

Fonn 3160 -3
(February 2005)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007

5. Lease Serial No.

NM-011349-A

6. If Indian, Allottee or Tribe Name

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

NMNM-078415B-DK NMNM-078415A-MV

8. Lease Name and Well No.

SAN JUAN 29-5 UNIT # 14F

9. API Well No.

30-039-29830

10. Field and Pool, or Exploratory
BLANCO MESAVERDE / BASIN
DAKOTA11. Sec., T. R. M. or Blk. and Survey or Area
SECTION 27, T29N, R5W NMPM

12. County or Parish

RIO ARRIBA

13. State

NM

Ia. Type of work: ☒ DRILL☐ REENTERIb. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other☐ Single Zone☐ Multiple Zone

2. Name of Operator

ConocoPhillips Company

3a. Address

4001 Penbrook, Odessa, TX 79762

3b. Phone No. (include area code)

432-368-1230

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

At surface

SENE 1880' FNL - 495' FEL

At proposed prod. zone

14. Distance in miles and direction from nearest town or post office*

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

16. No. of acres in lease

240 ACRES

17. Spacing Unit dedicated to this well

MV/DK - 320.0 ACRES - E/2

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

19. Proposed Depth

8397'

20. BLM/BIA Bond No. on file

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

6971' GL

22 Approximate date work will start*

23. Estimated duration

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)

Peggy James

Date

03/09/2006

Title

Approved by (Signature)

Name (Printed/Typed)

Date

1/23/07

Title

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.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.

*(Instructions on page 2)

ConocoPhillips Company proposes to drill a vertical wellbore to the Blanco Mesaverde / Basin Dakota formations. This well
will be drilled and equipped in accordance with the attachments submitted herewith. This application is for APD / ROW.

This well will be downhole commingled pursuant to the terms and conditions outlined in Order R-11363.

The notice of staking for this well was submitted as a Blanco Mesaverde single well - the San Juan 29-5 Unit # 14B. This well
has since changed to a Mesaverde/Dakota and the well number has changed to the #14F.DRILLING OPERATIONS AUTHORITY
SUBJECT TO CTV SURFACE RIGHTS ATTACHED
"G" FINAL REQUIREMENTSThis action is subject to technical and
procedural review pursuant to 43 CFR 3165.3
and 43 CFR 3165.4

NMOCD

15 1/26/07

District I
PO Box 1980, Hobbs, NM 88241-1980

District II
PO Drawer DD, Artesia, NM 88211-0719

District III
1000 Rio Brazos Rd., Aztec, NM 87410

District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

PO Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

RCVD JAN 29 2007

OIL CONS. DIV.

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-29830	*Pool Code 72319 / 71599	*Pool Name BLANCO MESAVERDE / BASIN DAKOTA
*Property Code 31325	*Property Name SAN JUAN 29-5 UNIT	*Well Number 14F
*OGRID No. 217817	*Operator Name CONOCOPHILLIPS COMPANY	*Elevation 6971'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	27	29N	5W		1880	NORTH	495	EAST	RIO ARriba

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

¹² Dedicated Acres 320.0 Acres - E/2	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<div><p>¹⁶</p><p>5266.80'</p><p>5280.00'</p><p>27</p><p>1880'</p><p>495'</p><p>LEASE NM-011349-A 240 acres</p><p>LAT: 36°41.9163'N LONG: 107°20.2137'W DATUM: NAD27</p><p>LEASE NM-011349-B</p><p>5266.80'</p></div>	<div><p>¹⁷ OPERATOR CERTIFICATION</p><p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</p><p><i>Virgil E. Chavez</i> Signature Virgil E. Chavez Printed Name Projects & Operations Lead Title February 22, 2006 Date</p><p>¹⁸ SURVEYOR CERTIFICATION</p><p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief</p><p>Survey Date: AUGUST 31, 2005</p><p>Signature and Seal of Professional Surveyor</p><p><i>Jason C. Edwards</i> Certificate Number 15269</p></div>
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Submit 3 Copies To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
May 27, 2004

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

WELL API NO. <u>30-039-29830</u>
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name SAN JUAN 29-5 UNIT
8. Well Number 14F
9. OGRID Number 217817
10. Pool name or Wildcat

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other	
2. Name of Operator ConocoPhillips Company	
3. Address of Operator 4001 Penbrook, Odessa, TX 79762	
4. Well Location Unit Letter <u>H</u> <u>1880</u> feet from the <u>NORTH</u> line and <u>495</u> feet from the <u>EAST</u> line Section <u>27</u> Township <u>29N</u> Range <u>5W</u> NMPM <u>RIO ARRIBA</u> County	

11. Elevation (Show whether DR, RKB, RT, GR, etc.)
6971' GL

Pit or Below-grade Tank Application <input checked="" type="checkbox"/> Closure <input type="checkbox"/>
Pit type <u>DRILL</u> Depth to Groundwater <u>75'</u> Distance from nearest fresh water well <u>5,000'</u> Distance from nearest surface water <u>400'</u>
Liner Thickness: <u>12</u> mil Below-Grade Tank: Volume <u>4400</u> bbls; Construction Material <u>SYNTHETIC</u>

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>	
OTHER: <input type="checkbox"/>		OTHER: <input type="checkbox"/>	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 11.03. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

The pit will be constructed and closed in accordance with Rule 50 and as per COPC June 2005 General Pit Plan on file with the NMOCD. See the attached diagram that details the location of the pit in reference to the proposed wellhead. The drill pit will be lined. The drill pit will be closed after the well has been completed

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐, a general permit ☐ or an (attached) alternative OCD-approved plan ☐

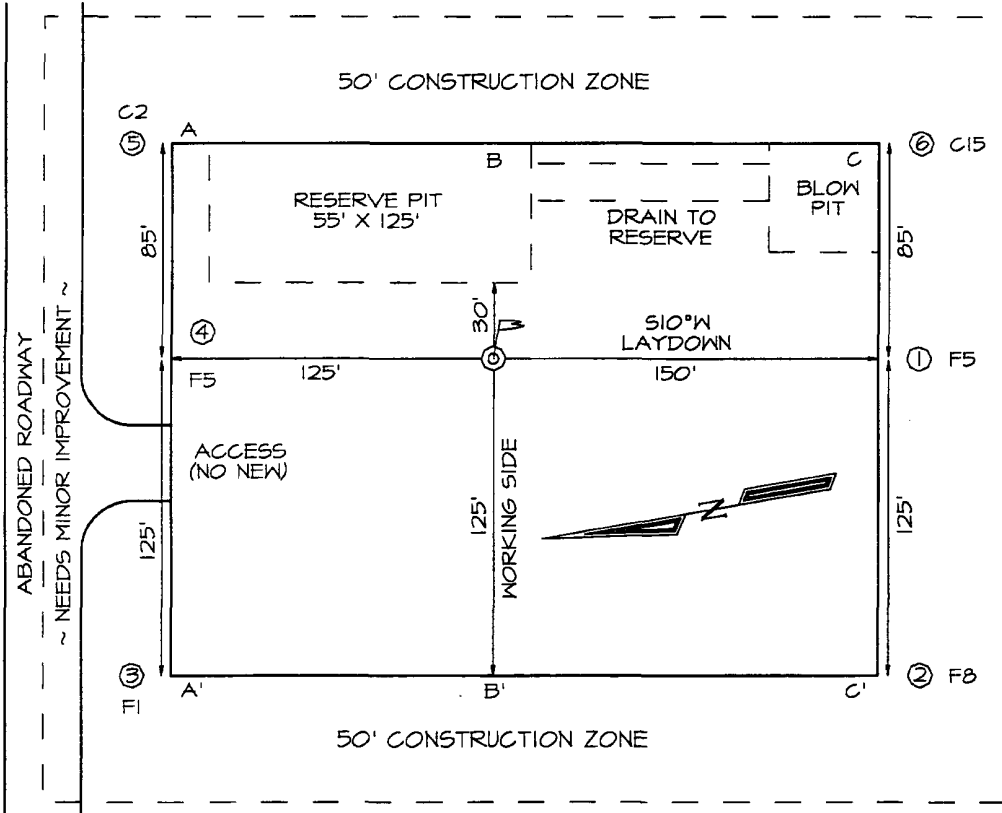
SIGNATURE Peggy James TITLE Sr. Associate DATE 3/09/2006

Type or print name E-mail address peggy.s.james@conocophillips.com Telephone No.: (432)368-1230

For State Use Only

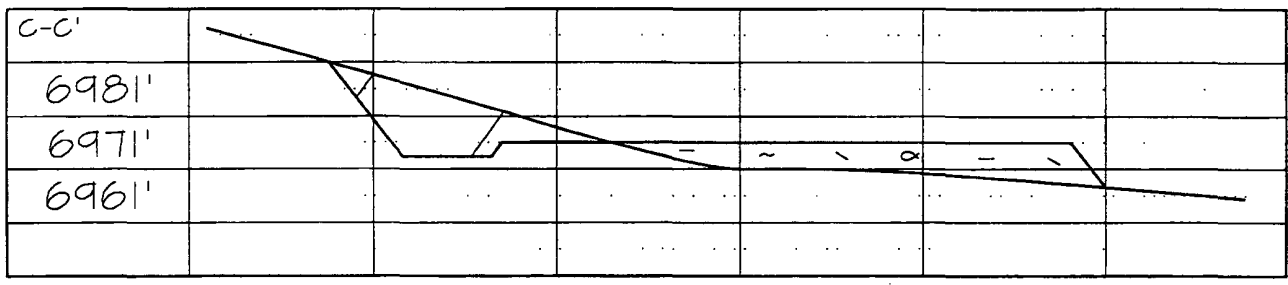
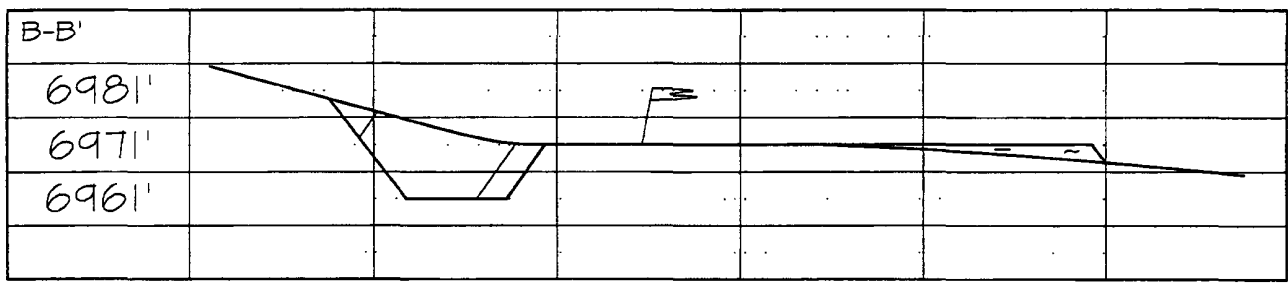
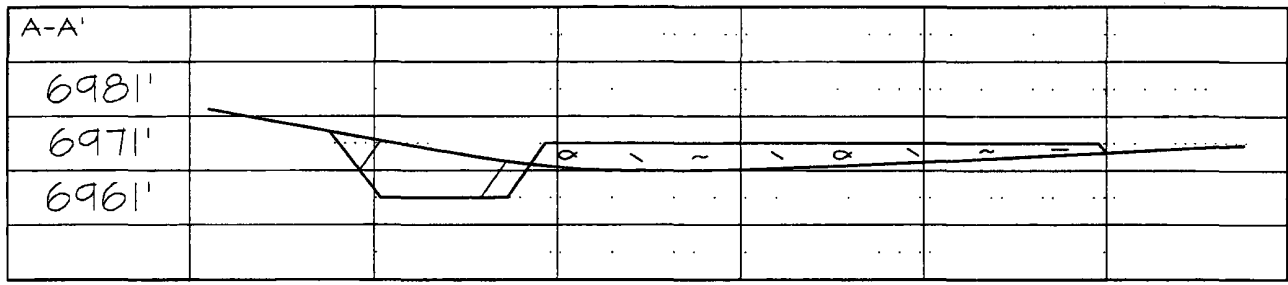
APPROVED BY: [Signature] TITLE DEPUTY OIL & GAS INSPECTOR, DIST. # DATE JAN 26 2007
Conditions of Approval (if any):

CONOCOPHILLIPS COMPANY SAN JUAN 29-5 UNIT #14F
1880' FNL & 495' FEL, SECTION 27, T29N, R5W, NMPM
RIO ARriba COUNTY, NEW MEXICO ELEVATION: 6971'



PLAT NOTE:
 SURFACE OWNER
 Bureau of Land
 Management

LATITUDE: 36.69861° N
LONGITUDE: 107.33689° W
 DATUM: NAD1927



PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

SAN JUAN 29-5 14F

Lease:		AFE #: WAN.CNV.6159		AFE \$:	
Field Name: 29-5		Rig:		State: NM	County: RIO ARRIBA
Geoscientist: Glaser, Terry J		Phone: (832)486-2332		Prod. Engineer: Moody, Craig E. Phone: 486-2334	
Res. Engineer: Hensley, Dan E		Phone: 832-486-2385		Proj. Field Lead: Fransen, Eric E. Phone:	

Primary Objective (Zones):

Zone	Zone Name
R20002	MESAVERDE(R20002)
R20076	DAKOTA(R20076)

Location: Surface Datum Code: NAD 27 Straight Hole

Latitude: 36.698610	Longitude: -107.336890	X:	Y:	Section: 27	Range: 5W
Footage X: 495 FEL		Footage Y: 1880 FNL		Elevation: 6971 (FT)	Township: 29N

Tolerance:

Location Type:	Start Date (Est.):	Completion Date:	Date In Operation:
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Formation Data: Assume KB = 6997 Units = FT

Formation Call & Casing Points	Depth (TVD in Ft)	SS (Ft)	Depletion (Yes/No)	BHP (PSIG)	BHT	Remarks
Surface Casing	216	6781	<input type="checkbox"/>			13-1/2" hole. 9 5/8" 32.3 ppf, H-40, STC casing. Circulate cement to surface.
NCMT	1847	5150	<input type="checkbox"/>			
OJAM	3147	3850	<input type="checkbox"/>			Possible water flows.
KRLD	3367	3630	<input type="checkbox"/>			
FRLD	3702	3295	<input type="checkbox"/>			Possible gas.
PCCF	3952	3045	<input type="checkbox"/>			
LEWS	4152	2845	<input type="checkbox"/>			
Intermediate Casing	4252	2745	<input type="checkbox"/>			8 3/4" Hole. 4000' of 7", 20 ppf, J-55, STC Casing on top, 252' of 7", 23 ppf, J-55, LTC on bottom (special drift to 6.25" ID). Circulate cement to surface.
CHRA	4947	2050	<input type="checkbox"/>			
CLFH	5787	1210	<input type="checkbox"/>			Gas; possibly wet
MENF	5847	1150	<input type="checkbox"/>			Gas.
PTLK	6132	865	<input type="checkbox"/>			Gas.
GLLP	7387	-390	<input type="checkbox"/>			Gas. Possibly wet.
GRHN	8097	-1100	<input type="checkbox"/>			Gas possible, highly fractured
CBBO	8257	-1260	<input type="checkbox"/>			Gas
TOTAL DEPTH DK	8397	-1400	<input type="checkbox"/>			6-1/4" Hole. 4-1/2", 11.6 ppf, N-80, LTC casing. Circulate cement a minimum of 100' inside the previous casing string. No open hole logs. Cased hole TDT with GR to surface.

Reference Wells:		
Reference Type	Well Name	Comments

Logging Program:

Intermediate Logs: ☐ Log only if show ☐ GR/ILD ☐ Triple Combo

TD Logs: ☐ Triple Combo ☐ Dipmeter ☐ RFT ☐ Sonic ☐ VSP ☒ TDT



San Juan Business Unit

PROJECT PROPOSAL - New Drill / Sidetrack

SAN JUAN 29-5 14F

Additional Information:

Log Type	Stage	From (Ft)	To (Ft)	Tool Type/Name	Remarks
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Comments: Location/Tops/Logging - TD is 300' below top of Greenhorn

TOPSET FRUITLAND COAL Wells: (topset casing above coal to prepare for cavitation/DO/UR)

Drilling Mud Program:

Surface: spud mud

Intermediate: fresh water mud with bentonite and polymer as needed

Below Intermediate: air/mist/nitrogen drilling media with foamer, polymer, & corrosion inhibitor as needed

Centralizer Program:

Surface: centralizers placed 10' above the shoe latched over a stop collar and at the top of the 2nd, 3rd, & 4th joints

Intermediate: centralizers placed 10' above the shoe latched over a stop collar and at the top of the 2nd, 4th, 6th, 8th, & 10th joints

Turbolizers placed one per joint from the top of the Ojo Alamo to the top of the Kirtland Shale

Below Intermediate: no centralizers used in air holes. In mud holes centralizers are spaced out appropriately

CASE & FRAC FRUITLAND COAL Wells: (casing set below coal to prepare for frac completion)

Drilling Mud Program:

Surface: spud mud

Production: fresh water mud with bentonite and polymer as needed

Centralizer Program:

Surface: centralizers placed 10' above the shoe latched over a stop collar and at the top of the 2nd, 3rd, & 4th joints

Production: centralizers placed 10' above the shoe latched over a stop collar and at the top of the 2nd, 4th, 6th, 8th, & 10th joints

Turbolizers placed one per joint from the top of the Ojo Alamo to the top of the Kirtland Shale

MESA VERDE Wells:

Drilling Mud Program:

Surface: spud mud

Intermediate: fresh water mud with bentonite and polymer as needed

Below Intermediate: air/mist drilling media with foamer, polymer, & corrosion inhibitor as needed

Centralizer Program:

Surface: centralizers placed 10' above the shoe latched over a stop collar and at the top of the 2nd, 3rd, & 4th joints

Intermediate: centralizers placed 10' above the shoe latched over a stop collar and at the top of the 2nd, 4th, 6th, 8th, & 10th joints

Turbolizers placed one per joint from the top of the Ojo Alamo to the top of the Kirtland Shale

Below Intermediate: no centralizers used in air holes. In mud holes centralizers are spaced out appropriately

DAKOTA Wells:

Drilling Mud Program:

Surface: spud mud

Intermediate: fresh water mud with bentonite and polymer as needed

Below Intermediate: air/mist/nitrogen drilling media with foamer, polymer, & corrosion inhibitor as needed

Centralizer Program:

Surface: centralizers placed 10' above the shoe latched over a stop collar and at the top of the 2nd, 3rd, & 4th joints

Intermediate: centralizers placed 10' above the shoe latched over a stop collar and at the top of the 2nd, 4th, 6th, 8th, & 10th joints

Turbolizers placed one per joint from the top of the Ojo Alamo to the top of the Kirtland Shale

Below Intermediate: no centralizers used in air holes. In mud holes centralizers are spaced out appropriately

San Juan 29-5 # 14F
Halliburton Cementing Program

SURFACE CASING :

Drill Bit Diameter	13.5 "	
Casing Outside Diameter	9.625 "	Casing Inside Diam. 9.001 "
Casing Weight	32.3 ppf	
Casing Grade	H-40	
Shoe Depth	235 '	
Cement Yield	1.21 cuft/sk	
Cement Density	15.6 lb/gal	
Excess Cement	125 %	
Cement Required	214 sx	

SHOE 235 ', 9.625 ", 32.3 ppf, H-40 STC

INTERMEDIATE CASING :

Note: 4000' of 7", 20 ppf, J-55, STC or
252' of 7", 23 ppf, J-55, LTC on t

Drill Bit Diameter	8.75 "	
Casing Outside Diameter	7 "	Casing Inside Diam. 6.125 "
Casing Weight	23 ppf	
Casing Grade	J-55	
Shoe Depth	4252 '	
Lead Cement Yield	2.88 cuft/sk	
Lead Cement Density	11.5 lb/gal	
Lead Cement Excess	150 %	
Lead Cement Required	428 sx	
Tail Cement Length	850.4 '	
Tail Cement Yield	1.33 cuft/sk	
Tail Cement Density	13.5 lb/gal	
Tail Cement Excess	150 %	
Tail Cement Required	247 sx	

SHOE 4252 ', 7 ", 23 ppf, J-55 LTC

PRODUCTION CASING :

Drill Bit Diameter	6.25 "	
Casing Outside Diameter	4.5 "	Casing Inside Diam. 4.000 "
Casing Weight	11.6 ppf	
Casing Grade	N-80	
Top of Cement	4052 '	200' inside intermediate casing
Shoe Depth	8397 '	
Cement Yield	1.45 cuft/sk	
Cement Density	13.1 lb/gal	
Cement Excess	50 %	
Cement Required	453 sx	

SHOE 8397 ', 4.5 ", 11.6 ppf, N-80 LTC

SAN JUAN 29-5 #14F**HALLIBURTON OPTION**

9-5/8 Surface Casing		
Cement Recipe	Standard Cement	
	+ 3% Calcium Chloride	
	+ 0.25 lb/sx Flocele	
Cement Volume	214	sx
Cement Yield	1.21	cuft/sx
Slurry Volume	259.5	cuft
	46.2	bbls
Cement Density	15.6	ppg
Water Required	5.29	gal/sx

7" Intermediate Casing		
Lead Slurry		
Cement Recipe	Standard Cement	
	+ 3% Econolite (extender)	
	+ 10 lb/sx Pheno Seal	
Cement Required	428	sx
Cement Yield	2.88	cuft/sx
Slurry Volume	1231.6	cuft
	219.4	bbls
Cement Density	11.5	ppg
Water Required	16.85	gal/sx

7" Intermediate Casing		
Tail Slurry		
Cement Slurry	50 / 50 POZ: Standard Cement	
	+ 2% Bentonite	
	+ 6 lb/sx Pheno Seal	
Cement Required	247	sx
Cement Yield	1.33	cuft/sx
Slurry Volume	328.3	cuft
	58.5	bbls
Cement Density	13.5	ppg
Water Required	5.52	gal/sx

4-1/2" Production Casing		
Cement Recipe	50 / 50 POZ: Standard Cement	
	+ 3% Bentonite	
	+ 3.5 lb/sx PhenoSeal	
	+ 0.2% CFR-3 Friction Reducer	
	+ 0.1% HR-5 Retarder	
	+ 0.8% Halad-9 Fluid Loss Additive	
Cement Quantity	453	sx
Cement Yield	1.45	cuft/sx
Cement Volume	657.3	cuft
	117.0	
Cement Density	13.1	ppg
Water Required	6.55	gal/sx

SCHLUMBERGER OPTION 1

9-5/8 Surface Casing		
Cement Recipe	Class G Cement	
	+ 3% S001 Calcium Chloride	
	+ 0.25 lb/sx D029 Cellophane Flakes	
Cement Volume	222 148	sx
Cement Yield	1.17	cuft/sx
Cement Volume	210 172.9	cuft
Cement Density	15.8	ppg
Water Required	4.973	gal/sx

7" Intermediate Casing		
Lead Slurry		
Cement Recipe	Class G Cement	
	+ 0.25 lb/sx D029 Cellophane Flakes	
	+ 3% D079 Extender	
	+ 0.20% D046 Antifoam	
	+ 10 lb/sx Pheno Seal	
Cement Required	453	sx
Cement Yield	2.72	cuft/sx
Slurry Volume	1231.6	cuft
	219.4	bbls
Cement Density	11.7	ppg
Water Required	15.74	gal/sx

7" Intermediate Casing		
Tail Slurry		
Cement Slurry	50 / 50 POZ: Class G Cement	
	+ 0.25 lb/sx D029 Cellophane Flakes	
	+ 2% D020 Bentonite	
	+ 1.5 lb/sx D024 Gilsonite Extender	
	+ 2% S001 Calcium Chloride	
	+ 0.10% D046 Antifoam	
	+ 6 lb/sx Pheno Seal	
Cement Required	251	sx
Cement Yield	1.31	cuft/sx
Slurry Volume	328.3	cuft
	58.5	bbls
Cement Density	13.5	ppg
Water Required	5.317	gal/sx

4-1/2" Production Casing		
Cement Recipe	50 / 50 POZ: Class G Cement	
	+ 0.25 lb/sx D029 Cellophane Flakes	
	+ 3% D020 Bentonite	
	+ 1.0 lb/sx D024 Gilsonite Extender	
	+ 0.25% D167 Fluid Loss	
	+ 0.15% D065 Dispersant	
	+ 0.1% D800 Retarder	
	+ 0.1% D046 Antifoamer	
	+ 3.5 lb/sx PhenoSeal	
Cement Quantity	456	sx
Cement Yield	1.44	cuft/sx
Cement Volume	657.0	cuft
	117.0	
Cement Density	13	ppg
Water Required	6.47	gal/sx

SCHLUMBERGER OPTION 2

9-5/8 Surface Casing		
Cement Recipe	Type III Cement	
	+ 2% S001 Calcium Chloride	
	+ 0.25 lb/sx D029 Cellophane Flakes	
	+ 0.20% D046 Antifoam	
Cement Volume	195	sx
Cement Yield	1.33	cuft/sx
Cement Volume	259.5	cuft
Cement Density	14.8	ppg
Water Required	6.095	gal/sx

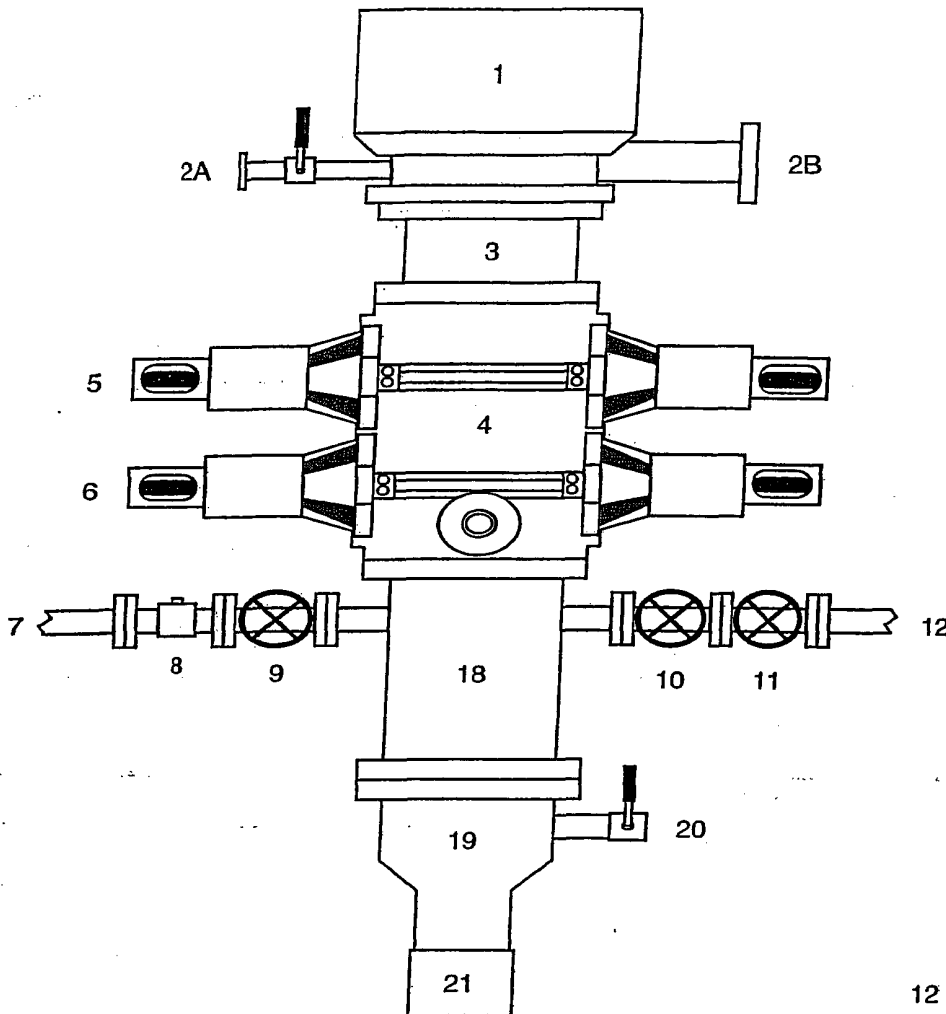
7" Intermediate Casing		
Lead Slurry		
Cement Recipe	75% Type XI / 25% Class G Cement	
	+ 0.25 lb/sx D029 Cellophane Flakes	
	+ 3% D079 Extender	
	+ 0.20% D046 Antifoam	
Cement Required	586	sx
Cement Yield	2.1	cuft/sx
Slurry Volume	1231.6	cuft
	219.4	bbls
Cement Density	11.7	ppg
Water Required	11.724	gal/sx

7" Intermediate Casing		
Tail Slurry		
Cement Slurry	50 / 50 POZ: Class G Cement	
	+ 0.25 lb/sx D029 Cellophane Flakes	
	+ 2% D020 Bentonite	
	+ 1.5 lb/sx D024 Gilsonite Extender	
	+ 2% S001 Calcium Chloride	
	+ 0.10% D046 Antifoam	
	+ 6 lb/sx Pheno Seal	
Cement Required	251	sx
Cement Yield	1.31	cuft/sx
Slurry Volume	328.3	cuft
	58.5	bbls
Cement Density	13.5	ppg
Water Required	5.317	gal/sx

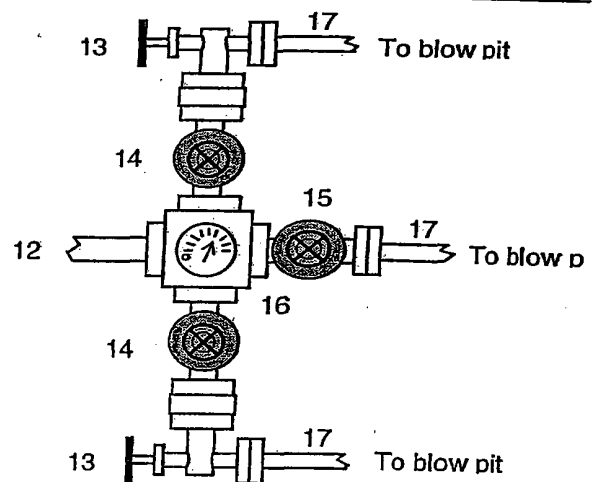
4-1/2" Production Casing		
Cement Recipe	50 / 50 POZ: Class G Cement	
	+ 0.25 lb/sx D029 Cellophane Flakes	
	+ 3% D020 Bentonite	
	+ 1.0 lb/sx D024 Gilsonite Extender	
	+ 0.25% D167 Fluid Loss	
	+ 0.15% D065 Dispersant	
	+ 0.1% D800 Retarder	
	+ 0.1% D046 Antifoamer	
	+ 3.5 lb/sx PhenoSeal	
Cement Quantity	456	sx
Cement Yield	1.44	cuft/sx
Cement Volume	657.0	cuft
	117.0	
Cement Density	13	ppg
Water Required	6.47	gal/sx

BLOWOUT PREVENTER ARRANGEMENT & PROGRAM

For Drilling to Intermediate Casing Point & Setting 7" Intermediate Casing



1. Rotating Head
- 2A. Fill-up Line & valve
- 2B. Flowline
3. Spacer Spool
4. Double Ram BOP (11", 3000 psi)
5. Pipe Rams
6. Blind Rams
7. Kill Line
8. Kill Line Check Valve
9. Kill Line Valve
10. Inner Choke Line Valve (3")
11. Outer Choke Line Valve (3")
12. Choke Line (3")
13. Variable Choke
14. Choke Line Valve (2")
15. Panic Line Valve (3")
16. Choke Manifold Pressure Gauge
17. Choke Line (2")
18. Mud Cross Spacer Spool
19. Casing Head "A" Section
20. Casing Head "A" Section 2" Valve
21. 9 5/8" Casing Collar

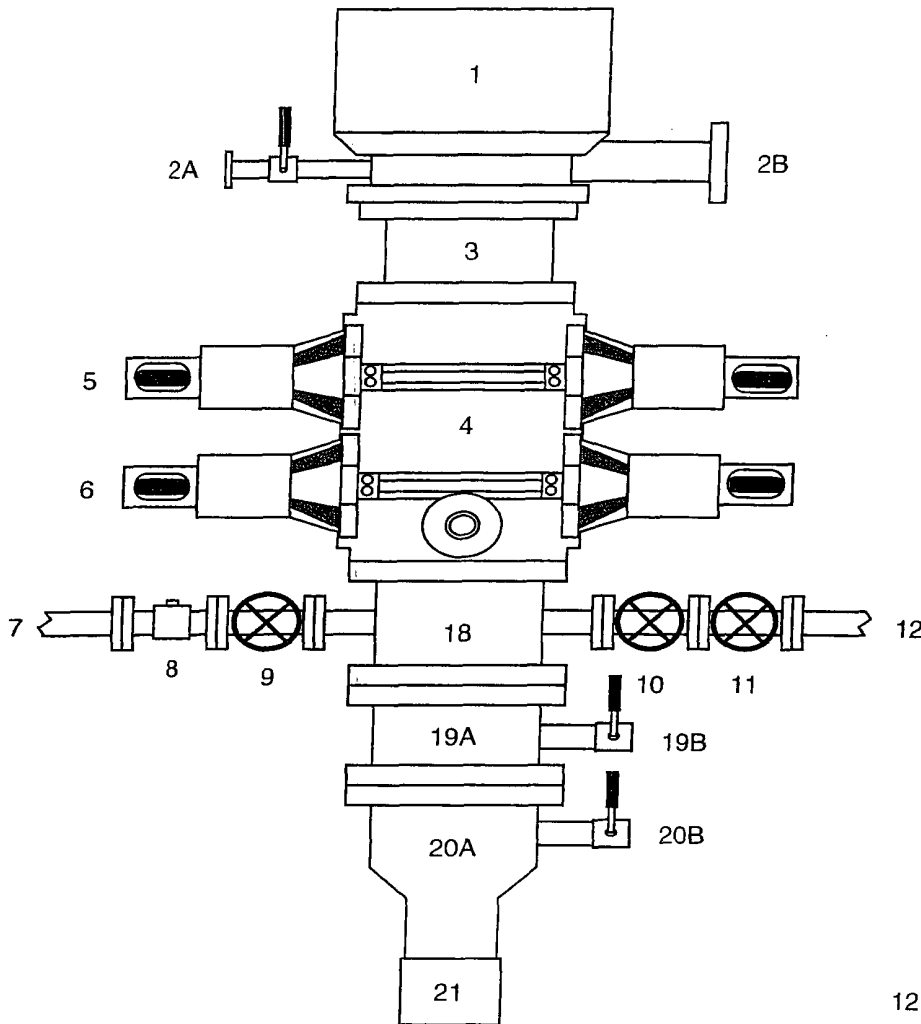


A 12-1/4" hole will be drilled to approximately 220' and the 9-5/8" surface casing will be run and cemented. The Casing Head "A" Section will be screwed onto the 9-5/8" surface casing stub. The BOP will be installed on the Casing Head "A" Section. A test plug will be set in the wellhead and the pipe rams and choke manifold will be tested to 200 psi to 300 psi (low pressure test) for 10 minutes and to 1000 psi (high pressure test) for 10 minutes. Then the test plug will be removed, and the 9-5/8" casing will be pressure tested against closed blind rams to 200 psi to 300 psi for 10 minutes and to 1000 psi for 30 minutes (this value is one 44% of the minimum internal yield pressure of the 9-5/8" casing). (Note: per regulatory requirements we will wait on cement at least 8 hrs after placement before testing the 9-5/8" surface casing). Then an 8-3/4" hole will be drilled to intermediate casing point and 7" intermediate casing will be run and cemented.

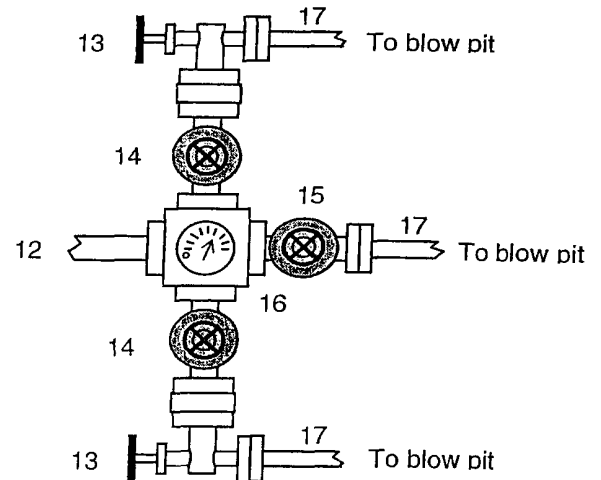
In addition to the equipment in the above diagram the following equipment will comprise the BOP system:

BLOWOUT PREVENTER ARRANGEMENT & PROGRAM

For Drilling to TD and Setting 4.5 inch Casing



1. Rotating Head
- 2A. Fill-up Line & valve
- 2B. Bleeie Line (for Air Drilling)
3. Spacer Spool
4. Double Ram BOP (11", 3000 psi)
5. Pipe Rams
6. Blind Rams
7. Kill Line
8. Kill Line Check Valve
9. Kill Line Valve
10. Inner Choke Line Valve (3")
11. Outer Choke Line Valve (3")
12. Choke Line (3")
13. Variable Choke
14. Choke Line Valve (2")
15. Panic Line Valve (3")
16. Choke Manifold Pressure Gauge
17. Choke Line (2")
18. Mud Cross Spacer Spool
- 19A Csg Spool "B" Section (11", 3M)
- 19B "B" Section Csg Valve (2", 3M)
- 20A Csg Head "A" Section (11", 3M)
- 20B "A" Section Csg Valve (2", 3M)
21. 9 5/8" Casing Collar



After the 7" intermediate casing has been run and cemented, the Casing Spool ("B" Section) will be installed on the wellhead ("A" Section) and the BOP will be installed on the Casing Spool. A test plug will be set in the wellhead and the pipe rams, blind rams, and choke manifold will be tested to 200 psi to 300 psi (low pressure test) for 10 minutes and to 3000 psi (high pressure test) for 10 minutes. Then the test plug will be removed and the 7" casing will be pressure tested against closed blind rams to 200 psi to 300 psi for 10 minutes and to 1800 psi for 30 minutes - this test pressure is 48% of the minimum internal yield strength of 3740 psi for the 7", 20#, J-55, STC casing. Then we will air drill the 6-1/4" hole to TD and run and cement the 4-1/2" casing.

In addition to the equipment in the above diagram the following equipment will comprise the BOP system:

1. Upper Kelly cock Valve with handle
2. Stab-in TIW valve for all drillstrings in use

Property : SAN JUAN 29-5 Well #: 14F

Surface Location:

Unit: H Section: 27 Township: 29N Range: 5W

County: RIO ARRIBA State: New Mexico

Footage: 1880 from the NORTH line, 495 from the EAST line.

CATHODIC PROTECTION

ConocoPhillips (COP) proposes to drill a cathodic protection deep well groundbed for the subject well. COP will drill a hole vertically at the surface large enough to accommodate 20 feet of 8 inch diameter PVC pipe for surface casing to assist in further drilling and loading. Casing may be cemented in place for stability if needed. COP will drill a 6-7/8" hole to an anticipated minimum depth of 300' (maximum depth of 500'). Cement plugs will not be used unless more than one water zone is encountered. Prior drilling history for the area indicates only one zone to that depth. If more than one water zone is encountered, notification will be made and details of cement and casing will be provided.

All drilling activity will remain on the existing well pad and a Farmington based company will be doing the drilling for ConocoPhillips.