



COP Deviation Report

SAN JUAN 28-7 UNIT #251N

Operator CONOCOPHILLIPS COMPANY	Legal WellName SAN JUAN 28-7 UNIT #251N	API / UWI 3003930709	County RIO ARRIBA	State/Province NEW MEXICO
Surface Legal Location 031-028N-007W-E		N/S Dist (ft) 2,463.00	N/S Ref FNL	E/W Dist (ft) 456.00 E/W Ref FWL

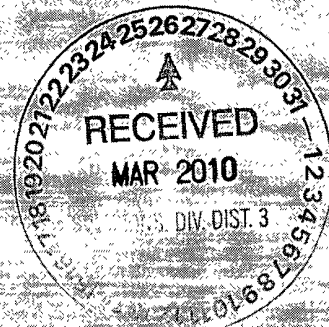
Survey Data					
Date	MD (ftKB)	Incl (°)	Method	Survey Company	
12/19/2009	0.00	0.00	IncAzi-MWD	Scientific Drilling	
11/23/2009	130.00	1.00	Inc-Drop	MO-TE DRILLING INC.	
11/24/2009	236.00	0.75	Inc-Drop	MO-TE DRILLING INC.	
12/19/2009	271.00	1.21	IncAzi-MWD	Scientific Drilling	
12/19/2009	301.00	1.39	IncAzi-MWD	Scientific Drilling	
12/19/2009	332.00	1.62	IncAzi-MWD	Scientific Drilling	
12/19/2009	363.00	1.91	IncAzi-MWD	Scientific Drilling	
12/19/2009	394.00	2.30	IncAzi-MWD	Scientific Drilling	
12/19/2009	425.00	2.82	IncAzi-MWD	Scientific Drilling	
12/19/2009	455.00	3.51	IncAzi-MWD	Scientific Drilling	
12/19/2009	486.00	3.93	IncAzi-MWD	Scientific Drilling	
12/19/2009	517.00	4.98	IncAzi-MWD	Scientific Drilling	
12/19/2009	547.00	5.40	IncAzi-MWD	Scientific Drilling	
12/19/2009	596.00	5.92	IncAzi-MWD	Scientific Drilling	
12/19/2009	641.00	6.44	IncAzi-MWD	Scientific Drilling	
12/19/2009	686.00	6.81	IncAzi-MWD	Scientific Drilling	
12/19/2009	731.00	7.63	IncAzi-MWD	Scientific Drilling	
12/19/2009	776.00	8.42	IncAzi-MWD	Scientific Drilling	
12/20/2009	821.00	9.17	IncAzi-MWD	Scientific Drilling	
12/20/2009	866.00	10.07	IncAzi-MWD	Scientific Drilling	
12/20/2009	911.00	10.81	IncAzi-MWD	Scientific Drilling	
12/20/2009	956.00	11.37	IncAzi-MWD	Scientific Drilling	
12/20/2009	1,001.00	11.89	IncAzi-MWD	Scientific Drilling	
12/20/2009	1,046.00	12.54	IncAzi-MWD	Scientific Drilling	
12/20/2009	1,091.00	13.55	IncAzi-MWD	Scientific Drilling	
12/20/2009	1,136.00	14.46	IncAzi-MWD	Scientific Drilling	
12/20/2009	1,180.00	15.32	IncAzi-MWD	Scientific Drilling	
12/20/2009	1,226.00	16.27	IncAzi-MWD	Scientific Drilling	
12/20/2009	1,271.00	17.18	IncAzi-MWD	Scientific Drilling	
12/20/2009	1,315.00	18.22	IncAzi-MWD	Scientific Drilling	
12/20/2009	1,360.00	19.64	IncAzi-MWD	Scientific Drilling	
12/20/2009	1,405.00	20.39	IncAzi-MWD	Scientific Drilling	
12/20/2009	1,450.00	21.12	IncAzi-MWD	Scientific Drilling	
12/20/2009	1,495.00	21.75	IncAzi-MWD	Scientific Drilling	
12/20/2009	1,585.00	22.04	IncAzi-MWD	Scientific Drilling	
12/20/2009	1,675.00	21.20	IncAzi-MWD	Scientific Drilling	

I, the undersigned, certify that I acting in my capacity as _____ for ConocoPhillips Company, am authorized by said Company to make this report; and that said report was prepared under my supervision and directions, and that the facts stated herein are true to the best of my knowledge and belief.

Subscribed and sworn to me this _____

Notary Public in and for San Juan County, New Mexico

My Commission expires _____



Survey Data					
Date	MD (ftKB)	Incl (°)	Method	Survey Company	
12/20/2009	1,765.00	22.64	IncAzi-MWD	Scientific Drilling	
12/20/2009	1,855.00	22.93	IncAzi-MWD	Scientific Drilling	
12/20/2009	1,945.00	22.95	IncAzi-MWD	Scientific Drilling	
12/20/2009	2,035.00	23.51	IncAzi-MWD	Scientific Drilling	
12/20/2009	2,125.00	22.80	IncAzi-MWD	Scientific Drilling	
12/20/2009	2,215.00	22.56	IncAzi-MWD	Scientific Drilling	
12/20/2009	2,305.00	22.21	IncAzi-MWD	Scientific Drilling	
12/20/2009	2,395.00	22.62	IncAzi-MWD	Scientific Drilling	
12/20/2009	2,485.00	22.66	IncAzi-MWD	Scientific Drilling	
12/20/2009	2,575.00	22.56	IncAzi-MWD	Scientific Drilling	
12/20/2009	2,665.00	21.84	IncAzi-MWD	Scientific Drilling	
12/20/2009	2,755.00	21.01	IncAzi-MWD	Scientific Drilling	
12/20/2009	2,845.00	21.73	IncAzi-MWD	Scientific Drilling	
12/20/2009	2,934.00	22.13	IncAzi-MWD	Scientific Drilling	
12/20/2009	3,024.00	22.11	IncAzi-MWD	Scientific Drilling	
12/20/2009	3,114.00	19.98	IncAzi-MWD	Scientific Drilling	
12/20/2009	3,203.00	18.54	IncAzi-MWD	Scientific Drilling	
12/20/2009	3,293.00	16.59	IncAzi-MWD	Scientific Drilling	
12/21/2009	3,383.00	13.60	IncAzi-MWD	Scientific Drilling	
12/21/2009	3,473.00	10.81	IncAzi-MWD	Scientific Drilling	
12/21/2009	3,563.00	8.94	IncAzi-MWD	Scientific Drilling	
12/21/2009	3,652.00	8.19	IncAzi-MWD	Scientific Drilling	
12/21/2009	3,743.00	7.25	IncAzi-MWD	Scientific Drilling	
12/21/2009	3,833.00	6.67	IncAzi-MWD	Scientific Drilling	
12/21/2009	3,922.00	5.75	IncAzi-MWD	Scientific Drilling	
12/21/2009	4,012.00	5.38	IncAzi-MWD	Scientific Drilling	
12/21/2009	4,102.00	5.38	IncAzi-MWD	Scientific Drilling	
12/21/2009	4,192.00	5.17	IncAzi-MWD	Scientific Drilling	
12/21/2009	4,282.00	5.01	IncAzi-MWD	Scientific Drilling	
12/21/2009	4,372.00	4.90	IncAzi-MWD	Scientific Drilling	
12/21/2009	4,462.00	3.65	IncAzi-MWD	Scientific Drilling	
12/21/2009	4,552.00	3.27	IncAzi-MWD	Scientific Drilling	
12/21/2009	4,642.00	3.79	IncAzi-MWD	Scientific Drilling	
12/21/2009	4,732.00	3.62	IncAzi-MWD	Scientific Drilling	
12/21/2009	4,822.00	3.40	IncAzi-MWD	Scientific Drilling	
12/30/2009	7,330.00	0.75	Inc-WL	PHOENIX	

I, the undersigned, certify that I acting in my capacity as _____ for ConocoPhillips Company, am authorized by said Company to make this report; and that said report was prepared under my supervision and directions, and that the facts stated herein are true to the best of my knowledge and belief.

Subscribed and sworn to me this _____

Notary Public in and for San Juan County, New Mexico

My Commission expires _____

ConocoPhillips

SJB (NM Central)
SEC 31-T28N-R7W
SJ 28-7 #251N

Original Hole

Survey: Actual

Standard Survey Report

17 February, 2010

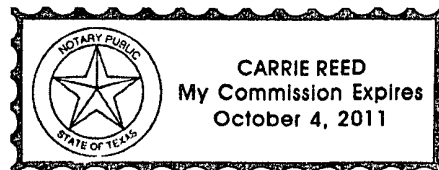
This survey is correct to the best of my knowledge and is supported by actual field data.

Robertson

Notorized this date 19th of February, 2010.

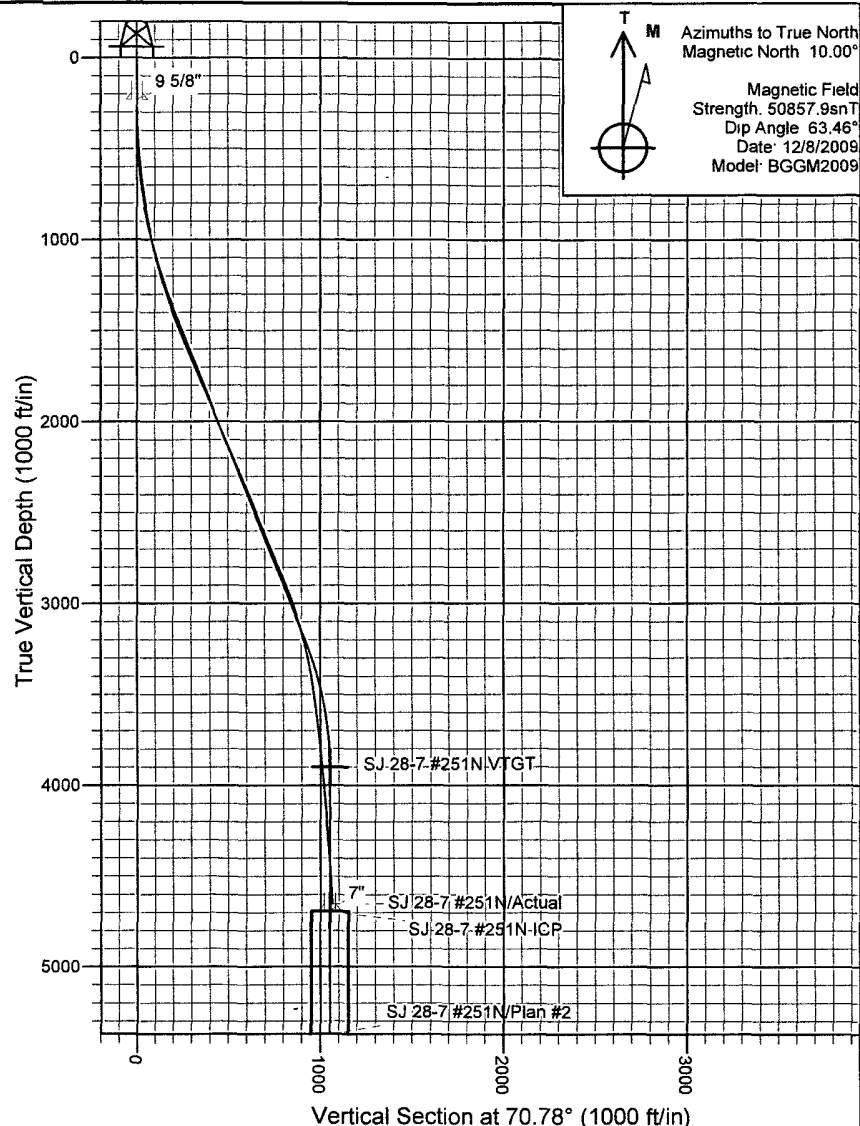
Carrie Reed

Notary Signature
County of Midland
State of Texas

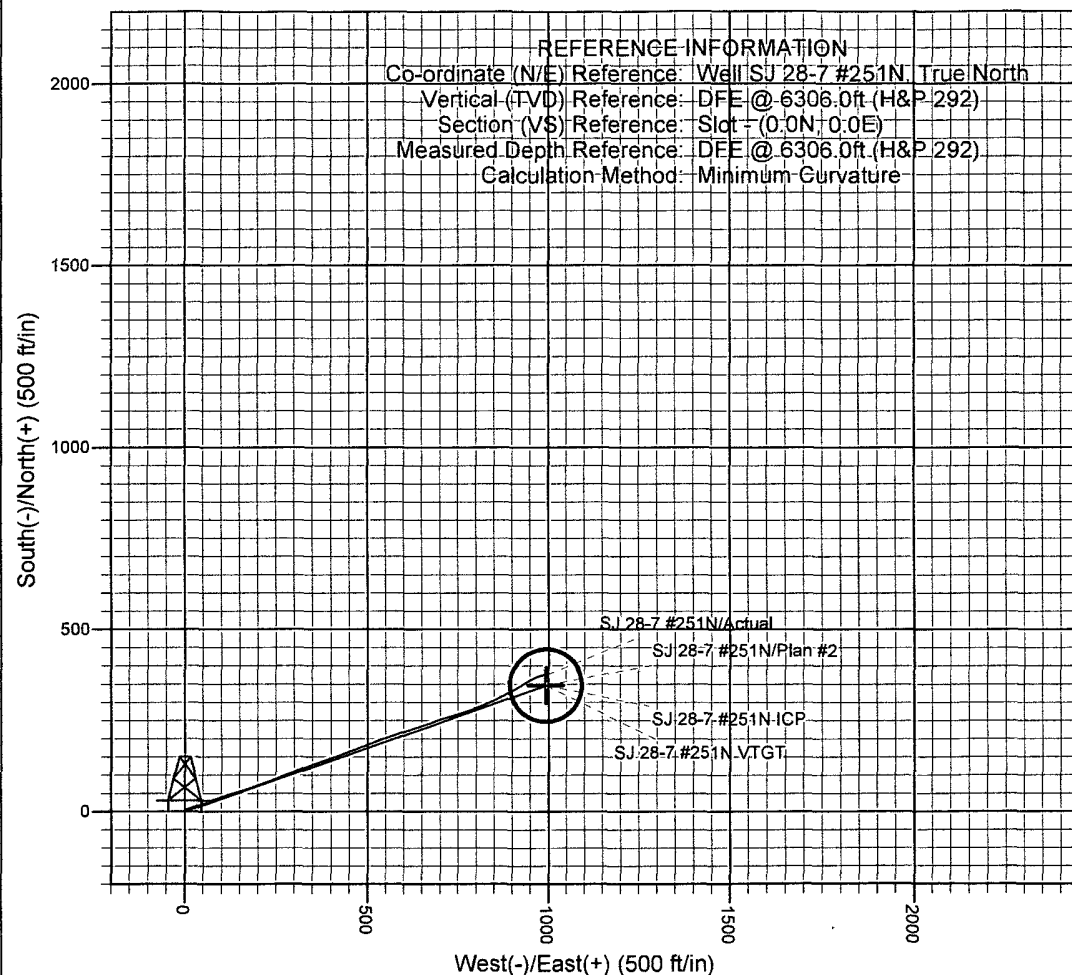




Project: SJB (NM Central)
Site: SEC 31-T28N-R7W
Well: SJ 28-7 #251N
Wellbore: Original Hole
Design: Plan #2



WELL DETAILS: SJ 28-7 #251N				Ground Level: 6290.0			Slot	
DFE @ 6306.0ft (H&P 292)				Easting	Latitude	Longitude		
				97595.37	36° 37' 5.682 N	107° 37' 16.272 W		
+N/-S	+E/-W	Northing						
0.0	0.0	2047130.73						



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 31-T28N-R7W
Rio Arriba County NM
Site Centre Latitude: 36° 37' 5.682 N
Longitude: 107° 37' 16.272 W
Positional Uncertainty: 0.0
Convergence: -0.82
Local North: True

Scientific Drilling International, Inc.
Survey Report

Company:	ConocoPhillips	Local Co-ordinate Reference:	Site SEC 31-T28N-R7W
Project:	SJB (NM Central)	TVD Reference:	DFE @ 6306.0ft (H&P 292)
Site:	SEC 31-T28N-R7W	MD Reference:	DFE @ 6306 0ft (H&P 292)
Well:	SJ 28-7 #251N	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 31-T28N-R7W				
Site Position:		Northing:	2,047,130.73 ft	Latitude:	36° 37' 5.682 N
From:	Lat/Long	Easting:	97,595.37 ft	Longitude:	107° 37' 16.272 W
Position Uncertainty:	0.0 ft	Slot Radius:	6-1/8"	Grid Convergence:	-0.82 °

Well	SJ 28-7 #251N, S-Type MV/DK Well					
Well Position	+N/-S	0.0 ft	Northing:	2,047,130.73 ft	Latitude:	36° 37' 5.682 N
	+E/-W	0.0 ft	Easting:	97,595.37 ft	Longitude:	107° 37' 16.272 W
Position Uncertainty		3.5 ft	Wellhead Elevation:	ft	Ground Level:	6,290.0 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	BGGM2009	12/8/2009	10.00	63.46	50,858

Design	Original Hole				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(ft)	(ft)	(ft)	(°)	
	0.0	0.0	0.0	69.38	

Survey Program	Date 2/17/2010			
From	To	Survey (Wellbore)	Tool Name	Description
(ft)	(ft)			
271.0	4,822.0	Actual (Original Hole)	MWD SDI	MWD - Standard ver 1.0.1

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
271.0	1.21	38.61	271.0	2.2	1.8	2.5	0.45	0.45	0.00
301.0	1.39	44.30	301.0	2.7	2.2	3.1	0.74	0.60	18.97
332.0	1.62	44.55	332.0	3.3	2.8	3.8	0.74	0.74	0.81
363.0	1.91	48.38	362.9	4.0	3.5	4.7	1.01	0.94	12.35
394.0	2.30	56.96	393.9	4.7	4.4	5.8	1.61	1.26	27.68
425.0	2.82	60.29	424.9	5.4	5.6	7.1	1.74	1.68	10.74
455.0	3.51	63.65	454.8	6.2	7.1	8.8	2.38	2.30	11.20
486.0	3.93	66.71	485.8	7.0	8.9	10.8	1.50	1.35	9.87
517.0	4.98	68.59	516.7	7.9	11.1	13.2	3.42	3.39	6.06
547.0	5.40	68.19	546.6	8.9	13.6	15.9	1.41	1.40	-1.33
596.0	5.92	68.34	595.3	10.7	18.1	20.7	1.06	1.06	0.31
641.0	6.44	72.62	640.1	12.3	22.7	25.6	1.54	1.16	9.51

Scientific Drilling International, Inc.

Survey Report

Company:	ConocoPhillips	Local Co-ordinate Reference:	Site SEC 31-T28N-R7W
Project:	SJB (NM Central)	TVD Reference:	DFE @ 6306.0ft (H&P 292)
Site:	SEC 31-T28N-R7W	MD Reference:	DFE @ 6306.0ft (H&P 292)
Well:	SJ 28-7 #251N	North Reference:	True
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	edmCOP

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)
686.0	6.81	74.78	684.8	13.8	27.7	30.7	0.99	0.82	4.80
731.0	7.63	72.29	729.4	15.4	33.1	36.4	1.95	1.82	-5.53
776.0	8.42	70.18	774.0	17.4	39.0	42.7	1.87	1.76	-4.69
821.0	9.17	69.77	818.4	19.8	45.5	49.5	1.67	1.67	-0.91
866.0	10.07	69.84	862.8	22.3	52.6	57.1	2.00	2.00	0.16
911.0	10.81	69.30	907.1	25.2	60.2	65.2	1.66	1.64	-1.20
956.0	11.37	69.76	951.2	28.2	68.3	73.9	1.26	1.24	1.02
1,001.0	11.89	70.54	995.3	31.3	76.8	82.9	1.21	1.16	1.73
1,046.0	12.54	71.35	1,039.3	34.4	85.8	92.5	1.49	1.44	1.80
1,091.0	13.55	71.11	1,083.1	37.7	95.5	102.6	2.25	2.24	-0.53
1,136.0	14.46	71.27	1,126.8	41.2	105.8	113.5	2.02	2.02	0.36
1,180.0	15.32	72.26	1,169.3	44.7	116.5	124.8	2.04	1.95	2.25
1,226.0	16.27	72.16	1,213.6	48.5	128.4	137.3	2.07	2.07	-0.22
1,271.0	17.18	73.02	1,256.7	52.4	140.8	150.2	2.10	2.02	1.91
1,315.0	18.22	72.46	1,298.6	56.4	153.6	163.6	2.40	2.36	-1.27
1,360.0	19.64	72.49	1,341.1	60.8	167.5	178.2	3.16	3.16	0.07
1,405.0	20.39	72.86	1,383.4	65.4	182.2	193.5	1.69	1.67	0.82
1,450.0	21.12	72.30	1,425.5	70.1	197.4	209.5	1.68	1.62	-1.24
1,495.0	21.75	70.05	1,467.4	75.5	213.0	225.9	2.30	1.40	-5.00
1,585.0	22.04	68.59	1,550.9	87.3	244.4	259.4	0.69	0.32	-1.62
1,675.0	21.20	68.21	1,634.6	99.5	275.2	292.6	0.95	-0.93	-0.42
1,765.0	22.64	68.69	1,718.1	111.9	306.4	326.2	1.61	1.60	0.53
1,855.0	22.93	70.12	1,801.0	124.1	339.1	361.0	0.69	0.32	1.59
1,945.0	22.95	70.19	1,883.9	136.0	372.1	396.1	0.04	0.02	0.08
2,035.0	23.51	70.63	1,966.6	147.9	405.5	431.6	0.65	0.62	0.49
2,125.0	22.80	69.73	2,049.4	159.9	438.8	467.0	0.88	-0.79	-1.00
2,215.0	22.56	69.33	2,132.4	172.0	471.3	501.7	0.32	-0.27	-0.44
2,305.0	22.21	69.05	2,215.6	184.2	503.3	536.0	0.41	-0.39	-0.31
2,395.0	22.62	69.03	2,298.8	196.5	535.4	570.3	0.46	0.46	-0.02
2,485.0	22.66	72.11	2,381.9	208.0	568.1	604.9	1.32	0.04	3.42
2,575.0	22.56	72.52	2,465.0	218.5	601.0	639.5	0.21	-0.11	0.46
2,665.0	21.84	71.44	2,548.3	229.0	633.4	673.4	0.92	-0.80	-1.20
2,755.0	21.01	69.67	2,632.1	240.0	664.4	706.3	1.17	-0.92	-1.97
2,845.0	21.73	72.29	2,715.9	250.7	695.4	739.1	1.33	0.80	2.91
2,934.0	22.13	73.95	2,798.5	260.3	727.2	772.2	0.83	0.45	1.87
3,024.0	22.11	73.28	2,881.8	269.9	759.7	806.0	0.28	-0.02	-0.74
3,114.0	19.98	68.63	2,965.8	280.3	790.2	838.3	3.01	-2.37	-5.17
3,203.0	18.54	68.32	3,049.9	291.1	817.5	867.7	1.62	-1.62	-0.35
3,293.0	16.59	65.73	3,135.7	301.7	842.5	894.8	2.33	-2.17	-2.88
3,383.0	13.60	63.69	3,222.5	311.6	863.7	918.2	3.37	-3.32	-2.27
3,473.0	10.81	62.71	3,310.5	320.2	880.7	937.1	3.11	-3.10	-1.09
3,563.0	8.94	60.12	3,399.2	327.6	894.3	952.4	2.14	-2.08	-2.88
3,652.0	8.19	59.81	3,487.2	334.2	905.8	965.4	0.84	-0.84	-0.35
3,743.0	7.25	59.44	3,577.3	340.4	916.3	977.5	1.03	-1.03	-0.41
3,833.0	6.67	59.73	3,666.7	345.9	925.7	988.2	0.65	-0.64	0.32
3,922.0	5.75	58.01	3,755.2	350.9	934.0	997.7	1.05	-1.03	-1.93
4,012.0	5.38	59.17	3,844.7	355.4	941.4	1,006.3	0.43	-0.41	1.29
4,102.0	5.38	60.57	3,934.3	359.7	948.7	1,014.6	0.15	0.00	1.56
4,192.0	5.17	61.85	4,023.9	363.6	956.0	1,022.8	0.27	-0.23	1.42
4,282.0	5.01	65.51	4,113.6	367.2	963.1	1,030.7	0.40	-0.18	4.07
4,372.0	4.90	67.16	4,203.3	370.3	970.2	1,038.5	0.20	-0.12	1.83
4,462.0	3.65	77.05	4,293.0	372.4	976.6	1,045.2	1.61	-1.39	10.99
4,552.0	3.27	76.76	4,382.8	373.7	981.9	1,050.6	0.42	-0.42	-0.32
4,642.0	3.79	73.79	4,472.7	375.1	987.2	1,056.1	0.61	0.58	-3.30

Scientific Drilling International, Inc.

Survey Report

Company:	ConocoPhillips	Local Co-ordinate Reference:	Site SEC 31-T28N-R7W
Project:	SJB (NM Central)	TVD Reference:	DFE @ 6306.0ft (H&P 292)
Site:	SEC 31-T28N-R7W	MD Reference:	DFE @ 6306 0ft (H&P 292)
Well:	SJ 28-7 #251N	North Reference:	True
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	edmCOP

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)
4,732.0	3.62	88.78	4,562.5	376.0	992.9	1,061.7	1.09	-0.19	16.66
4,822.0	3.40	100.07	4,652.3	375.6	998.4	1,066.7	0.80	-0.24	12.54