2. Drilling

2.1. Drilling Summary

Friday, 13/09/2013:	Well spudded @ 0800 Hrs. Started drilling conductor from 4.20m.
Saturday, 14/09/2013:	Continue drilling from to 17.8 m. 9 5/8" casing set & cemented. WOC. Rig up for 8 1/2" surface hole. Set up gas sample system.
Sunday, 15/09/2013:	Drill out csg shoe. Rig up for 8 1/2" surface hole. Set up gas sample system. Drill to casing point.
Monday, 16/09/2013:	POH, prep for casing, run casing, wait on replacement BOP, position cementing unit. Run casing.
Tuesday, 17/09/2013:	Set up and prepare for cementing of 7" surface csg. Cement surface csg. Wait on cement. Rig up for BOP installation.
Wednesday, 18/09/2013:	Wait for 11" BOP. Pressure test choke manifold. Minor rig repairs.
Thursday, 19/09/2013:	Wait for 11" BOP. M/up BOP stack. Cut cellar walls to accommodate HCR valves. Commence Nipple up.
Friday, 20/09/2013:	Position and attach HCR valves to rams. Continue nippling up and pressure/function test BOP.
Saturday, 21/09/2013:	Drill out casing shoe & cement. POOH. Nipple up Blooey line. RIH Bit No.6. Drill 6 1/4" surface hole to 155m. FIT 200psi 5min. Drill to 242m.
Sunday, 22/09/2013:	Drill on to 403m. Pull out to change bit.
Monday, 23/09/2013:	Drill ahead from 403.5m. POOH at 491m to check bit after period slow penetration and high torque (stabiliser binding). Run back in, new bit, hammer, no stabilisers fitted.
Tuesday, 24/09/2013:	Run in, unable to unload well, back off 100m until able to unload. Run in, unloading well every joint. 0500 drill on from 491m. Single compressor (belt failure on No.2 unit) unable to clear hole, at 600m circulate to flush, POOH, change bit.
Wednesday, 25/09/2013:	Wait on compressor repair. 2130 run in well and unload. Standing water at approx. 120m
Thursday, 26/09/2013:	Run to 600m, unload and circulate. Drill on from 3am., 6.00am depth 618m. 1800hrs depth 648m
Friday, 27/09/2013:	Flush well for 30min at midnight and 50m intervals. Slow drilling. At 768m, loss of penetration, POOH to change bit/hammer.
Saturday, 28/09/2013:	RIH, drill on to 861.4m TD. POOH set up for logging.

Sunday, 29/09/2013: Run wire-line logs.

Monday, 30/09/2013: RIH 4 ½" casing and cement**.** Rig down mud loggers, rig down for move.

2.2. Equipment Installed in and on the Well

Wellhead

- GE 5000 psi

Conductor Hole

- Drill 12-1/4" hole to 17.0 m
- Case with 36lb/ft J-55 to 17.0m
- Burst 3520 psi
- Collapse 2020 psi

Surface Hole

- Drill 8-1/2" hole to 155m
- Case with 23lb/ft API 5CT J55 to 152.0m
- Burst 4360 psi
- Collapse 3270 psi

Intermediate Casing

- Drill 6-1/4" hole to 861.5m
- Case with 23lb/ft. API 5CT J55 to 858.29m
- Burst 5350 psi
- Collapse 4960 psi

Production Casing

- N/A

2.3. Wellbore Schematic

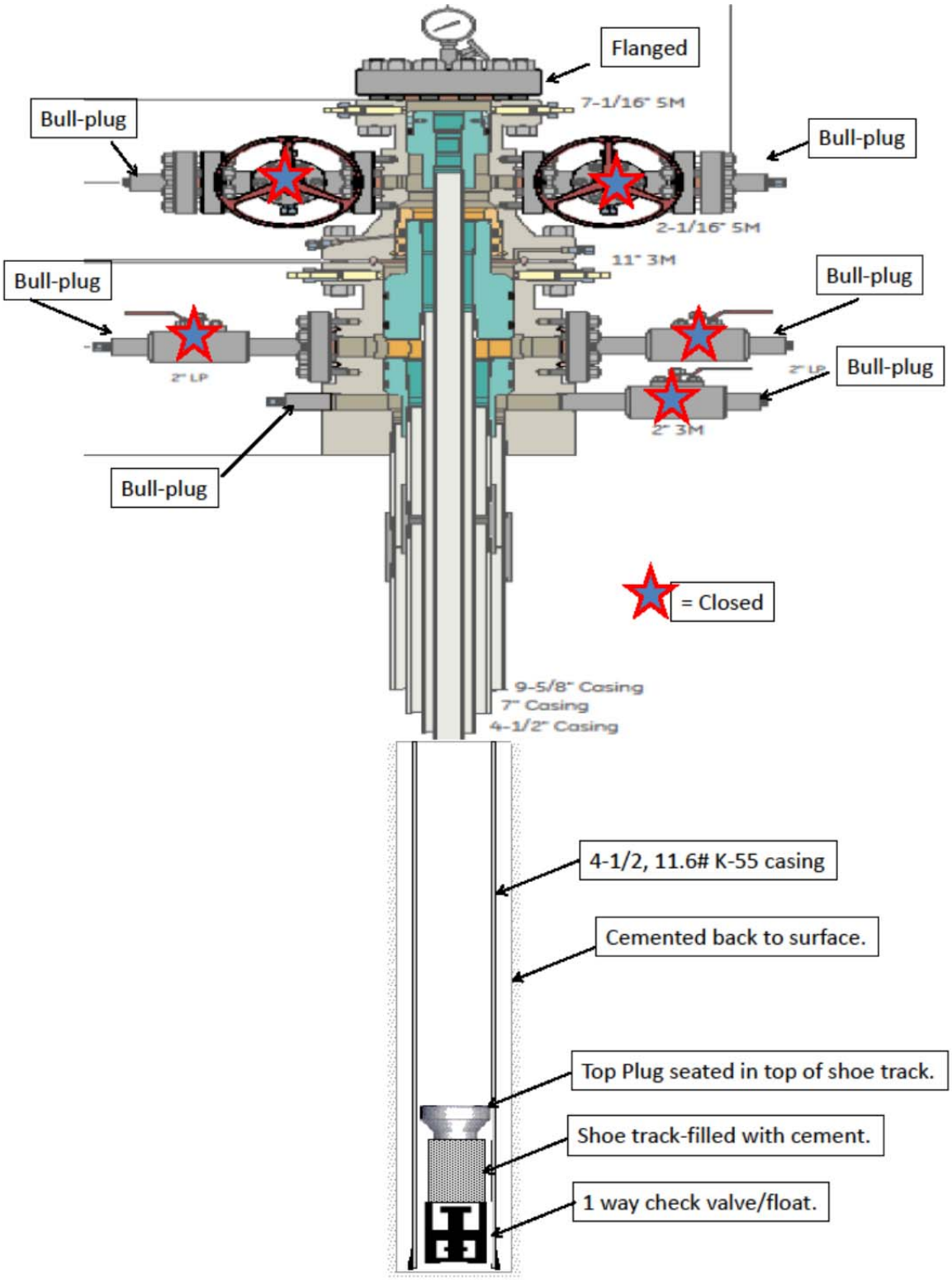

Figure 1: Drill Schematics.

2.4. Casing Runs

- **Conductor Casing 9-5/8" set @** 12.0 m
- **Surface Casing 7" set @** 152.0 m
- **Intermediate Casing 4-1/2" set @** 858.29 m

2.5. Drilling Equipment

Table 1: Drilling Equipment.

Drilling Contractor	
Name	Nitro Drilling
Address	L1, 1 Beach Road, Coolum Beach, QLD
Drilling Rig	
Make	Sandvik
Type	DE880
Capacity	50, 000lb Pullout
Engine	Cummins QSC 8.3 235kW (315HP) @ 1800rpm
Mast	12.3m, 82000 lb., 9m pipe pull capacity
Water Pump	Bean Pump, 140 l/min @ 7000kPa
Air Compressor	
Make	2 x Sullair
Type	DC 1150/350 C21
Max Output	350 psig - 24 bar
Engine	CAT C15 Acert
BOP	
Stack	Double Action Gate w/Blind & Pipe Rams, Rotating Head
Annular Size	11"
Working Pressure	3000psi
Koomey Unit	
Make	R & T Controls - Advanced Pressure Inc.
Working Pressure	3000psi
Volume	69.6 gallons
Choke Manifold	
Make	Sanya
Working Pressure	5000psi
Size	3 1/8"

2.6. Deviation Report

Table 2: Deviation survey

Depth [m]:	Deviation [degree]
138.0	0.7
238.0	1.3
338.0	1.6
438.0	1.6
538.0	2.3
638.0	4.1
738.0	7.6
853.0	13.2

2.7. Cementing Operation

Table 3: Cementing Operation.

	Conductor Casing	Surface Casing	Intermediate Casing
Hole Size [in]	12-1/4	8-1/2	6-1/4
Casing Size [in]	9-5/8	7	4-1/2
Setting depth [m]	12	152	858.29
Est. BHT ©	26 deg	33 deg	48.6 deg
Tail / Lead	Tail: 13.6- 14.6 ppg*	Tail:13.6-14.6 ppg	Tail: 13.6-14.6ppg
Cement type	Class A	Class A pozzollanic 25% fly ash	Class A pozzollanic 25% fly ash
Yield [cu ft/s]	Tail: 1.25	Tail: 1.25	Tail: 1.25
Mix water type	Fresh water	Fresh water	Fresh water
Excess [%]	10	20	25
TOC [m]	Cement to Surface	Cement to Surface	Cement to Surface
Displacement fluid	Water	Water	Water
Centralisers	Nil	Shoe Only	Shoe only

2.8. Bit Record

Table 4: Bit Record for Myrtle Basin #1

Bit Record		Size [inch]	Make	Depth in [m]	Depth out [m]	Meters drilled	WOB	RPM
1	Conductor	12-1/4	PDC	0	14	14	5	45
2	Conductor	12-1/4	Hammer	14	17.8	3.8	2	35
3	Surface	8.1/2	Hammer	17.8	152	134.2	2	35
4	Intermediate	6-1/4	PDC	152	155	3	2	35
5	Intermediate	6-1/4	Hammer	155	403	248	2	35
6	Intermediate	6-1/8	Hammer	403	494	91	2	35
7	Intermediate	6-1/8	Halco Hammer	494	600	106	2	35
8	Intermediate	6-1/8	Hammer	600	768	168	2	35
9	Intermediate	6-1/8	Hammer	768	816	48	2.5	35

2.9. Drilling Fluids

Air/Mist drilling w/soap: 4.2m – 861.5m

Hole was drilled on air/mist. During wireline logging operations the hole was loaded with KCl water. Average loaded-hole fluid properties were:

- Density ρ: 1.02 g/c^3
- Viscosity: 31 sec/qt