

16

N 88°54'25" W

2643.0' (R) GLO 1916

1705'

E/2 DEDICATED ACREAGE
USA SF - 079491

2603.0' (R)
2600.0' (M)

WELL FLAG
NAD 83
LAT: 36.604449° N
LONG: 107.305871° W
NAD 27
LAT: 36°36.266431' N
LONG: 107°18.316250' W

1585'

S 24°20'58" W
1490.8'

D'18" E
N 0°12'42" W

BOTTOM HOLE

2201'

2087'

2589.8' (R)
2587.3' (M)

S/2 DEDICATED ACREAGE
USA SF - 079491
SECTION 1
T-27-N, R-5-W

5315.6' (R) BLM 1957
5299.7' (M)

1'48" E
N 1°32'22" E

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

Crystal Tafoya 11/1/10
Signature

Crystal Tafoya
Printed Name

Staff Regulatory Tech
Title and E-mail Address

November 1, 2010
Date

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.

Date of Survey: 7/30/08
Signature and Seal of Professional Surveyor

REGISTERED PROFESSIONAL SURVEYOR
HENRY P. BROADHURST
NEW MEXICO
11393
10/22/10

Certificate Number: NM 11393

RCVD OCT 25 '10

OIL CONS. DIV.

DIST. 3

ConocoPhillips

SJB (NM Central)
SEC 01-T27N-R5W
SJ 27-5 #100N
Original Hole

Survey: Actual

SDI Standard Survey Report

08 October, 2010

API - 30-039-30798

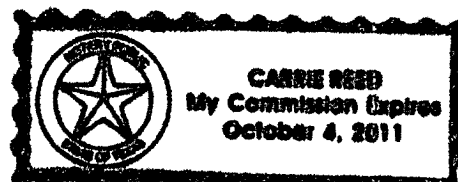
This survey is correct to the best of my knowledge and is supported by actual field data.

Robert

Notorized this date 13th of October, 2010.

Carrie Reed

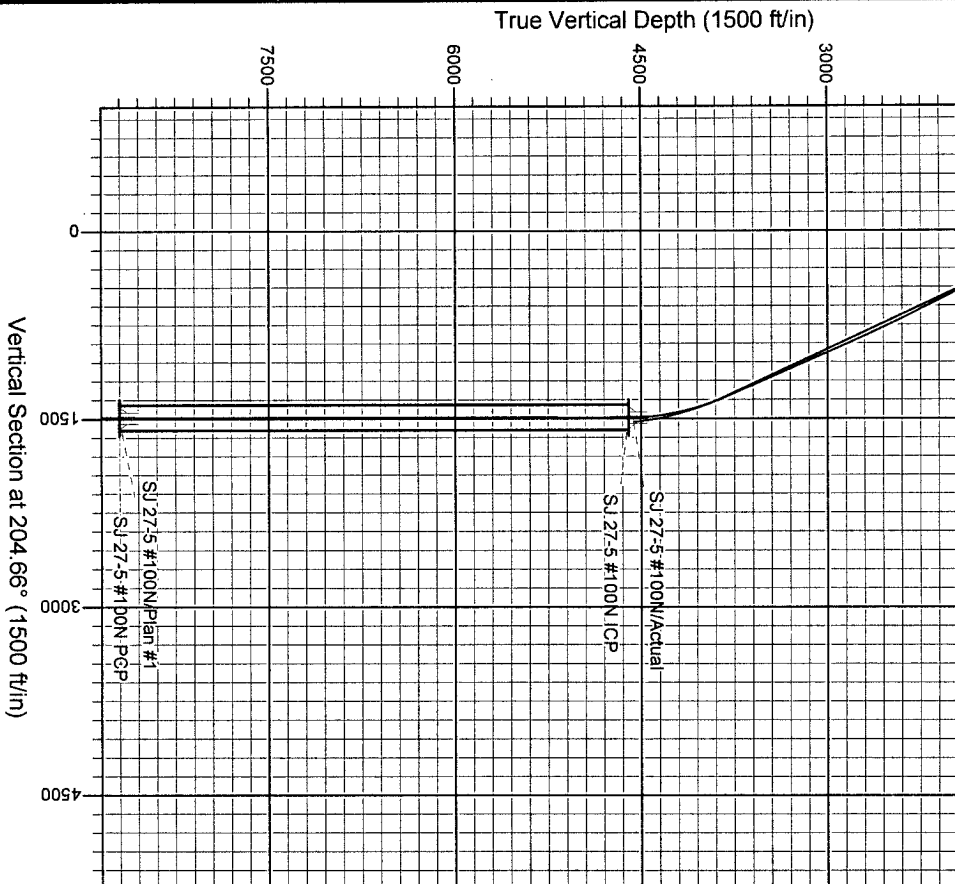
Notary Signature
County of Midland
State of Texas



Project: SJB (NM Central)
Site: SEC 01-127N-R5W
Well: SJ 27-5 #100N
Wellbore: Original Hole
Design: Plan #1

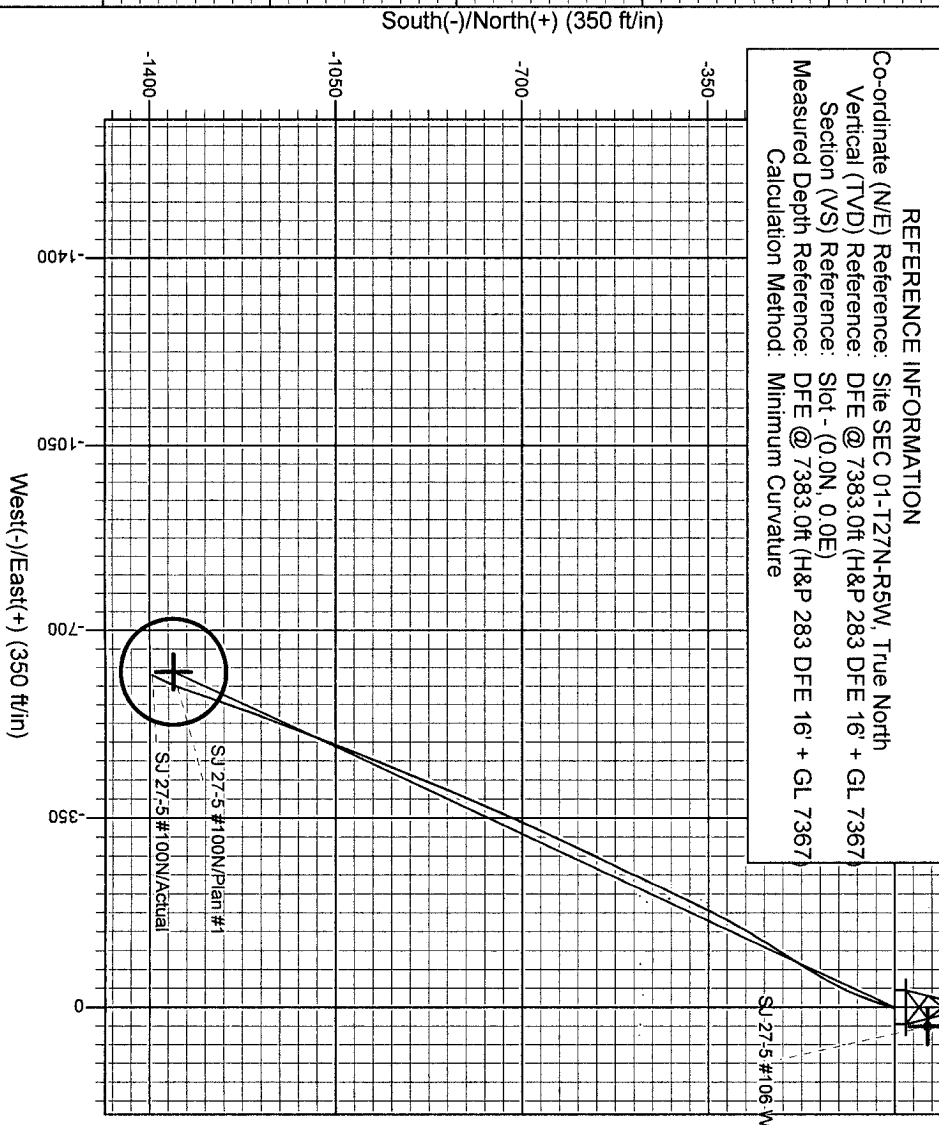


WELL DETAILS: SJ 27-5 #100N			
DFE @ 7383.0ft (H&P 283 DFE 16' + GL 7367)			
Ground Level: 7367.0			
+N/-S	+E/-W	North	East
0.0	0.0	2040934.02	190256.06
		Latitude	Longitude
		36° 36' 15.986 N	107° 18' 18.975 W
			Slot



REFERENCE INFORMATION

Coordinate (N/E) Reference: Site SEC 01-127N-R5W, True North
Vertical (TVD) Reference: DFE @ 7383.0ft (H&P 283 DFE 16' + GL 7367)
Section (VS) Reference: Slot - (0.0N, 0.0E)
Measured Depth Reference: DFE @ 7383.0ft (H&P 283 DFE 16' + GL 7367)
Calculation Method: Minimum Curvature



COMPANY DETAILS: ConocoPhillips
Calculation Method: Minimum Curvature
Error System: ISCWSA
Scan Method: Closest Approach 3D
Error Surface: Combined Covariances
Warning Method: Risk Ratio

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

SITE DETAILS: SEC 01-127N-R5W
Rio Arriba County NM
Site Centre Latitude: 36° 36' 15.986 N
Longitude: 107° 18' 18.975 W
Positional Uncertainty: 0.0
Convergence: -0.63
Local North: True

Scientific Drilling International, Inc.

SDI Standard Survey Report

Company:	ConocoPhillips	Local Co-ordinate Reference:	Site SEC 01-T27N-R5W
Project:	SJB (NM Central)	TVD Reference:	DFE @ 7383.0ft (H&P 283 DFE 16' + GL 7367)
Site:	SEC 01-T27N-R5W	MD Reference:	DFE @ 7383.0ft (H&P 283 DFE 16' + GL 7367)
Well:	SJ 27-5 #100N	North Reference:	True
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	edmCOP

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 01-T27N-R5W		
Site Position:		Northing:	2,040,934.02 ft
From:	Lat/Long	Easting:	190,256.06 ft
Position Uncertainty:	0.0 ft	Slot Radius:	6-1/8"
		Latitude:	36° 36' 15.986 N
		Longitude:	107° 18' 18.975 W
		Grid Convergence:	-0.63 °

Well	SJ 27-5 #100N, S-Type MV/DK Well		
Well Position	+N/-S	0.0 ft	Northing: 2,040,934.02 ft
	+E/-W	0.0 ft	Easting: 190,256.06 ft
Position Uncertainty	3.5 ft	Wellhead Elevation:	ft
		Latitude:	36° 36' 15.986 N
		Longitude:	107° 18' 18.975 W
		Ground Level:	7,367.0 ft

Wellbore	Original Hole		
Magnetics	Model Name	Sample Date	Declination
			(°)
	BGGM2010	8/12/2010	9.78
			Dip Angle (°)
			63.49
			Field Strength (nT)
			50,797

Design	Original Hole		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(ft)	(ft)	(ft)
	0.0	0.0	0.0
			Direction
			(°)
			203.82

Survey Program	Date	10/8/2010		
From	To	Survey (Wellbore)	Tool Name	Description
(ft)	(ft)			
265.0	4,860.0	Actual (Original Hole)	MWD SDI	MWD - Standard ver 1.0.1

Survey									
Measured Depth	Inclination	Azimuth	True Vertical	North/South	East/West	Closure Azimuth	Closure Distance		
(ft)	(°)	(°)	Depth	(ft)	(ft)	(°)	(ft)		
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.0		
265.0	0.55	148.15	265.0	-1.1	0.7	148.15	1.3		
327.0	0.98	169.68	327.0	-1.9	0.9	153.54	2.1		
389.0	1.99	181.73	389.0	-3.5	1.0	164.07	3.6		
449.0	3.45	196.05	448.9	-6.2	0.5	175.82	6.2		
511.0	4.32	198.00	510.8	-10.2	-0.8	184.37	10.3		
572.0	5.61	199.32	571.5	-15.2	-2.5	189.24	15.4		
634.0	6.87	202.67	633.2	-21.5	-4.9	192.85	22.1		
696.0	7.93	199.79	694.6	-29.0	-7.8	195.05	30.0		
757.0	8.32	198.04	755.0	-37.1	-10.6	195.91	38.6		
818.0	9.30	197.76	815.3	-46.0	-13.4	196.29	47.9		
911.0	11.10	202.45	906.8	-61.4	-19.2	197.32	64.4		

Scientific Drilling International, Inc.

SDI Standard Survey Report

Company:	ConocoPhillips	Local Co-ordinate Reference:	Site SEC 01-T27N-R5W
Project:	SJB (NM Central)	TVD Reference:	DFE @ 7383.0ft (H&P 283 DFE 16' + GL 7367)
Site:	SEC 01-T27N-R5W	MD Reference:	DFE @ 7383.0ft (H&P 283 DFE 16' + GL 7367)
Well:	SJ 27-5 #100N	North Reference:	True
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	edmCOP

Survey							
Measured Depth (ft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (ft)	East/West (ft)	Closure Azimuth (°)	Closure Distance (ft)
1,001.0	12.89	202.52	994.9	-78.7	-26.3	198.48	83.0
1,091.0	15.68	206.56	1,082.1	-98.9	-35.6	199.80	105.1
1,181.0	18.18	207.82	1,168.2	-122.2	-47.6	201.28	131.1
1,271.0	20.32	210.96	1,253.1	-148.0	-62.2	202.79	160.5
1,361.0	22.82	212.31	1,336.8	-176.2	-79.6	204.30	193.3
1,451.0	23.36	211.67	1,419.6	-206.1	-98.3	205.49	228.3
1,541.0	23.75	211.56	1,502.1	-236.7	-117.1	206.32	264.1
1,631.0	24.99	209.72	1,584.1	-268.7	-136.0	206.85	301.1
1,721.0	25.57	209.65	1,665.5	-302.1	-155.1	207.17	339.5
1,811.0	25.34	206.15	1,746.7	-336.2	-173.1	207.25	378.2
1,901.0	25.25	205.74	1,828.1	-370.8	-190.0	207.13	416.7
1,991.0	25.72	205.13	1,909.4	-405.8	-206.6	206.98	455.4
2,081.0	26.22	205.01	1,990.3	-441.5	-223.3	206.83	494.7
2,171.0	26.96	204.01	2,070.8	-478.1	-240.0	206.65	535.0
2,261.0	26.55	205.75	2,151.1	-514.9	-257.0	206.53	575.5
2,351.0	27.96	205.91	2,231.1	-552.0	-275.0	206.48	616.7
2,441.0	26.54	204.68	2,311.1	-589.2	-292.6	206.41	657.9
2,531.0	26.26	205.17	2,391.8	-625.5	-309.5	206.32	697.9
2,621.0	24.48	203.58	2,473.1	-660.6	-325.4	206.22	736.4
2,711.0	25.97	203.84	2,554.5	-695.8	-340.8	206.10	774.8
2,801.0	24.54	203.58	2,635.9	-730.9	-356.3	205.99	813.1
2,891.0	24.39	201.83	2,717.8	-765.3	-370.7	205.84	850.3
2,981.0	23.50	203.67	2,800.1	-799.0	-384.8	205.72	886.8
3,071.0	23.11	202.52	2,882.7	-831.7	-398.8	205.61	922.4
3,161.0	23.15	202.50	2,965.5	-864.4	-412.3	205.50	957.7
3,252.0	23.04	201.43	3,049.2	-897.5	-425.6	205.37	993.3
3,342.0	23.42	201.58	3,131.9	-930.5	-438.7	205.24	1,028.7
3,432.0	23.77	201.23	3,214.4	-964.1	-451.8	205.11	1,064.7
3,522.0	23.80	201.48	3,296.7	-997.9	-465.0	204.99	1,100.9
3,612.0	23.98	200.85	3,379.0	-1,031.9	-478.2	204.86	1,137.3
3,702.0	24.00	200.52	3,461.2	-1,066.1	-491.1	204.73	1,173.8
3,792.0	22.99	201.59	3,543.8	-1,099.6	-504.0	204.62	1,209.6
3,882.0	23.36	200.84	3,626.5	-1,132.6	-516.8	204.53	1,244.9
3,972.0	23.10	200.57	3,709.2	-1,165.8	-529.4	204.42	1,280.4
4,062.0	23.35	200.01	3,791.9	-1,199.1	-541.7	204.31	1,315.8
4,152.0	22.95	199.19	3,874.7	-1,232.4	-553.5	204.19	1,351.0
4,242.0	20.76	200.17	3,958.2	-1,264.0	-564.8	204.08	1,384.4
4,332.0	18.34	199.82	4,043.0	-1,292.3	-575.1	203.99	1,414.5
4,422.0	15.95	198.05	4,129.0	-1,317.3	-583.7	203.90	1,440.9
4,512.0	13.99	199.80	4,215.9	-1,339.3	-591.3	203.82	1,464.0
4,602.0	13.12	204.52	4,303.4	-1,358.9	-599.2	203.79	1,485.1
4,692.0	10.93	203.67	4,391.5	-1,376.0	-606.8	203.80	1,503.9
4,782.0	6.80	205.95	4,480.4	-1,388.6	-612.6	203.81	1,517.7
4,860.0	4.34	207.48	4,558.0	-1,395.4	-616.0	203.82	1,525.3