

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work DRILL	RECEIVED DEC 14 2009	5. Lease Number SF-079508 Unit Reporting Number NMNM91262-FC PC-lease
1b. Type of Well GAS		6. If Indian, All. or Tribe
2. Operator ConocoPhillips Company	Bureau of Land Management Farmington Field Office	7. Unit Agreement Name RCVD JAN 21 '10 OIL CONS. DIV. DIST. 3
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700		8. Farm or Lease Name Cole 9. Well Number 2S
4. Location of Well Surf: Unit L (NWSW), 1645' FSL & 905' FWL Bottomhole: Unit K (NESW), 1655' FSL & 1800' FWL Surf: Latitude: 36.615985° N (NAD83) Longitude: 107.870897° W Bottomhole: Latitude: 36.616008° N (NAD83) Longitude: 107.867853° W		10. Field, Pool, Wildcat Blanco FC / Fulcher Kutz PC 11. Sec., Twn, Rge, Mer. (NMPM) L Sec. 35, T28N, R10W API # 30-045- 35065
14. Distance in Miles from Nearest Town 16 miles / Bloomfield	12. County San Juan	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 905'	17. Acres Assigned to Well 320.00 W/2 - FC 160.00 SW/4 - PC	
16. Acres in Lease 320.00	H ₂ S POTENTIAL EXIST	
18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease 51' from Cole A 1	20. Rotary or Cable Tools Rotary	
19. Proposed Depth 2212'	22. Approx. Date Work will Start	
21. Elevations (DF, FT, GR, Etc.) 6020' GL	BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS	
23. Proposed Casing and Cementing Program See Operations Plan attached		
24. Authorized by: Crystal Tafoya Crystal Tafoya (Regulatory Technician)	12/14/2009 Date	

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

Archaeological Report attached

Threatened and Endangered Species Report attached

NOTE: This format is issued in lieu of U.S. BLM Form 3160-3

Title 18 U.S.C. Section 1001, makes 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 presentations as to any matter within its jurisdiction.

Example Master Plan Type 2

Bond Numbers NMB-000015 and NMB-000089

FEB 04 2010

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

NMOCDB

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

NOTIFY AZTEC CCD 24 HRS
PRIOR TO CASING & CEMENT

DISTRICT 1
1625 N. French Dr., Hobbs, N.M. 88240

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised October 12, 2005

DISTRICT II
1301 West Grand Avenue, Artesia, N.M. 88210

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

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045- 33065		*Pool Code 71629/77200	*Pool Name BASIN FRUITLAND COAL/ Fulcher Kutz Pictured Cl
*Property Code 37640	*Property Name COLE		*Well Number 2S
*OGRID No. 217817	*Operator Name CONOCOPHILLIPS COMPANY		*Elevation 6020'

¹⁰ Surface Location

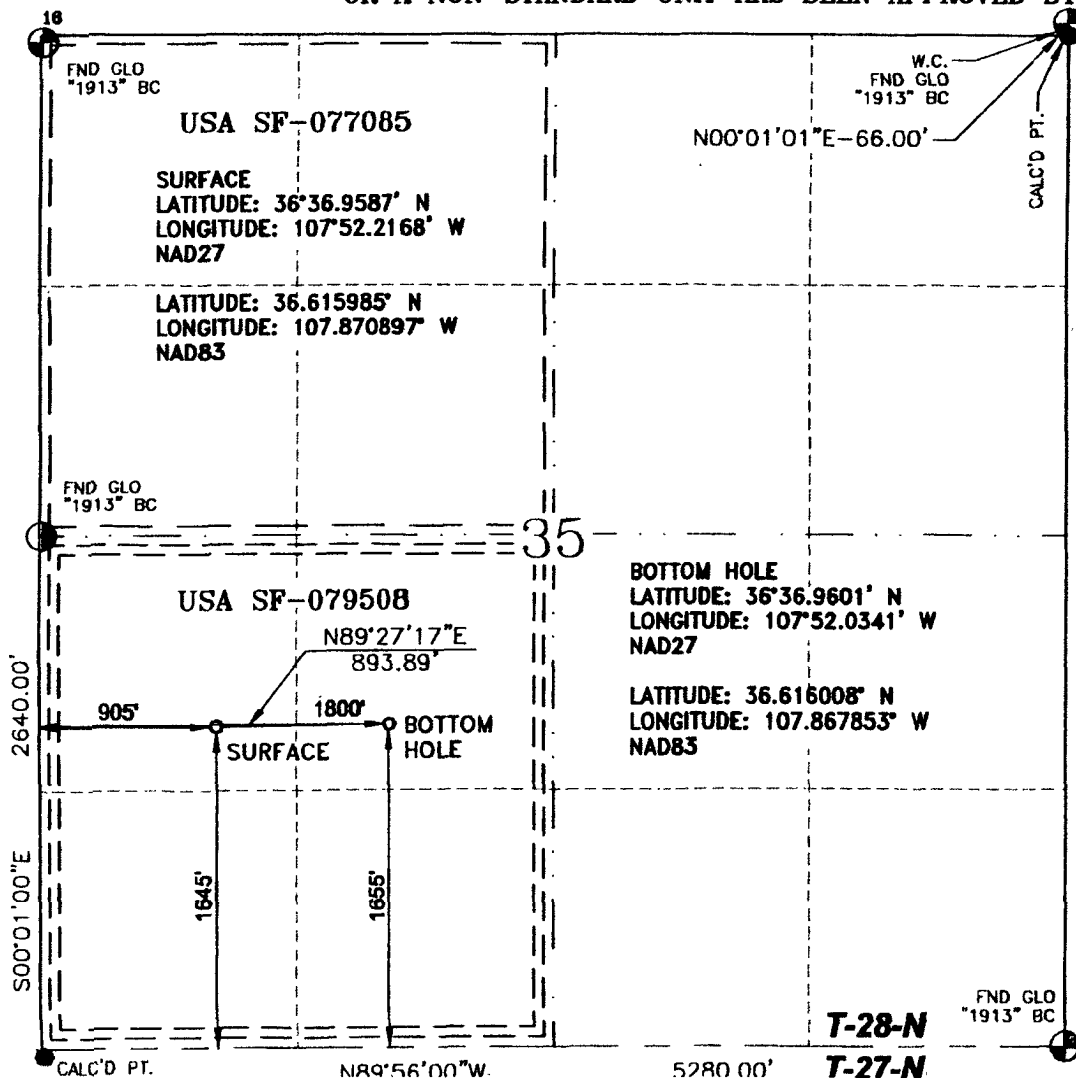
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	35	28-N	10-W		1645	SOUTH	905	WEST	SAN JUAN

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
K	35	28-N	10-W		1655	SOUTH	1800	WEST	SAN JUAN

13 Dedicated Acres FC 320.00 ACRES W/2 PC 160.00 ACRES SW/4	14 Joint or Infill	15 Consolidation Code	16 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, and that this organization either owns a working interest or an undivided mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or a voluntary pooling agreement or a compulsory pooling order heretofore entered by the Division.

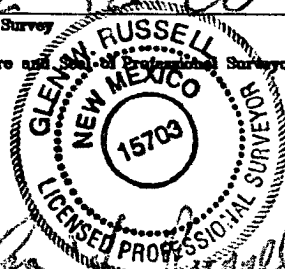
Signature Crystal Tafoya 3/26/09
Printed Name Crystal Tafoya 3-26-09

18 SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plot 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.

12-12-08
Date of Survey

Signature and Seal of Professional Surveyor



Certificate Number 15703

PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

COLE 2S

DEVELOPMENT

Lease:		AFE #: WAN.CDR.8259		AFE \$: 1,135,872.64	
Field Name: SAN JUAN		Rig: Aztec Rig 711		State: NM	County: SAN JUAN
Geologist:		Phone:		Geophysicist:	
Geoscientist: Koerschner, Bill		Phone: +1 505-326-9770		Prod. Engineer:	
Res. Engineer: Leung, Carmen E		Phone: +1 505-326-9567		Proj. Field Lead:	

Primary Objective (Zones):	
Zone	Zone Name
JCV	BASIN FRUITLAND COAL (GAS)
UPL	BLANCO PICTURED CLIFFS

Location:		Datum Code: NAD 27	
Latitude: 36.615978	Longitude: -107.870279	X:	Y:
Footage X: 905 FWL		Footage Y: 1645 FSL	
Elevation: 6020 (FT)		Township: 028N	
Tolerance:			

Location:		Datum Code: NAD 27	
Latitude: 36.616001	Longitude: -107.867235	X:	Y:
Footage X: 1800 FWL		Footage Y: 1655 FSL	
Elevation: (FT)		Township: 028N	
Tolerance:			

Location Type: Year Round	Start Date (Est.): 1/1/2010	Completion Date:	Date In Operation:
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Formation Data:	Assume KB = 6032	Units = FT
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Formation Call & Casing Points	Depth (TVD in Ft)	SS (Ft)	Depletion (Yes/No)	BHP (PSIG)	BHT	Remarks
Surface Casing	120	5912	☐			8-3/4 hole. 7" 20 ppf, J-55 STC csg. Cement with 50cuft. Circulate cement to surface.
OJO ALAMO	992	5040	☐			
KIRTLAND	1142	4890	☐			
FRUITLAND	1672	4360	☐			Gas
PICTURED CLIFFS	2012	4020	☐	200		Gas
Total Depth	2212	3820	☐			6-1/4" hole. 4-1/2" 10.5 ppf, J-55, STC casing. Cement with 375 cuft. Circulate cement 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 ☒ Other
GR/CBL	

Additional Information:					
Log Type	Stage	From (Ft)	To (Ft)	Tool Type/Name	Remarks

ConocoPhillips or its affiliates

Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well Cole #2S
Company:	ConocoPhillips SJB	TVD Reference:	WELL @ 6032 0ft (KB Elevation)
Project:	San Juan Basin - New Mexico Wells	MD Reference:	WELL @ 6032 0ft (KB Elevation)
Site:	Other Named Wells	North Reference:	True
Well:	Cole #2S	Survey Calculation Method:	Minimum Curvature
Wellbore:	Cole #2s- APD Proposed		
Design:	Cole #2S APD Plan		

Targets									
Target Name	hit/miss target	Dip Angle	Dip Dir	TVD	+N/-S	+E/-W	Northing	Easting	
Shape		(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)	
Vertical Section Top		0 00	0 00	1,622 0	8 4	737 0	2,043,477 59	489,157 33	
- plan hits target center									
- Point									
FTC Top		0 00	0 00	1,672 0	8 4	737 0	2,043,477 59	489,157.33	
- plan misses target center by 8 7ft at 1887 7ft MD (1670 5 TVD, 8 5 N, 745 6 E)									
- Point									
Well TD		0 00	0 00	2,212 0	8 4	737 0	2,043,477 59	489,157 33	
- plan misses target center by 102 5ft at 2419 5ft MD (2194 2 TVD, 9 6 N, 837 9 E)									
- Point									

Casing Points				
Measured Depth	Vertical Depth	Name	Casing Diameter	Hole Diameter
(ft)	(ft)		(")	(")
120.0	120 0	7"	7	8-3/4
2,437 6	2,212.0	4 1/2"	4-1/2	6-1/4

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(ft)	(ft)			(°)	(°)	
1,296 6	1,142 0	Kirtland		0 00		
1,889 3	1,672.0	Fruitland		0 00		
1,100 1	992.0	Ojo Alamo		0 00		
2,234 5	2,012 0	Pictured Cliffs		0 00		

REFERENCE INFORMATION

WELL @ 6032.0ft (KB Elevation)
 Ground Elevation 6020.0
 Reference Lat: 36° 36' 57.521 N
 Reference Long: 107° 52' 22.044 W

Project: San Juan Basin - New Mexico Wells

Site: Other Named Wells

Well: Cole #2S

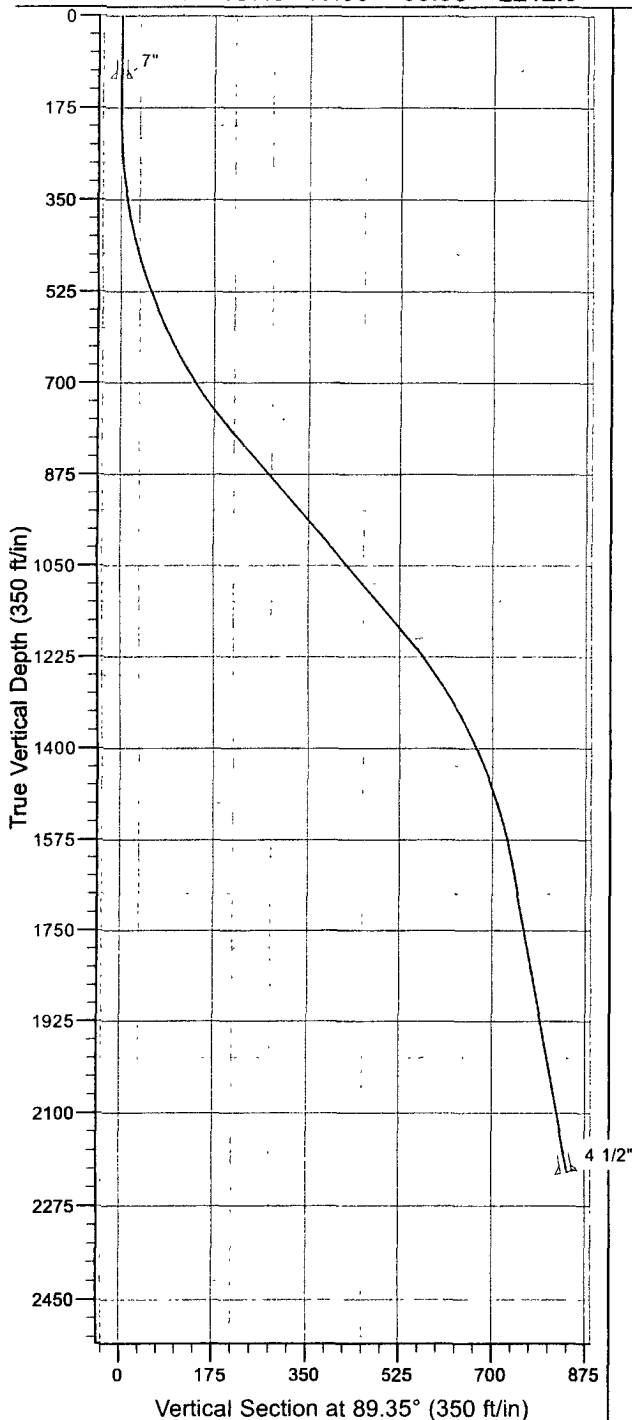
Wellbore: Cole #2s- APD Proposed

Design: Cole #2S APD Plan



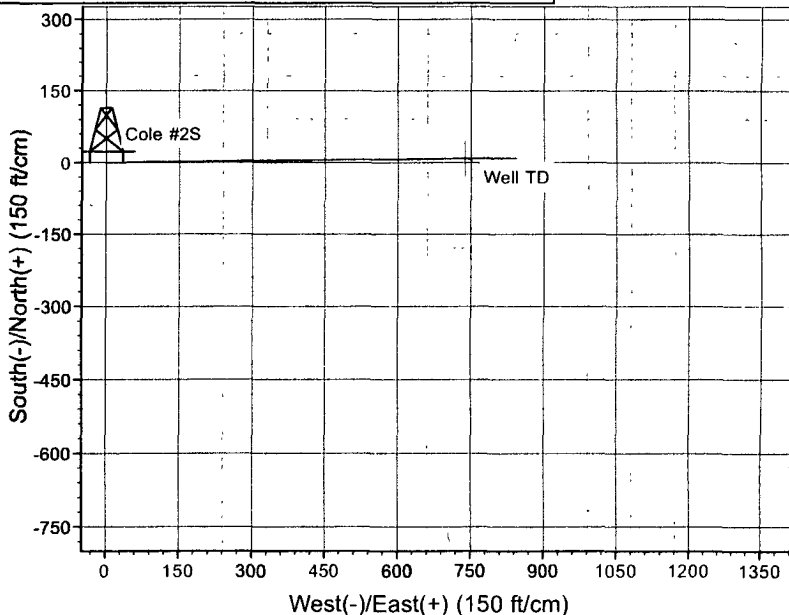
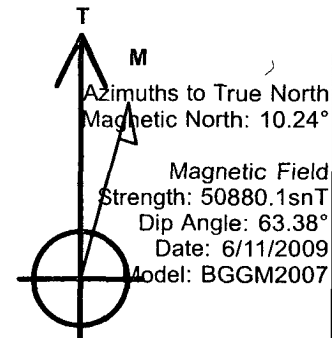
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	870.6	40.24	89.35	816.8	2.6	225.9	6.00	89.35	225.9	
4	1334.5	40.24	89.35	1171.0	6.0	525.6	0.00	0.00	525.6	
5	1838.5	10.00	89.35	1622.0	8.4	737.0	6.00	180.00	737.1	Vertical Section Top
6	1889.3	10.00	89.35	1672.0	8.5	745.8	0.00	0.00	745.9	FTC Top
7	2437.6	10.00	89.35	2212.0	9.6	841.0	0.00	0.00	841.1	Well TD



FORMATION TOP DETAILS

TVDPath	MDPath	Formation
2357.0	1100.1	Ojo Alamo
2507.0	1296.6	Kirtland
3037.0	1889.3	Fruitland
3377.0	2234.5	Pictured Cliffs



Directions from the Intersection of
Hwy 550 and Hwy64,
in Bloomfield, NM
to

CONOCOPHILLIPS COMPANY
COLE 2S

1645' FSL & 905' FWL,
Section 35, T28N, R10W, N.M.P.M., San Juan County,
New Mexico

Latitude: 36° 36' 57.54866" N
Longitude: 107° 52' 15.23257" W
Nad 1983

Go south on Hwy 550 for 1.0 miles to CR 4990,
turn left (easterly) on CR 4990 (Sullivan Road) 8.5 miles,
turn right (southerly) 1.7 miles,
turn right (southerly) 4.7 miles,
turn right (westerly) 0.5 miles,
turn left (southerly) 0.3 miles,
to newly staked location twinned on existing well pad,
COLE A 1.