Fonn 3160.-3
(February 2005)

JUN 2006

2006 FEB 21 PM 3 55

RECEIVED
070 FARMINGTON NM

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NM-011349

6. If Indian, Allotee or Tribe Name

Ia. Type of work: [X] DRILL [ ] REENTER

7. If Unit or CA Agreement, Name and No.
NMNM-078415B - MV
NMNM-078415A-DK

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

8. Lease Name and Well No.
SAN JUAN 29-5 UNIT #6M

2. Name of Operator
ConocoPhillips Company

9. API Well No.
30-039-29818

3a. Address
4001 Penbrook, Odessa, TX 79762

3b. Phone No. *(include area code)*
432-368-1230

10. Field and Pool, or Exploratory
BLANCO MESAVERDE / BASIN DAKOTA

4. Location of Well *(Report location clearly and in accordance with any State requirements, *)*
At surface SESW 330 FSL - 2320 FWL
At proposed prod. zone

11. Sec., T. R. M. or Blk. and Survey or Area
SECTION 27, T29N, R5W NMPM
N

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

12. County or Parish
RIO ARRIBA

13. State
NM

15, Distance from proposed* location to nearest propery or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of acres in lease	17. Spacing Unit dedicated to this well
	160 ACRES	MV & DK - 320.0 ACRES - W/2
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
	8276'	ES0085
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22 Approximate date work will start*	23. Estimated duration
6815' GL		

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
Peggy James	Peggy James	2/20/06
Title: Sr. Associate		
Approved by *(Signature)*	Name *(Printed/Typed)*	Date 6/2/06
Title: AFM	Office FFO	

Application approval does not warrant or certify that the applicant holds legal orequitable 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 juris iction.

*(Instructions on page 2)

PA

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 # 6B. This well has since changed to a Mesaverde/Dakota and has changed numbers to the #6B.

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

NMOCD

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

2006 FEB 21 PM 3 55

RECEIVED
070 FARMINGTON NM

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹API Number	²Pool Code	³Pool Name
30-039-29818	72319 / 71599	BLANCO MESAVERDE / BASIN DAKOTA

⁴Property Code	⁵Property Name	⁶Well Number
31325	SAN JUAN 29-5 UNIT	6M

⁷OGRID No.	⁸Operator Name	⁹Elevation
217817	CONOCOPHILLIPS COMPANY	6815'

¹⁰ Surface Location

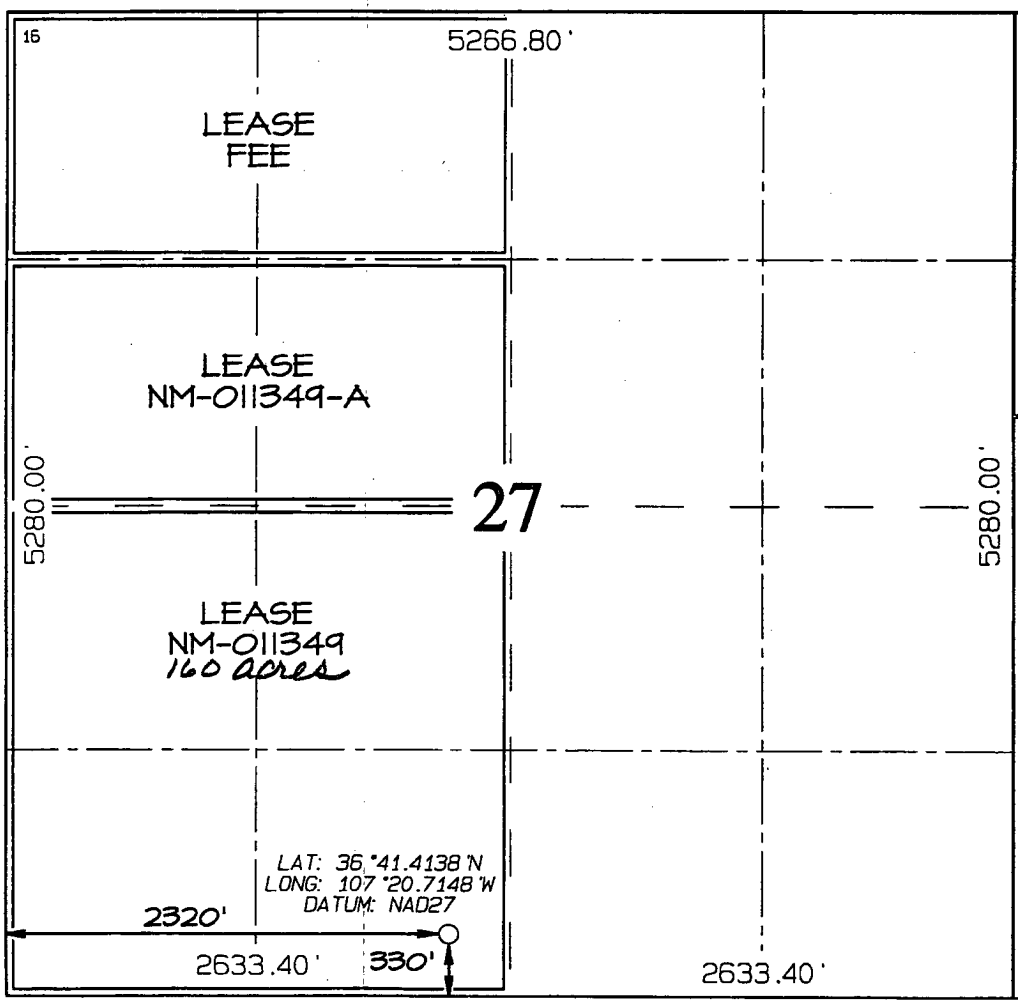
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	27	29N	5W		330	SOUTH	2320	WEST	RIO ARRIBA

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	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
320.0 Acres - W/2			

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 3, 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.

Date of Survey: AUGUST 31, 2005

Signature and Seal of Professional Surveyor

JASON C. EDWARDS
NEW MEXICO
15269
REGISTERED 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 11
1301 W. Grand Ave., Artesia, NM 882 1 0
District III
I 000 Rio Brazos Rd., Aztec, NM 8741 0
District IV
1220 S. St. Francis Dr., Santa I e, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

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

Fonn C- 1 03
May 27, 2004

WELL API NO. 30-039-29818
5. Indicate Type of Lease STATE ☐ FEE ☐
6. State Oil & Gas Lease No.

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.)

7. Lease Name or Unit Agreement Name: SAN JUAN 29-5 UNIT
1. Type of Well: Oil Well ☐ Gas Well ☒ Other
8. Well Number: 6M
2. Name of Operator: ConocoPhillips Company
9. OGRID Number: 217817
3. Address of Operator: 4001 Penbrook, Odessa, TX 79762
I 0. Pool name or Wildcat: BLANCO MESAVERDE / BASIN DAKOTA

4. Well Location
Unit Letter N 330 feet from the SOUTH line and 2320 feet from the WEST line
Section 27 Township 29N Range 5W NMPM RIO ARRIBA County

I 1. Elevation *(Show whether DR, RKB, RT, GR, etc.)* 6815' GL

Pit or Below -grade Tank Application ☒ Closure ☐
Pit type DRILL Depth to Groundwater 60' Distance from nearest fresh water well ~~3,400'~~ >1000' Distance from nearest surface water ~~390'~~ <1000' >200'
Liner Thickness: 12 mil Below-Grade Tank: Volume 4400 bbls; Construction Material SYNTHETIC

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

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

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 I 1 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 rny knowledge and belief. I further certify that anv 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 02/20/2006

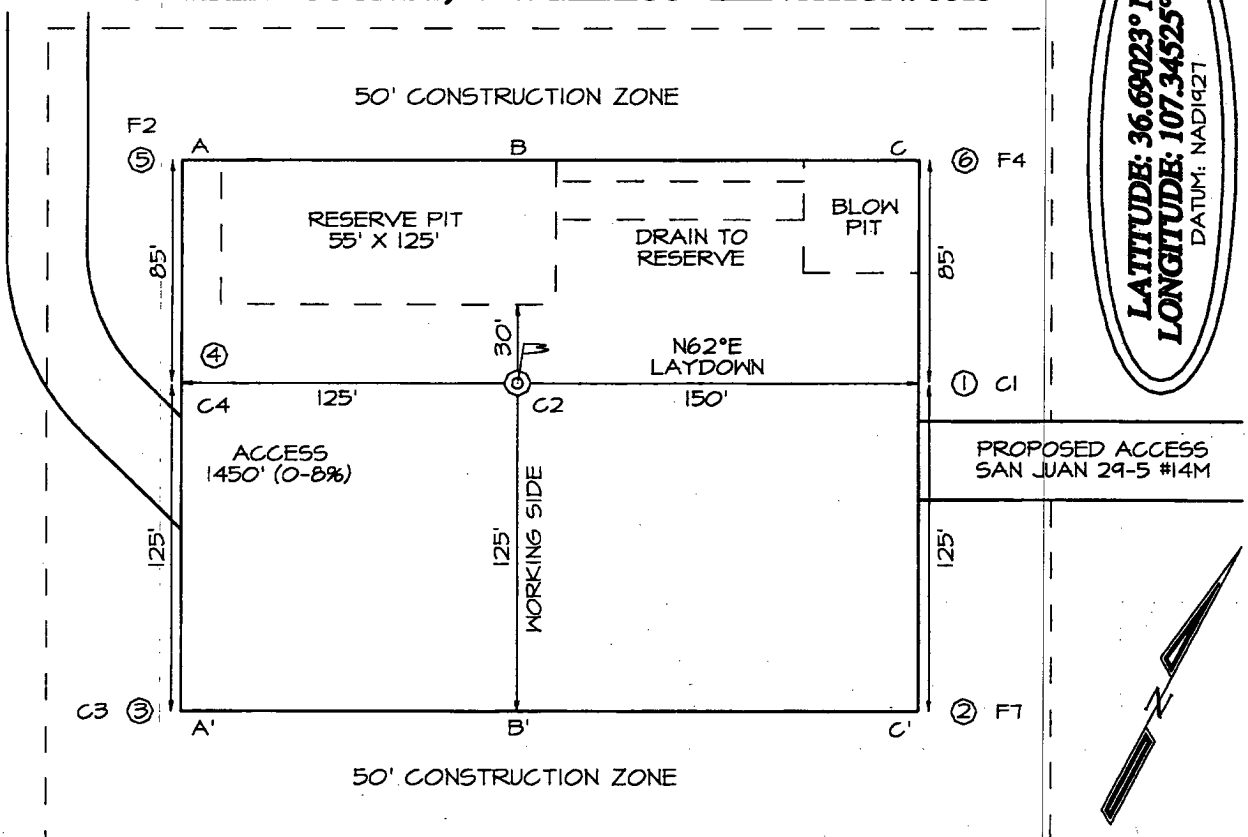
Type or print name E-mail address peggy.s.james@conocophillips.com: Telephone No.: (432)368-1230

For State Use Onlv

APPROVED BY: TITLE DEPUTY OIL & GAS INSPECTOR, DIST. DATE JUN 05 2006
Conditions of Approval (if any):

CONOCOPHILLIPS COMPANY SAN JUAN 29-5 UNIT #6M
330' FSL & 2320' FWL, SECTION 27, T29N, R5W, NMPM
RIO ARRIBA COUNTY, NEW MEXICO ELEVATION: 6815'

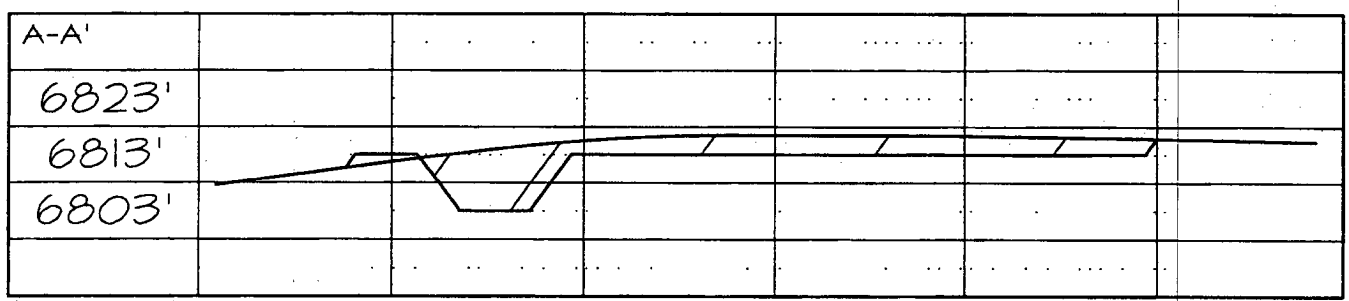
LATITUDE: 36.69023° N
LONGITUDE: 107.34525° W
DATUM: NAD1927

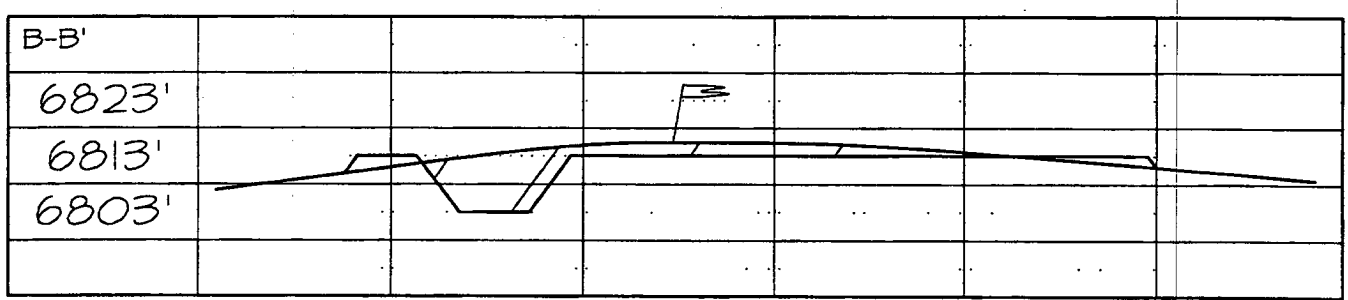


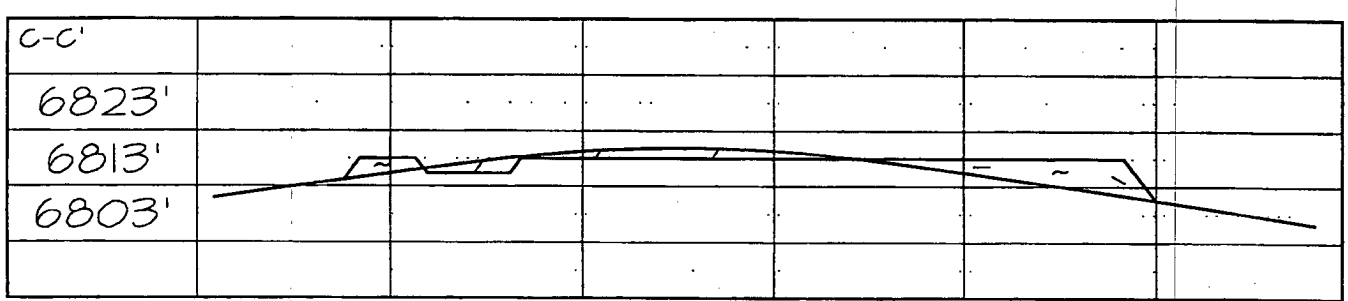
PROPOSED ACCESS
SAN JUAN 29-5 #14M

PLAT NOTE:

FEE SURFACE OWNER
La Familia de los Candelarias







FILENAME: 29527NT	SHEET 2 OF 6	NCE SURVEYS, INC.	DRAWN BY: EDO	CHECKED BY: JCE

ConocoPhillips

San Juan Business Unit

PROJECT PROPOSAL - New Drill / Sidetrack

SAN JUAN 29-5 6M

Lease:	AFE #: WAN.CNV.6179			AFE $:
Field Name: 29-5	Rig: H&P 283	State: NM	County: RIO ARRIBA	API #:
Geoscientist: Glaser, Terry J	Phone: (832)486-2332	Prod. Engineer: Moody, Craig E.		Phone: 486-2334
Res. Engineer: Johnson, Tom B.	Phone: (832)-486-2347	Proj. Field Lead: Fransen, Eric E.		Phone:

Primary Objective (Zones)

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

Location: Surface

Latitude: 36.69	Longitude: -107.35	X:	Y:	Section: 27	Range: 5W
Footage X: 2320 FWL	Footage Y: 300 FSL	Elevation: 6815 (FT)	Township: 29N		

Tolerance:

Location Type:	Start Date (Est.):	Completion Date:	Date In Operation:

Formation Data: Assume KB = 6831 Units = FT

Formation Call & Casing Points	Depth (TVD in Ft)	SS (Ft)	Depletion (Yes/No)	BHP (PSIG)	BHT	Remarks
Surface Casing	216	6615	☐			13-1/2" hole. 9 5/8" 32.3 ppf, H-40, STC casing. Circulate cement to surface.
NCMT	1731	5100	☐			
CJAM	2991	3840	☐			Possible water flows.
KRLD	3191	3640	☐			
FRLD	3521	3310	☐			Possible gas.
PCCF	3781	3050	☐			
LEWS	3981	2850	☐			
Intermediate Casing	4081	2750	☐			8 3/4" Hole. 7", 20 ppf, J-55, STC Casing. Circulate cement to surface.
CHRA	4731	2100	☐			
CLFH	5621	1210	☐			Gas; possibly wet
MENF	5671	1160	☐			Gas.
PTLK	5966	865	☐			Gas.
CLLP	7211	-380	☐			Gas. Possibly wet.
CRHN	7926	-1095	☐			Gas possible, highly fractured
CBBO	8081	-1250	☐			Gas
TOTAL DEPTH DK	8276	-1445	☐			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

ConocoPhillips

San Juan Business Unit

PROJECT PROPOSAL - New Drill / Sidetrack

SAN JUAN 29-5 6M

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

Comments:

Printed on: 2/20/2006 9:58:28 AM

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

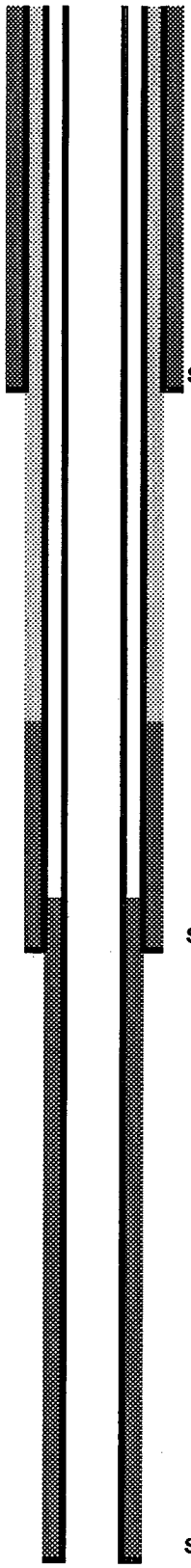
Centralizer Program:
Surface: centralizers placed 10' above the shoe latched over a stop collar and at the top of the 2nd, 3rd, & 4th joints
Intermediate: centralizers placed 10' above the shoe latched over a stop collar and at the top of the 2nd, 4th, 6th, 8th, & 10th joints
Turbolizers placed one per 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 # 6M
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 :

Drill Bit Diameter	8.75	"	
Casing Outside Diameter	7	"	Casing Inside Diam. 6.456 "
Casing Weight	20	ppf	
Casing Grade	J-55		
Shoe Depth	4081	'	
Lead Cement Yield	2.88	cuft/sk	
Lead Cement Density	11.5	lb/gal	
Lead Cement Excess	150	%	
Lead Cement Required	410	**sx**	
Tail Cement Length	816.2	'	
Tail Cement Yield	1.33	cuft/sk	
Tail Cement Density	13.5	lb/gal	
Tail Cement Excess	150	%	
Tail Cement Required	238	**sx**	

SHOE 4081 ', 7 ", 20 ppf, J-55 STC

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	3881	'	200' inside intermediate casing
Shoe Depth	8276	'	
Cement Yield	1.45	cuft/sk	
Cement Density	13.1	lb/gal	
Cement Excess	50	%	
Cement Required	462	**sx**	

SHOE 8276 ', 4.5 ", 11.6 ppf, N-80 LTC

SAN JUAN 29-5 #6M

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	410	sx
Cement Yield	2.88	cuft/sx
Slurry Volume	1180.2	cuft
	210.2	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	238	sx
Cement Yield	1.33	cuft/sx
Slurry Volume	316.4	cuft
	56.4	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	462	sx
Cement Yield	1.45	cuft/sx
Cement Volume	669.3	cuft
	119.2	
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	sx
Cement Yield	1.17	cuft/sx
Cement Volume	259.5	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	434	sx
Cement Yield	2.72	cuft/sx
Slurry Volume	1180.2	cuft
	210.2	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	242	sx
Cement Yield	1.31	cuft/sx
Slurry Volume	316.4	cuft
	56.4	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	465	sx
Cement Yield	1.44	cuft/sx
Cement Volume	669.3	cuft
	119.2	
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

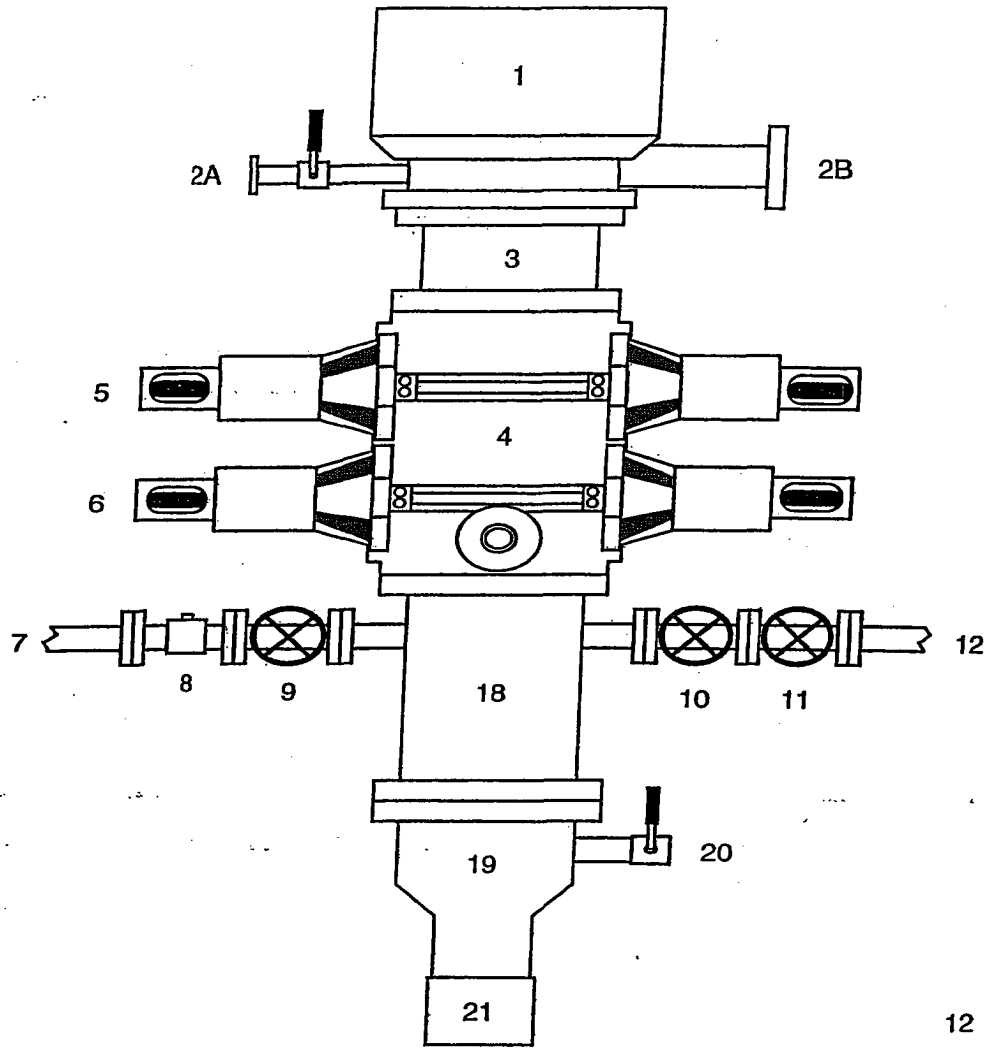
7" Intermediate Casing		
Lead Slurry		
Cement Recipe	75% Type XI / 25% Class G Cement	
	+ 0.25 lb/sx D029 Cellophane Flakes	
	+ 3% D079 Extender	
	+ 0.20% D046 Antifoam	
Cement Required	562	sx
Cement Yield	2.1	cuft/sx
Slurry Volume	1180.2	cuft
	210.2	bbls
Cement Density	11.7	ppg
Water Required	11.724	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	242	sx
Cement Yield	1.31	cuft/sx
Slurry Volume	316.4	cuft
	56.4	bbls
Cement Density	13.5	ppg
Water Required	5.317	gal/sx

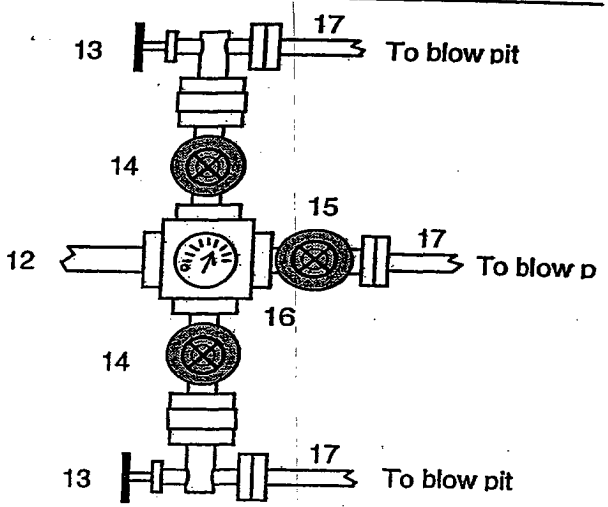
4-1/2" Production Casing		
Cement Recipe	50 / 50 POZ:Class G Cement	
	+ 0.25 lb/sx D029 Cellophane Flakes	
	+ 3% D020 Bentonite	
	+ 1.0 lb/sx D024 Gilsonite Extender	
	+ 0.25% D167 Fluid Loss	
	+ 0.15% D065 Dispersant	
	+ 0.1% D800 Retarder	
	+ 0.1% D046 Antifoamer	
	+ 3.5 lb/sx PhenoSeal	
Cement Quantity	465	sx
Cement Yield	1.44	cuft/sx
Cement Volume	669.3	cuft
	119.2	
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

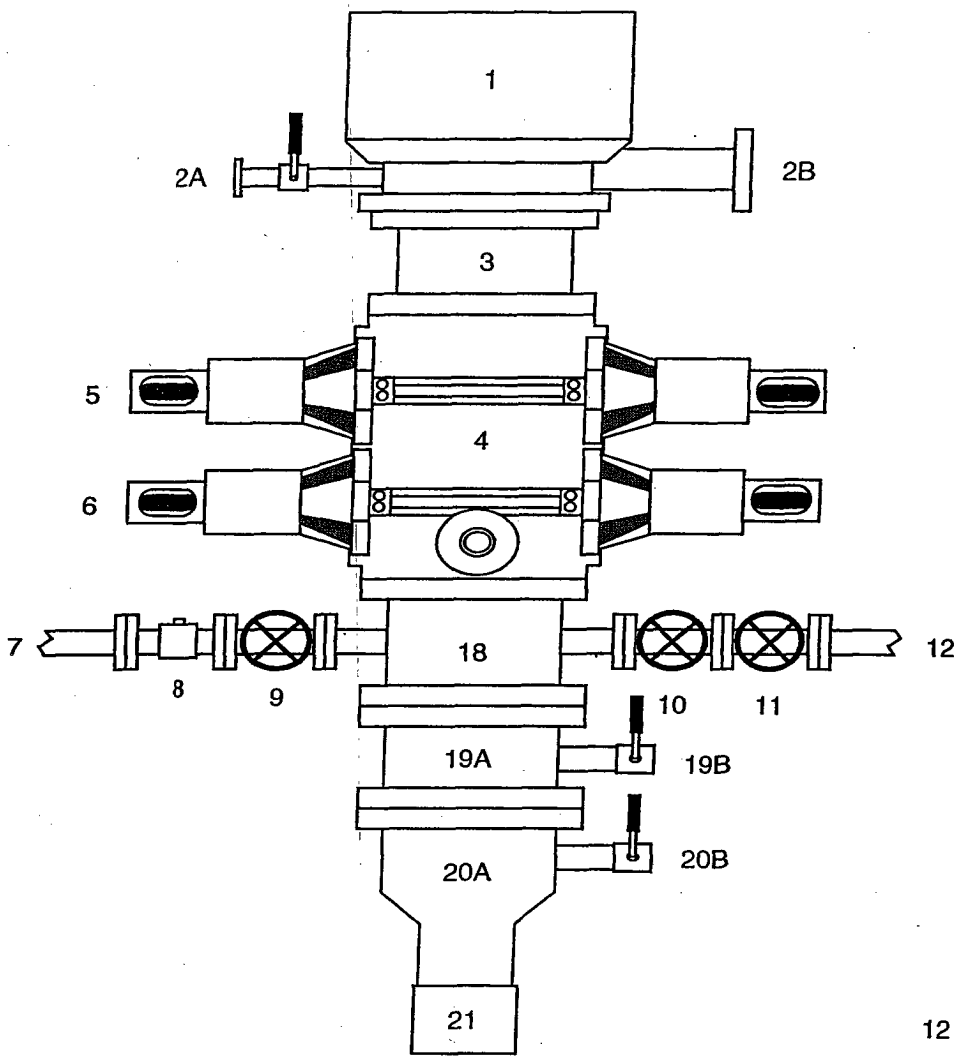


A 12-1/4" hole will be drilled to approximately 220' and the 9-5/8" surface casing will be run and cemented. The Casing Head "A" Section will be screwed onto the 9-5/8" surface casing stub. The BOP will be installed on the Casing Head "A" Section. A test plug will be set in the wellhead and the pipe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

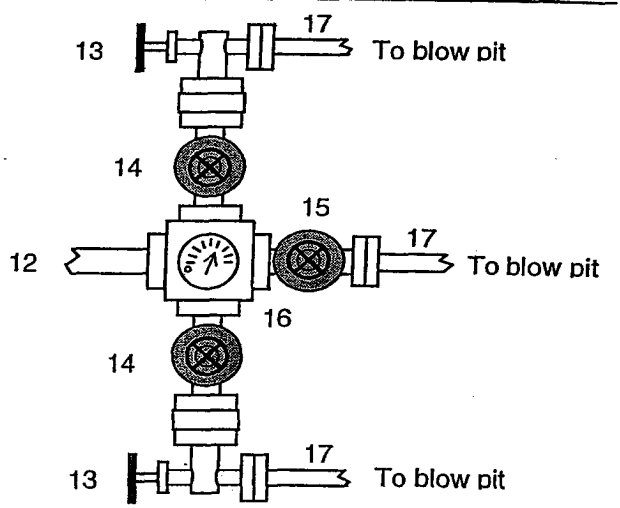
In addition to the equipment in the above diagram the following equipment will comprise the BOP system:

BLOWOUT PREVENTER ARRANGEMENT & PROGRAM

For Drilling to TD and Setting 4.5 inch Casing



1. Rotating Head
2A. Fill-up Line & valve
2B. Blooie 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 UNIT **Well #:** 6M

Surface Location:

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

County: RIO ARRIBA **State: New Mexico**

Footage: 330 **from the** SOUTH line, 2320 **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.