ATS-12-1028

HOBBS OCD

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Form 3160-3
(March 2012)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NM27508

6 If Indian, Allotee or Tribe Name
N/A

1a. Type of work: ☑ DRILL ☐ REENTER

7 If Unit or CA Agreement, Name and No.
N/A

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

8. Lease Name and Well No.
Wilder 29 Federal # 1H 39470

2 Name of Operator ConocoPhillips Company 217817

9 API Well No.
30-025-40790

3a. Address P.O. Box 51810
Midland, Tx 79710

3b Phone No. *(include area code)*
432-688-6943

10 Field and Pool, or Exploratory 97838
JENNINGS; BS UPPER SHALE

4. Location of Well *(Report location clearly and in accordance with any State requirements *)*

At surface 524 FNL & 849 FEL (NENE) UL: A of 29-26S-32E

At proposed prod. zone 330 FSL & 795 FEL (SESE) UL: P of 29-26S-32E

11. Sec., T. R. M. or Blk and Survey or Area
Section 29-26S-32E

14 Distance in miles and direction from nearest town or post office*
30 miles southwest of Jal, NM

12 County or Parish
Lea

13. State
NM

15 Distance from proposed* location to nearest property or lease line, ft (Also to nearest drlg. unit line, if any)	16 No. of acres in lease	17 Spacing Unit dedicated to this well
330	1280 federal acres	160 acres
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft	**19 Proposed Depth**	**20 BLM/BIA Bond No. on file**
1303'	13411 MD/9265 TVD	ES0085
21 Elevations (Show whether DF, KDB, RT, GL, etc.)	**22. Approximate date work will start***	**23. Estimated duration**
3139 GL	09/01/2012	30 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	Name *(Printed/Typed)*	Date
	Donna Williams	07/30/2012

Title
Sr. Regulatory Advisor

Approved by *(Signature)* /s/ Don Peterson	Name *(Printed/Typed)* /s/ Don Peterson	Date SEP 20 2012
Title for 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)

Carlsbad Controlled Water Basin

KZ 09/24/12

Approval Subject to General Requirements & Special Stipulations Attached

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

SEP 26 2012

OPERATORS NAME:	**ConocoPhillips Company**
LEASE NAME AND WELL NO.:	**Wilder 29 Federal # 1H**
SURFACE LOCATION:	**524 FNL & 849 FEL (NENE) of 29-26S-32E**
CASING POINT:	**1233 FNL & 836 FEL (NENE) of 29-26S-32E**
BHL:	**330 FSL & 795 FEL (SESE) of 29-26S-32E**
FIELD NAME:	**Red Hills; Bone Spring**
POOL NAME:	**Bone Spring/Avalon**
COUNTY:	**Lea County, New Mexico**
	Federal Surface/Federal Minerals NM27508

The following information is to supplement the Application for Permit to Drill.

DRILLING PLAN

1. Name and estimated tops of all geologic groups, formations, members, or zones.(TVD)

Quaternary	Surface	Water
Rustler	1000	Salt
Castille	2455	Salt
Delaware Top	4285	Oil/gas/water
Ramsey	4328	Oil/gas/water
Ford Shale	4376	Oil/gas/water
Olds	4397	Oil/gas/water
Cherry Canyon Lower Top	6575	Oil/gas/water
Bone Spring	8107	Oil/gas/water
Bone Spring 1st Carbonate	8327	Oil/gas/water
Base of Bone Spring 1st Carbonate	8422	Oil/gas/water
KOP (estimate)	8508	
Avalon A Shale Top	8629	Oil/gas/water
Avalon B Zone Top	8871	Oil/gas/water
Avalon C Shale Top	9026	Oil/gas/water
Avalon Target	9227	Oil/gas/water

2. Estimated depths and thickness of formations, members or zones potentially containing usable water, oil, gas, or prospectively valuable deposits of other minerals that the operator expects to encounter, and the operator's plans for protecting such resources.

Quanternary	Surface-1000' (water)
Rustler & Castile	1000-4285' (salt)

All of the water bearing formations identified above will be protected by the intermediate setting of the 9 5/8" casing and circulating of cement to surface

Delaware 4285-8107 (oil/gas/water)
The prospective formation identified will be protected by the intermediate setting of the 7" casing and tying the cement into the 9 5/8" casing
Bone Spring 8107-9227 (oil/gas/water)
The geologic tops identified above from the top of the Bone Spring/Avalon are part of the target formation

3. The operator's minimum specifications for blowout prevention equipment and diverter systems to be used, including size, pressure rating, configuration, and the testing procedure and frequency.

* See COA

A 5000# system will be installed, used, maintained, and tested accordingly. After nippling up, and every 30 days thereafter, 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 recorded on the daily drilling reports. Ram Type preventors will be tested to rated working pressure or 70% of the minimum internal yield of the casing. Annular type preventer(s) shall be tested to 50% of the approved BOP stack working pressure. Pressure shall be maintained at least 10 minutes or until provisions of test are met, whichever is longer. Pursuant to Onshore Oil and Gas Order No. 2, the BOP equipment for a 5M system or greater shall include lower Kelly cock valve with handle available, safety valves and subs to fit all drill string connections in use and inside BOP or float sub shall be available. All choke lines from the drilling spool forward shall meet the requirements of the Onshore Order 2 as specified. **See Attached BOPe Schematic**

4. The proposed casing program including size, grade, weights, type of thread and coupling, and the setting depth of each string and its condition (new or acceptably reconditioned). For exploratory wells, or for wells as otherwise specified by the authorized officer, the operator shall include the minimum design factors for tensions, burst, and collapse that are incorporated into the casing design. In cases where tapered casing strings are utilized, the operator shall also include and/or setting depths of each portion.

NEW CASING:

See COA

Surface: 17 1/2" hole, 13 3/8" 54.5# J55 STC csg, set @ 1030'. Drill out with 12 ¼" bit and perform shoe test to 11.0 ppg MWE.
Burst: 2.37/Collapse: 4.92/Tension: 2.57
Intermediate 1: 12 1/4" hole, 9 5/8" 36# J55 LTC csg, set @ 4350
Burst: 2.88/Collapse: 2.62/Tension: 4.74
Intermediate 2: 8 3/4" hole, 7" 29# P110 BTC csg set @ 9629 MD/9227 TVD
Burst: 2.29/Collapse: 1.74/Tension: 2.81/3.31

Liner P110 BTC per Donna

Production Liner (Uncemented): 6" hole, 4 ½" 11.6# liner set @ 9080-13,635 MD Burst: 3.25/Collapse: 3.36/Tension: 5.78/6.80

The plan is to set casing and drill open hole in a southern direction to a proposed bottomhole location of 330 FSL & 795 FEL (SESE) of Section 29-26S-32E

See COA

ConocoPhillips will utilize casing friendly hardbanded drill pipe in a manner that is consistent with current company policy and standards with respect to minimizing or mitigating internal casing wear. The responsibility to ensure all parties are acting according to their roles and responsibilities rest with the Company. Any damage or impacts from use of casing friendly hardbanded drill pipe rest with ConocoPhillips Company.

5. The amount and type(s) of cement, including anticipated additives to be used in setting each casing string, shall be described. If stage cementing techniques are to be employed, the setting depth of the stage collars and amount and type of cement, including additives, and preflush amounts to be used in each stage, shall be given. The expected linear fill-up of each cemented string, or each stage when utilizing stage-cementing techniques, shall also be given.

13 3/8 casing: Lead w/770 sxs Class C cmt + HalCem-C (Yield 1.33 cft) Tail w/230 sxs Class C cmt + 1 lbm/sk EconoChem HRLTRRC (Yield 1.85 Cuft/sk). Circulated to surface based on 17 ½" hole with 100% excess

9 5/8" casing: Lead w/980 sxs 50/50 Class C Poz + 2.5 gal/bbl WG-19 + 1 lbm/sk EconoCem-C (Yield 2.48 cft/sk), Tail w/140 sxs H + HalCem C (Yield 1.33 cft/sk) Circulatd to surface based on 12 ¼" hole w/120% excess

7" casing: Lead w/560 sxs HLH + .3% Halad9 + 5 lbs/sk silicalite + .3% HR-800 (Yield 2.0 cft/sk), Tail w/232 sxs Class H + .4% Halad-9 + .1% WG-17 + 3.0% KCl + .3% HR800 (Yield 1.2 cft/sk). Circulate cement 500' into the 9 5/8" casing based on 8 ¾" hole w/100% excess

4 ½" Liner: Uncemented 11.6# P110 BTC

6. The anticipated type and characteristics of the proposed circulating medium or mediums proposed for the drilling of each wellbore section, the quantities and types of mud and weighting material to be maintained, and the monitoring equipment to be used on the circulating system.

Mud Program:

0-1030	Aquagel-Spud Mud	8.9	Wt/Gl	32-36 Vis.	NC
1030-4350	Brine	10	Wt/Gl	28-30 Vis.	5-8
4350-9629	Brine	9.3	Wt/Gl	28-30 Vis	5-8
9629-13695	Cut Brine	9.3	Wt/Gl	30-40 Vis	<=5

Gas detection equipment and pit level flow monitoring equipment will be on location. ConocoPhillips Company will maintain sufficient mud and weighted material on location at all times.

7. The anticipated testing, logging, and coring procedures to be used, including drill stem testing procedures, equipment, and safety measures.

a. DST Program: None
b. Mud Logging: Two-Man – 1030-TD
Logs to be run: GR/MWD

* See COA

8. List the expected bottom-hole pressure and any anticipated abnormal pressures, temperatures or potential hazards that are expected to be encountered, such as lost circulation zones and hydrogen sulfide. The operator's plans for mitigating such hazards shall be discussed. Should the potential to encounter hydrogen sulfide exist, the mitigation procedures shall comply with the provisions of the BLM.

The expected pressure gradient is 0.433 psi/ft or 9-9.1 ppg equivalent
.The average anticipated bottom hole pressure ranges on average is .65 psi/ft
No hydrogen sulfide is expected during drilling operations; however, the potential does exist for H2S. Please see attached H2S contingency plan to be used in the event of occurrence.

Any other facets of the proposed operation which the operator wishes to be considered in reviewing the application.

Anticipated construction date is September 1, 2012 with anticipated spud date of October 1, 2012. Construction of well pad and road will begin as soon as all agency approvals are obtained.

9. Address the proposed directional design, plan view, and vertical section in true vertical and measured depth for directional, horizontal, or coil tubing operations.

The proposed directional/horizontal documents are attached.

DRILLING PLAN

PROSPECT/FIELD	Bonespring/Red Hills			COUNTY/STATE		Lea County, NM
OWNERS	ConocoPhillips			LEASE		
WELL NO	Wilder Federal 29 #1H		FNL	FSL	FEL	FWL
LOCATION		Surface Location	524		849	
		Bottom Hole Location		330	795	
EST T D	Leg #1 13 411' MD			GROUND ELEV		3 139' (est)
					RKB	3155

PROGNOSIS — Based on 3,155' KB(est)

MARKER	S S DEPTH	TVD
Quaternary		Surface
Rustler	2,155	1,000
Delaware Top	-1130	4,285
Bone Spring	-4952	8,107
Bone Spring 1st Carbonate Top	-5172	8,327
Bone Spring 1st Carbonate Base	-5267	8,422
KOP		8,508
Avalon A Shale Top	-5474	8,629
Avalon A Shale Base	-5716	8,871
Avalon B Zone Top	-5716	8,871
Avalon B Zone Base	-5871	9,026
Avalon C Shale Top	-5871	9,026
Avalon C Shale Horizontal Target	**-6072**	**9,227**
Avalon C Shale Base	-6151	9,306

LOGS

Type	Interval
Open Hole	
GR-MWD	KOP-TD

DEVIATION

Surf	3° max, svy every 500'
Int #1/2	3° max, svy every 90'
Interm #2 Curve	90° , svy every 30'
Prod Lateral	90° , svy every 30'

DST'S

CORES: No core

SAMPLES

Mudlogging	Start	End	
Two-Man	1030'	TD	Vertical and Horizontal sections

BOP

COP Category 3 Well Control Requirements

Precision 827 BOPE	13-5/8"-5Mpsi Annular
(With Rotating Head)	13-3/8"-5Mpsi Blind Ram
	13-3/8"-5Mpsi Cross / Choke & Kill Lines
	13-3/8"-5M psi Pipe Ram
	13-3/8"-5Mpsi Spacer Spool

Dip Rate (See inclination prediction)

Max Anticipated BHP 0 65 psi/ft

Surface Formation

MUD	Interval	Type	Max MW	Vis	WL	Remarks
Surface	0'-1030'	Aquagel - Spud Mud	8 9	32-36	NC	
Intermediate 1	1030'-4350'	Brine	10	28-30	5-8	
Intermediate 2	4350'-9629'	Brine	9 3	28-30	5-8	
Production	9695'-13695'	Cut Brine	9 3	30-40	<=5	

CASING	Size	Wt ppf	Hole	Depth	Cement	WOC	Remarks
Surface	13-3/8"	54 5	17-1/2	1,030'	To Surface	18hrs	
Intermediate 1	9-5/8"	36	12-1/4"	4,350'	To Surface	18hrs	
Intermediate 2	7"	29	8 3/4"	9,629'	500' into the 9-5/8"	18hrs	
Production Lat #1	4 1/2"	11 6	6"	13,635'	Packers and Sleeves	N/A	Liner

DIRECTIONAL PLAN

	MD	TVD	AZ
Surface	N/A	N/A	0
Vertical KOP	8 510'	8,510'	179 0
End Build/ 7"Casing (90° curve)	9,629'	9,227'	179 0
Tangent	N/A	N/A	179 0
Turn	N/A	N/A	179 0
TD	13,411'	9,265'	179 0

Directional Company DDC
Vertical Build Rate 8 0 °/100'
Tan Leg Turn Rate 0 0 °/100'

Comments
Surveys will be taken with INC Survey Tool below surface casing while drilling with PDC + Motor+ Teledrift BHA

Prep By	Katia Filina	Date	7/26/12	Doc	REV 3

Wilder Federal 29 #1H

Surface Location:		Bottom Hole Location	
524FNL	849FEL	330FSL	795FEL

Directional

	MD	TVD	FNL/FSL	FEL/FWL	S-T-R	AZI
Vertical KOP	8510	8510	0	0	0	178 96
End Build/ 7"Casing (90° curve)	9,629'	9,227'	0	0	0	179 0
Tangent	N/A	N/A	0	0	0	179 0
Turn	N/A	N/A	0	0	0	179 0
TD	13 411'	9,265'	0	0	0	179 0

Formation	TVD
Quaternary	Surface
Rustler	1 000
Delaware Top	4,285
KOP	8,107
Bone Spring	8,327
Bone Spring 1st Carbonate Top	8,422
Bone Spring 1st Carbonate Base	8,508
KOP	8,508
Avalon A Shale Top	8,629
Avalon A Shale Base	8 871
Avalon B Zone Top	8,871
Avalon B Zone Base	9 026
Avalon C Shale Top	9,026
Avalon C Shale Horizontal Target	**9,227**
Avalon C Shale Base	9 306
KOP (8°/100')	8,510

CASING

Surface

~~2,350'~~ *13-3/8" 54.5# J-55 BTC*

See COA

Intermediate 1

4,350' 9-5/8" 36# J55 LTC

Drill Fluids

Surf Hole
FW gel mud
8 9#
w/ high vis sweeps

Interm 1
Brine
10#
40-50 Vis
5-8 WL

Interm 2
Brine
9 3#
28-36 Vis
5-8 WL

Prod Hole
Cut Brine
9 3#
28-36 Vis
<=5 WL

high vis sweeps
as required

Cement

Data These numbers are only estimates

Surface
230 Sx Lead
770 Sx Tail

Based on 17 -1/2" OH,
with 100% excess

Intermediate 1
980 Sx Lead
140 Sx Tail

Based on 12 25 in Hole
with 100% excess

Intermediate 2
560 Sx Lead
232 Sx Tail

Based on 8 75 in Hole
with 100% excess

Slurry Top
Surface
600' from Bottom

Slurry Top
500' into 9-5/8"
600' from Bottom

Analysis

Mudlogging
Two-Man
1030'

TD

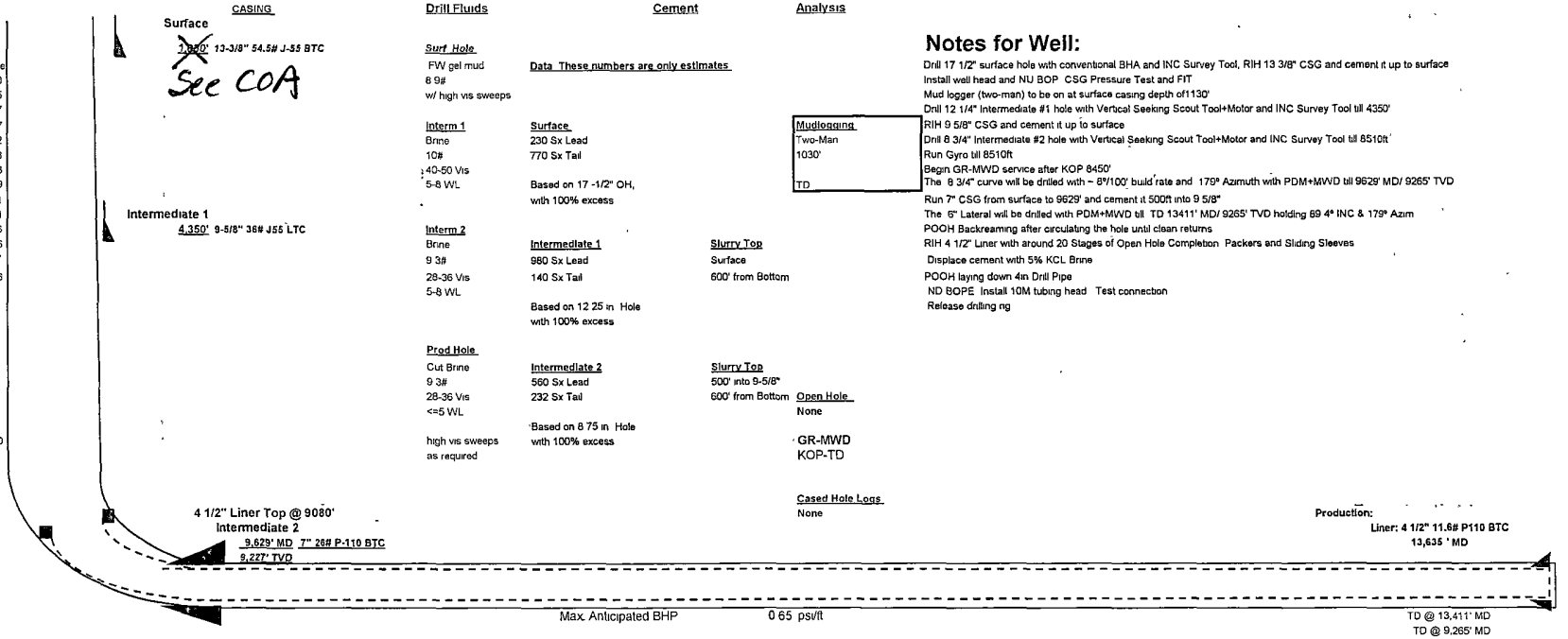
Open Hole
None

GR-MWD
KOP-TD

Cased Hole Logs
None

Notes for Well:

Drill 17 1/2" surface hole with conventional BHA and INC Survey Tool, RIH 13 3/8" CSG and cement it up to surface
Install well head and NU BOP CSG Pressure Test and FIT
Mud logger (two-man) to be on at surface casing depth of1130'
Drill 12 1/4" Intermediate #1 hole with Vertical Seeking Scout Tool+Motor and INC Survey Tool till 4350'
RIH 9 5/8" CSG and cement it up to surface
Drill 8 3/4" Intermediate #2 hole with Vertical Seeking Scout Tool+Motor and INC Survey Tool till 8510ft'
Run Gyro till 8510ft
Begin GR-MWD service after KOP 8450'
The 8 3/4" curve will be drilled with ~ 8°/100' build rate and 179° Azimuth with PDM+MWD till 9629' MD/ 9265' TVD
Run 7" CSG from surface to 9629' and cement it 500ft into 9 5/8"
The 6" Lateral will be drilled with PDM+MWD till TD 13411' MD/ 9265' TVD holding 89 4° INC & 179° Azim
POOH Backreaming after circulating the hole until clean returns
RIH 4 1/2" Liner with around 20 Stages of Open Hole Completion Packers and Sliding Sleeves
Displace cement with 5% KCL Brine
POOH laying down 4in Drill Pipe
ND BOPE Install 10M tubing head Test connection
Release drilling rig



4 1/2" Liner Top @ 9080'

Vick Harvey
Geologist
Date 7/26/2012

Katia filina
Drilling Engineer
Date 7/26/2012

Bonespring/Red Hills
ConocoPhillips
Wilder Federal 29 #1H

See COA

Surface Casing:	
Surface Casing Depth (Ft)	1,030
Surface Casing O D (In.)	13 375
Surface Casing ID (In)	12 715
Hole O D. (In)	17 5
Excess (%)	100%
Volume Tail (Sx)	230
Yield Tail (Cu. Ft /Sx)	1 85
Yield Lead (Cu Ft./Sx)	1 33
Shoe Joint (Ft)	40
Shoe Volume (Cu Ft)	35 3
Tail feet of cement	300
Calculated Total Volume (Cu Ft.)	1,466
Calc. Tail Volume (Cu Ft)	417
Calc Lead Volume (Cu Ft.)	1,014
Calc. Lead Volume (Sx)	770

Intermediate1 Casing (Lead):	
Intermediate Casing O D (In)	9 625
Intermediate Casing ID (In)	8 921
Hole O D (In)	12 25
Excess (%)	100%
cap 12-1/4 - 9-5/8"	0.0558
Calculated fill	3,850
Yield Lead (Cu Ft /Sx)	2 48
Calculated Total Lead (Cu Ft)	2,412
Calc. Lead Volume (Sx)	980

Intermediate1 Casing (Tail):	
Intermediate Casing O.D. (In.)	9 625
Production Casing ID (In)	8 835
Hole O D (In)	12 25
Excess (%)	100%
cap 12-1/4 - 9-5/8"	0 0558
Calculated fill	500
Yield Tail (Cu Ft /Sx)	1 33
Shoe Joint (Ft)	40
Shoe Volume (Cu Ft)	17 0
Calc. Tail Volume (Cu Ft.)	174
Required Tail Volume (Sx)	140

Intermediate2 Casing (Lead):	
Intermediate Casing O.D. (In.)	7 000
Intermediate Casing ID (In)	6 184
Hole O D. (In)	8 75
Excess (%)	135%
cap 7" - 8-3/4" bls/ft	0 0268
cap 7 - 9-5/8" bls/ft	0.02823
Calculated fill. (500' into 9-5/8")	4,479
Yield Lead (Cu Ft./Sx)	2 0
Calculated Total Lead (Cu Ft)	1,118
Calc. Lead Volume (Sx)	560

Intermediate2 Casing (Tail):	
Intermediate Casing O.D. (In)	7 000
Intermediate Casing ID (In)	6 184
Hole O.D. (In)	8.75
Excess (%)	135%
cap 7" - 8-3/4" bls/ft	0 0268
cap 7 - 9-5/8" bls/ft	0 02823
Calculated fill	1,300
Yield Lead (Cu Ft /Sx)	1.2
Calculated Total Tail (Cu. Ft)	278
Required Tail Volume (Sx)	232

8329

Wilder Federal 29 1H Proposed Tops

GL 3139 | KB (via survey plat) 3,155

Notes: No pilot hole will be drilled. This horizontal well will be drilled from N to S into the Avalon C Shale Zone. The well will be drilled toe down with a ~ 3,890' long lateral.

Surface Location	Sec 29	T26S	R32E	Lea Co. NM, Surface Location: 524' FNL & 849' FEL
Bottom Hole Location	Sec 29	T26S	R32E	Lea Co. NM, Terminus Location: 330' FSL & 795' FEL

Formation Name	Formation Top (TVD)	Subsea Depth	Gross Thickness	Gross Thickness	Gross Thickness	Comments
Quaternary	Surface					
Rustler	1,000	2,155				
Castile	2,455	700				
Delaware Top	4,285	-1,130				
Ramsey	4,328	-1,173				
Ford Sh	4,376	-1,221				
Olds	4,397	-1,242				
Cherry Canyon Lower Top	6,575	-3,420				
Bone Spring Top	8,107	-4,952				
Bone Spring 1st Carbonate Top	8,327	-5,172	95			
Bone Spring 1st Carbonate Base	8,422	-5,267				
KOP (est)	**8,508**	**-5,353**				Not a formation top
Avalon A Shale Top	8,629	-5,474	242			
Avalon A Shale Base	8,871	-5,716				
Avalon B Zone Top	8,871	-5,716	155			
Avalon B Zone Base	9,026	-5,871				
Avalon C Shale Top	9,026	-5,871				
LANDING: Avalon C Shale Horizontal Upper Target Limit	9,202	-6,047				Not a formation top
LANDING: Avalon C Shale Horizontal Target Center	**9,227**	**-6,072**	50			Not a formation top
LANDING Avalon C Shale Horizontal Lower Target Limit	9,252	-6,097				Not a formation top.
TERMINUS Avalon C Shale Horizontal Upper Target Limit	9,240	-6,085		280	677	Not a formation top
TERMINUS: Avalon C Shale Horizontal Target Center	**9,265**	**-6,110**	50			Not a formation top.
TERMINUS Avalon C Shale Horizontal Lower Target Limit	9,290	-6,135				Not a formation top
Avalon C Shale Base (Should not penetrate)	9,306	-6,151				

Proposed total MD of well 13,700' (est).

Conoco Phillips

Lea County, New Mexico
Sec 29 T26S R32E
Wilder Federal 29 #1H

Wellbore #1

Plan: Design #5

DDC Well Planning Report

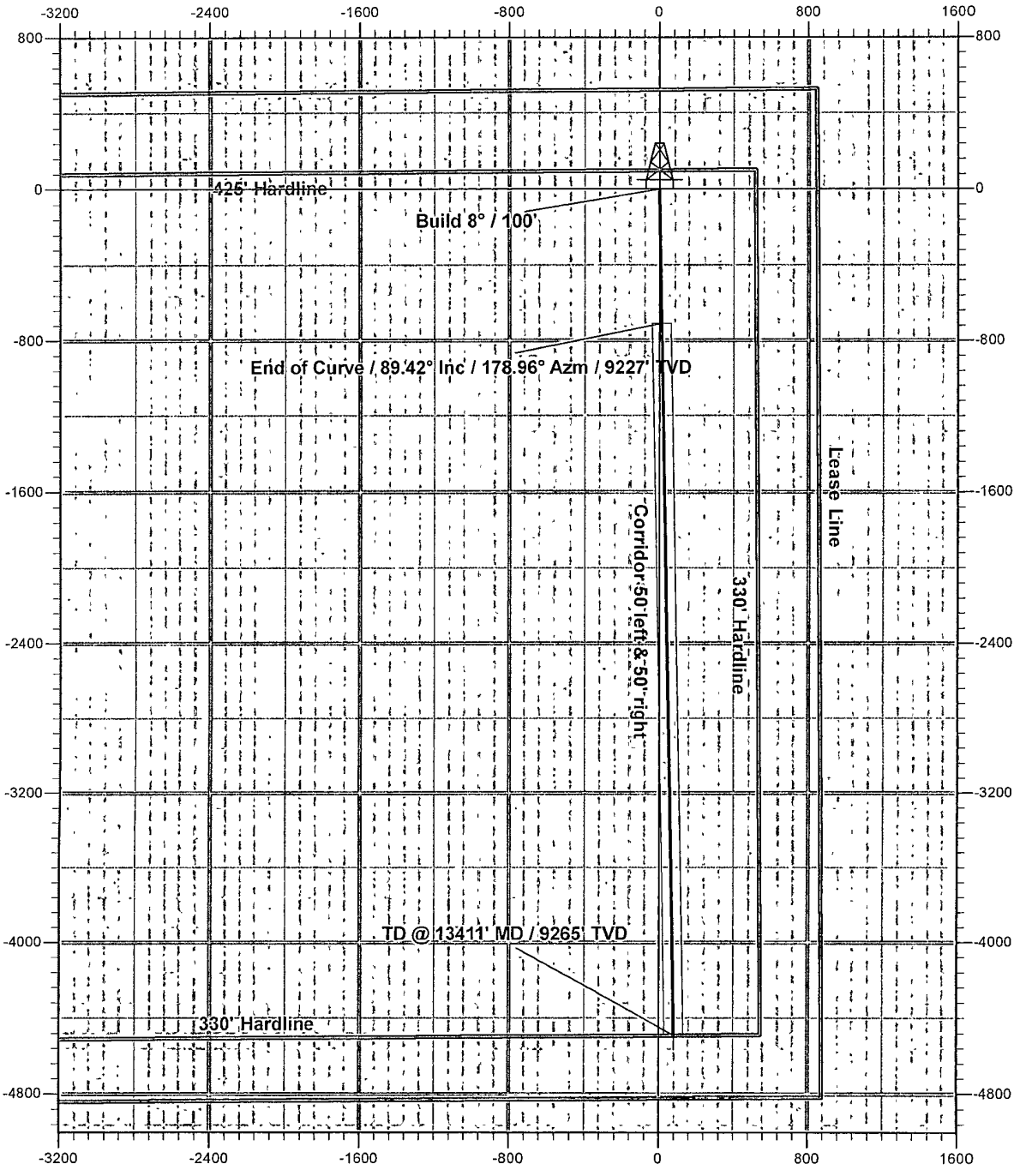
12 June, 2012

DDC
The DIRECTIONAL DRILLING COMPANY

ConocoPhillips

Lea County, New Mexico
Wilder Federal 29 #1H
Design #5

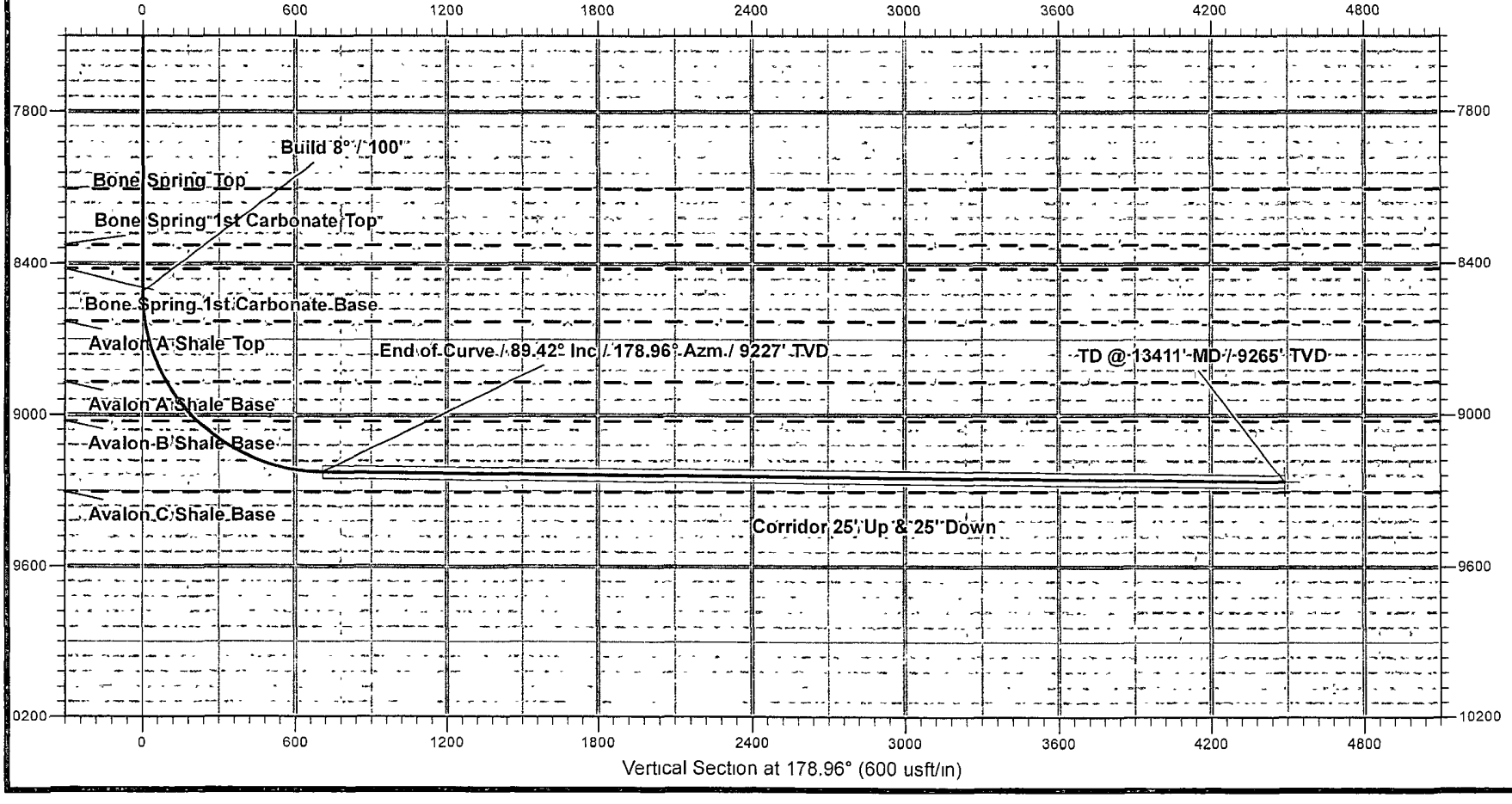
DDC
The DIRECTIONAL DRILLING COMPANY



ConocoPhillips

Lea County, New Mexico
Wilder Federal 29 #1H
Design #5

DDC
The DIRECTIONAL DRILLING COMPANY



DDC
Well Planning Report

Database:	EDM 5000 1 Single User Db	**Local Co-ordinate Reference:**	Well Wilder Federal 29 #1H
Company:	Conoco Phillips	**TVD Reference:**	WELL @ 3155 0usft (Precision #827)
Project:	Lea County, New Mexico	**MD Reference:**	WELL @ 3155 0usft (Precision #827)
Site:	Sec 29 T26S R32E	**North Reference:**	Grid
Well:	Wilder Federal 29 #1H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #5		

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	Sec 29 T26S R32E				
Site Position:		**Northing:**	371,336 41 usft	**Latitude:**	32° 1' 9 447 N
From:	Map	**Easting:**	699,118 36 usft	**Longitude:**	103° 41' 27 155 W
Position Uncertainty:	0 0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0 34 °

Well	Wilder Federal 29 #1H					
Well Position	**+N/-S**	0 0 usft	**Northing**	371,336 41 usft	**Latitude:**	32° 1' 9 447 N
	+E/-W	0 0 usft	**Easting:**	699,118 36 usft	**Longitude:**	103° 41' 27 155 W
Position Uncertainty		0 0 usft	**Wellhead Elevation:**		**Ground Level:**	3,139 0 usft

Wellbore	Wellbore #1				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2010	5/9/2012	7 52	59 95	48,392

Design	Design #5				
Audit Notes:					
Version:		**Phase:**	PLAN	**Tie On Depth:**	0 0
Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**	
	0 0	0 0	0 0	178 96	

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	
8,510 8	0 00	0 00	8,510 8	0 0	0 0	0 00	0 00	0 00	0 00	
9,628 6	89 42	178 96	9,227 0	-708 9	12 8	8 00	8 00	16 01	178 96	
13,410 6	89 42	178 96	9,265 0	-4,490 1	81 2	0 00	0 00	0 00	0 00	PBHL Wilder Feder

Database:	EDM 5000 1 Single User Db	**Local Co-ordinate Reference:**	Well Wilder Federal 29 #1H
Company:	Conoco Phillips	**TVD Reference:**	WELL @ 3155 0usft (Precision #827)
Project:	Lea County, New Mexico	**MD Reference:**	WELL @ 3155 0usft (Precision #827)
Site:	Sec 29 T26S R32E	**North Reference:**	Grid
Well:	Wilder Federal 29 #1H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #5		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
Build 8° / 100'									
8,510 8	0 00	0 00	8,510 8	0 0	0 0	0 0	0 00	0 00	0 00
8,600 0	7 14	178 96	8,599 8	-5 5	0 1	5 5	8 00	8 00	0 00
Avalon A Shale Top									
8,629 5	9 50	178 96	8,629 0	-9 8	0 2	9 8	8 00	8 00	0 00
8,700 0	15 14	178 96	8,697 8	-24 8	0 4	24 8	8 00	8 00	0 00
8,800 0	23 14	178 96	8,792 2	-57 6	1 0	57 6	8 00	8 00	0 00
Avalon A Shale Base - Avalon B Shale Top									
8,888 2	30 19	178 96	8,871 0	-97 2	1 8	97 2	8 00	8 00	0 00
8,900 0	31 14	178 96	8,881 1	-103 2	1 9	103 2	8 00	8 00	0 00
9,000 0	39 14	178 96	8,962 8	-160 7	2 9	160 7	8 00	8 00	0 00
Avalon B Shale Base - Avalon C Shale Top									
9,085 8	46 00	178 96	9,026 0	-218 7	4 0	218 7	8 00	8 00	0 00
9,100 0	47 14	178 96	9,035 8	-229 0	4 1	229 0	8 00	8 00	0 00
9,200 0	55 14	178 96	9,098 4	-306 7	5 5	306 8	8 00	8 00	0 00
9,300 0	63 14	178 96	9,149 7	-392 5	7 1	392 6	8 00	8 00	0 00
9,400 0	71 14	178 96	9,188 5	-484 6	8 8	484 6	8 00	8 00	0 00
9,500 0	79 14	178 96	9,214 2	-581 1	10 5	581 2	8 00	8 00	0 00
9,600 0	87 14	178 96	9,226 1	-680 3	12 3	680 4	8 00	8 00	0 00
End of Curve / 89.42° Inc / 178.96° Azm / 9227' TVD									
9,628 6	89 42	178 96	9,227 0	-708 9	12 8	709 0	8 00	8 00	0 00
9,700 0	89 42	178 96	9,227 7	-780 3	14 1	780 4	0 00	0 00	0 00
9,800 0	89 42	178 96	9,228 7	-880 2	15 9	880 4	0 00	0 00	0 00
9,900 0	89 42	178 96	9,229 7	-980 2	17 7	980 4	0 00	0 00	0 00
10,000 0	89 42	178 96	9,230 7	-1,080 2	19 5	1,080 4	0 00	0 00	0 00
10,100 0	89 42	178 96	9,231 7	-1,180 2	21 3	1,180 4	0 00	0 00	0 00
10,200 0	89 42	178 96	9,232 7	-1,280 2	23 1	1,280 4	0 00	0 00	0 00
10,300 0	89 42	178 96	9,233 7	-1,380 1	25 0	1,380 4	0 00	0 00	0 00
10,400 0	89 42	178 96	9,234 7	-1,480 1	26 8	1,480 4	0 00	0 00	0 00
10,500 0	89 42	178 96	9,235 7	-1,580 1	28 6	1,580 4	0 00	0 00	0 00
10,600 0	89 42	178 96	9,236 7	-1,680 1	30 4	1,680 3	0 00	0 00	0 00
10,700 0	89 42	178 96	9,237 7	-1,780 1	32 2	1,780 3	0 00	0 00	0 00
10,800 0	89 42	178 96	9,238 7	-1,880 0	34 0	1,880 3	0 00	0 00	0 00
10,900 0	89 42	178 96	9,239 7	-1,980 0	35 8	1,980 3	0 00	0 00	0 00
11,000 0	89 42	178 96	9,240 8	-2,080 0	37 6	2,080 3	0 00	0 00	0 00
11,100 0	89 42	178 96	9,241 8	-2,180 0	39 4	2,180 3	0 00	0 00	0 00
11,200 0	89 42	178 96	9,242 8	-2,279 9	41 2	2,280 3	0 00	0 00	0 00
11,300 0	89 42	178 96	9,243 8	-2,379 9	43 0	2,380 3	0 00	0 00	0 00
11,400 0	89 42	178 96	9,244 8	-2,479 9	44 8	2,480 3	0 00	0 00	0 00
11,500 0	89 42	178 96	9,245 8	-2,579 9	46 6	2,580 3	0 00	0 00	0 00
11,600 0	89 42	178 96	9,246 8	-2,679 9	48 5	2,680 3	0 00	0 00	0 00
11,700 0	89 42	178 96	9,247 8	-2,779 8	50 3	2,780 3	0 00	0 00	0 00
11,800 0	89 42	178 96	9,248 8	-2,879 8	52 1	2,880 3	0 00	0 00	0 00
11,900 0	89 42	178 96	9,249 8	-2,979 8	53 9	2,980 3	0 00	0 00	0 00
12,000 0	89 42	178 96	9,250 8	-3,079 8	55 7	3,080 3	0 00	0 00	0 00
12,100 0	89 42	178 96	9,251 8	-3,179 8	57 5	3,180 3	0 00	0 00	0 00
12,200 0	89 42	178 96	9,252 8	-3,279 7	59 3	3,280 3	0 00	0 00	0 00
12,300 0	89 42	178 96	9,253 8	-3,379 7	61 1	3,380 3	0 00	0 00	0 00
12,400 0	89 42	178 96	9,254 8	-3,479 7	62 9	3,480 3	0 00	0 00	0 00
12,500 0	89 42	178 96	9,255 8	-3,579 7	64 7	3,580 3	0 00	0 00	0 00
12,600 0	89 42	178 96	9,256 8	-3,679 6	66 5	3,680 2	0 00	0 00	0 00
12,700 0	89 42	178 96	9,257 9	-3,779 6	68 3	3,780 2	0 00	0 00	0 00
12,800 0	89 42	178 96	9,258 9	-3,879 6	70 1	3,880 2	0 00	0 00	0 00

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well Wilder Federal 29 #1H
Company:	Conoco Phillips	**TVD Reference:**	WELL @ 3155.0usft (Precision #827)
Project:	Lea County, New Mexico	**MD Reference:**	WELL @ 3155.0usft (Precision #827)
Site:	Sec 29 T26S R32E	**North Reference:**	Grid
Well:	Wilder Federal 29 #1H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #5		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,900 0	89.42	178 96	9,259 9	-3,979 6	72.0	3,980.2	0.00	0.00	0 00
13,000.0	89.42	178 96	9,260.9	-4,079.6	73.8	4,080 2	0 00	0.00	0 00
13,100 0	89.42	178.96	9,261 9	-4,179 5	75.6	4,180 2	0 00	0.00	0.00
13,200 0	89.42	178 96	9,262.9	-4,279 5	77.4	4,280 2	0.00	0.00	0.00
13,300 0	89.42	178.96	9,263 9	-4,379 5	79.2	4,380.2	0.00	0.00	0 00
13,400 0	89.42	178 96	9,264 9	-4,479.5	81.0	4,480 2	0.00	0 00	0 00
TD @ 13411' MD / 9265' TVD									
13,410 6	89.42	178 96	9,265.0	-4,490.1	81 2	4,490 8	0 00	0 00	0.00

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL Wilder Federal - plan hits target center - Rectangle (sides W100 0 H50.0 D3,782.0)	90 58	178.96	9,265.0	-4,490 1	81 2	366,846.34	699,199 55	32° 0' 25 008 N	103° 41' 26.522 W

Formations

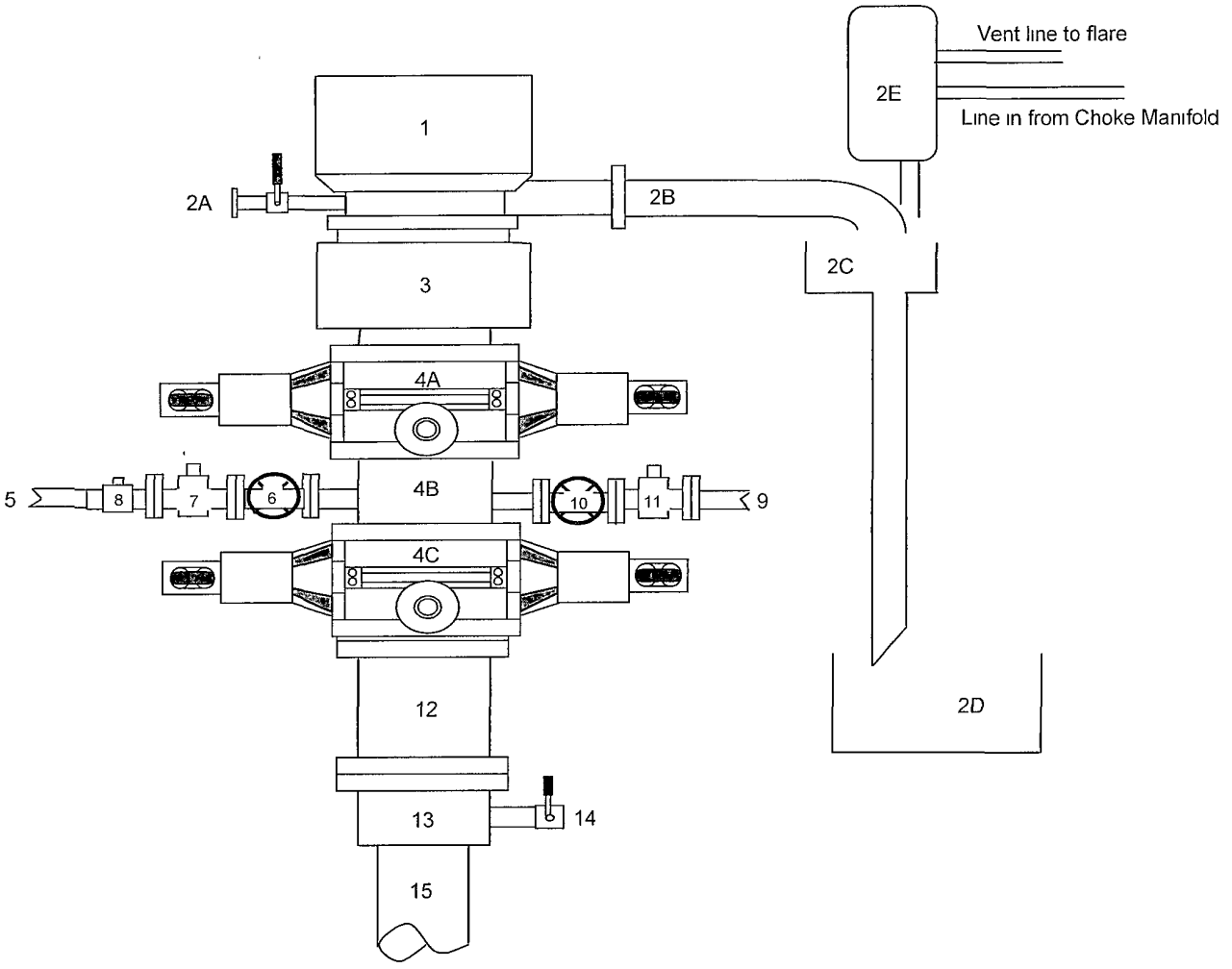
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
8,107 0	8,107.0	Bone Spring Top		0 00	
8,327 0	8,327.0	Bone Spring 1st Carbonate Top		0 00	
8,422 0	8,422 0	Bone Spring 1st Carbonate Base		0.00	
8,629 5	8,629.0	Avalon A Shale Top		0 00	
8,888.2	8,871.0	Avalon A Shale Base		0.00	
8,888.2	8,871.0	Avalon B Shale Top		0 00	
9,085.8	9,026 0	Avalon B Shale Base		0.00	
9,085.8	9,026 0	Avalon C Shale Top		0.00	

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
8,510.8	8,510.8	0.0	0 0	Build 8° / 100'
9,628 6	9,227.0	-708.9	12.8	End of Curve / 89.42° Inc / 178 96° Azm / 9227' TVD
13,410.6	9,265 0	-4,490 1	81 2	TD @ 13411' MD / 9265' TVD

BLOWOUT PREVENTER ARRANGEMENT

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

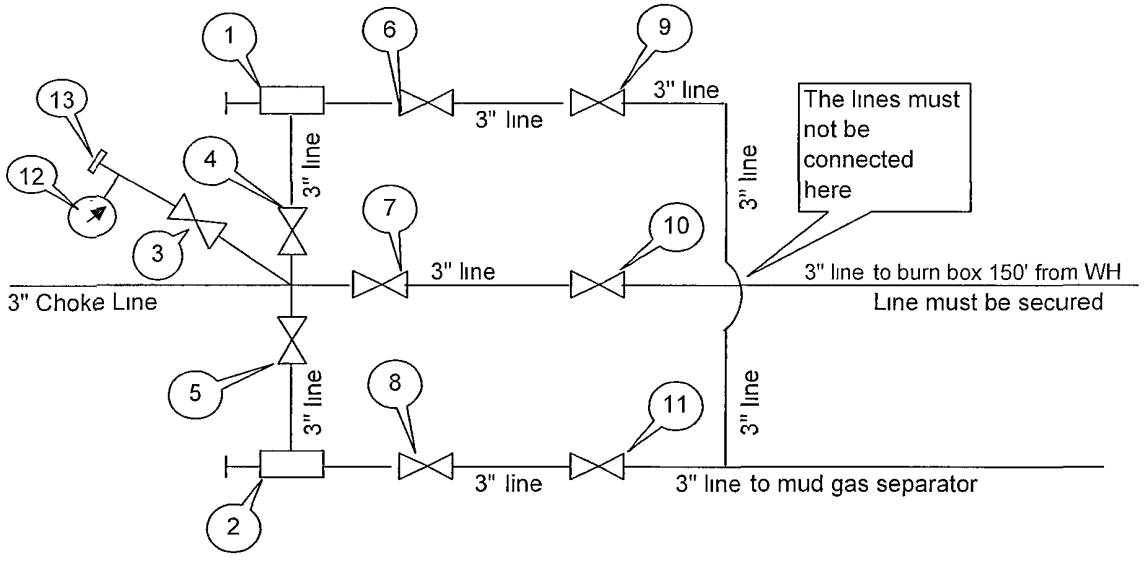


Item	Description
1	Rotating Head, 13-5/8"
2A	Fill up Line and Valve
2B	Flow Line (10")
2C	Shale Shakers and Solids Settling Tank
2D	Cuttings Bins for Zero Discharge
2E	Mud Gas Separator with vent line to flare and return line to mud system
3	Annular BOP (13-5/8", 5M)
4A	Single Ram (13-3/8", 5M, equipped with Blind Rams)
4B	Drilling Spool (13-3/8" 5M)
4C	Single Ram (13-3/8", 5M, equipped with Pipe Rams)
5	Kill Line (3", 5000 psi WP, steel line) (not a flexible line)
6	Kill Line Valve, Inner (3-1/8", 5000 psi WP)
7	Kill Line Valve, Outer (3-1/8", 5000 psi WP, Hydraulically Operated)
8	Kill Line Check Valve (3-1/8", 5000 psi WP)
9	Choke Line (3", 5000 psi WP, steel line) (not a flexible line)
10	Choke Line Valve, Inner (3-1/8", 5000 psi WP)
11	Choke Line Valve, Outer, (Hydraulically operated, 3-1/8", 5000 psi WP)
12	Spacer Spool (13-3/8", 5M, with rotating bottom flange)
13	Casing Head (11", 5M)
14	Ball Valve and Threaded Nipple on Casing Head Outlet, 2" 5M
15	Surface Casing

Drawn by Steven O Moore, Chief Drilling Engineer, Mid-Continent Business Unit, ConocoPhillips Company, 29-May-2012

CHOKE MANIFOLD ARRANGEMENT

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



All Tees must be targeted

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

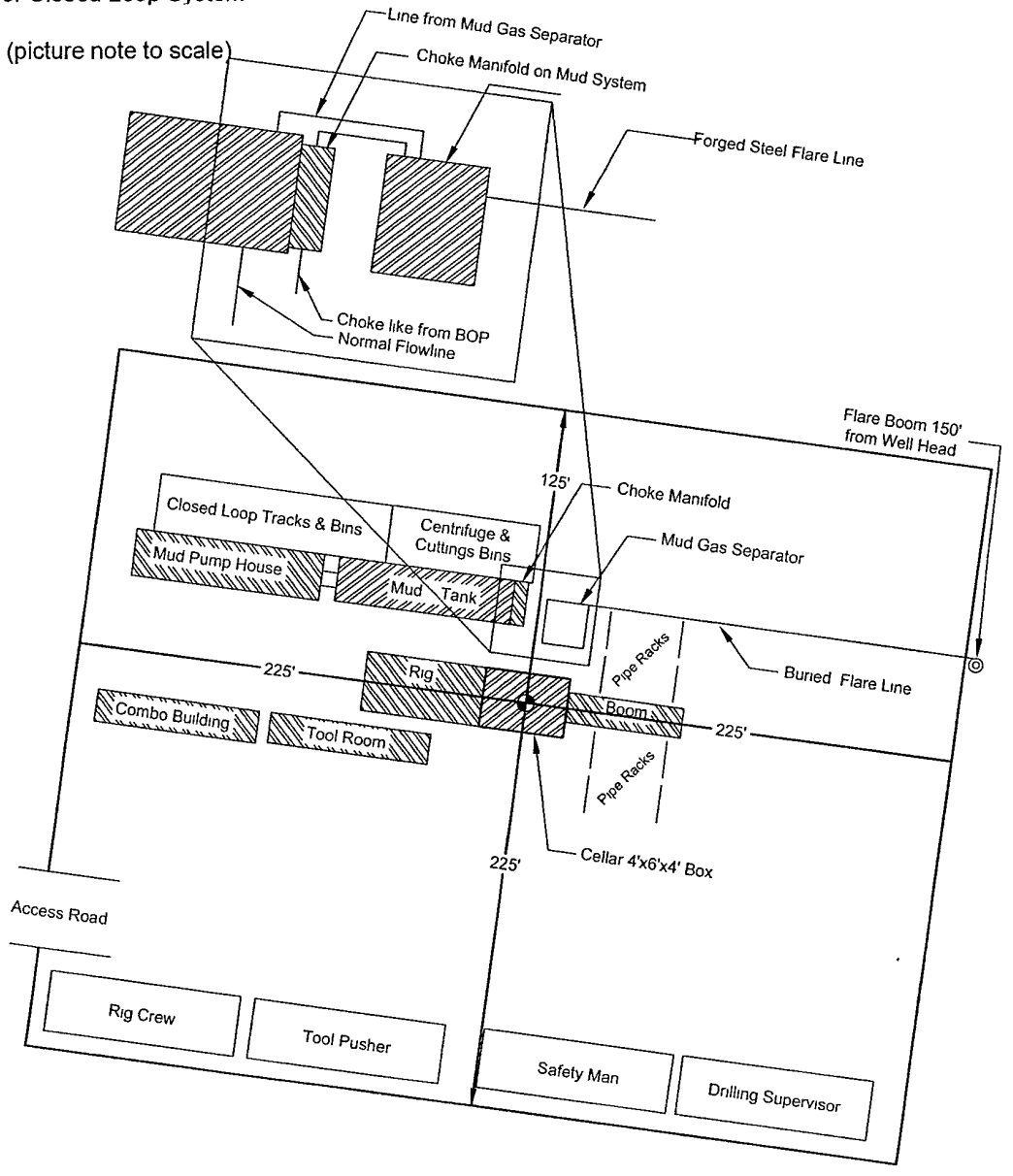
We will test each valve to 3000 psi from the upstream side

Drawn by
Steven O Moore
Chief Drilling Engineer, Mid-Continent Business Unit, ConocoPhillips Company
Date 29-May-2012

RIG LAYOUT

Locaton Schematic and Rig Layout
for Closed Loop System

(picture note to scale)



WILDER FEDERAL 29 #1H
Located 524' FNL and 849' FEL
Section 29, Township 26 South, Range 32 East,
N.M.P.M., Lea County, New Mexico.

Basin Surveys
focused on excellence in the oilfield
P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com

W.O. Number.	JMS 26600
Survey Date:	04-16-2012
Scale:	1" = NONE
Date:	04-30-2012

ConocoPhillips

ConocoPhillips Company
Closed Loop System Design, Operating and Maintenance, and Closure Plan

Well: Wilder Federal 29 #1H

Date: March 19, 2012

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 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's 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 a fresh water pond.

   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:

   Controlled Recovery 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 CRI is R9166

   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 Controlled Recovery 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)

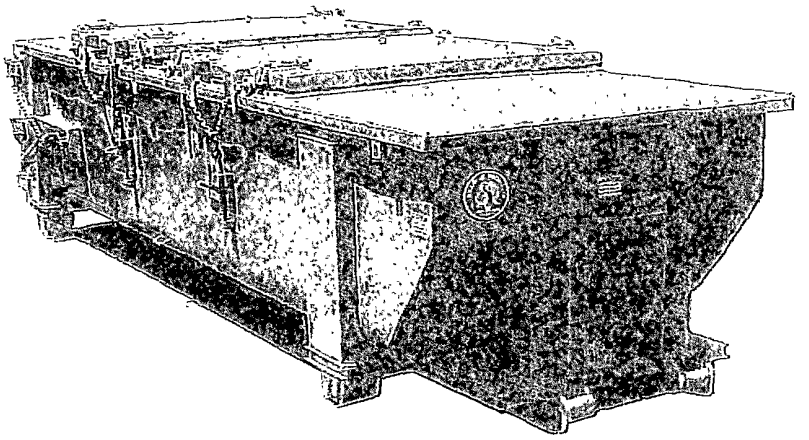
   - Basic Energy Services, PO Box 1869 Eunice, NM 88231 Phone Number 575 394 2545, Facility located at Hwy 18, Mile Marker 19, Eunice, NM.

Luis Serrano Drilling Engineer
ConocoPhillips Company, 600 North Dairy Ashford, Room #2WL-13016, Houston, TX 77079-1175
Office: 832-486-2346

SPECIFICATIONS

FLOOR: 3/16" PL one piece
CROSS MEMBER: 3 x 4.1 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, Heil 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

Heavy Duty Split Metal Rolling Lid



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