

OCS-22802 A-3 Well
Main Pas Block 207
APD Drilling Procedure

TOTAL DEPTH: 10,233' MD / 8,500' TVD
WELL TYPE: Development – Gas
RIG: Hercules 263
KB ELEVATION: 100' (est.)
WATER DEPTH: 174'

1. Move rig on location adjacent to the Main Pass 207 platform.
2. Skid out and rig up over open slot on the Main Pass 207 platform and drive 24" x 0.5" wall pipe to 500' ($\pm 226'$ BML).

Note: A 6" pneumatically operated valve will be installed on the 24" drive pipe below the diverter assembly at +10' AWL to facilitate dumping cement returns.

Note: The +10' valve is to be used to reduce hydrostatic pressure while drilling the conductor hole in the case of lost returns. In addition, this valve is to be used for maintaining returns in the final stages of the conductor cement job. The valve is to remain closed at all other times. While the valve is in use, discharges from the valve will be continuously monitored by an individual having direct communication with the driller.

3. Make final cut & weld 24" x 21-1/4" 2M 'Speedhead' type wellhead housing to 24" drive pipe.
4. NU 21-1/4" 2M diverter w/ 2- 10" diverter lines and valves, then function test.
5. Drill and under-ream 22" hole to 1,100'md/tvd.

Note: Surveys to be taken at 1,000' intervals in the straight hole section of this well.

6. Run 18-5/8" 94.5# K-55 BTC conductor casing and hang off in 24" x 21-1/4" 2M wellhead housing, then cement with 742 ft³.

Note: Diverter remains NU and 24" & 18-5/8" Annulus is sealed via casing seal.

7. Wait on cement for 8 hrs prior to drilling out shoe track.
8. Test diverter and conductor casing to 200 psi prior to drilling out shoe.
9. Drill 17 ½" hole, at 1175' md/tvd, kick-off well at 2.5°/100' and build angle to +/- 49.30°. Hold 49.30° angle and drill tangent section to ±5,582' md/ 4,500' tvd.

Note: Surveys giving azimuth and inclination are to be taken at 100' intervals during the angle change portion of the well and at 500' intervals during the normal course of drilling.

10. Run 13-3/8", 68#, NT-80HE, BTC surface casing, and hang off in 24" x 21-1/4" 2M wellhead housing, then cement with 4000 ft³.
 11. Install and test 18-5/8" x 13-3/8" "packoff" (Seal assembly) in 'speedhead'.
 12. N/D 21-1/4" Diverter and install Casing Head and 13 5/8" 5M x 13-5/8" 10M 'Multibowl'. NU 13 5/8" 10M BOPs and test to 250/5,000psi. Annular preventer test is to 250/3500 psi against the smallest drill pipe in use. Test casing to equivalent of 3,483 psi with 10.0 ppg WBM (MASP = 2,300 psi).
 13. Drill out shoe track and 10' new formation. Perform Leak-off Test (expected 15.8 ppg EMW).
 14. Drill 12 ¼" hole. Hold 49.30° angle and drill tangent section to ±6,332' md/ 4,989' tvd, begin dropping angle at 1.5° angle to section TD ±8,201' md/ 6,500' tvd.
- Note: Surveys giving azimuth and inclination are to be taken at 100' intervals during the angle change portion of the well and at 500' intervals during the normal course of drilling.
15. Run 9 5/8"- 47#, P110-HC, LTC casing, and hang off in 9-5/8" casing in casing/multibowl head. Cement with 503 ft³.
 16. Install 9 5/8" 10M x 13-5/8" 10M seal assembly, and test BOPs to 250/5,500psi. Annular preventer test is to 250/3500 psi against the smallest drill pipe in use. Test casing to equivalent of 5,425 psi with 12.5 ppg (MASP = 3,887 psi).
 17. Drill out shoe track and 10' new formation. Perform Leak-off Test (expected 17.1 ppg EMW).
 18. Drill 8 ½" hole. Drop angle at 1.5° to vertical ±9,618' md/ 7,885' tvd, then drill vertically hole to TD ±10,233' md/ 8,500' tvd.
 19. Log well per 'logging program'.

20. Run 5-1/2", 17#, P110-HC, SLX (or equivalent thread) liner w/ 400' of lap. Cement with 666 ft3.

Note: If well is to be completed or abandoned, TA, P&A or completion procedures, to follow as required.

MUD PROGRAM

Hole Size	Depth (ft md)		Mud Weight (ppg)	Mud System
	From	To		
22"	500	1100	9.1	Spud Mud – WBM
17-1/2"	1100	5595	9.1 – 10.0	Spud Mud – WBM
12-1/4"	5595	8122	10.0 – 12.5	WBM
8-1/2"	8122	10,141	12.5 – 15.2	WBM

Note: Sufficient quantities of mud and mud material (including weight materials and additives) sufficient to raise the entire system mud weight 0.5 ppg or more will be kept on the rig. Estimated time for delivery of mud supplies is 6 hours.

Note: Fresh water and seawater based mud and cuttings will be disposed of overboard as long as EPA's NPDES LC50 toxicity limits and other requirements of General Permit GMG 290000 are met by the drilling fluid. Any mud and/or cuttings associated with a mud which does not meet the toxicity limitation, and any oil-based mud (if applicable) and associated cuttings, will be collected and transported to shore for proper disposal.

BOP PROGRAM:

Hole Size	BOP Size/Pressure	BOP Stack Configuration	Test Pressures Low/High	
			Rams	Annular
22"	21-1/4" / 2M psi	Diverter	N/A	Function
17-1/2"	21-1/4" / 2M psi	Diverter	N/A	200 / Function
12-1/4"	13-5/8" / 10M psi	ANN, PR, BSR, PR	250 / 5000	250 / 3500
8-1/2"	13-5/8" / 10M psi	ANN, PR, BSR, PR	250 / 5500	250 / 3500

Note: Test pressures based on MASP +500 psi min.

LOGGING PROGRAM:

MUD LOGGING: From below surface casing to TD

LWD/MWD LOGGING: Resistivity/GR from below surface casing to TD

WIRELINE:

Hole Size Wireline Logs

17-1/2"	None
12-1/4"	None
8-1/2"	Quad Combo, SWCs (Optional)