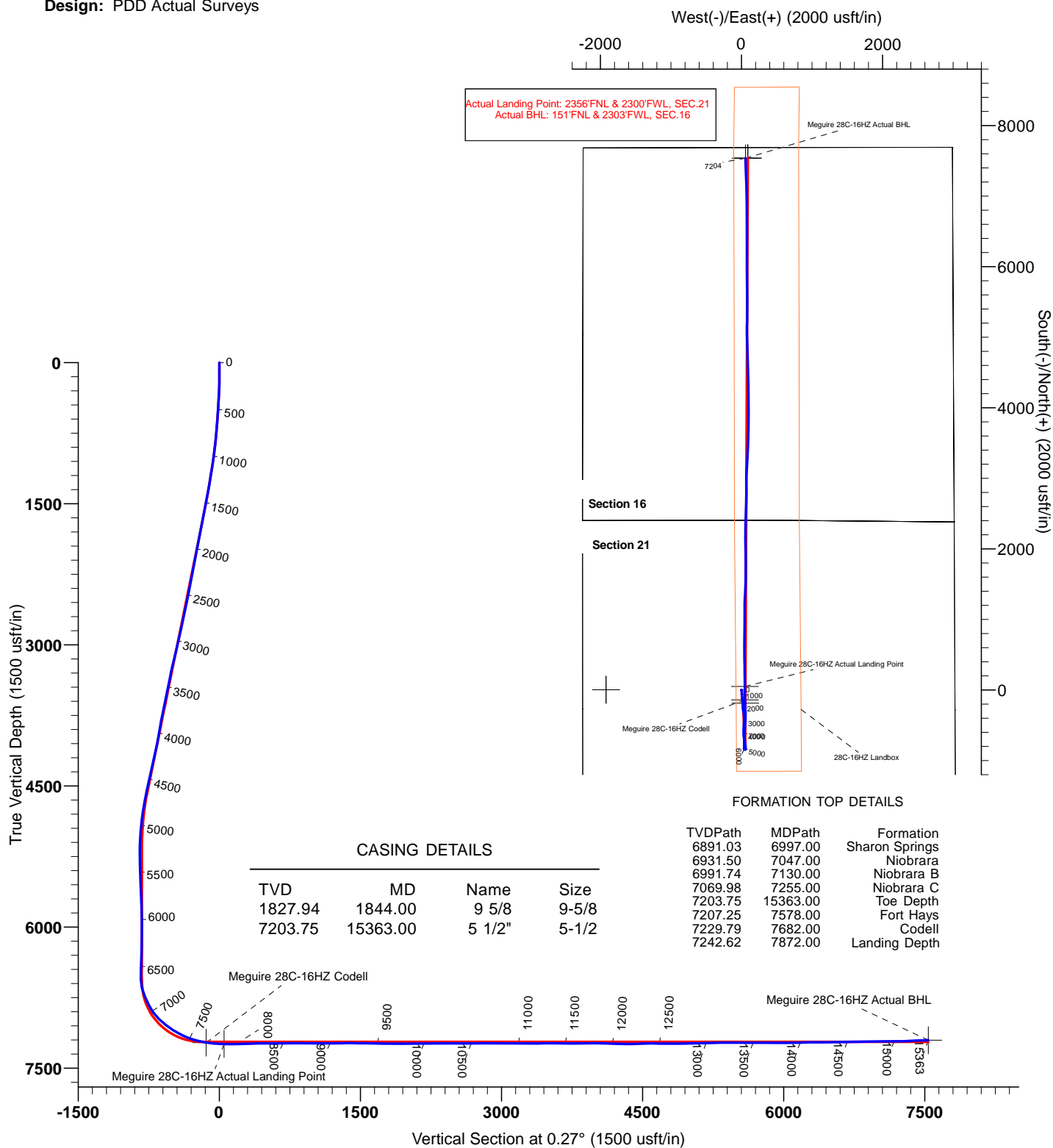


US ROCKIES WATTENBERG PLANNING



Project: WELD-NAD83-UTMFT13N
 Site: 2N-65W-21 Meguire 6-21HZ Pad
 Well: MEGUIRE 28C-16HZ
 Wellbore: MEGUIRE 28C-16HZ
 Design: PDD Actual Surveys



TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Meguire 28C-16HZ Actual BHL	7203.75	7537.72	57.66	14579908.52	1732593.82	40.145557	-104.670155	Point
Meguire 28C-16HZ Codell	7229.79	-139.15	51.16	14572231.69	1732615.79	40.124476	-104.670178	Point
Meguire 28C-16HZ Actual Landing Point	7242.62	50.28	48.02	14572421.10	1732611.94	40.124996	-104.670189	Point

PREMIER DIRECTIONAL DRILLING

12941 North Freeway Suite 400, Houston, TX, 77060
 Phone: 281-673-4000



US ROCKIES WATTENBERG PLANNING

WELD-NAD83-UTMFT13N

2N-65W-21 Meguire 6-21HZ Pad

MEGUIRE 28C-16HZ

MEGUIRE 28C-16HZ

Design: PDD Actual Surveys

Standard Survey Report

12 November, 2015

PDD

Survey Report

Company:	US ROCKIES WATTENBERG PLANNING	Local Co-ordinate Reference:	Well MEGUIRE 28C-16HZ
Project:	WELD-NAD83-UTMFT13N	TVD Reference:	4888'+20'=4908' @ 4908.00usft (p462)
Site:	2N-65W-21 Meguire 6-21HZ Pad	MD Reference:	4888'+20'=4908' @ 4908.00usft (p462)
Well:	MEGUIRE 28C-16HZ	North Reference:	True
Wellbore:	MEGUIRE 28C-16HZ	Survey Calculation Method:	Minimum Curvature
Design:	PDD Actual Surveys	Database:	EDM 5000.1 Single User Db

Project	WELD-NAD83-UTMFT13N		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Zone 13N (108 W to 102 W)		

Site		2N-65W-21 Meguire 6-21HZ Pad, Centered on 29N-16HZ			
Site Position:		Northing:	14,572,335.50 usft	Latitude:	40.124762
From:	Lat/Long	Easting:	1,732,515.32 usft	Longitude:	-104.670536
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.21 °

Well		MEGUIRE 28C-16HZ				
Well Position	+N/-S	0.00 usft	Northing:	14,572,370.64 usft	Latitude:	40.124858
	+E/-W	0.00 usft	Easting:	1,732,564.11 usft	Longitude:	-104.670361
Position Uncertainty		3.28 usft	Wellhead Elevation:	0.00 usft	Ground Level:	4,888.00 usft

Wellbore	MEGUIRE 28C-16HZ				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	9/10/2015	8.22	66.70	52,550

Design	PDD Actual Surveys				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	0.27	

Survey Program	Date	11/12/2015			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
128.00	1,736.00	Scientific Drilling MWD Surveys (MEGUIRE 28C-16HZ)	APC_ISCWSA REV 2 MWD	Fixed:v2:standard declination	
1,888.00	15,294.00	PDD MWD+IFR Surveys (MEGUIRE 28C-16HZ)	APC_ISCWSA REV 2 MWD+	Fixed:v2:crustal field declination	

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)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
128.00	0.29	354.73	128.00	0.32	-0.03	0.32	0.23	0.23	0.00	
217.00	1.23	124.31	216.99	0.01	0.74	0.01	1.61	1.06	145.60	
313.00	2.70	162.90	312.94	-2.73	2.25	-2.72	1.98	1.53	40.20	
385.00	3.53	174.31	384.83	-6.56	2.97	-6.55	1.43	1.15	15.85	
475.00	3.34	165.77	474.67	-11.86	3.89	-11.84	0.61	-0.21	-9.49	
565.00	4.12	165.78	564.48	-17.53	5.33	-17.51	0.87	0.87	0.01	
655.00	4.58	184.51	654.22	-24.25	5.84	-24.22	1.65	0.51	20.81	
745.00	4.50	191.25	743.94	-31.30	4.87	-31.27	0.60	-0.09	7.49	
835.00	5.83	179.89	833.58	-39.33	4.19	-39.31	1.86	1.48	-12.62	

PDD Survey Report

Company:	US ROCKIES WATTENBERG PLANNING	Local Co-ordinate Reference:	Well MEGUIRE 28C-16HZ
Project:	WELD-NAD83-UTMFT13N	TVD Reference:	4888'+20'=4908' @ 4908.00usft (p462)
Site:	2N-65W-21 Meguire 6-21HZ Pad	MD Reference:	4888'+20'=4908' @ 4908.00usft (p462)
Well:	MEGUIRE 28C-16HZ	North Reference:	True
Wellbore:	MEGUIRE 28C-16HZ	Survey Calculation Method:	Minimum Curvature
Design:	PDD Actual Surveys	Database:	EDM 5000.1 Single User Db

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)
926.00	7.19	175.79	923.99	-49.63	4.62	-49.61	1.58	1.49	-4.51
1,016.00	8.31	178.35	1,013.17	-61.75	5.22	-61.73	1.30	1.24	2.84
1,106.00	9.28	174.27	1,102.11	-75.47	6.13	-75.44	1.28	1.08	-4.53
1,196.00	8.83	172.08	1,190.99	-89.53	7.81	-89.50	0.63	-0.50	-2.43
1,286.00	9.25	169.50	1,279.87	-103.49	10.08	-103.44	0.65	0.47	-2.87
1,376.00	10.68	173.94	1,368.51	-118.90	12.28	-118.84	1.80	1.59	4.93
1,466.00	10.83	175.53	1,456.93	-135.62	13.82	-135.55	0.37	0.17	1.77
1,556.00	10.73	172.57	1,545.34	-152.36	15.56	-152.28	0.63	-0.11	-3.29
1,646.00	11.03	175.29	1,633.72	-169.24	17.35	-169.16	0.66	0.33	3.02
1,736.00	11.48	174.99	1,721.99	-186.75	18.84	-186.66	0.50	0.50	-0.33
1,888.00	10.70	179.60	1,871.16	-215.93	20.26	-215.83	0.78	-0.51	3.03
2,078.00	10.40	175.60	2,057.95	-250.66	21.70	-250.56	0.42	-0.16	-2.11
2,268.00	11.80	174.10	2,244.39	-287.09	25.01	-286.97	0.75	0.74	-0.79
2,458.00	10.90	169.30	2,430.67	-324.07	30.34	-323.92	0.69	-0.47	-2.53
2,648.00	11.40	171.20	2,617.09	-360.27	36.55	-360.10	0.33	0.26	1.00
2,838.00	12.40	181.10	2,803.02	-399.23	39.03	-399.04	1.19	0.53	5.21
3,028.00	13.50	180.80	2,988.19	-441.80	38.33	-441.62	0.58	0.58	-0.16
3,218.00	13.50	186.50	3,172.95	-486.02	35.51	-485.84	0.70	0.00	3.00
3,407.00	11.40	184.40	3,357.49	-526.56	31.58	-526.41	1.14	-1.11	-1.11
3,598.00	11.40	179.60	3,544.73	-564.26	30.26	-564.11	0.50	0.00	-2.51
3,788.00	11.60	180.40	3,730.91	-602.14	30.26	-601.99	0.13	0.11	0.42
3,977.00	9.30	173.80	3,916.77	-636.33	31.78	-636.17	1.37	-1.22	-3.49
4,167.00	12.30	174.30	4,103.39	-671.74	35.44	-671.56	1.58	1.58	0.26
4,357.00	13.20	168.30	4,288.71	-713.12	41.85	-712.92	0.84	0.47	-3.16
4,547.00	12.10	166.50	4,474.09	-753.73	50.90	-753.48	0.61	-0.58	-0.95
4,737.00	11.70	171.20	4,660.01	-792.13	58.50	-791.85	0.55	-0.21	2.47
4,833.00	8.90	182.40	4,754.47	-809.17	59.68	-808.88	3.57	-2.92	11.67
5,023.00	5.40	186.50	4,942.96	-832.75	58.05	-832.47	1.86	-1.84	2.16
5,211.00	1.90	208.88	5,130.56	-844.27	55.54	-844.00	1.98	-1.86	11.90
5,401.00	1.80	336.70	5,320.51	-844.29	52.84	-844.03	1.75	-0.05	67.27
5,589.00	2.50	345.70	5,508.38	-837.60	50.66	-837.36	0.41	0.37	4.79
5,780.00	2.80	336.80	5,699.18	-829.28	47.79	-829.04	0.27	0.16	-4.66
5,970.00	0.90	290.60	5,889.08	-824.49	44.57	-824.27	1.20	-1.00	-24.32
6,161.00	0.70	247.90	6,080.06	-824.40	42.08	-824.19	0.32	-0.10	-22.36
6,351.00	2.30	212.00	6,269.99	-828.07	38.99	-827.88	0.94	0.84	-18.89
6,541.00	1.80	200.70	6,459.87	-834.09	35.91	-833.92	0.34	-0.26	-5.95
6,636.00	1.00	11.60	6,554.86	-834.68	35.55	-834.50	2.94	-0.84	179.89
6,730.00	14.20	7.10	6,647.82	-822.38	37.15	-822.19	14.05	14.04	-4.79
6,825.00	24.10	1.80	6,737.46	-791.35	39.20	-791.16	10.57	10.42	-5.58
6,920.00	25.10	359.50	6,823.84	-751.81	39.64	-751.62	1.46	1.05	-2.42
7,015.00	35.10	2.40	6,905.93	-704.25	40.61	-704.05	10.63	10.53	3.05
7,111.00	46.10	2.80	6,978.71	-641.94	43.46	-641.73	11.46	11.46	0.42
7,206.00	52.20	3.60	7,040.82	-570.23	47.49	-570.00	6.45	6.42	0.84

PDD

Survey Report

Company:	US ROCKIES WATTENBERG PLANNING	Local Co-ordinate Reference:	Well MEGUIRE 28C-16HZ
Project:	WELD-NAD83-UTMFT13N	TVD Reference:	4888'+20'=4908' @ 4908.00usft (p462)
Site:	2N-65W-21 Meguire 6-21HZ Pad	MD Reference:	4888'+20'=4908' @ 4908.00usft (p462)
Well:	MEGUIRE 28C-16HZ	North Reference:	True
Wellbore:	MEGUIRE 28C-16HZ	Survey Calculation Method:	Minimum Curvature
Design:	PDD Actual Surveys	Database:	EDM 5000.1 Single User Db

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)
7,300.00	57.10	3.70	7,095.19	-493.74	52.37	-493.49	5.21	5.21	0.11
7,396.00	63.90	1.40	7,142.44	-410.32	56.03	-410.05	7.38	7.08	-2.40
7,491.00	69.80	359.20	7,179.77	-323.02	56.45	-322.75	6.56	6.21	-2.32
7,586.00	73.70	357.50	7,209.52	-232.85	53.84	-232.60	4.44	4.11	-1.79
7,682.00	81.90	359.20	7,229.79	-139.15	51.16	-138.90	8.71	8.54	1.77
7,777.00	87.00	358.90	7,238.98	-44.63	49.59	-44.40	5.38	5.37	-0.32
7,872.00	88.60	359.20	7,242.62	50.28	48.02	50.50	1.71	1.68	0.32
7,968.00	89.10	359.10	7,244.55	146.25	46.60	146.47	0.53	0.52	-0.10
8,063.00	91.80	359.60	7,243.80	241.23	45.52	241.44	2.89	2.84	0.53
8,158.00	92.60	359.20	7,240.16	336.15	44.52	336.36	0.94	0.84	-0.42
8,253.00	90.80	359.50	7,237.34	431.10	43.45	431.30	1.92	-1.89	0.32
8,349.00	90.10	0.50	7,236.58	527.10	43.45	527.30	1.27	-0.73	1.04
8,444.00	90.00	359.90	7,236.50	622.10	43.78	622.30	0.64	-0.11	-0.63
8,539.00	91.20	359.90	7,235.51	717.09	43.61	717.29	1.26	1.26	0.00
8,634.00	89.70	0.40	7,234.76	812.08	43.86	812.28	1.66	-1.58	0.53
8,729.00	90.20	0.20	7,234.84	907.08	44.36	907.28	0.57	0.53	-0.21
8,824.00	88.90	0.40	7,235.59	1,002.08	44.86	1,002.28	1.38	-1.37	0.21
8,920.00	89.50	359.90	7,236.93	1,098.06	45.11	1,098.27	0.81	0.63	-0.52
9,015.00	91.00	0.20	7,236.51	1,193.06	45.19	1,193.26	1.61	1.58	0.32
9,111.00	91.20	2.30	7,234.67	1,289.02	47.28	1,289.22	2.20	0.21	2.19
9,206.00	89.70	3.40	7,233.93	1,383.89	52.01	1,384.12	1.96	-1.58	1.16
9,301.00	89.00	2.30	7,235.00	1,478.76	56.73	1,479.02	1.37	-0.74	-1.16
9,396.00	89.80	1.90	7,236.00	1,573.70	60.21	1,573.96	0.94	0.84	-0.42
9,490.00	88.20	359.50	7,237.64	1,667.66	61.36	1,667.93	3.07	-1.70	-2.55
9,585.00	89.10	359.60	7,239.88	1,762.63	60.61	1,762.90	0.95	0.95	0.11
9,680.00	89.70	359.40	7,240.87	1,857.62	59.79	1,857.89	0.67	0.63	-0.21
9,775.00	90.50	359.20	7,240.71	1,952.62	58.63	1,952.87	0.87	0.84	-0.21
9,871.00	91.30	358.50	7,239.20	2,048.58	56.70	2,048.83	1.11	0.83	-0.73
9,965.00	89.80	0.30	7,238.30	2,142.57	55.71	2,142.81	2.49	-1.60	1.91
10,062.00	90.40	0.20	7,238.13	2,239.57	56.14	2,239.81	0.63	0.62	-0.10
10,156.00	90.00	1.80	7,237.80	2,333.55	57.78	2,333.79	1.75	-0.43	1.70
10,251.00	90.80	1.40	7,237.13	2,428.51	60.43	2,428.77	0.94	0.84	-0.42
10,346.00	89.30	2.10	7,237.05	2,523.46	63.33	2,523.73	1.74	-1.58	0.74
10,441.00	90.00	1.80	7,237.63	2,618.40	66.56	2,618.69	0.80	0.74	-0.32
10,536.00	91.40	2.00	7,236.47	2,713.34	69.71	2,713.64	1.49	1.47	0.21
10,631.00	89.50	359.50	7,235.73	2,808.32	70.96	2,808.62	3.31	-2.00	-2.63
10,726.00	90.10	358.60	7,236.06	2,903.30	69.38	2,903.60	1.14	0.63	-0.95
10,821.00	91.00	1.00	7,235.14	2,998.29	69.05	2,998.58	2.70	0.95	2.53
10,916.00	89.20	2.90	7,234.98	3,093.23	72.28	3,093.53	2.75	-1.89	2.00
11,009.00	88.60	3.80	7,236.76	3,186.05	77.72	3,186.38	1.16	-0.65	0.97
11,104.00	89.70	3.40	7,238.17	3,280.85	83.68	3,281.21	1.23	1.16	-0.42
11,199.00	90.70	2.80	7,237.84	3,375.71	88.82	3,376.09	1.23	1.05	-0.63
11,294.00	91.60	3.30	7,235.94	3,470.55	93.87	3,470.96	1.08	0.95	0.53

PDD

Survey Report

Company:	US ROCKIES WATTENBERG PLANNING	Local Co-ordinate Reference:	Well MEGUIRE 28C-16HZ
Project:	WELD-NAD83-UTMFT13N	TVD Reference:	4888'+20'=4908' @ 4908.00usft (p462)
Site:	2N-65W-21 Meguire 6-21HZ Pad	MD Reference:	4888'+20'=4908' @ 4908.00usft (p462)
Well:	MEGUIRE 28C-16HZ	North Reference:	True
Wellbore:	MEGUIRE 28C-16HZ	Survey Calculation Method:	Minimum Curvature
Design:	PDD Actual Surveys	Database:	EDM 5000.1 Single User Db

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)
11,388.00	89.30	1.40	7,235.20	3,564.46	97.72	3,564.88	3.17	-2.45	-2.02
11,480.00	89.00	0.00	7,236.56	3,656.44	98.85	3,656.87	1.56	-0.33	-1.52
11,573.00	89.80	0.40	7,237.54	3,749.43	99.17	3,749.86	0.96	0.86	0.43
11,665.00	90.80	0.20	7,237.05	3,841.43	99.65	3,841.86	1.11	1.09	-0.22
11,758.00	91.50	359.80	7,235.19	3,934.41	99.65	3,934.84	0.87	0.75	-0.43
11,851.00	89.10	359.70	7,234.70	4,027.40	99.25	4,027.83	2.58	-2.58	-0.11
11,945.00	86.70	359.60	7,238.15	4,121.33	98.68	4,121.75	2.56	-2.55	-0.11
12,038.00	88.70	359.60	7,241.88	4,214.25	98.03	4,214.66	2.15	2.15	0.00
12,133.00	90.00	359.70	7,242.95	4,309.24	97.45	4,309.65	1.37	1.37	0.11
12,227.00	90.90	359.30	7,242.22	4,403.23	96.63	4,403.64	1.05	0.96	-0.43
12,320.00	91.70	358.90	7,240.11	4,496.19	95.17	4,496.59	0.96	0.86	-0.43
12,416.00	91.70	358.00	7,237.26	4,592.12	92.57	4,592.50	0.94	0.00	-0.94
12,510.00	88.10	357.70	7,237.42	4,686.03	89.04	4,686.40	3.84	-3.83	-0.32
12,603.00	88.50	358.20	7,240.18	4,778.93	85.72	4,779.28	0.69	0.43	0.54
12,696.00	90.30	358.60	7,241.16	4,871.89	83.12	4,872.23	1.98	1.94	0.43
12,788.00	91.30	358.20	7,239.87	4,963.84	80.55	4,964.17	1.17	1.09	-0.43
12,881.00	92.20	358.20	7,237.03	5,056.75	77.63	5,057.06	0.97	0.97	0.00
12,973.00	91.10	1.90	7,234.38	5,148.70	77.72	5,149.01	4.19	-1.20	4.02
13,066.00	92.00	1.80	7,231.87	5,241.61	80.72	5,241.94	0.97	0.97	-0.11
13,158.00	90.50	0.50	7,229.86	5,333.57	82.56	5,333.90	2.16	-1.63	-1.41
13,251.00	90.60	359.70	7,228.97	5,426.56	82.72	5,426.89	0.87	0.11	-0.86
13,344.00	89.10	359.20	7,229.21	5,519.56	81.83	5,519.88	1.70	-1.61	-0.54
13,436.00	89.70	359.00	7,230.17	5,611.54	80.39	5,611.85	0.69	0.65	-0.22
13,529.00	90.80	359.00	7,229.77	5,704.52	78.76	5,704.83	1.18	1.18	0.00
13,621.00	88.90	0.10	7,230.01	5,796.51	78.04	5,796.82	2.39	-2.07	1.20
13,714.00	89.10	359.90	7,231.63	5,889.50	78.04	5,889.80	0.30	0.22	-0.22
13,806.00	90.30	359.90	7,232.11	5,981.50	77.88	5,981.80	1.30	1.30	0.00
13,899.00	91.70	359.40	7,230.49	6,074.48	77.31	6,074.77	1.60	1.51	-0.54
13,991.00	91.60	359.60	7,227.84	6,166.44	76.51	6,166.73	0.24	-0.11	0.22
14,084.00	89.90	0.60	7,226.62	6,259.42	76.67	6,259.71	2.12	-1.83	1.08
14,177.00	90.20	0.50	7,226.54	6,352.42	77.57	6,352.71	0.34	0.32	-0.11
14,269.00	90.40	359.60	7,226.06	6,444.42	77.65	6,444.71	1.00	0.22	-0.98
14,362.00	91.00	359.70	7,224.92	6,537.41	77.08	6,537.70	0.65	0.65	0.11
14,455.00	92.00	359.20	7,222.49	6,630.37	76.19	6,630.65	1.20	1.08	-0.54
14,547.00	90.20	0.00	7,220.72	6,722.35	75.54	6,722.63	2.14	-1.96	0.87
14,640.00	91.00	0.10	7,219.75	6,815.34	75.62	6,815.62	0.87	0.86	0.11
14,732.00	91.40	359.80	7,217.82	6,907.32	75.54	6,907.60	0.54	0.43	-0.33
14,824.00	91.80	359.00	7,215.25	6,999.28	74.58	6,999.55	0.97	0.43	-0.87
14,917.00	88.40	357.70	7,215.09	7,092.22	71.90	7,092.48	3.91	-3.66	-1.40
15,009.00	90.30	357.90	7,216.14	7,184.15	68.37	7,184.39	2.08	2.07	0.22
15,102.00	92.20	358.10	7,214.11	7,277.06	65.13	7,277.29	2.05	2.04	0.22
15,194.00	93.60	358.30	7,209.45	7,368.90	62.24	7,369.11	1.54	1.52	0.22
15,287.00	91.30	358.50	7,205.48	7,461.77	59.65	7,461.97	2.48	-2.47	0.22
15,294.00	91.30	358.50	7,205.32	7,468.76	59.46	7,468.96	0.00	0.00	0.00

PDD Survey Report

Company:	US ROCKIES WATTENBERG PLANNING	Local Co-ordinate Reference:	Well MEGUIRE 28C-16HZ
Project:	WELD-NAD83-UTMFT13N	TVD Reference:	4888'+20'=4908' @ 4908.00usft (p462)
Site:	2N-65W-21 Meguire 6-21HZ Pad	MD Reference:	4888'+20'=4908' @ 4908.00usft (p462)
Well:	MEGUIRE 28C-16HZ	North Reference:	True
Wellbore:	MEGUIRE 28C-16HZ	Survey Calculation Method:	Minimum Curvature
Design:	PDD Actual Surveys	Database:	EDM 5000.1 Single User Db

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)
15,363.00	91.30	358.50	7,203.75	7,537.72	57.66	7,537.91	0.00	0.00	0.00

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Meguire 28C-16HZ Actua - actual wellpath hits target center - Point	0.00	0.00	7,203.75	7,537.72	57.66	14,579,908.52	1,732,593.82	40.145557	-104.670155
Meguire 28C-16HZ Cod - actual wellpath hits target center - Point	0.00	0.00	7,229.79	-139.15	51.16	14,572,231.68	1,732,615.79	40.124476	-104.670178
Meguire 28C-16HZ Actua - actual wellpath hits target center - Point	0.00	0.00	7,242.62	50.28	48.02	14,572,421.09	1,732,611.94	40.124996	-104.670189

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,844.00	1,827.94	9 5/8	9-5/8	13-1/2	
15,363.00	7,203.75	5 1/2"	5-1/2	8-1/2	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
6,997.00	6,891.04	Sharon Springs		0.00		
7,047.00	6,931.50	Niobrara		0.00		
7,130.00	6,991.74	Niobrara B		0.00		
7,255.00	7,069.98	Niobrara C		0.00		
15,363.00	7,203.75	Toe Depth		0.00		
7,578.00	7,207.25	Fort Hays		0.00		
7,682.00	7,229.79	Codell		0.00		
7,872.00	7,242.62	Landing Depth		0.00		

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
15,363.00	7,203.75	7,537.72	57.66	Projection to Bit	

Checked By: _____ Approved By: _____ Date: _____