



PDC Energy, Inc.  
Project: Weld Co., CO  
Site: Sec.27-T5N-R64W  
Well: Chestnut 27K-201  
Wellbore: Wellbore #1  
Design: Design #2  
Lat: 40° 22' 15.348 N  
Long: 104° 32' 28.428 W  
Pad GL: 4617.00  
KB: WELL @ 4630.00usft (Original Well Elev)

#### PROJECT DETAILS: Weld Co., CO

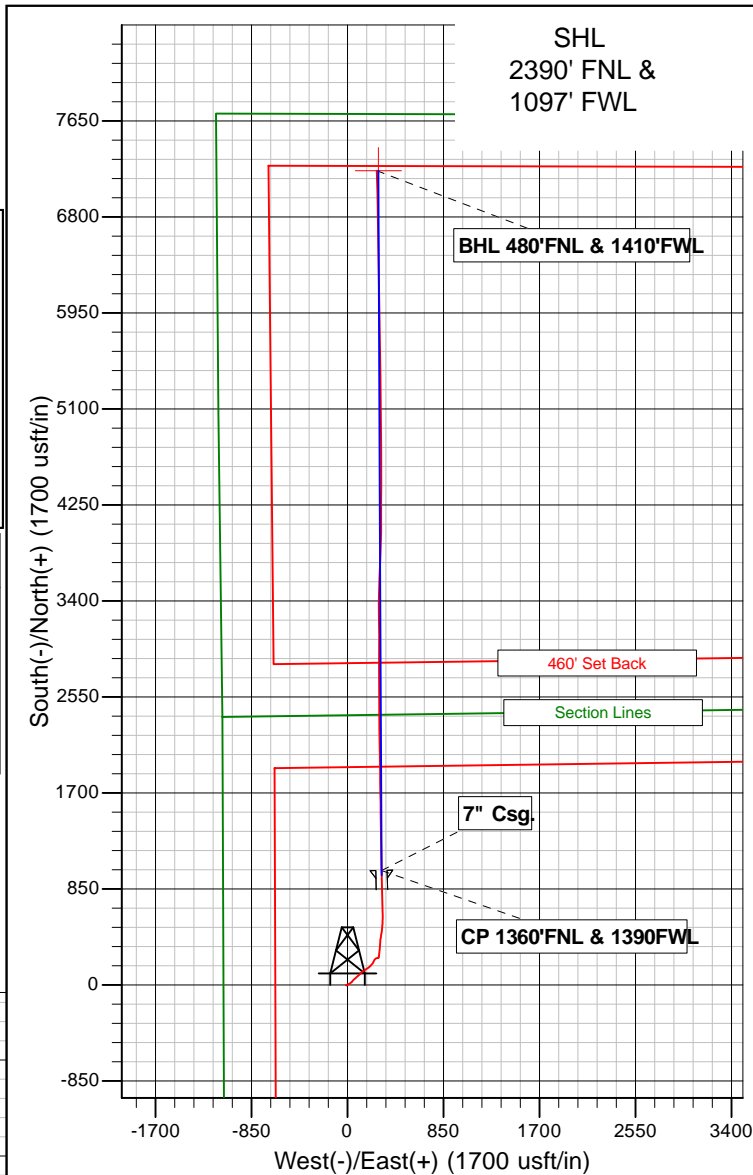
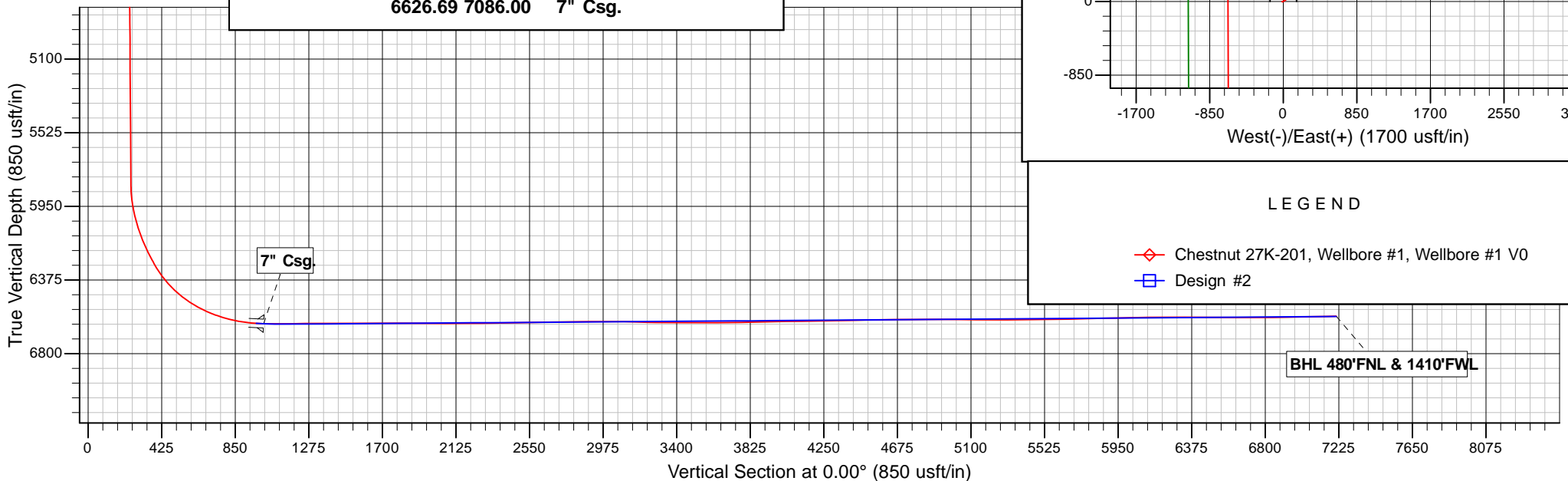
Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: Colorado Northern Zone

System Datum: Mean Sea Level

Projected Bottom Hole Location  
13,284'MD 6583.54'TVD 7210.49'N & 259.19'E OF SHL  
91.30 degree Incl @ 358.30 degree AZM

#### CASING DETAILS

TVD	MD	Name
6626.69	7086.00	7" Csg.



#### LEGEND

- ◇ Chestnut 27K-201, Wellbore #1, Wellbore #1 V0
- Design #2



## **PDC Energy, Inc.**

**Weld Co., CO  
Sec.27-T5N-R64W  
Chestnut 27K-201**

**Wellbore #1**

**Survey: Survey #1**

## **Standard Survey Report**

**18 January, 2015**

# **Archer**



<b>Company:</b>	PDC Energy, Inc.	<b>Local Co-ordinate Reference:</b>	Well Chestnut 27K-201
<b>Project:</b>	Weld Co., CO	<b>TVD Reference:</b>	WELL @ 4630.00usft (Original Well Elev)
<b>Site:</b>	Sec.27-T5N-R64W	<b>MD Reference:</b>	WELL @ 4630.00usft (Original Well Elev)
<b>Well:</b>	Chestnut 27K-201	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	EDMDBBW

<b>Project</b>	Weld Co., CO		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		

Site		Sec.27-T5N-R64W			
Site Position:		Northing:	1,379,023.488 usft	Latitude:	40° 22' 11.496 N
From:	Lat/Long	Easting:	3,267,026.653 usft	Longitude:	104° 32' 29.904 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.62 °

Well	Chestnut 27K-201					
Well Position	+N/-S	0.00 usft	Northing:	1,379,414.488 usft	Latitude:	40° 22' 15.348 N
	+E/-W	0.00 usft	Easting:	3,267,136.672 usft	Longitude:	104° 32' 28.428 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	4,617.00 usft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	09/09/14	8.31	66.95	52,800

Design	Wellbore #1				
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	0.00	

<b>Survey Program</b>	<b>Date</b>	01/18/15		
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
76.00	13,284.00	Survey #1 (Wellbore #1)	MWD	MWD v3:standard declination

<b>Survey</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Vertical Section (usft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
<b>First Archer Survey</b>										
76.00	0.90	325.60	76.00	0.49	-0.34	0.49	1.18	1.18	0.00	
170.00	0.70	323.50	169.99	1.56	-1.10	1.56	0.22	-0.21	-2.23	
263.00	0.80	328.50	262.98	2.57	-1.77	2.57	0.13	0.11	5.38	
357.00	1.00	244.00	356.97	2.77	-2.85	2.77	1.30	0.21	-89.89	
450.00	1.40	230.40	449.95	1.69	-4.46	1.69	0.53	0.43	-14.62	
544.00	0.80	246.10	543.93	0.70	-5.94	0.70	0.71	-0.64	16.70	
637.00	0.90	245.60	636.92	0.13	-7.20	0.13	0.11	0.11	-0.54	
731.00	1.30	242.10	730.91	-0.67	-8.82	-0.67	0.43	0.43	-3.72	
824.00	1.50	247.60	823.88	-1.63	-10.87	-1.63	0.26	0.22	5.91	
887.00	1.30	237.70	886.86	-2.33	-12.24	-2.33	0.50	-0.32	-15.71	
1,007.00	0.70	269.20	1,006.84	-3.06	-14.12	-3.06	0.66	-0.50	26.25	

<b>Company:</b>	PDC Energy, Inc.	<b>Local Co-ordinate Reference:</b>	Well Chestnut 27K-201
<b>Project:</b>	Weld Co., CO	<b>TVD Reference:</b>	WELL @ 4630.00usft (Original Well Elev)
<b>Site:</b>	Sec.27-T5N-R64W	<b>MD Reference:</b>	WELL @ 4630.00usft (Original Well Elev)
<b>Well:</b>	Chestnut 27K-201	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	EDMDBBW

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)	
1,101.00	1.00	92.50	1,100.84	-3.11	-13.88	-3.11	1.81	0.32	-187.98	
1,194.00	0.70	95.80	1,193.83	-3.20	-12.50	-3.20	0.33	-0.32	3.55	
1,288.00	0.50	96.50	1,287.82	-3.31	-11.52	-3.31	0.21	-0.21	0.74	
1,381.00	0.50	92.50	1,380.82	-3.37	-10.72	-3.37	0.04	0.00	-4.30	
1,475.00	0.40	111.30	1,474.82	-3.51	-10.00	-3.51	0.19	-0.11	20.00	
1,569.00	1.50	56.60	1,568.80	-2.95	-8.67	-2.95	1.39	1.17	-58.19	
1,662.00	2.80	64.20	1,661.74	-1.29	-5.61	-1.29	1.43	1.40	8.17	
1,756.00	3.90	47.70	1,755.58	1.86	-1.17	1.86	1.54	1.17	-17.55	
1,849.00	4.80	65.50	1,848.31	5.60	4.71	5.60	1.73	0.97	19.14	
1,943.00	6.50	63.80	1,941.85	9.58	13.06	9.58	1.82	1.81	-1.81	
2,033.00	7.60	60.90	2,031.17	14.73	22.83	14.73	1.28	1.22	-3.22	
2,123.00	8.40	49.00	2,120.30	21.94	32.99	21.94	2.04	0.89	-13.22	
2,213.00	7.80	36.30	2,209.41	31.17	41.57	31.17	2.09	-0.67	-14.11	
2,302.00	7.70	38.40	2,297.59	40.71	48.85	40.71	0.34	-0.11	2.36	
2,392.00	7.60	48.90	2,386.80	49.35	57.08	49.35	1.55	-0.11	11.67	
2,482.00	7.80	52.40	2,475.99	56.99	66.40	56.99	0.57	0.22	3.89	
2,572.00	8.00	49.20	2,565.13	64.81	75.98	64.81	0.54	0.22	-3.56	
2,662.00	8.30	48.10	2,654.22	73.24	85.56	73.24	0.38	0.33	-1.22	
2,752.00	7.40	47.60	2,743.38	81.48	94.67	81.48	1.00	-1.00	-0.56	
2,842.00	7.20	43.50	2,832.65	89.48	102.84	89.48	0.62	-0.22	-4.56	
2,932.00	6.80	44.70	2,921.98	97.36	110.47	97.36	0.47	-0.44	1.33	
3,022.00	5.60	43.30	3,011.45	104.34	117.23	104.34	1.34	-1.33	-1.56	
3,112.00	5.30	52.60	3,101.05	110.07	123.54	110.07	1.04	-0.33	10.33	
3,202.00	7.30	55.10	3,190.50	115.86	131.53	115.86	2.24	2.22	2.78	
3,292.00	5.70	48.10	3,279.92	122.12	139.55	122.12	1.98	-1.78	-7.78	
3,382.00	6.80	56.10	3,369.38	128.08	147.30	128.08	1.56	1.22	8.89	
3,472.00	8.20	56.10	3,458.61	134.63	157.05	134.63	1.56	1.56	0.00	
3,562.00	9.10	57.40	3,547.59	142.04	168.37	142.04	1.02	1.00	1.44	
3,652.00	9.50	56.90	3,636.40	149.93	180.59	149.93	0.45	0.44	-0.56	
3,742.00	9.80	47.90	3,725.14	159.12	192.50	159.12	1.71	0.33	-10.00	
3,831.00	7.40	44.60	3,813.13	168.28	202.14	168.28	2.75	-2.70	-3.71	
3,921.00	6.40	43.60	3,902.48	176.04	209.67	176.04	1.12	-1.11	-1.11	
4,011.00	7.50	36.30	3,991.82	184.41	216.61	184.41	1.57	1.22	-8.11	
4,101.00	8.00	34.20	4,080.99	194.32	223.61	194.32	0.64	0.56	-2.33	
4,191.00	8.00	26.30	4,170.12	205.12	229.90	205.12	1.22	0.00	-8.78	
4,281.00	7.50	24.30	4,259.30	216.09	235.09	216.09	0.63	-0.56	-2.22	
4,371.00	6.20	34.10	4,348.66	225.47	240.24	225.47	1.94	-1.44	10.89	
4,461.00	4.60	57.70	4,438.27	231.42	246.01	231.42	3.01	-1.78	26.22	
4,551.00	3.80	59.20	4,528.02	234.87	251.62	234.87	0.90	-0.89	1.67	
4,641.00	4.20	71.00	4,617.80	237.47	257.30	237.47	1.01	0.44	13.11	
4,731.00	3.50	79.20	4,707.60	239.06	263.12	239.06	0.99	-0.78	9.11	
4,821.00	1.90	61.40	4,797.50	240.29	267.13	240.29	1.99	-1.78	-19.78	
4,911.00	0.70	58.20	4,887.48	241.30	268.90	241.30	1.34	-1.33	-3.56	
5,001.00	1.20	66.60	4,977.46	241.96	270.23	241.96	0.58	0.56	9.33	
5,091.00	1.30	93.70	5,067.44	242.27	272.12	242.27	0.66	0.11	30.11	
5,181.00	1.30	87.10	5,157.42	242.25	274.16	242.25	0.17	0.00	-7.33	
5,271.00	1.00	66.00	5,247.40	242.62	275.89	242.62	0.57	-0.33	-23.44	
5,361.00	1.00	42.80	5,337.39	243.52	277.15	243.52	0.45	0.00	-25.78	
5,451.00	0.70	25.90	5,427.38	244.59	277.92	244.59	0.43	-0.33	-18.78	
5,541.00	0.60	331.30	5,517.37	245.50	277.93	245.50	0.67	-0.11	-60.67	
5,631.00	0.40	270.60	5,607.37	245.92	277.39	245.92	0.59	-0.22	-67.44	
5,721.00	0.30	306.60	5,697.37	246.06	276.89	246.06	0.26	-0.11	40.00	
5,810.00	0.70	347.60	5,786.37	246.73	276.59	246.73	0.58	0.45	46.07	
5,855.00	0.90	0.80	5,831.36	247.35	276.53	247.35	0.60	0.44	29.33	

<b>Company:</b>	PDC Energy, Inc.	<b>Local Co-ordinate Reference:</b>	Well Chestnut 27K-201
<b>Project:</b>	Weld Co., CO	<b>TVD Reference:</b>	WELL @ 4630.00usft (Original Well Elev)
<b>Site:</b>	Sec.27-T5N-R64W	<b>MD Reference:</b>	WELL @ 4630.00usft (Original Well Elev)
<b>Well:</b>	Chestnut 27K-201	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	EDMDBBW

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)
5,900.00	4.10	7.10	5,876.31	249.30	276.73	249.30	7.13	7.11	14.00
5,945.00	8.10	7.20	5,921.05	254.05	277.33	254.05	8.89	8.89	0.22
5,990.00	11.20	7.30	5,965.41	261.53	278.28	261.53	6.89	6.89	0.22
6,035.00	13.70	9.20	6,009.35	271.12	279.69	271.12	5.63	5.56	4.22
6,080.00	16.60	7.70	6,052.78	282.76	281.41	282.76	6.50	6.44	-3.33
6,125.00	19.10	4.80	6,095.61	296.47	282.88	296.47	5.89	5.56	-6.44
6,170.00	21.80	4.00	6,137.77	312.14	284.08	312.14	6.03	6.00	-1.78
6,215.00	24.20	4.90	6,179.19	329.67	285.45	329.67	5.39	5.33	2.00
6,260.00	26.40	4.50	6,219.87	348.83	287.03	348.83	4.90	4.89	-0.89
6,305.00	28.90	4.30	6,259.73	369.65	288.63	369.65	5.56	5.56	-0.44
6,350.00	32.00	4.40	6,298.52	392.39	290.36	392.39	6.89	6.89	0.22
6,395.00	34.50	9.90	6,336.15	416.84	293.46	416.84	8.70	5.56	12.22
6,440.00	38.30	9.70	6,372.37	443.15	298.01	443.15	8.45	8.44	-0.44
6,485.00	43.10	8.20	6,406.47	472.13	302.55	472.13	10.89	10.67	-3.33
6,530.00	47.90	5.70	6,438.01	503.98	306.40	503.98	11.38	10.67	-5.56
6,575.00	52.30	3.00	6,466.87	538.39	309.00	538.39	10.81	9.78	-6.00
6,620.00	55.00	0.90	6,493.54	574.61	310.22	574.61	7.08	6.00	-4.67
6,665.00	59.00	359.50	6,518.05	612.34	310.34	612.34	9.26	8.89	-3.11
6,710.00	62.90	358.70	6,539.89	651.67	309.72	651.67	8.80	8.67	-1.78
6,755.00	66.50	358.40	6,559.12	692.33	308.69	692.33	8.02	8.00	-0.67
6,800.00	70.00	358.60	6,575.79	734.10	307.59	734.10	7.79	7.78	0.44
6,845.00	73.00	358.50	6,590.07	776.76	306.51	776.76	6.67	6.67	-0.22
6,890.00	76.10	359.20	6,602.06	820.12	305.64	820.12	7.05	6.89	1.56
6,935.00	79.00	358.90	6,611.76	864.05	304.91	864.05	6.48	6.44	-0.67
6,980.00	82.90	358.70	6,618.83	908.47	303.98	908.47	8.68	8.67	-0.44
7,025.00	85.50	358.50	6,623.38	953.23	302.89	953.23	5.79	5.78	-0.44
7,043.00	86.80	358.50	6,624.59	971.18	302.42	971.18	7.22	7.22	0.00
7,146.00	90.10	359.20	6,627.38	1,074.10	300.35	1,074.10	3.28	3.20	0.68
7,236.00	90.70	358.90	6,626.75	1,164.09	298.86	1,164.09	0.75	0.67	-0.33
7,326.00	90.90	358.30	6,625.49	1,254.05	296.66	1,254.05	0.70	0.22	-0.67
7,416.00	89.80	359.70	6,624.94	1,344.03	295.09	1,344.03	1.98	-1.22	1.56
7,506.00	90.00	359.20	6,625.10	1,434.03	294.23	1,434.03	0.60	0.22	-0.56
7,596.00	90.90	359.50	6,624.39	1,524.02	293.21	1,524.02	1.05	1.00	0.33
7,686.00	89.90	359.40	6,623.76	1,614.01	292.34	1,614.01	1.12	-1.11	-0.11
7,776.00	90.50	358.50	6,623.45	1,704.00	290.69	1,704.00	1.20	0.67	-1.00
7,866.00	89.70	359.80	6,623.29	1,793.98	289.36	1,793.98	1.70	-0.89	1.44
7,956.00	89.60	358.90	6,623.84	1,883.97	288.34	1,883.97	1.01	-0.11	-1.00
8,050.00	89.50	359.00	6,624.58	1,977.96	286.62	1,977.96	0.15	-0.11	0.11
8,139.00	89.80	358.50	6,625.12	2,066.93	284.67	2,066.93	0.66	0.34	-0.56
8,233.00	90.70	359.90	6,624.71	2,160.92	283.36	2,160.92	1.77	0.96	1.49
8,326.00	90.60	359.30	6,623.66	2,253.91	282.71	2,253.91	0.65	-0.11	-0.65
8,420.00	90.40	359.50	6,622.84	2,347.90	281.73	2,347.90	0.30	-0.21	0.21
8,513.00	90.90	359.70	6,621.78	2,440.89	281.08	2,440.89	0.58	0.54	0.22
8,607.00	90.90	359.30	6,620.31	2,534.88	280.26	2,534.88	0.43	0.00	-0.43
8,700.00	91.40	359.50	6,618.44	2,627.85	279.29	2,627.85	0.58	0.54	0.22
8,794.00	91.10	0.00	6,616.39	2,721.83	278.88	2,721.83	0.62	-0.32	0.53
8,887.00	90.20	0.50	6,615.33	2,814.82	279.28	2,814.82	1.11	-0.97	0.54
8,981.00	90.20	0.40	6,615.01	2,908.82	280.02	2,908.82	0.11	0.00	-0.11
9,074.00	90.80	0.00	6,614.19	3,001.81	280.34	3,001.81	0.78	0.65	-0.43
9,168.00	88.60	359.30	6,614.69	3,095.80	279.77	3,095.80	2.46	-2.34	-0.74
9,261.00	88.00	359.20	6,617.45	3,188.75	278.55	3,188.75	0.65	-0.65	-0.11
9,355.00	89.20	359.30	6,619.74	3,282.72	277.32	3,282.72	1.28	1.28	0.11
9,448.00	90.20	0.90	6,620.23	3,375.71	277.49	3,375.71	2.03	1.08	1.72
9,542.00	89.80	1.20	6,620.23	3,469.70	279.21	3,469.70	0.53	-0.43	0.32

<b>Company:</b>	PDC Energy, Inc.	<b>Local Co-ordinate Reference:</b>	Well Chestnut 27K-201
<b>Project:</b>	Weld Co., CO	<b>TVD Reference:</b>	WELL @ 4630.00usft (Original Well Elev)
<b>Site:</b>	Sec.27-T5N-R64W	<b>MD Reference:</b>	WELL @ 4630.00usft (Original Well Elev)
<b>Well:</b>	Chestnut 27K-201	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	EDMDBBW

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)
9,635.00	90.50	1.80	6,619.99	3,562.66	281.64	3,562.66	0.99	0.75	0.65
9,729.00	88.90	1.60	6,620.48	3,656.62	284.43	3,656.62	1.72	-1.70	-0.21
9,822.00	91.30	2.90	6,620.32	3,749.54	288.08	3,749.54	2.93	2.58	1.40
9,916.00	91.60	3.20	6,617.94	3,843.37	293.08	3,843.37	0.45	0.32	0.32
10,009.00	91.80	0.80	6,615.18	3,936.27	296.33	3,936.27	2.59	0.22	-2.58
10,103.00	90.70	0.40	6,613.13	4,030.24	297.31	4,030.24	1.25	-1.17	-0.43
10,196.00	89.80	0.00	6,612.72	4,123.24	297.63	4,123.24	1.06	-0.97	-0.43
10,290.00	91.40	0.30	6,611.74	4,217.23	297.88	4,217.23	1.73	1.70	0.32
10,383.00	92.10	0.00	6,608.90	4,310.18	298.12	4,310.18	0.82	0.75	-0.32
10,477.00	90.50	0.50	6,606.76	4,404.15	298.53	4,404.15	1.78	-1.70	0.53
10,570.00	90.90	0.10	6,605.63	4,497.15	299.02	4,497.15	0.61	0.43	-0.43
10,664.00	91.40	0.10	6,603.74	4,591.13	299.18	4,591.13	0.53	0.53	0.00
10,754.00	90.00	359.40	6,602.64	4,681.12	298.79	4,681.12	1.74	-1.56	-0.78
10,844.00	90.20	359.70	6,602.49	4,771.11	298.09	4,771.11	0.40	0.22	0.33
10,934.00	91.20	359.40	6,601.39	4,861.10	297.38	4,861.10	1.16	1.11	-0.33
11,024.00	89.00	359.30	6,601.23	4,951.09	296.36	4,951.09	2.45	-2.44	-0.11
11,113.00	89.20	359.40	6,602.63	5,040.07	295.35	5,040.07	0.25	0.22	0.11
11,203.00	89.30	359.90	6,603.80	5,130.06	294.80	5,130.06	0.57	0.11	0.56
11,293.00	90.30	358.90	6,604.12	5,220.06	293.86	5,220.06	1.57	1.11	-1.11
11,384.00	90.00	358.90	6,603.88	5,311.04	292.11	5,311.04	0.33	-0.33	0.00
11,473.00	90.10	359.20	6,603.80	5,400.03	290.63	5,400.03	0.36	0.11	0.34
11,563.00	90.80	359.40	6,603.10	5,490.02	289.53	5,490.02	0.81	0.78	0.22
11,653.00	90.80	359.20	6,601.84	5,580.00	288.43	5,580.00	0.22	0.00	-0.22
11,743.00	91.40	359.10	6,600.11	5,669.97	287.10	5,669.97	0.68	0.67	-0.11
11,833.00	91.70	358.80	6,597.68	5,759.93	285.45	5,759.93	0.47	0.33	-0.33
11,923.00	91.10	359.00	6,595.48	5,849.88	283.72	5,849.88	0.70	-0.67	0.22
12,013.00	91.30	358.70	6,593.59	5,939.84	281.92	5,939.84	0.40	0.22	-0.33
12,103.00	90.90	358.80	6,591.87	6,029.81	279.95	6,029.81	0.46	-0.44	0.11
12,193.00	90.70	359.10	6,590.61	6,119.78	278.31	6,119.78	0.40	-0.22	0.33
12,283.00	91.10	358.70	6,589.20	6,209.75	276.58	6,209.75	0.63	0.44	-0.44
12,373.00	89.70	359.60	6,588.57	6,299.74	275.24	6,299.74	1.85	-1.56	1.00
12,463.00	89.60	359.90	6,589.12	6,389.74	274.85	6,389.74	0.35	-0.11	0.33
12,552.00	89.70	359.50	6,589.66	6,478.73	274.38	6,478.73	0.46	0.11	-0.45
12,642.00	89.40	359.20	6,590.37	6,568.72	273.36	6,568.72	0.47	-0.33	-0.33
12,732.00	89.80	359.20	6,591.00	6,658.71	272.11	6,658.71	0.44	0.44	0.00
12,822.00	90.30	358.60	6,590.92	6,748.70	270.38	6,748.70	0.87	0.56	-0.67
12,912.00	90.60	359.00	6,590.21	6,838.67	268.49	6,838.67	0.56	0.33	0.44
13,002.00	90.90	358.90	6,589.03	6,928.65	266.85	6,928.65	0.35	0.33	-0.11
13,092.00	91.00	358.60	6,587.54	7,018.62	264.88	7,018.62	0.35	0.11	-0.33
13,182.00	91.20	358.10	6,585.81	7,108.56	262.29	7,108.56	0.60	0.22	-0.56
<b>Last Archer survey</b>									
13,227.00	91.30	358.30	6,584.83	7,153.53	260.88	7,153.53	0.50	0.22	0.44
<b>Chestnut 27K-201 tgt</b>									
13,282.77	91.30	358.30	6,583.57	7,209.26	259.22	7,209.26	0.00	0.00	0.00
<b>PTB</b>									
13,284.00	91.30	358.30	6,583.54	7,210.49	259.19	7,210.49	0.00	0.00	0.00

<b>Company:</b>	PDC Energy, Inc.	<b>Local Co-ordinate Reference:</b>	Well Chestnut 27K-201
<b>Project:</b>	Weld Co., CO	<b>TVD Reference:</b>	WELL @ 4630.00usft (Original Well Elev)
<b>Site:</b>	Sec.27-T5N-R64W	<b>MD Reference:</b>	WELL @ 4630.00usft (Original Well Elev)
<b>Well:</b>	Chestnut 27K-201	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	EDMDBBW

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
76.00	76.00	0.49	-0.34	First Archer Survey
13,227.00	6,584.83	7,153.53	260.88	Last Archer survey
13,284.00	6,583.54	7,210.49	259.19	PTB

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_