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SANTOS LIMITED

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

AMRIT-1

BASIC DATA REPORT

**PREPARED BY:
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(Consultant)
February 2005**

AMRIT-1

BASIC DATA REPORT

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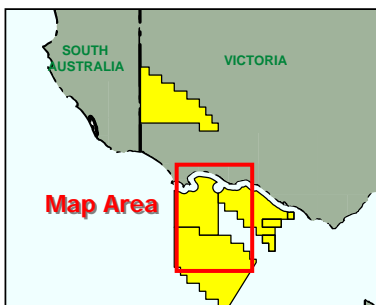
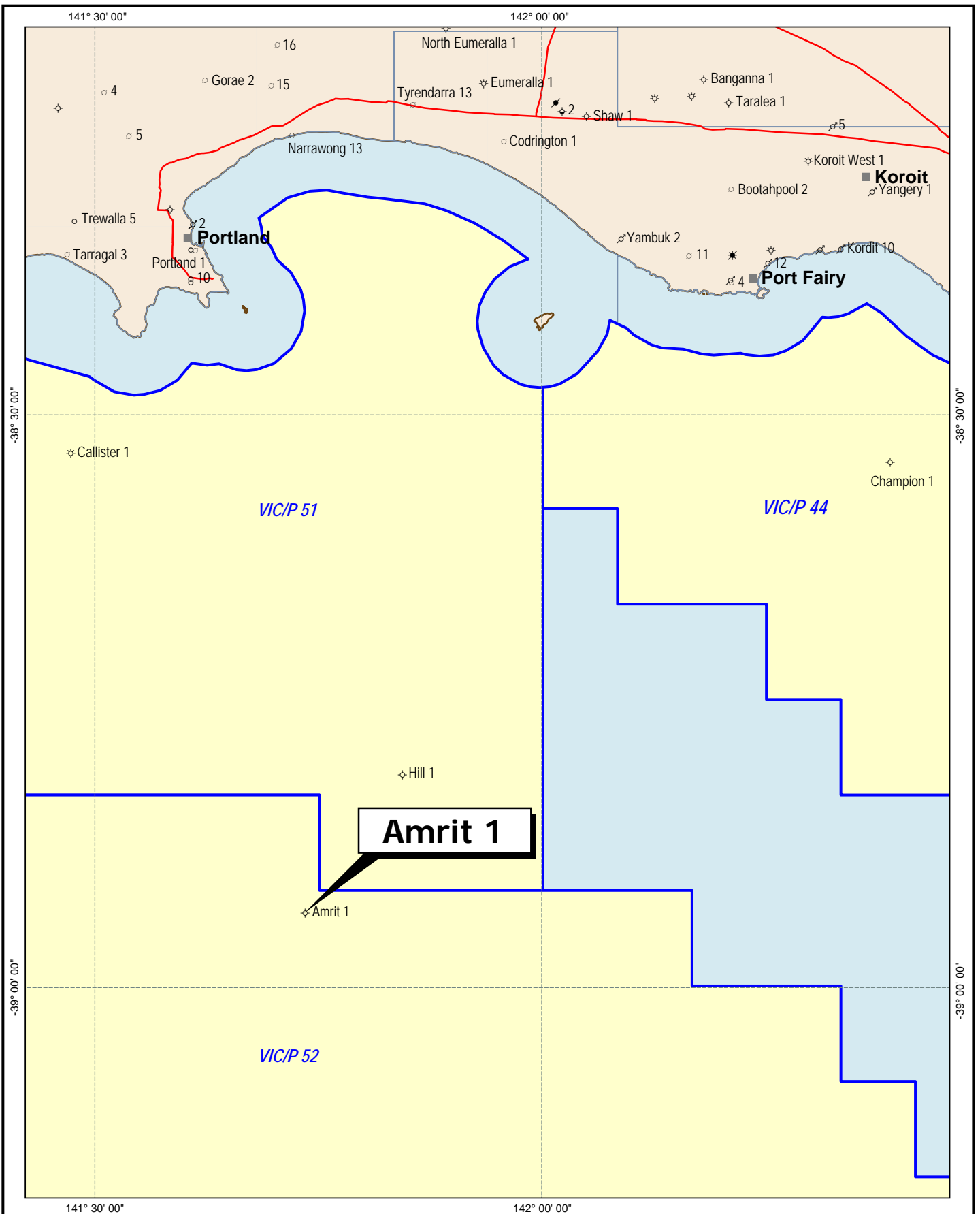
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GENERAL DATA CARD

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LOCATION MAP



Legend
 Santos Permit

Santos

VIC/P 51 - Victoria

Amrit 1

Location Map



Kilometres

Scale: 1:500 000

Date: April 2005, File No. OTWAY 640



GENERAL DATA CARD

WELL: AMRIT-1	WELL CATEGORY: OFFSHORE OIL/GAS EXPLORATION WELL	SPUD: 20-11-04 TD REACHED: 07-12-04			
		RIG RELEASED: 17-12-04 CMPLT: -			
		RIG: JACK BATES			
	WELL INTENT: OIL/GAS	STATUS: PLUGGED AND ABANDONED			
SURFACE LOCATION: (GDA94) LAT: 38° 56' 05.20" S LONG: 141° 44' 07.08" E NORTHING: 5690204.1M EASTING: 563729.6M		REMARKS:			
SEISMIC STATION: OS02 3D SURVEY IL7404 XL1967					
ELEVATION SEA FLOOR: -1425M LAT RT +29M LAT					
BLOCK/LICENCE: VICTORIA – OTWAY BASIN VIC/P52					
TD 2979 M (LOGR EXTRAP) 2979 M (DRLR)					
PBTD - M (LOGR) - M(DRLR)					
TYPE STRUCTURE: FAULT BOUND STRUCTURAL/ STRATIGRAPHIC CLOSURE		HOLE SIZE	CASING SIZE	SHOE DEPTH	TYPE
		660MM	508MM	1822M	198 KG/M X56
TYPE COMPLETION: NIL		445MM	340MM	2454M	101 KG/M L80 TER
ZONE(S): -		311MM	-	-	-

TYPE OF LOG	FROM (M)	TO (M)	REPEAT SECTION	TIME SINCE LAST CIRC	BHT
MWD LOGGING:					
RUN 1: RES-GR-SURVEYS-ANN PRESS	1425	1835			
RUN 2: RES-GR-SURVEYS-ANN PRESS	1835	2459			
RUN 3: RES-GR-SURVEYS-ANN PRESS	2459	2695			
RUN 4: RES-GR-SURVEYS-ANN PRESS	2695	2979			
WIRELINE LOGS					
RUN 1: PEX-HALS-DSI					
GR	2945	2454	DOWN LOG	22.25 HRS	56.11°C
RESISTIVITY	2945	2454			
SP	2945	2454			
CALIPER	2945	2454			
DT (FULL WAVEFORMS)	2945	2454			
X-Y NEUTRON-DENSITY (DUAL AXIS)	2945	2454			
RUN 2: VSP (50M INTERVALS)	2940	1790		34.25 HRS	62.2 °C
RUN 3: SWC	2925M	2494M			
ONE GUN – 30 SHOTS RECOVERED 21, 3 MISFIRE, 6 EMPTY.					

NO PRODUCTION TESTS WERE CONDUCTED AT AMRIT-1

SECTION 1:- WELL HISTORY

1.1 INTRODUCTION

Amrit-1 was drilled as an Otway Basin oil/gas exploration well in the Victoria Offshore VIC/P52 licence. The Surface Location is Latitude: 38° 56' 05.20" South, Longitude: 141° 44' 07.08" East (GDA94), Northing: 5690204.1m, Easting: 563729.6m (MGA-94). The Seismic Reference is OS02 3D Survey IL7404 XL1967. The location lies approximately 68 km south of the town of Portland, 50 km SE of Bridgewater Bay-1, 18 km SW of Hill-1 (see Location Map).

Amrit-1 is a "deep water" well located in 1396m of water and was drilled by the semi-submersible drilling rig "Jack Bates". Amrit-1 was drilled as an oil-prospect but there was a possibility that gas would be encountered in the reservoir. Amrit-1 was to be drilled as a vertical well to a Total Depth of 2979m (or to an alternative, deeper Total Depth of 3179m in the case of encouraging shows).

The Amrit Prospect is located on a tilted fault-block and was designed to test the fault-bound stratigraphic/structural potential of the Paaratte Formation primary target (K94/K93) at a depth of 2574m. The prime target was the top Paaratte delta section with the secondary target being the intra-Paaratte K91 amplitude anomaly.

Amrit-1 was a critical test of one of a series of amplitude features at the top Paaratte Formation. The well was planned to assist in establishing whether an oil model would be applicable to the area and confirm the top seal potential of the Timboon Formation-equivalent section encountered in the recently drilled Hill-1.

A successful oil result would have a significant impact on Paaratte prospects and leads in the VIC/P52 licence and the Southern Margins in general.

1.2 GENERAL DATA

Well Name:	AMRIT-1		
Well Classification:	Offshore Oil/Gas Exploration		
Interest Holders:	Santos Ltd	33.333%	
	Unocal	33.333%	
	Inpex Alpha	33.333%	
Participating Interests:	Santos Ltd	33.333%	
	Unocal	33.333%	
	Inpex Alpha	33.333%	
Operator:	Santos Ltd.		
Location:	Offshore Victoria – Otway Basin VIC/P52.		
Surveyed Location (GDA94)	Latitude:	038° 56' 05.20" South	
	Longitude:	141° 44' 07.08" East	
	Easting:	563729.6m	
	Northing:	5690204.1m	
Seismic Location:	Inline 7404, Crossline 1967		
Seismic Survey:	OS02 3D Survey		
Elevations:	Water Depth -1396m AHD (Australian Height Datum)		
	Rotary Table +29.0m LAT		
Total Depth:	Driller : 2979m RT		
	Logger : 2948m RT (Hung up)		
Status:	Plugged and Abandoned		
License:	VIC/P52 Offshore Victoria		
Date Drilling Commenced:	17:15 hours on 20 th November 2004.		
Date Drilling Completed:	03:30 hours on 7 th December 2004.		
Date Rig Released:	16:00 hours on 17 th December 2004.		
Total Well Time:	26.95 days		
Contractor:	Transocean		
Rig:	Jack Bates (semi-submersible)		

1.3 DRILLING SUMMARY

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

Amrit-1 was spudded at 17:15 hrs on the 20th of November 2004 utilising the semi-submersible drilling facility "Jack Bates". 760mm (30") conductor and 660mm (26") BHA was run with the Drillquip CADA tool on drillpipe and the conductor jetted with the shoe at 1509.5m.

Bit 1, a 660mm (26") Smith MSDS rock bit, drilled the 660mm (26") phase from 1510m to section total depth at 1835m. Returns were to the seafloor. A string of 762mm (20") (198 kg/m X56) casing was run and set at 1822m. The blowout preventers were run and installed on the marine riser and tested.

Bit 2, a Tricone Reed T11C was run in hole to tag the cement top at 1807m and was used to drill the entire 445mm (17.5") hole section from 1835m to 2459m. The hole was circulated clean and swept with hi-viscosity gel. While pulling out of hole, tight hole was observed. The bit was then pumped out of the hole to the casing shoe where sweeps were pumped to assist hole cleaning. The bit was run back to bottom on a wiper trip and the hole circulated clean. The bit was then pulled out of the hole. A string of 340mm (13.375") (101 kg/m L80 TER) casing was run and set at 2454m. The casing running tool was released and laid out along with the cement head. The 445mm (17.5") BHA was laid out.

Thereafter, a 311 mm (12.25") BHA with PDC Bit 3, Hughes HCM606Z was run in hole along with MWD tools and motor to tag top of cement at 2414m. The cement plugs, cement, casing shoe, rathole and 3m of new hole from 2459m to 2462 m were drilled. The hole was displaced to 1.12 SG (9.3ppg) and circulated clean. A Leak-off Test was performed to 1.60 SG (13.3ppg) EMW. The 311mm (12.25") hole was then drilled from 2462m to 2695m where poor penetration rates required a bit change. Bit #4, Reed-Hycalog DSX104 was run in hole and drilling continued from 2695m to the Total Depth of 2979m which was reached at 03:30hrs on the 7th of December 2004. The entire well 1425m to 2979m was logged while drilling with Anadrill Schlumberger MWD CDR-Powerpulse tools to record Gamma Ray, Resistivity, Annular Pressure and Deviation Survey data.

At Total Depth wireline logs were recorded as outlined in the Wellcard. After rigging down wireline logging, Amrit-1 was plugged and abandoned and the rig was released at 16:00 hours on December 17, 2004.

(b) Mudlogging Services

Mudlogging services were provided by Baker Hughes Inteq Unit 431 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 (18 pits)
14. Mud Weight In and Out
15. Mud Temperature In and Out
16. Carbon Dioxide levels

Ditch cuttings were collected at 5m intervals in the 445mm (17.5") phase from 1835m to section total depth of 2459m. In the 311mm (12.25") section samples were collected in 3m intervals. However fast drilling rates required the sampling interval to be increased to 6m as necessary. In the zones of interest, samples were collected at 3m intervals. In addition to microscopic examination of all drilled cuttings, samples were subjected to fluoroscope examination.

At the end of Amrit-1, the rig was towed to Western Australia to begin work for another operator. Due to lack of time to dry and process the washed cuttings onboard the "Jack Bates", wet cuttings were sent to the Baker Hughes Inteq facility in Perth for processing. At the time of writing this report, the Sample Manifest was not available for inclusion in the Basic Data Report, but will be available from the Santos Operations Geologist in due course.

(c) MWD Data

Measurement while drilling (MWD) was acquired by Anadrill-Schlumberger in Amrit-1. The CDR / Powerpulse was used while drilling from the seabed at 1425m to Total Depth at 2979m. Gamma Ray, Resistivity, Annular Pressure and Deviation Survey data were acquired in 4 runs. Anadrill Schlumberger's detailed report is attached in Section 3.4: MWD/LWD END OF WELL REPORT

(d) Testing

No production tests were conducted at the Amrit-1 location.

(e) Coring

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

(f) Biostratigraphy

No Palaeontology studies were conducted onboard during the drilling of Amrit-1. However, cuttings samples were sent to town for micro-palaeontology studies. The preliminary Palaeontology report is attached in Section 2.3: PRELIMINARY PALAEOLOGY REPORT

(g) Electric Logging

Electric Logging Services were provided by Schlumberger Wireline Services. One suite of electric logs were attempted at Amrit-1 as follows:

TYPE OF LOG	FROM (m)	TO (m)	REPEAT SECTION	TIME SINCE LAST CIRC	BHT
<u>RUN 1: PEX-HALS-DSI</u>					
GR	2945	2454	Down log	22.25 hrs	56.11°C
Resistivity	2945	2454			
SP	2945	2454			
Caliper	2945	2454			
Dt (Full waveforms)	2945	2454			
X-Y Neutron-Density (Dual axis)	2945	2454			
<u>RUN 2: VSP (50m Intervals)</u>	2940	1790		34.25 hrs	62.2 °C
<u>RUN 3: SWC</u>	2925m	2494m			
One gun – 30 shots Recovered 21, 3 Misfire, 6 Empty.					

(h) Pressure Data

No Pressure survey was conducted at the Amrit-1 location.

(i) Hole Deviation

Amrit-1 was drilled as a vertical hole with the maximum deviation being 1.07° at 1454m and generally being below 1° throughout the well. Survey data are presented in Section 15: DEVIATION SURVEYS.

At Total Depth, the estimated displacement was 12.6m towards 232.8°T direction. At total depth it is estimated that the TVD would be 2978.94m.

(j) Velocity Surveys

A Velocity Checkshot survey was conducted as part of the logging suite. Checkshots were recorded at 50m intervals.

(k) Casing & Cementing Summary

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

HOLE SIZE	HOLE DEPTH	CASING SIZE	CASING DEPTH	JOINTS	CASING TYPE	CEMENT
660mm (26")	1835m	508mm (20")	1822m	33	198 kg/m X56	Lead: 1662 sacks ABC Class "G" cement of total volume 105m ³ , mixed to a slurry weight of 1.5sg. Tail: 717 sacks ABC Class "G" cement of total volume 24m ³ , mixed to a slurry weight of 1.9sg.
445mm (17.5")	2459m	340mm (13.375")	2454m	81	101kg/m L80 TER	Lead: 810 sacks ABC Class "G" cement of total volume 52m ³ , mixed to a slurry weight of 1.5sg. Tail: 380 sacks ABC Class "G" cement of total volume 12.9m ³ , mixed to a slurry weight of 1.9sg.
311mm (12.25")	2979m	-	-	-	-	-

SECTION 2:- LITHOLOGICAL DESCRIPTIONS

SECTION 2.1: CUTTINGS DESCRIPTIONS

2.1 AMRIT-1 - LITHOLOGICAL DESCRIPTIONS

From (m)	To (m)	%	Description
1835	1838	90 10	CEMENT MARL: Very light grey to light green grey, very argillaceous, very soft to dispersive, sticky, amorphous, sub-blocky.
1838	1840	60 40	CEMENT MARL: Very light – light grey, off-white, very argillaceous, dispersive, minor soft, amorphous, rarely subblocky.
1840	1845	40 60	CEMENT MARL: Very light – light grey, off-white, very argillaceous, dispersive, minor soft, amorphous, rarely subblocky.
1845	1850	30 70	CEMENT MARL: Very light – light grey, off-white, very argillaceous, very soft, minor amorphous, subblocky.
1850	1855	30 70	CEMENT MARL: Very light – light grey, off-white, very argillaceous, very soft, minor amorphous, subblocky.
1855	1870	-	NO RETURNS
1870	1875	5 95	CEMENT MARL: Very light grey – light grey, light green grey, predominantly argillaceous, minor arenaceous, trace fossil fragments, very soft – soft, subblocky.
1875	1880	100	MARL: Very light grey – light grey, light green grey, predominantly argillaceous, minor arenaceous, very soft – soft, subblocky.
1880	1885	100	MARL: Very light grey – light grey, light green grey, predominantly argillaceous, minor arenaceous, very soft – soft, subblocky.
1885	1890	-	NO RETURNS
1890	1895	100	MARL: Very light grey – light grey, light green grey, very argillaceous, trace Glauconite, dispersive to soft, amorphous – subblocky, grades to Calcareous Claystone.
1895	1900	100	CALCAREOUS CLAYSTONE: Very light grey, light grey, off-white, very soft – soft, subblocky.
1900	1905	100	CALCAREOUS CLAYSTONE: Very light grey, light grey, off-white, very soft – soft, subblocky, grades to Marl.

From (m)	To (m)	%	Description
1905	1910	100	CALCAREOUS CLAYSTONE: Light grey, off-white, rare medium dark grey, trace glauconite, very soft – soft, subblocky, grades to Marl.
1910	1915	100	CALCAREOUS CLAYSTONE: Light grey, off-white, rare medium dark grey, trace glauconite, trace fossil fragment, very soft – soft, subblocky, commonly grades to Marl.
1915	1920	100	CALCAREOUS CLAYSTONE: Light grey, off-white, green grey, common calcite grains, dispersive – very soft, rarely soft, predominantly amorphous, minor subblocky, commonly grades to Marl.
1920	1925	100	CALCAREOUS CLAYSTONE: Very light grey – light grey, off-white, common calcite grains, dispersive – soft, amorphous – subblocky.
1925	1930	100	CALCAREOUS CLAYSTONE: Very light grey – light grey, off-white, common calcite grains, dispersive – soft, amorphous – subblocky, commonly grades to Marl.
1930	1935	100	CALCAREOUS CLAYSTONE: Light grey, off-white, green grey, olive grey, common calcite grains, dispersive to very soft, rarely soft, predominantly amorphous, minor subblocky, commonly grades to Marl.
1935	1940	100	CALCAREOUS CLAYSTONE: Light grey, off-white, green grey, olive grey, common calcite grains, dispersive - soft, rarely firm, predominantly amorphous, minor subblocky, commonly grades to Marl.
1940	1945	100	CALCAREOUS CLAYSTONE: Very light grey, light grey, off-white, rarely green grey, soft – firm, minor dispersive, subblocky, rarely grades to Marl.
1945	1950	100	CALCAREOUS CLAYSTONE: Very light grey, light grey, off-white, rarely dark green grey, soft – firm, minor dispersive, subblocky, rarely grades to Marl.
1950	1955	100	CALCAREOUS CLAYSTONE: Very light grey, light grey, off-white, rarely dark green grey, trace pyrite, trace foraminifers, firm, minor soft – dispersive, subblocky, rarely blocky.
1955	1960	100 trace	CALCAREOUS CLAYSTONE: Very light grey, light grey, off-white, rarely dark green grey, trace pyrite, trace foraminifers, firm, minor soft – dispersive, subblocky, rarely blocky. CALCILUTITE: Off-white, abundant calcite crystals, moderately hard, blocky.

From (m)	To (m)	%	Description
1960	1965	95	CALCAREOUS CLAYSTONE: Very light grey, light grey, off-white, trace glauconite, firm, minor soft – dispersive, subblocky, rarely blocky.
		5	CALCILUTITE: Off-white, abundant calcite crystals, moderately hard, subblocky - blocky.
1965	1970	95	CALCAREOUS CLAYSTONE: Very light grey, light grey, off-white, trace glauconite, firm, minor soft – dispersive, subblocky, rarely blocky.
		5	CALCILUTITE: Predominantly light olive green, minor very light grey, abundant calcite crystals, moderately hard - hard, subblocky - blocky.
1970	1975	90	CALCAREOUS CLAYSTONE: Very light grey, light grey, off-white, trace glauconite, firm, minor soft – dispersive, subblocky, rarely blocky.
		10	CALCILUTITE: Light olive green, abundant calcite crystals, moderately hard - hard, blocky.
1975	1980	85	CALCAREOUS CLAYSTONE: Very light grey – light grey, trace glauconite, soft – firm, subblocky.
		15	CALCILUTITE: Light olive grey, very light grey, very argillaceous, moderately hard – hard, blocky.
1980	1985	95	CALCAREOUS CLAYSTONE: Very light grey – light grey, trace glauconite, soft – firm, subblocky.
		5	CALCILUTITE: Light olive grey, very light grey, very argillaceous, moderately hard – hard, blocky.
1985	1990	80	CALCAREOUS CLAYSTONE: Very light grey – light grey, trace glauconite, soft – firm, subblocky.
		20	CALCILUTITE: Light olive grey, very light grey, very argillaceous, moderately hard – hard, blocky.
1990	1995	90	CALCAREOUS CLAYSTONE: Very light grey – light grey, trace glauconite, soft – firm, subblocky.
		10	CALCILUTITE: Light olive grey, very light grey, very argillaceous, moderately hard – hard, blocky.
1995	2000	90	CALCAREOUS CLAYSTONE: Very light grey – light grey, trace glauconite, soft – firm, subblocky.
		10	CALCILUTITE: Light olive grey, very light grey, very argillaceous, moderately hard – hard, blocky.
2000	2005	50	CALCAREOUS CLAYSTONE: Brown grey to green grey, abundant disseminated glauconite, soft to firm, amorphous to dispersive, subblocky
		50	CALCILUTITE: White to very light grey, micritic, soft, amorphous

From (m)	To (m)	%	Description
2005	2010	50	CALCAREOUS CLAYSTONE: Brown grey to green grey, abundant disseminated glauconite, trace pyrite, soft to firm, amorphous to dispersive, subblocky
		40	CALCILUTITE: White to very light grey, micritic, soft, amorphous
		10	SANDSTONE: Clear to translucent, medium to coarse grained, subangular to subrounded, moderately sorted, common loose quartz, fair visual porosity
2010	2015	60	CALCAREOUS CLAYSTONE: Brown grey to green grey, abundant disseminated glauconite, soft to firm, amorphous to dispersive, subblocky
		40	CALCILUTITE: White to very light grey, micritic, soft, amorphous
2015	2020	70	CALCAREOUS CLAYSTONE: Brown grey to green grey, abundant disseminated glauconite, trace pyrite, soft to firm, amorphous to dispersive, subblocky
		20	CALCILUTITE: White to very light grey, micritic, soft, amorphous
		10	SANDSTONE: Clear to translucent, medium to coarse grained, subangular to subrounded, moderately sorted, common loose quartz, fair visual porosity
2020	2025	80	CALCAREOUS CLAYSTONE: Brown grey to green grey, abundant disseminated glauconite, trace pyrite, soft to firm, amorphous to dispersive, subblocky
		10	CALCILUTITE: White to very light grey, micritic, soft, amorphous
		10	SANDSTONE: Clear to translucent, medium to coarse grained, subangular to subrounded, moderately sorted, common loose quartz, fair visual porosity
2025	2030	80	CALCAREOUS CLAYSTONE: Brown grey to green grey, abundant disseminated glauconite, trace pyrite, soft to firm, amorphous to dispersive, subblocky
		10	CALCILUTITE: White to very light grey, micritic, soft, amorphous
		10	SANDSTONE: Clear to translucent, medium to coarse grained, subangular to subrounded, moderately sorted, common loose quartz, fair visual porosity
2030	2035	70	CALCAREOUS CLAYSTONE: Brown grey to green grey, abundant disseminated glauconite, trace pyrite, soft to firm, amorphous to dispersive, subblocky
		10	CALCILUTITE: White to very light grey, micritic, soft, amorphous
		20	SANDSTONE: Clear to translucent, medium to coarse grained, subangular to subrounded, moderately sorted, common loose quartz, fair visual porosity

From (m)	To (m)	%	Description
2035	2040	75	CALCAREOUS CLAYSTONE: Brown grey to green grey, abundant disseminated glauconite, trace pyrite, soft to firm, amorphous to dispersive, subblocky
		5	CALCILUTITE: White to very light grey, micritic, soft, amorphous
		20	SANDSTONE: Clear to translucent, medium to coarse grained, subangular to subrounded, moderately sorted, common loose quartz, fair visual porosity
2040	2045	65	CALCAREOUS CLAYSTONE: Brown grey to green grey, calcareous, abundant disseminated glauconite, trace pyrite, soft to firm, amorphous to dispersive, subblocky
		30	SANDSTONE: Clear to translucent, medium to coarse grained, subangular to subrounded, moderately sorted, common loose quartz, fair visual porosity
		5	CALCILUTITE: White to very light grey, micritic, soft, amorphous
2045	2050	75	CALCAREOUS CLAYSTONE: Brown grey to green grey, abundant disseminated glauconite, trace pyrite, soft to firm, amorphous to dispersive, subblocky
		20	SANDSTONE: Clear to translucent, medium to coarse grained, subangular to subrounded, moderately sorted, common loose quartz, fair visual porosity
		5	CALCILUTITE: White to very light grey, micritic, soft, amorphous
2050	2055	75	CALCAREOUS CLAYSTONE: Brown grey to green grey, abundant disseminated glauconite, trace pyrite, soft to firm, amorphous to dispersive, subblocky
		20	SANDSTONE: Clear to translucent, medium to coarse grained, subangular to subrounded, moderately sorted, common loose quartz, fair visual porosity
		5	CALCILUTITE: White to very light grey, micritic, soft, amorphous
2055	2060	65	CALCAREOUS CLAYSTONE: Brown grey to green grey, abundant disseminated glauconite, trace pyrite, soft to firm, amorphous to dispersive, subblocky
		30	SANDSTONE: Clear to translucent, medium to coarse grained, subangular to subrounded, occasionally angular, moderately sorted, trace glauconite, common loose quartz, fair visual porosity
		5	CALCILUTITE: White to very light grey, micritic, soft, amorphous
2060	2065	70	CLAYSTONE: Brown grey to green grey, calcareous, silty in part, abundant disseminated glauconite, trace pyrite, soft to firm, amorphous to dispersive, subblocky
		30	SANDSTONE: Clear to translucent, medium to fine grained, occasionally coarse grained, subangular to subrounded, moderate to poorly sorted, common loose quartz, fair to good visual porosity, no shows.

From (m)	To (m)	%	Description
2065	2070	80	CLAYSTONE: Brown grey to green grey, calcareous, silty in part, abundant disseminated glauconite, trace pyrite, soft to firm, amorphous to dispersive, subblocky
		20	SANDSTONE: Clear to translucent, medium to fine grained, occasionally coarse grained, subangular to subrounded, moderate to poorly sorted, common loose quartz, fair to good visual porosity, no shows.
2070	2075	5	CALCILUTITE: White to very light grey, micritic, soft, amorphous
		85	CLAYSTONE: Brown grey to green grey, calcareous, silty in part, abundant disseminated glauconite, trace pyrite, soft to firm, amorphous to dispersive, subblocky
		10	SANDSTONE: Clear to translucent, medium to fine grained, occasionally coarse grained, subangular to subrounded, moderate to poorly sorted, common loose quartz, fair to good visual porosity, no shows.
2075	2080	5	CALCILUTITE: White to very light grey, micritic, soft, amorphous
		90	CLAYSTONE: Brown grey to green grey, calcareous, silty in part, abundant disseminated glauconite, trace pyrite, soft to firm, amorphous to dispersive, subblocky
		5	SANDSTONE: Clear to translucent, medium to fine grained, locally coarse grained, subangular to subrounded, moderate to poorly sorted, argillaceous in part, common loose quartz, fair to good visual porosity, no shows.
2080	2085	5	CALCILUTITE: White to very light grey, micritic, soft, amorphous
		95	CLAYSTONE: Brown grey to green grey, calcareous, silty in part, abundant disseminated glauconite, trace pyrite, soft to firm, amorphous to dispersive, subblocky
2085	2090	5	CALCILUTITE: White to very light grey, micritic, soft, amorphous
		90	CLAYSTONE: Brown grey to green grey, calcareous, silty in part, abundant disseminated glauconite, trace pyrite, soft to firm, amorphous to dispersive, subblocky
		5	SANDSTONE: Clear to translucent, medium to fine grained, locally coarse grained, subangular to subrounded, moderate to poorly sorted, argillaceous in part, common loose quartz, fair to good visual porosity, no shows.
2090	2095	60	CLAYSTONE: Brown grey to green grey, calcareous, silty in part, abundant disseminated glauconite, trace pyrite, soft to firm, amorphous to dispersive, subblocky
		40	SANDSTONE: Clear to translucent, medium to fine grained, locally coarse grained, subangular to subrounded, moderate to poorly sorted, argillaceous in part, common loose quartz, fair to good visual porosity, no shows.

From (m)	To (m)	%	Description
2095	2100	60	CLAYSTONE: Brown grey to green grey, calcareous, silty in part, abundant disseminated glauconite, trace pyrite, soft to firm, amorphous to dispersive, subblocky
		40	SANDSTONE: Clear to translucent, fine to coarse grained, subangular to subrounded, moderate to poorly sorted, argillaceous in part, common loose quartz, fair to good visual porosity, no shows.
2100	2105	90	CLAYSTONE: Brown grey to green grey, calcareous, silty in part, abundant disseminated glauconite, trace pyrite, soft to firm, amorphous to dispersive, subblocky
		10	SANDSTONE: Clear to translucent, fine to coarse grained, subangular to subrounded, moderate to poorly sorted, argillaceous in part, common loose quartz, fair to good visual porosity, no shows.
2105	2110	90	CLAYSTONE: Brown grey to green grey, calcareous, silty in part, abundant disseminated glauconite, trace pyrite, soft to firm, amorphous to dispersive, subblocky
		10	SANDSTONE: Clear to translucent, fine to coarse grained, subangular to subrounded, moderate to poorly sorted, argillaceous in part, common loose quartz, fair to good visual porosity, no shows.
2110	2115	80	CLAYSTONE: Brown grey to green grey, calcareous, silty in part, abundant disseminated glauconite, trace pyrite, soft to firm, amorphous to dispersive, subblocky
		20	SANDSTONE: Clear to translucent, fine to coarse grained, subangular to subrounded, moderate to poorly sorted, argillaceous in part, common loose quartz, fair to good visual porosity, no shows.
2115	2120	80	CLAYSTONE: Brown grey to green grey, calcareous, silty in part, abundant disseminated glauconite, trace pyrite, soft to firm, amorphous to dispersive, subblocky
		20	SANDSTONE: Clear to translucent, fine to coarse grained, subangular to subrounded, moderate to poorly sorted, argillaceous in part, common loose quartz, fair to good visual porosity, no shows.
2120	2125	90	CLAYSTONE: Brown grey to green grey, calcareous, silty in part, abundant disseminated glauconite, trace pyrite, soft to firm, amorphous to dispersive, subblocky
		10	SANDSTONE: Clear to translucent, fine to coarse grained, subangular to subrounded, moderate to poorly sorted, argillaceous in part, common loose quartz, fair to good visual porosity, no shows.
2125	2130	90	CLAYSTONE: Brown grey to green grey, calcareous, silty in part, abundant disseminated glauconite, trace pyrite, soft to firm, amorphous to dispersive, subblocky
		10	SANDSTONE: Clear to translucent, fine to coarse grained, subangular to subrounded, moderate to poorly sorted, argillaceous in part, common loose quartz, fair to good visual porosity, no shows.

From (m)	To (m)	%	Description
2130	2135	95	CLAYSTONE: Brown grey to green grey, calcareous, silty in part, abundant disseminated glauconite, trace pyrite, soft to firm, amorphous to dispersive, subblocky
		5	SANDSTONE: Clear to translucent, fine to coarse grained, subangular to subrounded, moderate to poorly sorted, argillaceous in part, common loose quartz, fair to good visual porosity, no shows.
2135	2140	95	CLAYSTONE: Brown grey to green grey, calcareous, silty in part, abundant disseminated glauconite, trace pyrite, soft to firm, amorphous to dispersive, subblocky
		5	SANDSTONE: Clear to translucent, fine to coarse grained, subangular to subrounded, moderate to poorly sorted, argillaceous in part, common loose quartz, fair to good visual porosity, no shows.
2140	2145	95	CLAYSTONE: Brown grey to green grey, calcareous, silty in part, abundant disseminated glauconite, trace pyrite, soft to firm, amorphous to dispersive, subblocky
		5	SANDSTONE: Clear to translucent, fine to coarse grained, subangular to subrounded, moderate to poorly sorted, argillaceous in part, common loose quartz, fair to good visual porosity, no shows.
2145	2150	100	CLAYSTONE: Light brown grey to brown grey, non calcareous, soft, sticky, dispersive in part, sub-blocky
		trace	SANDSTONE: transparent, loose clean quartz grains, fine to medium grains, moderately sorted, subrounded to rounded, argillaceous in part, trace disseminated pyrite, trace glauconite, well inferred porosity, no shows.
2150	2155	100	CLAYSTONE: Light brown grey to brown grey, grading to Siltstone, trace disseminated pyrite, soft, dispersive in part, slightly streaky, amorphous, subblocky, homogeneous
2155	2160	100	CLAYSTONE: Light brown grey to brown grey, grading to Siltstone, trace disseminated pyrite, trace lithic fragments, soft, dispersive in part, sticky, amorphous, subblocky, homogeneous
2160	2165	100	CLAYSTONE: Light brown grey to brown grey, grading to Siltstone, trace to common glauconite aggregates, trace disseminated pyrite, trace lithic fragments, soft, dispersive in part, slightly sticky, amorphous, subblocky, homogeneous
2165	2170	100	CLAYSTONE: Light brown grey to brown grey, grading to Siltstone, trace to common glauconite aggregates, trace disseminated pyrite, trace lithic fragments, soft, dispersive in part, slightly sticky, amorphous, subblocky, homogeneous

From (m)	To (m)	%	Description
2170	2175	100	CLAYSTONE: Light brown grey to brown grey, grading to Siltstone, trace to common glauconite aggregates, trace disseminated pyrite, trace fine quartz grains, trace lithic fragments, soft, dispersive in part, slightly sticky, amorphous, subblocky, homogeneous
2175	2180	100	CLAYSTONE: Light brown grey to brown grey, grading to Siltstone, trace to common glauconite aggregates, trace disseminated pyrite, trace lithic fragments, trace fine quartz grains, soft, dispersive in part, slightly sticky, amorphous, subblocky, homogeneous
2180	2185	100	CLAYSTONE: Light brown grey to brown grey, non calcareous, trace to common glauconite aggregates, trace disseminated pyrite, trace lithic fragments, trace fine quartz grains, rare fossil fragment, soft, dispersive in part, slightly sticky, amorphous, subblocky, homogeneous
2185	2190	100	CLAYSTONE: Light brown grey to brown grey, non calcareous, trace to common glauconite aggregates, trace disseminated pyrite, trace lithic fragments, trace fine quartz grains, rare fossil fragment, soft, dispersive in part, slightly sticky, amorphous, subblocky, homogeneous
2190	2195	100	CLAYSTONE: Light brown grey to brown grey, non calcareous, trace to common glauconite aggregates, trace disseminated pyrite, trace lithic fragments, trace fine quartz grains, rare fossil fragment, soft, dispersive in part, slightly sticky, amorphous, subblocky, homogeneous
2195	2200	100	CLAYSTONE: Light brown grey to brown grey, non calcareous, trace to common glauconite aggregates, trace disseminated pyrite, trace lithic fragments, trace fine quartz grains, rare fossil fragment, soft, dispersive in part, slightly sticky, amorphous, subblocky, homogeneous
2200	2205	100	CLAYSTONE: Light brown grey to brown grey, non calcareous, rare glauconite, trace pyrite, trace lithic fragments, rare fine quartz grains, soft, dispersive in part, sticky in part, amorphous, subblocky, homogeneous
2205	2210	100	CLAYSTONE: Light brown grey to brown grey, non calcareous, rare glauconite, trace pyrite, trace lithic fragments, rare fine quartz grains, soft, dispersive in part, sticky in part, amorphous, subblocky, homogeneous
2210	2215	100	CLAYSTONE: Light brown grey to brown grey, non calcareous, rare glauconite, trace pyrite, trace lithic fragments, rare fine quartz grains, soft, dispersive in part, sticky in part, amorphous, subblocky, homogeneous

From (m)	To (m)	%	Description
2215	2220	100	CLAYSTONE: Light brown grey to brown grey, non calcareous, rare glauconite, trace pyrite, trace lithic fragments, rare fine quartz grains, soft, dispersive in part, sticky in part, amorphous, subblocky, homogeneous
2220	2225	100	CLAYSTONE: Light brown grey to brown grey, non calcareous, rare glauconite, trace pyrite, trace lithic fragments, rare fine quartz grains, soft, dispersive in part, sticky in part, amorphous, subblocky, homogeneous
2225	2230	100	CLAYSTONE: Light brown grey to brown grey, non calcareous, rare glauconite, trace pyrite, trace lithic fragments, rare fine quartz grains, soft-slightly firm, dispersive in part, sticky, amorphous, subblocky, homogeneous
2230	2235	100	CLAYSTONE: Light brown grey – brown grey, silty in part, trace foraminifers, trace mica, trace glauconite, rarely very fine quartz grains, dispersive – soft, amorphous, rarely subblocky, sticky.
2235	2240	100	CLAYSTONE: Light brown grey – brown grey, silty in part, trace foraminifers, trace mica, trace glauconite, rarely very fine quartz grains, dispersive – soft, amorphous, rarely subblocky, sticky.
2240	2245	100	CLAYSTONE: Light brown grey – brown grey, silty in part, trace foraminifers, trace mica, trace glauconite, rarely very fine quartz grains, dispersive – soft, amorphous, rarely subblocky, sticky.
2245	2250	100	CLAYSTONE: Light brown grey – brown grey, silty in part, trace glauconite, dispersive – soft, amorphous, rarely subblocky.
2250	2255	100	CLAYSTONE: Light brown grey – brown grey, silty in part, trace glauconite, very soft– soft, minor dispersive, subblocky, minor amorphous.
2255	2260	100	CLAYSTONE: Light brown grey – brown grey, silty in part, minor fine grained quartz grains, very soft– soft, subblocky.
2260	2265	100	CLAYSTONE: Light brown grey – brown grey, silty in part, minor silty, very soft– soft, subblocky.
2265	2270	100	CLAYSTONE: Light brown grey – brown grey, silty in part, minor silt sized quartz grains, trace pyrite, very soft– soft, subblocky.
2270	2275	100	CLAYSTONE: Light brown grey – brown grey, trace pyrite, dispersive, minor very soft, amorphous, plastic, minor subblocky.
2275	2280	100	CLAYSTONE: Light brown grey – brown grey, trace pyrite, dispersive, minor very soft, amorphous, plastic, minor subblocky.

From (m)	To (m)	%	Description
2280	2285	100	CLAYSTONE: Light brown grey – brown grey, dispersive, minor very soft, amorphous, plastic, minor subblocky.
2285	2290	100	CLAYSTONE: Light brown grey – brown grey, rare fine – coarse quartz grains, dispersive, minor very soft, amorphous, plastic, minor subblocky.
2290	2295	100	CLAYSTONE: Light brown grey – brown grey, dispersive, minor very soft, amorphous, plastic, minor subblocky.
2295	2300	100	CLAYSTONE: Light brown grey – brown grey, dispersive, trace pyrite, minor very soft, amorphous, plastic, minor subblocky.
2300	2305	100	CLAYSTONE: Light brown grey – brown grey, dispersive, minor very soft, amorphous, plastic, minor subblocky.
2305	2310	100	CLAYSTONE: Light brown grey – brown grey, dispersive, trace pyrite, minor very soft, amorphous, plastic, minor subblocky.
2310	2315	100	CLAYSTONE: Light brown grey – brown grey, dispersive, trace pyrite, minor very soft, amorphous, plastic, minor subblocky.
2315	2320	100	CLAYSTONE: Light brown grey – brown grey, dispersive, trace pyrite, minor very soft, amorphous, plastic, minor subblocky.
2320	2325	100	CLAYSTONE: Light brown grey – brown grey, dispersive, minor very soft, amorphous, plastic, minor subblocky.
2325	2330	100	CLAYSTONE: Light brown grey – brown grey, dispersive, minor very soft, amorphous, plastic, minor subblocky.
2330	2335	100	CLAYSTONE: Light brown grey – brown grey, dispersive, minor very soft, amorphous, plastic, minor subblocky.
2335	2340	100	CLAYSTONE: Light brown grey – brown grey, dispersive, minor very soft, amorphous, plastic, minor subblocky.
2340	2345	100	CLAYSTONE: Light brown grey – brown grey, dispersive, minor very soft, amorphous, plastic, minor subblocky.
2345	2350	100	CLAYSTONE: Light brown grey – brown grey, trace glauconite, dispersive, minor very soft, amorphous, plastic, minor subblocky.
2350	2355	100	CLAYSTONE: Light brown grey – brown grey, trace glauconite, dispersive, minor very soft, amorphous, plastic, minor subblocky.

From (m)	To (m)	%	Description
2355	2360	100	CLAYSTONE: Light brown grey to brown grey, non calcareous, rare glauconite, trace pyrite, trace lithic fragments, rare fine quartz grains, soft-slightly firm, dispersive in part, sticky, amorphous, subblocky, homogeneous
2360	2365	100	CLAYSTONE: Light brown grey to brown grey, non calcareous, rare glauconite, trace pyrite, trace lithic fragments, rare fine quartz grains, soft-slightly firm, dispersive in part, sticky, amorphous, subblocky, homogeneous
2365	2370	100	CLAYSTONE: Light brown grey to brown grey, non calcareous, rare glauconite, trace pyrite, trace lithic fragments, rare fine quartz grains, soft-slightly firm, dispersive in part, sticky, amorphous, subblocky, homogeneous
2370	2375	100	CLAYSTONE: Brown grey to olive grey, non calcareous, rare pyrite, rare lithic fragments, rare very fine quartz grains, soft, dispersive in part, sticky, amorphous, subblocky, homogeneous
2375	2380	100	CLAYSTONE: dominant brown grey to olive grey, non calcareous, rare pyrite, rare lithic fragments, rare very fine quartz grains, soft, dispersive in part, sticky, amorphous, subblocky, homogeneous
2380	2385	100	CLAYSTONE: Brown grey to olive grey, non calcareous, rare pyrite, rare micro glauconite, rare lithic fragments, rare very fine quartz grains, soft, dispersive in part, sticky, amorphous, subblocky, homogeneous
2385	2390	100	CLAYSTONE: Commonly brown grey to olive grey, non calcareous, rare pyrite, rare micro glauconite, rare lithic fragments, rare very fine quartz grains, soft, dispersive in part, sticky, amorphous, subblocky, homogeneous
2390	2395	100	CLAYSTONE: Brown grey to olive grey, non calcareous, rare micro glauconite, rare lithic fragments, soft, dispersive in part, sticky, amorphous, subblocky, homogeneous
2395	2400	100	CLAYSTONE: Predominantly brown grey to olive grey, trace pale yellowish brown, non calcareous, rare micro glauconite, rare lithic fragments, rare crystalline calcite, soft, dispersive in part, sticky, amorphous, subblocky, homogeneous
2400	2405	100	CLAYSTONE: Predominantly brown grey to pale yellowish brown, non calcareous, rare micro glauconite, rare lithic fragments, rare white crystalline calcite, soft, dispersive in part, sticky, amorphous, subblocky, homogeneous

From (m)	To (m)	%	Description
2405	2410	100	CLAYSTONE: Predominantly brown grey to pale yellowish brown, non calcareous, rare micro glauconite, rare lithic fragments, rare white crystalline calcite, soft, dispersive in part, sticky, amorphous, subblocky, homogeneous
2410	2415	100	CLAYSTONE: Predominantly brown grey to pale yellowish brown, non calcareous, rare micro glauconite, rare lithic fragments, rare white crystalline calcite, soft, dispersive in part, sticky, amorphous, subblocky, homogeneous
2415	2420	100	CLAYSTONE: Predominantly brown grey to pale yellowish brown, non calcareous, rare micro glauconite, rare lithic fragments, rare white crystalline calcite, soft, dispersive in part, sticky, amorphous, subblocky, homogeneous
2420	2425	100	CLAYSTONE: Predominantly brown grey to pale yellowish brown, non calcareous, rare micro glauconite, rare lithic fragments, rare white crystalline calcite, soft, dispersive in part, sticky, amorphous, subblocky, homogeneous
2425	2430	100	CLAYSTONE: Predominantly brown grey to pale yellowish brown, non calcareous, rare micro glauconite, rare lithic fragments, rare white crystalline calcite, soft, dispersive in part, sticky, amorphous, subblocky, homogeneous
2430	2435	100	CLAYSTONE: Brown grey to pale yellowish brown, non calcareous, rare micro glauconite, rare lithic fragments, rare white crystalline calcite, soft, dispersive in part, sticky, amorphous, subblocky, homogeneous
2435	2440	100	CLAYSTONE: Brown grey to pale yellowish brown, non calcareous, rare lithic fragments, soft, dispersive in part, sticky, amorphous, subblocky, homogeneous
2440	2445	100	CLAYSTONE: Brown grey to olive brown, non calcareous, soft, dispersive in part, slightly sticky, amorphous, subblocky
2445	2450	100	CLAYSTONE: Brown grey to olive brown, non calcareous, soft, dispersive in part, slightly sticky, amorphous, subblocky
2450	2455	100	CLAYSTONE: Brown grey to olive brown, non calcareous, rare white calcite grains, soft, dispersive in part, slightly sticky, amorphous, subblocky
2455	2459	100	CLAYSTONE: Brown grey to olive brown, non calcareous, rare white calcite grains, rare very fine grains sand, soft, dispersive in part, slightly sticky, amorphous, subblocky

From (m)	To (m)	%	Description
2459	2463	30	CEMENT
		40	SILTSTONE: Dark grey brown, argillaceous to very finely arenaceous, occasionally pyrite nodules, minor glauconite, micro-micaceous and carbonaceous in part, firm to moderately hard, subfissile in part
		30	CLAYSTONE: Olive brown to light grey brown, dispersive, carbonaceous fragments in part, occasionally lithic fragments, soft, sub-blocky, amorphous
2463	2466	60	CLAYSTONE: Olive brown to light grey brown, dispersive, carbonaceous fragments in part, occasionally lithic fragments, soft, sub-blocky, amorphous
		40	SILTSTONE: Dark grey brown, argillaceous to very finely arenaceous, occasionally pyrite nodules, minor glauconite, micro-micaceous and carbonaceous in part, firm to moderately hard, subfissile in part.
2466	2469	70	CLAYSTONE: Light brown grey to grey, dispersive, micro-micaceous and carbonaceous in part, pyrite nodules, sub-blocky, amorphous
		30	SILTSTONE: Brown to brown grey, argillaceous, occasionally white calcareous fragments, occasionally micro-micaceous, firm to hard, subblocky.
2469	2472	60	CLAYSTONE: Light brown grey to grey, dispersive, micro-micaceous and carbonaceous in part, pyrite nodules, sub-blocky, amorphous
		40	SILTSTONE: Brown to brown grey, argillaceous, occasionally white calcareous fragments, occasionally micro-micaceous, firm to hard, subblocky.
2472	2475	50	CLAYSTONE: Light brown grey to grey, dispersive, micro-micaceous and carbonaceous in part, pyrite nodules, sub-blocky, amorphous
		50	SILTSTONE: Brown to brown grey, argillaceous, occasionally white calcareous fragments, occasionally micro-micaceous, firm to hard, subblocky.
2475	2478	20	CLAYSTONE: Light brown grey to grey, dispersive, micro-micaceous and carbonaceous in part, pyrite nodules, sub-blocky, amorphous
		80	SILTSTONE: Brown to brown grey, argillaceous, occasionally white calcareous fragments, occasionally micro-micaceous, firm to hard, subblocky.

From (m)	To (m)	%	Description
2478	2481	10	CLAYSTONE: Light brown grey to grey, dispersive, micro-micaceous and carbonaceous in part, pyrite nodules, sub-blocky, amorphous
		90	SILTSTONE: Brown to brown grey, argillaceous, occasionally white calcareous fragments, occasionally micro-micaceous, firm to hard, subblocky.
2481	2484	100	SILTSTONE: Brown to brown grey, argillaceous, occasionally white calcareous fragments, occasionally micro-micaceous, firm to hard, subblocky
2484	2487	100	SILTSTONE: Brown to brown grey, argillaceous, occasionally white calcareous fragments, occasionally micro-micaceous, firm to hard, subblocky
2487	2490	100	SILTSTONE: Light brown to grey brown, argillaceous, very finely arenaceous in part, trace carbonaceous specks, micro-micaceous, minor glauconite, trace white lithics, minor pyrite, firm to soft, subblocky.
2490	2493	100	SILTSTONE: Light brown to grey brown, argillaceous, very finely arenaceous in part, trace carbonaceous specks, micro-micaceous, minor glauconite, trace white lithics, minor pyrite, firm to soft, subblocky.
2493	2496	100	SILTSTONE: Light brown to grey brown, argillaceous, very finely arenaceous in part, trace carbonaceous specks, micro-micaceous, minor glauconite, trace white lithics, minor pyrite, firm to soft, subblocky.
2496	2499	100	SILTSTONE: Light brown to grey brown, argillaceous, very finely arenaceous in part, trace carbonaceous specks, micro-micaceous, minor glauconite, trace white lithics, minor pyrite, firm to soft, subblocky.
2499	2502	100	SILTSTONE: Light brown to grey brown, argillaceous, very finely arenaceous in part, trace carbonaceous specks, micro-micaceous, minor glauconite, trace white lithics, minor pyrite, firm to soft, subblocky.
2502	2505	100	SILTSTONE: Light brown to grey brown, argillaceous, very finely arenaceous in part, trace carbonaceous specks, micro-micaceous, minor glauconite, trace white lithics, minor pyrite, firm to soft, subblocky.
2505	2508	100	SILTSTONE: Light brown to grey brown, argillaceous, very finely arenaceous in part, trace carbonaceous specks, micro-micaceous, minor glauconite, trace white lithics, minor pyrite, firm to soft, subblocky.

From (m)	To (m)	%	Description
2508	2511	100	SILTSTONE: Medium brown to medium brown grey, argillaceous, minor very finely arenaceous, trace glauconite grains, trace nodular pyrite, trace calcite grains, trace dolomite, firm, subblocky.
2511	2514	100	SILTSTONE: Medium brown to medium brown grey, argillaceous, minor very finely arenaceous, trace glauconite grains, trace nodular pyrite, trace calcite grains, trace dolomite, firm, subblocky.
2514	2517	100	SILTSTONE: Medium brown to medium brown grey, argillaceous, minor very finely arenaceous, trace glauconite grains, trace nodular pyrite, trace calcite grains, trace dolomite, firm, subblocky.
2517	2520	100	SILTSTONE: Medium brown - medium brown grey, argillaceous, minor very finely arenaceous, trace glauconite grains, trace nodular pyrite, trace calcite grains, trace dolomite, firm, subblocky.
2520	2523	100	SILTSTONE: Medium brown - medium brown grey, argillaceous, minor very finely arenaceous, trace glauconite grains, trace nodular pyrite, trace calcite grains, trace dolomite, firm, subblocky.
2523	2526	100	SILTSTONE: Medium brown - medium brown grey, argillaceous, minor very finely arenaceous, trace glauconite grains, trace nodular pyrite, trace calcite grains, trace dolomite, firm, subblocky.
2526	2529	100	SILTSTONE: Medium brown - medium brown grey, argillaceous, minor very finely arenaceous, trace glauconite grains, trace nodular pyrite, trace calcite grains, trace dolomite, firm, subblocky.
2529	2532	100	SILTSTONE: Medium brown - medium brown grey, argillaceous, minor very finely arenaceous, trace glauconite grains, trace nodular pyrite, trace calcite grains, trace dolomite, firm, subblocky.
2532	2535	100	SILTSTONE: Medium brown - medium brown grey, argillaceous, minor very finely arenaceous, trace glauconite grains, trace nodular pyrite, trace calcite grains, trace dolomite, firm, subblocky.
2535	2538	100	SILTSTONE: Medium brown - medium brown grey, argillaceous, minor very finely arenaceous, trace glauconite grains, trace nodular pyrite, trace calcite grains, trace dolomite, firm, subblocky.
2538	2541	100	SILTSTONE: Medium brown - medium brown grey, argillaceous, minor very finely arenaceous, trace glauconite grains, trace nodular pyrite, trace calcite grains, trace dolomite, firm, subblocky.
2541	2544	100	SILTSTONE: Medium brown - medium brown grey, argillaceous, minor very finely arenaceous, trace to common glauconite grains, trace nodular pyrite, trace calcite grains, trace dolomite, firm, subblocky.

From (m)	To (m)	%	Description
2544	2547	100	SILTSTONE: Medium brown - medium brown grey, argillaceous, minor very finely arenaceous, trace glauconite grains, trace nodular pyrite, trace calcite grains, trace dolomite, firm, subblocky.
2547	2550	100	SILTSTONE: Medium brown - medium brown grey, argillaceous, minor very finely arenaceous, trace glauconite grains, trace nodular pyrite, trace calcite grains, trace dolomite, firm, subblocky.
2550	2553	70	SILTSTONE: Medium brown - medium brown grey, argillaceous, minor very finely arenaceous, trace glauconite grains, trace nodular pyrite, trace calcite grains, trace dolomite, firm, subblocky.
		30	SANDSTONE: Clear to translucent quartz, fine to coarse grained, dominantly medium to coarse grained, poorly sorted, subangular to subrounded, trace moderately strong to strong siliceous and calcareous cement, trace dolomite, trace pyrite, generally loose and clean, poor visual and fair inferred porosity, <u>trace dull to moderately bright yellow fluorescence, no cut, no residue.</u>
2553	2556	60	SILTSTONE: Medium brown - medium brown grey, argillaceous, minor very finely arenaceous, trace glauconite grains, trace nodular pyrite, trace calcite grains, trace dolomite, firm, subblocky.
		40	SANDSTONE: Clear to translucent quartz, fine to very coarse grained, dominantly medium to coarse grained, poorly sorted, subangular to subrounded, calcareous cement, trace pyrite, trace dolomite, moderately hard in part, generally loose and clean, poor visual porosity, fair inferred porosity, <u>trace dull to moderately bright yellow patchy fluorescence, no cut, no residue.</u>
2556	2559	60	SANDSTONE: Clear to translucent quartz, fine to very coarse grained, dominantly medium to coarse grained, poorly sorted, subangular to subrounded, trace strong siliceous cement, common calcareous cement, trace pyrite, trace dolomite, trace to moderately hard, generally loose and clean, fair inferred porosity, <u>trace dull to moderately bright yellow patchy fluorescence, no cut, thin residue.</u>
		40	SILTSTONE: Medium brown to medium brown grey, argillaceous, minor very finely arenaceous, trace to locally common glauconite grains, trace nodular pyrite, trace calcareous grains, trace hard dolomite, firm, subblocky.
2559	2562	80	SILTSTONE: Medium brown to brown grey, light brown grey in part, argillaceous grading to Claystone, minor very finely arenaceous, trace glauconite grains, trace nodular pyrite, firm, subblocky.
		20	SANDSTONE: Clear to translucent quartz, fine to very coarse grained, dominantly medium to coarse grained, poorly sorted, subangular to subrounded, trace strong siliceous cement, common calcareous cement, trace pyrite, trace dolomite, trace moderately hard, generally loose and clean, fair inferred porosity, <u>trace dull to moderately bright yellow patchy fluorescence, no cut, thin residue.</u>

From (m)	To (m)	%	Description
2562	2565	70	SILTSTONE: Medium brown to brown grey, light brown grey in part, argillaceous grading to Claystone, minor very finely arenaceous, trace glauconite grains, trace nodular pyrite, firm, subblocky.
		30	SANDSTONE: Clear to translucent quartz, pale grey, medium to very coarse grained, moderate to poorly sorted, subangular to dominantly subrounded, trace strong siliceous cement, common calcareous cement, trace pyrite, trace dolomite, moderately hard, generally loose and clean, fair inferred porosity, no shows.
2565	2568	80	SILTSTONE: Medium brown to brown grey, light brown grey in part, argillaceous grading to Claystone, minor very finely arenaceous, trace glauconite grains, trace nodular pyrite, firm, subblocky.
		20	SANDSTONE: Clear to translucent quartz, pale grey, fine to coarse grained, occasionally very coarse grained, poorly sorted, subangular to dominantly subrounded, trace strong siliceous cement, common calcareous cement, minor argillaceous matrix, trace pyrite, moderately hard in part, common loose and clean, poor visual porosity, poor to fair inferred porosity, no shows.
2568	2571	90	SILTSTONE: Lt grey to light brown grey, light brown grey in part, argillaceous, grading to Claystone, very finely arenaceous in part, trace black lithic fragments, firm to mod hard, subblocky.
		10	SANDSTONE: Clear to translucent quartz, pale grey, fine to coarse grained, occasionally very coarse grained, poorly sorted, subangular to dominantly subrounded, trace strong siliceous cement, common calcareous cement, minor argillaceous matrix, trace pyrite, moderately hard in part, common loose and clean, poor visual porosity, poor to fair inferred porosity, no shows.
2571	2574	60	SILTSTONE: Light grey to light brown grey, argillaceous, grades to Claystone, very finely arenaceous in part, trace black lithic fragments, firm to moderately hard, subblocky.
		40	SANDSTONE: Light grey, clear to translucent quartz, pale grey, fine to coarse grained, moderate to poorly sorted, subangular, moderately strong calcareous cement, minor light grey to off-white argillaceous matrix, moderately hard in part, friable in part, common loose and clean, poor visual porosity, poor to fair inferred porosity, no shows.
2574	2577	90	SILTSTONE: Light brown, grey, argillaceous, grades to Claystone, micro-micaceous, trace glauconite, common carbonaceous specks, arenaceous in part, locally grades to very fine sandstone, firm to moderately hard, subblocky.
		10	SANDSTONE: Light grey, clear to translucent quartz, pale grey, fine to coarse grained, moderate to poorly sorted, subangular, moderately strong calcareous cement, minor light grey to off-white argillaceous matrix, moderately hard, friable in part, common loose and clean, poor visual porosity, poor to fair inferred porosity, no shows.

From (m)	To (m)	%	Description
2577	2580	80	SILTSTONE: Light brown, grey, argillaceous, grades to Claystone, micro-micaceous, trace glauconite, common carbonaceous specks, arenaceous in part, locally grades to very fine sandstone, firm to moderately hard, subblocky.
		20	SANDSTONE: Light grey, clear to translucent quartz, pale grey, fine to coarse grained, moderate to poorly sorted, subangular, moderately strong calcareous cement, minor light grey to off-white argillaceous matrix, moderately hard, friable in part, common loose and clean, poor visual porosity, poor to fair inferred porosity, no shows.
2580	2583	90	SILTSTONE: Light brown, grey, argillaceous, grades to Claystone, micro-micaceous, trace glauconite, common carbonaceous specks, arenaceous in part, locally grades to very fine sandstone, firm to moderately hard, subblocky.
		10	SANDSTONE: Lt grey, clear to translucent quartz, pale grey, fine to coarse grained, moderate to poorly sorted, subangular, moderately strong calcareous cement, minor light grey to off-white argillaceous matrix, moderately hard, friable in part, common loose and clean, poor visual porosity, poor to fair inferred porosity, no shows.
2583	2586	95	SILTSTONE: Light brown, grey, argillaceous, grades to Claystone, micro-micaceous, trace glauconite, common carbonaceous specks, arenaceous in part, locally grades to very fine sandstone, firm to moderately hard, subblocky.
		5	SANDSTONE: Lt grey, clear to translucent quartz, pale grey, fine to coarse grained, moderate to poorly sorted, subangular, moderately strong calcareous cement, minor light grey to off-white argillaceous matrix, moderately hard, friable in part, common loose and clean, poor visual porosity, poor to fair inferred porosity, no shows.
2586	2589	100	SILTSTONE: Light brown, grey, argillaceous, grades to Claystone, micro-micaceous, trace glauconite, common carbonaceous specks, arenaceous in part, locally grades to very fine sandstone, firm to moderately hard, subblocky.
		trace	SANDSTONE: Light grey, clear to translucent quartz, pale grey, fine to coarse grained, moderate to poorly sorted, subangular, moderately strong calcareous cement, minor light grey to off-white argillaceous matrix, moderately hard, friable in part, common loose and clean, poor visual porosity, poor to fair inferred porosity, no shows.
2589	2592	100	SILTSTONE: Light brown, grey, argillaceous, grades to Claystone, micro-micaceous, trace glauconite, common carbonaceous specks, arenaceous in part, locally grades to very fine sandstone, firm to moderately hard, subblocky.
2592	2595	100	SILTSTONE: Light brown, grey, argillaceous, grades to Claystone, micro-micaceous, trace glauconite, common carbonaceous specks, arenaceous in part, locally grades to very fine sandstone, firm to moderately hard, subblocky.

From (m)	To (m)	%	Description
2595	2598	100	SILTSTONE: Light brown, grey, argillaceous, grades to Claystone, micro-micaceous, trace glauconite, common carbonaceous specks, arenaceous in part, locally grades to very fine sandstone, firm to moderately hard, subblocky.
2598	2601	90	SILTSTONE: Light brown grey, very argillaceous to arenaceous in part, grading to Claystone, common carbonaceous specks, micro-micaceous, firm to moderately hard, subblocky
		10	SANDSTONE: Light grey, clear, fine to coarse grained, dominant medium to coarse grained, moderately sorted, locally common light grey to off-white argillaceous matrix, poor visual porosity, no shows.
2601	2604	80	SILTSTONE: Light brown grey, very argillaceous to arenaceous in part, grading to Claystone, common carbonaceous specks, micro-micaceous, firm to moderately hard, subblocky
		20	SANDSTONE: Light grey, clear, fine to coarse grained, dominant medium to coarse grained, moderately sorted, locally common light grey to off-white argillaceous matrix, poor visual porosity, no shows.
2604	2607	90	SILTSTONE: Light brown grey, very argillaceous to arenaceous in part, grading to Claystone, common carbonaceous specks, micro-micaceous, firm to moderately hard, subblocky
		10	SANDSTONE: Light grey, clear, fine to coarse grained, dominant medium to coarse grained, moderately sorted, locally common light grey to off-white argillaceous matrix, poor visual porosity
2607	2610	90	SILTSTONE: Light brown grey, very argillaceous to arenaceous in part, grading to Claystone, common carbonaceous specks, micro-micaceous, firm to moderately hard, subblocky
		10	SANDSTONE: Light grey, clear, fine to coarse grained, dominant medium to coarse grained, moderately sorted, locally common light grey to off-white argillaceous matrix, poor visual porosity, no shows.
2610	2613	70	SILTSTONE: Light brown grey, very argillaceous to arenaceous in part, grading to Claystone, common carbonaceous specks, micro-micaceous, firm to moderately hard, subblocky
		30	SANDSTONE: Light grey, clear, fine to coarse grained, dominant medium to coarse grained, moderately sorted, locally common light grey to off-white argillaceous matrix, poor visual porosity, no shows.
2613	2616	80	SILTSTONE: Light brown grey, very argillaceous to arenaceous in part, grading to Claystone, common carbonaceous specks, micro-micaceous, firm to moderately hard, subblocky
		20	SANDSTONE: Very light grey, clear, fine to coarse grained, dominant fine to coarse grained, moderately sorting, argillaceous, locally light grey to off-white argillaceous matrix, poor visual porosity, no shows.

From (m)	To (m)	%	Description
2616	2619	90	SILTSTONE: Light brown grey, very argillaceous to arenaceous in part, grading to Claystone, common carbonaceous specks, micro-micaceous, firm to moderately hard, subblocky
		10	SANDSTONE: Very light grey, clear, fine to coarse grained, dominant fine to coarse grained, moderately sorting, argillaceous, locally light grey to off-white argillaceous matrix, poor visual porosity, no shows.
2619	2622	70	SILTSTONE: Light brown grey, very argillaceous to arenaceous in part, grading to Claystone, common carbonaceous specks, micro-micaceous, firm to moderately hard, subblocky
		30	SANDSTONE: Very light grey, clear, fine to coarse grained, dominant fine to coarse grained, moderately sorting, argillaceous, locally light grey to off-white argillaceous matrix, poor visual porosity, no shows.
2622	2625	70	SILTSTONE: Dominantly light brown grey, very argillaceous to arenaceous in part, grading to Claystone, common carbonaceous specks, trace micro-micaceous, moderately hard, subblocky
		30	SANDSTONE: Very light grey, translucent, fine to coarse grained, dominant medium to coarse grained, moderately sorting, argillaceous, locally light grey to off-white argillaceous matrix, poor visual porosity, no shows.
2625	2628	60	SILTSTONE: Dominantly light brown grey, very argillaceous to arenaceous in part, grading to Claystone, common carbonaceous specks, trace micro-micaceous, moderately hard, subblocky
		40	SANDSTONE: Very light grey, translucent, fine to coarse grained, dominant medium to coarse grained, moderately sorting, argillaceous, locally light grey to off-white argillaceous matrix, poor visual porosity, no shows.
2628	2631	80	SILTSTONE: Dominantly light brown grey, very argillaceous to arenaceous in part, grading to Claystone, common carbonaceous specks, trace micro-micaceous, moderately hard, subblocky
		20	SANDSTONE: Very light grey, translucent, fine to coarse grained, dominant medium to coarse grained, moderately sorting, argillaceous, locally light grey to off-white argillaceous matrix, poor visual porosity, no shows.
2631	2634	90	SILTSTONE: Dominantly light brown grey, very argillaceous to arenaceous in part, grading to Claystone, common carbonaceous specks, trace micro-micaceous, moderately hard, subblocky
		10	SANDSTONE: Very light grey, translucent, fine to coarse grained, dominant medium to coarse grained, moderately sorting, argillaceous, locally light grey to off-white argillaceous matrix, poor visual porosity, no shows.

From (m)	To (m)	%	Description
2634	2637	90	SILTSTONE: Light brown grey to dark grey, very argillaceous to arenaceous, grading to Claystone, common carbonaceous specks, trace pyrite, trace micro-micaceous, firm, moderately hard, subblocky
		10	SANDSTONE: Very light grey to translucent, fine to medium grained, dominant medium grained, moderate to well sorting, occasionally white to very light grey argillaceous matrix, moderately strong siliceous cement, poor visual porosity, no shows.
2637	2640	90	SILTSTONE: Light brown grey to dark grey, very argillaceous to arenaceous, grading to Claystone, common carbonaceous specks, trace pyrite, trace micro-micaceous, firm, moderately hard, subblocky
		10	SANDSTONE: Very light grey to translucent, fine to medium grained, dominant medium grained, moderate to well sorting, occasionally white to very light grey argillaceous matrix, moderately strong siliceous cement, poor visual porosity, no shows.
2640	2643	90	SILTSTONE: Light brown grey to dark grey, very argillaceous to arenaceous, grading to Claystone, common carbonaceous specks, trace pyrite, trace micro-micaceous, firm, moderately hard, subblocky
		10	SANDSTONE: Very light grey to translucent, fine to medium grained, dominant medium grained, moderate to well sorting, occasionally white to very light grey argillaceous matrix, moderately strong siliceous cement, poor visual porosity, no shows.
2643	2646	90	SILTSTONE: Light brown grey to dark grey, very argillaceous to arenaceous, grading to Claystone, common carbonaceous specks, trace pyrite, trace micro-micaceous, firm, moderately hard, subblocky
		10	SANDSTONE: Very light grey to translucent, fine to medium grained, dominant medium grained, moderate to well sorting, occasionally white to very light grey argillaceous matrix, moderately strong siliceous cement, poor visual porosity, no shows.
2646	2649	100	SILTSTONE: Light brown grey to dark grey, very argillaceous to arenaceous, grading to Claystone, common carbonaceous specks, trace pyrite, trace micro-micaceous, firm, moderately hard, subblocky
2649	2652	100	SILTSTONE: Light brown grey to dark grey, very argillaceous to arenaceous, grading to Claystone, common carbonaceous specks, trace pyrite, trace micro-micaceous, firm, moderately hard, subblocky
2652	2655	100	SILTSTONE: Light brown grey to dark grey, very argillaceous to arenaceous, grading to Claystone, common carbonaceous specks, trace pyrite, trace micro-micaceous, firm, moderately hard, subblocky
2655	2658	100	SILTSTONE: Light brown grey to dark grey, very argillaceous to arenaceous, grading to Claystone, common carbonaceous specks, trace pyrite, trace micro-micaceous, firm, moderately hard, subblocky

From (m)	To (m)	%	Description
2658	2661	100	SILTSTONE: Light brown grey to dark grey, very argillaceous to arenaceous, grading to Claystone, common carbonaceous specks, trace pyrite, trace micro-micaceous, firm, moderately hard, subblocky
2661	2664	100 trace	SILTSTONE: Light brown grey to dark grey, very argillaceous to very finely arenaceous, grading to Claystone, abundant black carbonaceous specks, rare pyrite, trace micro-micaceous, slightly sticky, firm, moderately hard, subblocky SANDSTONE: Translucent to transparent, fine to medium grained, dominant medium grained, moderate to well sorted, occasionally white to very light grey argillaceous matrix, moderately strong siliceous cement, poor visual porosity, no shows.
2664	2667	100	SILTSTONE: Light brown grey to dark grey, very argillaceous to arenaceous, grading to Claystone, common carbonaceous specks, trace pyrite, trace micro-micaceous, firm, moderately hard, subblocky
2667	2670	100	SILTSTONE: Light brown grey to dark grey, very argillaceous to arenaceous, grading to Claystone, common carbonaceous specks, trace pyrite, trace micro-micaceous, firm, moderately hard, subblocky
2670	2673	100	SILTSTONE: Light brown grey to dark grey, very argillaceous to arenaceous, grading to Claystone, common carbonaceous specks, trace pyrite, trace micro-micaceous, firm, moderately hard, subblocky
2673	2676	100	SILTSTONE: Light brown grey to dark grey, very argillaceous to arenaceous, grading to Claystone, common carbonaceous specks, trace pyrite, trace micro-micaceous, firm, moderately hard, subblocky
2676	2679	100	SILTSTONE: Light brown grey to dark grey, very argillaceous to arenaceous, grading to Claystone, common carbonaceous specks, trace pyrite, trace micro-micaceous, firm, moderately hard, subblocky
2679	2682	100	SILTSTONE: Light brown grey to dark grey, very argillaceous to arenaceous, grading to Claystone, common carbonaceous specks, trace pyrite, trace micro-micaceous, firm, moderately hard, subblocky
2682	2685	100 trace	SILTSTONE: Brown to brown grey, argillaceous to arenaceous, grades to very fine sandstone in part, carbonaceous specks and streaks, micro-micaceous in part, trace glauconite, white lithics in part, firm to soft, dispersive, subblocky to amorphous. SANDSTONE: Clear, translucent, fine grained, subangular to subrounded, well sorted, clean loose grains, trace siliceous cement, poor visual and fair inferred porosity, no shows.

From (m)	To (m)	%	Description
2685	2688	100	SILTSTONE: Brown to brown grey, arenaceous to argillaceous grading to Claystone in part, very fine micro-micaceous, carbonaceous specks and bands, minor Pyrite, dispersive, soft to occasionally firm, subblocky to amorphous.
		trace	SANDSTONE: Clear, translucent, fine grained, subangular to subrounded, well sorted, clean loose grains, trace siliceous cement, poor visual and fair inferred porosity, no shows.
2688	2691	100	SILTSTONE: Brown to brown grey, arenaceous to argillaceous grading to Claystone in part, very fine micro-micaceous, carbonaceous specks and bands, minor Pyrite, dispersive, soft to occasionally firm, subblocky to amorphous.
		trace	SANDSTONE: Clear, translucent, fine grained, subangular to subrounded, well sorted, clean loose grains, trace siliceous cement, poor visual and fair inferred porosity, no shows.
2691	2694	100	SILTSTONE: Brown to brown grey, arenaceous to argillaceous grading to Claystone in part, very fine micro-micaceous, carbonaceous specks and bands, minor Pyrite, dispersive, soft to occasionally firm, subblocky to amorphous.
		trace	SANDSTONE: Clear, translucent, fine grained, subangular to subrounded, well sorted, clean loose grains, trace siliceous cement, poor visual and fair inferred porosity, no shows.
2694	2697	100	SILTSTONE: Medium grey to medium brown grey, argillaceous to very finely arenaceous in part, trace carbonaceous specks, firm, subblocky
2697	2700	100	SILTSTONE: Medium grey to medium brown grey, argillaceous to very finely arenaceous in part, trace carbonaceous specks, firm, subblocky
2700	2703	100	SILTSTONE: Medium grey to medium brown grey, argillaceous to very finely arenaceous in part, trace carbonaceous specks, firm, subblocky
2703	2706	100	SILTSTONE: Medium grey to medium brown grey, argillaceous to very finely arenaceous in part, trace carbonaceous specks, firm, subblocky
2706	2709	100	SILTSTONE: Medium grey to medium brown grey, argillaceous to very finely arenaceous in part, trace carbonaceous specks, firm, subblocky
2709	2712	100	SILTSTONE: Medium grey to medium brown grey, argillaceous to very finely arenaceous in part, trace carbonaceous specks, firm, subblocky

From (m)	To (m)	%	Description
2712	2715	100	SILTSTONE: Medium grey to medium brown grey, argillaceous to very finely arenaceous in part, trace carbonaceous specks, firm, sub-blocky
2715	2718	100	SILTSTONE: Arenaceous to argillaceous, grading to Claystone in part, carbonaceous specks, occasionally fine translucent quartz grains, sub-blocky to amorphous, dispersive in part, soft to firm
2718	2721	100	SILTSTONE: Arenaceous to argillaceous, grading to Claystone in part, carbonaceous specks, occasionally fine translucent quartz grains, sub-blocky to amorphous, dispersive in part, soft to firm
2721	2724	100	SILTSTONE: Arenaceous to argillaceous, grading to Claystone in part, carbonaceous specks, occasionally fine translucent quartz grains, sub-blocky to amorphous, dispersive in part, soft to firm
2724	2727	100	SILTSTONE: Arenaceous to argillaceous, grading to Claystone in part, carbonaceous specks, occasionally fine translucent quartz grains, sub-blocky to amorphous, dispersive in part, soft to firm
2727	2730	100	SILTSTONE: Arenaceous to argillaceous, grading to Claystone in part, carbonaceous specks, occasionally fine translucent quartz grains, sub-blocky to amorphous, dispersive in part, soft to firm
2730	2733	100 trace	SILTSTONE: Arenaceous to argillaceous, grading to Claystone in part, carbonaceous specks, occasionally fine translucent quartz grains, sub-blocky to amorphous, dispersive in part, soft to firm SANDSTONE: Off-white, translucent-transparent in part, very fine grained, well sorted, subangular, strong calcareous cement, occasionally off-white arenaceous matrix, carbonaceous specks, firm to hard, fair visual porosity, no shows.
2733	2736	100	SILTSTONE: Arenaceous to argillaceous, grading to Claystone in part, carbonaceous specks, occasionally fine translucent quartz grains, sub-blocky to amorphous, dispersive in part, soft to firm
2736	2739	100	SILTSTONE: Arenaceous to argillaceous, grading to Claystone in part, carbonaceous specks, occasionally fine translucent quartz grains, sub-blocky to amorphous, dispersive in part, soft to firm
2739	2742	100	SILTSTONE: Arenaceous to argillaceous, grading to Claystone in part, carbonaceous specks, occasionally fine translucent quartz grains, sub-blocky to amorphous, dispersive in part, soft to firm
2742	2745	100	SILTSTONE: Arenaceous to argillaceous, grading to Claystone in part, carbonaceous specks, occasionally fine translucent quartz grains, sub-blocky to amorphous, dispersive in part, soft to firm

From (m)	To (m)	%	Description
2745	2748	100	SILTSTONE: Arenaceous to argillaceous, grading to Claystone in part, carbonaceous specks, occasionally fine translucent quartz grains, sub-blocky to amorphous, dispersive in part, soft to firm
2748	2751	100	SILTSTONE: Brown-light brown, argillaceous to occasionally arenaceous, graded to Claystone in part, occasionally very fine quartz grains, micro-micaceous, occasionally carbonaceous specks, occasionally white calcareous fragments, dispersive, trace pyrite, soft, subblocky to amorphous in part
		trace	SANDSTONE: Off-white, translucent-transparent in part, very fine fragments, well sorted, subangular, strong calcareous cement, occasionally off-white arenaceous matrix, carbonaceous specks, trace pyrite inclusions, firm to hard, fair visual porosity, no shows.
2751	2754	100	SILTSTONE: Brown-light brown, argillaceous to occasionally arenaceous, graded to Claystone in part, occasionally very fine quartz grains, micro-micaceous, occasionally carbonaceous specks, occasionally white calcareous fragments, dispersive, pyrite nodules in part, soft, subblocky to amorphous in part
		trace	SANDSTONE: Off-white, translucent-transparent in part, very fine fragments, well sorted, subangular, strong calcareous cement, occasionally off-white arenaceous matrix, carbonaceous specks, trace pyrite inclusions, firm to hard, fair visual porosity, no shows.
2754	2757	100	SILTSTONE: Brown-light brown, argillaceous to occasionally arenaceous, graded to Claystone in part, occasionally very fine quartz grains, micro-micaceous, occasionally carbonaceous specks, occasionally white calcareous fragments, dispersive, pyrite nodules in part, soft, subblocky to amorphous in part
		trace	SANDSTONE: Off-white, translucent-transparent in part, very fine fragments, well sorted, subangular, strong calcareous cement, occasionally off-white arenaceous matrix, carbonaceous specks, trace pyrite inclusions, firm to hard, fair visual porosity, no shows.
2757	2760	100	SILTSTONE: Brown-light brown, argillaceous to occasionally arenaceous, graded to Claystone in part, occasionally very fine quartz grains, micro-micaceous, occasionally carbonaceous specks, occasionally white calcareous fragments, dispersive, pyrite nodules in part, soft, subblocky to amorphous in part
		trace	SANDSTONE: Off-white, translucent-transparent in part, very fine fragments, well sorted, subangular, strong calcareous cement, occasionally off-white arenaceous matrix, carbonaceous specks, trace pyrite inclusions, firm to hard, fair visual porosity, no shows.

From (m)	To (m)	%	Description
2760	2763	100	SILTSTONE: Brown-light brown, argillaceous to occasionally arenaceous, graded to Claystone in part, occasionally very fine quartz grains, micro-micaceous, occasionally carbonaceous specks, occasionally white calcareous fragments, dispersive, pyrite nodules in part, soft, subblocky to amorphous in part
		trace	SANDSTONE: Off-white, translucent-transparent in part, very fine fragments, well sorted, subangular, strong calcareous cement, occasionally off-white arenaceous matrix, carbonaceous specks, trace pyrite inclusions, firm to hard, fair visual porosity, no shows.
2763	2766	100	SILTSTONE: Brown-light brown, argillaceous to occasionally arenaceous, graded to Claystone in part, occasionally very fine quartz grains, micro-micaceous, occasionally carbonaceous specks, occasionally white calcareous fragments, dispersive, pyrite nodules in part, soft, subblocky to amorphous in part
		trace	SANDSTONE: Off-white, translucent-transparent in part, very fine fragments, well sorted, subangular, strong calcareous cement, occasionally off-white arenaceous matrix, carbonaceous specks, trace pyrite inclusions, firm to hard, fair visual porosity, no shows.
2766	2769	100	SILTSTONE: Brown-light brown, argillaceous to occasionally arenaceous, graded to Claystone in part, occasionally very fine quartz grains, micro-micaceous, occasionally carbonaceous specks, occasionally white calcareous fragments, dispersive, pyrite nodules in part, soft, subblocky to amorphous in part
		trace	SANDSTONE: Off-white, translucent-transparent in part, very fine fragments, well sorted, subangular, strong calcareous cement, occasionally off-white arenaceous matrix, carbonaceous specks, trace pyrite inclusions, firm to hard, fair visual porosity, no shows.
2767	2772	100	SILTSTONE: Brown-light brown, argillaceous to occasionally arenaceous, graded to Claystone in part, occasionally very fine quartz grains, micro-micaceous, occasionally carbonaceous specks, occasionally white calcareous fragments, dispersive, pyrite nodules in part, soft, subblocky to amorphous in part
		trace	SANDSTONE: Off-white, translucent-transparent in part, very fine fragments, well sorted, subangular, strong calcareous cement, occasionally off-white arenaceous matrix, carbonaceous specks, trace pyrite inclusions, firm to hard, fair visual porosity, no shows.
2772	2775	100	SILTSTONE: Brown-light brown, argillaceous to occasionally arenaceous, graded to Claystone in part, occasionally very fine quartz grains, micro-micaceous, occasionally carbonaceous specks, occasionally white calcareous fragments, dispersive, pyrite nodules in part, soft, subblocky to amorphous in part
		trace	SANDSTONE: Off-white, translucent-transparent in part, very fine fragments, well sorted, subangular, strong calcareous cement, occasionally off-white arenaceous matrix, carbonaceous specks, trace pyrite inclusions, firm to hard, fair visual porosity, no shows.

From (m)	To (m)	%	Description
2775	2778	100	SILTSTONE: Brown-light brown, argillaceous to occasionally arenaceous, graded to Claystone in part, occasionally very fine quartz grains, micro-micaceous, occasionally carbonaceous specks, occasionally white calcareous fragments, dispersive, pyrite nodules in part, soft, subblocky to amorphous in part
		trace	SANDSTONE: Off-white, translucent-transparent in part, very fine fragments, well sorted, subangular, strong calcareous cement, occasionally off-white arenaceous matrix, carbonaceous specks, trace pyrite inclusions, firm to hard, fair visual porosity, no shows.
2778	2781	100	SILTSTONE: Brown-light brown, argillaceous to occasionally arenaceous, graded to Claystone in part, occasionally very fine quartz grains, micro-micaceous, occasionally carbonaceous specks, occasionally white calcareous fragments, dispersive, pyrite nodules in part, soft, subblocky to amorphous in part
2781	2784	100	SILTSTONE: Brown-light brown, argillaceous to occasionally arenaceous, graded to Claystone in part, occasionally very fine quartz grains, micro-micaceous, occasionally carbonaceous specks, occasionally white calcareous fragments, dispersive, pyrite nodules in part, soft, subblocky to amorphous in part
2784	2787	100	SILTSTONE: Brown-light brown, argillaceous to occasionally arenaceous, graded to Claystone in part, occasionally very fine quartz grains, micro-micaceous, occasionally carbonaceous specks, occasionally white calcareous fragments, dispersive, pyrite nodules in part, soft, subblocky to amorphous in part
2787	2790	100	SILTSTONE: Brown-light brown, argillaceous to occasionally arenaceous, graded to Claystone in part, occasionally very fine quartz grains, micro-micaceous, occasionally carbonaceous specks, occasionally white calcareous fragments, dispersive, pyrite nodules in part, soft, subblocky to amorphous in part
2790	2793	100	SILTSTONE: Brown-light brown, argillaceous to occasionally arenaceous, graded to Claystone in part, occasionally very fine quartz grains, micro-micaceous, occasionally carbonaceous specks, occasionally white calcareous fragments, dispersive, pyrite nodules in part, soft, subblocky to amorphous in part
2793	2796	100	SILTSTONE: Brown-light brown, argillaceous to occasionally arenaceous, graded to Claystone in part, occasionally very fine quartz grains, micro-micaceous, occasionally carbonaceous specks, occasionally white calcareous fragments, dispersive, pyrite nodules in part, soft, subblocky to amorphous in part

From (m)	To (m)	%	Description
2796	2799	100	SILTSTONE: Brown to occasionally brown grey, arenaceous in part, massive, occasionally micro-micaceous, carbonaceous specks and streaks, occasionally pyrite nodules, white lithic inclusions, dispersive, soft to occasionally firm, subblocky to amorphous
2799	2802	100	SILTSTONE: Brown to occasionally brown grey, arenaceous in part, massive, occasionally micro-micaceous, carbonaceous specks and streaks, occasionally pyrite nodules, white lithic inclusions, dispersive, soft to occasionally firm, subblocky to amorphous
2802	2805	100	SILTSTONE: Brown to occasionally brown grey, arenaceous in part, massive, occasionally micro-micaceous, carbonaceous specks and streaks, occasionally pyrite nodules, white lithic inclusions, dispersive, soft to occasionally firm, subblocky to amorphous
2805	2808	100	SILTSTONE: Brown to occasionally brown grey, arenaceous in part, massive, occasionally micro-micaceous, carbonaceous specks and streaks, occasionally pyrite nodules, white lithic inclusions, dispersive, soft to occasionally firm, subblocky to amorphous
2808	2811	100	SILTSTONE: Brown to occasionally brown grey, arenaceous in part, massive, occasionally micro-micaceous, carbonaceous specks and streaks, occasionally pyrite nodules, white lithic inclusions, dispersive, soft to occasionally firm, subblocky to amorphous
2811	2814	100	SILTSTONE: Brown to occasionally brown grey, arenaceous in part, massive, occasionally micro-micaceous, carbonaceous specks and streaks, occasionally pyrite nodules, white lithic inclusions, dispersive, soft to occasionally firm, subblocky to amorphous
2814	2817	100	SILTSTONE: Brown to occasionally brown grey, arenaceous in part, massive, occasionally micro-micaceous, carbonaceous specks and streaks, occasionally pyrite nodules, white lithic inclusions, dispersive, soft to occasionally firm, subblocky to amorphous
2817	2820	100	SILTSTONE: Brown to occasionally brown grey, arenaceous in part, massive, occasionally micro-micaceous, carbonaceous specks and streaks, occasionally pyrite nodules, white lithic inclusions, dispersive, soft to occasionally firm, subblocky to amorphous
2820	2823	100	SILTSTONE: Brown to occasionally brown grey, arenaceous in part, massive, occasionally micro-micaceous, carbonaceous specks and streaks, occasionally pyrite nodules, white lithic inclusions, dispersive, soft to occasionally firm, subblocky to amorphous
2823	2826	100	SILTSTONE: Brown to occasionally brown grey, arenaceous in part, massive, occasionally micro-micaceous, carbonaceous specks and streaks, occasionally pyrite nodules, white lithic inclusions, dispersive, soft to occasionally firm, subblocky to amorphous

From (m)	To (m)	%	Description
2826	2829	100	SILTSTONE: Brown to occasionally brown grey, arenaceous in part, massive, occasionally micro-micaceous, carbonaceous specks and streaks, occasionally pyrite nodules, white lithic inclusions, dispersive, soft to occasionally firm, subblocky to amorphous
2829	2832	100	SILTSTONE: Brown to brown grey, arenaceous, carbonaceous specks, pyrite dispersive and nodules, micro-micaceous, soft, subblocky.
2832	2835	100	SILTSTONE: Brown to brown grey, arenaceous, carbonaceous specks, pyrite disseminated and nodules, micro-micaceous, soft, subblocky.
2835	2838	100	SILTSTONE: Brown to brown grey, arenaceous, carbonaceous specks, pyrite dispersive and nodules, micro-micaceous, soft, subblocky.
2838	2841	100	SILTSTONE: Brown to brown grey, arenaceous, carbonaceous specks, pyrite dispersive and nodules, micro-micaceous, soft, subblocky.
2841	2844	100	SILTSTONE: Brown to brown grey, arenaceous, carbonaceous specks, pyrite dispersive and nodules, micro-micaceous, soft, subblocky.
2844	2847	100	SILTSTONE: Brown to brown grey, arenaceous, carbonaceous specks, pyrite dispersive and nodules, micro-micaceous, soft, subblocky.
		trace	SANDSTONE: Off-white, translucent-transparent in part, very fine fragments, well sorted, subangular, strong calcareous cement, occasionally off-white arenaceous matrix, carbonaceous specks, trace pyrite inclusions, firm to hard, fair visual porosity, no shows.
2847	2850	100	SILTSTONE: Brown to brown grey, arenaceous, carbonaceous specks, pyrite dispersive and nodules, micro-micaceous, soft, subblocky.
		trace	SANDSTONE: Off-white, translucent-transparent in part, very fine fragments, well sorted, subangular, strong calcareous cement, occasionally off-white arenaceous matrix, carbonaceous specks, trace pyrite inclusions, firm to hard, fair visual porosity, no shows.
		trace	LIMESTONE: Off-white to off-white, micro-crystalline, very hard, nil visible and no shows.
2850	2853	100	SILTSTONE: Brown to brown grey, arenaceous, carbonaceous specks, pyrite dispersive and nodules, micro-micaceous, soft, subblocky.
		trace	LIMESTONE: Off-white to off-white, sparry, micro-crystalline, very hard, nil visible and no shows.

From (m)	To (m)	%	Description
2853	2856	100	SILTSTONE: Brown to brown grey, arenaceous, carbonaceous specks, pyrite disseminated and nodular, micro-micaceous, soft, subblocky.
		trace	LIMESTONE: Off-white to off-white, sparry, micro-crystalline, very hard, nil visible and no shows.
2856	2859	100	SILTSTONE: Brown to dark brown , arenaceous, black carbonaceous specks, trace pyrite inclusions, micro-micaceous, soft and dispersive in part, blocky to subblocky
2859	2862	100	SILTSTONE: Brown to dark brown , arenaceous, black carbonaceous specks, trace pyrite inclusions, micro-micaceous, soft and dispersive in part, blocky to subblocky
2862	2865	100	SILTSTONE: Brown to dark brown , arenaceous, black carbonaceous specks, trace pyrite inclusions, micro-micaceous, soft and dispersive in part, blocky to subblocky
2865	2868	100	SILTSTONE: Brown to dark brown , arenaceous, black carbonaceous specks, trace pyrite inclusions, micro-micaceous, soft and dispersive in part, blocky to subblocky
2868	2871	100	SILTSTONE: Brown to dark brown , arenaceous, black carbonaceous specks, trace pyrite inclusions, micro-micaceous, soft and dispersive in part, blocky to subblocky
2871	2874	100	SILTSTONE: Brown to dark brown , arenaceous, black carbonaceous specks, trace pyrite inclusions, micro-micaceous, soft and dispersive in part, blocky to subblocky
2874	2877	100	SILTSTONE: Brown to dark brown , arenaceous, black carbonaceous specks, trace pyrite inclusions, micro-micaceous, soft and dispersive in part, blocky to subblocky
2877	2880	100	SILTSTONE: Grey to grey brown, arenaceous to argillaceous, pyrite nodules, micro-micaceous, carbonaceous specks and fragments, subblocky to occasionally subfissile, soft to firm and dispersive in part.
		trace	LIMESTONE: Off-white to light brown, orange in part, pyrite nodules in part, micro-micaceous, micro-crystalline, very hard
2880	2883	100	SILTSTONE: Grey to grey brown, arenaceous to argillaceous, pyrite nodules, micro-micaceous, carbonaceous specks and fragments, subblocky to occasionally subfissile, soft to firm and dispersive in part.
		trace	LIMESTONE: Off-white to light brown, orange in part, pyrite nodules in part, micro-micaceous, micro-crystalline, very hard

From (m)	To (m)	%	Description
2883	2886	100	SILTSTONE: Grey to grey brown, arenaceous to argillaceous, pyrite nodules, micro-micaceous, carbonaceous specks and fragments, subblocky to occasionally subfissile, soft to firm and dispersive in part.
		trace	LIMESTONE: Off-white to light brown, orange in part, pyrite nodules in part, micro-micaceous, micro-crystalline, very hard
2886	2889	100	SILTSTONE: Grey to grey brown, arenaceous to argillaceous, pyrite nodules, micro-micaceous, carbonaceous specks and fragments, subblocky to occasionally subfissile, soft to firm and dispersive in part.
		trace	LIMESTONE: Off-white to light brown, orange in part, pyrite nodules in part, micro-micaceous, micro-crystalline, very hard
2889	2892	100	SILTSTONE: Grey to grey brown, arenaceous to argillaceous, pyrite nodules, micro-micaceous, carbonaceous specks and fragments, subblocky to occasionally subfissile, soft to firm and dispersive in part.
		trace	LIMESTONE: Off-white to light brown, orange in part, pyrite nodules in part, micro-micaceous, micro-crystalline, very hard
2892	2895	100	SILTSTONE: Grey to grey brown, arenaceous to argillaceous, pyrite nodules, micro-micaceous, carbonaceous specks and fragments, subblocky to occasionally subfissile, soft to firm and dispersive in part.
2895	2898	100	SILTSTONE: Grey to grey brown, arenaceous to argillaceous, pyrite nodules, micro-micaceous, carbonaceous specks and fragments, subblocky to occasionally subfissile, soft to firm and dispersive in part.
2898	2901	100	SILTSTONE: Brown to grey brown, arenaceous, carbonaceous specks, dispersive pyrite, micro-micaceous, white lithic fragments, soft to firm, subblocky.
2901	2904	100	SILTSTONE: Brown to grey brown, arenaceous, carbonaceous specks, dispersive pyrite, micro-micaceous, white lithic fragments, soft to firm, subblocky.
2904	2907	100	SILTSTONE: Brown to grey brown, arenaceous, carbonaceous specks, dispersive pyrite, micro-micaceous, white lithic fragments, soft to firm, subblocky.
2907	2910	100	SILTSTONE: Brown to grey brown, arenaceous, carbonaceous specks, dispersive pyrite, micro-micaceous, white lithic fragments, soft to firm, subblocky.

From (m)	To (m)	%	Description
2910	2913	100	SILTSTONE: Brown to grey brown, arenaceous, carbonaceous specks, dispersive pyrite, micro-micaceous, white lithic fragments, soft to firm, subblocky.
2913	2916	100	SILTSTONE: Brown to grey brown, arenaceous, carbonaceous specks, dispersive pyrite, micro-micaceous, white lithic fragments, soft to firm, subblocky.
2916	2919	100	SILTSTONE: Brown to grey brown, arenaceous, carbonaceous specks, dispersive pyrite, micro-micaceous, white lithic fragments, soft to firm, subblocky.
2919	2922	100	SILTSTONE: Brown to grey brown, arenaceous, carbonaceous specks, dispersive pyrite, micro-micaceous, white lithic fragments, soft to firm, subblocky.
2922	2925	100	SILTSTONE: Brown to grey brown, arenaceous, carbonaceous specks, dispersive pyrite, micro-micaceous, white lithic fragments, soft to firm, subblocky.
2925	2928	100	SILTSTONE: Brown to grey brown, arenaceous, carbonaceous specks, dispersive pyrite, micro-micaceous, white lithic fragments, soft to firm, subblocky
2928	2931	100	SILTSTONE: Light grey to grey, occasionally brown, argillaceous to very arenaceous, carbonaceous specks and occasional streaks, micro-micaceous, trace pyrite inclusions, pyrite nodules in part, firm to soft, dispersive in part, subblocky
2931	2934	100	SILTSTONE: Light grey to grey, occasionally brown, argillaceous to very arenaceous, carbonaceous specks and occasional streaks, micro-micaceous, trace pyrite inclusions, pyrite nodules in part, firm to soft, dispersive in part, subblocky
2934	2937	100	SILTSTONE: Light grey to grey, occasionally brown, argillaceous to very arenaceous, carbonaceous specks and occasional streaks, micro-micaceous, trace pyrite inclusions, pyrite nodules in part, firm to soft, dispersive in part, subblocky
2937	2940	100	SILTSTONE: Light grey to grey, occasionally brown, argillaceous to very arenaceous, carbonaceous specks and occasional streaks, micro-micaceous, trace pyrite inclusions, pyrite nodules in part, firm to soft, dispersive in part, subblocky
2940	2943	100	SILTSTONE: Light grey to grey, occasionally brown, argillaceous to very arenaceous, carbonaceous specks and occasional streaks, micro-micaceous, trace pyrite inclusions, pyrite nodules in part, firm to soft, dispersive in part, subblocky

From (m)	To (m)	%	Description
2943	2946	100	SILTSTONE: Light grey to grey, occasionally brown, argillaceous to very arenaceous, carbonaceous specks and occasional streaks, micro-micaceous, trace pyrite inclusions, pyrite nodules in part, firm to soft, dispersive in part, subblocky
2946	2949	100	SILTSTONE: Light grey to grey, occasionally brown, argillaceous to very arenaceous, carbonaceous specks and occasional streaks, micro-micaceous, trace pyrite, pyrite nodules in part, firm to soft, dispersive in part, subblocky
2949	2952	100	SILTSTONE: Light grey to grey, occasionally brown, argillaceous to very arenaceous, carbonaceous specks and occasional streaks, micro-micaceous, trace pyrite, pyrite nodules in part, firm to soft, dispersive in part, subblocky
2952	2955	100	SILTSTONE: Light grey to grey, occasionally brown, argillaceous to very arenaceous, carbonaceous specks and occasional streaks, micro-micaceous, trace pyrite inclusions, pyrite nodules in part, firm to soft, dispersive in part, subblocky
2955	2958	100	SILTSTONE: Light grey to grey, occasionally brown, argillaceous to very arenaceous, carbonaceous specks and occasional streaks, micro-micaceous, trace pyrite inclusions, pyrite nodules in part, firm to soft, dispersive in part, subblocky
2958	2961	100	SILTSTONE: Light grey to grey, occasionally brown, argillaceous to very arenaceous, carbonaceous specks and occasional streaks, micro-micaceous, trace pyrite inclusions, pyrite nodules in part, firm to soft, dispersive in part, subblocky
2961	2964	100	SILTSTONE: Light grey to grey, occasionally brown, argillaceous to very arenaceous, carbonaceous specks and occasional streaks, micro-micaceous, trace pyrite inclusions, pyrite nodules in part, firm to soft, dispersive in part, subblocky
2964	2967	100	SILTSTONE: Light grey to grey, occasionally brown, argillaceous to very arenaceous, carbonaceous specks and occasional streaks, micro-micaceous, trace pyrite inclusions, pyrite nodules in part, firm to soft, dispersive in part, subblocky
2967	2970	100	SILTSTONE: Light to dominantly medium grey to brown grey, traces of carbonaceous specks, slightly micro-micaceous, argillaceous, minor calcareous, firm, subblocky
2970	2973	100	SILTSTONE: Light to dominantly medium grey to brown grey, traces of carbonaceous specks, slightly micro-micaceous, argillaceous, minor calcareous, firm, subblocky

From (m)	To (m)	%	Description
2973	2976	100	SILTSTONE: Light to dominantly medium grey to brown grey, traces of carbonaceous specks, slightly micro-micaceous, argillaceous, minor calcareous, firm, subblocky
2976	2979	100	SILTSTONE: Light to dominantly medium grey to brown grey, traces of carbonaceous specks, slightly micro-micaceous, argillaceous, minor calcareous, firm, subblocky

TOTAL DEPTH DRILLER : 2979m

TOTAL DEPTH LOGGER : 2979m (Extrapolated)

SECTION 2.2:- SIDEWALL CORES DESCRIPTIONS

SANTOS LIMITED

SIDEWALL CORE DESCRIPTION

WELL: Amrit-1 DATE: 09-12-04 PAGE: 1GUN NO.: 1 SHOTS FIRED: 30 SHOTS BOUGHT: 21 (6 Empty, 3 Misfires)GEOLOGISTS: R Subramanian / M Badcock

CORE NO.	DEPTH (m)	REC. (cm)	PALYN. EVAL.	LITH.	COLOUR	GRAIN SIZE	HYDR. INDIC.	SUPPLEMENTARY INFORMATION
1	2925.0	2.5	Palynology	Siltstone	brown to brown grey		N	SILTSTONE: Brown to grey brown, argillaceous, grades to Claystone, firm to moderately hard, subblocky to subfissile.,
2	2901.5	3.5	Palynology	Siltstone	brown to brown grey		N	SILTSTONE: Brown to brown grey, argillaceous, grades to Claystone, firm to moderately hard, subblocky to subfissile.,
3	2875.0	3.0	Palynology	Siltstone	brown to brown grey		N	SILTSTONE: Brown to brown grey brown, argillaceous, grades to Claystone, micro-micaceous, firm to moderately hard, subblocky.
4	2851.0	3.0	Palynology	Siltstone	Medium grey		N	Siltstone: Medium grey, medium brown grey, argillaceous, firm to moderately hard, subblocky.
5	2834.5	3.8	Palynology	Siltstone	Medium to Dark grey		N	Siltstone: Medium to dark grey, slightly argillaceous, micro-micaceous, trace carbonaceous specks, moderately hard, subblocky.
6	2812.0	2.5	Palynology	Siltstone	Medium to Dark grey		N	Siltstone: Medium to dark grey, slightly argillaceous, micro-micaceous, trace carbonaceous specks, moderately hard, subblocky.
7	2786.0	EMPTY						
8	2766.0	EMPTY						

WELL: Amrit-1 DATE: 09-12-04 PAGE: 2
 GUN NO.: 1 SHOTS FIRED: 30 SHOTS BOUGHT: 21 (6 Empty, 3 Misfires)
 GEOLOGISTS: R Subramanian / M Badcock

CORE NO.	DEPTH (m)	REC. (cm)	PALYN. EVAL.	LITH.	COLOUR	GRAIN SIZE	HYDR. INDIC.	SUPPLEMENTARY INFORMATION
9	2747.0	1.8	Palynology	Siltstone	Medium to Dark grey to grey brown		N	Siltstone: Medium to dark grey to grey brown, argillaceous, firm to moderately hard, subblocky.
10	2723.5	3.2	Palynology	Siltstone	Medium to Dark grey brown		N	Siltstone: Medium to dark grey brown, argillaceous, trace very finely arenaceous, soft to firm, partly moderately hard, subblocky.
11	2700.0	EMPTY						
12	2671.0	EMPTY						
13	2654.0	MISFIRE						
14	2632.0	1.7	Palynology	Arenaceous Siltstone	Medium grey to medium brown grey		YES	SILTSTONE: Medium grey to medium brown grey, common very finely arenaceous, common grading to very fine grained SANDSTONE, common carbonaceous specks and micro-laminations, micro-micaceous, friable, moderately hard, subblocky, <u>trace dull to minor moderately bright yellow fluorescence, weak green yellow crush cut, thin ring residue</u>
15	2621.0	MISFIRE						
16	2619.5	2.5	Reservoir	Sandstone	Pale grey	fine to medium	YES	SANDSTONE: Pale grey, white, translucent quartz, fine to medium grained, moderately well sorted, subangular to subrounded, trace weak siliceous cement, trace light grey argillaceous matrix, slightly calcareous, trace black lithic fragments, friable, poor visual porosity, <u>trace dull bright yellow fluorescence, weak green yellow crush cut, thin ring residue</u>

WELL: Amrit-1 DATE: 09-12-04 PAGE: 3
 GUN NO.: 1 SHOTS FIRED: 30 SHOTS BOUGHT: 21 (6 Empty, 3 Misfires)
 GEOLOGISTS: R Subramanian / M Badcock

CORE NO.	DEPTH (m)	REC. (cm)	PALYN. EVAL.	LITH.	COLOUR	GRAIN SIZE	HYDR. INDIC.	SUPPLEMENTARY INFORMATION
17	2616.5	EMPTY						
18	2614.2	1.5	Reservoir	Sandstone	Pale grey	fine	YES	SANDSTONE: Pale grey, white, translucent quartz, dominantly fine grained, occasionally medium grained, well sorted, subangular to subrounded, trace weak siliceous cement, trace calcareous, common light grey argillaceous matrix, trace black and brown lithic fragments, friable, poor visual porosity, <u>trace dull yellow fluorescence, weak yellow crush cut, thin ring residue</u>
19	2610.0	1.0	Reservoir	Sandstone	Pale grey	fine	N	SANDSTONE: Pale grey, white, translucent quartz, dominantly fine grained, rare medium grained, well sorted, subangular to subrounded, trace weak siliceous cement, trace light grey argillaceous matrix, trace glauconite, trace black lithic fragments, friable, poor visual porosity, no fluorescence.
20	2605.5	EMPTY						
21	2603.0	2.3	Paly/Res	Sandstone	Pale grey	Very fine	N	SANDSTONE: Pale grey, translucent quartz, dominantly very fine grained, fine in part, well sorted, subangular, trace weak siliceous cement, trace light grey argillaceous matrix, trace black lithic fragments, friable, poor visual porosity, no fluorescence.

WELL: Amrit-1 DATE: 09-12-04 PAGE: 4
 GUN NO.: 1 SHOTS FIRED: 30 SHOTS BOUGHT: 21 (6 Empty, 3 Misfires)
 GEOLOGISTS: R Subramanian / M Badcock

CORE NO.	DEPTH (m)	REC. (cm)	PALYN. EVAL.	LITH.	COLOUR	GRAIN SIZE	HYDR. INDIC.	SUPPLEMENTARY INFORMATION
22	2582.5	2.6	Palynology	Siltstone	Grey		N	SILTSTONE: Grey, very finely arenaceous, grades to Arenaceous Siltstone, firm to moderately hard, subblocky.
23	2576.0	2.8	Paly/Res	Sandstone	Grey	Very fine	N	SANDSTONE: Pale grey, translucent quartz, dominantly very fine grained, well sorted, subangular, trace weak siliceous cement, calcareous, silty grading to Arenaceous Siltstone, trace light grey argillaceous matrix, friable to moderately hard, , poor visual porosity, no fluorescence.
24	2571.5	2.5	Paly/Res	Sandstone	Grey	Very fine	N	SANDSTONE: Pale grey, translucent quartz, dominantly very fine grained, well sorted, subangular, trace weak siliceous cement, calcareous, silty grading to Arenaceous Siltstone, trace light grey argillaceous matrix, trace carbonaceous specks, micro-micaceous, friable to moderately hard, , poor visual porosity, no fluorescence.
25	2562.0	2.5	Palynology	Siltstone	Grey		N	SILTSTONE: Grey, dark grey in part, argillaceous, grades to Claystone, firm, subblocky.
26	2557.0	3.0	Reservoir	Sandstone	Medium grey	very fine to fine	N	SANDSTONE: Medium grey, very fine to fine grained, well sorted, trace weak siliceous cement, trace grey argillaceous to silty matrix, friable to moderately hard, poor to tight visual porosity, no fluorescence

WELL: Amrit-1 DATE: 09-12-04 PAGE: 5
 GUN NO.: 1 SHOTS FIRED: 30 SHOTS BOUGHT: 21 (6 Empty, 3 Misfires)
 GEOLOGISTS: R Subramanian / M Badcock

CORE NO.	DEPTH (m)	REC. (cm)	PALYN. EVAL.	LITH.	COLOUR	GRAIN SIZE	HYDR. INDIC.	SUPPLEMENTARY INFORMATION
27	2555.5	2.3	Reservoir	Sandstone	Pale grey	Medium	N	SANDSTONE: Pale grey, clear to translucent, medium grained, well sorted, friable, generally loose and clean, fair inferred porosity, no fluorescence
28	2548.0	2.5	Palynology	Siltstone	Grey		N	SILTSTONE: Grey to dark grey brown, argillaceous, very finely arenaceous in part, micro-micaceous, firm to moderately hard, subblocky.
29	2528.0	5.0	Palynology	Siltstone	Dark grey brown		N	SILTSTONE: Grey to dark grey brown, argillaceous, very finely arenaceous in part, micro-micaceous, firm to moderately hard, subblocky.
30	2494.0	MISFIRE						

COMMENTS:

1. One SWC gun was run.
2. 30 sidewall cores were attempted of which 21 were recovered, 70% RECOVERY, 3 Misfire, 6 Empty
3. 1 correlation pass was performed.

SECTION 2.3: PRELIMINARY PALYNOLOGY REPORT



**SANTOS STRATIGRAPHIC SERVICES
GEOSCIENCE & NEW VENTURES**

Palynology Report No. 2004/34

Author: G.R. WOOD

Date: 2nd May, 2005

PALYNOLOGICAL REPORT NO. 2004/34

AMRIT NO. 1

Santos Ltd
A.B.N. 80 007 550 923

Introduction

Sixteen sidewall core samples from Amrit No. 1 located in the Otway Basin were examined palynologically.

The results of this study are presented on Table 1. Range charts of the palynomorphs identified in this study are presented after the report.

PALYNOSTRATIGRAPHICAL DATA

Table 1

SAMPLE	DEPTH (metres)	REMARKS
SWC 29	2528	Spore pollen dominate (98%) with common <i>Alisporites spp</i> , <i>Cyathidites spp</i> & <i>Proteacidites spp</i> . Prominent components include <i>G. rudata</i> , <i>F. longus</i> & <i>M. fromensis</i> . Trace microplankton including <i>X. australis</i> (?reworked) noted.
SWC 28	2548	Spore pollen dominate (90%) with common <i>Alisporites spp</i> , <i>Cyathidites spp</i> , frequent <i>Dictyophyllidites spp</i> , <i>Podocarpidites spp</i> & <i>Proteacidites spp</i> . <i>F. stipulatus</i> noted. Microplankton includes <i>X. australis</i> , <i>A. wisemaniae</i> , <i>A. coronata</i> & <i>A. crassipellus</i> .
SWC 25	2562	Spore pollen dominate (90%) with common <i>Alisporites spp</i> , <i>Cyathidites spp</i> , frequent <i>Dictyophyllidites spp</i> , <i>P. mawsonii</i> & <i>Proteacidites spp</i> . <i>F. stipulatus</i> , <i>M. fromensis</i> & <i>O. sentosa</i> noted. Microplankton includes <i>X. sarjeantii</i> , <i>T. castanea</i> & <i>Spiniferites spp</i> .
SWC 24	2571.5	Spore pollen dominate (88%) with common <i>Alisporites spp</i> , <i>Cyathidites spp</i> & <i>Proteacidites spp</i> , <i>F. sabulosus</i> , <i>M. fromensis</i> & <i>O. sentosa</i> noted. Microplankton includes prominent <i>A. crassipellus</i> , <i>X. sarjeantii</i> , <i>T. castanea</i> <i>O. porifera</i> & <i>X. australis</i> .
SWC 23	2576	Spore pollen dominate (83%) with common <i>Proteacidites spp</i> , <i>Cyathidites spp</i> & <i>Latrobosporites spp</i> , frequent <i>Alisporites spp</i> , <i>Podocarpidites spp</i> & <i>Araucariacites spp</i> , <i>F. stipulatus</i> , <i>P. gillii</i> , <i>H. elliotii</i> & <i>O. sentosa</i> noted. Microplankton includes frequent <i>X. sarjeantii</i> , <i>Exochosphaeridium spp</i> & <i>X. australis</i> .
SWC 22	2582.5	Spore pollen dominate (83%) with common <i>Alisporites spp</i> & <i>Podocarpidites spp</i> , frequent <i>Araucariacites spp</i> & <i>Proteacidites spp</i> , <i>F. stipulatus</i> , <i>P. gillii</i> , <i>H. elliotii</i> & <i>O. sentosa</i> noted. Microplankton includes frequent <i>Xenascus spp</i> , <i>Heterosphaeridium spp</i> , <i>H. paracostata</i> & <i>X. australis</i> .
SWC 21	2603.0	Sparse assemblage. Spore pollen dominate (98%) with abundant small <i>Proteacidites spp</i> , common <i>Alisporites spp</i> , & <i>Cyathidites spp</i> , <i>O. sentosa</i> noted. Trace microplankton including <i>Xenascus sp</i> & <i>O. operculata</i> .
SWC 14	2632.0	Spore pollen dominate (98%) with common <i>Proteacidites spp</i> , <i>Cyathidites spp</i> & <i>Alisporites spp</i> , frequent <i>Latrobosporites spp</i> & <i>Gleicheniidites spp</i> , <i>F. sabulosus</i> , <i>G. rudata</i> , <i>N. senectus</i> , <i>G. wahoensis</i> , <i>H. elliotii</i> & <i>O. sentosa</i> noted. Microplankton includes trace <i>Xenascus spp</i> , <i>A. wisemaniae</i> , <i>I. nuculum</i> & <i>X. australis</i> .
SWC 10	2723.5	Spore pollen dominate (82%) with common <i>Proteacidites spp</i> , <i>Alisporites spp</i> & <i>Latrobosporites spp</i> , frequent <i>Cyathidites spp</i> & <i>Dictyophyllidites spp</i> , <i>G. edwardsii</i> , <i>G. rudata</i> , <i>R. mallatus</i> & <i>O. sentosa</i> noted. Microplankton includes frequent <i>Xenascus spp</i> & <i>X. australis</i> , <i>T. castanea</i> , <i>A. wisemaniae</i> , & <i>O. porifera</i> .

PALYNOSTRATIGRAPHICAL DATA

Table 1

SAMPLE	DEPTH (metres)	REMARKS
SWC 9	2747.0	Spore pollen dominate (90%) with common <i>Alisporites spp</i> , <i>Cyathidites spp</i> , frequent <i>Dictyophyllidites spp</i> , <i>Latrobosporites spp</i> & <i>Proteacidites spp</i> , <i>E. crassiexinus</i> , <i>G. rudata</i> & <i>O. sentosa</i> noted. Microplankton includes frequent <i>X. australis</i> , <i>X. sarjeantii</i> , <i>T. castanea</i> , <i>Spiniferites spp</i> & <i>A. wisemaniae</i> .
SWC 6	2812.0	Spore pollen dominate (75%) with common <i>Cyathidites spp</i> , frequent <i>Alisporites spp</i> , <i>C. tectifera</i> & <i>O. sentosa</i> noted. Diverse microplankton suite includes prominent <i>X. australis</i> <i>X. sarjeantii</i> , <i>T. castanea</i> , <i>A. wisemaniae</i> & <i>C. diversispinosum</i> , <i>Spiniferites spp</i> , <i>O. porifera</i> & <i>D. acuminatum</i> noted.
SWC 5	2834.5	Spore pollen dominate (85%) with common <i>Cyathidites spp</i> & <i>Alisporites spp</i> , frequent <i>Dictyophyllidites spp</i> , <i>Latrobosporites spp</i> & <i>Proteacidites spp</i> , <i>M. fromensis</i> & <i>F. sabulosus</i> noted. Diverse microplankton suite includes prominent <i>X. australis</i> & <i>O. porifera</i> , <i>X. sarjeantii</i> , <i>T. castanea</i> , <i>A. wisemaniae</i> & <i>C. diversispinosum</i> noted.
SWC 4	2851.0	Spore pollen dominate (70%) with common <i>Alisporites spp</i> & <i>Gleicheniidites spp</i> , frequent <i>Dictyophyllidites spp</i> & <i>Cyathidites spp</i> , <i>P. gillii</i> , <i>F. sabulosus</i> & <i>O. sentosa</i> noted. Restricted microplankton suite includes abundant <i>X. australis</i> (29%), <i>A. wisemaniae</i> & <i>Oligosphaeridium spp</i> .
SWC 3	2875	Spore pollen dominate (85%) with common <i>Cyathidites spp</i> & <i>Alisporites spp</i> , frequent <i>Gleicheniidites spp</i> , <i>Latrobosporites spp</i> & <i>Proteacidites spp</i> , <i>O. sentosa</i> noted. Restricted microplankton suite includes abundant <i>X. australis</i> (20%) & <i>N. aceras</i> .
SWC 2	2901.5	Spore pollen dominate (80%) with common <i>Cyathidites spp</i> & <i>Alisporites spp</i> , frequent <i>Dictyophyllidites spp</i> , <i>Latrobosporites spp</i> & <i>Proteacidites spp</i> <i>M. fromensis</i> , <i>E. scabratus</i> , <i>F. sabulosus</i> & <i>O. sentosa</i> noted. Restricted microplankton suite includes abundant <i>X. australis</i> (17%) & <i>O. porifera</i> .
SWC 1	2925.0	Spore pollen dominate (74%) with common <i>Cyathidites spp</i> & <i>Alisporites spp</i> , frequent <i>Araucariacites spp</i> , <i>Dictyophyllidites spp</i> , <i>Gleicheniidites spp</i> & <i>Proteacidites spp</i> <i>M. fromensis</i> , <i>P. gillii</i> , <i>G. rudata</i> , <i>N. senectus</i> , <i>F. sabulosus</i> & <i>O. sentosa</i> noted. Restricted microplankton suite includes abundant <i>X. australis</i> (22%), <i>N. aceras</i> & <i>Spiniferites spp</i> .

SECTION 2.4:- CATALOGUE OF WELLSITE SAMPLES

At the end of Amrit-1, the rig was towed to Western Australia to begin work for another Operator. Due to lack of time to dry and process the washed cuttings onboard the “Jack Bates”, wet cuttings were sent to the Baker Hughes Inteq facility in Perth for processing. At the time of writing this report, the Sample Manifest was not available for inclusion in the Basic Data Report, but will be available from the Santos Operations Geologist in due course.



INTEQ

SHIPPING MANIFEST

Well: Amrit-1
 Includes: 1) Mud Samples
 3) Samplex Trays from 1835 – 2979m
 Date: 7-December
 From: BHI Unit 431
 Location: **Jack Bates**

Geological Samples

Washed & Dried Samples sent to Perth for post-well processing, due to time constraints.

Total Number of Boxes/Packages: 4

For shipment to: Santos Ltd
 c/- Santos Core Library
 Ascot Transport
 30 Francis Street
 Port Adelaide SA 5015
 Attn: Santos Core Librarian

Samples shipped from Transedco Jack Bates in container # 41329

SAMPLES FOR AMRIT-1

Sample Type	No. of Sets	Packing Details and Notes
Samplex Tray	3	With Callister-1 Samples
Mud Samples	1	With Callister-1 Samples
Palynology Samples	1	Sent on Helicopter, previously.

SECTION 3: WIRELINE LOGGING REPORTS

SECTION 3.1:- LOGGING ORDER FORM

LOGS:

PROGRAM CONFIRMED WITH OPERATIONS GEOLOGIST AT 15:00 hrs ON 07-12-04

PROGRAM VARIES FROM PRE-SPUD NOTES:

YES:

NO:

LOG	INTERVAL	REPEAT SECTION / Comments
RUN 1: PEX-HALS Resistivity-Caliper-SP Sonic (WFT) Upper Dipole X-Y Neutron Density (dual axis) GR	TD to Casing Shoe TD to Top of Cement behind Casing TD to Casing Shoe TD to Casing Shoe TD to Seabed	No repeat section required, check repeatability with down log.
RUN 2: Velocity Checkshots (contingent)	50m interval to loss of signal in casing.	
RUN 3: Sidewall Cores	1 gun (30 shots)	

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.
9. THE WELLSITE GEOLOGIST MUST BE INFORMED IMMEDIATELY OF ANY TOOL OR HOLE PROBLEMS, LOST TIME OR ANY OTHER EVENT WHICH MAY AFFECT THE LOGGING OPERATIONS.

SECTION 3.2:- ELECTRIC LOGGING TIME SUMMARY

Geology Operations



ELECTRIC LOGGING TIME SUMMARY

LOGGING UNIT:	1801
START DATE:	7/12/04
END DATE:	9/12/04
DEPTH DRILLER:	2979m
DEPTH LOGGER:	2945m Hung up

LEFT BASE:	05/12/04
ARRIVED @ WELLSITE:	05/12/04
INITIAL RIG UP:	7/12/04 18:00 hrs
FINAL RIG DOWN:	9/12/04
RETURN TO BASE:	9/12/04

WELL NAME:	AMRIT-1
TRIP NUMBER:	SUITE 1
WELLSITE GEOLOGIST:	R Subramanian / M. Badcock
LOGGING ENGINEER:	Dimitri / Justin
PAGE / DATE:	1 (7/12/04)

DATE / TIME	RIG UP / DOWN	TOOL CHECK	RIH / POOH	LOGGING	DATA TX	LOST TIME SLB	L. 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)

ENGINEER(SIGN)

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TOOLS RUN:

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TOOLS RUN:

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TOOLS RUN:

Geology Operations



ELECTRIC LOGGING TIME SUMMARY

LOGGING UNIT:	1801
START DATE:	7/12/04
END DATE:	9/12/04
DEPTH DRILLER:	2979m
DEPTH LOGGER:	2945m Hung up

LEFT BASE:	05/12/04
ARRIVED @ WELLSITE:	05/12/04
INITIAL RIG UP:	7/12/04 18:00 hrs
FINAL RIG DOWN:	9/12/04
RETURN TO BASE:	9/12/04

WELL NAME:	AMRIT-1
TRIP NUMBER:	SUITE 1
WELLSITE GEOLOGIST:	R Subramanian / M. Badcock
LOGGING ENGINEER:	Dimitri / Justin
PAGE / DATE:	2 (8/12/04)

DATE / TIME	RIG UP / DOWN	TOOL CHECK	RIH / POOH	LOGGING	DATA TX	LOST TIME SLB	I. O.	WIPER TRIP	LOST TIME OTHERS	OTHERS	COMMENTS / REMARKS
00:00			X								00:15 At 13 3/8" Casing shoe. Record downlog
			X								Deep resistivity intermittent spiky on downlog
:30			X								01:00 Hung Up at 2945m. Pull up.
			X								Hole sticky, 400 lbs OP on tool (1200 surface)
01:00			X								01:10 RIH and hung up at 2945. Log Up
			X								01:20 log up, Res log malfunction – flat line. Stop
:30									X		log, RIH to reverse dipole (Sonic effecting Res?)
									X		Log Up from 2945m BHT 131 F, 01:30 hrs.
02:00									X		Resistivity log malfunction – curves incorrect
									X		02:15 RIH to recalibrate resistivity tool , reverse
:30									X		dipoles to original
				X							02:45 Log Up. BHT 54 C (129 F) Time 02:45
03:00				X							Resistivity malfunction
				X							Continue up log
:30				X							
				X							13 3/8" Csg Sh. Prepare DLIS, PDF, data and send
04:00				X							to town
									X		RIH to try Resistivity Pass with no Sonic plus to un
:30									X		spool tangled cable on drum
									X		On bottom, log up with resistivity – overpull
05:00									X		Close Calipers. Pull free
									X		Log up, same readings, stop log and POOH.
:30			X								(Repeats with downlog with CAL closed, no repeat
			X								With downlog with CAL open).
			X								Continue POOH
06:00			X								
			X								
:30			X								
			X								
07:00			X								07:00 Tools at surface
		X									
:30		X									
		X									
08:00		X									08:00 Complete rigging down Run 1
									X		RUN 2: CSAT (VSP)
:30									X		
									X		
09:00									X		09:15 Receive instructions to run VSP survey
	X										09:30 Scout around rig to ensure no whales.
:30	X										Change bridle for VSP run
	X										
10:00	X										
	X										
:30	X										Charge up guns with air. Lower into water.
	X										
11:00	X										
	X										Check caliper with ring
:30			X								
			X								RIH to 200m

	1.00	3.50	1.50						2.25	
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TOOLS RUN: Run 1: PEX

	2.25		0.50						1.00	
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TOOLS RUN: Run 2: VSP

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TOOLS RUN:

Geology Operations



ELECTRIC LOGGING TIME SUMMARY

LOGGING UNIT:	1801
START DATE:	7/12/04
END DATE:	9/12/04
DEPTH DRILLER:	2979m
DEPTH LOGGER:	2945m Hung up

LEFT BASE:	05/12/04
ARRIVED @ WELLSITE:	05/12/04
INITIAL RIG UP:	7/12/04 18:00 hrs
FINAL RIG DOWN:	9/12/04
RETURN TO BASE:	9/12/04

WELL NAME:	AMRIT-1
TRIP NUMBER:	SUITE 1
WELLSITE GEOLOGIST:	R Subramanian / M. Badcock
LOGGING ENGINEER:	Dimitri / Justin
PAGE / DATE:	3 (9/12/04)

DATE / TIME	RIG UP / DOWN	TOOL CHECK	RIH / POOH	LOGGING	DATA TX	LOST TIME SLB	L. O.	WIPER TRIP	LOST TIME OTHERS	OTHERS	COMMENTS / REMARKS
00:00			X								
			X								
:30			X								
			X								
01:00			X								RIH past sea floor. Break Radio Silence.
			X								
:30			X								
			X								
02:00			X								
				X							Depth Correlation 2650 – 2540m
:30				X							
				X							
03:00				X							Tag 2945 – unable to pass
				X							Shoot CST No. 1 at 2925m
:30				X							CST: 2901.5, 2875
				X							CST: 2851, 2834.5, 2812
04:00				X							CST: 2786, 2766
				X							CST: 2747, 2723.5
:30				X							CST: 2700
				X							CST: 2671
05:00				X							CST: 2654, 2632
				X							CST: 2619.5, 2616.5
:30				X							CST: 2614.2, 2610, 2605.5
				X							CST: 2603, 2582.5, 2576, 2571.5, 2562
06:00				X							CST: 2557, 2555.5, 2548, 2528, 2494
			X								POOH @ 06:15hrs
:30			X								
			X								
07:00			X								
			X								
:30			X								
			X								08:00 Tools at Surface.
08:00	X										
	X										08:30 Rig Down Run 3
:30											
09:00											
:30											
10:00											
:30											
11:00											
:30											

0.50		4.00	4.00								
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TOOLS RUN: Run 3: CST'S

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TOOLS RUN:

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TOOLS RUN:

SECTION 3.3:- FIELD ELECTRIC LOGGING REPORT

SANTOS LIMITED

FIELD ELECTRIC LOG REPORT

WELL:	Amrit-1	GEOLOGIST:	R. Subramanian & M Badcock
LOGGING Engr:	Dimitri & Justin	DATE LOGGED:	07-12-04 to 09-12-04
RUN NO:	Suite 1 / Run 1 to 3	LOGGERS DEPTH:	2945 (Hung up)
DRILLERS DEPTH:	2979m	LOST TIME LOGGER:	
ARRIVED ON SITE:	05-12-04	LOST TIME OTHER:	4.00
ACTUAL LOG TIME:	11 hrs 30 mins		
TOTAL TIME:	38 hrs 30 mins		

TYPE OF LOG	PEX-HALS	VSP	CST (1 gun)	
TIME CIRC. STOPPED	06:15 07/12/04	06:15 07/12/04	06:15 07/12/04	
TIME TOOL RIG UP	18:00 07/12/04	09:15 08/12/04	22:15 08/12/04	
TIME TOOL RIH	20:00 07/12/04	11:30 08/12/04	23:45 08/12/04	
TIME TOOL RIG DOWN	08:00 08/12/04	21:00 8/12/04	08:30 09/12/04	
TOTAL TIME	12 hrs 00 mins	11 hrs 45 mins	10 hrs 15 mins	

TYPE OF LOG	FROM (m)	TO (m)	REPEAT SECTION	TIME SINCE LAST CIRC	BHT
<u>RUN 1: PEX-HALS-DSI</u>					
GR	2945	2454	Down log	22.25 hrs	56.11°C
Resistivity	2945	2454			
SP	2945	2454			
Caliper	2945	2454			
Dt (Full waveforms)	2945	2454			
X-Y Neutron-Density (Dual axis)	2945	2454			
RUN 2: VSP (50m Intervals)	2940	1790		34.25 hrs	62.2 °C
RUN 3: SWC One gun – 30 shots Recovered 21, 3 Misfire, 6 Empty.	2925m	2494m			

MUD SYSTEM: KCl – PHPA – GLYCOL

WEIGHT: 1.15 SG

HOLE CONDITIONS: Unable to pass 2945m. Sticky at this point. Hole good above this point.

WELLSITE LOG QUALITY CONTROL CHECKS

LOG ORDER FORM	OK	MUD SAMPLE RESISTIVITY	OK	TOOL NO. / CODE CHECK	OK
OFFSET WELL DATA	OK	CABLE DATA CARD	OK	LOG SEQUENCE CONFIRM.	OK

LOG TYPE	Run 1 PEX-HALS	Run 2 VSP	Run 3 CST	REMARKS
CASING CHECK	Y	Y		
SCALE CHECK	Y			
DEPTH Casing	Y			L=2454.5m D=2454.5m
CALIBRATIONS OK	Y			
REPEATABILITY	Y			Downlog
LOGGING SPEED	1800 ft/hr			
OFFSET WELL REPEATABILITY	Y			Compares with MWD/LWD
NOISY/MISSING DATA	Y	Y		Resistivity affected by metal junk in hole. VSP affected by water depth.
CURVES/LOGS Depth Matched	Y			
Rm MEASUREMENT	Y			
LLS/LLD/CHECK	Y			
PERF/RHOB CHECK	Y			
LOG HEADER/TAIL	Y	y	y	OK
PRINT/FILM QUALITY				To be sent from town after TD logs are recorded
CORRELATION PASSES			Y	Nil.

COMMENTS:

Suite 1/RUN 1: PEX-HALS could not pass 2945m. Logged up from 2945m.

Resistivity tool failed. Flat line readings. Stop log. Run in hole to bottom, reverse acoustic dipoles and log up (suspect one sonic dipole could be interfering with resistivity readings).(15 mins).

Run up log. Resistivity readings suspect. Stop log. Run in hole and recalibrate tool, reverse acoustic dipole back to original. (45 mins).

Log up to 13 3/8" casing shoe. Resistivity readings still suspect. Make data of first run to send to town. (105 mins)

Run in hole to 2945 m to attempt resistivity with out acoustic as suspect communication problem between the two.

Resistivity log same. Stop log and pull out of hole. Sticky pulling off 2945. (45 mins)

Resistivity tool at surface had junk wedged into the centraliser (metal plate from hydraulic slips lost in hole during drilling phase).

RUN 3: SWC

One gun – 30 shots

Recovered 21, 3 Misfire, 6 Empty.

Casing SLB 2454m, Driller 2454.5m.

Logger TD: 2948m (hung up) vs Drillers TD 2979m

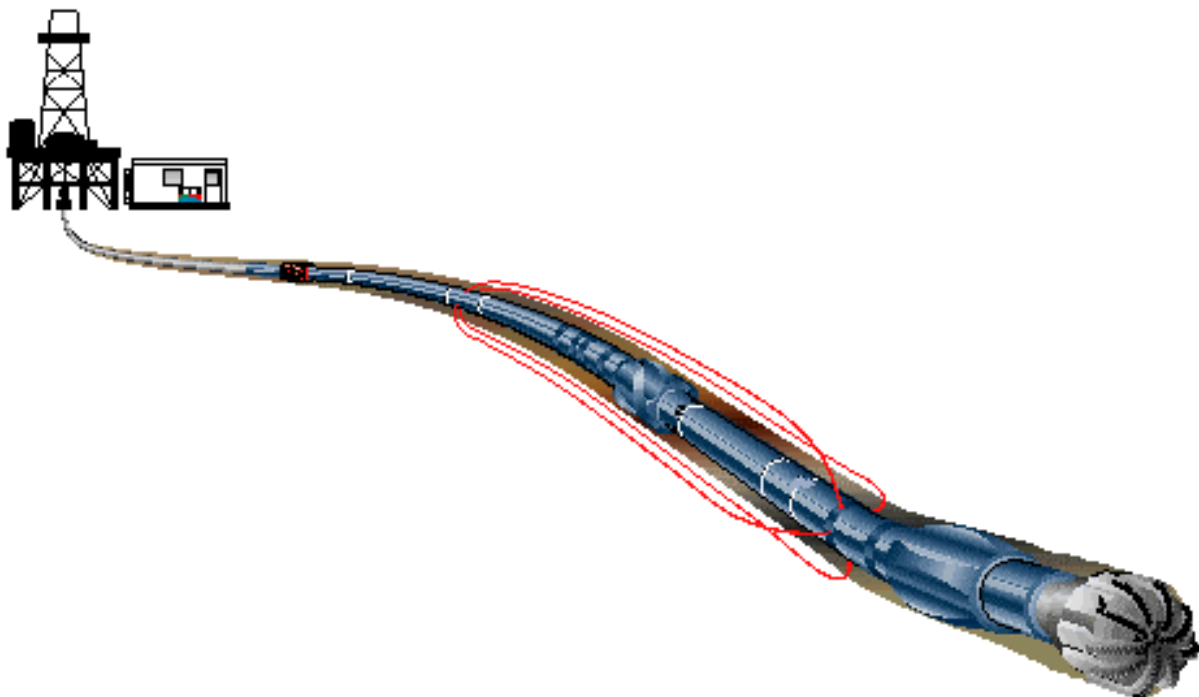
ENGINEERS COMMENTS (If this report has not been discussed with the Engineer state reason)

**SECTION 3.4:- MWD / LWD END OF WELL REPORT
(Anadrill Schlumberger)**

SANTOS – INPEX - UNOCAL

Amrit-1

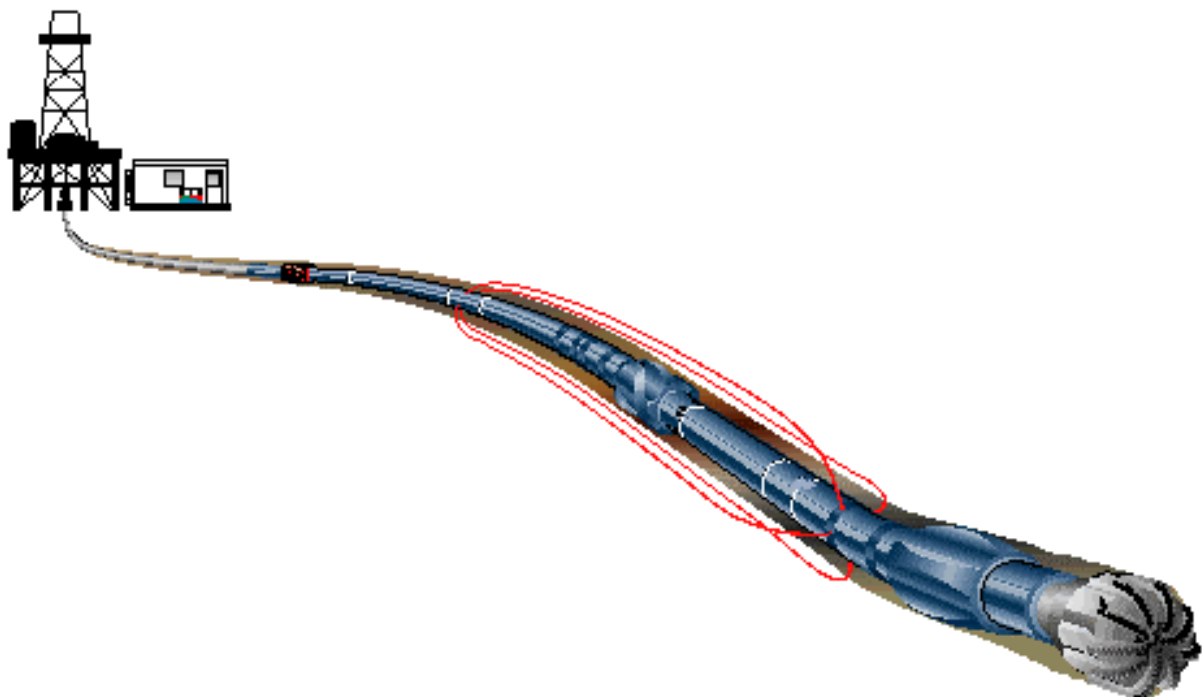
MWD – LWD End of Well Report



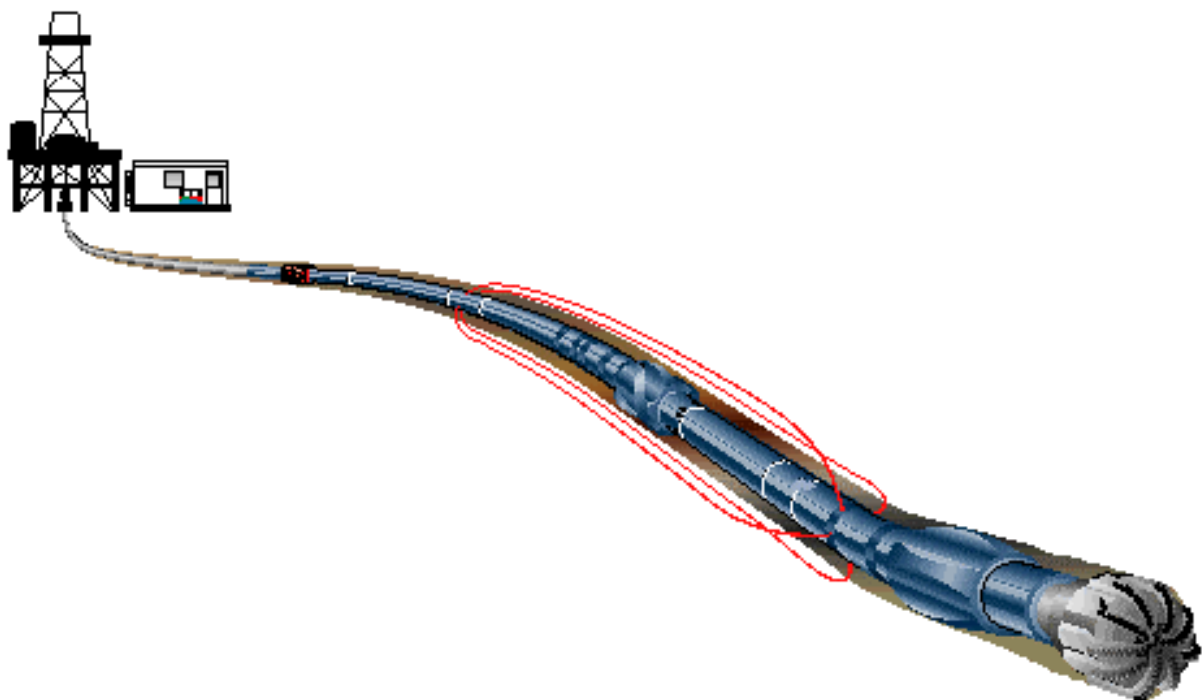
End of Well Report for Amrit-1

Contents

- General Information
- Logging Overview
- Depth Control Summary
- Geomagnetic and Survey Reference Criteria
- Survey Report
- Bit Run Summary
- Performance Drilling Report



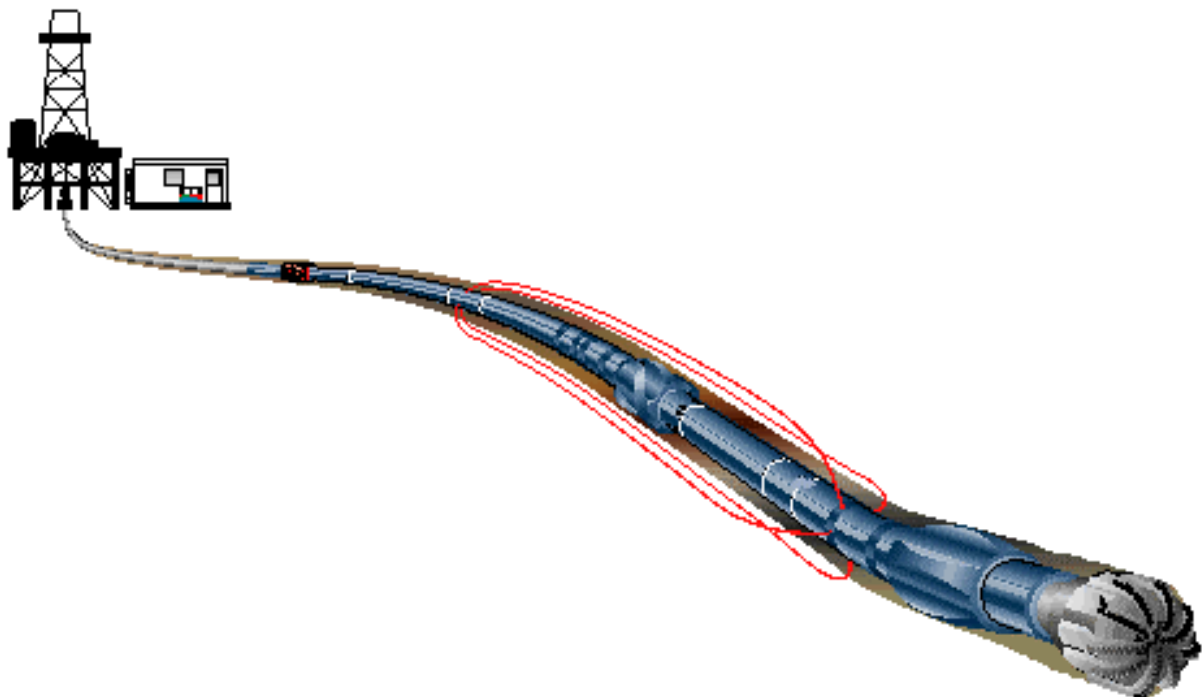
General Information



General Information

Well Name:	Amrit-1	
Rig:	Jack Bates	
Field:	Exploration	
Location:	Otway Basin	
Country:	Australia	
Cell Members:	Danielle Borges Ozren Radicevic Bob Manjencic Lisa Watson	MWD / LWD Engineer MWD / LWD Engineer Directional Driller MWD / LWD Trainee
Town Contacts:	Jim Thompson Hrvoje Spoljaric Alexander Van Den Tweel	Operations Manager Field Services Manager DD Coordinator
Company Representatives:	D. Atkins J. Young P. King R. Subramanarian	Company Man Company Man Drilling Engineer Wellsite Geologist

Logging Overview



Logging Overview Amrit-1

Schlumberger Drilling and Measurements provided MWD, LWD and performance drilling services in the 26", 17½" and 12¼" sections of the Amrit-1 well.

26" Section (Run 1425 m to 1835 m MD):

After successful jetting in of 30" casing to 1510mMD from sea floor depth of 1425mMD, drilling continued to a final depth of 1835mMD for the 26" hole section.

In this section, the following formation evaluation measurements were delivered in real-time and recorded modes. The PowerPulse also transmitted real-time direction and inclination measurements.

- Gamma Ray, real-time & recorded
- 2 MHz Phase Shift Resistivity, real-time & recorded
- 2 MHz Attenuation Resistivity, real-time & recorded
- Annular Pressure, real-time & recorded
- Equivalent Circulating Density (ECD), real-time & recorded
- Annular Temperature, real-time & recorded

Run	Hole Size (in.)	Service	Start Depth (m)	Stop Depth (m)
1	26"	PowerPulse / CDR / Performance Drilling	1425.00	1835.00

The PowerPulse and Compensated Dual Resistivity (CDR) tools were utilized for surveying, logging, and monitoring downhole conditions of the 26" hole section on the Amrit-1 well. The PowerPulse was programmed to transmit real-time data at 12Hz/3 bits per second, the CDR was configured with a 6-second record rate. These configurations enabled real-time formation evaluation updates every 24.67 seconds, a recorded data density greater than the Schlumberger standard of two data points per foot.

The CDR tool was installed with Annular Pressure While Drilling (APWD) sensor, which enabled continuous borehole pressure monitoring. This also enabled the monitoring of the Equivalent Circulating Density (ECD) and Equivalent Static Density (ESD) values. Whilst drilling, the ECD was continually monitored and the ESD was recorded at each connection. No unexpected changes in ECD reading were observed, indicating a stable wellbore with good conditions. Drilling conditions during the run were good and no shocks were observed. A wiper trip was performed at the completion of this run.

Upon completion of the 26" section, the tools were downloaded at the rotary table and subsequently racked back in the derrick. The recorded memory data was processed and presented to the client. Additionally, Tech Logs were downloaded and evaluated by engineer's at the well-site, verifying the recorded mode data. When compared with subsequent 17½" run, it was discovered that the Gamma Ray readings were significantly lower. This was attributed to the enlargement of the hole size.

All real-time and recorded mode data were transmitted/delivered to the client's office in town via Internet Web Witness (IWW).

17½" Section (Run 1835.00 m to 2459.00 m MD):

In the 17½" section, the following formation evaluation measurements were delivered in real-time and recorded modes. The PowerPulse transmitted the real-time direction and inclination measurements.

- Gamma Ray, real-time & recorded
- 2 MHz Phase Shift Resistivity, real-time & recorded
- 2 MHz Attenuation Resistivity, real-time & recorded
- Annular Pressure, real-time & recorded
- Equivalent Circulating Density (ECD), real-time & recorded
- Annular Temperature, real-time & recorded

Run	Hole Size (in.)	Service	Start Depth (m)	Stop Depth (m)
2	17½"	PowerPulse / CDR / Performance Drilling	1835.00	2459.00

The same PowerPulse and Compensated Dual Resistivity (CDR) tools were used on the succeeding run for the 17½" section for Amrit-1. The PowerPulse programming configuration was kept at 12Hz/3 bits per second, and the CDR was again configured to a record rate of 6 seconds. APWD (Annular Pressure While Drilling) and Downhole Temperature were utilized to monitor hole condition and downhole parameters.

Drilling conditions were generally good throughout the run. Occasional low level shocks and low to moderate torsional vibrations were observed, with the highest levels whilst drilling cement. ECD was closely monitored with readings ranging from 9.07ppg at the beginning of the run, with mud weight of 8.8ppg, to 9.55ppg at the end of the run, with a mud weight of 9.2ppg. Some higher readings of ECD were observed, indicating the build up of cuttings in the annulus. Hole was wiped and high viscosity pills were pumped, which aided in lowering ECD readings to expected levels. Good communication with the client in these situations optimized the drilling performance in this run. A wiper trip to the 20" casing shoe was done after the bit reached 17½" hole TD.

Upon completion of the 17½" section, the tools were downloaded at the rotary table and subsequently racked back in the derrick. The recorded memory data was processed and presented to the client. Additionally, Tech Logs were downloaded and evaluated by engineers at the well-site, this confirmed the excellent operation of the CDR, verifying the high quality of recorded mode data.

All real-time and recorded mode data were transmitted/delivered to the client office in town via Internet Web Witness (IWW).

Schlumberger real-time leak off test was cancelled for this section. At the client request, recorded mode leak off test data was supplied after the completion of the run. This provided high quality data used for verification of results obtained in real-time leak off test.

12 ¼" Section (Run 2459.00 m to 2929 m MD):

In the 12¼" section, drilled in two bit runs, the following formation evaluation measurements were delivered in real-time and recorded modes. The PowerPulse transmitted the real-time direction and inclination measurements.

- CDR Gamma Ray, real-time
- CDR Phase Shift and Attenuation Resistivity, real-time
- CDR Annular Pressure and Temperature, real-time
- CDR Gamma Ray, recorded mode
- CDR Phase Shift and Attenuation Resistivity, recorded mode
- CDR Annular Pressure and Temperature, recorded mode
- Multi Vibrational Chassis

Run	Hole Size (in.)	Service	Start Depth (m)	Stop Depth (m)
3	12¼"	PowerPulse / CDR / MVC / Performance Drilling	2459.00	2696.00

The PowerPulse and Compensated Dual Resistivity (CDR) tools were utilized for surveying, logging and monitoring downhole conditions for the 12¼" section for Amrit-1. The PowerPulse was programmed to transmit real-time data at 12hz/3 bits per second and the CDR was again configured with a 6 second record rate. APWD (Annular Pressure While Drilling), Downhole Temperature and MVC (Multi Vibrational Chassis) were utilized to monitor downhole conditions and parameters.

At the commencement of the run, while drilling cement, high levels stick and slip (up to 400rpm) was observed. Client was informed and attempts were made to rectify the situation, but high levels or stick and slip, along with torsional vibration, continued until the last stabilizer was out of the shoe. Further into the run, 2550m MD to 2640m MD, shocks were experienced with PowerPulse correlating with the increase of torsional vibration and stick and slip. Attempts were made to remedy the situation, adjusting drilling parameters. From 2640m MD to the end of the run, drilling conditions were generally good with low levels of vibrations and marginal stick and slip. Good communication with Client ensured that drilling performance was optimized.

ECD was again closely monitored, circulating in order to reduce it to lower levels before drilling ahead. Due to low rate of penetration, the decision to change the bit was made at 2696mMD. The hole was circulated clean before POOH commenced.

The CDR was downloaded at the rotary table and reinitialized for the subsequent run with new bit. The recorded mode data was processed and presented to client in a timely manner. Additionally, Tech Logs were downloaded and evaluated, verifying high quality of recorded mode data and confirming excellent operation of CDR for the run. Tech Logs also confirmed that battery life remaining was sufficient for subsequent run.

All real-time and recorded mode data were transmitted/delivered to the client office in town via Internet Web Witness (IWW).

Schlumberger real-time leak off test was cancelled for this section. At the client request, recorded mode leak off test data was supplied after the completion of the run. This provided high quality data used for verification of results obtained in real-time leak off test.

Run	Hole Size (in.)	Service	Start Depth (m)	Stop Depth (m)
4	12¼"	PowerPulse / CDR / MVC / Performance Drilling	2696.00	2929.00

After the change of the bit, the same tools from Run 3 were used to continue drilling to a depth of 2929mMD. APWD (Annular Pressure While Drilling), Downhole Temperature and MVC (Multi Vibrational Chassis) continued to be monitored in this section.

Drilling conditions were good, with minimal shocks and vibrations present while drilling. Some stick and slip was observed, but no adverse effect on the drilling parameters or tools was observed. ECD was again closely monitored. A maximum ECD reading of 11.0ppg was observed at a depth of 2847mMD. The hole was circulated until ECD values dropped to expected value before drilling commenced once more.

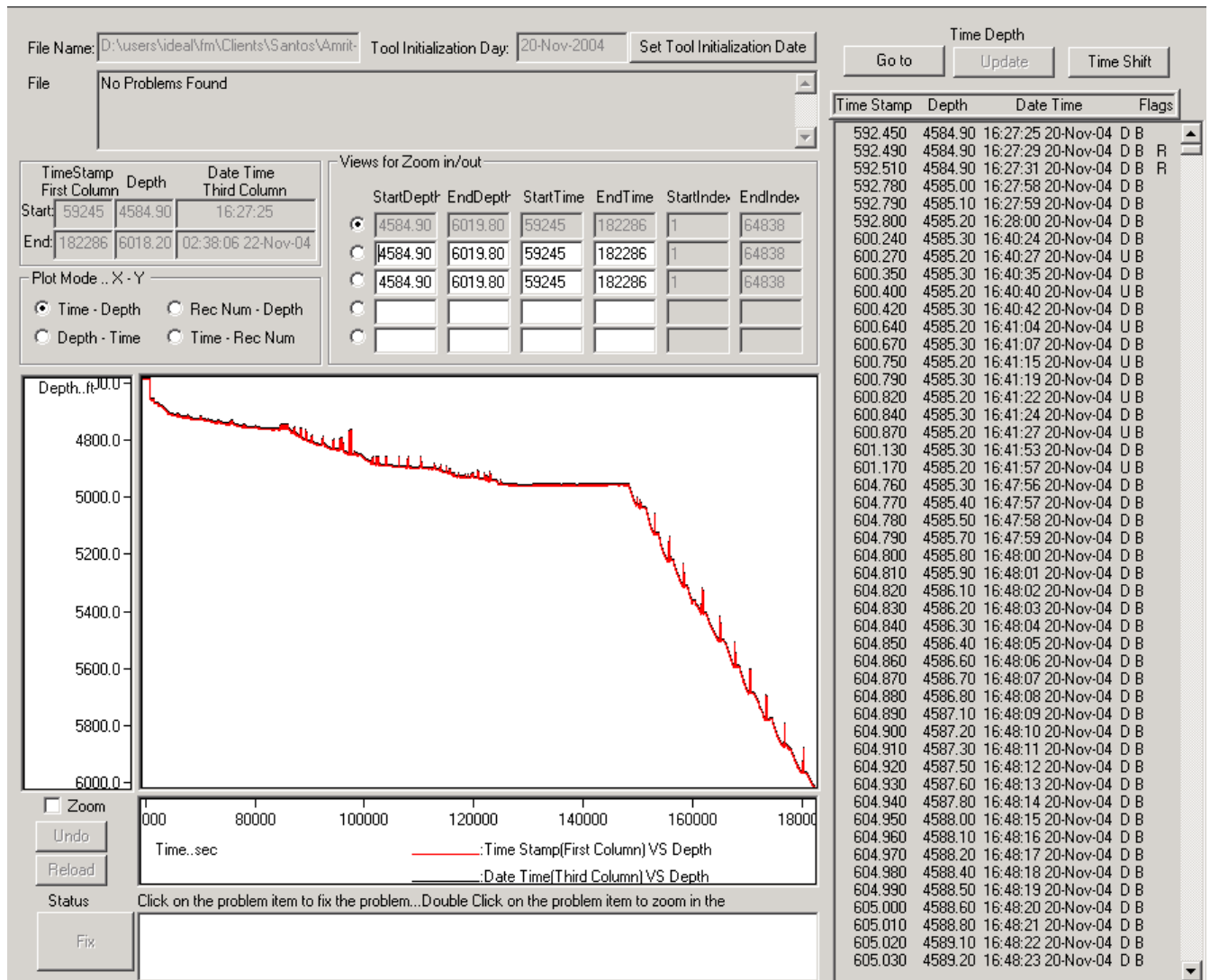
The CDR was downloaded at the rotary table and the tools subsequently racked back in the derrick until final decision was made on further drilling. The recorded mode data was promptly processed and high quality logs were presented to client. Additionally, Tech Logs were downloaded and evaluated by the engineers at well-site, confirming the excellent operation of the CDR and verifying the high quality of recorded mode data. The quality of this data exceeded Schlumberger standards of 2 data points per foot and continued to do so when high rate of penetration was encountered during the run.

All real-time and recorded mode data were transmitted/delivered to the client office in town via Internet Web Witness (IWW).

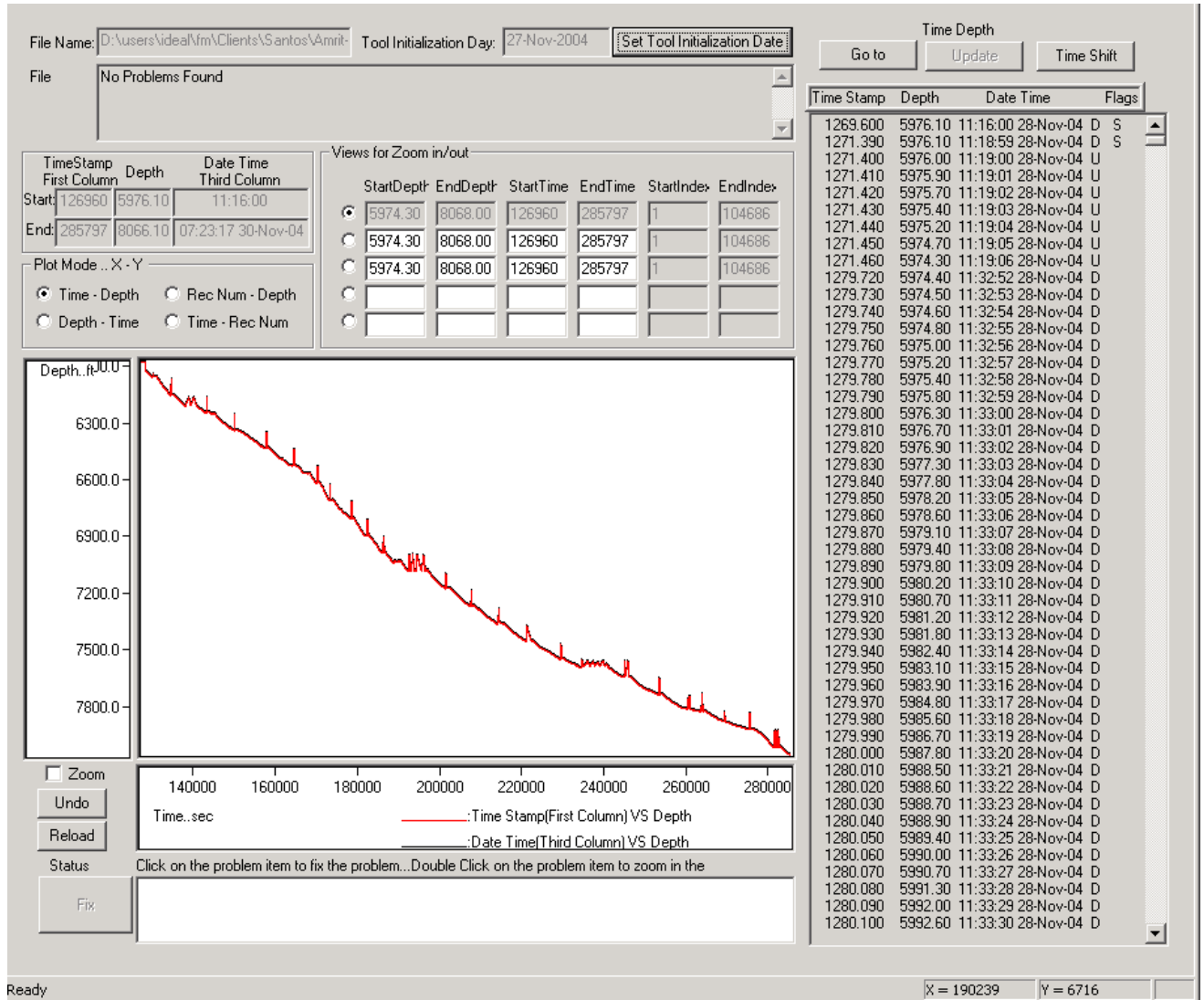
After the completion of this run, Schlumberger Wireline was run. When the data collected was compared to that of Drilling & Measurements data, the excellent quality of the logs provided was confirmed.

Depth Control Summary

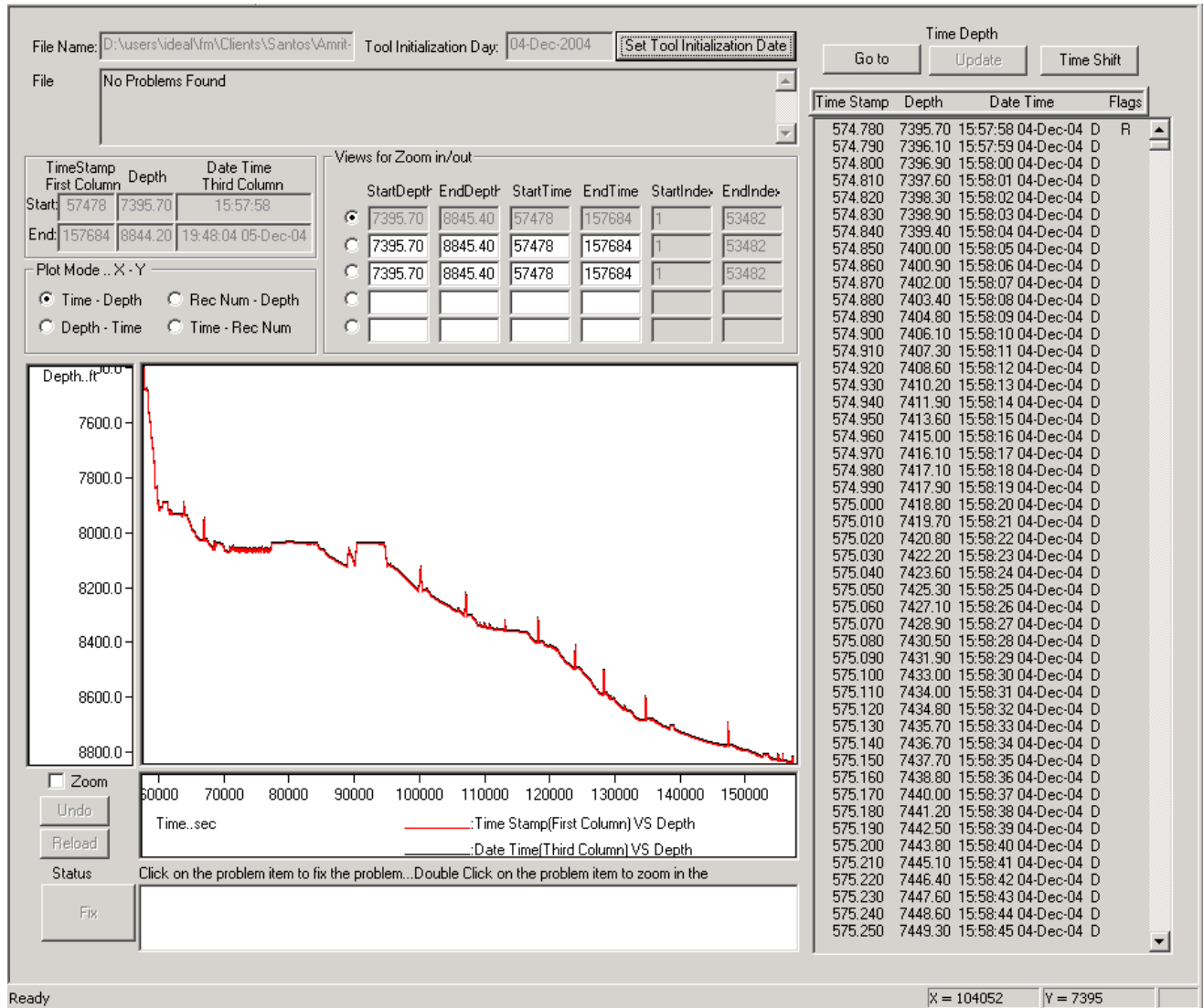
1. Throughout drilling Amrit-1 well, the depth was closely monitored and kept within Schlumberger Drilling & Measurements Standards. This excellent tracking of depth was verified with the close comparison of the logs with the Schlumberger Wireline.
2. Depth control was undertaken with a geograph depth tracking system. This was calibrated to operate at 100 pulses per foot prior to the job. Additionally, a GTE (Guideline tensiometer) was used to measure the heave of the rig during the drilling operations, and to subsequently correct the depth measurement made by the geograph.
3. Depth tracking was excellent during the entire well. A table showing the comparisons between the driller's pipe tally and the software acquisition system is available in softcopy if requested. A plot of corrected depth versus time from the acquisition system can be seen in the following pages.
4. No depth anomalies or corrections were applied during any of the runs.
5. No editing of the raw depth/time files was done, all changes would have been undertaken on the edited depth/time files. However, as stated above, no changes were made during the entire drilling operation. Also, no time shifting was performed on the tools dump files.



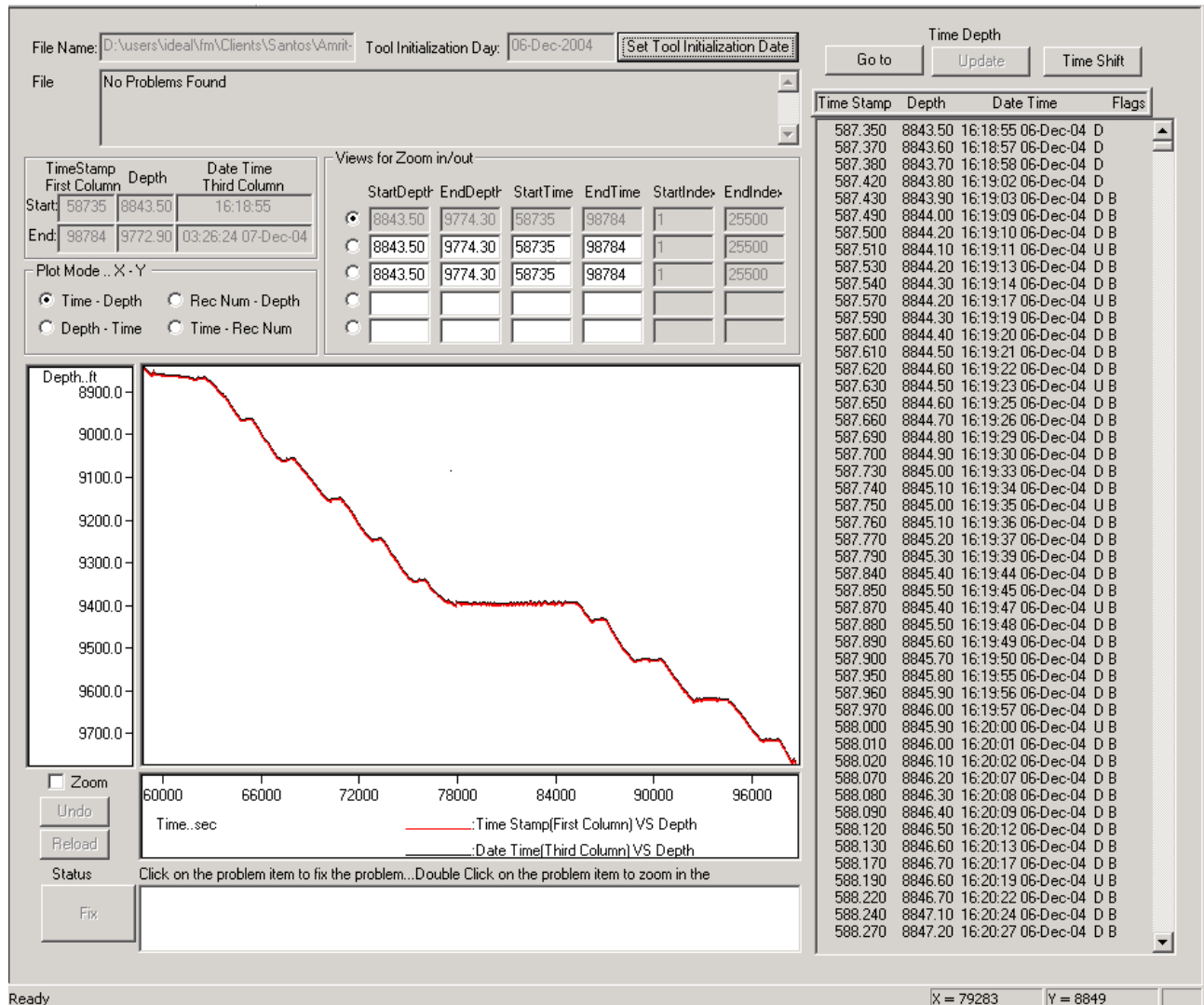
RUN 1



RUN 2

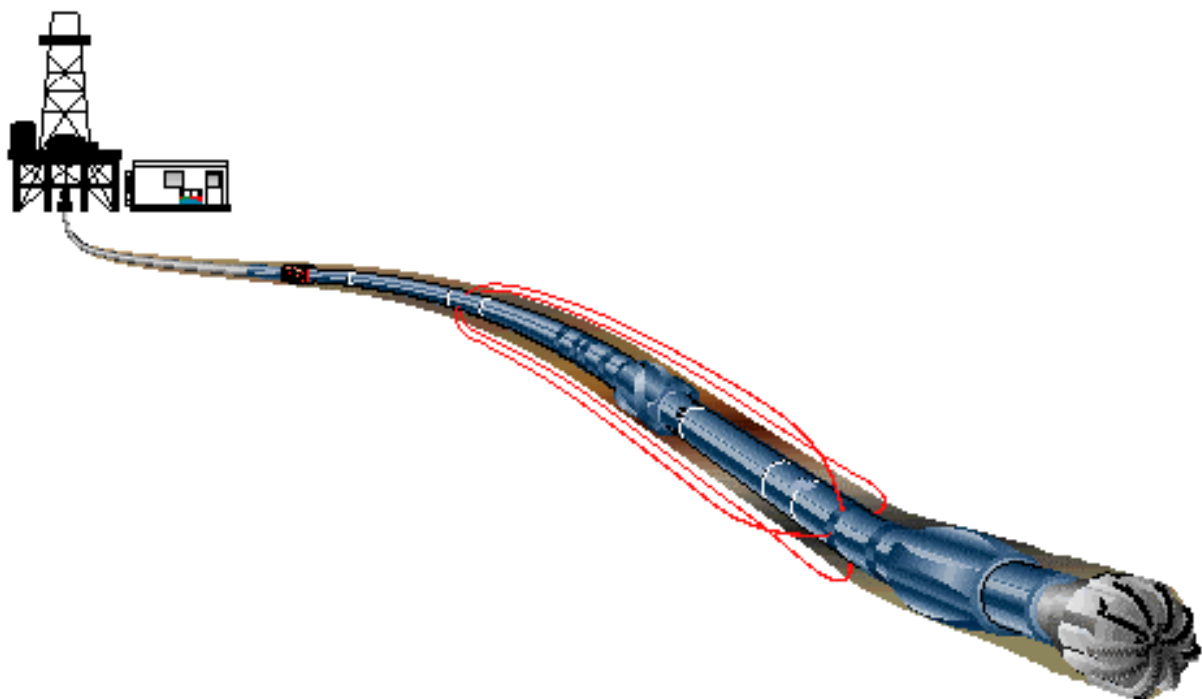


RUN 3



RUN 4

Geomagnetic and Survey Reference Criteria



Geomagnetic and Survey Reference Criteria

Geomagnetic Data

Magnetic Model:	BGGM version 2004
Magnetic Date:	20 November 2004
Magnetic Field Strength:	1221.99 HCNT
Magnetic Declination:	10.48 degrees
Magnetic Dip:	-70.25 degrees

Survey Reference Criteria

Reference G:	1000.09 mGal
Reference H:	1221.99 HCNT
Reference Dip:	-70.25 degrees
Tolerance of G:	2.50 mGal
Tolerance of H:	6.00 HCNT
Tolerance of Dip:	0.45 degrees

Survey Corrections Applied

Reference North:	Grid North
Magnetic Declination:	10.48 degrees
Grid Convergence:	-0.46 degrees
Total Azimuth Correction:	10.94 degrees
Vertical Section Azimuth:	0.00 degrees

Survey Reference Location

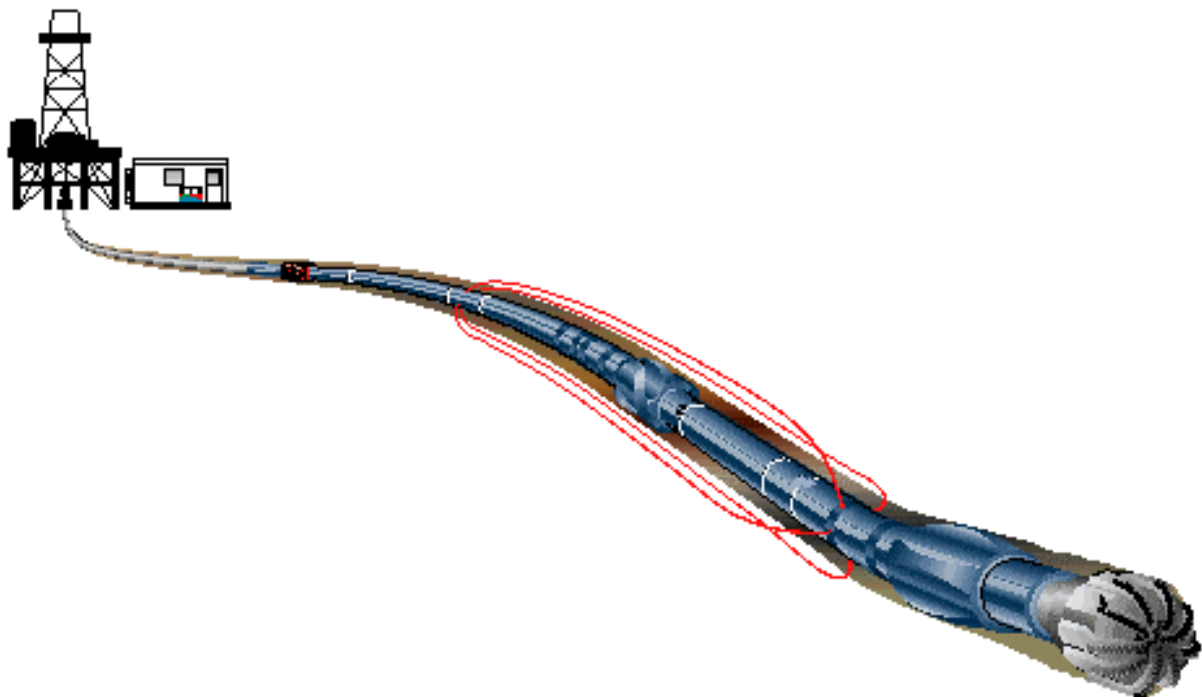
Amrit-1 Final Fix Position

Latitude:	38° 56' 05.20"	South
Longitude:	141° 44' 07.08"	East
Easting:	563 729.6	meters
Northing:	5 690 204.1	meters
MGA:	Zone 54	

Note:

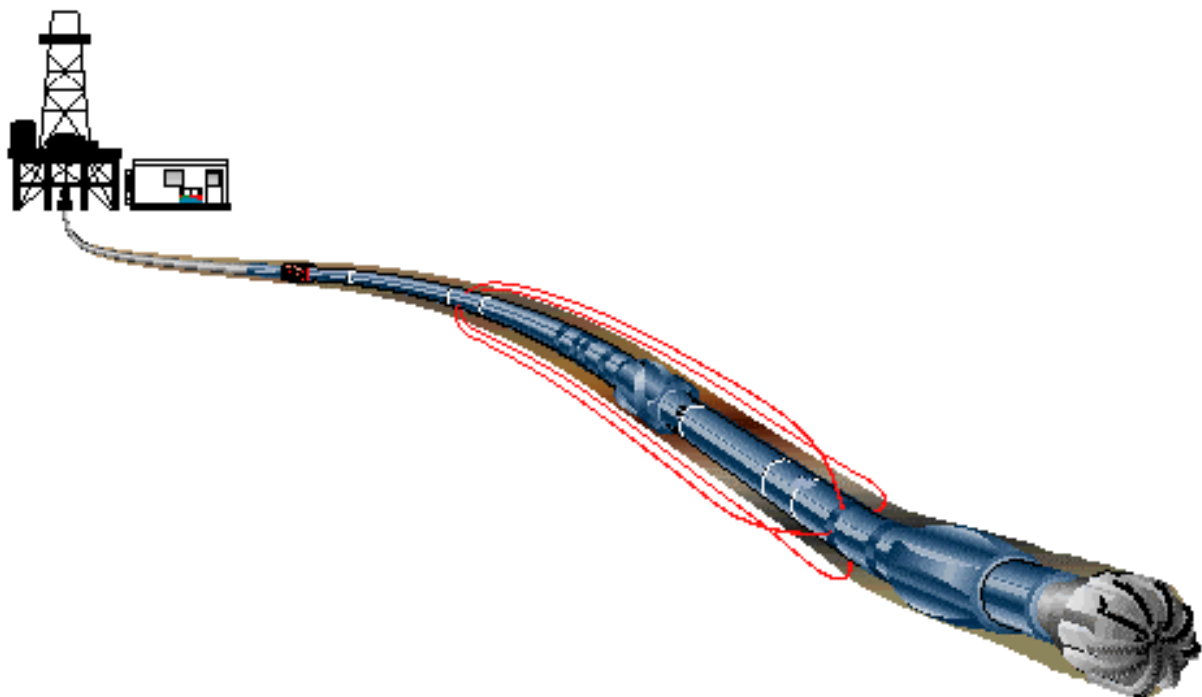
Data as per SANTOS "Rig Position Field Report"

Survey Report



Seq #	Measured depth (m)	Incl angle (deg)	Azimuth angle (deg)	Course length (m)	TVD depth (m)	Vertical section (m)	Displ +N/S- (m)	Displ +E/W- (m)	Total displ (m)	At Azim (deg)	DLS (deg/10m)	Srvy tool type	Tool Corr (deg)
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	TIP	None
2	1425.49	0.59	234.33	1425.49	1425.46	-4.28	-4.28	-5.96	7.34	234.33	0.00	MWD	None
3	1454.01	1.07	295.89	28.52	1453.98	-4.25	-4.25	-6.32	7.62	236.09	0.33	MWD	None
4	1487.29	0.97	129.33	33.28	1487.26	-4.29	-4.29	-6.38	7.69	236.08	0.61	MWD	None
5	1510.95	0.86	56.64	23.66	1510.92	-4.32	-4.32	-6.08	7.46	234.60	0.46	MWD	None
6	1539.34	0.80	303.78	28.39	1539.31	-4.09	-4.09	-6.07	7.32	235.99	0.49	MWD	None
7	1568.02	0.85	315.97	28.68	1567.98	-3.83	-3.83	-6.38	7.44	239.03	0.06	MWD	None
8	1595.59	0.53	308.57	27.57	1595.55	-3.60	-3.60	-6.62	7.54	241.45	0.12	MWD	None
9	1624.12	0.56	304.38	28.53	1624.08	-3.44	-3.44	-6.84	7.66	243.29	0.02	MWD	None
10	1653.18	0.34	298.89	29.06	1653.14	-3.32	-3.32	-7.03	7.78	244.73	0.08	MWD	None
11	1681.34	0.26	305.03	28.16	1681.30	-3.24	-3.24	-7.16	7.86	245.63	0.03	MWD	None
12	1709.52	0.31	319.56	28.18	1709.48	-3.15	-3.15	-7.26	7.91	246.56	0.03	MWD	None
13	1737.89	0.40	311.67	28.37	1737.85	-3.02	-3.02	-7.38	7.98	247.73	0.04	MWD	None
14	1766.33	0.35	299.78	28.44	1766.29	-2.92	-2.92	-7.53	8.08	248.85	0.03	MWD	None
15	1809.32	0.26	261.27	42.99	1809.28	-2.86	-2.86	-7.74	8.26	249.70	0.05	MWD	None
16	1849.73	0.23	231.00	40.41	1849.69	-2.93	-2.93	-7.90	8.42	249.65	0.03	MWD	None
17	1878.02	0.37	193.70	28.29	1877.98	-3.05	-3.05	-7.96	8.53	249.02	0.08	MWD	None
18	1908.10	0.34	223.98	30.08	1908.06	-3.21	-3.21	-8.05	8.67	248.24	0.06	MWD	None
19	1935.76	0.18	265.57	27.66	1935.72	-3.28	-3.28	-8.15	8.78	248.11	0.09	MWD	None
20	1963.97	0.17	252.91	28.21	1963.92	-3.29	-3.29	-8.23	8.87	248.21	0.01	MWD	None
21	1991.95	0.12	204.40	27.98	1991.90	-3.33	-3.33	-8.29	8.93	248.11	0.05	MWD	None
22	2020.87	0.20	231.00	28.92	2020.82	-3.39	-3.39	-8.34	9.00	247.88	0.04	MWD	None
23	2049.42	0.23	223.20	28.55	2049.37	-3.46	-3.46	-8.41	9.10	247.64	0.01	MWD	None
24	2077.78	0.26	214.74	28.36	2077.73	-3.56	-3.56	-8.49	9.21	247.27	0.02	MWD	None
25	2105.32	0.33	183.75	27.54	2105.27	-3.69	-3.69	-8.53	9.29	246.63	0.06	MWD	None
26	2134.71	0.29	176.46	29.39	2134.66	-3.85	-3.85	-8.53	9.36	245.74	0.02	MWD	None
27	2162.92	0.22	203.34	28.21	2162.87	-3.97	-3.97	-8.55	9.42	245.11	0.05	MWD	None
28	2192.60	0.14	180.37	29.68	2192.55	-4.06	-4.06	-8.57	9.48	244.68	0.04	MWD	None
29	2220.68	0.29	203.20	28.08	2220.63	-4.15	-4.15	-8.60	9.55	244.21	0.06	MWD	None
30	2248.46	0.15	220.05	27.78	2248.41	-4.25	-4.25	-8.65	9.64	243.85	0.05	MWD	None
31	2277.42	0.31	183.89	28.96	2277.37	-4.35	-4.35	-8.68	9.71	243.36	0.07	MWD	None
32	2306.21	0.34	216.07	28.79	2306.16	-4.50	-4.50	-8.74	9.83	242.74	0.06	MWD	None
33	2334.13	0.40	185.07	27.92	2334.08	-4.67	-4.67	-8.79	9.95	242.05	0.07	MWD	None
34	2361.66	0.37	221.08	27.53	2361.61	-4.83	-4.83	-8.86	10.09	241.42	0.09	MWD	None
35	2390.55	0.33	232.85	28.89	2390.50	-4.95	-4.95	-8.99	10.26	241.17	0.03	MWD	None
36	2419.57	0.32	200.20	29.02	2419.52	-5.08	-5.08	-9.08	10.40	240.81	0.06	MWD	None
37	2433.15	0.24	208.59	13.58	2433.10	-5.14	-5.14	-9.11	10.46	240.59	0.07	MWD	None
38	2476.28	0.50	232.35	43.13	2476.23	-5.33	-5.33	-9.30	10.72	240.19	0.07	MWD	None
39	2534.29	0.33	216.60	58.01	2534.24	-5.62	-5.62	-9.60	11.13	239.67	0.04	MWD	None
40	2649.13	0.37	195.11	114.84	2649.07	-6.24	-6.24	-9.90	11.70	237.76	0.01	MWD	None
41	2762.85	0.23	199.79	113.72	2762.79	-6.81	-6.81	-10.07	12.16	235.92	0.01	MWD	None
42	2878.16	0.23	190.81	115.31	2878.10	-7.26	-7.26	-10.19	12.51	234.55	0.00	MWD	None
43	2950.00	0.26	140.59	71.84	2949.94	-7.52	-7.52	-10.11	12.61	233.35	0.03	MWD	None
44	2979.00	0.26	140.59	29.00	2978.94	-7.63	-7.63	-10.03	12.60	232.76	0.00	Proj to TD.	

Bit Run Summary



Job Number AWA-04-08		Company Rep. D.Atkins & J.Young		Date In 20-Nov-04	Date Out 22-Nov-04	D&M Run Number 1	Rig Run Number 1									
Company Santos Ltd.			Grid Corr -0.46	Brief Run Summary Good Run			Bit Run Number 1	Cell Manager Danielle Borges								
Rig Name Jack Bates			Tot Corr 10.97	Hole Depth From 1425.00 m To 1835 m			D&M Crew Ozren Radicevic & Lisa Watson									
Well Name Amrit-1			PP Slot ID	Inclination (Drift) From 0 deg To 0.26 deg			Pumping Hours 35.40 hrs.	Below Rotary Tbl Hrs 56.10 hrs.								
Location Otway Basin			Mag Dec 10.51	Azimuth From 0 deg To 261.27 deg			Rotary Hours 3.70 hrs.	Rotary Distance 325.00 m								
Mppfile BGGM 2004			Mod BPS 3	True Vertical Depth From 1424 m To 1834.96 m			Slide Hours 15.00 hrs.	Slide Distance 85.00 m								
Frequency 12 Hz			Mod Type QPSK	Hole Size 26 in			Water Depth 1396 m	Air Gap 29 m								
Pump Type Triplex			Pump Output 4.28 gpm	Pump Strk Len. 12 in	Drilling Hours 18.70 hrs.			Drilling Distance 410.00 m								
Pump Liner ID 6.0 in			Min DLS 0.02	Max DLS 0.61	Reaming Hours hrs.			Reaming Distance m								
Bent Sub Angle deg			Bent HSG Ang deg	Depth Max DLS 1487.29 m	RKB Height m	Ground Elev. -1395 m	Mod Gap 0.168 in	On Bottom Hours 18.70 hrs.								
Pulse Ht Thresh			Min Pulse Wdt	Max Pulse Wdt	Digit Time	T/F Arc in	T/F Angle 0.00 deg	Service Directional Services								
Conn Phase Ang deg			Rise Const	Fail Const	H2S In Well <input type="checkbox"/>	Damp Press psi	Signal Streng. 13.00	Last Casing Size 30.000 in Depth 1510 m								
Directional Driller(s) Bob Manjeric				Turbine RPM @ Min Flow Rate RPM 2161.00 FR 1069.00 gpm			Turbine RPM @ Max Flow Rate RPM 3476.56 FR 1162.00 gpm									
Run Objective Jet in 30" casing & continue to drill 26" to 1829m.																
Equipment Code	Pump Hrs Start	Cum	SW Vers	Tool Size	Equipment Code	Pump Hrs Start	Cum	SW Vers	Tool Size	Sensors		Real Time		Recorded Time		
										Code	Code	Hrs	Fail	Drilled	Hrs	Fail
A962M-1069	0	35		9.50						CDR9-AA-9525	35.4	410	56.1	410		
CDR9-AA-9525	0	35	6.0 B08	9.50						MDC-HC-484W	35.4	410				
H524743-40042	0	35														
H524743-40336	0	35														
MDC-HC-484W	0	35	70C00	9.50												
NMDC900L-D173	0	35		9.50												
Surface Sys Version															IDEAL/SPM ID9_1C_01	IDEAL/SPM HSPM9_2C_08
Manufacturer Schlumberger		Stage Length 4.80 m		Bit to Bend Dist. m		Bearing Gap In		Bearing Gap Out		Radial Bearing Play		Thrust Bearing Play		RSS SN		
Type A962GT		Rubber		RM100		RSS Mfr		RSS Type		RSS Size		RSS SN				
Size 9.62		Sleeve Position		in		RSS Type		RSS Size		RSS SN						
Serial Number 1069		Sleeve Size		in		RSS Type		RSS Size		RSS SN						
Lobe Config. 7:8		Motor Fail		<input type="checkbox"/>		RSS SN										
Max Circ Temp 17.00 C		Avg ROP 46.90 m/hr		Min Actl FlowRt 0.00 gpm		Max Shock Dur sec.		Total DH Shocks (k) k								
Min Circ Temp 12.00 C		Max ROP 119.00 m/hr		Avg PmpPres 3609.00 psi		Total DH Shocks (k) k										
End Mud Wt 8.50 lb/gal		Avg Surf RPM 67.00		PmpPres On Bot psi		CHECK SHOT										
End Funnel Vis 100.00 CPS		Min RPM 0.00		PmpPres Off Bot psi		Type										
End Plastic Vis CPS		Max RPM 90.00		Avg Surf WOB 21.00 klbs		Depth m										
End Yield Point CPS		Avg FlowRate 1069.00 gpm		Avg Surf Torq 5.85 ft-lbs		Inclination deg										
End Mud Resist 1.00		Max Actl FlowRt 1162.00 gpm		Max Shock Lev 0.00		Azimuth deg										
Company MI		PH		Percent Sand 0.00 %		Additives None										
Brand Stroke spud mud		Chlorides 600.00		Percent Solids 0.00 %		Clean <input type="checkbox"/>										
Type Salt Water		Other		Percent Oil 0.00 %												
LCM Type		LCM Size		LCM Concentration												
BHA Type Motor		Tur Rotor Prt #		Turbine Config		Surface Screen <input type="checkbox"/>										
Int TF Offset 0.00		Stator Prt #		Pulser Config		DFS Used <input type="checkbox"/>										
Low Oil Flag <input type="checkbox"/>		Hrs @ Low Oil hrs.		Stab Spacing		Formation										
DD Objectives Achieved <input checked="" type="checkbox"/>		If not, why?														
Bit Type Milltooth		Other														
Manufacturer Smith		Model MSDS		IADC Code 1 5 5		No. of Jets 4		Size of Jets 2x24, 1x21, 1x20		Bit TFA 1.36		Total Revs 149465.00		Stick/Slip Yes		
Inner Row 1		Outer Row 1		Dull Char WT		Location A		Brng/Seals E		Gauge (1/16") in		Other Char NO		Reason Pulled TD		
Trans Fail <input type="checkbox"/>		Jamming <input type="checkbox"/>		Client Inconv. <input type="checkbox"/>		Surface Noise <input type="checkbox"/>										
Pres Incr @ Fail <input type="checkbox"/>		Jamming Time hrs.		Lost Time hrs.		Down Hole Noise <input type="checkbox"/>										
D&M Trip <input type="checkbox"/>		Sync Hours hrs.		Surface Vib <input type="checkbox"/>		Surface Sys Failure <input type="checkbox"/>										
SUMMARY Good run.																



DRILLING & MEASUREMENTS - BHA DATA

Job Number	AWA-04-08
Run Number	1
BHA Number	1

Item	Description	Vendor	Material	Serial Number	Fishing Neck		Stab OD	OD	ID	Bot Connection		Top Connection		Len	Cum Len	TIME/DEPTH DETAILS					
					OD	Length				Size	Type	Size	Type			1	2	3	4	5	
UNITS																					
					in	m	in	in	in					m	m	Date/Time	21-Nov-04	22-Nov-04			
1	Milltooth Bit		Steel	MR3808								7.63	Reg P	0.67	0.67	Field Engineer	Lisa	Lisa			
2	A962MGT7848	Schlumberger	Steel	1069							7.63	Reg B	7.63	Reg P	9.68	10.35	Depth	1468.50	1735.59		
3	Float sub		Steel	1087							7.63	Reg B	7.63	Reg P	1.05	11.40	Average ROP	5.00	70.00		
4	26" WB Stabilizer		Steel	53655							7.63	Reg B	7.63	Reg P	1.68	13.08	Avg. Std. Pres.	3650.00	4000.00		
5	CDR9	Schlumberger	Monel	L9525							7.63	Reg B	7.63	Reg P	7.15	20.23	Desurger 1	800.00	800.00		
6	PowerPulse9	Schlumberger	Monel	W484							7.63	Reg B	7.63	H90 P	8.44	28.67	Desurger 2	800.00	800.00		
7	26" WB Stabilizer		Steel	53656							7.63	H90 B	7.63	Reg P	1.48	30.15	Tur. RPM @ FR	3242.19	3281.25		
8	91/2" NM Drill Collar	Schlumberger	Monel	D173							7.63	Reg B	7.63	Reg P	9.20	39.35	FR @ Tur. RPM	1100.00	1134.00		
9	3 x 91/2" Drill Collar		Steel								7.63	Reg B	7.63	Reg P	26.62	65.97	Avg. RPM	0.00	92.00		
10	Crossover		Steel								6.63	Reg B	7.63	Reg P	1.32	67.29	Max RPM	0.00	95.00		
11	2 x 8" Drill Collar		Steel								6.63	Reg B	6.63	Reg P	18.51	85.80	Total Shocks	0.02	0.05		
12	Drill-Quip CADA Tool		Steel								6.63	Reg B	6.63	Reg P	2.17	87.97	Max Shock	0.00	0.00		
13	Drill-Quip CADA Tool		Steel								6.63	Reg B	6.63	Reg P	0.57	88.54	Avg. Surf. WOB	35.00	15.00		
14	7 x 8" Drill Collar		Steel								6.63	Reg B	6.63	Reg P	64.00	152.54	Max Surf. WOB	40.00	20.00		
15	Crossover		Steel								4.50	IF B	6.63	Reg P	1.14	153.68	Avg. DH WOB	40.00	15.00		
16	12 x 5" HWDP		Steel								4.50	IF B	4.50	IF P	110.77	264.45	Max DH WOB	40.00	20.00		
17											4.50	IF B					Avg. Surf. Torq.	0.00	2.50		
18																	Max Surf. Torq.	0.00	4.00		
19																	Avg. DH Torq.	0.00	4.00		
20																	Max DH Torq.	0.00	4.40		
21																	Formation Type				
22																	Friction				
23																	Drag Up				
24																	Drag Down				
PREDICTED BHA TENDENCY	Drill 8.5in section vertically to TD.							Hookload		Wt. Below Jars		Mud Weight		8.30	8.30						
								Pickup Wt.		Wt. Above Jars		Funnel Vis.									
								Slack Wt.		Total Air Wt.		Plastic Vis.									
												Circ. Temp		17.00	15.70						
												Signal Strength		12.00	9.50						
												Bit Deviation		0.50	0.31						
												Differential Pres.		200.00	200.00						
Stabilizer Description		Mid Pt To Bit	BLADE		GAUGE			Bit To Read Out Port		Bit To Measurement Port		BATTERY		Unloaded (V)		Loaded (V)		Run Hrs		Cum Hrs	
UNITS		m	Type	Length	Width	Length	In	Out	CDR	16.17 m	GR LWLD	18.48 m	Tool	Before	After	Before	After	BOT	AMP	BOT	AMP
				in	in	in	in	in	PPL	21.97 m	RES LWLD	15.00 m	H524743-40042	21.95		19.70					
										m	APWD LWLD	15.72 m	H524743-40336	21.74		19.11					
										m	D&I PPL	24.32 m									
										m		m									
										m		m									
										m		m									

Job Number AWA-04-08		Company Rep. D.Atkins & J.Young		Date In 27-Nov-04		Date Out 1-Dec-04		D&M Run Number 2		Rig Run Number 2													
Company Santos Ltd.			Grid Corr -0.46		Brief Run Summary Good Run				Bit Run Number 2		Cell Manager Danielle Borges												
Rig Name Jack Bates			Tot Corr 10.94		Hole Depth From 1835 m To 2459 m				D&M Crew Ozren Radicevic & Lisa Watson														
Well Name Amrit-1			Location Otway Basin		Inclination (Drift) From 0.26 deg To 0.24 deg				Pumping Hours 85.8 hrs.		Below Rotary Tbl Hrs 104.83 hrs.												
Mapfile BGGM 2004		Mag Dec 10.48		PP Slot ID		Azimuth From 261.27 deg To 208.59 deg				Rotary Hours 32.2 hrs.		Rotary Distance 624 m											
BPS 3		Frequency 12 Hz		Mod Type QPSK		True Vertical Depth From 1834.96 m To 2458.95 m				Slide Hours		Slide Distance											
Pump Type Triplex		Pump Output 4.28 gpm		Pump Strk Len. 12 in		Hole Size 17.5 in				Water Depth 1396 m		Air Gap 29 m											
Pump Liner ID 6.0 in		Min DLS 0.01		Max DLS 0.09		RKB Height m		Ground Elev. -1396 m		Mod Gap 0.168 in		Reaming Hours 5 hrs.											
Bent Sub Angle deg		Bent HSG Ang deg		Depth Max DLS 1935.76 m		Digit Time		T/F Arc in		T/F Angle 0 deg		On Bottom Hours 32.2 hrs.											
Pulse Ht Thresh		Min Pulse Wdt		Max Pulse Wdt		Digit Time		T/F Arc in		T/F Angle 0 deg		Service Directional Services											
Conn Phase Ang deg		Rise Const		Fall Const		H2S In Well <input type="checkbox"/>		Damp Press 800 psi		Signal Strong. 12		Last Casing Size 20 in Depth 1822 m											
Directional Driller(s) Bob Manjancic				Turbine RPM @ Min Flow Rate RPM 1406.00 FR 749 gpm				Turbine RPM @ Max Flow Rate RPM 3476.56 FR 992 gpm															
Run Objective Drill 17.5" section to TD at 2459m.																							
Equipment Code		Pump Hrs Start Cum		SW Vers		Tool Size		Equipment Code		Pump Hrs Start Cum		SW Vers		Tool Size		Sensors Code		Real Time Hrs Fail Drilled		Recorded Time Hrs Fail Drilled			
A962M-1069		35 121				9.50										CDR9-AA-9525		55.21 624 104.8 624					
CDR9-AA-9525		35 121		6.0 B08		9.50										MDC-HC-484W		55.21 624					
H524743-40042		35 121																					
H524743-40336		35 121																					
MDC-HC-484W		35 121		70C00		9.50																	
NMDC900L-D173		35 121				9.50																	
Surface Sys Version		IDEAL/SPM ID9_1C_01		IDEAL/SPM HSPM9_2C_08																IDEAL/SPM			
Manufacturer Schlumberger		Stage Length 4.80 m		Bit to Bend Dist. 3.25 m		Bearing Gap In 0.00		Type A962GT		Rubber RM100		RSS Mfr		Bearing Gap Out 2.00		Size 9.62		Sleeve Position 0.93		RSS Type		Radial Bearing Play	
Serial Number 1069		Sleeve Size 17.13 in		RSS Size		Thrust Bearing Play		Lobe Config. 7:8		Motor Fail <input type="checkbox"/>		RSS SN											
Max Circ Temp 23.00 C		Avg ROP 25.35 m/hr		Min Actl FlowRt 749.00 gpm		Max Shock Dur 468.00 sec.		Min Circ Temp 12.00 C		Max ROP 99.30 m/hr		Avg PmpPres 2506.00 psi		Total DH Shocks (k) 0.11 k		End Mud Wt 9.20 lb/gal		Avg Surf RPM 99.00		PmpPres On Bot 2500.00 psi		CHECK SHOT	
End Funnel Vis 55.00 CPS		Min RPM 60.00		PmpPres Off Bot 2350.00 psi		Type		End Plastic Vis 20.00 CPS		Max RPM 113.00		Avg Surf WOB 21.50 klbs		Depth		End Yield Point 26.00 CPS		Avg FlowRate 903.00 gpm		Avg Surf Torq 7400.00 ft-lbs		Inclination	
End Mud Resist 0.12		Max Actl FlowRt 992.00 gpm		Max Shock Lev 0.00		Azimuth																	
Company MI		PH 9.30		Percent Sand 0.25 %		Additives Barite		Brand KCI/PHPA/Glyco		Chlorides 38500.00		Percent Solids 4.00 %		Clean <input type="checkbox"/>		Type KCL		Other		Percent Oil %			
LCM Type		LCM Size		LCM Concentration																			
BHA Type Motor		Tur Rotor Prt #		Turbine Config		Surface Screen <input type="checkbox"/>		Int TF Offset		Stator Prt #		Pulser Config		DFS Used <input type="checkbox"/>		Low Oil Flag <input type="checkbox"/>		Hrs @ Low Oil		Stab Spacing		Formation	
DD Objectives Achieved <input checked="" type="checkbox"/>		If not, why?																					
Bit Type Milltooth		Other																					
Manufacturer Reed		Model T11C		IADC Code 4/24/1900		No. of Jets 4		Size of Jets 3x22, 1x20		Bit TFA 1.42		Total Revs		Stick/Slip yes		Inner Row 2		Outer Row 2		Dull Char BT		Location A	
Brng/Seals E		Gauge (1/16") 1		Other Char WT		Reason Pulled TD		Trans Fail <input type="checkbox"/>		Jamming <input type="checkbox"/>		Client Inconv. <input type="checkbox"/>		Surface Noise <input type="checkbox"/>		Pres Incr @ Fail <input type="checkbox"/>		Jamming Time hrs.		Lost Time hrs.		Down Hole Noise <input type="checkbox"/>	
D&M Trip <input type="checkbox"/>		Sync Hours 55.20 hrs.		Surface Vib <input type="checkbox"/>		Surface Sys Failure <input type="checkbox"/>																	
SUMMARY												Good MWD/LWD run. Excellent recorded mode data recovered.											

DRILLING & MEASUREMENTS - BHA DATA

Job Number AWA-04-08
 Run Number 2
 BHA Number

Item	Description	Vendor	Material	Serial Number	Fishing Neck		Stab OD	OD	ID	Bot Connection		Top Connection		Len	Cum Len	TIME/DEPTH DETAILS											
					OD	Length				Size	Type	Size	Type			1	2	3	4	5							
UNITS																Date/Time	28-Nov-04	29-Nov-04	30-Nov-04								
1	Milltooth Bit		Steel	J65053				17.50			7.63	Reg P	0.48	0.48	Field Engineer	Danielle	Danielle	Danielle									
2	A962MGT7848	Schlumberger	Steel	1069	9.63	0.39		9.63	2.38	7.63	Reg B	7.63	Reg B	9.66	10.14	Depth	1858.07	2222.72	2045.00								
3	Float sub		Steel	1087	9.50			9.50	2.69	7.63	Reg P	7.63	Reg B	1.04	11.18	Average ROP	30.00	21.00	35.00								
4	17-1/2" WB Stabilizer		Steel	207A34	9.50	0.71	17.50	9.50	3.00	7.63	Reg P	7.63	Reg B	2.04	13.22	Avg. Std. Pres.	1641.50	2925.56	2680.00								
5	CDR9	Schlumberger	Monel	L9525	9.63			9.50	3.00	7.63	Reg P	7.63	H90 B	7.15	20.37	Desurger 1	800.00	800.00	800.00								
6	PowerPulse9	Schlumberger	Monel	W484	9.25	0.45		9.50	4.31	7.63	H90 P	7.63	H90 B	8.44	28.81	Desurger 2	800.00	800.00	800.00								
7	17-1/2" WB Stabilizer		Steel	270A97	9.50	0.75	17.50	9.50	3.00	7.63	Reg P	7.63	Reg B	2.05	30.86	Tur. RPM @ FR	1718.88	2539.06	2539.06								
8	91/2" NM Drill Collar	Schlumberger	Monel	D173	9.50			9.50	3.00	7.63	Reg P	7.63	Reg B	9.20	40.06	FR @ Tur. RPM	850.00	1000.00	1000.00								
9	2 x 91/2" Drill Collar		Steel		9.56	0.50		9.50	3.00	7.63	Reg P	6.63	Reg B	17.90	57.96	Avg. RPM	50.00	90.00	105.00								
10	Crossover		Steel		8.06	0.62		9.50	3.00	6.63	Reg P	6.63	Reg B	1.32	59.28	Max RPM	64.00	100.00	110.00								
11	8 x 8" Drill Collar		Steel		7.88			8.00	2.88	6.63	Reg P	6.63	Reg B	74.15	133.43	Total Shocks	0.07	0.10	0.11								
12	8" Jar		Steel	48907C	8.06	0.61		8.06	3.00	6.63	Reg P	6.63	Reg B	9.78	143.21	Max Shock											
13	3 x 8"DC		Steel		7.88			8.00	2.88	4.50	IF P	6.63	Reg B	27.66	170.87	Avg. Surf. WOB	20.00	30.00	25.00								
14	Crossover		Steel		6.63	0.60		8.00	2.94	4.50	IF P	4.50	IF B	1.14	172.01	Max Surf. WOB	30.00	35.00	30.00								
15	12 x 5" HWDP		Steel		6.50			6.63	3.00	4.50	IF P	4.50	IF B	110.77	282.78	Avg. DH WOB	17.00	15.00	15.00								
16																Max DH WOB	25.00	20.00	20.00								
17																Avg. Surf. Torq.	3.00	3.00	8.00								
18																Max Surf. Torq.	3.50	3.50	9.00								
19																Avg. DH Torq.	2.97	3.00	7.00								
20																Max DH Torq.	3.00	3.50	8.00								
21																Formation Type	Shale	Shale	Shale								
22																Friction											
23																Drag Up											
24																Drag Down											
PREDICTED BHA TENDENCY								Hookload		229.00		Wt. Below Jars		77.20		klbs		Mud Weight		8.80	9.20	9.00					
								Pickup Wt.				Wt. Above Jars		32.80		klbs		Funnel Vis.									
								Slack Wt.				Total Air Wt.						Plastic Vis.		15.00	15.00	16.00					
																		Circ. Temp		16.00	18.00	18.00					
																		Signal Strength		9.00	15.00	13.00					
																		Bit Deviation		0.26	0.14	0.24					
										Differential Pres.																	
Stabilizer Description		Mid Pt To Bit	BLADE		GAUGE			Bit To Read Out Port		Bit To Measurement Port		BATTERY		Unloaded (V)		Loaded (V)		Run Hrs		Cum Hrs							
			Type	Length	Width	Length	In	Out	CDR	16.34 m	GR LWD	18.65 m	Tool	Before	After	Before	After	BOT	AMP	BOT	AMP						
UNITS		m	in	in	in	in	in	PPL	22.14 m	RES LWD	15.17 m	H524743-40042															
									m	APWD LWD	15.89 m	H524743-40336															
									m	D&I PPL	24.49 m																
									m		m																
									m		m																
									m		m																

Job Number: AWA-04-08

Run Number: 2

Date	Time	Depth	Operating Details
27-Nov-04	0:00	0.00	SLB LOT for 20' section has been cancelled by client.
	12:40	0.00	Initialize CDR-9525 @ 6sec configuration on rig floor - CDR memory=134.9hrs
	13:10	0.00	Tools below rotary table
	13:30	0.00	Start acquisition
	14:00	0.00	SHT@800gpm (191 strokes), TRPM=2226.56, SPT1=18psi, SPT2=17psi, CDRstat=48, MWDstat=0, SPPA=1236psi, 98% BC
	22:20	1807.00	Tag cement, rack back one stand
	22:30	1778.00	Slip & cut.
	23:00	1778.00	Pumping 30spm to fill up casing/riser.
	23:03	1778.00	Pumping 197spm (827gpm). No signal - bypassing standpipe
28-Nov-04	1:02	1778.00	Stop pumping
	1:58	1778.00	Pressure test surface equipment.
	2:20	1778.00	Standpipe leaking. Change of standpipes, sensors moved
	3:40	1778.00	Finished Standpipe swap - continued surface pressure test
	4:10	1778.00	Make connection and start pumping. Mud Res 0.096ohm-m@24.2degC
	4:20	1800.00	Losing mud over the shakers
	4:30	1800.00	Continue to drill cement
	6:16	1817.50	Connect Geolograph
	6:20	1817.50	Taken SCRs
	7:15	1821.30	Drill out casing shoe
	8:15	1838.00	Circulate prior to LOT
	10:10	1838.67	Confirm final rig position with Company Man
	11:36	1838.67	Finish LOT, start pumping
	14:30	1894.16	Pull off bottom & stop pumping - Mud loss over shakers
	14:57	1894.16	Intermittent network problems during the day
	15:05	1894.16	Back on bottom drilling
	18:50	1948.00	Increase torsional vib to 1855G.
	22:16	2002.30	Drill break. Pick up off bottom and flow check.
	22:30	2002.34	Back on bottom drilling
	22:37	2003.16	Pick up off bottom. Run pumps 1,2&3 @ 1000gpm
	22:44	2003.16	Back on bottom drilling
29-Nov-04	0:00	2045.00	ROP=35m/h, SPT's=12.7 / 8.4psi, TRPM=2539@230strokes, SPPA=2680psi, 96%BC
	4:27	2146.70	Pump hi vis sweep
	4:56	2146.70	Back on bottom drilling
	5:30	2160.00	Circulate hole and condition mud.
	6:30	2160.00	Back on bottom drilling
	8:10	2189.25	Booster pump on
	16:50	2317.16	ECD jumped from 9.57 to 9.66. Pull off bottom, increase rpm & circulate hole cleaning.
	18:18	2317.16	Start pumping sweeps
	19:05	2317.16	Back on bottom drilling - ECD dropped to 9.47
	19:30	2325.00	Calibrate WOB=20Klbf
30-Nov-04	0:00	2382.00	ROP=8.84m/h, SPT's=6.8 / 10.2psi, TRPM=2539@226strokes,SPPA=3046psi, 94%BC
	0:20	2832.00	Lower the WOB to 10-15Klbs
	0:25	2834.00	Ream stand to lower ECD (ECD=9.52ppg)
	0:30	2834.00	Back on bottom drilling
	5:20	2425.00	Increase WOB to 20-30Klbs.
	7:21	2459.00	TD of 17 1/2in section
	7:25	2459.00	Circulate hole.
	7:58	2457.00	Take a survey
	8:02	2455.00	Pump hi vis pill.
	11:30	2459.00	Start to pull back to the shoe.
	14:00	2459.00	Geolograph line broken. Replace with spare line
	17:00	2459.00	Shut down operations due to Safety Investigation. Circulating off bottom while waiting on outcome
01-Dec-04	16:30	2459.00	Back to normal operations - Start to POOH
	21:55	0.00	Tools above rotary table
	22:15	0.00	Download CDR-9525 on rotary and rack tools back until cement job is done.
			Estimated battery life left is: Batt A: 0%, Batt B: 40%

Job Number AWA-04-08		Company Rep. D.Atkins & J.Young		Date In 4-Dec-04	Date Out 6-Dec-04	D&M Run Number 3	Rig Run Number 3											
Company Santos Ltd.			Grid Corr -0.46	Brief Run Summary Good Run			Bit Run Number 3	Cell Manager Danielle Borges										
Rig Name Jack Bates			Tot Corr 10.94	Hole Depth From 2459 m To 2695.00 m			D&M Crew Ozren Radicevic & Lisa Watson											
Well Name Amrit-1			PP Slot ID		Inclination (Drift) From 0.24 deg To 0.37 deg		Pumping Hours 29.80 hrs.	Below Rotary Tbl Hrs 51.10 hrs.										
Location Otway Basin			Mag Dec 10.48	Azimuth From 208.59 deg To 195.11 deg		Rotary Hours 14.40 hrs.												
Mapfile BGGM 2004			Mod Type QPSK	True Vertical Depth From 2458.95 m To 2694.94 m			Slide Hours hrs.											
BPS 3			Pump Strk Len. 12 in	Hole Size 12.25 in			Water Depth 1396 m											
Frequency 12 Hz			Min DLS 0.01	Air Gap 29 m			Drilling Hours 14.40 hrs.											
Pump Type Triplex			Max DLS 0.07	Drilling Distance 236.00 m			Bent Sub Angle deg											
Pump Output 4.28 gpm			RKB Height m	Ground Elev. -1396 m			Bent HSG Ang deg											
Pump Liner ID 6.0 in			Depth Max DLS 2476.28 m	Mod Gap 0.148 in			Reaming Hours hrs.											
Min Pulse Wdt			Digit Time	T/F Arc in			T/F Angle deg											
Max Pulse Wdt			H2S In Well <input type="checkbox"/>	Damp Press 800.00 psi			Signal Strong. 7.00											
Conn Phase Ang deg			Rise Const	Fall Const			Last Casing Size 13.375 in Depth 2459 m											
Directional Driller(s) Bob Manjancic			Turbine RPM @ Min Flow Rate RPM 1914.00 FR 659.00 gpm			Turbine RPM @ Max Flow Rate RPM 2968.75 FR 874.00 gpm												
Run Objective Drill 12 1/4" section to TD																		
Equipment Code	Pump Hrs Start	Cum	SW Vers	Tool Size	Equipment Code	Pump Hrs Start	Cum	SW Vers	Tool Size	Sensors		Real Time		Recorded Time				
										Code	Code	Hrs	Fail	Drilled	Hrs	Fail	Drilled	
A962M-2099	96	125		9.62						CDDC-BC-8001	21.5	236	51.1	236				
CDDC-BC-8001	0	30	6.0B08	8.25						MDC-DE-ED12	21.5	236						
H524743-40338																		
H524743-40339																		
MDC-DE-ED12	0	30	70C00	8.25														
Surface Sys Version									IDEAL/SPM		IDEAL/SPM		IDEAL/SPM					
Manufacturer									Schlumberger		Stage Length		4.80 m		Bit to Bend Dist.		3.06 m	
Type									A962M		Rubber		RM100		RSS Mfr			
Size									9.62		Sleeve Position		0.45		RSS Type			
Serial Number									2099		Sleeve Size		12.13 in		RSS Size			
Lobe Config.									7:8		Motor Fail		<input type="checkbox"/>		RSS SN			
Max Circ Temp									24.00 C		Avg ROP		16.39 m/hr		Min Actl FlowRt		659.00 gpm	
Min Circ Temp									21.00 C		Max ROP		120.11 m/hr		Avg PmpPres		3065.00 psi	
End Mud Wt									9.50 lb/gal		Avg Surf RPM		91.00		PmpPres On Bot		psi	
End Funnel Vis									64.00 CPS		Min RPM		68.00		PmpPres Off Bot		psi	
End Plastic Vis									21.00 CPS		Max RPM		115.00		Avg Surf WOB		20.76 klbs	
End Yield Point									25.00 CPS		Avg FlowRate		821.00 gpm		Avg Surf Torq		8160.00 ft-lbs	
End Mud Resist									0.08		Max Actl FlowRt		874.00 gpm		Max Shock Lev			
Company									MI		PH		8.50		Percent Sand		0.30 %	
Brand									KCI/PHPA/Glyco		Chlorides		52500.00		Percent Solids		8.80 %	
Type									KCL		Other				Percent Oil		3.50 %	
LCM Type													LCM Size				LCM Concentration	
BHA Type									Motor		Tur Rotor Prt #				Turbine Config			
Int TF Offset											Stator Prt #				Pulser Config			
Low Oil Flag									<input type="checkbox"/>		Hrs @ Low Oil		hrs.		Stab Spacing			
DD Objectives Achieved									<input checked="" type="checkbox"/>		If not, why?							
Bit Type									PDC		Other							
Manufacturer									Hughes		Model		HCH606		IADC Code			
Inner Row									1		Outer Row		1		Dull Char		ER	
Location									Nose		Brng/Seals		X		Gauge (1/16")		In	
Other Char									None		Reason Pulled		PR					
Trans Fail									<input type="checkbox"/>		Jamming		<input type="checkbox"/>		Client Inconv.		<input type="checkbox"/>	
Pres Incr @ Fail									<input type="checkbox"/>		Jamming Time		hrs.		Lost Time		hrs.	
D&M Trip									<input type="checkbox"/>		Sync Hours		21.50 hrs.		Surface Vib		<input type="checkbox"/>	
Surface Sys Failure									<input type="checkbox"/>									
SUMMARY																		
Good MWD/LWD run.																		

DRILLING & MEASUREMENTS - BHA DATA

Job Number AWA-04-08
Run Number 3
BHA Number

Item	Description	Vendor	Material	Serial Number	Fishing Neck		Stab OD	OD	ID	Bot Connection		Top Connection		Len	Cum Len	TIME/DEPTH DETAILS								
					OD	Length				Size	Type	Size	Type			1	2	3	4	5				
UNITS																Date/Time	05-Dec-04							
1	PDC Bit	Hughes		7003752	8.00	0.14		12.25				6.63	Reg P	0.34	0.34	Field Engineer	OR							
2	Crossover			L900	9.50			9.63	3.06	6.63	Reg B	7.63	Reg P	0.35	0.69	Depth	2504.00							
3	Motor	Schlumberger	Monel	1060	9.63	0.47		9.63	3.06	7.63	Reg B	7.63	Reg B	9.68	10.37	Average ROP	21.00							
4	Float sub	Schlumberger	Monel	3728	9.50			9.50	2.25	7.63	Reg P	7.63	Reg B	0.90	11.27	Avg. Std. Pres.	2900.00							
5	Crossover				8.06	0.62		9.00	3.00	7.63	Reg P	6.63	Reg B	1.32	12.59	Desurger 1	800.00							
6	Stabilizer			AIB 1123	7.94	0.67	12.50	8.00	2.88	6.63	Reg P	6.63	Reg B	1.65	14.24	Desurger 2	800.00							
7	CDR	Schlumberger	Monel	8001	8.38	4.00		8.25	2.88	6.63	Reg P	6.63	FH B	6.98	21.22	Tur. RPM @ FR	2695.00							
8	ILS	Schlumberger	Monel	213272-2	8.38	0.50	12.13	8.25		6.63	FH P	6.63	FH B	1.38	22.60	FR @ Tur. RPM	840.00							
9	PowerPulse	Schlumberger	Monel	ED 12	8.25	0.34		8.25		6.63	FH P	6.63	Reg B	8.38	30.98	Avg. RPM	100.00							
10	Stabilizer			AIB 1120	7.88	0.56	12.50	8.00	3.00	6.63	Reg P	6.63	Reg B	1.45	32.43	Max RPM	100.00							
11	8 x DC				8.25			8.00	2.88	6.63	Reg P	6.63	Reg B	74.15	106.58	Total Shocks	0.00							
12	Jar			48907 C	8.06	0.61		8.06	3.00	6.63	Reg P	6.63	Reg B	9.78	116.36	Max Shock	2.00							
13	3 x DC				7.88			8.00	2.88	6.63	Reg P	6.63	Reg B	27.66	144.02	Avg. Surf. WOB	20.00							
14	Crossover				6.63	0.60		8.00	2.94	6.63	IF P	4.50	IF B	1.14	145.16	Max Surf. WOB	20.00							
15	12 x HWDP				6.50			6.63	3.00	4.50	IF P	4.50	IF B	110.77	255.93	Avg. DH WOB	20.00							
16																Max DH WOB	20.00							
17																Avg. Surf. Torq.	2.00							
18																Max Surf. Torq.	5.00							
19																Avg. DH Torq.	1.70							
20																Max DH Torq.	4.00							
21																Formation Type	Claystone							
22																Friction								
23																Drag Up								
24																Drag Down								
PREDICTED BHA TENDENCY								Hookload				Wt. Below Jars 56.00 klbs		Mud Weight		9.30								
								Pickup Wt.				Wt. Above Jars 36.50 klbs		Funnel Vis.		60.00								
								Slack Wt.				Total Air Wt.		Plastic Vis.		21.00								
								Circ. Temp		20.00														
								Signal Strength		7.40														
								Bit Deviation		0.24														
Differential Pres.		200.00																						
Stabilizer Description		Mid Pt To Bit	BLADE		GAUGE			Bit To Read Out Port		Bit To Measurement Port		BATTERY		Unloaded (V)		Loaded (V)		Run Hrs		Cum Hrs				
UNITS		m	Type	Length	Width	Length	In	Out	CDR	17.09 m	GR LWLD	19.45 m	Tool	Before	After	Before	After	BOT	AMP	BOT	AMP			
				in	in	in	in	in	PPL	24.38 m	RES LWLD	16.10 m	H524743-40338	21.73		19.59								
										m	APWD LWLD	16.63 m	H524743-40339	21.79		20.10								
										m	D&I PPL	26.73 m												
										m														
										m														
										m														

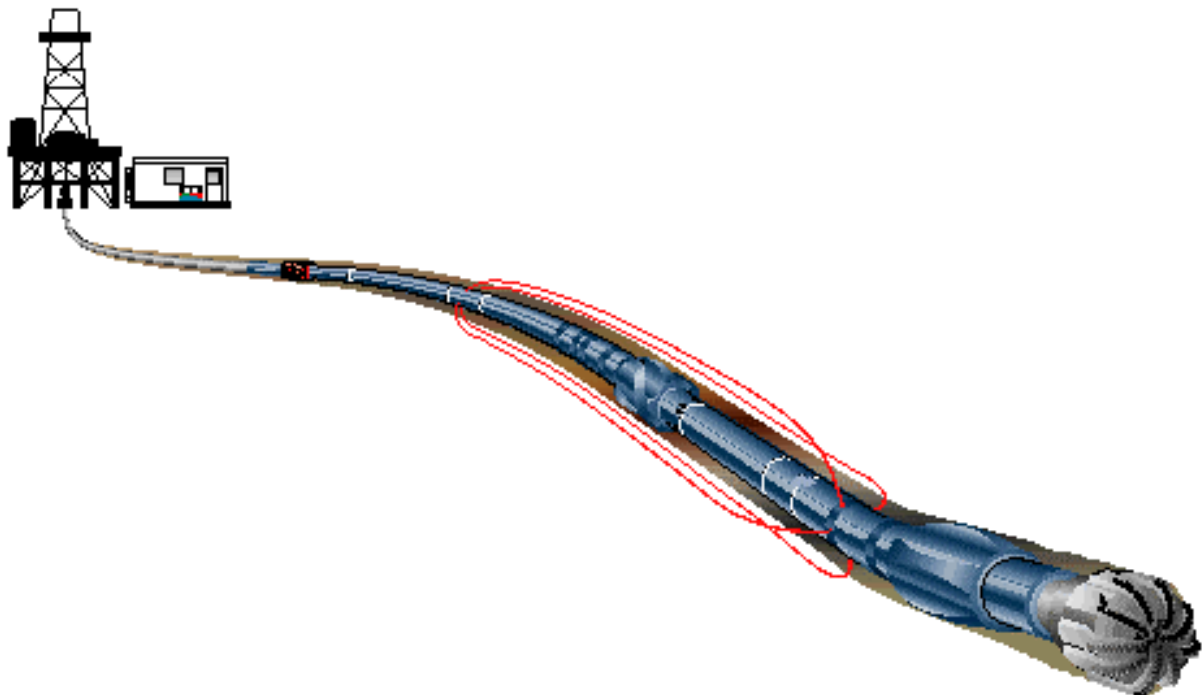
Job Number AWA-04-08		Company Rep. D.Atkins & P.King		Date In 6-Dec-04		Date Out 7-Dec-04		D&M Run Number 4		Rig Run Number 4																																																																																																										
Company Santos Ltd.			Grid Corr -0.46		Brief Run Summary Good Run				Bit Run Number 4		Cell Manager Danielle Borges																																																																																																									
Rig Name Jack Bates			Tot Corr 10.94		Hole Depth From 2695 m To 2979.00 m				D&M Crew Ozren Radicevic & Lisa Watson																																																																																																											
Well Name Amrit-1			Location Otway Basin		Inclination (Drift) From 0.37 deg To 0.26 deg				Pumping Hours 16.80 hrs.		Below Rotary Tbl Hrs 31.50 hrs.																																																																																																									
Mapfile BGGM 2004		Mag Dec 10.48		PP Slot ID		Azimuth From 195.11 deg To 140.59 deg				Rotary Hours 6.10 hrs.		Rotary Distance 284.00 m																																																																																																								
BPS 3		Frequency 12 Hz		Mod Type QPSK		True Vertical Depth From 2694.94 m To 2978.94 m				Slide Hours		Slide Distance																																																																																																								
Pump Type Triplex		Pump Output 4.28 gpm		Pump Strk Len. 12 in		Hole Size 12.25 in				Water Depth 1396 m		Air Gap 29 m																																																																																																								
Pump Liner ID 6.0 in		Min DLS 0.01		Max DLS 0.03		RKB Height m		Ground Elev. -1396 m		Mod Gap 0.148 in		Reaming Hours																																																																																																								
Bent Sub Angle deg		Bent HSG Ang deg		Depth Max DLS 2950.00 m		Digit Time		T/F Arc in		T/F Angle deg		On Bottom Hours																																																																																																								
Pulse Ht Thresh		Min Pulse Wdt		Max Pulse Wdt		H2S In Well <input type="checkbox"/>		Damp Press psi		Signal Strong. 8.00		Last Casing Size 13.375 in Depth 2459 m																																																																																																								
Conn Phase Ang deg		Rise Const		Fall Const		Turbine RPM @ Min Flow Rate RPM 16.00 FR		Turbine RPM @ Max Flow Rate RPM 61.00 FR		61.00 gpm		RPM 97.00 FR																																																																																																								
Directional Driller(s) Bob Manjancic		Run Objective Drill 12.25" section to TD.		Turbine RPM @ Min Flow Rate RPM 16.00 FR		Turbine RPM @ Max Flow Rate RPM 61.00 FR		61.00 gpm		RPM 97.00 FR		847.00 gpm																																																																																																								
<table border="1"> <thead> <tr> <th rowspan="2">Equipment Code</th> <th rowspan="2">Pump Hrs Start</th> <th rowspan="2">Cum</th> <th rowspan="2">SW Vers</th> <th rowspan="2">Tool Size</th> <th rowspan="2">Equipment Code</th> <th rowspan="2">Pump Hrs Start</th> <th rowspan="2">Cum</th> <th rowspan="2">SW Vers</th> <th rowspan="2">Tool Size</th> <th colspan="2">Sensors</th> <th colspan="2">Real Time</th> <th colspan="2">Recorded Time</th> </tr> <tr> <th>Code</th> <th>Code</th> <th>Hrs</th> <th>Fail</th> <th>Drilled</th> <th>Hrs</th> <th>Fail</th> <th>Drilled</th> </tr> </thead> <tbody> <tr> <td>A962M-2099</td> <td>125</td> <td>142</td> <td></td> <td>9.62</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>CDDC-BC-8001</td> <td>16.8</td> <td></td> <td>284</td> <td>31.5</td> <td>284</td> </tr> <tr> <td>CDDC-BC-8001</td> <td>30</td> <td>47</td> <td>6.0B08</td> <td>8.25</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>MDC-DE-ED12</td> <td>16.8</td> <td></td> <td>284</td> <td></td> <td>284</td> </tr> <tr> <td>H524743-40338</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>H524743-40339</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>MDC-DE-ED12</td> <td>30</td> <td>47</td> <td>70C00</td> <td>8.25</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>													Equipment Code	Pump Hrs Start	Cum	SW Vers	Tool Size	Equipment Code	Pump Hrs Start	Cum	SW Vers	Tool Size	Sensors		Real Time		Recorded Time		Code	Code	Hrs	Fail	Drilled	Hrs	Fail	Drilled	A962M-2099	125	142		9.62						CDDC-BC-8001	16.8		284	31.5	284	CDDC-BC-8001	30	47	6.0B08	8.25						MDC-DE-ED12	16.8		284		284	H524743-40338																H524743-40339																MDC-DE-ED12	30	47	70C00	8.25											
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Surface Sys Version		IDEAL/SPM ID9_1C_01		IDEAL/SPM hspm9_2c_08																																																																																																																
Manufacturer Schlumberger		Stage Length 4.80 m		Bit to Bend Dist. 3.06 m		Bearing Gap In 1.00		Bearing Gap Out 2.00		Radial Bearing Play		Thrust Bearing Play																																																																																																								
Type A962M		Rubber RM100		RSS Mfr RSS Type		RSS Size		RSS SN																																																																																																												
Size 9.62		Sleeve Position 0.45		Sleeve Size 12.13 in		Max Circ Temp 26.00 C		Avg ROP 46.56 m/hr		Min Actl FlowRt 61.00 gpm		Max Shock Dur 0.18 sec.																																																																																																								
Serial Number 2099		Motor Fail <input type="checkbox"/>		Max ROP 152.36 m/hr		Avg PmpPres 3516.00 psi		Total DH Shocks (k) 3.53 k		End Mud Wt 9.60 lb/gal		Avg Surf RPM 92.00																																																																																																								
Lobe Config. 7:8		Max ROP 152.36 m/hr		Avg PmpPres 3516.00 psi		Total DH Shocks (k) 3.53 k		End Funnel Vis 65.00 CPS		Min RPM 16.00		PmpPres On Bot psi																																																																																																								
Max Circ Temp 26.00 C		Avg ROP 46.56 m/hr		Min Actl FlowRt 61.00 gpm		Max Shock Dur 0.18 sec.		End Plastic Vis 25.00 CPS		Max RPM 97.00		Avg Surf WOB 15.11 klbs																																																																																																								
Min Circ Temp 21.00 C		Max ROP 152.36 m/hr		Avg PmpPres 3516.00 psi		Total DH Shocks (k) 3.53 k		End Yield Point 32.00 CPS		Avg FlowRate 826.00 gpm		Avg Surf Torq 10670.00 ft-lbs																																																																																																								
End Mud Wt 9.60 lb/gal		Avg Surf RPM 92.00		PmpPres On Bot psi		CHECK SHOT		End Mud Resist 0.10		Max Actl FlowRt 847.00 gpm		Max Shock Lev																																																																																																								
End Funnel Vis 65.00 CPS		Min RPM 16.00		PmpPres Off Bot psi		Type		Inclination deg		Azimuth deg																																																																																																										
End Plastic Vis 25.00 CPS		Max RPM 97.00		Avg Surf WOB 15.11 klbs		Depth m																																																																																																														
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Company MI		PH 8.90		Percent Sand 0.25 %		Additives Barite		Brand KCI/PHPA/Glyco		Chlorides 48000.00		Percent Solids 9.40 %																																																																																																								
Brand KCI/PHPA/Glyco		Chlorides 48000.00		Percent Solids 9.40 %		Clean <input type="checkbox"/>		Type KCL		Other		Percent Oil %																																																																																																								
Type KCL		Other		Percent Oil %		LCM Type		LCM Size		LCM Concentration																																																																																																										
LCM Type		LCM Size		LCM Concentration		BHA Type		Tur Rotor Prt #		Turbine Config		Surface Screen <input type="checkbox"/>																																																																																																								
BHA Type		Tur Rotor Prt #		Turbine Config		Surface Screen <input type="checkbox"/>		Int TF Offset		Stator Prt #		Pulser Config																																																																																																								
Int TF Offset		Stator Prt #		Pulser Config		DFS Used <input type="checkbox"/>		Low Oil Flag <input type="checkbox"/>		Hrs @ Low Oil hrs.		Stab Spacing																																																																																																								
Low Oil Flag <input type="checkbox"/>		Hrs @ Low Oil hrs.		Stab Spacing		Formation		DD Objectives Achieved <input checked="" type="checkbox"/>		If not, why?																																																																																																										
DD Objectives Achieved <input checked="" type="checkbox"/>		If not, why?				Bit Type PDC		Other																																																																																																												
Bit Type PDC		Other				Manufacturer Hycalog		Model DSX104		IADC Code		No. of Jets 5																																																																																																								
Manufacturer Hycalog		Model DSX104		IADC Code		No. of Jets 5		Size of Jets 15		Bit TFA 0.86		Total Revs 66842.00																																																																																																								
Inner Row 1		Outer Row 1		Dull Char WT		Location A		Brng/Seals X		Gauge (1/16") in		Other Char NO																																																																																																								
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Reason Pulled TD																																																																																																																				
Trans Fail <input type="checkbox"/>		Jamming <input type="checkbox"/>		Client Inconv. <input type="checkbox"/>		Surface Noise <input type="checkbox"/>		Pres Incr @ Fail <input type="checkbox"/>		Jamming Time hrs.		Lost Time hrs.																																																																																																								
Pres Incr @ Fail <input type="checkbox"/>		Jamming Time hrs.		Lost Time hrs.		Down Hole Noise <input type="checkbox"/>		D&M Trip <input type="checkbox"/>		Sync Hours hrs.		Surface Vib <input type="checkbox"/>																																																																																																								
D&M Trip <input type="checkbox"/>		Sync Hours hrs.		Surface Vib <input type="checkbox"/>		Surface Sys Failure <input type="checkbox"/>																																																																																																														
Surface Sys Failure <input type="checkbox"/>																																																																																																																				
<p>Good MWD/LWD run.</p>																																																																																																																				

DRILLING & MEASUREMENTS - BHA DATA

Job Number AWA-04-08
Run Number 4
BHA Number

Item	Description	Vendor	Material	Serial Number	Fishing Neck		Stab OD	OD	ID	Bot Connection		Top Connection		Len	Cum Len	TIME/DEPTH DETAILS									
					OD	Length				Size	Type	Size	Type			1	2	3	4	5					
UNITS																Date/Time	06-Dec-04								
1	PDC Bit	Hycalog		108439	8.00	0.14		12.25				6.63	Reg P	0.32	0.32	Field Engineer	Danielle								
2	Crossover			L900	9.50			9.63	3.06	6.63	Reg B	7.63	Reg P	0.35	0.67	Depth	2776.43								
3	Motor	Schlumberger	Monel	1060	9.63	0.47		9.63	3.06	7.63	Reg B	7.63	Reg B	9.68	10.35	Average ROP	49.00								
4	Float sub	Schlumberger	Monel	3728	9.50			9.50	2.25	7.63	Reg P	7.63	Reg B	0.90	11.25	Avg. Std. Pres.	3570.00								
5	Crossover				8.06	0.62		9.00	3.00	7.63	Reg P	6.63	Reg B	1.32	12.57	Desurger 1	800.00								
6	Stabilizer			AIB 1123	7.94	0.67	12.50	8.00	2.88	6.63	Reg P	6.63	Reg B	1.65	14.22	Desurger 2	800.00								
7	CDR	Schlumberger	Monel	8001	8.38	4.00		8.25	2.88	6.63	Reg P	6.63	FH B	6.98	21.20	Tur. RPM @ FR	2695.00								
8	ILS	Schlumberger	Monel	213272-2	8.38	0.50	12.13	8.25		6.63	FH P	6.63	FH B	1.38	22.58	FR @ Tur. RPM	700.00								
9	PowerPulse	Schlumberger	Monel	ED 12	8.25	0.34		8.25		6.63	FH P	6.63	Reg B	8.38	30.96	Avg. RPM	25.00								
10	Stabilizer			AIB 1120	7.88	0.56	12.50	8.00	3.00	6.63	Reg P	6.63	Reg B	1.45	32.41	Max RPM	100.00								
11	8 x DC				8.25			8.00	2.88	6.63	Reg P	6.63	Reg B	74.15	106.56	Total Shocks	0.29								
12	Jar			48907 C	8.06	0.61		8.06	3.00	6.63	Reg P	6.63	Reg B	9.78	116.34	Max Shock									
13	3 x DC				7.88			8.00	2.88	6.63	Reg P	6.63	Reg B	27.66	144.00	Avg. Surf. WOB	15.00								
14	Crossover				6.63	0.60		8.00	2.94	6.63	IF P	4.50	IF B	1.14	145.14	Max Surf. WOB	30.00								
15	12 x HWDP				6.50			6.63	3.00	4.50	IF P	4.50	IF B	110.77	255.91	Avg. DH WOB	10.00								
16																Max DH WOB									
17																Avg. Surf. Torq.	1.89								
18																Max Surf. Torq.	3.00								
19																Avg. DH Torq.	1.00								
20																Max DH Torq.	1.30								
21																Formation Type	Claystone								
22																Friction									
23																Drag Up									
24																Drag Down									
PREDICTED BHA TENDENCY								Hookload				Wt. Below Jars 56.00 klbs		Mud Weight		9.80									
								Pickup Wt.				Wt. Above Jars 36.80 klbs		Funnel Vis.		67.00									
								Slack Wt.				Total Air Wt.		Plastic Vis.		23.00									
								Circ. Temp		23.00															
								Signal Strength		8.00															
								Bit Deviation		0.37															
Differential Pres.																									
Stabilizer Description		Mid Pt To Bit	BLADE		GAUGE			Bit To Read Out Port		Bit To Measurement Port		BATTERY		Unloaded (V)		Loaded (V)		Run Hrs		Cum Hrs					
		m	Type	Length	Width	Length	In	Out	CDR	17.07 m	GR LWD	19.43 m	Tool	Before	After	Before	After	BOT	AMP	BOT	AMP				
UNITS				in	in	in	in	in	PPL	24.36 m	RES LWD	16.08 m	H524743-40338												
										m		APWD LWD	16.61 m	H524743-40339											
										m		D&I PPL	26.71 m												
										m															
										m															
										m															

Performance Drilling Report



SANTOS Limited**End of Well Summary****Amrit-1**

20 November 2004 – 4 December 2004

Overview:

Amrit #1 is proposed as an Otway Basin Deepwater Wildcat Exploration Well. The Amrit feature is covered by the 3D Seismic Survey, and lies within the Paaratte Sandstone Play Fairway. The proposed well location is 68 km south of Portland, Victoria, and 48 km southeast of the Callister #1 location. The estimated water depth at the proposed Amrit #1 location is $\pm 1,395$ m MD

Amrit #1 is being drilled as a vertical well to a minimum TD of -2,950m MD or alternatively, deeper to TD of -3,150m MD in the case of encouraging shows.

The Amrit well is located on a tilted fault-block to test structural potential of the Paaratte Formation Primary Target (K-94 / K-93) at a depth of -2,545m. The Main Objective is the K-94 / K-93 Top Paaratte Deltaic Section with the Secondary Target being the K-91 Intra-Paaratte Nullawarre Amplitude Anomaly.

Amrit #1 is an oil-prospect, but there is a possibility that gas will be encountered in the reservoir.

BHA # 1**26" Performance Rotary Assembly w/CADa Tool
(1424m MD - 1835m MD)**

26" Mill Tooth Bit- MDSD, A962M 7:8 GT PowerPak w/0° ABH, Float Sub, 26" WBS Stabilizer, CDR9, PowerPulse9, 26" WBS Stabilizer, 9 1/2" NMDC, 3 x 9 1/2" DC, X/O, 2 x 8" DC, CADA Tool, 6 x 8" DC, 12 x 5" HWDP, 5" DP to surface.

A 26" Mill Tooth Bit with 9 5/8 GT Motor and CADA Tool was used to jet-in 30" Casing from the actual seabed depth of 1425m MD to 1510m MD. MWD surveys were taken approximately every 30m and MWD surveys and GRA Bullseye confirmed casing verticality. After achieving Jet-In depth 8 hours was allowed for 30" conductor to "Soak", thus ensuring firm release of CADA Tool. Riserless drilling was then continued with same bottom hole assembly utilizing seawater and pumping gel sweeps to improve hole cleaning. The 20" casing shoe depth at 1835m MD was reached with an average rate of penetration of 41.7 m/h. The well was bottoms up circulated, a wiper trip performed to 30" Casing shoe and BHA was POOH to run 20" Casing.

BHA # 2**17 1/2" Packed Rotary Assembly
(1835m MD – 2459m MD)**

17 1/2" Mill Tooth Bit- T11C, A962M 7:8 GT PowerPak w/0° ABH, Float Sub, 17 1/2" IBS Stabilizer, CDR9, PowerPulse9, 17 1/2" IBS Stabilizer, 9 1/2" NMDC, 2 x 9 1/2" DC, X/O, 8 x 8" DC, 8" Jar x 3 x 8" DC, 12 x 5" HWDP, 5" DP to surface.

After drilling out the casing float collar, shoe track and 3m of new formation the well was displaced to mud and a LOT was conducted at 1838m MD. Leak-off tested to 9.6ppg EMW.

Drilling then continued ahead, with KCL/PHPA Glycol mud. As drilling advanced it became apparent that under given condition (bottom hole temperature 15°C, surface mud temperature at the flow line 12°C, long riser section, flow rate) mud properties would not be able to provide effective hole cleaning. At depth of 2317m cuttings build up was seen, with an ECD of 9.65. This is despite the fact that high viscous sweeps were pumped regularly. The decision was made to stop drilling and circulate hole for two hours and utilise high and low viscous sweeps again. The hole conditions were improved and drilling was continued to the section TD. At the section TD the hole was circulated bottoms up, a wiper trip performed to 20" Casing shoe and BHA was POOH to run 13 3/8" Casing.

BHA # 3**12 1/4" Performance Motor Assembly
(2459m MD – 2695m MD)**

12 1/4" PDC Bit- HCM606, A962M 7:8 GT PowerPak w/0° ABH, Float Sub, X/O, 12 1/4" IB Stabilizer, CDR8 w/ 12 1/8" ILS, PowerPulse8, 12 1/4" IB Stabilizer, 8 x 8"DC, 8" Jar, 3 x 8" DC, X/O, 12 x 5" HWDP, 5" DP to surface.

Tagged and drilled out cement and float equipment. Drilled out shoe and 3m of new formation and performed LOT, but could not get leak off pressure, drilled three meters more and tried again ended up doing FIT with 11ppg EMW. Continue to drill ahead with ROP from 10 – 25 m/hr. ROP dropped to 3 m/h at 2695 m MD and a variety of different drilling parameters were applied to increase ROP. Finally a decision was made to POOH and check the bit. At surface the bit was found in good condition and decrease in the ROP was considered to be formation related. The average rate of penetration for the run#3 was 16.4 m/h

BHA # 4**12 1/4" Performance Motor Assembly
(2695m MD – 3179m MD)**

12 1/4" PDC Bit- DSX104HGW, A962M 7:8 GT PowerPak w/0° ABH, Float Sub, X/O, 12 1/4" IB Stabilizer, CDR8 w/ 12 1/8" ILS, PowerPulse8, 12 1/4" IB Stabilizer, 8 x 8"DC, 8" Jar, 3 x 8" DC, X/O, 12 x 5" HWDP, 5" DP to surface.

After changing out the bit to DSX104HGW, this assembly was RIH. Once on bottom the hole was circulated and drilling commenced with low weight on bit, high RPM and high flow rate to push aside possible junk left from the sleeps. After a few meters, the weight on bit was gradually increased to 25 klbs. RPM adjusted to 100 and flow rate slightly decreased to 850 gpm. With these parameters drilling continued. Monitoring of drilling mechanics and adjusting drilling parameters accordingly. The total depth of 2979m MD was reached with average rate of penetration of 46.6 m/h. The well was bottoms up circulated and BHA POOH to conduct wireline logs.

WELL# Amrit-1 DATE: 27-Nov-04 Depth In : 1835 MD Pump Output 4.28 Gal / stk Planned Angle : Page 1 of 1
 Planned Direction :

BHA # 2 BIT# 2 BHA : Mill Toot 2MGT.Float Sub 17 1/2" Iw/ APWD PowerPul 17 1/2" IB Stabilizer

SURVEY SPACING = 24.32
 GAMMA SPACING = 19.16

DLS & Depths are, 1=^o/100Ft, 2=^o/30Mts, 3=^o/10Mts: 2

30"x 20" Casing Shoe Set @ 1510 & 1822m MD
13 3/8" Casing Shoe Set @ 785m MD

R/S	DRILLING TIME			Motor Work Sheet				AVG TF	SURVEY			STK / MIN	FLOW RATE	RPM	WOB	TORQ kft-lbs	PRESSURE		REMARKS
	START	STOP	SUM	FROM	TO	Feet Rotated	Feet Slide		DEPTH	INCL	AZM						On Bottom	Off Bottom	
R	9:05	9:17	0:12	1835	1838	3					200	856	60	10	3	1,680	1,590	circulate and LOT	
R	11:37	12:05	0:28	1838	1847	9					200	856	60	10	3	1,680	1,590		
R	12:20	13:20	1:00	1847	1876	29			1849.73	0.23	231.00	200	856	100	25	3	1,800	1,600	
R	13:32	15:45	2:13	1876	1905	29			1878.02	0.37	193.70	200	856	100	25	3	1,800	1,600	30' circulate shaker oferflooded
R	15:58	17:37	1:39	1905	1933	28			1908.10	0.34	223.98	200	856	100	25	3	1,800	1,600	
R	17:54	19:51	1:57	1933	1962	29			1935.76	0.18	265.57	200	856	100	25	3	1,800	1,600	
R	19:58	21:41	1:43	1962	1990	28			1963.97	0.17	252.91	235	1,006	100	25	3	2,900	2,700	
R	21:46	23:20	1:34	1990	2019	29			1991.95	0.12	204.40	235	1,006	100	25	3	2,900	2,700	
R	23:24	0:07	0:43	2019	2046	27			2020.87	0.20	231.00	235	1,006	100	25	3	2,900	2,700	
R	0:15	1:35	1:20	2046	2075	29			2049.42	0.23	223.20	235	1,006	100	25	3	2,900	2,700	
R	1:42	2:47	1:05	2075	2104	29			2077.78	0.26	214.74	235	1,006	100	25	3	2,900	2,700	
R	2:59	3:54	0:55	2104	2133	29			2105.32	0.33	183.75	235	1,006	100	25	3	2,900	2,700	
R	3:59	5:54	1:55	2133	2162	29			2134.71	0.29	176.46	235	1,006	100	25	3	2,900	2,700	
R	5:59	8:08	2:09	2162	2191	29			2162.92	0.22	203.34	235	1,006	100	25	3	2,900	2,700	
R	8:13	9:41	1:28	2191	2219	28			2192.60	0.14	180.37	200	856	100	35	4	2,400	2,200	
R	9:51	11:40	1:49	2219	2247	28			2220.68	0.29	203.20	235	1,006	100	35	4	2,900	2,700	
R	11:55	13:28	1:33	2247	2275	28			2248.46	0.15	220.05	235	1,006	100	35	4	2,900	2,700	
R	13:54	15:50	1:56	2275	2303	28			2277.22	0.31	183.89	235	1,006	100	35	4	3,000	2,800	
R	15:58	17:10	1:12	2303	2317	14			2306.21	0.34	216.07	235	1,006	100	35	4	3,100	2,900	
R	17:10	20:20	3:10	2317	2332	15					235	1,006	100	35	4	3,100	2,900		
R	20:25	22:30	2:05	2332	2360	28			2334.13	0.40	185.07	235	1,006	100	35	4	3,200	3,000	
R	22:36	1:25	2:49	2360	2387	27			2361.66	0.37	221.08	235	1,006	100	35	4	3,200	3,000	
R	1:30	4:35	3:05	2387	2416	29			2390.55	0.33	232.85	255	1,091	100	35	4	3,300	3,100	
R	4:40	6:32	1:52	2416	2445	29			2419.57	0.32	200.20	255	1,091	100	35	4	3,300	3,100	
R	6:38	7:28	0:50	2445	2459	14			2433.15	0.24	208.59	255	1,091	100	35	4	3,300	3,100	
TIME BREAKDOWN:																			
Rotated Time : <u>16:42</u> Hrs/Mins Feet Rotated: <u>624.0</u>																			
Slide Time : Hrs/Mins Feet Slid:																			
Total Time : <u>16:42</u> Hrs/ Mins Feet Drilled : <u>624.0</u>																			



DOWN-HOLE MOTOR RUN REPORT

Motor Size : **Serial No :** **Run No :** **BHA No:** Ft, Mt

Company	<input type="text" value="Santos"/> <input type="text" value="South Australia"/>	Well	<input type="text" value="Amrit-1"/>	Slot	<input type="text" value="1"/>	Field	<input type="text" value="Callister"/>	
		Location	<input type="text" value="Otway Basin"/>	Country	<input type="text" value="Australia"/>			
Operator	<input type="text" value="Transocean"/>	Rig	<input type="text" value="Jack Bates"/>	Engineer	<input type="text" value="B Manjenic"/>		Date	<input type="text" value="22-Nov-04"/>

Bit Size	Make	Type	IADC	Jets	Jets	Jets	Jets	TFA
<input type="text" value="26"/>	<input type="text" value="Smith"/>	<input type="text" value="MSDS"/>	<input type="text" value="115"/>	<input type="text" value="2.22"/>	<input type="text" value="2.20"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="1.356"/>

IADC CUTTING STRUCTURE

Inner Row	Outer Row	Dull Char'	Location	Brq/Seals	Gauge	Others	Reason for Trip
<input type="text" value="1"/>	<input type="text" value="1"/>	<input type="text" value="WT"/>	<input type="text" value="A"/>	<input type="text" value="E"/>	<input type="text" value="In"/>	<input type="text" value="No"/>	<input type="text" value="TC"/>

Motor Made By	<input type="text" value="Anadrill"/>	Size	<input type="text" value="9 5/8"/>	Model / Type	<input type="text" value="A962M"/>	Rotor/Stator	<input type="text" value="7:8"/>	Serial No	<input type="text" value="1069"/>	Hsg Stab OD	<input type="text" value="25 3/8"/>	° Bent Hsg	<input type="text" value="0°"/>	° Bent Sub	<input type="text" value="n/a"/>
Type	<input type="text" value="1 = Straight; 2 = Steerable;"/> <input type="text" value="2"/> <input type="text" value="3 = Double Bend"/>		Stator Ser N°	<input type="text" value="297296-4280"/>	Rotor Ser N°	<input type="text" value="300933-1879"/>		Drig Cmt. Wash/Ream	<input type="text" value="6.2"/>						
	Drig Hrs	<input type="text" value="18.70"/>		Circ Hrs	<input type="text" value="10.50"/>		Total Motor Circ Hrs	<input type="text" value="35.40"/>							

Purpose of Run

BHA Mill Tooth Bit A962MGT7848 Float Sub 26" WB Stabilizer CDR9 PowerPulse HF 26" WB Stabilizer 9 1/2" NM Drill Collar 3 x 9 1/2" Drill Collar X/O 2 x 8" Drill Collar Drill-Quip CADA Tool Drill-Quip CADA Tool 6 x 8" Drill Collar X/O 5" DP to Surface	Surveys	MD IN	<input type="text" value="1425.00"/>	Inclin	<input type="text" value="0.59"/>	Azim	<input type="text" value="234.33"/>	
		MD OUT	<input type="text" value="1835.00"/>	Inclin	<input type="text" value="0.22"/>	Azim	<input type="text" value="170.41"/>	
	Flow Rate	Off Bttm PSI	On Bttm PSI	RPM	WOB			
	<input type="text" value="1177"/> GPM	<input type="text" value="2,700"/>	<input type="text" value="2,450"/>	<input type="text" value="100"/>	<input type="text" value="25-45"/> Klbs			
	Mud Type	<input type="text" value="KCL/PHPA"/>	Mud Wt	<input type="text" value="8.50"/>	Mud Grad'	<input type="text" value="0.441"/>	Vis	<input type="text" value="-"/>
	PV	<input type="text" value="-"/>	Filtrate	<input type="text" value="-"/>	% Solids	<input type="text" value="-"/>	Aniline Pt	<input type="text" value="n/a"/>
	YP	<input type="text" value="-"/>	% Oil	<input type="text" value="100"/>	% Sand	<input type="text" value="-"/>	Circ Temp	<input type="text" value="0"/>
	Depth In	<input type="text" value="1425"/>	Depth Out	<input type="text" value="1835"/>	Inter'l Drld	<input type="text" value="410"/>		
	Date In	<input type="text" value="20-Nov-04"/>	Date Out	<input type="text" value="22-Nov-04"/>	ROP	<input type="text" value="21.93"/>		
	Time In	<input type="text" value="7:00"/>	Time Out	<input type="text" value="16:30"/>	Time BRT	<input type="text" value="57.50"/> Hrs		

FAILURE? <input type="text" value="No"/>	Slide Mts <input type="text" value="85"/>	Previous Hrs <input type="text" value="0.00"/>	Cumulative Hrs <input type="text" value="35.40"/>
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Remarks / Failure Report. <input type="text" value="1) Motor was checked prior to RIH."/> <input type="text" value="2) Motor will be used for the next run in BHA#2, bearing play out 0.0mm"/>	Did Motor Stall <input type="text" value="No"/> <input type="text" value="No"/> <input type="text" value="No"/> <input type="text" value="No"/>	Bearing Play In <input type="text" value="0.0 mm"/> Out <input type="text" value="0.0 mm"/> Condition <input type="text" value="Good"/>
	Slide Rty <input type="text" value="No"/> <input type="text" value="No"/>	



DOWN-HOLE MOTOR RUN REPORT

Motor Size : **Serial No :** **Run No :** **BHA No:** Ft, Mt

Company	<input type="text" value="Santos"/> <input type="text" value="South Australia"/>	Well	<input type="text" value="Amrit-1"/>	Slot	<input type="text" value="1"/>	Field	<input type="text" value="Callister"/>
Operator	<input type="text" value="Transocean"/>	Location	<input type="text" value="Otway Basin"/>	Country	<input type="text" value="Australia"/>		
Rig	<input type="text" value="Jack Bates"/>	Engineer	<input type="text" value="B Manjenic"/>		Date	<input type="text" value="1-Dec-04"/>	

Bit Size	Make	Type	IADC	Jets	Jets	Jets	Jets	TFA
<input type="text" value="17 1/2"/>	<input type="text" value="Hycalog"/>	<input type="text" value="T11C"/>	<input type="text" value="115"/>	<input type="text" value="3.22"/>	<input type="text" value="1.20"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="1.420"/>

IADC CUTTING STRUCTURE

Inner Row	Outer Row	Dull Char'	Location	Brq/Seals	Gauge	Others	Reason for Trip
<input type="text" value="2"/>	<input type="text" value="2"/>	<input type="text" value="BT"/>	<input type="text" value="A"/>	<input type="text" value="E"/>	<input type="text" value="1"/>	<input type="text" value="WT"/>	<input type="text" value="TD"/>

Motor Made By	<input type="text" value="Anadrill"/>	Size	<input type="text" value="9 5/8"/>	Model / Type	<input type="text" value="A962M"/>	Rotor/Stator	<input type="text" value="7:8"/>	Serial No	<input type="text" value="1069"/>	Hsg Stab OD	<input type="text" value="17 1/4"/>	° Bent Hsg	<input type="text" value="0°"/>	° Bent Sub	<input type="text" value="n/a"/>
Type	<input type="text" value="2"/> 1 = Straight; 2 = Steerable; <input type="text" value="3"/> 3 = Double Bend		Stator Ser N°	<input type="text" value="297296-4280"/>	Rotor Ser N°	<input type="text" value="300933-1879"/>		Drig Cmt. Wash/Ream	<input type="text" value="6.5"/>						
Drig Hrs	<input type="text" value="32.20"/>		Circ Hrs	<input type="text" value="46.80"/>		Total Motor Circ Hrs	<input type="text" value="85.50"/>								

Purpose of Run

BHA Mill Tooth Bit A962MGT7848 Float Sub 17 1/2" IB Stabilizer CDR9 w/ APWD PowerPulse HF 17 1/2" IB Stabilizer 9 1/2" NM Drill Collar 2 x 9 1/2" Drill Collar X/O 8 x 8" Drill Collar 8" Jar 3 x 8" Drill Collar X/O 12 x 5" HWDP	Surveys	MD IN	<input type="text" value="1835.00"/>	Inclin	<input type="text" value="0.26"/>	Azim	<input type="text" value="261.27"/>	
		MD OUT	<input type="text" value="2459.00"/>	Inclin	<input type="text" value="0.22"/>	Azim	<input type="text" value="170.41"/>	
	Flow Rate	Off Bttm PSI	On Bttm PSI	RPM	WOB			
	GPM	<input type="text" value="2,700"/>	<input type="text" value="2,450"/>	<input type="text" value="100"/>	Klbs	<input type="text" value="25-45"/>		
	<input type="text" value="1070"/>							
	Mud Type	<input type="text" value="KCL/PHPA"/>	Mud Wt	<input type="text" value="8.90"/>	Mud Grad'	<input type="text" value="0.462"/>	Vis	<input type="text" value="96"/>
	PV	<input type="text" value="15"/>	Filtrate	<input type="text" value="6.80"/>	% Solids	<input type="text" value="4.00"/>	Aniline Pt	<input type="text" value="n/a"/>
	YP	<input type="text" value="18"/>	% Oil	<input type="text" value="96"/>	% Sand	<input type="text" value="0.50"/>	Circ Temp	<input type="text" value="54"/>
	Depth In	<input type="text" value="1835"/>	Depth Out	<input type="text" value="2459"/>	Inter'l Drld	<input type="text" value="624"/>		
	Date In	<input type="text" value="27-Nov-04"/>	Date Out	<input type="text" value="1-Dec-04"/>	ROP	<input type="text" value="19.38"/>		
Time In	<input type="text" value="13:00"/>	Time Out	<input type="text" value="22:30"/>	Time BRT	<input type="text" value="105.50"/> Hrs			

FAILURE? <input type="text" value="No"/>	Slide Mts <input type="text" value=""/>	Previous Hrs <input type="text" value="34.50"/>	Cumulative Hrs <input type="text" value="120.00"/>
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Remarks / Failure Report. <input type="text" value="1) Motor was checked prior to RIH."/> <input type="text" value="2) Motor rotor jetted with nozzle 20/32"/>	Did Motor Stall <input type="text" value="No"/> <input type="text" value="No"/> <input type="text" value="No"/> <input type="text" value="No"/>	Bearing Play In <input type="text" value="0.0 mm"/> Out <input type="text" value="2.0 mm"/> Condition <input type="text" value="Good"/>
	Slide Rty <input type="text" value="No"/> <input type="text" value="No"/>	



DOWN-HOLE MOTOR RUN REPORT

Motor Size : Serial No : Run No : BHA No: Ft, Mt

Company	<input type="text" value="Santos"/> <input type="text" value="South Australia"/>	Well	<input type="text" value="Amrit-1"/>	Slot	<input type="text" value="1"/>	Field	<input type="text" value="Callister"/>
Operator	<input type="text" value="Transocean"/>	Rig	<input type="text" value="Jack Bates"/>	Engineer	<input type="text" value="B Manjenic"/>	Date	<input type="text" value="6-Dec-04"/>
Location		<input type="text" value="Otway Basin"/>		Country		<input type="text" value="Australia"/>	

Bit Size	Make	Type	IADC	Jets	Jets	Jets	Jets	TFA
<input type="text" value="12 1/4"/>	<input type="text" value="Hughes"/>	<input type="text" value="HCM606"/>	<input type="text" value="0"/>	<input type="text" value="6.14"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.902"/>

IADC CUTTING STRUCTURE

Inner Row	Outer Row	Dull Char'	Location	Brq/Seals	Gauge	Others	Reason for Trip
<input type="text" value="1"/>	<input type="text" value="1"/>	<input type="text" value="ER"/>	<input type="text" value="N"/>	<input type="text" value="X"/>	<input type="text" value="I"/>	<input type="text" value="NO"/>	<input type="text" value="PR"/>

Motor Made By	<input type="text" value="Anadrill"/>	Size	<input type="text" value="9 5/8"/>	Model / Type	<input type="text" value="A962M"/>	Rotor/Stator	<input type="text" value="7:8"/>	Serial No	<input type="text" value="2099"/>	Hsg Stab OD	<input type="text" value="12 1/8"/>	° Bent Hsg	<input type="text" value="0°"/>	° Bent Sub	<input type="text" value="n/a"/>
Type	<input type="text" value="2"/>	1 = Straight; 2 = Steerable; 3 = Double Bend		Stator Ser N°	<input type="text" value="297296-4281"/>	Rotor Ser N°	<input type="text" value="300933-2107"/>	Drig Cmt. Wash/Ream	<input type="text" value="4.0"/>						
Drig Hrs	<input type="text" value="14.40"/>		Circ Hrs	<input type="text" value="11.40"/>		Total Motor Circ Hrs	<input type="text" value="29.80"/>								

Purpose of Run

BHA PDC Bit X/O A962MGT7848 Float Sub X/O 12 1/4" IB Stabilizer CDR8 w/ APWD 12 1/8" ILS PowerPulse 12 1/4" IB Stabilizer 8 x 8" Drill Collar 8" Jar 3 x 8" Drill Collar X/O 12 x 5" HWDP	Surveys	MD IN	<input type="text" value="2459.00"/>	Inclin	<input type="text" value="0.24"/>	Azim	<input type="text" value="208.59"/>	
		MD OUT	<input type="text" value="2695.00"/>	Inclin	<input type="text" value="0.22"/>	Azim	<input type="text" value="170.41"/>	
	Flow Rate	Off Bttm PSI		On Bttm PSI		RPM	WOB	
	<input type="text" value="856"/>	<input type="text" value="2,700"/>		<input type="text" value="2,450"/>		<input type="text" value="100"/>	<input type="text" value="25-45"/>	
	Mud Type	<input type="text" value="KCL/PHPA"/>	Mud Wt	<input type="text" value="9.50"/>	Mud Grad'	<input type="text" value="0.493"/>	Vis	<input type="text" value="61"/>
	PV	<input type="text" value="21"/>	Filtrate	<input type="text" value="4.40"/>	% Solids	<input type="text" value="8.80"/>	Aniline Pt	<input type="text" value="n/a"/>
	YP	<input type="text" value="25"/>	% Oil	<input type="text" value="87.7"/>	% Sand	<input type="text" value="0.25"/>	Circ Temp	<input type="text" value="60"/>
	Depth In	<input type="text" value="2459"/>	Depth Out	<input type="text" value="2695"/>	Inter'l Drld	<input type="text" value="236"/>		
Date In	<input type="text" value="4-Dec-04"/>	Date Out	<input type="text" value="6-Dec-04"/>	ROP	<input type="text" value="16.39"/>			
Time In	<input type="text" value="2:00"/>	Time Out	<input type="text" value="7:00"/>	Time BRT	<input type="text" value="53.00"/> Hrs			

FAILURE?	<input type="text" value="No"/>	Slide Mts	<input type="text" value=""/>	Previous Hrs	<input type="text" value="95.50"/>	Cumulative Hrs	<input type="text" value="125.30"/>
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Remarks / Failure Report. 1) Motor was checked prior to RIH. 2) Motor will be used for the next run in BHA#4, bearing play out 2.0mm	Did Motor Stall	<input type="text" value="No"/>	<input type="text" value="No"/>
	Slide Rty	<input type="text" value="No"/>	<input type="text" value="No"/>
	Bearing Play	In	<input type="text" value="1.0 mm"/>
	Out	<input type="text" value="2.0 mm"/>	
Condition		<input type="text" value="Good"/>	



DOWN-HOLE MOTOR RUN REPORT

Motor Size : Serial No : Run No : BHA No: Ft, Mt

Company	<input type="text" value="Santos"/> <input type="text" value="South Australia"/>	Well	<input type="text" value="Amrit-1"/>	Slot	<input type="text" value="1"/>	Field	<input type="text" value="Callister"/>
Operator	<input type="text" value="Transocean"/>	Rig	<input type="text" value="Jack Bates"/>	Engineer	<input type="text" value="B Manjenic"/>	Date	<input type="text" value="7-Dec-04"/>
		Location	<input type="text" value="Otway Basin"/>	Country	<input type="text" value="Australia"/>		

Bit Size	Make	Type	IADC	Jets	Jets	Jets	Jets	TFA
<input type="text" value="12 1/4"/>	<input type="text" value="Hycalog"/>	<input type="text" value="DSX104"/>	<input type="text" value="0"/>	<input type="text" value="5.15"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.863"/>

IADC CUTTING STRUCTURE

Inner Row	Outer Row	Dull Char'	Location	Brq/Seals	Gauge	Others	Reason for Trip
<input type="text" value="1"/>	<input type="text" value="1"/>	<input type="text" value="WT"/>	<input type="text" value="A"/>	<input type="text" value="X"/>	<input type="text" value="I"/>	<input type="text" value="NO"/>	<input type="text" value="TD"/>

Motor Made By	Size	Model / Type	Rotor/Stator	Serial No	Hsg Stab OD	° Bent Hsg	° Bent Sub
<input type="text" value="Anadrill"/>	<input type="text" value="9 5/8"/>	<input type="text" value="A962M"/>	<input type="text" value="7:8"/>	<input type="text" value="2099"/>	<input type="text" value="12 1/8"/>	<input type="text" value="0°"/>	<input type="text" value="n/a"/>
Type	<input type="text" value="1 = Straight; 2 = Steerable; 3 = Double Bend"/>	Stator Ser N°	<input type="text" value="297296-4281"/>	Rotor Ser N°	<input type="text" value="300933-2107"/>	Drq Cmt. Wash/Ream	<input type="text" value="2.0"/>
<input type="text" value="2"/>		Drqg Hrs	<input type="text" value="6.10"/>	Circ Hrs	<input type="text" value="8.70"/>	Total Motor Circ Hrs	<input type="text" value="16.80"/>

Purpose of Run

BHA PDC Bit X/O A962MGT7848 Float Sub X/O 12 1/4" IB Stabilizer CDR8 w/ APWD 12 1/8" ILS PowerPulse 12 1/4" IB Stabilizer 8 x 8" Drill Collar 8" Jar 3 x 8" Drill Collar X/O 12 x 5" HWDP	Surveys	MD IN	<input type="text" value="2695.00"/>	Inclin	<input type="text" value="0.37"/>	Azim	<input type="text" value="195.11"/>	
		MD OUT	<input type="text" value="2979.00"/>	Inclin	<input type="text" value="0.22"/>	Azim	<input type="text" value="170.41"/>	
	Flow Rate	Off Bttm PSI	On Bttm PSI	RPM	WOB			
	<input type="text" value="856"/>	<input type="text" value="2,700"/>	<input type="text" value="2,450"/>	<input type="text" value="100"/>	<input type="text" value="25-45"/>			
	Mud Type	<input type="text" value="KCL/PHPA"/>	Mud Wt	<input type="text" value="9.60"/>	Mud Grad'	<input type="text" value="0.498"/>	Vis	<input type="text" value="65"/>
	PV	<input type="text" value="25"/>	Filtrate	<input type="text" value="5.20"/>	% Solids	<input type="text" value="9.40"/>	Aniline Pt	<input type="text" value="n/a"/>
	YP	<input type="text" value="32"/>	% Oil	<input type="text" value="88.4"/>	% Sand	<input type="text" value="0.24"/>	Circ Temp	<input type="text" value="58"/>
	Depth In	<input type="text" value="2695"/>	Depth Out	<input type="text" value="2979"/>	Inter'l Drld	<input type="text" value="284"/>		
	Date In	<input type="text" value="6-Dec-04"/>	Date Out	<input type="text" value="7-Dec-04"/>	ROP	<input type="text" value="46.56"/>		
	Time In	<input type="text" value="8:00"/>	Time Out	<input type="text" value="16:00"/>	Time BRT	<input type="text" value="32.00"/> Hrs		

FAILURE? <input type="text" value="No"/>	Slide Mts <input type="text" value=""/>	Previous Hrs <input type="text" value="125.50"/>	Cumulative Hrs <input type="text" value="142.30"/>
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Remarks / Failure Report. <input type="text" value="1) Motor was checked prior to RIH."/> <input type="text" value="2) Motor will be back loaded"/>	Did Motor Stall	<input type="text" value="No"/>	<input type="text" value="No"/>
	Slide Rty	<input type="text" value="No"/>	<input type="text" value="No"/>
	Bearing Play	In	<input type="text" value="2.0 mm"/>
		Out	<input type="text" value="3.5 mm"/>
	Condition	<input type="text" value="Good"/>	

BIT GRADING CHART

BIT RUN DATA # 1

Bit Size:	26"
Manufacturer:	Smith
Bit Type:	MSDS
Serial Number:	MR3808
New Bit:	Yes
IADC Code:	115
Number of Nozzles:	3
Size of Nozzles:	24/32"
Number of Blades:	n/a
Number of Cutters:	n/a
Size of Cutters:	n/a
T.F.A. (sq ins):	1.3560
W.O.B. :	5-40 klbs
Depth Out:	1835 m
Depth In:	1425 m
Feet Drilled:	410 m
Rotating Hours:	3.70 hrs
Steering Hours:	15.00 hr
Feet Rotary:	325 m
Feet Steered:	85 m
Total Hours:	18.70 hrs
Average R.O.P:	21.93 m / hr
Circulation Rate:	1177 gpm
R.P.M. at Bit:	229
K.Revs:	
Motor Used:	Yes
Motor Size:	9 5/8"
Bit Good for Rerun:	Yes

WELL DATA

Date:	22-Nov-04
Drilling Supervisor:	Dave Atkins
Rig:	Jack Bates
Well Number:	Amrit-1
Rig Contractor:	Transocean
Average Hole Angle:	0° - 3°
Date in:	20-Nov-04
Date Out:	22-Nov-04
BHA #	1

MUD AND LITHOLOGY DATA

Majority Formation:	Sandstone
Other Formation:	Siltstone
% Formation:	100%
Mud Type:	Sea water
Mud Weight:	8.50 ppg
PV:	-
YP:	-
% Solids:	-
PH:	9.2

COMMENTS:

BIT GRADING

(A)	(A)	(B)	(C)	(D)	(E)	(B)	(F)
1	1	WT	A	E	In	NO	TC

BIT GRADING CHART AS PER IADC NOMENCLATURE

CUTTING STRUCTURE				B	G	REMARKS	
INNER ROWS	OUTER ROWS	DULL CHAR.	LOC ATION.	BRING SEALS	GAUGE 1/16"	OTHER CHAR.	REASON PULLED
(A)	(A)	(B)	(C)	(D)	(E)	(B)	(F)

(A)	0	No Wear
	8	No Cutting structure

(B)	*BC	Broken Cone
	BF	Bond Failure
	BT	Broken Teeth/Cutters
	BU	Balled Up
	*CC	Cracked Cone
	*CD	Cone Dragged
	CI	Cone Interference
	CR	Cored
	CT	Chipped Cutter
	ER	Erosion
	FC	Flat Crested Wear
	HC	Heat Checking
	JD	Junk Damage
	*LC	Lost Cone
	LN	Lost Nozzle
	LT	Lost Teeth/Cutter
	OC	Off-Centre Wear
	PB	Pinched Bit
	PN	Plugged Nozzle/ Flow Passage
	RG	Rounded Gauge
	RO	Ring Out
	SD	Shirrtail Damage
	SS	Self Sharpening Wear
	TR	Tracking
	WO	Washed Out-Bit
	WT	Worn Teeth / Cutters
	NO	No Dull Characteristics

(D)	NON-SEALED BEARINGS:
	0 - No life used
	8 - All life used
	SEALED BEARINGS:
	E - Effective
	F - Failed

(E)	1	In Gauge
	1/16	1/16" Undergauge
	2/16	1/8" Undergauge etc.

(F)	BHA	Change BHA
	DMF	Downhole Motor Fail
	DSF	Drill String Fail
	DST	Drill Stem Test
	DTF	Downhole Tool Fail
	LOG	Run Logs
	RIG	Rig Repair
	CM	Condition mud
	CP	Core Point
	DP	Drill Plug
	FM	Formation Change
	HP	Hole Problems
	HR	Hours
	PP	Pump Pressure
	PR	Penetration Rate
	TD	Total Depth
	TC	Casing Depth
	TQ	Torque
	TW	Twist-Off
	WC	Weather Conditions
	WO	Washout/Drill String

(C)	N	Nose Row	Cone#	1
	M	Middle Row		2
	G	Gauge Row		3
	A	All Rows		

BIT GRADING CHART

BIT RUN DATA # 2

Bit Size:	17 1/2"
Manufacturer:	Hycalog
Bit Type:	T11C
Serial Number:	J65053
New Bit:	Yes
IADC Code:	115
Number of Nozzles:	3
Size of Nozzles:	24/32"
Number of Blades:	n/a
Number of Cutters:	n/a
Size of Cutters:	n/a
T.F.A. (sq ins):	1.4205
W.O.B. :	5-40 klbs
Depth Out:	2459 m
Depth In:	1835 m
Feet Drilled:	624 m
Rotating Hours:	32.20 hrs
Steering Hours:	0.00 hr
Feet Rotary:	624 m
Feet Steered:	0 m
Total Hours:	32.20 hrs
Average R.O.P:	19.38 m / hr
Circulation Rate:	1070 gpm
R.P.M. at Bit:	218
K.Revs:	384809
Motor Used:	Yes
Motor Size:	9 5/8"
Bit Good for Rerun:	Yes

WELL DATA

Date:	1-Dec-04
Drilling Supervisor:	Dave Atkins
Rig:	Jack Bates
Well Number:	Amrit-1
Rig Contractor:	Transocean
Average Hole Angle:	0° - 3°
Date in:	27-Nov-04
Date Out:	1-Dec-04
BHA #	2

MUD AND LITHOLOGY DATA

Majority Formation:	Sandstone
Other Formation:	Siltstone
% Formation:	100%
Mud Type:	KCL /PHPA/Glycol
Mud Weight:	8.90 ppg
PV:	15
YP:	18
% Solids:	4.00
PH:	10

COMMENTS:

BIT GRADING

(A)	(A)	(B)	(C)	(D)	(E)	(B)	(F)
2	2	BT	A	E	1	WT	TD

BIT GRADING CHART AS PER IADC NOMENCLATURE

CUTTING STRUCTURE				B	G	REMARKS	
INNER ROWS	OUTER ROWS	DULL CHAR.	LOC ATION.	BRING SEALS	GAUGE 1/16"	OTHER CHAR.	REASON PULLED
(A)	(A)	(B)	(C)	(D)	(E)	(B)	(F)

(A)	0	No Wear
	8	No Cutting structure

(B)	*BC	Broken Cone
	BF	Bond Failure
	BT	Broken Teeth/Cutters
	BU	Balled Up
	*CC	Cracked Cone
	*CD	Cone Dragged
	CI	Cone Interference
	CR	Cored
	CT	Chipped Cutter
	ER	Erosion
	FC	Flat Crested Wear
	HC	Heat Checking
	JD	Junk Damage
	*LC	Lost Cone
	LN	Lost Nozzle
	LT	Lost Teeth/Cutter
	OC	Off-Centre Wear
	PB	Pinched Bit
	PN	Plugged Nozzle/ Flow Passage
	RG	Rounded Gauge
	RO	Ring Out
	SD	Shirrtail Damage
	SS	Self Sharpening Wear
	TR	Tracking
	WO	Washed Out-Bit
	WT	Worn Teeth / Cutters
	NO	No Dull Characteristics

(D)	NON-SEALED BEARINGS:
	0 - No life used
	8 - All life used
	SEALED BEARINGS:
	E - Effective
	F - Failed

(E)	1	In Gauge
	1/16	1/16" Undergauge
	2/16	1/8" Undergauge etc.

(F)	BHA	Change BHA
	DMF	Downhole Motor Fail
	DSF	Drill String Fail
	DST	Drill Stem Test
	DTF	Downhole Tool Fail
	LOG	Run Logs
	RIG	Rig Repair
	CM	Condition mud
	CP	Core Point
	DP	Drill Plug
	FM	Formation Change
	HP	Hole Problems
	HR	Hours
	PP	Pump Pressure
	PR	Penetration Rate
	TD	Total Depth
	TC	Casing Depth
	TQ	Torque
	TW	Twist-Off
	WC	Weather Conditions
	WO	Washout/Drill String

(C)	N	Nose Row	Cone#	1
	M	Middle Row		2
	G	Gauge Row		3
	A	All Rows		

BIT GRADING CHART

BIT RUN DATA # 3

WELL DATA

Bit Size:	12 1/4"
Manufacturer:	Hughes
Bit Type:	HCM606
Serial Number:	7003752
New Bit:	Yes
IADC Code:	0
Number of Nozzles:	6
Size of Nozzles:	14/32"
Number of Blades:	n/a
Number of Cutters:	n/a
Size of Cutters:	n/a
T.F.A. (sq ins):	0.9020
W.O.B. :	5-40 klbs
Depth Out:	2695 m
Depth In:	2459 m
Feet Drilled:	236 m
Rotating Hours:	14.40 hrs
Steering Hours:	0.00 hr
Feet Rotary:	236 m
Feet Steered:	0 m
Total Hours:	14.40 hrs
Average R.O.P:	16.39 m / hr
Circulation Rate:	856 gpm
R.P.M. at Bit:	194
K.Revs:	156712
Motor Used:	Yes
Motor Size:	9 5/8"
Bit Good for Rerun:	Yes

Date:	6-Dec-04
Drilling Supervisor:	Dave Atkins
Rig:	Jack Bates
Well Number:	Amrit-1
Rig Contractor:	Transocean
Average Hole Angle:	0° - 3°
Date in:	4-Dec-04
Date Out:	6-Dec-04
BHA #	3

MUD AND LITHOLOGY DATA

Majority Formation:	Sandstone
Other Formation:	Siltstone
% Formation:	100%
Mud Type:	KCL/PHPA
Mud Weight:	9.50 ppg
PV:	21
YP:	25
% Solids:	8.80
PH:	9.3

COMMENTS:

BIT GRADING

(A)	(A)	(B)	(C)	(D)	(E)	(B)	(F)
1	1	ER	N	X	I	NO	PR

BIT GRADING CHART AS PER IADC NOMENCLATURE

CUTTING STRUCTURE				B	G	REMARKS	
INNER ROWS	OUTER ROWS	DULL CHAR.	LOC ATION.	BRING SEALS	GAUGE 1/16"	OTHER CHAR.	REASON PULLED
(A)	(A)	(B)	(C)	(D)	(E)	(B)	(F)

(A)	0	No Wear
	8	No Cutting structure

(B)	*BC	Broken Cone
	BF	Bond Failure
	BT	Broken Teeth/Cutters
	BU	Balled Up
	*CC	Cracked Cone
	*CD	Cone Dragged
	CI	Cone Interference
	CR	Cored
	CT	Chipped Cutter
	ER	Erosion
	FC	Flat Crested Wear
	HC	Heat Checking
	JD	Junk Damage
	*LC	Lost Cone
	LN	Lost Nozzle
	LT	Lost Teeth/Cutter
	OC	Off-Centre Wear
	PB	Pinched Bit
	PN	Plugged Nozzle/ Flow Passage
	RG	Rounded Gauge
	RO	Ring Out
	SD	Shirrtail Damage
	SS	Self Sharpening Wear
	TR	Tracking
	WO	Washed Out-Bit
	WT	Worn Teeth / Cutters
	NO	No Dull Characteristics

(C)	N	Nose Row	Cone#	1
	M	Middle Row		2
	G	Gauge Row		3
	A	All Rows		

(D)	NON-SEALED BEARINGS:
	0 - No life used
	8 - All life used
	SEALED BEARINGS:
	E - Effective
	F - Failed

(E)	1	In Gauge
	1/16	1/16" Undergauge
	2/16	1/8" Undergauge etc.

(F)	BHA	Change BHA
	DMF	Downhole Motor Fail
	DSF	Drill String Fail
	DST	Drill Stem Test
	DTF	Downhole Tool Fail
	LOG	Run Logs
	RIG	Rig Repair
	CM	Condition mud
	CP	Core Point
	DP	Drill Plug
	FM	Formation Change
	HP	Hole Problems
	HR	Hours
	PP	Pump Pressure
	PR	Penetration Rate
	TD	Total Depth
	TC	Casing Depth
	TQ	Torque
	TW	Twist-Off
	WC	Weather Conditions
	WO	Washout/Drill String

BIT GRADING CHART

BIT RUN DATA # 4

Bit Size:	12 1/4"
Manufacturer:	Hycalog
Bit Type:	DSX104
Serial Number:	108439
New Bit:	Yes
IADC Code:	0
Number of Nozzles:	5
Size of Nozzles:	15/32"
Number of Blades:	5
Number of Cutters:	n/a
Size of Cutters:	19
T.F.A. (sq ins):	0.8629
W.O.B. :	5-35 klbs
Depth Out:	2979 m
Depth In:	2695 m
Feet Drilled:	284 m
Rotating Hours:	6.10 hrs
Steering Hours:	0.00 hr
Feet Rotary:	284 m
Feet Steered:	0 m
Total Hours:	6.10 hrs
Average R.O.P:	46.56 m / hr
Circulation Rate:	856 gpm
R.P.M. at Bit:	194
K.Revs:	
Motor Used:	Yes
Motor Size:	9 5/8"
Bit Good for Rerun:	Yes

WELL DATA

Date:	7-Dec-04
Drilling Supervisor:	Dave Atkins
Rig:	Jack Bates
Well Number:	Amrit-1
Rig Contractor:	Transocean
Average Hole Angle:	0° - 3°
Date in:	6-Dec-04
Date Out:	7-Dec-04
BHA #:	4

MUD AND LITHOLOGY DATA

Majority Formation:	Sandstone
Other Formation:	Siltstone
% Formation:	100%
Mud Type:	KCL/PHPA
Mud Weight:	9.60 ppg
PV:	25
YP:	32
% Solids:	9.40
PH:	8.5

COMMENTS:

BIT GRADING

(A)	(A)	(B)	(C)	(D)	(E)	(B)	(F)
1	1	WT	A	X	I	No	TD

BIT GRADING CHART AS PER IADC NOMENCLATURE

CUTTING STRUCTURE				B	G	REMARKS	
INNER ROWS	OUTER ROWS	DULL CHAR.	LOC ATION.	BRING SEALS	GAUGE 1/16"	OTHER CHAR.	REASON PULLED
(A)	(A)	(B)	(C)	(D)	(E)	(B)	(F)

(A)	0	No Wear
	8	No Cutting structure

(B)	*BC	Broken Cone
	BF	Bond Failure
	BT	Broken Teeth/Cutters
	BU	Balled Up
	*CC	Cracked Cone
	*CD	Cone Dragged
	CI	Cone Interference
	CR	Cored
	CT	Chipped Cutter
	ER	Erosion
	FC	Flat Crested Wear
	HC	Heat Checking
	JD	Junk Damage
	*LC	Lost Cone
	LN	Lost Nozzle
	LT	Lost Teeth/Cutter
	OC	Off-Centre Wear
	PB	Pinched Bit
	PN	Plugged Nozzle/ Flow Passage
	RG	Rounded Gauge
	RO	Ring Out
	SD	Shirrtail Damage
	SS	Self Sharpening Wear
	TR	Tracking
	WO	Washed Out-Bit
	WT	Worn Teeth / Cutters
	NO	No Dull Characteristics

(C)	N	Nose Row	Cone#	1
	M	Middle Row		2
	G	Gauge Row		3
	A	All Rows		

(D)	NON-SEALED BEARINGS:
	0 - No life used
	8 - All life used
	SEALED BEARINGS:
	E - Effective
	F - Failed

(E)	1	In Gauge
	1/16	1/16" Undergauge
	2/16	1/8" Undergauge etc.

(F)	BHA	Change BHA
	DMF	Downhole Motor Fail
	DSF	Drill String Fail
	DST	Drill Stem Test
	DTF	Downhole Tool Fail
	LOG	Run Logs
	RIG	Rig Repair
	CM	Condition mud
	CP	Core Point
	DP	Drill Plug
	FM	Formation Change
	HP	Hole Problems
	HR	Hours
	PP	Pump Pressure
	PR	Penetration Rate
	TD	Total Depth
	TC	Casing Depth
	TQ	Torque
	TW	Twist-Off
	WC	Weather Conditions
	WO	Washout/Drill String

SECTION 4:- PRODUCTION TEST REPORTS

No production tests were conducted at the Amrit-1 location.

SECTION 5:- DAILY GEOLOGICAL REPORTS

Santos

A.C.N. 007 550 923

WELL PROGRESS REPORT

AMRIT 1

DATE: 27/11/04

REPORT NO: 1

(As at 2400 hours 26/11/04)

DEPTH : 1835 m

PROGRESS: 0 m

DAYS FROM SPUD : 6.28

DAYS ON WELL: 9.89

OPERATION: RIG SHUT DOWN FOLLOWING INJURY TO ROUSTABOUT ON PIPEDECK.

(As at 0600 hours 27/11/04)

DEPTH : 1835 m

PROGRESS (0600-0600 hrs): 0 m

OPERATION : MAKING UP 340mm (13 3/8") CASING HANGER AND CEMENT HEAD FOR LATER USE.

AFE COST

CUMULATIVE COST

508mm (20") CASING DEPTH: 1822m (Prelim)

RIG: JACK BATES

RT – SEAFLOOR: 1425 m

PROGRAMMED TD: 3179m

ROTARY TABLE: 29m LAT

WATER DEPTH: 1396 m

MUD DATA	Mud Type: (Pits)	Wt: SG	Vis:	FL:	pH:	KCl%	Cl :	PV/YP:
(2400 Hours)	KCL / POLY/ GLYCOL	1.07	72	6.0	8.0	0	43000	17 / 30

BIT DATA	PRESENT	No.	Make	Type	Size (mm)	Hours	Drilled	Condition
(2400 Hours)	LAST	1	Smith	MSDS	660	18.7	410	1-1-WT-A-E-I-NO-TD

SURVEYS:	MD (m)	INC (°)	AZIM (°T)	CLOSURE (m)	DIRECTION (°)
	1809.26	0.26	261.27		

PREVIOUS 24 HOURS OPERATIONS SUMMARY:

INSTALL CHOKE & KILL LINES TO TERMINATION JOINT. MAKE UP LANDING JOINT, SKID RIG OVER LOCATION, PICK UP SLIP JOINT. PRESSURE TEST CHOKE & KILL LINES. TROUBLESHOOT PROBLEM WITH THE SLIP JOINT LOAD RING (3 HOURS). SKID RIG 30m OFF LOCATION, CHANGE OUT SHEARED SUPPORT DOGS ON THE SLIP JOINT LOAD RING (6 HOURS). SKID RIG BACK OVER LOCATION. LATCH BOP STACK ON WELLHEAD, CONFIRM CONNECTOR LATCH WITH 22.7T (50000LBS) OVERPULL. PRESSURE TEST WELLHEAD CONNECTOR TO 479KPA (10000PSI) FOR 10 MINS. PICK UP & INSTALL DIVERTER. LAYOUT DIVERTER RUNNING TOOL. RIG DOWN RISER HANDLING EQUIPMENT. RIG SHUT DOWN FOLLOWING INJURY TO ROUSTABOUT ON PIPEDECK (4.5 HOURS).

00:00 – 06:00 HOURS 27/11/04:

RIG SHUT DOWN FOLLOWING INJURY TO ROUSTABOUT ON PIPEDECK (1 HOUR). CONTINUE TO RIG DOWN RISER HANDLING EQUIPMENT. RIG UP TUBULAR HANDING EQUIPMENT. PREPARE TO MAKE UP 340mm (13 3/8") CASING HANGER AND CEMENT HEAD FOR LATER USE.

ANTICIPATED OPERATIONS:

MAKE UP 340mm (13 3/8") CASING HANGER & CEMENT HEAD FOR LATER USE. LAYOUT 660mm (26") BHA, MAKE UP 445mm (17.5") BHA. RUN IN HOLE, SLIP & CUT DRILL LINE, DRILL CEMENT, LOT, DRILL AHEAD 445mm (17.5") HOLE.

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A.C.N. 007 550 923

WELL PROGRESS REPORT

AMRIT 1

DATE: 28/11/04

REPORT NO: 2

(As at 2400 hours 27/11/04)

DEPTH : 1835 m

PROGRESS: 0 m

DAYS FROM SPUD : 7.28

DAYS ON WELL: 10.89

OPERATION: SLIP & CUT DRILLING LINE PRIOR TO DRILLING OUT CEMENT & SHOE TRACK.

(As at 0600 hours 28/11/04)

DEPTH : 1835 m

PROGRESS (0600-0600 hrs): 0 m

OPERATION : DRILLING CEMENT AT 1818m.

AFE COST

CUMULATIVE COST

508mm (20") CASING DEPTH: 1822m (Prelim)

RIG: JACK BATES

RT – SEAFLOOR: 1425 m

PROGRAMMED TD: 3179m

ROTARY TABLE: 29m LAT

WATER DEPTH: 1396 m

MUD DATA	Mud Type: (Pits)	Wt: SG	Vis:	FL:	pH:	KCl%	Cl :	PV/YP:
(2400 Hours)	KCL / POLY/ GLYCOL	1.07	72	6.0	8.0	0	43000	17 / 30

BIT DATA	PRESENT	No.	Make	Type	Size (mm)	Hours	Drilled	Condition
(2400 Hours)	LAST	1	Smith	MSDS	660	18.7	410	1-1-WT-A-E-I-NO-TD

SURVEYS:	MD (m)	INC (°)	AZIM (°T)	CLOSURE (m)	DIRECTION (°)
	1809.26	0.26	261.27		

PREVIOUS 24 HOURS OPERATIONS SUMMARY:

RIG SHUT DOWN FOLLOWING INJURY TO ROUSTABOUT ON PIPEDECK (1 HOUR). COMPLETE RIGGING DOWN RISER HANDLING EQUIPMENT. RIG UP TUBULAR HANDING EQUIPMENT. MAKE UP 340mm (13 3/8") CASING HANGER AND LAYOUT. MAKE UP CEMENT HEAD AND RACK BACK FOR FUTURE USE. BREAK OUT 660mm (26") BHA. MAKE UP 445mm (17.5") ROCK BIT & BHA WITH ANADRILL MUD MOTOR & MWD TOOLS (CDR-POWERPULSE WITH RESISTIVITY, GAMMA RAY, ANNULAR PRESSURE, SURVEYS). SHALLOW TEST MWD, RUN IN HOLE TO 282m. PICK UP 24 JOINTS OF DRILLPIPE FROM DECK. RUN IN HOLE TO TAG TOP OF CEMENT AT 1807m. SLIP & CUT DRILLING LINE.

00:00 – 06:00 HOURS 28/11/04:

SLIP & CUT DRILLING LINE. SERVICE TOP DRIVE. DISPLACE CHOKE & KILL LINES TO NEW MUD. SWAP TO STANDPIPE No. 2 DUE TO LEAK IN STANDPIPE No. 1. BREAK CIRCULATION, DRILL CEMENT FROM 1807m.

ANTICIPATED OPERATIONS:

DRILL CEMENT, SHOE TRACK & 3m FORMATION. CIRCULATE & CONDITION MUD. PERFORM LEAK-OFF TEST. DRILL AHEAD 445mm (17.5") HOLE.

MWD OFFSETS FROM BIT:

RESISTIVITY 15.17m, PRESSURE 15.89m, GAMMA RAY 18.65m, SURVEYS 24.49m.

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WELL PROGRESS REPORT

AMRIT 1

DATE: 28/11/04

REPORT NO: 2

FORMATION TOPS:	MD RT (m)	Subsea (m)	H/L to Prognosis (m)	H/L to Hill-1 (m)

HYDROCARBON SHOW SUMMARY

<u>INTERVAL</u>	<u>LITHOLOGY</u>	<u>GAS</u>

GEOLOGICAL SUMMARY

<u>INTERVAL</u> <u>ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>

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A.C.N. 007 550 923

WELL PROGRESS REPORT

AMRIT 1

DATE: 29/11/04

REPORT NO: 3

(As at 2400 hours 28/11/04) **DEPTH :** 2045 m **PROGRESS:** 210 m **DAYS FROM SPUD :** 8.28
DAYS ON WELL: 11.89

OPERATION: DRILLING 445mm (17.5") HOLE

(As at 0600 hours 29/11/04) **DEPTH :** 2160 m **PROGRESS (0600-0600 hrs):** 325 m

OPERATION : DRILLING 445mm (17.5") HOLE AT 15 M/HR

AFE COST

CUMULATIVE COST

508mm (20") CASING DEPTH: 1822m

RIG: JACK BATES

RT – SEAFLOOR: 1425 m

PROGRAMMED TD: 3179m

ROTARY TABLE: 29m LAT

WATER DEPTH: 1396 m

MUD DATA	Mud Type: (Pits)	Wt: SG	Vis:	FL:	Ph:	KCl%	Cl:	PV/YP:
(2400 Hours)	KCL / POLY/ GLYCOL	1.07	96	6.8	10.0	8	42000	15 / 18

BIT DATA	PRESENT	No.	Make	Type	Size (mm)	Hours	Drilled	Condition
(2400 Hours)	LAST	1	Smith	MSDS	660	18.7	410	1-1-WT-A-E-I-NO-TD

SURVEYS:	MD (m)	INC (°)	AZIM (°T)	CLOSURE (m)	DIRECTION (°)
	2049.42	0.23	223.20		
	2077.78	0.26	214.74		
	2105.32	0.33	183.75	9	247

PREVIOUS 24 HOURS OPERATIONS SUMMARY:

SLIP & CUT DRILLING LINE. SERVICE TOP DRIVE. DISPLACE CHOKE & KILL LINES TO NEW MUD. SWAP TO STANDPIPE No. 2 DUE TO LEAK IN STANDPIPE No. 1. BREAK CIRCULATION, DRILL CEMENT FROM 1807m, DRILL SHOE AT 1822m, DRILL RATHOLE AND 3m FORMATION TO 1838m. CIRCULATE BOTTOMS UP & CONDITION MUD. PERFORM LEAK-OFF TEST USING 1.07SG (8.9 PPG) MUD. LEAK-OFF PRESSURE 10.1KPA (210PSI), EQUIVALENT MUD WEIGHT OF 1.15SG (9.6 PPG). DRILL 445mm (17.5") HOLE FROM 1838m TO 1894m. CIRCULATE & CONTROL MUD OVERFLOW AT SHALE SHAKERS. DRILL AHEAD FROM 1894m TO 2045m.

00:00 – 06:00 HOURS 29/11/04:

DRILL AHEAD FROM 2045m TO 2160m AT 06:00 HRS.

ANTICIPATED OPERATIONS:

DRILL AHEAD 445mm (17.5") HOLE TO CASING POINT AT APPROX 2459m.

MWD OFFSETS FROM BIT:

RESISTIVITY 15.17m, PRESSURE 15.89m, GAMMA RAY 18.65m, SURVEYS 24.49m.

Santos

A.C.N. 007 550 923

WELL PROGRESS REPORT

AMRIT 1

DATE: 29/11/04

REPORT NO: 3

FORMATION TOPS: (Preliminary Field Picks)	MD RT (m)	Subsea (m)	H/L to Prognosis (m)	H/L to Hill-1 (m)

HYDROCARBON SHOW SUMMARY		
<u>INTERVAL</u>	<u>LITHOLOGY</u>	<u>GAS</u>
	NIL	

GEOLOGICAL SUMMARY		
<u>INTERVAL</u> <u>ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>
1835-1882m ROP: 7-52 Ave: 28.4	MARL: Light olive green, greenish grey, light brownish grey, soft to firm, argillaceous in part grading to Calcareous Claystone, slightly dispersive, amorphous to sub blocky.	6-53 units 100% C1 CO2: 460 ppm
1882-1922m ROP: 14-42 Ave: 25.0	CALCAREOUS CLAYSTONE GRADING TO MARL CALCAREOUS CLAYSTONE: Light to medium olive green, greenish grey, brownish grey, soft to firm, trace glauconite grains, trace calcite grains, trace black lithic fragments, locally grades to Marl, amorphous to sub blocky. MARL: Light olive green, pale greenish grey, light brownish grey, soft, firm, argillaceous in part grading to Calcareous Claystone, amorphous to sub blocky.	20-41 units 100/0/trace % CO2: 465 ppm
1922-1960m ROP: 8-45 Ave: 21.2	MASSIVE CALCAREOUS CLAYSTONE CALCAREOUS CLAYSTONE: Light grey, off white, greenish grey, olive grey, common loose calcite grains, dispersive, very soft to firm, predominantly amorphous, minor subblocky, commonly grades to Marl.	19-35 units 100/0/trace % CO2: 475 ppm
1960-1981m ROP: 9-41 Ave: 23	CALCAREOUS CLAYSTONE WITH MINOR CALCILUTITE. CALCAREOUS CLAYSTONE: Very light grey, light grey, off white, trace glauconite, dominantly firm, minor soft and dispersive, subblocky, rarely blocky. CALCILUTITE: Predominantly light olive green, minor very light grey, fine grained, common calcite grains, moderately hard to hard, subblocky to blocky.	1 – 19 units 100 % C1 CO2: 485 ppm

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A.C.N. 007 550 923

WELL PROGRESS REPORT

AMRIT 1

DATE: 29/11/04

REPORT NO: 3

GEOLOGICAL SUMMARY

<u>INTERVAL</u> <u>ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>
1981-2047m ROP: 5-99 Ave: 41	<p>INTERBEDDED CLAYSTONE, SANDSTONE AND CALCILUTITE</p> <p>CALCAREOUS CLAYSTONE: Brownish grey to greenish grey, occasionally dark brown, abundant glauconite, trace pyrite, soft to firm, amorphous to dispersive, subblocky</p> <p>CALCILUTITE: White to very light grey, fine grained, firm, amorphous.</p> <p>SANDSTONE: Clear to translucent, medium to coarse grained, subangular to sub rounded, moderately well sorted, generally loose and clean quartz, fair visual porosity, no shows.</p>	<p>1 – 11 units</p> <p>100 % C1</p> <p>CO2: 475 ppm</p>
2047-2065m ROP: 19-45 Ave:35	<p>INTERBEDDED CLAYSTONE, SANDSTONE AND CALCILUTITE</p> <p>CALCAREOUS CLAYSTONE: Brownish grey to brown, greenish grey, common to locally abundant glauconite, trace nodular pyrite, soft to firm, amorphous to dispersive, subblocky</p> <p>SANDSTONE: Clear to translucent, medium to coarse grained, subangular to sub rounded, moderate sorted, commonly loose and clean quartz, fair visual porosity, no shows.</p> <p>CALCILUTITE: White to very light grey, micritic, firm to hard, amorphous to subblocky.</p>	<p>1 – 11 units</p> <p>99/1 %</p> <p>CO2: 470 ppm</p>
2065-2114m ROP: 14-51 Ave: 36	<p>MASSIVE CLAYSTONE INTERBEDDED WITH MINOR CALCILUTITE AND SANDSTONE</p> <p>CLAYSTONE: Brownish grey to greenish grey, calcareous, silty in part, trace glauconite, trace pyrite, soft to firm, amorphous to dispersive, sub blocky in part.</p> <p>CALCILUTITE: White to very light grey, micritic, slightly argillaceous, firm to moderately hard, amorphous to subblocky.</p> <p>SANDSTONE: Clear to translucent, medium to fine grained, locally coarse, subangular to subrounded, moderate to poorly sorted, argillaceous in part, commonly loose and clean quartz, fair to good inferred porosity, no show.</p>	<p>1 – 16 units</p> <p>99/1 %</p> <p>CO2: 470 ppm</p>

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WELL PROGRESS REPORT

AMRIT 1

DATE: 30/11/04

REPORT NO: 4

(As at 2400 hours 29/11/04)

DEPTH : 2382 m

PROGRESS: 337 m

DAYS FROM SPUD : 9.28

DAYS ON WELL: 12.89

OPERATION: DRILLING 445mm (17.5") HOLE

(As at 0600 hours 30/11/04)

DEPTH : 2440 m

PROGRESS (0600-0600 hrs): 280 m

OPERATION : DRILLING 445mm (17.5") HOLE AT 15 M/HR

AFE COST

CUMULATIVE COST

508mm (20") CASING DEPTH: 1822m

RIG: JACK BATES

RT – SEAFLOOR: 1425 m

PROGRAMMED TD: 3179m

ROTARY TABLE: 29m LAT

WATER DEPTH: 1396 m

MUD DATA	Mud Type: (Pits)	Wt: SG	Vis:	FL:	Ph:	KCl%	Cl :	PV/YP:
(2400 Hours)	KCL / POLY/ GLYCOL	1.08	59	5.4	9.0	8.1	39000	17 / 18

BIT DATA	PRESENT	No.	Make	Type	Size (mm)	Hours	Drilled	Condition
(2400 Hours)	LAST	1	Smith	MSDS	660	18.7	410	1-1-WT-A-E-I-NO-TD

SURVEYS:	MD (m)	INC (°)	AZIM (°T)	CLOSURE (m)	DIRECTION (°)
	2334.13	0.40	185.07		
	2361.66	0.37	221.08		
	2390.55	0.33	232.85	10	241

PREVIOUS 24 HOURS OPERATIONS SUMMARY:

DRILL 445mm (17.5") HOLE FROM 2045m TO 2318m. CIRCULATE & PUMP HIGH VISCOSITY SWEEPS TO ASSIST HOLE CLEANING. DRILL HEAD FROM 2318m TO 2382m.

00:00 – 06:00 HOURS 30/11/04:

DRILL AHEAD FROM 2382m TO 2440m AT 06:00 HRS.

ANTICIPATED OPERATIONS:

DRILL AHEAD 445mm (17.5") HOLE TO CASING POINT AT APPROX 2459m. CIRCULATE HOLE CLEAN & CONDITION MUD. PULL OUT OF HOLE. (WIPER TRIP DEPENDENT ON HOLE CONDITION). RIG TO & RUN 340mm (13.375") CASING.

MWD OFFSETS FROM BIT:

RESISTIVITY 15.17m, PRESSURE 15.89m, GAMMA RAY 18.65m, SURVEYS 24.49m.

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WELL PROGRESS REPORT

AMRIT 1

DATE: 30/11/04

REPORT NO: 4

FORMATION TOPS: (Preliminary Field Picks)	MD RT (m)	Subsea (-m)	H/L to Prognosis (m)	H/L to Hill-1 (m)

HYDROCARBON SHOW SUMMARY		
<u>INTERVAL</u>	<u>LITHOLOGY</u>	<u>GAS</u>
	NIL	

GEOLOGICAL SUMMARY		
<u>INTERVAL</u> <u>ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>
2114-2154m ROP: 15-42 Ave: 33	MASSIVE CLAYSTONE CLAYSTONE: Brownish grey to greenish grey, calcareous, silty in part, trace glauconite, trace pyrite, soft to firm, amorphous, dispersive in part, sub blocky in part.	Trace – 18 units 99/trace/trace % CO2: 460 ppm
2154-2260m ROP: 11-78 Ave: 23.5	MASSIVE CLAYSTONE CLAYSTONE: Medium to dark brownish grey, occasionally light brownish grey, medium brown to occasionally dark brown, silty in part, rare mica, trace nodular pyrite, rare very fine quartz grains, dispersive, sticky in part, soft to minor firm, amorphous, rarely sub blocky.	2 – 18 units 99/trace/trace % CO2: 470 ppm
2260-2350m ROP: 7-36 Ave: 17	MASSIVE CLAYSTONE CLAYSTONE: Light brownish grey to brownish grey, trace pyrite, dispersive, soft to minor firm, amorphous, minor subblocky.	1 – 23 units 99/trace/trace % CO2: 475 ppm
2350-2410m ROP: 5-37 Ave: 14	MASSIVE CLAYSTONE CLAYSTONE: Predominantly brownish grey, pale yellowish brown, brown, generally non calcareous, rare glauconite, rare lithic fragments, rare crystalline calcite grains, soft, dispersive in part, steaky, amorphous, sub blocky.	10 – 18 units 99/ trace/ trace % CO2: 505 units

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WELL PROGRESS REPORT

AMRIT 1

DATE: 01/12/04

REPORT NO: 5

(As at 2400 hours 30/11/04) **DEPTH :** 2459 m **PROGRESS:** 77 m **DAYS FROM SPUD :** 10.28
DAYS ON WELL: 13.89

OPERATION: RUNNING IN HOLE TO BOTTOM.

(As at 0600 hours 01/12/04) **DEPTH :** 2459 m **PROGRESS (0600-0600 hrs):** 19 m

OPERATION : CIRCULATING HOLE CLEAN AT BOTTOM WHILST AWAITING DPI INSPECTOR'S APPROVAL TO RE-COMMENCE OPERATIONS.

AFE COST

CUMULATIVE COST

508mm (20") CASING DEPTH: 1822m

RIG: JACK BATES

RT – SEAFLOOR: 1425 m

PROGRAMMED TD: 3179m

ROTARY TABLE: 29m LAT

WATER DEPTH: 1396 m

MUD DATA	Mud Type: (Pits)	Wt: SG	Vis:	FL:	Ph:	KCl%	Cl :	PV/YP:
(2400 Hours)	KCL / POLY/ GLYCOL	1.10	55	5.0	9.0	7.6	38500	20 / 27

BIT DATA	PRESENT	No.	Make	Type	Size (mm)	Hours	Drilled	Condition
(2400 Hours)	LAST	1	Smith	MSDS	660	18.7	410	1-1-WT-A-E-I-NO-TD

SURVEYS:	<u>MD (m)</u>	<u>INC (°)</u>	<u>AZIM (°T)</u>	<u>CLOSURE (m)</u>	<u>DIRECTION (°)</u>
	2419.57	0.32	200.20		
	2433.15	0.24	208.59	10.5	240

PREVIOUS 24 HOURS OPERATIONS SUMMARY:

DRILL AHEAD 445mm (17.5") HOLE FROM 2382m TO 2459mRT (SECTION TOTAL DEPTH). CIRCULATE & PUMP HIGH VISCOSITY SWEEP. PULL OUT OF HOLE, TIGHT HOLE OBSERVED @ 2402m. MAKE UP TOP DRIVE & PUMP OUT OF THE HOLE TO CASING SHOE. PUMP HIGH VISCOSITY SWEEP FOLLOWED BY HIGH WEIGHT SWEEP. CIRCULATE HOLE CLEAN WHILST OPERATIONS SUSPENDED AT 17:45HRS BY DEPARTMENT OF PRIMARY INDUSTRIES (DPI) INSPECTOR FOLLOWING ON-SITE INVESTIGATION OF INCIDENT ON 26/11/04. DPI APPROVAL OBTAINED AT 22:30HRS TO RUN IN HOLE TO BOTTOM AND CIRCULATE TO MAINTAIN HOLE INTEGRITY. RUN IN HOLE TO 2336m.

00:00 – 06:00 HOURS 01/12/04:

CONTINUE TO RUN IN HOLE TO 2445m (TIGHT SPOT). WASH & REAM FROM 2445m TO BOTTOM AT 2459m. CIRCULATE HOLE CLEAN AT BOTTOM.

ANTICIPATED OPERATIONS:

CONTINUE TO CIRCULATE & CONDITION MUD WHILST AWAITING ON DPI INSPECTOR'S APPROVAL FOR RESUMPTION OF OPERATIONS. PULL OUT OF HOLE. RIG TO & RUN 340mm (13.375") CASING.

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WELL PROGRESS REPORT

AMRIT 1

DATE: 01/12/04

REPORT NO: 5

FORMATION TOPS: (Preliminary Field Picks)	MD RT (m)	Subsea (-m)	H/L to Prognosis (m)	H/L to Hill-1 (m)

HYDROCARBON SHOW SUMMARY		
<u>INTERVAL</u>	<u>LITHOLOGY</u>	<u>GAS</u>
	NIL	

GEOLOGICAL SUMMARY		
<u>INTERVAL</u> <u>ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>
2410-2459m ROP: 3-45 Ave: 21	<p>MASSIVE CLAYSTONE</p> <p>CLAYSTONE: Predominantly brownish grey, pale yellowish brown, brown, generally non calcareous, rare glauconite, rare lithic fragments, rare crystalline calcite grains, soft, dispersive in part, steaky, amorphous, sub blocky.</p>	<p>11 – 25 units</p> <p>99/ 1 / trace %</p> <p>CO2: 525 units</p>

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WELL PROGRESS REPORT

AMRIT 1

DATE: 02/12/04

REPORT NO: 6

(As at 2400 hours 01/12/04) **DEPTH :** 2459 m **PROGRESS:** 0 m **DAYS FROM SPUD :** 11.28
DAYS ON WELL: 14.89

OPERATION: RUNNING IN HOLE TO RETRIEVE NOMINAL BORE PROTECTOR.

(As at 0600 hours 02/12/04) **DEPTH :** 2459 m **PROGRESS (0600-0600 hrs):** 0 m

OPERATION : PULLING OUT OF HOLE WITH NOMINAL BORE PROTECTOR (632m AT 06:00HRS)

AFE COST

CUMULATIVE COST

508mm (20") CASING DEPTH: 1822m

RIG: JACK BATES
RT – SEAFLOOR: 1425 m
WATER DEPTH: 1396 m

PROGRAMMED TD: 3179m

ROTARY TABLE: 29m LAT

MUD DATA	Mud Type: (Pits)	Wt: SG	Vis:	FL:	Ph:	KCl%	Cl :	PV/YP:	Rmf = 0.1087 @ 24C
(2400 Hours)	KCL / POLY/ GLYCOL	1.10	61	5.0	8.5	7.5	33800	19 / 20	Rm = 0.1192 @ 25.1C Rmc = 0.1248 @ 26.8C

BIT DATA	PRESENT	No.	Make	Type	Size (mm)	Hours	Drilled	Condition
(2400 Hours)	LAST	1	Smith	MSDS	660	18.7	410	1-1-WT-A-E-I-NO-TD

SURVEYS:	<u>MD (m)</u>	<u>INC (°)</u>	<u>AZIM (°T)</u>	<u>CLOSURE (m)</u>	<u>DIRECTION (°)</u>
	2419.57	0.32	200.20		
	2433.15	0.24	208.59	10.5	240

PREVIOUS 24 HOURS OPERATIONS SUMMARY:

CONTINUE TO RUN IN HOLE TO 2445m (TIGHT SPOT). WASH & REAM FROM 2445m TO BOTTOM AT 2459m. CIRCULATE HOLE CLEAN AT BOTTOM. PUMP HIGH VISCOSITY SWEEP, CIRCULATE HOLE CLEAN. PULL OUT OF HOLE TO RUN CASING. DOWNLOAD MWD MEMORY DATA, BREAK OUT BIT. MAKE UP MULTI-PURPOSE RUNNING TOOL & RUN IN HOLE TO RETRIEVE NOMINAL BORE PROTECTOR. (233m AT 24:00HRS)

00:00 – 06:00 HOURS 02/12/04:

CONTINUE TO RUN IN HOLE WITH MULTI-PURPOSE TOOL. JET BOP'S CLEAN. LATCH & RETRIEVE NOMINAL BORE PROTECTOR, PULL OUT OF HOLE TO 632m.

ANTICIPATED OPERATIONS:

COMPLETE PULLING OUT OF HOLE, LAYOUT MULTI-PURPOSE TOOL. RIG UP TO AND RUN 340mm (13.375") CASING. CEMENT CASING.

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WELL PROGRESS REPORT

AMRIT 1

DATE: 02/12/04

REPORT NO: 6

FORMATION TOPS: (Preliminary Field Picks)	MD RT (m)	Subsea (-m)	H/L to Prognosis (m)	H/L to Hill-1 (m)

HYDROCARBON SHOW SUMMARY		
<u>INTERVAL</u>	<u>LITHOLOGY</u>	<u>GAS</u>
	NIL	

GEOLOGICAL SUMMARY		
<u>INTERVAL</u> <u>ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>

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WELL PROGRESS REPORT

AMRIT 1

DATE: 03/12/04

REPORT NO: 7

(As at 2400 hours 02/12/04) **DEPTH :** 2459 m **PROGRESS:** 0 m **DAYS FROM SPUD :** 12.28
DAYS ON WELL: 15.89

OPERATION: RUNNING CASING ON DRILLPIPE (2388m AT 24:00HRS)

(As at 0600 hours 03/12/04) **DEPTH :** 2459 m **PROGRESS (0600-0600 hrs):** 0 m

OPERATION : PRESSURE TESTING BOP STACK.

AFE COST

CUMULATIVE COST

508mm (20") CASING DEPTH: 1822m

RIG: JACK BATES

340mm (13.375") CASING DEPTH: 2454m (Prelim)

RT – SEAFLOOR: 1425 m

PROGRAMMED TD: 3179m

ROTARY TABLE: 29m LAT

WATER DEPTH: 1396 m

MUD DATA	Mud Type: (Pits)	Wt: SG	Vis:	FL:	Ph:	KCl%	Cl:	PV/YP:	Rmf = 0.1087 @ 24C
(2400 Hours)	KCL / POLY/ GLYCOL	1.10	60	5.4	8.7	7.7	38500	22 / 34	Rm = 0.1192 @ 25.1C Rmc = 0.1248 @ 26.8C

BIT DATA	PRESENT	No.	Make	Type	Size (mm)	Hours	Drilled	Condition
(2400 Hours)	LAST	2	Reed	T11C (Tricone)	445	32.2	624	2-2-BT-A-E-1-WT-TD

SURVEYS:	MD (m)	INC (°)	AZIM (°T)	CLOSURE (m)	DIRECTION (°)
	2419.57	0.32	200.20		
	2433.15	0.24	208.59	10.5	240

PREVIOUS 24 HOURS OPERATIONS SUMMARY:

CONTINUE TO RUN IN HOLE WITH MULTI-PURPOSE TOOL. JET BOP & WELLHEAD AREA CLEAN. RETRIEVE NOMINAL BORE PROTECTOR (WEAR BUSHING) & LAYOUT. PREPARE RIG FLOOR TO RUN CASING. HOLD SAFETY MEETING. RUN 81 JOINTS OF 340mm (13.375") CASING TO 1029m. MAKE UP CASING HANGER, RUN CASING ON DRILLPIPE TO 2388m.

00:00 – 06:00 HOURS 03/12/04:

CONTINUE TO RUN CASING ON DRILLPIPE & LAND IN WELLHEAD(SHOE AT 2454m Prelim). RIG UP CEMENT LINES & PRESSURE TEST. CIRCULATE PRIOR TO CEMENTATION. CEMENT CASING AS PER PROGRAM (LEAD SLURRY: 327BBLS/52M3 1.5SG/12.5PPG; TAIL SLURRY: 81BBLS/12.9M3 1.9SG/15.8PPG). DISPLACE WITH RIG PUMPS. RIG DOWN CEMENTING EQUIPMENT. SET SEAL ASSEMBLY. COMMENCE PRESSURE TESTING BOPS.

ANTICIPATED OPERATIONS:

PERFORM BOP TEST, INSTALL WEAR BUSHING. MAKE UP 12.25" PDC BIT & BHA WITH MOTOR & MWD.

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WELL PROGRESS REPORT

AMRIT 1

DATE: 03/12/04

REPORT NO: 7

FORMATION TOPS: (Preliminary Field Picks)	MD RT (m)	Subsea (-m)	H/L to Prognosis (m)	H/L to Hill-1 (m)

HYDROCARBON SHOW SUMMARY		
<u>INTERVAL</u>	<u>LITHOLOGY</u>	<u>GAS</u>
	NIL	

GEOLOGICAL SUMMARY		
<u>INTERVAL</u> <u>ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>

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WELL PROGRESS REPORT

AMRIT 1

DATE: 04/12/04

REPORT NO: 8

(As at 2400 hours 03/12/04)

DEPTH : 2459 m

PROGRESS: 0 m

DAYS FROM SPUD : 13.28

DAYS ON WELL: 16.89

OPERATION: LAYING OUT 445mm (17.5") BHA.

(As at 0600 hours 04/12/04)

DEPTH : 2459 m

PROGRESS (0600-0600 hrs): 0 m

OPERATION : SHALLOW TESTING MWD TOOLS PRIOR TO RUNNING IN HOLE.

AFE COST

CUMULATIVE COST

508mm (20") CASING DEPTH: 1822m

RIG: JACK BATES

340mm (13.375") CASING DEPTH: 2454m (Prelim)

RT – SEAFLOOR: 1425 m

PROGRAMMED TD: 3179m

ROTARY TABLE: 29m LAT

WATER DEPTH: 1396 m

MUD DATA	Mud Type: (Pits)	Wt: SG	Vis:	FL:	Ph:	KCl%	Cl:	PV/YP:
(2400 Hours)	KCL / PHPA/ GLYCOL	1.11	62	4.4	8.5	7.8	38000	21 / 33

BIT DATA	PRESENT	No.	Make	Type	Size (mm)	Hours	Drilled	Condition
(2400 Hours)	LAST	2	Reed	T11C (Tricone)	445	32.2	624	2-2-BT-A-E-1-WT-TD

SURVEYS:	MD (m)	INC (°)	AZIM (°T)	CLOSURE (m)	DIRECTION (°)
	2419.57	0.32	200.20		
	2433.15	0.24	208.59	10.5	240

PREVIOUS 24 HOURS OPERATIONS SUMMARY:

CONTINUE TO RUN CASING ON DRILLPIPE & LAND OUT IN WELLHEAD WITH CASING SHOE AT 2454m (Prelim). RIG UP CEMENT LINES & PRESSURE TEST SAME. CIRCULATE PRIOR TO CEMENTATION. CEMENT CASING AS PER PROGRAM. LEAD SLURRY: 52M3 (327BBLS) 1.5SG (12.5PPG), TAIL SLURRY: 12.9M3 (81BBLS) 1.9SG (15.8PPG). DISPLACE WITH RIG PUMPS. RIG DOWN CEMENTING EQUIPMENT. SET SEAL ASSEMBLY. PRESSURE TEST BOP STACK ON BLUE POD TO 239KPa (5000PSI). MAKE UP WEAR BUSHING RUNNING TOOL, RUN IN HOLE & INSTALL WEAR BUSHING. PULL OUT OF HOLE WITH RUNNING TOOL. LAYOUT CEMENT HEAD FROM DERRICK. PRESSURE TEST CASING TO 239KPa (5000 PSI) WHILE LAYING OUT 445mm (17.5") BHA .

00:00 – 06:00 HOURS 04/12/04:

CONTINUE LAYING OUT EXCESS 445mm (17.5") BHA. PICK UP AND MAKE UP 311mm (12.25") PDC BIT & BHA WITH MOTOR & MWD & RUN IN HOLE TO 60m. SHALLOW TEST ANADRILL TOOLS.

ANTICIPATED OPERATIONS:

COMPLETE RUNNING IN HOLE WITH BOTTOM HOLE ASSEMBLY. PICK UP 66 JOINTS OF DRILL PIPE FROM DECK. DRILL CEMENT, SHOE TRACK & 3m FORMATION. CIRCULATE HOLE. PERFORM LEAK-OFF TEST. DRILL 311mm (12.25") HOLE.

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WELL PROGRESS REPORT

AMRIT 1

DATE: 04/12/04

REPORT NO: 8

FORMATION TOPS: (Preliminary Field Picks)	MD RT (m)	Subsea (-m)	H/L to Prognosis (m)	H/L to Hill-1 (m)

HYDROCARBON SHOW SUMMARY

<u>INTERVAL</u>	<u>LITHOLOGY</u>	<u>GAS</u>
	NIL	

GEOLOGICAL SUMMARY

<u>INTERVAL</u> <u>ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>

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WELL PROGRESS REPORT

AMRIT 1

DATE: 05/12/04

REPORT NO: 9

(As at 2400 hours 04/12/04)

DEPTH : 2468 m

PROGRESS: 9 m

DAYS FROM SPUD : 14.28

DAYS ON WELL: 17.89

OPERATION: DRILLING AHEAD 311 mm (12.25" HOLE) AT 14 m/hr.

(As at 0600 hours 05/12/04)

DEPTH : 2533 m

PROGRESS (0600-0600 hrs): 74 m

OPERATION : DRILLING AHEAD 311 mm (12.25" HOLE) AT 25 m/hr.

AFE COST

CUMULATIVE COST

508mm (20") CASING DEPTH: 1822m

RIG: JACK BATES

340mm (13.375") CASING DEPTH: 2455m (Final)

RT – SEAFLOOR: 1425 m

PROGRAMMED TD: 3179m

ROTARY TABLE: 29m LAT

WATER DEPTH: 1396 m

MUD DATA	Mud Type: (Pits)	Wt:	Vis:	FL:	Ph:	KCl%	Cl :	PV/YP:
(2400 Hours)	KCL / PHPA/ GLYCOL	1.11 sg/ 9.3 ppg	60	5.2	8.5	8.0	42000	21 / 26

BIT DATA	PRESENT	No.	Make	Type	Size (mm)	Hours	Drilled	Condition
(2400 Hours)	LAST	2	Reed	T11C (Tricone)	445	32.2	624	2-2-BT-A-E-1-WT-TD

SURVEYS:	MD (m)	INC (°)	AZIM (°T)	CLOSURE (m)	DIRECTION (°)
	2433.15	0.24	208.59		
	2476.28	0.5	232.35	10.7	240

PREVIOUS 24 HOURS OPERATIONS SUMMARY:

SHALLOW TEST MWD TOOLS - OKAY. CONTINUE TO RUN IN HOLE WITH BHA. PICK UP 66 JOINTS OF DRILL PIPE FROM DECK. RUN IN HOLE WITH STANDS TO TAG TOP OF CEMENT AT 2414m. WASH TO TOP OF FLOAT COLLAR AT 2418m. DRILL CEMENT, SHOE TRACK (SHOE @ 2455m), CLEAN OUT RATHOLE, DRILL 3m FORMATION TO 2462m. CIRCULATE HOLE CLEAN. CONDUCT FORMATION INTEGRITY TEST. EQUIVALENT MUD WEIGHT = 1.60 SG (13.31 PPG). DRILL AHEAD 311mm (12.25" HOLE) FROM 2462m TO 2468m IN THE TIMBOON MUDSTONE.

00:00 – 06:00 HOURS 05/12/04:

DRILL AHEAD 311mm (12.25" HOLE) FROM 2468m TO 2477m. CONDUCT LEAK OFF TEST. EQUIVALENT MUD WEIGHT = 1.32 SG (11.0 PPG). DRILL AHEAD 311mm (12.25") HOLE FROM 2477m TO 2505 m.

ANTICIPATED OPERATIONS:

DRILL 311mm (12.25") HOLE TO TOTAL DEPTH.

MWD OFFSETS: GAMMA RAY=19.45, RESISTIVITY=16.1, ANNULAR PRESSURE=16.63m, SURVEYS=26.73m.

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WELL PROGRESS REPORT

AMRIT 1

DATE: 05/12/04

REPORT NO: 9

FORMATION TOPS: (Preliminary Field Picks)	MD RT (m)	Subsea (-m)	H/L to Prognosis (m)	H/L to Hill-1 (m)

HYDROCARBON SHOW SUMMARY

<u>INTERVAL</u>	<u>LITHOLOGY</u>	<u>GAS</u>

GEOLOGICAL SUMMARY

<u>INTERVAL ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>
2459 – 2470 m ROP: 14 - 44 Ave: 25	<p>INTERBEDDED CLAYSTONE AND SILTSTONE.</p> <p>SILTSTONE: dark grey brown, argillaceous to very fine arenaceous, micromicaceous and microcarbonaceous in part, occasional pyrite nodules, rare glauconite grains in part, firm to moderately hard and sub fissile in part.</p> <p>CLAYSTONE: olive brown, light grey brown, argillaceous, dispersive, carbonaceous fragments in part, occasional white lithic fragments, soft, subblocky in part to amorphous.</p> <p>(Note: Trace to 5% yellow fluorescence observed in cement, possibly additives.)</p>	4 – 8 units 99 / 1 / trace CO2: 450 ppm
2470 – 2505 m ROP: 4 - 10 Ave: 15	<p>INTERBEDDED SILTSTONE AND CLAYSTONE GRADING TO SILTSTONE BASALLY.</p> <p>CLAYSTONE: light brown, grey, argillaceous, microcarbonaceous in part, pyritic nodules, dispersive, sub blocky and amorphous.</p> <p>SILTSTONE: light brown, brown grey, argillaceous, occasionally arenaceous, very fine carbonaceous specks, micromicaceous in part, pyritic inclusions and nodules, massive, soft to firm, sub blocky.</p> <p>(Note: Trace to 5% yellow fluorescence observed in cement, possibly additives.)</p>	4 – 7 units 99 / 1 CO2: 450 ppm

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A.C.N. 007 550 923

WELL PROGRESS REPORT

AMRIT 1

DATE: 06/12/04

REPORT NO: 10

(As at 2400 hours 05/12/04) **DEPTH :** 2695 m **PROGRESS:** 227 m **DAYS FROM SPUD :** 15.28
DAYS ON WELL: 18.89

OPERATION: CIRCULATING BOTTOMS UP AT CASING SHOE PRIOR TO PULLING BIT No.3 OUT OF HOLE.

(As at 0600 hours 06/12/04) **DEPTH :** 2695 m **PROGRESS (0600-0600 hrs):** 162 m

OPERATION : PULLING OUT OF HOLE FOR BIT CHANGE AT 144m.

AFE COST

CUMULATIVE COST

508mm (20") CASING DEPTH: 1822m

RIG: JACK BATES

340mm (13.375") CASING DEPTH: 2455m (Final)

RT – SEAFLOOR: 1425 m

PROGRAMMED TD: 3179m

ROTARY TABLE: 29m LAT

WATER DEPTH: 1396 m

MUD DATA	Mud Type: (Pits)	Wt:	Vis:	FL:	Ph:	KCl%	Cl:	PV/YP:
(2400 Hours)	KCL / PHPA/ GLYCOL	1.14 SG/ 9.5 PPG	64	4.0	8.5	10.4	52500	21 / 25

BIT DATA	PRESENT	No.	Make	Type	Size (mm)	Hours	Drilled	Condition
(2400 Hours)	LAST	2	Reed	T11C (Tricone)	445	32.2	624	2-2-BT-A-E-1-WT-TD

SURVEYS:	<u>MD (m)</u>	<u>INC (°)</u>	<u>AZIM (°T)</u>	<u>CLOSURE (m)</u>	<u>DIRECTION (°)</u>
	2534.29	0.33	216.60	11.1	240
	2649.13	0.37	195.11	11.7	238

PREVIOUS 24 HOURS OPERATIONS SUMMARY:

DRILL AHEAD 311mm (12.25" HOLE) FROM 2468m TO 2477m. CONDUCT LEAK OFF TEST. EQUIVALENT MUD WEIGHT = 1.32 SG (11.0 PPG). DRILL AHEAD 311mm (12.25") HOLE FROM 2477m TO 2695m.

PULL OUT OF HOLE TO CHANGE BIT

DUE TO POOR RATE OF PENETRATION (<5 m/HR). PULL OUT OF HOLE FROM 2695 TO 2538 m (TIGHT HOLE AT 2559m & 2549m). RUN BACK IN HOLE TO 2552m. PUMP OUT OF HOLE FROM 2568m TO 2452m. CIRCULATE BOTTOMS UP FROM CASING SHOE.

00:00 – 06:00 HOURS 06/12/04:

CIRCULATE OUT AT CASING SHOE. PULL OUT OF HOLE BIT No.3 AT 144m.

ANTICIPATED OPERATIONS:

PULL OUT OF HOLE. DOWNLOAD MWD DATA AND CHANGE BATTERIES. RUN IN HOLE WITH PDC BIT No.4. DRILL AHEAD 311mm (12.25" HOLE) FROM 2695m TO TOTAL DEPTH. CIRCULATE HOLE CLEAN. PULL OUT OF HOLE TO RUN WIRELINE LOGS.

MWD OFFSETS: GAMMA RAY=19.45, RESISTIVITY=16.1, ANNULAR PRESSURE=16.63m, SURVEYS=26.73m.

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WELL PROGRESS REPORT

AMRIT 1

DATE: 06/12/04

REPORT NO: 10

FORMATION TOPS: (Preliminary Field Picks)	MD RT (m)	Subsea (-m)	H/L to Prognosis (m)	H/L to Hill-1 (m)

HYDROCARBON SHOW SUMMARY

<u>INTERVAL</u>	<u>LITHOLOGY</u>	<u>GAS</u>
2551-2558m ROP: 6-120 Ave: 40	SANDSTONE: Clear to translucent quartz, fine to very coarse grained, dominantly medium to coarse grained, poorly sorted, subangular to subrounded, trace strong siliceous cement, common calcareous cement, trace pyrite, trace dolomite, minor moderately hard, generally loose and clean, fair inferred porosity, <u>trace dull to moderately bright yellow patchy fluorescence, no cut, thin ring residue.</u> (POOR SHOW)	3 – 9 units 99/1 % CO2: 500 ppm

GEOLOGICAL SUMMARY

<u>INTERVAL</u> <u>ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>
2505 – 2551 m ROP: 1-55 Ave: 24	MASSIVE SILTSTONE SILTSTONE: Medium brown to medium brown grey, argillaceous, very finely arenaceous in part, trace glauconite grains, trace nodular pyrite, trace calcareous grains, trace dolomite, firm to hard, subblocky.	2 – 11 units 99 / 1 CO2: 500 ppm
2551-2558m ROP: 6-120 Ave: 40	SANDSTONE: Clear to translucent quartz, fine to very coarse grained, dominantly medium to coarse grained, poorly sorted, subangular to subrounded, trace strong siliceous cement, common calcareous cement, trace pyrite, trace dolomite, minor moderately hard, generally loose and clean, fair inferred porosity, <u>trace dull to moderately bright yellow patchy fluorescence, no cut, thin ring residue.</u>	3 – 9 units 99/1 % CO2: 500 ppm

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A.C.N. 007 550 923

WELL PROGRESS REPORT

AMRIT 1

DATE: 06/12/04

REPORT NO: 10

GEOLOGICAL SUMMARY

<u>INTERVAL ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>
2558-2580m ROP: 9-59 Ave: 34	<p>INTERBEDDED SANDSTONE AND SILTSTONE SANDSTONE: Clear to translucent quartz, fine to very coarse grained, dominantly medium to coarse grained, poorly sorted, subangular to subrounded, trace strong siliceous cement, common calcareous cement, trace pyrite, trace dolomite, trace moderately hard aggregates, generally loose and clean, fair inferred porosity, <u>trace dull to moderately bright yellow patchy fluorescence, no cut, thin ring residue.</u> SILTSTONE: Medium brown to medium brown grey, argillaceous, occasionally very finely arenaceous, trace to locally common glauconite grains, trace nodular pyrite, trace calcareous grains, trace hard dolomite, firm, subblocky.</p>	<p>3 – 27 units 99/1/trace % CO2: 495 ppm</p>
2580-2605m ROP: 18-37 Ave: 28	<p>MASSIVE SILTSTONE WITH MINOR SANDSTONE STRINGERS SILTSTONE: Light brown grey to medium brown grey, argillaceous, grades to Claystone, micromicaceous, trace glauconite, common carbonaceous specks, arenaceous in part, locally grades to very fine Sandstone, firm to moderately hard, subblocky. SANDSTONE: Light grey, clear to translucent quartz, pale grey, fine to coarse grained, moderately poorly sorted, subangular, common moderately strong calcareous cement, minor light grey to off white argillaceous matrix, moderately hard, friable in part, common loose and clean, poor visual porosity, poor to fair inferred porosity, no shows.</p>	<p>16 – 32 units 99/1/trace % CO2: 500 ppm</p>
2605-2626m ROP: 10-76 Ave: 37	<p>SILTSTONE GRADING INTO SANDSTONE WITH DEPTH SILTSTONE: Dominantly light brownish grey, very argillaceous to arenaceous in part, grading to Claystone, common carbonaceous specks, slightly micromicaceous, firm to moderate hard, sub blocky SANDSTONE: Very light grey, translucent, fine to coarse, dominant medium to coarse, moderate sorting, argillaceous, locally light grey to off white argillaceous matrix, poor visual porosity, no shows.</p>	<p>15 – 39 units 99/1/trace % CO2: 480 ppm</p>
2626-2658m ROP: 8-42 Ave: 22	<p>MASSIVE SILTSTONE WITH MINOR SANDSTONE STRINGERS SILTSTONE: Light brownish grey to dark grey, very argillaceous to arenaceous in part, grading to Claystone, common carbonaceous specks, trace pyrite, trace micromicaceous, firm, moderate hard, sub blocky SANDSTONE (Trace): Very light grey to translucent, fine to medium, dominantly medium grained, moderately well sorting, occasionally white to very light grey argillaceous matrix, moderately strong siliceous cement, poor visual porosity, no show</p>	<p>7 – 15 units 98/1/trace % CO2: 475 ppm</p>

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WELL PROGRESS REPORT

AMRIT 1

DATE: 06/12/04

REPORT NO: 10

GEOLOGICAL SUMMARY

<u>INTERVAL</u> <u>ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>
2658- 2695 m ROP: 4 -72 Ave: 11	<p>SILTSTONE WITH TRACE SANDSTONE STRINGERS.</p> <p>SILTSTONE: Brown to brown grey, argillaceous to arenaceous, grades to very fine sandstone in part, carbonaceous specks and streaks, micromicaceous in part, trace glauconite, white lithics in part, firm to soft, dispersive, subblocky to amorphous.</p> <p>SANDSTONE: Clear, translucent, fine grained, subangular to subrounded, well sorted, clean loose grains, trace siliceous cement, poor visual and fair inferred porosity, no shows.</p>	<p>3 – 12 units 97/2/1 % CO2: 465 ppm</p>

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WELL PROGRESS REPORT

AMRIT 1

DATE: 07/12/04

REPORT NO: 11

(As at 2400 hours 06/12/04) **DEPTH :** 2878 m **PROGRESS:** 183 m **DAYS FROM SPUD :** 16.28
DAYS ON WELL: 19.89

OPERATION: DRILLING AHEAD AT 40m/hr

(As at 0600 hours 07/12/04) **DEPTH :** 2979m (TD) **PROGRESS (0600-0600 hrs):** 284m

OPERATION : CIRCULATING BOTTOMS UP PRIOR TO PULLING OUT OF HOLE TO RUN WIRELINE LOGS.

AFE COST

CUMULATIVE COST

508mm (20") CASING DEPTH: 1822m

RIG: JACK BATES

340mm (13.375") CASING DEPTH: 2455m (Final)

RT – SEAFLOOR: 1425 m

PROGRAMMED TD: 3179m

ROTARY TABLE: 29m LAT

WATER DEPTH: 1396 m

MUD DATA	Mud Type: (Pits)	Wt:	Vis:	FL:	Ph:	KCl%	Cl :	PV/YP:
(2400 Hours)	KCL / PHPA/ GLYCOL	1.14 SG/ 9.5 PPG	67	5.2	8.5	10.5	52000	23 / 30

BIT DATA	PRESENT	No.	Make	Type	Size (mm)	Hours	Drilled	Condition
(2400 Hours)	LAST	3	Hughes	HCH 606 (PDC)	311 mm	14.4	236 m	0-0-BU-N-X-I-ER-PR

SURVEYS:	<u>MD (m)</u>	<u>INC (°)</u>	<u>AZIM (°T)</u>	<u>CLOSURE (m)</u>	<u>DIRECTION (°)</u>
	2950.00	0.26	140.59		
(Project to TD)	2979.00	0.26	140.59	12.6	233

PREVIOUS 24 HOURS OPERATIONS SUMMARY:

CIRCULATE BOTTOMS UP AT CASING SHOE. PULL OUT OF HOLE TO SURFACE. DOWNLOAD MWD MEMORY DATA. MAKE UP NEW PDC BIT & MWD TOOLS, SHALLOW TEST MWD, RUN IN HOLE TO CASING SHOE. CIRCULATE HOLE CLEAN WHILST SERVICING TOP DRIVE. SUSPECT COVER PLATE OF HYDRAULIC SLIPS FALLEN INTO HOLE. CONSIDER OPTIONS - DECIDE TO DRILL AHEAD. RESUME RUNNING IN HOLE FROM CASING SHOE TO BOTTOM AT 2695m. DRILL AHEAD FROM 2695m TO 2866m. CIRCULATE & CLEAR ANNULUS OF EXCESSIVE CUTTINGS. DRILL AHEAD FROM 2866m TO 2878m IN THE PAARATTE FORMATION.

00:00 – 06:00 HOURS 07/12/04:

DRILL AHEAD FROM 2878m TO 2979m. TOTAL DEPTH REACHED AT 03:30 HRS ON 07/12/04. CIRCULATE BOTTOMS UP PRIOR TO PULLING OUT TO RUN WIRELINE LOGS.

ANTICIPATED OPERATIONS:

COMPLETE CIRCULATING HOLE CLEAN. PULL OUT OF HOLE. RIG UP & RUN WIRELINE LOGS.

MWD OFFSETS: GAMMA RAY=19.43m, RESISTIVITY=16.08m, ANNULAR PRESSURE=16.61m, SURVEYS=26.71m.

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WELL PROGRESS REPORT

AMRIT 1

DATE: 07/12/04

REPORT NO: 11

FORMATION TOPS: (Preliminary Field Picks)	MD RT (m)	Subsea (-m)	H/L to Prognosis (m)	H/L to Hill-1 (m)

HYDROCARBON SHOW SUMMARY

<u>INTERVAL</u>	<u>LITHOLOGY</u>	<u>GAS</u>
	No Shows	

GEOLOGICAL SUMMARY

<u>INTERVAL</u> <u>ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>
2695- 2847m ROP: 4 - 152 Ave: 53	<p>SILTSTONE WITH TRACE SANDSTONE.</p> <p>SILTSTONE: Brown to brown grey, argillaceous grading to Claystone in part, trace carbonaceous specks, occasional very fine translucent loose quartz grains, firm to soft, dispersive, subblocky to amorphous.</p> <p>SANDSTONE (Trace) : Off white, translucent to transparent, very fine to fine grained, subangular, well sorted, strong calcareous cement, occasional off white argillaceous matrix, carbonaceous specks, firm to hard, tight visual porosity, no shows.</p>	<p>7 – 100 units</p> <p>93/3/2/1/1 %</p> <p>CO2: 480 ppm</p>
2847 – 2908m ROP: 18 - 88 Ave: 53	<p>SILTSTONE WITH TRACE LIMESTONE</p> <p>SILTSTONE: Brown to dark brown, arenaceous, trace black carbonaceous specks, trace pyritic inclusions, micromicaceous, soft and dispersive in part, blocky to sub blocky.</p> <p>LIMESTONE (Trace): Cream to off white, sparitic, micro crystalline in part, very hard, nil visual porosity, no shows.</p>	<p>22 – 114 units</p> <p>91/5/2/2/TR %</p> <p>CO2: 485 ppm</p>
2908 - 2979m ROP: 23-103 Ave: 56	<p>MASSIVE SILTSTONE</p> <p>SILTSTONE: Light to dominantly medium grey to brown grey, trace carbonaceous specks, slightly micromicaceous, argillaceous, slightly calcareous, firm, sub blocky.</p>	<p>42 – 146 units</p> <p>91/5/3/1/TR %</p> <p>CO2: 485 ppm</p>

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WELL PROGRESS REPORT

AMRIT 1

DATE: 08/12/04

REPORT NO: 12

(As at 2400 hours 07/12/04) **DEPTH :** 2979m (TD) **PROGRESS:** 101 m **DAYS FROM SPUD :** 17.28
DAYS ON WELL: 20.89

OPERATION: RUNNING IN HOLE TO RECORD RUN 1: PEX-HALS-DSI

(As at 0600 hours 08/12/04) **DEPTH :** 2979m (TD) **PROGRESS (0600-0600 hrs):** 0m

OPERATION : PULLING OUT OF HOLE HAVING RECORDED RUN 1: PEX-HALS-DSI.

AFE COST

CUMULATIVE COST

508mm (20") CASING DEPTH: 1822m

RIG: JACK BATES

340mm (13.375") CASING DEPTH: 2455m

RT – SEAFLOOR: 1425 m

PROGRAMMED TD: 3179m

ROTARY TABLE: 29m LAT

WATER DEPTH: 1396 m

MUD DATA	Mud Type: (Pits)	Wt:	Vis:	FL:	Ph:	KCl%	Cl:	PV/YP:
(2400 Hours)	KCL / PHPA/ GLYCOL	1.14 SG/ 9.5 PPG	66	5.0	8.5	10.0	50500	24 / 30

BIT DATA	PRESENT	No.	Make	Type	Size (mm)	Hours	Drilled	Condition
(2400 Hours)	LAST	4	Reed	DSX 104 (PDC)	311 mm	14.4	236	0-0-BU-A-X-I-ER-PR

SURVEYS:	<u>MD (m)</u>	<u>INC (°)</u>	<u>AZIM (°T)</u>	<u>CLOSURE (m)</u>	<u>DIRECTION (°)</u>
	2950.00	0.26	140.59		
(Project to TD)	2979.00	0.26	140.59	12.6	233

PREVIOUS 24 HOURS OPERATIONS SUMMARY:

DRILL AHEAD FROM 2878m TO 2979m. TOTAL DEPTH REACHED AT 03:30 HRS ON 07/12/04. CIRCULATE BOTTOMS UP PRIOR TO PULLING OUT TO RUN WIRELINE LOGS. PULL OUT OF HOLE TO 2910m. OBSERVE TIGHT HOLE. PUMP OUT OF HOLE FROM 2910m TO CASING SHOE. CIRCULATE HOLE CLEAN. PULL OUT OF HOLE, DOWNLOAD MWD MEMORY DATA. RIG UP SCHLUMBERGER AND RUN IN HOLE TO CASING SHOE.

00:00 – 06:00 HOURS 08/12/04:

CONTINUE TO RUN IN HOLE TO RECORD RUN 1: PEX-HALS-DSI. TOOLS HUNG UP AT 2945m. RECORD LOG FROM 2945m TO CASING SHOE. TROUBLESHOOT RESISTIVITY MALFUNCTION. PULL OUT OF HOLE.

ANTICIPATED OPERATIONS:

RIG DOWN RUN 1. RECORD RUN 2 (SIDEWALL CORES OR VSP CHECKSHOT SURVEY) – PENDING EVALUATION OF RUN 1 DATA.

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WELL PROGRESS REPORT

AMRIT 1

DATE: 09/12/04

REPORT NO: 13

(As at 2400 hours 08/12/04) **DEPTH :** 2979m (TD) **PROGRESS:** 0 m **DAYS FROM SPUD :** 18.28
DAYS ON WELL: 21.89

OPERATION: RUNNING IN HOLE WITH LOGGING RUN NO. 3: SIDEWALL CORES.

(As at 0600 hours 09/12/04) **DEPTH :** 2979m (TD) **PROGRESS (0600-0600 hrs):** 0m

OPERATION : LOGGING RUN NO. 3: SIDEWALL CORES (24 / 30 CORES CUT AT 06:00HRS).

AFE COST

CUMULATIVE COST

508mm (20") CASING DEPTH: 1822m

RIG: JACK BATES

340mm (13.375") CASING DEPTH: 2455m

RT – SEAFLOOR: 1425 m

PROGRAMMED TD: 3179m

ROTARY TABLE: 29m LAT

WATER DEPTH: 1396 m

MUD DATA	Mud Type: (Pits)	Wt:	Vis:	FL:	Ph:	KCl%	Cl :	PV/YP:
(2400 Hours)	KCL / PHPA/ GLYCOL	1.15 SG/ 9.6 PPG	66	4.0	8.5	10.0	49000	22 / 29

BIT DATA	No.	Make	Type	Size (mm)	Hours	Drilled	Condition	
(2400 Hours)	LAST	4	Reed	DSX 104 (PDC)	311 mm	14.4	236	0-0-BU-A-X-I-ER-PR

SURVEYS:	<u>MD (m)</u>	<u>INC (°)</u>	<u>AZIM (°T)</u>	<u>CLOSURE (m)</u>	<u>DIRECTION (°)</u>
(Project to TD)	2979.00	0.26	140.59	12.6	233

PREVIOUS 24 HOURS OPERATIONS SUMMARY:

CONTINUE TO RUN IN HOLE WITH RUN 1: PEX-HALS-DSI. TOOLS HUNG UP AT 2945m. RECORD UPLOG FROM 2945m TO CASING SHOE. TROUBLESHOOT RESISTIVITY MALFUNCTION. PULL OUT OF HOLE WITH RUN 1: PEX-HALS-DSI. WHEN TOOLS AT SURFACE, FIND METAL JUNK (COVER PLATE FROM HYDRAULIC SLIPS WHICH WAS PREVIOUSLY LEFT IN HOLE) ENTANGLED IN THE CENTRALISER OF THE RESISTIVITY TOOL. RIG UP FOR VELOCITY CHECKSHOT SURVEY & TEST AIR GUNS. RUN IN HOLE, TOOLS HUNG UP AT 2945m. RECORD VELOCITY CHECKSHOT SURVEY AS PER PROGRAM. RIG DOWN VELOCITY SURVEY. RIG UP LOGGING RUN 3: CST-GR (1 GUN – 30 SHOTS) & RUN IN HOLE.

00:00 – 06:00 HOURS 09/12/04:

RUN IN HOLE LOGGING RUN 3 : CST-GR. TOOLS HUNG UP AT 2945m. SHOOT SIDEWALL CORES AS PER PROGRAM. 24 OF 30 SHOT AT 06:00HRS.

ANTICIPATED OPERATIONS:

COMPLETE CST RUN. PULL OUT OF HOLE. RECOVER CORES. RIG DOWN SCHLUMBERGER. LAY OUT 311mm (12.25") BHA. SET 340mm (13.375") "EZSV" CEMENT RETAINER, SET ABANDONMENT PLUGS AS PER PROGRAM.

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WELL PROGRESS REPORT

AMRIT 1

DATE: 10/12/04

REPORT NO: 14

(As at 2400 hours 09/12/04) **DEPTH :** 2979m (TD) **PROGRESS:** 0 m **DAYS FROM SPUD :** 19.28
DAYS ON WELL: 22.89

OPERATION: RIGGING DOWN CEMENTING HOSE HAVING PUMPED PLUG 1: 2386-2490m.

(As at 0600 hours 10/12/04) **DEPTH :** 2979m (TD) **PROGRESS (0600-0600 hrs):** 0m

OPERATION : PULLING OUT OF HOLE SIDEWAYS AT 1141m, LAYING OUT DRILLPIPE.

AFE COST

CUMULATIVE COST

508mm (20") CASING DEPTH: 1822m

RIG: JACK BATES

340mm (13.375") CASING DEPTH: 2455m

RT – SEAFLOOR: 1425 m

PROGRAMMED TD: 3179m

ROTARY TABLE: 29m LAT

WATER DEPTH: 1396 m

MUD DATA	Mud Type: (Pits)	Wt:	Vis:	FL:	Ph:	KCl%	Cl :	PV/YP:
(2400 Hours)	KCL / PHPA/ GLYCOL	1.15 SG/ 9.6 PPG	67	5.0	8.5	10.0	51000	23 / 29

BIT DATA		No.	Make	Type	Size (mm)	Hours	Drilled	Condition
(2400 Hours)	LAST	4	Reed	DSX 104 (PDC)	311 mm	14.4	236	0-0-BU-A-X-I-ER-PR

SURVEYS:	<u>MD (m)</u>	<u>INC (°)</u>	<u>AZIM (°T)</u>	<u>CLOSURE (m)</u>	<u>DIRECTION (°)</u>
(Project to TD)	2979.00	0.26	140.59	12.6	233

PREVIOUS 24 HOURS OPERATIONS SUMMARY:

RUN IN HOLE WITH LOGGING RUN 3 : CST-GR. TOOLS HUNG UP AT 2945m. SHOOT 30 SIDEWALL CORES AS PER PROGRAM. PULL OUT OF HOLE & RECOVER CORES. RECOVERY 70% - 21 OUT OF 30 CORES RECOVERED (3 MISFIRED & 6 EMPTY). RIG DOWN SCHLUMBERGER WIRELINE. RUN IN HOLE WITH 311mm (12.25") BHA, PULL OUT & LAYOUT BHA. MAKE UP 340mm (13.375") EZSV CEMENT RETAINER PACKER AND RUN IN HOLE TO 2435m. SET CEMENT RETAINER AT 2435m AND PRESSURE TEST TO 52.7 KPa (1100PSI) – OKAY. STING INTO EZSV AND PUMP CEMENT PLUG 1: 2386-2490m. RIG DOWN CEMENT HOSE & RACK BACK CEMENT STAND.

00:00 – 06:00 HOURS 10/12/04:

PULL OUT OF HOLE SIDEWAYS, LAY OUT DRILLPIPE (1141m AT 06:00HRS)

ANTICIPATED OPERATIONS:

CONTINUE WITH PLUG & ABANDONMENT PROGRAM. COMPLETE LAYING OUT DRILLPIPE, RETRIEVE WEAR BUSHING, CUT & RETRIEVE 340mm (13.375") CASING, SET PLUG 2: 1460-1557m, PULL MARINE RISER & BOP'S.

SECTION 6:- DAILY DRILLING REPORTS

From : D. Atkins/J. Young

Well Data

Country	Australia	M. Depth	0m	Cur. Hole Size	0in	AFE Cost	
Field	Otway Basin	TVD	0m	Casing OD	0in	AFE No.	
Drill Co.	Transocean	Progress	0m	Shoe TVD	0m	Daily Cost	
Rig	Jack Bates	Days from spud	0.00	F.I.T. / L.O.T.	0ppg / 0ppg	Cum Cost	
Wtr Dpth(LAT)	1395.0m	Days on well	0.83			Planned TD	2979.0m
RT-ASL(LAT)	29.0m	Current Op @ 0600	Running anchors #2 and #6.				
RT-ML	1424m	Planned Op	Continue to run anchors and ballast down the rig to drilling depth.				

Summary of Period 0000 to 2400 Hrs

Moved from Callister-1 to Amrit-1 location. Ran anchors #1; #8; #4; #5.

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

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
RM	P	RM	0400	1100	7.00	0m	Moved rig from Callister-1 location to Amrit-1 location.
RM	P	AH	1100	2400	13.00	0m	<p>Ran anchor #4 with Lady Caroline. 11:00 - PCC passed to Lady Caroline 14:15 - Anchor on bottom. 16:56 - PCC passed back Total Time = 5hrs 56mins</p> <p>Ran anchor #8 with Lady Caroline 17:24 - PCC passed to Lady Caroline 19:40 - Anchor on bottom. 21:12 - PCC passed back Total Time = 3hrs 48mins</p> <p>Lady Astrid passed back tow bridle at 20:20</p> <p>Ran anchor #1 with Lady Astrid 20:55 - PCC passed to Lady Astrid 24:00 - Anchor on bottom.</p> <p>Ran anchor #5 with Lady Caroline 21:34 - PCC passed to Lady Caroline 23:34 -Anchor on bottom.</p>

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

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
RM	P	AH	0000	0600	6.00	0m	<p>Continued to run anchor #5 with Lady Caroline 01:30 - PCC passed back Total Time = 4hrs</p> <p>Continued to run anchor #1 with Lady Astrid 02:47 - PCC passed back Total Time = 5hrs 45mins</p> <p>Ran anchor #6 with Lady Caroline 01:55 - PCC passed to Lady Caroline 05:10 - Anchor on bottom.</p> <p>Ran anchor #2 with Lady Astrid 03:00 - PCC passed to Lady Astrid 05:23 - Anchor on bottom.</p>

Phase Data to 2400hrs, 17 Nov 2004

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP(RM)	20	17 Nov 2004	17 Nov 2004	20.00	0.833 days	0m

Bulk Stocks						Personnel On Board	
Name	Unit	In	Used	Adjust	Balance	Company	Pax
Fuel	MT	0	10	0	766.0	Santos	5
Drill Water	MT	0	15	0	491.0	Transocean	64
Potable Water	MT	0	29	0	207.0	BHI	2
Gel	MT	0	0	0	158.0	Halliburton	3
Cement	MT	0	0	0	157.0	M.I	2
Barite	MT	0	0	0	62.0	Subsea 7	6
						Dril-Quip	2
						Weatherford	2
						Fugro	2
						MO47	5
						ECL	1
						Anadrill	4
Total							98

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	14 Nov 2004	3 Days	Weekly abandon rig drill.
BOP Test	28 Oct 2004	20 Days	Tested all rams etc to 250 psi low and 5000psi high.
Environmental Incident		0 Days	
Fire Drill	14 Nov 2004	3 Days	Simulated fire in mud process room
First Aid		0 Days	
Lost Time Incident		0 Days	None
Safety Meeting	14 Nov 2004	3 Days	
Stop Cards	17 Nov 2004	0 Days	8 START Cards submitted

Marine							
Weather check on 17 Nov 2004 at 24:00							
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
12.00nm	10.0kn	330deg	998bar	21.0C°	0m	000deg	0ft/sec
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments	
2.0deg	2.5deg	0m	1.5m	330deg	10.0ft/sec		
Rig Dir.	Ris. Tension	VDL		Comments			
215.0deg	0klb	7788.0klb					

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Lady Caroline			Running Anchors	Item	Unit	Quantity
				Barite	MT	184
				Cement	MT	120
				Gel	MT	0
Lady Astrid			Running Anchors	Item	Unit	Quantity
				Barite	MT	86
				Cement	MT	84
				Gel	MT	39
				Mud	bbl	475

Helicopter Movement				
Flight #	Time	Destination	Comment	Pax
VH-BZU	16:16	Jack Bates		10
VH-BZU	16:33	Essendon		5

From : D. Atkins/J. Young

Well Data

Country	Australia	M. Depth	0m	Cur. Hole Size	0in	AFE Cost	
Field	Otway Basin	TVD	0m	Casing OD	0in	AFE No.	
Drill Co.	Transocean	Progress	0m	Shoe TVD	0m	Daily Cost	
Rig	Jack Bates	Days from spud	0.00	F.I.T. / L.O.T.	0ppg / 0ppg	Cum Cost	
Wtr Dpth(LAT)	1395.0m	Days on well	1.83			Planned TD	2979.0m
RT-ASL(LAT)	29.0m	Current Op @ 0600	Running 30" conductor into moonpool to land on the GRA.				
RT-ML	1424m	Planned Op	Make up 26" BHA, land BHA in 30" conductor, RIH and spud well.				

Summary of Period 0000 to 2400 Hrs

Completed running anchors, ballasted the rig down to drilling draft and made up DrilQuip running tools.

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

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
RM	P	AH	0000	1200	12.00	0m	Continued to run anchor #5 with Lady Caroline 01:30 - PCC passed back Total Time = 4hrs Continued to run anchor #1 with Lady Astrid 02:47 - PCC passed back Total Time = 5hrs 45mins Ran anchor #6 with Lady Caroline 01:55 - PCC passed to Lady Caroline 05:10 - Anchor on bottom. 07:04 - PCC passed back Total time = 5hrs 9 mins Ran anchor #2 with Lady Astrid 03:00 - PCC passed to Lady Astrid 05:23 - Anchor on bottom. 07:26 - PCC passed back. Total time = 4hrs 26mins Ran anchor #7 with Lady Caroline 07:22 - PCC passed to Lady Caroline 09:52 - Anchor on bottom. 11:15 - PCC passed back. Total time = 3hrs 53mins Ran anchor #3 with Lady Astrid 08:33 - PCC passed to Lady Astrid 10:34 - Anchor on bottom. 12:00 - PCC passed back. Total time = 3hrs 27mins
RM	P	JUD	1200	1900	7.00	0m	Ballasted down rig to drilling draft (29m RT-MSL).
CH	P	RRC	1900	2245	3.75	0m	Held Prespud Presentation from 18:15 - 19:00
CH	P	RRC	2245	2400	1.25	0m	Held safety meeting, made up DrilQuip tools and racked back in the derrick: - 18-3/4" Running Tool - 18-3/4" MRLD Tool - CADA Tool - 30" Running Tool Rigged up to run 30" conductor.

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

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
CH	P	RRC	0000	0030	0.50	0m	Continued to rig up to run 30" casing. Held THINK drill for running 30" casing.
CH	P	CRN	0030	0600	5.50	0m	Ran 8 joints of 30" Casing into the into moonpool: 1x30" Jetting shoe 5x30" 1" WT Joints 1x30" 1.5" WT Joint 1x36" 1.5" WT Wellhead

Phase Data to 2400hrs, 18 Nov 2004

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP(RM)	39	17 Nov 2004	18 Nov 2004	39.00	1.625 days	0m
CONDUCTOR HOLE(CH)	5	18 Nov 2004	18 Nov 2004	44.00	1.833 days	0m

Bulk Stocks						Personnel On Board	
Name	Unit	In	Used	Adjust	Balance	Company	Pax
Fuel	MT	0	13	0	753.0	Santos	5
Drill Water	MT	145	3	0	633.0	Transocean	64
Potable Water	MT	0	26	0	181.0	BHI	2
Gel	MT	0	0	0	158.0	Halliburton	3
Cement	MT	0	0	0	157.0	M.I	2
Barite	MT	0	0	0	62.0	Subsea 7	6
						Dril-Quip	2
						Weatherford	2
						Fugro	2
						MO47	5
						ECL	1
						Anadrill	4
						Total	98

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	14 Nov 2004	4 Days	Weekly abandon rig drill.
BOP Test	28 Oct 2004	21 Days	Tested all rams etc to 250 psi low and 5000psi high.
Environmental Incident		0 Days	
Fire Drill	14 Nov 2004	4 Days	Simulated fire in mud process room
First Aid		0 Days	
Lost Time Incident		0 Days	None
Safety Meeting	14 Nov 2004	4 Days	
Stop Cards	18 Nov 2004	0 Days	7 START Cards submitted

Marine							
Weather check on 18 Nov 2004 at 24:00							
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.00nm	34.0kn	290deg	1010bar	13.4C°	0m	000deg	0ft/sec
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments	
0.8deg	0.8deg	0m	3.0m	290deg	10.0ft/sec		
Rig Dir.	Ris. Tension	VDL	Comments				
217.0deg	0klb	8509.0klb					

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Lady Caroline			At Rig on Standby	Item	Unit	Quantity
				Barite	MT	184
				Cement	MT	120
				Gel	MT	0
				Mud	bbl	910
Lady Astrid			Portland	Item	Unit	Quantity
				Barite	MT	86
				Cement	MT	84
				Gel	MT	39
				Mud	bbl	475

From : D. Atkins/J. Young

Well Data

Country	Australia	M. Depth	0m	Cur. Hole Size	0in	AFE Cost	
Field	Otway Basin	TVD	0m	Casing OD	0in	AFE No.	
Drill Co.	Transocean	Progress	0m	Shoe TVD	0m	Daily Cost	
Rig	Jack Bates	Days from spud	0.00	F.I.T. / L.O.T.	0ppg / 0ppg	Cum Cost	
Wtr Dpth(LAT)	1395.0m	Days on well	2.83			Planned TD	2979.0m
RT-ASL(LAT)	29.0m	Current Op @ 0600	Release running tool from 36" wellhead.				
RT-ML	1424m	Planned Op	Make up 26" BHA and RIH with jetting assembly.				

Summary of Period 0000 to 2400 Hrs

Made up 30" conductor. Picked and made up 5" drill pipe whilst waiting on weather.

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

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
CH	P	RRC	0000	0030	0.50	0m	Continued to rig up to run 30" casing. Held THINK drill for running 30" casing.
CH	P	CRN	0030	0600	5.50	0m	Ran 8 joints of 30" Casing into the into moonpool and stopped before landing out in the GRA: 1x30" Jetting shoe 5x30" 1" WT Joints 1x30" 1.5" WT Joint 1x36" 1.5" WT Wellhead
CH	TP (WOW)	CRN	0600	0700	1.00	0m	Wait on weather. Seas too high to latch 36" wellhead into the GRA.
CH	TP (WOW)	CRN	0700	0730	0.50	0m	Wait on weather. Decided to pick and make up 5" drill pipe whilst waiting on weather. Held toolbox meeting and rigged up to make up 5" drill pipe.
CH	P	CRN	0730	0900	1.50	0m	Decision made to proceed with running casing. Engaged 36" wellhead into the GRA and secured in the moonpool area.
CH	TP (WOW)	CRN	0900	1100	2.00	0m	Weather conditions too rough to run 26" BHA. Wait on Weather.
CH	TP (WOW)	CRN	1100	1600	5.00	0m	Wait on weather. Picked and made up 5" drill pipe in the mouse hole. Racked back in the aft side of the derrick.
CH	TP (WOW)	CRN	1600	1630	0.50	0m	Wait on weather. Ran GRA through splash zone due to increasing weather conditions. GRA suspended 137m below the rotary table.
CH	TP (WOW)	CRN	1630	1915	2.75	0m	Wait on weather. Recommended picking up 5" drill pipe. A total of 19 stands racked back in the aft side of the derrick.
CH	TP (WOW)	CRN	1915	2400	4.75	0m	Wait on weather. Swell ~5m with a maximum wave height of ~8m.

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

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
CH	TP (WOW)	CRN	0000	0430	4.50	0m	Waited on weather.
CH	TP (WOW)	CRN	0430	0530	1.00	0m	Pulled and secured GRA and 30" conductor in the moonpool area.
CH	P	CRN	0530	0600	0.50	0m	Release running tool and rigged up to run 26" BHA.

Phase Data to 2400hrs, 19 Nov 2004

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP(RM)	39	17 Nov 2004	18 Nov 2004	39.00	1.625 days	0m
CONDUCTOR HOLE(CH)	29	18 Nov 2004	19 Nov 2004	68.00	2.833 days	0m

Bulk Stocks						Personnel On Board	
Name	Unit	In	Used	Adjust	Balance	Company	Pax
Fuel	MT	0	18	0	735.0	Santos	3
Drill Water	MT	0	10	137	760.0	Transocean	66
Potable Water	MT	225	39	0	367.0	BHI	4
Gel	MT	0	28	0	130.0	Halliburton	2
Cement	MT	118	0	0	275.0	M.I	2
Barite	MT	0	2	0	60.0	Subsea 7	6
						Dril-Quip	2
						Weatherford	2
						Fugro	1
						ECL	1
						Anadrill	4
						Total	93

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	14 Nov 2004	5 Days	Weekly abandon rig drill.
BOP Test	28 Oct 2004	22 Days	Tested all rams etc to 250 psi low and 5000psi high.
Environmental Incident		0 Days	
Fire Drill	14 Nov 2004	5 Days	Simulated fire in mud process room
First Aid		0 Days	
Lost Time Incident		0 Days	None
Safety Meeting	14 Nov 2004	5 Days	
Stop Cards	19 Nov 2004	0 Days	13 START Cards submitted

Marine							
Weather check on 19 Nov 2004 at 24:00							
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.00nm	14.0kn	250deg	1024bar	12.4C°	0m	000deg	0ft/sec
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments	
1.5deg	1.5deg	0m	3.0m	250deg	10.0ft/sec		
Rig Dir.	Ris. Tension	VDL	Comments				
217.0deg	0klb	9812.0klb					

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Lady Caroline			Running Anchors	Item	Unit	Quantity
				Barite	MT	184
				Cement	MT	120
				Gel	MT	0
Lady Astrid			Running Anchors	Item	Unit	Quantity
				Barite	MT	86
				Cement	MT	84
				Gel	MT	39
				Mud	bbl	475

Helicopter Movement				
Flight #	Time	Destination	Comment	Pax
VH-BZU	16:15	Jack Bates		10
VH-BZU	16:35	Essendon		15

From : D. Atkins/J. Young

Well Data

Country	Australia	M. Depth	1454.0m	Cur. Hole Size	30.000in	AFE Cost	
Field	Otway Basin	TVD	1454.0m	Casing OD	0in	AFE No.	
Drill Co.	Transocean	Progress	29.0m	Shoe TVD	0m	Daily Cost	
Rig	Jack Bates	Days from spud	0.28	F.I.T. / L.O.T.	0ppg / 0ppg	Cum Cost	
Wtr Dpth(LAT)	1396.0m	Days on well	3.83			Planned TD	2979.0m
RT-ASL(LAT)	29.0m	Current Op @ 0600	Jetting 30" conductor at 1492m.				
RT-ML	1425m	Planned Op	Finish jetting 30" conductor; Allow conductor to soak; Release CADA and drill ahead in 26" hole.				

Summary of Period 0000 to 2400 Hrs

Pulled GRA back into moonpool; Ran 26" BHA; RIH and tagged sea bed at 1425mRT; Jetted 30" conductor from 1425m - 1454m RT.

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

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
CH	TP (WOW)	CRN	0000	0430	4.50	0m	Waited on weather.
CH	TP (WOW)	CRN	0430	0530	1.00	0m	Pulled and secured GRA and 30" conductor in the moonpool area.
CH	P	CRN	0530	0600	0.50	0m	Release running tool and rigged up to run 26" BHA.
CH	P	HBHA	0600	0645	0.75	0m	Ran 26" bit and motor through the rotary table and stabbed into GRA.
CH	P	HBHA	0645	0815	1.50	0m	Programmed Schlumberger LWD (CDR) tool.
CH	P	HBHA	0815	1030	2.25	0m	Made up and ran 26" BHA.
CH	P	HBHA	1030	1145	1.25	0m	Latched Dril-Quip "CADA" tool into 36" wellhead with 6.5 turns anti-clockwise whilst ROV checked space out (~2"- 4" sticking out of casing).
CH	P	HBHA	1145	1200	0.25	0m	Picked up GRA, 30" conductor, 26" BHA and skidded the moonpool transporter clear.
CH	P	HBHA	1200	1330	1.50	0m	Continued to pick and make up the 26" BHA (from 77m - 256m)
CH	P	CRN	1330	1615	2.75	0m	Ran in hole on 5" drill pipe, filling every 20 stands.
CH	P	CRN	1615	1700	0.75	0m	Held pre-spud meeting prior and slightly moved rig position prior to starting jetting operations. (String weight = 420k).
CH	P	CRN	1700	1715	0.25	1425.0m	Tagged seabed at 1425m RT (tide corrected). ROV checked bullseye - 0.5 deg STBD/FWD. Preliminary Bottom Hole Location: 38deg 36' 5.265" South 141deg 44' 07.044" East.
CH	P	DA	1715	2400	6.75	1454.0m	Conductor is 2m at a bearing of 293.4 deg True from the design location. Jetted conductor from 1425m - 1454m RT. Increased pump rates from 600gpm to 1000gpm once 15m into seabed. Intermittently worked pipe to reduce the friction on the casing and increase ROP. Bullseye reading - 1/2 deg STBD/FWD.

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

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
CH	P	DA	0000	0600	6.00	1492.0m	Jetted conductor from 1454m - 1492m RT. Intermittently worked pipe to reduce the friction on the casing and increase ROP. Bullseye reading - 3/4deg PORT.

Phase Data to 2400hrs, 20 Nov 2004

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP(RM)	39	17 Nov 2004	18 Nov 2004	39.00	1.625 days	0m
CONDUCTOR HOLE(CH)	53	18 Nov 2004	20 Nov 2004	92.00	3.833 days	1454.0m

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)	30.0klb	No.	Size	Progress	29.0m	Cum. Progress		29.0m		
Type:	Rock	RPM(avg)	0	1	21/32nd"	On Bottom Hrs	4.60h	Cum. On Btm Hrs		4.60h		
Serial No.:	MR3808	F.Rate	830gpm	2	20/32nd"	IADC Drill Hrs	6.75h	Cum IADC Drill Hrs		6.75h		
Bit Model	MSDS	SPP	0psi	22/32nd"		Total Revs	0	Cum Total Revs		0		
Depth In	1425.0m	TFA	1.387			ROP(avg)	6.30 m/hr	ROP(avg)		6.30 m/hr		
Depth Out	0m											

BHA # 1						
Weight(Wet)	154.0klb	Length	256.6m	Torque(max)	0ft-lbs	D.C. (1) Ann Velocity
Wt Below Jar(Wet)	0klb	String	0klb	Torque(Off.Btm)	0ft-lbs	D.C. (2) Ann Velocity
		Pick-Up	0klb	Torque(On.Btm)	0ft-lbs	H.W.D.P. Ann Velocity
		Slack-Off	0klb			D.P. Ann Velocity
BHA Run Description		26" Bit; 9-5/8" HiFlow Motor; Float Sub; 26" stab; LWD(CDR); Power Pulse; 26" Stab; 9.5" NMDC; 3x9.5" DC; XO; 2x8" DC; CADA tool; 6x8" DC; XO; 12x5" HWDP.				
BHA Run Comment		BHA ran inside the conductor to conduct jetting operations.				

Bulk Stocks						Personnel On Board	
Name	Unit	In	Used	Adjust	Balance	Company	Pax
Fuel	MT	0	18	0	717.0	Santos	3
Drill Water	MT	90	92	0	758.0	Transocean	66
Potable Water	MT	0	25	0	342.0	BHI	4
Gel	MT	0	6	0	124.0	Halliburton	2
Cement	MT	0	0	0	275.0	M.I	2
Barite	MT	276	83	0	253.0	Subsea 7	6
						Dril-Quip	2
						Weatherford	2
						Fugro	1
						ECL	1
						Anadrill	4
						Total	93

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	20 Nov 2004	0 Days	Weekly abandon rig drill.
BOP Test	28 Oct 2004	23 Days	Tested all rams etc to 250 psi low and 5000psi high.
Environmental Incident		0 Days	
Fire Drill	14 Nov 2004	6 Days	Simulated fire in mud process room
First Aid		0 Days	
Lost Time Incident		0 Days	None
Safety Meeting	14 Nov 2004	6 Days	
Stop Cards	20 Nov 2004	0 Days	8 START Cards submitted

Marine							
Weather check on 20 Nov 2004 at 24:00							
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.00nm	7.0kn	220deg	1026bar	12.7C°	0m	000deg	0ft/sec
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments	
0.8deg	0.8deg	0.50m	1.8m	220deg	10.0ft/sec		
Rig Dir.	Ris. Tension	VDL	Comments				
217.0deg	0klb	9812.0klb					

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Lady Caroline			On Transit to Portland.	Item	Unit	Quantity
				Barite	MT	0
				Cement	MT	0
				Gel	MT	0
				Mud	bbl	0
Lady Astrid			At Rig	Item	Unit	Quantity
				Barite	MT	0
				Cement	MT	84
				Gel	MT	39
				Mud	bbl	475

From : D. Atkins/J. Young

Well Data

Country	Australia	M. Depth	1758.0m	Cur. Hole Size	26.000in	AFE Cost	
Field	Otway Basin	TVD	1758.0m	Casing OD	30.000in	AFE No.	
Drill Co.	Transocean	Progress	304.0m	Shoe TVD	0m	Daily Cost	
Rig	Jack Bates	Days from spud	1.28	F.I.T. / L.O.T.	0ppg / 0ppg	Cum Cost	
Wtr Dpth(LAT)	1396.0m	Days on well	4.85			Planned TD	2979.0m
RT-ASL(LAT)	29.0m	Current Op @ 0600	RIH to To TD for 2nd displacement				
RT-ML	1425m	Planned Op	POOH with 26" BHA; Rig up and run 20" casing.				

Summary of Period 0000 to 2400 Hrs

Jetted 30" conductor to 1510mRT; "Soaked" 30" conductor; Released CADA tool; Drilled ahead in 26" hole.

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

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
CH	P	DA	0000	1100	11.00	1510.0m	Jetted conductor from 1454m - 1510m RT. Intermittently worked pipe to reduce the friction on the casing and increase ROP.
CH	P	CRN	1100	1545	4.75	1510.0m	Pumped 150bbl sweep at TD. Bullseye reading - 1/2deg PORT/FWD. Held the weight of the casing and allowed conductor to "soak".
SH	TP (RE)	DA	1515	1630	1.25	1510.0m	FINAL WELL LOCATION: 38deg 56' 5.2" South 141deg 44' 7.08 East Well located 2.9m at a bearing of 338.7deg from the proposed location. Troubleshoot Heave Compensator problem
CH	P	CRN	1630	1715	0.75	1510.0m	Released the CADA tool. Bullseye 1/4 deg.
SH	P	DA	1715	2400	6.75	1758.0m	Drilled 26" hole from 1510m - 1758mRT, pumping 50bbl PHG sweeps mid stand and around the BHA on connections. Took surveys and backreaming on connections. Averaged Drilling Parameters: WOB - 25,000 lbs; RPM - 205rpm; FLOW - 1150 gpm; Torque - 8,000 ft.lbs

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

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
SH	P	DA	0000	0230	2.50	1835.0m	Drilled 26" hole from 1758m - 1835mRT, pumping 50bbl PHG sweeps mid stand and around the BHA on connections. Took surveys and backreaming on connections. Averaged Drilling Parameters: WOB - 25,000 lbs; RPM - 205rpm; FLOW - 1150 gpm; Torque - 8,000 ft.lbs
SH	P	CHC	0230	0300	0.50	1835.0m	Circulated 250bbls of PHG at 1835mRT (section TD) to clear cuttings.
SH	P	TO	0300	0500	2.00	1835.0m	Pumped out of the hole to the 30" casing shoe with 50% hole volume excess of 12.4 ppg PHPA mud.
SH	TP (RE)	RR	0500	0600	1.00	1835.0m	Detected a leak in the standpipe manifold. Changed out mud hose on TDS with Spare.

Phase Data to 2400hrs, 21 Nov 2004

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP(RM)	39	17 Nov 2004	18 Nov 2004	39.00	1.625 days	0m
CONDUCTOR HOLE(CH)	69.5	18 Nov 2004	21 Nov 2004	108.50	4.521 days	1510.0m
SURFACE HOLE(SH)	8	21 Nov 2004	21 Nov 2004	116.50	4.854 days	1758.0m

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)	25.0klb	No.	Size	Progress	304.0m	Cum. Progress		333.0m		
Type:	Rock	RPM(avg)	100	1	21/32nd"	On Bottom Hrs	12.30h	Cum. On Btm Hrs		16.90h		
Serial No.:	MR3808	F.Rate	1100gpm	1	20/32nd"	IADC Drill Hrs	17.45h	Cum IADC Drill Hrs		24.20h		
Bit Model	MSDS	SPP	4000psi	2	22/32nd"	Total Revs	0	Cum Total Revs		0		
Depth In	1425.0m	TFA	1.387			ROP(avg)	24.72 m/hr	ROP(avg)		19.70 m/hr		
Depth Out	0m											

BHA # 1							
Weight(Wet)	44.0klb	Length	256.6m	Torque(max)	0ft-lbs	D.C. (1) Ann Velocity	
Wt Below Jar(Wet)	0klb	String	0klb	Torque(Off.Btm)	0ft-lbs	D.C. (2) Ann Velocity	
		Pick-Up	0klb	Torque(On.Btm)	0ft-lbs	H.W.D.P. Ann Velocity	
		Slack-Off	0klb			D.P. Ann Velocity	
BHA Run Description		26" Bit; 9-5/8" HiFlow Motor; Float Sub; 26" stab; LWD(CDR); Power Pulse; 26" Stab; 9.5" NMDC; 3x9.5" DC; XO; 2x8" DC; CADA tool; 6x8" DC; XO; 12x5" HWDP.					
BHA Run Comment		BHA ran inside the conductor to conduct jetting operations.					

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
1653.18	0.34	298.89	1653.14	-3.32	0.08	-3.32	-7.03	MWD
1681.34	0.26	305.03	1681.30	-3.24	0.03	-3.24	-7.16	MWD
1709.52	0.31	319.56	1709.48	-3.15	0.03	-3.15	-7.26	MWD
1737.89	0.40	311.67	1737.85	-3.02	0.04	-3.02	-7.38	MWD
1766.33	0.35	299.78	1766.29	-2.92	0.03	-2.92	-7.53	MWD
1809.32	0.26	261.27	1809.28	-2.86	0.05	-2.86	-7.74	MWD

Bulk Stocks						Personnel On Board		
Name	Unit	In	Used	Adjust	Balance	Company		Pax
Fuel	MT	180	25	0	872.0	Santos		3
Drill Water	MT	540	293	0	1,005.0	Transocean		66
Potable Water	MT	0	26	0	316.0	BHI		4
Gel	MT	0	25	0	99.0	Halliburton		2
Cement	MT	0	0	0	275.0	M.I		2
Barite	MT	0	117	0	136.0	Subsea 7		6
						Dril-Quip		2
						Weatherford		2
						Fugro		1
						ECL		1
						Anadrill		4
							Total	93

Casing			
OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	Oppg / Oppg	1510.0m / 1510.0m	Not Cemented. Casing was jetted in.

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	20 Nov 2004	1 Day	Weekly abandon rig drill.
BOP Test	28 Oct 2004	24 Days	Tested all rams etc to 250 psi low and 5000psi high.
Environmental Incident		0 Days	
Fire Drill	14 Nov 2004	7 Days	Simulated fire in mud process room
First Aid	21 Nov 2004	0 Days	Roustabout sprained his ankle whilst offloading 20" casing.
Lost Time Incident		0 Days	None
Safety Meeting	21 Nov 2004	0 Days	
Stop Cards	21 Nov 2004	0 Days	7 START Cards submitted

Marine							
Weather check on 21 Nov 2004 at 24:00							
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.00nm	18.0kn	200deg	1025bar	12.2C°	0m	000deg	0ft/sec
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments	
0.4deg	0.4deg	0.50m	2.4m	200deg	10.0ft/sec		
Rig Dir.	Ris. Tension	VDL	Comments				
217.0deg	0klb	10295.0klb					

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Lady Caroline			In Portland	Item	Unit	Quantity
				Barite	MT	0
				Cement	MT	0
				Gel	MT	0
				Mud	bbl	0
Lady Astrid			At Rig	Item	Unit	Quantity
				Barite	MT	0
				Cement	MT	84
				Gel	MT	39
				Mud	bbl	463

From : D. Atkins/J. Young

Well Data

Country	Australia	M. Depth	1835.0m	Cur. Hole Size	26.000in	AFE Cost	
Field	Otway Basin	TVD	1835.0m	Casing OD	30.000in	AFE No.	
Drill Co.	Transocean	Progress	77.0m	Shoe TVD	0m	Daily Cost	
Rig	Jack Bates	Days from spud	2.28	F.I.T. / L.O.T.	0ppg / 0ppg	Cum Cost	
Wtr Dpth(LAT)	1396.0m	Days on well	5.88			Planned TD	2979.0m
RT-ASL(LAT)	29.0m	Current Op @ 0600	RIH 20" casing on 5" drill pipe.				
RT-ML	1425m	Planned Op	Run and cement 20" Casing; POOH, rig up and run BOP's.				

Summary of Period 0000 to 2400 Hrs

Drilled from 1758m - 1835mRT; Pumped out of the hole with 12.4ppg 'old' mud; RIH to bottom and pumped out of the hole with 12.4ppg 'new' mud; Displaced 400bbls of 16ppg kill mud; POOH and racked back 26" BHA; Ran 31 joints 20" casing.

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

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
SH	P	DA	0000	0230	2.50	1835.0m	Drilled 26" hole from 1758m - 1835mRT, pumping 50bbl PHG sweeps mid stand and around the BHA on connections. Took surveys and backreaming on connections. Averaged Drilling Parameters: WOB - 25,000 lbs; RPM - 205rpm; FLOW - 1150 gpm; Torque - 8,000 ft.lbs
SH	P	CHC	0230	0300	0.50	1835.0m	Circulated 250bbls of PHG at 1835mRT (section TD) to clear cuttings.
SH	P	TO	0300	0500	2.00	1835.0m	Pumped out of the hole to the 30" casing shoe with 50% hole volume excess of 12.4 ppg PHPA mud.
SH	TP (RE)	RR	0500	0600	1.00	1835.0m	Detected a leak in the standpipe manifold. Changed out mud hose on TDS with Spare.
SH	P	TI	0600	0700	1.00	1835.0m	RIH from 1510m - 1835mRT.
SH	P	CHC	0700	0845	1.75	1835.0m	Pumped out the hole to 1550mRT with 50% hole volume excess of 'new' 12.4 ppg PHPA/MI-Lube mud.
SH	P	CHC	0845	0915	0.50	1835.0m	Spotted 400bbls of heavy (16ppg) mud. EMW @ TD = 9.6ppg
SH	P	TO	0915	1015	1.00	1835.0m	POOH from 1550m -1255m RT. Observed (with ROV) drill cuttings across the wellhead and all over the GRA.
SH	P	WH	1015	1145	1.50	1835.0m	RIH and with ROV assistance, jetted around the wellhead and GRA (650 gpm).
SH	P	TO	1145	1415	2.50	1835.0m	POOH from 1426m to 256m RT using the rig tongs due to high torque in the 5" drill string.
SH	P	HBHA	1400	1500	1.00	1835.0m	POOH with the 26" BHA and racked back in the derrick.
SH	P	HBHA	1500	1545	0.75	1835.0m	Broke and laid out the Dril-Quip 'CADA' tool.
SH	P	HBHA	1545	1630	0.75	1835.0m	POOH and racked back 26" BHA from 256m - 88m RT.
SH	P	HBHA	1630	1715	0.75	1835.0m	Downloaded FEWD tools and racked back the last stand of the 26" BHA.
SH	P	RUC	1715	1745	0.50	1835.0m	Made up and racked back the cementing stand.
SH	P	RRC	1745	1830	0.75	1835.0m	Rigged up to run 20" casing and held 'THINK' session prior to running casing.
SH	P	CRN	1830	1845	0.25	1835.0m	Picked up the shoe joint and tested float valve.
SH	P	SM	1845	1900	0.25	1835.0m	Held 'THINK' session with incoming crew.
SH	P	CRN	1900	2400	5.00	1835.0m	Continued to run 31 joints of RL-4S, 20" casing. Inserted one anti-rotation dog per joint from 24m - 390m RT. Filled casing every 2nd joint.

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

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
SH	P	CRN	0000	0200	2.00	1835.0m	Picked and made up the 18-3/4" high pressure wellhead housing. Pick-up and slack off weights 305k/290k.
SH	P	CRN	0200	0430	2.50	1835.0m	Ran in 12 stands of 5" drill pipe as a cement stinger. Made up each tooljoint to required make-up torque with manual rig tongs due to iron roughneck not working.
SH	P	CRN	0430	0530	1.00	1835.0m	Made up "MRLD" tool to the 5" stinger and installed into the 18-3/4" wellhead housing.
SH	P	CRN	0530	0600	0.50	1835.0m	RIH 20" casing through the splash zone on 5" drill pipe. Broke circulation and closed ball valve on "MRLD" tool.

Phase Data to 2400hrs, 22 Nov 2004

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP(RM)	39	17 Nov 2004	18 Nov 2004	39.00	1.625 days	0m
CONDUCTOR HOLE(CH)	69.25	18 Nov 2004	21 Nov 2004	108.25	4.510 days	1510.0m
SURFACE HOLE(SH)	32.75	21 Nov 2004	22 Nov 2004	141.00	5.875 days	1835.0m

WBM Data									
Mud Type:	Weighted PHPA	API FL:	0cm³/30m	Cl:	0	Solids:	0	Viscosity:	100sec/qt
Sample-From:		Filter-Cake:	0/32nd"	K+C*1000:	0%	H2O:	0%	PV:	0cp
Time:		HTHP-FL:	0cm³/30m	Hard/Ca:	0	Oil:	0%	YP:	0lb/100ft²
Weight:	12.40ppg	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
Comment: No rheological testing done due to the mud being a one time use.									

WBM Data									
Mud Type:		API FL:	0cm³/30m	Cl:	0	Solids:	0	Viscosity:	120sec/qt
Sample-From:		Filter-Cake:	0/32nd"	K+C*1000:	0%	H2O:	0%	PV:	0cp
Time:		HTHP-FL:	0cm³/30m	Hard/Ca:	0	Oil:	0%	YP:	0lb/100ft²
Weight:	9.00ppg	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
Comment: Built PHG for sweeps as required. Added 128bbbls seawater to first displacement fluid to give correct weight/volume. Received 440bbbls of Ex-Callister 1 WBM from Lady Astrid. Commenced dumping and cleaning of pits to mix Glydril mud for 17.5" section									

Bit # 1				Wear	I	O1	D	L	B	G	O2	R
					1	1	WT	A	E	I	NO	TD
Size ("):	26.00in	IADC#	1-1-5	Nozzles		Drilled over last 24 hrs			Calculated over Bit Run			
Mfr:	SMITH	WOB(avg)	25.0klb	No.	Size	Progress			Cum. Progress			
Type:	Rock	RPM(avg)	100	1	21/32nd"	On Bottom Hrs			Cum. On Btm Hrs			
Serial No.:	MR3808	F.Rate	1100gpm	1	20/32nd"	IADC Drill Hrs			Cum IADC Drill Hrs			
Bit Model	MSDS	SPP	4000psi	2	22/32nd"	Total Revs			Cum Total Revs			
Depth In	1425.0m	TFA	1.387			ROP(avg)			ROP(avg)			
Depth Out	1835.0m											
Bitwear Comment: This is a preliminary bit grading. A final grading will be made after casing is run and the BHA is broken out.												

BHA # 1						
Weight(Wet)	44.0klb	Length	256.6m	Torque(max)	0ft-lbs	D.C. (1) Ann Velocity
Wt Below Jar(Wet)	0klb	String	0klb	Torque(Off.Btm)	0ft-lbs	D.C. (2) Ann Velocity
		Pick-Up	0klb	Torque(On.Btm)	0ft-lbs	H.W.D.P. Ann Velocity
		Slack-Off	0klb			D.P. Ann Velocity
BHA Run Description: 26" Bit; 9-5/8" HiFlow Motor; Float Sub; 26" stab; LWD(CDR); Power Pulse; 26" Stab; 9.5" NMDC; 3x9.5" DC; XO; 2x8" DC; CADA tool; 6x8" DC; XO; 12x5" HWDP.						
BHA Run Comment: BHA ran inside the conductor to conduct jetting operations.						

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
1653.18	0.34	298.89	1653.14	-3.32	0.08	-3.32	-7.03	MWD
1681.34	0.26	305.03	1681.30	-3.24	0.03	-3.24	-7.16	MWD
1709.52	0.31	319.56	1709.48	-3.15	0.03	-3.15	-7.26	MWD
1737.89	0.40	311.67	1737.85	-3.02	0.04	-3.02	-7.38	MWD
1766.33	0.35	299.78	1766.29	-2.92	0.03	-2.92	-7.53	MWD
1809.32	0.26	261.27	1809.28	-2.86	0.05	-2.86	-7.74	MWD

Bulk Stocks						Personnel On Board	
Name	Unit	In	Used	Adjust	Balance	Company	Pax
Fuel	MT	0	23	0	849.0	Santos	3
Drill Water	MT	0	36	0	969.0	Transocean	65
Potable Water	MT	65	33	0	348.0	BHI	4
Gel	MT	0	2	0	97.0	Halliburton	2
Cement	MT	0	0	0	275.0	M.I	2
Barite	MT	0	0	0	136.0	Subsea 7	6
						Dril-Quip	2
						Weatherford	2
						Anadrill	4
						Total	90

Casing			
OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	Oppg / Oppg	1510.0m / 1510.0m	Not Cemented. Casing was jetted in.

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	20 Nov 2004	2 Days	Weekly abandon rig drill.
BOP Test	28 Oct 2004	25 Days	Tested all rams etc to 250 psi low and 5000psi high.
Environmental Incident		0 Days	
Fire Drill	14 Nov 2004	8 Days	Simulated fire in mud process room
First Aid	21 Nov 2004	1 Day	Roustabout sprained his ankle whilst offloading 20" casing.
Lost Time Incident		0 Days	None
Safety Meeting	21 Nov 2004	1 Day	
Stop Cards	22 Nov 2004	0 Days	13 START Cards submitted

Marine							
Weather check on 22 Nov 2004 at 24:00							
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.00nm	16.0kn	250deg	1029bar	12.6C°	0m	000deg	0ft/sec
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments	
0.5deg	0.5deg	0m	3.0m	250deg	10.0ft/sec		
Rig Dir.	Ris. Tension	VDL		Comments			
217.0deg	0klb	8994.0klb					

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Lady Caroline			In Portland	Item	Unit	Quantity
				Barite	MT	0
				Cement	MT	0
				Gel	MT	0
				Mud	bbl	0
Lady Astrid			At Rig	Item	Unit	Quantity
				Barite	MT	0
				Cement	MT	84
				Gel	MT	39
				Mud	bbl	0

Helicopter Movement				
Flight #	Time	Destination	Comment	Pax
VH-BZU	15:35	Jack Bates		6
VH-BZU	15:50	Essendon		9

From : D. Atkins/J. Young

Well Data

Country	Australia	M. Depth	1835.0m	Cur. Hole Size	17.500in	AFE Cost	
Field	Otway Basin	TVD	1835.0m	Casing OD	20.000in	AFE No.	
Drill Co.	Transocean	Progress	0m	Shoe TVD	1822.0m	Daily Cost	
Rig	Jack Bates	Days from spud	3.28	F.I.T. / L.O.T.	0ppg / 0ppg	Cum Cost	
Wtr Dpth(LAT)	1396.0m	Days on well	6.88			Planned TD	2979.0m
RT-ASL(LAT)	29.0m	Current Op @ 0600	Running BOP's and riser.				
RT-ML	1425m	Planned Op	Run BOP's and riser.				

Summary of Period 0000 to 2400 Hrs

Ran and cemented 20" casing. Rigged up to run BOP's and riser.

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

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
SH	P	CRN	0000	0200	2.00	1835.0m	Picked and made up the 18-3/4" high pressure wellhead housing. Pick-up and slack off weights 305k/290k.
SH	P	CRN	0200	0430	2.50	1835.0m	Ran in 12 stands of 5" drill pipe as a cement stinger. Made up each tooljoint to required make-up torque with manual rig tongs due to iron roughneck not working.
SH	P	CRN	0430	0530	1.00	1835.0m	Made up "MRLD" tool to the 5" stinger and installed into the 18-3/4" wellhead housing.
SH	P	CRN	0530	0600	0.50	1835.0m	RIH 20" casing through the splash zone on 5" drill pipe. Broke circulation and closed ball valve on "MRLD" tool.
SH	P	CRN	0600	0900	3.00	1835.0m	Continued to RIH with 20" casing on 5" drill pipe from 428m - 1422m RT.
SH	P	CRN	0900	0930	0.50	1835.0m	Stabbed casing into 36" wellhead and continued to RIH to the 30" shoe at 1510mRT. Broke circulation (300gpm @ 150psi).
SH	P	CRN	0930	1115	1.75	1835.0m	Ran casing into the open hole section from 1510m - 1822m RT. The last 3 joints saw an increased amount of drag 20-50klbs and circulation was required to run casing to bottom.
SH	P	WH	1115	1130	0.25	1835.0m	Landed out the 18-3/4" high pressure wellhead housing, setting down 50klbs string weight. Tested latch with 50klbs overpull, OK.
SH	P	CRN	1130	1300	1.50	1835.0m	Using the Dril-Quip 'MRLD' tool, preloaded the casing with 1000 klbs by pulling 80klbs over string weight. (Due to the water depth it was difficult to apply left hand torque to move tool into the preload position.)
SH	P	CMC	1300	1530	2.50	1835.0m	Pressure tested the surface lines to 2000psi before conducting the 20" cement job. Pumped 20bbls of preflush (seawater with green dye); 660bbls of 12.5ppg lead slurry; 151bbls of 15.8ppg tail slurry and displaced with 148bbls of seawater. Stopped pumps and checked float, OK.
SH	P	WH	1530	1615	0.75	1835.0m	Released the Dril-Quip 'MRLD' tool with 5 turns to the right and circulated the casing clean from 1763m with seawater.
SC	P	TO	1615	2100	4.75	1835.0m	POOH the 5" drillpipe and racked back into the derrick. Broke and laid out the Dril-Quip 'MRLD' tool and racked back the 5" drill pipe cement stinger.
SC	P	SM	2100	2115	0.25	1835.0m	Held 'THINK' drill prior to rigging up to run BOP's and riser.
SC	P	RR1	2115	2400	2.75	1835.0m	Rigged up to run BOP's and riser.

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

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
SC	P	RR1	0000	0515	5.25	1835.0m	Continued to rig up riser handling equipment.
SC	P	SM	0515	0530	0.25	1835.0m	Held 'THINK' talk with crew prior to running BOP's and riser.
SC	P	RR1	0530	0600	0.50	1835.0m	Picked and made up 40ft and 60ft joints of riser to latch onto LMRP.

Phase Data to 2400hrs, 23 Nov 2004

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP(RM)	39	17 Nov 2004	18 Nov 2004	39.00	1.625 days	0m
CONDUCTOR HOLE(CH)	69.25	18 Nov 2004	21 Nov 2004	108.25	4.510 days	1510.0m
SURFACE HOLE(SH)	49	21 Nov 2004	23 Nov 2004	157.25	6.552 days	1835.0m
SURFACE CASING(SC)	7.75	23 Nov 2004	23 Nov 2004	165.00	6.875 days	1835.0m

WBM Data									
Mud Type:	API FL:	0cm ³ /30m	Cl:	1300	Solids:	0	Viscosity:	26sec/qt	
Sample-From:	Filter-Cake:	0/32nd"	K+C*1000:	0%	H2O:	0%	PV:	0cp	
Time:	HTHP-FL:	0cm ³ /30m	Hard/Ca:	150	Oil:	0%	YP:	0lb/100ft ²	
Weight:	8.40ppg	HTHP-Cake:	0/32nd"	MBT:	0	Sand:		Gels 10s:	0
Temp:	0C°			PM:	0	pH:	7.3	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
Comment Building mud for the 17.5" section during riser running period.									

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
1653.18	0.34	298.89	1653.14	-3.32	0.08	-3.32	-7.03	MWD
1681.34	0.26	305.03	1681.30	-3.24	0.03	-3.24	-7.16	MWD
1709.52	0.31	319.56	1709.48	-3.15	0.03	-3.15	-7.26	MWD
1737.89	0.40	311.67	1737.85	-3.02	0.04	-3.02	-7.38	MWD
1766.33	0.35	299.78	1766.29	-2.92	0.03	-2.92	-7.53	MWD
1809.32	0.26	261.27	1809.28	-2.86	0.05	-2.86	-7.74	MWD

Bulk Stocks						Personnel On Board		
Name	Unit	In	Used	Adjust	Balance	Company	Pax	
Fuel	MT	0	16	0	833.0	Santos	3	
Drill Water	MT	0	475	0	494.0	Transocean	65	
Potable Water	MT	0	27	0	321.0	BHI	4	
Gel	MT	0	0	0	97.0	Halliburton	2	
Cement	MT	84	109	0	250.0	M.I	2	
Barite	MT	0	0	0	136.0	Subsea 7	6	
						Dril-Quip	2	
						Weatherford	2	
						Anadrill	4	
Total							90	

Casing			
OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	Oppg / Oppg	1510.0m / 1510.0m	Not Cemented. Casing was jetted in.
20 "	Oppg / Oppg	1822.7m / 1822.7m	660bbls of 12.5ppg Lead 151bbls of 15.8ppg Tail

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	20 Nov 2004	3 Days	Weekly abandon rig drill.
BOP Test	28 Oct 2004	26 Days	Tested all rams etc to 250 psi low and 5000psi high.
Environmental Incident		0 Days	
Fire Drill	14 Nov 2004	9 Days	Simulated fire in mud process room
First Aid	21 Nov 2004	2 Days	Roustabout sprained his ankle whilst offloading 20" casing.
Lost Time Incident		0 Days	None
Safety Meeting	21 Nov 2004	2 Days	
Stop Cards	23 Nov 2004	0 Days	8 START Cards submitted

Marine							
Weather check on 23 Nov 2004 at 24:00							
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.00nm	14.0kn	150deg	1026bar	13.0C°	0m	000deg	0ft/sec
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments	
0.5deg	0.4deg	0m	1.8m	150deg	10.0ft/sec		
Rig Dir.	Ris. Tension	VDL	Comments				
217.0deg	0klb	8650.0klb					

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Lady Caroline			At Rig	Item	Unit	Quantity
				Barite	MT	0
				Cement	MT	100
				Gel	MT	0
				Mud	bbl	0
Lady Astrid			At Portland	Item	Unit	Quantity
				Barite	MT	0
				Cement	MT	0
				Gel	MT	39
				Mud	bbl	0

From : D. Atkins/J. Young

Well Data

Country	Australia	M. Depth	1835.0m	Cur. Hole Size	17.500in	AFE Cost	
Field	Otway Basin	TVD	1835.0m	Casing OD	20.000in	AFE No.	
Drill Co.	Transocean	Progress	0m	Shoe TVD	1822.0m	Daily Cost	
Rig	Jack Bates	Days from spud	4.28	F.I.T. / L.O.T.	0ppg / 0ppg	Cum Cost	
Wtr Dpth(LAT)	1396.0m	Days on well	7.88			Planned TD	2979.0m
RT-ASL(LAT)	29.0m	Current Op @ 0600 Continuing to run riser to a depth of 811mRT (43 of 76 joints run).					
RT-ML	1425m	Bullseye on GRA=1/2 deg					
		Planned Op Continue to run BOP's and riser. Skid back over wellhead, latch and pressure test connection.					

Summary of Period 0000 to 2400 Hrs

Rigged up and ran BOP's/Riser.

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

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
SC	P	RR1	0000	0515	5.25	1835.0m	Continued to rig up riser handling equipment. (Moved rig 50m off location for dropped objects purpose)
SC	P	SM	0515	0530	0.25	1835.0m	Held 'THINK' talk with crew prior to running BOP's and riser.
SC	TP (PR)	RR1	0530	0645	1.25	1835.0m	Picked and made up 40ft and 60ft joints of riser. Realised that the wrong riser joints were picked up.
SC	TP (PR)	SM	0645	0700	0.25	1835.0m	Held 'THINK' talk with new crew on running riser.
SC	TP (PR)	RR1	0700	0730	0.50	1835.0m	Changed out the incorrect riser joints.
SC	P	RR1	0730	0815	0.75	1835.0m	Made up the correct 40ft and 60ft riser joints.
SC	P	RR1	0815	1030	2.25	1835.0m	Skidded the BOP's across into the moonpool and connected the riser.
SC	P	RR1	1030	1045	0.25	1835.0m	Ran BOP's through the splash zone.
SC	P	RR1	1045	1145	1.00	1835.0m	Rigged up and pressure tested the choke and kill lines to 300psi for 5mins and 10,000psi for 10mins. Pressure tested the riser boost line to 300psi for 5mins and 3000psi for 10mins. Rigged down pressure testing equipment.
SC	P	RR1	1145	1830	6.75	1835.0m	Continued to run riser from 30m - 318m RT (16 of 76 joints run).
SC	P	RR1	1830	1930	1.00	1835.0m	Rigged up and pressure tested the choke and kill lines to 300psi for 5mins and 10,000psi for 10mins. Pressure tested the riser boost line to 300psi for 5mins and 3000psi for 10mins. Rigged down pressure testing equipment.
SC	P	RR1	1930	2400	4.50	1835.0m	Continued to run riser from 30m - 537m RT (28 of 76 joints run).

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

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
SC	P	RR1	0000	0130	1.50	1835.0m	Continued to run riser from 537m - 610m RT (32 of 76 joints run).
SC	P	RR1	0130	0230	1.00	1835.0m	Rigged up and pressure tested the choke and kill lines to 300psi for 5mins and 10,000psi for 10mins. Pressure tested the riser boost line to 300psi for 5mins and 3000psi for 10mins. Rigged down pressure testing equipment.
SC	P	RR1	0230	0600	3.50	1835.0m	Continued to run riser from 610m - 811m RT (43 of 76 joints run).

Phase Data to 2400hrs, 24 Nov 2004

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP(RM)	39	17 Nov 2004	18 Nov 2004	39.00	1.625 days	0m
CONDUCTOR HOLE(CH)	69.25	18 Nov 2004	21 Nov 2004	108.25	4.510 days	1510.0m
SURFACE HOLE(SH)	49	21 Nov 2004	23 Nov 2004	157.25	6.552 days	1835.0m
SURFACE CASING(SC)	31.75	23 Nov 2004	24 Nov 2004	189.00	7.875 days	1835.0m

WBM Data

Mud Type:	API FL:	0cm ³ /30m	Cl:	1300	Solids:	0	Viscosity:	26sec/qt
Sample-From:	Filter-Cake:	0/32nd"	K+C*1000:	0%	H2O:	0%	PV:	0cp
Time:	HTHP-FL:	0cm ³ /30m	Hard/Ca:	150	Oil:	0%	YP:	0lb/100ft ²
Weight:	HTHP-Cake:	0/32nd"	MBT:	0	Sand:		Gels 10s:	0
Temp:			PM:	0	pH:	7.3	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

Comment Building mud for the 17.5" section during riser running period.

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
1653.18	0.34	298.89	1653.14	-3.32	0.08	-3.32	-7.03	MWD
1681.34	0.26	305.03	1681.30	-3.24	0.03	-3.24	-7.16	MWD
1709.52	0.31	319.56	1709.48	-3.15	0.03	-3.15	-7.26	MWD
1737.89	0.40	311.67	1737.85	-3.02	0.04	-3.02	-7.38	MWD
1766.33	0.35	299.78	1766.29	-2.92	0.03	-2.92	-7.53	MWD
1809.32	0.26	261.27	1809.28	-2.86	0.05	-2.86	-7.74	MWD

Bulk Stocks						Personnel On Board		
Name	Unit	In	Used	Adjust	Balance	Company	Pax	
Fuel	MT	0	13	0	820.0	Santos	3	
Drill Water	MT	0	2	0	492.0	Transocean	67	
Potable Water	MT	0	24	0	297.0	BHI	5	
Gel	MT	0	0	0	97.0	Halliburton	2	
Cement	MT	0	0	0	250.0	M.I	2	
Barite	MT	0	0	0	136.0	Subsea 7	6	
						Dril-Quip	1	
						Weatherford	2	
						Anadrill	4	
						Total	92	

Casing			
OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	0ppg / 0ppg	1510.0m / 1510.0m	Not Cemented. Casing was jetted in.
20 "	0ppg / 0ppg	1822.7m / 1822.7m	660bbls of 12.5ppg Lead 151bbls of 15.8ppg Tail

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	20 Nov 2004	4 Days	Weekly abandon rig drill.
BOP Test	24 Nov 2004	0 Days	Tested all rams etc to 250 psi low and 5000psi high.
Environmental Incident		0 Days	
Fire Drill	14 Nov 2004	10 Days	Simulated fire in mud process room
First Aid	21 Nov 2004	3 Days	Roustabout sprained his ankle whilst offloading 20" casing.
Lost Time Incident		0 Days	None
Safety Meeting	21 Nov 2004	3 Days	
Stop Cards	24 Nov 2004	0 Days	8 START Cards submitted

Marine							
Weather check on 24 Nov 2004 at 24:00							
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.00nm	14.0kn	140deg	1022bar	14.1C°	0m	000deg	0ft/sec
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments	
0.3deg	0.3deg	0m	1.8m	140deg	10.0ft/sec		
Rig Dir.	Ris. Tension	VDL	Comments				
217.0deg	0klb	7880.0klb					

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Lady Caroline			At Rig	Item	Unit	Quantity
				Barite	MT	0
				Cement	MT	100
				Gel	MT	0
Lady Astrid			At Portland	Item	Unit	Quantity
				Barite	MT	0
				Cement	MT	0
				Gel	MT	39
				Mud	bbl	0

Helicopter Movement				
Flight #	Time	Destination	Comment	Pax
VH-BZU	16:24	Jack Bates		10
VH-BZU	16:38	Essendon		8

From : D. Atkins/J. Young

Well Data

Country	Australia	M. Depth	1835.0m	Cur. Hole Size	17.500in	AFE Cost	
Field	Otway Basin	TVD	1835.0m	Casing OD	20.000in	AFE No.	5738032
Drill Co.	Transocean	Progress	0m	Shoe TVD	1822.0m	Daily Cost	
Rig	Jack Bates	Days from spud	5.28	F.I.T. / L.O.T.	0ppg / 0ppg	Cum Cost	
Wtr Dpth(LAT)	1396.0m	Days on well	8.88			Planned TD	2979.0m
RT-ASL(LAT)	29.0m	Current Op @ 0600	Troubleshooting problem with the KT ring on the slip joint.				
RT-ML	1425m	Planned Op	Pressure test casing; break out 26" BHA; make up and RIH with 17.5" BHA; drill out cement; perform LOT and drill ahead.				

Summary of Period 0000 to 2400 Hrs

Ran the riser from 537m to 1387mRT. Installed riser boost line onto the termination joint.

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

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
SC	P	RR1	0000	0130	1.50	1835.0m	Continued to run riser from 537m - 610m RT (32 of 76 joints run).
SC	P	RR1	0130	0230	1.00	1835.0m	Rigged up and pressure tested the choke and kill lines to 300psi for 5mins and 10,000psi for 10mins. Pressure tested the riser boost line to 300psi for 5mins and 3000psi for 10mins. Rigged down pressure testing equipment.
SC	P	RR1	0230	0645	4.25	1835.0m	Continued to run riser from 610m - 848m RT (45 of 76 joints run).
SC	P	SM	0645	0700	0.25	1835.0m	Held 'THINK' meeting for oncoming crew on running riser.
SC	P	RR1	0700	0800	1.00	1835.0m	Continued to run riser from 848m - 884m RT (47 of 76 joints run).
SC	P	RR1	0800	0915	1.25	1835.0m	Rigged up and pressure tested the choke and kill lines to 300psi for 5mins and 10,000psi for 10mins. Pressure tested the riser boost line to 300psi for 5mins and 3000psi for 10mins. Rigged down pressure testing equipment.
SC	P	RR1	0915	1545	6.50	1835.0m	Continued to run riser from 884m - 1159m RT (62 of 76 joints run).
SC	P	RR1	1545	1645	1.00	1835.0m	Rigged up and pressure tested the choke and kill lines to 300psi for 5mins and 10,000psi for 10mins. Pressure tested the riser boost line to 300psi for 5mins and 3000psi for 10mins. Rigged down pressure testing equipment.
SC	P	RR1	1645	2115	4.50	1835.0m	Continued to run riser from 1159m - 1366m RT (75 of 76 joints run).
SC	P	RR1	2115	2230	1.25	1835.0m	Rigged up and pressure tested the choke and kill lines to 300psi for 5mins and 10,000psi for 10mins. Pressure tested the riser boost line to 300psi for 5mins and 3000psi for 10mins. Rigged down pressure testing equipment.
SC	P	RR1	2230	2330	1.00	1835.0m	Ran termination joint, 15.2m spacer joint and intermediate flex joint from 1366m - 1387mRT.
SC	P	SM	2330	2345	0.25	1835.0m	Held 'THINK' talk prior to installing drape hoses onto termination joint.
SC	P	RR1	2345	2400	0.25	1835.0m	Installed riser boost drape hose onto the termination joint.

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

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
SC	P	RR1	0000	0145	1.75	1835.0m	Installed choke and kill lines onto the termination joint.
SC	P	RR1	0145	0300	1.25	1835.0m	Installed MUX saddle onto the intermediate joint and hung the MUX cables.
SC	P	RR1	0245	0515	2.50	1835.0m	Picked and made up landing joint, skidded rig over the location and locked KT ring onto the slip joint.
SC	P	RR1	0300	0345	0.75	1835.0m	Picked and made up slip joint and pressure tested the choke and kill lines. Choke and Kill - 250psi / 5mins; 7500psi / 10mins.
SC	TP (RE)	RR1	0515	0600	0.75	1835.0m	Riser Boost - 250psi / 5mins; 1200psi / 10mins. Troubleshot problem with the KT ring on the slip joint.

Phase Data to 2400hrs, 25 Nov 2004

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP(RM)	39	17 Nov 2004	18 Nov 2004	39.00	1.625 days	0m
CONDUCTOR HOLE(CH)	69.25	18 Nov 2004	21 Nov 2004	108.25	4.510 days	1510.0m
SURFACE HOLE(SH)	49	21 Nov 2004	23 Nov 2004	157.25	6.552 days	1835.0m
SURFACE CASING(SC)	55.75	23 Nov 2004	25 Nov 2004	213.00	8.875 days	1835.0m

WBM Data								
Mud Type:	API FL:	0cm³/30m	Cl:	1300	Solids:	0	Viscosity:	26sec/qt
Sample-From:	Filter-Cake:	0/32nd"	K+C*1000:	0%	H2O:	0%	PV:	0cp
Time:	HTHP-FL:	0cm³/30m	Hard/Ca:	150	Oil:	0%	YP:	0lb/100ft²
Weight:	8.40ppg	HTHP-Cake:	0/32nd"	MBT:	0	Sand:	Gels 10s:	0
Temp:	0C°			PM:	0	pH:	Gels 10m:	0
				PF:	0	PHPA:	Fann 003:	0
							Fann 006:	0
							Fann 100:	0
							Fann 200:	0
							Fann 300:	0
							Fann 600:	0
Comment								Building mud for the 17.5" section during riser running period.

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
1653.18	0.34	298.89	1653.14	-3.32	0.08	-3.32	-7.03	MWD
1681.34	0.26	305.03	1681.30	-3.24	0.03	-3.24	-7.16	MWD
1709.52	0.31	319.56	1709.48	-3.15	0.03	-3.15	-7.26	MWD
1737.89	0.40	311.67	1737.85	-3.02	0.04	-3.02	-7.38	MWD
1766.33	0.35	299.78	1766.29	-2.92	0.03	-2.92	-7.53	MWD
1809.32	0.26	261.27	1809.28	-2.86	0.05	-2.86	-7.74	MWD

Bulk Stocks						Personnel On Board		
Name	Unit	In	Used	Adjust	Balance	Company		Pax
Fuel	MT	0	13	0	807.0	Santos		6
Drill Water	MT	0	11	0	481.0	Transocean		64
Potable Water	MT	0	27	0	270.0	BHI		5
Gel	MT	0	0	0	97.0	Halliburton		2
Cement	MT	0	0	0	250.0	M.I		2
Barite	MT	0	0	0	136.0	Subsea 7		6
						Dril-Quip		1
						Weatherford		2
						Anadrill		4
							Total	92

Casing			
OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	Oppg / Oppg	1510.0m / 1510.0m	Not Cemented. Casing was jetted in.
20 "	Oppg / Oppg	1822.7m / 1822.7m	660bbbls of 12.5ppg Lead 151bbbls of 15.8ppg Tail

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	20 Nov 2004	5 Days	Weekly abandon rig drill.
BOP Test	24 Nov 2004	1 Day	Tested all rams etc to 250 psi low and 5000psi high.
Environmental Incident		0 Days	
Fire Drill	14 Nov 2004	11 Days	Simulated fire in mud process room
First Aid	21 Nov 2004	4 Days	Roustabout sprained his ankle whilst offloading 20" casing.
Lost Time Incident		0 Days	None
Safety Meeting	21 Nov 2004	4 Days	
Stop Cards	25 Nov 2004	0 Days	8 START Cards submitted

Marine							
Weather check on 25 Nov 2004 at 24:00							
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.00nm	15.0kn	115deg	1016bar	15.0C°	0m	000deg	0ft/sec
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments	
0.3deg	0.3deg	0m	1.5m	110deg	10.0ft/sec		
Rig Dir.	Ris. Tension	VDL	Comments				
217.0deg	0klb	7685.0klb					

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Lady Caroline			At Rig	Item	Unit	Quantity
				Barite	MT	0
				Cement	MT	80
				Gel	MT	0
				Mud	bbl	0
Lady Astrid			At Rig	Item	Unit	Quantity
				Barite	MT	0
				Cement	MT	0
				Gel	MT	39
				Mud	bbl	0

Helicopter Movement

Flight #	Time	Destination	Comment	Pax
VH-BZU	15:15	Jack Bates		4
VH-BZU	15:28	Essendon		4

From : D. Atkins/J. Young

Well Data

Country	Australia	M. Depth	1835.0m	Cur. Hole Size	17.500in	AFE Cost	
Field	Otway Basin	TVD	1835.0m	Casing OD	20.000in	AFE No.	5738032
Drill Co.	Transocean	Progress	0m	Shoe TVD	1822.0m	Daily Cost	
Rig	Jack Bates	Days from spud	6.28	F.I.T. / L.O.T.	0ppg / 0ppg	Cum Cost	
Wtr Dpth(LAT)	1396.0m	Days on well	9.92			Planned TD	2979.0m
RT-ASL(LAT)	29.0m	Current Op @ 0600 Rigging up tublar handling equipment to make up 13-3/8" casing hanger and cement head.					
RT-ML	1425m	Planned Op Lay out 26" BHA and make up 17.5" BHA. RIH, slip and cut drill line; drill out cement; perform LOT and drill ahead.					

Summary of Period 0000 to 2400 Hrs

Installed choke/kill and riser boost lines to the termination joint. Repaired riser tensioner ring; latched and pressure tested BOP to the wellhead.

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

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
SC	P	RR1	0000	0145	1.75	1835.0m	Installed choke and kill lines onto the termination joint.
SC	P	RR1	0145	0300	1.25	1835.0m	Installed MUX saddle onto the intermediate joint and hung the MUX cables.
SC	P	RR1	0245	0515	2.50	1835.0m	Picked and made up landing joint, skidded rig over the location and locked KT ring onto the slip joint.
SC	P	RR1	0300	0345	0.75	1835.0m	Picked and made up slip joint and pressure tested the choke and kill lines. Choke and Kill - 250psi / 5mins; 7500psi / 10mins. Riser Boost - 250psi / 5mins; 1200psi / 10mins.
SC	TP (RE)	RR1	0515	0815	3.00	1835.0m	Troubleshoot problem with the slip joint load ring.
SC	TP (RE)	RR1	0815	1415	6.00	1835.0m	Skidded rig 30m away from wellhead and changed out sheared support dogs on the slip joint load ring.
SC	P	RR1	1415	1500	0.75	1835.0m	Skidded rig back over the wellhead. Lowered BOP down onto the wellhead, latched the connector and took 50,000lbs overpull to confirm the BOP's are locked.
SC	P	RR1	1500	1545	0.75	1835.0m	Flushed the rigid conduit line and tested the wellhead connector to 1000psi for 10 mins.
SC	P	RR1	1545	1615	0.50	1835.0m	Removed the lock plates, installed hoses and stroked out the slip joint.
SC	P	RR1	1615	1630	0.25	1835.0m	Broke and laid out the riser landing joint into the fwd. caisson.
SC	P	SM	1630	1645	0.25	1835.0m	Held 'THINK' talk prior to installing the diverter.
SC	P	RR1	1645	1800	1.25	1835.0m	Picked up and installed diverter, took 30,000lbs overpull, confirmed it was locked and installed hydraulic hoses. Bullseye read 1/2deg Port.
SC	P	RR1	1800	1815	0.25	1835.0m	Broke and laid out the diverter running tool.
SC	P	RR1	1815	1930	1.25	1835.0m	Rigged down the drill floor of all riser handling equipment.
SC	TP (MIS)	RR1	1930	2400	4.50	1835.0m	Shut the rig down due to injury to a Roustabout on the pipe deck.

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

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
SC	TP (MIS)	RR1	0000	0100	1.00	1835.0m	Shut the rig down due to injury to a Roustabout on the pipe deck.
SC	P	RR1	0100	0600	5.00	1835.0m	Continued to rig down riser handling equipment and rigged up tubular handling equipment.

Phase Data to 2400hrs, 26 Nov 2004

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP(RM)	39	17 Nov 2004	18 Nov 2004	39.00	1.625 days	0m
CONDUCTOR HOLE(CH)	69.25	18 Nov 2004	21 Nov 2004	108.25	4.510 days	1510.0m
SURFACE HOLE(SH)	49	21 Nov 2004	23 Nov 2004	157.25	6.552 days	1835.0m
SURFACE CASING(SC)	80.75	23 Nov 2004	26 Nov 2004	238.00	9.917 days	1835.0m

WBM Data									
Mud Type:	KCl/Polymer/Glycol	API FL:	6cm³/30m	Cl:	43000	Solids:	0	Viscosity:	72sec/qt
Sample-From:	Pit	Filter-Cake:	1/32nd"	K+C*1000:	0%	H2O:	0%	PV:	17cp
Time:	15:00	HTHP-FL:	0cm³/30m	Hard/Ca:	200	Oil:	0%	YP:	30lb/100ft²
Weight:	8.90ppg	HTHP-Cake:	0/32nd"	MBT:	0	Sand:		Gels 10s:	0
Temp:	0C°			PM:	0	pH:	8	Gels 10m:	0
				PF:	0	PHPA:	1ppb	Fann 003:	8
								Fann 006:	10
								Fann 100:	25
								Fann 200:	37
								Fann 300:	47
								Fann 600:	64
Comment Building mud for the 17.5" section. Note: unsheared mud.									

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
1653.18	0.34	298.89	1653.14	-3.32	0.08	-3.32	-7.03	MWD
1681.34	0.26	305.03	1681.30	-3.24	0.03	-3.24	-7.16	MWD
1709.52	0.31	319.56	1709.48	-3.15	0.03	-3.15	-7.26	MWD
1737.89	0.40	311.67	1737.85	-3.02	0.04	-3.02	-7.38	MWD
1766.33	0.35	299.78	1766.29	-2.92	0.03	-2.92	-7.53	MWD
1809.32	0.26	261.27	1809.28	-2.86	0.05	-2.86	-7.74	MWD

Bulk Stocks						Personnel On Board		
Name	Unit	In	Used	Adjust	Balance	Company		Pax
Fuel	MT	0	9	0	798.0	Santos		4
Drill Water	MT	672	0	0	1,153.0	Transocean		65
Potable Water	MT	155	23	0	402.0	BHI		7
Gel	MT	0	0	0	97.0	Halliburton		2
Cement	MT	0	0	0	250.0	M.I		2
Barite	MT	0	0	0	136.0	Subsea 7		3
						Dril-Quip		2
						Weatherford		4
						Anadrill		4
							Total	93

Casing			
OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	0ppg / 0ppg	1510.0m / 1510.0m	Not Cemented. Casing was jetted in.
20 "	0ppg / 0ppg	1822.7m / 1822.7m	660bbls of 12.5ppg Lead 151bbls of 15.8ppg Tail

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	20 Nov 2004	6 Days	Weekly abandon rig drill.
BOP Test	24 Nov 2004	2 Days	Tested all rams etc to 250 psi low and 5000psi high.
Environmental Incident		0 Days	
Fire Drill	14 Nov 2004	12 Days	Simulated fire in mud process room
First Aid	21 Nov 2004	5 Days	Roustabout sprained his ankle whilst offloading 20" casing.
Lost Time Incident	26 Nov 2004	0 Days	Roustabout hit by diverter running tool. Medivaced to Prince Alfred Hospital Melbourne.
Safety Meeting	21 Nov 2004	5 Days	
Stop Cards	26 Nov 2004	0 Days	7 START Cards submitted

Marine							
Weather check on 26 Nov 2004 at 24:00							
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.00nm	13.0kn	000deg	1010bar	20.0C°	0m	000deg	0ft/sec
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments	
0.3deg	0.3deg	0m	0.6m	100deg	6.0ft/sec		
Rig Dir.	Ris. Tension	VDL	Comments				
217.0deg	0klb	6644.0klb					

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Lady Caroline			At Rig	Item	Unit	Quantity
				Barite	MT	0
				Cement	MT	80
				Gel	MT	0
				Mud	bbl	0
Lady Astrid			At Rig	Item	Unit	Quantity
				Barite	MT	0
				Cement	MT	0
				Gel	MT	39
				Mud	bbl	0

Helicopter Movement

Flight #	Time	Destination	Comment	Pax
VH-BZU	16:15	Jack Bates		16
VH-BZU	16:35	Essendon		15
M3	23:15	Jack Bates	Medivac Chopper	3
M3	24:03	Prince Alfred Hospital	Medivac Chopper	4

From : D. Atkins/J. Young

Well Data

Country	Australia	M. Depth	1835.0m	Cur. Hole Size	17.500in	AFE Cost	
Field	Otway Basin	TVD	1835.0m	Casing OD	20.000in	AFE No.	5738032
Drill Co.	Transocean	Progress	0m	Shoe TVD	1822.0m	Daily Cost	
Rig	Jack Bates	Days from spud	7.28	F.I.T. / L.O.T.	0ppg / 0ppg	Cum Cost	
Wtr Dpth(LAT)	1396.0m	Days on well	10.92			Planned TD	2979.0m
RT-ASL(LAT)	29.0m	Current Op @ 0600		Drilling out cement at 1818mRT.			
RT-ML	1425m	Planned Op		Bullseye 1/2 deg PORT. Perform LOT; Drill ahead in 17.5" hole.			

Summary of Period 0000 to 2400 Hrs

Rigged down all riser handling equipment; Rigged up pipe handling equipment; Broke out 26" BHA; Made up 17.5" BHA; RIH and tagged TOC at 1807mRT; Slipped and cut drill line.

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

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
SC	TP (MIS)	RR1	0000	0100	1.00	1835.0m	Shut the rig down due to injury to a Roustabout on the pipe deck.
SC	P	RR1	0100	0715	6.25	1835.0m	Continued to rig down riser handling equipment and rigged up tubular handling equipment.
SC	P	RRC	0715	0915	2.00	1835.0m	Picked and made up 13-3/8" casing hanger and running tool as per Dril-Quip's instructions.
SC	P	RUC	0915	1000	0.75	1835.0m	Picked up and made up Weatherford cement head and racked back into the derrick.
SC	P	HBHA	1000	1530	5.50	1835.0m	Broke out 26" BHA. Made up 17.5" BHA, verified Schlumberger tools and continued to make up BHA.
SC	P	HBHA	1530	1630	1.00	1835.0m	RIH with 17.5" BHA from 106m - 172m. Shallow tested motor and FEWD assembly, all OK. Contiued to RIH with 17.5" BHA from 172m - 282m.
SC	P	RR1	1630	1830	2.00	1835.0m	Picked up 24 joints of 5" drill pipe from the deck and RIH from 282m - 510m.
SC	P	TI	1830	2215	3.75	1835.0m	Contined to RIH on 5" DP from the derrick from 510m and tagged top of cement with 20,000lbs at 1807mRT.
SC	P	CMD	2215	2230	0.25	1835.0m	Racked back one stand and made up the circulating swage and hose to the 5" drill pipe.
SC	P	CMD	2230	2400	1.50	1835.0m	Cut and slipped drill line whilst circulating to new mud.

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

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
SC	P	CMD	0000	0115	1.25	1835.0m	Continued to cut and slip drill line whilst circulating hole to new mud.
SC	P	CMD	0115	0145	0.50	1835.0m	Seviced top drive whilst circulating new mud.
SC	P	CMD	0145	0215	0.50	1835.0m	Displaced opened choke and kill lines and allowed u-tube effect to displace seawater to new mud.
SC	TP (RE)	RR	0215	0400	1.75	1835.0m	Leak detected in standpipe #1. Change hoses across to standpipe #2.
SC	P	CMD	0400	0430	0.50	1835.0m	Broke circulation and filled sand traps, bypassed shaker screens as cold mud was being lost across the shakers.
SC	P	DC	0430	0600	1.50	1835.0m	Drilled cement from 1807m - 1818mRT. WOB - 20-30,000lbs DHRPM - 150 FLOW - 850gpm

Phase Data to 2400hrs, 27 Nov 2004

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP(RM)	39	17 Nov 2004	18 Nov 2004	39.00	1.625 days	0m
CONDUCTOR HOLE(CH)	69.25	18 Nov 2004	21 Nov 2004	108.25	4.510 days	1510.0m
SURFACE HOLE(SH)	49	21 Nov 2004	23 Nov 2004	157.25	6.552 days	1835.0m
SURFACE CASING(SC)	104.75	23 Nov 2004	27 Nov 2004	262.00	10.917 days	1835.0m

WBM Data									
Mud Type:	KCl/Polymer/Glycol	API FL:	6cm ³ /30m	Cl:	44000	Solids:	3	Viscosity:	72sec/qt
Sample-From:	Pit	Filter-Cake:	1/32nd"	K+C*1000:	8%	H2O:	94%	PV:	18cp
Time:	18:00	HTHP-FL:	0cm ³ /30m	Hard/Ca:	80	Oil:	3%	YP:	30lb/100ft ²
Weight:	8.80ppg	HTHP-Cake:	0/32nd"	MBT:	0	Sand:	nil	Gels 10s:	8
Temp:	0C°			PM:	0.2	pH:	8.3	Gels 10m:	9
				PF:	0.1	PHPA:	1ppb	Fann 003:	9
								Fann 006:	11
								Fann 100:	26
								Fann 200:	37
								Fann 300:	48
								Fann 600:	66
Comment Building mud for the 17.5" section. Note: unsheared mud. Commence displacement at report time.									

Bit # 2				Wear	I	O1	D	L	B	G	O2	R
Size ("):	17.50in	IADC#	115	Nozzles		Drilled over last 24 hrs		Calculated over Bit Run				
Mfr:	REED	WOB(avg)	0klb	No.	Size	Progress	0m	Cum. Progress				
Type:	Rock	RPM(avg)	0	1	20/32nd"	On Bottom Hrs	0h	Cum. On Btm Hrs				
Serial No.:	J65053	F.Rate	0gpm	3	22/32nd"	IADC Drill Hrs	0h	Cum IADC Drill Hrs				
Bit Model	T11C	SPP	0psi			Total Revs	0	Cum Total Revs				
Depth In	1835.0m	TFA	1.420			ROP(avg)	N/A	ROP(avg)				
Depth Out	0m							0.00 m/hr				

BHA # 2						
Weight(Wet)	0klb	Length	282.8m	Torque(max)	0ft-lbs	D.C. (1) Ann Velocity
Wt Below Jar(Wet)	0klb	String	0klb	Torque(Off.Btm)	0ft-lbs	D.C. (2) Ann Velocity
		Pick-Up	0klb	Torque(On.Btm)	0ft-lbs	H.W.D.P. Ann Velocity
		Slack-Off	0klb			D.P. Ann Velocity
BHA Run Description Bit; 9-5/8" Motor;Float sub; 17.5" Stab; CDR(FEWD); Power Pulse; 15.5' Stab; 9.5" NMDC; 2x9.5" DC; XO; 8x8" DC; 8" Jars; 3x8" DC; XO 12x5" HWDP.						

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
1653.18	0.34	298.89	1653.14	-3.32	0.08	-3.32	-7.03	MWD
1681.34	0.26	305.03	1681.30	-3.24	0.03	-3.24	-7.16	MWD
1709.52	0.31	319.56	1709.48	-3.15	0.03	-3.15	-7.26	MWD
1737.89	0.40	311.67	1737.85	-3.02	0.04	-3.02	-7.38	MWD
1766.33	0.35	299.78	1766.29	-2.92	0.03	-2.92	-7.53	MWD
1809.32	0.26	261.27	1809.28	-2.86	0.05	-2.86	-7.74	MWD

Bulk Stocks						Personnel On Board		
Name	Unit	In	Used	Adjust	Balance	Company		Pax
Fuel	MT	0	11	0	787.0	Santos		4
Drill Water	MT	0	113	0	1,040.0	Transocean		65
Potable Water	MT	0	27	0	375.0	BHI		7
Gel	MT	0	0	0	97.0	Halliburton		2
Cement	MT	0	0	0	250.0	M.I		2
Barite	MT	0	0	0	136.0	Subsea 7		3
						Dril-Quip		2
						Weatherford		4
						Anadrill		4
							Total	93

Casing			
OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	Oppg / Oppg	1510.0m / 1510.0m	Not Cemented. Casing was jetted in.
20 "	Oppg / Oppg	1822.7m / 1822.7m	660bbbls of 12.5ppg Lead 151bbbls of 15.8ppg Tail

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	20 Nov 2004	7 Days	Weekly abandon rig drill.
BOP Test	24 Nov 2004	3 Days	Tested all rams etc to 250 psi low and 5000psi high.
Environmental Incident		0 Days	
Fire Drill	14 Nov 2004	13 Days	Simulated fire in mud process room
First Aid	21 Nov 2004	6 Days	Roustabout sprained his ankle whilst offloading 20" casing.
Lost Time Incident	26 Nov 2004	1 Day	Roustabout hit by diverter running tool breaking his leg. Medivaced to Prince Alfred Hospital Melbourne.
Safety Meeting	21 Nov 2004	6 Days	
Stop Cards	27 Nov 2004	0 Days	7 START Cards submitted

Marine

Weather check on 27 Nov 2004 at 24:00

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
2.00nm	17.0kn	230deg	1014bar	14.7C°	0m	000deg	0ft/sec
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments	
0.1deg	0.1deg	0m	0.9m	230deg	5.0ft/sec		
Rig Dir.	Ris. Tension	VDL	Comments				
217.0deg	0klb	6563.0klb					

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Lady Caroline			At Rig	Item	Unit	Quantity
				Barite	MT	0
				Cement	MT	80
				Gel	MT	0
				Mud	bbf	0
Lady Astrid			At Rig	Item	Unit	Quantity
				Barite	MT	26
				Cement	MT	42
				Gel	MT	39
				Mud	bbf	0

From : D. Atkins/J. Young

Well Data

Country	Australia	M. Depth	2045.0m	Cur. Hole Size	17.500in	AFE Cost	
Field	Otway Basin	TVD	2045.0m	Casing OD	20.000in	AFE No.	5738032
Drill Co.	Transocean	Progress	210.0m	Shoe TVD	1822.0m	Daily Cost	
Rig	Jack Bates	Days from spud	8.28	F.I.T. / L.O.T.	0ppg / 9.60ppg	Cum Cost	
Wtr Dpth(LAT)	1396.0m	Days on well	11.92			Planned TD	2979.0m
RT-ASL(LAT)	29.0m	Current Op @ 0600	Circulating hole clean due increasing ECD (9.53ppg).				
RT-ML	1425m	Planned Op	Contiue drilling 17.5" hole from 2160m - 2459mRT (TD). Circulate hole clean and POOH to run casing.				

Summary of Period 0000 to 2400 Hrs

Slipped and cut drill line; Displaced choke and kill lines; Changed to standpipe #2 due to washout in #1; Drill out cement; Took SCR's; Performed LOT; Drilled from 1838m - 2045mRT.

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

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
SC	P	CMD	0000	0115	1.25	1835.0m	Continued to cut and slip drill line whilst circulating hole to new mud.
SC	P	CMD	0115	0145	0.50	1835.0m	Seviced top drive and circulated to new mud.
SC	P	CMD	0145	0215	0.50	1835.0m	Opened choke and kill lines and allowed u-tube effect to displace seawater to new mud.
SC	TP (RE)	RR	0215	0400	1.75	1835.0m	Leak detected in standpipe #1. Change hoses across to standpipe #2.
SC	P	CMD	0400	0430	0.50	1835.0m	Broke circulation and filled sand traps, bypassed shaker screens as cold mud was being lost across the shakers.
SC	P	DC	0430	0615	1.75	1835.0m	Drilled cement from 1807m - 1819mRT. WOB - 20-30,000lbs DHRPM - 150 FLOW - 850gpm
SC	P	DC	0615	0630	0.25	1835.0m	Took SCR's prior to drilling out the shoe.
SC	P	DC	0630	0815	1.75	1835.0m	Continued to drill out cement, casing shoe and rat hole from 1819m - 1835mRT. WOB - 20-30,000lbs DHRPM - 150 FLOW - 850gpm
IH	P	DA	0815	0830	0.25	1838.0m	Drilled 3m of new formation from 1835m - 1838mRT.
IH	P	CMD	0830	1015	1.75	1838.0m	Circulated and conditioned mud prior to performing the LOT.
IH	P	LOT	1015	1130	1.25	1838.0m	Pulled back into the 20" casing shoe, rigged up surface equipment and performed LOT. Pumped 2.25bbls for 210psi (EMW = 9.6ppg) and bled back 1.65 bbls. Rigged down surface equipment.
IH	P	DA	1130	1415	2.75	1894.0m	Drilled 17.5" hole from 1838m - 1894mRT, backreamed on connections and took surveys every stand.
IH	P	CMD	1415	1515	1.00	1894.0m	Picked up off bottom and circulated whilst losses at the shakers are controlled.
IH	P	DA	1515	2215	7.00	2001.0m	Drilled 17.5" hole from 1894m - 2001mRT, backreamed on connections and took surveys every stand.
IH	P	FC	2215	2230	0.25	2001.0m	Observed a drilling break, picked up off bottom and took a flow check. Well static.
IH	P	DA	2230	2400	1.50	2045.0m	Drilled 17.5" hole from 2001m - 2045mRT, backreamed on connections and took surveys every stand.

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

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	DA	0000	0430	4.50	2147.0m	Drilled 17.5" hole from 2045m - 2147mRT, backreamed and took survey each connection.
IH	P	CHC	0430	0500	0.50	2147.0m	Pulled back off bottom and circulated 80bbl, hi-vis sweep to clean up hole (ECD reading of 9.48ppg).
IH	P	DA	0500	0530	0.50	2160.0m	Drilled 17.5" hole from 2147m - 2160mRT, backreamed and took survey each connection.
IH	P	CHC	0530	0600	0.50	2160.0m	ECD reading increased to 9.53ppg. Picked up off bottom and circulated hole clean.

Phase Data to 2400hrs, 28 Nov 2004						
Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP(RM)	39	17 Nov 2004	18 Nov 2004	39.00	1.625 days	0m
CONDUCTOR HOLE(CH)	69.25	18 Nov 2004	21 Nov 2004	108.25	4.510 days	1510.0m
SURFACE HOLE(SH)	49	21 Nov 2004	23 Nov 2004	157.25	6.552 days	1835.0m
SURFACE CASING(SC)	113	23 Nov 2004	28 Nov 2004	270.25	11.260 days	1835.0m
INTERMEDIATE HOLE(IH)	15.75	28 Nov 2004	28 Nov 2004	286.00	11.917 days	2045.0m

WBM Data							
Mud Type:	KCl/Polymer/Glycol	API FL:	7cm³/30m	Cl:	42000	Solids:	4
Sample-From:	Flowline	Filter-Cake:	1/32nd"	K+C*1000:	7.5%	H2O:	93%
Time:	18:00	HTHP-FL:	0cm³/30m	Hard/Ca:	320	Oil:	3%
Weight:	8.90ppg	HTHP-Cake:	0/32nd"	MBT:	0	Sand:	nil
Temp:	12.0C°			PM:	0.25	pH:	10
				PF:	0.15	PHPA:	1ppb
						Viscosity:	96sec/qt
						PV:	15cp
						YP:	18lb/100ft²
						Gels 10s:	4
						Gels 10m:	6
						Fann 003:	4
						Fann 006:	5
						Fann 100:	18
						Fann 200:	27
						Fann 300:	33
						Fann 600:	48

Comment Displace. Losses at shakers. Build replacement volume with reduced polymer concentrations.

Bit # 2				Wear	I	O1	D	L	B	G	O2	R
Size ("):	17.50in	IADC#	115	Nozzles		Drilled over last 24 hrs			Calculated over Bit Run			
Mfr:	REED	WOB(avg)	25.0klb	No.	Size	Progress		210.0m	Cum. Progress		210.0m	
Type:	Rock	RPM(avg)	110	1	20/32nd"	On Bottom Hrs		9.30h	Cum. On Btm Hrs		9.30h	
Serial No.:	J65053	F.Rate	900gpm	3	22/32nd"	IADC Drill Hrs		10.85h	Cum IADC Drill Hrs		10.85h	
Bit Model	T11C	SPP	2300psi			Total Revs		0	Cum Total Revs		0	
Depth In	1835.0m	TFA	1.420			ROP(avg)		22.58 m/hr	ROP(avg)		22.58 m/hr	
Depth Out	0m											

BHA # 2						
Weight(Wet)	0klb	Length	282.8m	Torque(max)	0ft-lbs	D.C. (1) Ann Velocity
Wt Below Jar(Wet)	0klb	String	0klb	Torque(Off.Btm)	0ft-lbs	D.C. (2) Ann Velocity
		Pick-Up	0klb	Torque(On.Btm)	0ft-lbs	H.W.D.P. Ann Velocity
		Slack-Off	0klb			D.P. Ann Velocity
BHA Run Description		Bit; 9-5/8" Motor; Float sub; 17.5" Stab; CDR(FEWD); Power Pulse; 15.5' Stab; 9.5" NMDC; 2x9.5" DC; XO; 8x8" DC; 8" Jars; 3x8" DC; XO 12x5" HWDP.				

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
1878.02	0.37	193.70	1877.98	-3.05	0.08	-3.05	-7.96	MWD
1908.10	0.34	223.98	1908.06	-3.21	0.06	-3.21	-8.05	MWD
1935.76	0.18	265.57	1935.72	-3.28	0.09	-3.28	-8.15	MWD
1963.97	0.17	252.91	1963.92	-3.29	0.01	-3.29	-8.23	MWD
1991.95	0.12	204.40	1991.90	-3.33	0.05	-3.33	-8.29	MWD
2020.87	0.20	231.00	2020.82	-3.39	0.04	-3.39	-8.34	MWD

Bulk Stocks						Personnel On Board	
Name	Unit	In	Used	Adjust	Balance	Company	Pax
Fuel	MT	258	19	0	1,026.0	Santos	4
Drill Water	MT	0	204	0	836.0	Transocean	65
Potable Water	MT	0	25	0	350.0	BHI	7
Gel	MT	0	0	0	97.0	Halliburton	2
Cement	MT	0	0	0	250.0	M.I	2
Barite	MT	0	0	0	136.0	Subsea 7	3
						Dril-Quip	2
						Weatherford	4
						Anadrill	4
						Total	93

Casing			
OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	0ppg / 0ppg	1510.0m / 1510.0m	Not Cemented. Casing was jetted in.
20 "	9.60ppg / 0ppg	1822.7m / 1822.7m	660bbbls of 12.5ppg Lead 151bbbls of 15.8ppg Tail

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	28 Nov 2004	0 Days	Weekly abandon rig drill.
BOP Test	24 Nov 2004	4 Days	Tested all rams etc to 250 psi low and 5000psi high.
Environmental Incident		0 Days	
Fire Drill	28 Nov 2004	0 Days	Simulated fire in the upper accomodation block.
First Aid	21 Nov 2004	7 Days	Roustabout sprained his ankle whilst offloading 20" casing.
Lost Time Incident	26 Nov 2004	2 Days	Roustabout hit by diverter running tool breaking his leg. Medivaced to Prince Alfred Hospital Melbourne.
Safety Meeting	28 Nov 2004	0 Days	
Stop Cards	28 Nov 2004	0 Days	7 START Cards submitted

Marine							
Weather check on 28 Nov 2004 at 24:00							
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.00nm	0kn	230deg	1013bar	17.0C°	0m	000deg	0ft/sec
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments	
0.1deg	0.1deg	0.60m	0.9m	230deg	6.0ft/sec		
Rig Dir.	Ris. Tension	VDL	Comments				
217.0deg	0klb	6316.0klb					

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Lady Caroline			At Rig	Item	Unit	Quantity
				Barite	MT	0
				Cement	MT	80
				Gel	MT	0
				Mud	bbbl	0
Lady Astrid			At Rig	Item	Unit	Quantity
				Barite	MT	26
				Cement	MT	42
				Gel	MT	39
				Mud	bbbl	0

From : D. Atkins/P. King

Well Data

Country	Australia	M. Depth	2382.0m	Cur. Hole Size	17.500in	AFE Cost	
Field	Otway Basin	TVD	2382.0m	Casing OD	20.000in	AFE No.	5738032
Drill Co.	Transocean	Progress	337.0m	Shoe TVD	1822.0m	Daily Cost	
Rig	Jack Bates	Days from spud	9.28	F.I.T. / L.O.T.	0ppg / 9.60ppg	Cum Cost	
Wtr Dpth(LAT)	1396.0m	Days on well	12.92			Planned TD	2979.0m
RT-ASL(LAT)	29.0m	Current Op @ 0600	Drilling ahead 17-1/2" hole @ 2440m.				
RT-ML	1425m	Planned Op	Drill 17-1/2" hole to section TD (2459m). Circulate hole, perform static inflow test, pump hi-vis sweep, circulate bottoms up. POH for wiper trip or to run casing depending on hole condition.				

Summary of Period 0000 to 2400 Hrs

Drilled 17-1/2" hole from 2045m to 2382m, reaming and circulating hole clean as required to keep ECD below LOT.

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

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	DA	0000	0430	4.50	2147.0m	Drilled 17.5" hole from 2045m - 2147mRT, backreamed and took survey each connection.
IH	P	CHC	0430	0500	0.50	2147.0m	Pulled back off bottom and circulated 80bbl, hi-vis sweep to clean up hole (ECD reading of 9.48ppg).
IH	P	DA	0500	0530	0.50	2160.0m	Drilled 17.5" hole from 2147m - 2160mRT, backreamed and took survey each connection.
IH	P	CHC	0530	0630	1.00	2160.0m	ECD reading increased to 9.53ppg. Picked up off bottom and circulated hole clean.
IH	P	DA	0630	1200	5.50	2248.0m	Continued drilling 17-1/2" hole from 2160m to 2248m, reaming and surveying at each connection.
IH	P	DA	1200	1700	5.00	2318.0m	Continued drilling 17-1/2" hole from 2248m to 2318m, reaming and surveying at each connection.
IH	P	CHC	1700	1815	1.25	2318.0m	Circulated and conditioned mud due to high ECD (approaching 9.6 ppg).
IH	P	CHC	1815	1900	0.75	2318.0m	Pumped 100 bbl hi-vis polymer pill and circulated to ensure hole clean. (Increased cuttings over shakers at bottoms up)
IH	P	DA	1900	2400	5.00	2382.0m	Continued drilling 17-1/2" hole from 2318m to 2382m, reaming and surveying at each connection.

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

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	DA	0000	0600	6.00	2446.0m	(IN PROGRESS) Continued to drill 17-1/2" hole from 2382m to 2446m, reaming and surveying at each connection (controlled rate due to ECD)

Phase Data to 2400hrs, 29 Nov 2004

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP(RM)	39	17 Nov 2004	18 Nov 2004	39.00	1.625 days	0m
CONDUCTOR HOLE(CH)	69.25	18 Nov 2004	21 Nov 2004	108.25	4.510 days	1510.0m
SURFACE HOLE(SH)	49	21 Nov 2004	23 Nov 2004	157.25	6.552 days	1835.0m
SURFACE CASING(SC)	113	23 Nov 2004	28 Nov 2004	270.25	11.260 days	1835.0m
INTERMEDIATE HOLE(IH)	39.75	28 Nov 2004	29 Nov 2004	310.00	12.917 days	2382.0m

WBM Data

Mud Type:	KCl/Polymer/Glycol	API FL:	5cm ³ /30m	Cl:	39000	Solids:	5	Viscosity:	59sec/qt
Sample-From:	Flowline	Filter-Cake:	1/32nd"	K+C*1000:	8.1%	H2O:	92%	PV:	18cp
Time:	20:00	HTHP-FL:	0cm ³ /30m	Hard/Ca:	880	Oil:	3%	YP:	17lb/100ft ²
Weight:	9.00ppg	HTHP-Cake:	0/32nd"	MBT:	7.5	Sand:	1.0	Gels 10s:	5
Temp:	12.5C°			PM:	0.4	pH:	9	Gels 10m:	7
				PF:	0.05	PHPA:	1ppb	Fann 003:	4
								Fann 006:	6
								Fann 100:	19
								Fann 200:	28
								Fann 300:	35
								Fann 600:	53

Comment: Reduced PHPA concentration and flow properties due to shaker limitations. Sweep hi vis to reduce ECD.

Bit # 2				Wear	I	O1	D	L	B	G	O2	R
Size ("):	17.50in	IADC#	115	Nozzles			Drilled over last 24 hrs			Calculated over Bit Run		
Mfr:	REED	WOB(avg)	25.0klb	No.	Size	Progress	337.0m	Cum. Progress		547.0m		
Type:	Rock	RPM(avg)	115	1	20/32nd"	On Bottom Hrs	16.80h	Cum. On Btm Hrs		26.10h		
Serial No.:	J65053	F.Rate	950gpm	3	22/32nd"	IADC Drill Hrs	22.90h	Cum IADC Drill Hrs		33.75h		
Bit Model	T11C	SPP	2500psi				Total Revs	0		Cum Total Revs		0
Depth In	1835.0m	TFA	1.420				ROP(avg)	20.06 m/hr		ROP(avg)		20.96 m/hr
Depth Out												

BHA # 2							
Weight(Wet)	0klb	Length	282.8m	Torque(max)	0ft-lbs	D.C. (1) Ann Velocity	
Wt Below Jar(Wet)	0klb	String	0klb	Torque(Off.Btm)	0ft-lbs	D.C. (2) Ann Velocity	
		Pick-Up	0klb	Torque(On.Btm)	0ft-lbs	H.W.D.P. Ann Velocity	
		Slack-Off	0klb			D.P. Ann Velocity	
BHA Run Description		Bit; 9-5/8" Motor; Float sub; 17.5" Stab; CDR(FEWD); Power Pulse; 15.5' Stab; 9.5" NMDC; 2x9.5" DC; XO; 8x8" DC; 8" Jars; 3x8" DC; XO 12x5" HWDP.					

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
2220.68	0.29	203.20	2220.63	-4.15	0.06	-4.15	-8.60	MWD
2248.46	0.15	220.05	2248.41	-4.25	0.05	-4.25	-8.65	MWD
2277.42	0.31	183.89	2277.37	-4.35	0.07	-4.35	-8.68	MWD
2306.21	0.34	216.07	2306.16	-4.50	0.06	-4.50	-8.74	MWD
2334.13	0.40	185.07	2334.08	-4.67	0.07	-4.67	-8.79	MWD
2361.66	0.37	221.08	2361.61	-4.83	0.09	-4.83	-8.86	MWD

Bulk Stocks						Personnel On Board		
Name	Unit	In	Used	Adjust	Balance	Company	Pax	
Fuel	MT	0	14	0	1,012.0	Santos	4	
Drill Water	MT	0	55	0	781.0	Transocean	63	
Potable Water	MT	0	27	0	323.0	BHI	6	
Gel	MT	0	0	0	97.0	Halliburton	2	
Cement	MT	0	0	0	250.0	M.I	2	
Barite	MT	0	0	0	136.0	Subsea 7	3	
						Dril-Quip	2	
						Weatherford	4	
						Anadrill	4	
						Total	90	

Casing			
OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	0ppg / 0ppg	1510.0m / 1510.0m	Not Cemented. Casing was jetted in.
20 "	9.60ppg / 0ppg	1822.7m / 1822.7m	660bbls of 12.5ppg Lead 151bbls of 15.8ppg Tail

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	28 Nov 2004	1 Day	Weekly abandon rig drill.
BOP Test	24 Nov 2004	5 Days	Tested all rams etc to 250 psi low and 5000psi high.
Environmental Incident		0 Days	
Fire Drill	28 Nov 2004	1 Day	Simulated fire in the upper accomodation block.
First Aid	21 Nov 2004	8 Days	Roustabout sprained his ankle whilst offloading 20" casing.
Lost Time Incident	26 Nov 2004	3 Days	Roustabout hit by diverter running tool breaking his leg. Medivaced to Prince Alfred Hospital Melbourne.
Safety Meeting	28 Nov 2004	1 Day	
Stop Cards	29 Nov 2004	0 Days	10 START Cards submitted

Marine							
Weather check on 29 Nov 2004 at 24:00							
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.00nm	26.0kn	290deg	1000bar	19.0C°	0m	000deg	0ft/sec
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments	
0.3deg	0.3deg	0.60m	1.8m	230deg	8.0ft/sec		
Rig Dir.	Ris. Tension	VDL	Comments				
217.0deg	0klb	6224.0klb					

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Lady Caroline		01:45 29/11/04	Portland	Item	Unit	Quantity
				Barite	MT	0
				Cement	MT	80
				Gel	MT	0
				Mud	bbl	0
Lady Astrid			At Rig	Item	Unit	Quantity
				Barite	MT	26
				Cement	MT	42
				Gel	MT	39
				Mud	bbl	0

Helicopter Movement					
Flight #	Time	Destination	Comment	Pax	
BZU	15:42	Jack Bates		3	
BZU	15:55	Essendon		5	

From : D. Atkins/P. King

Well Data

Country	Australia	M. Depth	2459.0m	Cur. Hole Size	17.500in	AFE Cost	
Field	Otway Basin	TVD	2459.0m	Casing OD	20.000in	AFE No.	5738032
Drill Co.	Transocean	Progress	77.0m	Shoe TVD	1822.0m	Daily Cost	
Rig	Jack Bates	Days from spud	10.28	F.I.T. / L.O.T.	Oppg / 9.60ppg	Cum Cost	
Wtr Dpth(LAT)	1396.0m	Days on well	13.92			Planned TD	2979.0m
RT-ASL(LAT)	29.0m	Current Op @ 0600	Circulating hole clean @ 2459m whilst awaiting DPI Inspector's approval to re-commence operations.				
RT-ML	1425m	Planned Op	Await approval to re-commence operations. POH to run casing or wiper trip depending on hole condition.				

Summary of Period 0000 to 2400 Hrs

Drilled 17-1/2" hole from 2382m to 2459m. Circulated hole clean. POH to shoe & circulated hole clean. RIH to 2336m.

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

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	DA	0000	0630	6.50	2446.0m	Continued to drill 17-1/2" hole from 2382m to 2446m, reaming and surveying at each connection (controlled rate due to ECD)
IH	P	CMD	0630	0645	0.25	2446.0m	Worked pipe whilst preparing to drop carbide pill and dropped same.
IH	P	DA	0645	0730	0.75	2459.0m	Continued to drill 17-1/2" hole from 2446m to 2459m (Section TD), reaming and surveying at each connection (controlled rate due to ECD)
IH	P	CMD	0730	0815	0.75	2459.0m	Circulated carbide pill out of hole.
IH	P	FC	0815	0830	0.25	2459.0m	Flow checked. Well static.
IH	P	CHC	0830	1130	3.00	2459.0m	Pumped 120 bbl hi-vis sweep and circulated hole clean (230 spm @ 3200 psi)
IH	P	FC	1130	1145	0.25	2459.0m	Flow checked. Well static.
IH	P	TO	1145	1200	0.25	2459.0m	Pulled out of open hole from 2459m to 2450m.
IH	P	TO	1200	1215	0.25	2459.0m	Continued to pull out of open hole from 2450m to 2402m.
IH	P	WIN	1215	1545	3.50	2459.0m	Tight spot at 2402m (20,000 lb overpull). Made up top drive and pumped out of hole from 2402m to 1822m (20" casing shoe)
IH	P	CHC	1545	1745	2.00	2459.0m	Pumped 60 bbl hi-vis sweep, followed by 60 bbl hi-weight sweep and circulated hole clean (260 spm @ 3300 psi)
IH	U (OTH)	CHC	1745	2230	4.75	2459.0m	Continued to circulate hole clean. (Operations suspended awaiting DPI Inspector's findings from on-site investigation of dodge truck incident - 26/11/04)
IH	U	SM	2230	2245	0.25	2459.0m	Held tool box meeting prior to running in hole using tongs and pipe spinner. (Approval given by DPI Inspector to RIH to bottom and circulate to maintain open hole integrity)
IH	U	TI	2245	2400	1.25	2459.0m	Ran in hole from 1822m to 2336m.

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

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	U	TI	0000	0030	0.50	2459.0m	Continued to run in hole from 2336m to 2445m. Took weight @ 2445m.
IH	U	WIN	0030	0100	0.50	2459.0m	Made up top drive and washed down from 2445m. Tagged bottom at 2459m
IH	U	CHC	0100	0400	3.00	2459.0m	Circulated hole clean whilst working pipe.
IH	U	CHC	0400	0600	2.00	2459.0m	Pumped 50 bbl hi-weight/hi-vis sweep and circulated out same whilst continuing to work pipe.

Phase Data to 2400hrs, 30 Nov 2004

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP(RM)	39	17 Nov 2004	18 Nov 2004	39.00	1.625 days	0m
CONDUCTOR HOLE(CH)	69.25	18 Nov 2004	21 Nov 2004	108.25	4.510 days	1510.0m
SURFACE HOLE(SH)	49	21 Nov 2004	23 Nov 2004	157.25	6.552 days	1835.0m
SURFACE CASING(SC)	113	23 Nov 2004	28 Nov 2004	270.25	11.260 days	1835.0m
INTERMEDIATE HOLE(IH)	63.75	28 Nov 2004	30 Nov 2004	334.00	13.917 days	2459.0m

WBM Data									
Mud Type:	KCl/Polymer/Glycol	API FL:	5cm ³ /30m	Cl:	38500	Solids:	8	Viscosity:	55sec/qt
Sample-From:	Flowline	Filter-Cake:	1/32nd"	K+C*1000:	7.6%	H2O:	89%	PV:	20cp
Time:	20:30	HTHP-FL:	0cm ³ /30m	Hard/Ca:	1200	Oil:	3%	YP:	26lb/100ft ²
Weight:	9.20ppg	HTHP-Cake:	0/32nd"	MBT:	10	Sand:	1.0	Gels 10s:	7
Temp:	18.0C°			PM:	0.35	pH:	9	Gels 10m:	14
				PF:	0.05	PHPA:	1ppb	Fann 003:	7
								Fann 006:	9
								Fann 100:	27
								Fann 200:	37
								Fann 300:	46
								Fann 600:	66
Comment: Continue to sweep when necessary to reduce ECD. Target depth reached.									

Bit # 2				Wear	I	O1	D	L	B	G	O2	R
Size ("):	17.50in	IADC#	115	Nozzles		Drilled over last 24 hrs			Calculated over Bit Run			
Mfr:	REED	WOB(avg)	25.0klb	No.	Size	Progress	77.0m	Cum. Progress	624.0m			
Type:	Rock	RPM(avg)	110	1	20/32nd"	On Bottom Hrs	6.10h	Cum. On Btm Hrs	32.20h			
Serial No.:	J65053	F.Rate	950gpm	3	22/32nd"	IADC Drill Hrs	18.90h	Cum IADC Drill Hrs	52.65h			
Bit Model	T11C	SPP	3100psi			Total Revs	0	Cum Total Revs	0			
Depth In	1835.0m	TFA	1.420			ROP(avg)	12.62 m/hr	ROP(avg)	19.38 m/hr			
Depth Out	2459.0m											

BHA # 2						
Weight(Wet)	0klb	Length	282.8m	Torque(max)	0ft-lbs	D.C. (1) Ann Velocity
Wt Below Jar(Wet)	0klb	String	0klb	Torque(Off.Btm)	0ft-lbs	D.C. (2) Ann Velocity
		Pick-Up	0klb	Torque(On.Btm)	0ft-lbs	H.W.D.P. Ann Velocity
		Slack-Off	0klb			D.P. Ann Velocity
BHA Run Description: Bit; 9-5/8" Motor; Float sub; 17.5" Stab; CDR(FEWD); Power Pulse; 15.5' Stab; 9.5" NMDC; 2x9.5" DC; XO; 8x8" DC; 8" Jars; 3x8" DC; XO 12x5" HWDP.						

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
2220.68	0.29	203.20	2220.63	-4.15	0.06	-4.15	-8.60	MWD
2248.46	0.15	220.05	2248.41	-4.25	0.05	-4.25	-8.65	MWD
2277.42	0.31	183.89	2277.37	-4.35	0.07	-4.35	-8.68	MWD
2306.21	0.34	216.07	2306.16	-4.50	0.06	-4.50	-8.74	MWD
2334.13	0.40	185.07	2334.08	-4.67	0.07	-4.67	-8.79	MWD
2361.66	0.37	221.08	2361.61	-4.83	0.09	-4.83	-8.86	MWD

Bulk Stocks						Personnel On Board		
Name	Unit	In	Used	Adjust	Balance	Company		Pax
Fuel	MT	172	15	0	1,169.0	Santos		8
Drill Water	MT	300	212	0	869.0	Transocean		69
Potable Water	MT	0	24	0	299.0	BHI		6
Gel	MT	0	0	0	97.0	Halliburton		2
Cement	MT	0	0	0	250.0	M.I		2
Barite	MT	25	57	0	104.0	Subsea 7		3
						Dril-Quip		2
						Weatherford		4
						Anadrill		4
						DPI		1
							Total	101

Casing			
OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	0ppg / 0ppg	1510.0m / 1510.0m	Not Cemented. Casing was jettied in.
20 "	9.60ppg / 0ppg	1822.7m / 1822.7m	660bbls of 12.5ppg Lead 151bbls of 15.8ppg Tail

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	28 Nov 2004	2 Days	Weekly abandon rig drill.
BOP Test	24 Nov 2004	6 Days	Tested all rams etc to 250 psi low and 5000psi high.
Environmental Incident		0 Days	
Fire Drill	28 Nov 2004	2 Days	Simulated fire in the upper accomodation block.
First Aid	21 Nov 2004	9 Days	Roustabout sprained his ankle whilst offloading 20" casing.
Lost Time Incident	26 Nov 2004	4 Days	Roustabout hit by diverter running tool breaking his leg. Medivaced to Prince Alfred Hospital Melbourne.
Safety Meeting	28 Nov 2004	2 Days	
Stop Cards	29 Nov 2004	1 Day	10 START Cards submitted

Marine							
Weather check on 30 Nov 2004 at 24:00							
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
4.00nm	27.0kn	250deg	999bar	13.0C°	0m	000deg	0ft/sec
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments	
0.3deg	0.3deg	0m	1.8m	230deg	8.0ft/sec		
Rig Dir.	Ris. Tension	VDL	Comments				
217.0deg	0klb	5897.0klb					

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Lady Caroline	22:00 29/11/04		Jack Bates	Item	Unit	Quantity
				Barite	MT	0
				Cement	MT	80
				Gel	MT	0
Mud	bbf	0				
Lady Astrid		22:12 30/11/04	On route to Portland	Item	Unit	Quantity
				Barite	MT	0
				Cement	MT	42
				Gel	MT	39
Mud	bbf	0				

Helicopter Movement				
Flight #	Time	Destination	Comment	Pax
BZU	15:49	Jack Bates		11
BZU	16:04	Essendon		0

From : D. Atkins/P. King

Well Data

Country	Australia	M. Depth	2459.0m	Cur. Hole Size	17.500in	AFE Cost	
Field	Otway Basin	TVD	2459.0m	Casing OD	20.000in	AFE No.	5738032
Drill Co.	Transocean	Progress	0m	Shoe TVD	1822.0m	Daily Cost	
Rig	Jack Bates	Days from spud	11.28	F.I.T. / L.O.T.	Oppg / 9.60ppg	Cum Cost	
Wtr Dpth(LAT)	1396.0m	Days on well	14.92			Planned TD	2979.0m
RT-ASL(LAT)	29.0m	Current Op @ 0600	Pulling out of hole with NB protector.				
RT-ML	1425m	Planned Op	POH with NB protector. Run 13-3/8" casing.				

Summary of Period 0000 to 2400 Hrs

RIH to TD. Circulated and reciprocated string while awaiting DPI approval to recommence operations. POH with drill string. Commenced RIH to retrieve NB protector.

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

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	U	TI	0000	0030	0.50	2459.0m	Continued to run in hole from 2336m to 2445m. Took weight @ 2445m.
IH	U	WIN	0030	0100	0.50	2459.0m	Made up top drive and washed down from 2445m. Tagged bottom at 2459m
IH	U	CHC	0100	0400	3.00	2459.0m	Circulated hole clean whilst working pipe.
IH	U	CHC	0400	0600	2.00	2459.0m	Pumped 50 bbl hi-weight/hi-vis sweep and circulated out same whilst continuing to work pipe.
IH	U	CHC	0600	1315	7.25	2459.0m	Continued to circulate and reciprocate drill string.
IC	P	SM	1315	1330	0.25	2459.0m	Held tool box meeting prior to pulling out of hole.
IC	P	TO	1330	1445	1.25	2459.0m	Pulled out of hole wet from 2459m to 2194m.
IC	P	CMD	1445	1500	0.25	2459.0m	Pumped 30 bbl slug.
IC	P	TO	1500	1945	4.75	2459.0m	Continued to pull out of hole from 2194m to 282m.
IC	P	SM	1945	2000	0.25	2459.0m	Held tool box meeting prior to handling BHA.
IC	P	TO	2000	2200	2.00	2459.0m	Pulled out of hole with BHA from 282m to 20m.
IC	P	OA	2200	2230	0.50	2459.0m	Downloaded CDR/Power Pulse.
IC	P	HBHA	2230	2245	0.25	2459.0m	Pulled out of hole from 20m to surface, broke off bit and racked back last stand.
IC	P	CRF	2245	2300	0.25	2459.0m	Cleared rig floor of all excess equipment.
IC	P	WH	2300	2400	1.00	2459.0m	Made up 2 stands of 5" HWDP below Dril-Quip Multi Purpose Tool. Ran in hole to 233m to retrieve nominal bore protector.

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

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IC	P	WH	0000	0245	2.75	2459.0m	Continued running in hole to retrieve nominal bore protector at 1420m.
IC	P	WH	0245	0300	0.25	2459.0m	Jetted BOP and wellhead area.
IC	P	WH	0300	0315	0.25	2459.0m	Landed MPT in wellhead with 15,000 lb set down weight. Recorded datum measurement. Unseated NB protector with 25,000 lb overpull.
IC	P	WH	0315	0430	1.25	2459.0m	Re-landed NB protector in wellhead. Picked up with no overpull to confirm NB protector had released. Circulated riser contents.
IC	P	SM	0430	0445	0.25	2459.0m	Held toolbox meeting prior to pulling out of hole.
IC	P	CMD	0445	0500	0.25	2459.0m	Pumped slug.
IC	P	TO	0500	0600	1.00	2459.0m	(IN PROGRESS) Pulled out of hole from 1420m to surface.

Phase Data to 2400hrs, 01 Dec 2004

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP(RM)	39	17 Nov 2004	18 Nov 2004	39.00	1.625 days	0m
CONDUCTOR HOLE(CH)	69.25	18 Nov 2004	21 Nov 2004	108.25	4.510 days	1510.0m
SURFACE HOLE(SH)	49	21 Nov 2004	23 Nov 2004	157.25	6.552 days	1835.0m
SURFACE CASING(SC)	113	23 Nov 2004	28 Nov 2004	270.25	11.260 days	1835.0m
INTERMEDIATE HOLE(IH)	77	28 Nov 2004	01 Dec 2004	347.25	14.469 days	2459.0m
INTERMEDIATE CASING(IC)	10.75	01 Dec 2004	01 Dec 2004	358.00	14.917 days	2459.0m

WBM Data									
Mud Type: KCl/Polymer/Glycol	API FL: 5cm³/30m	Cl: 33800	Solids: 7.5	Viscosity: 61sec/qt					
Sample-From: Pit	Filter-Cake: 1/32nd"	K+C*1000: 7.7%	H2O: 89.5%	PV: 22cp					
Time: 22:00	HTHP-FL: 0cm³/30m	Hard/Ca: 1040	Oil: 3%	YP: 30lb/100ft²					
Weight: 9.20ppg	HTHP-Cake: 0/32nd"	MBT: 12.5	Sand: 0.3	Gels 10s: 8					
Temp: 18.0C°		PM: 0.2	pH: 8.5	Gels 10m: 16					
		PF: 0.05	PHPA: Oppb	Fann 003: 8					
				Fann 006: 10					
				Fann 100: 31					
				Fann 200: 43					
				Fann 300: 52					
				Fann 600: 74					
Comment: Increase carrying caoacity with XCD.									

Bit # 2				Wear	I	O1	D	L	B	G	O2	R
					2	2	BT	A	E	1	WT	TD
Size ("):	17.50in	IADC#	115	Nozzles		Drilled over last 24 hrs			Calculated over Bit Run			
Mfr:	REED	WOB(avg)	0klb	No.	Size	Progress	0m	Cum. Progress	624.0m			
Type:	Rock	RPM(avg)	0	1	20/32nd"	On Bottom Hrs	0h	Cum. On Btm Hrs	32.20h			
Serial No.:	J65053	F.Rate	0gpm	3	22/32nd"	IADC Drill Hrs	0h	Cum IADC Drill Hrs	52.65h			
Bit Model	T11C	SPP	0psi			Total Revs	0	Cum Total Revs	0			
Depth In	1835.0m	TFA	1.420			ROP(avg)	N/A	ROP(avg)	19.38 m/hr			
Depth Out	2459.0m											

BHA # 2						
Weight(Wet)	0klb	Length	282.8m	Torque(max)	0ft-lbs	D.C. (1) Ann Velocity
Wt Below Jar(Wet)	0klb	String	0klb	Torque(Off.Btm)	0ft-lbs	D.C. (2) Ann Velocity
		Pick-Up	0klb	Torque(On.Btm)	0ft-lbs	H.W.D.P. Ann Velocity
		Slack-Off	0klb			D.P. Ann Velocity
BHA Run Description: Bit; 9-5/8" Motor;Float sub; 17.5" Stab; CDR(FEWD); Power Pulse; 15.5' Stab; 9.5" NMDC; 2x9.5" DC; XO; 8x8" DC; 8" Jars; 3x8" DC; XO 12x5" HWDP.						

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
2220.68	0.29	203.20	2220.63	-4.15	0.06	-4.15	-8.60	MWD
2248.46	0.15	220.05	2248.41	-4.25	0.05	-4.25	-8.65	MWD
2277.42	0.31	183.89	2277.37	-4.35	0.07	-4.35	-8.68	MWD
2306.21	0.34	216.07	2306.16	-4.50	0.06	-4.50	-8.74	MWD
2334.13	0.40	185.07	2334.08	-4.67	0.07	-4.67	-8.79	MWD
2361.66	0.37	221.08	2361.61	-4.83	0.09	-4.83	-8.86	MWD

Bulk Stocks						Personnel On Board		
Name	Unit	In	Used	Adjust	Balance	Company		Pax
Fuel	MT	0	10	0	1,159.0	Santos		6
Drill Water	MT	0	14	0	855.0	Transocean		67
Potable Water	MT	0	24	0	275.0	BHI		6
Gel	MT	0	0	0	97.0	Halliburton		2
Cement	MT	0	0	0	250.0	M.I		2
Barite	MT	0	0	0	104.0	Subsea 7		3
						Dril-Quip		2
						Weatherford		4
						Anadrill		4
						DPI		1
							Total	97

Casing			
OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	Oppg / Oppg	1510.0m / 1510.0m	Not Cemented. Casing was jettted in.
20 "	9.60ppg / Oppg	1822.7m / 1822.7m	660bbls of 12.5ppg Lead 151bbls of 15.8ppg Tail

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	28 Nov 2004	3 Days	Weekly abandon rig drill.
BOP Test	24 Nov 2004	7 Days	Tested all rams etc to 250 psi low and 5000psi high.
Environmental Incident		0 Days	
Fire Drill	28 Nov 2004	3 Days	Simulated fire in the upper accomodation block.
First Aid	21 Nov 2004	10 Days	Roustabout sprained his ankle whilst offloading 20" casing.
Lost Time Incident	26 Nov 2004	5 Days	Roustabout hit by diverter running tool breaking his leg. Medivaced to Prince Alfred Hospital Melbourne.
Safety Meeting	28 Nov 2004	3 Days	
Stop Cards	29 Nov 2004	2 Days	10 START Cards submitted

Marine							
Weather check on 01 Dec 2004 at 24:00							
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.00nm	24.0kn	250deg	1015bar	14.0C°	0m	000deg	0ft/sec
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments	
0.8deg	0.8deg	0m	4.0m	250deg	9.0ft/sec		
Rig Dir.	Ris. Tension	VDL		Comments			
217.0deg	0klb	6312.0klb					

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Lady Caroline	22:00 29/11/04		Jack Bates	Item	Unit	Quantity
				Barite	MT	0
				Cement	MT	80
				Gel	MT	0
Mud	bbf	0				
Lady Astrid		22:12 30/11/04	On route to Portland	Item	Unit	Quantity
				Barite	MT	0
				Cement	MT	42
				Gel	MT	39
Mud	bbf	0				

Helicopter Movement				
Flight #	Time	Destination	Comment	Pax
BZU	15:42	Jack Bates		2
BZU	15:53	Essendon		6

From : D. Atkins/P. King

Well Data

Country	Australia	M. Depth	2459.0m	Cur. Hole Size	17.500in	AFE Cost	
Field	Otway Basin	TVD	2459.0m	Casing OD	20.000in	AFE No.	5738032
Drill Co.	Transocean	Progress	0m	Shoe TVD	1822.0m	Daily Cost	
Rig	Jack Bates	Days from spud	12.28	F.I.T. / L.O.T.	0ppg / 9.60ppg	Cum Cost	
Wtr Dpth(LAT)	1396.0m	Days on well	15.92			Planned TD	2979.0m
RT-ASL(LAT)	29.0m	Current Op @ 0600	Testing BOPs after setting casing hanger seal assembly.				
RT-ML	1425m	Planned Op	Test BOPs. POH with CHSART. Run Wear bushing. Lay out 17-1/2" BHA. Commence M/U 12-1/4" BHA.				

Summary of Period 0000 to 2400 Hrs

Retrieved NB protector. Commenced running 13-3/8" casing.

Operations For Period 0000 Hrs to 2400 Hrs on 02 Dec 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IC	P	WH	0000	0245	2.75	2459.0m	Continued running in hole to retrieve nominal bore protector at 1420m.
IC	P	WH	0245	0300	0.25	2459.0m	Jetted BOP and wellhead area.
IC	P	WH	0300	0315	0.25	2459.0m	Landed MPT in wellhead with 15,000 lb set down weight. Recorded datum measurement. Unseated NB protector with 25,000 lb overpull.
IC	P	WH	0315	0430	1.25	2459.0m	Re-landed NB protector in wellhead. Picked up with no overpull to confirm NB protector had released. Circulated riser contents.
IC	P	SM	0430	0445	0.25	2459.0m	Held toolbox meeting prior to pulling out of hole.
IC	P	CMD	0445	0500	0.25	2459.0m	Pumped slug.
IC	P	TO	0500	0700	2.00	2459.0m	Pulled out of hole from 1420m to surface.
IC	P	WH	0700	0730	0.50	2459.0m	Broke out and layed out NB protector.
IC	P	CRF	0730	0745	0.25	2459.0m	Cleared rig floor of excess equipment.
IC	P	SM	0745	0800	0.25	2459.0m	Held toolbox meeting prior to rigging up 13-3/8" casing handling equipment.
IC	P	RRC	0800	0900	1.00	2459.0m	Rigged up Weatherford 13-3/8" casing handling equipment.
IC	P	WO	0900	1000	1.00	2459.0m	Deck crew carrying out THINK drill and permit to work preparation prior to using Landel crane.
IC	P	SM	1000	1015	0.25	2459.0m	Held toolbox meeting with drill crew and deck crew prior to running 13-3/8" casing.
IC	P	CRN	1015	1115	1.00	2459.0m	Picked up shoe track assembly and ran in hole to 49m.
IC	P	CRN	1115	1200	0.75	2459.0m	Ran 13-3/8" casing from 49m to 137m.
IC	P	CRN	1200	1800	6.00	2459.0m	Continued to run 13-3/8" casing as per program from 137m to 1029m.
IC	P	RRC	1800	1815	0.25	2459.0m	Rigged down Weatherford casing handling equipment.
IC	P	CRN	1815	1830	0.25	2459.0m	Picked up and made up 13-3/8" casing hanger assembly and ran in hole to 1032m.
IC	P	CRF	1830	1945	1.25	2459.0m	Removed Weatherford EMS and cleared rig floor of excess casing equipment.
IC	P	CRN	1945	2045	1.00	2459.0m	Ran casing on drill pipe from 1032m to 1475m.
IC	P	BKC	2045	2130	0.75	2459.0m	Filled casing and broke circulation (30 spm @ 130 psi)
IC	P	CRN	2130	2230	1.00	2459.0m	Continued to run casing on drill pipe from 1475m to 1822m. Broke circulation.
IC	P	CRN	2230	2400	1.50	2459.0m	Continued to run casing on drill pipe into open hole from 1822m to 2388m.

Operations For Period 0000 Hrs to 0600 Hrs on 03 Dec 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IC	P	CRN	0000	0015	0.25	2459.0m	Continued to run casing on drill pipe into open hole from 2388m to 2445m.
IC	P	CRN	0015	0030	0.25	2459.0m	Picked up and made up cement stand and opened up choke and kill lines to surface.
IC	P	BKC	0030	0045	0.25	2459.0m	Filled string and broke circulation.
IC	P	CRN	0045	0100	0.25	2459.0m	Slacked off casing weight (160,000 lb) and set down 20,000 lb weight. Shoe @ 2454m.
IC	P	SM	0100	0115	0.25	2459.0m	Held toolbox meeting with all crew members involved in the cement job whilst circulating (68 spm @ 360 psi)
IC	P	CMC	0115	0345	2.50	2459.0m	Pumped 85 bbl spacer. Pressure tested cementing lines to 3000 psi. Pumped 327 bbl 12.5 ppg Class G lead slurry, 81 bbl 15.8 ppg Class G tail slurry. Displaced landing string with 90 bbl (plug released after 85 bbl).
IC	P	CMC	0345	0445	1.00	2459.0m	Displaced casing using rig pumps. Bumped plug @ 483 bbl. Pressured up to 2000 psi. Pressure slowly bled off. Check floats holding OK. (Lost returns after approx. 435 bbl. 95 bbl lost to formation. Kept annulus full via trip tank)
IC	P	CRN	0445	0545	1.00	2459.0m	Pressured up to 3000 psi to set 13-3/8" casing hanger seal assembly. Pressure tested to 5000 psi down kill line against lower pipe ram.
IC	P	ACC	0545	0600	0.25	2459.0m	Pressure test BOP on blue pod. 300 psi/5 mins & 5000 psi/10 mins.

Phase Data to 2400hrs, 02 Dec 2004						
Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP(RM)	39	17 Nov 2004	18 Nov 2004	39.00	1.625 days	0m
CONDUCTOR HOLE(CH)	69.25	18 Nov 2004	21 Nov 2004	108.25	4.510 days	1510.0m
SURFACE HOLE(SH)	49	21 Nov 2004	23 Nov 2004	157.25	6.552 days	1835.0m
SURFACE CASING(SC)	113	23 Nov 2004	28 Nov 2004	270.25	11.260 days	1835.0m
INTERMEDIATE HOLE(IH)	77	28 Nov 2004	01 Dec 2004	347.25	14.469 days	2459.0m
INTERMEDIATE CASING(IC)	34.75	01 Dec 2004	02 Dec 2004	382.00	15.917 days	2459.0m

WBM Data							
Mud Type: KCl/Polymer/Glycol	API FL: 5cm ³ /30m	Cl: 33800	Solids: 7.5	Viscosity: 60sec/qt			
Sample-From: Pit	Filter-Cake: 1/32nd"	K+C*1000: 7.7%	H2O: 89.5%	PV: 22cp			
Time: 21:30	HTHP-FL: 0cm ³ /30m	Hard/Ca: 1080	Oil: 3%	YP: 34lb/100ft ²			
Weight: 9.20ppg	HTHP-Cake: 0/32nd"	MBT: 10	Sand: 0.3	Gels 10s: 8			
Temp: 18.0C°		PM: 0.25	pH: 8.7	Gels 10m: 16			
		PF: 0.1	PHPA: 0ppb	Fann 003: 8			
				Fann 006: 11			
				Fann 100: 33			
				Fann 200: 46			
				Fann 300: 56			
				Fann 600: 78			

Comment Run 13-3/8" casing. No apparent sub-surface losses. Barytes for cement spacer.

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
2220.68	0.29	203.20	2220.63	-4.15	0.06	-4.15	-8.60	MWD
2248.46	0.15	220.05	2248.41	-4.25	0.05	-4.25	-8.65	MWD
2277.42	0.31	183.89	2277.37	-4.35	0.07	-4.35	-8.68	MWD
2306.21	0.34	216.07	2306.16	-4.50	0.06	-4.50	-8.74	MWD
2334.13	0.40	185.07	2334.08	-4.67	0.07	-4.67	-8.79	MWD
2361.66	0.37	221.08	2361.61	-4.83	0.09	-4.83	-8.86	MWD

Bulk Stocks						Personnel On Board		
Name	Unit	In	Used	Adjust	Balance	Company		Pax
Fuel	MT	129	10	0	1,278.0	Santos		4
Drill Water	MT	0	31	0	824.0	Transocean		66
Potable Water	MT	157	26	0	406.0	BHI		6
Gel	MT	0	0	0	97.0	Halliburton		2
Cement	MT	0	0	0	250.0	M.I		2
Barite	MT	0	3	0	101.0	Subsea 7		3
						Dril-Quip		2
						Weatherford		4
						Anadrill		4
							Total	93

Casing			
OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	0ppg / 0ppg	1510.0m / 1510.0m	Not Cemented. Casing was jetted in.
20 "	9.60ppg / 0ppg	1822.7m / 1822.7m	660bbls of 12.5ppg Lead 151bbls of 15.8ppg Tail

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	28 Nov 2004	4 Days	Weekly abandon rig drill.
BOP Test	24 Nov 2004	8 Days	Tested all rams etc to 250 psi low and 5000psi high.
Environmental Incident		0 Days	
Fire Drill	28 Nov 2004	4 Days	Simulated fire in the upper accomodation block.
First Aid	21 Nov 2004	11 Days	Roustabout sprained his ankle whilst offloading 20" casing.
Lost Time Incident	26 Nov 2004	6 Days	Roustabout hit by diverter running tool breaking his leg. Medivaced to Prince Alfred Hospital Melbourne.
Safety Meeting	28 Nov 2004	4 Days	
Stop Cards	29 Nov 2004	3 Days	10 START Cards submitted

Marine							
Weather check on 02 Dec 2004 at 24:00							
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.00nm	9.0kn	230deg	1021bar	14.1C°	0m	000deg	0ft/sec
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments	
0.8deg	0.8deg	0m	3.0m	250deg	8.0ft/sec		
Rig Dir.	Ris. Tension	VDL	Comments				
217.0deg	0klb	6530.0klb					

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Lady Caroline	22:00 29/11/04		Jack Bates	Item	Unit	Quantity
				Barite	MT	0
				Cement	MT	80
				Gel	MT	0
				Mud	bbl	0
Lady Astrid		22:12 30/11/04	On route to Portland	Item	Unit	Quantity
				Barite	MT	0
				Cement	MT	42
				Gel	MT	39
				Mud	bbl	0

Helicopter Movement					
Flight #	Time	Destination	Comment	Pax	
BZU	12:27	Jack Bates		0	
BZU	12:39	Essendon		4	

From : D. Atkins/P. King

Well Data

Country	Australia	M. Depth	2459.0m	Cur. Hole Size	17.500in	AFE Cost	
Field	Otway Basin	TVD	2459.0m	Casing OD	13.375in	AFE No.	5738032
Drill Co.	Transocean	Progress	0m	Shoe TVD	2454.0m	Daily Cost	
Rig	Jack Bates	Days from spud	13.28	F.I.T. / L.O.T.	0ppg / 0ppg	Cum Cost	
Wtr Dpth(LAT)	1396.0m	Days on well	16.92			Planned TD	2979.0m
RT-ASL(LAT)	29.0m	Current Op @ 0600	Shallow testing Power Pulse @ 60m.				
RT-ML	1425m	Planned Op	RIH with 12-1/4" BHA, drill out shoe track, LOT, drill ahead 12-1/4" hole.				

Summary of Period 0000 to 2400 Hrs

Ran casing to TD, cemented in place, set seal assembly, pressure tested BOPs, ran 13-3/8" wear bushing, layed out 17-1/2" BHA.

Operations For Period 0000 Hrs to 2400 Hrs on 03 Dec 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IC	P	CRN	0000	0015	0.25	2459.0m	Continued to run casing on drill pipe into open hole from 2388m to 2445m.
IC	P	CRN	0015	0030	0.25	2459.0m	Picked up and made up cement stand and opened up choke and kill lines to surface.
IC	P	BKC	0030	0045	0.25	2459.0m	Filled string and broke circulation.
IC	P	CRN	0045	0100	0.25	2459.0m	Slacked off casing weight (160,000 lb) and set down 20,000 lb weight.
IC	P	SM	0100	0115	0.25	2459.0m	Held toolbox meeting with all crew members involved in the cement job whilst circulating (68 spm @ 360 psi)
IC	P	CMC	0115	0345	2.50	2459.0m	Pumped 85 bbl spacer. Pressure tested cementing lines to 3000 psi. Pumped 327 bbl 12.5 ppg Class G lead slurry, 81 bbl 15.8 ppg Class G tail slurry. Displaced landing string with 90 bbl (plug released after 85 bbl).
IC	P	CMC	0345	0445	1.00	2459.0m	Displaced casing using rig pumps. Bumped plug @ 483 bbl. Pressured up to 2000 psi. Pressure slowly bled off. Check floats holding OK. (Lost returns after approx. 435 bbl. 95 bbl lost to formation. Kept annulus full via trip tank)
IC	P	CRN	0445	0545	1.00	2459.0m	Pressured up to 3000 psi to set 13-3/8" casing hanger seal assembly. Pressure tested to 5000 psi down kill line against lower pipe ram.
IC	P	BOP	0545	0845	3.00	2459.0m	Pressure test BOP on blue pod. 300 psi/5 mins & 5000 psi/10 mins.
IC	P	CRN	0845	0930	0.75	2459.0m	Sheared out of seal assembly. Pumped 10 bbl and re-tested seal assembly to 5000 psi @ 1421m.
IC	P	CMD	0930	0945	0.25	2459.0m	Pumped 15 bbl slug.
IC	P	TO	0945	1245	3.00	2459.0m	Pulled out of hole from 1421m to surface.
IC	P	HT	1245	1315	0.50	2459.0m	Broke out and laid out CHSART.
IC	P	HT	1315	1330	0.25	2459.0m	Picked up and made up wear bushing to running tool and cup tester.
IC	P	WH	1330	1600	2.50	2459.0m	Ran in hole with wear bushing from surface to 1421m.
IC	P	WH	1600	1615	0.25	2459.0m	Landed out wear bushing and set down 20,000 lb. Took 30,000 lb overpull to free running tool.
IC	P	CMD	1615	1630	0.25	2459.0m	Pumped slug and allowed to settle.
IC	P	TO	1630	1830	2.00	2459.0m	Pulled out of hole with running tool from 1421m to surface.
IC	P	HT	1830	1845	0.25	2459.0m	Broke out and laid out wear bushing running tool/cup tester assembly.
IC	P	SM	1845	1900	0.25	2459.0m	Held safety meeting prior to breaking and laying out cement head.
IC	P	HT	1900	1930	0.50	2459.0m	Laid out Weatherford cement head from the derrick.
IC	P	CRF	1930	1945	0.25	2459.0m	Cleared rig floor of excess equipment.
IC	P	SM	1945	2000	0.25	2459.0m	Held safety meeting prior to laying out 17.5" BHA.
IC	P	HBHA	2000	2145	1.75	2459.0m	Ran in hole with 17.5" BHA and laid out same.
IC	P	PT	2145	2215	0.50	2459.0m	Pressure tested 13-3/8" casing to 1500 psi against shear rams. (Test good)
IC	P	HBHA	2215	2400	1.75	2459.0m	Continued to run in hole with 17-1/2" BHA and lay out same.

Operations For Period 0000 Hrs to 0600 Hrs on 04 Dec 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IC	P	HBHA	0000	0030	0.50	2459.0m	Continued to lay out excess 17-1/2" BHA.
IC	P	RS	0030	0100	0.50	2459.0m	Serviced Top Drive
IC	P	SM	0100	0115	0.25	2459.0m	Held toolbox meeting prior to handling 12-1/4" BHA.
IC	P	HBHA	0115	0230	1.25	2459.0m	Picked up and made up bit and motor and ran in hole to 11m.
IC	P	HBHA	0230	0300	0.50	2459.0m	Schlumberger initialise CDR.
IC	P	HBHA	0300	0445	1.75	2459.0m	Continued to pick up and make up BHA from 11m to 31m.
IC	P	HBHA	0445	0530	0.75	2459.0m	Ran in hole with BHA from the derrick from 31m to 60m.
IC	P	HBHA	0530	0600	0.50	2459.0m	Shallow tested Schlumberger Power Pulse tool. (166 spm / 840 psi)

Phase Data to 2400hrs, 03 Dec 2004						
Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP(RM)	39	17 Nov 2004	18 Nov 2004	39.00	1.625 days	0m
CONDUCTOR HOLE(CH)	69.25	18 Nov 2004	21 Nov 2004	108.25	4.510 days	1510.0m
SURFACE HOLE(SH)	49	21 Nov 2004	23 Nov 2004	157.25	6.552 days	1835.0m
SURFACE CASING(SC)	113	23 Nov 2004	28 Nov 2004	270.25	11.260 days	1835.0m
INTERMEDIATE HOLE(IH)	77	28 Nov 2004	01 Dec 2004	347.25	14.469 days	2459.0m
INTERMEDIATE CASING(IC)	58.75	01 Dec 2004	03 Dec 2004	406.00	16.917 days	2459.0m

WBM Data							
Mud Type: KCI/Polymer/Glycol	API FL: 4cm ³ /30m	Cl: 38000	Solids: 8	Viscosity: 62sec/qt			
Sample-From: Pit	Filter-Cake: 1/32nd"	K+C*1000: 7.8%	H ₂ O: 89.2%	PV: 21cp			
Time: 21:30	HTHP-FL: 0cm ³ /30m	Hard/Ca: 1180	Oil: 2.8%	YP: 33lb/100ft ²			
Weight: 9.30ppg	HTHP-Cake: 0/32nd"	MBT: 12.5	Sand: 0.5	Gels 10s: 9			
Temp: 0C°		PM: 0.3	pH: 8.5	Gels 10m: 17			
		PF: 0.15	PHPA: 0ppb	Fann 003: 8			
				Fann 006: 11			
				Fann 100: 33			
				Fann 200: 44			
				Fann 300: 54			
				Fann 600: 75			
Comment	Sub-surface loss 95 bbls on displace cement. End 17-1/2" open hole interval. Dump and clean s/c pits. Prepare for 12-1/4" open hole interval.						

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
2220.68	0.29	203.20	2220.63	-4.15	0.06	-4.15	-8.60	MWD
2248.46	0.15	220.05	2248.41	-4.25	0.05	-4.25	-8.65	MWD
2277.42	0.31	183.89	2277.37	-4.35	0.07	-4.35	-8.68	MWD
2306.21	0.34	216.07	2306.16	-4.50	0.06	-4.50	-8.74	MWD
2334.13	0.40	185.07	2334.08	-4.67	0.07	-4.67	-8.79	MWD
2361.66	0.37	221.08	2361.61	-4.83	0.09	-4.83	-8.86	MWD

Bulk Stocks						Personnel On Board		
Name	Unit	In	Used	Adjust	Balance	Company		Pax
Fuel	MT	0	11	0	1,267.0	Santos		5
Drill Water	MT	0	53	0	771.0	Transocean		62
Potable Water	MT	0	31	0	375.0	BHI		6
Gel	MT	0	0	0	97.0	Halliburton		3
Cement	MT	0	64	0	186.0	M.I		2
Barite	MT	0	0	0	101.0	Subsea 7		3
						Dril-Quip		2
						Weatherford		3
						Anadrill		4
						Total		90

Casing			
OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	0ppg / 0ppg	1510.0m / 1510.0m	Not Cemented. Casing was jettied in.
20 "	9.60ppg / 0ppg	1822.7m / 1822.7m	660bbls of 12.5ppg Lead 151bbls of 15.8ppg Tail
13 3/8"	0ppg / 0ppg	2454.0m / 2454.0m	327 bbl of 12.5 ppg Lead 81 bbl of 15.8 ppg Tail

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	28 Nov 2004	5 Days	Weekly abandon rig drill.
BOP Test	24 Nov 2004	9 Days	Tested all rams etc to 250 psi low and 5000psi high.
Environmental Incident		0 Days	
Fire Drill	28 Nov 2004	5 Days	Simulated fire in the upper accomodation block.
First Aid	21 Nov 2004	12 Days	Roustabout sprained his ankle whilst offloading 20" casing.
Lost Time Incident	26 Nov 2004	7 Days	Roustabout hit by diverter running tool breaking his leg. Medivaced to Prince Alfred Hospital Melbourne.
Safety Meeting	28 Nov 2004	5 Days	
Stop Cards	29 Nov 2004	4 Days	10 START Cards submitted

Marine								
Weather check on 03 Dec 2004 at 24:00								
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period	
10.00nm	20.0kn	080deg	1014bar	16.1C°	0m	000deg	0ft/sec	
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments		
0.5deg	0.5deg	0m	2.7m	200deg	8.0ft/sec			
Rig Dir.	Ris. Tension	VDL	Comments					
217.0deg	0klb	6091.0klb						

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Lady Caroline	22:00 29/11/04		Jack Bates	Item	Unit	Quantity
				Barite	MT	0
				Cement	MT	80
				Gel	MT	0
Mud	bbf	0				
Lady Astrid	18:40 03/12/04		Jack Bates	Item	Unit	Quantity
				Barite	MT	82
				Cement	MT	42
				Gel	MT	39
Mud	bbf	0				

Helicopter Movement				
Flight #	Time	Destination	Comment	Pax
BZU	19:34	Jack Bates		13
BZU	19:56	Essendon		16

From : D. Atkins/P. King

Well Data

Country	Australia	M. Depth	2459.0m	Cur. Hole Size	12.250in	AFE Cost		
Field	Otway Basin	TVD	2459.0m	Casing OD	13.375in	AFE No.	5738032	
Drill Co.	Transocean	Progress	9.0m	Shoe TVD	2455.0m	Daily Cost		
Rig	Jack Bates	Days from spud	14.28	F.I.T. / L.O.T.	Oppg / 11.00ppg	Cum Cost		
Wtr Dpth(LAT)	1396.0m	Days on well	17.92			Planned TD	2979.0m	
RT-ASL(LAT)	29.0m	Current Op @ 0600	Drilling 12-1/4" hole @ 2533m					
RT-ML	1425m	Planned Op	Drill ahead 12-1/4" hole.					

Summary of Period 0000 to 2400 Hrs

Laid out excess 17-1/2" BHA. M/U and RIH 12-1/4" BHA. Drilled out cement and shoe track. Drilled 3m of new formation and FIT.

Operations For Period 0000 Hrs to 2400 Hrs on 04 Dec 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IC	P	HBHA	0000	0030	0.50	2459.0m	Continued to lay out excess 17-1/2" BHA.
IC	P	RS	0030	0100	0.50	2459.0m	Serviced Top Drive
IC	P	SM	0100	0115	0.25	2459.0m	Held toolbox meeting prior to handling 12-1/4" BHA.
IC	P	HBHA	0115	0230	1.25	2459.0m	Picked up and made up bit and motor and ran in hole to 11m.
IC	P	WO	0230	0300	0.50	2459.0m	Waiting on Schlumberger to initialise CDR.
IC	P	HBHA	0300	0445	1.75	2459.0m	Continued to pick up and make up BHA from 11m to 31m.
IC	P	HBHA	0445	0530	0.75	2459.0m	Ran in hole with BHA from the derrick from 31m to 60m.
IC	P	HBHA	0530	0600	0.50	2459.0m	Shallow tested Schlumberger Power Pulse tool. (166 spm / 840 psi)
IC	P	HBHA	0600	0745	1.75	2459.0m	Ran in hole with 12-1/4" BHA from the derrick from 60m to 255m.
IC	P	SM	0745	0800	0.25	2459.0m	Held toolbox meeting prior to picking up 5" drill pipe from the deck.
IC	P	TI	0800	0815	0.25	2459.0m	Installed auto slips and rigged up pipe spinners.
IC	P	TI	0815	1300	4.75	2459.0m	Picked up 5" drill pipe in singles and ran in hole from 255m to 883m. (Drifted each joint and filled pipe each 15 stands)
IC	P	TI	1300	1630	3.50	2459.0m	Ran in hole 5" drill pipe from derrick from 883m. Tagged top of cement at 2414m.
IC	P	SCR	1630	1700	0.50	2459.0m	Took SCRs and perform choke drill.
IC	P	DFS	1700	1900	2.00	2459.0m	Drilled out cement and shoe track from 2414m to 2455m.
IC	P	DFS	1900	1930	0.50	2459.0m	Worked through shoe track and drilled out rat hole from 2455m to 2459m
PH	P	DA	1930	1945	0.25	2462.0m	Drilled 3 m of new formation from 2459m to 2462m
PH	P	CS	1945	2145	2.00	2462.0m	Circulate bottoms up to obtain formation sample (30% cement, 30% silt, 40% claystone).
PH	P	LOT	2145	2200	0.25	2462.0m	Picked up inside casing shoe and rigged up side entry sub, TIW valve and hose for LOT/FIT.
PH	P	LOT	2200	2300	1.00	2462.0m	Performed FIT (1680 psi, 9.3 ppg MW, 2455m) to 13.3 ppg EMW. 4.25 bbl pumped, 4 bbl bled back. Repeated FIT to verify result.
PH	P	LOT	2300	2330	0.50	2462.0m	Rigged down side entry sub, TIW valve and hose and ran in hole to 2462m.
PH	P	OA	2330	2345	0.25	2462.0m	Recalibrated Anadrill tools for WOB and torque.
PH	P	DA	2345	2400	0.25	2468.0m	Continued to drill ahead 12-1/4" hole from 2462m to 2468m.

Operations For Period 0000 Hrs to 0600 Hrs on 05 Dec 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PH	P	DA	0000	0045	0.75	2477.0m	Continue drilling 12-1/4" hole from 2468m to 2477m.
PH	P	CMD	0045	0100	0.25	2477.0m	Circulated and conditioned mud prior to open hole LOT.
PH	P	LOT	0100	0115	0.25	2477.0m	Picked up inside casing shoe and rigged up side entry sub, TIW valve and hose for LOT.
PH	P	LOT	0115	0200	0.75	2477.0m	Performed LOT (710 psi, 9.3 ppg MW, 2455m) to 11.0 ppg. 3.5 bbl pumped, 2.5 bbl bled back.
PH	P	LOT	0200	0230	0.50	2468.0m	Rigged down side entry sub, TIW valve and hose and ran in hole to 2477m.
PH	P	DA	0230	0600	3.50	2468.0m	Continued drilling 12-1/4" hole from 2477m to 2533m.

Phase Data to 2400hrs, 04 Dec 2004						
Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP(RM)	39	17 Nov 2004	18 Nov 2004	39.00	1.625 days	0m
CONDUCTOR HOLE(CH)	69.25	18 Nov 2004	21 Nov 2004	108.25	4.510 days	1510.0m
SURFACE HOLE(SH)	49	21 Nov 2004	23 Nov 2004	157.25	6.552 days	1835.0m
SURFACE CASING(SC)	113	23 Nov 2004	28 Nov 2004	270.25	11.260 days	1835.0m
INTERMEDIATE HOLE(IH)	77	28 Nov 2004	01 Dec 2004	347.25	14.469 days	2459.0m
INTERMEDIATE CASING(IC)	78.25	01 Dec 2004	04 Dec 2004	425.50	17.729 days	2459.0m
PRODUCTION HOLE(PH)	4.5	04 Dec 2004	04 Dec 2004	430.00	17.917 days	2468.0m

WBM Data							
Mud Type: KCl/Polymer/Glycol	API FL: 5cm ³ /30m	Cl: 42000	Solids: 7.5	Viscosity: 60sec/qt			
Sample-From: Flowline	Filter-Cake: 1/32nd"	K+C*1000: 8%	H2O: 89.5%	PV: 21cp			
Time: 21:00	HTHP-FL: 0cm ³ /30m	Hard/Ca: 840	Oil: 3%	YP: 26lb/100ft ²			
Weight: 9.30ppg	HTHP-Cake: 0/32nd"	MBT: 10	Sand: 0.25	Gels 10s: 9			
Temp: 16.0C°		PM: 0.3	pH: 8.5	Gels 10m: 14			
		PF: 0.05	PHPA: 0ppb	Fann 003: 7			
				Fann 006: 9			
				Fann 100: 28			
				Fann 200: 35			
				Fann 300: 47			
				Fann 600: 68			
Comment	Prepare to increase KCl to 12%. Glycol to 5%. Treat for cement contam. Loss of cold mud at shaker on initial circ.						

Bit # 3				Wear	I	O1	D	L	B	G	O2	R
Size ("):	12.25in	IADC#	M323	Nozzles		Drilled over last 24 hrs			Calculated over Bit Run			
Mfr:	Hughes Christensen	WOB(avg)	11.0klb	No.	Size	Progress	9.0m	Cum. Progress	9.0m			
Type:	PDC	RPM(avg)	0	6	14/32nd"	On Bottom Hrs	0.40h	Cum. On Btm Hrs	0.40h			
Serial No.:	7003752	F.Rate	740gpm			IADC Drill Hrs	7.40h	Cum IADC Drill Hrs	7.40h			
Bit Model	HCM606Z	SPP	2350psi			Total Revs	0	Cum Total Revs	0			
Depth In	2459.0m	TFA	0.902			ROP(avg)	22.50 m/hr	ROP(avg)	22.50 m/hr			
Depth Out	0m											

BHA # 3						
Weight(Wet)	75.0klb	Length	255.9m	Torque(max)	0ft-lbs	D.C. (1) Ann Velocity
Wt Below Jar(Wet)	45.0klb	String	0klb	Torque(Off.Btm)	0ft-lbs	D.C. (2) Ann Velocity
		Pick-Up	0klb	Torque(On.Btm)	0ft-lbs	H.W.D.P. Ann Velocity
		Slack-Off	0klb			D.P. Ann Velocity

Equipment	Length	OD	ID	Serial #	Comment
X/O	0.35m	9.63in	0in	L9000	
9.625in Motor	9.68m	9.63in	0in	1069	
Float Sub	0.90m	9.50in	0in	3728	Non-ported float
X/O	1.32m	9.00in	0in	X/O 2	
12.25in String Stabiliser	1.65m	12.25in	0in	AIB 1123	
8.25in FEWD tools	6.98m	8.25in	0in	8001	CDR w/APWD
12.125 In-line Stabiliser	1.38m	12.13in	0in	213272-2	
8.25in MWD Tools	8.38m	8.25in	0in	ED-12	Power Pulse
12.25in String Stabiliser	1.45m	12.25in	0in	AIB 1120	
8in DC	74.15m	8.00in	0in		
8in Jar	9.78m	8.06in	0in	48907 C	
8in DC	27.66m	8.00in	0in		
X/O	1.14m	8.00in	0in	X/O 09	
5in HWDP	110.77m	6.63in	0in		
5in Drillpipe	0m	5.00in	0in		

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
2220.68	0.29	203.20	2220.63	-4.15	0.06	-4.15	-8.60	MWD
2248.46	0.15	220.05	2248.41	-4.25	0.05	-4.25	-8.65	MWD
2277.42	0.31	183.89	2277.37	-4.35	0.07	-4.35	-8.68	MWD
2306.21	0.34	216.07	2306.16	-4.50	0.06	-4.50	-8.74	MWD
2334.13	0.40	185.07	2334.08	-4.67	0.07	-4.67	-8.79	MWD
2361.66	0.37	221.08	2361.61	-4.83	0.09	-4.83	-8.86	MWD

Bulk Stocks						Personnel On Board		
Name	Unit	In	Used	Adjust	Balance	Company		Pax
Fuel	MT	0	11	0	1,256.0	Santos		5
Drill Water	MT	0	0	0	771.0	Transocean		62
Potable Water	MT	0	27	0	348.0	BHI		6
Gel	MT	0	0	0	97.0	Halliburton		3
Cement	MT	41	0	0	227.0	M.I		2
Barite	MT	0	0	0	101.0	Subsea 7		3
						Weatherford		3
						Anadrill		4
							Total	88

Casing			
OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	0ppg / 0ppg	1510.0m / 1510.0m	Not Cemented. Casing was jetted in.
20 "	9.60ppg / 0ppg	1822.7m / 1822.7m	660bbls of 12.5ppg Lead 151bbls of 15.8ppg Tail
13 3/8"	11.00ppg / 0ppg	2455.0m / 2455.0m	327 bbl of 12.5 ppg Lead 81 bbl of 15.8 ppg Tail

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	04 Dec 2004	0 Days	Weekly abandon rig drill.
BOP Test	03 Nov 2004	31 Days	Tested all rams etc to 300 psi low and 5000psi high.
Environmental Incident		0 Days	
Fire Drill	04 Dec 2004	0 Days	Simulated fire in the upper accomodation block.
First Aid	21 Nov 2004	13 Days	Roustabout sprained his ankle whilst offloading 20" casing.
Lost Time Incident	26 Nov 2004	8 Days	Roustabout hit by diverter running tool breaking his leg. Medivaced to Prince Alfred Hospital Melbourne.
Safety Meeting	28 Nov 2004	6 Days	
Stop Cards	29 Nov 2004	5 Days	10 START Cards submitted

Marine							
Weather check on 04 Dec 2004 at 24:00							
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.00nm	14.0kn	160deg	1013bar	15.3C°	0m	000deg	0ft/sec
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments	
0.2deg	0.2deg	0m	1.2m	110deg	6.0ft/sec		
Rig Dir.	Ris. Tension	VDL	Comments				
217.0deg	0klb	6184.0klb					

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Lady Caroline		09:45 4/12/04	Portland	Item	Unit	Quantity
				Barite	MT	0
				Cement	MT	80
				Gel	MT	0
Lady Astrid	18:40 03/12/04		Jack Bates	Item	Unit	Quantity
				Barite	MT	82
				Cement	MT	0
				Gel	MT	39
				Mud	bbl	0

From : D. Atkins/P. King

Well Data

Country	Australia	M. Depth	2695.0m	Cur. Hole Size	12.250in	AFE Cost	
Field	Otway Basin	TVD	2695.0m	Casing OD	13.375in	AFE No.	5738032
Drill Co.	Transocean	Progress	227.0m	Shoe TVD	2455.0m	Daily Cost	
Rig	Jack Bates	Days from spud	15.28	F.I.T. / L.O.T.	13.30ppg / 0ppg	Cum Cost	
Wtr Dpth(LAT)	1396.0m	Days on well	18.92			Planned TD	2979.0m
RT-ASL(LAT)	29.0m	Current Op @ 0600	Pulling out of hole for bit change at 144m				
RT-ML	1425m	Planned Op	POH. Download LWD. Change bit. RIH and drill 12-1/4" hole.				

Summary of Period 0000 to 2400 Hrs

Drilled 12-1/4" hole to 2477m. LOT. Drill to 2695m. Slow ROP. Pumped out to casing shoe. Commenced pulling out of cased hole.

Operations For Period 0000 Hrs to 2400 Hrs on 05 Dec 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PH	P	DA	0000	0045	0.75	2477.0m	Continued drilling 12-1/4" hole from 2468m to 2477m.
PH	P	CMD	0045	0100	0.25	2477.0m	Circulated and conditioned mud prior to open hole LOT.
PH	P	LOT	0100	0115	0.25	2477.0m	Picked up inside casing shoe and rigged up side entry sub, TIW valve and hose for LOT.
PH	P	LOT	0115	0200	0.75	2477.0m	Performed LOT (710 psi, 9.3 ppg MW, 2455m) to 11.0 ppg. 3.5 bbl pumped, 2.5 bbl bled back.
PH	P	LOT	0200	0230	0.50	2477.0m	Rigged down side entry sub, TIW valve and hose and ran in hole to 2477m.
PH	P	DA	0230	1200	9.50	2626.0m	Continued drilling 12-1/4" hole from 2477m to 2626m, reaming on each connection and surveying every third connection.
PH	P	DA	1200	1945	7.75	2695.0m	Continued drilling 12-1/4" hole from 2626m to 2695m, reaming each connection and surveying every third connection. (ROP 1-3 m/hr)
PH	P	CMD	1945	2000	0.25	2695.0m	Circulated and conditioned mud prior to pulling out of hole for bit change.
PH	P	FC	2000	2015	0.25	2695.0m	Flow checked. Well static.
PH	P	CMD	2015	2045	0.50	2695.0m	Pumped 25 bbl slug.
PH	P	TO	2045	2145	1.00	2695.0m	Pulled out of hole from 2695m to 2538m and run back in hole to 2552m (20,000 lb overpull at 2559m & 2549m. Trip tank not taking correct amount.)
PH	P	WIN	2145	2245	1.00	2695.0m	Pumped out of open hole from 2568m to 2452m. (204 spm/50 rpm @ 3300 psi)
PH	P	CMD	2245	2300	0.25	2695.0m	Flow checked. Well static.
PH	P	CHC	2300	2400	1.00	2695.0m	Circulated bottoms up from casing shoe (210 spm @ 3390 psi)

Operations For Period 0000 Hrs to 0600 Hrs on 06 Dec 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PH	P	CHC	0000	0130	1.50	2695.0m	Continued to circulate bottoms up at casing shoe.
PH	P	CMD	0130	0145	0.25	2695.0m	Pumped 25 bbl slug whilst flushing choke and kill lines
PH	P	TO	0145	0530	3.75	2695.0m	Pulled out of hole from 2452m to 255m.
PH	P	TO	0530	0600	0.50	2695.0m	Pulled out of hole with BHA from 255m to 144m.

Phase Data to 2400hrs, 05 Dec 2004

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP(RM)	39	17 Nov 2004	18 Nov 2004	39.00	1.625 days	0m
CONDUCTOR HOLE(CH)	69.25	18 Nov 2004	21 Nov 2004	108.25	4.510 days	1510.0m
SURFACE HOLE(SH)	49	21 Nov 2004	23 Nov 2004	157.25	6.552 days	1835.0m
SURFACE CASING(SC)	113	23 Nov 2004	28 Nov 2004	270.25	11.260 days	1835.0m
INTERMEDIATE HOLE(IH)	77	28 Nov 2004	01 Dec 2004	347.25	14.469 days	2459.0m
INTERMEDIATE CASING(IC)	78.25	01 Dec 2004	04 Dec 2004	425.50	17.729 days	2459.0m
PRODUCTION HOLE(PH)	28.5	04 Dec 2004	05 Dec 2004	454.00	18.917 days	2695.0m

WBM Data									
Mud Type:	KCl/Polymer/Glycol	API FL:	4cm³/30m	Cl:	52500	Solids:	8.8	Viscosity:	64sec/qt
Sample-From:	Flowline	Filter-Cake:	1/32nd"	K+C*1000:	10.4%	H2O:	87.7%	PV:	21cp
Time:	20:30	HTHP-FL:	0cm³/30m	Hard/Ca:	1200	Oil:	3.5%	YP:	25lb/100ft²
Weight:	9.50ppg	HTHP-Cake:	0/32nd"	MBT:	11	Sand:	0.3	Gels 10s:	9
Temp:	12.2C°			PM:	0.15	pH:	8.5	Gels 10m:	16
				PF:	0.05	PHPA:	Oppb	Fann 003:	8
								Fann 006:	10
								Fann 100:	26
								Fann 200:	37
								Fann 300:	46
								Fann 600:	67
Comment: Increase KCl with available stock. Glycol to 5%. Raise carrying capacity.									

Bit # 3				Wear	I	O1	D	L	B	G	O2	R
Size ("):	12.25in	IADC#	M323	Nozzles		Drilled over last 24 hrs			Calculated over Bit Run			
Mfr:	Hughes Christensen	WOB(avg)	15.0klb	No.	Size	Progress	227.0m	Cum. Progress	236.0m			
Type:	PDC	RPM(avg)	100	6	14/32nd"	On Bottom Hrs	14.00h	Cum. On Btm Hrs	14.40h			
Serial No.:	7003752	F.Rate	850gpm			IADC Drill Hrs	19.90h	Cum IADC Drill Hrs	27.30h			
Bit Model	HCM606Z	SPP	3000psi			Total Revs	0	Cum Total Revs	0			
Depth In	2459.0m	TFA	0.902			ROP(avg)	16.21 m/hr	ROP(avg)	16.39 m/hr			
Depth Out	0m											

BHA # 3									
Weight(Wet)	75.0klb	Length	255.9m	Torque(max)	0ft-lbs	D.C. (1) Ann Velocity			
Wt Below Jar(Wet)	45.0klb	String	0klb	Torque(Off.Btm)	0ft-lbs	D.C. (2) Ann Velocity			
		Pick-Up	0klb	Torque(On.Btm)	0ft-lbs	H.W.D.P. Ann Velocity			
		Slack-Off	0klb			D.P. Ann Velocity			
Equipment		Length	OD	ID	Serial #	Comment			
X/O		0.35m	9.63in	0in	L9000	Non-ported float CDR w/APWD Power Pulse			
9.625in Motor		9.68m	9.63in	0in	1069				
Float Sub		0.90m	9.50in	0in	3728				
X/O		1.32m	9.00in	0in	X/O 2				
12.25in String Stabiliser		1.65m	12.25in	0in	AIB 1123				
8.25in FEWD tools		6.98m	8.25in	0in	8001				
12.125 In-line Stabiliser		1.38m	12.13in	0in	213272-2				
8.25in MWD Tools		8.38m	8.25in	0in	ED-12				
12.25in String Stabiliser		1.45m	12.25in	0in	AIB 1120				
8in DC		74.15m	8.00in	0in					
8in Jar		9.78m	8.06in	0in	48907 C				
8in DC		27.66m	8.00in	0in					
X/O		1.14m	8.00in	0in	X/O 09				
5in HWDP		110.77m	6.63in	0in					
5in Drillpipe		0m	5.00in	0in					

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
2390.55	0.33	232.85	2390.50	-4.95	0.03	-4.95	-8.99	MWD
2419.57	0.32	200.20	2419.52	-5.08	0.06	-5.08	-9.08	MWD
2433.15	0.24	208.59	2433.10	-5.14	0.07	-5.14	-9.11	MWD
2476.28	0.50	232.35	2476.23	-5.33	0.07	-5.33	-9.30	MWD
2534.29	0.33	216.60	2534.24	-5.62	0.04	-5.62	-9.60	MWD
2649.13	0.37	195.11	2649.07	-6.24	0.01	-6.24	-9.90	MWD

Bulk Stocks						Personnel On Board	
Name	Unit	In	Used	Adjust	Balance	Company	Pax
Fuel	MT	0	14	0	1,242.0	Santos	5
Drill Water	MT	0	0	0	771.0	Transocean	64
Potable Water	MT	102	31	0	419.0	BHI	6
Gel	MT	41	0	0	138.0	Halliburton	3
Cement	MT	0	0	0	227.0	M.I	2
Barite	MT	0	0	0	101.0	Subsea 7	3
						Anadrill	4
						Schlumberger Wireline	6
						Total	93

Casing			
OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	0ppg / 0ppg	1510.0m / 1510.0m	Not Cemented. Casing was jetted in.
20 "	9.60ppg / 0ppg	1822.7m / 1822.7m	660bbls of 12.5ppg Lead 151bbls of 15.8ppg Tail
13 3/8"	11.00ppg / 0ppg	2455.0m / 2455.0m	327 bbl of 12.5 ppg Lead 81 bbl of 15.8 ppg Tail

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	04 Dec 2004	1 Day	Weekly abandon rig drill.
BOP Test	03 Nov 2004	32 Days	Tested all rams etc to 300 psi low and 5000psi high.
Environmental Incident		0 Days	
Fire Drill	04 Dec 2004	1 Day	Simulated fire in the upper accomodation block.
First Aid	21 Nov 2004	14 Days	Roustabout sprained his ankle whilst offloading 20" casing.
Lost Time Incident	26 Nov 2004	9 Days	Roustabout hit by diverter running tool breaking his leg. Medivaced to Prince Alfred Hospital Melbourne.
Safety Meeting	05 Dec 2004	0 Days	
Stop Cards	29 Nov 2004	6 Days	10 START Cards submitted

Marine							
Weather check on 05 Dec 2004 at 24:00							
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.00nm	27.0kn	070deg	1009bar	16.9C°	0m	000deg	0ft/sec
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments	
0.4deg	0.4deg	0.25m	2.1m	080deg	6.0ft/sec		
Rig Dir.	Ris. Tension	VDL	Comments				
217.0deg	0klb	6488.0klb					

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Lady Caroline	17:00 05/12/04		Jack Bates	Item	Unit	Quantity
				Barite	MT	0
				Cement	MT	80
				Gel	MT	0
Mud	bbl	0				
Lady Astrid		19:40 05/12/04	Portland	Item	Unit	Quantity
				Barite	MT	82
				Cement	MT	0
				Gel	MT	0
Mud	bbl	0				

Helicopter Movement				
Flight #	Time	Destination	Comment	Pax
BZU	15:30	Jack Bates		7
BZU	15:42	Essendon		2

From : D. Atkins/P. King

Well Data

Country	Australia	M. Depth	2878.0m	Cur. Hole Size	12.250in	AFE Cost	
Field	Otway Basin	TVD	2878.0m	Casing OD	13.375in	AFE No.	5738032
Drill Co.	Transocean	Progress	183.0m	Shoe TVD	2455.0m	Daily Cost	
Rig	Jack Bates	Days from spud	16.28	F.I.T. / L.O.T.	0ppg / 11.00ppg	Cum Cost	
Wtr Dpth(LAT)	1396.0m	Days on well	19.92			Planned TD	2979.0m
RT-ASL(LAT)	29.0m	Current Op @ 0600	Circulating bottoms up @ TD (2979m) prior to POH.				
RT-ML	1425m	Planned Op	POH. Rig up to log.				

Summary of Period 0000 to 2400 Hrs

POH. Download LWD. Changed bit. RIH. Drilled 12-1/4" hole from 2695m to 2878m

Operations For Period 0000 Hrs to 2400 Hrs on 06 Dec 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PH	P	CHC	0000	0130	1.50	2695.0m	Continued to circulate bottoms up at casing shoe.
PH	P	CMD	0130	0145	0.25	2695.0m	Pumped 25 bbl slug whilst flushing choke and kill lines
PH	P	TO	0145	0530	3.75	2695.0m	Pulled out of hole from 2452m to 255m.
PH	P	TO	0530	0600	0.50	2695.0m	Pulled out of hole with BHA from 255m to 144m.
PH	P	SM	0600	0615	0.25	2695.0m	Held toolbox meeting prior to handling BHA
PH	P	HBHA	0615	0700	0.75	2695.0m	Pulled out hole with BHA from 144m to surface
PH	P	HBHA	0700	0715	0.25	2695.0m	Broke off bit and checked Anadrill motor bearings.
PH	P	OA	0715	0800	0.75	2695.0m	Ran in hole to 21m and downloaded Anadrill LWD.
PH	P	HBHA	0800	0930	1.50	2695.0m	Picked up from 21m to surface. Made up new bit and ran in hole with BHA to 144m
PH	P	OA	0930	0945	0.25	2695.0m	Performed shallow hole LWD/MWD test. OK.
PH	P	HBHA	0945	1000	0.25	2695.0m	Continued to run in hole BHA from 144m to 255m
PH	P	TI	1000	1200	2.00	2695.0m	Ran in hole on 5" drillpipe from 255m to 1425m.
PH	P	TI	1200	1345	1.75	2695.0m	Continued running in hole from 1425m to 2395m.
PH	P	RS	1345	1415	0.50	2695.0m	Serviced top drive whilst circulating 13-3/8" casing volume.
PH	TP (RE)	TI	1415	1500	0.75	2695.0m	Pulled auto slips, observed debris (metal plate) fall down hole. Pulled bushing and check around diverter.
PH	TP (JNK)	TI	1500	1530	0.50	2695.0m	Pumped slug and allowed to settle. Await instructions from town.
PH	P	TI	1530	1615	0.75	2695.0m	Continued running in hole from 2395m to 2695m.
PH	P	DA	1615	2130	5.25	2866.0m	Bed in bit and drill 12-1/4" hole from 2695m to 2866m.
PH	P	CHC	2130	2330	2.00	2866.0m	Circulated hole clean. (ECD 10.4 ppg, increased torque and pump pressure, losses over shakers)
PH	P	DA	2330	2400	0.50	2878.0m	Continued drilling 12-1/4" hole from 2886m to 2878m.

Operations For Period 0000 Hrs to 0600 Hrs on 07 Dec 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PH	P	DA	0000	0045	0.75	2904.0m	Continued drilling 12-1/4" hole from 2878m to 2904m
PH	P	SCR	0045	0100	0.25	2904.0m	Took SCRs @ 2904m with 9.5 ppg mud.
PH	P	DA	0100	0145	0.75	2935.0m	Continued drilling 12-1/4" hole from 2904m to 2935m.
PH	P	FC	0145	0200	0.25	2935.0m	Performed pre-connection flow check prior to making connection.
PH	P	DA	0200	0330	1.50	2979.0m	Continued drilling 12-1/4" hole from 2935m to 2979m (TD).
PH	P	CHC	0330	0400	0.50	2979.0m	Circulated and took TD survey.
PH	P	OA	0400	0415	0.25	2979.0m	Performed static inflow test.
PH	P	CHC	0415	0600	1.75	2979.0m	Circulated bottoms up (200spm/3470 psi)

Phase Data to 2400hrs, 06 Dec 2004

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP(RM)	39	17 Nov 2004	18 Nov 2004	39.00	1.625 days	0m
CONDUCTOR HOLE(CH)	69.25	18 Nov 2004	21 Nov 2004	108.25	4.510 days	1510.0m
SURFACE HOLE(SH)	49	21 Nov 2004	23 Nov 2004	157.25	6.552 days	1835.0m
SURFACE CASING(SC)	113	23 Nov 2004	28 Nov 2004	270.25	11.260 days	1835.0m
INTERMEDIATE HOLE(IH)	77	28 Nov 2004	01 Dec 2004	347.25	14.469 days	2459.0m
INTERMEDIATE CASING(IC)	78.25	01 Dec 2004	04 Dec 2004	425.50	17.729 days	2459.0m
PRODUCTION HOLE(PH)	52.5	04 Dec 2004	06 Dec 2004	478.00	19.917 days	2878.0m

WBM Data									
Mud Type:	KCl/Polymer/Glycol	API FL:	5cm³/30m	Cl:	52000	Solids:	8.6	Viscosity:	67sec/qt
Sample-From:	Flowline	Filter-Cake:	1/32nd"	K+C*1000:	10.5%	H2O:	86.4%	PV:	23cp
Time:	22:00	HTHP-FL:	0cm³/30m	Hard/Ca:	960	Oil:	5%	YP:	30lb/100ft²
Weight:	9.50ppg	HTHP-Cake:	0/32nd"	MBT:	11	Sand:	0.3	Gels 10s:	8
Temp:	12.0C°			PM:	0.1	pH:	8.5	Gels 10m:	17
				PF:	0.05	PHPA:	Oppb	Fann 003:	8
								Fann 006:	10
								Fann 100:	30
								Fann 200:	42
								Fann 300:	53
								Fann 600:	76
Comment: Maintain volume. Change shakers to finer screens.									

Bit # 4				Wear	I	O1	D	L	B	G	O2	R
Size ("):	12.25in	IADC#	M323	Nozzles		Drilled over last 24 hrs			Calculated over Bit Run			
Mfr:	HYCALOG	WOB(avg)	15.0klb	No.	Size	Progress	183.0m	Cum. Progress	183.0m			
Type:	PDC	RPM(avg)	90	5	15/32nd"	On Bottom Hrs	4.20h	Cum. On Btm Hrs	4.20h			
Serial No.:	108439	F.Rate	824gpm			IADC Drill Hrs	11.40h	Cum IADC Drill Hrs	11.40h			
Bit Model	DSX104HGW	SPP	3465psi			Total Revs	0	Cum Total Revs	0			
Depth In	2695.0m	TFA	0.863			ROP(avg)	43.57 m/hr	ROP(avg)	43.57 m/hr			
Depth Out	0m											

Bit # 3				Wear	I	O1	D	L	B	G	O2	R
Size ("):	12.25in	IADC#	M323		0	0	BU	A	X	I	ER	PR
Mfr:	Hughes Christensen	WOB(avg)	15.0klb	Nozzles		Drilled over last 24 hrs			Calculated over Bit Run			
Type:	PDC	RPM(avg)	100	No.	Size	Progress	0m	Cum. Progress	236.0m			
Serial No.:	7003752	F.Rate	850gpm	6	14/32nd"	On Bottom Hrs	0h	Cum. On Btm Hrs	14.40h			
Bit Model	HCM606Z	SPP	3000psi			IADC Drill Hrs	0h	Cum IADC Drill Hrs	27.30h			
Depth In	2459.0m	TFA	0.902			Total Revs	0	Cum Total Revs	0			
Depth Out	2695.0m					ROP(avg)	N/A	ROP(avg)	16.39 m/hr			

BHA # 3						
Weight(Wet)	75.0klb	Length	255.9m	Torque(max)	0ft-lbs	D.C. (1) Ann Velocity
Wt Below Jar(Wet)	45.0klb	String	0klb	Torque(Off.Btm)	0ft-lbs	D.C. (2) Ann Velocity
		Pick-Up	0klb	Torque(On.Btm)	0ft-lbs	H.W.D.P. Ann Velocity
		Slack-Off	0klb			D.P. Ann Velocity

Equipment	Length	OD	ID	Serial #	Comment
X/O	0.35m	9.63in	0in	L9000	
9.625in Motor	9.68m	9.63in	0in	1069	
Float Sub	0.90m	9.50in	0in	3728	Non-ported float
X/O	1.32m	9.00in	0in	X/O 2	
12.25in String Stabiliser	1.65m	12.25in	0in	AIB 1123	
8.25in FEWD tools	6.98m	8.25in	0in	8001	CDR w/APWD
12.125 In-line Stabiliser	1.38m	12.13in	0in	213272-2	
8.25in MWD Tools	8.38m	8.25in	0in	ED-12	Power Pulse
12.25in String Stabiliser	1.45m	12.25in	0in	AIB 1120	
8in DC	74.15m	8.00in	0in		
8in Jar	9.78m	8.06in	0in	48907 C	
8in DC	27.66m	8.00in	0in		
X/O	1.14m	8.00in	0in	X/O 09	
5in HWDP	110.77m	6.63in	0in		
5in Drillpipe	0m	5.00in	0in		

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
2534.29	0.33	216.60	2534.24	-5.62	0.04	-5.62	-9.60	MWD
2649.13	0.37	195.11	2649.07	-6.24	0.01	-6.24	-9.90	MWD
2762.85	0.23	199.79	2762.79	-6.81	0.01	-6.81	-10.07	MWD
2878.16	0.23	190.81	2878.10	-7.26	0	-7.26	-10.19	MWD
2950.00	0.26	140.59	2949.94	-7.52	0.03	-7.52	-10.11	MWD
2979.00	0.26	140.59	2978.94	-7.63	0	-7.63	-10.03	Proj to TD

Bulk Stocks						Personnel On Board		
Name	Unit	In	Used	Adjust	Balance	Company		Pax
Fuel	MT	0	12	0	1,230.0	Santos		5
Drill Water	MT	232	27	0	976.0	Transocean		64
Potable Water	MT	0	30	0	389.0	BHI		6
Gel	MT	0	0	0	138.0	Halliburton		3
Cement	MT	0	0	0	227.0	M.I		2
Barite	MT	0	0	0	101.0	Subsea 7		3
						Anadrill		4
						Schlumberger Wireline		6
							Total	93

Casing			
OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	0ppg / 0ppg	1510.0m / 1510.0m	Not Cemented. Casing was jetted in.
20 "	9.60ppg / 0ppg	1822.7m / 1822.7m	660bbls of 12.5ppg Lead 151bbls of 15.8ppg Tail
13 3/8"	11.00ppg / 0ppg	2455.0m / 2455.0m	327 bbl of 12.5 ppg Lead 81 bbl of 15.8 ppg Tail

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	04 Dec 2004	2 Days	Weekly abandon rig drill.
BOP Test	03 Nov 2004	33 Days	Tested all rams etc to 300 psi low and 5000psi high.
Environmental Incident		0 Days	
Fire Drill	04 Dec 2004	2 Days	Simulated fire in the upper accomodation block.
First Aid	21 Nov 2004	15 Days	Roustabout sprained his ankle whilst offloading 20" casing.
Lost Time Incident	26 Nov 2004	10 Days	Roustabout hit by diverter running tool breaking his leg. Medivaced to Prince Alfred Hospital Melbourne.
Safety Meeting	05 Dec 2004	1 Day	
Stop Cards	29 Nov 2004	7 Days	10 START Cards submitted

Marine							
Weather check on 06 Dec 2004 at 24:00							
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.00nm	32.0kn	130deg	1008bar	16.2C°	0m	000deg	0ft/sec
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments	
0.4deg	0.4deg	0.30m	3.0m	120deg	6.0ft/sec		
Rig Dir.	Ris. Tension	VDL	Comments				
217.0deg	0klb	6398.0klb					

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Lady Caroline		18:45 06/12/04	Portland	Item	Unit	Quantity
				Barite	MT	0
				Cement	MT	80
				Gel	MT	0
Lady Astrid	18:30 06/12/04		Jack Bates	Item	Unit	Quantity
				Barite	MT	82
				Cement	MT	0
				Gel	MT	0
				Mud	bbl	0

Helicopter Movement				
Flight #	Time	Destination	Comment	Pax
BZU	15:30	Jack Bates		11
BZU	15:45	Essendon		11

From : D. Atkins/P. King

Well Data

Country	Australia	M. Depth	2979.0m	Cur. Hole Size	12.250in	AFE Cost	
Field	Otway Basin	TVD	2979.0m	Casing OD	13.375in	AFE No.	5738032
Drill Co.	Transocean	Progress	101.0m	Shoe TVD	2455.0m	Daily Cost	
Rig	Jack Bates	Days from spud	17.28	F.I.T. / L.O.T.	Oppg / 11.00ppg	Cum Cost	
Wtr Dpth(LAT)	1396.0m	Days on well	20.92			Planned TD	2979.0m
RT-ASL(LAT)	29.0m	Current Op @ 0600	Pulling out of hole after logging run #1.				
RT-ML	1425m	Planned Op	POH. Run Checkshot if required. Run CST log. Commence laying out drill collars.				

Summary of Period 0000 to 2400 Hrs

Drilled 12-1/4" to TD (2979m). Circulated hole clean. Pumped out to shoe. POH. Rigged up Schlumberger. Commenced logging run #1.

Operations For Period 0000 Hrs to 2400 Hrs on 07 Dec 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PH	P	DA	0000	0045	0.75	2904.0m	Continued drilling 12-1/4" hole from 2878m to 2904m
PH	P	SCR	0045	0100	0.25	2904.0m	Took SCRs @ 2904m with 9.5 ppg mud.
PH	P	DA	0100	0145	0.75	2935.0m	Continued drilling 12-1/4" hole from 2904m to 2935m.
PH	P	FC	0145	0200	0.25	2935.0m	Performed pre-connection flow check prior to making connection.
PH	P	DA	0200	0330	1.50	2979.0m	Continued drilling 12-1/4" hole from 2935m to 2979m (TD).
PH	P	CHC	0330	0400	0.50	2979.0m	Circulated and took TD survey.
PH	P	OA	0400	0415	0.25	2979.0m	Performed static inflow test.
PH	P	CHC	0415	0615	2.00	2979.0m	Circulated bottoms up (200spm/3470 psi). Max 150 units gas. Hole clean.
PH	P	FC	0615	0630	0.25	2979.0m	Flow checked. Well static.
EP	P	TOT	0630	0700	0.50	2979.0m	Pulled out of open hole from 2979m to 2910m. (Worked through tight spots from 2938m to 2910m with 20,000 lb - 30,000 lb overpull. Wiped clean. Maximum overpull 40,000 lb at 2910m.
EP	P	WIN	0700	0915	2.25	2979.0m	Made up top drive and pumped out of open hole from 2910m to 2452m (197spm @ 3300 psi).
EP	P	CHC	0915	1100	1.75	2979.0m	Circulated bottoms up at 2452m (13-3/8" casing shoe at 2455m)
EP	P	FC	1100	1115	0.25	2979.0m	Flow checked. Well static.
EP	P	CMD	1115	1130	0.25	2979.0m	Pumped slug and allowed same to settle.
EP	P	TO	1130	1200	0.50	2979.0m	Pulled out of hole from 2454m to 2253m.
EP	P	TO	1200	1245	0.75	2979.0m	Continued pulling out of hole from 2253m to 1710m.
EP	P	FC	1245	1300	0.25	2979.0m	Flow checked well prior to pulling BHA through BOPs.
EP	P	TO	1300	1500	2.00	2979.0m	Continued pulling out of hole from 1710m to 255m.
EP	P	HBHA	1500	1600	1.00	2979.0m	Pulled out of hole with BHA from 255m to surface. No junk damage noticed on BHA components.
EP	P	HBHA	1600	1615	0.25	2979.0m	Broke off bit and ran in hole to 21m to download LWD.
EP	P	OA	1615	1645	0.50	2979.0m	Downloaded LWD.
EP	P	CRF	1645	1715	0.50	2979.0m	Racked back LWD stand from 21m. Cleared rig floor of excess equipment.
EP	P	SM	1715	1730	0.25	2979.0m	Held toolbox meeting prior to rigging up Schlumberger wireline.
EP	P	LOG	1730	1900	1.50	2979.0m	Rigged up Schlumberger Wireline.
EP	P	SM	1900	1915	0.25	2979.0m	Held toolbox meeting prior to rigging up toolstring.
EP	P	LOG	1915	2000	0.75	2979.0m	Picked up and made up Log #1.
EP	TP (VE)	LOG	2000	2100	1.00	2979.0m	Initialised and calibrated toolstring. Troubleshoot caliper error.
EP	P	LOG	2100	2115	0.25	2979.0m	Installed radioactive sources.
EP	P	LOG	2115	2200	0.75	2979.0m	Ran in hole with wireline to 150m and set up compensator with 10,000 lb line pull.
EP	P	LOG	2200	2230	0.50	2979.0m	Secured top drive hoses in derrick to prevent contact with wireline due to rig movement.
EP	P	LOG	2230	2400	1.50	2979.0m	Ran Log #1 PEX-HALS-DSI-CNL-TLT-LDT-GR-CAL-SP

Operations For Period 0000 Hrs to 0600 Hrs on 08 Dec 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
EP	P	LOG	0000	0115	1.25	2979.0m	Continued running in hole with Log #1. String hung up at 2945m. Unable to pass.
EP	P	LOG	0115	0400	2.75	2979.0m	Logged open hole from 2945m. Resistivity tool reading incorrectly.
EP	P	LOG	0400	0515	1.25	2979.0m	Completed Log #1. Ran in hole to 2945m to re-check resistivity reading. Hole tight, unable to pull up. Closed caliper and logged up to 2845m. Resistivity tool still reading incorrectly.
EP	P	LOG	0515	0600	0.75	2979.0m	Commenced pulling out of hole with logging string.

Phase Data to 2400hrs, 07 Dec 2004						
Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP(RM)	39	17 Nov 2004	18 Nov 2004	39.00	1.625 days	0m
CONDUCTOR HOLE(CH)	69.25	18 Nov 2004	21 Nov 2004	108.25	4.510 days	1510.0m
SURFACE HOLE(SH)	49	21 Nov 2004	23 Nov 2004	157.25	6.552 days	1835.0m
SURFACE CASING(SC)	113	23 Nov 2004	28 Nov 2004	270.25	11.260 days	1835.0m
INTERMEDIATE HOLE(IH)	77	28 Nov 2004	01 Dec 2004	347.25	14.469 days	2459.0m
INTERMEDIATE CASING(IC)	78.25	01 Dec 2004	04 Dec 2004	425.50	17.729 days	2459.0m
PRODUCTION HOLE(PH)	59	04 Dec 2004	07 Dec 2004	484.50	20.188 days	2979.0m
EVALUATION PRODUCTION HOLE(EP)	17.5	07 Dec 2004	07 Dec 2004	502.00	20.917 days	2979.0m

WBM Data									
Mud Type:	KCl/Polymer/Glycol	API FL:	5cm ³ /30m	Cl:	50500	Solids:	9	Viscosity:	66sec/qt
Sample-From:	Pit	Filter-Cake:	1/32nd"	K+C*1000:	10%	H2O:	86.5%	PV:	24cp
Time:	20:30	HTHP-FL:	0cm ³ /30m	Hard/Ca:	840	Oil:	4.5%	YP:	30lb/100ft ²
Weight:	9.50ppg	HTHP-Cake:	0/32nd"	MBT:	11	Sand:	0.3	Gels 10s:	8
Temp:	12.0C°			PM:	0.15	pH:	8.5	Gels 10m:	18
				PF:	0.05	PHPA:	Oppb	Fann 003:	8
								Fann 006:	10
								Fann 100:	24
								Fann 200:	33
								Fann 300:	54
								Fann 600:	78

Comment TD. Add biocide to prevent microbial contamination while e-logging. Clean s/c pits.

Bit # 4				Wear	I	O1	D	L	B	G	O2	R
Size ("):	12.25in	IADC#	M323		0	1	BU	A	X	I	BF	TD
Mfr:	HYCALOG	WOB(avg)	15.0klb	Nozzles		Drilled over last 24 hrs			Calculated over Bit Run			
Type:	PDC	RPM(avg)	90	No.	Size	Progress	101.0m	Cum. Progress		284.0m		
Serial No.:	108439	F.Rate	824gpm	5	15/32nd"	On Bottom Hrs	1.90h	Cum. On Btm Hrs		6.10h		
Bit Model	DSX104HG	SPP	3590psi			IADC Drill Hrs	8.90h	Cum IADC Drill Hrs		20.30h		
Depth In	2695.0m	TFA	0.863			Total Revs	0	Cum Total Revs		0		
Depth Out	2979.0m					ROP(avg)	53.16 m/hr	ROP(avg)		46.56 m/hr		

Bit # 3				Wear	I	O1	D	L	B	G	O2	R
Size ("):	12.25in	IADC#	M323		0	0	BU	A	X	I	ER	PR
Mfr:	Hughes Christensen	WOB(avg)	15.0klb	Nozzles		Drilled over last 24 hrs			Calculated over Bit Run			
Type:	PDC	RPM(avg)	100	No.	Size	Progress	0m	Cum. Progress		236.0m		
Serial No.:	7003752	F.Rate	850gpm	6	14/32nd"	On Bottom Hrs	0h	Cum. On Btm Hrs		14.40h		
Bit Model	HCM606Z	SPP	3000psi			IADC Drill Hrs	0h	Cum IADC Drill Hrs		27.30h		
Depth In	2459.0m	TFA	0.902			Total Revs	0	Cum Total Revs		0		
Depth Out	2695.0m					ROP(avg)	N/A	ROP(avg)		16.39 m/hr		

BHA # 3						
Weight(Wet)	75.0klb	Length	255.9m	Torque(max)	0ft-lbs	D.C. (1) Ann Velocity
Wt Below Jar(Wet)	45.0klb	String	0klb	Torque(Off.Btm)	0ft-lbs	D.C. (2) Ann Velocity
		Pick-Up	0klb	Torque(On.Btm)	0ft-lbs	H.W.D.P. Ann Velocity
		Slack-Off	0klb			D.P. Ann Velocity

Equipment	Length	OD	ID	Serial #	Comment
X/O	0.35m	9.63in	0in	L9000	Non-ported float
9.625in Motor	9.68m	9.63in	0in	1069	
Float Sub	0.90m	9.50in	0in	3728	
X/O	1.32m	9.00in	0in	X/O 2	
12.25in String Stabiliser	1.65m	12.25in	0in	AIB 1123	
8.25in FEWD tools	6.98m	8.25in	0in	8001	
12.125 In-line Stabiliser	1.38m	12.13in	0in	213272-2	
8.25in MWD Tools	8.38m	8.25in	0in	ED-12	
12.25in String Stabiliser	1.45m	12.25in	0in	AIB 1120	
8in DC	74.15m	8.00in	0in		
8in Jar	9.78m	8.06in	0in	48907 C	CDR w/APWD
8in DC	27.66m	8.00in	0in		
X/O	1.14m	8.00in	0in	X/O 09	
5in HWDP	110.77m	6.63in	0in		Power Pulse
5in Drillpipe	0m	5.00in	0in		

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
2534.29	0.33	216.60	2534.24	-5.62	0.04	-5.62	-9.60	MWD
2649.13	0.37	195.11	2649.07	-6.24	0.01	-6.24	-9.90	MWD
2762.85	0.23	199.79	2762.79	-6.81	0.01	-6.81	-10.07	MWD
2878.16	0.23	190.81	2878.10	-7.26	0	-7.26	-10.19	MWD
2950.00	0.26	140.59	2949.94	-7.52	0.03	-7.52	-10.11	MWD
2979.00	0.26	140.59	2978.94	-7.63	0	-7.63	-10.03	Proj to TD

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance	Company	Pax
Fuel	MT	0	9	0	1,221.0	Santos	5
Drill Water	MT	0	27	0	949.0	Transocean	64
Potable Water	MT	0	38	0	351.0	BHI	6
Gel	MT	0	0	0	138.0	Halliburton	3
Cement	MT	0	0	0	227.0	M.I	2
Barite	MT	0	0	0	101.0	Subsea 7	3
						Anadrill	4
						Schlumberger Wireline	6
Total							93

Personnel On Board

Casing

OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	0ppg / 0ppg	1510.0m / 1510.0m	Not Cemented. Casing was jetted in.
20 "	9.60ppg / 0ppg	1822.7m / 1822.7m	660bbls of 12.5ppg Lead 151bbls of 15.8ppg Tail
13 3/8"	11.00ppg / 0ppg	2455.0m / 2455.0m	327 bbl of 12.5 ppg Lead 81 bbl of 15.8 ppg Tail

HSE Summary

Events	Date of Last	Days Since	Remarks
Abandon Drill	04 Dec 2004	3 Days	Weekly abandon rig drill.
BOP Test	03 Nov 2004	34 Days	Tested all rams etc to 300 psi low and 5000psi high.
Environmental Incident		0 Days	
Fire Drill	04 Dec 2004	3 Days	Simulated fire in the upper accomodation block.
First Aid	21 Nov 2004	16 Days	Roustabout sprained his ankle whilst offloading 20" casing.
Lost Time Incident	26 Nov 2004	11 Days	Roustabout hit by diverter running tool breaking his leg. Medivaced to Prince Alfred Hospital Melbourne.
Safety Meeting	05 Dec 2004	2 Days	
Stop Cards	29 Nov 2004	8 Days	10 START Cards submitted

Marine							
Weather check on 07 Dec 2004 at 24:00							
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
8.00nm	39.0kn	140deg	1013bar	14.6C°	0m	000deg	0ft/sec
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments	
1.4deg	1.4deg	0m	5.5m	140deg	6.0ft/sec		
Rig Dir.	Ris. Tension	VDL		Comments			
217.0deg	0klb	6389.0klb					

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Lady Caroline		18:45 06/12/04	Portland	Item	Unit	Quantity
				Barite	MT	0
				Cement	MT	80
				Gel	MT	0
				Mud	bbl	0
Lady Astrid	18:30 06/12/04		Jack Bates	Item	Unit	Quantity
				Barite	MT	82
				Cement	MT	0
				Gel	MT	0
				Mud	bbl	0

From : D. Atkins/P. King

Well Data

Country	Australia	M. Depth	2979.0m	Cur. Hole Size	12.250in	AFE Cost	
Field	Otway Basin	TVD	2979.0m	Casing OD	13.375in	AFE No.	5738032
Drill Co.	Transocean	Progress	0m	Shoe TVD	2455.0m	Daily Cost	
Rig	Jack Bates	Days from spud	18.28	F.I.T. / L.O.T.	0ppg / 11.00ppg	Cum Cost	
Wtr Dpth(LAT)	1396.0m	Days on well	21.92			Planned TD	2979.0m
RT-ASL(LAT)	29.0m	Current Op @ 0600	Running Log #3 CST-GR.				
RT-ML	1425m	Planned Op	POH with CST-GR. RIH and lay out 12-1/4" BHA. RIH and set EZSV @ 2435m. Pump cement plugs #1 and #2.				

Summary of Period 0000 to 2400 Hrs

Completed Log #1PEX-Sonic-Resistivity-Density Neutron-Caliper GR. Ran Log #2 VSP. Commenced Log #3 CST-GR.

Operations For Period 0000 Hrs to 2400 Hrs on 08 Dec 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
EP	P	LOG	0000	0115	1.25	2979.0m	Continued running in hole with Log #1. String hung up at 2945m. Unable to pass.
EP	P	LOG	0115	0400	2.75	2979.0m	Logged open hole from 2945m. Resistivity tool reading incorrectly. Note: BHST 56.1 deg C, 14.5 hrs after last circulation.
EP	P	LOG	0400	0515	1.25	2979.0m	Completed Log #1. Ran in hole to 2945m to re-check resistivity reading. Hole tight, unable to pull up. Closed caliper and logged up to 2845m. Resistivity tool still reading incorrectly.
EP	P	LOG	0515	0645	1.50	2979.0m	Commenced pulling out of hole with logging string.
EP	P	LOG	0645	0730	0.75	2979.0m	Bled off compensator. Continued pulling out of hole.
EP	P	LOG	0730	0845	1.25	2979.0m	Broke out and layed down logging string #1.
EP	P	RS	0845	0915	0.50	2979.0m	Serviced top drive whilst waiting on instructions from Santos Adelaide re: next logging run.
EP	P	SM	0915	0930	0.25	2979.0m	Held toolbox meeting prior to making up logging string #2 VSP.
EP	P	LOG	0930	1030	1.00	2979.0m	Prepared Schlumberger tools for Log #2 VSP. (Changed out bridle for VSP)
EP	P	LOG	1030	1145	1.25	2979.0m	Picked up and made up logging string #2 and calibrated same.
EP	P	LOG	1145	2015	8.50	2979.0m	Ran Log #2 VSP.
EP	P	LOG	2015	2115	1.00	2979.0m	POH with logging string #2.
EP	P	LOG	2115	2130	0.25	2979.0m	Held toolbox meeting prior to laying out and picking up logging tools.
EP	P	LOG	2130	2145	0.25	2979.0m	Layed out logging string #2.
EP	P	LOG	2145	2345	2.00	2979.0m	Prepared explosives, made up and picked up logging string #3 CST. (Radio Silence at 23:15)
EP	P	LOG	2345	2400	0.25	2979.0m	Commenced running in hole to 150m with logging string #3 CST and set compensator with 10,000 lb line pull.

Operations For Period 0000 Hrs to 0600 Hrs on 09 Dec 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
EP	P	LOG	0000	0100	1.00	2979.0m	Continued running in hole with CST-GR to 1600m. Radio Silence ceased.
EP	P	LOG	0100	0300	2.00	2979.0m	Continued running in hole with CST-GR. Tagged previous hang up at 2945m.
EP	P	LOG	0300	0600	3.00	2979.0m	Ran Log #3 CST-GR. 30 core samples.

Phase Data to 2400hrs, 08 Dec 2004

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP(RM)	39	17 Nov 2004	18 Nov 2004	39.00	1.625 days	0m
CONDUCTOR HOLE(CH)	69.25	18 Nov 2004	21 Nov 2004	108.25	4.510 days	1510.0m
SURFACE HOLE(SH)	49	21 Nov 2004	23 Nov 2004	157.25	6.552 days	1835.0m
SURFACE CASING(SC)	113	23 Nov 2004	28 Nov 2004	270.25	11.260 days	1835.0m
INTERMEDIATE HOLE(IH)	77	28 Nov 2004	01 Dec 2004	347.25	14.469 days	2459.0m
INTERMEDIATE CASING(IC)	78.25	01 Dec 2004	04 Dec 2004	425.50	17.729 days	2459.0m
PRODUCTION HOLE(PH)	59	04 Dec 2004	07 Dec 2004	484.50	20.188 days	2979.0m
EVALUATION PRODUCTION HOLE(EP)	41.5	07 Dec 2004	08 Dec 2004	526.00	21.917 days	2979.0m

WBM Data									
Mud Type:	KCl/Polymer/Glycol	API FL:	4cm ³ /30m	Cl:	49000	Solids:	9.4	Viscosity:	66sec/qt
Sample-From:	Pit	Filter-Cake:	1/32nd"	K+C*1000:	10%	H2O:	86.4%	PV:	22cp
Time:	22:00	HTHP-FL:	0cm ³ /30m	Hard/Ca:	800	Oil:	4.2%	YP:	29lb/100ft ²
Weight:	9.60ppg	HTHP-Cake:	0/32nd"	MBT:	11.25	Sand:	0.2	Gels 10s:	8
Temp:	20.0C°			PM:	0.15	pH:	8.5	Gels 10m:	19
				PF:	0.05	PHPA:	Oppb	Fann 003:	8
								Fann 006:	10
								Fann 100:	30
								Fann 200:	43
								Fann 300:	51
								Fann 600:	73
Comment Continued cleaning pits. Weight up Pit 2 to 17ppg to dump barite.									

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
2534.29	0.33	216.60	2534.24	-5.62	0.04	-5.62	-9.60	MWD
2649.13	0.37	195.11	2649.07	-6.24	0.01	-6.24	-9.90	MWD
2762.85	0.23	199.79	2762.79	-6.81	0.01	-6.81	-10.07	MWD
2878.16	0.23	190.81	2878.10	-7.26	0	-7.26	-10.19	MWD
2950.00	0.26	140.59	2949.94	-7.52	0.03	-7.52	-10.11	MWD
2979.00	0.26	140.59	2978.94	-7.63	0	-7.63	-10.03	Proj to TD

Bulk Stocks						Personnel On Board		
Name	Unit	In	Used	Adjust	Balance	Company		Pax
Fuel	MT	0	7	0	1,214.0	Santos		5
Drill Water	MT	0	79	0	870.0	Transocean		63
Potable Water	MT	0	24	0	327.0	BHI		6
Gel	MT	0	0	0	138.0	Halliburton		3
Cement	MT	0	0	0	227.0	M.I		1
Barite	MT	0	54	0	47.0	Subsea 7		3
						Anadrill		4
						Schlumberger Wireline		6
							Total	91

Casing			
OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	0ppg / 0ppg	1510.0m / 1510.0m	Not Cemented. Casing was jetted in.
20 "	9.60ppg / 0ppg	1822.7m / 1822.7m	660bbls of 12.5ppg Lead 151bbls of 15.8ppg Tail
13 3/8"	11.00ppg / 0ppg	2455.0m / 2455.0m	327 bbl of 12.5 ppg Lead 81 bbl of 15.8 ppg Tail

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	04 Dec 2004	4 Days	Weekly abandon rig drill.
BOP Test	03 Nov 2004	35 Days	Tested all rams etc to 300 psi low and 5000psi high.
Environmental Incident		0 Days	
Fire Drill	04 Dec 2004	4 Days	Simulated fire in the upper accomodation block.
First Aid	21 Nov 2004	17 Days	Roustabout sprained his ankle whilst offloading 20" casing.
Lost Time Incident	26 Nov 2004	12 Days	Roustabout hit by diverter running tool breaking his leg. Medivaced to Prince Alfred Hospital Melbourne.
Safety Meeting	05 Dec 2004	3 Days	
Stop Cards	29 Nov 2004	9 Days	10 START Cards submitted

Marine							
Weather check on 08 Dec 2004 at 24:00							
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
4.00nm	39.0kn	130deg	1012bar	16.2C°	0m	000deg	0ft/sec
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments	
1.5deg	1.5deg	0.80m	5.5m	140deg	6.0ft/sec		
Rig Dir.	Ris. Tension	VDL	Comments				
217.0deg	0klb	5811.0klb					

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Lady Caroline		18:45 06/12/04	Portland	Item	Unit	Quantity
				Barite	MT	0
				Cement	MT	80
				Gel	MT	0
				Mud	bbl	0
Lady Astrid	18:30 06/12/04		Jack Bates	Item	Unit	Quantity
				Barite	MT	82
				Cement	MT	0
				Gel	MT	0
				Mud	bbl	0

Helicopter Movement					
Flight #	Time	Destination	Comment	Pax	
BZU	15:20	Jack Bates		11	
BZU	15:42	Essendon		13	

From : D. Atkins/P. King

Well Data

Country	Australia	M. Depth	2979.0m	Cur. Hole Size	12.250in	AFE Cost	
Field	Otway Basin	TVD	2979.0m	Casing OD	13.375in	AFE No.	5738032
Drill Co.	Transocean	Progress	0m	Shoe TVD	2455.0m	Daily Cost	
Rig	Jack Bates	Days from spud	19.28	F.I.T. / L.O.T.	0ppg / 11.00ppg	Cum Cost	
Wtr Dpth(LAT)	1396.0m	Days on well	22.92			Planned TD	2979.0m
RT-ASL(LAT)	29.0m	Current Op @ 0600	Pulling out of hole laying out drill pipe @ 1141m.				
RT-ML	1425m	Planned Op	POH. Retrieve wear bushing. R/D Anadrill T-peice. RIH to cut & retrieve 13-3/8" casing.				

Summary of Period 0000 to 2400 Hrs

Logging Run #3 CST-GR, POH. Layed out 12-1/4" BHA. Set EZSV @ 2435m. Pumped cement plug #1 (2386m - 2490m).

Operations For Period 0000 Hrs to 2400 Hrs on 09 Dec 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
EP	P	LOG	0000	0100	1.00	2979.0m	Continued running in hole with CST-GR to 1600m. Radio Silence ceased.
EP	P	LOG	0100	0300	2.00	2979.0m	Continued running in hole with CST-GR. Tagged previous hang up at 2945m.
EP	P	LOG	0300	0800	5.00	2979.0m	Ran Log #3 CST-GR. 30 core samples.
EP	P	LOG	0800	0800	0.00	2979.0m	Continued Log #3.
EP	P	LOG	0800	0830	0.50	2979.0m	Logging string on surface. Broke out and layed out same. 21 out of 30 cores recovered.
EP	P	LOG	0830	0900	0.50	2979.0m	Rigged down Schlumberger wireline.
EP	P	HBHA	0900	1000	1.00	2979.0m	Picked up BHA from derrick and ran in hole to 144m.
EP	P	HBHA	1000	1015	0.25	2979.0m	Picked up one stand of HWDP made up to top drive and pumped string volume with seawater to flush Anadrill tools.
EP	P	SM	1015	1030	0.25	2979.0m	Held toolbox meeting prior to laying out BHA.
EP	P	HBHA	1030	1445	4.25	2979.0m	Pulled out of hole from 144m to surface laying out BHA.
PA	P	RPK	1445	1500	0.25	2979.0m	Changed out handling equipment for running 5" drillpipe.
PA	P	RPK	1500	1530	0.50	2979.0m	Picked up and made up 13-3/8" Halliburton EZSV Cement Retainer.
PA	P	RPK	1530	1730	2.00	2979.0m	Ran in hole with cement retainer on drillpipe from surface to 1200m.
PA	P	RPK	1730	1745	0.25	2979.0m	Picked up and made up side entry and TIW valve to a stand of HWDP and racked back.
PA	P	RPK	1745	2115	3.50	2979.0m	Continued to run in hole from 1200m to 2435m.
PA	P	RPK	2115	2130	0.25	2979.0m	Broke circulation @ 2435m (30spm/440psi). Set EZSV cement retainer at 2435m (25 turns to set) Pulled 45,000 lb to shear release running tool. Confirmed set with 20,000 lb set down weight.
PA	P	RPK	2130	2145	0.25	2979.0m	Picked up 3m to sting out of EZSV. Turned string 20 turns to extend running tool mandrel. Spaced out, closed annular and pressure tested EZSV to 1100 psi for 10 mins (with 9.6 ppg MW)
PA	P	CMP	2145	2200	0.25	2979.0m	Stung into EZSV. Established injectivity rates using rig pumps. 1 bbl/min @ 1300 psi; 2 bbl/min @ 1400 psi; 3 bbl/min @ 1450 psi; 4 bbl/min @ 1500 psi.
PA	P	SM	2200	2215	0.25	2979.0m	Held toolbox meeting prior to pumping cement plug #1.
PA	P	CMP	2215	2330	1.25	2979.0m	Pumped cement plug #1 (2386m - 2490m). - 10 bbl drill water spacer - P/T cementing lines to 2000 psi (Test good) - 10 bbl drill water spacer - 55 bbl 15.8 ppg cement (Class G, 1.16 cuft/sx, 5.13 gal/sx, 20gal/10bbl Halad 413) - 75 bbl 9.6 ppg mud displacement - Stung into EZSV - 35 bbl 9.6 ppg mud squeeze - Stung out of EZSV - 10 bbl 9.6 ppg mud displacement
PA	P	CMP	2330	2400	0.50	2979.0m	Rigged down cement hose and racked back cement stand.

Operations For Period 0000 Hrs to 0600 Hrs on 10 Dec 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PA	P	TO	0000	0015	0.25	2979.0m	Pulled up out of cement plug from 2345m to 2350m.
PA	P	CHC	0015	0145	1.50	2979.0m	Circulated bottoms up with inhibited mud (300 spm / 3480 psi)
PA	P	CMD	0145	0200	0.25	2979.0m	Pumped slug.
PA	P	TO	0200	0330	1.50	2979.0m	Continued to pull out of hole from 2350m to 1400m.
PA	P	TO	0330	0400	0.50	2979.0m	Cleared rig floor of excess equipment and changed out elevators to 350 t manual. Rigged up to lay out drill pipe in singles.

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PA	P	SM	0400	0415	0.25	2979.0m	Held toolbox meeting prior to laying out 5" drillpipe.
PA	P	PLD	0415	0600	1.75	2979.0m	Pulled out of hole, laying out drillpipe from 1400m to 1141m.

Phase Data to 2400hrs, 09 Dec 2004

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP(RM)	39	17 Nov 2004	18 Nov 2004	39.00	1.625 days	0m
CONDUCTOR HOLE(CH)	69.25	18 Nov 2004	21 Nov 2004	108.25	4.510 days	1510.0m
SURFACE HOLE(SH)	49	21 Nov 2004	23 Nov 2004	157.25	6.552 days	1835.0m
SURFACE CASING(SC)	113	23 Nov 2004	28 Nov 2004	270.25	11.260 days	1835.0m
INTERMEDIATE HOLE(IH)	77	28 Nov 2004	01 Dec 2004	347.25	14.469 days	2459.0m
INTERMEDIATE CASING(IC)	78.25	01 Dec 2004	04 Dec 2004	425.50	17.729 days	2459.0m
PRODUCTION HOLE(PH)	59	04 Dec 2004	07 Dec 2004	484.50	20.188 days	2979.0m
EVALUATION PRODUCTION HOLE(EP)	56.25	07 Dec 2004	09 Dec 2004	540.75	22.531 days	2979.0m
PLUG AND ABANDON(PA)	9.25	09 Dec 2004	09 Dec 2004	550.00	22.917 days	2979.0m

WBM Data

Mud Type: KCl/Polymer/Glycol	API FL: 5cm³/30m	Cl: 51000	Solids: 9.4	Viscosity: 67sec/qt
Sample-From: Pit	Filter-Cake: 1/32nd"	K+C*1000: 10%	H2O: 86.4%	PV: 23cp
Time: 21:30	HTHP-FL: 0cm³/30m	Hard/Ca: 840	Oil: 4.2%	YP: 29lb/100ft²
Weight: 9.60ppg	HTHP-Cake: 0/32nd"	MBT: 11.5	Sand: 0.2	Gels 10s: 8
Temp: 21.1C°		PM: 0.15	pH: 8.5	Gels 10m: 20
		PF: 0.05	PHPA: 0ppb	Fann 003: 8
				Fann 006: 10
				Fann 100: 30
				Fann 200: 44
				Fann 300: 52
				Fann 600: 75

Comment: Inhibited circ system and write off balance of barite.

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
2534.29	0.33	216.60	2534.24	-5.62	0.04	-5.62	-9.60	MWD
2649.13	0.37	195.11	2649.07	-6.24	0.01	-6.24	-9.90	MWD
2762.85	0.23	199.79	2762.79	-6.81	0.01	-6.81	-10.07	MWD
2878.16	0.23	190.81	2878.10	-7.26	0	-7.26	-10.19	MWD
2950.00	0.26	140.59	2949.94	-7.52	0.03	-7.52	-10.11	MWD
2979.00	0.26	140.59	2978.94	-7.63	0	-7.63	-10.03	Proj to TD

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Fuel	MT	0	9	0	1,205.0
Drill Water	MT	0	27	0	843.0
Potable Water	MT	0	26	0	301.0
Gel	MT	0	0	0	138.0
Cement	MT	0	0	0	227.0
Barite	MT	0	47	0	0.0

Personnel On Board

Company	Pax
Santos	5
Transocean	63
BHI	6
Halliburton	3
M.I	1
Subsea 7	3
Anadrill	4
Schlumberger Wireline	6
Total	91

Casing

OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	0ppg / 0ppg	1510.0m / 1510.0m	Not Cemented. Casing was jettied in.
20 "	9.60ppg / 0ppg	1822.7m / 1822.7m	660bbls of 12.5ppg Lead 151bbls of 15.8ppg Tail
13 3/8"	11.00ppg / 0ppg	2455.0m / 2455.0m	327 bbl of 12.5 ppg Lead 81 bbl of 15.8 ppg Tail

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	04 Dec 2004	5 Days	Weekly abandon rig drill.
BOP Test	03 Nov 2004	36 Days	Tested all rams etc to 300 psi low and 5000psi high.
Environmental Incident		0 Days	None
Fire Drill	04 Dec 2004	5 Days	Simulated fire on the helideck.
First Aid	09 Dec 2004	0 Days	Anadrill MWD Engineer caught fingers in MRT rucker whilst attempting to establish how to rig down guideline tensiometer wire. Injured index and middle fingers on right hand. 13 stitches applied by medic. Pain killers and anti-biotics administered.
Landel Crane	09 Dec 2004	0 Days	L/D Logging Tools, L/D 12-1/4" BHA, P/U EZSV
Lost Time Incident	26 Nov 2004	13 Days	Roustabout hit by diverter running tool breaking his leg. Medivaced to Prince Alfred Hospital Melbourne.
OJT Module	09 Dec 2004	0 Days	50 Modules completed since Sunday 05/12/04
Safety Meeting	05 Dec 2004	4 Days	
Safety Theme of the Week	05 Dec 2004	4 Days	Risk Assessment
START Tour	09 Dec 2004	0 Days	Snr Toolpusher, Floorman. Bundling 3-1/2" pipe on main deck aft.
Stop Cards	29 Nov 2004	10 Days	10 START Cards submitted
Transocean Management Visit	08 Dec 2004	1 Day	Sandy Thomson, Rig Manager

Marine							
Weather check on 09 Dec 2004 at 24:00							
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
2.00nm	31.0kn	120deg	1011bar	16.5C°	0m	000deg	0ft/sec
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments	
1.3deg	1.3deg	0.60m	4.6m	120deg	7.0ft/sec		
Rig Dir.	Ris. Tension	VDL	Comments				
217.0deg	0klb	5686.0klb					

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Lady Caroline		18:45 06/12/04	Portland	Item	Unit	Quantity
				Barite	MT	0
				Cement	MT	80
				Gel	MT	0
Lady Astrid	18:30 06/12/04		Jack Bates	Item	Unit	Quantity
				Barite	MT	82
				Cement	MT	0
				Gel	MT	0
				Mud	bbf	0

Helicopter Movement				
Flight #	Time	Destination	Comment	Pax
BZU	15:20	Jack Bates		11
BZU	15:42	Essendon		13

From : D. Atkins/P. King

Well Data

Country	Australia	M. Depth	2979.0m	Cur. Hole Size	12.250in	AFE Cost	
Field	Otway Basin	TVD	2979.0m	Casing OD	13.375in	AFE No.	5738032
Drill Co.	Transocean	Progress	0m	Shoe TVD	2455.0m	Daily Cost	
Rig	Jack Bates	Days from spud	20.28	F.I.T. / L.O.T.	0ppg / 11.00ppg	Cum Cost	
Wtr Dpth(LAT)	1396.0m	Days on well	23.92			Planned TD	2979.0m
RT-ASL(LAT)	29.0m	Current Op @ 0600	Pulling out of hole with 13-3/8" casing cutting assembly, hanger and 6.5 jts casing.				
RT-ML	1425m	Planned Op	RIH. Set cement plug #2 (1460m to 1557m). Displace riser to seawater. POH. Commence rigging up to pull riser and BOPs.				

Summary of Period 0000 to 2400 Hrs

POH after setting cement plug #1. Retrieved wear bushing. Ran in hole to cut 13-3/8" casing.

Operations For Period 0000 Hrs to 2400 Hrs on 10 Dec 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PA	P	TO	0000	0015	0.25	2979.0m	Pulled up out of cement plug from 2345m to 2350m.
PA	P	CHC	0015	0145	1.50	2979.0m	Circulated bottoms up with inhibited mud (300 spm / 3480 psi)
PA	P	CMD	0145	0200	0.25	2979.0m	Pumped slug.
PA	P	TO	0200	0330	1.50	2979.0m	Pulled out of hole from 2350m to 1400m.
PA	P	TO	0330	0400	0.50	2979.0m	Cleared rig floor of excess equipment and changed out elevators to 350 t manual. Rigged up to lay out drill pipe in singles.
PA	P	SM	0400	0415	0.25	2979.0m	Held toolbox meeting prior to laying out 5" drillpipe.
PA	P	PLD	0415	1200	7.75	2979.0m	Pulled out of hole, laying out drillpipe from 1400m to surface.
PA	P	HT	1200	1215	0.25	2979.0m	Broke out and layed out EZSV running tool.
PA	P	SM	1215	1230	0.25	2979.0m	Held toolbox meeeting prior to removing Anadrill pressure transducer on mud hose.
PA	P	OA	1230	1415	1.75	2979.0m	Removed transducer from mud hose.
PA	P	WH	1415	1645	2.50	2979.0m	Ran in hole to 1400m with Dril-Quip 18-3/4" Multi-Purpose Tool c/w wear bushing retrieval adaptor.
PA	P	WH	1645	1700	0.25	2979.0m	Made up top drive and broke circulation. Ran in hole to 1421m and landed out in wear bushing. Set down 20,000 lb. Pulled wear bushing with 60,000 lb overpull.
PA	P	CMD	1700	1715	0.25	2979.0m	Pumped slug and chased same.
PA	P	WH	1715	1930	2.25	2979.0m	Pulled out of hole from 1421m to surface.
PA	P	WH	1930	1945	0.25	2979.0m	Broke out and layed out wear bushing and MPT.
PA	P	RS	1945	2015	0.50	2979.0m	Greased and serviced top drive whilst Weatherford cutting assembly was being prepared on dodge truck.
PA	P	SM	2015	2030	0.25	2979.0m	Held toolbox meeting prior to running Weatherford casing cutting assembly.
PA	P	CCT	2030	2130	1.00	2979.0m	Picked up and made up Weatherford 13-3/8" casing cutting assembly and ran in hole to 34m. Tested cutting assembly. (20 spm / 90 psi)
PA	P	CCT	2130	2230	1.00	2979.0m	Ran in hole to 95m. Picked up and made up casing spear and bumper sub. Changed out grapple on spear to suit 13-3/8" casing.
PA	P	CCT	2230	2400	1.50	2979.0m	Continued to run in hole on drill pipe from 95m to 860m.

Operations For Period 0000 Hrs to 0600 Hrs on 11 Dec 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PA	P	CCT	0000	0115	1.25	2979.0m	Continued to run in hole with casing cutter assembly to 1511m.
PA	P	CCT	0115	0130	0.25	2979.0m	Land off in wellhead with cutter @ 1511m. Set down 20,000 lb to confirm assembly landed. Pulled 10,000 lb to engage spear in 13-3/8" casing.
PA	P	CCT	0130	0145	0.25	2979.0m	Cut 13-3/8" casing @ 1511m. (100 rpm, 65 spm, 500 psi, 3-4 k ft.lb)
PA	P	CCT	0145	0200	0.25	2979.0m	Pulled 150,000 lb over string weight. Casing would not release.
PA	P	CCT	0200	0215	0.25	2979.0m	Re-cut casing @ 1511m. (100 rpm, 65 spm, 750 psi, 2-7 k ft.lb). Pulled 180,000 lb over string weight. Casing released.
PA	P	FC	0215	0230	0.25	2979.0m	Flow checked. Well static.
PA	P	CMD	0230	0245	0.25	2979.0m	Pumped 10 bbl slug.
PA	P	CCT	0245	0530	2.75	2979.0m	Pulled out of hole from 1511m to 95m (13-3/8" casing hanger on surface)
PA	P	CCT	0530	0600	0.50	2979.0m	Broke out and layed out bumper sub and casing spear.

Phase Data to 2400hrs, 10 Dec 2004						
Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP(RM)	39	17 Nov 2004	18 Nov 2004	39.00	1.625 days	0m
CONDUCTOR HOLE(CH)	69.25	18 Nov 2004	21 Nov 2004	108.25	4.510 days	1510.0m
SURFACE HOLE(SH)	49	21 Nov 2004	23 Nov 2004	157.25	6.552 days	1835.0m
SURFACE CASING(SC)	113	23 Nov 2004	28 Nov 2004	270.25	11.260 days	1835.0m
INTERMEDIATE HOLE(IH)	77	28 Nov 2004	01 Dec 2004	347.25	14.469 days	2459.0m
INTERMEDIATE CASING(IC)	78.25	01 Dec 2004	04 Dec 2004	425.50	17.729 days	2459.0m
PRODUCTION HOLE(PH)	59	04 Dec 2004	07 Dec 2004	484.50	20.188 days	2979.0m
EVALUATION PRODUCTION HOLE(EP)	56.25	07 Dec 2004	09 Dec 2004	540.75	22.531 days	2979.0m
PLUG AND ABANDON(PA)	33.25	09 Dec 2004	10 Dec 2004	574.00	23.917 days	2979.0m

WBM Data									
Mud Type:	KCl/Polymer/Glycol	API FL:	5cm ³ /30m	Cl:	51000	Solids:	9.4	Viscosity:	66sec/qt
Sample-From:	Pit	Filter-Cake:	1/32nd"	K+C*1000:	10%	H2O:	86.6%	PV:	22cp
Time:	21:00	HTHP-FL:	0cm ³ /30m	Hard/Ca:	840	Oil:	4%	YP:	30lb/100ft ²
Weight:	9.60ppg	HTHP-Cake:	0/32nd"	MBT:	11.5	Sand:	0.25	Gels 10s:	8
Temp:	20.6C°			PM:	0.1	pH:	8.5	Gels 10m:	19
				PF:	0.05	PHPA:	Oppb	Fann 003:	8
								Fann 006:	10
								Fann 100:	31
								Fann 200:	45
								Fann 300:	52
								Fann 600:	74
Comment	Backload mud chemicals								

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
2534.29	0.33	216.60	2534.24	-5.62	0.04	-5.62	-9.60	MWD
2649.13	0.37	195.11	2649.07	-6.24	0.01	-6.24	-9.90	MWD
2762.85	0.23	199.79	2762.79	-6.81	0.01	-6.81	-10.07	MWD
2878.16	0.23	190.81	2878.10	-7.26	0	-7.26	-10.19	MWD
2950.00	0.26	140.59	2949.94	-7.52	0.03	-7.52	-10.11	MWD
2979.00	0.26	140.59	2978.94	-7.63	0	-7.63	-10.03	Proj to TD

Bulk Stocks						Personnel On Board		
Name	Unit	In	Used	Adjust	Balance	Company		Pax
Fuel	MT	0	10	0	1,195.0	Santos		3
Drill Water	MT	0	0	0	843.0	Transocean		66
Potable Water	MT	0	38	0	263.0	BHI		2
Gel	MT	0	0	0	138.0	Halliburton		3
Cement	MT	0	0	0	227.0	M.I		1
Barite	MT	0	0	0	0.0	Subsea 7		3
						Weatherford		1
						Dril-Quip		1
						Woodside		1
						Total		81

Casing			
OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	0ppg / 0ppg	1510.0m / 1510.0m	Not Cemented. Casing was jetted in.
20 "	9.60ppg / 0ppg	1822.7m / 1822.7m	660bbls of 12.5ppg Lead 151bbls of 15.8ppg Tail
13 3/8"	11.00ppg / 0ppg	2455.0m / 2455.0m	327 bbl of 12.5 ppg Lead 81 bbl of 15.8 ppg Tail

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	04 Dec 2004	6 Days	Weekly abandon rig drill.
BOP Test	03 Nov 2004	37 Days	Tested all rams etc to 300 psi low and 5000psi high.
Environmental Incident		0 Days	
Fire Drill	04 Dec 2004	6 Days	Simulated fire on the helideck.
First Aid	09 Dec 2004	1 Day	Anadrill MWD Engineer caught fingers in MRT rucker whilst attempting to establish how to rig down guideline tensiometer wire. Injured index and middle fingers on right hand. 13 stitches applied by medic. Pain killers and anti-biotics administered.
Landel Crane	10 Dec 2004	0 Days	L/O 5" Drill pipe. L/O Wear Bushing. P/U Casing Cutter. Bundling drill collars and drill pipe for backload
Lost Time Incident	26 Nov 2004	14 Days	Roustabout hit by diverter running tool breaking his leg. Medivaced to Prince Alfred Hospital Melbourne.
OJT Module	09 Dec 2004	1 Day	50 Modules completed since Sunday 05/12/04
Safety Meeting	05 Dec 2004	5 Days	Weekly safety meeting.
Safety Theme of the Week	05 Dec 2004	5 Days	Risk Assessment
START Tour	10 Dec 2004	0 Days	RSTC, BHI Mud logger. Aft Pipe Deck laying out 5" drill pipe.
Stop Cards	29 Nov 2004	11 Days	10 START Cards submitted
Transocean Management Visit	08 Dec 2004	2 Days	Departed 10 Dec 04

Marine							
Weather check on 10 Dec 2004 at 24:00							
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.00nm	24.0kn	120deg	1004bar	16.5C°	0m	000deg	0ft/sec
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments	
0.4deg	0.4deg	0.70m	2.4m	120deg	6.0ft/sec		
Rig Dir.	Ris. Tension	VDL	Comments				
217.0deg	0klb	5509.0klb					

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Lady Caroline		18:45 06/12/04	Portland	Item	Unit	Quantity
				Barite	MT	0
				Cement	MT	80
				Gel	MT	0
				Mud	bbbl	0
Lady Astrid	18:30 06/12/04		Jack Bates	Item	Unit	Quantity
				Barite	MT	82
				Cement	MT	0
				Gel	MT	0
				Mud	bbbl	0

Helicopter Movement				
Flight #	Time	Destination	Comment	Pax
BZU	16:36	Jack Bates		8
BZU	16:49	Warrnambool		9
BZU	18:29	Jack Bates		6
BZU	18:47	Essendon		15

From : D. Atkins/P. King

Well Data

Country	Australia	M. Depth	2979.0m	Cur. Hole Size	12.250in	AFE Cost	
Field	Otway Basin	TVD	2979.0m	Casing OD	13.375in	AFE No.	5738032
Drill Co.	Transocean	Progress	0m	Shoe TVD	2455.0m	Daily Cost	
Rig	Jack Bates	Days from spud	21.28	F.I.T. / L.O.T.	0ppg / 11.00ppg	Cum Cost	
Wtr Dpth(LAT)	1396.0m	Days on well	24.92			Planned TD	2979.0m
RT-ASL(LAT)	29.0m	Current Op @ 0600	Rigging up to pull BOP and riser.				
RT-ML	1425m	Planned Op	RIH and retrieve diverter. P/U riser landing joint. Unlatch BOP. Commence pulling riser.				

Summary of Period 0000 to 2400 Hrs

Cut and retrieved 13-3/8" casing. Set cement plug #2 (1461m to 1561m). Commenced rigging up to pull BOP and riser.

Operations For Period 0000 Hrs to 2400 Hrs on 11 Dec 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PA	P	CCT	0000	0115	1.25	2979.0m	Continued to run in hole with casing cutter assembly to 1511m.
PA	P	CCT	0115	0130	0.25	2979.0m	Land off in wellhead with cutter @ 1511m. Set down 20,000 lb to confirm assembly landed. Pulled 10,000 lb to engage spear in 13-3/8" casing.
PA	P	CCT	0130	0145	0.25	2979.0m	Cut 13-3/8" casing @ 1511m. (100 rpm, 65 spm, 500 psi, 3-4 k ft.lb)
PA	P	CCT	0145	0200	0.25	2979.0m	Pulled 150,000 lb over string weight. Casing would not release.
PA	P	CCT	0200	0215	0.25	2979.0m	Re-cut casing @ 1511m. (100 rpm, 65 spm, 750 psi, 2-7 k ft.lb). Pulled 180,000 lb over string weight. Casing released.
PA	P	FC	0215	0230	0.25	2979.0m	Flow checked. Well static.
PA	P	CMD	0230	0245	0.25	2979.0m	Pumped 10 bbl slug.
PA	P	CPL	0245	0530	2.75	2979.0m	Pulled out of hole from 1511m to 95m (13-3/8" casing hanger on surface)
PA	P	CPL	0530	0700	1.50	2979.0m	Broke out and layed out bumper sub and casing spear and racked back.
PA	P	CPL	0700	0715	0.25	2979.0m	Changed out handling equipment to layout 13-3/8" casing.
PA	P	SM	0715	0730	0.25	2979.0m	Held toolbox meeting prior to laying out casing.
PA	P	CPL	0730	0900	1.50	2979.0m	Layed out 6-1/2 joints of 13-3/8" casing. Changed out handling equipment for cutting assembly.
PA	P	HT	0900	1000	1.00	2979.0m	Picked up cutting assembly and spear from derrick and layed out same.
PA	P	CMP	1000	1045	0.75	2979.0m	Picked up and made up 5" mule shoe and ran in hole on 5" HWDP.
PA	P	CMP	1045	1315	2.50	2979.0m	Ran in hole on 5" drill pipe to 1561m. Picked up and made up cement stand.
PA	P	PT	1315	1330	0.25	2979.0m	Held toolbox meeting prior to cement job whilst pressure testing 20" casing to 250 psi against annular (with 9.6 ppg MW).
PA	P	CMP	1330	1430	1.00	2979.0m	Pumped cement plug #2 (1461m - 1561m) - 2 bbl drill water spacer - P/T cementing lines to 2000 psi (Test Good) - 18 bbl drill water spacer - 81 bbl 15.8 ppg cement (382sx Class G, 1.19 cuft/sx, 5.28 gal/sx, 48 bbl mixwater) - 1 bbl drill water spacer - 75 bbl 9.6 ppg mud displacement
PA	P	CMP	1430	1445	0.25	2979.0m	Picked up out of cement plug from 1561m to 1450m.
PA	P	DIS	1445	1545	1.00	2979.0m	Displaced riser to seawater (300 spm/3270 psi)
PA	P	OA	1545	1615	0.50	2979.0m	Pulled out of hole to 1420m and jetted BOPs.
PA	P	TO	1615	1815	2.00	2979.0m	Pulled out of hole from 1420m to 292m.
PA	P	PLD	1815	1830	0.25	2979.0m	Rigged up to lay out 5" drill pipe
PA	P	SM	1830	1845	0.25	2979.0m	Held toolbox meeting prior to laying out 5" drill pipe.
PA	P	PLD	1845	2215	3.50	2979.0m	Pulled out of hole laying out 5" drill pipe from 292m to surface.
PA	P	CRF	2215	2245	0.50	2979.0m	Cleared rig floor of excess equipment.
PA	P	HT	2245	2315	0.50	2979.0m	Held toolbox meeting prior to picking up diverter running tool to break out lifting nubbin. Broke out lifting nubbin and layed out diverter RT. (Nubbin was removed from diverter RT to comply with revised procedure DRL-BOP-004. Connection was unable to be broken out on deck)
PA	P	RR2	2315	2400	0.75	2979.0m	Commenced rigging up to pull BOPs and riser.

Operations For Period 0000 Hrs to 0600 Hrs on 12 Dec 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PA	P	RR2	0000	0600	6.00	2979.0m	Continue rigging up to pull riser and BOPs.

Phase Data to 2400hrs, 11 Dec 2004						
Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP(RM)	39	17 Nov 2004	18 Nov 2004	39.00	1.625 days	0m
CONDUCTOR HOLE(CH)	69.25	18 Nov 2004	21 Nov 2004	108.25	4.510 days	1510.0m
SURFACE HOLE(SH)	49	21 Nov 2004	23 Nov 2004	157.25	6.552 days	1835.0m
SURFACE CASING(SC)	113	23 Nov 2004	28 Nov 2004	270.25	11.260 days	1835.0m
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PRODUCTION HOLE(PH)	59	04 Dec 2004	07 Dec 2004	484.50	20.188 days	2979.0m
EVALUATION PRODUCTION HOLE(EP)	56.25	07 Dec 2004	09 Dec 2004	540.75	22.531 days	2979.0m
PLUG AND ABANDON(PA)	57.25	09 Dec 2004	11 Dec 2004	598.00	24.917 days	2979.0m

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
2534.29	0.33	216.60	2534.24	-5.62	0.04	-5.62	-9.60	MWD
2649.13	0.37	195.11	2649.07	-6.24	0.01	-6.24	-9.90	MWD
2762.85	0.23	199.79	2762.79	-6.81	0.01	-6.81	-10.07	MWD
2878.16	0.23	190.81	2878.10	-7.26	0	-7.26	-10.19	MWD
2950.00	0.26	140.59	2949.94	-7.52	0.03	-7.52	-10.11	MWD
2979.00	0.26	140.59	2978.94	-7.63	0	-7.63	-10.03	Proj to TD

Bulk Stocks						Personnel On Board		
Name	Unit	In	Used	Adjust	Balance	Company		Pax
Fuel	MT	0	8	0	1,187.0	Santos		3
Drill Water	MT	0	64	0	779.0	Transocean		66
Potable Water	MT	84	19	0	328.0	BHI		2
Gel	MT	0	0	0	138.0	Halliburton		3
Cement	MT	0	25	0	202.0	M.I		1
Barite	MT	82	12	0	70.0	Subsea 7		3
						Weatherford		1
						Dril-Quip		1
						Woodside		1
							Total	81

Casing			
OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	0ppg / 0ppg	1510.0m / 1510.0m	Not Cemented. Casing was jettied in.
20 "	9.60ppg / 0ppg	1822.7m / 1822.7m	660bbls of 12.5ppg Lead 151bbls of 15.8ppg Tail
13 3/8"	11.00ppg / 0ppg	2455.0m / 2455.0m	327 bbl of 12.5 ppg Lead 81 bbl of 15.8 ppg Tail

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	04 Dec 2004	7 Days	Weekly abandon rig drill.
BOP Test	03 Nov 2004	38 Days	Tested all rams etc to 300 psi low and 5000psi high.
Environmental Incident		0 Days	
Fire Drill	04 Dec 2004	7 Days	Simulated fire on the helideck.
Landel Crane	11 Dec 2004	0 Days	L/O 13-3/8" casing & cutting assembly. L/O 5" Drill pipe. P/U Divertor running tool. L/O Divertor running tool. Bundling pipe for backload.
Lost Time Incident	26 Nov 2004	15 Days	Roustabout hit by diverter running tool breaking his leg. Medivaced to Prince Alfred Hospital Melbourne.
OJT Module	09 Dec 2004	2 Days	50 Modules completed since Sunday 05/12/04
Safety Meeting	05 Dec 2004	6 Days	Weekly safety meeting.
Safety Theme of the Week	12 Dec 2004	-1 Days	Finger/Hand Injuries
START Tour	11 Dec 2004	0 Days	RSTC, Transocean OSA
Stop Cards	29 Nov 2004	12 Days	10 START Cards submitted
Transocean Management Visit	08 Dec 2004	3 Days	Departed 10 Dec 04

Marine							
Weather check on 11 Dec 2004 at 24:00							
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
0.50nm	7.0kn	090deg	1004bar	15.0C°	0m	000deg	0ft/sec
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments	
0.2deg	0.2deg	0.10m	1.2m	130deg	5.0ft/sec		
Rig Dir.	Ris. Tension	VDL		Comments			
217.0deg	0klb	5509.0klb					

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Lady Caroline		18:45 06/12/04	Portland	Item	Unit	Quantity
				Barite	MT	0
				Cement	MT	80
				Gel	MT	0
				Mud	bbl	0
Lady Astrid	18:30 06/12/04		Jack Bates	Item	Unit	Quantity
				Barite	MT	82
				Cement	MT	0
				Gel	MT	0
				Mud	bbl	0

From : D. Atkins/P. King

Well Data

Country	Australia	M. Depth	2979.0m	Cur. Hole Size	12.250in	AFE Cost	
Field	Otway Basin	TVD	2979.0m	Casing OD	13.375in	AFE No.	5738032
Drill Co.	Transocean	Progress	0m	Shoe TVD	2455.0m	Daily Cost	
Rig	Jack Bates	Days from spud	22.28	F.I.T. / L.O.T.	0ppg / 11.00ppg	Cum Cost	
Wtr Dpth(LAT)	1396.0m	Days on well	25.92			Planned TD	2979.0m
RT-ASL(LAT)	29.0m	Current Op @ 0600	Pulling riser				
RT-ML	1425m	Planned Op	Continue to pull riser. Rig down. RIH to cut and pull 20" & 30".				

Summary of Period 0000 to 2400 Hrs

Rigged up to pull riser and BOP. Retrieved Divertor. Unlatched BOP. Commenced pulling riser.

Operations For Period 0000 Hrs to 2400 Hrs on 12 Dec 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PA	P	RR2	0000	0600	6.00	2979.0m	Continue rigging up to pull riser and BOPs.
PA	P	RR2	0600	0700	1.00	2979.0m	Installed divertor running tool, engaged into divertor with 10 turns right. Confirmed engaged with 30,000 lb overpull. Picked up divertor and landed out in spider.
PA	P	SM	0700	0730	0.50	2979.0m	Held toolbox meeting with all personnel involved in pulling BOPs.
PA	P	RR2	0730	0815	0.75	2979.0m	Layed out divertor.
PA	P	RR2	0815	0930	1.25	2979.0m	Layed out short bails and picked up hydraulic nubbin. Function tested. Installed aft hatch.
PA	P	RR2	0930	1100	1.50	2979.0m	Picked up riser landing joint and collapsed slip joint. Locked slip joint in closed position.
PA	P	BOP	1100	1200	1.00	2979.0m	Unlatched BOP and picked up clear of wellhead. Skidded rig 45m forward for safe handling of BOP. Locked load ring in storage area.
PA	P	RR2	1200	1300	1.00	2979.0m	Layed out landing joint and slip joint on deck from 1420m to 1400m.
PA	P	RR2	1300	1315	0.25	2979.0m	Held toolbox meeting prior to removing choke, kill and riser boost lines from riser termination joint.
PA	P	RR2	1315	1500	1.75	2979.0m	Removed choke, kill and riser boost lines from riser termination joint.
PA	P	RR2	1500	1630	1.50	2979.0m	Layed out flex joint and 50 ft spacer along with 55 ft and 25 ft pup joints on deck.
PA	P	RR2	1630	1900	2.50	2979.0m	Pulled riser and racked in caisson from 1342m to 1195m.
PA	P	SM	1900	1930	0.50	2979.0m	Held toolbox meeting with all new crew involved in pulling riser.
PA	P	RR2	1930	2045	1.25	2979.0m	Continued to pull riser and rack in caisson from 1195m to 1122m.
PA	P	RR2	2045	2400	3.25	2979.0m	Pulled riser and layed out on deck from 1122m to 921m.

Operations For Period 0000 Hrs to 0600 Hrs on 13 Dec 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
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Phase Data to 2400hrs, 12 Dec 2004

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP(RM)	39	17 Nov 2004	18 Nov 2004	39.00	1.625 days	0m
CONDUCTOR HOLE(CH)	69.25	18 Nov 2004	21 Nov 2004	108.25	4.510 days	1510.0m
SURFACE HOLE(SH)	49	21 Nov 2004	23 Nov 2004	157.25	6.552 days	1835.0m
SURFACE CASING(SC)	113	23 Nov 2004	28 Nov 2004	270.25	11.260 days	1835.0m
INTERMEDIATE HOLE(IH)	77	28 Nov 2004	01 Dec 2004	347.25	14.469 days	2459.0m
INTERMEDIATE CASING(IC)	78.25	01 Dec 2004	04 Dec 2004	425.50	17.729 days	2459.0m
PRODUCTION HOLE(PH)	59	04 Dec 2004	07 Dec 2004	484.50	20.188 days	2979.0m
EVALUATION PRODUCTION HOLE(EP)	56.25	07 Dec 2004	09 Dec 2004	540.75	22.531 days	2979.0m
PLUG AND ABANDON(PA)	81.25	09 Dec 2004	12 Dec 2004	622.00	25.917 days	2979.0m

Bulk Stocks						Personnel On Board	
Name	Unit	In	Used	Adjust	Balance	Company	Pax
Fuel	MT	0	8	0	1,179.0	Santos	3
Drill Water	MT	0	1	0	778.0	Transocean	66
Potable Water	MT	0	29	0	299.0	BHI	2
Gel	MT	0	0	0	138.0	Halliburton	3
Cement	MT	0	0	0	202.0	M.I	1
Barite	MT	0	0	0	70.0	Subsea 7	3
						Weatherford	1
						Dril-Quip	1
						Woodside	1
						Total	81

Casing			
OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	0ppg / 0ppg	1510.0m / 1510.0m	Not Cemented. Casing was jetted in.
20 "	9.60ppg / 0ppg	1822.7m / 1822.7m	660bbls of 12.5ppg Lead 151bbls of 15.8ppg Tail
13 3/8"	11.00ppg / 0ppg	2455.0m / 2455.0m	327 bbl of 12.5 ppg Lead 81 bbl of 15.8 ppg Tail

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	04 Dec 2004	8 Days	Weekly abandon rig drill.
BOP Test	03 Nov 2004	39 Days	Tested all rams etc to 300 psi low and 5000psi high.
Environmental Incident		0 Days	
Fire Drill	04 Dec 2004	8 Days	Simulated fire on the helideck.
Landel Crane	12 Dec 2004	0 Days	L/O Divertor & running tool. P/U riser landing joint. L/O riser.
Lost Time Incident	26 Nov 2004	16 Days	Roustabout hit by diverter running tool breaking his leg. Medivaced to Prince Alfred Hospital Melbourne.
OJT Module	09 Dec 2004	3 Days	50 Modules completed since Sunday 05/12/04
Safety Meeting	05 Dec 2004	7 Days	Weekly safety meeting.
Safety Theme of the Week	12 Dec 2004	0 Days	Finger/Hand Injuries
START Tour	11 Dec 2004	1 Day	RSTC, Transocean OSA
Stop Cards	29 Nov 2004	13 Days	10 START Cards submitted
Transocean Management Visit	08 Dec 2004	4 Days	Sandy Thomson, Rig Manager. Departed 10 Dec 04

Marine							
Weather check on 12 Dec 2004 at 24:00							
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
8.00nm	2.0kn	125deg	1006bar	15.5C°	0m	000deg	0ft/sec
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments	
0.1deg	0.1deg	0.10m	0.9m	230deg	9.0ft/sec		
Rig Dir.	Ris. Tension	VDL	Comments				
217.0deg	0klb	4973.0klb					

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Lady Caroline		18:45 06/12/04	Portland	Item	Unit	Quantity
				Barite	MT	0
				Cement	MT	80
				Gel	MT	0
				Mud	bbl	0
Lady Astrid	18:30 06/12/04		Jack Bates	Item	Unit	Quantity
				Barite	MT	82
				Cement	MT	0
				Gel	MT	0
				Mud	bbl	0

From : D. Atkins/P. King

Well Data

Country	Australia	M. Depth	2979.0m	Cur. Hole Size	12.250in	AFE Cost	
Field	Otway Basin	TVD	2979.0m	Casing OD	13.375in	AFE No.	5738032
Drill Co.	Transocean	Progress	0m	Shoe TVD	2455.0m	Daily Cost	
Rig	Jack Bates	Days from spud	23.28	F.I.T. / L.O.T.	0ppg / 11.00ppg	Cum Cost	
Wtr Dpth(LAT)	1396.0m	Days on well	26.92			Planned TD	2979.0m
RT-ASL(LAT)	29.0m	Current Op @ 0600	Establishing forward plan to recover ROV/drill pipe following drill string part.				
RT-ML	1425m	Planned Op	P/up 5" Dp Prepare fishing hook				

Summary of Period 0000 to 2400 Hrs

Pulled riser from 921m to 43m. Pulled BOPs and landed on beams. Commenced RIH with 20"/30" casing cutting assembly.

Operations For Period 0000 Hrs to 2400 Hrs on 13 Dec 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PA	P	RR2	0000	0145	1.75	2979.0m	Continued pulling riser, laying out on deck from 921m to 811m.
PA	P	RR2	0145	0515	3.50	2979.0m	Continued pulling riser, racking in caisson from 811m to 482m
PA	P	RR2	0515	0700	1.75	2979.0m	Continued pulling riser, laying out on deck from 482m to 409m and racking in caisson from 409m to 354m.
PA	P	SM	0700	0715	0.25	2979.0m	Held toolbox meeting with drill and deck crews prior to pulling remaining riser.
PA	P	RR2	0715	1115	4.00	2979.0m	Continued to pull riser, racking in caisson from 354m to 226m and laying out on deck from 226m to 43m.
PA	P	SM	1115	1145	0.50	2979.0m	Held toolbox meeting and prepared moonpool for landing BOPs on beams.
PA	P	RR2	1145	1200	0.25	2979.0m	Pulled riser from 43m and landed BOPs on beams.
PA	P	BOP	1200	1300	1.00	2979.0m	Disconnected double and skidded BOPs to set back.
PA	P	RR2	1300	1345	0.75	2979.0m	Broke out and layed out double.
PA	P	RR2	1345	1400	0.25	2979.0m	Held toolbox meeting prior to rigging down riser handling equipment.
PA	P	RR2	1400	1700	3.00	2979.0m	Rigged down riser handling equipment.
PA	P	CCT	1700	2000	3.00	2979.0m	Rigged up handling equipment for casing cutter.
PA	P	CCT	2000	2015	0.25	2979.0m	Held toolbox meeting prior to running casing cutter assembly.
PA	P	CCT	2015	2200	1.75	2979.0m	Picked up and made up Weatherford MOST casing cutting assembly (mud motor, MOST tool, bumper sub, 4 spacer subs, casing cutter).
PA	P	CCT	2200	2215	0.25	2979.0m	Changed out to BX elevators.
PA	P	CCT	2215	2300	0.75	2979.0m	Ran cutting assembly into moonpool. Function tested cutting assembly.
PA	P	CCT	2300	2400	1.00	2979.0m	Ran in hole with casing cutting assembly to 305m.

Operations For Period 0000 Hrs to 0600 Hrs on 14 Dec 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PA	P	CCT	0000	0230	2.50	2979.0m	Continued to run in hole with casing cutter assembly from 305m to 1417m.
PA	P	CCT	0230	0300	0.50	2979.0m	Made up top drive to stab in wellhead. (Skidded rig back over wellhead)
PA	P	CCT	0300	0315	0.25	2979.0m	Stabbed into wellhead and latched MOST tool onto wellhead. Confirmed engaged with 15,000 lb overpull.
PA	P	CCT	0315	0530	2.25	2979.0m	Commenced casing cut. (900 gpm / 2350 psi)
PA	P	CCT	0530	0545	0.25	2979.0m	Attempted to pull 30"/20" casing. Pulled 560,000 lb on MD (320,000 lb overpull). String parted.
PA	P	CCT	0545	0600	0.25	2979.0m	Confirmed string parted at tool joint, 2 stands below rotary table. Falling drillpipe has pinned ROV (ROV fully functional. Umbilical trapped.)

Phase Data to 2400hrs, 13 Dec 2004

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP(RM)	39	17 Nov 2004	18 Nov 2004	39.00	1.625 days	0m
CONDUCTOR HOLE(CH)	69.25	18 Nov 2004	21 Nov 2004	108.25	4.510 days	1510.0m
SURFACE HOLE(SH)	49	21 Nov 2004	23 Nov 2004	157.25	6.552 days	1835.0m
SURFACE CASING(SC)	113	23 Nov 2004	28 Nov 2004	270.25	11.260 days	1835.0m
INTERMEDIATE HOLE(IH)	77	28 Nov 2004	01 Dec 2004	347.25	14.469 days	2459.0m
INTERMEDIATE CASING(IC)	78.25	01 Dec 2004	04 Dec 2004	425.50	17.729 days	2459.0m
PRODUCTION HOLE(PH)	59	04 Dec 2004	07 Dec 2004	484.50	20.188 days	2979.0m
EVALUATION PRODUCTION HOLE(EP)	56.25	07 Dec 2004	09 Dec 2004	540.75	22.531 days	2979.0m
PLUG AND ABANDON(PA)	105.25	09 Dec 2004	13 Dec 2004	646.00	26.917 days	2979.0m

Bulk Stocks						Personnel On Board	
Name	Unit	In	Used	Adjust	Balance	Company	Pax
Fuel	MT	0	12	0	1,167.0	Santos	4
Drill Water	MT	0	1	0	777.0	Transocean	68
Potable Water	MT	0	27	0	272.0	Halliburton	2
Gel	MT	0	0	0	138.0	Subsea 7	3
Cement	MT	0	125	0	77.0	Weatherford	1
Barite	MT	0	0	0	70.0	Dril-Quip	1
						Woodside	1
						Total	80

Casing			
OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	0ppg / 0ppg	1510.0m / 1510.0m	Not Cemented. Casing was jetted in.
20 "	9.60ppg / 0ppg	1822.7m / 1822.7m	660bbls of 12.5ppg Lead 151bbls of 15.8ppg Tail
13 3/8"	11.00ppg / 0ppg	2455.0m / 2455.0m	327 bbl of 12.5 ppg Lead 81 bbl of 15.8 ppg Tail

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	04 Dec 2004	9 Days	Weekly abandon rig drill.
BOP Test	03 Nov 2004	40 Days	Tested all rams etc to 300 psi low and 5000psi high.
Environmental Incident		0 Days	
Fire Drill	04 Dec 2004	9 Days	Simulated fire on the helideck.
Landel Crane	12 Dec 2004	1 Day	L/O riser. L/O drill pipe.
Lost Time Incident	26 Nov 2004	17 Days	Roustabout hit by diverter running tool breaking his leg. Medivaced to Prince Alfred Hospital Melbourne.
OJT Module	09 Dec 2004	4 Days	50 Modules completed since Sunday 05/12/04
Safety Meeting	05 Dec 2004	8 Days	Weekly safety meeting.
Safety Theme of the Week	12 Dec 2004	1 Day	Finger/Hand Injuries
START Tour	13 Dec 2004	0 Days	Toolpusher, Driller.
Stop Cards	29 Nov 2004	14 Days	10 START Cards submitted
Transocean Management Visit	08 Dec 2004	5 Days	Sandy Thomson, Rig Manager. Departed 10 Dec 04

Marine							
Weather check on 13 Dec 2004 at 24:00							
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.00nm	14.0kn	195deg	1007bar	14.8C°	0m	000deg	0ft/sec
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments	
0.2deg	0.1deg	0.10m	1.2m	195deg	6.0ft/sec		
Rig Dir.	Ris. Tension	VDL	Comments				
217.0deg	0klb	6848.0klb					

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Lady Caroline	17:40 13/12/04		Jack Bates	Item	Unit	Quantity
				Barite	MT	0
				Cement	MT	160
				Gel	MT	0
Lady Astrid		17:40 13/12/04	Portland	Item	Unit	Quantity
				Barite	MT	0
				Cement	MT	125
				Gel	MT	0
				Mud	bbl	0

Helicopter Movement				
Flight #	Time	Destination	Comment	Pax
BZU	15:25	Jack Bates		7
BZU	15:38	Essendon		8

From : D. Atkins/P. King

Well Data

Country	Australia	M. Depth	2979.0m	Cur. Hole Size	12.250in	AFE Cost	
Field	Otway Basin	TVD	2979.0m	Casing OD	13.375in	AFE No.	5738032
Drill Co.	Transocean	Progress	0m	Shoe TVD	2455.0m	Daily Cost	
Rig	Jack Bates	Days from spud	24.28	F.I.T. / L.O.T.	0ppg / 11.00ppg	Cum Cost	
Wtr Dpth(LAT)	1396.0m	Days on well	27.92			Planned TD	2979.0m
RT-ASL(LAT)	29.0m	Current Op @ 0600	ROV performing detailed seabed survey.				
RT-ML	1425m	Planned Op	Examine results of ROV survey. Await instructions on forward plan.				

Summary of Period 0000 to 2400 Hrs

Cut 20" / 30" casing. Parted string while attempting to pull casing free. RIH with hook to fish pipe off ROV and garage.

Operations For Period 0000 Hrs to 2400 Hrs on 14 Dec 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PA	P	CCT	0000	0230	2.50	2979.0m	Continued to run in hole with casing cutter assembly from 305m to 1417m.
PA	P	CCT	0230	0300	0.50	2979.0m	Made up top drive to stab in wellhead. (Skidded rig back over wellhead)
PA	P	CCT	0300	0315	0.25	2979.0m	Stabbed into wellhead and latched MOST tool onto wellhead. Confirmed engaged with 15,000 lb overpull.
PA	P	CCT	0315	0530	2.25	2979.0m	Commenced casing cut. (900 gpm / 2350 psi)
PA	P	CCT	0530	0545	0.25	2979.0m	Attempted to pull 30"/20" casing. Pulled 560,000 lb on MD (320,000 lb overpull). String parted.
PA	TP (RE)	CCT	0545	0600	0.25	2979.0m	Confirmed string parted at tool joint, 2 stands below rotary table. Falling drillpipe has pinned ROV (ROV fully functional. Umbilical trapped under 2 lengths of pipe. ROV garage trapped under 2 lengths of pipe)
PA	TP (RE)	CCT	0600	0645	0.75	2979.0m	Pulled out of hole and racked back drill pipe (including parted joint). (Preliminary inspection of the failure indicated an internal crack above the base of the pin which had washed out over time)
PA	U	RS	0645	0845	2.00	2979.0m	Performed derrick inspection and serviced top drive whilst awaiting forward plan for ROV recovery.
PA	U	SM	0845	0900	0.25	2979.0m	Held toolbox meeting prior to laying out 5" drill pipe from derrick.
PA	U	PLD	0900	1015	1.25	2979.0m	Ran in hole 5" drill pipe from surface to 59m and layed out same.
PA	U	PUP	1015	1030	0.25	2979.0m	Changed out handling equipment to pick up and make up 5" drill pipe from deck.
PA	U	SM	1030	1045	0.25	2979.0m	Held toolbox meeting prior to picking up 5" drill pipe from deck.
PA	U	PUP	1045	1200	1.25	2979.0m	Picked up and made up 5" drill pipe from deck using mouse hole and racked back stands in derrick. Recorded all serial numbers on pipe. (Fabricated fishing hook as per design approved by Santos Adelaide whilst picking up drill pipe)
PA	U	PUP	1200	1345	1.75	2979.0m	Continued to pick up and make up 5" drill pipe from deck using mouse hole and racked back stands in derrick, recording all serial numbers on pipe. 11 stands total in derrick.
PA	U	FSH	1345	2145	8.00	2979.0m	Picked up and made up fishing hook and ran in hole to 1130m on 5" drill pipe, picking up singles from deck.
PA	U	FSH	2145	2200	0.25	2979.0m	Changed out handling equipment to run stands from derrick.
PA	U	FSH	2200	2230	0.50	2979.0m	Continued to run in hole from 1130m to 1420m.
PA	U	FSH	2230	2300	0.50	2979.0m	Re-positioned rig prior to commencing fishing operations.
PA	U	FSH	2300	2400	1.00	2979.0m	Commenced fishing operations. Used fishing hook to lift the drill pipe from across the ROV tether, enabling the ROV to fly under and free the its tether.

Operations For Period 0000 Hrs to 0600 Hrs on 15 Dec 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PA	U	FSH	0000	0145	1.75	2979.0m	Continued fishing operations. Removed drill pipe lying on top of ROV parking garage using the fishing hook. ROV garage freed.
PA	U	FSH	0145	0415	2.50	2979.0m	Pulled out of hole, racking back 5" drill pipe and layed out fishing hook. Garaged ROV to confirm no damage. ROV fully functional and no damage apparent. ROV commenced detailed seabed survey.
PA	U	FSH	0415	0600	1.75	2979.0m	Continued detailed seabed survey.

Phase Data to 2400hrs, 14 Dec 2004						
Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP(RM)	39	17 Nov 2004	18 Nov 2004	39.00	1.625 days	0m
CONDUCTOR HOLE(CH)	69.25	18 Nov 2004	21 Nov 2004	108.25	4.510 days	1510.0m
SURFACE HOLE(SH)	49	21 Nov 2004	23 Nov 2004	157.25	6.552 days	1835.0m
SURFACE CASING(SC)	113	23 Nov 2004	28 Nov 2004	270.25	11.260 days	1835.0m
INTERMEDIATE HOLE(IH)	77	28 Nov 2004	01 Dec 2004	347.25	14.469 days	2459.0m
INTERMEDIATE CASING(IC)	78.25	01 Dec 2004	04 Dec 2004	425.50	17.729 days	2459.0m
PRODUCTION HOLE(PH)	59	04 Dec 2004	07 Dec 2004	484.50	20.188 days	2979.0m
EVALUATION PRODUCTION HOLE(EP)	56.25	07 Dec 2004	09 Dec 2004	540.75	22.531 days	2979.0m
PLUG AND ABANDON(PA)	129.25	09 Dec 2004	14 Dec 2004	670.00	27.917 days	2979.0m

Bulk Stocks						Personnel On Board			
Name	Unit	In	Used	Adjust	Balance	Company	Pax		
Fuel	MT	0	10	0	1,157.0	Santos	4		
Drill Water	MT	0	0	0	777.0	Transocean	68		
Potable Water	MT	147	24	0	395.0	Subsea 7	4		
Gel	MT	0	116	0	22.0	Weatherford	1		
Cement	MT	0	0	0	77.0	Dril-Quip	1		
Barite	MT	0	0	0	70.0	Woodside	1		
						MO47	9		
						Fugro	2		
							Total	90	

Casing			
OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	0ppg / 0ppg	1510.0m / 1510.0m	Not Cemented. Casing was jetted in.
20 "	9.60ppg / 0ppg	1822.7m / 1822.7m	660bbls of 12.5ppg Lead 151bbls of 15.8ppg Tail
13 3/8"	11.00ppg / 0ppg	2455.0m / 2455.0m	327 bbl of 12.5 ppg Lead 81 bbl of 15.8 ppg Tail

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	14 Dec 2004	0 Days	Weekly abandon rig drill.
BOP Test	03 Nov 2004	41 Days	Tested all rams etc to 300 psi low and 5000psi high.
Environmental Incident		0 Days	
Fire Drill	14 Dec 2004	0 Days	Simulated fire in well test area.
Landel Crane	12 Dec 2004	2 Days	P/U Drill pipe.
Lost Time Incident	26 Nov 2004	18 Days	Roustabout hit by diverter running tool breaking his leg. Medivaced to Prince Alfred Hospital Melbourne.
OJT Module	14 Dec 2004	0 Days	45 Modules completed since Sunday 12/12/04
Safety Meeting	05 Dec 2004	9 Days	Weekly safety meeting.
Safety Theme of the Week	12 Dec 2004	2 Days	Finger/Hand Injuries
START Tour	11 Dec 2004	3 Days	RSTC, Transocean OSA
Stop Cards	29 Nov 2004	15 Days	10 START Cards submitted
Transocean Management Visit	08 Dec 2004	6 Days	Departed 10 Dec 04

Marine							
Weather check on 14 Dec 2004 at 24:00							
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.00nm	17.0kn	190deg	1015bar	14.3C°	0m	000deg	0ft/sec
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments	
0.5deg	0.5deg	0.15m	2.4m	215deg	6.0ft/sec		
Rig Dir.	Ris. Tension	VDL	Comments				
217.0deg	0klb	7388.0klb					

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Lady Caroline		23:45 14/12/04	Portland	Item	Unit	Quantity
				Barite	MT	0
				Cement	MT	160
				Gel	MT	116
				Mud	bbl	0
Lady Astrid	23:30 14/12/04		Jack Bates	Item	Unit	Quantity
				Barite	MT	0
				Cement	MT	0
				Gel	MT	0
				Mud	bbl	0

Helicopter Movement

Flight #	Time	Destination	Comment	Pax
BZU	16:01	Jack Bates		12
BZU	16:14	Essendon		2

From : D. Atkins/P. King

Well Data

Country	Australia	M. Depth	2979.0m	Cur. Hole Size	12.250in	AFE Cost	
Field	Otway Basin	TVD	2979.0m	Casing OD	13.375in	AFE No.	5738032
Drill Co.	Transocean	Progress	0m	Shoe TVD	2455.0m	Daily Cost	
Rig	Jack Bates	Days from spud	25.28	F.I.T. / L.O.T.	0ppg / 11.00ppg	Cum Cost	
Wtr Dpth(LAT)	1396.0m	Days on well	28.92			Planned TD	2979.0m
RT-ASL(LAT)	29.0m	Current Op @ 0600	Anchor handling operations.				
RT-ML	1425m	Planned Op	Continue pulling anchors.				

Summary of Period 0000 to 2400 Hrs

Freed ROV and garage. POH with fishing hook. Layed out drill pipe. Commenced de-ballasting of rig.

Operations For Period 0000 Hrs to 2400 Hrs on 15 Dec 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PA	U	FSH	0000	0145	1.75	2979.0m	Continued fishing operations. Removed drill pipe lying on top of ROV parking garage using the fishing hook. ROV garage freed.
PA	U	FSH	0145	0415	2.50	2979.0m	Pulled out of hole, racking back 5" drill pipe and layed out fishing hook. Garaged ROV to confirm no damage. ROV fully functional and no damage apparent. ROV commenced detailed seabed survey.
PA	U	OA	0415	0600	1.75	2979.0m	Continued detailed seabed survey.
PA	U	RS	0600	0915	3.25	2979.0m	Carried out rig maintenance whilst ROV completing seabed survey
PA	P	HT	0915	0930	0.25	2979.0m	Picked up 18-3/4" wellhead running tool, broke out pup joint and layed out.
PA	P	SM	0930	0945	0.25	2979.0m	Held toolbox meeting prior to laying out remaining 5" drill pipe.
PA	P	PLD	0945	1130	1.75	2979.0m	Ran in hole with 5" drill pipe from surface to 1390m.
PA	P	PLD	1130	1300	1.50	2979.0m	Changed out elevators and layed out 5" drill pipe from 1390m to 1043m.
PA	P	PLD	1300	1315	0.25	2979.0m	Held toolbox meeting with new crew.
PA	P	PLD	1315	1515	2.00	2979.0m	Continued to pull out of hole from 1043m to 521m, laying out 5" drill pipe.
PA	P	TO	1515	1630	1.25	2979.0m	Continued to pull out of hole from 521m to surface, racking back in derrick.
PA	P	OA	1630	1845	2.25	2979.0m	De-ballasted rig and prepared rig for tow. Sea fastened all equipment. Rig @ 45 ft draft.
PA	P	OA	1845	2145	3.00	2979.0m	Stopped de-ballasting rig @ 60 ft draft. Repositioned deck cargo for tow.
PA	P	OA	2145	2400	2.25	2979.0m	Re-commenced de-ballasting rig from 60 ft draft.

Operations For Period 0000 Hrs to 0600 Hrs on 16 Dec 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PA	P	OA	0000	0215	2.25	2979.0m	Continued to de-ballast rig.
PA	P	SM	0215	0330	1.25	2979.0m	Held toolbox meeting prior to starting anchor operations, whilst continuing to de-ballast rig.
PA	P	AH	0330	0345	0.25	2979.0m	Continued to de-ballast. No. 2 pennant passed to Lady Astrid. Lady Astrid commenced anchor handling operations.
PA	P	AH	0345	0500	1.25	2979.0m	Continued to de-ballast. No. 6 pennant passed to Lady Caroline. Lady Caroline commenced anchor handling operations.
PA	P	AH	0500	0600	1.00	2979.0m	Rig at transit draft. Continued anchor handling operations. Lady Caroline re-spoiled wire.

Phase Data to 2400hrs, 15 Dec 2004

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP(RM)	39	17 Nov 2004	18 Nov 2004	39.00	1.625 days	0m
CONDUCTOR HOLE(CH)	69.25	18 Nov 2004	21 Nov 2004	108.25	4.510 days	1510.0m
SURFACE HOLE(SH)	49	21 Nov 2004	23 Nov 2004	157.25	6.552 days	1835.0m
SURFACE CASING(SC)	113	23 Nov 2004	28 Nov 2004	270.25	11.260 days	1835.0m
INTERMEDIATE HOLE(IH)	77	28 Nov 2004	01 Dec 2004	347.25	14.469 days	2459.0m
INTERMEDIATE CASING(IC)	78.25	01 Dec 2004	04 Dec 2004	425.50	17.729 days	2459.0m
PRODUCTION HOLE(PH)	59	04 Dec 2004	07 Dec 2004	484.50	20.188 days	2979.0m
EVALUATION PRODUCTION HOLE(EP)	56.25	07 Dec 2004	09 Dec 2004	540.75	22.531 days	2979.0m
PLUG AND ABANDON(PA)	153.25	09 Dec 2004	15 Dec 2004	694.00	28.917 days	2979.0m

Bulk Stocks						Personnel On Board	
Name	Unit	In	Used	Adjust	Balance	Company	Pax
Fuel	MT	0	11	0	1,146.0	Santos	3
Drill Water	MT	0	0	0	777.0	Transocean	66
Potable Water	MT	0	26	0	369.0	BHI	2
Gel	MT	0	22	0	0.0	Halliburton	3
Cement	MT	0	1	0	76.0	M.I	1
Barite	MT	0	70	0	0.0	Subsea 7	3
						Weatherford	1
						Dril-Quip	1
						Woodside	1
						Total	81

Casing			
OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	0ppg / 0ppg	1510.0m / 1510.0m	Not Cemented. Casing was jetted in.
20 "	9.60ppg / 0ppg	1822.7m / 1822.7m	660bbls of 12.5ppg Lead 151bbls of 15.8ppg Tail
13 3/8"	11.00ppg / 0ppg	2455.0m / 2455.0m	327 bbl of 12.5 ppg Lead 81 bbl of 15.8 ppg Tail

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	04 Dec 2004	11 Days	Weekly abandon rig drill.
BOP Test	03 Nov 2004	42 Days	Tested all rams etc to 300 psi low and 5000psi high.
Environmental Incident		0 Days	
Fire Drill	04 Dec 2004	11 Days	Simulated fire on the helideck.
Landel Crane	12 Dec 2004	3 Days	L/O Divertor & running tool. P/U riser landing joint. L/O riser.
Lost Time Incident	26 Nov 2004	19 Days	Roustabout hit by diverter running tool breaking his leg. Medivaced to Prince Alfred Hospital Melbourne.
OJT Module	09 Dec 2004	6 Days	50 Modules completed since Sunday 05/12/04
Safety Meeting	05 Dec 2004	10 Days	Weekly safety meeting.
Safety Theme of the Week	12 Dec 2004	3 Days	Finger/Hand Injuries
START Tour	11 Dec 2004	4 Days	RSTC, Transocean OSA
Stop Cards	29 Nov 2004	16 Days	10 START Cards submitted
Transocean Management Visit	08 Dec 2004	7 Days	Departed 10 Dec 04

Marine							
Weather check on 15 Dec 2004 at 24:00							
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.00nm	4.0kn	240deg	1015bar	15.1C°	0m	000deg	0ft/sec
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments	
0.3deg	0.3deg	0.10m	2.4m	180deg	10.0ft/sec		
Rig Dir.	Ris. Tension	VDL	Comments				
217.0deg	0klb	6936.0klb					

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Lady Caroline	16:45 15/12/04		Jack Bates	Item	Unit	Quantity
				Barite	MT	0
				Cement	MT	160
				Gel	MT	0
				Mud	bbl	0
Lady Astrid	23:20 14/12		Jack Bates	Item	Unit	Quantity
				Barite	MT	82
				Cement	MT	0
				Gel	MT	0
				Mud	bbl	0

Helicopter Movement				
Flight #	Time	Destination	Comment	Pax
BZU	08:27	Jack Bates		4
BZU	08:40	Essendon		9
BZU	16:01	Jack Bates		11
BZU	16:41	Essendon		11

From : D. Atkins/P. King

Well Data

Country	Australia	M. Depth	2979.0m	Cur. Hole Size	12.250in	AFE Cost	
Field	Otway Basin	TVD	2979.0m	Casing OD	13.375in	AFE No.	5738032
Drill Co.	Transocean	Progress	0m	Shoe TVD	2455.0m	Daily Cost	
Rig	Jack Bates	Days from spud	26.28	F.I.T. / L.O.T.	0ppg / 11.00ppg	Cum Cost	
Wtr Dpth(LAT)	1396.0m	Days on well	29.92			Planned TD	2979.0m
RT-ASL(LAT)	29.0m	Current Op @ 0600	Pulling anchor #8.				
RT-ML	1425m	Planned Op	Pull anchors #8 and #4. Prepare backload. Release Rig.				

Summary of Period 0000 to 2400 Hrs

De-ballasted rig. Commenced anchor handling. Retrieved anchors #6, #2, #7, #3 & #5. Commenced retrieving anchor #1.

Operations For Period 0000 Hrs to 2400 Hrs on 16 Dec 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PA	P	OA	0000	0215	2.25	2979.0m	Continued to de-ballast rig.
PA	P	SM	0215	0330	1.25	2979.0m	Held toolbox meeting prior to starting anchor operations, whilst continuing to de-ballast rig.
PA	P	AH	0330	2400	20.50	2979.0m	Continued to de-ballast whilst commencing anchor handling operations. De-ballasting completed at 05:00 Pulled Anchor #2 with Lady Astrid 03:37 - PCP to Lady Astrid 10:55 - Anchor off bottom 14:08 - Anchor racked 14:51 - PCP back to rig Pulled Anchor #6 with Lady Caroline 03:47 - PCP to Lady Caroline 07:22 - Anchor off bottom 09:45 - Anchor racked 10:15 - PCP back to rig Pulled Anchor #7 with Lady Caroline 11:24 - PCP to Lady Caroline 12:54 - Anchor off bottom 15:47 - Anchor racked 16:22 - PCP back to rig Pulled Anchor #3 with Lady Astrid 15:35 - PCP to Lady Astrid 17:38 - Anchor off bottom 19:55 - Anchor racked 20:13 - PCP back to rig Anchor #5 pulled with Lady Caroline 16:38 - PCP to Lady Caroline 18:00 - Anchor off bottom 21:28 - Anchor racked 21:45 - PCP back to rig Anchor #1 pulled with Lady Astrid 20:45 - PCP to Lady Astrid 23:35 - Tow bridle passed to Lady Caroline

Operations For Period 0000 Hrs to 0600 Hrs on 17 Dec 2004

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PA	P	AH	0000	0600	6.00	2979.0m	Continued pulling Anchor #1 with Lady Astrid 02:12 - Anchor off bottom 04:36 - Anchor racked 04:50 - PCP back to rig Commenced pulling Anchor #8 with Lady Astrid 05:10 - PCP to Lady Astrid

Phase Data to 2400hrs, 16 Dec 2004						
Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP(RM)	39	17 Nov 2004	18 Nov 2004	39.00	1.625 days	0m
CONDUCTOR HOLE(CH)	69.25	18 Nov 2004	21 Nov 2004	108.25	4.510 days	1510.0m
SURFACE HOLE(SH)	49	21 Nov 2004	23 Nov 2004	157.25	6.552 days	1835.0m
SURFACE CASING(SC)	113	23 Nov 2004	28 Nov 2004	270.25	11.260 days	1835.0m
INTERMEDIATE HOLE(IH)	77	28 Nov 2004	01 Dec 2004	347.25	14.469 days	2459.0m
INTERMEDIATE CASING(IC)	78.25	01 Dec 2004	04 Dec 2004	425.50	17.729 days	2459.0m
PRODUCTION HOLE(PH)	59	04 Dec 2004	07 Dec 2004	484.50	20.188 days	2979.0m
EVALUATION PRODUCTION HOLE(EP)	56.25	07 Dec 2004	09 Dec 2004	540.75	22.531 days	2979.0m
PLUG AND ABANDON(PA)	177.25	09 Dec 2004	16 Dec 2004	718.00	29.917 days	2979.0m

Bulk Stocks						Personnel On Board	
Name	Unit	In	Used	Adjust	Balance	Company	Pax
Fuel	MT	0	10	0	1,136.0	Santos	2
Drill Water	MT	0	408	0	369.0	Transocean	63
Potable Water	MT	0	20	0	349.0	Woodside	1
Gel	MT	0	0	0	0.0	MO47	9
Cement	MT	0	0	0	76.0	Fugro	2
Barite	MT	0	0	0	0.0		
						Total	77

Casing			
OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	0ppg / 0ppg	1510.0m / 1510.0m	Not Cemented. Casing was jettied in.
20 "	9.60ppg / 0ppg	1822.7m / 1822.7m	660bbls of 12.5ppg Lead 151bbls of 15.8ppg Tail
13 3/8"	11.00ppg / 0ppg	2455.0m / 2455.0m	327 bbl of 12.5 ppg Lead 81 bbl of 15.8 ppg Tail

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	04 Dec 2004	12 Days	Weekly abandon rig drill.
BOP Test	03 Nov 2004	43 Days	Tested all rams etc to 300 psi low and 5000psi high.
Environmental Incident		0 Days	
Fire Drill	04 Dec 2004	12 Days	Simulated fire on the helideck.
Landel Crane	12 Dec 2004	4 Days	L/O Divertor & running tool. P/U riser landing joint. L/O riser.
Lost Time Incident	26 Nov 2004	20 Days	Roustabout hit by diverter running tool breaking his leg. Medivaced to Prince Alfred Hospital Melbourne.
OJT Module	09 Dec 2004	7 Days	50 Modules completed since Sunday 05/12/04
Safety Meeting	05 Dec 2004	11 Days	Weekly safety meeting.
Safety Theme of the Week	12 Dec 2004	4 Days	Finger/Hand Injuries
START Tour	11 Dec 2004	5 Days	RSTC, Transocean OSA
Stop Cards	29 Nov 2004	17 Days	10 START Cards submitted
Transocean Management Visit	08 Dec 2004	8 Days	Departed 10 Dec 04

Marine							
Weather check on 16 Dec 2004 at 24:00							
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.00nm	6.0kn	110deg	1018bar	15.0C°	0m	000deg	0ft/sec
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments	
2.0deg	2.0deg	1.00m	2.1m	240deg	9.0ft/sec		
Rig Dir.	Ris. Tension	VDL	Comments				
217.0deg	0klb	6870.0klb					

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Lady Caroline	16:45 15/12/04		Jack Bates	Item	Unit	Quantity
				Barite	MT	0
				Cement	MT	160
				Gel	MT	0
				Mud	bbl	0
Lady Astrid	23:20 14/12		Jack Bates	Item	Unit	Quantity
				Barite	MT	82
				Cement	MT	0
				Gel	MT	0
				Mud	bbl	0

Helicopter Movement

Flight #	Time	Destination	Comment	Pax
BZU	15:47	Jack Bates		0
BZU	16:01	Jack Bates		11

From : D. Atkins/P. King

Well Data

Country	Australia	M. Depth	2979.0m	Cur. Hole Size	12.250in	AFE Cost	
Field	Otway Basin	TVD	2979.0m	Casing OD	13.375in	AFE No.	5738032
Drill Co.	Transocean	Progress	0m	Shoe TVD	2455.0m	Daily Cost	
Rig	Jack Bates	Days from spud	26.95	F.I.T. / L.O.T.	0ppg / 11.00ppg	Cum Cost	
Wtr Dpth(LAT)	1396.0m	Days on well	30.58			Planned TD	2979.0m
RT-ASL(LAT)	29.0m	Current Op @ 0600					
RT-ML	1425m	Planned Op					

Summary of Period 0000 to 2400 Hrs

Finished pulling anchors. RIG RELEASED 16:00 HRS 17/12/04

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

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PA	P	AH	0000	0600	6.00	2979.0m	Continued pulling Anchor #1 with Lady Astrid 02:12 - Anchor off bottom 04:36 - Anchor racked 04:50 - PCP back to rig
PA	P	AH	0600	1600	10.00	2979.0m	Commenced pulling Anchor #8 with Lady Astrid 05:10 - PCP to Lady Astrid Continued pulling Anchor#8 with Lady Astrid 07:20 - Anchor off bottom 10:22 - Anchor Racked 10:45 - PCP back to rig Commenced pulling Anchor#4 with Lady Astrid 11:10 - PCP to Lady Astrid 12:43 - Anchor off bottom 16:00 - Anchor racked - END OF CONTRACT Back load 12 lifts to Lady Astrid - remaining Santos gear

Phase Data to 2400hrs, 17 Dec 2004

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP(RM)	39	17 Nov 2004	18 Nov 2004	39.00	1.625 days	0m
CONDUCTOR HOLE(CH)	69.25	18 Nov 2004	21 Nov 2004	108.25	4.510 days	1510.0m
SURFACE HOLE(SH)	49	21 Nov 2004	23 Nov 2004	157.25	6.552 days	1835.0m
SURFACE CASING(SC)	113	23 Nov 2004	28 Nov 2004	270.25	11.260 days	1835.0m
INTERMEDIATE HOLE(IH)	77	28 Nov 2004	01 Dec 2004	347.25	14.469 days	2459.0m
INTERMEDIATE CASING(IC)	78.25	01 Dec 2004	04 Dec 2004	425.50	17.729 days	2459.0m
PRODUCTION HOLE(PH)	59	04 Dec 2004	07 Dec 2004	484.50	20.188 days	2979.0m
EVALUATION PRODUCTION HOLE(EP)	56.25	07 Dec 2004	09 Dec 2004	540.75	22.531 days	2979.0m
PLUG AND ABANDON(PA)	193.25	09 Dec 2004	17 Dec 2004	734.00	30.583 days	2979.0m

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Fuel	MT	0	0	0	1,136.0
Drill Water	MT	0	0	0	369.0
Potable Water	MT	0	0	0	349.0
Gel	MT	0	0	0	0.0
Cement	MT	0	0	0	76.0
Barite	MT	0	0	0	0.0

Personnel On Board

Company	Pax
Santos	1
Transocean	63
Woodside	5
MO47	9
Fugro	1
Total	79

Casing

OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	0ppg / 0ppg	1510.0m / 1510.0m	Not Cemented. Casing was jettied in.
20 "	9.60ppg / 0ppg	1822.7m / 1822.7m	660bbls of 12.5ppg Lead 151bbls of 15.8ppg Tail
13 3/8"	11.00ppg / 0ppg	2455.0m / 2455.0m	327 bbl of 12.5 ppg Lead 81 bbl of 15.8 ppg Tail

HSE Summary			
Events	Date of Last	Days Since	Remarks
Abandon Drill	04 Dec 2004	13 Days	Weekly abandon rig drill.
BOP Test	03 Nov 2004	44 Days	Tested all rams etc to 300 psi low and 5000psi high.
Environmental Incident		0 Days	
Fire Drill	04 Dec 2004	13 Days	Simulated fire on the helideck.
Landel Crane	12 Dec 2004	5 Days	L/O Divertor & running tool. P/U riser landing joint. L/O riser.
Lost Time Incident	26 Nov 2004	21 Days	Roustabout hit by diverter running tool breaking his leg. Medivaced to Prince Alfred Hospital Melbourne.
OJT Module	09 Dec 2004	8 Days	50 Modules completed since Sunday 05/12/04
Safety Meeting	05 Dec 2004	12 Days	Weekly safety meeting.
Safety Theme of the Week	12 Dec 2004	5 Days	Finger/Hand Injuries
START Tour	11 Dec 2004	6 Days	RSTC, Transocean OSA
Stop Cards	29 Nov 2004	18 Days	10 START Cards submitted
Transocean Management Visit	08 Dec 2004	9 Days	Departed 10 Dec 04

Marine

Weather check on 17 Dec 2004 at 24:00

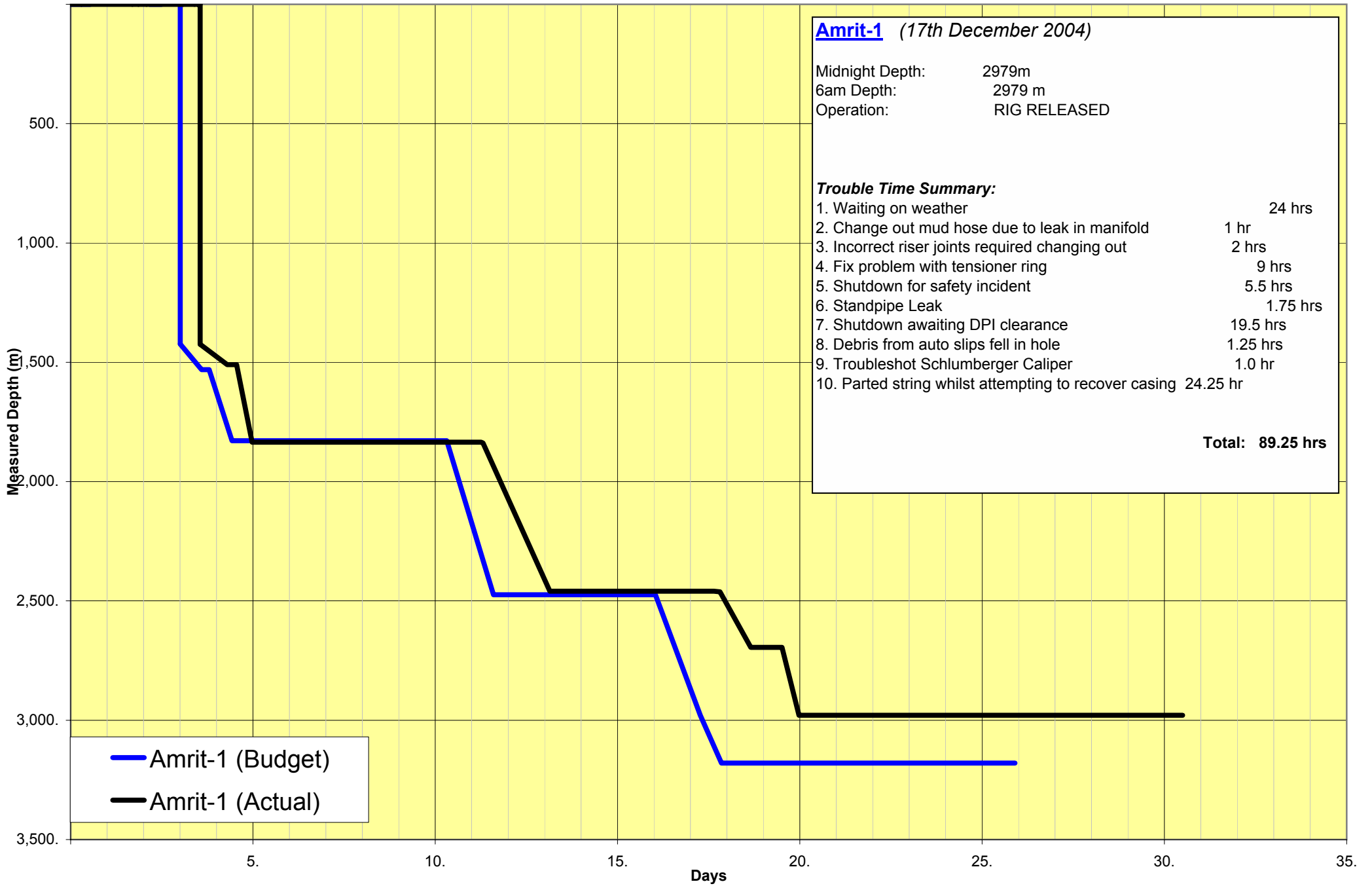
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.00nm	6.0kn	110deg	1018bar	15.0C°	0m	000deg	0ft/sec
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments	
2.0deg	2.0deg	1.00m	2.1m	240deg	9.0ft/sec		
Rig Dir.	Ris. Tension	VDL	Comments				
217.0deg	0klb	6870.0klb					

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Lady Caroline	16:45 15/12/04		Jack Bates	Item	Unit	Quantity
				Barite	MT	0
				Cement	MT	160
				Gel	MT	0
				Mud	bbf	0
Lady Astrid	23:20 14/12		Jack Bates	Item	Unit	Quantity
				Barite	MT	82
				Cement	MT	0
				Gel	MT	0
				Mud	bbf	0

Helicopter Movement

Flight #	Time	Destination	Comment	Pax
BZU		Jack Bates		5
BZU		Essendon		4

SECTION 7:- TIME / DEPTH CURVE



SECTION 8:- BHA SUMMARY



DRILLING & MEASUREMENTS - BHA DATA

Job Number	AWA-04-08
Run Number	1
BHA Number	1

Item	Description	Vendor	Material	Serial Number	Fishing Neck		Stab OD	OD	ID	Bot Connection		Top Connection		Len	Cum Len	TIME/DEPTH DETAILS					
					OD	Length				Size	Type	Size	Type			1	2	3	4	5	
UNITS																					
					in	m	in	in	in					m	m	Date/Time	21-Nov-04	22-Nov-04			
1	Milltooth Bit		Steel	MR3808								7.63	Reg P	0.67	0.67	Field Engineer	Lisa	Lisa			
2	A962MGT7848	Schlumberger	Steel	1069							7.63	Reg B	7.63	Reg P	9.68	10.35	Depth	1468.50	1735.59		
3	Float sub		Steel	1087							7.63	Reg B	7.63	Reg P	1.05	11.40	Average ROP	5.00	70.00		
4	26" WB Stabilizer		Steel	53655							7.63	Reg B	7.63	Reg P	1.68	13.08	Avg. Std. Pres.	3650.00	4000.00		
5	CDR9	Schlumberger	Monel	L9525							7.63	Reg B	7.63	Reg P	7.15	20.23	Desurger 1	800.00	800.00		
6	PowerPulse9	Schlumberger	Monel	W484							7.63	Reg B	7.63	H90 P	8.44	28.67	Desurger 2	800.00	800.00		
7	26" WB Stabilizer		Steel	53656							7.63	H90 B	7.63	Reg P	1.48	30.15	Tur. RPM @ FR	3242.19	3281.25		
8	91/2" NM Drill Collar	Schlumberger	Monel	D173							7.63	Reg B	7.63	Reg P	9.20	39.35	FR @ Tur. RPM	1100.00	1134.00		
9	3 x 91/2" Drill Collar		Steel								7.63	Reg B	7.63	Reg P	26.62	65.97	Avg. RPM	0.00	92.00		
10	Crossover		Steel								6.63	Reg B	7.63	Reg P	1.32	67.29	Max RPM	0.00	95.00		
11	2 x 8" Drill Collar		Steel								6.63	Reg B	6.63	Reg P	18.51	85.80	Total Shocks	0.02	0.05		
12	Drill-Quip CADA Tool		Steel								6.63	Reg B	6.63	Reg P	2.17	87.97	Max Shock	0.00	0.00		
13	Drill-Quip CADA Tool		Steel								6.63	Reg B	6.63	Reg P	0.57	88.54	Avg. Surf. WOB	35.00	15.00		
14	7 x 8" Drill Collar		Steel								6.63	Reg B	6.63	Reg P	64.00	152.54	Max Surf. WOB	40.00	20.00		
15	Crossover		Steel								4.50	IF B	6.63	Reg P	1.14	153.68	Avg. DH WOB	40.00	15.00		
16	12 x 5" HWDP		Steel								4.50	IF B	4.50	IF P	110.77	264.45	Max DH WOB	40.00	20.00		
17											4.50	IF B					Avg. Surf. Torq.	0.00	2.50		
18																	Max Surf. Torq.	0.00	4.00		
19																	Avg. DH Torq.	0.00	4.00		
20																	Max DH Torq.	0.00	4.40		
21																	Formation Type				
22																	Friction				
23																	Drag Up				
24																	Drag Down				
PREDICTED BHA TENDENCY	Drill 8.5in section vertically to TD.							Hookload		Wt. Below Jars		Mud Weight		8.30	8.30						
								Pickup Wt.		Wt. Above Jars		Funnel Vis.									
								Slack Wt.		Total Air Wt.		Plastic Vis.									
												Circ. Temp		17.00	15.70						
												Signal Strength		12.00	9.50						
												Bit Deviation		0.50	0.31						
												Differential Pres.		200.00	200.00						
Stabilizer Description		Mid Pt To Bit	BLADE		GAUGE			Bit To Read Out Port		Bit To Measurement Port		BATTERY		Unloaded (V)		Loaded (V)		Run Hrs		Cum Hrs	
			Type	Length	Width	Length	In	Out	CDR	16.17 m	GR LWLD	18.48 m	Tool	Before	After	Before	After	BOT	AMP	BOT	AMP
UNITS		m	in	in	in	in	in	PPL	21.97 m	RES LWLD	15.00 m	H524743-40042	21.95		19.70						
									m	APWD LWLD	15.72 m	H524743-40336	21.74		19.11						
									m	D&I PPL	24.32 m										
									m		m										
									m		m										
									m		m										

SECTION 9:- BIT RECORD & PERFORMANCE SUMMARY

DFE above MSL : 29.0m

Lat : 38 Deg 56 Min 05.2 Sec

Spud Date : 20 Nov 2004

Release Date : 17 Dec 2004

Water Depth : 1396.0m

Long : 141 Deg 44 Min 07.08 Sec

Spud Time : 17:15

Release Time : 16:00

Bit Record

Well: Amrit 1																										
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 Nov 2004	1-1-5	1	26.00	MR3808	SMITH	MSDS	1 x 20 1 x 21 2 x 22	1425.0	1835.0	410	18.70	4000	1100	30.0	100	5.35	1.387	21.93	1	1	WT	A	E	I	NO	TD
27 Nov 2004	115	2	17.50	J65053	REED	T11C	3 x 22 1 x 20	1835.0	2459.0	624	32.20	3100	950	25.0	115	7.39	1.42	19.38	2	2	BT	A	E	1	WT	TD
04 Dec 2004	M323	3	12.25	7003752	Hughes Christensen	HCM606Z	6 x 14	2459.0	2695.0	236	14.40	3000	850	15.0	100	8.02	0.902	16.39			BU	A	X	I	ER	PR
06 Dec 2004	M323	4	12.25	108439	HYCALOG	DSX104HGW	5 x 15	2695.0	2979.0	284	6.10	3590	824	15.0	90	8.02	0.863	46.56		1	BU	A	X	I	BF	TD

SECTION 10:- DRILLING FLUIDS REPORT

Fluids Recap

Santos Ltd.

Amrit-1
Otway Basin
Exploration
Victoria/ P52



Prepared by: Nigel Warman



M-I L.L.C.
ONE-TRAX
DRILLING FLUID DATA MANAGEMENT SYSTEM

Operator: Santos Ltd.
Well Name: Amrit-1
Field/Area: Otway Basin
Description: Exploration
Location: Victoria/ P52
Warehouse: Portland
Contractor: Transocean

Spud Date: 20/11/2004
TD Date: 7/12/2004
Location Code: 7001
Project Engineer: Nigel Warman
Sales Engineer: Paul Marshall
Sales Engineer: Nick Cooper/Mike McKay
M-I Well No. 16075

Comments: The well was P&A from 9-14th December, 2004.

Type	Size in	Depth m	TVD m	Hole in	Max MW lb/gal	Fluid 1	Fluid2	Drilling Problem	Days	Cost \$
Casing	30	1510	1510	30	9	Spud Mud		None	4	38084.35
Casing	20	1823	1823	26	9	Spud Mud		None	2	31667.44
Casing	13.375	2454	2454	17.5	9.2	GLYDRIL	N/A	None	10	174459.66
Open Hole		2797	2797	12.25	9.6	GLYDRIL		Slow ROP	10	92394.60

Total Depth: 2979 m

TVD: 2979 m

Water Depth: 1396 m

Drilling Days: 23

Total Cost:

336,606.05

**DRILLING FLUIDS RECAP FOR SANTOS LIMITED
AMRIT 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 LIMITED
AMRIT 1**

**DISCUSSION
BY
INTERVAL**

DRILLING FLUIDS RECAP FOR SANTOS LIMITED AMRIT 1

INTRODUCTION

Santos Limited was the Operator of Amrit-1, which was the second well of a two well exploration programme. Amrit-1 was located offshore Victoria in the Otway Basin, approximately 67 kilometres southeast of Portland, Victoria (Block: Vic/P52). Specifically, the well is situated at Latitude: 38° 56' 05.29" S and Longitude: 141° 44' 07.12" E with a water depth of 1396 metres.

Amrit-1 was planned as a conventional, vertical well to be drilled to approximately 2979 metres below the rotary table (RT). Note: all depths are measure depths below rotary table unless otherwise stated. The primary target was the K-93/94 horizon in the Paaratte Formation which was expected to be intersected at approximately 2594 metres to 2574 metres. The secondary targets were the K92 and K91 horizons, which were expected at 2759 metres and 2824 metres, respectively. TD was declared at 2979m.

The Transocean semi-submersible rig 'Jack Bates' was towed onto location and into position with anchors run on 17th and 18th November, 2004. The well was spudded on 19th November, 2004 and TD was reached on 7th December 2004.

The 30" casing interval was jetted to 1510 metres, and allowed to 'soak' for 6 hours. The 26" interval was drilled in undifferentiated carbonates to a depth of 1836 metres with 20" casing being set at 1820 metres. Both intervals were drilled with seawater and pre-hydrated bentonite (PHG) sweeps.

A potassium chloride / partially hydrolysed poly-acrylamide / glycol mud system was used to drill the 17½" and 12¼" open hole intervals. The 17½" open hole interval was drilled to 2459 metres and the 13⅜" casing set at 2454 metres. The 12¼" open hole interval was drilled to 2979 metres. Electric logs were run and the well plugged and abandoned.

The well was displaced to a potassium chloride (8%) / partially hydrolysed poly-acrylamide / glycol (3%) mud system (KCL / PHPA / Glycol) for the 17½" interval and a potassium chloride (8%) / partial hydrated poly-acrylamide / glycol (5%) mud system for the 12¼" interval. Prior to drilling the primary target at 2594m the KCl concentration was increased to 12% wt. as a measure to suppress hydrate formation.

**DRILLING FLUIDS RECAP FOR SANTOS LIMITED
AMRIT 1**

Age	Formation	Lithology	Depth (RT)
	Seabed		1425 m
Tertiary	Undifferentiated	Carbonates	1425-1825 m
Base tertiary	Wangerrip	Sandstone/ Claystone	1825 -2042 m
Up. Cretaceous	Timboon Sandstone	Sandstone	2042-2574 m
Middle Cret.	Paaratte K94	Silt/Sandstone	2574- m
	K93		2594 m
	K91		2824m
Low. Cretaceous	Nullawarre	Silt/Sandstone	
	Belfast	Siltstone	
	Waarre	Silt/Sandstone	
	Eumeralla	Sand/Siltstone	
Total Depth			2979 m

**DRILLING FLUIDS RECAP FOR SANTOS LIMITED
AMRIT 1**

Interval I	1424-1531 metres	30" Hole Interval	30" casing set at 1510 metres
Interval II	1531-1835 metres	26" Hole Interval	20" casing set at 1820 metres

Mud Type : Seawater / Pre-hydrated bentonite sweeps.

Hole Problems : None

Mud Properties :

Mud Density : 8.8 – 9.1 ppg.
Funnel Viscosity : 100+ seconds / quart

OPERATIONS

The rig was positioned over the Amrit-1 location in 1396 metres of water with the rig air-gap of 29 metres, with a resultant rotary table to mud-line of 1425 metres.

The 30" conductor was jetted to the target depth (TD) of 1507 metres. The running tool was released and the 26" open hole drilled to 1835 metres. The 20" casing was run and set at 1820 metres without any problems.

MUD

The 36" interval was jetted by pumping seawater and PHG sweeps. The hole was swept at a rate of 100 barrels per stand drilled; that is, 50-barrel sweep on the half stand and another 50-barrel sweep on stand down or as deemed necessary with fluid returns to the seabed. A total of 1450 barrels of PHG was initially prepared for the two top-hole intervals with an approximate total of 4200 barrels prepared for both the 36" and 30" intervals. Of which 2200 barrels consumed as sweeps and TD hole displacement.

The preparation of the PHG was as follows: drill-water was treated with 0.25 pounds per barrel (ppb.) soda ash and 0.25 ppb, Sodium Hydroxide 35-40 ppb. Bentonite was added and allowed to hydrate under constant agitation. This provided high viscosity sweep material with a funnel viscosity of 100+ seconds / quart. Initially, 100 barrels of high viscosity PHG was pumped prior to each connection and chased with string contents of seawater. This practice was changed and two sweeps, each of 50 barrels, were pumped, one mid stand and the second at stand down. In addition to

DRILLING FLUIDS RECAP FOR SANTOS LIMITED AMRIT 1

PHG sweeps, 400 barrels of 16.0 pounds per gallon (ppg.) kill mud and 950 barrels of 12.4 ppg. PHPA mud treated with 2.5% M-I Lube were prepared.

At the 26" open hole TD (1836 metres) the hole was circulated for 15 minutes and a 200-barrel sweep was circulated. The hole was then displaced with 1.5 times the estimated hole volume with 1400 barrels of 12.4 ppg mud carried-over from the previous well (Callister-1). This was achieved by pumping-out at a rate of approximately 85 barrels per stand pulled. The string was run back to bottom and second displacement performed using 910 barrels of the newly prepared 12.4 ppg PHPA mud treated with 2.5% M-I Lube mud and 400 barrels 16.0 ppg kill mud. The displacement programme was successful in keeping the hole open. The 20" casing was run and set at 1823 metres without any problems.

The remaining 460 barrels of carried-over Callister-1 mud was retained as a contingency should further circulation be required while running the casing. Of this 460bbl, 130 barrels was pumped once the casing was landed prior to cementing.

SOLIDS CONTROL

As returns were to seabed no solids control equipment was used.

OBSERVATIONS AND RECOMMENDATIONS

No recommendations are noted which could improve the drilling of this interval.

DRILLING FLUIDS RECAP FOR SANTOS LIMITED AMRIT 1

Interval III	1836 – 2459 metres.	17½" Hole Interval	13⅜" casing set at 2451.58 metres.
--------------	---------------------	--------------------	---------------------------------------

Mud Type : Potassium chloride / PHPA / Glycol

Hole Problems : None

Mud Properties :

Mud Density ppg	: 8.8-9.2
6 rpm reading	: 5-11
Fluid Loss API cc	: 4.4-6.8
10sec/10min Gel	: 4/6 – 8/16
PV cP	: 18 – 22
YP lb/100ft ²	: 18 - 30
Solids % vol	: 3 – 7.5
Drill solids % vol	: 0.3 – 2.7
MBT lb/bbl	: 5 – 12.5
KCl % wt	: 7.6 – 8.0
Glydril LC	: 2.7 - 3.1

OPERATIONS

The potassium chloride / partially hydrolysed poly-acrylamide / glycol mud was mixed. This mud system was used on both this interval and the next interval (12¼" open hole). The only variance between the two intervals' mud specifications was the use of the lower molecular weight glycol, Glydril LC at 3% on the 17½" open hole interval and the incorporation of the higher molecular weight glycol, Glydril MC, to give a total of 5% glycol for the 12¼" open hole interval. The glycols were added for shale inhibition and gas hydrate suppression.

The initial concentration of the partially hydrolysed poly-acrylamide, Polyplus, (PHPA) was 0.7 ppb of the programmed concentration of 1.5ppb. There was no polymer-shearing device available on the rig and the cold temperatures encountered at these water depths prevented adequate shearing. As a result of the inadequate polymer shearing both on surface and while circulating, there were problems with significant mud losses at the shale shakers. The shale shakers were fitted with 30 mesh (scalpers) and 84 mesh (main) screens in an attempt to minimise losses with the cold / un-sheared mud.

DRILLING FLUIDS RECAP FOR SANTOS LIMITED AMRIT 1

The blow-out preventers and riser were run and pressure tested. The 17½" bottom hole assembly was made up, surface tested and run in the hole. The bottom hole assembly consisted of a mud motor, MWD and basic LWD including an "annular pressure while drilling tool" for real-time / in-situ measurement of the equivalent circulating density (ECD).

On tagging cement at 1807 metres the hole was displaced to the 8.9 ppg potassium chloride / partially hydrolysed poly-acrylamide / glycol mud. There were heavy losses at the shale shakers. The shale shakers were by-passed and the flow rate reduced to a minimum of 850 gallons per minute. It was 16 - 18 hours of shearing through the bottom hole assembly before the shale shakers could take the flow rates required and only with a reduction of the programmed polymer concentrations. The reduced polymer concentrations, with a resultant marginal carrying capacity / hole cleaning were run throughout the drilling of the interval to minimise the losses at the shale shakers.

On drilling 3 metres of new hole a leak-off test was performed to 9.6+ ppg equivalent mud density.

The combination of the (predicted) low leak-off test results and the marginal hole cleaning properties of the mud dictated the close management of the mud throughout drilling operations. The mud density was kept to a minimum by dumping and diluting. The only solids control equipment available was the shale shakers. As the ECD increased with cuttings in the annulus, the marginal hole cleaning properties of the overall circulating system was complemented by the use of high viscosity sweeps, working the drill string and circulating until the ECD decreased to acceptable levels prior to drilling ahead.

Although the PHPA concentration was eventually run at 0.3 - 0.5 ppb the cuttings integrity / shale inhibition seen at the shale shakers was good throughout drilling operations. The programmed PHPA concentration was 1.5ppb.

The primary indicator of cuttings carrying capacity / hole cleaning is the low-end rheology 6 rpm. rheometer reading. An ideal range for a vertical well is from 11 - 13 centipoises (cps.). Due to the limitations at the shale shakers, flow rates and the reduced polymer concentrations, the rheometer 6 rpm. readings ranged from 4 - 6 cps. Even with the reduced carrying capacity there were good cuttings returned to the shale shakers, however, the cuttings were "rounded" indicating cuttings-slip in the annulus. By target depth the shale shaker screen configuration was: 10 mesh (scalpers) and 165 mesh; 84 mesh; 84 mesh and 120 mesh (main) on shale shakers #1, #2, #3 and #4, respectively.

DRILLING FLUIDS RECAP FOR SANTOS LIMITED AMRIT 1

The maximum mud density for the 17½" interval (at target depth) was 9.2+ ppg. The maximum annular pressure while drilling ECD was 9.6 ppg.

On reaching target depth at 2459 metres a 120-barrel sweep was pumped and the hole was circulated clean. On attempting to pull out of the hole, a tight spot with 20 thousand pounds (klbs) was encountered at 2445 metres. The string was then pumped-out to the 20" casing shoe. At the shoe, a high-density pill immediately followed by a high viscosity sweep were pumped and the hole circulated clean. The string was run back to bottom again encountering down-drag at 2445 metres. The tight hole was thought to be due to ledging. Once back on bottom a 60-barrel high-density high viscosity sweep was pumped and the hole circulated clean.

While circulating on bottom, operations were suspended for an investigation into an accident. During the suspension of operations the carrying capacity of the active system was increased with Duovis and 580 barrels of reserve mud was "weighted-up" to a density of 15.5 ppg. If tight hole were to be encountered on pulling out of the hole to run the 13¾" casing, the string would be run back to bottom and the 15.5 ppg mud would be spotted in the open hole to give an overall hydrostatic pressure equivalent to 9.6 ppg. The increase in the hydrostatic pressure would give additional well bore stability through retention.

The string was then pulled out of the hole. The hole was deemed to be in good condition. The 580 barrels of "weighted-up" mud was not displaced to the open hole but carried to the 12-1/4" interval.

The 13-3/8" casing was run and set at 2454 metres without any problems. Although there were total sub-surface losses on the final 95 barrels pumped during the cement displacement.

After dumping and cleaning the solids control pits and solids accumulated in the active suction pit (from by-passing the shale shakers), 4566 barrels of mud was carried-over to the 12-1/4" open hole interval.

Solids control equipment:

Standard rig equipment on the Jack Bates is four well used VSM 300 shakers (in need of servicing), a relatively well- stocked screen inventory and five sand traps of approximately 55 barrels each.

Initially, prior to displacing the well, each shaker was dressed with the coarsest screens available; 30 mesh scalpers over 84 mesh primaries. When it became clear, even with this modest configuration, that the task of screening the system was

DRILLING FLUIDS RECAP FOR SANTOS LIMITED AMRIT 1

beyond the shakers, they were partially by-passed, the primary screens removed and the 30 mesh scalpers replaced with 10 mesh. Only then, and this is some 16 hours since displacement commenced was the 700- 900 gallons per minute (gpm) flow rate able to be accommodated.

Soon after the 84 mesh screens were re-fitted and this arrangement, 10/84, remained until approximately 2200 metres when two of the shakers receiving the least flow were change to 120s and 165 mesh.

Mud:

A total of 3440 barrels of new mud was prepared in advance of displacing the well to programmed specifications of:

KCl : 8% by weight (approx. 30 ppb.)
Sod. Bicarb : 0.25 ppb.
PAC UL : 1.5-1.8 ppb.
DUOVIS : 1-1.5 ppb.
POLYPLUS : 0.7 ppb.
GLYDRIL LC: 3%

Cement contamination as a result of drilling out cement with the newly prepared mud presented problems mainly from high pH – reaching 10 before citric acid was added to the system. Calcium was pre-treated in anticipation and subsequently to reduce total hardness to 320 ppm. Beyond these additions, no further treatment was necessary for the remainder of the interval.

Mud Density:

The initial mud density with 8% KCl was 8.8 ppg. and all but for the final day of drilling, the remainder of the interval was contained to within the range of 9.0-9.2 ppg.

Mud transferred to the 12-1/4" interval uniformly weighed 9.3 ppg. and represented a drill solids content of 3.5% by vol. Unscheduled shaker losses of approx 550 barrels and systematic dumping of the sand trap in part, achieved this mud density.

Approximately 4566 barrels were transferred to the 12-1/4" section

DRILLING FLUIDS RECAP FOR SANTOS LIMITED AMRIT 1

Solids:

Containment of the low gravity solids (LGS), taken to represent drill solids, to below 5% without the advantage of any mechanical solids control equipment other than the four VSM 300 shakers, required routine dumping either at the shakers or as was the case at TD the entire sand trap volume. In the case of the 17-1/2" interval, unintended shaker losses, a result of factors mentioned earlier but primarily due to the inability of the shakers to accommodate a cold partially-sheared PHPA system, meant that extraordinary shaker losses accounted for the bulk of surface losses that enabled dilution to contain drill solids to within the programme specifications.

KCl:

The initial make up KCl concentration of the system was 30.5 ppb. Subsequent premix preparation anticipated depletion and was prepared with a margin of 2-3.5ppb over the programmed 30ppb. This figure provided a roughly constant KCl determination of approx. 28.5-30.0 ppb and in doing so gave at least an indication of rates of K⁺ depletion.

PHPA:

Notwithstanding the reduced PHPA concentration of the initial system make up, the range 0.6-0.7 ppb proved to be too high given the conditions that prevailed for the interval, indeed the entire well, namely a flow line temperature of no less than 15 deg. C.

A judgement was made that attempted to balance, on the one hand, increasing a greatly reduced PHPA conc. in the active system with, on the other, the obvious need to limit the extent of continuous shaker losses due to a cold PHPA mud. PHPA concentration was therefore sacrificed in the interest of shaker screen mesh size and concomitant containment of drill solids.

A 700 bbl, 1.5ppb premix sustained the system once a steady active volume was established i.e. with tolerable shaker losses, and was able to maintain a PHPA excess, albeit a low one, for most of the interval. Any suggestion that the active concentration of PHPA could be maintained at programme levels of 1.0-1.5 ppb was never seriously considered, such would have been the consequent shaker losses.

MBT:

Reactive clays only occasionally reached 12.0 ppb and for the most part was maintained at or below 10.0ppb. This, to a large extent, was due to enforced whole mud dilution/replacement and the good hole cleaning practices such as periodic high viscosity sweeps and high pump rates on the riser. Programme Glydril concentration of 3% was maintained and provided the dominant inhibition.

DRILLING FLUIDS RECAP FOR SANTOS LIMITED AMRIT 1

RHEOLOGY/6RPM:

Additions of DUOVIS added via premixes and occasionally direct to the active controlled the 6rpm as close to the programmed minimum of 15 as was practically possible or indeed desirable, given the losses any significant increase would incur and the consequent need to screen down to a larger mesh size. Once again good drilling practices. In particular the systematic pumping of tandem high vis./weighted sweeps provided the riser cleaning necessary that rheology was on occasions unable to provide.

Observations and recommendations:

1) An unfortunate characteristic of the newly prepared KCl / PHPA / glycol system was, once drilling commenced, the development of intractable entrained air in the fluid. This manifested itself most clearly by high funnel viscosities (100+ seconds per quart.) and a reduced ability of the shakers to effectively screen the cuttings without intolerable shaker losses. It is possible that this state of aeration contributed to the inability of the shakers to effectively screen the system on its initial circulations, such that the shakers had to be by-passed by approximately 50%, and flow rates reduced to 640 gallons per minute (gpm.). Only after 16-18 hours of circulation was the by-pass closed completely and permanently and the four VSM 300s, dressed modestly with 10/84 mesh screens, were able to accommodate 900 gpm. of flow.

Several possible explanations for this occurrence present themselves but no single condition is convincing.

Firstly, while the initial PHPA concentration was moderate at 0.7 ppb, the newly prepared system did not have the advantage of being sheared prior to displacement. With a circulating system of some 2800 barrels and a total circulating time in excess of 3 hours, shearing through the bit was relatively infrequent.

Mud-line water temperatures of 2°C, resulting in bottom hole circulating temperature (BHCT) at 2330 metres of 15°C and flow line temperature of 12°C, provides a virtually constant low temperature environment.

The possibility of a cold, un-sheared system of PHPA and glycol retaining finely entrained air does seem to be a plausible explanation but only laboratory testing is likely to fully explain this serious rheological problem.

2) There is no doubt that poor shaker performance contributed to the considerable shaker losses experienced during the first 24 hours of drilling this interval. The least that can be suggested with respect to the four VSM 300 shakers is that they be serviced to ensure that weight, balance, stroke and speed are consistent with manufacturers' recommendations.

**DRILLING FLUIDS RECAP FOR SANTOS LIMITED
AMRIT 1**

3) Given the problems encountered, future PHPA supplied should, at least, in part consist of low molecular weight / low viscosity polymer to mitigate against the problems described above. A suitable polymer-shearing hopper should be provided.

DRILLING FLUIDS RECAP FOR SANTOS LIMITED AMRIT 1

Interval IV	2459m-29979m	12.25 "Hole section	P & A
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Mud Type : Potassium Chloride / PHPA / Glycol

Hole Problems : No significant problems

Mud Properties :

Mud Density ppg.	: 9.3 - 9.5
6 rpm reading	: 9 - 11
Fluid Loss API cc	: 4.4 - 5.2
10sec / 10min Gels	: 7/16 – 10/18
PV cps	: 15 – 23
YP lbs / 100 ft ²	: 20 - 33
Drill Solids % vol	: 2.0 – 3.5
MBT lb/bbl	: 9.0-12.5
Chlorides mg / l	: 42000- 53250
KCl % wt	: 7.5- 8.1
Glydril LC/MC % vol	: 4.5 – 5.0

Operations

There was 4566 barrels of mud carried-over from the 17-1/2" open hole interval.

The overall glycol concentration was increased from 3% (Glydril LC) of the previous interval's mud system to 5% with Glydril MC.

Modifications to the mud specifications were made to give increased gas hydrate inhibition. Initially, the instruction was to increase the potassium chloride concentration from the programmed 8% to 12%. Due to time restraints all the materials available on the rig to make these modifications were premixed as a concentrate and bled into the active circulating system on drilling ahead. However, the resultant potassium chloride concentration in the active system was 10.2%. As the directive to increase the salinity of the mud system was given on short notice the desired 12% potassium chloride concentration was not achieved.

DRILLING FLUIDS RECAP FOR SANTOS LIMITED AMRIT 1

The Virtual Hydraulics programme was used to show the theoretical “hole cleaning indices” and ECD for various flow rates and rates of penetration. It was apparent that cuttings loading at the wellhead and lower riser would be the main concern. From these results a strategy for flow rates through the bit and riser booster was devised. A strategy for hole cleaning immediately prior to and during trips was also devised.

On drilling-out the cement the mud was treated with citric acid and sodium bicarbonate.

Three metres of new hole were made and a leak-off test performed with no leak-off at 13.0 ppg EMD. This was considered to be an erroneous result. On drilling to 2477 metres a second leak-off test was performed with leak-off at 11.0 ppg. EMD. The mud density was 9.5 ppg.

On drilling ahead the priority mud treatment, apart from increasing the potassium chloride and glycol concentrations, was to provide as efficient hole cleaning as possible (taking into account the flow rates and shale shaker limitations). The carrying capacity was increased by the addition of Duo-vis.

As the shale shakers were the only solids control equipment available, due consideration was given to modifying the mud specifications so as to maximise the shale shaker efficiency and maintain the mud density at 9.5 ppg. On achieving satisfactory hole cleaning properties the shale shakers were fitted with progressively finer mesh sizes. The first change was from: 120 / 84 / 84 / 165 to 120 / 165 / 165 / 165 and finally to 165 / 180 / 180 / 180, respectively. Additions of the shale inhibiting / encapsulating polymer, PHPA (Polyplus), were not made so as to enable the shale shakers to be fitted with finer mesh sizes. Although the PHPA concentration was constantly depleting, there was still good shale inhibition from the increased potassium ion and glycol concentrations. The predominantly shale cuttings returned to the shale shakers indicated that the mud had good shale inhibition and carrying capacity.

A trip was made for the bit at 2468 metres due to slow rates of penetration. The bit was “green”. Two flow paths between the fins were found to be “balled-up”. A “soft-formation” bit was run and made excellent rates of penetration to total depth at 2797 metres.

Although the pore pressure predictions indicated that the mud density at total depth would need to be 10.2 ppg. the majority interval was drilled with 9.5 ppg. The mud density at total depth was 9.6 ppg.

DRILLING FLUIDS RECAP FOR SANTOS LIMITED AMRIT 1

Electric logs were run and both run hung-up at 2945 metres. However, the primary and secondary target zones of interest were successfully logged.

Plug and abandon operations followed and were completed on 9th December 2004.

MUD:

Approximately 3989 bbls of existing mud from the 17 1/2" section was used as a base for this section. A further 580 bbls was build for whole mud dilution with the following formulation.

KCl :	12% wt/wt
Sod. Bicarb :	0.25ppb
PAC UL :	1.5ppb
DUOVIS :	1.6ppb
GLIDRIL MC :	5%

Anticipated cement contamination was treated prior to and during drilling out with approx. 0.7ppb citric acid and 0.5ppb sodium bicarbonate; concentrations deemed adequate under usual circumstances. However circumstances conspired to cause down-hole precipitation of the PHPA as evidenced by the return at the shakers of large volumes gelled polymer. This was easily removed at the shakers while circulating bottoms up after performing the leak off test and once screened out did not appear again.

This is an uncommon phenomenon possibly caused by exposure of the mud to high pH contamination. Notwithstanding pre-treatment of the system, the mud was exposed to soluble cement for a lengthy period in the riser while performing the LOT. The resultant precipitate took a curved form suggestive of being formed while static in the near zero temperatures of the riser.

This occurrence had no discernable affect on the mud system, save possibly the loss of PHPA polymer.

Mud Weight :

At the commencement of the interval and prior to increasing the KCl concentration, the mud weight was 9.3ppg. By TD (2979m) the weight had increased to 9.5ppg due primarily to the addition of 10.0-12.0 ppb KCl, with the final mud weight after circulating the hole clean at the commencement of logging of 9.6ppg.

At no stage was there evidence of hole instability or cavings.

DRILLING FLUIDS RECAP FOR SANTOS LIMITED AMRIT 1

Solids:

The LGS or rather the Drill solids % / volume criterion of 5% was also observed for this interval. At no time was this figure exceeded despite the low levels of PHPA and the less than ideal shaker screen configuration. Glydril MC at 5% by vol. proved exceptional in providing inhibition, limiting drill solids to maximum of 4.4% and an LGS of 5.6% by vol.

KCl:

An amended programme increased the initial 8% by wt to 12 % by the intersection of the primary target at 2574mRT, some 120m below the 13 3/8" shoe. This change was initiated as a hydrate suppression measure. The full 4% increase, however was not achieved with a maximum recorded, prior to intersecting the primary objective, of 10.6%

PHPA:

In the interest of fitting the finest possible screens while accepting tolerable losses, no further additions of PHPA were made and depletion continued throughout this interval

MBT:

For the most part MBT remained within the respectable range of 10-11.5 ppb equivalent and can be attributable to inhibition conferred on the system by the Glydril MC. As the lithology was mainly siltstone with minor sands in the lower reaches of the section little dilution was required to achieve these values.

RHEOLOGY/6RPM:

With a 6 rpm range of 10-12 considered adequate, low end rheology was maintained within the range of 9-11 (with an associated a yield point minimum rarely below 29 lb/100sq.ft) by means of premix additions and a minor direct to active supplement, of Duovis.


Higher values would have compromised the overall rheology with increased losses on shakers and an inability to fine down screens and maintain solids within specification.

Observations and recommendations:

No recommendations are noted which could improve the drilling of this interval.

**DRILLING FLUIDS RECAP FOR SANTOS LIMITED
AMRIT 1**

**DAILY DISCUSSION
REPORT**

	Operator : Santos Ltd.	Field/Area : Otway Basin	Daily Discussion M-I Well : 16075
	Well Name : Amrit-1 Contractor : Transocean	Description : Exploration Location : Victoria/ P52	

17/11/2004	TD = 0 m	Day -2
Moved onto Amrit-1 location and commenced running anchors.		


18/11/2004	TD = 0 m	Day -1
Set and tensioned anchors. Ballasted down rig, making preparations to spud. Brought 1368bbbls of Polymer mud from Callister-1 off the Lady Caroline for 26" displacement. Commenced building PHG spud mud and 400bbbls of 17ppg Kill Mud.		

19/11/2004	TD = 0 m	Day 0
Made up 30" casing with injection assy. Waiting for weather to calm to run in and land. Completed mixing spud mud with gel. Weighting up 1st displacement mud with remaining barite on board. Waiting on weather to offload further barite from boats. Built half of the 2nd displacement fluid volume.		

20/11/2004	TD = 1460 m	Day 1
Commence jetting 30" casing approx 17:20hrs. Drill with seawater pumping 50bbl hi-vis PHG sweeps at half stand jetted and 50bbl at stand down Weighted up displacement fluids with barite. Started building further fluid for the second displacement. Spud Amrit-1. Jet 30" casing.		

21/11/2004	TD = 1758 m	Day 2
Jet to 30" TD at 1510m. Released tool from casing and commenced drilling 26" section to 1758m. Received mud chems. as per Inventory and shaker screens: 16x200XR, 16x180XR mesh. Prepared kill mud in pit #2 Pumped PHG each 15m. Mixing PHG volume as required for sweeps. Jet to 30" TD at 1510m. Release running tool and POOH.		

22/11/2004	TD = 1835 m	Day 3
Drilled ahead to 26" section TD 1836mRT. Pumped remaining PHG as sweep before displacing and POOH to shoe with KCl/polymer Mud. Ran back to bottom and displaced once more with new PHPA/polymer/M-I Lube WBM, followed by 16ppg kill mud while POOH to run casing. Run 20" casing. Built PHG for sweeps as required. Added 128bbbls seawater to first displacement fluid to give correct weight/volume. Recieved 470bbl old Callister#1 mud from Astrid. Commence dumping and cleaning all pits and prepare to mix 17.5" Glydril system. Drill to 26" TD. Displace hole x2 with 12.4ppg PHPA/M-I Lube system. POOH and run casing.		

	Operator : Santos Ltd.	Field/Area : Otway Basin	Daily Discussion M-I Well : 16075
	Well Name : Amrit-1 Contractor : Transocean	Description : Exploration Location : Victoria/ P52	

23/11/2004	TD = 1823 m	Day 4
Charged off Calcium Chloride used in cementing 20" casing. Cleaned pits and started building KCl/polymer/Glydril WBM for next section.		

24/11/2004	TD = 1823 m	Day 5
Ran riser to 537m, pressure testing each 10 joints. Continued mixing WBM for next section when possible.		

25/11/2004	TD = 1823 m	Day 6
Continued with riser running operations (currently at 1324m). Continued mixing of WBM for next section.		

26/11/2004	TD = 1823 m	Day 7
Continue to run riser and slip joint. Nipple up. Operations suspended due to LTA. Continue to prepare KCl/PHPA/Glycol system. Note: The mud check reported was on an unsheared pit sample and does not represent the entire system. A full representative mud check will be carried out and reported once circulation has taken place and drilling commenced. Continue running riser and slip joint.		

27/11/2004	TD = 1825 m	Day 8
Make up BHA. RIH. Prepare to displace well to mud and drill out cement. Complete preparation of KCl / PHPA / Glycol mud. Mud properties confirmed once system is sheared and drilling commenced. Make up BHA and RIH and prepqare to drill out cement.		

28/11/2004	TD = 2045 m	Day 9
Displace while slip and cut. Displace kill / choke / booster lines. Test. Drill-out. Make 3 m. new hole. LOT to 9.6+ ppg EMD. Drill ahead to 2045m. Displace hole to KCl / polymer / glycol mud. Losses at shakers of unsheared / cold mud. By-pass same. Add brine / glycol premix to decrease polymer concentration / viscosity. Treat active with citric acid / sodium bicarbonate for cement contamination. Continue to loose at shakers with 12deg. C flowline temp. Build additional volume. Maintain Vol with premix of varying polymer conc. Attempting to regain properties to specifications with premix. Drill ahead.		



Operator : Santos Ltd.
Well Name : Amrit-1
Contractor : Transocean

Field/Area : Otway Basin
Description : Exploration
Location : Victoria/ P52

Daily Discussion
M-I Well : 16075

Date	TD =	Day
29/11/2004	2370 m	10
<p>Drill ahead. Build replacement volume. Dump sandtraps on connections and as necessary to contain mud weight increase. Marginal flow properties run due to shaker limitations. No indications of tight hole on connections. ECD stabilised with mud weight at 9.0 ppg. Prepare and pump high vis. pills with good cuttings returns. Change up or replace all shaker screens to finest possible. Received 12.25" mud chemicals and backloaded Lime and M-I Lube.</p> <p>Drill ahead.</p>		
30/11/2004	2459 m	11
<p>Drill ahead. Occasionally circulate and work pipe to reduce ECD as shown on the annular pressure while drilling tool - maximum ECD = 9.6 ppg EMD, average = 9.48 ppg EMD. TD. Circulate. Flow check. Pump 120 bbl sweep. Circulate hole clean. POOH. Circulate and pump sweeps at 20" shoe and run to bottom. Prepare additional premix. Mix and pump high vis. sweeps to reduce cuttings load and concomitant ECD. Dump and dilute circulating system to contain mud weight. At TD (2459m), pumped out of hole to shoe and circulated from 1818m with high vis (50bbl) & weighted (50bbl@ 12.0ppg) pills, returning considerable cuttings volume and losses over the shakers. Currently preparing additional pre-mix and weighting 400bbl pre-mix to 11.5ppg to provide contingent hole stability. Replace worn shaker screens.</p> <p>Drill to TD at 2459m and perform wiper trip.</p>		
1/12/2004	2459 m	12
<p>Circulate on bottom. Sweep 50 barrels high vis / high density mud. Wait on accident enquiry while circulating. POOH and prepare to run casing. Continue to build replacement volume. Mix and pump high vis / high density sweep. Add Duovis directly to active to increase carrying capacity.</p> <p>Wait on accident enquiry. Prepare to run casing.</p>		
2/12/2004	2459 m	13
<p>Prepare to run casing. Rig-up and run 13-3/8" casing. Prepare for 12-1/4" open hole interval. Cement volumes, spacer 85 bbls + lead 327 bbls = tail 81 bbls = 493 bbls. Barytes used in cement spacer.</p> <p>Run 13 3/8" casing.</p>		
3/12/2004	2459 m	14
<p>Land and set 13-3/8" casing at 2454 m. without any problems. Set seal assembly. Test BOPs. Make up 12-1/4" BHA. No apparent loss on running casing or while pumping cement. Approx. 95bbl lost sub-surface loss on displacing cement. Mud left behind casing 131 bbls. Dump and clean sand traps / active suction pit. Mud carried to 12-1/4" open hole interval = 4566 bbls. Prepare for 12-1/4" open hole interval. Commence preparation of KCl brine to raise system KCl to 12% and glycol to 5%.</p> <p>Land and cement 13-3/8" casing.</p>		
4/12/2004	2468 m	15
<p>M/u BHA. P/u additional drill pipe and RIH. Drill-out cement. Make 3 m. new hole. Perform FIT (13.3ppg EMW) Drill ahead. Build new KCl brine and Glydril MC volume to be bled to active system over a circulation while drilling ahead to raise KCl to 12% and Glydril to 5% by primary target. Increase KCl and Glydril concentration in reserve mud. Sustained shaker losses with cold gelled mud on first bottoms up when back on bottom. Treat system for cement contamination with Sod.bicarb. and citric acid. Received 20x1mt KCl, polymers and chemicals as per Inventory.</p> <p>RIH and drill out cement. Perform LOT.</p>		



Operator : Santos Ltd.
Well Name : Amrit-1
Contractor : Transocean

Field/Area : Otway Basin
Description : Exploration
Location : Victoria/ P52

Daily Discussion
M-I Well : 16075

Date	TD =	Day
5/12/2004	2696 m	Day 16
<p>Circulate hole clean at 2477 m. Perform second LOT with leak-off at 11.0 ppg EMD. Assume previous LOT at 13.0 ppg. EMD as erroneous. Drill ahead to 2696 m. Slow ROPs. Circulate. Pump-out to shoe. Circulate.</p> <p>Continue to add concentrate premix to active prior to intersecting primary target. Change to finer mesh shaker screens. Used 6 new 165 mesh screens. Add oxygen scavenger and defoamer. Add XCD for carrying capacity. Moderate losses at shakers on sand returns. Note: Adjustment to Polyplus usage and cumulative cost. Additional KCl will be added to the active to achieve 12% on delivery.</p> <p>Drill to 2696 m. POOH for bit.</p>		
6/12/2004	2866 m	Day 17
<p>Continue to circulate at shoe. POOH. Dump log info. P/u new bit RIH. Junk in hole decide to drill ahead at ROPs up to 80-85m/hr. Circulate riser for ECD reduction.</p> <p>Received bulk bentonite (41 mt) from "Lady Astrid". Received KCl and mud balance from "Lady Caroline". Maintain active vol. with 12%KCl / 5%Glydril premix. Change shakers to finest possible given current flow rates.</p> <p>Drill ahead.</p>		
7/12/2004	2979 m	Day 18
<p>Drill to total depth at 2979.43 m. MD / 2978.94 m. TVD. Maximum BHCT = 25 deg.C. ECD = 9.96 ppg. Maximum gas = 145 unit at 2928 m. Inflow test. Circulate. POOH. Rig up and Log.</p> <p>Add biocide (Glute 25) to active to prevent microbial contamination while e-logging. Dump and clean pits and sand traps. Retain active and reserve volume.</p> <p>Drill to TD at 2979m. POOH and Log.</p>		
8/12/2004	2979 m	Day 19
<p>Continue e-logging. Logging tool stood up at 2945m on each of the two runs. Primary and secondary targets successfully logged. Rig up to run Log #3.</p> <p>Continue cleaning pits. Weight up pit #2 to 17ppg. Note adjustment to Glydril MC usage.</p> <p>Contin. logging.</p>		
9/12/2004	2979 m	Day 20
<p>P&A. Set EZSV packer and prepare to pump cement plug #1, 2386-2490m.</p> <p>Inhibit circulating system and write off balance of barite. Propose backloading Gel and leaving on board the remaining Duovis, Guar Gum, Soda Ash and Caustic Soda.</p> <p>P&A</p>		
10/12/2004	2979 m	Day 21
<p>P&A. Cement plug #1 (TOC 2386m). RIH and pull w/bushing. Prepare to RIH and cut 13 3/8" casing below mud line.</p> <p>Backload chemicals as per inventory. Balance to be backloaded on L. Astrid and will appear on report #25. Duovis and Guar gum to remain on board.</p> <p>P&A.</p>		



Operator : Santos Ltd.
Well Name : Amrit-1
Contractor : Transocean

Field/Area : Otway Basin
Description : Exploration
Location : Victoria/ P52

Daily Discussion
M-I Well : 16075

11/12/2004

TD = 1557 m

Day 22

Set balanced plug f/1557-1460m. Pull back and displace riser and kill and choke to seawater and dump returns. Prepare to pull riser and BOPs. Backload chemicals as per Inventory. Received 82 MT of Barite- to be disposed.

P&A. Set final cement plug.

12/12/2004

TD = 1557 m

Day 23

Pull riser and BOPs. Pits #2, 3 & 4 to be dumped.

82 mt Barite to be used for other and 138 mt Gel to be backloaded to L.Caroline. 48 sx of Soda ash and 24 drms Caustic soda to be received and with 67sx Guar gum and 45 sx Duovis will remain on board. Laboratory testing equipment and reagents, along with monitor, printer and computer wil be backloaded to Santos base in Portland to await shipping instructions.

P&A. Pull riser and BOPs and prepare to cut 20" and 30" casing.

**DRILLING FLUIDS RECAP FOR SANTOS LIMITED
AMRIT 1**

**COST
BY
INTERVAL**



PRODUCT SUMMARY

Operator : Santos Ltd.
Well Name : Amrit-1
Contractor : Transocean

Field/Area : Otway Basin
Description : Exploration
Location : Victoria/ P52

SUMMARY OF PRODUCT USAGE FOR INTERVAL

17/11/2004 - 20/11/2004, 0 - 1510m

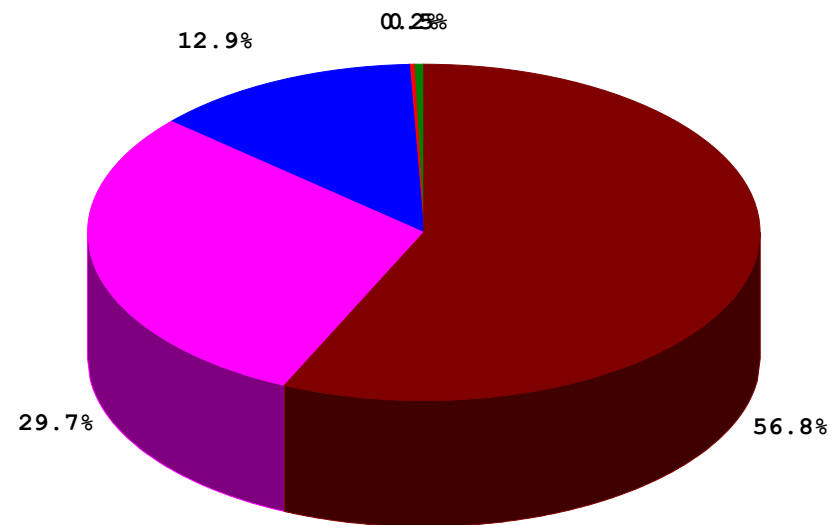
WATER-BASED MUD	SIZE	AMOUNT	UNIT COST	PROD COST
			(\$)	(\$)
1 - M-I BAR BULK	1 MT BK	103	210.00	21630.00
2 - M-I GEL	1 MT BK	29	228.67	6631.43
3 - CAUSTIC SODA	25 KG CN	4	20.46	81.84
4 - SODA ASH	25 KG BG	7	13.04	91.28
5 - DUO-VIS	25 KG BG	17	227.00	3859.00
6 - POLYPAC UL	25 KG BG	9	90.00	810.00
7 - PHPA POLYPLUS	25 KG BG	1	85.80	85.80
8 - Ex-Callister WBM	1 BL BK	1368	0.00	0.00
9 - M-I LUBE	55 GA DM	11	445.00	4895.00
SUB TOTAL:				38084.35
TAX:				0.00
WATER-BASED MUD TOTAL COST:				38084.35
TOTAL MUD COST FOR INTERVAL:				38084.35

BREAKDOWN OF COST BY PRODUCT GROUP 17/11/2004 - 20/11/2004, 0 - 1510 m

Water-Based Mud Products	\$	%
1-Common Chemicals	173.12	0.5
2-Encapsulator	85.80	0.2
3-Lubricant	4895.00	12.9
4-Visc/Fluid Loss	11300.43	29.7
5-Weight Material	21630.00	56.8

Water-Based Mud Total Cost: \$ 38084.35 100.0

Water-Based Mud





PRODUCT SUMMARY

Operator : Santos Ltd.
Well Name : Amrit-1
Contractor : Transocean

Field/Area : Otway Basin
Description : Exploration
Location : Victoria/ P52

SUMMARY OF PRODUCT USAGE FOR INTERVAL 21/11/2004 - 22/11/2004, 1510- 1835 m

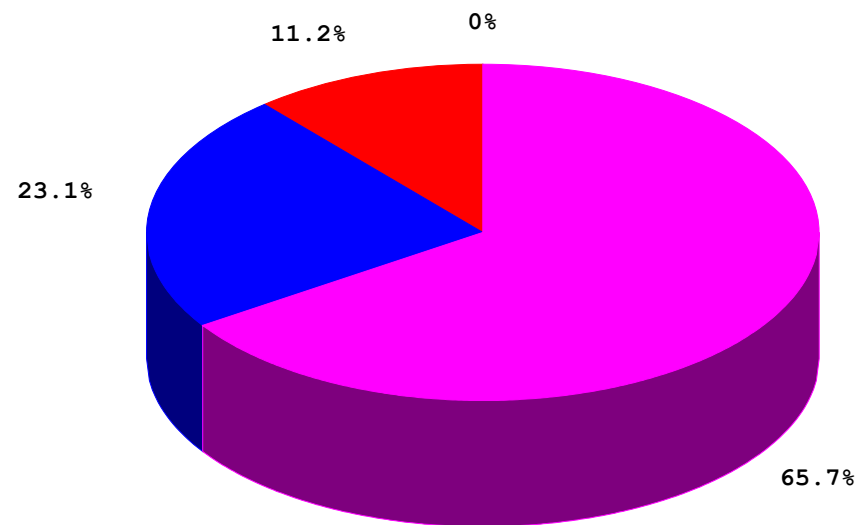
WATER-BASED MUD	SIZE	AMOUNT	UNIT COST	PROD COST
			(\$)	(\$)
1 - M-I BAR BULK	1 MT BK	99	210.00	20790.00
2 - M-I GEL	1 MT BK	32	228.67	7317.44
3 - Ex-Callister WBM	1 BL BK	440	0.00	0.00
4 - M-I LUBE	55 GA DM	8	445.00	3560.00
SUB TOTAL:				31667.44
TAX:				0.00
WATER-BASED MUD TOTAL COST:				31667.44
TOTAL MUD COST FOR INTERVAL:				31667.44

BREAKDOWN OF COST BY PRODUCT GROUP 21/11/2004 - 22/11/2004, 1510 - 1835 m

Water-Based Mud Products	\$	%
1-Common Chemicals	0.00	.
2-Lubricant	3560.00	11.2
3-Visc/Fluid Loss	7317.44	23.1
4-Weight Material	20790.00	65.7

Water-Based Mud Total Cost: \$ 31667.44 100.0

Water-Based Mud





PRODUCT SUMMARY

Operator : Santos Ltd.
Well Name : Amrit-1
Contractor : Transocean

Field/Area : Otway Basin
Description : Exploration
Location : Victoria/ P52

SUMMARY OF PRODUCT USAGE FOR INTERVAL

23/11/2004 - 2/12/2004, 1823 - 2459 m

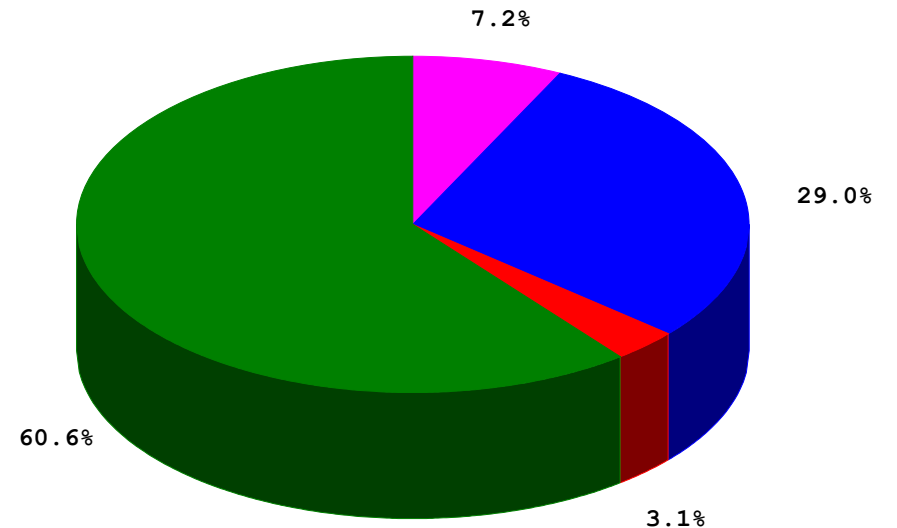
WATER-BASED MUD	SIZE	AMOUNT	UNIT COST	PROD COST
			(\$)	(\$)
1 - M-I BAR BULK	1 MT BK	60	210.00	12600.00
2 - SODA ASH	25 KG BG	14	13.04	182.56
3 - KCl 99% (BIG BAG)	1 MT BG	70	430.06	30104.20
4 - CALCIUM CHLORIDE	25 KG BG	26	11.54	300.04
5 - DEFOAM A (NAPCO)	5 GA CN	8	68.59	548.72
6 - DUO-VIS	25 KG BG	161	227.00	36547.00
7 - POLYPAC UL	25 KG BG	157	90.00	14130.00
8 - OS-1	25 KG BG	12	33.54	402.48
9 - CITRIC ACID	25 KG BG	20	36.79	735.80
10 - PHPA POLYPLUS	25 KG BG	64	85.80	5491.20
11 - SODIUM BICARBONATE	25 KG BG	22	10.64	234.08
12 - GLYDRIL MC	200 KG DM	42	371.49	15602.58
13 - GLYDRIL LC	55 GA DM	100	575.81	57581.00
SUB TOTAL:				174459.66
TAX:				0.00
WATER-BASED MUD TOTAL COST:				174459.66
TOTAL MUD COST FOR INTERVAL:				174459.66

BREAKDOWN OF COST BY PRODUCT GROUP 23/11/2004 - 2/12/2004, 1823 - 2459 m

Water-Based Mud Products	\$	%
1-Common Chemicals	105691.46	60.6
2-Encapsulator	5491.20	3.1
3-Visc/Fluid Loss	50677.00	29.0
4-Weight Material	12600.00	7.2

Water-Based Mud Total Cost: \$ 174459.66 100.0

Water-Based Mud





PRODUCT SUMMARY

Operator : Santos Ltd.
Well Name : Amrit-1
Contractor : Transocean

Field/Area : Otway Basin
Description : Exploration
Location : Victoria/ P52

SUMMARY OF PRODUCT USAGE FOR INTERVAL

3/12/2004 - 12/12/2004, 2459 - 1557 m

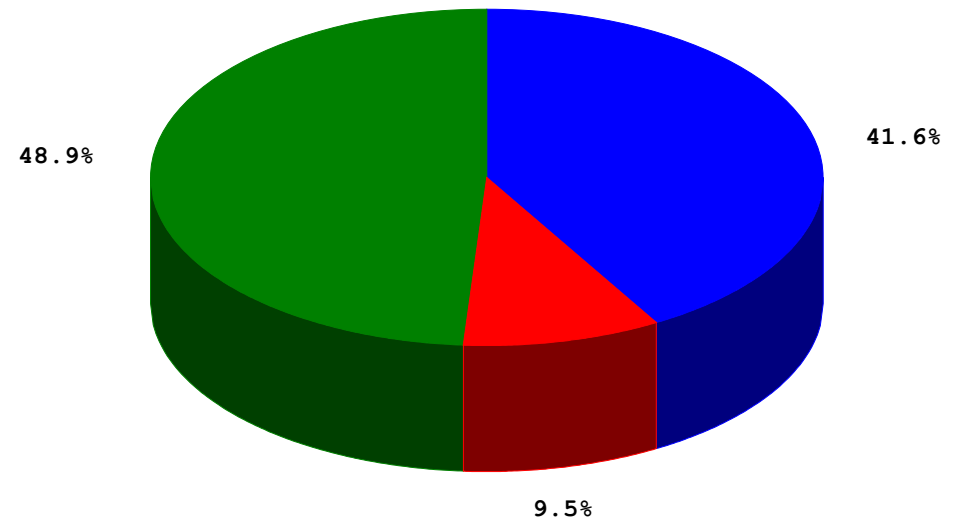
WATER-BASED MUD	SIZE	AMOUNT	UNIT COST	PROD COST
			(\$)	(\$)
1 - M-I BAR BULK	1 MT BK	183	210.00	38430.00
2 - KCI 99% (BIG BAG)	1 MT BG	31	430.06	13331.86
3 - DEFOAM A (NAPCO)	5 GA CN	4	68.59	274.36
4 - DUO-VIS	25 KG BG	34	227.00	7718.00
5 - POLYPAC UL	25 KG BG	12	90.00	1080.00
6 - OS-1	25 KG BG	32	33.54	1073.28
7 - CITRIC ACID	25 KG BG	20	36.79	735.80
8 - SODIUM BICARBONATE	25 KG BG	10	10.64	106.40
9 - GLUTE 25	25 LT CN	23	93.68	2154.64
10 - GLYDRIL MC	200 KG DM	74	371.49	27490.26
SUB TOTAL:				92394.60
TAX:				0.00
WATER-BASED MUD TOTAL COST:				92394.6
TOTAL MUD COST FOR INTERVAL:				92394.6

BREAKDOWN OF COST BY PRODUCT GROUP 3/12/2004 - 12/12/2004, 2459 - 1557 m

Water-Based Mud Products	\$	%
1-Common Chemicals	45166.60	48.9
2-Visc/Fluid Loss	8798.00	9.5
3-Weight Material	38430.00	41.6

Water-Based Mud Total Cost: \$ 92394.60 100.0

Water-Based Mud



**DRILLING FLUIDS RECAP FOR SANTOS LIMITED
AMRIT 1**

**DAILY VOLUME
SUMMARY SHEET**

Santos Ltd.
Amrit-1

30" Casing Jetting with Seawater/PHG Sweeps

Hole volumes (sea water) not included in this section.

Date 2004	Mud Volume Status bbl					Mud Volume Built bbl					Mud Volume Lost bbls						
	Depth	Hole	Surf Active	Res	Total Vol	Water	Mud Received	Mud Built	Daily Total	Cum Built	Solids Equip	Surf	Dump	Hole	Sweeps Plugs	Daily Total	Cummul Lost
18-Nov	0	0	0	2855	2855	1456	1368	31	2855	2855						0	0
19-Nov	0	0	0	3319	3319	392		42	464	3319						0	0
20-Nov	1460	0	0	3624	3624	331		19	474	3793			55	114	169	169	

26" Hole Seawater/PHG sweeps/ Glydril displacement fluids

Hole volumes (sea water) not included in this section.

Date 2004	Mud Volume Status bbl					Mud Volume Built bbls					Mud Volume Lost bbls						
	Depth	Hole	Surf Active	Res	Total Vol	Water	Mud Received	Mud Built	Daily Total	Cum Built	Solids Equip	Surf	Dump	Hole	Sweeps Plugs	Daily Total	Cummul Lost
21-Nov	1758	0	0	3495	3495	924	3624	235	4931	4931					1436	1436	1436
22-Nov	1835	0	0	480	480	223	440	5	668	5599			417		634	3683	5119

17.5" Hole KCl/PHPA/3% Glydril

Date 2004	Mud Volume Status bbls					Mud Volume Built bbls					Mud Volume Lost bbls						
	Depth	Hole	Surf Active	Res	Total Vol	Water	Mud Received	Mud Built	Daily Total	Cum Built	Solids Equip	Surf	Dump	Behind Csg	Form.	Daily Total	Cummul Lost
23-Nov	1825		460	1975	2435		480	2435	2915	2915			480			480	480
24-Nov	1825			2804	2804			369	369	3284						0	480
25-Nov	1825			2966	2966	131		31	162	3446						0	480
26-Nov	1825			3087	3087	13		108	121	3567						0	480
27-Nov	1825		540	2894	3434	347			347	3914						0	480
28-Nov	2045	2224	587	1579	4390	1321		52	1373	5287	417					417	897
29-Nov	2370	2641	975	785	4401	478		68	546	5833	140		395			535	1432
30-Nov	2459	2754	842	1049	4645	625			625	6458	320		61			381	1813
1-Dec	2459	2830	853	908	4591			20	20	6478	54	20				74	1887
2-Dec	2459	2724	877	891	4492				0	6478			99			99	1986
3-Dec	2459	2145	401	1443	3989				0	6478			277	131	95	503	2489

12.25" Hole KCL/PHPA/5% Glydril

Mud received from 17.5" section: 3989 bbl

Date 2003	Mud Volume Status bbls					Mud Volume Built bbls						Mud Volume Lost bbls							
	Depth	Hole	Surf Active	Res	Total Vol	Water	Mud Received	Mud Built	Bar	Daily Total	Cum Built	Solids Equip	Surf	Dump Inject	Form.	Left in hole	Backload	Daily Total	Cummul Lost
4-Dec	2468	2057	877	1466	4400	411	3989			4400	4400							0	0
5-Dec	2696	2178	951	1199	4328					0	4400	72						72	72
6-Dec	2866	2267	782	993	4042					0	4400	104		182				286	358
7-Dec	2979	2326	729	743	3798					0	4400	104		140				244	602
8-Dec	2979	2332	436	809	3577			77		77	4477			298				298	900
9-Dec	2979	2269	501	807	3577					0	4477							0	900
10-Dec	2386	2070	728	542	3340					0	4477					237		237	1137
11-Dec	1557	0	279	542	821					0	4477					2519		2519	3656
12-Dec	1557	0			0					0	4477			821				821	4477

**DRILLING FLUIDS RECAP FOR SANTOS LIMITED
AMRIT 1**

**TOTAL
MATERIAL
COST**



PRODUCT SUMMARY

Operator : Santos Ltd.
Well Name : Amrit-1
Contractor : Transocean

Field/Area : Otway Basin
Description : Exploration
Location : Victoria/ P52

SUMMARY OF PRODUCT USAGE FOR INTERVAL

17/11/2004 - 12/12/2004, 0 - 1557 m

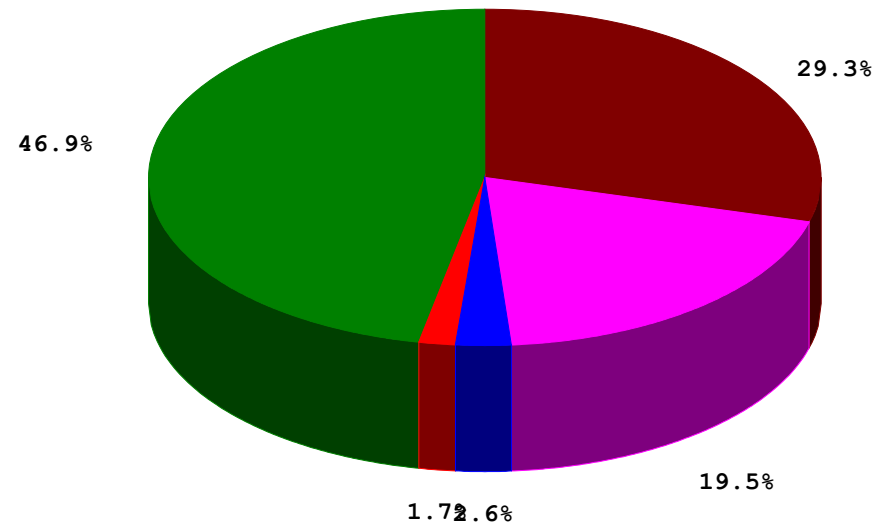
WATER-BASED MUD	SIZE	AMOUNT	UNIT COST	PROD COST
			(\$)	(\$)
1 - M-I BAR BULK	1 MT BK	445	210.00	93450.00
2 - M-I GEL	1 MT BK	61	228.67	13948.87
3 - CAUSTIC SODA	25 KG CN	4	20.46	81.84
4 - SODA ASH	25 KG BG	21	13.04	273.84
5 - KCI 99% (BIG BAG)	1 MT BG	101	430.06	43436.06
6 - CALCIUM CHLORIDE	25 KG BG	26	11.54	300.04
7 - DEFOAM A (NAPCO)	5 GA CN	12	68.59	823.08
8 - DUO-VIS	25 KG BG	212	227.00	48124.00
9 - POLYPAC UL	25 KG BG	178	90.00	16020.00
10 - OS-1	25 KG BG	44	33.54	1475.76
11 - CITRIC ACID	25 KG BG	40	36.79	1471.60
12 - PHPA POLYPLUS	25 KG BG	65	85.80	5577.00
13 - SODIUM BICARBONATE	25 KG BG	32	10.64	340.48
14 - GLUTE 25	25 LT CN	23	93.68	2154.64
15 - GLYDRIL MC	200 KG DM	116	371.49	43092.84
16 - Ex-Callister WBM	1 BL BK	1808	0.00	0.00
17 - M-I LUBE	55 GA DM	19	445.00	8455.00
18 - GLYDRIL LC	55 GA DM	100	575.81	57581.00
SUB TOTAL:				336606.05
TAX:				0.00
WATER-BASED MUD TOTAL COST:				336606.05
TOTAL MUD COST FOR INTERVAL:				336606.05

BREAKDOWN OF COST BY PRODUCT GROUP 17/11/2004 - 12/12/2004, 0 - 1557 m

Water-Based Mud Products	\$	%
1-Common Chemicals	149555.42	46.9
2-Dispersants	5577.00	1.7
3-Lubricant	8455.00	2.6
4-Visc/Fluid Loss	62072.87	19.5
5-Weight Material	93450.00	29.3

Water-Based Mud Total Cost: \$ 319110.29 100.0

Water-Based Mud



**DRILLING FLUIDS RECAP FOR SANTOS LIMITED
AMRIT 1**

**HYDRAULICS
REPORT**



HYDRAULICS SUMMARY

Operator : Santos Ltd.

Field/Area : Otway Basin

Well Name : Amrit-1

Description : Exploration

Contractor : Transocean

Location : Victoria/ P52

Date	19/11/2004	23/11/2004	26/11/2004	27/11/2004	28/11/2004	29/11/2004	30/11/2004	1/12/2004
Depth	m	1823	1835	1823	1924	2332	2459	2459
Days Since Spud		4	7	8	9	10	11	12
*RHEOLOGICAL PROPERTIES								
Mud Wt	lb/gal	9.0	8.35	8.9	8.8	8.9	9.0	9.2
Plastic Visc	cP			17	18	15	18	20
Yield Point	lb/100ft ²			30	30	18	17	26
3-rpm Rdg	Fann deg			8	9	4	4	7
np Value		*	.4454	.4594	.5406	.5986	.5208	.509
Kp Value	lb*s ⁿ /100ft ²	*	3.1182	2.9179	1.2095	.893	1.9067	2.3203
na Value		*	.3249	.3025	.4289	.4444	.385	.3863
Ka Value	lb*s ⁿ /100ft ²	*	5.0241	5.8625	2.1201	2.0675	3.986	4.5457
*FLOW DATA								
Flow Rate	gal/min	0	0	0	43	970	641	893
Pump Pressure	psi	0	0	0	0	2430	2900	1900
Pump	hhp		*	*		1375	1085	990
*PRESSURE LOSSES								
Drill String	psi	*	*	*	85	2320	1600	2116
Bit	psi	*	*	*	1	382	169	335
Annulus	psi	*	*	*	10	15	14	23
Total System	psi	*	*	*	96	2718	1783	2474
*BIT HYDRAULICS								
Nozzles	1/32"				20	20	20	20
Nozzles	1/32"				3x22	3x22	3x22	3x22
Bit Pressure	%	*	*	*	*	16	6	18
Bit	hhp	*	*	*		216	63	174
Bit HSI	(index)	*	*	*	.	.9	.26	.73
Jet Velocity	ft/s	*	*	*	3	67	44	61
Impact Force	lbf	*	*	*	2	979	432	857
DRILL COLLARS ANNULUS								
Velocity	m/s	*	*	*		1		*
Critical Vel	m/s	*	*	*	2	1	1	2
Reynolds Number		*	*	*	2	649	247	258
Crit Re (Lam - Tran)		*	*	*	2841	2729	2650	2756
*DRILL PIPE ANNULUS								
Velocity	m/s	*	*	*				*
Critical Vel	m/s	*	*	*	2	1	1	2
Reynolds Number		*	*	*	2	513	209	233
Crit Re (Lam - Tran)		*	*	*	2841	2729	2650	2756
*HOLE CLEANING								
Slip Velocity	m/s	*	*	*				*
Rising Velocity	m/s	*	*	*				*
Lifting Capacity	%	*	*	*	-226	74	52	77
Cutting Conc	%	*	*	*	0.0	2.87	3.07	0.0
Penetration Rate	m/h	0	0	0	0	30	15	0
CASING SHOE PRESSURES								
ECD	lb/gal	*	*	*	8.83	8.94	9.03	9.27
ECD+Cuttings	lb/gal	*	*	*	8.83	9.28	9.39	9.27
TOTAL DEPTH PRESSURES								
ECD	lb/gal	*	*	*	8.83	8.94	9.03	9.27
ECD+Cuttings	lb/gal	*	*	*	8.83	9.28	9.4	9.27

M-I L.L.C.

16075

DRILLING FLUIDS DATA MANAGEMENT SYSTEM



HYDRAULICS SUMMARY

Operator : Santos Ltd.

Field/Area : Otway Basin

Well Name : Amrit-1

Description : Exploration

Contractor : Transocean

Location : Victoria/ P52

Date		2/12/2004	3/12/2004	4/12/2004	5/12/2004	6/12/2004	7/12/2004	8/12/2004	9/12/2004
Depth	m	2459	2459	2462	2696	2866	2979	2979	2979
Days Since Spud		13	14	15	16	17	18	19	20
*RHEOLOGICAL PROPERTIES									
Mud Wt	lb/gal	9.2	9.3	9.3	9.5	9.5	9.5	9.6	9.6
Plastic Visc	cP	22	21	21	21	23	24	22	23
Yield Point	lb/100ft ²	34	33	26	25	30	30	29	29
3-rpm Rdg	Fann deg	8	8	7	8	8	8	8	8
np Value		.478	.4739	.5329	.5425	.52	.5305	.5174	.5284
Kp Value	lb*s ⁿ /100ft ²	3.0311	2.9988	1.8072	1.6654	2.2082	2.1072	2.1597	2.0563
na Value		.4041	.4041	.3953	.3361	.3769	.3133	.3769	.3769
Ka Value	lb*s ⁿ /100ft ²	4.4154	4.4154	3.9192	4.9333	4.6156	5.1204	4.6156	4.6156
*FLOW DATA									
Flow Rate	gal/min	0	0	1000	0	748	0	0	0
Pump Pressure	psi	0	0	2320	0	2700	0	0	0
Pump	hhp	*	*	1354	*	1178	*	*	*
*PRESSURE LOSSES									
Drill String	psi	*	*	1911	*	1418	*	*	*
Bit	psi	*	*	1053	*	602	*	*	*
Annulus	psi	*	*	71	*	80	*	*	*
Total System	psi	*	*	3034	*	2099	*	*	*
*BIT HYDRAULICS									
Nozzles	1/32"		6x14	6x14	6x14	6x14			
Nozzles	1/32"								
Bit Pressure	%	*	*	45	*	22	*	*	*
Bit	hhp	*	*	614	*	263	*	*	*
Bit HSI	(index)	*	*	5.21	*	2.23	*	*	*
Jet Velocity	ft/s	*	*	108	*	81	*	*	*
Impact Force	lbf	*	*	1712	*	978	*	*	*
DRILL COLLARS ANNULUS									
Velocity	m/s	*	*	2	*	1	*	*	*
Critical Vel	m/s	*	*	2	*	2	*	*	*
Reynolds Number		*	*	2287	*	896	*	*	*
Crit Re (Lam - Tran)		*	*	2740	*	2758	*	*	*
*DRILL PIPE ANNULUS									
Velocity	m/s	*	*	2	*	1	*	*	*
Critical Vel	m/s	*	*	2	*	2	*	*	*
Reynolds Number		*	*	1525	*	455	*	*	*
Crit Re (Lam - Tran)		*	*	2740	*	2758	*	*	*
*HOLE CLEANING									
Slip Velocity	m/s	*	*		*		*	*	*
Rising Velocity	m/s	*	*	1	*	1	*	*	*
Lifting Capacity	%	*	*	94	*	88	*	*	*
Cutting Conc	%	*	*	0.0	*	0.0	*	*	*
Penetration Rate	m/h	0	0	0	0	0	0	0	0
CASING SHOE PRESSURES									
ECD	lb/gal	*	*	9.46	*	9.64	*	*	*
ECD+Cuttings	lb/gal	*	*	9.46	*	9.64	*	*	*
TOTAL DEPTH PRESSURES									
ECD	lb/gal	*	*	9.47	*	9.66	*	*	*
ECD+Cuttings	lb/gal	*	*	9.47	*	9.66	*	*	*

M-I L.L.C.

16075

DRILLING FLUIDS DATA MANAGEMENT SYSTEM



HYDRAULICS SUMMARY

Operator : Santos Ltd.

Field/Area : Otway Basin

Well Name : Amrit-1

Description : Exploration

Contractor : Transocean

Location : Victoria/ P52

Date		10/12/2004						
Depth	m	2979						
Days Since Spud		21						
*RHEOLOGICAL PROPERTIES								
Mud Wt	lb/gal	9.6						
Plastic Visc	cP	22						
Yield Point	lb/100ft ²	30						
3-rpm Rdg	Fann deg	8						
np Value		.509						
Kp Value	lb*s^n/100ft ²	2.3203						
na Value		.3863						
Ka Value	lb*s^n/100ft ²	4.5457						
*FLOW DATA								
Flow Rate	gal/min	0						
Pump Pressure	psi	0						
Pump	hhp	*						
*PRESSURE LOSSES								
Drill String	psi	*						
Bit	psi	*						
Annulus	psi	*						
Total System	psi	*						
*BIT HYDRAULICS								
Nozzles	1/32"							
Nozzles	1/32"							
Bit Pressure	%	*						
Bit	hhp	*						
Bit HSI	(index)	*						
Jet Velocity	ft/s	*						
Impact Force	lbf	*						
DRILL COLLARS ANNULUS								
Velocity	m/s	*						
Critical Vel	m/s	*						
Reynolds Number		*						
Crit Re (Lam - Tran)		*						
*DRILL PIPE ANNULUS								
Velocity	m/s	*						
Critical Vel	m/s	*						
Reynolds Number		*						
Crit Re (Lam - Tran)		*						
*HOLE CLEANING								
Slip Velocity	m/s	*						
Rising Velocity	m/s	*						
Lifting Capacity	%	*						
Cutting Conc	%	*						
Penetration Rate	m/h	0						
CASING SHOE PRESSURES								
ECD	lb/gal	*						
ECD+Cuttings	lb/gal	*						
TOTAL DEPTH PRESSURES								
ECD	lb/gal	*						
ECD+Cuttings	lb/gal	*						

**DRILLING FLUIDS RECAP FOR SANTOS LIMITED
AMRIT 1**

**DRILLING
FLUIDS
SUMMARY**



DRILLING FLUIDS SUMMARY

Operator : Santos Ltd.

Field/Area : Otway Basin

Well Name : Amrit-1

Description : Exploration

Contractor : Transocean

Location : Victoria/ P52

Date	23/11/2004	24/11/2004	25/11/2004	26/11/2004	27/11/2004	28/11/2004
Depth/TVD	m 1823/1823	/	/	1835/1835	1823/ 1823	1924/1924
Activity	R/U to run Riser	Running Riser	Running Riser	Nipple up	RIH	Drill ahead
Mud Type	Spud Mud	Spud Mud	Spud Mud	KCl/PHPA/GI	KCl/PHPA/GI	KCl/PHPA/GI
Hole Size	in 0	0	0	0	17.5	17.5
Circ Volume	bbl			526	540	2811
Flow Rate	gal/min 0	0	0	0	43	970
Circ Pressure	psi 0	0	0	0	0	2430
Avg ROP	m/hr 0	0	0	0	0	30
Sample From	Drill wat			Pit	FL	FL
Flow Line Temp	°F n/a					54
Mud Weight	lb/gal 1.35@ ambient °I	@ °F	@ °F	8.9@90 °F	8.8@ 60 °F	8.9@55 °F
Funnel Viscosity	s/qt 26			72		96
PV	cP			17	18	15
YP	lb/100ft²			30	30	18
R600/R300/R200	//	//	//	64/47/37	66/48/37	48/33/27
R100/R6/R3	//	//	//	25/10/8	26/11/9	18/5/4
10s/10m/30m Gel	lb/100ft² //	//	//	8/9/	8/9/	4/6/
API Fluid Loss	cc/30 min			6.0	6.2	6.8
HTHP Fluid Loss	cc/30 min					
Cake API/HT	1/32" /	/	/	1/	1/	1/
Solids	%Vol				3.0	4
Oil/Water	%Vol /	/	/	/	/97	/96
Sand	%Vol				Tr	0.5
MBT	lb/bbl					0.0
pH	7.3			8.0	8.3	10
Alkal Mud (Pm)					0.2	0.25
Pf/Mf	/	/	/	/	0.1/0.6	0.15/0.6
Chlorides	mg/l 1300			43000	44000	42000
Hardness Ca	150			200	80	320
KCl	% wt				8	7.5
PHPA	ppb			0.8	0.7	0.5
Glycol	% vol			3	3.1	3
Excess Sulphite	mg/L					
Daily Mud Cost	\$ 9232.52	11611.62	27325.10	41013.88	2915.40	16529.22
Cuml Mud Cost	\$ 78984.31	90595.93	117921.03	158934.91	161850.31	178379.53
Sales Engineer	Nick Co/Paul Ma	Nick Co/Paul Ma	Nick Co/Paul Ma	Mike Mc/Paul Ma	Mike Mc/Paul Ma	Mike Mc/Paul Ma
Products Used	soda / 6	KCl / 27	KCl / 3	KCl / 7	UL / 20	soda / 4
	KCl / 10		DUO-VIS / 70	GlyLC / 66	PHPA / 13	KCl / 7
	CaCl2 / 26		UL / 79			DFA / 8
	BICARB / 9		PHPA / 35			DUO-VIS / 18
	Glycol / 12		BICARB / 3			UL / 12
						CA / 20
						BICARB / 10
						GlyLC / 12

REMARKS

23/11/2004:

24/11/2004:

25/11/2004:

26/11/2004: Continue running riser and slip joint.

27/11/2004: Make up BHA and RIH and prepqare to drill out cement.

28/11/2004: Drill ahead.



DRILLING FLUIDS SUMMARY

Operator : Santos Ltd.

Field/Area : Otway Basin

Well Name : Amrit-1

Description : Exploration

Contractor : Transocean

Location : Victoria/ P52

Date	29/11/2004	29/11/2004	30/11/2004	30/11/2004	1/12/2004	1/12/2004
Depth/TVD	m	2332/2332	2216/2216	2459/2459	2459/2459	2459/2459
Activity	Drill 17-1/2" hole	Drill 17-1/2" hole	RIH	RIH	'rep. to run casin;	'rep. to run casin;
Mud Type	KCl/PHPA/Gl	KCl/PHPA/Gl	KCl/PHPA/Gl	KCl/PHPA/Gl	KCl/PHPA/Gl	KCl/PHPA/Gl
Hole Size	in	17.5	17.5	17.5	17.5	17.5
Circ Volume	bbbl	3616	3616	3595	3595	3683
Flow Rate	gal/min	641	641	893	893	0
Circ Pressure	psi	2900	2900	1900	1900	0
Avg ROP	m/hr	15	15	0	0	0
Sample From	Flowline	Flowline	FL	FL	Pit	FL
Flow Line Temp	°F	54	54	58	58	58
Mud Weight	lb/gal	9.0@14 °F	9.0@12 °F	9.2@59 °F	9.2@58 °F	9.3@65 °F
Funnel Viscosity	s/qt	59	54	55	56	61
PV	cP	18	16	20	18	22
YP	lb/100ft²	17	17	26	20	30
R600/R300/R200		53/35/28	49/33/27	66/46/37	56/38/31	74/52/43
R100/R6/R3		19/6/4	18/4/3	27/9/7	26/6/4	31/10/8
10s/10m/30m Gel	lb/100ft²	5/7/7	4/6/7	7/14/15	5/7/8	8/16/24
API Fluid Loss	cc/30 min	5.4	5.5	5.2	5.6	4.8
HTHP Fluid Loss	cc/30 min					
Cake API/HT	1/32"	1/	1/	1/	1/	1/
Solids	%Vol	5	4	8	7	7.5
Oil/Water	%Vol	2.5/92.5	3/93	3/89	3/90	3/89.5
Sand	%Vol	1	0.25	1	0.75	0.3
MBT	lb/bbl	7.5	5	10	7.5	12.5
pH		9.0	9.3	9.0	9.0	8.5
Alkal Mud (Pm)		0.4	0.4	0.35	0.3	0.2
Pf/Mf		0.05/0.55	0.1/0.5	0.05/0.4	0.1/0.4	0.05/0.5
Chlorides	mg/l	39000	41000	38500	39000	38000
Hardness Ca		880	680	1200	1020	1040
KCl	% wt	8.1	7.8	7.6	7.6	7.7
PHPA	ppb	0.5	0.5	0.5	0.5	0.3
Glycol	% vol	3	3	3	3	3
Excess Sulphite	mg/L			tr	tr	tr
Daily Mud Cost	\$	28127.16		32104.70		4970.06
Cuml Mud Cost	\$	206506.69		238611.39		243581.45
Sales Engineer		Mike Mc/Paul Ma	Mike Mc/Paul Ma	Mike Mc/Paul Ma	Mike Mc/Paul Ma	Mike Mc/Paul Ma
Products Used		KCl / 9		soda / 4		KCl / 1
		DUO-VIS / 35		KCl / 6		DUO-VIS / 20
		UL / 30		DUO-VIS / 18		
		PHPA / 11		UL / 16		
		GlyLC / 22		OS-I / 12		
				PHPA / 5		
				Glycol / 30		
				BARBK / 57		

REMARKS

29/11/2004: Drill ahead.

30/11/2004: Drill to TD at 2459m and perform wiper trip.

1/12/2004: Wait on accident enquiry. Prepare to run casing.



DRILLING FLUIDS SUMMARY

Operator : Santos Ltd.

Field/Area : Otway Basin

Well Name : Amrit-1

Description : Exploration

Contractor : Transocean

Location : Victoria/ P52

Date	2/12/2004	2/12/2004	3/12/2004	3/12/2004	4/12/2004	5/12/2004	
Depth/TVD	m	2459/2459	2459/2459	2459/2459	2459/2459	2462/2462	2696/2696
Activity	Running casing	Running casing	M/U BHA	M/U BHA	Drill 12.25" hole	POOH	
Mud Type	KCl/PHPA/GI	KCl/PHPA/GI	KCl/PHPA/GI	KCl/PHPA/GI	KCl/PHPA/GI	KCl/PHPA/GI	KCl/PHPA/GI
Hole Size	in	17.5	17.5	12.25	12.25	12.25	12.25
Circ Volume	bbl	3601	3601	2546	2546	2934	3129
Flow Rate	gal/min	0	0	0	0	1000	0
Circ Pressure	psi	0	0	0	0	2320	0
Avg ROP	m/hr	0	0	0	0	0	0
Sample From	Pit	Pit	Pit	Pit	FL	FL	
Flow Line Temp	°F			n/a	n/a	58	54
Mud Weight	lb/gal	9.2@62 °F	9.2@60 °F	9.3@62 °F	9.3@63 °F	9.3@60 °F	9.5@60 °F
Funnel Viscosity	s/qt	60	58	62	65	60	64
PV	cP	22	22	21	23	21	21
YP	lb/100ft²	34	31	33	29	26	25
R600/R300/R200		78/56/46	75/53/44	75/54/44	75/52/42	68/47/35	67/46/37
R100/R6/R3		33/11/8	33/10/9	33/11/8	33/10/8	28/9/7	26/10/8
10s/10m/30m Gel	lb/100ft²	8/16/17	8/15/16	9/17/18	10/17/19	9/14/17	9/16/20
API Fluid Loss	cc/30 min	5.4	5.6	4.4	4.5	5.2	4.4
HTHP Fluid Loss	cc/30 min						
Cake API/HT	1/32"	1/	1/	1/	1/	1/	1/
Solids	%Vol	7.5	7.5	8	8	7.5	8.8
Oil/Water	%Vol	3/89.5	2.5/90	2.7/89.3	2.8/89.2	3/89.5	3.5/87.7
Sand	%Vol	.03	0.2	0.5	0.5	0.25	0.3
MBT	lb/bbl	10.0	10.0	10.5	12.5	10.0	11.0
pH		8.7	8.5	8.5	8.5	8.5	8.5
Alkal Mud (Pm)		0.25	0.3	0.15	0.2	0.3	0.15
Pf/Mf		0.1/0.4	0.05/0.45	1.05/0.3	0.1/0.3	0.05/0.6	0.05/0.6
Chlorides	mg/l	38500	39000	38000	39000	42000	52500
Hardness Ca		1080	1040	1180	1200	840	1200
KCl	% wt	7.7	7.7	7.8	7.8	8	10.4
PHPA	ppb	0.3	0.3	0.25	0.25	0.3	0.25
Glycol	% vol	2.75	2.8	2.8	2.8	5	4.5
Excess Sulphite	mg/L	tr	tr		tr	40	40
Daily Mud Cost	\$	630.00		0.00		44275.16	4243.04
Cuml Mud Cost	\$	244211.45		244211.45		288486.61	292729.65
Sales Engineer		Mike Mc/Paul Ma	Mike Mc/Paul Ma	Mike Mc/Paul Ma	Mike Mc/Paul Ma	Mike Mc/Paul Ma	Mike Mc/Paul Ma
Products Used		BARBK / 3				KCl / 31	DFA / 4
						DUO-VIS / 17	DUO-VIS / 12
						UL / 12	OS-I / 12
						Glycol / 70	CA / 20
							BICARB / 10

REMARKS

2/12/2004: Run 13 3/8" casing.
 3/12/2004: Land and cement 13-3/8" casing.
 4/12/2004: RIH and drill out cement. Perform LOT.
 5/12/2004: Drill to 2696 m. POOH for bit.

**DRILLING FLUIDS RECAP FOR SANTOS LIMITED
AMRIT 1**

**PRODUCT
CONSUMPTION**



Product Consumption

Operator : Santos Ltd.
Well Name : Amrit-1
Location : Victoria/ P52
Field/Area: Otway Basin

Contractor: Transocean
M-I Engineer: Paul Marshall
Rig Name: Jack Bates
Stock Point: Portland

Product Name	DATES											
	Product	Nov 17, 2004		Nov 18, 2004		Nov 19, 2004		Nov 20, 2004		Nov 21, 2004		Page
	Price	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	Totals
M-I BAR BULK	210.00		0.00		0.00	20	4200.00	83	17430.00	99	20790.00	42420.00
M-I GEL	228.67		0.00	12	2744.04	16	3658.72	1	228.67	30	6860.10	13491.53
CAUSTIC SODA	20.46		0.00	4	81.84		0.00		0.00		0.00	81.84
SODA ASH	13.04		0.00	5	65.20	2	26.08		0.00		0.00	91.28
LIME	10.06		0.00		0.00		0.00		0.00		0.00	0.00
KCl 99% (BIG BAG)	430.06		0.00		0.00		0.00		0.00		0.00	0.00
GUAR GUM	60.00		0.00		0.00		0.00		0.00		0.00	0.00
POTASSIUM HYDROXIDE	31.28		0.00		0.00		0.00		0.00		0.00	0.00
PIPE-LAX W	354.95		0.00		0.00		0.00		0.00		0.00	0.00
CALCIUM CHLORIDE	11.54		0.00		0.00		0.00		0.00		0.00	0.00
DEFOAM A (NAPCO)	68.59		0.00		0.00		0.00		0.00		0.00	0.00
MIX II FINE	25.68		0.00		0.00		0.00		0.00		0.00	0.00
MIX II MEDIUM	26.72		0.00		0.00		0.00		0.00		0.00	0.00
KWICK SEAL F/M/C	28.00		0.00		0.00		0.00		0.00		0.00	0.00
DUO-VIS	227.00		0.00		0.00	11	2497.00	6	1362.00		0.00	3859.00
POLYPAC UL	90.00		0.00		0.00	6	540.00	3	270.00		0.00	810.00
OS-1	33.54		0.00		0.00		0.00		0.00		0.00	0.00
CITRIC ACID	36.79		0.00		0.00		0.00		0.00		0.00	0.00
PHPA POLYPLUS	85.80		0.00		0.00	1	85.80		0.00		0.00	85.80
SODIUM BICARBONATE	10.64		0.00		0.00		0.00		0.00		0.00	0.00
GLUTE 25	93.68		0.00		0.00		0.00		0.00		0.00	0.00
OMYACARB 40	0.00		0.00		0.00		0.00		0.00		0.00	0.00
GLYDRIL MC	371.49		0.00		0.00		0.00		0.00		0.00	0.00
Concor A303	380.36		0.00		0.00		0.00		0.00		0.00	0.00
Ex-Callister WBM	0.00		0.00	1368	0.00		0.00		0.00		0.00	0.00
M-I LUBE	445.00		0.00		0.00		0.00	11	4895.00	8	3560.00	8455.00
GLYDRIL LC	575.81		0.00		0.00		0.00		0.00		0.00	0.00
Cumulative Engineering			0.00		0.00		0.00		0.00		0.00	0.00
Daily Product			0.00		2891.08		11007.60		24185.67		31210.10	69294.45
Daily Sales Tax			0		0		0		0		0	0.00
Cumulative Product			0.00		2891.08		13898.68		38084.35		69294.45	69294.45
Cumulative Cost			0.00		2891.08		13898.68		38084.35		69294.45	69294.45

**DRILLING FLUIDS RECAP FOR SANTOS LIMITED
AMRIT 1**

**DAILY
MUD
REPORTS**



WATER-BASED MUD REPORT No. 14

Date	30/11/2004	Depth/TVD	2459 m / 2459 m
Spud Date	20/11/2004	Mud Type	KCl/PHPA/Glycol
Water Depth	1,396	Activity	RIH

Operator : Santos Ltd. Report For : Dave Atkins / Patrick King Well Name : Amrit-1 Contractor : Transocean Report For : S. Morrall	Field/Area : Otway Basin Description : Exploration Location : Victoria/ P52 M-I Well No. : 16075
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DRILLING ASSEMBLY		CASING	MUD VOLUME (bbl)	CIRCULATION DATA	
Bit Size 17.5 in Reed T11C		Surface	Hole	Pump Make	ILWELL HD-1700F ILWELL HD-1700P
Nozzles 20 /3x22 / 1/32"		30in @1510m (1510TVD)	2753.5(Tot)/2174.9(Bit)	Pump Size	6 X 12.in 6 X 12.in
Drill Pipe Size	Length	Intermediate	Active Pits	Pump Cap	4.274 gal/stk 4.274 gal/stk
5 in	1684 m	20in @1823m (1823TVD)	841.5	Pump stk/min	64@97% 48@97%
Drill Pipe Size	Length	Intermediate	Total Circulating Vol	Flow Rate 893 gal/min	
5 in	111 m	13.375in @2454m (2454TVD)	3016.4	Bottoms Up	97.3 min 20337 stk
Drill Collar Size	Length	Production or Liner	In Storage	Total Circ Time	141.9 min 29651 stk
9.5 in	34 m		906	Circulating Pressure	1900 psi

MUD PROPERTIES			
Sample From		FL@20:30	FL@09:00
Flow Line Temp	°F	58	58
Depth/TVD	m	2459/2459	2459/2459
Mud Weight	lb/gal	9.2@59°F	9.2@58°F
Funnel Viscosity	s/qt	55	56
Rheology Temp	°F	62	65
R600/R300		66/46	56/38
R200/R100		37/27	31/26
R6/R3		9/7	6/4
PV	cP	20	18
YP	lb/100ft²	26	20
10s/10m/30m Gel	lb/100ft²	7/14/15	5/7/8
API Fluid Loss	cc/30 min	5.2	5.6
HTHP FL Temp	cc/30 min		
Cake API/HTHP	1/32"	1/	1/
Solids	%Vol	8	7
Oil/Water	%Vol	3/89	3/90
Sand	%Vol	1	0.75
MBT	lb/bbl	10	7.5
pH		9.0	9.0
Alkal Mud (Pm)		0.35	0.3
Pf/Mf		0.05/0.4	0.1/0.4
Chlorides	mg/l	38500	39000
Hardness Ca	mg/l	1200	1020
KCl	% wt	7.6	7.6
PHPA	ppb	0.5	0.5
Glycol	% vol	3	3
Excess Sulphite	mg/L	tr	tr

PRODUCTS USED LAST 24 HRS		
Products	Size	Amt
M-I BAR BULK	1 MT BK	57
SODA ASH	25 KG BG	4
KCl 99% (BIG BAG)	1 MT BG	6
DUO-VIS	25 KG BG	18
POLYPAC UL	25 KG BG	16
OS-1	25 KG BG	12
PHPA POLYPLUS	25 KG BG	5
GLYDRIL MC	200 KG DM	30

SOLIDS EQUIP	Size	Hr
VSM 300	10/ 4 x 165	12
VSM 300	10/ 4 x 84	12
VSM 300	10/ 4 x 84	12
VSM 300	10/ 4 x 120	12

MUD PROPERTY SPECIFICATIONS	
Weight	alap
Viscosity	15-18
Filtrate	< 6.0

REMARKS AND TREATMENT
 Prepare additional premix. Mix and pump high vis. sweeps to reduce cuttings load and concomitant ECD. Dump and dilute circulating system to contain mud weight. At TD (2459m), pumped out of hole to shoe and circulated from 1818m with high vis (50bbl) & weighted (50bbl@ 12.0ppg) pills, returning considerable cuttings volume and losses over the shakers. Currently preparing additional pre-mix and weighting 400bbl pre-mix to 11.5ppg to provide contingent hole stability. Replace worn shaker screens.

REMARKS
 Drill ahead. Occassionally circulate and work pipe to reduce ECD as shown on the annular pressure while drilling tool - maximum ECD = 9.6 ppg EMD, average = 9.48 ppg EMD. TD. Circulate. Flow check. Pump 120 bbl sweep. Circulate hole clean. POOH. Circulate and pump sweeps at 20" shoe and run to bottom.

TIME DISTR	Last 24 Hrs	MUD VOL ACCTG (bbl)	SOLIDS ANALYSIS (%/lb/bbl)	MUD RHEOLOGY & HYDRAULICS
Rig Up/Service		Oil Added	0	np/na Values
Drilling	8	Water Added	625	kp/ka (lb*s^n/100ft²)
Tripping	5.25	Mud Received	0	Bit Loss (psi / %)
Non-Productive Tim		Shakers	468	Bit HHP (hhp / HSI)
Condition Hole	10.75	Other/Solids	0	Bit Jet Vel (m/s)
		Centrifuge	0	Ann. Vel DP (m/s)
		Tripping	0	Ann. Vel DC (m/s)
		Evaporation	0	Crit Vel DP (m/s)
		Dumped	61	Crit Vel DC (m/s)
		Behind Csg/In hole	0	ECD @ 1965 (lb/gal)

M-I ENGR / PHONE	RIG PHONE	WAREHOUSE PHONE	DAILY COST	CUMULATIVE COST
Paul Marshall Mike McKay	(08) 9302 3730	(08) 9325 4822	\$ 32,104.70	\$ 238,611.39

SECTION 11:- CASING & CEMENTING SUMMARY

Well Name:

Amrit 1

Casing Type:	Surface Casing	Originated By:	J.Young	Checked By:	J.Young	Date:	23 Nov 2004	
Hole Size:	20.00in	Total Depth:	1822.7m	GL-RT:		Contractor:	Halliburton	
PRE-FLUSH	20.0bbl @ 8.60ppg	SPACER	0bbl @ 0ppg					
Additives:	Dyed Seawater	Additives:						
CEMENT		ADDITIVES		%	Amount	Units		
LEAD SLURRY:	1662sx							
Brand / Class:	ABC / G	Econolite		21		gal/10bbls		
Slurry Yield:	2.23ft³/sx	NF-6		0.25		gal/10bbls		
Mixwater Req't:	13.13gal/sx							
Actual Slurry Pumped:	660.0bbl							
Density:	12.50ppg							
Cement Top (MD):	1425.0m							
TAIL SLURRY:	717sx							
Brand / Class:	ABC / G	CaCl2		1		%BWOC		
Slurry Yield:	1.19ft³/sx	NF-6		0.25		gal/10bbls		
Mixwater Req't:	5.28gal/sx							
Actual Slurry Pumped:	151.0bbl							
Density:	15.80ppg							
Cement Top (MD):	1672.0m							
DISPLACEMENT		Fluid: Seawater @ 8.60ppg						
Theoretical Displ.:	148.0bbl	Bumped Plug with:	0psi					
Actual Displ.:	148.0bbl @ 9gpm	Pressure Tested To:	0psi					
Displaced via:	Halliburton Pumps	Bleed Back:	0bbl					
ACTIVITY	Time/Date	Returns to Surface: 0bbl mud, 0bbl cmt						
Start Running csg.	17:15	Casing Action During	Preflush : No Action Taken	Cement : No Action Taken	Displacement : No Action Taken			
Casing On Bottom	11:30	Taken						
Start Circulation	12:50	Top Up Job run: No		0sx of class				
Start Pressure Test	12:57	Wiper Plug Top: No						
Pump Preflush	13:03	Wiper Plug Bottom: No						
Start Mixing	13:12	Plug Set:	Manufacturer: No Plugs	Type: No Plugs				
Finish Mixing	15:10	Centralizer Type: Bow Spring		Centralizer Placement Depth: - 2 centralisers on each of the first 3 joints.				
Start Displacing	15:11							
Stop Displ./Bump	15:28							
Pressure Test								
CASING AND EQUIPMENT DETAILS								
Stick Up							0m	
No. Joints	OD	Wt	Grade	Comment	Thread	Length	From	To
1	0in	0lbs/ft		DriQuip high pressure wellhead housing.	E60/MT	11.26m	0m	11.26m
1	21.50in	133lbs/ft	X-56	Wellhead to casing XO.	E-60/MT - RL-4S	11.80m	11.26m	23.06m
31	21.50in	133lbs/ft	X-56	Casing	RL-4S	367.01m	23.06m	390.07m
1	21.50in	133lbs/ft	X-56	Casing Shoe	RL-4S	11.74m	390.07m	401.81m
Theoretical Bouyed wt. of casing:		151.0klb		Bradenhead Height above GL:		0m		
Casing wt. prior to landing csg:		160.0klb		Bradenhead Description / Length:		/ 0m		
Actual wt. of casing (last joint run-block wt):		150.0klb		Tubing Spool Size:				
Landing wt. (after cementing and pressure bleed off):		0klb		Setting Slips:		0klb		
Cementing Job Remarks:		After 87 bbls of displacement, caught up with tail cement. Pumped remaining displacement @ 600-900psi.						

Well Name:

Amrit 1

Casing Type:	Intermediate Casing	Originated By:	P.King	Checked By:	D. Atkins	Date:	03 Dec 2004	
Hole Size:	17.50in	Total Depth:	2459.0m	GL-RT:		Contractor:	Halliburton	
PRE-FLUSH	0bbl @ 0ppg	SPACER	85.0bbl @ 10.80ppg					
Additives:		Additives:	Halliburton Tuned Spacer + FE-2 + Barite					
CEMENT		ADDITIVES		%	Amount	Units		
LEAD SLURRY:	810sx							
Brand / Class:	ABC / G		Econolite		528	gal		
Slurry Yield:	2.23ft³/sx		HR-6L		101	gal		
Mixwater Req't:	13.10gal/sx		NF-6		6	gal		
Actual Slurry Pumped:	327.0bbl							
Density:	12.50ppg							
Cement Top (MD):	0m							
TAIL SLURRY:	380sx							
Brand / Class:	ABC / G		HR-6L		204	gal		
Slurry Yield:	1.18ft³/sx		Halad 413L		160	gal		
Mixwater Req't:	5.28gal/sx		NF-6		2	gal		
Actual Slurry Pumped:	81.0bbl							
Density:	15.80ppg							
Cement Top (MD):	0m							
DISPLACEMENT		Fluid: 573 @ 9.20ppg						
Theoretical Displ.:	573.0bbl	Bumped Plug with:	700psi					
Actual Displ.:	573.0bbl @ 0gpm	Pressure Tested To:	2000psi					
Displaced via:	Cement Unit (90 bbl); Rig (483 bbl)	Bleed Back:	0bbl					
ACTIVITY	Time/Date	Returns to Surface: 976.0bbl mud, 0bbl cmt						
Start Running csg.		Casing Action During Preflush : No Action Taken Cement : No Action Taken Displacement : No Action Taken						
Casing On Bottom		Taken						
Start Circulation	01:25	Top Up Job run: No 0sx of class						
Start Pressure Test	01:31	Wiper Plug Top: Yes						
Pump Preflush	01:41	Wiper Plug Bottom: Yes						
Start Mixing	02:07	Plug Set: Manufacturer: Weatherford Type: SSR						
Finish Mixing	03:01	Centralizer Type: Centralizer Placement Depth: 2449, 2444, 2439, 2434, 2423, 2413, 2409, 2399, 2374, 2349, 2323, 2298, 2272, 2246, 1811, 1799, 1786						
Start Displacing	03:26							
Stop Displ./Bump	04:20							
Pressure Test								
CASING AND EQUIPMENT DETAILS								
Stick Up						0m		
No. Joints	OD	Wt	Grade	Comment	Thread	Length	From To	
0	5.00in	0lbs/ft		Landing String		1422.21m	0m 1422.21m	
1	13.38in	0lbs/ft		13-3/8" casing hanger	BTC	2.91m	1422.21m 1425.12m	
1	13.38in	68lbs/ft	L80	TER x BTC No- cross	BTCxTER	12.71m	1425.12m 1437.83m	
75	13.38in	68lbs/ft	L80		TER	955.09m	1437.83m 2392.92m	
1	13.38in	68lbs/ft	L80	X-Over	TERxBTC	12.59m	2392.92m 2405.51m	
1	13.38in	68lbs/ft	L80	Float Joint	BTC	12.52m	2405.51m 2418.03m	
2	13.38in	68lbs/ft	L80	Intermediate Joints	BTC	23.90m	2418.03m 2441.93m	
1	13.38in	68lbs/ft	L80	Casing Shoe	BTC	12.56m	2441.93m 2454.49m	
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: Plug bumped but pressure bled off. Floats held. Lost returns after approx. 435 bbl into displacement. 95 bbl lost to formation.								

SECTION 12:- MUDLOGGING WELL REPORT
(Including Mudlog 1:500 & D-Exponent Log)



INTEQ

END OF WELL REPORT

Santos Ltd

AMRIT 1

20th November– 12th December 2004

by

BAKER HUGHES INTEQ

The information, interpretations, recommendations, or opinions contained herein are advisory only and may be rejected. Consultant does not warrant their accuracy or correctness. Nothing contained herein shall be deemed to be inconsistent with, nor expand, modify or alter consultant's obligation of performance as provided for in a written agreement between the parties, or, if none, in consultant's most recent price list.

Amrit 1

Final Well Report

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Section 2	Drilling and Engineering	
	2.1	Bit Run Summaries
	2.2	Casing and Cementing Summaries
Section 3	Geology and Shows	
	3.1	Geology Summary and Shows
	3.2	Sampling Summary and Record of Distribution
Section 4	Pressure Evaluation	
	4.1	Pore Pressure Evaluation
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	Pressure Evaluation Plot	1 : 2500
	Gas Ratio Analysis Plot	1: 500

SECTION 1

WELL SUMMARY

1.1 Well Data

Well Name	Amrit 1	
Rig Name:	MODU Jack Bates	
Rig Type:	Semi-submersible	
Drilling Contractor:	Transocean Sedco Forex	
Drilling Datum:	Rotary Table	
Drill Floor Elevation:	29.0m above MSL	
Water Depth:	1396 mRT	
Surface Co-ordinates:	38° 56' 05.20" S	Latitude
	141° 44' 07.08" E	Longitude
Block:	Vic/P52	
Well Type:	New Field Wildcat	
Spud Date:	20 th November 2004	
Total Depth:	2979 m	
TD Date:	7 th December 2004	
Primary Objective:	K-94 / K93 Top Paaratte Deltaic Formation	
Well Status:	Plugged & Abandoned	
Baker Hughes INTEQ Crew:		
Data Engineers:	Duane Hatton Andrew MacQueen	Steve Phillips
Mudloggers:	Toto Rukmobroto	Andrew Hurley

1.2 Well Summary

Amrit 1 was spudded on the 20th of November 2004. The main objective of the well was the K-94 / K-93 Top Paaratte Delataic Section with a secondary target of the K-91 Intra-Paaratte Nullawarre Amplitude Anomaly. Amrit 1 was drilled as an oil-prospect, but with a possibility that gas was to be encountered in the reservoir.

A 762mm (30") conductor and 660mm (26") bit was jetted in to spud the well. It was jetted from 1425m to 1510m. The 660mm (26") hole section was then drilled from 1510m to 1835m the section was drilled riserless, using seawater with regular PHG and Gel sweeps. The 508mm (20") casing was then run with the shoe set at 1822m and cemented in place.

After drilling through cement and the casing shoe, the 445mm (17½") hole was drilled to the section TD at 2459m in one bit run. On a number of occasions when the ECD was seen to increase to 9.48 – 9.6 ppg, the string was picked up off bottom and the hole circulated clean. Hi-vis sweeps and a 100bbl hi-vis polymer pill were used, increased cuttings were observed at the shakers. From 2440m to section TD at 2459m the rate of penetration was controlled due to an observed increase in the ECD. At section TD the well was flow checked and a 120bbl hi-vis sweep pumped to clean the hole. Upon pulling out of the hole a tight spot was encountered at 2402m. The TDS was made up and the string pumped out of the hole as far as the shoe where a 60bbl hi-vis sweep followed by a 60bbl hi-weight sweep were pumped and circulated out. Continued to circulate the hole clean whilst operations were suspended following a DPI Inspectors on-site investigation. Approval was given to RIH to bottom to maintain open-hole integrity, weight was taken at 2445m so the TDS was made up and the string washed to bottom. The hole was circulated clean whilst working the pipe and a 50bbl hi-weight/hi-vis sweep was pumped and circulated out whilst working the pipe. Approval was given to pull out of the hole, the string was pulled without problems and the drill floor made ready to run the 340mm (13 3/8") casing. The 340mm (13 3/8") casing shoe was cemented at 2454.59mRT.

The 311mm (12¼") hole section was drilled from 2459m to 2695m and 2695m to 2979m in two bit runs with PDC bits on a rotary assembly with a mud motor for performance. Prior to performing a Leak Off Test (LOT) the well was circulated to condition the mud. The LOT was taken in open hole at a depth of 2477mRT and yielded a value of 1.32sg EMW. New hole was then drilled with the first of the 311mm (12¼") bits to 2695m, where due to drop in the ROP the bit was pulled out. Whilst tripping for the bit change the string had to be pumped out of the hole when overpull in the region of 20klbs was encountered. A new bit was RIH and new formation drilled. At 2866mRT the ECD was observed to increase to 1.24sg, torque and pump pressure increases were also observed, the string was picked off bottom and the hole circulated clean. Drilling continued to Amrit-1's TD at 2979mRT, which was reached at 03:20 on 7th December 2004. Due to observed overpull the bit was pumped out of hole and wireline logging commenced. Once wireline logging had been completed the well was plugged and abandoned and the BOP & Marine Riser were pulled on 12th December 2004, after which the BHI unit was released prior to pulling anchors and handing over to Woodside.

SECTION 2

DRILLING & ENGINEERING

2.1 Bit Run Summaries

**762mm (30") / 660mm (26") Hole Section
20th – 22nd November 2004**

Bit Run No. 1 Summary

Bit No.	NB1
Bit Size	660 mm (26")
Bit Type	Smith MSDS
Serial Number	MR3808
IADC Code	111
Jets	2 x 22, 1 x 21, 1 x 20
Depth In	1425 mRT
Depth Out	1835 mRT
Metres Drilled	410 m
Hours	18.7 hrs
Total Bit Revolutions	154.7 krevs
Rotating Hours	35.7 hrs
Average ROP	21.9 m/hr
Bit Grading	1-1-WT-A-E-I-NO-TD

Drilling Parameters

WOB	0 - 73 klbs
RPM	0 - 128
Torque	0 – 12.6 kftlbs
Pump Pressure	75 - 4486 psi
Flow In	0 - 1162 gpm

Mud

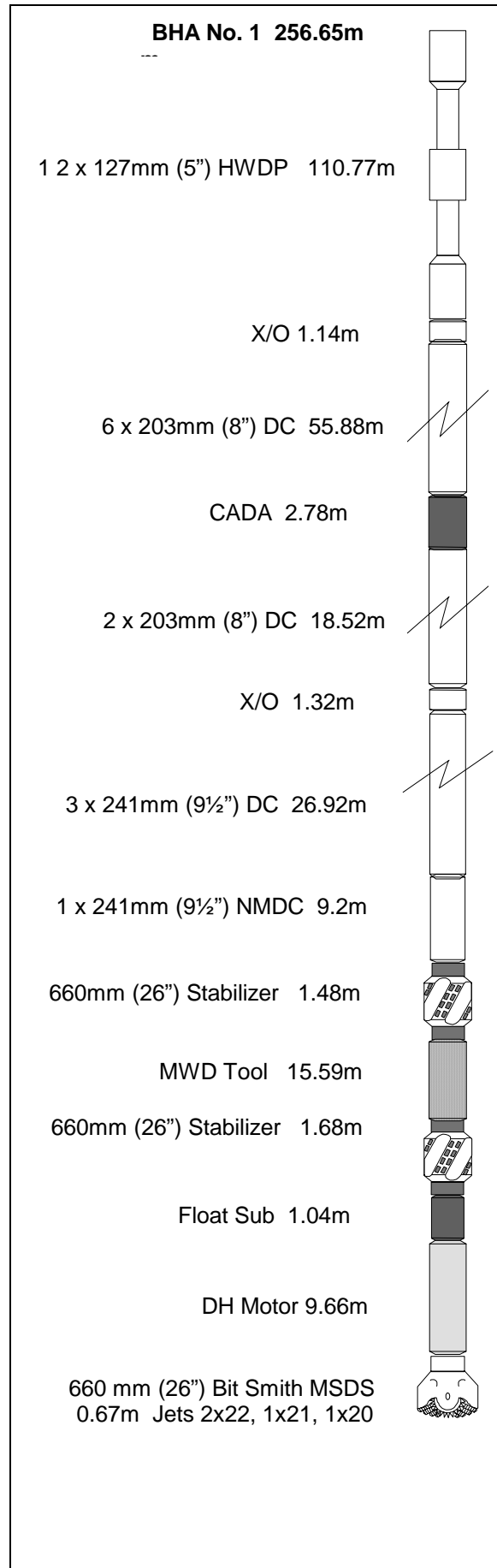
SW / PHG sweeps	1.03 sg
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Lithology

Returns to seabed

Drilling Summary

NB1 was made up on a rotary BHA, inside the 762mm (30") conductor and run in the hole, tagging the seabed at 1425mRT. Amrit 1 was spudded at 17:15 hrs on November 20th 2004. The conductor was jetted in and landed out at 1510m. After waiting for the conductor to settle, the bit was released from the CADA tool and new hole was drilled to 1835mRT, with seawater and hi-vis sweeps. At TD, 250 bbls of PHG was circulated to clear cuttings from the open-hole section. The bit was then pumped out of the hole to 1510m with 50% hole volume excess of 12.4 ppg PHPA mud being circulated. The bit was run back to bottom and then the string pumped out of the hole again to 1550mRT with 50% hole volume excess of 'activity' 12.4 ppg PHPA/MI-lube mud. 400 bbls of 16.0ppg mud was then spotted in open hole. The assembly was then pulled to surface and the BHA racked back in the derrick.



**445 mm (17 1/2") Hole Section
28th – 30th Nov 2004**

Bit Run No. 2 Summary

Bit No.	NB2
Bit Size	445 mm (17 1/2")
Bit Type	Reed T11C
Serial Number	J65053
IADC Code	115
Jets	3 x 22, 1 x 20
Depth In	1835mRT
Depth Out	2459mRT
Metres Drilled	624m
Hours	32.2 hrs
Total Bit Revolutions	384 krevs
Rotating Hours	87.9 hrs
Average ROP	19.4 m/hr
Bit Grading	2-2-BT-A-E-I-NO-TD

Drilling Parameters

WOB	6 - 54 klbs
RPM	152 – 223
Torque	3.1 – 11.4 kftlb
Pump Pressure	1431 - 3337 psi
Flow In	749 – 992 gpm

Mud

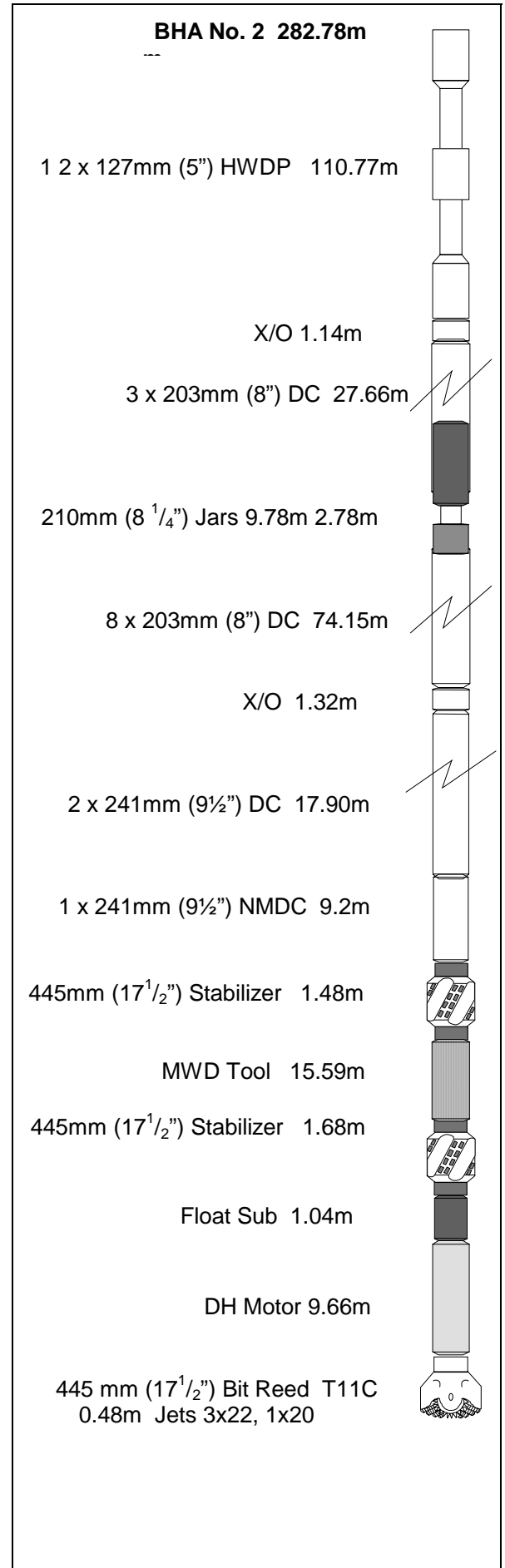
KCL/PHPA/Glycol/Seawater & Hi-vis sweeps
1.06 – 1.09 sg

Lithology

Siltstone and Claystone of the Wangerrip Formation and Claystones of the Timboon Sandstone.

Drilling Summary

NB2 was made up on a mud motor BHA and RIH. The top of the cement was tagged at 1807mRT. The hole was circulated to KCL/PHPA mud prior to drilling out the cement. The float and the shoe track of the 508mm (20") casing was drilled out and 3m of new hole was made from 1835mRT to 1838mRT. The hole was circulated and the mud system was conditioned prior to performing the LOT, which resulted in a 9.6ppgEMW. Drilled 17 1/2" hole from 1838m-1894mRT where the bit was picked up off bottom and circulated whilst losses at the shakers were controlled. Drilled ahead to 2001mRT where a positive drill break was flow-checked, the well was static. Drilling continued with regular hi-vis sweeps being pumped and circulated when the ECD was observed to be increasing. ECD readings of between 9.48 and 9.6ppg were observed. At 2318mRT a 100bbl hi-vis polymer pill was circulated to assist hole cleaning. Drilling continued, with a controlled ROP due to increasing ECD, to section TD at 2459mRT. At each stand down throughout the bit run the hole had been reamed and a survey taken.



311 mm (12 1/4") Hole Section 4th – 5th December 2004

Bit Run No. 3 Summary

Bit No.	NB 3
Bit Size	311 mm (12 1/4")
Bit Type	Hughes HCH606
Serial Number	7003752
IADC Code	M323
Jets	6 x 14
Depth In	2459mRT
Depth Out	2695 mRT
Metres Drilled	236 m
Hours	14.4
Total Bit Revolutions	156.7 krevs
Rotating Hours	38.5 hrs
Average ROP	16.4m/hr
Bit Grading	0-0-BU-N-X-I-ER-PR

Drilling Parameters

WOB	0.5 - 39 klbs
RPM	145 – 221
Torque	3.1 – 17.2 kftlb
Pump Pressure	2308 - 3563 psi
Flow In	659 – 874 gpm

Mud

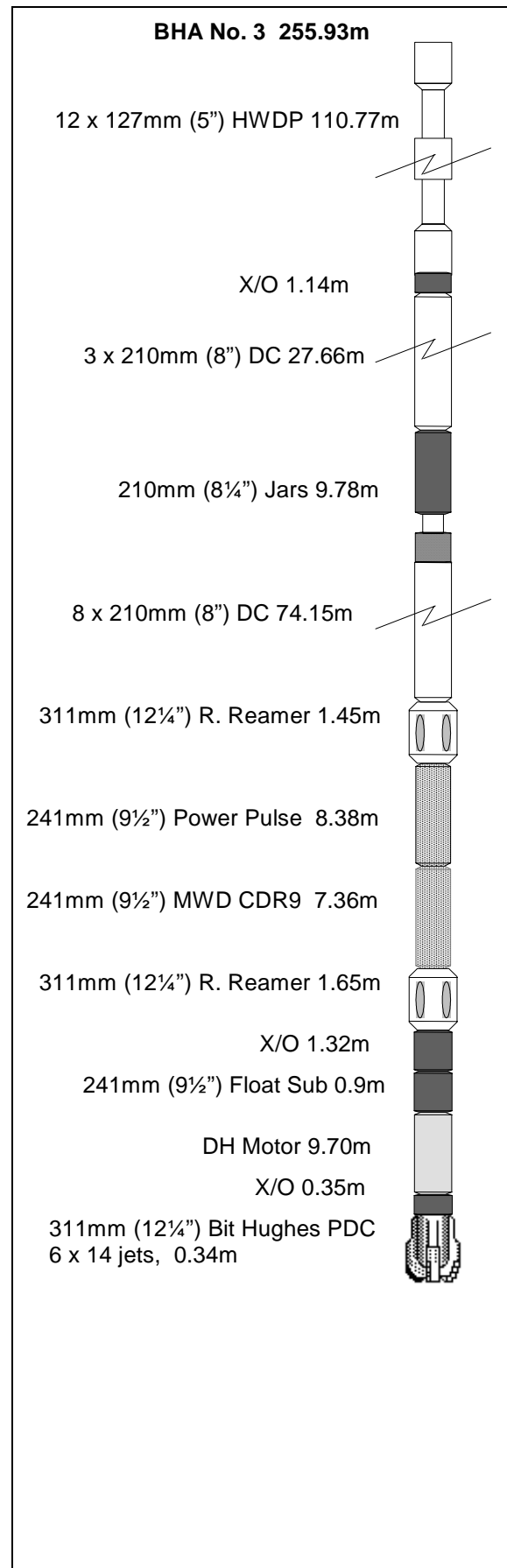
KCI/PHPA/Glycol	1.11 - 1.14 sg
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Lithology

Claystone, Siltstone, Sandstone

Drilling Summary

NB3 was made up with a mud motor, MWD tool and RIH. The top of the cement was tagged at 2414mRT and the shoetrack, plugs and floats were drilled to 2454mRT. The rat hole was reamed to 2459mRT while conditioning the mud system. 3m of new hole was drilled to 2462mRT where the mud in hole was conditioned and bottoms up circulated. At 2462mRT the bit was pulled inside the shoe and a LOT was performed. The LOT was conducted but the results were not satisfactory, the decision was taken to drill ahead to stand down at 2477mRT and perform an open hole LOT. A resulting EMW of 1.32 sg was observed. New hole was then drilled to 2695m, where due to penetration rates that were below expectation, the bit was pulled out and upon inspection it was found to be badly balled.



311 mm (12 1/4") Hole Section 6th – 7th December 2004

Bit Run No. 4 Summary

Bit No.	NB 4
Bit Size	311 mm (12 1/4")
Bit Type	Reed DSX104
Serial Number	108439
IADC Code	M323
Jets	5 x 15
Depth In	2695.0 mRT
Depth Out	2979.0 mRT
Metres Drilled	284 mRT
Hours	6.1 hrs
Total Bit Revolutions	66.8 krevs
Circulating Hours	20.3 hrs
Average ROP	46.6 m/hr
Bit Grading	0-1-BU-A-X-I-BF-TD

Drilling Parameters

WOB	3.8 – 33.6 klbs
Surface RPM	16 – 97
Torque	3.4 – 18.0 kftlb
Pump Pressure	333 - 3747 psi
Flow In	61 – 847 gpm

Mud

KCl/PHPA	1.14 – 1.15 sg
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Lithology

Sandstone, Siltstone, Claystone

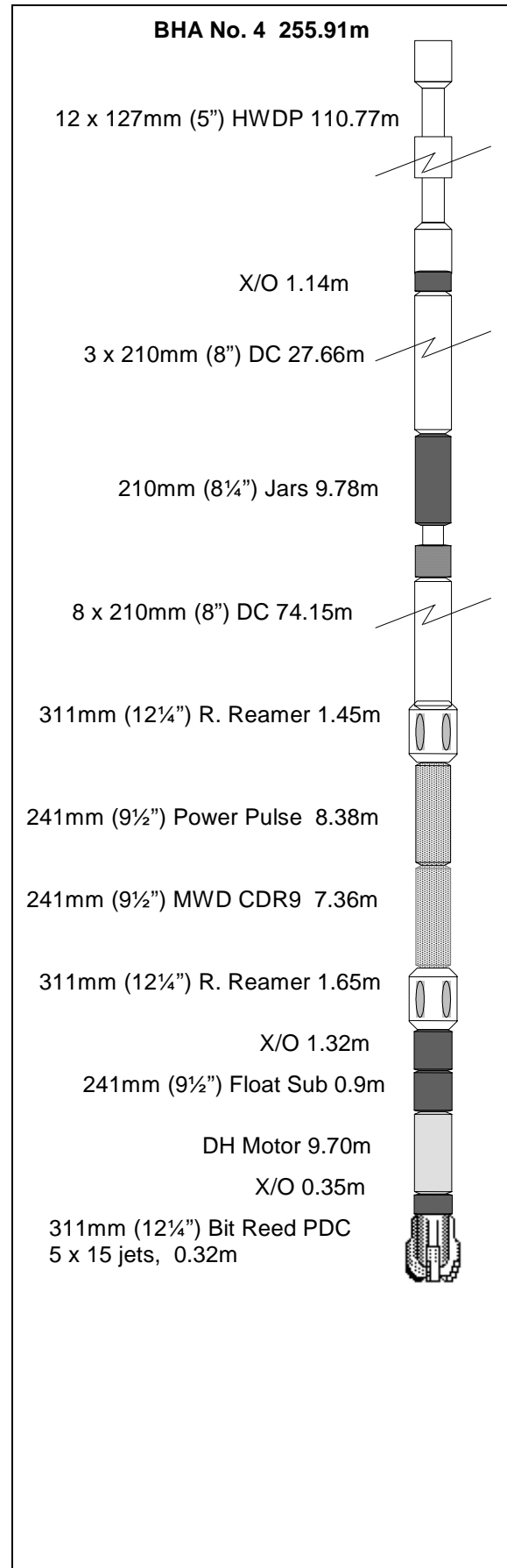
Drilling Summary

NB4 was made up with the down-hole motor and MWD tool from the previous bit run. Drilling then commenced from 2695m to 2866m where an increase in ECD to 1.24sg, and torque & pump pressure were observed. Drilling ceased whilst the hole was circulated clean and losses were taken at the shakers. Drilling then continued to 2979mRT(TD). The hole was circulated prior to taking a TD survey, and a static inflow test was undertaken and the well seen to be static. Bottoms-up was then circulated with a maximum gas level of 147 units being recorded, prior to pumping out of the hole, due to overpull, to the shoe. The bit was then pulled to surface and the rig floor made ready to run the Schlumberger wireline.

The following runs were made:

1. PEX-HALS-DSI-CNL-TLT-LDT
2. VSP
3. CSJ-GR

Rig operations then moved to the Plug & Abandonment program.



2.2 Casing Summary

760mm (30") Conductor

20th November 2004

Hole Size 760 mm (30")
Depth 1510m

Casing 1x 30" jetting shoe
5x Joints
1x X/O
1x 30" x 3"WHH

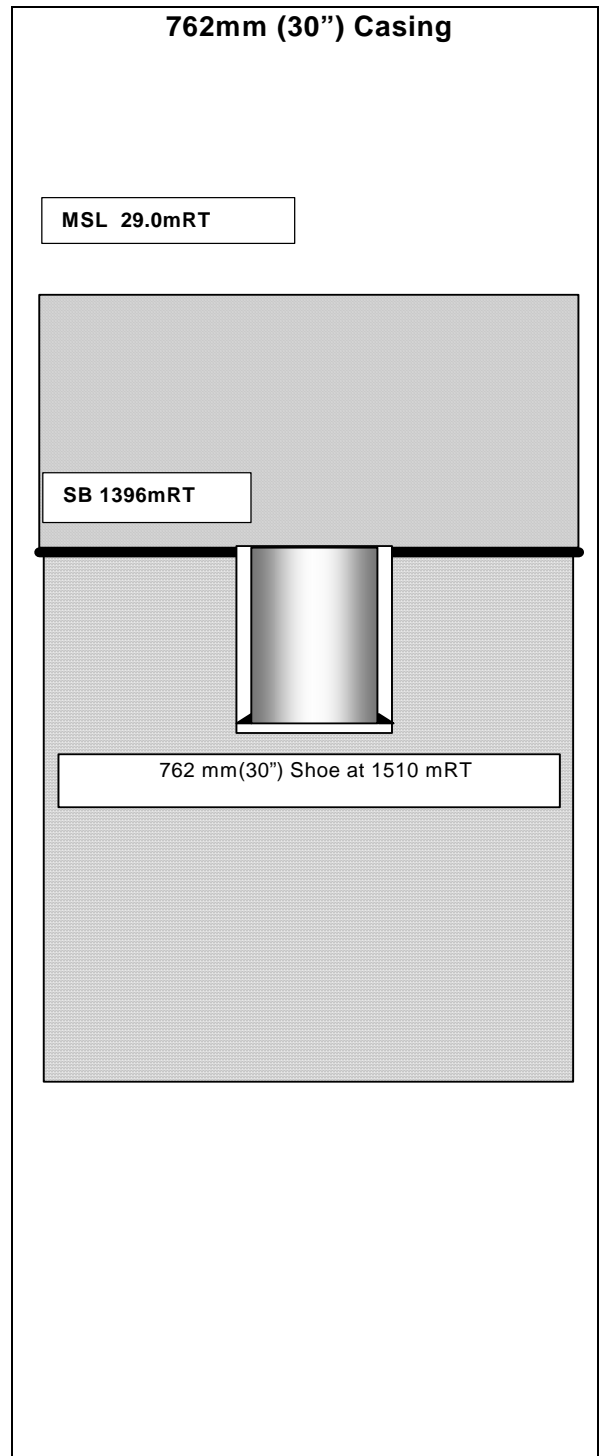
ID 685mm (27") / 711mm (28")
Weight 456 lb/ft / 309 lb/ft
Grade X-52
Shoe Depth 1510m

Cement Details

No cement job done

Summary

The casing was run with the 26" drilling assembly locked inside using a CADA tool, the bit was proud of the casing. The casing was jetted in from 1425m to 1440m with 600gpm at which point the flow rate was increased to 1000gpm. The pipe was worked intermittently to reduce the friction on the casing and increase ROP. At TD, 1510mRT, a 150 bbl hi-vis sweep was pumped and the casing allowed to soak. No cement was planned for this section.



508mm (20") Casing

22nd - 23rd November 2004

Hole Size 660mm (26")
Depth 1835m

Casing 1x 508mm Shoe
31 x 508mm Casing Joints
1x 508mm XO Joint

ID 476mm
Weight 133 lb/ft
Grade X-56

Shoe Depth 1822m

Cement Details:

Lead Slurry

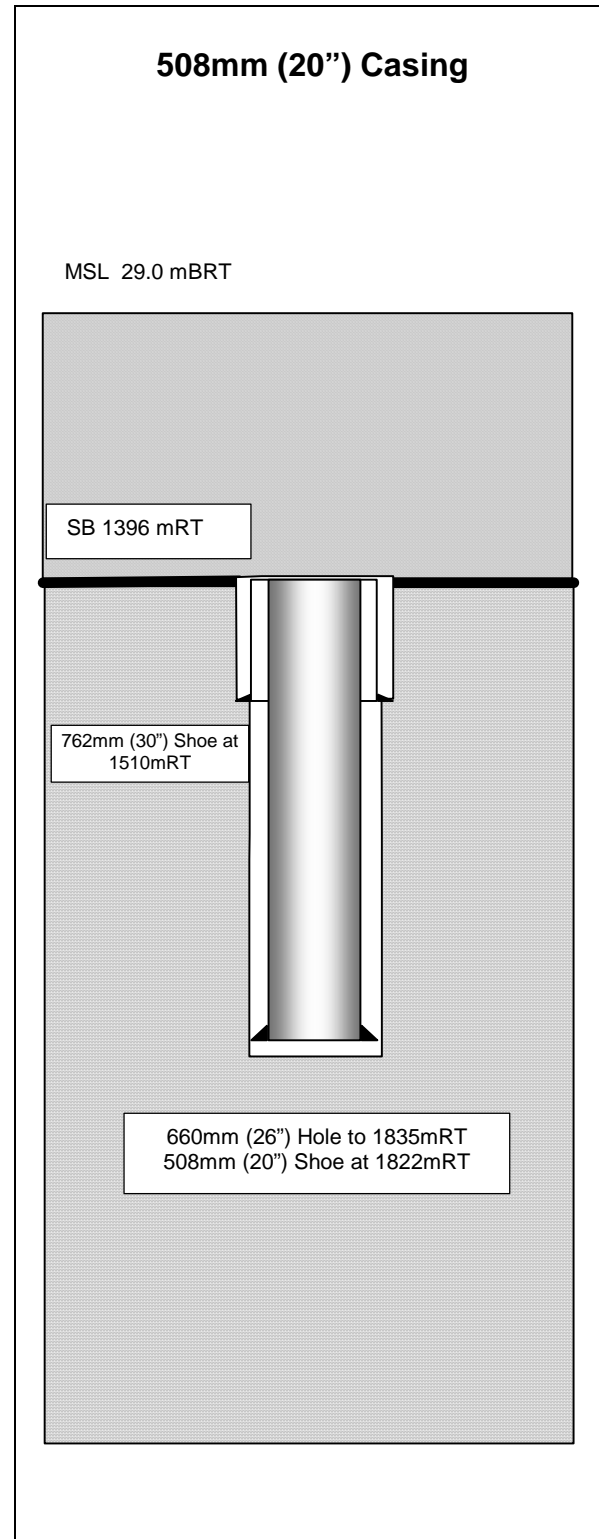
Sacks 2235
Type "G"
Mixwater 13.1 gal/sx
Additives 0.625 gal/sx Econolite
0.003 gal/sx NF-6
Weight 1.5 sg
Yield 2.23 ft³/sx
Volume 660 bbls

Tail Slurry

Sacks 266
Type "G"
Mixwater 5.28 gal/sx
Additives 0.003 gal/sx NF-6
Weight 1.89sg
Yield 1.19 ft³/sx
Volume 151 bbls

Summary

A total of 34 joints 20" casing were run with the shoe landing at 1822.5mRT. Prior to cementing 10bbls of dyed sea water was pumped before the cement lines were rigged up and tested to 2000psi. After pumping 10bbls of dye spacer the lead and tail slurry followed. The cement was displaced with 148bbls of seawater. Good visual returns to the seabed were observed by the ROV throughout the cement job.



340mm (13 3/8") Casing**1st – 2nd December 2004**

Hole Size 445mm (17 1/2")
 Depth 2459m

Casing 1x 340mm Shoe
 2x Intermediate Joint
 1x Float Collar Joint
 76x 340mm Casing Joints
 1x 340mm Hanger

ID 12.415"
 Weight 68 lb/ft
 Grade L-80

Shoe Depth 2454.49m

Cement Details:**Lead Slurry**

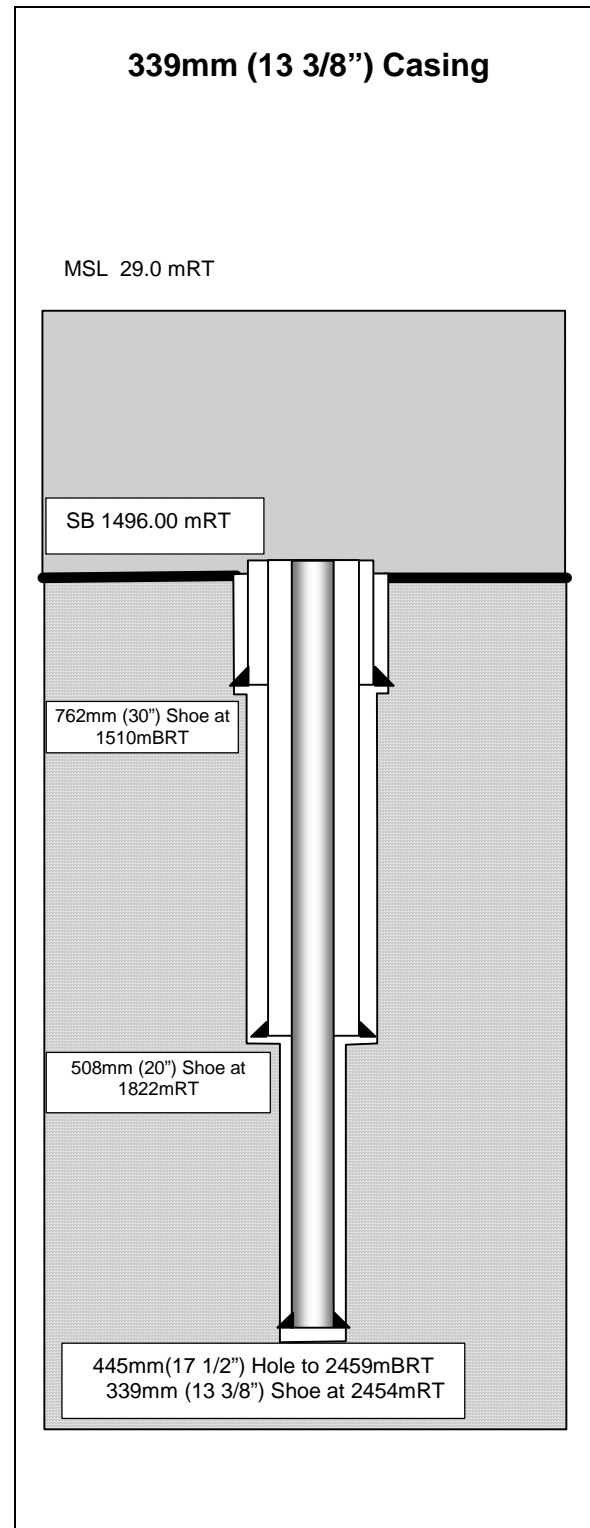
Sacks 810
 Type "G"
 Mixwater 13.026 gal/sx
 Additives 0.628 gal/sx Econolite
 0.126 gal/sx HR-6L
 0.003 gal/bbl NF-6
 Weight 12.5 ppg
 Yield 2.23 ft³/sx
 Volume 327 bbls

Tail Slurry

Sacks 380
 Type "G"
 Mixwater 5.304 gal/sx
 Additives 0.038 gal/sx HR-6L
 0.003 gal/bbl NF-6
 0.253 gal/sx Halad-413L
 Weight 15.8 ppg
 Yield 1.18 ft³/sx
 Volume 80 bbls

Summary

A total of 81 joints of 13-3/8" casing were run with the shoe landing at 2454.49mRT. The cement lines were rigged up and the cement lines were tested to 3000 psi. The bottom plug was displaced and sheared with 82bbls of tuned spacer. The lead and tail slurry's were pumped, the top plug was displaced and sheared with 4bbls of cement slurry, followed by 86bbls of drill mud. The rig pumps pumped a further 483bbls to bump the plug. Good bump pressure was observed, however, whilst displacing and following 12 minutes of steady pit levels sudden and complete loss of returns was observed. Returns were eventually restored after a total of 95bbls lost to the hole.



Abandonment Program

9th - 11th December 2004

Cement Details:

Plugs 1:

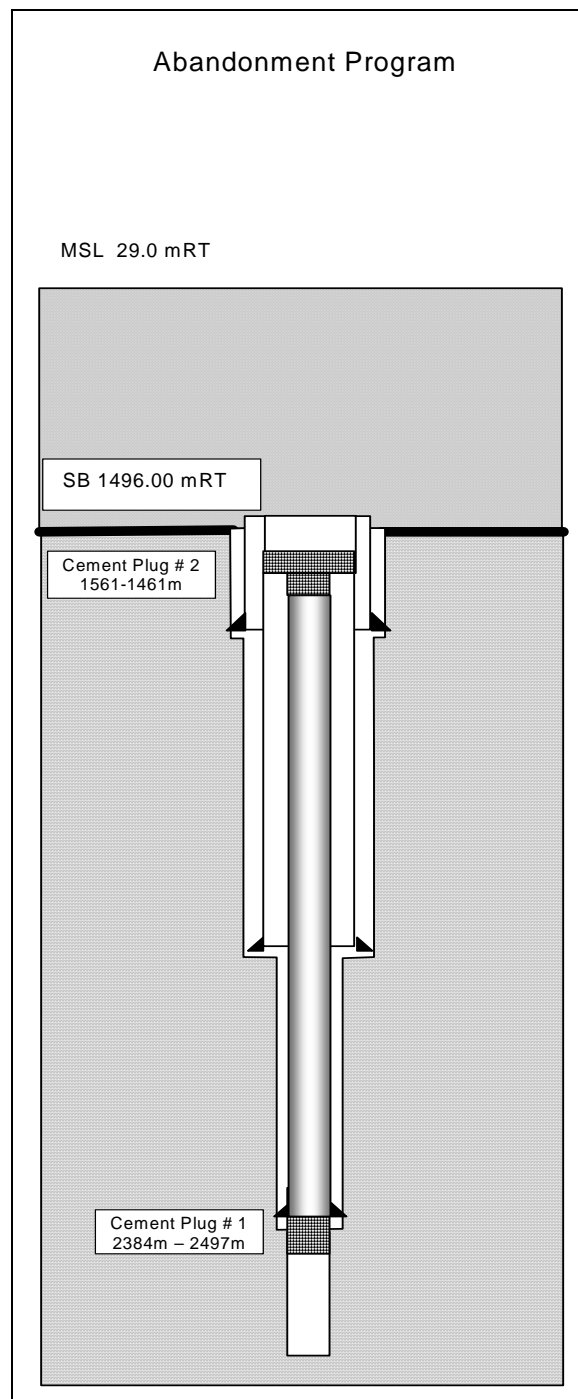
Sacks	256
Type	"G" Neat
Mixwater	5.13gal/sx
Additives	20gal/10bbl HALAD-413L 0.061gal/sx HR-6L 0.003gal/bbl NF-6
Weight	15.8 ppg
Yield	1.16 ft ³ /sx
Volume	55bbbls

Plug 2:

Sacks	382
Type	"G" Neat
Mixwater	5.28gal/sx
Weight	15.8 ppg
Yield	1.19 ft ³ /sx
Volume	81bbbls

Summary

Ran in hole with a 13 3/8" EZSV on 5" drill pipe. The EZSV was set at a depth of +/- 2435mRT and pressure tested to 1100 psi with 1.15 sg mud. Injection rates of 3 bbl/minute were established by the cement unit at which point the drill pipe was un-stung from the EZSV packer. Cement was pumped via the cement unit, 30bbbls were squeezed below and 25bbbls were pumped on top. The string was then pulled to 2350mRT, approximately 35m above the top of the cement. Using the rig pumps +/- 400 bbls of inhibited mud was pumped from 2350m to 1507mRT. The string was pulled and the EZSV running tool laid out. The wear bushing was then pulled before the 13 3/8" casing was cut from 1511m to 82mBML. The hanger was released from the wellhead and flow-checked for 10 minutes before pulling out with the cutter assembly and the 13 3/8" casing. The mule shoe was then run in on 5" drill pipe to 1561m, the bag closed and the well bore tested to 250psi. A balanced cement plug was set from 1561m up to 1461m, the string was then pulled up to 1450m to displace the riser and the choke and kill lines to seawater, all returns were dumped.



SECTION 3

GEOLOGY AND SHOWS

3.1 Geology and Shows

Geological logging for Amrit 1 commenced at 1835mRT below the 508mm (20") casing shoe at 1822mRT to the total depth of 2997mRT.

During the course of the well, all gas equipment was checked and calibrated regularly, and spot samples were taken at drilling breaks and other changes in drilling parameters to better assess lithological change. Calcimetry analyses were undertaken every 25m from 1835m to 2997m.

The Lithology as logged in Amrit 1 is described below. For further detailed descriptions, see Appendix 1, Formation Evaluation Log.

Samples were collected at the following intervals :

<u>Amrit 1</u>	
1835m - 2455m	5m
2455m - 2459m	4m
2459m - 2463m	4m
2463m - TDm	3m

Missed samples were due to either screen changing or the shakers being bypassed : 1865m, 1870m, 1890m, 1895.

Lithological Descriptions:

1835m to 1993m: MARL interbedded with CALCAREOUS CLAYSTONE, CALCILUTITE.

MARL: Very light grey to light greenish grey, very argillaceous, trace quartz fragments, very soft to dispersive, sticky, occasionally firm, amorphous, occasionally sub-blocky.

CALCAREOUS CLAYSTONE: Light olive grey to greenish grey, grading to Marl in places, trace foraminifera, moderately hard to hard, sticky, minor amorphous.

CALCILUTITE: Light grey to greenish grey, common silt grains, moderate soft to firm, sub-blocky

There were no shows in this section.

The section from 1835m to 1993m was drilled with an average ROP of 24.59m/hr and ranged from 4.73m/hr to 51.98m/hr.

Total Gas Units	C1 ppm	C2 ppm	C3 Ppm	IC4 ppm	NC4 Ppm	IC5 ppm	NC5 ppm
0.12 – 41.0	13 - 8782	0 - 0	0 – 3	0	0	0	0

1993m to 2046m: WANGERRIP GROUP : T20

SANDSTONE interbedded with CLAYSTONE, CALCAREOUS CLAYSTONE

SANDSTONE: Translucent to transparent, light grey, loose clean quartz grains, predominantly fine to medium grain size, commonly coarse, very coarse in-part, poor to moderately well sorted, sub-rounded to rounded, occasionally sub-angular, common quartz overgrowths, trace white calcareous cement, light grey

argillaceous matrix, trace disseminated pyrite, abundant glauconite aggregated, poor to fair inferred porosity, no show

CLAYSTONE: predominantly brownish grey to dark brown, grading to SILTSTONE in-part, non calcareous, trace micro pyrite, trace black carbonaceous inclusions, sticky, commonly homogeneous, amorphous, dispersive in-part, sub-blocky

CALCAREOUS CLAYSTONE: Light olive grey to greenish grey, grading to Marl in-part, trace fossil fragments, moderately hard to hard, sticky, minor amorphous, sub blocky

There were no shows in this section.

The section from 1993m to 2046m was drilled with an average ROP of 45.73m/hr and ranged from 22.24m/hr to 99.31m/hr.

Total Gas Units	C1 ppm	C2 Ppm	C3 Ppm	IC4 Ppm	NC4 Ppm	IC5 ppm	NC5 ppm
1.83 – 10.0	517 - 2608	0 – 0	0 – 1	0	0	0	0

**2046m to 2154m: BASE TERTIARY (TOP TIMBOON) : T1
CLAYSTONE interbedded with thin SANDSTONE layer**

CLAYSTONE: Dominantly olive brown to dark brown, occasionally pale yellowish brown, grading to SILTSTONE in-part, non calcareous, trace micro pyrite, trace black inclusions, sticky, commonly homogeneous, amorphous, dispersive in-part, sub-blocky, plastic in-part

SANDSTONE: Commonly light brown aggregated, occasionally clear to translucent, loose quartz grains. The grain size ranges from fine to coarse at the top of the formation, fine to medium grained throughout out remainder of the formation, with occasional to minor amounts of coarse grains. The sandstone is moderately to poorly sorted, sub rounded to rounded with occasional sub angular grains. The sandstone is predominantly loose with no cement, although traces of pyrite cement was seen in the lower section of the formation. There was an argillaceous matrix, silty in parts. Traces of glauconite, quartz overgrowths, trace pyrite, black inclusions, mica and pyrite overgrowths. Poor to fair inferred porosity, no shows.

There were no shows in this section.

The section from 2046m to 2154m was drilled with an average ROP of 33.78m/hr and ranged from 14.14m/hr to 50.97m/hr.

Total Gas Units	C1 ppm	C2 Ppm	C3 ppm	IC4 ppm	NC4 ppm	IC5 ppm	NC5 ppm
0.98 – 17.5	391 - 4263	0 - 10	0 - 3	0	0	0	0

**2154m to 2551m: TIMBOON MUDSTONE : K99
CLAYSTONE interbedded with SILTSTONE**

CLAYSTONE: Commonly moderate brown to dark yellowish brown, grading to SILTSTONE in-part, trace pyrite, very soft to soft, sub-blocky, streaky, amorphous, homogeneous.

SILTSTONE: Brown to dark brown, dark grey to dark brownish grey, abundant argillaceous, grading to CLAYSTONE in part, non calcareous, trace pyrite nodules, trace glauconite, trace lithic fragments, soft, amorphous, dispersive in part, sub-blocky.

There were no shows in this section

The section from 2154m to 2551m was drilled with an average ROP of 20.22/hr and ranged from 1.47m/hr to 78.31m/hr.

Total Gas Units	C1 ppm	C2 ppm	C3 ppm	IC4 ppm	NC4 ppm	IC5 ppm	NC5 ppm
1.02 – 24.8	272 – 5863	0 - 24	0 - 6	0 -2	0 - 5	0	0

**2551m to 2997m: PAARATTE FORMATION : K94
SILTSTONE interbedded with SANDSTONE and trace LIMESTONE**

SANDSTONE: clear-translucent, white, yellowish brown, loose quartz grains. The grain size ranges from medium to coarse, rare very coarse, occasionally fine grains, poorly sorted, sub rounded to rounded with occasional sub angular grains. The sandstone is predominantly light grey argillaceous matrix, slightly siliceous cement, moderately strong calcareous cement in part, trace pyritic, silty in parts. Traces of glauconite, quartz overgrowths, trace pyrite, black carbonaceous specks inclusions, mica, pyrite overgrowths and coal, moderately hard to hard friable in part, Poor to fair inferred porosity, no shows.

There were shows in this section.

In SANDSTONE (2551m – 2559m): trace dull to moderate bright yellow fluorescence, no cut, thin residual ring.

In SANDSTONE (2558m – 2580m): trace to rare fluorescence, trace dull to moderate bright yellow fluorescence, no cut, thin residual ring.

SILTSTONE: Dominantly light brownish grey to light brown, olive grey to brownish grey, arenaceous, grading to a very fine to fine SANDSTONE in the upper part of the formation, argillaceous, grading to CLAYSTONE in parts of the lower formation, non to slightly calcareous, trace fine to medium sand grains, trace black specks, traces of carbonaceous material, rare light brown hard dolomite crystals, traces of very hard LIMESTONE, rare pyrite overgrowths, soft to firm, sticky in parts, dispersive in parts, amorphous to sub blocky

LIMESTONE: Cream to greyish brown, orange in-part, micritic to sparitic, micro-crystalline, trace pyrite nodules, very hard

The section from 2551m to 2997m was drilled with an average ROP of 44.12m/hr and ranged from 4.36m/hr to 152.36m/hr.

Total Gas Units	C1 ppm	C2 Ppm	C3 ppm	IC4 ppm	NC4 ppm	IC5 ppm	NC5 ppm
2.8 – 145.8	20 - 24921	0 - 663	0 - 214	0 - 52	0 - 41	0 - 16	0 - 10

3.2 Sampling Summary and Record of Distribution

Samples were collected at the following intervals for Amrit 1

Amrit 1	
1835m – 2459m	5m
2459m - 2979m	3m

Total Number of Boxes : 4

SAMPLE TYPE	No. of Sets	Sample Box No	COMPOSTITION		Packing Details
			Depth Interval (m)		and notes
			From	To	
washed and dried	-	-	-	-	Samples sent to Perth
Samplex Tray	3	1	1438	2979	each set pack in 1 box
Mud Samples	1	1	-	-	1 small box

Sample Destination:

Due to time limitations imposed by Transocean contractual obligations the washed and air dried samples were boxed and shipped to the BHI office in Perth, WA for processing. Distribution to follow. Set 1 to be sent to DPI (c/o address below). Sets 2- 6 to be sent to Santos Core Library (address below) for onward distribution.

Set 1 (100g Cuttings Sample) sent to:

DPI
c/o Santos Core Library
Ascot Transport
30 Francis Street
Port Adelaide, SA 5015

Set 2 (200g Cuttings Sample) sent to:

Geoscience Australia
Attn:Challenger Geology Services
Ascot Transport
30 Francis Street
Port Adelaide, SA 5015

Sets 3-5 (100g Cuttings Sample) sent to:

Santos Partners
c/o Santos Core Library
Ascot Transport
30 Francis Street
Port Adelaide, SA 5015

Set 6 (Samplex Trays) sent to:

Santos Ops. Geology, Adelaide
c/o Santos Core Library
Ascot Transport
30Francis Street
Port Adelaide, SA 5015

Set 7 (Mud samples) sent to:

Santos Ops. Geology, Adelaide
c/o Santos Core Library
Ascot Transport
30 Francis Street
Port Adelaide, SA 5015

Set 8 (Miscellaneous Samples/worksheets/charts etc.) sent to:

Santos Core Library
Ascot Transport
30 Francis Street
Port Adelaide, SA 5015

Samples shipped from Transocean Jack Bates in container # 41329

Additional:

Sidewall cores - Handcarried by Santos WSG

Palynology Sample Set - Handcarried by Santos WSG

SECTION 4

PRESSURE EVALUATION

4.1 Pore Pressure Evaluation

Amrit 1

On Amrit 1, a water density of 1.04sg was assumed as normal saline pressure gradient for all calculations. The equivalent depth method was applied in the Dxc analysis, with all relevant drilling data, such as connection gas, trip gas, background gas, hole condition and mud flowline temperature all taken into consideration in the analysis of the formation pore pressure.

660mm (26") Hole Section: 1425 - 1835mRT

This hole section was drilled riserless, with seawater and gel sweeps, using a normal seawater density of 1.04sg, therefore pore pressure analysis is based upon drilling parameters, hole condition and observation by the ROV for the presence of shallow gas. The hole condition remained good throughout this section, and no shallow gas observations were made. The Dxc trend is initially widely scattered in the top portion of the hole, where upper unconsolidated sediments were essentially jetted rather than drilled, but after the setting of the surface conductor, the Dxc trend was normal - right trending, indicative of a normal formation pressure. The Dxc intercept calculates at 0.04320 and the Dxc slope trends at 0.000231 Dxc/ft. This, together with the lack of other indicators of abnormal pressure, means that this section can be assumed to be normally pressured to 1.04sg.

445mm (17 1/2") Hole Section: 1835 – 2459mRT

This hole section was also drilled in one bit run using a Reed mill tooth bit and a mud motor for drilling performance. The mud weight used for this section was initially 1.06ppg, rising to 1.11 by the end of the section due to increasing drilled solids within the mud system. The use of a mud motor makes Dxc analysis problematic at best, however the Dxc trend is predominantly good, with a clear, normal, right-hand trend. The Dxc intercept calculates at 0.509 and the Dxc slope trends at 0.000048 Dxc/ft for this normal trend. There are deviations that can be explained by formation changes. No pressure cavings were observed returning to the surface while drilling, or while cleaning the hole. Standard flow-checks were static and no connection gasses were recorded. The background gas levels remained low and showed no discernable increase that was not related to penetration rate (which itself remained reasonably consistent.) The mud temperature profile remained generally unchanging, due mainly to the cooling effect of the long riser interval, no abnormal increases were observed. Analysis with Geopress evaluation software suggests a pore pressure varying between 1.03sg to 1.06sg, but essentially trending to 1.04sg. This hole section was therefore taken to be normally pressured.

311mm (12 1/4") Hole Section: 2459 – 2979mRT(TD)

This section was drilled using a motor and two bit runs, both PDC, with the mid section bit change being made due to lower than expected penetration rate. An initial mud weight of 1.11sg was used, with this being increased to 1.14ppg by the end of the first section in anticipation of an expected ramping up of the formation pressure towards the end of the section. The Dxc trend of the first bit run can be considered to be normal, with variations due to changes in formation, such as the intersection of the primary sands. The Dxc intercept calculates at 0.08105 and the Dxc slope trends at 0.000135 Dxc/ft for this normal trend. However, towards the end of the bit run, a clear swing to the right can be seen, normally indicative of a dull character, and although this bit was not found to have worn cutters, it was found to be balled. This 'Dull' character had the effect of masking any indications Dxc might have had at this point. Again no connection gasses were recorded while drilling with the first bit run, and likewise no abnormal temperature increases were noted. Also no pressure cavings were observed, however there was an increase in background gas during this run, beginning at the intersection of the primary target, however, this increase was minor and associated with target sands. It is interesting to note that a decreasing trend in resistivity was observed towards the base of this first bit run. Geopress evaluation software suggests a pore pressure trend of 1.06sg through the first bit run of this section.

The second bit run was drilled again with a PDC bit, and with a mud weight that was held mostly to 1.14sg, rising to 1.15sg in the final stages of the hole. The formation consisted predominantly of siltstone and the observed Dxc trend shows a slight left-hand trend indicative of an increasing pore pressure. No abnormal changes in mud temperature were observed, but it is likely the cooling effect of the long riser section would negate effects on temperature. Likewise no pressure cavings were observed at surface. Higher than previous rates of penetration and the associated higher levels of recorded gas made the assessment of connection gasses problematic. It was likely that there were some mild connection gasses, but the nature of the fluctuating gas readings throughout a stand made their positive identification impossible. It should be noted that the background gas levels increased substantially over the course of the final bit run. Even after the higher rate of penetration was considered, this can be assumed to be indicative of a higher formation pressure. Geopress evaluation software shows an increase in pore pressure to 1.09sg through the upper section of this final bit run, before increasing to 1.11sg at about 2890mRT and 'ramping up' to 1.13sg by the base of the section.

It is concluded that this section was abnormally pressured and that the formation pressure was increasing when well TD was reached.

4.2 Fracture Pressure Evaluation

The 762 mm (30") and the 660mm (26") holes were drilled with seawater and PHG sweeps with returns to the seabed. No loss of circulation was reported by the ROV while observing returns.

After drilling out the 660mm (26") casing shoe, 3m of new 445mm (17 1/2") hole was drilled to 1838mRT where a Leak Off Test (LOT) was performed. The test was achieved with 210 psi surface pressure using 1.06 sg mud density, giving an integrity test of 1.11 sg EMW. Heavy surface losses at the shakers may have disguised some minor down-hole losses, however the well was found to be static when surface losses were controlled and any increase in trend could be matched to increased flow over blinded shakers, therefore full returns were assumed while drilling this section. ECD was calculated for this interval to be 1.08sg for most of this interval, rising up to 1.11sg from 2235mRT. The ECD did not exceed the fracture pressure, which was calculated as being 1.11sg, rising to 1.13sg near the end of the section.

While cementing the 13-3/8" casing the bottom plug was displaced with tuned spacer, the lead and tail slurry's were pumped. However, when the rig pumps were used to displace the cement, pit levels stabilized with no losses for 12min before returns were lost completely. The well was monitored on the trip tank, and returns were again seen after a total of 95bbls was lost to the hole.

An attempt to conduct a LOT was made after drilling out the 311mm (12 1/4") shoe, but this failed to leak-off even though formation was observed in returns. A second attempt was performed in the 311mm (12-1/4") hole after drilling 18m of new formation from 2459m to 2477m. The test was performed with 710 psi surface pressure using 1.11 sg mud weight giving an EMW of 1.32 sg. The mud weight whilst drilling was kept between 1.14 and 1.15 sg, which produced an ECD of up to 1.17 sg. Full returns were observed while drilling this section. Poor hole cleaning in the lower section of the 311mm (12 1/4") hole produced an observed ECD of 1.24 sg, drilling ceased whilst the hole was circulated clean, the only losses encountered were at surface, which at times were substantial. Calculated fracture pressures ranged from 1.38sg initially, increasing with depth to 1.42sg by well TD, with the calculated fracture pressure at all times exceeding the ECD by a clear margin.

At no time during the drilling of the Amrit 1 well did the ECD exceed the known or calculated formation fracture pressures.


The following is a summary of the leak off tests conducted in this well:

Hole Diameter	Hole Depth	Casing	Shoe Depth	Pressure	Mud Weight	EMW
445mm (17 1/2")	1838mRT	20"	1822 m	210 psi	1.06 sg	1.11 sg
311mm (12 1/4")	2477mRT	13-3/8"	2454 m	710 psi	1.11 sg	1.32 sg

TABLES

Table 2: Bit Hydraulics Summary

Tables

 <h2 style="text-align: center;">Bit Hydraulics Summary</h2>																				
Operator Santos					Well Name Amrit 1					Location Vic/P52			Drilling Contractor Transocean Sedco Forex					Rig Jack Bates		
Drillstring Abbreviations N Normal P Positive Displacement Motor C Core M MWD A Adjustable Gauge Stabilizer										Hydraulics Models Robertson-Stiff model used for drilling with mud Bingham Model used for coring and drilling with sea water										
Bit No.	Depth AHD (m)	Hole Size (in)	Jets (x 1/32")	Drill String Type	Mud Type	Mud Density (sg)	PV (cP)	YP (lbs/100 ft sq)	Flow Rate (gpm)	Jet Vel (m/sec)	Impact Force (lb/in2)	Hydraulic Power (hhp)	Power/Area (hp/sq in)	Bit Loss (Psi)	Bit Loss (%)	Pipe Loss (Psi)	ECD (sg)	Annular Velocities		
																	DP OH (m/min)	DC OH (m/min)	DC Critical (m/min)	
17 1/2" Hole Section																				
NB 2	1835	445mm (17 1/2")	3 x 22, 1 x 20	PM	KCl / PHPA	1.03	20	26	950	65	4	1716.3	0.8	322	9.7	1187	1.12-1.15	25	33	-
12 1/4" Hole Section																				
NB3	2468	311mm (12 1/4")	6 x 14	PM	KCl / PHPA	1.11	21	26	740	263	8	1163.7	1.9	500	18.5	840	1.13	42	86	-
NB3	2695	311mm (12 1/4")	6 X 14	PM	KCl / PHPA	1.11	21	25	875	311	11	1831.5	3.1	699	19.4	1193	1.13	52	109	-
NB4	2878	311mm (12 1/4")	5 x 14	PM	KCl / PHPA	1.14	23	30	828	308	11	1671.2	2.9	699	20.2	1165	1.15	49	103	-
NB4	2878	311mm (12 1/4")	5 x 14	PM	KCl / PHPA	1.14	23	30	830	308	10	1734.0	2.9	702	19.6	1251	1.16	49	103	-

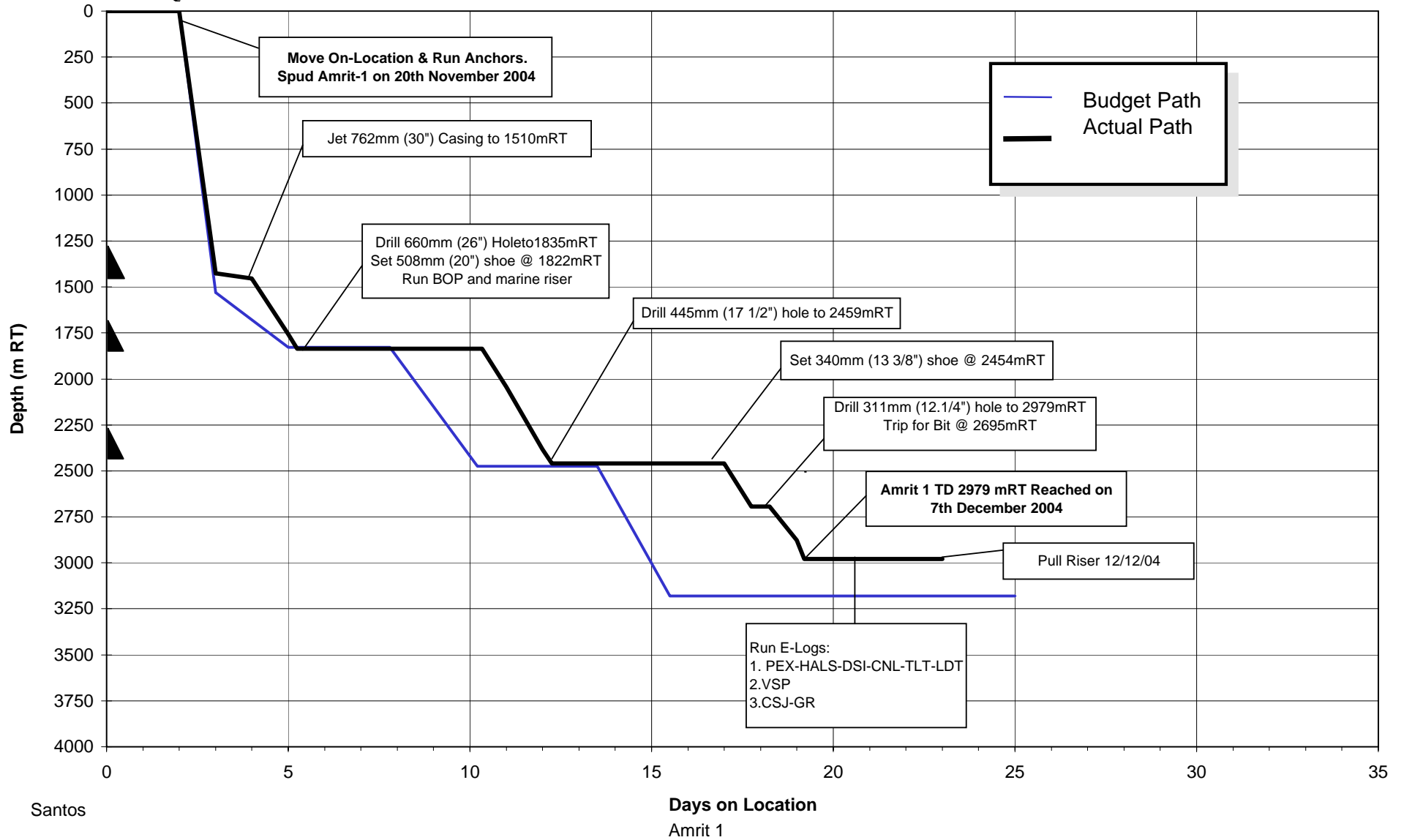


Santos

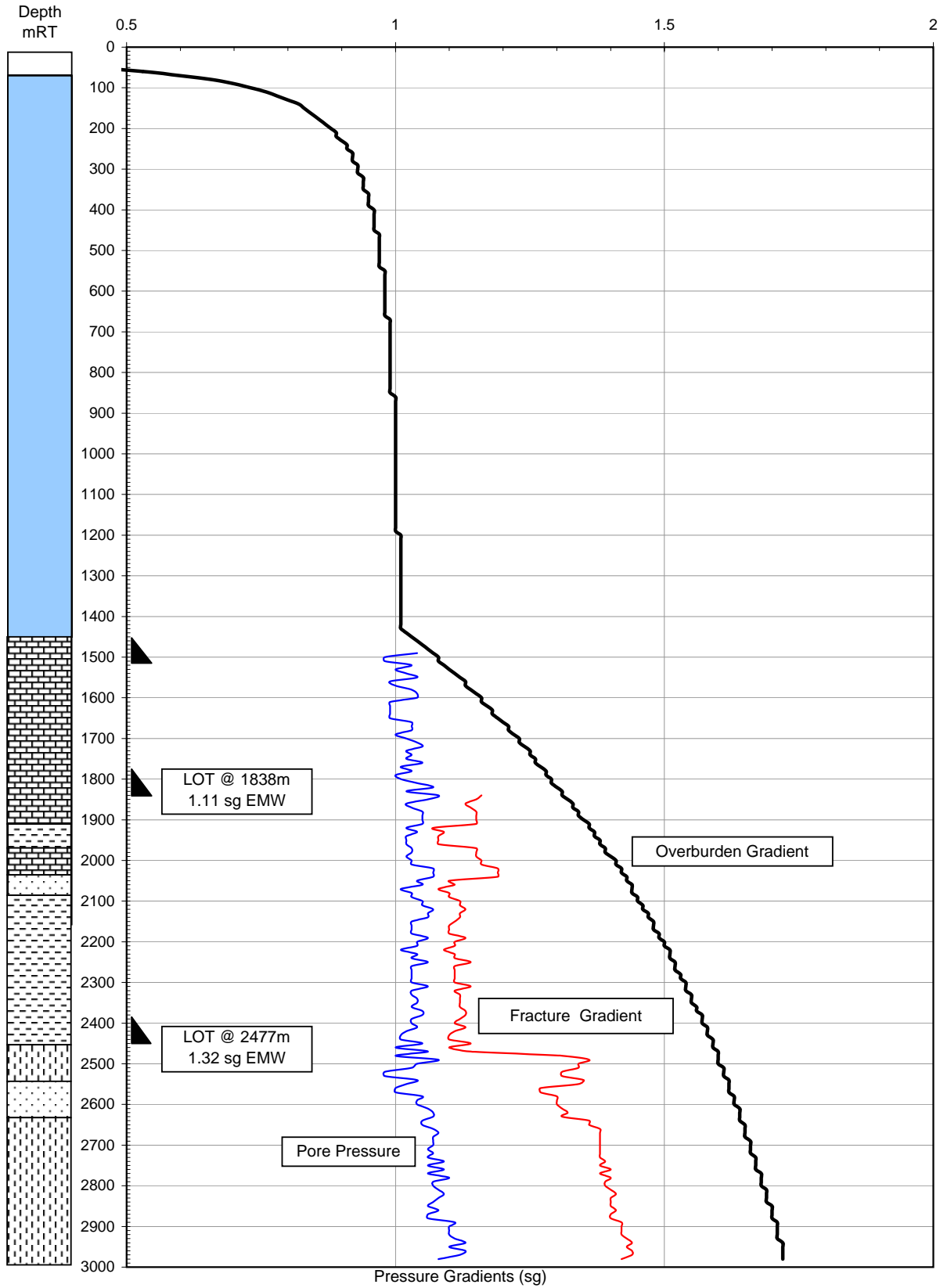
Amrit 1

Time vs. Depth Curve

INTEQ



Pressure Summary Plot Amrit 1 1:14000



Surveys: All surveys were conducted using an Anadrill MWD tool.

Amrit 1 Final Survey Report

<p>Report Date: December 7, 2004 Client: Santos-Unocal-Inpex Field: AMRIT Structure / Slot: Amrit / Amrit Well: Amrit 1 Borehole: Amrit 1 UWI/API#: Survey Name / Date: Actual MWD Survey / November 20, 2004 Tort / AHD / DDI / ERD ratio: 11.755° / 16.39 m / 2.801 / 0.006 Grid Coordinate System: GDA94/MGA94 Zone 54 Location Lat/Long: S 38 56 5.200, E 141 44 7.080 Location Grid N/E Y/X: N 5690204.160 m, E 563729.701 m Grid Convergence Angle: -0.46210403° Grid Scale Factor: 0.99965001</p>	<p>Survey / DLS Computation Method: Minimum Curvature / Lubinski Vertical Section Azimuth: 216.840° Vertical Section Origin: N 0.000 m, E 0.000 m TVD Reference Datum: Rotary Table TVD Reference Elevation: -29.0 m relative to MSL Sea Bed / Ground Level Elevation: 1395.000 m relative to MSL Magnetic Declination: 10.485° Total Field Strength: 61097.114 nT Magnetic Dip: -70.233° Declination Date: November 20, 2004 Magnetic Declination Model: BGGM 2003 North Reference: Grid North Total Corr Mag North -> Grid North: +10.947° Local Coordinates Referenced To: Well Head</p>
--	---

Comments	Measured Depth (m)	Inclination (deg)	Azimuth (deg)	TVD (m)	Vertical Section (m)	NS (m)	EW (m)	Closure (m)	Closure Azimuth (deg)	DLS (deg/30 m)	Tool Face (deg)
Tie-In	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-125.67M
	1425.49	0.59	234.33	1425.46	7.00	-4.28	-5.96	7.34	234.33	0.01	-64.11M
	1454.01	1.07	295.89	1453.98	7.19	-4.25	-6.32	7.62	236.09	0.99	129.33M
	1487.29	0.97	129.33	1487.26	7.26	-4.29	-6.38	7.69	236.08	1.83	56.64M
	1510.95	0.86	56.64	1510.92	7.10	-4.32	-6.08	7.46	234.60	1.38	-56.22M
	1539.34	0.80	303.78	1539.31	6.91	-4.09	-6.07	7.32	235.99	1.46	-44.03M
	1568.02	0.85	315.97	1567.98	6.89	-3.83	-6.38	7.44	239.03	0.19	-51.43M
	1595.59	0.53	308.57	1595.55	6.85	-3.60	-6.62	7.54	241.45	0.36	-55.62M
	1624.12	0.56	304.38	1624.08	6.86	-3.44	-6.84	7.66	243.29	0.05	-61.11M
	1653.18	0.34	298.89	1653.14	6.87	-3.32	-7.03	7.78	244.73	0.23	-54.97M
	1681.34	0.26	305.03	1681.30	6.89	-3.24	-7.16	7.86	245.63	0.09	-40.44M
	1709.52	0.31	319.56	1709.48	6.87	-3.15	-7.26	7.91	246.56	0.09	-48.33M
	1737.89	0.40	311.67	1737.85	6.85	-3.02	-7.38	7.98	247.73	0.11	-60.22M
	1766.33	0.35	299.78	1766.29	6.85	-2.92	-7.53	8.08	248.85	0.10	-98.73M
	1809.32	0.26	261.27	1809.28	6.94	-2.86	-7.74	8.26	249.70	0.15	-129.00M
	1849.73	0.23	231.00	1849.69	7.08	-2.93	-7.90	8.42	249.65	0.10	-166.30M
	1878.02	0.37	193.70	1877.98	7.22	-3.05	-7.96	8.53	249.02	0.25	-136.02M
	1908.10	0.34	223.98	1908.06	7.40	-3.21	-8.05	8.67	248.24	0.19	-94.43M
	1935.76	0.18	265.57	1935.72	7.51	-3.28	-8.15	8.78	248.11	0.26	-107.09M
	1963.97	0.17	252.91	1963.93	7.57	-3.29	-8.23	8.87	248.21	0.04	-155.60M
	1991.95	0.12	204.40	1991.91	7.63	-3.33	-8.29	8.93	248.11	0.14	-129.00M
	2020.87	0.20	231.00	2020.82	7.71	-3.39	-8.34	9.00	247.88	0.11	-136.80M
	2049.42	0.23	223.20	2049.37	7.82	-3.46	-8.41	9.10	247.64	0.04	-145.26M
	2077.78	0.26	214.74	2077.73	7.94	-3.56	-8.49	9.21	247.27	0.05	-176.25M
	2105.32	0.33	183.75	2105.27	8.07	-3.69	-8.53	9.29	246.63	0.19	176.46M
	2134.71	0.29	176.46	2134.66	8.19	-3.85	-8.53	9.36	245.74	0.06	-156.66M
	2162.92	0.22	203.34	2162.87	8.30	-3.97	-8.55	9.42	245.11	0.15	-179.63M
	2192.60	0.14	180.37	2192.55	8.39	-4.06	-8.57	9.48	244.68	0.11	145.56M
	2217.09	0.08	145.56	2217.04	8.41	-4.10	-8.56	9.49	244.42	0.11	-156.80M
	2220.68	0.29	203.20	2220.63	8.42	-4.11	-8.56	9.50	244.37	2.14	-139.95M
	2248.46	0.15	220.05	2248.41	8.53	-4.20	-8.62	9.59	244.00	0.16	-176.11M
	2277.22	0.31	183.89	2277.17	8.63	-4.31	-8.65	9.66	243.51	0.22	-143.93M
	2306.21	0.34	216.07	2306.16	8.78	-4.46	-8.70	9.78	242.88	0.19	-174.93M
	2334.13	0.40	185.07	2334.08	8.95	-4.62	-8.76	9.90	242.19	0.22	-138.92M
	2361.66	0.37	221.08	2361.61	9.12	-4.78	-8.83	10.04	241.55	0.26	-127.15M
	2390.55	0.33	232.85	2390.50	9.29	-4.90	-8.95	10.21	241.29	0.09	-159.80M
	2419.57	0.32	200.20	2419.52	9.45	-5.03	-9.05	10.35	240.93	0.19	-151.41M
	2433.15	0.24	208.59	2433.10	9.52	-5.09	-9.07	10.40	240.71	0.20	-125.65M
	2476.28	0.50	234.35	2476.23	9.78	-5.28	-9.27	10.67	240.34	0.21	-143.40M
	2524.29	0.33	216.60	2524.24	10.12	-5.51	-9.52	11.00	239.94	0.13	-164.89M
	2649.13	0.37	195.11	2649.08	10.86	-6.19	-9.84	11.63	237.83	0.03	-160.21M
	2762.85	0.23	199.79	2762.79	11.42	-6.76	-10.02	12.08	235.98	0.04	-169.19M
	2878.16	0.23	190.81	2878.10	11.84	-7.20	-10.14	12.44	234.60	0.01	140.59M
	2950.00	0.26	140.59	2949.94	12.01	-7.47	-10.06	12.53	233.40	0.09	140.59M
projected to TD	2979.00	0.26	140.59	2978.94	12.04	-7.57	-9.98	12.53	232.80	0.00	0.00M

Survey Type: Raw Survey

Survey Error Model: SLB ISCWSA version 16 *** 3-D 95.00% Confidence 2.7955 sigma

Surveying Prog:

MD From (m)	MD To (m)	EOU Freq Survey Tool Type
0.00	2979.00	Act-Stns SLB_MWD-STD

APPENDICES

FORMATION EVALUATION LOG

1:500

DRILLING DATA PLOT

1:2500

PRESSURE EVALUATION PLOT
1:2500

GAS RATIO PLOT

1:500

SECTION 13:- RIG POSITIONING REPORT



**REPORT FOR THE
JACK BATES RIG MOVE TO THE
AMRIT-1 LOCATION**

FUGRO SURVEY JOB NO. - P0144

Client : Santos Limited
Level 10, Santos House
91 King William Street
Adelaide 5000
South Australia

Date of Survey : 12 – 22 November 2004

Rev	Description	Checked	Approved	Date
0	Final			30 November 2004

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APPENDIX B : FINAL POSITIONING DATA
APPENDIX C : DGPS AND GYRO CHECKS
APPENDIX D : PROJECT COORDINATE LISTING AND PROCEDURES

ABSTRACT

Between 12 and 22 November 2004, Fugro Survey Pty Ltd (Fugro) provided equipment and personnel for the semi-submersible Mobile Offshore Drilling Unit Jack Bates, rig move from Callister-1 to the Amrit-1 location in Permit Vic/P 52 Bass Strait, Australia.

Surface positioning was achieved utilising Fugro's MRDGPS and Starfix.Seis Navigation Software.

The final position for the drill stem derived from DGPS observations at the Amrit-1 location is:

Location Name:	Amrit-1
Easting (m):	563729.57
Northing (m)::	5690204.12
Latitude:	38° 56' 05.201" S
Longitude:	141° 44' 07.075" E
Rig Heading:	217.3° (True)

This position is 2.9m on a bearing of 338.7° (True) from the proposed Amrit-1 location.

All coordinates in this report are quoted in GDA94 datum and MGA, Zone 50 (CM 141° E) projection, unless otherwise stated.

1.0 INTRODUCTION

Fugro Survey Pty Ltd (Fugro) was contracted by Santos Limited (Santos) to provide navigation and positioning survey services on board the semi-submersible Mobile Offshore Drilling Unit (MODU) *Jack Bates*, during the rig move to the Amrit-1 location in Permit Vic/P 52 Bass Strait, Australia.

A general location diagram is shown as Figure 1-1.

This report details the equipment used, survey parameters adopted, procedures employed and the results achieved. A section on safety is included in Section 3.0 of this report.

1.1 Scope of Work

Personnel and equipment were provided on a 24 hour per day basis for:

- Calibration and function testing of the survey equipment on board the rig and the two Anchor Handling Vessels (AHVs).
- Surface navigation for the *Jack Bates*, using Fugro's multiple reference station Differential GPS (DGPS) and Starfix.Seis Navigation Software.
- Surface navigation for AHVs during anchoring operations, using Starfix VBS DGPS, WOMBAT and Starfix.Seis navigation software.
- Final rig surface positioning for the Amrit-1 location using DGPS observations.
- Final reporting of the positioning results.

1.2 Sequence of Events

On 12 November 2004, M. Elmslie and L. Clark departed Perth for Melbourne. On the same day M. Elmslie and L. Clark joined the *Jack Bates* at the Callister-1 location. After performing equipment calibrations, the anchors were recovered on 16 November 2004, and the rig tow to Amrit-1 commenced. Between 17 and 18 November 2004, the rig was positioned on location at Amrit-1. Fugro personnel departed the rig on 19 and 22 November 2004.

Further details of Fugro's involvement in the rig move are presented in the Daily Operations Reports included in Appendix A.



GENERAL LOCATION DIAGRAM

FIGURE 1-1

2.0 RESULTS

2.1 Final Position

The final position of the *Jack Bates* drill stem was established by calculating the mean position from one hour of DGPS data logged between 18:19 and 19:19 on 21 November 2004. During this period, calculated drill stem coordinates from the primary and secondary positioning systems were logged at five second intervals in Starfix.Seis. Data from the primary positioning system was used for the final position calculation.

Differential GPS corrections were derived using a multi-reference solution with base station data from Cobar, Ceduna, Melbourne and Bathurst.

GDA94 geographical positions for the Amrit-1 location are shown in Table 2-1.

GDA94			
Position	Method	Latitude	Longitude
Drill Stem at Surface	MRDGPS	38° 56' 05.201" S	141° 44' 07.075" E
Proposed Location	-	38° 56' 05.290" S	141° 44' 07.120" E

TABLE 2-1 : GEOGRAPHICAL POSITIONS FOR AMRIT-1

GDA94 grid coordinates (CM 141° E) for Amrit-1 location are shown in Table 2-2.

GDA94, MGA, CM 141°E			
Position	Method	Easting (m)	Northing (m)
Drill Stem at Surface	MRDGPS	563729.57	5690204.12
Proposed Location	-	563730.64	5690201.38

TABLE 2-2 : GRID COORDINATES FOR AMRIT-1

This position is 2.9m at a bearing of 338.7° (True) from the design location.

A copy of the original rig position field report is contained in Appendix B.

2.2 Rig Heading

The heading of the *Jack Bates* was established by calculating the average heading during one hour of corrected gyro compass readings logged between 18:19 and 19:19 on 21 November 2004. During this period gyro readings were logged at five second intervals in Starfix.Seis.

The *Jack Bates*' heading is shown in Table 2-3.

Description	Method	True	Grid
Rig Heading	Gyro	217.3°	217.7°
Proposed Heading	-	215.0°	215.5°

TABLE 2-3 : RIG HEADING

2.3 Anchor Positions

The approximate locations of the *Jack Bates'* anchors are shown in Table 2-4.

GDA94, MGA, CM 141°E				
Anchor	Easting (m)	Northing (m)	Azimuth	Deployed By
1	561734	5689320	245.1°	<i>Lady Astrid</i>
2	561739	5690662	282.7°	<i>Lady Astrid</i>
3	562723	5691882	328.2°	<i>Lady Astrid</i>
4	563963	5692588	5.4°	<i>Lady Caroline</i>
5	565549	5691020	64.9°	<i>Lady Caroline</i>
6	565548	5689787	102.7°	<i>Lady Caroline</i>
7	564895	5688331	147.3°	<i>Lady Caroline</i>
8	563543	5688065	184.8°	<i>Lady Caroline</i>

TABLE 2-4 : ANCHOR POSITIONS

The approximate seabed locations of the *Jack Bates'* anchors were calculated from the position of the AHV stern at the time of deployment, together with the bearing to the anchor and distance calculations obtained from chain paid out from the rig's chain counters and corrected for catenary.

3.0 SAFETY

All work undertaken by Fugro personnel during the project was performed within the guidelines of Fugro's Safety Policy, as defined in Fugro's Safety Manual (SMS-P01) and Offshore Survey Safety Practices (SMS FSP26).

Fugro personnel worked within all project safety guidelines and plans adopted by Santos and Transocean International.

No safety incidents involving Fugro personnel were reported during the project.

Fugro personnel attended a vessel induction and muster drill whilst on board.

A Project Specific Safety Plan was developed for positioning services on board the *Jack Bates* for the Amrit-1 rig move.

4.0 SURVEY PROCEDURES

4.1 Mobilisation

Mobilisation commenced with departure of the survey team from Perth on 7 November 2004. Fugro personnel then transferred to the *Jack Bates*, which was at the Callister-1 location. Following a rig induction, the survey equipment was mobilised, powered up and systems and function tests completed.

4.2 General Survey Procedures

The tow was conducted with the *Lady Astrid* connected to the main tow bridle.

The *Lady Astrid* manoeuvred the rig onto the Amrit-1 location using an approach 'run-in' line of two nautical miles extended from the Anchor #4 drop point through to the proposed well location. After Anchor #4 had been deployed by the *Lady Caroline*, the *Lady Astrid* continued towing and positioned the rig over the proposed Amrit-1 location.

After establishing that Anchor #4 was holding and the rig was maintaining its position over the Amrit-1 location, the *Lady Caroline* ran Anchors #8, #5, #6 and #7. The *Lady Astrid* subsequently ran Anchors #1, #2 and #3.

Once all anchors were laid, the *Jack Bates* applied tension to the anchor wires.

During the deployment of each anchor, the AHVs were provided with a waypoint and the corresponding run line via the Wombat telemetry system. The AHVs then ran out the anchor chain along this line to the desired drop point. The anchor chain was then stretched out and the anchor lowered to the seabed. After confirming that the anchor was holding, the vessel then stripped the chain chaser back to the rig.

The *Jack Bates* was positioned over the Amrit-1 location with all anchoring and pre-tensioning complete at 11:20 on 18 November 2004. Final position data was logged between 18:19 and 19:19 on 21 November 2004. A rig positioning field report was issued to the Santos Survey QC representative and the Santos Company Representative (refer Appendix B).

4.3 Demobilisation

All navigation systems on board the *Jack Bates* and AHVs were left powered up during demobilisation and left on board the vessels for the anchor recovery at Amrit-1.

Fugro personnel departed the rig and returned to Perth on 19 and 22 November 2004.

5.0 EQUIPMENT CALIBRATIONS

5.1 DGPS Navigation Integrity Check

In order to check the correct operation of the navigation systems installed on board the *Jack Bates*, DGPS data was logged for 10 minutes on 13 November 2004, while the rig was located at Callister-1.

A comparison of the primary and secondary DGPS was also conducted. The results from both of these tests are provided in Table 5-1.

GDA94, MGA, CM 141°E				
	Latitude	Longitude	Easting (m)	Northing (m)
Established Well Coordinates	38° 31' 59.689" S	141° 28' 23.463" E	541241.78	5734911.33
Observed Coordinates	38° 31' 59.596" S	141° 28' 23.589" E	541244.85	5734914.18
Differences			-3.10	-2.80
Primary Navigation	38° 31' 59.596" S	141° 28' 23.589" E	541244.85	5734914.18
Secondary Navigation	38° 31' 59.635" S	141° 28' 23.558" E	541244.10	5734913.00
Differences			0.75	1.18

TABLE 5-1 : DGPS NAVIGATION INTEGRITY CHECK

The DGPS check described above demonstrated that the navigation systems on board the *Jack Bates* were set up and working correctly. Details of the DGPS check are provided in Appendix C.

A positioning check list was completed for the Callister-1 location to confirm the proposed rig position and to ensure that the correct geodetic datum, transformation and projection parameters were being used. Geodetic calculations were performed using both Starfix.Seis and the off-line geodetic calculation package GEO. This checklist (FSHY48-1) is shown in Appendix C.

5.2 Gyro Compass Calibration

The calibration of the survey gyro compass was carried out on 9 October 2004, whilst the rig was under tow to the Callister-1 location.

A series of observations were made to the sun from which the rig heading was calculated. The calculated values were then compared to the observed gyro compass values logged in Starfix.Seis and a mean C-O value of -180.1° was determined. This correction was applied in the navigation suite.

Details of the observations and gyro calibration reduction results are enclosed in Appendix C.

Because the gyro compass had been left powered up it was deemed not necessary to conduct another calibration on arrival at Amrit-1.

6.0 SURVEY PARAMETERS

6.1 Geodetic Parameters

All coordinates are referenced to the Geocentric Datum of Australia 1994 (GDA94) unless otherwise noted. The Global Positioning System (GPS) operates on the World Geodetic System 1984 (WGS84) datum. Fugro's Differential GPS Reference Stations are currently defined in the International Terrestrial Reference Frame 2000 (ITRF2000 Epoch 2004.75) datum. Due to the continual refinement of the WGS84 reference frame, for all cases, the transformation parameters indicate that the WGS84 and ITRF2000 reference frames are essentially identical.

Datum	World Geodetic System 1984 (WGS84)
Reference Spheroid	World Geodetic System 1984
Semi Major Axis	6378137.000m
Inverse flattening	298.257223563

Datum	Geocentric Datum of Australia 1994 (GDA94)
Reference Spheroid	Geodetic Reference System 1980 (GRS80)
Semi Major Axis	6378137.000m
Inverse flattening	298.257222101

The following seven parameter datum transformation (Table 6-1) will be used in Fugro's software, to transform WGS84 (ITRF2000 Epoch 2004.50) coordinates to GDA94 coordinates. These parameters are calculated from the 14 parameter transformation defined by Geoscience Australia. Fugro follows the Coordinate Frame Rotation convention (as defined by UKOOA) for datum transformations.

Transformation Parameters from WGS84 (ITRF2000 Epoch 2004.50) to GDA94			
dX	-0.0266m	rX	+0.0134"
dY	-0.0303m	rY	+0.0124"
dZ	-0.0339m	rZ	+0.0140"
		dS	+0.0055ppm

TABLE 6-1 : TRANSFORMATION PARAMETERS

The proposed drilling location and all project coordinates are grid coordinates on the Map Grid of Australia.

Grid	:	Map Grid of Australia (MGA)
Projection	:	Transverse Mercator
Latitude of Origin	:	0°
Central Meridian	:	141° E (UTM Zone 54)
Central Scale Factor	:	0.9996
False Easting	:	500000m
False Northing	:	10000000m
Units	:	Metres

6.2 Differential GPS Reference Stations

Fugro's Differential GPS Reference Stations are currently defined in the ITRF2000 (Epoch 2004.75) datum and shown in Table 6-2.

ITRF 2000, EPOCH 2004.75					
Station	Id	Latitude	Longitude	Height (m)	Uplink
Melbourne	385	37° 48' 29.010" S	144° 57' 48.028" E	82.061	Optus/APSat
Bathurst	336	33° 25' 46.884" S	149° 34' 01.968" E	756.657	Optus/APSat
Ceduna	355	32° 07' 03.054" S	133° 41' 22.848" E	7.269	Optus
Cobar	316	31° 29' 57.436" S	145° 50' 20.343" E	270.16	Optus/APSat

TABLE 6-2 : DGPS REFERENCE STATIONS

6.3 Project Coordinates and Tolerances

Project target coordinates and surface tolerance for Amrit-1 location were supplied by Santos and are shown in Table 6-3.

GDA94, MGA, CM 141°E			
Location	Easting (m)	Northing (m)	Tolerances
Amrit-1	563730.64	5690201.38	10m radius

TABLE 6-3 : PROJECT DESIGN COORDINATES

7.0 EQUIPMENT AND PERSONNEL

7.1 Equipment Listing

Survey equipment used for the positioning of the *Jack Bates* was as follows:

Jack Bates

2 x	Starfix satellite DGPS (1 Optus link, 1 APSat link)
2 x	Trimble 4000 series GPS receivers
2 x	Pentium III computers, running Fugro's Starfix.Seis navigation software suite (1 spare)
4 x	15" monitors (2 Seis, 1 Helm, 1 spare)
1 x	SG Brown gyro compass
2 x	Un-interruptible power supply units (UPS)
1 x	Teledesign radio/modem
1 x	Marine Sextant
1 x	Printer

AHVs (complete system per vessel, plus one complete set of spares)

1 x	Pentium computers, running Starfix Display/Wombat
1 x	Monitors
1 x	Starfix VBS units
1 x	Fluxgate compasses
1 x	Teledesign radio/modems

All systems were provided complete with all necessary cabling, connectors, power supplies, antennae, accessories, manuals and consumables.

Refer to Figure 7-1 for an equipment flow diagram for the *Jack Bates* and Figure 7-2 for the equipment flow diagram for the AHVs.

7.2 Vessels

The vessels used for anchor handling and towing the *Jack Bates* were the *Lady Astrid* and the *Lady Caroline*. Refer to Figure 7-3, Figure 7-4 and Figure 7-5 for the vessel offset diagrams.

7.3 Personnel

Fugro personnel involved in the rig move and positioning operations were as follows:

M. Elmslie	Party Chief/Surveyor	12 – 22 November 2004
L. Clark	Technician	12 – 19 November 2004

Santos was represented during the rig move by:

J. Herkenhoff	Survey QC Representative	12 – 22 November 2004
---------------	--------------------------	-----------------------

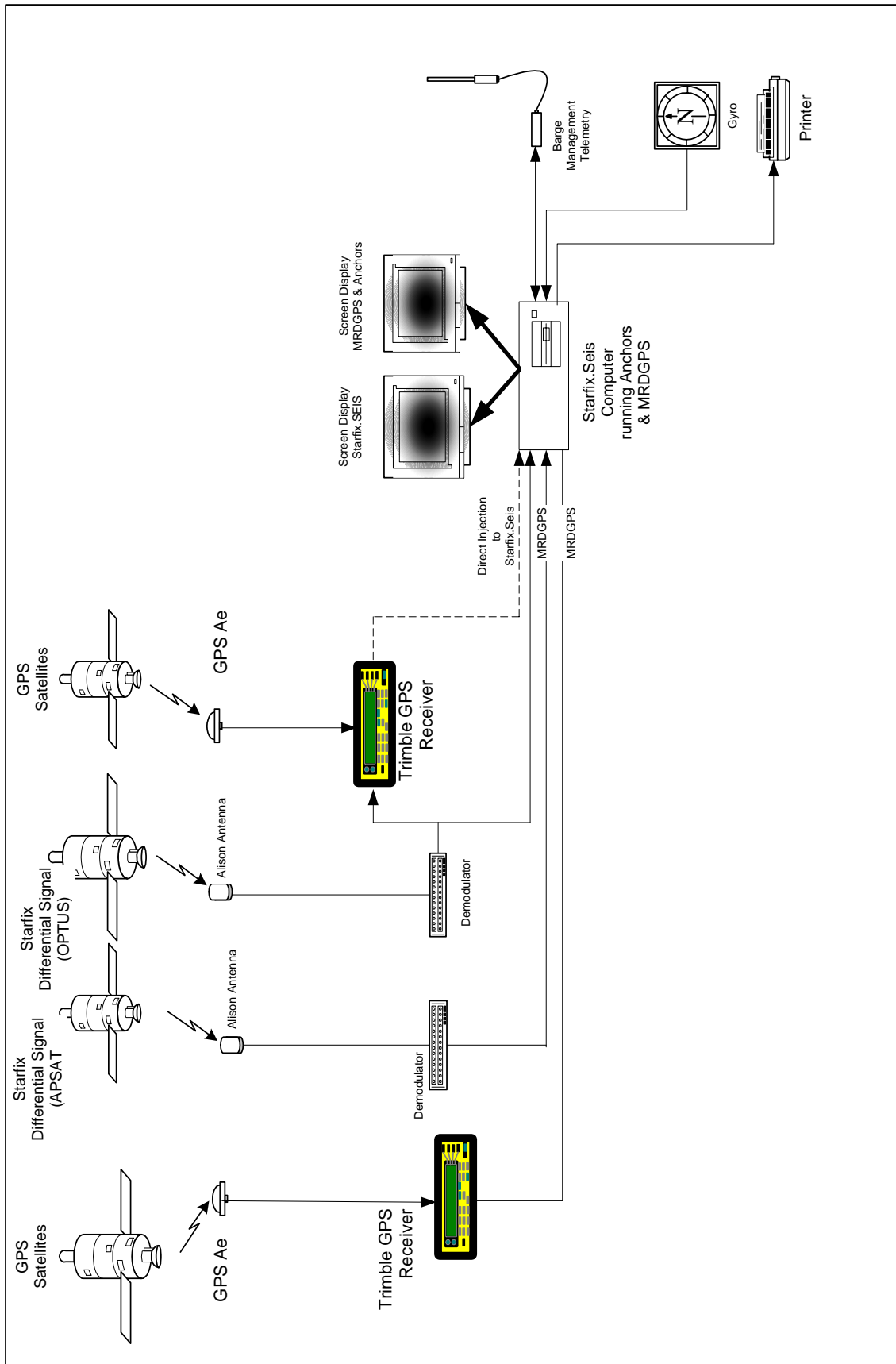


FIGURE 7-1 : EQUIPMENT FLOW DIAGRAM – MODU JACK BATES

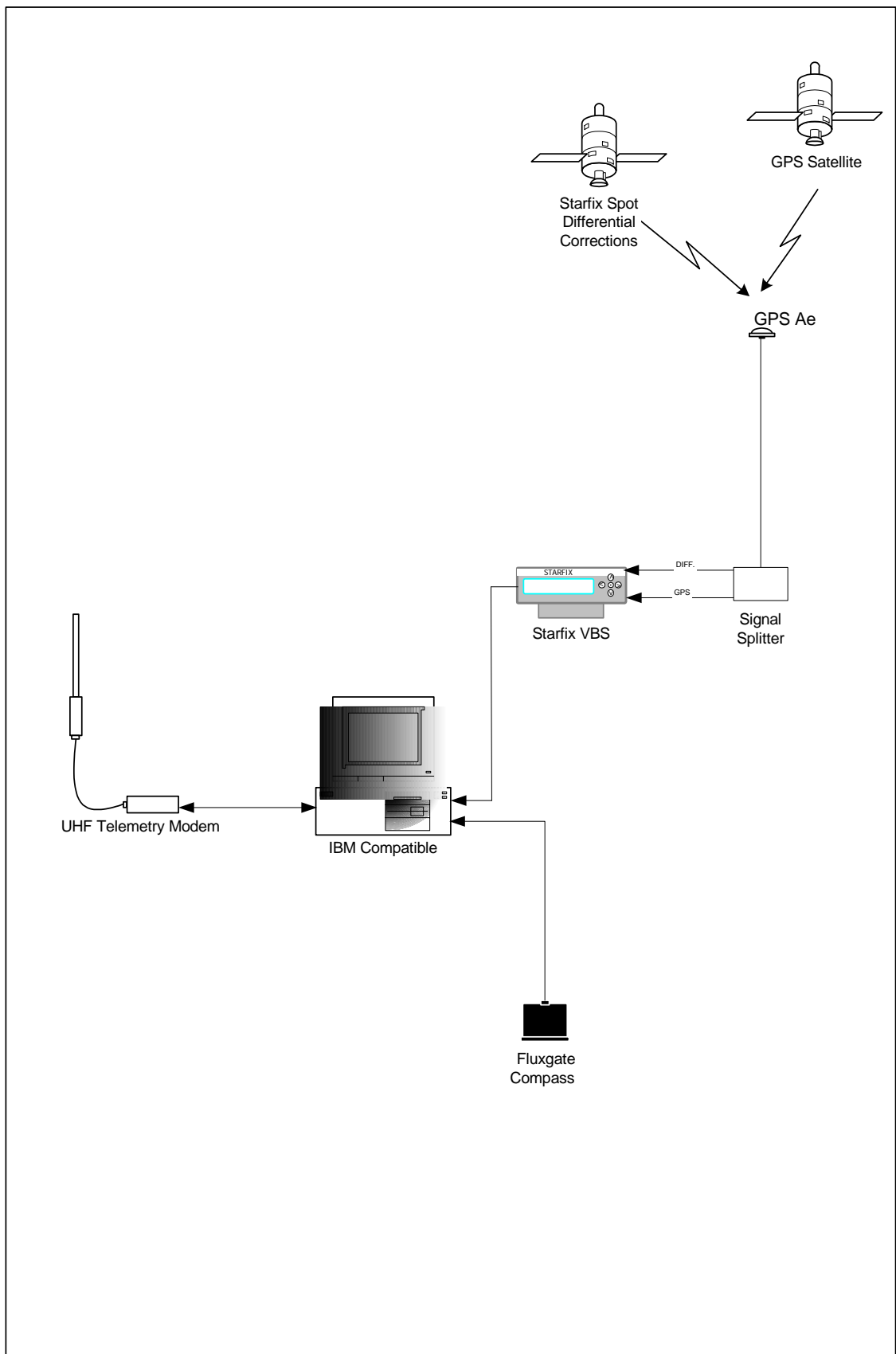
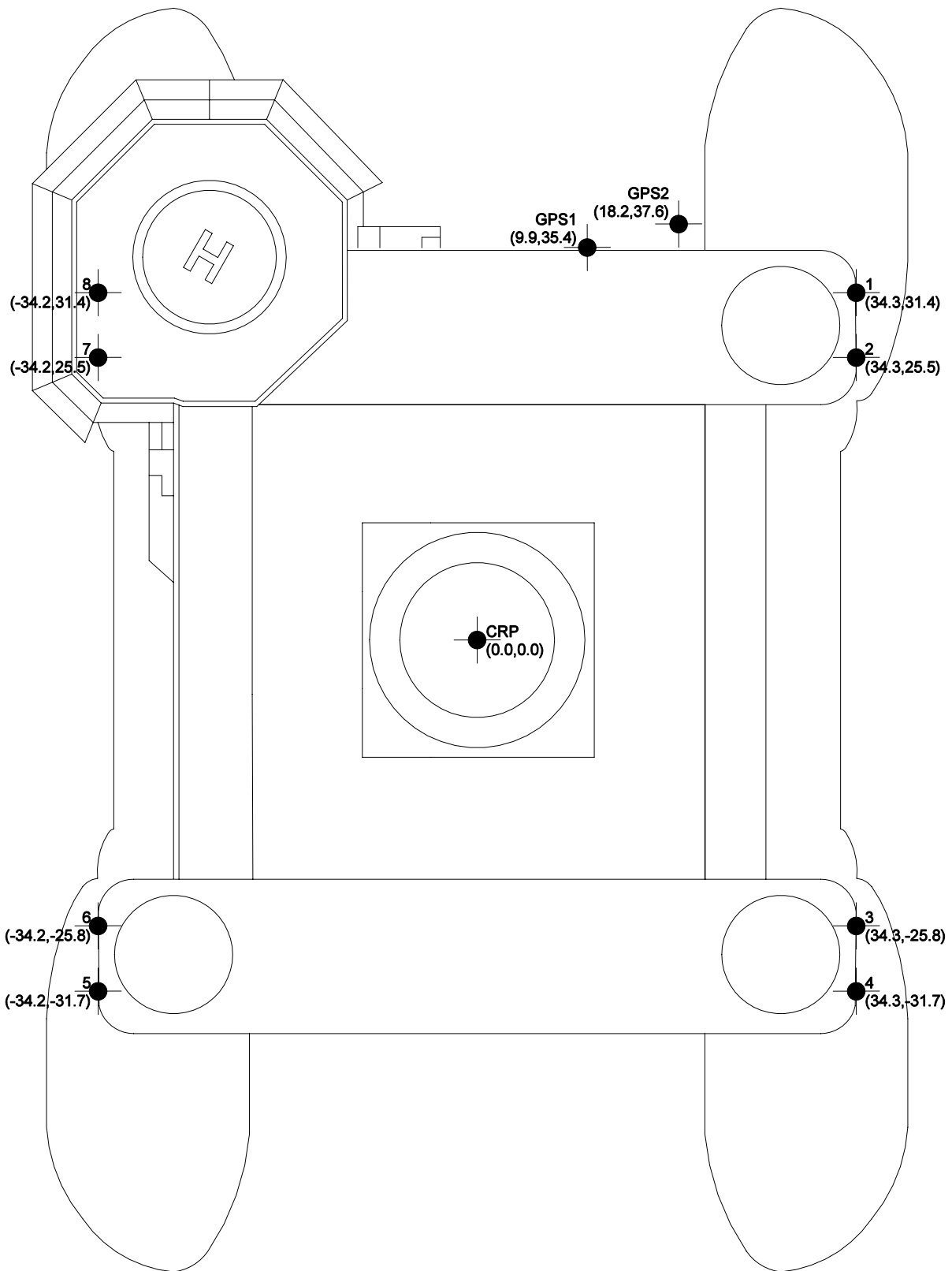
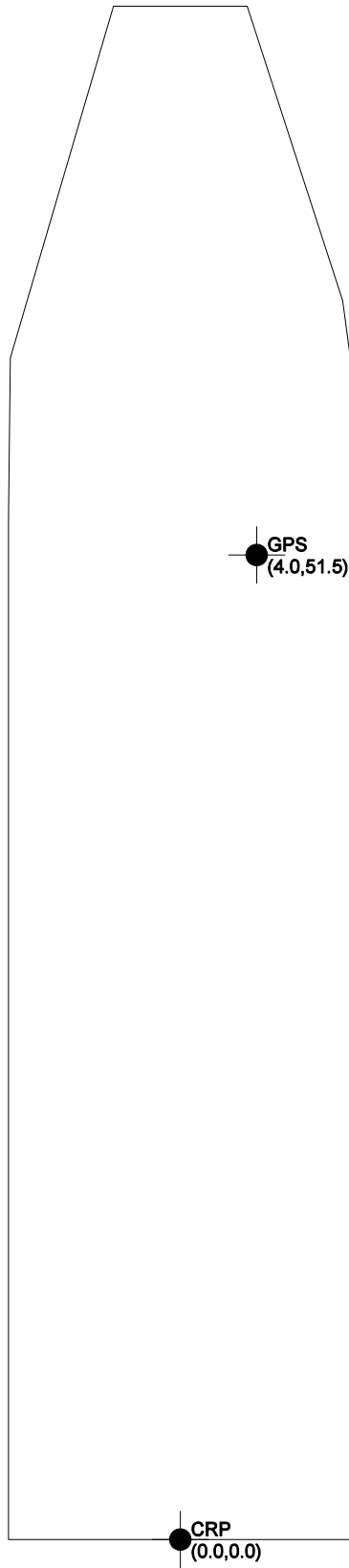


FIGURE 7-2 : EQUIPMENT FLOW DIAGRAM – AHVS



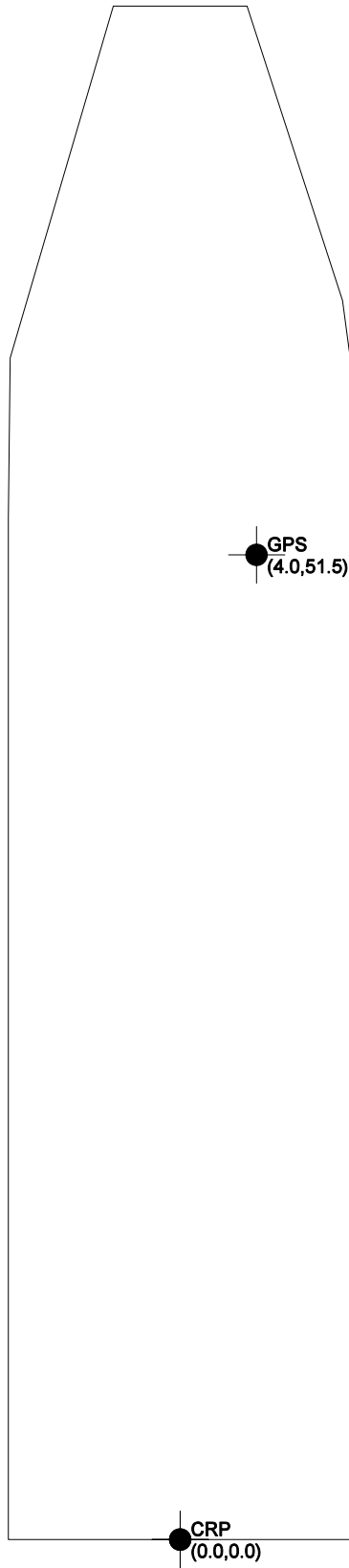
VESSEL OFFSET DIAGRAM – JACK BATES

FIGURE 7-3



VESSEL OFFSET DIAGRAM – LADY ASTRID

FIGURE 7-4



VESSEL OFFSET DIAGRAM – LADY CAROLINE

FIGURE 7-5

8.0 CONCLUSIONS

On reviewing the rig move and positioning operations undertaken by Fugro the *Jack Bates* was successfully positioned at the Amrit-1 location.

9.0 DISTRIBUTION

Copies of this report have been distributed as follows:

Santos Limited	: 3 paper copies
Attn: Ole Moller	: 1 electronic copy

Fugro Survey Pty Ltd	: 1 paper copy
	: 1 electronic copy

APPENDIX A
DAILY OPERATIONS REPORTS

Fugro Marine Division
 FSHY01-1
 DAILY OPERATIONS REPORT



CLIENT: SANTOS	LOCATION: AMRIT-1	DATE: 17/11/2004
PROJECT: Rig Move to Amrit-1	VESSEL: JACK BATES	JOB NO: P0144

FROM	TO	SUMMARY OF OPERATIONS
0000		Continuing anchor recovery operations.
0300		Last anchor off bottom.
0600		Rig Position 38°38'45" S 141°33'14" E COG 148° DTG 17.6Nm
1000		Rig at Amrit-1 location.
1248		Commence running Anchor #4.
1415		Anchor #4 on bottom 564129 E, 5694187 E (L.Caroline)
1940		Anchor #8 on bottom 563419 E, 5686692 N (L.Caroline)
2020		L.Astrid released from tow bridle.
2334		Anchor #5 on bottom 566753 E, 5691572 N (L.Caroline)

RIG EQUIPMENT	NO.	AHV EQUIPMENT	NO.	PERSONNEL	TITLE
Starfix DGPS	2	Starfix.Seis (Remote)	2	M.Elmslie	Surveyor / PC
Starfix.Seis	1	Starfix.VBS	2	L.Clark	Technician
Demodulator	2	Telemetry Modem	2		
Gyro Compass	1	Monitor	2		
Monitor	3				
Sextant	1				

VEHICLES:	
CONSUMABLES:	
ACCOMMODATION: ABOARD RIG	

AUTHORISED CONTRACT CHANGES / COMMENTS:

Party Chief Signature: 	Client Representative Signature: 	D O R Number P0144-06
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CLIENT: SANTOS		LOCATION: AMRIT-1		DATE: 18/11/2004	
PROJECT: Rig Move to Amrit-1		VESSEL: JACK BATES		JOB NO: P0144	
FROM	TO	SUMMARY OF OPERATIONS			
0001		Anchor #1 on bottom 560223 E, 5688631 N (L.Astrid)			
0510		Anchor #6 on bottom 567298 E, 5689375 N (L.Caroline)			
0523		Anchor #2 on bottom 559974 E, 5691076 N (L.Astrid)			
0952		Anchor #7 on bottom 565596 E, 5687223 N (L.Caroline)			
1000		Commence pre-tensioning.			
1034		Anchor #3 on bottom 561944 E, 5693158 N (L.Astrid)			
1120		Pre-tensioning complete.			
1130	1200	Rig moving over location.			
1258	1308	Conduct preliminary fix, drillstem 2.6m on a bearing of 42.7°(T) from the intended Amrit-1 location.			
1310	2359	Fugro personnel on standby.			
RIG EQUIPMENT	NO.	AHV EQUIPMENT	NO.	PERSONNEL	TITLE
Starfix DGPS	2	Starfix.Seis (Remote)	2	M.Elmslie	Surveyor / PC
Starfix.Seis	1	Starfix.VBS	2	L.Clark	Technician
Demodulator	2	Telemetry Modem	2		
Gyro Compass	1	Monitor	2		
Monitor	3				
Sextant	1				
VEHICLES:					
CONSUMABLES:					
ACCOMMODATION: ABOARD RIG					
AUTHORISED CONTRACT CHANGES / COMMENTS:					
Party Chief Signature:		Client Representative Signature:		D O R Number	
				P0144-07	

APPENDIX B
FINAL POSITIONING DATA

RIG POSITION FIELD REPORT



Amrit-1

Client : Santos Ltd Job Number : P0144
Rig : Jack Bates Date: 21-Nov-04
Project : Rig Move to Amrit-1
Attention : J.Herkenhoff Santos Survey Representative
Copy : D.Atkins Santos Company Man

The surface location of the drill stem on the Jack Bates was derived from one hour of observations of the Primary Differential GPS data, between 1819 hrs and 1919 hrs on completion of all anchor pre-tensioning, spudding in of the 30' casing and deployment of the BOP. The results of the observations are as follows:

Geographical Coordinates			Grid Coordinates	
Latitude	38 ° 56 '	5.201 " South	Easting	563729.57
Longitude	141 ° 44 '	07.075 " East	Northing	5690204.12

The drill stem position is 2.9 m at a bearing of 338.7 ° True from the design location.

The Client supplied design location for Amrit-1 :

Geographical Coordinates			Grid Coordinates	
Latitude	38 ° 56 '	5.290 " South	Easting	563730.64
Longitude	141 ° 44 '	7.120 " East	Northing	5690201.38

The Jack Bates's rig heading, derived from the mean of one hour's observation of the gyro heading is:

217.26 ° True ~~218.26~~ ° Grid *217.72 True*

All coordinates in this field report are quoted in the following coordinate system:

Datum : GDA 94 Projection : UTM
Spheroid : MGA Zone (Central Meridian) 54 141 ° East

The approximate positions of the rig anchors corrected for catenary are as follows:

Anchor	Easting	Northing	Bearing (°)
1	561734	5689320	245.1
2	561739	5690662	282.7
3	562723	5691882	328.2
4	563963	5692588	5.4
5	565549	5691020	64.9
6	565548	5689787	102.7
7	564895	5688331	147.3
8	563543	5688065	184.8

Party Chief/Surveyor:

M. Elmslie
M. Elmslie

Client Representative :

J. Herkenhoff
J. Herkenhoff



DRILLING RIG POSITION

MODU JACK BATES

Location: Amrit-1

FINAL FIX POSITION NOTIFICATION

To: Ole Moller (Offshore Drilling Manager: Santos Ltd)
Dave Atkins (Company Man: Santos Ltd)

From: John Herkenhoff (QC Surveyor: Santos Ltd/ECL)

Date: 21/11/04 **Time:** 2000hrs

DGPS Final Fix

On completion of spudding the well, running of the 30" casing and levelling of the guide base and BOP, 720 Differential GPS position fixes were recorded at 5 second intervals from 1819hrs to 1919hrs on Sunday, 21 November 2004.

Drill-stem location:

Spheroid: GRS80 **Datum:** GDA94 **Projection:** UTM, CM 141° E (Zone 54)

Latitude : 038° 56' 05.20" South

Longitude : 141° 44' 07.08" East

Easting : 563 729.6 metres

Northing : 5 690 204.1 metres

This position is 2.9 metres on a bearing of 338.7°(True) from the intended location.

Final Rig Heading: 217.3° (True)

Intended Location:

Latitude : 038° 56' 05.29" South **Easting:** 563 730.6 metres

Longitude : 141° 44' 07.12" East **Northing:** 5 690 201.4 metres

Notes: Intended Location from Drilling Program (revision 0: Oct. 04).

Mick Elmslie
Fugro Survey Pty Ltd

John Herkenhoff
ECL Pty Ltd

FINAL CALCULATION SUMMARY SHEET



Client	Santos Ltd
Job No.	P0144
Surveyor	M.Elmslie

DRILLING RIG	Jack Bates
LOCATION	Amrit-1
DATE	21/November/2004

MGA	
CRP - Easting	563729.570
CRP - Northing	5690204.120

Vessel Heading	d	m	s
Heading (True dms)	217	15	36.0000
Heading (True degs)	217.26		
Heading (Grid dms)	217	43	19.5711
Heading (Grid degs)	217.72		

GDA 94			
	d	m	s
Latitude	-38	56	5.2013
Longitude	141	44	7.0746
Grid Conv.(DMS)	0	27	43.5711
Grid Conv.(DEC)	0.46		
PSF	0.999650010		
Height	0.000		

WGS 84			
	d	m	s
Latitude	-38	56	5.1825
Longitude	141	44	7.0846
Height	-0.060		

Navigation Antenna	Vessel Offsets		Calc'd Bearing & Distance				MGA			GDA 94			WGS 84		
	x	y	d	m	s	distance	East	North		d	m	s	d	m	s
Primary Antenna	9.94	35.43	233	23	37	36.798	563700.03	5690182.18	Lat.	-38	56	5.9208	-38	56	5.9020
									Long.	141	44	5.8550	141	44	5.8651
Secondary Antenna	18.2	37.55	243	34	51	41.728	563692.20	5690185.55	Lat.	-38	56	5.8134	-38	56	5.7945
									Long.	141	44	5.5287	141	44	5.5387

3.25" Chain = 91.45 lbs/ft wet
 3" Chain = 77.90 lbs/ft wet
 2.75" Chain = 65 lbs/ft wet

Anchor	Fairlead Offsets			Grid Bng/Distance Fairlead to Anchor		Calc'd Anchor Position	
	x	y	z	Dec. Deg	distance	East	North
1	34.25	31.35		245.7	2139.3	561733.570	5689319.942
2	34.25	25.50		283.2	2000.3	561739.414	5690661.678
3	34.25	-25.80		328.7	1914.9	562723.435	5691881.689
4	34.25	-31.70		5.9	2350.2	563963.457	5692587.901
5	-34.25	-31.70		65.4	1950.2	565549.277	5691020.083
6	-34.25	-25.80		103.2	1823.6	565547.840	5689787.157
7	-34.25	25.50		147.8	2165.3	564894.877	5688330.764
8	-34.25	31.35		185.3	2101.9	563543.323	5688065.417

Chain Wt. (lbs/ft)		77.9					
Chain Wire Paid out (ft)	Water Depth (ft)	Chain Tension (lbs)	1/2 Catenary Length	Horizontal Distance to Touchdown	Horizontal Distance to Anchor (ft)	Horizontal Distance to Anchor (m)	
10262	5397.0	381000	6985.6	3742.1	7018.6	2139.3	
9947	5364.0	381000	6712.9	3328.7	6562.7	2000.3	
9868	5020.0	319000	5803.7	2218.2	6282.5	1914.9	
10262	4495.0	339000	6062.6	3511.2	7710.6	2350.2	
9415	4462.0	302000	5336.2	2319.6	6398.4	1950.2	
9927	5095.0	310000	5628.2	1684.1	5982.9	1823.6	
9898	4806.0	359000	6369.7	3575.5	7103.9	2165.3	
9448	4783.0	383000	6757.5	4205.6	6896.1	2101.9	

APPENDIX C
DGPS AND GYRO CHECKS

RIG POSITIONING



GEODESY AND CO-ORDINATE CHECK LIST

Client : Santos Ltd Job Number : P0144
 Rig : Jack Bates Date: 16/November/2004
 Project : Rig Move to Amrit-1

1. CONFIRMATION OF PROPOSED RIG COORDINATES and HEADING.

Well Name **Amrit-1** Ensure agreement with Client onsite prior to any positioning
 Well Location – Latitude 38 56 5.290 S Operations. OK (?) N.
 Well Location – Longitude 141 44 7.120 E
 Rig Heading (True) 215 ° T

2. GEODETIC PARAMETERS (WGS84 to LOCAL DATUM)

DATUM: Dx -0.02660 Ensure agreement with Client onsite prior to positioning Operations.
 (WGS84 to Dy -0.03030 OK (?) N.
 Local Datum) Dz -0.03390
 Rx 0.013416
 Projection: Ry 0.012379
 Rz 0.013999
 Ds 0.00552 ppm
 UTM Zone 54
 Central Meridian 141 ° East

3. CHECK TRANSFORMATION OF SITE COORDINATES.

Well Location – Easting 563730.64 Ensure agreement with PCNav / Starfix.Seis. OK (?) N
 Well Location – Northing 5690201.38 If not, CHECK and RECALC.
 Convergence at Location 0.46
 Rig Heading (° Grid) 215.46

4. MEAS. ANT. OFFSETS from ANT. TO D/STEM (Rel. to Datum) NAV #1 SYSTEM NAV #2 SYSTEM

(Measure two (2) separate directions, verifying closure.)

Delta X(m)	9.94	18.2
Delta Y(m)	35.43	37.55
Angle between Rig Centreline and Antenna(s) (Grid)	15.672	25.9
Distance between Drill Stem and Antenna(s)	36.80	41.73

5. MANUAL COORDINATE VERIFICATION FOR ANTENNAS NAV #1 SYSTEM NAV #2 SYSTEM

Proposed Drill Stem Position	Easting	563730.6	563730.6
	Northing	5690201.4	5690201.4
Drill Stem to Antenna	Proposed Hdg (G)	215.46	215.46
Brg (G) = Prop. Hdg. + Angle btwn centreline and antenna		231.13	241.32
	Distance (m)	36.80	41.73
Calculated Antenna	Easting	563701.99	563694.03
Coordinates (Local)	Northing	5690178.29	5690181.35
	Latitude	38 56 6.0465 S	38 56 5.9491 S
	Longitude	141 44 5.9377 E	141 44 5.6061 E

Calculated Proposed Antenna Coords (WGS 84)	Latitude	38 56 6.0276 S	38 56 5.9302 S
	Longitude	141 44 5.9477 E	141 44 5.6162 E

Surveyor : M. Elmslie Client Rep J. Herkenhoff Date : 13/11/04

6. POST RIG MOVE – OBSERVED ANTENNA COORD

Observed WGS84 Antenna Positions

	NAV.SYS #1	NAV.SYS #2
Latitude	38 56 05.951 "S	38 56 05.847 "S
Longitude	141 44 05.826 "E	141 44 05.501 "E

Ensure agreement between calculated and observed coordinates. If NO, check calcs., antenna offsets. OK (?) N

Surveyor : M. Elmslie Client Rep J. Herkenhoff Date : 20/11/04

RIG POSITIONING

DGPS CHECK LIST (PRE RIG MOVE)



Client : Santos Ltd

Job Number : P0144

Rig : Jack Bates

Date: 13/11/2004

Project : Rig Move to Amrit-1

1) ESTABLISHED WELL COORDINATES

Observe 10 minutes of DGPS data, logging both Primary and Secondary systems.
Establish a mean drill stem position from the primary navigation system and compare against the established well coordinates.

	Easting	Northing
Established Well Coordinates	541241.78	5734911.33
Observed Coordinates	541244.85	5734914.18
Differences	-3.1	-2.8

Ensure agreement OK(?) Y / N

If No, Check and ensure that rig has not moved off location.

2) PRIMARY/SECONDARY NAV SYSTEMS

From the data logged above, compare the observed co-ordinates for both Primary and Secondary navigation systems

	Easting	Northing
Primary Navigation	541244.85	5734914.18
Secondary Navigation	541244.10	5734913.00
Differences	0.75	1.18

Ensure agreement OK(?) Y / N

If No, Check antenna offsets and gyro calibration.

Party Chief/Surveyor:


M. Elmslie

Client Representative :


J. Herkenhoff

APPENDIX D
PROJECT COORDINATE LISTING AND PROCEDURES



RIG MOVE PROCEDURES

FOR

TRANSOCEAN “JACK BATES”

FROM: CALLISTER 1
TO: AMARIT 1

OCTOBER 2004

Prepared by:

Offshore Marine Services Pty Ltd
Marine House
First Avenue
Applecross 6153
Western Australia
Tel: +61 8 6310 5600
Fax: +61 8 6310 5666
Email: info@omsau.com
Web: www.omsau.com

DOCUMENT ISSUE RECORD					
Rev No	Date	Status	Author	Checked	Approved
00	15/10/04	Draft	IK		
01	26/10/04	Detail load share	IK		
02	26/10/04	Detail Payout Table	IK		
03	27/10/04	Various	IK		
04	28/10/04	Various	IK		

Transocean Marine Operations
JACK BATES Rig Move Procedures

TRANSOCEAN MARINE OPERATIONS

RIG MOVE PROCEDURES

JACK BATES

REF:

Procedures Prepared by:

Capt I. Kerr - OMS

Procedures Checked by:

Capt A. Morgan – Operations Manager, OMS

Procedures Approved by:

S. Thomson – Rig Manager, Transocean

DISTRIBUTION

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Transocean Marine Operations JACK BATES Rig Move Procedures

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10. Anchor Slipping
11. Additional Mooring Equipment

Appendix 1 – Drawings

- Bathometry layout OMS/JB-Amarit 1-00
- Overall mooring layout OMS/JB-Amarit 1-001
- Initial run in for anchor 4 OMS/JB-Amarit 1-002
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Transocean Marine Operations

JACK BATES Rig Move Procedures

1. INTRODUCTION

1.1 General

The purpose of this document is to ensure that the **JACK BATES** rig move operation, from the 'Callister 1' location and subsequent passage to the "Amarit 1", is conducted in a safe and efficient manner, with all personnel involved having due regard to 'Accountability for Safety'. The integrity of any pipelines and sub-sea equipment is of paramount importance and must be safeguarded at all times.

1.2 Passage

Callister 1 to Amarit 1 is approximately 27Nm @ 5.5 knots = 4.9 hours.

1.3 Assumptions

These procedures assume the following:

- The proposed anchorage location is in a water depth of approx 1395 metres.
- The AHT's will be equipped as specified in Section 5.0.
- The tow vessel and support AHT will be manned to allow continuous (24-hour) operation in all respects.

The move will be conducted in accordance with the Transocean Operations Manual.

Where possible, all rig move vessels will be issued with a copy of this rig move procedure prior to departure from port and be briefed by the Towmaster on the procedures. Vessel Masters will be required to review the procedure and comment accordingly. Where a port visit is not possible, procedures will be issued to the vessels offshore.

No anchor handling operations are to be conducted when the rig or AHT are over pipelines or other sub-sea assets.

Weather forecasts shall be obtained prior to each part of the operation and suitable windows identified to allow the anchor recovery and deployment operations to be conducted safely and without interruption. Weather forecasts will be supplied by Santos and sent to the rig daily for the departure and arrival locations, and for the tow route.

The following procedures are for the guidance of all parties involved with the move, but any departure from the procedures is acceptable provided that it has been agreed between the Transocean Senior Representatives, and is made in order to ensure a safe and efficient operation.

2.0 PERSONNEL RESPONSIBILITIES

The following descriptions of responsibility refer to the KEY personnel who will be involved in the rig move of the semi-submersible drilling unit 'JACK BATES'.

2.1 The 'JACK BATES' OIM

Will have total responsibility for the safety of the rig and personnel at all times as per statutory requirements and TRANSOCEAN policy. May delegate some of the rig move duties to a suitably qualified person such as the TRANSOCEAN Towmaster.

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Will be the sole point of contact through which all rig move notifications/exterior communications will pass.

Will decide when it is safe and practicable to commence operations within the limitation of the unit's Operations Manual, having consulted with the Transocean Towmaster.

Will ensure the correct placement of competent rig personnel to ensure the safe deployment of anchors and handling of vessel tow gear.

He will be responsible for ensuring that a pre-rigmove meeting is held onboard, and minuted accordingly. An appropriate entry is to be made into the logbook to that effect.

Will be responsible for the conduct and safety of the tow and will give instructions to the towing vessels with regard to tow wire deployment, passage planning, courses and speeds, after consultation with the Transocean Towmaster and vessel Masters.

Will ensure the stability of the rig at all times, including making any adjustments to trim or heel as necessary.

Will ensure that all navigation signals are displayed as appropriate.

2.2 The Transocean Towmaster

Will liaise with and advise the OIM of the requirements for ensuring the integrity of any and all third party assets.

Will liaise with and advise the OIM regarding the correct deployment of vessels associated with the rig move operation.

Will be responsible together with the OIM for ensuring that all marine operations are conducted in such a manner as to safeguard the integrity of all subsea equipment, rig and tow.

Will provide all interested parties with such information and updates on rig activities as they may require.

He will be responsible for conducting the onboard pre-rig move meeting, and briefing the operation in accordance with these guidelines. He will also be responsible for ensuring that the Anchor Handling Vessels (AHT's) have been briefed prior to work commencing.

Will ensure the correct deployment of all-mooring systems and associated equipment.

Will ensure the load sharing methodology for deployment is strictly adhered to.

Will be responsible for ensuring that all key personnel involved in the rig move receive a detailed briefing prior to the commencement of anchor deployment operations.

Will ensure that all marine equipment i.e., pennants, shackles etc. are in good condition, certificated where required and correctly recorded upon deployment.

Will ensure that all non-used items of mooring equipment are correctly manifested for return to the shore base on completion of the rig move.

Will complete a detailed report including recommendations and suggestions.

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2.3 Vessel Masters

Will ensure that appropriate navigation warnings are issued at regular intervals.

Will ensure AUSREP reports as required will issued for tug and tow.

Will be responsible for ensuring all anchor-handling operations are conducted in a safe manner with due regard to safe working practices and the practices of good seamanship.

Will constantly monitor the condition of any mooring equipment and any damage noted is to be immediately relayed to the Transocean Towmaster.

2.4 The Santos Marine Representative

Will liaise and advise the "JACK BATES" Master/OIM of the requirements for ensuring the integrity of all Santos and third party assets.

Will liaise with and advise the Santos Drilling Representative and the "JACK BATES" Master/OIM on all operations associated with the mooring deployment operation.

Will be responsible for ensuring that all key personnel involved in the rigmove receive a detailed briefing prior to the commencement of anchor operations.

Will be responsible for ensuring the Quality Control checks on the navigation equipment have been correctly carried out and will also ensure that any necessary co-ordinate transformations are correctly computed and applied to the data.

Will provide quality control for the rig positioning on behalf of Santos. He will work closely with the OIM, the Transocean Towmaster and the Rig Positioning Contractor to ensure the rig is correctly positioned during anchor deployment operations.

2.5 Contact Numbers

The following numbers are included for use by personnel connected with rig move operations:

Ole Moller - Santos Offshore Drilling Manager
Phone: +(08) 8224 7950
Cell: + 0418 931 607
e-mail: ole.moller@santos.com

John Lohf - Santos Logistics Supervisor
(03) 5521-1122
0412 066 642
JohnLohf@bigpond.com

Michelle Stone - Santos Logistics Coordinator
Ph: 03 5521 1422
Mob: 0412 321 756
mstone.office@inet.net.au

Mike Sukudom - Transocean Country Manager
Ph: 08 9213 3717
Mobile: 0412 126 458
msukudom@perth.deepwater.com

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Sandy Thomson – Rig Manager – “Jack Bates”
Ph: 08 9213 3721
Mobile: 0409 232 905
sthomson@perth.deepwatre.com

3.0 LOCATION DETAILS

The present location of the JACK BATES is Callister 1, SSW of Portland, Victoria.

CALLISTER 1

Latitude: 38° 31' 59.73" South
Longitude: 141° 29' 23.29" East

The proposed location for the JACK BATES is Amarit 1, S of Portland, Victoria.

AMARIT 1

Latitude: 38° 56' 05" South
Longitude: 141° 44' 07" East

4.0 PREAMBLE

4.1 General

The purpose of this document is to ensure that the 'JACK BATES' rig move operation, from the “Callister 1” location in 125 m WD to the “Amarit 1” location in 1395m WD is conducted in a safe and efficient manner. The integrity of any / all subsea equipment is of paramount importance and must be safeguarded at all times.

These approved procedures shall be followed as closely as circumstances permit, having due regard for the limitations of the unit and its assisting vessels.

Prior to the commencement of anchor recovery operations at the “Callister 1” location, weather forecasts shall be obtained and suitable weather windows identified to allow the operation of recovery and deployment at the “Amarit 1” location to be safely completed without interruption.

Care should be exercised when handling the secondary anchors close to the rig i.e. transferring to and from AHT's, this is to prevent the anchor falling into the cut away section of the bolster.

All rig move vessels will be issued with a copy of these rig move procedures prior to departure from port, and the Masters and Chief Officers briefed on the rig move operation. The vessel masters will be required to review the procedure and comment accordingly.

A pre-rig move meeting will be held onboard the rig prior to the commencement of operations where all key personnel shall be fully briefed by the Transocean Towmaster prior to the commencement of operations, to ensure a full understanding of the procedures here within.

All interested parties are reminded that poor control of AHT's may result in contact between AHT and rig during critical operations e.g. passing of PCP's. All endeavours should be utilised to ensure that the above scenario does not occur.

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Such endeavours should include but not be limited to the following, ensure ship handlers are adequately trained, notify AHT of rig's change of course and changes in thruster use, position of PCPs, etc.

Whilst passing the PCP back to the rig, Masters are advised that towing pins must be retracted before releasing the pennant from the 'Shark's Jaws'/'Karm Forks'.

4.2 Anchor Deployment

Prior to each anchor deployment operation the PCP (and its components) will be thoroughly examined. Particular attention shall be paid to the terminations.

The rig's mooring equipment is to be examined and any damage found to be duly rectified and noted in the rig-move report. The rig wires will also be checked during deployment.

Whilst deploying the primary anchors, extra care must be exercised to ensure the lower fairlead does not flop over. There is a possibility of the fairlead getting stuck in this position and the rig's mooring wire becoming fouled down the side of the sheave.

5.0 SUPPORT VESSELS

5.1 Vessels

In total two AHT's will be provided to assist with the anchor recovery at the Callister 1 location and anchor deployment at the "Amarit 1".

One vessel will tow on the rig's main tow bridle.

All AHT's will have a minimum Bollard Pull of 150 tonnes.

All nominated AHT's (& towing AHT if applicable) will be equipped with the following gear in full working order:

- Joystick/Poscon control.
- A single or double anchor-handling drum.
- Double towing drum.
- Hydraulic towing pins and 'Shark's Jaws' for 3⁹/₁₆" chain and 3³/₄" wire.
- Open stern with movable roller for anchor decking, etc.
- AHT's are to confirm the tension meters and winches have been tested and calibrated.

In addition one AHT will be fitted with a chain gypsy suitable for handling 3⁹/₁₆" chain.

All vessels must be suitably manned in accordance with AMSA requirements and be capable of continuous 24-hour operation in all respects.

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6.0 PASSAGE FROM CALLISTER 1 TO AMARIT 1

6.1 General

The passage from the Callister 1 location to the Amarit 1 location is approximately 27 Nm. The tow route is direct:

Waypoint	Position	Course	Distance
Callister 1	38° 32.0'S 141° 28.4'E		
Amarit 1	38° 56.1'S 141° 44.1'E	153°	27.1Nm
Total Distance			27.1 Nm

The above distance does not take into account any deviation required to give safe clearances to other offshore installations during the passage and does not take account of the run-in to location. The passage will be conducted with one AHT towing on the rig's main tow bridle.

Both rig and AHT's will have emergency towing gear ready for immediate deployment at all times while under tow (rig – spare tow bridle).

6.2 Precautions

If for any reason, e.g. stress of weather, the tow is required to be hove to, every effort will be made to steer the tow into an area where there is sufficient depth of water, and clearance from surface and subsea obstructions for the tow to be safely hove to.

If, after due consultation between the Master of the towing vessel, the 'JACK BATES' OIM / Transocean Towmaster, it is considered necessary to anchor the tow for reasons of safety, then all appropriate means should be used to ensure that the seabed in the proposed anchorage is free of subsea equipment and obstructions.

6.3 Notifications

Navigation warnings (if applicable) shall be transmitted at regular intervals throughout the passage to warn other vessels of rig position and progress.

Notification shall be transmitted to, Transocean, Ausrep, and Helicopter Operators:

- Every 12 hours on passage.
- On commencement of anchor recovery at Callister 1.
- On completion of anchoring at Amarit 1.

The Master of the tow vessel will be responsible for transmitting situation reports to Ausrep at the appropriate intervals.

7.0 ANCHOR RECOVERY AT CALLISTER 1

7.1 General

The semi-submersible drilling rig "Jack Bates" is currently moored at the "Callister 1" location to an 8 anchor spread on a heading of 225° (T) in a water depth of 125 metres. A combined chain/wire mooring system has been deployed.

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7.2 Recovery Plan

- 7.2.1 Rig will be at transit draft.
- 7.2.2 Secondary anchors (2,3, 6 &7) will be recovered first by both AHT's.
- 7.2.3 Weather permitting both AHT's will recover 2 primary anchors (either 4 & 8 OR 1 & 5).
- 7.2.4 AHT 1 will connect to the tow bridle.
- 7.2.5 AHT 2 will recover one of the bow primary anchors (1 or 8)

7.3 Procedure

- 7.3.1 AHT connects PCP wire into work wire.
- 7.3.2 MODU tensions mooring leg to ~350 kips.
- 7.3.3 Once the chaser has been connected, the AHT begins paying out work wire to 1.2 – 1.5 times the water depth. The AHT will begin chasing to anchor.
- 7.3.4 Once at the anchor, the AHT will pull against the anchor for 5 minutes to ensure the chaser is at or close to the anchor.
- 7.3.5 The MODU will slack the mooring leg tension to ~250 kips. Note: Reducing the mooring line tension will help to reduce the risk of breaking the ground chain, PCP wire, or work wire. By keeping the mooring leg at a high tension while breaking out the anchor. If the PCP is not at the anchor, there is risk of chain damage, possibly leading to a break at the chain.
- 7.3.6 The AHT will then shorten the work wire to be approximately 100 ft in excess of the water depth.
- 7.3.7 The AHT increases power and pull against the anchor for ~5 minutes.
- 7.3.8 If anchor does not break out, repeat step 7. Heave in 50 ft of work wire each time.
- 7.3.9 Once the anchor is unseated, heave in work wire until the PCP is at the roller.
- 7.3.10 Increase power as necessary until the rig cable clears the bolster.
- 7.3.11 Maintain pull while the rig heaves in the mooring wire.
- 7.3.12 Power may be required to be reduced as the chain/wire transition passes the fairleads, gypsies etc.
- 7.3.13 Rig continues to heave in chain.
- 7.3.14 When the rig has 300 – 500 feet of chain remaining, the AHT will pay out work wire whilst maintaining position relative to the rig.
- 7.3.15 Tension must be maintained on the work wire throughout this operation.
- 7.3.16 When the chasing collar and anchor shackle is above the bolster the AHT will pay out wire and/or reduce power to allow the anchor shank to rest on the bolster.

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- 7.3.17 Once rig has secured the anchor on the bolster the AHT will disconnect the PCP and pass it back to the rig.
- 7.3.18 When the PCP is disconnected and the crane hook secured to the PCP the PCP will be lowered to the roller on a tugger wire until the crane has the load of the PCP on its hook. On the advice of the crane operator, the AHT tugger wire will be disconnected from the PCP.

8.0 ANCHOR DEPLOYMENT AT "AMARIT 1"

8.1 General

The semi- submersible drilling rig 'JACK BATES' is to be moored at "Amarit 1" to an 8-anchor spread on a heading of 215°(T) in a water depth of 1395 metres. (note: the deepest anchor will be in a depth of 1658m) A combined chain/wire mooring system will be used.

Refer to Drawing OMS-JB-001 for proposed anchor positions.

8.2 Anchor Deployment Plan

- 8.2.1 The rig will approach location along the extended line of number 4 anchor. 2nm from #4 drop point the tow vessel (AHT 1) will slow down to allow AHT 2 to pick up #4 PCP. See Drawing No. OMS-JB-002.
- 8.2.2 Once AHT 2 is connected to #4 PCP the AHT will pull the anchor to the roller and check the orientation of the anchor. With the anchor orientated correctly the rig will pay out approx 300m of chain to allow AHT 2 to be towed behind.
- 8.2.3 AHT 1 will then continue towing the rig to location on the reciprocal bearing for #4.
- 8.2.4 When AHT 1 has passed the anchor #4 drop point the rig will continue paying out chain and then wire.
- 8.2.5 AHT 2 will maintain position over the #4 drop point and pay out work wire to 1.2 times the water depth. Power may need to be reduced on both vessels as the crossover transition is made.
- 8.2.6 Once the cross over transition is completed and the wire clear from the rig fairleader AHT 1 will increase pitch and tow the rig onto location with the rig paying out wire.
- 8.2.7 With the required amount of wire payed out, the AHT 2 at the drop point and the rig close to the "Amarit 1" location, the #4 anchor will be put on the bottom. Note: Anchor to be put on the bottom by paying out work wire whilst slowly reducing vessel power.
- 8.2.8 AHT 2 will bring the collar off the anchor and AHT 1 will increase power to seat the anchor.
- 8.2.9 Rig movement and wire tension will be monitored. When the Towmaster is satisfied the #4 anchor is holding, AHT 1 will hold the rig on static tow to allow AHT 2 to strip back and return PCP 4 to the rig.
- 8.2.10 AHT 2 will then proceed to anchor # 8
- 8.2.11 AHT 2 will back up to #8 and the rig crane will lower PCP 8 down to stern roller.
- 8.2.12 AHT 2 will then connect the PCP to her work wire. The rig will then pay out approx 100m of chain to allow AHT 1 to bring the anchor to the roller and check the anchor is orientated correctly.

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- 8.2.13 With the anchor orientated correctly and with the go ahead from the rig winch operator AHT 2 will commence running # 8. (See Step 1 : "Wire Tension Payout Table 4 OMS/JB-Amarit 1-003")
- 8.2.14 When AHT 2 reaches transition the rig winch operator will instruct AHT 2 to slow down to minimum power to allow the rig to make the cross over transition to wire. Once the crossover transition is completed and clear of the rig fairleader the rig winch operator will give the go ahead to run the anchor to the drop point. (Step 6 : "Wire Tension Payout Table 4 OMS/JB-Amarit 1-003")
- 8.2.15 With the designated amount of wire payed out the rig winch operator will apply the brake. AHT 2 will then stretch the chain / wire and put the anchor on the bottom. (See Step 20 : "Wire Tension Payout Table 4 OMS/JB-Amarit 1-003")
- 8.2.16 Once the anchor is on the bottom the rig winch operator will haul in to allow enough tension to establish that the anchor is holding allowing AHT 2 to strip back to the rig and pass back the PCP.
- 8.2.17 If the weather is favourable then AHT 1 will be released from the tow bridle and assist AHT 2 in running the remainder of the anchors as per the above procedure.
- 8.2.18 Once the 4 primary anchors (5,1,4,8) are set the rig will winch itself onto location prior to running the secondary anchors.
- 8.2.19 Both AHT's will then run the secondary anchors. 2,6,7,3
- 8.2.20 If required the rig can be moved onto location and then all anchors pre-tensioned.

Note: AHT captains must not put excessive weight on the mooring system during cross over.

The attached table provides a guide for operators when monitoring payout lengths, tensions and horizontal distances.

8.3 Load Share Procedure

The general procedure for conventional installation of anchors for the Jack Bates in 1395m WD follows. Each step outlined below has been modeled using the single line catenary analysis program QMOOR. By modeling each step, the change in tension on the MODU and AHT can be monitored, as well as the positioning of the vessels in relation to bollard pull and wire pay out. A table detailing the pay out, tensions, and horizontal distances for each step in the installation for the "Amarit 1" location is contained in Appendix 1 "Wire Tension Payout Table 4 OMS/JB-Amarit 1-003". The recommended installation steps are as follows.

- 8.3.1 The MODU will be towed directly to the new location.
- 8.3.2 After receiving the PCP, the AHT will pay out 100m (300+ ft) and take tension on the wire. Step 1.
- 8.3.3 The rig will drive out chain and ease the anchor off the bolster.
- 8.3.4 The AHT must maintain tension on the work wire to ensure the anchor orientation remains the same.
- 8.3.5 Rig will pay out about 300 ft of chain and stop to change the winch to dynamic mode.
- 8.3.6 Chain pay out speed and AHT bollard pull is monitored so the chain is kept off the bolster.

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- 8.3.7 Rig continues to pay out chain to ~3043 ft while the AHT increases bollard pull and horizontal distance away from the rig. Step 6.
- 8.3.8 Once there is a reasonable catenary of chain between the rig and the stern of the AHT, the AHT continues to pay out wire until the cross-over transition is reached.
- 8.3.9 When the 3043-ft of chain is out, the rig makes the crossover transition to wire. The AHT will decrease its bollard pull to reduce the tensions at the fairlead but maintain adequate distance from the rig while the crossover transition is made. (Steps 1-6)
- 8.3.10 Once the crossover transition has been made, the rig pays out wire to about 6500 ft while the AHT moves to the anchor drop location. (Steps 1-6)
- 8.3.11 **Stage 1** The rig has deployed 3043 feet of chain. The AHT has deployed 457 metres (1500 feet) of wire. The anchor is approximately 830 feet below the water level (3747 above the sea bed). The chain is approximately 1000 feet below the water level (3577 feet above the sea bed). The AHT stern is 3944 feet (1202 metres) from the rig. The AHT requires a bollard pull of 85 tonnes to keep the chain clear of the bolster however reduces power while the rig makes the chain/wire transition.
- 8.3.12 The AHT will continue to payout work wire to 1.2 times the water depth in accordance with the "Wire Tension Payout Table 4 OMS/JB-Amarit 1-003". This table has allowed for the rig payout speed to be about twice the vessel payout speed.
- 8.3.13 **Stage 2** The rig has deployed 1500 feet of wire and 3043 feet of chain. The AHT has deployed 2250 feet (686 metres) of wire. The anchor is approximately 1500 feet below the water level and 3077 feet above the sea bed. The chain is approximately 1800 feet below the water level (2777 feet above the sea bed). The stern of the AHT is 5479 feet (1670 metres) from the rig. The tension of the wire at the fairlead is 290 kips. The AHT wire tension is 261 kips (105 tonnes) whilst the bollard pull is 86 tonnes and the fairlead angle is 50° from the horizontal, thus maintaining the mooring wire clear of the pontoon bolster.
- 8.3.14 **Stage 3** The rig has deployed 3000 feet of wire and 3043 feet of chain. The AHT has deployed 3000 feet (914 metres) of wire. The anchor is approximately 2200 feet below the water level and 2377 above the sea bed. The chain is 2700 feet below the water level and 1877 feet above the sea bed. The stern of the AHT is 7003 feet (2134 metres) from the rig. The tension of the wire at the fairlead is 295 kips. The AHT wire tension is 290 kips (132 tonnes) and the bollard pull is 87 tonnes. The angle of the wire at the fairlead is 50° from the horizontal.
- 8.3.15 **Stage 4** The rig has deployed 4500 feet of wire and 3043 feet of chain. The AHT has deployed 3750 feet (1143 metres) of wire. The anchor is approximately 2800 feet below the water level and 1777 feet above the sea bed. The chain is approximately 3500 below the water level and 1077 feet above the sea bed. The stern of the AHT is 8530 feet (2600 metres) from the rig. The tension of the wire at the fairlead is 305 kips. The AHT wire tension is 318 kips (144 tonnes) and the bollard pull is 88 tonnes. The angle of the wire at the fairlead is 50° from the horizontal.
- 8.3.16 **Stage 5** The rig has deployed 6000 feet of wire and 3043 feet of chain. The AHT has deployed 4500 feet (1372 metres) of wire. The anchor is approximately 3400 feet below the water level and 1177 feet above the sea bed. The chain is approximately 4200 below the water level and 377 feet above the sea bed. The stern of the AHT is 10228 feet (3117 metres) from the rig. The tension of the wire at the fairlead is 324 kips. The AHT wire tension is 349 kips (158 tonnes) and the bollard pull is 94 tonnes. The angle of the wire at the fairlead is 50° from the horizontal.

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- 8.3.17 **Stage 6 Chain touchdown. Anchor at drop point.** The rig has deployed 6500 feet of wire and 3043 feet of chain. The AHT has deployed 5492 feet (1372 metres) of wire. **The final rig wire payout and AHT work wire payout is dependent on water depth at the individual anchors. This is contained in the accompanying table.** The anchor is approximately 3900 feet below the water level and 677 feet above the sea bed. The chain is just touching the bottom.. The stern of the AHT is 11547 feet (3520 metres) from the rig. The tension of the wire at the fairlead is 357kips. The AHT wire tension is 362 kips (164 tonnes) and the bollard pull is 104 tonnes. The angle of the wire at the fairlead is 50° from the horizontal.
- 8.3.18 The AHT must maintain a minimum of 104 mt bollard pull to position itself ~11,547 ft (3520 metres) from the rig while lowering the anchor to the seafloor.
- 8.3.19 The AHT will lower the anchor, when instructed by towmaster, by paying out work wire and reducing power. Power on the opposing vessel will be reduced simultaneously.
- 8.3.20 Once the anchor is on the seafloor, Survey takes a fix of the vessel.
- 8.3.21 The anchor will be given time to soak into the seabed and the rig will tension the mooring line to ensure the anchor is holding.
- 8.3.22 The opposing anchor will then be put on the bottom in a similar fashion.
- 8.3.23 Sufficient tension must be maintained on the anchor wires (300 kips) to enable the AHT to chase back to the rig
- 8.3.24 The AHT then chases back to the rig and passes the PCP wires back to the rig.
- 8.3.25 PCP will be load tested on AHT tugger wire prior to connecting rig crane to PCP.
- 8.3.26 Opposing anchors will be run simultaneously where possible.

9.0 INSURANCE CROSS TENSIONING

When anchor deployment is completed and prior to ballasting down to operational draft, the anchors will be insurance cross-tensioned to ensure adequate holding, with due regard to seabed conditions.

Each pair of opposite anchors (usually commencing with the primary anchors) is tensioned to 450 kips or winch stall (whichever is the lowest). This tension is held for 15 minutes, then slackened down to operating tension (340 Kips)

Anchors will be insurance cross-tensioned in the following opposite pairs:

- No. 1 + No. 5
- No. 4 + No. 8
- No. 2 + No. 6
- No. 3 + No. 7

During cross tensioning, winch house tensions will be checked against motor amps and pilot house readouts.

When all anchors have been successfully insurance cross-tensioned, the tensions will be adjusted for remaining at the location.

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10.0 ANCHOR SLIPPING

In the event that anchor slippage occurs during insurance cross-tensioning, the anchor should be chased out and hauled to the stern of the AHT to check for fouling and correct orientation. The anchor will then be recovered as required (maintaining chain tensions), and re-run on a bearing 2-3 degrees removed from the original line of run. The anchor will be reset on the bottom and the PCP chased back to the rig.

Any further slippage will result in either running the anchor with additional wire out (to increase the length of ground chain) or deploying additional back-up anchors.

11.0 ADDITIONAL MOORING EQUIPMENT

The following quantities of equipment will be provided as backup:

Sufficient Special split pins for use in changing Bruce anchor fluke angles will be provided. (Allow for 8 anchors).

The Transocean Towmaster will ensure that all used equipment is correctly recorded upon recovery and all equipment is correctly manifested for return.

The Masters of the AHT's should keep account of all mooring equipment supplied and the Transocean Towmaster must be kept advised of all equipment utilization and transfer and any damages incurred.

The Transocean Towmaster will, wherever possible, correctly record the I.D. numbers and positions of all equipment deployed, together with the purpose of deployment.

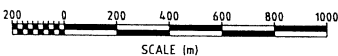
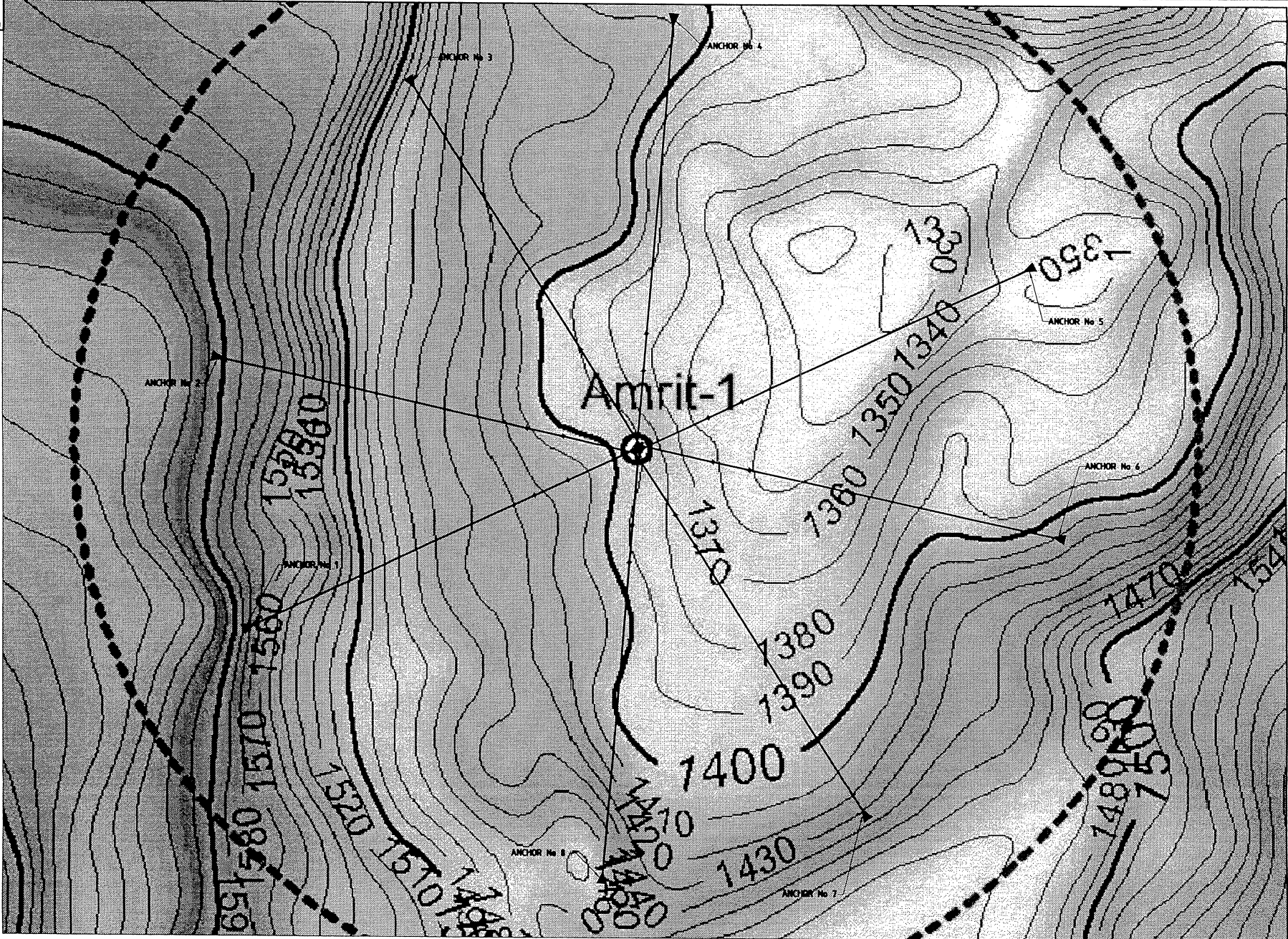
The Transocean Towmaster will record details of any known or apparent damage to additional mooring equipment, rig equipment or AHT's.

AHT's should have adequate burning and welding equipment and a suitably trained operator.

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APPENDIX 1

- Bathometry layout OMS/JB-Amarit 1-00
- Overall mooring layout OMS/JB-Amarit 1-001
- Initial run in for anchor 4 OMS/JB-Amarit 1-002
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- Installation Procedures sheet 5 of 6 OMS/JB-Amarit 1-008
- Installation Procedures sheet 6 of 6 OMS/JB-Amarit 1-009



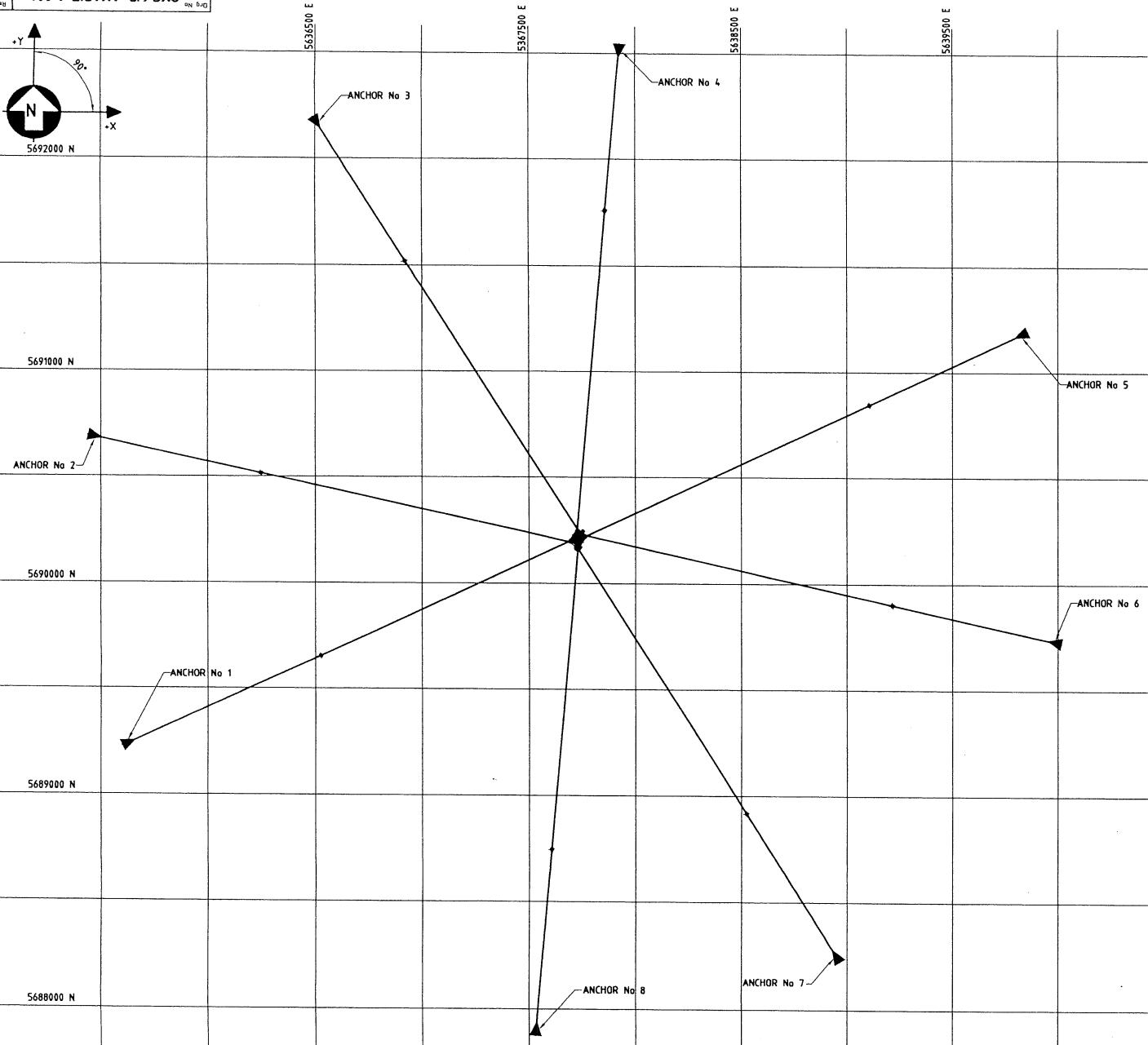
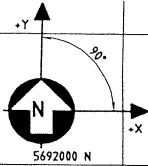
NOTES



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			Drafting		Engineering		Approved	
0	APPROVED FOR CONSTRUCTION							

TRANSOCEAN JACK BATES RIG MOVEMENT WELL - AMARIT 1 BATEMETRY LAYOUT		Scale 1:10000	Sheet Date A1	Org No OMS/JB-AMARIT 1-000	Rev 0
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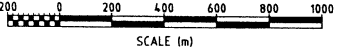


	EASTING	NORTHING	LOCATION		HEADING
JACK BATES CENTRE	5637728 E	5690210 N	38°56'05" S	141°44'07" E	215°

AUSTRALIAN GEODETIC 1994								
ANCHOR	EASTING	NORTHING	LINE HEADING (REF. BOW)	TOTAL PAYOUT (FEET)	REMAINING LENGTH (FEET)	GROUNDING LENGTH (FEET)	INITIAL TENSION (mt)	WATER DEPTH (FEET)
1	5635601 E	5689223 N	30°	6880	4863	431	208	5397
2	5635396 E	5690695 N	67.5°	6870	4873	440	206	5364
3	5636490 E	5692195 N	112.5°	6700	5043	593	200	5020
4	5637926 E	5692546 N	150°	6460	5283	410	195	4495
5	5639850 E	5691195 N	210°	6460	5283	416	193	4462
6	5640016 E	5689726 N	247.5°	6730	5013	617	195	5095
7	5638966 E	5688226 N	292.5°	6630	5113	414	201	4806
8	5637530 E	5687874 N	330°	6600	5143	393	205	4783

TYPICAL ANCHOR RANGE FROM FAIRLEAD 2300m

ANCHOR LAYING SEQUENCE		
	SEQUENCE	ANCHOR No.
PRIMARY	1	4
	2	8
	3	5
	4	1
	5	7
	6	3
	7	2
	8	6



NOTES



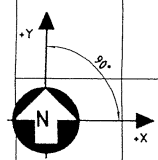
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TRANSOCEAN
JACK BATES RIG MOVEMENT
WELL - AMARIT 1
OVERALL MOORING LAYOUT

Scale: 1:10000
Sheet Size: A1
Orig No: OMS/JB-AMARIT 1-001
Rev: 0

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INITIAL VESSEL
APPROACH
HEADING 185°

2 MILE VESSEL APPROACH
(NOT TO SCALE)

ANCHOR No 4
POSITION

(GROUNDED LENGTH 4.0m)

MOORING CHAIN 914m (3000 FT.)
PLUS GROUND CHAIN 13.1m (43 FT.)

FINAL RIG
CENTER

TOW
BOAT

ANCHOR LAYING SEQUENCE	
SEQUENCE	ANCHOR No.
1	4
2	8
3	5
4	1
5	7
6	3
7	2
8	6

ANCHOR	EASTING	NORTHING
4	5637926 E	5692546 N

NOTES

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TRANSOCEAN JACK BATES RIG MOVEMENT WELL - AMARIT 1 INITIAL MOORING RUN-IN FOR ANCHOR 4			
Scale NTS	Sheet Size A1	Orig No DMS/ JB-AMARIT 1-002	Rev 0

JACK BATES TYPICAL WIRE / TENSION PAYOUT TABLE "AMARIT 1" LOCATION

STAGE	RIG WIRE OUT (FEET)	RIG CHAIN OUT (FEET)	HORIZONTAL DISTANCE FAIRLEAD TO AHT STERN (FEET)	HORIZONTAL DISTANCE FAIRLEAD TO AHT STERN (METRES)	BOLLARD PULL (TONNES)	FAIRLEAD TENSION (KIPS)	TENSION AT ANCHOR (KIPS)	TENSION AT ANCHOR (TONNES)	AHT WORK WIRE OUT (METRES)	FAIRLEAD ANGLE (FROM HORIZONTAL - NOT TO EXCEED 62°)
1	1	3043	3944	1202	85	293	229	104	457	50
2	1500	3043	5479	1670	86	290	261	105	686	50
3	3000	3043	7003	2134	87	295	290	132	914	50
4	4500	3043	8530	2600	88	305	318	144	1143	50
ANCHOR	5	6000	10228	3117	94	324	349	158	1372	50
1	6	6880	12230	3727	100	370	356	161	1974	53
2	6	6870	12190	3715	100	369	356	161	1962	53
3	6	6700	11920	3633	102	364	359	136	1836	52
4	6	6460	11482	3500	105	356	362	164	1644	50
5	6	6410	11495	3504	106	358	364	165	1632	49
6	6	6730	11972	3649	102	365	358	162	1863	52
7	6	6630	11712	3570	102	359	359	163	1758	51
8	6	6600	11720	3572	103	360	360	163	1750	51

NOTES

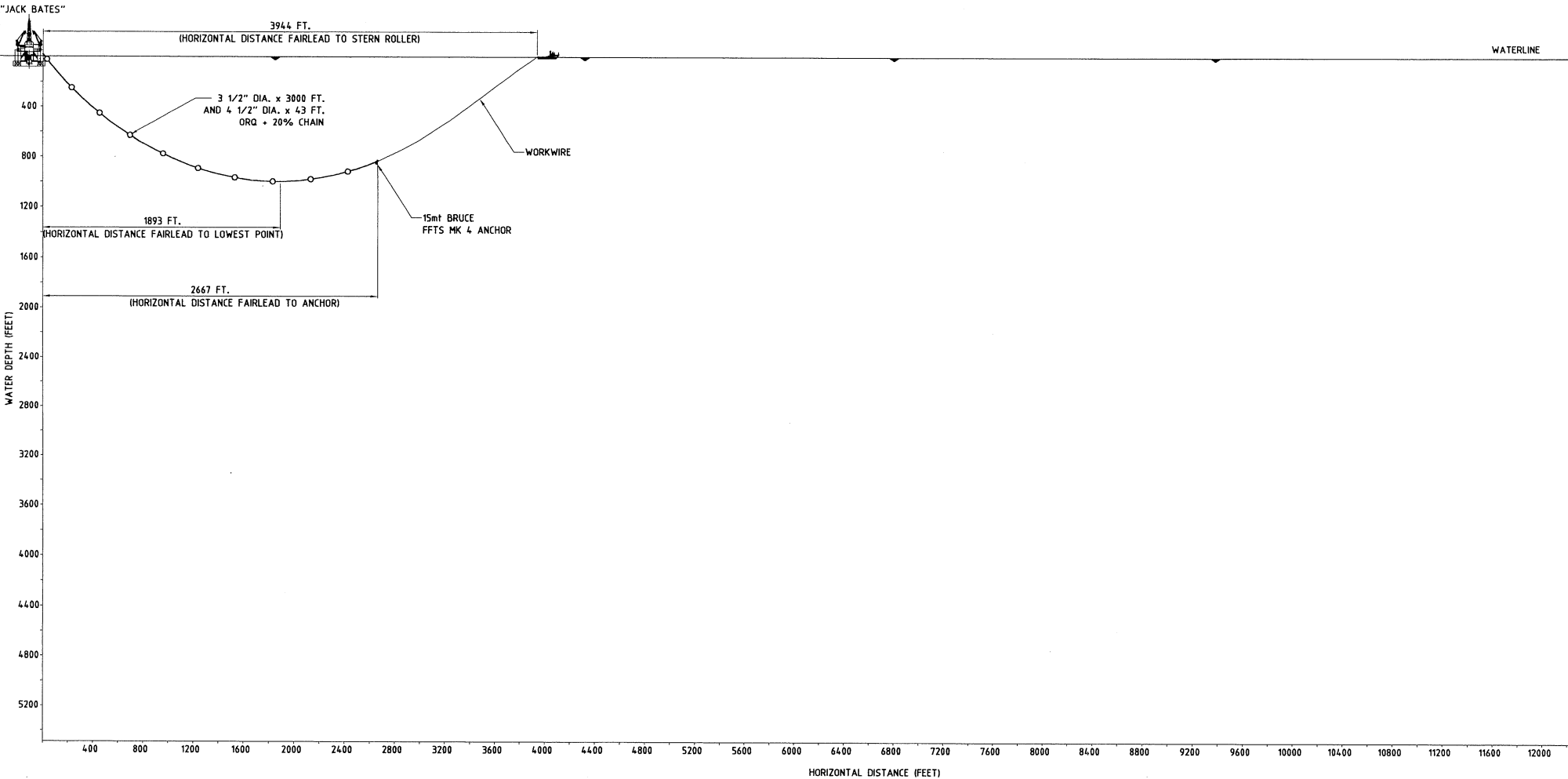
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1	DETAILS ANCHOR 5 REVISED	OMS									
0	APPROVED FOR CONSTRUCTION	OMS									
Rev	Revision Details	Date	By	Check	By	Check	OMS	Client			
			Drafting		Engineering		Approved				

TRANSOCEAN
 JACK BATES RIG MOVEMENT
 WELL - AMARIT 1
 WIRE / TENSION PAYOUT TABLE

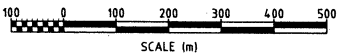
Scale	Sheet Size	Org No	Rev
NTS	A1	OMS/JB-AMARIT 1-003	1



LOADINGS	
FAIRLEAD TENSION	-
FAIRLEAD ANGLE	-
BOLLARD PULL	85 tonnes
AHV WINCH TENSION	-

PAYOUTS	
CATENARY WIRE (FT)	-
CHAIN (FT)	3043
WORKWIRE (FT)	1500

NOTES
 ANCHOR APPROX. 830 FEET BELOW WATER LEVEL
 LOWEST POINT IN CHAIN APPROX. 1000 FEET BELOW WATER LEVEL



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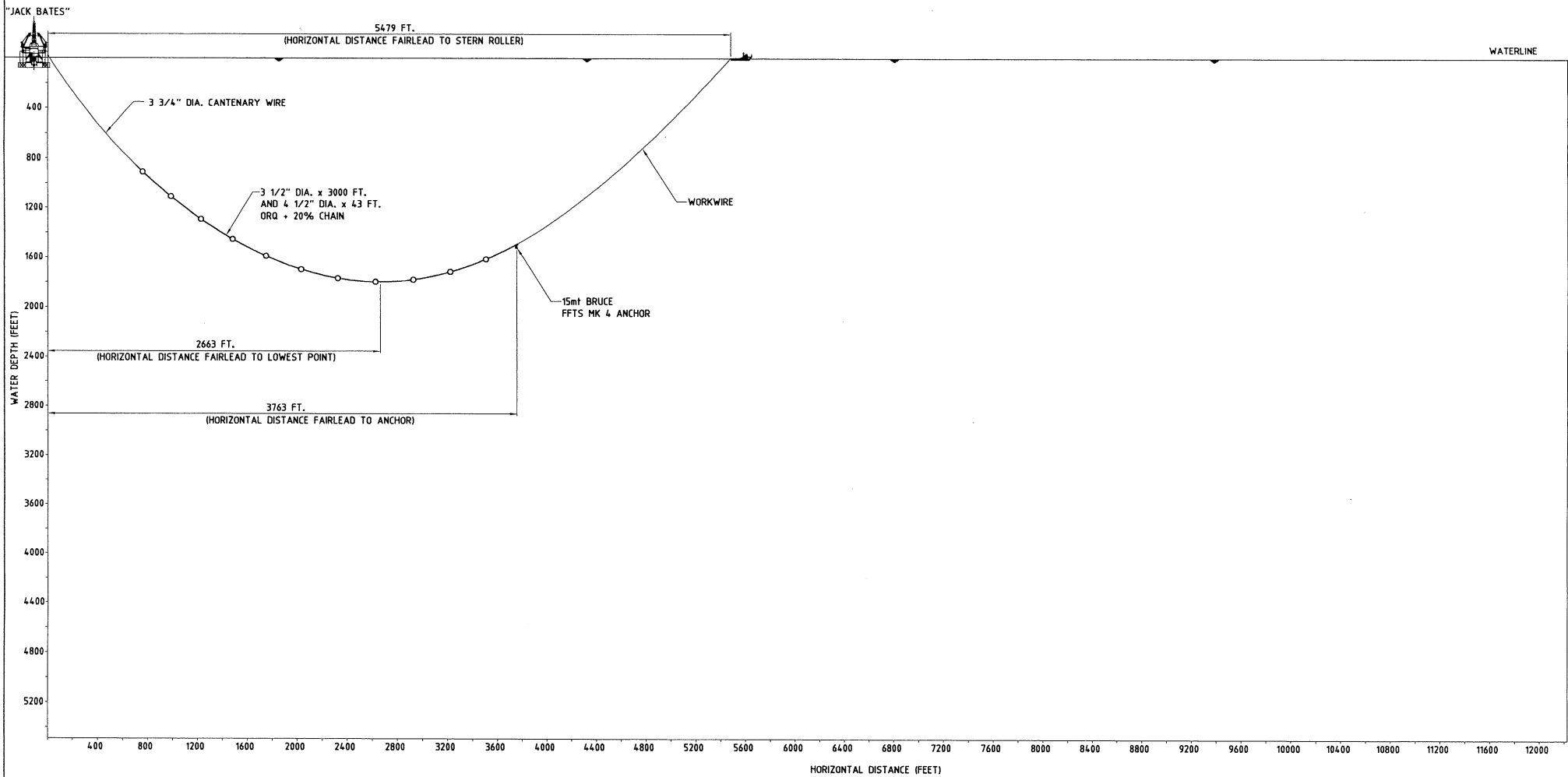
NOTES



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0	APPROVED FOR CONSTRUCTION						DMS	

TRANSOCEAN
 JACK BATES RIG MOVEMENT
 WELL - AMARIT 1
 INSTALLATION PROCEDURES - STAGE 1

Scale	Sheet Size	Draw No	Rev
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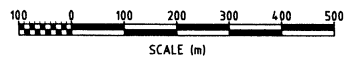


LOADINGS	
FAIRLEAD TENSION (kips)	290
FAIRLEAD ANGLE	50°
BOLLARD PULL (Tonnes)	86
AHV WINCH TENSION (kips)	261

PAYOUTS	
CANTENARY WIRE (FT)	1500
CHAIN (FT)	3043
WORKWIRE (FT)	2250

NOTES

ANCHOR APPROX. 1500 FEET BELOW WATER LEVEL
 LOWEST POINT IN CHAIN APPROX. 1800 FEET BELOW WATER LEVEL



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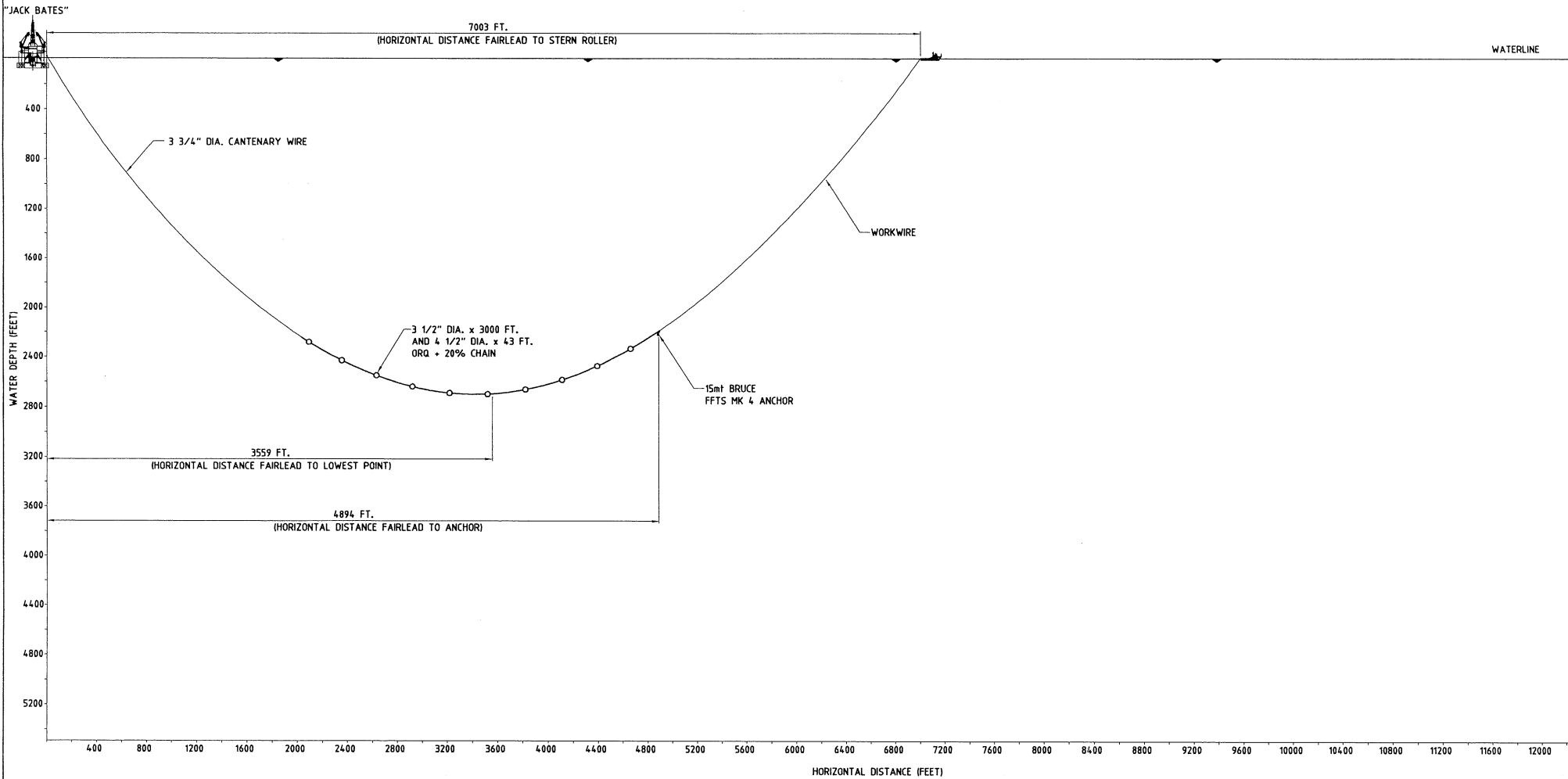
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0	APPROVED FOR CONSTRUCTION						OMS	

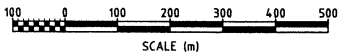
TRANSOCEAN JACK BATES RIG MOVEMENT WELL - AMARIT 1 INSTALLATION PROCEDURES - STAGE 2			
Scale	Sheet Size	Org No	Rev
1:5000	A1	OMS/JB-AMARIT 1-005	1



LOADINGS	
FAIRLEAD TENSION (kips)	295
FAIRLEAD ANGLE	50°
BOLLARD PULL (tonnes)	87
AHV WINCH TENSION (kips)	290

PAYOUTS	
CATENARY WIRE (FT)	3000
CHAIN (FT)	3043
WORKWIRE (FT)	3000

NOTES
 ANCHOR APPROX. 2200 FEET BELOW WATER LEVEL
 LOWEST POINT IN CHAIN APPROX. 2700 FEET BELOW WATER LEVEL



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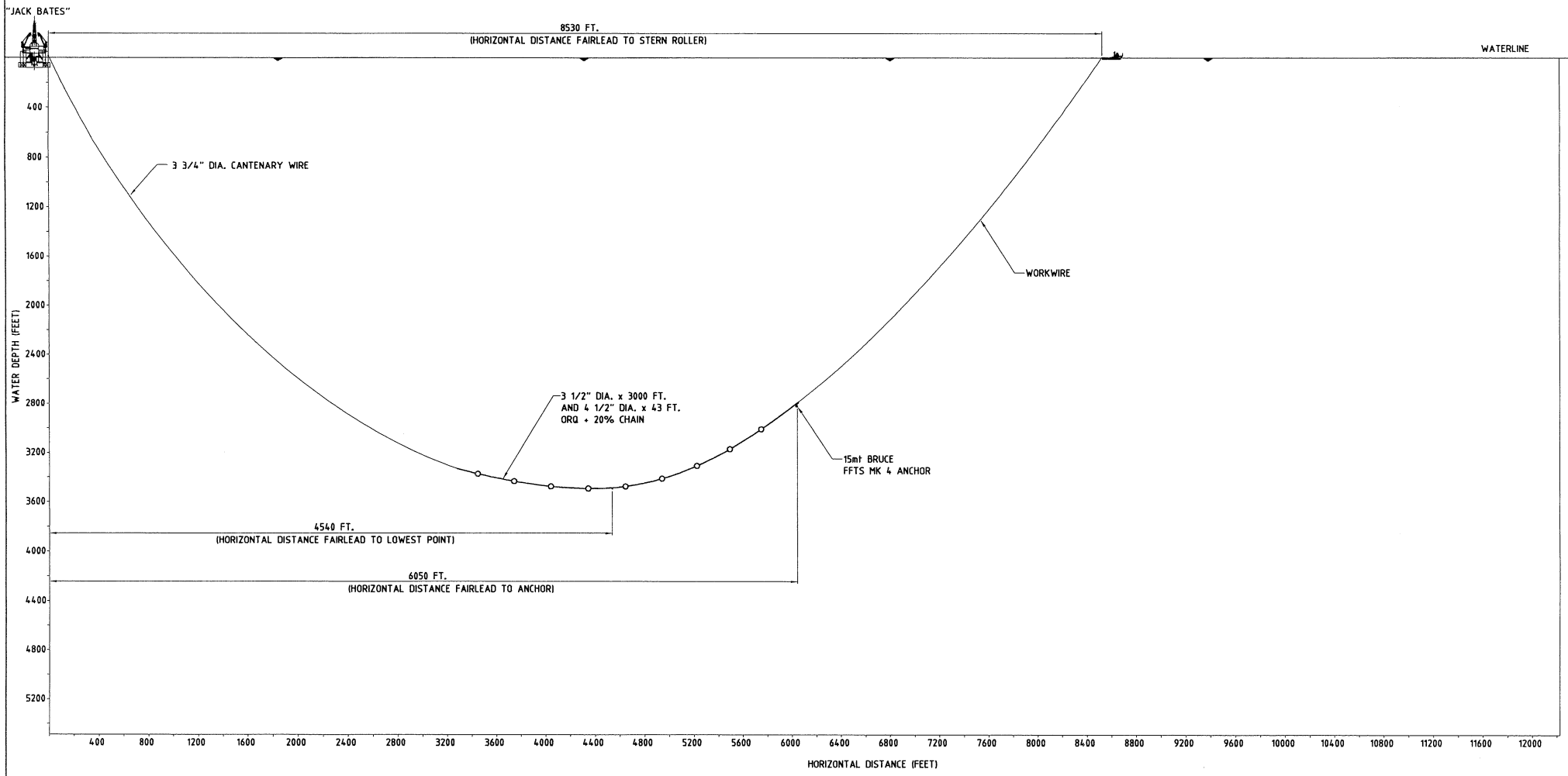
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0	APPROVED FOR CONSTRUCTION				DMS	

TRANSOCEAN
 JACK BATES RIG MOVEMENT
 WELL - AMARIT 1
 INSTALLATION PROCEDURES - STAGE 3

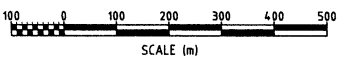
Scale	1:5000	Sheet Size	A1	Drwg No	O/S/JB-AMARIT 1-006	Rev	1
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LOADINGS	
FAIRLEAD TENSION (kips)	305
FAIRLEAD ANGLE	50°
BOLLARD PULL (Tonnes)	88
AHV WINCH TENSION (kips)	318

PAYOUTS	
CATENARY WIRE (FT)	4500
CHAIN (FT)	3043
WORKWIRE (FT)	3750

NOTES
 ANCHOR APPROX. 2800 FEET BELOW WATER LEVEL
 LOWEST POINT IN CHAIN APPROX. 3500 FEET BELOW WATER LEVEL



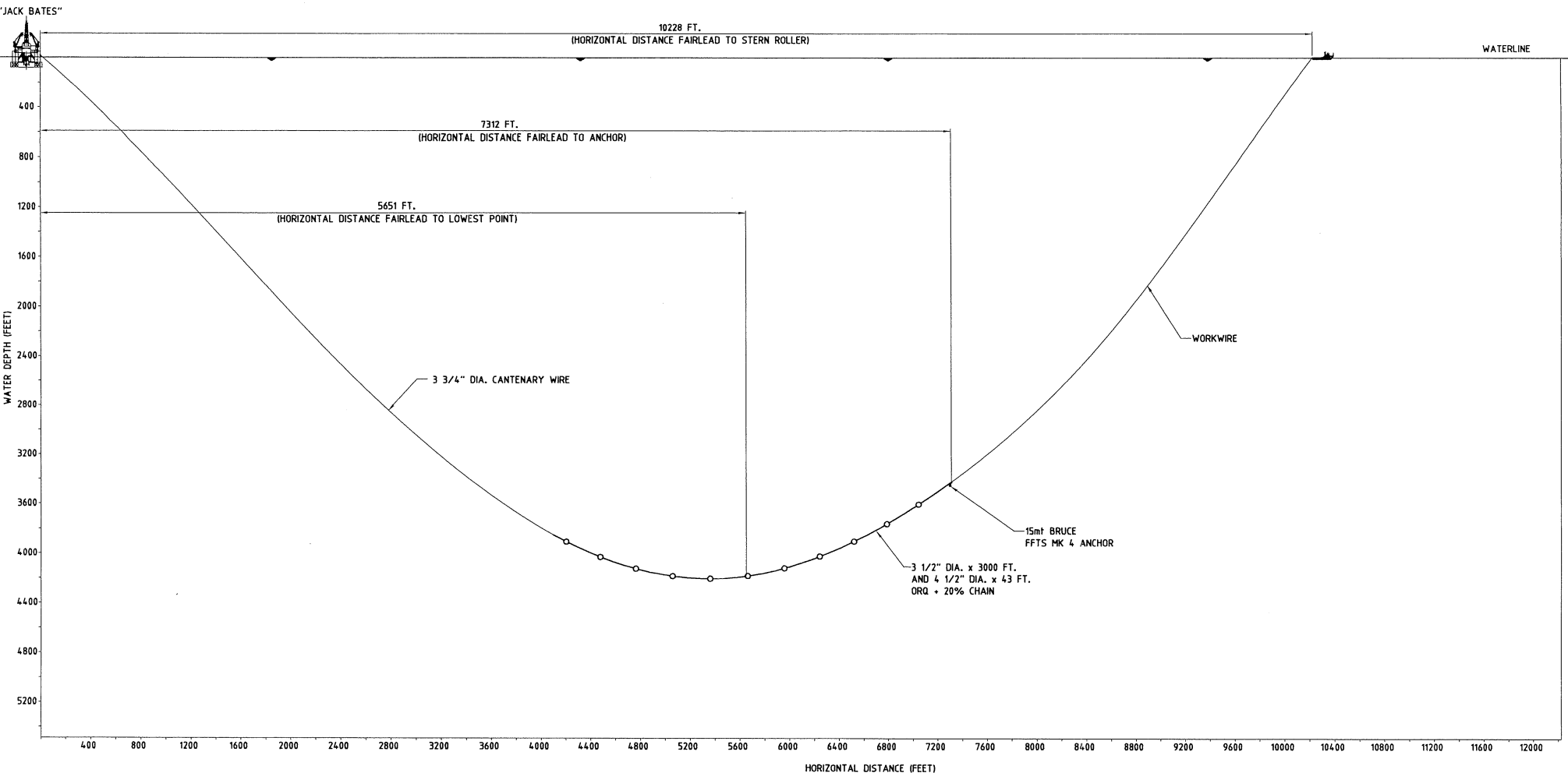
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0	APPROVED FOR CONSTRUCTION						O/S	

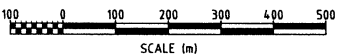
TRANSOCEAN JACK BATES RIG MOVEMENT WELL - AMARIT 1 INSTALLATION PROCEDURES - STAGE 4			
State	Sheet Size	Draw No	Rev
	A1	O/S/JB-AMARIT 1-007	1



LOADINGS	
FAIRLEAD TENSION (kips)	324
FAIRLEAD ANGLE	50°
BOLLARD PULL (tonnes)	94
AHV WINCH TENSION (kips)	349

PAYOUTS	
CATENARY WIRE (FT)	6000
CHAIN (FT)	3043
WORKWIRE (FT)	4500

NOTES
 ANCHOR APPROX. 3400 FEET BELOW WATER LEVEL
 LOWEST POINT IN CHAIN APPROX. 4200 FEET BELOW WATER LEVEL



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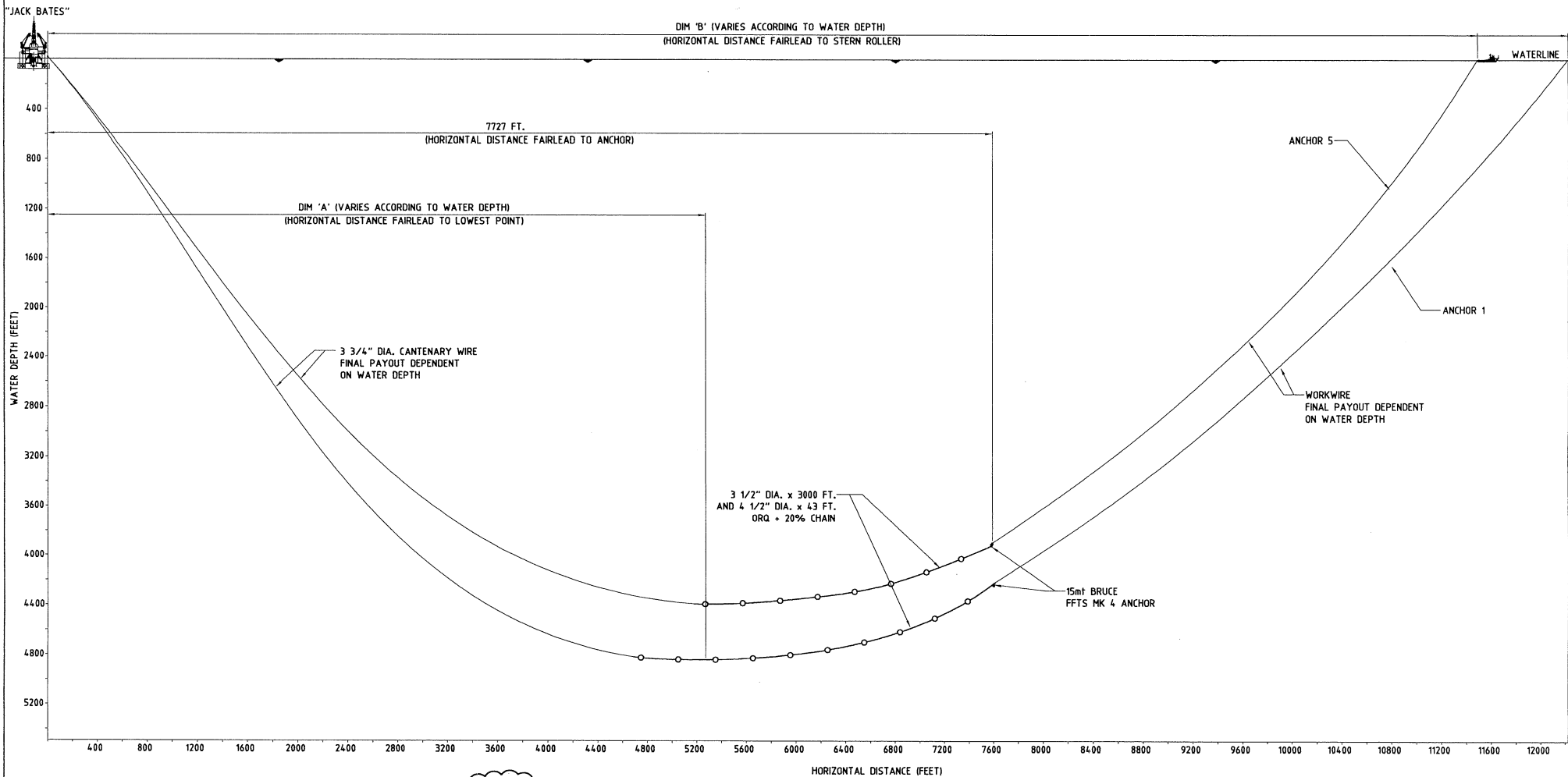
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0	APPROVED FOR CONSTRUCTION						DMS	

TRANSOCEAN
 JACK BATES RIG MOVEMENT
 WELL - AMARIT 1
 INSTALLATION PROCEDURES - STAGE 5

Scale	1:5000	Sheet Size	A1	Dwg No	OMS/JB-AMARIT 1-008	Rev	1
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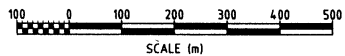


FINAL LOADINGS	ANCHOR 1	ANCHOR 2	ANCHOR 3	ANCHOR 4	ANCHOR 5	ANCHOR 6	ANCHOR 7	ANCHOR 8
FAIRLEAD TENSION (kips)	370	369	364	356	358	365	359	360
FAIRLEAD ANGLE	53°	53°	52°	50°	49°	52°	51°	51°
BOLLARD PULL (tonnes)	100	100	102	105	106	102	102	103
AHV WINCH TENSION (kips)	356	356	359	362	364	358	359	360
FINAL PAYOUTS	ANCHOR 1	ANCHOR 2	ANCHOR 3	ANCHOR 4	ANCHOR 5	ANCHOR 6	ANCHOR 7	ANCHOR 8
CATENARY WIRE (FT)	6880	6870	6700	6460	6410	6730	6630	6600
CHAIN (FT)	3043	3043	3043	3043	3043	3043	3043	3043
WORKWIRE (FT)	6476	6437	6024	5394	5354	6112	5768	5742

ANCHOR	DIM 'A' (FT.)	DIM 'B' (FT.)
1	6271	12230
2	6269	12190
3	6220	11920
4	6180	11682
5	6138	11495
6	6220	11972
7	6177	11712
8	6179	11720

NOTES

ANCHOR APPROX. 3900 FEET BELOW WATER LEVEL
CHAIN IS JUST TOUCHING THE SEABED



NOTES



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1	DETAILS ANCHOR 5 REVISED						DMS	
	CATENARY ANCHORS 1 & 5 REVISED							
	SEABED PROFILE REMOVED							
0	APPROVED FOR CONSTRUCTION						DMS	

TRANSOCEAN
JACK BATES RIG MOVEMENT
WELL - AMARIT 1
INSTALLATION PROCEDURES - STAGE 6

Scale	1:5000	Sheet Size	A1	Orig No	OMS/JB-AMARIT 1-009	Rev	1
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APPENDIX A: FINAL FIX FIELD REPORTS



DRILLING RIG POSITION

MODU JACK BATES

Location: Amrit-1

FINAL FIX POSITION NOTIFICATION

To: Ole Moller (Offshore Drilling Manager: Santos Ltd)
Dave Atkins (Company Man: Santos Ltd)

From: John Herkenhoff (QC Surveyor: Santos Ltd/ECL)

Date: 21/11/04 **Time:** 2000hrs

DGPS Final Fix

On completion of spudding the well, running of the 30" casing and levelling of the guide base and BOP, 720 Differential GPS position fixes were recorded at 5 second intervals from 1819hrs to 1919hrs on Sunday, 21 November 2004.

Drill-stem location:

Spheroid: GRS80 **Datum:** GDA94 **Projection:** UTM , CM 141° E (Zone 54)

Latitude : 038° 56' 05.20" South

Longitude : 141° 44' 07.08" East

Easting : 563 729.6 metres

Northing : 5 690 204.1 metres

This position is 2.9 metres on a bearing of 338.7°(True) from the intended location.

Final Rig Heading: 217.3° (True)

Intended Location:

Latitude : 038° 56' 05.29" South **Easting:** 563 730.6 metres

Longitude : 141° 44' 07.12" East **Northing:** 5 690 201.4 metres

Notes: Intended Location from Drilling Program (revision 0: Oct. 04).

.....
Mick Elmslie
Fugro Survey Pty Ltd

.....
John Herkenhoff
ECL Pty Ltd

RIG POSITION FIELD REPORT

Amrit-1



Client : Santos Ltd

Job Number : P0144

Rig : Jack Bates

Date: 21-Nov-04

Project : Rig Move to Amrit-1

Attention : J.Herkenhoff Santos Survey Representative

Copy : D.Atkins Santos Company Man

The surface location of the drill stem on the Jack Bates was derived from one hour of observations of the Primary Differential GPS data, between 1819 hrs and 1919 hrs on completion of all anchor pre-tensioning, spudding in of the 30' casing and deployment of the BOP. The results of the observations are as follows:

Geographical Coordinates		Grid Coordinates	
Latitude	38 ° 56 ' 5.201 " South	Easting	563729.57
Longitude	141 44 ' 07.075 " East	Northing	5690204.12

The drill stem position is 2.9 m at a bearing of 338.7 ° True from the design location.

The Client supplied design location for Amrit-1 :

Geographical Coordinates		Grid Coordinates	
Latitude	38 ° 56 ' 5.290 " South	Easting	563730.64
Longitude	141 ° 44 ' 7.120 " East	Northing	5690201.38

The Jack Bates's rig heading, derived from the mean of one hour's observation of the gyro heading is:

217.26 ° True 218.25 ° Grid

All coordinates in this field report are quoted in the following coordinate system:

Datum : GDA 94 Projection : UTM
Spheroid : MGA Zone (Central Meridian) 54 141 ° East

The approximate positions of the rig anchors corrected for catenary are as follows:

Anchor	Easting	Northing	Bearing (°)
1	561734	5689320	245.1
2	561739	5690662	282.7
3	562723	5691882	328.2
4	563963	5692588	5.4
5	565549	5691020	64.9
6	565548	5689787	102.7
7	564895	5688331	147.3
8	563543	5688065	184.8

Party Chief/Surveyor:

M. Elmslie

Client Representative :

J. Herkenhoff

RIG POSITION FIELD REPORT

Amrit-1



Client : Santos Ltd

Job Number : P0144

Rig : Jack Bates

Date: 20-Nov-04

Project : Rig Move to Amrit-1

Attention : J.Herkenhoff Santos Survey Representative

Copy : D.Atkins Santos Company Man

The preliminary surface location of the drill stem on the Jack Bates was derived from one hour of observations of the Primary Differential GPS data, between 1913 hrs and 2013 hrs on commencement of jetting in of the 30' casing.

The results of the observations are as follows:

Geographical Coordinates		Grid Coordinates	
Latitude	38 ° 56 ' 5.265 " South	Easting	563728.82
Longitude	141 44 ' 07.044 " East	Northing	5690202.17

The drill stem position is 2.0 m at a bearing of 293.4 ° True from the design location.

Party Chief/Surveyor:


M. Elmslie

Client Representative :


J. Herkenhoff

APPENDIX B: CONTRACTOR'S PROPOSED AND AS-LAID ANCHOR CALCULATIONS

FINAL CALCULATION SUMMARY SHEET



Client	Santos Ltd
Job No.	P0144
Surveyor	M.Elmslie

DRILLING RIG	Jack Bates
LOCATION	Amrit-1
DATE	21/November/2004

MGA	
CRP - Easting	563729.570
CRP - Northing	5690204.120

Vessel Heading	d	m	s
Heading (True dms)	217	15	36.0000
Heading (True degs)	217.26		
Heading (Grid dms)	217	43	19.5711
Heading (Grid degs)	217.72		

GDA 94			
Latitude	-38	56	5.2013
Longitude	141	44	7.0746
Grid Conv.(DMS)	0	27	43.5711
Grid Conv.(DEC)	0.46		
PSF	0.999650010		
Height	0.000		

WGS 84			
Latitude	-38	56	5.1825
Longitude	141	44	7.0846
Height	-0.060		

Navigation Antenna	Vessel Offsets		Calc'd Bearing & Distance				MGA		GDA 94			WGS 84			
	x	y	d	m	s	distance	East	North	d	m	s	d	m	s	
Primary Antenna	9.94	35.43	233	23	37	36.798	563700.03	5690182.18	Lat.	-38	56	5.9208	-38	56	5.9020
									Long.	141	44	5.8550	141	44	5.8651
Secondary Antenna	18.2	37.55	243	34	51	41.728	563692.20	5690185.55	Lat.	-38	56	5.8134	-38	56	5.7945
									Long.	141	44	5.5287	141	44	5.5387

3.25" Chain = 91.45 lbs/ft wet
 3" Chain = 77.90 lbs/ft wet
 2.75" Chain = 65 lbs/ft wet

Anchor	Fairlead Offsets			Grid Bng/Distance Fairlead to Anchor		Calc'd Anchor Position	
	x	y	z	Dec. Deg	distance	East	North
1	34.25	31.35		245.7	2139.3	561733.570	5689319.942
2	34.25	25.50		283.2	2000.3	561739.414	5690661.678
3	34.25	-25.80		328.7	1914.9	562723.435	5691881.689
4	34.25	-31.70		5.9	2350.2	563963.457	5692587.901
5	-34.25	-31.70		65.4	1950.2	565549.277	5691020.083
6	-34.25	-25.80		103.2	1823.6	565547.840	5689787.157
7	-34.25	25.50		147.8	2165.3	564894.877	5688330.764
8	-34.25	31.35		185.3	2101.9	563543.323	5688065.417

Chain Wt. (lbs/ft)		77.9				
Chain Wire Paid out (ft)	Water Depth (ft)	Chain Tension (lbs)	1/2 Catenary Length	Horizontal Distance to Touchdown	Horizontal Distance to Anchor (ft)	Horizontal Distance to Anchor (m)
10262	5397.0	381000	6985.6	3742.1	7018.6	2139.3
9947	5364.0	381000	6712.9	3328.7	6562.7	2000.3
9868	5020.0	319000	5803.7	2218.2	6282.5	1914.9
10262	4495.0	339000	6062.6	3511.2	7710.6	2350.2
9415	4462.0	302000	5336.2	2319.6	6398.4	1950.2
9927	5095.0	310000	5628.2	1684.1	5982.9	1823.6
9898	4806.0	359000	6369.7	3575.5	7103.9	2165.3
9448	4783.0	383000	6757.5	4205.6	6896.1	2101.9

PROPOSED CALCULATION SUMMARY SHEET



Client	Santos Ltd
Job No.	P0144
Surveyor	M.Elmslie

DRILLING RIG	Jack Bates
LOCATION	Amrit-1
DATE	16/November/2004

MGA	
CRP - Easting	563730.640
CRP - Northing	5690201.380

Vessel Heading	d	m	s
Heading (True dms)	215	0	0.0000
Heading (True degs)	215.00		
Heading (Grid dms)	215	27	43.6005
Heading (Grid degs)	215.46		

GDA 94	d	m	s
Latitude	-38	56	5.2899
Longitude	141	44	7.1199
Grid Conv.(DMS)	0	27	43.6005
Grid Conv.(DEC)	0.46		
PSF	0.999650012		
Height	0.000		

WGS 84	d	m	s
Latitude	-38	56	5.2711
Longitude	141	44	7.1299
Height	-0.060		

Navigation Antenna	Vessel Offsets		Calc'd Bearing & Distance				MGA			GDA 94			WGS 84		
	x	y	d	m	s	distance	East	North		d	m	s	d	m	s
Primary Antenna	9.94	35.43	231	8	1	36.798	563701.99	5690178.29	Lat.	-38	56	6.0465	-38	56	6.0276
									Long.	141	44	5.9377	141	44	5.9477
Secondary Antenna	18.2	37.55	241	19	16	41.728	563694.03	5690181.35	Lat.	-38	56	5.9491	-38	56	5.9302
									Long.	141	44	5.6061	141	44	5.6162

3.25" Chain = 91.45 lbs/ft wet
 3" Chain = 77.90 lbs/ft wet
 2.75" Chain = 65 lbs/ft wet

Anchor	Fairlead Offsets			Grid Bng/Distance Fairlead to Anchor		Calc'd Anchor Position	
	x	y	z	Dec. Deg	distance	East	North
1	34.25	31.35		245.5	2200.4	561682.880	5689281.812
2	34.25	25.50		283.0	2206.7	561537.505	5690695.369
3	34.25	-25.80		328.0	2245.4	562526.499	5692145.645
4	34.25	-31.70		5.5	2299.3	563939.913	5692535.919
5	-34.25	-31.70		65.5	2307.2	565875.717	5691165.573
6	-34.25	-25.80		103.0	2235.1	565951.677	5689701.254
7	-34.25	25.50		148.0	2278.3	564952.426	5688229.443
8	-34.25	31.35		185.5	2274.2	563523.954	5687892.069

Chain Wt. (lbs/ft)		77.9				
Chain Wire Paid out (ft)	Water Depth (ft)	Chain Tension (lbs)	1/2 Catenary Length	Horizontal Distance to Touchdown	Horizontal Distance to Anchor (ft)	Horizontal Distance to Anchor (m)
9923	5397.0	450000	8007.4	5303.7	7219.3	2200.4
9913	5364.0	450000	7991.1	5317.8	7239.7	2206.7
9743	5020.0	450000	7794.2	5418.0	7366.8	2245.4
9503	4495.0	450000	7469.9	5510.5	7543.6	2299.3
9503	4462.0	450000	7452.3	5518.9	7569.5	2307.2
9773	5095.0	450000	7836.3	5396.4	7333.0	2235.1
9673	4806.0	450000	7674.1	5476.0	7474.9	2278.3
9643	4783.0	450000	7654.7	5473.0	7461.4	2274.2

APPENDIX C: ON-LINE SURVEY PARAMETERS

19/11/2004 11:00:01 LOC
*** FUGRO SURVEY STARFIX.SEIS ***

Header : Project Name : Amrit-1 Rig Move Jack
Bates
Project Number : P0144
Project Description : Rig Move
Project Location : Amrit-1
Client : Santos
Client Representative : J.Herkenhoff, D.Atkins
Client Reference Number :
Geophysical Contractor : Fugro
Positioning Contractor : Fugro
Positioning Processing Contractor: Fugro
Setup By : ME, LC
On : 18/11/2004 13:08:03 LOC
Time Source : 9 GPS Raw Data Trimble
Time Offset : 11:00 (Using LOC)
Vessel : Jack Bates

Files Runline : (None)
Centreline : (None)
Database : (None)
CAD : (None)
Waypoint : (None)

Logging: Directory : C:\Fugro_Projects\\P0144\NonSession\SEIS\

Fixing : Mode : Time
Start Mode : Manual
Stop Mode : Number Of Fixes = 120
Fix Devices :
Auto-Fix : Myfixout
Manual : Myfixout
External : (None)
Offset : (None)
MOB : (None)
Fix Interval : 5.000s
Duration : 120 fixes
Reset at SOL : No
Next Fix No. : 363
Fix Increment : 1
Start FFID : 363
Start Man. Fix: 1
Early Start : 5s
Logging Start : 5s

Datum 1: Datum : GDA94 (Australia-ITRF-2004.50)
Spheroid : GRS80
SemiMajor Axis: 6378137.000
1/Flattening : 298.2572221010
Eccentricity^2: 0.006694380022901

Projection : Universal Transverse Mercator
Grid Name :
Lat. Origin : 0d00'00.0000"N
Lon. Origin : 141d00'00.0000"E
False East : 500000.000m
False North : 10000000.000m
Scale Factor : 0.9996
Convergence : Australia/New Zealand

Datum 2: Datum : WGS 84
Spheroid : WGS 84

SemiMajor Axis: 6378137.000
1/Flattening : 298.2572235630
Eccentricity^2: 0.006694379990141

Datum2>1:Parameters : From WGS84 to GDA94 (Australia-ITRF-
2004.50)
0.0134" DX : -0.0270m RX :
0.0124" DY : -0.0300m RY :
0.0140" DZ : -0.0340m RZ :
D Scale : 0.0055ppm Rot Convention: +RZ=-
RLongitude

Sundry : Vertical Datum:
Ell. Sep. : 0.0000m
Distances : Spheroidal
Bearings : True
Units : metres
Conversion : 1.0000000000

Main Vessel : Jack Bates
: C:\PROGRAM FILES\FUGRO\6.1\SHARED\DATA
\VESSEL_SHAPES\JACK_BATES.SVS

Nav. 1 : System : MRDGPS (In Use)
Type : Lat - Long
Priority : 1
Time-out : 5.0s
Offset Name : GPS1
X Offset : 9.94m
Y Offset : 35.43m
Ant. Height : 0.00m
Nav. 2 : System : TRIMBLE PRN
Type : Lat - Long
Priority : 2
Time-out : 5.0s
Offset Name : GPS2
X Offset : 18.20m
Y Offset : 37.55m
Ant. Height : 0.00m
Nav. 3 : System : Trimble
Type : Lat - Long
Priority : 3
Time-out : 5.0s
Offset Name : GPS1
X Offset : 9.94m
Y Offset : 35.43m
Ant. Height : 0.00m

Dead Reckoning: No Timeout: 30.0s

Gyro 1 : System : SGBrown (In Use)
Priority : 1
Time-out : 5.0s
Offset Name : CRP
X Offset : 0.00m
Y Offset : 0.00m
Z Offset : 0.00m
Correction : -180.09 Degrees
Gyro 2 : System : CMG from filter
Priority : 2
Time-out : 3.0s
Offset Name : CRP

X Offset : 0.00m
Y Offset : 0.00m
Z Offset : 0.00m
Correction : 0.00 Degrees

Offsets: Name	X	Y	Z
GPS1	9.94	35.43	0.00
GPS2	18.20	37.55	0.00

Fairlead:Name	X	Y	Z
1	34.25	31.35	0.00
2	34.25	25.50	0.00
3	34.25	-25.80	0.00
4	34.25	-31.70	0.00
5	-34.25	-31.70	0.00
6	-34.25	-25.80	0.00
7	-34.25	25.50	0.00
8	-34.25	31.35	0.00

Secondary Vessel 1 : Lady Caroline
: C:\PROGRAM FILES\FUGRO\6.1\SHARED\DATA
\VESSEL_SHAPES\LADY CAROLINE.SVS

Nav. 1 : System : LADY CAROLINE (In Use)
Type : Lat - Long
Priority : 1
Time-out : 15.0s
Offset Name : CRP
X Offset : 0.00m
Y Offset : 0.00m
Ant. Height : 0.00m
Dead Reckoning: No Timeout: 30.0s

Gyro 1 : System : LADY CAROLINE (In Use)
Priority : 1
Time-out : 15.0s
Offset Name : CRP
X Offset : 0.00m
Y Offset : 0.00m
Z Offset : 0.00m
Correction : 35.00 Degrees

Secondary Vessel 2 : Lady Astrid
: C:\PROGRAM FILES\FUGRO\6.1\SHARED\DATA
\VESSEL_SHAPES\LADY ASTRID.SVS

Nav. 1 : System : LADY ASTRID (In Use)
Type : Lat - Long
Priority : 1
Time-out : 15.0s
Offset Name : CRP
X Offset : 0.00m
Y Offset : 0.00m
Ant. Height : 0.00m
Dead Reckoning: No Timeout: 30.0s

Gyro 1 : System : LADY ASTRID (In Use)
Priority : 1
Time-out : 15.0s
Offset Name : CRP
X Offset : 0.00m
Y Offset : 0.00m
Z Offset : 0.00m

Correction : 33.00 Degrees

O/Ts : Steered Point: O/T 0
Shot : O/T 0

O/T 0	PR CRP	Flt:	Pos Sys: Datum In-Use
O/T 1	PR Lady Caroline	Flt:	Pos Sys: Datum In-Use
O/T 2	PR Lady Astrid	Flt:	Pos Sys: Datum In-Use
O/T 3	PR MRDGPS Datum	Flt:	Pos Sys: MRDGPS Datum
O/T 4	PR TRIMBLE PRN Datu	Flt:	Pos Sys: TRIMBLE PRN Datum
O/T 5	PR GPS1	Flt:	Fxd Off: GPS1
O/T 6	PR FL1	Flt:	Frlead : 1
O/T 7	PR FL2	Flt:	Frlead : 2
O/T 8	PR FL3	Flt:	Frlead : 3
O/T 9	PR FL4	Flt:	Frlead : 4
O/T 10	PR FL5	Flt:	Frlead : 5
O/T 11	PR FL6	Flt:	Frlead : 6
O/T 12	PR FL7	Flt:	Frlead : 7
O/T 13	PR FL8	Flt:	Frlead : 8
O/T 14	PR GPS2	Flt:	Fxd Off: GPS2

O/T Legend: PR=Print LG=Log SN=Snap to line

Waypoint : Amrit-1

Position : 38d56'05.2902"S 141d44'07.1199"E 0.0m
563730.640mE 5690201.380mN 0.0m

Printing:

Fix mark rate : 1
Weather Device : (None)
Weather Interval: 60 minutes
Weather Enabled : No
Config Changes : Yes
System Timeouts : Yes
Concise Header : No

Software: Starfix Suite 6.1 (Service Pack 1)

HF: CODAOut HF1
HF: Nav HF1
HF: PosdbLib HF1
HF: SchlumbergerOut HF1
HF: VesselEditor HF1
HF: WOMBAT HF1
HF: GDA94 Files HF1
Seis Ver 2.08.0018
SeisEngine Ver 2.08.0011
Display Ver 2.14.0006
Anchors Ver 3.02.0028
Print Ver 2.03.0005

RIG POSITIONING GEODESY AND CO-ORDINATE CHECK LIST



Client : Santos Ltd Job Number : P0144
 Rig : Jack Bates Date: 16/November/2004
 Project : Rig Move to Amrit-1

1. CONFIRMATION OF PROPOSED RIG COORDINATES and HEADING.

Well Name **Amrit-1** Ensure agreement with Client onsite prior to any positioning
 Well Location – Latitude 38 56 5.290 S Operations: OK (?) N.
 Well Location – Longitude 141 44 7.120 E
 Rig Heading (True) 215 ° T

2. GEODETIC PARAMETERS (WGS84 to LOCAL DATUM)

DATUM: Dx -0.02660 Ensure agreement with Client onsite prior to positioning Operations.
 (WGS84 to Dy -0.03030 OK (?) N.
 Local Datum) Dz -0.03390
 Rx 0.013416
 Projection: Ry 0.012379
 Rz 0.013999
 Ds 0.00552 ppm
 UTM Zone 54
 Central Meridian 141 ° East

3. CHECK TRANSFORMATION OF SITE COORDINATES.

Well Location – Easting 563730.64 Ensure agreement with PCNav / Starfix.Seis. OK (?) N
 Well Location – Northing 5690201.38 If not, CHECK and RECALC.
 Convergence at Location 0.46
 Rig Heading (° Grid) 215.46

4. MEAS. ANT. OFFSETS from ANT. TO D/STEM (Rel. to Datum) NAV #1 SYSTEM NAV #2 SYSTEM

(Measure two (2) separate directions, verifying closure.)

Delta X(m)	9.94	18.2
Delta Y(m)	35.43	37.55
Angle between Rig Centreline and Antenna(s) (Grid)	15.672	25.9
Distance between Drill Stem and Antenna(s)	36.80	41.73

5. MANUAL COORDINATE VERIFICATION FOR ANTENNAS NAV #1 SYSTEM NAV #2 SYSTEM

Proposed Drill Stem Position	Easting	563730.6	563730.6
	Northing	5690201.4	5690201.4
Drill Stem to Antenna	Proposed Hdg (G)	215.46	215.46
Brg (G) = Prop. Hdg. + Angle btwn centreline and antenna		231.13	241.32
	Distance (m)	36.80	41.73
Calculated Antenna	Easting	563701.99	563694.03
Coordinates (Local)	Northing	5690178.29	5690181.35
	Latitude	38 56 6.0465 S	38 56 5.9491 S
	Longitude	141 44 5.9377 E	141 44 5.6061 E

Calculated Proposed Antenna Coords (WGS 84)	Latitude	38 56 6.0276 S	38 56 5.9302 S
	Longitude	141 44 5.9477 E	141 44 5.6162 E

Surveyor : M. Elmslie Client Rep J. Herkenhoff Date : 13/11/04

6. POST RIG MOVE – OBSERVED ANTENNA COORD NAV.SYS #1 NAV.SYS #2

Observed WGS84 Antenna Positions Latitude 38 56 05.957 "S 38 56 05.847 "S
 Longitude 141 44 05.826 "E 141 44 05.501 "E

Ensure agreement between calculated and observed coordinates. If NO, check calcs, antenna offsets. OK (?) N

Surveyor : M. Elmslie Client Rep J. Herkenhoff Date : 20/11/04

RIG POSITIONING DGPS CHECK LIST (PRE RIG MOVE)



Client : Santos Ltd

Job Number :

P0144

Rig : Jack Bates

Date:

13/11/2004

Project : Rig Move to Amrit-1

1) ESTABLISHED WELL COORDINATES

Observe 10 minutes of DGPS data, logging both Primary and Secondary systems. Establish a mean drill stem position from the primary navigation system and compare against the established well coordinates.

	Easting	Northing
Established Well Coordinates	541241.78	5734911.33
Observed Coordinates	541244.85	5734914.18
Differences	-3.1	-2.8

Ensure agreement OK(?) Y / N

If No, Check and ensure that rig has not moved off location.

2) PRIMARY/SECONDARY NAV SYSTEMS

From the data logged above, compare the observed co-ordinates for both Primary and Secondary navigation systems

	Easting	Northing
Primary Navigation	541244.85	5734914.18
Secondary Navigation	541244.10	5734913.00
Differences	0.75	1.18

Ensure agreement OK(?) Y / N

If No, Check antenna offsets and gyro calibration.

Party Chief/Surveyor:

M. Elmslie

Client Representative :

J. Herkenhoff

APPENDIX D: SURVEY GYROCOMPASS CALIBRATION

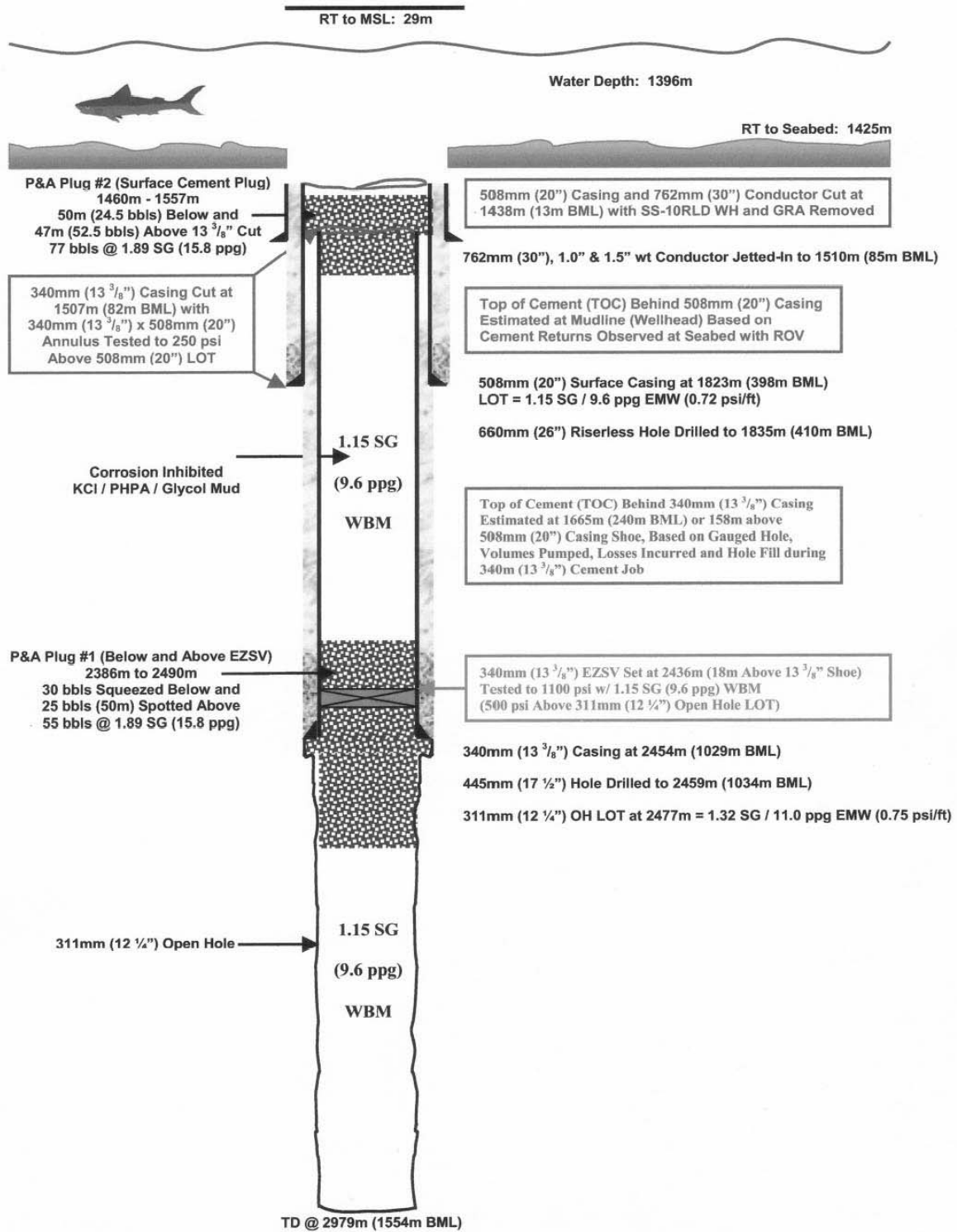
APPENDIX E: SANTOS ENERGY WELL DATA SHEET

1. WELL DATA SUMMARY

LICENCE: Vic/P52	Budget Status 2004 Budget Item	Latitude (GDA94): 38° 56' 05.29" S
EQUITY:	Commitment well Permit Year 2	Longitude: 141° 44' 07.12" E
	Investment (A\$)	Seismic Reference: OS02 3D Survey IL7404, XL1967
INPEX ALPHA Ltd 33.333%	INPEX ALPHA Ltd A\$7.16 million	Est. Water Depth: 1395m
Santos Ltd 33.333%	Santos Ltd A\$7.16 million	Sea Level 0m
Unocal South Asean Ltd 33.333%	Unocal South Asean Ltd A\$7.16 million	Rotary Table: 29m (To be confirmed)
TOTAL: 100%	TOTAL: A\$21.46 million P&A	Proposed Total Depth: -2950 mSS (Dry Hole) (-3150 mSS contingent)
Resource Estimate (Recoverable)		Rig: Jack Bates
Untruncated Original Oil in Place 1150 mmstb		Cost Estimates
Mean Truncated Success Volume*: 397 mmstb		P&A A\$21.55 million
Mean Expected Volume: 9.0 mmstb		C&S NA
EMV: A\$ 25.0 million (oil price / standalone)		Cost Code 5738056
Objectives/Fluid Contacts		Stratigraphic Prognosis
Primary	Secondary	Formation
Paaratte Sandstone (Oil/Gas) K94, approximately 20m above K93 (-2545m)	Intra-Paaratte & Nullawarre Equivalent (Oil/Gas)	Depth (m-RT)
		Depth (m-SS)
		RT 0
		Sealevel 29 0
		Seabed (Tertiary Ooze) 1424 -1395
		Wangerrip (T20) 1849 -1820
		Wangerrip (T15) 1994 -1965
		Base Tertiary (T1) 2042 -2013
		Upper Timboon Sst (K101) 2079 -2050
		Timboon Mdst (K99) 2154 -2125
		Paaratte Fm (K94) 2574 -2545
		Paaratte Fm (K93) 2594 -2565
		Paaratte Fm (K91) 2824 -2795
		TD (no significant shows) 2979 -2950
		TD (contingent) 3179 -3150
Formation Evaluation		Hole Design / Drilling Issues
Wireline Logging: The wireline logging suite has yet to be finalised but is likely to include Standard Gamma Ray/ Resistivity/Sonic from 20" casing to TD Dipole Sonic with P & S and WFT/Density/Neutron over primary target interval. Image log contingent on shows		Well Class: Exploration ("Finder Well")
FEWD GR-Resistivity LWD from spud to TD		Hole Size: Casing Size / Depth: Jet-In 30" @ 1531m TVD RT 26" Riserless 20" @ 1829m TVD RT 17 1/2" 13 3/8" @ 2474m TVD RT
SWC's: Two guns 2 x 30 samples. Rotary SWCs available if required.		Drill Fluid: 8% KCl / PHPA / Glycol Polymer WBM
MDT's: 20 point pressure survey + Formation Samples using PVT Multi-sampler + Pump Out Module with Resistivity monitoring.		Deviation Sub-Surface Targets: Amrit-1 is a vertical well. An accuracy of ±100m radius from seismic reference at TD is requested
Velocity Survey: Checkshot survey, points every 50m from TD, contingent upon well results.		Other Information / Hazards: Shallow Gas is unlikely within the Tertiary section with a small possibility from the T15 to T1. CO ₂ may be encountered within the primary and secondary objectives. H ₂ S is unlikely, but should follow standard monitoring and safety procedures. Overpressure is expected to be encountered towards TD, around 3050mSS though possibly as shallow as 2750 mSS. Pressure is anticipated to follow a disequilibrium gradient of ~ 1.15 psi/ft. Formation pressure is anticipated to be in the order of 3885 psia (~200 psi above hydrodynamic) in the event of a gas-discovery. In the most extreme case, a Formation Pressure up to 4800 psia could be encountered, but this is considered unlikely.
Mudlogging: Full Mudlogging Services from spud. No samples from surface to 20" casing shoe (1829 mRT) 5m samples from 20" to 13 3/8" casing shoe (2474 mRT) 3m samples from 13 3/8" casing shoe to TD		
Formation Testing: No open hole testing programme.		
Coring: No full hole cores programmed		
REMARKS / RECOMMENDATIONS: Well to be continually monitored for CO ₂ with reporting on mudlog.		Nearby Wells and Duration: Hill-1 17 days (TD 2575mKB)

SECTION 14:- WELL ABANDONMENT AND PLUG REPORTS

VIC / P-52, Amrit-1 WELL ABANDONMENT DIAGRAM



SECTION 15:- DEVIATION SUMMARY