

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

FEB 15 2011

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work DRILL	5. Lease Number USA SF-079363 Unit Reporting Number	
1b. Type of Well GAS	6. If Indian, All. or Tribe	
2. Operator BURLINGTON RESOURCES Oil & Gas Company, LP	7. Unit Agreement Name San Juan 28-6 Unit	
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	8. Farm or Lease Name 9. Well Number 161P	
4. Location of Well Surface: Unit C(NENW), 95' FNL & 2335' FWL BH: Unit O(SWSE), 780' FSL & 2350' FSL Surface: Latitude: 36.581297° N (NAD83) Longitude: 107.419608° W BH: Latitude: 36.3583700° N (NAD83) Longitude: 107.417593° W	10. Field, Pool, Wildcat Basin DK/Blanco MV 11. Sec., Twn, Rge, Mer. (NMPM) S: Sec. 13, T27N, R6W BH: Sec. 12, T27N, R6W API # 30-039-31027	
14. Distance in Miles from Nearest Town 37.4 Miles from Blanco, NM	12. County Rio Arriba	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 95'		
16. Acres in Lease 2,560.42	17. Acres Assigned to Well 320.00 Acres (MV/DK)	Eb
18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease 1561' from BROG-San Juan 28-6 Unit #182 (MV)		
19. Proposed Depth 7695'	20. Rotary or Cable Tools Rotary	DIST. 3
21. Elevations (DF, FT, GR, Etc.) 6503' GL	22. Approx. Date Work will Start OIL CONS. DIV.	
23. Proposed Casing and Cementing Program See Operations Plan attached	 H ₂ S POTENTIAL EXIST	
24. Authorized by: <u>Brandie Blakley</u> Brandie Blakley (Staff Regulatory Technician)	<u>2-14-11</u> Date	RCVD APR 5 '11

PERMIT NO. _____ APPROVAL DATE _____
APPROVED BY [Signature] TITLE ARM DATE 3/30/11

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

This action is subject to technical and procedural review pursuant to 43 CFR 3165.8 and appeal pursuant to 43 CFR 3165.4

APR 13 2011 NMOCD

DRILLING OPERATIONS AUTHORIZED ARE
SUBJECT TO COMPLIANCE WITH ATTACHED

BLM'S APPROVAL OR ACCEPTANCE OF THIS
ACTION DOES NOT RELIEVE THE LESSEE AND
OPERATOR FROM OBTAINING ANY OTHER
AUTHORIZATION REQUIRED FOR OPERATIONS

Hold C104
of Directional Survey
and "As Drilled" plat

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

DISTRICT II
1301 West 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 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

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

Farmington Field Office
Bureau of Land Management

Form C-102
Revised July 16, 2010

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

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-31027	² Pool Code 71599/72319	³ Pool Name BASIN DAKOTA/BLANCO MESAVERDE
⁴ Property Code 7462	⁵ Property Name SAN JUAN 28 - 6 UNIT	⁶ Well Number 161P
⁷ GRID No. 14538	⁸ Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY LP	⁹ Elevation 6503'

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
C	13	27-N	6-W		95	NORTH	2335	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
O	12	27-N	6-W		780	SOUTH	2350	EAST	RIO ARRIBA
¹² Dedicated Acres MV 320.00 ACRES E/2 DK 320.00 ACRES E/2			¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ Order No.		

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

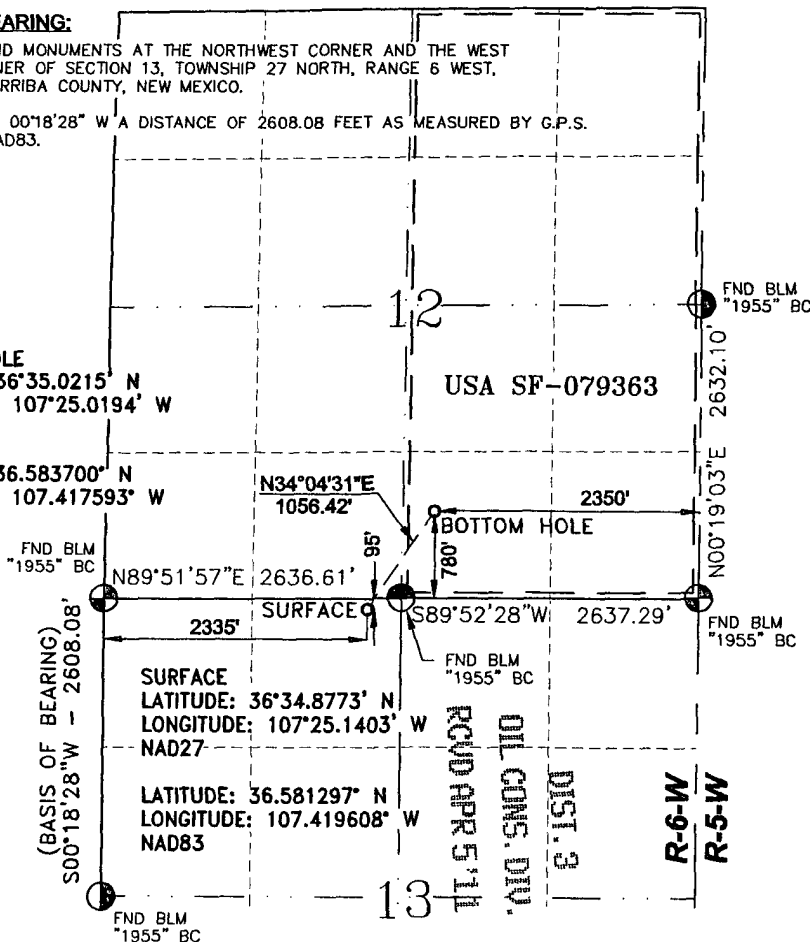
BASIS OF BEARING:

BETWEEN FOUND MONUMENTS AT THE NORTHWEST CORNER AND THE WEST
QUARTER CORNER OF SECTION 13, TOWNSHIP 27 NORTH, RANGE 6 WEST,
N.M.P.M. RIO ARRIBA COUNTY, NEW MEXICO.

LINE BEARS: S 00°18'28" W A DISTANCE OF 2608.08 FEET AS MEASURED BY G.P.S.
LOCAL GRID NAD83.

BOTTOM HOLE
LATITUDE: 36°35.0215' N
LONGITUDE: 107°25.0194' W
NAD27

LATITUDE: 36.583700° N
LONGITUDE: 107.417593° W
NAD83



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 of such a mineral or a working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Brandie Blakley 10-4-10
Signature

Brandie Blakley
Printed Name

blaklbn@conocophillips.com

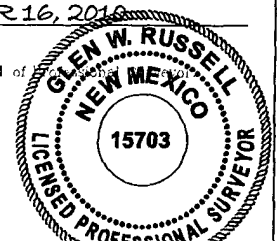
E-Mail Address

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.

SEPTEMBER 16, 2010
Date of Survey

Signature and Seal of



GLEN W. RUSSELL
Certificate Number

15703

PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

SAN JUAN 28-6 UNIT 161P

DEVELOPMENT

Lease:		AFE #: WAN.CDR.0071				AFE \$: 840,869.10	
Field Name: SAN JUAN		Rig: Aztec Rig 711		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: 36.581288	Longitude: -107.419005	X:	Y:	Section: 13		Range: 006W	
Footage X: 2335 FWL	Footage Y: 95 FNL	Elevation: 6503	(FT)	Township: 027N			
Tolerance:							
Location: Bottom Hole Datum Code: NAD 27 Directional:							
Latitude: 36.583691	Longitude: -107.416990	X:	Y:	Section: 12		Range: 006W	
Footage X: 2350 FEL	Footage Y: 780 FSL	Elevation:	(FT)	Township: 027N			
Tolerance:							
Location Type: Restricted		Start Date (Est.): 1/1/2012		Completion Date:		Date In Operation:	
Formation Data: Assume KB = 6518 Units = FT							
Formation Call & Casing Points	Depth (TVD in Ft)	SS (Ft)	MD (Ft)	Depletion (Yes/No)	BHP (PSIG)	BHT	Remarks
Surface Casing	230	6288		☐			12-1/4 hole. 230' 9 5/8" 32.3 ppf, H-40, STC casing. Cement with 121 cuft. Circulate cement to surface.
NACIMIENTO	1147	5371		☐			
OJO ALAMO	2560	3958		☐			
KIRTLAND	2739	3779		☐			
FRUITLAND	2922	3596		☐			Possible Gas
PICTURED CLIFFS	3262	3256		☐			
LEWIS	3394	3124		☐			
Intermediate Casing	3544	2974		☐	113		8 3/4" Hole. 7", 23 ppf, J-55, LTC Casing. Cement with xxx cuft. Circulate cement to surface.
HUERFANITO BENTONITE	3782	2736		☐			835
CHACRA	4220	2298		☐			
UPPER CLIFF HOUSE	4825	1693		☐			Gas; Est. Top Perf - 4827 (1691)
MASSIVE CLIFF HOUSE	4925	1593		☐	646		Gas; Cliffhouse is dry
MENEFEE	5056	1462		☐			
POINT LOOKOUT	5443	1075		☐			
MANCOS	5915	603		☐			
UPPER GALLUP	6607	-89		☐			
GREENHORN	7364	-846		☐			
GRANEROS	7430	-912		☐			
TWO WELLS	7456	-938		☐	2326		Gas
PAGUATE	7556	-1038		☐			
UPPER CUBERO	7580	-1062		☐			

PROJECT PROPOSAL - New Drill / Sidetrack

SAN JUAN 28-6 UNIT 161P

DEVELOPMENT

LOWER CUBERO	7620	-1102	☒	Est. Btm Perf - 7680 (- 1162) based on offset wells
OAK CANYON	7684	-1166	☐	TD - 75' below T/CBRL
Total Depth	7695	-1177	☐	192 6-1/4" hole, 4-1/2" 11.6 ppf, L-80, LTC casing. Cement w/ 3000 cuft. Circulate cement a minimum of 100' inside the previous casing string.
ENCINAL	7705	-1187	☐	565

Reference Wells:

Reference Type	Well Name	Comments
Production	SJ 28-6 Unit 161M	27N 6W 12 NE SE
Production	SJ 28-6 Unit 182N	27N 6W 12 NE NE SW
Production	SJ 28-6 Unit 182	27N 6W 12 NE SW SW
Production	SJ 28-6 Unit 179M	27N 6W 13 NE NW

Logging Program:

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

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

Cased Hole GR / CBL

Mudlog from 100' above top of GLLP to TD - mudlogger 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	Local Co-ordinate Reference:	Well SJ 28-6 #161P
Company:	ConocoPhillips SJB	TVD Reference:	RKB @ 6518.0ft (AWS RIGS)
Project:	San Juan Basin - New Mexico West Wells	MD Reference:	RKB @ 6518.0ft (AWS RIGS)
Site:	San Juan 28 Wells	North Reference:	True
Well:	SJ 28-6 #161P	Survey Calculation Method:	Minimum Curvature
Wellbore:	Principal Wellbore		
Design:	Plan #1		

Project:	San Juan Basin - New Mexico West Wells, New Mexico, Directional "S"		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea 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:	2,042,566.26 ft
From:	Lat/Long	Easting:	563,690.29 ft
Position Uncertainty:	15.0 ft	Slot Radius:	"
		Grid Convergence:	0.13 °

Well:	SJ 28-6 #161P, Directional "S" Curve Short, No Lewis		
Well Position	+N/-S	0.0 ft	Northing:
	+E/-W	0.0 ft	Easting:
Position Uncertainty	3.5 ft	Wellhead Elevation:	ft
		Ground Level:	6,503.0 ft

Wellbore:	Principal Wellbore		
Magnetics	Model Name	Sample Date	Declination
	BGGM2010	11/29/2010	9.79
			Dip Angle
			63.44
			Field Strength
			50,743

Design:	Plan #1		
Audit Notes:			
Version:	1	Phase:	PROTOTYPE
		Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(ft)	(ft)	(ft)
	0.0	0.0	0.0
			Direction
			34.07

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	
320.0	0.00	0.00	320.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,664.8	26.90	34.07	1,616.0	256.7	173.6	2.00	2.00	0.00	34.07	
2,857.9	26.90	34.07	2,680.0	703.8	475.9	0.00	0.00	0.00	0.00	
3,754.5	0.00	0.00	3,544.0	875.0	591.7	3.00	-3.00	0.00	180.00	SJ 28-6 #161P - ICP
7,905.5	0.00	0.00	7,695.0	875.0	591.7	0.00	0.00	0.00	0.00	SJ 28-6 #161P - PCP

ConocoPhillips or its affiliates

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Project:	San Juan Basin - New Mexico West Wells	MD Reference:	RKB @ 6518.0ft (AWS RIGS)
Site:	San Juan 28 Wells	North Reference:	True
Well:	SJ 28-6 #161P	Survey Calculation Method:	Minimum Curvature
Wellbore:	Principal Wellbore		
Design:	Plan #1		

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
230.0	0.00	0.00	230.0	0.0	0.0	0.0	0.00	0.00	0.00
9 5/8"									
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
320.0	0.00	0.00	320.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	1.60	34.07	400.0	0.9	0.6	1.1	2.00	2.00	0.00
500.0	3.60	34.07	499.9	4.7	3.2	5.7	2.00	2.00	0.00
600.0	5.60	34.07	599.6	11.3	7.7	13.7	2.00	2.00	0.00
700.0	7.60	34.07	698.9	20.8	14.1	25.2	2.00	2.00	0.00
800.0	9.60	34.07	797.8	33.2	22.5	40.1	2.00	2.00	0.00
900.0	11.60	34.07	896.0	48.5	32.8	58.5	2.00	2.00	0.00
1,000.0	13.60	34.07	993.6	66.5	45.0	80.3	2.00	2.00	0.00
1,100.0	15.60	34.07	1,090.4	87.4	59.1	105.5	2.00	2.00	0.00
1,158.9	16.78	34.07	1,147.0	101.0	68.3	122.0	2.00	2.00	0.00
Nacimlento									
1,200.0	17.60	34.07	1,186.2	111.1	75.1	134.1	2.00	2.00	0.00
1,300.0	19.60	34.07	1,281.0	137.5	93.0	166.0	2.00	2.00	0.00
1,400.0	21.60	34.07	1,374.6	166.7	112.7	201.2	2.00	2.00	0.00
1,500.0	23.60	34.07	1,466.9	198.5	134.2	239.6	2.00	2.00	0.00
1,600.0	25.60	34.07	1,557.8	233.0	157.5	281.2	2.00	2.00	0.00
1,664.8	26.90	34.07	1,616.0	256.7	173.6	309.9	2.00	2.00	0.00
1,700.0	26.90	34.07	1,647.3	269.9	182.5	325.8	0.00	0.00	0.00
1,800.0	26.90	34.07	1,736.5	307.4	207.8	371.0	0.00	0.00	0.00
1,900.0	26.90	34.07	1,825.7	344.8	233.2	416.3	0.00	0.00	0.00
2,000.0	26.90	34.07	1,914.9	382.3	258.5	461.5	0.00	0.00	0.00
2,100.0	26.90	34.07	2,004.1	419.8	283.9	506.8	0.00	0.00	0.00
2,200.0	26.90	34.07	2,093.3	457.3	309.2	552.0	0.00	0.00	0.00
2,300.0	26.90	34.07	2,182.4	494.7	334.5	597.2	0.00	0.00	0.00
2,400.0	26.90	34.07	2,271.6	532.2	359.9	642.5	0.00	0.00	0.00
2,500.0	26.90	34.07	2,360.8	569.7	385.2	687.7	0.00	0.00	0.00
2,600.0	26.90	34.07	2,450.0	607.2	410.6	733.0	0.00	0.00	0.00
2,700.0	26.90	34.07	2,539.2	644.6	435.9	778.2	0.00	0.00	0.00
2,723.4	26.90	34.07	2,560.0	653.4	441.8	788.8	0.00	0.00	0.00
Ojo Alamo									
2,800.0	26.90	34.07	2,628.4	682.1	461.2	823.4	0.00	0.00	0.00
2,857.9	26.90	34.07	2,680.0	703.8	475.9	849.6	0.00	0.00	0.00
2,900.0	25.63	34.07	2,717.7	719.3	486.4	868.3	3.00	-3.00	0.00
2,923.5	24.93	34.07	2,739.0	727.6	492.0	878.3	3.00	-3.00	0.00
Kirtland									
3,000.0	22.63	34.07	2,809.0	753.1	509.3	909.1	3.00	-3.00	0.00
3,100.0	19.63	34.07	2,902.3	783.0	529.4	945.2	3.00	-3.00	0.00
3,120.9	19.01	34.07	2,922.0	788.7	533.3	952.1	3.00	-3.00	0.00
Fruitland									
3,200.0	16.63	34.07	2,997.3	808.8	546.9	976.3	3.00	-3.00	0.00
3,300.0	13.63	34.07	3,093.8	830.4	561.5	1,002.4	3.00	-3.00	0.00
3,400.0	10.63	34.07	3,191.5	847.8	573.3	1,023.4	3.00	-3.00	0.00
3,471.4	8.49	34.07	3,262.0	857.6	579.9	1,035.3	3.00	-3.00	0.00
Pictured Cliffs									
3,500.0	7.63	34.07	3,290.3	861.0	582.2	1,039.3	3.00	-3.00	0.00
3,600.0	4.63	34.07	3,389.7	869.8	588.2	1,050.0	3.00	-3.00	0.00
3,604.3	4.50	34.07	3,394.0	870.1	588.3	1,050.3	3.00	-3.00	0.00

ConocoPhillips or its affiliates

Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well SJ 28-6 #161P
Company:	ConocoPhillips SJB	TVD Reference:	RKB @ 6518.0ft (AWS RIGS)
Project:	San Juan Basin - New Mexico West Wells	MD Reference:	RKB @ 6518.0ft (AWS RIGS)
Site:	San Juan 28 Wells	North Reference:	True
Well:	SJ 28-6 #161P	Survey Calculation Method:	Minimum Curvature
Wellbore:	Principal Wellbore		
Design:	Plan #1		

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)	
Lewis										
3,700.0	1.63	34.07	3,489.5	874.3	591.2	1,055.5	3.00	-3.00	0.00	
3,754.5	0.00	0.00	3,544.0	875.0	591.7	1,056.2	3.00	-3.00	-62.53	
7" - SJ 28-6 #161P - ICP										
3,800.0	0.00	0.00	3,589.5	875.0	591.7	1,056.2	0.00	0.00	0.00	
3,900.0	0.00	0.00	3,689.5	875.0	591.7	1,056.2	0.00	0.00	0.00	
3,992.5	0.00	0.00	3,782.0	875.0	591.7	1,056.2	0.00	0.00	0.00	
Huerfano Bentonite										
4,000.0	0.00	0.00	3,789.5	875.0	591.7	1,056.2	0.00	0.00	0.00	
4,100.0	0.00	0.00	3,889.5	875.0	591.7	1,056.2	0.00	0.00	0.00	
4,200.0	0.00	0.00	3,989.5	875.0	591.7	1,056.2	0.00	0.00	0.00	
4,300.0	0.00	0.00	4,089.5	875.0	591.7	1,056.2	0.00	0.00	0.00	
4,400.0	0.00	0.00	4,189.5	875.0	591.7	1,056.2	0.00	0.00	0.00	
4,430.5	0.00	0.00	4,220.0	875.0	591.7	1,056.2	0.00	0.00	0.00	
Chacra										
4,500.0	0.00	0.00	4,289.5	875.0	591.7	1,056.2	0.00	0.00	0.00	
4,600.0	0.00	0.00	4,389.5	875.0	591.7	1,056.2	0.00	0.00	0.00	
4,700.0	0.00	0.00	4,489.5	875.0	591.7	1,056.2	0.00	0.00	0.00	
4,800.0	0.00	0.00	4,589.5	875.0	591.7	1,056.2	0.00	0.00	0.00	
4,900.0	0.00	0.00	4,689.5	875.0	591.7	1,056.2	0.00	0.00	0.00	
5,000.0	0.00	0.00	4,789.5	875.0	591.7	1,056.2	0.00	0.00	0.00	
5,035.5	0.00	0.00	4,825.0	875.0	591.7	1,056.2	0.00	0.00	0.00	
Upper Cliffhouse										
5,100.0	0.00	0.00	4,889.5	875.0	591.7	1,056.2	0.00	0.00	0.00	
5,135.5	0.00	0.00	4,925.0	875.0	591.7	1,056.2	0.00	0.00	0.00	
Massive Cliffhouse										
5,200.0	0.00	0.00	4,989.5	875.0	591.7	1,056.2	0.00	0.00	0.00	
5,266.5	0.00	0.00	5,056.0	875.0	591.7	1,056.2	0.00	0.00	0.00	
Menefee										
5,300.0	0.00	0.00	5,089.5	875.0	591.7	1,056.2	0.00	0.00	0.00	
5,400.0	0.00	0.00	5,189.5	875.0	591.7	1,056.2	0.00	0.00	0.00	
5,500.0	0.00	0.00	5,289.5	875.0	591.7	1,056.2	0.00	0.00	0.00	
5,600.0	0.00	0.00	5,389.5	875.0	591.7	1,056.2	0.00	0.00	0.00	
5,653.5	0.00	0.00	5,443.0	875.0	591.7	1,056.2	0.00	0.00	0.00	
Pt. Lookout										
5,700.0	0.00	0.00	5,489.5	875.0	591.7	1,056.2	0.00	0.00	0.00	
5,800.0	0.00	0.00	5,589.5	875.0	591.7	1,056.2	0.00	0.00	0.00	
5,900.0	0.00	0.00	5,689.5	875.0	591.7	1,056.2	0.00	0.00	0.00	
6,000.0	0.00	0.00	5,789.5	875.0	591.7	1,056.2	0.00	0.00	0.00	
6,100.0	0.00	0.00	5,889.5	875.0	591.7	1,056.2	0.00	0.00	0.00	
6,125.5	0.00	0.00	5,915.0	875.0	591.7	1,056.2	0.00	0.00	0.00	
Mancos Shale										
6,200.0	0.00	0.00	5,989.5	875.0	591.7	1,056.2	0.00	0.00	0.00	
6,300.0	0.00	0.00	6,089.5	875.0	591.7	1,056.2	0.00	0.00	0.00	
6,400.0	0.00	0.00	6,189.5	875.0	591.7	1,056.2	0.00	0.00	0.00	
6,500.0	0.00	0.00	6,289.5	875.0	591.7	1,056.2	0.00	0.00	0.00	
6,600.0	0.00	0.00	6,389.5	875.0	591.7	1,056.2	0.00	0.00	0.00	
6,700.0	0.00	0.00	6,489.5	875.0	591.7	1,056.2	0.00	0.00	0.00	
6,800.0	0.00	0.00	6,589.5	875.0	591.7	1,056.2	0.00	0.00	0.00	
6,817.5	0.00	0.00	6,607.0	875.0	591.7	1,056.2	0.00	0.00	0.00	
Gallup										
6,900.0	0.00	0.00	6,689.5	875.0	591.7	1,056.2	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 28-6 #161P
 Wellbore: Principal Wellbore
 Design: Plan #1

Local Co-ordinate Reference
 TVD Reference:
 MD Reference:
 North Reference:
 Survey Calculation Method:

Well SJ 28-6 #161P
 RKB @ 6518.0ft (AWS RIGS)
 RKB @ 6518.0ft (AWS RIGS)
 True
 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)	
7,000.0	0.00	0.00	6,789.5	875.0	591.7	1,056.2	0.00	0.00	0.00	
7,100.0	0.00	0.00	6,889.5	875.0	591.7	1,056.2	0.00	0.00	0.00	
7,200.0	0.00	0.00	6,989.5	875.0	591.7	1,056.2	0.00	0.00	0.00	
7,300.0	0.00	0.00	7,089.5	875.0	591.7	1,056.2	0.00	0.00	0.00	
7,400.0	0.00	0.00	7,189.5	875.0	591.7	1,056.2	0.00	0.00	0.00	
7,500.0	0.00	0.00	7,289.5	875.0	591.7	1,056.2	0.00	0.00	0.00	
7,574.5	0.00	0.00	7,364.0	875.0	591.7	1,056.2	0.00	0.00	0.00	
Greenhorn										
7,600.0	0.00	0.00	7,389.5	875.0	591.7	1,056.2	0.00	0.00	0.00	
7,640.5	0.00	0.00	7,430.0	875.0	591.7	1,056.2	0.00	0.00	0.00	
Graneros										
7,666.5	0.00	0.00	7,456.0	875.0	591.7	1,056.2	0.00	0.00	0.00	
Two Wells										
7,700.0	0.00	0.00	7,489.5	875.0	591.7	1,056.2	0.00	0.00	0.00	
7,766.5	0.00	0.00	7,556.0	875.0	591.7	1,056.2	0.00	0.00	0.00	
Paguate										
7,790.5	0.00	0.00	7,580.0	875.0	591.7	1,056.2	0.00	0.00	0.00	
Upper Cubero										
7,800.0	0.00	0.00	7,589.5	875.0	591.7	1,056.2	0.00	0.00	0.00	
7,830.5	0.00	0.00	7,620.0	875.0	591.7	1,056.2	0.00	0.00	0.00	
Lower Cubero										
7,894.5	0.00	0.00	7,684.0	875.0	591.7	1,056.2	0.00	0.00	0.00	
Oak Canyon										
7,905.5	0.00	0.00	7,695.0	875.0	591.7	1,056.2	0.00	0.00	0.00	
Total Depth - 4 1/2" - SJ 28-6 #161P - PCP										

Targets										
Target Name	hit/miss target	Dip Angle (°)	Dip Dir (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
SJ 28-6 #161P - PCP	- plan hits target center - Circle (radius 100.0)	0.00	0.00	7,695.0	875.0	591.7	2,031,978.42	622,238.49	36° 35' 1.290 N	107° 25' 1.164 W
SJ 28-6 #161P - ICP	- plan hits target center - Circle (radius 100.0)	0.00	0.00	3,544.0	875.0	591.7	2,031,978.42	622,238.49	36° 35' 1.290 N	107° 25' 1.164 W

Casing Points						
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")		
7,905.5	7,695.0	4 1/2"	4-1/2	6-1/4		
230.0	230.0	9 5/8"	9-5/8	12-1/4		
3,754.5	3,544.0	7"	7	8-3/4		

ConocoPhillips or its affiliates

Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well SJ 28-6 #161P
Company:	ConocoPhillips SJBU	TVD Reference:	RKB @ 6518.0ft (AWS RIGS)
Project:	San Juan Basin - New Mexico West Wells	MD Reference:	RKB @ 6518.0ft (AWS RIGS)
Site:	San Juan 28 Wells	North Reference:	True
Well:	SJ 28-6 #161P	Survey Calculation Method:	Minimum Curvature
Wellbore Design:	Principal Wellbore Plan #1		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction	
5,653.5	5,443.0	Pt. Lookout		0.00		
7,790.5	7,580.0	Upper Cubero		0.00		
3,604.3	3,394.0	Lewis		0.00		
7,666.5	7,456.0	Two Wells		0.00		
7,830.5	7,620.0	Lower Cubero		0.00		
7,894.5	7,684.0	Oak Canyon		0.00		
7,640.5	7,430.0	Graneros		0.00		
7,905.5	7,695.0	Total Depth		0.00		
3,471.4	3,262.0	Pictured Cliffs		0.00		
2,723.4	2,560.0	Ojo Alamo		0.00		
2,923.5	2,739.0	Kirtland		0.00		
3,992.5	3,782.0	Huerfano Bentonite		0.00		
4,430.5	4,220.0	Chacra		0.00		
7,574.5	7,364.0	Greenhorn		0.00		
7,766.5	7,556.0	Paguate		0.00		
5,035.5	4,825.0	Upper Cliffhouse		0.00		
6,125.5	5,915.0	Mancos Shale		0.00		
3,120.9	2,922.0	Fruitland		0.00		
6,817.5	6,607.0	Gallup		0.00		
1,158.9	1,147.0	Nacimiento		0.00		
5,135.5	4,925.0	Massive Cliffhouse		0.00		
5,266.5	5,056.0	Menefee		0.00		

REFERENCE INFORMATION

RKB @ 6518.0ft (AWS RIGS)
Ground Elevation 6503.0
Reference Lat: 36° 34' 52.638 N
Reference Long: 107° 25' 8.418 W

Project: San Juan Basin - New Mexico West V

Site: San Juan 28 Wells

Well: SJ 28-6 #161P

Wellbore: Principal Wellbore

Design: Plan #1

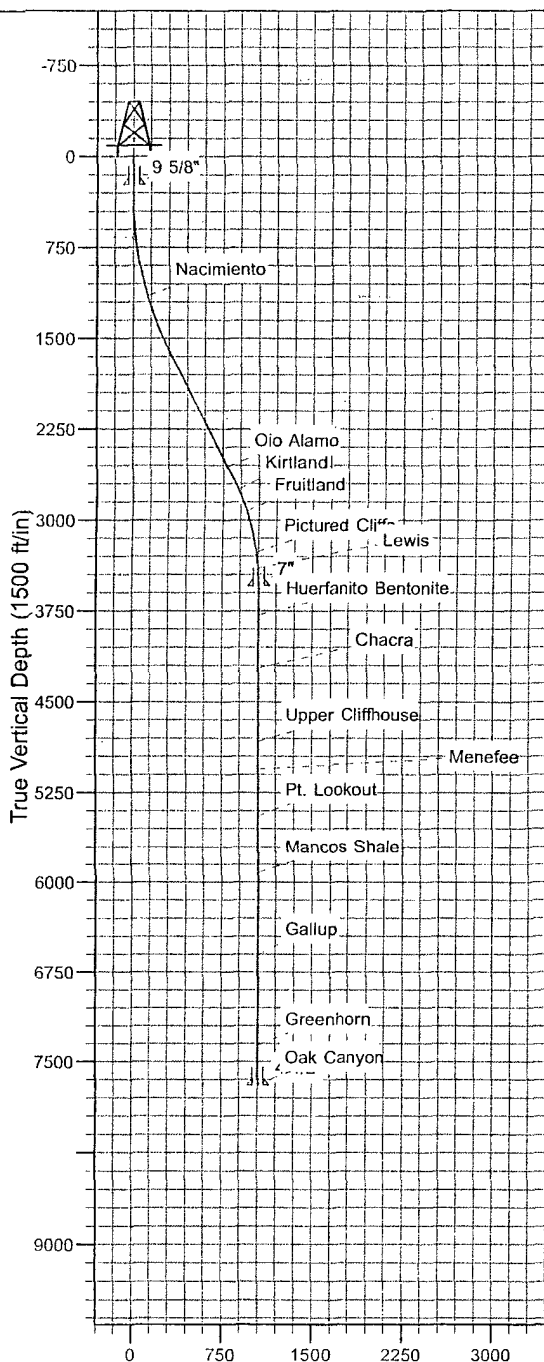
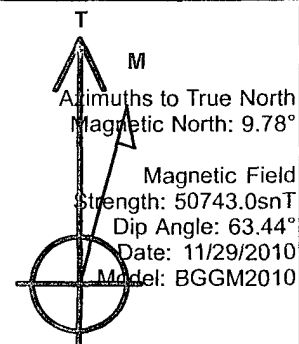


SECTION DETAILS

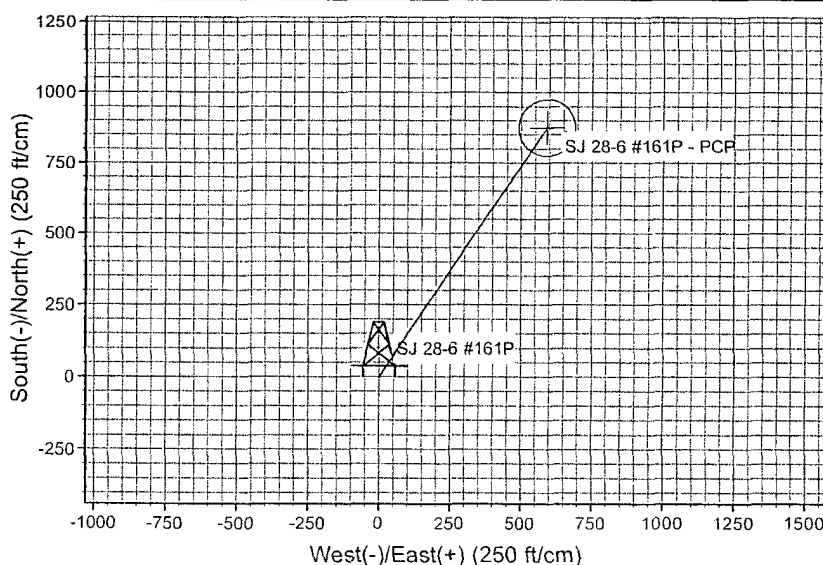
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	320.0	0.00	0.00	320.0	0.0	0.0	0.00	0.00	0.0	
3	1664.8	26.90	34.07	1616.0	256.7	173.6	2.00	34.07	309.9	
4	2857.9	26.90	34.07	2680.0	703.8	475.9	0.00	0.00	849.6	
5	3754.5	0.00	0.00	3544.0	875.0	591.7	3.00	180.00	1056.2	SJ 28-6 #161P - ICP
6	7905.5	0.00	0.00	7695.0	875.0	591.7	0.00	0.00	1056.2	SJ 28-6 #161P - PCP

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1147.0	1158.9	Nacimiento
2560.0	2723.4	Ojo Alamo
2739.0	2923.5	Kirtland
2922.0	3120.9	Fruitland
3262.0	3471.4	Pictured Cliffs
3394.0	3604.3	Lewis
3782.0	3992.5	Huerfano Bentonite
4220.0	4430.5	Chacra
4825.0	5035.5	Upper Cliffhouse
4925.0	5135.5	Massive Cliffhouse
5056.0	5266.5	Menefee
5443.0	5653.5	Pt. Lookout
5915.0	6125.5	Mancos Shale
6607.0	6817.5	Gallup
7364.0	7574.5	Greenhorn
7430.0	7640.5	Graneros
7456.0	7666.5	Two Wells
7556.0	7766.5	Paguate
7580.0	7790.5	Upper Cubero
7620.0	7830.5	Lower Cubero
7684.0	7894.5	Oak Canyon
7695.0	7905.5	Total Depth



Vertical Section at 34.07° (1500 ft/in)



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Directions from the Post Office
in Blanco, NM
to
Burlington Resources Oil & Gas Company LP
SAN JUAN 28-6 UNIT #161P
95' FNL & 2335' FWL,
Section 13, T27N, R6W, N.M.P.M., Rio Arriba County,
New Mexico
Latitude: 36° 34' 52.670" N
Longitude: 107° 25' 10.588" W
Nad 1983

Take Highway 64 East for 27.6 miles
turn right (southerly) on General American 1.1 miles,
stay right @ y-intersec (southerly),
on General American for 6.3 miles,
turn right (southwesterly) for 0.5 miles,
turn right (west-southwesterly) for 1.9 miles,
to newly staked location.