Summary Casing / Cement Job:

- Clean-out run no issues through casing
- Took 10k at 18,272' / 15k at 18,280'
- 1100 units of gas (max) on bottoms up / fell back to below 60 unit after circulating
- Pumped up static density 14.2 and 14.19 ppg
- Flow check - static on bottom
- Pumped to 14,759' MD / no tight spots (flow checked at 17,168' and 14,759')
- Did not retrieve wear bushing on clean-out run (pinned for 60k / sheared tool at 120k)
- RIH with DQ multi-purpose tool and tagged up at 5060' (~5' deep)
- Retrieved with 160k over-pull
- Ran 7" (5816') without filling / auto-fill open / all numbers indicated proper fill-up
- Ran 9-7/8" (7430' w/ WH) with OES fill up tool / all numbers indicated proper fill-up
- Rigged up Allamon DTD 2 stands above hanger (310')
- Rigged up Allamon diverter 2 stands above DTD (310')
- RIH and did not have to fill, fluid came over top ~10-15' from rotary on each stand (3 min/std)
- Dropped 1-5/8" ball at 9-7/8" shoe prior to entering open hole but did not convert
- Took 10k at 18,218' MD / dropped off quickly / no other tight spots in or out
- Landed out as expected from multi-purpose tool run (5059') deep at 18,303' MD
- Rigged up nitrogen cement equipment
- Pressured up and shut diverter (1000 / 2442 psi)
- Pressured up and tested diveter (1000 / 2765 psi)
- Pumped to convert float equipment / pressured up to 1800 psi
- Worked pressure up/down from 0-1800/2000 psi 6 times (no benefit)
- Increased pressure in 250 psi intervals (broke free at 3142 psi)
- Circulated – pump pressure at 1 bpm - 125 psi / 2 bpm – 170 psi / 3 bpm – 255 psi / 3.5 bpm - 295 / 4 bpm - 340
- Perform surface test to IBOP to ensure no leaks
- Switched to pump 3: 1 bpm -205 psi / 2 bpm – 260 psi / 2.5 bpm – 290 psi / 3 bpm – 320 psi / 3.5 bpm – 345 psi / 4 bpm – 390 psi
- Line up and test choke/kill lines
- Shut annular and circulate down DP up choke/kill to gas separator (to check diverter is closed) (ramp to 1 bpm and stop at 250 psi, complete a second time ramping up to 200 psi then hold at 1 bpm -140 psi) - no flow up riser diveter test good twice
- Opened annular and circulated 111 bbls at 4 bpm
- Pressure tested nitrogen lines to 5000 psi
- Pumped 7 bbls base oil and 10 bbls of 14.3 spacer
- Test cement unit lines to 5000 psi
- Pump 62 bbls of 14.3 spacer
- Pump 4 bbls of unfoamed 16.7 ppg cement to fill lines (1 bbl ahead of dart – 3 bbls in lines)
- Release bottom dart
- Pump Cement: 4 bbls 16.7 ppg unfoamed behind dart / 39 bbls 14.5 ppg foamed / 7 bbls 16.7 ppg unfoamed behind. (39 bbls unfoamed = 48 bbls foamed on bottom once compressed)
- Pump 3 bbls 14.3 spacer to clear lines and release top dart
- Pump 17 bbls of spacer with cement unit
- Pump total of 150 bbls downhole (130 SOBM + 20 spacer)
- Switch to rig pumps and displace job (*see chart for calculated vs actual*)
- Bumped plug and floats held
- Rotated 6 turns to the right to set seal assembly
- Tested lines to 11k
- Shut pipe rams
- Pressured up to 4000 psi for 30 seconds then 10,000 psi for 10 seconds
- Bleed back to 6700 psi and charted (dropped less than 10% over 45+ min test – good test)
- Sheared out of wellhead with 85k over
- Picked up and circulated for 10 minutes

- Stung back into seal assembly and tested again to 10,000 psi for 10 seconds followed by 6500 psi for 5-10 min (straight line 4-5 psi/min drop – good test)
- Monitor well on trip tank / no flow
- Pick up to 4770 and dropped nerf ball / circulated 1-1/2 DS volume
- Pumped 30 bbl slug at 16.3 ppg
- POOH to surface
- Test casing per APD to 250 / 2500 psi
- RIH to 8367'
- Displace to seawater from 8367' to above the wellhead
- With seawater in the kill, closed annular and did a negative test ~2350 psi differential
- Open annular and continue displacement
- BLOWOUT OCCURED

Planned Operations:

1. Set a 300' balanced cement plug w/ 5 bbls in DP
2. POOH ~100-200' above top of cement and drop nerf ball / circulate DS volume
3. Spot corrosion inhibitor in the open hole
4. POOH to just below the wellhead or above with the 3-1/2" stinger (if desired wash with the 3-1/2" / do not rotate / a separate run will not be made to wash as the displacement will clean up the wellhead)
5. POOH and make LIT / LDS runs
6. Test casing to 1000 psi with seawater (non MMS test / BP DWOP) – surface plug
   a. Confirm bbls to pressure up on original casing test vs bbls to test surface plug (should be less due to volume differences and fluid compressibility –seawater vs sobm)
   b. Plot on chart / send to Houston for confirmation

Cement Volume / Pressure Chart:

		Calculated			Actual	
Pumps	Step	Total	Release Pressure		Volume	Pressure
Cement Unit	Bottom Dart to Diverter	60 bbls	2500 - 3000 psi		43 bbls	3500 psi
Cement Unit	Bottom Dart to DTD	69 bbls	2500 - 3000 psi		-	3250 psi
Cement Unit	Bottom Dart to Plug	78 bbls	800 - 1200 psi		-	-
Cement Unit	Top Dart to Diverter	120 bbls	2500 - 3000 psi		100 bbls	3200 psi
Cement Unit	Top Dart to DTD	129 bbls	2500 - 3000 psi		109 bbls	3400 psi
Cement Unit	Top Dart to Plug	138 bbls	2000 - 2500 psi	Cumm	119 bbls	3300 psi
Cement Unit	Switch to Rig Pumps	150 bbls	-	Total	150 bbls	-
				0 bbls	0 bbls	-
Rig Pumps	Bottom Plug to 7"	611 bbls	-	461 bbls	469 bbls	830 psi
Rig Pumps	Top Plug to 7"	671 bbls	-	521 bbls	527 bbls	590 psi
Rig Pumps	Bottom Plug to Float Collar	817 bbls	900 - 1100 psi	667 bbls	673 bbls	2932 psi
Rig Pumps	Top Plug to Float Collar	877 bbls	500 - 1000 psi	727 bbls ***	727 bbls	740 psi
Rig Pumps	Max Displacement	894 bbls		744 bbls ***	-	-