

From : Peter Devine / Nathan Peri
OIM : Rod Dotson

Well Data

Country	Australia	Measured Depth	2648.0m	Current Hole Size	216mm	AFE Cost	\$41,512,831
Field		TVD	1724.7m	Casing OD	244mm	AFE No.	5746043
Drill Contractor	DOGC	Progress	0.0m	Shoe MD	2042.7m	Daily Cost	\$0
Rig	Ocean Patriot	Days from spud	59.87	Shoe TVD	1709.9m	Cum Cost	\$64,174,031
Water Depth (LAT)	66.3m	Days on well	20.88	F.I.T. / L.O.T.	2.20sg / 2.20sg	Planned TD	2627.0m
RT-SL(LAT)	21.5m	Current Op @ 0600	Continued pressure testing the Slickline PCE.				
RT-ML	87.8m	Planned Op	RIH slickline and set the Lower Tubing Hanger plug. Pressure test same and POH. Lay out the Flowhead and PCE.				
Rig Heading	217.0deg		Disconnect the THRT and POH laying down the landing string. Disconnect the BOPs and pull to surface.				

Summary of Period 0000 to 2400 Hrs

Pressure tested the slickline lubricator. Pulled the Isolation sleeve from the Tubing Hanger. Displaced the tubing to diesel. Set the Packer and pressure cycled the Flapper valve to open. Pressure tested the Annulus. Open the choke and flowed the well.

Formations

Name	Top (MD)	Top (TVD)	Comment
Timboon	1214.5m	1202.4m	0.2 L
Paaratte	1413.0m	1380.0m	2.3 H
Skull Creek	1665.0m	1558.6m	5.4 H
Waarre A	2040.0m	1709.5m	5.0 H

Operations For Period 0000 Hrs to 2400 Hrs on 23 Oct 2008

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PH	P	RIC	0000	0100	1.00	2648.0m	Closed KWV, closed kill line valves. Crew change. Waited to conduct JSA for RIH slickline with new crew. Could not maintain 20.6MPa (3000 psi) line pressure on LV open line after opening LV. Trouble shoot leak. Could not find leak at surface. Confirmed valve was cycling fully opened and fully closed. Proceeded with operations.
PH	P	RIC	0100	0300	2.00	2648.0m	SIMOPs: rigged up hydraulic lines for slickline PCE Conducted JSA for RIH slickline. RU sheave. B/out sub above BOPs, MU TH isolation sleeve retrieval tool to toolstring and PU into lubricator. MU lubricator. Closed well test choke manifold, closed MV, opened SV and lubricator needle valves, opened KWV. Flushed through from cement unit until returns seen through lubricator needle valve. Pressure tested lubricator against MV and choke manifold to 1.3MPa (200 psi) 5 mins, 34.8MPa (5000 psi) 5mins - good test. Bled off pressure.
PH	P	RIC	0300	0400	1.00	2648.0m	Opened MV. RIH with TH isolation sleeve retrieval tool on slickline. Latched TH Iso sleeve and jarred out. POH. Closed the MV and disconnected slickline lubricator. Laid out the GS P/Tool and TH Iso sleeve. Pulled slickline tools back into the lubricator and clamped the wire, slacked off wire and made the lubricator up.
PH	P	RIC	0400	0430	0.50	2648.0m	Closed the SV. Lined out the cement unit to the well test separator. Pumped five bbls of diesel across with brine returns noted at the WTX. Closed the test choke and opened the MV. Lined up returns to the mud pits.
PH	P	RIC	0430	0645	2.25	2648.0m	Held JSA for displacement to diesel. Confirmed valve line up. Displaced tubing to diesel, taking returns to pits. Commenced pumping at low rate (0.3 bbl/min), gradually increasing to max rate of 2 bbl/min as per Halliburton guidelines. Pumped total of 215 bbls diesel followed by 3.5 bbl drill water to place diesel interface at 1659 m MD RT. Shut in at cement unit with SITHP of 5.6MPa (818 psi). Maintained SITHP to prevent U-tubing.
PH	P	RIC	0645	0800	1.25	2648.0m	Increased TRSV CL pressure to 48.2MPa (7,000psi). Closed AAV and Set Packer as per procedure then bled pressure to 5.5MPa (800psi). Pump pressure: 28.2MPa (4,100psi) Downhole pressure (DHPG): 41.3MPa (6,000psia) Annulus Pressure (APT): 14.4MPa (2,100psia)
PH	P	RIC	0800	0845	0.75	2648.0m	Pressured up to 26.2MPa (3,800psi) to cycle MC-FLCV valve, then bled pressure to 20.6MPa (3,000psi). Bled TRSV control line pressure to 0psi and reduced string pressure to 3.4Mpa (500psi) from W/Test choke and inflow test TRSV.
PH	P	RIC	0845	0915	0.50	2648.0m	Lined up cement unit to annulus and equalised across AAV. Pressure tested annulus to 24.1MPa (3,500psi).
PH	P	RIC	0915	0945	0.50	2648.0m	Inflow tested XT valves, AMV and AAV to 24.1MPa (3,500psi) for 10min each.
PH	P	RIC	0945	1130	1.75	2648.0m	Lined up cement unit to Flowhead and cycled remaining 4x cycles of MC-FLCV to lock open. Cycle pressures were;

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PH	P	RIC	1130	1215	0.75	2648.0m	High: 26.2MPa (3,800psi) Low: 4.8MPa (700psi) Pumping volume increase indicated valve locked open. Helicopter Crew change delayed Well Test JSA to 12:15.
PH	P	RIC	1215	1315	1.00	2648.0m	SIMOPS: final well test area checks completed. Held Well Test JSA, and final walk well test area walk around with rig Santos and rig management.
PH	P	RIC	1315	1330	0.25	2648.0m	Commenced well test operations: Pumped fluid in surge tank to stbd burner
PH	P	RIC	1330	1345	0.25	2648.0m	Opened the well at the choke manifold to the surge tank on 24/64" adjustable choke. WHP: 3.9MPa (572.9psi) (prior to opening up) BSW = 100% diesel
PH	P	RIC	1345	1430	0.75	2648.0m	Stepped up choke settings on adjustable to clean-up well
PH	P	RIC	1430	1445	0.25	2648.0m	Gas to surface on 36/64" adjustable choke and commenced methanol injection. Well Head Pressure: 1000.9psi (432.8psi downstream) Well Head Temp: 29.6°C
PH	P	RIC	1445	1900	4.25	2648.0m	Gas and Mud to surface. Stepped up choke setting on adjustable from 40/64 to 72/64 to aid cleaning mud slugs from well. Well cleaning up slowly with constant flare outs. BS&W: 100% mud
PH	P	RIC	1900	1930	0.50	2648.0m	Gas clean, and diverted through to separator. Stable flare achieved At stabilised flow, 4" orifice plate lowered to estimate gas rate. 72/64" adjustable choke, Well Head Pressure: 1,757.1psi (1012.7psi downstream) Well Head Temp: 45.5°C
PH	P	RIC	1930	2015	0.75	2648.0m	Switched flow to 72/64" fixed choke. Lowered 4.25" orifice plate to estimate flow rate. WHP: 1,783.7psi (983.2psi downstream) WHT: 46.8°C
PH	P	RIC	2015	2300	2.75	2648.0m	Estimated stabilised gas rate above max separator flow. Switched flow to 64/64". Lowered 4.5" orifice plate; Gas SG: 0.605 WHP: 1,862psi (864psi downstream) WHT: 45.1°C BS&W: 4% emulsion CO2: 0% H2S: 0ppm
PH	P	RIC	2300	2400	1.00	2648.0m	Continued flowing well on clean up. Collect two condensate samples for PVT analysis

Operations For Period 0000 Hrs to 0600 Hrs on 24 Oct 2008

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PH	P	RIC	0000	0015	0.25	2648.0m	Continued flowing well on clean up. Collect two condensate samples for PVT analysis
PH	P	RIC	0015	0030	0.25	2648.0m	Shut in well. SITHP 14.9MPa (2162 psi). Down hole gauge: 15.9MPa (2316 psi), 79 °C Annulus pressure (APT): 1.6MPa (243 psi) PPT1: 1.3MPa (199 psi) PPT2: 0.5MPa (87 psi)
PH	P	RIC	0030	0045	0.25	2648.0m	Opened AAV to bleed off pressure and left open. Final pressure 1.1MPa (170 psi). Closed AMV. Confirmed XT valve status. SIMOPS: Depressured TRSV control line pressure to 0 psi to close valve. Depressured downstream of well test choke manifold.
PH	P	RIC	0045	0100	0.25	2648.0m	Bled off pressure to 0.6MPa (100 psi) above TRSV through well test choke. SIMOPS: Held JSA for glycol and drill water circulation.
PH	P	RIC	0100	0130	0.50	2648.0m	Held 100 psi above TRSV for 15 min inflow test - good test. Downhold gauge pressure 17.1MPa (2481 psi) at start of inflow test. Checked down hole gauge pressure holding @ 17.1MPa (2489 psi) confirming TRSV holding. SIMOPS: Opened kill wing valves. Pumped drill water through kill and choke lines to poor boy degasser/shakers. Flaring diesel remaining in surge tank through Stbd flare boom.
PH	P	RIC	0130	0145	0.25	2648.0m	Bled off THP to 0 psi through well test choke manifold. Closed choke manifold. Pumped 10 bbl glycol from cement unit through lower kill and choke lines taking returns over shakers. Closed choke line valves. SIMOPS: Lining up to pump 10 bbl glycol through lower kill and choke lines.
PH	P	RIC	0145	0200	0.25	2648.0m	Opened XOV and PMV. Confirmed valve line up. Lined up to take returns to flare, opened well test choke manifold.
PH	P	RIC	0200	0300	1.00	2648.0m	Commenced pumping 43 bbl glycol from cement unit through lower kill line to fill up

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PH	P	RIC	0300	0330	0.50	2648.0m	tubing above TRSV, taking returns through well test package. Max rate 1.5 bbl/min to maintain positive suction on pump (pumping directly from ITC).
PH	P	RIC	0330	0400	0.50	2648.0m	Drill water returns at well test package. Shut down cement unit.
PH	P	RIC	0400	0515	1.25	2648.0m	Commenced pumping drill water from cement unit across Flowhead to well test package to flush choke manifold, HEX, separator, Stbd and Port flare booms and well test lines. Pumped up to 3 bbl/min. Total 82 bbl pumped. SIMOPs: Held JSA for RIH slickline
PH	P	RIC	0515	0600	0.75	2648.0m	Flushed through lubricator from cement unit until returns seen from needle valve. Pressure tested 1.3MPa (200 psi) 5 mins - good test. At 20.6MPa (3000 psi), pressure leaked off 0.3MPa (50 psi) min. Bled off pressure through choke manifold. Flushed across flowhead from cement unit to well test package until returns received. Shut in choke manifold. Shut in needle valves on lubricator when returns seen. Low pressure test 1.3MPa (200 psi) 2 mins - good test. Could not achieve high 34.4MPa (5000 psi) pressure test.
PH	P	RIC	0515	0600	0.75	2648.0m	Continued troubleshooting leak for the slickline lubricator.

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance	Comment
Barite	mT	0	0	0	54.0	
Gel	mT	0	0	0	31.0	
Cement	mT	0	0	0	30.0	
Fuel	m3	0	45	0	410.0	
Potable Water	m3	0	25	0	362.0	
Drill Water	m3	0	18	0	589.0	

Personnel On Board

Company	Comment	Pax
Santos		7
DOGC		44
ESS		8
BHI		1
Dowell		2
TMT		6
Cameron		4
Premium Casing Services		2
Baker Oil Tools		1
Expro		2
WFT		1
Schlumberger Testing		13
Expro		4
Rig Cool		2
Schlumberger Wireline	Demob E-Line	2
Total		99

HSE Summary				
Events	Num Events	Date of Last	Days Since	Remarks
Abandon Drill	1	19 Oct 2008	4 Days	Abandon drill completed after the simulated fire drill was under control. A full muster was achieved in 12 minutes.
Environmental Audit	1	03 Sep 2008	50 Days	Rig visit by DPI. Conducted an environmental audit on Santos operation.
Fire Drill	1	19 Oct 2008	4 Days	Simulated a fire in the well test area. Alarm sounded at 10:04 hrs, emergency under control at 10:14 hrs. Rescue and fire teams discussed scenario and resolution.
First Aid	1	16 Oct 2008	7 Days	IP reported that his left eye was irritable and itchy. The eye was red presumably with rubbing with hand.
First Aid	1	22 Oct 2008	1 Day	IP cut his hand with a knife when cutting through a cable tie. The cut was about 1.5in long and 1/8" deep. IP was treated with anti septic cream and bandaged. No stitches required.
First Aid	1	22 Oct 2008	1 Day	IP was undoing a tight shackle bolt. When the bolt came free, the IP's hand went forward hitting the steel derrick beam. The IP's hand has slight swelling with no discolouring to the knuckle area of the right hand.
JHA	26	23 Oct 2008	0 Days	Drill crew - 6 Deck Crew - 14 Welder - 0 Mechanic - 2 Electrician - 1 3rd Party - 3 Subsea- 0
Lost Time Incident	1	30 May 2008	146 Days	Man had his left hand caught between an 8" drill collar and the casing tongs when he was trying to secure the tong. Preliminary checks on the rig deemed only stitches required and the hand was not broken. The person was medivac'd off the rig @ 23:00hrs. Man was released from Royal Hobart hospital with 12 stitches to the hand (no broken bones).
Medical Treatment Incident	1	13 Aug 2008	71 Days	During lifting operations of 3rd party tooling on the pipe deck, IP was assisting the dogman in attaching slings to the whip-line hook. During this process the hook swung and hit the IP in the side of the hardhat resulting in an injury to the IP's neck. The IP was immobilised as a precautionary measure, treated as per symptoms and in readiness for medivac to hospital for further assessment.
Near Miss	1	16 Oct 2008	7 Days	Adjustable wrench fell from open top container while backloading to supply vessel and landed on deck.
Near Miss	1	18 Oct 2008	5 Days	While lifting the annular off the hercules frame, it caught the side and fell off landing on the deck (1m fall). No injuries to personnel or equipment.
Pre-Tour Meeting	4	23 Oct 2008	0 Days	Discussed the next 24 hr operation. Flaring operations.
PTW Issued	18	23 Oct 2008	0 Days	7 x hot work 11 x cold work
Safety Audit	1	29 Jul 2008	86 Days	Santos environment audit conducted.
Safety Audit	1	30 Jul 2008	85 Days	EHSMS audit conducted onboard.
Safety Meeting	3	19 Oct 2008	4 Days	Reviewed stop cards,near miss incidents for the week. Santos Stop Card of the week: Matt Davis and Brendan Palmer. Discussed fire drill and abandonment muster.
Santos Induction	0	23 Oct 2008	0 Days	Inducted new personnel to site after DODI rig wide induction.
Stop Observations	82	23 Oct 2008	0 Days	33 - Safe 11- Corrective Actions
STOP Tour	2	23 Oct 2008	0 Days	Submitted by Diamond supervisor Stop audit.

Marine								Rig Support																	
Weather check on 23 Oct 2008 at 24:00								Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period	Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments	Chain out (m)	Tension (mt)	
18.5km	11km/h	90.0deg	1025.00bar	11.0C°	0.5m	90.0deg	3sec	1	1353.0	127.91	2	1372.8	130.18	3	1386.8	126.10	4	1414.0	125.19	5	1365.8	120.20	6	1389.9	118.84
0.3deg	0.3deg	0.80m	1.5m	180.0deg	12sec	217.0deg	108.86mt	769.29mt	7	1393.9	137.89	8	1389.9	115.21											

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Far Grip		19:00 23rd Oct 08	Transit to Portland.	Item	Unit	Quantity
				Fuel	m3	672
				Potable Water	m3	442
				Drill Water	m3	397
				Gel	mt	59
				Cement	mt	84
				Barite	mt	41
				KCl Brine	bbl	52
				NaCl Brine	bbl	0
Nor Captain	19:00 23rd Oct 08		On location, running standby.	Item	Unit	Quantity
				Fuel	m3	623
				Potable Water	m3	352
				Drill Water	m3	319
				Gel	mt	42
				Cement	mt	0
				Barite	mt	0
				KCl Brine	bbl	0
				NaCl Brine	bbl	0

Helicopter Movement

Flight #	Time	Destination	Comment	Pax
BYV	11:15	Ocean Patriot		11
BYV	11:27	Essendon		9