



Scientific Drilling
Directional Drilling Operations

ConocoPhillips

SAN JUAN BASIN
SEC 16-T29N-R6W
SJ 29-6 UNIT 71C
ST00BP00

API 30-039-29867

Survey: SDI MWD

Standard Survey Report

16 July, 2007

Surface: 2070/S 220/W Section 16
BHL : 1911/S 23/E Section 17

md 5735
TVL 5711

RCVD JUL 17 07
OIL CONS. DIV.
DIST. 3

ConocoPhillips

D 7/19

7-18-07

Company:	ConocoPhillips	Local Co-ordinate Reference:	Well SJ 29-6 UNIT 71C
Project:	SAN JUAN BASIN	TVD Reference:	RKB @ 6447.0ft (Aztec 711)
Site:	SEC 16-T29N-R6W	MD Reference:	RKB @ 6447.0ft (Aztec 711)
Well:	SJ 29-6 UNIT 71C	North Reference:	Grid
Wellbore:	ST00BP00	Survey Calculation Method:	Minimum Curvature
Design:	Survey	Database:	EDM 2003 16 Single User Db

Project	SAN JUAN BASIN, NEW MEXICO		
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 West 3003		Using geodetic scale factor

Site	SEC 16-T29N-R6W		
Site Position:		Northing:	2,083,029 77 ft
From:	Lat/Long	Easting:	604,564 47 ft
Position Uncertainty:	0.0 ft	Slot Radius:	"
		Latitude:	36° 43' 26.832 N
		Longitude:	107° 28' 35.544 W
		Grid Convergence:	0.21 °

Well	SJ 29-6 UNIT 71C		
Well Position	+N/-S	0.0 ft	Northing: 2,083,029 77 ft
	+E/-W	0.0 ft	Easting: 604,564.47 ft
Position Uncertainty	0.0 ft	Wellhead Elevation:	ft
		Latitude:	36° 43' 26 832 N
		Longitude:	107° 28' 35.544 W
		Ground Level:	6,431.0 ft

Wellbore	ST00BP00		
Magnetics	Model Name	Sample Date	Declination
	BGGM2006	3/22/2007	(°)
			10 33
			Dip Angle (°)
			63 64
			Field Strength (nT)
			51,204

Design	Survey		
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 (°)
			233.53

Survey Program	Date 7/16/2007		
From	To	Survey (Wellbore)	Tool Name
(ft)	(ft)		
260.0	3,014 0	SDI MWD (ST00BP00)	MWD SDI
			Description
			MWD - Standard ver 1.0 1

Survey										
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Build Rate	Turn Rate	
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)	
260.0	1.34	275.16	260.0	0.3	-3.8	2.8	0 00	0.00	0.00	
322.0	1.13	282.40	322.0	0.5	-5.1	3.8	0.42	-0.34	11.68	
384.0	1.12	279.72	383.9	0.8	-6.3	4.6	0.09	-0.02	-4.32	
445.0	1.30	281.45	444.9	1.0	-7.5	5.5	0.30	0.30	2.84	
504.0	1.34	277.99	503.9	1.2	-8.9	6.4	0.15	0.07	-5.86	
564.0	1.37	273.71	563.9	1.4	-10.3	7.5	0 18	0.05	-7 13	
626.0	1.43	274.03	625.9	1.5	-11.8	8.6	0.10	0 10	0.52	
689.0	1.48	267.74	688.9	1.5	-13.4	9.9	0.27	0.08	-9.98	
753.0	1.36	265.01	752.8	1.4	-15.0	11.2	0.22	-0 19	-4.27	
817.0	1.25	260.87	816.8	1.2	-16.4	12.5	0.23	-0 17	-6.47	
889.0	1.67	250.68	888.8	0.8	-18.2	14.2	0.68	0.58	-14 15	
953.0	1.90	256.96	952.8	0.2	-20.1	16.1	0.47	0.36	9.81	
1,016.0	2.55	252.15	1,015.7	-0.5	-22.5	18.3	1.07	1.03	-7.63	

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Well:	SJ 29-6 UNIT 71C	North Reference:	Grid
Wellbore:	ST00BP00	Survey Calculation Method:	Minimum Curvature
Design:	Survey	Database:	EDM 2003.16 Single User Db

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)
1,080.0	3 10	235 84	1,079.6	-1.9	-25.3	21.4	1.51	0 86	-25.48
1,144.0	4.12	228.27	1,143.5	-4.4	-28.4	25.4	1.76	1.59	-11.83
1,207.0	5 30	229.56	1,206.3	-7.8	-32.3	30.6	1.88	1.87	2.05
1,271.0	6.41	227.74	1,270.0	-12.1	-37.2	37.1	1.76	1.73	-2.84
1,333.0	6.51	227.36	1,331.6	-16.8	-42.3	44.0	0.18	0.16	-0.61
1,365.0	7 47	228.60	1,363.3	-19.4	-45.2	47.9	3.04	3.00	3.87
1,429.0	6 41	234.68	1,426.9	-24.2	-51.3	55.6	2.01	-1.66	9.50
1,460.0	5.73	241.68	1,457.7	-25.9	-54.1	58.9	3.24	-2.19	22 58
1,492.0	5 61	244 07	1,489.5	-27.4	-56.9	62.0	0.83	-0.37	7 47
1,524.0	5.59	245 18	1,521.4	-28.7	-59.7	65.1	0.34	-0.06	3 47
1,556.0	5 50	246 14	1,553.2	-30.0	-62.5	68.1	0.40	-0.28	3 00
1,587.0	5.37	247.33	1,584.1	-31.2	-65.2	71.0	0.56	-0.42	3.84
1,651.0	5 60	238.24	1,647.8	-34.0	-70.6	77.0	1.40	0.36	-14.20
1,716.0	6 94	232.33	1,712.4	-38.0	-76.4	84.1	2.29	2.06	-9.09
1,780.0	7 55	232.43	1,775.9	-43.0	-82.8	92.1	0.95	0.95	0.16
1,844.0	8.05	236.79	1,839.3	-48.0	-89.9	100.8	1.21	0.78	6.81
1,907.0	9.05	239.40	1,901.6	-52.9	-97.9	110.1	1.70	1.59	4.14
1,971.0	10.57	242.02	1,964.7	-58.2	-107.4	121.0	2.47	2.37	4.09
2,035.0	11 75	239.74	2,027.5	-64.3	-118.2	133.2	1.97	1.84	-3.56
2,099.0	13.29	239.84	2,089.9	-71.2	-130.2	147.0	2.41	2.41	0.16
2,163.0	14.47	235.88	2,152.1	-79.4	-143.2	162.3	2.37	1.84	-6.19
2,227.0	14.93	232.04	2,214.0	-89.0	-156.3	178.6	1.68	0.72	-6.00
2,290.0	14.90	230.55	2,274.9	-99.1	-168.9	194.8	0.61	-0.05	-2.37
2,322.0	15 02	230.31	2,305.8	-104.4	-175.3	203.0	0.42	0.37	-0.75
2,386.0	13.71	232.79	2,367.8	-114.3	-187.7	218.9	2.26	-2.05	3.87
2,450.0	11 88	232.83	2,430.2	-122.8	-199.0	233.0	2.86	-2.86	0.06
2,514.0	10 24	230.81	2,493.0	-130.4	-208.7	245.3	2.63	-2.56	-3.16
2,577.0	8 93	231.28	2,555.1	-137.0	-216.8	255.8	2.08	-2.08	0.75
2,641.0	7.33	233.63	2,618.5	-142.5	-224.0	264.8	2.55	-2.50	3.67
2,703.0	6 08	236.53	2,680.0	-146.7	-229.9	272.1	2.09	-2.02	4.68
2,767.0	4 80	233.02	2,743.7	-150.2	-234.9	278.1	2.07	-2.00	-5.48
2,831.0	3.17	228.81	2,807.6	-152.9	-238.3	282.6	2.59	-2.55	-6.58
2,895.0	3.10	219.58	2,871.5	-155.4	-240.8	286.0	0.80	-0.11	-14.42
2,958.0	2.10	210.69	2,934.4	-157.8	-242.5	288.7	1.71	-1.59	-14.11
3,014.0	1 56	205 90	2,990.4	-159.3	-243.3	290.4	1.00	-0.96	-8.55

Targets
Target Name

- hit/miss target	Dip Angle (°)	Dip Dir (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- Shape									
SJ 29-6 Unit 71C BHL	0.00	0.00	5,827.0	-170.0	-230.0	2,082,859.77	604,334.47	36° 43' 25.159 N	107° 28' 38.377 W
- survey misses by 2836.7ft at 3014.0ft MD (2990.4 TVD, -159.3 N, -243.3 E)									
- Circle (radius 100.0)									
SJ 29-6 Unit 71C EOI	0.00	0.00	3,047.0	-170.0	-230.0	2,082,859.77	604,334.47	36° 43' 25.159 N	107° 28' 38.377 W
- survey misses by 59.1ft at 3014.0ft MD (2990.4 TVD, -159.3 N, -243.3 E)									
- Point									

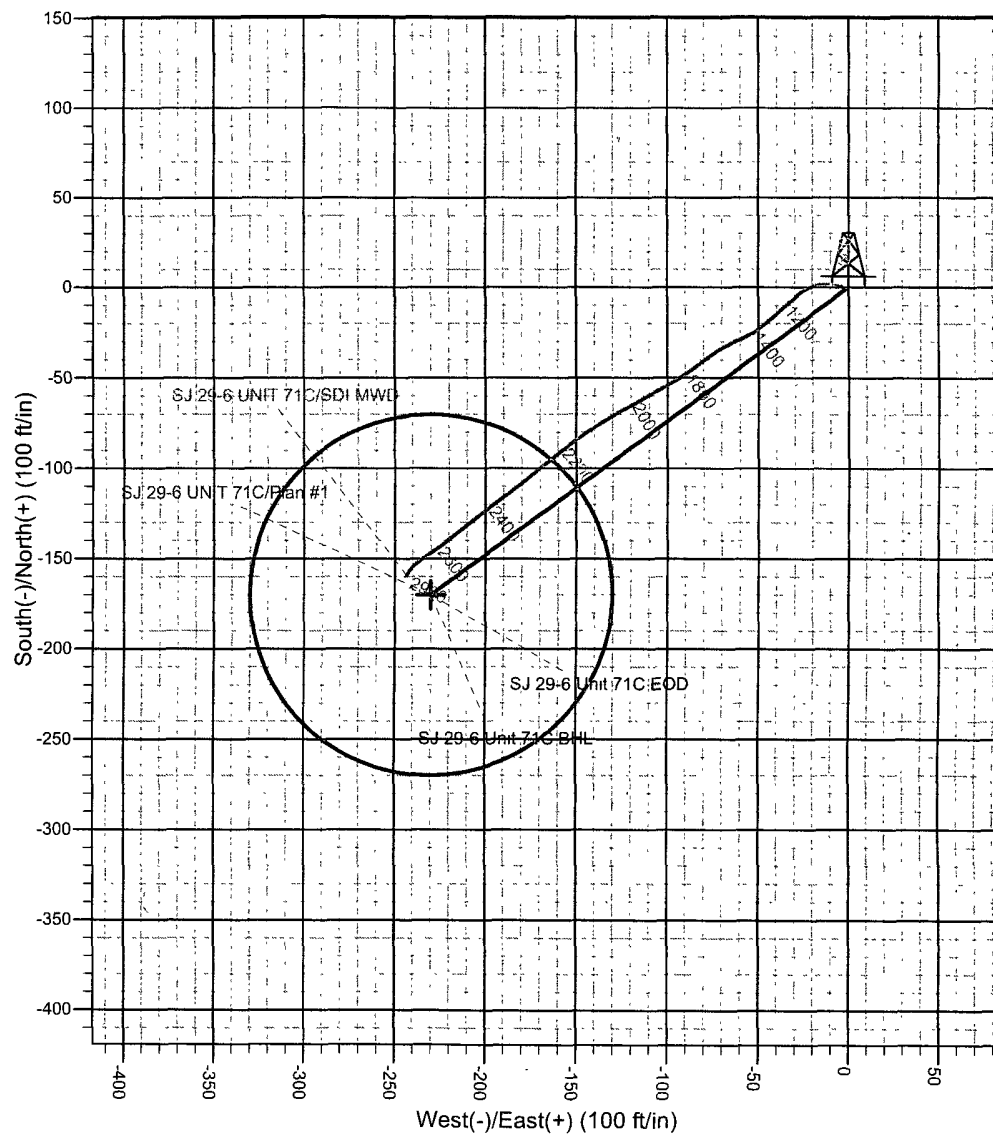
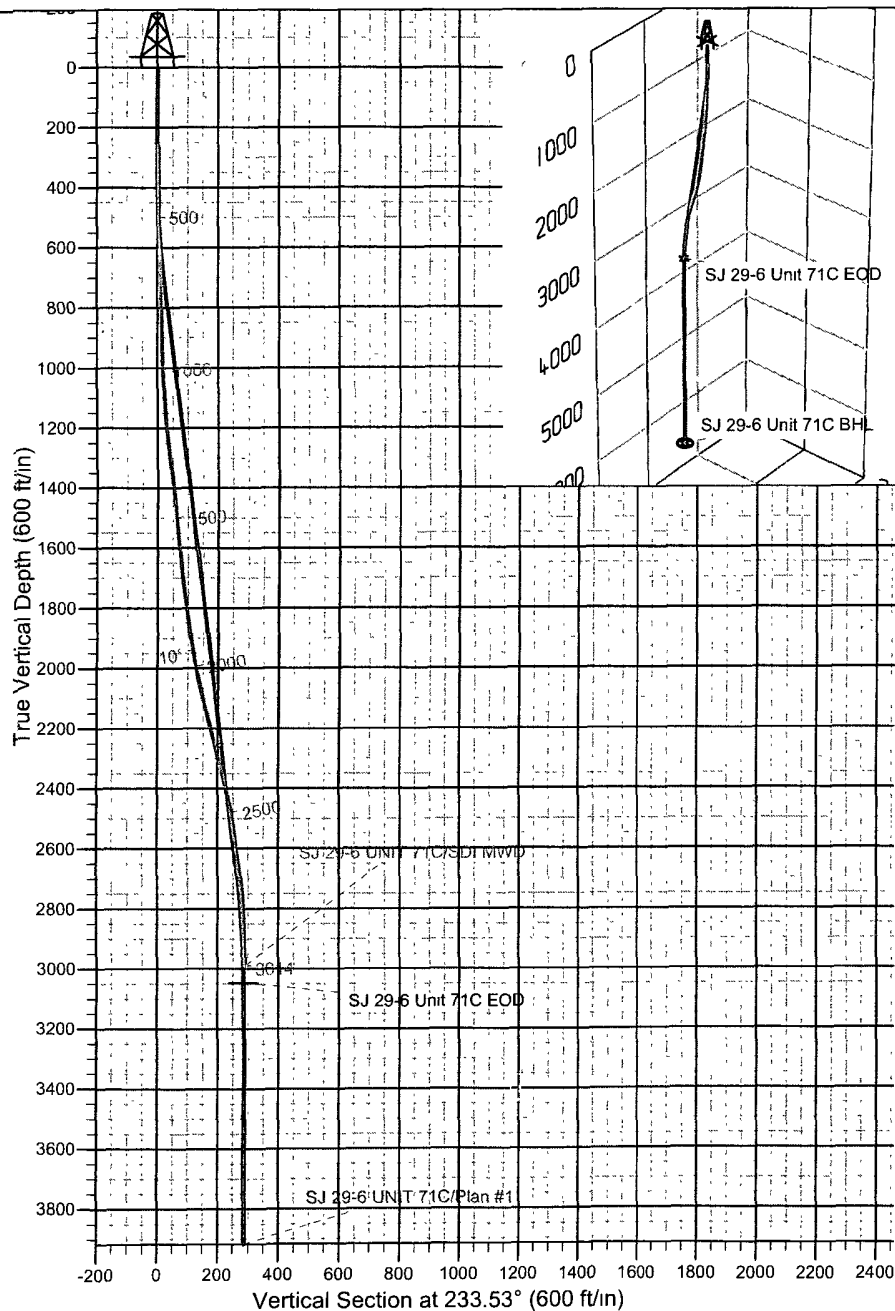
Checked By: _____

Approved By: _____

Date: _____



Project: SAN JUAN BASIN
 Site: SEC 16-T29N-R6W
 Well: SJ 29-6 UNIT 71C
 Wellbore: ST00BP00
 Design: Survey



WELL DETAILS: SJ 29-6 UNIT 71C
 RKB @ 6447.0ft (Aztec 711)
 Ground Level: 6431.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	2083029.77	604564.47	36° 43' 26.832 N	107° 28' 35.544 W	