

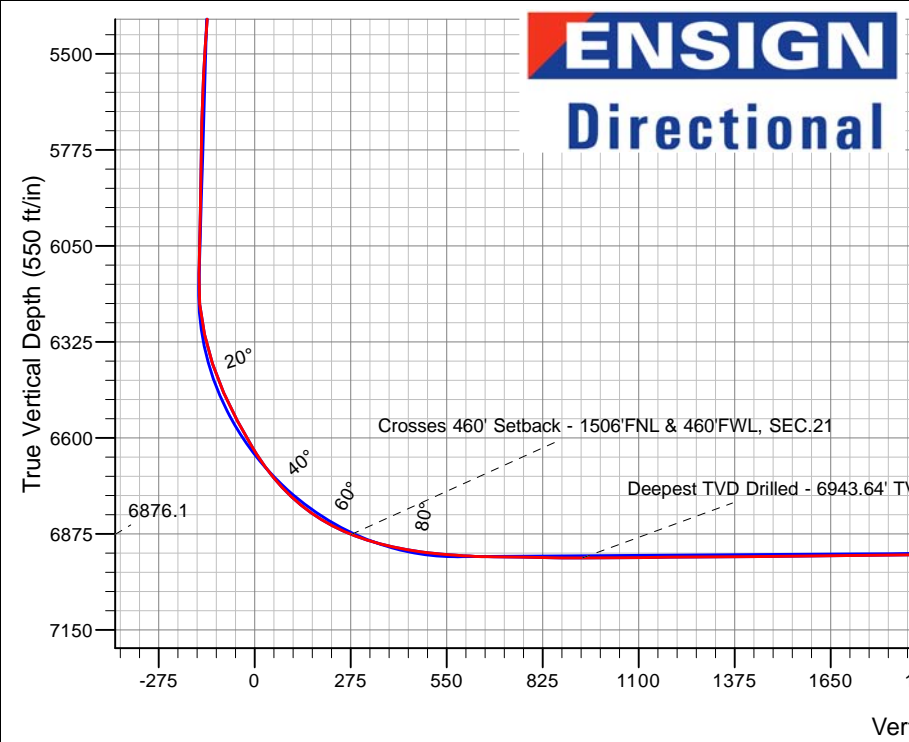
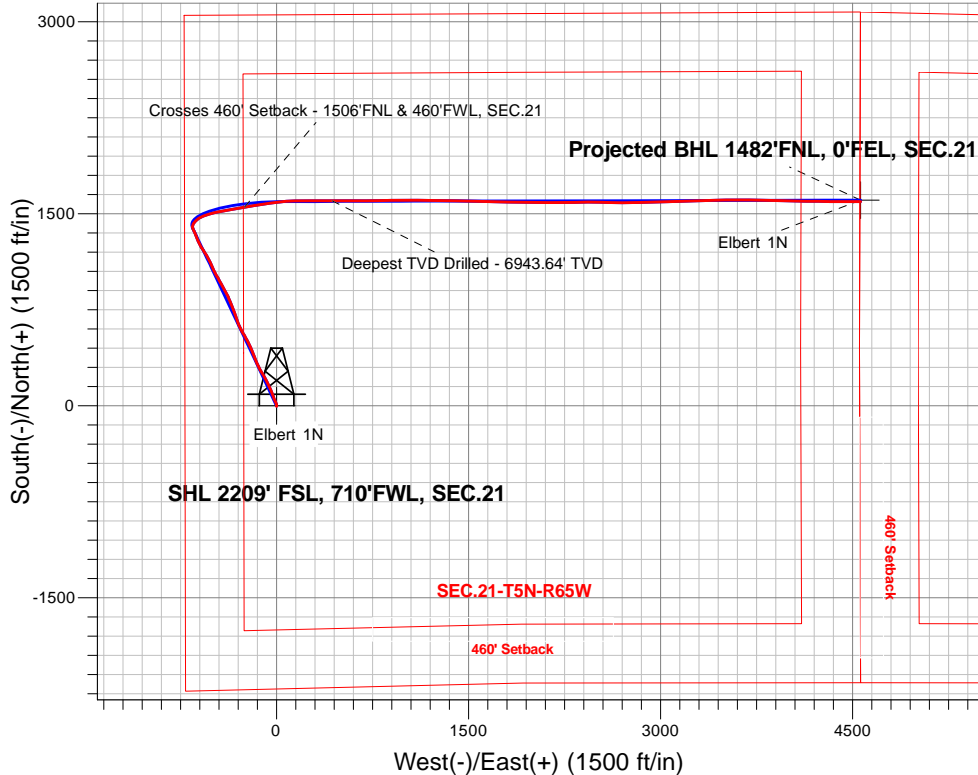
# PDC Energy Inc. DJ Basin

Well Name: **Elbert 1N**

Surface Location: Elbert 1-12 Pad Sec.21-T5N-R65W  
 North American Datum 1983 , US State Plane 1983, Colorado Northern Zone  
 Ground Elevation: 4638.0  
 +N/-S+E/-W Northing Easting Latitude Longitude Slot  
 0.0 0.0 383603.35 3229751.36 40.383460 -104.675260  
 Original Well Elev WELL @ 4661.0ft (Original Well Elev)

## FINAL SURVEY

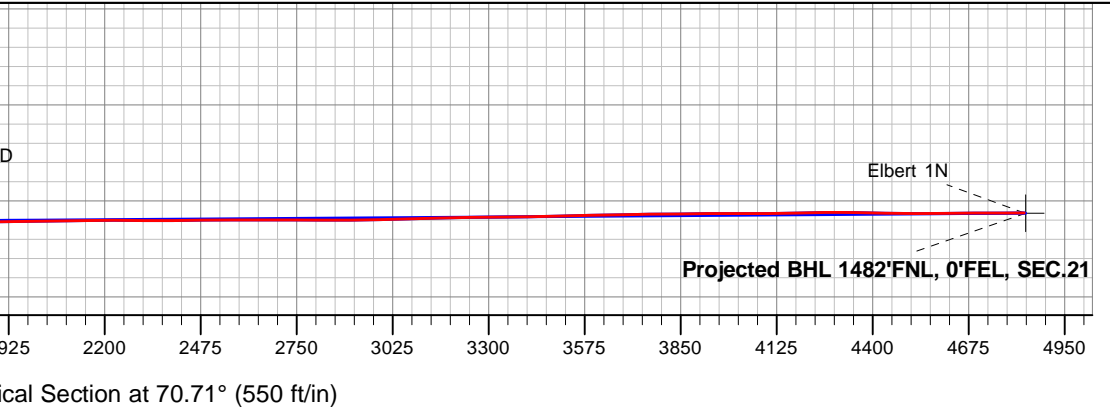
**Projected Bottom Hole Location**  
**12,082'MD 6909'TVD 1597'N & 4563'E of SHL**  
**90.4 degree Incl @ 90.0 degree AZM**



Elbert 1-12 Pad Sec.21-T5N-R65W  
 Elbert 1N  
 Wellbore #1  
 10:02, September 08 2017

ANNOTATIONS		
TVD	MD	Annotation
6876.1	7257.8	Crosses 460' Setback - 1506'FNL & 460'FWL, SEC.21
6943.6	7952.0	Deepest TVD Drilled - 6943.64' TVD

LEGEND	
	Elbert 1N, Wellbore #1, Plan #4 (8-31-17) V0
	Wellbore #1
	Survey #1





## **PDC Energy Inc. DJ Basin**

**SEC.21-T5N-R65W**

**Elbert 1-12 Pad Sec.21-T5N-R65W**

**Elbert 1N**

**Wellbore #1**

**Survey: Survey #1**

## **Standard Survey Report**

**08 September, 2017**



<b>Company:</b>	PDC Energy Inc. DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Elbert 1N
<b>Project:</b>	SEC.21-T5N-R65W	<b>TVD Reference:</b>	WELL @ 4661.0ft (Original Well Elev)
<b>Site:</b>	Elbert 1-12 Pad Sec.21-T5N-R65W	<b>MD Reference:</b>	WELL @ 4661.0ft (Original Well Elev)
<b>Well:</b>	Elbert 1N	<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>	US_EDM

<b>Project</b>	SEC.21-T5N-R65W, Weld County, Colorado		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		Using Well Reference Point
<b>Map Zone:</b>	Colorado Northern Zone		Using geodetic scale factor

<b>Site</b>	Elbert 1-12 Pad Sec.21-T5N-R65W				
<b>Site Position:</b>		<b>Northing:</b>	1,383,603.37 usft	<b>Latitude:</b>	40.383460
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,229,751.36 usft	<b>Longitude:</b>	-104.675260
<b>Position Uncertainty:</b>	0.0 ft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b>	0.53 °

<b>Well</b>	Elbert 1N					
<b>Well Position</b>	<b>+N/-S</b>	0.0 ft	<b>Northing:</b>	1,383,603.35 usft	<b>Latitude:</b>	40.383460
	<b>+E/-W</b>	0.0 ft	<b>Easting:</b>	3,229,751.36 usft	<b>Longitude:</b>	-104.675260
<b>Position Uncertainty</b>		0.0 ft	<b>Wellhead Elevation:</b>	0.0 ft	<b>Ground Level:</b>	4,638.0 ft

<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	8/31/2017	7.98	66.83	52,479

<b>Design</b>	Wellbore #1				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>	
	0.0	0.0	0.0	70.71	

<b>Survey Program</b>	<b>Date</b>	9/8/2017			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
142.0	12,082.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

<b>Survey</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Vertical Section (ft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
142.0	0.70	192.20	142.0	-0.8	-0.2	-0.5	0.49	0.49	0.00	
232.0	0.30	140.90	232.0	-1.6	-0.2	-0.7	0.63	-0.44	-57.00	
321.0	1.80	6.20	321.0	-0.4	0.1	0.0	2.27	1.69	-151.35	
411.0	3.40	354.40	410.9	3.7	0.0	1.3	1.87	1.78	-13.11	
500.0	4.90	348.60	499.6	10.1	-1.0	2.4	1.75	1.69	-6.52	
590.0	6.20	340.70	589.2	18.4	-3.3	2.9	1.67	1.44	-8.78	
680.0	7.70	334.40	678.6	28.4	-7.5	2.3	1.87	1.67	-7.00	
770.0	9.40	336.90	767.6	40.6	-13.0	1.1	1.93	1.89	2.78	
860.0	10.60	339.20	856.2	55.1	-18.9	0.4	1.40	1.33	2.56	

<b>Company:</b>	PDC Energy Inc. DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Elbert 1N
<b>Project:</b>	SEC.21-T5N-R65W	<b>TVD Reference:</b>	WELL @ 4661.0ft (Original Well Elev)
<b>Site:</b>	Elbert 1-12 Pad Sec.21-T5N-R65W	<b>MD Reference:</b>	WELL @ 4661.0ft (Original Well Elev)
<b>Well:</b>	Elbert 1N	<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>	US_EDM

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
949.0	12.00	339.00	943.5	71.4	-25.1	-0.1	1.57	1.57	-0.22	
1,039.0	13.60	339.70	1,031.2	90.1	-32.1	-0.6	1.79	1.78	0.78	
1,129.0	15.10	337.40	1,118.4	110.8	-40.3	-1.4	1.78	1.67	-2.56	
1,218.0	16.60	336.50	1,204.0	133.2	-49.8	-3.0	1.71	1.69	-1.01	
1,308.0	17.90	335.60	1,290.0	157.6	-60.6	-5.2	1.47	1.44	-1.00	
1,398.0	17.10	332.50	1,375.8	181.9	-72.5	-8.3	1.36	-0.89	-3.44	
1,487.0	15.40	332.50	1,461.3	204.0	-84.0	-11.9	1.91	-1.91	0.00	
1,577.0	16.30	332.80	1,547.8	225.8	-95.3	-15.3	1.00	1.00	0.33	
1,610.0	15.80	331.80	1,579.5	233.9	-99.5	-16.7	1.73	-1.52	-3.03	
1,756.0	14.70	327.40	1,720.4	267.0	-118.9	-24.0	1.09	-0.75	-3.01	
1,845.0	14.90	332.30	1,806.5	286.7	-130.3	-28.3	1.42	0.22	5.51	
1,935.0	14.10	328.00	1,893.6	306.2	-141.5	-32.4	1.49	-0.89	-4.78	
2,025.0	14.30	336.40	1,980.9	325.7	-151.7	-35.6	2.30	0.22	9.33	
2,115.0	15.80	340.00	2,067.8	347.4	-160.4	-36.6	1.96	1.67	4.00	
2,204.0	14.50	340.90	2,153.7	369.3	-168.2	-36.7	1.48	-1.46	1.01	
2,294.0	16.30	339.20	2,240.4	391.8	-176.3	-37.0	2.06	2.00	-1.89	
2,384.0	15.80	338.10	2,326.9	415.0	-185.4	-37.9	0.65	-0.56	-1.22	
2,473.0	16.80	336.80	2,412.4	438.0	-195.0	-39.4	1.20	1.12	-1.46	
2,562.0	15.60	333.90	2,497.8	460.6	-205.3	-41.7	1.63	-1.35	-3.26	
2,652.0	15.50	334.00	2,584.5	482.3	-215.9	-44.5	0.12	-0.11	0.11	
2,741.0	15.30	333.10	2,670.3	503.4	-226.4	-47.5	0.35	-0.22	-1.01	
2,830.0	16.70	332.10	2,755.9	525.2	-237.7	-50.9	1.60	1.57	-1.12	
2,920.0	15.70	331.00	2,842.3	547.3	-249.7	-54.9	1.16	-1.11	-1.22	
3,010.0	14.90	328.30	2,929.1	567.8	-261.7	-59.5	1.19	-0.89	-3.00	
3,100.0	15.10	329.50	3,016.0	587.7	-273.7	-64.2	0.41	0.22	1.33	
3,190.0	15.30	336.90	3,102.9	608.8	-284.3	-67.3	2.17	0.22	8.22	
3,279.0	13.60	336.30	3,189.1	629.1	-293.1	-68.9	1.92	-1.91	-0.67	
3,368.0	14.10	336.70	3,275.5	648.7	-301.6	-70.4	0.57	0.56	0.45	
3,458.0	14.90	339.20	3,362.6	669.6	-310.1	-71.5	1.13	0.89	2.78	
3,548.0	15.00	343.50	3,449.6	691.5	-317.5	-71.3	1.24	0.11	4.78	
3,638.0	16.60	341.30	3,536.2	714.9	-324.9	-70.6	1.90	1.78	-2.44	
3,727.0	15.40	340.00	3,621.7	738.0	-333.0	-70.6	1.41	-1.35	-1.46	
3,817.0	17.20	338.10	3,708.1	761.6	-342.1	-71.3	2.09	2.00	-2.11	
3,907.0	18.00	338.60	3,793.9	786.9	-352.1	-72.5	0.90	0.89	0.56	
3,997.0	17.90	338.30	3,879.5	812.7	-362.3	-73.5	0.15	-0.11	-0.33	
4,087.0	17.20	336.70	3,965.3	837.8	-372.7	-75.1	0.94	-0.78	-1.78	
4,177.0	17.60	333.20	4,051.2	862.1	-384.1	-77.8	1.24	0.44	-3.89	
4,267.0	16.40	330.50	4,137.3	885.4	-396.5	-81.8	1.60	-1.33	-3.00	
4,357.0	17.40	331.80	4,223.4	908.3	-409.1	-86.1	1.19	1.11	1.44	
4,447.0	16.20	331.20	4,309.6	931.1	-421.5	-90.3	1.35	-1.33	-0.67	
4,537.0	17.30	331.90	4,395.7	953.9	-433.8	-94.4	1.24	1.22	0.78	
4,627.0	16.90	331.20	4,481.8	977.2	-446.4	-98.6	0.50	-0.44	-0.78	
4,718.0	16.40	329.00	4,568.9	999.8	-459.4	-103.4	0.88	-0.55	-2.42	
4,808.0	16.60	331.90	4,655.2	1,022.0	-472.0	-108.0	0.94	0.22	3.22	

<b>Company:</b>	PDC Energy Inc. DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Elbert 1N
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<b>Site:</b>	Elbert 1-12 Pad Sec.21-T5N-R65W	<b>MD Reference:</b>	WELL @ 4661.0ft (Original Well Elev)
<b>Well:</b>	Elbert 1N	<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>	US_EDM

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
4,898.0	17.90	335.10	4,741.2	1,045.9	-483.9	-111.3	1.79	1.44	3.56	
4,988.0	16.70	334.10	4,827.1	1,070.1	-495.4	-114.2	1.37	-1.33	-1.11	
5,078.0	16.40	335.30	4,913.4	1,093.3	-506.3	-116.8	0.51	-0.33	1.33	
5,168.0	15.10	335.80	5,000.0	1,115.5	-516.5	-119.0	1.45	-1.44	0.56	
5,258.0	15.10	332.10	5,086.9	1,136.6	-526.8	-121.8	1.07	0.00	-4.11	
5,349.0	13.70	331.60	5,175.0	1,156.5	-537.4	-125.3	1.54	-1.54	-0.55	
5,438.0	14.20	330.90	5,261.4	1,175.3	-547.7	-128.8	0.59	0.56	-0.79	
5,527.0	14.90	328.60	5,347.6	1,194.6	-559.0	-133.1	1.02	0.79	-2.58	
5,617.0	14.60	326.50	5,434.6	1,214.0	-571.3	-138.3	0.68	-0.33	-2.33	
5,706.0	13.70	324.40	5,520.9	1,231.9	-583.6	-144.0	1.16	-1.01	-2.36	
5,796.0	14.50	331.60	5,608.2	1,250.5	-595.2	-148.8	2.14	0.89	8.00	
5,886.0	14.10	336.00	5,695.4	1,270.4	-605.0	-151.5	1.29	-0.44	4.89	
5,976.0	15.40	336.40	5,782.4	1,291.4	-614.3	-153.3	1.45	1.44	0.44	
6,066.0	15.30	336.70	5,869.2	1,313.2	-623.7	-155.0	0.14	-0.11	0.33	
6,156.0	16.00	339.00	5,955.9	1,335.7	-632.9	-156.2	1.04	0.78	2.56	
6,247.0	14.30	336.00	6,043.7	1,357.7	-641.9	-157.5	2.06	-1.87	-3.30	
6,336.0	15.20	335.00	6,129.8	1,378.3	-651.3	-159.6	1.05	1.01	-1.12	
6,425.0	13.60	358.80	6,216.1	1,399.4	-656.5	-157.5	6.84	-1.80	26.74	
6,515.0	17.50	28.70	6,302.9	1,421.9	-650.2	-144.1	9.76	4.33	33.22	
6,604.0	20.00	43.50	6,387.2	1,444.7	-633.3	-120.6	6.02	2.81	16.63	
6,694.0	24.30	59.00	6,470.6	1,465.4	-606.8	-88.8	8.02	4.78	17.22	
6,783.0	28.10	67.90	6,550.5	1,482.7	-571.7	-49.9	6.13	4.27	10.00	
6,873.0	31.30	73.70	6,628.7	1,497.3	-529.6	-5.3	4.78	3.56	6.44	
6,963.0	37.90	77.40	6,702.7	1,509.9	-480.1	45.5	7.69	7.33	4.11	
7,053.0	47.50	80.10	6,768.8	1,521.6	-420.3	105.9	10.86	10.67	3.00	
7,144.0	56.80	78.80	6,824.6	1,534.8	-349.7	176.8	10.28	10.22	-1.43	
7,234.0	66.80	80.60	6,867.1	1,548.9	-271.8	255.0	11.25	11.11	2.00	
7,257.8	68.76	80.87	6,876.1	1,552.5	-250.0	276.7	8.29	8.22	1.15	
<b>Crosses 460' Setback - 1506'FNL &amp; 460'FWL, SEC.21</b>										
7,324.0	74.20	81.60	6,897.1	1,562.0	-188.0	338.4	8.29	8.22	1.10	
7,414.0	79.20	80.80	6,917.8	1,575.4	-101.5	424.5	5.62	5.56	-0.89	
7,503.0	84.30	83.00	6,930.5	1,587.8	-14.3	510.9	6.23	5.73	2.47	
7,593.0	87.00	85.30	6,937.4	1,597.0	74.9	598.2	3.94	3.00	2.56	
7,683.0	89.30	88.70	6,940.3	1,601.7	164.7	684.5	4.56	2.56	3.78	
7,772.0	89.40	90.40	6,941.3	1,602.4	253.7	768.7	1.91	0.11	1.91	
7,862.0	88.50	89.90	6,942.9	1,602.1	343.7	853.6	1.14	-1.00	-0.56	
7,952.0	90.60	90.60	6,943.6	1,601.7	433.7	938.4	2.46	2.33	0.78	
<b>Deepest TVD Drilled - 6943.64' TVD</b>										
8,041.0	89.90	89.50	6,943.3	1,601.7	522.7	1,022.4	1.46	-0.79	-1.24	
8,131.0	90.90	90.10	6,942.6	1,602.0	612.7	1,107.4	1.30	1.11	0.67	
8,220.0	90.60	89.70	6,941.5	1,602.1	701.7	1,191.5	0.56	-0.34	-0.45	
8,310.0	90.20	89.20	6,940.8	1,603.0	791.7	1,276.7	0.71	-0.44	-0.56	
8,400.0	90.70	89.70	6,940.1	1,603.9	881.7	1,361.9	0.79	0.56	0.56	

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<b>Site:</b>	Elbert 1-12 Pad Sec.21-T5N-R65W	<b>MD Reference:</b>	WELL @ 4661.0ft (Original Well Elev)
<b>Well:</b>	Elbert 1N	<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>	US_EDM

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
8,512.0	90.00	88.90	6,939.4	1,605.2	993.7	1,468.1	0.95	-0.63	-0.71	
8,601.0	90.80	90.10	6,938.8	1,606.0	1,082.7	1,552.3	1.62	0.90	1.35	
8,691.0	90.70	89.90	6,937.6	1,606.0	1,172.6	1,637.3	0.25	-0.11	-0.22	
8,781.0	90.90	91.60	6,936.4	1,604.8	1,262.6	1,721.8	1.90	0.22	1.89	
8,871.0	90.70	91.50	6,935.1	1,602.4	1,352.6	1,805.9	0.25	-0.22	-0.11	
8,961.0	90.60	91.80	6,934.1	1,599.8	1,442.5	1,890.0	0.35	-0.11	0.33	
9,051.0	90.00	91.70	6,933.6	1,597.0	1,532.5	1,974.0	0.68	-0.67	-0.11	
9,141.0	91.40	91.30	6,932.5	1,594.7	1,622.5	2,058.1	1.62	1.56	-0.44	
9,230.0	90.80	90.60	6,930.8	1,593.2	1,711.4	2,141.6	1.04	-0.67	-0.79	
9,320.0	90.00	91.30	6,930.2	1,591.7	1,801.4	2,226.0	1.18	-0.89	0.78	
9,410.0	89.10	90.80	6,930.9	1,590.1	1,891.4	2,310.4	1.14	-1.00	-0.56	
9,500.0	90.90	90.10	6,930.9	1,589.4	1,981.4	2,395.1	2.15	2.00	-0.78	
9,590.0	90.50	90.40	6,929.8	1,589.0	2,071.4	2,479.9	0.56	-0.44	0.33	
9,680.0	90.10	89.90	6,929.3	1,588.7	2,161.4	2,564.8	0.71	-0.44	-0.56	
9,770.0	90.20	89.40	6,929.1	1,589.3	2,251.4	2,649.9	0.57	0.11	-0.56	
9,861.0	89.40	88.70	6,929.4	1,590.8	2,342.4	2,736.3	1.17	-0.88	-0.77	
9,950.0	90.20	91.10	6,929.7	1,591.0	2,431.4	2,820.4	2.84	0.90	2.70	
10,040.0	90.00	90.90	6,929.6	1,589.4	2,521.3	2,904.8	0.31	-0.22	-0.22	
10,130.0	91.60	90.90	6,928.3	1,588.0	2,611.3	2,989.3	1.78	1.78	0.00	
10,220.0	91.50	89.90	6,925.9	1,587.3	2,701.3	3,074.0	1.12	-0.11	-1.11	
10,310.0	91.20	89.40	6,923.8	1,587.9	2,791.3	3,159.1	0.65	-0.33	-0.56	
10,400.0	90.80	88.70	6,922.2	1,589.4	2,881.2	3,244.5	0.90	-0.44	-0.78	
10,490.0	90.60	88.50	6,921.1	1,591.6	2,971.2	3,330.1	0.31	-0.22	-0.22	
10,580.0	90.90	88.50	6,919.9	1,593.9	3,061.2	3,415.8	0.33	0.33	0.00	
10,670.0	91.20	88.00	6,918.3	1,596.7	3,151.1	3,501.6	0.65	0.33	-0.56	
10,760.0	91.30	87.60	6,916.3	1,600.1	3,241.0	3,587.6	0.46	0.11	-0.44	
10,850.0	91.20	89.00	6,914.3	1,602.8	3,330.9	3,673.4	1.56	-0.11	1.56	
10,940.0	90.80	88.70	6,912.8	1,604.6	3,420.9	3,758.9	0.56	-0.44	-0.33	
11,030.0	90.20	89.00	6,912.0	1,606.4	3,510.9	3,844.4	0.75	-0.67	0.33	
11,120.0	90.70	89.20	6,911.3	1,607.8	3,600.9	3,929.8	0.60	0.56	0.22	
11,210.0	89.70	90.60	6,911.0	1,608.0	3,690.9	4,014.8	1.91	-1.11	1.56	
11,301.0	90.20	91.30	6,911.0	1,606.5	3,781.9	4,100.2	0.95	0.55	0.77	
11,391.0	91.60	91.10	6,909.6	1,604.6	3,871.8	4,184.5	1.57	1.56	-0.22	
11,480.0	90.50	92.00	6,908.0	1,602.2	3,960.8	4,267.7	1.60	-1.24	1.01	
11,570.0	88.90	91.30	6,908.5	1,599.6	4,050.7	4,351.7	1.94	-1.78	-0.78	
11,660.0	89.00	90.90	6,910.1	1,597.9	4,140.7	4,436.1	0.46	0.11	-0.44	
11,750.0	89.70	90.60	6,911.1	1,596.7	4,230.7	4,520.6	0.85	0.78	-0.33	
11,840.0	91.20	89.80	6,910.4	1,596.4	4,320.7	4,605.5	1.89	1.67	-0.89	
11,930.0	89.80	90.00	6,909.6	1,596.5	4,410.7	4,690.5	1.57	-1.56	0.22	
12,022.0	90.40	90.00	6,909.5	1,596.5	4,502.7	4,777.3	0.65	0.65	0.00	
12,082.0	90.40	90.00	6,909.1	1,596.5	4,562.7	4,833.9	0.00	0.00	0.00	

<b>Company:</b>	PDC Energy Inc. DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Elbert 1N
<b>Project:</b>	SEC.21-T5N-R65W	<b>TVD Reference:</b>	WELL @ 4661.0ft (Original Well Elev)
<b>Site:</b>	Elbert 1-12 Pad Sec.21-T5N-R65W	<b>MD Reference:</b>	WELL @ 4661.0ft (Original Well Elev)
<b>Well:</b>	Elbert 1N	<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>	US_EDM

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
SHL 2209' FSL, 710'FW - survey hits target center - Point	0.00	0.00	1.0	0.0	0.0	1,383,603.37	3,229,751.36	40.383460	-104.675260	
BHL 1471'FNL, 0'FEL, S - survey misses target center by 10.6ft at 12082.0ft MD (6909.1 TVD, 1596.5 N, 4562.7 E) - Point	0.00	0.00	6,910.0	1,607.1	4,563.0	1,385,252.70	3,234,299.04	40.387870	-104.658880	

Survey Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
7,257.8	6,876.1	1,552.5	-250.0	Crosses 460' Setback - 1506'FNL & 460'FWL, SEC.21	
7,952.0	6,943.6	1,601.7	433.7	Deepest TVD Drilled - 6943.64' TVD	

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