

14-401

# Split Estate

OCD Hobbs

FORM APPROVED  
OMB No. 1004-0137  
Expires October 31, 2014

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

## APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.  
NMLC 031670 (B)

6. If Indian, Allottee or Tribe Name  
N/A

1a. Type of work:  DRILL  REENTER

7. If Unit or CA Agreement, Name and No.  
Southeast Monument Unit

1b. Type of Well:  Oil Well  Gas Well  Other  Single Zone  Multiple Zone

8. Lease Name and Well No.  
SEMU 253 (31670)

2. Name of Operator  
ConocoPhillips Company (217817)

9. API Well No.  
30-025-42023

3a. Address  
600 N. Dairy Ashford Rd, Office  
P10-4054  
Houston, TX 77079-1175

3b. Phone No. (include area code)  
(281)206-5287

10. Field and Pool, or Exploratory  
Skaggs; Grayburg (Kz) (57380)

4. Location of Well (Report location clearly and in accordance with any State requirements.)  
At surface 299' FNL & 1119' FWL; Lot 1, Sec. 19, T20S, R38E  
At proposed prod. zone 78' FSL & 1369' FWL; Lot 4, Sec. 19, T20S, R38E

11. Sec., T. R. M. or Blk. and Survey or Area  
Sec. 19, T20S, R38E

14. Distance in miles and direction from nearest town or post office\*  
Approximately 10 miles southwest of Hobbs, NM.

12. County or Parish  
Lea County

13. State  
NM

15. Distance from proposed\* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)  
1369'

16. No. of acres in lease  
1920.92

17. Spacing Unit dedicated to this well  
40 acres

18. Distance from proposed location\* to nearest well, drilling, completed, applied for, on this lease, ft.  
~785'

19. Proposed Depth  
4197' TVD/4267' MD

20. BLM/BIA Bond No. on file  
ES0085

21. Elevations (Show whether DF, KDB, RT, GL, etc.)  
3544' GL

22. Approximate date work will start\*  
06/21/2014

23. Estimated duration  
7 days

### 24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

- 1. Well plat certified by a registered surveyor.
- 2. A Drilling Plan.
- 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
- 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- 5. Operator certification
- 6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature  
*Susan B. Maunder*

Name (Printed/Typed)  
Susan B. Maunder

Date  
11/17/14

Title  
Senior Regulatory Specialist

Approved by (Signature)  
**Steve Caffey**

Name (Printed/Typed)  
Steve Caffey

Date  
AUG - 5 2014

Title  
FIELD MANAGER

Office  
CARLSBAD FIELD OFFICE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
Conditions of approval, if any, are attached.

**APPROVAL FOR TWO YEARS**

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

\*(Instructions on page 2)

Lea County Controlled Water Basin

[D]

Kz  
08/05/14

PM

Approval Subject to General Requirements  
& Special Stipulations Attached

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

AUG 07 2014

# Operator Certification

HOBBS OCD

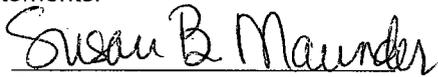
CONOCOPHILLIPS COMPANY

AUG 05 2014

CERTIFICATION:

RECEIVED

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of State and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application with bond coverage provided by Nationwide Bond ES0085. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.



Susan B. Maunder  
Senior Regulatory Specialist

Date: 1/17/14

Drilling Plan  
 ConocoPhillips Company  
SEMU; Grayburg

HOBBS OCD

AUG 05 2014

SEMU #253

RECEIVED

Lea County, New Mexico

**1. Estimated tops of geological markers and estimated depths to water, oil, or gas formations:**

The datum for these depths is RKB (which is 13' above Ground Level).

Formations	Top Depth FT TVD	Top Depths FT MD	Contents
Quaternary	Surface	Surface	Fresh Water
Rustler	1380	1380	Anhydrite
Salado (top of salt)	1469	1469	Salt
Tansill (base of salt)	2568	2568	Gas, Oil and Water
Yates	2669	2669	Gas, Oil and Water
Seven Rivers	2914	2916	Gas, Oil and Water
Queen	3488	3506	Gas, Oil and Water
Penrose	3627	3653	Gas, Oil and Water
Grayburg	3773	3809	Gas, Oil and Water
San Andres	3997	4051	Gas, Oil and Water
Deepest estimated perforation	3997	4051	Deepest estimated perf. is above Top of San Andres
Total Depth (maximum)	4197	4267	200' below deepest estimated perforation

All of the water bearing formations identified above will be protected by setting of the 8-5/8" surface casing 25' – 70' into the Rustler formation and circulating of cement from casing shoe to surface in accordance with the provisions of Onshore Oil and Gas Order No. 2 and New Mexico Oil Conservation Division Title 19.

The targeted oil and gas bearing formations identified above will be protected by setting of the 5-1/2" production casing 10' off bottom of TD and circulating of cement from casing shoe to surface in accordance with the provisions of Onshore Oil and Gas Order No. 2 and New Mexico Oil Conservation Division Title 19.

2. Proposed casing program:

See COA

Type	Hole Size (in)	Interval MD RKB (ft)		OD (inches)	Wt (lb/ft)	Gr	Conn	MIY (psi)	Col (psi)	Jt Str (klbs)	Safety Factors Calculated per ConocoPhillips Corporate Criteria		
		From	To								Burst DF	Collapse DF	Jt Str DF (Tension) Dry/Buoyant
Cond	20	0	40' - 85' (30' - 75' BGL)	16	0.5" wall	B	Line Pipe	N/A	N/A	N/A	NA	NA	NA
Alt. Cond	20	0	40' - 85' (30' - 75' BGL)	13-3/8	48#	H-40	PE	1730	740	N/A	NA	NA	NA
Surf	12-1/4	0	<del>1405</del> - 1450'	8-5/8	24#	J-55	STC	2950	1370	244	1.38	2.13	3.04
Prod	7-7/8	0	4212' - 4257'	5-1/2	17#	L-80	LTC	7740	6290	338	3.50	4.92	2.69

The casing will be suitable for H<sub>2</sub>S Service. All casing will be new.

The surface and production casing will be set approximately 10' off bottom and we will drill the hole with a 45' range uncertainty for casing set depth to fit the casing string so that the cementing head is positioned at the floor for the cement job.

The production casing will be set 155' to 200' below the deepest estimated perforation to provide rathole for the pumping completion and for the logs to get deep enough to log the interval of interest.

**Casing Safety Factors - BLM Criteria:**

Type	Depth	Wt	MIY	Col	Jt Str	Drill Fluid	Burst	Collapse	Tensile-Dry	Tens-Bouy
Surface Casing	1450	24	2950	1370	244000	8.5	4.60	2.14	7.0	8.1
Production Casing	4257	17	7740	6290	338000	10	3.50	2.84	4.67	5.51

**Casing Safety Factors - Additional ConocoPhillips Criteria:**

ConocoPhillips casing design policy establishes Corporate Minimum Design Factors (see table below) and requires that service life load cases be considered and provided for in the casing design.

ConocoPhillips Corporate Criteria for Minimum Design Factors

	Burst	Collapse	Axial
Casing Design Factors	1.15	1.05	1.4

Type	Depth	Wt	MIY	Col	Jt Str	Pipe Yield MW	Burst Col	Ten
Conductor	85	65	35000	-	-	432966	-	-
Surface Casing (8-5/8" 24# J-55 STC)	1450	24	2950	1370	244000	381000	8.5	1.38 2.13 3.04
Production Casing (5-1/2" 17# L-80 LTC)	4257	17	7740	6290	338000	397000	10	3.50 4.92 2.69

**Burst - ConocoPhillips Required Load Cases**

The maximum internal (burst) load on the Surface Casing occurs when the surface casing is tested to 1500 psi (as per BLM Onshore Order 2 - II Requirements).

The maximum internal (burst) load on the Production Casing occurs during the fracture stimulation where the maximum allowable working pressure

(MAWP) is the pressure that would fit ConocoPhillips Corporate Criteria for Minimum Factors.

Surface Casing Test Pressure =	1500 psi	Predicted Pore Pressure at TD (PPTD) =	8.55 ppg
Surface Rated Working Pressure (BOPE) =	3000 psi	Predicted Frac Gradient at Shoe (CSFG) =	19.23 ppg
Field SW =	10 ppg		

Surface Casing Burst Safety Factor = API Burst Rating / Maximum Predicted Surface Pressure (MPSP) OR Maximum Allowable Surface Pressure (MASP)  
 Production Casing MAWP for the Fracture Stimulation = API Burst Rating / Corporate Minimum Burst Design Factor

**Surface Casing Burst Safety Factor:**

Case #1. MPSP (MWHyd next section) =	1450	x	0.052	x	10	=	754		
Case #2. MPSP (Field SW @ Bullhead CSG + 200 psi) =	1450	x	0.052	x	19.23	=	754	+	200
Case #3. MPSP (Kick Vol @ next section TD) =	4257	x	0.052	x	8.55	=	280.7	-	641
Case #4. MPSP (PPTD - GG) =	4257	x	0.052	x	8.55	=	425.7	-	1467
Case #3 & #4 Limited to MPSP (CSFG + 0.2 ppg) =	1450	x	0.052	x	( 19.23	+	0.2	) =	1465
MASP (MWHyd + Test Pressure) =	1450	x	0.052	x	8.5	+	1500	=	2141
Burst Safety Factor (Max. MPSP or MASP) =	2950	/	2141	=	1.38				

**Production Casing Burst Safety Factor:**

Case #1. MPSP (MWHyd TD) =	4257	x	0.052	x	10	=	2213.64
Case #4. MPSP (PPTD - GG) =	4257	x	0.052	x	8.55	=	425.7
Burst Safety Factor (Max. MPSP) =	7740	/	2214	=	3.50		
MAWP for the Fracture Stimulation (Corporate Criteria) =	7740	/	1.15	=	6730		

**Collapse - ConocoPhillips Required Load Cases**

The maximum collapse load on the Surface Casing occurs when cementing to surface, 1/3 evacuation to the next casing setting depth, or deepsea depth of exposure (full evacuation).

The maximum collapse load on the Production Casing occurs when cementing to surface, or 1/3 evacuation to the deepest depth of exposure; and

therefore, the external pressure profile for the evacuation cases should be equal to the pore pressure of the horizons on the outside of the casing which we assumed to be PPTD.

Surface Casing Collapse Safety Factor = API Collapse Rating / Full Evacuation OR Cement Displacement during Cementing to Surface

Production Casing Collapse Safety Factor = API Collapse Rating / Maximum Predicted Surface Pressure OR Cement Displacement during Cementing to Surface

Cement Displacement Fluid (FW) =	8.34 ppg	Top of Cement =	Cement to Surface
Surface Cement Lead =	13.6 ppg	Prod Cement Lead =	11.5 ppg
Surface Cement Tail =	14.8 ppg	Prod Cement Tail =	14 ppg
Top of Surface Tail Cement =	350 ft	Top of Prod Tail Cement =	3000 ft

**Surface Casing Collapse Safety Factor:**

Full Evacuation Diff Pressure =	1450	x	0.052	x	8.55	=	645					
Cementing Diff Lift Pressure =	[( 1100	x	0.052	x	13.6	)] + ( 350	x	0.052	x	14.8	) - 629 ] =	418
Collapse Safety Factor =	1370	/	645	=	2.13							

**Production Casing Collapse Safety Factor:**

1/3 Evacuation Diff Pressure =	[( 4257	x	0.052	x	8.55	) - ( 4257	/	3	x	0.052	x	8.34	)] =	1277
Cementing Diff Lift Pressure =	[( 1257	x	0.052	x	11.5	)] + ( 3000	x	0.052	x	14	) - 1845 ] =	1090		
Collapse Safety Factor =	6290	/	1277	=	4.92									

**Tensile Strength - ConocoPhillips Required Load Cases**

The maximum axial (tension) load occurs if casing were to get stuck and pulled on to try to get it unstuck.

Maximum Allowable Axial Load for Pipe Yield = API Pipe Yield Strength Rating / Corporate Minimum Axial Design Factor

Maximum Allowable Axial Load for Joint = API Joint Strength Rating / Corporate Minimum Axial Design Factor

Maximum Allowable Hook Load (Limited to 75% of Rig Max Load) = Maximum Allowable Axial Load

Maximum Allowable Overpull Margin = Maximum Allowable Hook Load - Bouyant Wt of the String

Tensile Safety Factor = API Pipe Yield OR API Joint Strength OR Rig Max Load Rating / ( Bouyant Wt of String + Minimum Overpull Required )

Rig Max Load (300,000 lbs) x 75% =	225000 lbs
Minimum Overpull Required =	50000 lbs

**Surface Casing Tensile Strength Safety Factor:**

Air Wt =	34800
Bouyant Wt =	34800 x 0.870 = 30284
Max. Allowable Axial Load (Pipe Yield) =	381000 / 1.40 = 272143
Max. Allowable Axial Load (Joint) =	244000 / 1.40 = 174286
Max. Allowable Hook Load (Limited to 75% of Rig Max Load) =	174286
Max. Allowable Overpull Margin =	174286 - ( 34800 x 0.870 ) = 144002
Tensile Safety Factor =	244000 / ( 30284 + 50000 ) = 3.04

**Production Casing Tensile Strength Safety Factor:**

Air Wt =	72369
Bouyant Wt =	72369 x 0.847 = 61320
Max. Allowable Axial Load (Pipe Yield) =	397000 / 1.40 = 283571
Max. Allowable Axial Load (Joint) =	338000 / 1.40 = 241429
Max. Allowable Hook Load (Limited to 75% of Rig Max Load) =	225000
Max. Allowable Overpull Margin =	225000 - ( 72369 x 0.847 ) = 163580
Tensile Safety Factor =	300000 / ( 61320 + 50000 ) = 2.69

**Compression Strength - ConocoPhillips Required Load Cases**

The maximum axial (compression) load for the well is where the surface casing is landed on the conductor

with a support of a plate or landing ring. The surface casing is also calculated to bear 60% of the load

but not limited. Any other axial loads such as a snubbing unit or other would need to be added to the load.

Compression Safety Factor = API Axial Joint Strength Rating OR API Axial Pipe Yield Rating / Maximum Predicted Load

Wellhead Load =	3000 lbs
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**Conductor & Surface Compression Safety Factor**

Suf Casing Wt (Bouyant) =	( 34800	x	0.870	) =	30284
Prod Casing Wt (Bouyant) =	( 72369	x	0.847	) =	61320
Tubing Wt (Air Wt) =	4257	x	6.5	=	27671
Tubing Fluid Wt =	4257	x	0.052	x	6.55
Load on Conductor =	3000	+	30284	+	61320
Conductor Compression Safety Factor =	432966	/	129060	=	3.35
Load on Surface Casing =	129060	x	60%	=	77436
Surface Casing Compression Safety Factor =	244000	/	77436	=	3.15

### 3. Proposed cementing program:

#### 16" or 13-3/8" Conductor:

Cement to surface with rathole mix, ready mix or Class C Neat cement.  
 (Note: The gravel used in the cement is not to exceed 3/8" diameter)  
 TOC at surface.

#### 8-5/8" Surface Casing Cementing Program:

The intention for the cementing program for the Surface Casing is to:

- Place the Tail Slurry from the casing shoe to 350' above the casing shoe,
- Bring the Lead Slurry to surface.

Spacer: 20 bbls Fresh Water

Slurry		Intervals Ft MD		Weight ppg	Sx	Vol Cuft	Additives	Yield ft <sup>3</sup> /sx
Lead	Class C	Surface	1055' – 1100'	13.6	450	765	+ 2% Extender + 2% CaCl <sub>2</sub> + 0.125 lb/sx Lost Circulation Control Agent + 0.2% Defoamer  Excess =200% based on gauge hole volume	1.70
Tail	Class C	1055' – 1100'	1405' – 1450'	14.8	300	402	1% CaCl <sub>2</sub>  Excess = 100% based on gauge hole volume	1.34

Displacement: Fresh Water.

**Note: In accordance with the Pecos District Conditions of Approval, we will Wait on Cement (WOC) for a period of not less than 18 hrs after placement or until at least 500 psi compressive strength has been reached in both the Lead Slurry and Tail Slurry cements on the Surface Casing, whichever is greater.**

#### 5-1/2" Production Casing Cementing Program – Single Stage Cementing Option:

The intention for the cementing program for the Production Casing – Single Stage Cementing Option is to:

- Place the Tail Slurry from the casing shoe to above the top of the Grayburg,
- Bring the Lead Slurry to surface.

Spacer: 20 bbls Fresh Water

Slurry		Intervals Ft MD		Weight ppg	Sx	Vol Cuft	Additives	Yield ft <sup>3</sup> /sx
Lead	C Gas Tight Slurry	Surface	3000'	11.5	400	1292	Class C 94 lb/sx 6% Extender 10% Gas Migration Control 2% Sodium Metasilicate (dry) 1% Cement Bonding Agent 3% Aluminum Silicate 0.125 lb/sx Cello Flake 3 lb/sx LCM-1	3.23
Tail	Poz/C Gas Tight Slurry	3000'	4212' – 4257'	14.0	320	438	(35:65) Poz:C 33 lb/sx 1% Sodium Metasilicate (dry) 1.5% Fluid Loss Control,	1.37

Displacement: Fresh Water with approximately 250 ppm glutaraldehyde biocide.

**5-1/2" Production Casing Cementing Program – Two-Stage Cementing Option (Shallow Flow):**

ConocoPhillips Company respectfully requests the options to our cementing program. The intention for the cementing program for the Production Casing – Two-Stage Cementing Option is to:

- Provide a contingency plan for using a Stage Tool and Annulus Casing Packer(s) to isolate shallow saltwater or gas flow if either of these events occurs while drilling the well.
- Place the Stage 1 Cement from the casing shoe to surface.
- Proceed with Stage 2 Cement only if cement returns are contaminated or flow was observed after pumping 1<sup>st</sup> stage.

Spacer: 20 bbls Fresh Water

Stage 1 - Slurry		Intervals Ft MD		Weight ppg	Sx	Vol Cuft	Additives	Yield ft <sup>3</sup> /sx
Lead	C Gas Tight Slurry	Surface	3000'	11.5	400	1292	Class C 94 lb/sx 6% Extender 10% Gas Migration Control 2% Sodium Metasilicate (dry) 1% Cement Bonding Agent 3% Aluminum Silicate 0.125 lb/sx Cello Flake 3 lb/sx LCM-1	3.23
Tail	Poz/C Gas Tight Slurry	3000'	4212' – 4257'	14.0	320	438	(35:65) Poz:C 33 lb/sx 1% Sodium Metasilicate (dry) 1.5% Fluid Loss Control,	1.37

1<sup>st</sup> stage displacement: FW followed by Weighted Spacer

Spacer: Remaining Weighted Spacer in cementing lines from the 1<sup>st</sup> stage displacement

Stage 2 - Slurry		Intervals Ft MD		Weight ppg	Sx	Vol Cuft	Additives	Yield ft <sup>3</sup> /sx
Tail	Class C	Surface	Stage Tool ~1450'	14.8	300	402	1% CaCl <sub>2</sub> Excess = 100% based on gauge hole volume	1.34

2<sup>nd</sup> stage displacement: Fresh Water

**5-1/2" Production Casing Cementing Program – Two-Stage Cementing Option (Lower Zone Losses or Waterflow):**

ConocoPhillips Company respectfully requests the options to our cementing program. The intention for the cementing program for the Production Casing – Two-Stage Cementing Option is to:

- Provide a contingency plan for using a Stage Tool and Annulus Casing Packer(s) to isolate losses or waterflow if either of these events occurs while drilling the well.
- Place the Stage 1 Cement from the casing shoe to the stage tool,
- Bring Stage 2 Cement from the stage tool to surface.

Spacer: 20 bbls Fresh Water *See COA*

Stage 1 - Slurry		Intervals Ft MD		Weight ppg	Sx	Vol Cuft	Additives	Yield ft <sup>3</sup> /sx
Lead	Poz/C Gas Tight Slurry	Stage Tool ~2900'	4212' – 4257'	14.0	320	438	(35:65) Poz:C 33 lb/sx 1% Sodium Metasilicate (dry) 1.5% Fluid Loss Control,	1.37

1<sup>st</sup> stage displacement: FW followed by Brine

Spacer: 20 bbls Fresh Water

Stage 2 - Slurry		Intervals Ft MD		Weight ppg	Sx	Vol Cuft	Additives	Yield ft <sup>3</sup> /sx
Lead	C Gas Tight Slurry	Surface	Stage Tool ~2900'	11.5	400	1292	Class C 94 lb/sx 6% Extender 10% Gas Migration Control 2% Sodium Metasilicate (dry) 1% Cement Bonding Agent 3% Aluminum Silicate 0.125 lb/sx Cello Flake 3 lb/sx LCM-1	3.23

Displacement: Fresh Water

*See COA*

**Proposal for Option to Adjust Production Casing Cement Volumes:**

The production casing cement volumes for the proposed single stage and two-stage option presented above are estimates based on gauge hole. We will adjust these volumes based on the caliper log data for each well and our trends for amount of cement returns to surface. Also, if no caliper log is available for any particular well, we would propose an option to possibly increase the production casing cement volume to account for any uncertainty in regard to the hole volume.

#### 4. Pressure Control Equipment:

A 11" 3M system will be installed, used, maintained, and tested accordingly as described in Onshore Oil and Gas Order No. 2.

Our BOP equipment will be:

- o Rotating Head
- o Annular BOP, 11" 3M
- o Blind Ram, 11" 3M
- o Pipe Ram, 11" 3M

After nipping up, and every 30 days thereafter or whenever any seal subject to test pressure is broken followed by related repairs, blowout preventors will be pressure tested. BOP will be inspected and operated at least daily to insure good working order. All pressure and operating tests will be done by an independent service company and recorded on the daily drilling reports. BOP will be tested using a test plug to isolate BOP stack from casing. BOP test will include a low pressure test from 250 to 300 psi for a minimum of 10 minutes or until requirements of test are met, whichever is longer. Ram type preventers and associated equipment will be tested to the approved stack working pressure of 3000 psi isolated by test plug. Annular type preventers will be tested to 50 percent of rated working pressure, and therefore will be tested to 1500 psi. Pressure will be held for at least 10 minutes or until provisions of test are met, whichever is longer. Valve on casing head below test plug will be open during testing of BOP stack. BOP will comply with all provisions of Onshore Oil and Gas Order No. 2 as specified. **See Attached BOPE Schematic.** A variance is respectfully requested to allow for the use of flexible hose. The variance request is included as a separate enclosure with attachments.

See COA

#### 5. Proposed Mud System:

The mud systems that are proposed for use are as follows:

DEPTH	TYPE	Density ppg	FV sec/qt	API Fluid Loss cc/30 min	pH	Vol bbl
0 – Surface Casing Point	Fresh Water or Fresh Water Native Mud in Steel Pits	8.5 – 9.0	28 – 40	N.C.	N.C.	150 – 300
Surface Casing Point to TD	Brine (Saturated NaCl <sub>2</sub> ) in Steel Pits	10	29	N.C.	10 – 11	300 – 1000
Conversion to Mud at TD	Brine Based Mud (NaCl <sub>2</sub> ) in Steel Pits	10	33 – 40	5 – 10	10 – 11	0 – 1000

Gas detection equipment and pit level flow monitoring equipment will be on location. A flow paddle will be installed in the flow line to monitor relative amount of mud flowing in the non-pressurized return line. Mud probes will be installed in the individual tanks to monitor pit volumes of the drilling fluid with a pit volume totalizer. Gas detecting equipment and H<sub>2</sub>S monitor alarm will be installed in the mud return system and will be monitored. A mud gas separator will be installed and operable before drilling out from the Surface Casing. The gases shall be piped into the flare system. Drilling mud containing H<sub>2</sub>S shall be degassed in accordance with API RP-49, item 5.14.

In the event that the well is flowing from a waterflow, then we would discharge excess drilling fluids from the steel mud pits through a fas-line into steel frac tanks at an offset location for containment. Depending on the rate of waterflow, excess fluids will be hauled to an approved disposal facility, or if in suitable condition, may be reused on the next well.

No reserve pit will be built.

#### Proposal for Option to Not Mud Up at TD:

FW, Brine, and Mud volume presented above are estimates based on gauge 12-1/4" or 7-7/8" holes. We will adjust these volume based on hole conditions. We do not plan to keep any weighting material at the wellsite. Also, we propose an option to not mud up leaving only brine in the hole if we have good hole stability.

**6. Logging, Coring, and Testing Program:**

- a. No drill stem tests will be done
- b. Remote gas monitoring planned for the production hole section (optional).
- c. No whole cores are planned
- d. The open hole electrical logging program is planned to be as follows:
  - Total Depth to 1700' MD: Spectral Gamma Ray, PE, Resistivity (laterologs), Bulk Density, and Sonic
  - Total Depth to surface Casing Shoe: Caliper
  - Total Depth to surface, Total Gamma Ray and Neutron
  - Total Depth to 2350' MD ; Mud Log (optional)
  - Total Depth to 2350' MD ; Dielectric Scanner (optional)
  - Formation pressure data (XPT) on electric line if needed (optional)
  - Rotary Sidewall Cores on electric line if needed (optional)
  - FMI (Formation MicroImager) if needed (optional)
  - UBI (Ultrasonic Borehole Imager) if needed (optional)
- e. Cement Bond Log (optional).

**7. Abnormal Pressures and Temperatures:**

- No abnormal pressures are expected to be encountered.
- Loss of circulation is a possibility in the horizons below the Top of Grayburg. We expect that normal Loss of Circulation Material will be successful in healing any such loss of circulation events.
- See COA
  - The bottom hole pressure is expected to be 7.8 ppg gradient.
  - The expected Bottom Hole Temperature is 100 degrees F.
- The estimated H<sub>2</sub>S concentrations and ROE calculations for the gas in the zones to be penetrated are presented in the table below for the various producing horizons in this area:

FORMATION / ZONE	H2S (PPM)	Gas Rate (MCFD)	ROE 100 PPM	ROE 500 PPM
Seven Rivers	6	50 - 100 MCFD	0	0
Grayburg / San Andres	18360	20 - 50 MCFD	95	43

ConocoPhillips will comply with the provisions of Oil and Gas Order # 6, Hydrogen Sulfide Operations. Also, ConocoPhillips will provide an H<sub>2</sub>S Contingency Plan (please see copy attached) and will keep this plan updated and posted at the wellsite during the drilling operation.

**8. Anticipated starting date and duration of operations:**

Well pad and road constructions will begin as soon as all agency approvals are obtained. Anticipated date to drill these wells begin in 2014 after receiving approval of the APD.

**Attachments:**

- Attachment # 1 ..... Two-stage Cementing Schematic
- Attachment # 2 ..... BOP and Choke Manifold Schematic – 3M System
- Attachment # 3 ..... Diagram of Choke Manifold Equipment

**Contact Information:**

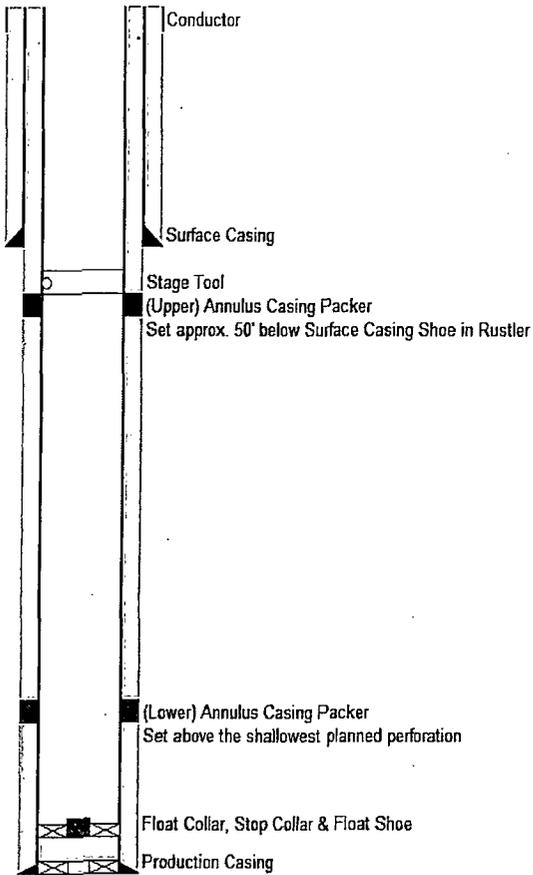
Proposed 15 January 2014 by:  
 Steven Herrin  
 Drilling Engineer, ConocoPhillips Company  
 Phone (281) 206-5115  
 Cell (432) 209-7558  
 SEMU #253

(Date: 1/15/2014)

# Attachment # 1

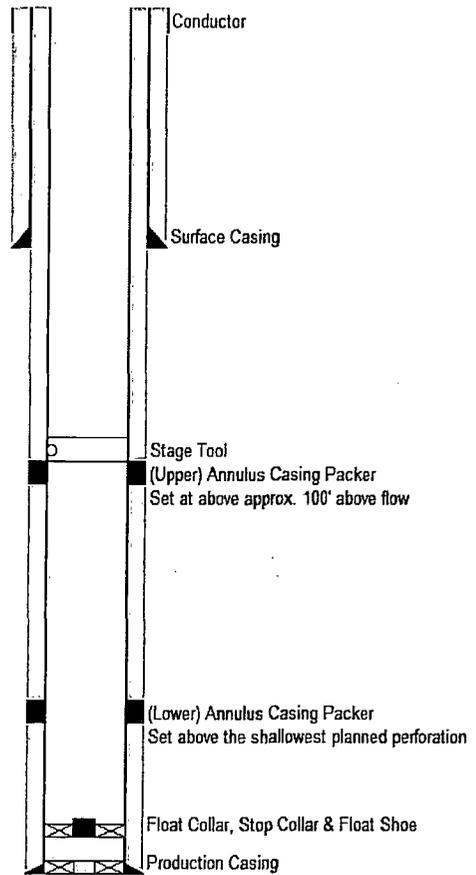
## Two-Stage Cementing (Alternative for Shallow Gas / Salt Water / Gas & Water Flow)

Provide contingency plan for using two-stage cementing for the production casing cement job if gas flow occurs during the drilling operations. See APD Drill Plan Section 3. Proposed cementing program.



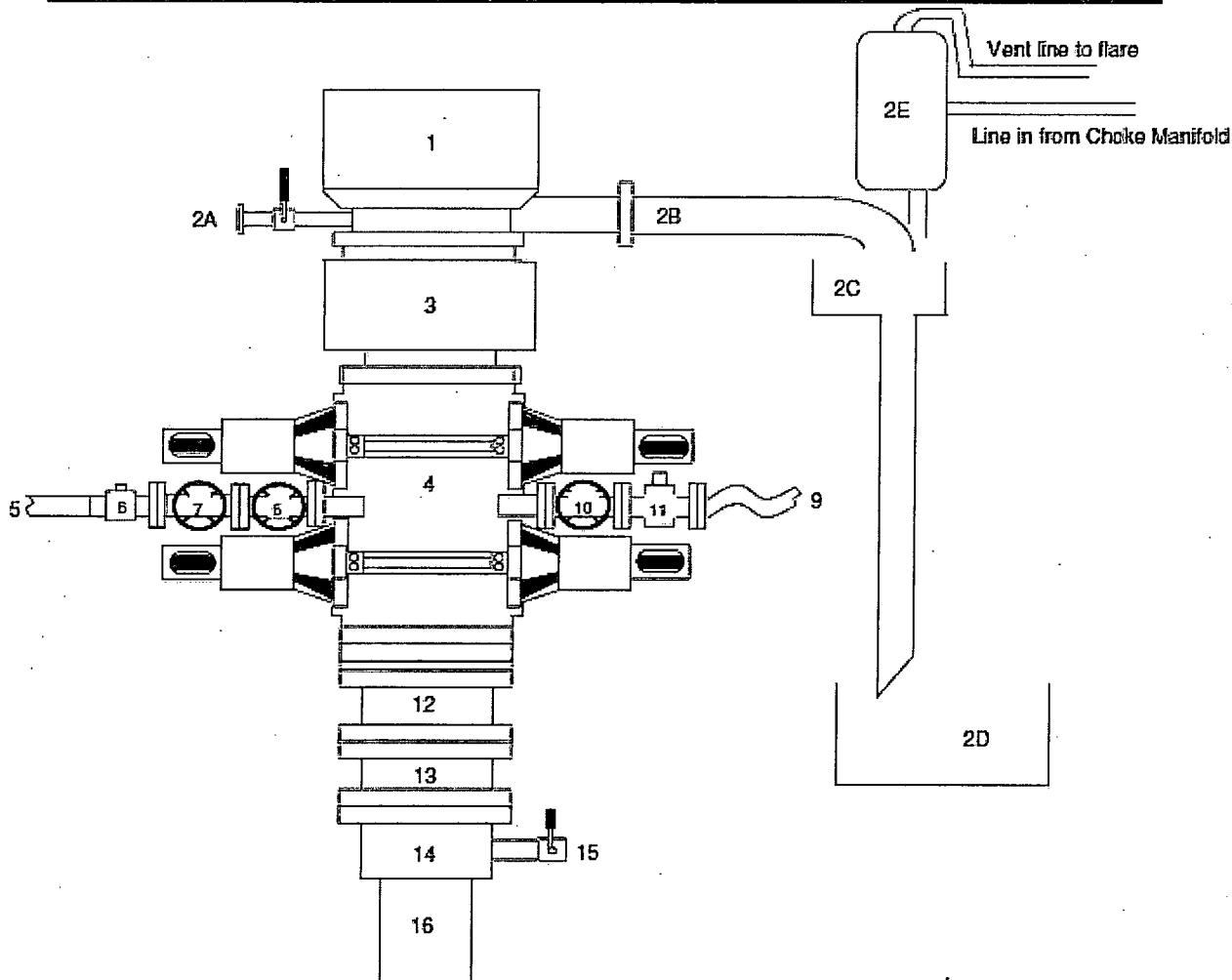
## Two-Stage Cementing (Alternative for Oil / Water / Gas & Water Flow)

Provide contingency plan for using two-stage cementing for the production casing cement job if oil or water flow occurs during the drilling operations. See APD Drill Plan Section 3. Proposed cementing program.



Attachment # 2

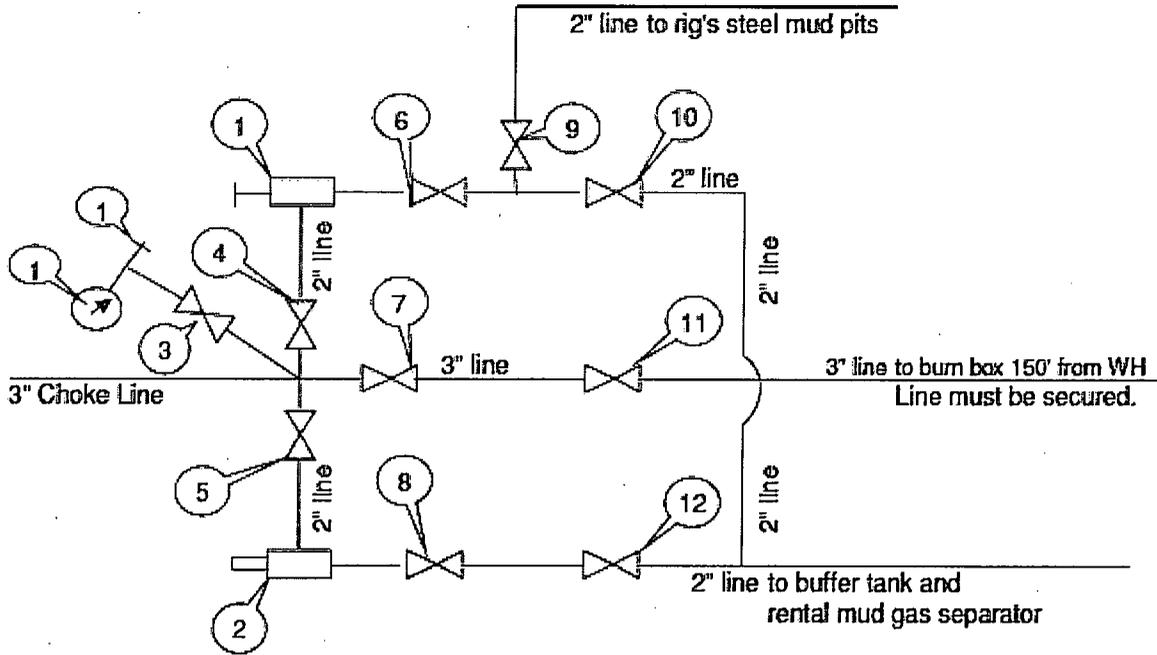
**BLOWOUT PREVENTER ARRANGEMENT**  
3M System per Onshore Oil and Gas Order No. 2 utilizing 3M and 5M Rated Equipment



Item	Description
1	Rotating Head, 11"
2A	Fill up Line and Valve
2B	Flow Line (10")
2C	Shale Shakers and Solids Settling Tank
2D	Cuttings Bins for Zero Discharge
2E	Rental Mud Gas Separator with vent line to flare and return line to mud system
3	Annular BOP (11", 3M)
4	Double Ram (11", 3M, equipped with Blind Rams and Pipe Rams)
5	Kill Line (2" flexible hose, 3000 psi WP)
6	Kill Line Valve, Inner (3-1/8", 3000 psi WP)
7	Kill Line Valve, Outer (3-1/8", 3000 psi WP)
8	Kill Line Check Valve (2-1/16", 3000 psi WP)
9	Choke Line (5M Stainless Steel Collex Line, 3-1/8" 3M API Type 6B, 3000 psi WP)
10	Choke Line Valve, Inner (3-1/8", 3000 psi WP)
11	Choke Line Valve, Outer, (Hydraulically operated, 3-1/8", 3000 psi WP)
12	Adapter Flange (11" 5M to 11" 3M)
13	Spacer Spool (11", 5M)
14	Casing Head (11" 5M)
15	Ball Valve and Threaded Nipple on Casing Head Outlet, 2" 5M
16	Surface Casing

Submitted by: Steven Herrin, Drilling Engineer, Mid-Continent Business Unit, ConocoPhillips Company, 03-Jan-2014

**CHOKE MANIFOLD ARRANGEMENT**  
 3M System per Onshore Oil and Gas Order No. 2 utilizing 3M and 5M Equipment



Item	Description
1	Manual Adjustable Choke, 2-1/16", 3M
2	Remote Controlled Hydraulically Operated Adjustable Choke, 2-1/16", 3M
3	Gate Valve, 2-1/16" 5M
4	Gate Valve, 2-1/16" 5M
5	Gate Valve, 2-1/16" 5M
6	Gate Valve, 2-1/16" 5M
7	Gate Valve, 3-1/8" 3M
8	Gate Valve, 2-1/16" 5M
9	Gate Valve, 2-1/16" 5M
10	Gate Valve, 2-1/16" 5M
11	Gate Valve, 3-1/8" 3M
12	Gate Valve, 2-1/16" 5M
13	Pressure Gauge
14	2" hammer union tie-in point for BOP Tester

We will test each valve to 3000 psi from the upstream side.

Submitted by:  
 Steven Herrin  
 Drilling Engineer, Mid-Continent Business Unit, ConocoPhillips Company  
 Date: 3-January-2014

# **ConocoPhillips MCBU**

**Buckeye**

**SEMU**

**SEMU 253**

**N/A**

**SEMU 253**

**Plan: Plan Design**

## **Standard Planning Report - Geographic**

**09 December, 2013**

## ConocoPhillips

### Planning Report - Geographic

<b>Database:</b>	EDM Central Planning	<b>Local Co-ordinate Reference:</b>	Well SEMU 253
<b>Company:</b>	ConocoPhillips MCBU	<b>TVD Reference:</b>	RKB @ 3557.0usft (PD 822)
<b>Project:</b>	Buckeye	<b>MD Reference:</b>	RKB @ 3557.0usft (PD 822)
<b>Site:</b>	SEMU	<b>North Reference:</b>	Grid
<b>Well:</b>	SEM U 253	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	SEM U 253		
<b>Design:</b>	Plan Design		

<b>Project</b>	Buckeye, Lea County, NM		
<b>Map System:</b>	US State Plane 1927 (Exact solution)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	New Mexico East 3001		Using geodetic scale factor

<b>Site</b>	SEM U, New Mexico, East				
<b>Site Position:</b>	<b>Northing:</b>	574,584.87 usft	<b>Latitude:</b>	32° 34' 29.280 N	
<b>From:</b>	Lat/Long	<b>Easting:</b>	839,762.30 usft	<b>Longitude:</b>	103° 13' 49.440 W
<b>Position Uncertainty:</b>	3.5 usft	<b>Slot Radius:</b>	8 "	<b>Grid Convergence:</b>	0.59 °

<b>Well</b>	SEM U 253, Deviated					
<b>Well Position</b>	<b>+N/-S</b>	0.0 usft	<b>Northing:</b>	571,106.63 usft	<b>Latitude:</b>	32° 33' 53.640 N
	<b>+E/-W</b>	0.0 usft	<b>Easting:</b>	851,520.53 usft	<b>Longitude:</b>	103° 11' 32.489 W
<b>Position Uncertainty</b>		0.0 usft	<b>Wellhead Elevation:</b>		<b>Ground Level:</b>	3,544.0 usft

<b>Wellbore</b>	SEM U 253				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	BGGM2013	12/9/2013	7.23	60.50	48,603

<b>Design</b>	Plan Design				
<b>Audit Notes:</b>					
<b>Version:</b>	1	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.0	0.0	0.0	32.86	

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,337.8	0.00	0.00	2,337.8	0.0	0.0	0.00	0.00	0.00	0.00	
3,809.1	22.07	32.86	3,773.0	235.1	151.9	1.50	1.50	0.00	32.86	SEM U (Target)
4,266.6	22.07	32.86	4,197.0	379.5	245.1	0.00	0.00	0.00	0.00	

**ConocoPhillips**  
 Planning Report - Geographic

<b>Database:</b>	EDM Central Planning	<b>Local Co-ordinate Reference:</b>	Well SEMU 253
<b>Company:</b>	ConocoPhillips MCBU	<b>TVD Reference:</b>	RKB @ 3557.0usft (PD 822)
<b>Project:</b>	Buckeye	<b>MD Reference:</b>	RKB @ 3557.0usft (PD 822)
<b>Site:</b>	SEMU	<b>North Reference:</b>	Grid
<b>Well:</b>	SEMU 253	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	SEMU 253		
<b>Design:</b>	Plan Design		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
0.0	0.00	0.00	0.0	0.0	0.0	571,106.63	851,520.53	32° 33' 53.640 N	103° 11' 32.489 W	
85.0	0.00	0.00	85.0	0.0	0.0	571,106.63	851,520.53	32° 33' 53.640 N	103° 11' 32.489 W	
<b>Conductor</b>										
100.0	0.00	0.00	100.0	0.0	0.0	571,106.63	851,520.53	32° 33' 53.640 N	103° 11' 32.489 W	
200.0	0.00	0.00	200.0	0.0	0.0	571,106.63	851,520.53	32° 33' 53.640 N	103° 11' 32.489 W	
300.0	0.00	0.00	300.0	0.0	0.0	571,106.63	851,520.53	32° 33' 53.640 N	103° 11' 32.489 W	
400.0	0.00	0.00	400.0	0.0	0.0	571,106.63	851,520.53	32° 33' 53.640 N	103° 11' 32.489 W	
500.0	0.00	0.00	500.0	0.0	0.0	571,106.63	851,520.53	32° 33' 53.640 N	103° 11' 32.489 W	
600.0	0.00	0.00	600.0	0.0	0.0	571,106.63	851,520.53	32° 33' 53.640 N	103° 11' 32.489 W	
700.0	0.00	0.00	700.0	0.0	0.0	571,106.63	851,520.53	32° 33' 53.640 N	103° 11' 32.489 W	
800.0	0.00	0.00	800.0	0.0	0.0	571,106.63	851,520.53	32° 33' 53.640 N	103° 11' 32.489 W	
900.0	0.00	0.00	900.0	0.0	0.0	571,106.63	851,520.53	32° 33' 53.640 N	103° 11' 32.489 W	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	571,106.63	851,520.53	32° 33' 53.640 N	103° 11' 32.489 W	
1,100.0	0.00	0.00	1,100.0	0.0	0.0	571,106.63	851,520.53	32° 33' 53.640 N	103° 11' 32.489 W	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	571,106.63	851,520.53	32° 33' 53.640 N	103° 11' 32.489 W	
1,300.0	0.00	0.00	1,300.0	0.0	0.0	571,106.63	851,520.53	32° 33' 53.640 N	103° 11' 32.489 W	
1,380.0	0.00	0.00	1,380.0	0.0	0.0	571,106.63	851,520.53	32° 33' 53.640 N	103° 11' 32.489 W	
<b>Rustler</b>										
1,400.0	0.00	0.00	1,400.0	0.0	0.0	571,106.63	851,520.53	32° 33' 53.640 N	103° 11' 32.489 W	
1,450.0	0.00	0.00	1,450.0	0.0	0.0	571,106.63	851,520.53	32° 33' 53.640 N	103° 11' 32.489 W	
<b>Surface</b>										
1,469.0	0.00	0.00	1,469.0	0.0	0.0	571,106.63	851,520.53	32° 33' 53.640 N	103° 11' 32.489 W	
<b>Salado</b>										
1,500.0	0.00	0.00	1,500.0	0.0	0.0	571,106.63	851,520.53	32° 33' 53.640 N	103° 11' 32.489 W	
1,600.0	0.00	0.00	1,600.0	0.0	0.0	571,106.63	851,520.53	32° 33' 53.640 N	103° 11' 32.489 W	
1,700.0	0.00	0.00	1,700.0	0.0	0.0	571,106.63	851,520.53	32° 33' 53.640 N	103° 11' 32.489 W	
1,800.0	0.00	0.00	1,800.0	0.0	0.0	571,106.63	851,520.53	32° 33' 53.640 N	103° 11' 32.489 W	
1,900.0	0.00	0.00	1,900.0	0.0	0.0	571,106.63	851,520.53	32° 33' 53.640 N	103° 11' 32.489 W	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	571,106.63	851,520.53	32° 33' 53.640 N	103° 11' 32.489 W	
2,100.0	0.00	0.00	2,100.0	0.0	0.0	571,106.63	851,520.53	32° 33' 53.640 N	103° 11' 32.489 W	
2,200.0	0.00	0.00	2,200.0	0.0	0.0	571,106.63	851,520.53	32° 33' 53.640 N	103° 11' 32.489 W	
2,300.0	0.00	0.00	2,300.0	0.0	0.0	571,106.63	851,520.53	32° 33' 53.640 N	103° 11' 32.489 W	
2,337.8	0.00	0.00	2,337.8	0.0	0.0	571,106.63	851,520.53	32° 33' 53.640 N	103° 11' 32.489 W	
2,400.0	0.93	32.86	2,400.0	0.4	0.3	571,107.06	851,520.81	32° 33' 53.644 N	103° 11' 32.486 W	
2,500.0	2.43	32.86	2,500.0	2.9	1.9	571,109.52	851,522.40	32° 33' 53.668 N	103° 11' 32.467 W	
2,568.1	3.46	32.86	2,568.0	5.8	3.8	571,112.46	851,524.30	32° 33' 53.697 N	103° 11' 32.444 W	
<b>Tansill</b>										
2,600.0	3.93	32.86	2,599.8	7.6	4.9	571,114.19	851,525.41	32° 33' 53.714 N	103° 11' 32.431 W	
2,700.0	5.43	32.86	2,699.5	14.4	9.3	571,121.05	851,529.84	32° 33' 53.782 N	103° 11' 32.378 W	
2,800.0	6.93	32.86	2,798.9	23.5	15.2	571,130.09	851,535.69	32° 33' 53.871 N	103° 11' 32.309 W	
2,900.0	8.43	32.86	2,898.0	34.7	22.4	571,141.33	851,542.94	32° 33' 53.981 N	103° 11' 32.223 W	
2,916.2	8.68	32.86	2,914.0	36.7	23.7	571,143.35	851,544.25	32° 33' 54.001 N	103° 11' 32.207 W	
<b>Yates</b>										
3,000.0	9.93	32.86	2,996.7	48.1	31.1	571,154.73	851,551.60	32° 33' 54.113 N	103° 11' 32.120 W	
3,100.0	11.43	32.86	3,095.0	63.7	41.1	571,170.30	851,561.66	32° 33' 54.266 N	103° 11' 32.000 W	
3,200.0	12.93	32.86	3,192.7	81.4	52.6	571,188.03	851,573.11	32° 33' 54.440 N	103° 11' 31.864 W	
3,300.0	14.43	32.86	3,289.9	101.3	65.4	571,207.90	851,585.95	32° 33' 54.635 N	103° 11' 31.712 W	
3,400.0	15.93	32.86	3,386.4	123.3	79.6	571,229.90	851,600.16	32° 33' 54.851 N	103° 11' 31.543 W	
3,500.0	17.43	32.86	3,482.1	147.4	95.2	571,254.02	851,615.73	32° 33' 55.088 N	103° 11' 31.358 W	
3,506.1	17.53	32.86	3,488.0	148.9	96.2	571,255.57	851,616.73	32° 33' 55.103 N	103° 11' 31.346 W	
<b>Seven Rivers</b>										
3,600.0	18.93	32.86	3,577.2	173.6	112.1	571,280.23	851,632.66	32° 33' 55.346 N	103° 11' 31.157 W	
3,652.8	19.73	32.86	3,627.0	188.3	121.6	571,294.92	851,642.15	32° 33' 55.490 N	103° 11' 31.044 W	
<b>Queen</b>										

**ConocoPhillips**  
Planning Report - Geographic

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well SEMU 253
Company:	ConocoPhillips MCBU	TVD Reference:	RKB @ 3557.0usft (PD 822)
Project:	Buckeye	MD Reference:	RKB @ 3557.0usft (PD 822)
Site:	SEMU	North Reference:	Grid
Well:	SEMU 253	Survey Calculation Method:	Minimum Curvature
Wellbore:	SEMU 253		
Design:	Plan Design		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
3,700.0	20.43	32.86	3,671.3	201.9	130.4	571,308.53	851,650.94	32° 33' 55.624 N	103° 11' 30.940 W	
3,800.0	21.93	32.86	3,764.5	232.2	150.0	571,338.88	851,670.55	32° 33' 55.922 N	103° 11' 30.707 W	
3,809.1	22.07	32.86	3,773.0	235.1	151.9	571,341.75	851,672.40	32° 33' 55.950 N	103° 11' 30.685 W	
<b>Penrose</b>										
3,900.0	22.07	32.86	3,857.2	263.8	170.4	571,370.44	851,690.93	32° 33' 56.232 N	103° 11' 30.465 W	
4,000.0	22.07	32.86	3,949.9	295.4	190.8	571,402.00	851,711.32	32° 33' 56.542 N	103° 11' 30.223 W	
4,050.8	22.07	32.86	3,997.0	311.4	201.1	571,418.05	851,721.68	32° 33' 56.700 N	103° 11' 30.100 W	
<b>Grayburg</b>										
4,100.0	22.07	32.86	4,042.6	326.9	211.2	571,433.57	851,731.70	32° 33' 56.852 N	103° 11' 29.981 W	
4,187.0	22.07	32.86	4,123.2	354.4	228.9	571,461.03	851,749.44	32° 33' 57.122 N	103° 11' 29.770 W	
<b>Production</b>										
4,200.0	22.07	32.86	4,135.2	358.5	231.5	571,465.13	851,752.09	32° 33' 57.162 N	103° 11' 29.739 W	
4,266.6	22.07	32.86	4,197.0	379.5	245.1	571,486.17	851,765.68	32° 33' 57.369 N	103° 11' 29.577 W	

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
SEMU (Target)	0.00	0.00	3,773.0	312.5	201.9	571,419.17	851,722.40	32° 33' 56.711 N	103° 11' 30.091 W	
- hit/miss target										
- Shape										
- plan misses target center by 85.4usft at 3843.7usft MD (3805.1 TVD, 246.0 N, 158.9 E)										
- Circle (radius 100.0)										

Casing Points						
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")		
85.0	85.0	Conductor	16	20		
1,450.0	1,450.0	Surface	8-5/8	12-1/4		
4,187.0	4,123.2	Production	5-1/2	7-7/8		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,380.0	1,380.0	Rustler		0.00		
1,469.0	1,469.0	Salado		0.00		
2,568.1	2,568.0	Tansill		0.00		
2,916.2	2,914.0	Yates		0.00		
3,506.1	3,488.0	Seven Rivers		0.00		
3,652.8	3,627.0	Queen		0.00		
3,809.1	3,773.0	Penrose		0.00		
4,050.8	3,997.0	Grayburg		0.00		

## Closed Loop System Design, Operating and Maintenance, and Closure Plan

ConocoPhillips Company  
Well: SEMU #253  
Location: Sec. 19, T20S, R38E  
Date: 1/15/2014

ConocoPhillips proposes the following plan for design, operating and maintenance, and closure of our proposed closed loop system for the above named well:

1. We propose to use a closed loop system with steel pits, haul-off bins, and frac tanks for containing all cuttings, solids, mud, water, brine, and liquids. We will not dig a pit, nor will we use a drying pad, nor will we build an earth pit above ground level, nor will we dispose of or bury any waste on location.

All drilling waste and all drilling fluids (fresh water, brine, mud, cuttings, drill solids, cement returns, and any other liquid or solid that may be involved) will be contained on location in the rig's steel pits or in haul-off bins or in frac tanks as needed. The intent is as follows:

- We propose to use the rigs' steel pits for containing and maintaining the drilling fluids.
- We propose to remove cuttings and drilled solids from the mud by using solids control equipment and to contain such cuttings and drilled solids on location in haul-off bins.
- We propose that any excess water that may need to be stored on location will be stored in tanks.

**The closed loop system components will be inspected daily by each tour and any needed repairs will be made immediately. Any leak in the system will be repaired immediately, and any spilled liquids and/or solids will be cleaned immediately, and the area where any such spill occurred will be remediated immediately.**

2. Cuttings and solids will be removed from location in haul-off bins by an authorized contractor and disposed of at an authorized facility. For this well, we propose the following disposal facility:

R-360 Inc.  
4507 West Carlsbad Hwy, Hobbs, NM 88240,  
P.O. Box 388; Hobbs, New Mexico 88241  
Toll Free Phone: 877.505.4274, Local Phone Number: 432.638.4076

The physical address for the plant where the disposal facility is located is Highway 62/180 at mile marker 66 (33 miles East of Hobbs, NM and 32 miles West of Carlsbad, NM).

The Permit Number for R-360 is NM-01-0006.

A photograph showing the type of haul-off bins that will be used is attached.

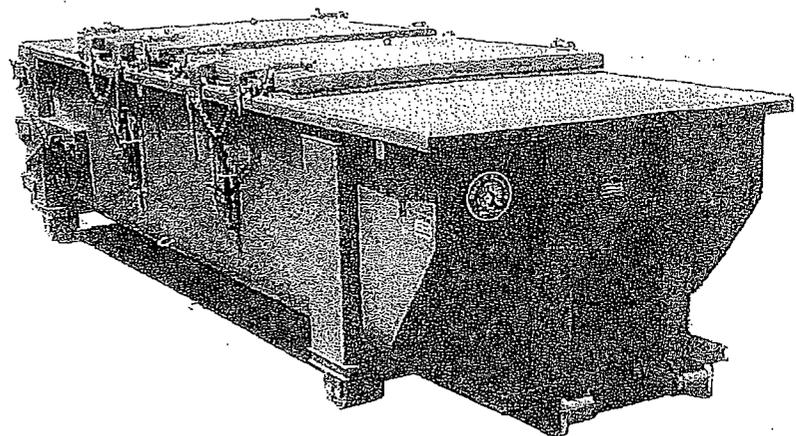
3. Mud will be transported by vacuum truck and disposed of at R-360 Inc. at the facility described above.
4. Fresh Water and Brine will be hauled off by vacuum truck and disposed of at an authorized salt water disposal well. We propose the following for disposal of fresh water and brine as needed:
  - Nabors Well Services Company, 3221 NW County Rd; Hobbs, NM 88240, PO 5208 Hobbs, NM, 88241, Permit SWD 092. (Well Location: **Section 3, T19S R37E**)
  - Basic Energy Services, P.O. Box 1869; Eunice, NM 88231 Phone Number: 575.394.2545, Facility located at Hwy 18, Mile Marker 19; Eunice, NM.

Steven Herrin  
Drilling Engineer, ConocoPhillips Company  
Phone: (281) 206-5115  
Cell: (432) 209-7558  
Date: 2 January 2014

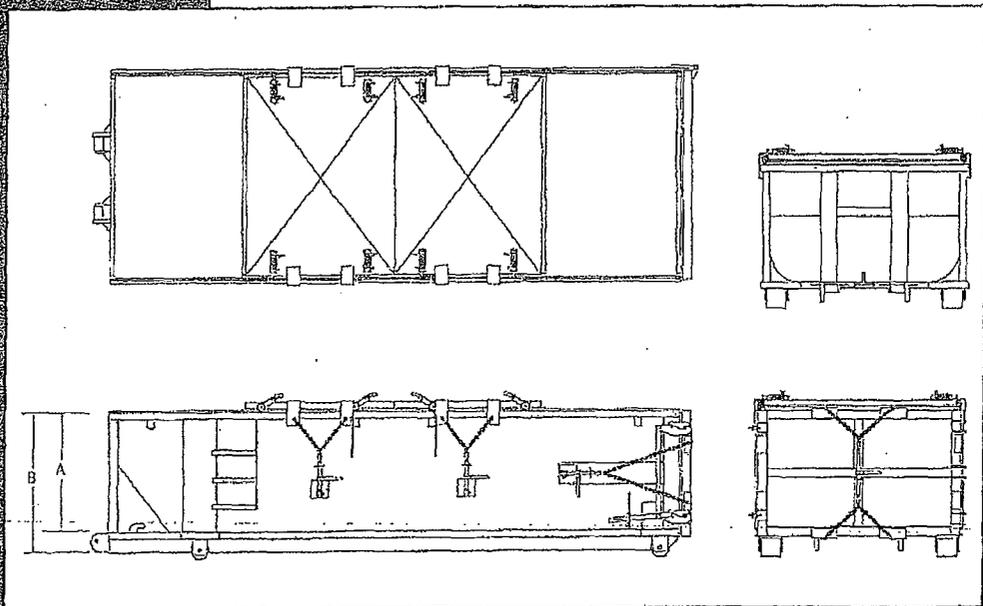
# SPECIFICATIONS

## Heavy Duty Split Metal Rolling Lid

FLOOR: 3/16" PL one piece  
 CROSS MEMBER: 3 x 4-1/2 channel 16" on center  
 WALLS: 3/16" PL solid welded with tubing top inside liner hooks  
 DOOR: 3/16" PL with tubing frame  
 FRONT: 3/16" PL slant formed  
 PICK-UP: Standard cable with 2" x 6" x 1/4" rails, gusset at each crossmember  
 WHEELS: 10" DIA x 9" long with rease fittings  
 DOOR LATCH: 3 independent ratchet binders with chains, vertical second latch  
 GASKETS: Extruded rubber seal with metal retainers  
 WELDS: All welds continuous except sub structure crossmembers  
 FINISH: Coated inside and out with direct to metal, rust inhibiting acrylic enamel color coat  
 HYDROTESTING: Full capacity static test  
 DIMENSIONS: 22'-11" long (21'-8" inside), 99" wide (88" inside), see drawing for height  
 OPTIONS: Steel grit blast and special paint, Ampliroll, Hell and Dino pickup  
 ROOF: 3/16" PL roof panels with tubing and channel support frame  
 LIDS: (2) 68" x 90" metal rolling lids spring loaded, self raising  
 ROLLERS: 4" V-groove rollers with delrin bearings and grease fittings  
 OPENING: (2) 60" x 82" openings with 8" divider centered on container  
 LATCH: (2) independent ratchet binders with chains per lid  
 GASKETS: Extruded rubber seal with metal retainers



CONT.	A	B
20 YD	41	53
25 YD	53	65
30 YD	65	77



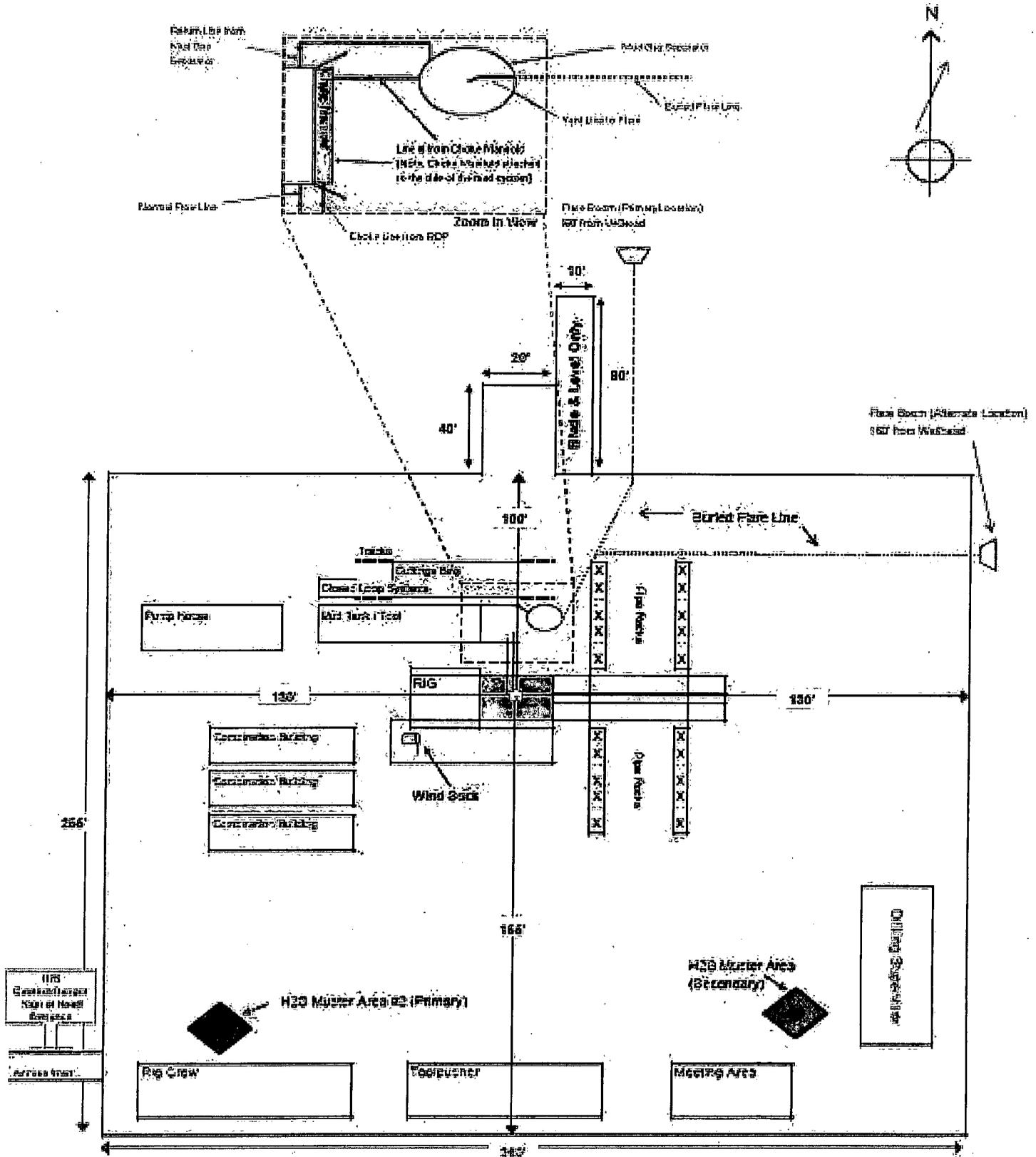
# ConocoPhillips

Location, Schematics and Rig Layout  
for Closed Loop System

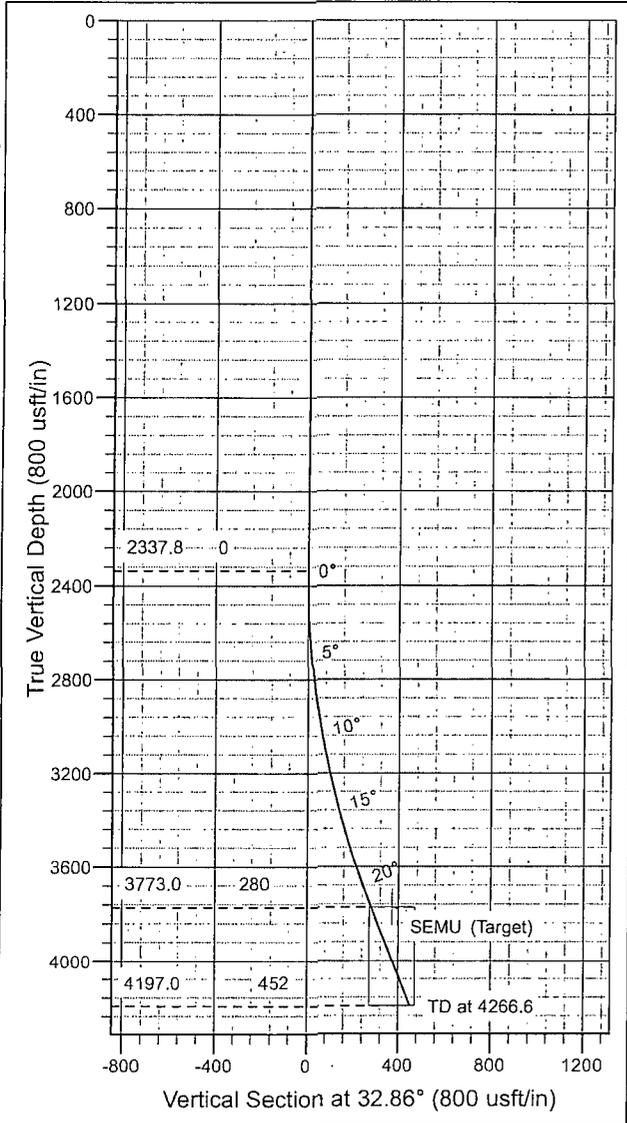
PREPARED BY: T.S. BEAUF

Drawn By:  
Steven Harris  
Drilling Engineer, ConocoPhillips Company  
Date: updated January 2014

NOTE: There are two muster areas depending on the prevailing wind direction, generally south in this area. The muster area that is furthest upwind (downwind) will be the designated area for briefing and assessing the situation. In the event a full evacuation is deemed necessary, all personnel will exit the location via the access road, if the main access road is blocked off, they will exit via a secondary road (if available) or walk off route in the upwind (downwind) direction.



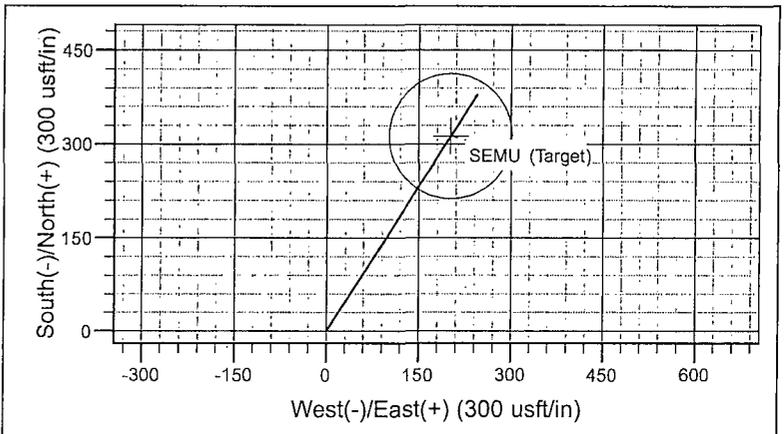
## Proposed Directional Well Plan



Project: Buckeye
Site: SEMU
Well: SEMU 253
Wellbore: SEMU 253
Design: Plan Design

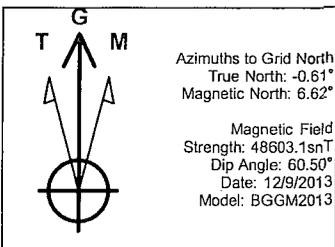
WELL DETAILS: SEMU 253						
+N/-S	+E/-W	Northing	Ground Level:	Easting	Latitude	Longitude
0.0	0.0	571106.63	3544.0	851520.53	32° 33' 53.640 N	103° 11' 32.489 W

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
	2237.8	0.00	0.00	2337.8	0.0	0.0	0.00	0.00	0.0	
	33809.1	22.07	32.86	3773.0	235.1	151.9	1.50	32.86	279.9	SEMU (Target)
	44266.6	22.07	32.86	4197.0	379.5	245.1	0.00	0.00	451.8	



CASING DETAILS				
TVD	MD	Name	Size	
85.0	85.0	Conductor	16	
1450.0	1450.0	Surface	8-5/8	
4123.2	4187.0	Production	5-1/2	

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
1380.0	1380.0	Rustler
1469.0	1469.0	Salado
2568.0	2568.1	Tansill
2914.0	2916.2	Yates
3488.0	3506.1	Seven Rivers
3627.0	3652.8	Queen
3773.0	3809.1	Penrose
3997.0	4050.8	Grayburg



## Request for Variance

### ConocoPhillips Company

Lease Number: NM LC 031670B

Well: SEMU #253

Location: Sec. 19, T20S, R38E

Date: 1/15/2014

### Request:

*See  
COA*  
ConocoPhillips Company respectfully requests a variance to install a flexible choke line instead of a straight choke line prescribed in the Onshore Order No. 2, III.A.2.b Minimum standards and enforcement provisions for choke manifold equipment. This request is made under the provision of Onshore Order No. 2, IV Variances from Minimum Standard. The rig to be used to drill this well is equipped with a flexible choke line if the requested variance is approved and determined that the proposed alternative meets the objectives of the applicable minimum standards.

### Justifications:

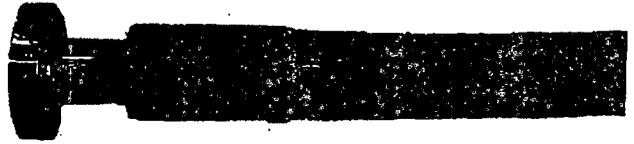
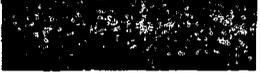
The applicability of the flexible choke line will reduce the number of target tees required to make up from the choke valve to the choke manifold. This configuration will facilitate ease of rig up and BOPE Testing.

### Attachments:

- Attachment # 1 Specification from Manufacturer
- Attachment # 2 Mill & Test Certification from Manufacturer

### Contact Information:

Program prepared by:  
Steven Herrin  
Drilling Engineer, ConocoPhillips Company  
Phone: (281) 206-5115  
Cell: (432) 209-7558  
Date: 2 January 2014



### Reliance Eliminator Choke & Kill

This hose can be used as a choke hose which connects the BOP stack to the bleed-off manifold or a kill hose which connects the mud stand pipe to the BOP kill valve.

The Reliance Eliminator Choke & Kill hose contains a specially bonded compounded cover that replaces rubber covered Asbestos, Fibreglass and other fire retardant materials which are prone to damage. This high cut and gouge resistant cover overcomes costly repairs and downtime associated with older designs.

The Reliance Eliminator Choke & Kill hose has been verified by an independent engineer to meet and exceed EUB Directive 36 (700°C for 5 minutes).

Nom. ID		Nom OD		Weight		Min Bend Radius		Max WP	
in.	mm.	in.	mm	lb/ft	kg/m	in.	mm.	psi	Mpa
3	76.2	5.11	129.79	14.5	21.46	48	1219.2	5000	34.47
3-1/2	88.9	5.79	147.06	20.14	29.80	54	1371.6	5000	34.47



**Fittings**

- RC4X5055
- RC3X5055
- RC4X5575

**Flanges**

- R35 - 3-1/8 5000# API Type 6B
- R31 - 3-1/8 3000# API Type 6B

**Hammer Unions**

- All Union Configurations

**Other**

- LP Threaded Connectio
- Graylock
- Custom Ends

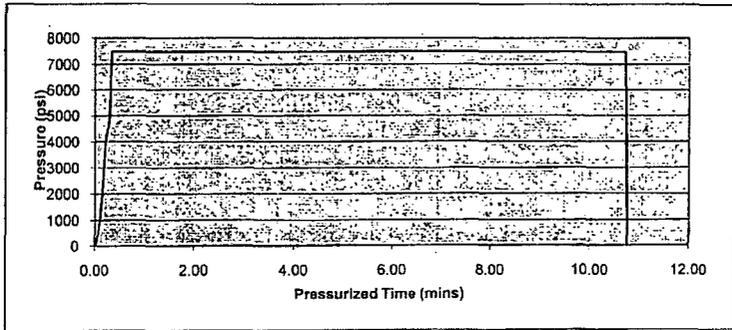
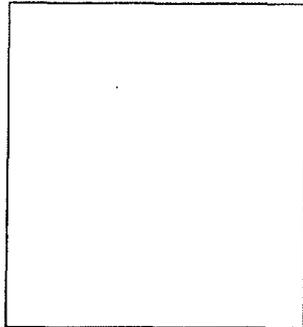


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2030 E. 8th Street, Suite B • Greeley, CO 80631  
Ph: (970) 346-3751 • Fax: (970) 353-3168 • Toll Free: (866) 771-9739

**T E S T   C E R T I F I C A T E**

Customer:           PRECISION DRILLING           Cert No.:           27792  
P.O. #:             RIG 822                                 Date:             9/21/2012  
Invoice #:          27792  
Material:           3 1/2" FIREGUARD  
Description:        3 1/2" X 10'  
Coupling 1:        3 1/2" FLANGE R31  
" Serial:  
" Quality:  
Coupling 2:        3 1/2" FLOATING R31  
" Serial:  
" Quality:  
Working Pressure : 3000  
Test Pressure:     7500  
Duration (mins):   10



Conducted By:     FLORES M.  
                          Test Technician

- Acceptable
- Not Acceptable