



Devon Energy

Chaves Co, New Mexico (Nad-83)

Goodnight 1 Fee #1H

Goodnight 1 Fee #1H

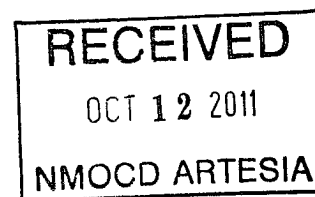
Lateral #1

30-005-64132

Survey: Cudd MWD Survey #1

Standard Survey Report

27 March, 2011





Cudd Drilling & Measurement Services
Survey Report



Company:	Devon Energy	Local Co-ordinate Reference:	Site Goodnight 1 Fee #1H
Project:	Chaves Co, New Mexico (Nad-83)	TVD Reference:	WELL @ 3689.00ft (Original Well Elev)
Site:	Goodnight 1 Fee #1H	MD Reference:	WELL @ 3689.00ft (Original Well Elev)
Well:	Goodnight 1 Fee #1H	North Reference:	Grid
Wellbore:	Lateral #1	Survey Calculation Method:	Minimum Curvature
Design:	Lateral #1	Database:	EDM 2003.21 Single User Db

Project	Chaves Co, New Mexico (Nad-83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Goodnight 1 Fee #1H, Sec 1, T-12S, R-28E		
Site Position:		Northing:	839,401 43 ft
From:	Map	Easting:	617,405 59 ft
Position Uncertainty:	0.00 ft	Slot Radius:	"
		Latitude:	33° 18' 25.961 N
		Longitude:	104° 5' 3.646 W
		Grid Convergence:	0.14 °

Well	Goodnight 1 Fee #1H		
Well Position	+N/-S	0.00 ft	Northing: 839,401.43 ft
	+E/-W	0.00 ft	Easting: 617,405.59 ft
Position Uncertainty	0.00 ft	Wellhead Elevation:	3,689.00 ft
		Latitude:	33° 18' 25.961 N
		Longitude:	104° 5' 3.646 W
		Ground Level:	3,670.00 ft

Wellbore	Lateral #1				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF200510	06/15/10	8.01	61.14	49,340

Design	Lateral #1			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 6,900.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.00	0.00	0.00	100.22

Survey Program	Date	03/27/11			
From	To	Survey (Wellbore)	Tool Name	Description	
(ft)	(ft)				
100.00	6,900.00	Gyro Survey #1 (Pilot Hole)	NS-GYRO-MS	North sensing gyrocompassing m/s	
6,900.00	11,480.00	Cudd MWD Survey #1 (Lateral #1)	CUDD MWD	MWD - Standard CUDD MWD	

Survey										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Vertical	Dogleg	Build	Turn	
Depth	(°)	(°)	Depth	(ft)	(ft)	Section	Rate	Rate	Rate	
(ft)			(ft)			(ft)	(°/100ft)	(°/100ft)	(°/100ft)	
6,900.00	0.56	214.74	6,895.93	-161.32	31.19	59.32	0.00	0.00	0.00	
6,971.00	0.50	218.90	6,966.92	-161.85	30.80	59.03	0.10	-0.08	5.86	
First Cudd MWD Survey										
7,088.00	3.40	112.90	7,083.86	-163.60	33.67	62.17	3.05	2.48	-90.60	
7,120.00	3.50	111.50	7,115.80	-164.32	35.46	64.05	0.41	0.31	-4.38	
7,152.00	3.60	105.50	7,147.74	-164.95	37.33	66.01	1.20	0.31	-18.75	
7,184.00	4.10	104.50	7,179.67	-165.51	39.41	68.15	1.58	1.56	-3.13	
7,215.00	4.40	102.70	7,210.58	-166.04	41.64	70.44	1.06	0.97	-5.81	
7,243.00	6.40	107.90	7,238.46	-166.76	44.18	73.06	7.35	7.14	18.57	
7,275.00	10.00	107.50	7,270.12	-168.14	48.52	77.59	11.25	11.25	-1.25	
7,306.00	13.70	105.30	7,300.46	-169.92	54.63	83.92	12.02	11.94	-7.10	
7,335.00	16.70	104.70	7,328.44	-171.89	61.98	91.49	10.36	10.34	-2.07	



Cudd Drilling & Measurement Services

Survey Report



Company:	Devon Energy	Local Co-ordinate Reference:	Site Goodnight 1 Fee #1H
Project:	Chaves Co, New Mexico (Nad-83)	TVD Reference:	WELL @ 3689.00ft (Original Well Elev)
Site:	Goodnight 1 Fee #1H	MD Reference:	WELL @ 3689 00ft (Original Well Elev)
Well:	Goodnight 1 Fee #1H	North Reference:	Grid
Wellbore:	Lateral #1	Survey Calculation Method:	Minimum Curvature
Design:	Lateral #1	Database:	EDM 2003 21 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)
7,370.00	20.00	101.70	7,361.66	-174.38	72.71	102.49	9.80	9.43	-8.57
7,402.00	23.10	100.40	7,391.42	-176.62	84.24	114.24	9.80	9.69	-4.06
7,433.00	26.50	99.30	7,419.55	-178.84	97.05	127.24	11.07	10.97	-3.55
7,465.00	30.70	98.30	7,447.64	-181.17	112.19	142.55	13.21	13.13	-3.13
7,497.00	34.00	97.80	7,474.67	-183.57	129.14	159.66	10.35	10.31	-1.56
7,529.00	37.20	97.70	7,500.69	-186.08	147.60	178.27	10.00	10.00	-0.31
7,560.00	41.60	97.70	7,524.64	-188.71	167.09	197.92	14.19	14.19	0.00
7,588.00	44.50	97.10	7,545.10	-191.17	186.04	217.01	10.46	10.36	-2.14
7,605.00	44.70	97.80	7,557.20	-192.72	197.88	228.93	3.12	1.18	4.12
7,614.00	44.60	97.70	7,563.60	-193.57	204.15	235.25	1.36	-1.11	-1.11
7,653.00	44.70	98.20	7,591.35	-197.36	231.29	262.64	0.94	0.26	1.28
7,686.00	47.90	100.20	7,614.15	-201.19	254.83	286.49	10.64	9.70	6.06
7,715.00	51.90	101.30	7,632.82	-205.33	276.62	308.66	14.09	13.79	3.79
7,746.00	57.10	101.50	7,650.82	-210.32	301.35	333.89	16.78	16.77	0.65
7,777.00	61.50	101.50	7,666.64	-215.63	327.47	360.53	14.19	14.19	0.00
7,812.00	64.20	100.60	7,682.61	-221.60	358.03	391.67	8.05	7.71	-2.57
7,840.00	66.30	100.90	7,694.33	-226.34	383.01	417.09	7.56	7.50	1.07
7,875.00	69.50	99.70	7,707.50	-232.13	414.91	449.52	9.68	9.14	-3.43
7,904.00	72.80	99.40	7,716.87	-236.69	441.97	476.95	11.42	11.38	-1.03
7,939.00	76.50	98.60	7,726.13	-241.96	475.30	510.69	10.80	10.57	-2.29
7,971.00	76.70	98.40	7,733.55	-246.56	506.09	541.81	0.87	0.63	-0.63
7,999.00	77.10	98.70	7,739.89	-250.62	533.06	569.07	1.77	1.43	1.07
8,014.00	78.70	98.30	7,743.04	-252.79	547.56	583.73	10.98	10.67	-2.67
8,034.00	80.60	97.70	7,746.63	-255.52	567.04	603.39	9.95	9.50	-3.00
8,066.00	83.90	97.80	7,750.94	-259.80	598.46	635.06	10.32	10.31	0.31
8,098.00	86.90	97.60	7,753.51	-264.07	630.06	666.92	9.40	9.38	-0.63
8,129.00	86.50	97.60	7,755.29	-268.17	660.74	697.84	1.29	-1.29	0.00
8,159.00	86.40	97.20	7,757.15	-272.02	690.43	727.74	1.37	-0.33	-1.33
8,192.00	88.70	97.20	7,758.56	-276.15	723.14	760.67	6.97	6.97	0.00
8,214.00	90.70	97.00	7,758.68	-278.87	744.97	782.63	9.14	9.09	-0.91
8,341.00	92.30	94.40	7,755.35	-291.48	871.29	909.18	2.40	1.26	-2.05
8,467.00	90.90	95.60	7,751.84	-302.46	996.75	1,034.60	1.46	-1.11	0.95
8,562.00	91.30	94.80	7,750.01	-311.07	1,091.34	1,129.22	0.94	0.42	-0.84
8,657.00	88.40	96.20	7,750.26	-320.17	1,185.89	1,223.88	3.39	-3.05	1.47
8,752.00	87.80	97.60	7,753.41	-331.58	1,280.15	1,318.67	1.60	-0.63	1.47
8,847.00	90.20	98.10	7,755.07	-344.55	1,374.24	1,413.57	2.58	2.53	0.53
8,942.00	88.90	97.60	7,755.81	-357.52	1,468.34	1,508.48	1.47	-1.37	-0.53
9,037.00	88.00	97.60	7,758.38	-370.08	1,562.47	1,603.34	0.95	-0.95	0.00
9,136.00	88.90	99.60	7,761.06	-384.88	1,660.32	1,702.26	2.21	0.91	2.02
9,229.00	90.40	99.60	7,761.63	-400.39	1,752.01	1,795.25	1.61	1.61	0.00
9,322.00	90.50	99.60	7,760.90	-415.90	1,843.71	1,888.24	0.11	0.11	0.00
9,417.00	89.90	99.90	7,760.57	-431.99	1,937.33	1,983.24	0.71	-0.63	0.32
9,512.00	90.80	101.50	7,759.99	-449.62	2,030.67	2,078.23	1.93	0.95	1.68
9,608.00	91.00	101.70	7,758.48	-468.93	2,124.70	2,174.19	0.29	0.21	0.21
9,702.00	90.30	103.00	7,757.41	-489.03	2,216.52	2,268.12	1.57	-0.74	1.38
9,797.00	90.80	103.40	7,756.50	-510.72	2,309.00	2,362.98	0.67	0.53	0.42
9,869.00	90.20	104.80	7,755.87	-528.26	2,378.83	2,434.81	2.12	-0.83	1.94
9,983.00	88.10	105.30	7,757.56	-557.86	2,488.90	2,548.39	1.89	-1.84	0.44
10,085.00	89.00	101.50	7,760.15	-581.48	2,588.07	2,650.18	3.83	0.88	-3.73
10,175.00	89.50	102.80	7,761.32	-600.42	2,676.05	2,740.12	1.55	0.56	1.44
10,275.00	87.30	100.80	7,764.12	-620.86	2,773.88	2,840.03	2.97	-2.20	-2.00
10,365.00	88.10	100.10	7,767.73	-637.17	2,862.32	2,929.96	1.18	0.89	-0.78
10,462.00	89.20	99.60	7,770.01	-653.76	2,957.86	3,026.93	1.25	1.13	-0.52
10,557.00	91.40	99.00	7,769.52	-669.11	3,051.60	3,121.91	2.40	2.32	-0.63



Cudd Drilling & Measurement Services

Survey Report

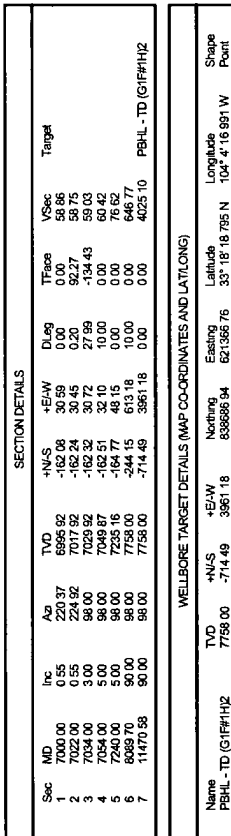
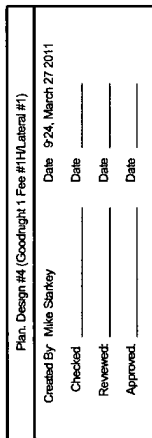
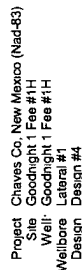


Company:	Devon Energy	Local Co-ordinate Reference:	Site Goodnight 1 Fee #1H
Project:	Chaves Co, New Mexico (Nad-83)	TVD Reference:	WELL @ 3689.00ft (Original Well Elev)
Site:	Goodnight 1 Fee #1H	MD Reference:	WELL @ 3689 00ft (Original Well Elev)
Well:	Goodnight 1 Fee #1H	North Reference:	Grid
Wellbore:	Lateral #1	Survey Calculation Method:	Minimum Curvature
Design:	Lateral #1	Database:	EDM 2003.21 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)
10,651.00	90.80	96.30	7,767.71	-681.62	3,144.74	3,215.79	2.94	-0.64	-2.87
10,744.00	87.90	98.70	7,768.77	-693.76	3,236.92	3,308.66	4.05	-3.12	2.58
10,843.00	86.50	99.70	7,773.60	-709.57	3,334.53	3,407.52	1.74	-1.41	1.01
10,931.00	87.20	98.10	7,778.44	-723.16	3,421.34	3,495.36	1.98	0.80	-1.82
11,029.00	87.70	97.10	7,782.80	-736.11	3,518.38	3,593.16	1.14	0.51	-1.02
11,120.00	86.60	99.20	7,787.32	-748.99	3,608.34	3,683.98	2.60	-1.21	2.31
11,217.00	86.90	101.30	7,792.82	-766.22	3,703.63	3,780.82	2.18	0.31	2.16
11,312.00	88.50	102.50	7,796.64	-785.80	3,796.51	3,875.70	2.10	1.68	1.26
11,409.00	90.30	102.60	7,797.65	-806.87	3,891.19	3,972.61	1.86	1.86	0.10
11,424.00	90.60	102.90	7,797.53	-810.18	3,905.82	3,987.59	2.83	2.00	2.00
Last Cudd MWD Survey									
11,480.00	90.60	102.90	7,796.95	-822.68	3,960.40	4,043.53	0.00	0.00	0.00
Proj to Bit									

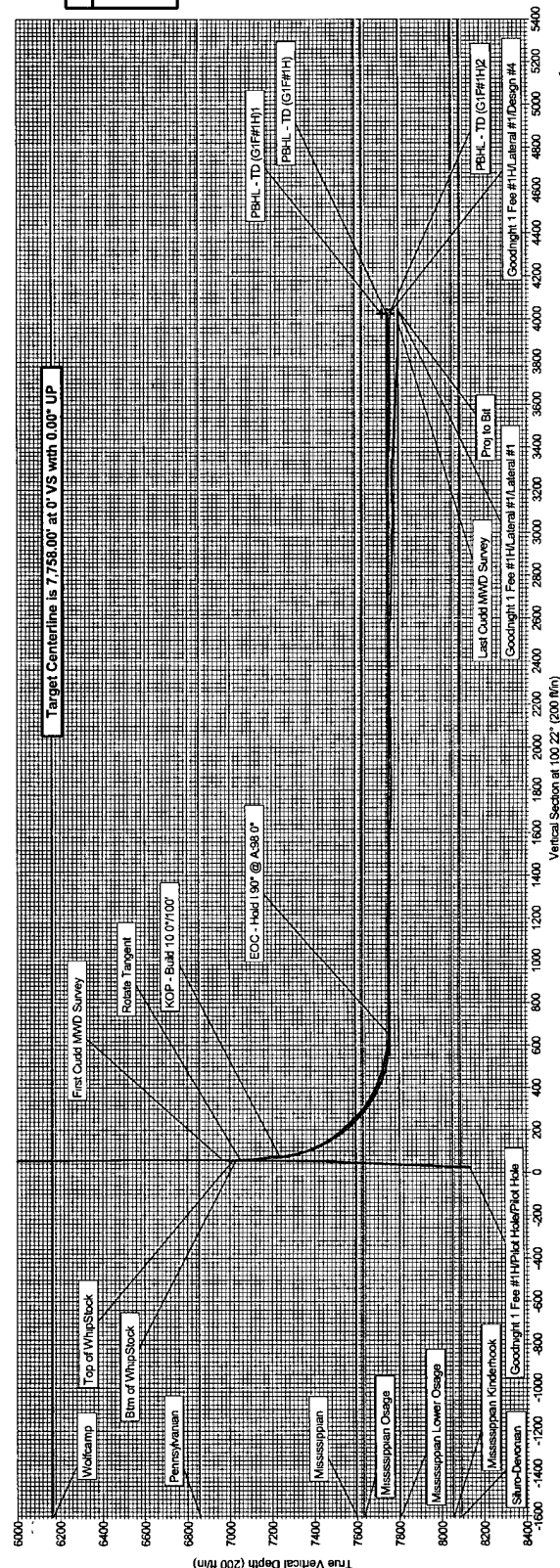
Survey Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
6,971.00	6,966.92	-161.85	30.80	First Cudd MWD Survey
11,424.00	7,797.53	-810.18	3,905.82	Last Cudd MWD Survey
11,480.00	7,796.95	-822.68	3,960.40	Proj to Bit

Checked By: _____ Approved By: _____ Date: _____



SECTION DETAILS										
Sec	MD	Inc	Asp	TVD	+E-W	DLog	TFace	VAsc	Target	
1	7000.00	0.55	220.37	6595.92	-162.94	30.59	92.97	59.96		
2	7000.00	0.55	220.37	6595.92	-162.94	30.59	92.97	59.96		
3	7034.00	3.00	98.00	7029.92	-162.32	32.72	27.59	59.03		
4	7034.00	3.00	98.00	7049.87	-162.51	32.10	10.00	50.42		
5	8099.70	50.00	98.00	7758.00	-284.15	693.18	10.00	546.77		
6	8099.70	50.00	98.00	7758.00	-284.15	693.18	10.00	546.77		
7	11470.58	90.00	98.00	7758.00	-714.49	3861.18	0.00	4025.10	PB-L - TD GF#FH12	

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)								
Name	TVD	+NUS	+EWB	Northing	Easting	Latitude	Longitude	Shape Point
PHAL-TD (G1FH12)	7759.00	-714.49	3951.18	838686.94	621366.76	33° 18' 18.795 N	104° 4' 16.997 W	

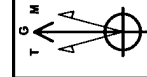


ANNOTATIONS		
TVD	MD	Annotation
7017.92	7022.00	Top of Whip/Stock
7029.92	7034.00	Bltn of Whip/Stock
7049.67	7054.00	Rotata Tangent
7235.16	7240.00	KOP - Build 10.0°/100'
7758.00	8089.70	EOS - Hold 190° @ A.98 0°

WELL DETAILS				Gooding #1 Fee #1H	
		Ground Level			
		3670.00			
WELL @ 3689.00ft (Original Well Elev)					
+N/S	0.00	North	639407.43	Latitude	33° 16' 25.96" N
+E/W	0.00	East	617465.59	Longitude	104° 5' 3.66" W

PROJECT DETAIL \$ CHAYES CO NEW MEXICO (Nad-83)

Geodetic System	US State Plane 1983
Datum	North American Datum 1983
Ellipsoid	GRS 1980
Zone	New Mexico Eastern Zone
System Datum	Mean Sea Level



Azimuths to Gnd North
 True North -0 14°
 Magnetic North 7 88°

Magnetic Field
 Strength 49340 1snT
 Dip Angle 61 14°
 Date 06/15/2010
 Model IGRF200510

Goodnight 1 Fee #1H_Final MWD Survey_Report_03-27-11.txt
 Cudd Drilling & Measurement Services

Devon Energy
 Goodnight 1 Fee #1H - Cudd MWD Survey #1

Chaves Co, New Mexico (Nad-83)
 Goodnight 1 Fee #1H
 Your Ref:

Measured Dogleg Depth Rate (ft) (°/100ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)
6900.00	0.56	214.74	6895.93	161.32 S	31.19 E	59.32
0.00						
6971.00	0.50	218.90	6966.92	161.85 S	30.80 E	59.03
0.10						
7088.00	3.40	112.90	7083.86	163.60 S	33.67 E	62.17
3.05						
7120.00	3.50	111.50	7115.80	164.32 S	35.46 E	64.05
0.41						
7152.00	3.60	105.50	7147.74	164.95 S	37.33 E	66.01
1.20						
7184.00	4.10	104.50	7179.67	165.51 S	39.41 E	68.15
1.58						
7215.00	4.40	102.70	7210.58	166.04 S	41.64 E	70.44
1.06						
7243.00	6.40	107.90	7238.46	166.76 S	44.18 E	73.06
7.35						
7275.00	10.00	107.50	7270.12	168.14 S	48.52 E	77.59
11.25						
7306.00	13.70	105.30	7300.46	169.92 S	54.63 E	83.92
12.02						
7335.00	16.70	104.70	7328.44	171.89 S	61.98 E	91.49
10.36						
7370.00	20.00	101.70	7361.66	174.38 S	72.71 E	102.49
9.80						
7402.00	23.10	100.40	7391.42	176.62 S	84.24 E	114.24
9.80						
7433.00	26.50	99.30	7419.55	178.84 S	97.05 E	127.24
11.07						
7465.00	30.70	98.30	7447.64	181.17 S	112.19 E	142.55
13.21						
7497.00	34.00	97.80	7474.67	183.57 S	129.14 E	159.66
10.35						
7529.00	37.20	97.70	7500.69	186.08 S	147.60 E	178.27
10.00						
7560.00	41.60	97.70	7524.64	188.71 S	167.09 E	197.92
14.19						
7588.00	44.50	97.10	7545.10	191.17 S	186.04 E	217.01
10.46						
7605.00	44.70	97.80	7557.20	192.72 S	197.88 E	228.93
3.12						
7614.00	44.60	97.70	7563.60	193.57 S	204.15 E	235.25
1.36						
7653.00	44.70	98.20	7591.35	197.36 S	231.29 E	262.64
0.94						
7686.00	47.90	100.20	7614.15	201.19 S	254.83 E	286.49

Goodnight 1 Fee #1H_Final MWD Survey_Report_03-27-11.txt

10.64						
7715.00	51.90	101.30	7632.82	205.33 S	276.62 E	308.66
14.09						
7746.00	57.10	101.50	7650.82	210.32 S	301.35 E	333.89
16.78						
7777.00	61.50	101.50	7666.64	215.63 S	327.47 E	360.53
14.19						
7812.00	64.20	100.60	7682.61	221.60 S	358.03 E	391.67
8.05						
7840.00	66.30	100.90	7694.33	226.34 S	383.01 E	417.09
7.56						
7875.00	69.50	99.70	7707.50	232.13 S	414.91 E	449.52
9.68						
7904.00	72.80	99.40	7716.87	236.69 S	441.97 E	476.95
11.42						
7939.00	76.50	98.60	7726.13	241.96 S	475.30 E	510.69
10.80						
7971.00	76.70	98.40	7733.55	246.56 S	506.09 E	541.81
0.87						
7999.00	77.10	98.70	7739.89	250.62 S	533.06 E	569.07
1.77						
8014.00	78.70	98.30	7743.04	252.79 S	547.56 E	583.73
10.98						
8034.00	80.60	97.70	7746.63	255.52 S	567.04 E	603.39
9.95						
8066.00	83.90	97.80	7750.94	259.80 S	598.46 E	635.06
10.32						
8098.00	86.90	97.60	7753.51	264.07 S	630.06 E	666.92
9.40						
8129.00	86.50	97.60	7755.29	268.17 S	660.74 E	697.84
1.29						
8159.00	86.40	97.20	7757.15	272.02 S	690.43 E	727.74
1.37						
8192.00	88.70	97.20	7758.56	276.15 S	723.14 E	760.67
6.97						
8214.00	90.70	97.00	7758.68	278.87 S	744.97 E	782.63
9.14						
8341.00	92.30	94.40	7755.35	291.48 S	871.29 E	909.18
2.40						
8467.00	90.90	95.60	7751.84	302.46 S	996.75 E	1034.60
1.46						
8562.00	91.30	94.80	7750.01	311.07 S	1091.34 E	1129.22
0.94						
8657.00	88.40	96.20	7750.26	320.17 S	1185.89 E	1223.88
3.39						
8752.00	87.80	97.60	7753.41	331.58 S	1280.15 E	1318.67
1.60						
8847.00	90.20	98.10	7755.07	344.55 S	1374.24 E	1413.57
2.58						
8942.00	88.90	97.60	7755.81	357.52 S	1468.34 E	1508.48
1.47						
9037.00	88.00	97.60	7758.38	370.08 S	1562.47 E	1603.34
0.95						
9136.00	88.90	99.60	7761.06	384.88 S	1660.32 E	1702.26
2.21						
9229.00	90.40	99.60	7761.63	400.39 S	1752.01 E	1795.25
1.61						
9322.00	90.50	99.60	7760.90	415.90 S	1843.71 E	1888.24
0.11						
9417.00	89.90	99.90	7760.57	431.99 S	1937.33 E	1983.24
0.71						
9512.00	90.80	101.50	7759.99	449.62 S	2030.67 E	2078.23
1.93						

	Goodnight 1	Fee	#1H_Final	MWD	Survey_Report_03-27-11.txt	
9608.00	91.00	101.70	7758.48	468.93 S	2124.70 E	2174.19
0.29						
9702.00	90.30	103.00	7757.41	489.03 S	2216.52 E	2268.12
1.57						
9797.00	90.80	103.40	7756.50	510.72 S	2309.00 E	2362.98
0.67						
9869.00	90.20	104.80	7755.87	528.26 S	2378.83 E	2434.81
2.12						
9983.00	88.10	105.30	7757.56	557.86 S	2488.90 E	2548.39
1.89						
10085.00	89.00	101.50	7760.15	581.48 S	2588.07 E	2650.18
3.83						
10175.00	89.50	102.80	7761.32	600.42 S	2676.05 E	2740.12
1.55						
10275.00	87.30	100.80	7764.12	620.86 S	2773.88 E	2840.03
2.97						
10365.00	88.10	100.10	7767.73	637.17 S	2862.32 E	2929.96
1.18						
10462.00	89.20	99.60	7770.01	653.76 S	2957.86 E	3026.93
1.25						
10557.00	91.40	99.00	7769.52	669.11 S	3051.60 E	3121.91
2.40						
10651.00	90.80	96.30	7767.71	681.62 S	3144.74 E	3215.79
2.94						
10744.00	87.90	98.70	7768.77	693.76 S	3236.92 E	3308.66
4.05						
10843.00	86.50	99.70	7773.60	709.57 S	3334.53 E	3407.52
1.74						
10931.00	87.20	98.10	7778.44	723.16 S	3421.34 E	3495.36
1.98						
11029.00	87.70	97.10	7782.80	736.11 S	3518.38 E	3593.16
1.14						
11120.00	86.60	99.20	7787.32	748.99 S	3608.34 E	3683.98
2.60						
11217.00	86.90	101.30	7792.82	766.22 S	3703.63 E	3780.82
2.18						
11312.00	88.50	102.50	7796.64	785.80 S	3796.51 E	3875.70
2.10						
11409.00	90.30	102.60	7797.65	806.87 S	3891.19 E	3972.61
1.86						
11424.00	90.60	102.90	7797.53	810.18 S	3905.82 E	3987.59
2.83						
11480.00	90.60	102.90	7796.95	822.68 S	3960.40 E	4043.53
0.00						

All data are in feet unless otherwise stated. Directions and coordinates are relative to Grid North.
Vertical depths are relative to WELL. Northings and Eastings are relative to Site.

The Dogleg Severity is in Degrees per 100 feet.
Vertical Section is from Slot and calculated along an Azimuth of 100.220° (Grid).

Coordinate System is North American Datum 1983 US State Plane 1983, New Mexico Eastern Zone.
Central meridian is -104.333°.
Grid Convergence at Surface is 0.137°.

Based upon Minimum Curvature type calculations, at a Measured Depth of 11480.00ft., the Bottom Hole Displacement is 4044.94ft., in the Direction of 100.220° (Grid).