

Fonn 3160 -3
(February 2005)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

2006 APR 4 AM 10 13

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

RECEIVED

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. SF-078960	
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name	
2. Name of Operator ConocoPhillips Company		7. If Unit or CA Agreement, Name and No. NMNM-078416A MV	
3a. Address 4001 Penbrook, Odessa, TX 79762		8. Lease Name and Well No. SAN JUAN 29-6 UNIT #71C	
3b. Phone No. (include area code) 432-368-1230		9. API Well No. 30-039-27867	
4. Location of Well (Report location clearly and in accordance with any State requirements, *) At surface NWSW 2070 FSL - 220 FWL At proposed prod. zone NESE 1900 FSL - 10 FEL		10. Field and Pool, or Exploratory BLANCO MESAVERDE	
14. Distance in miles and direction from nearest town or post office*		11. Sec., T. R. M. or Blk. and Survey or Area SURF: SECTION 16, T29N, R6W L BH: SECTION 17, T29N, R6W NMPM I	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)		12. County or Parish RIO ARRIBA	
16. No. of acres in lease 240 ACRES		13. State NM	
17. Spacing Unit dedicated to this well 320.0 ACRES - E/2 SECTION 17			
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 5827'		20. BLM/BIA Bond No. on file	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6431' GL		22. Estimated duration	
22. Approximate date work will start*			

24. Attachments

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

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

25. Signature 	Name (Printed/Typed) Peggy James	Date 04/03/2006
Title Senior Associate		

Approved by (Signature) 	Name (Printed/Typed)	Date 12/5/06
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 directional wellbore to the Blanco Mesaverde formation. This well will be drilled and equipped in accordance with the attachments submitted herewith. This application is for APD / ROW.

HOLD C104 FOR Directional survey

NMOCD

DRILLING OPERATIONS AUTHORIZED ARE
SUBJECT TO COMPLIANCE WITH ATTACHED
"GENERAL REQUIREMENTS".

This action is subject to technical and
procedural review pursuant to 43 CFR 3165.3
and appeal pursuant to 43 CFR 3165.4

8/12/12/06

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

2005 APR 4 AM 10 13

AMENDED REPORT

RECEIVED

OIL CONS. DIV.

WELL LOCATION AND ACREAGE DEDICATION PLAT

DIST. 3

*API Number 30-039-29867		*Pool Code 72319	*Pool Name BLANCO MESAVERDE
*Property Code 31326	*Property Name SAN JUAN 29-6 UNIT		*Well Number 71C
*OGRID No. 217817	*Operator Name CONOCOPHILLIPS COMPANY		*Elevation 6431'

¹⁰ Surface Location

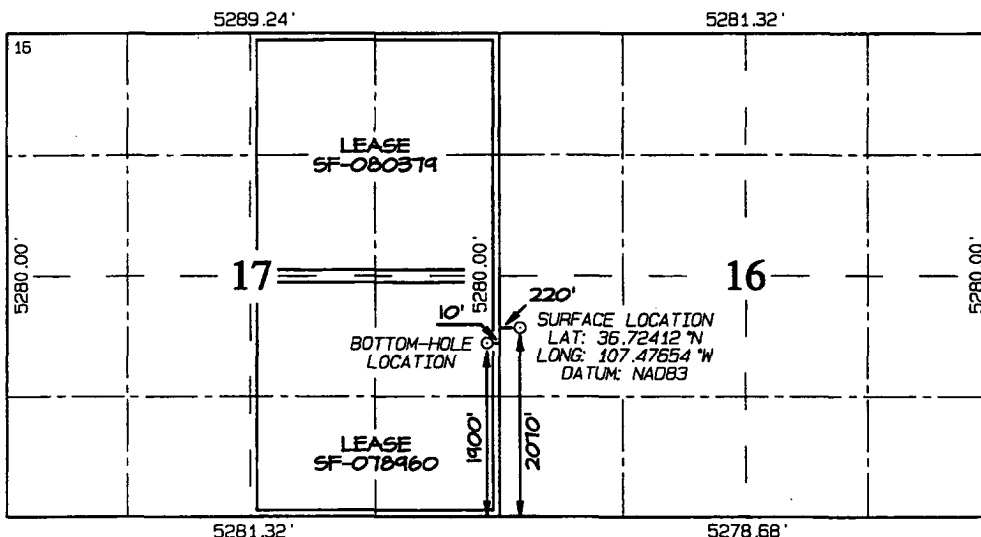
UL or lot no. L	Section 16	Township 29N	Range 6W	Lot Idn	Feet from the 2070	North/South line SOUTH	Feet from the 220	East/West line WEST	County RIO ARriba
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¹¹ Bottom Hole Location If Different From Surface

UL or lot no. I	Section 17	Township 29N	Range 6W	Lot Idn	Feet from the 1900	North/South line SOUTH	Feet from the 10	East/West line EAST	County RIO ARriba
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¹² Dedicated Acres 320.0 Acres (E/2) Section 17	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



¹⁷ OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief

Virgil E. Chavez
Signature

Virgil E. Chavez
Printed Name

Projects + Operations Lead
Title

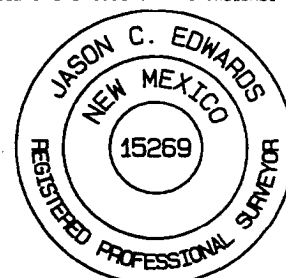
February 15, 2006
Date

¹⁸ SURVEYOR CERTIFICATION

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

Survey Date: **DECEMBER 28, 2005**

Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269

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. 30-039-29867	
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 29-6 UNIT	
8. Well Number	71C
9. OGRID Number	217817
10. Pool name or Wildcat BLANCO MESAVERDE	

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>L</u> <u>2070</u> feet from the <u>SOUTH</u> line and <u>220</u> feet from the <u>WEST</u> line Section <u>16</u> Township <u>29N</u> Range <u>6W</u> NMPM <u>RIO ARRIBA</u> County	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) <u>6431'</u> <u>GL</u>	

Pit or Below-grade Tank Application <input checked="" type="checkbox"/> Closure <input type="checkbox"/>	
Pit type <u>DRILL</u>	Depth to Groundwater <u>85'</u> Distance from nearest fresh water well <u>>1000'</u> Distance from nearest surface water <u>265'</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 Senior Associate DATE 04/03/2006

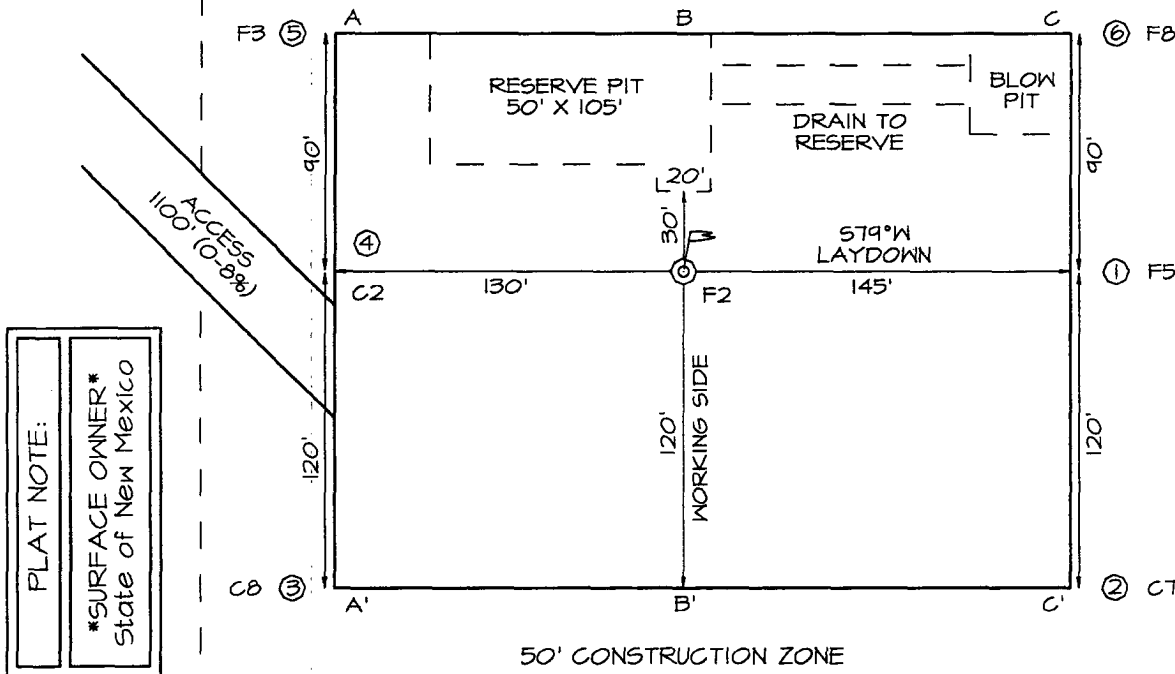
Type or print name E-mail address peggy.s.james@conocophillips.com Telephone No.: (432)368-1230

For State Use Only

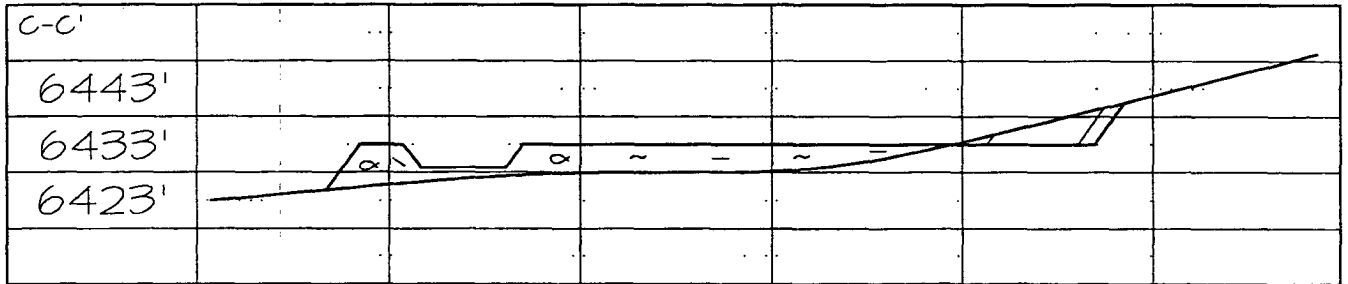
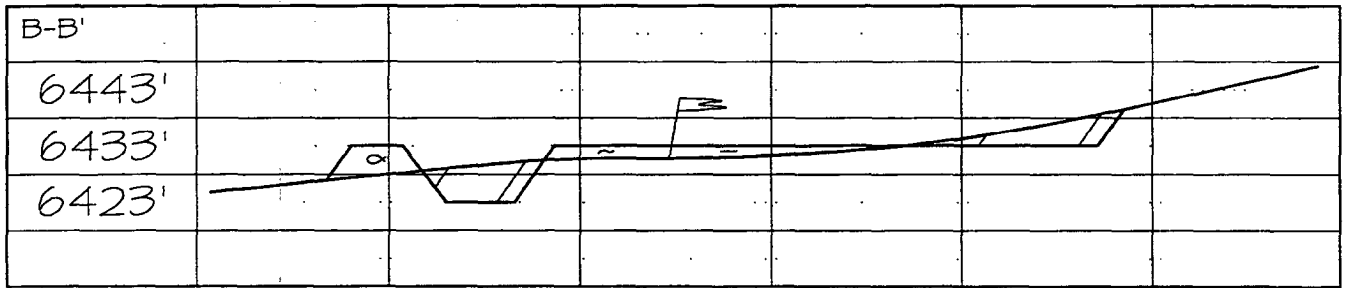
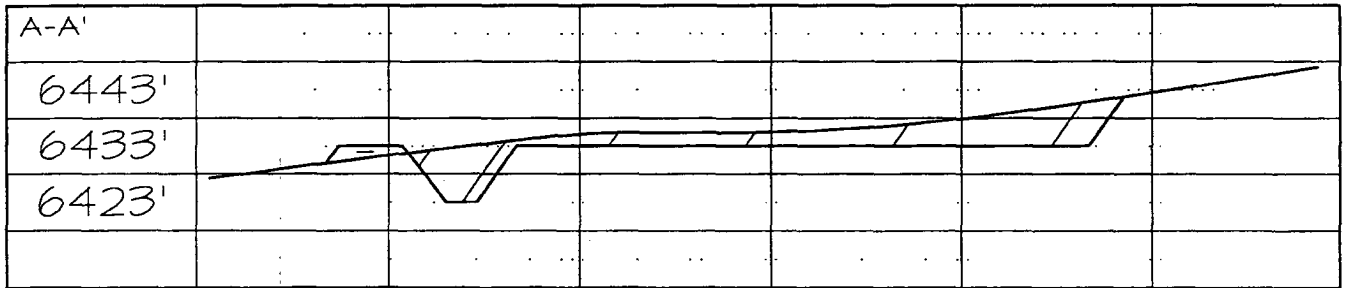
APPROVED BY: [Signature] TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 03 DATE DEC 12 2006
Conditions of Approval (if any):

CONOCOPHILLIPS COMPANY SAN JUAN 29-6 UNIT #71C
2070' FSL & 220' FWL, SECTION 16, T29N, R6W, NMPM
RIO ARriba COUNTY, NEW MEXICO ELEVATION: 6431'

LATITUDE: 36.72412° N
LONGITUDE: 107.47654° W
 DATUM: NAD1983



SECTION LINE / PROPERTY LINE



PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

SAN JUAN 29-6 71C

Lease:		AFE #: WAN.CNV.6107		AFE \$:	
Field Name: 29-6		Rig: H&P 281		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
RON	BLANCO MESAVERDE (PRORATED GAS)

Location: Surface		Datum Code: NAD 27		Deviated	
Latitude: 36.724120	Longitude: -107.476540	X:	Y:	Section: 16	Range: 6W
Footage X: 220 FWL	Footage Y: 2070 FSL	Elevation: 6431	(FT)	Township: 29N	

Tolerance:

Location: Bottom Hole		Datum Code: NAD 27		Deviated	
Latitude: 36.723559	Longitude: -107.476700	X:	Y:	Section: 17	Range: 6W
Footage X: 10 FEL	Footage Y: 1900 FSL	Elevation:	(FT)	Township: 29N	

Tolerance:

Location Type: Year Round	Start Date (Est.):	Completion Date:	Date In Operation:
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Formation Data: Assume KB = 6447 Units = FT

Formation Call & Casing Points	Depth (TVD in Ft)	SS (Ft)	Depletion (Yes/No)	BHP (PSIG)	BHT	Remarks
Surface Casing	216	6231	<input type="checkbox"/>			131/2 hole. 9 5/8" 32.3 ppf, H-40, STC casing. Circulate cement to surface.
NCMT	1147	5300	<input type="checkbox"/>			
CJAM	2447	4000	<input type="checkbox"/>			Possible water flows.
KRLD	2607	3840	<input type="checkbox"/>			
FRLD	2997	3450	<input type="checkbox"/>			Possible gas.
PCCF	3322	3125	<input type="checkbox"/>			
LEWS	3522	2925	<input type="checkbox"/>			
Intermediate Casing	3622	2825	<input type="checkbox"/>			8 3/4" Hole. 7", 23 ppf, J-55, LTC Casing. Special drift to 6.25". Circulate cement to surface.
CHRA	4297	2150	<input type="checkbox"/>			
CLFH	5077	1370	<input type="checkbox"/>			Gas; possibly wet
MENF	5157	1290	<input type="checkbox"/>			Gas.
PTLK	5477	970	<input type="checkbox"/>			Gas.
MNCS	5727	720	<input type="checkbox"/>			
TOTAL DEPTH MV	5827	620	<input type="checkbox"/>			6-1/4" Hole. 4-1/2", 10.5 ppf, J-55, STC 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
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PROJECT PROPOSAL - New Drill / Sidetrack

SAN JUAN 29-6 71C

Logging Program:

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

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

Additional Information:

Log Type	Stage	From (Ft)	To (Ft)	Tool Type/Name	Remarks
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Comments: Zones - Drill and equip the SAN JUAN 29-6 71C well as an 80-acre Mesaverde/Lewis infill well, to be located 10 FEL & 1900 FSL of Section 17-T29N-R6W, Rio Arriba County, NM. Once established and adequately tested, production will be from Mesaverde/Lewis only.

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

General/Work Description - Drill and equip the SAN JUAN 29-6 71C well as an 80-acre Mesaverde/Lewis infill well, to be located 10 FEL & 1900 FSL of Section 17-T29N-R6W, Rio Arriba County, NM. Once established and adequately tested, production will be from Mesaverde/Lewis only.

This will be a directional well

San Juan 29-6 #71C**TVD - MD Formation Tops**

Formation	TVD	MD
San Jose	13	13
Surface Casing	213	213
NCMT	1147	1153.59
OJAM	2447	2468.60
KRLD	2607	2628.66
FRLD	2997	3018.66
PCCF	3322	3600.00
Lewis	3522	3520.00
Intermediate Casing	3622	3644.00
Chacra	4297	4318.66
Cliffhouse	5077	5098.66
Menefee	5157	5178.66
Point Lookout	5477	5498.66
Mancos	5727	5748.66
TD	5827	5849.00



ConocoPhillips
Field: Rio Arriba County, NM
Site: San Juan 29-6 #71C
Well: Well #71C
Wellpath: Original Hole
Plan: Plan #1



FIELD DETAILS

Rio Arriba County, NM
USA

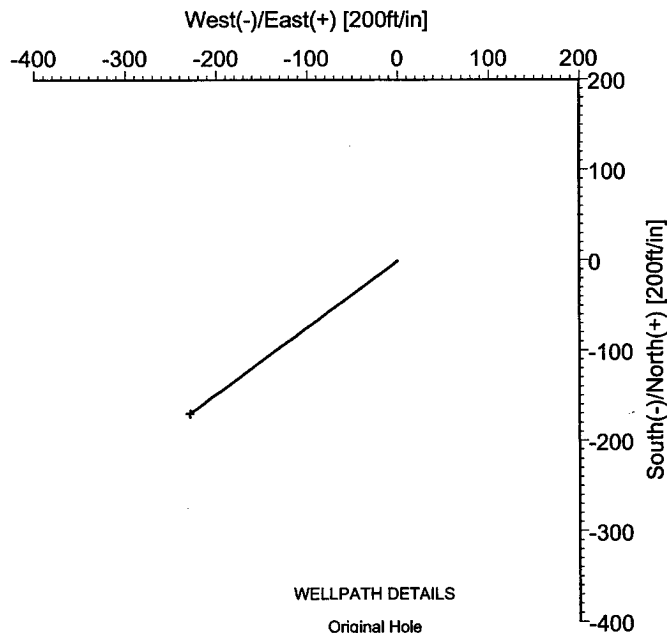
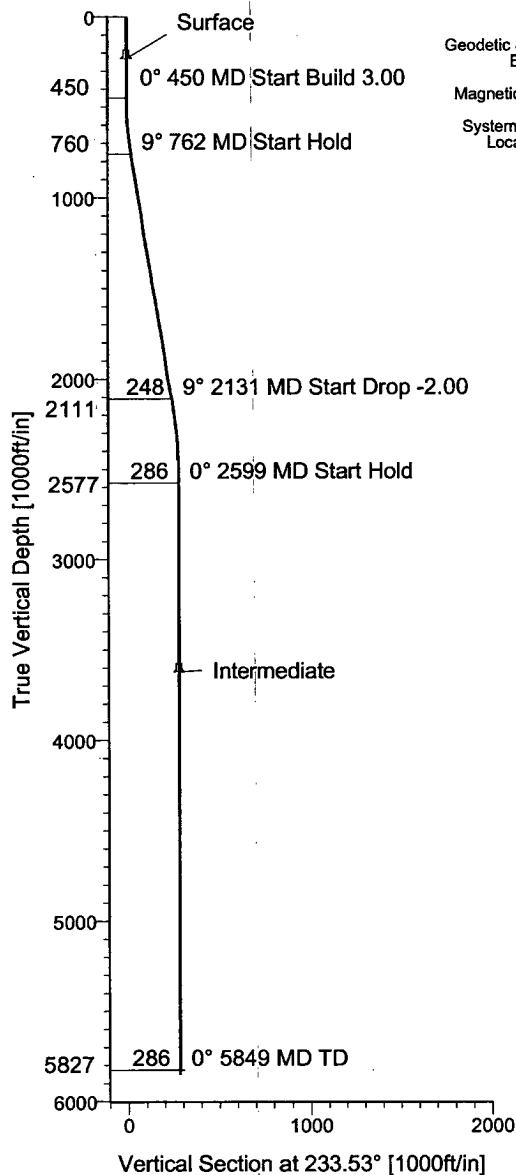
Geodetic System: US State Plane Coordinate System 1927
Ellipsoid: NAD27 (Clarke 1866)
Zone: New Mexico, Western Zone
Magnetic Model: igr2005

System Datum: Mean Sea Level
Local North: Grid North

SITE DETAILS

San Juan 29-6 #71C
Sec. 16, T29N, R6W
Rio Arriba County

Water Depth: 0.00
Positional Uncertainty: 0.00
Convergence: 0.00



WELLPATH DETAILS

Original Hole

Rig: SITE 0.00ft
Ref. Datum: SITE 0.00ft
V. Section Angle: 233.53°
Origin +N/-S: 0.00
Origin +E/-W: 0.00
Starting From TVD: 5827.00

CASING DETAILS

No.	TVD	MD	Name	Size
1	230.00	230.00	Surface	9.625
2	3622.00	3643.66	Intermediate	0.000

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
PBHL	5827.00	-170.00	-230.00	Point

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	233.53	0.00	0.00	0.00	0.00	0.00	0.00	
2	450.00	0.00	233.53	450.00	0.00	0.00	0.00	0.00	0.00	
3	761.78	9.35	233.53	760.39	-15.09	-20.42	3.00	233.53	25.39	
4	2131.00	9.35	233.53	2111.41	-147.36	-199.37	0.00	0.00	247.92	
5	2598.66	0.00	233.53	2577.00	-170.00	-230.00	2.00	180.00	286.01	
6	5848.66	0.00	233.53	5827.00	-170.00	-230.00	0.00	0.00	286.01	PBHL

HOLE: 13.5 "
 CSG OD: 9.625 "
 CSG ID: 9.001 "
 WGT: 32.3 ppf
 GRADE: H-40
 EXCESS: 125 %
 DEPTH: 235'

SURFACE:
 Option 1
 222 sx
 46.2 bbls
 259.5 cuft
 1.17 ft³/sx
 15.8 ppg
 4.973 gal/sx
 Class G Cement
 + 3% S001 Calcium Chloride
 + 0.25 lb/sx D029 Cellophane Flakes

Option 2
 214 sx
 46.2 bbls
 259.5 cuft
 1.21 ft³/sx
 15.6 ppg
 5.29 gal/sx
 Standard Cement
 + 3% Calcium Chloride
 + 0.25 lb/sx Flocele

Comp. Strength
 6 hrs 250 psi
 8 hrs 500 psi

INTERMEDIATE LEAD:

Option 1
 386 sx
 186.8 bbls
 1048.7 cuft
 2.72 ft³/sx
 11.7 ppg
 15.74 gal/sx
 Class G Cement
 + 3% D079 Extender
 + 0.20% D046 Antifoam
 + 10 lb/sx Phenoseal

Option 2
 403 sx
 186.8 bbls
 1048.7 cuft
 2.80 ft³/sx
 11.5 ppg
 14.82 gal/sx
 Type III Ashgrove Cement
 + 30 lb/sx San Juan Poz
 + 3% Bentonite
 + 5.0 lb/sx Phenoseal

Option 3
 399 sx
 186.8 bbls
 1048.7 cuft
 2.63 ft³/sx
 11.7 ppg
 15.92 gal/sx
 Class G Cement
 + 3% D079 Extender
 + 0.20% D046 Antifoam
 + 1.0 lb/bbl CemNet

Comp. Strength
 3 hrs 100 psi
 24 hrs 443 psi

HOLE: 8.75 "
 CSG OD: 7 "
 CSG ID: 6.25 "
 WGT: 23 ppf
 GRADE: J-55
 EXCESS: 150 %
 DEPTH: 728.8'

Option 1
 216 sx
 50.4 bbls
 283.0 cuft
 1.31 ft³/sx
 13.5 ppg
 5.317 gal/sx
 50/50 Poz: Class G Cement
 + 0.25 lb/sx D029 Cellophane Flakes
 + 3% S001 Calcium Chloride
 + 2% D020 Bentonite
 + 1.5 lb/sx D024 Gilsonite Extender
 + 0.1% D046 Antifoamer
 + 6 lb/sx Phenoseal

Option 2
 213 sx
 50.4 bbls
 283.0 cuft
 1.33 ft³/sx
 13.5 ppg
 5.52 gal/sx
 50/50 Poz: Standard Cement
 + 2% Bentonite
 + 6.0 lb/sx Phenoseal

Option 3
 221 sx
 50.4 bbls
 283.0 cuft
 1.28 ft³/sx
 13.5 ppg
 5.255 gal/sx
 50/50 Poz: Class G Cement
 + 2% D020 Bentonite
 + 5.0 lb/sx D024 Gilsonite Extender
 + 2% S001 Calcium Chloride
 + 0.1% D046 Antifoamer
 + 0.15% D065 Dispersant
 + 1.0 lb/bbl CemNet

Comp. Strength
 24 hrs 1850 psi
 48 hrs 3411 psi

INTERMEDIATE TAIL:

Option 1
 250 sx
 64.1 bbls
 360.0 cuft
 1.44 ft³/sx
 13.0 ppg
 6.47 gal/sx
 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
 + 0.25% D065 Dispersant
 + 0.1% D800 Retarder
 + 0.1% D046 Antifoamer
 + 3.5 lb/sx Phenoseal

Option 2
 248 sx
 64.1 bbls
 360.0 cuft
 1.45 ft³/sx
 13.1 ppg
 6.55 gal/sx
 50/50 Poz: Standard Cement
 + 3% Bentonite
 + 0.2% CFR-3 Friction Reducer
 + 0.1% HR-5 Retarder
 + 0.8% Helad-9 Fluid Loss Additive
 + 3.5 lb/sx Phenoseal

Option 3
 248 sx
 64.1 bbls
 360.0 cuft
 1.45 ft³/sx
 13.1 ppg
 6.55 gal/sx
 50/50 Poz: Standard Cement
 + 3% Bentonite
 + 0.2% CFR-3 Friction Reducer
 + 0.1% HR-5 Retarder
 + 0.8% Helad-9 Fluid Loss Additive
 + 3.5 lb/sx Phenoseal

Comp. Strength
 9:32 50 psi
 12 hrs 500 psi
 24 hrs 2300 psi

HOLE: 6.25 "
 CSG OD: 4.5 "
 CSG ID: 4.052 "
 WGT: 10.5 ppf
 GRADE: J-55
 EXCESS: 50 %
 DEPTH: 584.9'

Option 1
 250 sx
 64.1 bbls
 360.0 cuft
 1.44 ft³/sx
 13.0 ppg
 6.47 gal/sx
 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
 + 0.25% D065 Dispersant
 + 0.1% D800 Retarder
 + 0.1% D046 Antifoamer
 + 3.5 lb/sx Phenoseal

Option 2
 248 sx
 64.1 bbls
 360.0 cuft
 1.45 ft³/sx
 13.1 ppg
 6.55 gal/sx
 50/50 Poz: Standard Cement
 + 3% Bentonite
 + 0.2% CFR-3 Friction Reducer
 + 0.1% HR-5 Retarder
 + 0.8% Helad-9 Fluid Loss Additive
 + 3.5 lb/sx Phenoseal

Option 3
 248 sx
 64.1 bbls
 360.0 cuft
 1.45 ft³/sx
 13.1 ppg
 6.55 gal/sx
 50/50 Poz: Standard Cement
 + 3% Bentonite
 + 0.2% CFR-3 Friction Reducer
 + 0.1% HR-5 Retarder
 + 0.8% Helad-9 Fluid Loss Additive
 + 3.5 lb/sx Phenoseal

Comp. Strength
 9:32 50 psi
 12 hrs 500 psi
 24 hrs 2300 psi

San Juan 29-6 #71C

HOLE: 13.5 "
CSG OD: 9.625 "
CSG ID: 9.001 "
WGT: 32.3 ppf
GRADE: H-40
EXCESS: 125 %
DEPTH: 235'

SURFACE:

INTERMEDIATE LEAD:

Option 4

364 sx
186.8 bbls
1048.7 cuft
2.88 ft³/sx
11.5 ppg
16.85 gal/sx
Standard Cement
+ 3% Econolite (Extender)
+ 10 lb/sx Phenoseal

Comp. Strength
1:47 50 psi
12 hrs 350 psi
24 hrs 450 psi

HOLE: 8.75 "
CSG OD: 7 "
CSG ID: 6.25 "
WGT: 23 ppf
GRADE: J-55
EXCESS: 150 %

TAIL: 728.8'

DEPTH: 3644'

Option 5

499 sx
186.8 bbls
1048.7 cuft
2.10 ft³/sx
11.7 ppg
11.724 gal/sx
75% Type XI / 25% Class G Cement
+ 0.25 lb/sx D029 Cellophane Flakes
+ 3% D079 Extender
+ 0.20% D046 Antifoam

Comp. Strength
10:56 500 psi
42 hrs 1012 psi

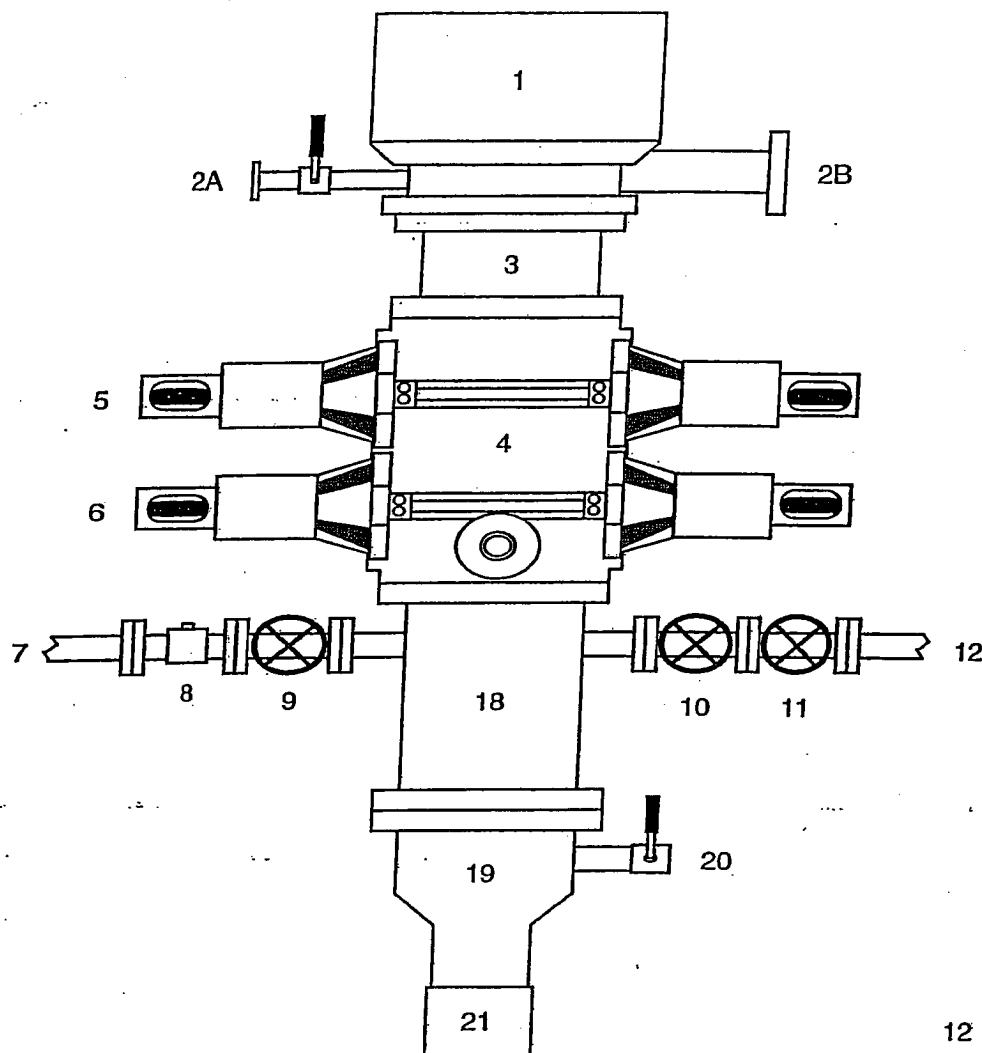
INTERMEDIATE TAIL:

PRODUCTION:

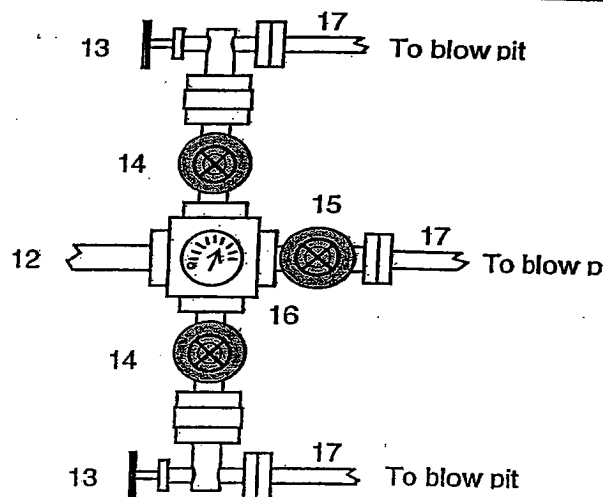
HOLE: 6.25 "
CSG OD: 4.5 "
CSG ID: 4.052 "
WGT: 10.5 ppf
GRADE: J-55
EXCESS: 50 %
DEPTH: 5849'

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

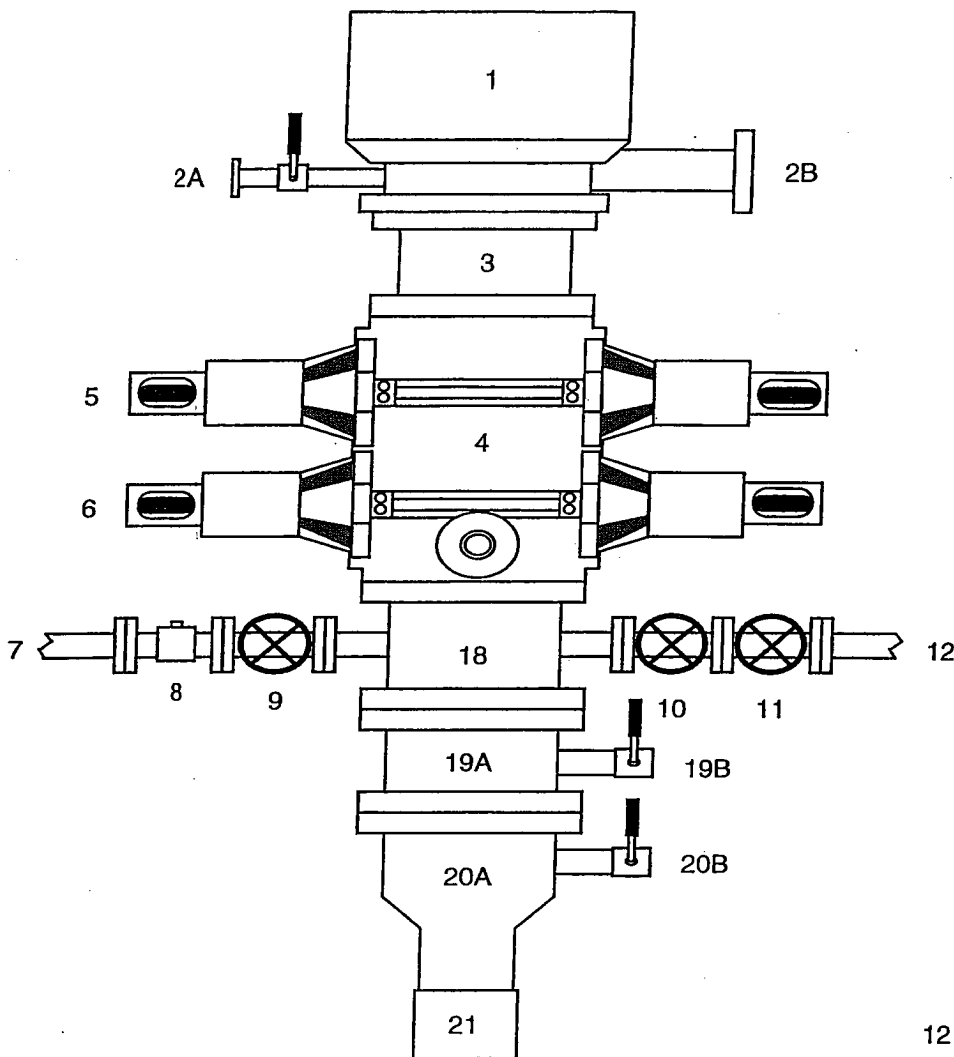


A 12-1/4" hole will be drilled to approximately 220' and the 9-5/8" surface casing will be run and cemented. The Casing Head "A" Section will be screwed onto the 9-5/8" surface casing stub. The BOP will be installed on the Casing Head "A" Section. A test plug will be set in the wellhead and the pipe 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.

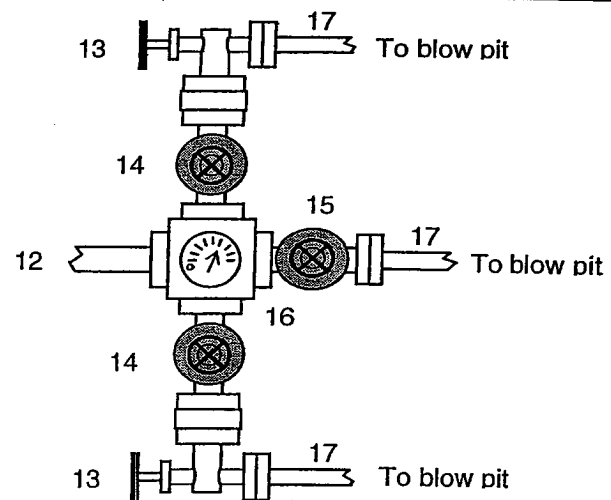
In addition to the equipment in the above diagram the following equipment will comprise the BOP system:

BLOWOUT PREVENTER ARRANGEMENT & PROGRAM

For Drilling to TD and Setting 4.5 inch Casing



1. Rotating Head
- 2A. Fill-up Line & valve
- 2B. Bore 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 29-6 Well #: 71C

Surface Location:

Unit: L Section: 16 Township: 29N Range: 6W

County: RIO ARRIBA State: New Mexico

Footage: 2070 from the SOUTH line, 220 from the WEST 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.