olive grey, medium grey, medium brown grey, argillaceous to arenaceous, trace carbonaceous specks, rare micro micaceous, firm to moderately hard sub blocky to blocky.
1745	1750	40	SANDSTONE: translucent, clear, frosted, light grey in part, fine to medium grained, minor coarse grained, moderately sorted, sub angular to sub round, trace siliceous cement, rare calcareous cement, trace light grey silty matrix, trace lithics, trace fine carbonaceous flecks, rare nodular pyrite, friable to predominantly loose, fair inferred porosity, no fluorescence.
		60	SILTSTONE: light grey, olive grey, medium grey, medium brown grey, argillaceous to arenaceous, trace carbonaceous specks, rare micro micaceous, firm to moderately hard sub blocky to blocky.
1750	1755	70	SANDSTONE: translucent, clear, frosted, light grey in part, fine to medium grained, minor coarse grained, moderately sorted, sub angular to sub round, trace siliceous cement, rare calcareous cement, trace light grey silty matrix, trace lithics, trace fine carbonaceous flecks, rare nodular pyrite, friable to predominantly loose, fair inferred porosity, no fluorescence.
		30	SILTSTONE: light grey, olive grey, medium grey, medium brown grey, argillaceous to arenaceous, trace carbonaceous specks, rare micro micaceous, firm to moderately hard sub blocky to blocky.
1755	1760	40	SANDSTONE: translucent, clear, frosted, light grey in part, fine to medium grained, minor coarse grained, moderately sorted, sub angular to sub round, trace siliceous cement, rare calcareous cement, trace light grey silty matrix, trace lithics, trace fine carbonaceous flecks, rare nodular pyrite, friable to predominantly loose, fair inferred porosity, no fluorescence.
		60	SILTSTONE: light grey, olive grey, medium grey, medium brown grey, argillaceous to arenaceous, trace carbonaceous specks, trace micro micaceous, firm to moderately hard sub blocky to blocky.

Depth From (m)	Depth To (m)	%	Lithology and Shows
1760	1765	70	SANDSTONE: translucent, clear, frosted, light grey in part, fine to medium grained, minor coarse grained, moderately sorted, sub angular to sub round, trace siliceous cement, rare calcareous cement, trace light grey silty matrix, trace lithics, trace fine carbonaceous flecks, rare nodular pyrite, friable to predominantly loose, fair inferred porosity, no fluorescence.
		30	SILTSTONE: light grey, olive grey, medium grey, medium brown grey, argillaceous to arenaceous, trace carbonaceous specks, trace micro micaceous, firm to moderately hard sub blocky to blocky.
1765	1770	70	SANDSTONE: translucent, clear, frosted, light grey in part, fine to medium grained, minor coarse grained, moderately sorted, sub angular to sub round, trace siliceous cement, rare calcareous cement, trace light grey silty matrix, trace lithics, trace fine carbonaceous flecks, rare nodular pyrite, friable to predominantly loose, fair inferred porosity, no fluorescence.
		30	SILTSTONE: light grey, olive grey, medium grey, medium brown grey, argillaceous to arenaceous, trace carbonaceous specks, trace micro micaceous, firm to moderately hard sub blocky to blocky.
1770	1775	70	SANDSTONE: translucent, clear, frosted, light grey in part, fine to medium grained, minor coarse grained, moderately sorted, sub angular to sub round, trace siliceous cement, rare calcareous cement, trace light grey silty matrix, trace lithics, trace fine carbonaceous flecks, rare nodular pyrite, friable to predominantly loose, fair inferred porosity, no fluorescence.
		30	SILTSTONE: light grey, olive grey, medium grey, medium brown grey, argillaceous to arenaceous, trace carbonaceous specks, trace micro micaceous, firm to moderately hard sub blocky to blocky.
1775	1780	80	SANDSTONE: translucent, clear, frosted, light grey in part, fine to medium grained, minor coarse grained, moderately sorted, sub angular to sub round, trace siliceous cement, rare calcareous cement, trace light grey silty matrix, trace lithics, trace fine carbonaceous flecks, rare nodular pyrite, friable to predominantly loose, fair inferred porosity, no fluorescence.
		20	SILTSTONE: light grey, olive grey, medium grey, medium brown grey, argillaceous to arenaceous, trace carbonaceous specks, trace micro micaceous, firm to moderately hard sub blocky to blocky.
1780	1785	70	SANDSTONE: translucent, clear, frosted, light grey in part, fine to medium grained, minor coarse grained, moderately sorted, sub angular to sub round, trace siliceous cement, rare calcareous cement, trace light grey silty matrix, trace lithics, trace fine carbonaceous flecks, rare nodular pyrite, friable to predominantly loose, fair inferred porosity, no fluorescence.
		30	SILTSTONE: light grey, white, olive grey, medium grey, light brown grey, argillaceous to arenaceous, trace carbonaceous specks, trace Coal fragments, trace micro micaceous, firm to moderately hard sub blocky to blocky.

Depth From (m)	Depth To (m)	%	Lithology and Shows
1785	1790	60	SANDSTONE: translucent, clear, frosted, light grey in part, fine to medium grained, minor coarse grained, moderately sorted, sub angular to sub round, trace siliceous cement, rare calcareous cement, trace light grey silty matrix, trace lithics, trace fine carbonaceous flecks, rare nodular pyrite, friable to predominantly loose, fair inferred porosity, no fluorescence.
		40	SILTSTONE: light grey, white, olive grey, medium grey, light brown grey, argillaceous to arenaceous, trace carbonaceous specks, trace Coal fragments, trace micro micaceous, firm to moderately hard sub blocky to blocky.
1790	1795	50	SANDSTONE: translucent, clear, frosted, light grey in part, fine to medium grained, minor coarse grained, moderately sorted, sub angular to sub round, trace siliceous cement, rare calcareous cement, trace light grey silty matrix, trace lithics, trace fine carbonaceous flecks, rare nodular pyrite, friable to predominantly loose, fair inferred porosity, no fluorescence.
		50	SILTSTONE: light grey, white, olive grey, medium grey, light brown grey, argillaceous to arenaceous, trace carbonaceous specks, trace Coal fragments, trace micro micaceous, firm to moderately hard sub blocky to blocky.
1795	1800	60	SANDSTONE: translucent, clear, frosted, light grey in part, fine to medium grained, minor coarse grained, moderately sorted, sub angular to sub round, trace siliceous cement, rare calcareous cement, trace light grey silty matrix, trace lithics, trace fine carbonaceous flecks, rare nodular pyrite, friable to predominantly loose, fair inferred porosity, no fluorescence.
		40	SILTSTONE: light grey, white, olive grey, medium grey, light brown grey, argillaceous to arenaceous, trace carbonaceous specks, trace Coal fragments, trace micro micaceous, firm to moderately hard sub blocky to blocky

SECTION 2.2 : CORE DESCRIPTIONS

No full hole cores were cut at the Martha 1 location.

SECTION 2.3 : SIDEWALL CORES DESCRIPTIONS

**SANTOS LIMITED
SIDEWALL CORE DESCRIPTIONS**

WELL:	MARTHA 1	DATE:	02/11/2004	PAGE:	1 OF 3
		SHOTS FIRED:	25	SHOTS BOUGHT:	25
GUN NO.:	SUITE 1	GEOLOGIST:	J.PITMAN / F.FERNANDES		

CORE NO.	DEPTH	REC. (mm)	PALYN. EVAL. REJECT	LITH.	COLOUR	GRAIN SIZE	HYDR. INDIC. (Y/N)	SUPPLEMENTARY INFORMATION
1	1728.9	45	Y	Claystone	dark grey	n/a	N	CLAYSTONE: dark grey, non calcareous, minor micro carbonaceous specks, trace disseminated pyrite, firm, massive.
2	1700	40	Y	Siltstone	medium greenish grey	very fine	N	SILTSTONE: light to medium greenish grey, non calcareous, argillaceous, soft to firm, massive.
3	1659.5	45	Y	Sandstone	medium grey	very fine	N	SANDSTONE: light to medium grey, greenish grey, very fine to fine grained, sub angular, well sorted, common light grey argillaceous matrix, rare disseminated pyrite, large coal fragments, firm to friable, very poor visual porosity, no fluorescence.
4	1630.2	40	Y	Sandstone	medium grey	very fine	N	SANDSTONE: light to medium grey, light greenish grey, very fine to occasionally fine grained, sub angular, common light grey argillaceous matrix, common coal fragments, firm to friable, poor visual porosity, no fluorescence.
5	1612.9	48	Y	Sandstone	medium grey	fine	N	SANDSTONE: light to medium grey, mottled, very fine to medium predominantly fine grained, sub angular, moderately sorted, common light grey argillaceous matrix, abundant carbonaceous fragments, firm, very poor visual porosity, no fluorescence.
6	1598.4	48	Y	Sandstone	medium grey	very fine	N	SANDSTONE: light to medium grey, mottled, very fine to occasionally fine grained, sub angular, common light grey argillaceous matrix, well sorted, common carbonaceous fragments, trace disseminated pyrite, firm to friable, very poor visual porosity, no fluorescence.
7	1590	45	Y	Claystone	medium dark grey	n/a	N	CLAYSTONE: medium grey, dark grey, with thin SANDSTONE laminae, firm, massive.

SIDEWALL CORE DESCRIPTIONS

WELL:	MARTHA 1	DATE:	02/11/2004	PAGE:	2 OF 3
		SHOTS FIRED:	25	SHOTS BOUGHT:	25
GUN NO.:	SUITE 1	GEOLOGIST:	J.PITMAN / F.FERNANDES		

8	1572.1	50	Y	Claystone	medium grey	n/a	N	CLAYSTONE: medium grey, non calcareous, firm.
9	1558	45	Y	Claystone	medium grey	n/a	N	CLAYSTONE: medium grey, non calcareous, firm.
10	1534.1	50	Y	Claystone	medium grey	n/a	N	CLAYSTONE: medium grey, non calcareous, firm as above.
11	1510.8	50	Y	Claystone	medium grey	n/a	N	CLAYSTONE: as above, trace carbonaceous flecks.
12	1501.8	45	Y	Claystone	medium grey	n/a	N	CLAYSTONE: slightly silty, trace micro micaceous.
13	1489.2	45	Y	Sandstone	light to medium grey	very fine	N	SANDSTONE: light to medium grey, mottled, sub angular, very fine to occasionally fine grained, minor light grey argillaceous matrix, minor medium grey silty matrix, common carbonaceous flecks, trace very fine lith, firm to friable, very poor visual porosity, no fluorescence.
14	1483.8	50	Y	Claystone	dark grey	n/a	N	CLAYSTONE: dark grey, massive with thin very fine sandstone laminae.
15	1479	50	Y	Claystone	dark grey	n/a	N	CLAYSTONE: very dark grey, massive, firm to moderately hard.
16	1475	48	Y	Claystone	dark grey	n/a	N	CLAYSTONE: as above, very dark grey, firm to moderately hard, massive.
17	1457.6	50	Y	Claystone	dark grey	n/a	N	CLAYSTONE: dark grey as above.
18	1435.4	50	Y	Claystone	dark grey	n/a	N	CLAYSTONE: very dark grey, firm to moderately hard, trace disseminated pyrite.
19	1421.2	45	Y	Claystone	dark grey	n/a	N	CLAYSTONE: very dark grey, dark grey, firm to moderately hard, trace disseminated pyrite.
20	1403.3	45	Y	Claystone	dark grey	n/a	N	CLAYSTONE: very dark grey, firm to moderately hard.
21	1378.5	35	Y	Claystone	dark grey	n/a	N	CLAYSTONE: dark grey, very dark grey, silty in part, rare thin sandstone laminae.
22	1360.1	50	Y	Claystone	dark grey	n/a	N	CLAYSTONE: dark grey, very dark grey, slightly silty, trace micro micaceous, firm.

SIDEWALL CORE DESCRIPTIONS

WELL:	MARTHA 1	DATE:	02/11/2004	PAGE:	3 OF 3
		SHOTS FIRED:	25	SHOTS BOUGHT:	25
GUN NO.:	SUITE 1	GEOLOGIST:	J.PITMAN / F.FERNANDES		

23	1338	50	Y	Sandstone	medium dark grey	very fine	N	SANDSTONE: grading to SILTSTONE, medium to dark brownish grey, very fine, well sorted, sub angular, common silty matrix, trace thin siltstone laminae, trace micro micaceous, firm, very poor visual porosity, no fluorescence.
24	1309.3	50	Y	Sandstone	medium brownish grey	very fine	N	SANDSTONE: medium brownish grey, very fine to occasionally fine grained, sub angular, well sorted, common light grey silty / argillaceous matrix, trace very fine lithics, rare micro carbonaceous specks, firm, tight to very poor visual porosity, no fluorescence.
25	1307.2	50	Y	Claystone	dark grey	very fine	N	CLAYSTONE: dark grey, arenaceous in part with thin sandstone laminae.

COMMENTS:

Depth correlation conducted from 1745m to 1685m.
 25 cores attempted with 100% recovery.
 All cores were recovered with no overpull.

SECTION 2.4 : ROTARY SIDEWALL CORE DESCRIPTIONS

No rotary sidewall cores were obtained at the Martha 1 location.

SECTION 2.5 : CATALOGUE OF WELLSITE SAMPLES

HALLIBURTON



Sperry-Sun

OPERATOR: Santos Ltd
RIG: Ocean Patriot
WELL: Martha-1

DATE: 31-Mar-05
CONTAINER: OPC 297

SHIP TO: Att: Core Librarian
Santos Core Library
Ascot Transport
30 Francis Street
Port Adelaide SA 5015

PACKAGING INVENTORY

BOX No.	DESCRIPTION	Final destination	DEPTH INTERVAL (m)
			-
			-
			-
1	Samplex Trays A	Mitsui	628.0 - 1800.0
2	Samplex Trays B	Santos	628.0 - 1800.0
3	Samplex Trays C	Santos	628.0 - 1800.0
4	Mud Samples	Santos	various
-			

OPERATOR: Santos Ltd
RIG: Ocean Patriot
WELL: Martha-1
DATE: 31-Mar-05
CONTAINER: OPC 297

FORWARD TO:
Santos Ltd Samplex Set A
Santos Ltd Samplex Set B
Santos Ltd Samplex Set C
Santos Ltd Mud samples

Halliburton/
Sperry-Sun 1 Wooden Crate with samples
 to be split in Perth



SAMPLING INTERVALS

OPERATOR: Santos Ltd
RIG: Ocean Patriot
WELL: Martha-1

DATE: 31-Mar-05
CONTAINER: OPC 297

SHIP TO: Att: Core Librarian
Santos Core Library
Ascot Transport
30 Francis Street
Port Adelaide SA 5015

SAMPLING INTERVALS

FROM (m)	TO (m)	INTERVAL (m)	NUMBER OF SAMPLES
630.0	690.0	5	12
690.0	715.0	25	1
715.0	1265.0	10	55
1265.0	1613.0	3	116
1613.0	1620.0	7	1
1620.0	1800.0	5	36
TOTAL			221

HALLIBURTON

Sperry-Sun



OPERATOR: Santos Ltd
RIG: Ocean Patriot
WELL: Martha-1

DATE: 31-Mar-05
CONTAINER: OPC 297

SHIP TO: Att: Angus lamont
Halliburton / Sperry-sun
Ascot Transport
53-55 Bannister RD
Canning Vale, WA 6155
08 94 55 8300

PACKAGING INVENTORY

BOX No.	DESCRIPTION	Final destination	DEPTH INTERVAL (m)
1	Wooden Crate	Canningvale, WA	628.0 1800.0
	W & D Splits (SET 1)	DPI	-
	W & D Splits (SET 2)	GEOSCIENCE AUSTRALIA	-
	W & D Splits (SET 3)	Mud samples	-
	W & D Splits (SET 4)	Santos Ltd	-

HALLIBURTON

Sperry-Sun



SAMPLEX TRAYS Set A Mitsui

OPERATOR: Santos Ltd
RIG: Ocean Patriot
WELL: Martha-1

DATE: 31-Mar-05
CONTAINER: OPC 297

Hand Carried by Att: Core Librarian
Santos Core Library
Ascot Transport
30 Francis Street
Port Adelaide SA 5015

FORWARD TO: Santos Ltd

PACKAGING INVENTORY

Box No.	Well Name	Depth (m)
1	Martha-1	628 - 1800 TD

HALLIBURTON

Sperry-Sun



SAMPLEX TRAYS Set B

Santos

OPERATOR: Santos Ltd
RIG: Ocean Patriot
WELL: Martha-1

DATE: 31-Mar-05
CONTAINER: OPC 297

Hand Carried by Att: Core Librarian
Santos Core Library
Ascot Transport
30 Francis Street
Port Adelaide SA 5015

FORWARD TO: Mitsui

PACKAGING INVENTORY

Box No.	Well Name	Depth (m)
1	Martha-1	628 - 1800 TD

HALLIBURTON

Sperry-Sun



SAMPLEX TRAYS Set C

Santos

OPERATOR: Santos Ltd
RIG: Ocean Patriot
WELL: Martha-1

DATE: 31-Mar-05
CONTAINER: OPC 297

Hand Carried by Att: Core Librarian
Santos Core Library
Ascot Transport
30 Francis Street
Port Adelaide SA 5015

FORWARD TO: Mitsui

PACKAGING INVENTORY

Box No.	Well Name	Depth (m)
1	Martha-1	628-1800

HALLIBURTON

Sperry-Sun



MUD & FILTRATE SAMPLES

OPERATOR: Santos Ltd
RIG: Ocean Patriot
WELL: Martha-1

DATE: 31-Mar-05
CONTAINER: OPC 297

SHIP TO: Att: Core Librarian
Santos Core Library
Ascot Transport
30 Francis Street
Port Adelaide SA 5015

FORWARD TO: Santos Ltd

PACKAGING INVENTORY

Sample Type	Depth (m)	Volume	Description
Filtrate	631	20 ml	Start 12 1/4" hole
Filtrate	1262	20 ml	Trip out for new Bit
Filtrate	1800	20 ml	TD 12 1/4" hole
Mud	631	1 lt	Start 12 1/4" hole
Mud	1262	1 lt	Trip out for new Bit
Mud	1800	1 lt	TD 12 1/4" hole
Mud	1488	1 lt	MUD SAMPLE

SECTION 3: WIRELINE LOGGING REPORTS

SECTION 3.1 : SUITE 1 - LOGGING ORDER FORM



LOGGING ORDER FORM

COMPANY:	SANTOS		
WELL:	MARTHA 1	FIELD:	MARTHA
RIG:	OCEAN PATRIOT	STATE:	VICTORIA
LOCATION:	01CAS3D Survey L7418 X3290	BLOCK:	OTWAY BASIN
		LICENCE:	VIC / P44
LATITUDE:	38° 37' 24.33" S	LONGITUDE	142° 42' 05.02" E
		:	

ELEVATIONS:			
RT:	21.5 m	WATER DEPTH	54.7 m
		SEABED:	76.2 m

914mm (36")	122.5m	762/508mm	121.0	WT:	461 kg/m
HOLE:		(30"/20") CSG:			
445mm (17½")	628m	340mm	620.8m	WT:	101kg/m
HOLE:		(13-3/8") CSG			
311m (12-1/4")	1800m				
HOLE:					

TD (DRILLER):	1800m
----------------------	-------

MUD	KCl / Glycol	CIRCULATION STOPPED:	06:30 hr on 31/10/04
SYSTEM:			
BARITE:	5.7%		
WT:	1.26 (10.5)	VIS:	45
		pH:	8.7
		FLUID LOSS:	9.6

GEOLOGIST:	J. Pitman / F. Fernandes
-------------------	--------------------------

INFORMATION GIVEN ABOVE IS TO BE USED ON LOG HEADER SHEETS

HOLE CONDITIONS (TIGHT SPOTS, DEVIATION, COALS, BARITE IN MUD, ETC.)
Maximum Deviation: 3.78deg @ 1304m.
Tight spots reamed during final trip out of hole.

DRILL STEM TESTS/CORED INTERVALS:
nil

COMMENTS (TO BE INCLUDED IN REMARKS SECTION OF HEADER SHEET):
Standard Santos scales to be applied to all logs run.



LOGGING ORDER FORM

LOGGING PROGRAMME:

LOG	INTERVAL	REMARK
RUN 1: Resistivity-Caliper-SP-Density-Neutron. Sonic (WFT, dipole shear) Sonic (WFT, P&S) GR Spectral GR	TD to casing shoe TD to 100m above Waarre (1380m) TD to 340mm Shoe TD to Seafloor (1200m/hr to surface) TD to 340mm Csg Shoe	340mm (13 5/8") Shoe @ 621m.
RUN 2: RCI-GR	Contingent PVT multisampler, pump-out sub, resistivity monitoring. Conventional sampler 1gal / 2 ³ / ₄ gal chamber for gas analysis.	Retain PVT samples.
RUN 3: Velocity Survey (VSP)	TD to loss of signal	
RUN 5: Rotary SWC		
RUN 4: SWC	2 x 25 cores. Points to be advised	

REMARKS: (ALL OPERATIONS AS PER CURRENT SANTOS OPERATING PROCEDURES)

1. TENSION CURVE - TO BE DISPLAYED ON LOG FROM T.D. TO CASING SHOE.
2. ALL CALIBRATIONS IN CASING MUST BE VERSUS DEPTH.
3. ALL THERMOMETER READINGS TO BE RECORDED ON LOG
4. ALL SCALES AND PRESENTATIONS TO CONFIRM TO STANDARDS UNLESS OTHERWISE ADVISED.
5. THE FIELD/EDIT TAPE MUST BE A MERGED COPY OF ALL LOGS RUN. SEPARATE TAPES ARE ONLY ACCEPTABLE AS AN INTERIM MEASURE.
6. ANY CHANGE FROM STANDARD PROCEDURES/SCALES TO BE NOTED IN REMARKS SECTION.
7. RM, RMF, RMC AND BHT MUST BE ANNOTATED ON FAXED LOGS. FAXED LOGS SHOULD ALSO INDICATE IF ON DEPTH OR NOT.
8. LOG DATA IS TO BE TRANSMITTED AS SOON AS POSSIBLE AFTER ACQUISITION. IF ANY DELAYS ARE LIKELY OR IF DATA TRANSMISSION WILL ADVERSELY EFFECT THE OPERATION THEN THE WELLSITE GEOLOGIST MUST BE IMMEDIATELY INFORMED.

SECTION 3.2 : SUITE 1 – FIELD ELECTRIC LOGGING REPORT

SANTOS LIMITED FIELD ELECTRIC LOG REPORT

WELL: MARTHA 1 **GEOLOGIST:** J. PITMAN / F. FERNANDES
LOGGING ENGINEER: M. REYES / S. MITCHELL
RUN NO.: SUITE 1 / RUN 1,2,3,4 & 5 **DATE LOGGED:** 30/10/2004 TO 02/11/2004
DRILLERS DEPTH: 1800m **LOGGERS DEPTH:** 1791m (9m of fill)
ARRIVED ON SITE: 24/10/04
ACTUAL LOG TIME: 46.0 **LOST TIME LOGGER:** 1.0 hr
TOTAL TIME: 64 hrs (including wiper trip) **LOST TIME OTHER:** 0.5 hr

- Wiper trip total time 17.5 hrs.
- 30 minutes lost while waiting on crane to move tool racks off the catwalk between runs 3 & 4.
- Trouble shooting RCOR tool at surface. (1.0 hr)

TYPE OF LOG	GRANDE SLAM	GRANDE SLAM	RCI-GR	VELOCITY SURVEY
TIME CIRC. STOPPED	29/10/04 5:30 hr	31/10/04 06:30 hr	31/10/04 06:30 hr	31/10/04 06:30 hr
TIME TOOL RIG UP	30/10/04 13:15 hr	31/10/04 12:00 hr	31/10/04 20:15 hr	01/11/04 11:30 hr
TIME TOOL RIH	30/10/04 14:30 hr	31/10/04 14:00 hr	31/10/04 21:45 hr	01/11/04 12:30 hr
TIME TOOL RIG DOWN	30/10/04 18:30 hr	31/10/04 20:15 hr	01/11/04 11:30 hr	01/11/04 19:30 hr
TOTAL TIME	5:15 hrs	8:15 hrs	15:15 hrs	08:00 hrs

TYPE OF LOG	ROTARY SWC	SIDEWALL CORES		
TIME CIRC. STOPPED	31/10/04 06:30 hr	31/10/04 06:30 hr		
TIME TOOL RIG UP	01/11/04 19:30 hr	02/11/04 00:45 hr		
TIME TOOL RIH	01/11/04 21:45 hr	02/11/04 02:00 hr		
TIME TOOL RIG DOWN	02/11/04 00:45 hr	02/11/04 06:30 hr		
TOTAL TIME	5:15 hrs	5.75 hrs		

TYPE OF LOG	FROM (m)	TO (m)	REPEAT SECTION	TIME SINCE LAST CIRCULATION	BHT °C
Suite 1 Run 1 GRAND SLAM					
GR	1756	Surface	No repeat section as per Santos procedure. Log quality compared with downlog and LWD data.	8 hours 30 minutes	66°C
DLL	1785	621			
MLL	1790	621			
ZDL	1766	621			
CN	1766	621			
SP	1747	621			
MAC	1771	621			
CAL	1790	621			
Suite 1 Run 2 RCI-GR	1258.6	1613		24 hours 35 pretests attempted, 17 normal, 9 lost seal, 2 tool plugged, 6 curtailed, 1 failure. 4 x 850cc samples @ 1488.6m, 2 x 850cc samples @ 1258.7m	71.1
Suite 1 Run 3 VELOCITY SURVEY	1785	Sea Bed		Total levels 115 at 15m intervals	
Suite 1 Run 4 RCOR-GR	-	-		Run aborted due to tool failure No cores cut	
Suite 1 Run 5 SWC-GR (25 core)	1728.9	1307.2		25 cores attempted, 25 recovered (100%)	

RUN 1 – 1ST ATTEMPT 30/10/04

MUD SYSTEM: KCl / PHPA / Glycol

Rm = 0.125 Ωm @ 21.94°C

Rmf = 0.099 Ωm @ 21.40°C

Rmc = 0.418 Ωm @ 22.71°C

HOLE CONDITIONS: During trip the trip out of the hole minor tight spots were washed / reamed from 1364m – 1491m. Circulation stopped 05:30 hr 29/10/04

MW: 1.2 FV: 43

WL: 9.3 PV/YP: 20/25

pH: 8.0 Cl: 40k

KCl: 6.5%

RUNS 1-4 CONDUCTED 31/10/04

MUD SYSTEM: KCl / PHPA / Glycol

Rm = 0.158 Ωm @ 23.89°C

Rmf = 0.112 Ωm @ 23.72°C

Rmc = 0.315 Ωm @ 23.69°C

HOLE CONDITIONS: Hole good during trip out. Circulation stopped 06:30 hr 31/10/04

MW: 1.26 FV: 45 WL: 9.6

PV/YP: 16/21

pH: 8.7 Cl: 37k

KCl: 4% Barite 5.7%

REMARKS / RECOMMENDATIONS

1. Casing ID; Theor: 315.2mm (12.41"), Loggers: - 314mm (12.39") .
2. 340mm (13 3/8") Casing Shoe Driller: 620.8m. Loggers: 621m.
3. Run 1 unable to pass 1466m. Several attempts made to work past without success. Caliper opened and closed however still unable to pass. Run 1 was pulled from the hole and a wiper trip conducted.
4. Following the first attempt to conduct wireline logs a wiper trip was conducted. Tight spots were washed and reamed from 1464m – 1507m, 1582m-1591m, 1630m-1651m, 1717m-1733m, 1764m-1790m. At total depth 1800m the hole was circulated clean. The trip out of the hole was good with no tight hole encountered.
5. Run 2 tagged a bridge at bridge at 912m while running in hole. The tools were worked past this point over a period of 10 minutes.
6. A total of 35 pretest were attempted with 17 normal, 9 lost seal, 2 tool plugged, 6 curtailed, 1 failure. 4 x 840cc samples @ 1488.6m, 2 x 840cc samples @ 1258.7m

SAMPLE CHAMBER 189733 DEPTH: 1488.6m WAARRE FM:

AMBIENT TEMPERATURE: 17degC SURFACE PRESSURE 4500 PSI

Sample chamber bled down 1.5 cuft to purge lines. After taking samples a total of 2.7 cuft had been bled down

FINAL CHAMBER PRESSURE: 3000 PSI. The sample chamber was not fully bled down and was transported to Petrolab for further analysis. Final gas analysis: 94/4/1.4/0.6/TR

SAMPLE CHAMBER 369205 DEPTH: 1258.7m PAARATTE FM

AMBIENT TEMPERATURE: 17degC SURFACE PRESSURE 4500 PSI

Sample chamber bled down 1.6 cuft to purge lines. After taking samples a total of 2.1 cuft had been bled down

FINAL CHAMBER PRESSURE: 3000 PSI. The sample chamber was not fully bled down and was transported to Petrolab for further analysis. Final gas analysis 96/3/1/TR/TR.

7. Run 3 – VSP surveys were recorded from Total Depth to Seabed, using 2 gun (4 guns not required as signal amplitude good).
8. Data points from 930m to 825m are missing on the VSP run as the hole conditions were poor in this section (hole badly washed out).
9. Run 4 – RCOR, trouble shoot problem with tool, core bit not extending out of the housing, lost 1 hour attempting to fix problem, while discussing problem with technician in Melbourne.
10. Run in hole after trouble shooting problem (engineer happy with tool condition). Lower arm on RCOR not opening, attempt to get a response from the tool for 30 minutes before aborting run as per instructions from Adelaide.
11. Run 5, SWC-GR. Unable to pass bridge at 910M, worked passed a 910m over 5 minutes.
12. SWC: Total short fired 25, recovered 25 (100%)

WELLSITE LOG QUALITY CONTROL CHECKS

LOG ORDER FORM	Y	MUD SAMPLE RESISTIVITY	N/A	TOOL NO. / CODE CHECK	Y
OFFSET WELL DATA	*1	CABLE DATA CARD	Y	LOG SEQUENCE CONFIRM.	*2

LOG TYPE	MAC	GR	CAL	DLL	MLL	DSL	ZDN	CN	RCI	CST	VSP	REMARKS
CASING CHECK	57 us/ft		12.41"									
SCALE CHECK	40-140us/ft	0- 200	150-450m	0.2-200	0.2-200	1.95-2.95	0.45-/-0.15	45 -(-15)				
DEPTH Casing Total	*3	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
CALIBRATIONS OK	Y	Y	Y	Y	Y	Y	Y	Y	Y			
REPEATABILITY	Y	Y	Y	Y	Y	Y	Y	Y				
LOGGING SPEED	Y	Y	Y	Y	Y	Y	Y	Y				
OFFSET WELL Repeatability	Y	Y	Y	Y	Y	Y	-	-				
NOISY / MISSING DATA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
CURVES/LOGS Depth Matched	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Rm MEASUREMENT				*4	Y							
LLS / LLD / CHECK						*5	Y	Y				
PEF / RHOB CHECK						Y	Y	Y				
LOG HEADER / TAIL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
PRINT/FILM QUALITY	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	

COMMENTS: *1. Offset wells Casino 3, 1 & 2
*2. Confirmed with SANTOS geology operations and Baker Atlas.
*3 Casing Driller: 620.8m Logger: 621m Total Depth Driller: 1800m Logger: 1791m
*4 Rmc>Rm>Rmf
*5 Curves overlay in 0 porosity shale.

ENGINEERS COMMENTS (If this report has not been discussed with the Engineer state reason)

SECTION 3.3 : SUITE 1 – ELECTRIC LOGGING TIME SUMMARY

Geology Operations



ELECTRIC LOGGING TIME SUMMARY

LOGGING UNIT:	8677
START DATE:	30/10/2004
END DATE:	02/11/2004
DEPTH DRILLER:	1800m
DEPTH LOGGER:	1791m (9m fill)

LEFT BASE:	24/10/04
ARRIVED AT WELLSITE:	25/10/04
INITIAL RIG UP:	30/10/04
FINAL RIG DOWN:	2/11/04
RETURN TO BASE:	3/11/04

WELL NAME:	MARTHA 1
TRIP NUMBER:	SUITE 1
WELLSITE GEOLOGIST:	J.Pitman / F.Fernandes
LOGGING ENGINEER:	M.Reyes / S.Mitchell
PAGE / DATE:	Page 1 / 30-10-2004

DATE / TIME	RIG UP / DOWN	TOOL CHECK	RIH / POOH	LOGGING	DATA TX	LOST TIME BAKER	I. O.	WIPER TRIP	LOST TIME OTHERS	OTHERS	COMMENTS / REMARKS
00:00											
:30											
01:00											
:30											
02:00											
:30											
03:00											
:30											
04:00											
:30											
05:00											
:30											
06:00											
:30											
07:00											
:30											
08:00											
:30											
09:00											
:30											
10:00											
:30											
11:00											
:30											

TOTALS

WSG (SIGN) J.Pitman / F.Fernandes	ENGINEER(SIGN) M.Reyes / S.Mitchell
--------------------------------------	--

TOOLS RUN:	
TOOLS RUN:	
TOOLS RUN:	

LOGGING UNIT: 8677

WELL NAME: MARTHA 1

PAGE: 1A

DATE / TIME	RIG UP / DOWN	TOOL CHECK	RIH / POOH	LOGGING	DATA TX	LOST TIME BAKER	I. O.	WIPER TRIP	LOST TIME OTHERS	OTHERS	COMMENTS / REMARKS
12:00											MARTHA 1 : SUITE 1
:30											RUN 1: GRAND SLAM
											GR-DLL-MLL-ZDL-CN-MAC-CAL-SP
13:00											13:00 HELD PRE-JOB SAFETY MEETING
	X										13:15 RIG TO BAKER, RIG UP SHIEVES
:30	X										13:30 RIG UP RUN 1
	X										
14:00	X										
			X								14:15 LOAD RADIO ACTIVE SOURCES
:30			X								14:20 RUN IN HOLE WITH RUN 1
		X									14:45 CALIPER CHECK AT 600m
15:00		X									15:00 LOG 340mm CASING SHOE @ 621m
				X							15:15 START RECORDING DOWN LOG
:30				X							
				X							
16:00									X		16:00 UNABLE TO PASS BRIDGE AT 1466m.
									X		ATTEMPT TO GET PAST BRIDGE FOR 30mins
:30			X								16:30 PULL OUT OF HOLE FOR WIPER TRIP
			X								
17:00			X								
			X								
:30	X										17:30 RIG DOWN RUN 1
	X										
18:00	X										
	X										
:30								X			18:30 RIG DOWN COMPLETE
								X			18:30 RIG UP TO RUN IN HOLE ON WIPER
19:00								X			TRIP
								X			
:30								X			
								X			
20:00								X			
								X			
:30								X			
								X			
21:00								X			
								X			
:30								X			
								X			
22:00								X			
								X			
:30								X			
								X			
23:00								X			
								X			
:30								X			
								X			

TOTALS

WSG (SIGN) J.Pitman / F.Fernandes
ENGINEER(SIGN) M.Reyes / S.Mitchell

TOTAL 5.25

2.0	0.50	1.50	0.75					5.50	0.50	
-----	------	------	------	--	--	--	--	------	------	--

TOOLS RUN: GRAND SLAM

TOOLS RUN:

TOOLS RUN:

SERVICE QUALITY SUMMARY									
CLIENT WSG					ENGINEER				
1	2	3	4	5	1	2	3	4	5
1: Excellent - 2 - 3: Normal - 4 - 5: Very Poor									

SAFETY
PROMPTNESS
TOOL & SURFACE SYSTEM PERFORMANCE
ATTITUDE & CO-OPERATION
WELLSITE PRODUCTS / LOG QUALITY
COMMUNICATIONS / TX PERFORMANCE
OTHER (PLEASE SPECIFY)

Geology Operations

ELECTRIC LOGGING TIME SUMMARY

LOGGING UNIT:	8677
START DATE:	30/10/2004
END DATE:	02/11/2004
DEPTH DRILLER:	1800m
DEPTH LOGGER:	1791m (9m fill)

LEFT BASE:	24/10/04
ARRIVED AT WELLSITE:	25/10/04
INITIAL RIG UP:	30/10/04
FINAL RIG DOWN:	2/11/04
RETURN TO BASE:	3/11/04

WELL NAME:	MARTHA 1
TRIP NUMBER:	SUITE 1
WELLSITE GEOLOGIST:	J.Pitman / F.Fernandes
LOGGING ENGINEER:	M.Reyes / S.Mitchell
PAGE / DATE:	Page 2 / 31-10-2004

DATE / TIME	RIG UP / DOWN	TOOL CHECK	RIH / POOH	LOGGING	DATA TX	LOST TIME SCHL	I. O.	WIPER TRIP	LOST TIME OTHERS	OTHERS	COMMENTS / REMARKS
00:00								X			
								X			
:30								X			
								X			
01:00								X			
								X			
:30								X			
								X			
02:00								X			
								X			
:30								X			
								X			
03:00								X			
								X			
:30								X			
								X			
04:00								X			
								X			
:30								X			
								X			
05:00								X			
								X			
:30								X			
								X			
06:00								X			
								X			
:30								X			
								X			
07:00								X			FINISH CIRCULATING BOTTOMS UP X 2
								X			PULL OUT OF HOLE WITH CLEAN OUT
:30								X			ASSEMBLY.
								X			
08:00								X			
								X			
:30								X			
								X			
09:00								X			
								X			
:30								X			
								X			
10:00								X			
								X			
:30								X			
								X			
11:00								X			
								X			
:30								X			
								X			

TOTALS

WSG (SIGN) J.Pitman / F.Fernandes	ENGINEER(SIGN) M.Reyes / S.Mitchell
---	---

TOTAL											
17.5								17.5			

TOOLS RUN : WIPER TRIP

TOOLS RUN :

TOOLS RUN :

LOGGING UNIT: 8677

WELL NAME: MARTHA 1

PAGE: 2A

DATE / TIME	RIG UP / DOWN	TOOL CHECK	RIH / POOH	LOGGING	DATA TX	LOST TIME BAKER	I. O.	WIPER TRIP	LOST TIME OTHERS	OTHERS	COMMENTS / REMARKS
12:00	X										12:00 HOLD JSA
	X										12:15 RIG UP COMPENSATOR AND SHEAVES
:30	X										
	X										12:45 RIG UP TOOLS RUN 1 GRAND SLAM
13:00	X										
	X										13:30 TOOL CHECKS ON SURFACE
:30		X									13:40 LOAD SOURCES
			X								13:50 TOOL ZERO. RUN IN HOLE TO
14:00			X								COMPENSATE – RUN IN HOLE
			X								14:05 AT CASING SHOE – CALIPER CHECK
:30				X							14:10 RUN IN HOLE TO 1350m
				X							14:30 LOG DOWN FROM 1350m
15:00				X							15:00 TOTAL DEPTH FOUND AT 1791m
				X							RECORD UP LOG – HOLE GOOD
:30				X							
				X							
16:00				X							
				X							
:30				X							17:30 LOG AT CASING SHOE. SHOE FOUND AT 621m
17:00				X							
				X							
:30				X							18:25 PULL OUT OF HOLE LOGGING GR TO SURFACE
18:00				X							
				X							18:40 TOOL AT SURFACE – REMOVE SOURCES – CONDUCT AFTER LOG TOOL VERIFICATIONS
:30				X							19:15 RIG DOWN RUN 1
19:00	X										
	X										
:30	X										
	X										
20:00	X										20:15 FINISHED RIGGING DOWN RUN 1
	X										RUN 2: RCI-GR, COMMENCE RIG UP @ 20:15
:30	X										
	X										
21:00	X										
	X										
:30		X									21:30 PERFORM SURFACE TEST
			X								21:45 RUN IN HOLE
22:00			X								
			X								
:30			X								
			X								22:45 ATTEMPT TO PASS BRIDGE AT 912m FOR 10 mins
23:00			X								23:15 CONDUCT CORRELATION PASS @ 1300m
				X							23:30 RECORD FIRST PRESSURE SURVEY @ 1258.7m
:30				X							

TOTALS

TOTAL	8.25	2.75	0.25	0.75	4.75						
	3.75	1.25	0.25	1.50	0.75						

WSG (SIGN)
J.Pitman / F.Fernandes

ENGINEER(SIGN)
M. Reyes / S.Mitchell

TOOLS RUN 1: GRAND SLAM

TOOLS RUN 2: RCI-GR

TOOLS RUN:

SERVICE QUALITY SUMMARY									
CLIENT WSG					ENGINEER				
1	2	3	4	5	1	2	3	4	5
1: Excellent - 2 - 3: Normal - 4 - 5: Very Poor									

SAFETY
 PROMPTNESS
 TOOL & SURFACE SYSTEM PERFORMANCE
 ATTITUDE & CO-OPERATION
 WELLSITE PRODUCTS / LOG QUALITY
 COMMUNICATIONS / TX PERFORMANCE
 OTHER (PLEASE SPECIFY)

Geology Operations

ELECTRIC LOGGING TIME SUMMARY

LOGGING UNIT:	8677
START DATE:	30/10/2004
END DATE:	02/11/2004
DEPTH DRILLER:	1800m
DEPTH LOGGER:	1791m (9m fill)

LEFT BASE:	24/10/04
ARRIVED AT WELLSITE:	25/10/04
INITIAL RIG UP:	30/10/04
FINAL RIG DOWN:	2/11/04
RETURN TO BASE:	3/11/04

WELL NAME:	MARTHA 1
TRIP NUMBER:	SUITE 1
WELLSITE GEOLOGIST:	J.Pitman / F.Fernandes
LOGGING ENGINEER:	M.Reyes / S.Mitchell
PAGE / DATE:	Page 3 / 01-11-2004

DATE / TIME	RIG UP / DOWN	TOOL CHECK	RIH / POOH	LOGGING	DATA TX	LOST TIME BAKER	I. O.	WIPER TRIP	LOST TIME OTHERS	OTHERS	COMMENTS / REMARKS
00:00				X							RECORD PRESSURE SURVEYS
				X							
:30				X							
				X							
01:00				X							
				X							
:30				X							
				X							
02:00				X							
				X							
:30				X							
				X							
03:00				X							
				X							
:30				X							
				X							
04:00				X							
				X							
:30				X							
				X							
05:00				X							
				X							
:30				X							
				X							
06:00				X							
				X							
:30				X							06:30 COMMENCE CORRELATION PASS PRIOR TO COLLECTING FORMATION SAMPLES
				X							06:40 START PUMPING
07:00				X							
				X							
:30				X							07:30 COLLECT 4 x 840 cc SAMPLE @ 1488.6m
				X							07:50 TOOL CLOSED, MOVE OFF STATION
08:00				X							08:00 CORRELATION PASS AT 1258.6m
				X							
:30				X							08:30 SEAL ACHIEVED AFTER 4 ATTEMPTS
				X							08:40 START PUMPING
09:00				X							09:15 COLLECT 2x 840cc SAMPLES @ 1258.6m
				X							
:30			X								09:30 TOOL CLOSED, PULL OUT HOLE RUN 2
			X								
10:00			X								
			X								
:30	X										10:30 RIG DOWN RCI-GR
	X										
11:00	X										
	X										11:30 FINISH RIGGING DOWN RCI-GR (RUN 2)
:30	X										RUN 3, VSP: COMMENCE RIG UP @ 11:30
	X										

TOTALS

WSG (SIGN) F.Fernandes / M. Lahiff	ENGINEER(SIGN) M.Reyes / S.Mitchell
---------------------------------------	--

TOTAL	15.25	2.25	0.25	2.5	10.25						

TOOLS RUN 2:	RCI-GR
TOOLS RUN 3:	
TOOLS RUN:	

LOGGING UNIT: 8677

WELL NAME: MARTHA 1

PAGE: 3A

DATE / TIME	RIG UP / DOWN	TOOL CHECK	RIH / POOH	LOGGING	DATA TX	LOST TIME BAKER	I. O.	WIPER TRIP	LOST TIME OTHERS	OTHERS	COMMENTS / REMARKS
12:00	X										
	X										
:30			X								12:30 RUN IN HOLE RUN 3
			X								
13:00			X								13:05 WORKED TOOLS PAST BRIDGE AT 911m.
				X							13:15 RECORD FIRST POINT AT 960m
:30				X							
				X							
14:00				X							
				X							
:30				X							
				X							
15:00				X							
				X							
:30				X							
				X							
16:00				X							
				X							
:30				X							
				X							
17:00				X							
				X							
:30				X							
				X							
18:00				X							18:00 RECORDED LAST STATION
				X							TOTAL STATIONS 115 AT 15m SPACINGS.
	X										
:30	X										
	X										
19:00	X										19:00 TOOLS TO SURFACE, RIG DOWN
	X										
:30									X		19:30 RIG DOWN COMPLETED
									X		WAIT ON CRANE
20:00	X										RUN 4: RCOR, COMMENCE RIG UP @ 20:00
	X										20:30 SURFACE CHECKS
:30		X									20:45 TROUBLE SHOOT TOOL PROBLEM WITH
						X					TECH IN TOWN
21:00						X					
						X					
:30						X					
			X								21:45 RUN IN HOLE
22:00			X								
			X								
:30				X							22:30 CONDUCT CORRELATION PASS @ 1750m
	X										22:45 TOOL CHECK AT 1753m, LOWER ARM
23:00	X										NOT OPENING, TOOL DRAWING EXCESS
	X										POWER, PULL OUT OF HOLE, RUN ABORTED
:30			X								23:15 PULL OUT OF HOLE
			X								

TOTALS

WSG (SIGN) J.Pitman / F.Fernandes
ENGINEER(SIGN) M.Reyes / S.Mitchell

TOTAL 8.00

2.25		0.75	5.0							

TOOLS RUN 3: VSP
TOOLS RUN 4: RCOR-GR
TOOLS RUN:

SERVICE QUALITY SUMMARY									
CLIENT WSG					ENGINEER				
1	2	3	4	5	1	2	3	4	5

1: Excellent - 2 - 3: Normal - 4 - 5: Very Poor

SAFETY
PROMPTNESS
TOOL & SURFACE SYSTEM PERFORMANCE
ATTITUDE & CO-OPERATION
WELLSITE PRODUCTS / LOG QUALITY
COMMUNICATIONS / TX PERFORMANCE
OTHER (PLEASE SPECIFY)

Geology Operations

ELECTRIC LOGGING TIME SUMMARY

LOGGING UNIT:	8677
START DATE:	30/10/2004
END DATE:	02/11/2004
DEPTH DRILLER:	1800m
DEPTH LOGGER:	1791m (9m fill)

LEFT BASE:	24/10/04
ARRIVED AT WELLSITE:	25/10/04
INITIAL RIG UP:	30/10/04
FINAL RIG DOWN:	2/11/04
RETURN TO BASE:	3/11/04

WELL NAME:	MARTHA 1
TRIP NUMBER:	SUITE 1
WELLSITE GEOLOGIST:	J.Pitman / F.Fernandes
LOGGING ENGINEER:	M.Reyes / S.Mitchell
PAGE / DATE:	Page 4 / 02-11-2004

DATE / TIME	RIG UP / DOWN	TOOL CHECK	RIH / POOH	LOGGING	DATA TX	LOST TIME BAKER	I. O.	WIPER TRIP	LOST TIME OTHERS	OTHERS	COMMENTS / REMARKS
00:00			X								
	X										00:15 TOOLS TO SURFACE, RIG DOWN RUN 4
:30	X										
	X										00:45 RIG DOWN COMPLETE
01:00	X										RUN 5: SWC-GR, COMMENCE RIG UP @ 00:45
	X										01:15 RIG ON RADIO SILENCE
:30	X										01:30 ARM GUNS ON CATWALK
			X								01:45 RUN IN HOLE
02:00			X								
			X								
:30			X								02:25 TOOL HUNG UP AT 910m, WORK PAST IN 5 MINUTES
			X								
03:00				X							03:00 CORRELATION PASS @ 1745m
				X							
:30				X							
				X							
04:00			X								04:15 FIRED SHORT NO.25, PULL OUT OF HOLE
			X								
:30			X								
			X								
05:00			X								
			X								
:30			X								05:30 RADIO SILENCE CONFIRMED
			X								06:00 TOOL AT SURFACE - RIG DOWN
06:00	X										RUN 5 SWC.
	X										06:30 FINISH RIGGING DOWN BAKER
:30											ATLAS WIRELINE.
07:00											
:30											
08:00											
:30											
09:00											
:30											
10:00											
:30											
11:00											
:30											

TOTALS

WSG (SIGN) F.Fernandes / J.Pitman	ENGINEER(SIGN) M.Reyes / S.Mitchell
---	---

TOTAL										
5.25	1.0	1.0	1.5	0.25		1.0			0.5	
5.75	1.5		3.0	1.25						

TOOLS RUN 4: RCOR-GR

TOOLS RUN 5: SWC-GR

TOOLS RUN:

SECTION 3.4 : RCI PRESSURE SURVEY RESULTS

Santos

RCI PRESSURE SURVEY

WELL: **Martha 1**
WITNESS: M. Lahiff

RT: 21.5 metres
Time since last circ : 6:30 hrs, 31-10-04

Gauge Type : CQG
Probe/Packer Type : Standard

Page : 1 OF 3
Date : 31/10/2004

TEST NO	FORMATION	DEPTH RT MD m	DEPTH SUBSEA m	FILE NO	TEST RESULTS					INTERPRETATION		COMMENTS
					HYDRO BEFORE PSIA	FORM PRESS PSIA	HYDRO AFTER PSIA	TEMP deg Far	D/D MOB MD/CP	BU Description	Super-charged yes/no	
												Correlation Run
1	Paaratte Fm.	1258.7	1237.2	3	2272.70	1803.60	2272.70	58.4	38.7	Good		
1	Paaratte Fm.	1258.7	1237.2	3	2272.70	1804.10	2272.70	58.4	45.7	Good		Repeat
2	Paaratte Fm.	1260.6	1239.1	4	2276.30	1804.50	2276.50	59.0	18.7	Good		
2	Paaratte Fm.	1260.6	1239.1	4	2276.30	1804.50	2276.50	59.0	22.9	Good		Repeat
3	Paaratte Fm.	1276.0	1254.5	5	2304.40	1832.40	2304.40	59.5	119.5	Good		
3	Paaratte Fm.	1276.0	1254.5	5	2304.40	1832.60	2304.40	59.5	283.8	Good		Repeat
4	Paaratte Fm.	1276.8	1255.3	6	2305.70		2306.00	60.1	57.60	Slow		Did not stabilise
4	Paaratte Fm.	1276.8	1255.3	6	2305.70	1833.10	2306.00	60.1	37.00	Good		Repeat
4	Paaratte Fm.	1276.8	1255.3	6	2305.70	1833.10	2306.00	60.1	37.00	Good		Repeat.
5	Paaratte Fm.	1281.3	1259.8	7	2314.10		2314.20	61.1	165.40	Slow		Not stable
5	Paaratte Fm.	1281.3	1259.8	7	2314.10	1833.14	2314.30	61.1	286.60	Good		Repeat
5	Paaratte Fm.	1281.3	1259.8	7	2314.10	1833.23	2314.30	61.1	286.60	Good		Repeat
6	Paaratte Fm.	1284.5	1263.0	8	2320.10		2320.50	61.7	92.40	Slow		Not stable
6	Paaratte Fm.	1284.5	1263.0	8	2320.10	1835.90	2320.50	61.7	163.70	Good		Repeat
6	Paaratte Fm.	1284.5	1263.0	8	2320.10	1836.00	2320.50	61.7	167.00	Good		Repeat
7	Paaratte Fm.	1289.4	1267.9	9	2328.90	1843.29	2329.20	62.1	35.90	Good		
7	Paaratte Fm.	1289.4	1267.9	9	2328.90	1843.40	2329.20	62.1	32.50	Good		Repeat
8	Paaratte Fm.	1300.5	1279.0	10	2349.30		2349.50	62.2	54.00	Slow		Not stable
8	Paaratte Fm.	1300.5	1279.0	10	2349.30	1860.00	2349.50	62.2	48.00	Slow		stable
8	Paaratte Fm.	1300.5	1279.0	10	2349.30	1859.90	2349.50	62.2	53.10	Slow		stable
9	Thylacine Mbr	1366.2	1344.7	11	2466.70	1997.35	2467.00	62.3	5.40	V. Slow	Possibly sc	stable.
10	Thylacine Mbr	1367.6	1346.1	12	2469.50	1993.20	2469.50	62.8	11.70	Good		stable
10	Thylacine Mbr	1367.6	1346.1	12	2469.50	1993.00	2469.50	62.8	10.70	Good		Repeat
11	Thylacine Mbr	1383.7	1362.2	13						n/a		failure
12	Thylacine Mbr	1383.7	1362.2	14	2498.40		2498.70	64.2		tight		tight
13	Thylacine Mbr	1385.6	1364.1	15	2501.80	2049.90	2502.00	64.2	3.80	V. Slow		stable
14	Thylacine Mbr	1386.8	1365.3	16								Lost seat.
15	Thylacine Mbr	1386.8	1365.3	17								Tool plug
16	Thylacine Mbr	1383.0	1361.5	18								Tool plug
16	Thylacine Mbr	1383.0	1361.5	18	2497.40		2497.60					Tight
17	Thylacine Mbr	1386.8	1365.3	19	2503.60	2045.10	2504.10	65.5	4.60	Slow		Stable
17	Thylacine Mbr	1386.8	1365.3	19	2503.60	2045.10	2504.10	65.5	4.60	Slow		repeat
				20								Correlation Run
18	Waarre	1484.5	1463.0	21	2679.30	2203.15	2677.70	66.4	3.00	Good		Stable
18	Waarre	1484.5	1463.0	21	2679.30	2203.30	2677.70	66.4	3.90	Good		Repeat
19	Waarre	1487.5	1466.0	22	2683.20		2683.60	66.5	44.20	Slow		Not stable
19	Waarre	1487.5	1466.0	22	2683.20	2204.30	2683.60	66.5	103.50	Good		Repeat.Stable
20	Waarre	1491.8	1470.3	23	2691.00		2691.00	66.6	117.50	Good		Not stable
20	Waarre	1491.8	1470.3	23	2691.00	2204.70	2691.20	66.6	117.50	Good		Repeat.
21	Waarre	1495.5	1474.0	24	2697.60		2697.60	66.7	82.70	Good	Possibly sc	Not stable
21	Waarre	1495.5	1474.0	24	2697.60	2205.20	2697.60	66.7	182.40	Good		Repeat. Stable
22	Waarre	1496.8	1475.3	25	2699.90		2699.80	67.5	7.50			Not stable

Santos

RCI PRESSURE SURVEY

WELL: **Martha 1**
WITNESS: **M. Lahiff**

RT: 21.5 metres
Time since last circ : 6:30 hrs, 31-10-04

Gauge Type : CQG
Probe/Packer Type : Standard

Page : 2 OF 3
Date : 31/10/2004

	FORMATION	DEPTH RT MD m	DEPTH SUBSEA m	FILE NO	TEST RESULTS					INTERPRETATION		COMMENTS
					HYDRO BEFORE PSIA	FORM PRESS PSIA	HYDRO AFTER PSIA	TEMP deg Far	D/D MOB MD/CP	BU Description	Super-charged yes/no	
22	Waarre	1496.8	1475.3	25	2699.90	2205.37	2699.80	67.5	7.00			Repeat.
23	Waarre	1507.5	1486.0	26	2719.10		2719.20	67.5				Tight
24	Waarre	1517.6	1496.1	27	2737.10		2737.40	68.0				Tight
25	Waarre	1520.0	1498.5	28	2741.50		2741.50					Tight
				29								Correlation Run
26	Waarre	1579.8	1558.3	30	2848.10		2848.20			V.Slow		Tight. Unstable BU
27	Waarre	1585.5	1564.0	31	2858.50	2717.60	2858.30	69.5	4.30	V.Slow		Stable
28	Waarre	1602.3	1580.8	32								No Seal
28	Waarre	1602.2	1580.7	33								No Seal
29	Waarre	1608.0	1586.5	34								No Seal
30	Waarre	1613.0	1591.5	35								No Seal
31	Waarre	1613.0	1591.5	35								No Seal
				36								Correlation Run
32	Waarre	1488.6	1467.1	37								
32	Waarre	1488.6	1467.1	38		2204.40			54.90			Repeat & Sample (4 x 850cc)
				39								Correlation Run
33	Paaratte Fm.	1258.6	1237.1	40								Possible lost seal
33	Paaratte Fm.	1258.6	1237.1	41								Repeat. Possible lost seal
34	Paaratte Fm.	1258.7	1237.2	42								Possible lost seal
35	Paaratte Fm.	1258.7	1237.2	43								Unstable
35	Paaratte Fm.	1258.7	1237.2	44		1804.00			52.90			Repeat. Stable. Sample (2 x 850cc)

35 PRE-TESTS: 17 Normal, 9 Lost Seals, 2 Tool Plugged, 6 Curtailed/Tight, 1 Failure
SAMPLES: 1488.6mRT; 4 X 850cc bottles
1258.7m; 2 X 850 cc bottle

Expected Water Gradient: 0.423 psi/ft
Mud Weight : 10.5ppg

SAMPLE CHAMBER 189733 (850cc)**DEPTH: 1488.6m**

WAARRE FM.

AMBIENT TEMPERATURE: 17degC

SURFACE PRESSURE 4500 PSI

Sample chamber bled down 1.5 cuft to purge lines.

After taking samples a total of 2.7 cuft had been bled down

FINAL CHAMBER PRESSURE: 3000 PSI

The sample chamber was not fully bled down and was transported to Petrolab for further analysis.

	PPM	%
C1	742661	93.651
C2	32869	4.145
C3	11409	1.439
IC4	2444	0.308
NC4	2368	0.299
IC5	765	0.096
NC5	489	0.062

94/4/1.4/0.6/TR

SAMPLE CHAMBER 369205 (850cc)**DEPTH: 1258.7m**

PAARATTE FM

AMBIENT TEMPERATURE: 17degC

SURFACE PRESSURE 4500 PSI

Sample chamber bled down 1.6 cuft to purge lines.

After taking samples a total of 2.1 cuft had been bled down

FINAL CHAMBER PRESSURE: 3000 PSI

The sample chamber was not fully bled down and was transported to Petrolab for further analysis.

	PPM	%
C1	941628	96.058
C2	29271	2.986
C3	5742	0.586
IC4	1894	0.193
NC4	948	0.097
IC5	590	0.060
NC5	198	0.020

96/3/1/TR/TR

SECTION 3.4.1 : RCI SAMPLE ANALYSES



**SECTION 3.5: LWD END OF WELL REPORT
(Sperry Sun)**

Sperry-Sun

End of Well Report for Santos Ltd

Rig: Ocean Patriot
Well: Martha-1
Field: Offshore Otway Basin
Country: Australia
Job No: AU-FE-0003287671
Date: 20-Oct-04
API No:

HALLIBURTON

Table of Contents

1. General Information
2. Operational Overview
3. Summary of MWD Runs
4. Bitrun Summary
5. Directional Survey Data

General Information

Company:	Santos Ltd	
Rig:	Ocean Patriot	
Well:	Martha-1	
Field:	Offshore Otway Basin	
Country:	Australia	
API Number:		
Sperry-Sun Job Number:	AU-FE-0003287671	
Job start date:	20-Oct-04	
Job end date:	29-Oct-04	
North reference:	Grid	
Declination:	10.884	deg
Dip angle:	-69.861	deg
Total magnetic field:	60851.918	nT
Date of magnetic data:	23-Oct-04	
Wellhead coordinates N:	38 deg. 37 min 24.330 sec	South
Wellhead coordinates E:	142 deg. 42 min 5.020 sec	East
Vertical section direction:	Closure	deg
MWD Engineers:	T.Oborne	D.Luoni
Company Representatives:	N.Walters	S.Hodgetts
Company Geologist:	J.Pitman	F.Fernandes
Lease Name:	Vic P44	
Unit Number:	197	
State:	Victoria	
County:		

Operational Overview

Sperry-Sun Drilling Services were contracted to provide formation evaluation and directional surveying services for the drilling of Martha-1 well by Santos Ltd on the Ocean Patriot MODU.

12 1/4" (311mm) Hole Section

Sperry-Sun's formation evaluation suite of tools were used consisting of a Dual Gamma Ray (DGR) sensor, Pressure While Drilling (PWD) and Four Phase Electromagnetic Resistivity (EWR-P4) sensors along with a Position Monitor (PM) for directional control. The 12 1/4" hole section was drilled in two runs with the first from 628.0 mMDRT to 1262.0 mMDRT at which point a bit trip was made. Drilling resumed with a PDC bit to TD at 1800.0 mMDRT.

Summary of MMD runs

Run No.	Bit No.	Hole Size (in)	MMD Service	Start Depth (m)	End Depth (m)	Drill/Wipe Distance (m)	Run Start Date Time	Run End Date Time	BRT Hrs.	Oper. Hrs.	Circ. Hrs.	Max. Temp. (degC)	Serv. Int.	Trip for MMD	Failure Type
0300	3	12.25	DIR-FE	628.00	1262.00	634.00	25-Oct-04 18:20	28-Oct-04 09:55	63.60	65.63	46.67	51.00	No	No	
0400	4	12.25	DIR-FE	1262.00	1800.00	538.00	28-Oct-04 12:33	30-Oct-04 11:13	46.67	46.67	30.21	67.00	No	No	


TOTALS ==> 1172.00

110.26 112.30 76.88

0 0

Bitrun Summary

Run Time Data		Drilling Data		Mud Data			
MWD Run :	0300	Start Depth :	628.00 m	Mud Type :	KCI/PHPA		
Rig Bit No:	3	End Depth :	1262.00 m	Weight / Visc :	1.08 sg /	42.00 spqt	
Hole Size :	12.25 in	Footage :	634.00 m	Chlorides :	38000 ppm		
Run Start :	25-Oct-04 18:20	Avg. Flow Rate :	900.00 gpm	PV / YP :	11.00 cp /	9.58 lhf2	
Run End :	28-Oct-04 09:55	Avg. RPM :	108.00 rpm	Solids/Sand :	1 % /	0.75 %	
BRT Hrs :	63.60	Avg. WOB :	15.00 klb	%Oil / O:W:	N/A % /	N/A:100	
Circ. Hrs :	46.67	Avg. ROP :	18.60 m/hr	pH/Fluid Loss:	8.00 pH /	1.00 mptm	
Oper. Hrs :	65.63	Avg. SPP :	2280.00 psig	Max. Temp. :	51.00 degC		

MWD Schematics		BHA Schematics			
		Component	Length (m)	O.D. (in)	I.D. (in)
(6)		(12)			
(5)		(11)			
(4)	6. 8" P4M 1200 System SN: 0.00 m From Bit	(10)			
(3)	5. PM SN: 134019 12.30 m From Bit	(9)			
(2)	4. HCIM SN: 62583	(8)	12. HWDP	112.33	5.000 3.000
(1)	3. PWD SN: 104432 8.30 m From Bit	(7)	11. Cross Over Sub	1.13	9.000 3.125
	2. EWR-P4 SN: 142009 5.77 m From Bit	(6)	10. Drill Collar	9.22	8.000 3.000
	1. DGR SN: 151078 3.46 m From Bit	(5)	09. Drilling Jars	10.39	8.000 3.000
		(4)	08. Drill Collar	27.09	8.000 3.000
		(3)	07. Drilling Jars	9.95	8.000 3.000
		(2)	06. Drill Collar	90.55	8.000 3.063
		(1)	05. 3-Point String Reamer	2.01	12.250 3.000
			04. Drill collar	9.11	8.000 2.813
			03. MWD	14.21	8.000 1.920
			02. 6-Point Near Bit Reamer	2.16	12.250 2.800
			01. Reed TD43HKPROH	0.35	12.250 2.800

Comments	MWD Performance
Drilled 12 1/4" hole section from 628.0 mMDRT to 1262.0 mMDRT. All recorded data was recovered at surface.	Tool OD / Type : 8.00 in / MPT
	MWD Real-time%: 78.33 %
	MWD Recorded%: 100.00 %
	Min. Inc. : 0.36 deg / 672.92 m
	Max. Inc. : 3.46 deg / 1247.39 m
	Final Az. : 212.50 deg
	Max Op. Press. : 1938 psig

Bitrun Summary

Run Time Data		Drilling Data		Mud Data			
MWD Run :	0400	Start Depth :	1262.00 m	Mud Type :	KCI/PHPA		
Rig Bit No:	4	End Depth :	1800.00 m	Weight / Visc :	1.23	sg /	44.00 spqt
Hole Size :	12.25 in	Footage :	538.00 m	Chlorides :	35000 ppm		
Run Start :	28-Oct-04 12:33	Avg. Flow Rate :	850.00 gpm	PV / YP :	16.00	cp /	16.00 lhf2
Run End :	30-Oct-04 11:13	Avg. RPM :	128.00 rpm	Solids/Sand :	10	% /	1.5 %
BRT Hrs :	46.67	Avg. WOB :	9.10 klb	%Oil / O:W:	N/A	% /	N/A:98.5
Circ. Hrs :	30.21	Avg. ROP :	25.99 m/hr	pH/Fluid Loss:	8.00	pH /	9.20 mptm
Oper. Hrs :	46.67	Avg. SPP :	3280.00 psig	Max. Temp. :	67.00	degC	

MWD Schematics		BHA Schematics			
		Component	Length (m)	O.D. (in)	I.D. (in)
(6)		(12)			
(5)		(11)			
(4)		(10)			
(3)		(9)			
(2)		(8)			
(1)		(7)			
	6. 8" P4M 1200 System SN: 0.00 m From Bit	(6)			
	5. PM SN: 134019 12.17 m From Bit	(5)			
	4. HCIM SN: 62583	(4)			
	3. PWD SN: 156659 8.16 m From Bit	(3)			
	2. EWR-P4 SN: 130937 5.73 m From Bit	(2)			
	1. DGR SN: 176691 3.42 m From Bit	(1)			
		(12)	12. HWDP	112.33	5.000 3.000
		(11)	11. Cross Over Sub	1.13	9.000 3.125
		(10)	10. Drill Collar	9.22	8.000 3.000
		(9)	09. Drilling Jars	10.39	8.000 3.000
		(8)	08. Drill Collar	27.09	8.000 3.000
		(7)	07. Drilling Jars	9.95	8.000 3.000
		(6)	06. Drill Collar	90.55	8.000 3.063
		(5)	05. 3-Point String Reamer	2.01	12.250 3.000
		(4)	04. Drill collar	9.11	8.000 2.813
		(3)	03. MWD	14.08	8.000 1.920
		(2)	02. 6-Point Near Bit Reamer	2.16	12.250 2.800
		(1)	01. Hycalog DSX104HWG	0.35	12.250 2.800

Comments	MWD Performance
Drilled from 1262.0 mMDRT to TD at 1800.00 mMDRT. All data was recovered at surface.	Tool OD / Type : 8.00 in / MPT
	MWD Real-time%: 86.67 %
	MWD Recorded%: 100.00 %
	Min. Inc. : 2.20 deg / 1620.36 m
	Max. Inc. : 3.78 deg / 1276.08 m
	Final Az. : 214.76 deg
	Max Op. Press. : 3070 psig

Directional Survey Data

Measured Depth (metres)	Inclination (degrees)	Direction (degrees)	Vertical Depth (metres)	Latitude (metres)	Departure (metres)	Vertical Section (metres)	Dogleg (deg/30m)
672.92	0.36	121.62	672.92	0.98 S	1.60 E	-0.98	TIE-IN
731.00	0.56	135.36	730.99	1.28 S	1.95 E	0.05	0.12
759.74	0.35	171.41	759.73	1.47 S	2.07 E	0.14	0.36
846.09	0.12	248.92	846.08	1.76 S	2.02 E	0.42	0.12
872.68	0.05	166.11	872.67	1.78 S	2.00 E	0.45	0.14
960.62	1.59	200.68	960.60	2.96 S	1.58 E	1.67	0.53
989.35	1.27	184.55	989.32	3.65 S	1.41 E	2.34	0.53
1017.99	2.00	214.08	1017.95	4.38 S	1.10 E	3.12	1.14
1046.87	2.46	218.63	1046.81	5.28 S	0.44 E	4.24	0.51
1075.51	2.33	211.04	1075.42	6.26 S	0.25 W	5.43	0.36
1104.15	2.36	211.11	1104.04	7.27 S	0.85 W	6.60	0.03
1132.60	2.43	210.35	1132.47	8.29 S	1.46 W	7.79	0.08
1161.23	2.65	210.29	1161.07	9.38 S	2.10 W	9.06	0.24
1189.87	2.78	210.70	1189.67	10.55 S	2.79 W	10.42	0.13
1218.57	3.07	212.16	1218.34	11.80 S	3.55 W	11.88	0.32
1247.39	3.46	212.50	1247.11	13.19 S	4.43 W	13.52	0.41
1276.08	3.78	212.66	1275.74	14.71 S	5.41 W	15.33	0.33
1304.67	3.60	212.65	1304.27	16.26 S	6.40 W	17.17	0.18
1333.52	3.43	215.56	1333.07	17.73 S	7.39 W	18.94	0.26
1362.11	3.23	216.60	1361.61	19.07 S	8.37 W	20.60	0.22
1390.88	3.10	219.06	1390.34	20.33 S	9.34 W	22.18	0.20
1419.53	3.12	219.42	1418.95	21.53 S	10.33 W	23.73	0.03
1448.27	3.07	219.27	1447.64	22.73 S	11.31 W	25.26	0.06
1476.85	2.88	220.27	1476.18	23.87 S	12.26 W	26.73	0.20
1505.48	2.74	223.28	1504.78	24.92 S	13.19 W	28.12	0.21
1591.58	2.35	219.65	1590.80	27.78 S	15.73 W	31.89	0.15
1620.36	2.20	220.22	1619.55	28.66 S	16.47 W	33.02	0.16
1649.36	2.43	227.31	1648.53	29.50 S	17.28 W	34.17	0.38
1678.05	2.32	225.45	1677.19	30.32 S	18.14 W	35.32	0.14
1706.72	2.40	224.26	1705.84	31.15 S	18.97 W	36.47	0.10
1735.43	2.43	221.48	1734.52	32.04 S	19.79 W	37.66	0.13
1763.96	2.56	220.08	1763.03	32.98 S	20.60 W	38.88	0.15
1785.46	2.69	214.76	1784.50	33.76 S	21.20 W	39.86	0.38
1800.00	2.69	214.76	1799.03	34.32 S	21.59 W	40.55	0.00

Directional Survey Data

CALCULATION BASED ON Minimum Curvature METHOD

SURVEY COORDINATES RELATIVE TO WELL SYSTEM REFERENCE POINT

TVD VALUES GIVEN RELATIVE TO DRILLING MEASUREMENT POINT

VERTICAL SECTION RELATIVE TO WELL HEAD

VERTICAL SECTION IS COMPUTED ALONG CLOSURE OF 212.17 DEGREES (GRID)

A TOTAL CORRECTION OF 11.95 DEG FROM MAGNETIC NORTH TO GRID NORTH HAS BEEN APPLIED

HORIZONTAL DISPLACEMENT IS RELATIVE TO THE WELL HEAD.

HORIZONTAL DISPLACEMENT(CLOSURE) AT 1800.00 METRES

IS 40.55 METRES ALONG 212.17 DEGREES (GRID)

Final survey is projected to TD

RT-MSL = 21.5m

SECTION 3.6: BOREHOLE SEISMIC ANALYSIS

BOREHOLE SEISMIC ANALYSIS

FOR

SANTOS & PARTNERS

PREPARED BY

BAKER ATLAS

DOWNHOLE SEISMIC SERVICES

WELL : **MARTHA-1**
LOCATION : **OTWAY BASIN, AUSTRALIA**
ENGINEER : **B.READ**
DATE : **MON 1ST NOVEMBER 2004**



Baker Atlas

FIELD ENGINEER'S LOG

SURVEY INFORMATION

CLIENT	<u>SANTOS & PARTNERS</u>		
CLIENT REP	<u>J.PITMAN F.FERNANDES</u>		
WELL NAME	<u>MARTHA-1</u>		
WELL LOCATION	<u>OTWAY BASIN, AUSTRALIA</u>		
FIELD NAME	<u>EXPLORATION</u>		
RIG NAME	<u>OCEAN PATRIOT</u>		
ENGINEER	<u>B.READ</u>		
TYPE OF SERVICE	<u>ZVSP (MLR)</u>		
WIRELINE CO. AND DISTRICT	<u>BAKER ATLAS, DARWIN</u>		
WIRELINE OPERATOR	<u>UNIT 8677</u>		
RUN NUMBER	<u>3</u>	TOTAL TRIPS THIS RUN	<u>1</u>
WEATHER / SEAS	<u>CLEAR, CALM</u>	SURVEY DATE	<u>MON 1ST NOVEMBER 2004</u>
LINEID	<u>MARTHA-1</u>	FILE NAME :	<u>RAW</u>
		SERVICE ORDER NO.	<u>516561</u>

WELL INFORMATION

WELL HEAD COORDINATES	<u>38 DEG 37' 24.33" S 142 DEG 42' 05.02" E</u>		
NORTHING	<u>5723638.3N</u>	ELEV D.F.	<u>22.5 M</u>
EASTING	<u>648109.3E</u>	OPEN HOLE DIAMETER	<u>12.5 IN</u>
RIG HEADING	<u>44 Deg</u>	MAX. TEMPERATURE	<u>153 DEG F</u>
GROUND ELEVATION	<u>-54.66 M</u>	FLUID TYPE	<u>KCL/GLYCOL</u>
WATER DEPTH	<u>54.66 M</u>	CASING : (DIAMETER / DEPTH)	
WELL T.D.	<u>1785 M</u>	1	<u>30" 0 - 121 M</u>
REFERENCE DATUM	<u>MEAN SEA LEVEL</u>	2	<u>13 3/8 - 620.8 M</u>
DEVIATED WELL	<u>NO</u>	3	<u>OPEN HOLE</u>
MAXIMUM DEVIATION	<u>N/A</u>	4	<u>OPEN HOLE</u>

DOWNHOLE RECEIVER

RECEIVER TYPE	<u>AWS 1300 GM</u>	ARM LENGTH	<u>LONG 8-20"</u>	PREAMP GAIN	<u>51 dB</u>
SENSOR TYPE	<u>GEOPHONE</u>	SENSOR FREQ.	<u>10 HZ</u>	GIMBALLED	<u>YES</u>
GIMBAL TYPE	<u>1025</u>	RCVR SPACING	<u>15 M</u>	ZERO POINT	<u>DRILL FLOOR</u>
DEPTH ERROR	<u>0.8 M</u>	ASSET NO RCV-1	<u>166202</u>	ASSET NO RCV-2	<u>166476</u>
ASSET NO. RCV-3	<u>186706</u>	ASSET NO RCV-4	<u>189237</u>	ASSET NO RCV-5	<u>190172</u>

LOGGING TOOLS USED

1309XA/MLR STRING

FIELD ENGINEER'S LOG

RECORDING SYSTEM

RECORDING UNIT ASSET NUMBER 9700LA 302869

SURFACE A/D TYPE AND NUMBER DSS 16CH A/D

DOWNHOLE A/D TYPE AND ASSET NUMBER 6221XA 189564

SURFACE A/D TOTAL CHANNELS 8 DOWNHOLE A/D TOTAL CHANNELS 16

FLASK TYPE HIGH TEMP

SAMPLE RATE 1 MILLISECOND RECORD LENGTH 4 SECONDS

SWEEP LENGTH N/A TRANSMIT OFFSET N/A

TIME OF START OF RECORD TO TIME BREAK 100 MSECS

LOW CUT FILTER DC (0 Hz) HIGH CUT FILTER 250 Hz

TAPE TYPE DAT TAPE TAPE FORMAT TAR & SEGY

CHANNELS ASSIGNMENT AND GAIN :

CH 1	<u>V</u>	CH 2	<u>H</u>	CH 3	<u>T</u>
CH 4	<u>V</u>	CH 5	<u>H</u>	CH 6	<u>T</u>
CH 7	<u>V</u>	CH 8	<u>H</u>	CH 9	<u>T</u>
CH 10	<u>V</u>	CH 11	<u>H</u>	CH 12	<u>T</u>
CH 13	<u>V</u>	CH 14	<u>H</u>	CH 15	<u>T</u>
CH 16	<u>N/A</u>	CH 17	<u>N/A</u>	CH 18	<u>N/A</u>
CH 19	<u>N/A</u>	CH 20	<u>SIG</u>	CH 21	<u>N/A</u>
CH 22	<u>N/A</u>	CH 23	<u>N/A</u>	CH 24	<u>N/A</u>
CH 25	<u>N/A</u>	CH 26	<u>N/A</u>	CH 26	<u>N/A</u>
CH 28	<u>N/A</u>	CH 29	<u>N/A</u>	CH 30	<u>N/A</u>
CH 31	<u>N/A</u>	CH 32	<u>N/A</u>		

WIRELINER & WTS PANEL

WIRELINER ASSET NO 9520LA 10103244 WIRELINER TYPE 7H47RTZHS

WIRELINER LENGTH 7744 M WTS TYPE / ASSET NO. 5710XD 172466

TRANSMIT GAIN 42 MODE 2 GAIN 1 10 MODE 2 GAIN 2 50

MODE 2 EQN. 1 66 MODE 2 EQN. 2 57 MODE 2 EQN. 3 OUT

MODE 5 GAIN 1 9 MODE 5 EQN. 1 66 MODE 5 EQN. 1 60

INTERCONNECTS

SPACING DISTANCE 15 M ASSET NO. INC-1 152532 ASSET NO. INC-2 186728

ASSET NO. INC-3 190271 ASSET NO. INC-4 190274 ASSET NO. INC-5 190275

SPECIAL FEATURES



PROCESSING INSTRUCTION

SEISMIC DATUM : MEAN SEA LEVEL CORRECTION VELOCITY 1500 M/SEC

LOGS AVAILABLE ON SITE : ACCOUSTIC CALIPER

SURVEY INSTRUCTIONS RECEIVED

- (N) PRIORITY
- (N) CALIBRATION
- (N) SYNTHETIC
- (Y) VSP
- (Y) VELOCITY
- (N) INVERSION
- (N) OFFSET VSP
- (N) WALKWAY
- (N) PROXIMITY
- (N) NORMAL INCIDENCE
- (N) 3 COMPONENTS
- (N) 3D
- (N) NAVIGATION
- (N) GYRO

GUN TO HYDROPHONE CORRECTION 1.3 MSECS

HYDROPHONE DELAY = 0.0 MSECS

ZVSP AT 15 M INTERVALS FROM TD (1785M) TO LOSS OF SEABED (75M)

GR CORRELATION WAS + 0.8 M AT A DEPTH OF 1530 M

A TOTAL OF 115 LEVELS PLUS THREE CHECKSHOTS WERE TAKEN

LEVEL 12 HAD THE WRONG DEPTHS SHOULD HAVE BEEN FROM 1305-1365

LEVEL 28 HAD THE WRONG DEPTHS SHOULD HAVE BEEN FROM 345-405

FROM 915 M TO 825 M (NOT INLCLUDING 840M) HOLE WASHED OUT PASSED ARM LENGTH OF 20 INCHES

AIRGUN SURVEY

OFFSET NO. 1

DISTANCE FROM WELL	46.3 M
AZIMUTH FROM WELL	328 Deg
ELEVATION FROM MSL	-5 M
GUN ARRAY TYPE	SLEEVE GUN
GUN CONTROLLER	GCU-4 6001LA 123483
WATER DEPTH	54.66 M
GUN DEPTH	5 M
NUMBER OF GUNS	2
GUN SEPERATION	1 M
GUN VOLUMES	2 X 150 CU IN
GUN UNIT NO.	127901, 127895
PIT DIMENSION (L,W,D)	OPEN SEA

OFFSET NO. 2

DISTANCE FROM WELL	N/A
AZIMUTH FROM WELL	N/A
ELEVATION FROM MSL	N/A
GUN ARRAY TYPE	N/A
GUN CONTROLLER	N/A
WATER DEPTH	N/A
GUN DEPTH	N/A
NUMBER OF GUNS	N/A
GUN SEPERATION	N/A
GUN VOLUMES	N/A
GUN UNIT NO.	N/A
PIT DIMENSION (L,W,D)	N/A

COMPRESSORS

TYPE & S/N :	RUCKER SYSTEM
FIRING PRESSURE	1800 PSI

COMPRESSORS

TYPE & S/N :	N/A
FIRING PRESSURE	N/A

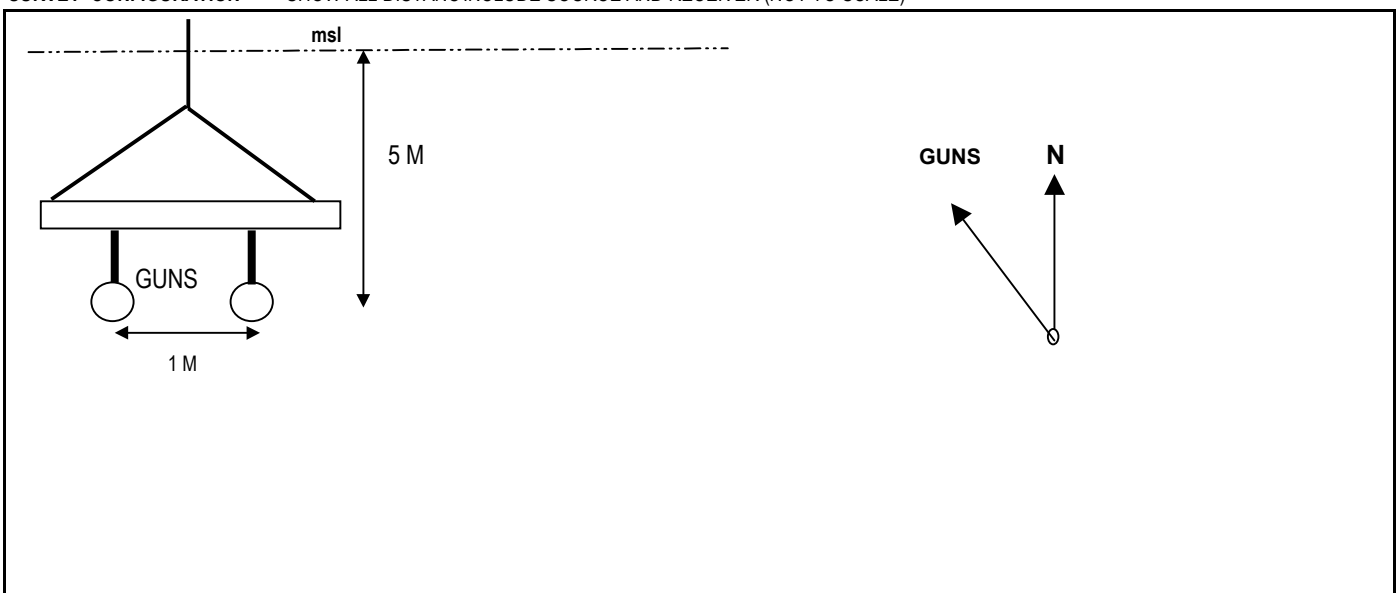
REFERENCE PHONE

TYPE	MP8-D HYDROPHONE
DISTANCE TO SOURCE	2 M
DIRECTION TO SOURCE	DIRECTLY BELOW
DEPTH	7 M
FREQ.	15 Hz

REFERENCE PHONE

TYPE	N/A
DISTANCE TO SOURCE	N/A
DIRECTION TO SOURCE	N/A
DEPTH	N/A
FREQ.	N/A

SURVEY CONFIGURATION SHOW ALL DISTANC INCLUDE SOURCE AND RECEIVER (NOT TO SCALE)





TOOL STATIONS

Baker Atlas

CLIENT : SANTOS & PARTNERS
 SOURCE : 2 x 150 cu in Sleeve Guns

WELL NAME : MARTHA-1
 ENGINEER : B.READ

SERVICE : ZVSP (MLR)
 DATE : MON 1ST NOV 2004

LEVEL NO	TOOL STATION DEPTH	FILE NUMBER	STATION NO.	TOOL NO	VERTICAL CHAN TIME PICK (MSEC)	TIME AT COMPLETION OF LEVEL	CABLE SLACK	PRE-AMP GAIN	REMARKS (COMMENTS, UH TIME, CHARGE TYPE, DEPTH, ETC)
10	59	1 -- 10	1	5	213.0	Mon 12:29 Nov 01, 2004	0	0	file 1Ch 5-16 are bad. Kill file 1
20	44	1 -- 10	1	4	200.0	Mon 12:29 Nov 01, 2004	0	0	file 1Ch 5-16 are bad. Kill file 1
30	29	1 -- 10	1	3	1596.0	Mon 12:29 Nov 01, 2004	0	0	file 1Ch 5-16 are bad. Kill file 1
40	14	1 -- 10	1	2	693.0	Mon 12:29 Nov 01, 2004	0	0	file 1Ch 5-16 are bad. Kill file 1
59	9999	1 -- 10	1	1	970.0	Mon 12:29 Nov 01, 2004	0	0	file 1Ch 5-16 are bad. Sig Ch Pick = 97.0 ms. kill file 1. GUN TIMING
6	1020	11 -- 14	2	5	428.0	Mon 13:09 Nov 01, 2004	0	0	kill file 11.
7	1005	11 -- 14	2	4	425.0	Mon 13:27 Nov 01, 2004	0	0	kill file 11.
8	990	11 -- 14	2	3	418.0	Mon 13:27 Nov 01, 2004	0	0	kill file 11.
9	975	11 -- 14	2	2	414.0	Mon 13:09 Nov 01, 2004	0	0	kill file 11.
10	960	11 -- 14	2	1	410.0	Mon 13:09 Nov 01, 2004	0	0	Sig Ch Pick = 100.0 ms. kill file 11. FIRST CHECKSHOT LEVEL
11	1320	15 -- 18	3	5	534.0	Mon 13:09 Nov 01, 2004	0	0	kill file 15.
12	1305	15 -- 18	3	4	531.0	Mon 13:27 Nov 01, 2004	0	0	kill file 15.
13	1290	15 -- 18	3	3	525.0	Mon 13:27 Nov 01, 2004	0	0	kill file 15.
14	1275	15 -- 18	3	2	519.0	Mon 13:27 Nov 01, 2004	0	0	kill file 15. SECOND CHECKSHOT LEVEL
15	1260	15 -- 18	3	1	362.0	Mon 13:27 Nov 01, 2004	0	0	Sig Ch Pick = 100.0 ms. kill file 15.
16	1620	19 -- 21	4	5	638.0	Mon 13:27 Nov 01, 2004	0	0	GR CORRELATION +0.8M
17	1605	19 -- 21	4	4	634.0	Mon 13:50 Nov 01, 2004	0	0	
18	1590	19 -- 21	4	3	1980.0	Mon 13:50 Nov 01, 2004	0	0	
19	1575	19 -- 21	4	2	624.0	Mon 13:50 Nov 01, 2004	0	0	
20	1560	19 -- 21	4	1	618.0	Mon 13:50 Nov 01, 2004	0	0	Sig Ch Pick = 99.0 ms. THIRD CHECKSHOT LEVEL
21	1785	22 -- 26	5	5	689.0	Mon 14:06 Nov 01, 2004	0	0	BOTTOM LEVEL TAGGED TD @ 1785 M
22	1770	22 -- 26	5	4	684.0	Mon 14:06 Nov 01, 2004	0	0	
23	1755	22 -- 26	5	3	680.0	Mon 14:06 Nov 01, 2004	0	0	
24	1740	22 -- 26	5	2	675.0	Mon 14:06 Nov 01, 2004	0	0	
25	1725	22 -- 26	5	1	670.0	Mon 14:06 Nov 01, 2004	0	0	Sig Ch Pick = 100.0 ms.
26	1710	27 -- 31	6	5	665.0	Mon 14:21 Nov 01, 2004	0	0	
27	1695	27 -- 31	6	4	661.0	Mon 14:21 Nov 01, 2004	0	0	
28	1680	27 -- 31	6	3	655.0	Mon 14:21 Nov 01, 2004	0	0	
29	1665	27 -- 31	6	2	652.0	Mon 14:21 Nov 01, 2004	0	0	
30	1650	27 -- 31	6	1	646.0	Mon 14:21 Nov 01, 2004	0	0	Sig Ch Pick = 100.0 ms.
31	1635	32 -- 39	7	5	642.0	Mon 14:42 Nov 01, 2004	0	0	kill files 32 33 34.
32	1620	32 -- 39	7	4	638.0	Mon 14:42 Nov 01, 2004	0	0	kill files 32 33 34.
33	1605	32 -- 39	7	3	632.0	Mon 14:42 Nov 01, 2004	0	0	kill files 32 33 34. POOR COUPLING REPEAT
34	1590	32 -- 39	7	2	628.0	Mon 14:42 Nov 01, 2004	0	0	kill files 32 33 34.
35	1575	32 -- 39	7	1	623.0	Mon 14:42 Nov 01, 2004	0	0	Sig Ch Pick = 100.0 ms. kill files 32 33 34.
36	1605	40 -- 44	8	5	633.0	Mon 14:50 Nov 01, 2004	0	0	
37	1590	40 -- 44	8	4	627.0	Mon 14:50 Nov 01, 2004	0	0	



TOOL STATIONS

Baker Atlas

CLIENT : SANTOS & PARTNERS
 SOURCE : 2 x 150 cu in Sleeve Guns

WELL NAME : MARTHA-1
 ENGINEER : B.READ

SERVICE : ZVSP (MLR)
 DATE : MON 1ST NOV 2004

LEVEL NO	TOOL STATION DEPTH	FILE NUMBER	STATION NO.	TOOL NO	VERTICAL CHAN TIME PICK (MSEC)	TIME AT COMPLETION OF LEVEL	CABLE SLACK	PRE-AMP GAIN	REMARKS (COMMENTS, UH TIME, CHARGE TYPE, DEPTH, ETC)
38	1575	40 -- 44	8	3	623.0	Mon 14:50 Nov 01, 2004	0	0	
39	1560	40 -- 44	8	2	618.0	Mon 14:50 Nov 01, 2004	0	0	
40	1545	40 -- 44	8	1	613.0	Mon 14:50 Nov 01, 2004	0	0	Sig Ch Pick = 100.0 ms.
41	1530	45 -- 49	9	5	609.0	Mon 14:58 Nov 01, 2004	0	0	
42	1515	45 -- 49	9	4	604.0	Mon 14:58 Nov 01, 2004	0	0	
43	1500	45 -- 49	9	3	599.0	Mon 14:58 Nov 01, 2004	0	0	
44	1485	45 -- 49	9	2	594.0	Mon 14:58 Nov 01, 2004	0	0	
45	1470	45 -- 49	9	1	589.0	Mon 14:58 Nov 01, 2004	0	0	Sig Ch Pick = 100.0 ms.
46	1455	50 -- 55	10	5	583.0	Mon 15:04 Nov 01, 2004	0	0	kill file 50.
47	1440	50 -- 55	10	4	577.0	Mon 15:04 Nov 01, 2004	0	0	kill file 50.
48	1425	50 -- 55	10	3	114.0	Mon 15:04 Nov 01, 2004	0	0	kill file 50.BAD LEVEL REPEAT
49	1410	50 -- 55	10	2	566.0	Mon 15:04 Nov 01, 2004	0	0	kill file 50.
50	1395	50 -- 55	10	1	560.0	Mon 15:04 Nov 01, 2004	0	0	Sig Ch Pick = 100.0 ms. kill file 50.BAD LEVEL REPEAT
51	1425	56 -- 61	11	5	571.0	Mon 15:10 Nov 01, 2004	0	0	
52	1410	56 -- 61	11	4	568.0	Mon 15:10 Nov 01, 2004	0	0	
53	1395	56 -- 61	11	3	1961.0	Mon 15:10 Nov 01, 2004	0	0	BAD LEVEL REPEAT
54	1380	56 -- 61	11	2	556.0	Mon 15:10 Nov 01, 2004	0	0	
55	1365	56 -- 61	11	1	1032.0	Mon 15:10 Nov 01, 2004	0	0	Sig Ch Pick = 100.0 ms.
56	1350	62 -- 69	12	5	549.0	Mon 15:21 Nov 01, 2004	0	0	kill files 62 64 65.WRONG DEPTH SHOULD BE 1365
57	1335	62 -- 69	12	4	545.0	Mon 15:21 Nov 01, 0	0	0	kill files 62 64 65.WRONG DEPTH SHOULD BE 1350
58	1320	62 -- 69	12	3	1833.0	Mon 15:21 Nov 01, 2004	0	0	kill files 62 64 65.BAD LEVEL REPEAT. WRONG DEPTH SHOULD BE 1335
59	1305	62 -- 69	12	2	536.0	Mon 15:21 Nov 01, 0	0	0	kill files 62 64 65.WRONG DEPTH SHOULD BE 1320
60	1290	62 -- 69	12	1	529.0	Mon 15:21 Nov 01, 2004	0	0	Sig Ch Pick = 100.0 ms. kill files 62 64 65.WRONG DEPTH SHOULD BE 1305
61	1335	70 -- 75	13	5	540.0	Mon 15:27 Nov 01, 2004	0	0	kill file 71.
62	1320	70 -- 75	13	4	534.0	Mon 15:27 Nov 01, 2004	0	0	kill file 71.
63	1305	70 -- 75	13	3	529.0	Mon 15:27 Nov 01, 2004	0	0	kill file 71.
64	1290	70 -- 75	13	2	524.0	Mon 15:27 Nov 01, 2004	0	0	kill file 71.
65	1275	70 -- 75	13	1	519.0	Mon 15:27 Nov 01, 2004	0	0	Sig Ch Pick = 100.0 ms. kill file 71.
66	1260	76 -- 80	14	5	512.0	Mon 15:33 Nov 01, 2004	0	0	
67	1245	76 -- 80	14	4	506.0	Mon 15:33 Nov 01, 2004	0	0	
68	1230	76 -- 80	14	3	501.0	Mon 15:33 Nov 01, 2004	0	0	
69	1215	76 -- 80	14	2	496.0	Mon 15:33 Nov 01, 2004	0	0	
70	1200	76 -- 80	14	1	493.0	Mon 15:33 Nov 01, 2004	0	0	Sig Ch Pick = 100.0 ms.BAD LEVEL REPEAT
71	1200	81 -- 87	15	5	490.0	Mon 15:44 Nov 01, 2004	0	0	kill files 81 84.
72	1185	81 -- 87	15	4	485.0	Mon 15:44 Nov 01, 2004	0	0	kill files 81 84.
73	1170	81 -- 87	15	3	478.0	Mon 15:44 Nov 01, 2004	0	0	kill files 81 84.BAD LEVEL REPEAT



TOOL STATIONS

Baker Atlas

CLIENT : SANTOS & PARTNERS
 SOURCE : 2 x 150 cu in Sleeve Guns

WELL NAME : MARTHA-1
 ENGINEER : B.READ

SERVICE : ZVSP (MLR)
 DATE : MON 1ST NOV 2004

LEVEL NO	TOOL STATION DEPTH	FILE NUMBER	STATION NO.	TOOL NO	VERTICAL CHAN TIME PICK (MSEC)	TIME AT COMPLETION OF LEVEL	CABLE SLACK	PRE-AMP GAIN	REMARKS (COMMENTS, UH TIME, CHARGE TYPE, DEPTH, ETC)
74	1155	81 -- 87	15	2	474.0	Mon 15:44 Nov 01, 2004	0	0	kill files 81 84.
75	1140	81 -- 87	15	1	470.0	Mon 15:44 Nov 01, 2004	0	0	Sig Ch Pick = 100.0 ms. kill files 81 84.
76	1170	88 -- 95	16	5	479.0	Mon 15:50 Nov 01, 2004	0	0	kill files 89 92 94.
77	1155	88 -- 95	16	4	474.0	Mon 15:50 Nov 01, 2004	0	0	kill files 89 92 94.
78	1140	88 -- 95	16	3	61.0	Mon 15:50 Nov 01, 2004	0	0	kill files 89 92 94.
79	1125	88 -- 95	16	2	463.0	Mon 15:50 Nov 01, 2004	0	0	kill files 89 92 94.
80	1110	88 -- 95	16	1	458.0	Mon 15:50 Nov 01, 2004	0	0	Sig Ch Pick = 100.0 ms. kill files 89 92 94.
81	1095	96 -- 100	17	5	452.0	Mon 15:58 Nov 01, 2004	0	0	
82	1080	96 -- 100	17	4	447.0	Mon 15:58 Nov 01, 2004	0	0	
83	1065	96 -- 100	17	3	442.0	Mon 15:58 Nov 01, 2004	0	0	
84	1050	96 -- 100	17	2	438.0	Mon 15:58 Nov 01, 2004	0	0	
85	1035	96 -- 100	17	1	433.0	Mon 15:58 Nov 01, 2004	0	0	Sig Ch Pick = 101.5 ms. BAD LEVEL REPEAT
86	1035	101 -- 105	18	5	432.0	Mon 16:04 Nov 01, 2004	0	0	
87	1020	101 -- 105	18	4	428.0	Mon 16:04 Nov 01, 2004	0	0	
88	1005	101 -- 105	18	3	423.0	Mon 16:04 Nov 01, 2004	0	0	
89	990	101 -- 105	18	2	418.0	Mon 16:04 Nov 01, 2004	0	0	
90	975	101 -- 105	18	1	414.0	Mon 16:04 Nov 01, 2004	0	0	Sig Ch Pick = 100.7 ms. BAD LEVEL REPEAT
91	975	106 -- 111	19	5	413.0	Mon 16:21 Nov 01, 2004	0	0	
92	960	106 -- 111	19	4	408.0	Mon 16:21 Nov 01, 2004	0	0	
93	945	106 -- 111	19	3	404.0	0 16:21 Nov 01, 2004	0	0	
94	930	106 -- 111	19	2	400.0	Mon 16:21 Nov 01, 2004	0	0	HOLE OVER 20" LEVEL CANCELLED
95	915	106 -- 111	19	1	831.0	Mon 16:21 Nov 01, 2004	0	0	Sig Ch Pick = 100.0 ms. HOLE OVER 20" LEVEL CANCELLED
96	930	112 -- 117	20	5	398.0	Mon 16:29 Nov 01, 2004	0	0	HOLE OVER 20" LEVEL CANCELLED
97	915	112 -- 117	20	4	1000.0	Mon 16:29 Nov 01, 2004	0	0	HOLE OVER 20" LEVEL CANCELLED
98	900	112 -- 117	20	3	1000.0	Mon 16:29 Nov 01, 2004	0	0	HOLE OVER 20" LEVEL CANCELLED
99	885	112 -- 117	20	2	1000.0	Mon 16:29 Nov 01, 2004	0	0	HOLE OVER 20" LEVEL CANCELLED
100	870	112 -- 117	20	1	1000.0	Mon 16:29 Nov 01, 2004	0	0	Sig Ch Pick = 100.0 ms. HOLE GREATER THAN 20 INCHES
101	855	118 -- 122	21	5	376.0	Mon 16:40 Nov 01, 2004	0	0	HOLE OVER 20" LEVEL CANCELLED
102	840	118 -- 122	21	4	367.0	0 16:40 Jan 00, 2004	0	0	
103	825	118 -- 122	21	3	363.0	Mon 16:40 Nov 01, 2004	0	0	HOLE OVER 20" LEVEL CANCELLED
104	810	118 -- 122	21	2	357.0	Mon 16:40 Nov 01, 2004	0	0	
105	795	118 -- 122	21	1	355.0	Mon 16:40 Nov 01, 2004	0	0	Sig Ch Pick = 100.0 ms. BAD LEVEL REPEAT
106	795	123 -- 127	22	5	350.0	Mon 16:48 Nov 01, 2004	0	0	NOISY LEVEL
107	780	123 -- 127	22	4	345.0	Mon 16:53 Nov 01, 2004	0	0	NOISY LEVEL
108	765	123 -- 127	22	3	339.0	Mon 16:53 Nov 01, 2004	0	0	NOISY LEVEL
109	750	123 -- 127	22	2	332.0	Mon 16:48 Nov 01, 2004	0	0	NOISY LEVEL



TOOL STATIONS

Baker Atlas

CLIENT : SANTOS & PARTNERS
 SOURCE : 2 x 150 cu in Sleeve Guns

WELL NAME : MARTHA-1
 ENGINEER : B.READ

SERVICE : ZVSP (MLR)
 DATE : MON 1ST NOV 2004

LEVEL NO	TOOL STATION DEPTH	FILE NUMBER	STATION NO.	TOOL NO	VERTICAL CHAN TIME PICK (MSEC)	TIME AT COMPLETION OF LEVEL	CABLE SLACK	PRE-AMP GAIN	REMARKS (COMMENTS, UH TIME, CHARGE TYPE, DEPTH, ETC)
110	735	123 -- 127	22	1	327.0	Mon 16:48 Nov 01, 2004	0	0	Sig Ch Pick = 100.0 ms. NOISY LEVEL
111	720	128 -- 132	23	5	322.0	Mon 16:48 Nov 01, 2004	0	0	
112	705	128 -- 132	23	4	316.0	Mon 16:53 Nov 01, 2004	0	0	
113	690	128 -- 132	23	3	312.0	Mon 16:53 Nov 01, 2004	0	0	HOLE OVER 20" LEVEL CANCELLED
114	675	128 -- 132	23	2	306.0	Mon 16:53 Nov 01, 2004	0	0	
115	660	128 -- 132	23	1	304.0	Mon 16:53 Nov 01, 2004	0	0	Sig Ch Pick = 100.0 ms. BAD LEVEL REPEAT
116	660	133 -- 140	24	5	301.0	Mon 16:53 Nov 01, 2004	0	0	kill files 134 135 139.
117	645	133 -- 140	24	4	295.0	Mon 17:01 Nov 01, 2004	0	0	kill files 134 135 139.
118	630	133 -- 140	24	3	287.0	Mon 17:01 Nov 01, 2004	0	0	kill files 134 135 139.
119	615	133 -- 140	24	2	281.0	Mon 17:01 Nov 01, 2004	0	0	kill files 134 135 139.
120	600	133 -- 140	24	1	275.0	Mon 17:01 Nov 01, 2004	0	0	Sig Ch Pick = 100.0 ms. kill files 134 135 139.
121	585	141 -- 147	25	5	267.0	Mon 17:09 Nov 01, 2004	0	0	kill file 146.
122	570	141 -- 147	25	4	261.0	Mon 17:09 Nov 01, 2004	0	0	kill file 146.
123	555	141 -- 147	25	3	254.0	Mon 17:09 Nov 01, 2004	0	0	kill file 146.
124	540	141 -- 147	25	2	247.0	Mon 17:09 Nov 01, 2004	0	0	kill file 146.
125	525	141 -- 147	25	1	240.0	Mon 17:09 Nov 01, 2004	0	0	Sig Ch Pick = 100.0 ms. kill file 146.
126	510	148 -- 152	26	5	233.0	Mon 17:17 Nov 01, 2004	0	0	
127	495	148 -- 152	26	4	226.0	Mon 17:17 Nov 01, 2004	0	0	
128	480	148 -- 152	26	3	219.0	Mon 17:17 Nov 01, 2004	0	0	
129	465	148 -- 152	26	2	212.0	Mon 17:17 Nov 01, 2004	0	0	
130	450	148 -- 152	26	1	206.0	Mon 17:17 Nov 01, 2004	0	0	Sig Ch Pick = 100.0 ms.
131	435	153 -- 159	27	5	198.0	Mon 17:24 Nov 01, 2004	0	0	kill files 153 157.
132	420	153 -- 159	27	4	192.0	Mon 17:24 Nov 01, 2004	0	0	kill files 153 157.
133	405	153 -- 159	27	3	184.0	Mon 17:24 Nov 01, 2004	0	0	kill files 153 157. BAD LEVEL REPEAT
134	390	153 -- 159	27	2	178.0	Mon 17:24 Nov 01, 2004	0	0	kill files 153 157.
135	375	153 -- 159	27	1	171.0	Mon 17:24 Nov 01, 2004	0	0	Sig Ch Pick = 100.0 ms. kill files 153 157.
136	400	160 -- 165	28	5	185.0	Mon 17:29 Nov 01, 2004	0	0	kill file 160. WRONG DEPTH SHOULD BE 405
137	385	160 -- 165	28	4	176.0	Mon 17:29 Nov 01, 2004	0	0	kill file 160. WRONG DEPTH SHOULD BE 390
138	370	160 -- 165	28	3	169.0	Mon 17:29 Nov 01, 2004	0	0	kill file 160. WRONG DEPTH SHOULD BE 375
139	355	160 -- 165	28	2	165.0	Mon 17:29 Nov 01, 2004	0	0	kill file 160. WRONG DEPTH SHOULD BE 360
140	340	160 -- 165	28	1	160.0	Mon 17:29 Nov 01, 2004	0	0	Sig Ch Pick = 100.0 ms. kill file 160. WRONG DEPTH SHOULD BE 345
141	345	166 -- 175	29	5	159.0	Mon 17:38 Nov 01, 2004	0	0	kill files 166 167 168 172 173. BAD LEVEL REPEAT
142	330	166 -- 175	29	4	149.0	Mon 17:38 Nov 01, 2004	0	0	kill files 166 167 168 172 173.
143	315	166 -- 175	29	3	145.0	Mon 17:38 Nov 01, 2004	0	0	kill files 166 167 168 172 173.
144	300	166 -- 175	29	2	137.0	Mon 17:38 Nov 01, 2004	0	0	kill files 166 167 168 172 173.
145	285	166 -- 175	29	1	132.0	Mon 17:38 Nov 01, 2004	0	0	Sig Ch Pick = 100.0 ms. kill files 166 167 168 172 173.



TOOL STATIONS

Baker Atlas

CLIENT : SANTOS & PARTNERS
 SOURCE : 2 x 150 cu in Sleeve Guns

WELL NAME : MARTHA-1
 ENGINEER : B.READ

SERVICE : ZVSP (MLR)
 DATE : MON 1ST NOV 2004

LEVEL NO	TOOL STATION DEPTH	FILE NUMBER	STATION NO.	TOOL NO	VERTICAL CHAN TIME PICK (MSEC)	TIME AT COMPLETION OF LEVEL	CABLE SLACK	PRE-AMP GAIN	REMARKS (COMMENTS, UH TIME, CHARGE TYPE, DEPTH, ETC)
146	300	176 -- 184	30	5	137.0	Mon 17:48 Nov 01, 2004	0	0	kill files 176 181 182 183.
147	285	176 -- 184	30	4	130.0	Mon 17:48 Nov 01, 2004	0	0	kill files 176 181 182 183.
148	270	176 -- 184	30	3	126.0	Mon 17:48 Nov 01, 2004	0	0	kill files 176 181 182 183.
149	255	176 -- 184	30	2	117.0	Mon 17:48 Nov 01, 2004	0	0	kill files 176 181 182 183.
150	240	176 -- 184	30	1	111.0	Mon 17:48 Nov 01, 2004	0	0	Sig Ch Pick = 100.0 ms. kill files 176 181 182 183.
151	315	185 -- 189	31	5	144.0	Mon 17:56 Nov 01, 2004	0	0	
152	300	185 -- 189	31	4	137.0	Mon 17:56 Nov 01, 2004	0	0	
153	285	185 -- 189	31	3	132.0	Mon 17:56 Nov 01, 2004	0	0	BAD LEVEL REPEAT
154	270	185 -- 189	31	2	1511.0	Mon 17:56 Nov 01, 2004	0	0	BAD LEVEL REPEAT
155	255	185 -- 189	31	1	1987.0	Mon 17:56 Nov 01, 2004	0	0	Sig Ch Pick = 100.0 ms. BAD LEVEL REPEAT
156	270	190 -- 200	32	5	125.0	Mon 18:06 Nov 01, 2004	0	0	kill files 190 195 196 197 198 199.
0	255	190 -- 200	32	4	114.0	Mon 18:06 Nov 01, 0	0	0	kill files 190 195 196 197 198 199.
158	240	190 -- 200	32	3	111.0	Mon 18:06 Nov 01, 2004	0	0	kill files 190 195 196 197 198 199.
159	225	190 -- 200	32	2	107.0	Mon 18:06 Nov 01, 0	0	0	kill files 190 195 196 197 198 199.
160	210	190 -- 200	32	1	99.0	Mon 18:06 Nov 01, 2004	0	0	Sig Ch Pick = 100.0 ms. kill files 190 195 196 197 198 199.
161	195	201 -- 206	33	5	90.0	Mon 18:15 Nov 01, 2004	0	0	kill file 205.
162	180	201 -- 206	33	4	83.0	Mon 18:15 Nov 01, 2004	0	0	kill file 205.
163	165	201 -- 206	33	3	75.0	Mon 18:15 Nov 01, 2004	0	0	kill file 205.
164	150	201 -- 206	33	2	66.7	Mon 18:15 Nov 01, 2004	0	0	kill file 205.
165	135	201 -- 206	33	1	1461.0	Mon 18:15 Nov 01, 2004	0	0	Sig Ch Pick = 100.0 ms. kill file 205.
166	135	207 -- 215	34	5	61.0	Mon 18:27 Nov 01, 2004	0	0	kill files 210 211 213 214.
167	120	207 -- 215	34	4	57.0	Mon 18:27 Nov 01, 2004	0	0	kill files 210 211 213 214.
168	105	207 -- 215	34	3	52.0	Mon 18:27 Nov 01, 2004	0	0	kill files 210 211 213 214.
169	90	207 -- 215	34	2	46.0	Mon 18:27 Nov 01, 2004	0	0	kill files 210 211 213 214.
170	75	207 -- 215	34	1	40.0	Mon 18:27 Nov 01, 2004	0	0	Sig Ch Pick = 100.0 ms. kill files 210 211 213 214.

VELOCITY SURVEY TABLE (FIELD COPY)



Baker Atlas

CLIENT NAME : SANTOS & PARTNERS
 WELL NAME : MARTHA-1
 FIELD NAME : OFFSHORE AUSTRALIA
 LOCATION : EXPLORATION
 DATE : 1ST NOVEMBER 2004

KB ELEVATION = 22.5 M DATUM ELEVATION = 0.0 CORRECTION VELOCITY = 1500 (M/S)
 COMPUTATION METHODE : STRAIGHT RAYS (COSINE CORRECTION)

MD (DF) (M)	TVD (DF) (M)	DGD (M)	OFFSET SRC-REC (M)	RAW TIME (MS)	CORR. TIME		VELOCITY		INTERVAL		
					TGD 1-WAY	TGD 2-WAY	AVERAGE (M/S)	RMS (M/S)	DEPTH (M)	TIME (MS)	VELOCITY (M/S)
75	75	52	45.8	40.0	32.0	64.0	1625.9	1625.9	15.0	8.4	1796.0
90	90	67	45.8	46.0	40.3	80.7	1661.1	1662.5	15.0	7.7	1950.1
105	105	82	45.8	52.0	48.0	96.1	1707.4	1711.8	15.0	6.3	2367.9
120	120	97	45.8	57.0	54.4	108.7	1784.4	1800.6	15.0	6.0	2488.2
135	135	112	45.8	62.1	60.4	120.8	1854.6	1880.6	15.0	5.7	2645.5
150	150	127	45.8	67.0	66.1	132.1	1922.5	1958.0	15.0	8.4	1784.7
165	165	142	45.8	75.0	74.5	148.9	1906.9	1939.2	15.0	8.3	1798.5
180	180	157	45.8	83.0	82.8	165.6	1896.0	1925.5	15.0	8.3	1806.8
195	195	172	45.8	91.0	91.1	182.2	1887.9	1915.0	15.0	8.2	1821.7
210	210	187	45.8	99.0	99.3	198.7	1882.4	1907.4	15.0	7.3	2054.0
225	225	202	45.8	106.1	106.6	213.3	1894.2	1917.8	15.0	5.2	2891.7
240	240	217	45.8	111.0	111.8	223.7	1940.4	1973.7	15.0	6.2	2422.5
255	255	232	45.8	117.0	118.0	236.0	1965.7	1999.7	15.0	8.1	1844.8
270	270	247	45.8	125.0	126.2	252.3	1957.9	1990.1	15.0	7.1	2103.0
285	285	262	45.8	132.0	133.3	266.6	1965.7	1996.3	15.0	6.1	2440.9
300	300	277	45.8	138.0	139.4	278.9	1986.6	2018.0	15.0	6.1	2457.8
315	315	292	45.8	144.0	145.5	291.1	2006.4	2038.3	15.0	7.1	2104.5
330	330	307	45.8	151.0	152.7	305.3	2011.0	2041.5	15.0	8.0	1866.2
345	345	322	45.8	159.0	160.7	321.4	2003.7	2033.0	15.0	6.1	2464.7
360	360	337	45.8	165.0	166.8	333.6	2020.6	2050.4	15.0	6.1	2468.1
375	375	352	45.8	171.0	172.9	345.7	2036.3	2066.5	15.0	7.1	2123.9

VELOCITY SURVEY TABLE (FIELD COPY)

CLIENT NAME SANTOS & PARTNERS
 WELL NAME MARTHA-1
 DATE 1ST NOVEMBER 2004

Baker Atlas
 PAGE : 2

MD (KBE) M	TVD (KBE) M	DGD M	OFFSET SRC-REC M	RAW TIME (MS)	CORR. TIME		VELOCITY		INTERVAL		
					TGD 1-WAY	TGD 2-WAY	AVERAGE (M/S)	RMS (M/S)	DEPTH M	TIME (MS)	VELOCITY (M/S)
390	390	367	45.8	178.0	179.9	359.9	2039.7	2068.8	15.0	7.1	2125.4
405	405	382	45.8	185.0	187.0	374.0	2043.0	2071.0	15.0	7.1	2126.7
420	420	397	45.8	192.0	194.0	388.1	2046.0	2073.0	15.0	6.1	2477.2
435	435	412	45.8	198.0	200.1	400.2	2059.1	2086.4	15.0	8.0	1865.9
450	450	427	45.8	206.0	208.1	416.3	2051.6	2078.3	15.0	6.0	2480.2
465	465	442	45.8	212.0	214.2	428.4	2063.7	2090.7	15.0	7.0	2130.9
480	480	457	45.8	219.0	221.2	442.4	2065.8	2092.0	15.0	7.0	2131.7
495	495	472	45.8	226.0	228.3	456.5	2067.9	2093.2	15.0	7.0	2132.4
510	510	487	45.8	233.0	235.3	470.6	2069.8	2094.4	15.0	7.0	2133.1
525	525	502	45.8	240.0	242.3	484.6	2071.6	2095.6	15.0	7.0	2133.6
540	540	517	45.8	247.0	249.4	498.7	2073.4	2096.6	15.0	7.0	2134.2
555	555	532	45.8	254.0	256.4	512.8	2075.0	2097.7	15.0	7.0	2134.6
570	570	547	45.8	261.0	263.4	526.8	2076.6	2098.7	15.0	7.0	2131.0
585	585	562	45.8	268.0	270.4	540.9	2078.1	2099.5	15.0	7.0	2139.7
600	600	577	45.8	275.0	277.5	554.9	2079.6	2100.5	15.0	6.0	2489.3
615	615	592	45.8	281.0	283.5	567.0	2088.3	2109.6	15.0	6.0	2489.9
630	630	607	45.8	287.0	289.5	579.0	2096.7	2118.2	15.0	8.0	1870.9
645	645	622	45.8	295.0	297.5	595.0	2090.6	2111.9	15.0	6.0	2490.8
660	660	637	45.8	301.0	303.5	607.1	2098.5	2120.1	15.0	5.0	2986.0
675	675	652	45.8	306.0	308.6	617.1	2113.0	2137.0	15.0	5.0	2977.2
690	690	667	45.8	311.0	313.6	627.2	2126.9	2153.1	15.0	5.0	2997.1
705	705	682	45.8	316.0	318.6	637.2	2140.5	2168.9	15.0	6.0	2492.6
720	720	697	45.8	322.0	324.6	649.3	2147.1	2175.3	15.0	5.0	2988.7

VELOCITY SURVEY TABLE (FIELD COPY)



CLIENT NAME SANTOS & PARTNERS
 WELL NAME MARTHA-1
 DATE 1ST NOVEMBER 2004

Baker Atlas

PAGE : 3

MD (KBE) M	TVD (KBE) M	DGD M	OFFSET SRC-REC M	RAW TIME (MS)	CORR. TIME		VELOCITY		INTERVAL		
					TGD 1-WAY	TGD 2-WAY	AVERAGE (M/S)	RMS (M/S)	DEPTH M	TIME (MS)	VELOCITY (M/S)
735	735	712	45.8	327.0	329.6	659.3	2159.9	2189.9	15.0	5.0	2989.2
750	750	727	45.8	332.0	334.7	669.3	2172.3	2204.1	15.0	7.0	2138.8
765	765	742	45.8	339.0	341.7	683.4	2171.6	2202.8	15.0	6.0	2493.9
780	780	757	45.8	345.0	347.7	695.4	2177.2	2208.1	15.0	5.0	2990.6
795	795	772	45.8	350.0	352.7	705.4	2188.8	2221.2	15.0	7.0	2139.3
810	810	787	45.8	357.0	359.7	719.4	2187.8	2219.6	30.0	10.0	2991.5
840	840	817	45.8	367.0	369.8	739.5	2209.6	2244.0	90.0	31.1	2896.7
930	930	907	45.8	398.0	400.8	801.6	2262.9	2301.3	15.0	5.0	2984.1
945	945	922	45.8	403.0	405.8	811.7	2271.8	2311.0	15.0	5.0	3003.8
960	960	937	45.8	408.0	410.8	821.7	2280.7	2320.6	15.0	5.0	2994.2
975	975	952	45.8	413.0	415.9	831.7	2289.3	2329.9	15.0	5.0	2994.5
990	990	967	45.8	418.0	420.9	841.7	2297.7	2338.9	15.0	5.0	2994.7
1005	1005	982	45.8	423.0	425.9	851.7	2305.9	2347.7	15.0	5.0	2994.9
1020	1020	997	45.8	428.0	430.9	861.8	2313.9	2356.2	15.0	4.7	3171.1
1035	1035	1012	45.8	432.7	435.6	871.2	2323.2	2366.6	15.0	4.6	3264.4
1050	1050	1027	45.8	437.3	440.2	880.4	2333.0	2377.7	15.0	4.7	3191.7
1065	1065	1042	45.8	442.0	444.9	889.8	2342.1	2387.8	15.0	5.0	2995.5
1080	1080	1057	45.8	447.0	449.9	899.8	2349.4	2395.4	15.0	5.0	2995.7
1095	1095	1072	45.8	452.0	454.9	909.8	2356.5	2402.8	15.0	6.0	2497.5
1110	1110	1087	45.8	458.0	460.9	921.8	2358.3	2404.1	15.0	5.0	2995.9
1125	1125	1102	45.8	463.0	465.9	931.9	2365.2	2411.2	15.0	6.0	2490.9
1140	1140	1117	45.8	469.0	472.0	943.9	2366.8	2412.2	15.0	5.0	3005.9
1155	1155	1132	45.8	474.0	476.9	953.9	2373.5	2419.2	15.0	5.0	2996.3

VELOCITY SURVEY TABLE (FIELD COPY)



CLIENT NAME SANTOS & PARTNERS
 WELL NAME MARTHA-1
 DATE 1ST NOVEMBER 2004

Baker Atlas

PAGE : 4

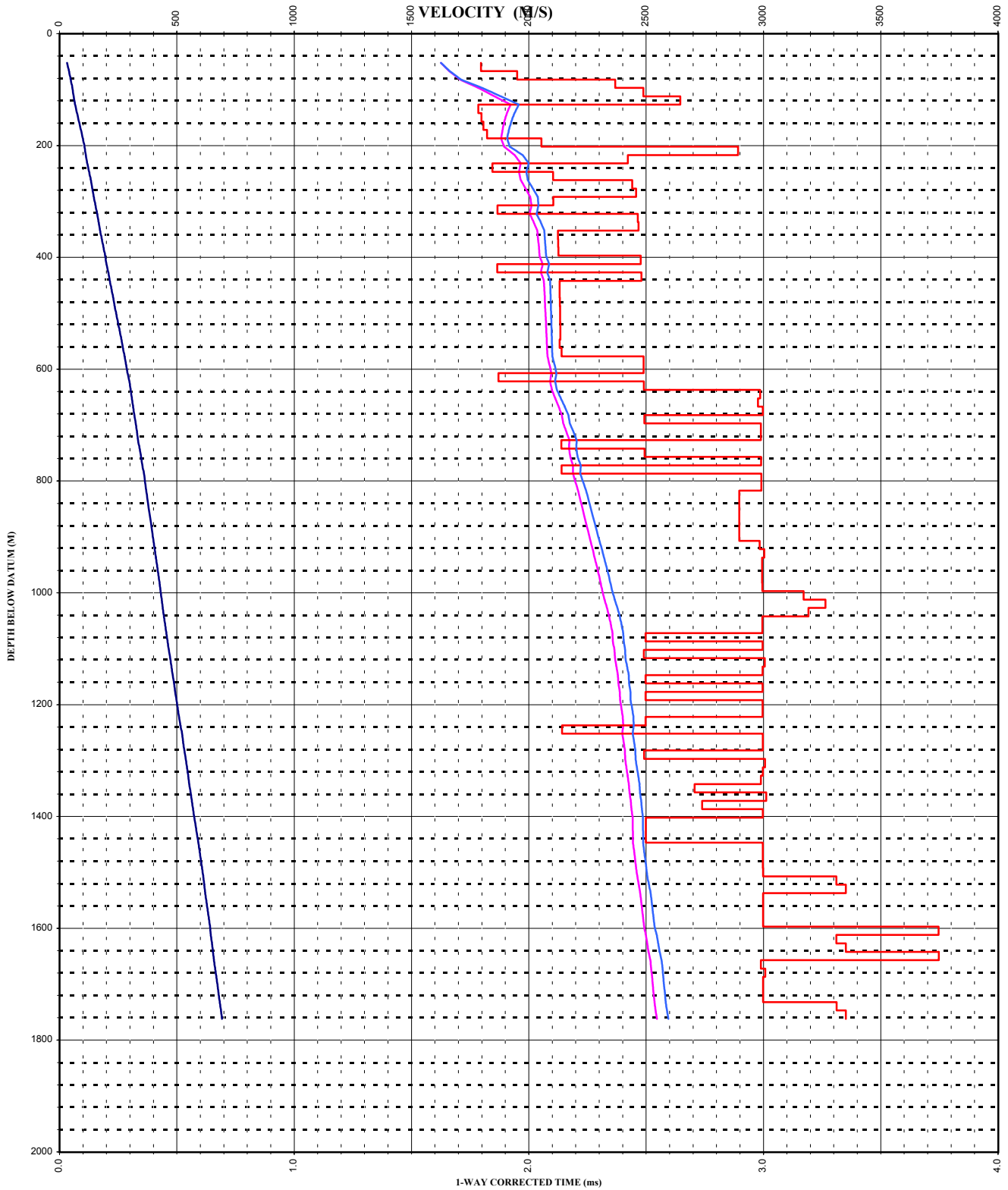
MD (KBE) M	TVD (KBE) M	DGD M	OFFSET SRC-REC M	RAW TIME (MS)	CORR. TIME		VELOCITY		INTERVAL		
					TGD 1-WAY	TGD 2-WAY	AVERAGE (M/S)	RMS (M/S)	DEPTH M	TIME (MS)	VELOCITY (M/S)
1170	1170	1147	45.8	479.0	481.9	963.9	2379.9	2425.9	15.0	6.0	2497.8
1185	1185	1162	45.8	485.0	488.0	975.9	2381.4	2426.8	15.0	5.0	2996.5
1200	1200	1177	45.8	490.0	493.0	985.9	2387.6	2433.2	15.0	6.0	2498.0
1215	1215	1192	45.8	496.0	499.0	997.9	2388.9	2434.0	15.0	5.0	2996.7
1230	1230	1207	45.8	501.0	504.0	1007.9	2395.0	2440.3	15.0	5.0	2996.8
1245	1245	1222	45.8	506.0	509.0	1018.0	2400.9	2446.4	15.0	6.0	2498.1
1260	1260	1237	45.8	512.0	515.0	1030.0	2402.0	2447.0	15.0	7.0	2141.7
1275	1275	1252	45.8	519.0	522.0	1044.0	2398.5	2443.1	15.0	5.0	2997.0
1290	1290	1267	45.8	524.0	527.0	1054.0	2404.2	2449.0	15.0	5.0	2997.1
1305	1305	1282	45.8	529.0	532.0	1064.0	2409.8	2454.7	15.0	6.0	2491.6
1320	1320	1297	45.8	535.0	538.0	1076.0	2410.7	2455.1	15.0	5.0	3007.0
1335	1335	1312	45.8	540.0	543.0	1086.0	2416.2	2460.7	15.0	5.0	2997.3
1350	1350	1327	45.8	545.0	548.0	1096.0	2421.5	2466.2	15.0	5.0	2989.2
1365	1365	1342	45.8	550.0	553.0	1106.0	2426.7	2471.4	15.0	5.5	2706.6
1380	1380	1357	45.8	555.6	558.6	1117.1	2429.4	2473.9	15.0	5.0	3012.4
1395	1395	1372	45.8	560.5	563.5	1127.1	2434.6	2479.1	15.0	5.5	2738.8
1410	1410	1387	45.8	566.0	569.0	1138.0	2437.5	2481.8	15.0	5.0	2997.7
1425	1425	1402	45.8	571.0	574.0	1148.1	2442.4	2486.7	15.0	6.0	2498.6
1440	1440	1417	45.8	577.0	580.0	1160.1	2443.0	2486.8	15.0	6.0	2498.7
1455	1455	1432	45.8	583.0	586.0	1172.1	2443.5	2487.0	15.0	6.0	2498.7
1470	1470	1447	45.8	589.0	592.0	1184.1	2444.1	2487.1	15.0	5.0	2997.8
1485	1485	1462	45.8	594.0	597.0	1194.1	2448.7	2491.8	15.0	5.0	2997.9
1500	1500	1477	45.8	599.0	602.0	1204.1	2453.3	2496.4	15.0	5.0	2997.9

VELOCITY ANALYSIS PLOT (FIELD COPY)



CLIENT : SANTOS & PARTNERS
WELL : MARTHA-1
DATE : 1ST NOVEMBER 2004
OFFSET# : 1

Baker Atlas



- Average Velocity
- Interval Velocity
- RMS-Velocity
- T-D Curve

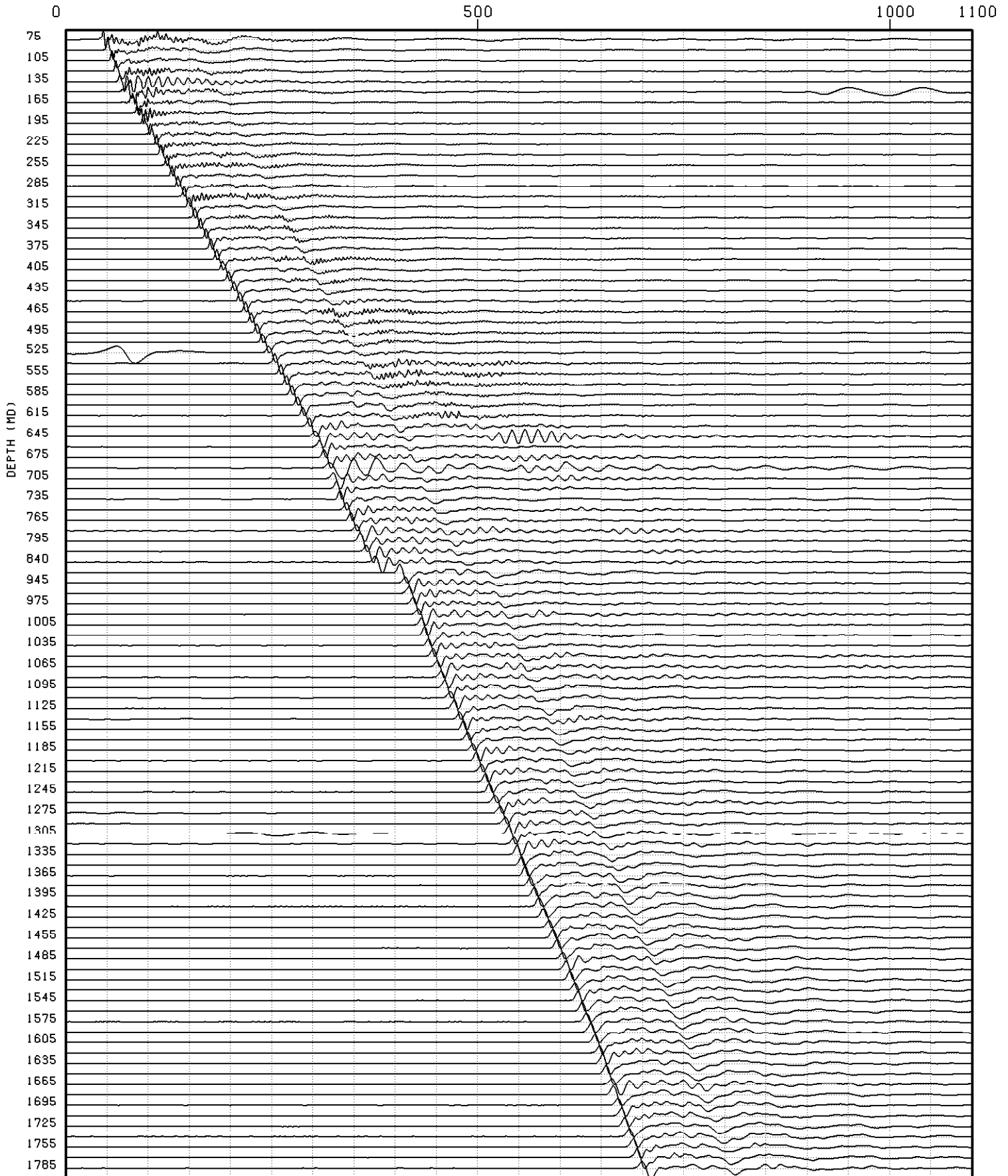
VELOCITY SURVEY STACKED VERTICAL TRACES



OFFSET NO. 1

Baker Atlas

TIME (MSEC)



SECTION 4 : PRODUCTION TEST REPORT

No production tests were conducted at the Martha 1 location.

SECTION 5 : DAILY GEOLOGICAL REPORTS

Santos

A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 21/10/04 - 05:00 HRS WST	MARTHA 1	REPORT NO: 1
--------------------------------	----------	--------------

(As at 2400 hours EST, 20/10/04) **DEPTH :** 95 mMD **PROGRESS:** 19m **DAYS FROM SPUD : 1**
(00:00-24:00)

OPERATION: DRILLING 914mm (36") HOLE WITH RETURNS TO SEABED.

(As at 0600 hours EST, 21/10/04) **DEPTH :** 122.5 mMD **PROGRESS:** 46.5m
(06:00-06:00)

OPERATION : RUNNING IN HOLE WITH 762mm (30") CASING.

AFE COST \$	CUMULATIVE COST	\$
CASING SHOE :		RIG: OCEAN PATRIOT
PROGRAMMED TD : 1878 mMD	ROTARY TABLE: 21.5 m LAT	RT – SEAFLOOR: 76.2m LAT
		WATER DEPTH: 54.7m LAT

MUD DATA	Type:	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
(2400 Hours)	Seawater / Sweeps	8.8		14	9.5		1000		

BIT DATA	PRESENT	No.	Make	Type	Size (in.)	Hours	Drilled (m)	Condition
(2400 Hours)	LAST	1	STC	MSDS SHC	660mm (26") (914mm (36") hole opener)	1.3	19	Drilling

SURVEYS:	<u>MD (m)</u>	<u>INCLINATION</u>	<u>AZIMUTH (T)</u>	<u>CLOSURE (m)</u>	<u>DIRECTION (T)</u>
-----------------	---------------	--------------------	--------------------	--------------------	----------------------

PREVIOUS 24 HOURS OPERATIONS SUMMARY: (20/10/04)

CONTINUE FINAL APPROACH OF RIG MOVE TO MARTHA 1 LOCATION, 02:30 HR #5 ANCHOR ON BOTTOM 11:55 HR. MAKE UP 30" CASING AND LAND IN PERMANENT GUIDE BASE, RACK TO SIDE OF MOONPOOL WHILE RUNNING ANCHORS. CROSS TENSION ANCHORS. RE-RUN ANCHOR #8, ON BOTTOM 13:07 HR. BALLAST RIG TO DRILLING DRAFT. MAKE UP 914mm (36") BOTTOM HOLE ASSEMBLY AND RUN IN. TAG SEABED AT 76.16m LAT, WATER DEPTH 55m. TAKE ANDERDRIFT SURVEY 3m OFF BOTTOM, READING 0 DEG. **SPUD MARTHA-1 AT 23:00 HRS ON 20/10/2004.** DRILL 660mm (26") HOLE OPENING OUT TO 914mm (36") FROM 76.16m TO 95m PUMPING 8m3 (50 BBL) HI-VIS SWEEPS EVERY TOOL JOINT.

00:00 – 05:00 HOURS WST (21/10/04):

CONTINUE TO DRILL 660mm (26") HOLE OPENING OUT TO 914mm (36") FROM 95m TO 122.5m. DISPLACE HOLE TO PHG MUD. PULL OUT OF HOLE, RACK BACK 660/914mm (26/36") BOTTOM HOLE ASSEMBLY. RUN 762mm (30") CASING.

ANTICIPATED OPERATIONS:

RUN AND CEMENT 762mm (30") CASING. MAKE UP 445mm (17½") BOTTOM HOLE ASSEMBLY AND RUN IN HOLE.

Santos

A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 21/10/04 - 05:00 HRS WST	MARTHA 1	REPORT NO: 1
---------------------------------------	-----------------	---------------------

FORMATION TOPS:	MDRT (m)	Subsea (m)	High/Low to Prognosis (m)	High /Low to Casino 3 (m)

HYDROCARBON SHOW SUMMARY		
INTERVAL	LITHOLOGY	GAS

GEOLOGICAL SUMMARY		
INTERVAL (m/hr)	LITHOLOGY	GAS
	RETURNS TO SEAFLOOR.	

Santos

A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 22/10/04 - 06:00 HRS EST	MARTHA 1	REPORT NO: 2
--------------------------------	----------	--------------

(As at 2400 hours EST, 21/10/04) **DEPTH :** 122.5 mMD **PROGRESS:** 27.5m **DAYS FROM SPUD : 2**
(00:00-24:00)

OPERATION: RUNNING IN HOLE WITH THE 445mm (17½") DRILLING ASSEMBLY.

(As at 0600 hours EST, 22/10/04) **DEPTH :** 179 mMD **PROGRESS:** 56.5m
(06:00-06:00)

OPERATION : SERVICING THE TOP DRIVE PRIOR TO CONTINUING TO DRILL 445mm (17½") HOLE.

AFE COST \$	CUMULATIVE COST	\$
CASING SHOE : 762/508mm (30/20") set at		RIG: OCEAN PATRIOT
PROGRAMMED TD : 1878 mMD	ROTARY TABLE: 21.5 m LAT	RT – SEAFLOOR: 76.2m LAT
		WATER DEPTH: 54.7m LAT

MUD DATA	Type:	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
(2400 Hours)	Seawater / Sweeps	8.8	>120	15	9.5	-	1000	17/32	

BIT DATA	PRESENT	No.	Make	Type	Size (in.)	Hours	Drilled (m)	Condition
(2400 Hours)	LAST	1	STC	MSDS SHC	445mm (17 ½") 660mm (26") (914mm (36") hole opener)	- 3	- 46.3m	IN HOLE NOT GRADED

SURVEYS:	<u>MD (m)</u>	<u>INCLINATION</u>	<u>AZIMUTH</u>	<u>MD (m)</u>	<u>INCLINATION</u>	<u>AZIMUTH</u>
	73	0	-	150	0	-
	95	1.5	-	178	1	-
	122	1	-			

PREVIOUS 24 HOURS OPERATIONS SUMMARY: (21/10/04)

CONTINUE TO DRILL 660mm (26") HOLE OPENING OUT TO 914mm (36") FROM 95m TO 122.5m PUMPING HIVE SWEEPS EVERY JOINT. DISPLACE HOLE TO PHG MUD. PULL OUT OF HOLE LAY OUT BIT AND HOLE OPENER. RUN 762mm (30") CASING. CEMENT CASING WITH 1.9SG (15.8PPG) CEMENT SLURRY. PICK UP DRILL PIPE WHILE WAITING ON CEMENT. RELEASE CASING RUNNING TOOL AND PULL OUT. CONTINUE TO PICK UP DRILL PIPE. MAKE UP PLUG LAUNCHER AND CEMENTING STINGER. MAKE UP 445mm (17½") BOTTOM HOLE ASSEMBLY AND RUN IN HOLE.

00:00 – 05:00 HOURS EST (22/10/04):

CONTINUE TO RUN IN HOLE WITH THE 445mm (17 ½") DRILLING ASSEMBLY. TAG THE TOP OF CEMENT AT 114.5m. DRILL CEMENT AND CASING SHOE TRACK TO 122.5m. DRILL 445mm (17 ½") HOLE FROM 122.5m TO 133m. PULL BACK AND PICK UP DRILL COLLARS. DRILL 445mm (17 ½") HOLE FROM 133m TO 179m. PULL BACK TO 120m. SERVICE TOP DRIVE.

ANTICIPATED OPERATIONS:

SERVICE TOP DRIVE. PICK UP AND MAKE UP REMAINING DRILL COLLARS TO THE BOTTOM HOLE ASSEMBLY. CONTINUE TO DRILL 445mm (17½") HOLE TO +/- 630m. PULL OUT OF HOLE AND RUN 340mm (13 3/8") CASING.

Santos

A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 22/10/04 - 06:00 HRS EST	MARTHA 1	REPORT NO: 2
---------------------------------------	-----------------	---------------------

FORMATION TOPS:	MDRT (m)	Subsea (m)	High/Low to Prognosis (m)	High /Low to Casino 3 (m)

HYDROCARBON SHOW SUMMARY		
INTERVAL	LITHOLOGY	GAS

GEOLOGICAL SUMMARY		
INTERVAL (m/hr)	LITHOLOGY	GAS
	RETURNS TO SEAFLOOR.	

Santos

A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 23/10/04 - 06:00 HRS EST	MARTHA 1	REPORT NO: 3
--------------------------------	----------	--------------

(As at 2400 hours EST, 22/10/04) **DEPTH :** 514 mMD **PROG:** 391.5m **DAYS FROM SPUD : 3**
(00:00-24:00)

OPERATION: DRILLING 445mm (17½") HOLE RISERLESS WITH RETURNS TO SEAFLOOR.

(As at 0600 hours EST, 23/10/04) **DEPTH :** 628 mMD **PROGRESS:** 449m
(06:00-06:00)

OPERATION : DISPLACING HOLE TO HI-VIS MUD PRIOR TO PULLING OUT AND RUNNING 340mm (13-3/8") CASING.

AFE COST \$	CUMULATIVE COST	\$
CASING SHOE : 762/508mm (30/20") set at 121mMD		RIG: OCEAN PATRIOT
PROGRAMMED TD : 1878 mMD	ROTARY TABLE: 21.5 m LAT	RT – SEAFLOOR: 76.2m LAT
		WATER DEPTH: 54.7m LAT

MUD DATA	Type:	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
(2400 Hours)	Seawater / Sweeps	8.8	>100	18	9.5	-	300	11/36	

BIT DATA	PRESENT	No.	Make	Type	Size (in.)	Hours	Drilled (m)	Condition
(2400 Hours)	LAST	2	STC	XRTC	445mm (17 ½")	16.4	391.5	IN HOLE

SURVEYS:	<u>MD (m)</u>	<u>INCLINATION</u>	<u>AZIMUTH</u>	<u>MD (m)</u>	<u>INCLINATION</u>	<u>AZIMUTH</u>
	263	0.5	Anderdrift	407	0	Anderdrift
	302	1.0	Anderdrift	493	0.5	Anderdrift

PREVIOUS 24 HOURS OPERATIONS SUMMARY: (22/10/04)

CONTINUE TO RUN IN HOLE WITH THE 445mm (17 ½") DRILLING ASSEMBLY. TAG THE TOP OF CEMENT AT 114.5m. DRILL CEMENT AND CASING SHOE TRACK TO 122.5m. DRILL 445mm (17 ½") HOLE FROM 122.5m TO 133m. PULL BACK AND PICK UP DRILL COLLARS. DRILL 445mm (17 ½") HOLE FROM 133m TO 179m. PULL BACK TO 120m. SERVICE TOP DRIVE. PICK UP DRILL COLLARS. RUN IN HOLE, TAKE WEIGHT AT 122m. REAM SHOE TO CLEAR OBSTRUCTION. RUN IN HOLE. TAKE WEIGHT AT 168m. WASH AND REAM 168m – 179m. DRILL 445mm (17 ½") HOLE FROM 179m TO 514m SWEEPING MID STAND WITH HI-VIS MUD AND SPOTTING HI-VIS BEFORE CONNECTIONS.

00:00 – 05:00 HOURS EST (23/10/04):

DRILL 445mm (17 ½") HOLE FROM 514m TO 628m. SWEEP HOLE WITH PHG MUD. DISPLACE HOLE TO HI-VIS MUD.

ANTICIPATED OPERATIONS:

PULL OUT OF HOLE. RUN AND CEMENT 340mm (13-3/8") CASING.

Santos

A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 23/10/04 - 06:00 HRS EST	MARTHA 1	REPORT NO: 3
---------------------------------------	-----------------	---------------------

FORMATION TOPS:	MDRT (m)	Subsea (m)	High/Low to Prognosis (m)	High /Low to Casino 3 (m)

HYDROCARBON SHOW SUMMARY		
INTERVAL	LITHOLOGY	GAS

GEOLOGICAL SUMMARY		
INTERVAL (m/hr)	LITHOLOGY	GAS
	RETURNS TO SEAFLOOR.	

Santos

A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 24/10/04 - 06:00 HRS EST	MARTHA 1	REPORT NO: 4
--------------------------------	----------	--------------

(As at 2400 hours EST, 23/10/04) **DEPTH :** 628 mMD **PROG:** 114m
(00:00-24:00) **DAYS FROM SPUD : 4**

OPERATION: RUNNING IN HOLE WITH THE 340mm (13 3/8") CASING.

(As at 0600 hours EST, 24/10/04) **DEPTH :** 628 mMD **PROGRESS:** 0m
(06:00-06:00)

OPERATION : CEMENTING 340mm (13 3/8") CASING.

AFE COST \$	CUMULATIVE COST	\$
CASING SHOE : 340mm (13-3/8") CASING SET AT 621.2m		RIG: OCEAN PATRIOT
PROGRAMMED TD : 1878 mMD	ROTARY TABLE: 21.5 m LAT	RT – SEAFLOOR: 76.2m LAT
		WATER DEPTH: 54.7m LAT

MUD DATA	Type:	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
(2400 Hours)	Hi-vis sweeps	1.06 (8.8)		16	9.5		300		

BIT DATA	PRESENT	No.	Make	Type	Size (mm/in.)	Hours	Drilled (m)	Condition
(2400 Hours)	LAST	2	STC	XRTC	445mm (17 1/2")	20	505.5	1-1-WT-A-E-I-NO-TD

SURVEYS:	<u>MD (m)</u>	<u>INCLINATION</u>	<u>AZIMUTH</u>	<u>MD (m)</u>	<u>INCLINATION</u>	<u>AZIMUTH</u>
	550	0	Anderdrift	608	0.5	Anderdrift
	579	0	Anderdrift	628	0.5	Anderdrift

PREVIOUS 24 HOURS OPERATIONS SUMMARY: (23/10/04)

DRILL 445mm (17 1/2") HOLE FROM 514m TO 628m. SWEEP HOLE WITH PHG MUD. DISPLACE HOLE TO HI-VIS MUD. PULL OUT OF HOLE WORKING STRING THROUGH TIGHT SPOTS. JET WELL HEAD ON THE WAY OUT. LAY OUT BIT AND STABILISERS. MAKE UP CASING RUNNING TOOL AND PLUG LAUNCHER. RIG TO RUN CASING. MAKE UP SHOE TRACK. RUN 340mm (13 3/8") 101.2 KG/M L80 CASING.

00:00 – 05:00 HOURS EST (24/10/04):

CONTINUE TO RUN 340mm (13 3/8") CASING. MAKE UP HOUSING JOINT. LAND OUT HOUSING JOINT. RIG UP CEMENT LINES. CIRCULATE PRIOR TO CEMENTING. PRESSURE TEST CEMENT LINES.

ANTICIPATED OPERATIONS:

RUN BLOW OUT PREVENTER AND MARINE RISER.

Santos

A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 24/10/04 - 06:00 HRS EST	MARTHA 1	REPORT NO: 4
---------------------------------------	-----------------	---------------------

FORMATION TOPS:	MDRT (m)	Subsea (m)	High/Low to Prognosis (m)	High /Low to Casino 3 (m)

HYDROCARBON SHOW SUMMARY		
INTERVAL	LITHOLOGY	GAS

GEOLOGICAL SUMMARY		
INTERVAL (m/hr)	LITHOLOGY	GAS

Santos

A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 25/10/04 - 06:00 HRS EST	MARTHA 1	REPORT NO: 5
--------------------------------	----------	--------------

(As at 2400 hours EST, 24/10/04) **DEPTH :** 628 mMD **PROG:** 0m
(00:00-24:00) **DAYS FROM SPUD : 5**

OPERATION: RUNNING BLOW OUT PREVENTER AND MARINE RISER.

(As at 0600 hours EST, 25/10/04) **DEPTH :** 628 mMD **PROGRESS:** 0m
(06:00-06:00)

OPERATION : SERVICING SLIP JOINT PRIOR TO PICKING UP DRILL PIPE.

AFE COST \$	CUMULATIVE COST	\$
CASING SHOE : 340mm (13-3/8") CASING SET AT 620.8m		RIG: OCEAN PATRIOT
PROGRAMMED TD : 1878 mMD	ROTARY TABLE: 21.5 m LAT	RT – SEAFLOOR: 76.2m LAT
		WATER DEPTH: 54.7m LAT

MUD DATA	Type:	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
(2400 Hours)	Spud Mud	1.06 (8.8)	110	11	9.5		300	10/35	

BIT DATA	PRESENT	No.	Make	Type	Size (mm/in.)	Hours	Drilled (m)	Condition
(2400 Hours)	LAST							

SURVEYS:	<u>MD (m)</u>	<u>INCLINATION</u>	<u>AZIMUTH</u>	<u>MD (m)</u>	<u>INCLINATION</u>	<u>AZIMUTH</u>
-----------------	---------------	--------------------	----------------	---------------	--------------------	----------------

PREVIOUS 24 HOURS OPERATIONS SUMMARY: (24/10/04)

RUN 340mm (13 3/8") 101.2 KG/M L80 CASING. MAKE UP HOUSING JOINT. LAND OUT HOUSING JOINT. RIG UP CEMENT HEAD AND LINES. LAND OUT CASING. 340mm (13 3/8") SHOE SET AT 620.76m. PRESSURE TEST CEMENT LINES. CEMENT CASING, BUMP PLUG. FLOATS HELD O.K. PULL OUT OF HOLE WITH CASING RUNNING TOOL JETTING WELLHEAD ON THE WAY OUT. RIG TO RUN BLOW OUT PREVENTER AND RISER. TEST CHOKE AND KILL LINES. PICK UP SLIP JOINT AND LANDING JOINT. NIPPLE UP CHOKE AND KILL LINES.

00:00 – 06:00 HOURS EST (25/10/04):

INSTALL STORM LOOPS. CENTRE RIG OVER HOLE. LAND BLOW OUT PREVENTER AND CONFIRM LATCH. SCOPE OUT SLIP JOINT. LAY OUT RISER HANDLING EQUIPMENT. INSTALL DIVERTER. LAY OUT RUNNING TOOL. SERVICE SLIP JOINT.

ANTICIPATED OPERATIONS:

PICK UP DRILL PIPE AND MAKE UP STANDS FOR DRILLING WHILE WAITING ON CEMENT. FUNCTION TEST BLOW OUT PREVENTER AND PRESSURE TEST. MAKE UP 311mm (12¼") BOTTOM HOLE ASSEMBLY AND RUN IN HOLE. DRILL CEMENT AND SHOE TRACK.

Santos

A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 25/10/04 - 06:00 HRS EST	MARTHA 1	REPORT NO: 5
---------------------------------------	-----------------	---------------------

FORMATION TOPS:	MDRT (m)	Subsea (m)	High/Low to Prognosis (m)	High /Low to Casino 3 (m)

HYDROCARBON SHOW SUMMARY		
INTERVAL	LITHOLOGY	GAS

GEOLOGICAL SUMMARY		
INTERVAL (m/hr)	LITHOLOGY	GAS

Santos

A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 26/10/04 - 06:00 HRS EST	MARTHA 1	REPORT NO: 6
--------------------------------	----------	--------------

(As at 2400 hours EST, 25/10/04) **DEPTH :** 628 mMD **PROG:** 0m **DAYS FROM SPUD : 6**
(00:00-24:00)

OPERATION: RUNNING IN HOLE WITH THE 311mm (12¼") DRILLING ASSEMBLY.

(As at 0600 hours EST, 26/10/04) **DEPTH :** 628 mMD **PROGRESS:** 0m
(06:00-06:00)

OPERATION : DRILLING THE 340mm (13 3/8") SHOE TRACK.

AFE COST \$	CUMULATIVE COST	\$
CASING SHOE : 340mm (13-3/8") CASING SET AT 620.8m		RIG: OCEAN PATRIOT
PROGRAMMED TD : 1878 mMD	ROTARY TABLE: 21.5 m LAT	RT – SEAFLOOR: 76.2m LAT
		WATER DEPTH: 54.7m LAT

MUD DATA	Type:	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
(2400 Hours)	KCl/PHPA/Glydril	1.07 (8.9)	59	9.5	9.5	7.5	38k	12/14	

BIT DATA	PRESENT	No.	Make	Type	Size (mm/in.)	Hours	Drilled (m)	Condition
(2400 Hours)	LAST	3	REED	TD43H KPRDH	311mm (12¼")	-	-	IN HOLE

SURVEYS:	<u>MD (m)</u>	<u>INCLINATION</u>	<u>AZIMUTH</u>	<u>MD (m)</u>	<u>INCLINATION</u>	<u>AZIMUTH</u>
-----------------	---------------	--------------------	----------------	---------------	--------------------	----------------

PREVIOUS 24 HOURS OPERATIONS SUMMARY: (25/10/04)

NIPPLE UP CHOKE AND KILL LINES. CENTRE RIG OVER HOLE. LAND BLOW OUT PREVENTER, CONFIRM LATCH. SCOPE OUT SLIP JOINT. INSTALL DIVERTER. SERVICE SLIP JOINT. LAY OUT 445mm (17½") BOTTOM HOLE ASSEMBLY. PICK UP 5" DRILL PIPE STANDS AND STAND BACK IN DERRICK. FUNCTION TEST DIVERTER. CONTINUE TO PICK UP 5" DRILL PIPE. MAKE UP THE 311mm (12¼") BOTTOM HOLE ASSEMBLY. SHALLOW TEST MWD TOOLS. RUN IN HOLE WITH THE 311mm (12¼") BOTTOM HOLE ASSEMBLY.

00:00 – 06:00 HOURS EST (26/10/04):

CONTINUE TO RUN IN HOLE TO 440m. FUNCTION TEST BLUE POD. PRESSURE TEST BLOW OUT PREVENTER CONNECTOR AND CASING TO 1380/20680 KPa (200/3000 PSI). FUNCTION TEST MAIN UNIT WITH YELLOW POD AND ACCUMULATOR TEST. RUN IN HOLE TO 546m. BREAK CIRCULATION AND WASH DOWN. TAG TOP OF CEMENT AT 570m. DRILL CEMENT AND SHOE TRACK 570m TO 594m.

ANTICIPATED OPERATIONS:

DRILL 340mm (13-3/8") SHOE TRACK AND 3m OF NEW HOLE. CONDUCT LEAK-OFF TEST. DRILL AHEAD WITH 311mm (12¼") HOLE.

MWD SENSOR OFFSETS FROM THE BIT:

GR 3.46m, RES 5.77m, PWD 8.3m, SURVEYS 12.3m

Santos

A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 26/10/04 - 06:00 HRS EST	MARTHA 1	REPORT NO: 6
---------------------------------------	-----------------	---------------------

FORMATION TOPS:	MDRT (m)	Subsea (m)	High/Low to Prognosis (m)	High /Low to Casino 3 (m)

HYDROCARBON SHOW SUMMARY		
INTERVAL	LITHOLOGY	GAS

GEOLOGICAL SUMMARY		
INTERVAL (m/hr)	LITHOLOGY	GAS
	NO NEW FORMATION DRILLED.	

Santos

A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 27/10/04 - 06:00 HRS EST	MARTHA 1	REPORT NO: 7
--------------------------------	----------	--------------

(As at 2400 hours EST, 26/10/04) **DEPTH :** 866 mMD **PROG:** 238m **DAYS FROM SPUD : 7**
(00:00-24:00)

OPERATION: CONTROL DRILLING 311mm (12 ¼") HOLE @ 10-15m/hr TO LIMIT MUD LOSSES OVER SHAKERS.

(As at 0600 hours EST, 27/10/04) **DEPTH :** 913 mMD **PROGRESS:** 285m
(06:00-06:00)

OPERATION : DRILLING 311mm (12 ¼") HOLE @ 20-30 m/hr.

AFE COST \$	CUMULATIVE COST	\$
CASING SHOE : 340mm (13-3/8") CASING SET AT 620.8m		RIG: OCEAN PATRIOT
PROGRAMMED TD : 1878 mMD	ROTARY TABLE: 21.5 m LAT	RT – SEAFLOOR: 76.2m LAT
		WATER DEPTH: 54.7m LAT

MUD DATA	Type:	Wt:	Vis:	FL:	PH:	KCl	Cl:	PV / YP:	Rmf:
(2400 Hours)	KCl/PHPA/Glydril	1.08 (9.0)	47	7.6	9.4	7.5	38k	15/18	

BIT DATA	PRESENT	No.	Make	Type	Size (mm/in.)	Hours	Drilled (m)	Condition
(2400 Hours)	LAST	3	REED	TD43HKPRDH	311mm (12¼")	10.7	238	DRILLING

SURVEYS:	<u>MD (m)</u>	<u>INCLINATION</u>	<u>AZIMUTH</u>	<u>MD (m)</u>	<u>INCLINATION</u>	<u>AZIMUTH</u>
	760	0.35	171			
	846	0.12	249			
	873	0.05	166			

PREVIOUS 24 HOURS OPERATIONS SUMMARY: (26/10/04)

RUN IN HOLE 311mm (12¼") BOTTOM HOLE ASSEMBLY. FUNCTION TEST BLUE POD. PRESSURE TEST BLOW OUT PREVENTER CONNECTOR, CASING TO 1380/20680 KPa (200/3000 PSI). FUNCTION TEST MAIN UNIT ON YELLOW POD, ACCUMULATOR TEST. RUN IN HOLE TO 546m. BREAK CIRCULATION, WASH DOWN. TAG TOP OF CEMENT AT 570m. DRILL CEMENT AND SHOE TRACK FROM 570m, SHOE AT 620.8m. CLEAN RAT HOLE TO 628m WHILE DISPLACING TO KCl/PHPA/GLYCOL MUD. DRILL 3m OF NEW FORMATION TO 631m. PULL BACK, CONDUCT LEAK-OFF TEST, **EQUIVALENT MUD WEIGHT (EMW) = 2.60SG (21.6PPG)**. MAIN RIG GENERATOR SHUT DOWN. CIRCULATE UTILISING CEMENT UNIT WHILE TROUBLE SHOOTING GENERATOR PROBLEM. DRILL 311mm (12¼") HOLE FROM 631m 646m. CONTROL DRILL 311mm (12 ¼") HOLE FROM 646m TO 866m TO LIMIT MUD LOSSES OVER SHAKERS.

00:00 – 06:00 HOURS EST (27/10/04):

CONTROL DRILL 311mm (12 ¼") HOLE FROM 866m TO 889m TO LIMIT MUD LOSSES OVER THE SHAKERS. PUMP HIGH VISCOCITY PILL AND CIRCULATE HOLE CLEAN WHILE CHANGING SHAKER SCREENS. DRILL 311mm (12 ¼") HOLE FROM 889m TO 913m.

ANTICIPATED OPERATIONS:

DRILL 311mm (12¼") HOLE TO PROGRAMMED TOTAL DEPTH OF ~1872mMD.

MWD SENSOR OFFSETS FROM THE BIT:

GR 3.46m, RES 5.77m, PWD 8.3m, SURVEYS 12.3m

Santos

A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 27/10/04 - 06:00 HRS EST	MARTHA 1	REPORT NO: 7
--------------------------------	----------	--------------

FORMATION TOPS:	MDRT (m)	Subsea (m)	High/Low to Prognosis (m)	High /Low to Casino 3 (m)

HYDROCARBON SHOW SUMMARY		
INTERVAL	LITHOLOGY	GAS

GEOLOGICAL SUMMARY		
INTERVAL (m/hr)	LITHOLOGY	GAS
628 – 645m 14 – 52 m/hr Av: 33 m/hr	<p>CALCAREOUS CLAYSTONE WITH MINOR INTERBEDDED CALCARENITE. <u>CALCAREOUS CLAYSTONE</u>: medium dark grey, medium to dark brownish grey, trace glauconite, minor forams, soft to firm, sub blocky to blocky. <u>CALCARENITE</u>: light brown to off white, very pale cream, slightly silty in part, trace fossil / shell fragments, friable to moderately hard, nil to very poor inferred porosity, blocky.</p>	No gas
645 – 671m 5 – 88 m/hr Av: 45 m/hr	<p>INTERBEDDED CALCAREOUS CLAYSTONE AND SANDSTONE. <u>CALCAREOUS CLAYSTONE</u>: med grey, light to medium brownish grey, medium dark brownish grey in part, minor fossil fragments, rare forams, trace very fine glauconite, firm, blocky to sub blocky. <u>SANDSTONE</u>: very light brown, very light grey white, off white, white, very fine to fine grained, trace medium, well sorted, sub round to sub angular, common moderately strong calcareous cement, minor white argillaceous matrix, moderately hard, very poor inferred porosity, no fluorescence.</p>	No gas
671 – 750m 11 – 150 m/hr Av: 64 m/hr	<p>SANDSTONE WITH MINOR INTERBEDDED CLAYSTONE. <u>SANDSTONE</u>: common orange brown FE stain, translucent, clear, fine grained – with depth becoming predominantly medium to coarse, sub angular to sub round, rare weak calcareous cement, trace light grey silty matrix, trace very fine glauconite, trace forams, rare limestone fragments, trace fine grained lithics, friable to predominantly loose, good inferred porosity, no fluorescence. <u>CLAYSTONE</u>: glauconite, light to medium greenish grey, minor very fine grained glauconite, trace forams, slightly arenaceous in part, soft to firm, sub blocky to blocky.</p>	No gas

Santos

A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 27/10/04 - 06:00 HRS EST	MARTHA 1	REPORT NO: 7
--------------------------------	----------	--------------

GEOLOGICAL SUMMARY		
INTERVAL (m/hr)	LITHOLOGY	GAS
750 – 774m 16 – 309 m/hr Av: 85 m/hr	<p>INTERBEDDED SANDSTONE AND SILTSTONE.</p> <p><u>SANDSTONE</u>: clear, translucent, fine to coarse predominantly fine to medium, fair sorting, sub angular to predominantly sub round, trace mica, rare nodular pyrite, predominantly loose clean quartz grains, good inferred porosity, no fluorescence.</p> <p><u>SILTSTONE</u>: medium to dark brown, medium to dark brownish grey, very finely arenaceous in part, argillaceous in part grading to CLAYSTONE, trace very fine glauconite, trace fine lithics, firm, sub blocky to blocky.</p>	No gas
774 – 845m 2 – 298 m/hr Av: 42 m/hr	<p>SANDSTONE WITH MINOR INTERBEDDED SILTSTONE.</p> <p><u>SANDSTONE</u>: clear, translucent, very light grey, fine to predominantly very coarse, sub angular to sub round, moderately sorted, predominantly loose quartz grains, minor nodular pyrite, good inferred porosity, no fluorescence.</p> <p><u>SILTSTONE</u>: medium to dark brownish grey, argillaceous in part, arenaceous, trace very fine glauconite, trace fine grained lithics, firm, sub blocky to blocky.</p>	No gas
845 – 913m 1 – 225 m/hr Av: 25 m/hr	<p><u>SANDSTONE</u>: clear, translucent, fine to coarse grained, predominantly medium to coarse grained, becoming coarse to very coarse with depth, sub angular to round, predominantly sub rounded, moderate to well sorted, rare light grey silty matrix, trace to common calcareous fragments, rare fine grained glauconite, trace very fine lithics, trace carbonaceous inclusions, rare pyrite, loose, good inferred porosity, no fluorescence.</p>	No gas

Santos

A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 28/10/04 - 06:00 HRS EST	MARTHA 1	REPORT NO: 8
--------------------------------	----------	--------------

(As at 2400 hours EST, 27/10/04) **DEPTH :** 1188 mMD **PROG:** 322m **DAYS FROM SPUD : 8**
(00:00-24:00)

OPERATION: DRILLING 311mm (12 ¼") HOLE @ 25-30 m/hr.

(As at 0600 hours EST, 28/10/04) **DEPTH :** 1262 mMD **PROGRESS:** 349m
(06:00-06:00)

OPERATION : CIRCULATING HOLE CLEAN AT 1262m PRIOR TO PULLING OUT OF HOLE TO CHANGE BIT.

AFE COST \$	CUMULATIVE COST	\$
CASING SHOE : 340mm (13-3/8") CASING SET AT 620.8m		RIG: OCEAN PATRIOT
PROGRAMMED TD : 1878 mMD	ROTARY TABLE: 21.5 m LAT	RT – SEAFLOOR: 76.2m LAT
		WATER DEPTH: 54.7m LAT

MUD DATA	Type:	Wt:	Vis:	FL:	PH:	KCl	Cl:	PV / YP:	Rmf:
(2400 Hours)	KCl/PHPA/Glydril	1.04 (8.7)	40	12.6	8.0	-	14k	7/12	0.33Ωm @ 75°Fht

BIT DATA	PRESENT	No.	Make	Type	Size (mm/in.)	Hours	Drilled (m)	Condition
(2400 Hours)	LAST	3	REED	TD43HKPRDH	311mm (12¼")	19.5	322	-

SURVEYS:	<u>MD (m)</u>	<u>INCLINATION</u>	<u>AZIMUTH</u>	<u>MD (m)</u>	<u>INCLINATION</u>	<u>AZIMUTH</u>
	1161	2.60	210			
	1190	2.80	210			
	1219	3.10	212			

PREVIOUS 24 HOURS OPERATIONS SUMMARY: (27/10/04)

CONTROL DRILL 311mm (12 ¼") HOLE FROM 866m TO 888m MAINTAINING 15 m/hr DUE TO LOOSES OVER THE SHAKERS. PUMP AND DISPLACE 15.8 m3 (100 bbls) OF HIGH VISCOSITY SWEEP. CIRCULATE AND CONDITION HOLE WHILE CONSOLIDATING MUD RESERVES. DRILL FROM 888m TO 994m USING LOW FLOW RATES (800 gpm). DRILL 311mm (12 ¼") HOLE FROM 994m TO 1188m.

00:00 – 06:00 HOURS EST (28/10/04):

DRILL 311mm (12 ¼") HOLE 1188m TO 1262m. CIRCULATE HOLE AT 1262m BEFORE PULLING OUT OF HOLE TO CHANGE BIT.

ANTICIPATED OPERATIONS:

PULL OUT OF HOLE TO CHANGE BIT. DOWN LOAD MWD MEMORY DATA. PICK UP BIT 4, 311mm (12 ¼") HYCALOG DSX104 (PDC) AND RUN IN HOLE. DRILL 311mm (12¼") HOLE FROM 1262m TO TARGET DEPTH.

MWD SENSOR OFFSETS FROM THE BIT:

GR 3.46m, RES 5.77m, PWD 8.3m, SURVEYS 12.3m

Santos

A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 28/10/04 - 06:00 HRS EST	MARTHA 1	REPORT NO: 8
--------------------------------	----------	--------------

FORMATION TOPS:	MDRT (m)	Subsea (m)	High/Low to Prognosis (m)	High /Low to Casino 3 (m)

HYDROCARBON SHOW SUMMARY		
INTERVAL	LITHOLOGY	GAS

GEOLOGICAL SUMMARY		
INTERVAL (m/hr)	LITHOLOGY	GAS
913 – 934m 2 – 220 m/hr Av: 37 m/hr	<p>SANDSTONE WITH OCCASIONAL THIN INTERBEDDED SILTSTONE.</p> <p><u>SANDSTONE</u>: clear, translucent, fine to coarse grained, predominantly medium to coarse grained, becoming coarse to very coarse with depth, sub angular to round, predominantly sub rounded, moderate to well sorted, rare light grey silty matrix, trace to common calcareous fragments, rare fine grained glauconite, trace very fine lithics, trace carbonaceous inclusions, rare pyrite, loose, good inferred porosity, no fluorescence.</p> <p><u>SILTSTONE</u>: medium brownish grey, arenaceous, trace very fine lithic, soft to firm, blocky.</p>	No Gas
934 – 975m 2 – 219 m/hr Av: 38 m/hr	<p><u>SANDSTONE</u>: translucent, clear, white, light grey in part, fine to very coarse, predominantly coarse to very coarse, sub rounded to rounded, trace light grey silty matrix, trace calcareous fragments, predominantly loose clean quartz grains, good inferred porosity, no fluorescence.</p>	4 – 15 Units 96/4/Tr/Tr/Tr %
975 – 993m 2 – 220 m/hr Av: 42 m/hr	<p>SANDSTONE WITH INTERBEDDED SILTSTONE.</p> <p><u>SILTSTONE</u>: medium to dark brownish grey, very finely arenaceous, rare nodular pyrite, trace very fine glauconite, interlaminated with very fine SANDSTONE, friable, blocky.</p> <p><u>SANDSTONE</u>: clear, translucent, very fine to medium predominantly fine grained, sub angular to sub rounded, interlaminated with siltstone as above, predominantly loose quartz grains, poor inferred porosity, and no fluorescence.</p>	1 – 9 Units 94/4/Tr/1/1 %

Santos

A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 28/10/04 - 06:00 HRS EST	MARTHA 1	REPORT NO: 8
--------------------------------	----------	--------------

INTERVAL (m/hr)	GEOLOGICAL SUMMARY LITHOLOGY	GAS
993 – 1035m 2 – 203 m/hr Av: 42 m/hr	<p>INTERBEDDED SANDSTONE AND SILTSTONE.</p> <p><u>SILTSTONE</u>: medium to dark brownish grey, very finely arenaceous, interlaminated with very fine SANDSTONE, friable, blocky.</p> <p><u>SANDSTONE</u>: clear, translucent, very fine to medium predominantly fine grained, sub angular to sub rounded, interlaminated with siltstone as above, predominantly loose quartz grains, poor inferred porosity, and no fluorescence.</p>	<p>3 – 20 Units 97/3/Tr/Tr/Tr % Peak: 70 Units 92/5/2/1/Tr %</p>
1035 – 1060m 179 – 242 m/hr Av: 222 m/hr	<p>SANDSTONE WITH MINOR SILTSTONE INTERBEDS</p> <p><u>SANDSTONE</u>: clear, translucent, light brown to light olive grey, fine to very coarse grained, dominantly medium to coarse grained, poor to moderately sorted, sub angular to rounded, weak to moderate calcareous cement, trace weak siliceous cement, trace siliceous cement, trace to common pyrite, trace to common very fine to fine glauconite, trace carbonaceous specks, trace lithics, predominantly loose, trace moderately hard aggregates, poor to fair inferred and visual porosity, no fluorescence.</p> <p><u>SILTSTONE</u>: olive grey to olive black, brown black, medium to dark grey, arenaceous, locally grading to a very fine Sandstone, weakly calcareous, trace glauconite, trace to common carbonaceous specks, trace to locally common pyrite, firm to loc moderately hard, sub blocky to blocky.</p>	<p>4 – 20 Units 94/6/Tr/Tr/Tr % Peak: 100 Units 93/4/2/1/Tr %</p>
1060 – 1100m 2 – 147 m/hr Av: 44 m/hr	<p>SANDSTONE WITH SILTSTONE INTERBEDS</p> <p><u>SANDSTONE</u>: clear, translucent, light brown to light olive grey, very fine to fine grained, common medium to coarse grained, poor to moderately sorted, sub angular to rounded, weak to moderate calcareous cement, trace weak siliceous cement, trace siliceous matrix, trace to common pyrite with pyrite percentage increasing around 1080m, trace to common very fine to fine glauconite, trace carbonaceous specks, trace lithics, rare fossile fragments, predominantly loose, trace moderately hard aggregates, poor to fair inferred and visual porosity, no fluorescence.</p> <p><u>SILTSTONE</u>: olive grey to olive black, brown black, medium to dark grey, arenaceous, locally grading to a very fine Sandstone, in part moderately calcareous, trace pyrite, trace carbonaceous specks, trace glauconite, firm to moderately hard, sub blocky to blocky.</p>	<p>4 – 40 Units 98/2/Tr/Tr/Tr %</p>
1100 – 1133m 2 – 122 m/hr Av: 42 m/hr	<p>SANDSTONE WITH SILTSTONE INTERBEDS</p> <p><u>SANDSTONE</u>: clear, translucent, light brown to light olive grey, very fine to medium grained, common coarse grained, moderately sorted, sub angular to rounded, weak to moderate calcareous cement, trace weak siliceous cement, trace glauconitic matrix, common to abundant glauconite, trace pyrite, trace carbonaceous specks, trace lithics, rare fossile fragments, predominantly loose, trace moderately hard aggregates, poor to fair inferred and visual porosity, no fluorescence.</p> <p><u>SILTSTONE</u>: olive grey to olive black, brown black, medium to dark grey, arenaceous, locally grading to a very fine Sandstone, in part moderately calcareous, trace pyrite, trace carbonaceous specks, trace glauconite, firm to moderately hard, sub blocky to blocky.</p>	<p>20 – 90 Units 97/3/Tr/Tr/Tr % Peak: 210 Units 97/3/Tr/Tr/Tr %</p>

Santos

A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 28/10/04 - 06:00 HRS EST	MARTHA 1	REPORT NO: 8
--------------------------------	----------	--------------

GEOLOGICAL SUMMARY		
INTERVAL (m/hr)	LITHOLOGY	GAS
1133 – 1178m 10 – 113 m/hr Av: 30 m/hr	<p>SILTSTONE WITH SANDSTONE INTERBEDS</p> <p><u>SILTSTONE</u>: medium to medium dark grey, olive grey, brown grey, argillaceous to arenaceous, locally grading a very fine Sandstone, trace carbonaceous specks, trace glauconite, firm to moderately hard, sub blocky to blocky.</p> <p><u>SANDSTONE</u>: clear, translucent, light brown, very fine to medium grained, predominantly fine to medium grained, poorly sorted, sub angular to sub round, weak siliceous cement, common to abundant argillaceous to siliceous cement, locally grading to a Siltstone, trace glauconite, trace pyrite, trace to common carbonaceous specks, rare lithics, predominantly loose, rare friable to moderately hard aggregates, poor visual and inferred porosity, no fluorescence.</p>	19 – 37 Units Peak: 151 Units 97/3/Tr/Tr/Tr %
1178 – 1218m 7 – 97 m/hr Av: 73 m/hr	<p>INTERBEDDED SILTSTONE AND SANDSTONE</p> <p><u>SILTSTONE</u>: medium to medium dark grey, olive grey, brown grey, argillaceous to arenaceous, locally grading a very fine Sandstone, trace carbonaceous specks, trace glauconite, trace pyrite, firm to moderately hard, sub blocky to blocky.</p> <p><u>SANDSTONE</u>: clear, translucent, light brown, very fine to coarse grained, dominantly fine to medium grained, poorly sorted, sub angular to sub round, common angular, weak siliceous cement, common to abundant argillaceous to siliceous cement, locally grading to a Siltstone, trace to common glauconite, trace to common carbonaceous specks, trace to common pyrite, trace fossil fragments, rare lithics, predominantly loose, rare friable to moderately hard aggregates, poor visual and inferred porosity, no fluorescence.</p>	15 – 40 Units Peak: 93 Units 97/3/Tr/Tr/Tr %
1218 – 1262m 11 – 105 m/hr Av: 20 m/hr	<p>INTERBEDDED SILTSTONE AND SANDSTONE</p> <p><u>SILTSTONE</u>: dark grey, olive black, dark brown grey to brown black, medium grey, argillaceous to arenaceous, trace carbonaceous specks, trace micro micaceous, firm to moderately hard, locally hard, sub blocky to blocky.</p> <p><u>SANDSTONE</u>: clear to translucent, light brown to light olive grey, very fine to medium grained, common coarse grained, predominantly very fine to fine grained, poor to moderately sorted, weak to moderately calcareous cement, trace to common argillaceous to siliceous matrix, trace very fine glauconite, rare pyrite, trace carbonaceous inclusions, loose, trace friable aggregates, poor to fair inferred porosity, no fluorescence.</p>	10 – 60 Units Peak: 206 Units 96/3/1/Tr/Tr %

Santos

A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 29/10/04 - 06:00 HRS EST	MARTHA 1	REPORT NO: 9
---------------------------------------	-----------------	---------------------

(As at 2400 hours EST, 28/10/04) **DEPTH :** 1305 mMD **PROG:** 117m **DAYS FROM SPUD : 9**
(00:00-24:00)

OPERATION: CONTROL DRILLING 311mm (12¼") HOLE AT 20-30
m/hr.

(As at 0600 hours EST, 29/10/04) **DEPTH :** 1431 mMD **PROGRESS:** 169m
(06:00-06:00)

OPERATION : CONTROL DRILLING 311mm (12 ¼") HOLE AT 30 m/hr.

AFE COST \$	CUMULATIVE COST	\$
CASING SHOE : 340mm (13-3/8") CASING SET AT 620.8m		RIG: OCEAN PATRIOT
PROGRAMMED TD : 1878 mMD	ROTARY TABLE: 21.5 m LAT	RT – SEAFLOOR: 76.2m LAT
		WATER DEPTH: 54.7m LAT

MUD DATA	Type:	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
(2400 Hours)	KCl/PHPA/Glydрил	1.14 (9.5)	40	14.2	8.0	-	14k	9/17	0.41Ωm @ 75°Fht

BIT DATA		No.	Make	Type	Size (mm/in.)	Hours	Drilled	Condition
PRESENT		4	HYCALOG	DSX104	311mm (12¼")	2.5	43m	Drilling
(2400 Hours)	LAST	3	REED	TD43HKPRDH	311mm (12¼")	34	634m	To Be Graded

SURVEYS:	<u>MD (m)</u>	<u>INCLINATION</u>	<u>AZIMUTH</u>	<u>MD (m)</u>	<u>INCLINATION</u>	<u>AZIMUTH</u>
	1270	3.8	213	1362	3.2	217
	1305	3.6	213	1391	3.1	219
	1334	3.4	216			

PREVIOUS 24 HOURS OPERATIONS SUMMARY: (28/10/04)

DRILL 311mm (12¼") HOLE FROM 1188m TO 1262m. CIRCULATE BOTTOMS UP. PULL OUT OF HOLE TO CHANGE BIT. CHANGE OUT LWD TOOLS. PICK UP NEW 311mm (12 ¼") PDC BIT 4. RUN IN HOLE TO 575.5m, SERVICE TOP DRIVE. CONTINUE RUNNING IN HOLE FROM 575.5m TO 1262m, WASH AND REAM TIGHT HOLE AT 890m, AND 1149m TO 1262m. CONTROL DRILL 311mm (12 ¼") HOLE FROM 1262m TO 1305m.

00:00 – 06:00 HOURS EST (29/10/04):

CONTROL DRILL 311mm (12¼") HOLE FROM 1305m TO 1431m.

ANTICIPATED OPERATIONS:

DRILL 311mm (12¼") HOLE TO TOTAL DEPTH.

MWD SENSOR OFFSETS FROM THE BIT:

GR 3.41m, RES 5.72m, PWD 8.16m, SURVEYS 12.17m

Santos

A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 29/10/04 - 06:00 HRS EST	MARTHA 1	REPORT NO: 9
--------------------------------	----------	--------------

FORMATION TOPS:	MDRT (m)	Subsea (m)	High/Low to Prognosis (m)	High /Low to Casino 3 (m)

HYDROCARBON SHOW SUMMARY

INTERVAL	LITHOLOGY	GAS
1362 – 1368m 17 – 35 m/hr Av: 25 m/hr	THYLACINE MEMBER <u>SANDSTONE</u> : clear, translucent, very fine to fine grained, occasionally medium grained, moderately sorted, sub angular to round, rare sideritic cement, trace argillaceous to silty matrix, trace very fine glauconite, trace carbonaceous specks, rare lithics, rare fossile fragments, loose, fair inferred porosity, no fluorescence.	BG: 37 Units Peak: 222 Units 96/3/1/Tr/Tr %
1381 – 1387m 35 – 65 m/hr Av: 38 m/hr	THYLACINE MEMBER <u>SANDSTONE</u> : clear, translucent, very fine to medium grained, occasionally coarse grained, moderately sorted, sub angular to round, rare sideritic cement, trace argillaceous to silty matrix, trace very fine glauconite, trace carbonaceous specks, rare lithics, rare fossile fragments, loose, fair inferred porosity, no fluorescence.	BG: 30 Units Peak: 561 Units 96/3/1/Tr/Tr %

GEOLOGICAL SUMMARY

INTERVAL (m/hr)	LITHOLOGY	GAS
1262 – 1306m 9 – 21 m/hr Av: 43 m/hr	INTERBEDDED SILTSTONE AND SANDSTONE <u>SILTSTONE</u> : dark grey, olive black, dark brown grey to brown black, medium grey, argillaceous to arenaceous, trace carbonaceous specks, trace micro micaceous, firm to moderately hard, locally hard, sub blocky to blocky. <u>SANDSTONE</u> : clear to translucent, light brown to light olive grey, very fine to medium grained, common coarse grained, predominantly very fine to fine grained, poor to moderately sorted, weak to moderately calcareous cement, trace to common argillaceous to siliceous matrix, trace very fine glauconite, rare pyrite, trace carbonaceous inclusions, loose, trace friable aggregates, poor to fair inferred porosity, no fluorescence.	17 – 35 Units Peak: 180 Units 96/3/1/Tr/Tr %

Santos

A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 29/10/04 - 06:00 HRS EST

MARTHA 1

REPORT NO: 9

	GEOLOGICAL SUMMARY	
INTERVAL (m/hr)	LITHOLOGY	GAS
1306 – 1324m 10 – 45 m/hr Av: 37 m/hr	<p>INTERBEDDED SANDSTONE AND SILTSTONE</p> <p><u>SANDSTONE</u>: clear, translucent, light brown, very fine to medium grained, predominantly fine to medium grained, occasionally coarse to very coarse grains, poor to moderately sorted, minor weak siliceous cement, trace to common sideritic cement, trace light brown to brown grey argillaceous to silty matrix, sub angular to round, trace to common carbonaceous specks, trace to common glauconite, trace calcite grains, trace fossile fragments becoming common with depth, rare to trace pyrite, rare lithics, loose, common friable to moderately hard aggregates, poor to fair inferred porosity, no fluorescence.</p> <p><u>SILTSTONE</u>: medium dark grey, olive grey, brown grey, argillaceous to arenaceous, trace carbonaceous specks, trace micro micaceous, trace disseminated pyrite, firm to moderately hard, locally hard, sub blocky to blocky.</p>	19 – 30 Units Peak: 45 Units 96/4/Tr/Tr/Tr %
1324 – 1362m 15 – 80 m/hr Av: 24 m/hr	<p>SILTSTONE WITH SANDSTONE INTERBEDS</p> <p><u>SILTSTONE</u>: medium dark to dark grey, grey black, dark brown grey, olive grey, arenaceous to argillaceous, locally common carbonaceous specks and micro laminations, trace micro micaceous, moderately hard to hard, sub blocky to blocky.</p> <p><u>SANDSTONE</u>: clear, translucent, light brown, very fine to medium grained, predominantly fine to medium grained, common coarse to very coarse grains, moderately sorted, minor weak siliceous cement, moderate sideritic cement, trace light brown to brown grey argillaceous to silty matrix, sub angular to round, trace to common carbonaceous specks, trace to common glauconite, trace calcite grains, trace fossile fragments, rare pyrite, rare lithics, loose, common friable to moderately hard aggregates, poor inferred porosity, no fluorescence.</p>	14 – 34 Units Peak: 50 Units 95/4/1/Tr/Tr %
1362 – 1387m 15 – 26 m/hr Av: 17 m/hr	<p>INTERBEDDED SILTSTONE AND SANDSTONE</p> <p><u>SANDSTONE</u>: clear, translucent, very fine to fine grained, occasionally medium grained, moderately sorted, sub angular to round, rare sideritic cement, trace argillaceous to silty matrix, trace very fine glauconite, trace carbonaceous specks, rare lithics, rare fossile fragments, loose, fair inferred porosity, no fluorescence.</p> <p><u>SILTSTONE</u>: medium to dark grey, brown black to olive black, argillaceous, locally arenaceous, trace carbonaceous specks, trace micro micaceous, rare glauconite, firm to moderately hard, sub blocky to blocky.</p>	55 – 61 Units Peak: <u>1362-1367m</u> 222 Units 96/3/1/Tr/Tr % <u>1381-1387</u> 561 Units 96/3/1/Tr/Tr %
1387 – 1403m 20 – 80 m/hr Av: 30 m/hr	<p>INTERBEDDED SILTSTONE AND SANDSTONE</p> <p><u>SANDSTONE</u>: clear, translucent, very fine to medium grained, common medium to coarse grained, moderately sorted, sub angular to round, rare sideritic cement, trace argillaceous to silty matrix, trace very fine glauconite, trace carbonaceous specks, rare lithics, rare fossile fragments, loose, fair inferred porosity, no fluorescence.</p> <p><u>SILTSTONE</u>: medium to dark grey, brown black to olive black, argillaceous, locally arenaceous, trace carbonaceous specks, trace micro micaceous, rare glauconite, firm to moderately hard, sub blocky to blocky.</p>	20 – 40 Units 95/4/1/Tr/Tr %

Santos

A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 30/10/04 - 06:00 HRS EST	MARTHA 1	REPORT NO: 10
--------------------------------	----------	---------------

(As at 2400 hours EST, 29/10/04) **DEPTH :** 1800 mMD **PROG:** 495m **DAYS FROM SPUD : 10**
(00:00-24:00)

OPERATION: PULLING OUT OF HOLE AFTER REACHING TOTAL DEPTH AT 1800m.

(As at 0600 hours EST, 30/10/04) **DEPTH :** 1800 mMD **PROGRESS:** 369m
(06:00-06:00)

OPERATION : PULLING OUT OF HOLE TO CONDUCT SUITE 1 WIRELINE LOGS.

AFE COST \$ **CUMULATIVE COST** \$

CASING SHOE : 340mm (13-3/8") CASING SET AT 620.8m **RIG: OCEAN PATRIOT**
PROGRAMMED TD : 1878 mMD **ROTARY TABLE:** 21.5 m LAT **RT – SEAFLOOR: 76.2m LAT**
WATER DEPTH: 54.7m LAT

MUD DATA	Type:	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
(2400 Hours)	KCl/PHPA/Glydril	1.20 (10.3)	59	14	8.0	6.5	40k	20/25	0.16Ωm @ 75°Fht

BIT DATA	PRESENT	No.	Make	Type	Size (mm/in.)	Hours	Drilled	Condition
(2400 Hours)	LAST	4	HYCALOG	DSX104	311mm (12¼")	18.2	495m	IN HOLE

SURVEYS:	MD (m)	INCLINATION	AZIMUTH	MD (m)	INCLINATION	AZIMUTH
	1678	2.3	225	1764	2.6	220
	1707	2.4	224	1785	2.7	215
	1735	2.4	221	1800	2.7	215

PREVIOUS 24 HOURS OPERATIONS SUMMARY: (29/10/04)

CONTROL DRILL 311mm (12¼") HOLE FROM 1305m. TO 1634m. REPLACE PIN FROM TOP DRIVE LINK ADAPTER. DRILL 311mm (12¼") HOLE FROM 1634m TO 1800m, **REACHED TOTAL DEPTH OF 1800m AT 22:30 HRS ON 29/10/04.** CIRCULATE BOTTOMS UP AT 1800m. RECORD SLOW CIRCULATING RATES. PULL OUT OF HOLE TO RUN WIRELINE LOG SUITE 1.

00:00 – 06:00 HOURS EST (30/10/04):

CONTINUE TO PULL OUT OF HOLE FROM TO 1608m, PUMP SLUG. CONTINUE TO PULL OUT OF HOLE TO 1364m. RUN IN HOLE, 1364m TO 1491m, WORK TIGHT SPOTS FROM 1364 - 1491m. PULL OUT OF HOLE FROM 1491m TO 1262, CIRCULATE HOLE CLEAN. CONTINUE TO PULL OUT OF HOLE FROM 1262m TO CONDUCT SUITE 1 WIRELINE LOGS.

ANTICIPATED OPERATIONS:

PULL OUT OF HOLE. LAY OUT LWD TOOLS. DOWN-LOAD MEMORY DATA. RIG UP BAKER ATLAS WIRELINE. CONDUCT SUITE 1 RUN 1 (GRAND SLAM – GR-RES-NUTRON-DENSITY-SONIC).

Santos

A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 30/10/04 - 06:00 HRS EST	MARTHA 1	REPORT NO: 10
--------------------------------	----------	---------------

FORMATION TOPS:	MDRT (m)	Subsea (m)	High/Low to Prognosis (m)	High /Low to Casino 3 (m)

HYDROCARBON SHOW SUMMARY

INTERVAL	LITHOLOGY	GAS
1481 – 1497 8 – 62 m/hr Av: 40 m/hr	<u>SANDSTONE</u> : translucent to clear, fine to medium grained, minor medium to coarse grained, moderately sorted, common to minor carbonaceous fragments, trace very fine glauconite, trace lithics, predominantly loose, sub angular to sub rounded, fair to good inferred porosity, no fluorescence.	BG: 20 Units Peak: 910 Units 92/5/2/1/Tr %
1577 – 1586 35 – 76 m/hr Av: 38 m/hr	<u>SANDSTONE</u> : light olive grey to light grey, translucent, clear, very fine to medium grained, trace coarse grained, poorly sorted, weak siliceous cement, common light grey argillaceous to silty matrix, trace carbonaceous specks, trace glauconite, rare pyrite, predominantly loose, common friable to moderately hard aggregates, poor inferred and visual porosity, no fluorescence.	BG: 30 Units Peak: 298 Units 95/4/1/Tr/Tr %
1604 – 1612 21 – 60 m/hr Av: 50 m/hr	<u>SANDSTONE</u> : clear, translucent, very light grey to light green grey, very fine to medium grained, moderately well sorted, sub angular to sub round, predominantly sub round, occasionally weak to moderately siliceous cement, trace argillaceous matrix, trace glauconite, trace lithics, occasionally soft to friable aggregates, predominantly loose quartz grains, poor inferred porosity, no fluorescence.	BG: 70 Units Peak: 150 Units 95/4/1/Tr/Tr %

GEOLOGICAL SUMMARY

INTERVAL (m/hr)	LITHOLOGY	GAS
1403 – 1481m 3 – 132 m/hr Av: 30 m/hr	SILTSTONE WITH MINOR INTERBEDDED SANDSTONE. <u>SILTSTONE</u> : medium to dark brownish grey, dark grey, argillaceous, slightly arenaceous in part with thin very fine sandstone laminae, trace fine carbonaceous specks, minor shell fragments, trace coarse loose clear quartz grains, firm to moderately hard, sub blocky to blocky, occasionally sub fissile. <u>SANDSTONE</u> : clear, translucent, slightly Fe stain in part, very fine to medium predominantly fine grained, moderately well sub rounded, sub angular to predominantly sub rounded, trace light grey argillaceous / silty matrix, trace very fine glauconite, trace carbonaceous specks, rare lithic, minor fossil fragments, predominantly loose, fair inferred porosity, no fluorescence.	20-40 Units Peak: 58 Units 93/5/2/Tr/Tr %

Santos

A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 30/10/04 - 06:00 HRS EST	MARTHA 1	REPORT NO: 10
--------------------------------	----------	---------------

GEOLOGICAL SUMMARY		
INTERVAL (m/hr)	LITHOLOGY	GAS
1481 – 1499m 3 – 80 m/hr Av: 31 m/hr	<p>SANDSTONE WITH MINOR INTERBEDDED SILTSTONE.</p> <p><u>SANDSTONE</u>: clear, translucent, slightly yellow stain in part, fine to coarse predominantly medium grained, sub angular to sub rounded, weak calcareous cement, minor white argillaceous matrix, trace light grey silty matrix, common carbonaceous fragments, trace very fine glauconite (cavings?), trace fossil fragments, predominantly loose, friable to locally moderately hard aggregates in part, fair to good inferred porosity, no fluorescence.</p> <p><u>SILTSTONE</u>: (cavings ?) medium brownish grey, medium dark brownish grey, argillaceous, common fine grained glauconite, trace nodular pyrite, trace lithic, firm to occasionally moderately hard, sub blocky to blocky, occasionally sub fissile.</p>	30 Units Peak: 298 Units 95/4/1/Tr/Tr %
1499 – 1518m 24 – 50 m/hr Av: 33 m/hr	<p>SANDSTONE WITH INTERBEDDED SILTSTONE.</p> <p><u>SANDSTONE</u>: light grey, translucent, clear, very fine to fine occasionally medium grained, moderately well sorted, sub angular to sub rounded, rare weak siliceous cement, common very light brownish grey / greenish grey argillaceous to silty matrix, common fine carbonaceous specks / fragments, trace very fine lithics, trace fossil / shell fragments, friable, poor inferred porosity, no fluorescence.</p> <p><u>SILTSTONE</u>: light greenish grey, very light brownish grey, arenaceous grading to silty very fine SANDSTONE, rare very fine lithics, trace fine carbonaceous specks, soft to firm, sub blocky.</p>	50 Units 93/4/1/1/Tr %
1518 – 1553m 21 – 98 m/hr Av: 43 m/hr	<p>SANDSTONE WITH MINOR INTERBEDDED SILTSTONE.</p> <p><u>SANDSTONE</u>: translucent, clear, light brown, fine to medium, moderately well sorted, sub angular to predominantly sub rounded, trace light grey silty matrix, trace fine lithics, rare fine carbonaceous specks, trace fossil fragments, friable to predominantly loose, poor to fair inferred porosity, no fluorescence.</p> <p><u>SILTSTONE</u>: generally as above, light to medium grey, light brownish grey, argillaceous, very finely arenaceous, rare fine carbonaceous specks, minor, very fine lithic, soft to firm, blocky.</p>	20 – 40 Units 93/4/1/1/Tr %
1553 – 1607m 16 – 75 m/hr Av: 28 m/hr	<p>SANDSTONE WITH INTERBEDDED SILTSTONE.</p> <p><u>SANDSTONE</u>: light grey, light brownish grey, translucent, very fine to fine occasionally medium grained, sub angular to sub rounded, moderately well sorted, rare weak siliceous cement, common light grey argillaceous to silty matrix, trace fine carbonaceous specks, trace fossil fragments, firm to friable, occasionally loose, poor inferred porosity, no fluorescence.</p> <p><u>SILTSTONE</u>: light to occasionally medium grey, light brownish grey, argillaceous, very finely arenaceous, rare fine carbonaceous specks, minor, very fine lithic, soft to firm, blocky.</p>	40 – 60 Units Peak: 115 Units 95/4/1/Tr/Tr %
1607 – 1696m 18 – 60 m/hr Av: 35 m/hr Stop controlled drilling from 1634m	<p>SANDSTONE WITH INTERBEDDED ARENACEOUS SILTSTONE.</p> <p><u>SANDSTONE</u>: translucent, clear, light grey, light greenish grey in part, fine grained, trace medium, sub angular to sub round, weak siliceous cement in part, rare to minor light grey argillaceous matrix, occasionally grading to arenaceous siltstone, rare carbonaceous specks / fragments, rare fine grained lithics, firm to friable, loose in part, poor to fair inferred porosity, no fluorescence.</p> <p><u>SILTSTONE</u>: as above, light to medium grey, light brownish grey, light brown in part, very finely arenaceous, trace very fine lithic, trace fine carbonaceous specks, soft to firm, sub blocky.</p>	40 – 60 Units Peak: 115 Units 95/4/1/Tr/Tr %

Santos

A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 30/10/04 - 06:00 HRS EST	MARTHA 1	REPORT NO: 10
--------------------------------	----------	---------------

GEOLOGICAL SUMMARY		
INTERVAL (m/hr)	LITHOLOGY	GAS
1696 – 1800m 15 – 250 m/hr Av: 65 m/hr	<p>INTERBEDDED SILTSTONE AND SANDSTONE</p> <p><u>SANDSTONE</u>: translucent, clear, frosted, light grey in part, fine to medium grained, minor coarse grained, moderately sorted, sub angular to sub round, trace siliceous cement, rare calcareous cement, trace light grey silty matrix, trace lithics, trace fine carbonaceous flecks, rare nodular pyrite, friable to predominantly loose, fair inferred porosity, no fluorescence.</p> <p><u>SILTSTONE</u>: light grey, white, olive grey, medium grey, light brown grey, argillaceous to arenaceous, trace carbonaceous specks, trace coal fragments, trace micro micaceous, firm to moderately hard sub blocky to blocky.</p>	20 – 60 Units Peak: 75 Units 96/3/1/Tr/Tr %

Santos

A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 31/10/04 - 06:00 HRS EST	MARTHA 1	REPORT NO: 11
---------------------------------------	-----------------	----------------------

(As at 2400 hours EST, 30/10/04) **DEPTH :** 1800 mMD **PROG:** 0m **DAYS FROM SPUD : 11**
(00:00-24:00)

OPERATION: RUNNING IN HOLE ON WIPER TRIP TO 1800m.

(As at 0600 hours EST, 31/10/04) **DEPTH :** 1800 mMD **PROGRESS:** 0m
(06:00-06:00)

OPERATION : CIRCULATING AND CONDITIONING HOLE AT 1800m PRIOR TO PULLING OUT OF HOLE TO RUN ELECTRIC LOGS.

AFE COST \$	CUMULATIVE COST	\$
CASING SHOE : 340mm (13-3/8") CASING SET AT 620.8m		RIG: OCEAN PATRIOT
PROGRAMMED TD : 1878 mMD	ROTARY TABLE: 21.5 m LAT	RT – SEAFLOOR: 76.2m LAT
		WATER DEPTH: 54.7m LAT

MUD DATA	Type:	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
(2400 Hours)	KCl/PHPA/Glydril	1.20 (10.3)	59	14	8.0	6.5	40k	20/25	0.16Ωm @ 75°Fht

BIT DATA	PRESENT	No.	Make	Type	Size (mm/in.)	Hours	Drilled	Condition
(2400 Hours)	LAST	3RR	REED	M16694	311mm (12 ¼")	-	-	Wiper Trip
		4	HYCALOG	DSX104	311mm (12¼")	18.2	495m	2-3-BT-S-X-I-WT-TD

SURVEYS: MD (m) INCLINATION AZIMUTH MD (m) INCLINATION AZIMUTH

PREVIOUS 24 HOURS OPERATIONS SUMMARY: (30/10/04)

CONTINUE TO PULL OUT OF HOLE FROM 1800m TO 1608m, PUMP SLUG. CONTINUE TO PULL OUT OF HOLE TO 1364m. RUN IN HOLE FROM 1364m TO 1491m TO WORKING TIGHT SPOTS. PULL OUT OF HOLE FROM 1491m TO 1262, CIRCULATE HOLE CLEAN. CONTINUE PULLING OUT OF HOLE FROM 1262m TO CONDUCT SUITE 1 ELECTRIC LOGS. LAY OUT 311mm (12 ¼") BIT 4 AND DOWNLOAD LWD MEMORY DATA. HELD PRE-JOB SAFETY MEETING PRIOR TO RIGGING UP BAKER ATLAS LOGGING UNIT. RIG UP AND RUN IN HOLE WITH ELECTRIC LOGGING SUITE 1 / RUN 1, GRAND SLAM (RESISTIVITY-NEUTRON-DENSITY-GR-SONIC). UNABLE TO PASS BRIDGE AT 1466m WHILE RECORDING DOWN LOG ON RUN 1 – ATTEMPT TO PASS BRIDGE FOR 30 MINUTES. ABORT RUN 1 AND PULL OUT OF HOLE TO PERFORM A WIPER TRIP. RIG DOWN RUN 1 AND BAKER ATLAS SHIEVES. PICK UP 311mm (12 ¼") BOTTOM HOLE ASSEMBLY AND RUN IN HOLE WITH SAME. RUN IN HOLE TO 1274m REAMING LEDGES AT 1121m AND 1270m.

00:00 – 06:00 HOURS EST (31/10/04):

CONTINUE RUNNING IN HOLE ON WIPER TRIP FROM 1274m TO 1800m REAMING TIGHT HOLE FROM 1464-1507m, 1582-1591m, 1630-1651m, 1717-1733m, 1764-1790m (TAKING WEIGHT OF BETWEEN 35-60 klbs). CIRCULATE AND CONDITION HOLE AT 1800m.

ANTICIPATED OPERATIONS:

RUN IN HOLE TO 1800m ON WIPER TRIP. CIRCULATE AND CONDITION HOLE AT 1800m. PULL OUT OF HOLE TO RUN ELECTRIC LOGS. RIG UP BAKER ATLAS LOGGERS AND CONDUCT LOGGING SUITE 1 / RUN 1.

Santos

A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 31/10/04 - 06:00 HRS EST	MARTHA 1	REPORT NO: 11
---------------------------------------	-----------------	----------------------

FORMATION TOPS:	MDRT (m)	Subsea (m)	High/Low to Prognosis (m)	High /Low to Casino 3 (m)

HYDROCARBON SHOW SUMMARY		
INTERVAL	LITHOLOGY	GAS

GEOLOGICAL SUMMARY		
INTERVAL (m/hr)	LITHOLOGY	GAS

Santos

A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 01/11/04 - 06:00 HRS EST	MARTHA 1	REPORT NO: 12
--------------------------------	----------	---------------

(As at 2400 hours EST, 31/10/04) **DEPTH :** 1800 mMD **PROG:** 0m **DAYS FROM SPUD : 12**
(00:00-24:00)

OPERATION: CONDUCTING RCI PRESSURE SURVEY NUMBER 2 @ 1260m.

(As at 0600 hours EST, 01/11/04) **DEPTH :** 1800 mMD **PROGRESS:** 0m
(06:00-06:00)

OPERATION : CONDUCTING RCI PRESSURE SURVEYS (CONDUCTED 30 PRETEST).

AFE COST \$	CUMULATIVE COST	\$
CASING SHOE : 340mm (13-3/8") CASING SET AT 620.8m		RIG: OCEAN PATRIOT
PROGRAMMED TD : 1878 mMD	ROTARY TABLE: 21.5 m LAT	RT – SEAFLOOR: 76.2m LAT
		WATER DEPTH: 54.7m LAT

MUD DATA	Type:	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
(2400 Hours)	KCl/PHPA/Glydril	1.20 (10.3)	59	14	8.0	6.5	40k	20/25	0.16Ωm @ 75°Fht

BIT DATA	PRESENT	No.	Make	Type	Size (mm/in.)	Hours	Drilled	Condition
(2400 Hours)	LAST	4	HYCALOG	DSX104	311mm (12¼")	18.2	495m	2-3-BT-S-X-I-WT-TD

SURVEYS: MD (m) INCLINATION AZIMUTH MD (m) INCLINATION AZIMUTH

PREVIOUS 24 HOURS OPERATIONS SUMMARY: (31/10/04)

RUN IN HOLE, WIPER TRIP 1274m TO 1800m REAMING TIGHT HOLE FROM 1464-1507m, 1582-1591m, 1630-1651m, 1717-1733m, 1764-1790m. CIRCULATE HOLE CLEAN AT 1800m. PULL OUT OF HOLE TO RUN WIRELINE LOGS. LAY OUT BIT 3RR, HELD SAFETY MEETING. RIG UP BAKER ATLAS WIRELINE. PICK UP TOOLS RUN 1 – GRAND SLAM (RESISTIVITY-NEUTRON-DENSITY-GR-SONIC). CONDUCT RUN 1 AS PER PROGRAM. RIG DOWN RUN 1 TOOLS. RIG UP AND RUN IN HOLE RUN 2, RCI-GR. TOOLS HELD UP AT 912m, WORK TOOLS PAST 912m OVER 10 MINUTES. CONDUCT PRETESTS (CONDUCTED 2 PRESSURE SURVEYS AS OF 24:00 HRS).

00:00 – 06:00 HOURS EST (01/11/04):

CONDUCT PRESSURE SUREYS (CONDUCTED 30 PRESSURE SURVEYS AS OF 0600 HOURS).

ANTICIPATED OPERATIONS:

CONTINUE CONDUCTING RUN 2 , RCI-GR. CONTINUE TO CONDUCT SUITE 1 WIRELINE LOGS.

Santos

A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 01/11/04 - 06:00 HRS EST	MARTHA 1	REPORT NO: 12
---------------------------------------	-----------------	----------------------

FORMATION TOPS:	MDRT (m)	Subsea (m)	High/Low to Prognosis (m)	High /Low to Casino 3 (m)

HYDROCARBON SHOW SUMMARY		
INTERVAL	LITHOLOGY	GAS

GEOLOGICAL SUMMARY		
INTERVAL (m/hr)	LITHOLOGY	GAS

Santos

A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 02/11/04 - 06:00 HRS EST	MARTHA 1	REPORT NO: 13
--------------------------------	----------	---------------

(As at 2400 hours EST, 01/11/04) **DEPTH :** 1800 mMD **PROG:** 0m **DAYS FROM SPUD : 13**
(00:00-24:00)

OPERATION: PULLING OUT OF HOLE WITH WIRELINE SUITE 1, RUN 4 (RCOR-GR).

(As at 0600 hours EST, 02/11/04) **DEPTH :** 1800 mMD **PROGRESS:** 0m
(06:00-06:00)

OPERATION : RIGGING DOWN WIRELINE SUITE 1, RUN 5 (SWC-GR).

AFE COST \$	CUMULATIVE COST	\$
CASING SHOE : 340mm (13-3/8") CASING SET AT 620.8m		RIG: OCEAN PATRIOT
PROGRAMMED TD : 1878 mMD	ROTARY TABLE: 21.5 m LAT	RT – SEAFLOOR: 76.2m LAT
		WATER DEPTH: 54.7m LAT

MUD DATA	Type:	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
(2400 Hours)	KCl/PHPA/Glydril	1.20 (10.3)	59	14	8.0	6.5	40k	20/25	

BIT DATA		No.	Make	Type	Size (mm/in.)	Hours	Drilled	Condition
(2400 Hours)	PRESENT LAST							

SURVEYS: MD (m) INCLINATION AZIMUTH MD (m) INCLINATION AZIMUTH

PREVIOUS 24 HOURS OPERATIONS SUMMARY: (1/11/04)

CONDUCT SUITE 1 RUN 2 RCI-GR (TOTAL 35 PRETESTS ATTEMPTED, 17 NORMAL TEST, 9 LOST SEAL, 2 PLUGGED, 6 CURTAILED, 1 FAILURE, COLLECTED 6x840cc SAMPLES). RIG DOWN RCI-GR, RIG UP RUN 3 VSP, RUN IN HOLE. CONDUCT SUITE 1 RUN 3. RIG DOWN RUN 3, RIG UP RUN 4 RCOR-GR, TROUBLE SHOOT AND REPAIR TOOL AT SURFACE, RUN IN HOLE RUN 4. LOWER ARM ON RCOR TOOL NOT WORKING, TROUBLE SHOOT PROBLEM. ABORT RUN 4, PULL OUT OF HOLE TO RUN CONVENTIONAL SIDEWALL CORES.

00:00 – 06:00 HOURS EST (02/11/04):

RIG UP RUN 5 SWC-GR. RIG ON RADIO SILENCE, ARM SIDEWALL CORE GUN AND RUN IN HOLE. CONDUCT RUN 5 (FIRED 25 SHOTS). PULL OUT OF HOLE WITH SUITE 1 RUN 5 SWC-GR.

ANTICIPATED OPERATIONS:

RIG DOWN BAKER ATLAS WIRELINE. RUN IN HOLE TO SET ABANDONMENT PLUGS.

Santos

A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 02/11/04 - 06:00 HRS EST	MARTHA 1	REPORT NO: 13
---------------------------------------	-----------------	----------------------

FORMATION TOPS:	MDRT (m)	Subsea (m)	High/Low to Prognosis (m)	High /Low to Casino 3 (m)

HYDROCARBON SHOW SUMMARY		
INTERVAL	LITHOLOGY	GAS

GEOLOGICAL SUMMARY		
INTERVAL (m/hr)	LITHOLOGY	GAS

SECTION 6 : DAILY DRILLING REPORTS

From : Chris Wilson
OIM : Sean De Freitas

Well Data

Country	Australia	M. Depth	0m	Cur. Hole Size	0in	AFE Cost	
Field		TVD	0m	Casing OD	0in	AFE No.	5736086
Drill Co.	DOGC	Progress	0m	Shoe TVD	0m	Daily Cost	
Rig	Ocean Patriot	Days from spud		F.I.T. / L.O.T.	0ppg / 0ppg	Cum Cost	
Wtr Dpth(LAT)	55.0m	Days on well	0.46			Planned TD	1878.0m
RT-ASL(LAT)	21.5m	Current Op @ 0600	On tow to Martha-1 location.				
RT-ML	76.5m	Planned Op	Continue tow to Martha-1 location while pre-spud preparation and rig maintenance activities ongoing.				

Summary of Period 0000 to 2400 Hrs

Completed anchor handling operations, commenced tow to Martha-1 location.

Operations For Period 0000 Hrs to 2400 Hrs on 17 Oct 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PS	P	RM	1300	2400	11.00	0m	<p>Last anchor (#4) racked at 13:00 on 17th October 2004. Rig handed over from BSOC to Santos.</p> <p>Statement of facts: Ocean Patriot - Fuel Oil 2055 bbl, Drill Water 1021 bbl, Potable Water 1216 bbl, Lube Oil 8920 litre, Barite 57 MT, Gel 18 MT Cement 83 MT</p> <p>Far Grip - Fuel Oil 3773 bbl, Drill Water 0 bbl, Potable Water 3233 bbl, Lube Oil 12400 litre, Barite 0 MT, Gel 84 MT Cement 36 MT</p> <p>Pacific Wrangler - Fuel Oil 2457 bbl, Drill Water 742 bbl, Potable Water 843 bbl, Lube Oil 25489 litre, Barite 0 MT, Gel 11 MT Cement 0 MT</p> <p>Anchor #4 PCC passed back to rig at 13:05.</p> <p>Rig under tow to Martha-1 location:</p> <p>18:00 - Lat 38 deg 22.5' S 148 deg 34' E, Speed 4.4 kn, ETA 18:00 19 Oct, Distance travelled 22 nm, distance to go 295 nm, course 208 deg. 24:00 - Lat 38 deg 46.1' S 147 deg 58.5' E, Speed 6.27 kn, ETA 18:01 19 Oct, Distance travelled 60 nm, distance to go 258 nm, course 251 deg.</p> <p>Rig maintenance and pre-spud preparation ongoing: Inspection of topdrive, changeout of liners in mud pumps from 6.5" to 6", starboard crane repairs, setting of mud pump pop-off valves.</p>

Operations For Period 0000 Hrs to 0600 Hrs on 18 Oct 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PS	P	RM	0000	0600	6.00	0m	<p>(IN PROGRESS) Rig under tow to Martha-1 location:</p> <p>0600: Lat 38 deg 56.1' S, Long 147 deg 18' E, Speed 5.8 kn, ETA 19:00 19th Oct, Distance travelled 95 nm, distance to go 223 nm, course 243 deg.</p> <p>1200: Lat 39 deg 8' S, Long 146 deg 38' E, Speed 5.52 kn, ETA 19:40 19th Oct, Distance travelled 127 nm, distance to go 190 nm, course 251 deg.</p> <p>1800: Lat 39 deg 9' S, Long 145 deg 53' E, Speed 5.33 kn, ETA 20:00 19th Oct, Distance travelled 159 nm, distance to go 158 nm, course 274 deg.</p> <p>2400: Lat 39 deg 6' S, Long 145 deg 7.5' E, Speed 6 kn, ETA 20:00 19th Oct, Distance travelled 195 nm, distance to go 122 nm, course 277 deg.</p> <p>Rig maintenance and pre-spud preparation ongoing:</p> <p>Performed electrical PM's on Baylor brake, worked on luffing upgrade to starboard crane, re-assembled TDS after inspection, worked on PM's for drill floor, shaker house and pump room, completed pressure testing of both annulars, function tested BOP from drillers panel.</p>

Phase Data to 2400hrs, 17 Oct 2004

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
PRESPOD(P)	11	17 Oct 2004	17 Oct 2004	11.00	0.458 days	0m

Bulk Stocks						Personnel On Board	
Name	Unit	In	Used	Adjust	Balance	Company	Pax
Fuel	M3	0	14.7	0	327.2	DOGC	47
Drill Water	MT	0	11.9	0	150.4	Santos	3
Potable Water	MT	25	25	0	192.9	Total Marine Catering	8
Gel	sx	0	0	0	404.0	Fugro	4
Cement	sx	0	0	0	1,954.0	Sperry-Sun	2
Barite	sx	0	0	0	1,265.0	M.I	1
						Dowell	2
						ECL	1
						Fugro	2
						MO47	8
						Varco	1
						Marcomm	1
						Cameron	1
						Liebher	1
						Total	82

Pumps																	
Pump Data - Last 24 Hrs								Slow Pump Data									
No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)	Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
1	A1700	6.00	0	98	0	0	0	0	0	0	0	0	0	0	0	0	0
2	12P-160	6.00	0	98	0	0	0	0	0	0	0	0	0	0	0	0	0
3	12P-160	6.00	0	98	0	0	0	0	0	0	0	0	0	0	0	0	0

Marine											
Weather check on 17 Oct 2004 at 24:00								Rig Support			
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period	Anchors	Tension (klb)		
9.00nm	14.0kn	120deg	1021bar	10.0C°	1.0m	120deg	0ft/sec	1	0		
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments					
0.3deg	0.3deg	0m	1.5m	070deg	0ft/sec						
Rig Dir.	Ris. Tension	VDL	Comments								
251.0deg	0klb	4357.0klb									
								2	0		
								3	0		
								4	0		
								5	0		
								6	0		
								7	0		
								8	0		

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Far Grip			On primary tow leg.	Item	Unit	Quantity
				Barite	MT	0
				Gel	MT	84
				Cement	MT	36
Pacific Wrangler			On secondary tow leg.	Item	Unit	Quantity
				Barite	MT	0
				Gel	MT	12
				Cement	MT	0
				Drill Water		0
				Fuel		0

From : Chris Wilson
OIM : Sean De Freitas

Well Data

Country	Australia	M. Depth	0m	Cur. Hole Size	0in	AFE Cost	
Field		TVD	0m	Casing OD	0in	AFE No.	5736086
Drill Co.	DOGC	Progress	0m	Shoe TVD	0m	Daily Cost	
Rig	Ocean Patriot	Days from spud		F.I.T. / L.O.T.	0ppg / 0ppg	Cum Cost	
Wtr Dpth(LAT)	55.0m	Days on well	1.46			Planned TD	1878.0m
RT-ASL(LAT)	21.5m	Current Op @ 0600	Rig under tow to Martha-1 location				
RT-ML	76.5m	Planned Op	Continue tow to Martha-1, commence anchor handling operations.				

Summary of Period 0000 to 2400 Hrs

Rig under tow to Martha-1 location. Maintenance and pre-spud preparation activities ongoing.

Operations For Period 0000 Hrs to 2400 Hrs on 18 Oct 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PS	P	RM	0000	2400	24.00	0m	<p>Rig under tow to Martha-1 location:</p> <p>0600: Lat 38 deg 56.1' S, Long 147 deg 18' E, Speed 5.8 kn, ETA 19:00 19th Oct, Distance travelled 95 nm, distance to go 223 nm, course 243 deg.</p> <p>1200: Lat 39 deg 8' S, Long 146 deg 38' E, Speed 5.52 kn, ETA 19:40 19th Oct, Distance travelled 127 nm, distance to go 190 nm, course 251 deg.</p> <p>1800: Lat 39 deg 9' S, Long 145 deg 53' E, Speed 5.33 kn, ETA 20:00 19th Oct, Distance travelled 159 nm, distance to go 158 nm, course 274 deg.</p> <p>2400: Lat 39 deg 6' S, Long 145 deg 7.5' E, Speed 6 kn, ETA 20:00 19th Oct, Distance travelled 195 nm, distance to go 122 nm, course 277 deg.</p> <p>Rig maintenance and pre-spud preparation ongoing:</p> <p>Performed electrical PM's on Baylor brake, worked on luffing upgrade to starboard crane, re-assembled TDS after inspection, worked on PM's for drill floor, shaker house and pump room, completed pressure testing of both annulars, function tested BOP from drillers panel.</p>

Operations For Period 0000 Hrs to 0600 Hrs on 19 Oct 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PS	P	RM	0000	0600	6.00	0m	<p>Rig under tow to Martha-1 location:</p> <p>0600: Lat 39 deg 01' S, Long 144 deg 26' E, Speed 5.5 kn, ETA 21:00 19th October, Distance travelled 228 nm, distance to go 89 nm, course 227 deg.</p> <p>Rig maintenance and pre-spud preparation activities ongoing.</p>

Phase Data to 2400hrs, 18 Oct 2004

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
PRESPUD(PS)	35	17 Oct 2004	18 Oct 2004	35.00	1.458 days	0m

Bulk Stocks						Personnel On Board	
Name	Unit	In	Used	Adjust	Balance	Company	Pax
Fuel	M3	0	3.5	0	323.7	DOGC	47
Drill Water	MT	0	5.9	0	144.5	Santos	3
Potable Water	MT	25	19.5	0	198.4	Total Marine Catering	8
Gel	sx	0	0	0	404.0	Fugro	4
Cement	sx	0	0	0	1,954.0	Sperry-Sun	2
Barite	sx	0	0	0	1,265.0	M.I	2
						Dowell	2
						ECL	1
						Fugro	2
						MO47	7
						Varco	1
						Cameron	1
						Liebher	1
						Total	81

Pumps																	
Pump Data - Last 24 Hrs								Slow Pump Data									
No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)	Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
1	A1700	6.00	0	98	0	0	0	0	0	0	0	0	0	0	0	0	0
2	12P-160	6.00	0	98	0	0	0	0	0	0	0	0	0	0	0	0	0
3	12P-160	6.00	0	98	0	0	0	0	0	0	0	0	0	0	0	0	0

Marine																	
Weather check on 18 Oct 2004 at 24:00												Rig Support					
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period	Anchors			Tension (klb)						
10.00nm	12.0kn	130deg	1020bar	12.0C°	0.5m	130deg	0ft/sec	1			0						
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments		2			0						
0.3deg	0.3deg	0m	1.0m	270deg	0ft/sec			3			0						
Rig Dir.	Ris. Tension	VDL	Comments			4					0						
277.0deg	0klb	4334.0klb				5					0						
							6					0					
							7					0					
							8					0					

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Far Grip			On primary tow leg.	Item	Unit	Quantity
				Barite	MT	0
				Gel	MT	84
				Cement	MT	36
				Drill Water	M3	0
				Fuel	M3	553
Potable Water	M3	510				
Pacific Wrangler			On secondary tow leg.	Item	Unit	Quantity
				Barite	MT	0
				Gel	MT	12
				Cement	MT	0
				Fuel	M3	362
				Drill Water	M3	118
Potable Water	M3	128				

Helicopter Movement					
Flight #	Time	Destination	Comment	Pax	
1	12:50	Ocean Patriot		1	
1	12:58	Essendon		2	

From : Chris Wilson
OIM : Sean De Freitas

Well Data

Country	Australia	M. Depth	0m	Cur. Hole Size	0in	AFE Cost	
Field		TVD	0m	Casing OD	0in	AFE No.	5736086
Drill Co.	DOGC	Progress	0m	Shoe TVD	0m	Daily Cost	
Rig	Ocean Patriot	Days from spud		F.I.T. / L.O.T.	0ppg / 0ppg	Cum Cost	
Wtr Dpth(LAT)	55.0m	Days on well	2.46			Planned TD	1878.0m
RT-ASL(LAT)	21.5m	Current Op @ 0600	Anchor handling.				
RT-ML	76.5m	Planned Op	Run anchors, ballast down and prepare for spud.				

Summary of Period 0000 to 2400 Hrs

Continued tow to Martha-1 location.

Operations For Period 0000 Hrs to 2400 Hrs on 19 Oct 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PS	P	RM	0000	2400	24.00	0m	<p>Rig under tow to Martha-1 location:</p> <p>0600: Lat 39 deg 01' S, Long 144 deg 26' E, Speed 5.5 kn, ETA 21:00 19th October, Distance travelled 228 nm, distance to go 89 nm, course 277 deg.</p> <p>1200: Lat 38 deg 58' S, Long 143 deg 42' E, Speed 5.7 kn, ETA 21:00 19th October, Distance travelled 262 nm, distance to go 55 nm, course 277 deg.</p> <p>Dropped Pacific Wrangler off secondary tow leg at 17:00.</p> <p>1800: Lat 38 deg 49.8' S, Long 143 deg 10' E, Speed 4.42 kn, ETA 24:00 19th October, Distance travelled 289 nm, distance to go 28 nm, course 285 deg.</p> <p>2400: Lat 38 deg 34' S, Long 142 deg 41' E, Speed 4.2 kn, ETA 00:45 19th October, Distance travelled 314 nm, distance to go 3 nm, course 319 deg.</p> <p>Rig maintenance and pre-spud preparation activities ongoing:</p> <p>Pressure tested surface equipment, serviced top drive, laid out BHA components (hole opener/stabilizers etc.) on catwalk.</p>

Operations For Period 0000 Hrs to 0600 Hrs on 20 Oct 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PS	P	RM	0000	0600	6.00	0m	<p>Commenced anchor handling operations:</p> <p>Anchor #5: PCC passed to Wrangler at 00:40</p> <p>First anchor (#5) on bottom at Martha-1 location at 02:30 on 20th October 2004</p> <p>Anchor #5: PCC back to rig at 03:25</p> <p>Anchor #1: PCC passed to Wrangler at 03:40, on bottom at 04:32, PCC back to rig at 04:55</p> <p>Anchor #4: PCC passed to Wrangler at 05:05, on bottom at 05:53</p>

Phase Data to 2400hrs, 19 Oct 2004

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
PRESPUD(PS)	59	17 Oct 2004	19 Oct 2004	59.00	2.458 days	0m

Bulk Stocks						Personnel On Board	
Name	Unit	In	Used	Adjust	Balance	Company	Pax
Fuel	M3	0	2.4	0	321.3	DOGC	47
Drill Water	MT	0	0	0	144.5	Santos	3
Potable Water	MT	27	21.5	0	203.9	Total Marine Catering	8
Gel	sx	0	0	0	404.0	Fugro	4
Cement	sx	0	0	0	1,954.0	Sperry-Sun	2
Barite	sx	0	0	0	1,265.0	M.I	2
						Dowell	2
						ECL	1
						Fugro	2
						MO47	7
						Varco	1
						Cameron	1
						Liebher	1
						Total	81

Pumps																	
Pump Data - Last 24 Hrs								Slow Pump Data									
No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)	Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
1	A1700	6.00	0	98	0	0	0	0	0	0	0	0	0	0	0	0	0
2	12P-160	6.00	0	98	0	0	0	0	0	0	0	0	0	0	0	0	0
3	12P-160	6.00	0	98	0	0	0	0	0	0	0	0	0	0	0	0	0

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	18 Oct 2004	1 Day	Fire and abandon rig drill held based on simulated fire in the sub-sea workshop. All personnel mustered at aft lifeboats.
Safety Meeting	17 Oct 2004	2 Days	Three safety meetings held (13:00, 19:00, 01:00). Attended by all crews. Martha-1 pre-spud presentation given by company reps.
Stop Cards	19 Oct 2004	0 Days	8 STOP cards submitted by personnel in past 24 hours. 2 from 3rd party, 6 from Diamond.

Marine									
Weather check on 19 Oct 2004 at 24:00								Rig Support	
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period	Anchors	Tension (klb)
10.00nm	10.0kn	090deg	1016bar	10.0C°	0.5m	090deg	0ft/sec	1	0
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments			
0.3deg	0.3deg	0m	1.0m	235deg	0ft/sec				
Rig Dir.	Ris. Tension	VDL	Comments						
319.0deg	0klb	4333.0klb							
								2	0
								3	0
								4	0
								5	0
								6	0
								7	0
								8	0

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Far Grip			On primary tow leg.	Item	Unit	Quantity
				Fuel	M3	518
				Drill Water	M3	0
				Potable Water	M3	508
				Barite	MT	0
				Gel	MT	84
Pacific Wrangler			Off secondary tow leg, preparing to receive anchor #5.	Item	Unit	Quantity
				Fuel	M3	346
				Drill Water	M3	118
				Potable Water	M3	124
				Barite	MT	0
				Gel	MT	12
				Cement	MT	0

From : Chris Wilson
OIM : Sean De Freitas

Well Data

Country	Australia	M. Depth	95.0m	Cur. Hole Size	36.000in	AFE Cost	
Field		TVD	95.0m	Casing OD	0in	AFE No.	5736086
Drill Co.	DOGC	Progress	18.8m	Shoe TVD	0m	Daily Cost	
Rig	Ocean Patriot	Days from spud	0.04	F.I.T. / L.O.T.	0ppg / 0ppg	Cum Cost	
Wtr Dpth(LAT)	54.7m	Days on well	3.46			Planned TD	1878.0m
RT-ASL(LAT)	21.5m	Current Op @ 0600	Rigging up to cement surface casing.				
RT-ML	76.2m	Planned Op	Cement surface casing, wait on cement, make up 17 1/2" BHA and drill out shoe.				

Summary of Period 0000 to 2400 Hrs

Towed rig to Martha - 1 location. Ran anchors and pre-tensioned same. Performed pull off test. Picked up tubulars. Spudded well. Drilled 26" x 36" hole

Operations For Period 0000 Hrs to 2400 Hrs on 20 Oct 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PS	P	RM	0000	0230	2.50	0m	Commenced anchor handling operations: Anchor #5: PCC passed to Wrangler at 00:40
PS	P	RM	0230	1400	11.50	0m	First anchor (#5) on bottom at Martha-1 location at 02:30 on 20th October 2004. Continued anchor handling operations: Anchor #5: PCC back to rig at 03:25 Anchor #1: PCC passed to Wrangler at 03:40, on bottom at 04:32, PCC back to rig at 04:55 Anchor #4: PCC passed to Wrangler at 05:05, on bottom at 05:53, PCC back to rig at 06:45 Anchor #8: PCC passed to Wrangler at 06:50, on bottom at 07:20, PCC back to rig at 07:55 Anchor #6: PCC passed to Wrangler at 08:00, on bottom at 08:25, PCC back to rig at 08:59 Anchor #2: PCC passed to Far Grip at 08:14, on bottom at 08:43, PCC back to rig at 09:22 Anchor #7: PCC passed to Wrangler at 09:04, on bottom at 09:28, anchor didn't hold, re-run, on bottom at 11:05, PCC back to rig at 11:38 Anchor #3: PCC passed to Far Grip at 09:30, changed out 85 MT shackle on pig-tail, anchor on bottom at 10:58, PCC back to rig at 11:35 Commenced cross tensioning anchors at 11:55. Anchor #8 slipping, re-ran same: PCC passed to Wrangler at 12:40, off bottom at 13:00, on bottom at 13:07, PCC back to rig at 13:37 Conducted winch-off test at 13:55, all OK. Note: while handling anchors, made up and racked back 3 stands of HWDP, 1 stand 8" DC and 1 stand 9 1/2" DC. Made up 30" surface casing string, landed in PGB and moved same clear to port side of moonpool. Began backload to Pacific Wrangler.
PS	P	RM	1400	1915	5.25	0m	Ballasted rig to drilling draft of 23.5 m.
PS	P	HT	1915	2230	3.25	0m	Picked up 36" BHA and ran in to tag seabed with same. ROV jumped at 20:10 for seabed survey, survey complete at 21:50.
PS	P	SVY	2230	2300	0.50	0m	Tagged seabed with 5k down at 76.16 m. RT to sea level (LAT): 21.5 m RT to sea bed (LAT): 76.16 m Water depth 54.66 m Rig heading 44.86 deg true Rig offset from intended location by 1.8 m at a bearing of 171 deg grid. Final location: Lat: 38 deg 37' 24.33" S Long: 142 deg 42' 05.02" E Easting: 648109.28 Northing: 5723638.23
SH	P	DA	2300	2400	1.00	95.0m	Took underdrift survey 3 m off bottom, 0 deg. Spudded well and drilled from 76.16 m to 95 m pumping 50 bbl hi-vis sweeps every 10 m.

Operations For Period 0000 Hrs to 0600 Hrs on 21 Oct 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
SH	P	DA	0000	0200	2.00	122.5m	Continued to drill 26" x 36" hole from 95 m to 122.5 m pumping 50 bbl hi-vis sweeps every 10 m, taking Anderdrift surveys every connection.
SH	P	CHC	0200	0230	0.50	122.5m	Pumped 50 bbl hi-vis sweep and displaced hole to PHG mud.
SH	P	TO	0230	0400	1.50	122.5m	Pulled out of the hole from 122.5 m, laid out bit sub, 26" bit and 36" hole opener.
SH	P	CRN	0400	0530	1.50	122.5m	Ran 1 stand HWDP stinger below 30" CART. Made up 30" CART to 30" housing joint. Stabbed surface casing string into well with assistance from ROV.
SH	P	RUC	0530	0600	0.50	122.5m	Spaced out and rigged up cement line.

Phase Data to 2400hrs, 20 Oct 2004

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
PRESUPD(PS)	82	17 Oct 2004	20 Oct 2004	82.00	3.417 days	0m
SURFACE HOLE(SH)	1	20 Oct 2004	20 Oct 2004	83.00	3.458 days	95.0m

WBM Data

Mud Type:	Hi-vis sweeps	API FL:	14cm ³ /30m	Cl:	1000	Solids:	4	Viscosity:	120sec/qt
Sample-From:	Pit 4	Filter-Cake:	2/32nd"	K+C*1000:	0%	H ₂ O:	96%	PV:	17cp
Time:	23:45	HTHP-FL:	0cm ³ /30m	Hard/Ca:	40	Oil:	0%	YP:	30lb/100ft ²
Weight:	8.80ppg	HTHP-Cake:	0/32nd"	MBT:	27	Sand:	0	Gels 10s:	29
Temp:	15.6C°			PM:	0	pH:	9.5	Gels 10m:	39
				PF:	0.52	PHPA:	Oppb	Fann 003:	20
								Fann 006:	20
								Fann 100:	31
								Fann 200:	40
								Fann 300:	47
								Fann 600:	64

Bit # 1

Wear	I	O1	D	L	B	G	O2	R	
Size ("):	26.00in	IADC#	1-1-5	Nozzles		Drilled over last 24 hrs		Calculated over Bit Run	
Mfr:	SMITH	WOB(avg)	11.0klb	No.	Size	Progress	18.8m	Cum. Progress	18.8m
Type:	Rock	RPM(avg)	58	1	21/32nd"	On Bottom Hrs	1.30h	Cum. On Btm Hrs	1.30h
Serial No.:	MR3846	F.Rate	1100gpm	1	20/32nd"	IADC Drill Hrs	1.30h	Cum IADC Drill Hrs	1.30h
Bit Model	MSDS SHC	SPP	370psi	2	22/32nd"	Total Revs	7000	Cum Total Revs	7000
Depth In	76.2m	TFA	1.387			ROP(avg)	14.46 m/hr	ROP(avg)	14.46 m/hr
Depth Out	0m								

BHA # 1

Weight(Wet)	47.6klb	Length	125.3m	Torque(max)	2ft-lbs	D.C. (1) Ann Velocity
Wt Below Jar(Wet)	47.6klb	String	55.0klb	Torque(Off.Btm)	1ft-lbs	D.C. (2) Ann Velocity
		Pick-Up	120.0klb	Torque(On.Btm)	2ft-lbs	H.W.D.P. Ann Velocity
		Slack-Off	120.0klb			D.P. Ann Velocity

BHA Run Description 26" bit, 36" hole opener, float sub with solid float, 9 1/2" anderdrift, 2 x 17 1/2" string stabilizers, 3 x 9 1/2" DCs, X-over, 3 x 8" DCs, X-over, 6 x 5" HWDP

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.67m	26.00in	0in	MR3846	
Hole Opener	3.21m	36.00in	3.13in	203A10	
Float Sub	1.03m	9.44in	0in	186-0028	Solid float with TOTCO ring on top.
9.5in Anderdrift	2.74m	9.50in	0in	AD995	
17.5in String Stabiliser	1.94m	17.50in	3.00in	207A75	
9.5in DC	9.20m	9.50in	3.06in	00-006	
17.5in String Stabiliser	2.31m	17.50in	3.00in	207A212	
9.5in DC	9.13m	9.50in	3.00in		
9.5in DC	9.35m	9.50in	3.00in	00-005	
X/O	0.94m	8.00in	3.13in	186-0035	7 5/8" Reg pin X 6 5/8" Reg box.
8in DC	9.35m	8.00in	3.00in	00-001	
8in DC	9.33m	8.00in	3.00in	00-010	
8in DC	9.03m	8.00in	3.00in	00-032	
X/O	1.13m	8.00in	3.00in	186-0011	6 5/8 Reg Pin X 4 1/2" IF Box.
5in HWDP	55.94m	5.00in	3.00in	Various	6 joints.

Survey								
MD (m)	Incl Deg (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
73.00	0	0	0	0	0	0	0	Anderdrift

Bulk Stocks						Personnel On Board		
Name	Unit	In	Used	Adjust	Balance	Company		Pax
Fuel	M3	0	13.2	0	308.1	DOGC		45
Drill Water	MT	0	142.3	0	2.2	Santos		7
Potable Water	MT	26	23.2	0	206.7	Total Marine Catering		8
Gel	sx	0	44	0	360.0	Fugro		4
Cement	sx	0	0	0	1,954.0	Sperry-Sun		3
Barite	sx	0	0	0	1,265.0	M.I		2
						Dowell		2
						ECL		1
						Fugro		2
						MO47		7
						Varco		1
						Cameron		1
						Liebher		1
						Baker Atlas		2
Total								86

Pumps																	
Pump Data - Last 24 Hrs								Slow Pump Data									
No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)	Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
1	A1700	6.00	8.60	98	85	370	367	0	0	0	0	0	0	0	0	0	0
2	12P-160	6.00	8.60	98	85	370	367	0	0	0	0	0	0	0	0	0	0
3	12P-160	6.00	8.60	98	85	370	367	0	0	0	0	0	0	0	0	0	0

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	18 Oct 2004	2 Days	Fire and abandon rig drill held based on simulated fire in the sub-sea workshop. All personnel mustered at aft lifeboats.
First Aid	20 Oct 2004	0 Days	Were advised that seaman aboard Far Grip had piece of metal embedded in his knee. IP brought on board for examination by rig medic. Medic advised IP fit to return to normal duties and no need for medivac. IP returned to Far Grip.
Safety Meeting	17 Oct 2004	3 Days	Three safety meetings held (13:00, 19:00, 01:00). Attended by all crews. Martha-1 pre-spud presentation given by company reps.
Stop Cards	20 Oct 2004	0 Days	13 STOP cards submitted by personnel, 7 by DODI, 6 by 3rd party.

Shakers, Volumes and Losses Data				Engineer : Jasdeep Singh			
Available	Losses	Equip.	Descr.	Mesh Size	Hours		
790bbl	120bbl						
Active	150.0bbl	Downhole					
Mixing	0bbl	Surf+ Equip					
Hole	0bbl	Dumped					
Slug	0bbl	De-Sander					
Reserve	640.0bbl	De-Silter					
Kill	0bbl	Centrifuge					
		Sweeps				120.0bbl	

Marine								Rig Support		
Weather check on 20 Oct 2004 at 24:00										
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period	Anchors	Tension (klb)	
10.00nm	22.0kn	090deg	1016bar	13.0C°	0.5m	090deg	0ft/sec	1	209.0	
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments				
0.3deg	0.3deg	1.00m	2.0m	180deg	0ft/sec					
Rig Dir.	Ris. Tension	VDL	Comments							
45.0deg	0klb	4554.0klb								
								2	190.0	
								3	198.0	
								4	203.0	
								5	207.0	
								6	209.0	
								7	205.0	
								8	198.0	

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Far Grip		16:20	Loading in Portland.	Item	Unit	Quantity
				Cement	MT	36
				Gel	MT	84
				Potable Water	M3	500
				Barite	MT	0
				Drill Water	M3	0
				Fuel	M3	506
Pacific Wrangler			At standby on location.	Item	Unit	Quantity
				Cement	MT	0
				Gel	MT	12
				Barite	MT	0
				Drill Water	M3	118
				Potable Water	M3	124
				Fuel	M3	322.8

Helicopter Movement					
Flight #	Time	Destination	Comment	Pax	
1	12:01	Ocean Patriot		2	
1	12:09	Essendon		8	
2	15:50	Ocean Patriot		6	
2	15:58	Essendon		5	

From : Chris Wilson
OIM : Sean De Freitas

Well Data

Country	Australia	M. Depth	122.5m	Cur. Hole Size	17.500in	AFE Cost	
Field		TVD	122.5m	Casing OD	20.000in	AFE No.	5736086
Drill Co.	DOGC	Progress	18.8m	Shoe TVD	121.0m	Daily Cost	
Rig	Ocean Patriot	Days from spud	1.04	F.I.T. / L.O.T.	0ppg / 0ppg	Cum Cost	
Wtr Dpth(LAT)	54.7m	Days on well	4.46			Planned TD	1878.0m
RT-ASL(LAT)	21.5m	Current Op @ 0600	Drilling 17 1/2" hole and continuing to pick up last of the BHA				
RT-ML	76.2m	Planned Op	Continue drilling 17 1/2" hole to section TD of 625 m				

Summary of Period 0000 to 2400 Hrs

Drilling 36" hole 121 m. spotted 200 bbls PHG in hole. POOH. Ran 20" x 30" surface casing and PGB. Cement surface casing in place. pick up DP while waiting 4 hrs for cement to harden. POOH with running tool. Pick up more DP to get to section TD. Make up running tools for casing run. Make up 17 1/2" BHA and RIH to drill

Operations For Period 0000 Hrs to 2400 Hrs on 21 Oct 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
SH	P	DA	0000	0200	2.00	122.5m	Continued to drill 26" x 36" hole from 95 m to 122.5 m pumping 50 bbl hi-vis sweeps every 10 m, taking Anderdrift surveys every connection.
SH	P	CHC	0200	0230	0.50	122.5m	Pumped 50 bbl hi-vis sweep and displaced hole with 200 bbls PHG mud.
SH	P	TO	0230	0400	1.50	122.5m	Pulled out of the hole from 122.5 m, laid out bit sub, 26" bit and 36" hole opener.
SH	P	CRN	0400	0530	1.50	122.5m	Ran 1 stand HWDP stinger below 30" CART. Made up 30" CART to 30" housing joint in PGB. Ran 30" x 20" conductor, PGB and guidelines to sea level and filled with sea water. Continued ran in hole with conductor and PGB. Stabbed conductor string into well with assistance from ROV.
SH	P	RUC	0530	0600	0.50	122.5m	Landed out conductor with PGB 1.5m above mudline. Bullseyes to aft and port of PGB both mobile and reading between 1/2 and 1 degree to port aft. Rigged up cement line.
SH	P	CMC	0600	0800	2.00	122.5m	Dowell pressure tested cmt line to 2000 psi. Dowell circulated 150 bbls sea water, last 20 bbls with flourosine dye. Dowell mixed and pumped 215 bbls of 15.8 ppg G neat slurry and displaced with 32 bbls of sea water. Flourosine dye observed at seabed with ROV. Checked float holding - OK
SH	P	WOC	0800	1200	4.00	122.5m	Picked up 258m of 5" S-135 DP and racked back in derrick while waiting on cement to harden.
SH	P	CRN	1200	1330	1.50	122.5m	Slacked off string to neutral weight and backed 30" CART out of PGB with 6 1/2 RH turns. POOH with running tool and laid down.
IH	P	PUP	1330	1500	1.50	122.5m	Held JSA and picked up 7 stands of 5" S-135 DP and racked in derrick.
IH	P	HT	1500	1630	1.50	122.5m	P/U 18 3/4" CART on stand of 5" HWDP and racked in derrick. Made up second 18 3/4" CART to lift nubbin then laid down as lifter for 18 3/4" wellhead.
IH	U (RE)	RR	1630	1730	1.00	122.5m	Changed out leaking hydraulic hose on pipe racking system.
IH	P	HT	1730	1930	2.00	122.5m	Picked up DeepSea Express launcher head and made up to to stand of 5" HWDP and racked in derrick. Picked up DeepSea Express X/O, made up to joint of 5" HWDP and laid back down on deck.
IH	P	HBHA	1930	2400	4.50	122.5m	Held JSA, Pick up 17 1/2" BHA and RIH.

Operations For Period 0000 Hrs to 0600 Hrs on 22 Oct 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	HT	0000	0030	0.50	122.5m	Continued to make up BHA and ran in the hole from 106 m. Circulated and tagged top of cement at 114.5 m.
IH	P	DC	0030	0200	1.50	122.5m	Cleaned out shoe track and rat hole from 114.5 m to 122.5 m, working string through the shoe at 121 m.
IH	P	DA	0200	0300	1.00	133.0m	Drilled 17 1/2" hole from 122.5 m to 133 m.
IH	P	HT	0300	0330	0.50	133.0m	Pulled and racked 1 stand HWDP and picked up 2 x 8" DCs.
IH	P	DA	0330	0530	2.00	179.0m	Continued to drill 17 1/2" hole from 133 m to 179 m pumping 50 bbl hi-vis sweeps and backreaming a single prior to connection, taking surveys with Anderdrift every connection.
IH	P	HT	0530	0600	0.50	179.0m	Pulled out of the hole with HWDP from 179 m to 120 m to install more collars in BHA.

Phase Data to 2400hrs, 21 Oct 2004

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
PRESPOD(P)	82	17 Oct 2004	20 Oct 2004	82.00	3.417 days	0m
SURFACE HOLE(SH)	14.5	20 Oct 2004	21 Oct 2004	96.50	4.021 days	122.5m
INTERMEDIATE HOLE(IH)	10.5	21 Oct 2004	21 Oct 2004	107.00	4.458 days	122.5m

WBM Data									
Mud Type:	Hi-vis sweeps	API FL:	15cm ³ /30m	Cl:	1000	Solids:	5	Viscosity:	120sec/qt
Sample-From:	Pit 4	Filter-Cake:	2/32nd"	K+C*1000:	0%	H2O:	95%	PV:	17cp
Time:	23:30	HTHP-FL:	0cm ³ /30m	Hard/Ca:	40	Oil:	0%	YP:	32lb/100ft ²
Weight:	8.80ppg	HTHP-Cake:	0/32nd"	MBT:	30	Sand:	0	Gels 10s:	30
Temp:	15.6C°			PM:	0	pH:	9.5	Gels 10m:	42
				PF:	0.5	PHPA:	Oppb	Fann 003:	20
								Fann 006:	21
								Fann 100:	32
								Fann 200:	41
								Fann 300:	49
								Fann 600:	66

Bit # 2				Wear	I	O1	D	L	B	G	O2	R
Size ("):	17.50in	IADC#	1-1-5	Nozzles		Drilled over last 24 hrs			Calculated over Bit Run			
Mfr:	SMITH	WOB(avg)	0klb	No.	Size	Progress	0m	Cum. Progress	0m			
Type:	Rock	RPM(avg)	0			On Bottom Hrs	0h	Cum. On Btm Hrs	0h			
Serial No.:	MR5734	F.Rate	0gpm			IADC Drill Hrs	0h	Cum IADC Drill Hrs	0h			
Bit Model	XRTC	SPP	0psi			Total Revs	0	Cum Total Revs	0			
Depth In	122.5m	TFA	0.000			ROP(avg)	N/A	ROP(avg)	0.00 m/hr			
Depth Out	0m											

Bit # 1				Wear	I	O1	D	L	B	G	O2	R
Size ("):	26.00in	IADC#	1-1-5		0	0	NO	A	0	I	NO	PR
Mfr:	SMITH	WOB(avg)	11.0klb	Nozzles		Drilled over last 24 hrs			Calculated over Bit Run			
Type:	Rock	RPM(avg)	58	No.	Size	Progress	18.8m	Cum. Progress	37.6m			
Serial No.:	MR3846	F.Rate	1100gpm	1	21/32nd"	On Bottom Hrs	1.30h	Cum. On Btm Hrs	2.60h			
Bit Model	MSDS SHC	SPP	370psi	1	20/32nd"	IADC Drill Hrs	1.30h	Cum IADC Drill Hrs	2.60h			
Depth In	76.2m	TFA	1.387	2	22/32nd"	Total Revs	7000	Cum Total Revs	14000			
Depth Out	122.5m					ROP(avg)	14.46 m/hr	ROP(avg)	14.46 m/hr			

BHA # 2						
Weight(Wet)	57.0klb	Length	152.1m	Torque(max)	2ft-lbs	D.C. (1) Ann Velocity
Wt Below Jar(Wet)	55.0klb	String	55.0klb	Torque(Off.Btm)	1ft-lbs	D.C. (2) Ann Velocity
		Pick-Up	120.0klb	Torque(On.Btm)	2ft-lbs	H.W.D.P. Ann Velocity
		Slack-Off	120.0klb			D.P. Ann Velocity

BHA Run Description 17 1/2" bit, float sub with solid float, 9 1/2" anderdrift, 9 1/2" short DC, 17 1/2" stab, 9 1/2" DC, 17 1/2" stab, 2 x 9 1/2" DC, XO, 6 x 8" DCs, 8" Jar, 3 x 8" DC, Accelerator, 8" DC

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.45m	17.50in	0in	MR5734	
Float Sub	1.03m	9.44in	0in	186-0028	Solid float installed
9.5in Anderdrift	2.74m	9.50in	0in	AD995	Totco ring on top
9.5in Pony Drill Collar	3.58m	9.50in	3.00in	502A22	
17.5in String Stabiliser	1.94m	17.50in	3.00in	207A75	
9.5in DC	9.20m	9.50in	3.06in	00-006	
17.5in String Stabiliser	2.31m	17.50in	3.00in	207A212	
9.5in DC	9.13m	9.50in	3.00in	00-004	
9.5in DC	9.35m	9.50in	3.00in	00-005	
X/O	0.94m	8.00in	3.13in	186-0035	7 5/8" Reg pin X 6 5/8" Reg box.
8in DC	54.78m	8.00in	3.00in	Various	
8in Hydraulic Jars	9.95m	8.00in	3.00in	83460C	
8in DC	27.09m	8.00in	3.00in	Various	
Jar Accel.	10.39m	8.25in	3.00in	186-0011	
8in DC	9.22m	8.00in	3.00in	Various	
X/O	1.13m	8.00in	2.81in	186-0011	6 5/8 Reg x 4 1/2 IF

BHA # 1						
Weight(Wet)	47.6klb	Length	125.3m	Torque(max)	2ft-lbs	D.C. (1) Ann Velocity
Wt Below Jar(Wet)	47.6klb	String	160.0klb	Torque(Off.Btm)	1ft-lbs	D.C. (2) Ann Velocity
		Pick-Up	160.0klb	Torque(On.Btm)	2ft-lbs	H.W.D.P. Ann Velocity
		Slack-Off	160.0klb			D.P. Ann Velocity

BHA Run Description 26" bit, 36" hole opener, float sub with solid float, 9 1/2" anderdrift, 2 x 17 1/2" string stabilizers, 3 x 9 1/2" DCs, X-over, 3 x 8" DCs, X-over, 6 x 5" HWDP

Equipment	Length	OD	ID	Serial #	Comment	
Bit	0.67m	26.00in	0in	MR3846	Solid float with TOTCO ring on top.	
Hole Opener	3.21m	36.00in	3.13in	203A10		
Float Sub	1.03m	9.44in	0in	186-0028		
9.5in Anderdrift	2.74m	9.50in	0in	AD995		
17.5in String Stabiliser	1.94m	17.50in	3.00in	207A75		
9.5in DC	9.20m	9.50in	3.06in	00-006		
17.5in String Stabiliser	2.31m	17.50in	3.00in	207A212		
9.5in DC	9.13m	9.50in	3.00in			
9.5in DC	9.35m	9.50in	3.00in	00-005		
X/O	0.94m	8.00in	3.13in	186-0035		7 5/8" Reg pin X 6 5/8" Reg box.
8in DC	9.35m	8.00in	3.00in	00-001		
8in DC	9.33m	8.00in	3.00in	00-010		
8in DC	9.03m	8.00in	3.00in	00-032		
X/O	1.13m	8.00in	3.00in	186-0011		6 5/8 Reg Pin X 4 1/2" IF Box.
5in HWDP	55.94m	5.00in	3.00in	Various	6 joints.	

Survey								
MD (m)	Incl Deg (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
95.00	1.50	0	0	0	0	0	0	Anderdrift
122.00	1.00	0	0	0	0	0	0	Anderdrift
150.00	0	0	0	0	0	0	0	Anderdrift
178.00	1.00	0	0	0	0	0	0	Anderdrift

Bulk Stocks						Personnel On Board		
Name	Unit	In	Used	Adjust	Balance	Company	Pax	
Fuel	M3	0	15.2	0	292.9	DOGC	46	
Drill Water	MT	418	77.7	0	342.5	Santos	5	
Potable Water	MT	27.1	27	0	206.8	Total Marine Catering	8	
Gel	sx	985	204	0	1,141.0	Fugro	4	
Cement	sx	0	1142	0	812.0	Sperry-Sun	4	
Barite	sx	0	109	0	1,156.0	M.I	2	
						Dowell	2	
						Cameron	2	
						Liebher	1	
						Baker Atlas	2	
						Weatherford	3	
Total							79	

Pumps																	
Pump Data - Last 24 Hrs								Slow Pump Data									
No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)	Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
1	A1700	6.00	8.80	98	80	403	345	0	0	0	0	0	0	0	0	0	0
2	12P-160	6.00	8.80	98	80	403	345	0	0	0	0	0	0	0	0	0	0
3	12P-160	6.00	8.80	98	80	403	345	0	0	0	0	0	0	0	0	0	0

Casing			
OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	0ppg / 0ppg	121.0m / 121.0m	

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	18 Oct 2004	3 Days	Fire and abandon rig drill held based on simulated fire in the sub-sea workshop. All personnel mustered at aft lifeboats.
First Aid	20 Oct 2004	1 Day	Were advised that seaman aboard Far Grip had piece of metal embedded in his knee. IP brought on board for examination by rig medic. Medic advised IP fit to return to normal duties and no need for medivac. IP returned to Far Grip.
Safety Meeting	17 Oct 2004	4 Days	Three safety meetings held (13:00, 19:00, 01:00). Attended by all crews. Martha-1 pre-spud presentation given by company reps.

Shakers, Volumes and Losses Data				Engineer : Jasdeep Singh			
Available	1170bbl	Losses	400bbl	Equip.	Descr.	Mesh Size	Hours
Active	325.0bbl	Downhole	192.0bbl				
Mixing	0bbl	Surf+ Equip	0bbl				
Hole	0bbl	Dumped	0bbl				
Slug	0bbl	De-Sander	0bbl				
Reserve	845.0bbl	De-Silter	0bbl				
Kill	0bbl	Centrifuge	0bbl				
		Sweeps	208.0bbl				

Marine									
Weather check on 21 Oct 2004 at 24:00							Rig Support		
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period	Anchors	Tension (klb)
10.00nm	10.0kn	100deg	1008bar	14.0C°	0.5m	100deg	0ft/sec	1	207.0
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments		2	190.0
0.3deg	0.3deg	1.00m	1.0m	225deg	0ft/sec			3	201.0
Rig Dir.	Ris. Tension	VDL	Comments				4	203.0	
45.0deg	0klb	4554.0klb					5	212.0	
							6	207.0	
							7	205.0	
							8	198.0	

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Far Grip	19:20		Unloading alongside rig	Item	Unit	Quantity
				Fuel	M3	678
				Drill Water	M3	0
				Potable Water	M3	380
				Gel	MT	42
				Barite	MT	0
				Cement	MT	76
Pacific Wrangler	19:20		Steaming to Portland	Item	Unit	Quantity
				Fuel	M3	321.1
				Cement	MT	0
				Drill Water	M3	0
				Potable Water	M3	117
				Barite	MT	0
				Gel	MT	0

Helicopter Movement					
Flight #	Time	Destination	Comment	Pax	
1	13:07	Ocean Patriot	Call sign: JGO	0	
1	13:12	Jack Bates	Freight only: 12 1/4" PDC bit for Jack Bates	0	
2	15:40	Ocean Patriot	Call sign: BHI	8	
2	15:49	Essendon		7	

From : Nigel Walters							
OIM : Sean De Freitas							
Well Data							
Country	Australia	M. Depth	514.0m	Cur. Hole Size	17.500in	AFE Cost	
Field		TVD	514.0m	Casing OD	20.000in	AFE No.	5736086
Drill Co.	DOGC	Progress	391.5m	Shoe TVD	121.0m	Daily Cost	
Rig	Ocean Patriot	Days from spud	2.04	F.I.T. / L.O.T.	0ppg / 0ppg	Cum Cost	
Wtr Dpth(LAT)	54.7m	Days on well	5.46			Planned TD	1878.0m
RT-ASL(LAT)	21.5m	Current Op @ 0600	Displacing the well to Hi-vis mud.				
RT-ML	76.2m	Planned Op	Run and cement 13 3/8" casing.				

Summary of Period 0000 to 2400 Hrs

Made up 17 1/2" BHA, cleaned out shoe track, drilled ahead in 17 1/2" hole to 514 m.

Operations For Period 0000 Hrs to 2400 Hrs on 22 Oct 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	HT	0000	0030	0.50	122.5m	Continued to make up BHA and ran in the hole from 106 m. Circulated and tagged top of cement at 114.5 m.
IH	P	DC	0030	0200	1.50	122.5m	Cleaned out shoe track and rat hole from 114.5 m to 122.5 m, working string through the shoe at 120.7 m.
IH	P	DA	0200	0300	1.00	133.0m	Drilled 17 1/2" hole from 122.5 m to 133 m.
IH	P	HT	0300	0330	0.50	133.0m	Pulled and racked 1 stand HWDP and picked up 2 x 8" DCs.
IH	P	DA	0330	0530	2.00	179.0m	Continued to drill 17 1/2" hole from 133 m to 179 m pumping 50 bbl hi-vis sweeps and backreaming a single prior to connection, taking surveys with Anderdrift every connection.
IH	P	HT	0530	0600	0.50	179.0m	Pulled out of the hole with HWDP from 179 m to 120 m to install more collars in BHA.
IH	P	RS	0600	0630	0.50	179.0m	Service TDS and travelling block. Repair TDS blower hose on travelling block.
IH	TP (HC)	RW	0630	0830	2.00	179.0m	Pick up 8" DC and attempt to run in hole. Taking weight at 122 m. POOH and rack stand of 8" DC's. Make up stand of HWDP and ream out shoe to clear obstruction. Rack back HWDP and RIH with accelerator and 8" DC's.
IH	TP (HC)	RW	0830	0900	0.50	179.0m	String taking weight at 168 m. wash and ream from 168 - TD at 179 m.
IH	P	DA	0900	1200	3.00	240.0m	Drill 17 1/2" hole from 179 - 240 m. Ream last single. Pump 50 bbl sweep mid stand and spot 50 bbl HiVis around BHA at connection. Survey with Anderdrift every connection.
IH	P	DA	1200	2400	12.00	514.0m	Continue to drill 17 1/2" hole from 240 m to 514 m, taking survey with Anderdrift every connection. Spotting 100 bbl hi-vis around BHA before connection.

Operations For Period 0000 Hrs to 0600 Hrs on 23 Oct 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	DA	0000	0445	4.75	628.0m	Continued to drill ahead in 17 1/2" hole from 514 m to TD at 628 m. Took Anderdrift surveys at every connection and spotted 100 bbl hi-vis around BHA on connections.
IH	P	DA	0445	0600	1.25	628.0m	Circulated hole with 150 bbl of PHG. Prepared to displace the hole to Hi-vis mud.

Phase Data to 2400hrs, 22 Oct 2004

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
PRESPUD(PS)	82	17 Oct 2004	20 Oct 2004	82.00	3.417 days	0m
SURFACE HOLE(SH)	14.5	20 Oct 2004	21 Oct 2004	96.50	4.021 days	122.5m
INTERMEDIATE HOLE(IH)	34.5	21 Oct 2004	22 Oct 2004	131.00	5.458 days	514.0m

WBM Data

Mud Type:	Hi-vis sweeps	API FL:	18cm ³ /30m	Cl:	300	Solids:	4	Viscosity:	100sec/qt
Sample-From:	Pit 4	Filter-Cake:	2/32nd"	K+C*1000:	0%	H2O:	96%	PV:	11cp
Time:	20:30	HTHP-FL:	0cm ³ /30m	Hard/Ca:	40	Oil:	0%	YP:	36lb/100ft ²
Weight:	8.80ppg	HTHP-Cake:	0/32nd"	MBT:	30	Sand:	0	Gels 10s:	23
Temp:	15.6C°			PM:	0	pH:	9.5	Gels 10m:	30
				PF:	0.35	PHPA:	Oppb	Fann 003:	29
								Fann 006:	30
								Fann 100:	38
								Fann 200:	43
								Fann 300:	47
								Fann 600:	58

Bit # 2				Wear	I	O1	D	L	B	G	O2	R
Size ("):	17.50in	IADC#	1-1-5	Nozzles			Drilled over last 24 hrs			Calculated over Bit Run		
Mfr:	SMITH	WOB(avg)	15.0klb	No.	Size	Progress	391.5m	Cum. Progress		391.5m		
Type:	Rock	RPM(avg)	140	1	20/32nd"	On Bottom Hrs	16.40h	Cum. On Btm Hrs		16.40h		
Serial No.:	MR5734	F.Rate	1020gpm	3	22/32nd"	IADC Drill Hrs	16.40h	Cum IADC Drill Hrs		16.40h		
Bit Model	XRTC	SPP	2100psi	Total Revs			201000	Cum Total Revs		201000		
Depth In	122.5m	TFA	1.420	ROP(avg)			23.87 m/hr	ROP(avg)		23.87 m/hr		
Depth Out	0m											

BHA # 2						
Weight(Wet)	57.0klb	Length	152.1m	Torque(max)	2ft-lbs	D.C. (1) Ann Velocity
Wt Below Jar(Wet)	55.0klb	String	55.0klb	Torque(Off.Btm)	1ft-lbs	D.C. (2) Ann Velocity
		Pick-Up	120.0klb	Torque(On.Btm)	2ft-lbs	H.W.D.P. Ann Velocity
		Slack-Off	120.0klb			D.P. Ann Velocity

BHA Run Description 17 1/2" bit, float sub with solid float, 9 1/2" anderdrift, 9 1/2" short DC, 17 1/2" stab, 9 1/2" DC, 17 1/2" stab, 2 x 9 1/2" DC, XO, 6 x 8" DCs, 8" Jar, 3 x 8" DC, Accelerator, 8" DC

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.45m	17.50in	0in	MR5734	
Float Sub	1.03m	9.44in	0in	186-0028	Solid float installed
9.5in Anderdrift	2.74m	9.50in	0in	AD995	Totco ring on top
9.5in Pony Drill Collar	3.58m	9.50in	3.00in	502A22	
17.5in String Stabiliser	1.94m	17.50in	3.00in	207A75	
9.5in DC	9.20m	9.50in	3.06in	00-006	
17.5in String Stabiliser	2.31m	17.50in	3.00in	207A212	
9.5in DC	9.13m	9.50in	3.00in	00-004	
9.5in DC	9.35m	9.50in	3.00in	00-005	
X/O	0.94m	8.00in	3.13in	186-0035	7 5/8" Reg pin X 6 5/8" Reg box.
8in DC	54.78m	8.00in	3.00in	Various	
8in Hydraulic Jars	9.95m	8.00in	3.00in	83460C	
8in DC	27.09m	8.00in	3.00in	Various	
Jar Accel.	10.39m	8.25in	3.00in	186-0011	
8in DC	9.22m	8.00in	3.00in	Various	
X/O	1.13m	8.00in	2.81in	186-0011	6 5/8 Reg x 4 1/2 IF

Survey								
MD (m)	Incl Deg (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
263.00	0.50	0	0	0	0	0	0	Anderdrift
302.00	1.00	0	0	0	0	0	0	Anderdrift
407.00	0	0	0	0	0	0	0	Anderdrift
493.00	0.50	0	0	0	0	0	0	Anderdrift

Bulk Stocks						Personnel On Board	
Name	Unit	In	Used	Adjust	Balance	Company	Pax
Fuel	M3	0	17.1	0	275.8	DOGC	48
Drill Water	MT	285	309.1	0	318.4	Santos	4
Potable Water	MT	34	28.5	0	212.3	Total Marine Catering	8
Gel	sx	0	554	0	587.0	Fugro	4
Cement	sx	938	0	0	1,750.0	Sperry-Sun	4
Barite	sx	0	0	0	1,156.0	M.I	2
						Dowell	2
						Cameron	2
						Liebher	1
						Baker Atlas	2
						Weatherford	3
						Sperry-Sun	2
Total							82

Pumps																	
Pump Data - Last 24 Hrs								Slow Pump Data									
No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)	Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
1	A1700	6.00	8.80	98	84	2100	345	0	0	0	0	0	0	0	0	0	0
2	12P-160	6.00	8.80	98	84	2100	345	0	0	0	0	0	0	0	0	0	0
3	12P-160	6.00	8.80	98	84	2100	345	0	0	0	0	0	0	0	0	0	0

Casing			
OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	0ppg / 0ppg	121.0m / 121.0m	

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	18 Oct 2004	4 Days	Fire and abandon rig drill held based on simulated fire in the sub-sea workshop. All personnel mustered at aft lifeboats.
First Aid	20 Oct 2004	2 Days	Were advised that seaman aboard Far Grip had piece of metal embedded in his knee. IP brought on board for examination by rig medic. Medic advised IP fit to return to normal duties and no need for medivac. IP returned to Far Grip.
Safety Meeting	17 Oct 2004	5 Days	Three safety meetings held (13:00, 19:00, 01:00). Attended by all crews. Martha-1 pre-spud presentation given by company reps.

Shakers, Volumes and Losses Data				Engineer : Jasdeep Singh			
Available	1794bbl	Losses	1840bbl	Equip.	Descr.	Mesh Size	Hours
Active	0bbl	Downhole	0bbl				
Mixing	0bbl	Surf+ Equip	0bbl				
Hole	464.0bbl	Dumped	25.0bbl				
Slug	0bbl	De-Sander	0bbl				
Reserve	1330.0bbl	De-Silter	0bbl				
Kill	0bbl	Centrifuge	0bbl				
		Sweeps	1815.0bbl				

Marine										
Weather check on 22 Oct 2004 at 24:00							Rig Support			
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period	Anchors	Tension (klb)	
0.10nm	4.0kn	000deg	1006bar	14.0C°	0m	000deg	0ft/sec	1	207.0	
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments				
0.3deg	0.3deg	2.00m	1.0m	230deg	0ft/sec					
Rig Dir.	Ris. Tension	VDL	Comments							
45.0deg	0klb	4868.0klb								
								2	185.0	
								3	203.0	
								4	201.0	
								5	207.0	
								6	205.0	
								7	205.0	
								8	198.0	

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Far Grip			At standby waiting for fog to lift before coming alongside for backload/unload.	Item	Unit	Quantity
				Cement	MT	36
				Gel	MT	42
				Barite	MT	0
				Potable Water	M3	95
				Drill Water	M3	0
Pacific Wrangler			Steaming to the rig with Sperry MWD container. ETA 04:00 23rd October. Bulks TBA.	Item	Unit	Quantity
				Gel	MT	0
				Barite	MT	0
				Potable Water	M3	0
				Drill Water	M3	0
				Fuel	M3	0
				Cement	MT	0

Helicopter Movement				
Flight #	Time	Destination	Comment	Pax
1	10:54	Ocean Patriot	Call sign: BHQ	8
1	11:00	Essendon		5

From : Nigel Walters
OIM : Sean De Freitas

Well Data

Country	Australia	M. Depth	628.0m	Cur. Hole Size	17.500in	AFE Cost	
Field		TVD	628.0m	Casing OD	20.000in	AFE No.	5736086
Drill Co.	DOGC	Progress	114.0m	Shoe TVD	121.0m	Daily Cost	
Rig	Ocean Patriot	Days from spud	3.04	F.I.T. / L.O.T.	0ppg / 0ppg	Cum Cost	
Wtr Dpth(LAT)	54.7m	Days on well	6.46			Planned TD	1878.0m
RT-ASL(LAT)	21.5m	Current Op @ 0600	Cementing 13 3/8" casing.				
RT-ML	76.2m	Planned Op	Cement 13 3/8" casing, lay out running tool and cementing head. Begin running BOP and riser.				

Summary of Period 0000 to 2400 Hrs

Drilled to TD in 17 1/2" hole. Displaced hole to hi-vis mud. Pulled out of the hole and handled 17 1/2" BHA. Rigged up to run 13 3/8" casing. Began running 13 3/8" casing.

Operations For Period 0000 Hrs to 2400 Hrs on 23 Oct 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	DA	0000	0445	4.75	628.0m	Continued to drill ahead in 17 1/2" hole from 514 m to TD at 628 m. Took Anderdrift surveys at every connection and spotted 100 bbl hi-vis around BHA on connections.
IH	P	CHC	0445	0600	1.25	628.0m	Swept hole with 150 bbl of PHG. Displaced hole with 830 bbls PHG mud.
IH	P	TO	0600	0830	2.50	628.0m	Pulled out of the hole from 628 m to 265 m working string through tight spots (maximum overpull 80k).
IH	P	HT	0830	1200	3.50	628.0m	Continued to pull out of the hole with BHA from 265 m, jetting the wellhead on the way out. Laid out crossover, stabilizer, pony drill collar, Anderdrift, bit sub and 17 1/2" bit.
IH	P	HT	1200	1400	2.00	628.0m	Broke out 18 3/4" housing running tool from HWDP racked in derrick, made up 20' pup joint on top of running tool and 1 joint HWDP below with Deep Sea Express crossover and plug launcher. Laid down same with crane.
IC	P	RRC	1400	1500	1.00	628.0m	Rigged up to run 13 3/8" casing.
IC	P	CRN	1500	1630	1.50	628.0m	Made up float assembly and ran in the hole with same installing centralizers per the program.
IC	TP (PR)	CRN	1630	1730	1.00	628.0m	While making up casing, the open side door elevators contacted the spinning casing, causing them to rotate and the bails to become jammed in Topdrive. Resolved problem.
IC	P	CRN	1730	2000	2.50	628.0m	Ran 13 3/8" casing installing centralizers per the program.
IC	P	RRC	2000	2200	2.00	628.0m	Rigged down manual casing handling equipment and rigged up 500 ton air elevators and slips and TAM packer. Tested TAM packer, OK.
IC	P	CRN	2200	2400	2.00	628.0m	Ran 13 3/8" casing.

Operations For Period 0000 Hrs to 0600 Hrs on 24 Oct 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IC	P	CRN	0000	0130	1.50	628.0m	Continued to run 13 3/8" casing from 294 m to 523 m.
IC	P	RRC	0130	0230	1.00	628.0m	Picked up cross over joint and removed 500 ton spider slips. Rigged down spider elevators, 500 ton bails and TAM packer.
IC	P	CRN	0230	0330	1.00	628.0m	Picked up 18 3/4" wellhead housing joint. Picked up 18 3/4" CART with Deepsea Express plug launcher below and installed Dowell plug basket.
IC	P	CRN	0330	0430	1.00	628.0m	Made up 18 3/4" wellhead housing joint and continued to run in the hole with casing on HWDP landing string.
IC	TP (VE)	RUC	0430	0530	1.00	628.0m	Picked up cement head and nipped up cement hose. Attempted to make up TDS to cement stand. Swivel on cement head not turning, nipped down cement hose.
IC	P	CRN	0530	0600	0.50	628.0m	Made up TDS to cement stand and landed out in 30" housing. Confirmed latch with 100k overpull.

Phase Data to 2400hrs, 23 Oct 2004

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
PRESPUD(PS)	82	17 Oct 2004	20 Oct 2004	82.00	3.417 days	0m
SURFACE HOLE(SH)	14.5	20 Oct 2004	21 Oct 2004	96.50	4.021 days	122.5m
INTERMEDIATE HOLE(IH)	48.5	21 Oct 2004	23 Oct 2004	145.00	6.042 days	628.0m
INTERMEDIATE CASING(IC)	10	23 Oct 2004	23 Oct 2004	155.00	6.458 days	628.0m

WBM Data									
Mud Type:	Hi-vis sweeps	API FL:	16cm ³ /30m	Cl:	300	Solids:	4	Viscosity:	110sec/qt
Sample-From:	Pit 5	Filter-Cake:	2/32nd"	K+C*1000:	0%	H2O:	96%	PV:	10cp
Time:	20:00	HTHP-FL:	0cm ³ /30m	Hard/Ca:	60	Oil:	0%	YP:	35lb/100ft ²
Weight:	8.80ppg	HTHP-Cake:	0/32nd"	MBT:	30	Sand:	0	Gels 10s:	20
Temp:	15.6C°			PM:	0	pH:	9.5	Gels 10m:	27
				PF:	0.3	PHPA:	Oppb	Fann 003:	27
								Fann 006:	28
								Fann 100:	35
								Fann 200:	41
								Fann 300:	45
								Fann 600:	55

Bit # 2				Wear	I	O1	D	L	B	G	O2	R
					1	1	WT	A	E	I	NO	TD
Size ("):	17.50in	IADC#	1-1-5	Nozzles		Drilled over last 24 hrs			Calculated over Bit Run			
Mfr:	SMITH	WOB(avg)	15.0klb	No.	Size	Progress	114.0m	Cum. Progress	505.5m			
Type:	Rock	RPM(avg)	140	1	20/32nd"	On Bottom Hrs	3.60h	Cum. On Btm Hrs	20.00h			
Serial No.:	MR5734	F.Rate	1020gpm	3	22/32nd"	IADC Drill Hrs	3.60h	Cum IADC Drill Hrs	20.00h			
Bit Model	XRTC	SPP	2100psi			Total Revs	252000	Cum Total Revs	453000			
Depth In	122.5m	TFA	1.420			ROP(avg)	31.67 m/hr	ROP(avg)	25.27 m/hr			
Depth Out	628.0m											

BHA # 2						
Weight(Wet)	57.0klb	Length	152.1m	Torque(max)	3200ft-lbs	D.C. (1) Ann Velocity
Wt Below Jar(Wet)	55.0klb	String	55.0klb	Torque(Off.Btm)	1000ft-lbs	D.C. (2) Ann Velocity
		Pick-Up	120.0klb	Torque(On.Btm)	2800ft-lbs	H.W.D.P. Ann Velocity
		Slack-Off	120.0klb			D.P. Ann Velocity

BHA Run Description 17 1/2" bit, float sub with solid float, 9 1/2" anderdrift, 9 1/2" short DC, 17 1/2" stab, 9 1/2" DC, 17 1/2" stab, 2 x 9 1/2" DC, XO, 6 x 8" DCs, 8" Jar, 3 x 8" DC, Accelerator, 8" DC

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.45m	17.50in	0in	MR5734	
Float Sub	1.03m	9.44in	0in	186-0028	Solid float installed
9.5in Anderdrift	2.74m	9.50in	0in	AD995	Totco ring on top
9.5in Pony Drill Collar	3.58m	9.50in	3.00in	502A22	
17.5in String Stabiliser	1.94m	17.50in	3.00in	207A75	
9.5in DC	9.20m	9.50in	3.06in	00-006	
17.5in String Stabiliser	2.31m	17.50in	3.00in	207A212	
9.5in DC	9.13m	9.50in	3.00in	00-004	
9.5in DC	9.35m	9.50in	3.00in	00-005	
X/O	0.94m	8.00in	3.13in	186-0035	7 5/8" Reg pin X 6 5/8" Reg box.
8in DC	54.78m	8.00in	3.00in	Various	
8in Hydraulic Jars	9.95m	8.00in	3.00in	83460C	
8in DC	27.09m	8.00in	3.00in	Various	
Jar Accel.	10.39m	8.25in	3.00in	186-0011	
8in DC	9.22m	8.00in	3.00in	Various	
X/O	1.13m	8.00in	2.81in	186-0011	6 5/8 Reg x 4 1/2 IF

Survey								
MD (m)	Incl Deg (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
550.00	0	0	0	0	0	0	0	Anderdrift
579.00	0	0	0	0	0	0	0	Anderdrift
608.00	0.50	0	0	0	0	0	0	Anderdrift
628.00	0.50	0	0	0	0	0	0	Anderdrift

Bulk Stocks						Personnel On Board	
Name	Unit	In	Used	Adjust	Balance	Company	Pax
Fuel	M3	200	14.8	0	461.0	DOGC	48
Drill Water	MT	0	168	0	150.4	Santos	4
Potable Water	MT	29	29.3	0	212.0	Total Marine Catering	8
Gel	sx	0	168	0	419.0	Fugro	4
Cement	sx	844	0	0	2,594.0	Sperry-Sun	4
Barite	sx	0	0	0	1,156.0	M.I	2
						Dowell	2
						Cameron	2
						Liebher	1
						Baker Atlas	2
						Weatherford	3
						Sperry-Sun	2
						Total	82

Pumps																	
Pump Data - Last 24 Hrs								Slow Pump Data									
No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)	Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
1	A1700	6.00	8.80	98	84	2100	345	0	0	0	0	0	0	0	0	0	0
2	12P-160	6.00	8.80	98	84	2100	345	0	0	0	0	0	0	0	0	0	0
3	12P-160	6.00	8.80	98	84	2100	345	0	0	0	0	0	0	0	0	0	0

Casing			
OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	0ppg / 0ppg	121.0m / 121.0m	

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	18 Oct 2004	5 Days	Fire and abandon rig drill held based on simulated fire in the sub-sea workshop. All personnel mustered at aft lifeboats.
First Aid	20 Oct 2004	3 Days	Were advised that seaman aboard Far Grip had piece of metal embedded in his knee. IP brought on board for examination by rig medic. Medic advised IP fit to return to normal duties and no need for medivac. IP returned to Far Grip.
Safety Meeting	17 Oct 2004	6 Days	Three safety meetings held (13:00, 19:00, 01:00). Attended by all crews. Martha-1 pre-spud presentation given by company reps.

Shakers, Volumes and Losses Data				Engineer : Jasdeep Singh			
Available	540bbl	Losses	1505bbl	Equip.	Descr.	Mesh Size	Hours
Active	0bbl	Downhole	190.0bbl				
Mixing	0bbl	Surf+ Equip	0bbl				
Hole	0bbl	Dumped	0bbl				
Slug	0bbl	De-Sander	0bbl				
Reserve	540.0bbl	De-Silter	0bbl				
Kill	0bbl	Centrifuge	0bbl				
		Sweeps	1315.0bbl				

Marine								Rig Support		
Weather check on 23 Oct 2004 at 24:00										
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period	Anchors	Tension (klb)	
9.00nm	15.0kn	200deg	1012bar	12.0C°	1.0m	200deg	0ft/sec	1	207.0	
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments				
0.3deg	0.3deg	1.00m	1.0m	260deg	0ft/sec					
Rig Dir.	Ris. Tension	VDL	Comments							
45.0deg	0klb	4662.0klb								
								1	207.0	
								2	190.0	
								2	185.0	
								3	205.0	
								3	203.0	
								4	203.0	
								4	201.0	
								5	203.0	
								5	207.0	
								6	198.0	
								6	205.0	
								7	203.0	
								7	205.0	
								8	198.0	
								8	198.0	

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Far Grip			At standby on location.	Item	Unit	Quantity
				Fuel	M3	451
				Drill Water	M3	0
				Potable Water	M3	90
				Barite	MT	0
				Gel	MT	42
Pacific Wrangler	19:15		At standby on location.	Item	Unit	Quantity
				Fuel	M3	491
				Drill Water	M3	292
				Potable Water	M3	431
				Barite	MT	85
				Gel	MT	0
				Cement	MT	0

Helicopter Movement					
Flight #	Time	Destination	Comment	Pax	
1	10:54	Ocean Patriot	Call sign: BHQ	8	
1	11:00	Essendon		5	

From : Nigel Walters
OIM : Sean De Freitas

Well Data

Country	Australia	M. Depth	628.0m	Cur. Hole Size	17.500in	AFE Cost	
Field		TVD	628.0m	Casing OD	13.375in	AFE No.	5736086
Drill Co.	DOGC	Progress	0m	Shoe TVD	620.8m	Daily Cost	
Rig	Ocean Patriot	Days from spud	4.04	F.I.T. / L.O.T.	0ppg / 0ppg	Cum Cost	
Wtr Dpth(LAT)	54.7m	Days on well	7.46			Planned TD	1878.0m
RT-ASL(LAT)	21.5m	Current Op @ 0600	Picking up drill pipe.				
RT-ML	76.2m	Planned Op	Run in the hole with 12 1/4" BHA, drill out shoe, perform LOT, drill ahead in 12 1/4" hole.				

Summary of Period 0000 to 2400 Hrs

Continued running 13 3/8" casing. Landed 18 3/4" housing. Cemented casing and commenced running BOP and riser.

Operations For Period 0000 Hrs to 2400 Hrs on 24 Oct 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IC	P	CRN	0000	0130	1.50	628.0m	Continued to run 13 3/8" casing from 294 m to 523 m.
IC	P	RRC	0130	0230	1.00	628.0m	Picked up cross over joint and removed 500 ton spider slips. Rigged down spider elevators, 500 ton bails and TAM packer.
IC	P	CRN	0230	0330	1.00	628.0m	Picked up 18 3/4" wellhead housing joint. Picked up 18 3/4" CART with Deepsea Express plug launcher below and installed Dowell plug basket.
IC	P	CRN	0330	0430	1.00	628.0m	Made up 18 3/4" wellhead housing joint and continued to run in the hole with casing on HWDP landing string.
IC	TP (VE)	RUC	0430	0530	1.00	628.0m	Picked up cement head and nipped up cement hose. Attempted to make up TDS to cement stand. Swivel on cement head not turning, nipped down cement hose.
IC	P	CRN	0530	0600	0.50	628.0m	Made up TDS to cement stand and landed out in 30" housing. Confirmed latch with 100k overpull. 13 3/8" casing shoe set at 620.76 m.
IC	P	RUC	0600	0630	0.50	628.0m	Nipped up surface cement hose and pressure tested same to 3,000 psi - OK.
IC	TP (VE)	CMC	0630	0800	1.50	628.0m	Dowell attempted to commence cement job however cement surge tank actuator valve was blocked with hard cement. Retified same.
IC	P	CMC	0800	1130	3.50	628.0m	Dowell pumped 322 bbl 12.5 ppg class G lead slurry and 189 bbl 15.8 ppg class G tail slurry and displaced with 258 bbl seawater. Bumped plug, pressured up to 1,500 psi (~700 psi above bump pressure) - good test. Bled off, 2.5 bbl returned - floats held. Nipped down cement hose.
IC	P	HT	1130	1330	2.00	628.0m	Backed out CART and pulled out of the hole jetting wellhead on the way out. Laid out CART and Deepsea Express launcher assembly. Laid down Deepsea Express cement head and cement stand used for 30" casing.
IC	P	BOP	1330	1530	2.00	628.0m	Rigged up to run BOP and riser.
IC	P	BOP	1530	1730	2.00	628.0m	Held JSA, picked up riser double and stack. Installed guide lines, pod clamps and beacon.
IC	P	BOP	1730	1800	0.50	628.0m	Tested choke and kill lines on riser to 250 psi for 5 mins and 3,000 psi for 15 mins. Good tests.
IC	P	BOP	1800	2030	2.50	628.0m	Picked up slip joint and landing joint.
IC	P	BOP	2030	2300	2.50	628.0m	Nipped up choke, kill and booster lines to slip joint.
IC	P	BOP	2300	2400	1.00	628.0m	Tested choke and kill lines with goosenecks to 250 psi for 5 mins and 3,000 psi for 15 mins. Good tests.

Operations For Period 0000 Hrs to 0600 Hrs on 25 Oct 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IC	P	BOP	0000	0130	1.50	628.0m	Latched onto SDL ring and installed storm loops in pod hoses.
IC	P	BOP	0130	0230	1.00	628.0m	Centred rig over the well.
IC	P	BOP	0230	0400	1.50	628.0m	Landed BOP and confirmed latch with 50k overpull. Unlocked and stroked out slip joint. Laid out riser landing joint.
IC	P	BOP	0400	0600	2.00	628.0m	Picked up and installed diverter. Laid out running tool. Serviced slip joint and greased same.

Phase Data to 2400hrs, 24 Oct 2004

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
PRESPOD(P)	82	17 Oct 2004	20 Oct 2004	82.00	3.417 days	0m
SURFACE HOLE(SH)	14.5	20 Oct 2004	21 Oct 2004	96.50	4.021 days	122.5m
INTERMEDIATE HOLE(IH)	48.5	21 Oct 2004	23 Oct 2004	145.00	6.042 days	628.0m
INTERMEDIATE CASING(IC)	34	23 Oct 2004	24 Oct 2004	179.00	7.458 days	628.0m

WBM Data									
Mud Type:	KCL/Polymer	API FL:	11cm³/30m	Cl:	30000	Solids:	1	Viscosity:	56sec/qt
Sample-From:	Pit 4	Filter-Cake:	1/32nd"	K+C*1000:	6%	H2O:	99%	PV:	17cp
Time:	22:00	HTHP-FL:	0cm³/30m	Hard/Ca:	240	Oil:	0%	YP:	12lb/100ft²
Weight:	8.80ppg	HTHP-Cake:	0/32nd"	MBT:	2	Sand:	0	Gels 10s:	2
Temp:	12.2C°			PM:	0	pH:	9.2	Gels 10m:	2
				PF:	0.15	PHPA:	Oppb	Fann 003:	1
								Fann 006:	2
								Fann 100:	14
								Fann 200:	22
								Fann 300:	29
								Fann 600:	46

Survey								
MD (m)	Incl Deg (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
550.00	0	0	0	0	0	0	0	Anderdrift
579.00	0	0	0	0	0	0	0	Anderdrift
608.00	0.50	0	0	0	0	0	0	Anderdrift
628.00	0.50	0	0	0	0	0	0	Anderdrift

Bulk Stocks						Personnel On Board		
Name	Unit	In	Used	Adjust	Balance	Company		Pax
Fuel	M3	0	8.9	0	452.1	DOGC		47
Drill Water	MT	568	207.4	0	511.0	Santos		4
Potable Water	MT	16	17.3	0	210.7	Total Marine Catering		8
Gel	sx	0	0	0	419.0	Fugro		4
Cement	sx	0	1632	0	962.0	Sperry-Sun		6
Barite	sx	0	0	0	1,156.0	M.I		2
						Dowell		2
						Baker Atlas		5
						Sperry-Sun		2
							Total	80

Pumps																	
Pump Data - Last 24 Hrs								Slow Pump Data									
No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)	Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
1	A1700	6.00	0	98	0	0	0	0	0	0	0	0	0	0	0	0	0
2	12P-160	6.00	0	98	0	0	0	0	0	0	0	0	0	0	0	0	0
3	12P-160	6.00	0	98	0	0	0	0	0	0	0	0	0	0	0	0	0

Casing			
OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	0ppg / 0ppg	121.0m / 121.0m	
13 3/8"	0ppg / 0ppg	620.8m / 620.8m	

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	24 Oct 2004	0 Days	Fire and abandon rig drill held based on simulated fire in the paint locker. All personnel mustered at forward lifeboats.
First Aid	20 Oct 2004	4 Days	Were advised that seaman aboard Far Grip had piece of metal embedded in his knee. IP brought on board for examination by rig medic. Medic advised IP fit to return to normal duties and no need for medivac. IP returned to Far Grip.
Safety Meeting	24 Oct 2004	0 Days	Three safety meetings held (13:00, 19:00, 01:00). Attended by all crews.

Shakers, Volumes and Losses Data				Engineer : Jasdeep Singh			
Available	1160bbl	Losses	150bbl	Equip.	Descr.	Mesh Size	Hours
Active	0bbl	Downhole	0bbl				
Mixing	0bbl	Surf+ Equip	0bbl				
Hole	0bbl	Dumped	0bbl				
Slug	0bbl	De-Sander	0bbl				
Reserve	1160.0bbl	De-Silter	0bbl				
Kill	0bbl	Centrifuge	0bbl				
		Casing Fill-up	150.0bbl				

Marine										
Weather check on 24 Oct 2004 at 24:00							Rig Support			
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period	Anchors	Tension (klb)	
10.00nm	5.0kn	225deg	1018bar	12.0C°	0.5m	225deg	0ft/sec	1	207.0	
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments		2	190.0	
0.3deg	0.3deg	1.00m	1.5m	225deg	0ft/sec			3	203.0	
Rig Dir.	Ris. Tension	VDL	Comments					4	207.0	
45.0deg	0klb	4869.0klb						5	207.0	
									6	203.0
									7	205.0
									8	203.0

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Far Grip			At standby on location, trouble shooting vessel's anchor chain problem.	Item	Unit	Quantity
				Gel	MT	42
				Barite	MT	0
				Potable Water	M3	85
				Drill Water	M3	0
				Fuel	M3	446
Cement	MT	0				
Pacific Wrangler			At close standby on location (men working in moonpool).	Item	Unit	Quantity
				Gel	MT	0
				Barite	MT	85
				Potable Water	M3	151
				Drill Water	M3	0
				Fuel	M3	479.8
Cement	MT	0				

Helicopter Movement					
Flight #	Time	Destination	Comment	Pax	
1	14:25	Ocean Patriot		6	
1	14:35	Essendon		8	

From : Nigel Walters
OIM : Sean De Freitas

Well Data

Country	Australia	M. Depth	628.0m	Cur. Hole Size	17.500in	AFE Cost	
Field		TVD	628.0m	Casing OD	13.375in	AFE No.	5736086
Drill Co.	DOGC	Progress	0m	Shoe TVD	620.8m	Daily Cost	
Rig	Ocean Patriot	Days from spud	5.04	F.I.T. / L.O.T.	0ppg / 0ppg	Cum Cost	
Wtr Dpth(LAT)	54.7m	Days on well	8.46			Planned TD	1878.0m
RT-ASL(LAT)	21.5m	Current Op @ 0600		Drilling out shoe track.			
RT-ML	76.2m	Planned Op		Drill ahead in 12 1/4" hole.			

Summary of Period 0000 to 2400 Hrs

Ran BOP and riser. Picked up and racked back pipe. Picked up 12 1/4" BHA. Ran in the hole.

Operations For Period 0000 Hrs to 2400 Hrs on 25 Oct 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IC	P	BOP	0000	0130	1.50	628.0m	Latched onto riser tensioner ring and installed storm loops in pod hoses.
IC	P	BOP	0130	0230	1.00	628.0m	Centred rig over the well.
IC	P	BOP	0230	0400	1.50	628.0m	Landed BOP and confirmed latch with 50k overpull. Unlocked and stroked out slip joint. Laid out riser landing joint.
IC	P	BOP	0400	0530	1.50	628.0m	Picked up and installed diverter. Laid out running tool. Serviced slip joint and greased same.
IC	P	BOP	0530	0600	0.50	628.0m	Nipple down riser handling equipment
IC	P	HBHA	0600	0800	2.00	628.0m	Lay out 17 1/2" BHA from derrick
IC	P	PUP	0800	1500	7.00	628.0m	Pick up 96 joints of 5" S-135 DP (32 stands) from deck and rack in derrick. All pipe drifted with 2 5/8" rabbit
IC	P	BOP	1500	1530	0.50	628.0m	Function test diverter system and pump through port and stbd diverter lines - all OK
IC	P	PUP	1530	1600	0.50	628.0m	Continue to rack back 5" DP in derrick
IC	P	HBHA	1600	2300	7.00	628.0m	P/U 12 1/4" BHA. Drift all components with 2 5/8" rabbit. Shallow test MWD - OK
IC	P	PUP	2300	2400	1.00	628.0m	P/U 5" S-135 DP as RIH with 12 1/4" BHA. Drift all pipe with 2 5/8" rabbit

Operations For Period 0000 Hrs to 0600 Hrs on 26 Oct 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IC	P	PUP	0000	0100	1.00	628.0m	Continued to pick up 5" drill pipe and ran in hole from 325 m to 440 m.
IC	P	BOP	0100	0300	2.00	628.0m	Function test BOP with blue pod from drill floor remote panel. Pressure tested BOP connector and casing to 200 psi for 5 mins and 3,000 psi for 30 mins. Conducted second function test with yellow pod and accumulator test.
IC	P	PUP	0300	0330	0.50	628.0m	Continued to pick up 5" drill pipe and ran in the hole from 440 m to 546 m.
IC	P	RW	0330	0400	0.50	628.0m	Broke circulation and washed down from 546 m. Tagged top of cement at 570 m.
PH	P	DA	0400	0600	2.00	628.0m	Drilled out DS plugs in ~15 mins. Cleaned out shoe track and rat hole from 570 m to 594 m.

Phase Data to 2400hrs, 25 Oct 2004

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
PRESPOD(PS)	82	17 Oct 2004	20 Oct 2004	82.00	3.417 days	0m
SURFACE HOLE(SH)	14.5	20 Oct 2004	21 Oct 2004	96.50	4.021 days	122.5m
INTERMEDIATE HOLE(IH)	48.5	21 Oct 2004	23 Oct 2004	145.00	6.042 days	628.0m
INTERMEDIATE CASING(IC)	58	23 Oct 2004	25 Oct 2004	203.00	8.458 days	628.0m

WBM Data

Mud Type:	KCL/Polymer	API FL:	9cm³/30m	Cl:	37500	Solids:	1	Viscosity:	45sec/qt
Sample-From:	Pit 4	Filter-Cake:	1/32nd"	K+C*1000:	7.5%	H2O:	99%	PV:	11cp
Time:	22:00	HTHP-FL:	0cm³/30m	Hard/Ca:	200	Oil:	0%	YP:	11lb/100ft²
Weight:	8.90ppg	HTHP-Cake:	0/32nd"	MBT:	3	Sand:	0	Gels 10s:	3
Temp:	12.2C°			PM:	0.15	pH:	9.5	Gels 10m:	3
				PF:	0.25	PHPA:	1ppb	Fann 003:	2
								Fann 006:	3
								Fann 100:	12
								Fann 200:	18
								Fann 300:	22
								Fann 600:	33

Bit # 3				Wear	I	O1	D	L	B	G	O2	R	
Size ("):	12.25in	IADC#	4-3-7	Nozzles			Drilled over last 24 hrs			Calculated over Bit Run			
Mfr:	REED	WOB(avg)	0klb	No.	Size	Progress		0m	Cum. Progress			0m	
Type:	Rock	RPM(avg)	0	3	20/32nd"	On Bottom Hrs		0h	Cum. On Btm Hrs			0h	
Serial No.:	MI6694	F.Rate	0gpm				IADC Drill Hrs		0h	Cum IADC Drill Hrs			0h
Bit Model	TD43HKPRDH	SPP	0psi				Total Revs		0	Cum Total Revs			0
Depth In	628.0m	TFA	0.920				ROP(avg)		N/A	ROP(avg)			0.00 m/hr
Depth Out	0m												

BHA # 3						
Weight(Wet)	92.0klb	Length	288.5m	Torque(max)	3ft-lbs	D.C. (1) Ann Velocity
Wt Below Jar(Wet)	54.0klb	String	0klb	Torque(Off.Btm)	1ft-lbs	D.C. (2) Ann Velocity
		Pick-Up	0klb	Torque(On.Btm)	3ft-lbs	H.W.D.P. Ann Velocity
		Slack-Off	0klb			D.P. Ann Velocity

BHA Run Description TCI bit, near bit roller reamer, FEWD, PM, Pulser, 15 x 8" DCs, Roller reamer, jars, accellerator, crossover, HWDP

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.35m	12.25in	0in	M16694	TCI
12.25in Roller Reamer	2.16m	12.25in	3.00in	XM025	
MWD Tools	8.32m	8.00in	1.92in	V8	FEWD
MWD Tools	2.77m	8.13in	1.92in	M8	PM
MWD Tools	3.12m	8.13in	1.92in	10635109	Pulsar
8in DC	135.47m	8.00in	3.00in	Various	
8in Hydraulic Jars	9.95m	8.00in	3.00in	83460C	
Jar Accel.	10.39m	8.25in	3.00in	E71375	
X/O	1.13m	8.00in	3.00in	186-011	
5in HWDP	112.33m	5.00in	3.00in	Various	

MD (m)	Incl Deg (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
550.00	0	0	0	0	0	0	0	Anderdrift
579.00	0	0	0	0	0	0	0	Anderdrift
608.00	0.50	0	0	0	0	0	0	Anderdrift
628.00	0.50	0	0	0	0	0	0	Anderdrift

Bulk Stocks						Personnel On Board		
Name	Unit	In	Used	Adjust	Balance	Company		Pax
Fuel	M3	0	8.3	0	443.8	DOGC		47
Drill Water	MT	0	0	0	511.0	Santos		4
Potable Water	MT	14	14	0	210.7	Total Marine Catering		8
Gel	sx	0	0	0	419.0	Fugro		4
Cement	sx	0	0	0	962.0	Sperry-Sun		6
Barite	sx	0	0	0	1,156.0	M.I		2
						Dowell		2
						Baker Atlas		5
						Sperry-Sun		2
Total								80

Pumps																	
Pump Data - Last 24 Hrs								Slow Pump Data									
No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)	Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
1	A1700	6.00	0	98	0	0	0	0	0	0	0	0	0	0	0	0	0
2	12P-160	6.00	0	98	0	0	0	0	0	0	0	0	0	0	0	0	0
3	12P-160	6.00	0	98	0	0	0	0	0	0	0	0	0	0	0	0	0

Casing			
OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	Oppg / Oppg	121.0m / 121.0m	
13 3/8"	Oppg / Oppg	620.8m / 620.8m	

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	24 Oct 2004	1 Day	Fire and abandon rig drill held based on simulated fire in the paint locker. All personnel mustered at forward lifeboats.
First Aid	20 Oct 2004	5 Days	Were advised that seaman aboard Far Grip had piece of metal embedded in his knee. IP brought on board for examination by rig medic. Medic advised IP fit to return to normal duties and no need for medivac. IP returned to Far Grip.
Safety Meeting	24 Oct 2004	1 Day	Three safety meetings held (13:00, 19:00, 01:00). Attended by all crews.

Shakers, Volumes and Losses Data				Engineer : Jasdeep Singh			
Available	1760bbl	Losses	Obbl	Equip.	Descr.	Mesh Size	Hours
Active	0bbl	Downhole	0bbl	Shaker 1	VSM 100	4 x 105	0
Mixing	0bbl	Surf+ Equip	0bbl	Shaker 2	VSM 100	4 x 105	0
Hole	0bbl	Dumped	0bbl	Shaker 3	VSM 100	4 x 105	0
Slug	0bbl	De-Sander	0bbl	Shaker 4	VSM 100	4 x 105	0
Reserve	1760.0bbl	De-Silter	0bbl				
Kill	0bbl	Centrifuge	0bbl				

Marine									
Weather check on 25 Oct 2004 at 24:00							Rig Support		
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period	Anchors	Tension (klb)
10.00nm	10.0kn	045deg	1015bar	16.0C°	0.5m	045deg	0ft/sec	1	203.0
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments		2	190.0
0.3deg	0.3deg	1.00m	2.0m	045deg	0ft/sec	Mainly Cloudy		3	203.0
Rig Dir.	Ris. Tension	VDL	Comments		4			201.0	
45.0deg	254.0klb	4257.0klb			5			198.0	
								6	203.0
								7	207.0
								8	203.0

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Far Grip			Alongside being backloaded before departure to Portland.	Item	Unit	Quantity
				Fuel	M3	435
				Drill Water	M3	0
				Potable Water	M3	80
				Barite	MT	0
				Gel	MT	42
				Cement	MT	0
Pacific Wrangler	24:00		At standby on location.	Item	Unit	Quantity
				Cement	MT	0
				Fuel	M3	470
				Drill Water	M3	0
				Potable Water	M3	147
				Barite	MT	85
				Gel	MT	0

From : Nigel Walters, Steve Hodgetts
OIM : Sean De Freitas

Well Data

Country	Australia	M. Depth	868.0m	Cur. Hole Size	12.250in	AFE Cost	
Field		TVD	868.0m	Casing OD	13.375in	AFE No.	5736086
Drill Co.	DOGC	Progress	238.0m	Shoe TVD	620.8m	Daily Cost	
Rig	Ocean Patriot	Days from spud	6.04	F.I.T. / L.O.T.	0ppg / 21.60ppg	Cum Cost	
Wtr Dpth(LAT)	54.7m	Days on well	9.46			Planned TD	1878.0m
RT-ASL(LAT)	21.5m	Current Op @ 0600	Drilling ahead in 12 1/4" hole.				
RT-ML	76.2m	Planned Op	Drill ahead in 12 1/4" hole, drilling through Pyrite at ~1200 m.				

Summary of Period 0000 to 2400 Hrs

Picked up drill pipe, tested BOP, drilled out shoe track, conducted LOT, drilled ahead in 12 1/4" hole.

Operations For Period 0000 Hrs to 2400 Hrs on 26 Oct 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IC	P	PUP	0000	0100	1.00	628.0m	Continued to pick up 5" drill pipe and ran in hole from 325 m to 440 m.
IC	P	BOP	0100	0300	2.00	628.0m	Function test BOP with blue pod from drill floor remote panel. Pressure tested BOP connector and casing to 200 psi for 5 mins and 3,000 psi for 30 mins. Conducted second function test with yellow pod and accumulator test.
IC	P	PUP	0300	0330	0.50	628.0m	Continued to pick up 5" drill pipe and ran in the hole from 440 m to 546 m.
IC	P	RW	0330	0400	0.50	628.0m	Broke circulation and washed down from 546 m. Tagged top of cement at 570 m.
PH	P	DA	0400	0630	2.50	628.0m	Drilled out DSE plugs in ~15 mins. Cleaned out shoe track and rat hole from 570 m to 628 m. Displaced well to 8.9 ppg KCL/Polymer/Glycol mud system while drilling shoe track.
PH	P	DA	0630	0700	0.50	631.0m	Drilled ahead in 12 1/4" hole from 628 m to 631 m.
PH	P	LOT	0700	0800	1.00	631.0m	Displaced lines and performed LOT with cement unit. LOT test at shoe equivalent to 21.6 ppg (2.60 SG) mud.
PH	TP (RE)	DA	0800	1030	2.50	631.0m	Shut down drilling due to electrical problem with main engine SCR's. Circulated using cement unit while rotating at slow rate.
PH	P	DA	1030	2330	13.00	868.0m	Continued drilling ahead in 12 1/4" hole from 631 m to 868 m, taking survey with MWD on connections.
PH	P	DA	2330	2400	0.50	868.0m	Continued drilling ahead in 12 1/4" hole at controlled rate due to excessive losses at shakers. Changed screens from 165 and 104 to 84 but problem remained. Approximately 800 bbl lost up to midnight.

Operations For Period 0000 Hrs to 0600 Hrs on 27 Oct 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PH	P	DA	0000	0230	2.50	888.0m	Continued to intermittantly control drill ahead in 12 1/4" hole from 868 m to 888 m due to excessive mud losses at shakers.
PH	P	DA	0230	0300	0.50	888.0m	Pumped 100 bbl hi-vis sweep and circulated out same.
PH	P	DA	0300	0400	1.00	888.0m	Circulated and consolidated mud resources and conditioned hole.
PH	P	DA	0400	0430	0.50	900.0m	Continued to intermittantly control drill in 12 1/4" hole from 888 m to 900 m due to excessive mud losses at shakers.
PH	P	DA	0430	0500	0.50	900.0m	Circulated and conditioned hole.
PH	P	DA	0500	0600	1.00	915.0m	Continued to intermittantly control drill in 12 1/4" hole from 900 m to 915 m due to excessive mud losses at shakers. Approximately 1080 bbl lost since midnight.

Phase Data to 2400hrs, 26 Oct 2004

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
PRESPUD(PS)	82	17 Oct 2004	20 Oct 2004	82.00	3.417 days	0m
SURFACE HOLE(SH)	14.5	20 Oct 2004	21 Oct 2004	96.50	4.021 days	122.5m
INTERMEDIATE HOLE(IH)	48.5	21 Oct 2004	23 Oct 2004	145.00	6.042 days	628.0m
INTERMEDIATE CASING(IC)	62	23 Oct 2004	26 Oct 2004	207.00	8.625 days	628.0m
PRODUCTION HOLE(PH)	20	26 Oct 2004	26 Oct 2004	227.00	9.458 days	868.0m

WBM Data									
Mud Type:	KCL/Polymer/Glycol	API FL:	8cm³/30m	Cl:	38000	Solids:	1	Viscosity:	47sec/qt
Sample-From:	Active	Filter-Cake:	1/32nd"	K+C*1000:	7.5%	H2O:	99%	PV:	15cp
Time:	16:00	HTHP-FL:	0cm³/30m	Hard/Ca:	200	Oil:	0%	YP:	18lb/100ft²
Weight:	9.00ppg	HTHP-Cake:	0/32nd"	MBT:	6.25	Sand:	0	Gels 10s:	6
Temp:	48.8C°			PM:	0	pH:	9.4	Gels 10m:	8
				PF:	0.2	PHPA:	Oppb	Fann 003:	5
								Fann 006:	8
								Fann 100:	21
								Fann 200:	28
								Fann 300:	33
								Fann 600:	48

Bit # 3				Wear	I	O1	D	L	B	G	O2	R
Size ("):	12.25in	IADC#	4-3-7	Nozzles		Drilled over last 24 hrs			Calculated over Bit Run			
Mfr:	REED	WOB(avg)	15.0klb	No.	Size	Progress	238.0m	Cum. Progress	238.0m			
Type:	Rock	RPM(avg)	62	3	20/32nd"	On Bottom Hrs	10.70h	Cum. On Btm Hrs	10.70h			
Serial No.:	M16694	F.Rate	950gpm			IADC Drill Hrs	10.70h	Cum IADC Drill Hrs	10.70h			
Bit Model	TD43HKPRDH	SPP	1850psi			Total Revs	118000	Cum Total Revs	118000			
Depth In	628.0m	TFA	0.920			ROP(avg)	22.24 m/hr	ROP(avg)	22.24 m/hr			
Depth Out	0m											

BHA # 3						
Weight(Wet)	92.0klb	Length	288.5m	Torque(max)	3ft-lbs	D.C. (1) Ann Velocity
Wt Below Jar(Wet)	54.0klb	String	0klb	Torque(Off.Btm)	1ft-lbs	D.C. (2) Ann Velocity
		Pick-Up	0klb	Torque(On.Btm)	3ft-lbs	H.W.D.P. Ann Velocity
		Slack-Off	0klb			D.P. Ann Velocity

BHA Run Description TCI bit, near bit roller reamer, FEWD, PM, Pulser, 15 x 8" DCs, Roller reamer, jars, accellerator, crossover, HWDP

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.35m	12.25in	0in	M16694	TCI
12.25in Roller Reamer	2.16m	12.25in	3.00in	XM025	
MWD Tools	8.32m	8.00in	1.92in	V8	FEWD
MWD Tools	2.77m	8.13in	1.92in	M8	PM
MWD Tools	3.12m	8.13in	1.92in	10635109	Pulser
8in DC	135.47m	8.00in	3.00in	Various	
8in Hydraulic Jars	9.95m	8.00in	3.00in	83460C	
Jar Accel.	10.39m	8.25in	3.00in	E71375	
X/O	1.13m	8.00in	3.00in	186-011	
5in HWDP	112.33m	5.00in	3.00in	Various	

Survey								
MD (m)	Incl Deg (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
672.92	0.36	121.62	0	0	0	0	0	MWD
731.00	0.56	135.36	0	0	0	0	0	MWD
759.74	0.35	171.41	0	0	0	0	0	MWD
846.09	0.12	248.92	0	0	0	0	0	MWD

Bulk Stocks						Personnel On Board	
Name	Unit	In	Used	Adjust	Balance	Company	Pax
Fuel	M3	100	17.7	0	526.1	DOGC	47
Drill Water	MT	0	216.7	0	294.3	Santos	5
Potable Water	MT	28	37.5	0	201.2	Total Marine Catering	8
Gel	sx	0	0	0	419.0	Fugro	2
Cement	sx	0	0	0	962.0	Sperry-Sun	6
Barite	sx	0	0	0	1,156.0	M.I	2
						Dowell	1
						Baker Atlas	4
						Sperry-Sun	2
						Total	77

Pumps																	
Pump Data - Last 24 Hrs								Slow Pump Data									
No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)	Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
1	A1700	6.00	9.00	98	70	1850	335	860.0	20	50	88	30	90	132	40	120	176
2	12P-160	6.00	9.00	98	75	1850	360	860.0	20	50	88	30	80	132	40	130	176
3	12P-160	6.00	9.00	98	75	1850	360	0	0	0	0	0	0	0	0	0	0

Casing			
OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	0ppg / 0ppg	121.0m / 121.0m	
13 3/8"	21.60ppg / 0ppg	620.8m / 620.8m	

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	24 Oct 2004	2 Days	Fire and abandon rig drill held based on simulated fire in the paint locker. All personnel mustered at forward lifeboats.
First Aid	20 Oct 2004	6 Days	Were advised that seaman aboard Far Grip had piece of metal embedded in his knee. IP brought on board for examination by rig medic. Medic advised IP fit to return to normal duties and no need for medivac. IP returned to Far Grip.
Safety Meeting	24 Oct 2004	2 Days	Three safety meetings held (13:00, 19:00, 01:00). Attended by all crews.

Shakers, Volumes and Losses Data				Engineer : Gordon Howie			
Available	1419bbl	Losses	1041bbl	Equip.	Descr.	Mesh Size	Hours
Active	504.0bbl	Downhole	0bbl	Shaker 1	VSM 100	4 x 84	18
Mixing	0bbl	Surf+ Equip	856bbl	Shaker 2	VSM 100	4 x 84	18
Hole	430.0bbl	Dumped	20.0bbl	Shaker 3	VSM 100	4 x 84	18
Slug	0bbl	De-Sander	0bbl	Shaker 4	VSM 100	4 x 84	18
Reserve	485.0bbl	De-Silter	0bbl				
Kill	0bbl	Centrifuge	0bbl				
		Sweeps	165.0bbl				

Marine									
Weather check on 26 Oct 2004 at 24:00							Rig Support		
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period	Anchors	Tension (klb)
5.00nm	20.0kn	135deg	1006bar	12.0C°	0.8m	135deg	0ft/sec	1	203.0
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments		2	190.0
0.3deg	0.3deg	1.00m	2.0m	225deg	0ft/sec			3	207.0
Rig Dir.	Ris. Tension	VDL	Comments					4	201.0
45.0deg	222.0klb	3753.0klb						5	198.0
								6	203.0
								7	207.0
								8	203.0

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Far Grip		00:55	Steaming to Martha-1 location from Portland with mud chemicals. Bulks TBA. ETA 08:30 27th October.	Item	Unit	Quantity
				Potable Water	M3	0
				Barite	MT	0
				Gel	MT	0
				Cement	MT	0
				Drill Water	M3	0
Pacific Wrangler			At standby on location.	Item	Unit	Quantity
				Barite	MT	85
				Gel	MT	0
				Potable Water	M3	143
				Fuel	M3	355.1
				Cement	MT	0
				Drill Water	M3	0

Helicopter Movement

Flight #	Time	Destination	Comment	Pax
1	15:13	Ocean Patriot	Call sign: BHI	6
1	15:21	Essendon		7
2	16:27	Ocean Patriot	Call sign: BHQ	6
2	16:41	Essendon		8

From : Nigel Walters, Steve Hodgetts
OIM : Sean De Freitas

Well Data

Country	Australia	M. Depth	1188.0m	Cur. Hole Size	12.250in	AFE Cost	
Field		TVD	1188.0m	Casing OD	13.375in	AFE No.	5736086
Drill Co.	DOGC	Progress	560.0m	Shoe TVD	620.8m	Daily Cost	
Rig	Ocean Patriot	Days from spud	7.04	F.I.T. / L.O.T.	0ppg / 21.60ppg	Cum Cost	
Wtr Dpth(LAT)	54.7m	Days on well	10.46			Planned TD	1878.0m
RT-ASL(LAT)	21.5m	Current Op @ 0600	Circulating bottoms up and preparing for bit trip.				
RT-ML	76.2m	Planned Op	Drill ahead to ~50m below pyrites. POOH & make bit change to PDC. RIH & drill ahead.				

Summary of Period 0000 to 2400 Hrs

Drilled 12.25" hole from 868 - 1,188m.

Formations

Name	Top (MD)	Top (TVD)	Comment

Operations For Period 0000 Hrs to 2400 Hrs on 27 Oct 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PH	P	DA	0000	0230	2.50	888.0m	Continued to intermittantly control drill ahead in 12 1/4" hole from 868 m to 888 m due to excessive mud losses at shakers. Flowchecked well at 877m, well static.
PH	P	CHC	0230	0300	0.50	888.0m	Pumped 100 bbl hi-vis sweep and circulated out same.
PH	P	CMD	0300	0400	1.00	888.0m	Circulated and consolidated mud resources and conditioned hole.
PH	P	DA	0400	0430	0.50	900.0m	Continued to intermittantly control drill in 12 1/4" hole from 888 m to 900 m due to excessive mud losses at shakers.
PH	P	CHC	0430	0500	0.50	900.0m	Circulated and conditioned hole.
PH	P	DA	0500	0600	1.00	915.0m	Continued to intermittantly control drill in 12 1/4" hole from 900 m to 915 m due to excessive mud losses at shakers. Approximately 1080 bbl lost since midnight.
PH	P	DA	0600	1200	6.00	994.0m	Continued drilling from 915m to 994m. Back reamed connections & took surveys with MWD. Circulation down to ~800gpm to reduce losses. Flowchecked well at 993m, well static.
PH	P	DA	1200	2100	9.00	1123.0m	Continued drilling from 994m to 1,123m. Max gas 4.9%.
PH	P	DA	2100	2400	3.00	1188.0m	Continued drilling from 1,123m to 1,188m with 2 x MP. Made repairs to suction module on #2 MP.

Operations For Period 0000 Hrs to 0600 Hrs on 28 Oct 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PH	P	DA	0000	0500	5.00	1262.0m	Continued drilling to 1,262m.
PH	P	CHC	0500	0530	0.50	1262.0m	Circulated bottoms up and prepared to pull out of hole for bit change.
PH	P	TO	0530	0600	0.50	1262.0m	POOH

Phase Data to 2400hrs, 27 Oct 2004

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
PRESPUD(PH)	82	17 Oct 2004	20 Oct 2004	82.00	3.417 days	0m
SURFACE HOLE(SH)	14.5	20 Oct 2004	21 Oct 2004	96.50	4.021 days	122.5m
INTERMEDIATE HOLE(IH)	48.5	21 Oct 2004	23 Oct 2004	145.00	6.042 days	628.0m
INTERMEDIATE CASING(IC)	62	23 Oct 2004	26 Oct 2004	207.00	8.625 days	628.0m
PRODUCTION HOLE(PH)	44	26 Oct 2004	27 Oct 2004	251.00	10.458 days	1188.0m

WBM Data									
Mud Type:	Glydril	API FL:	14cm³/30m	Cl:	14000	Solids:	2	Viscosity:	42sec/qt
Sample-From:	Flowline	Filter-Cake:	1/32nd"	K+C*1000:	0%	H2O:	98%	PV:	11 cp
Time:	22:00	HTHP-FL:	0cm³/30m	Hard/Ca:	1600	Oil:	0%	YP:	20lb/100ft²
Weight:	9.00ppg	HTHP-Cake:	0/32nd"	MBT:	3.5	Sand:	2	Gels 10s:	9
Temp:	38.8C°			PM:	0	pH:	8	Gels 10m:	10
				PF:	0	PHPA:	Oppb	Fann 003:	8
								Fann 006:	10
								Fann 100:	21
								Fann 200:	26
								Fann 300:	31
								Fann 600:	42
Comment: Mud rebuilt after surface losses.									

Bit # 3				Wear	I	O1	D	L	B	G	O2	R
Size ("):	12.25in	IADC#	4-3-7	Nozzles		Drilled over last 24 hrs			Calculated over Bit Run			
Mfr:	REED	WOB(avg)	20.0klb	No.	Size	Progress	560.0m	Cum. Progress	798.0m			
Type:	Rock	RPM(avg)	120	3	20/32nd"	On Bottom Hrs	19.50h	Cum. On Btm Hrs	30.20h			
Serial No.:	M16694	F.Rate	900gpm			IADC Drill Hrs	22.00h	Cum IADC Drill Hrs	32.70h			
Bit Model	TD43HKPRDH	SPP	2300psi			Total Revs	326000	Cum Total Revs	444000			
Depth In	628.0m	TFA	0.920			ROP(avg)	28.72 m/hr	ROP(avg)	26.42 m/hr			
Depth Out	0m											

BHA # 3						
Weight(Wet)	92.0klb	Length	288.5m	Torque(max)	3ft-lbs	D.C. (1) Ann Velocity
Wt Below Jar(Wet)	54.0klb	String	0klb	Torque(Off.Btm)	1ft-lbs	D.C. (2) Ann Velocity
		Pick-Up	0klb	Torque(On.Btm)	3ft-lbs	H.W.D.P. Ann Velocity
		Slack-Off	0klb			D.P. Ann Velocity

BHA Run Description: TCI bit, near bit roller reamer, FEWD, PM, Pulser, 15 x 8" DCs, Roller reamer, jars, accellerator, crossover, HWDP

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.35m	12.25in	0in	M16694	TCI
12.25in Roller Reamer	2.16m	12.25in	3.00in	XM025	
MWD Tools	8.32m	8.00in	1.92in	V8	FEWD
MWD Tools	2.77m	8.13in	1.92in	M8	PM
MWD Tools	3.12m	8.13in	1.92in	10635109	Pulsar
8in DC	135.47m	8.00in	3.00in	Various	
8in Hydraulic Jars	9.95m	8.00in	3.00in	83460C	
Jar Accel.	10.39m	8.25in	3.00in	E71375	
X/O	1.13m	8.00in	3.00in	186-011	
5in HWDP	112.33m	5.00in	3.00in	Various	

Survey								
MD (m)	Incl Deg (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
1075.51	2.33	211.04	1075.40	1.29	1.20	-0.93	-1.73	MWD
1104.15	2.36	211.11	1104.02	2.40	0.11	-1.94	-2.33	MWD
1132.60	2.43	210.35	1132.44	3.53	0.27	-2.96	-2.94	MWD
1161.23	2.65	210.29	1161.04	4.74	0.77	-4.05	-3.58	MWD

Bulk Stocks						Personnel On Board	
Name	Unit	In	Used	Adjust	Balance	Company	Pax
Fuel	M3	0	18.4	0	507.7	DOGC	47
Drill Water	MT	0	277	0	17.3	Santos	5
Potable Water	MT	33	33	0	201.2	Total Marine Catering	8
Gel	sx	0	44	0	375.0	Fugro	2
Cement	sx	0	0	0	962.0	Sperry-Sun	6
Barite	sx	0	0	0	1,156.0	M.I	2
						Dowell	1
						Baker Atlas	7
						Sperry-Sun	2
						Expro	1
						Total	81

Pumps																	
Pump Data - Last 24 Hrs								Slow Pump Data									
No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)	Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
1	Oilwell A1700PT	6.00	9.10	98	105	2440	450	1176.0	30	150	132	40	200	176	50	270	220
2	National 12P-160	6.00	9.10	98	0	0	0	0	0	0	0	0	0	0	0	0	0
3	National 12P-160	6.00	9.10	98	105	2440	450	1176.0	30	150	132	40	200	176	50	250	220

Casing			
OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	0ppg / 0ppg	121.0m / 121.0m	
13 3/8"	21.60ppg / 0ppg	620.8m / 620.8m	

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	24 Oct 2004	3 Days	Fire and abandon rig drill held based on simulated fire in the paint locker. All personnel mustered at forward lifeboats.
First Aid	20 Oct 2004	7 Days	Were advised that seaman aboard Far Grip had piece of metal embedded in his knee. IP brought on board for examination by rig medic. Medic advised IP fit to return to normal duties and no need for medivac. IP returned to Far Grip.
Safety Meeting	24 Oct 2004	3 Days	Three safety meetings held (13:00, 19:00, 01:00). Attended by all crews.

Shakers, Volumes and Losses Data				Engineer : Gordon Howie			
Available	1821bbl	Losses	2811bbl	Equip.	Descr.	Mesh Size	Hours
Active	427.0bbl	Downhole	0bbl	Shaker 1	VSM 100	10, 4 x 84	24
Mixing	0bbl	Surf+ Equip	2626bbl	Shaker 2	VSM 100	10, 4 x 84	24
Hole	576.0bbl	Dumped	20.0bbl	Shaker 3	VSM 100	10, 4 x 84	24
Slug	0bbl	De-Sander	0bbl	Shaker 4	VSM 100	10, 4 x 84	24
Reserve	818.0bbl	De-Silter	0bbl				
Kill	0bbl	Centrifuge	0bbl				
		Sweeps	165.0bbl				
Comment	Shaker losses due to sand blinding screens changed scalpers to 10 mesh						

Marine									
Weather check on 27 Oct 2004 at 24:00							Rig Support		
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period	Anchors	Tension (klb)
5.00nm	25.0kn	200deg	1018bar	12.0C°	2.5m	200deg	0ft/sec	1	203.0
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments		2	185.0
1.4deg	0.8deg	1.00m	4.0m	225deg	0ft/sec	Showers		3	203.0
Rig Dir.	Ris. Tension	VDL	Comments		4			198.0	
45.0deg	222.0klb	3775.0klb			5	203.0			
					6	203.0			
					7	203.0			
					8	207.0			

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Far Grip	10:00		At standby on location. Seas too high to come along side.	Item	Unit	Quantity
				Gel	MT	42
				Fuel	M3	608
				Potable Water	M3	675
				Barite	MT	86
				Drill Water	M3	0
Pacific Wrangler		10:00	Enroute to rig with casing & mud chemicals. ETA 05:30hrs 28/10/04.	Item	Unit	Quantity
				Drill Water	M3	0
				Cement	MT	0
				Fuel	M3	355.1
				Potable Water	M3	143
				Barite	MT	85
			Gel	MT	0	

Helicopter Movement

Flight #	Time	Destination	Comment	Pax
1	15:36	Ocean Patriot	Call sign: BHQ	4
1	15:43	Essendon		0
2	16:27	Ocean Patriot	Call sign: BHQ	6
2	16:41	Essendon		8

From : Nigel Walters, Steve Hodgetts
OIM : Sean De Freitas

Well Data

Country	Australia	M. Depth	1188.0m	Cur. Hole Size	12.250in	AFE Cost		
Field		TVD	1188.0m	Casing OD	13.375in	AFE No.	5736086	
Drill Co.	DOGC	Progress	117.0m	Shoe TVD	620.8m	Daily Cost		
Rig	Ocean Patriot	Days from spud	8.04	F.I.T. / L.O.T.	0ppg / 21.60ppg	Cum Cost		
Wtr Dpth(LAT)	54.7m	Days on well	11.46			Planned TD	1878.0m	
RT-ASL(LAT)	21.5m	Current Op @ 0600	Drilling ahead 12.25" hole.					
RT-ML	76.2m	Planned Op	Drill to TD.					

Summary of Period 0000 to 2400 Hrs

Drilled hole to 1,262m. Made bit trip for PDC. Control drilled ahead 12.25" hole.

Formations

Name	Top (MD)	Top (TVD)	Comment

Operations For Period 0000 Hrs to 2400 Hrs on 28 Oct 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PH	P	DA	0000	0500	5.00	1262.0m	Continued drilling to 1,262m. Back reamed stand prior to connections. Took MWD surveys on connections
PH	P	CHC	0500	0600	1.00	1262.0m	Circulated bottoms up and prepared to pull out of hole for bit change.
PH	P	TO	0600	0830	2.50	1262.0m	Made flowcheck, well staic. POOH to BHA at 288m.
PH	P	TO	0830	1000	1.50	1262.0m	Continued POOH with BHA. Flowchecked at shoe and at BOP, well static.
PH	TP (DTF)	HBHA	1000	1100	1.00	1262.0m	Attempted to download FEWD tool, unsuccessful.
PH	P	HBHA	1100	1300	2.00	1262.0m	Laid out FEWD tool and downloaded data. Picked up new tool (RLL). Tested FEWD.
PH	P	TI	1300	1530	2.50	1262.0m	Ran in hole with 12.25" BHA and new PDC bit to 575m. Shallow tested MWD at first stand of HWDP.
PH	P	RS	1530	1600	0.50	1262.0m	Serviced rig & TDS.
PH	P	TI	1600	1830	2.50	1262.0m	Continued running in hole to 1,149m. Worked and reamed through tight hole at 890m
PH	P	TO	1830	2100	2.50	1262.0m	Precaunionary reamed from 1,149m to bottom at 1,262m. No fill, no tight sections. Fanned bottom prior to drilling.
PH	P	CDE	2100	2400	3.00	1305.0m	Established on bottom pattern and control drilled at Geologist's request 12.25" hole from 1,262m to 1,305m to enable formation sampling. Took MWD surveys on connections.

Operations For Period 0000 Hrs to 0600 Hrs on 29 Oct 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PH	P	CDE	0000	0600	6.00	1436.0m	Continued control drilling at Geologist's request from 1,305m to 1,436m.

Phase Data to 2400hrs, 28 Oct 2004

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
PRESPUD(PS)	82	17 Oct 2004	20 Oct 2004	82.00	3.417 days	0m
SURFACE HOLE(SH)	14.5	20 Oct 2004	21 Oct 2004	96.50	4.021 days	122.5m
INTERMEDIATE HOLE(IH)	48.5	21 Oct 2004	23 Oct 2004	145.00	6.042 days	628.0m
INTERMEDIATE CASING(IC)	62	23 Oct 2004	26 Oct 2004	207.00	8.625 days	628.0m
PRODUCTION HOLE(PH)	68	26 Oct 2004	28 Oct 2004	275.00	11.458 days	1305.0m

WBM Data											
Mud Type:	Seawater Duovis	API FL:	15cm ³ /30m	Cl:	16000	Solids:	7	Viscosity:	39sec/qt		
Sample-From:	Active	Filter-Cake:	1/32nd"	K+C*1000:	0%	H2O:	93%	PV:	13cp		
Time:	22:30	HTHP-FL:	0cm ³ /30m	Hard/Ca:	1600	Oil:	0%	YP:	20lb/100ft ²		
Weight:	9.70ppg	HTHP-Cake:	0/32nd"	MBT:	7.5	Sand:	2	Gels 10s:	10		
Temp:	40.5C°			PM:	0	pH:	8.1	Gels 10m:	11		
				PF:	0	PHPA:	Oppb	Fann 003:	9		
								Fann 006:	11		
								Fann 100:	23		
								Fann 200:	28		
								Fann 300:	33		
								Fann 600:	46		
Comment: Mud reuild after surface losses											

Bit # 3				Wear	I	O1	D	L	B	G	O2	R
					1	1	WT	A	0	1	NO	FM
Size ("):	12.25in	IADC#	4-3-7	Nozzles		Drilled over last 24 hrs			Calculated over Bit Run			
Mfr:	REED	WOB(avg)	20.0klb	No.	Size	Progress			Cum. Progress			
Type:	Rock	RPM(avg)	120	3	20/32nd"	On Bottom Hrs			Cum. On Btm Hrs			
Serial No.:	M16694	F.Rate	900gpm			IADC Drill Hrs			Cum IADC Drill Hrs			
Bit Model	TD43HKPRDH	SPP	2300psi			Total Revs			Cum Total Revs			
Depth In	628.0m	TFA	0.920			ROP(avg)			ROP(avg)			
Depth Out	1262.0m											
Bitwear Comment: Bit pulled as programmed change after Pyrites drilled.												

Bit # 4				Wear	I	O1	D	L	B	G	O2	R
Size ("):	12.25in	IADC#		Nozzles		Drilled over last 24 hrs			Calculated over Bit Run			
Mfr:	HYCALOG	WOB(avg)	6.0klb	No.	Size	Progress			Cum. Progress			
Type:	PDC	RPM(avg)	0	5	14/32nd"	On Bottom Hrs			Cum. On Btm Hrs			
Serial No.:	109617	F.Rate	900gpm			IADC Drill Hrs			Cum IADC Drill Hrs			
Bit Model	DSX104A1HGW	SPP	0psi			Total Revs			Cum Total Revs			
Depth In	1262.0m	TFA	0.752			ROP(avg)			ROP(avg)			
Depth Out	0m											
Run Comment: Run below pyrites												

BHA # 3						
Weight(Wet)	92.0klb	Length	288.5m	Torque(max)	3ft-lbs	D.C. (1) Ann Velocity
Wt Below Jar(Wet)	54.0klb	String	0klb	Torque(Off.Btm)	1ft-lbs	D.C. (2) Ann Velocity
		Pick-Up	0klb	Torque(On.Btm)	3ft-lbs	H.W.D.P. Ann Velocity
		Slack-Off	0klb			D.P. Ann Velocity

BHA Run Description: TCI bit, near bit roller reamer, FEWD, PM, Pulsar, 1 x 8"DC, Roller reamer, 10 x 8" DCs, jars, 3 x 8" DCs, accellerator, 1 x 8" DC, crossover, 12 x HWDP

BHA Run Comment: Jar #83460C = 64hrs

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.35m	12.25in	0in	M16694	TCI
12.25in Roller Reamer	2.16m	12.25in	3.00in	XM025	NBRR
MWD Tools	8.32m	8.00in	1.92in	V8	FEWD, 11.75 OD stab
MWD Tools	2.77m	8.13in	1.92in	M8	PM
MWD Tools	3.12m	8.13in	1.92in	10635109	Pulsar
8in DC	9.11m	8.00in	2.77in	00-007	
12.25in Roller Reamer	2.01m	12.25in	3.00in	MX023	
8in DC	90.55m	8.00in	3.00in	Various	
8in Hydraulic Jars	9.95m	8.00in	3.00in	83460C	
8in DC	28.29m	8.00in	3.00in	Various	
Jar Accel.	10.39m	8.25in	3.00in	E71375	
8in DC	9.22m	8.00in	3.06in	00-008	
X/O	1.13m	8.00in	3.00in	186-011	
5in HWDP	112.33m	5.00in	3.00in	Various	

BHA # 4						
Weight(Wet)	92.0klb	Length	288.3m	Torque(max)	3ft-lbs	D.C. (1) Ann Velocity
Wt Below Jar(Wet)	54.0klb	String	0klb	Torque(Off.Btm)	1ft-lbs	D.C. (2) Ann Velocity
		Pick-Up	0klb	Torque(On.Btm)	3ft-lbs	H.W.D.P. Ann Velocity
		Slack-Off	0klb			D.P. Ann Velocity
BHA Run Description		PDC bit, near bit roller reamer, FEWD, PM, Pulsar, 1 x 8"DC, Roller reamer, 10 x 8" DCs, jars, 3 x 8" DCs, accelerator, 1 x 8" DC, crossover, 12 x HWDP				
BHA Run Comment		Jar #83460C = 69.5hrs GR = 3.41m from bit, Res = 5.72m, PWD = 8.16m, Dir = 12.17m.				

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.35m	12.25in	0in	109617	PDC
12.25in Roller Reamer	2.16m	12.25in	3.00in	XM025	NBRR
MWD Tools	8.19m	8.00in	1.92in	WRGV8	FEWD, 11.75 OD stab (RLL component changed)
MWD Tools	2.77m	8.13in	1.92in	M8	PM
MWD Tools	3.12m	8.13in	1.92in	10635109	Pulsar
8in DC	9.11m	8.00in	2.77in	00-007	
12.25in Roller Reamer	2.01m	12.25in	3.00in	MX023	
8in DC	90.55m	8.00in	3.00in	Various	
8in Hydraulic Jars	9.95m	8.00in	3.00in	83460C	
8in DC	28.29m	8.00in	3.00in	Various	
Jar Accel.	10.39m	8.25in	3.00in	E71375	
8in DC	9.22m	8.00in	3.06in	00-008	
X/O	1.13m	8.00in	3.00in	186-011	
5in HWDP	112.33m	5.00in	3.00in	Various	

Survey								
MD (m)	Incl Deg (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
1189.87	2.78	210.70	1189.65	6.03	0.46	-5.22	-4.27	MWD
1218.57	3.07	212.16	1218.31	7.42	1.04	-6.47	-5.03	MWD
1247.39	3.46	212.50	1247.09	8.96	1.35	-7.86	-5.91	MWD
1276.08	3.78	212.66	1275.72	10.66	1.12	-9.38	-6.89	MWD

Bulk Stocks						Personnel On Board		
Name	Unit	In	Used	Adjust	Balance	Company	Pax	
Fuel	M3	0	14.4	2	495.3	DOGC	46	
Drill Water	MT	580	164.9	1.3	433.7	Santos	5	
Potable Water	MT	28	21.1	0.5	208.6	Total Marine Catering	8	
Gel	sx	0	57	0	318.0	Fugro	2	
Cement	sx	0	0	-29	933.0	Sperry-Sun	6	
Barite	sx	1760	220	0	2,696.0	M.I	2	
						Dowell	1	
						Baker Atlas	9	
						Sperry-Sun	2	
						Expro	1	
						DPI	2	
Total							84	

Pumps																	
Pump Data - Last 24 Hrs								Slow Pump Data									
No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)	Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
1	Oilwell A1700PT	6.00	9.70	98	68	3300	299	1176.0	30	150	132	40	200	176	50	270	220
2	National 12P-160	6.00	9.70	98	68	3300	299	0	0	0	0	0	0	0	0	0	0
3	National 12P-160	6.00	9.70	98	68	3300	299	1176.0	30	150	132	40	200	176	50	250	220

Casing			
OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	Oppg / Oppg	121.0m / 121.0m	
13 3/8"	21.60ppg / Oppg	620.8m / 620.8m	

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	24 Oct 2004	4 Days	Fire and abandon rig drill held based on simulated fire in the paint locker. All personnel mustered at forward lifeboats.
First Aid	20 Oct 2004	8 Days	Were advised that seaman aboard Far Grip had piece of metal embedded in his knee. IP brought on board for examination by rig medic. Medic advised IP fit to return to normal duties and no need for medivac. IP returned to Far Grip.
Safety Meeting	24 Oct 2004	4 Days	Three safety meetings held (13:00, 19:00, 01:00). Attended by all crews.

Shakers, Volumes and Losses Data				Engineer : Gordon Howie			
Available	2055bbl	Losses	495bbl	Equip.	Descr.	Mesh Size	Hours
Active	457.0bbl	Downhole	0bbl	Shaker 1	VSM 100	10, 4 x 84	12
Mixing	0bbl	Surf+ Equip	310bbl	Shaker 2	VSM 100	10, 4 x 105	12
Hole	630.0bbl	Dumped	20.0bbl	Shaker 3	VSM 100	10, 2 x 120, 2 x 105	12
Slug	0bbl	De-Sander	0bbl	Shaker 4	VSM 100	10, 4 x 105	12
Reserve	968.0bbl	De-Silter	0bbl				
Kill	0bbl	Centrifuge	0bbl				
		Sweeps	165.0bbl				

Marine									
Weather check on 28 Oct 2004 at 24:00							Rig Support		
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period	Anchors	Tension (klb)
10.00nm	15.0kn	170deg	1025bar	13.0C°	1.0m	170deg	0ft/sec	1	209.0
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments		2	187.0
0.3deg	0.3deg	0.50m	2.5m	225deg	0ft/sec	Overcast		3	203.0
Rig Dir.	Ris. Tension	VDL	Comments				4	209.0	
45.0deg	222.0klb	4139.0klb					5	203.0	
							6	203.0	
							7	234.0	
							8	214.0	

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Far Grip		17:15	Enroute to Portland, ETA 07:30	Item	Unit	Quantity
				Potable Water	M3	675
				Barite	MT	86
				Drill Water	M3	0
				Fuel	M3	608
				Cement	MT	43
Pacific Wrangler		10:00	At standby on location.	Item	Unit	Quantity
				Cement	MT	0
				Gel	MT	0
				Fuel	M3	331.4
				Potable Water	M3	399
				Barite	MT	85
				Drill Water	M3	202

Helicopter Movement					
Flight #	Time	Destination	Comment	Pax	
1	14:40	Ocean Patriot	Call sign: BHI	7	
1	14:50	Essendon		7	
2	16:23	Ocean Patriot	Call sign: BHQ	7	
2	16:34	Essendon		4	

From : Nigel Walters, Steve Hodgetts
OIM : Barry Scott

Well Data

Country	Australia	M. Depth	1800.0m	Cur. Hole Size	12.250in	AFE Cost	
Field		TVD	1799.0m	Casing OD	13.375in	AFE No.	5736086
Drill Co.	DOGC	Progress	569.0m	Shoe TVD	620.8m	Daily Cost	
Rig	Ocean Patriot	Days from spud	9.04	F.I.T. / L.O.T.	Oppg / 21.60ppg	Cum Cost	
Wtr Dpth(LAT)	54.7m	Days on well	12.46			Planned TD	1878.0m
RT-ASL(LAT)	21.5m	Current Op @ 0600	Pulling out of hole to log.				
RT-ML	76.2m	Planned Op	POOH. Lay out MWD tools. Run electric logging suite.				

Summary of Period 0000 to 2400 Hrs

Drilled 12.25" hole to TD at 1,800m Circulated bottoms up & flowchecked well.

Formations

Name	Top (MD)	Top (TVD)	Comment

Operations For Period 0000 Hrs to 2400 Hrs on 29 Oct 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PH	P	CDE	0000	0600	6.00	1436.0m	Continued control drilling at Geologist's request from 1,305m to 1,436m.
PH	P	CDE	0600	1200	6.00	1570.0m	Continued control drilling to 1,570m.
PH	P	CDE	1200	1530	3.50	1634.0m	Continued control drilling to 1,627m. Drilled ahead to 1,634m. Took MWD surveys each connection.
PH	TP (RE)	RR	1530	1730	2.00	1634.0m	Investigated dropped object. Found 3" x 3/4" pin on rotary table while drilling ahead. Suspended current operations and inspected TDS. Pin had fallen from TDS link tilt. Replaced pin and checked all other pins. Investigation being conducted.
PH	P	DA	1730	2230	5.00	1800.0m	Continued drilling ahead to 1,800m. Took MWD surveys each connection & at TD.
PH	P	CHC	2230	2400	1.50	1436.0m	Took SCR's & circulated bottoms up. Flowchecked well, well static.

Operations For Period 0000 Hrs to 0600 Hrs on 30 Oct 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PH	P	TO	0000	0100	1.00	1800.0m	Pulled 10 stands to 1,608m, hole good. Filled trip tank, pumped 30 bbls slug.
PH	P	TO	0100	0130	0.50	1800.0m	POOH to 1,364m hole good.
PH	TP (HC)	TOT	0130	0200	0.50	1800.0m	Hole pulled tight, excessive drag. Hole not taking correct fluid, flowchecked well static. Run back 4 stands to 1,491m (below gas interval).
PH	TP (HC)	RW	0200	0400	2.00	1800.0m	Washed & back reamed to 1,262m.
PH	P	CHC	0400	0500	1.00	1800.0m	Circulated bottoms up to clean hole. Flowchecked well, well static.
PH	P	TO	0500	0600	1.00	1800.0m	Continued POOH.

Phase Data to 2400hrs, 29 Oct 2004

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
PRESPOD(P)	82	17 Oct 2004	20 Oct 2004	82.00	3.417 days	0m
SURFACE HOLE(SH)	14.5	20 Oct 2004	21 Oct 2004	96.50	4.021 days	122.5m
INTERMEDIATE HOLE(IH)	48.5	21 Oct 2004	23 Oct 2004	145.00	6.042 days	628.0m
INTERMEDIATE CASING(IC)	62	23 Oct 2004	26 Oct 2004	207.00	8.625 days	628.0m
PRODUCTION HOLE(PH)	92	26 Oct 2004	29 Oct 2004	299.00	12.458 days	1800.0m

General Comments

Comments	Rig Requirements	Lessons Learnt
CO2 = 0.30 - 0.50%, BG = 50 U, MG = 1,034 U at 1,484m, TG = 344 U at 1,262m.		

WBM Data									
Mud Type:	Glydril	API FL:	9cm³/30m	Cl:	35000	Solids:	10	Viscosity:	44sec/qt
Sample-From:	Active	Filter-Cake:	1/32nd"	K+C*1000:	6%	H2O:	90%	PV:	16cp
Time:	21:00	HTHP-FL:	0cm³/30m	Hard/Ca:	1440	Oil:	0%	YP:	16lb/100ft²
Weight:	10.30ppg	HTHP-Cake:	0/32nd"	MBT:	15	Sand:	1.5	Gels 10s:	9
Temp:	51.6C°			PM:	0	pH:	8	Gels 10m:	14
				PF:	0	PHPA:	Oppb	Fann 003:	7
								Fann 006:	9
								Fann 100:	19
								Fann 200:	26
								Fann 300:	32
								Fann 600:	48

Bit # 3				Wear	I	O1	D	L	B	G	O2	R
					1	1	WT	A	0	1	NO	FM
Size ("):	12.25in	IADC#	4-3-7	Nozzles		Drilled over last 24 hrs			Calculated over Bit Run			
Mfr:	REED	WOB(avg)	20.0klb	No.	Size	Progress			Cum. Progress			
Type:	Rock	RPM(avg)	120	3	20/32nd"	On Bottom Hrs			Cum. On Btm Hrs			
Serial No.:	M16694	F.Rate	900gpm			IADC Drill Hrs			Cum IADC Drill Hrs			
Bit Model	TD43HKPRDH	SPP	2300psi			Total Revs			Cum Total Revs			
Depth In	628.0m	TFA	0.920			ROP(avg)			ROP(avg)			
Depth Out	1262.0m											
Bitwear Comment				Bit pulled as programmed change after Pyrites drilled.								

Bit # 4				Wear	I	O1	D	L	B	G	O2	R
Size ("):	12.25in	IADC#		Nozzles		Drilled over last 24 hrs			Calculated over Bit Run			
Mfr:	HYCALOG	WOB(avg)	0klb	No.	Size	Progress			Cum. Progress			
Type:	PDC	RPM(avg)	0	5	14/32nd"	On Bottom Hrs			Cum. On Btm Hrs			
Serial No.:	109617	F.Rate	0gpm			IADC Drill Hrs			Cum IADC Drill Hrs			
Bit Model	DSX104A1HGW	SPP	0psi			Total Revs			Cum Total Revs			
Depth In	1262.0m	TFA	0.752			ROP(avg)			ROP(avg)			
Depth Out	1800.0m											
Run Comment				Run below pyrites								

BHA # 3						
Weight(Wet)	92.0klb	Length	288.5m	Torque(max)	3ft-lbs	D.C. (1) Ann Velocity
Wt Below Jar(Wet)	54.0klb	String	0klb	Torque(Off.Btm)	1ft-lbs	D.C. (2) Ann Velocity
		Pick-Up	0klb	Torque(On.Btm)	3ft-lbs	H.W.D.P. Ann Velocity
		Slack-Off	0klb			D.P. Ann Velocity

BHA Run Description TCI bit, near bit roller reamer, FEWD, PM, Pulsar, 1 x 8"DC, Roller reamer, 10 x 8" DCs, jars, 3 x 8" DCs, accelerator, 1 x 8" DC, crossover, 12 x HWDP

BHA Run Comment Jar #83460C = 64hrs

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.35m	12.25in	0in	M16694	TCI
12.25in Roller Reamer	2.16m	12.25in	3.00in	XM025	NBRR
MWD Tools	8.32m	8.00in	1.92in	V8	FEWD, 11.75 OD stab
MWD Tools	2.77m	8.13in	1.92in	M8	PM
MWD Tools	3.12m	8.13in	1.92in	10635109	Pulsar
8in DC	9.11m	8.00in	2.77in	00-007	
12.25in Roller Reamer	2.01m	12.25in	3.00in	MX023	
8in DC	90.55m	8.00in	3.00in	Various	
8in Hydraulic Jars	9.95m	8.00in	3.00in	83460C	
8in DC	28.29m	8.00in	3.00in	Various	
Jar Accel.	10.39m	8.25in	3.00in	E71375	
8in DC	9.22m	8.00in	3.06in	00-008	
X/O	1.13m	8.00in	3.00in	186-011	
5in HWDP	112.33m	5.00in	3.00in	Various	

BHA # 4						
Weight(Wet)	92.0klb	Length	288.3m	Torque(max)	3ft-lbs	D.C. (1) Ann Velocity
Wt Below Jar(Wet)	54.0klb	String	292.0klb	Torque(Off.Btm)	1ft-lbs	D.C. (2) Ann Velocity
		Pick-Up	0klb	Torque(On.Btm)	3ft-lbs	H.W.D.P. Ann Velocity
		Slack-Off	0klb			D.P. Ann Velocity
BHA Run Description		PDC bit, near bit roller reamer, FEWD, PM, Pulsar, 1 x 8"DC, Roller reamer, 10 x 8" DCs, jars, 3 x 8" DCs, accelerator, 1 x 8" DC, crossover, 12 x HWDP				
BHA Run Comment		Jar #83460C = 90hrs GR = 3.41m from bit, Res = 5.72m, PWD = 8.16m, Dir = 12.17m.				

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.35m	12.25in	0in	109617	PDC
12.25in Roller Reamer	2.16m	12.25in	3.00in	XM025	NBRR
MWD Tools	8.19m	8.00in	1.92in	WRGV8	FEWD, 11.75 OD stab (RLL component changed)
MWD Tools	2.77m	8.13in	1.92in	M8	PM
MWD Tools	3.12m	8.13in	1.92in	10635109	Pulsar
8in DC	9.11m	8.00in	2.77in	00-007	
12.25in Roller Reamer	2.01m	12.25in	3.00in	MX023	
8in DC	90.55m	8.00in	3.00in	Various	
8in Hydraulic Jars	9.95m	8.00in	3.00in	83460C	
8in DC	28.29m	8.00in	3.00in	Various	
Jar Accel.	10.39m	8.25in	3.00in	E71375	
8in DC	9.22m	8.00in	3.06in	00-008	
X/O	1.13m	8.00in	3.00in	186-011	
5in HWDP	112.33m	5.00in	3.00in	Various	

Survey								
MD (m)	Incl Deg (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
1735.43	2.43	221.48	1734.50	30.71	0.42	-26.71	-21.27	MWD
1763.96	2.56	220.08	1763.00	31.80	0.50	-27.65	-22.08	MWD
1785.46	2.69	214.76	1784.48	32.70	1.28	-28.43	-22.68	MWD
1800.00	2.69	214.76	1799.01	33.33	0	-28.99	-23.07	Projected

Bulk Stocks						Personnel On Board		
Name	Unit	In	Used	Adjust	Balance	Company		Pax
Fuel	M3	0	17.2	0	478.1	DOGC		48
Drill Water	MT	0	72.4	0	361.3	Santos		7
Potable Water	MT	37	23.1	0	222.5	Total Marine Catering		8
Gel	sx	0	0	0	318.0	Fugro		2
Cement	sx	0	0	0	933.0	Sperry-Sun		6
Barite	sx	0	0	0	2,696.0	M.I		2
						Dowell		1
						Baker Atlas		9
						Sperry-Sun		2
						Expro		1
							Total	86

Pumps																	
Pump Data - Last 24 Hrs								Slow Pump Data									
No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)	Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
1	Oilwell A1700PT	6.00	10.30	98	65	3300	286	1800.0	30	200	132	40	275	176	50	300	220
2	National 12P-160	6.00	10.30	98	65	3300	286	1800.0	30	200	132	40	245	176	50	375	220
3	National 12P-160	6.00	10.30	98	65	3300	286	1176.0	30	150	132	40	200	176	50	250	220

Casing			
OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	Oppg / Oppg	121.0m / 121.0m	
13 3/8"	21.60ppg / Oppg	620.8m / 620.8m	

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	24 Oct 2004	5 Days	Fire and abandon rig drill held based on simulated fire in the paint locker. All personnel mustered at forward lifeboats.
First Aid	20 Oct 2004	9 Days	Were advised that seaman aboard Far Grip had piece of metal embedded in his knee. IP brought on board for examination by rig medic. Medic advised IP fit to return to normal duties and no need for medivac. IP returned to Far Grip.
Near Miss	29 Oct 2004	0 Days	Found 3" x 3/4" pin on rotary table while drilling ahead. Suspended current operations and inspected TDS. Pin had fallen from TDS link tilt. Replaced pin and checked all other pins. Investigation being conducted.
Safety Meeting	24 Oct 2004	5 Days	Three safety meetings held (13:00, 19:00, 01:00). Attended by all crews.

Shakers, Volumes and Losses Data				Engineer : Gordon Howie			
Available	1565bbl	Losses	548bbl	Equip.	Descr.	Mesh Size	Hours
Active	359.0bbl	Downhole	0bbl	Shaker 1	VSM 100	10, 4 x 84	24
Mixing	0bbl	Surf+ Equip	203bbl	Shaker 2	VSM 100	10, 4 x 165	24
Hole	852.0bbl	Dumped	345.0bbl	Shaker 3	VSM 100	10, 2 x 120, 2 x 105	24
Slug	53.0bbl	De-Sander	0bbl	Shaker 4	VSM 100	10, 4 x 105	24
Reserve	301.0bbl	De-Silter	0bbl				
Kill	0bbl	Centrifuge	0bbl				
		Sweeps					

Marine									
Weather check on 29 Oct 2004 at 24:00							Rig Support		
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period	Anchors	Tension (klb)
10.00nm	10.0kn	090deg	1024bar	12.0C°	0.5m	090deg	0ft/sec	1	207.0
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments			
0.3deg	0.3deg	0.50m	2.5m	225deg	0ft/sec	Overcast			
Rig Dir.	Ris. Tension	VDL	Comments						
45.0deg	222.0klb	4086.0klb					2	185.0	
							3	203.0	
							4	190.0	
							5	203.0	
							6	203.0	
							7	229.0	
							8	216.0	

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
				Item	Unit	Quantity
Far Grip		17:15	Enroute to Rig, ETA 03:15	Drill Water	M3	0
				Fuel	M3	589
				Barite	MT	86
				Potable Water	M3	680
				Gel	MT	63.6
				Cement	MT	85.3
Pacific Wrangler		17:15	At standby on location.	Cement	MT	0
				Fuel	M3	319.4
				Drill Water	M3	202
				Barite	MT	85
				Potable Water	M3	395
				Gel	MT	0

Helicopter Movement					
Flight #	Time	Destination	Comment	Pax	
1	14:40	Ocean Patriot	Call sign: BHI	7	
1	14:50	Essendon		7	
2	15:06	Ocean Patriot	Call sign: BHQ	3	
2	15:11	Essendon		0	
1	9:44	Ocean Patriot	Call sign: BHI	8	
1	9:54	Essendon		9	

From : Nigel Walters, Steve Hodgetts
OIM : Barry Scott

Well Data

Country	Australia	M. Depth	1800.0m	Cur. Hole Size	12.250in	AFE Cost	
Field		TVD	1799.0m	Casing OD	13.375in	AFE No.	5736086
Drill Co.	DOGC	Progress	0m	Shoe TVD	620.8m	Daily Cost	
Rig	Ocean Patriot	Days from spud	10.04	F.I.T. / L.O.T.	0ppg / 21.60ppg	Cum Cost	
Wtr Dpth(LAT)	54.7m	Days on well	13.46			Planned TD	1878.0m
RT-ASL(LAT)	21.5m	Current Op @ 0600	Circulating bottoms up.				
RT-ML	76.2m	Planned Op	Clean out. RU & run wireline logs.				

Summary of Period 0000 to 2400 Hrs

POOH, reamed tight spots. Laid out bit & MWD tools. Rigged up and ran log #1, held up. POOH & made wiper trip.

Formations

Name	Top (MD)	Top (TVD)	Comment

Operations For Period 0000 Hrs to 2400 Hrs on 30 Oct 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PH	P	TO	0000	0030	0.50	1800.0m	Pulled 10 stands to 1,608m, hole good.
PH	P	FC	0030	0100	0.50	1800.0m	Flowchecked hole, well static. Filled trip tank, pumped 30 bbls slug.
PH	P	TO	0100	0130	0.50	1800.0m	POOH to 1,364m hole good.
PH	TP (HC)	TOT	0130	0200	0.50	1800.0m	Hole pulled tight, excessive drag. Hole not taking correct fluid, flowchecked well static. Run back 4 stands to 1,491m (below gas interval).
PH	TP (HC)	RW	0200	0400	2.00	1800.0m	Washed & back reamed to 1,262m.
PH	P	CHC	0400	0530	1.50	1800.0m	Circulated bottoms up to clean hole. Flowchecked well, well static.
PH	P	TO	0530	0800	2.50	1800.0m	Continued POOH to 600m.
PH	P	FC	0800	0830	0.50	1800.0m	Flowchecked hole at shoe, well static. Pumped HW slug.
PH	P	TO	0830	0900	0.50	1800.0m	Continued POOH to BHA at 288m.
PH	P	TO	0900	1030	1.50	1800.0m	Continued POOH to surface with BHA.
PH	P	HBHA	1030	1230	2.00	1800.0m	Laid out bit, near bit roller reamer & MWD. Downloaded MWD on deck.
PH	P	LOG	1230	1330	1.00	1800.0m	Held JSA. RU Baker Atlas wireline & compensator line.
PH	P	LOG	1330	1630	3.00	1800.0m	PU Baker Atlas logging tool string & RIH with MLL, DLL, MAT, ZDL, ZN & GR. Run on wireline to 1,466m.
PH	TP (HC)	LOG	1630	1730	1.00	1800.0m	Unable to pass 1,466m after repeated attempts. POOH.
PH	TP (HC)	HBHA	1730	1900	1.50	1800.0m	RD wireline & compensator line.
PH	TP (HC)	TI	1900	2100	2.00	1800.0m	Picked up 12.25" rerun bit & RIH with BHA.
PH	TP (HC)	HBHA	2100	2400	3.00	1800.0m	Make wiper trip to condition hole, to 1,274m. Washed & reamed ledges at 1,121m (took 50klb) & at 1,270m (took 30klb).

Operations For Period 0000 Hrs to 0600 Hrs on 31 Oct 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PH	TP (HC)	RW	0000	0530	5.50	1800.0m	Continued wiper tip to TD. Washed & reamed tight spots & ledges. Held up & worked tight hole at 1,464 - 1,507m (took 30klb), ledge 1,582m (60klb), tight hole 1,630 - 1,635m (20klb), ledge 1,717m (30klb). At 1,765m washed & reamed to TD with 10klb on bit.
PH	TP (HC)	CHC	0515	0600	0.75	1800.0m	Commenced circulating bottoms up to clean hole.

Phase Data to 2400hrs, 30 Oct 2004						
Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
PRESPUD(PS)	82	17 Oct 2004	20 Oct 2004	82.00	3.417 days	0m
SURFACE HOLE(SH)	14.5	20 Oct 2004	21 Oct 2004	96.50	4.021 days	122.5m
INTERMEDIATE HOLE(IH)	48.5	21 Oct 2004	23 Oct 2004	145.00	6.042 days	628.0m
INTERMEDIATE CASING(IC)	62	23 Oct 2004	26 Oct 2004	207.00	8.625 days	628.0m
PRODUCTION HOLE(PH)	116	26 Oct 2004	30 Oct 2004	323.00	13.458 days	1800.0m

General Comments		
Comments	Rig Requirements	Lessons Learnt
All rig clocks advanced by 1 hour at 02:00hrs to 03:00hrs.		

WBM Data									
Mud Type:	Glydril	API FL:	11cm ³ /30m	Cl:	35000	Solids:	10	Viscosity:	52sec/qt
Sample-From:	Active	Filter-Cake:	1/32nd"	K+C*1000:	4%	H2O:	90%	PV:	16cp
Time:	21:00	HTHP-FL:	0cm ³ /30m	Hard/Ca:	1600	Oil:	0%	YP:	22lb/100ft ²
Weight:	10.50ppg	HTHP-Cake:	0/32nd"	MBT:	15	Sand:	1.25	Gels 10s:	9
Temp:	0C°			PM:	0	pH:	8.1	Gels 10m:	20
				PF:	0	PHPA:	Oppb	Fann 003:	7
								Fann 006:	9
								Fann 100:	23
								Fann 200:	32
								Fann 300:	38
								Fann 600:	54

Bit # 4				Wear	I	O1	D	L	B	G	O2	R
					2	3	BT	S	X	I	WT	TD
Size ("):	12.25in	IADC#		Nozzles		Drilled over last 24 hrs			Calculated over Bit Run			
Mfr:	HYCALOG	WOB(avg)	0klb	No.	Size	Progress	0m	Cum. Progress	538.0m			
Type:	PDC	RPM(avg)	0	5	14/32nd"	On Bottom Hrs	0h	Cum. On Btm Hrs	20.70h			
Serial No.:	109617	F.Rate	0gpm			IADC Drill Hrs	0h	Cum IADC Drill Hrs	23.50h			
Bit Model	DSX104A1HGW	SPP	0psi			Total Revs	236	Cum Total Revs	506			
Depth In	1262.0m	TFA	0.752			ROP(avg)	N/A	ROP(avg)	25.99 m/hr			
Depth Out	1800.0m											
Run Comment	Run below pyrites											

Bit # 3RR				Wear	I	O1	D	L	B	G	O2	R
Size ("):	12.25in	IADC#	4-3-7	Nozzles		Drilled over last 24 hrs			Calculated over Bit Run			
Mfr:	REED	WOB(avg)	0klb	No.	Size	Progress	0m	Cum. Progress	0m			
Type:	Rock	RPM(avg)	0	3	20/32nd"	On Bottom Hrs	0h	Cum. On Btm Hrs	0h			
Serial No.:	M16694	F.Rate	0gpm			IADC Drill Hrs	0h	Cum IADC Drill Hrs	0h			
Bit Model	TD43HKPRDH	SPP	0psi			Total Revs	0	Cum Total Revs	0			
Depth In	1800.0m	TFA	0.920			ROP(avg)	N/A	ROP(avg)	0.00 m/hr			
Depth Out	0m											
Run Comment	Wiper trip reamed tight spots.											
Bitwear Comment	Reaming only											

BHA # 4						
Weight(Wet)	92.0klb	Length	288.3m	Torque(max)	3ft-lbs	D.C. (1) Ann Velocity
Wt Below Jar(Wet)	54.0klb	String	292.0klb	Torque(Off.Btm)	1ft-lbs	D.C. (2) Ann Velocity
		Pick-Up	0klb	Torque(On.Btm)	3ft-lbs	H.W.D.P. Ann Velocity
		Slack-Off	0klb			D.P. Ann Velocity
BHA Run Description	PDC bit, near bit roller reamer, FEWD, PM, Pulser, 1 x 8"DC, Roller reamer, 10 x 8" DCs, jars, 3 x 8" DCs, accelerator, 1 x 8" DC, crossover, 12 x HWDP					
BHA Run Comment	Jar #83460C = 90hrs GR = 3.41m from bit, Res = 5.72m, PWD = 8.16m, Dir = 12.17m.					

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.35m	12.25in	0in	109617	PDC
8in DC	9.11m	8.00in	2.77in	00-007	
12.25in Roller Reamer	2.01m	12.25in	3.00in	MX023	
8in DC	90.55m	8.00in	3.00in	Various	
8in Hydraulic Jars	9.95m	8.00in	3.00in	83460C	
8in DC	28.29m	8.00in	3.00in	Various	
Jar Accel.	10.39m	8.25in	3.00in	E71375	
8in DC	9.22m	8.00in	3.06in	00-008	
X/O	1.13m	8.00in	3.00in	186-011	
5in HWDP	112.33m	5.00in	3.00in	Various	

BHA # 5

Weight(Wet)	85.0klb	Length	273.3m	Torque(max)	3ft-lbs	D.C. (1) Ann Velocity
Wt Below Jar(Wet)	49.0klb	String	292.0klb	Torque(Off.Btm)	1ft-lbs	D.C. (2) Ann Velocity
		Pick-Up	0klb	Torque(On.Btm)	3ft-lbs	H.W.D.P. Ann Velocity
		Slack-Off	0klb			D.P. Ann Velocity

BHA Run Description PDC bit, 1 x 8"DC, Roller reamer, 10 x 8" DCs, jars, 3 x 8" DCs, accellerator, 1 x 8" DC, crossover, 12 x HWDP

BHA Run Comment Jar #83460C = 90hrs

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.35m	12.25in	0in	109617	PDC
8in DC	9.11m	8.00in	2.77in	00-007	
12.25in Roller Reamer	2.01m	12.25in	3.00in	MX023	
8in DC	90.55m	8.00in	3.00in	Various	
8in Hydraulic Jars	9.95m	8.00in	3.00in	83460C	
8in DC	28.29m	8.00in	3.00in	Various	
Jar Accel.	10.39m	8.25in	3.00in	E71375	
8in DC	9.22m	8.00in	3.06in	00-008	
X/O	1.13m	8.00in	3.00in	186-011	
5in HWDP	112.33m	5.00in	3.00in	Various	

Survey

MD (m)	Incl Deg (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
1735.43	2.43	221.48	1734.50	30.71	0.42	-26.71	-21.27	MWD
1763.96	2.56	220.08	1763.00	31.80	0.50	-27.65	-22.08	MWD
1785.46	2.69	214.76	1784.48	32.70	1.28	-28.43	-22.68	MWD
1800.00	2.69	214.76	1799.01	33.33	0	-28.99	-23.07	Projected

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Fuel	M3	0	15.2	-0.1	462.8
Drill Water	MT	0	6	0	355.3
Potable Water	MT	35	23.9	0	233.6
Gel	sx	0	0	0	318.0
Cement	sx	0	0	0	933.0
Barite	sx	0	66	-1	2,629.0

Personnel On Board

Company	Pax
DOGC	48
Santos	7
Total Marine Catering	8
Fugro	2
Sperry-Sun	6
M.I	2
Dowell	1
Baker Atlas	9
Sperry-Sun	2
Expro	1
Total	86

Pumps

Pump Data - Last 24 Hrs								Slow Pump Data									
No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)	Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
1	Oilwell A1700PT	6.00	10.30	98	65	3300	286	1800.0	30	200	132	40	275	176	50	300	220
2	National 12P-160	6.00	10.30	98	65	3300	286	1800.0	30	200	132	40	245	176	50	375	220
3	National 12P-160	6.00	10.30	98	65	3300	286	1176.0	30	150	132	40	200	176	50	250	220

Casing			
OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	Oppg / Oppg	121.0m / 121.0m	
13 3/8"	21.60ppg / Oppg	620.8m / 620.8m	

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	24 Oct 2004	6 Days	Fire and abandon rig drill held based on simulated fire in the paint locker. All personnel mustered at forward lifeboats.
First Aid	20 Oct 2004	10 Days	Were advised that seaman aboard Far Grip had piece of metal embedded in his knee. IP brought on board for examination by rig medic. Medic advised IP fit to return to normal duties and no need for medivac. IP returned to Far Grip.
Near Miss	29 Oct 2004	1 Day	Found 3" x 3/4" pin on rotary table while drilling ahead. Suspended current operations and inspected TDS. Pin had fallen from TDS link tilt. Replaced pin and checked all other pins. Investigation being conducted.
Safety Meeting	24 Oct 2004	6 Days	Three safety meetings held (13:00, 19:00, 01:00). Attended by all crews.

Shakers, Volumes and Losses Data				Engineer : Gordon Howie			
Available	1578bbl	Losses	220bbl	Equip.	Descr.	Mesh Size	Hours
Active	359.0bbl	Downhole	31.0bbl	Shaker 1	VSM 100	10, 4 x 84	5
Mixing	0bbl	Surf+ Equip	52bbl	Shaker 2	VSM 100	10, 4 x 165	5
Hole	864.0bbl	Dumped	137.0bbl	Shaker 3	VSM 100	10, 2 x 120, 2 x 105	5
Slug	27.0bbl	De-Sander	0bbl	Shaker 4	VSM 100	10, 4 x 105	5
Reserve	328.0bbl	De-Silter	0bbl				
Kill	0bbl	Centrifuge	0bbl				
		Sweeps					

Marine									
Weather check on 30 Oct 2004 at 24:00							Rig Support		
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period	Anchors	Tension (klb)
10.00nm	15.0kn	120deg	1016bar	16.0C°	0.5m	120deg	0ft/sec	1	207.0
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments			
0.3deg	0.3deg	0.50m	2.5m	225deg	0ft/sec	Partical cloud			
Rig Dir.	Ris. Tension	VDL	Comments						
45.0deg	222.0klb	3904.0klb					8		
								2	185.0
								3	203.0
								4	192.0
								5	203.0
								6	203.0
								7	225.0
								8	220.0

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
				Item	Unit	Quantity
Far Grip		22:30	Enroute to Portland, ETA 07:30	Fuel	M3	572
				Drill Water	M3	0
				Potable Water	M3	580
				Barite	MT	0
				Gel	MT	63.6
				Cement	MT	85.3
Pacific Wrangler	22:30		At standby on location.	Fuel	M3	506.5
				Drill Water	M3	347
				Potable Water	MT	423
				Barite	M3	85
				Gel	MT	0
				Cement	MT	0

Helicopter Movement					
Flight #	Time	Destination	Comment	Pax	
2	15:06	Ocean Patriot	Call sign: BHQ	3	
2	15:11	Essendon		0	
1	9:44	Ocean Patriot	Call sign: BHI	8	
1	9:54	Essendon		9	

From : Nigel Walters, Steve Hodgetts
OIM : Barry Scott

Well Data

Country	Australia	M. Depth	1800.0m	Cur. Hole Size	12.250in	AFE Cost	
Field		TVD	1799.0m	Casing OD	13.375in	AFE No.	5736086
Drill Co.	DOGC	Progress	0m	Shoe TVD	620.8m	Daily Cost	
Rig	Ocean Patriot	Days from spud	11.04	F.I.T. / L.O.T.	0ppg / 21.60ppg	Cum Cost	
Wtr Dpth(LAT)	54.7m	Days on well	14.46			Planned TD	1878.0m
RT-ASL(LAT)	21.5m	Current Op @ 0600	Running logs.				
RT-ML	76.2m	Planned Op	Complete logging programme.				

Summary of Period 0000 to 2400 Hrs

Completed wiper trip to condition hole. Ran log # 1 & commenced log # 2.

Formations

Name	Top (MD)	Top (TVD)	Comment

Operations For Period 0000 Hrs to 2400 Hrs on 31 Oct 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PH	TP (HC)	RW	0000	0300	3.00	1800.0m	Continued wiper tip to TD. Washed & reamed tight spots & ledges. Held up & worked tight hole at 1,464 - 1,507m (took 30klb), ledge 1,582m (60klb), tight hole 1,630 - 1,635m (20klb).
PH	P	LOG	0300	0400	1.00	1800.0m	Updated clocks to reflect Daylight Savings Time coming into effect
PH	TP (HC)	WT	0400	0430	0.50	1800.0m	Continued RIH from 1,648 to 1,706m.
PH	TP (HC)	RW	0430	0530	1.00	1800.0m	Continued wiper tip to TD. Washed & reamed tight spots & ledges. Ledge 1,717m (30klb). At 1,765m washed & reamed to TD with 10klb on bit.
PH	TP (HC)	CHC	0530	0630	1.00	1800.0m	Commenced circulating bottoms up to clean hole.
PH	TP (HC)	WT	0630	0830	2.00	1800.0m	POOH to 1,075m
PH	TP (HC)	FC	0830	0900	0.50	1800.0m	Made flowcheck, well static, pumped HW slug.
PH	TP (HC)	WT	0900	1030	1.50	1800.0m	Continued POOH to BHA and conducted flowcheck, well static.
PH	TP (HC)	WT	1030	1200	1.50	1800.0m	Continued POOH with BHA, racked same.
PH	TP (HC)	LOG	1200	1230	0.50	1800.0m	Held JSA and RU wireline & compensator line.
PH	TP (HC)	LOG	1230	1430	2.00	1800.0m	Rigged up and reran log # 1 - MLL, DLL, MAC, ZDL, CN & GR. RIH to point where logs held up.
PH	P	LOG	1430	1830	4.00	1800.0m	Continued running log # 1. Logged down, TD - loggers 1,791m. Logged up, hole good. Recorded she at drillers depth 621m.
PH	P	LOG	1830	2000	1.50	1800.0m	Rigged down log #1. calibrated tools.
PH	P	LOG	2000	2115	1.25	1800.0m	Rigged up to run Log # 2.
PH	P	LOG	2115	2400	2.75	1800.0m	RIH with log # 2, RCI, GR & TTRM. 2 x pressure points taken to 1,295m.

Operations For Period 0000 Hrs to 0600 Hrs on 01 Nov 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PH	P	LOG	0000	0600	6.00	1800.0m	Continued running log # 2. Total of 30 pressure points taken by 06:00hrs.

Phase Data to 2400hrs, 31 Oct 2004

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
PRESPUD(PH)	82	17 Oct 2004	20 Oct 2004	82.00	3.417 days	0m
SURFACE HOLE(SH)	14.5	20 Oct 2004	21 Oct 2004	96.50	4.021 days	122.5m
INTERMEDIATE HOLE(IH)	48.5	21 Oct 2004	23 Oct 2004	145.00	6.042 days	628.0m
INTERMEDIATE CASING(IC)	62	23 Oct 2004	26 Oct 2004	207.00	8.625 days	628.0m
PRODUCTION HOLE(PH)	140	26 Oct 2004	31 Oct 2004	347.00	14.458 days	1800.0m

WBM Data									
Mud Type:	Glydril	API FL:	11cm³/30m	Cl:	35000	Solids:	10	Viscosity:	52sec/qt
Sample-From:	Active	Filter-Cake:	1/32nd"	K+C*1000:	4%	H2O:	90%	PV:	16cp
Time:	21:00	HTHP-FL:	0cm³/30m	Hard/Ca:	1600	Oil:	0%	YP:	22lb/100ft²
Weight:	10.50ppg	HTHP-Cake:	0/32nd"	MBT:	15	Sand:	1.25	Gels 10s:	9
Temp:	0C°			PM:	0	pH:	8.1	Gels 10m:	20
				PF:	0	PHPA:	Oppb	Fann 003:	7
								Fann 006:	9
								Fann 100:	23
								Fann 200:	32
								Fann 300:	38
								Fann 600:	54

Bit # 4				Wear	I	O1	D	L	B	G	O2	R
					2	3	BT	S	X	I	WT	TD
Size ("):	12.25in	IADC#		Nozzles		Drilled over last 24 hrs			Calculated over Bit Run			
Mfr:	HYCALOG	WOB(avg)	0klb	No.	Size	Progress	0m	Cum. Progress	538.0m			
Type:	PDC	RPM(avg)	0	5	14/32nd"	On Bottom Hrs	0h	Cum. On Btm Hrs	20.70h			
Serial No.:	109617	F.Rate	0gpm			IADC Drill Hrs	0h	Cum IADC Drill Hrs	23.50h			
Bit Model	DSX104A1HGW	SPP	0psi			Total Revs	236	Cum Total Revs	742			
Depth In	1262.0m	TFA	0.752			ROP(avg)	N/A	ROP(avg)	25.99 m/hr			
Depth Out	1800.0m											
Run Comment	Run below pyrites											

Bit # 3RR				Wear	I	O1	D	L	B	G	O2	R
					1	1	WT	A	0	1	NO	LOG
Size ("):	12.25in	IADC#	4-3-7	Nozzles		Drilled over last 24 hrs			Calculated over Bit Run			
Mfr:	REED	WOB(avg)	0klb	No.	Size	Progress	0m	Cum. Progress	0m			
Type:	Rock	RPM(avg)	0	3	20/32nd"	On Bottom Hrs	0h	Cum. On Btm Hrs	0h			
Serial No.:	M16694	F.Rate	0gpm			IADC Drill Hrs	0h	Cum IADC Drill Hrs	0h			
Bit Model	TD43HKPRDH	SPP	0psi			Total Revs	0	Cum Total Revs	0			
Depth In	1800.0m	TFA	0.920			ROP(avg)	N/A	ROP(avg)	0.00 m/hr			
Depth Out	0m											
Run Comment	Wiper trip reamed tight spots.											
Bitwear Comment	Reaming only											

BHA # 4						
Weight(Wet)	92.0klb	Length	288.3m	Torque(max)	3ft-lbs	D.C. (1) Ann Velocity
Wt Below Jar(Wet)	54.0klb	String	292.0klb	Torque(Off.Btm)	1ft-lbs	D.C. (2) Ann Velocity
		Pick-Up	0klb	Torque(On.Btm)	3ft-lbs	H.W.D.P. Ann Velocity
		Slack-Off	0klb			D.P. Ann Velocity
BHA Run Description	PDC bit, near bit roller reamer, FEWD, PM, Pulsar, 1 x 8"DC, Roller reamer, 10 x 8" DCs, jars, 3 x 8" DCs, accelerator, 1 x 8" DC, crossover, 12 x HWDP					
BHA Run Comment	Jar #83460C = 90hrs GR = 3.41m from bit, Res = 5.72m, PWD = 8.16m, Dir = 12.17m.					
Equipment	Length	OD	ID	Serial #	Comment	
Bit	0.35m	12.25in	0in	109617	PDC	
8in DC	9.11m	8.00in	2.77in	00-007		
12.25in Roller Reamer	2.01m	12.25in	3.00in	MX023		
8in DC	90.55m	8.00in	3.00in	Various		
8in Hydraulic Jars	9.95m	8.00in	3.00in	83460C		
8in DC	28.29m	8.00in	3.00in	Various		
Jar Accel.	10.39m	8.25in	3.00in	E71375		
8in DC	9.22m	8.00in	3.06in	00-008		
X/O	1.13m	8.00in	3.00in	186-011		
5in HWDP	112.33m	5.00in	3.00in	Various		

BHA # 5						
Weight(Wet)	85.0klb	Length	273.3m	Torque(max)	3ft-lbs	D.C. (1) Ann Velocity
Wt Below Jar(Wet)	49.0klb	String	292.0klb	Torque(Off.Btm)	1ft-lbs	D.C. (2) Ann Velocity
		Pick-Up	0klb	Torque(On.Btm)	3ft-lbs	H.W.D.P. Ann Velocity
		Slack-Off	0klb			D.P. Ann Velocity

BHA Run Description TCI bit, 1 x 8"DC, Roller reamer, 10 x 8" DCs, jars, 3 x 8" DCs, accellerator, 1 x 8" DC, crossover, 12 x HWDP

BHA Run Comment Jar #83460C = 90hrs

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.35m	12.25in	0in	M16694	TCI
8in DC	9.11m	8.00in	2.77in	00-007	
12.25in Roller Reamer	2.01m	12.25in	3.00in	MX023	
8in DC	90.55m	8.00in	3.00in	Various	
8in Hydraulic Jars	9.95m	8.00in	3.00in	83460C	
8in DC	28.29m	8.00in	3.00in	Various	
Jar Accel.	10.39m	8.25in	3.00in	E71375	
8in DC	9.22m	8.00in	3.06in	00-008	
X/O	1.13m	8.00in	3.00in	186-011	
5in HWDP	112.33m	5.00in	3.00in	Various	

Survey

MD (m)	Incl Deg (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
1735.43	2.43	221.48	1734.50	30.71	0.42	-26.71	-21.27	MWD
1763.96	2.56	220.08	1763.00	31.80	0.50	-27.65	-22.08	MWD
1785.46	2.69	214.76	1784.48	32.70	1.28	-28.43	-22.68	MWD
1800.00	2.69	214.76	1799.01	33.33	0	-28.99	-23.07	Projected

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Fuel	M3	0	10.8	0	452.0
Drill Water	MT	0	24.1	0	331.2
Potable Water	MT	33	24.7	0.1	242.0
Gel	sx	0	0	0	318.0
Cement	sx	0	0	0	933.0
Barite	sx	0	159	1	2,471.0

Personnel On Board

Company	Pax
DOGC	46
Santos	6
Total Marine Catering	8
Fugro	2
Sperry-Sun	2
M.I	1
Dowell	2
Baker Atlas	8
Sperry-Sun	2
Expro	1
Total	78

Pumps

Pump Data - Last 24 Hrs								Slow Pump Data									
No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)	Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
1	Oilwell A1700PT	6.00	10.30	98	65	2400	286	1800.0	30	200	132	40	275	176	50	300	220
2	National 12P-160	6.00	10.30	98	65	2400	286	1800.0	30	200	132	40	245	176	50	375	220
3	National 12P-160	6.00	10.30	98	65	2400	286	1176.0	30	150	132	40	200	176	50	250	220

Casing

OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	0ppg / 0ppg	121.0m / 121.0m	
13 3/8"	21.60ppg / 0ppg	620.8m / 620.8m	

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	31 Oct 2004	0 Days	Fire and abandon rig drill held based on simulated fire in the outside smokers shack. All personnel mustered at aft lifeboats.
First Aid	20 Oct 2004	11 Days	Were advised that seaman aboard Far Grip had piece of metal embedded in his knee. IP brought on board for examination by rig medic. Medic advised IP fit to return to normal duties and no need for medivac. IP returned to Far Grip.
Near Miss	29 Oct 2004	2 Days	Found 3" x 3/4" pin on rotary table while drilling ahead. Suspended current operations and inspected TDS. Pin had fallen from TDS link tilt. Replaced pin and checked all other pins. Investigation being conducted.
Safety Meeting	31 Oct 2004	0 Days	Three safety meetings held (13:00, 19:00, 01:00). Attended by all crews.

Shakers, Volumes and Losses Data				Engineer : Gordon Howie			
Available	1578bbl	Losses	220bbl	Equip.	Descr.	Mesh Size	Hours
Active	359.0bbl	Downhole	31.0bbl	Shaker 1	VSM 100	10, 4 x 84	5
Mixing	0bbl	Surf+ Equip	52bbl	Shaker 2	VSM 100	10, 4 x 165	5
Hole	864.0bbl	Dumped	137.0bbl	Shaker 3	VSM 100	10, 2 x 120, 2 x 105	5
Slug	27.0bbl	De-Sander	0bbl	Shaker 4	VSM 100	10, 4 x 105	5
Reserve	328.0bbl	De-Silter	0bbl				
Kill	0bbl	Centrifuge	0bbl				
		Sweeps					

Marine									
Weather check on 31 Oct 2004 at 24:00							Rig Support		
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period	Anchors	Tension (klb)
10.00nm	15.0kn	220deg	1007bar	15.0C°	0.5m	220deg	0ft/sec	1	207.0
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments			
0.2deg	0.2deg	0.50m	1.0m	225deg	0ft/sec	Partical cloud			
Rig Dir.	Ris. Tension	VDL	Comments						
45.0deg	222.0klb	3755.4klb					8 225.0		

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Far Grip			Portland	Item	Unit	Quantity
				Fuel	M3	572
				Drill Water	M3	0
				Potable Water	M3	580
				Barite	MT	0
				Gel	MT	63.6
				Cement	MT	85.3
Pacific Wrangler			At standby on location.	Item	Unit	Quantity
				Fuel	M3	495.5
				Drill Water	M3	347
				Potable Water	MT	417
				Barite	M3	85
				Gel	MT	0
				Cement	MT	0

Helicopter Movement					
Flight #	Time	Destination	Comment	Pax	
1	14:31	Ocean Patriot	Call sign BZU	1	
1	14:49	Essendon		12	

From : Nigel Walters, Steve Hodgetts
OIM : Barry Scott

Well Data

Country	Australia	M. Depth	1800.0m	Cur. Hole Size	12.250in	AFE Cost	
Field		TVD	1799.0m	Casing OD	13.375in	AFE No.	5736086
Drill Co.	DOGC	Progress	0m	Shoe TVD	620.8m	Daily Cost	
Rig	Ocean Patriot	Days from spud	12.04	F.I.T. / L.O.T.	0ppg / 21.60ppg	Cum Cost	
Wtr Dpth(LAT)	54.7m	Days on well	15.75			Planned TD	1878.0m
RT-ASL(LAT)	21.5m	Current Op @ 0600	Rigging down logs.				
RT-ML	76.2m	Planned Op	Set abandonment plugs.				

Summary of Period 0000 to 2400 Hrs

Ran wireline logs # 2, 3 & 4.

Formations

Name	Top (MD)	Top (TVD)	Comment

Operations For Period 0000 Hrs to 2400 Hrs on 01 Nov 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PH	P	LOG	0000	0600	6.00	1800.0m	Continued running log # 2. Total of 30 pressure points taken by 06:00hrs.
EP	P	LOG	0000	0930	9.50	1800.0m	Continued running log # 2. Total of 35 pressure points & 6 samples taken. No hole problems.
EP	P	LOG	0930	1130	2.00	1800.0m	POOH & laid out RCI tools.
EP	P	LOG	1130	1315	1.75	1800.0m	RU & RIH with log #3.
EP	P	LOG	1315	1900	5.75	1800.0m	Ran log#3, VSP & 5 level MLR from 1,785m to seabed.
EP	P	LOG	1900	1930	0.50	1800.0m	POOH & laid out VSP tools.
EP	TP (WOE)	LOG	1930	2000	0.50	1800.0m	Waited on crane to move basket off catwalk.
EP	U	LOG	2000	2030	0.50	1800.0m	RU & surface tested RCOR tools.
EP	TU (LTF)	LOG	2030	2130	1.00	1800.0m	Trounleshoot prolems with rotary core cutter & repaired same.
EP	U	LOG	2130	2315	1.75	1800.0m	RIH with RCOR to 1,753m attempt to take samples.
EP	U	LOG	2315	2400	0.75	1800.0m	Unable to take sample POOH.

Operations For Period 0000 Hrs to 0600 Hrs on 02 Nov 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
EP	U	LOG	0000	0045	0.75	1800.0m	POOH with RCOR tools & laid out same.
EP	U	LOG	0000	0000	0.00	1800.0m	Laid out tools.
EP	P	LOG	0045	0300	2.25	1800.0m	Picked up CST tools & RIH, tol took weight at 910m, worked past ledge (5min). Rig on radio silence during loading and running of CSTs.
EP	P	LOG	0300	0430	1.50	1800.0m	Ran log #5, CST, shot 25.
EP	P	LOG	0430	0530	1.00	1800.0m	POOH with CST tools.
PA	P	TI	0530	0600	0.50	1800.0m	Clear floor & prepare to RIH w/ OEDP to set cement abandonment plugs.

Phase Data to 2400hrs, 01 Nov 2004

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
PRESPUD(PS)	82	17 Oct 2004	20 Oct 2004	82.00	3.417 days	0m
SURFACE HOLE(SH)	14.5	20 Oct 2004	21 Oct 2004	96.50	4.021 days	122.5m
INTERMEDIATE HOLE(IH)	48.5	21 Oct 2004	23 Oct 2004	145.00	6.042 days	628.0m
INTERMEDIATE CASING(IC)	62	23 Oct 2004	26 Oct 2004	207.00	8.625 days	628.0m
PRODUCTION HOLE(PH)	147	26 Oct 2004	01 Nov 2004	354.00	14.750 days	1800.0m
EVALUATION PRODUCTION HOLE(EP)	24	01 Nov 2004	01 Nov 2004	378.00	15.750 days	1800.0m

General Comments		
Comments	Rig Requirements	Lessons Learnt
Radio silence for the CST logging run caused the Fargrip to delay the completion of the cement transfer & delayed the backloading of the RCI tools.		
Held rig move meeting with AHSV captains, 2nd Mate (Fargrip), OIM, Barge Master, Santos DSV. Discussed procedures & options.		

WBM Data									
Mud Type:	Glydril	API FL:	0cm³/30m	Cl:	0	Solids:	0	Viscosity:	52sec/qt
Sample-From:	Active	Filter-Cake:	0/32nd"	K+C*1000:	0%	H2O:	0%	PV:	0cp
Time:	21:00	HTHP-FL:	0cm³/30m	Hard/Ca:	0	Oil:	0%	YP:	0lb/100ft²
Weight:	10.50ppg	HTHP-Cake:	0/32nd"	MBT:	0	Sand:		Gels 10s:	0
Temp:	0C°			PM:	0	pH:	0	Gels 10m:	0
				PF:	0	PHPA:	Oppb	Fann 003:	0
								Fann 006:	0
								Fann 100:	0
								Fann 200:	0
								Fann 300:	0
								Fann 600:	0

WBM Data									
Mud Type:	Glydril	API FL:	10cm³/30m	Cl:	37000	Solids:	10	Viscosity:	45sec/qt
Sample-From:	Active	Filter-Cake:	2/32nd"	K+C*1000:	4%	H2O:	90%	PV:	16cp
Time:	18:00	HTHP-FL:	0cm³/30m	Hard/Ca:	1080	Oil:	0%	YP:	21lb/100ft²
Weight:	10.50ppg	HTHP-Cake:	0/32nd"	MBT:	15	Sand:	1.25	Gels 10s:	9
Temp:	0C°			PM:	0	pH:	8.7	Gels 10m:	18
				PF:	0.05	PHPA:	Oppb	Fann 003:	7
								Fann 006:	9
								Fann 100:	21
								Fann 200:	30
								Fann 300:	37
								Fann 600:	53

Bit # 3RR				Wear	I	O1	D	L	B	G	O2	R
					1	1	WT	A	0	1	NO	LOG
Size ("):	IADC#	WOB(avg)	0klb	Nozzles		Drilled over last 24 hrs			Calculated over Bit Run			
Mfr:	REED	RPM(avg)	0	No.	Size	Progress			Cum. Progress			
Type:	Rock	F.Rate	0gpm	3	20/32nd"	On Bottom Hrs			Cum. On Btm Hrs			
Serial No.:	M16694	SPP	0psi			IADC Drill Hrs			Cum IADC Drill Hrs			
Bit Model	TD43HKPRDH	TFA	0.920			Total Revs			Cum Total Revs			
Depth In	1800.0m					ROP(avg)			ROP(avg)			
Depth Out	0m								0.00 m/hr			
Run Comment	Wiper trip reamed tight spots.											
Bitwear Comment	Reaming only											

BHA # 5						
Weight(Wet)	85.0klb	Length	273.3m	Torque(max)	3ft-lbs	D.C. (1) Ann Velocity
Wt Below Jar(Wet)	49.0klb	String	292.0klb	Torque(Off.Btm)	1ft-lbs	D.C. (2) Ann Velocity
		Pick-Up	0klb	Torque(On.Btm)	3ft-lbs	H.W.D.P. Ann Velocity
		Slack-Off	0klb			D.P. Ann Velocity
BHA Run Description	TCI bit, 1 x 8"DC, Roller reamer, 10 x 8" DCs, jars, 3 x 8" DCs, accellerator, 1 x 8" DC, crossover, 12 x HWDP					
BHA Run Comment	Jar #83460C = 90hrs					

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.35m	12.25in	0in	M16694	TCI
8in DC	9.11m	8.00in	2.77in	00-007	
12.25in Roller Reamer	2.01m	12.25in	3.00in	MX023	
8in DC	90.55m	8.00in	3.00in	Various	
8in Hydraulic Jars	9.95m	8.00in	3.00in	83460C	
8in DC	28.29m	8.00in	3.00in	Various	
Jar Accel.	10.39m	8.25in	3.00in	E71375	
8in DC	9.22m	8.00in	3.06in	00-008	
X/O	1.13m	8.00in	3.00in	186-011	
5in HWDP	112.33m	5.00in	3.00in	Various	

Survey								
MD (m)	Incl Deg (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
1678.05	2.32	225.45	1677.17	28.66	0.47	-24.98	-19.61	MWD
1706.72	2.40	224.26	1705.82	29.66	0.33	-25.82	-20.45	MWD
1735.43	2.43	221.48	1734.50	30.71	0.42	-26.71	-21.27	MWD
1763.96	2.56	220.08	1763.00	31.80	0.50	-27.65	-22.08	MWD
1785.46	2.69	214.76	1784.48	32.70	1.28	-28.43	-22.68	MWD
1800.00	2.69	214.76	1799.01	33.33	0	-28.99	-23.07	Projected

Bulk Stocks						Personnel On Board		
Name	Unit	In	Used	Adjust	Balance	Company		Pax
Fuel	M3	0	8.7	-0.1	443.2	DOGC		45
Drill Water	MT	0	24.1	-0.1	307.0	Santos		5
Potable Water	MT	35	22.5	0	254.5	Total Marine Catering		8
Barite	sx	0	786	0	1,685.0	Fugro		4
Gel	sx	0	0	0	318.0	Sperry-Sun		2
Cement	sx	0	0	0	933.0	M.I		1
						Dowell		2
						Baker Atlas		8
						Cameron		1
						Smith Tool Company		1
							Total	77

Pumps																	
Pump Data - Last 24 Hrs								Slow Pump Data									
No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)	Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
1	Oilwell A1700PT	6.00	10.30	98	0	0	0	1800.0	30	200	132	40	275	176	50	300	220
2	National 12P-160	6.00	10.30	98	0	0	0	1800.0	30	200	132	40	245	176	50	375	220
3	National 12P-160	6.00	10.30	98	0	0	0	1176.0	30	150	132	40	200	176	50	250	220

Casing			
OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	0ppg / 0ppg	121.0m / 121.0m	
13 3/8"	21.60ppg / 0ppg	620.8m / 620.8m	

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	31 Oct 2004	1 Day	Fire and abandon rig drill held based on simulated fire in the outside smokers shack. All personnel mustered at aft lifeboats.
First Aid	20 Oct 2004	12 Days	Were advised that seaman aboard Far Grip had piece of metal embedded in his knee. IP brought on board for examination by rig medic. Medic advised IP fit to return to normal duties and no need for medivac. IP returned to Far Grip.
Near Miss	29 Oct 2004	3 Days	Found 3" x 3/4" pin on rotary table while drilling ahead. Suspended current operations and inspected TDS. Pin had fallen from TDS link tilt. Replaced pin and checked all other pins. Investigation being conducted.
Safety Meeting	31 Oct 2004	1 Day	Three safety meetings held (13:00, 19:00, 01:00). Attended by all crews.

Shakers, Volumes and Losses Data				Engineer : Gordon Howie			
Available	1589bbl	Losses	144bbl	Equip.	Descr.	Mesh Size	Hours
Active	427.0bbl	Downhole	30.0bbl	Shaker 1	VSM 100	10, 4 x 84	5
Mixing	0bbl	Surf+ Equip	52bbl	Shaker 2	VSM 100	10, 4 x 165	5
Hole	926.0bbl	Dumped	62.0bbl	Shaker 3	VSM 100	10, 2 x 120, 2 x 105	5
Slug	42.0bbl	De-Sander	0bbl	Shaker 4	VSM 100	10, 4 x 105	5
Reserve	194.0bbl	De-Silter	0bbl				
Kill	0bbl	Centrifuge	0bbl				
		Sweeps					

Marine									
Weather check on 01 Nov 2004 at 24:00							Rig Support		
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period	Anchors	Tension (klb)
10.00nm	20.0kn	270deg	1006bar	14.0C°	1.0m	270deg	0ft/sec	1	207.0
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments		2	185.0
0.2deg	0.2deg	0.50m	1.5m	247deg	0ft/sec	Mainly cloudy		3	203.0
Rig Dir.	Ris. Tension	VDL	Comments			4	192.0	5	203.0
45.0deg	222.0klb	3619.5klb				6	203.0	7	236.0
						8	214.0		

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Far Grip			Portland	Item	Unit	Quantity
				Fuel	M3	572
				Drill Water	M3	0
				Potable Water	M3	580
				Barite	MT	0
				Gel	MT	63.6
				Cement	MT	85.3
Far Grip	16:10		At standby on location.	Item	Unit	Quantity
				Fuel	m3	558.5
				Drill Water	m3	380
				Potable Water	m3	675
				Barite	MT	0
				Gel	MT	87
				Cement	MT	129
Pacific Wrangler			At standby on location.	Item	Unit	Quantity
				Fuel	M3	495.5
				Drill Water	M3	347
				Potable Water	MT	417
				Barite	M3	85
				Gel	MT	0
				Cement	MT	0
Pacific Wrangler			At standby on location.	Item	Unit	Quantity
				Fuel	m3	484.1
				Drill Water	m3	347
				Potable Water	m3	411
				Barite	MT	85
				Gel	MT	0
				Cement	MT	0

Helicopter Movement				
Flight #	Time	Destination	Comment	Pax
1	16:31	Ocean Patriot	Call sign BHI	4
1	16:40	Essendon		2

From : Nigel Walters, Steve Hodgetts
OIM : Barry Scott

Well Data

Country	Australia	M. Depth	1800.0m	Cur. Hole Size	12.250in	AFE Cost	
Field		TVD	1799.0m	Casing OD	13.375in	AFE No.	5736086
Drill Co.	DOGC	Progress	0m	Shoe TVD	620.8m	Daily Cost	
Rig	Ocean Patriot	Days from spud	13.04	F.I.T. / L.O.T.	0ppg / 21.60ppg	Cum Cost	
Wtr Dpth(LAT)	54.7m	Days on well	16.77			Planned TD	1878.0m
RT-ASL(LAT)	21.5m	Current Op @ 0600	POOH laying down excess DP.				
RT-ML	76.2m	Planned Op	Set balanced cement abandonment plug # 4 across shoe & # 5 at surface. Pull BOP.				

Summary of Period 0000 to 2400 Hrs

Completed wireline logs. RIH with open ended DP. Set balanced cement abandonment plugs # 1, 2 & 3.

Formations

Name	Top (MD)	Top (TVD)	Comment

Operations For Period 0000 Hrs to 2400 Hrs on 02 Nov 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
EP	U	LOG	0000	0045	0.75	1800.0m	POOH with RCOR tool & laid out same.
EP	U	LOG	0000	0000	0.00	1800.0m	Laid out tools.
EP	P	LOG	0045	0300	2.25	1800.0m	Picked up CST tools & RIH, tool took weight at 910m, worked past ledge (5min). Rig on radio silence during loading and running of CSTs.
EP	P	LOG	0300	0430	1.50	1800.0m	Ran log #5, CST, shot 25.
EP	P	LOG	0430	0600	1.50	1800.0m	POOH with CST tools. Recovered 25, 100% recovery, 0 lost, 0 empty.
PA	P	TI	0530	0600	0.50	1800.0m	Clear floor & prepare to RIH w/ OEDP to set cement abandonment plugs.
EP	P	LOG	0600	0630	0.50	1800.0m	Rigged down wireline & compensator line.
PA	P	LOG	0630	0700	0.50	1800.0m	Made up stand with side entry for cementing & stood back.
PA	P	TI	0700	1100	4.00	1800.0m	Picked up mule shoe & RIH to 1800m.
PA	P	SM	1100	1200	1.00	1800.0m	Circulated bottoms up. Held pre-job meeting for setting cement plugs.
PA	P	PT	1200	1230	0.50	1800.0m	Broke circulation with Dowell cement unit & tested lines to 2,000psi.
PA	P	CMP	1230	1330	1.00	1800.0m	Set balanced cement plug # 1 (1,790 - 1,600m). Pumped 20 bbls DW with Dowell ahead of cement. Mixed & pumped 104 bbls of cement slurry at 15.8ppg. Pumped 2.5 bbls of DW behind & displaced with 84 bbls mud. Full returns observed.
PA	P	TO	1330	1430	1.00	1800.0m	Rigged down cement hose & POOH 1,790 to 1,600m.
PA	P	CHC	1430	1530	1.00	1800.0m	Rigged up cement hose & circulated bottoms up, trace of cement observed.
PA	P	CMP	1530	1700	1.50	1800.0m	Set balanced cement plug # 2 (1,600 - 1,400m). Pumped 20 bbls DW with Dowell ahead of cement. Mixed & pumped 135 bbls of cement slurry at 15.8ppg. Pumped 2 bbls of DW behind & displaced with 72.5 bbls mud. Full returns observed.
PA	P	TO	1700	1800	1.00	1800.0m	Rigged down cement hose & POOH 1,600 to 1,400m.
PA	P	CHC	1800	1900	1.00	1800.0m	Rigged up cement hose & circulated bottoms up. Cement observed on bottoms up, dumped heavily contaminated mud.
PA	P	RS	1900	1930	0.50	1800.0m	Serviced TDS & blocks.
PA	TP (RE)	RR	1930	2000	0.50	1800.0m	Troubleshoot & rectify problem w/ air compressor. Complete repressurising of cement pod after cement transfer.
PA	P	CMP	2000	2130	1.50	1800.0m	Set balanced cement plug # 3 (1,400 - 1,200m). Pumped 20 bbls DW with Dowell ahead of cement. Mixed & pumped 157 bbls of cement slurry at 15.8 ppg. Pumped 1.6 bbls of DW behind & displaced with 60 bbls mud. Full returns observed.
PA	P	TO	2130	2230	1.00	1800.0m	Rigged down cement hose & POOH 1,400 to 1,150m.
PA	P	CMD	2230	2330	1.00	1800.0m	Rigged up cement hose & circulated bottoms up. Mud treated for cement contamination.
PA	P	CMD	2330	2400	0.50	1800.0m	Functioned BOP stack components & circulated riser.

Operations For Period 0000 Hrs to 0600 Hrs on 03 Nov 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PA	P	CMD	0000	0030	0.50	1800.0m	Continued to circulate & condition cement contamination.
PA	P	TO	0030	0130	1.00	1800.0m	Pulled DP back to 730m.
PA	P	CMD	0130	0200	0.50	1800.0m	Spotted 70 bbls balanced viscous 1.5 sg pill, displaced with 37 bbls mud to position pill from 730m to 655m.

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PA	P	TO	0200	0230	0.50	1800.0m	Pulled DP back to plug setting point at 655m.
PA	P	CMP	0230	0300	0.50	1800.0m	Set balanced cement plug # 4(655 - 570m). Pumped 20 bbls DW with Dowell ahead of cement. Mixed & pumped 55 bbls of cement slurry at 15.8ppg. Pumped 2.8 bbls of DW behind & displaced with 26 bbls mud. Full returns observed.
PA	P	TO	0300	0330	0.50	1800.0m	Rigged down cement hose & POOH 655 to 550m.
PA	P	CHC	0330	0500	1.50	1800.0m	Rigged up cement hose & circulated bottoms up with inhibited 10.5 ppg mud.
PA	P	PLD	0500	0600	1.00	1800.0m	POOH laying out excess DP.

Phase Data to 2400hrs, 02 Nov 2004

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
PRESPUD(PS)	82	17 Oct 2004	20 Oct 2004	82.00	3.417 days	0m
SURFACE HOLE(SH)	14.5	20 Oct 2004	21 Oct 2004	96.50	4.021 days	122.5m
INTERMEDIATE HOLE(IH)	48.5	21 Oct 2004	23 Oct 2004	145.00	6.042 days	628.0m
INTERMEDIATE CASING(IC)	62	23 Oct 2004	26 Oct 2004	207.00	8.625 days	628.0m
PRODUCTION HOLE(PH)	147	26 Oct 2004	01 Nov 2004	354.00	14.750 days	1800.0m
EVALUATION PRODUCTION HOLE(EP)	30.5	01 Nov 2004	02 Nov 2004	384.50	16.021 days	1800.0m
PLUG AND ABANDON(PA)	18	02 Nov 2004	02 Nov 2004	402.50	16.771 days	1800.0m

WBM Data

Mud Type:	Glydril	API FL:	14cm³/30m	Cl:	37000	Solids:	10	Viscosity:	47sec/qt
Sample-From:	Active	Filter-Cake:	2/32nd"	K+C*1000:	4%	H2O:	90%	PV:	20cp
Time:	23:00	HTHP-FL:	0cm³/30m	Hard/Ca:	1200	Oil:	0%	YP:	25lb/100ft²
Weight:	10.50ppg	HTHP-Cake:	0/32nd"	MBT:	15	Sand:	1	Gels 10s:	0
Temp:	0C°			PM:	0	pH:	11.7	Gels 10m:	0
				PF:	0.05	PHPA:	Oppb	Fann 003:	9
								Fann 006:	11
								Fann 100:	26
								Fann 200:	35
								Fann 300:	45
								Fann 600:	65

Survey

MD (m)	Incl Deg (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
1678.05	2.32	225.45	1677.17	28.66	0.47	-24.98	-19.61	MWD
1706.72	2.40	224.26	1705.82	29.66	0.33	-25.82	-20.45	MWD
1735.43	2.43	221.48	1734.50	30.71	0.42	-26.71	-21.27	MWD
1763.96	2.56	220.08	1763.00	31.80	0.50	-27.65	-22.08	MWD
1785.46	2.69	214.76	1784.48	32.70	1.28	-28.43	-22.68	MWD
1800.00	2.69	214.76	1799.01	33.33	0	-28.99	-23.07	Projected

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Fuel	M3	0	13	0.2	430.4
Drill Water	MT	0	36	-0.2	270.8
Potable Water	MT	32	22.3	0	264.2
Barite	sx	0	0	0	1,685.0
Gel	sx	0	0	0	318.0
Cement	sx	2865	568	-1	3,229.0

Personnel On Board

Company	Pax
DOGC	47
Santos	5
Total Marine Catering	8
Fugro	4
Sperry-Sun	2
M.I	1
Dowell	2
Baker Atlas	4
Cameron	1
Smith Tool Company	1
Total	75

Pumps																	
Pump Data - Last 24 Hrs								Slow Pump Data									
No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)	Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
1	Oilwell A1700PT	6.00	10.30	98	0	0	0	1800.0	30	200	132	40	275	176	50	300	220
2	National 12P-160	6.00	10.30	98	0	0	0	1800.0	30	200	132	40	245	176	50	375	220
3	National 12P-160	6.00	10.30	98	0	0	0	1176.0	30	150	132	40	200	176	50	250	220

Casing			
OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	0ppg / 0ppg	121.0m / 121.0m	
13 3/8"	21.60ppg / 0ppg	620.8m / 620.8m	

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	31 Oct 2004	2 Days	Fire and abandon rig drill held based on simulated fire in the outside smokers shack. All personnel mustered at aft lifeboats.
First Aid	20 Oct 2004	13 Days	Were advised that seaman aboard Far Grip had piece of metal embedded in his knee. IP brought on board for examination by rig medic. Medic advised IP fit to return to normal duties and no need for medivac. IP returned to Far Grip.
Near Miss	29 Oct 2004	4 Days	Found 3" x 3/4" pin on rotary table while drilling ahead. Suspended current operations and inspected TDS. Pin had fallen from TDS link tilt. Replaced pin and checked all other pins. Investigation being conducted.
Safety Meeting	31 Oct 2004	2 Days	Three safety meetings held (13:00, 19:00, 01:00). Attended by all crews.

Shakers, Volumes and Losses Data				Engineer : Gordon Howie			
Available	Losses	Equip.	Descr.	Mesh Size	Hours		
1529bbl	68bbl	Shaker 1	VSM 100	10, 4 x 84	5		
457.0bbl	0bbl	Shaker 2	VSM 100	10, 4 x 165	5		
0bbl	68bbl	Shaker 3	VSM 100	10, 2 x 120, 2 x 105	5		
639.0bbl	0bbl	Shaker 4	VSM 100	10, 4 x 105	5		
42.0bbl	0bbl						
391.0bbl	0bbl						
0bbl	0bbl						
		Sweeps					

Marine									
Weather check on 02 Nov 2004 at 24:00							Rig Support		
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period	Anchors	Tension (klb)
10.00nm	30.0kn	225deg	1004bar	11.0C°	2.0m	225deg	0ft/sec	1	207.0
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments			
0.3deg	0.3deg	1.00m	3.0m	240deg	0ft/sec	Drizzle			
Rig Dir.	Ris. Tension	VDL	Comments						
45.0deg	222.0klb	3998.7klb							
								2	185.0
								3	203.0
								4	201.0
								5	203.0
								6	203.0
								7	227.0
								8	209.0

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Far Grip			At standby on location.	Item	Unit	Quantity
				Fuel	m3	549
				Drill Water	m3	380
				Potable Water	m3	670
				Barite	MT	0
				Gel	MT	87
				Cement	MT	0
Pacific Wrangler		08:30	Enroute rig.	Item	Unit	Quantity
				Fuel	m3	567
				Drill Water	m3	380
				Potable Water	m3	680
				Barite	MT	85
				Gel	MT	12
				Cement	MT	84

Helicopter Movement				
Flight #	Time	Destination	Comment	Pax
1	17:35	Ocean Patriot	Call sign BZU	13
1	17:53	Essendon		15

From : Nigel Walters, Steve Hodgetts
OIM : Barry Scott

Well Data

Country	Australia	M. Depth	1800.0m	Cur. Hole Size	12.250in	AFE Cost	
Field		TVD	1799.0m	Casing OD	13.375in	AFE No.	5736086
Drill Co.	DOGC	Progress	0m	Shoe TVD	620.8m	Daily Cost	
Rig	Ocean Patriot	Days from spud	14.04	F.I.T. / L.O.T.	0ppg / 21.60ppg	Cum Cost	
Wtr Dpth(LAT)	54.7m	Days on well	17.77			Planned TD	1878.0m
RT-ASL(LAT)	21.5m	Current Op @ 0600	RU to pull marine riser & BOPs.				
RT-ML	76.2m	Planned Op	Pull BOP, RIH, cut wellhead & retrieve same. Deballast & pull anchors.				

Summary of Period 0000 to 2400 Hrs

Set abandonment plug #4. Laid out excess drillstring tubulars. Set cement retainer for abandonment plug #5.

Operations For Period 0000 Hrs to 2400 Hrs on 03 Nov 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PA	P	CMD	0000	0030	0.50	1800.0m	Continued to circulate & condition cement contamination.
PA	P	TO	0030	0130	1.00	1800.0m	Pulled DP back to 730m.
PA	P	CMD	0130	0200	0.50	1800.0m	Spotted 70 bbls balanced viscous 1.5 sg pill, displaced with 37 bbls mud to position pill from 730m to 655m.
PA	P	TO	0200	0230	0.50	1800.0m	Pulled DP back to plug setting point at 655m.
PA	P	CMP	0230	0300	0.50	1800.0m	Held JSA. Set balanced cement plug # 4(655 - 570m). Pumped 20 bbls DW with Dowell ahead of cement. Mixed & pumped 55 bbls of cement slurry at 15.8ppg. Pumped 2.8 bbls of DW behind & displaced with 26 bbls mud. Full returns observed.
PA	P	TO	0300	0330	0.50	1800.0m	Rigged down cement hose & POOH 655 to 550m.
PA	P	CHC	0330	0500	1.50	1800.0m	Rigged up cement hose & circulated bottoms up with inhibited 10.5 ppg mud.
PA	P	PLD	0500	0930	4.50	1800.0m	POOH laying out excess DP. Laid out 2 stands of DC
PA	P	TI	0930	1100	1.50	1800.0m	Ran in hole and tagged cement at 575m
PA	P	PLD	1100	1400	3.00	1800.0m	POOH laying out excess DP.
PA	P	CHC	1400	1430	0.50	1800.0m	Jetted wellhead & stack.
PA	P	PLD	1430	1500	0.50	1800.0m	Continued POOH laying out excess DP from 75m to surface.
PA	P	PLD	1500	1530	0.50	1800.0m	RIH w/13 stds 5" DP to 348m.
PA	P	PLD	1530	1800	2.50	1800.0m	POOH laying out excess DP from 348 to surface.
PA	P	RPK	1800	2030	2.50	1800.0m	Made up cement retainer & RIH to 166m on 2 stands of DC & 4 stands of HWDP. Set Baker cement retainer as per Dowell instructions. Pressure tested same to 500 psi, held. (pumped & returned ~.2bbl).
PA	P	PLD	2030	2400	3.50	1800.0m	POOH laying out HWDP. RIH with 2 stands of 8" DC & POOH laying out same.

Operations For Period 0000 Hrs to 0600 Hrs on 04 Nov 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PA	P	PLD	0000	0100	1.00	1800.0m	Continued laying out 8" DC.
PA	P	TI	0100	0130	0.50	1800.0m	RIH with muleshoe on DP & tagged cement retainer at 166m.
PA	P	CHC	0130	0200	0.50	1800.0m	Rigged up cement lines & displaced wellhead & riser to seawater with rig pumps.
PA	P	CMP	0200	0300	1.00	1800.0m	Rigged up to set cement plug. Set balanced cement plug # 5(166 - 114m). Pumped 10 bbls DW with Dowell ahead of cement. Mixed & pumped 25 bbls of cement slurry at 15.8ppg. Displaced with 6.5 bbls seawater. Returns observed, dumped same.
PA	P	TO	0300	0330	0.50	1800.0m	POOH to 100m. Reverse circulated out cement contamination & dumped returns. Dumped pits.
PA	P	PLD	0330	0430	1.00	1800.0m	Continued laying out excess tubulars, cement stand & DP.
PA	P	WH	0430	0500	0.50	1800.0m	Make up wearbushing running/retrieval tool, jet sub & RIH. Jet wellhead & BOPs.
PA	P	WH	0530	0600	0.50	1800.0m	Retrieved wearbushing with 20klb overpull. POOH & laid out same. No wear observed.

Phase Data to 2400hrs, 03 Nov 2004

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
PRESPUD(PS)	82	17 Oct 2004	20 Oct 2004	82.00	3.417 days	0m
SURFACE HOLE(SH)	14.5	20 Oct 2004	21 Oct 2004	96.50	4.021 days	122.5m
INTERMEDIATE HOLE(IH)	48.5	21 Oct 2004	23 Oct 2004	145.00	6.042 days	628.0m
INTERMEDIATE CASING(IC)	62	23 Oct 2004	26 Oct 2004	207.00	8.625 days	628.0m
PRODUCTION HOLE(PH)	147	26 Oct 2004	01 Nov 2004	354.00	14.750 days	1800.0m
EVALUATION PRODUCTION HOLE(EP)	30.5	01 Nov 2004	02 Nov 2004	384.50	16.021 days	1800.0m
PLUG AND ABANDON(PA)	42	02 Nov 2004	03 Nov 2004	426.50	17.771 days	1800.0m

WBM Data									
Mud Type:	Glydril	API FL:	14cm ³ /30m	Cl:	37000	Solids:	10	Viscosity:	47sec/qt
Sample-From:	Active	Filter-Cake:	2/32nd"	K+C*1000:	4%	H ₂ O:	90%	PV:	20cp
Time:	23:00	HTHP-FL:	0cm ³ /30m	Hard/Ca:	1200	Oil:	0%	YP:	25lb/100ft ²
Weight:	10.50ppg	HTHP-Cake:	0/32nd"	MBT:	15	Sand:	1	Gels 10s:	0
Temp:	0C°			PM:	0	pH:	11.7	Gels 10m:	0
				PF:	0.05	PHPA:	Oppb	Fann 003:	9
								Fann 006:	11
								Fann 100:	26
								Fann 200:	35
								Fann 300:	45
								Fann 600:	65

Survey								
MD (m)	Incl Deg (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
1678.05	2.32	225.45	1677.17	28.66	0.47	-24.98	-19.61	MWD
1706.72	2.40	224.26	1705.82	29.66	0.33	-25.82	-20.45	MWD
1735.43	2.43	221.48	1734.50	30.71	0.42	-26.71	-21.27	MWD
1763.96	2.56	220.08	1763.00	31.80	0.50	-27.65	-22.08	MWD
1785.46	2.69	214.76	1784.48	32.70	1.28	-28.43	-22.68	MWD
1800.00	2.69	214.76	1799.01	33.33	0	-28.99	-23.07	Projected

Bulk Stocks						Personnel On Board		
Name	Unit	In	Used	Adjust	Balance	Company		Pax
Fuel	M3	0	13	0	417.4	DOGC		50
Drill Water	MT	0	36.1	0	234.7	Santos		3
Potable Water	MT	36	24.9	0	275.3	Total Marine Catering		8
Barite	sx	0	0	0	1,685.0	Fugro		4
Gel	sx	0	0	0	318.0	Sperry-Sun		1
Cement	sx	0	1579	0	1,650.0	M.I		1
						Dowell		2
						Baker Atlas		4
						Cameron		1
						Smith Tool Company		1
							Total	75

Pumps																	
Pump Data - Last 24 Hrs								Slow Pump Data									
No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)	Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
1	Oilwell A1700PT	6.00	10.30	98	0	0	0	1800.0	30	200	132	40	275	176	50	300	220
2	National 12P-160	6.00	10.30	98	0	0	0	1800.0	30	200	132	40	245	176	50	375	220
3	National 12P-160	6.00	10.30	98	0	0	0	1176.0	30	150	132	40	200	176	50	250	220

Casing			
OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	Oppg / Oppg	121.0m / 121.0m	
13 3/8"	21.60ppg / Oppg	620.8m / 620.8m	

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	31 Oct 2004	3 Days	Fire and abandon rig drill held based on simulated fire in the outside smokers shack. All personnel mustered at aft lifeboats.
First Aid	20 Oct 2004	14 Days	Were advised that seaman aboard Far Grip had piece of metal embedded in his knee. IP brought on board for examination by rig medic. Medic advised IP fit to return to normal duties and no need for medivac. IP returned to Far Grip.
Near Miss	29 Oct 2004	5 Days	Found 3" x 3/4" pin on rotary table while drilling ahead. Suspended current operations and inspected TDS. Pin had fallen from TDS link tilt. Replaced pin and checked all other pins. Investigation being conducted.
Safety Meeting	31 Oct 2004	3 Days	Three safety meetings held (13:00, 19:00, 01:00). Attended by all crews.

Shakers, Volumes and Losses Data				Engineer : Gordon Howie			
Available	1529bbl	Losses	68bbl	Equip.	Descr.	Mesh Size	Hours
Active	457.0bbl	Downhole	0bbl	Shaker 1	VSM 100	10, 4 x 84	5
Mixing	0bbl	Surf+ Equip	68bbl	Shaker 2	VSM 100	10, 4 x 165	5
Hole	639.0bbl	Dumped	0bbl	Shaker 3	VSM 100	10, 2 x 120, 2 x 105	5
Slug	42.0bbl	De-Sander	0bbl	Shaker 4	VSM 100	10, 4 x 105	5
Reserve	391.0bbl	De-Silter	0bbl				
Kill	0bbl	Centrifuge	0bbl				
		Sweeps					

Marine									
Weather check on 03 Nov 2004 at 24:00							Rig Support		
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period	Anchors	Tension (klb)
10.00nm	6.0kn	200deg	1008bar	10.0C°	0.5m	200deg	0ft/sec	1	207.0
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments		2	185.0
0.3deg	0.3deg	1.00m	2.5m	202deg	0ft/sec	Partial cloud		3	203.0
Rig Dir.	Ris. Tension	VDL	Comments			4	192.0	5	203.0
45.0deg	222.0klb	4097.5klb				6	203.0	7	227.0
							8	209.0	

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Far Grip			At standby on location.	Item	Unit	Quantity
				Fuel	m3	549
				Drill Water	m3	380
				Potable Water	m3	670
				Barite	MT	0
				Gel	MT	87
				Cement	MT	0
Pacific Wrangler		08:30	Enroute rig.	Item	Unit	Quantity
				Fuel	m3	567
				Drill Water	m3	380
				Potable Water	m3	680
				Barite	MT	85
				Gel	MT	12
				Cement	MT	84

Helicopter Movement					
Flight #	Time	Destination	Comment	Pax	
1	15:46	Ocean Patriot	Call sign BZU	4	
1	16:09	Essendon		8	

From : Nigel Walters, Steve Hodgetts
OIM : Barry Scott

Well Data

Country	Australia	M. Depth	1800.0m	Cur. Hole Size	12.250in	AFE Cost	
Field		TVD	1799.0m	Casing OD	13.375in	AFE No.	5736086
Drill Co.	DOGC	Progress	0m	Shoe TVD	620.8m	Daily Cost	
Rig	Ocean Patriot	Days from spud	15.04	F.I.T. / L.O.T.	0ppg / 21.60ppg	Cum Cost	
Wtr Dpth(LAT)	54.7m	Days on well	18.75			Planned TD	1878.0m
RT-ASL(LAT)	21.5m	Current Op @ 0600	POOH with casing cut-off.				
RT-ML	76.2m	Planned Op	Recover wellhead. Pull anchors.				

Summary of Period 0000 to 2400 Hrs

Set final abandonment cement plug. Pulled marine riser & BOP. Deballast rig while rigging up to cut wellhead.

Operations For Period 0000 Hrs to 2400 Hrs on 04 Nov 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PA	P	PLD	0000	0100	1.00	1800.0m	Continued laying out 8" DC.
PA	P	TI	0100	0130	0.50	1800.0m	RIH with muleshoe on DP & tagged cement retainer at 166m.
PA	P	CHC	0130	0200	0.50	1800.0m	Rigged up cement lines & displaced wellhead & riser to seawater with rig pumps.
PA	P	CMP	0200	0300	1.00	1800.0m	Rigged up to set cement plug. Held JSA. Set balanced cement plug # 5(166 - 114m). Pumped 10 bbls DW with Dowell ahead of cement. Mixed & pumped 25 bbls of cement slurry at 15.8ppg. Displaced with 6.5 bbls seawater. Returns observed, dumped same.
PA	P	TO	0300	0330	0.50	1800.0m	POOH to 100m. Reverse circulated out cement contamination & dumped returns. Dumped pits.
PA	P	PLD	0330	0430	1.00	1800.0m	Continued laying out excess tubulars, cement stand & DP.
PA	P	WH	0430	0500	0.50	1800.0m	Make up wearbushing running/retrieval tool, jet sub & RIH. Jet wellhead & BOPs.
PA	P	WH	0530	0600	0.50	1800.0m	Retrieved wearbushing with 20klb overpull. POOH & laid out same. No wear observed.
PA	P	RR2	0600	0730	1.50	1800.0m	Held JSA, rigged up to pull BOPs & marine riser.
PA	P	RR2	0730	0830	1.00	1800.0m	Recovered diverter & laid out same.
PA	P	RR2	0830	0930	1.00	1800.0m	Picked up landing joint & locked slip joint.
PA	P	RR2	0930	1400	4.50	1800.0m	Unlatched BOP & pulled clear of guide base, no offset. Nippled down slip joint. Nippled down choke, kill & booster lines.
PA	P	RR2	1400	1800	4.00	1800.0m	Pulled BOP & laid down riser. Nippled down beacon, guidelines & double from BOP stack.
PA	P	AH	1800	1830	0.50	1800.0m	Commenced de-ballasting rig, continued to lay out riser double. Continued to secure BOP.
PA	P	AH	1830	2030	2.00	1800.0m	Continued to deballast rig. Cleared floor & PU Smith tension casing cutter. Broke upper connection not previously soft broke. Dressed tool with 18.5/8" grapple.
PA	P	AH	2030	2100	0.50	1800.0m	Continued to deballast rig. Made up DC stand & RIH to moonpool. Installed softlines to guidelines using ROV friendly "C" clamps.
PA	P	CCT	2100	2130	0.50	1800.0m	Stopped deballasting rig. RIH with casing cutter. Observed entry into wellhead with ROV. Sheared softlines & attempted to latch onto wellhead.
PA	TP (DTF)	CCT	2130	2230	1.00	1800.0m	Casing cutter not seating correctly, high (10k) torque on rotation. Suspected interference fit resisting wellhead entry, 20k load, no go, held ~ 1m high.
PA	P	AH	2230	2400	1.50	1800.0m	Resumed deballasting of rig. POOH & examined casing cutter assembly. No apparent indication of interference or cutting BHA problem. Changed out grapple to (18.3/8" OD grapple), greater clearance with wellhead. Checked all measurements.

Operations For Period 0000 Hrs to 0600 Hrs on 05 Nov 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PA	P	AH	0000	0030	0.50	1800.0m	Continued deballasting of rig. RIH with casing cutter assembly.
PA	P	CCT	0030	0115	0.75	1800.0m	Stopped deballasting rig. RIH with casing cutter. Observed entry into wellhead with ROV. Sheared softlines & latch into wellhead. Took 50klb OP to confirm grapple holding. Observed no movement at seabed.
PA	P	CCT	0115	0530	4.25	1800.0m	Cut casing with 100 rpm, - initially: 3-4kft.lb torque, 275 psi SPP, 160 gpm, 20klb OP. Continued to secure deck for move. Finally: 5-7kft.lb torque, 800 psi SPP, 242 gpm, 20klb OP.
PA	P	CCT	0530	0600	0.50	1800.0m	Following minor indications of cut, took 80klb OP. Wellhead, PGB & casing stubs pulled free. Minimal cement attached.

Phase Data to 2400hrs, 04 Nov 2004						
Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
PRESPUD(PS)	82	17 Oct 2004	20 Oct 2004	82.00	3.417 days	0m
SURFACE HOLE(SH)	14.5	20 Oct 2004	21 Oct 2004	96.50	4.021 days	122.5m
INTERMEDIATE HOLE(IH)	48.5	21 Oct 2004	23 Oct 2004	145.00	6.042 days	628.0m
INTERMEDIATE CASING(IC)	62	23 Oct 2004	26 Oct 2004	207.00	8.625 days	628.0m
PRODUCTION HOLE(PH)	147	26 Oct 2004	01 Nov 2004	354.00	14.750 days	1800.0m
EVALUATION PRODUCTION HOLE(EP)	30.5	01 Nov 2004	02 Nov 2004	384.50	16.021 days	1800.0m
PLUG AND ABANDON(PA)	65.5	02 Nov 2004	04 Nov 2004	450.00	18.750 days	1800.0m

Survey								
MD (m)	Incl Deg (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
1678.05	2.32	225.45	1677.17	28.66	0.47	-24.98	-19.61	MWD
1706.72	2.40	224.26	1705.82	29.66	0.33	-25.82	-20.45	MWD
1735.43	2.43	221.48	1734.50	30.71	0.42	-26.71	-21.27	MWD
1763.96	2.56	220.08	1763.00	31.80	0.50	-27.65	-22.08	MWD
1785.46	2.69	214.76	1784.48	32.70	1.28	-28.43	-22.68	MWD
1800.00	2.69	214.76	1799.01	33.33	0	-28.99	-23.07	Projected

Bulk Stocks						Personnel On Board		
Name	Unit	In	Used	Adjust	Balance	Company		Pax
Fuel	M3	0	8.7	0	408.7	DOGC		50
Drill Water	MT	8.4	20.4	0	222.7	Santos		2
Potable Water	MT	23.6	18.1	0	280.8	Total Marine Catering		8
Barite	sx	0	0	0	1,685.0	Fugro		4
Gel	sx	0	0	0	318.0	Sperry-Sun		1
Cement	sx	0	0	0	1,650.0	M.I		1
						Dowell		2
						Cameron		1
						Smith Tool Company		1
						Other		2
						MO47		8
						Marcomm		2
						Other		1
						Fugro		2
							Total	85

Casing			
OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	0ppg / 0ppg	121.0m / 121.0m	
13 3/8"	21.60ppg / 0ppg	620.8m / 620.8m	

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	31 Oct 2004	4 Days	Fire and abandon rig drill held based on simulated fire in the outside smokers shack. All personnel mustered at aft lifeboats.
First Aid	20 Oct 2004	15 Days	Were advised that seaman aboard Far Grip had piece of metal embedded in his knee. IP brought on board for examination by rig medic. Medic advised IP fit to return to normal duties and no need for medivac. IP returned to Far Grip.
Near Miss	29 Oct 2004	6 Days	Found 3" x 3/4" pin on rotary table while drilling ahead. Suspended current operations and inspected TDS. Pin had fallen from TDS link tilt. Replaced pin and checked all other pins. Investigation being conducted.
Safety Meeting	31 Oct 2004	4 Days	Three safety meetings held (13:00, 19:00, 01:00). Attended by all crews.

Marine								Rig Support		
Weather check on 04 Nov 2004 at 24:00										
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period	Anchors	Tension (klb)	
10.00nm	18.0kn	270deg	1003bar	10.0C°	1.0m	270deg	0ft/sec	1	207.0	
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments				
0.2deg	0.2deg	0.50m	2.0m	202deg	0ft/sec	Partial cloud				
Rig Dir.	Ris. Tension	VDL	Comments							
45.0deg	0klb	3853.0klb								
								8	220.0	

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Far Grip			At standby on location.	Item	Unit	Quantity
				Fuel	m3	528
				Drill Water	m3	340
				Potable Water	m3	660
				Barite	MT	0
				Gel	MT	87
				Cement	MT	0
Pacific Wrangler			At standby on location.	Item	Unit	Quantity
				Fuel	m3	458.7
				Drill Water	m3	347
				Potable Water	m3	403
				Barite	MT	85
				Gel	MT	12
				Cement	MT	84

Helicopter Movement					
Flight #	Time	Destination	Comment	Pax	
1	15:16	Ocean Patriot	Call sign BZU	15	
1	15:33	Essendon		2	

From : Nigel Walters, Steve Hodgetts
OIM : Barry Scott

Well Data

Country	Australia	M. Depth	1800.0m	Cur. Hole Size	12.250in	AFE Cost	
Field		TVD	1799.0m	Casing OD	13.375in	AFE No.	5736086
Drill Co.	DOGC	Progress	0m	Shoe TVD	620.8m	Daily Cost	
Rig	Ocean Patriot	Days from spud	16.04	F.I.T. / L.O.T.	0ppg / 21.60ppg	Cum Cost	
Wtr Dpth(LAT)	54.7m	Days on well	19.75			Planned TD	1878.0m
RT-ASL(LAT)	21.5m	Current Op @ 0600	Rig Released				
RT-ML	76.2m	Planned Op					

Summary of Period 0000 to 2400 Hrs

Cut and recovered 20 x 30" casings. ROV performed seabed survey. Deballast rig. Pull anchors. Rig Released @ 24:00 Hours.

Operations For Period 0000 Hrs to 2400 Hrs on 05 Nov 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PA	P	AH	0000	0030	0.50	1800.0m	Continued deballasting of rig. RIH with casing cutter assembly.
PA	P	CCT	0030	0115	0.75	1800.0m	Stopped deballasting rig. RIH with casing cutter. Observed entry into wellhead with ROV. Sheared softlines & latch into wellhead. Took 50klb OP to confirm grapple holding. Observed no movement at seabed.
PA	P	CCT	0115	0530	4.25	1800.0m	Cut casing with 100 rpm, - initially: 3-4kft.lb torque, 275 psi SPP, 160 gpm, 20klb OP. Continued to secure deck for move. Finally: 5-7kft.lb torque, 800 psi SPP, 242 gpm, 20klb OP.
PA	P	CCT	0530	0600	0.50	1800.0m	Following minor indications of cut, took 80klb OP. Wellhead, PGB & casing stubs pulled free. Minimal cement attached.
PA	P	HT	0600	0730	1.50	1800.0m	Service casing cutter & lay out same while deballasting rig through critical zone.
PA	P	AH	0730	1000	2.50	1800.0m	Lay out 20" and 30" stumps. Continue deballasting while chasing out anchors.
PA	P	AH	1000	1200	2.00	1800.0m	Move guide base to moon pool while handling anchors. P. Wrangler chased out #6, Far Grip chased out #2.
PA	P	AH	1200	2400	12.00	1800.0m	Continue to handle anchors. #6 bolstered @ 12:30, pcc back @ 12:44. #2 bolstered @ 12:40, pcc back @ 12:50. P. Wrangler on #7, off bottom @ 13:22, bolstered @ 14:32, pcc back @ 14:49. Far Grip on #3, off bottom 13:30, bolstered @ 14:41, pcc back @ 14:58. P. Wrangler on #8, off bottom @ 15:51, bolstered @ 17:05, pcc back @ 17:14. Far Grip on tow bridle. P. Wrangler on #4, off bottom @ 17:55, bolstered @ 18:54, pcc back @ 19:00. P. Wrangler on #1, off bottom 21:34, bolstered @ 23:00, pcc back @ 23:10. Rig heaves on #5 @ 21:45, anchor to deck of P. Challenger to secure shackle, Anchor bolstered @ 24:00. Under tow to Apache location. RIG RELEASED: 24:00 05/11/04

Phase Data to 2400hrs, 05 Nov 2004

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
PRESPUD(PS)	82	17 Oct 2004	20 Oct 2004	82.00	3.417 days	0m
SURFACE HOLE(SH)	14.5	20 Oct 2004	21 Oct 2004	96.50	4.021 days	122.5m
INTERMEDIATE HOLE(IH)	48.5	21 Oct 2004	23 Oct 2004	145.00	6.042 days	628.0m
INTERMEDIATE CASING(IC)	62	23 Oct 2004	26 Oct 2004	207.00	8.625 days	628.0m
PRODUCTION HOLE(PH)	147	26 Oct 2004	01 Nov 2004	354.00	14.750 days	1800.0m
EVALUATION PRODUCTION HOLE(EP)	30.5	01 Nov 2004	02 Nov 2004	384.50	16.021 days	1800.0m
PLUG AND ABANDON(PA)	89.5	02 Nov 2004	05 Nov 2004	474.00	19.750 days	1800.0m

Survey

MD (m)	Incl Deg (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
1678.05	2.32	225.45	1677.17	28.66	0.47	-24.98	-19.61	MWD
1706.72	2.40	224.26	1705.82	29.66	0.33	-25.82	-20.45	MWD
1735.43	2.43	221.48	1734.50	30.71	0.42	-26.71	-21.27	MWD
1763.96	2.56	220.08	1763.00	31.80	0.50	-27.65	-22.08	MWD
1785.46	2.69	214.76	1784.48	32.70	1.28	-28.43	-22.68	MWD
1800.00	2.69	214.76	1799.01	33.33	0	-28.99	-23.07	Projected

Bulk Stocks						Personnel On Board	
Name	Unit	In	Used	Adjust	Balance	Company	Pax
Fuel	M3	0	0	0	408.7	DOGC	50
Drill Water	MT	0	0	0	222.7	Santos	2
Potable Water	MT	0	0	0	280.8	Total Marine Catering	8
Barite	sx	0	0	0	1,685.0	Fugro	4
Gel	sx	0	0	0	318.0	M.I	1
Cement	sx	0	0	0	1,650.0	Dowell	2
						Cameron	1
						Smith Tool Company	1
						Other	2
						MO47	8
						Marcomm	2
						Other	1
						Fugro	2
						Total	84

Casing			
OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	Oppg / Oppg	121.0m / 121.0m	
13 3/8"	21.60ppg / Oppg	620.8m / 620.8m	

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	31 Oct 2004	5 Days	Fire and abandon rig drill held based on simulated fire in the outside smokers shack. All personnel mustered at aft lifeboats.
First Aid	20 Oct 2004	16 Days	Were advised that seaman aboard Far Grip had piece of metal embedded in his knee. IP brought on board for examination by rig medic. Medic advised IP fit to return to normal duties and no need for medivac. IP returned to Far Grip.
Near Miss	29 Oct 2004	7 Days	Found 3" x 3/4" pin on rotary table while drilling ahead. Suspended current operations and inspected TDS. Pin had fallen from TDS link tilt. Replaced pin and checked all other pins. Investigation being conducted.
Safety Meeting	31 Oct 2004	5 Days	Three safety meetings held (13:00, 19:00, 01:00). Attended by all crews.

Marine										
Weather check on 05 Nov 2004 at 24:00							Rig Support			
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period	Anchors	Tension (klb)	
10.00nm	18.0kn	270deg	1003bar	10.0C°	1.0m	270deg	0ft/sec	1	207.0	
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments		2	185.0	
0.2deg	0.2deg	0.50m	2.0m	202deg	0ft/sec	Partial cloud		3	203.0	
Rig Dir.	Ris. Tension	VDL	Comments						4	187.0
45.0deg	0klb	3853.0klb							5	203.0
								6	203.0	
								7	229.0	
								8	220.0	

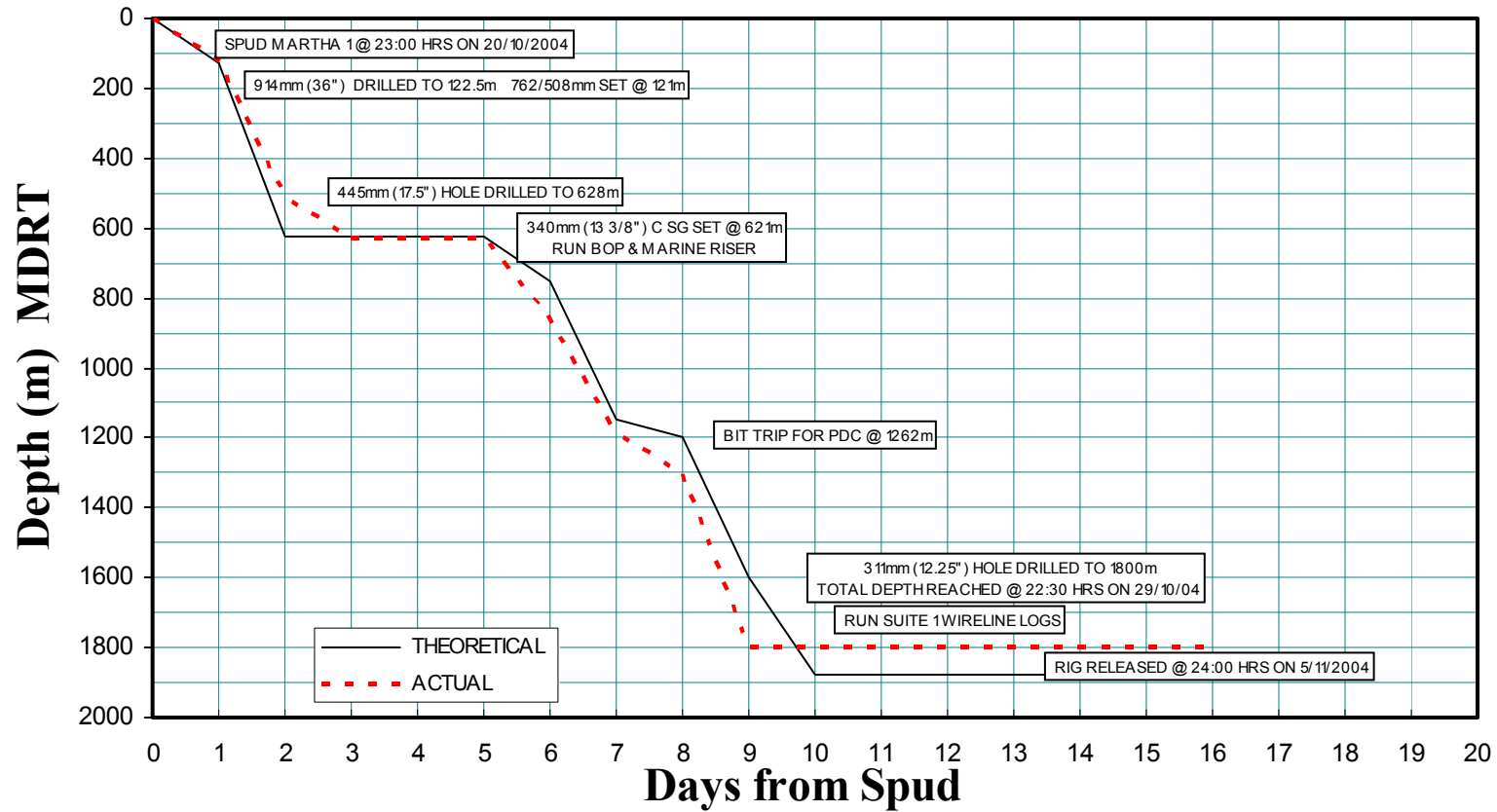
Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Far Grip			At standby on location.	Item	Unit	Quantity
				Fuel	m3	528
				Drill Water	m3	340
				Potable Water	m3	660
				Barite	MT	0
				Gel	MT	87
Pacific Wrangler			At standby on location.	Item	Unit	Quantity
				Fuel	m3	458.7
				Drill Water	m3	347
				Potable Water	m3	403
				Barite	MT	85
				Gel	MT	12
				Cement	MT	84

Helicopter Movement				
Flight #	Time	Destination	Comment	Pax
1	15:16	Ocean Patriot	Call sign BZU	15
1	15:33	Essendon		2

SECTION 7 : TIME / DEPTH CURVE

Santos

MARTHA 1 TIME - DEPTH CURVE



SECTION 8 : BHA SUMMARY

DFE above MSL : 21.5m

Lat : 38 Deg 37 Min 24.27 Sec

Spud Date : 20 Oct 2004

Release Date : 05 Nov 2004

Water Depth : 54.7m

Long : 142 Deg 42 Min 5 Sec

Spud Time : 23:00

Release Time : 24:00

BHA Record

#	Date-in	Length	Weight	Weight Blw/Jar	String Weight	Pick-Up Weight	Slack-Off Weight	Torque Max	Torque on Bottom	Torque off Bottom	Description
1	20 Oct 2004	125.3	55.0	47.6	160.0	160.0	160.0	2	2	1	26" bit, 36" hole opener, float sub with solid float, 9 1/2" anderdrift, 2 x 17 1/2" string stabilizers, 3 x 9 1/2" DCs, X-over, 3 x 8" DCs, X-over, 6 x 5" HWDP
2	20 Oct 2004	152.1	66.0	55.0	55.0	120.0	120.0	3200	2800	1000	17 1/2" bit, float sub with solid float, 9 1/2" anderdrift, 9 1/2" short DC, 17 1/2" stab, 9 1/2" DC, 17 1/2" stab, 2 x 9 1/2" DC, XO, 6 x 8" DCs, 8" Jar, 3 x 8" DC, Accelerator, 8" DC
3	25 Oct 2004	288.5	107.0	54.0	0	0	0	3	3	1	TCI bit, near bit roller reamer, FEWD, PM, Pulser, 1 x 8"DC, Roller reamer, 10 x 8" DCs, jars, 3 x 8" DCs, accellerator, 1 x 8" DC, crossover, 12 x HWDP
4	28 Oct 2004	288.3	107.0	54.0	292.0	0	0	3	3	1	PDC bit, near bit roller reamer, FEWD, PM, Pulser, 1 x 8"DC, Roller reamer, 10 x 8" DCs, jars, 3 x 8" DCs, accellerator, 1 x 8" DC, crossover, 12 x HWDP
5	30 Oct 2004	273.3	102.0	49.0	292.0	0	0	3	3	1	TCI bit, 1 x 8"DC, Roller reamer, 10 x 8" DCs, jars, 3 x 8" DCs, accellerator, 1 x 8" DC, crossover, 12 x HWDP

SECTION 9 : BIT RECORD & PERFORMANCE SUMMARY

DFE above MSL : 21.5m

Lat : 38 Deg 37 Min 24.27 Sec

Spud Date : 20 Oct 2004

Release Date :

Water Depth : 54.7m

Long : 142 Deg 42 Min 5 Sec

Spud Time : 23:00

Release Time :

Bit Record

Well: MARTHA 01

Date In	IADC	Bit#	Size in	Ser #	Mfr	Type	Jets # x /32nd"	D.In m	D.Out m	Prog m	Hrs o/b	SPP psi	Flow gpm	WOB klb	RPM	MW	TFA	ROP m/hr	I	O1	D	L	B	G	O2	R	
20 Oct 2004	1-1-5	1	26.00	MR3846	SMITH	MSDS SHC		76.2	122.5	46.3		370	1100	11.0	58		1.387										
21 Oct 2004	1-1-5	2	17.50	MR5734	SMITH	XRTC		122.5	628.0	505.5		2100	1020	15.0	140		1.42	1	1	NO	A				NO	PR	
25 Oct 2004	4-3-7	3	12.25	M16694	REED	TD43HKPRDH		628.0	1262.0	634		2300	950	20.0	120		0.92	1	1	WT	A	E		1	NO	FM	
28 Oct 2004		4	12.25	109617	HYCALOG	DSX104A1HGW		1262.0	1800.0	538		0	900	6.0	0		0.752	2	3	BT	S	X		1	WT	TD	
17 Oct 2004	4-3-7	3RR	12.25	M16694	REED	TD43HKPRDH		1800.0	0	-1800		0	0	0	0		0.92	1	1	WT	A			1	NO	LOG	

SECTION 10 : DRILLING FLUIDS REPORT

Fluids Recap

Santos Ltd
Martha-1
Otway Basin
Wild Cat-Gas Well
VIC-P-44



Prepared by:



M-I L.L.C.
ONE-TRAX
DRILLING FLUID DATA MANAGEMENT SYSTEM

Operator: Santos Ltd
Well Name: Martha-1
Field/Area: Otway Basin
Description: Wild Cat-Gas Well
Location: VIC-P-44
Warehouse: Melbourne
Contractor: Diamond Offshore

Spud Date: 20/10/2004
TD Date: 29/10/2004
Location Code: 7001
Project Engineer: Nigel Warman
Sales Engineer: Gordon Howie
Sales Engineer: Jasdeep Singh
M-I Well No. 14920

Comments:

Type	Size in	Depth m	TVD m	Hole in	Max MW lb/gal	Fluid 1	Fluid2	Drilling Problem	Days	Cost \$
Casing	30	122.5	122.5	36	8.7	Spud Mud		None	3	8953.21
Casing	13.37	628	628	17.5	8.8	Spud Mud		None	2	10031.53
Open Hole	.	1800	1800	12.25	10.5	GLYDRIL			10	128065.10

Total Depth: m TVD: m Water Depth: 55 m Drilling Days: Total Cost: 147,049.84

**DRILLING FLUIDS RECAP FOR SANTOS LTD
MARTHA 1**

CONTENTS:

- DISCUSSION BY INTERVAL**
- DAILY DISCUSSION REPORT**
- COST BY INTERVAL**
- DAILY VOLUME SUMMARY SHEET**
- TOTAL MATERIAL COST**
- HYDRAULICS REPORT**
- DRILLING FLUIDS SUMMARY**
- PRODUCT CONSUMPTION**
- DAILY MUD REPORTS**

**DRILLING FLUIDS RECAP FOR SANTOS LTD
MARTHA 1**

**DISCUSSION
BY
INTERVAL**

DRILLING FLUIDS RECAP FOR SANTOS LTD MARTHA 1

SUMMARY:

Santos Ltd was the operator of vertical exploration wild cat gas well, Martha-1, Vic/P44, Victoria, Australia using Ocean Patriot semi submersible rig owned by Diamond Offshore. Martha-1 was located 26 km west of Port Campbell, approximately 24 km WNW of Minerva gas field and 18 Km North of Casino gas field. The well was programmed for 18 days to drill to a depth of 1878 m in 55 m of water depth.

The Ocean Patriot rig was towed from Gippsland Basin and arrived on location on the 20th October 2004.

Its primary target was gas in the Warre formation at 1457 m SS.

Martha-1 was spudded on the 20th October 2004 at 23:00 hrs and the well was drilled to TD of 1800 meters on 29th October 2004 .

The well was logged extensively in five runs and plugged & abandoned. The BOP stack was pulled ready for the rig move to the next location.

FORMATION TOPS:

Formation Tops RKB (Meters)	Formation	Lithology
671	MEPUNGA FM	Claystone
774	WANGERRIP GROUPS	Sandstone/Calcarinite
934	PEBBLE POINT FM	Sandstone/Calcarinite
993	MASSACRE SHALE	Siltstone
1030	TIMBOON SST	Sandstone
1133	PAARATTE FM	Sandstone
1324	BELFAST MUDSTONE	Siltstone
1362	THYLACINE MEMBER	Sandstone/Siltstone
1481	WAARRE FM	Sandstone/Siltstone
1696	EUMERALLA FM	Siltstone/Sandstone

**DRILLING FLUIDS RECAP FOR SANTOS LTD
MARTHA 1**

Interval I	76- 122.5 meters	36 x 26 Hole	30 x 20 inch casing
------------	------------------	--------------	---------------------

MUD TYPE : Seawater / PHG sweeps

MUD RELATED HOLE PROBLEMS : None

MUD PROPERTIES:

Mud Weight: : 8.7-8.8 ppg
YP: : 22-33 lb/100ft²
API FL: : 15 cc/30 min
Funnel Vis: : > 100 se/qt
Hardness: : 40 mg/l
MBT: : 30 ppb

OPERATIONS:

Martha-1 was spudded on 20th October 2004. The 26 inch hole with 36" hole opener was drilled to 122.5 m in 3 hrs. The 30" casing was lowered and cemented in place with permanent guide base.

MUD

820 bbl of 30 ppb Gel was mixed with no time to prehydrate, in preparation for spudding. No kill mud was prepared. The hole was swept with 50 bbl flocculated mud made with 2:1 gel from Pit 4 & sea water every 10 m of drilling. At TD a 100 bbl sweep was pumped and hole displaced with 150 bbl of unflocculated mud from Pit 5. A total of 350 bbl of gel was used for this section and 470 bbl left over was carried over for next section.

SOLIDS CONTROL:

None used as returns were directed to seabed.

OBSERVATIONS AND RECOMMENDATIONS:

No changes are proposed.

**DRILLING FLUIDS RECAP FOR SANTOS LTD
MARTHA 1**

Interval II	122 – 628	17½" Hole section	13⅜" casing
-------------	-----------	-------------------	-------------

MUD TYPE : Seawater / PHG / Guar Gum sweeps

MUD RELATED HOLE PROBLEMS : None

MUD PROPERTIES:

Mud Weight: : 8.7-8.8 ppg
YP: : 22-33 lb/100ft²
API FL: : 15 cc/30 min
Funnel Vis: : > 100 se/qt
Hardness: : 40 mg/l
MBT: : 30 ppb

OPERATIONS:

The 17½" drilling assembly was made up and run in hole. The shoe track was drilled with sea water pumped at 1100 gpm. A 50 bbl Floc gel sweeps was pumped after drilling cement and further drilling was progressed using sea water. A sweep regime of 50 bbl Guar Gum and 50 bbl Floc Gel was followed while drilling to 300m. There after the sweep regime was changed to 100 bbl PHG at connections due to poor drilling rates of 25-35 m an hour. The formation drilled was limestone. A 150 bbl PHG sweep was pumped at TD of 628m and the hole was displaced with 865 bbl PHG and string pulled out for running casing. Tight hole was encountered while tripping out but no wiper trip was made. The casing was run and cemented in place as per program without incident.

MUD:

470 bbl of Gel mud from the previous section was carried over to this section and additional volume of 30 ppb Gel was mixed on the run as drilling progressed. Also 300 bbl of 4 ppb Guar gum was mixed in sea water in a separate pit due to shortage of drill water and gel onboard. 350 bbls of unflocculated mud was left over from this section which was used in next section.

SOLIDS CONTROL:

No solids control was used as returns were to seabed.

OBSERVATIONS AND RECOMMENDATIONS:

No changes are recommended as the PHB sweep system is the most cost effective way to drill this interval.

DRILLING FLUIDS RECAP FOR SANTOS LTD MARTHA 1

Interval I11	621 - 1800 meters	12¼" Section	P & A
--------------	-------------------	--------------	-------

MUD TYPE	:	KCl/PHPA/Glydril																																				
MUD RELATED HOLE PROBLEMS	:	None Sand blinding the shaker screens caused huge volume losses.																																				
MUD PROPERTIES	:	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Mud Weight:</td> <td style="width: 5%;">:</td> <td style="width: 65%;">9.0 – 10.5 ppg</td> </tr> <tr> <td>YP:</td> <td>:</td> <td>14-22</td> </tr> <tr> <td>PV</td> <td>:</td> <td>11-16</td> </tr> <tr> <td>API FL:</td> <td>:</td> <td>7 – 14 cc</td> </tr> <tr> <td>KCl:</td> <td>:</td> <td>>7.5%</td> </tr> <tr> <td>PHPA:</td> <td>:</td> <td>0.5-0.9 ppb</td> </tr> <tr> <td>Funnel Vis</td> <td>:</td> <td>40 – 56 sec/qt</td> </tr> <tr> <td>Glycol</td> <td>:</td> <td>3 – 3.7%</td> </tr> <tr> <td>Hardness:</td> <td>:</td> <td>240 mg/l</td> </tr> <tr> <td>Drill Solids:</td> <td>:</td> <td>1-2.5%</td> </tr> <tr> <td>PH:</td> <td>:</td> <td>8.0 - 9.4</td> </tr> <tr> <td>6 RPM:</td> <td>:</td> <td>8 – 11</td> </tr> </table>	Mud Weight:	:	9.0 – 10.5 ppg	YP:	:	14-22	PV	:	11-16	API FL:	:	7 – 14 cc	KCl:	:	>7.5%	PHPA:	:	0.5-0.9 ppb	Funnel Vis	:	40 – 56 sec/qt	Glycol	:	3 – 3.7%	Hardness:	:	240 mg/l	Drill Solids:	:	1-2.5%	PH:	:	8.0 - 9.4	6 RPM:	:	8 – 11
Mud Weight:	:	9.0 – 10.5 ppg																																				
YP:	:	14-22																																				
PV	:	11-16																																				
API FL:	:	7 – 14 cc																																				
KCl:	:	>7.5%																																				
PHPA:	:	0.5-0.9 ppb																																				
Funnel Vis	:	40 – 56 sec/qt																																				
Glycol	:	3 – 3.7%																																				
Hardness:	:	240 mg/l																																				
Drill Solids:	:	1-2.5%																																				
PH:	:	8.0 - 9.4																																				
6 RPM:	:	8 – 11																																				

OPERATIONS:

The 13¾" casing shoe track and rat hole were drilled out with a 12¼" bit and the hole was displaced to 8.9 ppg KCl/PHPA/ Glydril mud. Drilled to 631 meters then a FIT was conducted which reached 21.2 ppg EMW.

MUD:

220 bbl of 25 ppb Gel left from previous section, was blended into 1365 bbl of new mud prepared in four pits to obtain 1585 bbl of mud containing 7.5% KCl, 3% Glydril LC, 0.5 ppb Polyplus, 1 ppb Polypac UL, (This was all the Polypac UL on the rig at the time, waiting for delivery from town) 0.75 ppb Duovis. 340 bbl of KCl brine containing 71 ppb was mixed into pit #2 to be used when mixing new premixes. On this rig , the 1 MT bags of KCl can only be added to the mud pits by slinging from a crane and adding through a hopper on the outside deck near the shaker house. This added to our mixing problems when there were severe losses over the shakers, new volume was required, and the cranes were shut down because of the weather.

DRILLING FLUIDS RECAP FOR SANTOS LTD MARTHA 1

The surface volume could not be sheared as there is no shearing device on this rig.

The 12 ¼ inch BHA was made up and RIH. The Top of Cement was tagged at 570 meters. This was drilled out with seawater and PHG sweeps. After the shoe track and rat hole was cleaned, the hole was displaced to the KCl/PHPA/Glydril system. There were no mud losses at the shakers during the displacement. The VSM Thule shakers were dressed with 105 mesh screens with 30 mesh scalpers on top.

Drilling 12¼" hole proceeded with ROP's from 20 – 50 meters per hour pumping 1100 gpm. At a depth 715 – 720 meters the shaker screens were blinded with huge amounts of coarse sand, causing the mud to flow over the screens into the ditch. Approximately 78 bbls of mud were lost before the sand cleared away and the mud fell through the screens. Sand again blinded the screens at 862 meters again causing heavy mud volume losses. Screens on two middle shakers were changed up to 165 mesh in an attempt to avoid blinding the screens, but this proved unsuccessful and no improvement was achieved. The screens were then changed back to 84 mesh all round and the scalpers were changed back to 10 mesh. The rig desander was running all the time. The pump rate was reduced to 800 gpm. This reduced the losses over the shakers to manageable amounts. Also at this time the weather was deteriorating, causing the rig to move about which in turn aggravated the losses as the mud flowed from one end to the other in the header box.

This sand problem, and consequent mud losses continued. Supply boats were unable to unload to the rig because of the heavy seas and high winds stopping the rig cranes from operating.

Controlled drilling continued, increasing and decreasing the pump rates as the losses allowed. A total of 4017 bbls of mud were lost over the shakers while drilling this section. At around 1150 meters, all drill water on the rig was used. The weather remained bad for a couple of days preventing the supply vessels from coming into the rig to unload. Mud was then made with seawater and Duovis, to maintain volume and retain carrying capacity in the mud to ensure hole cleaning. The cuttings over the shakers were observed to be individual and discrete, and well encapsulated with the PHPA concentration and KCl levels still in the system. The low-end rheology was maintained with Duovis giving 6 rpm readings on rheometer between 8 and 11. The corresponding Yield Points were in the range of 16-25lb/100ft². No PHPA, KCl or Glydril were added to the system during this time. There were no KCl or Glydril LC left on the rig, (in fact the inhibition was not required for the type of formation being drilled) and no drill water was available .

At 1262 meters a trip was made to change out the bit and the FEWD tool. When running back in the hole, tight spots at 890 meters and from 1149m to 1262m were reamed. When back on bottom , controlled drilling continued with losses at the

DRILLING FLUIDS RECAP FOR SANTOS LTD MARTHA 1

shakers steadily reducing. On Santos instructions the mud weight was increased, starting when on bottom after the trip, to be at 10.2 ppg by the top of the Belfast Mudstone formation. This was achieved by the use of both KCl and barite. This increased the KCl concentration to 6.5% in the system after it had been almost completely depleted during the bad weather.

By this time the weather had settled down allowing the supply boats to offload to the rig. Drill water was one of the first items to be received on the rig, so new volume of mud could be mixed according to the program. KCl and Glydril were added to the system, then the concentration of PHPA was steadily increased as more clays were being drilled as shown by a small but steady increase in the bentonite concentration (MBT) in the mud. As drilling continued with no hole problems, the concentrations of KCl, Glydril LC and Glydril MC and PHPA were increased to nearer those proposed in the mud program. The Polypac UL required to reduce the fluid loss was only received off the supply vessel as we were approaching TD. It appears Polyplus was sent on the supply vessel instead of the Polypac UL, which had been ordered. For this reason the fluid loss was not able to be reduced as low as required in the mud program. However this did not cause any mud or hole problems. Then as TD was coming nearer and the announcement had been made the hole was to be P & A, we were instructed by the Santos Co Man, to maintain the current properties and not add additional chemicals to bring all properties in line with those programmed. He was satisfied with the properties at the time.

The well was drilled to TD 1800 meters, the hole circulated clean, then the pipe was pulled out of the hole to commence the wireline logging program. On the trip out the hole was back reamed from 1491 meters to 1250 meters due to tight hole.

The first wireline log would not go to bottom and was pulled out of the hole. A wiper trip was made with any tight spots reamed, the pipe was then pulled out of the hole. The logging program was then able to proceed without any problems getting the tools to bottom. Mud losses during the logging program were 82 bbls (from 2 – 2.5 bbls per hour). The well was logged extensively in five runs and plugged and abandoned. The BOP stack was pulled ready for the rig move to the next location.

DRILLING FLUIDS RECAP FOR SANTOS LTD MARTHA 1

SOLIDS CONTROL:

The shakers were dressed with 105 mesh screens with 30 mesh scalping screens. These handled the flow as there were no losses of mud during the displacement. After a short period drilling sand blinded the screens and large losses were incurred. The bottom screens on shakers #2 and #3 were changed to 165 mesh to see if these would handle the sand any better, the idea being the sand was too coarse to get stuck in the finer mesh. The losses continued so all bottom screens were changed back to 84 mesh and the scalpers were changed to 10 mesh. This set-up was much more successful and losses reduced to a manageable amount, after the pump rate was reduced from 1100 gpm back to 800 – 900 gpm. The desander was run continuously, to assist with sand removal from the system. The desilter was not used as it was throwing out large volumes of mud. Attempts to fix the problem were not successful as the losses continued.

As drilling continued, the screens were changed up as and when possible, depending on the amount of sand, with the final screens being as follows. Shaker #1 – 4 x 84 mesh. Shaker #2 – 4 x 165 mesh. Shaker #3 – 2 x 120 mesh, and 2 x 105 mesh. Shaker #4 – 4 x 105 mesh.

DOWNHOLE LOSSES:

Unable to calculate due to severe losses at the shakers.

OBSERVATIONS AND RECOMMENDATIONS:

The top several hundred meters of this well could have been drilled with seawater and sweeps of viscous PHG, or a very basic gel mud with sufficient carrying capacity to ensure the hole was being cleaned.

6% KCl and 1 ppb PHPA concentrations would be sufficient to control shales drilled.

Operationally crane availability was an issue to add KCl bags via the hopper to finish premixes in time to maintain volumes and mixing mud well in advance to shear polymers.

DRILLING FLUIDS RECAP FOR SANTOS LTD MARTHA 1

POST TD OPERATIONS:

The well was logged as programmed. The well was taking mud during the logging at 2 – 2.5 bbls per hour, with total losses of 82 bbls. The first tool would not go to bottom, (1466 meters) so a wiper trip was run to ream any tight spots. After that all logging runs were able to go to bottom without any problems. The calliper logs indicate the well is considerably washed out in the upper section of soft sands. The well was finally plugged and abandoned as per procedures. The cement stringer was run to bottom and hole circulated clean before placing first of four cement plugs from 1800m to 1200m and from 655m to 570m over the casing shoe. The mud in the open hole above this plug was treated with Glute 25 as biocide and Conqor 303A for corrosion inhibition. After WOC this plug was tested for integrity. The cement retainer was set at 166m and well displaced with seawater. The fifth cement plug was placed from 166m to 114m. The BOP's were unlatched. The rig was released to Apache Energy after cutting and retrieving the 30 x 20 inch well head.

**DRILLING FLUIDS RECAP FOR SANTOS LTD
MARTHA 1**

**DAILY DISCUSSION
REPORT**



Operator : Santos Ltd
Well Name : Martha-1
Contractor : Diamond Offshore

Field/Area : Otway Basin
Description : Wild Cat-Gas Well
Location : VIC-P-44

Daily Discussion
M-I Well : 14920

19/10/2004	TD = 0 m	Day 0	
20/10/2004	TD = 95 m	Day 1	Spud the well at 23:00 Hrs. Drilled to 95 m. Started filling pits with water at 18:30 hrs. Mixed 460 bbl of 30 ppb Gel in Pit 4 and 360 bbl of 25 ppb Gel in Pit 5. Pumping 50 bbl sweeps every single flocculated with seawater (2:1). No DW left on board.
21/10/2004	TD = 122.5 m	Day 2	Drilled to section TD 122.5 m. Sweep hole and displaced to PHG. POOH. Run casing. Cemented as per plan. WOC. Made up BHA and RIH. Used 2:1 Gel:SW flocculated 50 bbl sweeps. Used PHG for displacing hole prior to P/O for casing. Further mixing gel in pits for drilling 17.5 inch hole. Mixed 4 ppb Guar Gum in Pit 1 as contingency. Gel received: 5 T from Wrangler & 40 T from Far Fripp.
22/10/2004	TD = 514 m	Day 3	Drilled to 514 m. Used 14 old and 2 new 105 mesh screens to dress shakers. Finished Guar Gum sweep volume. Pumped SW Floc sweeps upto 300 m and the used 100 bbl PHG sweeps at connections.
23/10/2004	TD = 628 m	Day 4	Drilled to 628 m with 100 bbl PHG sweeps every connection. Swept hole with 150 bbl PHG at TD and displaced out with sea water. Displaced hole with 865 bbl PHG and POOH. Running 13 3/8 casing filling with PHG. Used 100 bbl PHG sweeps with 30 ppb Gel on connections to ensure clean hole. Using PHG to fill the casing. DW left on board: 945 bbl
24/10/2004	TD = 628 m	Day 5	Run casing to bottom filling with PHG. Circulated hole with SW. Cemented casing as per plan. WOC. Meanwhile running BOP stack. Started mixing Polymer mud as chemicals were unloaded from boat and availability of crane. Saved 230 bbl of PHG for drilling out shoe etc. Waiting for Glydrill LC from boat.
25/10/2004	TD = 628 m	Day 6	Nipped up BOP stack. Made up BHA and new insert bit. RIH is in progress. Completed mixing 1585 bbl of 7.5 % KCl-0.5ppb Polyplus-0.8 ppb Duotec-0.8 ppb PolyPacUL-3%Glydril LC mud with 3 ppb Gel. Sheared using mix pumps. 175 bbl of PHG available for sweeps while drilling cement and spacer ahead of Polymer mud.



Operator : Santos Ltd
Well Name : Martha-1
Contractor : Diamond Offshore

Field/Area : Otway Basin
Description : Wild Cat-Gas Well
Location : VIC-P-44

Daily Discussion
M-I Well : 14920

Date	TD =	Day	Discussion
26/10/2004	870 m	Day 7	Pumped gel sweeps during cement drilling. Displaced hole with polymer mud while drilling through shoe. Dumped 20 bbl of contaminated mud during displacement. Drilled ahead to 870m. Built premix batches for volume maintenance. Lost large volumes of mud over shakers while drilling through sand formations. Waiting on Chemical order from port. Attempted to screen up shakers to avoid screen blinding by sand, no effect.
27/10/2004	1193 m	Day 8	Drilled ahead while limiting pump rates to minimise shaker losses. Continued to lose large amounts of mud across the shakers. Due to the sand formation, and shortage of drill water, premixes were built with Seawater and duovis to retain volume and cuttings carrying capacity, while omitting inhibition products. Shaker screens were changed to coarser mesh and losses stabilised. Started Desander to reduce sand content.
28/10/2004	1310 m	Day 9	Drilled ahead to 1262m, circulated bottoms up, then POOH. Changed bit to PDC. RIH, washed and reamed down last 50m. Drilled ahead to 1310m. Continued transferring premix to active to maintain active volume. Ran desander to control sand content. Built slug to POOH. Offloaded chemicals from Far Grip and Wrangler. Added KCl, GlydriL LC, Soda Ash and barite to active system to increase inhibition and bring MW to 10.1ppg. Built premix for volume addition.
29/10/2004	1800 m	Day 10	Drilled ahead to well TD 1800m. Circulated shakers clear, preparing to POOH. Blended premix to active system to maintain volume and mud weight. Added GlydriL, Polyplus and Polypac UL to active to improve inhibition and fluid loss properties. Built slug for POOH.
30/10/2004	1800 m	Day 11	Pumped slug and began POOH. Hole became tight at ~1400m, reamed and washed this section, before pumping 2nd slug and POOH to log. Logging tools were unable to run to bottom. POOH logging tools and RIH with drill string to make wiper trip. Built second slug for POOH. Built some weighted premix volume for reserve.
31/10/2004	1800 m	Day 12	POOH after wiper trip. Run first suite of logs. Got to bottom no problem. Now 2nd logging run. Bleed in premix (Polypac UL & Duovis) from pit #5 to active to maintain properties and volume during wiper trip.. 10 GlydriL LC drums charged today are inventory correction. Used on 28/10/04.
1/11/2004	1800 m	Day 13	Continue logging program. Dumped and cleaned Pit #2 and #4 ready for cement job if required. Mixed 150bbl viscous 12.5 ppg for cement spacer. 22mt of Barite charged today is an inventory adjustment to agree with control room tank soundings.



Operator : Santos Ltd
Well Name : Martha-1
Contractor : Diamond Offshore

Field/Area : Otway Basin
Description : Wild Cat-Gas Well
Location : VIC-P-44

Daily Discussion
M-I Well : 14920

2/11/2004

TD = 1200 m

Day 14

Completed wireline logging. RIH to set cement plugs for P&A. Measure return volumes then dumping mud. Full returns on the 3 plugs set so far. Inhibited mud to be left in casing with corrosion inhibitor and biocide. Severely cement contaminated mud treated with bicarb to maintain reasonable rheological properties

**DRILLING FLUIDS RECAP FOR SANTOS LTD
MARTHA 1**

**COST
BY
INTERVAL**



PRODUCT SUMMARY

Operator : Santos Ltd
Well Name : Martha-1
Contractor : Diamond Offshore

Field/Area : Otway Basin
Description : Wild Cat-Gas Well
Location : VIC-P-44

SUMMARY OF PRODUCT USAGE FOR INTERVAL

19/10/2004 - 21/10/2004, 0 - 122.5 m

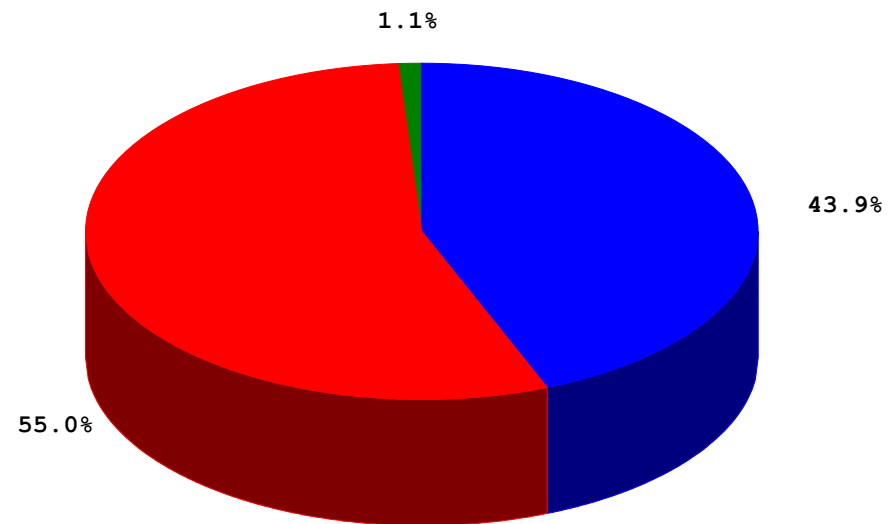
WATER-BASED MUD	SIZE	AMOUNT	UNIT COST	PROD COST
			(\$)	(\$)
1 - SODA ASH	25 KG BG	3	13.04	39.12
2 - CAUSTIC SODA (DRY)	25 KG DM	3	20.46	61.38
3 - M-I GEL BULK	1 MT BK	13	228.67	2972.71
4 - LEAD MUD ENGR	1 EA	4	630.00	2520.00
5 - GUAR GUM	25 KG BG	16	60.00	960.00
6 - SECOND MUD ENGR	1 EA	4	600.00	2400.00
SUB TOTAL:				8953.21
TAX:				0.00
WATER-BASED MUD TOTAL COST:				8953.21
TOTAL MUD COST FOR INTERVAL:				8953.21

BREAKDOWN OF COST BY PRODUCT GROUP 19/10/2004 - 21/10/2004, 0 - 122.5 m

Water-Based Mud Products	\$	%
1-Common Chemicals	100.50	1.1
2-Engineering	4920.00	55.0
3-Visc/Fluid Loss	3932.71	43.9

Water-Based Mud Total Cost: \$ 8953.21 100.0

Water-Based Mud





PRODUCT SUMMARY

Operator : Santos Ltd
Well Name : Martha-1
Contractor : Diamond Offshore

Field/Area : Otway Basin
Description : Wild Cat-Gas Well
Location : VIC-P-44

SUMMARY OF PRODUCT USAGE FOR INTERVAL

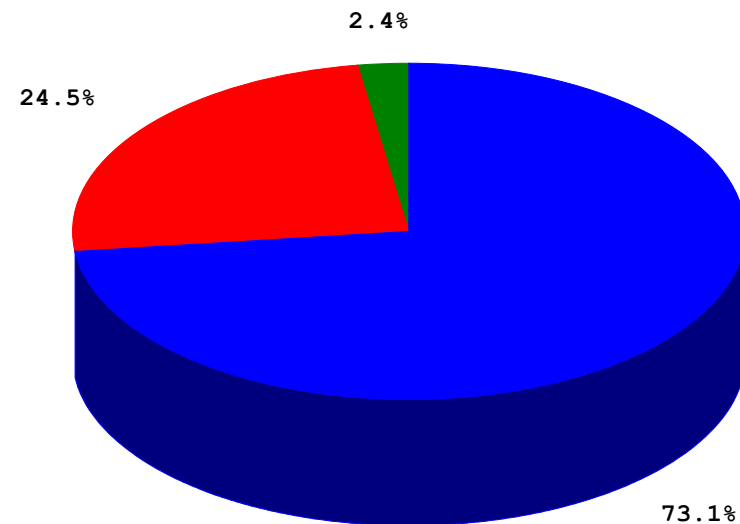
22/10/2004 - 23/10/2004, 122 - 628 m

WATER-BASED MUD	SIZE	AMOUNT	UNIT COST	PROD COST
			(\$)	(\$)
1 - LIME	25 KG BG	1	10.06	10.06
2 - SODA ASH	25 KG BG	10	13.04	130.40
3 - CAUSTIC SODA (DRY)	25 KG DM	5	20.46	102.30
4 - M-I GEL BULK	1 MT BK	31	228.67	7088.77
5 - LEAD MUD ENGR	1 EA	2	630.00	1260.00
6 - GUAR GUM	25 KG BG	4	60.00	240.00
7 - SECOND MUD ENGR	1 EA	2	600.00	1200.00
SUB TOTAL:				10031.53
TAX:				0.00
WATER-BASED MUD TOTAL COST:				10031.53
TOTAL MUD COST FOR INTERVAL:				10031.53

BREAKDOWN OF COST BY PRODUCT GROUP 22/10/2004 - 23/10/2004, 122 - 628 m

Water-Based Mud Products	\$	%
1-Common Chemicals	242.76	2.4
2-Engineering	2460.00	24.5
3-Visc/Fluid Loss	7328.77	73.1

Water-Based Mud



Water-Based Mud Total Cost:	\$ 10031.53	100.0
------------------------------------	--------------------	--------------



PRODUCT SUMMARY

Operator : Santos Ltd
Well Name : Martha-1
Contractor : Diamond Offshore

Field/Area : Otway Basin
Description : Wild Cat-Gas Well
Location : VIC-P-44

SUMMARY OF PRODUCT USAGE FOR INTERVAL

24/10/2004 - 2/11/2004, 628 - 1200 m

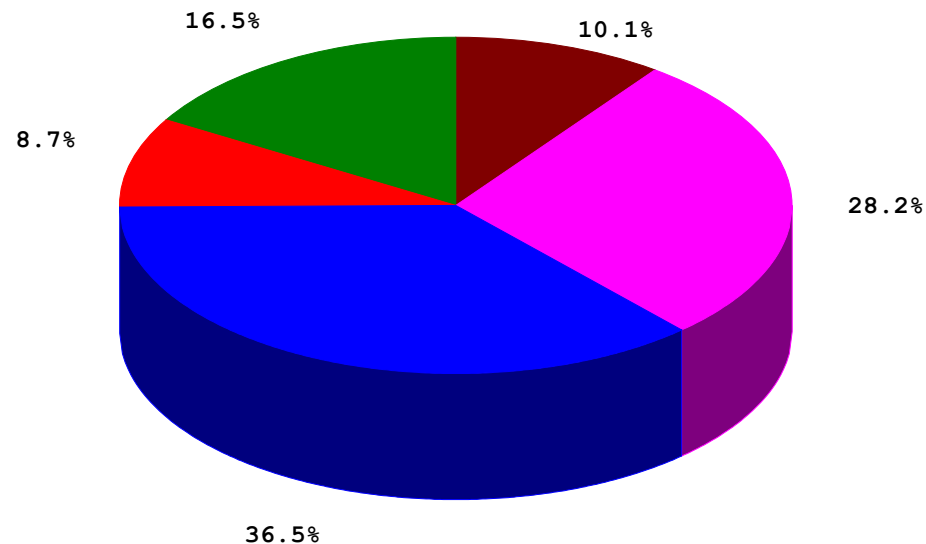
WATER-BASED MUD	SIZE	AMOUNT	UNIT COST	PROD COST
			(\$)	(\$)
1 - DUOTEC	25 KG BG	40	196.24	7849.60
2 - SODA ASH	25 KG BG	22	13.04	286.88
3 - ANTIFOAM A	5 GA CN	10	68.59	685.90
4 - SODIUM BICARBONATE	25 KG BG	25	10.64	266.00
5 - POLYPAC UL	25 KG BG	87	90.00	7830.00
6 - M-I BAR BULK	1 MT BK	62	210.00	12915.00
7 - M-I GEL BULK	1 MT BK	6	228.67	1372.02
8 - POTASSIUM CHLORIDE	1 MT BG	41	430.06	17632.46
9 - LEAD MUD ENGR	1 EA	10	630.00	6300.00
10 - DUO-VIS	25 KG BG	84	227.00	19068.00
11 - GLUTE 25	25 LT CN	3	93.68	281.04
12 - POLY PLUS DRY	25 KG BG	37	85.80	3174.60
13 - SECOND MUD ENGR	1 EA	8	600.00	4800.00
14 - CONQOR 303A	55 GA DM	4	380.36	1521.44
15 - GLYDRIL LC	55 GA DM	68	575.81	39155.08
16 - GLYDRIL MC	220 KG DM	12	371.49	4457.88
17 - POTASSIUM HYDROXIDE	25 KG CN	15	31.28	469.20
SUB TOTAL:				128065.10
TAX:				0.00
WATER-BASED MUD TOTAL COST:				128065.1
TOTAL MUD COST FOR INTERVAL:				128065.1

BREAKDOWN OF COST BY PRODUCT GROUP 24/10/2004 - 2/11/2004, 628 - 1200 m

Water-Based Mud Products	\$	%
1-Common Chemicals	21142.92	16.5
2-Engineering	11100.00	8.7
3-Lubricant	46787.56	36.5
4-Visc/Fluid Loss	36119.62	28.2
5-Weight Material	12915.00	10.1

Water-Based Mud Total Cost: \$ 128065.10 100.0

Water-Based Mud



**DRILLING FLUIDS RECAP FOR SANTOS LTD
MARTHA 1**

**DAILY VOLUME
SUMMARY SHEET**



Martha-1 Volume Summaries

36" Interval Seawater/Gel Sweeps

Date	Mud Volume (bbl)					Volume Built bbl								Volume Lost bbl							
	Depth	Hole	Surf Active	Res. & Premix	Total Vol	Water	Mud Received	Synthetic Added	Mud Built	Chemical	Barite	Daily Total	Cum Built	Shakers	Centri-fuge	Desilter	Dump	Hole	Sweeps	Daily Total	Cummul Lost
20-Oct	95	0	0	790	790				910			910	910						120	120	120
21-Oct	122.5	0	0	1170	1170				780			780	1690					192	208	400	520

17.5" Interval Seawater/Gel Sweeps

Date	Mud Volume (bbl)					Volume Built bbl								Volume Lost bbl							
	Depth	Hole	Surf Active	Res. & Premix	Total Vol	Water	Mud Received	Synthetic Added	Mud Built	Chemical	Barite	Daily Total	Cum Built	Shakers	Centri-fuge	Desilter	Dump	Hole	Sweeps	Daily Total	Cummul Lost
22-Oct	514	0	0	1330	1330		1170		2000			3170	3170				25		1815	1840	1840
23-Oct	628	0	0	540	540				715			715	3885					190	1315	1505	3345

12.25" Interval Glydriil WBM

Date	Mud Volume (bbl)					Volume Built bbl								Volume Lost bbl							
	Depth	Hole	Surf Active	Res. & Premix	Total Vol	Water	Mud Received	Synthetic Added	Mud Built	Chemical	Barite	Daily Total	Cum Built	Shakers	Centri-fuge	Desander	Dump	Hole	Other	Daily Total	Cummul Lost
24-Oct	628	0	0	1160	1160		540		770			1310	1310						150	150	150
25-Oct	628	0	0	1760	1760				600			600	1910						0	0	150
26-Oct	870	430	504	485	1419				700			700	2610	856			20		165	1041	1041
27-Oct	1193	577	427	818	1822				3029			3029	5639	2626						2626	3667
28-Oct	1310	630	457	968	2055				543			543	6182	280		30				310	3977
29-Oct	1800	852	359	354	1565					58		58	6240	203			345			548	4525
30-Oct	1800	864	359	355	1578				233			233	6473	52			137		31	220	4745

**DRILLING FLUIDS RECAP FOR SANTOS LTD
MARTHA 1**

**TOTAL
MATERIAL
COST**



PRODUCT SUMMARY

Operator : Santos Ltd
Well Name : Martha-1
Contractor : Diamond Offshore

Field/Area : Otway Basin
Description : Wild Cat-Gas Well
Location : VIC-P-44

SUMMARY OF PRODUCT USAGE FOR INTERVAL

19/10/2004 - 2/11/2004, 0 - 1200 m

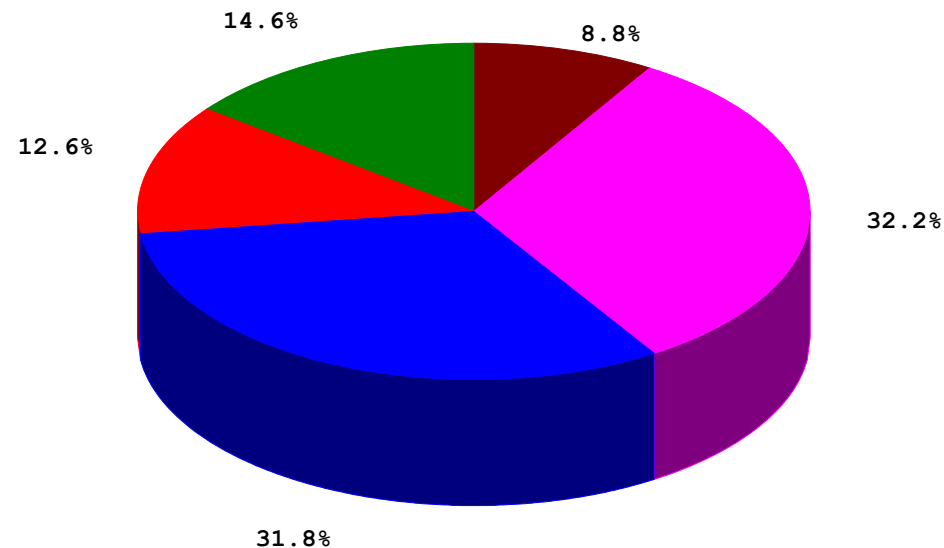
WATER-BASED MUD	SIZE	AMOUNT	UNIT COST (\$)	PROD COST (\$)
1 - DUOTEC	25 KG BG	40	196.24	7849.60
2 - LIME	25 KG BG	1	10.06	10.06
3 - SODA ASH	25 KG BG	35	13.04	456.40
4 - CAUSTIC SODA (DRY)	25 KG DM	8	20.46	163.68
5 - ANTIFOAM A	5 GA CN	10	68.59	685.90
6 - SODIUM BICARBONATE	25 KG BG	25	10.64	266.00
7 - POLYPAC UL	25 KG BG	87	90.00	7830.00
8 - M-I BAR BULK	1 MT BK	62	210.00	12915.00
9 - M-I GEL BULK	1 MT BK	50	228.67	11433.50
10 - POTASSIUM CHLORIDE	1 MT BG	41	430.06	17632.46
11 - LEAD MUD ENGR	1 EA	16	630.00	10080.00
12 - GUAR GUM	25 KG BG	20	60.00	1200.00
13 - DUO-VIS	25 KG BG	84	227.00	19068.00
14 - GLUTE 25	25 LT CN	3	93.68	281.04
15 - POLY PLUS DRY	25 KG BG	37	85.80	3174.60
16 - SECOND MUD ENGR	1 EA	14	600.00	8400.00
17 - CONQOR 303A	55 GA DM	4	380.36	1521.44
18 - GLYDRIL LC	55 GA DM	68	575.81	39155.08
19 - GLYDRIL MC	220 KG DM	12	371.49	4457.88
20 - POTASSIUM HYDROXIDE	25 KG CN	15	31.28	469.20
SUB TOTAL:				147049.84
TAX:				0.00
WATER-BASED MUD TOTAL COST:				147049.84
TOTAL MUD COST FOR INTERVAL:				147049.84

BREAKDOWN OF COST BY PRODUCT GROUP 19/10/2004 - 2/11/2004, 0 - 1200 m

Water-Based Mud Products	\$	%
1-Common Chemicals	21486.18	14.6
2-Engineering	18480.00	12.6
3-Lubricant	46787.56	31.8
4-Visc/Fluid Loss	47381.10	32.2
5-Weight Material	12915.00	8.8

Water-Based Mud Total Cost: \$ 147049.84 100.0

Water-Based Mud



**DRILLING FLUIDS RECAP FOR SANTOS LTD
MARTHA 1**

**HYDRAULICS
REPORT**



HYDRAULICS SUMMARY

Operator : Santos Ltd

Field/Area : Otway Basin

Well Name : Martha-1

Description : Wild Cat-Gas Well

Contractor : Diamond Offshore

Location : VIC-P-44

Date		20/10/2004	21/10/2004	22/10/2004	23/10/2004	24/10/2004	25/10/2004	26/10/2004	27/10/2004
Depth	m	86	123	410	628	628	628	725	1150
Days Since Spud		1	2	3	4	5	6	7	8
*RHEOLOGICAL PROPERTIES									
Mud Wt	lb/gal	8.8	8.8	8.8	8.8	8.8	8.9	9.0	9.0
Plastic Visc	cP	17	17	11	10	17	11	15	11
Yield Point	lb/100ft ²	30	32	36	35	12	11	18	20
3-rpm Rdg	Fann deg	20	20	29	27	1	2	5	8
np Value		.4454	.4297	.3034	.2895	.6656	.585	.5406	.4381
Kp Value	lb*s ⁿ /100ft ²	3.1182	3.5859	7.5605	7.8935	.4874	.6113	1.2095	2.1523
na Value		.125	.134	.0771	.074	.7526	.511	.4093	.2752
Ka Value	lb*s ⁿ /100ft ²	17.4042	17.1491	27.287	25.5329	.3126	.9273	2.7366	5.4486
*FLOW DATA									
Flow Rate	gal/min	1026	1026	1077	0	0	0	923	898
Pump Pressure	psi	650	650	2400	0	0	0	1850	2400
Pump	hhp	389	*	1508	*	*	*	996	1257
*PRESSURE LOSSES									
Drill String	psi	261	*	691	*	*	*	1087	991
Bit	psi	273	*	466	*	*	*	834	789
Annulus	psi		*	18	*	*	*	32	47
Total System	psi	535	*	1176	*	*	*	1952	1828
*BIT HYDRAULICS									
Nozzles	1/32"	4x24	4x20	3x22			3x20	3x20	3x20
Nozzles	1/32"			20					
Bit Pressure	%	42	*	19	*	*	*	45	33
Bit	hhp	164	*	293	*	*	*	449	413
Bit HSI	(index)	.16	*	1.22	*	*	*	3.81	3.51
Jet Velocity	ft/s	57	*	74	*	*	*	98	95
Impact Force	lbf	870	*	1193	*	*	*	1383	1309
DRILL COLLARS ANNULUS									
Velocity	m/min	6	*	37	*	*	*	80	78
Critical Vel	m/min	119	*	144	*	*	*	103	107
Reynolds Number		12	*	221	*	*	*	1650	1506
Crit Re (Lam - Tran)		2860	*	3054	*	*	*	2729	2870
*DRILL PIPE ANNULUS									
Velocity	m/min	6	*	29	*	*	*	55	54
Critical Vel	m/min	119	*	141	*	*	*	90	98
Reynolds Number		12	*	138	*	*	*	1133	916
Crit Re (Lam - Tran)		2860	*	3054	*	*	*	2729	2870
*HOLE CLEANING									
Slip Velocity	m/min	4	*	5	*	*	*	6	5
Rising Velocity	m/min	2	*	24	*	*	*	49	48
Lifting Capacity	%	30	*	84	*	*	*	89	90
Cutting Conc	%	18.62	*	1.51	*	*	*	0.55	0.56
Penetration Rate	m/h	20	20	20	0	0	0	13.5	13.5
CASING SHOE PRESSURES									
ECD	lb/gal	8.8	*	8.84	*	*	*	9.15	9.18
ECD+Cuttings	lb/gal	11.03	*	9.02	*	*	*	9.22	9.25
TOTAL DEPTH PRESSURES									
ECD	lb/gal	8.81	*	9.01	*	*	*	9.21	9.23
ECD+Cuttings	lb/gal	11.05	*	9.19	*	*	*	9.28	9.3

M-I L.L.C.

14920

DRILLING FLUIDS DATA MANAGEMENT SYSTEM



HYDRAULICS SUMMARY

Operator : Santos Ltd

Field/Area : Otway Basin

Well Name : Martha-1

Description : Wild Cat-Gas Well

Contractor : Diamond Offshore

Location : VIC-P-44

Date		28/10/2004	29/10/2004	30/10/2004	31/10/2004	1/11/2004	2/11/2004		
Depth	m	1285	1760	1800	1800	1800	1200		
Days Since Spud		9	10	11	12	13	14		
*RHEOLOGICAL PROPERTIES									
Mud Wt	lb/gal	9.7	10.3	10.5	10.5	10.5	10.5		
Plastic Visc	cP	13	16	16	16	16	20		
Yield Point	lb/100ft ²	20	16	22	21	21	25		
3-rpm Rdg	Fann deg	9	7	7	7	7	9		
np Value		.4792	.585	.507	.5185	.5185	.5305		
Kp Value	lb*s ⁿ /100ft ²	1.7737	.8892	1.7175	1.5565	1.5565	1.756		
na Value		.2676	.2848	.3392	.3133	.3133	.3025		
Ka Value	lb*s ⁿ /100ft ²	6.2066	4.6939	4.2947	4.4804	4.4804	5.8625		
*FLOW DATA									
Flow Rate	gal/min	876	876	0	0	0	0		
Pump Pressure	psi	3250	3250	0	0	0	0		
Pump	hhp	1661	1661	*	*	*	*		
*PRESSURE LOSSES									
Drill String	psi	1154	1657	*	*	*	*		
Bit	psi	1213	1288	*	*	*	*		
Annulus	psi	56	61	*	*	*	*		
Total System	psi	2423	3007	*	*	*	*		
*BIT HYDRAULICS									
Nozzles	1/32"	5x14	5x14	5x14					
Nozzles	1/32"								
Bit Pressure	%	37	40	*	*	*	*		
Bit	hhp	620	658	*	*	*	*		
Bit HSI	(index)	5.26	5.59	*	*	*	*		
Jet Velocity	ft/s	114	114	*	*	*	*		
Impact Force	lbf	1644	1746	*	*	*	*		
DRILL COLLARS ANNULUS									
Velocity	m/min	76	76	*	*	*	*		
Critical Vel	m/min	108	93	*	*	*	*		
Reynolds Number		1418	1830	*	*	*	*		
Crit Re (Lam - Tran)		2814	2669	*	*	*	*		
*DRILL PIPE ANNULUS									
Velocity	m/min	52	52	*	*	*	*		
Critical Vel	m/min	100	85	*	*	*	*		
Reynolds Number		856	1122	*	*	*	*		
Crit Re (Lam - Tran)		2814	2669	*	*	*	*		
*HOLE CLEANING									
Slip Velocity	m/min	5	5	*	*	*	*		
Rising Velocity	m/min	48	47	*	*	*	*		
Lifting Capacity	%	91	91	*	*	*	*		
Cutting Conc	%	0.41	0.86	*	*	*	*		
Penetration Rate	m/h	9.75	20.42	0	0	0	0		
CASING SHOE PRESSURES									
ECD	lb/gal	9.9	10.46	*	*	*	*		
ECD+Cuttings	lb/gal	9.95	10.55	*	*	*	*		
TOTAL DEPTH PRESSURES									
ECD	lb/gal	9.95	10.5	*	*	*	*		
ECD+Cuttings	lb/gal	10.0	10.59	*	*	*	*		

M-I L.L.C.

14920

DRILLING FLUIDS DATA MANAGEMENT SYSTEM

**DRILLING FLUIDS RECAP FOR SANTOS LTD
MARTHA 1**

**DRILLING
FLUIDS
SUMMARY**



DRILLING FLUIDS SUMMARY

Operator : Santos Ltd

Field/Area : Otway Basin

Well Name : Martha-1

Description : Wild Cat-Gas Well

Contractor : Diamond Offshore

Location : VIC-P-44

Date	19/10/2004	20/10/2004	21/10/2004	22/10/2004	23/10/2004	24/10/2004
Depth/TVD	m	145/145	86/86	122.5/122.5	410/410	628/628
Activity		Towing	Drilling	RIH	Drilling	Run Casing
Mud Type			SW/Gel Sweet	SW/Gel Sweet	SW/Gel Sweet	SW/Gel Sweet
Hole Size	in	36	36	17.5	17.5	17.5
Circ Volume	bbbl		150	325		
Flow Rate	gal/min	0	1026	1026	1077	0
Circ Pressure	psi	0	650	650	2400	0
Avg ROP	m/hr	0	20	20	20	0
Sample From			Pit 4	Pit 4	Pit 4	Pit 5
Flow Line Temp	°F		-	-		
Mud Weight	lb/gal	@ °F	8.8@60 °F	8.8@60 °F	8.8@60 °F	8.8@60 °F
Funnel Viscosity	s/qt		> 120	> 120	> 100	110
PV	cP		17	17	11	10
YP	lb/100ft ²		30	32	36	35
R600/R300/R200		//	64/47/40	66/49/41	58/47/43	55/45/41
R100/R6/R3		//	31/20/20	32/21/20	38/30/29	35/28/27
10s/10m/30m Gel	lb/100ft ²	//	29/39/50	30/42/57	23/30/40	20/27/38
API Fluid Loss	cc/30 min		14	15	18	16
HTHP Fluid Loss	cc/30 min		-	-	-	-
Cake API/HT	1/32"	/	2/-	2/-	2/-	1/-
Solids	%Vol		4	5	4	4
Oil/Water	%Vol	/	/96	/95	/96	/96
Sand	%Vol		0			
MBT	lb/bbl		27	30	30	30
pH			9.5	9.5	9.5	9.5
Alkal Mud (Pm)			0.75	0.8	0.65	0.6
Pf/Mf		/	0.52/1.12	0.5/0.9	0.35/0.75	0.3/0.9
Chlorides	mg/l		1000	1000	300	300
Hardness Ca			40	40	40	60
KCl	Wt %					
Glycol	Vol %					
						0
Daily Mud Cost	\$	0.00	5815.03	3138.18	7148.68	2882.85
Cuml Mud Cost	\$	0.00	5815.03	8953.21	16101.89	18984.74
Sales Engineer		Gordon /Jasdeep	Gordon /Jasdeep	Gordon /Jasdeep	Gordon /Jasdeep	Gordon /Jasdeep
Products Used			Soda / 2	Soda / 1	Lime / 1	Soda / 4
			Caustic / 2	Caustic / 1	Soda / 6	Gel / 7
			Gel / 9	Gel / 4	Caustic / 5	425 / 1
			425 / 3	425 / 1	Gel / 24	SECENGR / 1
			SECENGR / 3	GUARGUM / 1	425 / 1	
				SECENGR / 1	GUARGUM / 4	
					SECENGR / 1	
						KOH / 1

REMARKS

19/10/2004:
 20/10/2004:
 21/10/2004:
 22/10/2004:
 23/10/2004:
 24/10/2004:

**DRILLING FLUIDS RECAP FOR SANTOS LTD
MARTHA 1**

**PRODUCT
CONSUMPTION**

**DRILLING FLUIDS RECAP FOR SANTOS LTD
MARTHA 1**

**DAILY
MUD
REPORTS**



WATER-BASED MUD REPORT No. 10

Date	29/10/2004	Depth/TVD	1800 m / 1800 m
Spud Date	20/10/2004	Mud Type	Glydril
Water Depth	55	Activity	POOH

Operator : Santos Ltd Report For : Nigel Walters/Stephen Hodgetts Well Name : Martha-1 Contractor : Diamond Offshore Report For : Sean Defritas/Ray Breaud	Field/Area : Otway Basin Description : Wild Cat-Gas Well Location : VIC-P-44 M-I Well No. : 14920
---	--

DRILLING ASSEMBLY		CASING	MUD VOLUME (bbl)	CIRCULATION DATA	
Bit Size	12.25 in Hycalog DSX	Surface	Hole	Pump Make	NATIONAL 12P-16
Nozzles	5x14 / 1/32"	30in @121m (121TVD)	852.2	Pump Size	6 X 12.in
Drill Pipe Size	Length	Intermediate	Active Pits	Pump Cap	4.274 gal/stk
5 in	1512 m	13.37in @621m (621TVD)	358.8	Pump stk/min	103@97%
Drill Pipe Size	Length	Intermediate	Total Circulating Vol	Flow Rate	876 gal/min
5 in	112 m	in @1800m (1800TVD)	1211	Bottoms Up	36.3 min 7451 stk
Drill Collar Size	Length	Production or Liner	In Storage	Total Circ Time	58.1 min 11903 stk
8 in	176 m		354	Circulating Pressure	3250 psi

MUD PROPERTIES			
Sample From		Active@21:00	Active@16:00
Flow Line Temp	°F	125	116
Depth/TVD	m	1760/1760	1634/1634
Mud Weight	lb/gal	10.3@120°F	10.3@108°F
Funnel Viscosity	s/qt	44	50
Rheology Temp	°F	120	120
R600/R300		48/32	55/38
R200/R100		26/19	31/23
R6/R3		9/7	10/8
PV	cP	16	17
YP	lb/100ft²	16	21
10s/10m/30m Gel	lb/100ft²	9/14/18	10/18/21
API Fluid Loss	cc/30 min	9.2	12
HTHP FL Temp	cc/30 min		
Cake API/HTHP	1/32"	1/	1/
Solids	%Vol	10	9
Oil/Water	%Vol	/90	/91
Sand	%Vol	1.5	1.5
MBT	lb/bbl	15	12.5
pH		8	8
Alkal Mud (Pm)		0	
Pf/Mf		0/0.4	.05/.5
Chlorides	mg/l	35000	39000
Hardness Ca	mg/l	1440	1520
KCl	Wt %	6	6.5
Glycol	Vol %	3.4	3.7

PRODUCTS USED LAST 24 HRS		
Products	Size	Amt
SODA ASH	25 KG BG	10
POLYPAC UL	25 KG BG	31
M-I BAR BULK	1 MT BK	4
POTASSIUM CHLORIDE	1 MT BG	10
LEAD MUD ENGR	1 EA	1
POLY PLUS DRY	25 KG BG	4
SECOND MUD ENGR	1 EA	1
GLYDRIL MC	220 KG DM	12
POTASSIUM HYDROXIDE	25 KG CN	8

SOLIDS EQUIP	Size	Hr
VSM Thule Shake	10, 4 x 84	24
VSM Thule Shake	10, 4 x 165	24
VSM Thule Shake	10, 2x120, 2x10	24
VSM Thule Shake	10, 4 x 105	24
D-Sander		0
D-Silter		0

MUD PROPERTY SPECIFICATIONS	
Weight	10.1
Viscosity	50
Filtrate	<6

REMARKS AND TREATMENT Blended premix to active system to maintain volume and mud weight. Added Glydril, Polyplus and Polypac UL to active to improve inhibition and fluid loss properties. Built slug for POOH.	REMARKS Drilled ahead to well TD 1800m. Circulated shakers clear, preparing to POOH.
---	--

TIME DISTR	Last 24 Hrs	MUD VOL ACCTG (bbl)	SOLIDS ANALYSIS (%/lb/bbl)	MUD RHEOLOGY & HYDRAULICS
Rig Up/Service		Oil Added	NaCl	np/na Values
Drilling	23	Water Added	KCl	kp/ka (lb*s^n/100ft²)
Tripping		Mud Received	Low Gravity	Bit Loss (psi / %)
Non-Productive Tim		Dumped	Bentonite	Bit HHP (hbp / HSI)
Condition Hole	1	Left in Hole	Drill Solids	Bit Jet Vel (m/s)
Reaming		Other	Weight Material	Ann. Vel DP (m/min)
		Sweeps	Chemical Conc	Ann. Vel DC (m/min)
		Shakers	Inert/React	Crit Vel DP (m/min)
			Average SG	Crit Vel DC (m/min)
			Carb/BiCarb (m mole/L)	ECD @ 1800 (lb/gal)

M-I ENGR / PHONE	RIG PHONE	WAREHOUSE PHONE	DAILY COST	CUMULATIVE COST
Nick Cooper Gordon Howie	61-8-6363 8872	61-8-9325 4822	\$ 14,342.32	\$ 123,753.76

SECTION 11 : CASING & CEMENTING SUMMARY

Well Name: **MARTHA 01**

Casing Type: Intermediate Casing	Originated By: J. Wrenn	Checked By: N. Walters	Date: 25 Oct 2004
Hole Size: 17.50in	Total Depth: 628.0m	GL-RT:	Contractor: Dowell
PRE-FLUSH 0bbl @ 0ppg	SPACER 200.0bbl @ 8.60ppg		
Additives:	Additives:		
CEMENT	ADDITIVES	%	Amount
LEAD SLURRY:	810sx		
Brand / Class:	Adelaide Brighton / G	D 075	0.42 gal/sx
Slurry Yield:	2.23ft³/sx	D 047	0.01 gal/sx
Mixwater Req't:	12.72gal/sx		
Actual Slurry Pumped:	321.0bbl		
Density:	12.50ppg		
Cement Top (MD):	76.0m		
TAIL SLURRY:	915sx		
Brand / Class:	Adelaide Brighton / G	D 047	0.01 gal/sx
Slurry Yield:	1.16ft³/sx		
Mixwater Req't:	5.14gal/sx		
Actual Slurry Pumped:	112.0bbl		
Density:	15.80ppg		
Cement Top (MD):	421.0m		
DISPLACEMENT	Fluid: seawater @ 8.60ppg		
Theoretical Displ.:	253.3bbl	Bumped Plug with:	700psi
Actual Displ.:	258.0bbl @ 400gpm	Pressure Tested To:	1500psi
Displaced via:	Cement Unit	Bleed Back:	2.5bbl
ACTIVITY	Time/Date	Returns to Surface: 0bbl mud, 0bbl cmt	
Start Running csg.	23 Oct 2004 15:00	Casing Action During Preflush : No Action Taken Cement : No Action Taken Displacement : No Action Taken	
Casing On Bottom	24 Oct 2004 06:00	Top Up Job run: 0 0sx of class	
Start Circulation	24 Oct 2004 06:00	Wiper Plug Top: Yes	
Start Pressure Test	24 Oct 2004 06:25	Wiper Plug Bottom: Yes	
Pump Preflush		Plug Set: Manufacturer: Dowell Type: Dowell	
Start Mixing	24 Oct 2004 08:15	Centralizer Type: Weatherford Centralizer Placement Depth: One centralizer of first three joints (shoe track) and one centralizer over every second joint for next 6 joints	
Finish Mixing	24 Oct 2004 10:01		
Start Displacing	24 Oct 2004 10:05		
Stop Displ./Bump	24 Oct 2004 10:38		
Pressure Test			
CASING AND EQUIPMENT DETAILS			
Stick Up			
			-3.00m
No. Joints	OD	Wt	Grade
			Comment
			Thread
			Length
			From
			To
1	5.00in	50lbs/ft	HWDP
			Running string
1	18.75in	100lbs/ft	L-80
			18 3/4 wellhead housing
1	13.38in	68lbs/ft	L-80
			BTC No-Cross coupling box x TER pin XO
37	13.38in	68lbs/ft	L-80
			37 joints of TER casing
1	13.38in	68lbs/ft	L-80
			BTC pin to TER box XO
1	13.38in	68lbs/ft	L-80
			Float collar joint
1	13.38in	68lbs/ft	L-80
			Intermediate jt
1	13.38in	68lbs/ft	L-80
			Shoe
Theoretical Bouyed wt. of casing:		0klb	Bradenhead Height above GL: 0m
Casing wt. prior to landing csg:		0klb	Bradenhead Description / Length: / 0m
Actual wt. of casing (last joint run-block wt):		0klb	Tubing Spool Size:
Landing wt. (after cementing and pressure bleed off):		0klb	Setting Slips: 0klb
Cementing Job Remarks:			

Well Name: **CALLISTER 01**

Casing Type: Intermediate Casing	Originated By: J. Young	Checked By:	Date: 28 Oct 2004					
Hole Size: 12.25in	Total Depth: 2550.0m	GL-RT:	Contractor: Halliburton					
PRE-FLUSH 0bbl @ 0ppg	SPACER 20.0bbl @ 8.34ppg							
Additives:	Additives: 8.34ppg Drill water with no additives.							
CEMENT	ADDITIVES	%	Amount					
LEAD SLURRY: 110sx	Brand / Class: ABC / G	Econolite Liquid	0.503 gal/sx					
Slurry Yield: 2.13ft³/sx	Mixwater Req't: 11.68gal/sx	HR-6L	0.237 gal/sx					
Actual Slurry Pumped: 42.0bbl	Density: 12.50ppg	NF-6	0.007 gal/sx					
Cement Top (MD): 2837.0m								
TAIL SLURRY: 163sx	Brand / Class: ABC / G	Halad-413L	0.252 gal/sx					
Slurry Yield: 1.18ft³/sx	Mixwater Req't: 4.95gal/sx	HR-6L	0.075 gal/sx					
Actual Slurry Pumped: 34.0bbl	Density: 15.80ppg	NF-6	0.003 gal/sx					
Cement Top (MD): 2687.0m								
DISPLACEMENT	Fluid: Drilling Mud @ 9.10ppg							
Theoretical Displ.: 668.0bbl	Bumped Plug with:	0psi						
Actual Displ.: 570.0bbl @ 8gpm	Pressure Tested To:	0psi						
Displaced via: Halliburton Pump	Bleed Back:	0.5bbl						
ACTIVITY	Time/Date	Returns to Surface: 626.0bbl mud, 0bbl cmt						
Start Running csg.		Casing Action During Preflush : No Action Taken Cement : No Action Taken Displacement : No Action Taken						
Casing On Bottom		Top Up Job run: No 0sx of class						
Start Circulation	15:04	Wiper Plug Top: Yes						
Start Pressure Test	15:09	Wiper Plug Bottom: Yes						
Pump Preflush	15:15	Plug Set: Manufacturer: Weatherford Type:						
Start Mixing	15:25	Centralizer Type: Weatherford Bow Spring Centralizer Placement Depth: Centralisers Run:						
Finish Mixing	15:55	- Shoe						
Start Displacing	16:00	- Intermediate Shoe Joint						
Stop Displ./Bump	17:20	- Float Collar						
Pressure Test	N/A	- 25 centralisers placed every 3rd joint (1591m).						
CASING AND EQUIPMENT DETAILS								
Stick Up								
0m								
No. Joints	OD	Wt	Grade	Comment	Thread	Length	From	To
0	0in	0lbs/ft		Landing String with CHSART		156.42m	0m	156.42m
1	9.63in	47lbs/ft	L80	Casing hanger with 9-5/8" New Vam Extension	New Vam	2.94m	156.42m	159.36m
73	9.63in	47lbs/ft	L80	9-5/8" New Vam Casing	New Vam	877.13m	159.36m	1036.49m
1	9.63in	47lbs/ft	L80	9-5/8" New Vam Box x TMS Pin Crossover	New Vam/TMS	12.79m	1036.49m	1049.28m
116	9.63in	47lbs/ft	L80	9-5/8" TMS-SC Casing	TMS-SC	1436.14m	1049.28m	2485.42m
1	9.63in	47lbs/ft	L80	9-5/8" TMS Box x New Vam Pin Crossover	TMS//New Vam	12.76m	2485.42m	2498.18m
1	9.63in	47lbs/ft	L80	9-5/8" Float Collar	New Vam	13.62m	2498.18m	2511.8m
1	9.63in	47lbs/ft	L80	9-5/8" Intermediate shoe joint	New Vam	12.91m	2511.8m	2524.71m
1	9.63in	47lbs/ft	L80	9-5/8" Shoe Joint	New Vam	13.32m	2524.71m	2538.03m
Theoretical Bouyed wt. of casing:		120.0klb		Bradenhead Height above GL:		0m		
Casing wt. prior to landing csg:		0klb		Bradenhead Description / Length:		/ 0m		
Actual wt. of casing (last joint run-block wt):		0klb		Tubing Spool Size:				
Landing wt. (after cementing and pressure bleed off):		0klb		Setting Slips:		0klb		
Cementing Job Remarks:		5 Damaged Joints of Tenaris AER joints were laid out.						

SECTION 12 : MUDLOGGING WELL REPORT





HALLIBURTON

Sperry-Sun

SURFACE DATA LOGGING

END OF WELL REPORT

SANTOS LTD.

Martha-1

1.0 INTRODUCTION	1
2.0 WELL DATA SHEET	2
3.0 SYNOPSIS.....	3
3.1 OPERATIONAL SUMMARY	3
3.1.1 914 mm (36") Hole	3
3.1.2 445 mm (17½") Hole	4
3.1.3 311 mm (12 ¼") Hole	5
3.2 DAYS VS DEPTH	7
3.3 TIME BREAKDOWN	8
3.4 WELL PROFILE	9
4.0 LOGGING SERVICES SUPPLIED	10
4.1 GEOLOGICAL MONITORING	10
4.2 SERVICES PROVIDED	11
4.3 MONITORED PARAMETERS	11
4.4 PERSONNEL	12
4.5 SAMPLE COLLECTION	12
4.6 SAMPLE DISTRIBUTION	12
5.0 GEOLOGY AND SHOWS.....	15
5.1 INTRODUCTION	15
5.2 LITHOLOGICAL SUMMARY FOR MARTHA-1	16
6.0 CASING SUMMARY	20
7.0 MUD RECORD	21
8.0 BIT RECORD.....	22
9.0 HYDRAULICS RECORD	23

1.0 INTRODUCTION

A Sperry Sun Drilling Services INSITE (Integrated System for Information Technology and Engineering) mud logging unit was contracted to Santos Limited for the drilling of the Martha-1 vertical exploration well. The unit included a logging network, which gathered, processed and stored data whilst also providing real time and additional processed data capabilities.

The Diamond Offshore Ocean Patriot offshore drilling rig was used to drill the well in permit VIC-P-44.

Full surface data logging commenced from the spud, at 23:00 hrs on the 20th of October 2004, and continued for the duration of the well. The well reached a total depth of 1800.0 mMDRT at 22:30 hrs on the 29th October 2004. The well was subsequently plugged and abandoned on the 2nd of November 2004, after running electric logs.

This report is intended as a summary of the information and data collected, processed and monitored as part of the INSITE service agreement.

DATA ENGINEERS

Gary Bloom
Doug Wilson
Keith Ratnam

LOGGING ENGINEERS

Liam Clarke
David Hartney

SAMPLE CATCHERS

Adam Matuzelis
Richard Snow

2.0 WELL DATA SHEET

Well Name:	Martha - 1		
Permit:	VIC-P-44		
Operator:	Santos Ltd		
Drilling Rig:	Ocean Patriot		
Contractor:	Diamond Offshore		
Location:	Lat:	38° 37' 24.33" S	
	Long:	148° 42' 05.02" E	
	UTM Easting:	648 109.28	
	UTM Northing:	5 723 638.23	
RT to MSL	21.5 m		
Water Depth	54.66 m		
Hole Sizes:	1	914 mm (36") to	122.5 m
	2	445 mm (17 ½") to	628. m
	3	311 mm (12 ¼") to	1262. m
	4	311 mm (12 ¼") to	1800 m
Casing Shoes:	1	762 x 508 mm (30" x 20") set at 120.0 m	
	2	508 x 340 mm (20" x 13 ⅜") set at 620.8 m	
Date Rig on Contract:	17 th October 2004, 13:00 hrs		
Date Rig on Location:	20 th October 2004, 02:30 hrs		
Spud Date:	20 th October 2004, 23:00 hrs		
Date Reached TD:	29 th October 2004, 22:30 hrs		
Date Rig Released:	NA		
T.D. (Measured Depth, Drillers)	1800 mMDRT		
T.D. (True Vertical Depth)	1799 mTVDRT		
Well Status	P & A		

3.0 SYNOPSIS

3.1 OPERATIONAL SUMMARY

3.1.1 914 mm (36") Hole

914 mm Hole Drilled from 76.16 mMDRT to 122.5 mMDRT

762 mm Casing set at 120.0 mMDRT

BITS USED: 1

The run included a 914 mm (36") hole opener run in conjunction with a Smith MSDS SHC 660 mm (26") bit, dressed with 2 x 22, 1 X 21 and 1 x 20 nozzles. This bit assembly was run with a conventional rotary drilling assembly and drilled from 76.16 mMDRT to section TD of 122.5 mMDRT. The section was drilled using seawater combined with and gel sweeps.

The 762 x 508 mm (30" x 20") conductor was set at 120.0 mMDRT.

BIT RUN	DEPTH IN m	MADE (m)	TRIP GAS %	REASON FOR TRIP	DRILLING FLUID
1	76.16	122.5	NA	Section TD	Sea-Water/Hi-vis Sweeps

PROBLEMS ON TRIPS

There were no problems on the trips.

WIRELINER PROGRAM

No wire line logs were run over this section

3.1.2 445 mm (17½") Hole

445 mm Hole Drilled from 122.5 mMDRT to 628.0 mMDRT

340 mm Casing Set at 620.76 mMDRT

BITS USED: 1

This run included a Smith XRTC bit, dressed with 3 x 22, 1 x 20 nozzles. This bit was run with a conventional rotary drilling assembly and drilled from 122.5 mMDRT to 628.0 mMDRT. The cement in the 762 x 508 mm (30" x 20") casing was tagged at 114.5 mMDRT. After washing/drilling 5.5 m of cement, the shoe was drilled at 120.0 mMDRT. Drilling continued to the hole section TD of 628.0 mMDRT with seawater combined with 40 bbls guar gum sweeps. Prior to POOH, a single shot survey (0°) was taken and an 800bbls Hi-vis sweep was pumped.

The 508 x 340 mm (20" x 13³/₈") casing was set at 620.8 mMDRT.

BIT RUN	DEPTH IN M	MADE (m)	TRIPGAS %	REASON FOR TRIP	DRILLING FLUID
2	122.5	628.0	N/A	Section TD	Sea-Water/Hi-vis Sweeps

PROBLEMS ON TRIPS

There were no problems on the trips.

WIRELINE PROGRAM

No wire line logs were run over this section.

3.1.3 311 mm (12 1/4") Hole

311 mm Hole Drilled from 628.0 mMDRT to 1800.0 mMDRT

No. BITS USED: 2

This run included a Reed TCI TD43HKPRDH bit, dressed with 3 x 20 nozzles and was drilled with a conventional rotary drilling assembly and Sperry Sun MWD/FEWD/PWD tools. The cement in the 508 x 340 mm (20" x 13^{3/8}") casing was tagged at 570.0 mMDRT. After drilling 3 m of new formation from 628.0.0 mMDRT to 631.0.0 mMDRT, the well was displaced to 1.07 sg (8.9 ppg) KCL Polymer mud and a Leak Off Test was performed (EMW = 2.60 sg = 21.6 ppg) using 1.07 sg (8.9 ppg) KCL Polymer mud. The first presence of methane gas was encountered at 931 m MDRT. The first presence of CO2 was encountered at 939 m MDRT. A carbide lag check at 1003 m MDRT showed 264 bbls excess in open hole. The calculated average open hole size was 384 mm (15.1"). At 1262 mMDRT, bit # 3 & BHA 3 were pulled to replace the bit as per drilling program after the last pyrite formations were encountered. The MWD tool was downloaded after bit # 3 & BHA # 3 reached surface. A PDC bit # 4, Hycalog DSX104HGW, dressed with 5 x 14 nozzles was picked up and MWD FEWD was changed out. This assembly was tripped in the hole to 1262 m MDRT. Carbide lag check at 1292 m MDRT showed 305 bbls excess in open hole and a calculated average open hole size of 385 mm (15.15") (8200 strokes bottoms up versus 5210 strokes bottoms up calculated at 1292 m MDRT). This section was drilled to 1800 m MDRT, well Total Depth at 22:30 hours 29th October, 2004.

BIT RUN	DEPTH IN M	MADE (m)	TRIP GAS %	REASON FOR TRIP	DRILLING FLUID
3	628.0	634	6.88	Bit Change	KCL Polymer

BIT RUN	DEPTH IN M	MADE (m)	TRIP GAS %	REASON FOR TRIP	DRILLING FLUID
4	1262	538	N/A	Well TD	KCL Polymer

PROBLEMS ON TRIPS

The trip for bit # 4 at 1262 m MDRT encountered overpulls at 1170 - 1110 m MDRT (20- 40 klbs). Pipe displacement on this trip was 31 bbls excess volume to hole over calculated displacement. Made up bit # 4 PDC Hycalog DSX104HGW, trip in hole, hit obstruction at 898m MDRT, washed and reamed through, continued TIH to 1131 m MDRT, washed and reamed to bottom. The trip out of hole with bit #4 at 1800 m MDRT (well total depth) for electric Wireline logs showed overpulls at 1800 – 1355 m, 1355 – 1263 m, 1150 – 1144 m and 931 – 904 m MDRT which required washing and reaming. Wireline logs stopped at 1466 m MDRT. Pulled out with Wireline logs. Tripped in hole with bit # 3 without MWD tools for

wiper trip. Hit obstruction at 1121m MDRT (took 50 klbs wt). Washed through. Continued to run in hole and hit obstructions at 1266m, 1464m, 1507m, 1631m and 1715m, washed through all. Circulated bottoms up and tripped out of hole. Run elogs without problems.

WIRELINE PROGRAM

Wireline logging program as follows:

Run # 1 - Grand Slam

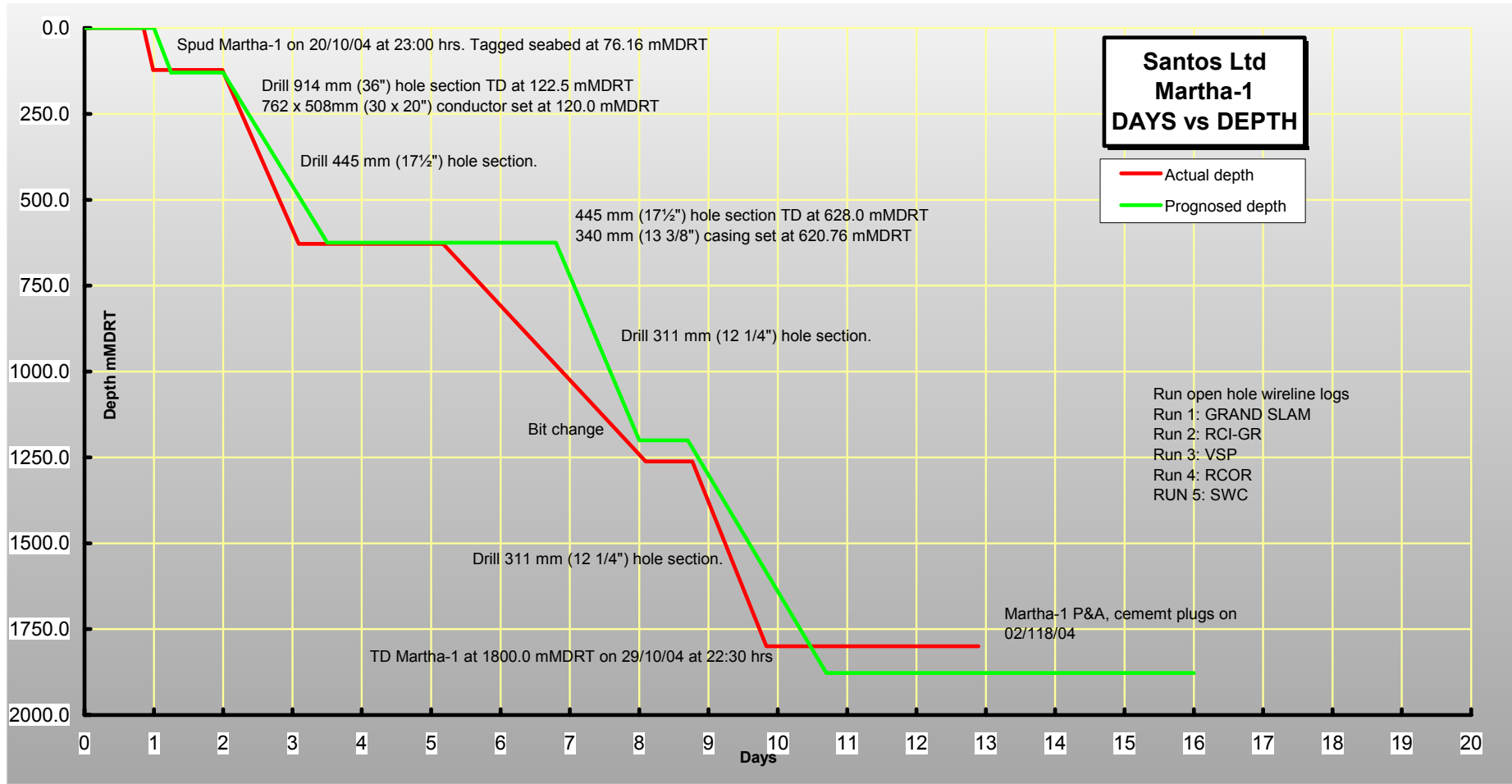
Run # 2 - RCI- GR

Run # 3 - SLR (VSP)

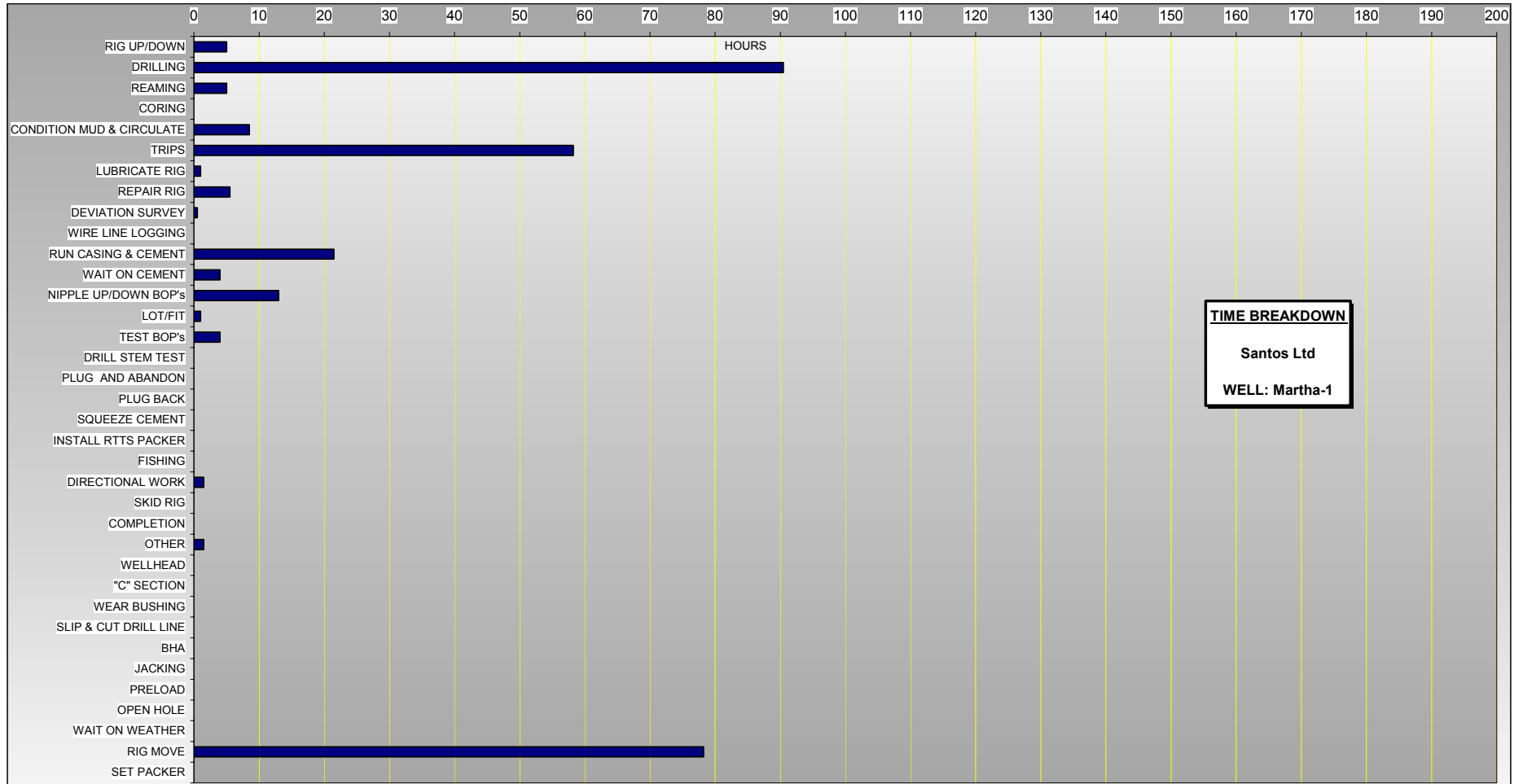
Run # 4 - RCOR

Run # 5 - SWC

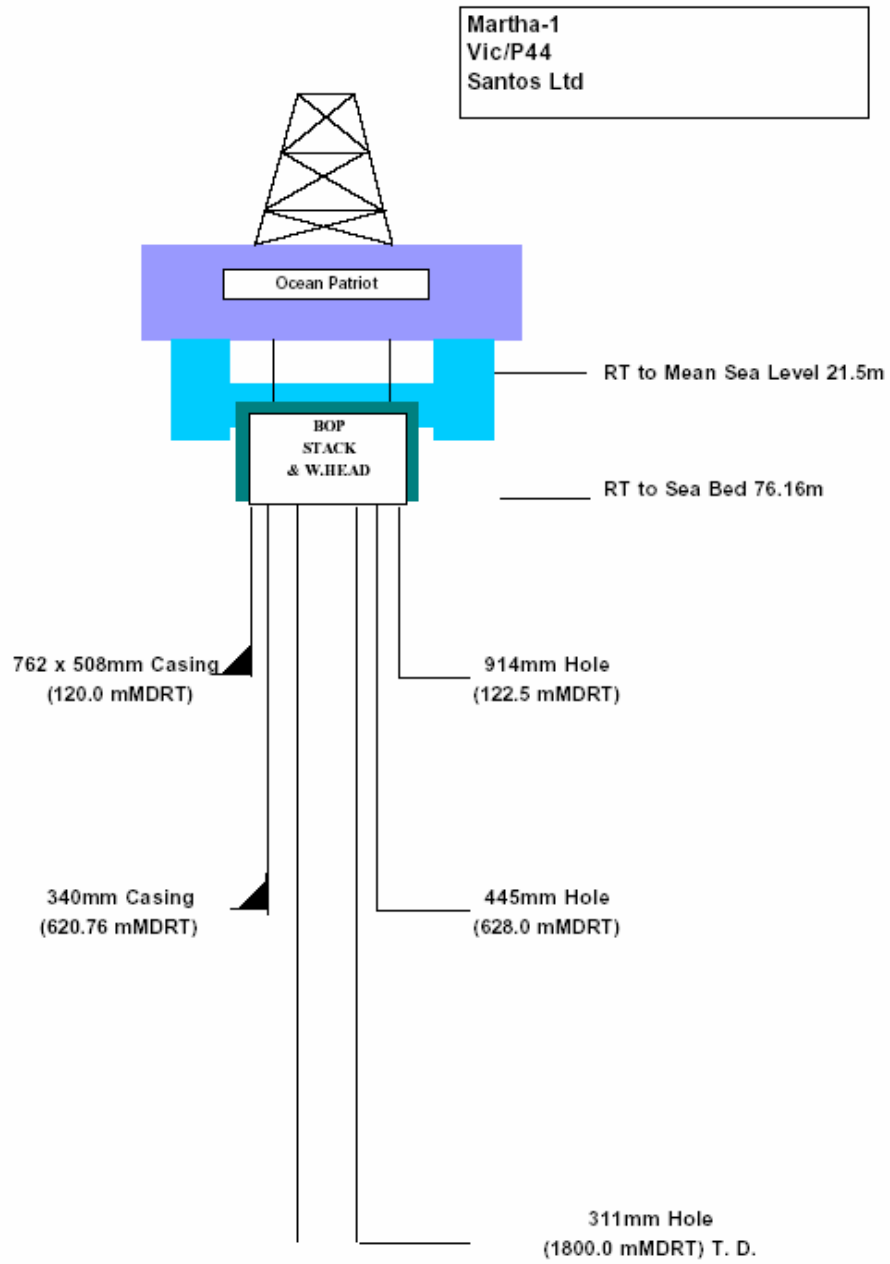
3.2 DAYS VS DEPTH



3.3 TIME BREAKDOWN



3.4 WELL PROFILE



4.0 LOGGING SERVICES SUPPLIED

4.1 GEOLOGICAL MONITORING

EQUIPMENT

Autocalcimeter

Canon Bubble Jet Printer

Company Workstation

Database PC (ADI)

Draw works Depth Encoder

FID Chromatograph

FID Total Gas Detector

Floating Gas Trap

Flow Out Paddle

H₂S detectors (x4)

Hookload and WOB

HP Design jet Printer

Hydrometers

INSITE IRIS Data acquisition PC

Mud Density In/Out

Mud Temperature In/Out

Pit Volume Sensors (x7)

Pressure Sensors (x4)

Printrex Printer

Proximity Sensor

Pump Stroke Counters (x3)

Rig Floor Monitor (x2)

Standard Fluoroscope

Standard Stereo Microscope

Workstation PC

4.2 SERVICES PROVIDED

Data files in .pdf, ASCII (LAS) format

Formation Evaluation

Geological and Engineering Reporting

Hydraulics Analysis using Planit

Interpreted Lithology

Plots of daily drilling activities

Real Time Drilling Monitoring

Real Time Log Display of MWD/LWD data

Real Time monitoring of drilling fluids

Real Time Tabular Display of Data

Real Time Trip Monitoring

Real Time Display of Data

Sample Collection and Processing

Timers for Hours and Revolutions on drilling assembly

4.3 MONITORED PARAMETERS

Block Position

Choke Pressure

Continuous Gas Percentage in Air

Depth

Flow Out

Gas Analysis (C1-C5)

H2S Gas

Hookload

Hydrocarbon Shows

Formation Lithology

Mud Density In and Out

Mud Temperature In and Out

Mud Volume

LWD data

On/Off Bottom status

Pump Stroke and Volume of Mud Pumped

Rate of Penetration

Revolutions per Minute of Top Drive

Stand Pipe Pressure

Swab\Surge Calculation

Torque and Vibration

Weight on Bit including Drag and Obstructions

Well Volumes and Lag Calculations

4.4 PERSONNEL

INSITE engineers continuously monitored all operations and maintained the database during the drilling of Martha-1. They also provided any well and drilling data upon request, notified the appropriate personnel of any irregularities or anticipated problems, provided daily reports, print outs of data and prepared master logs and final reports.

4.5 SAMPLE COLLECTION

One extra large bag (800 g) of water-washed cuttings was collected for each interval sampled. A small portion of washed sample was placed into Samplex trays (3 sets) and the remainder air-dried and split into four sets.

The splits were distributed to Santos Ltd (2 x 100g), Victorian DPI (1 x 200g) and Geoscience Australia (1 x 200g).

The two sets of Samplex Trays were distributed to Santos Ltd (x2) and Mitsui (x1).

Mud (filtrate) samples were sent to Santos Ltd.

Reservoir cores were not collected.

Sidewall cores/Rotary SWC's were at various depths and hand carried by the Wellsite Geologist to Santos Ltd.

Palynology samples were collected at depths designated by the Wellsite Geologist and Air expressed to Jack Bates

4.6 SAMPLE DISTRIBUTION

Washed and Dried Samples (4 sets)

Set 1: Washed/Dried Splits

Victorian DPI

Attn: Graeme Torr (03) 9658 4545

DPI Core Library

South Road

Werribee, Victoria 3030

Set 2: Washed/Dried Splits

Geoscience Australia (GA)

Attn: Manager Geoscience Australia Data Repositories

Core and Cuttings Repository

Cnr Jerrabomberra Ave & Hindmarsh Dr

Symonston ACT 2609

Set 3: Washed/Dried Splits

Santos Ltd

Attn: Core Librarian
Ascot Transport
30 Francis Street
Port Adelaide, SA 5015

Set 4: Washed/Dried Splits

Santos Ltd

Attn: Core Librarian
Ascot Transport
30 Francis Street
Port Adelaide, SA 5015

Samplex Trays (3 Sets)

Set 2 & Set 3: Samplex Trays (x 2)

Santos Ltd

Attn: Core Librarian
Ascot Transport
30 Francis Street
Port Adelaide, SA 5015

Set 1: Samplex Trays

Mitsui

Attn: Core Librarian
Ascot Transport
30 Francis Street
Port Adelaide, SA 5015

Mud Samples

Various Mud and Filtrate

Santos Ltd

Attn: Core Librarian

Ascot Transport
30 Francis Street
Port Adelaide, SA 5015

Sidewall cores/Rotary SWC's

Santos Ltd

Attn: Core Librarian
Ascot Transport
30 Francis Street
Port Adelaide, SA 5015

Palynology Samples

Santos Ltd

Hot Shot via helicopter directly to Palynology Unit on the Jack Bates.

5.0 GEOLOGY AND SHOWS

5.1 INTRODUCTION

Sampling of drilled cuttings by Sperry-Sun commenced in the 311 mm (12 ¼") hole section, from 628.0 mMDRT until the total well depth of 1800.0 mMDRT. Spot sample collection for quick inspection, as well as a change in the programmed sampling frequency depended on the rate of penetration and were at the discretion of the Wellsite Geologist.

Samples of washed, air-dried cuttings were collected over the following intervals:

Martha-1	
SAMPLE DEPTH mMDRT	SAMPLE FREQUENCY Metres
631.0 – 690.0	5
690.0 – 715.0	25 – Shaker run over
715.0 – 1262.0	5
1262.0 – 1620.0	3
1620.0 – 1800.0	5

Cuttings were logged on site by Sperry Sun geologists using a binocular microscope. An ultraviolet light box was used to inspect the fluorescence of cuttings.

Gas was monitored by a Total Hydrocarbon Gas detector (Flame Ionisation Detector – F.I.D), calibrated such that 50 API units, or 10,000 parts per million (ppm) is equivalent to 1% methane gas in air. An on-line F.I.D gas chromatograph recorded the gas breakdown, calibrated to analyse C1, C2, C3, isotopic C4, normal C4 alkanes, neo C5, isotopic C5 and normal C5. Regular gas system checks were performed to ensure the correct functioning of the gas detection and measurement system.

Below is a brief explanation to the use of different gas ratios in the enclosed Gas Ratio Plot.

C1 Ratios (C1/C2, C1/C3, C1/C4). These display the fraction of each component compared to the fraction of C1. The ratios generally decrease with depth as more mature sediments are encountered. Mature source rocks and hydrocarbon reservoirs show low ratios

Gas Wetness Ratio (GWR): $C_2+C_3+C_4/C_1 \times 100$. The GWR gives an indication of maturity. It will generally increase with depth as the C1 fraction will represent a smaller part of the total light HC.

Light to Heavy ratio (LHR): $C_1+C_2/C_3+C_4 \times 100$. The LHR is expected to decrease with depth.

Oil Character qualifier (OQC): C_4/C_3 . Under some circumstances high amounts of C1 will mask the presence of oil. GWR and LHR could then be misinterpreted. In the presence of oil, C4 will increase relative to C3, and the OQC would increase.

Average Carbon Number (ACN): $[C_1 + (2 \times C_2) + (3 \times C_3) + (4 \times C_4)] / (C_1 + C_2 + C_3 + C_4)$.

5.2 LITHOLOGICAL SUMMARY FOR MARTHA-1

Following is a tabulated lithological summary of Martha-1. The intervals have been determined on the basis of cuttings lithology and drilling parameters and are consistent with those delineated by the Wellsite Geologist.

Interpretative Depth 74.5 to 490.0 mMDRT		Lithology ARGILLACEOUS CALCILUTITE with minor CALCARENITE and ARGILLACEOUS CALCISILTITE.	
ROP. (metre/hour)	Drilling Parameters (Avg)	Maximum Formation Gas: 0.31%	Average Formation Gas: 0.09%
Min. 11.4 Max. 343.5 Avg. 82.0	WOB : 7.9 MT RPM(surf): 140 RPM(mot): N/A TRQ: 4046 nM	Chromatograph Analysis: C ₁ : 2794 ppm C ₂ : 20 ppm C ₃ : 6 ppm iC ₄ : 3 ppm nC ₄ : 4 ppm neoC ₅ : 0 ppm iC ₅ : 0 ppm nC ₅ : 0 ppm	Chromatograph Analysis: C ₁ : 1026 ppm C ₂ : 6 ppm C ₃ : 3 ppm iC ₄ : 1 ppm nC ₄ : 1 ppm neoC ₅ : 0 ppm iC ₅ : 0 ppm nC ₅ : 0 ppm
<p>ARGILLACEOUS CALCILUTITE (90 - 100%) : white - very light grey, occasionally bluish white - pale bluish grey, very soft - soft, amorphous, 60-70% micrite, 20-30% argillaceous matrix, weakly cemented with micritic cement, trace - occasional Fossil Fragments (Spicules, Bryozoa), trace nodular pyrite, trace glauconite, trace lithic, grading in part to CLAYSTONE.</p> <p>ARGILLACEOUS CALCARENITE (0 - 10%) : off white - very light grey, occasionally colourless - medium grey, firm - moderately hard, microcrystalline, 50-60% micrite, 30-40% argillaceous matrix, well cemented, specks, sucrosic, argillaceous, occasionally - common Fossil Fragments (Spicules, Bryozoa, Forams), trace carbonaceous specks, trace nodular pyrite, tr glauconite.</p> <p>ARGILLACEOUS CALCISILTITE (10 - 30%) : medium light grey - medium dark grey, occasionally medium olive grey, soft - firm, occasionally moderately hard, crumbly - splintery, 10-20% argillaceous matrix, weakly - moderately cemented, sucrosic, trace carbonaceous specks, grading to argillaceous CALCILUTITE.</p>			

Interpretative Depth 490.0 – 555.0 mMDRT		Lithology MARL grading into CALCILUTITE, CALCAREOUS CLAYSTONE and SILTSTONE.	
ROP. (metre/hour)	Drilling Parameters (Avg)	Maximum Formation Gas: 0.49%	Average Formation Gas: 0.31%
Min. 12.8 Max. 161.2 Avg. 42.7	WOB : 4.9 MT RPM(surf): 140 RPM(mot): N/A TRQ: 4049 nM	Chromatograph Analysis: C₁ : 5149 ppm C₂ : 40 ppm C₃ : 9 ppm iC₄ : 3 ppm nC₄ : 2 ppm neoC₅ : 0 ppm iC₅ : 4 ppm nC₅ : 6 ppm	Chromatograph Analysis: C₁ : 3278 ppm C₂ : 24 ppm C₃ : 4 ppm iC₄ : 1 ppm nC₄ : 1 ppm neoC₅ : 0 ppm iC₅ : 1 ppm nC₅ : 2 ppm
<p>MARL (10 - 30%) : white - very light grey, occasionally light bluish grey, very soft - soft, dispersive - amorphous, 10-15% argillaceous matrix, weakly cemented, trace carbonaceous specks, trace nodular pyrite, trace very fine - fine disseminated glauconite.</p> <p>ARGILLACEOUS CALCILUTITE (10 - 40%) : light grey - light olive grey, soft, amorphous, 60-70% micrite, 30-40% argillaceous matrix, weakly - moderate cementation with micritic cement, sticky, occasionally sucrosic, occasionally carbonaceous specks, trace - rare Fossil Fragments (Forams, Bryozoa), trace nodular pyrite, grading to MARL.</p> <p>SILTSTONE (40 - 90%) : medium - dark yellowish brown, soft - firm, argillaceous, with 5-10% very fine quartz sand, trace - 5% glauconite, grading to SANDSTONE.</p>			

Interpretative Depth 555.0 to 583.0 mMDRT		Lithology ARGILLACEOUS SILTSTONE grading into SANDSTONE, with CALCAREOUS CLAYSTONE and GREENSAND.	
ROP. (metre/hour)	Drilling Parameters (Avg)	Maximum Formation Gas: 1.64%	Average Formation Gas: 0.85%
Min. 4.5 Max. 35.7 Avg. 20.0	WOB : 1.2 MT RPM(surf): 144 RPM(mot): N/A TRQ: 2309 nM	Chromatograph Analysis: C ₁ : 18184 ppm C ₂ : 178 ppm C ₃ : 23 ppm iC ₄ : 6 ppm nC ₄ : 4 ppm neoC ₅ : 0 ppm iC ₅ : 5 ppm nC ₅ : 3 ppm	Chromatograph Analysis: C ₁ : 8741 ppm C ₂ : 74 ppm C ₃ : 8 ppm iC ₄ : 1 ppm nC ₄ : 1 ppm neoC ₅ : 0 ppm iC ₅ : 1 ppm nC ₅ : 1 ppm
<p>CLAYSTONE (0 - 20%) : light - medium greyish brown, light brownish yellow, trace light greenish grey, soft - firm, hard in part, amorphous - blocky, rare - abundant silt - fine sand grading to SILTY CLAYSTONE, trace fine glauconite, trace nodular pyrite.</p> <p>SILTSTONE (40 - 90%) : medium - dark yellowish brown, soft - firm, argillaceous, with 5-10% very fine quartz sand, trace - 5% glauconite, grading to SANDSTONE.</p> <p>SANDSTONE (10 - 50%) : medium yellowish brown, firm, occasionally soft, friable, very fine, sub angular – sub round, moderately well sorted, with 5-10% clay matrix, nil to poor inferred porosity, SHOWS: 10-20% (60%@ 571m), dull yellow natural fluorescence, slow blue - white cut fluorescence (instantaneous blue - white cut @571m) , solid - patchy blue - white residue ring.</p>			

Interpretative Depth 583.0 to 600.0 mMDRT		Lithology QUARTZ SANDSTONE with trace SILTSTONE.	
ROP. (metre/hour)	Drilling Parameters (Avg)	Maximum Formation Gas: 0.61%	Average Formation Gas: 0.32%
Min. 13.0 Max. 43.1 Avg. 22.2	WOB : 1.8 MT RPM(surf): 138 RPM(mot): N/A TRQ: 2340 nM	Chromatograph Analysis: C ₁ : 8371 ppm C ₂ : 68 ppm C ₃ : 10 ppm iC ₄ : 3 ppm nC ₄ : 2 ppm neoC ₅ : 0 ppm iC ₅ : 1 ppm nC ₅ : 3 ppm	Chromatograph Analysis: C ₁ : 3588 ppm C ₂ : 26 ppm C ₃ : 4 ppm iC ₄ : 1 ppm nC ₄ : 0 ppm neoC ₅ : 0 ppm iC ₅ : 0 ppm nC ₅ : 0 ppm
<p>SANDSTONE (50 – 80%) : colourless - milky, occasionally pale grey, predominately loose quartz grains, fine - course, predominately course grains, angular – sub-round, anhedral, moderately poorly sorted, weakly - non cemented, moderate calcareous, rare - trace medium - fine dark green, rare - trace calcareous, trace Fossil Fragments, grading in part to SILTSTONE, poor inferred porosity, NO SHOWS.</p> <p>SILTSTONE (20 – 50%): medium - dark yellowish brown, soft - firm, argillaceous, 5-10% very fine quartz sand, trace - 5% glauconite, grading to SANDSTONE.</p>			

Interpretative Depth 600.0 to 660.0 mMDRT		Lithology QUARTZ SANDSTONE and CLAYSTONE.	
ROP. (metre/hour)	Drilling Parameters (Avg)	Maximum Formation Gas: 0.25%	Average Formation Gas: 0.11%
Min. 6.9 Max. 122.6 Avg. 46.7	WOB : 6.5 MT RPM(surf): 138 RPM(mot): N/A TRQ: 4998 nM	Chromatograph Analysis: C ₁ : 2636 ppm C ₂ : 24 ppm C ₃ : 11 ppm iC ₄ : 5 ppm nC ₄ : 7 ppm neoC ₅ : 0 ppm iC ₅ : 4 ppm nC ₅ : 9 ppm	Chromatograph Analysis: C ₁ : 1460 ppm C ₂ : 8 ppm C ₃ : 3 ppm iC ₄ : 1 ppm nC ₄ : 1 ppm neoC ₅ : 0 ppm iC ₅ : 1 ppm nC ₅ : 1 ppm
<p>SANDSTONE (60 – 90%) : colourless - frosted, translucent, white - pale grey, predominately loose quartz grains, firm - hard aggregates in part, fine - course, predominately course, angular – sub round, anhedral, moderately poorly sorted, weakly to non cemented, trace - 20% argillaceous matrix, trace calcareous cement, rare - trace medium - fine dark green glauconite, rare - trace calcareous, trace coal, trace nodular pyrite, poor - very good inferred porosity, NO SHOWS.</p> <p>CLAYSTONE (10 – 40%) : white - very light grey, soft, dispersive, trace - 5% silt – very fine sand, grading to SILTSTONE in part.</p>			

6.0 CASING SUMMARY

Casing Type	Shoe Depth m
762 x 508mm (30" x 20") Casing X52, 459.8 kg/m, 4 joints, 46.0 m	120.0
340mm (13 3/8")Casing L-80, 101.2 kg/m, 37 joints, 547.3 m	620.8

7.0 MUD RECORD

Customer: Santos Ltd
Well: Martha-1
Area: Gippsland Basin
Lease: Vic/P44
Rig: Ocean Patriot
Mud
Company: MI

Date	Depth	Type	Weight	Vis	PV	YP	Gels	API Filtrate	Cake	Sol	Glycol	Water	Oil	pH	Chlorides	Comments
	mMD		ppg	sec	cp		10 sec/min	cc	API	%	%	%	%		mg/l	
25-Oct-04	628.0	KCL Polymer Mud	8.9	45	11	11	3/3/4	9.2	1.0	1	3	99		9.5	37500	Glydril
26-Oct-04	870.0	KCL Polymer Mud	9	47	15	18	6/8/9	7.6	1	1	3	99		9.4	38000	Glydril
27-Oct-04	1193.0	KCL Polymer Mud	9.0	42	11	20	9/10/12	14.4	1.0	2.0	0.0	98.0	0.0	8.0	14000	Glydril
28-Oct-04	1310.0	KCL Polymer Mud	9.7	39	13	20	9/10/12	15	1.0	7.0	0.0	93.0	0.0	8.1	16000	Glydril
29-Oct-04	1800.0	KCL Polymer Mud	10.3	44	16	16	9/14/18	9.2	1.0	10.0	3.4	90.0	0.0	8.0	35000	Glydril

8.0 BIT RECORD

OPERATOR: Santos Ltd						WELL : Martha-1						RIG: Ocean Patriot												
PUMP 1 : 152 x 305 mm			PUMP 2 : 152 x 305 mm			PUMP 3 : 152 x 305 mm																		
Bit Size (mm)	BIT #	MAKE/TYPE	TFA (in2)	JETS	DEPTH IN (mMDRT)	Metres Drilled	Eff Hrs On Btm	AV ROP (m/hr)	IADC hrs	WOB (klbs)	RPM	KREV	SPP (psi)	GPM (gpm)	TRQ (kftlbs)	IADC BIT GRADING								
914	1	Smith MSDS SHC	1.39	2x22, 1x21, 1x20	76.2	46.3	3.0	25.5	3.0	4.5	81	26.0	413	1035	3.1									
445	2	Smith XRTC	1.42	3x22, 1x20	122.5	505.5	20.0	25.4	20.0	13	150	252.0	2013	1100	4.1	1	1	WT	A	E	I	NO	TD	
311	3	Reed TCI TD43HKPRDH	0.92	3x20	628.0	634.0	34.0	18.6	39.0	15	115	370.0	2400	900	4.2	1	1	WT	A	O	I	NO	RM	
311	4	Hycalog DSX104HGW	0.75	5x14	1262.0	538.0	20.7	26.0	23.5	10	140	236.0	3300	815	8.5	2	3	BT	S H	F	I	WT	TD	

9.0 HYDRAULICS RECORD

OPERATOR : Santos Ltd								WELL : Martha-1					
PUMP 1 : 152 x305 mm (6.0x12"), 0.0162 m3/stk (0.102 bbl/stk)			PUMP 2 : 152 x305 mm (6.0x12"), 0.0162 m3/stk (0.102 bbl/stk)			PUMP 3 : 152 x305 mm (6.0x12"), 0.0162 m3/stk (0.102 bbl/stk)							
Bit Size (mm)	BIT #	MAKE/TYPE	DEPTH IN (mMDRT)	TFA (mm ²)	JETS	SPP (psi)	Flow In (gpm)	Jet Imp (HP/in ²)	Jet Vel (m/s)	PRESS LOSS (psi)		ECD bit (sg)	% P Loss @ Bit
										Annulus	String		
914	1	Smith MSDS SHC	76.5	1.39	2x22, 1x21, 1x20	1308	1100	0.61	77.0	1	1307	1.05	38.0
445	2	Smith XRTC	122.5	1.42	3x22, 1x20	2094	1100	1.31	76.0	1	2093	1.08	23.0
311	3	Reed TCI TD43HKPRDH	628.0	0.92	3x20	2359	900	3.53	95.0	51	2308	1.11	34.0
311	4	Hycalog DSX104HGW	1262.0	0.75	5x14	3307	815	4.56	106.0	63	3246	1.27	34.0

SECTION 13 : RIG POSITIONING REPORT

**QUALITY CONTROL REPORT
FOR RIG POSITIONING
AT
MARTHA-1**

LICENCE: VIC/P44

Client: SANTOS Ltd.

Rig: OCEAN PATRIOT

12th October – 21st October 2004 inclusive

Report prepared by: John Herkenhoff

Report No. 1468

Project #: 1258-OZ-AUS-SAN

ECL Pty Ltd

Level 1, 610 Murray Street, West Perth

WA 6005, Australia

Tel: +61 8 9322 4333, Fax: + 61 8 9322 7254, E-mail: office@ecqc.com

Website: www.ecqc.com

CONTENTS

1.0 INTRODUCTION

2.0 RESULTS

2.1 Field (Preliminary) Position of OCEAN PATRIOT at MARTHA-1

2.2 Anchor Positioning

3.0 CONCLUSIONS and RECOMMENDATIONS

3.1 Conclusions

3.2 Recommendations

4.0 SURVEY CHECKS

4.1 Pre-Move Location Checks

4.2 Fugro GPS Antenna to Drillstem Offset Check

4.3 Gyrocompass Calibration

4.4 Check Fix and Position Comparison

5.0 GEODETIC and TRANSFORMATION PARAMETERS

5.1 Spheroid and Map Projection for MARTHA-1 Location

5.2 WGS-84 Spheroid

5.3 Transformation Parameters

5.4 Geocentric Datum of Australia (GDA 94)

6.0 SURVEY EQUIPMENT AND PERSONNEL

6.1 Equipment

6.1.1 Fugro Positioning Systems

6.1.2 ECL QC Position Monitoring System

6.2 Personnel

6.3 Performance of Survey Contractor's Equipment and Personnel

6.3.1 Performance of Survey Contractor's Equipment

6.3.2 Performance of Survey Contractor's Personnel

7.0 EVENT LOG

8.0 APPENDICES

APPENDIX A: Final Fix Field Reports for MARTHA-1

APPENDIX B: Contractor's Proposed and As-Laid Anchor Calculations

APPENDIX C: On-Line Survey Parameters

APPENDIX D: Survey Gyrocompass Calibration

APPENDIX E: SANTOS Ltd Well Data Sheet

1.0 INTRODUCTION

ECL Pty. Ltd. (or ECL) was contracted by Santos Ltd. (Santos) to provide Quality Control services for the positioning of the MODU 'OCEAN PATRIOT' at the intended well location of MARTHA-1 in the Bass Strait, approximately 45nm north west of Cape Otway, in Licence Area, VIC/P44.

The Survey Contractor was Fugro Survey Pty Ltd. (or Fugro). The intended geographical coordinates of the 'OCEAN PATRIOT' drillstem position at MARTHA-1 were obtained from the Santos Drilling Program. ECL's NavQC software was used to confirm the conversion of Geographical to UTM Grid coordinates. The intended well location coordinates were as follows:

Latitude	:	38° 37' 24.27" South
Longitude	:	142° 42' 05.01" East
Easting	:	648 109.0 m
Northing	:	5 723 640.0 m
Heading	:	45°T

ECL's primary objective was to assist Santos and Diamond Offshore with planning the approach and anchoring operations while ensuring that the Survey Contractor positioned the rig correctly using the appropriate geodetic, transformation and on-line survey parameters in a safe and efficient manner. ECL provided a qualified and experienced Senior Hydrographic Surveyor to verify the correct use and application of the appropriate survey operating parameters, techniques and methodology during positioning of the rig.

This report details the survey parameters and checks made during the transit to location, and outlines the checks and verifications carried out prior to, during, and subsequent to, final positioning of the rig. All times quoted in this report are in Eastern Standard Time (GMT +10 hours) except during personnel mobilisation where Western Standard Time is referred to in the event log.

On arrival aboard the rig on Wednesday, 13th October 2004, the Santos/ECL Survey Representative was required to complete the Diamond Offshore Safety Induction.

2.0 RESULTS

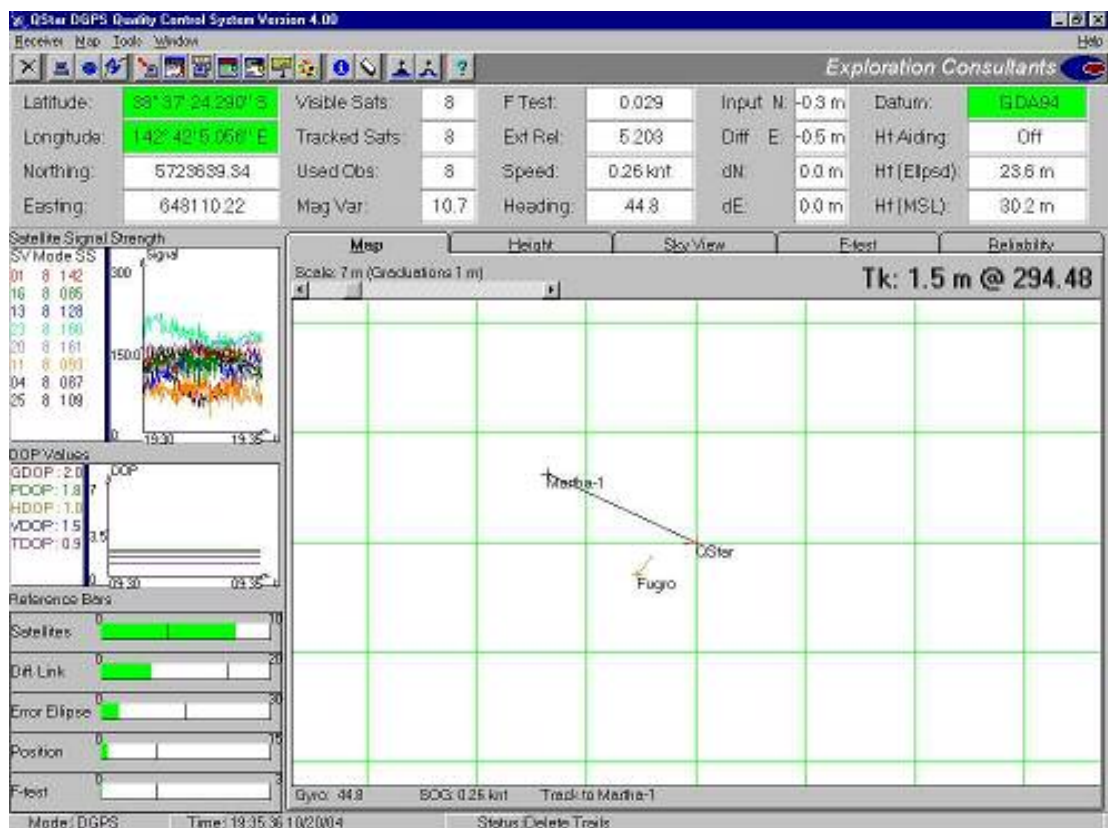
2.1 FIELD (PRELIMINARY) POSITION OF OCEAN PATRIOT AT MARTHA-1

The surface position of the OCEAN PATRIOT after anchor pre-tensioning operations and spudding the well was:

Latitude	:	38° 37' 24.33" South
Longitude	:	142° 42' 05.02" East
Easting	:	648 109.3 m
Northing	:	5 723 638.2 m
Heading	:	44.9°T

This position is **1.8 metres**, bearing **169.9°T** from the intended well location. The above position was transmitted to the Santos Company man in a Preliminary Notification of Drilling Rig Position Field Report (See Appendix A). The final position will be published in a Final Report to be submitted by Fugro.

QSTAR VERIFICATION OF FINAL DRILLSTEM POSITION AT MARTHA-1



The above location coordinates refer to the following geodetic parameters. (Refer to Section 5.0 for details.)

Ellipsoid:	GRS 80
Datum:	Geodetic Datum of Australia 94 (GDA-94)
Projection:	Map Grid of Australia 94 (MGA94 Zone 54 - Central Meridian 141° East) Transverse Mercator

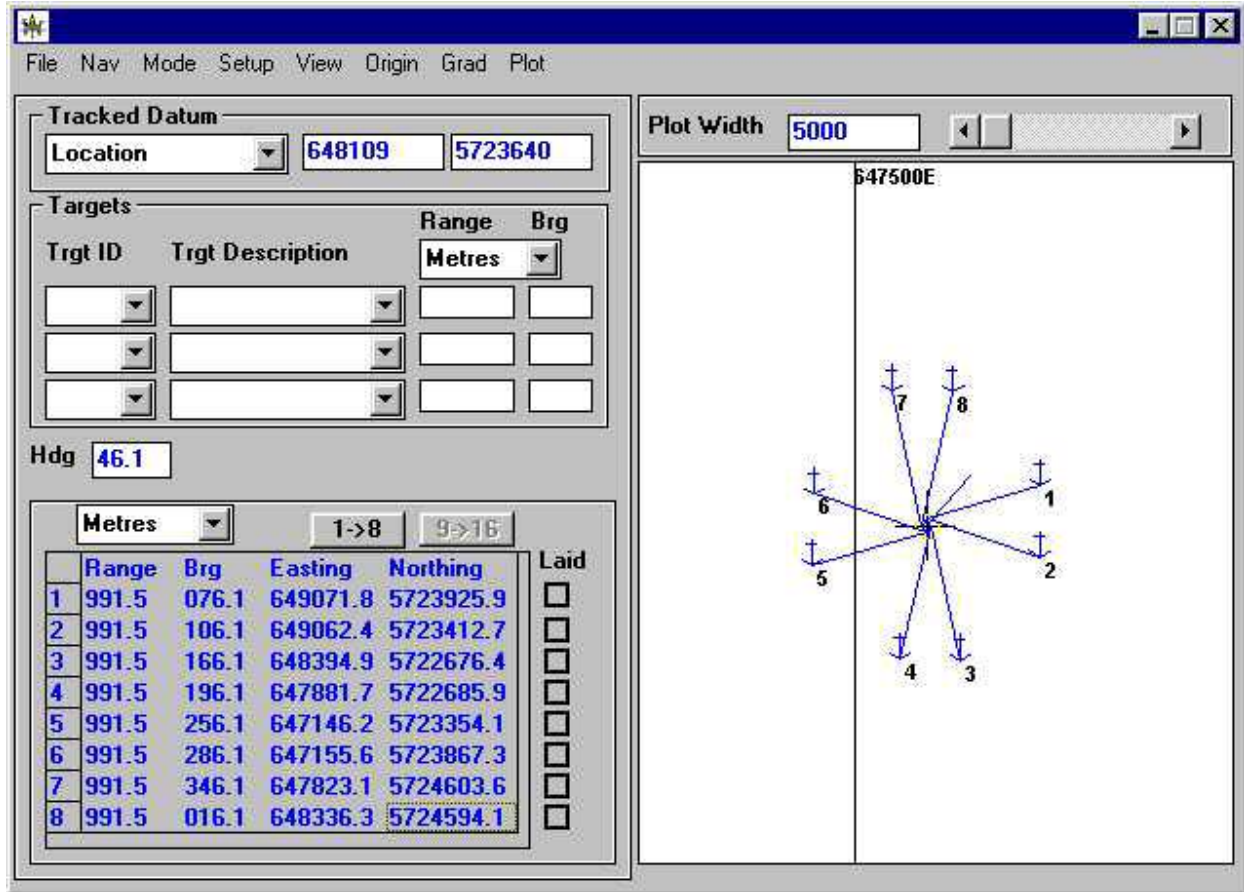
2.2 ANCHOR POSITIONING

ECL's NavQC program was used to calculate the following proposed anchor coordinates, based on a mooring pattern of 30°/60° between anchors, 1000-1200 metres chain out for all anchors. The rig heading is to be 45°T and water depth 55 metres. These coordinates may differ slightly to those reported by Fugro due to the computation method. Anchor bearings and distances are relative to the winch positions and anchor coordinates were computed on the plane (grid bearing and distance).

Prior to deployment of anchors at the MARTHA-1 location, the Fugro proposed anchor coordinates were confirmed by ECL's NavQC software. On deployment, the approximate positions of the anchors were recorded on the StarFix Seis computer using stern roller positions of the Anchor Handling Tug (AHT) at the time of deployment. The final positions were computed utilising the bearings recorded, chain out readings, chain tensions and the catenary program incorporated in the Fugro's StarFix Seis software package.

The following ECL NavQC screen graphic capture shows the intended anchor drop position coordinates.

PROPOSED ANCHOR POSITIONS-NAVQC COODINATES



Note: These coordinates are the intended anchor drop positions.

FINAL ANCHOR POSITIONS

Anchor Number	Ft. Chain Deployed	Actual Location		Vessel
		Easting	Northing	
#1	3346	649 143	5 723 902	P Wrangler
#2	3572	649 196	5 723 327	Far Grip
#3	3582	648 382	5 722 545	Far Grip
#4	3395	647 816	5 722 611	P Wrangler
#5	3493	647 039	5 723 391	P Wrangler
#6	3414	647 073	5 723 925	P Wrangler
#7	3464	647 858	5 724 707	P Wrangler
#8	3447	648 416	5 724 692	P Wrangler

3.0 CONCLUSIONS AND RECOMMENDATIONS

3.1 CONCLUSIONS

- The Rig Move Procedure document published by Diamond Offshore, and the pre-move meeting to discuss anchor deployment at MARTHA-1, provided sufficient details for personnel to position the rig safely and efficiently.
- A gyrocompass calibration was carried out at 1714hrs on 15th October, during P&A operations at MOBY-1. The rig heading was determined by solar hour angle observations using a Wild T2 theodolite. A Calculated minus Observed (C-O) value of +1.65° was applied to the raw gyro observations in StarFix Seis and QSTAR. (Refer to paragraph 4.3 below)
- The professional approach and cooperative attitude of the Diamond Offshore and Fugro personnel onboard the OCEAN PATRIOT contributed to the safe positioning of the rig at the MARTHA-1 location.
- The Fugro Positioning systems (onboard the rig and 2 x AHTs) operated without fault.
- The Positioning personnel (2 x Fugro personnel and the Santos/ECL QC Surveyor) were demobilised from the Rig on Thursday, 21 October 2004.

3.2 RECOMMENDATIONS

- **Continued use of ECL's QStar DGPS Quality Control System.**

Recommended for real-time positioning QC during transit, run-in and final positioning of the rig on location. Continued use of the NavQC package is also recommended, for confirmation of geodetic computations, coordinate conversions, datum transformations, anchor position calculations etc.

- **Continue to utilise a Barge Management System (BMS) on future rig moves.**

Fugros' StarfixSeis intergrated BMS and Starfix VBS (Virtual Base Station) System proved excellent in tracking and displaying the position of the Anchor Handling Tugs (AHT) relative to the rig and accurately fixing the anchor drop positions.

4.0 SURVEY CHECKS

4.1 PRE-MOVE LOCATION CHECKS

During transit to MARTHA-1, operational checks were conducted to ensure the navigation and positioning systems were correctly interfaced and operated within the manufacturer's specifications. These included the following tasks:

- testing of GPS receivers and verification of Starfix differential station corrections;
- verification of offsets from the GPS antenna to centre of drillstem (paragraph 4.2 below);
- verification of geodetic, transformation and survey parameters input into the positioning system (paragraph 4.4 and Section 5 below);
- verification of the survey gyrocompasses by solar hour angle observations to determine rig azimuth;
- interface checks to ensure input and output data integrity;
- interfacing of ECL's QSTAR system with the Survey Contractor's navigation system (StarfixSeis) for real-time position comparison; and
- verification of intended location, position and heading tolerances and intended anchor positions with Survey Contractor.

4.2 FUGRO GPS ANTENNA TO DRILLSTEM OFFSET CHECK

The primary GPS antenna was offset **8.9** metres port, and **41.9** metres forward of the drillstem (datum). These offset values were check measured using a 30-metre tape, by the Fugro Surveyor with the assistance of the Santos/ECL Survey Representative after departure from the MOBY-1 location.

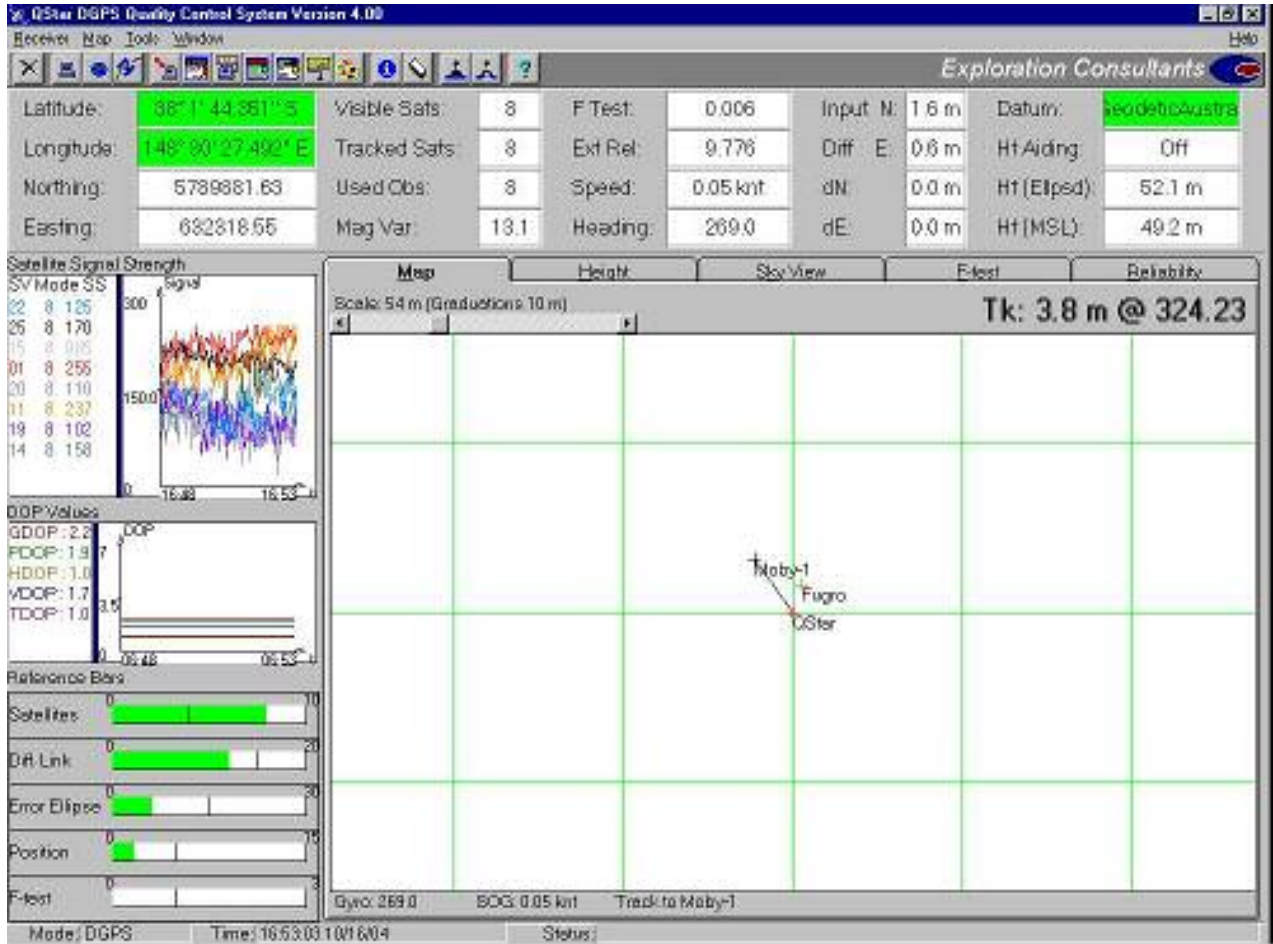
4.3 GYROCOMPASS CALIBRATION

At 1715hrs on 15th October, prior to rig departing MOBY-1, a gyro calibration was carried out using a Wild T2 Theodolite. Azimuth was determined by solar hour angle observations while the StarFix Seis system logged survey gyrocompass headings simultaneously. A C-O error value of **+1.65°** was determined and input to the StarFix Seis on-line navigation and data logging system for reduction of raw gyro observations. The calculations for azimuth by solar hour angle observation were confirmed independently by the Santos/ECL QC Surveyor.

4.4 CHECK FIX AND POSITION COMPARISON

A Check Fix was recorded at MOBY-1 prior to anchor recovery. The screen capture of QSTAR position comparison during the check fix is shown on the following page. The QSTAR and StarFix Seis position comparison was monitored continuously, in real-time, during transit from MOBY-1, and throughout rig positioning at MARTHA-1.

QSTAR AND FUGRO POSITION COMPARISON DURING CHECKFIX AT MOBY-1



5.0 GEODETIC AND TRANSFORMATION PARAMETERS

5.1 SPHEROID AND MAP PROJECTION FOR MARTHA-1 LOCATION

The following geodetic and transformation parameters were used throughout the navigation and positioning operation.

Ellipsoid	: GRS 80
Semi-Major Axis	: 6378137.0000000 m
Semi-Minor Axis	: 6356752.3141403 m
Inverse Flattening	: 298.257222101
Eccentricity ²	: 0.00669438
Projection	: MGA-94 (Transverse Mercator)
UTM Zone	: 54
False Easting	: 500 000 m
False Northing	: 10 000 000 m
Latitude of Origin	: 0°
Longitude of Origin	: 141° East
Scale Factor	: 0.9996

5.2 WGS-84 SPHEROID

The Global Positioning System (GPS) is based upon the WGS-84 Spheroid which is defined by the following geodetic parameters:

Spheroid	: World Geodetic Spheroid 1984
Semi-Major Axis	: 6378137.000 m
Semi-Minor Axis	: 6356752.314 m
Inverse Flattening	: 298.257223563
Eccentricity ²	: 0.006694380023

5.3 TRANSFORMATION PARAMETERS

The following 7-parameter transformation values were used in StarFix Seis and QSTAR positioning systems to convert from WGS-84 to GDA-94:

dX = -0.0266m.	rX = +0.013416	Scale Factor = +0.005515ppm
dY = -0.0303m.	rY = +0.012379	
dZ = -0.0339m.	rZ = +0.013999	

NAVQC COMPUTATIONS FOR MOBY-1 (A) AND MARTHA-1 (B)

The following ECL NavQC screen graphic confirms the conversion of the GDA94 geographical coordinates to MGA94 grid coordinates for MOBY-1 (Point A) and MARTHA-1 (Point B).

	Point A	Point B
Latitude	038 01 38.7083 S	038 37 24.2700 S
Longitude	148 30 31.9991 E	142 42 05.0000 E
Easting	1.159E+06	648,108.872
Northing	5,764,435.269	5,723,639.987
Ellipsoidal Height	0.000	0.000
Azimuth	+260 46 56.4415	+084 23 08.4472
Grid Conv.	+004 38 32.8330	+001 03 43.9120
Grid Bearing	+265 25 29.2740	+085 26 52.3595
Arc to Chord	+000 00 50.5942	-000 00 32.9962
Plane Bearing	+265 26 19.4424	+085 26 19.4424
Point Scale	1.004960748	0.999870138
Spher Dist	512,026.374	
Line Scale	1.001877066	
Grid/Plane Dist	512,986.571	
Radio Dist	512,026.374	

Range and Bearing
 Input Output

Range / Bearing Formulae
 Robbins (Geogs)
 UTM / AMG (Grid)
 Plane Grid

Convergence Formulae
 Geographical Grid

Blue Text is for computed data.
 Red Text is for entered data.

Results to UTMCONV.CSV

Fix Number

Buttons: Clear All, Clear B, Compute, Exit

6.0 SURVEY EQUIPMENT AND PERSONNEL

6.1 EQUIPMENT

6.1.1 Fugro Positioning Systems

The Primary Navigation System provided by Fugro was a Starfix HP system.

The Secondary Navigation System comprised a Trimble 4000DS GPS Receiver operating with the Fugro Survey Multiple Reference Differential GPS (MRDGPS).

The observed datum position (drillstem) obtained from the primary and secondary positioning systems were compared in real-time and found to be in sub-metre agreement.

The Primary and Secondary navigation systems utilised reference stations at Melbourne, Bathurst and Cobar for the differential corrections. The details of the reference stations are as follows:

Description	Latitude (South)	Longitude (East)	Height (m)	Site ID
Melbourne	037° 48' 29.010"S	144° 57' 48.028"E	82.05	385
Bathurst	033° 25' 46.884"S	149° 34' 01.967"E	756.65	336
Cobar	031° 29' 57.436"S	145° 50' 20.343"E	270.16	316

The Starfix HP solution was input to Fugros' StarfixSeis On-Line Navigation & Data-Logging System to provide a Differential GPS antenna position. Offset measurements from the GPS antenna to the drillstem centre along with heading data provided by an SG Brown 1000 survey gyrocompass were applied in StarfixSeis for real-time DGPS positioning of the drillstem throughout the rig move, positioning and anchor deployment operations.

The AHTs, M/V Far Grip and M/V Pacific Wrangler, were fitted with Fugro's Barge Management System (Wombat) incorporating a Starfix VBS with Trimble SK8 GPS Receiver and UHF Telemetry modem and associated software (including a shared database of chart data and structure files). Positioning data (absolute and relative) is telemetered between the rig and the AHTs ie. AHTs receive the rig's absolute position relative to the displayed database and the rig receives the AHTs' absolute positions relative to the displayed database. This system enabled the rig to transmit anchor targets to the AHTs and monitor the AHT's positions while retrieving and running anchors.

Fugro also provided a Wild T2 theodolite and tripod to determine azimuth by solar hour angle observations for calibration of the survey gyrocompass.

6.1.2 ECL QC Position Monitoring System

ECL's QSTAR DGPS Quality Control System derives an independent offset corrected drillstem position from a stand-alone GPS antenna and 8-channel Synergy Systems GPS receiver. QSTAR received raw gyrocompass data from an SG Brown 1000 series survey gyrocompass and utilised Fugros' StarFix differential corrections (RTCM) to provide an offset corrected DGPS drillstem position. QSTAR was interfaced to Fugro's StarfixSeis On-Line Navigation & Data-Logging System to obtain StarfixSeis processed (filtered and smoothed) drillstem position, in order to compare DGPS drillstem positioning on-line and in real-time. Any discrepancy between the two positions could be immediately detected. However, agreement in positioning systems was within the accepted tolerance of 1 to 4 metres.

ECL also provided its NAVQC Utility software, which enabled independent verification of the geodetic and transformation parameters, coordinate transformations and conversions, and calculation of proposed anchor coordinates for the MARTHA-1 intended well location.

6.2 PERSONNEL

The following personnel were assigned to the rig move:

Fugro Survey:

Razak Risah	Party Chief/Surveyor
Owen Friedlieb	Surveyor

Santos Limited/ECL:

John Herkenhoff	Santos/ECL QC Surveyor
-----------------	------------------------

6.3 PERFORMANCE OF SURVEY CONTRACTOR'S EQUIPMENT AND PERSONNEL

6.3.1 Performance of Survey Contractor's Equipment

The Fugro Primary and Secondary positioning systems onboard the OCEAN PATRIOT and Barge Management Systems aboard both AHTs, performed to specification and without fault.

6.3.2 Performance of Survey Contractor's Personnel

The Fugro Survey personnel performed their duties in a competent and safe manner.

7.0 EVENT LOG

Tuesday, 12 October 2004

Time Event

- 2200 Checked in for Qantas flight to Melbourne. (WST)
2340- Santos/ECL Survey Representative departed Perth for Melbourne. (WST)

Wednesday, 13 October 2004

Time Event

- 0530 Arrived in Melbourne.
0600 Taxi to Bristow Helicopters Hanger 3 at Essendon Airport.
0605 Standing by for helicopter flight to OCEAN PATRIOT.
0710 Attended helicopter safety briefing.
0800 Departed Essendon Airport by helicopter for OCEAN PATRIOT.
0830 Landed at East Sale for refuelling.
0850 Departed East Sale for OCEAN PATRIOT.
0935 Arrived OCEAN PATRIOT at MOBY-1.
1000 Attended Diamond Offshore rig induction.
1030 Completed rig induction.
1230 All Fugro survey equipment operational.
1430 QSTAR mobilised and interfaced with StarFix Seis.
1630 DGPS antenna offsets check measured by Fugro Surveyor and Santos/ECL QC Surveyor.
X= -8.9; Y= -41.9.
2359 Standing by for completion of well testing at MOBY-1.

Thursday, 14 October 2004

Time Event

- 0001 Standing by for completion of well testing at MOBY-1.
2359 Standing by for completion of well testing at MOBY-1.

Friday, 15 October 2004

Time Event

- 0001 Standing by for completion of well testing at MOBY-1.
0600 Down for weather, standing by to pull stack.
1430 Attended pre-move meeting. Confirmed intended location coordinates rig heading and surface position tolerance with Santos Drilling Engineer and Company Man.
1500 Completed pre-move meeting.
1714 Fugro commenced gyrocompass calibration.
1720 Completed gyrocompass calibration. **C-O = + 1.65°.**
1800 Down for weather, standing by to pull stack.
2359 Down for weather, standing by to pull stack.

Saturday, 16 October 2004**Time Event**

0001 Down for weather, standing by to pull stack.
0600 Down for weather, standing by to pull stack.
1200 Weather abating, P&A operations resumed.
1755 Commenced anchor recovery at MOBY-1.
2359 Continued anchor recovery at MOBY-1.

Sunday, 17 October 2004**Time Event**

0001 Continued anchor recovery at MOBY-1.
0600 Continued anchor recovery at MOBY-1.
1300 Completed anchor recovery operations at MOBY-1. Rig preparing for tow to MARTHA-1.
1430 Rig under way to MARTHA-1, on hire to Santos.
2359 Continued transit to MARTHA-1.

Monday, 18 October 2004**Time Event**

0001 Continued transit to MARTHA-1.
1030 Attended fire and abandon rig drill.
1100 Drill completed.
2359 Continued transit to MARTHA-1.

Tuesday, 19 October 2004**Time Event**

0001 Continued transit to MARTHA-1.
1300 Attended pre-spud meeting.
1330 Completed meeting.
1515 Pacific Wrangler taken off the tow bridle.
1612 Resumed tow.
2359 Continued transit to MARTHA-1.

Wednesday, 20 October 2004**Time Event**

0001 Continued tow to MARTHA-1.
0005 Far Grip slowing down to shorten up tow wire.
0050 PCC #5 passed to Pacific Wrangler.
0100 Commenced runin, 1.5nm from #5 drop location.
0225 #5 on bottom.
0247 On location at MARTHA-1.
0300 Continued running primary anchors with Pacific Wrangler.
0737 Far Grip released from tow bridle.
0745 Running secondary anchors with both AHT's.
1100 Commenced pretension of anchors.

Wednesday, 20 October 2004 (continued)**Time Event**

1130 Pre-tensioning completed.
1215 Anchor #8 re-run.
1305 Rig adjusting back on location. Rig within two metres of intended location.
1400 Commenced ballasting down to drilling draft.
1405 Standing by for completion of ballasting operations to commence final fix.
1920 Ballasting operations completed.
1930 Fugro commenced logging final fix.
2000 QSTAR final fix confirmation completed.
2030 Completed final fix.
2100 Provisional position transmitted to Company Man.
2130 Qstar demobilised.
2359 Standing by for helicopter flight to Melbourne.

Thursday, 21 October 2004**Time Event**

0001 Standing by for helicopter flight to Melbourne.
1400 Attended helicopter safety briefing.
1530 Departed OCEAN PATRIOT for Melbourne.
1730 Arrived in Melbourne.
1800 Checked in for Qantas flight to Perth.
1840 Departed Melbourne aboard QF481 for Perth.
2040 Arrived in Perth.
2200 Santos/ECL Survey Representative demobilised.

SECTION 14 : WELL ABANDONMENT AND PLUG REPORT

Santos
Cementing Report - Abandonment Plugs

Well Name : Martha-1
 Date : 4-Nov-04
 Drilling Contractor & Rig : DOGC Ocean Patriot
 Santos Personnel : Nigel Walters/Steve Hodgetts
 Cement Contractor/Rep. : Dowell Schlumberger David Green

Basic Well and Drilling Fluid Data

Total Depth (m TVD) :	1799	Drilling Fluid Type :	KCl polymer	Caliper Tool used :	yes
Total Depth (m MD) :	1800	Density (S.G) :	1.22	Water Depth (m) RT:	54.7
Last Casing Shoe (in.) :	13 3/8"	PV (cp) :	20	Est.shoe BHST (Deg C.) :	81
Shoe Depth (m TVD) :	620.8	YP (lbs/100sq.ft.) :	25	Est. BHST (Deg C.) :	57
Open Hole Diameter (in.) :	12.25"	Water Loss (cc.) :	14	Rig air gap:	21.5m

Casing Abandonment/Cutting Data

Casing (in.)	Shoe (m)	Cut @ (m)	ID	Comments
30" x 20"	121.00	79	27" x 18.3/4"	2.7m below seabed.
20" x 13 3/8"	620.80	79	12.615	2.7m below seabed.

Stinger Data

	5" drill pipe with diverter	5" drill pipe with diverter	5" drill pipe with diverter	5" drill pipe with diverter	5" DP with 13 3/8" cmt ret.
--	-----------------------------	-----------------------------	-----------------------------	-----------------------------	-----------------------------

Plug Data

	Plug #1	Plug #2	Plug #3	Plug #4	Plug #5
	Open hole	Open hole	Open hole	Set across shoe	Surface plug
Top - mRT	1600	1400	1200	570	114
Bottom - mRT	1800	1600	1400	655	166
Plug length - m	200	200	200	85	52
Mud in hole	KCl polymer	KCl polymer	KCl polymer	KCl polymer	Seawater
Spacer	Drillwater	Drillwater	Drillwater	Drillwater	Drillwater
Displacement Fluid	KCl polymer	KCl polymer	KCl polymer	KCl polymer	Seawater
Displaced by	Cement Unit	Cement Unit	Cement Unit	Cement Unit	Cement Unit
Slurry volume (bbl)	104	135	157	55	25
Density (ppg)	15.8	15.8	15.8	15.8	15.8
Cement type	"G"	"G"	"G"	"G"	"G"
Yield (cu.ft/sk)	1.19	1.19	1.19	1.18	1.18
Total sacks cement	490	636	740	261	119
Additives :					
D047 (gal/sk)	0.01	0.01	0.01	0.01	0.01
D110 (gal/sx)	0.02	0.02	0.02		
D145A (gal/sk)	0.1	0.1	0.1		
D193 (gal/sk)	0.3	0.3	0.3		
Swtr (gal/sk)	4.92	4.92	4.92	5.3	5.3
Total mixfluids (bbl)	62.00	81.00	94.00	33.00	15.00
Pre-flush (bbls)	20	20	20	20	10
Balance with (bbls)	2.5	2	1.6	2.8	1.4
Displacement - bbls*	83	72	60	27	5.1

* Includes balance volume

General Comments

5" drillpipe with diverter used for setting cement plugs. Cement placed from TD upwards. TOC ~ 50m above top gas sand.

Plug 1: Full returns observed. Trace cement observed on bottoms up. No flowback while POOH.

Plug 2: Full returns observed. Cement observed on bottoms up. No flowback while POOH.

Plug 3: Full returns observed. POOH to 50m above TOC & circulated bottoms up. No flowback while POOH.

Plug 4: Set 1.5SG viscous pill from 730m to 665m. Spotted plug #4 from 665m to 570m. No losses during displacement. Pulled above TOC and circulated displacing casing to inhibited mud (corrosion inhibitor & biocide). Tagged TOC after 6 hrs at 575m with 20klbs.

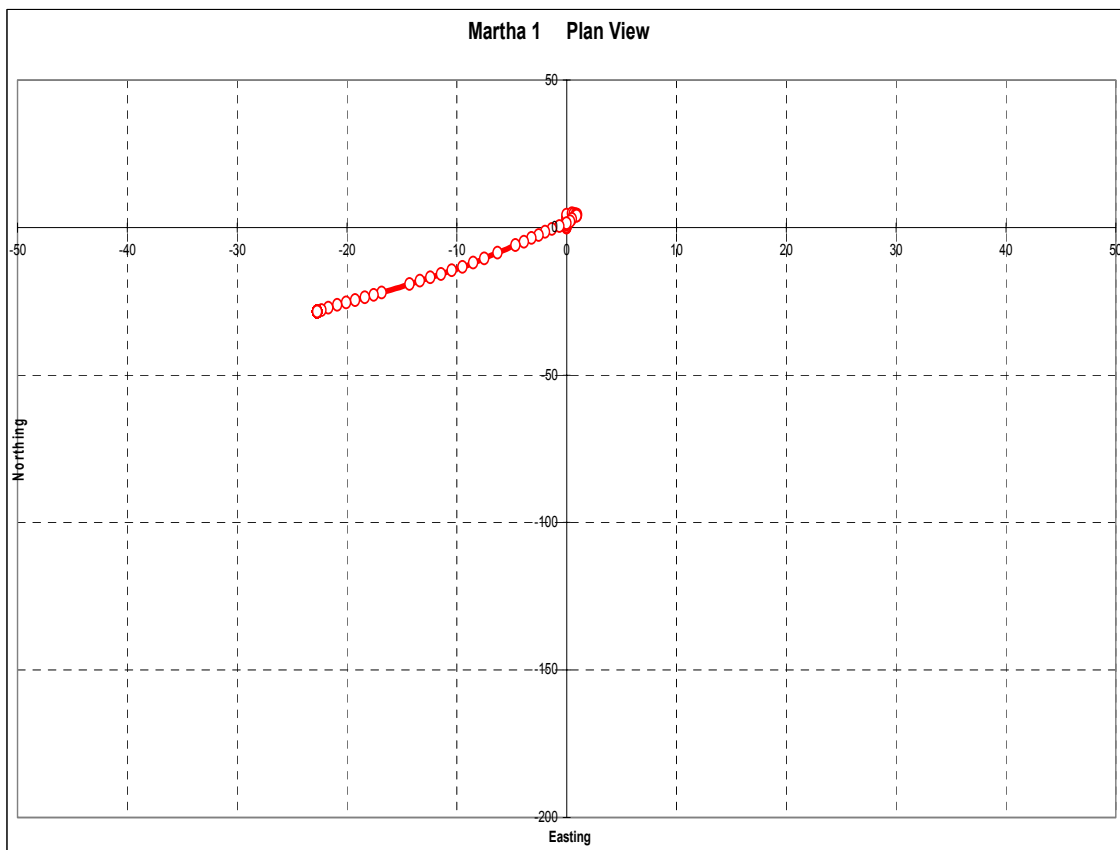
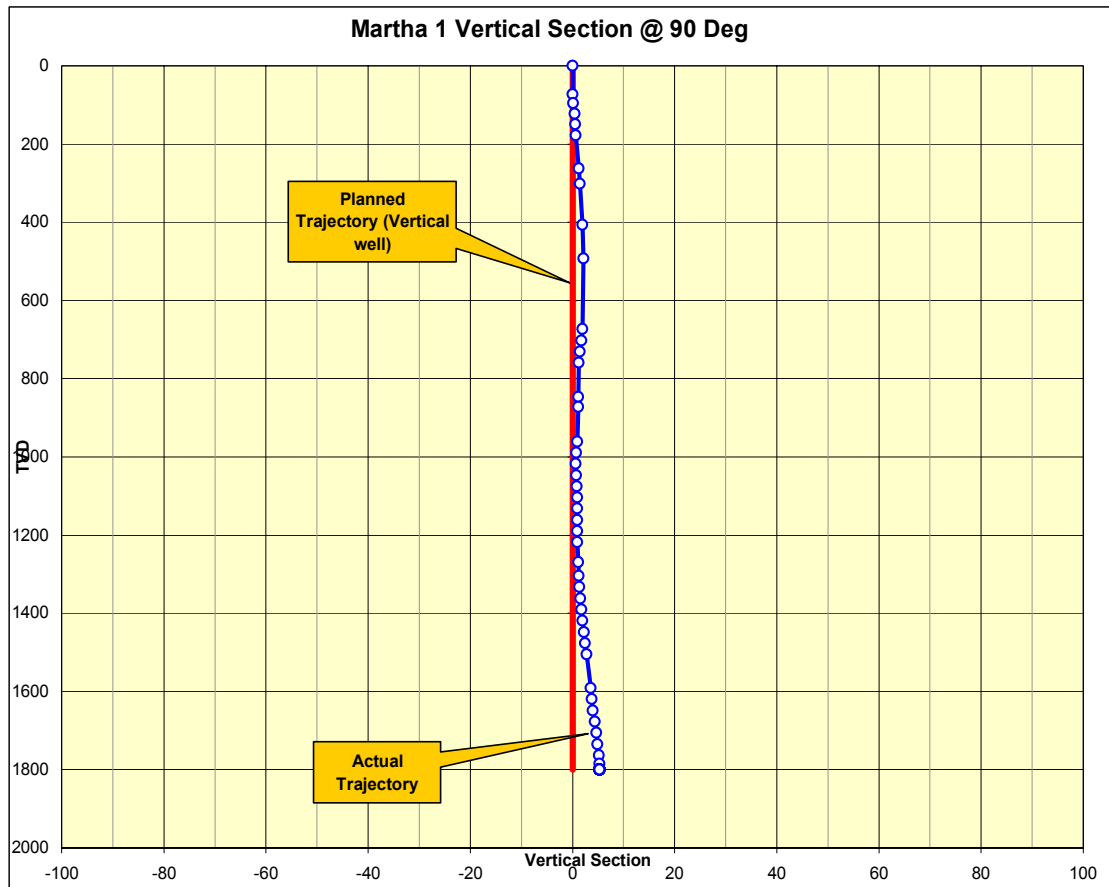
Plug 5: Set Dowell cement retainer at 166m and pressure tested same to 500 psi (0.2 bbls pumped). POOH laying down pipe. RIH with 5" drill pipe with diverter & displaced well to seawater. Set cement plug #4 from 166m to 114m. Pulled above TOC to 100m and reversed out excess cement.

SECTION 15: DEVIATION SUMMARY

Surveys and schematics are presented overleaf.

MARTHA-1 DEVIATION SURVEYS

DEPTH	INCLINATION	AZIMUTH
0	0.0	Anderdrift
73	0.0	Anderdrift
95	1.5	Anderdrift
122	1.0	Anderdrift
150	0.0	Anderdrift
178	1.0	Anderdrift
263	0.5	Anderdrift
302	1	Anderdrift
407	0	Anderdrift
493	0.5	Anderdrift
672.92	0.36	121.62
702.27	0.49	124.59
731	0.56	135.36
759.74	0.35	171.41
846.09	0.12	248.92
872.68	0.05	166.11
960.62	1.59	200.68
989.35	1.27	184.55
1017.99	2.00	214.08
1046.87	2.46	218.63
1075.51	2.33	211.04
1104.15	2.36	211.11
1132.60	2.43	210.35
1161.23	2.65	210.29
1189.87	2.78	210.7
1218.57	3.07	212.16
1270.08	3.78	212.66
1304.67	3.6	212.65
1333.52	3.44	215.56
1362.11	3.24	216.60
1390.88	3.1	219.06
1419.53	3.12	219.42
1448.27	3.07	219.27
1476.85	2.88	220.27
1505.48	2.74	223.28
1591.58	2.35	219.65
1620.36	2.20	220.22
1649.36	2.43	227.31
1678.05	2.32	225.45
1706.72	2.40	224.26
1735.43	2.43	221.48
1763.96	2.56	220.08
1785.46	2.69	214.76
1800.00	2.69	214.76



SECTION 16: PALYNOLOGY REPORT



**SANTOS STRATIGRAPHIC SERVICES
GEOSCIENCE & NEW VENTURES**

Palynology Report No. 2004/31

Author: R.HELBY

PALYNOLOGICAL REPORT NO. 2004/31

MARTHA -1 WELL

Santos Ltd

A.B.N. 80 007 550 923

Introduction

Twenty one sidewall core samples from Santos Martha-1, drilled VIC-P44, were examined palynologically. An additional 13 cuttings samples were examined on board the Jack Bates during drilling of Santos Callister-1. The Santos laboratory technicians noted that the sidewall cores were “soft and fragile” indicating that pre-processing cleaning of the cores was very difficult. Mud contamination, largely represented by dinocysts from higher levels, is evident in most of the preparations. This was a particular problem in the recognition of the Eumeralla Formation. One of the definitive features of the Eumeralla Formation, hitherto, has been the apparent absence of dinocysts. In most instances the contaminants clearly originated from the interval of the Paaratte Formation to the Belfast Mudstone “C” unit.

The palynology results are presented in Table 1. A range chart of palynomorphs recorded in this study is appended.

R. Helby

References

Partridge, A.D. 1999. Late Cretaceous to Tertiary geological evolution of the Gippsland Basin, Victoria. Latrobe University PhD Thesis (unpublished).

Partridge, A.D. 2001. Revised stratigraphy of the Sherbrook Group, Otway Basin. PESA Eastern Australian Basins Symposium, p455-465.

Sharp, N.C. & Wood G.R. 2004. Casino Gas Field, offshore Otway Basin, Victoria – the appraisal story and some stratigraphic enlightenment. PESA Eastern Australian Basins Symposium, p1-14.

Santos

PALYNOLOGY REPORT

Study: Martha No. 1

Author: R. Helby

Page 1 of 3

SAMPLE	DEPTH (metres)	REMARKS
SWC	1307.2	Moderately rich (21% of total palynomorphs), low diversity dinocyst suite with frequent <i>Xenikoon australis</i> , <i>Nelsoniella aceras</i> and frequent <i>Heterosphaeridium</i> spp. The high diversity spore pollen suite is not particularly diagnostic, lacking <i>Nothofagidites</i> spp. and <i>Tricolporites apoxyxinus</i> . Near-shore marine.
SWC	1338.0	Rich (50% of total palynomorphs), high diversity dinocyst suite with frequent <i>Xenikoon australis</i> , <i>Nelsoniella aceras</i> , <i>N. tuberculata</i> , <i>Odontochitina porifera</i> and common <i>Heterosphaeridium</i> spp. The moderate diversity spore-pollen suite is not particularly diagnostic. Shallow marine.
SWC	1360	Rich (39% of total palynomorphs), high diversity microplankton suite with <i>Nelsoniella aceras</i> , questionable <i>N. tuberculata</i> , <i>Odontochitina porifera</i> with common <i>Heterosphaeridium</i> spp. but lacking <i>Xenikoon australis</i> . The moderate diversity spore-pollen suite is not particularly diagnostic. Shallow marine. The moderate diversity spore-pollen suite is not particularly diagnostic. Shallow marine.
SWC	1378.5	Rich (38% of total palynomorphs), moderate diversity microplankton suite with <i>Xenikoon australis</i> , frequent <i>Nelsoniella aceras</i> , <i>N. tuberculata</i> and <i>Odontochitina porifera</i> with common <i>Heterosphaeridium</i> spp. Shallow marine.
SWC	1403.3	Rich (46% of total palynomorphs), moderate diversity microplankton suite with <i>Xenikoon australis</i> , frequent <i>Nelsoniella aceras</i> and <i>Odontochitina porifera</i> with abundant <i>Heterosphaeridium</i> spp. Shallow marine.
SWC	1421.2	Rich (47% of total palynomorphs), low diversity dinocyst suite with <i>Nelsoniella aceras</i> , common <i>Odontochitina</i> spp. (including <i>O. magna</i> and <i>O. porifera</i>) and abundant <i>Heterosphaeridium</i> spp. Shallow marine.
SWC	1435.4	Rich (65% of total palynomorphs), moderate diversity dinocyst suite with common <i>Isabelidinium rotundatum</i> , common <i>Heterosphaeridium</i> spp. and frequent <i>Trithyrodinium vermiculatum</i> . <i>Nelsoniella aceras</i> not observed. Shallow marine.

Santos

Study: Martha No. 1

Author: R. Helby

PALYNOLOGY REPORT

Page 2 of 3

SAMPLE	DEPTH (metres)	REMARKS
SWC	1457.6	Super-abundant (97% of total palynomorphs), moderate diversity, dinocyst suite dominated by <i>Odontochitina lepros</i> (<i>O.</i> 'stubby' of MPA), common <i>Heterosphaeridium</i> spp. and <i>Trithyrodinium glabrum</i> , with <i>Amphidiadema denticulata</i> , <i>Isabelidinium elongatum</i> , <i>Odontochitina magna</i> , <i>O. porifera</i> , <i>O. wannabe</i> and <i>Trithyrodinium vermiculatum</i> . Spore-pollen diversity is extremely restricted and the assemblage is not diagnostic. Shallow marine.
SWC	1475.0	Moderately rich (31% of total palynomorphs), moderate diversity, dinocyst suite with common <i>Isabelidinium</i> spp. (including <i>I. elongatum</i> and <i>I. rectangulare</i>), <i>Odontochitina porifera</i> and frequent <i>Heterosphaeridium</i> spp. Shallow marine.
SWC	1479.0	Moderately rich (26% of total palynomorphs), moderate diversity, dinocyst suite with common <i>Isabelidinium</i> spp. (including <i>I. cretaceum</i> and <i>I. elongatum</i>), <i>Amphidiadema denticulata</i> , <i>Odontochitina porifera</i> , <i>Trithyrodinium glabrum</i> , <i>T. vermiculatum</i> and common <i>Heterosphaeridium</i> spp. Shallow marine.
SWC	1483.8	Moderately rich (36% of total palynomorphs), moderate diversity, dinocyst suite with common <i>Circulodinium</i> cf. <i>C. deflandrei</i> and frequent <i>Cyclonephelium compactum</i> , <i>Heterosphaeridium</i> spp., <i>Kiokansium polypes</i> with <i>Cribooperidinium</i> spp (including fragments of <i>C. edwardsii</i>). A fairly diverse caved assemblage from the Skull Creek Mudstone was recorded. The spore-pollen suite includes <i>Appendicisporites distocarinatus</i> and <i>Hoegisporis trinalis</i> . Near-shore marine.
SWC	1489.2	Relatively lean (13% of total palynomorphs), low diversity, dinocyst suite with frequent <i>Circulodinium</i> cf. <i>C. deflandrei</i> , <i>Heterosphaeridium</i> spp. and <i>Palaeoperidinium cretaceum</i> . The spore-pollen suite lacks diagnostic elements. Near-shore marine.
SWC	1501.8	This zone pick is tentatively based on a single specimen of <i>Heterosphaeridium</i> . No other dinocysts were recorded. The spore-pollen suite appears to lack <i>Appendicisporites</i> spp., <i>Hoegisporis trinalis</i> or <i>Phyllocladidites</i> spp. - species that would support Waarre Sandstone "A" assignment. Possible marine influence.

Santos

PALYNOLOGY REPORT

Study: Martha No. 1

Author: R. Helby

Page 3 of 3

SAMPLE	DEPTH (metres)	DIVERSITY	REMARKS
SWC	1510.8	High	Rich, diverse spore-pollen suite, dominated by smooth fern spores (58%) with frequent <i>Cicatricosisporites</i> spp. The zone pick is based on the occurrence of the eponymous species and the apparent absence of younger indices. None of the marker taxa from the <i>Phyllocladidites mawsonii</i> Zone were observed. No unequivocal dinocysts were recorded. The occurrence of the fresh-water to brackish algal species <i>Sigmopollis carbonis</i> is recorded
SWC	1534.0	High	Moderately rich, diverse spore-pollen suite dominated by saccate pollen and fern spores. The zone pick is based on the occurrence of <i>Coptospora paradoxa</i> and the absence of younger indices. None of the marker taxa from the <i>Phyllocladidites mawsonii</i> Zone were observed. Dinocysts not recorded, however, the occurrence of <i>Michrhystridium</i> spp. and unidentified diaphanous cysts may indicate minor salinity suggesting a possible brackish environment of deposition.
SWC	1558.0	High	As above
SWC	1572.1	V. low	Almost barren – lacking diagnostic taxa.
SWC	1590.0		Moderately rich, diverse spore-pollen suite dominated by saccate pollen. The zone pick is based on the occurrence of <i>Crybelosporites striatus</i> and the apparent absence of <i>Coptospora paradoxa</i> and other younger markers. No dinocysts were recorded, however, the occurrence of <i>Michrhystridium</i> spp. with other algal cysts may indicate minor salinity suggesting a possible brackish environment of deposition.
SWC	1612.9		An extremely lean, but moderately diverse, spore-pollen assemblage lacking diagnostic species is recorded. The zone pick is based on the samples position between unequivocal <i>C. striatus</i> zone samples. Three specimens of <i>Xenikoon australis</i> , three specimens of <i>Heterosphaeridium</i> spp. and a single <i>Odontochitina</i> specimen were recorded. These are clearly contaminants from higher levels (Waarre Ss-Paaratte).
SWC	1700.0		This very lean, low diversity, spore-pollen assemblage lacks diagnostic species. The zone pick is based on the samples' stratigraphic position. Specimens of <i>Heterosphaeridium</i> spp., <i>Isabelidium</i> spp. and <i>Odontochitina</i> were recorded. These are clearly contaminants from above. No spinose acritarchs observed. Non-marine.
SWC	1728.9		Saccate pollen and fern spores dominate this moderately rich, diverse spore-pollen suite. The zone pick is based on the occurrence of <i>C. striatus</i> and the apparent absence of <i>Coptospora paradoxa</i> and other younger markers. The moderately diverse dinocyst suite including <i>Isabelidium rotundatum</i> , <i>Nelsoniella aceras</i> , <i>Odontochitina magna</i> and <i>Xenikoon australis</i> originates from higher levels in the well (probably Skull Ck Mdst-Paaratte Mdst). No spinose acritarchs observed. Non-marine.

Santos

ON-RIG SAMPLES - PALYNOLOGY REPORT - REINTERPRETED

Study: Martha No. 1

Author: R. Helby

Page 1 of 2

SAMPLE	DEPTH (metres)	REMARKS
CUTT	1352	Low diversity dinocyst suite with prominent <i>Heterosphaeridium</i> spp. (>15%), <i>Nelsoniella</i> sp. and <i>Xenikoon australis</i> (tentative). Spore-pollen suite includes <i>Nothofagidites senectus</i> . Near-shore marine.
CUTT	1358	Very low diversity dinocyst suite with prominent <i>Heterosphaeridium</i> spp. (~15%) and a single, specimen of <i>Isabelidinium</i> sp. Spore-pollen suite not particularly diagnostic. Near-shore marine.
CUTT	1376	Low diversity dinocyst suite with abundant <i>Heterosphaeridium</i> spp. (~30%), <i>Nelsoniella aceras</i> , <i>Odontochitina porifera</i> and <i>Xenikoon australis</i> (tentative). Spore-pollen suite not particularly diagnostic. Near-shore marine.
CUTT	1397	Low diversity dinocyst suite with prominent <i>Heterosphaeridium</i> spp. (26%) and <i>Nelsoniella</i> sp. Spore-pollen suite not particularly diagnostic. Near-shore marine.
CUTT	1469	Moderate diversity dinocyst suite with abundant <i>Heterosphaeridium</i> spp. (~40%), with <i>Isabelidinium elongatum</i> , <i>I rotundatum</i> , <i>Nelsoniella aceras</i> , common <i>Odontochitina</i> spp. (including <i>O. magna</i> , <i>O. porifera</i> and <i>O. sp.</i> (stubby), frequent <i>Trithyrodinium glabrum</i> and <i>T. vermiculatum</i> . Near-shore marine.
CUTT	1475	Moderate diversity dinocyst suite with abundant <i>Heterosphaeridium</i> spp. (~30%), with <i>Isabelidinium</i> spp. (including <i>I. elongatum</i> , <i>I. nuculum</i> and <i>I. rotundatum</i>), <i>Nelsoniella aceras</i> , prominent <i>Odontochitina</i> spp. (including <i>O. cribropoda</i> , <i>O. porifera</i> , <i>O. wannabe</i> and <i>O. sp.</i> - stubby) and frequent <i>Trithyrodinium glabrum</i> . Near-shore marine.
CUTT	1499	Moderate diversity dinocyst suite with frequent <i>Heterosphaeridium</i> spp., with <i>Isabelidinium</i> spp. (including <i>I. cretaceum</i> , <i>I. elongatum</i> , <i>I. nuculum</i> and <i>I. rectangulare</i> and <i>I. rotundatum</i>), <i>Nelsoniella aceras</i> , prominent <i>Odontochitina</i> spp. (including <i>O. cribropoda</i> , <i>O. porifera</i> and <i>O. sp.</i> - stubby) and frequent <i>Trithyrodinium glabrum</i> and <i>T. vermiculatum</i> . Near-shore marine.

Santos

ON-RIG SAMPLES - PALYNOLOGY REPORT - REINTERPRETED

Study: Martha No. 1

Author: R. Helby

Page 2 of 2

SAMPLE	DEPTH (metres)	REMARKS
CUTT	1505	Moderate diversity dinocyst suite with frequent <i>Heterosphaeridium</i> spp., with <i>Isabelidinium</i> spp. (including <i>I. belfastense</i> , <i>I. cretaceum</i> and <i>I. rotundatum</i>), <i>Nelsoniella aceras</i> , prominent <i>Odontochitina</i> spp. (including <i>O. porifera</i> , <i>O. wannabe</i> and <i>O. sp. - stubby</i>) and frequent <i>Trithyrodinium glabrum</i> . Near-shore marine.
CUTT	1547	Moderately diverse spore-pollen suite with <i>Crybelosporites striatus</i> , apparently lacking markers from the <i>P. mawsonii</i> Zone. The low diversity dinocyst suite with <i>Isabelidinium rotundatum</i> , <i>Odontochitina porifera</i> , <i>Trithyrodinium glabrum</i> , <i>T. vermiculatum</i> and <i>Xenikoon australis</i> is considered to be caved. A fragment of <i>Cribrasperidinium edwardsii</i> was also recorded. No evidence of in-situ marine influence.
CUTT	1550	The moderately diverse spore-pollen suite apparently lacks markers from the <i>P. mawsonii</i> Zone is marked by prominent <i>Cicatricosisporites</i> spp. (15%). The very low diversity dinocyst suite includes <i>Odontochitina porifera</i> and <i>Trithyrodinium glabrum</i> and is considered to be caved. No evidence of in-situ marine influence.
CUTT	1574	The moderately diverse spore-pollen suite apparently lacks markers from the <i>P. mawsonii</i> Zone. The very low diversity dinocyst suite includes <i>Isabelidinium rotundatum</i> , <i>Nelsoniella aceras</i> and <i>Xenikoon australis</i> is considered to be caved. No evidence of in-situ marine influence.
CUTT	1577	The moderately diverse spore-pollen suite apparently lacks markers from the <i>P. mawsonii</i> Zone. The lean, very low diversity dinocyst suite, which includes <i>Nelsoniella aceras</i> and <i>Odontochitina wannabe</i> , is considered to be caved. No evidence of in-situ marine influence.