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

CASINO-3

BASIC DATA REPORT

PREPARED BY:
R. Subramanian
(Consultant)
January 2004

CASINO-3
BASIC DATA REPORT

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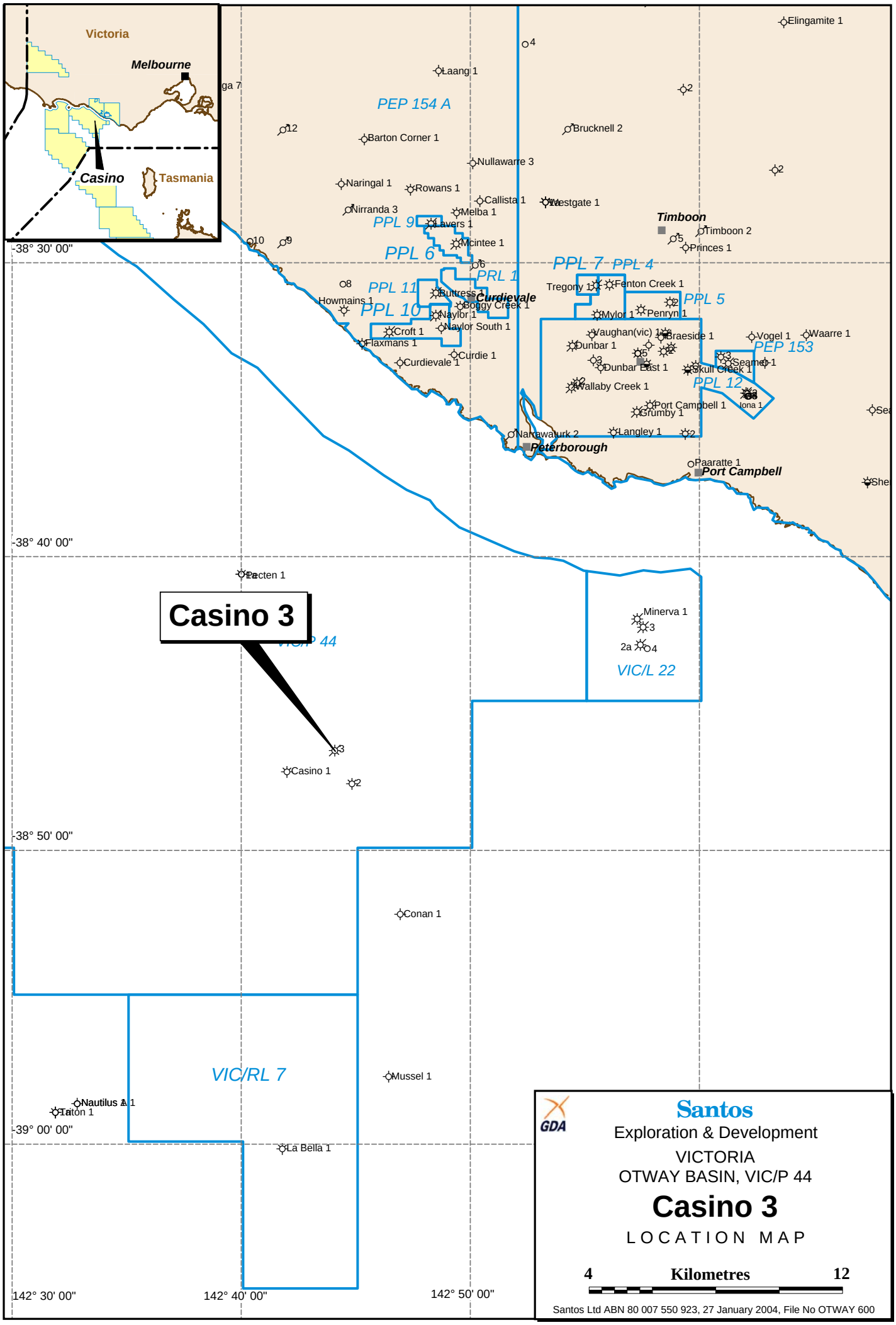
LOCATION MAP


Victoria
Melbourne
Casino
Tasmania
Elingamite 1
Laang 1
PEP 154 A
Barton Corner 1
Brucknell 2
Nullawarre 3
Naringal 1
Rowans 1
Callista 1
Westgate 1
Nirranda 3
Melba 1
PPL 9
Lavers 1
Timboon
Timboon 2
Princes 1
PPL 6
Mcintee 1
PPL 7
PPL 4
PRL 1
Tregony 1
Fenton Creek 1
PPL 11
Buttress 1
Curdievale
PPL 5
Howmains 1
Boggy Creek 1
PPL 10
Naylor 1
Mylor 1
Penryn 1
Naylor South 1
Croft 1
Vaughan(vic) 1
Braeside 1
Vogel 1
Waarre 1
Flaxmans 1
Dunbar 1
PEP 153
Curdie 1
Curdievale 1
Dunbar East 1
Skull Creek 1
Seamew 1
Wallaby Creek 1
PPL 12
Port Campbell 1
Grumby 1
Iona 1
Narrawaturk 2
Langley 1
Peterborough
Paaratte 1
Port Campbell
-38° 30' 00"
-38° 40' 00"
Pecten 1
Casino 3
VIC/P 44
Minerva 1
VIC/L 22
Casino 1
-38° 50' 00"
Conan 1
VIC/RL 7
Mussel 1
Nautilus A1
Triton 1
-39° 00' 00"
La Bella 1
142° 30' 00"
142° 40' 00"
142° 50' 00"
GDA
Santos
Exploration & Development
VICTORIA
OTWAY BASIN, VIC/P 44
Casino 3
LOCATION MAP
4
Kilometres
12
Santos Ltd ABN 80 007 550 923, 27 January 2004, File No OTWAY 600

GENERAL DATA CARD

WELL: CASINO-3	**WELL CATEGORY:** OFFSHORE GAS APP **WELL INTENT:** GAS	**SPUD:** 14-10-03 **TD REACHED:** 30-10-03 **RIG RELEASED**: 13-11-03 **CMPLT**:
		RIG: OCEAN EPOCH
SURFACE LOCATION: **LAT:** 38° 46' 34.558" S **LONG:** 142° 44' 05.437" E (GDA94) **NORTHING:** 5706621.82m **EASTING:** 650700.11m		**STATUS**: GAS WELL ABANDONED – NO PRODUCTION (GAB)
		REMARKS:
SEISMIC STATION: 2001 Casino-3D, Inline 6260, CDP 2546		
ELEVATION SEA FLOOR: -66.7m LAT **RT** +22.4m LAT		
BLOCK/LICENCE: Otway Basin - VIC / P 44		
TD 2135 m (Logr Extrap) 2135 m (Drlr)		
PBTD m (Logr) m (Drlr)		
TYPE STRUCTURE: Tilted Fault Block Closure		
TYPE COMPLETION: NIL		
ZONE(S):		

HOLE SIZE	CASING SIZE	SHOE DEPTH	TYPE
914mm	762mm	121.3m	461 kg/m X52
445mm	340mm	635.8m	101 kg/m BTC L80
311mm	244mm	2113m	70 kg/m BTC L80

LOG	SUITE/ RUN	INTERVAL (m)	BHT/TIME COMMENTS
PEX-DSI-HALS	**1 / 1**		
GR		2115 to Surface	83C, 182F / 15:30 hrs
MCFL		2118 to 635.8	
HLLD		2120 to 635.8	No repeat section
HLLS		2120 to 635.8	
HCAL		2118 to 635.8	
SP		2095 to 635.8	
DSI		2108 to 100	
MDT-GR (TOTAL : 24, 15 Normal, 2 Lost Seals, 7curtailed, Samples @ 2006.8m, 2 x 450cc, 1 gal, 2 ¾ gal. Sample @ 1985.2m 1 x 450cc)	**1 / 2**	1611.2 to 2063	85.5C, 185.9F / 33:30 hrs
PEX-CMR-HNGS	**1 / 3**		
GR (Spectral GR)		2111 to 635.8	83C, 182F / 40:00hrs
TNPH		2111 to 635.8	
RHOZ		2113 to 635.8	
CMR		2116 to 1930	
MCST	**1 / 4**		Unable to pass 1870m Pull out for a wiper trip
MCST	**1 / 4A**	2102.5 to 1970.5	13 MSCT cores attempted 13 cores recovered
CST-GR	**1 / 5**		Misrun. No bullets fired
CST-GR	**1 / 6**	2077.7 to 1162.7	30 cores attempted. 20 bought, 1 lost bullet, 2 empty, 7 misfires.

SECTION 1 : WELL HISTORY

1.1 INTRODUCTION

Casino-3 was drilled as an Otway Basin gas exploration well in the Victoria Offshore VIC/P44 licence. The Surface Location is Latitude: 38° 46' 34.558" S Longitude: 142° 44' 05.437" E (GDA94), Northing: 5706621.82m Easting: 650700.11m (MGA-94), with a seismic reference of Inline 6260, CDP 2546, Casino 3D Survey 2001. The location lies approximately 29 km south west of the town of Port Campbell, 24 km WSW of the Minerva gas field and 22 km North of the LaBella gas field. The Casino field is situated towards the western limit of the productive Waarre Sandstone play fairway of the Port Campbell Embayment. With reference to the earlier Casino wells, Casino-3 is approximately 3.3km NE of Casino-1 and approximately 2.4 km NW of Casino-2 (see Location Map). The water depth at the well location was 66.7m LAT.

The Casino structure is a tilted fault block with three way dip closure and up dip fault closure. Casino-1 and Casino-2 were drilled crestally on this fault block whereas Casino-3 is proposed in a down-dip location near the structural closure limit. Casino-1 and Casino-2 have established the presence of gas in the "Younger" and "Older" sands of the Waarre Sandstone.

The objectives of Casino-3 are:

- Establish a GWC/LKG in the "Younger" Waarre sand. Approximately 28m gross gas column for 15-20m of net pay is predicted in this sand. Full-hole core and DST this sand to establish productivity.
- Establish pressure regimes in the "Younger" Waarre sand to determine if normally pressured, over-pressured or compartmentalised.
- Establish reservoir characteristics in the "Older" Waarre sand in a water leg.
- To allow confirmation of the OGIP and Recoverable of the Casino Gas Field.

Casino-3 was drilled by the semi-submersible drilling rig "Diamond Offshore Ocean Epoch".

1.2 GENERAL DATA

Well Name:	CASINO-3	
Well Classification:	Offshore Gas Appraisal	
Interest Holders:	Santos Ltd	50%
	AWE Ltd	25%
	Mitsui & Co Ltd	25%
Participating Interests:	Santos Ltd	50%
	AWE Ltd	25%
	Mitsui & Co Ltd	25%
Operator:	Santos Ltd.	
Location:	Offshore Victoria – Otway Basin VIC / P44.	
Surveyed Location (GDA94)	Latitude: 38° 46' 34.558" South	
	Longitude: 142° 44' 05.437" East	
	Northing: 5706621.82m	
	Easting: 650700.11m	

Seismic Location:	Inline 6260, CDP 2546
Seismic Survey:	2001 Casino 3D
Elevations:	Water Depth 66.7m LAT Rotary Table 22.4m LAT
Total Depth:	Driller : 2135m RT Logger : 2122m RT Logger Extrapolated : 2135m RT
Status:	Gas Well Abandoned – No Production (GAB)
License:	VIC/P44 Offshore Victoria
Date Drilling Commenced:	22:00 hours on 14th October 2003.
Date Drilling Completed:	08:00 hours on 30th October 2003.
Date Rig Released:	19:00 hours on 13th November 2003.
Total Well Time:	31 days
Contractor:	Diamond Offshore
Rig:	Ocean Epoch (Semi-submersible)

1.3 DRILLING SUMMARY

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

Casino-3 was spudded at 22:00 hrs on 14th October 2003 utilising the semi-submersible drilling facility "Ocean Epoch".

Bit 1, a 660mm (26") Smith DSJ, run in conjunction with a 914mm (36") hole opener, drilled the 914mm (36") phase from seafloor at 89.1m to section total depth at 121.3m. Returns were to the seafloor. A string of 762mm (30") (461 kg/m X52) casing was run and set at 121.3m. The casing running tool and 914mm (36") BHA were laid out.

Bit 2, a Reed EMS11GC was run in hole to tag the cement top at 117.0m and was used to drill the entire 445mm (17.5") hole section from 121.3m to 645m. The hole was circulated clean and displaced with gel. A string of 340mm (13.375") (101 kg/m L80) casing was run and set at 635.8m and pressure tested. The casing running tool was released and laid out. The cement head was racked back. The choke and kill lines were tested at surface. While attempting to land the blowout preventers, the visual on the ROV failed and hence had to be recovered to surface for repairs. The blowout preventers were installed on the marine riser and function tested. However the weather conditions deteriorated and routine rig activities were performed while waiting on weather. Drillpipe was picked up, rig maintenance and housekeeping was performed and the 445 mm (17.5") BHA was laid out.

Thereafter, the 311 mm (12.25") BHA with Bit 3, Reed DSX195 was run in hole to tag top of cement at 619m. The cement plugs, cement, casing shoe, rathole and 3m of new hole from 645m to 648m were drilled. The hole was displaced to 1.03 SG (8.6ppg) and circulated clean. A Leak-off Test was performed to 1.80 SG EMW. The 311mm (12.25") hole was then drilled from 648m to 935m with partial mud losses from 875m. The bit was pulled back into the casing shoe while repairs to the gooseneck hose were conducted. The bit was run back in hole and drilling resumed from 935m to 1005m where the bit was pulled back into the casing shoe while repairs to the Top Drive System were conducted. Thereafter the bit was run back in hole and drilling continued from 1005m to 1226.5m where a trip was performed to pick up MWD tools and a new bit.

Bit 4, a Smith MO2TL rock bit was run in hole along with Sperry Sun LWD tools to record Gamma Ray, Resistivity and Deviation Survey data. Drilling continued from 1226.5m to the core point of 2004m in the Upper Waarre Sandstone. After repairs to the Top Drive System, the bit was pulled out of hole. A coring assembly was run in and a 27m core was cut from 2004m to 2031m pulled out of hole. The recovery was 24.7m (91.5%). Bit 4 was re-run along with LWD tools and drilling of the 311 mm (12.25") phase continued from 2031m to the Total Depth of 2135m (D) which was reached at 08:00 hrs on 30th October 2003.

At Total Depth, the hole was circulated clean and the drillstring was pulled out of hole to run wireline logs. Schlumberger was rigged up and the following wireline logs were run. Run 1: DSI-PEX-HALS, Run 2: MDT-GR, Run 3: PEX-CMR-HNGS, Run 4: MCST-GR and Run 5/Run 6: CST-GR. After rigging down Schlumberger, a string of 244mm (9 5/8") casing was run and cemented at 2113m.

The well was then production tested and thereafter abandonment plugs were set as per program, Plug 1: 2013m to 1970m, Plug 2: 2170m to 2120m and Plug 3: 175m to 135m. The rig was released at 19:00 hours on November 13, 2003.

(b) Mudlogging Services

Mudlogging services were provided by Geoservices Unit 87 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 (6 pits)
14. Mud Weight In and Out
15. Mud Temperature In and Out
16. Resistivity In and Out
17. Carbon Dioxide Detectors

Ditch cuttings were collected at 5m intervals in the 311mm (12-1/4") phase from 645m to 1200m. Between 1200m and the total depth of 2135m, samples were collected at 3m intervals. However very fast drilling rates required the sampling interval to be increased to 10m and 6m respectively, when necessary. In addition to microscopic examination of all drilled cuttings, samples were examined under the fluoroscope for hydrocarbon indications. Since no significant carbonate section was intersected in the 311mm (12-1/4") phase, calcimetry was not performed on a regular basis. Additional information pertinent to Mudlogging is presented in Geoservices's report in SECTION 12: MUDLOGGING WELL REPORT. Details of all wellsite samples is found in Section 2.6: CATALOGUE OF WELLSITE SAMPLES

(c) LWD Data

Logging While Drilling (LWD) was acquired by Sperry-Sun in Casino-3. LWD services consisted of 8" Dual Gamma Ray (DGR), Electromagnetic Wave Resistivity (EWR-P4) and Directional Module (DM) for deviation control. LWD data was acquired from 1220m to Total Depth at 2135m in two runs. The first run was drilled to the coring point of 2004m. After coring, the reservoir section was wiped and drilled from 2031m to Total Depth of 2135m in the second LWD run. Gamma Ray, Resistivity and Deviation Surveys data were acquired in the 311mm (12-1/4") phase. Sperry Sun's detailed report is attached in Section 3.5: LWD END OF WELL REPORT

(d) Testing

Post-logging production testing was conducted at the Casino-3 location to measure gas flow over the primary reservoir zone and to confirm reservoir flow characteristics. The test was conducted over the interval 2004m to 2013m and flowed at the maximum choke-constrained measured flow rate of 1.25 million cubic metres per day (45 million standard cubic feet per day) through a 25.4 mm (one inch choke) at a well head tubing pressure of 126856 kpa (1840 psi). Schlumberger's detailed report of the production test is attached in Section 4: PRODUCTION TEST REPORT.

(e) Coring

A 27m full hole core was cut at the Casino-3 location in the Upper Waarre Sandstone from 2004m to 2031m, of which 24.7m (91.5%) was recovered. Core descriptions are presented in Section 2.2: CORE DESCRIPTIONS and core photographs are presented in Section 2.3: CORE PHOTOGRAPHS.

(f) Biostratigraphy

Micro-palaeontology studies were not conducted in Casino-3.

(g) Electric Logging

Electric Logging Services were provided by Schlumberger Wireline Services. Due to a post-logging wireline log depth correction of –2.3m (i.e. upwards), all loggers depths have been accordingly adjusted. One suite of electric logs were attempted at Casino-3 as follows:

TABLE 1

LOG	SUITE/ RUN	INTERVAL (m)	BHT/TIME COMMENTS
PEX-DSI-HALS	**1 / 1**		
GR		2115 to Surface	83C, 182F / 15:30 hrs
MCFL		2118 to 635.8	
HLLD		2120 to 635.8	No repeat section
HLLS		2120 to 635.8	
HCAL		2118 to 635.8	
SP		2095 to 635.8	
DSI		2108 to 100	
MDT-GR (TOTAL : 24, 15 Normal, 2 Lost Seals, 7curtailed, Samples @ 2006.8m, 2 x 450cc, 1 gal, 2 ¾ gal. Sample @ 1985.2m 1 x 450cc)	**1 / 2**	1611.2 to 2063	85.5C, 185.9F / 33:30 hrs
PEX-CMR-HNGS	**1 / 3**		
GR (Spectral GR)		2111 to 635.8	83C, 182F / 40:00hrs
TNPH		2111 to 635.8	
RHOZ		2113 to 635.8	
CMR		2116 to 1930	
MCST	**1 / 4**		Unable to pass 1870m Pull out for a wiper trip
MCST	**1 / 4A**	2102.5 to 1970.5	13 MSCT cores attempted 13 cores recovered
CST-GR	**1 / 5**		Misrun. No bullets fired
CST-GR	**1 / 6**	2077.7 to 1162.7	30 cores attempted. 20 bought, 1 lost bullet, 2 empty, 7 misfires.

h) MDT Pressure Data

An MDT pressure survey was conducted at the Casino-3 location. A total of 24 pre-tests were attempted of which 15 were normal tests, 2 were lost seals and 7 were curtailed. In addition, samples were collected at 2004.5m and at 1982..9m. The MDT Pressure Survey data are presented in Section 3.4: MDT PRESSURE SURVEY RESULTS. Due to a post-logging wireline log depth correction of –2.3m (i.e. upwards), the depths in the MDT Pressure Survey have been accordingly adjusted.

(i) Hole Deviation

Casino-3 was drilled as a vertical hole. Deviation Surveys were recorded using MWD/LWD tools in most of the 311mm (12.25") section while drilling. Survey Data are presented in Section 15: DEVIATION SUMMARY.

At Total Depth, the estimated displacement from the wellhead was approximately 7m in a southerly direction. At total depth it is estimated that the TVD would be 2134.8m (D).

(j) Velocity Surveys

No velocity survey was conducted at the Casino-3 location.

(k) Casing & Cementing Summary

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

TABLE 3

HOLE SIZE	DEPTH	CASING SIZE	CASING DEPTH	JOINTS	CASING TYPE	CEMENT
914mm (36”)	121.3m	762mm (30”)	121.3m	3	461 kg/m X52	750 sacks class "G" cement of total volume 154 bbl, 1% CaCl2 BWOC, mixed to a slurry weight of 1.9sg.
445mm (17.5")	645m	340 mm (13.375")	635.8m	42	101kg/m L80 BTC	Lead: 768 sacks class "G" cement of total volume 304 bbl, mixed to a slurry weight of 1.5sg. Tail: 389 sacks class "G" cement of total volume 172 bbl, mixed to a slurry weight of 1.9sg with seawater.
311mm (12.25")	2135m	244 mm (9.625")	2113m	167	70kg/m L80 New VAM	Lead: 432 sacks class "G" cement of total volume 165 bbl, mixed to a slurry weight of 1.5sg. Tail: 627 sacks class "G" cement of total volume 165 bbl, mixed to a slurry weight of 1.9sg.

SECTION 2 : LITHOLOGICAL DESCRIPTIONS

SECTION 2.1: CUTTINGS DESCRIPTIONS

2.1 CASINO-3 - LITHOLOGICAL DESCRIPTIONS

(Depths are referenced to Loggers Depth)

645 – 672m MARL

MARL: Pale brown grey, occasionally medium brown, commonly argillaceous, very calcareous, rare fossil fragments (echinoid spines, corals), occasional pyrite nodules, occasionally fine to medium quartz grains, occasional lithics, very soft to dispersive, amorphous.

672 – 805.5m MASSIVE SANDSTONE INTERBEDDED WITH MINOR CLAYSTONE

SANDSTONE: Pale to medium orange to yellow, orange brown, occasionally clear to translucent, medium to very coarse grained, increasing coarse to very coarse grained, poorly sorted, subangular to subrounded, occasionally rounded, weak siliceous cement, abundant Fe-staining, friable in part, generally loose, minor moderately hard aggregates, trace lithic fragments, fair to good inferred porosity, no hydrocarbon fluorescence.

CLAYSTONE: light to medium grey, occasionally light grey brown, calcareous in part, trace fossil fragments, trace pyrite, very soft to dispersive, amorphous.

805.5 – 810m SANDSTONE: Medium brown, occasionally dark brown, medium to dark yellow brown, occasionally clear to translucent, predominantly medium to coarse grained, moderately well sorted, subrounded to subangular, trace weak to moderately strong siliceous cement, common Fe-staining, common very dark brown to black brown rounded lithic fragments (5%), friable in part, loose in part, moderately hard in part, poor to fair inferred porosity, no hydrocarbon fluorescence.

810- 886m INTERBEDDED SANDSTONE AND CLAYSTONE

SANDSTONE: Light grey, clear to translucent, minor light yellow brown, predominantly medium to coarse grained, moderately sorted, subangular to subrounded, moderately strong siliceous cement in aggregates, minor grey argillaceous to silty matrix, trace lithic fragments, common loose, poor visual porosity, fair inferred porosity, no hydrocarbon fluorescence.

CLAYSTONE: Medium grey, arenaceous grading to arenaceous claystone, trace lithic fragments, trace disseminated pyrite, generally soft, occasionally moderate hard, dispersive to amorphous, subblocky in part.

886 – 975m SANDSTONE INTERBEDDED WITH MINOR CLAYSTONE

SANDSTONE: Light grey, clear to translucent, medium to very coarse grained, generally coarse to very coarse, poorly sorted, subangular to predominantly subrounded, moderately strong siliceous cement in aggregates, minor grey brown argillaceous to silty matrix, trace rounded dark brown lithic fragments, commonly loose, poor visual porosity, fair inferred porosity, no hydrocarbon fluorescence.

CLAYSTONE: Medium to dark grey brown, generally soft, occasionally firm, dispersive to amorphous, subblocky in part.

975 – 1038m INTERBEDDED CLAYSTONE AND SANDSTONE

CLAYSTONE: Light to medium brown, pale brown to off white in part, rare brown grey, common very fine arenaceous matter, grades in part to argillaceous siltstone, common very fine micromicaceous, common micro carbonaceous specks, very dispersive, amorphous.

SANDSTONE: Clear, translucent, pale grey to pale yellow brown, frosted in part, coarse grained, occasionally very coarse, moderately to poorly sorted, subangular to predominantly subrounded, weak siliceous cement, no visual matrix, occasional to common nodular pyrite, occasional disseminated pyrite on quartz grains, loose, fair to occasionally good inferred and visual porosity, no hydrocarbon fluorescence.

1038 – 1124m COARSE SANDSTONE WITH CLAYSTONE INTERBEDS

SANDSTONE: Clear to translucent, opaque in part, occasionally white to light grey, course to very coarse grained, minor medium, moderately sorted, subrounded to subangular, common pyrite, trace weak siliceous cement, generally loose, fair inferred porosity, no hydrocarbon fluorescence.

CLAYSTONE: Medium brown to brown grey, micromicaceous, trace pyrite, trace lithic fragments, soft, dispersive, amorphous. Grades in part to silt.

1124 – 1136m INTERBEDDED CLAYSTONE AND SANDSTONE

CLAYSTONE: Pale grey brown, occasionally pale brown, dispersive, very soft, amorphous, trace very fine arenaceous matter, trace disseminated pyrite, trace carbonaceous specks.

SANDSTONE: Translucent to pale brown, occasionally opaque, medium to occasionally course grained, trace fine grains, poorly sorted, subangular to subrounded, minor angular, trace weak calcareous cement, locally common white argillaceous matrix, occasional medium grey silty matrix, trace to occasionally common disseminated and nodular pyrite, trace carbonaceous specks, predominantly loose to friable aggregates, no hydrocarbon fluorescence.

1136 – 1248m SANDSTONE INTERBEDDED WITH SILTSTONE

SANDSTONE: Clear, translucent, pale brown, medium to fine occasionally coarse grained, moderate well sorted, subangular to subrounded, occasionally weak dolomitic cement, locally common silty matrix, disseminating pyrite in part, occasional glauconite, loose to friable aggregates, poor visual and inferred porosity, no hydrocarbon fluorescence.

SILTSTONE: Pale grey brown, pale brown to occasionally off white, argillaceous, calcareous in part, argillaceous in part, trace disseminated pyrite, soft to firm, subfissile.

1248 – 1277m SILTSTONE: Pale grey brown, pale brown to occasionally off white, argillaceous in part grading to CLAYSTONE, calcareous in part, trace carbonaceous material, micromicaceous in part, abundant nodular pyrite, soft to firm, subfissile

1277 – 1298m INTERBEDDED SILTSTONE AND SANDSTONE:
SILTSTONE: Pale grey brown, argillaceous grading to CLAYSTONE, calcareous in part, trace carbonaceous material, micromicaceous in part, occasional disseminated and nodular pyrite, soft to firm, subfissile
SANDSTONE: Clear to translucent, very pale brown, fine to very fine grained, grading in part to arenaceous SILTSTONE, generally moderately sorted, subangular to subrounded, moderate calcitic cement, common silty matrix, common nodular pyrite, loose to friable to moderately hard aggregates, poor visible & inferred porosity.

1298 – 1312m INTERBEDDED SANDSTONE AND SILTSTONE:
SANDSTONE: Clear to translucent, very pale brown, fine to very fine grained, grading in part to arenaceous SILTSTONE, generally moderately sorted, subangular to subrounded, moderate calcitic cement, common silty matrix, common nodular pyrite, loose to friable to moderately hard aggregates, poor visible & inferred porosity.
SILTSTONE: Pale brown to grey brown very argillaceous, grading in part to claystone, calcitic in part, trace carbonaceous specks, occasional carbonaceous fragments, trace pyrite, very soft to occasionally firm, subfissile.

1312 – 1328m MASSIVE SILTSTONE
SILTSTONE: Medium to dark brown to brown grey, arenaceous, trace lithic fragments, common pyrite, common glauconite, soft to firm, amorphous to subblocky

1328 – 1374m SILTSTONE WITH MINOR INTERBEDDED SANDSTONE
SILTSTONE: Light to medium grey brown, occasionally green grey to medium grey, micromicaceous, common glauconite, trace pyrite, firm to soft, occasionally moderately hard, subblocky to amorphous.
SANDSTONE: Clear, translucent, fine to medium grained, occasionally coarse, moderately sorted, subrounded, trace weak siliceous cement, trace white argillaceous matrix, generally loose grains, trace lithic fragments, trace glauconite, no fluorescence.

1374 – 1409m SILTSTONE WITH RARE INTERBEDDED SANDSTONE
SILTSTONE: Pale brown to grey brown, occasionally medium brown, commonly arenaceous with very fine to medium quartz drains, common argillaceous matrix, micromicaceous, common glauconite, trace pyrite, occasional carbonaceous specks, firm to soft, occasionally moderately hard, subblocky to amorphous.
SANDSTONE: Clear, translucent, fine to medium grained, occasionally coarse, moderately well sorted, subrounded to subangular, trace siliceous cement, generally loose grains, trace lithic fragments, trace glauconite, no fluorescence.

1409 – 1430m SANDSTONE WITH INTERBEDDED SILTSTONE:
SANDSTONE: Clear, translucent, fine to medium grained, occasionally coarse, moderately well sorted, subrounded to subangular, trace siliceous cement, generally loose grains, trace lithic fragments, trace glauconite, no fluorescence.
SILTSTONE: Light to medium grey brown, common glauconite, trace pyrite, firm to soft, occasionally moderately hard, subblocky to amorphous.

1430 – 1509m SILTSTONE WITH TRACE LIMESTONE
SILTSTONE: Pale to occasionally medium brown, rare brown grey, argillaceous to arenaceous, occasionally glauconite grains, rare pyrite nodules, rare pyrite nodules, micro carbonaceous specks, very soft to dispersive, occasionally firm, amorphous, subblocky in part.
LIMESTONE: Tan to off white, occasionally very pale yellow, micritic, arenaceous, occasionally argillaceous, microcrystalline, moderately hard to hard.

1509 – 1525m SILTSTONE WITH MINOR INTERBEDDED SANDSTONE
SILTSTONE: Very pale brown to very pale brown grey, very argillaceous grading to CLAYSTONE in part, occasional to rare glauconite grains, occasionally micro carbonaceous specks, rare pyrite nodules, very soft to predominantly dispersive, subblocky, amorphous.
SANDSTONE: Off white, pale brown, pale green in part, very fine to fine occasionally medium grained, moderately sorted, subangular to subrounded, moderate to strong calcareous cement, occasionally off white kaolinitic matrix, occasional to locally common glauconite grains, friable to moderately hard, loose in part, poor to very poor visual and inferred porosity, no fluorescence.

1525 – 1560m SILTSTONE: Very pale brown to pale brown grey, common argillaceous, occasionally carbonaceous specks, rare quartz grains, soft to firm, occasionally dispersive, subblocky, amorphous.

1560 – 1580m SANDSTONE WITH INTERBEDDED SILTSTONE
SANDSTONE: Off white, clear to translucent, fine to medium, occasionally coarse, moderately sorted, subangular to subrounded, weak to moderately siliceous cement, occasionally weak calcareous cement, occasionally off white kaolinitic matrix, common glauconite grains, trace disseminated pyrite, occasionally micro carbonaceous specks, loose, friable to moderately hard, poorly visual and inferred porosity, no fluorescence.
SILTSTONE: Pale brown to occasionally pale brown grey, common argillaceous, occasional carbonaceous specks, soft to firm, subblocky, amorphous.

1580 – 1606m SILTSTONE: Pale brown to occasionally pale brown grey, argillaceous, occasional carbonaceous specks, soft to firm, occasionally dispersive, subblocky, amorphous.

1606 – 1616.5m SANDSTONE: Off white to milky, clear to translucent, fine to medium, occasionally very fine, moderately to moderately well sorted, subangular to subrounded, weak to moderate calcareous cement, occasionally off white to very pale brown argillaceous matrix, occasional glauconite grains, loose, friable to moderately hard, poor to occasionally fair visual and inferred porosity, no fluorescence.

1616.5 – 1700m SILTSTONE WITH INTERBEDDED SANDSTONE
SILTSTONE: Pale grey to pale grey brown, occasional to common micro-carbonaceous specks, firm to soft, subblocky.
SANDSTONE: Translucent to occasionally clear, very pale grey, pale brown in part, fine, very fine in part occasionally grading to arenaceous SILTSTONE, moderately well sorted, subrounded to occasionally rounded, subangular in part, occasionally weak calcareous cement, common argillaceous matrix, trace pyrite, trace glauconite, loose, friable to moderately hard aggregates in part, poor visual and inferred porosity, no fluorescence.

1700 – 1810m SILTSTONE WITH MINOR INTERBEDDED SANDSTONE
SILTSTONE: Medium grey, occasional medium brown grey, argillaceous, trace to common very fine arenaceous grains, commonly micromicaceous, trace pyrite, trace glauconite, firm to occasionally moderately hard, sub-blocky to subfissile.
SANDSTONE: Translucent to clear, trace very pale brown, common fine to occasionally very fine, grades in part to arenaceous SILTSTONE, moderately well sorted, subrounded, trace calcareous cement, common silty matrix, occasional pyrite & glauconite, predominantly loose to friable in aggregate, poor to fair visual & inferred porosity, no fluorescence.

1810 – 1860m SILTSTONE: Medium to dark brown grey, light brown grey in part, argillaceous, micromicaceous, trace glauconite, trace pyrite, trace carbonaceous specks, trace very weak calcareous matrix, firm to moderately hard, subblocky to subfissile.

1860 – 1944m SILTSTONE: Light to medium grey, medium brown grey, trace to locally common, glauconite, micromicaceous, trace lithic fragments, trace carbonaceous specks, trace calcite, firm to moderately hard, subblocky, occasionally subfissile.
SANDSTONE: Clear to translucent, occasionally very pale brown, fine to very fine grained, grades in part to arenaceous SILTSTONE, poor to moderate sorting, subrounded, occasional weak calcitic cement, common silty matrix, trace carbonaceous specks, trace glauconite, loose to friable occasionally moderately hard aggregates, poor visual & inferred porosity, no fluorescence.

1944 – 1982m INTERBEDDED SANDSTONE AND SILTSTONE

SILTSTONE: Very pale to pale brown, medium brown grey, argillaceous, common glauconite grains, commonly very arenaceous, grades to very fine SANDSTONE, moderately hard to hard, blocky to subblocky.

SANDSTONE: Off white, milky, pale to medium yellow, coarse very coarse, occasionally very fine to medium, poorly sorted, angular to occasional subrounded, moderate calcareous cement, common kaolinitic matrix, occasional glauconitic grains, moderately hard to hard, poor visual and inferred porosity, no fluorescence.

1982 – 2004m SANDSTONE INTERBEDDED WITH SILTSTONE

SANDSTONE: Clear to translucent, opaque, very fine to very coarse grained, predominantly medium to coarse grained, poorly sorted, subangular to subrounded, occasionally rounded, trace calcareous cement, trace siliceous cement, trace glauconite, trace pyrite, trace to locally common white argillaceous matrix, friable to moderately hard, occasionally hard, common loose clear coarse quartz sand, fair to good visual porosity, no hydrocarbon fluorescence.

SILTSTONE: Light to medium grey brown, locally common glauconite, firm to hard, trace to locally common carbonaceous specks, trace pyrite, trace dark lithic fragments, blocky to subblocky.

2004 – 2040m INTERBEDDED SANDSTONE AND SILTSTONE.

SANDSTONE: Clear, translucent, light grey, yellow brown in part, orange, fine to medium grained, trace coarse quartz grains, angular to sub round, weak siliceous cement, predominantly loose, friable to moderately hard aggregates in part, fair to good inferred porosity, no show.

SILTSTONE: Medium to dark grey, argillaceous in part, rare micro mica, rare fine grained glauconite, moderately hard, subblocky.

2040 – 2051.5m INTERBEDDED SANDSTONE AND SILTSTONE.

SILTSTONE: Medium to dark brownish grey, finely arenaceous, occasionally argillaceous, grading to very fine sandstone in part, common fine grained glauconite, trace pyrite, trace lithics, moderately hard, subfissile to subblocky.

SANDSTONE: White, off white, very light brownish grey, translucent in part, very fine to predominantly fine grained, moderately well sorted, rare loose coarse quartz grains, moderately strong siliceous calcareous and cement, minor off white argillaceous matrix, rare very fine glauconite, trace pyrite, moderately hard aggregates, tight to very poor visual porosity, no fluorescence.

2051.5 – 2094m SANDSTONE WITH MINOR INTERBEDDED SILTSTONE.

SILTSTONE: Light to medium brownish grey, dark brownish grey in part, very finely arenaceous, argillaceous in part, minor fine grained glauconite, trace pyrite nodules, rare lithics, moderately hard, subfissile to predominantly subblocky.

SANDSTONE: Off white, very light brown, translucent in part, very fine to medium grained, fair sorting, subangular to subrounded, moderately strong siliceous and calcareous cement, common to abundant off white argillaceous matrix (rock flour ?), rare fine grained glauconite, trace pyrite, trace carbonaceous specks, moderately hard aggregates, very poor visual porosity, no fluorescence.

2094 – 2108m SANDSTONE: Translucent, clear, occasionally white, fine to medium occasionally very fine grained, sub angular to sub round, poor to fair sorting, moderately strong calcareous cement, trace pyrite, trace carbonaceous flecks, moderately hard aggregates, loose in part, fair inferred porosity, no fluorescence.

2108 – 2135m SANDSTONE: Off white, translucent, clear, fine to medium occasionally very fine grained, sub angular to sub round, fair sorting, weak to moderately strong calcareous cement, common white argillaceous matrix (rock flour?), trace pyrite nodules, trace carbonaceous flecks, moderately hard to friable aggregates, poor inferred porosity, no fluorescence.

TOTAL DEPTH DRILLER : 2135m
TOTAL DEPTH LOGGER EXTRAPOLATED : 2135m

SECTION 2.2 : CORE DESCRIPTIONS

CASINO 3 CORE 1 CORE CHIP DESCRIPTIONS	
INTERVAL	**LITHOLOGY**
	CORE 1: 2004m – 2031m (27m cut). RECOVERY 24.7m (91.5%) **NOTE: UNABLE TO CUT CORE INTO METER LENGTHS AT THE WELLSITE. CORE TRANSPORTED AS COMPLETE ALUMINIUM SLEEVES.**
2009 m	SANDSTONE: translucent, clear, white, fine to medium grained, fair sorting, angular to sub round, moderately strong siliceous cement, trace white argillaceous matrix, trace glauconite, moderately hard aggregates, friable in part, fair visual porosity, no fluorescence.
2009.85 m	SANDSTONE: light grey, off white, translucent, clear, very fine to medium predominantly fine grained, poor to fair sorting, angular to sub round, moderately strong siliceous cement, minor pyritic cement, trace light grey silty matrix, rare glauconite, rare mica, trace carbonaceous flecks, moderately hard to hard aggregates, poor visual porosity, no fluorescence.
2019 m	SANDSTONE: white, translucent, clear, fine to occasionally medium grained, sub angular to sub round, moderately strong siliceous cement, trace white argillaceous matrix, rare glauconite, trace micro mica, trace lithics, moderately hard aggregates, poor to fair visual porosity, no fluorescence.
2028 m	SANDSTONE: medium to dark brownish grey, translucent in part, fine grained, well sorted, sub angular, strong siliceous cement, trace pyritic cement, common fine grained glauconite, trace pyrite nodules, trace lithics, trace micro mica, hard, tight visual porosity, no fluorescence.
2028.7 m	SANDSTONE: medium brownish grey, dark brown, translucent in part, fine to medium grained, moderately sorted, sub angular, strong siliceous cement, trace pyritic cement, minor medium brownish grey argillaceous matrix, common glauconite, rare nodular pyrite, trace lithics, trace micro mica, hard, tight visual porosity, no fluorescence.

SECTION 2.3 : CORE PHOTOGRAPHS

SECTION 2.3.1 : ROUTINE CORE ANALYSIS

PRELIMINARY POROSITY, PERMEABILITY AND GRAIN DENSITY
(Ambient)

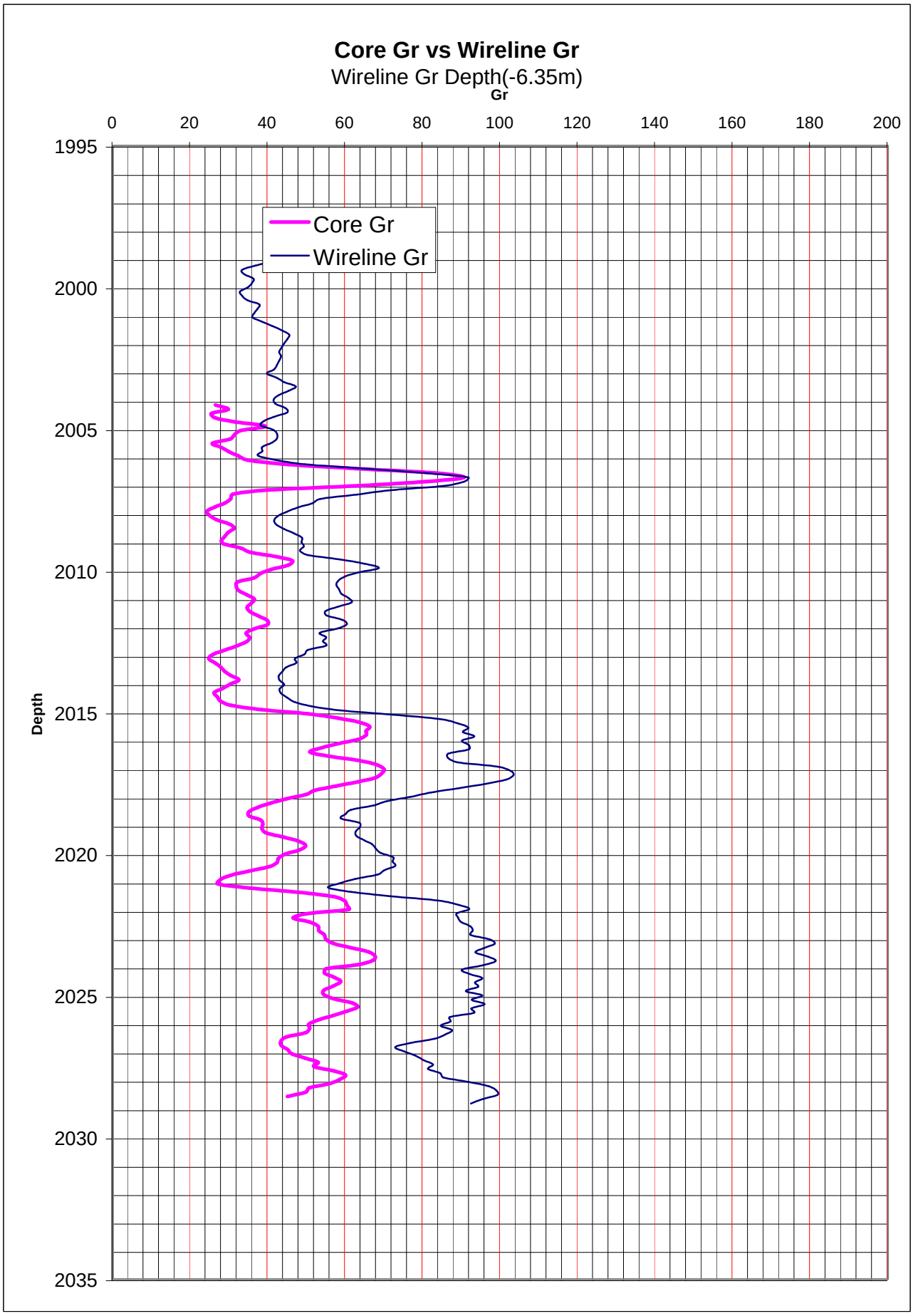
SAMPLE NUMBER	DEPTH (m)	Ambient Conditions			GRAIN DENSITY (g/cc)	COMMENTS
		PERMEABILITY		POROSITY (%)		
		Kinf (md)	Kair (md)			
1	2004.37		3950	22.4	2.652	
2	2004.59		3780	22.1	2.649	
3	2004.89		1580	22.7	2.648	
A	2005.07		1420	23.5	2.652	
4	2005.19		1320	19.0	2.852	Pyrite
5	2005.46		2260	20.9	2.655	
6	2005.81		3310	22.0	2.716	Siderite noduals
7	2006.05		3190	21.6	2.749	Pyrite
8	2006.43		2.12	12.8	2.683	
B	2006.57		0.034	5.7	2.679	
9	2006.70		2.58	6.0	2.670	Shale Parting
10	2006.94		386	20.2	2.659	
11	2007.30		1310	23.6	2.652	
12	2007.59		950	23.5	2.648	
13	2007.93		860	23.2	2.683	
84V	2008.05		152	15.4	2.681	
14	2008.22		1030	24.4	2.646	
15	2008.58		1300	24.6	2.647	
16	2008.79		1540	24.1	2.646	
85V	2008.95		34.4	21.4	2.632	
17	2009.11		1180	23.3	2.649	
18	2009.43		1600	21.1	2.653	
19	2009.71		346	16.5	2.658	
20	2009.94		193	21.1	2.679	
21	2010.34		350	19.2	2.665	
22	2010.59		482	21.0	2.661	
86V	2010.75		32.8	26.5	2.660	
23	2010.91		137	19.5	2.664	
24	2011.18		127	20.1	2.652	
25	2011.47		191	21.5	2.645	
26	2011.79		852	22.4	2.648	
27	2012.13		1010	22.6	2.648	
28	2012.40		8.89	13.8	2.634	
29	2012.69		1600	21.6	2.649	
30	2012.97		5510	18.8	2.653	
31	2013.30		1340	20.6	2.648	
32	2013.58		1820	23.2	2.648	
87V	2013.75		1130	18.5	2.644	
33	2013.89		1340	20.1	2.651	
88V	2014.10		1460	20.8	2.641	
34	2014.29		1610	21.0	2.652	
35	2014.63		1070	20.1	2.657	
36	2014.94		31.9	10.2	2.999	Pyrite
37	2015.21		0.107	9.3	2.719	
38	2015.51		0.224	7.7	2.720	
39	2015.81		0.487	4.5	2.675	
40	2016.10		0.182	7.8	2.684	
41	2016.39		0.132	10.8	2.976	
42	2016.68		1.94	7.4	2.684	
43	2017.03		1.57	5.9	2.665	
44	2017.28		0.100	6.1	2.673	
45	2017.60		0.198	11.7	2.669	
46	2017.90		5.09	17.7	2.646	
47	2018.20		14.6	20.1	2.668	
48	2018.48		36.1	19.8	2.667	

PRELIMINARY POROSITY, PERMEABILITY AND GRAIN DENSITY (Ambient)

SAMPLE NUMBER	DEPTH (m)	Ambient Conditions			GRAIN DENSITY (g/cc)	COMMENTS
		PERMEABILITY		POROSITY (%)		
		Kinf (md)	Kair (md)			
89V	2018.57		31.0	19.9	2.643	
49	2018.79		57.0	23.2	2.659	
50	2019.03		59.3	22.1	2.705	Siderite noduals
51	2019.44		128	21.8	2.661	
52	2019.60		74.4	22.4	2.654	
53	2019.91		41.8	20.5	2.646	
54	2020.27		6.58	16.1	2.653	
55	2020.53		6.93	18.0	2.650	
56	2020.83		84.8	19.0	2.729	Siderite noduals
57	2021.10		547	20.6	2.660	
58	2021.41		0.117	10.6	2.763	
90V	2021.56		0.126	11.3	2.622	
59	2021.76		0.252	10.5	2.670	
60	2021.96		0.540	13.9	2.675	
61	2022.29		0.039	4.3	3.059	Siderite
91V	2022.49		3.10	16.2	2.676	
62	2022.60		1.92	14.5	2.682	
63	2022.90		1.20	16.8	2.676	
64	2023.20		0.324	13.2	2.668	
65	2023.49		-	6.0	2.760	Fractured
66	2023.79		-	7.9	2.683	Fractured
67	2024.11		3.72	9.5	2.729	
68	2024.44		0.185	7.6	2.700	
69	2024.68		1.69	9.9	2.662	
70	2024.97		0.614	16.7	2.685	
71	2025.29		0.119	8.3	2.610	
72	2025.59		0.166	12.5	2.680	
73	2025.90		5.95	20.8	2.675	
74	2026.17		0.320	13.8	2.638	
75	2026.49		0.122	8.3	2.667	
76	2026.82		0.085	8.8	2.685	
77	2027.10		0.064	10.2	2.991	
78	2027.39		0.172	12.5	2.671	
79	2027.68		0.171	12.3	2.714	
80	2027.97		0.235	11.1	2.693	

MSCT SAMPLES

SAMPLE NUMBER	DEPTH (m)	Ambient Conditions			GRAIN DENSITY (g/cc)	COMMENTS
		PERMEABILITY		POROSITY (%)		
		Kinf (md)	Kair (md)			
1	1987.00		54.0	14.5	2.996	
2	2002.50		-	-	-	Diagonal biscuit fractures
3	2005.50		1150	23.0	2.638	
4	2082.50		0.143	6.9	2.676	
5	2093.50		11.3	14.3	2.654	
6	2102.50		-	-	-	
7	2070.50		2.08	16.1	2.669	
8	2062.50		29.3	18.1	2.661	
9	2055.00		-	7.1	2.657	Poorly shaped
10	1998.00		-	14.4	2.639	Poorly shaped
11	1970.50		0.401	13.8	2.763	
12	2063.00		20.2	19.1	2.683	
13	2061.50		10.0	18.5	2.712	


Core Gr vs Wireline Gr
Wireline Gr Depth(-6.35m)
Gr
0
20
40
60
80
100
120
140
160
180
200
Depth
1995
2000
2005
2010
2015
2020
2025
2030
2035
Core Gr
Wireline Gr

SECTION 2.4 : SIDEWALL CORES DESCRIPTIONS

SANTOS LIMITED

SIDEWALL CORE DESCRIPTIONS

WELL:	CASINO-3	**DATE**	02-11-03	**PAGES**	1
GUN NO.:	SUITE 1	**SHOTS FIRED**	30	**SHOTS PURCHASED**	20
		GEOLOGIST:	J Pitman / M Lahif		

CORE NO.	DEPTH	REC. (mm)	PALYN. EVAL. REJECT	LITH.	COLOUR	GRAIN SIZE	HYDR. INDIC. (Y/N)	SUPPLEMENTARY INFORMATION
1	2077.7	misfire						
2	2064.7	empty						
3	2047.7	20	Y	siltst	medium grey		N	SILTSTONE: medium grey, very finely arenaceous, trace glauconite, firm.
4	2038.2	misfire						
5	2001.7	25	Y	sndst	white	very fine	N	SANDSTONE: white, very light grey, very fine grained, well sorted, sub angular to sub rounded, common white argillaceous matrix, trace very fine glauconite, moderately hard, very poor visual porosity, no fluorescence.
6	1998.2	25	Y	sndst	light grey	very fine	N	SANDSTONE: very light grey, white, very fine to coarse predominantly very fine grained, sub angular to sub rounded, common light grey white argillaceous matrix, minor carbonaceous specks, common coarse quartz grains, moderately hard, poor visual porosity, no fluorescence.
7	1994.7	misfire						
8	1988.2	misfire						
9	1986.2	misfire						

SANTOS LIMITED

SIDEWALL CORE DESCRIPTIONS

WELL:	CASINO-3	**DATE**	02-11-03	**PAGES**	2
GUN NO.:	SUITE 1	**SHOTS FIRED**	30	**SHOTS PURCHASED**	20
		GEOLOGIST:	J Pitman / M Lahiff		

CORE NO.	DEPTH	REC. (mm)	PALYN. EVAL. REJECT	LITH.	COLOUR	GRAIN SIZE	HYDR. INDIC. (Y/N)	SUPPLEMENTARY INFORMATION
10	1977.7	25	Y	sndst	light grey	very fine	N	Very fine SANDSTONE interbedded with light brownish grey siltstone.
11	1972.2	misfire						
12	1972.2	25	Y	sndst	light – medium grey	very fine	N	SANDSTONE: light to medium grey, very fine to coarse predominantly fine grained, sub angular to sub rounded, poor sorting, common light brown silty matrix, common glauconite, friable to moderately hard, poor visual porosity, no fluorescence.
13	1966.7	35	Y	sndst	medium grey	very fine to fine	N	SANDSTONE: fine grained, generally as above.
14	1964.2	misfire						
15	1956.2	35	Y	sndst	medium grey	very fine to fine	N	SANDSTONE: common brownish grey silty matrix, poor visual porosity.
16	1948.7	38	Y	sndst	medium grey	very fine	N	SANDSTONE: medium grey, common brownish grey silty matrix, trace glauconite, minor nodular pyrite.
17	1944.7	empty						

SANTOS LIMITED
SIDEWALL CORE DESCRIPTIONS

WELL:	CASINO-3	**DATE**	02-11-03	**PAGES**	3
GUN NO.:	SUITE 1	**SHOTS FIRED**	30	**SHOTS PURCHASED**	20
		GEOLOGIST:	J Pitman / M Lahiff		

CORE NO.	DEPTH	REC. (mm)	PALYN. EVAL. REJECT	LITH.	COLOUR	GRAIN SIZE	HYDR. INDIC. (Y/N)	SUPPLEMENTARY INFORMATION
18	1940.7	34	Y	clayst	dark grey		N	CLAYSTONE: medium dark grey, very finely arenaceous in part, trace very fine glauconite, moderately hard.
19	1920.2	lost						
20	1703.2	32	Y	siltst	dark gry		N	SILTSTONE: argillaceous grading to claystone.
21	1657.7	22	Y	int sndst / siltst	medium grey	fine	N	Interbedded brownish grey siltstone and fine grained sandstone.
22	1621.2	32	Y	siltst	medium brownish grey	very fine	N	SILTSTONE: medium brownish grey, very finely arenaceous grading to silty sandstone.
23	1605.2	32	Y	siltst	medium dark grey		N	argillaceous grading to claystone.
24	1580.2	35	Y	siltst	medium dark grey		N	argillaceous grading to claystone.
25	1554.7	30	Y	siltst	dark grey		N	SILTSTONE: dark grey, argillaceous in part.
26	1526.2	25	Y	siltst	dark grey		N	SILTSTONE: dark grey, dark brownish grey.
27	1506.7	29	Y	siltst	medium dark grey	very fine	N	SILTSTONE: medium dark brownish grey, very finely arenaceous in part, trace fossil fragments.

SANTOS LIMITED

SIDEWALL CORE DESCRIPTIONS

WELL:	CASINO-3	**DATE**	02-11-03	**PAGES**	4
GUN NO.:	SUITE 1	**SHOTS FIRED**	30	**SHOTS PURCHASED**	20
		GEOLOGIST:	J Pitman / M Lahiff		

CORE NO.	DEPTH	REC. (mm)	PALYN. EVAL. REJECT	LITH.	COLOUR	GRAIN SIZE	HYDR. INDIC. (Y/N)	SUPPLEMENTARY INFORMATION
28	1405.7	34	Y	siltst	medium dark brownish grey	very fine	N	SILTSTONE: as above, slightly arenaceous.
29	1256.7	45	Y	siltst	medium dark gry	very fine	N	SILTST: medium dark grey, very finely arenaceous, trace micro mica, trace carbonaceous flecks, firm to moderately hard.
30	1162.7	35	Y	sandst	light medium grey	very fine to fine	N	SANDSTONE: light to medium grey, very fine to fine grained, moderately well sorted, sub rounded, minor light grey slty / argillaceous matrix, trace lithic, friable to moderately hard, poor inferred porosity, no fluorescence.

COMMENTS:
All depths have been shifted up by 2.3m, to allow for depth-counter error.
30 sidewall cores attempted. 20 were recovered, 2 were empty, 7 misfired and 1 bullet was lost.

NOTE:
Depth 1972.2m was shot twice (bullets 11 and 12) due to operator error. The following shots 13 – 30 were out of sequence by one shot and hence the last requested depth (1103.7m) was not taken.

SECTION 2.5 : MSCT CORES DESCRIPTIONS

SANTOS LIMITED

MSCT CORE DESCRIPTION

WELL: CASINO 3 **DATE:** 02/11/03 **PAGE:** 1

GUN NO.: SUITE 1 **CORE CUT:** 13 **CORES BOUGHT:** 13

GEOLOGIST: J.PITMAN

CORE NO.	DEPTH (m)	REC. (mm)	PALYN. EVAL. REJECT	LITH.	COLOUR	GRAIN SIZE	HYDR. INDIC. (Y/N)	SUPPLEMENTARY INFORMATION
1	1987	42	Y	Sndst	white	fine	N	SANDSTONE: white, very light grey, fine grained, sub rounded, common white argillaceous matrix/cement, moderately hard, poor visual porosity, no fluorescence.
2	2002.5	40	Y	Sndst	white	fine	N	SANDSTONE: white, translucent, clear, fine grained, well sorted, common white argillaceous matrix / cement, trace glauconite (?), moderately hard, poor visual porosity, no show.
3	2005.5	39	Y	Sndst	white	fine	N	SANDSTONE: white, fine grained, well sorted, sub rounded, common white argillaceous matrix / cement, moderately hard, very poor visual porosity, no show.
4	2082.5	40	Y	Sndst	white	fine	N	SANDSTONE: off white, white, translucent, clear, grey white, fine to medium grained, moderately sorted, sub angular to sub rounded, common white argillaceous matrix / cement, rare carbonaceous flecks, moderately hard, poor visual porosity, no show.
5	2093.5	55	Y	Sndst	white	very fine – medium	N	SANDSTONE: white, off white, very fine to medium predominantly fine grained, sub angular to sub rounded, common white argillaceous matrix / cement, moderately hard, very poor visual porosity, no fluorescence.
6	2102.5	25	Y	Sndst	light grey	fine to coarse	N	SANDSTONE: light grey, white, translucent, fine to coarse grained, poor sorting, sub angular to sub rounded, common white argillaceous matrix / cement, minor carbonaceous flecks, trace lithics, poor visual porosity, no fluorescence. **Note: poor sample quality.**
7	2070.5	50	Y	Sndst	light grey	fine	N	SANDSTONE: light grey white, very fine to fine grained, sub angular to sub rounded, common light grey – white argillaceous matrix / cement, common carbonaceous flecks, moderately hard, tight visual porosity, no fluorescence.

CORE NO.	DEPTH (m)	REC. (mm)	PALYN. EVAL. REJECT	LITH.	COLOUR	GRAIN SIZE	HYDR. INDIC. (Y/N)	SUPPLEMENTARY INFORMATION
8	2062.5	45	Y	Sndst	light grey	fine	N	SANDSTONE: light grey white, very fine to fine grained, sub angular to sub rounded, common light grey – white argillaceous matrix / cement, common carbonaceous flecks, moderately hard, tight visual porosity, no fluorescence.
9	2055	15	Y	Sndst	light grey	fine	N	SANDSTONE: light grey, translucent in part, very fine to fine grained, sub angular to sub rounded, common light grey white matrix / cement, poor visual porosity, no fluorescence. **Note: poor sample quality.**
10	1998	25	Y	Sndst	light grey	very fine to medium	N	SANDSTONE: light grey white, white to medium grained, poor sorting, sub angular to sub rounded, commonly grey white argillaceous matrix / cement, common carbonaceous flecks, trace glauconite, moderately hard, poor visual porosity, no fluorescence. **Note: poor sample quality.**
11	1970.5	40	Y	Sndst	light – medium grey	very fine to coarse	N	SANDSTONE: light to medium brownish grey, translucent in part, sub angular to sub rounded, very fine to coarse grained, common light brownish white matrix / cement, minor carbonaceous specks, trace glauconite, trace lithic, moderately hard, very poor visual porosity, no fluorescence.
12	2063	46	Y	Sndst	off white	very fine	N	SANDSTONE: white, light grey white. very fine to fine grained, common white argillaceous matrix / cement, common carbonaceous flecks, moderately hard, poor visual porosity, no fluorescence.
13	2061.5	54	Y	Sndst	light grey white	fine	N	SANDSTONE: light grey white, off white, very fine to fine grained, common off white argillaceous matrix / cement, common carbonaceous flecks, moderately hard, poor visual porosity, no fluorescence.

COMMENTS:

13 cores attempted. 13 cores recovered. Marker disks failed to drop between cores.

SECTION 2.6 : CATALOGUE OF WELLSITE SAMPLES

Santos

SAMPLE MANIFEST CASINO 3

DATE: 05-11-03

SAMPLE INTERVALS: All returns from spud to 645 m were to the sea floor.
645 m – 1200 m 5 m Samples
1200 m – 2135 m 3 m Samples

SAMPLES FOR SANTOS:

Washed and Dried (100g x 2 sets)

Box 1 of 4	645 m	-	1251 m
Box 2 of 4	1251 m	-	1590 m
Box 3 of 4	1590 m	-	2013 m
Box 4 of 4	2013 m	-	2135 m

Samplex Trays 2 Sets (650 m – 2135 m)

SAMPLES FOR AWE:

Washed and Dried (100g x 1 set)

Box 1 of 4	645 m	-	1251 m
Box 2 of 4	1251 m	-	1590 m
Box 3 of 4	1590 m	-	2013 m
Box 4 of 4	2013 m	-	2135 m

SAMPLES FOR GEOSCIENCE AUST:

Washed and Dried (200g x 1 set)

Box 1 of 4	645 m	-	1239 m
Box 2 of 4	1239 m	-	1575 m
Box 3 of 4	1575 m	-	1797 m
Box 4 of 4	1797 m	-	2135 m

SAMPLES FOR DPI:

Washed and Dried (200g x 1 set)

Box 1 of 4	645 m	-	1239 m
Box 2 of 4	1239 m	-	1575 m
Box 3 of 4	1575 m	-	1797 m
Box 4 of 4	1797 m	-	2135 m

The following 5m samples were not collected due to high rates of penetration:

680m	685m	695m	755m	780m
870m	915m	925m	940m	1055m

The following 3m samples were not collected due to high rates of penetration:

1206m	1215m	1257m	1272m	1290m
1305m	1320m	1329m	1344m	1359m
1362m	1395m	1407m	1416m	1422m
1443m	1452m	1464m	1482m	1485m
1488m	1500m	1506m	1593m	1602m
1626m	1650m	1665m	1680m	1695m
1707m	1710m	1713m	1728m	1734m
1743m	1746m	1761m	1779m	1782m
1785m	1788m	1818m	1821m	1824m
1842m	1851m	1854m	1866m	1869m
1881m	1884m	1887m	1902m	1905m
1908m	1911m	1914m	1935m	1947m
1953m	2010m	2016m	2022m	

NOTE: The Schlumberger PVT samples were transported from the rig by Boat to Base by Schlumberger.

The Side Wall Cores were hand carried to base by the Wellsite Geologist

One Mud Filtrate sample was hand carried to base by the Wellsite Geologist.

CASINO 3 CORE 1 – MANIFEST

Samples were originally marked as 1 of 27, 2 of 27 etc. However, after being unable to cut the core, the entire sleeves were transported uncut, as indicated below.

2004 – 2009m	Aluminium sleeve
2009 – 2009.85m	Aluminium sleeve
Cardboard box, 7 of 27, 2009.85m	Containing rubble
2009.85 – 2019m	Aluminium sleeve
Cardboard box, 17 of 27, 2019m	Containing rubble
2019 – 2028m	Aluminium sleeve
2028 – 2028.7m	DBS core shoe

The above were transported from rig by boat in DBS basket # B001

SECTION 3: WIRELINE LOGGING REPORTS

SECTION 3.1 : SUITE 1 - LOGGING ORDER FORM

Santos

A.B.N. 80 007 550 923

LOGGING ORDER FORM

COMPANY:	SANTOS		
WELL:	CASINO 3	**FIELD:**	CASINO
RIG:	DIAMOND OFFSHORE OCEAN EPOCH	**STATE:**	VICTORIA
LOCATION:	Inline 6260, CDP 2546	**BLOCK:** **LICENCE:**	OTWAY BASIN VIC / P44
LATITUDE:	38° 46' 34.558" S	**LONGITUDE:**	142° 44' 05.437" E

ELEVATIONS:					
RT:	22.4 m	**WATER DEPTH**	66.7 m	**SEABED:**	89.1 m

914mm (36") HOLE:	121.3m	**760mm (30") CSG:**	121.3	**WT:**	310 ppf
445mm (17½") HOLE:	645m	**340mm (13-3/8") CSG**	635.83m	**WT:**	68 ppf (ID 12.415" 315mm)
311m (12-1/4") HOLE:	2135m				

TD (DRILLER):	2135m

MUD SYSTEM:	KCl / PHPA / Glycol			**CIRCULATION STOPPED:**	10:00 hrs 30/10/03		
BARITE:	7.0%						
WT:	1.16	**VIS:**	71	**pH:**	8.8	**FLUID LOSS:**	4.1

GEOLOGIST:	J.Pitman / M.Lahiff

INFORMATION GIVEN ABOVE IS TO BE USED ON LOG HEADER SHEETS

HOLE CONDITIONS (TIGHT SPOTS, DEVIATION, COALS, BARITE IN MUD, ETC.)

Maximum Deviation : 2.92 deg at 2122m

DRILL STEM TESTS/CORED INTERVALS:

Core 1 : 2004m – 2031m.

COMMENTS (TO BE INCLUDED IN REMARKS SECTION OF HEADER SHEET):

Standard Santos scales to be applied to all logs run.

Santos

A.B.N. 80 007 550 923

LOGGING ORDER FORM

LOGGING PROGRAMME:

LOG	INTERVAL	REPEAT SECTION
RUN 1: HALS-DSI-PEX (no nuclear sources)		No repeat section required, check repeatability with down log.
Resistivity-Caliper-SP	TD to casing shoe	
Sonic (P&S WFT)	TD to loss of signal in casing	
Sonic (Dipole shear)	TD to 1900m	
GR	TD to Seafloor	
RUN 2: MDT-GR	Points to be advised Formation samples using PVT multi-sampler 1 & 2 ¾ segregated samples + pump out & PVT module with resistivity monitoring required.	
RUN 3: PEX-CMR-HNGS (with sources)		logged at 440 ft/hr for CMR 1800 ft/hr for other areas.
Neutron Density	TD to casing shoe	
CMR	TD to 1930m	
Spectral Gamma	TD to casing shoe	
RUN 4: MSCT-GR	TBA	
RUN 5: SWC	30 cores. Points to be advised	

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

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

SECTION 3.2 : SUITE 1 – FIELD ELECTRIC LOGGING REPORT

SANTOS LIMITED
FIELD ELECTRIC LOG REPORT

WELL:	CASINO 3	**GEOLOGIST:**	J.PITMAN / M.LAHIFF
LOGGING ENGINEER:	Al-Quasmi / Awobadejo		
RUN NO.:	SUITE 1	**DATE LOGGED:**	30/10 – 2/11/03
DRILLERS DEPTH:	2135m	**LOGGERS DEPTH:**	2122m
ARRIVED ON SITE:	27-10-03		
ACTUAL LOG TIME:	51.25	**LOST TIME LOGGER:**	1 hr (Run 1)
			4.75 hr (Run 5)
TOTAL TIME:	74.75 hr	**LOST TIME OTHER:**	18.75 hr (wiper trip)

TYPE OF LOG	PEX-DSI-HALS	MDT	PEX-CMR-HGNS	MSCT	MSCT	CST	CST
TIME CIRC. STOPPED	10:00 30/10	10:00 30/10	10:00 30/10	10:00 30/10	01:30 02/11	01:30 02/11	01:30 02/11
TIME TOOL RIG UP	20:00 30/10	08:00 31/10	21:00 31/10	07:15 01/11	05:45 02/11	11:45 02/11	16:15 02/11
TIME TOOL RIH	22:30 30/10	09:00 31/10	22:15 31/10	07:30 01/11	06:15 02/11	12:15 02/11	18:30 02/11
TIME TOOL RIG DOWN	08:00 31/10	21:00 31/10	07:15 01/11	11:00 01/11	11:45 02/11	16:15 02/11	10:45 02/11
TOTAL TIME	12:00 HR	13:00 HR	10:15 HR	3:45 HR	6:00 HR	4:45 HR	6.25 HR

TYPE OF LOG	FROM (m)	TO (m)	REPEAT SECTION	TIME SINCE LAST CIRCULATION	BHT °C
Suite 1 Run 1 **PEX-DSI-HALS**					
GR	2115	Surface	No repeat section	15 hours 30 minutes	83 C
MCFL	2118	635.8	as per Santos		(182 F)
HLLD	2120	635.8	procedure.		
HLLS	2120	635.8			
HCAL	2118	635.8			
SP	2095	635.8			
DSI	2108	100			
Suite 1 Run 2 MDT-GR MDT	2063	1611.2		33 hours 30 minutes Total 24 attempted, 2 lost seal, 7 curtailed, 15 nomal tests. Samples @ 2006.8m, 2 x 450cc, 1 gal, 2 ¾ gal. Sample @ 1985.2m 1 x 450cc	85.5 C 185.9F
Suite 1 Run 3 **PEX-CMR-HNGS**					
GR (Spectral GR)	2111	635.8		40 hours	83 C
TNPH	2111	635.8			(182 F)
RHOZ	2113	635.8			
CMR	2116	1930			
Suite 1 Run 4 MSCT MSCT				Unable to pass 1870m Pull out for a wiper trip	
Suite 1 Run 4 MSCT MSCT	2102.5	1970.5		13 MSCT cores attempted 13 cores recovered	
Suite 1 Run 5 CST CST				Misrun. No bullets fired	
Suite 1 Run 6 CST CST	2080	1165		30 cores attempted. 20 bought, 1 lost bullet, 2 empty, 7 misfires.	

MUD SYSTEM: KCl / PHPA / Glycol	MW: 1.16 FV: 71
Rm = 0.1227 Ωm @ 30.4°C	WL: 4.1 PV/YP 25/39
Rmf = 0.1094 Ωm @ 30.2°C	pH: 8.8 Cl: 33k
Rmc = 0.394 Ωm @ 30.2°C	K+: 36700
HOLE CONDITIONS: Good	

REMARKS / RECOMMENDATIONS

1. Run 1 rig up sequence GR-CAL-DSI-HALS. Telemetry problem after running past the rotary table. Tools pulled to surface and rig up sequence changed to DSI-GR-CAL-HALS. Tools operational.
2. No tight spots observed while running in hole with run 1.
3. Bottom Hole Temperature Run 1 83 deg C (182 deg F)
4. Casing shoe found at 639m (L) 636m (D). Due to a post-logging depth correction of 2.3m
5. Total Depth Run 1 2122m (L) 2135m (D). **The difference in drillers versus loggers depth was attributed to cable slippage. Accordingly the loggers depth was aligned with the drillers depth at the casing shoe and the logs were replayed. Depth correction of -2.3m was applied in the zone of interest.**
6. Bottom Hole Temperature Run 2: 85.5 deg C (185.9 deg F)
7. Run 2 MDT: Total 24 attempted, 2 lost seal, 7 curtailed, 15 normal tests Samples @ 2006.8m, 2 x 450cc, 1 gal, 2 ¾ gal. Sample @ 1985.2m 1 x 450cc
8. The 1 gallon and 2 ¾ gallon samples were opened on surface and contained:
   2 ¾ gallon: Surface pressure 3350 psi
   Ambient Temperature 11 deg C
   Gas volume: 1752 cu. ft.
   Breakdown: C1: 97.6296%, C2 1.7746%, C3 0.4398%, iC4 0.0677%, nC4 0.0703%, iC5 0.0118% nC5 0.0062% CO2 0.0%
   1 gallon: Surface pressure 3600 psi
   Ambient Temperature 11 deg C
   Gas volume 1054 cu.ft.
   Breakdown: C1 97.5572% C2 1.7809% C3 0.4734% iC4 0.0724% nC4 0.0873% iC5 0.0173% nC5 0.0116% CO2 0.07%
9. Run 3 Pex-CMR-HNGS tag total depth at 2116m
10. Bottom Hole Temperature Run 3: 83 deg C (182 deg F)
11. Run 4 MSCT unable to pass 1950m. Attempt to work past twice, no go. Pull up with 1 – 3 Klbs drag. Tool free with no drag at 1660m. Run in hole but unable to pass 1870m. Attempt to work past several times without success. Run 4 pulled from the hole to conduct a wiper trip. Wiper trip took weight at 1823m, wash and light ream as required. During bottoms up large volumes of blocky cuttings were observed at the shale shakers. The hole packed off and the drill string became stuck requiring 30 klbs to free. Circulation was attained and the well circulated and swept clean.
12. Run 4 MSCT was run into the hole for the second attempt. No tight hole was observed while running into the hole.
13. 13 MSCT cores attempted. 13 recovered. **Note:** Marker disks did not drop between individual cores.
14. Run 5 sidewall cores. All bullets misfired. Minimal drag observed while logging. A new gun was made up and run into the hole, CST Run 6. Run 6 attempted 30 sidewall cores, recovered 20, 7 misfired, 2 empty, 1 lost bullet. Due to operator error depth 1974.5m was shot twice (cores 11 and 12), Remaining cores 13-30 were then shot in sequence with requested depth1106m not taken.

WELLSITE LOG QUALITY CONTROL CHECKS

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

LOG TYPE	DSI	GR	HCAL	HALS	RXOZ	RHOZ	TNPH	MDT	CST	VSP	REMARKS
CASING CHECK	57 us/ft		12.41"								
SCALE CHECK	40-140us/ft	0- 200	150-450mm	0.2-200	0.2-200	1.95-2.95	0.45-/-0.15				
DEPTH Casing Total	*3	Y	Y	Y	Y	Y	Y	Y	Y	Y	
CALIBRATIONS OK	Y	Y	Y	Y	Y	Y	Y	Y			
REPEATABILITY	Y	Y	Y	Y	Y	Y	Y				
LOGGING SPEED	Y	Y	Y	Y	Y	Y	Y				Logging speed Run 1 1800'/hr
OFFSET WELL Repeatability	Y	Y	Y	Y	N/A	N/A	N/A				
NOISY / MISSING DATA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
CURVES/LOGS Depth Matched	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Rm MEASUREMENT				*4	Y						
LLS / LLD / CHECK						*5	Y				
PEF / RHOB CHECK						Y	Y				
LOG HEADER / TAIL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
PRINT/FILM QUALITY	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	

COMMENTS: *1. Offset wells : Casino 1 & 2
*2. Confirmed with SANTOS geology operations and Schlumberger.
*3 Casing Driller: 635.8m Logger: 639m Total Depth Driller: 2135m Logger: 2122m
*4 Rmc>Rm>Rmf
*5 Curves overlay in 0 porosity shale.

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

SECTION 3.3 : SUITE 1 – ELECTRIC LOGGING TIME SUMMARY

Geology Operations

Santos

ABN 80 007 550 923

ELECTRIC LOGGING TIME SUMMARY

LOGGING UNIT:	571
START DATE:	30/10/03
END DATE:	2/10/03
DEPTH DRILLER:	2135m
DEPTH LOGGER:	2122m

LEFT BASE:	27/10/03
ARRIVED AT THE WELLSITE:	24/10/03
INITIAL RIG UP:	30/10/03
FINAL RIG DOWN:	2/10/03
RETURN TO BASE:	Onboard for testing

WELL NAME:	CASINO 3
TRIP NUMBER:	SUITE 1
WELLSITE GEOLOGIST:	Pitman / Lahiff
LOGGING ENGINEER:	Al-Quasmi
PAGE / DATE:	1 30-10-03

DATE / TIME	RIG UP / DOWN	TOOL CHECK	RIH / POOH	LOGGING	DATA TX	LOST TIME SCHL	I. O.	WIPER TRIP	LOST TIME OTHERS	OTHERS	COMMENTS / REMARKS
00:00											
: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)**
J.Pitman	Y. Al-Quasmi

TOOLS RUN:

TOOLS RUN:

TOOLS RUN:

LOGGING UNIT:	571	WELL NAME	CASINO 3	PAGE	1A

DATE / TIME	RIG UP / DOWN	TOOL CHECK	RIH / POOH	LOGGING	DATA TX	LOST TIME SCHL	I. O.	WIPER TRIP	LOST TIME OTHERS	OTHERS	COMMENTS / REMARKS
12:00											
:30											
13:00											
:30											
14:00											
:30											
15:00											
:30											
16:00											
:30											
17:00											
:30											
18:00											
:30											
19:00											
:30											
20:00	X										
	X										20:00 HR CONDUCT SAFETY MEETING
:30	X										RIG UP SCHLUMBERGER WIRELINE
	X										PICK UP AND MAKE UP TOOLS RUN 1
21:00	X										PEX-DSI-HALS
	X										
:30	X										
	X										
22:00	X										
		X									TOOL CHECKS AT SURFACE
:30			X								22:30 HR RUN IN HOLE TO 300m
			X								TOOL TELEMETRY PROBLEM – NOISE
23:00			X			X					23:00 HR PULL OUT OF HOLE TO CHANGE
	X					X					TOOL CONFIGURATION.
:30	X					X					TOOL AT SURFACE – CHANGE TOOL
	X					X					CONFIGURATION.

TOTALS

WSG (SIGN)	ENGINEER(SIGN)
J.Pitman	Y.Al-Quasmi

TOOLS RUN:

TOOLS RUN:

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

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

Geology Operations

Santos

ABN 80 007 550 923

ELECTRIC LOGGING TIME SUMMARY

LOGGING UNIT:	571
START DATE:	30/10/03
END DATE:	2/10/03
DEPTH DRILLER:	2135m
DEPTH LOGGER:	2122m

LEFT BASE:	27/10/03
ARRIVED AT THE WELLSITE:	24/10/03
INITIAL RIG UP:	30/10/03
FINAL RIG DOWN:	2/10/03
RETURN TO BASE:	Onboard for testing

WELL NAME:	CASINO 3
TRIP NUMBER:	SUITE 1
WELLSITE GEOLOGIST:	Pitman / Lahiff
LOGGING ENGINEER:	Al-Quasmi
PAGE / DATE:	2 31-10-03

DATE / TIME	RIG UP / DOWN	TOOL CHECK	RIH / POOH	LOGGING	DATA TX	LOST TIME SCHL	I. O.	WIPER TRIP	LOST TIME OTHERS	OTHERS	COMMENTS / REMARKS
00:00			X								00:00 HR RUN IN HOLE LOGGING DOWN
			X								12:15 HR COMPENSATE
:30			X								
			X								
01:00			X								
			X								01:30 HR AT CASING SHOE – TENSION
:30			X								CONTINUE TO RUN IN HOLE LOGGING
			X								DOWN 2700 FT/HR
02:00			X								
			X								
:30			X								
			X								
03:00			X								
			X								03:30 HR TAG TOTAL DEPTH
:30				X							COMMENCE MAIN LOG AT 1760 FT/HR
				X							
04:00				X							
				X							
:30				X							
				X							
05:00				X							
				X							
:30				X							
				X							AT CASING SHOE – LOG GR TO SURFACE
06:00				X							
				X							
:30				X							
				X							AT SEAFLOOR DE-COMPENSATE
07:00	X										07:00 HR TOOL AT SURFACE – RIG DOWN
	X										
:30	X										
	X										
08:00	X										08:00 HR RIG UP MDT. CHANGE BRIDLE.
	X										
:30	X										
	X										
09:00			X								09:00 HR RUN IN HOLE RUN 2
			X								
:30			X								
			X								
10:00			X								
			X								
:30			X								
			X								
11:00				X							11:00 HR CORRELATE DEPTH AND BEGIN
				X							TAKING PRETESTS
:30				X							
				X							

WSG (SIGN)	**ENGINEER(SIGN)**
J.PITMAN	Y.AL-QUASMI

TOTALS

TOTAL										
12.0	3.25	0.25	4.0	3.5		1.0				

TOOLS RUN: RUN 1 DSI-PEX-HALS

TOOLS RUN:

LOGGING UNIT:	571	WELL NAME	CASINO 3	PAGE	2A

DATE / TIME	RIG UP / DOWN	TOOL CHECK	RIH / POOH	LOGGING	DATA TX	LOST TIME SCHL	I. O.	WIPER TRIP	LOST TIME OTHERS	OTHERS	COMMENTS / REMARKS
12:00				X							
				X							
:30				X							
				X							
13:00				X							
				X							
:30				X							
				X							
14:00				X							
				X							
:30				X							
				X							
15:00				X							
				X							
:30				X							
				X							
16:00				X							
				X							
:30				X							
				X							
17:00				X							
				X							
:30				X							TOTAL 24 PRETESTS ATTEMPTED
				X							2 LOST SEAL, 7 CURTAILED, 15 NORMAL
18:00				X							SAMPLES: 2006.8m 1 x 1 GAL + 1 x 2 ¾ GAL
				X							2 x 450 cc
:30				X							1985.2 m 1 x 450 cc
				X							
19:00				X							
				X							19:30 HR FINISH TAKING PRETESTS
:30			X								PULL OUT OF HOLE
			X								
20:00			X								
			X								
:30	X										20:30 HR TOOL AT SURFACE – RIG DOWN
	X										21:00 HR FINISH RIG DOWN RUN 2
21:00	X										21:00 HR RIG UP RUN 3 PEX-CMR-HNGS
	X										
:30	X										
	X										
22:00	X										
			X								22:15 HR LOG UP WITH CMR
:30			X								TD AT 2117m TO 1930m
			X								
23:00			X								
			X								
:30			X								
			X								

WSG (SIGN)	ENGINEER(SIGN)
J.PITMAN	Y.AL-QUASMI

TOTALS

TOTAL 13.0 HR										
	1.5		3.0	8.5						

TOOLS RUN: RUN 2 MDT

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

SAFETY

										PROMPTNESS
										TOOL & SURFACE SYSTEM PERFORMANCE
										ATTITUDE & CO-OPERATION
										WELLSITE PRODUCTS / LOG QUALITY
										COMMUNICATIONS / TX PERFORMANCE
										OTHER (PLEASE SPECIFY)
1: Excellent - 2 - 3: Normal - 4 - 5: Very Poor										

Geology Operations

Santos

ABN 80 007 550 923

ELECTRIC LOGGING TIME SUMMARY

LOGGING UNIT:	571
START DATE:	30/10/03
END DATE:	2/10/03
DEPTH DRILLER:	2135m
DEPTH LOGGER:	2122m

LEFT BASE:	27/10/03
ARRIVED AT THE WELLSITE:	24/10/03
INITIAL RIG UP:	30/10/03
FINAL RIG DOWN:	2/10/03
RETURN TO BASE:	Onboard for testing

WELL NAME:	CASINO 3
TRIP NUMBER:	SUITE 1
WELLSITE GEOLOGIST:	Pitman / Lahiff
LOGGING ENGINEER:	Al-Quasmi
PAGE / DATE:	3 1-11-03

DATE / TIME	RIG UP / DOWN	TOOL CHECK	RIH / POOH	LOGGING	DATA TX	LOST TIME BAKER	I. O.	WIPER TRIP	LOST TIME OTHERS	OTHERS	COMMENTS / REMARKS
00:00			X								
				X							00:15 HR LOG UP WITH CMR
:30				X							
				X							
01:00				X							
				X							
:30				X							
				X							
02:00				X							02:10 HR RUN IN HOLE FROM 1930m
				X							02:15 HR LOG UP PEX-HNGS
:30				X							
				X							
03:00				X							
				X							
:30				X							
				X							
04:00				X							
				X							
:30				X							
				X							
05:00				X							05:10 HR AT CASING SHOE – PULL OUT
			X								
:30	X										05:30 HR TOOL AT SURFACE – REMOVE
	X										SOURCES AND RIG DOWN
06:00	X										
	X										
:30	X										
	X										
07:00	X										07:15 HR FINISH RIGGING DOWN RUN 3
	X										07:30 HR RUN IN HOLE RUN 4 MSCT
:30			X								
			X								
08:00			X								
			X								
:30			X								
			X								08:45 HR TAKE WEIGHT AT 1950m
09:00			X								ATTEMPT TO WORK PAST TWICE – NO GO
			X								PULL UP 1- 3 kLBS DRAG – COMES FREE
:30			X								AT 1660m
			X								09:15 HR RUN IN HOLE TAKE WEIGHT AT
10:00			X								1870m. ATTEMPT TO WORK PAST 3 TIMES
	X										09:30 HR PULL OUT OF HOLE.
:30	X										10:15 HR TOOL ON SURFACE
	X										11:00 HR FINISH RIGGING DOWN
11:00								X			SCHLUMBERGER
								X			
:30								X			
								X			
TOTALS											

WSG (SIGN)	**ENGINEER(SIGN)**
J.PITMAN	Y.AL-QUASMI

TOTAL										
10.25	3.0		2.25	5.0						

TOOLS RUN: RUN 3 PEX-CMR

TOOLS RUN:

LOGGING UNIT:	571	WELL NAME	CASINO 3	PAGE	3

DATE / TIME	RIG UP / DOWN	TOOL CHECK	RIH / POOH	LOGGING	DATA TX	LOST TIME BAKER	I. O.	WIPER TRIP	LOST TIME OTHERS	OTHERS	COMMENTS / REMARKS
12:00								X			
								X			
:30								X			
								X			
13:00								X			
								X			
:30								X			
								X			
14:00								X			
								X			
:30								X			
								X			
15:00								X			
								X			
:30								X			
								X			
16:00								X			
								X			
:30								X			
								X			TAKE WEIGHT AT 1823m. WASH AND
17:00								X			LIGHT REAM REQUIRED.
								X			
:30								X			
								X			
18:00								X			
								X			
:30								X			
								X			
19:00								X			
								X			
:30								X			
								X			
20:00								X			
								X			
:30								X			
								X			
21:00								X			
								X			
:30								X			
								X			
22:00								X			
								X			
:30								X			
								X			
23:00								X			
								X			HOLE PACKED OFF. PIPE STUCK. FREE
:30								X			WITH 30KLBS. REGAIN CIRCULATION
								X			SWEEP HOLE.
TOTALS											

WSG (SIGN)	ENGINEER(SIGN)
J.PITMAN	Y.AL-QUASMI

TOOLS RUN:

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

										TOOL & SURFACE SYSTEM PERFORMANCE
										ATTITUDE & CO-OPERATION
										WELLSITE PRODUCTS / LOG QUALITY
										COMMUNICATIONS / TX PERFORMANCE
										OTHER (PLEASE SPECIFY)
1: Excellent - 2 - 3: Normal - 4 - 5: Very Poor										

Geology Operations

Santos

ABN 80 007 550 923

ELECTRIC LOGGING TIME SUMMARY

LOGGING UNIT:	571
START DATE:	30/10/03
END DATE:	2/10/03
DEPTH DRILLER:	2135m
DEPTH LOGGER:	2122m

LEFT BASE:	27/10/03
ARRIVED AT THE WELLSITE:	24/10/03
INITIAL RIG UP:	30/10/03
FINAL RIG DOWN:	2/10/03
RETURN TO BASE:	Onboard for testing

WELL NAME:	CASINO 3
TRIP NUMBER:	SUITE 1
WELLSITE GEOLOGIST:	Pitman / Lahiff
LOGGING ENGINEER:	Al-Quasmi
PAGE / DATE:	4 2-11-03

DATE / TIME	RIG UP / DOWN	TOOL CHECK	RIH / POOH	LOGGING	DATA TX	LOST TIME SCHL	I. O.	WIPER TRIP	LOST TIME OTHERS	OTHERS	COMMENTS / REMARKS
00:00								X			CIRCULATE AND CONDITION HOLE / MUD.
								X			
:30								X			
								X			
01:00								X			
								X			
:30								X			
								X			
02:00								X			
								X			
:30								X			
								X			
03:00								X			
								X			
:30								X			
								X			
04:00								X			
								X			
:30								X			
								X			
05:00								X			
								X			
:30								X			05:45 HR RIG SCHLUMBERGER
	X										
06:00	X										
			X								06:15 HR RUN IN HOLE RUN 4 MSCT
:30			X								
			X								
07:00			X								
			X								
:30				X							07:30 HR CORRELATE DEPTH FROM 2050m
				X							FIRST 4 CORES TAKEN AT 20 MINUTES /
08:00				X							CORE. REMAINING CORES CUT FASTER
				X							AT 5 – 10 MINUTES PER CORE.
:30				X							
				X							
09:00				X							
				X							
:30				X							
				X							
10:00				X							10:15 HR FINISH CORING 13 ATTEMPTED
			X								PULL OUT OF HOLE.
:30			X								
			X								
11:00	X										11:00 HR TOOL ON SURFACE
	X										13 MSCT CORES RECOVERED
:30	X										11:45 HR FINISH RIGGING DOWN RUN 4 &
	X					X					RIG UP RUN 5 - CST

WSG (SIGN)	**ENGINEER(SIGN)**
J.PITMAN	Y.AL-QUASMI

TOTALS

TOTAL											
18.75								18.75			**TOOLS RUN:** WIPER TRIP
6.00	1.25		2.0	2.75							**TOOLS RUN:** RUN 4 MSCT

LOGGING UNIT:	571	WELL NAME	CASINO 3	PAGE	4A

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
12:00	X					X					
			X			X					RUN IN HOLE, RUN 5
:30			X			X					
			X			X					
13:00			X			X					
			X			X					13:20; CORRELATION (2050-1985mRT)
:30			X			X					
				X		X					13:50; COMMENCE LOGGING
14:00				X		X					
				X		X					
:30				X		X					
				X		X					
15:00				X		X					
			X			X					15:10; LAST CST POINT (1106m), POOH
:30			X			X					
			X			X					16:15 HR TOOLS ON SURFACE ALL
16:00			X			X					MISFIRED
	X					X					LAYDOWN CST & DISARM TOOL.
:30	X										16:30 HR CHECK TOOL AND LOAD SECOND
	X										CST GUN
17:00	X										
	X										
:30	X										
	X										
18:00	X										
	X										
:30			X								18:30 HR RUN IN HOLE, CST RUN 6
			X								
19:00			X								
			X								
:30				X							19:30 CORRELATE
				X							RUN IN HOLE AND TAG TOTAL DEPTH AT
20:00				X							2115m. BEGIN TAKING SIDEWALLS
				X							
:30				X							
				X							
21:00				X							
				X							21:30 HR PULL OUT OF HOLE.
:30			X								
			X								
22:00			X								22:15 HR TOOLS AT SURFACE
	X										
:30	X										22:45 HR FINISH RIGGING DOWN
											SCHLUMBERGER.
23:00											30 SIDEWALLS ATTEMPTED
											20 RECOVERED, 1 LOST BULLETS
:30											7 MISFIRES, 2 EMPTY.

WSG (SIGN)	ENGINEER(SIGN)
J.PITMAN	Y.AL-QUASMI

TOTALS

TOTAL											
4.75	0.75		2.5	1.5		4.75					**TOOLS RUN:** RUN 5 CST
6.25	2.5		1.75	2.0							**TOOLS RUN:** RUN 6 CST

SERVICE QUALITY SUMMARY	
CLIENT WSG	**ENGINEER**

1	2	3	4	5	1	2	3	4	5	
										SAFETY
										PROMPTNESS
										TOOL & SURFACE SYSTEM PERFORMANCE
										ATTITUDE & CO-OPERATION
										WELLSITE PRODUCTS / LOG QUALITY
										COMMUNICATIONS / TX PERFORMANCE
										OTHER (PLEASE SPECIFY)
1: Excellent - 2 - 3: Normal - 4 - 5: Very Poor										

SECTION 3.4 : MDT PRESSURE SURVEY RESULTS

Santos

MDT PRESSURE SURVEY (RUN 2)

WELL: Casino 3 RT:22.4 metres Gauge Type :CQG Page :1 OF 2
WITNESS: M. Lahiff/ J Pitman Time since last circ :10:00 hrs on 30/10/03 Probe/Packer Type :Standard Date :31/10/2003

	FORMATION	DEPTH	DEPTH	FILE		TEST RESULTS					INTERPRETATION		COMMENTS
		RT MD m	SUBSEA m	NO	HYDRO BEFORE PSIA	FORM PRESS PSIA	HYDRO AFTER PSIA	TEMP deg Far	D/D MOB MD/CP	TYPE D/D	TYPE BUILD	Super Charged	
				65									**CORRELATION**
1	Waarre C	2000.4	1978.0	66	3360.40	2868.45	3358.80	180.0	29.3	N	Stable		
2	Waarre C	2004.5	1982.1	67	3367.70	2872.73	3367.50	177.5	643.2	N	Stable	Possibly SC	
3	Waarre C	2004.5	1982.1	68	3367.90	2869.76	3368.45	178.3	6682.8	N	Stable		
4	Waarre C	2008.7	1986.3	69	3374.86	2870.57	3374.60	179.3	5814.0	N	Stable		
5	Waarre C	2009.7	1987.3	70	3376.12		3376.56	179.8	0.9	N	Unstable - prestest curtailed		
6	Waarre C	2012.2	1989.8	71	3380.43	2874.20	3380.60	180.7	66.2	N	Unstable - prestest curtailed	Possibly SC	
7	Waarre C	2012.4	1990.0	72	3380.72	2871.36	3381.08	181.1	3696.40	N	Stable		
8	Waarre C	2017.4	1995.0	73	3389.00	2872.17	3377.30	182.0	1090.90	N	Stable		
9	Waarre C	2023.2	2000.8	74	3399.50								Lost seat
10	Waarre C	2023.3	2000.9	75	3399.62	2879.25	3398.92	182.9	0.80	N	Stable	Possibly SC	Very slow BU. Tight
11	Waarre C	2023.9	2001.5	76	3400.26	2878.20	3400.14	183.0	23.96	N	Stable		Valid Aquifer Pressure for Younger Sand
12	Waarre C	2025.2	2002.8	77	3402.03		3402.98	183.9		N	Unstable - prestest curtailed		Very slow BU. Tight
13	Waarre C	2025.1	2002.7	78	3401.94	2944.00	3402.11	184.2	0.27	N	Unstable - prestest curtailed	SC	
14	Waarre C	2025.3	2002.9	79	3402.43	2910.00	3402.98	184.3	0.64	N	Unstable - prestest curtailed	SC	
15	Waarre A	2059.9	2037.5	80	3459.61	3106.08	3459.77	184.8	12.73	N	Stable		Valid Aquifer Pressure for Older Sand
16	Waarre A	2060.7	2038.3	81	3460.22	3120.80	3461.03	185.6	0.71	N	Stable	Possibly SC	
17	Waarre A	2059.2	2036.8	82	3458.45	3104.92	3458.56	185.9	9.98	N	Stable		Valid Aquifer Pressure for Older Sand
													CORRELATION
													MRSC Samples (1 & 2 3/4 gallon) &
18	Waarre C	2004.5	1982.1	86	3368.06	2870.20	3367.18		3040.90	N			
													MRMS Samples (2 X 450cc bottles)
19	Flaxmans	1985.5	1963.1	87	3336.50	2083.33	3336.22	183.9	5.70	N	Unstable - prestest curtailed		Very slow BU. Tight
20	Flaxmans	1984.3	1961.9	88	3333.93	2868.86	3334.40	183.0	191.80	N	Stable	Possibly SC	Slow BU
21	Flaxmans	1982.9	1960.5	89									Lost seat

Expected Water Gradient: 0.433 psi/ft
Mud Weight : 9.6ppg

Santos

MDT PRESSURE SURVEY (RUN 2)

WELL: Casino 3 RT:22.4 metres Gauge Type :CQG
WITNESS: M. Lahiff/ J Pitman Time since last circ :10:00 hrs on 30/10/03 Probe/Packer Type :Standard Date :31/10/2003

	FORMATION	DEPTH RT MD m	DEPTH SUBSEA m	FILE NO	HYDRO BEFORE PSIA	TEST RESULTS FORM PRESS PSIA	TEST RESULTS HYDRO AFTER PSIA	TEMP deg Far	D/D MOB MD/CP	TYPE D/D	INTERPRETATION TYPE BUILD	Super Charged	COMMENTS
22	Flaxmans	1982.9	1960.5	90	3332.06	2866.91	3330.93		48.20	N			MRMS Sample (1 x 450cc)
				91									**CORRELATION**
23	Belfast Greensand	1616.2	1593.8	92	2724.56	2321.33	2724,52	169.30	16.70	N			Stable
24	Belfast Greensand	1609.1	1586.7	93	2712.55	1874.14	2712.59	167.40	2.20	N			Unstable - prestest curtailed Very slow BU. Tight

24 PRE-TESTS: 15 Normal, 2 Lost Seals, 7 curtailed
SAMPLES: 2004.5m; 1& 2 3/4 gallon and 2 X 450cc bottles
1982.9m; 1 X 450 cc bottle

*** Note: Above readings noted real-time.**

Expected Water Gradient: 0.433 psi/ft
Mud Weight : 9.6ppg

The 1 gallon and 2 ¾ gallon samples were opened on surface and contained:

2 ¾ gallon: Surface pressure 3350 psi
Ambient Temperature 11 deg C
Gas volume: 1752 cu. ft.
Breakdown: C1: 97.6296%, C2 1.7746%, C3 0.4398%, iC4 0.0677%, nC4 0.0703%, iC5 0.0118% nC5 0.0062% CO2 0.0%

1 gallon: Surface pressure 3600 psi
Ambient Temperature 11 deg C
Gas volume 1054 cu.ft.
Breakdown: C1 97.5572% C2 1.7809% C3 0.4734% iC4 0.0724% nC4 0.0873% iC5 0.0173% nC5 0.0116% CO2 0.07%

SECTION 3.4.1 : MDT SAMPLE ANALYSES

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

SECTION 4 : PRODUCTION TEST REPORT (Schlumberger)

SECTION 5 : DAILY GEOLOGICAL REPORTS

Santos

A.C.N. 007 550 923

WELL PROGRESS REPORT

DATE: 14/10/03	CASINO 3	REPORT NO: 1

(As at 2400 hours EST, 13/10/03) **DEPTH :** 0 m **PROGRESS:** 0 m **DAYS FROM SPUD:** 0
OPERATION : RUNNING ANCHORS, ON LOCATION AT 1100 HRS 13/10/03.

(As at 0600 hours EST, 14/10/03) **DEPTH :** 0 m
OPERATION : RUNNING ANCHOR #4

CASING DEPTH: N/A

RIG: OCEAN EPOCH
RT – SEAFLOOR: 89.1m
WATER DEPTH: 66.7m

PROGRAMMED TD: 2147m **ROTARY TABLE:** 22.4m MSL

MUD DATA (2400 Hours) Type: (IN PITS) Wt: Vis: FL: PH: KCl Cl : PV / YP: Rmf:

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

SURVEYS: MD (m) INC AZIM (T)

PREVIOUS 24 HOURS OPERATIONS SUMMARY:
CONTINUE TOW TO CASINO 3. DROP ANCHOR #7 AT 1100 HRS 13/10/03. RIG ON LOCATION. BALLAST DOWN RIG TO 11.5M DRAFT. PICK UP 4 STANDS OF HWDP AND RACK BACK. WINCH #3 MOTOR FAILED. DROPPED ANCHOR AT TEMPORARY POSITION. RE-RUN WITH WINCH BRAKE ONLY. RUN ANCHOR #6 RUN ANCHOR #2.

00:00 – 06:00 HOURS 14/10/03:
CONTINUE RUNNING ANCHORS, RUN ANCHOR #5, NOT HOLDING. PICK UP AND RE-RUN ANCHOR #5, OK. RUN ANCHOR #1.

ANTICIPATED OPERATIONS:
CONTINUE RUNNING ANCHORS, FINAL POSITION RIG, SPUD WELL.

Santos

A.C.N. 007 550 923

WELL PROGRESS REPORT

DATE: 14/10/03	CASINO 3	REPORT NO: 1

SUMMARY OF OPERATIONS (0000 hours - 2400 hours):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	11:00	11.0	Rig on tow to Casino 3
11:00	11:30	0.50	Dropped anchor #7. Rig on location.
11:30	13:00	1.50	Lady Dawn shortened tow wire. Problems with Thales Tracs. Disconnected vessel from tow wire. Start ballasting down rig to 11.5m draft
13:00	17:00	4.00	Passed #3 PCC to Lady Dawn. Vessel having problems with winch. Pick up 4 stands of HWDP and rack back
17:00	20:00	3.00	Winch #3 seized, winch motor failed. Dropped anchor at temporary position. Re-run with winch brake only. PCC#3 passed back to rig.
20:00	22:30	2.50	Ran anchor #6 with Lady Dawn
22:30	24:00	1.50	Ran anchor #2 with Lady Dawn

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A.C.N. 007 550 923

WELL PROGRESS REPORT

DATE: 15/10/03	CASINO 3	REPORT NO: 2

(As at 2400 hours EST, 14/10/03) **DEPTH :** 96.8 m **PROGRESS:** 96.8 m **DAYS FROM SPUD:** 0.25
OPERATION : DRILLING AHEAD 914mm SURFACE HOLE

(As at 0600 hours EST, 15/10/03) **DEPTH :** 110.0 m
OPERATION : DRILLING AHEAD 914mm SURFACE HOLE AFTER RE-SPUDDING WELL

CASING DEPTH: N/A

RIG: OCEAN EPOCH
RT – SEAFLOOR: 89.1m
WATER DEPTH: 66.7m

PROGRAMMED TD: 2147m **ROTARY TABLE:** 22.4m MSL

MUD DATA (2400 Hours)
Type: (IN PITS) SEA WATER | Wt: | Vis: | FL: | PH: | KCl | Cl : | PV / YP: | Rmf:

BIT DATA (2400 Hours)		No.	Make	Type	Size (mm)	Hours	Drilled	Condition
	PRESENT	1	Smith	Rock DSJ	660	3.5	7.8m	IN HOLE
	LAST							

SURVEYS: MD (m) INC AZIM (T)

PREVIOUS 24 HOURS OPERATIONS SUMMARY:
CONTINUE RUNNING ANCHORS #2, #5, #1, #8. BALLAST RIG DOWN TO 16.7M DRAFT. POSITION RIG OVER LOCATION. PICK UP AND RACK BACK 17 STANDS OF DRILLPIPE. PICK UP AND RUN IN HOLE WITH 914MM BOTTOM HOLE ASSEMBLY, TAG BOTTOM AT 89.5M. CHECK DEPTH WITH ROV. TAKE SURVEY WITH ANDERSDRIFT TOOL, FAILED. **SPUD WELL AT 1500 HRS, 14/10/03**. DRILL FROM 89.5 TO 112.35M. AVG ROP 7.6 M/ HR, TAKE SURVEY WITH ANDERDRIFT, 3DEG. VERIFY WITH TOTCO, 2 DEG. PULL OUT OF HOLE, BIT ABOVE SEABED. MOVE RIG 5M FORWARD. **RESPUD WELL AT 2200 HRS 14/10/03.** DRILL FROM 89.5M TO 96.8M.

00:00 – 06:00 HOURS 15/10/03:
DRILL AHEAD 914mm HOLE TO 110.0m.

ANTICIPATED OPERATIONS:
DRILL AHEAD SURFACE HOLE TO CASING POINT (APPROX 121m), CONDITION HOLE, PULL OUT TO RUN 762mm CONDUCTOR.

FINAL LOCATION IS: 38 DEG 46'34.558" S, 142 DEG 44'05.437" E (GDA94). POSITION IS 6.37M ON A BEARING OF 215.5 DEG TRUE FROM THE INTENDED LOCATION.

Santos

A.C.N. 007 550 923

WELL PROGRESS REPORT

DATE: 15/10/03	CASINO 3	REPORT NO: 2

SUMMARY OF OPERATIONS (0000 hours - 2400 hours):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	09:30	9.5	Ran anchors #2, #5, #1, #8. Ballasted rig down to 16.7m draft. Position rig over location. Picked up and racked back 17 stands of DP
09:30	13:30	4.00	Picked up and RIH with 914mm BHA
13:30	15:00	1.50	Tagged bottom at 89.5m. Checked depth with ROV. Took survey with anderdrift tool, failed.
15:00	18:00	3.00	Spudded well and drilled from 89.5 to 112.35m. Avg ROP 7.6 m/ hr
18:00	19:00	1.00	Took survey with Anderdrift, 3deg. Verified with Totco, 2 deg.
19:00	24:00	5.00	POH, bit above seabed. Moved rig 5m forward. Respudded well. Drilled from 89.5m to 96.8m.

Santos

A.C.N. 007 550 923

WELL PROGRESS REPORT

DATE: 16/10/03	CASINO 3	REPORT NO: 3

(As at 2400 hours EST, 15/10/03) **DEPTH :** 121.3 m **PROGRESS:** 24.2 m **DAYS FROM SPUD:** 1.25
OPERATION : RIGGING UP 476mm (18 ¾") WELLHEAD ASSEMBLY HAVING RUN AND SET 762mm (30") CONDUCTOR.

(As at 0600 hours EST, 16/10/03) **DEPTH :** 121.3 m
OPERATION : PICKING UP AND RUNNING IN WITH 444mm (17 ½") DRILLING ASSEMBLY

CASING DEPTH: N/A

RIG: OCEAN EPOCH
RT – SEAFLOOR: 89.1m
WATER DEPTH: 66.7m

PROGRAMMED TD: 2147m **ROTARY TABLE:** 22.4m MSL

MUD DATA (2400 Hours)

Type: (IN PITS)	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
SEA WATER								

BIT DATA (2400 Hours)

	No.	Make	Type	Size (mm)	Hours	Drilled	Condition
PRESENT							
LAST	1	Smith	Rock DSJ	660	8.9	32.0m	3 5 WT A 0 I NO TD

SURVEYS: MD (m) INC AZIM (T)

PREVIOUS 24 HOURS OPERATIONS SUMMARY:
DRILL AHEAD 914mm HOLE FROM 97.8 TO 98.8M, RE- SURVEY AT 98.8M. DRILL AHEAD FROM 98.8M TO 121.3M, PUMP 130 BBLS HI VIS SWEEP, PULL OUT TO MUDLINE - ROV PLACE SONAR MARKER'S, RUN IN HOLE TO TD - 3M FILL, - CIRCULATE 1.5 X HOLE VOLUME WITH SPUD MUD. PULL OUT OF HOLE WITH 914mm DRILLING ASSEMBLY, HOLD JSA - RIG UP AND RUN 762mm CASING AND LAND OUT IN PGB IN MOON POOL, MAKE UP CEMENT STINGER ON RUNNING TOOL AND INSTALL IN CASING / PGB, PICK UP PGB - SET ON SKID BEAMS & CHECK CONNECTIONS CIRCULATE AND FILL CASING - CLOSE BALL VALVE, MAKE UP CEMENT STAND AND RACK IN DERRICK, RUN IN HOLE AND TAG BOTTOM WITH 762MM CASING AND PGB. MAKE UP CEMENT LINE AND WASH DOWN TO 121.43M. BULLSEYE READING (FROM ROV) 1/ 4 DEG @ 105 DEG. PRESSURE TEST CEMENT LINES TO 1000 PSI. 762MM CASING CEMENTED WITH 154 BBLS (750SX) OF CLASS "G" CEMENT SLURRY 15.8 PPG AND 1% CACL. DISPLACE WITH 9.5 BBLS OF SEAWATER. RELEASE 762MM RUNNING TOOL WITH 20,000 LBS OVER PULL (BULLSEYE 1/ 4 DEG @ 105 DEG). PULL OUT OF HOLE AND LAYDOWN SAME. RIG UP 476MM (18 ¾") WELL HEAD ASSEMBLY.

00:00 – 06:00 HOURS 16/10/03:
PICK UP 476MM (18 ¾") WELL HEAD, MAKE UP STINGER AND LAY DOWN SAME. LAY DOWN 314MM DRILLING ASSEMBLY, MAKE UP 445MM (17 ½") BOTTOM HOLE ASSEMBLY, SECURE TO GUIDE LINES FOR RUNNING. CONTINUE TO PICK UP BOTTOM HOLE ASSEMBLY.

ANTICIPATED OPERATIONS:
RUN IN HOLE, DRILL OUT CONDUCTOR SHOE, DRILL AHEAD TO SECTION TD (APPROX 645M)

Santos

A.C.N. 007 550 923

WELL PROGRESS REPORT

DATE: 16/10/03	CASINO 3	REPORT NO: 3

SUMMARY OF OPERATIONS (0000 hours - 2400 hours, 15/10/03):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	01:00	1.0	Drilled ahead 914mm hole f/ 97.8 to 98.8m
01:00	01:30	0.5	Re-take surveys at 98.8m
01:30	08:30	7.0	Drilled ahead 914 mm hole from 98.8m to 121.3m
08:30	09:00	0.5	Pump 130 bbls hi vis sweep
09:00	10:00	1.0	Pull out to mudline - ROV place sonar marker's
10:00	10:30	0.5	Rih to td - 3m fill - circulated 1.5 x hole volume with spud mud.
10:30	11:00	0.5	Poh with 36" drilling assembly
11:00	15:00	4.0	Held JSA - rigged up and ran 30" casing and land out in PGB in moon pool
15:00	16:00	1.0	M/ up cmt stinger on btm of running tool and installed in casing / PGB
16:00	16:30	0.5	P/ up PGB - set on skid beams & check connections
16:30	17:30	1.0	Circulated and filled casing - closed ball valve
17:30	18:00	0.5	Made up cement stand and racked in derrick
18:00	20:00	2.0	RIH and tagged bottom with 30" casing and PGB. Made up cement line and washed down to 121.43m. Bullseye reading (From ROV) 1/ 4 deg @ 105 deg.
20:00	21:00	1.0	Pressure tested cementing lines to 1000psi. 30" casing cemented with 154 bbls (750 sx) of class "G" cement slurry 15.8 ppg and 1% CaCl. Displaced with 9.5 bbls of seawater.
21:00	22:30	1.5	Released 30" running tool with 20,000 lbs over pull (Bullseye 1/ 4 deg @ 105 deg). POOH and laydown same.
22:30	24:00	1.5	R/ up 18-3/ 4" well head assembly.

Santos

A.C.N. 007 550 923

WELL PROGRESS REPORT

DATE: 17/10/03	CASINO 3	REPORT NO: 4

(As at 2400 hours EST, 16/10/03) **DEPTH :** 645.0 m **PROGRESS:** 524 m **DAYS FROM SPUD:** 2.25
OPERATION : CIRCULATING 444mm (17 ½") HOLE AT SECTION TD.

(As at 0600 hours EST, 17/10/03) **DEPTH :** 645.0 m
OPERATION : PULLING OUT OF HOLE 444mm (17 ½") DRILLING ASSEMBLY

CASING DEPTH: 762mm (30") CONDUCTOR SET AT 121.3 M **RIG: OCEAN EPOCH**
RT – SEAFLOOR: 89.1m
PROGRAMMED TD: 2147m **ROTARY TABLE:** 22.4m MSL **WATER DEPTH: 66.7**m

MUD DATA (2400 Hours) Type: (IN PITS) SEA WATER Wt: Vis: FL: PH: KCl Cl : PV / YP: Rmf:

		No.	Make	Type	Size (mm)	Hours	Drilled	Condition
BIT DATA (2400 Hours)	PRESENT	2	Reed	EM511GC	444	7.9	524m	IN HOLE
	LAST	1	Smith	Rock DSJ	660	8.9	32.0m	3 5 WT A 0 I NO TD

SURVEYS: MD (m) INC AZIM (T)

PREVIOUS 24 HOURS OPERATIONS SUMMARY:
PICK UP 476mm (18 ¾") WELL HEAD, MAKE UP STINGER AND LAY DOWN SAME. LAY DOWN 314mm DRILLING ASSEMBLY, MAKE UP 445mm (17 ½") BOTTOM HOLE ASSEMBLY, SECURE TO GUIDE LINES FOR RUNNING. CONTINUE TO PICK UP BOTTOM HOLE ASSEMBLY. RUN IN HOLE, SERVICE TOP DRIVE SYSTEM, CONTINUE RUN IN HOLE, TAG TOP OF CEMENT AT 117M, DRILL OUT CEMENT AND CONDUCTOR SHOE, DRILL AHEAD TO SECTION TD AT 645M, CIRCULATE AND CONDITION HOLE.

00:00 – 06:00 HOURS 17/10/03:
PUMP 500 BBL SWEEP AND DISPLACE WELL TO PRE-HYDRATED GEL SYSTEM, PULL OUT OF HOLE.

ANTICIPATED OPERATIONS:
PULL OUT OF HOLE, RIG TO AND RUN 346mm (13 5/8") SURFACE CASING, HEAD UP AND CEMENT CASING, RIG TO AND RUN BOP AND RISER PACKAGE.

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A.C.N. 007 550 923

WELL PROGRESS REPORT

DATE: 17/10/03	CASINO 3	REPORT NO: 4

SUMMARY OF OPERATIONS (0000 hours - 2400 hours, 16/10/03):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	01:00	1.0	Picked up 18-3/ 4" well head, made up stinger and lay down same.
01:00	02:30	1.5	L/ D 36" Drilling Assembly
02:30	03:30	1.0	M/ U 17.5" BHA
03:30	04:00	0.5	Secure to guide lines for running.
04:00	07:00	3.0	Continued to P/ U BHA.
07:00	08:00	1.0	Service & inspect TDS.
08:00	09:00	1.0	RIH & tag TOC @ 117m.
09:00	23:30	14.5	Drilled to 645m pumping a sweep every single and survey every connection.
23:30	24:00	0.5	Circulated hole with sweeps.

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WELL PROGRESS REPORT

DATE: 18/10/03	CASINO 3	REPORT NO: 5

(As at 2400 hours EST, 17/10/03) **DEPTH :** 645.0 m **PROGRESS:** 0 m **DAYS FROM SPUD:** 3.25
OPERATION : CEMENTING 346mm (13 5/8") SURFACE CASING.

(As at 0600 hours EST, 18/10/03) **DEPTH :** 645.0 m
OPERATION : RIGGING TO RUN BOPS AND LMRP

CASING DEPTH: 346mm (13 5/8") CASING SET AT 635.8 M **RIG: OCEAN EPOCH**
RT – SEAFLOOR: 89.1m
PROGRAMMED TD: 2147m **ROTARY TABLE:** 22.4m MSL **WATER DEPTH: 66.7**m

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MUD DATA (2400 Hours) Type: (IN PITS) SEA WATER Wt: Vis: FL: PH: KCl Cl : PV / YP: Rmf:

		No.	Make	Type	Size (mm)	Hours	Drilled	Condition
BIT DATA (2400 Hours)	PRESENT							
	LAST	2	Reed	EM511GC	444	7.9	524m	IN HOLE

SURVEYS: MD (m) INC AZIM (T)

PREVIOUS 24 HOURS OPERATIONS SUMMARY:
PUMP 50 BBL SWEEP, DISPLACE HOLE WITH 800 BBL PHG, PULL OUT OF HOLE, 30K-50K DRAG NOTICED AROUND 570M, BREAK OUT BIT. MAKE UP CEMENT HEAD AND RACK BACK. CLEAR RIG FLOOR TO RUN CASING. MAKE UP SHOE JOINT AND FLOAT COLLAR AND SECURE TO GUIDE LINES. MAKE UP TAM PACKER ON TOP DRIVE AND RUN 346mm (13 5/8") CASING. TIGHT HOLE AT 490M, WASH DOWN. RIG DOWN TAM PACKER, MAKE UP AND ORIENTATE 18 ¾" WELL HEAD ASSEMBLY. RUN CASING ON DRILLPIPE, MAKE UP CEMENT STAND AND LAND WELLHEAD WITH 55 KLB. APPLY 60 KLB OVERPULL TO ENSURE WELLHEAD IS LATCHED. CIRCULATE 450 BBL SEAWATER @ 10 BBL/MIN @ 300 PSI. MAKE UP CEMENT LINES, HOLD JSA, PRESSURE TEST LINES. PUMP CEMENT, 770 SX (305 BBLS) 12.5 PPG LEAD FOLLOWED BY 800 SX (168 BBLS) 15.8 PPG TAIL. RELEASE DART AND PUMP 20 BBLS WITH HALLIBURTON FOLLOWED BY 248 BBLS WITH RIG PUMP @ 10 BPM. BUMP PLUG WITH 800 PSI, TEST CASING TO 3000 PSI FOR 10 MIN WITH HALLIBURTON (NO BACKFLOW OBSERVED).

00:00 – 06:00 HOURS 18/10/03:
BREAK OUT CEMENT LINES, RELEASE RUNNING TOOL, RACK BACK CEMENT STAND IN DERRICK, LAYOUT CEMENT HEAD RUNNING TOOL. MOVE RIG 15M FORWARD AND RIG TO RUN BOP STACK AND LOWER MARINE RISER PACKAGE.

ANTICIPATED OPERATIONS:
RIG UP AND FUNCTION TEST BOP AND RISER PACKAGE, RUN AND LATCH BOPS AND LMRP.

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A.C.N. 007 550 923

WELL PROGRESS REPORT

DATE: 18/10/03	CASINO 3	REPORT NO: 5

SUMMARY OF OPERATIONS (0000 hours - 2400 hours, 17/10/03):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	01:00	1.0	Pumped 50 bbl sweep then displaced hole with 800 bbl PHG
01:00	06:00	5.0	POH from 645m, 30k-50k drag noticed around 570m.
06:00	07:30	1.5	POH with BHA and broke out bit.
07:30	08:30	1.0	Made up cement head and racked back.
08:30	10:00	1.5	Cleared rig floor to run casing.
10:00	11:00	1.0	Made up shoe joint and float collar and secure to guide lines.
11:00	16:30	5.5	Made up TAM packer on top drive and ran 13 5/8" casing. Tight spots observed at 490m, washed down.
16:30	18:00	1.5	Rig down TAM packer, made up and orientated 18 ¾" well head assembly.
18:00	19:30	1.5	Ran casing on DP, made up cement stand and landed wellhead with 55 kips. Applied 60 Kips overpull to ensure wellhead is latched.
19:30	20:30	1.0	Circulated 450 bbl seawater @ 10 bbl/min @ 300 psi.
20:30	23:00	2.5	Made up cementing lines, hold JSA, pressure test lines. Pumped cement job 770 sx (305 bbls) 12.5 ppglead followed by 800 sx (168 bbls) 15.8 ppg tail.
23:00	24:00	1.0	Released dart and pumped 20 bbls with Halliburton followed by 248 bbls with rig pump @ 10 bpm. Bumped plug with 800 psi and tested casing to 3000 psi for 10 min with Halliburton (no backflow observed).

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WELL PROGRESS REPORT

DATE: 19/10/03	CASINO 3	REPORT NO: 6

(As at 2400 hours EST, 18/10/03) **DEPTH :** 645.0 m **PROGRESS:** 0 m **DAYS FROM SPUD:** 4.25
OPERATION : TESTING CHOKE AND KILL LINES ON BOPs PRIOR TO RUNNING.

(As at 0600 hours EST, 19/10/03) **DEPTH :** 645.0 m
OPERATION : ATTEMPTING TO LAND BOPs AND LOWER MARINE RISER PACKAGE

CASING DEPTH: 346mm (13 5/8") CASING SET AT 635.8 M **RIG: OCEAN EPOCH**
RT – SEAFLOOR: 89.1m
PROGRAMMED TD: 2147m **ROTARY TABLE:** 22.4m MSL **WATER DEPTH: 66.7**m

MUD DATA (2400 Hours)	Type: (IN PITS)	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
	AQUA-DRILL	1.03	66.0		9.5	-	-	17/24	

BIT DATA (2400 Hours)		No.	Make	Type	Size (mm)	Hours	Drilled	Condition
	PRESENT							
	LAST	2	Reed	EM511GC	444	7.9	524m	1-1-FC-A-2-I-NO-TD

SURVEYS: MD (m) INC AZIM (T)

PREVIOUS 24 HOURS OPERATIONS SUMMARY:
RIG DOWN CEMENT EQUIPMENT, PULL OUT OF HOLE AND LAY OUT RUNNING TOOL. RIG TO RUN BOPS, HELD JSA. PICK UP DOUBLE OF RISER. PICK UP BOPS, INSTALL NEW RIG GASKET, MOVE BOPS TO CELLAR DECK BEAMS, RIG UP GUIDE LINES AND DEPLOY BEACONS ON STACK. PICK UP LOWER MARINE RISER PACKAGE, INSTALL NEW RING GASKET, LATCH LMRP TO BOPS INSTALL YELLOW AND BLUE PODS INSTALL TEST CAP AND TEST CHOKE AND KILL LINES ON BOPS, RETORQUE HUBS ON COFLEX HOSES AFTER TESTING. PRESSURE TEST POD HOSES WITH HALLIBURTON TO 250 PSI AND 10,000 PSI. FUNCTION TEST BOPS AND RE-TORQUE CONNECTOR CLAMPS ON CHOKE AND KILL LINES. TROUBLESHOOT LEAK IN BLUE POD, REPLACE BLUE POD PACKER SEALS, INSTALL SHIMS ON LATCH, FUNCTION TEST, NO LEAKS. PERFORM ACCUMULATOR VOLUME TEST ON SYSTEM, HOLD PRE-JOB MEETING AND CONNECT POD HOSE TO POD TUGGERS, CONNECT DOUBLE RISER JOINT TO BOP STACK AND TAKE BULLSEYE READINGS @ 0 DEG. RUN RISER AND BOPS, TEST CHOKE AND KILL LINES 250/5000 PSI WITH HALLIBURTON

00:00 – 06:00 HOURS 19/10/03:
PICK UP LANDING JOINT, POSITION SLIP JOINT, INSTALL TENSIONERS, CHOKE AND KILL LINE AND GOOSENECKS, TEST CHOKE AND KILL LINE

ANTICIPATED OPERATIONS:
LAND AND LATCH BOPS.

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WELL PROGRESS REPORT

DATE: 19/10/03	CASINO 3	REPORT NO: 6

SUMMARY OF OPERATIONS (0000 hours - 2400 hours, 18/10/03):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	00:30	0.5	Rig down cement hose and release 476 mm (18 ¾") running tool
00:30	01:00	0.5	Rack back cement stand and pull out of hole with running tool.
01:00	01:30	0.5	Lay out running tool
01:30	03:30	2.0	Rig to run BOPs, held JSA.
03:30	04:30	1.0	Pick up double of riser.
04:30	06:30	2.0	Pick up BOPs, install new rig gasket, move BOPs to cellar deck beams, rig up guide lines and deploy beacons on stack.
06:30	07:30	1.0	Pick up Lower Marine Riser Package, install new ring gasket, latch LMRP to BOPs
07:30	08:30	1.0	Install yellow and blue PODs
08:30	12:00	3.5	Install test cap and test choke and kill lines on BOPs, retorque hubs on coflex hoses after testing.
12:00	15:00	3.0	Pressure test pod hoses with Halliburton to 250 psi and 10,000 psi. Function ttest BOPs and re-torque connector clamps on choke and kill lines.
15:00	18:30	3.5	Troubleshooting leak in blue pod, Replace blue pod packer seals, installed shims on latch, function tested, no leaks.
18:30	20:00	1.5	Perform accumulator volume test on system
20:00	24:00	4.0	Hold pre-job meeting and connect pod hose to pod tuggers, connect double riser joint to BOP stack and take bullseye readings @ 0 deg. Run riser and BOPs, test choke and kill lines 250/5000 psi with Halliburton.

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WELL PROGRESS REPORT

DATE: 20/10/03 - 0600 HRS	CASINO 3	REPORT NO: 7

(As at 2400 hours EST, 19/10/03) **DEPTH :** 645.0 m **PROGRESS:** 0 m **DAYS FROM SPUD:** 5.25
OPERATION : WAITING ON WEATHER TO RELEASE SLIP JOINT, MAKING UP 5" DRILL PIPE.

(As at 0600 hours EST, 20/10/03) **DEPTH :** 645.0 m
OPERATION : WAITING ON WEATHER TO RELEASE SLIP JOINT, MAKING UP 5" DRILL PIPE

CASING DEPTH: 346mm (13 5/8") CASING SET AT 635.8 M **RIG: OCEAN EPOCH**
RT – SEAFLOOR: 89.1m
PROGRAMMED TD: 2147m **ROTARY TABLE:** 22.4m MSL **WATER DEPTH: 66.7**m

MUD DATA (2400 Hours)	Type: (IN PITS)	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
	AQUA-DRILL	1.03	66.0		9.5	-	-	17/24	

BIT DATA (2400 Hours)		No.	Make	Type	Size (mm)	Hours	Drilled	Condition
	PRESENT							
	LAST	2	Reed	EM511GC	444	7.9	524m	1-1-FC-A-2-I-NO-TD

SURVEYS: MD (m) INC AZIM (T)

PREVIOUS 24 HOURS OPERATIONS SUMMARY:
PICK UP LANDING JOINT, POSITION SLIP JOINT IN MOON POOL, WEATHER CONDITIONS POOR. MOVE RIG BACK OVER LOCATION. ATTEMPT TO LAND BOPS, LOST ROV FUNCTION, RECOVER AND REPAIR. ATTEMPT TO LAND BOPS, LAND BOPS, LATCH CONNECTOR AT 10:30 HRS, TEST WITH 50K OVERPULL. RIG UP AND TEST CONNECTOR DOWN C&K AGAINST BLIND SHEAR RAMS, 250 LOW 5MIN, 3000 HIGH 10 MIN. CONTINUE PICKING UP 5" DRILLPIPE FOR NEXT SECTION OF HOLE. MOVE FLOWLINE TO MOONPOOL, ATTEMPT TO RELEASE DOGS ON SLIP JOINT.

00:00 – 06:00 HOURS 19/10/03:
CONTINUE PICKING UP DRILLPIPE WHILE WAITING ON WEATHER TO RELEASE SLIP JOINT.

ANTICIPATED OPERATIONS:
WAIT ON WEATHER, RELEASE SLIP JOINT, PICK UP AND INSTALL DIVERTER, LAYOUT 17 ½" BHA, MAKE UP AND RUN IN HOLE WITH 12 ¼" ASSEMBLY.

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A.B.N. 007 550 923

WELL PROGRESS REPORT

DATE: 20/10/03 - 0600 HRS	CASINO 3	REPORT NO: 7

SUMMARY OF OPERATIONS (0000 hours - 2400 hours, 19/10/03):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	06:00	6.0	Pick up landing joint, position slip joint in moon pool, install goosenecks and rucker lines, weather conditions poor.
06:00	07:00	1.0	Install safety lines on choke and kill goosenecks, move rig back over location.
07:00	08:30	1.5	Attempt to land BOPs, ROV lost function to starboard arm, recover ROV to surface and repair.
08:30	09:00	0.5	Attempt to latch BOPs, guide wire #3 jumped sheave, stop and repair same. Position rig over PGB, land BOPs, latch connector at 10:30 hrs, pull test connector with 50k over.
09:00	10:30	1.5	Position rig over PGB, land BOPs, latch connector at 10:30 hrs, Pull test connector with 50k overpull.
10:30	11:30	1.0	Install stuffing box on yellow and blue pods
11:30	12:00	0.5	Rig up and test connector down C&K against blind shear rams, 250 low 5min, 3000 high 10 min.
12:00	24:00	12.0	Pick up 5” drillpipe for next section of hole. Move flowline to moonpool, attempt to release dogs on slip joint.

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WELL PROGRESS REPORT

DATE: 21/10/03 - 0600 HRS	CASINO 3	REPORT NO: 8

(As at 2400 hours EST, 20/10/03) **DEPTH :** 645.0 m **PROGRESS:** 0 m **DAYS FROM SPUD:** 6.25
OPERATION : WAITING ON WEATHER TO RELEASE SLIP JOINT.

(As at 0600 hours EST, 21/10/03) **DEPTH :** 645.0 m
OPERATION : WAITING ON WEATHER TO RELEASE SLIP JOINT.

CASING DEPTH: 346mm (13 5/8") CASING SET AT 635.8 M **RIG: OCEAN EPOCH**
RT – SEAFLOOR: 89.1m
PROGRAMMED TD: 2147m **ROTARY TABLE:** 22.4m MSL **WATER DEPTH: 66.7**m

MUD DATA (2400 Hours)	Type: (IN PITS)	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
	AQUA-DRILL	8.7	79.0	10	9.5	-	-	20/35	

BIT DATA (2400 Hours)		No.	Make	Type	Size (mm)	Hours	Drilled	Condition
	PRESENT							
	LAST	2	Reed	EM511GC	444	7.9	524m	1-1-FC-A-2-I-NO-TD

SURVEYS: MD (m) INC AZIM (T)

PREVIOUS 24 HOURS OPERATIONS SUMMARY:
WAIT ON WEATHER, ATTEMPT TO RELEASE DOGS ON SLIP JOINT, NO SUCCESS, CONTINUE MAKING UP 5" DRILLSTRING WHILE WAITING FOR HEAVE TO DECREASE.

00:00 – 06:00 HOURS 21/10/03:
CONTINUE PICKING UP DRILLPIPE WHILE WAITING ON WEATHER TO RELEASE SLIP JOINT.

ANTICIPATED OPERATIONS:
WAIT ON WEATHER, RELEASE SLIP JOINT, PICK UP AND INSTALL DIVERTER, LAYOUT 17 ½" BHA, MAKE UP AND RUN IN HOLE WITH 12 ¼" ASSEMBLY.

WEATHER STATUS AS AT 06:00 HRS:
WIND: 12-18 Kts
WAVES: 1-2m
SWELLS: 2-3m
HEAVE: AVG 2.5m – MAX 4.0m

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WELL PROGRESS REPORT

DATE: 21/10/03 - 0600 HRS	CASINO 3	REPORT NO: 8

SUMMARY OF OPERATIONS (0000 hours - 2400 hours, 20/10/03):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	12:00	12.0	Waiting on weather, picking up 5" DP for next section of hole, rig up and hang off flow line under drill floor, change out pop off on #3 mud pump. Re-attempt to unlock slip joint – no success. Top up oils in mud pumps as needed, re-arrange pipe in derrick.
12:00	24:00	12.0	Waiting on weather, picking up 5" DP for next section of hole. General housekeeping.

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WELL PROGRESS REPORT

DATE: 22/10/03 - 0600 HRS	CASINO 3	REPORT NO: 9

(As at 2400 hours EST, 21/10/03) **DEPTH :** 645.0 m **PROGRESS:** 0 m **DAYS FROM SPUD:** 7.25
OPERATION : PREPARING TO LAYOUT BENT DRILLPIPE FROM DERRICK.

(As at 0600 hours EST, 22/10/03) **DEPTH :** 645.0 m
OPERATION : MAKING UP 12 ¼" BOTTOM HOLE ASSEMBLY.

CASING DEPTH: 346mm (13 5/8") CASING SET AT 635.8 M **RIG: OCEAN EPOCH**
RT – SEAFLOOR: 89.1m
PROGRAMMED TD: 2147m **ROTARY TABLE:** 22.4m MSL **WATER DEPTH: 66.7**m

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MUD DATA (2400 Hours)	Type: (IN PITS)	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
	AQUA-DRILL	8.6	70.0	10	9.5	-	-	21/33	

BIT DATA (2400 Hours)		No.	Make	Type	Size (mm)	Hours	Drilled	Condition
	PRESENT							
	LAST	2	Reed	EM511GC	444	7.9	524m	1-1-FC-A-2-I-NO-TD

SURVEYS: (NON DIR)

	MD (m)	INC		MD (m)	INC
1	101.8	1.5	6	171.9	0.5
2	104.8	1	7	230.7	0
3	110	2	8	404.2	0.5
4	112.8	0	9	520	0
5	148.1	0.5	10	639.5	0

CURRENT MAXIMUM OFFSET AT CASING SHOE 3.46M (NON DIRECTIONAL)

PREVIOUS 24 HOURS OPERATIONS SUMMARY:
CONTINUE WAIT ON WEATHER, RELEASE DOGS ON SLIP JOINT. RELEASE LOCKDOWN DOGS ON SLIP JOINT, LAY DOWN LANDING JOINT, PICK UP DIVERTER AND LAND OUT, HOOK UP FLOW LINE AND RIG DOWN RISER RUNNING EQUIPMENT. PICK UP AND RACK BACK EMERGENCY HANG OFF TOOL. PICK UP AND MAKE UP WEAR BUSHING RUNNING TOOL AND WEAR BUSHING AND TRIP IN HOLE, LAND OUT, LINE UP TO AND TEST LMRP CONNECTION. PIPE JACKED OUT OF HOLE DAMAGING DRILLPIPE, PREPARE TO LAYDOWN BENT PIPE.

00:00 – 06:00 HOURS 22/10/03:
LAYOUT DAMAGED DRILLPIPE, LAYOUT WEAR BUSHING RUNNING TOOL, INSPECT TOP DRIVE. LAYDOWN 17 ½" BHA, START TO PICK UP 12 ¼" BHA.

ANTICIPATED OPERATIONS:
MAKE UP AND RUN IN HOLE WITH 12 ¼" ASSEMBLY.

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A.B.N. 007 550 923

WELL PROGRESS REPORT

DATE: 22/10/03 - 0600 HRS	CASINO 3	REPORT NO: 9

SUMMARY OF OPERATIONS (0000 hours - 2400 hours, 21/10/03):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	14:00	14.0	Waiting on weather, regular monitoring of rig heave, and regular assessment of possibilities of releasing slip joint. No go. Routine maintenance and housekeeping while waiting on weather.
14:00	15:00	1.0	Release lock down dogs on slip joint and release landing joint. Lay down landing joint and make repairs to elevator locking mechanism and DSC hose.
15:00	19:00	4.0	Pick up diverter and land out, hook up flow line and rig down riser running equipment.
19:00	21:00	2.0	Rig up 5” drillpipe handling equipment, lay down cement head, pick up emergency hang off tool and rack back in derrick.
21:00	22:30	1.5	Pick up and make up 13 3/8”wear bushing running tool and 13 3/8”wear bushing Run in hole, land out with 10k down and shear out with 15k overpull.
22:30	23:00	0.5	Line up to and pressure test LMRP connection, 250/2500 psi. Pipe jacking out of hole. Top single sheared 1m above tool joint.
23:00	24:00	1.0	Recover 8m sheared and bent single from elevators.Laydown short bails and pick up long bails, prepare to laydown bent pipe.

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WELL PROGRESS REPORT

DATE: 23/10/03 - 0600 HRS	CASINO 3	REPORT NO: 10

(As at 2400 hours EST, 22/10/03) **DEPTH :** 715.0 m **PROGRESS:** 70 m **DAYS FROM SPUD:** 8.25
OPERATION : DRILLING AHEAD 12 ¼" HOLE IN THE MEPUNGA FORMATION.

(As at 0600 hours EST, 23/10/03) **DEPTH :** 886.0 m
OPERATION : DRILLING AHEAD 12 ¼" HOLE IN THE DILWYN FORMATION.

CASING DEPTH: 346mm (13 5/8") CASING SET AT 635.8 M **RIG: OCEAN EPOCH**
RT – SEAFLOOR: 89.1m
PROGRAMMED TD: 2147m **ROTARY TABLE:** 22.4m MSL **WATER DEPTH: 66.7**m

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MUD DATA	Type: (IN PITS)	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
(2400 Hours)	AQUA-DRILL	8.75	68.0	8	9.5	7.5%	35800	20/30	

BIT DATA (2400 Hours)		No.	Make	Type	Size (mm)	Hours	Drilled	Condition
	PRESENT	3	Smith	MO2TL	12 ¼"			In Hole
	LAST	2	Reed	EM511GC	17 ½"	7.9	524m	1-1-FC-A-2-I-NO-TD

SURVEYS: (NON DIR)

	MD (m)	INC		MD (m)	INC
1	101.8	1.5	6	171.9	0.5
2	104.8	1	7	230.7	0
3	110	2	8	404.2	0.5
4	112.8	0	9	520	0
5	148.1	0.5	10	639.5	0

MAXIMUM OFFSET AT 13 3/38" CASING SHOE 3.46M (NON DIRECTIONAL)

PREVIOUS 24 HOURS OPERATIONS SUMMARY:
LAYOUT DAMAGED DRILLPIPE, LAYOUT WEAR BUSHING RUNNING TOOL, INSPECT TOP DRIVE. LAYDOWN 17 ½" BHA, PICK UP AND RUN IN HOLE WITH 12 ¼" BHA, TAG CEMENT, FUNCTION TEST DIVERTER AND BOPs, DRILL OUT PLUGS AND SHOE, DISPLACE TO MUD SYSTEM, DRILL AHEAD 3m NEW HOLE, CONDITION MUD, CONDUCT LEAK OFF TEST. LEAK OFF = 15.0 PPG EMW, MW 8.6 PPG. DRILL AHEAD 12 ¼" HOLE 648m TO 715m.

00:00 – 06:00 HOURS 23/10/03:
DRILL AHEAD 12 ¼" HOLE FROM 715m TO 886m. (FROM 0400 HRS REDUCED WEIGHT ON BIT/ROP DUE TO BLINDING OF SHAKER SCREENS.)

ANTICIPATED OPERATIONS:
DRILL AHEAD 12 ¼" HOLE TO APPROX 1200m, PULL OUT OF HOLE TO PICK UP PDC BIT AND MWD.

Santos

A.B.N. 007 550 923

WELL PROGRESS REPORT

DATE: 23/10/03 - 0600 HRS	CASINO 3	REPORT NO: 10

SUMMARY OF OPERATIONS (0000 hours - 2400 hours, 22/10/03):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	01:30	1.5	Recover sheared 1m stub and two bent singles. Layout damaged drillpipe
01:30	02:30	1.0	Continue pulling out 13 3/8" wear bushing running tool, layout wear bushing running tool and inspect top drive
02:30	06:00	3.5	Laydown 17 ½" BHA from derrick
06:00	13:30	7.5	Pick up and make up 12 ¼" BHA
13:30	15:00	3.0	RIH 12 ¼" BHA, tag cement at 619m
15:00	16:30	1.5	Function test BOPs on blue and yellow pods, function test diverter.
16:30	18:00	2.0	Drill out plugs, shoe track, and 13 3/8" shoe at 635m. Clean out rathole to 645m.
18:00	19:00	0.5	Drill ahead 12 ¼" hole from 645m to 648m while displacing to 8.6 ppg mud. Circulate mud.
19:00	19:30	0.5	Pull back inside shoe, install side entry sub and pressure test lines.
19:30	20:30	1.0	Conduct LOT at 635m with 8.6 ppg (1.03 SG) mud. Formation leak off at 700 psi = 15.0 ppg (1.80 SG) EMW.
20:30	21:00	0.5	Rig down surface pressure testing lines, RIH to 648m
21:00	24:00	3.0	Establish drilling parameters and drill ahead 12 ¼" hole from 648m to715m, add KCl to active system while drilling ahead. Sticky cuttings blinding shaker screens.

Santos

A.B.N. 007 550 923

WELL PROGRESS REPORT

DATE: 24/10/03 - 0600 HRS	CASINO 3	REPORT NO: 11

(As at 2400 hours EST, 23/10/03) **DEPTH :** 1005.0 m **PROGRESS:** 290 m **DAYS FROM SPUD:** 9.25
OPERATION : REPAIRING TOP DRIVE PRIOR TO DRILLING AHEAD 12 ¼" HOLE IN THE PEMBER MUDSTONE.

(As at 0600 hours EST, 24/10/03) **DEPTH :** 1038.0 m
OPERATION : DRILLING AHEAD 12 ¼" HOLE IN THE PEBBLE POINT FORMATION.

CASING DEPTH: 13 3/8" CASING SET AT 635.8 M **RIG: OCEAN EPOCH**
RT – SEAFLOOR: 89.1m
PROGRAMMED TD: 2147m **ROTARY TABLE:** 22.4m MSL **WATER DEPTH: 66.7**m

MUD DATA	Type: (IN PITS)	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
(2400 Hours)	AQUA-DRILL	8.8	54	7	9.5	7.5%	35800	21/29	

BIT DATA (2400 Hours)		No.	Make	Type	Size (mm)	Hours	Drilled	Condition
	PRESENT	3	Smith	MO2TL	12 ¼"			In Hole
	LAST	2	Reed	EM511GC	17 ½"	7.9	524m	1-1-FC-A-2-I-NO-TD

SURVEYS: (NON DIR) MD (m) INC MD (m) INC

PREVIOUS 24 HOURS OPERATIONS SUMMARY:
DRILL AHEAD 12 ¼" HOLE FROM 715m TO 886m. (FROM 0400 HRS REDUCED WEIGHT ON BIT/ROP DUE TO BLINDING OF SHAKER SCREENS.) DRILL AHEAD DILUTING MUD TO CONTROL LOSSES, DRILL AHEAD TO 935m, GOOSENECK ON TOP DRIVE SHEARED OFF, PULL OUT OF HOLE TO CASING SHOE, REPAIR ALLIGNMENT NIPPLE AND GOOSENECK ON TOP DRIVE. DRILL AHEAD FROM 935m TO 1005m, BRAKE IN TOP DRIVE SYSTEM OVERHEATED, PICK UP OFF BOTTOM TO INSPECT TOP DRIVE, PULL OUT OF HOLE TO SHOE, REPAIR TOP DRIVE.

00:00 – 06:00 HOURS 23/10/03:
COMPLETE REPAIRS TO TOP DRIVE AT 0300 HRS, RUN BACK IN HOLE DRILL AHEAD 12 ¼" HOLE FROM 1005m to 1038m.

ANTICIPATED OPERATIONS:
DRILL AHEAD 12 ¼" HOLE TO APPROX 1200m, PULL OUT OF HOLE TO PICK UP PDC BIT AND MWD.

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A.B.N. 007 550 923

WELL PROGRESS REPORT

DATE: 24/10/03 - 0600 HRS	CASINO 3	REPORT NO: 11

SUMMARY OF OPERATIONS (0000 hours - 2400 hours, 23/10/03):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	04:30	4.5	Drill ahead 12 ¼" hole from 715m to 875m. Control penetration rate to prevent massive mud loss at shale shakers. Shale shakers blinding with sands.
04:30	06:00	1.5	Drill ahead at reduced ROP to 875m t 890m, attempt to control mud losses.
06:00	08:00	2.0	Circulate and condition mud. Dilute with drillwater, add KCl, PAC polymer and Flowzan, to reduce PHPA concentration to allow drilling ahead.
08:00	11:00	3.0	Drill ahead 12 ¼" hole from 890m to 935m. Gooseneck on top drive sheared out at 935m while drilling ahead.
11:00	12:30	1.5	POOH from 935m to inside 13 3/8" shoe at 635m. Hole good.
12:30	15:00	2.5	Repair alignment nipple on TDS. Repair gooseneck.
15:00	15:30	0.5	RIH from 13 3/8" shoe at 635m to TD at 935m. Hole good.
15:30	20:00	4.5	Drill ahead 12 ¼" hole from 935m to 1005m.
20:00	20:30	0.5	Top drive system motor brake locked up and overheated. Smoke observed while drilling ahead. Pick up off bottom and inspect top drive.
20:30	21:30	1.0	POOH from 1005m to inside 13 3/8" shoe at 635m.
21:30	24:00	2.5	Repair top drive system motor brake. Circulate down drill string, casing / riser contents / surface pits at 175 gpm while making repair. Treating mud to increase PHPA concentration to 0.25 ppb.

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A.B.N. 007 550 923

WELL PROGRESS REPORT

DATE: 25/10/03 - 0600 HRS	CASINO 3	REPORT NO: 12

(As at 2400 hours EST, 24/10/03) **DEPTH :** 1226M **PROGRESS:** 221 m **DAYS FROM SPUD:** 10.25
OPERATION : RUNNING IN HOLE TO DRILL AHEAD 12 ¼" HOLE IN THE MASSACRE SHALE

(As at 0600 hours EST, 25/10/03) **DEPTH :** 1277 m
OPERATION : DRILLING AHEAD 12 ¼" HOLE IN SKULL CREEK MUDSTONE AT 20m / HR.

CASING DEPTH: 13 3/8" CASING SET AT 635.8 M **RIG: OCEAN EPOCH**
RT – SEAFLOOR: 89.1m
PROGRAMMED TD: 2147m **ROTARY TABLE:** 22.4m MSL **WATER DEPTH: 66.7**m

MUD DATA	Type: (IN PITS)	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
(2400 Hours)	AQUA-DRILL	8.8	58	6.5	9.5	7.5%	35700	18/22	

		No.	Make	Type	Size	Hours	Drilled	Condition
	PRESENT	4	Reed	DSX195D	12 ¼"			
BIT DATA	LAST	3	Smith	MO2TL	12 ¼"	13.32	581m	3-4-BT-M123-E-2-ER-BHA
(2400 Hours)		2	Reed	EM511GC	17 ½"	7.9	524m	1-1-FC-A-2-I-NO-TD

SURVEYS:

MD (m)	INCLINATION	AZIMUTH
696.3	0.45	10.09
947.8	0.49	308.35
1198.4	0.68	254.05
1218.76	0.44	231.47
1251.66	0.80	142.87

PREVIOUS 24 HOURS OPERATIONS SUMMARY:
CONTINUE REPAIRS TO TOP DRIVE, RUN BACK IN HOLE, DRILL AHEAD 12 ¼" HOLE FROM 1038m TO 1226m. PULL OUT OF HOLE FOR BIT CHANGE AND LWD. MAKE UP NEW BOTTOM HOLE ASSEMBLY WITH LWD AND PDC BIT. RUN BACK IN HOLE.

00:00 – 06:00 HOURS 25/10/03:
CONTINUE RUN IN HOLE. DRILL AHEAD 12 ¼" HOLE FROM 1226 – 1277m.

ANTICIPATED OPERATIONS:
DRILL AHEAD 12 ¼" HOLE.

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A.B.N. 007 550 923

WELL PROGRESS REPORT

DATE: 25/10/03 - 0600 HRS	CASINO 3	REPORT NO: 12

SUMMARY OF OPERATIONS (0000 hours – 2400 hours, 24/10/03):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	03:00	3.0	Continue repairs to top drive motor brake, dress and service top drive.
03:00	04:00	1.0	Run back in hole from 13 3/8" shoe to 1005m.
04:00	11:00	7.0	Drill ahead 12 ¼" from 1005m to 1026.5m.
11:00	11:30	0.5	Sweep hole with hi-vis sweep, no appreciable increase in cuttings returns.
11:30	12:15	0.75	Pump slug and rack back stand of pipe. Drop survey tool.
12:15	16:00	3.75	Pull out of hole to shoe, hole good, no overpull. Flow check, well static. Continue pulling out to BHA.
16:00	17:30	1.5	Pull out of hole with BHA laying down excess tubulars. Break out bit, recover TOTCO. Survey at 1198m - 1 degree.
17:30	18:30	1.0	Service top drive system, block and dollies.
18:30	20:00	1.5	Make up new PDC bit, DOG sub, MWD tools and float sub with ported float, test MWD.
20:00	22:45	2.75	Run in hole with new BHA to 250.5m.
22:45	23:00	0.25	Test MWD tool with 715 gpm 1600psi. MWD OK.
23:00	24:00	1.0	Install diverter bag, continue run in hole to 700m.

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A.B.N. 007 550 923

WELL PROGRESS REPORT

DATE: 26/10/03 - 0600 HRS	CASINO 3	REPORT NO: 13

(As at 2400 hours EST, 25/10/03) **DEPTH :** 1658 m **PROGRESS:** 432 m **DAYS FROM SPUD:** 11.25
OPERATION : DRILLING AHEAD 12 ¼" HOLE IN THE BELFAST MUDSTONE

(As at 0600 hours EST, 26/10/03) **DEPTH :** 1810 m
OPERATION : DRILLING AHEAD 12 ¼" HOLE IN THE BELFAST MUDSTONE AT 30 - 40m / HR.

CASING DEPTH: 13 3/8" CASING SET AT 635.8 M **RIG: OCEAN EPOCH**
RT – SEAFLOOR: 89.1m
PROGRAMMED TD: 2147m **ROTARY TABLE:** 22.4m MSL **WATER DEPTH: 66.7**m

MUD DATA	Type: (IN PITS)	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
(2400 Hours)	AQUA-DRILL	9.2	61	6	9.5	8%	35700	19/28	1.44 ohm.m

BIT DATA (2400 Hours)		No.	Make	Type	Size	Hours	Drilled	Condition
	PRESENT	4	Reed	DSX195D	12 ¼"			
	LAST	3	Smith	MO2TL	12 ¼"	13.32	581m	3-4-BT-M123-E-2-ER-BHA
		2	Reed	EM511GC	17 ½"	7.9	524m	1-1-FC-A-2-I-NO-TD

SURVEYS:

MD (m)	INCLINATION	AZIMUTH	MD (m)	INCLINATION	AZIMUTH
1278.90	0.75	149.32	1485.50	1.05	125.52
1311.40	0.64	145.23	1513.80	0.75	121.22
1341.10	0.57	133.81	1543.40	0.78	125.17
1367.40	0.72	129.23	1601.00	0.6	149.21
1394.80	0.83	105.22	1629.2	0.45	166.96
1425.30	0.93	117.62	1747.5	0.7	158.31
1461.00	0.83	126.97	1755.6	0.69	181.94

PREVIOUS 24 HOURS OPERATIONS SUMMARY:
RUN IN HOLE. TIGHT HOLE AT 1197m. WASH AND REAM FROM 1197m TO 1200m. DRILL AHEAD 12 ¼" HOLE FROM 1277m TO 1658m WITH MWD SURVEYS.

00:00 – 06:00 HOURS 26/10/03:
DRILL AHEAD 12 ¼" HOLE FROM 1658m TO 1810m.

ANTICIPATED OPERATIONS:
DRILL AHEAD 12 ¼" HOLE TO CORE POINT AT TOP WAARRE SANDSTONE. PULL OUT OF HOLE TO PICK UP CORING HOLE ASSEMBLY.

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A.B.N. 007 550 923

WELL PROGRESS REPORT

DATE: 26/10/03 - 0600 HRS	CASINO 3	REPORT NO: 13

SUMMARY OF OPERATIONS (0000 hours – 2400 hours, 25/10/03):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	02:00	2.0	Continue run in hole with 5" drill pipe from 700m to 1197m. 30 klbs drag at 1197m. Take MWD surveys at 700m, 950m, and 1226.5m.
02:00	02:30	0.5	Make up top drive and was and ream through tight spot (ledge) 1197m to 1200m. Continue to wash and light ream 1200m to 1226.5m. No fill.
02:30	24:00	21.5	Establish drilling parameters and drill ahead 1226.5m to 1568m. MWD surveys on connections. Drill pipe screens used in first six stands drilled, then discontinued when screens clear.

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A.B.N. 007 550 923

WELL PROGRESS REPORT

DATE: 27/10/03 - 0600 HRS	CASINO 3	REPORT NO: 14

(As at 2400 hours EST, 26/10/03) **DEPTH :** 2004 m **PROGRESS:** 346 m **DAYS FROM SPUD:** 12.25
OPERATION : CIRCULATING AT THE 13 3/8" CASING SHOE ON TRIP OUT TO PICK UP CORING ASSEMBLY.

(As at 0600 hours EST, 27/10/03) **DEPTH :** 2004 m
OPERATION : REPAIRING GEAR BOX SEALS ON TOP DRIVE .

CASING DEPTH: 13 3/8" CASING SET AT 635.8 M **RIG: OCEAN EPOCH**
RT – SEAFLOOR: 89.1m
PROGRAMMED TD: 2147m **ROTARY TABLE:** 22.4m MSL **WATER DEPTH: 66.7**m

MUD DATA	Type: (IN PITS)	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
(2400 Hours)	AQUA-DRILL	9.3	69	5	9.5	8%	40000	25/33	0.08 ohm.m

		No.	Make	Type	Size	Hours	Drilled	Condition
	PRESENT	4	Reed	DSX195D	12 ¼"			In Hole
BIT DATA	LAST	3	Smith	MO2TL	12 ¼"	13.32	581m	3-4-BT-M123-E-2-ER-BHA
(2400 Hours)		2	Reed	EM511GC	17 ½"	7.9	524m	1-1-FC-A-2-I-NO-TD

SURVEYS:

MD (m)	INCLINATION	AZIMUTH	MD (m)	INCLINATION	AZIMUTH
1775.6	0.69	181.94	1890.6	0.81	194.41
1802.2	0.74	185.6	1919.3	0.89	193.99
1830.4	0.84	183	1977.5	1.18	208.33
1860.9	0.82	186.01			

PREVIOUS 24 HOURS OPERATIONS SUMMARY:
DRILL AHEAD 12 ¼" HOLE FROM 1658m TO 2004m WITH MWD SURVEYS. PULL OUT OF HOLE TO PICK UP CORING ASSEMBLY. PULL OUT OF HOLE TO SHOE, CIRCULATE.

00:00 – 06:00 HOURS 26/10/03:
SEALS ON TOP DRIVE GEARBOX FAIL, REPAIR TOP DRIVE SYSTEM.

ANTICIPATED OPERATIONS:
COMPLETE REPAIRS TO TOP DRIVE, PULL OUT OF HOLE, BREAK OT BIT AND LWD TOOLS, MAKE UP AND RUN IN HOLE WITH CORING ASSEMBLY, WASH TO BOTTOM, CUT 27m CORE THROUGH THE WAARRE SANDSTONE.

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A.B.N. 007 550 923

WELL PROGRESS REPORT

DATE: 27/10/03 - 0600 HRS	CASINO 3	REPORT NO: 14

SUMMARY OF OPERATIONS (0000 hours – 2400 hours, 26/10/03):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	01:30	1.5	Drill ahead 12 ¼" hole from 1658m to 1698m with reduced ROP while repairing mud pump. (Flow rate reduced to 625 gpm – ROP reduced from 40m to 30m / hr)
01:30	02:00	0.5	Drill ahead 12 ¼" hole fro 1698 to 1710m, MWD surveys at connections.
02:00	03:00	1.0	Adjust time for daylight savings.
03:00	07:30	4.5	Drill ahead 12 ¼" hole from 1810m to 1847m.
07:30	09:30	2.0	Drill ahead 12 ¼" hole from 1847m to 1902m with reduced ROP while repairing pump. (Flow rate reduced to 625 gpm – ROP reduced from 40m to 30m / hr)
09:30	13:30	4.0	Drill ahead 12 ¼" hole from 1902m to 2004m, establish core point.
13:30	15:30	2.0	Circulate hole clean until gas peak (9% / 45 units) out of hole.
15:30	17:30	2.0	Flow check, well static. Pull 5 stands wet, pump slug and continue pulling out to 1613m. Work tight hole at 1853m, 1755m and 1724m. (70 Klb overpull at 1613m, gradually increasing)
17:30	21:00	3.5	Make up top drive and backream between 1613m and 1100m. Large volume of cuttings over shakers.
21:00	23:00	2.0	Continue to pump out of hole (no rotation) from 1100m to 13 3/8" casing shoe at 635m.
23:00	23:45	0.75	Circulate bottoms up until shakers clean. Service top drive system while circulating.
23:45	24:00	0.25	Flow check well – static.

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A.B.N. 007 550 923

WELL PROGRESS REPORT

DATE: 28/10/03 - 0600 HRS	CASINO 3	REPORT NO: 15

(As at 2400 hours EST, 27/10/03) **DEPTH :** 2004 m **PROGRESS:** 0 m **DAYS FROM SPUD:** 13.25

OPERATION : RUNNING IN HOLE WITH 12 ¼" / 5 ¼" CORING ASSEMBLY TO CUT CORE #1 IN THE WAARRE SANDSTONE (27m).

(As at 0600 hours EST, 28/10/03) **DEPTH :** 2004 m

OPERATION : RUNNING IN HOLE WITH CORING ASSEMBLY, WASHING AND REAMING TIGHT HOLE AS REQUIRED.

CASING DEPTH: 13 3/8" CASING SET AT 635.8 M

RIG: OCEAN EPOCH
RT – SEAFLOOR: 89.1m
WATER DEPTH: 66.7m

PROGRAMMED TD: 2147m **ROTARY TABLE:** 22.4m MSL

MUD DATA	Type:	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
(2400 Hours)	KCl-PHPA-Glycol	9.3	70	5	9.5	8.5%	40000	24/35	0.08 ohm.m

BIT DATA (2400 Hours)		No.	Make	Type	Size	Hours	Drilled	Condition
	PRESENT	C1	DBS	C93	12 ¼"			In Hole
	LAST	4	Reed	DSX195D	12 ¼"			Will re-run following core.
		3	Smith	MO2TL	12 ¼"	13.32	581m	3-4-BT-M123-E-2-ER-BHA

SURVEYS:	MD (m)	INCLINATION	AZIMUTH	MD (m)	INCLINATION	AZIMUTH
	1802.2	0.74	185.6	1890.6	0.81	194.41
	1830.4	0.84	183	1919.3	0.89	193.99
	1860.9	0.82	186.01	1977.5	1.18	208.33

PREVIOUS 24 HOURS OPERATIONS SUMMARY:
COMPLETE REPAIRS TO TOP DRIVE SYSTEM (GEAR BOX SEALS), PULL OUT OF HOLE, RACK BACK AND DOWNLOAD LWD TOOLS, MAKE UP CORING ASSEMBLY, RUN IN HOLE TO CUT CORE 1.

00:00 – 06:00 HOURS 28/10/03:
CONTINUE RUNNING IN HOLE, INCREASE MUDWEIGHT TO 9.6 PPG, WASH AND REAM TIGHT SPOTS, CONTINUE RUNNING IN HOLE (1786m AT 0600 HRS).

ANTICIPATED OPERATIONS:
RUN IN HOLE WITH CORING ASSEMBLY, WASH TO BOTTOM, CUT AND RECOVER 27m CORE THROUGH THE WAARRE SANDSTONE.

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A.B.N. 007 550 923

WELL PROGRESS REPORT

DATE: 28/10/03 - 0600 HRS	CASINO 3	REPORT NO: 15

SUMMARY OF OPERATIONS (0000 hours – 2400 hours, 27/10/03):

FROM	TO	HRS	ACTIVITY DESCRIPTION
0000	0030	0.5	Pump slug. Pull out one stand drill pipe. Observe oil leaking from top drive. Examine top drive and determine leak from gear-box seals.
0030	1430	14	Run in hole one stand drillpipe to 618 m. Repair top drive while monitor well on trip tank. Replace rotating head seals and main shaft seals.
1430	1600	1.5	Pump slug. Pull out from 618 m to top of BHA at 251 m.
1600	1730	1.5	Continue pulling out, rack back BHA and bit. Inspect bit. (OK to re-run).
1730	2000	2.5	Hold tool-box meeting for handling core barrel. Pick up Core Head #1 and make up to core barrel. Pick up and make up core barrel.
2000	2130	1.5	Run in hole with BHA to 283 m.
2130	2400	2.5	Continue run in hole to 1046 m. Wash and ream through tight spots at 675 m and 775 m. (30 klbs drag - worked through tight spots and back into good hole with light reaming).

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A.B.N. 007 550 923

WELL PROGRESS REPORT

DATE: 29/10/03 - 0600 HRS	CASINO 3	REPORT NO: 16

(As at 2400 hours AEDT, 28/10/03) **DEPTH :** 2031 m **PROGRESS:** 27 m **DAYS FROM SPUD:** 14.25
OPERATION : PULLING OUT OF HOLE WITH CORING ASSEMBLY HAVING CUT CORE #1 IN THE WAARRE SANDSTONE (27m).

(As at 0600 hours AEDT, 29/10/03) **DEPTH :** 2031 m
OPERATION : RUNNING IN HOLE TO DRILL AHEAD 12 ¼" HOLE IN THE WAARRE SANDSTONE.

CASING DEPTH: 13 3/8" CASING SET AT 635.8 M **RIG: OCEAN EPOCH**
RT – SEAFLOOR: 89.1m
PROGRAMMED TD: 2147m **ROTARY TABLE:** 22.4m MSL **WATER DEPTH: 66.7**m

MUD DATA	Type:	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
(2400 Hours)	KCl-PHPA-Glycol	9.6	71	4.4	9.0	7.5%	36000	24//37	0.08 ohm.m

BIT DATA (2400 Hours)		No.	Make	Type	Size	Hours	Drilled	Condition
	PRESENT	4RR	Reed	DSX195D	12 ¼"	-	-	In Hole
	LAST	C1	DBS	C93	12 ¼"	2.85	27m	Not Ggraded
		4	Reed	DSX195D	12 ¼"	26.5	864m	1-1-A-RR-X-I-NO-CP
		3	Smith	MO2TL	12 ¼"	13.32	581m	3-4-BT-M123-E-2-ER-BHA

SURVEYS:

MD (m)	INCLINATION	AZIMUTH	MD (m)	INCLINATION	AZIMUTH
1802.2	0.74	185.6	1890.6	0.81	194.41
1830.4	0.84	183	1919.3	0.89	193.99
1860.9	0.82	186.01	1977.5	1.18	208.33

PREVIOUS 24 HOURS OPERATIONS SUMMARY:
CONTINUE RUNNING IN HOLE WITH CORING ASSEMBLY, INCREASE MUDWEIGHT TO 9.6 PPG, WASH AND REAM TIGHT SPOTS, CONTINUE RUNNING IN HOLE WASHING AND REAMING TIGHT SPOTS AS REQUIRED. WASH TO BOTTOM INCREAS MUD WEIGHT TO 9.6 PPG. DROP BALL, CUT CORE #1 THROUGH THE WAARRE SANDSTONE FROM 2004M TO 2031M. PULL OUT OF HOLE TO RECOVER CORE.

00:00 – 06:00 HOURS 29/10/03:
LAYOUT CORE, CUT 27M, RECOVERED 24.7M (91.5% RECOVERY. LAYOUT CORING EQUIPMENT, MAKE UP RE-RUN BIT #4 AND LWD TOOLS, RUN IN HOLE TO DRILL AHEAD.

ANTICIPATED OPERATIONS:
RUN IN HOLE 12 ¼" ASSEMBLY. DRILL AHEAD 12 ¼" HOLE TO TOTAL DEPTH OF APPROXIMATELY 2147m. CIRCULATE AND CONDITION WELL, PULL OUT OF HOLE TO RUN WIRELINE LOGS.

Santos

A.B.N. 007 550 923

WELL PROGRESS REPORT

DATE: 29/10/03 - 0600 HRS	CASINO 3	REPORT NO: 16

SUMMARY OF OPERATIONS (0000 hours – 2400 hours, 28/10/03):

FROM	TO	HRS	ACTIVITY DESCRIPTION
0000	0200	2.0	Run in hole from 1028m to 1627m. Work through intermittent tight spots 1079m to 1243m, 1449m to 1511m, 1542m to 1627m.
0200	0230	0.5	Wash and ream 1627m to 1643m. Hole tight. Drag 30070 klbs.
0230	0430	2.0	Wash and ream 1643-1675m. Increase circulating system mudweight from 9.3 to 9.6 ppg.
0430	1230	8.0	Wash and ream intermittent tight hole from 1675m to 2004m. Increase mud weight through system to 9.6 ppg.
1230	1330	1.0	Circulate bottoms up. Drop ball and observe land out.
1330	1630	3.0	Cut core #1 from 2004m – 2031m. Break core with 20 klb overpull.
1630	2100	4.5	Flow check, well static. Slug pipe, pull out of hole 3031m to 13 3/8" casing shoe at 635m. Hole good.
2100	2200	1.0	Continue pulling out of hole to top of BHA at 283m.
2200	2300	1.0	Continue pulling out BHA, rack back in derrick.
2300	2400	1.0	Hold pre-job safety meeting, commence laying out core barrel and sleeve.

Santos

A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 30/10/03 - 0600 HRS	CASINO 3	REPORT NO: 17

(As at 2400 hours AEDT, 29/10/03) **DEPTH :** 2097 m **PROGRESS:** 66 m **DAYS FROM SPUD:** 15.25
OPERATION : DRILLING 12 ¼" HOLE IN THE WAARRE SANDSTONE.

(As at 0600 hours AEDT, 30/10/03) **DEPTH :** 2123 m
OPERATION : DRILLING AHEAD 12¼" HOLE IN THE WAARRE SANDSTONE TO TOTAL DEPTH AT 2135m.

CASING DEPTH: 13 3/8" CASING SET AT 635.8 M **RIG: OCEAN EPOCH**
RT – SEAFLOOR: 89.1m
PROGRAMMED TD: 2147m **ROTARY TABLE:** 22.4m MSL **WATER DEPTH: 66.7**m

MUD DATA	Type:	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
(2400 Hours)	KCl-PHPA-Glycol	9.6	70	4.0	9.0	7.0%	34500	24/35	0.12 ohm.m

BIT DATA (2400 Hours)		No.	Make	Type	Size	Hours	Drilled	Condition
	PRESENT	4R1	Reed	DSX195D	12 ¼"	8.21	66	In Hole
	LAST	C1	DBS	C93	12 ¼"	2.85	27m	Not Ggraded
		4	Reed	DSX195D	12 ¼"	26.5	864m	1-1-A-RR-X-I-NO-CP
		3	Smith	MO2TL	12 ¼"	13.32	581m	3-4-BT-M123-E-2-ER-BHA

SURVEYS:	MD (m)	INCLINATION	AZIMUTH	MD (m)	INCLINATION	AZIMUTH
	2005.90	0.83	199.77			
	2035.10	1.10	206.07			
	2092.20	1.96	211.00			

PREVIOUS 24 HOURS OPERATIONS SUMMARY:
CONTINUE TO PULL OUT OF HOLE WITH CORE 1. LAY OUT CORE, CUT 27M, RECOVERED 24.7M (91.5% RECOVERY). LAYOUT CORING EQUIPMENT, MAKE UP RE-RUN BIT #4 AND FEWD TOOLS, RUN IN HOLE TO DRILL AHEAD. WASH AND LIGHT REAM THROUGH TIGHT SPOTS AT 1907m AND 1975m. REAM CORED INTERVAL FOR FEWD DATA 2004m TO 2031m. DRILL AHEAD 12¼" HOLE FROM 2031m TO 2097m.

00:00 – 06:00 HOURS 30/10/03:
CONTINUE TO DRILL AHEAD 12¼" HOLE FROM 2097m TO 2123m.

ANTICIPATED OPERATIONS:
DRILL AHEAD 12¼" HOLE TO TOTAL DEPTH AT 2147m. CIRCULATE HOLE CLEAN. PULL OUT OF HOLE AND CONDUCT SUITE 1 WIRELINE LOG.

Santos

A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 30/10/03 - 0600 HRS	CASINO 3	REPORT NO: 17

SUMMARY OF OPERATIONS (0000 hours – 2400 hours, 29/10/03):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	02:30	2.5	Retrieve core from outer barrel. Lay down core sleeves to pipe rack. Recovered 24.7m (91.5%) recovery.
02:30	03:30	1.0	Lay down outer core barrels and break out core head.
03:30	04:30	1.0	Latch into FEWD tool. Download FEWD tool data. Verify data.
04:30	06:30	2.0	Run in hole with bottom hole assembly to 250m. Test MWD tools, OK.
06:30	07:00	0.5	Continue running in picking up 9 joints 5" drill pipe.
07:00	08:30	1.5	Continue running in with 5" drill pipe to 13 3/8" casing shoe at 635m.
08:30	09:00	0.5	Service TDS and blocks. Inspect oil leak from TDS. Determine that current oil loss rate is within operational limits.
09:00	13:00	4.0	Run in with 5" drill pipe from 13 3/8" casing shoe to 2000m. Wash and light ream through tight spots at 1907m and 1975m. Hole condition good. No fill.
13:00	14:30	1.5	Ream through cored section from 2000m to 2031m at controlled rate to collect FEWD data.
14:30	24:00	9.5	Drill ahead 12¼" hole from 2031m to 2097m. Optimise drilling parameters to maximise penetration rates.

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A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 31/10/03 - 0600 HRS	CASINO 3	REPORT NO: 18

(As at 2400 hours AEDT, 30/10/03) **DEPTH :** 2135 m **PROGRESS:** 38 m **DAYS FROM SPUD:** 16.25
OPERATION : RUNNING INTO THE HOLE WITH SUITE 1 WIRELINE LOGS, RUN 1 DSI-PEX-HALS.

(As at 0600 hours AEDT, 31/10/03) **DEPTH :** 2135 m
OPERATION : CONDUCTING SUITE 1 WIRELINE LOGS, RUN 1 DSI-PEX-HALS.

CASING DEPTH: 13 3/8" CASING SET AT 635.8 M **RIG: OCEAN EPOCH**
RT – SEAFLOOR: 89.1m
PROGRAMMED TD: 2147m **ROTARY TABLE:** 22.4m MSL **WATER DEPTH: 66.7**m

MUD DATA	Type:	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
(2400 Hours)	KCl-PHPA-Glycol	9.6	71	4.1	8.8	6.0%	33k	25/39	0.12 ohm.m

BIT DATA (2400 Hours)		No.	Make	Type	Size	Hours	Drilled	Condition
	PRESENT	4R1	Reed	DSX195D	12 ¼"	7.19	104m	2-2-WT-T-X-I-BU/CT-TD
	LAST	C1	DBS	C93	12 ¼"	2.85	27m	Not Ggraded
		4	Reed	DSX195D	12 ¼"	26.5	864m	1-1-A-RR-X-I-NO-CP
		3	Smith	MO2TL	12 ¼"	13.32	581m	3-4-BT-M123-E-2-ER-BHA

SURVEYS:	MD (m)	INCLINATION	AZIMUTH	MD (m)	INCLINATION	AZIMUTH
	2121.800	2.72	218.57			
	2125.000	2.92	220.32			
	2135.000	2.92	220.32			

PREVIOUS 24 HOURS OPERATIONS SUMMARY:
DRILL AHEAD 12¼" HOLE FROM 2097m TO 2135m. CIRCULATE HOLE CLEAN. PUMP A SLUG AND PULL OUT OF HOLE TO THE CASING SHOE. SLIP AND CUT DRILLING LINE. CONTINUE TO PULL OUT OF HOLE. RIG SCHLUMBERGER WIRELINE. RUN IN WITH RUN 1 PEX-DSI-HALS TO 300m. OBSERVE TELEMETRY PROBLEM WITH TOOL STRING. PULL OUT AND RE-ARRANGE TOOL STRING. RUN IN HOLE WITH DSI-PEX-HALS.

00:00 – 06:00 HOURS 31/10/03:
CONTINUE TO CONDUCT SUITE 1 WIRELINE LOGS, RUN 1 DSI-PEX-HALS

ANTICIPATED OPERATIONS:
CONTINUE TO CONDUCT SUITE 1 WIRELINE LOGS.

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A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 31/10/03 - 0600 HRS	CASINO 3	REPORT NO: 18

SUMMARY OF OPERATIONS (0000 hours – 2400 hours, 30/10/03):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	08:00	8	Drill ahead 12¼" hole from 2097 m to 2135 m.
08:00	10:00	2	Rack back 1 stand of 5" drill pipe. (TD just after connection). Rotate and reciprocate drill string while circulating hole clean.
10:00	10:30	0.5	Flow check. Well static. Pull out of hole (wet), 5 x stands 5" drill pipe from 2108 m to 1973 m. Pump slug.
10:30	13:30	3	Pull out of hole 5 " drill pipe from 1973 m to inside 13 3/8" casing shoe at 627 m.
13:30	15:30	2	Hold JSA. Slip and cut 113 ft of drilling line. Check Crown-o-matic. OK.
15:30	16:30	1	Continue to pull out with 5" drill pipe from 627 m to top of bottom hole assembly at 250m.
16:30	18:00	1.5	Continue to pull out bottom hole assembly.
18:00	18:30	0.5	Download and verify MWD / LWD tool data while breaking off bit and DOG sub. Unable to break bit from DOG sub.
18:30	20:00	1.5	Lay down 1 x 8¼" drill collar, 1 x 12¼" roller reamer, float sub, LWD / MWD toolstring.
20:00	20:30	0.5	Hold JSA with drill-crew and wireline crew. Rig up Sclumberger wireline.
20:30	22:30	2	Make up wireline logging tool-string #1. GR/CAL/DSI/HALS. Secure compensator hoses from interfering with wireline.
22:30	23:00	0.5	Run in hole with toolstring to 300 m. Wireline operator observes interference signal from toolstring.
23:00	24:00	1	Pull out with wireline toolstring #1. Re-arrange logging tool sequence. DSI/GR/CAL/HALS. Monitor well on trip tank. Well static.

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A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 01/11/03 - 0600 HRS	CASINO 3	REPORT NO: 19

(As at 2400 hours AEDT, 31/10/03) **DEPTH :** 2135 m **PROGRESS:** 0 m **DAYS FROM SPUD:** 17.25
OPERATION : CONDUCTING SUITE 1 WIRELINE LOGS RUN 3 PEX-CMR-HNGS

(As at 0600 hours AEDT, 01/11/03) **DEPTH :** 2135 m
OPERATION : CONDUCTING SUITE 1 WIRELINE LOGS, LAYING DOWN TOOL STRING 3 PEX-CMR-HNGS.

CASING DEPTH: 13 3/8" CASING SET AT 635.8 M

RIG: OCEAN EPOCH
RT – SEAFLOOR: 89.1m
WATER DEPTH: 66.7m

PROGRAMMED TD: 2147m **ROTARY TABLE:** 22.4m MSL

MUD DATA	Type:	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
(2400 Hours)	KCl-PHPA-Glycol (Pit)	9.6	74	4.1	8.8	6.0%	33k	24/36	0.12 ohm.m

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

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

PREVIOUS 24 HOURS OPERATIONS SUMMARY:
RUN IN HOLE WITH DSI-PEX-HALS. TAG TOTAL DEPTH AT 2125m (LOGGER). LOG UP WITH DSI-PEX-HALS. RIG DOWN RUN 1. RIG RUN 2 MDT-GR AND RUN IN HOLE. CORRELATE DEPTH AND BEGIN TAKING PRETESTS. TOTAL 24 PRETESTS ATTEMPTED, 2 LOST SEAL, 7 CURTAILED, 15 NORMAL TESTS. SAMPLES TAKEN AT 2006.8m (1 GAL, 2 ¾ GAL AND 2 x 450 cc), 1985.2 m (1 x 450cc). PULL OUT OF HOLE AND RIG DOWN RUN 2. RIG RUN 3 PEX-CMR-HNGS, LOAD SOURCES AND RUN IN HOLE. LOG UP WITH RUN 3.

00:00 – 06:00 HOURS 01/11/03:
CONTINUE TO CONDUCT SUITE 1 WIRELINE LOGS, RUN 3, PEX-CMR-HNGS. PULL OUT OF HOLE. RIG DOWN RUN 3.

ANTICIPATED OPERATIONS:
CONTINUE TO CONDUCT SUITE 1 WIRELINE LOGS.

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A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 01/11/03 - 0600 HRS	CASINO 3	REPORT NO: 19

SUMMARY OF OPERATIONS (0000 hours – 2400 hours, 30/10/03):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	00:30	0.5	Run in hole with modified wireline toolstring #1. Verify no tool interference.
00:30	01:00	0.5	Compensate wireline toolstring #1 and run in to 13 3/8" casing shoe.
01:00	03:30	2.5	Continue to run in with wireline toolstring #1, logging down. Tag bottom. Wireline total depth of well = 2125 m.
03:30	07:00	3.5	Log up with wireline toolstring #1 from 2125 m to 13 3/8" casing shoe at 635 m. Continue logging up to mud line with gamma ray. Continue to pull out to surface.
07:00	08:00	1	Lay down wireline toolstring #1.
08:00	09:00	1	Make up wireline toolstring #2, MDT-GR.
09:00	19:30	10.5	Run in hole with wireline toolstring #2. Wireline logging run #2. Correlate depths and perform pre-tests. Attempt 24 pre-tests. 15 OK, 2 lost seal, 7 curtailed. Formation fluid samples taken at 2006.8 m and 1985.2 m.
19:30	20:30	1	Pull out to surface with wireline toolstring #2.
20:30	21:00	0.5	Rig down wireline toolstring #2. Lay out sampling chambers on deck to collect samples.
21:00	22:30	1.5	Make up wireline toolstring # 3. PEX-CMR-HNGS. Bleed down MDT sample chambers. No Hydrogen Sulphide measured in samples. Carbon Dioxide at 0.07%.
22:30	24:00	1.5	Run in hole with wireline toolstring #3. Toolstring tagged fill at 2116 m (loggers depth) - unable to pass 2116 m. Rig operations last 24 hrs = Pit cleaning / Prepare 9 5/8" casing / Derrick Inspection / Change Mud Pump liners from 5 1/2" to 6 1/2".

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A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 02/11/03 - 0600 HRS	CASINO 3	REPORT NO: 20

(As at 2400 hours AEDT, 01/11/03) **DEPTH :** 2135 m **PROGRESS:** 0 m **DAYS FROM SPUD:** 18.25
OPERATION : CIRCULATING AND CONDITIONING THE HOLE AT TOTAL DEPTH.

(As at 0600 hours AEDT, 02/11/03) **DEPTH :** 2135 m
OPERATION : RIGGING UP SCHLUMBERGER PRIOR TO CONTINUING SUITE 1 WIRELINE LOGS.

CASING DEPTH: 13 3/8" CASING SET AT 635.8 M **RIG: OCEAN EPOCH**
RT – SEAFLOOR: 89.1m
PROGRAMMED TD: 2147m **ROTARY TABLE:** 22.4m MSL **WATER DEPTH: 66.7**m

MUD DATA	Type:	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
(2400 Hours)	KCl-PHPA-Glycol (Pit)	9.6	70	4.0	8.7	5.5%	32.5k	26/40	0.12 ohm.m

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

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

PREVIOUS 24 HOURS OPERATIONS SUMMARY:
LOG UP WITH RUN 3 PEX-CMR-HNGS. RIG DOWN RUN 3. PICK UP TOOLS RUN 4 MSCT-GR AND RUN IN HOLE. UNABLE TO PASS 1950m. PULL UP WITH DRAG TO 1650m. RUN IN HOLE, UNABLE TO PASS 1870m, ATTEMPT TO WORK PAST WITHOUT SUCCESS. PULL OUT OF HOLE AND RIG DOWN SCHLUMBERGER WIRELINE. MAKE UP 12¼" ASSEMBLY AND RUN IN HOLE FOR A WIPER TRIP. 30 KLBS DRAG AT 1893m. WASH AND LIGHT REAM AS REQUIRED. CIRCULATE BOTTOMS UP, BLOCKY AND SPLINTERY CAVINGS OBSERVED AT SHAKERS. FLOW CHECK. PIPE GRABBED DURING FLOW CHECK. ATTEMPT TO CIRCULATE, HOLE PACKING OFF. ESTABLISH CIRCULATION AND FREE PIPE WITH 30 KLBS OVERPULL. PUMP A HI-VIS SWEEP AND MONITOR SHAKERS.

00:00 – 06:00 HOURS 02/11/03:
CONTINUE TO CIRCULATE HOLE CLEAN. LARGE VOLUME OF BLOCKY CAVINGS OBSERVED, NO SPLINTERY CAVINGS. SHAKERS CIRCULATED CLEAN AFTER SWEEP. FLOW CHECK. PULL OUT OF HOLE. FLOW CHECK AT THE 13 3/8" CASING SHOE. CONTINUE TO PULL OUT OF HOLE. HOLD SAFETY MEETING AND RIG SCHLUMBERGER WIRELINE.

ANTICIPATED OPERATIONS:
RIG SCHLUMBERGER AND CONTINUE TO CONDUCT SUITE 1 WIRELINE LOGS.

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A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 02/11/03 - 0600 HRS	CASINO 3	REPORT NO: 20

SUMMARY OF OPERATIONS (0000 hours – 2400 hours, 30/10/03):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	02:00	2	Log up with wireline toolstring #3 in CMR data aquisition mode, from 2116 m to 1930 m.
02:00	02:30	0.5	Run in hole with wireline toolstring #3.
02:30	05:00	2.5	Log up with wireline toolstring #3 in PEX-HNGS data aquisition mode, from 2116 m to 13 3/8" casing shoe at 635 m.
05:00	05:30	0.5	Pull out from 13 3/8" shoe with wireline toolstring #3 to surface.
05:30	06:30	1	Lay down wireline toolstring #3.
06:30	07:30	1	Make up wireline toolstring #4. MSCT.
07:30	08:30	1	Run in hole with wireline toolstring #4 to 1950 m. Unable to pass 1950 m.
08:30	09:00	0.5	Pull out with wireline toolstring #4, with overpull to 1650 m. Continue to pull out to 1625 m with no overpull. Run in hole. Unable to pass 1870 m.
09:00	10:30	1.5	Pull out with wireline toolstring #4.
10:30	11:00	0.5	Lay down wireline toolstring #4. Rig down wireline.
11:00	12:30	1.5	Make up bottom hole assembly for a wiper trip. Run in with bottom hole assembly to 202 m.
12:30	16:30	4	Continue to run in with 5" drillpipe from 202 m to 1893 m. 30 klbs drag at 1893 m.
16:30	20:30	4	Wash and ream from 1893 m to 2135 m. Tight spots at 1893 m, 1953 m, 2105 m and 2109 m.
20:30	22:00	1.5	Circulate bottoms up, and until shakers clean. While circulate bottoms up, steady discharge of blocky cavings, 10 - 15 mm, with traces of splintery cavings. 2200 stks after (gauge hole) bottoms up, increase in volume of cavings, diminished by 3500 stks.
22:00	22:30	0.5	Flow check. During flow check, pipe grabbed. Attempt to establish circulation, hole packing off. Establish circulation and free pipe with 30 k overpull. Circulate while prepare viscous weighted sweep.
22:30	24:00	1.5	Pump 50 bbls hi-vis (220 sec/qt), 11.0 ppg mud. Chase around with 9.7 ppg active mud while monitoring shakers.

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A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 03/11/03 - 0600 HRS	CASINO 3	REPORT NO: 21

(As at 2400 hours AEDT, 02/11/03) **DEPTH :** 2135 m **PROGRESS:** 0 m **DAYS FROM SPUD:** 19.25
OPERATION : MAKING UP 9 5/8" CASING HANGER AND RUNNING TOOL.

(As at 0600 hours AEDT, 03/11/03) **DEPTH :** 2135 m
OPERATION : COMMENCE RUNNING 9 5/8" CASING.

CASING DEPTH: 13 3/8" CASING SET AT 635.8 M **RIG: OCEAN EPOCH**
RT – SEAFLOOR: 89.1m
PROGRAMMED TD: 2147m **ROTARY TABLE:** 22.4m MSL **WATER DEPTH: 66.7**m

MUD DATA	Type:	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
(2400 Hours)	KCl-PHPA-Glycol	9.6	70	4.0	8.7	5.5%	32.5k	26/40	0.12 ohm.m

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

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

PREVIOUS 24 HOURS OPERATIONS SUMMARY:
CONTINUE TO CIRCULATE HOLE CLEAN. LARGE VOLUME OF BLOCKY CAVINGS OBSERVED, NO SPLINTERY CAVINGS. SHAKERS CIRCULATED CLEAN AFTER SWEEP. FLOW CHECK. PULL OUT OF HOLE. FLOW CHECK AT THE 13 3/8" CASING SHOE. CONTINUE TO PULL OUT OF HOLE. HOLD SAFETY MEETING AND RIG SCHLUMBERGER WIRELINE. RIG RUN 4 MSCT AND RUN IN HOLE. CUT 13 MSCT CORES. PULL OUT OF HOLE AND RECOVER 13 CORES. RIG RUN 5 CST AND RUN IN HOLE. CORRELATE AND TAKE 30 SIDEWALL CORES. PULL OUT OF HOLE. ALL BULLETS MISFIRED. MAKE UP NEW CST GUN AND RUN IN HOLE. SHOOT 30 SIDEWALLS. PULL OUT OF HOLE AND RECOVER 20 SAMPLES, 7 CORES MISFIRED, 2 EMPTY, 1 LOST BULLET. RIG DOWN SCHLUMBERGER. MAKE UP 9 5/8" CASING HANGER AND RUNNING TOOL.

00:00 – 06:00 HOURS 03/11/03:
CONTINUE TO MAKE UP 9 5/8" CASING HANGER AND RUNNING TOOL. MAKE UP CEMENTING STAND. RUN IN HOLE AND JET WELLHEAD. RECOVER 13 3/8" WEAR BUSHING. LAY OUT JETTING ASSEMBLY. RIG TO RUN 9 5/8" CASING. RUN SHOE JOINT.

ANTICIPATED OPERATIONS:
RUN AND CEMENT 9 5/8" CASING.

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A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 03/11/03 - 0600 HRS	CASINO 3	REPORT NO: 21

SUMMARY OF OPERATIONS (0000 hours – 2400 hours, 2/11/03):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	01:00	1	Continue to circulate around hi-vis (220 sec/qt), 11.0 ppg sweep, while monitoring shakers. Sweep on surface 1000 stks after theoretical circulation time. Large volume of slightly rounded, blocky cavings, 15 mm - 25 mm, occasionaly up to 30 mm. No splintery cavings. Shakers cleaned up after sweep.
01:00	03:30	2.5	Flow check. Well static. Pull out of hole 5 stands (wet). Hole good. No overpull. Pump slug and continue Pull out to 13 3/8" casing shoe at 635 m. Hole good. No overpull.
03:30	04:00	0.5	Flow check at 13 3/8" casing shoe. Well static. Continue to pull out to top of bottom hole assembly at 201 m.
04:00	05:30	1.5	Pull out and rack back bottom hole assembly and bit.
05:30	06:00	0.5	Hold JSA. Rig up to run wireline logs. Make up Wireline toolstring #4 (MSCT) for logging run #5.
06:00	07:30	1.5	Run in hole with wireline toolstring #4, logging run #5.
07:30	10:00	2.5	Correlate depths and cut 13 cores.
10:00	11:00	1	Pull out with wireline toolstring #4, logging run #5.
11:00	11:30	0.5	Recover 13 cores from tool. Lay down wireline toolstring #4.
11:30	12:30	1	Make up wireline toolstring #5 for logging run #6. (CST)
12:30	14:00	1.5	Run in hole with wireline toolstring #5.
14:00	15:00	1	Correlate depths and shoot 30 sidewall cores.
15:00	16:30	1.5	Pull out with wireline toolstring #5, logging run #6.
16:30	17:00	0.5	Wireline toolstring #5 on surface. All cores misfired.
17:00	18:30	1.5	Load new gun for toolstring #5. (CST).
18:30	20:00	1.5	Run in with toolstring #5, logging run #7. Tag bottom at 2115 m (loggers depth). Pull back to correlation depth.
20:00	21:00	1	Correlate depths and shoot 30 sidewall cores.
21:00	22:00	1	Pull out with wireline toolstring #5, logging run #7.
22:00	22:30	0.5	Lay down wireline toolstring #5. 20 cores captured, 2 empty, 7 mis-fires, 1 lost bullet. Rig down wireline.
22:30	24:00	1.5	Pick up 9 5/8" casing hanger pup joint, and make up to 9 5/8" casing hanger running tool.

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A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 04/11/03 - 0600 HRS	CASINO 3	REPORT NO: 22

(As at 2400 hours AEDT, 03/11/03) **DEPTH :** 2135 m **PROGRESS:** 0 m **DAYS FROM SPUD:** 20.25
OPERATION : BREAK CIRCULATION WITH HALLIBURTON CEMENTING. PRESSURE TEST SURFACE CEMENT LINES TO 5000 PSI (FOR 5 MINS).
(As at 0600 hours AEDT, 03/11/03) **DEPTH :** 2135 m
OPERATION : MAKE UP MILL/JETTING TOOL FOR CLEAN UP OF SEAL ASSEMBLY AREA IN WELLHEAD.

CASING DEPTH: 9 5/8" CASING SET AT 2113 M (Drl) **RIG: OCEAN EPOCH**
RT – SEAFLOOR: 89.1m
PROGRAMMED TD: 2147m **ROTARY TABLE:** 22.4m MSL **WATER DEPTH: 66.7**m

MUD DATA	Type:	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
(2400 Hours)	KCl-PHPA-Glycol	9.7	77	4.0	8.7	5.5%	32.0k	26/39	0.12 ohm.m

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

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

PREVIOUS 24 HOURS OPERATIONS SUMMARY:
CONTINUE TO MAKE UP 9 5/8" CASING HANGER AND 9 5/8" CASING HANGER RUNNING TOOL. FIT SEAL ASSEMBLY AND LOAD PLUGS. LAY OUT RUNNING TOOL AND HANGER. MAKE UP CEMENTING STAND AND RACK BACK IN DERRICK. MAKE UP 13 3/8" WEAR BUSHING RECOVERY TOOL, AND WELLHEAD JETTING ASSEMBLY. RIH AND JET BOPS. ENGAGE WEAR BUSHING RECOVERY TOOL, AND RELEASE WEAR BUSHING WITH 60 KLBS OVERPULL. JET WELLHEAD. CHECK INDEX LINE AND POOH. LAY OUT 13 3/8" WEAR BUSHING RECOVERY TOOL, AND WELLHEAD JETTING ASSEMBLY. RIG UP TO RUN 9 5/8" CASING. PICK UP SHOE JOINT AND CHECK FLOAT FUNCTION. MAKE UP AND RIH (THREAD LOCK) 1 X INTERMEDIATE JOINT 9 5/8" CASING AND 9 5/8" FLOAT JOINT TO 37.13 M. CONTINUE TO RUN 158 JOINTS OF 47 PPF, 9 5/8" L-80, NEWVAM THREAD CASING, TO 1945 M. CASING STOOD UP AT 1946 M. CIRCULATE AND WORK CASING JOINT 159 THROUGH TIGHT SPOT 1946 M TO 1954 M. CONTINUE RIH WITH 9 5/8" CASING JOINTS 160 - 165 FROM 1954 M TO 2017 M. TOTAL JOINTS RUN = 165. P/U AND RUN 9 5/8" SPACE OUT PUP JOINT. P/U 9 5/8" HANGER AND CASING HANGER RUNNING TOOL, AND MAKE UP TO CASING. MAKE UP 1 JOINT 5" DRILL PIPE, 1 JOINT OF HWDP AND RIH, WASHING DOWN CASING. RIH WITH 5" HWDP, 9 5/8" CASING LANDING STRING. WASH AND WORK CASING DOWN TO 2113 M. LAND CASING HANGER IN WELLHEAD. CIRCULATE 1.5 X CASING VOLUME AT 500 GPM. BOOST RISER. CONTINUE CIRCULATING UNTIL SHAKERS CLEAR. RIG UP HALLIBURTON CEMENT LINES. BREAK CIRCULATION WITH HALLIBURTON. PRESSURE TEST SURFACE CEMENT LINES 5000 PSI / 5 MINS. DROP BOTTOM PLUG DART AND SHEAR OUT.

00:00 – 06:00 HOURS 04/11/03:
HALLIBURTON MIX AND PUMP 165BBLS (12.5PPG) LEAD SLURRY. CHASED WITH 138 BBLS TAIL SLURRY. DROP TOP DART AND DISPLACE WITH 15 BBLS OF DRILLWATER. DISPLACE CEMENT WITH RIG PUMPS AT 500 GPM. BUMP PLUG AT 3971 STKS. HOLD AT 1800PSI (FOR 5 MINS). PRESSURE TEST CASING AT 3500PSI. RIG DOWN SURFACE CEMENTING LINES. SET 9 5/8" SEAL ASSEMBLY. LINE UP HALLIBURTON TO TEST SEAL ASSEMBLY. ATTEMPT TO TEST SEAL ASSEMBLY WITHOUT SUCCESS. POOH CASING HANGER SEAL ASSEMBLY RUNNING TOOL. MAKE UP MILL/JETTING TOOL FOR CLEAN UP OF SEAL ASSEMBLY IN WELLHEAD.

ANTICIPATED OPERATIONS:
CLEAN UP OF SEAL ASSEMBLY IN WELLHEAD WITH MILL/JETTING TOOL. TEST SEAL ASSEMBLY. PERFORM A COMPLETE PRESSURE TEST OF BOP STACK.

Santos

A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 04/11/03 - 0600 HRS	CASINO 3	REPORT NO: 22

SUMMARY OF OPERATIONS (0000 hours – 2400 hours, 3/11/03):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	01:00	1	Continue to make up 9 5/8" casing hanger and 9 5/8" casing hanger running tool. Verify tool tolerances and functions. Fit seal assembly and load plugs. Lay out running tool and hanger.
01:00	01:30	0.5	Make up cementing stand and rack back in derrick.
01:30	02:30	1.0	Make up 13 3/8" wear bushing recovery tool, and wellhead jetting assembly.
02:30	04:00	1.5	RIH and jet BOPs. Engage wear bushing recovery tool, and release wear bushing with 60 klbs overpull. Jet wellhead. Check index line and POOH.
04:00	04:30	0.5	Lay out 13 3/8" wear bushing recovery tool, and wellhead jetting assembly.
04:30	06:00	1.5	Clear rig floor of non essential equipment. Hold tool box meeting / JSA for running casing. Rig up to run 9 5/8" casing. Pick up shoe joint and check float function. OK.
06:00	07:00	1.0	Make up and RIH (Thread lock) 1 x intermediate joint 9 5/8" casing and 9 5/8" float joint to 37.13 m.
07:00	16:30	9.5	Continue to run 158 joints of 47 ppf, 9 5/8" l-80, NewVAM thread casing, to 1945 m. Casing stood up at 1946 m.
16:30	17:00	0.5	Circulate and work casing joint 159 through tight spot 1946 m to 1954 m.
17:00	18:00	1.0	Continue RIH with 9 5/8" casing joints 160 - 165 from 1954 m to 2017 m. Total joints run = 165. P/U and run 9 5/8" space out pup joint.
18:00	19:00	1.0	P/U 9 5/8" hanger and casing hanger running tool, and make up to casing. Make up 1 joint 5" drill pipe, 1 joint of HWDP and RIH, washing down casing.
19:00	21:00	2	RIH with 5" HWDP, 9 5/8" casing landing string. Wash and work casing down to 2113 m. Land casing hanger in wellhead.
21:00	22:30	1.5	Circulate 1.5 x casing volume at 500 gpm. Boost riser. Continue circulating until shakers clear.
22:30	23:30	1.0	Rig up halliburton cement lines.
22:30	24:00	0.5	Break circulation with halliburton. Pressure test surface cement lines 5000 psi / 5 mins. Drop bottom plug dart and shear out.

Santos

A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 06/11/03 - 0600 HRS	CASINO 3	REPORT NO: 24

(As at 2400 hours AEDT, 05/11/03) **DEPTH :** 2135 m **PROGRESS:** 0 m **DAYS FROM SPUD:** 22.25
OPERATION : PULL OUT OF HOLE AFTER BIT AND SCRAPER RUN.

(As at 0600 hours AEDT, 06/11/03) **DEPTH :** 2135 m
OPERATION : RIG UP SCHLUMBERGER WIRELINE TO RUN CBL, GAUGE RING & JUNK BASKET

CASING DEPTH: 9 5/8" CASING SHOE SET AT 2113.25 M (Drl) **RIG: OCEAN EPOCH**
RT – SEAFLOOR: 89.1m
PROGRAMMED TD: 2147m **ROTARY TABLE:** 22.4m MSL **WATER DEPTH: 66.7**m

MUD DATA	Type:	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
(2400 Hours)	KCL BRINE	9.3 ppg							

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

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

PREVIOUS 24 HOURS OPERATIONS SUMMARY:
CONTINUE LAYING OUT DRILLING BHA AND HWDP. RUN IN HOLE WITH BIT AND SCRAPER ON 4 1/2" TUBING. CIRCULATE AND DISPLACE TO 9.3PPG BRINE. BEGIN TO PULL OUT OF HOLE AND RACK BACK TUBING.

00:00 – 06:00 HOURS 06/11/03:
CONTINUE TO PULL OUT OF HOLE. PRESSURE TEST CASING TO 3500PSI. MAKE UP FLOW HEAD, SUB SEA LUBRICATOR AND SUB SEA TEST TREE SUB ASSEMBLIES. RIG UP SCHLUMBERGER WIRELINE FOR CBL/JUNK BASKET/GAUGE RING RUN.

ANTICIPATED OPERATIONS:
RUN CBL/JUNK BASKET/GAUGE RING ON WIRELINE. MAKE UP PERMANENT PACKER. RUN AND SET PERMANENT PACKER ON WIRELINE. MAKE UP TCP GUNS/DST TOOLS AND PRESSURE TEST. RUN IN HOLE WITH MAJOR 4 ½" TEST STRING.

Santos

A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 06/11/03 - 0600 HRS	CASINO 3	REPORT NO: 24

SUMMARY OF OPERATIONS (0000 hours – 2400 hours, 5/11/03):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	01:00	1	Continue lay down 5" heavy weight drill pipe from derrick.
01:00	02:00	1	Lay out cement head
02:00	06:00	4	Lay out Bit and DOG sub, (unable to break connection), 12 1/4" roller reamer, and 8 1/4" drill collars from derrick.
06:00	06:30	0.5	Hold tool box / safety meeting for running tubing. Clear rig floor, and rig up to run 4 1/2" production tubing.
06:30	07:00	0.5	Make up 8 1/2" bit, casing scraper, and cross over to 4 1/2" tubing.
07:00	18:30	11.5	RIH picking up 4 1/2" production tubing. Run 217 jts, and tag top cement inside 9 5/8" casing at 2076.98 m.
18:30	19:00	0.5	Lay out 1 joint of 4 1/2" tubing. (Confirm pipe tally and number of joints on deck.) Prepare to displace well.
19:00	20:00	1	Pump 60 bbls viscosified seawater, chased with 250 bbls Caustic seawater wash, chased with 800 bbls seawater. Displace at 1200 gpm.
20:00	20:30	0.5	POOH from 2071 m to 1976 m and scrape casing. Displace choke and kill lines with 9.3 ppg KCl brine while scraping casing RIH from 1976 m to 2071 m.
20:30	21:30	1	Pump 60 bbls viscosified seawater, chased with 9.3 ppg KCl brine at 1200 gpm. Establish circulation system and check system integrity.
21:30	24:00	2.5	POOH from 2171 m to 800 m with 4 1/2" production tubing.

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A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 07/11/03 - 0600 HRS	CASINO 3	REPORT NO: 25

(As at 2400 hours AEDT, 06/11/03) **DEPTH :** 2135 m **PROGRESS:** 0 m **DAYS FROM SPUD:** 23.25
OPERATION : RUN IN HOLE WITH TEST STRING/TCP GUNS ON 4 1/2" TUBING

(As at 0600 hours AEDT, 07/11/03) **DEPTH :** 2135 m
OPERATION : RUN IN HOLE WITH MAJOR TEST STRING AND LAND OUT PERMANENT PACKER.

CASING DEPTH: 9 5/8" CASING SHOE SET AT 2113.25 M (Drl) **RIG: OCEAN EPOCH**
RT – SEAFLOOR: 89.1m
PROGRAMMED TD: 2147m **ROTARY TABLE:** 22.4m MSL **WATER DEPTH: 66.7**m

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MUD DATA	Type:	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
(2400 Hours)	KCL BRINE	9.3 ppg							

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

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

PREVIOUS 24 HOURS OPERATIONS SUMMARY:
RUN CBL & JUNK BASKET ON SCHLUMBERGER WIRELINE. MAKE UP AND RUN 9 5/8" PERMANENT PACKER ON WIRELINE. PACKER SET AT 1977.56 MRT. MAKE UP TCP GUNS/DST TOOLS AND PRESSURE TEST. RUN IN HOLE WITH MAJOR 4 ½" TEST STRING AND PRESSURE TEST.

00:00 – 06:00 HOURS 07/11/03:
CROSSOVER TO 5" DRILL PIPE AND RUN IN HOLE. LAND OUT PACKER AND CLOSE RAMS.

ANTICIPATED OPERATIONS:
PULL OUT OF HOLE WITH 5" DRILL PIPE. MAKE UP SUB SEA TEST TREE, FUNCTION TEST AND RUN IN HOLE ON LANDING STRING. MAKE UP SSLV, FUNCTION TEST AND RUN IN HOLE. MAKE UP FLOW CONTROL HEAD AND FLOW/KILL LINES. PRESSURE TEST LINES. LAND OFF TEST STRING. PRESSURE TEST ANNULUS. DISPLACE TEST STRING TO UNDERBALANCE FLUID. HOLD RIG FLOOR SAFETY MEETING. FUNCTION TEST EMERGENCY SHUT-DOWN SYSTEM. PERFORATE WELL.

Santos

A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 07/11/03 - 0600 HRS	CASINO 3	REPORT NO: 25

SUMMARY OF OPERATIONS (0000 hours – 2400 hours, 6/11/03):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	**02:00**	2	POOH with 4 1/2" production tubing from 800 m to surface. Break out all cross-overs. Lay out 9 5/8" casing scraper and 8 1/2" bit.
02:00	**02:30**	0.5	Test shear rams at 250 psi / 5 mins, 3500 psi / 15 mins.
02:30	**04:00**	1.5	Pick up flow head and make up to tubing joint and saver sub. Make up service connections and lay out flow head.
04:00	**05:30**	1.5	Make up sub sea test assembly.
05:30	**07:00**	1.5	Rig up schlumberger wireline. Pick up and make up wireline toolstring with CBL / Junk basket / Gauge ring.
07:00	**07:30**	0.5	RIH with wireline toolstring. Unable to pass 90 m WLMD.
07:30	**08:30**	1	POOH with wireline toolstring. Inspect tools. Remove gauge ring.
08:30	**12:00**	3.5	RIH. Perform CBL log. Top of lead cement at 1350 m. Top tail cement at 1660 m. Good bond. POOH.
12:00	**12:30**	0.5	Lay down CBL logging tools.
12:30	**15:00**	2.5	Make up 9 5/8" permanent packer on Schlumberger wireline.
15:00	**17:00**	2	RIH with 9 5/8" permanent packer on wireline. Correlate depths with CCL. Set packer at 1973.9 m WLMD.
17:00	**18:00**	1	POOH with packer setting tool.
18:00	**18:30**	0.5	Rig down schlumberger wireline.
18:30	**19:30**	1	Rig up to handle TCP guns, DST tools, and DST BHA.
19:30	**23:00**	3.5	Hold pre-job tool box meeting. Make up and RIH with TCP guns, DST, and BHA
23:00	**23:30**	0.5	Pressure test TCP guns, DST tools and BHA to 4500 psi / 15 mins. OK.
23:30	**24:00**	0.5	RIH with 4 1/2" 15.5 ppf PH-6 tubing from 81 m to 128 m.

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WELL PROGRESS REPORT

DATE: 08/11/03 - 0600 HRS	CASINO 3	REPORT NO: 26

(As at 2400 hours AEDT, 07/11/03) **DEPTH :** 2135 m **PROGRESS:** 0 m **DAYS FROM SPUD:** 23.25
OPERATION : PERFORM METER FACTORS & TEST DELUGE SYSTEM.

(As at 0600 hours AEDT, 08/11/03) **DEPTH :** 2135 m
OPERATION : PRESSURE UP ON TUBING WITH CEMENT UNIT TO TCP ACTIVATION PRESSURE. (HOLD FOR 1 MIN). BLEED OFF CHOKE MANIFOLD PRESSURE. WAIT FOR GUNS TO FIRE. GUNS FIRED AT 6:03HRS. FLOW APPROX 14BBLS OF CUSHION TO SURGE TANK. SHUTIN WELL AT 6:13HRS FOR INITIAL BUILD UP.

CASING DEPTH: 9 5/8" CASING SHOE SET AT 2113.25 M (Drl) **RIG: OCEAN EPOCH**
RT – SEAFLOOR: 89.1m
PROGRAMMED TD: 2147m **ROTARY TABLE:** 22.4m MSL **WATER DEPTH: 66.7**m

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MUD DATA	Type:	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
(2400 Hours)	KCL BRINE	9.3 ppg							

		No.	Make	Type	Size	Hours Drilled	Condition
BIT DATA **(2400 Hours)**	PRESENT						
	LAST						

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

PREVIOUS 24 HOURS OPERATIONS SUMMARY:
CROSSOVER TO 5" DRILL PIPE AND RUN IN HOLE. LAND OUT PACKER AND CLOSE RAMS. PULL OUT OF HOLE WITH 5" DRILL PIPE. MAKE UP SUB-SEA TEST TREE ASSEMBLY, FUNCTION TEST AND RUN IN HOLE ON LANDING STRING. MAKE UP FLOW CONTROL HEAD AND FLOW/KILL LINES. PRESSURE TEST LINES. LAND OFF TEST STRING. PRESSURE TEST ANNULUS. PERFORM METER FACTORS & TEST DELUGE SYSTEM.

00:00 – 06:00 HOURS 08/11/03:
DISPLACE TEST STRING TO UNDERBALANCE FLUID (DIESEL 86BBLS). HOLD RIG FLOOR SAFETY MEETING. FUNCTION TEST EMERGENCY SHUTDOWN SYSTEM.

ANTICIPATED OPERATIONS:
OPEN WELL AT 8:15 HRS FOR CLEAN UP FLOW PERIOD (6-8HRS). SHUTIN IN WELL FOR BUILD UP PERIOD (6 HRS) OPEN WELL FOR MULTIRATE FLOW PERIOD (~18HRS). SHUTIN WELL FOR FINAL BUILD UP PERIOD (~10HRS).

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A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 08/11/03 - 0600 HRS	CASINO 3	REPORT NO: 26

SUMMARY OF OPERATIONS (0000 hours – 2400 hours, 7/11/03):

FROM	TO	HRS	ACTIVITY DESCRIPTION
0:00	0:15	0.25	Pressure test surface test lines to booms.
0:15	6:30	6.15	RIH with 4-1/2" tubing and pressure test
6:30	7:30	1.00	RIH with 5" DP for space out (ca. 3 stds)
7:30	8:45	1.25	Closed pipe rams to mark pipe & POOH and inspect tubing for marks.
8:45	9:10	0.41	Unable to read marks re-run string
9:10	10:15	1.08	Closed rams on painted joint & POOH
10:15	11:30	1.25	Installed pup joints to space out string
11:30	13:30	2.00	Installed SSTT & Commenced RIH with 4 1/2" Tubing
13:30	14:30	1.00	Installed SSLV and continued RIH with 4 1/2" Tubing
14:30	15:15	0.75	Hold JHA and & M/U 40 ft bails/ 5" DP Elevators.
15:15	18:00	2.75	M/U flow head, ESD lines and Coflexip hoses
18:00	20:00	2.00	P/test string against flapper valve/choke manifold. Inflow test SSTT
20:00	20:30	0.50	Sting in to packer and land out in 9 5/8" Wear bushing
20:30	21:00	0.50	Close LPR's, pressure up annulus /Lock open TFTV, Close PCT
21:00	0:00	3.00	Perform meter factors, test deluge system. Pre-test safety mtg

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WELL PROGRESS REPORT

DATE: 09/11/03 - 0600 HRS	CASINO 3	REPORT NO: 27

(As at 2400 hours AEDT, 08/11/03) **DEPTH :** 2135 m **PROGRESS:** 0 m **DAYS FROM SPUD:** 24.25
OPERATION : MULTIRATE FLOW PERIOD – 1ST FLOW. GAS RATE = 19.5 MMSCF/D. 36/64" FIXED CHOKE.

(As at 0600 hours AEDT, 09/11/03) **DEPTH :** 2135 m
OPERATION : MULTIRATE FLOW PERIOD – 2ND FLOW. GAS RATE = 27.5 MMSCF/D. 48/64" FIXED CHOKE.

CASING DEPTH: 9 5/8" CASING SHOE SET AT 2113.25 M (Drl) **RIG: OCEAN EPOCH**
RT – SEAFLOOR: 89.1m
PROGRAMMED TD: 2147m **ROTARY TABLE:** 22.4m MSL **WATER DEPTH: 66.7**m

MUD DATA	Type:	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
(2400 Hours)	KCL BRINE	9.3 ppg							

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

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

PREVIOUS 24 HOURS OPERATIONS SUMMARY:
DISPLACE STRING TO DIESEL. FIRE GUNS AND PERFORM INITIAL FLOW AND SHUT IN. OPEN WELL FOR CLEAN UP FLOW TO MAXIMUM RATE. DOWN HOLE SHUT IN. OPEN WELL FOR MULTIRATE FLOW PERIOD.

00:00 – 06:00 HOURS 09/11/03:
0:00 – 4:30 HRS: CONTINUE 1ST FLOW PERIOD OF MULTIRATE FLOW. GAS RATE = 19.5 MMSCF/D. 36/64" CHOKE. WHP = 2381 PSIA. WHT = 39C
4:30 – 6:00 HRS: 2ND FLOW PERIOD OF MULTIRATE FLOW. GAS RATE = 27.5 MMSCF/D. 48/64" CHOKE. WHP = 2219 PSIA. WHT = 45C.

ANTICIPATED OPERATIONS:
COMPLETE 2ND AND 3RD MULTIRATE FLOW PERIODS & SHUTIN WELL FOR FINAL BUILD UP PERIOD (~10HRS) AT APPROX 16:45 HRS. KILL WELL & PULL OUT OF HOLE WITH TEST STRING.

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A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 09/11/03 - 0600 HRS	CASINO 3	REPORT NO: 27

SUMMARY OF OPERATIONS (0000 hours – 2400 hours, 8/11/03):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	00:15	0.25	Pre-test safety meeting
00:15	03:00	2.75	Open MCVL, displace string to cushion fluid (diesel 86bbls)
03:00	05:30	2.5	Pre job checks – Light flare pilot, walk lines, commission water deluge system, etc
05:30	06:00	0.5	Open PCT and fired guns.
06:00	06:15	0.25	Initial flow to surge tank
06:15	08:15	2	Initial shut in period
08:15	15:45	7.5	Open well for clean up flow
15:45	21:45	6	Down hole shut in
21:45	24:00	2.25	Open well for multirate flow period.

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A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 10/11/03 - 0600 HRS	CASINO 3	REPORT NO: 28

(As at 2400 hours AEDT, 09/11/03) **DEPTH :** 2135 m **PROGRESS:** 0 m **DAYS FROM SPUD:** 25.25
OPERATION : DOWHOLE SHUTIN FOR FINAL BUILD UP PERIOD

(As at 0600 hours AEDT, 10/11/03) **DEPTH :** 2135 m
OPERATION : CIRCULATING WELL.

CASING DEPTH: 9 5/8" CASING SHOE SET AT 2113.25 M (Drl) **RIG: OCEAN EPOCH**
RT – SEAFLOOR: 89.1m
PROGRAMMED TD: 2147m **ROTARY TABLE:** 22.4m MSL **WATER DEPTH: 66.7**m

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MUD DATA Type: Wt: Vis: FL: PH: KCl Cl : PV / YP: Rmf:
(2400 Hours)

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

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

PREVIOUS 24 HOURS OPERATIONS SUMMARY:
CONTINUE WITH MULTIRATE FLOW PERIOD. DOWNHOLE SHUTIN AT 16:45 HRS FOR FINAL BUILD UP PERIOD.

00:00 – 06:00 HOURS 10/11/03:
CONTINUE WITH FINAL BUILD UP. KILL WELL, BULLHEAD & FLOW CHECK. UNSTING FROM PACKER. REVERSE CIRCULATE. FLUSH TEST EQUIPMENT WITH DRILL WATER. CIRCULATE AND CONDITION WELL.

ANTICIPATED OPERATIONS:
PULL OUT OF HOLE WITH TEST STRING AND LAY DOWN SIDEWAYS.

Santos

A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 10/11/03 - 0600 HRS	CASINO 3	REPORT NO: 28

SUMMARY OF OPERATIONS (0000 hours – 2400 hours, 9/11/03):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	04:45	4:45	Continue Multirate Flow Period – 1st Flow. Gas Rate = 19.5 mmscf/d on 36/64" choke
04:30	10:30	6:00	Multirate Flow Period – 2nd Flow. Gas Rate = 27.3 mmscf/d on 48/64" choke
10:30	16:45	6:15	Multirate Flow Period – 3rd Flow. Gas Rate = 44.3 mmscf/d on 64/64" choke
16:45	24:00	7:15	Close PCT for downhole shutin.

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A.B.N. 80 007 550 923

WELL PROGRESS REPORT

DATE: 11/11/03 - 0600 HRS	CASINO 3	REPORT NO: 29

(As at 2400 hours AEDT, 10/11/03) **DEPTH :** 2135 m **PROGRESS:** 0 m **DAYS FROM SPUD:** 26.25
OPERATION : PREPARING TO RUN IN HOLE FOR PLUG & ABANDON PROGRAMME.

(As at 0600 hours AEDT, 11/11/03) **DEPTH :** 2135 m
OPERATION : PLUG & ABANDON PROGRAMME

CASING DEPTH: 9 5/8" CASING SHOE SET AT 2113.25 M (Drl) **RIG: OCEAN EPOCH**
RT – SEAFLOOR: 89.1m
PROGRAMMED TD: 2147m **ROTARY TABLE:** 22.4m MSL **WATER DEPTH: 66.7**m

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MUD DATA Type: Wt: Vis: FL: PH: KCl Cl : PV / YP: Rmf:
(2400 Hours)

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

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

PREVIOUS 24 HOURS OPERATIONS SUMMARY:
CONTINUE WITH FINAL BUILD UP. KILL WELL, BULLHEAD & FLOW CHECK. UNSTING FROM PACKER. REVERSE CIRCULATE. FLUSH TEST EQUIPMENT WITH DRILL WATER. CIRCULATE AND CONDITION WELL. PULL TUBING & TEST STRING OUT OF HOLE AND LAY DOWN SIDEWAYS. DOWNLOAD GAUGE DATA.

00:00 – 06:00 HOURS 10/11/03:
COMMENCE PLUG & ABANDON PROGRAMME.

ANTICIPATED OPERATIONS:
CONTINUE WITH PLUG & ABANDON PROGRAMME

SECTION 6 : DAILY DRILLING REPORTS

Santos

DRILLING MORNING REPORT # 1
Casino #3 (13 Oct 2003)

From :

Well Data

Country	Australia	M. Depth	0 m	Cur. Hole Size	0 in		
Field	Casino	TVD	0 m	Casing OD	0 in		
Drill Co.	DOGC	Progress	0 m	Shoe TVD	0 m		
Rig	Ocean Epoch	Days from spud	0.00	FIT	0 ppg		
Wtr Dpth(LAT)	66.7 m	Days on well	0.79	LOT	0 ppg	Planned TD	2137.0 m
RT-ASL(LAT)	22.4 m	Current Op @ 0600	Running anchor #4				
RT-ML	89.1 m	Planned Op	Finish running anchors. Spud well, drill 914mm hole, run surface casing				

Summary of Period 0000 to 2400 Hrs

Arrived on location. Ran anchors #7,3,6,2

Operations For Period 0000 Hrs to 2400 Hrs on 13 Oct 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
RM	P	AH	1100	1130	0.50	0 m	Rig on tow to Casino-3 location, from 00:00 to 11:00. On location and official reporting commences. Dropped anchor#7. Rig on location
RM	P	AH	1130	1300	1.50	0 m	Lady Dawn shortened tow wire. Problems with Thales Tracs. Disconnected vessel from tow wire. Start ballasting down rig to 11.5m draft
RM	TP	AH	1300	1700	4.00	0 m	Passed #3 PCC to Lady Dawn. Vessel having problems with winch. Pick up 4 stands of HWDP and rack back
RM	P	AH	1700	2000	3.00	0 m	Winch #3 seized, winch motor failed. Dropped anchor at temporary position. Re-run with winch brake only. PCC#3 passed back to rig.
RM	P	AH	2000	2230	2.50	0 m	Ran anchor #6 with Lady Dawn
RM	P	AH	2230	2400	1.50	0 m	Ran anchor #2 with Lady Dawn

Operations For Period 0000 Hrs to 0600 Hrs on 14 Oct 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
RM	P	AH	0000	0600	6.00	0 m	(IN PROGRESS) Ran anchors #2, #5, #1, #8. Ballasted rig down to 16.7m draft. Position rig over location. Picked up and racked back 17 stands of DP

Phase Data to 2400hrs, 13 Oct 2003

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
PRODUCTION HOLE(PH)	6	30 Oct 2003	30 Oct 2003	6	0 days	2004.0 m
RIG MOVE/ RIG-UP/ PRESPUD(RM)	13	13 Oct 2003	13 Oct 2003	19	1 days	0 m

Survey

MD	Incl Deg	Corr. Az (deg)	TVD	'V' Sect	Dogleg (deg/100ft)	N/S	E/W	Tool Type
0	0	0	0	0	0	0	0	MWD
0	0	0	0	0	0	0	0	MWD
0	0	0	0	0	0	0	0	

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance

Personnel On Board

Company	Pax
DOGC	41
Santos	3
Santos Service	19
Total Marine Catering	8
Total	71

Casing

OD	LOT / FIT	Csg Shoe (MD/TVD)	Cementing

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Lost Time Incident	24 Apr 2001	902 Days	Lost Time Incident	None

Printed on 30 Oct 2003

Marine

Weather on 13 Oct 2003

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.00 nm	10.0 kn	270 deg	10 bar	13.0 C°	0.3 m	270 deg	0 ft/ sec

Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments
2.0 deg	0.3 deg	0 m	0 m	000 deg	0 ft/ sec	

Rig Dir.	Ris. Tension	VDL	Comments
243.0 deg	0 klb	3712.0 klb	

Rig Support

Anchors	Tension (klb)
1	0
2	0
3	0
4	0
5	0
6	0
7	0
8	0

Boats	Arrived (date/time)	Departed (date/time)	Status
Lady Dawn			
Pacific Challenger			

Lady Dawn

Item	Unit	Quantity
Barite	MT	0
Cement	MT	0
Gel	MT	65
Potable Water	cuMT	320
Drill Water	cuMT	308
Mud	sx	0
Fuel	MT	0

Pacific Challenger

Item	Unit	Quantity
Barite	MT	0
Cement	MT	0
Gel	MT	0
Potable Water	cuMT	162
Drill Water	cuMT	150
Mud	sx	0
Fuel	MT	0

Santos

DRILLING MORNING REPORT # 2
Casino #3 (14 Oct 2003)

From : G. Howard/ H. Flink

Well Data

Country	Australia	M. Depth	96.8 m	Cur. Hole Size	36.000 in		
Field	Casino	TVD	96.8 m	Casing OD	0 in		
Drill Co.	DOGC	Progress	7.8 m	Shoe TVD	0 m		
Rig	Ocean Epoch	Days from spud	0.37	FIT	0 ppg		
Wtr Dpth(LAT)	66.7 m	Days on well	1.79	LOT	0 ppg	Planned TD	2137.0 m
RT-ASL(LAT)	22.4 m	Current Op @ 0600	Drilling 914mm hole				
RT-ML	89.1 m	Planned Op	Drill 914mm hole to TD. Run 762mm casing				

Summary of Period 0000 to 2400 Hrs

Finished running anchors. Spudded well. Drilled ahead 914mm hole

Operations For Period 0000 Hrs to 2400 Hrs on 14 Oct 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
RM	P	AH	0000	0930	9.50	0 m	Ran anchors #2, #5, #1, #8. Ballasted rig down to 16.7m draft. Position rig over location. Picked up and racked back 17 stands of DP
CH	P	PUP	0930	1330	4.00	0 m	Picked up and RIH with 914mm BHA
CH	P	TI	1330	1500	1.50	0 m	Tagged bottom at 89.5m. Checked depth with ROV. Took survey with andersdrift tool, failed.
CH	P	DA	1500	1800	3.00	112.3 m	Spudded well and drilled from 89.5 to 112.35m. Avg ROP 7.6 m/ hr
CH	P	DA	1800	1900	1.00	112.3 m	Took survey with Anderdrift, 3deg. Verified with Totco, 2 deg.
CH	P	DA	1900	2400	5.00	96.8 m	POH, bit above seabed. Moved rig 5m forward. Respudded well. Drilled from 89.5m to 96.8m. Final location is: 38 deg 46'34.558" S, 142 deg 44'05.437" E (GDA94). Position is 6.37m on a bearing of 215.5 deg True from the intended location.

Operations For Period 0000 Hrs to 0600 Hrs on 15 Oct 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
CH	P	DA	0000	0100	1.00	98.8 m	Drilled ahead 914mm hole f/ 97.8 to 98.8m
CH	TP	DA	0100	0130	0.50	98.8 m	Re-take surveys at 98.8m
CH	P	DA	0130	0600	4.50	121.3 m	(IN PROGRESS) Drilled ahead 914 mm hole from 98.8m to 121.3m

Phase Data to 2400hrs, 14 Oct 2003

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
PRODUCTION HOLE(PH)	6	30 Oct 2003	30 Oct 2003	6	0 days	2004.0 m
RIG MOVE/ RIG-UP/ PRESPUD(RM)	22.5	13 Oct 2003	14 Oct 2003	28.5	1 days	0 m
CONDUCTOR HOLE(CH)	14.5	14 Oct 2003	14 Oct 2003	43	2 days	112.3 m

WBM Data — Cost Today $ 0

Mud Type:		API FL:	0 cm³/ 30m	Cl:	0	Solids(%vol):	0
Sample-From:	70	Filter-Cake:	0 / 32nd"	K+C*1000:	0 %	H2O:	0 %
Time:	16	HTHP-FL:	0 cm³/ 30m	Hard/Ca:	0	Oil(%):	0 %
Weight:	0 ppg	HTHP-cake:	0 / 32nd"	MBT:	0	Sand:	
Temp:	0 C°			PM:	0	pH:	0
				PF:	0	PHPA:	0 ppb
Comment	SW + PHG						

Viscosity	0 sec/ qt
PV	0 cp
YP	0 lb/ 100ft²
Gels 10s	0
Gels 10m	0
Fann 003	0
Fann 006	0
Fann 100	0
Fann 200	0
Fann 300	0
Fann 600	0

Bit # 1

Wear	I	O1	D	L	B	G	O2	R

Size ("):	26.00 in	IADC#	DSJ	**Nozzles**		**Drilled over last 24 hrs**		**Calculated over Bit Run**	
Mfr:	SMITH	WOB(avg)	0 klb	No.	Size	Progress	7.8 m	Cum. Progress	7.8 m
Type:	Rock	RPM(avg)	0	3	24 / 32nd"	On Bottom Hrs	3.50 h	Cum. On Btm Hrs	3.50 h
Serial No.:	MJ5779	F.Rate	0 gpm			IADC Drill Hrs	0 h	Cum IADC Drill Hrs	0 h
Bit Model	DSJ	SPP	0 psi			Total Revs	0	Cum Total Revs	0
Depth In	89.0 m	TFA	1.326			ROP(avg)	2 m/ h	ROP(avg)	2.2
Depth Out									

Printed on 30 Oct 2003

BHA # 1

Weight(Wet)	190.0 klb	Length	124.1 m	Torque(max)	0 ft-lbs	D.C. (1) Ann Velocity	
Wt Below Jar(Wet)	0 klb	String	190.0 klb	Torque(Off.Btm)	0 ft-lbs	D.C. (2) Ann Velocity	
		Pick-Up	190.0 klb	Torque(On.Btm)	0 ft-lbs	H.W.D.P. Ann Velocity	
		Slack-Off	190.0 klb			D.P. Ann Velocity	
BHA Run Description		Bit-17.5" stab-36" HO-fltsub-Anderdrift-3x9.5"dc-xo-5x8.25"dc-xo.-4x5"hwdp					
BHA Run Comment							

Survey

MD	Incl Deg	Corr. Az (deg)	TVD	'V' Sect	Dogleg (deg/100ft)	N/S	E/W	Tool Type
0	0	0	0	0	0	0	0	MWD
0	0	0	0	0	0	0	0	MWD
0	0	0	0	0	0	0	0	

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance

Personnel On Board

Company	Pax
DOGC	41
Santos	3
Santos Service	20
Total Marine Catering	8
Total	72

Casing

OD	LOT / FIT	Csg Shoe (MD/TVD)	Cementing

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Lost Time Incident	24 Apr 2001	903 Days	Lost Time Incident	None
Near Miss	14 Oct 2003	0 Days	Winch motor failure (running anchor#3)	

Marine

Weather on 14 Oct 2003

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.00 nm	10.0 kn	250 deg	10 bar	16.0 C°	0.3 m	250 deg	0 ft/ sec

Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments
0.2 deg	0.3 deg	0 m	1.0 m	250 deg	0 ft/ sec	

Rig Dir.	Ris. Tension	VDL	Comments
238.9 deg	0 klb	3712.0 klb	

Rig Support

Anchors	Tension (klb)
1	195.0
2	195.0
3	200.0
4	230.0
5	195.0
6	220.0
7	235.0
8	205.0

Boats	Arrived (date/time)	Departed (date/time)	Status
Lady Dawn			
Pacific Challenger			

Lady Dawn

Item	Unit	Quantity
Barite	sx	0
Cement	MT	192
Gel	sx	0
Potable Water	MT	290
Drill Water	MT	38
Fuel	cuMT	484

Pacific Challenger

Item	Unit	Quantity
Barite	sx	0
Cement	sx	0
Gel	sx	0
Potable Water	MT	0
Drill Water	MT	0
Fuel	MT	0

Santos

DRILLING MORNING REPORT # 3
Casino #3 (15 Oct 2003)

From : G. Howard/ H. Flink

Well Data

Country	Australia	M. Depth	121.3 m	Cur. Hole Size	36.000 in		
Field	Casino	TVD	121.3 m	Casing OD	30.000 in		
Drill Co.	DOGC	Progress	24.2 m	Shoe TVD	121.3 m		
Rig	Ocean Epoch	Days from spud	1.37	FIT	0 ppg		
Wtr Dpth(LAT)	66.7 m	Days on well	2.79	LOT	0 ppg	Planned TD	2137.0 m
RT-ASL(LAT)	22.4 m	Current Op @ 0600	Making up 17.5" BHA				
RT-ML	89.1 m	Planned Op	Make up 18.75" wellhead/ ssr plug set and r/ tool m/ u nodeco cmt head and rack back in derrick lay down 26" bha - make up 17.5" bha - rih re-enter well head w/ soft lines attached to guide wires - drill out cement and drill ahead to next csg point.				

Summary of Period 0000 to 2400 Hrs

Drilled conductor to 121.3m - made up and ran 30" casing - cemented 30" casing - poh r/ tool - made up 18.75" well head and r/ tool.

Operations For Period 0000 Hrs to 2400 Hrs on 15 Oct 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
CH	P	DA	0000	0100	1.00	98.8 m	Drilled ahead 914mm hole f/ 97.8 to 98.8m
CH	TP	DA	0100	0130	0.50	98.8 m	Re-take surveys at 98.8m
CH	P	DA	0130	0830	7.00	121.3 m	Drilled ahead 914 mm hole from 98.8m to 121.3m
CH	P	CHC	0830	0900	0.50	121.3 m	Pump 130 bbls hi vis sweep
CH	P	ROV	0900	1000	1.00	121.3 m	Pull out to mudline - ROV place sonar marker's
CH	P	CHC	1000	1030	0.50	121.3 m	Rih to td - 3m fill - circulated 1.5 x hole volume with spud mud.
CH	P	HBHA	1030	1100	0.50	121.3 m	Poh with 36" drilling assembly
CH	P	CRN	1100	1500	4.00	121.3 m	Held JSA - rigged up and ran 30" casing and land out in PGB in moon pool
CH	P	RRC	1500	1600	1.00	121.3 m	M/ up cmt stinger on btm of running tool and installed in casing / PGB
CH	P	RRC	1600	1630	0.50	121.3 m	P/ up PGB - set on skid beams & check connections
CH	P	RRC	1630	1730	1.00	121.3 m	Circulated and filled casing - closed ball valve
CH	P	RRC	1730	1800	0.50	121.3 m	Made up cement stand and racked in derrick
CH	P	CRN	1800	2000	2.00	121.3 m	RIH and tagged bottom with 30" casing and PGB. Made up cement line and washed down to 121.43m. Bullseye reading (From ROV) 1/ 4 deg @ 105 deg.
CH	P	CMC	2000	2100	1.00	121.3 m	Pressure tested cementing lines to 1000psi. 30" casing cemented with 154 bbls (750 sx) of class "G" cement slurry 15.8 ppg and 1% CaCl. Displaced with 9.5 bbls of seawater.
CH	P	CMC	2100	2230	1.50	121.3 m	Released 30" running tool with 20,000 lbs over pull (Bullseye 1/ 4 deg @ 105 deg). POOH and laydown same.
SH	P	WH	2230	2400	1.50	121.3 m	R/ up 18-3/ 4" well head assembly.

Operations For Period 0000 Hrs to 0600 Hrs on 16 Oct 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
SH	P	WH	0000	0100	1.00	121.3 m	Picked up 18-3/ 4" well head, made up stinger and lay down same.
SH	P	HBHA	0100	0230	1.50	121.3 m	L/ D 36" Drilling Assembly
SH	P	HBHA	0230	0330	1.00	121.3 m	M/ U 17.5" BHA
SH	P	TI	0330	0400	0.50	121.3 m	Secure to guide lines for running.
SH	P	TI	0400	0600	2.00	121.3 m	(IN PROGRESS) Continued to P/ U BHA.

Phase Data to 2400hrs, 15 Oct 2003

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
PRODUCTION HOLE(PH)	6	30 Oct 2003	30 Oct 2003	6	0 days	2004.0 m
RIG MOVE/ RIG-UP/ PRESPUD(RM)	22.5	13 Oct 2003	14 Oct 2003	28.5	1 days	0 m
CONDUCTOR HOLE(CH)	37	14 Oct 2003	15 Oct 2003	65.5	3 days	121.3 m
SURFACE HOLE(SH)	1.5	15 Oct 2003	15 Oct 2003	67	3 days	121.3 m

WBM Data

Cost Today $ 1,030

Mud Type:	PHG Spud Mud	API FL:	0 cm³/ 30m	Cl:	0	Solids(%vol):	0	Viscosity	132 sec/ qt
Sample-From:	Pit	Filter-Cake:	0 / 32nd"	K+C*1000:	0 %	H2O:	0 %	PV	19 cp
Time:	18:00	HTHP-FL:	0 cm³/ 30m	Hard/Ca:	0	Oil(%):	0 %	YP	71 lb/ 100ft²
Weight:	8.60 ppg	HTHP-cake:	0 / 32nd"	MBT:	0	Sand:		Gels 10s	0
Temp:	24.0 C°			PM:	0	pH:	0	Gels 10m	0
				PF:	0	PHPA:	0 ppb	Fann 003	0
								Fann 006	0
								Fann 100	0
								Fann 200	0
								Fann 300	0
								Fann 600	0

Comment: SW + PHG
Cum.cost 6133.89

Bit # 1

Wear	I	O1	D	L	B	G	O2	R
	3	5	WT	A	0	I	NO	TD

				Nozzles		Drilled over last 24 hrs		Calculated over Bit Run	
Size ("):	26.00 in	IADC#	DSJ	No.	Size	Progress	24.2 m	Cum. Progress	32.0 m
Mfr:	SMITH	WOB(avg)	0 klb	3	24 / 32nd"	On Bottom Hrs	5.40 h	Cum. On Btm Hrs	8.90 h
Type:	Rock	RPM(avg)	0			IADC Drill Hrs	10.50 h	Cum IADC Drill Hrs	10.50 h
Serial No.:	MJ5779	F.Rate	0 gpm			Total Revs	0	Cum Total Revs	0
Bit Model	DSJ	SPP	1400 psi			ROP(avg)	4 m/ h	ROP(avg)	3.6
Depth In	89.0 m	TFA	1.326						
Depth Out	121.3 m								

BHA # 1

Weight(Wet)	190.0 klb	Length	124.1 m	Torque(max)	0 ft-lbs	D.C. (1) Ann Velocity	
Wt Below Jar(Wet)	0 klb	String	190.0 klb	Torque(Off.Btm)	0 ft-lbs	D.C. (2) Ann Velocity	
		Pick-Up	190.0 klb	Torque(On.Btm)	0 ft-lbs	H.W.D.P. Ann Velocity	
		Slack-Off	190.0 klb			D.P. Ann Velocity	

BHA Run Description: Bit-17.5" stab-36" HO-fltsub-Anderdrift-3x9.5"dc-xo-5x8.25"dc-xo.-4x5"hwdp

BHA Run Comment:

Survey

MD	Incl Deg	Corr. Az (deg)	TVD	'V' Sect	Dogleg (deg/100ft)	N/S	E/W	Tool Type
0	0	0	0	0	0	0	0	MWD
0	0	0	0	0	0	0	0	MWD
0	0	0	0	0	0	0	0	

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance

Personnel On Board

Company	Pax
Santos	4
Total Marine Catering	8
Santos Service	20
DOGC	43
Total	75

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	Oilwell 1700PT	6.50	8.60	98	80	1400	400
2	Oilwell 1700PT	6.50	8.60	98	80	1400	400
3	Oilwell 1700PT	6.50	8.60	98	80	1400	400

Slow Pump Data

Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0

Casing

OD	LOT / FIT	Csg Shoe (MD/TVD)	Cementing
30 "	0 ppg / 0 ppg	121.0 m / 121.0 m	154 bbls (750 sx) Class G w/ 1% CaCl2 15.8 ppg

Printed on 30 Oct 2003

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Lost Time Incident	24 Apr 2001	904 Days	Lost Time Incident	None

Shakers, Volumes and Losses Data

Engineer :

Equip.	Descr.	Mesh Size
De-Sander 1		
De-Silter 1		
Shaker 3	VSM 300	

Available	**363 bbl**	**Losses**	**685 bbl**	Comments
Active	363.0 bbl	Downhole	685.0 bbl	
Mixing	0 bbl	Surf+ Equip	0 bbl	
Hole	0 bbl	Dumped	0 bbl	
Slug	0 bbl	De-Sander	0 bbl	
Reserve	0 bbl	De-Silter	0 bbl	
Kill	0 bbl	Centrifuge	0 bbl	

Marine

Weather on 15 Oct 2003

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.00 nm	12.0 kn	250 deg	0 bar	16.0 C°	0.3 m	250 deg	0 ft/ sec

Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments
0.3 deg	0.2 deg	0 m	1.0 m	250 deg	0 ft/ sec	

Rig Dir.	Ris. Tension	VDL	Comments
238.9 deg	0 klb	3951.0 klb	

Rig Support

Anchors	Tension (klb)
1	195.0
2	195.0
3	200.0
4	230.0
5	202.0
6	235.0
7	205.0
8	0

Boats	Arrived (date/time)	Departed (date/time)	Status
Lady Dawn	stdby	2330	L.Dawn at port 0800 on 16 oct.

Item	Unit	Quantity
Barite	sx	0
Cement	sx	0
Gel	sx	0
Potable Water	MT	0
Drill Water	MT	0
Mud	sx	0
Fuel	MT	0

Boats	Arrived (date/time)	Departed (date/time)	Status
Pacific Challenger	0645	stdby	

Item	Unit	Quantity
Barite	sx	880
Cement	sx	0
Gel	sx	0
Potable Water	MT	213
Drill Water	MT	295
Mud	sx	0
Fuel	MT	432

Helicopter Movement

Flight #	Time	Destination	Comment	Pax
1	0840	Epoch	VH - BHY	12
2	0856	Melbourne	VH - BHY	9

Santos

DRILLING MORNING REPORT # 4
Casino #3 (16 Oct 2003)

From : G. Howard/ H. Flink

Well Data

Country	Australia	M. Depth	645.0 m	Cur. Hole Size	17.500 in		
Field	Casino	TVD	645.0 m	Casing OD	30.000 in		
Drill Co.	DOGC	Progress	524.0 m	Shoe TVD	121.3 m		
Rig	Ocean Epoch	Days from spud	2.37	FIT	0 ppg		
Wtr Dpth(LAT)	66.7 m	Days on well	3.79	LOT	0 ppg	Planned TD	2137.0 m
RT-ASL(LAT)	22.4 m	Current Op @ 0600	Tripping out of hole with 17.5" BHA.				
RT-ML	89.1 m	Planned Op	Run and cement 13.375" casing.				

Summary of Period 0000 to 2400 Hrs

Made up 18.75" well head and layed out.
RIH with 17.5" assembly and drill to 645m.

Operations For Period 0000 Hrs to 2400 Hrs on 16 Oct 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
SH	P	WH	0000	0100	1.00	121.3 m	Picked up 18-3/ 4" well head, made up stinger and lay down same.
SH	P	HBHA	0100	0230	1.50	121.3 m	L/ D 36" Drilling Assembly
SH	P	HBHA	0230	0330	1.00	121.3 m	M/ U 17.5" BHA
SH	P	TI	0330	0400	0.50	121.3 m	Secure to guide lines for running.
SH	P	TI	0400	0700	3.00	121.3 m	Continued to P/ U BHA.
SH	P	RS	0700	0800	1.00	121.3 m	Service & inspect TDS.
SH	P	TI	0800	0900	1.00	121.3 m	RIH & tag TOC @ 117m.
SH	P	DA	0900	2330	14.50	645.0 m	Drilled to 645m pumping a sweep every single and survey every connection.
SH	P	CHC	2330	2400	0.50	645.0 m	Circulated hole with sweeps.

Operations For Period 0000 Hrs to 0600 Hrs on 17 Oct 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
SH	P	CHC	0000	0100	1.00	645.0 m	Pumped 50bbl sweep then displaced hole with 800bbl PHG.
SH	P	TOT	0100	0600	5.00	645.0 m	POH from 645m, 30k - 50k drag from 570m - 496m, worked through tight spots without using pump or rotary.

Phase Data to 2400hrs, 16 Oct 2003

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
PRODUCTION HOLE(PH)	6	30 Oct 2003	30 Oct 2003	6	0 days	2004.0 m
RIG MOVE/ RIG-UP/ PRESPUD(RM)	22.5	13 Oct 2003	14 Oct 2003	28.5	1 days	0 m
CONDUCTOR HOLE(CH)	37	14 Oct 2003	15 Oct 2003	65.5	3 days	121.3 m
SURFACE HOLE(SH)	25.5	15 Oct 2003	16 Oct 2003	91	4 days	645.0 m

WBM Data

Cost Today $ 11,050

Mud Type:	Sea Water with PHB Sweeps	API FL:	0 cm³/ 30m	Cl:	0	Solids(%vol):	0
Sample-From:	Pit	Filter-Cake:	0 / 32nd"	K+C*1000:	0 %	H2O:	0 %
Time:	14:20	HTHP-FL:	0 cm³/ 30m	Hard/Ca:	0	Oil(%):	0 %
Weight:	8.60 ppg	HTHP-cake:	0 / 32nd"	MBT:	0	Sand:	
Temp:	24.5 C°			PM:	0	pH:	0
				PF:	0	PHPA:	0 ppb

Comment

Viscosity	123 sec/ qt
PV	15 cp
YP	76 lb/ 100ft²
Gels 10s	0
Gels 10m	0
Fann 003	0
Fann 006	0
Fann 100	0
Fann 200	0
Fann 300	0
Fann 600	0

Bit # 2

Wear	I	O1	D	L	B	G	O2	R

Size ("):	17.50 in	IADC#		**Nozzles**		**Drilled over last 24 hrs**		**Calculated over Bit Run**	
Mfr:	REED	WOB(avg)	20.0 klb	No.	Size	Progress	524.0 m	Cum. Progress	524.0 m
Type:	Rock	RPM(avg)	120	1	20 / 32nd"	On Bottom Hrs	7.90 h	Cum. On Btm Hrs	7.90 h
Serial No.:	H38311	F.Rate	1200 gpm	3	22 / 32nd"	IADC Drill Hrs	14.50 h	Cum IADC Drill Hrs	14.50 h
Bit Model	EM511GC	SPP	2400 psi			Total Revs	0	Cum Total Revs	0
Depth In	121.0 m	TFA	1.421			ROP(avg)	66 m/ h	ROP(avg)	66.3
Depth Out									

BHA # 2

Weight(Wet)	45.0 klb	Length	264.7 m	Torque(max)	0 ft-lbs	D.C. (1) Ann Velocity	136.2
Wt Below Jar(Wet)	26.0 klb	String	215.0 klb	Torque(Off.Btm)	0 ft-lbs	D.C. (2) Ann Velocity	123.5
		Pick-Up	215.0 klb	Torque(On.Btm)	0 ft-lbs	H.W.D.P. Ann Velocity	104.6
		Slack-Off	215.0 klb			D.P. Ann Velocity	104.6

BHA Run Description: 17.5" NB Stab c/ w; ported float; Anderdrift with totco; 17.5" Stab; 1 x 9.5" DC; 17.5" Stab; 2x9.5" DC's; x/ o; 6 x 8.25" DC's; 8" Jar; 4 x 8.25" DC's; 8" Accel; x/ o; 12 x 5" HWDP;

BHA Run Comment

Survey

MD	Incl Deg	Corr. Az (deg)	TVD	'V' Sect	Dogleg (deg/100ft)	N/S	E/W	Tool Type
0	0	0	0	0	0	0	0	MWD
0	0	0	0	0	0	0	0	MWD
0	0	0	0	0	0	0	0	

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance

Personnel On Board

Company	Pax
Santos	3
Total Marine Catering	8
Santos Service	19
DOGC	44
Total	74

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	Oilwell 1700PT	6.50	8.60	97	80	2400	400
2	Oilwell 1700PT	6.50	8.60	97	80	2400	400
3	Oilwell 1700PT	6.50	8.60	97	80	2400	400

Slow Pump Data

Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0

Casing

OD	LOT / FIT	Csg Shoe (MD/TVD)	Cementing
30 "	0 ppg / 0 ppg	121.0 m / 121.0 m	154 bbls (750 sx) Class G w/ 1% CaCl2 15.8 ppg

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Lost Time Incident	24 Apr 2001	905 Days	Lost Time Incident	None

Shakers, Volumes and Losses Data

Engineer : William McKay

Equip.	Descr.	Mesh Size

Available	**1909.5 bbl**	**Losses**	**1796 bbl**	Comments
Active	944.5 bbl	Downhole	1796.0 bbl	
Mixing	0 bbl	Surf+ Equip	0 bbl	
Hole	0 bbl	Dumped	0 bbl	
Slug	0 bbl	De-Sander	0 bbl	
Reserve	965.0 bbl	De-Silter	0 bbl	
Kill	0 bbl	Centrifuge	0 bbl	

Marine

Weather on 16 Oct 2003

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.00 nm	10.0 kn	045 deg	1020 bar	17.0 C°	0.4 m	045 deg	5.0 ft/ sec

Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments
0.2 deg	0.3 deg	0 m	1.6 m	270 deg	5.0 ft/ sec	

Rig Dir.	Ris. Tension	VDL	Comments
238.9 deg	0 klb	3712.0 klb	

Rig Support

Anchors	Tension (klb)
1	195.0
2	195.0
3	189.0
4	200.0
5	207.0
6	230.0
7	232.0
8	195.0

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Lady Dawn	stdby	2330	L.Dawn at port 0800 on 16 oct.	**Item**	**Unit**	**Quantity**
Pacific Challenger	0645	stdby		**Item**	**Unit**	**Quantity**

Helicopter Movement

Flight #	Time	Destination	Comment	Pax
1	14:47	Epoch	VH-BHY	4
1	15:01	Melbourne	VH-BHY	5

Santos

DRILLING MORNING REPORT # 5
Casino #3 (17 Oct 2003)

From : G. Howard/ H. Flink

Well Data

Country	Australia	M. Depth	645.0 m	Cur. Hole Size	17.500 in		
Field	Casino	TVD	645.0 m	Casing OD	30.000 in		
Drill Co.	DOGC	Progress	524.0 m	Shoe TVD	121.3 m		
Rig	Ocean Epoch	Days from spud	3.37	FIT	0 ppg		
Wtr Dpth(LAT)	66.7 m	Days on well	4.79	LOT	0 ppg	Planned TD	2137.0 m
RT-ASL(LAT)	22.4 m	Current Op @ 0600	R/ U BOP's and riser.				
RT-ML	89.1 m	Planned Op	Function test and run BOP stack.				

Summary of Period 0000 to 2400 Hrs

POH 17.5" drilling assembly. Run and cement 13.375" casing.

Operations For Period 0000 Hrs to 2400 Hrs on 17 Oct 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
SH	P	CHC	0000	0100	1.00	645.0 m	Pumped 50bbl sweep then displaced hole with 800bbl PHG.
SH	P	TOT	0100	0600	5.00	645.0 m	POH from 645m, 30k - 50k drag from 570m - 496m, worked through tight spots without using pump or rotary.
SH	P	HBHA	0600	0730	1.50	645.0 m	POH, broke out bit and racked back BHA.
SH	P	RUC	0730	0830	1.00	645.0 m	Made up cement head and racked back.
SH	P	RRC	0830	1000	1.50	645.0 m	Cleared rig floor and rigged to run casing.
SH	P	CRN	1000	1100	1.00	645.0 m	Made up shoe jnt and float collar and secured to guide lines with soft line guide ropes.
SH	P	CRN	1100	1630	5.50	645.0 m	Made up the Tam packer on top drive & ran 44 jnts of 68 ppf, L80, 13-5/ 8" csg. washed down one joint through a tight spot at 490m.
SH	P	CRN	1630	1800	1.50	645.0 m	Rigged down the Tam packer, made up & orientated the 18.75" well head assembly.
SH	P	CRN	1800	1930	1.50	645.0 m	Ran casing on DP, made up the cement head stand and landed the well head with 55kips. Applied 60kips overpull to check the well head latch.
SH	P	CIC	1930	2030	1.00	645.0 m	Circulated 450 bbls seawater @ 10 bbls/ min @ 300psi.
SH	P	CMC	2030	2300	2.50	645.0 m	Made up cementing lines, held a JSA & pressure tested cementing lines to 3000psi. Released bottom Dart then Pumped 770 sx (305 bbls) 12.5 ppg class G lead followed by 800sx (168bbls) 15.8 ppg class G tail.
SH	P	CMC	2300	2400	1.00	645.0 m	Released the Top Dart and pumped 20 bbls seawater with Halliburton. Bottom plug release observed at 300psi. Followed with 248bbls seawater displacement with rig pump @ 10 bpm. Bumped plug with 800 psi and tested casing to 3000 psi for 10 mins with Halliburton (no backflow observed).

Operations For Period 0000 Hrs to 0600 Hrs on 18 Oct 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
SC	P	CMC	0000	0100	1.00	645.0 m	Broke off the cementing line, released the CART from the well head with 4 1/ 2 turns to the right. commenced POOH with running string. racked cement head back in the derrick.
SC	P	CMC	0100	0130	0.50	645.0 m	Continued POH, laid down the CART tool.
SC	P	BOP	0130	0600	4.50	645.0 m	(IN PROGRESS) Rigged up floor to run BOP stack. Moved the rig 15m forward off the well head and P/ U BOP's and moved to cellar deck beams.

Phase Data to 2400hrs, 17 Oct 2003

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
PRODUCTION HOLE(PH)	6	30 Oct 2003	30 Oct 2003	6	0 days	2004.0 m
RIG MOVE/ RIG-UP/ PRESPUD(RM)	22.5	13 Oct 2003	14 Oct 2003	28.5	1 days	0 m
CONDUCTOR HOLE(CH)	37	14 Oct 2003	15 Oct 2003	65.5	3 days	121.3 m
SURFACE HOLE(SH)	49.5	15 Oct 2003	17 Oct 2003	115	5 days	645.0 m

WBM Data

Cost Today $ 0

Mud Type:	Sea water with PHB sweeps	API FL:	0 cm³/ 30m	Cl:	0	Solids(%vol):	0
Sample-From:	Pit	Filter-Cake:	0 / 32nd"	K+C*1000:	0 %	H2O:	0 %
Time:	18:00	HTHP-FL:	0 cm³/ 30m	Hard/Ca:	0	Oil(%):	0 %
Weight:	8.67 ppg	HTHP-cake:	0 / 32nd"	MBT:	0	Sand:	
Temp:	24.5 C°			PM:	0	pH:	0
				PF:	0	PHPA:	0 ppb

Comment

Viscosity	121 sec/ qt
PV	15 cp
YP	74 lb/ 100ft²
Gels 10s	0
Gels 10m	0
Fann 003	0
Fann 006	0
Fann 100	0
Fann 200	0
Fann 300	0
Fann 600	0

Printed on 30 Oct 2003

Bit # 2

Wear	I	O1	D	L	B	G	O2	R
	1	1	FC	A	2	I	NO	TD

Size (''):	17.50 in	IADC#		Nozzles		Drilled over last 24 hrs		Calculated over Bit Run	
Mfr:	REED	WOB(avg)	20.0 klb	No.	Size	Progress	524.0 m	Cum. Progress	1048.0 m
Type:	Rock	RPM(avg)	120	1	20 / 32nd"	On Bottom Hrs	7.90 h	Cum. On Btm Hrs	15.80 h
Serial No.:	H38311	F.Rate	1200 gpm	3	22 / 32nd"	IADC Drill Hrs	14.50 h	Cum IADC Drill Hrs	29.00 h
Bit Model	EM511GC	SPP	2400 psi			Total Revs	0	Cum Total Revs	0
Depth In	121.0 m	TFA	1.421			ROP(avg)	66 m/ h	ROP(avg)	66.3
Depth Out	645.0 m								

BHA # 2

Weight(Wet)	45.0 klb	Length	264.7 m	Torque(max)	7000 ft-lbs	D.C. (1) Ann Velocity	136.2
Wt Below Jar(Wet)	26.0 klb	String	215.0 klb	Torque(Off.Btm)	0 ft-lbs	D.C. (2) Ann Velocity	123.5
		Pick-Up	215.0 klb	Torque(On.Btm)	5000 ft-lbs	H.W.D.P. Ann Velocity	104.6
		Slack-Off	215.0 klb			D.P. Ann Velocity	104.6

BHA Run Description: 17.5" NB Stab c/ w; ported float; Anderdrift with totco; 17.5" Stab; 1 x 9.5" DC; 17.5" Stab; 2x9.5" DC's; x/ o; 6 x 8.25" DC's; 8" Jar; 4 x 8.25" DC's; 8" Accel; x/ o; 12 x 5" HWDP;

BHA Run Comment

Survey

MD	Incl Deg	Corr. Az (deg)	TVD	'V' Sect	Dogleg (deg/100ft)	N/S	E/W	Tool Type
0	0	0	0	0	0	0	0	MWD
0	0	0	0	0	0	0	0	MWD
0	0	0	0	0	0	0	0	

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite	sx	0	0	0	770
Cement	sx	0	2023	0	1407
Gel	sx	0	0	0	754
Potable Water	MT	29	20	0	111
Drill Water	MT	0	96	0	806
Mud	sx	0	0	0	0
Fuel	MT	0	7	0	389

Personnel On Board

Company	Pax
Santos	4
Total Marine Catering	8
Santos Service	20
DOGC	44
Total	76

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	Oilwell 1700PT	6.50	8.60	97	80	2400	400
2	Oilwell 1700PT	6.50	8.60	97	80	2400	400
3	Oilwell 1700PT	6.50	8.60	97	80	2400	400

Slow Pump Data

Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0

Casing

OD	LOT / FIT	Csg Shoe (MD/TVD)	Cementing
30 "	0 ppg / 0 ppg	121.0 m / 121.0 m	154 bbls (750 sx) Class G w/ 1% CaCl2 15.8 ppg
13 3/ 8"	15.00 ppg / 0 ppg	635.8 m / 635.8 m	Lead - 304 bbls (768sx) c/ w 0.6 gal/ sx Econolite @ 12.5 lb/ gal. Tail - 172 (389sx) c/ w neat in seawater @ 15.8lbs/ gal.

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Lost Time Incident	24 Apr 2001	906 Days	Lost Time Incident	None

Printed on 30 Oct 2003

Shakers, Volumes and Losses Data

Engineer : William McKay

Equip.	Descr.	Mesh Size

Available	0 bbl	Losses	1321 bbl	Comments
Active	0 bbl	Downhole	0 bbl	
Mixing	0 bbl	Surf+ Equip	0 bbl	
Hole	0 bbl	Dumped	0 bbl	
Slug	0 bbl	De-Sander	0 bbl	
Reserve	0 bbl	De-Silter	0 bbl	
Kill	0 bbl	Centrifuge	0 bbl	
		Discharged	1321.0 bbl	

Marine

Weather on 17 Oct 2003

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.00 nm	8.0 kn	023 deg	1022 bar	14.0 C°	0.6 m	023 deg	0 ft/ sec

Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments
0.2 deg	0.3 deg	0 m	1.5 m	225 deg	0 ft/ sec	

Rig Dir.	Ris. Tension	VDL	Comments
239.0 deg	0 klb	3840.0 klb	

Rig Support

Anchors	Tension (klb)
1	191.0
2	197.0
3	203.0
4	227.0
5	198.0
6	239.0
7	234.0
8	199.0

Boats	Arrived (date/time)	Departed (date/time)	Status
Lady Dawn	23:15	Stdby	
Pacific Challenger	Stdby	20:14	Gone to Port.

Bulks

Item	Unit	Quantity
Barite	sx	926
Cement	sx	0
Gel	sx	0
Potable Water	MT	562
Drill Water	MT	0
Mud	sx	0
Fuel	MT	382

Item	Unit	Quantity
Barite	sx	0
Cement	sx	0
Gel	sx	0
Potable Water	MT	122
Drill Water	MT	0
Mud	sx	0
Fuel	MT	404

Helicopter Movement

Flight #	Time	Destination	Comment	Pax
1	08:30	Ocean Epoch	VH - BHY	13
2	08:50	Melbourne	VH - BHY	11

Santos

DRILLING MORNING REPORT # 6
Casino #3 (18 Oct 2003)

From : G. Howard/ H. Flink

Well Data

Country	Australia	M. Depth	645.0 m	Cur. Hole Size	17.500 in		
Field	Casino	TVD	645.0 m	Casing OD	30.000 in		
Drill Co.	DOGC	Progress	0 m	Shoe TVD	121.3 m		
Rig	Ocean Epoch	Days from spud	4.37	FIT	0 ppg		
Wtr Dpth(LAT)	66.7 m	Days on well	5.79	LOT	0 ppg	Planned TD	2137.0 m
RT-ASL(LAT)	22.4 m	Current Op @ 0600	Pressure testing choke and kill lines.				
RT-ML	89.1 m	Planned Op	Reposition rig & land BOP's. Function test POD. Install Diverter and wear bushing. Lay down 17.5" BHA & P/ U 12.25" drilling assembly.				

Summary of Period 0000 to 2400 Hrs

Rig down cementing lines and equipment. Rig up and run BOP's & riser.

Operations For Period 0000 Hrs to 2400 Hrs on 18 Oct 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
SC	P	CMC	0000	0100	1.00	645.0 m	Broke off the cementing line, released the CART from the well head with 4 1/ 2 turns to the right. commenced POOH with running string. racked cement head back in the derrick.
SC	P	CMC	0100	0130	0.50	645.0 m	Continued POH, laid down the CART tool.
SC	P	BOP	0130	0630	5.00	645.0 m	Rigged up floor to run BOP stack. Moved the rig 15m forward off the well head and P/ U BOP's and moved to cellar deck beams.
SC	P	BOP	0630	0730	1.00	645.0 m	P/ U LMRP and latched onto BOP's.
SC	P	BOP	0730	0830	1.00	645.0 m	Installed yellow and blue pods.
SC	P	BOP	0830	1500	6.50	645.0 m	Pressure tested C&K lines and pod hoses. Blue Pod leaked betwen the upper male pod and the lower female receptacle.
SC	TP	BOP	1500	1830	3.50	645.0 m	Troubleshot the problem on the blue pod.
SC	P	BOP	1830	2000	1.50	645.0 m	Performed accumulator depletion test on system.
SC	P	BOP	2000	2400	4.00	645.0 m	Held JSA. Ran BOP's and riser.

Operations For Period 0000 Hrs to 0600 Hrs on 19 Oct 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
SC	P	BOP	0000	0600	6.00	645.0 m	Reviewed JSA and P/ U landing joint. Positioned slip joint and installed riser tensioners, choke and kill lines and goose neck. Tested choke and kill lines.

Phase Data to 2400hrs, 18 Oct 2003

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
PRODUCTION HOLE(PH)	6	30 Oct 2003	30 Oct 2003	6	0 days	2004.0 m
RIG MOVE/ RIG-UP/ PRESPUD(RM)	22.5	13 Oct 2003	14 Oct 2003	28.5	1 days	0 m
CONDUCTOR HOLE(CH)	37	14 Oct 2003	15 Oct 2003	65.5	3 days	121.3 m
SURFACE HOLE(SH)	49.5	15 Oct 2003	17 Oct 2003	115	5 days	645.0 m
SURFACE CASING(SC)	24	18 Oct 2003	18 Oct 2003	139	6 days	645.0 m

WBM Data

Cost Today $ 26,998

Mud Type:		API FL:	0 cm³/ 30m	Cl:	0	Solids(%vol):	0
Sample-From:	Pit	Filter-Cake:	0 / 32nd"	K+C*1000:	0 %	H2O:	0 %
Time:	21:00	HTHP-FL:	0 cm³/ 30m	Hard/Ca:	50	Oil(%):	0 %
Weight:	8.60 ppg	HTHP-cake:	0 / 32nd"	MBT:	0	Sand:	
Temp:	48.0 C°			PM:	0	pH:	9.5
				PF:	0	PHPA:	0 ppb

Comment

Viscosity	67 sec/ qt
PV	19 cp
YP	23 lb/ 100ft²
Gels 10s	0
Gels 10m	0
Fann 003	8
Fann 006	10
Fann 100	24
Fann 200	35
Fann 300	42
Fann 600	61

Survey

MD	Incl Deg	Corr. Az (deg)	TVD	'V' Sect	Dogleg (deg/100ft)	N/S	E/W	Tool Type
0	0	0	0	0	0	0	0	MWD
0	0	0	0	0	0	0	0	MWD
0	0	0	0	0	0	0	0	

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance

Personnel On Board

Company	Pax
Santos	4
Santos	4
Total Marine Catering	8
Total Marine Catering	8
Santos Service	20
Santos Service	20
DOGC	44
DOGC	44
Total	152

Casing

OD	LOT / FIT	Csg Shoe (MD/TVD)	Cementing
30 "	0 ppg / 0 ppg	121.0 m / 121.0 m	154 bbls (750 sx) Class G w/ 1% CaCl2 15.8 ppg
13 3/ 8"	15.00 ppg / 0 ppg	635.8 m / 635.8 m	Lead - 304 bbls (768sx) c/ w 0.6 gal/ sx Econolite @ 12.5 lb/ gal. Tail - 172 (389sx) c/ w neat in seawater @ 15.8lbs/ gal.

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Lost Time Incident	24 Apr 2001	907 Days	Lost Time Incident	None

Shakers, Volumes and Losses Data

Engineer : William McKay

Equip.	Descr.	Mesh Size

Available	**1767 bbl**	**Losses**	**0 bbl**	Comments
Active	0 bbl	Downhole	0 bbl	
Mixing	0 bbl	Surf+ Equip	0 bbl	
Hole	0 bbl	Dumped	0 bbl	
Slug	0 bbl	De-Sander	0 bbl	
Reserve	1767.0 bbl	De-Silter	0 bbl	
Kill	0 bbl	Centrifuge	0 bbl	

Marine

Weather on 18 Oct 2003

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.00 nm	15.0 kn	023 deg	1008 bar	18.0 C°	1.2 m	023 deg	0 ft/ sec

Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments
0.4 deg	0.4 deg	2.43 m	2.0 m	225 deg	0 ft/ sec	

Rig Dir.	Ris. Tension	VDL	Comments
239.0 deg	0 klb	4347.0 klb	

Rig Support

Anchors	Tension (klb)
1	164.0
2	208.0
3	196.0
4	193.0
5	190.0
6	152.0
7	236.0
8	194.0

Boats	Arrived (date/time)	Departed (date/time)	Status
Lady Dawn	23:15	Stdby	
Pacific Challenger	Stdby	Stdby	In Port.

Lady Dawn

Item	Unit	Quantity
Barite	sx	926
Cement	sx	0
Gel	sx	0
Potable Water	MT	557
Drill Water	MT	75
Mud	sx	0
Fuel	MT	379

Pacific Challenger

Item	Unit	Quantity
Barite	sx	0
Cement	sx	0
Gel	sx	0
Potable Water	MT	0
Drill Water	MT	0
Mud	sx	0
Fuel	MT	0

Santos

DRILLING MORNING REPORT # 7
Casino #3 (19 Oct 2003)

From : G. Howard/ H. Flink

Well Data

Country	Australia	M. Depth	645.0 m	Cur. Hole Size	17.500 in		
Field	Casino	TVD	645.0 m	Casing OD	13.375 in		
Drill Co.	DOGC	Progress	0 m	Shoe TVD	635.8 m		
Rig	Ocean Epoch	Days from spud	5.37	FIT	0 ppg		
Wtr Dpth(LAT)	66.7 m	Days on well	6.79	LOT	0 ppg	Planned TD	2137.0 m
RT-ASL(LAT)	22.4 m	Current Op @ 0600	Waiting on weather to release inner barrel of slip joint. Picking up drill pipe				
RT-ML	89.1 m	Planned Op	Wait on weather, release and stroke out inner barrel of slip joint, install and test diverter. lay down 17 1/ 2 BHA and P/ U 12 1/ 4" BHA				

Summary of Period 0000 to 2400 Hrs

Landed BOP's, pressure tested BOP connector and wait on weather to continue operations.

Operations For Period 0000 Hrs to 2400 Hrs on 19 Oct 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
SC	P	BOP	0000	0600	6.00	645.0 m	Reviewed JSA and P/ U landing joint. Positioned slip joint and installed riser tensioners, choke and kill lines and goose neck. Tested choke and kill lines.
SC	P	BOP	0600	0700	1.00	645.0 m	Installed safety lines on C&K and goosenecks. Move rig (~50ft) back over location.
SC	TP	BOP	0700	0900	2.00	645.0 m	Attempted to land BOP's but ROV visual failed. Recover ROV to surface for repair.
SC	P	BOP	0900	1030	1.50	645.0 m	Positioned rig over PGB. Landed BOP's, latched connector and pull tested same with 50kips. BOP weight prior to latching 260 kips.
SC	P	BOP	1030	1130	1.00	645.0 m	Installed stuffing box on yellow and blue pods.
SC	P	BOP	1130	1200	0.50	645.0 m	R/ U and tested connector down C&K lines and up against shear blind rams. 250 psi low, 3000 psi high for 10 mins.
SC	U	WOW	1200	2400	12.00	645.0 m	While waiting on weather picked up 5" drill pipe in preparation for next hole section.

Operations For Period 0000 Hrs to 0600 Hrs on 20 Oct 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
SC	TP	WOW	0000	0300	3.00	645.0 m	Continue make up 5" (127 mm) drill pipe in rotating mouse-hole while Waiting On Weather to release lock down dogs to release and stroke out inner barrel of slip joint. 02:00 hrs: Wind 18 - 22 kts NNW, Wave ht 6 - 8 m, Heave 2.4 m to 3.0 m.
SC	TP	WOW	0300	0500	2.00	645.0 m	Rigged up Flow Line under rig floor. Change pop-off valve on #3 mud pump. Attempt unlock slip-joint. No Go.
SC	TP	WOW	0500	0600	1.00	645.0 m	(IN PROGRESS) Re-arrange tubulars in derrick and continue make up 5" (127 mm) drill pipe in rotating mouse hole, while continue Waiting On Weather. All 5" (127 mm) drill pipe to drill to TD of 12 1/ 4" (311 mm) hole section picked up. 06:00 hrs: Wind 15 - 20 kts NW, Wave ht 6 - 8 m, Heave 2.4 m to 3.0 m 10:00 hrs: Wind 15 - 20 kts NW, Wave ht 6 - 9 m, Heave 2.4 m to 3.0 m 12:00 hrs: Wind 15 - 20 kts NW, Wave ht 7 - 12 m, Heave 2.4 m to 3.0 m 14:00 hrs: Wind 20 - 25 kts NW, Wave ht 4 - 7 m, Heave 2.4 m to 3.0 m 18:00 hrs: Wind 20 - 30 kts NW, Wave ht 4 - 6 m, Heave 2.4 m to 3.0 m

Phase Data to 2400hrs, 19 Oct 2003

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
PRODUCTION HOLE(PH)	6	30 Oct 2003	30 Oct 2003	6	0 days	2004.0 m
RIG MOVE/ RIG-UP/ PRESPUD(RM)	22.5	13 Oct 2003	14 Oct 2003	28.5	1 days	0 m
CONDUCTOR HOLE(CH)	37	14 Oct 2003	15 Oct 2003	65.5	3 days	121.3 m
SURFACE HOLE(SH)	49.5	15 Oct 2003	17 Oct 2003	115	5 days	645.0 m
SURFACE CASING(SC)	48	18 Oct 2003	19 Oct 2003	163	7 days	645.0 m

WBM Data — Cost Today $ 4,400

Mud Type:		API FL:	0 cm³/ 30m	Cl:	0	Solids(%vol):	0
Sample-From:	Pit	Filter-Cake:	0 / 32nd"	K+C*1000:	0 %	H2O:	0 %
Time:	21:00	HTHP-FL:	0 cm³/ 30m	Hard/Ca:	50	Oil(%):	0 %
Weight:	8.60 ppg	HTHP-cake:	0 / 32nd"	MBT:	0	Sand:	
Temp:	48.0 C°			PM:	0	pH:	9.5
				PF:	0	PHPA:	0 ppb

Viscosity	69 sec/ qt
PV	20 cp
YP	36 lb/ 100ft²
Gels 10s	0
Gels 10m	0
Fann 003	8
Fann 006	10
Fann 100	24
Fann 200	35
Fann 300	42
Fann 600	61

Comment

Printed on 30 Oct 2003

Survey

MD	Incl Deg	Corr. Az (deg)	TVD	'V' Sect	Dogleg (deg/100ft)	N/S	E/W	Tool Type
0	0	0	0	0	0	0	0	MWD
0	0	0	0	0	0	0	0	MWD
0	0	0	0	0	0	0	0	

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance

Personnel On Board

Company	Pax
Santos	4
Total Marine Catering	8
Santos Service	20
DOGC	44
Total	76

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	Oilwell A1700PT	5.50	0	97	0	0	0
2	Oilwell A1700PT	5.50	0	97	0	0	0
3	Oilwell A1700PT	5.50	0	97	0	0	0

Slow Pump Data

Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0

Casing

OD	LOT / FIT	Csg Shoe (MD/TVD)	Cementing
30 "	0 ppg / 0 ppg	121.0 m / 121.0 m	154 bbls (750 sx) Class G w/ 1% CaCl2 15.8 ppg
13 3/ 8"	15.00 ppg / 0 ppg	635.8 m / 635.8 m	Lead - 304 bbls (768sx) c/ w 0.6 gal/ sx Econolite @ 12.5 lb/ gal. Tail - 172 (389sx) c/ w neat in seawater @ 15.8lbs/ gal.

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Lost Time Incident	24 Apr 2001	908 Days	Lost Time Incident	None
Safety Meeting	19 Oct 2003	0 Days	Weekly general @ 13:00hrs,19:30hrs,01:00hrs	

Shakers, Volumes and Losses Data

Engineer : William McKay

Equip.	Descr.	Mesh Size

				Comments
Available	**1770 bbl**	**Losses**	**0 bbl**	
Active	0 bbl	Downhole	0 bbl	
Mixing	0 bbl	Surf+ Equip	0 bbl	
Hole	0 bbl	Dumped	0 bbl	
Slug	0 bbl	De-Sander	0 bbl	
Reserve	1770.0 bbl	De-Silter	0 bbl	
Kill	0 bbl	Centrifuge	0 bbl	

Marine

Weather on 19 Oct 2003

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
7.00 nm	30.0 kn	270 deg	1013 bar	13.0 C°	1.8 m	270 deg	0 ft/ sec

Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments
1.0 deg	1.0 deg	3.00 m	3.0 m	202 deg	0 ft/ sec	

Rig Dir.	Ris. Tension	VDL	Comments
239.0 deg	0 klb	4114.0 klb	

Rig Support

Anchors	Tension (klb)
1	164.0
2	208.0
3	195.0
4	246.0
5	148.0
6	182.0
7	236.0
8	146.0

Printed on 30 Oct 2003

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks
Lady Dawn	23:15	Stdby	Standby the rig	

Item	Unit	Quantity
Barite	sx	926
Cement	sx	0
Gel	sx	0
Potable Water	MT	557
Drill Water	MT	75
Mud	sx	0
Fuel	MT	374

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks
Pacific Challenger	Stdby	Stdby	In Port.	

Item	Unit	Quantity
Barite	sx	0
Cement	sx	0
Gel	sx	0
Potable Water	MT	209
Drill Water	MT	564
Mud	sx	0
Fuel	MT	388.4

Helicopter Movement

Flight #	Time	Destination	Comment	Pax
Nil				0

Santos

DRILLING MORNING REPORT # 8
Casino #3 (20 Oct 2003)

From : G. Howard / S. Douglass

Well Data

Country	Australia	M. Depth	645.0 m	Cur. Hole Size	12.250 in		
Field	Casino	TVD	645.0 m	Casing OD	13.375 in		
Drill Co.	DOGC	Progress	0 m	Shoe TVD	635.8 m		
Rig	Ocean Epoch	Days from spud	6.37	FIT	0 ppg		
Wtr Dpth(LAT)	66.7 m	Days on well	7.79	LOT	0 ppg	Planned TD	2137.0 m
RT-ASL(LAT)	22.4 m	Current Op @ 0600	Waiting on weather to release slip-joint lock down dogs. Rig heave increasing from 24:00 hrs as wind drops.				
RT-ML	89.1 m	Planned Op	Evaluate weather and release slip joint lock down dogs when safe to do so.				

Summary of Period 0000 to 2400 Hrs

Pick up 5" (127 mm) drill pipe. Make up and install flow-line. Wait on weather.

Operations For Period 0000 Hrs to 2400 Hrs on 20 Oct 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
SC	TP	WOW	0000	0300	3.00	645.0 m	Continue make up 5" (127 mm) drill pipe in rotating mouse-hole while Waiting On Weather to release lock down dogs to release and stroke out inner barrel of slip joint. 02:00 hrs: Wind 18 - 22 kts NNW, Wave ht 6 - 8 m, Heave 2.4 m to 3.0 m.
SC	TP	WOW	0300	0500	2.00	645.0 m	Rigged up Flow Line under rig floor. Change pop-off valve on #3 mud pump. Attempt unlock slip-joint. No Go.
SC	TP	WOW	0500	2100	16.00	645.0 m	Re-arrange tubulars in derrick and continue make up 5" (127 mm) drill pipe in rotating mouse hole, while continue Waiting On Weather. All 5" (127 mm) drill pipe to drill to TD of 12 1/ 4" (311 mm) hole section picked up. 06:00 hrs: Wind 15 - 20 kts NW, Wave ht 6 - 8 m, Heave 2.4 m to 3.0 m 10:00 hrs: Wind 15 - 20 kts NW, Wave ht 6 - 9 m, Heave 2.4 m to 3.0 m 12:00 hrs: Wind 15 - 20 kts NW, Wave ht 7 - 12 m, Heave 2.4 m to 3.0 m 14:00 hrs: Wind 20 - 25 kts NW, Wave ht 4 - 7 m, Heave 2.4 m to 3.0 m 18:00 hrs: Wind 20 - 30 kts NW, Wave ht 4 - 6 m, Heave 2.4 m to 3.0 m
SC	TP	WOW	2100	2400	3.00	645.0 m	Wait on Weather. Perform housekeeping and rig maintenance. Regular re-appraisal of opportunities of releasing lock-down dogs. 22:00 hrs: Wind 15 - 20 kts NW, Wave ht 4 - 6 m, Heave 2.4 m to 3.7 m. 24:00 hrs: Wind 15 - 20 kts NW, Wave ht 4 - 6 m, Heave 2.4 m to 3.7 m.

Operations For Period 0000 Hrs to 0600 Hrs on 21 Oct 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
SC	TP	WOW	0000	0600	6.00	645.0 m	(IN PROGRESS) Continue wait on weather. Regular monitoring of rig heave, and regular assessment of possibilities of releasing slip-joint. No go. Routine maintenence and housekeeping work while waiting on weather. 02:00 hrs: Wind 15-20 W, Wave 1.3 -2 m, Swell 2.4 -3.7 m, Heave 3 -4.9 m. 04:00 hrs: Wind 15-20 W, Wave 1.3 -2 m, Swell 2.4 -3.7 m, Heave 2.4 -4.9 m. 06:00 hrs: Wind 12-18 WNW, Wave 1.3 -2 m, Swell 2.4 -3.0 m, Heave 3.3 -4.3 m. 10:00 hrs: Wind 12-18 W, Wave 1.3 -2 m, Swell 2.4 -5.8 m, Heave 3.3 -3.7 m. 12:00 hrs: Wind 12-15 W, Wave 1.3 -2 m, Swell 2.1 -3.0 m, Heave 2.7 -3.7 m.

Phase Data to 2400hrs, 20 Oct 2003

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
PRODUCTION HOLE(PH)	6	30 Oct 2003	30 Oct 2003	6	0 days	2004.0 m
RIG MOVE/ RIG-UP/ PRESPUD(RM)	22.5	13 Oct 2003	14 Oct 2003	28.5	1 days	0 m
CONDUCTOR HOLE(CH)	37	14 Oct 2003	15 Oct 2003	65.5	3 days	121.3 m
SURFACE HOLE(SH)	49.5	15 Oct 2003	17 Oct 2003	115	5 days	645.0 m
SURFACE CASING(SC)	72	18 Oct 2003	20 Oct 2003	187	8 days	645.0 m

General Comments

00:00 TO 24:00 Hrs ON 20 Oct 2003

Comments	Rig Requirements	Lessons Learnt
Make up 5" (127 mm) drill pipe while wait on weather to unlock riser slip joint lock-down dogs. Wait on weather.		Riser slip joint locking system requires modification to allow release in heavy seas.

WBM Data

Cost Today $ -3,919

Mud Type:	PHPA/ Glycol	API FL:	10 cm³/ 30m	Cl:	0	Solids(%vol):	3	Viscosity	70 sec/ qt
Sample-From:	Pit	Filter-Cake:	1 / 32nd"	K+C*1000:	0 %	H2O:	97 %	PV	20 cp
Time:	22:00	HTHP-FL:	0 cm³/ 30m	Hard/Ca:	50	Oil(%):	0 %	YP	35 lb/ 100ft²
Weight:	8.60 ppg	HTHP-cake:	0 / 32nd"	MBT:	5	Sand:		Gels 10s	9
Temp:	48.0 C°			PM:	0	pH:	9.5	Gels 10m	18
				PF:	0	PHPA:	1 ppb	Fann 003	8
								Fann 006	10
								Fann 100	23
								Fann 200	43
								Fann 300	55
								Fann 600	75

Comment: Adjustment to products used - products not added to mud system = credit today.

Survey

MD	Incl Deg	Corr. Az (deg)	TVD	'V' Sect	Dogleg (deg/100ft)	N/S	E/W	Tool Type
0	0	0	0	0	0	0	0	MWD
0	0	0	0	0	0	0	0	MWD
0	0	0	0	0	0	0	0	

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance

Personnel On Board

Company	Pax
Santos	5
BHI - INTEQ	2
Geoservices	6
Halliburton	1
Sperry-Sun	2
TMT	6
Dril-Quip	1
DOGC	42
DOGC Service	4
Total Marine Catering	8
Total	77

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	Oilwell A1700PT	5.50	0	97	0	0	0
2	Oilwell A1700PT	5.50	0	97	0	0	0
3	Oilwell A1700PT	5.50	0	97	0	0	0

Slow Pump Data

Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0

Casing

OD	LOT / FIT	Csg Shoe (MD/TVD)	Cementing
30 "	0 ppg / 0 ppg	121.0 m / 121.0 m	154 bbls (750 sx) Class G w/ 1% CaCl2 15.8 ppg
13 3/ 8"	15.00 ppg / 0 ppg	635.8 m / 635.8 m	Lead - 304 bbls (768sx) c/ w 0.6 gal/ sx Econolite @ 12.5 lb/ gal. Tail - 172 (389sx) c/ w neat in seawater @ 15.8lbs/ gal.

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Abandon Drill	20 Oct 2003	0 Days	Abandon Rig Drill	
Fire Drill	20 Oct 2003	0 Days	Fire Drill	
Lost Time Incident	24 Apr 2001	909 Days	Lost Time Incident	None
Walkabout	20 Oct 2003	0 Days	Daily Walkround of Rig	

Printed on 30 Oct 2003

Shakers, Volumes and Losses Data

Engineer : William McKay

Equip.	Descr.	Mesh Size

				Comments
Available	**1771 bbl**	**Losses**	**0 bbl**	Daily Additions = 1 bbl product.
Active	0 bbl	Downhole	0 bbl	
Mixing	0 bbl	Surf+ Equip	0 bbl	
Hole	0 bbl	Dumped	0 bbl	
Slug	0 bbl	De-Sander	0 bbl	
Reserve	1771.0 bbl	De-Silter	0 bbl	
Kill	0 bbl	Centrifuge	0 bbl	

Marine

Weather on 20 Oct 2003

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
2.00 nm	30.0 kn	315 deg	1010 bar	14.0 C°	2.0 m	315 deg	0 ft/ sec

Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments
1.5 deg	1.3 deg	3.00 m	5.0 m	202 deg	0 ft/ sec	

Rig Dir.	Ris. Tension	VDL	Comments
239.0 deg	198.0 klb	4072.0 klb	

Rig Support

Anchors	Tension (klb)
1	195.0
2	198.0
3	218.0
4	224.0
5	216.0
6	204.0
7	187.0
8	175.0

Boats	Arrived (date/time)	Departed (date/time)	Status
Lady Dawn	Standby	22:55	En Route to Portland
Pacific Challenger	22:30	Standby	Standing by in field.

Bulks

Item	Unit	Quantity
Barite	sx	0
Cement	sx	0
Gel	sx	0
Potable Water	MT	0
Drill Water	MT	0
Mud	sx	0
Fuel	MT	0

Item	Unit	Quantity
Barite	sx	42
Cement	sx	0
Gel	sx	0
Potable Water	MT	206
Drill Water	MT	564
Mud	sx	0
Fuel	MT	532

Helicopter Movement

Flight #	Time	Destination	Comment	Pax
VH-BHY	15:35	O. Epoch		7
VH-BHY	15:50	Essendon		6

Printed on 30 Oct 2003

Santos

DRILLING MORNING REPORT # 9
Casino #3 (21 Oct 2003)

From : G. Howard / S. Douglass

Well Data

Country	Australia	M. Depth	645.0 m	Cur. Hole Size	12.250 in		
Field	Casino	TVD	645.0 m	Casing OD	13.375 in		
Drill Co.	DOGC	Progress	0 m	Shoe TVD	635.8 m		
Rig	Ocean Epoch	Days from spud	7.37	FIT	0 ppg		
Wtr Dpth(LAT)	66.7 m	Days on well	8.79	LOT	0 ppg	Planned TD	2137.0 m
RT-ASL(LAT)	22.4 m	Current Op @ 0600	Pick up 12 1/ 4" (311 mm) BHA.				
RT-ML	89.1 m	Planned Op	Continue to Pick up 12 1/ 4" (311 mm) BHA and RIH. Test LMRP connection. Continue RIH and tag Top of Cement / plugs inside 13 3/ 8" (340 mm) casing. Drill out plugs, shoe track, casing shoe, clean out rat-hole and drill 3 m formation and perform Leak Off Test. Drill ahead 12 1/ 4" (311 mm) hole.				

Summary of Period 0000 to 2400 Hrs

Wait on weather. Unlatch and release riser slip joint. Rig up divertor. Run 13 3/ 8" (340 mm) wear bushing. Test LMRP connector. Recover bent drill pipe from well.

Operations For Period 0000 Hrs to 2400 Hrs on 21 Oct 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
SC	TP	WOW	0000	1400	14.00	645.0 m	Continue wait on weather. Regular monitoring of rig heave, and regular assessment of possibilities of releasing slip-joint. No go. Routine maintenence and housekeeping work while waiting on weather. 02:00 hrs: Wind 15-20 W, Wave 1.3 -2 m, Swell 2.4 -3.7 m, Heave 3 -4.9 m. 04:00 hrs: Wind 15-20 W, Wave 1.3 -2 m, Swell 2.4 -3.7 m, Heave 2.4 -4.9 m. 06:00 hrs: Wind 12-18 WNW, Wave 1.3 -2 m, Swell 2.4 -3.0 m, Heave 3.3 -4.3 m. 10:00 hrs: Wind 12-18 W, Wave 1.3 -2 m, Swell 2.4 -5.8 m, Heave 3.3 -3.7 m. 12:00 hrs: Wind 12-15 W, Wave 1.3 -2 m, Swell 2.1 -3.0 m, Heave 2.7 -3.7 m.
SC	P	RR1	1400	1500	1.00	645.0 m	Release lock down dogs on slip joint and release landing joint. Lay down landing joint. Repair elevator locking mechanism and DSC hoses.
SC	P	RR1	1500	1900	4.00	645.0 m	Pick up divertor and land out. Hook up flowline. Rig down riser running equipment.
SC	P	HT	1900	2100	2.00	645.0 m	Rig up 5" (127 mm) drillpipe handling equipment. Lay down cement head. Pick up emergency hang off tool and rack back in derrick.
SC	P	WH	2100	2230	1.50	645.0 m	Pick up and make up 13 3/ 8" (340 mm) wear bushing running tool and 13 3/ 8" (340 mm) wear bushing. RIH and land out 13 3/ 8" (340 mm) wear bushing with 10 klbs (4.5 t) down, and shear out with 15 klbs (6.8 t) over-pull.
SC	U	BOP	2230	2300	0.50	645.0 m	Line up to pressure test LMRP connection: 250 psi (17 bar) / 5 mins, 2500 psi (170 bar) / 5mins. Pipe jacking out of hole. Top single sheared 1 metre (+/ -) above tool joint.
SC	U	BOP	2300	2400	1.00	645.0 m	Recover 8 metre sheared and bent single of drill pipe from elevators. Rig down elevators and lay down short bails. Pick up long bails. Prepare to break out and lay down bent 5" (127 mm) drill pipe.

Operations For Period 0000 Hrs to 0600 Hrs on 22 Oct 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
SC	U	BOP	0000	0200	2.00	645.0 m	Rig up drill pipe elevators to long bails. Align bent 5" (127 mm) drill pipe with tuggers and latch elevators. Recover sheared 1 metre stub and two bent singles of 5" (127 mm) drillpipe. Lay out bent singles and sheared stub.
SC	P	WH	0200	0300	1.00	645.0 m	Continue POOH with 13 3/ 8" (340 mm) wear bushing running tool, laying out double of 5" (127 mm) drill-pipe. Examine running tool. OK. Inspect top drive. OK.
SC	P	HBHA	0300	0600	3.00	645.0 m	Lay down 17 1/ 2" (446 mm) BHA from derrick.

Phase Data to 2400hrs, 21 Oct 2003

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
PRODUCTION HOLE(PH)	6	30 Oct 2003	30 Oct 2003	6	0 days	2004.0 m
RIG MOVE/ RIG-UP/ PRESPUD(RM)	22.5	13 Oct 2003	14 Oct 2003	28.5	1 days	0 m
CONDUCTOR HOLE(CH)	37	14 Oct 2003	15 Oct 2003	65.5	3 days	121.3 m
SURFACE HOLE(SH)	49.5	15 Oct 2003	17 Oct 2003	115	5 days	645.0 m
SURFACE CASING(SC)	96	18 Oct 2003	21 Oct 2003	211	9 days	645.0 m

WBM Data

Cost Today $ 5,920

Mud Type:	PHPA/ Glycol	API FL:	10 cm³/ 30m	Cl:	0	Solids(%vol):	3	Viscosity	70 sec/ qt
Sample-From:	Pit	Filter-Cake:	1 / 32nd"	K+C*1000:	0 %	H2O:	97 %	PV	21 cp
Time:	21:00	HTHP-FL:	0 cm³/ 30m	Hard/Ca:	50	Oil(%):	0 %	YP	33 lb/ 100ft²
Weight:	8.60 ppg	HTHP-cake:	0 / 32nd"	MBT:	5	Sand:		Gels 10s	10
Temp:	48.0 C°			PM:	0	pH:	9.5	Gels 10m	19
				PF:	0	PHPA:	1 ppb	Fann 003	9
								Fann 006	11
								Fann 100	22
								Fann 200	43
								Fann 300	54
								Fann 600	75

Comment

Survey

MD	Incl Deg	Corr. Az (deg)	TVD	'V' Sect	Dogleg (deg/100ft)	N/S	E/W	Tool Type
0	0	0	0	0	0	0	0	MWD
0	0	0	0	0	0	0	0	MWD
0	0	0	0	0	0	0	0	

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance

Personnel On Board

Company	Pax
Santos	5
BHI - INTEQ	2
DOGC Service	2
Geoservices	6
Halliburton	1
Sperry-Sun	2
TMT	6
Dril-Quip	1
DOGC	42
DOGC	2
Total Marine Catering	8
Total	77

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	Oilwell A1700PT	5.50	0	97	0	0	0
2	Oilwell A1700PT	5.50	0	97	0	0	0
3	Oilwell A1700PT	5.50	0	97	0	0	0

Slow Pump Data

Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0

Casing

OD	LOT / FIT	Csg Shoe (MD/TVD)	Cementing
30 "	0 ppg / 0 ppg	121.0 m / 121.0 m	154 bbls (750 sx) Class G w/ 1% CaCl2 15.8 ppg
13 3/ 8"	15.00 ppg / 0 ppg	635.8 m / 635.8 m	Lead - 304 bbls (768sx) c/ w 0.6 gal/ sx Econolite @ 12.5 lb/ gal. Tail - 172 (389sx) c/ w neat in seawater @ 15.8lbs/ gal.

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Abandon Drill	20 Oct 2003	1 Day	Abandon Rig Drill	
Fire Drill	20 Oct 2003	1 Day	Fire Drill	
Lost Time Incident	24 Apr 2001	910 Days	Lost Time Incident	None
Walkabout	21 Oct 2003	0 Days	Daily Walkround of Rig	

Shakers, Volumes and Losses Data

Engineer : William McKay

Equip.	Descr.	Mesh Size
Shaker 1	Thule VSM 300	84 (Lwr Fwd)
Shaker 1	Thule VSM 300	84 (Lwr Fwd)
Shaker 1	Thule VSM 300	84 (Lwr Rear)
Shaker 1	Thule VSM 300	84 (Lwr Rear)
Shaker 1	Thule VSM 300	10 (Upper)
Shaker 1	Thule VSM 300	10 (Upper)
Shaker 2	Thule VSM 300	84 (Lwr Fwd)
Shaker 2	Thule VSM 300	84 (Lwr Fwd)
Shaker 2	Thule VSM 300	84 (Lwr Rear)
Shaker 2	Thule VSM 300	84 (Lwr Rear)
Shaker 2	Thule VSM 300	10 (Upper)
Shaker 2	Thule VSM 300	10 (Upper)
Shaker 3	Thule VSM 300	84 (Lwr Fwd)
Shaker 3	Thule VSM 300	84 (Lwr Fwd)
Shaker 3	Thule VSM 300	84 (Lwr Rear)
Shaker 3	Thule VSM 300	84 (Lwr Rear)
Shaker 3	Thule VSM 300	10 (Upper)
Shaker 3	Thule VSM 300	10 (Upper)
Shaker 4	Thule VSM 300	84 (Lwr Fwd)
Shaker 4	Thule VSM 300	84 (Lwr Fwd)
Shaker 4	Thule VSM 300	84 (Lwr Rear)
Shaker 4	Thule VSM 300	84 (Lwr Rear)
Shaker 4	Thule VSM 300	Open (Upper)
Shaker 4	Thule VSM 300	Open (Upper)

Available	**1774 bbl**
Active	0 bbl
Mixing	0 bbl
Hole	0 bbl
Slug	0 bbl
Reserve	1774.0 bbl
Kill	0 bbl

Losses	**0 bbl**
Downhole	0 bbl
Surf+ Equip	0 bbl
Dumped	0 bbl
De-Sander	0 bbl
De-Silter	0 bbl
Centrifuge	0 bbl

Comments

Daily Additions = 3 bbl product.

Marine

Weather on 21 Oct 2003

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
7.00 nm	15.0 kn	270 deg	1014 bar	12.0 C°	1.8 m	270 deg	0 ft/ sec

Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments
0.5 deg	0.6 deg	3.00 m	3.0 m	202 deg	0 ft/ sec	

Rig Dir.	Ris. Tension	VDL	Comments
239.0 deg	210.0 klb	4192.0 klb	

Rig Support

Anchors	Tension (klb)
1	191.0
2	191.0
3	210.0
4	209.0
5	181.0
6	178.0
7	207.0
8	170.0

Boats	Arrived (date/time)	Departed (date/time)	Status
Lady Dawn	In Port	In Port	Standing by in Portland
Pacific Challenger	Standby	Standby	Standing by - at anchor, in field.

Lady Dawn

Item	Unit	Quantity
Barite	sx	0
Cement	sx	0
Gel	sx	0
Potable Water	MT	0
Drill Water	MT	0
Mud	sx	0
Fuel	MT	0

Pacific Challenger

Item	Unit	Quantity
Barite	sx	926
Cement	sx	0
Gel	sx	0
Potable Water	MT	206
Drill Water	MT	564
Mud	sx	0
Fuel	MT	532

Santos

DRILLING MORNING REPORT # 10
Casino #3 (22 Oct 2003)

From : G. Howard / S. Douglass

Well Data

Country	Australia	M. Depth	715.0 m	Cur. Hole Size	12.250 in		
Field	Casino	TVD	715.0 m	Casing OD	13.375 in		
Drill Co.	DOGC	Progress	70.0 m	Shoe TVD	635.8 m		
Rig	Ocean Epoch	Days from spud	8.37	FIT	0 ppg		
Wtr Dpth(LAT)	66.7 m	Days on well	9.79	LOT	15.00 ppg	Planned TD	2137.0 m
RT-ASL(LAT)	22.4 m	Current Op @ 0600	Circulate and condition mud.				
RT-ML	89.1 m	Planned Op	Drill ahead to bit trip point. POOH and pick up MWD and PDC bit. RIH.				

Summary of Period 0000 to 2400 Hrs

Recover damaged drill pipe, and wear bushing running tool. Lay down 17 1/ 2" (445 mm) BHA. Pick up 12 1/ 4" (311 mm) BHA and RIH. Drill plugs, shoe track, shoe, and clean out rat hole to 645 m. Displace well to PHPA mud and drill ahead to 648 m. Perform LOT. Drill ahead from 648 m to 715 m.

FORMATION

Operations For Period 0000 Hrs to 2400 Hrs on 22 Oct 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
SC	U	BOP	0000	0200	2.00	645.0 m	Rig up drill pipe elevators to long bails. Align bent 5" (127 mm) drill pipe with tuggers and latch elevators. Recover sheared 1 metre stub and two bent singles of 5" (127 mm) drillpipe. Lay out bent singles and sheared stub.
SC	P	WH	0200	0300	1.00	645.0 m	Continue POOH with 13 3/ 8" (340 mm) wear bushing running tool, laying out double of 5" (127 mm) drill-pipe. Examine running tool. OK. Inspect top drive. OK.
SC	P	HBHA	0300	0600	3.00	645.0 m	Lay down 17 1/ 2" (446 mm) BHA from derrick.
SC	P	HBHA	0600	1330	7.50	645.0 m	Pick up and Make up 12 1/ 4" (311 mm) BHA.
SC	P	TI	1330	1500	1.50	645.0 m	RIH from with 5" (127 mm) drill pipe from 270 m to tag top of cement / plugs inside 13 3/ 8" (340 mm) casing at 619 m.
SC	P	BOP	1500	1630	1.50	645.0 m	Function test BOPs on blue pod from main control panel. Function test BOPs on yellow pod from drillers remote panel. Function test diverter system. OK.
SC	P	DFS	1630	1800	1.50	645.0 m	Drill plugs, cement inside shoe track, and 13 3/ 8" (340 mm) casing shoe at 635 m. Clean out rat hole to 645 m.
PH	P	DA	1800	1900	1.00	645.0 m	Drill ahead 12 1/ 4" (311 mm) hole from 645 m to 648 m while displace to 8.6 ppg (1.03 SG) PHPA mud. Circulate mud all round, and bottoms up / until shakers clear. Verify mud weight in / out are equal.
PH	P	LOT	1900	1930	0.50	645.0 m	Pull back inside 13 3/ 8" (340 mm) casing shoe at 635 m. Rig up side entry sub and pressure testing lines.
PH	P	LOT	1930	2030	1.00	645.0 m	Break circulation through surface pressure testing lines with 8.6 ppg (1.03 SG) mud, using Halliburton pump. Confirm returns at shakers. Perform Leak off Test at 635 m, with 8.6 ppg (1.03 SG) mud. Formation leak-off at 700 psi (47.6 bar) = 15.0 ppg (1.80 SG) Equivalent Mud Weight.
PH	P	LOT	2030	2100	0.50	645.0 m	Rig down surface pressure testing lines and side entry sub. RIH to 648 m.
PH	P	DA	2100	2400	3.00	645.0 m	Establish drilling parameters and drill ahead 12 1/ 4" (311 mm) hole from 648 m to 715 m. Adding Potassium Chloride to active mud system while drilling ahead. Sticky cuttings blinding shaker screens,

Operations For Period 0000 Hrs to 0600 Hrs on 23 Oct 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH	P	DA	0000	0430	4.50	875.0 m	Drill ahead 12 1/ 4" (311 mm) hole from 715 m to 875 m. Controlling penetration rate to prevent massive mud loss at shale shakers. Shale shakers blinding with sands. Additions of new unsheared premix required to maintain volume while drilling ahead. Shale shakers blinding with combination of sand and fresh unsheared mud.
PH	TP	DA	0430	0600	1.50	890.0 m	Drill ahead at reduced ROP to from 875 m to 890 m, attempting to control mud losses.

Phase Data to 2400hrs, 22 Oct 2003

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
PRODUCTION HOLE(PH)	12	30 Oct 2003	22 Oct 2003	12	1 days	2004.0 m
RIG MOVE/ RIG-UP/ PRESPUD(RM)	22.5	13 Oct 2003	14 Oct 2003	34.5	1 days	0 m
CONDUCTOR HOLE(CH)	37	14 Oct 2003	15 Oct 2003	71.5	3 days	121.3 m
SURFACE HOLE(SH)	49.5	15 Oct 2003	17 Oct 2003	121	5 days	645.0 m
SURFACE CASING(SC)	114	18 Oct 2003	22 Oct 2003	235	10 days	645.0 m

Printed on 30 Oct 2003

WBM Data

Cost Today $ 7,682

Mud Type:	PHPA/ KCl	API FL:	8 cm³/ 30m	Cl:	35800	Solids(%vol):	3.5	Viscosity	68 sec/ qt
Sample-From:	Pit	Filter-Cake:	1 / 32nd"	K+C*1000:	7.5 %	H2O:	96.5 %	PV	20 cp
Time:	22:45	HTHP-FL:	0 cm³/ 30m	Hard/Ca:	50	Oil(%):	0 %	YP	30 lb/ 100ft²
Weight:	8.75 ppg	HTHP-cake:	0 / 32nd"	MBT:	5	Sand:		Gels 10s	9
Temp:	28.0 C°			PM:	0	pH:	9.5	Gels 10m	18
				PF:	0	PHPA:	1 ppb	Fann 003	8
								Fann 006	10
								Fann 100	21
								Fann 200	40
								Fann 300	50
								Fann 600	70

Comment: Adding Potassium Chloride to the PHPA circulating system to convert to KCl/ PHPA fluid.

Bit # 3

Wear	I	O1	D	L	B	G	O2	R

				Nozzles		Drilled over last 24 hrs		Calculated over Bit Run	
Size ("):	12.25 in	IADC#	4-2-7	No.	Size	Progress	70.0 m	Cum. Progress	70.0 m
Mfr:	SMITH	WOB(avg)	22.0 klb	1	16 / 32nd"	On Bottom Hrs	1.40 h	Cum. On Btm Hrs	1.40 h
Type:	Rock	RPM(avg)	160	3	16 / 32nd"	IADC Drill Hrs	3.00 h	Cum IADC Drill Hrs	3.00 h
Serial No.:	LR2995	F.Rate	650 gpm			Total Revs	0	Cum Total Revs	0
Bit Model	MO2TL	SPP	1225 psi			ROP(avg)	50 m/ h	ROP(avg)	50.0
Depth In	645.0 m	TFA	0.785						
Depth Out									

BHA # 3

Weight(Wet)	60.0 klb	Length	270.1 m	Torque(max)	7000 ft-lbs	D.C. (1) Ann Velocity	194.3
Wt Below Jar(Wet)	40.0 klb	String	220.0 klb	Torque(Off.Btm)	1000 ft-lbs	D.C. (2) Ann Velocity	194.3
		Pick-Up	220.0 klb	Torque(On.Btm)	5000 ft-lbs	H.W.D.P. Ann Velocity	127.4
		Slack-Off	220.0 klb			D.P. Ann Velocity	127.4

BHA Run Description: Packed BHA with roller reamers for interbedded hard sediments.

BHA Run Comment:

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.32 m	12.25 in	0 in	LR2995	12 1/ 4" TCI Bit
12.25\	2.45 m	8.06 in	3.00 in	GU2151	Roller Reamer
8.25\	9.07 m	8.25 in	2.81 in	OX825-56	8 1/ 4" Drill Collar
12.25\	2.32 m	8.06 in	3.00 in	GU2045	Roller Reamer
8.25\	9.41 m	8.25 in	3.00 in	OX825-48	8 1/ 4" Drill Collar
12.25\	2.33 m	8.06 in	3.00 in	GU2143	Roller Reamer
8.25\	75.14 m	8.25 in	2.88 in		8 x 8 1/ 4" Drill Collar
8\	9.63 m	8.00 in	3.06 in	DAH02055	8" Hydraulic Jar
8.25\	27.72 m	8.25 in	2.75 in		3 x 8 1/ 4" Drill Collar
Jar Accel.	8.28 m	8.00 in	2.94 in	DAH01586	Hydraulic Jar Accellerator
8.25\	9.25 m	8.19 in	2.88 in	825-48	8 1/ 4" Drill Collar
X/ O	0.81 m	6.31 in	2.81 in	EX-072	Cross-Over
5in HWDP	113.41 m	5.00 in	3.00 in		5" Heavy Weight Drill Pipe.

Survey

MD	Incl Deg	Corr. Az (deg)	TVD	'V' Sect	Dogleg (deg/100ft)	N/S	E/W	Tool Type
0	0	0	0	0	0	0	0	MWD
0	0	0	0	0	0	0	0	MWD
0	0	0	0	0	0	0	0	
696.31	0.45	10.09	696.3	2.69	0.07	2.69	0.48	MWD

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite	sx	0	0	0	770
Cement	sx	0	0	0	1407
Gel	sx	0	0	0	754
Potable Water	MT	33	30	0	118
Drill Water	MT	599	13	0	1155
Mud	sx	0	0	0	0
Fuel	MT	0	6	0	348

Personnel On Board

Company	Pax
Santos	4
BHI - INTEQ	2
Geoservices	6
Halliburton	1
Sperry-Sun	2
TMT	3
DOGC	41
DOGC	5
Total Marine Catering	8
Total	72

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	Oilwell A1700PT	5.50	8.00	95	82	1100	288
2	Oilwell A1700PT	5.50	0	95	82	1100	288
3	Oilwell A1700PT	5.50	0	95	82	1100	288

Slow Pump Data

Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
0	0	0	0	0	0	0	0	0	0
0	20	240	70	30	300	106	40	350	141
0	20	240	70	30	290	106	40	340	141

Casing

OD	LOT / FIT	Csg Shoe (MD/TVD)	Cementing
30 "	0 ppg / 0 ppg	121.0 m / 121.0 m	154 bbls (750 sx) Class G w/ 1% CaCl2 15.8 ppg
13 3/ 8"	15.00 ppg / 0 ppg	635.8 m / 635.8 m	Lead - 304 bbls (768sx) c/ w 0.6 gal/ sx Econolite @ 12.5 lb/ gal. Tail - 172 (389sx) c/ w neat in seawater @ 15.8lbs/ gal.

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Abandon Drill	20 Oct 2003	2 Days	Abandon Rig Drill	
Fire Drill	20 Oct 2003	2 Days	Fire Drill	
Lost Time Incident	24 Apr 2001	911 Days	Lost Time Incident	None
Walkabout	22 Oct 2003	0 Days	Daily Walkround of Rig	

Shakers, Volumes and Losses Data

Engineer : William McKay

Equip.	Descr.	Mesh Size
Shaker 1	Thule VSM 300	2 x 10 (Upper)
Shaker 1	Thule VSM 300	4 x 52 (Lower)
Shaker 2	Thule VSM 300	4 x 52 (Lower)
Shaker 2	Thule VSM 300	2 x 10 (Upper)
Shaker 3	Thule VSM 300	4 x 52 (Lower)
Shaker 3	Thule VSM 300	2 x 10 (Upper)
Shaker 4	Thule VSM 300	4 x 52 (Lower)
Shaker 4	Thule VSM 300	2 x 10 (Upper)

Available	**1409 bbl**
Active	583.0 bbl
Mixing	0 bbl
Hole	382.0 bbl
Slug	0 bbl
Reserve	444.0 bbl
Kill	0 bbl

Losses	**431 bbl**
Downhole	0 bbl
Surf+ Equip	81 bbl
Dumped	0 bbl
De-Sander	0 bbl
De-Silter	0 bbl
Centrifuge	0 bbl

Comments: Daily Additions = 66 bbl product.

Marine

Weather on 22 Oct 2003

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
7.00 nm	9.0 kn	225 deg	1015 bar	11.0 C°	1.0 m	030 deg	0 ft/ sec

Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments
0.3 deg	0.3 deg	2.50 m	2.5 m	240 deg	0 ft/ sec	

Rig Dir.	Ris. Tension	VDL	Comments
239.0 deg	210.0 klb	4076.0 klb	

Rig Support

Anchors	Tension (klb)
1	195.0
2	186.0
3	191.0
4	183.0
5	170.0
6	220.0
7	206.0
8	217.0

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks
Pacific Challenger		20:25	En route to Portland.	

Item	Unit	Quantity
Barite	sx	0
Cement	sx	0
Gel	sx	0
Potable Water	MT	119
Drill Water	MT	0
Mud	sx	0
Fuel	MT	511

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks
Lady Dawn	20:25	Standby	Standing by - at anchor in field.	

Item	Unit	Quantity
Barite	sx	926
Cement	sx	235
Gel	sx	0
Potable Water	MT	567
Drill Water	MT	405
Mud	sx	0
Fuel	MT	567

Helicopter Movement

Flight #	Time	Destination	Comment	Pax
01	07:30	Ocean Epoch		12
01	09:07	Essendon Airport	On Deck at 08:51 / Off Deck at 09:07	13
02	14:00	Ocean Epoch		1
02	15:20	Essendon Airport	On Deck at 15:08 / Off Deck at 15:20	6

Santos

DRILLING MORNING REPORT # 11
Casino #3 (23 Oct 2003)

From : G. Howard / S. Douglass

Well Data

Country	Australia	M. Depth	1005.0 m	Cur. Hole Size	12.250 in		
Field	Casino	TVD	1005.0 m	Casing OD	13.375 in		
Drill Co.	DOGC	Progress	290.0 m	Shoe TVD	635.8 m		
Rig	Ocean Epoch	Days from spud	9.37	FIT	0 ppg		
Wtr Dpth(LAT)	66.7 m	Days on well	10.79	LOT	15.00 ppg	Planned TD	2137.0 m
RT-ASL(LAT)	22.4 m	Current Op @ 0600	Drilling ahead 12 1/ 4" hole at 1038 m.				
RT-ML	89.1 m	Planned Op	Drill ahead to trip point at +/ - 1200 m. POOH and pick up MWD and PDC bit. RIH and drill ahead 12 1/ 4" hole.				

Summary of Period 0000 to 2400 Hrs

Drill ahead 715 m to 890 m. Circ and condition mud. Drill ahead 890 m to 935 m. POOH to shoe and repair rig. RIH and drill ahead 935 m to 1005 m. POOH to shoe and repair rig.

FORMATION

Operations For Period 0000 Hrs to 2400 Hrs on 23 Oct 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH	P	DA	0000	0430	4.50	875.0 m	Drill ahead 12 1/ 4" (311 mm) hole from 715 m to 875 m. Controlling penetration rate to prevent massive mud loss at shale shakers. Shale shakers blinding with sands. Additions of new unsheared premix required to maintain volume while drilling ahead. Shale shakers blinding with combination of sand and fresh unsheared mud.
PH	TP	DA	0430	0600	1.50	890.0 m	Drill ahead at reduced ROP to from 875 m to 890 m, attempting to control mud losses.
PH	TP	CMD	0600	0800	2.00	890.0 m	Circulate and condition mud. Dilute with drillwater, adding KCl, PAC polymer and Flowzan, to reduce PHPA concentration to allow drilling ahead.
PH	P	DA	0800	1100	3.00	935.0 m	Drill ahead 12 1/ 4" hole from 890 m to 935 m. Gooseneck on top drive sheared out at 935 m while drilling ahead.
PH	TP	TO	1100	1230	1.50	935.0 m	POOH from 935 m to inside 13 3/ 8" shoe at 635 m. Hole good.
PH	TP	RR	1230	1500	2.50	935.0 m	Repair alignment nipple on TDS. Repair gooseneck.
PH	TP	TO	1500	1530	0.50	935.0 m	RIH from 13 3/ 8" shoe at 635 m to TD at 935 m. Hole good.
PH	P	DA	1530	2000	4.50	1005.0 m	Drill ahead 12 1/ 4" hole from 935 m to 1005 m.
PH	TP	RR	2000	2030	0.50	1005.0 m	Top drive system motor brake locked up and overheated. Smoke observed while drilling ahead. Pick up off bottom and inspect top drive.
PH	TP	TI	2030	2130	1.00	1005.0 m	POOH from 1005 m to inside 13 3/ 8" shoe at 635 m.
PH	TP	RR	2130	2400	2.50	1005.0 m	Repair top drive system motor brake. Circulate down drill string, casing / riser contents / surface pits at 175 gpm while making repair. Treating mud to increase PHPA concentration to 0.25 ppb

Operations For Period 0000 Hrs to 0600 Hrs on 24 Oct 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH	TP	RR	0000	0300	3.00	1005.0 m	Continue repair top drive motor brake at 13 3/ 8" casing shoe, while ciculate at 175 gpm. Survey top drive for potential dropped objects after repairs. Greased and serviced top drive during repairs.
PH	TP	TI	0300	0400	1.00	1005.0 m	RIH from 13 3/ 8" shoe at 635 m to 1005 m.
PH	P	DA	0400	0600	2.00	1226.5 m	(IN PROGRESS) Drill ahead 12 1/ 4" hole from 1005 m to 1226.5 m.

Phase Data to 2400hrs, 23 Oct 2003

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
PRODUCTION HOLE(PH)	36	30 Oct 2003	23 Oct 2003	36	2 days	2004.0 m
RIG MOVE/ RIG-UP/ PRESPUD(RM)	22.5	13 Oct 2003	14 Oct 2003	58.5	2 days	0 m
CONDUCTOR HOLE(CH)	37	14 Oct 2003	15 Oct 2003	95.5	4 days	121.3 m
SURFACE HOLE(SH)	49.5	15 Oct 2003	17 Oct 2003	145	6 days	645.0 m
SURFACE CASING(SC)	114	18 Oct 2003	22 Oct 2003	259	11 days	645.0 m

General Comments

00:00 TO 24:00 Hrs ON 23 Oct 2003

Comments	Rig Requirements	Lessons Learnt
		Drilling Fluids - For drill out, use KCl / PAC / Flowzan system. No PHPA until through sand sequence.

WBM Data — Cost Today $ 37,267

Mud Type:	PHPA/ KCl	API FL:	7 cm³/ 30m	Cl:	35800	Solids(%vol):	3	Viscosity	60 sec/ qt
Sample-From:	Pit	Filter-Cake:	1 / 32nd"	K+C*1000:	7.5 %	H2O:	97 %	PV	20 cp
Time:	09:00	HTHP-FL:	0 cm³/ 30m	Hard/Ca:	150	Oil(%):	0 %	YP	30 lb/ 100ft²
Weight:	8.75 ppg	HTHP-cake:	0 / 32nd"	MBT:	2.5	Sand:	,25	Gels 10s	9
Temp:	34.0 C°			PM:	0	pH:	9.5	Gels 10m	13
				PF:	0.1	PHPA:	1 ppb	Fann 003	7
								Fann 006	9
								Fann 100	28
								Fann 200	39
								Fann 300	50
								Fann 600	70

Comment

WBM Data — Cost Today $ 37,267

Mud Type:	KCl/ PHPA	API FL:	7 cm³/ 30m	Cl:	35750	Solids(%vol):	3.5	Viscosity	54 sec/ qt
Sample-From:	Pit	Filter-Cake:	1 / 32nd"	K+C*1000:	75657.9 %	H2O:	96.5 %	PV	21 cp
Time:	22:00	HTHP-FL:	0 cm³/ 30m	Hard/Ca:	175	Oil(%):	0 %	YP	29 lb/ 100ft²
Weight:	8.75 ppg	HTHP-cake:	0 / 32nd"	MBT:	2.5	Sand:	.25	Gels 10s	8
Temp:	34.0 C°			PM:	0	pH:	9.5	Gels 10m	15
				PF:	0.15	PHPA:	0 ppb	Fann 003	7
								Fann 006	9
								Fann 100	26
								Fann 200	40
								Fann 300	50
								Fann 600	71

Comment

Bit # 3

Wear	I	O1	D	L	B	G	O2	R

				Nozzles		Drilled over last 24 hrs		Calculated over Bit Run	
Size ("):	12.25 in	IADC#	4-2-7	No.	Size	Progress	290.0 m	Cum. Progress	360.0 m
Mfr:	SMITH	WOB(avg)	25.0 klb	1	16 / 32nd"	On Bottom Hrs	7.30 h	Cum. On Btm Hrs	8.70 h
Type:	Rock	RPM(avg)	160	3	16 / 32nd"	IADC Drill Hrs	14.00 h	Cum IADC Drill Hrs	17.00 h
Serial No.:	LR2995	F.Rate	800 gpm			Total Revs	0	Cum Total Revs	0
Bit Model	MO2TL	SPP	1800 psi			ROP(avg)	40 m/ h	ROP(avg)	41.4
Depth In	645.0 m	TFA	0.785						
Depth Out									

BHA # 3

Weight(Wet)	60.0 klb	Length	270.1 m	Torque(max)	7000 ft-lbs	D.C. (1) Ann Velocity	239.1
Wt Below Jar(Wet)	40.0 klb	String	240.0 klb	Torque(Off.Btm)	1000 ft-lbs	D.C. (2) Ann Velocity	239.1
		Pick-Up	240.0 klb	Torque(On.Btm)	5000 ft-lbs	H.W.D.P. Ann Velocity	156.8
		Slack-Off	240.0 klb			D.P. Ann Velocity	156.8

BHA Run Description: Packed BHA with roller reamers for interbedded hard sediments.

BHA Run Comment

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.32 m	12.25 in	0 in	LR2995	12 1/ 4" TCI Bit
12.25\	2.45 m	8.06 in	3.00 in	GU2151	Roller Reamer
8.25\	9.07 m	8.25 in	2.81 in	OX825-56	8 1/ 4" Drill Collar
12.25\	2.32 m	8.06 in	3.00 in	GU2045	Roller Reamer
8.25\	9.41 m	8.25 in	3.00 in	OX825-48	8 1/ 4" Drill Collar
12.25\	2.33 m	8.06 in	3.00 in	GU2143	Roller Reamer
8.25\	75.14 m	8.25 in	2.88 in		8 x 8 1/ 4" Drill Collar
8\	9.63 m	8.00 in	3.06 in	DAH02055	8" Hydraulic Jar
8.25\	27.72 m	8.25 in	2.75 in		3 x 8 1/ 4" Drill Collar
Jar Accel.	8.28 m	8.00 in	2.94 in	DAH01586	Hydraulic Jar Accellerator
8.25\	9.25 m	8.19 in	2.88 in	825-48	8 1/ 4" Drill Collar
X/ O	0.81 m	6.31 in	2.81 in	EX-072	Cross-Over
5in HWDP	113.41 m	5.00 in	3.00 in		5" Heavy Weight Drill Pipe.

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Survey

MD	Incl Deg	Corr. Az (deg)	TVD	'V' Sect	Dogleg (deg/100ft)	N/S	E/W	Tool Type
0	0	0	0	0	0	0	0	MWD
0	0	0	0	0	0	0	0	MWD
0	0	0	0	0	0	0	0	
696.31	0.45	10.09	696.3	2.69	0.07	2.69	0.48	MWD
947.80	0.49	308.35	947.8	4.33	0.19	4.33	-0.19	MWD

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance

Personnel On Board

Company	Pax
Santos	4
BHI - INTEQ	2
Geoservices	6
Halliburton	1
Sperry-Sun	2
TMT	3
DOGC	41
DOGC	5
Total Marine Catering	8
Total	72

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	Oilwell A1700PT	5.50	8.75	95	76	1800	267
2	Oilwell A1700PT	5.50	8.75	95	76	1800	267
3	Oilwell A1700PT	5.50	8.75	95	76	1800	267

Slow Pump Data

Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
0	0	0	0	0	0	0	0	0	0
879.0	20	240	70	30	300	106	40	350	140
879.0	20	240	70	30	290	106	40	340	140

Casing

OD	LOT / FIT	Csg Shoe (MD/TVD)	Cementing
30 "	0 ppg / 0 ppg	121.0 m / 121.0 m	154 bbls (750 sx) Class G w/ 1% CaCl2 15.8 ppg
13 3/ 8"	15.00 ppg / 0 ppg	635.8 m / 635.8 m	Lead - 304 bbls (768sx) c/ w 0.6 gal/ sx Econolite @ 12.5 lb/ gal. Tail - 172 (389sx) c/ w neat in seawater @ 15.8lbs/ gal.

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Abandon Drill	20 Oct 2003	3 Days	Abandon Rig Drill	
Fire Drill	20 Oct 2003	3 Days	Fire Drill	
Lost Time Incident	24 Apr 2001	912 Days	Lost Time Incident	None
Walkabout	23 Oct 2003	0 Days	Daily Walkround of Rig	

Shakers, Volumes and Losses Data

Engineer : William McKay

Equip.	Descr.	Mesh Size
Shaker 1	Thule VSM 300	4 x 52 (Lower)
Shaker 1	Thule VSM 300	2 x 10 (Upper)
Shaker 2	Thule VSM 300	2 x 10 (Upper)
Shaker 2	Thule VSM 300	4 x 52 (Lower)
Shaker 3	Thule VSM 300	4 x 52 (Lower)
Shaker 3	Thule VSM 300	2 x 10 (Upper)
Shaker 4	Thule VSM 300	4 x 52 (Lower)
Shaker 4	Thule VSM 300	2 x 10 (Upper)

Available	**2441.7 bbl**
Active	920.0 bbl
Mixing	0 bbl
Hole	534.7 bbl
Slug	0 bbl
Reserve	987.0 bbl
Kill	0 bbl

Losses	**1140 bbl**
Downhole	0 bbl
Surf+ Equip	1140 bbl
Dumped	0 bbl
De-Sander	0 bbl
De-Silter	0 bbl
Centrifuge	0 bbl

Comments: Daily Additions = 2080 bbl drillwater and 92 bbls of product.

Printed on 30 Oct 2003

Marine

Weather on 23 Oct 2003

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
7.00 nm	11.0 kn	315 deg	1017 bar	13.0 C°	1.0 m	090 deg	0 ft/ sec

Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments
0.3 deg	0.4 deg	1.80 m	2.5 m	240 deg	0 ft/ sec	

Rig Dir.	Ris. Tension	VDL	Comments
239.0 deg	210.0 klb	4270.0 klb	

Rig Support

Anchors	Tension (klb)
1	202.0
2	193.0
3	192.0
4	185.0
5	164.0
6	206.0
7	194.0
8	220.0

Boats	Arrived (date/time)	Departed (date/time)	Status
Pacific Challenger	Port	Port	Portland.
Lady Dawn	Standby	Standby	Standing by - at anchor in field.

Pacific Challenger

Item	Unit	Quantity
Barite	sx	0
Cement	sx	0
Gel	sx	0
Potable Water	MT	119
Drill Water	MT	0
Mud	sx	0
Fuel	MT	511

Lady Dawn

Item	Unit	Quantity
Barite	sx	926
Cement	sx	0
Gel	sx	0
Potable Water	MT	557
Drill Water	MT	405
Mud	sx	0
Fuel	MT	563.5

Printed on 30 Oct 2003

Santos

DRILLING MORNING REPORT # 12
Casino #3 (24 Oct 2003)

From : G. Howard / S. Douglass

Well Data

Country	Australia	M. Depth	1226.5 m	Cur. Hole Size	12.250 in		
Field	Casino	TVD	1226.5 m	Casing OD	13.375 in		
Drill Co.	DOGC	Progress	221.0 m	Shoe TVD	635.8 m		
Rig	Ocean Epoch	Days from spud	10.37	FIT	0 ppg		
Wtr Dpth(LAT)	66.7 m	Days on well	11.79	LOT	15.00 ppg	Planned TD	2137.0 m
RT-ASL(LAT)	22.4 m	Current Op @ 0600	Drilling ahead 12 1/ 4" hole at 1277 m.				
RT-ML	89.1 m	Planned Op	Drill ahead 12 1/ 4" hole.				

Summary of Period 0000 to 2400 Hrs

Drill ahead 12 1/ 4" hole from 1005 m to 1226 m. POOH and pick up PDC bit and MWD tools. RIH to 700 m.

FORMATION

Operations For Period 0000 Hrs to 2400 Hrs on 24 Oct 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH	TP	RR	0000	0300	3.00	1005.0 m	Continue repair top drive motor brake at 13 3/ 8" casing shoe, while ciculate at 175 gpm. Survey top drive for potential dropped objects after repairs. Greased and serviced top drive during repairs.
PH	TP	TI	0300	0400	1.00	1005.0 m	RIH from 13 3/ 8" shoe at 635 m to 1005 m.
PH	P	DA	0400	1100	7.00	1226.5 m	Drill ahead 12 1/ 4" hole from 1005 m to 1226.5 m.
PH	P	CHC	1100	1130	0.50	1226.5 m	Sweep hole with 40 bbls hi-vis mud. monitor returns at surface. No appreciable increase in cuttings when hi-vis back at surface.
PH	P	SVY	1130	1215	0.75	1226.5 m	Pump slug and rack back drilling stand. Dropped TOTCO with bit at 1198 m. Timed fall of TOTCO tool while flow-checking well on trip tank. Well static.
PH	P	TO	1215	1600	3.75	1226.5 m	POOH with 5" drill pipe from 1198 m to 13 3/ 8" casing shoe at 635 m. Hole good, no over pull. Flow check. Well static. Continue POOH with 5" drill pipe to top of BHA at BOPs. Flow check. Well static. Continue POOH 5" drillpipe to top of BHA at 270 m.
PH	P	HBHA	1600	1730	1.50	1226.5 m	POOH with BHA, laying out excess tubulars. Break out bit. Recover TOTCO. Totco survey indicates 1 degree.
PH	P	RS	1730	1830	1.00	1226.5 m	Service Top drive system, block, and dollies.
PH	P	HT	1830	2000	1.50	1226.5 m	Make up new PDC bit, Drilling On Gauge sub, MWD tool and float sub with ported float. Test MWD circuitry.
PH	P	HBHA	2000	2245	2.75	1226.5 m	RIH with new BHA to 250.5 m.
PH	P	SVY	2245	2300	0.25	1226.5 m	Test MWD tool with 715 gpm @ 1600 psi. MWD tool OK.
PH	P	TI	2300	2400	1.00	1226.5 m	Install diverter bag. RIH with 5" drill pipe from 250.5 m to 700 m.

Operations For Period 0000 Hrs to 0600 Hrs on 25 Oct 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH	P	TI	0000	0200	2.00	1226.5 m	Continue RIH with 5" drill pipe from 700 m to 1197 m. 30 klbs drag at 1197 m. Take MWD surveys at 700 m, 950 m, and at 1226.5 m.
PH	P	WIN	0200	0230	0.50	1226.5 m	Make up top drive and wash and ream through tight spot (ledge) 1197 m to 1200 m. Continue wash and light ream 1200 m to 1226.5. No fill.
PH	P	DA	0230	0600	3.50	1658.0 m	(IN PROGRESS) Establish drilling parameters and drill ahead 1226.5 m to 1568 m. MWD surveys on connections. Drill pipe screens used in first 6 stands drilled, then discontinued when screens clear.

Phase Data to 2400hrs, 24 Oct 2003

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
PRODUCTION HOLE(PH)	60	30 Oct 2003	24 Oct 2003	60	3 days	2004.0 m
RIG MOVE/ RIG-UP/ PRESPUD(RM)	22.5	13 Oct 2003	14 Oct 2003	82.5	3 days	0 m
CONDUCTOR HOLE(CH)	37	14 Oct 2003	15 Oct 2003	119.5	5 days	121.3 m
SURFACE HOLE(SH)	49.5	15 Oct 2003	17 Oct 2003	169	7 days	645.0 m
SURFACE CASING(SC)	114	18 Oct 2003	22 Oct 2003	283	12 days	645.0 m

Printed on 30 Oct 2003

WBM Data — Cost Today $ 37,267

Mud Type:	PHPA/ KCl	API FL:	7 cm³/ 30m	Cl:	35800	Solids(%vol):	3	Viscosity	60 sec/ qt
Sample-From:	Pit	Filter-Cake:	1 / 32nd"	K+C*1000:	7.5 %	H2O:	97 %	PV	20 cp
Time:	09:00	HTHP-FL:	0 cm³/ 30m	Hard/Ca:	150	Oil(%):	0 %	YP	30 lb/ 100ft²
Weight:	8.75 ppg	HTHP-cake:	0 / 32nd"	MBT:	2.5	Sand:	,25	Gels 10s	9
Temp:	34.0 C°			PM:	0	pH:	9.5	Gels 10m	13
				PF:	0.1	PHPA:	1 ppb	Fann 003	7
								Fann 006	9
								Fann 100	28
								Fann 200	39
								Fann 300	50
								Fann 600	70

Comment

WBM Data — Cost Today $ 3,695

Mud Type:	KCl/ PHPA	API FL:	7 cm³/ 30m	Cl:	35700	Solids(%vol):	3	Viscosity	58 sec/ qt
Sample-From:	Pit	Filter-Cake:	1 / 32nd"	K+C*1000:	7.5 %	H2O:	97 %	PV	18 cp
Time:	21:00	HTHP-FL:	0 cm³/ 30m	Hard/Ca:	200	Oil(%):	0 %	YP	22 lb/ 100ft²
Weight:	8.80 ppg	HTHP-cake:	0 / 32nd"	MBT:	5	Sand:	1	Gels 10s	7
Temp:	0 C°			PM:	0	pH:	9.5	Gels 10m	14
				PF:	0.1	PHPA:	0 ppb	Fann 003	7
								Fann 006	8
								Fann 100	24
								Fann 200	31
								Fann 300	40
								Fann 600	58

Comment

Bit # 3

Wear	I	O1	D	L	B	G	O2	R
	3	4	BT	M2	E	2	ER	BHA

				Nozzles		**Drilled over last 24 hrs**		**Calculated over Bit Run**	
Size ("):	12.25 in	IADC#	4-2-7	No.	Size	Progress	221.0 m	Cum. Progress	581.0 m
Mfr:	SMITH	WOB(avg)	25.0 klb	1	16 / 32nd"	On Bottom Hrs	5.10 h	Cum. On Btm Hrs	13.80 h
Type:	Rock	RPM(avg)	160	3	16 / 32nd"	IADC Drill Hrs	7.00 h	Cum IADC Drill Hrs	24.00 h
Serial No.:	LR2995	F.Rate	800 gpm			Total Revs	581000	Cum Total Revs	581000
Bit Model	MO2TL	SPP	1850 psi			ROP(avg)	43 m/ h	ROP(avg)	42.1
Depth In	645.0 m	TFA	0.785						
Depth Out	1226.0 m								

Bit # 4

Wear	I	O1	D	L	B	G	O2	R

				Nozzles		**Drilled over last 24 hrs**		**Calculated over Bit Run**	
Size ("):	12.25 in	IADC#	M-223	No.	Size	Progress	0 m	Cum. Progress	0 m
Mfr:	HYCALOG	WOB(avg)	0 klb	5	13 / 32nd"	On Bottom Hrs	0 h	Cum. On Btm Hrs	0 h
Type:	PDC	RPM(avg)	0			IADC Drill Hrs	0 h	Cum IADC Drill Hrs	0 h
Serial No.:	106469	F.Rate	0 gpm			Total Revs	0	Cum Total Revs	0
Bit Model	DSX 195 D	SPP	0 psi			ROP(avg)	N/ A	ROP(avg)	
Depth In	1226.0 m	TFA	0.648						
Depth Out									

BHA # 4

Weight(Wet)	60.0 klb	Length	250.5 m	Torque(max)	0 ft-lbs	D.C. (1) Ann Velocity	
Wt Below Jar(Wet)	30.0 klb	String	0 klb	Torque(Off.Btm)	0 ft-lbs	D.C. (2) Ann Velocity	
		Pick-Up	0 klb	Torque(On.Btm)	0 ft-lbs	H.W.D.P. Ann Velocity	
		Slack-Off	0 klb			D.P. Ann Velocity	

BHA Run Description	PDC / MWD Packed BHA with DOG sub for picking core point.
BHA Run Comment	BHA components not used in coring racked back in derrick for use while drilling to TD.

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.32 m	12.25 in	0 in	LR2995	12 1/ 4" PDC Bit
DOG sub	0.24 m	12.25 in	3.00 in	30039A	Drilling On Gauge Sub
MWD Tools	12.40 m	8.25 in	1.75 in	DM90022879XHG	EWR / CWR / CIM, MWD Tool.
Float Sub	0.77 m	8.06 in	3.00 in	A-340	Float Sub
8.25in DC	9.07 m	8.25 in	3.00 in	OX825-46	8 1/ 4" Drill Collar
12.25in Roller Reamer	2.33 m	8.06 in	3.00 in	GU2143	Roller Reamer TOTCO ring.
8.25in DC	56.26 m	8.25 in	2.88 in		8 x 8 1/ 4" Drill Collar
8in Hydraulic Jars	9.63 m	8.00 in	3.06 in	DAH02055	8" Hydraulic Jar
8.25in DC	27.72 m	8.25 in	2.75 in		3 x 8 1/ 4" Drill Collar
Jar Accel.	8.28 m	8.00 in	2.94 in	DAH01586	Hydraulic Jar Accellerator
8.25in DC	9.25 m	8.19 in	2.88 in	825-48	8 1/ 4" Drill Collar
X/ O	0.81 m	6.31 in	2.81 in	EX-072	Cross-Over
5in HWDP	113.41 m	5.00 in	3.00 in		5" Heavy Weight Drill Pipe.

BHA # 3

Weight(Wet)	60.0 klb	Length	270.1 m	Torque(max)	7000 ft-lbs	D.C. (1) Ann Velocity	239.1
Wt Below Jar(Wet)	40.0 klb	String	260.0 klb	Torque(Off.Btm)	1000 ft-lbs	D.C. (2) Ann Velocity	239.1
		Pick-Up	260.0 klb	Torque(On.Btm)	5000 ft-lbs	H.W.D.P. Ann Velocity	156.8
		Slack-Off	260.0 klb			D.P. Ann Velocity	156.8

BHA Run Description: Packed BHA with roller reamers for interbedded hard sediments.

BHA Run Comment

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.32 m	12.25 in	0 in	LR2995	12 1/ 4" TCI Bit
12.25\	2.45 m	8.06 in	3.00 in	GU2151	Roller Reamer
8.25\	9.07 m	8.25 in	2.81 in	OX825-56	8 1/ 4" Drill Collar
12.25\	2.32 m	8.06 in	3.00 in	GU2045	Roller Reamer
8.25\	9.41 m	8.25 in	3.00 in	OX825-48	8 1/ 4" Drill Collar
12.25\	2.33 m	8.06 in	3.00 in	GU2143	Roller Reamer
8.25\	75.14 m	8.25 in	2.88 in		8 x 8 1/ 4" Drill Collar
8\	9.63 m	8.00 in	3.06 in	DAH02055	8" Hydraulic Jar
8.25\	27.72 m	8.25 in	2.75 in		3 x 8 1/ 4" Drill Collar
Jar Accel.	8.28 m	8.00 in	2.94 in	DAH01586	Hydraulic Jar Accellerator
8.25\	9.25 m	8.19 in	2.88 in	825-48	8 1/ 4" Drill Collar
X/ O	0.81 m	6.31 in	2.81 in	EX-072	Cross-Over
5in HWDP	113.41 m	5.00 in	3.00 in		5" Heavy Weight Drill Pipe.

Survey

MD	Incl Deg	Corr. Az (deg)	TVD	'V' Sect	Dogleg (deg/100ft)	N/S	E/W	Tool Type
0	0	0	0	0	0	0	0	MWD
0	0	0	0	0	0	0	0	
696.31	0.45	10.09	696.3	2.69	0.07	2.69	0.48	MWD
947.80	0.49	308.35	947.8	4.33	0.19	4.33	-0.19	MWD
1218.76	0.44	231.47	1218.7	4.40	0.21	4.40	-1.91	MWD

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance

Personnel On Board

Company	Pax
Santos	4
BHI - INTEQ	2
Geoservices	6
Halliburton	1
Sperry-Sun	2
TMT	3
DOGC	41
DOGC	5
Total Marine Catering	8
DBS	1
Schlumberger Wireline	3
Total	76

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	Oilwell A1700PT	5.50	8.75	95	76	2030	800
2	Oilwell A1700PT	5.50	8.75	95	76	2030	800
3	Oilwell A1700PT	5.50	8.75	95	76	2030	800

Slow Pump Data

Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
0	0	0	0	0	0	0	0	0	0
1080.0	20	180	70	30	200	106	40	240	140
1080.0	20	170	70	30	200	106	40	240	140

Casing

OD	LOT / FIT	Csg Shoe (MD/TVD)	Cementing
30 "	0 ppg / 0 ppg	121.0 m / 121.0 m	154 bbls (750 sx) Class G w/ 1% CaCl2 15.8 ppg
13 3/ 8"	15.00 ppg / 0 ppg	635.8 m / 635.8 m	Lead - 304 bbls (768sx) c/ w 0.6 gal/ sx Econolite @ 12.5 lb/ gal. Tail - 172 (389sx) c/ w neat in seawater @ 15.8lbs/ gal.

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Abandon Drill	20 Oct 2003	4 Days	Abandon Rig Drill	
Fire Drill	20 Oct 2003	4 Days	Fire Drill	
Lost Time Incident	24 Apr 2001	913 Days	Lost Time Incident	None
Walkabout	24 Oct 2003	0 Days	Daily Walkround of Rig	

Shakers, Volumes and Losses Data

Engineer : William McKay

Equip.	Descr.	Mesh Size
Shaker 1	Thule VSM 300	2 x 10 (Upper)
Shaker 1	Thule VSM 300	4 x 84 (Lower)
Shaker 2	Thule VSM 300	4 x 84 (Lower)
Shaker 2	Thule VSM 300	2 x 10 (Upper)
Shaker 3	Thule VSM 300	2 x 10 (Upper)
Shaker 3	Thule VSM 300	4 x 84 (Lower)
Shaker 4	Thule VSM 300	4 x 84 (Lower)
Shaker 4	Thule VSM 300	2 x 40 (Upper)

Available	**1853 bbl**
Active	698.0 bbl
Mixing	0 bbl
Hole	657.0 bbl
Slug	0 bbl
Reserve	498.0 bbl
Kill	0 bbl

Losses	**600 bbl**
Downhole	0 bbl
Surf+ Equip	320 bbl
Dumped	280.0 bbl
De-Sander	0 bbl
De-Silter	0 bbl
Centrifuge	0 bbl

Comments

Daily Additions = 10 bbls of product.

Marine

Weather on 24 Oct 2003

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
7.00 nm	9.0 kn	090 deg	1018 bar	13.0 C°	0.8 m	090 deg	0 ft/ sec

Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments
0.3 deg	0.4 deg	1.50 m	2.0 m	225 deg	0 ft/ sec	

Rig Dir.	Ris. Tension	VDL	Comments
239.0 deg	210.0 klb	4100.0 klb	

Rig Support

Anchors	Tension (klb)
1	202.0
2	192.0
3	193.0
4	186.0
5	162.0
6	202.0
7	196.0
8	222.0

Printed on 30 Oct 2003

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks
Pacific Challenger	18:00	Standby	Standing by at rig at anchor.	

Item	Unit	Quantity
Barite	sx	881
Cement	sx	0
Gel	sx	0
Potable Water	MT	220
Drill Water	MT	564
Mud	sx	0
Fuel	MT	505

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks
Lady Dawn	Standby	18:10	En route to Portland	

Item	Unit	Quantity
Barite	sx	925
Cement	sx	0
Gel	sx	0
Potable Water	MT	552
Drill Water	MT	0
Mud	sx	0
Fuel	MT	390

Helicopter Movement

Flight #	Time	Destination	Comment	Pax
1	09:40	Ocean Epoch		10
1	09:55	Essendon		10
2	14:45	Ocean Epoch		4
2	14:55	Essendon		0

Santos

DRILLING MORNING REPORT # 13
Casino #3 (25 Oct 2003)

From : G. Howard / S. Douglass

Well Data

Country	Australia	M. Depth	1658.0 m	Cur. Hole Size	12.250 in		
Field	Casino	TVD	1658.0 m	Casing OD	13.375 in		
Drill Co.	DOGC	Progress	432.0 m	Shoe TVD	635.8 m		
Rig	Ocean Epoch	Days from spud	11.37	FIT	0 ppg		
Wtr Dpth(LAT)	66.7 m	Days on well	12.79	LOT	15.00 ppg	Planned TD	2137.0 m
RT-ASL(LAT)	22.4 m	Current Op @ 0600	Drilling ahead 12 1/ 4" hole.				
RT-ML	89.1 m	Planned Op	Drill ahead to core point. Circulate bottoms up. POOH and pick up core barrel. RIH with core barrel.				

Summary of Period 0000 to 2400 Hrs

Continue RIH from 700 m to 1226.5 m. Drill ahead 12 1/ 4" hole from 1226.5 m to 1658 m.

FORMATION

Operations For Period 0000 Hrs to 2400 Hrs on 25 Oct 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH	P	TI	0000	0200	2.00	1226.5 m	Continue RIH with 5" drill pipe from 700 m to 1197 m. 30 klbs drag at 1197 m. Take MWD surveys at 700 m, 950 m, and at 1226.5 m.
PH	P	WIN	0200	0230	0.50	1226.5 m	Make up top drive and wash and ream through tight spot (ledge) 1197 m to 1200 m. Continue wash and light ream 1200 m to 1226.5. No fill.
PH	P	DA	0230	2400	21.50	1658.0 m	Establish drilling parameters and drill ahead 1226.5 m to 1568 m. MWD surveys on connections. Drill pipe screens used in first 6 stands drilled, then discontinued when screens clear.

Operations For Period 0000 Hrs to 0600 Hrs on 26 Oct 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH	TP	DA	0000	0130	1.50	1698.0 m	Drill ahead 12 1/ 4" hole from 1658 m to 1698 m with reduced ROP while drilling ahead and repairing mud pump. (Flow rate reduced to 625 gpm - ROP reduced from 40 m / hr to 30 m/ hr) MWD Surveys at connections.
PH	P	DA	0130	0200	0.50	1710.0 m	Drill ahead 12 1/ 4" hole from 1698 m to 1710 m. MWD Surveys at connections.
PH	P	DA	0200	0300	1.00	1710.0 m	Adjust time for AEST daylight saving.
PH	P	DA	0300	0600	3.00	1847.0 m	(IN PROGRESS) Drill ahead 12 1/ 4" hole from 1710 m to 1847 m. MWD Surveys at connections.

Phase Data to 2400hrs, 25 Oct 2003

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
PRODUCTION HOLE(PH)	84	30 Oct 2003	25 Oct 2003	84	4 days	2004.0 m
RIG MOVE/ RIG-UP/ PRESPUD(RM)	22.5	13 Oct 2003	14 Oct 2003	106.5	4 days	0 m
CONDUCTOR HOLE(CH)	37	14 Oct 2003	15 Oct 2003	143.5	6 days	121.3 m
SURFACE HOLE(SH)	49.5	15 Oct 2003	17 Oct 2003	193	8 days	645.0 m
SURFACE CASING(SC)	114	18 Oct 2003	22 Oct 2003	307	13 days	645.0 m

WBM Data

Cost Today $ 53,888

Mud Type:	KCl/ PHPA/ Glycol	API FL:	6 cm³/ 30m	Cl:	35700	Solids(%vol):	2	Viscosity	61 sec/ qt
Sample-From:	Pit	Filter-Cake:	1 / 32nd"	K+C*1000:	8 %	H2O:	95 %	PV	19 cp
Time:	22:00	HTHP-FL:	0 cm³/ 30m	Hard/Ca:	260	Oil(%):	3 %	YP	28 lb/ 100ft²
Weight:	9.10 ppg	HTHP-cake:	0 / 32nd"	MBT:	7.75	Sand:	0.5	Gels 10s	8
Temp:	36.0 C°			PM:	0	pH:	9.5	Gels 10m	16
				PF:	0.15	PHPA:	1 ppb	Fann 003	7
								Fann 006	9
								Fann 100	26
								Fann 200	36
								Fann 300	47
								Fann 600	66

Comment: Added 3% Glycol to system prior to entering Belfast Mudstone Formation.
NOTE: Oil % in Solids Reported = GLYCOL

Printed on 30 Oct 2003

Bit # 4

Wear	I	O1	D	L	B	G	O2	R

Size (''):	12.25 in	IADC#	M-223	**Nozzles**		**Drilled over last 24 hrs**		**Calculated over Bit Run**	
Mfr:	HYCALOG	WOB(avg)	18.0 klb	No.	Size	Progress	432.0 m	Cum. Progress	432.0 m
Type:	PDC	RPM(avg)	150	5	13 / 32nd''	On Bottom Hrs	16.80 h	Cum. On Btm Hrs	16.80 h
Serial No.:	106469	F.Rate	850 gpm			IADC Drill Hrs	21.50 h	Cum IADC Drill Hrs	21.50 h
Bit Model	DSX 195 D	SPP	3450 psi			Total Revs	0	Cum Total Revs	0
Depth In	1226.0 m	TFA	0.648			ROP(avg)	26 m/ h	ROP(avg)	25.7
Depth Out									

BHA # 4

Weight(Wet)	60.0 klb	Length	250.5 m	Torque(max)	15000 ft-lbs	D.C. (1) Ann Velocity	254.1
Wt Below Jar(Wet)	30.0 klb	String	265.0 klb	Torque(Off.Btm)	1500 ft-lbs	D.C. (2) Ann Velocity	254.1
		Pick-Up	265.0 klb	Torque(On.Btm)	7000 ft-lbs	H.W.D.P. Ann Velocity	166.6
		Slack-Off	265.0 klb			D.P. Ann Velocity	166.6

BHA Run Description	PDC / MWD Packed BHA with DOG sub for picking core point.
BHA Run Comment	BHA components not used in coring racked back in derrick for use while drilling to TD.

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.32 m	12.25 in	0 in	LR2995	12 1/ 4" PDC Bit
DOG sub	0.24 m	12.25 in	3.00 in	30039A	Drilling On Gauge Sub
MWD Tools	12.40 m	8.25 in	1.75 in	DM90022879XHG	EWR / CWR / CIM, MWD Tool.
Float Sub	0.77 m	8.06 in	3.00 in	A-340	Float Sub
8.25in DC	9.07 m	8.25 in	3.00 in	OX825-46	8 1/ 4" Drill Collar
12.25in Roller Reamer	2.33 m	8.06 in	3.00 in	GU2143	Roller Reamer TOTCO ring.
8.25in DC	56.26 m	8.25 in	2.88 in		8 x 8 1/ 4" Drill Collar
8in Hydraulic Jars	9.63 m	8.00 in	3.06 in	DAH02055	8" Hydraulic Jar
8.25in DC	27.72 m	8.25 in	2.75 in		3 x 8 1/ 4" Drill Collar
Jar Accel.	8.28 m	8.00 in	2.94 in	DAH01586	Hydraulic Jar Accellerator
8.25in DC	9.25 m	8.19 in	2.88 in	825-48	8 1/ 4" Drill Collar
X/ O	0.81 m	6.31 in	2.81 in	EX-072	Cross-Over
5in HWDP	113.41 m	5.00 in	3.00 in		5" Heavy Weight Drill Pipe.

BHA # 3

Weight(Wet)	60.0 klb	Length	270.1 m	Torque(max)	7000 ft-lbs	D.C. (1) Ann Velocity	
Wt Below Jar(Wet)	40.0 klb	String	260.0 klb	Torque(Off.Btm)	1000 ft-lbs	D.C. (2) Ann Velocity	
		Pick-Up	260.0 klb	Torque(On.Btm)	5000 ft-lbs	H.W.D.P. Ann Velocity	
		Slack-Off	260.0 klb			D.P. Ann Velocity	

BHA Run Description	Packed BHA with roller reamers for interbedded hard sediments.
BHA Run Comment	

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.32 m	12.25 in	0 in	LR2995	12 1/ 4" TCI Bit
12.25\	2.45 m	8.06 in	3.00 in	GU2151	Roller Reamer
8.25\	9.07 m	8.25 in	2.81 in	OX825-56	8 1/ 4" Drill Collar
12.25\	2.32 m	8.06 in	3.00 in	GU2045	Roller Reamer
8.25\	9.41 m	8.25 in	3.00 in	OX825-48	8 1/ 4" Drill Collar
12.25\	2.33 m	8.06 in	3.00 in	GU2143	Roller Reamer
8.25\	75.14 m	8.25 in	2.88 in		8 x 8 1/ 4" Drill Collar
8\	9.63 m	8.00 in	3.06 in	DAH02055	8" Hydraulic Jar
8.25\	27.72 m	8.25 in	2.75 in		3 x 8 1/ 4" Drill Collar
Jar Accel.	8.28 m	8.00 in	2.94 in	DAH01586	Hydraulic Jar Accellerator
8.25\	9.25 m	8.19 in	2.88 in	825-48	8 1/ 4" Drill Collar
X/ O	0.81 m	6.31 in	2.81 in	EX-072	Cross-Over
5in HWDP	113.41 m	5.00 in	3.00 in		5" Heavy Weight Drill Pipe.

Survey

MD	Incl Deg	Corr. Az (deg)	TVD	'V' Sect	Dogleg (deg/100ft)	N/S	E/W	Tool Type
1513.80	0.75	121.22	1513.8	1.96	1.09	1.96	0.88	MWD
1543.40	0.78	125.17	1543.3	1.75	0.20	1.75	1.21	MWD
1601.00	0.60	149.21	1600.9	1.26	0.58	1.26	1.69	MWD
1629.20	0.45	166.96	1629.1	1.03	0.78	1.03	1.79	MWD
1654.20	0.57	146.54	1654.1	0.83	0.86	0.83	1.88	MWD

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance

Personnel On Board

Company	Pax
Santos	4
BHI - INTEQ	2
Geoservices	6
Halliburton	1
Sperry-Sun	2
TMT	3
DOGC	41
DOGC	5
Total Marine Catering	8
DBS	1
Schlumberger Wireline	3
Total	76

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	Oilwell A1700PT	5.50	9.10	95	81	3450	850
2	Oilwell A1700PT	5.50	9.10	95	81	3450	850
3	Oilwell A1700PT	5.50	9.10	95	81	3450	850

Slow Pump Data

Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
1580.0	20	240	70	30	290	106	40	350	140
1580.0	20	240	70	30	280	106	40	375	140
1580.0	20	240	70	30	300	106	40	375	140

Casing

OD	LOT / FIT	Csg Shoe (MD/TVD)	Cementing
30 "	0 ppg / 0 ppg	121.0 m / 121.0 m	154 bbls (750 sx) Class G w/ 1% CaCl2 15.8 ppg
13 3/ 8"	15.00 ppg / 0 ppg	635.8 m / 635.8 m	Lead - 304 bbls (768sx) c/ w 0.6 gal/ sx Econolite @ 12.5 lb/ gal. Tail - 172 (389sx) c/ w neat in seawater @ 15.8lbs/ gal.

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Abandon Drill	20 Oct 2003	5 Days	Abandon Rig Drill	
Fire Drill	20 Oct 2003	5 Days	Fire Drill	
Lost Time Incident	24 Apr 2001	914 Days	Lost Time Incident	None

Shakers, Volumes and Losses Data

Engineer : William McKay

Equip.	Descr.	Mesh Size
Shaker 1	Thule VSM 300	4 x 120 (Lower)
Shaker 1	Thule VSM 300	3 x 40 (Upper)
Shaker 2	Thule VSM 300	3 x 10 (Upper)
Shaker 2	Thule VSM 300	2 x 120 / 2 x 84 (Lower)
Shaker 3	Thule VSM 300	2 x 120 / 2 x 84 (Lower)
Shaker 3	Thule VSM 300	3 x 10 (Upper)
Shaker 4	Thule VSM 300	4 x 120 (Lower)
Shaker 4	Thule VSM 300	3 x 40 (Upper)

Available	**2026 bbl**
Active	848.0 bbl
Mixing	0 bbl
Hole	817.0 bbl
Slug	0 bbl
Reserve	361.0 bbl
Kill	0 bbl

Losses	**136 bbl**
Downhole	0 bbl
Surf+ Equip	136 bbl
Dumped	0 bbl
De-Sander	0 bbl
De-Silter	0 bbl
Centrifuge	0 bbl

Comments: Daily Additions = 170 bbls drillwater, plus 138 bbls of product. (Mostly Glycol)

Printed on 30 Oct 2003

Marine

Weather on 25 Oct 2003

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
7.00 nm	22.0 kn	180 deg	1019 bar	11.0 C°	1.2 m	150 deg	0 ft/ sec

Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments
0.5 deg	0.4 deg	1.10 m	2.5 m	210 deg	0 ft/ sec	

Rig Dir.	Ris. Tension	VDL	Comments
239.0 deg	210.0 klb	4184.0 klb	

Rig Support

Anchors	Tension (klb)
1	199.0
2	186.0
3	190.0
4	178.0
5	153.0
6	192.0
7	193.0
8	206.0

Boats	Arrived (date/time)	Departed (date/time)	Status
Pacific Challenger	Standby	Standby	Standing by at rig at anchor.

Item	Unit	Quantity
Barite	sx	573
Cement	sx	0
Gel	sx	0
Potable Water	MT	217
Drill Water	MT	444
Mud	sx	0
Fuel	MT	412.4

Boats	Arrived (date/time)	Departed (date/time)	Status
Lady Dawn	In Port	In Port	Portland

Item	Unit	Quantity
Barite	sx	925
Cement	sx	0
Gel	sx	0
Potable Water	MT	552
Drill Water	MT	0
Mud	sx	0
Fuel	MT	390

Santos

DRILLING MORNING REPORT # 14
Casino #3 (26 Oct 2003)

From : G. Howard / S. Douglass

Well Data

Country	Australia	M. Depth	2004.0 m	Cur. Hole Size	12.250 in		
Field	Casino	TVD	2004.0 m	Casing OD	13.375 in		
Drill Co.	DOGC	Progress	432.0 m	Shoe TVD	635.8 m		
Rig	Ocean Epoch	Days from spud	12.33	L.O.T.	15.00 ppg		
Wtr Dpth(LAT)	66.7 m	Days on well	13.79			Planned TD	2137.0 m
RT-ASL(LAT)	22.4 m	Current Op @ 0600	Repair Rig. (Top drive gearbox seals)				
RT-ML	89.1 m	Planned Op	Repair and test top drive. RIH to 2004 m. Circulate B/ U. POOH. RIH with core barrel and cut core #1.				

Summary of Period 0000 to 2400 Hrs

Drill ahead to core point at 2004 m. POOH to 13 3/ 8" casing shoe. Circulate bottoms up at shoe.

Formations

Name	Top (MD)	Top (TVD)	Comment

Operations For Period 0000 Hrs to 2400 Hrs on 26 Oct 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH	TP	DA	0000	0130	1.50	1698.0 m	Drill ahead 12 1/ 4" hole from 1658 m to 1698 m with reduced ROP while drilling ahead and repairing mud pump. (Flow rate reduced to 625 gpm - ROP reduced from 40 m / hr to 30 m/ hr) MWD Surveys at connections.
PH	P	DA	0130	0200	0.50	1710.0 m	Drill ahead 12 1/ 4" hole from 1698 m to 1710 m. MWD Surveys at connections.
PH	P	DA	0200	0300	1.00	1710.0 m	Adjust time for AEST daylight saving.
PH	P	DA	0300	0730	4.50	1847.0 m	Drill ahead 12 1/ 4" hole from 1710 m to 1847 m. MWD Surveys at connections.
PH	TP	DA	0730	0930	2.00	1902.0 m	Drill ahead 12 1/ 4" hole from 1847 m to 1902 m with reduced ROP while drilling ahead and repairing mud pump. (Flow rate reduced to 625 gpm - ROP reduced from 40 m / hr to 30 m/ hr) MWD Surveys at connections.
PH	P	DA	0930	1330	4.00	2004.0 m	Drill ahead 12 1/ 4" hole from 1902 m to 2004 m. MWD Surveys at connections. Santos subsurface team advise FEWD data indicates core point.
PH	P	CHC	1330	1530	2.00	2004.0 m	Circulate hole clean and until gas peak (9% / 450 units) out of hole.
PH	TP	TOT	1530	1730	2.00	2004.0 m	Flow check. Well static. POOH 5 stands wet. Pump slug and continue POOH to 1613 m. Work through tight spots at 1853 m, 1755 m, 1724 m. 70 klbs overpull at 1613 m. (Overpull gradually increasing as POOH.)
PH	TP	RW	1730	2100	3.50	2004.0 m	Make up TDS and backream 1613 m to 1100 m. Large volume of soft and sticky fines at shale shakers.
PH	TP	WIN	2100	2300	2.00	2004.0 m	Continue pump out of hole (no rotation) from 1100 m to 13 3/ 8" casing shoe at 635 m.
PH	TP	CHC	2300	2345	0.75	2004.0 m	Circulate bottoms up and until shakers clean while at 13 3/ 8" casing shoe. Service TDS while circulating bottoms up at 925 gpm. Shale shaker discarding fine and medium sized (5 mm) cuttings until bottoms up. Fine and medium sized cuttings diminished after bottoms up. Moderate quantity of larger cuttings, up to 20 mm cleared after further 10 minutes circulation.
PH	TP	FC	2345	2400	0.25	2004.0 m	Flow check. Well static.

Phase Data to 2400hrs, 26 Oct 2003

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
PRODUCTION HOLE(PH)	108	04 Nov 2003	26 Oct 2003	108	5 days	2004.0 m
RIG MOVE/ RIG-UP/ PRESPUD(RM)	22.5	13 Oct 2003	14 Oct 2003	130.5	5 days	0 m
CONDUCTOR HOLE(CH)	37	14 Oct 2003	15 Oct 2003	167.5	7 days	121.3 m
SURFACE HOLE(SH)	49.5	15 Oct 2003	17 Oct 2003	217	9 days	645.0 m
SURFACE CASING(SC)	114	18 Oct 2003	22 Oct 2003	331	14 days	645.0 m

General Comments

Comments	Rig Requirements	Lessons Learnt
At 17:10 received request from RCC Canberra to release Pacific Challenger to assist in search and rescue mission. At 17:15 Pacific Challenger released from location and proceded as instructed to search area 38 deg 30 min S, 142 deg 30 min E. 20:28 Pacific Challenger completed search of crash-site. Nothing found. Returning to location. 21:25 Pacific Challenger back on location. 23:45 RCC Canberra advise that search operations suspended.		

WBM Data

Cost Today $ 26,496

Mud Type:	KCl/ PHPA/ Glycol	API FL:	5 cm³/ 30m	Cl:	40000	Solids(%vol):	3.5	Viscosity:	69 sec/ qt
Sample-From:	Pit	Filter-Cake:	1 / 32nd"	K+C*1000:	8 %	H2O:	93.5 %	PV:	25 cp
Time:	21:00	HTHP-FL:	0 cm³/ 30m	Hard/Ca:	240	Oil(%):	3 %	YP:	33 lb/ 100ft²
Weight:	9.30 ppg	HTHP-Cake:	0 / 32nd"	MBT:	11.75	Sand:	0.5	Gels 10s:	8
Temp:	50.0 C°			PM:	0	pH:	9.5	Gels 10m:	16
				PF:	0.2	PHPA:	1 ppb	Fann 003:	8
								Fann 006:	10
								Fann 100:	34
								Fann 200:	47
								Fann 300:	58
								Fann 600:	83

Comment: Added 3% Glycol to system prior to entering Belfast Mudstone Formation.
NOTE: Oil % in Solids Reported = GLYCOL

Bit # 4

Wear	I	O1	D	L	B	G	O2	R

				Nozzles		Drilled over last 24 hrs		Calculated over Bit Run	
Size ("):	12.25 in	IADC#	M-223	No.	Size	Progress	432.0 m	Cum. Progress	864.0 m
Mfr:	HYCALOG	WOB(avg)	18.0 klb	5	13 / 32nd"	On Bottom Hrs	9.70 h	Cum. On Btm Hrs	26.50 h
Type:	PDC	RPM(avg)	150			IADC Drill Hrs	13.50 h	Cum IADC Drill Hrs	35.00 h
Serial No.:	106469	F.Rate	850 gpm			Total Revs	0	Cum Total Revs	0
Bit Model	DSX 195 D	SPP	3900 psi			ROP(avg)	45 m/ h	ROP(avg)	32.6
Depth In	1226.0 m	TFA	0.648						
Depth Out									

Run Comment	Bit racked back in derrick for re-run when drilling to TD after coring
Bitwear Comment	NOTE: THIS IS A PROVISIONAL BIT GRADING (Bit not broken out for inspection) - GRADING TO INDICATE THAT THE BIT IS IN GOOD CONDITION FOR RE-RUN.

BHA # 4

Weight(Wet)	60.0 klb	Length	250.5 m	Torque(max)	15000 ft-lbs	D.C. (1) Ann Velocity	254.1
Wt Below Jar(Wet)	30.0 klb	String	270.0 klb	Torque(Off.Btm)	4000 ft-lbs	D.C. (2) Ann Velocity	254.1
		Pick-Up	270.0 klb	Torque(On.Btm)	10000 ft-lbs	H.W.D.P. Ann Velocity	166.6
		Slack-Off	270.0 klb			D.P. Ann Velocity	166.6

BHA Run Description	PDC / MWD Packed BHA with DOG sub for picking core point.
BHA Run Comment	BHA components not used in coring racked back in derrick for use while drilling to TD.

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
1860.90	0.82	186.01	1860.8	-1.43	0.16	-1.43	2.21	MWD
1890.60	0.81	194.41	1890.5	-1.85	0.40	-1.85	2.13	MWD
1919.30	0.89	193.99	1919.2	-2.26	0.28	-2.26	2.03	MWD
1977.50	1.18	208.33	1977.4	-3.23	0.66	-3.23	1.63	MWD

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite	sx	548	96	0	1352
Cement	sx	0	0	0	1646
Gel	sx	0	0	0	754
Potable Water	MT	13	24	0	124
Drill Water	MT	237	237	0	1106
Mud	sx	0	0	0	0
Fuel	MT	0	13	0	559

Personnel On Board

Company	Pax
Santos	4
BHI - INTEQ	2
Geoservices	6
Halliburton	1
Sperry-Sun	2
TMT	3
DOGC	41
DOGC	5
Total Marine Catering	8
DBS	1
Schlumberger Wireline	3
Total	76

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	Oilwell A1700PT	5.50	9.30	95	81	3900	850
2	Oilwell A1700PT	5.50	9.30	95	81	3900	850
3	Oilwell A1700PT	5.50	9.30	95	81	3900	850

Slow Pump Data

Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
1960.0	20	230	70	30	290	106	40	340	140
1960.0	20	250	70	30	280	106	40	330	140
0	20	0	0	30	0	0	40	0	0

Casing

OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	N/A	121.0 m / 121.0 m	154 bbls (750 sx) Class G w/ 1% CaCl2 15.8 ppg
13 3/ 8"	L.O.T. - 15.00 ppg	635.8 m / 635.8 m	Lead - 304 bbls (768sx) c/ w 0.6 gal/ sx Econolite @ 12.5 lb/ gal. Tail - 172 (389sx) c/ w neat in seawater @ 15.8lbs/ gal.

HSE Summary

Events	Date of Last	Days Since	Remarks
Abandon Drill	26 Oct 2003	0 Days	
Fire Drill	26 Oct 2003	0 Days	
Lost Time Incident	24 Apr 2001	915 Days	None
Walkabout	26 Oct 2003	0 Days	

Shakers, Volumes and Losses Data

Engineer : William McKay

Available	2192 bbl	Losses	110 bbl
Active	803.0 bbl	Downhole	0 bbl
Mixing	0 bbl	Surf+ Equip	110 bbl
Hole	1004.0 bbl	Dumped	0 bbl
Slug	0 bbl	De-Sander	0 bbl
Reserve	385.0 bbl	De-Silter	0 bbl
Kill	0 bbl	Centrifuge	0 bbl

Equip.	Descr.	Mesh Size	Hours
Shaker 1	Thule VSM 300	3 x 40 (Upper)	15
Shaker 1	Thule VSM 300	4 x 180 (Lower)	15
Shaker 2	Thule VSM 300	4 x 180 (Lower)	15
Shaker 2	Thule VSM 300	3 x 10 (Upper)	15
Shaker 3	Thule VSM 300	3 x 10 (Upper)	15
Shaker 3	Thule VSM 300	4 x 180 (Lower)	15
Shaker 4	Thule VSM 300	3 x 40 (Upper)	15
Shaker 4	Thule VSM 300	4 x 180 (Lower)	15

Comment Daily Additions = 240 bbls drillwater, plus 36 bbls of product.

Marine

Weather check on 26 Oct 2003 at 24:00

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
7.00 nm	15.0 kn	180 deg	1020 bar	10.0 C°	1.2 m	210 deg	0 ft/ sec

Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments
0.8 deg	0.5 deg	1.10 m	2.5 m	210 deg	0 ft/ sec	

Rig Dir.	Ris. Tension	VDL	Comments
239.0 deg	210.0 klb	3915.0 klb	

Rig Support

Anchors	Tension (klb)
1	199.0
2	184.0
3	189.0
4	180.0
5	157.0
6	194.0
7	191.0
8	205.0

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks
Pacific Challenger	Standby	Standby	Standing by ready to depart location. 17:15 - 21:45 Vessel released for Search and Rescue Mission. (Request from Canberra to assist in S&R for ditched light aircraft)	
Lady Dawn	En route		En Route to rig. ETA 00:30 on 15/ 10/ 2003.	

Pacific Challenger

Item	Unit	Quantity
Barite	sx	0
Cement	sx	0
Gel	sx	0
Potable Water	MT	214
Drill Water	MT	216
Mud	sx	0
Fuel	MT	404.3

Lady Dawn

Item	Unit	Quantity
Barite	sx	2469
Cement	sx	2815
Gel	sx	1895
Potable Water	MT	567
Drill Water	MT	75
Mud	sx	0
Fuel	MT	385.9

Santos

DRILLING MORNING REPORT # 15
Casino #3 (27 Oct 2003)

From : G. Howard / S. Douglass

Well Data

Country	Australia	M. Depth	2004.0 m	Cur. Hole Size	12.250 in		
Field	Casino	TVD	2004.0 m	Casing OD	13.375 in		
Drill Co.	DOGC	Progress	0 m	Shoe TVD	635.8 m		
Rig	Ocean Epoch	Days from spud	13.33	FIT	0 ppg		
Wtr Dpth(LAT)	66.7 m	Days on well	14.79	LOT	15.00 ppg	Planned TD	2137.0 m
RT-ASL(LAT)	22.4 m	Current Op @ 0600	Washing and reaming in hole at 1790 m to cut core number 1.				
RT-ML	89.1 m	Planned Op	Continue wash / ream to 2004 m. Cut core # 1. POOH with core #1.				

Summary of Period 0000 to 2400 Hrs

Repair top drive system. POOH. Make up coring assembly and RIH to 1046 m.

FORMATION

Name	Top

Operations For Period 0000 Hrs to 2400 Hrs on 27 Oct 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH	TP	RR	0000	0030	0.50	2004.0 m	Pump slug. POOH one stand drill pipe. Observe oil leaking from top drive. Examine top drive and determine leak from gear-box seals.
PH	TP	RR	0030	1430	14.00	2004.0 m	RIH one stand drillpipe to 618 m. Repair top drive while monitor well on trip tank. Replace rotating head seals and main shaft seals.
PH	P	TO	1430	1600	1.50	2004.0 m	Pump slug. POOH from 618 m to top of BHA at 251m.
PH	P	HBHA	1600	1730	1.50	2004.0 m	Continue POOH, racking back BHA and bit. Inspect bit. (OK to re-run).
PH	P	HT	1730	2000	2.50	2004.0 m	Hold tool-box talk for handling core barrel. Pick up Core Head #1 and make up to core barrel. Pick up and make up core barrel as directed by DBS core hand.
PH	P	HBHA	2000	2130	1.50	2004.0 m	RIH with BHA to 283 m.
PH	P	TI	2130	2400	2.50	2004.0 m	Continue to RIH with 5" drill pipe to 1046 m. Wash and ream through tight spots at 675 m and 775 m. (30 klbs drag - worked through tight spots and into good hole with light reaming).

Operations For Period 0000 Hrs to 0600 Hrs on 28 Oct 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH	P	TI	0000	0200	2.00	2004.0 m	RIH from 1026 m to 1627 m. Work through intermittent tight spots 1079 m to 1243 m, 1449 m to 1511 m, 1542 m to 1627 m.
PH	TP	WIN	0200	0230	0.50	2004.0 m	Wash and ream 1627 m to 1643 m. Hole tight. Drag 30 - 70 klbs.
PH	TP	CMD	0230	0430	2.00	2004.0 m	Wash / ream 1643 - 1675 m. Increase circulating system mud weight from 9.3 ppg to 9.6 ppg.
PH	TP	WIN	0430	0600	1.50	2004.0 m	(IN PROGRESS) Wash and ream through intermittent tight hole from 1675 m to 2004 m. Increasing mud weight of system that was below weight up at 1675 m, from 9.3 ppg to 9.6 ppg.

Phase Data to 2400hrs, 27 Oct 2003

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
PRODUCTION HOLE(PH)	132	30 Oct 2003	27 Oct 2003	132	6 days	2004.0 m
RIG MOVE/ RIG-UP/ PRESPUD(RM)	22.5	13 Oct 2003	14 Oct 2003	154.5	6 days	0 m
CONDUCTOR HOLE(CH)	37	14 Oct 2003	15 Oct 2003	191.5	8 days	121.3 m
SURFACE HOLE(SH)	49.5	15 Oct 2003	17 Oct 2003	241	10 days	645.0 m
SURFACE CASING(SC)	114	18 Oct 2003	22 Oct 2003	355	15 days	645.0 m

Printed on 30 Oct 2003

WBM Data — Cost Today $ 2,869

Mud Type:	KCl/ PHPA/ Glycol	API FL:	5 cm³/ 30m	Cl:	40000	Solids(%vol):	3.5	Viscosity	70 sec/ qt
Sample-From:	Pit	Filter-Cake:	1 / 32nd"	K+C*1000:	8 %	H2O:	93.5 %	PV	24 cp
Time:	21:00	HTHP-FL:	0 cm³/ 30m	Hard/Ca:	280	Oil(%):	3 %	YP	35 lb/ 100ft²
Weight:	9.30 ppg	HTHP-cake:	0 / 32nd"	MBT:	12.5	Sand:	0.6	Gels 10s	8
Temp:	0 C°			PM:	0	pH:	9.5	Gels 10m	16
				PF:	0.25	PHPA:	1 ppb	Fann 003	8
								Fann 006	10
								Fann 100	35
								Fann 200	46
								Fann 300	59
								Fann 600	83

Comment: Added 3% Glycol to system prior to entering Belfast Mudstone Formation.
NOTE: Oil % in Solids Reported = GLYCOL

Bit # 4

Wear	I	O1	D	L	B	G	O2	R
	1	1	RR	A	X	I	NO	CP

				Nozzles		Drilled over last 24 hrs		Calculated over Bit Run	
Size ("):	12.25 in	IADC#	M-223	No.	Size	Progress	0 m	Cum. Progress	864.0 m
Mfr:	HYCALOG	WOB(avg)	18.0 klb	5	13 / 32nd"	On Bottom Hrs	0 h	Cum. On Btm Hrs	26.50 h
Type:	PDC	RPM(avg)	150			IADC Drill Hrs	0 h	Cum IADC Drill Hrs	35.00 h
Serial No.:	106469	F.Rate	850 gpm			Total Revs	0	Cum Total Revs	0
Bit Model	DSX 195 D	SPP	3900 psi			ROP(avg)	N/ A	ROP(avg)	32.6
Depth In	1226.0 m	TFA	0.648						
Depth Out	2004.0 m								

Bit # C1

Wear	I	O1	D	L	B	G	O2	R

				Nozzles		Drilled over last 24 hrs		Calculated over Bit Run	
Size ("):	12.25 in	IADC#		No.	Size	Progress	0 m	Cum. Progress	0 m
Mfr:	SECURITY-DBS	WOB(avg)	0 klb	10	14 / 32nd"	On Bottom Hrs	0 h	Cum. On Btm Hrs	0 h
Type:		RPM(avg)	0			IADC Drill Hrs	0 h	Cum IADC Drill Hrs	0 h
Serial No.:	7921477A	F.Rate	0 gpm			Total Revs	0	Cum Total Revs	0
Bit Model	CD93	SPP	0 psi			ROP(avg)	N/ A	ROP(avg)	
Depth In	2004.0 m	TFA	1.503						
Depth Out									

BHA # 4

Weight(Wet)	60.0 klb	Length	250.5 m	Torque(max)	15000 ft-lbs	D.C. (1) Ann Velocity	254.1
Wt Below Jar(Wet)	30.0 klb	String	270.0 klb	Torque(Off.Btm)	4000 ft-lbs	D.C. (2) Ann Velocity	254.1
		Pick-Up	270.0 klb	Torque(On.Btm)	10000 ft-lbs	H.W.D.P. Ann Velocity	166.6
		Slack-Off	270.0 klb			D.P. Ann Velocity	166.6

BHA Run Description: PDC / MWD Packed BHA with DOG sub for picking core point.

BHA Run Comment: BHA components not used in coring racked back in derrick for use while drilling to TD.

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.32 m	12.25 in	0 in	LR2995	12 1/ 4" PDC Bit
DOG sub	0.24 m	12.25 in	3.00 in	30039A	Drilling On Gauge Sub
MWD Tools	12.40 m	8.25 in	1.75 in	DM90022879XHG	EWR / CWR / CIM, MWD Tool.
Float Sub	0.77 m	8.06 in	3.00 in	A-340	Float Sub
8.25in DC	9.07 m	8.25 in	3.00 in	OX825-46	8 1/ 4" Drill Collar
12.25in Roller Reamer	2.33 m	8.06 in	3.00 in	GU2143	Roller Reamer TOTCO ring.
8.25in DC	56.26 m	8.25 in	2.88 in		8 x 8 1/ 4" Drill Collar
8in Hydraulic Jars	9.63 m	8.00 in	3.06 in	DAH02055	8" Hydraulic Jar
8.25in DC	27.72 m	8.25 in	2.75 in		3 x 8 1/ 4" Drill Collar
Jar Accel.	8.28 m	8.00 in	2.94 in	DAH01586	Hydraulic Jar Accellerator
8.25in DC	9.25 m	8.19 in	2.88 in	825-48	8 1/ 4" Drill Collar
X/ O	0.81 m	6.31 in	2.81 in	EX-072	Cross-Over
5in HWDP	113.41 m	5.00 in	3.00 in		5" Heavy Weight Drill Pipe.

BHA # 5

Weight(Wet)	75.0 klb	Length	283.1 m	Torque(max)	0 ft-lbs	D.C. (1) Ann Velocity	
Wt Below Jar(Wet)	40.0 klb	String	0 klb	Torque(Off.Btm)	0 ft-lbs	D.C. (2) Ann Velocity	
		Pick-Up	0 klb	Torque(On.Btm)	0 ft-lbs	H.W.D.P. Ann Velocity	
		Slack-Off	0 klb			D.P. Ann Velocity	

BHA Run Description: Coring BHA.

BHA Run Comment:

Equipment	Length	OD	ID	Serial #	Comment
12.25 in Core Head	0.30 m	12.25 in	0 in	7921477A	12 1/ 4" PDC Core Head
Core Barrel	29.11 m	8.50 in	4.50 in		Core Barrel
8.25in DC	143.37 m	8.25 in	1.75 in		8 1/ 4" Drill Collar
8in Hydraulic Jars	9.63 m	8.00 in	3.06 in	DAH02055	8" Hydraulic Jar
8.25in DC	27.72 m	8.25 in	2.75 in		3 x 8 1/ 4" Drill Collar
Jar Accel.	8.28 m	8.00 in	2.94 in	DAH01586	Hydraulic Jar Accellerator
8.25in DC	9.25 m	8.19 in	2.88 in	825-48	8 1/ 4" Drill Collar
X/ O	0.81 m	6.31 in	2.81 in	EX-072	Cross-Over
5in HWDP	113.41 m	5.00 in	3.00 in		5" Heavy Weight Drill Pipe.

Survey

MD	Incl Deg	Corr. Az (deg)	TVD	'V' Sect	Dogleg (deg/100ft)	N/S	E/W	Tool Type
1830.40	0.84	183.00	1830.3	-0.99	0.38	-0.99	2.24	MWD
1860.90	0.82	186.01	1860.8	-1.43	0.16	-1.43	2.21	MWD
1890.60	0.81	194.41	1890.5	-1.85	0.40	-1.85	2.13	MWD
1919.30	0.89	193.99	1919.2	-2.26	0.28	-2.26	2.03	MWD
1977.50	1.18	208.33	1977.4	-3.23	0.66	-3.23	1.63	MWD

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite	sx	0	0	0	1352
Cement	sx	0	0	0	1646
Gel	sx	0	0	0	754
Potable Water	MT	8	22	0	110
Drill Water	MT	19	35	0	1090
Mud	sx	0	0	0	0
Fuel	MT	0	9	0	550

Personnel On Board

Company	Pax
Santos	5
BHI - INTEQ	3
Geoservices	6
Halliburton	1
Sperry-Sun	2
TMT	3
DOGC	41
DOGC Service	4
Total Marine Catering	8
DBS	1
Schlumberger Wireline	8
Schlumberger Testing	1
Total	83

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	Oilwell A1700PT	5.50	9.30	95	81	3900	850
2	Oilwell A1700PT	5.50	9.30	95	81	3900	850
3	Oilwell A1700PT	5.50	9.30	95	81	3900	850

Slow Pump Data

Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
1960.0	20	230	70	30	290	106	40	340	140
1960.0	20	250	70	30	280	106	40	330	140
0	20	0	0	30	0	0	40	0	0

Casing

OD	LOT / FIT	Csg Shoe (MD/TVD)	Cementing
30 "	0 ppg / 0 ppg	121.0 m / 121.0 m	154 bbls (750 sx) Class G w/ 1% CaCl2 15.8 ppg
13 3/ 8"	15.00 ppg / 0 ppg	635.8 m / 635.8 m	Lead - 304 bbls (768sx) c/ w 0.6 gal/ sx Econolite @ 12.5 lb/ gal. Tail - 172 (389sx) c/ w neat in seawater @ 15.8lbs/ gal.

Printed on 30 Oct 2003

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Abandon Drill	26 Oct 2003	0 Days	Abandon Rig Drill	
Fire Drill	26 Oct 2003	0 Days	Fire Drill	
Lost Time Incident	24 Apr 2001	915 Days	Lost Time Incident	None
Vessel Assist	27 Oct 2003	0 Days	Search and Rescue	At 17:10 received request from RCC Canberra to release Pacific Challenger to assist in search and rescue mission. At 17:15 Pacific Challenger released from location and proceded as instructed to search area 38 deg 30 min S, 142 deg 30 min E. 20:28 Pacific Challenger completed search of crash-site. Nothing found. Returning to location. 21:25 Pacific Challenger back on location. 23:45 RCC Canberra advise that search operations suspended.
Walkabout	27 Oct 2003	0 Days	Daily Walkround of Rig	

Shakers, Volumes and Losses Data

Engineer : William McKay

Equip.	Descr.	Mesh Size
Shaker 1	Thule VSM 300	4 x 180 (Lower)
Shaker 1	Thule VSM 300	3 x 40 (Upper)
Shaker 2	Thule VSM 300	3 x 10 (Upper)
Shaker 2	Thule VSM 300	4 x 180 (Lower)
Shaker 3	Thule VSM 300	4 x 180 (Lower)
Shaker 3	Thule VSM 300	3 x 10 (Upper)
Shaker 4	Thule VSM 300	4 x 180 (Lower)
Shaker 4	Thule VSM 300	3 x 40 (Upper)

Available	**2193 bbl**
Active	890.0 bbl
Mixing	0 bbl
Hole	1017.0 bbl
Slug	0 bbl
Reserve	286.0 bbl
Kill	0 bbl

Losses	**4 bbl**
Downhole	0 bbl
Surf+ Equip	4 bbl
Dumped	0 bbl
De-Sander	0 bbl
De-Silter	0 bbl
Centrifuge	0 bbl

Comments

Daily Additions = 5 bbls of product

Marine

Weather on 27 Oct 2003

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
7.00 nm	12.0 kn	210 deg	1016 bar	11.0 C°	0.8 m	210 deg	0 ft/ sec

Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments
0.6 deg	0.5 deg	0.80 m	2.0 m	210 deg	0 ft/ sec	

Rig Dir.	Ris. Tension	VDL	Comments
239.0 deg	210.0 klb	3856.0 klb	

Rig Support

Anchors	Tension (klb)
1	197.0
2	182.0
3	192.0
4	182.0
5	155.0
6	200.0
7	195.0
8	207.0

Boats	Arrived (date/time)	Departed (date/time)	Status
Pacific Challenger		00:45	In port at Portland.
Lady Dawn	00:30	Standby at Anchor	08:30 - 08:58 Lady Dawn alongside Starboard side for Cargo Handling.

Bulks

Item	Unit	Quantity
Barite	sx	0
Cement	sx	0
Gel	sx	0
Potable Water	MT	214
Drill Water	MT	216
Mud	sx	0
Fuel	MT	404.3

Item	Unit	Quantity
Barite	sx	2469
Cement	sx	0
Gel	sx	2815
Potable Water	MT	557
Drill Water	MT	75
Mud	sx	0
Fuel	MT	381.6

Helicopter Movement

Flight #	Time	Destination	Comment	Pax
1	16:00	Ocean Epoch		11
1	16:15	Essendon		4

Santos

DRILLING MORNING REPORT # 16
Casino #3 (28 Oct 2003)

From : G. Howard / S. Douglass

Well Data

Country	Australia	M. Depth	2031.0 m	Cur. Hole Size	12.250 in		
Field	Casino	TVD	2031.0 m	Casing OD	13.375 in		
Drill Co.	DOGC	Progress	27.0 m	Shoe TVD	635.8 m		
Rig	Ocean Epoch	Days from spud	14.33	FIT	0 ppg		
Wtr Dpth(LAT)	66.7 m	Days on well	15.79	LOT	15.00 ppg	Planned TD	2137.0 m
RT-ASL(LAT)	22.4 m	Current Op @ 0600	RIH with 12 1/ 4" PDC bit (re-run) to drill ahead to TD of well.				
RT-ML	89.1 m	Planned Op	RIH and log cored section with FEWD tools. Drill ahead from 2031 m to TD of well.				

Summary of Period 0000 to 2400 Hrs

Wash and ream from 1046 m to 2004 m. Cut core #1 from 2004 m to 2031 m. POOH and recover core #1.

FORMATION

Operations For Period 0000 Hrs to 2400 Hrs on 28 Oct 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH	P	TI	0000	0200	2.00	2004.0 m	RIH from 1026 m to 1627 m. Work through intermittent tight spots 1079 m to 1243 m, 1449 m to 1511 m, 1542 m to 1627 m.
PH	TP	WIN	0200	0230	0.50	2004.0 m	Wash and ream 1627 m to 1643 m. Hole tight. Drag 30 - 70 klbs.
PH	TP	CMD	0230	0430	2.00	2004.0 m	Wash / ream 1643 - 1675 m. Increase circulating system mud weight from 9.3 ppg to 9.6 ppg.
PH	TP	WIN	0430	1230	8.00	2004.0 m	Wash and ream through intermittent tight hole from 1675 m to 2004 m. Increasing mud weight of system that was below weight up at 1675 m, from 9.3 ppg to 9.6 ppg.
PH	P	COR	1230	1330	1.00	2004.0 m	Circulate bottoms up. Drop ball and observe ball land out. Record parameters.
PH	P	COR	1330	1630	3.00	2031.0 m	Cut core #1 as directed by DBS coring hand from 2004 m to 2031 m. Break core with 20 klbs overpull.
PH	P	TO	1630	2100	4.50	2031.0 m	Flow check. Well static. Slug pipe. POOH from 2031 m to 13 3/ 8" casing shoe at 635 m. Hole good.
PH	P	TO	2100	2200	1.00	2031.0 m	Flow check. Well static. Continue POOH to top of BHA at 283 m.
PH	P	HBHA	2200	2300	1.00	2031.0 m	Continue POOH with BHA. Rack BHA in derrick.
PH	P	HT	2300	2400	1.00	2031.0 m	Hold pre-job tool-box meeting. Commence lay out core barrel and sleeve with core.

Operations For Period 0000 Hrs to 0600 Hrs on 29 Oct 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH	P	HT	0000	0230	2.50	2031.0 m	Retreive core from outer barrel. Lay down core sleeves to pipe rack. Recovered 24.7 m - 91.5% recovery.
PH	P	HT	0230	0330	1.00	2031.0 m	Lay down outer core barrels and break out core head.
PH	P	LOG	0330	0430	1.00	2031.0 m	Latch into FEWD tool. Download FEWD tool data. Verify data.
PH	P	HBHA	0430	0600	1.50	2031.0 m	(IN PROGRESS) RIH with BHA to 250 m. Test MWD tools. OK.

Phase Data to 2400hrs, 28 Oct 2003

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
PRODUCTION HOLE(PH)	156	30 Oct 2003	28 Oct 2003	156	7 days	2031.0 m
RIG MOVE/ RIG-UP/ PRESPUD(RM)	22.5	13 Oct 2003	14 Oct 2003	178.5	7 days	0 m
CONDUCTOR HOLE(CH)	37	14 Oct 2003	15 Oct 2003	215.5	9 days	121.3 m
SURFACE HOLE(SH)	49.5	15 Oct 2003	17 Oct 2003	265	11 days	645.0 m
SURFACE CASING(SC)	114	18 Oct 2003	22 Oct 2003	379	16 days	645.0 m

General Comments

00:00 TO 24:00 Hrs ON 28 Oct 2003

Comments	Rig Requirements	Lessons Learnt
Rec'd onboard 9 5/ 8" casing. Racked on port side in bundles. Laying out / Strapping of casing contingent on results of FEWD logging of cored hole section.	Confirmation of 9 5/ 8" cement recipe. Confirmation of depths for top lead cement and top tail cement.	

Printed on 30 Oct 2003

WBM Data

Cost Today $ 3,238

Mud Type:	KCl/ PHPA/ Glycol	API FL:	4 cm³/ 30m	Cl:	36000	Solids(%vol):	7	Viscosity	71 sec/ qt
Sample-From:	Pit	Filter-Cake:	1 / 32nd"	K+C*1000:	7.5 %	H2O:	90 %	PV	24 cp
Time:	17:00	HTHP-FL:	0 cm³/ 30m	Hard/Ca:	280	Oil(%):	3 %	YP	37 lb/ 100ft²
Weight:	9.60 ppg	HTHP-cake:	0 / 32nd"	MBT:	8.75	Sand:	0.6	Gels 10s	8
Temp:	43.0 C°			PM:	0	pH:	9	Gels 10m	12
				PF:	0.05	PHPA:	2 ppb	Fann 003	8
								Fann 006	10
								Fann 100	35
								Fann 200	50
								Fann 300	61
								Fann 600	85

Comment: NOTE: Oil % in Solids Reported = GLYCOL

Bit # C1

Wear	I	O1	D	L	B	G	O2	R

Size ("):	12.25 in	IADC#		**Nozzles**		**Drilled over last 24 hrs**		**Calculated over Bit Run**	
Mfr:	SECURITY-DBS	WOB(avg)	2000.0 klb	No.	Size	Progress	27.0 m	Cum. Progress	27.0 m
Type:		RPM(avg)	60	10	14 / 32nd"	On Bottom Hrs	2.85 h	Cum. On Btm Hrs	2.85 h
Serial No.:	7921477A	F.Rate	253 gpm			IADC Drill Hrs	3.50 h	Cum IADC Drill Hrs	3.50 h
Bit Model	CD93	SPP	1370 psi			Total Revs	43000	Cum Total Revs	43000
Depth In	2004.0 m	TFA	1.503			ROP(avg)	9 m/ h	ROP(avg)	9.5
Depth Out									

BHA # 4

Weight(Wet)	60.0 klb	Length	250.5 m	Torque(max)	15000 ft-lbs	D.C. (1) Ann Velocity	
Wt Below Jar(Wet)	30.0 klb	String	270.0 klb	Torque(Off.Btm)	4000 ft-lbs	D.C. (2) Ann Velocity	
		Pick-Up	270.0 klb	Torque(On.Btm)	10000 ft-lbs	H.W.D.P. Ann Velocity	
		Slack-Off	270.0 klb			D.P. Ann Velocity	

BHA Run Description: PDC / MWD Packed BHA with DOG sub for picking core point.

BHA Run Comment: BHA components not used in coring racked back in derrick for use while drilling to TD.

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.32 m	12.25 in	0 in	LR2995	12 1/ 4" PDC Bit
DOG sub	0.24 m	12.25 in	3.00 in	30039A	Drilling On Gauge Sub
MWD Tools	12.40 m	8.25 in	1.75 in	DM90022879XHG	EWR / CWR / CIM, MWD Tool.
Float Sub	0.77 m	8.06 in	3.00 in	A-340	Float Sub
8.25in DC	9.07 m	8.25 in	3.00 in	OX825-46	8 1/ 4" Drill Collar
12.25in Roller Reamer	2.33 m	8.06 in	3.00 in	GU2143	Roller Reamer TOTCO ring.
8.25in DC	56.26 m	8.25 in	2.88 in		8 x 8 1/ 4" Drill Collar
8in Hydraulic Jars	9.63 m	8.00 in	3.06 in	DAH02055	8" Hydraulic Jar
8.25in DC	27.72 m	8.25 in	2.75 in		3 x 8 1/ 4" Drill Collar
Jar Accel.	8.28 m	8.00 in	2.94 in	DAH01586	Hydraulic Jar Accellerator
8.25in DC	9.25 m	8.19 in	2.88 in	825-48	8 1/ 4" Drill Collar
X/ O	0.81 m	6.31 in	2.81 in	EX-072	Cross-Over
5in HWDP	113.41 m	5.00 in	3.00 in		5" Heavy Weight Drill Pipe.

BHA # 5

Weight(Wet)	75.0 klb	Length	283.1 m	Torque(max)	12000 ft-lbs	D.C. (1) Ann Velocity	75.6
Wt Below Jar(Wet)	40.0 klb	String	300.0 klb	Torque(Off.Btm)	2000 ft-lbs	D.C. (2) Ann Velocity	75.6
		Pick-Up	295.0 klb	Torque(On.Btm)	8000 ft-lbs	H.W.D.P. Ann Velocity	49.6
		Slack-Off	295.0 klb			D.P. Ann Velocity	49.6

BHA Run Description: Coring BHA.

BHA Run Comment:

Equipment	Length	OD	ID	Serial #	Comment
12.25 in Core Head	0.30 m	12.25 in	0 in	7921477A	12 1/ 4" PDC Core Head
Core Barrel	29.11 m	8.50 in	4.50 in		Core Barrel
8.25in DC	143.37 m	8.25 in	1.75 in		8 1/ 4" Drill Collar
8in Hydraulic Jars	9.63 m	8.00 in	3.06 in	DAH02055	8" Hydraulic Jar
8.25in DC	27.72 m	8.25 in	2.75 in		3 x 8 1/ 4" Drill Collar
Jar Accel.	8.28 m	8.00 in	2.94 in	DAH01586	Hydraulic Jar Accellerator
8.25in DC	9.25 m	8.19 in	2.88 in	825-48	8 1/ 4" Drill Collar
X/ O	0.81 m	6.31 in	2.81 in	EX-072	Cross-Over
5in HWDP	113.41 m	5.00 in	3.00 in		5" Heavy Weight Drill Pipe.

Survey

MD	Incl Deg	Corr. Az (deg)	TVD	'V' Sect	Dogleg (deg/100ft)	N/S	E/W	Tool Type
1860.90	0.82	186.01	1860.8	-1.43	0.16	-1.43	2.21	MWD
1890.60	0.81	194.41	1890.5	-1.85	0.40	-1.85	2.13	MWD
1919.30	0.89	193.99	1919.2	-2.26	0.28	-2.26	2.03	MWD
1977.50	1.18	208.33	1977.4	-3.23	0.66	-3.23	1.63	MWD
2005.90	0.83	199.77	2005.8	-3.68	1.34	-3.68	1.43	MWD

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite	sx	0	521	0	831
Cement	sx	847	0	38	2531
Gel	sx	0	0	0	754
Potable Water	MT	27	22	0	115
Drill Water	MT	0	70	67	1087
Mud	sx	0	0	0	0
Fuel	MT	0	11	0	539

Personnel On Board

Company	Pax
Santos	5
BHI - INTEQ	3
Geoservices	6
Halliburton	1
Sperry-Sun	2
TMT	3
DOGC	41
DOGC Service	4
Total Marine Catering	8
DBS	1
Schlumberger Wireline	8
Schlumberger Testing	1
Total	83

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	Oilwell A1700PT	5.50	9.60	95	71	1370	253
2	Oilwell A1700PT	5.50	9.60	95	0	0	0
3	Oilwell A1700PT	5.50	9.60	95	0	0	0

Slow Pump Data

Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
2004.0	57	900	200	85	1600	300	0	0	0
0	20	0	70	30	0	105	40	0	141
0	20	0	70	30	0	105	40	0	141

Casing

OD	LOT / FIT	Csg Shoe (MD/TVD)	Cementing
30 "	0 ppg / 0 ppg	121.0 m / 121.0 m	154 bbls (750 sx) Class G w/ 1% CaCl2 15.8 ppg
13 3/ 8"	15.00 ppg / 0 ppg	635.8 m / 635.8 m	Lead - 304 bbls (768sx) c/ w 0.6 gal/ sx Econolite @ 12.5 lb/ gal. Tail - 172 (389sx) c/ w neat in seawater @ 15.8lbs/ gal.

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Abandon Drill	26 Oct 2003	1 Day	Abandon Rig Drill	
Fire Drill	26 Oct 2003	1 Day	Fire Drill	
Lost Time Incident	24 Apr 2001	916 Days	Lost Time Incident	None
Walkabout	28 Oct 2003	0 Days	Daily Walkround of Rig	

Printed on 30 Oct 2003

Shakers, Volumes and Losses Data

Engineer : William McKay

Equip.	Descr.	Mesh Size
Shaker 1	Thule VSM 300	4 x 84 (Lower)
Shaker 1	Thule VSM 300	3 x 40 (Upper)
Shaker 2	Thule VSM 300	3 x 10 (Upper)
Shaker 2	Thule VSM 300	4 x 84 (Lower)
Shaker 3	Thule VSM 300	4 x 180 (Lower)
Shaker 3	Thule VSM 300	3 x 10 (Upper)
Shaker 4	Thule VSM 300	4 x 180 (Lower)
Shaker 4	Thule VSM 300	3 x 40 (Upper)

Available	**2206 bbl**
Active	792.0 bbl
Mixing	0 bbl
Hole	1057.0 bbl
Slug	0 bbl
Reserve	357.0 bbl
Kill	0 bbl

Losses	**32 bbl**
Downhole	0 bbl
Surf+ Equip	32 bbl
Dumped	0 bbl
De-Sander	0 bbl
De-Silter	0 bbl
Centrifuge	0 bbl

Comments

Daily Additions = 44 bbls of product

Marine

Weather on 28 Oct 2003

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
7.00 nm	13.0 kn	180 deg	1007 bar	11.0 C°	0.8 m	180 deg	0 ft/ sec

Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments
0.6 deg	0.5 deg	0.80 m	2.5 m	210 deg	0 ft/ sec	

Rig Dir.	Ris. Tension	VDL	Comments
239.0 deg	210.0 klb	3869.0 klb	

Rig Support

Anchors	Tension (klb)
1	200.0
2	188.0
3	189.0
4	178.0
5	152.0
6	193.0
7	190.0
8	208.0

Boats	Arrived (date/time)	Departed (date/time)	Status
Pacific Challenger	12:30	Standby	14:07 - 15:00 Offloaded cement. 17:30 - 1800 Offloaded Cargo. Standing by at anchor
Lady Dawn	Standby	Alongside Rig	08:35 - 09:00 Alongside Starboard side for Cargo Handling. 10:00 Close standby for flare boom work. 21:30 - 24:00 Alongside Port side offload 9 5/ 8" casing.

Bulks

Item	Unit	Quantity
Barite	sx	882
Cement	sx	0
Gel	sx	0
Potable Water	MT	208
Drill Water	MT	447
Mud	sx	0
Fuel	MT	391.4

Item	Unit	Quantity
Barite	sx	2467
Cement	sx	2815
Gel	sx	1896
Potable Water	MT	547
Drill Water	MT	75
Mud	sx	0
Fuel	MT	380

Santos

DRILLING MORNING REPORT # 17
Casino #3 (29 Oct 2003)

From : G. Howard / S. Douglass

Well Data

Country	Australia	M. Depth	2097.0 m	Cur. Hole Size	12.250 in		
Field	Casino	TVD	2097.0 m	Casing OD	13.375 in		
Drill Co.	DOGC	Progress	93.0 m	Shoe TVD	635.8 m		
Rig	Ocean Epoch	Days from spud	15.33	L.O.T.	15.00 ppg		
Wtr Dpth(LAT)	66.7 m	Days on well	16.54			Planned TD	2137.0 m
RT-ASL(LAT)	22.4 m	Current Op @ 0600	Drilling ahead 12 1/ 4" hole at 2123 m.				
RT-ML	89.1 m	Planned Op	Drill ahead 12 1/ 4" hole to TD of well at 2147 m. Circulate hole clean. POOH and rig up to run wireline logs. Commence wireline logging operations.				

Summary of Period 0000 to 2400 Hrs

Recover core. RIH and drill ahead 12 1/ 4" hole from 2031 m to 2097 m.

Formations

Name	Top (MD)	Top (TVD)	Comment

Operations For Period 0000 Hrs to 2400 Hrs on 29 Oct 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH	P	HT	0000	0230	2.50	2031.0 m	Retreive core from outer barrel. Lay down core sleeves to pipe rack. Recovered 24.7 m - 91.5% recovery.
PH	P	HT	0230	0330	1.00	2031.0 m	Lay down outer core barrels and break out core head.
PH	P	LOG	0330	0430	1.00	2031.0 m	Latch into FEWD tool. Download FEWD tool data. Verify data.
PH	P	HBHA	0430	0630	2.00	2031.0 m	RIH with BHA to 250 m. Test MWD tools. OK.
PH	P	PUP	0630	0700	0.50	2031.0 m	Continue RIH picking up 9 joints 5" drill-pipe.
PH	P	TI	0700	0830	1.50	2031.0 m	Continue RIH with 5" drill pipe to 13 3/ 8" casing shoe at 635 m.
PH	P	RS	0830	0900	0.50	2031.0 m	Service TDS and blocks. Inspect oil leak from TDS. Determine that current oil loss rate is within operational limits.
PH	P	TI	0900	1300	4.00	2031.0 m	RIH with 5" drill pipe from 13 3/ 8" shoe at 635 m to 2000 m. Wash and light ream through tight spots at 1907 m and 1975 m. Hole condition good. No fill.
PH	P	LOG	1300	1430	1.50	2031.0 m	Ream through cored section from 2000 m to 2031 m at controlled rate, to collect FEWD data.
PH	P	DA	1430	2400	9.50	2097.0 m	Drill ahead 12 1/ 4" hole from 2031 m to 2097 m. Optimise drilling parameters to maximise penetration rates.

Operations For Period 0000 Hrs to 0600 Hrs on 30 Oct 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH	P	DA	0000	0600	6.00	2135.0 m	(IN PROGRESS) Drill ahead 12 1/ 4" hole from 2097 m to 2135 m

Phase Data to 2400hrs, 29 Oct 2003

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/ RIG-UP/ PRESPUD(RM)	22.5	13 Oct 2003	14 Oct 2003	22.5	1 days	0 m
CONDUCTOR HOLE(CH)	37	14 Oct 2003	15 Oct 2003	59.5	2 days	121.3 m
SURFACE HOLE(SH)	49.5	15 Oct 2003	17 Oct 2003	109	5 days	645.0 m
SURFACE CASING(SC)	114	18 Oct 2003	22 Oct 2003	223	9 days	645.0 m
PRODUCTION HOLE(PH)	174	22 Oct 2003	29 Oct 2003	397	17 days	2097.0 m

General Comments

Comments	Rig Requirements	Lessons Learnt
Unable to saw core into 1 metre lengths. Blade unable to penetrate aluminium sleeve, plus blade of inadequate diameter. Core shipped to shore in 9 metre lengths.		Coring contractor to perform trial cut of sleeve prior to sending equipment offshore.

WBM Data

Cost Today $ 0

Mud Type:	KCl/ PHPA/ Glycol	API FL:	4 cm³/ 30m	Cl:	34500	Solids(%vol):	7	Viscosity:	70 sec/ qt
Sample-From:	Pit	Filter-Cake:	1 / 32nd"	K+C*1000:	7 %	H2O:	90 %	PV:	24 cp
Time:	21:45	HTHP-FL:	0 cm³/ 30m	Hard/Ca:	400	Oil(%):	3 %	YP:	35 lb/ 100ft²
Weight:	9.60 ppg	HTHP-Cake:	0 / 32nd"	MBT:	8.75	Sand:	0.6	Gels 10s:	7
Temp:	53.0 C°			PM:	0	pH:	9	Gels 10m:	11
				PF:	0.05	PHPA:	2 ppb	Fann 003:	7
								Fann 006:	10
								Fann 100:	34
								Fann 200:	48
								Fann 300:	59
								Fann 600:	83

Comment: NOTE: Oil % in Solids Reported = GLYCOL

Bit # C1

Wear	I	O1	D	L	B	G	O2	R

				Nozzles		Drilled over last 24 hrs		Calculated over Bit Run	
Size ("):	12.25 in	IADC#		No.	Size	Progress	27.0 m	Cum. Progress	54.0 m
Mfr:	SECURITY-DBS	WOB(avg)	2000.0 klb	10	14 / 32nd"	On Bottom Hrs	2.85 h	Cum. On Btm Hrs	5.70 h
Type:		RPM(avg)	60			IADC Drill Hrs	3.50 h	Cum IADC Drill Hrs	7.00 h
Serial No.:	7921477A	F.Rate	253 gpm			Total Revs	43000	Cum Total Revs	86000
Bit Model	CD93	SPP	1370 psi			ROP(avg)	9 m/ h	ROP(avg)	9.5
Depth In	2004.0 m	TFA	1.503						
Depth Out	2031.0 m								

Run Comment: Core Bit #1

Bit # 6 - 4R1

Wear	I	O1	D	L	B	G	O2	R

				Nozzles		Drilled over last 24 hrs		Calculated over Bit Run	
Size ("):	12.25 in	IADC#	M-223	No.	Size	Progress	66.0 m	Cum. Progress	66.0 m
Mfr:	HYCALOG	WOB(avg)	23.0 klb	2	12 / 32nd"	On Bottom Hrs	8.21 h	Cum. On Btm Hrs	8.21 h
Type:	PDC	RPM(avg)	150	3	13 / 32nd"	IADC Drill Hrs	9.50 h	Cum IADC Drill Hrs	9.50 h
Serial No.:	106469	F.Rate	815 gpm			Total Revs	107000	Cum Total Revs	107000
Bit Model	DSX 195 D	SPP	4005 psi			ROP(avg)	8 m/ h	ROP(avg)	8.0
Depth In	2031.0 m	TFA	0.61						
Depth Out									

Run Comment: Re-Run #1 bit #4

BHA # 6

Weight(Wet)	60.0 klb	Length	250.5 m	Torque(max)	18000 ft-lbs	D.C. (1) Ann Velocity	243.6
Wt Below Jar(Wet)	30.0 klb	String	300.0 klb	Torque(Off.Btm)	1000 ft-lbs	D.C. (2) Ann Velocity	243.6
		Pick-Up	305.0 klb	Torque(On.Btm)	8000 ft-lbs	H.W.D.P. Ann Velocity	159.7
		Slack-Off	300.0 klb			D.P. Ann Velocity	159.7

BHA Run Description: PDC / MWD Packed BHA with DOG sub to drill ahead to TD of well.

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.32 m	12.25 in	0 in	LR2995	12 1/ 4" PDC Bit
DOG sub	0.24 m	12.25 in	3.00 in	30039A	Drilling On Gauge Sub
MWD Tools	12.40 m	8.25 in	1.75 in	DM90022879XHG	EWR / CWR / CIM, MWD Tool.
Float Sub	0.77 m	8.06 in	3.00 in	A-340	Float Sub
8.25in DC	9.07 m	8.25 in	3.00 in	OX825-46	8 1/ 4" Drill Collar
12.25in Roller Reamer	2.33 m	8.06 in	3.00 in	GU2143	Roller Reamer TOTCO ring.
8.25in DC	56.26 m	8.25 in	2.88 in		8 x 8 1/ 4" Drill Collar
8in Hydraulic Jars	9.63 m	8.00 in	3.06 in	DAH02055	8" Hydraulic Jar
8.25in DC	27.72 m	8.25 in	2.75 in		3 x 8 1/ 4" Drill Collar
Jar Accel.	8.28 m	8.00 in	2.94 in	DAH01586	Hydraulic Jar Accellerator
8.25in DC	9.25 m	8.19 in	2.88 in	825-48	8 1/ 4" Drill Collar
X/ O	0.81 m	6.31 in	2.81 in	EX-072	Cross-Over
5in HWDP	113.41 m	5.00 in	3.00 in		5" Heavy Weight Drill Pipe.

Printed on 10 Nov 2003

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
1977.50	1.18	208.33	1977.4	-3.23	0.66	-3.23	1.63	MWD
2005.90	0.83	199.77	2005.8	-3.68	1.34	-3.68	1.43	MWD
2035.10	1.10	206.07	2035.0	-4.13	0.99	-4.13	1.23	MWD
2092.20	1.96	211.00	2092.1	-5.46	1.52	-5.46	0.49	MWD

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance

Personnel On Board

Company	Pax
Santos	4
BHI - INTEQ	2
Geoservices	6
Halliburton	1
Sperry-Sun	2
TMT	3
DOGC	41
DOGC Service	4
Total Marine Catering	8
Schlumberger Wireline	8
Total	79

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	Oilwell A1700PT	5.50	9.60	95	77	4050	271
2	Oilwell A1700PT	5.50	9.60	95	77	4050	271
3	Oilwell A1700PT	5.50	9.60	95	77	4050	271

Slow Pump Data

Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
2097.0	20	280	70	30	340	105	40	430	141
2097.0	20	280	70	30	350	105	40	440	141
2097.0	20	250	70	30	360	105	40	440	141

Casing

OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	N/A	121.0 m / 121.0 m	154 bbls (750 sx) Class G w/ 1% CaCl2 15.8 ppg
13 3/ 8"	L.O.T. - 15.00 ppg	635.8 m / 635.8 m	Lead - 304 bbls (768sx) c/ w 0.6 gal/ sx Econolite @ 12.5 lb/ gal. Tail - 172 (389sx) c/ w neat in seawater @ 15.8lbs/ gal.

HSE Summary

Events	Date of Last	Days Since	Remarks
Abandon Drill	26 Oct 2003	2 Days	
Fire Drill	26 Oct 2003	2 Days	
First Aid	29 Oct 2003	0 Days	While breaking out threads on the core barrell with chain tongs opposite each other, as one was pulled, the other hit the drilling contractor's employee on the right side of the face. Medic examined injury - some redness to side of face. No treatment. Employee returned to work immediately.
Lost Time Incident	24 Apr 2001	917 Days	None
Walkabout	29 Oct 2003	0 Days	

Shakers, Volumes and Losses Data

Engineer : William McKay

Available	1997 bbl
Active	623.0 bbl
Mixing	0 bbl
Hole	1017.0 bbl
Slug	0 bbl
Reserve	357.0 bbl
Kill	0 bbl

Losses	198 bbl
Downhole	0 bbl
Surf+ Equip	198 bbl
Dumped	0 bbl
De-Sander	0 bbl
De-Silter	0 bbl
Centrifuge	0 bbl

Equip.	Descr.	Mesh Size	Hours
Shaker 1	Thule VSM 300	4 x 84 (Lower)	3
Shaker 1	Thule VSM 300	3 x 40 (Upper)	3
Shaker 2	Thule VSM 300	3 x 10 (Upper)	3
Shaker 2	Thule VSM 300	4 x 180 (Lower)	3
Shaker 3	Thule VSM 300	4 x 180 (Lower)	3
Shaker 3	Thule VSM 300	3 x 10 (Upper)	3
Shaker 4	Thule VSM 300	4 x 180 (Lower)	3
Shaker 4	Thule VSM 300	3 x 40 (Upper)	3

Comment Daily Additions = 0 bbls

Printed on 10 Nov 2003

Marine

Weather check on 29 Oct 2003 at 24:00

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
7.00 nm	25.0 kn	270 deg	1010 bar	11.0 C°	1.3 m	270 deg	0 ft/ sec

Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments
0.6 deg	0.5 deg	1.20 m	3.0 m	210 deg	0 ft/ sec	

Rig Dir.	Ris. Tension	VDL	Comments
239.0 deg	210.0 klb	4226.0 klb	

Rig Support

Anchors	Tension (klb)
1	198.0
2	183.0
3	198.0
4	183.0
5	154.0
6	193.0
7	191.0
8	205.0

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks
Pacific Challenger	Standby	08:20	In Portland Port. 08:18 - 08:20 Alongside port side to recieve core. Departed at full steam for Portland.	

Item	Unit	Quantity
Barite	sx	882
Cement	sx	0
Gel	sx	0
Potable Water	MT	208
Drill Water	MT	447
Mud	sx	0
Fuel	MT	391.4

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks
Lady Dawn	Standby	Standby	Standing by at Anchor.	

Item	Unit	Quantity
Barite	sx	2469
Cement	sx	2815
Gel	sx	1896
Potable Water	MT	542
Drill Water	MT	75
Mud	sx	0
Fuel	MT	376.6

Helicopter Movement

Flight #	Time	Destination	Comment	Pax
1	14:21	Ocean Epoch		7
1	14:35	Essendon		11

Santos

DRILLING MORNING REPORT # 18
Casino #3 (30 Oct 2003)

From : G. Howard / S. Douglass

Well Data

Country	Australia	M. Depth	2135.0 m	Cur. Hole Size	12.250 in		
Field	Casino	TVD	2135.0 m	Casing OD	13.375 in		
Drill Co.	DOGC	Progress	38.0 m	Shoe TVD	635.8 m		
Rig	Ocean Epoch	Days from spud	16.33	L.O.T.	15.00 ppg		
Wtr Dpth(LAT)	66.7 m	Days on well	17.54			Planned TD	2137.0 m
RT-ASL(LAT)	22.4 m	Current Op @ 0600	Run wireline log #1				
RT-ML	89.1 m	Planned Op	Continue wireline logging program as directed by Santos subsurface team.				

Summary of Period 0000 to 2400 Hrs

Drill ahead to TD of well at 2135 m. Circulate hole clean. POOH. Rig up and run wireline logs.

Formations

Name	Top (MD)	Top (TVD)	Comment

Operations For Period 0000 Hrs to 2400 Hrs on 30 Oct 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH	P	DA	0000	0800	8.00	2135.0 m	Drill ahead 12 1/ 4" hole from 2097 m to 2135 m
PH	P	CHC	0800	1000	2.00	2135.0 m	Rack back 1 stand 5" drill pipe. (TD just after connection). Rotate and reciprocate drill string while circulate hole clean.
PH	P	TO	1000	1030	0.50	2135.0 m	Flow check. Well static. POOH (wet), 5 x stands 5" drill pipe from 2108 m to 1973 m. Hole good. Pump slug.
PH	P	TO	1030	1330	3.00	2135.0 m	POOH 5 " drill pipe from 1973 m to inside 13 3/ 8" casing shoe at 627 m. Hole good.
PH	P	SC	1330	1530	2.00	2135.0 m	Hold JSA. Slip and cut 113 ft of drill line. Check Crown-o-matic. OK.
PH	P	TO	1530	1630	1.00	2135.0 m	Continue POOH with 5" drill pipe from 627 m to top of BHA at 250 m.
PH	P	HBHA	1630	1800	1.50	2135.0 m	Continue POOH with BHA.
PH	P	LOG	1800	1830	0.50	2135.0 m	Download and verify MWD / LWD tool data while break off bit and DOG sub. Unable to break bit from DOG sub.
PH	P	HBHA	1830	2000	1.50	2135.0 m	Lay down 1 x 8 1/ 4" drill collar, 1 x 12 1/ 4" roller reamer, float sub, LWD / MWD toolstring.
PH	P	HT	2000	2030	0.50	2135.0 m	Hold JSA with drill-crew and wireline crew. Rig up Sclumberger wireline.
PH	P	LOG	2030	2230	2.00	2135.0 m	Make up wireline logging tool-string #1. GR/ CAL/ DSI/ HALS. Secure compensator hoses from interfering with wireline.
PH	TP	LOG	2230	2300	0.50	2135.0 m	RIH with toolstring to 300 m. Wireline operator observes interference signal from toolstring.
PH	TP	LOG	2300	2400	1.00	2135.0 m	POOH with wireline toolstring #1. Re-arrange logging tool sequence. DSI/ GR/ CAL/ HALS. Monitor well on trip tank. Well static.

Operations For Period 0000 Hrs to 0600 Hrs on 31 Oct 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH	TP	LOG	0000	0030	0.50	2135.0 m	RIH with modified wireline toolstring #1. Verify no tool interference.
PH	P	LOG	0030	0100	0.50	2135.0 m	Compensate wireline toolstring#1 and RIH to 13 3/ 8" casing shoe.
PH	P	LOG	0100	0330	2.50	2135.0 m	Continue to RIH with wireline toolstring #1, logging down. Tag bottom. Wireline TD of well = 2125 m.
PH	P	LOG	0330	0600	2.50	2135.0 m	(IN PROGRESS) Log up with wireline toolstring #1 from 2125 m to 13 3/ 8" casing shoe at 635 m. Continue logging up to mud line with gamma ray. Continue POOH to surface.

Phase Data to 2400hrs, 30 Oct 2003

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/ RIG-UP/ PRESPUD(RM)	22.5	13 Oct 2003	14 Oct 2003	22.5	1 days	0 m
CONDUCTOR HOLE(CH)	37	14 Oct 2003	15 Oct 2003	59.5	2 days	121.3 m
SURFACE HOLE(SH)	49.5	15 Oct 2003	17 Oct 2003	109	5 days	645.0 m
SURFACE CASING(SC)	114	18 Oct 2003	22 Oct 2003	223	9 days	645.0 m
PRODUCTION HOLE(PH)	198	22 Oct 2003	30 Oct 2003	421	18 days	2135.0 m

General Comments

Comments	Rig Requirements	Lessons Learnt
IDS reporting software - HSE look-up list updated as instructed. All HSE data previously entered unavailable.	IDS support for ongoing issues with HSE reporting.	Double check Schlumberger wireline tool configuration to determine if signal interference is likely.

Printed on 10 Nov 2003

WBM Data

Cost Today $ 0

Mud Type:	KCl/ PHPA/ Glycol	API FL:	4 cm³/ 30m	Cl:	34500	Solids(%vol):	7
Sample-From:	Pit	Filter-Cake:	1 / 32nd"	K+C*1000:	7 %	H2O:	90 %
Time:	21:45	HTHP-FL:	0 cm³/ 30m	Hard/Ca:	400	Oil(%):	3 %
Weight:	9.60 ppg	HTHP-Cake:	0 / 32nd"	MBT:	8.75	Sand:	0.6
Temp:	53.0 C°			PM:	0	pH:	9
				PF:	0.05	PHPA:	2 ppb

Viscosity:	70 sec/ qt
PV:	24 cp
YP:	35 lb/ 100ft²
Gels 10s:	7
Gels 10m:	11
Fann 003:	7
Fann 006:	10
Fann 100:	34
Fann 200:	48
Fann 300:	59
Fann 600:	83

Comment: NOTE: Oil % in Solids Reported = GLYCOL

Bit # 6 - 4R1

Wear	I	O1	D	L	B	G	O2	R
	2	2	WT	T	X	I	BU	TD

Size ("):	12.25 in	IADC#	M-223	**Nozzles**		**Drilled over last 24 hrs**		**Calculated over Bit Run**	
Mfr:	HYCALOG	WOB(avg)	20.0 klb	No.	Size	Progress	38.0 m	Cum. Progress	104.0 m
Type:	PDC	RPM(avg)	150	2	12 / 32nd"	On Bottom Hrs	7.19 h	Cum. On Btm Hrs	15.40 h
Serial No.:	106469	F.Rate	815 gpm	3	13 / 32nd"	IADC Drill Hrs	8.00 h	Cum IADC Drill Hrs	17.50 h
Bit Model	DSX 195 D	SPP	4005 psi			Total Revs	200000	Cum Total Revs	307000
Depth In	2031.0 m	TFA	0.61			ROP(avg)	5 m/ h	ROP(avg)	6.8
Depth Out	2135.0 m								

Run Comment: Re-Run #1 bit #4

BHA # 6

Weight(Wet)	60.0 klb	Length	250.5 m	Torque(max)	18000 ft-lbs	D.C. (1) Ann Velocity	243.6
Wt Below Jar(Wet)	30.0 klb	String	310.0 klb	Torque(Off.Btm)	1000 ft-lbs	D.C. (2) Ann Velocity	243.6
		Pick-Up	305.0 klb	Torque(On.Btm)	8000 ft-lbs	H.W.D.P. Ann Velocity	159.7
		Slack-Off	305.0 klb			D.P. Ann Velocity	159.7

BHA Run Description: PDC / MWD Packed BHA with DOG sub to drill ahead to TD of well.

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.32 m	12.25 in	0 in	LR2995	12 1/ 4" PDC Bit
DOG sub	0.24 m	12.25 in	3.00 in	30039A	Drilling On Gauge Sub
MWD Tools	12.40 m	8.25 in	1.75 in	DM90022879XHG	EWR / CWR / CIM, MWD Tool.
Float Sub	0.77 m	8.06 in	3.00 in	A-340	Float Sub
8.25in DC	9.07 m	8.25 in	3.00 in	OX825-46	8 1/ 4" Drill Collar
12.25in Roller Reamer	2.33 m	8.06 in	3.00 in	GU2143	Roller Reamer TOTCO ring.
8.25in DC	56.26 m	8.25 in	2.88 in		8 x 8 1/ 4" Drill Collar
8in Hydraulic Jars	9.63 m	8.00 in	3.06 in	DAH02055	8" Hydraulic Jar
8.25in DC	27.72 m	8.25 in	2.75 in		3 x 8 1/ 4" Drill Collar
Jar Accel.	8.28 m	8.00 in	2.94 in	DAH01586	Hydraulic Jar Accellerator
8.25in DC	9.25 m	8.19 in	2.88 in	825-48	8 1/ 4" Drill Collar
X/ O	0.81 m	6.31 in	2.81 in	EX-072	Cross-Over
5in HWDP	113.41 m	5.00 in	3.00 in		5" Heavy Weight Drill Pipe.

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
2092.20	1.96	211.00	2092.1	-5.46	1.52	-5.46	0.49	MWD
2121.80	2.72	218.57	2121.7	-6.44	2.77	-6.44	-0.21	MWD
2125.00	2.92	220.32	2124.9	-6.56	6.80	-6.56	-0.31	MWD
2135.00	2.92	220.32	2134.8	-6.95	0	-6.95	-0.64	Extrapolated

Printed on 10 Nov 2003

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance

Personnel On Board

Company	Pax
Santos	4
BHI - INTEQ	2
Geoservices	6
Halliburton	1
Sperry-Sun	2
TMT	3
DOGC	41
DOGC Service	4
Total Marine Catering	8
Schlumberger Wireline	8
Total	79

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	Oilwell A1700PT	5.50	9.70	95	78	4300	273
2	Oilwell A1700PT	5.50	9.70	95	78	4300	273
3	Oilwell A1700PT	5.50	9.70	95	78	4300	273

Slow Pump Data

Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
2098.0	20	280	70	30	340	105	40	430	141
2098.0	20	280	70	30	350	105	40	440	141
2098.0	20	250	70	30	360	105	40	440	141

Casing

OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	N/A	121.0 m / 121.0 m	154 bbls (750 sx) Class G w/ 1% CaCl2 15.8 ppg
13 3/8"	L.O.T. - 15.00 ppg	635.8 m / 635.8 m	Lead - 304 bbls (768sx) c/ w 0.6 gal/ sx Econolite @ 12.5 lb/ gal. Tail - 172 (389sx) c/ w neat in seawater @ 15.8lbs/ gal.

HSE Summary

Events	Date of Last	Days Since	Remarks
Abandon Drill	26 Oct 2003	3 Days	
Fire Drill	26 Oct 2003	3 Days	
First Aid	29 Oct 2003	1 Day	Employee struck by chain tong - no treatment required.
Lost Time Incident	24 Apr 2001	918 Days	None

Shakers, Volumes and Losses Data

Engineer : R. Berkovic

Available	**1902 bbl**
Active	733.0 bbl
Mixing	0 bbl
Hole	1107.0 bbl
Slug	0 bbl
Reserve	62.0 bbl
Kill	0 bbl

Losses	**112 bbl**
Downhole	0 bbl
Surf+ Equip	102 bbl
Dumped	10.0 bbl
De-Sander	0 bbl
De-Silter	0 bbl
Centrifuge	0 bbl

Equip.	Descr.	Mesh Size	Hours
Shaker 1	Thule VSM 300	4 x 84 (Lower)	12
Shaker 1	Thule VSM 300	3 x 40 (Upper)	12
Shaker 2	Thule VSM 300	3 x 10 (Upper)	12
Shaker 2	Thule VSM 300	4 x 180 (Lower)	12
Shaker 3	Thule VSM 300	4 x 180 (Lower)	12
Shaker 3	Thule VSM 300	3 x 10 (Upper)	12
Shaker 4	Thule VSM 300	4 x 180 (Lower)	12
Shaker 4	Thule VSM 300	3 x 40 (Upper)	12

Comment Daily Additions = 6 bbls product.

Marine

Weather check on 30 Oct 2003 at 24:00

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
3.00 nm	12.0 kn	300 deg	1006 bar	13.0 C°	0.8 m	300 deg	0 ft/ sec

Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments
0.6 deg	0.4 deg	1.20 m	2.5 m	225 deg	0 ft/ sec	

Rig Dir.	Ris. Tension	VDL	Comments
239.0 deg	210.0 klb	3889.0 klb	

Rig Support

Anchors	Tension (klb)
1	202.0
2	192.0
3	192.0
4	185.0
5	158.0
6	204.0
7	192.0
8	212.0

Printed on 10 Nov 2003

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks

Pacific Challenger

en route

En route to location. ETA 04:00 hrs

Item	Unit	Quantity
Barite	sx	882
Cement	sx	0
Gel	sx	0
Potable Water	MT	208
Drill Water	MT	447
Mud	sx	0
Fuel	MT	391.4

Lady Dawn

Standby

Standby

Standing by at Anchor.
13:35 - 15:17 handling cargo stbd side.

Item	Unit	Quantity
Barite	sx	2469
Cement	sx	2815
Gel	sx	1896
Potable Water	MT	537
Drill Water	MT	75
Mud	sx	0
Fuel	MT	368.9

Santos

DRILLING MORNING REPORT # 19
Casino #3 (31 Oct 2003)

From : G. Howard / S. Douglass

Well Data

Country	Australia	M. Depth	2135.0 m	Cur. Hole Size	12.250 in		
Field	Casino	TVD	2135.0 m	Casing OD	13.375 in		
Drill Co.	DOGC	Progress	0 m	Shoe TVD	635.8 m		
Rig	Ocean Epoch	Days from spud	17.33	L.O.T.	15.00 ppg		
Wtr Dpth(LAT)	66.7 m	Days on well	18.54			Planned TD	2137.0 m
RT-ASL(LAT)	22.4 m	Current Op @ 0600	Lay down wireline toolstring #3.				
RT-ML	89.1 m	Planned Op	Continue with wireline logging operations - wireline log #4 & #5. Wiper trip prior to running casing contingent on hole condition.				

Summary of Period 0000 to 2400 Hrs

Wireline logging operations as directed by Santos Subsurface team.

Formations

Name	Top (MD)	Top (TVD)	Comment

Operations For Period 0000 Hrs to 2400 Hrs on 31 Oct 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH	TP	LOG	0000	0030	0.50	2135.0 m	RIH with modified wireline toolstring #1. Verify no tool interference.
PH	P	LOG	0030	0100	0.50	2135.0 m	Compensate wireline toolstring#1 and RIH to 13 3/ 8" casing shoe.
PH	P	LOG	0100	0330	2.50	2135.0 m	Continue to RIH with wireline toolstring #1, logging down. Tag bottom. Wireline TD of well = 2125 m.
PH	P	LOG	0330	0700	3.50	2135.0 m	Log up with wireline toolstring #1 from 2125 m to 13 3/ 8" casing shoe at 635 m. Continue logging up to mud line with gamma ray. Continue POOH to surface.
PH	P	LOG	0700	0800	1.00	2135.0 m	Lay down wireline toolstring #1.
PH	P	LOG	0800	0900	1.00	2135.0 m	Make up wireline toolstring #2, MDT/ GR.
PH	P	LOG	0900	1930	10.50	2135.0 m	RIH with wireline toolstring #2. Wireline logging run #2. Correlate depths and perform pre-tests. Attempt 24 pre-tests. 15 OK, 2 lost seal, 7 curtailed. Formation fluid samples taken at 2006.8 m and 1985.2 m WLDRT.
PH	P	LOG	1930	2030	1.00	2135.0 m	POOH to surface with wireline toolstring #2.
PH	P	LOG	2030	2100	0.50	2135.0 m	Rig down wireline toolstring #2. Lay out sampling chambers on deck to collect samples.
PH	P	LOG	2100	2230	1.50	2135.0 m	Make up wireline toolstring # 3. PEX/ CMR/ HNGS. SIMOPS = bleed down MDT sample chambers. NO Hydrogen Sulphide measured in samples. Carbon Dioxide at 0.07%.
PH	P	LOG	2230	2400	1.50	2135.0 m	RIH with wireline toolstring #3. Toolstring tagged fill at 2116 m WLDRT - unable to pass 2116 m. Rig SIMOPS last 24 hrs = Pit cleaning / Prepare 9 5/ 8" casing / Derrick Inspection / Change Mud Pump liners from 5 1/ 2" to 6 1/ 2".

Operations For Period 0000 Hrs to 0600 Hrs on 01 Nov 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH	P	LOG	0000	0200	2.00	2135.0 m	Log up with wireline toolstring #3 in CMR data aquisition mode, from 2116 m to 1930 m.
PH	P	LOG	0200	0230	0.50	2135.0 m	RIH with wireline toolstring #3.
PH	P	LOG	0230	0500	2.50	2135.0 m	Log up with wireline toolstring #3 in PEX/ HNGS data aquisition mode, from 2116 m to 13 3/ 8" casing shoe at 635 m.
PH	P	LOG	0500	0530	0.50	2135.0 m	POOH from 13 3/ 8" shoe with wireline toolstring #3 to surface.
PH	P	LOG	0530	0600	0.50	2135.0 m	(IN PROGRESS) Lay down wireline toolstring #3.

Phase Data to 2400hrs, 31 Oct 2003

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/ RIG-UP/ PRESPUD(RM)	22.5	13 Oct 2003	14 Oct 2003	22.5	1 days	0 m
CONDUCTOR HOLE(CH)	37	14 Oct 2003	15 Oct 2003	59.5	2 days	121.3 m
SURFACE HOLE(SH)	49.5	15 Oct 2003	17 Oct 2003	109	5 days	645.0 m
SURFACE CASING(SC)	114	18 Oct 2003	22 Oct 2003	223	9 days	645.0 m
PRODUCTION HOLE(PH)	222	22 Oct 2003	31 Oct 2003	445	19 days	2135.0 m

WBM Data

Cost Today $ 0

Mud Type:	KCl/ PHPA/ Glycol	API FL:	4 cm³/ 30m	Cl:	33000	Solids(%vol):	7	Viscosity:	74 sec/ qt
Sample-From:	Pit	Filter-Cake:	1 / 32nd"	K+C*1000:	6 %	H2O:	90 %	PV:	24 cp
Time:	15:00	HTHP-FL:	0 cm³/ 30m	Hard/Ca:	440	Oil(%):	3 %	YP:	36 lb/ 100ft²
Weight:	9.70 ppg	HTHP-Cake:	0 / 32nd"	MBT:	8.75	Sand:	0.5	Gels 10s:	8
Temp:	0 C°			PM:	0	pH:	8.8	Gels 10m:	11
				PF:	0.05	PHPA:	2 ppb	Fann 003:	8
								Fann 006:	10
								Fann 100:	36
								Fann 200:	51
								Fann 300:	60
								Fann 600:	84

Comment: NOTE: Oil % in Solids Reported = GLYCOL

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
2092.20	1.96	211.00	2092.1	-5.46	1.52	-5.46	0.49	MWD
2121.80	2.72	218.57	2121.7	-6.44	2.77	-6.44	-0.21	MWD
2125.00	2.92	220.32	2124.9	-6.56	6.80	-6.56	-0.31	MWD
2135.00	2.92	220.32	2134.8	-6.95	0	-6.95	-0.64	Extrapolated

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance

Personnel On Board

Company	Pax
Santos	4
BHI - INTEQ	1
Geoservices	2
Halliburton	1
TMT	3
DOGC	41
DOGC Service	3
Total Marine Catering	8
Schlumberger Wireline	7
Premium Casing Services	4
Schlumberger Testing	6
Dril-Quip	1
Total	81

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	Oilwell A1700PT	6.50	9.70	95	0	0	0
2	Oilwell A1700PT	6.50	9.70	95	0	0	0
3	Oilwell A1700PT	6.50	9.70	95	0	0	0

Slow Pump Data

Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
0	20	0	98	30	0	147	40	0	197
0	20	0	98	30	0	147	40	0	197
0	20	0	98	30	0	147	40	0	197

Casing

OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	N/A	121.0 m / 121.0 m	154 bbls (750 sx) Class G w/ 1% CaCl2 15.8 ppg
13 3/ 8"	L.O.T. - 15.00 ppg	635.8 m / 635.8 m	Lead - 304 bbls (768sx) c/ w 0.6 gal/ sx Econolite @ 12.5 lb/ gal. Tail - 172 (389sx) c/ w neat in seawater @ 15.8lbs/ gal.

HSE Summary

Events	Date of Last	Days Since	Remarks
Abandon Drill	26 Oct 2003	4 Days	
Fire Drill	26 Oct 2003	4 Days	
First Aid	29 Oct 2003	2 Days	Employee struck by chain tong - no treatment required.
Lost Time Incident	24 Apr 2001	919 Days	None
Walkabout	31 Oct 2003	0 Days	

Shakers, Volumes and Losses Data

Engineer : R. Berkovic

Available	1869 bbl	Losses	33 bbl
Active	733.0 bbl	Downhole	0 bbl
Mixing	0 bbl	Surf+ Equip	0 bbl
Hole	1107.0 bbl	Dumped	33.0 bbl
Slug	0 bbl	De-Sander	0 bbl
Reserve	29.0 bbl	De-Silter	0 bbl
Kill	0 bbl	Centrifuge	0 bbl

Equip.	Descr.	Mesh Size	Hours
Shaker 1	Thule VSM 300	4 x 84 (Lower)	0
Shaker 1	Thule VSM 300	3 x 40 (Upper)	0
Shaker 2	Thule VSM 300	3 x 10 (Upper)	0
Shaker 2	Thule VSM 300	4 x 180 (Lower)	0
Shaker 3	Thule VSM 300	4 x 180 (Lower)	0
Shaker 3	Thule VSM 300	3 x 10 (Upper)	0
Shaker 4	Thule VSM 300	4 x 180 (Lower)	0
Shaker 4	Thule VSM 300	3 x 40 (Upper)	0

Comment Daily Additions = 0 bbls.

Marine

Weather check on 31 Oct 2003 at 24:00

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
7.00 nm	27.0 kn	200 deg	1010 bar	12.0 C°	1.5 m	200 deg	0 ft/ sec

Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments
0.7 deg	0.4 deg	1.30 m	2.7 m	225 deg	0 ft/ sec	

Rig Dir.	Ris. Tension	VDL	Comments
239.0 deg	210.0 klb	3914.0 klb	

Rig Support

Anchors	Tension (klb)
1	211.0
2	201.0
3	196.0
4	182.0
5	156.0
6	199.0
7	192.0
8	208.0

Boats	Arrived (date/time)	Departed (date/time)	Status
Pacific Challenger	03:30	Standby	Standing by at Anchor. Unable to discharge deck cargo due to marine conditions.
Lady Dawn	Standby	07:00	In Port at Portland.

Bulks

Item	Unit	Quantity
Barite	sx	2469
Cement	sx	2645
Gel	sx	1896
Potable Water	MT	537
Drill Water	MT	75
Mud	sx	0
Fuel	MT	368.9

Item	Unit	Quantity
Barite	sx	882
Cement	sx	0
Gel	sx	0
Potable Water	MT	210
Drill Water	MT	447
Mud	sx	0
Fuel	MT	495

Helicopter Movement

Flight #	Time	Destination	Comment	Pax
1	12:20	Ocean Epoch		6
1	13:00	Essendon		4
2	16:50	Ocean Epoch		6
2	17:00	Essendon		6

Santos

DRILLING MORNING REPORT # 20
Casino #3 (01 Nov 2003)

From : G. Howard / S. Douglass

Well Data

Country	Australia	M. Depth	2135.0 m	Cur. Hole Size	12.250 in		
Field	Casino	TVD	2135.0 m	Casing OD	13.375 in		
Drill Co.	DOGC	Progress	0 m	Shoe TVD	635.8 m		
Rig	Ocean Epoch	Days from spud	18.33	L.O.T.	15.00 ppg		
Wtr Dpth(LAT)	66.7 m	Days on well	19.54			Planned TD	2137.0 m
RT-ASL(LAT)	22.4 m	Current Op @ 0600	Rig up wireline.				
RT-ML	89.1 m	Planned Op	Continue wireline logging. Run 9 5/ 8" casing.				

Summary of Period 0000 to 2400 Hrs

Run wireline logs. Logging tools held up at 1950 m. Perform wiper trip.

Formations

Name	Top (MD)	Top (TVD)	Comment

Operations For Period 0000 Hrs to 2400 Hrs on 01 Nov 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH	P	LOG	0000	0200	2.00	2135.0 m	Log up with wireline toolstring #3 in CMR data aquisition mode, from 2116 m to 1930 m.
PH	P	LOG	0200	0230	0.50	2135.0 m	RIH with wireline toolstring #3.
PH	P	LOG	0230	0500	2.50	2135.0 m	Log up with wireline toolstring #3 in PEX/ HNGS data aquisition mode, from 2116 m to 13 3/ 8" casing shoe at 635 m.
PH	P	LOG	0500	0530	0.50	2135.0 m	POOH from 13 3/ 8" shoe with wireline toolstring #3 to surface.
PH	P	LOG	0530	0630	1.00	2135.0 m	Lay down wireline toolstring #3.
PH	P	LOG	0630	0730	1.00	2135.0 m	Make up wireline toolstring #4. MSCT.
PH	TP	LOG	0730	0830	1.00	2135.0 m	RIH with wireline toolstring #4 to 1950 m. Unable to pass 1950 m.
PH	TP	LOG	0830	0900	0.50	2135.0 m	POOH with wireline toolstring #4, with overpull to 1650 m. Continue POOH to 1625 m with no overpull. RIH. Unable to pass 1870 m.
PH	TP	LOG	0900	1030	1.50	2135.0 m	POOH with wireline toolstring #4.
PH	TP	LOG	1030	1100	0.50	2135.0 m	Lay down wireline toolstring #4. Rig down wireline.
PH	TP	HBHA	1100	1230	1.50	2135.0 m	Make up BHA for wiper trip. RIH with BHA to 202 m.
PH	TP	TI	1230	1630	4.00	2135.0 m	Continue RIH with 5" drillpipe from 202 m to 1893 m. 30 klbs drag at 1893 m.
PH	TP	WIN	1630	2030	4.00	2135.0 m	Wash and ream from 1893 m to 2135 m. Tight spots at 1893 m, 1953 m, 2105 m and 2109 m.
PH	TP	CHC	2030	2200	1.50	2135.0 m	Circulate bottoms up, and until shakers clean. While circulate bottoms up, steady discharge of blocky cavings, 10 - 15 mm, with traces of splintery cavings. 2200 stks after (gauge hole) bottoms up, increase in volume of cavings, diminished by 3500 stks.
PH	TP	CHC	2200	2230	0.50	2135.0 m	Flow check. During flow check, pipe grabbed. Attempt to establish circulation, hole packing off. Establish circulation and free pipe with 30 k overpull. Circulate while prepare viscous weighted sweep.
PH	TP	CHC	2230	2400	1.50	2135.0 m	Pump 50 bbls hi-vis (220 sec/ qt), 11.0 ppg mud. Chase around with 9.7 ppg active mud while monitoring shakers.

Operations For Period 0000 Hrs to 0600 Hrs on 02 Nov 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH	TP	CHC	0000	0100	1.00	2135.0 m	Continue to circulate around hi-vis (220 sec/ qt), 11.0 ppg sweep, while monitoring shakers. Sweep on surface 1000 stks after theoretical circulation time. Large volume of slightly rounded, blocky cavings, 15 mm - 25 mm, occasionaly up to 30 mm. No splintery cavings. Shakers cleaned up after sweep.
PH	TP	TO	0100	0330	2.50	2135.0 m	Flow check. Well static. POOH 5 stands (wet). Hole good. No overpull. Pump slug and continue POOH to 13 3/ 8" casing shoe at 635 m. Hole good. No overpull.
PH	TP	TO	0330	0400	0.50	2135.0 m	Flow check at 13 3/ 8" casing shoe. Well static. Continue POOH to top of BHA at 201 m.
PH	TP	HBHA	0400	0530	1.50	2135.0 m	POOH and rack back BHA and bit.
PH	TP	LOG	0530	0600	0.50	2135.0 m	Hold JSA. Rig up to run wireline logs. Make up Wireline toolstring #4 (MSCT) for logging run #5.

Phase Data to 2400hrs, 01 Nov 2003

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/ RIG-UP/ PRESPUD(RM)	22.5	13 Oct 2003	14 Oct 2003	22.5	1 days	0 m
CONDUCTOR HOLE(CH)	37	14 Oct 2003	15 Oct 2003	59.5	2 days	121.3 m
SURFACE HOLE(SH)	49.5	15 Oct 2003	17 Oct 2003	109	5 days	645.0 m
SURFACE CASING(SC)	114	18 Oct 2003	22 Oct 2003	223	9 days	645.0 m
PRODUCTION HOLE(PH)	246	22 Oct 2003	01 Nov 2003	469	20 days	2135.0 m

WBM Data — Cost Today $ 902

Mud Type:	KCl/ PHPA/ Glycol	API FL:	4 cm³/ 30m	Cl:	32500	Solids(%vol):	7.5	Viscosity:	70 sec/ qt
Sample-From:	Pit	Filter-Cake:	1 / 32nd"	K+C*1000:	5.5 %	H2O:	89.5 %	PV:	26 cp
Time:	21:30	HTHP-FL:	0 cm³/ 30m	Hard/Ca:	480	Oil(%):	3 %	YP:	40 lb/ 100ft²
Weight:	9.70 ppg	HTHP-Cake:	0 / 32nd"	MBT:	8.75	Sand:	0.5	Gels 10s:	9
Temp:	45.0 C°			PM:	0	pH:	8.7	Gels 10m:	13
				PF:	0.5	PHPA:	2 ppb	Fann 003:	8
								Fann 006:	11
								Fann 100:	41
								Fann 200:	57
								Fann 300:	66
								Fann 600:	92

Comment: NOTE: Oil % in Solids Reported = GLYCOL

Bit # 7 - 4R2

Wear	I	O1	D	L	B	G	O2	R

				Nozzles		Drilled over last 24 hrs		Calculated over Bit Run	
Size ("):	12.25 in	IADC#	M-223	No.	Size	Progress	0 m	Cum. Progress	0 m
Mfr:	Not Found	WOB(avg)	4.0 klb	2	12 / 32nd"	On Bottom Hrs	0 h	Cum. On Btm Hrs	0 h
Type:	PDC	RPM(avg)	150	3	13 / 32nd"	IADC Drill Hrs	0 h	Cum IADC Drill Hrs	0 h
Serial No.:	106469	F.Rate	750 gpm			Total Revs	0	Cum Total Revs	0
Bit Model	DSX 195 D	SPP	3200 psi			ROP(avg)	N/ A	ROP(avg)	
Depth In	2135.0 m	TFA	0.61						
Depth Out									

Run Comment: Re-Run #2 bit #4

BHA # 7

Weight(Wet)	25.0 klb	Length	202.0 m	Torque(max)	10000 ft-lbs	D.C. (1) Ann Velocity	224.2
Wt Below Jar(Wet)	15.0 klb	String	300.0 klb	Torque(Off.Btm)	2000 ft-lbs	D.C. (2) Ann Velocity	224.2
		Pick-Up	300.0 klb	Torque(On.Btm)	4000 ft-lbs	H.W.D.P. Ann Velocity	147.0
		Slack-Off	300.0 klb			D.P. Ann Velocity	147.0

BHA Run Description: BHA for clean-out trip, with NB roller reamer.
Ported float installed

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.32 m	12.25 in	0 in	LR2995	12 1/ 4" PDC Bit
DOG sub	0.24 m	12.25 in	3.00 in	30039A	Drilling On Gauge Sub
12.25in Roller Reamer	2.45 m	8.06 in	3.00 in	GU-2151	Ported Float Installed
8.25in DC	56.26 m	8.25 in	2.88 in		8 1/ 4" Drill Collar
8in Hydraulic Jars	9.63 m	8.00 in	3.06 in	DAH02055	8" Hydraulic Jar
8.25in DC	18.86 m	8.25 in	2.75 in		2 x 8 1/ 4" Drill Collar
X/ O	0.81 m	6.31 in	2.81 in	EX-072	Cross-Over
5in HWDP	113.41 m	5.00 in	3.00 in		5" Heavy Weight Drill Pipe.

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
2092.20	1.96	211.00	2092.1	-5.46	1.52	-5.46	0.49	MWD
2121.80	2.72	218.57	2121.7	-6.44	2.77	-6.44	-0.21	MWD
2125.00	2.92	220.32	2124.9	-6.56	6.80	-6.56	-0.31	MWD
2135.00	2.92	220.32	2134.8	-6.95	0	-6.95	-0.64	Extrapolated

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Bulk Stocks

Name	Unit	In	Used	Adjust	Balance

Personnel On Board

Company	Pax
Santos	4
BHI - INTEQ	1
Geoservices	2
Halliburton	1
TMT	3
DOGC	41
DOGC Service	3
Total Marine Catering	8
Schlumberger Wireline	7
Premium Casing Services	4
Schlumberger Testing	6
Dril-Quip	1
Total	81

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	Oilwell A1700PT	6.50	9.70	95	51	3200	250
2	Oilwell A1700PT	6.50	9.70	95	51	3200	250
3	Oilwell A1700PT	6.50	9.70	95	51	3200	250

Slow Pump Data

Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
0	20	0	98	30	0	147	40	0	197
0	20	0	98	30	0	147	40	0	197
0	20	0	98	30	0	147	40	0	197

Casing

OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	N/A	121.0 m / 121.0 m	154 bbls (750 sx) Class G w/ 1% CaCl2 15.8 ppg
13 3/8"	L.O.T. - 15.00 ppg	635.8 m / 635.8 m	Lead - 304 bbls (768sx) c/ w 0.6 gal/ sx Econolite @ 12.5 lb/ gal. Tail - 172 (389sx) c/ w neat in seawater @ 15.8lbs/ gal.

HSE Summary

Events	Date of Last	Days Since	Remarks
Abandon Drill	26 Oct 2003	5 Days	
Fire Drill	26 Oct 2003	5 Days	
First Aid	29 Oct 2003	3 Days	Employee struck by chain tong - no treatment required.
Lost Time Incident	24 Apr 2001	920 Days	None
Walkabout	01 Nov 2003	0 Days	

Shakers, Volumes and Losses Data

Engineer : R. Berkovic

Available	**1839 bbl**	**Losses**	**30 bbl**
Active	762.0 bbl	Downhole	0 bbl
Mixing	0 bbl	Surf+ Equip	30 bbl
Hole	1044.0 bbl	Dumped	0 bbl
Slug	0 bbl	De-Sander	0 bbl
Reserve	33.0 bbl	De-Silter	0 bbl
Kill	0 bbl	Centrifuge	0 bbl

Equip.	Descr.	Mesh Size	Hours
Shaker 1	Thule VSM 300	4 x 84 (Lower)	2
Shaker 1	Thule VSM 300	3 x 40 (Upper)	2
Shaker 2	Thule VSM 300	3 x 10 (Upper)	6
Shaker 2	Thule VSM 300	4 x 84 (Lower)	6
Shaker 3	Thule VSM 300	4 x 84 (Lower)	6
Shaker 3	Thule VSM 300	3 x 10 (Upper)	6
Shaker 4	Thule VSM 300	4 x 84 (Lower)	6
Shaker 4	Thule VSM 300	3 x 40 (Upper)	6

Comment Daily Additions = 0 bbls.

Printed on 10 Nov 2003

Marine

Weather check on 01 Nov 2003 at 24:00

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
7.00 nm	27.0 kn	200 deg	1010 bar	12.0 C°	1.5 m	200 deg	0 ft/ sec

Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments
0.7 deg	0.4 deg	1.30 m	2.7 m	225 deg	0 ft/ sec	

Rig Dir.	Ris. Tension	VDL	Comments
239.0 deg	210.0 klb	3914.0 klb	

Rig Support

Anchors	Tension (klb)
1	211.0
2	201.0
3	196.0
4	182.0
5	156.0
6	199.0
7	192.0
8	208.0

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks
Pacific Challenger	Standby	Standby	Standing by at Anchor. 07:25 - 08:25 Alongside stbd for cargo handling. 17:03 - 20:36 Alongside stbd for cargo handling. Cargo handling operations aborted due to marine conditions - some deck cargo remaining.	
Lady Dawn	21:45	Standby	Standing by at anchor.	

Pacific Challenger

Item	Unit	Quantity
Barite	sx	882
Cement	sx	0
Gel	sx	0
Potable Water	MT	207
Drill Water	MT	447
Mud	sx	0
Fuel	MT	485

Lady Dawn

Item	Unit	Quantity
Barite	sx	2469
Cement	sx	2645
Gel	sx	1896
Potable Water	MT	567
Drill Water	MT	86
Mud	sx	0
Fuel	MT	360.4

Santos

DRILLING MORNING REPORT # 21
Casino #3 (02 Nov 2003)

From : G. Howard / S. Douglass

Well Data

Country	Australia	M. Depth	2135.0 m	Cur. Hole Size	12.250 in		
Field	Casino	TVD	2135.0 m	Casing OD	13.375 in		
Drill Co.	DOGC	Progress	0 m	Shoe TVD	635.8 m		
Rig	Ocean Epoch	Days from spud	19.33	L.O.T.	15.00 ppg		
Wtr Dpth(LAT)	66.7 m	Days on well	20.54			Planned TD	2137.0 m
RT-ASL(LAT)	22.4 m	Current Op @ 0600	RIH 9 5/ 8" casing.				
RT-ML	89.1 m	Planned Op	Run and cement 9 5/ 8" casing. Commence BOP test.				

Summary of Period 0000 to 2400 Hrs

Circulate hole clean. POOH. Continue wireline logging operations as directed by SANTOS subsurface team. Prepare to run 9 5/ 8" casing.

Formations

Name	Top (MD)	Top (TVD)	Comment

Operations For Period 0000 Hrs to 2400 Hrs on 02 Nov 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH	TP	CHC	0000	0100	1.00	2135.0 m	Continue to circulate around hi-vis (220 sec/ qt), 11.0 ppg sweep, while monitoring shakers. Sweep on surface 1000 stks after theoretical circulation time. Large volume of slightly rounded, blocky cavings, 15 mm - 25 mm, occasionaly up to 30 mm. No splintery cavings. Shakers cleaned up after sweep.
PH	TP	TO	0100	0330	2.50	2135.0 m	Flow check. Well static. POOH 5 stands (wet). Hole good. No overpull. Pump slug and continue POOH to 13 3/ 8" casing shoe at 635 m. Hole good. No overpull.
PH	TP	TO	0330	0400	0.50	2135.0 m	Flow check at 13 3/ 8" casing shoe. Well static. Continue POOH to top of BHA at 201 m.
PH	TP	HBHA	0400	0530	1.50	2135.0 m	POOH and rack back BHA and bit.
PH	TP	LOG	0530	0600	0.50	2135.0 m	Hold JSA. Rig up to run wireline logs. Make up Wireline toolstring #4 (MSCT) for logging run #5.
PH	P	LOG	0600	0730	1.50	2135.0 m	RIH with wireline toolstring #4, logging run #5.
PH	P	LOG	0730	1000	2.50	2135.0 m	Correlate depths and cut 13 cores at depths as directed by Santos subsurface team.
PH	P	LOG	1000	1100	1.00	2135.0 m	POOH with wireline toolstring #4, logging run #5.
PH	P	LOG	1100	1130	0.50	2135.0 m	Recover 13 cores from tool. Lay down wireline toolstring #4.
PH	P	LOG	1130	1230	1.00	2135.0 m	Make up wireline toolstring #5 for logging run #6. (CST)
PH	P	LOG	1230	1400	1.50	2135.0 m	RIH with wireline toolstring #5.
PH	P	LOG	1400	1500	1.00	2135.0 m	Correlate depths and shoot 30 sidewall cores.
PH	P	LOG	1500	1630	1.50	2135.0 m	POOH with wireline toolstring #5, logging run #6.
PH	TP	LOG	1630	1700	0.50	2135.0 m	Wireline toolstring #5 on surface. All cores misfired.
PH	TP	LOG	1700	1830	1.50	2135.0 m	Load new gun for toolstring #5. (CST).
PH	TP	LOG	1830	2000	1.50	2135.0 m	RIH with toolstring #5, logging run #7. Tag bottom at 2115 m WLMDRT. Pull back to correlation depth.
PH	TP	LOG	2000	2100	1.00	2135.0 m	Correlate depths and shoot 30 sidewall cores.
PH	TP	LOG	2100	2200	1.00	2135.0 m	POOH with wireline toolstring #5, logging run #7.
PH	P	LOG	2200	2230	0.50	2135.0 m	Lay down wireline toolstring #5. 20 cores captured, 2 not captured, 7 mis-fires, 1 lost bullet. Rig down wireline.
PH	P	CRN	2230	2400	1.50	2135.0 m	Pick up 9 5/ 8" casing hanger pup joint, and make up to 9 5/ 8" casing hanger running tool.

Operations For Period 0000 Hrs to 0600 Hrs on 03 Nov 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH	P	CRN	0000	0100	1.00	2135.0 m	Continue to make up 9 5/ 8" casing hanger and 9 5/ 8" casing hanger running tool. Verify tool tolerances and functions. Fit seal assembly and load plugs. Lay out running tool and hanger.
PH	P	CRN	0100	0130	0.50	2135.0 m	Make up cementing stand and rack back in derrick.
PH	P	HT	0130	0230	1.00	2135.0 m	Make up 13 3/ 8" wear bushing recovery tool, and wellhead jetting assembly.
PH	P	WH	0230	0400	1.50	2135.0 m	RIH and jet BOPs. Engage wear bushing recovery tool, and release wear bushing with 60 klbs overpull. Jet wellhead. Check index line and POOH.
PH	P	HT	0400	0430	0.50	2135.0 m	Lay out 13 3/ 8" wear bushing recovery tool, and wellhead jetting assembly.
PH	P	CRN	0430	0600	1.50	2135.0 m	Clear rig floor of non essential equipment. Hold tool box meeting / JSA for running casing. Rig up to run 9 5/ 8" casing. Pick up shoe joint and check float function. OK.

Phase Data to 2400hrs, 02 Nov 2003

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/ RIG-UP/ PRESPUD(RM)	22.5	13 Oct 2003	14 Oct 2003	22.5	1 days	0 m
CONDUCTOR HOLE(CH)	37	14 Oct 2003	15 Oct 2003	59.5	2 days	121.3 m
SURFACE HOLE(SH)	49.5	15 Oct 2003	17 Oct 2003	109	5 days	645.0 m
SURFACE CASING(SC)	114	18 Oct 2003	22 Oct 2003	223	9 days	645.0 m
PRODUCTION HOLE(PH)	270	22 Oct 2003	02 Nov 2003	493	21 days	2135.0 m

WBM Data — Cost Today $ 2,077

Mud Type:	KCl/ PHPA/ Glycol	API FL:	4 cm³/ 30m	Cl:	32500	Solids(%vol):	7.5	Viscosity:	96 sec/ qt
Sample-From:	Pit	Filter-Cake:	1 / 32nd"	K+C*1000:	5.5 %	H2O:	89.5 %	PV:	24 cp
Time:	21:00	HTHP-FL:	0 cm³/ 30m	Hard/Ca:	480	Oil(%):	3 %	YP:	36 lb/ 100ft²
Weight:	9.70 ppg	HTHP-Cake:	0 / 32nd"	MBT:	8.75	Sand:	0.4	Gels 10s:	8
Temp:	0 C°			PM:	0	pH:	8.7	Gels 10m:	12
				PF:	0.05	PHPA:	2 ppb	Fann 003:	7
								Fann 006:	10
								Fann 100:	36
								Fann 200:	50
								Fann 300:	60
								Fann 600:	84

Comment: NOTE: Oil % in Solids Reported = GLYCOL

Bit # 7 - 4R2

Wear	I	O1	D	L	B	G	O2	R
	2	2	WT	T	X	I	BU	TD

				Nozzles		**Drilled over last 24 hrs**		**Calculated over Bit Run**	
Size ("):	12.25 in	IADC#	M-223	No.	Size	Progress	0 m	Cum. Progress	0 m
Mfr:	Not Found	WOB(avg)	4.0 klb	2	12 / 32nd"	On Bottom Hrs	0 h	Cum. On Btm Hrs	0 h
Type:	PDC	RPM(avg)	150	3	13 / 32nd"	IADC Drill Hrs	0 h	Cum IADC Drill Hrs	0 h
Serial No.:	106469	F.Rate	750 gpm			Total Revs	0	Cum Total Revs	0
Bit Model	DSX 195 D	SPP	3200 psi			ROP(avg)	N/ A	ROP(avg)	
Depth In	2135.0 m	TFA	0.61						
Depth Out	2135.0 m								

Run Comment: Re-Run #2 bit #4

BHA # 7

Weight(Wet)	25.0 klb	Length	202.0 m	Torque(max)	10000 ft-lbs	D.C. (1) Ann Velocity	224.2
Wt Below Jar(Wet)	15.0 klb	String	300.0 klb	Torque(Off.Btm)	2000 ft-lbs	D.C. (2) Ann Velocity	224.2
		Pick-Up	300.0 klb	Torque(On.Btm)	4000 ft-lbs	H.W.D.P. Ann Velocity	147.0
		Slack-Off	300.0 klb			D.P. Ann Velocity	147.0

BHA Run Description: BHA for clean-out trip, with NB roller reamer.
Ported float installed

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.32 m	12.25 in	0 in	LR2995	12 1/ 4" PDC Bit
DOG sub	0.24 m	12.25 in	3.00 in	30039A	Drilling On Gauge Sub
12.25in Roller Reamer	2.45 m	8.06 in	3.00 in	GU-2151	Ported Float Installed
8.25in DC	56.26 m	8.25 in	2.88 in		8 1/ 4" Drill Collar
8in Hydraulic Jars	9.63 m	8.00 in	3.06 in	DAH02055	8" Hydraulic Jar
8.25in DC	18.86 m	8.25 in	2.75 in		2 x 8 1/ 4" Drill Collar
X/ O	0.81 m	6.31 in	2.81 in	EX-072	Cross-Over
5in HWDP	113.41 m	5.00 in	3.00 in		5" Heavy Weight Drill Pipe.

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
2092.20	1.96	211.00	2092.1	-5.46	1.52	-5.46	0.49	MWD
2121.80	2.72	218.57	2121.7	-6.44	2.77	-6.44	-0.21	MWD
2125.00	2.92	220.32	2124.9	-6.56	6.80	-6.56	-0.31	MWD
2135.00	2.92	220.32	2134.8	-6.95	0	-6.95	-0.64	Extrapolated

Printed on 10 Nov 2003

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance

Personnel On Board

Company	Pax
Santos	5
BHI - INTEQ	1
Geoservices	2
Halliburton	1
TMT	3
DOGC	41
DOGC Service	3
Total Marine Catering	8
Schlumberger Wireline	7
Premium Casing Services	4
Schlumberger Testing	10
Dril-Quip	1
Total	86

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	Oilwell A1700PT	6.50	9.70	95	51	3200	250
2	Oilwell A1700PT	6.50	9.70	95	51	3200	250
3	Oilwell A1700PT	6.50	9.70	95	51	3200	250

Slow Pump Data

Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
0	20	0	98	30	0	147	40	0	197
0	20	0	98	30	0	147	40	0	197
0	20	0	98	30	0	147	40	0	197

Casing

OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	N/A	121.0 m / 121.0 m	154 bbls (750 sx) Class G w/ 1% CaCl2 15.8 ppg
13 3/8"	L.O.T. - 15.00 ppg	635.8 m / 635.8 m	Lead - 304 bbls (768sx) c/ w 0.6 gal/ sx Econolite @ 12.5 lb/ gal. Tail - 172 (389sx) c/ w neat in seawater @ 15.8lbs/ gal.

HSE Summary

Events	Date of Last	Days Since	Remarks
Abandon Drill	02 Nov 2003	0 Days	
Fire Drill	02 Nov 2003	0 Days	Simulated fire in Laundry.
First Aid	29 Oct 2003	4 Days	Employee struck by chain tong - no treatment required.
Lost Time Incident	24 Apr 2001	921 Days	None
Safety Meeting	02 Nov 2003	0 Days	Weekly safety meetings held at 13:00 hrs, 19:00 hrs and 01:00 hrs.
Walkabout	02 Nov 2003	0 Days	

Shakers, Volumes and Losses Data

Engineer : R. Berkovic

Available	**1810 bbl**	**Losses**	**40 bbl**
Active	703.0 bbl	Downhole	0 bbl
Mixing	0 bbl	Surf+ Equip	20 bbl
Hole	1107.0 bbl	Dumped	20.0 bbl
Slug	0 bbl	De-Sander	0 bbl
Reserve	0 bbl	De-Silter	0 bbl
Kill	0 bbl	Centrifuge	0 bbl

Equip.	Descr.	Mesh Size	Hours
Shaker 1	Thule VSM 300	3 x 40 (Upper)	2
Shaker 1	Thule VSM 300	4 x 84 (Lower)	2
Shaker 2	Thule VSM 300	4 x 84 (Lower)	6
Shaker 2	Thule VSM 300	3 x 10 (Upper)	6
Shaker 3	Thule VSM 300	3 x 10 (Upper)	6
Shaker 3	Thule VSM 300	4 x 84 (Lower)	6
Shaker 4	Thule VSM 300	4 x 84 (Lower)	6
Shaker 4	Thule VSM 300	3 x 40 (Upper)	6

Comment Daily Additions = 11 bbls product.

Marine

Weather check on 02 Nov 2003 at 24:00

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
8.00 nm	17.0 kn	200 deg	1025 bar	12.0 C°	1.0 m	200 deg	0 ft/ sec

Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments
0.7 deg	0.5 deg	0.75 m	2.5 m	225 deg	0 ft/ sec	

Rig Dir.	Ris. Tension	VDL	Comments
239.0 deg	210.0 klb	4448.0 klb	

Rig Support

Anchors	Tension (klb)
1	203.0
2	191.0
3	194.0
4	182.0
5	150.0
6	193.0
7	192.0
8	210.0

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks
Pacific Challenger	Standby	Standby		
Lady Dawn	Standby	Standby	Standing by at anchor. 10:00 - 11:18 Alongside stbd for cargo handling. Cargo handling operations aborted due to marine conditions - some deck cargo remaining.	

Pacific Challenger

Item	Unit	Quantity
Barite	sx	882
Cement	sx	0
Gel	sx	0
Potable Water	MT	204
Drill Water	MT	447
Mud	sx	0
Fuel	MT	478.9

Lady Dawn

Item	Unit	Quantity
Barite	sx	2469
Cement	sx	2645
Gel	sx	1896
Potable Water	MT	562
Drill Water	MT	86
Mud	sx	0
Fuel	MT	349.4

Helicopter Movement

Flight #	Time	Destination	Comment	Pax
1	16:05	Ocean Epoch		5
1	16:10	Essendon		0

Santos

DRILLING MORNING REPORT # 22
Casino #3 (03 Nov 2003)

From : G. Howard / S. Douglass

Well Data

Country	Australia	M. Depth	2135.0 m	Cur. Hole Size	12.250 in		
Field	Casino	TVD	2135.0 m	Casing OD	13.375 in		
Drill Co.	DOGC	Progress	0 m	Shoe TVD	635.8 m		
Rig	Ocean Epoch	Days from spud	20.33	L.O.T.	15.00 ppg		
Wtr Dpth(LAT)	66.7 m	Days on well	21.54			Planned TD	2137.0 m
RT-ASL(LAT)	22.4 m	Current Op @ 0600	M/ U dril-quip casing hanger seal assembly mill / jetting tool.				
RT-ML	89.1 m	Planned Op	Wash well-head. Run 9 5/ 8" seal assembly. Test BOPs.				

Summary of Period 0000 to 2400 Hrs

Rig up and run 9 5/ 8" casing to shoe depth of 2113 m. Commence cement job.

Formations

Name	Top (MD)	Top (TVD)	Comment

Operations For Period 0000 Hrs to 2400 Hrs on 03 Nov 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH	P	CRN	0000	0100	1.00	2135.0 m	Continue to make up 9 5/ 8" casing hanger and 9 5/ 8" casing hanger running tool. Verify tool tolerances and functions. Fit seal assembly and load plugs. Lay out running tool and hanger.
PH	P	CRN	0100	0130	0.50	2135.0 m	Make up cementing stand and rack back in derrick.
PH	P	HT	0130	0230	1.00	2135.0 m	Make up 13 3/ 8" wear bushing recovery tool, and wellhead jetting assembly.
PH	P	WH	0230	0400	1.50	2135.0 m	RIH and jet BOPs. Engage wear bushing recovery tool, and release wear bushing with 60 klbs overpull. Jet wellhead. Check index line and POOH.
PH	P	HT	0400	0430	0.50	2135.0 m	Lay out 13 3/ 8" wear bushing recovery tool, and wellhead jetting assembly.
PH	P	CRN	0430	0600	1.50	2135.0 m	Clear rig floor of non essential equipment. Hold tool box meeting / JSA for running casing. Rig up to run 9 5/ 8" casing. Pick up shoe joint and check float function. OK.
PH	P	CRN	0600	0700	1.00	2135.0 m	Make up and RIH (Thread lock) 1 x intermediate joint 9 5/ 8" casing and 9 5/ 8" float joint to 37.13 m.
PH	P	CRN	0700	1630	9.50	2135.0 m	Continue to run 158 joints of 47 ppf, 9 5/ 8" L-80, NewVAM thread casing, to 1945 m. Casing stood up at 1946 m.
PH	TP	CRN	1630	1700	0.50	2135.0 m	Circulate and work casing joint 159 through tight spot 1946 m to 1954 m.
PH	P	CRN	1700	1800	1.00	2135.0 m	Continue RIH with 9 5/ 8" casing joints 160 - 165 from 1954 m to 2017 m. Total joints run = 165. P/ U and run 9 5/ 8" space out pup joint.
PH	P	CRN	1800	1900	1.00	2135.0 m	P/ U 9 5/ 8" hanger and casing hanger running tool, and make up to casing. Make up 1 joint 5" drill pipe, 1 joint of HWDP and RIH, washing down casing.
PH	TP	CRN	1900	2100	2.00	2135.0 m	RIH with 5" HWDP, 9 5/ 8" casing landing string. Wash and work casing down to 2113 m. Land casing hanger in wellhead.
PH	P	CRN	2100	2230	1.50	2135.0 m	Circulate 1.5 x casing volume at 500 gpm. Boost riser. Continue circulating until shakers clear.
PH	P	RUC	2230	2330	1.00	2135.0 m	Rig up halliburton cement lines.
PH	P	CMC	2330	2400	0.50	2135.0 m	Break circulation with halliburton. Pressure test surface cement lines 5000 psi / 5 mins. Drop bottom plug dart and shear out.

Operations For Period 0000 Hrs to 0600 Hrs on 04 Nov 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PC	P	CMC	0000	0130	1.50	2135.0 m	Halliburton mix and pump 165 bbls 12.5 ppg lead slurry, chased with 138 bbls tail slurry. Drop top dart and displace with 15 bbls drillwater. Observed plug shear at 1295 psi.
PC	P	CMC	0130	0230	1.00	2135.0 m	Displace cement with rig pumps at 500 gpm. Bump plug at 3971 stks. Hold at 1800 psi / 5 mins. (500 psi over final displacement pressure.)
PC	P	PT	0230	0300	0.50	2135.0 m	Line up to Halliburton and pressure test casing to 3500 psi. Bleed back. Floats holding.
PC	P	RUC	0300	0330	0.50	2135.0 m	Rig down surface cementing lines.
PC	TP	WH	0330	0430	1.00	2135.0 m	Set 9 5/ 8" seal assembly as per dril-quip instructions. Line up to halliburton to test seal assembly. Attempt test seal assembly. No go.
PC	TP	TO	0430	0600	1.50	2135.0 m	POOH with casing hanger seal assembly running tool. Lay out seal assembly and running tool. Inspect seal assembly. Observe inner part of assembly hard-packed with cuttings. Seal surface area OK.

Phase Data to 2400hrs, 03 Nov 2003

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/ RIG-UP/ PRESPUD(RM)	22.5	13 Oct 2003	14 Oct 2003	22.5	1 days	0 m
CONDUCTOR HOLE(CH)	37	14 Oct 2003	15 Oct 2003	59.5	2 days	121.3 m
SURFACE HOLE(SH)	49.5	15 Oct 2003	17 Oct 2003	109	5 days	645.0 m
SURFACE CASING(SC)	114	18 Oct 2003	22 Oct 2003	223	9 days	645.0 m
PRODUCTION HOLE(PH)	294	22 Oct 2003	03 Nov 2003	517	22 days	2135.0 m

WBM Data

Cost Today $ 0

Mud Type:	KCl/ PHPA/ Glycol	API FL:	4 cm³/ 30m	Cl:	32000	Solids(%vol):	7	Viscosity:	77 sec/ qt
Sample-From:	Pit	Filter-Cake:	1 / 32nd"	K+C*1000:	5.5 %	H2O:	90 %	PV:	24 cp
Time:	21:40	HTHP-FL:	0 cm³/ 30m	Hard/Ca:	480	Oil(%):	3 %	YP:	39 lb/ 100ft²
Weight:	9.70 ppg	HTHP-Cake:	0 / 32nd"	MBT:	8.75	Sand:	0.4	Gels 10s:	8
Temp:	49.0 C°			PM:	0	pH:	8.7	Gels 10m:	11
				PF:	0.05	PHPA:	2 ppb	Fann 003:	8
								Fann 006:	10
								Fann 100:	37
								Fann 200:	52
								Fann 300:	63
								Fann 600:	87

Comment: NOTE: Oil % in Solids Reported = GLYCOL

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
2092.20	1.96	211.00	2092.1	-5.46	1.52	-5.46	0.49	MWD
2121.80	2.72	218.57	2121.7	-6.44	2.77	-6.44	-0.21	MWD
2125.00	2.92	220.32	2124.9	-6.56	6.80	-6.56	-0.31	MWD
2135.00	2.92	220.32	2134.8	-6.95	0	-6.95	-0.64	Extrapolated

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance

Personnel On Board

Company	Pax
Santos	5
BHI - INTEQ	1
Geoservices	2
Halliburton	1
TMT	3
DOGC	41
DOGC Service	4
Total Marine Catering	8
Schlumberger Wireline	3
Premium Casing Services	4
Schlumberger Testing	15
Dril-Quip	1
Total	88

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	Oilwell A1700PT	6.50	9.70	95	0	0	0
2	Oilwell A1700PT	6.50	9.70	95	0	0	0
3	Oilwell A1700PT	6.50	9.70	95	0	0	0

Slow Pump Data

Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
0	20	0	98	30	0	147	40	0	197
0	20	0	98	30	0	147	40	0	197
0	20	0	98	30	0	147	40	0	197

Casing

OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	N/A	121.0 m / 121.0 m	154 bbls (750 sx) Class G w/ 1% CaCl2 15.8 ppg
13 3/ 8"	L.O.T. - 15.00 ppg	635.8 m / 635.8 m	Lead - 304 bbls (768sx) c/ w 0.6 gal/ sx Econolite @ 12.5 lb/ gal. Tail - 172 (389sx) c/ w neat in seawater @ 15.8lbs/ gal.

Printed on 10 Nov 2003

HSE Summary

Events	Date of Last	Days Since	Remarks
Abandon Drill	02 Nov 2003	1 Day	
Fire Drill	02 Nov 2003	1 Day	Simulated fire in Laundry.
First Aid	29 Oct 2003	5 Days	Employee struck by chain tong - no treatment required.
Lost Time Incident	24 Apr 2001	922 Days	None
Safety Meeting	02 Nov 2003	1 Day	Weekly safety meetings held at 13:00 hrs, 19:00 hrs and 01:00 hrs.
Walkabout	03 Nov 2003	0 Days	

Shakers, Volumes and Losses Data

Engineer : R. Berkovic

Available	**1796 bbl**	**Losses**	**14 bbl**
Active	802.0 bbl	Downhole	8.0 bbl
Mixing	0 bbl	Surf+ Equip	6 bbl
Hole	994.0 bbl	Dumped	0 bbl
Slug	0 bbl	De-Sander	0 bbl
Reserve	0 bbl	De-Silter	0 bbl
Kill	0 bbl	Centrifuge	0 bbl

Equip.	Descr.	Mesh Size	Hours
Shaker 1	Thule VSM 300	4 x 84 (Lower)	12
Shaker 1	Thule VSM 300	3 x 40 (Upper)	12
Shaker 2	Thule VSM 300	3 x 10 (Upper)	22
Shaker 2	Thule VSM 300	4 x 84 (Lower)	22
Shaker 3	Thule VSM 300	4 x 84 (Lower)	22
Shaker 3	Thule VSM 300	3 x 10 (Upper)	22
Shaker 4	Thule VSM 300	3 x 40 (Upper)	12
Shaker 4	Thule VSM 300	4 x 84 (Lower)	12

Comment Daily Additions = 0 bbls.

Marine

Weather check on 03 Nov 2003 at 24:00

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
8.00 nm	13.0 kn	240 deg	1024 bar	13.0 C°	0.7 m	270 deg	0 ft/ sec

Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments
0.5 deg	0.4 deg	1.20 m	2.2 m	225 deg	0 ft/ sec	

Rig Dir.	Ris. Tension	VDL	Comments
239.0 deg	210.0 klb	4951.0 klb	

Rig Support

Anchors	Tension (klb)
1	207.0
2	192.0
3	192.0
4	181.0
5	151.0
6	198.0
7	191.0
8	215.0

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks
Pacific Challenger	Standby	Standby	Standing by at anchor. 19:15 - 10:35 Alongside stbd for cargo handling. Cargo handling. 13:25 - 17:55 Alongside stbd for cargo handling. Cargo handling.	
Lady Dawn	Standby	Standby	Standing by at anchor.	

Pacific Challenger

Item	Unit	Quantity
Barite	sx	882
Cement	sx	0
Gel	sx	0
Potable Water	MT	201
Drill Water	MT	447
Mud	sx	0
Fuel	MT	474.6

Lady Dawn

Item	Unit	Quantity
Barite	sx	2469
Cement	sx	2645
Gel	sx	1896
Potable Water	MT	557
Drill Water	MT	86
Mud	sx	0
Fuel	MT	338.3

Helicopter Movement

Flight #	Time	Destination	Comment	Pax
1	12:57	Essendon		10
1	15:45	Ocean Epoch		12

Santos

DRILLING MORNING REPORT # 23
Casino #3 (04 Nov 2003)

From : G. Howard / S. Douglass

Well Data

Country	Australia	M. Depth	2135.0 m	Cur. Hole Size	8.500 in		
Field	Casino	TVD	2135.0 m	Casing OD	9.625 in		
Drill Co.	DOGC	Progress	0 m	Shoe TVD	2113.0 m		
Rig	Ocean Epoch	Days from spud	21.33	L.O.T.	15.00 ppg		
Wtr Dpth(LAT)	66.7 m	Days on well	22.54			Planned TD	2137.0 m
RT-ASL(LAT)	22.4 m	Current Op @ 0600	Rearranging pipe in derrick to allow picking up of 4-1/ 2" PH6 test tubing.				
RT-ML	89.1 m	Planned Op	Pick up tubing test string while running in hole with casing scraper.				

Summary of Period 0000 to 2400 Hrs

Cement 9 5/ 8" casing. Test BOPs and surface equipment. Set 9 5/ 8" wear bushing. Lay down excess tubulars from derrick.

Formations

Name	Top (MD)	Top (TVD)	Comment

Operations For Period 0000 Hrs to 2400 Hrs on 04 Nov 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PC	P	CMC	0000	0130	1.50	2135.0 m	Halliburton mix and pump 165 bbls 12.5 ppg lead slurry, chased with 138 bbls tail slurry. Drop top dart and displace with 15 bbls drillwater. Observed plug shear at 1295 psi.
PC	P	CMC	0130	0230	1.00	2135.0 m	Displace cement with rig pumps at 500 gpm. Bump plug at 3971 stks. Hold at 1800 psi / 5 mins. (500 psi over final displacement pressure.)
PC	P	PT	0230	0300	0.50	2135.0 m	Line up to Halliburton and pressure test casing to 3500 psi. Bleed back. Floats holding.
PC	P	RUC	0300	0330	0.50	2135.0 m	Rig down surface cementing lines.
PC	TP	WH	0330	0430	1.00	2135.0 m	Set 9 5/ 8" seal assembly as per dril-quip instructions. Line up to halliburton to test seal assembly. Attempt test seal assembly. No go.
PC	TP	TO	0430	0600	1.50	2135.0 m	POOH with casing hanger seal assembly running tool. Lay out seal assembly and running tool. Inspect seal assembly. Observe inner part of assembly hard-packed with cuttings. Seal surface area OK.
PC	TP	HT	0600	0630	0.50	2135.0 m	Make up Dril-quip mill / flush tool, for clean up of seal assembly area in wellhead.
PC	TP	TI	0630	0700	0.50	2135.0 m	RIH with Dril-quip mill / flush tool.
PC	TP	CHC	0700	0800	1.00	2135.0 m	Work tool over wellhead and hanger area, pumping at 700 gpm through flushing tool, and boosting riser at 500 gpm through choke and kill lines. Spot 50 bbls Hi-Vis over wellhead area.
PC	TP	TO	0800	0830	0.50	2135.0 m	POOH with Dril-quip mill / flush tool.
PC	TP	HT	0830	0900	0.50	2135.0 m	Lay out Dril-quip mill / flush tool.
PC	TP	TI	0900	0930	0.50	2135.0 m	Make up, and RIH with seal assembly and test tool
PC	P	PT	0930	1000	0.50	2135.0 m	Land out and set seal assembly as per Dril-quip instructions. Test seal assembly to 5000 psi / 10 mins.
PC	P	BOP	1000	1330	3.50	2135.0 m	Rig up surface lines and test BOPs. 250 psi / 5 mins, 5000 psi / 10 mins all pipe rams, 250 psi / 5 mins, 2500 psi / 10 mins annulars. Test on blue pod from rig floor. Function test on yellow pod from Koomey unit.
PC	P	TO	1330	1400	0.50	2135.0 m	POOH with 9 5/ 8" test plug.
PC	P	HT	1400	1430	0.50	2135.0 m	Lay down test plug.
PC	P	PT	1430	2130	7.00	2135.0 m	Test upper IBOP and lower IBOP on top drive. Test TIW valve, inside Gray valve, Mud hose, all standpipe valves 250 psi / 5 mins, 5000 psi / 10 mins.
PC	P	HT	2130	2200	0.50	2135.0 m	Make up 9 5/ 8" wear bushing running tool and install 9 5/ 8" wear bushing. Paint drill pipe single above running tool for future tubing hanger space out.
PC	P	WH	2200	2230	0.50	2135.0 m	RIH and land out 9 5/ 8" wear bushing. Close middle pipe rams and lower pipe rams to obtain space out mark on pipe.
PC	P	HT	2230	2300	0.50	2135.0 m	POOH and lay down 9 5/ 8" wear busing running tool. Measure marks on painted joint and confirm space out dimension for tubing hanger. (No variation from anticipated measurement.)
PC	P	PLD	2300	2400	1.00	2135.0 m	RIH with 5" HWDP from derrick. POOH laying down 5" HWDP.

Operations For Period 0000 Hrs to 0600 Hrs on 05 Nov 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PC	P	HBHA	0000	0100	1.00	2135.0 m	Continue lay down 5" heavy weight drill pipe from derrick.
PC	P	HT	0100	0200	1.00	2135.0 m	Lay out cement head
PC	P	HBHA	0200	0600	4.00	2135.0 m	Lay out Bit and DOG sub, (unable to break connection), 12 1/ 4" roller reamer, and 8 1/ 4" drill collars from derrick.

Phase Data to 2400hrs, 04 Nov 2003

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/ RIG-UP/ PRESPUD(RM)	22.5	13 Oct 2003	14 Oct 2003	22.5	1 days	0 m
CONDUCTOR HOLE(CH)	37	14 Oct 2003	15 Oct 2003	59.5	2 days	121.3 m
SURFACE HOLE(SH)	49.5	15 Oct 2003	17 Oct 2003	109	5 days	645.0 m
SURFACE CASING(SC)	114	18 Oct 2003	22 Oct 2003	223	9 days	645.0 m
PRODUCTION HOLE(PH)	294	22 Oct 2003	03 Nov 2003	517	22 days	2135.0 m
PRODUCTION CASING(PC)	24	04 Nov 2003	04 Nov 2003	541	23 days	2135.0 m

General Comments

Comments	Rig Requirements	Lessons Learnt
Offline IDS reporting database transferred to Rig-Two Laptop. (SAN08125).		

WBM Data

Cost Today $ 0

Mud Type:	KCl/ PHPA/ Glycol	API FL:	4 cm³/ 30m	Cl:	32000	Solids(%vol):	7	Viscosity:	77 sec/ qt
Sample-From:	Pit	Filter-Cake:	1 / 32nd"	K+C*1000:	5.5 %	H2O:	90 %	PV:	24 cp
Time:	21:40	HTHP-FL:	0 cm³/ 30m	Hard/Ca:	480	Oil(%):	3 %	YP:	39 lb/ 100ft²
Weight:	9.70 ppg	HTHP-Cake:	0 / 32nd"	MBT:	8.75	Sand:	0.4	Gels 10s:	8
Temp:	49.0 C°			PM:	0	pH:	8.7	Gels 10m:	11
				PF:	0.05	PHPA:	2 ppb	Fann 003:	8
								Fann 006:	10
								Fann 100:	37
								Fann 200:	52
								Fann 300:	63
								Fann 600:	87

Comment: NOTE: Oil % in Solids Reported = GLYCOL

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
2092.20	1.96	211.00	2092.1	-5.46	1.52	-5.46	0.49	MWD
2121.80	2.72	218.57	2121.7	-6.44	2.77	-6.44	-0.21	MWD
2125.00	2.92	220.32	2124.9	-6.56	6.80	-6.56	-0.31	MWD
2135.00	2.92	220.32	2134.8	-6.95	0	-6.95	-0.64	Extrapolated

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance

Personnel On Board

Company	Pax
Santos	5
BHI - INTEQ	1
Geoservices	2
Halliburton	1
TMT	3
DOGC	41
DOGC Service	4
Total Marine Catering	8
Schlumberger Wireline	3
Premium Casing Services	4
Schlumberger Testing	15
Dril-Quip	1
Total	88

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	Oilwell A1700PT	6.50	9.70	95	0	0	0
2	Oilwell A1700PT	6.50	9.70	95	0	0	0
3	Oilwell A1700PT	6.50	9.70	95	0	0	0

Slow Pump Data

Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
0	20	0	98	30	0	147	40	0	197
0	20	0	98	30	0	147	40	0	197
0	20	0	98	30	0	147	40	0	197

Casing

OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	N/A	121.0 m / 121.0 m	154 bbls (750 sx) Class G w/ 1% CaCl2 15.8 ppg
13 3/ 8"	L.O.T. - 15.00 ppg	635.8 m / 635.8 m	Lead - 304 bbls (768sx) c/ w 0.6 gal/ sx Econolite @ 12.5 lb/ gal. Tail - 172 (389sx) c/ w neat in seawater @ 15.8lbs/ gal.
9 5/ 8"	N/A	2113.0 m / 2113.0 m	Lead - 165 bbls (432sx) c/ w 0.75 gal/ sx Econolite, 0.035 gal/ sx HR6L @ 12.5 ppg Tail - 138 bbls (627 sx) c/ w .36 gal/ sx Halad 413-L, 0.08 gal/ sx HR6L @ 15.8 ppg

HSE Summary

Events	Date of Last	Days Since	Remarks
Abandon Drill	02 Nov 2003	2 Days	
BOP Test	04 Nov 2003	0 Days	
Fire Drill	02 Nov 2003	2 Days	Simulated fire in Laundry.
First Aid	29 Oct 2003	6 Days	Employee struck by chain tong - no treatment required.
Lost Time Incident	24 Apr 2001	923 Days	None
Safety Meeting	02 Nov 2003	2 Days	Weekly safety meetings held at 13:00 hrs, 19:00 hrs and 01:00 hrs.
Walkabout	04 Nov 2003	0 Days	

Shakers, Volumes and Losses Data

Engineer : R. Berkovic

Available	**597 bbl**	**Losses**	**1205 bbl**
Active	597.0 bbl	Downhole	0 bbl
Mixing	0 bbl	Surf+ Equip	6 bbl
Hole	0 bbl	Dumped	962.0 bbl
Slug	0 bbl	De-Sander	0 bbl
Reserve	0 bbl	De-Silter	0 bbl
Kill	0 bbl	Centrifuge	0 bbl
		Cased Off	237.0 bbl

Equip.	Descr.	Mesh Size	Hours
Shaker 1	Thule VSM 300	3 x 40 (Upper)	0
Shaker 1	Thule VSM 300	4 x 84 (Lower)	0
Shaker 2	Thule VSM 300	4 x 84 (Lower)	4
Shaker 2	Thule VSM 300	3 x 10 (Upper)	4
Shaker 3	Thule VSM 300	3 x 10 (Upper)	4
Shaker 3	Thule VSM 300	4 x 84 (Lower)	4
Shaker 4	Thule VSM 300	4 x 84 (Lower)	0
Shaker 4	Thule VSM 300	3 x 40 (Upper)	0

Comment Daily Additions = 0 bbls.

Marine

Weather check on 04 Nov 2003 at 24:00

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
8.00 nm	11.0 kn	355 deg	1020 bar	14.0 C°	0.5 m	355 deg	0 ft/ sec

Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments
0.4 deg	0.4 deg	0.90 m	1.7 m	225 deg	0 ft/ sec	

Rig Dir.	Ris. Tension	VDL	Comments
239.0 deg	210.0 klb	4459.0 klb	

Rig Support

Anchors	Tension (klb)
1	208.0
2	199.0
3	192.0
4	183.0
5	154.0
6	200.0
7	194.0
8	220.0

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks
Pacific Challenger	Standby	Standby	Standing by at anchor. 01:54 - 02:40 Alongside stbd for cargo handling. 08:55 - 11:28 Alongside port for cargo handling.	
Lady Dawn	Standby	23:50	En Route to Portland. 15:10 -21:24 Alongside stbd for cargo handling.	

Pacific Challenger

Item	Unit	Quantity
Barite	sx	882
Cement	sx	0
Gel	sx	0
Potable Water	MT	201
Drill Water	MT	447
Mud	sx	0
Fuel	MT	486.6

Lady Dawn

Item	Unit	Quantity
Barite	sx	2469
Cement	sx	2645
Gel	sx	1896
Potable Water	MT	552
Drill Water	MT	86
Mud	sx	0
Fuel	MT	330.7

Helicopter Movement

Flight #	Time	Destination	Comment	Pax
1	10:30	Ocean Epoch	Inbound freight only flight	0
1	10:40	Essendon		0

Printed on 10 Nov 2003

Santos

DRILLING MORNING REPORT # 24
Casino #3 (05 Nov 2003)

From : G. Howard / S. Douglass

Well Data

Country	Australia	M. Depth	2135.0 m	Cur. Hole Size	8.500 in		
Field	Casino	TVD	2135.0 m	Casing OD	9.625 in		
Drill Co.	DOGC	Progress	0 m	Shoe TVD	2113.0 m		
Rig	Ocean Epoch	Days from spud	22.33	L.O.T.	15.00 ppg		
Wtr Dpth(LAT)	66.7 m	Days on well	23.54			Planned TD	2137.0 m
RT-ASL(LAT)	22.4 m	Current Op @ 0600	Run Wireline gauge ring / junk basket / Cement Bond Log.				
RT-ML	89.1 m	Planned Op	Run wireline logs. Run permanent production packer on wireline. Make up DST tools.				

Summary of Period 0000 to 2400 Hrs

Lay down excess tubulars. Make up casing scraper, and RIH on 4 1/ 2" production tubing. Scrape 9 5/ 8" casing. Displace well to brine. POOH.

Formations

Name	Top (MD)	Top (TVD)	Comment

Operations For Period 0000 Hrs to 2400 Hrs on 05 Nov 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PC	P	HBHA	0000	0100	1.00	2135.0 m	Continue lay down 5" heavy weight drill pipe from derrick.
PC	P	HT	0100	0200	1.00	2135.0 m	Lay out cement head
PC	P	HBHA	0200	0600	4.00	2135.0 m	Lay out Bit and DOG sub, (unable to break connection), 12 1/ 4" roller reamer, and 8 1/ 4" drill collars from derrick.
EP	P	HT	0600	0630	0.50	2135.0 m	Hold tool box / safety meeting for running tubing. Clear rig floor, and rig up to run 4 1/ 2" production tubing.
EP	P	HBHA	0630	0700	0.50	2135.0 m	Make up 8 1/ 2" bit, casing scraper, and cross over to 4 1/ 2" tubing.
EP	P	PUP	0700	1830	11.50	2135.0 m	RIH picking up 4 1/ 2" production tubing. Run 217 jts, and tag top cement inside 9 5/ 8" casing at 2077 m.
EP	P	BKC	1830	1900	0.50	2135.0 m	Lay out 1 joint of 4 1/ 2" tubing. (Confirm pipe tally and number of joints on deck.) Prepare to displace well.
EP	P	WCU	1900	2000	1.00	2135.0 m	Pump 60 bbls viscosified seawater, chased with 250 bbls Caustic seawater wash, chased with 800 bbls seawater. Displace at 1200 gpm.
EP	P	WCU	2000	2030	0.50	2135.0 m	POOH from 2077 m to 1976 m and scrape casing. Displace choke and kill lines with 9.3 ppg KCl brine while scraping casing RIH from 1976 m to 2077 m.
EP	P	WCU	2030	2130	1.00	2135.0 m	Pump 60 bbls viscosified seawater, chased with 9.3 ppg KCl brine at 1200 gpm. Establish circulation system and check system integrity.
EP	P	TO	2130	2400	2.50	2135.0 m	POOH from 2177 m to 800 m with 4 1/ 2" production tubing.

Operations For Period 0000 Hrs to 0600 Hrs on 06 Nov 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
EP	P	TO	0000	0200	2.00	2135.0 m	POOH with 4 1/ 2" production tubing from 800 m to surface. Break out all cross-overs. Lay out 9 5/ 8" casing scraper and 8 1/ 2" bit.
EP	P	BOP	0200	0230	0.50	2135.0 m	Test shear rams at 250 psi / 5 mins, 3500 psi / 15 mins.
EP	P	HT	0230	0400	1.50	2135.0 m	Pick up flow head and make up to tubing joint and saver sub. Make up service connections and lay out flow head.
EP	P	HT	0400	0530	1.50	2135.0 m	Make up sub sea test assembly.
EP	P	LOG	0530	0600	0.50	2135.0 m	(IN PROGRESS) Rig up schlumberger wireline. Pick up and make up wireline toolstring with CBL / Junk basket / Gauge ring.

Phase Data to 2400hrs, 05 Nov 2003

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/ RIG-UP/ PRESPUD(RM)	22.5	13 Oct 2003	14 Oct 2003	22.5	1 days	0 m
CONDUCTOR HOLE(CH)	37	14 Oct 2003	15 Oct 2003	59.5	2 days	121.3 m
SURFACE HOLE(SH)	49.5	15 Oct 2003	17 Oct 2003	109	5 days	645.0 m
SURFACE CASING(SC)	114	18 Oct 2003	22 Oct 2003	223	9 days	645.0 m
PRODUCTION HOLE(PH)	294	22 Oct 2003	03 Nov 2003	517	22 days	2135.0 m
PRODUCTION CASING(PC)	30	04 Nov 2003	05 Nov 2003	547	23 days	2135.0 m
EVALUATION PRODUCTION HOLE(EP)	18	05 Nov 2003	05 Nov 2003	565	24 days	2135.0 m

WBM Data

Cost Today $ 19,036

Mud Type:	KCl Brine	API FL:	0 cm³/ 30m	Cl:	90000	Solids(%vol):	0	Viscosity:	27 sec/ qt
Sample-From:	Pit	Filter-Cake:	0 / 32nd"	K+C*1000:	15 %	H2O:	0 %	PV:	1 cp
Time:	10:00	HTHP-FL:	0 cm³/ 30m	Hard/Ca:	0	Oil(%):	0 %	YP:	1 lb/ 100ft²
Weight:	9.30 ppg	HTHP-Cake:	0 / 32nd"	MBT:	0	Sand:		Gels 10s:	1
Temp:	0 C°			PM:	0	pH:	7.5	Gels 10m:	1
				PF:	0	PHPA:	0 ppb	Fann 003:	0
								Fann 006:	0
								Fann 100:	0
								Fann 200:	52
								Fann 300:	0
								Fann 600:	0

Bit # 8 NB 05

Wear	I	O1	D	L	B	G	O2	R

				Nozzles		**Drilled over last 24 hrs**		**Calculated over Bit Run**	
Size ("):	8.50 in	IADC#	2-1-7	No.	Size	Progress	0 m	Cum. Progress	0 m
Mfr:	REED	WOB(avg)	0 klb	3	32 / 32nd"	On Bottom Hrs	0 h	Cum. On Btm Hrs	0 h
Type:	Rock	RPM(avg)	0			IADC Drill Hrs	0 h	Cum IADC Drill Hrs	0 h
Serial No.:	KB 6302	F.Rate	1250 gpm			Total Revs	0	Cum Total Revs	0
Bit Model	HP 21G	SPP	3000 psi			ROP(avg)	N/ A	ROP(avg)	
Depth In	2135.0 m	TFA	2.357						
Depth Out									

Daily Comment	No Nozzles - Bit run open.
Run Comment	Bit run with casing scraper.

BHA # 8

Weight(Wet)	0 klb	Length	5.7 m	Torque(max)	0 ft-lbs	D.C. (1) Ann Velocity	
Wt Below Jar(Wet)	0 klb	String	0 klb	Torque(Off.Btm)	0 ft-lbs	D.C. (2) Ann Velocity	
		Pick-Up	0 klb	Torque(On.Btm)	0 ft-lbs	H.W.D.P. Ann Velocity	
		Slack-Off	0 klb			D.P. Ann Velocity	589.2

BHA Run Description: 8 1/ 2" bit and casing scraper run on production tubing.

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.25 m	8.50 in	0 in	KB 6302	8 1/ 2" bit
	1.11 m	5.50 in	2.25 in	708A11	9 5/ 8" casing scraper.
X/ O	1.01 m	6.50 in	5.63 in	12X25	
X/ O	0.45 m	6.50 in	2.94 in	12X21	
X/ O	0.73 m	4.75 in	2.38 in	12X35	
X/ O	0.72 m	5.13 in	2.38 in	S117207	
X/ O	0.59 m	5.00 in	2.38 in	M19170/ 1.1	
X/ O	0.37 m	7.50 in	2.38 in	5717/ 1.1	
X/ O	0.42 m	5.00 in	2.38 in	P/ 0606/ 94	

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
2092.20	1.96	211.00	2092.1	-5.46	1.52	-5.46	0.49	MWD
2121.80	2.72	218.57	2121.7	-6.44	2.77	-6.44	-0.21	MWD
2125.00	2.92	220.32	2124.9	-6.56	6.80	-6.56	-0.31	MWD
2135.00	2.92	220.32	2134.8	-6.95	0	-6.95	-0.64	Extrapolated

Printed on 10 Nov 2003

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance

Personnel On Board

Company	Pax
Santos	5
BHI - INTEQ	1
Geoservices	2
Halliburton	2
TMT	3
DOGC	41
DOGC Service	4
Total Marine Catering	8
Schlumberger Wireline	3
Premium Casing Services	4
Schlumberger Testing	15
Dril-Quip	1
Total	89

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	Oilwell A1700PT	6.50	9.30	95	85	3000	1250
2	Oilwell A1700PT	6.50	9.30	95	85	3000	1250
3	Oilwell A1700PT	6.50	9.30	95	85	3000	1250

Slow Pump Data

Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
0	20	0	98	30	0	147	40	0	197
0	20	0	98	30	0	147	40	0	197
0	20	0	98	30	0	147	40	0	197

Casing

OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	N/A	121.0 m / 121.0 m	154 bbls (750 sx) Class G w/ 1% CaCl2 15.8 ppg
13 3/ 8"	L.O.T. - 15.00 ppg	635.8 m / 635.8 m	Lead - 304 bbls (768sx) c/ w 0.6 gal/ sx Econolite @ 12.5 lb/ gal. Tail - 172 (389sx) c/ w neat in seawater @ 15.8lbs/ gal.
9 5/ 8"	N/A	2113.0 m / 2113.0 m	Lead - 165 bbls (432sx) c/ w 0.75 gal/ sx Econolite, 0.035 gal/ sx HR6L @ 12.5 ppg Tail - 138 bbls (627 sx) c/ w .36 gal/ sx Halad 413-L, 0.08 gal/ sx HR6L @ 15.8 ppg

HSE Summary

Events	Date of Last	Days Since	Remarks
Abandon Drill	02 Nov 2003	3 Days	
BOP Test	04 Nov 2003	1 Day	
Fire Drill	02 Nov 2003	3 Days	Simulated fire in Laundry.
First Aid	29 Oct 2003	7 Days	Employee struck by chain tong - no treatment required.
Lost Time Incident	24 Apr 2001	924 Days	None
Near Miss	04 Nov 2003	1 Day	While lifting cargo from the boat with the starboard Seatrax crane, a 3/ 4" bolt, holding the swivel retaining plate, fell from the headache ball. The bolt landed in the water.
Safety Meeting	02 Nov 2003	3 Days	Weekly safety meetings held at 13:00 hrs, 19:00 hrs and 01:00 hrs.
Walkabout	05 Nov 2003	0 Days	

Shakers, Volumes and Losses Data

Engineer : R. Berkovic

Available	**1001 bbl**	**Losses**	**597 bbl**
Active	215.0 bbl	Downhole	0 bbl
Mixing	0 bbl	Surf+ Equip	0 bbl
Hole	570.0 bbl	Dumped	597.0 bbl
Slug	0 bbl	De-Sander	0 bbl
Reserve	216.0 bbl	De-Silter	0 bbl
Kill	0 bbl	Centrifuge	0 bbl

Equip.	Descr.	Mesh Size	Hours
Shaker 1	Thule VSM 300	3 x 40 (Upper)	0
Shaker 1	Thule VSM 300	4 x 84 (Lower)	0
Shaker 2	Thule VSM 300	4 x 230 (Lower)	3
Shaker 2	Thule VSM 300	3 x 10 (Upper)	3
Shaker 3	Thule VSM 300	3 x 10 (Upper)	3
Shaker 3	Thule VSM 300	4 x 230(Lower)	3
Shaker 4	Thule VSM 300	4 x 84 (Lower)	0
Shaker 4	Thule VSM 300	3 x 40 (Upper)	0

Comment Daily Additions = 901 bbls seawater / 160 bbls product.

Marine

Weather check on 05 Nov 2003 at 24:00

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
8.00 nm	9.0 kn	090 deg	1019 bar	15.0 C°	0.5 m	090 deg	0 ft/ sec

Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments
0.4 deg	0.3 deg	0.90 m	1.7 m	225 deg	0 ft/ sec	

Rig Dir.	Ris. Tension	VDL	Comments
239.0 deg	210.0 klb	4460.0 klb	

Rig Support

Anchors	Tension (klb)
1	209.0
2	200.0
3	188.0
4	182.0
5	154.0
6	206.0
7	203.0
8	226.0

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks
Pacific Challenger	In Port	In Port	Standing by in portland	

Item	Unit	Quantity
Barite	sx	882
Cement	sx	0
Gel	sx	0
Potable Water	MT	201
Drill Water	MT	447
Mud	sx	0
Fuel	MT	468.6

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks
Lady Dawn	Standby	Standby	Standing by at anchor. 11:20 -12:10 Alongside stbd for cargo handling.	

Item	Unit	Quantity
Barite	sx	2469
Cement	sx	2645
Gel	sx	1896
Potable Water	MT	547
Drill Water	MT	86
Mud	sx	0
Fuel	MT	323

Helicopter Movement

Flight #	Time	Destination	Comment	Pax
1	08:48	Ocean Epoch		10
1	09:00	Essendon		9

Santos

DRILLING MORNING REPORT # 25
Casino #3 (06 Nov 2003)

From : G. Howard / S. Douglass

Well Data

Country	Australia	M. Depth	2135.0 m	Cur. Hole Size	8.500 in		
Field	Casino	TVD	2135.0 m	Casing OD	9.625 in		
Drill Co.	DOGC	Progress	0 m	Shoe TVD	2113.0 m		
Rig	Ocean Epoch	Days from spud	23.33	L.O.T.	15.00 ppg		
Wtr Dpth(LAT)	66.7 m	Days on well	24.54			Planned TD	2137.0 m
RT-ASL(LAT)	22.4 m	Current Op @ 0600	RIH with space out landing string.				
RT-ML	89.1 m	Planned Op	Perform space out run for landing string. Run landing string. Prepare to perforate and initiate clean-up flow. (Perforating of well contingent on daylight.)				

Summary of Period 0000 to 2400 Hrs

POOH with casing scraper. Perform CBL. Set permanent production packer at 1973.9 m WLMD. Run DST jewellery. Commence RIH with production tubing.

Formations

Name	Top (MD)	Top (TVD)	Comment

Operations For Period 0000 Hrs to 2400 Hrs on 06 Nov 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
EP	P	TO	0000	0200	2.00	2135.0 m	POOH with 4 1/ 2" production tubing from 800 m to surface. Break out all cross-overs. Lay out 9 5/ 8" casing scraper and 8 1/ 2" bit.
EP	P	BOP	0200	0230	0.50	2135.0 m	Test shear rams at 250 psi / 5 mins, 3500 psi / 15 mins.
EP	P	HT	0230	0400	1.50	2135.0 m	Pick up flow head and make up to tubing joint and saver sub. Make up service connections and lay out flow head.
EP	P	HT	0400	0530	1.50	2135.0 m	Make up sub sea test assembly.
EP	P	LOG	0530	0700	1.50	2135.0 m	Rig up schlumberger wireline. Pick up and make up wireline toolstring with CBL / Junk basket / Gauge ring.
EP	TP	LOG	0700	0730	0.50	2135.0 m	RIH with wireline toolstring. Unable to pass 90 m WLMD.
EP	TP	LOG	0730	0830	1.00	2135.0 m	POOH with wireline toolstring. Inspect tools. Remove gauge ring.
EP	P	LOG	0830	1200	3.50	2135.0 m	RIH. Perform CBL log. Top of lead cement at 1350 m. Top tail cement at 1660 m. Good bond. POOH.
EP	P	LOG	1200	1230	0.50	2135.0 m	Lay down CBL logging tools.
EP	P	LOG	1230	1500	2.50	2135.0 m	Make up 9 5/ 8" permanent packer on Schlumberger wireline.
EP	P	LOG	1500	1700	2.00	2135.0 m	RIH with 9 5/ 8" permanent packer on wireline. Correlate depths with CCL. Set packer at 1973.9 m WLMD.
EP	P	LOG	1700	1800	1.00	2135.0 m	POOH with packer setting tool.
EP	P	LOG	1800	1830	0.50	2135.0 m	Rig down schlumberger wireline.
EP	P	RCM	1830	1930	1.00	2135.0 m	Rig up to handle TCP guns, DST tools, and DST BHA.
EP	P	RIC	1930	2300	3.50	2135.0 m	Hold pre-job tool box meeting. Make up and RIH with TCP guns, DST, and BHA
EP	P	PT	2300	2330	0.50	2135.0 m	Pressure test TCP guns, DST tools and BHA to 4500 psi / 15 mins. OK.
EP	P	RTB	2330	2400	0.50	2135.0 m	RIH with 4 1/ 2" 15.5 ppf PH-6 tubing from 81 m to 128 m.

Operations For Period 0000 Hrs to 0600 Hrs on 07 Nov 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
EP	P	RTB	0000	0530	5.50	2135.0 m	Continue RIH with 4 1/ 2" 15.5 ppf PH-6 tubing from 128 m to 1918 m
EP	P	PT	0530	0600	0.50	2135.0 m	(IN PROGRESS) Rig up surface lines and test tubing string 4500 psi / 15 mins. Rig down surface test lines.

Phase Data to 2400hrs, 06 Nov 2003

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/ RIG-UP/ PRESPUD(RM)	22.5	13 Oct 2003	14 Oct 2003	22.5	1 days	0 m
CONDUCTOR HOLE(CH)	37	14 Oct 2003	15 Oct 2003	59.5	2 days	121.3 m
SURFACE HOLE(SH)	49.5	15 Oct 2003	17 Oct 2003	109	5 days	645.0 m
SURFACE CASING(SC)	114	18 Oct 2003	22 Oct 2003	223	9 days	645.0 m
PRODUCTION HOLE(PH)	294	22 Oct 2003	03 Nov 2003	517	22 days	2135.0 m
PRODUCTION CASING(PC)	30	04 Nov 2003	05 Nov 2003	547	23 days	2135.0 m
EVALUATION PRODUCTION HOLE(EP)	42	05 Nov 2003	06 Nov 2003	589	25 days	2135.0 m

WBM Data

Cost Today $ 0

Mud Type:	KCl Brine	API FL:	0 cm³/ 30m	Cl:	90000	Solids(%vol):	0	Viscosity:	27 sec/ qt
Sample-From:	Pit	Filter-Cake:	0 / 32nd"	K+C*1000:	15 %	H2O:	0 %	PV:	1 cp
Time:	10:00	HTHP-FL:	0 cm³/ 30m	Hard/Ca:	0	Oil(%):	0 %	YP:	1 lb/ 100ft²
Weight:	9.30 ppg	HTHP-Cake:	0 / 32nd"	MBT:	0	Sand:		Gels 10s:	1
Temp:	0 C°			PM:	0	pH:	7.5	Gels 10m:	1
				PF:	0	PHPA:	0 ppb	Fann 003:	0
								Fann 006:	0
								Fann 100:	0
								Fann 200:	52
								Fann 300:	0
								Fann 600:	0

Bit # 8 NB 05

Wear	I	O1	D	L	B	G	O2	R
	0	0	NO	A	E	I	NO	DST

				Nozzles		**Drilled over last 24 hrs**		**Calculated over Bit Run**	
Size ("):	8.50 in	IADC#	2-1-7	No.	Size	Progress	0 m	Cum. Progress	0 m
Mfr:	REED	WOB(avg)	0 klb	3	32 / 32nd"	On Bottom Hrs	0 h	Cum. On Btm Hrs	0 h
Type:	Rock	RPM(avg)	0			IADC Drill Hrs	0 h	Cum IADC Drill Hrs	0 h
Serial No.:	KB 6302	F.Rate	1250 gpm			Total Revs	0	Cum Total Revs	0
Bit Model	HP 21G	SPP	3000 psi			ROP(avg)	N/ A	ROP(avg)	
Depth In	2135.0 m	TFA	2.357						
Depth Out	2135.0 m								

Daily Comment	No Nozzles - Bit run open.
Run Comment	Bit run with casing scraper.

BHA # 8

Weight(Wet)	0 klb	Length	5.7 m	Torque(max)	0 ft-lbs	D.C. (1) Ann Velocity	
Wt Below Jar(Wet)	0 klb	String	0 klb	Torque(Off.Btm)	0 ft-lbs	D.C. (2) Ann Velocity	
		Pick-Up	0 klb	Torque(On.Btm)	0 ft-lbs	H.W.D.P. Ann Velocity	
		Slack-Off	0 klb			D.P. Ann Velocity	589.2

BHA Run Description: 8 1/ 2" bit and casing scraper run on production tubing.

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.25 m	8.50 in	0 in	KB 6302	8 1/ 2" bit
	1.11 m	5.50 in	2.25 in	708A11	9 5/ 8" casing scraper.
X/ O	1.01 m	6.50 in	5.63 in	12X25	
X/ O	0.45 m	6.50 in	2.94 in	12X21	
X/ O	0.73 m	4.75 in	2.38 in	12X35	
X/ O	0.72 m	5.13 in	2.38 in	S117207	
X/ O	0.59 m	5.00 in	2.38 in	M19170/ 1.1	
X/ O	0.37 m	7.50 in	2.38 in	5717/ 1.1	
X/ O	0.42 m	5.00 in	2.38 in	P/ 0606/ 94	

BHA # 9

Weight(Wet)	0 klb	Length	71.6 m	Torque(max)	0 ft-lbs	D.C. (1) Ann Velocity	
Wt Below Jar(Wet)	0 klb	String	0 klb	Torque(Off.Btm)	0 ft-lbs	D.C. (2) Ann Velocity	
		Pick-Up	0 klb	Torque(On.Btm)	0 ft-lbs	H.W.D.P. Ann Velocity	
		Slack-Off	0 klb			D.P. Ann Velocity	

BHA Run Description: Well Testing BHA - RIH at PBTD of 2077 m.

Equipment	Length	OD	ID	Serial #	Comment
Bull Plug	0.18 m	3.38 in	0 in		
4.5 in TCP Gun	9.00 m	3.38 in	0 in		
Safety Spacer	3.75 m	3.38 in	0 in		
Time Delay Firing Head	2.87 m	2.87 in	0 in		
2.875 in 6.4 ppf pup jt	1.25 m	3.67 in	2.44 in		
Debris Sub / Flow Sub	0.66 m	3.67 in	2.44 in		
2.875 in 6.4 ppf pup jt	1.25 m	3.67 in	2.44 in		
Mechanical Gun Release	0.77 m	3.67 in	2.44 in		
2.875 in 6.4 ppf pup jt	9.62 m	3.67 in	2.44 in		
Seal Assembly	6.27 m	4.00 in	3.00 in		
Seal Assembly Locator	0.12 m	6.00 in	3.00 in		
Flapper Valve	1.77 m	4.63 in	2.25 in		
Pressure Reference Tool	1.51 m	5.00 in	2.25 in		
Pressure Control Tester	5.93 m	5.00 in	2.25 in		
DGA gauge carrier	2.97 m	5.00 in	2.25 in		
3.5 in PH-6 12.95 ppf L-80 jt	9.58 m	4.75 in	2.55 in		
Re-closable Circ. Valve	2.93 m	5.00 in	2.25 in		
3.5 in PH-6 12.95 ppf L-80 jt	9.55 m	4.75 in	2.55 in		
Single Shot Circ Valve	1.23 m	5.00 in	2.25 in		
X/ O	0.38 m	5.13 in	2.29 in		

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
2092.20	1.96	211.00	2092.1	-5.46	1.52	-5.46	0.49	MWD
2121.80	2.72	218.57	2121.7	-6.44	2.77	-6.44	-0.21	MWD
2125.00	2.92	220.32	2124.9	-6.56	6.80	-6.56	-0.31	MWD
2135.00	2.92	220.32	2134.8	-6.95	0	-6.95	-0.64	Extrapolated

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance

Personnel On Board

Company	Pax
Santos	5
BHI - INTEQ	1
Geoservices	2
Halliburton	2
TMT	3
DOGC	41
DOGC Service	4
Total Marine Catering	8
Schlumberger Wireline	3
Premium Casing Services	4
Schlumberger Testing	15
Dril-Quip	1
Total	89

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	Oilwell A1700PT	6.50	9.30	95	0	0	0
2	Oilwell A1700PT	6.50	9.30	95	0	0	0
3	Oilwell A1700PT	6.50	9.30	95	0	0	0

Slow Pump Data

Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
0	20	0	98	30	0	147	40	0	197
0	20	0	98	30	0	147	40	0	197
0	20	0	98	30	0	147	40	0	197

Casing

OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	N/A	121.0 m / 121.0 m	154 bbls (750 sx) Class G w/ 1% CaCl2 15.8 ppg
13 3/ 8"	L.O.T. - 15.00 ppg	635.8 m / 635.8 m	Lead - 304 bbls (768sx) c/ w 0.6 gal/ sx Econolite @ 12.5 lb/ gal. Tail - 172 (389sx) c/ w neat in seawater @ 15.8lbs/ gal.
9 5/ 8"	N/A	2113.0 m / 2113.0 m	Lead - 165 bbls (432sx) c/ w 0.75 gal/ sx Econolite, 0.035 gal/ sx HR6L @ 12.5 ppg Tail - 138 bbls (627 sx) c/ w .36 gal/ sx Halad 413-L, 0.08 gal/ sx HR6L @ 15.8 ppg

HSE Summary

Events	Date of Last	Days Since	Remarks
Abandon Drill	02 Nov 2003	4 Days	
BOP Test	04 Nov 2003	2 Days	
Fire Drill	02 Nov 2003	4 Days	Simulated fire in Laundry.
First Aid	29 Oct 2003	8 Days	Employee struck by chain tong - no treatment required.
Lost Time Incident	24 Apr 2001	925 Days	None
Near Miss	04 Nov 2003	2 Days	3/ 4" bolt, on swivel retaining plate, fell into the sea.
Safety Meeting	02 Nov 2003	4 Days	Weekly safety meetings held at 13:00 hrs, 19:00 hrs and 01:00 hrs.
Walkabout	06 Nov 2003	0 Days	

Shakers, Volumes and Losses Data

Engineer : R. Berkovic

Available	993 bbl	Losses	8 bbl
Active	205.0 bbl	Downhole	0 bbl
Mixing	0 bbl	Surf+ Equip	0 bbl
Hole	588.0 bbl	Dumped	8.0 bbl
Slug	0 bbl	De-Sander	0 bbl
Reserve	200.0 bbl	De-Silter	0 bbl
Kill	0 bbl	Centrifuge	0 bbl

Equip.	Descr.	Mesh Size	Hours
Shaker 1	Thule VSM 300	3 x 40 (Upper)	0
Shaker 1	Thule VSM 300	4 x 84 (Lower)	0
Shaker 2	Thule VSM 300	4 x 230 (Lower)	0
Shaker 2	Thule VSM 300	3 x 10 (Upper)	0
Shaker 3	Thule VSM 300	3 x 10 (Upper)	0
Shaker 3	Thule VSM 300	4 x 230(Lower)	0
Shaker 4	Thule VSM 300	4 x 84 (Lower)	0
Shaker 4	Thule VSM 300	3 x 40 (Upper)	0

Comment Daily Additions = 0 bbls.

Marine

Weather check on 06 Nov 2003 at 24:00

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
8.00 nm	13.0 kn	210 deg	1024 bar	14.0 C°	0.6 m	210 deg	0 ft/ sec

Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments
0.5 deg	0.4 deg	1.10 m	1.5 m	225 deg	0 ft/ sec	

Rig Dir.	Ris. Tension	VDL	Comments
239.0 deg	210.0 klb	3986.0 klb	

Rig Support

Anchors	Tension (klb)
1	206.0
2	194.0
3	195.0
4	185.0
5	152.0
6	199.0
7	192.0
8	218.0

Boats	Arrived (date/time)	Departed (date/time)	Status
Pacific Challenger	In Port	In Port	Standing by in portland

Item	Unit	Quantity
Barite	sx	882
Cement	sx	0
Gel	sx	0
Potable Water	MT	201
Drill Water	MT	447
Mud	sx	0
Fuel	MT	468.6

Boats	Arrived (date/time)	Departed (date/time)	Status
Lady Dawn	Standby	Standby	Standing by at anchor. 18:48 -20:45 Alongside port for fuel oil transfer.

Item	Unit	Quantity
Barite	sx	2469
Cement	sx	2645
Gel	sx	1896
Potable Water	MT	542
Drill Water	MT	86
Mud	sx	0
Fuel	MT	278

Helicopter Movement

Flight #	Time	Destination	Comment	Pax
1	10:50	Ocean Epoch	In-bound freight only	0
1	10:55	Essendon		0

Santos

DRILLING MORNING REPORT # 26
Casino #3 (07 Nov 2003)

From : G. Howard / S. Douglass

Well Data

Country	Australia	M. Depth	2135.0 m	Cur. Hole Size	8.500 in		
Field	Casino	TVD	2135.0 m	Casing OD	9.625 in		
Drill Co.	DOGC	Progress	0 m	Shoe TVD	2113.0 m		
Rig	Ocean Epoch	Days from spud	24.33	L.O.T.	15.00 ppg		
Wtr Dpth(LAT)	66.7 m	Days on well	25.54			Planned TD	2137.0 m
RT-ASL(LAT)	22.4 m	Current Op @ 0600	Perforate well.				
RT-ML	89.1 m	Planned Op	Testing operations as per programme.				

Summary of Period 0000 to 2400 Hrs

RIH with DST. Engage in Packer. Prepare for well test.

Formations

Name	Top (MD)	Top (TVD)	Comment

Operations For Period 0000 Hrs to 2400 Hrs on 07 Nov 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
EP	P	RTB	0000	0530	5.50	2135.0 m	Continue RIH with 4 1/ 2" 15.5 ppf PH-6 tubing from 128 m to 1918 m
EP	P	PT	0530	0630	1.00	2135.0 m	Rig up surface lines and test tubing string 4500 psi / 15 mins. Rig down surface test lines.
EP	P	RTB	0630	0900	2.50	2135.0 m	Continue RIH on 5" drill pipe. (painted joint above tubing). Land string in packer. Function lower pipe rams and middle pipe rams.
EP	P	RTB	0900	1000	1.00	2135.0 m	POOH with 5" drill pipe to top of 4 1/ 2" 15.5 ppf PH-6 tubing. Check space out marks on painted joint.
EP	P	HT	1000	1100	1.00	2135.0 m	Clear rig floor. Spot hoses, reels, control systems on rig floor.
EP	P	HT	1100	1930	8.50	2135.0 m	Pick up sub sea assemblies and RIH. Pick up flow head and install flow line hoses.
EP	P	RTB	1930	2000	0.50	2135.0 m	Test kill wing valve and GTP to 4500 psi / 5 mins. Test tubing string, TFTV valve and choke manifold to 4500 psi / 15 mins.
EP	P	RTB	2000	2030	0.50	2135.0 m	Land out DST string in permanent production packer at 1977 m WLMD. Land with 60 klbs down.
EP	P	RTB	2030	2400	3.50	2135.0 m	Close lower pipe rams and cycle DST tools. Test annulus packer seals to 1500 psi. Test deluge systems. Port side flare boom water curtain plugged. Starboard side flare boom water curtain 60% efficiency. Schlumberger calibrate flowmeters. Empty surge and separator tanks. Continue rigging up ancillary equipment. Rig up vent line from heat exchanger.

Operations For Period 0000 Hrs to 0600 Hrs on 08 Nov 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
EP	P	WCU	0000	0300	3.00	2135.0 m	Pressure up annulus to 500 psi to open MCVL. Displace tubing contents to 86 bbls of diesel at 0.5 bbls / min. Bleed off 750 psi tubing pressure to close MCVL.
EP	P	DST	0300	0400	1.00	2135.0 m	Transfer 11 bbls diesel to surge tank.
EP	P	SM	0400	0530	1.50	2135.0 m	Hold required safety meetings. Check all lines. Obtain required authorisation on rig and complete pre-test audits. Prepare to perforate the well.
EP	P	PER	0530	0600	0.50	2135.0 m	Pressure annulus to 1500 psi at 05:47 am to initiate 15 minute delay for TCP guns firing.

Phase Data to 2400hrs, 07 Nov 2003

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/ RIG-UP/ PRESPUD(RM)	22.5	13 Oct 2003	14 Oct 2003	22.5	1 days	0 m
CONDUCTOR HOLE(CH)	37	14 Oct 2003	15 Oct 2003	59.5	2 days	121.3 m
SURFACE HOLE(SH)	49.5	15 Oct 2003	17 Oct 2003	109	5 days	645.0 m
SURFACE CASING(SC)	114	18 Oct 2003	22 Oct 2003	223	9 days	645.0 m
PRODUCTION HOLE(PH)	294	22 Oct 2003	03 Nov 2003	517	22 days	2135.0 m
PRODUCTION CASING(PC)	30	04 Nov 2003	05 Nov 2003	547	23 days	2135.0 m
EVALUATION PRODUCTION HOLE(EP)	66	05 Nov 2003	07 Nov 2003	613	26 days	2135.0 m

WBM Data

Cost Today $ 0

Mud Type:	KCl Brine	API FL:	0 cm³/ 30m	Cl:	94000	Solids(%vol):	0	Viscosity:	27 sec/ qt
Sample-From:	Pit	Filter-Cake:	0 / 32nd"	K+C*1000:	15 %	H2O:	0 %	PV:	1 cp
Time:	14:00	HTHP-FL:	0 cm³/ 30m	Hard/Ca:	0	Oil(%):	0 %	YP:	1 lb/ 100ft²
Weight:	9.30 ppg	HTHP-Cake:	0 / 32nd"	MBT:	0	Sand:		Gels 10s:	1
Temp:	0 C°			PM:	0	pH:	7.5	Gels 10m:	1
				PF:	0	PHPA:	0 ppb	Fann 003:	0
								Fann 006:	0
								Fann 100:	0
								Fann 200:	52
								Fann 300:	0
								Fann 600:	0

BHA # 9

Weight(Wet)	0 klb	Length	71.6 m	Torque(max)	0 ft-lbs	D.C. (1) Ann Velocity	
Wt Below Jar(Wet)	0 klb	String	0 klb	Torque(Off.Btm)	0 ft-lbs	D.C. (2) Ann Velocity	
		Pick-Up	0 klb	Torque(On.Btm)	0 ft-lbs	H.W.D.P. Ann Velocity	
		Slack-Off	0 klb			D.P. Ann Velocity	

BHA Run Description: Well Testing BHA - RIH at PBTD of 2077 m.

Equipment	Length	OD	ID	Serial #	Comment
Bull Plug	0.18 m	3.38 in	0 in		
4.5 in TCP Gun	9.00 m	3.38 in	0 in		
Safety Spacer	3.75 m	3.38 in	0 in		
Time Delay Firing Head	2.87 m	2.87 in	0 in		
2.875 in 6.4 ppf pup jt	1.25 m	3.67 in	2.44 in		
Debris Sub / Flow Sub	0.66 m	3.67 in	2.44 in		
2.875 in 6.4 ppf pup jt	1.25 m	3.67 in	2.44 in		
Mechanical Gun Release	0.77 m	3.67 in	2.44 in		
2.875 in 6.4 ppf pup jt	9.62 m	3.67 in	2.44 in		
Seal Assembly	6.27 m	4.00 in	3.00 in		
Seal Assembly Locator	0.12 m	6.00 in	3.00 in		
Flapper Valve	1.77 m	4.63 in	2.25 in		
Pressure Reference Tool	1.51 m	5.00 in	2.25 in		
Pressure Control Tester	5.93 m	5.00 in	2.25 in		
DGA gauge carrier	2.97 m	5.00 in	2.25 in		
3.5 in PH-6 12.95 ppf L-80 jt	9.58 m	4.75 in	2.55 in		
Re-closable Circ. Valve	2.93 m	5.00 in	2.25 in		
3.5 in PH-6 12.95 ppf L-80 jt	9.55 m	4.75 in	2.55 in		
Single Shot Circ Valve	1.23 m	5.00 in	2.25 in		
X/ O	0.38 m	5.13 in	2.29 in		

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
2092.20	1.96	211.00	2092.1	-5.46	1.52	-5.46	0.49	MWD
2121.80	2.72	218.57	2121.7	-6.44	2.77	-6.44	-0.21	MWD
2125.00	2.92	220.32	2124.9	-6.56	6.80	-6.56	-0.31	MWD
2135.00	2.92	220.32	2134.8	-6.95	0	-6.95	-0.64	Extrapolated

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance

Personnel On Board

Company	Pax
Santos	6
BHI - INTEQ	1
Geoservices	2
Halliburton	2
TMT	3
DOGC	41
DOGC Service	4
Total Marine Catering	8
Schlumberger Wireline	3
Premium Casing Services	3
Schlumberger Well Testing	16
Total	89

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	Oilwell A1700PT	6.50	9.30	95	0	0	0
2	Oilwell A1700PT	6.50	9.30	95	0	0	0
3	Oilwell A1700PT	6.50	9.30	95	0	0	0

Slow Pump Data

Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
0	20	0	98	30	0	147	40	0	197
0	20	0	98	30	0	147	40	0	197
0	20	0	98	30	0	147	40	0	197

Casing

OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	N/A	121.0 m / 121.0 m	154 bbls (750 sx) Class G w/ 1% CaCl2 15.8 ppg
13 3/ 8"	L.O.T. - 15.00 ppg	635.8 m / 635.8 m	Lead - 304 bbls (768sx) c/ w 0.6 gal/ sx Econolite @ 12.5 lb/ gal. Tail - 172 (389sx) c/ w neat in seawater @ 15.8lbs/ gal.
9 5/ 8"	N/A	2113.0 m / 2113.0 m	Lead - 165 bbls (432sx) c/ w 0.75 gal/ sx Econolite, 0.035 gal/ sx HR6L @ 12.5 ppg Tail - 138 bbls (627 sx) c/ w .36 gal/ sx Halad 413-L, 0.08 gal/ sx HR6L @ 15.8 ppg

HSE Summary

Events	Date of Last	Days Since	Remarks
Abandon Drill	02 Nov 2003	5 Days	
BOP Test	04 Nov 2003	3 Days	
Fire Drill	02 Nov 2003	5 Days	Simulated fire in Laundry.
First Aid	29 Oct 2003	9 Days	Employee struck by chain tong - no treatment required.
Lost Time Incident	24 Apr 2001	926 Days	None
Near Miss	04 Nov 2003	3 Days	While lifting cargo from the boat with the starboard Seatrax crane, a 3/ 4" bolt, holding the swivel retaining plate, fell from the headache ball. The bolt landed in the water.
Safety Meeting	02 Nov 2003	5 Days	Weekly safety meetings held at 13:00 hrs, 19:00 hrs and 01:00 hrs.
Walkabout	07 Nov 2003	0 Days	

Shakers, Volumes and Losses Data

Engineer : R. Berkovic

Available	**968 bbl**	**Losses**	**23 bbl**
Active	222.0 bbl	Downhole	0 bbl
Mixing	0 bbl	Surf+ Equip	15 bbl
Hole	553.0 bbl	Dumped	8.0 bbl
Slug	0 bbl	De-Sander	0 bbl
Reserve	193.0 bbl	De-Silter	0 bbl
Kill	0 bbl	Centrifuge	0 bbl

Equip.	Descr.	Mesh Size	Hours
Shaker 1	Thule VSM 300	4 x 84 (Lower)	0
Shaker 1	Thule VSM 300	3 x 40 (Upper)	0
Shaker 2	Thule VSM 300	3 x 10 (Upper)	0
Shaker 2	Thule VSM 300	4 x 230 (Lower)	0
Shaker 3	Thule VSM 300	4 x 230(Lower)	0
Shaker 3	Thule VSM 300	3 x 10 (Upper)	0
Shaker 4	Thule VSM 300	3 x 40 (Upper)	0
Shaker 4	Thule VSM 300	4 x 84 (Lower)	0

Comment Daily Additions = 0 bbls.

Printed on 10 Nov 2003

Marine

Weather check on 07 Nov 2003 at 24:00

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
7.00 nm	9.0 kn	180 deg	1025 bar	13.0 C°	0.4 m	180 deg	0 ft/ sec

Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments
0.5 deg	0.5 deg	1.20 m	2.0 m	225 deg	0 ft/ sec	

Rig Dir.	Ris. Tension	VDL	Comments
239.0 deg	210.0 klb	4037.0 klb	

Rig Support

Anchors	Tension (klb)
1	199.0
2	192.0
3	192.0
4	181.0
5	153.0
6	201.0
7	195.0
8	215.0

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks
Pacific Challenger	In Port	In Port	Standing by in portland	

Item	Unit	Quantity
Barite	sx	882
Cement	sx	0
Gel	sx	0
Potable Water	MT	201
Drill Water	MT	447
Mud	sx	0
Fuel	MT	505

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks
Lady Dawn	Standby	Standby	Standing by at anchor. 10:35 - 11:48 Alongside port for fuel oil transfer. 16:51 - 19:55 Alongside for drill water transfer.	

Item	Unit	Quantity
Barite	sx	2469
Cement	sx	2645
Gel	sx	1896
Potable Water	MT	243
Drill Water	MT	86
Mud	sx	0
Fuel	MT	216.8

Helicopter Movement

Flight #	Time	Destination	Comment	Pax
1	08:45	Ocean Epoch		13
1	08:55	Essendon		13

Santos

DRILLING MORNING REPORT # 27
Casino #3 (08 Nov 2003)

From : G. Howard / S. Douglass

Well Data

Country	Australia	M. Depth	2135.0 m	Cur. Hole Size	8.500 in		
Field	Casino	TVD	2135.0 m	Casing OD	9.625 in		
Drill Co.	DOGC	Progress	0 m	Shoe TVD	2113.0 m		
Rig	Ocean Epoch	Days from spud	25.33	L.O.T.	15.00 ppg		
Wtr Dpth(LAT)	66.7 m	Days on well	26.54			Planned TD	2137.0 m
RT-ASL(LAT)	22.4 m	Current Op @ 0600	Testing well.				
RT-ML	89.1 m	Planned Op	Continue well test as directed by Santos reservoir engineer.				

Summary of Period 0000 to 2400 Hrs

Perforate well. Clean up flow. Pressure build up. Open well and commence isochronal flow test.

Formations

Name	Top (MD)	Top (TVD)	Comment

Operations For Period 0000 Hrs to 2400 Hrs on 08 Nov 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
EP	P	WCU	0000	0300	3.00	2135.0 m	Pressure up annulus to 500 psi to open MCVL. Displace tubing contents to 86 bbls of diesel at 0.5 bbls / min. Bleed off 750 psi tubing pressure to close MCVL.
EP	P	DST	0300	0400	1.00	2135.0 m	Transfer 11 bbls diesel to surge tank.
EP	P	SM	0400	0530	1.50	2135.0 m	Hold required safety meetings. Check all lines. Obtain required authorisation on rig and complete pre-test audits. Prepare to perforate the well.
EP	P	PER	0530	0600	0.50	2135.0 m	Pressure annulus to 1500 psi at 05:47 am to initiate 15 minute delay for TCP guns firing.
EP	P	DST	0600	0630	0.50	2135.0 m	Guns fired at 06:03 am. Flow well to surge tank to 06:18 am.
EP	P	DST	0630	0830	2.00	2135.0 m	Initial shut in period to 08:15 am.
EP	P	DST	0830	1600	7.50	2135.0 m	Open well for clean up flow. Flare from starboard boom on 58/ 64" choke. Shut in well at 15:45 hrs. (7 hrs 30 mins clean up flow.) Maintain annulus pressure at 1200 / 1700 psi during flow period. Sea water curtain to flare boom on #3 mud pump.
EP	P	DST	1600	2200	6.00	2135.0 m	Shut in well down hole. Monitor annulus pressure. Fill up annulus every 30 mins.
EP	P	DST	2200	2400	2.00	2135.0 m	Open well at 21:45 hrs. Flow well, flaring to staboard flare boom on 36/ 64" choke. Sea water curtain to flare boom on #3 mud pump.

Operations For Period 0000 Hrs to 0600 Hrs on 09 Nov 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
EP	P	DST	0000	0430	4.50	2135.0 m	Flowing well on fixed 36/ 64" choke. (Rate 1). Monitor annulus pressure, maintaining at 1350 psi. Supply water to starboard flare boom with #3 mud pump.
EP	P	DST	0430	0600	1.50	2135.0 m	(IN PROGRESS) Change to variable choke and bean up to 48/ 64" choke. Revert to fixed 48/ 64" choke and continue flowing well. (Rate 2). Monitor annulus pressure, maintaining at 1350 psi. Supply water to starboard flare boom with #3 mud pump.

Phase Data to 2400hrs, 08 Nov 2003

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/ RIG-UP/ PRESPUD(RM)	22.5	13 Oct 2003	14 Oct 2003	22.5	1 days	0 m
CONDUCTOR HOLE(CH)	37	14 Oct 2003	15 Oct 2003	59.5	2 days	121.3 m
SURFACE HOLE(SH)	49.5	15 Oct 2003	17 Oct 2003	109	5 days	645.0 m
SURFACE CASING(SC)	114	18 Oct 2003	22 Oct 2003	223	9 days	645.0 m
PRODUCTION HOLE(PH)	294	22 Oct 2003	03 Nov 2003	517	22 days	2135.0 m
PRODUCTION CASING(PC)	30	04 Nov 2003	05 Nov 2003	547	23 days	2135.0 m
EVALUATION PRODUCTION HOLE(EP)	90	05 Nov 2003	08 Nov 2003	637	27 days	2135.0 m

WBM Data

Cost Today $ 2,144

Mud Type:	KCl Brine	API FL:	0 cm³/ 30m	Cl:	94000	Solids(%vol):	0	Viscosity:	27 sec/ qt
Sample-From:	Pit	Filter-Cake:	0 / 32nd"	K+C*1000:	15 %	H2O:	0 %	PV:	1 cp
Time:	15:00	HTHP-FL:	0 cm³/ 30m	Hard/Ca:	0	Oil(%):	0 %	YP:	1 lb/ 100ft²
Weight:	9.30 ppg	HTHP-Cake:	0 / 32nd"	MBT:	0	Sand:		Gels 10s:	1
Temp:	0 C°			PM:	0	pH:	7.5	Gels 10m:	1
				PF:	0	PHPA:	0 ppb	Fann 003:	0
								Fann 006:	0
								Fann 100:	0
								Fann 200:	52
								Fann 300:	0
								Fann 600:	0

Bit # 8 NB 05

Wear	I	O1	D	L	B	G	O2	R
	0	0	NO	A	E	I	NO	DST

Size ("):	8.50 in	IADC#	2-1-7	**Nozzles**		**Drilled over last 24 hrs**		**Calculated over Bit Run**	
Mfr:	REED	WOB(avg)	0 klb	No.	Size	Progress	0 m	Cum. Progress	0 m
Type:	Rock	RPM(avg)	0	3	32 / 32nd"	On Bottom Hrs	0 h	Cum. On Btm Hrs	0 h
Serial No.:	KB 6302	F.Rate	1250 gpm			IADC Drill Hrs	0 h	Cum IADC Drill Hrs	0 h
Bit Model	HP 21G	SPP	3000 psi			Total Revs	0	Cum Total Revs	0
Depth In	2135.0 m	TFA	2.357			ROP(avg)	N/ A	ROP(avg)	
Depth Out	2135.0 m								

Daily Comment	No Nozzles - Bit run open.
Run Comment	Bit run with casing scraper.

BHA # 9

Weight(Wet)	0 klb	Length	71.6 m	Torque(max)	0 ft-lbs	D.C. (1) Ann Velocity	
Wt Below Jar(Wet)	0 klb	String	0 klb	Torque(Off.Btm)	0 ft-lbs	D.C. (2) Ann Velocity	
		Pick-Up	0 klb	Torque(On.Btm)	0 ft-lbs	H.W.D.P. Ann Velocity	
		Slack-Off	0 klb			D.P. Ann Velocity	

BHA Run Description: Well Testing BHA - RIH at PBTD of 2077 m.

Equipment	Length	OD	ID	Serial #	Comment
Bull Plug	0.18 m	3.38 in	0 in		
4.5 in TCP Gun	9.00 m	3.38 in	0 in		
Safety Spacer	3.75 m	3.38 in	0 in		
Time Delay Firing Head	2.87 m	2.87 in	0 in		
2.875 in 6.4 ppf pup jt	1.25 m	3.67 in	2.44 in		
Debris Sub / Flow Sub	0.66 m	3.67 in	2.44 in		
2.875 in 6.4 ppf pup jt	1.25 m	3.67 in	2.44 in		
Mechanical Gun Release	0.77 m	3.67 in	2.44 in		
2.875 in 6.4 ppf pup jt	9.62 m	3.67 in	2.44 in		
Seal Assembly	6.27 m	4.00 in	3.00 in		
Seal Assembly Locator	0.12 m	6.00 in	3.00 in		
Flapper Valve	1.77 m	4.63 in	2.25 in		
Pressure Reference Tool	1.51 m	5.00 in	2.25 in		
Pressure Control Tester	5.93 m	5.00 in	2.25 in		
DGA gauge carrier	2.97 m	5.00 in	2.25 in		
3.5 in PH-6 12.95 ppf L-80 jt	9.58 m	4.75 in	2.55 in		
Re-closable Circ. Valve	2.93 m	5.00 in	2.25 in		
3.5 in PH-6 12.95 ppf L-80 jt	9.55 m	4.75 in	2.55 in		
Single Shot Circ Valve	1.23 m	5.00 in	2.25 in		
X/ O	0.38 m	5.13 in	2.29 in		

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
2092.20	1.96	211.00	2092.1	-5.46	1.52	-5.46	0.49	MWD
2121.80	2.72	218.57	2121.7	-6.44	2.77	-6.44	-0.21	MWD
2125.00	2.92	220.32	2124.9	-6.56	6.80	-6.56	-0.31	MWD
2135.00	2.92	220.32	2134.8	-6.95	0	-6.95	-0.64	Extrapolated

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Bulk Stocks

Name	Unit	In	Used	Adjust	Balance

Personnel On Board

Company	Pax
Santos	6
BHI - INTEQ	1
Geoservices	2
Halliburton	2
TMT	3
DOGC	41
DOGC Service	4
Total Marine Catering	8
Schlumberger Wireline	3
Premium Casing Services	3
Schlumberger Well Testing	16
Total	89

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	Oilwell A1700PT	6.50	9.30	95	0	0	0
2	Oilwell A1700PT	6.50	9.30	95	0	0	0
3	Oilwell A1700PT	6.50	9.30	95	0	0	0

Slow Pump Data

Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
0	20	0	98	30	0	147	40	0	197
0	20	0	98	30	0	147	40	0	197
0	20	0	98	30	0	147	40	0	197

Casing

OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	N/A	121.0 m / 121.0 m	154 bbls (750 sx) Class G w/ 1% CaCl2 15.8 ppg
13 3/ 8"	L.O.T. - 15.00 ppg	635.8 m / 635.8 m	Lead - 304 bbls (768sx) c/ w 0.6 gal/ sx Econolite @ 12.5 lb/ gal. Tail - 172 (389sx) c/ w neat in seawater @ 15.8lbs/ gal.
9 5/ 8"	N/A	2113.0 m / 2113.0 m	Lead - 165 bbls (432sx) c/ w 0.75 gal/ sx Econolite, 0.035 gal/ sx HR6L @ 12.5 ppg Tail - 138 bbls (627 sx) c/ w .36 gal/ sx Halad 413-L, 0.08 gal/ sx HR6L @ 15.8 ppg

HSE Summary

Events	Date of Last	Days Since	Remarks
Abandon Drill	02 Nov 2003	6 Days	
BOP Test	04 Nov 2003	4 Days	
Fire Drill	02 Nov 2003	6 Days	Simulated fire in Laundry.
First Aid	29 Oct 2003	10 Days	Employee struck by chain tong - no treatment required.
Lost Time Incident	24 Apr 2001	927 Days	None
Near Miss	04 Nov 2003	4 Days	While lifting cargo from the boat with the starboard Seatrax crane, a 3/ 4" bolt, holding the swivel retaining plate, fell from the headache ball. The bolt landed in the water.
Safety Meeting	02 Nov 2003	6 Days	Weekly safety meetings held at 13:00 hrs, 19:00 hrs and 01:00 hrs.
Walkabout	08 Nov 2003	0 Days	

Shakers, Volumes and Losses Data

Engineer : R. Berkovic

Available	**1029 bbl**	**Losses**	**8 bbl**
Active	245.0 bbl	Downhole	0 bbl
Mixing	0 bbl	Surf+ Equip	0 bbl
Hole	467.0 bbl	Dumped	8.0 bbl
Slug	0 bbl	De-Sander	0 bbl
Reserve	317.0 bbl	De-Silter	0 bbl
Kill	0 bbl	Centrifuge	0 bbl

Equip.	Descr.	Mesh Size	Hours
Shaker 1	Thule VSM 300	3 x 40 (Upper)	0
Shaker 1	Thule VSM 300	4 x 84 (Lower)	0
Shaker 2	Thule VSM 300	4 x 230 (Lower)	0
Shaker 2	Thule VSM 300	3 x 10 (Upper)	0
Shaker 3	Thule VSM 300	3 x 10 (Upper)	0
Shaker 3	Thule VSM 300	4 x 230(Lower)	0
Shaker 4	Thule VSM 300	4 x 84 (Lower)	0
Shaker 4	Thule VSM 300	3 x 40 (Upper)	0

Comment Daily Additions = 42 bbls water, 19 bbls product.

Printed on 10 Nov 2003

Marine

Weather check on 08 Nov 2003 at 24:00

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
7.00 nm	8.0 kn	140 deg	1024 bar	13.0 C°	0.5 m	140 deg	0 ft/ sec

Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments
0.5 deg	0.5 deg	1.20 m	2.0 m	225 deg	0 ft/ sec	

Rig Dir.	Ris. Tension	VDL	Comments
239.0 deg	210.0 klb	4099.0 klb	

Rig Support

Anchors	Tension (klb)
1	201.0
2	192.0
3	191.0
4	186.0
5	150.0
6	192.0
7	195.0
8	212.0

Boats	Arrived (date/time)	Departed (date/time)	Status
Pacific Challenger	In Port	In Port	Standing by in portland

Item	Unit	Quantity
Barite	sx	882
Cement	sx	0
Gel	sx	0
Potable Water	MT	201
Drill Water	MT	447
Mud	sx	0
Fuel	MT	468.6

Boats	Arrived (date/time)	Departed (date/time)	Status
Lady Dawn	Standby	Standby	Standing by. .

Item	Unit	Quantity
Barite	sx	2469
Cement	sx	2645
Gel	sx	1896
Potable Water	MT	238
Drill Water	MT	86
Mud	sx	0
Fuel	MT	209.1

Santos

DRILLING MORNING REPORT # 28
Casino #3 (09 Nov 2003)

From : G. Howard / S. Douglass

Well Data

Country	Australia	M. Depth	2135.0 m	Cur. Hole Size	8.500 in		
Field	Casino	TVD	2135.0 m	Casing OD	9.625 in		
Drill Co.	DOGC	Progress	0 m	Shoe TVD	2113.0 m		
Rig	Ocean Epoch	Days from spud	26.33	L.O.T.	15.00 ppg		
Wtr Dpth(LAT)	66.7 m	Days on well	27.54			Planned TD	2137.0 m
RT-ASL(LAT)	22.4 m	Current Op @ 0600	Circulating well to flush gas.				
RT-ML	89.1 m	Planned Op	Flush residual gas from well. Rig down surface test equipment. POOH and lay down sub-sea test gear. POOH laying out production tubing.				

Summary of Period 0000 to 2400 Hrs

Continue isochronic well flow tests. Shut in well and monitor pressures for final build up.

Formations

Name	Top (MD)	Top (TVD)	Comment

Operations For Period 0000 Hrs to 2400 Hrs on 09 Nov 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
EP	P	DST	0000	0430	4.50	2135.0 m	Flowing well on fixed 36/ 64" choke. (Rate 1). Monitor annulus pressure, maintaining at 1350 psi. Supply water to starboard flare boom with #3 mud pump.
EP	P	DST	0430	1030	6.00	2135.0 m	Change to variable choke and bean up to 48/ 64" choke. Revert to fixed 48/ 64" choke and continue flowing well. (Rate 2). Monitor annulus pressure, maintaining at 1350 psi. Supply water to starboard flare boom with #3 mud pump.
EP	P	DST	1030	1630	6.00	2135.0 m	Change to variable choke and bean up to 64/ 64" choke. Revert to fixed 64/ 64" choke and continue flowing well. (Rate 3). Monitor annulus pressure, maintaining at 1350 psi. Supply water to starboard flare boom with #3 mud pump.
EP	P	DST	1630	2400	7.50	2135.0 m	Shut in well at 16:45 for final pressure build up. Annulus pressure 0 psi.

Operations For Period 0000 Hrs to 0600 Hrs on 10 Nov 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
EP	P	DST	0000	0300	3.00	2135.0 m	Continue final pressure build up. Hold well-kill JSA off critical path during final stages of build-up.
EP	P	DST	0300	0330	0.50	2135.0 m	Cycle PCT valve to open position. Line up Halliburton to tubing. Initial pressure 2463 psi. Pump 10 bbls 9.3 KCl brine, 10 bbls Calcium Carbonate LCM pill, and chase with 9.3 KCl brine at 9.5 bbls / min. Pressure drop during pumping to 590 psi at 98.6 bbls. Pressure increase to 1200 psi at 101.8 bbls. Allow pressure to bleed back to 1135 psi. Attempt squeeze at 0.2 bbls / min. Pressure 1200 psi at 102 bbls pumped. Monitor leak-off for 5 minutes. Final pressure 1049 psi.
EP	P	DST	0330	0400	0.50	2135.0 m	Bleed off final pressure at well test choke. Flow check well for 15 minutes at well test choke. No pressure.
EP	P	DST	0400	0430	0.50	2135.0 m	Cycle PCT valve to theoretical hold-open position. Open lower BOP rams, open choke manifold, and un-sting from packer. Pick up 8 metres. Close BOP variable rams. Line up manifold to reverse circulate tubing contents.
EP	TP	DST	0430	0600	1.50	2135.0 m	Attempt reverse circulate. No go. Troubleshoot surface manifold. OK. Cycle PCT valve to confirm position. PCT valve closed. (Out by one cycle too many.) Cycle PCT valve to hold open position.

Phase Data to 2400hrs, 09 Nov 2003

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/ RIG-UP/ PRESPUD(RM)	22.5	13 Oct 2003	14 Oct 2003	22.5	1 days	0 m
CONDUCTOR HOLE(CH)	37	14 Oct 2003	15 Oct 2003	59.5	2 days	121.3 m
SURFACE HOLE(SH)	49.5	15 Oct 2003	17 Oct 2003	109	5 days	645.0 m
SURFACE CASING(SC)	114	18 Oct 2003	22 Oct 2003	223	9 days	645.0 m
PRODUCTION HOLE(PH)	294	22 Oct 2003	03 Nov 2003	517	22 days	2135.0 m
PRODUCTION CASING(PC)	30	04 Nov 2003	05 Nov 2003	547	23 days	2135.0 m
EVALUATION PRODUCTION HOLE(EP)	114	05 Nov 2003	09 Nov 2003	661	28 days	2135.0 m

WBM Data

Cost Today $ 2,144

Mud Type:	KCl Brine	API FL:	0 cm³/ 30m	Cl:	94000	Solids(%vol):	0	Viscosity:	27 sec/ qt
Sample-From:	Pit	Filter-Cake:	0 / 32nd"	K+C*1000:	15 %	H2O:	0 %	PV:	1 cp
Time:	14:45	HTHP-FL:	0 cm³/ 30m	Hard/Ca:	0	Oil(%):	0 %	YP:	1 lb/ 100ft²
Weight:	9.30 ppg	HTHP-Cake:	0 / 32nd"	MBT:	0	Sand:		Gels 10s:	1
Temp:	0 C°			PM:	0	pH:	7.5	Gels 10m:	1
				PF:	0	PHPA:	0 ppb	Fann 003:	0
								Fann 006:	0
								Fann 100:	0
								Fann 200:	52
								Fann 300:	0
								Fann 600:	0

BHA # 9

Weight(Wet)	0 klb	Length	71.6 m	Torque(max)	0 ft-lbs	D.C. (1) Ann Velocity	
Wt Below Jar(Wet)	0 klb	String	0 klb	Torque(Off.Btm)	0 ft-lbs	D.C. (2) Ann Velocity	
		Pick-Up	0 klb	Torque(On.Btm)	0 ft-lbs	H.W.D.P. Ann Velocity	
		Slack-Off	0 klb			D.P. Ann Velocity	

BHA Run Description: Well Testing BHA - RIH at PBTD of 2077 m.

Equipment	Length	OD	ID	Serial #	Comment
Bull Plug	0.18 m	3.38 in	0 in		
4.5 in TCP Gun	9.00 m	3.38 in	0 in		
Safety Spacer	3.75 m	3.38 in	0 in		
Time Delay Firing Head	2.87 m	2.87 in	0 in		
2.875 in 6.4 ppf pup jt	1.25 m	3.67 in	2.44 in		
Debris Sub / Flow Sub	0.66 m	3.67 in	2.44 in		
2.875 in 6.4 ppf pup jt	1.25 m	3.67 in	2.44 in		
Mechanical Gun Release	0.77 m	3.67 in	2.44 in		
2.875 in 6.4 ppf pup jt	9.62 m	3.67 in	2.44 in		
Seal Assembly	6.27 m	4.00 in	3.00 in		
Seal Assembly Locator	0.12 m	6.00 in	3.00 in		
Flapper Valve	1.77 m	4.63 in	2.25 in		
Pressure Reference Tool	1.51 m	5.00 in	2.25 in		
Pressure Control Tester	5.93 m	5.00 in	2.25 in		
DGA gauge carrier	2.97 m	5.00 in	2.25 in		
3.5 in PH-6 12.95 ppf L-80 jt	9.58 m	4.75 in	2.55 in		
Re-closable Circ. Valve	2.93 m	5.00 in	2.25 in		
3.5 in PH-6 12.95 ppf L-80 jt	9.55 m	4.75 in	2.55 in		
Single Shot Circ Valve	1.23 m	5.00 in	2.25 in		
X/ O	0.38 m	5.13 in	2.29 in		

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
2092.20	1.96	211.00	2092.1	-5.46	1.52	-5.46	0.49	MWD
2121.80	2.72	218.57	2121.7	-6.44	2.77	-6.44	-0.21	MWD
2125.00	2.92	220.32	2124.9	-6.56	6.80	-6.56	-0.31	MWD
2135.00	2.92	220.32	2134.8	-6.95	0	-6.95	-0.64	Extrapolated

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite	sx	0	0	0	604
Cement	sx	0	0	0	1193
Gel	sx	0	0	0	754
Potable Water	MT	28	22	0	118
Drill Water	MT	0	122	0	775
Mud	sx	0	0	0	0
Fuel	MT	0	7	0	477

Personnel On Board

Company	Pax
Santos	5
BHI - INTEQ	1
Geoservices	2
Halliburton	2
TMT	3
DOGC	41
DOGC Service	5
Total Marine Catering	8
Premium Casing Services	3
Schlumberger Well Testing	15
Total	85

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	Oilwell A1700PT	6.50	9.30	95	0	0	0
2	Oilwell A1700PT	6.50	9.30	95	0	0	0
3	Oilwell A1700PT	6.50	9.30	95	0	0	0

Slow Pump Data

Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
0	20	0	98	30	0	147	40	0	197
0	20	0	98	30	0	147	40	0	197
0	20	0	98	30	0	147	40	0	197

Casing

OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	N/A	121.0 m / 121.0 m	154 bbls (750 sx) Class G w/ 1% CaCl2 15.8 ppg
13 3/ 8"	L.O.T. - 15.00 ppg	635.8 m / 635.8 m	Lead - 304 bbls (768sx) c/ w 0.6 gal/ sx Econolite @ 12.5 lb/ gal. Tail - 172 (389sx) c/ w neat in seawater @ 15.8lbs/ gal.
9 5/ 8"	N/A	2113.0 m / 2113.0 m	Lead - 165 bbls (432sx) c/ w 0.75 gal/ sx Econolite, 0.035 gal/ sx HR6L @ 12.5 ppg Tail - 138 bbls (627 sx) c/ w .36 gal/ sx Halad 413-L, 0.08 gal/ sx HR6L @ 15.8 ppg

HSE Summary

Events	Date of Last	Days Since	Remarks
Abandon Drill	02 Nov 2003	7 Days	
BOP Test	04 Nov 2003	5 Days	
Fire Drill	02 Nov 2003	7 Days	Simulated fire in Laundry.
First Aid	29 Oct 2003	11 Days	Employee struck by chain tong - no treatment required.
Lost Time Incident	24 Apr 2001	928 Days	None
Near Miss	04 Nov 2003	5 Days	3/ 4" bolt, on swivel retaining plate, fell into the sea.
Safety Meeting	02 Nov 2003	7 Days	Weekly safety meetings held at 13:00 hrs, 19:00 hrs and 01:00 hrs.
Walkabout	09 Nov 2003	0 Days	

Shakers, Volumes and Losses Data

Engineer : R. Berkovic

Available	**1029 bbl**	**Losses**	**8 bbl**
Active	245.0 bbl	Downhole	0 bbl
Mixing	0 bbl	Surf+ Equip	0 bbl
Hole	467.0 bbl	Dumped	8.0 bbl
Slug	0 bbl	De-Sander	0 bbl
Reserve	317.0 bbl	De-Silter	0 bbl
Kill	0 bbl	Centrifuge	0 bbl

Equip.	Descr.	Mesh Size	Hours
Shaker 1	Thule VSM 300	4 x 84 (Lower)	0
Shaker 1	Thule VSM 300	3 x 40 (Upper)	0
Shaker 2	Thule VSM 300	3 x 10 (Upper)	0
Shaker 2	Thule VSM 300	4 x 230 (Lower)	0
Shaker 3	Thule VSM 300	4 x 230(Lower)	0
Shaker 3	Thule VSM 300	3 x 10 (Upper)	0
Shaker 4	Thule VSM 300	3 x 40 (Upper)	0
Shaker 4	Thule VSM 300	4 x 84 (Lower)	0

Comment Daily Additions = 0 bbls.

Marine

Weather check on 09 Nov 2003 at 24:00

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
7.00 nm	12.0 kn	140 deg	1023 bar	14.0 C°	0.6 m	140 deg	0 ft/ sec

Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments
0.4 deg	0.4 deg	1.20 m	1.7 m	225 deg	0 ft/ sec	

Rig Dir.	Ris. Tension	VDL	Comments
239.0 deg	210.0 klb	4102.0 klb	

Rig Support

Anchors	Tension (klb)
1	206.0
2	196.0
3	190.0
4	178.0
5	156.0
6	204.0
7	200.0
8	219.0

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks
Pacific Challenger	In Port	In Port	Standing by in portland	

Item	Unit	Quantity
Barite	sx	882
Cement	sx	0
Gel	sx	0
Potable Water	MT	201
Drill Water	MT	447
Mud	sx	0
Fuel	MT	468.6

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks
Lady Dawn	Standby	Standby	Standing by. 06:15 - Photographer to boat. 08:00 - Photographer from boat. .	

Item	Unit	Quantity
Barite	sx	2469
Cement	sx	2645
Gel	sx	1896
Potable Water	MT	236
Drill Water	MT	86
Mud	sx	0
Fuel	MT	195.5

Helicopter Movement

Flight #	Time	Destination	Comment	Pax
1	15:50	Ocean Epoch		1
1	16:20	Essendon	Scheduled circuits of rig during testing operations, before leaving location, for Santos photographer.	1

Santos

DRILLING MORNING REPORT # 29
Casino #3 (10 Nov 2003)

From : G. Howard / S. Douglass

Well Data

Country	Australia	M. Depth	2135.0 m	Cur. Hole Size	8.500 in		
Field	Casino	TVD	2135.0 m	Casing OD	9.625 in		
Drill Co.	DOGC	Progress	0 m	Shoe TVD	2113.0 m		
Rig	Ocean Epoch	Days from spud	27.33	L.O.T.	15.00 ppg		
Wtr Dpth(LAT)	66.7 m	Days on well	28.54			Planned TD	2137.0 m
RT-ASL(LAT)	22.4 m	Current Op @ 0600	RIH with 9 5/ 8" cement retainer on 5" drill pipe to squeeze cement and set cement plug.				
RT-ML	89.1 m	Planned Op	Set 9 5/ 8" cement retainer. Squeeze cement through retainer. Set cement plug on top of retainer. POOH, laying down drill pipe.				

Summary of Period 0000 to 2400 Hrs

Continue well test pressure build up after flow. Kill well. POOH and lay down DST tools.

Formations

Name	Top (MD)	Top (TVD)	Comment

Operations For Period 0000 Hrs to 2400 Hrs on 10 Nov 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
EP	P	DST	0000	0300	3.00	2135.0 m	Continue final pressure build up. Hold well-kill JSA off critical path during final stages of build-up.
EP	P	WC	0300	0330	0.50	2135.0 m	Cycle PCT valve to open position. Line up Halliburton to tubing. Initial pressure 2463 psi. Pump 10 bbls 9.3 KCl brine, 10 bbls Calcium Carbonate LCM pill, and chase with 9.3 KCl brine at 9.5 bbls / min. Pressure drop during pumping to 590 psi at 98.6 bbls. Pressure increase to 1200 psi at 101.8 bbls. Allow pressure to bleed back to 1135 psi. Attempt squeeze at 0.2 bbls / min. Pressure 1200 psi at 102 bbls pumped. Monitor leak-off for 5 minutes. Final pressure 1049 psi.
EP	P	WC	0330	0400	0.50	2135.0 m	Bleed off final pressure at well test choke. Flow check well for 15 minutes at well test choke. No pressure.
EP	P	WC	0400	0430	0.50	2135.0 m	Cycle PCT valve to theoretical hold-open position. Open lower BOP rams, open choke manifold, and un-sting from packer. Pick up 8 metres. Close BOP variable rams. Line up manifold to reverse circulate tubing contents.
EP	TP	DST	0430	0600	1.50	2135.0 m	Attempt reverse circulate. No go. Troubleshoot surface manifold. OK. Cycle PCT valve to confirm position. PCT valve closed. (Out by one cycle too many.) Cycle PCT valve to hold open position.
EP	P	WC	0600	0630	0.50	2135.0 m	Reverse circulate tubing string contents, plus 50% excess, at 210 gpm; returns overboard through well test choke to flare boom.
EP	P	WC	0630	0830	2.00	2135.0 m	Circulate 1.5 times bottoms up, (long way), returns through rig choke manifold to degasser and mud system. (Maximum pressure limited to 400 - 500 psi, flow limited to 400 gpm.) Monitor ditch gas levels. Open rams and flow check. Well static.
EP	P	WC	0830	0930	1.00	2135.0 m	Circulate conventionally 1.5 times bottoms up at maximum flow rate. (650 gpm.) Flow check. Well static.
EP	P	HT	0930	1030	1.00	2135.0 m	Rig down surface lines.
EP	P	HT	1030	1230	2.00	2135.0 m	Lay out flow head. POOH and Lay out sub sea assemblies.
EP	P	PLD	1230	1930	7.00	2135.0 m	POOH, laying down 4 1/ 2" 15.5 ppf PH-6 production tubing.
EP	P	HBHA	1930	2130	2.00	2135.0 m	POOH with DST BHA, and lay down.
EP	P	CRF	2130	2200	0.50	2135.0 m	Clear well test control panels, hoses, reels and ancilliary equipment from rig floor.
EP	P	PLD	2200	2330	1.50	2135.0 m	RIH with 7 stands 4 1/ 2" 15.5 ppf PH-6 production tubing and lay down same.
EP	P	CRF	2330	2400	0.50	2135.0 m	Rig down tubing tongs and tubing handling equipment from rig floor.

Operations For Period 0000 Hrs to 0600 Hrs on 11 Nov 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
EP	P	CRF	0000	0300	3.00	2135.0 m	Pick up flowhead. Make service breaks. Lay out flow head.
EP	P	CRF	0300	0600	3.00	2135.0 m	Make up 9 5/ 8" cement retainer and RIH on 5" drill pipe.

Phase Data to 2400hrs, 10 Nov 2003

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/ RIG-UP/ PRESPUD(RM)	22.5	13 Oct 2003	14 Oct 2003	22.5	1 days	0 m
CONDUCTOR HOLE(CH)	37	14 Oct 2003	15 Oct 2003	59.5	2 days	121.3 m
SURFACE HOLE(SH)	49.5	15 Oct 2003	17 Oct 2003	109	5 days	645.0 m
SURFACE CASING(SC)	114	18 Oct 2003	22 Oct 2003	223	9 days	645.0 m
PRODUCTION HOLE(PH)	294	22 Oct 2003	03 Nov 2003	517	22 days	2135.0 m
PRODUCTION CASING(PC)	30	04 Nov 2003	05 Nov 2003	547	23 days	2135.0 m
EVALUATION PRODUCTION HOLE(EP)	138	05 Nov 2003	10 Nov 2003	685	29 days	2135.0 m

General Comments

Comments	Rig Requirements	Lessons Learnt
SIMOPS - following well kill, rig down testing spread and backload to boat. Backload production tubing. (Using two cranes to 20:00 hrs - then extra crane operator out of safe working hours.)		Examine possibility of two crane operators per crew during periods of high boat activity. (Rig move etc.)

WBM Data

Cost Today $ 590

Mud Type:	KCl Brine	API FL:	0 cm³/ 30m	Cl:	78282	Solids(%vol):	0	Viscosity:	27 sec/ qt
Sample-From:	Pit	Filter-Cake:	0 / 32nd"	K+C*1000:	15 %	H2O:	0 %	PV:	1 cp
Time:	13:00	HTHP-FL:	0 cm³/ 30m	Hard/Ca:	0	Oil(%):	0 %	YP:	1 lb/ 100ft²
Weight:	9.30 ppg	HTHP-Cake:	0 / 32nd"	MBT:	0	Sand:		Gels 10s:	1
Temp:	0 C°			PM:	0	pH:	7.5	Gels 10m:	1
				PF:	0	PHPA:	0 ppb	Fann 003:	0
								Fann 006:	0
								Fann 100:	0
								Fann 200:	52
								Fann 300:	0
								Fann 600:	0

BHA # 9

Weight(Wet)	0 klb	Length	71.6 m	Torque(max)	0 ft-lbs	D.C. (1) Ann Velocity	
Wt Below Jar(Wet)	0 klb	String	0 klb	Torque(Off.Btm)	0 ft-lbs	D.C. (2) Ann Velocity	
		Pick-Up	0 klb	Torque(On.Btm)	0 ft-lbs	H.W.D.P. Ann Velocity	
		Slack-Off	0 klb			D.P. Ann Velocity	

BHA Run Description: Well Testing BHA - RIH at PBTD of 2077 m.

Equipment	Length	OD	ID	Serial #	Comment
Bull Plug	0.18 m	3.38 in	0 in		
4.5 in TCP Gun	9.00 m	3.38 in	0 in		
Safety Spacer	3.75 m	3.38 in	0 in		
Time Delay Firing Head	2.87 m	2.87 in	0 in		
2.875 in 6.4 ppf pup jt	1.25 m	3.67 in	2.44 in		
Debris Sub / Flow Sub	0.66 m	3.67 in	2.44 in		
2.875 in 6.4 ppf pup jt	1.25 m	3.67 in	2.44 in		
Mechanical Gun Release	0.77 m	3.67 in	2.44 in		
2.875 in 6.4 ppf pup jt	9.62 m	3.67 in	2.44 in		
Seal Assembly	6.27 m	4.00 in	3.00 in		
Seal Assembly Locator	0.12 m	6.00 in	3.00 in		
Flapper Valve	1.77 m	4.63 in	2.25 in		
Pressure Reference Tool	1.51 m	5.00 in	2.25 in		
Pressure Control Tester	5.93 m	5.00 in	2.25 in		
DGA gauge carrier	2.97 m	5.00 in	2.25 in		
3.5 in PH-6 12.95 ppf L-80 jt	9.58 m	4.75 in	2.55 in		
Re-closable Circ. Valve	2.93 m	5.00 in	2.25 in		
3.5 in PH-6 12.95 ppf L-80 jt	9.55 m	4.75 in	2.55 in		
Single Shot Circ Valve	1.23 m	5.00 in	2.25 in		
X/ O	0.38 m	5.13 in	2.29 in		

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
2092.20	1.96	211.00	2092.1	-5.46	1.52	-5.46	0.49	MWD
2121.80	2.72	218.57	2121.7	-6.44	2.77	-6.44	-0.21	MWD
2125.00	2.92	220.32	2124.9	-6.56	6.80	-6.56	-0.31	MWD
2135.00	2.92	220.32	2134.8	-6.95	0	-6.95	-0.64	Extrapolated

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite	sx	0	0	0	604
Cement	sx	0	0	0	1193
Gel	sx	0	0	0	754
Potable Water	MT	27	25	0	120
Drill Water	MT	0	20	0	755
Mud	sx	0	0	0	0
Fuel	MT	0	6	0	471

Personnel On Board

Company	Pax
Santos	4
BHI - INTEQ	1
Geoservices	2
Halliburton	2
TMT	6
DOGC	41
DOGC	5
Total Marine Catering	8
Premium Casing Services	3
Schlumberger Well Testing	15
Dril-Quip	1
SMITH	1
Total	89

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	Oilwell A1700PT	6.50	9.30	95	0	0	0
2	Oilwell A1700PT	6.50	9.30	95	0	0	0
3	Oilwell A1700PT	6.50	9.30	95	0	0	0

Slow Pump Data

Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
0	20	0	98	30	0	147	40	0	197
0	20	0	98	30	0	147	40	0	197
0	20	0	98	30	0	147	40	0	197

Casing

OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	N/A	121.0 m / 121.0 m	154 bbls (750 sx) Class G w/ 1% CaCl2 15.8 ppg
13 3/ 8"	L.O.T. - 15.00 ppg	635.8 m / 635.8 m	Lead - 304 bbls (768sx) c/ w 0.6 gal/ sx Econolite @ 12.5 lb/ gal. Tail - 172 (389sx) c/ w neat in seawater @ 15.8lbs/ gal.
9 5/ 8"	N/A	2113.0 m / 2113.0 m	Lead - 165 bbls (432sx) c/ w 0.75 gal/ sx Econolite, 0.035 gal/ sx HR6L @ 12.5 ppg Tail - 138 bbls (627 sx) c/ w .36 gal/ sx Halad 413-L, 0.08 gal/ sx HR6L @ 15.8 ppg

HSE Summary

Events	Date of Last	Days Since	Remarks
Abandon Drill	10 Nov 2003	0 Days	
BOP Test	04 Nov 2003	6 Days	
Fire Drill	10 Nov 2003	0 Days	
First Aid	29 Oct 2003	12 Days	Employee struck by chain tong - no treatment required.
Lost Time Incident	24 Apr 2001	929 Days	None
Near Miss	04 Nov 2003	6 Days	3/ 4" bolt, on swivel retaining plate, fell into the sea.
Safety Meeting	02 Nov 2003	8 Days	Weekly safety meetings held at 13:00 hrs, 19:00 hrs and 01:00 hrs.
Walkabout	10 Nov 2003	0 Days	

Shakers, Volumes and Losses Data

Engineer : W. McKay

Available	1034 bbl	Losses	0 bbl
Active	105.0 bbl	Downhole	0 bbl
Mixing	0 bbl	Surf+ Equip	0 bbl
Hole	607.0 bbl	Dumped	0 bbl
Slug	0 bbl	De-Sander	0 bbl
Reserve	322.0 bbl	De-Silter	0 bbl
Kill	0 bbl	Centrifuge	0 bbl

Equip.	Descr.	Mesh Size	Hours
Shaker 1	Thule VSM 300	3 x 40 (Upper)	0
Shaker 1	Thule VSM 300	4 x 84 (Lower)	0
Shaker 2	Thule VSM 300	4 x 230 (Lower)	0
Shaker 2	Thule VSM 300	3 x 10 (Upper)	0
Shaker 3	Thule VSM 300	3 x 10 (Upper)	0
Shaker 3	Thule VSM 300	4 x 230(Lower)	0
Shaker 4	Thule VSM 300	4 x 84 (Lower)	0
Shaker 4	Thule VSM 300	3 x 40 (Upper)	0

Comment Daily Additions = 5 bbls product.

Marine

Weather check on 10 Nov 2003 at 24:00

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
7.00 nm	9.0 kn	140 deg	1023 bar	16.0 C°	0.6 m	140 deg	0 ft/ sec

Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments
0.3 deg	0.4 deg	1.20 m	1.2 m	225 deg	0 ft/ sec	

Rig Dir.	Ris. Tension	VDL	Comments
239.0 deg	210.0 klb	3818.0 klb	

Rig Support

Anchors	Tension (klb)
1	202.0
2	200.0
3	195.0
4	181.0
5	156.0
6	202.0
7	205.0
8	226.0

Boats	Arrived (date/time)	Departed (date/time)	Status
Pacific Challenger	17:00	Standby	Standing by at anchor.
Lady Dawn	Standby	Standby	Alongside Rig. 13:25 - 16:53 Alongside stbd, handling cargo. 20:45 - 24:00 Alongside handling cargo.

Bulks

Item	Unit	Quantity
Barite	sx	882
Cement	sx	0
Gel	sx	0
Potable Water	MT	205
Drill Water	MT	530
Mud	sx	0
Fuel	MT	453.9

Item	Unit	Quantity
Barite	sx	925
Cement	sx	2645
Gel	sx	1896
Potable Water	MT	225
Drill Water	MT	86
Mud	sx	0
Fuel	MT	191.3

Helicopter Movement

Flight #	Time	Destination	Comment	Pax
1	15:31	Ocean Epoch		7
1	15:42	Essendon		3

From : G. Howard / S. Douglass

Well Data

Country	Australia	M. Depth	2135.0 m	Cur. Hole Size	8.500 in		
Field	Casino	TVD	2135.0 m	Casing OD	9.625 in		
Drill Co.	DOGC	Progress	0 m	Shoe TVD	2113.0 m		
Rig	Ocean Epoch	Days from spud	28.33	L.O.T.	15.00 ppg		
Wtr Dpth(LAT)	66.7 m	Days on well	29.54			Planned TD	2137.0 m
RT-ASL(LAT)	22.4 m	Current Op @ 0600	POOH with cement retainer running tool.				
RT-ML	89.1 m	Planned Op	Recover BOPs and riser. RIH and cut 13 3/ 8" casing. Release HAC joint, and recover PGB and 13 3/ 8" casing. Commence recover anchors.				

Summary of Period 0000 to 2400 Hrs

Lay out remaining DST equipment. RIH and set cement retainer at 1962 m. Squeeze 20 bbls cement to perforations. Set cement plug from 1962 m to 1942 m. POOH and lay down drill pipe. RIH and cut 9 5/ 8" casing at 185 m. Latch onto, and POOH with 9 5/ 8" casing.

Formations

Name	Top (MD)	Top (TVD)	Comment

Operations For Period 0000 Hrs to 2400 Hrs on 11 Nov 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
EP	P	HT	0000	0200	2.00	2135.0 m	Pick up sub sea assemblies and flowhead. Make service breaks as required. Lay out same.
PA	P	RS	0200	0230	0.50	2135.0 m	Service TDS and blocks.
PA	P	TI	0230	0700	4.50	2135.0 m	Make up cementing stand and rack back in derrick. Make up Halliburton EZSV 9 5/ 8" cement retainer and RIH on 5" drill pipe to 1962 m.
PA	P	RPK	0700	0730	0.50	2135.0 m	Set 9 5/ 8" packer at 1962 m. Sting out of packer and break circulation.
PA	P	FLIN	0730	0800	0.50	2135.0 m	Sting into packer and attempt injection of brine with rig pumps. Pressure increasing steadily to 3000 psi at 10 SPM (49 gpm = 1.16 bpm). Discontinue injectivity test. (Pop-offs set at 3300 psi) Sting out of packer.
PA	P	PT	0800	0830	0.50	2135.0 m	Rig up surface cement lines. Pressure test to 4500 psi / 5 mins. Pressure test OK.
PA	P	FLIN	0830	0900	0.50	2135.0 m	Perform injectivity test using Halliburton pump. Initial rate at 0.25 bpm, increasing to 0.5 bpm, then to 1.0 bpm. Determine practical injection rate at 0.5 bpm. (Note formation leak off pressure.)
PA	P	CMS	0900	0930	0.50	2135.0 m	Sting out of packer. Halliburton pump 20 bbls drillwater spacer. Mix and pump 30 bbls 15.8 ppg cement slurry. Displace cement to bottom of drill pipe.
PA	P	CMS	0930	1000	0.50	2135.0 m	Sting into packer. Squeeze 20 bbls cement below packer at 0.5 bbls/ min.
PA	P	CMP	1000	1030	0.50	2135.0 m	Sting out of packer. Set balanced plug on top of cement retainer, with 10 bbls of cement, from 1962 m to 1920 m.
PA	P	HT	1030	1100	0.50	2135.0 m	Rig down surface lines. POOH with 5" drill pipe from 1962 m to 1860 m.
PA	P	DIS	1100	1200	1.00	2135.0 m	Circulate 2 x bottoms up conventionally, leaving inhibited 9.3 ppg potassium chloride brine in the hole. Flush choke and kill lines.
PA	P	TO	1200	1230	0.50	2135.0 m	POOH with 5" drill pipe. from 1860 m to 1625 m.
PA	P	PLD	1230	1830	6.00	2135.0 m	POOH with 5" drill pipe from 1625 m to surface, laying down 5" drill pipe.
PA	P	HT	1830	2100	2.50	2135.0 m	Make up 9 5/ 8" casing cutter assembly and RIH to 185 m.
PA	P	CCT	2100	2200	1.00	2135.0 m	Cut 9 5/ 8" casing at 185 m. Flow check. Well static. POOH and lay down 9 5/ 8" cassing cutting assembly.
PA	P	HT	2200	2330	1.50	2135.0 m	Make up 9 5/ 8" casing retreival assembly. RIH to 88 m.
PA	P	CPL	2330	2400	0.50	2135.0 m	Latch onto 9 5/ 8" casing. Release casing with 60 klbs overpull. POOH with 9 5/ 8" casing.

Operations For Period 0000 Hrs to 0600 Hrs on 12 Nov 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PA	P	CPL	0000	0230	2.50	2135.0 m	POOH with 9 5/ 8" casing and lay out. Lay out 9 5/ 8" casing hanger, pup joint, 7 joints 47 ppf L-80 New Vam, and cut casing stub.
PA	P	HT	0230	0300	0.50	2135.0 m	Lay out bumper sub and spear assembly.
PA	P	RPK	0300	0400	1.00	2135.0 m	Make up 13 3/ 8" cement retainer on running tool, to 5" drill pipe. RIH and set at 175 m.
PA	P	PT	0400	0430	0.50	2135.0 m	Sting out of 13 3/ 8" cement retainer. Space out, and close rams. Pressure test retainer to 1000 psi / 5 mins with halliburton pump. OK. Displace casing and riser to seawater at 1500 gpm.
PA	P	CMP	0430	0500	0.50	2135.0 m	Halliburton break circulation and pump 5 bbls seawater. Mix and pump 19.6 bbls of 15.8 ppg cement slurry. Displace with 6 bbls seawater.
PA	P	CHC	0500	0530	0.50	2135.0 m	Rack back cement stand and POOH to 135 m. Circulate bottoms up at 1500 gpm. Traces of cement at bottoms up. Continue circulating 50 bbls excess displacement.

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PA	P	TO	0530	0600	0.50	2135.0 m	POOH with 5" drill pipe and cement retainer running tool.

Phase Data to 2400hrs, 11 Nov 2003

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/ RIG-UP/ PRESPUD(RM)	22.5	13 Oct 2003	14 Oct 2003	22.5	1 days	0 m
CONDUCTOR HOLE(CH)	37	14 Oct 2003	15 Oct 2003	59.5	2 days	121.3 m
SURFACE HOLE(SH)	49.5	15 Oct 2003	17 Oct 2003	109	5 days	645.0 m
SURFACE CASING(SC)	114	18 Oct 2003	22 Oct 2003	223	9 days	645.0 m
PRODUCTION HOLE(PH)	294	22 Oct 2003	03 Nov 2003	517	22 days	2135.0 m
PRODUCTION CASING(PC)	30	04 Nov 2003	05 Nov 2003	547	23 days	2135.0 m
EVALUATION PRODUCTION HOLE(EP)	140	05 Nov 2003	11 Nov 2003	687	29 days	2135.0 m
PLUG AND ABANDON(PA)	22	11 Nov 2003	11 Nov 2003	709	30 days	2135.0 m

WBM Data

Cost Today $ 432

Mud Type:	KCl Brine	API FL:	0 cm³/ 30m	Cl:	94000	Solids(%vol):	0	Viscosity:	27 sec/ qt
Sample-From:	Pit	Filter-Cake:	0 / 32nd"	K+C*1000:	15 %	H2O:	0 %	PV:	1 cp
Time:	13:00	HTHP-FL:	0 cm³/ 30m	Hard/Ca:	0	Oil(%):	0 %	YP:	1 lb/ 100ft²
Weight:	9.30 ppg	HTHP-Cake:	0 / 32nd"	MBT:	0	Sand:		Gels 10s:	1
Temp:	0 C°			PM:	0	pH:	11	Gels 10m:	1
				PF:	0	PHPA:	0 ppb	Fann 003:	0
								Fann 006:	0
								Fann 100:	0
								Fann 200:	52
								Fann 300:	0
								Fann 600:	0

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
2092.20	1.96	211.00	2092.1	-5.46	1.52	-5.46	0.49	MWD
2121.80	2.72	218.57	2121.7	-6.44	2.77	-6.44	-0.21	MWD
2125.00	2.92	220.32	2124.9	-6.56	6.80	-6.56	-0.31	MWD
2135.00	2.92	220.32	2134.8	-6.95	0	-6.95	-0.64	Extrapolated

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite	sx	0	0	0	604
Cement	sx	0	149	0	1044
Gel	sx	0	0	0	754
Potable Water	MT	26	22	0	124
Drill Water	MT	0	29	0	726
Mud	sx	0	0	0	0
Fuel	MT	0	9	0	462

Personnel On Board

Company	Pax
Santos	2
BHI - INTEQ	1
Geoservices	2
Halliburton	2
TMT	6
DOGC	41
DOGC	6
Total Marine Catering	8
Schlumberger Well Testing	7
Dril-Quip	1
SMITH	1
Thales	2
Marcomm	1
Total	80

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	Oilwell A1700PT	6.50	9.30	95	0	0	0
2	Oilwell A1700PT	6.50	9.30	95	0	0	0
3	Oilwell A1700PT	6.50	9.30	95	0	0	0

Slow Pump Data

Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
0	20	0	98	30	0	147	40	0	197
0	20	0	98	30	0	147	40	0	197
0	20	0	98	30	0	147	40	0	197

Casing

OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	N/A	121.0 m / 121.0 m	154 bbls (750 sx) Class G w/ 1% CaCl2 15.8 ppg
13 3/ 8"	L.O.T. - 15.00 ppg	635.8 m / 635.8 m	Lead - 304 bbls (768sx) c/ w 0.6 gal/ sx Econolite @ 12.5 lb/ gal. Tail - 172 (389sx) c/ w neat in seawater @ 15.8lbs/ gal.
9 5/ 8"	N/A	2113.0 m / 2113.0 m	Lead - 165 bbls (432sx) c/ w 0.75 gal/ sx Econolite, 0.035 gal/ sx HR6L @ 12.5 ppg Tail - 138 bbls (627 sx) c/ w .36 gal/ sx Halad 413-L, 0.08 gal/ sx HR6L @ 15.8 ppg

HSE Summary

Events	Date of Last	Days Since	Remarks
Abandon Drill	10 Nov 2003	1 Day	
BOP Test	04 Nov 2003	7 Days	
Fire Drill	10 Nov 2003	1 Day	
First Aid	29 Oct 2003	13 Days	Employee struck by chain tong - no treatment required.
Lost Time Incident	24 Apr 2001	930 Days	None
Near Miss	04 Nov 2003	7 Days	3/ 4" bolt, on swivel retaining plate, fell into the sea.
Safety Meeting	02 Nov 2003	9 Days	Weekly safety meetings held at 13:00 hrs, 19:00 hrs and 01:00 hrs.
Walkabout	11 Nov 2003	0 Days	

Shakers, Volumes and Losses Data

Engineer : W. McKay

Available	**607 bbl**	**Losses**	**428 bbl**
Active	0 bbl	Downhole	0 bbl
Mixing	0 bbl	Surf+ Equip	0 bbl
Hole	607.0 bbl	Dumped	428.0 bbl
Slug	0 bbl	De-Sander	0 bbl
Reserve	0 bbl	De-Silter	0 bbl
Kill	0 bbl	Centrifuge	0 bbl

Equip.	Descr.	Mesh Size	Hours
Shaker 1	Thule VSM 300	4 x 84 (Lower)	0
Shaker 1	Thule VSM 300	3 x 40 (Upper)	0
Shaker 2	Thule VSM 300	3 x 10 (Upper)	0
Shaker 2	Thule VSM 300	4 x 230 (Lower)	0
Shaker 3	Thule VSM 300	4 x 230(Lower)	0
Shaker 3	Thule VSM 300	3 x 10 (Upper)	0
Shaker 4	Thule VSM 300	3 x 40 (Upper)	0
Shaker 4	Thule VSM 300	4 x 84 (Lower)	0

Comment Daily Additions = 0 bbls product.

Marine

Weather check on 11 Nov 2003 at 24:00

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
7.00 nm	9.0 kn	210 deg	1025 bar	13.0 C°	0.6 m	210 deg	0 ft/ sec

Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments
0.4 deg	0.4 deg	1.20 m	1.5 m	225 deg	0 ft/ sec	

Rig Dir.	Ris. Tension	VDL	Comments
239.0 deg	210.0 klb	3493.0 klb	

Rig Support

Anchors	Tension (klb)
1	202.0
2	193.0
3	196.0
4	181.0
5	152.0
6	192.0
7	185.0
8	210.0

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks
Pacific Challenger	Standby	Standby	05:40 - 10:50 alongside for cargo backload. 20:00 - 21:00 alongside for cargo backload. (Departed for Portland at 00:30 hrs 12/ 11/ 03)	

Item	Unit	Quantity
Barite	sx	882
Cement	sx	0
Gel	sx	0
Potable Water	MT	200
Drill Water	MT	530
Mud	sx	0
Fuel	MT	443.3

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks
Lady Dawn	Standby	02:10	En route to rig.	

Item	Unit	Quantity
Barite	sx	925
Cement	sx	2645
Gel	sx	1896
Potable Water	MT	363
Drill Water	MT	86
Mud	sx	0
Fuel	MT	364.7

Helicopter Movement

Flight #	Time	Destination	Comment	Pax
1	16:10	Ocean Epoch		4
1	16:22	Essendon		13

Santos

DRILLING MORNING REPORT # 31
Casino #3 (12 Nov 2003)

From : G. Howard / S. Douglass

Well Data

Country	Australia	M. Depth	2135.0 m	Cur. Hole Size	8.500 in		
Field	Casino	TVD	2135.0 m	Casing OD	9.625 in		
Drill Co.	DOGC	Progress	0 m	Shoe TVD	2113.0 m		
Rig	Ocean Epoch	Days from spud	29.33	L.O.T.	15.00 ppg		
Wtr Dpth(LAT)	66.7 m	Days on well	30.54			Planned TD	2137.0 m
RT-ASL(LAT)	22.4 m	Current Op @ 0600	POOH with cut 30" casing and PGB.				
RT-ML	89.1 m	Planned Op	Recover PGB. Recover anchors and handover rig to BHPP.				

Summary of Period 0000 to 2400 Hrs

Lay out 9 5/ 8" casing. Set 13 3/ 8" cement retainer at 175 m. Test to 1000 psi. Set cement plug 135 m to 175 m. Recover riser and BOPs. RIH and cut 13 3/ 8" casing at 125 m. Attempt pull PGB. No Go.

Formations

Name	Top (MD)	Top (TVD)	Comment

Operations For Period 0000 Hrs to 2400 Hrs on 12 Nov 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PA	P	CPL	0000	0230	2.50	2135.0 m	POOH with 9 5/ 8" casing and lay out. Lay out 9 5/ 8" casing hanger, pup joint, 7 joints 47 ppf L-80 New Vam, and cut casing stub.
PA	P	HT	0230	0300	0.50	2135.0 m	Lay out bumper sub and spear assembly.
PA	P	RPK	0300	0400	1.00	2135.0 m	Make up 13 3/ 8" cement retainer on running tool, to 5" drill pipe. RIH and set at 175 m.
PA	P	PT	0400	0430	0.50	2135.0 m	Sting out of 13 3/ 8" cement retainer. Space out, and close rams. Pressure test retainer to 1000 psi / 5 mins with halliburton pump. OK. Displace casing and riser to seawater at 1500 gpm.
PA	P	CMP	0430	0500	0.50	2135.0 m	Halliburton break circulation and pump 5 bbls seawater. Mix and pump 19.6 bbls of 15.8 ppg cement slurry. Displace with 6 bbls seawater.
PA	P	CHC	0500	0530	0.50	2135.0 m	Rack back cement stand and POOH to 135 m. Circulate bottoms up at 1500 gpm. Traces of cement at bottoms up. Continue circulating 50 bbls excess displacement.
PA	P	TO	0530	0600	0.50	2135.0 m	POOH with 5" drill pipe and cement retainer running tool. Break out and lay out cement retainer running tool.
PA	P	RR2	0600	0700	1.00	2135.0 m	Rig up marine riser handling equipment.
PA	P	RR2	0700	0800	1.00	2135.0 m	Remove flow line, fill up lines, and install diverter running tool.
PA	P	RR2	0800	0900	1.00	2135.0 m	Hold JSA for recovering and handling riser. Pull diverter and lay down same.
PA	P	RR2	0900	1200	3.00	2135.0 m	Pick up landing joint. Close slip joint. Unlatch BOPs at 10:30. Rig down choke and kill flex hoses.
PA	P	RR2	1200	1800	6.00	2135.0 m	Skid rig 25 ft while remove rucker lines in moon pool. Recover BOPs to surface. Split LMRP and BOP. Move to park position. Lay out double of riser. Rig down riser handling equipment.
PA	P	HT	1800	1900	1.00	2135.0 m	Lay out 9 5/ 8" spear assembly. Commence de-ballasting rig to 40 ft draft at 18:15 hrs.
PA	P	HT	1900	2030	1.50	2135.0 m	Make up 13 3/ 8" casing cutter assembly. Halt deballasting of rig while cut casing.
PA	P	CCT	2030	2100	0.50	2135.0 m	RIH with 13 3/ 8" cutter assembly. Observe entry to wellhead with ROV. Cut 13 3/ 8" casing.
PA	TP	RO	2100	2130	0.50	2135.0 m	ROV unable to operate hot stab. Recover ROV to surface. Troubleshoot problem. (Hot stab metal sleeve too tight - unable to release from ROV sleeve.) Re-run ROV with hot stab in ROV grab.
PA	P	WH	2130	2200	0.50	2135.0 m	ROV stab into HAC port. (Problems with turbulence - heave - at sea bed.) Pressure up HAC release system. Fluid released from HAC exhaust port. Pressure on PGB HAC gauge = 1000 psi.
PA	TP	WH	2200	2230	0.50	2135.0 m	Attempt pull PGB / 30" HAC joint / 13 3/ 8" cut casing with 200 klbs overpull. No go.
PA	TP	WH	2230	2300	0.50	2135.0 m	Recover ROV to surface and re-dress hot stab. Re-charge hydraulic system. Re-run ROV to PGB. Stab into HAC port and attempt further injection. No further fluid injected, or released from exhaust port. Pressure on PGB HAC gauge = 1000 psi. Attempt pull PGB / 30" HAC joint / 13 3/ 8" cut casing with 260 klbs overpull. No go.
PA	TP	HT	2300	2400	1.00	2135.0 m	POOH with 13 3/ 8" casing cutter assembly. Lay out 13 3/ 8" casing cutter assembly.

Operations For Period 0000 Hrs to 0600 Hrs on 13 Nov 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PA	TP	HT	0000	0100	1.00	2135.0 m	Continue lay down 13 3/ 8" casing cutter assembly.
PA	TP	HT	0100	0230	1.50	2135.0 m	Make up 30" casing cutting assembly.
PA	TP	TI	0230	0300	0.50	2135.0 m	RIH to above well-head. ROV observe soft lines broken. Attempt stab-in without soft lines. No go.

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PA	TP	TI	0300	0400	1.00	2135.0 m	POOH with 30" casing cutter assembly and re-establish soft lines. RIH and stab into well head. Engage into casing and place cutting string in tension.
PA	TP	CCT	0400	0500	1.00	2135.0 m	Cut 30" casing. Observe cut with ROV. 30" casing released at 05:00 hrs. SIMOPS to 04:00 hrs = offloading Pacific Challenger. Clear decked for subsequent anchor handling at 04:00 hrs.
PA	P	CPL	0500	0600	1.00	2135.0 m	Recover PGB and cut 30" casing to surface. Re-commence de-ballasting rig. Commence anchor handling operations.

Phase Data to 2400hrs, 12 Nov 2003

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/ RIG-UP/ PRESPUD(RM)	22.5	13 Oct 2003	14 Oct 2003	22.5	1 days	0 m
CONDUCTOR HOLE(CH)	37	14 Oct 2003	15 Oct 2003	59.5	2 days	121.3 m
SURFACE HOLE(SH)	49.5	15 Oct 2003	17 Oct 2003	109	5 days	645.0 m
SURFACE CASING(SC)	114	18 Oct 2003	22 Oct 2003	223	9 days	645.0 m
PRODUCTION HOLE(PH)	294	22 Oct 2003	03 Nov 2003	517	22 days	2135.0 m
PRODUCTION CASING(PC)	30	04 Nov 2003	05 Nov 2003	547	23 days	2135.0 m
EVALUATION PRODUCTION HOLE(EP)	140	05 Nov 2003	11 Nov 2003	687	29 days	2135.0 m
PLUG AND ABANDON(PA)	46	11 Nov 2003	12 Nov 2003	733	31 days	2135.0 m

General Comments

Comments	Rig Requirements	Lessons Learnt
		HAC system - for shallow water application run an activation hose to surface. For deepwater (Hill) fit a guide sleve for the hot stab, and mount pressure gauge where it can be seen during inection.

WBM Data

Cost Today $ 432

Mud Type:	KCl Brine	API FL:	0 cm³/ 30m	Cl:	94000	Solids(%vol):	0	Viscosity:	27 sec/ qt
Sample-From:	Pit	Filter-Cake:	0 / 32nd"	K+C*1000:	15 %	H2O:	0 %	PV:	1 cp
Time:	13:00	HTHP-FL:	0 cm³/ 30m	Hard/Ca:	0	Oil(%):	0 %	YP:	1 lb/ 100ft²
Weight:	9.30 ppg	HTHP-Cake:	0 / 32nd"	MBT:	0	Sand:		Gels 10s:	1
Temp:	0 C°			PM:	0	pH:	11	Gels 10m:	1
				PF:	0	PHPA:	0 ppb	Fann 003:	0
								Fann 006:	0
								Fann 100:	0
								Fann 200:	52
								Fann 300:	0
								Fann 600:	0

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
2092.20	1.96	211.00	2092.1	-5.46	1.52	-5.46	0.49	MWD
2121.80	2.72	218.57	2121.7	-6.44	2.77	-6.44	-0.21	MWD
2125.00	2.92	220.32	2124.9	-6.56	6.80	-6.56	-0.31	MWD
2135.00	2.92	220.32	2134.8	-6.95	0	-6.95	-0.64	Extrapolated

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite	sx	0	0	0	604
Cement	sx	0	0	0	1044
Gel	sx	0	0	0	754
Potable Water	MT	25	25	0	124
Drill Water	MT	0	16	0	710
Mud	sx	0	0	0	0
Fuel	MT	0	6	0	456

Personnel On Board

Company	Pax
Santos	2
BHI - INTEQ	1
Geoservices	2
Halliburton	2
TMT	6
DOGC	41
DOGC	6
Total Marine Catering	8
Schlumberger Well Testing	7
Dril-Quip	1
SMITH	1
Thales	2
Marcomm	1
BHPP	3
Total	83

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	Oilwell A1700PT	6.50	9.30	95	0	0	0
2	Oilwell A1700PT	6.50	9.30	95	0	0	0
3	Oilwell A1700PT	6.50	9.30	95	0	0	0

Slow Pump Data

Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
0	20	0	98	30	0	147	40	0	197
0	20	0	98	30	0	147	40	0	197
0	20	0	98	30	0	147	40	0	197

Casing

OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	N/A	121.0 m / 121.0 m	154 bbls (750 sx) Class G w/ 1% CaCl2 15.8 ppg
13 3/ 8"	L.O.T. - 15.00 ppg	635.8 m / 635.8 m	Lead - 304 bbls (768sx) c/ w 0.6 gal/ sx Econolite @ 12.5 lb/ gal. Tail - 172 (389sx) c/ w neat in seawater @ 15.8lbs/ gal.
9 5/ 8"	N/A	2113.0 m / 2113.0 m	Lead - 165 bbls (432sx) c/ w 0.75 gal/ sx Econolite, 0.035 gal/ sx HR6L @ 12.5 ppg Tail - 138 bbls (627 sx) c/ w .36 gal/ sx Halad 413-L, 0.08 gal/ sx HR6L @ 15.8 ppg

HSE Summary

Events	Date of Last	Days Since	Remarks
Abandon Drill	10 Nov 2003	2 Days	
BOP Test	04 Nov 2003	8 Days	
Fire Drill	10 Nov 2003	2 Days	
First Aid	29 Oct 2003	14 Days	Employee struck by chain tong - no treatment required.
Lost Time Incident	24 Apr 2001	931 Days	None
Near Miss	04 Nov 2003	8 Days	3/ 4" bolt, on swivel retaining plate, fell into the sea.
Safety Meeting	02 Nov 2003	10 Days	Weekly safety meetings held at 13:00 hrs, 19:00 hrs and 01:00 hrs.
Walkabout	12 Nov 2003	0 Days	

Shakers, Volumes and Losses Data

Engineer : W. McKay

Available	**480 bbl**
Active	0 bbl
Mixing	0 bbl
Hole	480.0 bbl
Slug	0 bbl
Reserve	0 bbl
Kill	0 bbl

Losses	**127 bbl**
Downhole	0 bbl
Surf+ Equip	0 bbl
Dumped	127.0 bbl
De-Sander	0 bbl
De-Silter	0 bbl
Centrifuge	0 bbl

Equip.	Descr.	Mesh Size	Hours
Shaker 1	Thule VSM 300	3 x 40 (Upper)	0
Shaker 1	Thule VSM 300	4 x 84 (Lower)	0
Shaker 2	Thule VSM 300	4 x 230 (Lower)	0
Shaker 2	Thule VSM 300	3 x 10 (Upper)	0
Shaker 3	Thule VSM 300	3 x 10 (Upper)	0
Shaker 3	Thule VSM 300	4 x 230(Lower)	0
Shaker 4	Thule VSM 300	4 x 84 (Lower)	0
Shaker 4	Thule VSM 300	3 x 40 (Upper)	0

Comment Daily Additions = 0 bbls product.

Printed on 13 Nov 2003

Marine

Weather check on 12 Nov 2003 at 24:00

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
7.00 nm	15.0 kn	180 deg	1028 bar	12.0 C°	0.9 m	180 deg	0 ft/ sec

Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments
0.6 deg	0.6 deg	0.90 m	1.8 m	225 deg	0 ft/ sec	

Rig Dir.	Ris. Tension	VDL	Comments
239.0 deg	210.0 klb	3548.0 klb	

Rig Support

Anchors	Tension (klb)
1	200.0
2	205.0
3	205.0
4	190.0
5	160.0
6	205.0
7	205.0
8	225.0

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks
Pacific Challenger	20:45	00:30	Standing by. (Boat has round-tripped to Portland today)	

Item	Unit	Quantity
Barite	sx	882
Cement	sx	0
Gel	sx	0
Potable Water	MT	220
Drill Water	MT	530
Mud	sx	0
Fuel	MT	445.4

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks
Lady Dawn	00:20	Standby	04:45 - 06:55 alongside cargo handling. 09:30 - 13:00 alongside cargo handling. Boat clear decked and standing by to handle anchors.	

Item	Unit	Quantity
Barite	sx	925
Cement	sx	2645
Gel	sx	1896
Potable Water	MT	358
Drill Water	MT	86
Mud	sx	0
Fuel	MT	353.6

Helicopter Movement

Flight #	Time	Destination	Comment	Pax
1	08:33	Ocean Epoch		11
1	08:45	Essendon		10
2	16:16	Ocean Epoch		11
2	16:38	Essendon	To Essendon via Portland, to drop off Geological samples.	7

Santos

DRILLING MORNING REPORT # 32
Casino #3 (13 Nov 2003)

From : G. Howard / S. Douglass

Well Data

Country	Australia	M. Depth	2135.0 m	Cur. Hole Size	8.500 in		
Field	Casino	TVD	2135.0 m	Casing OD	9.625 in		
Drill Co.	DOGC	Progress	0 m	Shoe TVD	2113.0 m		
Rig	Ocean Epoch	Days from spud	30.13	L.O.T.	15.00 ppg		
Wtr Dpth(LAT)	66.7 m	Days on well	31.33			Planned TD	2137.0 m
RT-ASL(LAT)	22.4 m	Current Op @ 0600	Rig was released at 19:00 hrs 13/ 11/ 03.				
RT-ML	89.1 m	Planned Op					

Summary of Period 0000 to 2400 Hrs

Ran 20" x 30" casing cutter, HAC released after cut on 20" casing. Recovered PGB, wellhead and 30" casing. Recovered anchors and rig released at 19:00 hrs.

Formations

Name	Top (MD)	Top (TVD)	Comment

Operations For Period 0000 Hrs to 2400 Hrs on 13 Nov 2003

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PA	TP	HT	0000	0100	1.00	2135.0 m	Continue lay down 13 3/ 8" casing cutter assembly.
PA	TP	HT	0100	0230	1.50	2135.0 m	Make up 20" x 30" casing cutting assembly.
PA	TP	TI	0230	0300	0.50	2135.0 m	RIH to above well-head. ROV observe soft lines broken. Attempt stab-in without soft lines. No go.
PA	TP	TI	0300	0400	1.00	2135.0 m	POOH with 20 x 30" casing cutter assembly and re-establish soft lines. RIH and stab into well head. Engage into casing and place cutting string in tension.
PA	TP	CCT	0400	0500	1.00	2135.0 m	Cut casing, observe cut with ROV. 30" casing released from HAC at 05:00 hrs. SIMOPS to 04:00 hrs = offloading Pacific Challenger. Clear deck for subsequent anchor handling at 04:00 hrs.
PA	P	CPL	0500	0600	1.00	2135.0 m	Recover PGB, 18-3/ 4"wellhead, upper HAC section and cut 20" casing. Re-commence de-ballasting rig and commence anchor handling operations.
PA	P	AH	0600	1900	13.00	2135.0 m	Land PGB/ wellhead & cut casing on spider beams, release spear, lay out wellhead & casing. Complete recovery of all anchors, rig released from Casino 3 at 19:00 hrs.

Phase Data to 2400hrs, 13 Nov 2003

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/ RIG-UP/ PRESPUD(RM)	22.5	13 Oct 2003	14 Oct 2003	22.5	1 days	0 m
CONDUCTOR HOLE(CH)	37	14 Oct 2003	15 Oct 2003	59.5	2 days	121.3 m
SURFACE HOLE(SH)	49.5	15 Oct 2003	17 Oct 2003	109	5 days	645.0 m
SURFACE CASING(SC)	114	18 Oct 2003	22 Oct 2003	223	9 days	645.0 m
PRODUCTION HOLE(PH)	294	22 Oct 2003	03 Nov 2003	517	22 days	2135.0 m
PRODUCTION CASING(PC)	30	04 Nov 2003	05 Nov 2003	547	23 days	2135.0 m
EVALUATION PRODUCTION HOLE(EP)	140	05 Nov 2003	11 Nov 2003	687	29 days	2135.0 m
PLUG AND ABANDON(PA)	65	11 Nov 2003	13 Nov 2003	752	31 days	2135.0 m

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
2092.20	1.96	211.00	2092.1	-5.46	1.52	-5.46	0.49	MWD
2121.80	2.72	218.57	2121.7	-6.44	2.77	-6.44	-0.21	MWD
2125.00	2.92	220.32	2124.9	-6.56	6.80	-6.56	-0.31	MWD
2135.00	2.92	220.32	2134.8	-6.95	0	-6.95	-0.64	Extrapolated

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite	sx	0	0	0	604
Cement	sx	0	0	0	1044
Gel	sx	0	0	0	754
Potable Water	MT	0	0	0	124
Drill Water	MT	0	0	0	710
Mud	sx	0	0	0	0
Fuel	MT	0	5	0	451

Personnel On Board

Company	Pax
Santos	2
BHI - INTEQ	1
Geoservices	2
Halliburton	2
TMT	6
DOGC	41
DOGC	15
Total Marine Catering	8
Dril-Quip	1
SMITH	1
Thales	2
Marcomm	1
BHPP	3
Total	85

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	Oilwell A1700PT	6.50	9.30	95	0	0	0
2	Oilwell A1700PT	6.50	9.30	95	0	0	0
3	Oilwell A1700PT	6.50	9.30	95	0	0	0

Slow Pump Data

Depth (m)	SPM1	SPP1 (psi)	Flow1 (gpm)	SPM2	SPP2 (psi)	Flow2 (gpm)	SPM3	SPP3 (psi)	Flow3 (gpm)
0	20	0	98	30	0	147	40	0	197
0	20	0	98	30	0	147	40	0	197
0	20	0	98	30	0	147	40	0	197

Casing

OD	L.O.T. / F.I.T.	Csg Shoe (MD/TVD)	Cementing
30 "	N/A	121.0 m / 121.0 m	154 bbls (750 sx) Class G w/ 1% CaCl2 15.8 ppg
13 3/ 8"	L.O.T. - 15.00 ppg	635.8 m / 635.8 m	Lead - 304 bbls (768sx) c/ w 0.6 gal/ sx Econolite @ 12.5 lb/ gal. Tail - 172 (389sx) c/ w neat in seawater @ 15.8lbs/ gal.
9 5/ 8"	N/A	2113.0 m / 2113.0 m	Lead - 165 bbls (432sx) c/ w 0.75 gal/ sx Econolite, 0.035 gal/ sx HR6L @ 12.5 ppg Tail - 138 bbls (627 sx) c/ w .36 gal/ sx Halad 413-L, 0.08 gal/ sx HR6L @ 15.8 ppg

HSE Summary

Events	Date of Last	Days Since	Remarks
Abandon Drill	10 Nov 2003	3 Days	
BOP Test	04 Nov 2003	9 Days	
Fire Drill	10 Nov 2003	3 Days	
First Aid	29 Oct 2003	15 Days	Employee struck by chain tong - no treatment required.
Lost Time Incident	24 Apr 2001	932 Days	None
Near Miss	04 Nov 2003	9 Days	3/ 4" bolt, on swivel retaining plate, fell into the sea.
Safety Meeting	02 Nov 2003	11 Days	Weekly safety meetings held at 13:00 hrs, 19:00 hrs and 01:00 hrs.
Walkabout	12 Nov 2003	1 Day	

Shakers, Volumes and Losses Data

Engineer : W. McKay

Available	**480 bbl**	**Losses**	**127 bbl**
Active	0 bbl	Downhole	0 bbl
Mixing	0 bbl	Surf+ Equip	0 bbl
Hole	480.0 bbl	Dumped	127.0 bbl
Slug	0 bbl	De-Sander	0 bbl
Reserve	0 bbl	De-Silter	0 bbl
Kill	0 bbl	Centrifuge	0 bbl

Equip.	Descr.	Mesh Size	Hours
Shaker 1	Thule VSM 300	3 x 40 (Upper)	0
Shaker 1	Thule VSM 300	4 x 84 (Lower)	0
Shaker 2	Thule VSM 300	4 x 230 (Lower)	0
Shaker 2	Thule VSM 300	3 x 10 (Upper)	0
Shaker 3	Thule VSM 300	3 x 10 (Upper)	0
Shaker 3	Thule VSM 300	4 x 230(Lower)	0
Shaker 4	Thule VSM 300	4 x 84 (Lower)	0
Shaker 4	Thule VSM 300	3 x 40 (Upper)	0

Comment Daily Additions = 0 bbls product.

Printed on 14 Nov 2003

Marine

Weather check on 13 Nov 2003 at 24:00

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
7.00 nm	15.0 kn	180 deg	1028 bar	12.0 C°	0.9 m	180 deg	0 ft/ sec

Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments
0.6 deg	0.6 deg	0.90 m	1.8 m	225 deg	0 ft/ sec	

Rig Dir.	Ris. Tension	VDL	Comments
239.0 deg	210.0 klb	3548.0 klb	

Rig Support

Anchors	Tension (klb)
1	200.0
2	205.0
3	205.0
4	190.0
5	160.0
6	205.0
7	205.0
8	225.0

Boats	Arrived (date/time)	Departed (date/time)	Status
Pacific Challenger	20:45	19:00	BHPB ops

Bulks

Item	Unit	Quantity
Barite	sx	880
Cement	sx	0
Gel	sx	0
Potable Water	MT	227.98
Drill Water	MT	530.05
Mud	sx	0
Fuel	MT	428.42

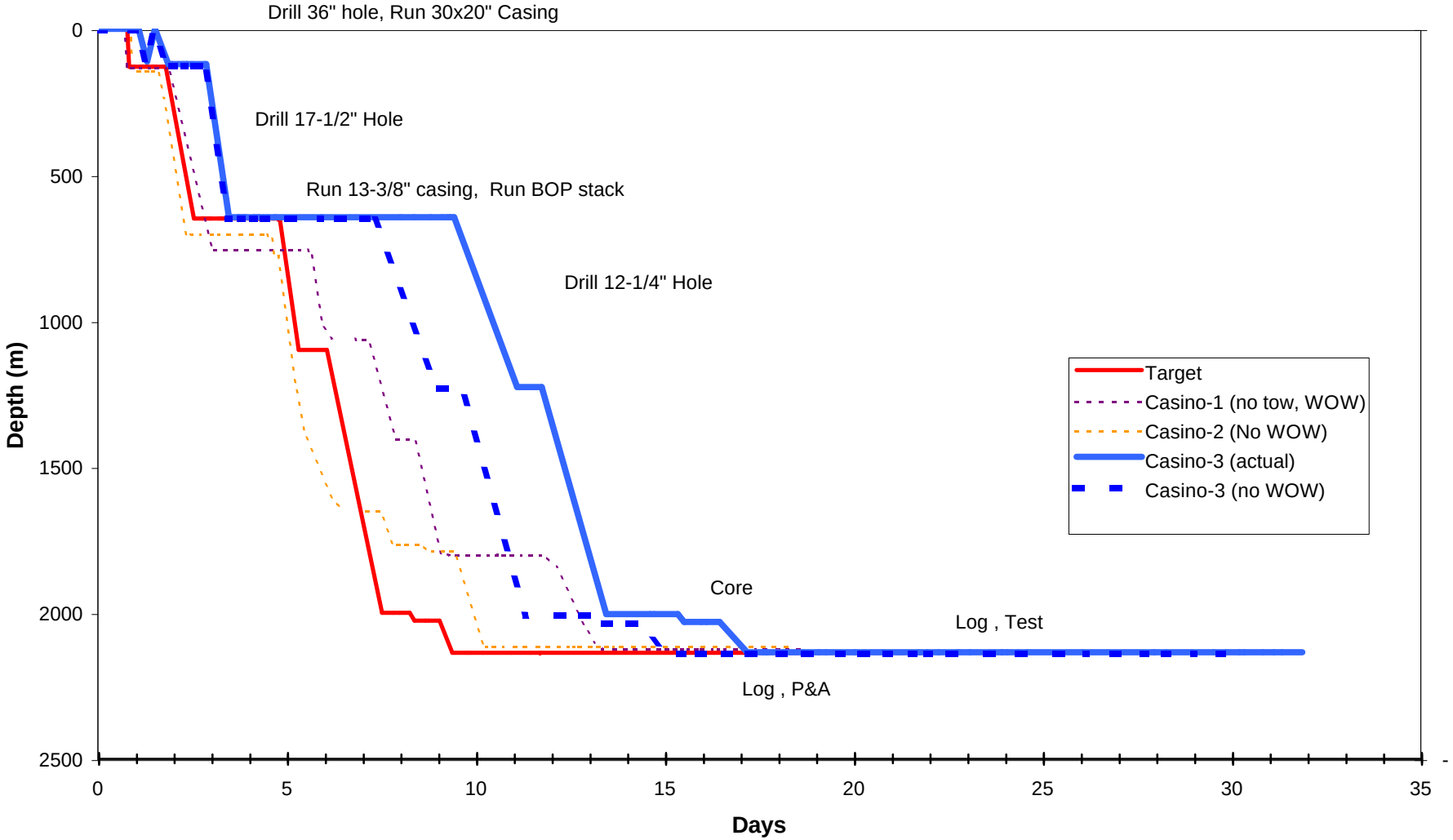
Boats	Arrived (date/time)	Departed (date/time)	Status
Lady Dawn	00:20	19:00	BHPB ops

Bulks

Item	Unit	Quantity
Barite	sx	926
Cement	sx	2814
Gel	sx	1905
Potable Water	MT	355
Drill Water	MT	86
Mud	sx	0
Fuel	MT	348

SECTION 7 : TIME / DEPTH CURVE

Days vs Depth - Casino 3



SECTION 8 : BHA SUMMARY

DFE above MSL : 22.4 m | Lat : 38 Deg 46 Min 34.558 Sec | Spud Date : 14 Oct 2003 | Release Date : 13 Nov 2003

Water Depth : 66.7 m | Long : 142 Deg Min 05.437 Sec | Spud Time: 15:00 | Release Time: 19:00

BHA Record

#	Date-in	Length	Weight	Weight Blw/Jar	String Weight	Pick-Up Weight	Slack-Off Weight	Torque Max	Torque on Bottom	Torque off Bottom	Description
1	14 Oct 2003	124.1	0	0	190.0	190.0	190.0	0	0	0	Bit-17.5" stab-36" HO-fltsub-Anderdrift-3x9.5"dc-xo-5x8.25"dc-xo.-4x5"hwdp
2	16 Oct 2003	264.7	0	0	215.0	215.0	215.0	7000	5000	0	17.5" NB Stab c/ w; ported float; Anderdrift with totco; 17.5" Stab; 1 x 9.5" DC; 17.5" Stab; 2x9.5" DC's; x/ o; 6 x 8.25" DC's; 8" Jar; 4 x 8.25" DC's; 8" Accel; x/ o; 12 x 5" HWDP;
3	22 Oct 2003	270.1	0	0	260.0	260.0	260.0	7000	5000	1000	Packed BHA with roller reamers for interbedded hard sediments.
4	24 Oct 2003	250.5	0	0	270.0	270.0	270.0	15000	10000	4000	PDC / MWD Packed BHA with DOG sub for picking core point.
5	27 Oct 2003	283.1	0	0	300.0	295.0	295.0	12000	8000	2000	Coring BHA.
6	29 Oct 2003	250.5	0	0	310.0	305.0	305.0	18000	8000	1000	PDC / MWD Packed BHA with DOG sub to drill ahead to TD of well.
7	01 Nov 2003	202.0	0	0	300.0	300.0	300.0	10000	4000	2000	BHA for clean-out trip, with NB roller reamer. Ported float installed
8	05 Nov 2003	5.7	1.0	0	0	0	0	0	0	0	8 1/ 2" bit and casing scraper run on production tubing.
9	06 Nov 2003	71.6	0	0	0	0	0	0	0	0	Well Testing BHA - RIH at PBTD of 2077 m.

SECTION 9 : BIT RECORD & PERFORMANCE SUMMARY

DFE above MSL : 22.4 m | Lat : 38 Deg 46 Min 34.558 Sec | Spud Date : 14 Oct 2003 | Release Date : 13 Nov 2003

Water Depth : 66.7 m | Long : 142 Deg Min 05.437 Sec | Spud Time: 15:00 | Release Time: 19:00

Bit Record

Well: Casino #3

Date In	IADC	Bit#	Size in	Ser #	Mfr	Type	Jets # x	D.In m	D.Out m	Prog	Hrs o/b	SPP psi	Flow gpm	WOB klb	RPM	MW	TFA	ROP m/ hr	I	O1	D	L	B	G	O2	R
14 Oct 2003	DSJ	1	26.00	MJ5779	SMITH	DSJ	3 x 24	89.0	121.3	32.3	8.9	849.44	0.00	0.00	0.00	0.00		3.63	3	5	WT	A	0	I	NO	TD
16 Oct 2003		2	17.50	H38311	REED	EMS11GC	1 x 20	121.0	645.0	524	15.8	2400.00	1200.00	20.00	120.00	8.60		33.16	1	1	FC	A	2	I	NO	TD
22 Oct 2003	4-2-7	3	12.25	LR2995	SMITH	MO2TL	3 x 22 1 x 16	645.0	1226.0	581	13.8	1760.14	784.78	24.70	160.00	8.75		42.10	3	4	BT	M2	E	2	ER	BHA
24 Oct 2003	M-223	4	12.25	106469	HYCALOG	DSX 195 D	3 x 16 5 x 13	1226.0	2004.0	778	26.5	3614.72	850.00	18.00	150.00	8.80		29.36	1	1	RR	A	X	I	NO	CP
27 Oct 2003		5C1	12.25	7921477A	SECURITY-DBS	CD93	10 x 14	2004.0	2031.0	27	5.7	1370.00	253.00	12.00	60.00	9.30		4.74								
29 Oct 2003	M-223	4RR1	12.25	106469	HYCALOG	DSX 195 D	2 x 12 3 x 13	2031.0	2135.0	104	15.4	4005.00	815.00	21.60	150.00	9.60		6.75	2	2	WT	T	X	I	BU	TD
01 Nov 2003	M-223	4RR2	12.25	106469	HYCALOG	DSX 195 D	2 x 12 3 x 13	2135.0	2135.0	0	0							0.00	2	2	WT	T	X	I	BU	TD
05 Nov 2003	2-1-7	6	8.50	KB 6302		HP 21G	3 x 32	2135.0	2135.0	0	0							0.00	0	0	NO	A	E	I	NO	DST

SECTION 10 : DRILLING FLUIDS REPORT

SECTION 10.1 : DRILLING FLUIDS REPORT

SECTION 10.2 : MUD FILTRATE ANALYSIS (Amdel)

13 November 2003

amdel
www.amdel.com
A subsidiary of The Gribbles Group

Santos Limited
GPO Box 2319
ADELAIDE SA 5000
Australia

Attention: Anna Pignetti

Project Name	**03PEAD11225**
Collected by	Client
Client Ref:	800307-649031

Customer Sample ID	Casino-3
Description	Ocean Epoch
Date Collected	30/10/2003
Time Collected	11:00
Date Received	11/11/2003
Sample Type	Mud Filtrate

WATER ANALYSIS

Test/Reference	Unit	
PROPERTIES: APHA 20th Ed		
pH		7.8
Electrical Conductivity @ 25°C	µS/cm	91200
Resistivity @ 25°C	M.Ohm	0.11
ANIONS mg/L APHA 20th ed		
Hydroxide as OH	mg/L	<1
Carbonate as CO3	mg/L	<1
Bicarbonate as HCO3	mg/L	1219
Chloride as Cl	mg/L	29552
Nitrate as NO3	mg/L	<0.1
Sulphate as SO4	mg/L	318
Total Anions	mg/L	31089
ANIONS meq/L APHA 20th ed		
Hydroxide as OH	meq/L	<0.01
Carbonate as CO3	meq/L	<0.01
Bicarbonate as HCO3	meq/L	20
Chloride as Cl	meq/L	832.45
Nitrate as NO3	meq/L	<0.01
Sulphate as SO4	meq/L	6.62
Total Anions	meq/L	859.06
CATIONS mg/L APHA 20th ed		
Potassium as K	mg/L	29650
Sodium as Na	mg/L	3675
Calcium as Ca	mg/L	230
Magnesium as Mg	mg/L	189
Total Cations	mg/L	33744
CATIONS meq/L APHA 20th ed		
Potassium as K	meq/L	758.31
Sodium as Na	meq/L	159.85
Calcium as Ca	meq/L	11.48
Magnesium as Mg	meq/L	15.56
Total Cations	meq/L	945.20
DERIVED PARAMETERS APHA 20th ed		
Ion balance (Diff * 100/Sum)	%	4.77
Acceptance Criteria	%	5

First Reported: 13 November 2003

Amdel Ltd 35-37 Stirling Street Thebarton SA Australia 5031
30 008 127 802 Telephone: +61 8 8416 5200 Facsimile: +61 8 8234 2933

amdel
www.amdel.com
A subsidiary of The Gribbles Group

Customer Sample ID	Casino-3
Description	Ocean Epoch
Date Collected	30/10/2003
Time Collected	11:00
Date Received	11/11/2003
Sample Type	Mud Filtrate

WATER ANALYSIS

Test/Reference	Unit	
Satisfactory		Yes
Total Alkalinity (calc as CaCO3)	mg/L	999
Total Cations + Anions	mg/L	64833
Hardness (calc as CaCO3)	mg/L	1353
Calculated Total Dissolved Solids	mg/L	58368

DERIVED PARAMETERS

If the ion balance in this sample is unsatisfactory it is most likely due to a component or components of the sample that is not within the scope of this analysis.

Authorised By: Valentina Pavlovic
Petroleum Chemist

Signature:

Final Report

- Indicates Not Requested ** Indicates NATA Accredited Test*

Samples will be discarded after 30 days unless otherwise notified.

The samples were not collected by Amdel staff.

Amdel Ltd 35-37 Stirling Street Thebarton SA Australia 5031
30 008 127 802 Telephone: +61 8 8416 5200 Facsimile: +61 8 8234 2933

SECTION 11 : CASING & CEMENTING SUMMARY

DFE above MSL : 22.4 m	Lat : 38 Deg 46 Min 34.558 Sec	Spud Date : 14 Oct 2003	Release Date : 13 Nov 2003
Water Depth : 66.7 m	Long : 142 Deg Min 05.437 Sec	Spud Time : 15:00	Release Time : 19:00

Casing Summary

Well: Casino #3

Diameter	30 "	L.O.T. (Act)	0 ppg
Casing Shoe MD (Act)	121.0 m	F.I.T. (Act)	0 ppg
Casing Shoe TVD (Act)	121.0 m		
Cement data	154 bbls (750 sx) Class G w/ 1% CaCl2 15.8 ppg		
Comment			

Diameter	13 3/ 8"	L.O.T. (Act)	15.00 ppg
Casing Shoe MD (Act)	635.8 m	F.I.T. (Act)	0 ppg
Casing Shoe TVD (Act)	635.8 m		
Cement data	Lead - 304 bbls (768sx) c/ w 0.6 gal/ sx Econolite @ 12.5 lb/ gal. Tail - 172 (389sx) c/ w neat in seawater @ 15.8lbs/ gal.		
Comment			

Diameter	9 5/ 8"	L.O.T. (Act)	0 ppg
Casing Shoe MD (Act)	2113.0 m	F.I.T. (Act)	0 ppg
Casing Shoe TVD (Act)	2113.0 m		
Cement data	Lead - 165 bbls (432sx) c/ w 0.75 gal/ sx Econolite, 0.035 gal/ sx HR6L @ 12.5 ppg Tail - 138 bbls (627 sx) c/ w .36 gal/ sx Halad 413-L, 0.08 gal/ sx HR6L @ 15.8 ppg		
Comment			

SECTION 12 : MUDLOGGING WELL REPORT

(Including Mudlog 1:500 & D-Exponent Log)

SECTION 13 : RIG POSITIONING REPORT

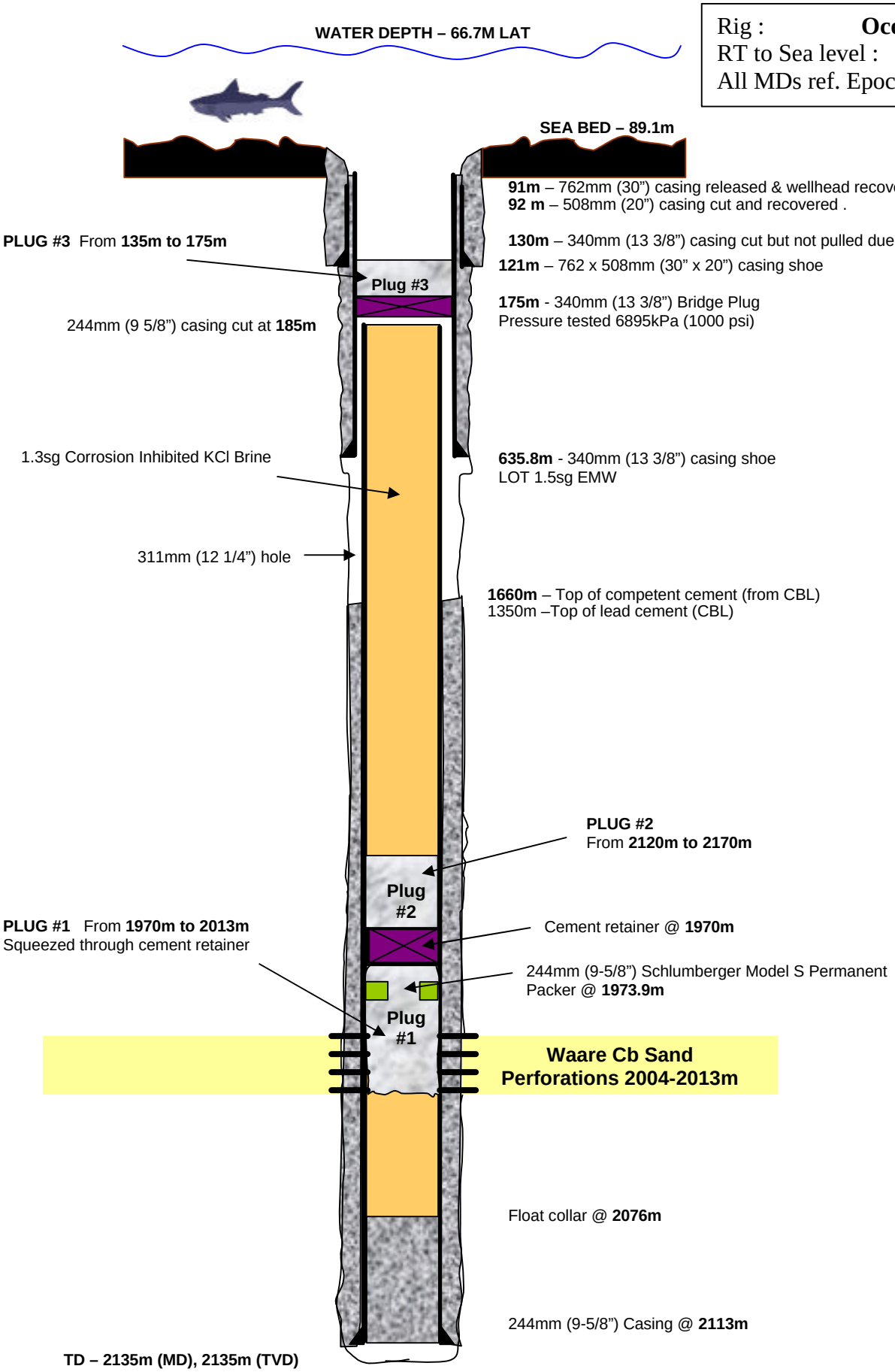
SECTION 14 : WELL ABANDONMENT AND PLUG REPORT

Santos

13th November 2003

WELL ABANDONMENT DIAGRAM
VIC/P44 CASINO-3

Rig :	**Ocean Epoch**
RT to Sea level :	22.4m
All MDs ref. Epoch RT	



Santos

CASING AND CEMENTING REPORT

FORM
DMS F220

Well Name: Casino #3

Casing Type:	Surface Casing	Originated By:	S Douglass	Checked By:	C.Wise	Date:	12 Nov 2003
Hole Size:	17.50 in	Total Depth:	175.0 m	GL-RT:	0 m	Contractor:	Halliburton

PRE-FLUSH	5.0 bbl @ 8.60 ppg	SPACER	0 bbl @ 0 ppg
Additives:	Seawater	Additives:	

CEMENT		ADDITIVES	%	Amount	Units
LEAD SLURRY:	95 sx				
Brand / Class:	Adelaide Brighton / G				
Slurry Yield:	1.15 ft³/ sx				
Mixwater Req't:	5.00 gal/ sx				
Actual Slurry Pumped:	19.6 bbl				
Density:	15.80 ppg				
Cement Top (MD):	135.0 m				
TAIL SLURRY:	0 sx				
Brand / Class:	/				
Slurry Yield:	0 ft³/ sx				
Mixwater Req't:	0 gal/ sx				
Actual Slurry Pumped:	0 bbl				
Density:	0 ppg				
Cement Top (MD):	0 m				

DISPLACEMENT — Fluid: Seawater @ 8.60 ppg

Theoretical Displ.:	7.5 bbl	Bumped Plug with:	0 psi
Actual Displ.:	7.5 bbl @ 210 gpm	Pressure Tested To:	0 psi
Displaced via:	Halliburton	Bleed Back:	0 bbl

ACTIVITY	Time/Date
Start Running csg.	
Casing On Bottom	
Start Circulation	
Start Pressure Test	
Pump Preflush	
Start Mixing	
Finish Mixing	
Start Displacing	
Stop Displ./Bump	
Pressure Test	

Returns to Surface: 0 bbl mud, 0 bbl cmt
Casing Action During Preflush : Cement : Displacement :
Top Up Job run: 0 0 sx of class
Wiper Plug Top:
Wiper Plug Bottom:
Plug Set: Manufacturer: Type:
Centralizer Type: Centralizer Placement Depth:

Theoretical Bouyed wt. of casing:	0 klb	Bradenhead Height above GL:	0 m
Casing wt. prior to landing csg:	0 klb	Bradenhead Description / Length:	/ 0 m
Actual wt. of casing (last joint run-block wt):	0 klb	Tubing Spool Size:	
Landing wt. (after cementing and pressure bleed off):	0 klb	Setting Slips:	0 klb

Cementing Job Remarks: Abandonment Plug #3 - cement retainer set at 175m, cement plug above from 175m to 135m RT.

Printed on 13 Nov 2003

CASING AND CEMENTING REPORT

FORM
DMS F220

Well Name: Casino #3

Casing Type:	Production Casing	Originated By:	S Douglass	Checked By:	C.Wise	Date:	12 Nov 2003
Hole Size:	12.25 in	Total Depth:	2135.0 m	GL-RT:	0 m	Contractor:	Halliburton

PRE-FLUSH	10.0 bbl @ 8.33 ppg	SPACER	0 bbl @ 0 ppg
Additives:	Drillwater	Additives:	

CEMENT		ADDITIVES	%	Amount	Units
LEAD SLURRY:	145 sx				
Brand / Class:	Adelaide Brighton / G	Halad 413	4	40	gal
Slurry Yield:	1.16 ft³/ sx	HR6-L	0.02	2	gal
Mixwater Req't:	5.15 gal/ sx				
Actual Slurry Pumped:	30.0 bbl				
Density:	15.80 ppg				
Cement Top (MD):	1920.0 m				
TAIL SLURRY:	0 sx				
Brand / Class:	/				
Slurry Yield:	0 ft³/ sx				
Mixwater Req't:	0 gal/ sx				
Actual Slurry Pumped:	0 bbl				
Density:	0 ppg				
Cement Top (MD):	0 m				

DISPLACEMENT — Fluid: KCl @ 9.30 ppg

Theoretical Displ.:	72.0 bbl	Bumped Plug with:	0 psi
Actual Displ.:	0 bbl @ 0 gpm	Pressure Tested To:	0 psi
Displaced via:	Halliburton	Bleed Back:	0 bbl

ACTIVITY	Time/Date
Start Running csg.	
Casing On Bottom	
Start Circulation	
Start Pressure Test	
Pump Preflush	
Start Mixing	
Finish Mixing	
Start Displacing	
Stop Displ./Bump	
Pressure Test	

Returns to Surface: 0 bbl mud, 0 bbl cmt
Casing Action During Preflush : Cement : Displacement :
Top Up Job run: 0 0 sx of class
Wiper Plug Top:
Wiper Plug Bottom:
Plug Set: Manufacturer: Type:
Centralizer Type: Centralizer Placement Depth:

Theoretical Bouyed wt. of casing:	0 klb	Bradenhead Height above GL:	0 m
Casing wt. prior to landing csg:	0 klb	Bradenhead Description / Length:	/ 0 m
Actual wt. of casing (last joint run-block wt):	0 klb	Tubing Spool Size:	
Landing wt. (after cementing and pressure bleed off):	0 klb	Setting Slips:	0 klb

Cementing Job Remarks: Abandonment Plug #1 - Set EZSV at 1962 m and squeezed 20bbls cement below (isolating Waarre perforations).

Abandonment Plug #2 - spotted 10 bbls of cement on top of the EZSV from 1962m to 1920m RT.

Printed on 13 Nov 2003

SECTION 15: DEVIATION SUMMARY

Surveys and schematics are presented overleaf.

DFE above MSL : 22.4 m | Lat : 38 Deg 46 Min 34.558 Sec | Spud Date : 14 Oct 2003 | Release Date : 13 Nov 2003

Water Depth : 66.7 m | Long : 142 Deg Min 05.437 Sec | Spud Time : 15:00 | Release Time : 19:00

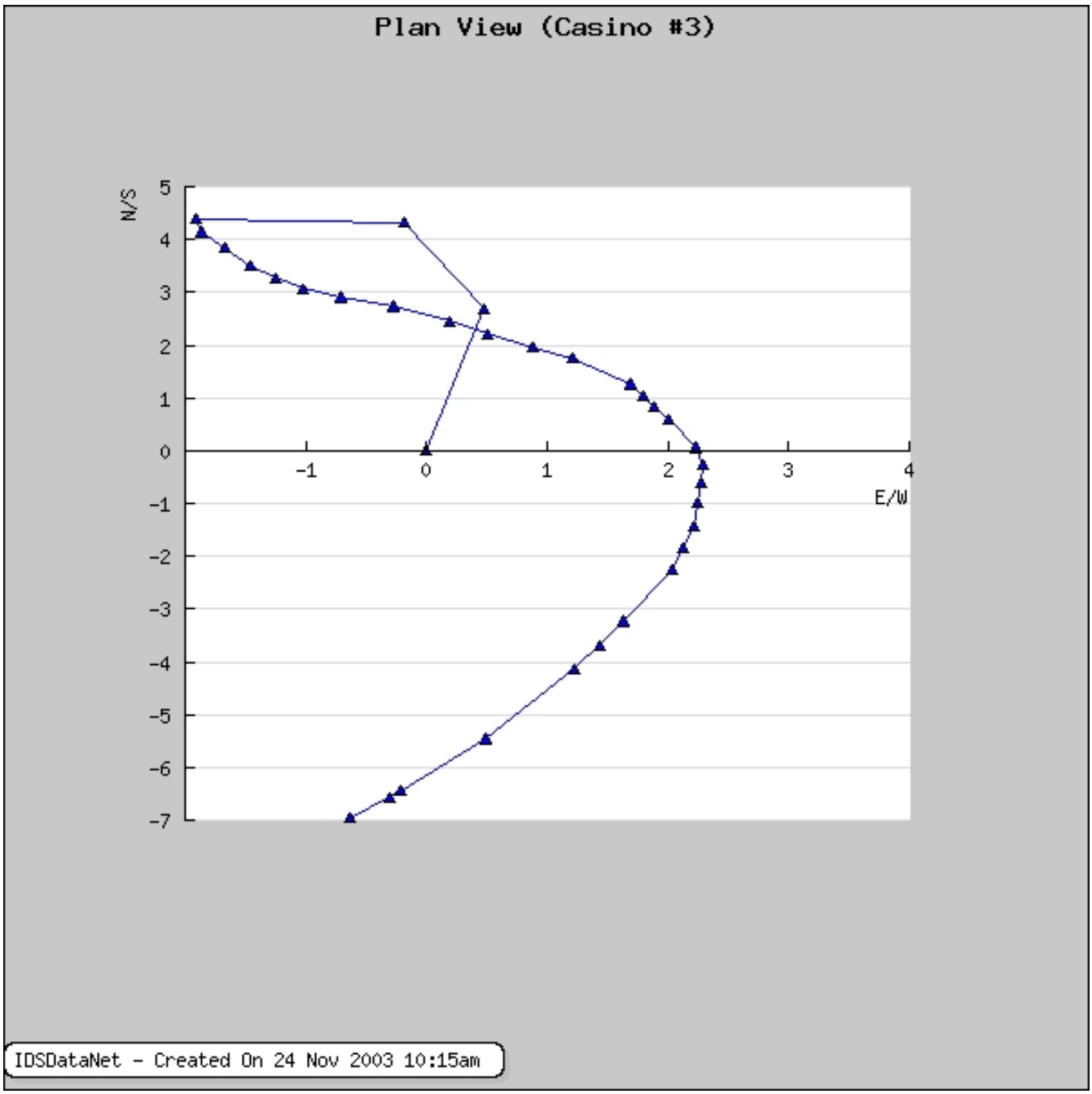
Survey

Well: Casino #3

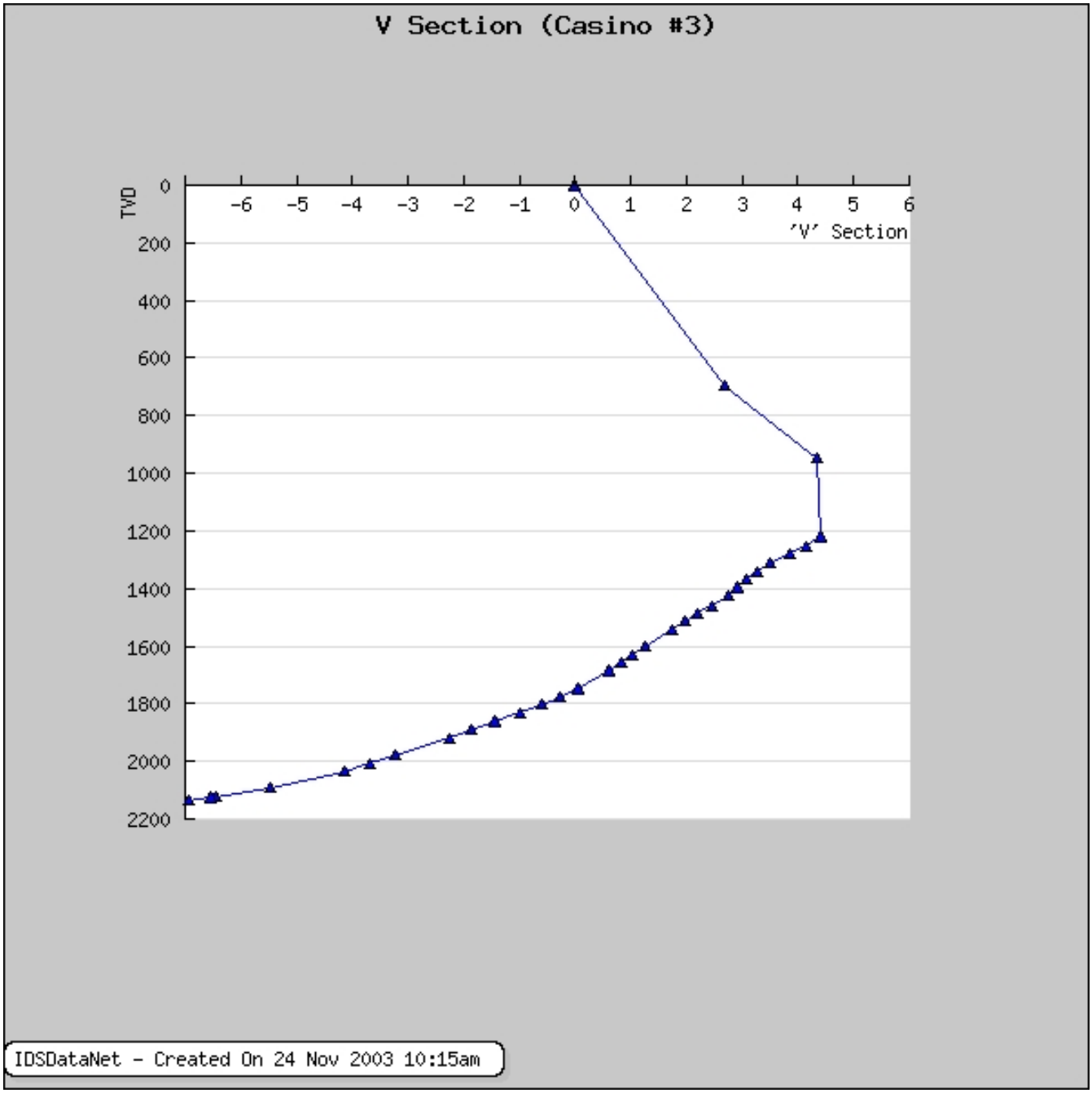
Mag Dec: 0 Sidetrack # 0

MD m	TVD m	INCL deg	CORR. AZ deg	DOGLEG deg/ 30m	'V' SECT m	N/S m	E/W m	TOOLTYPE
0	0	0	0	0	0	0	0	
696.31	696.3	0.45	10.09	0.07	2.69	2.69	0.48	MWD
947.80	947.8	0.49	308.35	0.19	4.33	4.33	-0.19	MWD
1218.76	1218.7	0.44	231.47	0.21	4.40	4.40	-1.91	MWD
1251.66	1251.6	0.80	142.87	2.75	4.14	4.14	-1.87	MWD
1278.90	1278.9	0.75	149.32	0.37	3.84	3.84	-1.67	MWD
1311.40	1311.4	0.64	145.23	0.37	3.50	3.50	-1.46	MWD
1341.10	1341.1	0.57	133.81	0.47	3.27	3.27	-1.25	MWD
1367.40	1367.4	0.72	129.23	0.60	3.07	3.07	-1.03	MWD
1394.80	1394.8	0.83	105.22	1.24	2.91	2.91	-0.71	MWD
1425.30	1425.3	0.93	117.62	0.70	2.74	2.74	-0.28	MWD
1461.00	1461.0	0.83	126.97	0.49	2.45	2.45	0.19	MWD
1485.50	1485.5	1.05	125.52	0.90	2.21	2.21	0.51	MWD
1513.80	1513.8	0.75	121.22	1.09	1.96	1.96	0.88	MWD
1543.40	1543.3	0.78	125.17	0.20	1.75	1.75	1.21	MWD
1601.00	1600.9	0.60	149.21	0.58	1.26	1.26	1.69	MWD
1629.20	1629.1	0.45	166.96	0.78	1.03	1.03	1.79	MWD
1654.20	1654.1	0.57	146.54	0.86	0.83	0.83	1.88	MWD
1684.80	1684.7	0.39	155.53	0.64	0.60	0.60	2.01	MWD
1747.50	1747.4	0.70	158.31	0.50	0.06	0.06	2.23	MWD
1775.60	1775.5	0.69	181.94	1.01	-0.27	-0.27	2.29	MWD
1802.20	1802.1	0.74	185.60	0.25	-0.60	-0.60	2.27	MWD
1830.40	1830.3	0.84	183.00	0.38	-0.99	-0.99	2.24	MWD
1860.90	1860.8	0.82	186.01	0.16	-1.43	-1.43	2.21	MWD
1890.60	1890.5	0.81	194.41	0.40	-1.85	-1.85	2.13	MWD
1919.30	1919.2	0.89	193.99	0.28	-2.26	-2.26	2.03	MWD
1977.50	1977.4	1.18	208.33	0.66	-3.23	-3.23	1.63	MWD
2005.90	2005.8	0.83	199.77	1.34	-3.68	-3.68	1.43	MWD
2035.10	2035.0	1.10	206.07	0.99	-4.13	-4.13	1.23	MWD
2092.20	2092.1	1.96	211.00	1.52	-5.46	-5.46	0.49	MWD
2121.80	2121.7	2.72	218.57	2.77	-6.44	-6.44	-0.21	MWD
2125.00	2124.9	2.92	220.32	6.80	-6.56	-6.56	-0.31	MWD
2135.00	2134.8	2.92	220.32	0	-6.95	-6.95	-0.64	Extrapolated

Wellname : Casino #3	Drilling Co. : DOGC		Rig : Ocean Epoch
DFE above MSL : 22.4 m	Lat : 38 Deg 46 Min 34.558 Sec	Spud Date : 14 Oct 2003	Release Date : 13 Nov 2003
Water Depth : 66.7 m	Long : 142 Deg Min 05.437 Sec	Spud Time : 15:00	Release Time : 19:00



Wellname : Casino #3	Drilling Co. : DOGC		Rig : Ocean Epoch
DFE above MSL : 22.4 m	Lat : 38 Deg 46 Min 34.558 Sec	Spud Date : 14 Oct 2003	Release Date : 13 Nov 2003
Water Depth : 66.7 m	Long : 142 Deg Min 05.437 Sec	Spud Time : 15:00	Release Time : 19:00



SECTION 16: PALYNOLOGY REPORT

SANTOS PALYNOLOGY SECTION
EXPLORATION SERVICES DEPARTMENT

Palynology Report No. 2003/33

Author: G. WOOD & R.HELBY
Approved by: G.WOOD

PALYNOLOGICAL REPORT NO. 2003/33
PALYNOSTRATIGRAPHICAL ANALYSIS

CASINO -3 WELL

Santos Ltd
A.C.N. 007 550 923

Circulation: Geology Operations, Team Leader, EIC, Palynology Files

Introduction

The palynological content of ten conventional core samples, twenty sidewall core samples and sixteen cuttings samples from Santos Casino-3, were examined.

The palynostratigraphic results are presented in on Table 1.

_____

G. Wood & R. Helby

SAMPLE	DEPTH (M)	REMARKS
SWC30	1165.0	Moderate diversity, but numerically restricted, dinocyst suite with *Isabelidinium pellucidum, Chatangiella micracantha, Manumiella* sp. cf. *M. druggii* and *Odontochitina indigena*. Very diverse spore-pollen suite with *Gambierina rudata, Lactoropollenites* sp., *Nothofagidites* spp. and *Tricolporites lilliei*. Shallow shelf.
SWC29	1259.0	Moderate diversity, but restricted, dinocyst suite with *Isabelidinium pellucidum, Chatangiella micracantha, Manumiella* sp. cf. *M. druggii* and *Spinidinium* sp. cf. *S. spinulosum*. Acritarchs prominent including *Nummus* sp. (9%) and *Paralecaniella* sp. (3%). Very diverse spore-pollen suite with *Forcipites sabulosus, Gambierina rudata, Nothofagidites* spp. and *Tricolporites lilliei*. Shallow shelf.
SWC28	1408.0	Restricted (1% of total palynomorphs), low diversity dinocyst suite with *Xenikoon australis, Gillinia hymenophora* and *Palaeohystrichophora infusorioides*. Diverse spore-pollen suite with *Gambierina rudata, Nothofagidites* spp. and *Peninsulapollis gillii*. Shallow shelf.
SWC27	1509.0	Relatively rich (18%) but low diversity dinocyst suite dominated by *Xenikoon australis* with *Nelsoniella aceras and N. semireticulata*. Diverse spore-pollen suite with *Clavifera vultuosus, Forcipites sabulosus, G. rudata, Nothofagidites* spp. and *P. gillii*. Shallow shelf.
SWC26	1528.5	Restricted (4%), low diversity dinocyst suite with *Xenikoon australis* and *Palaeohystrichophora infusorioides*. Diverse spore-pollen suite with *Camarozonosporites bullatus, Clavifera vultuosus, Forcipites sabulosus, Lactoropollenites* sp *Nothofagidites* spp., *Peninsulapollis gillii* and *Tricolporites apoxyexinus*. Shallow shelf.
SWC25	1557.0	Rich (28%), moderate diversity dinocyst suite dominated by *Xenikoon australis*. Diverse spore-pollen suite with *Clavifera vultuosus, Forcipites sabulosus, Nothofagidites* spp. and *Tricolpites confessus*. Shallow shelf.
SWC24	1582.5	Fairly rich (18%), moderate diversity dinocyst suite dominated by *Xenikoon australis, Nelsoniella aceras* and frequent *N. tuberculata*. Diverse spore-pollen suite with *Camarozonosporites bullatus, Forcipites sabulosus, Nothofagidites* spp. and *Peninsulapollis gillii*. Shallow shelf.
SWC23	1607.5	Rich (30%), moderate diversity dinocyst suite dominated by *Xenikoon australis* with *Nelsoniella aceras* and *N. tuberculata*. Diverse spore-pollen suite with *Clavifera vultuosus, Forcipites sabulosus* and *Peninsulapollis gillii*. Shallow shelf.
SWC22	1623.5	Low diversity dinocyst suite with *Xenikoon australis, Nelsoniella aceras, Areosphaeridium suggestium* and frequent (8%) *Heterosphaeridium* spp. Diverse spore-pollen suite with *Nothofagidites senectus* and *Tricolporites apoxyexinus*. Shallow shelf.
SWC21	1660.0	Restricted, low diversity dinocyst suite with *Xenikoon australis, Nelsoniella tuberculata* and frequent (4%) *Heterosphaeridium* spp. Diverse spore-pollen suite not well characterized with *Australopollis obscuris* (3%) and prominent *Proteacidites* spp (12%). Shallow shelf.
SWC20	1705.5	Restricted, low diversity dinocyst suite with *Xenikoon australis, Nelsoniella tuberculata* and rare *Heterosphaeridium* spp. Diverse spore-pollen suite *Lactoropollenites* sp., *Nothofagidites senectus* and prominent *Proteacidites* spp (10%). Shallow shelf.
CUTT	1764	Restricted, low diversity dinocyst suite with *Xenikoon australis, Odontochitina porifera* and frequent *Heterosphaeridium* spp. Diverse spore-pollen suite, not well characterized, with *Australopollis obscuris* (3%) and prominent *Proteacidites* spp (12%). Shallow shelf.

SAMPLE	DEPTH (M)	REMARKS
CUTT	1800	Restricted, low diversity dinocyst suite with *Nelsoniella aceras, N. tuberculata, Odontochitina porifera* and relatively 3% frequent *Heterosphaeridium* spp. Diverse spore-pollen suite, not well characterized, with *Australopollis obscuris* (4%) and frequent *Proteacidites* spp (9%). Shallow shelf.
CUTT	1857	Moderate diversity dinocyst suite with Isabelidinium cretaceum, *Nelsoniella aceras, Odontochitina porifera, Trithyrodinium vermiculatum* and *Xenikoon australis* (caved ?). Diverse spore-pollen suite includes *Clavifera vultuosus, Nothofagidites senectus, Proteacidites* spp. (3%) and *Tetracolporites reticulatus* (caved ?). Shallow shelf.
CUTT	1863	Relatively rich (36%), moderately diverse, dinocyst suite with *I. rotundatum, Hexagonifera glabra, Nelsoniella aceras, Occisucysta septata`, Odontochitina porifera* and prominent *Trithyrodinium vermiculatum*. The spore-pollen suite is not well characterized (*Proteacidites* spp. 5%). Shelfal marine.
CUTT	1878	Relatively rich (37%), moderately diverse, dinocyst suite with frequent *I. rotundatum, Hexagonifera glabra, Occisucysta septata, Odontochitina porifera* and *Trithyrodinium vermiculatum. Nelsoniella aceras and Xenikoon australis* present, possibly caved. The spore-pollen suite not well characterized. Shelfal marine.
CUTT	1896	Rich (53%), diverse, dinocyst suite with *Isabelidinium cretaceum, I. rotundatum, Hexagonifera glabra, Occisucysta septata, Odontochitina wannabe* and *Trithyrodinium vermiculatum. Nelsoniella aceras and Xenikoon australis* present, but considered caved. Shelfal marine.
CUTT	1932	Relatively rich (37%), moderately diverse, dinocyst suite with *Isabelidinium cretaceum, I. rotundatum, Amphidiadema denticulata, Hexagonifera glabra, Odontochitina porifera, O. wannabe* and *Trithyrodinium vermiculatum. Nelsoniella aceras and Xenikoon australis* present, but considered caved. The spore-pollen suite is not well characterized. Shelfal marine.
CUTT	1932	Relatively rich (31%), moderately diverse, dinocyst suite with *Isabelidinium cretaceum, Amphidiadema denticulata, Hexagonifera glabra, Occisucysta septata, Odontochitina porifera, O. wannabe* and *Trithyrodinium vermiculatum. Isabelidinium rotundatum, Nelsoniella aceras and Xenikoon australis* present, but considered caved. The spore-pollen suite is not well characterized. Shelfal marine.
CUTT	1943	Moderately diverse dinocyst suite (17% total palynomorphs) with *Isabelidinium* spp., including *I. rectangulare* (?), "frequent" *Odontochitina porifera and tentative I. balmei, Trithyrodinium marshalli.* Spore-pollen suite includes *Tricolporites apoxyexinus.* Near-shore.
SWC16	1951.0	Restricted (5%), moderately diverse, dinocyst suite with "frequent" *Valensiella griphus*, "frequent" *Chlamydophorella* sp., *Isabelidinium balmei* and *Kiokansium polypes*. Spore-pollen suite not well defined. Near-shore.
SWC15	1958.5	Fairly restricted (12%), moderately diverse, dinocyst suite with "common" *Valensiella griphus, Isabelidinium* sp., *Kiokansium polypes* and "frequent" *Odontochitina costata* (*s.l.*). *Amosopollis cruciformis* common (11%). Spore-pollen suite not well defined. Near-shore.
SWC13	1969.0	Relatively rich (39%), moderate diversity dinocyst suite with *Cribroperidinium edwardsii, Kiokansium polypes, Palaeohystrichophora infusorioides* and dominated by *Heterosphaeridium* spp. (26% total palynomorphs). *Amosopollis cruciformis* common (12%). Spore-pollen suite not well defined. Near-shore.

SAMPLE	DEPTH (M)	REMARKS
SWC12	1974.5	Moderate diversity dinocyst suite with *Cribroperidinium edwardsii, Exochosphaeridium* spp., *Isabelidinium* spp., *Kiokansium polypes, Tanyosphaeridium salpinx* and frequent *Heterosphaeridium* spp. *Amosopollis cruciformis* frequent (6%). Spore-pollen suite not well defined. Near-shore.
SWC10	1980.0	Relatively rich (39%), moderate diversity dinocyst suite with frequent *Apteodinium* sp. (JGG), *Cribroperidinium edwardsii, Kiokansium polypes, Spinidinium* sp. A and dominated by *Heterosphaeridium* spp. (22% total palynomorphs). *Amosopollis cruciformis* frequent (8%). Spore-pollen suite not well defined. Near-shore.
CUTT	1992	Fairly restricted (10%), low diversity dinocyst suite with *Apteodinium* sp. (JGG), *Circulodinium "distinctum", Oligosphaeridium pulcherrimum* and *Xiphophoridium alatum*. *Heterosphaeridium* spp. frequent (6%). Spore-pollen suite includes *Appendicisporites* spp. and *Australopollis obscuris*. Near-shore.
CUTT	1995	Restricted (<10%), moderate diversity dinocyst suite with *Apteodinium* sp. (JGG), *Circulodinium "distinctum", Exochosphaeridium* spp., *Kiokansium polypes, Oligosphaeridium* spp. and *Palaeoperidinium cretaceum*. *Heterosphaeridium* spp. frequent (<4%). Caving from Belfast Mdst evidenced by *Isabelidinium cretaceum* and *Trithyrodinium vermiculatum*. Spore-pollen suite not well defined. Near-shore.
CUTT	1995	Restricted (<10%), moderate diversity dinocyst suite with *Apteodinium* sp. (JGG), *Circulodinium "distinctum", Exochosphaeridium* spp., *Kiokansium polypes, Oligosphaeridium* spp. and *Palaeoperidinium cretaceum*. *Heterosphaeridium* spp. frequent (<4%). *Isabelidinium evexus* plexus not recorded. Caving from Belfast Mdst evidenced by *Isabelidinium cretaceum* and *Trithyrodinium vermiculatum*. Spore-pollen suite not well defined. Near-shore.
CUTT	1998	Moderate diversity dinocyst suite with *Kiokansium polypes, Oligosphaeridium* spp. and *Palaeoperidinium cretaceum*. *Isabelidinium evexus* plexus not recorded. Caving from Belfast Mdst to Paaratte Formation prominent. Near-shore.
SWC6	2000.5	Moderate diversity dinocyst suite (19% total palynomorphs) with *Isabelidinium evexus* (?), *Kiokansium polypes, Palaeohystrichophora infusorioides* and *Palaeoperidinium cretaceum*. *Heterosphaeridium* spp. frequent (<5%). Spore-pollen suite not well defined, but includes *Laevigatosporites musa*. Near-shore.
CUTT	2001	Very restricted in-situ dinocyst suite with substantial Flaxman Formation to Paaratte Formation caving. Dominated by *Heterosphaeridium* spp. (11%). Near-shore.
SWC5	2004.0	Moderate diversity dinocyst suite (17% of total palynomorphs) including *Isabelidinium evexus* with *Apteodinium* sp. (JGG), *Cribroperidinium edwardsii, Kiokansium polypes, Oligosphaeridium* spp. and *Palaeoperidinium cretaceum*. Algal cysts prominent (10% including *Amosopollis cruciformis, Nummus* spp. and *Palambages* sp.). Near-shore.
FHC	2010.6	Moderately diverse spore-pollen suite with "frequent" *Appendicisporites* spp., and "frequent" *Verrucosisporites admirabilis*. *Laevigatosporites musa* and *Hoegisporis trinalis* not recorded. Very restricted microplankton suite (<2%) with rare *Exochosphaeridium* spp. and *Heterosphaeridium* spp. *Amosopollis* nor recorded. Fringing marine.
FHC	2011.0	Low diversity dinocyst suite (17% total palynomorphs) including *Apteodinium* sp. (JGG), *Kiokansium polypes, Odontochitina costata* (*s.l.*), *Oligosphaeridium* spp. and *Subtilisphaera* sp. *Heterosphaeridium* spp. dominate (11%). *Amosopollis* not recorded. Near-shore.

SAMPLE	DEPTH (M)	REMARKS
FHC	2013.7	Restricted (7% of total palynomorphs), low diversity dinocyst suite including *Kiokansium polypes, Oligosphaeridium* spp. and *Palaeoperidinium cretaceum* (?). *Heterosphaeridium* spp. dominate (5%). *Amosopollis* not recorded. Spore-pollen suite includes *Appendicisporites tricornitatus, Hoegisporis trinalis, Laevigatosporites musa* and frequent *Verrucosisporites admirabilis*. Near-shore.
FHC	2014.2	Rich, moderately diverse dinocyst suite including *Cribroperidinium* spp., *Cyclonephelium compactum*, frequent *Kiokansium polypes, Oligosphaeridium* spp. and frequent *Palaeoperidinium cretaceum*. *Heterosphaeridium* spp. dominate (27%). *Amosopollis* not recorded. Spore-pollen suite includes *Appendicisporites distocarinatus, Hoegisporis trinalis* and *Verrucosisporites admirabilis*. Near-shore.
FHC	2027.15	Moderate diversity dinocyst suite (18% total palynomorphs) including *Apteodinium* sp. (JGG), *Cyclonephelium compactum, frequent Kiokansium polypes, frequent Oligosphaeridium* spp. and *Palaeoperidinium cretaceum*. *Heterosphaeridium* common (9%). *Amosopollis* not recorded. Near-shore.
FHC	2027.3	Rich (39%), moderately diverse, dinocyst suite including *Apteodinium* sp. (JGG), *Cyclonephelium membraniphorum*, "frequent" *Kiokansium polypes* and *common Oligosphaeridium* spp. *Heterosphaeridium* dominates (25%). *Amosopollis* not recorded. Spore-pollen suite includes *Appendicisporites spp., Hoegisporis trinalis and Laevigatosporites musa*. Near-shore.
FHC	2027.5	Rich (62%)but low diversity dinocyst suite with frequent *Kiokansium polypes* and *common Oligosphaeridium* spp. *Heterosphaeridium* dominates (44%). *Amosopollis* not recorded. Spore-pollen suite includes *Appendicisporites spp., Hoegisporis trinalis, Laevigatosporites musa* and "frequent" *Verrucosisporites admirabilis*. Near-shore.
FHC	2028	Rich (60%), moderately diverse, dinocyst suite including "frequent" *Kiokansium polypes*, particularly prominent *Oligosphaeridium* spp. and *Palaeoperidinium cretaceum*. *Heterosphaeridium* dominates (38%). *Amosopollis* not recorded. Spore-pollen suite not well characterized. Near-shore.
FHC	2032.25	Rich (62%), low diversity, dinocyst suite with *Chlamydophorella nyei, Kiokansium polypes, Oligosphaeridium* spp., *Palaeohystrichophora infusorioides* and *Palaeoperidinium cretaceum*., *Heterosphaeridium* totally dominates (71%). *Amosopollis* not recorded. Spore-pollen suite not well characterized. Near-shore.
SWC3	2050	Relatively rich (15%), moderately diverse, dinocyst suite including *Chlamydophorella nyei, Cyclonephelium compactum, Isabelidinium* spp., *Kiokansium polypes* and frequent *Oligosphaeridium* spp. *Cribroperidinium* spp. particularly prominent (8%). Spore-pollen suite includes *Appendicisporites tricornitatus, Hoegisporis trinalis, Laevigatosporites musa* (?). Near-shore.
CUTT	2103	Heavily contaminated by caving from Belfast Mudstone to Paaratte Formation. Zone assignment tentative - based on occurrence of *Kiokansium polypes*. Spore-pollen suite lacks diagnostic species.
FHC	2021.1	Rich, moderately diverse dinocyst suite including *Apteodinium* sp. (JGG), *Cribroperidinium edwardsii, Kiokansium polypes*, common *Oligosphaeridium* spp. and *Palaeoperidinium cretaceum*. *Heterosphaeridium* spp. totally dominate (56%). *Amosopollis* not recorded. Spore-pollen suite includes *Hoegisporis trinalis, Laevigatosporites musa* and *Verrucosisporites admirabilis*. Near-shore.

SAMPLE	DEPTH (M)	REMARKS
CUTT	2106	Heavily contaminated by caving from Belfast Mudstone to Paaratte Formation. Zone assignment tentative - based on occurrence of *Appendicisporites distocarinatus*. Other diagnostic species were not observed.