

Saga Petroleum, LLC
Jones Dupree 32-26A
2,490' FNL 1,591' FEL (SW/4 NE/4)
Sec. 26 T3S R51W
Washington County, Colorado
Surface: Fee
Mineral Lease: Fee

DRILLING PROGRAM

Please contact Mr. Peter Mueller 303-996-7766, if there are any questions or concerns regarding this Drilling Program.

SURFACE ELEVATION – 4,614' (Un-graded ground elevation)

SURFACE FORMATION – White River – Fresh water possible

ESTIMATED FORMATION TOPS

Formation	TVD	Subsea	Potential
Niobrara	2,950'	1,675'	
Beecher Island	2,975'	1,650'	Possible Gas
Ft. Hayes	3,420'	1,205'	
Carlisle	3,491'	1,134'	
Bentonite Marker	3,750'	875'	
D Sand	3,848'	777'	
Huntsman Shale	3,882'	743'	
J Sand	3,895'	730'	Main Oil Objective
J-1 Sand	3,895'	730'	
J-2 Sand	3,916'	709'	Main Oil Objective
J-3 Sand	3,947'	678'	Main Oil Objective
J-4 Sand	4,004'	621'	
J-5 Sand	4,059'	566'	
Skull Creek	4,107'	518'	
TOTAL DEPTH	4,180'		

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

CASING/CEMENT PROGRAM

Total Measured Depth (MD)	Hole Diameter	Casing Diameter	Casing Weight and Grade	Cement
0 – 30'	20"	16"	Conductor Casing	Conductor driven into ground
0' – 250'	12-1/4"	9-5/8"	J-55 36# ST&C New	To surface (± 125 sxs)*
0' – 4,180'	8-3/4"	7"	J-55 20# LT&C H-40 17# LT&C	TD to $\pm 2,750'$ (± 150 sxs)**

* Cement volume calculated with 100% excess.

** Cement volume calculated with 30% excess.

Yields

Surface:	Lead:	BG Lite yield = 2.03 ft ³ /sx (12.0 ppg) 11.0 gal/sk
	Topout:	BGNT yield = 1.15 ft ³ /sx (15.0 ppg) 4.97 gal/sk
Production:	Lead:	BG Lite yield = 2.03 ft ³ /sx (12.0 ppg) 11.0 gal/sk
	Tail:	BGNT yield = 1.15 ft ³ /sx (15.0 ppg) 4.97 gal/sk

Cement additives – (Note: Some additives are Schlumberger or B.J. Services proprietary products. If another cement contractor is used, these blends and products may vary slightly).

PRESSURE CONTROL

- See attached blowout preventer 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".

A remote accumulator will be used.

MUD PROGRAM (MD)

0' - TD Water Based Mud with Gel as required
M.W.: 8.4 ppg
Visc.: 30 – 45
Ph: 8
WL: NC

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 will be installed while drilling and tested at the time of the BOP test.
- 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 with a pit level indicator, and visual observation.

LOGGING, CORING TESTING PROGRAM

- A. Pilot Hole Logging (Vert): Gamma Ray
- B. Coring: No Cores are anticipated.
- C. Testing: None planned – Drill Stem tests may be run on shows of interest.

ABNORMAL CONDITIONS

- A. Pressures: No abnormal conditions are anticipated.
Anticipated BHP gradient: 0.45 psi/ft
- B. Temperatures: No abnormal conditions are anticipated.
- C. H₂S: None Anticipated.
- D. Estimated bottomhole pressure: 570 psi

ANTICIPATED START DATE

January 14, 2013

COMPLETION

The location pad will be sufficient size to accommodate all completion equipment activities and equipment. A string of 2-7/8”, 6.5#, J-55, EUE 8rnd will be run as production tubing, or a sting of 2-7/8” 6.5# J-55 or N-80 EUE 8rd will be run as a pumping string. A Sundry Notice (SN) will be submitted with a revised completion program if warranted.

Saga Petroleum, LLC
Jones Dupree 32-26A
 2,490' FNL 1,591' FEL (SW/4 NE/4)
 Sec. 26 T3S R51W
 Washington County, Colorado
 Surface: Fee
 Mineral Lease: Fee

SURFACE CASING AND CENTRALIZER DESIGN

Proposed Total Depth: 4,180 '
 Proposed Depth of Surface Casing: 250 '
 Estimated Pressure Gradient: 0.45 psi/ft
 Bottom Hole Pressure at 4,180 '
 0.45 psi/ft x 4,180 ' = 1,881 psi
 Hydrostatic Head of gas/oil mud: 0.22 psi/ft
 0.22 psi/ft x 4,180 ' = 920 psi

Maximum Design Surface Pressure

Bottom Hole Pressure – Hydrostatic Head =
 (0.45 psi/ft x 4,180 ') – (0.22 psi/ft x 4,180 ') =
 1,881 psi – 920 psi = 961 psi

Casing Strengths 9-5/8" J-55 36# ST&C

Wt.	Tension (lbs)	Burst (psi)	Collapse (psi)
36 #	394,000	3,520	2,020

Safety Factors

Tension (Dry): 1.8 Burst: 1.0 Collapse: 1.125

Tension (Dry): 36 # / ft x 250 ' = 9,000 #
 Safety Factor = $\frac{394,000}{9,000}$ = 43.78 ok

Burst: Safety Factor = $\frac{3,520 \text{ psi}}{961 \text{ psi}}$ = 3.66 ok

Collapse: Hydrostatic = 0.052 x 9.0 ppg x 250 ' = 117 psi
 Safety Factor = $\frac{2,020 \text{ psi}}{117 \text{ psi}}$ = 17.26 ok

Use 250 ' 9-5/8" J-55 36# ST&C

Use 2,000 psi minimum casinghead and BOP's

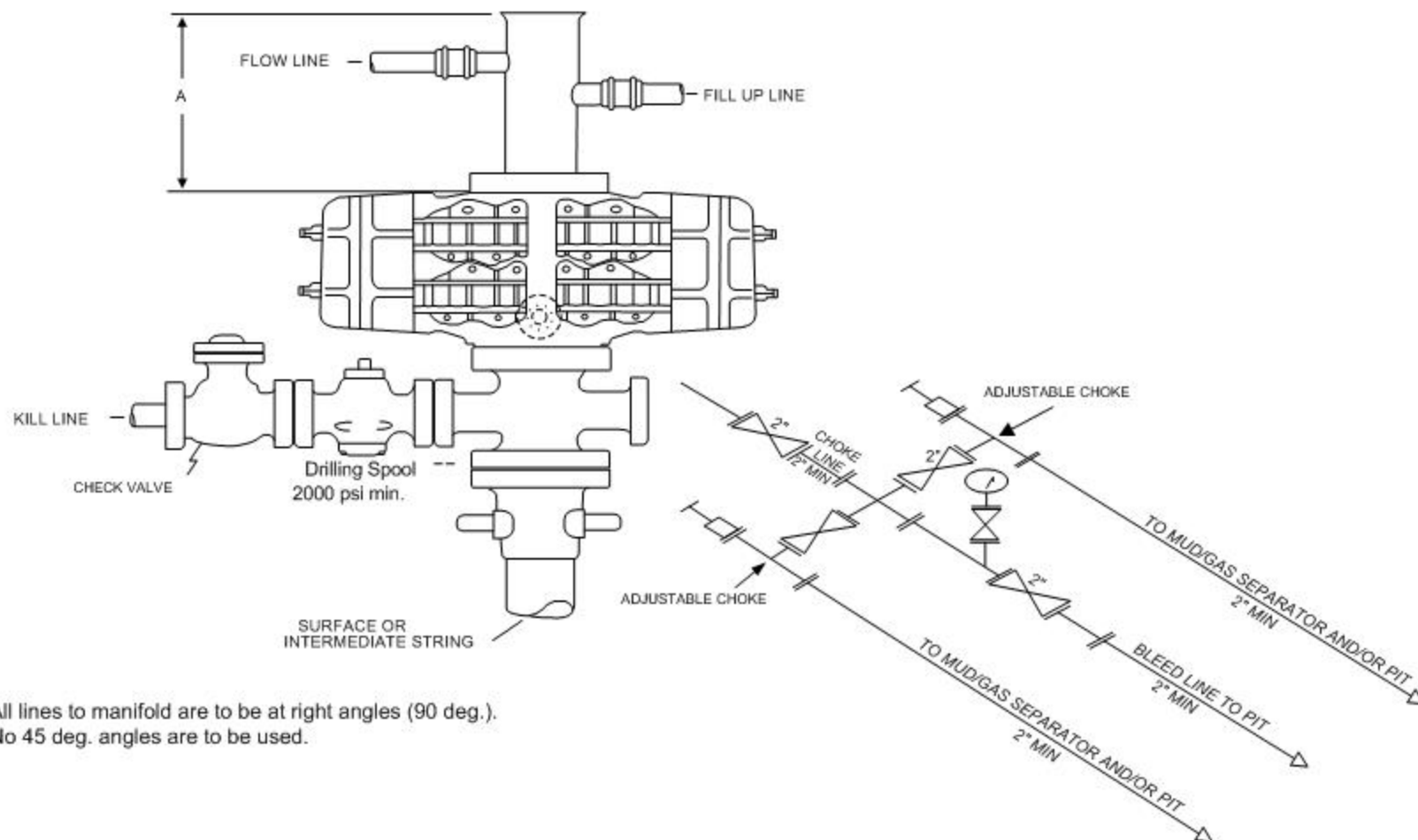
Centralizers

8 Total
 1 near surface at 160'
 3 -1 each at middle of bottom joint, second joint, third joint
 4 -1 each at every other joint ±80' spacing

Total centralized ± 600 ' (-350 ' – 250 ')

Note that field experience indicates that additional centralizers greatly increase the chance of "sticking" the surface casing prior to reaching surface casing total depth.

ANNULAR PREVENTER MAY BE SUBSTITUTED FOR DOUBLE GATE PREVENTERS



All lines to manifold are to be at right angles (90 deg.).
No 45 deg. angles are to be used.

2M CHOKE MANIFOLD EQUIPMENT – CONFIGURATION MAY VARY

BLOWOUT PREVENTER

2,000 psi minimum