

DRILLING PLAN

WALTER S. FEES JR. AND SON OIL & GAS, LLC

FEDERAL #1-23-8-101

TOWNSHIP 8 SOUTH, RANGE 101 WEST 6TH P.M.

Section 23: 1,809' FSL 1,660' FEL

Mesa County, Colorado

Lease No. COC-065959

1. Well Location:

<u>Surface Location</u>	<u>Target Location</u>
Township 8 South, Range 101 West 6 th P.M. Section 23: 1,809' FSL 1,660' FEL Mesa County, Colorado	SAME

2. Surface Formation:
Mesaverde Formation

3. Ground Level:
6,414.94'

4. Estimated Depth of Geologic Markers:

<u>Formation</u>	<u>Vertical Depth</u>	
Mesaverde Formation	Surface - 1,855 MD	Sandstone, Shale & Siltstone
Cameo Coal	1,117' MD	Coal
Rollin Sandstone	1,140' MD	Sandstone
Mancos Shale	1,855' MD	Shales & Siltstone

5. Estimated depths (Tops & Bottom) of anticipated water, oil, gas, or minerals bearing Formation:

Rollins	1,140' - 1,228' MD	Gas
Mesaverde Sd	1,244' - 1,288' MD	Gas
Mesaverde Sd	1,299' - 1,348' MD	Gas
Mesaverde Sd	1,383' - 1,413' MD	Gas

Casing will be set and cemented to protect and/or isolate all usable water zones, potentially productive hydrocarbons zones, lost circulation zones, abnormal pressure zones, and prospectively valuable mineral deposits.

All indications of usable water will be reported.

6. Proposed Casing and Cement Program:

Casing Program:

HOLE SIZE (in)	PIPE SIZE (in)	SETTING DEPTH (ft)	LENGTH (ft)	WT. (#/ft)	TYPE	COND.
17"	13 3/8"	20'	20'	40.00	H-40 STC	Used
12 1/4"	9 5/8"	0 - 200' KB	200'	32.30#	H-40 STC	New
8 3/4"	7"	0 - 1,855' KB	1,654'	23.00#	J-55 LTC	New

	Tension (lbm)	Burst (psi)	Collapse (psi)	SF Tension	SF Burst	SF Collapse
17" 13 3/8" 40.0# H-40	541,000	1,730	740	N/A	N/A	N/a
9 5/8" 32.3# H-40 STC	365,000	2,270	1,370	34.50	5.3	14.6
7" 23# J-55 LTC	366,000	4,360	3,270	39.34	2.50	3.05

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The casing string below the surface pipe will be pressure tested to 1,000 psi or 0.22 psi/ft, whichever is greater, but not to exceed 70% of the internal yield.

Cement Program:

Conductor Pipe:

Conductor pipe will be cemented back to surface using 30 sacks of Class G cement w/ 2 % CaCl₂ mix at 15.2 ppg yield 1.145 cf/sk slurry

Surface Casing:

Surface casing will be cemented back to surface using approximately 52 sacks of Class G cement 2% CaCl₂, 1/4#/sk Polyflake 14.53 #/gal yield 1.66 cf/sk slurry.

Production Casing:

Production casing will be cemented back to surface using approximately 220 sacks of 50/50 POZ Class G cement with 2% Hall Gel, 0.6% Halad-23, 3% Halad-322, 3% Veraset, 2% Super CBL, 3% Silicalite, 5#/sk Gilsonite, 2#/sk Pheno seal yield 6.25, 1.46 cf/sk slurry 13.5# ppg.

Cement volumes will be calculated based on hole conditions.

Centralizers will be installed per approved centralizer program from cement vendor.

7. Operator's Minimum Specifications for Pressure Control:

FIGURE #1 is a schematic diagram of the blowout preventer equipment. A 2000# system will be installed, used, maintained, and tested in accordance with all requirements specified in Section III A-I of Onshore Order #2, except where variations are presented in this application.

Minimum standards outlined in Onshore Order #2 will be met for BOP, choke manifold, accumulator system and power for closing unit, and locking devices. Hydraulic controls will be located on the rig floor. Manual controls will be handwheels. The kill line will not be used as a fill-up line.

Ram type preventers and associated equipment (choke manifold, kelly cocks, etc.) shall be pressure tested to 100% of their rated working pressure if a test plug is used. If a test plug is not used, the sack assembly will be tested to the rated working pressure of the sack assembly or to 70% of the minimum internal yield of the casing, whichever is less. Presently we are not anticipating the use of a test plug. Annular preventers shall be tested to 50% of rated working pressure for 10 minutes. Tests will be run after initial installation, prior to drilling out of each surface casing shoe and after any use under pressure, or a minimum of once every 14 days. Pipe rams will be operationally checked each 24-hour period, as will blind rams and annular preventers each time pipe is pulled out of the hole. Annular preventers will be functionally operated at least weekly. Such checks of BOP will be noted on daily drilling reports.

The following shall be entered in the driller's log:

- (1) Blowout preventers pressure tests, including test pressures and results.
- (2) Blowout preventers tested for proper functioning.
- (3) Blowout prevention drills conducted.

8. Auxiliary Equipment to Be Used:

- a. While drilling with air a 10 X 900 Grant Rotating head.
- b. Kelly cock.
- c. Float at bit while mud drilling.
- d. Mud tank levels will be visually monitored when drilling with mud.
- e. A drill pipe stabbing sub with full opening valve will be available on the rig floor.

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9. Drilling Fluids:

DEPTH	TYPE	WEIGHT #/GAL	VISCOSITY	FLUID LOSS
0' - 1,855'	Air/air mist*	NA	NA	NA

*This well will be drilled with air below the conductor pipe through the Mesaverde Formation, and fifty feet into the Mancos Formation or until water, oil or gas are encountered. If water is found, air-mist drilling will be used. If gas or oil is encountered the well will be mudded up with gel mud (8.6-9.0#/gal, 38-45 viscosity, 4 to 8 cc water loss) for continuation of drilling to total depth and/or completion. If the entire hole is air drilled, it will be filled at total depth, with a gel mud system for logging and for either completion or plugging operation as necessary. Sufficient materials will be stored on location to maintain mud properties and to control any minor lost circulation and blow-outs.

Mud products to be used:

Product	Description	Function	Concentration
Barite	Barium Surface	Weighting Material	As required for slug and Mud weight
Gel	Bentonite	Viscosifier	15-20 ppb
Caustic Soda	Sodium Hydroxide	Alkalinity Control	0.15-0.25 ppb
PHPA	PHPA polymer	Viscosifier/Encapsulator	0.5 ppb
Drispac	Polyanionic Cellulose	Fluid Loss	0.5-1.0 ppb
Soda Ash	NA ₂ CO ₂	Calcium Precipitant	As required
Calcium Carbonate	40/250 mesh blend	LCM Material	As required
Duro Gel	Sepiolite clay	Viscosifier	As required
Desco	Sulfomethylated Tannin	Thinner	As required
Sawdust	Sawdust	Loss circulation material	As required
Biocide	I decanaminium, n-decyl-n, n-dimethyl, chloride, ethanol	Bacteria Control	As required
KCL	Potassium Chloride	Inhibitor	3% BWOW
Magma Fiber	Spun mineral fiber	Loss circulation material	5-15#/s/bbl
Chem Seal	Blended fibrous materials	Loss circulation material	5-15#/s/bbl
Poly Swell	Graded size polymer	Loss circulation material	5-15#/s/bbl
SAPP	Sodium acid pyrophosphate	Dispersant	As required
Fedzan	Xanthan gum	Viscosifier	As required
K-700	Organophosphate	Corrosion Control	1.2 gal/bbl

10. Testing, Logging and Coring Programs:

- (a) Wellsite geologist will test all good gas and/or oil shows as determined necessary.
- (b) No drill stem test will be run.
- (c) Logging will consist of the following:
 - Dual Induction Log Laterolog from surface to total depth.
 - Compensated Neutron-Density of porosity zones of interest.
 - Cement Bond/Gamma Ray/Casing Collar Log from TD to top of cement.
- (d) No cores will be taken.
- (e) Stimulation procedures will be determined after evaluation of logs. If treatment is indicated, appropriate Sundry Notice will be submitted for approval.

11. Any Anticipated Abnormal Pressures or Temperatures:

No abnormal pressures or temperatures have been noted or reported in offset wells in this area nor at the depths anticipated in this well. Mesaverde pressure gradients in this area are estimated at between 0.2397 to 0.2730 psi/ft.

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No hydrogen sulfide or other hazardous gases or fluids have been found, reported or are known to exist at these depths in the area.

Estimated bottom hole pressure is 364-400 psi.

Estimated Bottom hole temperature is 100⁰ F.

12. Anticipated Starting Date and Duration of the Operation:

The anticipated starting date depends on BLM approval of APD and rig availability before May 31, 2012. Drilling Operating will last approximately 5 days and completion 5-7 days.

Verbal and/or written notifications listed below shall be submitted in accordance with instructions from the Grand Junction Resource Area office:

- (a) Prior to beginning construction;
- (b) Prior to spudding;
- (c) Prior to running casing or BOP testing;
- (d) Prior to plugging the well, for verbal plugging instruction.

Spills, blowouts, fires, leaks, accidents or other unusual occurrences shall be reported to the Grand Junction Resource Area office immediately.

Prior Approval will be obtained for abandonment operations, and Form 3160-5 "Subsequent Report of Abandonment" will be filed within 30 days.

All operations will conform to requirements and guidelines in Onshore Order #2 (which is herein incorporated by reference), except for variances approved in this Application.

13. Other Information: