

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

Sundry Notices and Reports on Wells

1. Type of Well
GAS

2. Name of Operator

ConocoPhillips

3. Address & Phone No. of Operator

PO Box 4289, Farmington, NM 87499 (505) 326-9700

4. Location of Well, Footage, Sec., T, R, M

Surface: Unit I (NESE), 1530' FSL & 770' FEL, Section 20, T27N, R7W, NMPM
Bottomhole: Unit J (NWSE), 1600' FSL & 1930' FEL, Section 20, T27N, R7W, NMPM

5. Lease Number
SF-078640
6. If Indian, All. or
Tribe Name
7. Unit Agreement Name
San Juan 28-7 Unit
8. Well Name & Number
San Juan 28-7 Unit 153M
9. API Well No.
30-039-30631
10. Field and Pool
Blanco MV / Basin DK
11. County and State
Rio Arriba, NM

12. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OTHER DATA

Type of Submission

Type of Action

☒ Notice of Intent

☐ Abandonment

☐ Change of Plans

☒ Other - Deepen Inter Casing

☐ Subsequent Report

☐ Recompletion

☐ New Construction

☐ Final Abandonment

☐ Plugging

☐ Non-Routine Fracturing

☐ Casing Repair

☐ Water Shut off

☐ Altering Casing

☐ Conversion to Injection

**RCVD DEC 22 '09
OIL CONS. DIV.
DIST. 3**

13. Describe Proposed or Completed Operations

ConocoPhillips Company requests permission to change the intermediate casing set depth from the APD approved 9/15/09 from 3900' TVD to 4776' TVD due to possibility of water in the Cliffhouse formation. The Intermediate Casing will be 7", 23# J-55 LT&C set from the surface to 4776' TVD. The Intermediate casing will be set approximately 150' into the Menefee formation. The BLM (Troy Salyers) & OCD (Charlie Perrin) were contacted 12/15/09. Cement volumes will be adjusted accordingly. The new project proposal and directional drill plan are attached.

* Surface casing will be set at 320'

CONDITIONS OF APPROVAL
Adhere to previously issued stipulations.

14. I hereby certify that the foregoing is true and correct.

Signed Crystal Tafoya Crystal Tafoya

Title Regulatory Technician Date 12/16/09

(This space for Federal or State Office use)

APPROVED BY Troy L Salyers Title Petroleum Engineer Date 12/18/2009

CONDITION OF APPROVAL, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

NMOCDB

PROJECT PROPOSAL - New Drill / Sidetrack

SAN JUAN 28-7 UNIT 153M

DEVELOPMENT

Lease:		AFE #: WAN.CDR.8295				AFE \$: 1,596,354.28	
Field Name: SAN JUAN		Rig: H&P Rig 282		State: NM	County: RIO ARRIBA		API #: 3003930631
Geologist:		Phone:		Geophysicist:		Phone:	
Geoscientist: Johnson, David		Phone: +1 505-324-6169		Prod. Engineer:		Phone:	
Res. Engineer: Prabowo, Wahyu		Phone: +1-505-326-9797		Proj. Field Lead:		Phone:	
Primary Objective (Zones):							
Zone	Zone Name						
FRR	BASIN DAKOTA (PRORATED GAS)						
RON	BLANCO MESAVERDE (PRORATED GAS)						
- Mud logs 100' above Gallup - TD ✓ - Estimated 15' bit - perf							
Location: Surface Datum Code: NAD 27 Directional							
Latitude: 36.555313		Longitude: -107.591555		X:	Y:	Section: 20	Range: 007W
Footage X: 770 FEL		Footage Y: 1530 FSL		Elevation: 6571 (FT)		Township: 027N	
Tolerance:							
Location: Bottom Hole Datum Code: NAD 27 Directional							
Latitude: 36.555521		Longitude: -107.595500		X:	Y:	Section: 20	Range: 007W
Footage X: 1930 FEL		Footage Y: 1600 FSL		Elevation:		(FT) Township: 027N	
Tolerance:							
Location Type: Restricted		Start Date (Est.): 1/1/2009		Completion Date:		Date In Operation:	
Formation Data: Assume KB = 6587 Units = FT							
Formation Call & Casing Points	Depth (TVD in Ft)	SS (Ft)	Depletion (Yes/No)	BHP (PSIG)	BHT	Remarks	
Surface Casing	320	6267	☐			12-1/4" hole. 200' 9 5/8" 32.3 ppf, H-40, STC casing. Cement with 183 cuft. Circulate cement to surface.	
NACIMIENTO	580	6007	☐				
OJO ALAMO	2072	4515	☐				
KIRTLAND	2254	4333	☐				
FRUITLAND	2521	4066	☐			Possible Gas	
PICTURED CLIFFS	2938	3649	☐				
LEWIS	3056	3531	☐				
HUERFANITO BENTONITE	3312	3275	☐				
CHACRA	3846	2741	☐				
MASSIVE CLIFF HOUSE	4603	1984	☐	200		Gas	
MENEFEE	4626	1961	☐				
Intermediate Casing	4776	1811	☐			8 3/4" Hole. 7", 23 ppf, J-55, LTC Casing. Cement with 1118 cuft. Circulate cement to surface. ✓	
POINT LOOKOUT	5206	1381	☐				
MANCOS	5568	1019	☐				
UPPER GALLUP	6376	211	☐				
GREENHORN	7160	-573	☐				
GRANEROS	7222	-635	☐				
TWO WELLS	7276	-689	☐	2884		Gas	
UPPER CUBERO	7381	-794	☐				
LOWER CUBERO	7406	-819	☐				
ENCINAL	7474	-887	☐				

PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

SAN JUAN 28-7 UNIT 153M

DEVELOPMENT

Total Depth	7475	-888	☐	6-1/4" hole, 4-1/2" 11.6 ppf, J-55/L-80, LTC casing. Cement w/ 372 cuft. Circulate cement a minimum of 100' inside the previous casing string.
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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
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Additional Information:					
Log Type	Stage	From (Ft)	To (Ft)	Tool Type/Name	Remarks



Scientific Drilling
Directional Drilling Operations

ConocoPhillips

**SJB (NM Central)
SEC 20-T27N-R7W
SJ 28-7 #153M**

Original Hole

Plan: Plan #1

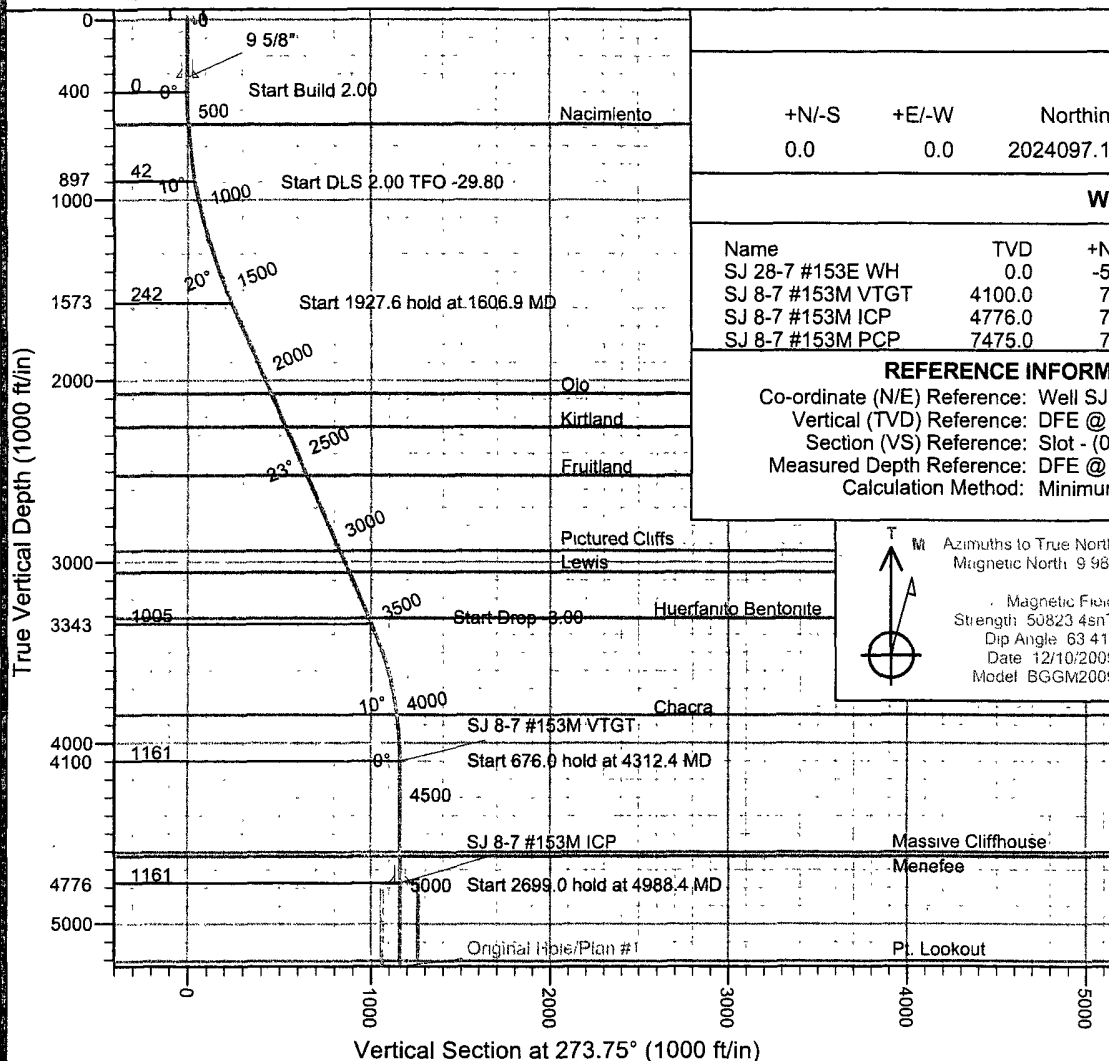
Standard Planning Report

10 December, 2009

ConocoPhillips



Project: SJB (NM Central)
Site: SEC 20-T27N-R7W
Well: SJ 28-7 #153M
Wellbore: Original Hole
Design: Plan #1



WELL DETAILS: SJ 28-7 #153M

Ground Level: 6571.0

DFE @ 6587.0ft (H&P 282)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	2024097.15	105972.09	36° 33' 19.128 N	107° 35' 29.598 W

WELLBORE TARGET DETAILS (LAT/LONG)

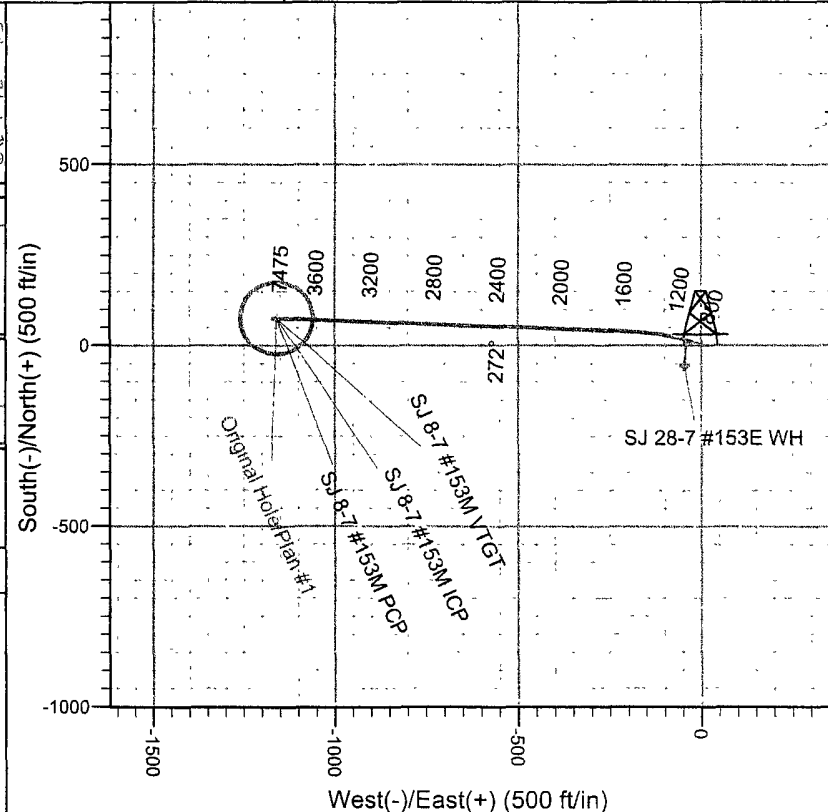
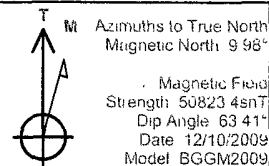
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
SJ 28-7 #153E WH	0.0	-55.7	-45.0	36° 33' 18.577 N	107° 35' 30.149 W	Circle (Radius: 5.0)
SJ 8-7 #153M VTGT	4100.0	75.9	-1158.8	36° 33' 19.878 N	107° 35' 43.800 W	Point
SJ 8-7 #153M ICP	4776.0	75.9	-1158.8	36° 33' 19.878 N	107° 35' 43.800 W	Circle (Radius: 100.0)
SJ 8-7 #153M PCP	7475.0	75.9	-1158.8	36° 33' 19.878 N	107° 35' 43.800 W	Point

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well SJ 28-7 #153M, True North
Vertical (TVD) Reference: DFE @ 6587.0ft (H&P 282)
Section (VS) Reference: Slot - (0.0N, 0.0E)
Measured Depth Reference: DFE @ 6587.0ft (H&P 282)
Calculation Method: Minimum Curvature

PROJECT DETAILS: SJB (NM Central)

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico Central 3002
System Datum: Mean Sea Level



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	400.0	0.00	0.00	400.0	0.0	0.0	0.00	0.00	0.0	
3	900.0	10.00	290.00	897.5	14.9	-40.9	2.00	290.00	41.8	
4	1606.9	23.34	272.16	1573.5	41.3	-239.5	2.00	-29.80	241.7	
5	3534.5	23.34	272.16	3343.4	70.0	-1002.6	0.00	0.00	1005.0	
6	4312.4	0.00	0.00	4100.0	75.9	-1158.8	3.00	180.00	1161.3	SJ 8-7 #153M VTGT
7	4988.4	0.00	0.00	4776.0	75.9	-1158.8	0.00	0.00	1161.3	SJ 8-7 #153M ICP
8	7687.4	0.00	0.00	7475.0	75.9	-1158.8	0.00	0.00	1161.3	SJ 8-7 #153M PCP

Database: EDM 2003.21 Single User Db
Company: ConocoPhillips
Project: SJB (NM Central)
Site: SEC 20-T27N-R7W
Well: SJ 28-7 #153M
Wellbore: Original Hole
Design: Plan #1

Local Co-ordinate Reference: Well SJ 28-7 #153M
TVD Reference: DFE @ 6587.0ft (H&P 282)
MD Reference: DFE @ 6587.0ft (H&P 282)
North Reference: True
Survey Calculation Method: Minimum Curvature

Project: SJB (NM Central), New Mexico, S-Type MV/DK Wells
Map System: US State Plane 1927 (Exact solution) **System Datum:** Mean Sea Level
Geo Datum: NAD 1927 (NADCON CONUS) **Using Well Reference Point**
Map Zone: New Mexico Central 3002 **Using geodetic scale factor**

Site: SEC 20-T27N-R7W
Site Position: **From:** Lat/Long **Northing:** 2,024,097.15 ft **Latitude:** 36° 33' 19.128 N
Position Uncertainty: 0.0 ft **Easting:** 105,972.09 ft **Longitude:** 107° 35' 29.598 W
Slot Radius: 6-1/8" **Grid Convergence:** -0.80 °

Well: SJ 28-7 #153M, S-Type MV/DK Well
Well Position: **+N/-S** 0.0 ft **Northing:** 2,024,097.15 ft **Latitude:** 36° 33' 19.128 N
+E/-W 0.0 ft **Easting:** 105,972.09 ft **Longitude:** 107° 35' 29.598 W
Position Uncertainty: 3.5 ft **Wellhead Elevation:** ft **Ground Level:** 6,571.0 ft

Wellbore: Original Hole
Magnetics: **Model Name** **Sample Date** **Declination** **Dip Angle** **Field Strength**
 BGGM2009 12/10/2009 9.98 63.41 50,823

Design: Plan #1
Audit Notes:
Version: **Phase:** PLAN **Tie On Depth:** 0.0
Vertical Section: **Depth From (TVD)** **+N/-S** **+E/-W** **Direction**
 0.0 0.0 0.0 273.75

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	
400.0	0.00	0.00	400.0	0.0	0.0	0.00	0.00	0.00	0.00	
900.0	10.00	290.00	897.5	14.9	-40.9	2.00	2.00	0.00	290.00	
1,606.9	23.34	272.16	1,573.5	41.3	-239.5	2.00	1.89	-2.52	-29.80	
3,534.5	23.34	272.16	3,343.4	70.0	-1,002.6	0.00	0.00	0.00	0.00	
4,312.4	0.00	0.00	4,100.0	75.9	-1,158.8	3.00	-3.00	0.00	180.00	SJ 8-7 #153M VTG
4,988.4	0.00	0.00	4,776.0	75.9	-1,158.8	0.00	0.00	0.00	0.00	SJ 8-7 #153M ICP
7,687.4	0.00	0.00	7,475.0	75.9	-1,158.8	0.00	0.00	0.00	0.00	SJ 8-7 #153M PCP

Database: EDM 2003.21 Single User Db
Company: ConocoPhillips
Project: SJB (NM Central)
Site: SEC 20-T27N-R7W
Well: SJ 28-7 #153M
Wellbore: Original Hole
Design: Plan #1

Local Co-ordinate Reference: Well SJ 28-7 #153M
TVD Reference: DFE @ 6587.0ft (H&P 282)
MD Reference: DFE @ 6587.0ft (H&P 282)
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
320.0	0.00	0.00	320.0	0.0	0.0	0.0	0.00	0.00	0.00
9 5/8"									
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	2.00	290.00	500.0	0.6	-1.6	1.7	2.00	2.00	0.00
580.1	3.60	290.00	580.0	1.9	-5.3	5.4	2.00	2.00	0.00
Nacimiento									
600.0	4.00	290.00	599.8	2.4	-6.6	6.7	2.00	2.00	0.00
700.0	6.00	290.00	699.5	5.4	-14.7	15.1	2.00	2.00	0.00
800.0	8.00	290.00	798.7	9.5	-26.2	26.8	2.00	2.00	0.00
900.0	10.00	290.00	897.5	14.9	-40.9	41.8	2.00	2.00	0.00
1,000.0	11.78	285.12	995.7	20.5	-58.9	60.1	2.00	1.78	-4.88
1,100.0	13.62	281.53	1,093.2	25.5	-80.3	81.8	2.00	1.84	-3.59
1,200.0	15.49	278.78	1,190.0	29.9	-105.0	106.8	2.00	1.88	-2.75
1,300.0	17.40	276.62	1,285.9	33.7	-133.1	135.0	2.00	1.90	-2.16
1,400.0	19.32	274.88	1,380.8	36.8	-164.4	166.5	2.00	1.92	-1.74
1,500.0	21.26	273.44	1,474.6	39.3	-199.0	201.1	2.00	1.94	-1.44
1,606.9	23.34	272.16	1,573.5	41.3	-239.5	241.7	2.00	1.95	-1.20
1,700.0	23.34	272.16	1,659.0	42.7	-276.4	278.6	0.00	0.00	0.00
1,800.0	23.34	272.16	1,750.8	44.2	-316.0	318.2	0.00	0.00	0.00
1,900.0	23.34	272.16	1,842.6	45.6	-355.5	357.8	0.00	0.00	0.00
2,000.0	23.34	272.16	1,934.4	47.1	-395.1	397.4	0.00	0.00	0.00
2,100.0	23.34	272.16	2,026.3	48.6	-434.7	437.0	0.00	0.00	0.00
2,149.8	23.34	272.16	2,072.0	49.4	-454.4	456.7	0.00	0.00	0.00
Ojo									
2,200.0	23.34	272.16	2,118.1	50.1	-474.3	476.6	0.00	0.00	0.00
2,300.0	23.34	272.16	2,209.9	51.6	-513.9	516.2	0.00	0.00	0.00
2,348.0	23.34	272.16	2,254.0	52.3	-532.9	535.2	0.00	0.00	0.00
Kirtland									
2,400.0	23.34	272.16	2,301.7	53.1	-553.5	555.8	0.00	0.00	0.00
2,500.0	23.34	272.16	2,393.5	54.6	-593.1	595.4	0.00	0.00	0.00
2,600.0	23.34	272.16	2,485.4	56.1	-632.7	635.0	0.00	0.00	0.00
2,638.8	23.34	272.16	2,521.0	56.6	-648.0	650.4	0.00	0.00	0.00
Fruitland									
2,700.0	23.34	272.16	2,577.2	57.6	-672.3	674.6	0.00	0.00	0.00
2,800.0	23.34	272.16	2,669.0	59.1	-711.8	714.2	0.00	0.00	0.00
2,900.0	23.34	272.16	2,760.8	60.5	-751.4	753.8	0.00	0.00	0.00
3,000.0	23.34	272.16	2,852.6	62.0	-791.0	793.4	0.00	0.00	0.00
3,093.0	23.34	272.16	2,938.0	63.4	-827.8	830.2	0.00	0.00	0.00
Pictured Cliffs									
3,100.0	23.34	272.16	2,944.4	63.5	-830.6	833.0	0.00	0.00	0.00
3,200.0	23.34	272.16	3,036.3	65.0	-870.2	872.6	0.00	0.00	0.00
3,221.5	23.34	272.16	3,056.0	65.3	-878.7	881.1	0.00	0.00	0.00
Lewis									
3,300.0	23.34	272.16	3,128.1	66.5	-909.8	912.2	0.00	0.00	0.00
3,400.0	23.34	272.16	3,219.9	68.0	-949.4	951.8	0.00	0.00	0.00
3,500.0	23.34	272.16	3,311.7	69.5	-989.0	991.4	0.00	0.00	0.00
3,500.3	23.34	272.16	3,312.0	69.5	-989.1	991.5	0.00	0.00	0.00
Huerfano Bentonite									
3,534.5	23.34	272.16	3,343.4	70.0	-1,002.6	1,005.0	0.00	0.00	0.00

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 Company: ConocoPhillips
 Project: SJB (NM Central)
 Site: SEC 20-T27N-R7W
 Well: SJ 28-7 #153M
 Wellbore: Original Hole
 Design: Plan #1

Local Co-ordinate Reference: Well SJ 28-7 #153M
 TVD Reference: DFE @ 6587.0ft (H&P 282)
 MD Reference: DFE @ 6587.0ft (H&P 282)
 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)
3,600.0	21.37	272.16	3,404.0	70.9	-1,027.5	1,030.0	3.00	-3.00	0.00
3,700.0	18.37	272.16	3,498.0	72.2	-1,061.5	1,063.9	3.00	-3.00	0.00
3,800.0	15.37	272.16	3,593.7	73.3	-1,090.5	1,092.9	3.00	-3.00	0.00
3,900.0	12.37	272.16	3,690.8	74.2	-1,114.4	1,116.9	3.00	-3.00	0.00
4,000.0	9.37	272.16	3,788.9	74.9	-1,133.3	1,135.8	3.00	-3.00	0.00
4,057.7	7.64	272.16	3,846.0	75.2	-1,141.8	1,144.3	3.00	-3.00	0.00
Chacra									
4,100.0	6.37	272.16	3,888.0	75.4	-1,147.0	1,149.5	3.00	-3.00	0.00
4,200.0	3.37	272.16	3,987.6	75.7	-1,155.5	1,157.9	3.00	-3.00	0.00
4,300.0	0.37	272.16	4,087.6	75.9	-1,158.7	1,161.2	3.00	-3.00	0.00
4,312.4	0.00	0.00	4,100.0	75.9	-1,158.8	1,161.3	3.00	-3.00	0.00
4,400.0	0.00	0.00	4,187.6	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
4,500.0	0.00	0.00	4,287.6	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
4,600.0	0.00	0.00	4,387.6	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
4,700.0	0.00	0.00	4,487.6	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
4,800.0	0.00	0.00	4,587.6	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
4,815.4	0.00	0.00	4,603.0	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
Massive Cliffhouse									
4,838.4	0.00	0.00	4,626.0	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
Menefee									
4,900.0	0.00	0.00	4,687.6	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
4,988.4	0.00	0.00	4,776.0	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
7"									
5,000.0	0.00	0.00	4,787.6	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
5,100.0	0.00	0.00	4,887.6	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
5,200.0	0.00	0.00	4,987.6	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
5,300.0	0.00	0.00	5,087.6	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
5,400.0	0.00	0.00	5,187.6	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
5,418.4	0.00	0.00	5,206.0	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
Pt. Lookout									
5,500.0	0.00	0.00	5,287.6	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
5,600.0	0.00	0.00	5,387.6	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
5,700.0	0.00	0.00	5,487.6	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
5,780.4	0.00	0.00	5,568.0	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
Mancos									
5,800.0	0.00	0.00	5,587.6	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
5,900.0	0.00	0.00	5,687.6	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
6,000.0	0.00	0.00	5,787.6	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
6,100.0	0.00	0.00	5,887.6	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
6,200.0	0.00	0.00	5,987.6	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
6,300.0	0.00	0.00	6,087.6	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
6,400.0	0.00	0.00	6,187.6	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
6,500.0	0.00	0.00	6,287.6	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
6,588.4	0.00	0.00	6,376.0	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
Upper Gallup									
6,600.0	0.00	0.00	6,387.6	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
6,700.0	0.00	0.00	6,487.6	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
6,800.0	0.00	0.00	6,587.6	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
6,900.0	0.00	0.00	6,687.6	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
7,000.0	0.00	0.00	6,787.6	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
7,100.0	0.00	0.00	6,887.6	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
7,200.0	0.00	0.00	6,987.6	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
7,300.0	0.00	0.00	7,087.6	75.9	-1,158.8	1,161.3	0.00	0.00	0.00

Database: EDM 2003.21 Single User Db
Company: ConocoPhillips
Project: SJB (NM Central)
Site: SEC 20-T27N-R7W
Well: SJ 28-7 #153M
Wellbore: Original Hole
Design: Plan #1

Local Co-ordinate Reference: Well SJ 28-7 #153M
TVD Reference: DFE @ 6587.0ft (H&P 282)
MD Reference: DFE @ 6587.0ft (H&P 282)
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)
7,372.4	0.00	0.00	7,160.0	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
Greenhorn									
7,400.0	0.00	0.00	7,187.6	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
7,434.4	0.00	0.00	7,222.0	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
Graneros									
7,488.4	0.00	0.00	7,276.0	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
Two Wells									
7,500.0	0.00	0.00	7,287.6	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
7,593.4	0.00	0.00	7,381.0	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
Upper Cubero									
7,600.0	0.00	0.00	7,387.6	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
7,618.4	0.00	0.00	7,406.0	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
Lower Cubero									
7,686.4	0.00	0.00	7,474.0	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
Encinal									
7,687.4	0.00	0.00	7,475.0	75.9	-1,158.8	1,161.3	0.00	0.00	0.00
4 1/2"									

Design 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 #153E WH	0.00	0.00	0.0	-55.7	-45.0	2,024,042.05	105,926.35	36° 33' 18.577 N	107° 35' 30.149 W
- plan misses target center by 71.6ft at 0.0ft MD (0.0 TVD, 0.0 N, 0.0 E)									
- Circle (radius 5.0)									
SJ 8-7 #153M VTGT	0.00	0.00	4,100.0	75.9	-1,158.8	2,024,189.18	104,814.41	36° 33' 19.878 N	107° 35' 43.800 W
- plan hits target center									
- Point									
SJ 8-7 #153M ICP	0.00	0.00	4,776.0	75.9	-1,158.8	2,024,189.18	104,814.41	36° 33' 19.878 N	107° 35' 43.800 W
- plan hits target center									
- Circle (radius 100.0)									
SJ 8-7 #153M PCP	0.00	0.00	7,475.0	75.9	-1,158.8	2,024,189.18	104,814.41	36° 33' 19.878 N	107° 35' 43.800 W
- plan hits target center									
- Point									

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
320.0	320.0	9 5/8"	9-5/8	12-1/4
4,988.4	4,776.0	7"	7	8-3/4
7,687.4	7,475.0	4 1/2"	4-1/2	6-1/4

Database: EDM 2003.21 Single User Db
Company: ConocoPhillips
Project: SJB (NM Central)
Site: SEC 20-T27N-R7W
Well: SJ 28-7 #153M
Wellbore: Original Hole
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Local Co-ordinate Reference: Well SJ 28-7 #153M
TVD Reference: DFE @ 6587.0ft (H&P 282)
MD Reference: DFE @ 6587.0ft (H&P 282)
North Reference: True
Survey Calculation Method: Minimum Curvature

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
580.1	580.0	Nacimiento		0.00	
2,149.8	2,072.0	Ojo			
2,348.0	2,254.0	Kirtland			
2,638.8	2,521.0	Fruitland			
3,093.0	2,938.0	Pictured Cliffs			
3,221.5	3,056.0	Lewis			
3,500.3	3,312.0	Huerfanito Bentonite			
4,057.7	3,846.0	Chacra			
4,815.4	4,603.0	Massive Cliffhouse			
4,838.4	4,626.0	Menefee			
5,418.4	5,206.0	Pt. Lookout			
5,780.4	5,568.0	Mancos			
6,588.4	6,376.0	Upper Gallup			
7,372.4	7,160.0	Greenhorn			
7,434.4	7,222.0	Graneros			
7,488.4	7,276.0	Two Wells			
7,593.4	7,381.0	Upper Cubero			
7,618.4	7,406.0	Lower Cubero			
7,686.4	7,474.0	Encinal			