

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

DEC 19 2012

1a. Type of Work
DRILL
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

5. Lease Number
SF-07884000
Unit Reporting Number
NM78413A(MV) NM78413C(DK)

6. If Indian, All. or Tribe

2. Operator
ConocoPhillips
Company
SAN JUAN 28-7 UNIT

7. Unit Agreement Name

3. Address & Phone No. of Operator
PO Box 4289, Farmington, NM 87499
(505) 326-9700

8. Farm or Lease Name

9. Well Number
237P
RCVD MAR 18 '13
OIL CONS. DIV.
DIST. 3

4. Location of Well
Surface: Unit J (NW/SE), 1517' FSL & 1865' FEL
BHL : Unit I (NE/SE), 1340' FSL & 1040' FEL
Surface: Latitude: 36.55539° N (NAD83)
Longitude: 107.61382° W
BHL : Latitude: 36.55487° N (NAD83)
Longitude: 107.61101° W

10. Field, Pool, Wildcat
BLANCO MV/BASIN DK

11. Sec., Twn, Rge, Mer. (NMPM)
Surf: Sec. 19, T27N, R7W
BHL : Sec. 19, T27N, R7W

API # 30-039-31167

14. Distance in Miles from Nearest Town
40 MILES/BLANCO

12. County
SAN JUAN
RIO ARriba

13. State
NM

15. Distance from Proposed Location to Nearest Property or Lease Line
1040'

16. Acres in Lease
1,281.510

17. Acres Assigned to Well
320.00 ACRES - E/2

18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease
72' FROM SJ 28-7 #237M - MV/DK

19. Proposed Depth
7495

20. Rotary or Cable Tools
Rotary

21. Elevations (DF, FT, GR, Etc.)
6627' GL

22. Approx. Date Work will Start

23. Proposed Casing and Cementing Program
See Operations Plan attached

24. Authorized by: Arleen White
Arleen White (Staff Regulatory Tech)

12/18/12
Date

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY Original Signed: Stephen Mason TITLE _____ DATE MAR 15 2013

Archaeological Report attached A gas recovery unit may or may not be used on this location.
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 3 Bond Numbers NMB-000015 and NMB-000089

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

MAR 28 2013 ca

This action is subject to technical and
procedural review pursuant to 43 CFR 3160.3
and appeal pursuant to 43 CFR 3165.4

Hold C104

for Directional Survey
and "As Drilled" plat

Hold C104

for Directional Survey
and "As Drilled" plat

PC

NOTIFY AZTEC OCD 24 HRS.
PRIOR TO CASING & CEMENT

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

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

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

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87606

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised October 12, 2005

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039- 31167	² Pool Code 72319/71599	³ Pool Name BLANCO MESAVERDE / BASIN DAKOTA
⁴ Property Code 31739	⁵ Property Name SAN JUAN 28-7 UNIT	⁶ Well Number 237 P
⁷ OGRID No. 217817	⁸ Operator Name CONOCOPHILLIPS COMPANY	⁹ Elevation 6627'

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
J	19	27N	7W		1517'	SOUTH	1865'	EAST	RIO ARRIBA

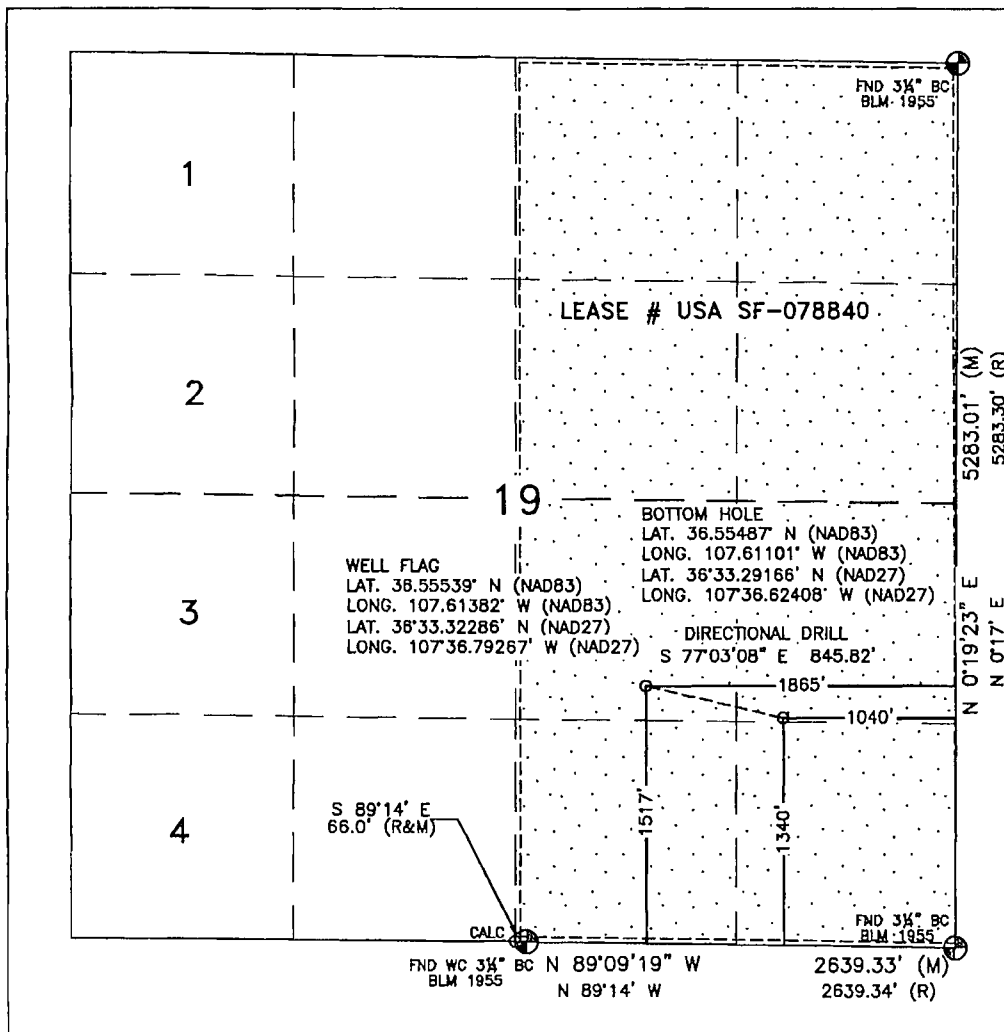
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	19	27N	7W		1340'	SOUTH	1040'	EAST	RIO ARRIBA

¹² Dedicated Acres 320.00 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

18



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 unleased 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 or a compulsory pooling order heretofore entered by the division.

Crystal Tafoya 3/2/09
Signature Date

Crystal Tafoya 3-2-09
Printed Name

¹⁸ SURVEYOR CERTIFICATION

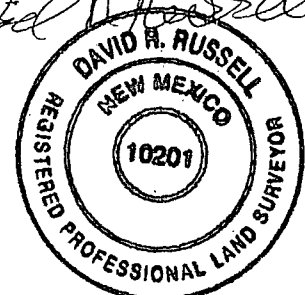
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

JANUARY 20, 2009

Date of Survey

Signature and Seal of Professional Surveyor:

David A. Russell



DAVID RUSSELL

Certificate Number

10201

PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

SAN JUAN 28-7 UNIT 237P

DEVELOPMENT

Lease:		AFE #: WAN.CDR.1128				AFE \$:	
Field Name: SAN JUAN		Rig: Aztec Rig 920		State: NM	County: RIO ARRIBA		API #:
Geologist:	Phone:	Geophysicist:		Phone:			
Geoscientist:	Phone:	Prod. Engineer:		Phone:			
Res. Engineer:	Phone:	Proj. Field Lead:		Phone:			
Primary Objective (Zones):							
Zone	Zone Name						
FRR	BASIN DAKOTA (PRORATED GAS)						
RON	BLANCO MESAVERDE (PRORATED GAS)						
Location: Surface Datum Code: NAD 27 Directional							
Latitude: 36.555381	Longitude: -107.613211	X:	Y:	Section: 19	Range: 007W		
Footage X: 1865 FEL	Footage Y: 1517 FSL	Elevation: 6627	(FT)	Township: 027N			
Tolerance:							
Location: Bottom Hole Datum Code: NAD 27 Directional							
Latitude: 36.554861	Longitude: -107.610401	X:	Y:	Section: 19	Range: 007W		
Footage X: 1040 FEL	Footage Y: 1340 FSL	Elevation:	(FT)	Township: 027N			
Tolerance:							
Location Type: Restricted		Start Date (Est.): 1/1/2013		Completion Date:		Date In Operation:	
Formation Data: Assume KB = 6642 Units = FT							
Formation Call & Casing Points	Depth (TVD in Ft)	SS (Ft)	MD (Ft)	Depletion (Yes/No)	BHP (PSIG)	BHT	Remarks
SAN JOSE	15	6627		☐			Lost circulation of 200 bbls in SJ 27-8 B 5, and 80 bbls in SJ 27-8 B 5. Ground water at 50' md in SJ 28-7 65.
Surface Casing	320	6322		☐		47	12-1/4 hole. 320' 9 5/8" 32.3 ppf, H-40, STC casing. Cement with 121 cuft. Circulate cement to surface.
NACIMIENTO	583	6059		☐			183
OJO ALAMO	2115	4527		☐			
KIRTLAND	2253	4389		☐			
FRUITLAND	2524	4118		☐			Possible Gas
PICTURED CLIFFS	2939	3703		☐	176		
LEWIS	3067	3575		☐		105	
HUERFANITO BENTONITE	3380	3262		☐			
CHACRA	3858	2784		☐			
UPPER CLIFF HOUSE	4413	2229		☐			
MASSIVE CLIFF HOUSE	4609	2033		☐	182		
MENEFE	4638	2004		☐			Gas - Est top MV perf 4946' tvd (~308' below T/MENF).
Intermediate Casing	4793	1849		☐		137	8 3/4" Hole. 7", 23 ppf, J-55, LTC Casing. Cement with 1076 cuft. Circulate cement to surface.
POINT LOOKOUT	5237	1405		☐			Gas - Est bot MV perf 5487' tvd (~250' below T/PNLK).
MANCOS	5571	1071		☐			
UPPER GALLUP	6389	253		☐			
GREENHORN	7191	-549		☐			
GRANEROS	7253	-611		☐		190	
TWO WELLS	7307	-665		☐	2946		Gas - Est top DK perf 7317' tvd (~10' below T/TWLS).

PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

SAN JUAN 28-7 UNIT 237P

DEVELOPMENT

PAGUATE	7346	-704	☐	Gas
UPPER CUBERO	7412	-770	☐	Gas
LOWER CUBERO	7418	-776	☐	Gas - Est bot DK perf 7475' tvd (~63' below T/CBRL). Wet in Harvey A 3M and 3N (27n7w32).
ENCINAL	7485	-843	☐	Gas - Check gas show during drilling to see if we're interested in completeing it.
Total Depth	7495	-853	☐	195 6-1/4" hole, 4-1/2" 11.6 ppf, L-80, LTC/BTC casing. Cement w/ 361 cuft. Circulate cement a minimum of 100' inside the previous casing string.
BURRO CANYON	7527	-885	☐	Look wet on the log.
MORRISON	7540	-898	☐	196

Reference Wells:

Reference Type	Well Name	Comments
Production	SAN JUAN 28-7 110	

Logging Program:

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

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

mud log from ~100' above grhn to td. Est bottom perf ~15' above Encinal. Mud logger will call td.

Additional Information:

Log Type	Stage	From (Ft)	To (Ft)	Tool Type/Name	Remarks
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ConocoPhillips or its affiliates

Planning Report

Database: EDM Central Planning
Company: ConocoPhillips SJB
Project: San Juan Basin - New Mexico West Wells
Site: San Juan 28 Wells
Well: SJ 28-7 #237P
Wellbore: Wellbore #1
Design: Plan #1

Local Co-ordinate Reference: Well SJ 28-7 #237P
TVD Reference: WELL @ 6642.0ft (Original Well Elev)
MD Reference: WELL @ 6642.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Project	San Juan Basin - New Mexico West Wells, New Mexico, Directional "S"		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Ground Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico West 3003		Using geodetic scale factor

Site	San Juan 28 Wells		
Site Position:		Northing:	2,046,354.53ft
From:	Lat/Long	Easting:	579,505.00ft
Position Uncertainty:	15.0 ft	Slot Radius:	"
		Latitude:	36° 37' 24.966 N
		Longitude:	107° 33' 44.640 W
		Grid Convergence:	0.16 °

Well	SJ 28-7 #237P		
Well Position	+N/-S	0.0 ft	Northing: 2,021,481.66 ft
	+E/-W	0.0 ft	Easting: 564,651.38 ft
Position Uncertainty	0.0 ft	Wellhead Elevation:	ft
		Latitude:	36° 33' 19.372 N
		Longitude:	107° 36' 47.560 W
		Ground Level:	6,627.0 ft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination (°)
	BGGM2012	6/26/2012	9.72
			Dip Angle (°)
			63.29
			Field Strength (nT)
			50,502

Design Plan #1

Audit Notes:

Version: Phase: PROTOTYPE Tie On Depth: 0.0

Vertical Section:	Depth From (TVD)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	102.92

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,975.9	19.52	102.92	1,957.1	-36.8	160.4	2.00	2.00	0.00	102.92	
3,689.1	19.52	102.92	3,571.9	-164.7	718.4	0.00	0.00	0.00	0.00	
4,339.7	0.00	0.00	4,210.0	-189.3	825.3	3.00	-3.00	0.00	180.00	SJ 28-7 #237P VEF
4,910.7	0.00	0.00	4,781.0	-189.3	825.3	0.00	0.00	0.00	0.00	SJ 28-7 #237P ICP
7,636.7	0.00	0.00	7,507.0	-189.3	825.3	0.00	0.00	0.00	0.00	SJ 28-7 #237P PCF

ConocoPhillips or its affiliates

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 TVD Reference: WELL @ 6642.0ft (Original Well Elev)
 MD Reference: WELL @ 6642.0ft (Original Well Elev)
 North Reference: True
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	2.00	102.92	1,100.0	-0.4	1.7	1.7	2.00	2.00	0.00
1,200.0	4.00	102.92	1,199.8	-1.6	6.8	7.0	2.00	2.00	0.00
1,300.0	6.00	102.92	1,299.5	-3.5	15.3	15.7	2.00	2.00	0.00
1,400.0	8.00	102.92	1,398.7	-6.2	27.2	27.9	2.00	2.00	0.00
1,500.0	10.00	102.92	1,497.5	-9.7	42.4	43.5	2.00	2.00	0.00
1,600.0	12.00	102.92	1,595.6	-14.0	61.0	62.6	2.00	2.00	0.00
1,700.0	14.00	102.92	1,693.1	-19.0	82.9	85.1	2.00	2.00	0.00
1,800.0	16.00	102.92	1,789.6	-24.8	108.2	111.0	2.00	2.00	0.00
1,900.0	18.00	102.92	1,885.3	-31.3	136.7	140.2	2.00	2.00	0.00
1,975.9	19.52	102.92	1,957.1	-36.8	160.4	164.6	2.00	2.00	0.00
2,000.0	19.52	102.92	1,979.8	-38.6	168.3	172.7	0.00	0.00	0.00
2,100.0	19.52	102.92	2,074.1	-46.1	200.9	206.1	0.00	0.00	0.00
2,152.9	19.52	102.92	2,124.0	-50.0	218.1	223.8	0.00	0.00	0.00
OJO ALAMO									
2,200.0	19.52	102.92	2,168.4	-53.5	233.4	239.5	0.00	0.00	0.00
2,283.4	19.52	102.92	2,247.0	-59.8	260.6	267.4	0.00	0.00	0.00
KIRTLAND									
2,300.0	19.52	102.92	2,262.6	-61.0	266.0	272.9	0.00	0.00	0.00
2,400.0	19.52	102.92	2,356.9	-68.5	298.6	306.3	0.00	0.00	0.00
2,500.0	19.52	102.92	2,451.1	-75.9	331.1	339.7	0.00	0.00	0.00
2,586.9	19.52	102.92	2,533.0	-82.4	359.4	368.7	0.00	0.00	0.00
FRUITLAND									
2,600.0	19.52	102.92	2,545.4	-83.4	363.7	373.1	0.00	0.00	0.00
2,700.0	19.52	102.92	2,639.6	-90.9	396.3	406.5	0.00	0.00	0.00
2,800.0	19.52	102.92	2,733.9	-98.3	428.8	439.9	0.00	0.00	0.00
2,900.0	19.52	102.92	2,828.1	-105.8	461.4	473.4	0.00	0.00	0.00
3,000.0	19.52	102.92	2,922.4	-113.3	493.9	506.8	0.00	0.00	0.00
3,013.4	19.52	102.92	2,935.0	-114.3	498.3	511.2	0.00	0.00	0.00
PICTURED CLIFFS									
3,100.0	19.52	102.92	3,016.6	-120.7	526.5	540.2	0.00	0.00	0.00
3,153.4	19.52	102.92	3,067.0	-124.7	543.9	558.0	0.00	0.00	0.00
LEWIS									
3,200.0	19.52	102.92	3,110.9	-128.2	559.1	573.6	0.00	0.00	0.00
3,300.0	19.52	102.92	3,205.2	-135.7	591.6	607.0	0.00	0.00	0.00
3,400.0	19.52	102.92	3,299.4	-143.1	624.2	640.4	0.00	0.00	0.00
3,433.5	19.52	102.92	3,331.0	-145.6	635.1	651.6	0.00	0.00	0.00
HUERFANITO BENTONITE									
3,500.0	19.52	102.92	3,393.7	-150.6	656.8	673.8	0.00	0.00	0.00
3,600.0	19.52	102.92	3,487.9	-158.1	689.3	707.2	0.00	0.00	0.00
3,689.1	19.52	102.92	3,571.9	-164.7	718.4	737.0	0.00	0.00	0.00
3,700.0	19.19	102.92	3,582.2	-165.5	721.9	740.6	3.00	-3.00	0.00
3,800.0	16.19	102.92	3,677.4	-172.3	751.5	771.0	3.00	-3.00	0.00

ConocoPhillips or its affiliates

Planning Report

Database: EDM Central Planning
 Company: ConocoPhillips SJB
 Project: San Juan Basin - New Mexico West Wells
 Site: San Juan 28 Wells
 Well: SJ 28-7 #237P
 Wellbore: Wellbore #1
 Design: Plan #1

Local Co-ordinate Reference: Well SJ 28-7 #237P
 TVD Reference: WELL @ 6642.0ft (Original Well Elev)
 MD Reference: WELL @ 6642.0ft (Original Well Elev)
 North Reference: True
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
3,900.0	13.19	102.92	3,774.2	-178.0	776.2	796.4	3.00	-3.00	0.00
3,983.7	10.68	102.92	3,856.0	-181.9	793.1	813.7	3.00	-3.00	0.00
CHACRA									
4,000.0	10.19	102.92	3,872.1	-182.5	796.0	816.6	3.00	-3.00	0.00
4,100.0	7.19	102.92	3,970.9	-185.9	810.7	831.7	3.00	-3.00	0.00
4,200.0	4.19	102.92	4,070.4	-188.1	820.3	841.6	3.00	-3.00	0.00
4,300.0	1.19	102.92	4,170.3	-189.2	824.9	846.3	3.00	-3.00	0.00
4,339.7	0.00	0.00	4,210.0	-189.3	825.3	846.7	3.00	-3.00	-259.11
SJ 28-7 #237P VERT									
4,400.0	0.00	0.00	4,270.3	-189.3	825.3	846.7	0.00	0.00	0.00
4,500.0	0.00	0.00	4,370.3	-189.3	825.3	846.7	0.00	0.00	0.00
4,539.7	0.00	0.00	4,410.0	-189.3	825.3	846.7	0.00	0.00	0.00
UPPER CLIFF HOUSE									
4,600.0	0.00	0.00	4,470.3	-189.3	825.3	846.7	0.00	0.00	0.00
4,700.0	0.00	0.00	4,570.3	-189.3	825.3	846.7	0.00	0.00	0.00
4,731.7	0.00	0.00	4,602.0	-189.3	825.3	846.7	0.00	0.00	0.00
MASSIVE CLIFF HOUSE									
4,760.7	0.00	0.00	4,631.0	-189.3	825.3	846.7	0.00	0.00	0.00
MENEFEE									
4,800.0	0.00	0.00	4,670.3	-189.3	825.3	846.7	0.00	0.00	0.00
4,900.0	0.00	0.00	4,770.3	-189.3	825.3	846.7	0.00	0.00	0.00
4,910.7	0.00	0.00	4,781.0	-189.3	825.3	846.7	0.00	0.00	0.00
SJ 28-7 #237P ICP									
5,000.0	0.00	0.00	4,870.3	-189.3	825.3	846.7	0.00	0.00	0.00
5,100.0	0.00	0.00	4,970.3	-189.3	825.3	846.7	0.00	0.00	0.00
5,200.0	0.00	0.00	5,070.3	-189.3	825.3	846.7	0.00	0.00	0.00
5,300.0	0.00	0.00	5,170.3	-189.3	825.3	846.7	0.00	0.00	0.00
5,374.7	0.00	0.00	5,245.0	-189.3	825.3	846.7	0.00	0.00	0.00
POINT LOOKOUT									
5,400.0	0.00	0.00	5,270.3	-189.3	825.3	846.7	0.00	0.00	0.00
5,500.0	0.00	0.00	5,370.3	-189.3	825.3	846.7	0.00	0.00	0.00
5,600.0	0.00	0.00	5,470.3	-189.3	825.3	846.7	0.00	0.00	0.00
5,688.7	0.00	0.00	5,559.0	-189.3	825.3	846.7	0.00	0.00	0.00
MANCOS									
5,700.0	0.00	0.00	5,570.3	-189.3	825.3	846.7	0.00	0.00	0.00
5,800.0	0.00	0.00	5,670.3	-189.3	825.3	846.7	0.00	0.00	0.00
5,900.0	0.00	0.00	5,770.3	-189.3	825.3	846.7	0.00	0.00	0.00
6,000.0	0.00	0.00	5,870.3	-189.3	825.3	846.7	0.00	0.00	0.00
6,100.0	0.00	0.00	5,970.3	-189.3	825.3	846.7	0.00	0.00	0.00
6,200.0	0.00	0.00	6,070.3	-189.3	825.3	846.7	0.00	0.00	0.00
6,300.0	0.00	0.00	6,170.3	-189.3	825.3	846.7	0.00	0.00	0.00
6,400.0	0.00	0.00	6,270.3	-189.3	825.3	846.7	0.00	0.00	0.00
6,500.0	0.00	0.00	6,370.3	-189.3	825.3	846.7	0.00	0.00	0.00
6,515.7	0.00	0.00	6,386.0	-189.3	825.3	846.7	0.00	0.00	0.00
UPPER GALLUP									
6,600.0	0.00	0.00	6,470.3	-189.3	825.3	846.7	0.00	0.00	0.00
6,700.0	0.00	0.00	6,570.3	-189.3	825.3	846.7	0.00	0.00	0.00
6,800.0	0.00	0.00	6,670.3	-189.3	825.3	846.7	0.00	0.00	0.00
6,900.0	0.00	0.00	6,770.3	-189.3	825.3	846.7	0.00	0.00	0.00
7,000.0	0.00	0.00	6,870.3	-189.3	825.3	846.7	0.00	0.00	0.00
7,100.0	0.00	0.00	6,970.3	-189.3	825.3	846.7	0.00	0.00	0.00
7,200.0	0.00	0.00	7,070.3	-189.3	825.3	846.7	0.00	0.00	0.00

ConocoPhillips or its affiliates

Planning Report

Database: EDM Central Planning
 Company: ConocoPhillips SJB
 Project: San Juan Basin - New Mexico West Wells
 Site: San Juan 28 Wells
 Well: SJ 28-7 #237P
 Wellbore: Wellbore #1
 Design: Plan #1

Local Co-ordinate Reference: Well SJ 28-7 #237P
 TVD Reference: WELL @ 6642.0ft (Original Well Elev)
 MD Reference: WELL @ 6642.0ft (Original Well Elev)
 North Reference: True
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
7,300.0	0.00	0.00	7,170.3	-189.3	825.3	846.7	0.00	0.00	0.00
7,300.7	0.00	0.00	7,171.0	-189.3	825.3	846.7	0.00	0.00	0.00
GREENHORN									
7,358.7	0.00	0.00	7,229.0	-189.3	825.3	846.7	0.00	0.00	0.00
GRANEROS									
7,400.0	0.00	0.00	7,270.3	-189.3	825.3	846.7	0.00	0.00	0.00
7,418.7	0.00	0.00	7,289.0	-189.3	825.3	846.7	0.00	0.00	0.00
TWO WELLS									
7,500.0	0.00	0.00	7,370.3	-189.3	825.3	846.7	0.00	0.00	0.00
7,514.7	0.00	0.00	7,385.0	-189.3	825.3	846.7	0.00	0.00	0.00
UPPER CUBERO									
7,536.7	0.00	0.00	7,407.0	-189.3	825.3	846.7	0.00	0.00	0.00
LOWER CUBERO									
7,600.0	0.00	0.00	7,470.3	-189.3	825.3	846.7	0.00	0.00	0.00
7,610.7	0.00	0.00	7,481.0	-189.3	825.3	846.7	0.00	0.00	0.00
ENCINAL									
7,636.7	0.00	0.00	7,507.0	-189.3	825.3	846.7	0.00	0.00	0.00
SJ 28-7 #237P PCP									

Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
SJ 28-7 #237P PCP	0.00	0.00	7,507.0	-189.3	825.3	2,021,294.30	565,477.07	36° 33' 17.500 N	107° 36' 37.445 W
- plan hits target center									
- Point									
SJ 28-7 #237P VERT	0.00	0.00	4,210.0	-189.3	825.3	2,021,294.30	565,477.07	36° 33' 17.500 N	107° 36' 37.445 W
- plan hits target center									
- Point									
SJ 28-7 #237P ICP	0.00	0.00	4,781.0	-189.3	825.3	2,021,294.26	565,477.09	36° 33' 17.500 N	107° 36' 37.445 W
- plan hits target center									
- Point									

ConocoPhillips or its affiliates

Planning Report

Database: EDM Central Planning
Company: ConocoPhillips SJB
Project: San Juan Basin - New Mexico West Wells
Site: San Juan 28 Wells
Well: SJ 28-7 #237P
Wellbore: Wellbore #1
Design: Plan #1

Local Co-ordinate Reference: Well SJ 28-7 #237P
TVD Reference: WELL @ 6642.0ft (Original Well Elev)
MD Reference: WELL @ 6642.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,586.9	2,533.0	FRUITLAND		0.00	
3,013.4	2,935.0	PICTURED CLIFFS		0.00	
7,358.7	7,229.0	GRANEROS		0.00	
5,374.7	5,245.0	POINT LOOKOUT		0.00	
7,536.7	7,407.0	LOWER CUBERO		0.00	
3,433.5	3,331.0	HUERFANITO BENTONITE		0.00	
3,153.4	3,067.0	LEWIS		0.00	
5,688.7	5,559.0	MANCOS		0.00	
4,731.7	4,602.0	MASSIVE CLIFF HOUSE		0.00	
2,283.4	2,247.0	KIRTLAND		0.00	
4,760.7	4,631.0	MENEFEE		0.00	
7,418.7	7,289.0	TWO WELLS		0.00	
7,610.7	7,481.0	ENCINAL		0.00	
7,514.7	7,385.0	UPPER CUBERO		0.00	
7,300.7	7,171.0	GREENHORN		0.00	
6,515.7	6,386.0	UPPER GALLUP		0.00	
2,152.9	2,124.0	OJO ALAMO		0.00	
3,983.7	3,856.0	CHACRA		0.00	
4,539.7	4,410.0	UPPER CLIFF HOUSE		0.00	

REFERENCE INFORMATION

WELL @ 6642.0ft (Original Well Elev)
Ground Elevation 6627.0
Reference Lat: 36° 33' 19.372 N
Reference Long: 107° 36' 47.560 W

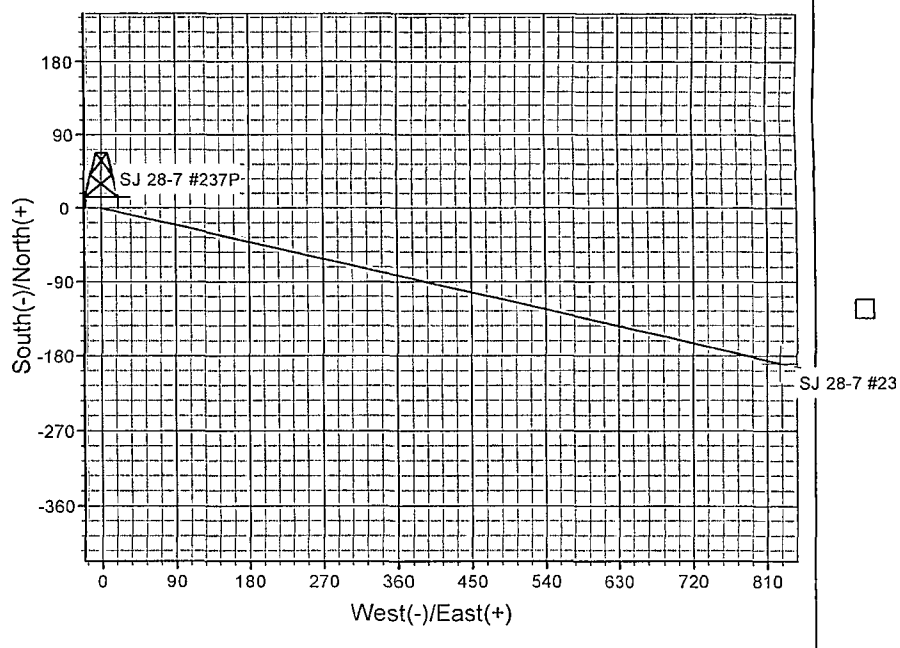
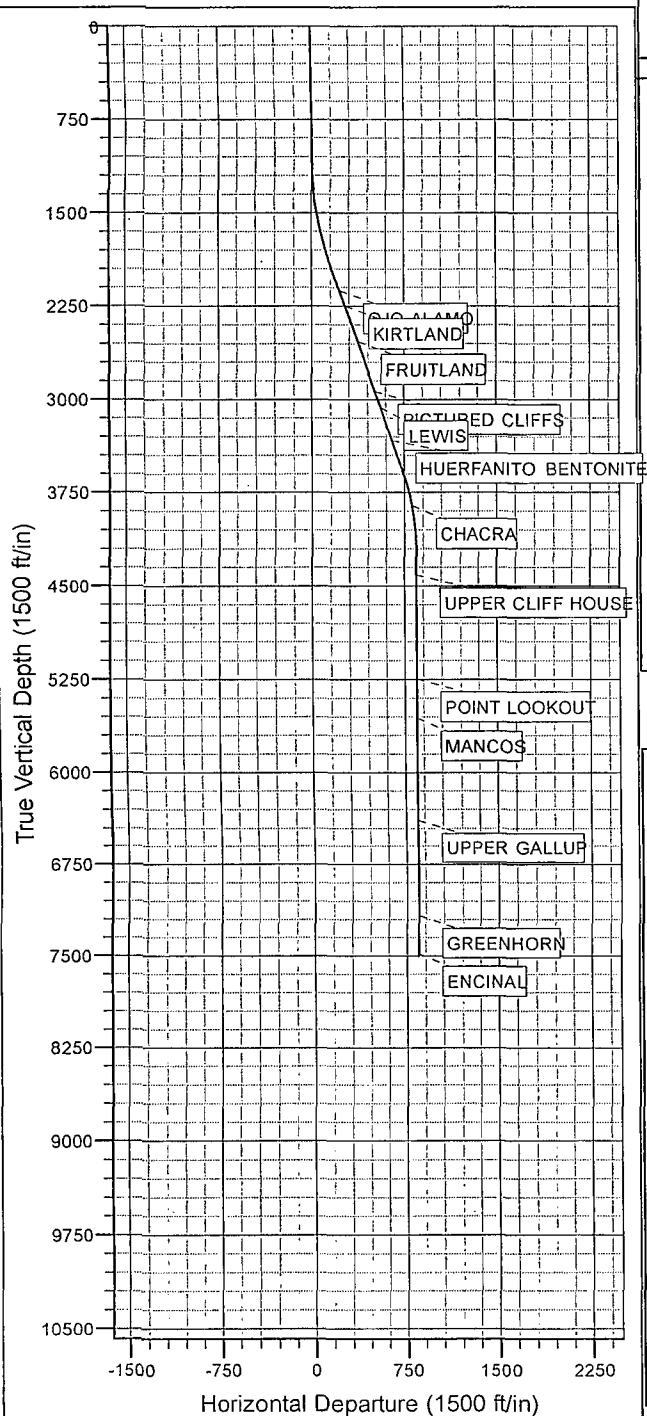
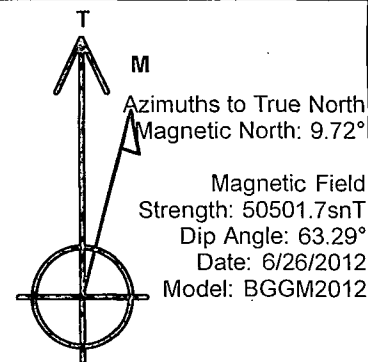
Project: San Juan Basin - New Mexico West V
Site: San Juan 28 Wells
Well: SJ 28-7 #237P
Wellbore: Wellbore #1
Design: Plan #1

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	1000.0	0.00	0.00	1000.0	0.0	0.0	0.00	0.00	0.0	
3	1975.9	19.52	102.92	1957.1	-36.8	160.4	2.00	102.92	164.6	
4	3689.1	19.52	102.92	3571.9	-164.7	718.4	0.00	0.00	737.0	
5	4339.7	0.00	0.00	4210.0	-189.3	825.3	3.00	180.00	846.7	SJ 28-7 #237P VERT
6	4910.7	0.00	0.00	4781.0	-189.3	825.3	0.00	0.00	846.7	SJ 28-7 #237P ICP
7	7636.7	0.00	0.00	7507.0	-189.3	825.3	0.00	0.00	846.7	SJ 28-7 #237P PCP

FORMATION TOP DETAILS

VDPPath	MDPath	Formation
2124.0	2152.9	OJO ALAMO
2247.0	2283.4	KIRTLAND
2533.0	2586.9	FRUITLAND
2935.0	3013.4	PICTURED CLIFF
3067.0	3153.4	LEWIS
3331.0	3433.5	HUERFANITO BE
3856.0	3983.7	CHACRA
4410.0	4539.7	UPPER CLIFF HO
4602.0	4731.7	MASSIVE CLIFF H
4631.0	4760.7	MENEFEE
5245.0	5374.7	POINT LOOKOUT
5559.0	5688.7	MANCOS
6386.0	6515.7	UPPER GALLUP
7171.0	7300.7	GREENHORN
7229.0	7358.7	GRANEROS
7289.0	7418.7	TWO WELLS
7385.0	7514.7	UPPER CUBERO
7407.0	7536.7	LOWER CUBERO
7481.0	7610.7	ENCINAL



CONOCOPHILLIPS COMPANY

SAN JUAN 28-7 UNIT #237 P
1517' FSL & 1865' FEL
LOCATED IN THE NW/4 SE/4 OF SECTION 19,
T27N, R7W, N.M.P.M.,
RIO ARriba COUNTY, NEW MEXICO

DIRECTIONS

- 1) FROM HWY 64 & CR 4450, GO SOUTHERLY ON CR 4450 FRO 25 MILES TO OLD SCHOOL HOUSE.
- 2) FROM "T" INTERSECTION, GO NORTHERLY UP ICE CANYON FOR 3.3 MILES.
- 3) TURN LEFT & GO 2.85 MILES TO "Y" INTERSECTION.
- 4) TURN LEFT (GO AROUND CHEVRON COMP. SITE) & GO 5.95 MILES.
- 5) STAY LEFT & GO 0.4 MILES.
- 6) TURN LEFT & GO 0.3 MILES TO "Y" INTERSECTION.
- 7) STAY LEFT & GO 0.75 MILES TO "Y" INTERSECTION.
- 8) TURN LEFT & GO 0.2 MILES.
- 9) TURN LEFT INTO WELL PAD WHERE IT IS TWINNED.

WELL FLAG LOCATED AT LAT. 36.55539° N, LONG.107.61382° W (NAD 83).

