

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, NM 87505

AS DRILLED PLAT

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-31150		² Pool Code 71599		³ Pool Name BASIN DAKOTA	
⁴ Property Code 31739		⁵ Property Name SAN JUAN 28-7 UNIT			⁶ Well Number 238N
⁷ OGRID No. 217817		⁸ Operator Name CONOCOPHILLIPS COMPANY			⁹ Elevation 5963

¹⁰ SURFACE LOCATION

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	29	28-N	7-W		670	NORTH	702	WEST	RIO ARRIBA

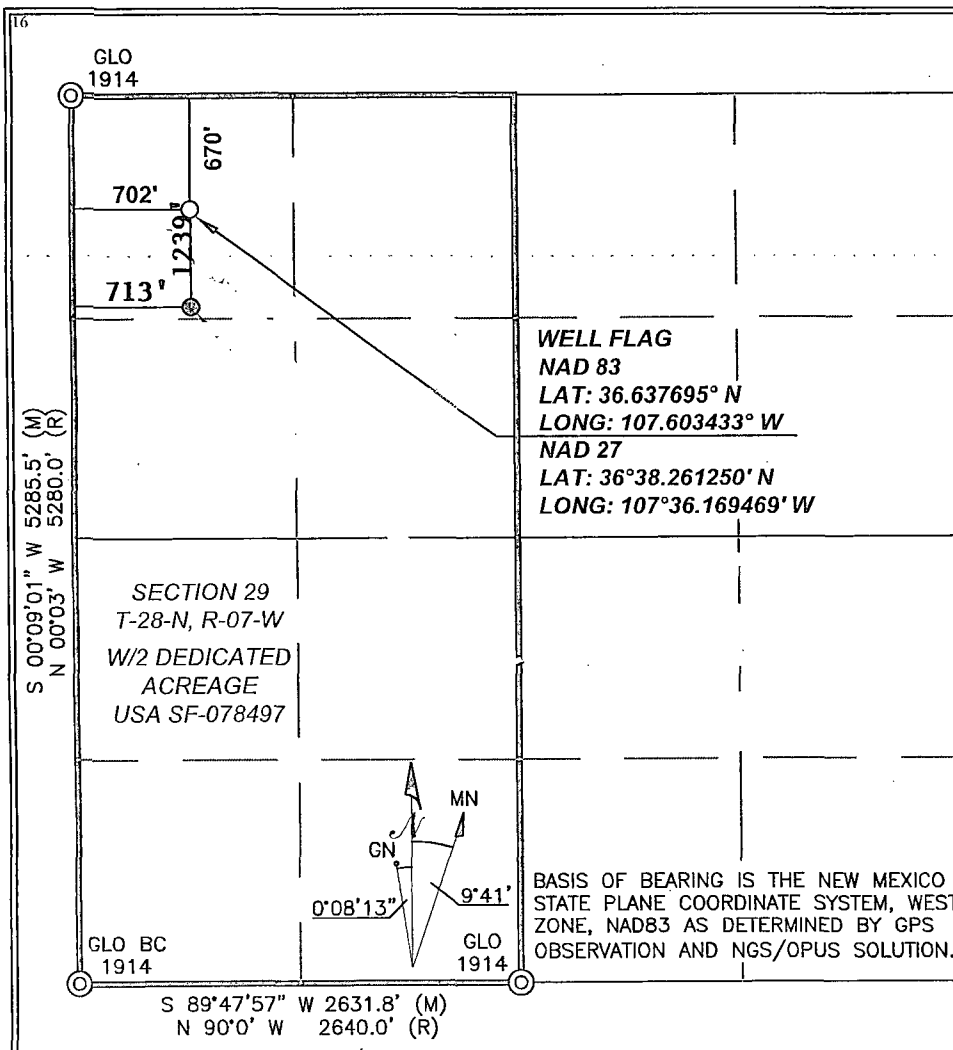
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	29	28-N	7-W		1239'	NORTH	713'	WEST	RIO ARRIBA

¹² Dedicated Acres W/2(320)	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.	RCVD MAY 9 '13 OIL CONS. DIV.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

DIST. 3



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.

Arleen White 5/9/13
Signature Date

Arleen White
Printed Name

E-mail Address

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: 07/16/2012

Signature and Seal of Professional Surveyor:



Certificate Number: NM 11393

COP Deviation Report

SAN JUAN 28-7 UNIT #238N

RCVD MAY 9 '13
OIL CONS. DIV.

Operator CONOCOPHILLIPS COMPANY	Legal Well Name SAN JUAN 28-7 UNIT #238N	API / UWI 3003931150	County RIO ARRIBA	State/Province NEW MEXICO
Surface Legal Location 029-028N-007W-D		N/S Dist (ft) 670.00	N/S Ref FNL	E/W Dist (ft) 702.00 E/W Ref FWL

Survey Data						
Date	MD (ftKB)	Incl (°)	Azm (°)	Method	Survey Company	
3/19/2013	133.00	0.50		Inc-Drop	Mo Te Drilling Inc	
3/19/2013	232.00	0.75		Inc-Drop	Mo Te Drilling Inc	
4/8/2013	301.00	0.67	248.70	IncAzi-MWD	Scientific Drilling	
4/8/2013	362.00	1.83	180.31	IncAzi-MWD	Scientific Drilling	
4/8/2013	424.00	3.16	178.63	IncAzi-MWD	Scientific Drilling	
4/8/2013	485.00	4.59	179.03	IncAzi-MWD	Scientific Drilling	
4/8/2013	547.00	6.54	182.70	IncAzi-MWD	Scientific Drilling	
4/8/2013	608.00	8.05	175.79	IncAzi-MWD	Scientific Drilling	
4/8/2013	669.00	9.12	179.28	IncAzi-MWD	Scientific Drilling	
4/8/2013	730.00	11.06	182.56	IncAzi-MWD	Scientific Drilling	
4/8/2013	791.00	12.86	181.75	IncAzi-MWD	Scientific Drilling	
4/8/2013	854.00	14.25	181.50	IncAzi-MWD	Scientific Drilling	
4/8/2013	917.00	15.45	182.92	IncAzi-MWD	Scientific Drilling	
4/8/2013	980.00	17.11	180.91	IncAzi-MWD	Scientific Drilling	
4/8/2013	1,042.00	18.66	180.81	IncAzi-MWD	Scientific Drilling	
4/8/2013	1,106.00	20.18	180.83	IncAzi-MWD	Scientific Drilling	
4/8/2013	1,169.00	20.20	181.91	IncAzi-MWD	Scientific Drilling	
4/8/2013	1,231.00	20.67	180.31	IncAzi-MWD	Scientific Drilling	
4/8/2013	1,294.00	21.01	181.19	IncAzi-MWD	Scientific Drilling	
4/8/2013	1,358.00	21.74	181.36	IncAzi-MWD	Scientific Drilling	
4/8/2013	1,421.00	22.29	180.96	IncAzi-MWD	Scientific Drilling	
4/8/2013	1,484.00	21.78	180.17	IncAzi-MWD	Scientific Drilling	
4/8/2013	1,547.00	21.20	179.63	IncAzi-MWD	Scientific Drilling	
4/8/2013	1,610.00	21.37	180.21	IncAzi-MWD	Scientific Drilling	
4/8/2013	1,673.00	20.85	179.50	IncAzi-MWD	Scientific Drilling	
4/8/2013	1,737.00	20.39	180.40	IncAzi-MWD	Scientific Drilling	
4/9/2013	1,800.00	19.96	179.06	IncAzi-MWD	Scientific Drilling	
4/9/2013	1,864.00	19.67	177.83	IncAzi-MWD	Scientific Drilling	
4/9/2013	1,927.00	17.54	176.66	IncAzi-MWD	Scientific Drilling	
4/9/2013	1,990.00	16.20	174.43	IncAzi-MWD	Scientific Drilling	
4/9/2013	2,053.00	15.05	171.25	IncAzi-MWD	Scientific Drilling	
4/9/2013	2,117.00	13.18	170.13	IncAzi-MWD	Scientific Drilling	
4/9/2013	2,180.00	11.38	174.92	IncAzi-MWD	Scientific Drilling	
4/9/2013	2,243.00	10.64	173.99	IncAzi-MWD	Scientific Drilling	
4/9/2013	2,307.00	10.82	169.88	IncAzi-MWD	Scientific Drilling	
4/9/2013	2,370.00	10.14	170.89	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 (°)	Azm (°)	Method	Survey Company
4/9/2013	2,434.00	8.40	169.46	IncAzi-MWD	Scientific Drilling
4/9/2013	2,497.00	6.46	167.93	IncAzi-MWD	Scientific Drilling
4/9/2013	2,560.00	5.02	173.33	IncAzi-MWD	Scientific Drilling
4/9/2013	2,623.00	3.79	178.79	IncAzi-MWD	Scientific Drilling
4/9/2013	2,687.00	2.59	190.76	IncAzi-MWD	Scientific Drilling
4/9/2013	2,750.00	1.90	198.06	IncAzi-MWD	Scientific Drilling
4/9/2013	2,813.00	0.71	214.10	IncAzi-MWD	Scientific Drilling
4/9/2013	2,876.00	0.28	282.17	IncAzi-MWD	Scientific Drilling
4/9/2013	2,894.00	0.17	168.80	IncAzi-MWD	Scientific Drilling
4/9/2013	2,943.00	0.17	168.80	Projection	Scientific Drilling

I, the undersigned, certify that I acting in my capacity as Drilling Engineer 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 4/23/13

 _____

Notary Public in and for San Juan County, New Mexico

My Commission expires 5/26/15



RCVD MAY 9 '13
OIL CONS. DIV.
DIST. 3

ConocoPhillips

SJB (NM Central)
SEC 29-T28N-R7W
San Juan 28-7 Unit 238N

OH

Design: OH

Standard Survey Report

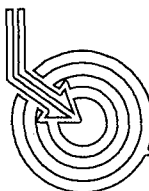
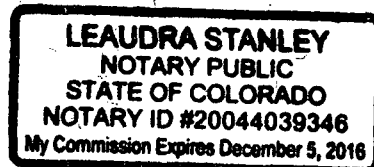
17 April, 2013

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

Notarized this date 17th of April, 2013.

Leandra Stanley

Notary Signature
County of Mesa
State of Colorado



Scientific Drilling



Project: SJB (NM Central)
Site: SEC 29-T28N-R7W
Well: San Juan 28-7 Unit 238N
Wellbore: OH
Design: OH



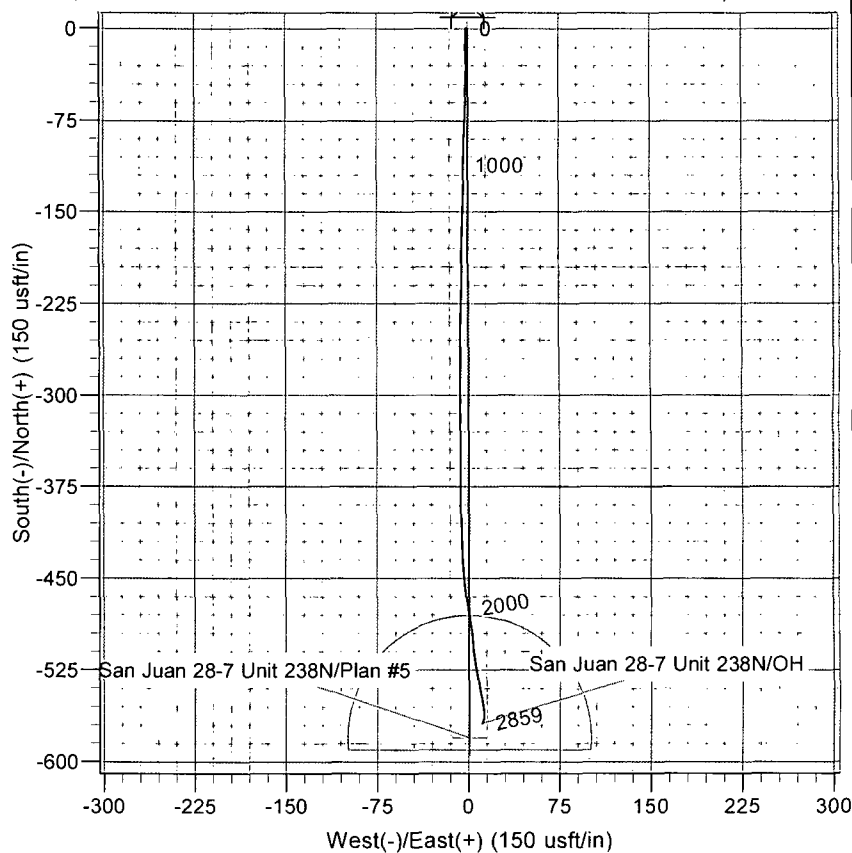
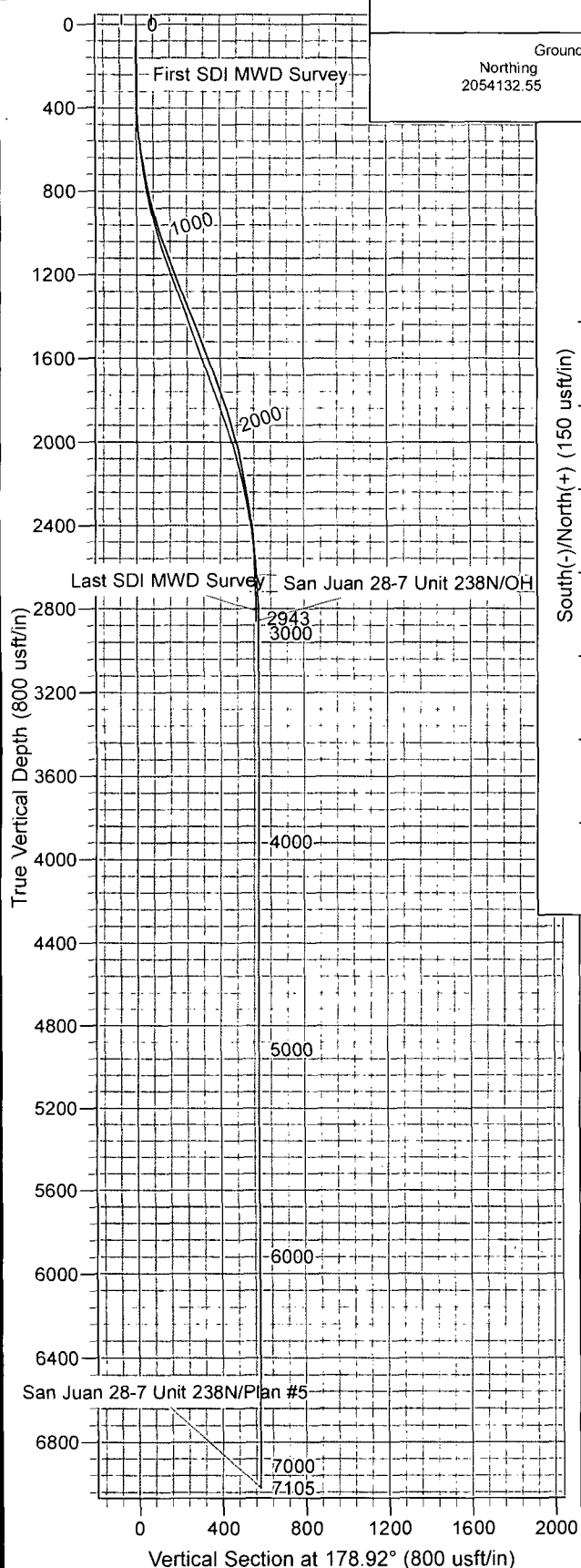
WELL DETAILS: San Juan 28-7 Unit 238N

Ground Level: GL 5963' & RKB 15' @ 5978.0usft (AWS 920)
Northing 2054132.55 Easting 103084.19 Latitude 36° 38' 15.675 N Longitude 107° 36' 10.168 W



Azimuths to True North
Magnetic North: 9.64°

Magnetic Field
Strength: 50455.4snT
Dip Angle: 63.34°
Date: 4/5/2013
Model: BGGM2012



REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well San Juan 28-7 Unit 238N, True North
Vertical (TVD) Reference: GL 5963' & RKB 15' @ 5978.0usft (AWS 920)
Section (VS) Reference: Slot - (0.0N, 0.0E)
Measured Depth Reference: GL 5963' & RKB 15' @ 5978.0usft (AWS 920)
Calculation Method: Minimum Curvature
Local North: True

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

Company:	ConocoPhillips	Local Co-ordinate Reference:	Well San Juan 28-7 Unit 238N
Project:	SJB (NM Central)	TVD Reference:	GL 5963' & RKB 15' @ 5978.0usft (AWS 920)
Site:	SEC 29-T28N-R7W	MD Reference:	GL 5963' & RKB 15' @ 5978.0usft (AWS 920)
Well:	San Juan 28-7 Unit 238N	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Farmington District

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 29-T28N-R7W			
Site Position:		Northing:	2,054,132.55 usft	Latitude:	36° 38' 15.675 N
From:	Lat/Long	Easting:	103,084.18 usft	Longitude:	107° 36' 10.168 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.81 °

Well	San Juan 28-7 Unit 238N					
Well Position	+N/-S	0.0 usft	Northing:	2,054,132.55 usft	Latitude:	36° 38' 15.675 N
	+E/-W	0.0 usft	Easting:	103,084.19 usft	Longitude:	107° 36' 10.168 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	5,963.0 usft

Wellbore	OH
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2012	4/5/2013	9.64	63.34	50,455

Design	OH
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Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	178.92	

Survey Program	Date 4/17/2013			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
239.0	2,943.0	Survey #1 - MWD Survey (OH)	MWD SDI	MWD - Standard ver 1.0.1

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
239.0	0.59	314.39	239.0	0.9	-0.9	-0.9	0.25	0.25	0.00
First SDI MWD Survey									
301.0	0.67	248.70	301.0	1.0	-1.4	-1.0	1.11	0.13	-105.95
362.0	1.83	180.31	362.0	-0.2	-1.8	0.1	2.79	1.90	-112.11
424.0	3.16	178.63	423.9	-2.8	-1.7	2.8	2.15	2.15	-2.71
485.0	4.59	179.03	484.8	-7.0	-1.7	6.9	2.34	2.34	0.66
547.0	6.54	182.70	546.5	-13.0	-1.8	12.9	3.20	3.15	5.92
608.0	8.05	175.79	607.0	-20.7	-1.6	20.7	2.86	2.48	-11.33
669.0	9.12	179.28	667.3	-29.8	-1.3	29.8	1.95	1.75	5.72
730.0	11.06	182.56	727.4	-40.5	-1.5	40.4	3.32	3.18	5.38

Company:	ConocoPhillips	Local Co-ordinate Reference:	Well San Juan 28-7 Unit 238N
Project:	SJB (NM Central)	TVD Reference:	GL 5963' & RKB 15' @ 5978.0usft (AWS 920)
Site:	SEC 29-T28N-R7W	MD Reference:	GL 5963' & RKB 15' @ 5978.0usft (AWS 920)
Well:	San Juan 28-7 Unit 238N	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Farmington District

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
791.0	12.86	181.75	787.0	-53.1	-1.9	53.1	2.96	2.95	-1.33
854.0	14.25	181.50	848.3	-67.9	-2.4	67.8	2.21	2.21	-0.40
917.0	15.45	182.92	909.2	-84.0	-3.0	83.9	1.99	1.90	2.25
980.0	17.11	180.91	969.6	-101.7	-3.6	101.6	2.78	2.63	-3.19
1,042.0	18.66	180.81	1,028.6	-120.7	-3.8	120.6	2.50	2.50	-0.16
1,106.0	20.18	180.83	1,089.0	-142.0	-4.1	141.9	2.38	2.38	0.03
1,169.0	20.20	181.91	1,148.1	-163.7	-4.7	163.6	0.59	0.03	1.71
1,231.0	20.67	180.31	1,206.2	-185.3	-5.1	185.2	1.18	0.76	-2.58
1,294.0	21.01	181.19	1,265.1	-207.8	-5.4	207.6	0.73	0.54	1.40
1,358.0	21.74	181.36	1,324.7	-231.1	-5.9	230.9	1.14	1.14	0.27
1,421.0	22.29	180.96	1,383.1	-254.7	-6.4	254.5	0.90	0.87	-0.63
1,484.0	21.78	180.17	1,441.5	-278.3	-6.6	278.1	0.94	-0.81	-1.25
1,547.0	21.20	179.63	1,500.1	-301.4	-6.6	301.2	0.97	-0.92	-0.86
1,610.0	21.37	180.21	1,558.8	-324.3	-6.5	324.1	0.43	0.27	0.92
1,673.0	20.85	179.50	1,617.6	-347.0	-6.5	346.8	0.92	-0.83	-1.13
1,737.0	20.39	180.40	1,677.5	-369.5	-6.5	369.3	0.87	-0.72	1.41
1,800.0	19.96	179.06	1,736.6	-391.2	-6.4	391.0	1.00	-0.68	-2.13
1,864.0	19.67	177.83	1,796.9	-412.9	-5.8	412.7	0.79	-0.45	-1.92
1,927.0	17.54	176.66	1,856.6	-433.0	-4.8	432.8	3.43	-3.38	-1.86
1,990.0	16.20	174.43	1,916.8	-451.2	-3.4	451.1	2.36	-2.13	-3.54
2,053.0	15.05	171.25	1,977.5	-468.0	-1.3	467.9	2.28	-1.83	-5.05
2,117.0	13.18	170.13	2,039.6	-483.4	1.2	483.4	2.95	-2.92	-1.75
2,180.0	11.38	174.92	2,101.1	-496.7	3.0	496.7	3.28	-2.86	7.60
2,243.0	10.64	173.99	2,163.0	-508.7	4.1	508.7	1.21	-1.17	-1.48
2,307.0	10.82	169.88	2,225.9	-520.5	5.8	520.5	1.23	0.28	-6.42
2,370.0	10.14	170.89	2,287.8	-531.8	7.7	531.8	1.12	-1.08	1.60
2,434.0	8.40	169.46	2,351.0	-541.9	9.5	542.0	2.74	-2.72	-2.23
2,497.0	6.46	167.93	2,413.4	-549.9	11.1	550.0	3.10	-3.08	-2.43
2,560.0	5.02	173.33	2,476.1	-556.1	12.1	556.3	2.44	-2.29	8.57
2,623.0	3.79	178.79	2,538.9	-560.9	12.5	561.1	2.06	-1.95	8.67
2,687.0	2.59	190.76	2,602.8	-564.5	12.3	564.6	2.13	-1.88	18.70
2,750.0	1.90	198.06	2,665.8	-566.9	11.7	567.0	1.18	-1.10	11.59
2,813.0	0.71	214.10	2,728.8	-568.2	11.1	568.3	1.96	-1.89	25.46
2,876.0	0.28	282.17	2,791.8	-568.5	10.8	568.6	1.05	-0.68	108.05
2,894.0	0.17	168.80	2,809.8	-568.5	10.7	568.6	2.12	-0.61	-629.83
Last SDI MWD Survey									
2,943.0	0.17	168.80	2,858.8	-568.6	10.7	568.7	0.00	0.00	0.00

Company:	ConocoPhillips	Local Co-ordinate Reference:	Well San Juan 28-7 Unit 238N
Project:	SJB (NM Central)	TVD Reference:	GL 5963' & RKB 15' @ 5978.0usft (AWS 920)
Site:	SEC 29-T28N-R7W	MD Reference:	GL 5963' & RKB 15' @ 5978.0usft (AWS 920)
Well:	San Juan 28-7 Unit 238N	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Farmington District

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
239.0	239.0	0.9	-0.9	First SDI MWD Survey
2,894.0	2,809.8	-568.5	10.7	Last SDI MWD Survey

Checked By: _____ Approved By: _____ Date: _____