

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

FORM APPROVED
OMB No 1004-0137
Expires July 31, 2010

JUL 16 2012

SUNDRY NOTICES AND REPORTS ON WELLS
*Do not use this form for proposals to drill or to re-enter and
abandoned well. Use Form 3160-3 (APD) for such proposals.*

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

Burlington Resources Oil & Gas Company LP

3a Address

PO Box 4289, Farmington, NM 87499

3b Phone No (include area code)

(505) 326-9700

4 Location of Well (Footage, Sec, T, R, M, or Survey Description)

Surface UNIT E (SWNW), 1813' FNL & 961' FWL, Sec. 14, T27N, R6W

Bottomhole UNIT C (NENW), 715' FNL & 1810' FWL, Sec. 14, T27N, R6W

5 Lease Serial No

SF-079365

6 If Indian, Allottee or Tribe Name

7 If Unit of CA/Agreement, Name and/or No

San Juan 28-6 Unit

8 Well Name and No

San Juan 28-6 Unit 181P

9 API Well No.

30-039-31090

10 Field and Pool or Exploratory Area

Blanco MV/Basin Mancos/Basin DK

11 Country or Parish, State

Rio Arriba, New Mexico

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Intermediate
	☒ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Casing Setting Depth
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof.

If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the bond under which the work will be performed or provide the Bond No on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once Testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

Burlington Resources requests permission to change the Intermediate Casing setting depth from the APD approved set depth of 4,000' (TVD) to 4,170' (TVD) due to long step out and to reduce drilling problems. Cement volumes to be adjusted accordingly. New Project Proposal, Deviation Report and Anticollision Report are attached.

**RCVD JUL 18 '12
OIL CONS. DIV.
DIST. 3**

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

DENISE JOURNEY

Title

REGULATORY TECHNICIAN

Signature

Denise Journey

Date

7/16/2012

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Original Signed: Stephen Mason

Title

Date

JUL 17 2012

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

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 jurisdiction.

(Instruction on page 2)

PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

SAN JUAN 28-6 UNIT 181P

DEVELOPMENT

Lease:		AFE #: WAN.CDR.1014				AFE \$: 2,490,257.35	
Field Name: SAN JUAN		Rig: Aztec Rig 711		State: NM	County: RIO ARRIBA	API #: 3003931090	
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)						
RCO085	MANCOS(RCO085)						
Location: Surface Datum Code: NAD 27 Directional:							
Latitude: 36.576408	Longitude: -107.441562	X:	Y:	Section: 14	Range: 006W		
Footage X: 961 FWL	Footage Y: 1813 FNL	Elevation: 6482	(FT)	Township: 027N			
Tolerance:							
Location: Bottom Hole Datum Code: NAD 27 Directional:							
Latitude: 36.579440	Longitude: -107.438623	X:	Y:	Section: 14	Range: 006W		
Footage X: 1810 FWL	Footage Y: 715 FNL	Elevation:	(FT)	Township: 027N			
Tolerance:							
Location Type: Restricted		Start Date (Est.): 1/1/2012		Completion Date:		Date In Operation:	
Formation Data: Assume KB = 6497 Units = FT							
Formation Call & Casing Points	Depth (TVD in Ft)	SS (Ft)	MD (Ft)	Depletion (Yes/No)	BHP (PSIG)	BHT	Remarks
Surface Casing	200	6297	200	☐			12-1/4 hole. 9 5/8" 32.3 ppf, H-40, STC casing. Cement with 121 cuft. Circulate cement to surface.
NACIMIENTO	1022	5475		☐			
OJO ALAMO	2490	4007		☐			
KIRTLAND	2672	3825		☐			
FRUITLAND	2879	3618		☐			Possible Gas
PICTURED CLIFFS	3230	3267		☐			
LEWIS	3342	3155		☐			
HUERFANITO BENTONITE	3715	2782		☐			
CHACRA	4170	2327		☐			
Intermediate Casing	4170	2327	4469	☐	109		8 3/4" Hole. 7", 23 ppf, J-55, LTC Casing. Cement with 1007 cuft. Circulate cement to surface.
UPPER CLIFF HOUSE	4794	1703		☐			Gas; Est. Top Perf - 4796 (1701)
MASSIVE CLIFF HOUSE	4885	1612		☐	617		Gas; Cliffhouse is dry
MENEFEE	5024	1473		☐			
POINT LOOKOUT	5389	1108		☐			
MANCOS	5879	618		☐			
UPPER GALLUP	6578	-81		☐			
GREENHORN	7335	-838		☐			
GRANEROS	7400	-903		☐			
TWO WELLS	7437	-940		☐	2395		Gas
PAGUATE	7492	-995		☐			
UPPER CUBERO	7548	-1051		☐			

PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

SAN JUAN 28-6 UNIT 181P

DEVELOPMENT

LOWER CUBERO	7586	-1089	☐	Est. Btm Perf - 7654 (- 1157) based on offset wells
OAK CANYON	7660	-1163	☐	
ENCINAL	7669	-1172	☐	TD - T/ENCN
Total Depth	7669	-1172	7968	☐ 191 6-1/4" hole, 4-1/2" 11.6 ppf, L-80, LTC/BTC casing. Cement w/ 478 cuft. Circulate cement a minimum of 100' inside the previous casing string.
BURRO CANYON	7699	-1202	☐	
MORRISON	7828	-1331	☐	

Reference Wells:

Reference Type	Well Name	Comments
Production	SJ 28-6 UNIT-181M	27N 6W 14 SW NW
Production	SJ 28-6 UNIT-209	27N 6W 15 NW SE NE
Production	SJ 28-6 UNIT-181N	27N 6W 14 NW SW NE

Logging Program:

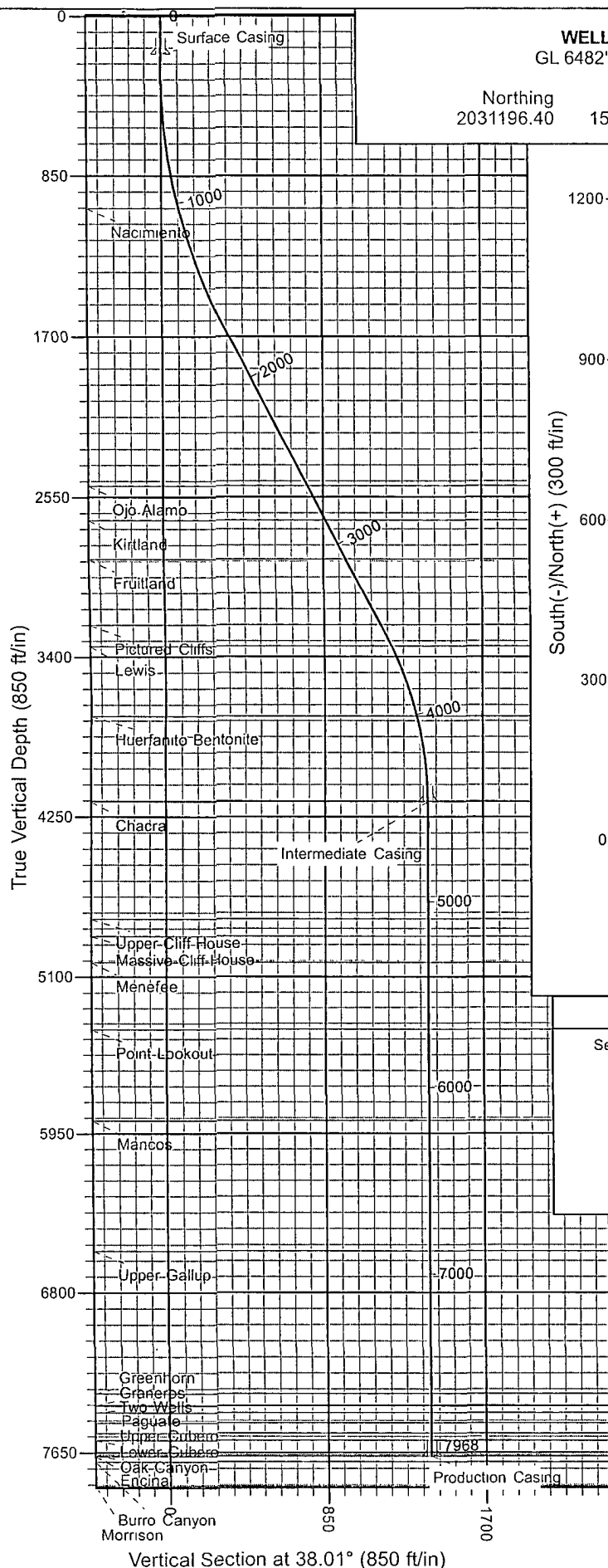
Intermediate Logs: ☐ Log only if show ☐ GR/ILD ☐ Triple Combo

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

Quad combo, ECS, and Percussion cores at TD for Mancos - Mudlog from 100' above top of Mncs to TD - mudlogger will call TD.

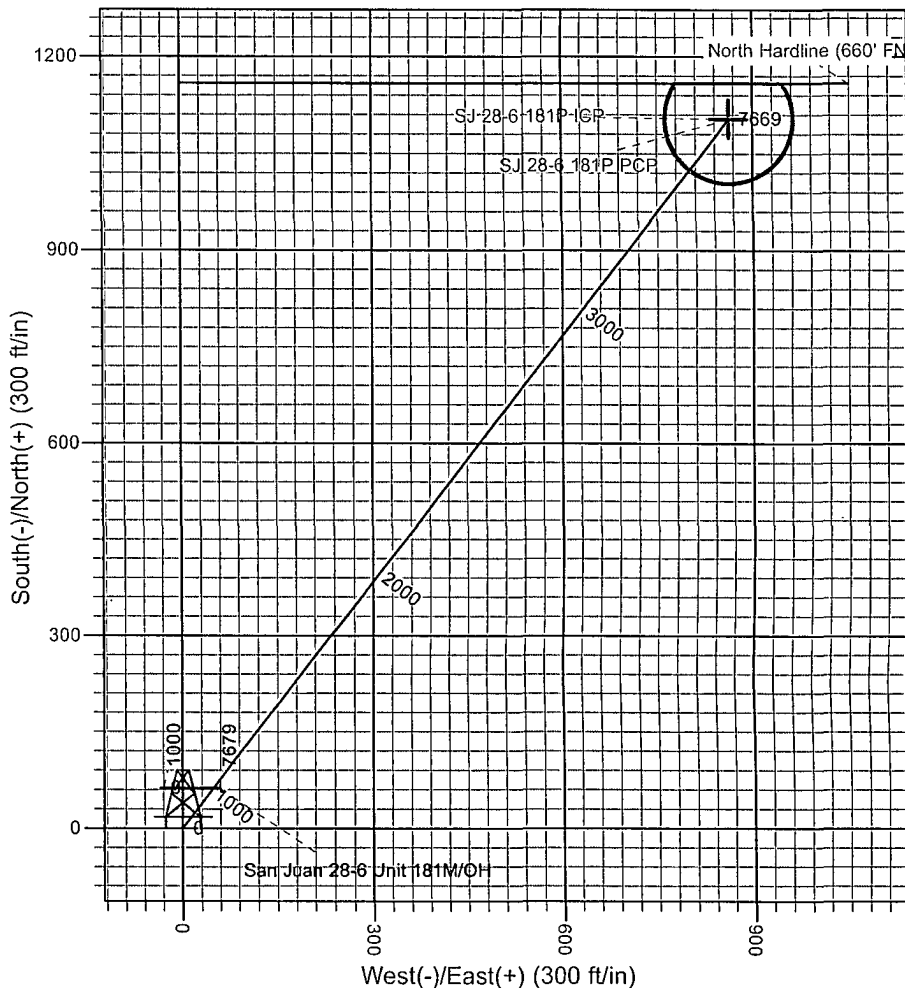
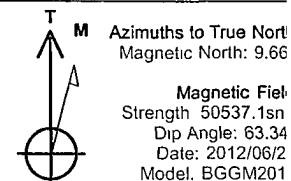
Additional Information:

Log Type	Stage	From (Ft)	To (Ft)	Tool Type/Name	Remarks
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WELL DETAILS: San Juan 28-6 Unit 181P
 GL 6482' & KB 15' @ 6497.0ft (AWS 711)
 Ground Level 6482.0

Northing 2031196.40 Easting 150123.70 Latitude 36° 34' 35.068 N Longitude 107° 26' 29.623 W



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	1702.3	27.65	38.01	1649.3	257.7	201.4	2.00	38.01	327.1	
4	3547.5	27.65	38.01	3283.8	932.3	728.7	0.00	0.00	1183.2	
5	4469.0	0.00	0.00	4170.0	1104.0	862.9	3.00	180.00	1401.3	SJ 28-6 181P ICP
6	7968.0	0.00	0.00	7669.0	1104.0	862.9	0.00	0.00	1401.3	SJ 28-6 181P PCP

Date: 9:18, June 26 2012

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well San Juan 28-6 Unit 181P, True North
 Vertical (TVD) Reference: GL 6482' & KB 15' @ 6497.0ft (AWS 711)
 Section (VS) Reference: Slot - (0.0N, 0.0E)
 Measured Depth Reference: GL 6482' & KB 15' @ 6497.0ft (AWS 711)
 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



ConocoPhillips

SJB (NM Central)

SEC 14-T27N-R6W

San Juan 28-6 Unit 181P

OH

Plan: Plan 1

Standard Planning Report

26 June, 2012



Scientific Drilling

Database:	EDM 2003 21 Single User Db	Local Co-ordinate Reference:	Well San Juan 28-6 Unit 181P
Company:	ConocoPhillips	TVD Reference:	GL 6482' & KB 15' @ 6497 0ft (AWS 711)
Project:	SJB (NM Central)	MD Reference:	GL 6482' & KB 15' @ 6497.0ft (AWS 711)
Site:	SEC 14-T27N-R6W	North Reference:	True
Well:	San Juan 28-6 Unit 181P	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

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 14-T27N-R6W			
Site Position:		Northing:	2,031,196.40 ft	Latitude:	36° 34' 35.068 N
From:	Lat/Long	Easting:	150,123.70 ft	Longitude:	107° 26' 29.623 W
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	-0.71 °

Well	San Juan 28-6 Unit 181P, 1813' FNL 961' FWL					
Well Position	+N/-S	0.0 ft	Northing:	2,031,196.40 ft	Latitude:	36° 34' 35.068 N
	+E/-W	0.0 ft	Easting:	150,123.70 ft	Longitude:	107° 26' 29.623 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	6,482.0 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2012	2012/06/26	9.66	63.34	50,537

Design	Plan 1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	38.01

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	
1,702.3	27.65	38.01	1,649.3	257.7	201.4	2.00	2.00	0.00	38.01	
3,547.5	27.65	38.01	3,283.8	932.3	728.7	0.00	0.00	0.00	0.00	
4,469.0	0.00	0.00	4,170.0	1,104.0	862.9	3.00	-3.00	0.00	180.00	SJ 28-6 181P ICP
7,968.0	0.00	0.00	7,669.0	1,104.0	862.9	0.00	0.00	0.00	0.00	SJ 28-6 181P PCP

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well San Juan' 28-6 Unit 181P
Company:	ConocoPhillips	TVD Reference:	GL 6482' & KB 15' @ 6497.0ft (AWS 711)
Project:	SJB (NM Central)	MD Reference:	GL 6482' & KB 15' @ 6497.0ft (AWS 711)
Site:	SEC 14-T27N-R6W	North Reference:	True
Well:	San Juan 28-6 Unit 181P	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
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
Surface Casing									
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	38.01	400.0	0.9	0.7	1.1	2.00	2.00	0.00
500.0	3.60	38.01	499.9	4.5	3.5	5.7	2.00	2.00	0.00
600.0	5.60	38.01	599.6	10.8	8.4	13.7	2.00	2.00	0.00
700.0	7.60	38.01	698.9	19.8	15.5	25.2	2.00	2.00	0.00
800.0	9.60	38.01	797.8	31.6	24.7	40.1	2.00	2.00	0.00
900.0	11.60	38.01	896.0	46.1	36.0	58.5	2.00	2.00	0.00
1,000.0	13.60	38.01	993.6	63.3	49.5	80.3	2.00	2.00	0.00
1,029.2	14.18	38.01	1,022.0	68.8	53.8	87.3	2.00	2.00	0.00
Nacimiento									
1,100.0	15.60	38.01	1,090.4	83.1	65.0	105.5	2.00	2.00	0.00
1,200.0	17.60	38.01	1,186.2	105.7	82.6	134.1	2.00	2.00	0.00
1,300.0	19.60	38.01	1,281.0	130.8	102.2	166.0	2.00	2.00	0.00
1,400.0	21.60	38.01	1,374.6	158.5	123.9	201.2	2.00	2.00	0.00
1,500.0	23.60	38.01	1,466.9	188.8	147.6	239.6	2.00	2.00	0.00
1,600.0	25.60	38.01	1,557.8	221.6	173.2	281.2	2.00	2.00	0.00
1,700.0	27.60	38.01	1,647.2	256.9	200.8	326.0	2.00	2.00	0.00
1,702.3	27.65	38.01	1,649.3	257.7	201.4	327.1	2.00	2.00	0.00
1,800.0	27.65	38.01	1,735.8	293.4	229.3	372.4	0.00	0.00	0.00
1,900.0	27.65	38.01	1,824.4	330.0	257.9	418.8	0.00	0.00	0.00
2,000.0	27.65	38.01	1,913.0	366.5	286.5	465.2	0.00	0.00	0.00
2,100.0	27.65	38.01	2,001.6	403.1	315.1	511.6	0.00	0.00	0.00
2,200.0	27.65	38.01	2,090.2	439.6	343.6	558.0	0.00	0.00	0.00
2,300.0	27.65	38.01	2,178.7	476.2	372.2	604.4	0.00	0.00	0.00
2,400.0	27.65	38.01	2,267.3	512.8	400.8	650.8	0.00	0.00	0.00
2,500.0	27.65	38.01	2,355.9	549.3	429.4	697.2	0.00	0.00	0.00
2,600.0	27.65	38.01	2,444.5	585.9	457.9	743.6	0.00	0.00	0.00
2,651.4	27.65	38.01	2,490.0	604.6	472.6	767.4	0.00	0.00	0.00
Ojo Alamo									
2,700.0	27.65	38.01	2,533.1	622.4	486.5	790.0	0.00	0.00	0.00
2,800.0	27.65	38.01	2,621.7	659.0	515.1	836.4	0.00	0.00	0.00
2,856.8	27.65	38.01	2,672.0	679.8	531.3	862.8	0.00	0.00	0.00
Kirtland									
2,900.0	27.65	38.01	2,710.2	695.5	543.7	882.8	0.00	0.00	0.00
3,000.0	27.65	38.01	2,798.8	732.1	572.2	929.2	0.00	0.00	0.00
3,090.5	27.65	38.01	2,879.0	765.2	598.1	971.2	0.00	0.00	0.00
Fruitland									
3,100.0	27.65	38.01	2,887.4	768.7	600.8	975.6	0.00	0.00	0.00
3,200.0	27.65	38.01	2,976.0	805.2	629.4	1,022.0	0.00	0.00	0.00
3,300.0	27.65	38.01	3,064.6	841.8	657.9	1,068.4	0.00	0.00	0.00
3,400.0	27.65	38.01	3,153.2	878.3	686.5	1,114.8	0.00	0.00	0.00
3,486.7	27.65	38.01	3,230.0	910.0	711.3	1,155.0	0.00	0.00	0.00
Pictured Cliffs									
3,500.0	27.65	38.01	3,241.8	914.9	715.1	1,161.2	0.00	0.00	0.00
3,547.5	27.65	38.01	3,283.8	932.3	728.7	1,183.2	0.00	0.00	0.00
3,600.0	26.07	38.01	3,330.7	950.9	743.3	1,207.0	3.00	-3.00	0.00
3,612.6	25.69	38.01	3,342.0	955.3	746.7	1,212.5	3.00	-3.00	0.00
Lewis									

Database:	EDM 2003 21 Single User Db	Local Co-ordinate Reference:	Well San Juan 28-6 Unit 181P
Company:	ConocoPhillips	TVD Reference:	GL 6482' & KB 15' @ 6497 0ft (AWS 711)
Project:	SJB (NM Central)	MD Reference:	GL 6482' & KB 15' @ 6497 0ft (AWS 711)
Site:	SEC 14-T27N-R6W	North Reference:	True
Well:	San Juan 28-6 Unit 181P	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
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)
3,700.0	23.07	38.01	3,421.6	983.7	768.9	1,248.5	3.00	-3.00	0.00
3,800.0	20.07	38.01	3,514.6	1,012.7	791.5	1,285.3	3.00	-3.00	0.00
3,900.0	17.07	38.01	3,609.4	1,037.7	811.1	1,317.1	3.00	-3.00	0.00
4,000.0	14.07	38.01	3,705.7	1,058.9	827.7	1,344.0	3.00	-3.00	0.00
4,009.6	13.78	38.01	3,715.0	1,060.7	829.1	1,346.3	3.00	-3.00	0.00
Huerfanito Bentonite									
4,100.0	11.07	38.01	3,803.3	1,076.0	841.1	1,365.7	3.00	-3.00	0.00
4,200.0	8.07	38.01	3,901.9	1,089.1	851.3	1,382.4	3.00	-3.00	0.00
4,300.0	5.07	38.01	4,001.2	1,098.2	858.3	1,393.8	3.00	-3.00	0.00
4,400.0	2.07	38.01	4,101.0	1,103.1	862.2	1,400.0	3.00	-3.00	0.00
4,469.0	0.00	0.00	4,170.0	1,104.0	862.9	1,401.3	3.00	-3.00	0.00
Chacra - Intermediate Casing									
4,500.0	0.00	0.00	4,201.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
4,600.0	0.00	0.00	4,301.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
4,700.0	0.00	0.00	4,401.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
4,800.0	0.00	0.00	4,501.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
4,900.0	0.00	0.00	4,601.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
5,000.0	0.00	0.00	4,701.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
5,093.0	0.00	0.00	4,794.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
Upper Cliff House									
5,100.0	0.00	0.00	4,801.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
5,184.0	0.00	0.00	4,885.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
Massive Cliff House									
5,200.0	0.00	0.00	4,901.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
5,300.0	0.00	0.00	5,001.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
5,323.0	0.00	0.00	5,024.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
Menefee									
5,400.0	0.00	0.00	5,101.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
5,500.0	0.00	0.00	5,201.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
5,600.0	0.00	0.00	5,301.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
5,688.0	0.00	0.00	5,389.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
Point Lookout									
5,700.0	0.00	0.00	5,401.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
5,800.0	0.00	0.00	5,501.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
5,900.0	0.00	0.00	5,601.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
6,000.0	0.00	0.00	5,701.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
6,100.0	0.00	0.00	5,801.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
6,178.0	0.00	0.00	5,879.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
Mancos									
6,200.0	0.00	0.00	5,901.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
6,300.0	0.00	0.00	6,001.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
6,400.0	0.00	0.00	6,101.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
6,500.0	0.00	0.00	6,201.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
6,600.0	0.00	0.00	6,301.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
6,700.0	0.00	0.00	6,401.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
6,800.0	0.00	0.00	6,501.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
6,877.0	0.00	0.00	6,578.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
Upper Gallup									
6,900.0	0.00	0.00	6,601.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
7,000.0	0.00	0.00	6,701.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
7,100.0	0.00	0.00	6,801.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
7,200.0	0.00	0.00	6,901.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
7,300.0	0.00	0.00	7,001.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well San Juan 28-6 Unit 181P
Company:	ConocoPhillips	TVD Reference:	GL 6482' & KB 15' @ 6497.0ft (AWS 711)
Project:	SJB (NM Central)	MD Reference:	GL 6482' & KB 15' @ 6497.0ft (AWS 711)
Site:	SEC 14-T27N-R6W	North Reference:	True
Well:	San Juan 28-6 Unit 181P	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
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)
7,400.0	0.00	0.00	7,101.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
7,500.0	0.00	0.00	7,201.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
7,600.0	0.00	0.00	7,301.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
7,634.0	0.00	0.00	7,335.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
Greenhorn									
7,699.0	0.00	0.00	7,400.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
Graneros									
7,700.0	0.00	0.00	7,401.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
7,736.0	0.00	0.00	7,437.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
Two Wells									
7,791.0	0.00	0.00	7,492.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
Paguete									
7,800.0	0.00	0.00	7,501.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
7,847.0	0.00	0.00	7,548.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
Upper Cubero									
7,885.0	0.00	0.00	7,586.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
Lower Cubero									
7,900.0	0.00	0.00	7,601.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
7,959.0	0.00	0.00	7,660.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
Oak Canyon									
7,968.0	0.00	0.00	7,669.0	1,104.0	862.9	1,401.3	0.00	0.00	0.00
Encinal - Production Casing									

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 28-6 181P ICP	0.00	0.00	4,170.0	1,104.0	862.9	2,032,289.70	151,000.30	36° 34' 45.985 N	107° 26' 19.043 W
- plan hits target center									
- Circle (radius 100.0)									
SJ 28-6 181P PCP	0.00	0.00	7,669.0	1,104.0	862.9	2,032,289.70	151,000.30	36° 34' 45.985 N	107° 26' 19.043 W
- plan hits target center									
- Circle (radius 100.0)									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
200.0	200.0	Surface Casing	9-5/8	12-1/4	
7,968.0	7,669.0	Production Casing	4-1/2	6-1/4	
4,469.0	4,170.0	Intermediate Casing	7	8-3/4	

Database:	EDM 2003 21 Single User Db	Local Co-ordinate Reference:	Well San Juan 28-6 Unit 181P
Company:	ConocoPhillips	TVD Reference:	GL 6482' & KB 15' @ 6497.0ft (AWS.711)
Project:	SJB (NM Central)	MD Reference:	GL 6482' & KB 15' @ 6497.0ft (AWS 711)
Site:	SEC 14-T27N-R6W	North Reference:	True
Well:	San Juan 28-6 Unit 181P	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,029.2	1,022.0	Nacimiento		0.00	
2,651.4	2,490.0	Ojo Alamo		0.00	
2,856.8	2,672.0	Kirtland		0.00	
3,090.5	2,879.0	Fruitland		0.00	
3,486.7	3,230.0	Pictured Cliffs		0.00	
3,612.6	3,342.0	Lewis		0.00	
4,009.6	3,715.0	Huerfano Bentonite		0.00	
4,469.0	4,170.0	Chacra		0.00	
5,093.0	4,794.0	Upper Cliff House		0.00	
5,184.0	4,885.0	Massive Cliff House		0.00	
5,323.0	5,024.0	Menefee		0.00	
5,688.0	5,389.0	Point Lookout		0.00	
6,178.0	5,879.0	Mancos		0.00	
6,877.0	6,578.0	Upper Gallup		0.00	
7,634.0	7,335.0	Greenhorn		0.00	
7,699.0	7,400.0	Graneros		0.00	
7,736.0	7,437.0	Two Wells		0.00	
7,791.0	7,492.0	Paguate		0.00	
7,847.0	7,548.0	Upper Cubero		0.00	
7,885.0	7,586.0	Lower Cubero		0.00	
7,959.0	7,660.0	Oak Canyon		0.00	
7,968.0	7,669.0	Encinal		0.00	
	7,699.0	Burro Canyon		0.00	
	7,828.0	Morrison		0.00	



ConocoPhillips

SJB (NM Central)

SEC 14-T27N-R6W

San Juan 28-6 Unit 181P

OH

Plan 1

Anticollision Report

26 June, 2012



Company:	ConocoPhillips	Local Co-ordinate Reference:	Well San Juan 28-6 Unit 181P
Project:	SJB (NM Central)	TVD Reference:	GL 6482' & KB 15' @ 6497.0ft (AWS 711)
Reference Site:	SEC 14-T27N-R6W	MD Reference:	GL 6482' & KB 15' @ 6497.0ft (AWS 711)
Site Error:	0.0ft	North Reference:	True
Reference Well:	San Juan 28-6 Unit 181P	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2 00.sigma
Reference Wellbore	OH	Database:	EDM 2003.21 Single User Db
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Reference	Plan 1		
Filter type:	GLOBAL FILTER APPLIED: All wellpaths within 200'+ 100/1000 of reference		
Interpolation Method:	MD Interval 100.0ft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 996 8ft	Error Surface:	Combined Covariances
Warning Levels Evaluated at:	2 89 Sigma		

Survey Tool Program		Date	2012/06/26		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0 0	7,968.0	Plan 1 (OH)	MWD SDI	MWD - Standard ver 1.0.1	

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
SEC 14-T27N-R6W						
San Juan 28-6 Unit 181M - OH - OH	747.4	746.1	63.5	40.4	2.746	CC
San Juan 28-6 Unit 181M - OH - OH	800.0	798.0	64.0	39.3	2.591	ES
San Juan 28-6 Unit 181M - OH - OH	900.0	896.3	68.8	41.2	2.489	Caution - Monitor Closely, SF

Offset Design											Offset Site Error		0.0 ft
Survey Program: 248-INC+TREND											Offset Well Error		0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0 0	0 0	0 0	0 0	0 0	0 0	-28.37	63 0	-34 0	71 6	70 7	0 91	78 510	
100 0	100 0	100.1	100 1	0.1	1 3	-28 31	63 0	-33 9	71.5	68 7	2.86	25 051	
200 0	200 0	200 1	200 1	0 3	2 7	-28 12	63 0	-33 7	71.4	66.6	4.82	14 827	
300 0	300 0	300 1	300 1	0 6	4 6	-27 83	63 0	-33 2	71 2	63.9	7 35	9 687	
400 0	400 0	400 1	400.1	0 8	7 1	-66 37	63 0	-32 8	70 6	59 7	10 90	6 472	
500 0	499 9	500 0	500.0	1 0	9 5	-69 55	63 0	-32 4	68 6	54 2	14 44	4 752	
600 0	599 6	599 7	599 7	1 2	12 0	-75 80	63 0	-31 9	66 0	48 0	17 97	3 672	
700 0	698 9	699 1	699 1	1 5	14.4	-85 52	63 0	-31 5	63 8	42 3	21 47	2 972	
747 4	745 8	746 1	746.1	1 7	15 5	-91.35	63 0	-31 3	63.5	40.4	23.11	2 746 CC	
800 0	797 8	798 0	798 0	1 8	16 7	-98 57	63 0	-31.1	64 0	39 3	24.70	2 591 ES	
900 0	896 0	896.3	896 3	2 2	18 7	-113 42	63 0	-30 6	68 8	41 2	27 63	2 489	Caution - Monitor Closely, SF
1,000 0	993 6	994 0	994 0	2 6	20.8	-127 49	63 0	-30 2	79 7	49 1	30 56	2 607	
1,100 0	1,090 4	1,090 8	1,090 8	3 0	22 8	-139 00	63 0	-29 8	96 9	63 4	33.49	2 893	
1,200 0	1,186 2	1,186.7	1,186 7	3 5	24 8	-147 69	63 0	-29 4	119 8	83 4	36.42	3 290	
1,300 0	1,281 0	1,281.6	1,281 6	4 1	26.8	-154 06	63 0	-29 0	147 7	108 4	39 31	3 756	
1,400 0	1,374 6	1,375 5	1,375 4	4 7	28 8	-158.76	63.0	-28 5	179 8	137 7	42.17	4 264	
1,500 0	1,466.9	1,468 0	1,468 0	5 4	30 7	-162 28	63 0	-27 9	215 9	170 9	45.00	4 798	
1,600 0	1,557 8	1,559 3	1,559 3	6 2	32 7	-164 97	63 0	-27.3	255.6	207 8	47.79	5 349	
1,700 0	1,647.2	1,649 0	1,649 0	7 0	34 5	-167 07	63 0	-26 6	298 8	248 3	50 54	5 913	
1,800 0	1,735 8	1,738 0	1,738 0	7 8	36.4	-168 88	63 0	-25 9	343 9	290 6	53 27	6 456	
1,900 0	1,824.4	1,827 6	1,827 6	8 7	38.4	-170.30	63 0	-25 0	389 0	332 9	56 09	6 936	
2,000 0	1,913 0	1,917 5	1,917 5	9 6	40 5	-171 45	63 0	-23 9	434 1	375 2	58 94	7 365	
2,100 0	2,001 6	2,007 6	2,007.5	10.4	42 6	-172 42	63 0	-22.4	479.2	417.3	61 81	7.752	
2,200 0	2,090.2	2,097 8	2,097 8	11 3	44 6	-173 25	63 0	-20 7	524 1	459.4	64 69	8 101	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	ConocoPhillips	Local Co-ordinate Reference:	Well San Juan 28-6 Unit 181P
Project:	SJB (NM.Central)	TVD Reference:	GL 6482' & KB 15' @ 6497.0ft (AWS 711)
Reference Site:	SEC 14-T27N-R6W	MD Reference:	GL 6482' & KB 15' @ 6497 0ft (AWS 711)
Site Error:	0.0ft	North Reference:	True
Reference Well:	San Juan 28-6 Unit 181P	Survey Calculation Method:	Minimum Curvature
Well Error:	0 0ft	Output errors are at	2 00 sigma
Reference Wellbore:	OH	Database:	EDM 2003.21 Single User Db
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

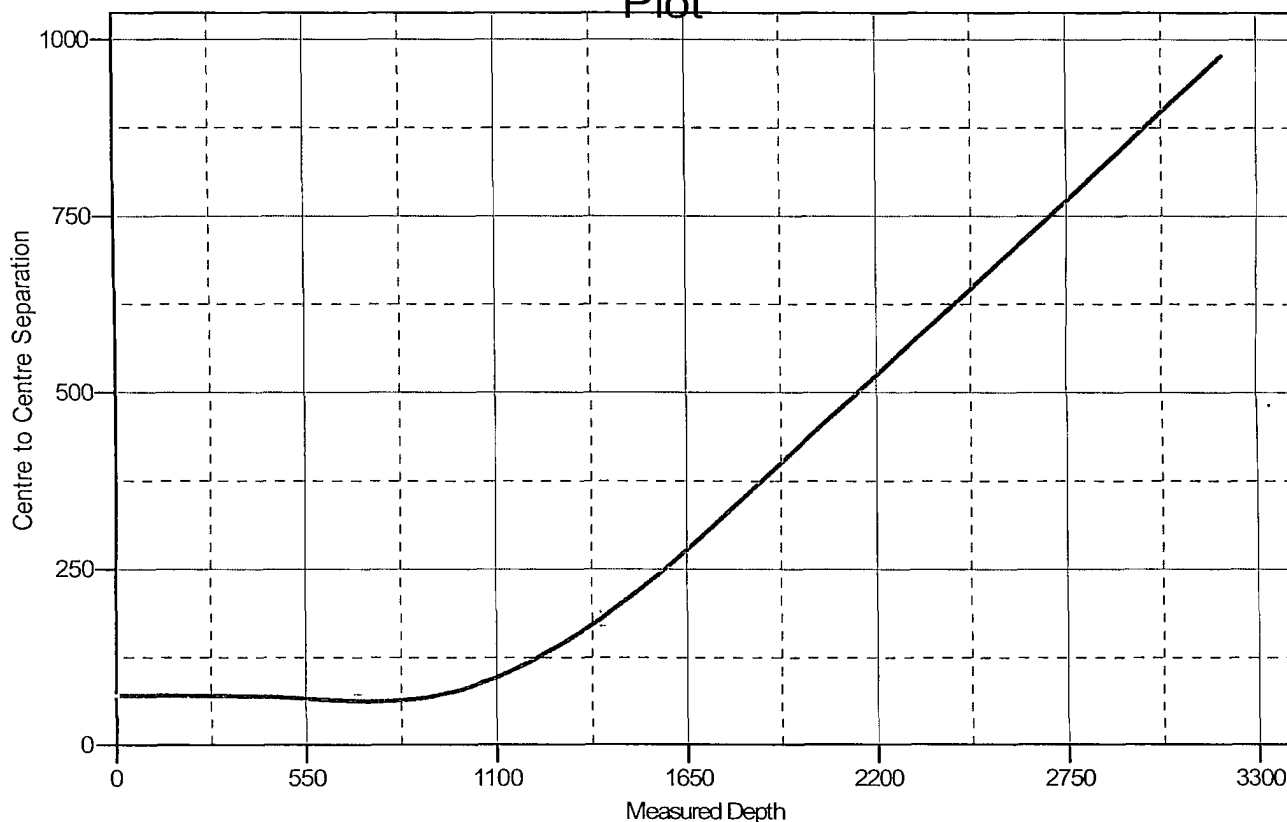
Offset Design SEC 14-T27N-R6W - San Juan 28-6 Unit 181M - OH - OH													Offset Site Error:	0 0 ft
Survey Program: 248-INC+TREND													Offset Well Error:	0'0 ft
Reference		Offset		Semi Major Axis			Distance							
Measured	Vertical	Measured	Vertical	Reference	Offset	Highside	Offset Wellbore Centre		Between	Between	Minimum	Separation	Warning	
Depth	Depth	Depth	Depth			Toolface	+N/-S	+E/-W	Centres	Ellipses	Separation	Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)			
2,300 0	2,178 7	2,188 2	2,188 1	12 2	46 7	-173 97	63.0	-18 7	568 9	501 3	67 58	8.417		
2,400 0	2,267.3	2,278 0	2,277 9	13 1	48 7	-174 60	63.0	-16 4	613 5	543 1	70 42	8 713		
2,500 0	2,355 9	2,365 9	2,365 8	14 0	50 7	-175 12	63 0	-14 3	658 4	585 2	73 12	9 004		
2,600 0	2,444 5	2,453 7	2,453.6	14 8	52 6	-175 56	63 0	-12 5	703 4	627 6	75 81	9 278		
2,700 0	2,533 1	2,541 4	2,541 2	15.7	54.6	-175 93	63 0	-10.9	748.6	670 1	78 50	9 536		
2,800 0	2,621 7	2,628 9	2,628 7	16 6	56 5	-176 24	63 0	-9.6	794 1	712 9	81 19	9 780		
2,900.0	2,710 2	2,716 2	2,716 0	17 5	58 5	-176 51	63 0	-8.6	839 7	755 8	83.88	10 011		
3,000 0	2,798 8	2,804.3	2,804 1	18 4	60 4	-176 73	63.0	-7 7	885 5	798 9	86 56	10 230		
3,100.0	2,887.4	2,893 6	2,893.4	19 3	62 2	-176 94	63 0	-6 9	931 3	842 1	89 24	10 436		
3,200 0	2,976.0	2,982 9	2,982.7	20 2	64 1	-177 13	63 0	-6 0	977 1	885 1	91 92	10 629		

Company:	ConocoPhillips	Local Co-ordinate Reference:	Well San Juan 28-6 Unit 181P
Project:	SJB (NM Central)	TVD Reference:	GL 6482' & KB 15' @ 6497' 0ft (AWS 711)
Reference Site:	SEC 14-T27N-R6W	MD Reference:	GL 6482' & KB 15' @ 6497' 0ft (AWS 711)
Site Error:	0 0ft	North Reference:	True
Reference Well:	San Juan 28-6 Unit 181P	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2 00 sigma
Reference Wellbore:	OH	Database:	EDM 2003 21 Single User Db
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to GL 6482' & KB 15' @ 6497.0ft (AWS)
Offset Depths are relative to Offset Datum
Central Meridian is 106° 15' 0.000 W °

Coordinates are relative to: San Juan 28-6 Unit 181P
Coordinate System is US State Plane 1927 (Exact solution), New Mexico Central
Grid Convergence at Surface is: -0 71°

Ladder Plot



LEGEND

— San Juan 28-6 Unit 181M, OH, OH V0

Company:	ConocoPhillips	Local Co-ordinate Reference:	Well San Juan 28-6 Unit 181P
Project:	SJB (NM Central)	TVD Reference:	GL 6482' & KB 15' @ 6497.0ft (AWS 711)
Reference Site:	SEC 14-T27N-R6W	MD Reference:	GL 6482' & KB 15' @ 6497.0ft (AWS 711)
Site Error:	0.0ft	North Reference:	True
Reference Well:	San Juan 28-6 Unit 181P	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 2003.21 Single User Db
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to GL 6482' & KB 15' @ 6497.0ft (AWS)
Offset Depths are relative to Offset Datum
Central Meridian is 106° 15' 0.000 W °

Coordinates are relative to. San Juan 28-6 Unit 181P
Coordinate System is US State Plane 1927 (Exact solution), New Mexico Central
Grid Convergence at Surface is: -0.71°

