

OCD Hobbs

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB NO. 1004-0135  
Expires: July 31, 2010

**SUNDRY NOTICES AND REPORTS ON WELLS**  
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.*

**SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. NMLC058395
2. Name of Operator CONOCOPHILLIPS COMPANY		6. If Indian, Allottee or Tribe Name
3a. Address MIDLAND, TX 79710		7. If Unit or CA/Agreement, Name and/or No.
3b. Phone No. (include area code) Ph: 281-206-5281 <b>HOBBS OCD</b>		8. Well Name and No. SC FEDERAL 12
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 22 T17S R32E SWSE 536FSL 1668FEL		9. API Well No. 30-025-40599-00-X1
		10. Field and Pool, or Exploratory MALJAMAR; YESO, WEST
		11. County or Parish, and State LEA COUNTY, NM

**JUL 29 2014**

**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Change to Original A
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	PD

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

ConocoPhillips Company, as most recent operator of record, respectfully requests approval to change the approved plan for this well. The following changes are necessary to drill this well as part of our ongoing Yeso development program.

Please find the attached documents:  
Updated Operator Certification  
Updated Drilling Plan  
Updated Directional Plan  
Variance from Onshore Order 2, III.A.2.b  
Updated H2S Contingency Plan  
Changes to the Surface Use Plan of Operations (including updated plats)

**SEE ATTACHED FOR  
CONDITIONS OF APPROVAL**

Eng Rev. Ewed 7/14/14  
Surface see existing COA'S C/LC 7/22/14

14. I hereby certify that the foregoing is true and correct.	
Electronic Submission #238797 verified by the BLM Well Information System For CONOCOPHILLIPS COMPANY, sent to the Hobbs Committed to AFMSS for processing by CHRISTOPHER WALLS on 04/29/2014 (14CRW0148SE)	
Name (Printed/Typed) SUSAN B MAUNDER	Title SENIOR REGULATORY SPECIALIST
Signature (Electronic Submission)	Date 03/13/2014

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved By <i>Lady L. Lough</i>	Title <i>MR S</i>	Date <i>7/22/14</i>
Conditions of approval, if any, are attached. Approval of this notice 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.		Office <i>CFO</i>

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.

**\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\***

**JUL 30 2014**

**Additional data for EC transaction #238797 that would not fit on the form**

**32. Additional remarks, continued**

This well is scheduled to be drilled April or May 2014 as soon as approval is received from BLM.

Please note that overall surface use is the same or slightly less than what was previously approved. This is due to our smaller well pad size.

Thank you for your time spent reviewing this request.

## Operator Certification

HOBBS OCD

JUL 29 2014

RECEIVED

CONOCOPHILLIPS COMPANY

### CERTIFICATION:

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 Date: 3/8/14  
Susan B. Maunder  
Senior Regulatory Specialist

**Request for Sundry Notice of Change of Plan**  
**ConocoPhillips Company**  
**Maljamar; Yeso**

**SC Federal 12**  
 Lea County, New Mexico

**Request:**

ConocoPhillips Company respectfully requests a sundry notice of intent to change/revise the casing and cementing program, pressure control equipment, the proposed mud systems, diagram and schematic for BOP and choke manifold equipment, location schematic and rig layout, and updated H2S contingency plan. This request is made under the provision of Onshore Order No. 2 and No. 6.

**1. Proposed casing program:**

Type	Hole Size	Interval MD RKB (ft)		OD	Wt	Gr	Conn	MIY	Col	Jt Str	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	865' - 910' <del>920'</del>	8-5/8	24#	J-55	STC	2950	1370	244	1.51	3.01	3.42
Option: Prod w/ Bond Coat	7-7/8	3000'	4000'	5-1/2	17#	L-80	LTC	7740	6290	338	NA	NA	NA
Prod	7-7/8	0	7081' - 7126'	5-1/2	17#	L-80	LTC	7740	6290	338	2.10	2.50	1.97

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.

ConocoPhillips Company respectfully requests the option to run bond coated production casing with the two-stage cementing option for the intension to protect the casing from corrosion if needed.

**Casing Safety Factors - BLM Criteria:**

Type	Depth	Wt	MIY	Col	Jt Str	Drill Fluid	Burst	Collapse	Tensile-Dry	Tens-Bouy
Surface Casing	910	24	2950	1370	244000	8.5	7.33	3.41	11.2	12.8
Production Casing	7126	17	7740	6290	338000	10	2.09	1.70	2.79	3.29

**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	M/Y	Col	Jt Str	Pipe Yield MW	Burst	Col	Ten
Conductor	85	65	35000	-	-	432566	-	-	-
Surface Casing (6-5/8" 24# J-55 STC)	910	24	2950	1370	244000	381000	8.5	1.55	3.39
Production Casing (5-1/2" 17# L-80 LTC)	7126	17	7740	6290	338000	397000	10	2.09	2.49

#### 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 Operator 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 be Corporate Criteria for Minimum Factors.

Surface Casing Test Pressure =	1500 psi	Predicted Pore Pressure at TD (PPPTD) =	8.55 ppg
Surface Rated Working Pressure (SRWP) =	3000 psi	Predicted Free Gradient at Shoe (CSFG) =	19.231 ppg
Fluid GWT =	10 ppg		

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

#### Surface Casing Burst Safety Factor:

Case #1, MPSP (MW in next section) =	910	x	0.052	x	10	=	473		
Case #2, MPSP (Field SW @ Buttheadgore + 200 psi) =	910	x	0.052	x	19.23	=	473	+	200 = 697
Case #3, MPSP (Kick Vol @ next section TD) =	7126	x	0.052	x	8.55	=	621.6	+	402 = 2144
Case #4, MPSP (PPTD - GG) =	7126	x	0.052	x	8.55	=	712.6	=	2456
Case #3 & #4 Limited to MPSP (CSFG + 0.2 ppg) =	910	x	0.052	x	19.23	=	0.2	=	919
MAWP (MW in next section) =	510	x	0.052	x	8.5	=	1500	=	1902
Burst Safety Factor (Max. MPSP or MAWP) =	2950	/	1902	=	1.55				

#### Production Casing Burst Safety Factor:

Case #1, MPSP (MW in next section) =	7126	x	0.052	x	10	=	3705.52		
Case #4, MPSP (PPTD - GG) =	7126	x	0.052	x	8.55	=	712.6	=	2456
Burst Safety Factor (Max. MPSP) =	7740	/	3705.52	=	2.09				
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 deepest 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 formation on the outside of the casing which is assumed to be PPPTD.

Surface Casing Collapse Safety Factor = API Collapse Rating / Predicted Surface Pressure OR Cement Displacement during Cementing to Surface	8.34 ppg	Top of Cement =	Cement to Surface
Production Casing Collapse Safety Factor = API Collapse Rating / Predicted Surface Pressure OR Cement Displacement during Cementing to Surface	13.6 ppg	Prod Cement Load =	11.8 ppg
	14.8 ppg	Prod Cement Tail =	16.4 ppg
Top of Surface Test Cement =	300 ft	Top of Prod Tail Cement =	5200 ft

#### Surface Casing Collapse Safety Factor:

Full Evacuation Diff Pressure =	910	x	0.052	x	8.55	=	405		
Cementing DSI Lift Pressure =	11	610	x	0.052	x	13.6	=	300	x 0.052 x 14.8 = 395 = 268
Collapse Safety Factor =	1370	/	405	=	3.39				

#### Production Casing Collapse Safety Factor:

1/3 Evacuation Diff Pressure =	11	7126	x	0.052	x	8.55	=	7126	/ 3 x 0.052 x 8.54 = 2138
Cementing DSI Lift Pressure =	11	1926	x	0.052	x	11.8	=	5200	x 0.052 x 16.4 = 3090 = 2526
Collapse Safety Factor =	6290	/	2526	=	2.49				

#### Tensile Strength - ConocoPhillips Required Load Cases

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

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 - Buoyant Wt of the String

Tensile Safety Factor = API Pipe Yield OR API Joint Strength / (Rig Max Load Rating / (Buoyant 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 =	21840								
Buoyant Wt =	21840	x	0.870	=	19006				
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	-	( 21840	x	0.870	=	165280		
Max. Allowable Overpull Margin =	244000	-	( 19006	=	50000	=	3.54		

#### Production Casing Tensile Strength Safety Factor:

Air Wt =	121142								
Buoyant Wt =	121142	x	0.847	=	102647				
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	-	( 121142	x	0.847	=	122353		
Max. Allowable Overpull Margin =	300000	-	( 102647	=	50000	=	1.97		

#### Compression Strength - ConocoPhillips Required Load Cases

The maximum axial (compressive) load for the well is where the surface casing is landed on the conductor with a support of a pipe or landing ring. The surface casing is also calculated to bear 60% of the load on the conductor. Any other axial loads such as a subsiding unit or other loads need to be added to the load.

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

Well Head Load = 3000 lbs

#### Conductor & Surface Compression Safety Factor

Surf Casing Wt (Buoyant) =	( 21840	x	0.870	=	19006				
Prod Casing Wt (Buoyant) =	( 121142	x	0.847	=	102647				
Tubing Wt (Air Wt) =	7126	x	6.5	=	46319				
Tubing Fluid Wt =	7126	x	0.052	x	6.55	x	0.785398	x	2.441 #2 = 11358
Load on Conductor =	3000	+ 19006	=	102647	+ 46319	=	11358	=	182330
Conductor Compression Safety Factor =	432966	/	182330	=	2.37				
Load on Surface Casing =	182330	x	60%	=	109398.1				
Surface Casing Compression Safety Factor =	244000	/	109398	=	2.23				

## 2. 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 300' above the casing shoe,
- Bring the Lead Slurry to surface.

Spacer: 20 bbls Fresh Water

Slurry		Intervals Ft MD		Weight ppg	Sx	Voi Cuft	Additives	Yield ft <sup>3</sup> /sx
Lead	Class C	Surface	565' – 610'	13.6	300	510	2% Extender 2% CaCl <sub>2</sub> 0.125 lb/sx LCM if needed 0.2% Defoamer Excess = 75% based on gauge hole volume	1.70
Tail	Class C	565' – 610'	865' – 910'	14.8	200	268	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 Paddock,
- Bring the Lead Slurry to surface.

Spacer: 20 bbls Fresh Water

Slurry		Intervals Ft MD		Weight ppg	Sx	Voi Cuft	Additives	Yield ft <sup>3</sup> /sx
Lead	50:50 Poz/C	Surface	5200'	11.8	700	1820	10% Bentonite 5% Salt 0.2%-0.4% Fluid loss additive 0.125 lb/sx LCM if needed Excess = 220% or more if needed based on gauge hole volume	2.6
Tail	Class H	5200'	7081' – 7126'	16.4	400	428	0.2% Fluid loss additive 0.3% Dispersant 0.15% Retarder 0.2% Antifoam Excess = 100% or more if needed based on gauge hole volume	1.07

Displacement: Fresh Water with approximately 250 ppm gluteraldehyde biocide.

### **5-1/2" Production Casing Cementing Program – Two-Stage Cementing w/ Comingle Option:**

ConocoPhillips Company respectfully requests an additional option. 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 water flow 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

Stage 1 - Slurry		Intervals Ft MD		Weight ppg	Sx	Vol Cuft	Additives	Yield ft <sup>3</sup> /sx
Lead	50:50 Poz/H	3000'	7081' – 7126'	13.2	800	1120	0.5% Fluid loss additive 0.10% Retarder 0.2% Antifoam 0.125 lb/sx LCM if needed Excess = 150% or more if needed based on gauge hole volume	1.40

Stage 2 - Slurry		Intervals Ft MD		Weight ppg	Sx	Vol Cuft	Additives	Yield ft <sup>3</sup> /sx
Lead	50:50 Poz/C	Surface	Stage Tool ~ 3000'	11.8	500	1300	+ 10 % Extender + 5 % NaCl + 0.2 % Defoamer + 5 lb/sx LCM/Extender + 0.125 lb/sx Lost Circulation Control Agent + 0.5 % Fluid Loss Excess = 50 % or more if needed based on gauge hole volume	2.6

Displacement: Fresh Water

### **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.

### 3. 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:

- Rotating Head
- Annular BOP, 11" 3M
- Blind Ram, 11" 3M
- 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.** The BOPE may be configured to use flexible hose. A variance is respectfully requested to allow for the use of flexible hose. The variance request is included as a separate enclosure with attachments.

### 4. 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.	120 – 160
Surface Casing Point to TD	Brine (Saturated NaCl <sub>2</sub> ) in Steel Pits	10	29	N.C.	10 – 11	1250 – 2500
Conversion to Mud at TD	Brine Based Mud (NaCl <sub>2</sub> ) in Steel Pits	10	34 – 45	5 – 10	10 – 11	0 – 1250

#### 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.

Drilling mud containing H<sub>2</sub>S shall be degassed in accordance with API RP-49, item 5.14. The gases shall be piped into the flare system. Gas detection equipment and pit level flow monitoring equipment will be on location. Gas detecting equipment 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.

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.



**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 this well is in mid-2014 after receiving approval of the changes to our plan.

**Attachments:**

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

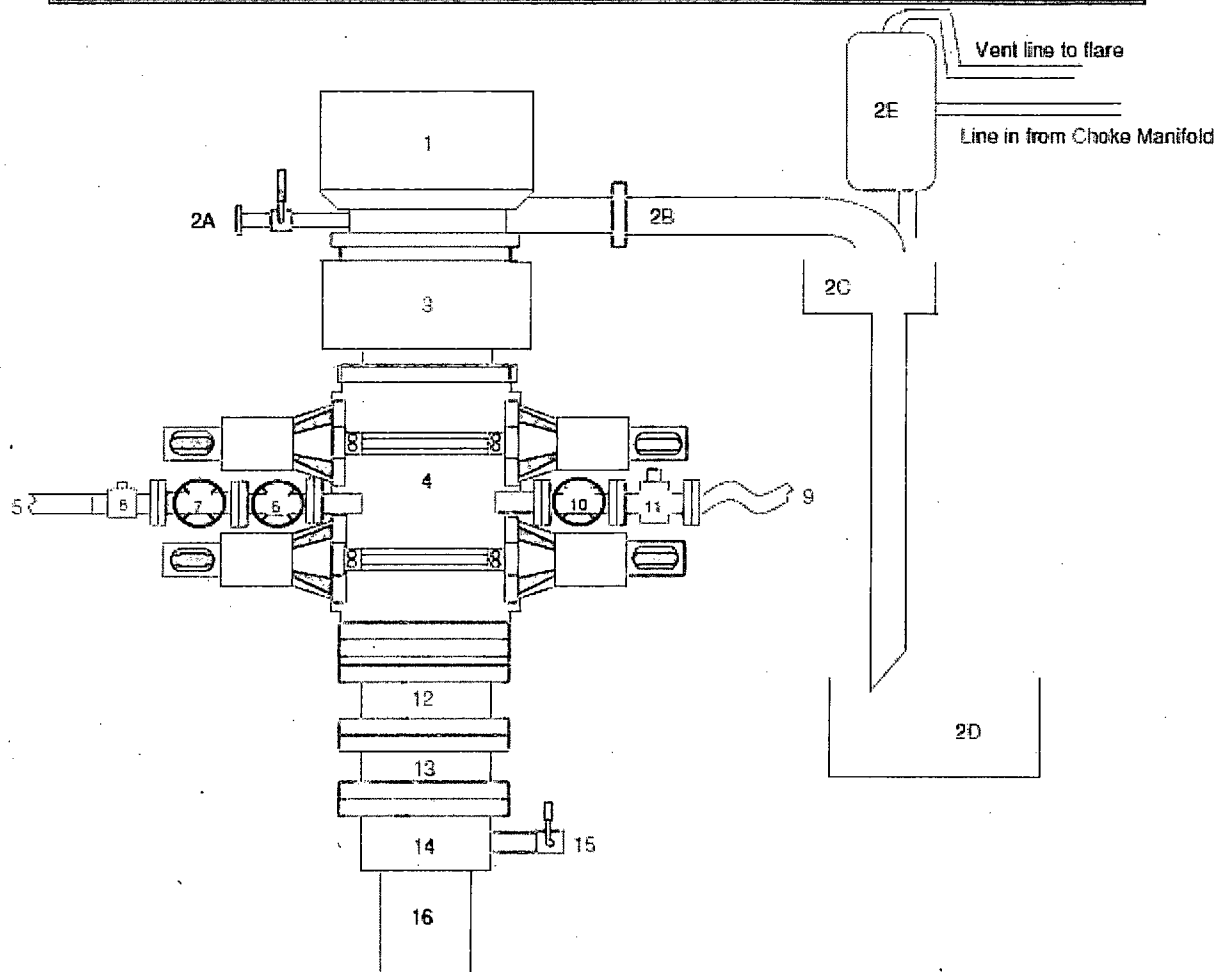
**Contact Information:**

Sundry Request proposed 7 March 2014 by:  
Steven Herrin  
Drilling Engineer, ConocoPhillips Company  
Phone (281) 206-5115  
Cell (432) 209-7558

# Attachment # 1

## BLOWOUT PREVENTER ARRANGEMENT

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



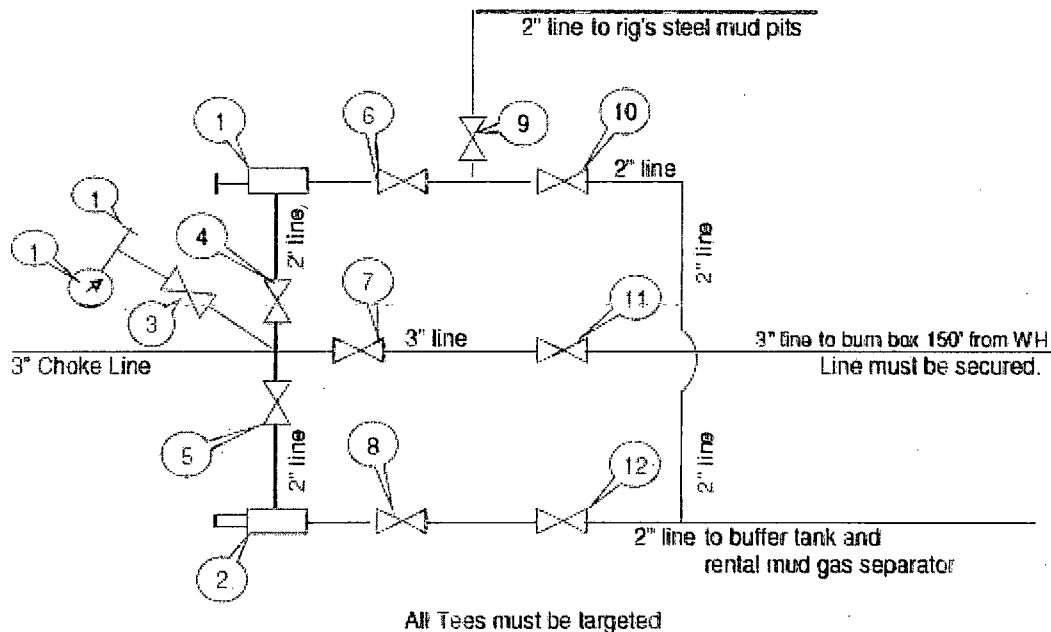
Item	Description
1	Rotating Head, 11"
2A	Fill up Line and Valve
2B	Flow Line (10")
2C	Shale Shakers and Solids Settling Tank
2D	Cuttings Bins for Zero Discharge
2E	Rental Mud Gas Separator with vent line to flare and return line to mud system
3	Annular BOP (11", 3M)
4	Double Ram (11", 3M, equipped with 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 CoFlex 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

Attachment # 2

### 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:

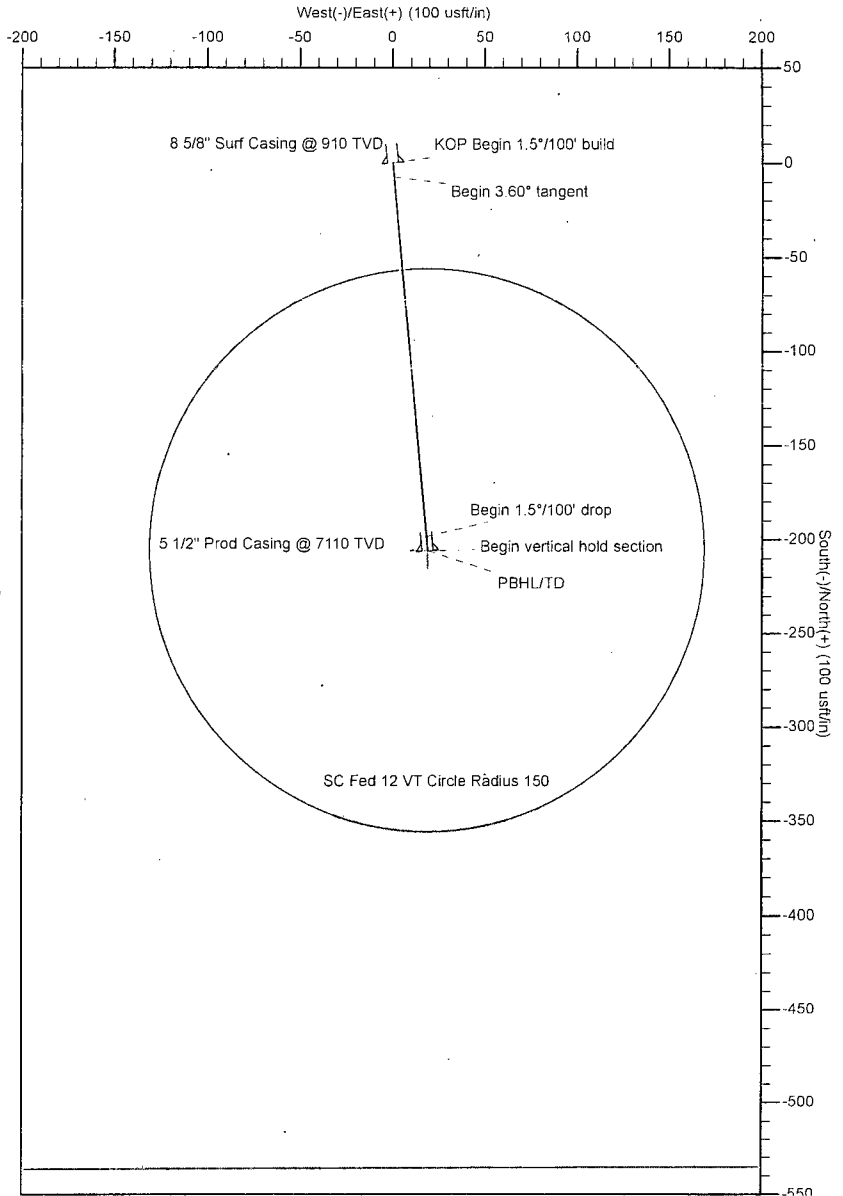
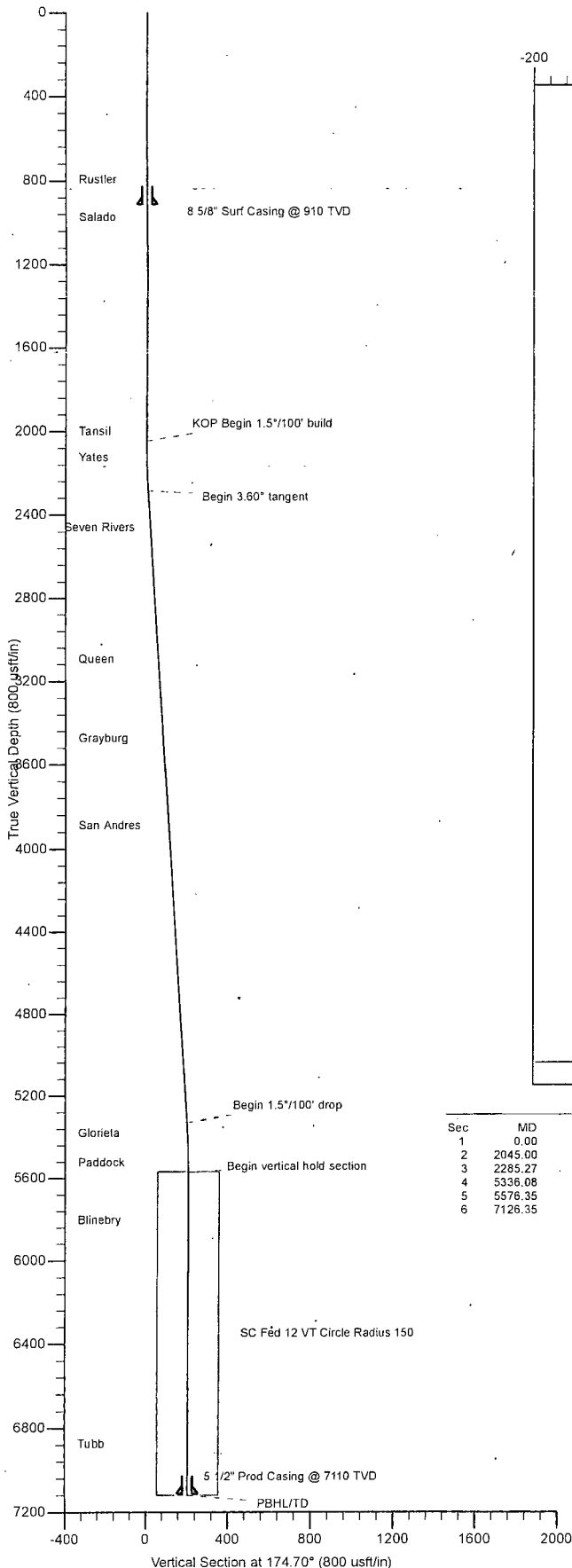
Steven Herrin

Drilling Engineer, Mid-Continent Business Unit, ConocoPhillips Company

Date: 3-January-2014



Well: SC Federal Well No. 12  
Site: SC Federal  
Project: Lea County, New Mexico  
Design: rev0  
Rig:



Section Details										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	2045.00	0.00	0.00	2045.00	0.00	0.00	0.00	0.00	0.00	KOP Begin 1.5°/100' build
3	2285.27	3.60	174.70	2285.11	-7.52	0.70	1.50	174.70	7.55	Begin 3.60° tangent
4	5336.08	3.60	174.70	5329.89	-198.48	18.40	0.00	0.00	199.33	Begin 1.5°/100' drop
5	5576.35	0.00	174.70	5570.00	-206.00	19.10	1.50	180.00	206.88	Begin vertical hold section
6	7126.35	0.00	174.70	7120.00	-206.00	19.10	0.00	174.70	206.88	PBHL/TD

Surface Location: RKB=3987+13 @ 4000.00usft  
US State Plane 1927 (Exact solution)  
New Mexico East 3001  
Northing 660407.00 Easting 679031.00 Latitude 32° 48' 51.08628560 N Longitude 103° 45' 2.16107620 W  
Total Correction (M => G) To convert a Magnetic Direction to a Grid Direction, Add 7.18°

#### FORMATION TOP DETAILS

TVDPath	MDPath	Formation
840.00	840.00	Rustler
1020.00	1020.00	Salado
2045.00	2045.00	Tansil
2170.00	2170.02	Yates
2500.00	2500.58	Seven Rivers
3140.00	3141.85	Queen
3520.00	3522.61	Grayburg
3935.00	3938.43	San Andres
5425.00	5431.32	Glorieta
5570.00	5576.35	Paddock
5850.00	5856.35	Blinberry
6920.00	6926.35	Tubb



Azimuths to Grid North  
True North: -0.32°  
Magnetic North: 7.18°

Magnetic Field  
Strength: 48715.0snT  
Dip Angle: 60.62°  
Date: 3/6/2014  
Model: USER DEFINED



PRODIRECTIONAL



**ConocoPhillips**

**Lea County, New Mexico**

**SC Federal**

**SC Federal Well No. 12**

**Original Hole**

**Plan: rev0**

**HOBBS OCD**

**JUL 29 2014**

**RECEIVED**

## **Standard Planning Report**

**06 March, 2014**

Database:	EDM:5000.1 Database	Local Co-ordinate Reference:	Well SC Federal Well No. 12
Company:	ConocoPhillips	TVD Reference:	RKB=3987+13 @ 4000.00usft
Project:	Lea County, New Mexico	MD Reference:	RKB=3987+13 @ 4000.00usft
Site:	SC Federal	North Reference:	Grid
Well:	SC Federal Well No. 12	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Project	Lea County, New Mexico		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	SC Federal		
Site Position:		Northing:	661,068.40 usft
From:	Map	Easting:	679,895.30 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32.81599543
		Longitude:	-103.74777527
		Grid Convergence:	0.32 "

Well	SC Federal Well No. 12		
Well Position	+N/-S	-661.40 usft	Northing:
	+E/-W	-864.30 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	
		Latitude:	32.81419063
		Longitude:	-103.75060030
		Ground Level:	3,987.00 usft

Wellbore	Original Hole		
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	User Defined	3/6/2014	7.50	60.62	48,715

Design	rev0		
--------	------	--	--

Audit Notes:			
Version:	Phase:	PROTOTYPE	Tie On Depth:
			0.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	174.70

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,045.00	0.00	0.00	2,045.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,285.27	3.60	174.70	2,285.11	-7.52	0.70	1.50	1.50	0.00	174.70	
5,336.08	3.60	174.70	5,329.89	-198.48	18.40	0.00	0.00	0.00	0.00	
5,576.35	0.00	174.70	5,570.00	-206.00	19.10	1.50	-1.50	0.00	180.00	SC Fed 12 VT Circle I
7,126.35	0.00	174.70	7,120.00	-206.00	19.10	0.00	0.00	0.00	174.70	

Database:	EDM:5000.1.Ddatabase	Local Co-ordinate Reference:	Well SC Federal Well No. 12
Company:	ConocoPhillips	TVD Reference:	RKB=3987+13 @ 4000.00usft
Project:	Lea County New Mexico	MD Reference:	RKB=3987+13 @ 4000.00usft
Site:	SC Federal	North Reference:	Grid
Well:	SC Federal Well No. 12	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00	
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	
840.00	0.00	0.00	840.00	0.00	0.00	0.00	0.00	0.00	0.00	
Rustler										
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,020.00	0.00	0.00	1,020.00	0.00	0.00	0.00	0.00	0.00	0.00	
Salado										
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,045.00	0.00	0.00	2,045.00	0.00	0.00	0.00	0.00	0.00	0.00	
KOP Begin 1.5°/100' build - Tansil										
2,100.00	0.83	174.70	2,100.00	-0.39	0.04	0.40	1.50	1.50	0.00	
2,170.02	1.88	174.70	2,170.00	-2.04	0.19	2.05	1.50	1.50	0.00	
Yates										
2,200.00	2.33	174.70	2,199.96	-3.13	0.29	3.14	1.50	1.50	0.00	
2,285.27	3.60	174.70	2,285.11	-7.52	0.70	7.55	1.50	1.50	0.00	
Begin 3.60° tangent										
2,300.00	3.60	174.70	2,299.81	-8.44	0.78	8.48	0.00	0.00	0.00	
2,400.00	3.60	174.70	2,399.61	-14.70	1.36	14.77	0.00	0.00	0.00	
2,500.00	3.60	174.70	2,499.42	-20.96	1.94	21.05	0.00	0.00	0.00	
2,500.58	3.60	174.70	2,500.00	-21.00	1.95	21.09	0.00	0.00	0.00	
Seven Rivers										
2,600.00	3.60	174.70	2,599.22	-27.22	2.52	27.34	0.00	0.00	0.00	
2,700.00	3.60	174.70	2,699.02	-33.48	3.10	33.62	0.00	0.00	0.00	
2,800.00	3.60	174.70	2,798.82	-39.74	3.68	39.91	0.00	0.00	0.00	
2,900.00	3.60	174.70	2,898.63	-46.00	4.26	46.20	0.00	0.00	0.00	
3,000.00	3.60	174.70	2,998.43	-52.26	4.85	52.48	0.00	0.00	0.00	
3,100.00	3.60	174.70	3,098.23	-58.52	5.43	58.77	0.00	0.00	0.00	
3,141.85	3.60	174.70	3,140.00	-61.14	5.67	61.40	0.00	0.00	0.00	
Queen										
3,200.00	3.60	174.70	3,198.03	-64.78	6.01	65.05	0.00	0.00	0.00	
3,300.00	3.60	174.70	3,297.83	-71.04	6.59	71.34	0.00	0.00	0.00	
3,400.00	3.60	174.70	3,397.64	-77.30	7.17	77.63	0.00	0.00	0.00	
3,500.00	3.60	174.70	3,497.44	-83.55	7.75	83.91	0.00	0.00	0.00	
3,522.61	3.60	174.70	3,520.00	-84.97	7.88	85.33	0.00	0.00	0.00	
Grayburg										
3,600.00	3.60	174.70	3,597.24	-89.81	8.33	90.20	0.00	0.00	0.00	

Database:	EDM 5000.1 Database	Local Co-ordinate Reference:	Well: SC Federal Well No. 12
Company:	ConocoPhillips	TVD Reference:	RKB=3987+13 @ 4000.00usft
Project:	Lea County, New Mexico	MD Reference:	RKB=3987+13 @ 4000.00usft
Site:	SC Federal	North Reference:	Grid
Well:	SC Federal Well No. 12	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
3,700.00	3.60	174.70	3,697.04	-96.07	8.91	96.48	0.00	0.00	0.00
3,800.00	3.60	174.70	3,796.85	-102.33	9.49	102.77	0.00	0.00	0.00
3,900.00	3.60	174.70	3,896.65	-108.59	10.07	109.06	0.00	0.00	0.00
3,938.43	3.60	174.70	3,935.60	-111.00	10.29	111.47	0.00	0.00	0.00
<b>San Andres</b>									
4,000.00	3.60	174.70	3,996.45	-114.85	10.65	115.34	0.00	0.00	0.00
4,100.00	3.60	174.70	4,096.25	-121.11	11.23	121.63	0.00	0.00	0.00
4,200.00	3.60	174.70	4,196.05	-127.37	11.81	127.91	0.00	0.00	0.00
4,300.00	3.60	174.70	4,295.86	-133.63	12.39	134.20	0.00	0.00	0.00
4,400.00	3.60	174.70	4,395.66	-139.89	12.97	140.49	0.00	0.00	0.00
4,500.00	3.60	174.70	4,495.46	-146.15	13.55	146.77	0.00	0.00	0.00
4,600.00	3.60	174.70	4,595.26	-152.41	14.13	153.06	0.00	0.00	0.00
4,700.00	3.60	174.70	4,695.07	-158.66	14.71	159.35	0.00	0.00	0.00
4,800.00	3.60	174.70	4,794.87	-164.92	15.29	165.63	0.00	0.00	0.00
4,900.00	3.60	174.70	4,894.67	-171.18	15.87	171.92	0.00	0.00	0.00
5,000.00	3.60	174.70	4,994.47	-177.44	16.45	178.20	0.00	0.00	0.00
5,100.00	3.60	174.70	5,094.28	-183.70	17.03	184.49	0.00	0.00	0.00
5,200.00	3.60	174.70	5,194.08	-189.96	17.61	190.78	0.00	0.00	0.00
5,300.00	3.60	174.70	5,293.88	-196.22	18.19	197.06	0.00	0.00	0.00
5,336.08	3.60	174.70	5,329.89	-198.48	18.40	199.33	0.00	0.00	0.00
<b>Begin 1.5°/100° drop</b>									
5,400.00	2.65	174.70	5,393.71	-201.95	18.72	202.81	1.50	-1.50	0.00
5,431.32	2.18	174.70	5,425.00	-203.26	18.85	204.13	1.50	-1.50	0.00
<b>Glorieta</b>									
5,500.00	1.15	174.70	5,493.65	-205.24	19.03	206.12	1.50	-1.50	0.00
5,576.35	0.00	174.70	5,570.00	-206.00	19.10	206.88	1.50	-1.50	0.00
<b>Begin vertical hold section - Paddock</b>									
5,600.00	0.00	174.70	5,593.65	-206.00	19.10	206.88	0.00	0.00	0.00
5,700.00	0.00	174.70	5,693.65	-206.00	19.10	206.88	0.00	0.00	0.00
5,800.00	0.00	174.70	5,793.65	-206.00	19.10	206.88	0.00	0.00	0.00
5,856.35	0.00	174.70	5,850.00	-206.00	19.10	206.88	0.00	0.00	0.00
<b>Blinberry</b>									
5,900.00	0.00	174.70	5,893.65	-206.00	19.10	206.88	0.00	0.00	0.00
6,000.00	0.00	174.70	5,993.65	-206.00	19.10	206.88	0.00	0.00	0.00
6,100.00	0.00	174.70	6,093.65	-206.00	19.10	206.88	0.00	0.00	0.00
6,200.00	0.00	174.70	6,193.65	-206.00	19.10	206.88	0.00	0.00	0.00
6,300.00	0.00	174.70	6,293.65	-206.00	19.10	206.88	0.00	0.00	0.00
6,400.00	0.00	174.70	6,393.65	-206.00	19.10	206.88	0.00	0.00	0.00
6,500.00	0.00	174.70	6,493.65	-206.00	19.10	206.88	0.00	0.00	0.00
6,600.00	0.00	174.70	6,593.65	-206.00	19.10	206.88	0.00	0.00	0.00
6,700.00	0.00	174.70	6,693.65	-206.00	19.10	206.88	0.00	0.00	0.00
6,800.00	0.00	174.70	6,793.65	-206.00	19.10	206.88	0.00	0.00	0.00
6,900.00	0.00	174.70	6,893.65	-206.00	19.10	206.88	0.00	0.00	0.00
6,926.35	0.00	174.70	6,920.00	-206.00	19.10	206.88	0.00	0.00	0.00
<b>Tubb</b>									
7,000.00	0.00	174.70	6,993.65	-206.00	19.10	206.88	0.00	0.00	0.00
7,100.00	0.00	174.70	7,093.65	-206.00	19.10	206.88	0.00	0.00	0.00
7,126.35	0.00	174.70	7,120.00	-206.00	19.10	206.88	0.00	0.00	0.00
<b>PBHL/TO</b>									



Database:	EDM 5000.1.Ddatabase	Local Co-ordinate Reference:	Well SC Federal Well No. 12.
Company:	ConocoPhillips	TVD Reference:	RKB=3987+13 @ 4000.00usft
Project:	Lea County, New Mexico	MD Reference:	RKB=3987+13 @ 4000.00usft
Site:	SC Federal	North Reference:	Grid
Well:	SC Federal Well No. 12	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Design Targets									
Target Name	hit/miss target	Dip Angle	Dip Dir.	TVD	+N-S	+E-W	Northing	Easting	
- Shape		(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)	
									Latitude
									Longitude
SC Fed 12 VT Circle Ra		0.00	0.00	5,570.00	-206.00	19.10	660,201.00	679,050.10	32.81362414
- plan hits target center									-103.75054183
- Circle (radius 150.00)									

Casing Points				
Measured Depth	Vertical Depth	Name	Casing Diameter	Hole Diameter
(usft)	(usft)		(")	(")
910.00	910.00	8 5/8" Surf Casing @ 910 TVD	8-5/8	12-1/4
7,116.35	7,110.00	5 1/2" Prod Casing @ 7110 TVD	5-1/2	7-7/8

Formations				
Measured Depth	Vertical Depth	Name	Lithology	Dip
(usft)	(usft)			(°)
840.00	840.00	Rustler		0.00
1,020.00	1,020.00	Salado		0.00
2,045.00	2,045.00	Tansil		0.00
2,170.02	2,170.00	Yates		0.00
2,500.58	2,500.00	Seven Rivers		0.00
3,141.85	3,140.00	Queen		0.00
3,522.61	3,520.00	Grayburg		0.00
3,938.43	3,935.00	San Andres		0.00
5,431.32	5,425.00	Glorieta		0.00
5,576.35	5,570.00	Paddock		0.00
5,856.35	5,850.00	Blinberry		0.00
6,926.35	6,920.00	Tubb		0.00

## **Request for Variance**

### **ConocoPhillips Company**

Lease Number: NMLC 058395

Well: SC Federal #12

Location: Sec. 22, T17S, R32E

Date: 3/8/2014

### **Request:**

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



## 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 Connection  
Graylock  
Custom Ends



Industrial Products USA, Ltd.

2030 E. 8th Street, Suite B • Greeley, CO 80631

Ph: (970) 348-3751 • Fax: (970) 353-3108 • Toll Free: (866) 771-9739

## TEST CERTIFICATE

Customer: PRECISION DRILLING

P.O. #: RIG 822

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:

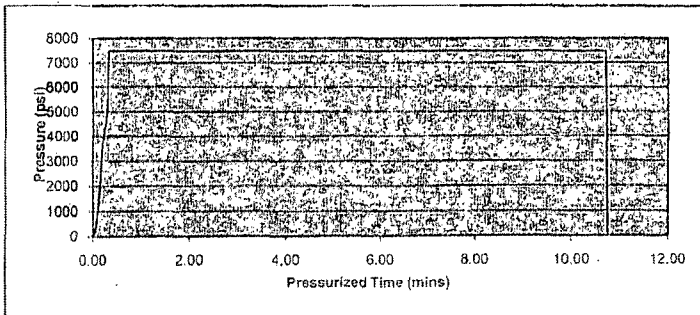
Working Pressure: 3000

Test Pressure: 7500

Duration (mins): 10

Cert No.: 27792

Date: 9/21/2012



Conducted By: FLORES M.  
Test Technician

- ☒ Acceptable  
☐ Not Acceptable



**H<sub>2</sub>S Contingency Plan**

H<sub>2</sub>S Contingency Plan Holders:

Attached is an H<sub>2</sub>S Contingency Plan for COPC Permian Drilling working in the West Texas and Southeastern New Mexico areas operated by ConocoPhillips Company.

If you have any questions regarding this plan, please call Tom Samarripa at ConocoPhillips Company, 432.368.1263.

**HOBBS OCD**

**JUL 29 2014**

**RECEIVED**

## Table of Contents

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**II. Scope**

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**IV. Emergency Equipment and Maintenance**

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H2S Safety Equipment and Monitoring Systems

**V. Emergency Call List**

**VI. Public/Media Relations**

**VII. Public Notification/Evacuation**

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# HYDROGEN SULFIDE (H<sub>2</sub>S) OPERATIONS

## Contingency Plan For Permian Drilling Operations

ConocoPhillips Company  
Mid-Continent Business Unit  
Permian Asset Area

## I. PURPOSE

The purpose of this Contingency Plan is to provide an organized plan of action for alerting and protecting the public following the release of a potentially hazardous volume of hydrogen sulfide. This plan prescribes mandatory safety procedures to be followed in the event of a release of H<sub>2</sub>S into the atmosphere from exploration and production operations included in the scope of this plan. The extent of action taken will be determined by the supervisor and will depend on the severity and extent of H<sub>2</sub>S release. Release of H<sub>2</sub>S must be reported to the Drilling Superintendent and documented on the IADC and in Wellview.



## II. SCOPE

This Contingency plan shall cover the West Texas and Southeastern New Mexico areas, which contain H<sub>2</sub>S gas and could result in a release where the R.O.E. is greater than 100 ppm at 50' and less than 3000' and does not include a public area and 500 ppm R.O.E. does not include a public road. Radius of exposure is defined as the maximum distance from the source of release that a specified calculated average concentration of H<sub>2</sub>S could exist under specific weather conditions.

### III. PROCEDURES

#### First Employee on Scene

\_\_\_\_\_ Assess the incident and ensure your own safety.

Note the following:

- \_\_\_\_\_ Location of the incident.
- \_\_\_\_\_ Nature of the incident.
- \_\_\_\_\_ Wind direction and weather conditions.
- \_\_\_\_\_ Other assistance that may be needed.

\_\_\_\_\_ Call local supervisory personnel (refer to Section V: Emergency Call List) until personal contact is made with a person on the list.

\_\_\_\_\_ Perform emergency assessment and response as needed. The response may include rescue and/or evacuation of personnel, shutting in a system and/or notification of nearby residents/public (refer to Section VII: Public Notification/Evacuation).

\_\_\_\_\_ Secure the site.

\_\_\_\_\_ Follow the direction of the On-scene Incident Commander (first ConocoPhillips supervisor arriving on-scene).

#### First Supervisor on Scene (ConocoPhillips On-scene Incident Commander)

\_\_\_\_\_ Becomes ConocoPhillips' On-scene Incident Commander upon arrival to location.

\_\_\_\_\_ Follow the principles of the **D.E.C.I.D.E.** process below to assess the incident. (Note wind direction and weather conditions and ensure everyone's safety).

**DETECT** the problem  
**ESTIMATE** likely harm without intervention  
**CHOOSE** response objectives  
**IDENTIFY** action options  
**DO** the best option  
**EVALUATE** the progress

\_\_\_\_\_ Complete the Preliminary Emergency Information Sheet (refer to Section VIII: Forms/Reports).

\_\_\_\_\_ Call your supervisor (refer to Section V: Emergency Call List).

- Perform emergency response as necessary. (This may include notification & evacuation of all personnel and/or nearby residents/public (refer to Section VII: Public Notification/Evacuation), requesting assistance from ConocoPhillips personnel or outside agencies (refer to Section V: Emergency Call List) and obtaining any safety equipment that may be required (refer to Section IV: Emergency Equipment and Maintenance).
- Notify appropriate local emergency response agencies of the incident as needed. Also notify the appropriate regulatory agencies. (refer to Section V: Emergency Call List).
- Ensure site security.
  - Set barricades and /or warning signs at or beyond the calculated 100 ppm H<sub>2</sub>S radius of exposure (ROE). All manned barricades must be equipped with an H<sub>2</sub>S monitor and a 2-way radio.
  - Set roadblocks and staging area as determined.
- Establish the Incident Command Structure by designating appropriate on-scene response personnel as follows:
 

Recording Secretary	_____
Public Information Officer	_____
Safety/Medical Officer	_____
Decontamination Officer	_____
- Have the “Recording Secretary” begin documenting the incident on the “Incident Log” (refer to Section VIII: Forms/Reports).
- If needed, request radio silence on all channels that use your radio tower stating that, until further notice, the channels should be used for emergency communications only.
- Perform a Site Characterization and designate the following:
 

Hot Zone	--	Hazardous Area
Warm Zone	--	Preparation & Decontamination Area
Cold Zone	--	Safe Area

AND

On-Scene Incident Command Post	(Cold Zone)
Public Relations Briefing Area	(Cold Zone)
Staging Area	(Cold Zone)
Triage Area	(Cold Zone)
Decontamination Area	(Warm Zone)

\_\_\_\_\_ Refer all media personnel to ConocoPhillips' On-Scene Public Information Officer (refer to Section VI: Public Media Relations).

\_\_\_\_\_ Coordinate the attempt to stop the release of H<sub>2</sub>S. You should consider closing upstream and downstream valves to shut-off gas supply sources, and/or plugging or clamping leaks. Igniting escaping gas to reduce the toxicity hazard should be used **ONLY AS A LAST RESORT**. (It must first be determined if the gas can be safely ignited, taking into consideration if there is a possibility of a widespread flammable atmosphere.)

\_\_\_\_\_ Once the emergency is over, return the situation to normal by:

Confirming the absence of H<sub>2</sub>S and combustible gas throughout the area,

Discontinuing the radio silence on all channels, stating that the emergency incident is over,

Removing all barricades and warning signs,

Allowing evacuees to return to the area, and

Advising all parties previously notified that the emergency has ended.

\_\_\_\_\_ Ensure the proper regulatory authorities/agencies are notified of the incident (refer to Section V: Emergency Call List).

\_\_\_\_\_ Clean up the site. (Be sure all contractor crews have had appropriate HAZWOPER training.)

\_\_\_\_\_ Report completion of the cleanup to the Asset Environmentalist.  
(Environmentalism will report this to the proper State and/or Federal agencies.)

\_\_\_\_\_ Fill out all required incident reports and send originals to the Safety Department. (Keep a copy for your records.)

- Company employee receiving occupational injury or illnesses.
- Company employee involved in a vehicle accident while driving a company vehicle.
- Company property that is damaged or lost.
- Accident involving the public or a contractor; includes personal injuries, vehicle accidents, and property damage. Also includes any situation, which could result in a claim against the Company.
- Hazardous Material Spill/Release Report Form
- Emergency Drill Report

\_\_\_\_\_ Assist the Safety Department in the investigation of the incident. Review the factors that caused or allowed the incident to occur, and modify operating, maintenance, and/or surveillance procedures as needed. Make appropriate repairs and train or retrain employees in the use and operation of the system.

\_\_\_\_\_ If this incident was simulated for practice in emergency response, complete the Emergency Drill Report found in Section VIII: Forms/Reports and submit a copy to the Drilling Manager. (Keep one copy in area files to document exercising of the plan.)

## **Emergency Procedures**

### **Responsibility**

In the event of a release of potentially hazardous amounts of H<sub>2</sub>S, all personnel will immediately proceed upwind/ crosswind to the nearest designated briefing area. The COPC Drilling Rep. will immediately, upon assessing the situation, set this into action by taking the proper procedures to contain the gas and notify appropriate people and agencies.

1. In an emergency situation, the Drilling Rep. on duty will have complete responsibility and will take whatever action is deemed necessary in an emergency situation to insure the personnel's safety, to protect the well and to prevent property damage.
2. The Toolpusher will assume all responsibilities of the Drilling Rep. in an emergency situation in the event the Drilling Rep. becomes incapacitated.
3. Advise each contractor, service company, and all others entering the site that H<sub>2</sub>S may be encountered and the potential hazards that may exist.
4. Authorize the evacuation of local residents if H<sub>2</sub>S threatens their safety.
5. Keep the number of persons on location to a minimum during hazardous operations.
6. Direct corrective actions to control the flow of gas.
7. Has full responsibility for igniting escaping gas to reduce the toxicity hazard.  
This should be used **ONLY AS A LAST RESORT**.

#### IV. EMERGENCY EQUIPMENT and MAINTENANCE

##### **Emergency Equipment Suppliers**

###### **Safety International – Odessa, Tx.**

H <sub>2</sub> S monitors	432.580.3770
Breathing air includes cascade systems	
First aid and medical supplies	
Safety equipment	
H <sub>2</sub> S Specialist	

###### **Total Safety US Odessa, Tx/ Hobbs, NM**

H <sub>2</sub> S monitors	432.561.5049 Odessa, Tx.
Breathing air includes cascade systems	575.392.2973 Hobbs, NM
Fire fighting equipment	
First aid and medical supplies	
Safety equipment	

###### **Indian Fire & Safety – Hobbs, NM**

H <sub>2</sub> S monitors	575.393.3093
Breathing air including cascade systems trailer mounted	
30 minute air packs	
Safety Equipment	

## **Emergency Equipment and Maintenance (continued)**

### **General Information**

Materials used for repair should be suitable for use where H<sub>2</sub>S concentrations exceed 100 ppm. In general, carbon steels having low-yield strengths and a hardness below RC-22 are suitable. The engineering staff should be consulted if any doubt exists on material specifications.

Appropriate signs should be maintained in good condition at location entrance and other locations as specified in Texas Rule 36 and NMOCD Rule 118.

All notification lists should be kept current with changes in names, telephone numbers, etc.

All shutdown devices, alarms, monitors, breathing air systems, etc., should be maintained in accordance with applicable regulations.

All personnel working in H<sub>2</sub>S areas shall have received training on the hazards, characteristics, and properties of H<sub>2</sub>S, and on procedures and safety equipment applicable for use in H<sub>2</sub>S areas.



## **H2S Safety Equipment and Monitoring Systems**

An H2S emergency response package will be maintained at locations requiring H2S monitoring. The package will contain at a minimum the following:

3 – Fixed H2S sensors located as follows:

- 1 – on the rig floor
- 1 – at the Bell Nipple
- 1 – at the Shale Shaker or Flowline

1 – Entrance Warning Sign located at the main entrance to the location, with warning signs and colored flags to determine the current status for entry into the location.

2 – Windsocks that are clearly visible.

1 – Audible warning system located on rig floor

2 – Visual warning systems (Beacon Lights)

- 1 – located at the rig floor
- 1 – located in the mud mixing room

**Note: All alarms (audible and visual) should be set to alarm at 10 ppm.**

2 - Briefing areas clearly marked

- 2 - SCBA's at each briefing area
- 1- SCBA located at the Drilling Reps office

**Note:**

- 1. All SCBA's must be positive pressure type only!!!**
- 2. All SCBA's must either be Scott or Drager brand.**
- 3. All SCBA's face pieces should be size large, unless otherwise specified by the Drilling Supervisor.**

5 – Emergency Escape Paks located at Top Doghouse.

Note: Ensure provisions are included for any personnel working above rig floor in derrick.

1 – Tri or Quad gas monitor located at the Drilling Reps office. This will be used to determine if the work area is safe to re-enter prior to returning to work following any alarm.

## **V. EMERGENCY CALL LIST:**

The following is a priority list of personnel to contact in an emergency situation:

<b>Supervisory Personnel</b>	<b>Office No.</b>	<b>Home</b>	<b>Cellular</b>
<b>Sam Hyden</b> Permian Drilling Supt.	432.688.9163	432.561.9958	432.557.1999
<b>Jason Tiley</b> <b>Terry Brumley</b> Permian Drilling Field Supt.	432.688.9195. 432.368.1345	903.365.2103 432.263.8222	281-684-4720 432.238.9069
<b>Tom Samarripa</b> WSER	423.368.1263	432.367.4961	432.556.9113
<b>Ty Maxey</b> Permian Asset Operations Manager	432.368.1100		281.217.8492
<b>Leo Gatson</b> Safety and Environmental Coordinator	432.368.1248		432.631.066
<b>Gene Schwall</b> Drilling Mngr.	281.206.5159	281.579.2914	713.301.7590

### **EMERGENCY CALL LIST: State Officials**

#### **Regulatory Agencies**

##### **New Mexico Oil Conservation Commission**

P. O. Box 1980  
Hobbs, New Mexico 88240-1980

Office: 575.393.6161

##### **Bureau of Land Mngt.**

Carlsbad Field Office  
620 E. Greene St.  
Carlsbad, NM 88220

Office: 575.234.5972

Fax: 575.885.9264

BLM 24 Hr on call # Lea County: 575-393-3612

### **EMERGENCY CALL LIST: Local Officials**

**Refer to the Location Information Sheet**

**Note: The LIS should include any area residents (i.e. rancher's house, etc)**

## ConocoPhillips Emergency Call List and Location Information Sheet

### ConocoPhillips- 281-293-3600

Drilling Superintendent	Sam Hyden	Office: 432-688-9163 Cell: 432-557-1999
Safety (WSER)	Tom Samarripa	Office: 432-368-1263 Cell: 432-556-9113
Drilling Engineer	Steven Herrin	Office: 281-206-5115 Cell: 281-467-7596
Regulatory Contact	Susan Maunder	Office: 432-688-6913 Cell: 432-209-7558

### Emergency Numbers

Hospital: Lea Co. Regional Medical Center (Hobbs) .....575-492-5000  
Ambulance: Hobbs Fire Dept. ....575-397-9308  
Air Ambulance: Care Star .....888-624-3571  
Aero Star .....800-627-2376  
Fire Dept. (Hobbs) .....575-397-9308  
(Maljamar non-emerg) .....575-676-4100  
State Police (Artesia) .....575-748-9718  
(Hobbs) .....575-392-5580  
Sheriff (Lovington)..... 575-396-3611  
Police (Lovington) .....575-396-5166  
NMOCD .....575-393-6161  
(Emerg) .....575-370-3186  
BLM Switchboard.....575-393-3612  
BLM 24 Hr on Call, Lea County.....575-393-3612  
New Mexico Emergency Response Comm (Santa Fe) .....505-476-9600  
New Mexico State Emerg Ops Ctr .....505-476-9635  
National Emergency Response Center .....800-424-8802

**Number of Residences within 1 mile of Well:** There are no residences within one mile of the well to be drilled.

## VI. Public Media Relations

The **Public Information Officer** becomes the ConocoPhillips on-scene contact (once designated by the Phillips On-Scene Incident Commander).

Confers with Houston Office's Human Relations Representative, who is responsible for assisting in the coordination of local public relations duties.

Answer media questions honestly and **only with facts**, do not speculate about the cause, amount of damage, or the potential impact of the incident of the community, company, employees, or environment. (This information will be formally determined in the incident investigation.)

If you are comfortable answering a question or if you are unsure of the answer, use terms such as the following:

- "I do not know. I will try to find out."
- "I am not qualified to answer that question, but I will try to find someone who can."
- "It is under investigation."

**Note:**

**Do Not Say "No Comment."** (This implies a cover-up.)

**Do Not Disclose Names of Injured or Dead!** Confer with the Houston Office's Human Relations Representative, who is responsible for providing that information.

## VII. Public Notification/Evacuation

### Alert and/or Evacuate People within the Exposure Area

1. Public Notification – If the escape of gas could result in a hazard to area residents, the general public, or employees, the person **first** observing the leak should take **immediate** steps to cause notification of any nearby residents. The avoidance of injury or loss of life should be of prime consideration and given top priority in all cases. If the incident is of such magnitude, or at such location as to create a hazardous situation, local authorities will be requested to assist in the evacuation and roadblocks of the designated area until the situation can be returned to normal.

Note: Bilingual employees may be needed to assist in notification of residents.

2. Evacuation Procedures – Evacuation will proceed upwind from the source of the release of H<sub>2</sub>S. Extreme caution should be exercised in order to avoid any depressions or low-lying areas in the terrain. The public area within the radius of exposure should be evacuated in a southwesterly and southeasterly direction so as to avoid the prevailing southern wind direction.

Roadblocks and the staging area should be established as necessary for current wind conditions.

**Note:** In all situations, consideration should be given to wind direction and weather conditions. H<sub>2</sub>S is heavier than air and can settle in low spots. Shifts in wind direction can also change the location of possible hazardous areas.

## VIII. FORMS & REPORTS

- I. Incident Log
- II. Preliminary Emergency Information Sheet
- III. Emergency Drill Report
- IV. Onshore Hazardous Material Spill/Release Report Form
- V. Immediate Report of Occupational Injury or Illness
  - Report of Accident-Public Contractor
  - Report of Loss or Damage to Company Property
  - Report of Automotive Incident

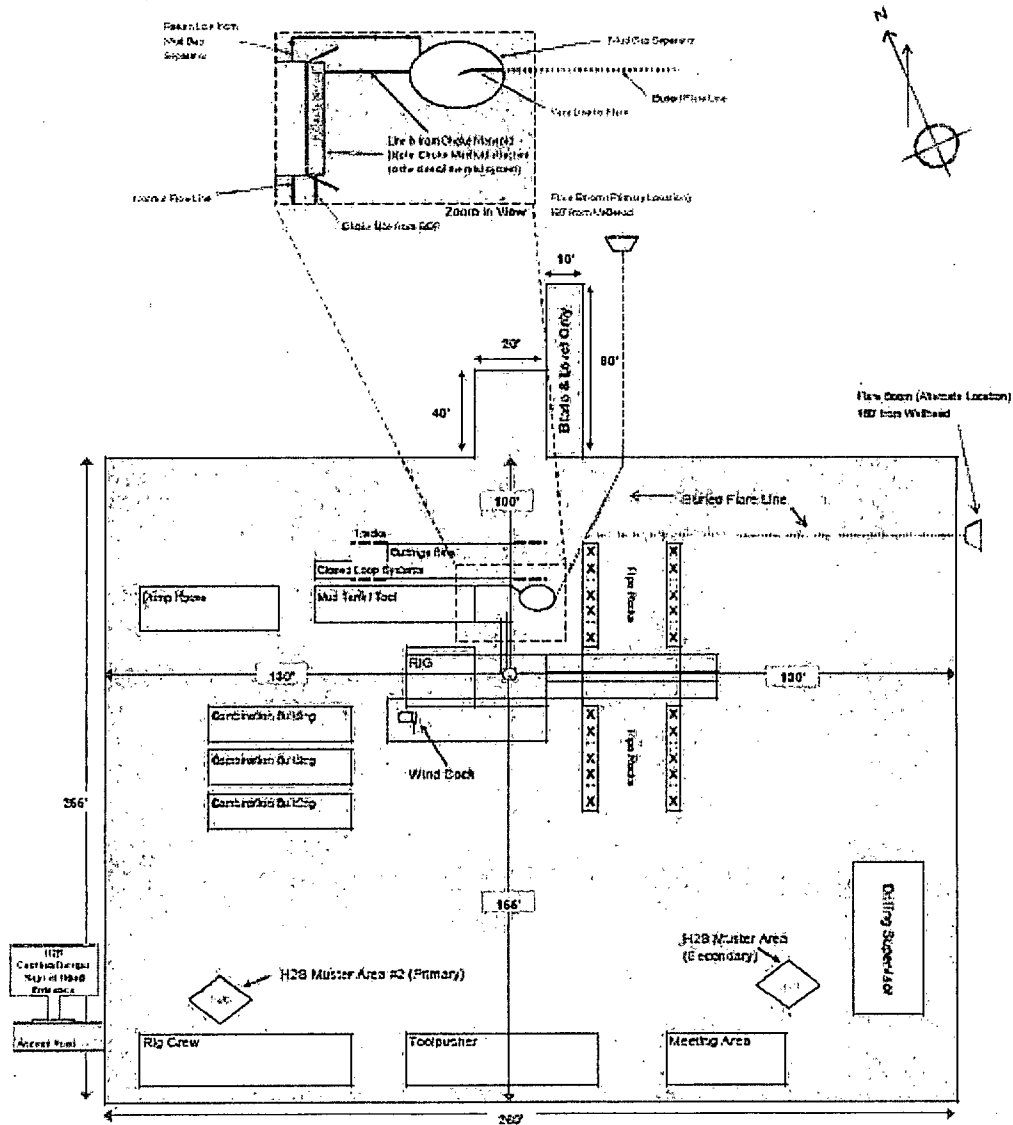
# ConocoPhillips

Location Schematic and Rig Layout  
for Closed Loop System

(NOT TO SCALE)

Drawn by:  
Steven Hertz  
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 crosswind 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/crosswind direction.



## Changes to the Approved Surface Use Plan of Operations

The following changes are respectfully requested. Minimal amount of additional surface disturbance is needed.

- 1.A The well site survey and location plat package were updated and are enclosed for BLM record purposes. Our pad layout is rotated 180° and uses 0.21 acres less surface disturbance. Approximately 155' of new road (0.049 acres) over previously disturbed area will provide access to the well site. The road will be absorbed into the MCA 509 well location when that well is drilled.
- 4.B.4 Produced fluid will utilize a flow line to the new facility planned for this well. The enclosed survey plat shows approximately 3379' of above ground new flow line following lease road(s). This follows that same route to the SC Federal Battery as the currently approved plan. The line will be <4", Fiberspar operated within BLM specifications.
- 4.B.6 Electricity will be tied to existing ConocoPhillips Company infrastructure. About 517' of new overhead power line will be installed to connect to existing power source. Power line will follow lease road. See enclosed survey plat. Approximately 150' of buried power line will be installed in the well pad.
- 10.A. Please include the following phrase in your approval. "...production operations. The approximate dimensions are planned as 200'x200'. The portions of the pad...".
13. Bond Coverage is provided via ConocoPhillips Company ES0085.
14. ConocoPhillips Company representatives responsible for the implementation of this surface use plan are:

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Sam Hyden, Permian Drilling Superintendent 4001 Penbrook Odessa, TX 79762 Phone: 432-688-9163 (office) 432-557-1999 (cell)	Donald Blair, Superintendent Operations – Permian SENM 4001 Penbrook Odessa, TX 79762 Phone: 432-688-9150 (office)
---	--

### Additional Information

- A. ConocoPhillips Company intends to request that this well location be covered under the BLM MOA NM-930-2008-003 at a later date.
- B. ConocoPhillips Company will be responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites or for collecting artifacts. If historic or archaeological materials are uncovered, ConocoPhillips Company will suspend all operations that might further



disturb such materials and immediately contact the Authorized Officer, Bureau of Land Management.

Within five (5) working days the Authorized Officer will inform ConocoPhillips Company as to whether the materials appear eligible for the National Register of Historic Places; the mitigation measures the operator will likely have to undertake before the site can be used (assuming in site preservation is not necessary); and a time frame for the Authorized

Officer to complete an expedited review under 36 CFR 800.11 to confirm, through the State Historic Preservation Officer, that the findings of the Authorized Officer are correct and that mitigation is appropriate.

- C. ConocoPhillips Company will protect, in place, all public land survey monuments, private property corner, and Forest service boundary markers. In the event that any such land markers or monuments are destroyed in the exercise of their rights, depending on the type of monument destroyed, the operator shall see that they are reestablished or referenced in accordance with (1) the procedures outlined in the "Manual of Instructions for the Survey of the Public Land of the United States", (2) the specifications of the county surveyor, or (3) the specification of the BLM.
- D. ConocoPhillips Company will comply with additional Conditions of Approval provided by BLM.

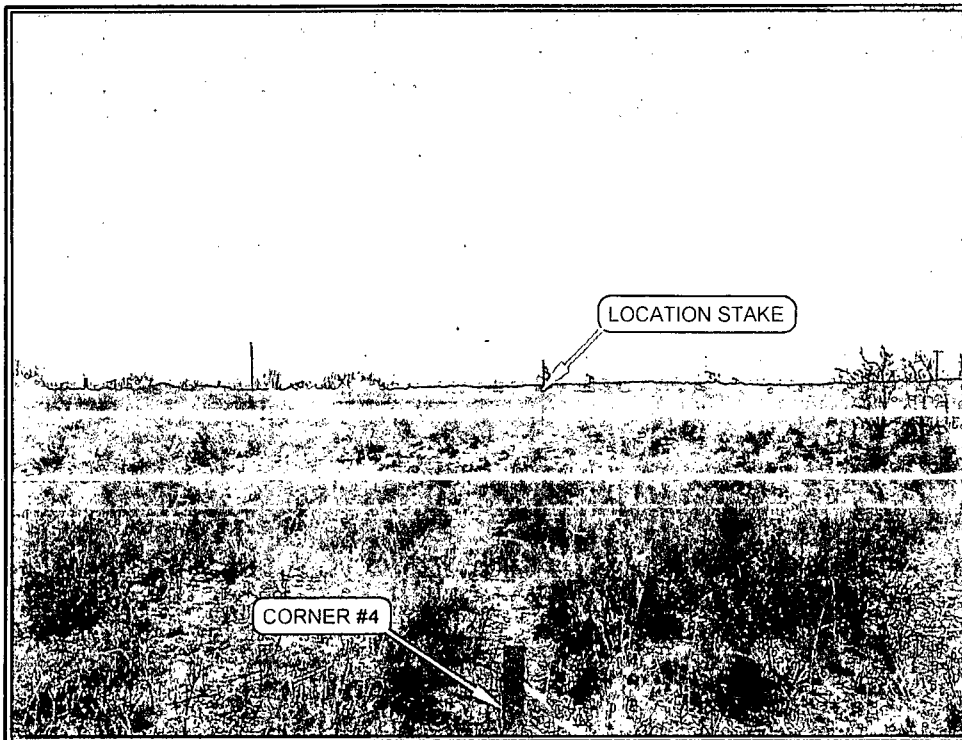


PHOTO: VIEW FROM CORNER #4 TO LOCATION STAKE

CAMERA ANGLE: SOUTHWESTERLY

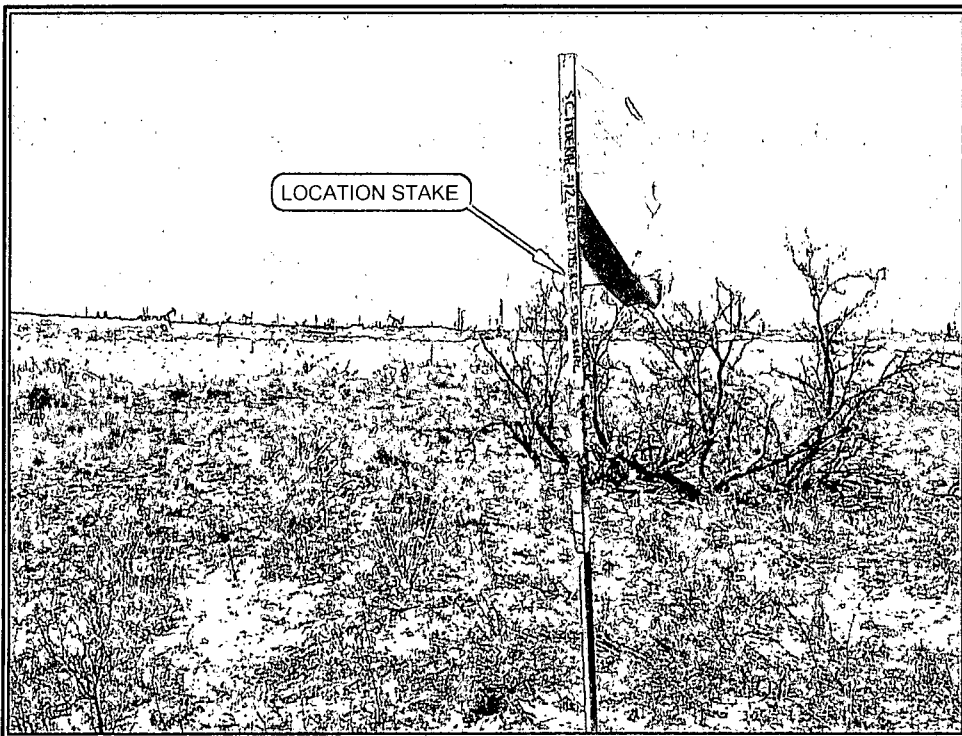


PHOTO: VIEW OF LOCATION STAKE

CAMERA ANGLE: NORTHWESTERLY

NOTES:

ConocoPhillips

ConocoPhillips Company

SC FEDERAL 12  
SECTION 22, T17S, R32E, N.M.P.M.  
536' FSL 1668' FEL

TAKEN BY: J.V.

DRAWN BY: J.C.

REVISED:

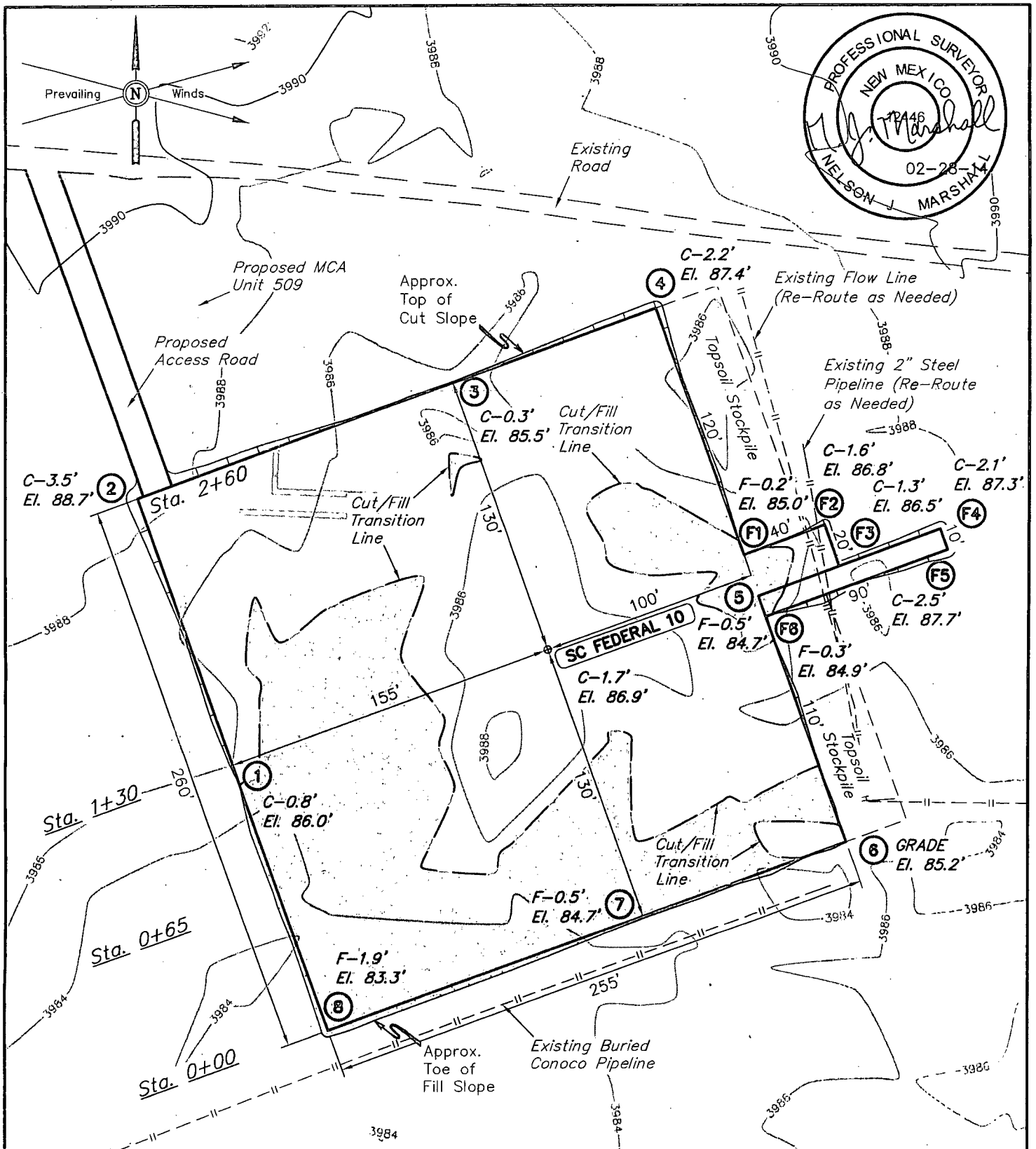
DATE: 02-24-14

DATE: 02-26-14



Corporate Office \* 85 South 200 East  
Vernal, UT 84078 \* (435) 789-1017

PHOTO SHEET



ELEV. UNGRADED GROUND AT LOC. STAKE = 3986.9' FINISHED GRADE ELEV. AT LOC. STAKE = 3985.2'

**NOTES:**

- Flare pit is to be located a min. of 100' from the well head.
- Underground utilities shown on this sheet are for visualization purposes only, actual locations to be determined prior to construction.

ConocoPhillips

**ConocoPhillips Company**

SC FEDERAL 12  
SECTION 22, T17S, R32E, N.M.P.M.  
536' FSL 1668' FEL

DRAWN BY: S.F.

SCALE: 1" = 60'

DATE: 02-27-14

REVISED:

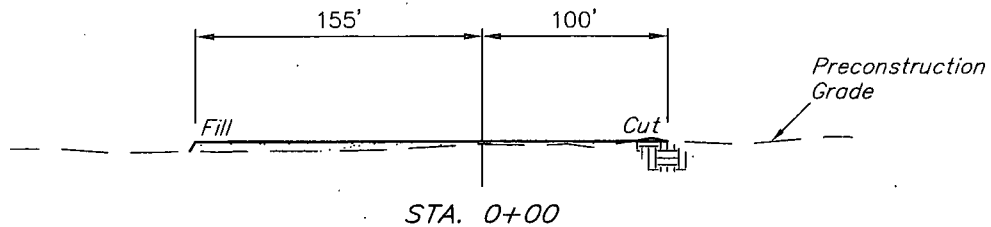
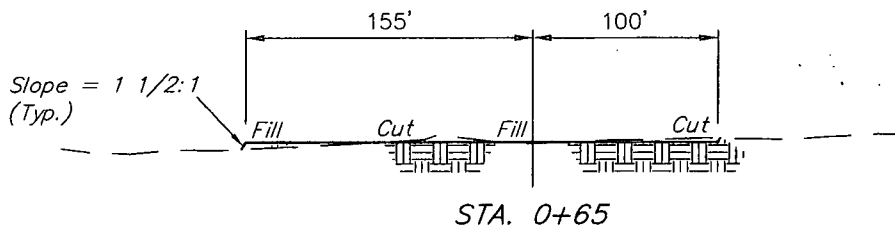
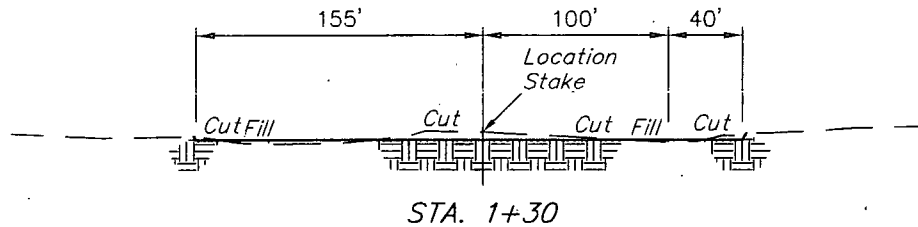
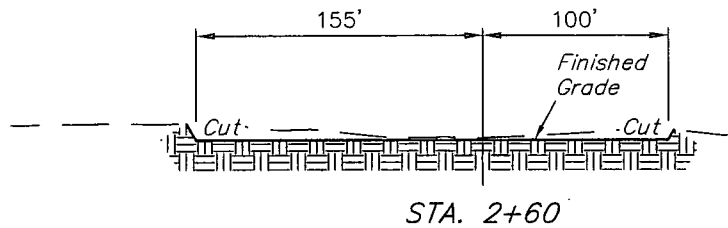
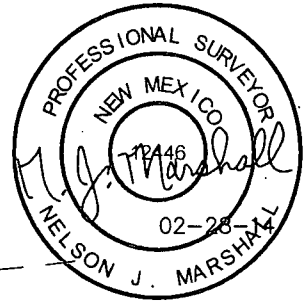
**LOCATION LAYOUT**

**FIGURE #1**



Corporate Office \* 85 South 200 East  
Vernal, UT 84078 \* (435) 789-1017

1" = 40'  
X-Section  
Scale  
1" = 100'



APPROXIMATE EARTHWORK QUANTITIES		APPROXIMATE SURFACE DISTURBANCE AREAS		
(3") TOPSOIL STRIPPING	650 Cu. Yds.		DISTANCE	ACRES
REMAINING LOCATION	1,030 Cu. Yds.	WELL SITE DISTURBANCE	NA	±1.614
<b>TOTAL CUT</b>	<b>1,680 Cu. Yds.</b>	ACCESS ROAD DISTURBANCE	±155.95'	±0.072
<b>FILL</b>	<b>1,030 Cu. Yds.</b>	FLOW LINE DISTURBANCE	±3378.94'	±0.465
EXCESS MATERIAL	650 Cu. Yds.	POWER LINE DISTURBANCE	±517.09'	±0.119
TOPSOIL	650 Cu. Yds.	<b>TOTAL DISTURBANCE</b>	<b>±4051.98'</b>	<b>±2.270</b>
<b>EXCESS UNBALANCE</b> (After Interim Rehabilitation)	<b>0 Cu. Yds.</b>			

**NOTES:**

- Fill quantity includes 5% for compaction.
- Topsoil should not be stripped below finished grade on substructure area.

ConocoPhillips

**ConocoPhillips Company**

SC FEDERAL 12  
SECTION 22, T17S, R32E, N.M.P.M.  
536' FSL 1668' FEL

DRAWN BY: S.F.

SCALE: AS SHOWN

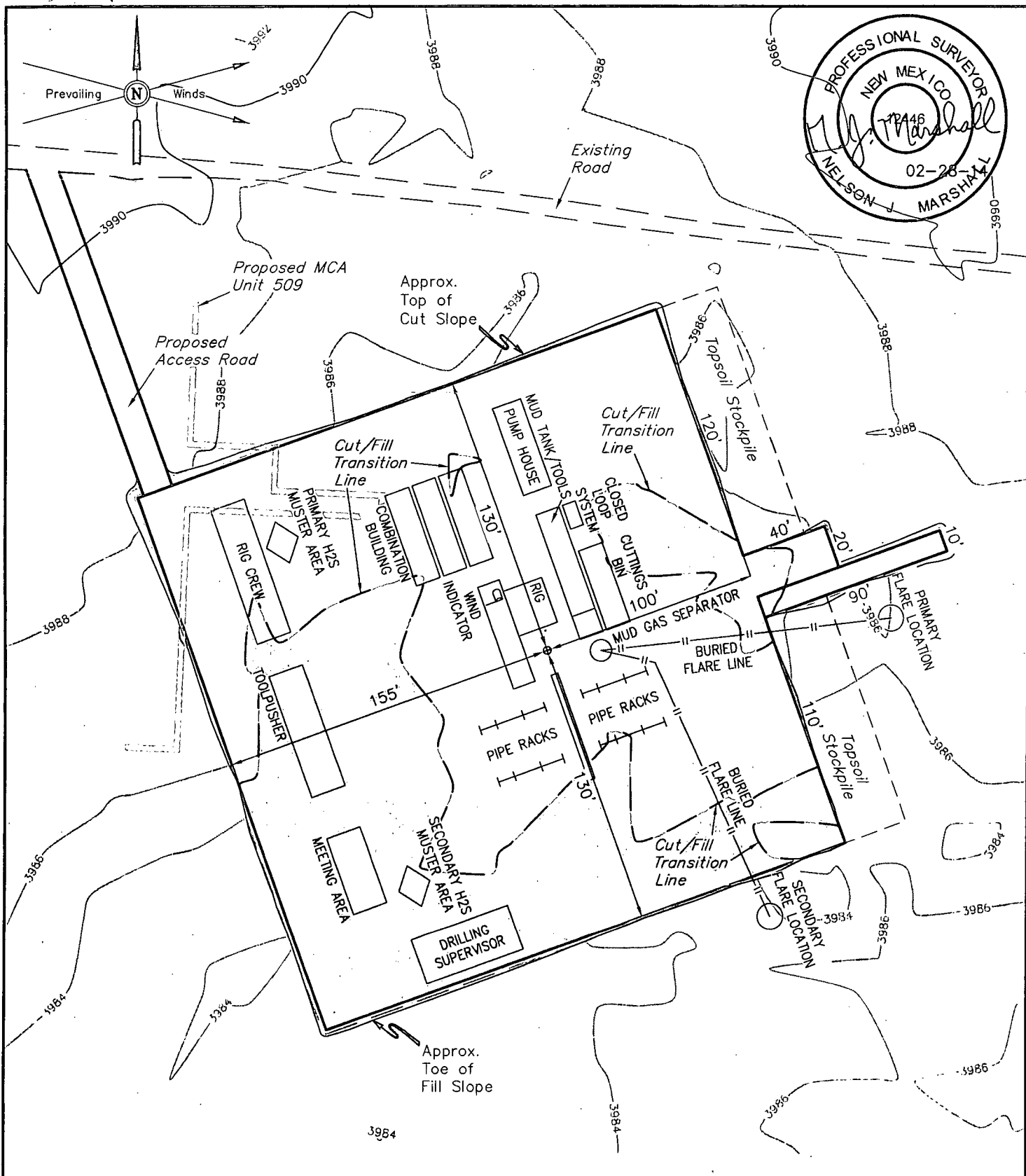
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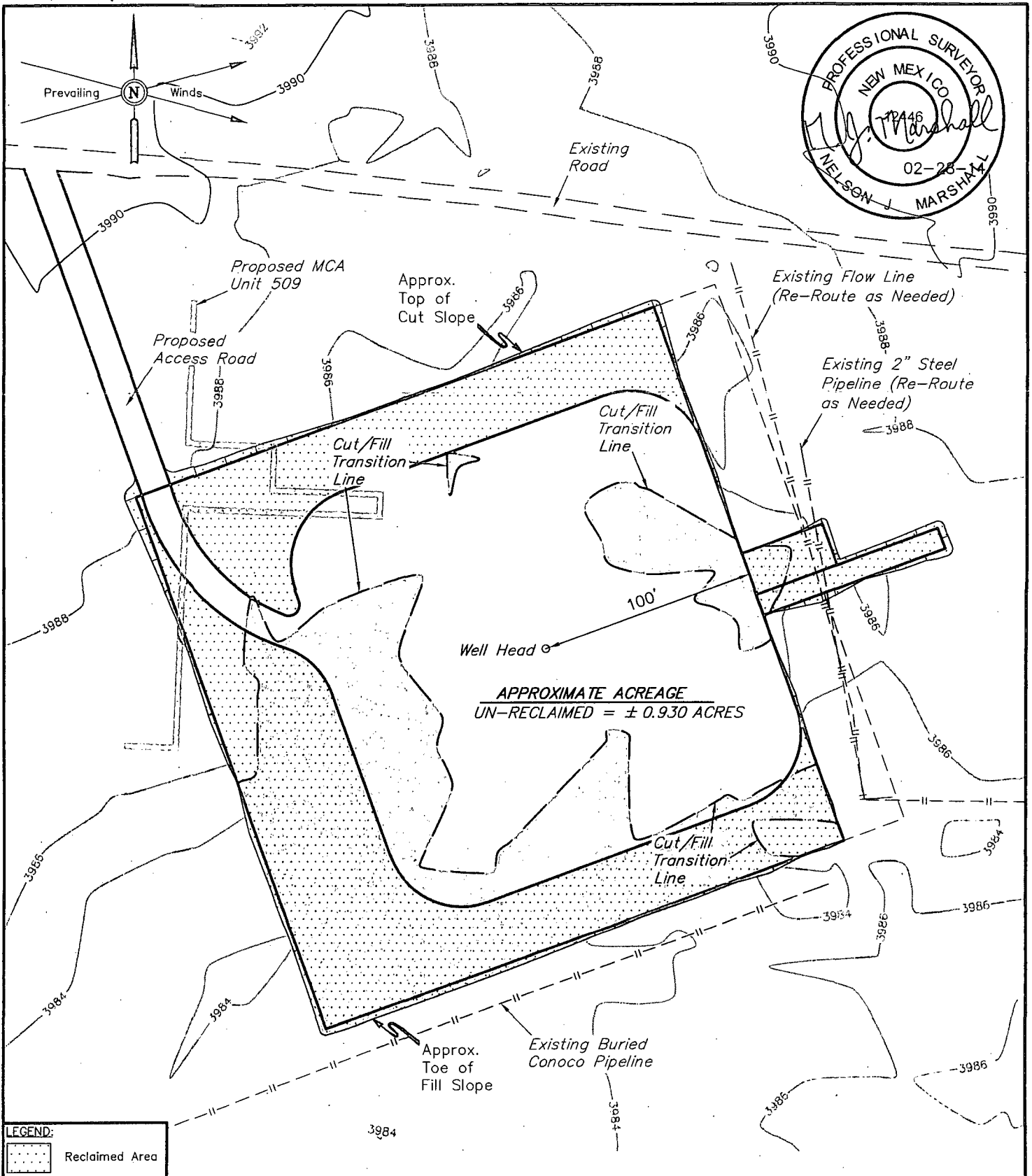
Corporate Office \* 85 South 200 East  
Vernal, UT 84078 \* (435) 789-1017

**TYPICAL CROSS SECTIONS** | **FIGURE #2**



<b>NOTES:</b> • Flare pit is to be located a min. of 160' from the well head.	ConocoPhillips	<b>ConocoPhillips Company</b>	
		SC FEDERAL 12 SECTION 22, T17S, R32E, N.M.P.M. 536' FSL 1668' FEL	
DRAWN BY: S.F.	DATE: 02-27-14	SCALE: 1" = 60'	
Corporate Office * 85 South 200 East Vernal, UT 84078 * (435) 789-1017			<b>TYPICAL RIG LAYOUT</b>

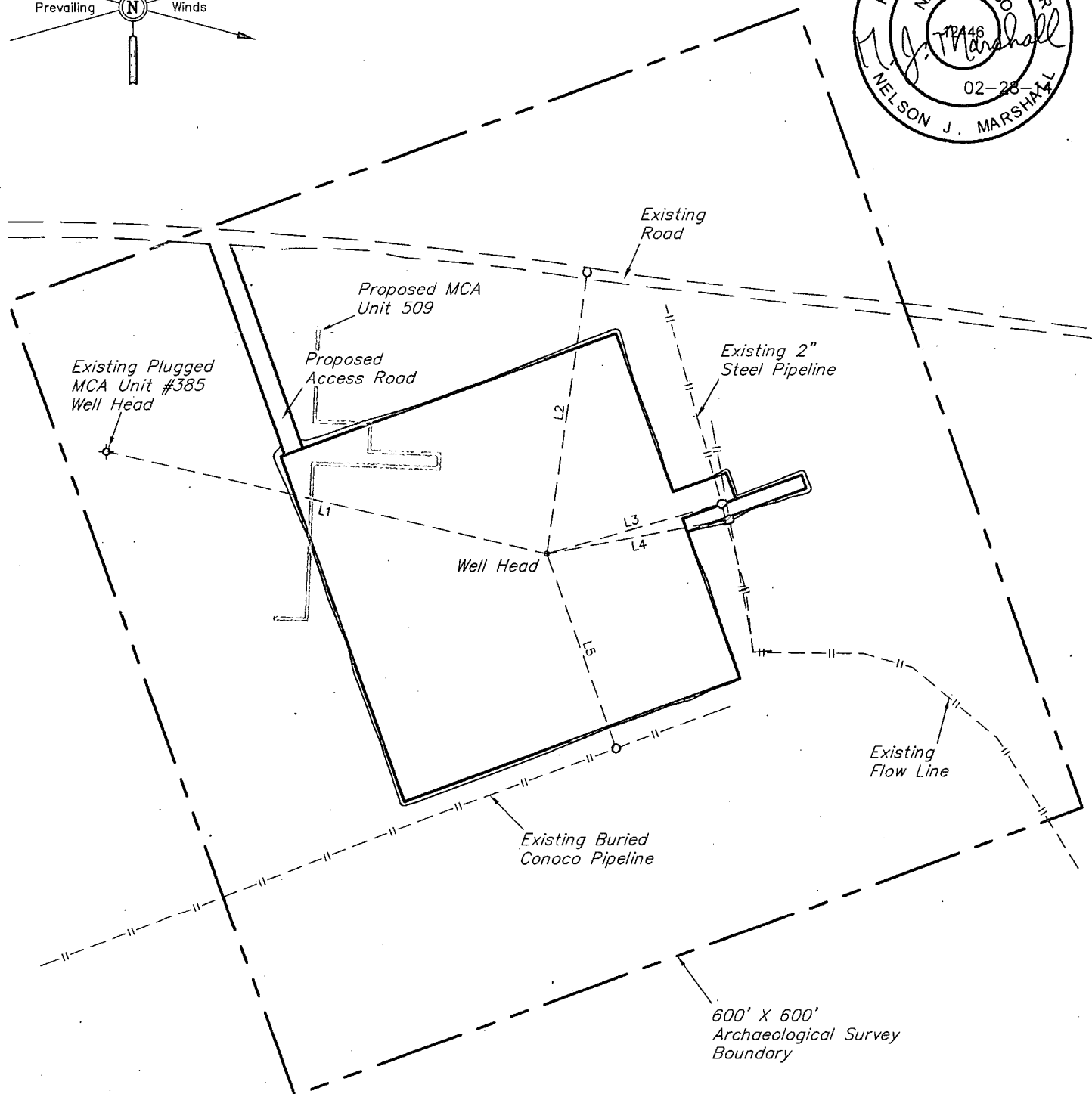
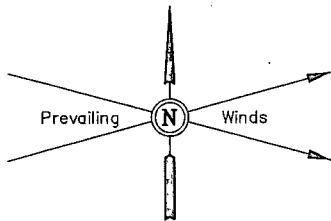




**LEGEND:**  
 Reclaimed Area

**NOTES:**

ConocoPhillips	ConocoPhillips Company	
SC FEDERAL 12 SECTION 22, T17S, R32E, N.M.P.M. 536' FSL 1668' FEL		
DRAWN BY: S.F.	SCALE: 1" = 60'	
DATE: 02-27-14	REVISED:	
RECLAMATION DIAGRAM		FIGURE #4



NOTES:

ConocoPhillips

**ConocoPhillips Company**

SC FEDERAL 12  
SECTION 22, T17S, R32E, N.M.P.M.  
536' FSL 1668' FEL

DRAWN BY: S.F.

SCALE: 1" = 100'

DATE: 02-27-14

REVISED:



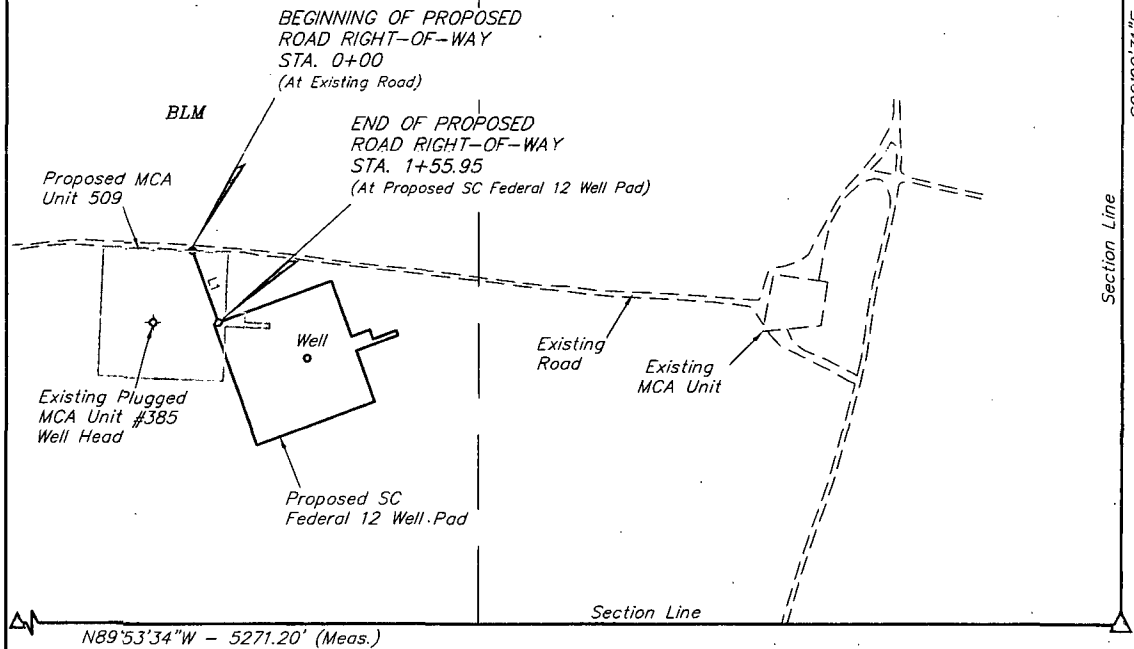
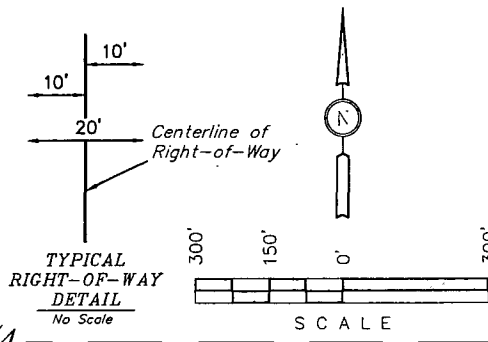
Corporate Office \* 85 South 200 East  
Vernal, UT 84078 \* (435) 789-1017

**ARCHAEOLOGICAL SURVEY  
BOUNDARY**

**FIGURE #5**

# Sec. 22

LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S19°56'20"E	155.95'



BEGINNING OF ROAD STA. 0+00 BEARS  
N68°14'53"W 2047.81' FROM THE SOUTHEAST  
CORNER OF SECTION 22, T17S, R32E, N.M.P.M.

END OF ROAD STA. 1+55.95 BEARS N71°40'34"W  
1947.57' FROM THE SOUTHEAST CORNER OF  
SECTION 22, T17S, R32E, N.M.P.M.

## RIGHT-OF-WAY LENGTHS

PROPERTY OWNER	FEET	ACRES	RODS
TOTAL	155.95	0.072	9.45

## ROAD RIGHT-OF-WAY DESCRIPTION

A 20' WIDE RIGHT-OF-WAY 10' ON EACH SIDE OF THE  
FOLLOWING DESCRIBED CENTERLINE.

BEGINNING AT A POINT IN THE SW 1/4 SE 1/4 OF SECTION  
22, T17S, R32E, N.M.P.M., WHICH BEARS N68°14'53"W  
2047.81' FROM THE SOUTHEAST CORNER OF SAID SECTION  
22, THENCE S19°56'20"E 155.95' TO A POINT IN THE SW  
1/4 SE 1/4 OF SAID SECTION 22, WHICH BEARS  
N71°40'34"W 1947.57' FROM THE SOUTHEAST CORNER OF  
SAID SECTION 22. THE SIDE LINES OF SAID DESCRIBED  
RIGHT-OF-WAY BEING SHORTENED OR ELONGATED TO MEET  
THE GRANTOR'S PROPERTY LINES. BASIS OF BEARINGS IS A  
G.P.S. OBSERVATION. CONTAINS 0.072 ACRES MORE OR  
LESS.

△ = SECTION CORNERS LOCATED.

## CERTIFICATE OF PROFESSIONAL SURVEY

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM  
FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY  
SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE  
BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR  
REGISTRATION NO. 12446  
STATE OF NEW MEXICO

02-28-14.

### NOTES:

- The maximum grade of existing ground for the proposed access road is ±1%.

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ConocoPhillips Company

SC FEDERAL 12  
SECTION 22, T17S, R32E, N.M.P.M.  
536' FSL 1668' FEL

DRAWN BY: S.F.

SCALE: 1" = 300'

DATE: 02-27-14

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ACCESS ROAD R-O-W

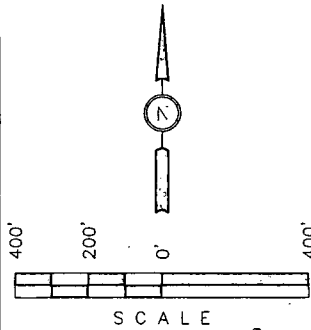
FIGURE 16



Sec. 22

1/4 Section Line

LINE TABLE		
LINE	DIRECTION	LENGTH
L1	N02°14'45"E	151.98'
L2	S82°41'30"E	119.99'
L3	S83°01'01"E	506.59'
L4	S85°40'19"E	450.48'
L5	N20°28'03"E	68.05'
L6	S83°34'29"E	90.16'
L7	N26°51'45"E	168.91'
L8	N64°08'37"E	125.34'
L9	N03°08'11"W	451.70'
L10	N27°36'17"W	73.36'
L11	N37°18'27"W	164.30'
L12	N22°59'19"W	47.30'
L13	N16°52'02"W	82.37'
L14	N08°08'33"W	161.88'
L15	N70°25'42"W	49.55'
L16	S88°22'26"W	357.99'
L17	S00°01'49"E	75.60'
L18	N89°56'23"E	233.37'



SCALE

BLM

END OF PROPOSED  
FLOW LINE RIGHT-OF-WAY  
STA. 33+78.94  
(At Proposed  
SC FEDERAL 2 Tank Battery)

Proposed  
SC FEDERAL 2  
Well Pad &  
Tank Battery

SE 1/4

1/16 Section Line

Section Line  
S00°00'31"E - 2640.86' (Meas.)

BLM

BLM

1/4 Section Line

Proposed MCA  
Unit 509

Existing Plugged  
MCA Unit #385  
Well Head

BEGINNING OF PROPOSED  
FLOW LINE RIGHT-OF-WAY  
STA. 0+00  
(At Proposed SC FEDERAL 12  
Well Pad)

Proposed SC  
Federal 12 Well Pad

Section Line

N89°53'34"W - 5271.20' (Meas.)

BEGINNING OF FLOW LINE STA. 0+00 BEARS  
N71°10'39"W 1926.48' FROM THE SOUTHEAST  
CORNER OF SECTION 22, T17S, R32E, N.M.P.M.

END OF FLOW LINE STA. 33+78.94 BEARS  
S44°18'17"W 1200.14' FROM THE EAST 1/4  
CORNER OF SECTION 22, T17S, R32E, N.M.P.M.

△ = SECTION CORNERS LOCATED.

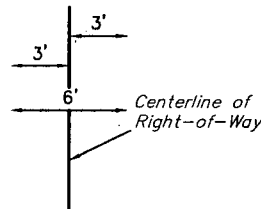
## RIGHT-OF-WAY LENGTHS

PROPERTY OWNER	FEET	ACRES	RODS
TOTAL	3378.94	0.465	204.78

## FLOW LINE RIGHT-OF-WAY DESCRIPTION

A 6' WIDE RIGHT-OF-WAY 3' ON EACH SIDE OF THE  
FOLLOWING DESCRIBED CENTERLINE.

BEGINNING AT A POINT IN THE SW 1/4 SE 1/4 OF SECTION  
22, T17S, R32E, N.M.P.M., WHICH BEARS N71°10'39"W  
1926.48' FROM THE SOUTHEAST CORNER OF SAID SECTION  
22, THENCE N02°14'45"E 151.98'; THENCE S82°41'30"E  
119.99'; THENCE S83°01'01"E 506.59'; THENCE S85°40'19"E  
450.48'; THENCE N20°28'03"E 68.05'; THENCE S83°34'29"E  
90.16'; THENCE N26°51'45"E 168.91'; THENCE N64°08'37"E  
125.34'; THENCE N03°08'11"W 451.70'; THENCE N27°36'17"W  
73.36'; THENCE N37°18'27"W 164.30'; THENCE N22°59'19"W  
47.30'; THENCE N16°52'02"W 82.37'; THENCE N08°08'33"W  
161.88'; THENCE N70°25'42"W 49.55'; THENCE S88°22'26"W  
357.99'; THENCE S00°01'49"E 75.60'; THENCE N89°56'23"E  
233.37' TO A POINT IN THE NE 1/4 SE 1/4 OF SAID  
SECTION 22, WHICH BEARS S44°18'17"W 1200.14' FROM THE  
EAST 1/4 CORNER OF SAID SECTION 22. THE SIDE LINES  
OF SAID DESCRIBED RIGHT-OF-WAY BEING SHORTENED OR  
ELONGATED TO MEET THE GRANTOR'S PROPERTY LINES.  
BASIS OF BEARINGS IS A G.P.S. OBSERVATION. CONTAINS  
0.465 ACRES MORE OR LESS.



TYPICAL  
RIGHT-OF-WAY  
DETAIL  
No Scale

CERTIFICATE OF PROFESSIONAL SURVEY

THIS IS TO CERTIFY THAT THE ABOVE IS A TRUE AND CORRECT COPY OF THE  
FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY  
SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE  
BEST OF MY KNOWLEDGE AND BELIEF.

12446  
REGISTERED LAND SURVEYOR  
REGISTRATION NO. 12446  
STATE OF NEW MEXICO

02-28-14

NOTES:

ConocoPhillips

ConocoPhillips Company

SC FEDERAL 12  
SECTION 22, T17S, R32E, N.M.P.M.  
536' FSL 1668' FEL

DRAWN BY: S.F.

SCALE: 1" = 400'

DATE: 02-27-14

REVISED:

FLOW LINE R-O-W

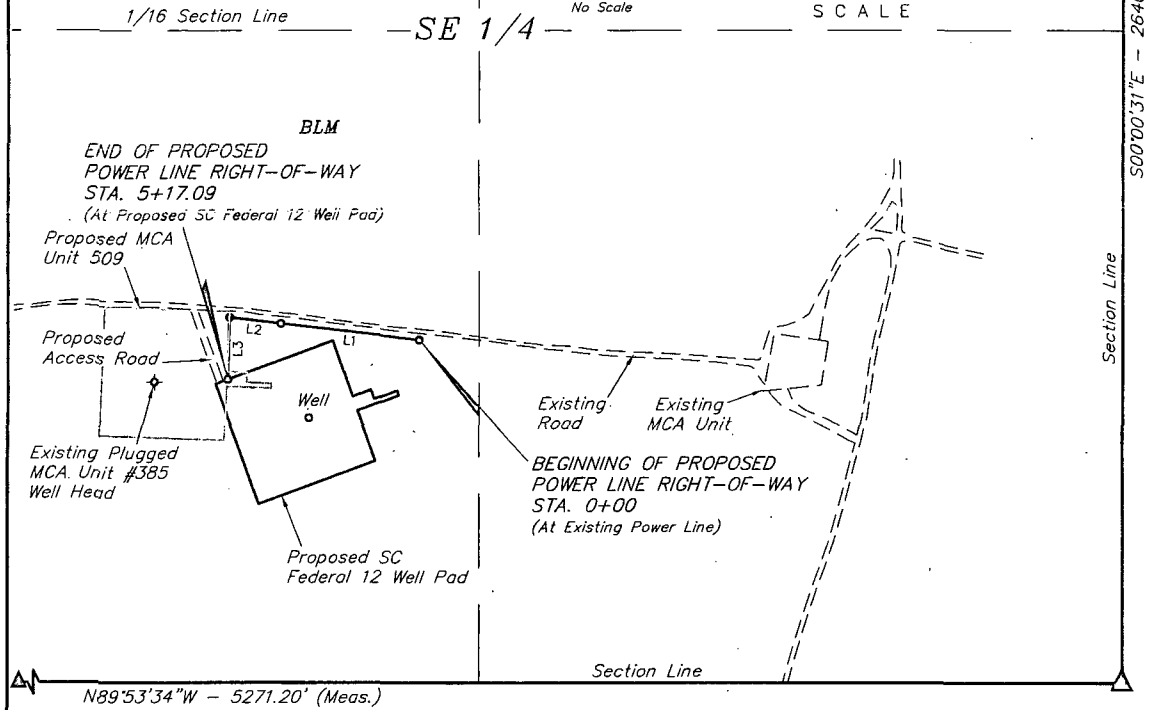
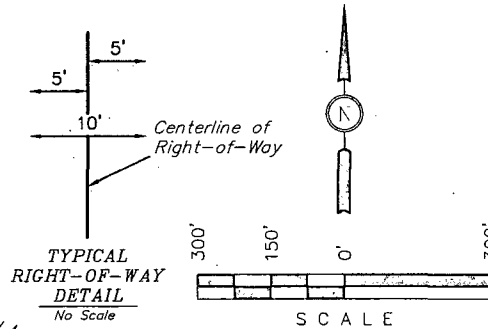
FIGURE 7



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Sec. 22

LINE TABLE		
LINE	DIRECTION	LENGTH
L1	N83°16'42"W	286.09'
L2	N83°02'08"W	105.32'
L3	S01°38'42"W	125.68'



BEGINNING OF POWER LINE STA. 0+00 BEARS  
N64°10'00"W 1600.67' FROM THE SOUTHEAST  
CORNER OF SECTION 22, T17S, R32E, N.M.P.M.

END OF POWER LINE STA. 4+47.02 BEARS  
N71°21'53"W 1934.40' FROM THE SOUTHEAST  
CORNER OF SECTION 22, T17S, R32E, N.M.P.M.

RIGHT-OF-WAY LENGTHS			
PROPERTY OWNER	FEET	ACRES	RODS
TOTAL	517.09	0.119	31.34

### POWER LINE RIGHT-OF-WAY DESCRIPTION

A 10' WIDE RIGHT-OF-WAY 5' ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE.

BEGINNING AT A POINT IN THE SW 1/4 SE 1/4 OF SECTION 22, T17S, R32E, N.M.P.M., WHICH BEARS N64°10'00"W 1600.67' FROM THE SOUTHEAST CORNER OF SAID SECTION 22, THENCE N83°16'42"W 286.09'; THENCE N83°02'08"W 105.32'; THENCE S01°38'42"W 125.68' TO A POINT IN THE SW 1/4 SE 1/4 OF SAID SECTION 22, WHICH BEARS N71°21'53"W 1934.40' FROM THE SOUTHEAST CORNER OF SAID SECTION 22. THE SIDE LINES OF SAID DESCRIBED RIGHT-OF-WAY BEING SHORTENED OR ELONGATED TO MEET THE GRANTOR'S PROPERTY LINES. BASIS OF BEARINGS IS A G.P.S. OBSERVATION. CONTAINS 0.119 ACRES MORE OR LESS.

△ = SECTION CORNERS LOCATED.

CERTIFICATE OF PROFESSIONAL SURVEY

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

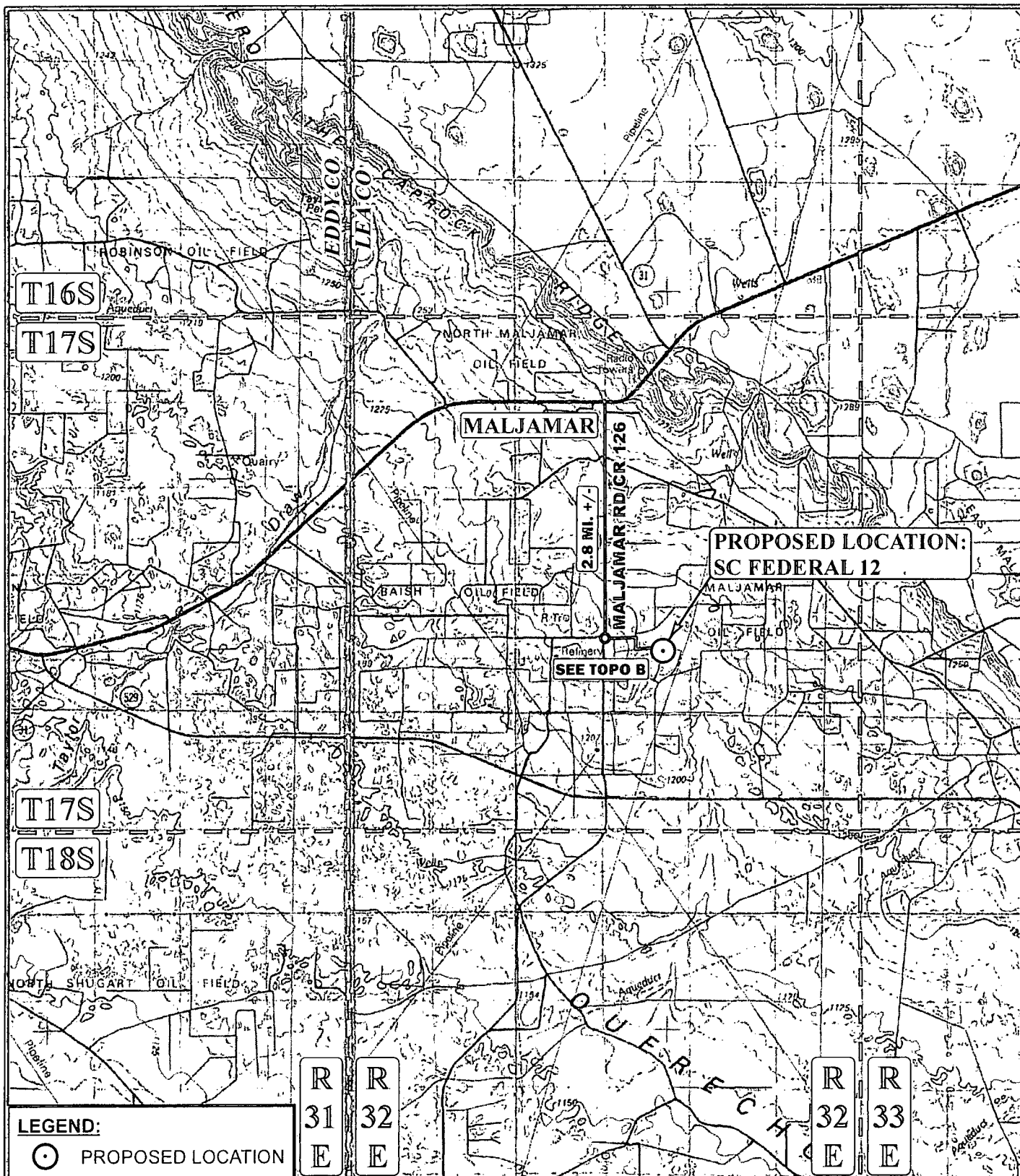
*Robert J. Marshall*  
REGISTERED LAND SURVEYOR  
REGISTRATION NO. 12446  
STATE OF NEW MEXICO 02-28-14

 Corporate Office * 85 South 200 East Vernal, UT 84078 * (435) 789-1017	ConocoPhillips	<b>ConocoPhillips Company</b>	
	SC FEDERAL 12 SECTION 22, T17S, R32E, N.M.P.M. 536' FSL 1668' FEL		
	DRAWN BY: S.F. DATE: 02-27-14	SCALE: 1" = 300' REVISED:	
<b>POWER LINE R-O-W</b>		<b>FIGURE #3</b>	

ConocoPhillips Company  
SC FEDERAL 12  
SECTION 22, T17S, R32E, N.M.P.M.

PROCEED IN A SOUTHERLY DIRECTION FROM MALJAMAR, NEW MEXICO ALONG MALJAMAR ROAD/COUNTY ROAD 126 APPROXIMATELY 2.8 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN AN EASTERLY DIRECTION APPROXIMATELY 0.4 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTH; TURN RIGHT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 0.1 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN AN EASTERLY DIRECTION APPROXIMATELY 0.3 MILES TO THE BEGINNING OF THE PROPOSED ACCESS TO THE SOUTHEAST; FOLLOW ROAD FLAGS IN A SOUTHEASTERLY DIRECTION APPROXIMATELY 156' TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM MALJAMAR, NEW MEXICO TO THE PROPOSED LOCATION IS APPROXIMATELY 3.6 MILES.



**LEGEND:**

○ PROPOSED LOCATION

SCALE: 1:100,000

REVISED:

DRAWN BY: J.C.

DATE DRAWN: 02-26-14

N



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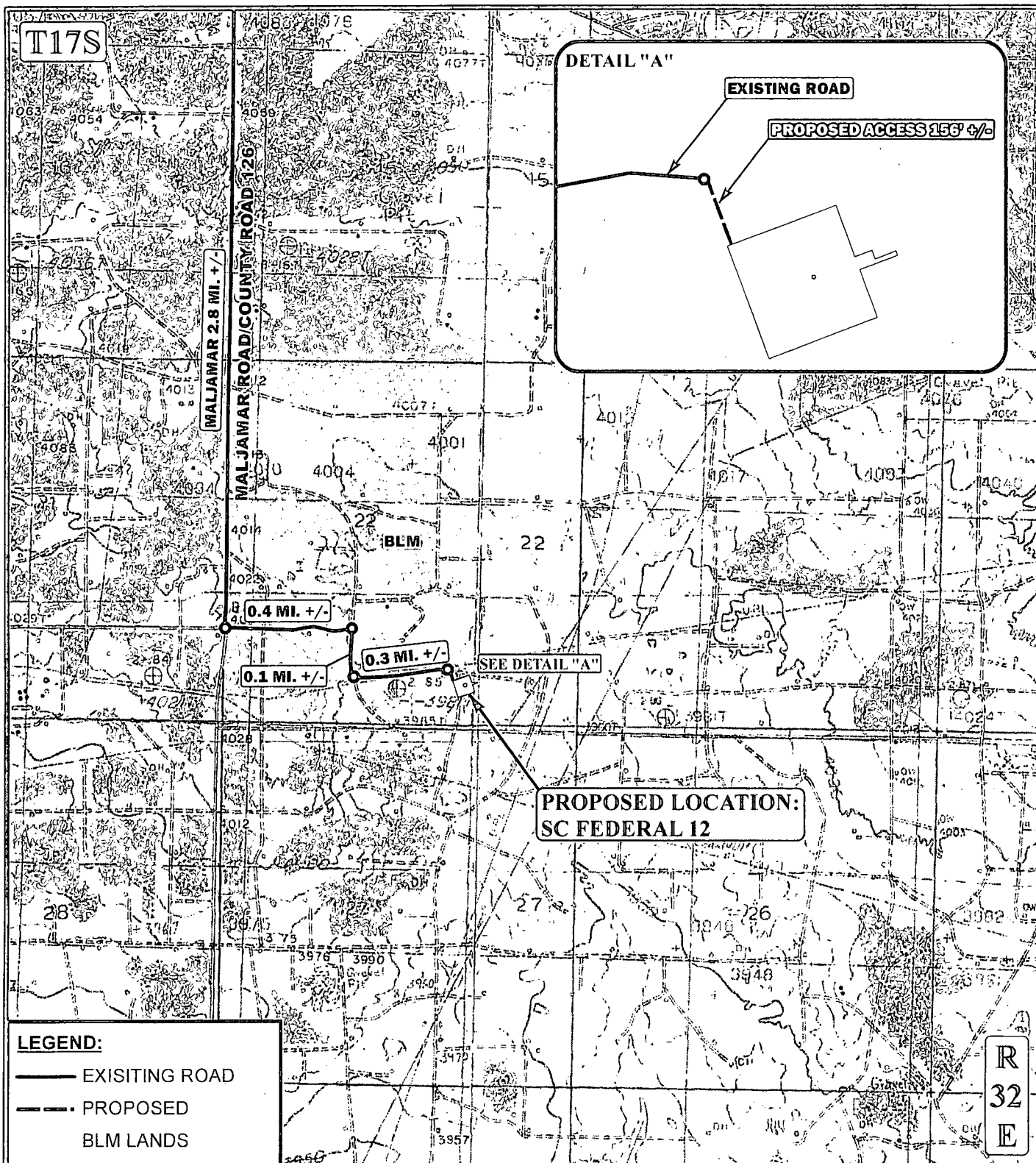
SC FEDERAL 12  
SECTION 22, T17S, R32E, N.M.P.M.  
536' FSL 1668' FEL

ACCESS ROAD MAP

TOPO A



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Vernal, UT 84078 \* (435) 789-1017



\*PARCEL DATA SHOWN HAS BEEN OBTAINED FROM VARIOUS SOURCES AND SHOULD BE USED FOR MAPPING, GRAPHIC AND PLANNING PURPOSES ONLY. NO WARRANTY IS MADE BY UINAH ENGINEERING & LAND SURVEYING (UELS) FOR ACCURACY OF THE PARCEL DATA.

SCALE: 1" = 2000'

REVISED:

DRAWN BY: J.C.

DATE DRAWN: 02-26-14



ConocoPhillips

**ConocoPhillips Company**

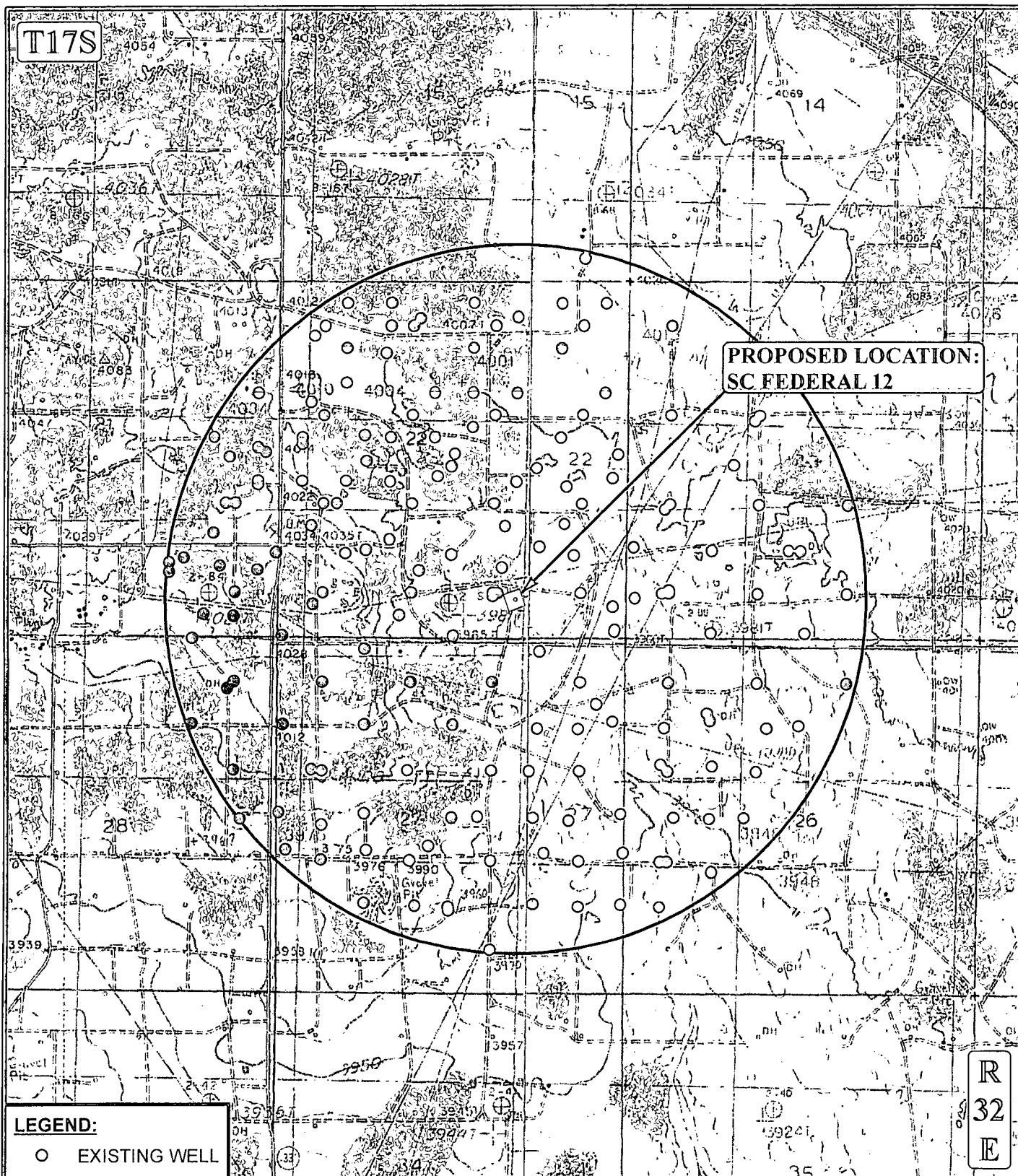
**SC FEDERAL 12**  
**SECTION 22, T17S, R32E, N.M.P.M.**  
**536' FSL 1668' FEL**



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Vernal, UT 84078 \* (435) 789-1017

**ACCESS ROAD MAP**

**TOPOB**



**LEGEND:**

○ EXISTING WELL

SCALE: 1" = 2000'

REVISED:

DRAWN BY: J.C.

DATE DRAWN: 02-26-14



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**ConocoPhillips Company**

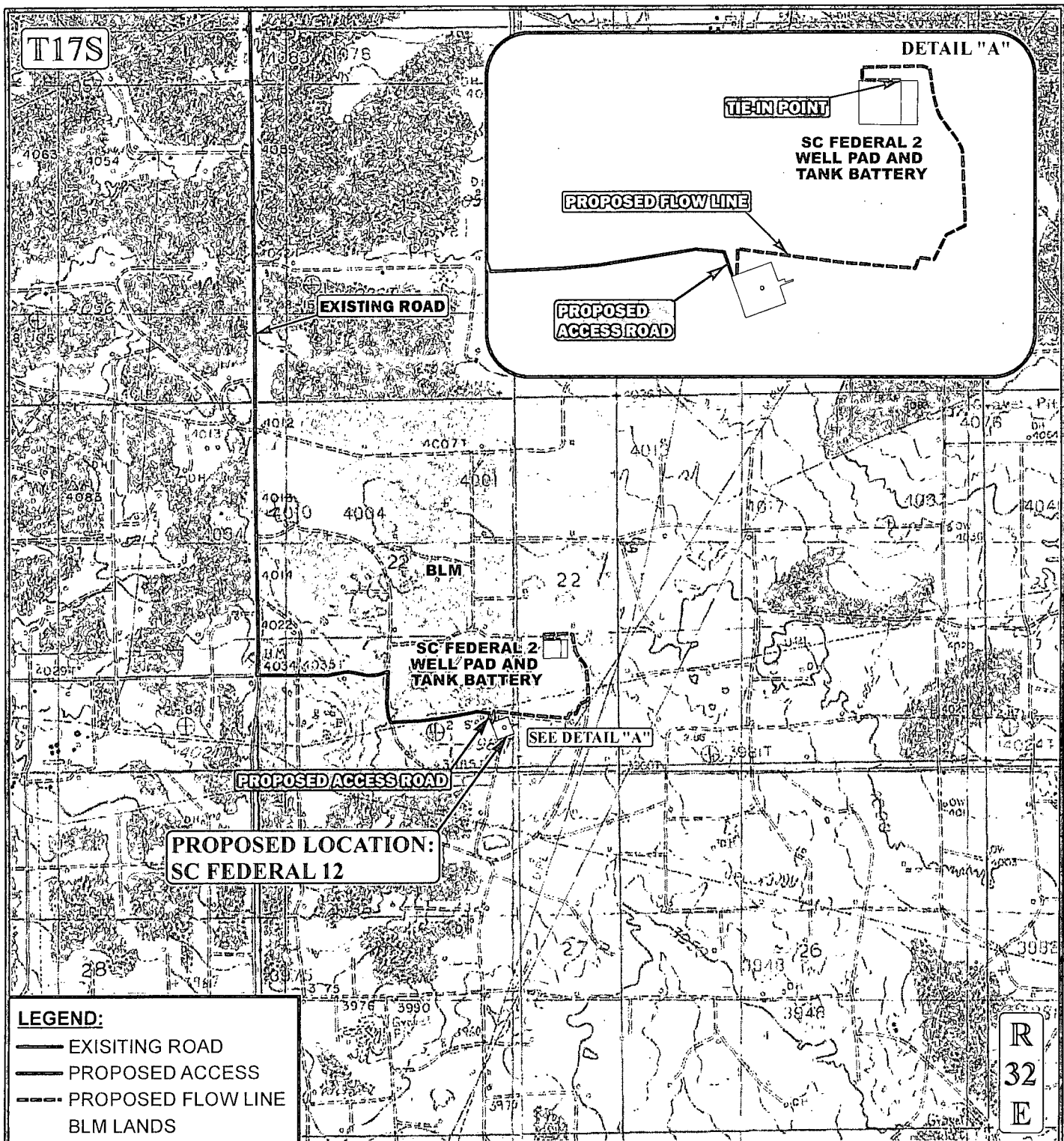
SC FEDERAL 12  
SECTION 22, T17S, R32E, N.M.P.M.  
536' FSL 1668' FEL



Corporate Office \* 85 South 200 East  
Vernal, UT 84078 \* (435) 789-1017

**TOPOGRAPHIC MAP**

TOPOG



**APPROXIMATE TOTAL FLOW LINE DISTANCE = 3,379' +/-**

\*PARCEL DATA SHOWN HAS BEEN OBTAINED FROM VARIOUS SOURCES AND SHOULD BE USED FOR MAPPING, GRAPHIC AND PLANNING PURPOSES ONLY. NO WARRANTY IS MADE BY UINAH ENGINEERING & LAND SURVEYING (UELS) FOR ACCURACY OF THE PARCEL DATA.

SCALE: 1" = 2000'

REVISED:

DRAWN BY: J.C.

DATE DRAWN: 02-26-14



ConocoPhillips

**ConocoPhillips Company**

**SC FEDERAL 12**  
**SECTION 22, T17S, R32E, N.M.P.M.**  
**536' FSL 1668' FEL**

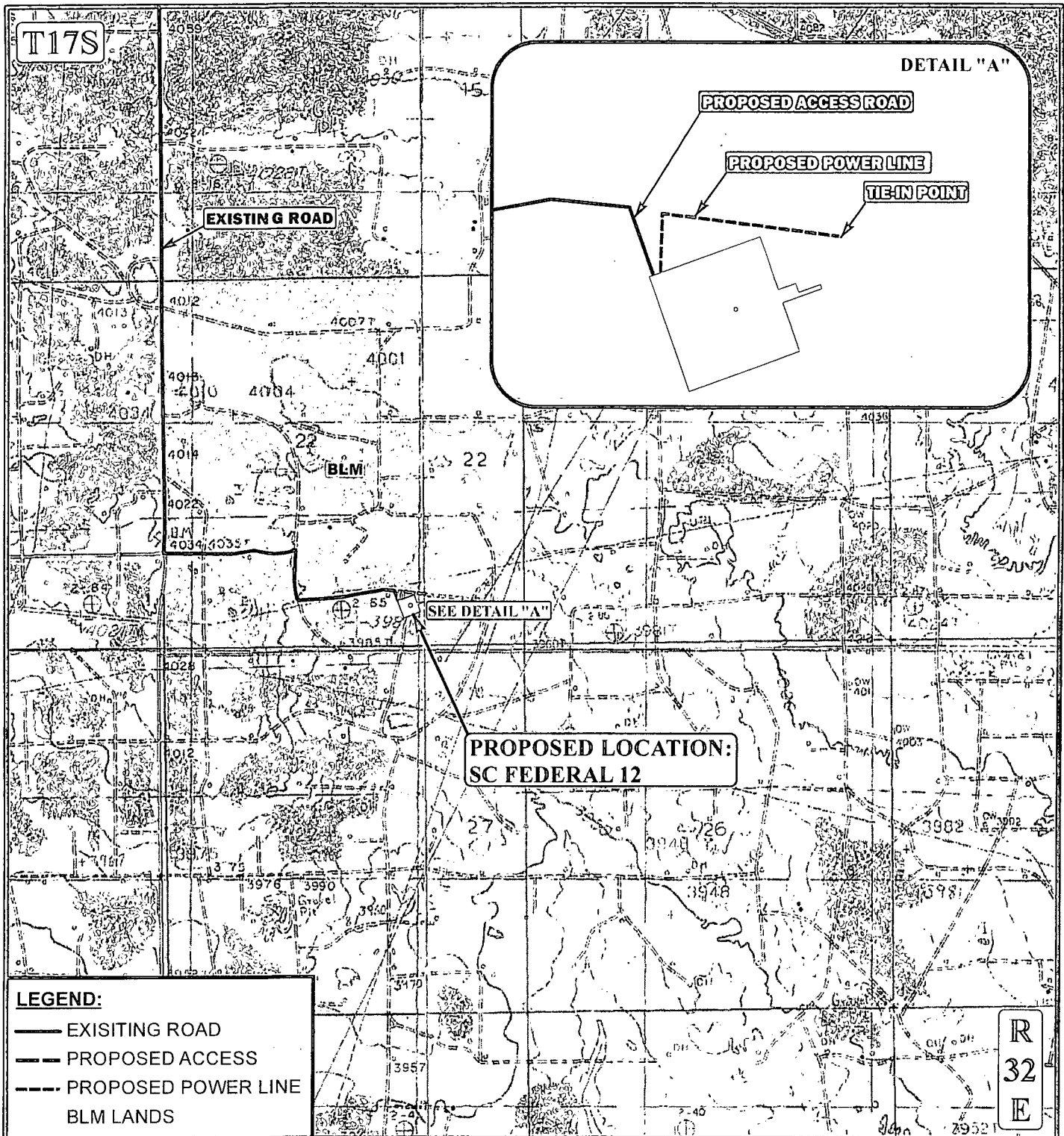
**FLOW LINE MAP**

**TOPO D**



Corporate Office \* 85 South 200 East  
 Vernal, UT 84078 \* (435) 789-1017





**APPROXIMATE TOTAL POWER LINE DISTANCE = 517' +/-**

\*PARCEL DATA SHOWN HAS BEEN OBTAINED FROM VARIOUS SOURCES AND SHOULD BE USED FOR MAPPING, GRAPHIC AND PLANNING PURPOSES ONLY. NO WARRANTY IS MADE BY UINAH ENGINEERING & LAND SURVEYING (UELS) FOR ACCURACY OF THE PARCEL DATA.

SCALE: 1" = 2000'

REVISED:

DRAWN BY: J.C.

DATE DRAWN: 02-26-14



ConocoPhillips

**ConocoPhillips Company**

**SC FEDERAL 12  
SECTION 22, T17S, R32E, N.M.P.M.  
536' FSL 1668' FEL**



Corporate Office \* 85 South 200 East  
Vernal, UT 84078 \* (435) 789-1017

**POWER LINE MAP**

**TOPOE**



PECOS DISTRICT  
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	COG OPERATING LLC
LEASE NO.:	NMLC058395
WELL NAME & NO.:	12 S C FEDERAL
SURFACE HOLE FOOTAGE:	536' FSL & 1668' FEL
BOTTOM HOLE FOOTAGE:	330' FSL & 1650 FEL
LOCATION:	Section 22, T.17 S., R.32 E., NMPM
COUNTY:	Lea County, New Mexico

**I. DRILLING**

**A. DRILLING OPERATIONS REQUIREMENTS**

**HOBBS OCD**

The BLM is to be notified in advance for a representative to witness:

**JUL 29 2014**

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

**RECEIVED**

☒ **Lea County**

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240,  
(575) 393-3612

1. A Hydrogen Sulfide (H<sub>2</sub>S) Drilling Plan should be activated 500 feet prior to drilling into the **Grayburg** formation. **As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.**
2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a “Major” violation.**
3. **The record of the drilling rate along with the GR/N well log run from TD to surface shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.**

## **B. CASING**

Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.).

**Centralizers required on surface casing per Onshore Order 2.III.B.1.f.**

**Wait on cement (WOC) time prior to drilling out for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. DURING THIS WOC TIME, NO DRILL PIPE, ETC. SHALL BE RUN IN THE HOLE. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. IF OPERATOR DOES NOT HAVE THE WELL SPECIFIC CEMENT DETAILS ONSITE PRIOR TO PUMPING THE CEMENT FOR EACH CASING STRING, THE WOC WILL BE 30 HOURS. See individual casing strings for details regarding lead cement slurry requirements.**

**No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.**

**Possible water and brine flows in the Salado and Artesia groups.**

**Possible lost circulation in the Grayburg and San Andres formations.**

1. The **8-5/8** inch surface casing will be set at approximately **920** feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
  - b. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**
  - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
  - d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **5-1/2** inch production casing is:

- ☒ Cement to surface. If cement does not circulate, contact the appropriate BLM office.

**Operator has proposed contingency DV tool/ECP at a depth of 3000'. Operator is to submit sundry if DV tool depth varies by more than 100' from approved depth.**

a. First stage to DV tool:

- ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator should have plans as to how they will achieve circulation on the next stage.

b. Second stage above DV tool:

- ☒ Cement to surface. If cement does not circulate, contact the appropriate BLM office.

3. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

#### **C. PRESSURE CONTROL**

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. Variance approved to use flex line from BOP to choke manifold. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. **Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review.** If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).
3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M) psi.**

4. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
  - b. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**.
  - c. The results of the test shall be reported to the appropriate BLM office.
  - d. All tests are required to be recorded on a calibrated test chart. **A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.**
  - e. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.

#### **D. DRILL STEM TEST**

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

#### **E. WASTE MATERIAL AND FLUIDS**

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

**CRW 071414**