

Mesa Energy Partners, LLC  
**Coyote Basin 29-12-397**  
2617' FSL 849' FWL (NW/4 SW/4)  
Sec. 29 T3N R97W  
Rio Blanco County, Colorado  
Surface: Federal  
Federal Mineral Lease: CO65818

#### DRILLING PROGRAM

SURFACE ELEVATION – 5,851' (graded surface elevation)

SURFACE FORMATION – Wasatch – Fresh water possible

#### ESTIMATED FORMATION TOPS

<u>Formation</u>	<u>Depth</u>	<u>Description</u>
Mesaverde	507'	Sandstones & Shale
Rollins	3021'	Sandstone & Shale
Sego	3571'	Sandstone & Shale
Castlegate	4121'	Sandstone
Mancos	4246'	Shale
Morapos	4468'	Sandstone
Niobrara	7221'	Shale
Frontier	9021'	Sandstone & Shale
Mowry	9271'	Shale
Dakota	9361'	Sand
Morrison	9492'	Sand
TOTAL DEPTH	9742'	

#### ESTIMATED DEPTHS OF ANTICIPATED WATER, OIL, GAS, OR MINERAL BEARING FORMATIONS

Estimated depths at which water, oil, gas, or other mineral-bearing formations are expected to be encountered:

<u>Formation</u>	<u>Depth</u>	<u>Description</u>
Mesaverde	507'	Water
Rollins	3021'	Water
Sego	3571'	Water
Castlegate	4121'	Possible Water
Mancos	4246'	Possible Water
Morapos	4468'	Possible Water
Niobrara	7221'	Potential Oil/Gas
Frontier	9021'	Potential Oil/Gas

Mowry	9271'	Potential Oil/Gas
Dakota	9361'	Potential Oil/Gas
Morrison	9492'	Potential Oil/Gas

All fresh water and prospectively valuable minerals encountered during drilling will be recorded by depth and protected through complete cementing procedures.

#### CASING PROGRAM

Depth	String	Hole Diameter	Casing OD	Casing ID	Casing Weight and Grade
0' – 80'	Conductor	20"	16"	15.124	Conductor Casing
0' – 1000'	Surface	12-1/4"	9-5/8"	8.921	J-55 36# ST&C
0' – 4750'	Intermediate	8-3/4"	7"	6.366	L-80 23# LT&C
0' – 9742'	Production	6-1/8"	4-1/2"	4.000	L-80 11.6# LT&C

All casing will be in new condition.

Depth	Stage	Cement	Description, Yield	Volume: sacks, ft <sup>3</sup>
0' – 80'	Conductor	Ready Mix	To Surface	--, 113.1
0' – 635'	Surface	Class G, 8% Gel+Adds	To Surface, Lead, 1.89	200, 396
635' – 1000'	Surface	Class G	To Surface, Tail, 1.15	200, 230
800' – 3775'	Intermediate	Class G, 8% Gel+Adds	To 800', Lead, 1.89	305, 576
3775' – 4750'	Intermediate	Class G	To 800', Tail, 1.15	170, 195
7146' – 9742'	Production: Stage 1	50:50 PozMix, 4% Gel + Additives	From 9742' to 7146', 1.35	259, 349
4550' – 7146'	Production: Stage 2	50:50 PozMix, 4% Gel + Additives	From 7146' to 4550', 1.35	258, 347

Cement Calculations performed with 100% excess included for Surface Casing and 30% excess included for Intermediate and Production Casings. Actual Cement Volumes will be determined from caliper log with excess included.

To account for the possibility of encountering zones of interest below the intermediate string but above the target zones, a full length cementing profile for the production casing has been included. This design includes production grade cement into the intermediate string from TD of 9742'. A stage cementing tool at approximately 7146', to be determined by drilling results, is anticipated to fully cement the interval in this design.

Some additives and blends are service provider proprietary products. These blends and products may vary slightly based on cement vendor standards. Centralizers installed per approved centralizer program from cement vendor.

#### PRESSURE CONTROL

See attached Blowout Preventer (BOP) diagram.

BOPs and choke manifold will be installed and pressure tested before drilling out of surface casing (subsequent pressure test will be performed whenever pressure seals are broken), and then will be checked daily as to mechanical operating condition. BOPs will be pressure tested at least once every 30 days. Ram type preventers and related pressure control equipment will be pressure tested to related working pressure of the stack assembly if a test plug is used. If a plug is not used, the stack assembly will be tested to the rated working pressure of the stack assembly or 70% of the minimum internal yield of the casing, whichever is less. Annular type preventers will be pressure tested to 50% of their working pressure. All casing strings will be pressure tested to 0.22 psi/ft or 1,500 psi, whichever is greater, not to exceed 70% of the internal yield.

A manual locking device (i.e. hand wheels) or automatic locking devices shall be installed on the BOP stack. Remote controls capable of both opening and closing all preventers shall be readily accessible to the driller.

The BOP equipment will be tested after any repairs to the equipment. Pipe rams, blind rams, and annular preventer will be activated on each trip and weekly BOP drills will be conducted with each crew. All tests, maintenance, and BOP drills will be documented on rig "tower sheets".

#### Statement of Accumulator System and Location of Hydraulic Controls

*The drilling rig has not been selected for this well. Selection will take place after approval of this application is granted.*

*A remote accumulator will be used. Pressures, capacities, location of remote hydraulic, and manual controls will be identified at the time of the BLM supervised BOP test.*

#### MUD PROGRAM

Depth	Description	Mud Weight	Fluid Loss	Viscosity
0' – 1000'	Spud Mud	8.5 – 9.0 ppg	NC	20 – 80
1000' – 4150'	Gel/Polymer	8.5 – 9.3 ppg	6 – NC	30 – 100
4150' – 9742'	Gel/Polymer	9.0 – 9.5 ppg	4 – 10	30 – 100

Sufficient mud materials to maintain mud properties, control lost circulation, and to contain a "kick" will be available on location.

#### AUXILIARY EQUIPMENT

- A. Upper Kelly cock; (lower Kelly cock to be available on rig floor)

- B. Inside BOP or stabbing valve with handle (available on rig floor)
- C. Safety valve(s) and subs to fit all string connections in use
- D. Mud monitoring will be visually observed

#### LOGGING, CORING, TESTING PROGRAM

- A. Logging
  - a. Triple Combo TD to base of surface casing (GR to surface)
  - b. CBL-CCL-GR TD to 500' above top of cement
  - c. Fracture ID TD to zones of interest
  - d. Sonic Optional
- B. Coring
  - a. Full Bore Possible Sections from Mancos, Niobrara, or Frontier
  - b. Sidewall Possible Selections from Mancos, Niobrara, or Frontier

#### ABNORMAL CONDITIONS

- A. Pressures No Abnormal conditions are anticipated
- B. Temperatures No abnormal conditions are anticipated
- C. H2S None anticipated
- D. Estimated bottom hole Using 0.45 psi/ft, 4383.9 psi at TD

#### ANTICIPATED START DATE

November 2011 – March 2012

#### COMPLETION

A Sundry Notice (SN) will be submitted with completion program details if warranted. A string of 2-3/8" is anticipated to be run for production purposes.

