

# PDC Energy Inc. DJ Basin

Well Name: **Challenger 4N (Nio C)**

Surface Location: Challenger 4N64W8 Pad Sec.8-T4N-R64W

North American Datum 1983 , US State Plane 1983, Colorado Northern Zone

Ground Elevation: 4775.0

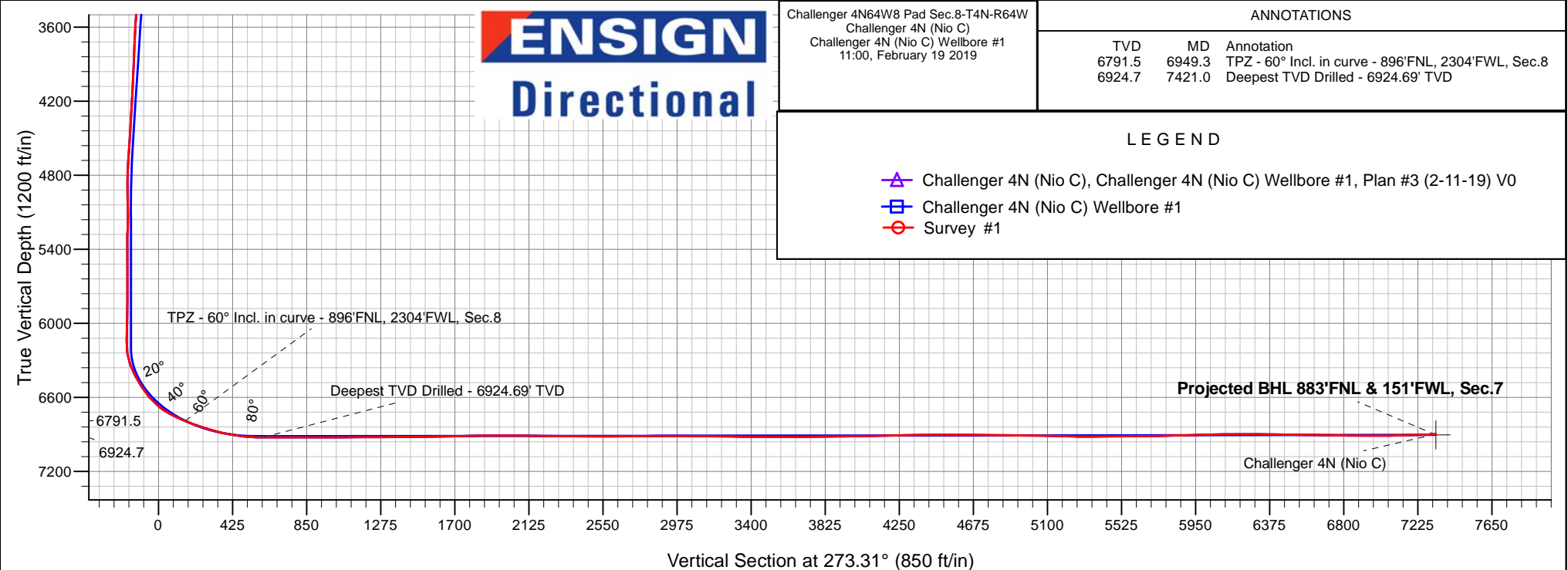
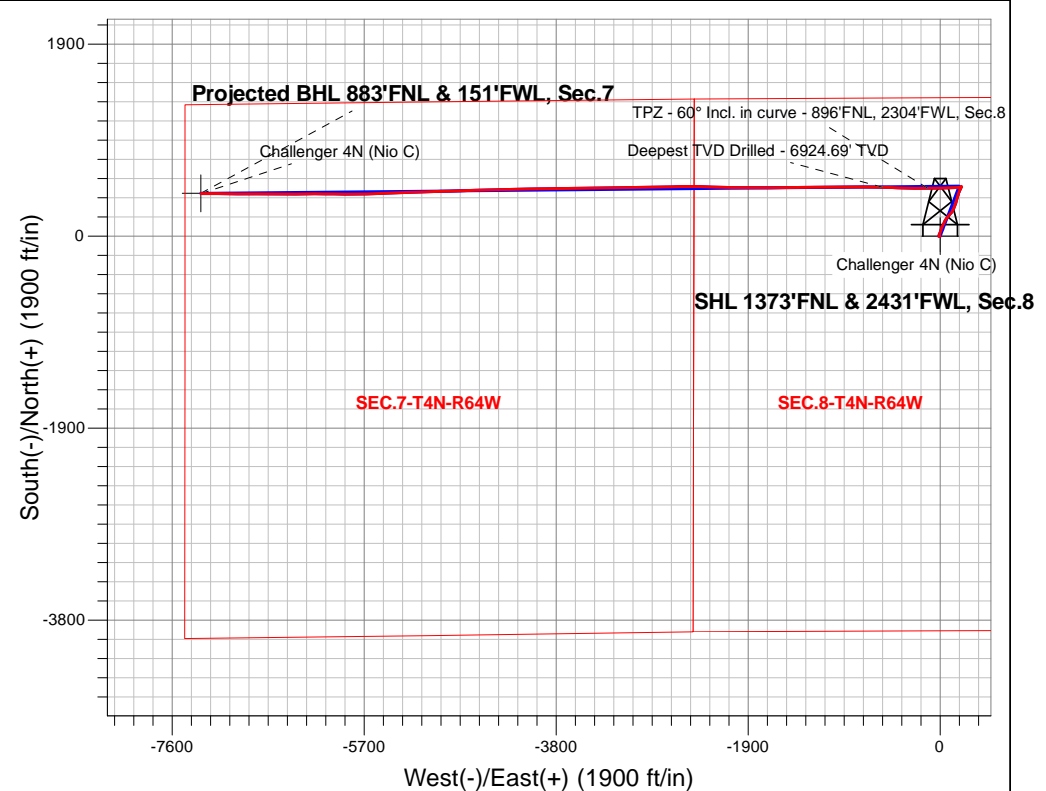
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1364535.22	3257809.56	40.330360	-104.575260	

Original Well Elev WELL @ 4798.0ft (Original Well Elev)

## FINAL SURVEY

**Projected Bottom Hole Location**

**14,168'MD 6900'TVD 422'N & 7316'W of SHL**  
**92.87 degree Incl @ 270.25 degree AZM**





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

**SEC.8-T4N-R64W**

**Challenger 4N64W8 Pad Sec.8-T4N-R64W**

**Challenger 4N (Nio C)**

**Challenger 4N (Nio C) Wellbore #1**

**Survey: Survey #1**

## **Standard Survey Report**

**19 February, 2019**

<b>Company:</b>	PDC Energy Inc. DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Challenger 4N (Nio C)
<b>Project:</b>	SEC.8-T4N-R64W	<b>TVD Reference:</b>	WELL @ 4798.0ft (Original Well Elev)
<b>Site:</b>	Challenger 4N64W8 Pad Sec.8-T4N-R64W	<b>MD Reference:</b>	WELL @ 4798.0ft (Original Well Elev)
<b>Well:</b>	Challenger 4N (Nio C)	<b>North Reference:</b>	True
<b>Wellbore:</b>	Challenger 4N (Nio C) Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Challenger 4N (Nio C) Wellbore #1	<b>Database:</b>	US_EDM

<b>Project</b>	SEC.8-T4N-R64W, 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

Site		Challenger 4N64W8 Pad Sec.8-T4N-R64W						
Site Position:		Northing:	1,364,578.94	usft	Latitude:	40.330480		
From:	Lat/Long	Easting:	3,257,809.10	usft	Longitude:	-104.575260		
Position Uncertainty:	0.0	ft	Slot Radius:	13-3/16	"	Grid Convergence:	0.60	°

Well	Challenger 4N (Nio C)					
Well Position	+N/-S	0.0 ft	Northing:	1,364,535.22 usft	Latitude:	40.330360
	+E/-W	0.0 ft	Easting:	3,257,809.56 usft	Longitude:	-104.575260
Position Uncertainty		0.0 ft	Wellhead Elevation:	0.0 ft	Ground Level:	4,775.0 ft

<b>Wellbore</b>	Challenger 4N (Nio C) 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>
	HDGM	2/11/2019	8.18	66.83	52,175

<b>Design</b>	Challenger 4N (Nio C) 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	273.31	

<b>Survey Program</b>	<b>Date</b>	2/19/2019			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
157.0	14,168.0	Survey #1 (Challenger 4N (Nio C) Wellbor	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
1.0	0.00	264.00	1.0	0.0	0.0	0.0	0.38	0.38	0.00
<b>SHL 1373'FNL &amp; 2431'FWL, Sec.8</b>									
157.0	0.60	264.00	157.0	-0.1	-0.8	0.8	0.38	0.38	0.00
251.0	0.70	242.20	251.0	-0.4	-1.8	1.8	0.28	0.11	-23.19
347.0	0.90	268.40	347.0	-0.7	-3.1	3.0	0.43	0.21	27.29
441.0	0.80	263.10	441.0	-0.8	-4.5	4.4	0.14	-0.11	-5.64
536.0	0.80	261.20	536.0	-1.0	-5.8	5.7	0.03	0.00	-2.00
631.0	1.10	265.60	630.9	-1.2	-7.4	7.3	0.32	0.32	4.63
727.0	1.10	256.60	726.9	-1.4	-9.2	9.1	0.18	0.00	-9.38
822.0	0.90	249.80	821.9	-1.9	-10.8	10.6	0.24	-0.21	-7.16

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<b>Site:</b>	Challenger 4N64W8 Pad Sec.8-T4N-R64W	<b>MD Reference:</b>	WELL @ 4798.0ft (Original Well Elev)
<b>Well:</b>	Challenger 4N (Nio C)	<b>North Reference:</b>	True
<b>Wellbore:</b>	Challenger 4N (Nio C) Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Challenger 4N (Nio C) 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)
917.0	1.00	254.20	916.9	-2.4	-12.3	12.1	0.13	0.11	4.63
1,013.0	1.70	344.20	1,012.9	-1.2	-13.4	13.4	2.05	0.73	93.75
1,109.0	2.70	4.50	1,108.8	2.4	-13.7	13.8	1.31	1.04	21.15
1,204.0	4.20	18.10	1,203.6	7.9	-12.4	12.8	1.79	1.58	14.32
1,300.0	6.20	23.60	1,299.2	16.0	-9.2	10.1	2.14	2.08	5.73
1,395.0	6.70	23.10	1,393.6	25.8	-5.0	6.5	0.53	0.53	-0.53
1,491.0	8.70	18.90	1,488.8	37.8	-0.5	2.6	2.16	2.08	-4.38
1,587.0	8.80	18.50	1,583.7	51.7	4.2	-1.2	0.12	0.10	-0.42
1,633.0	8.50	18.90	1,629.1	58.2	6.4	-3.1	0.67	-0.65	0.87
1,769.0	7.78	12.84	1,763.8	76.7	11.7	-7.3	0.82	-0.53	-4.46
1,864.0	8.84	28.01	1,857.8	89.4	16.6	-11.4	2.55	1.12	15.97
1,959.0	8.69	27.86	1,951.7	102.2	23.4	-17.4	0.16	-0.16	-0.16
2,053.0	8.47	26.75	2,044.6	114.7	29.8	-23.2	0.29	-0.23	-1.18
2,148.0	8.15	24.18	2,138.6	127.1	35.7	-28.3	0.52	-0.34	-2.71
2,244.0	7.61	25.09	2,233.7	139.0	41.2	-33.1	0.58	-0.56	0.95
2,339.0	6.99	23.25	2,327.9	150.0	46.2	-37.4	0.70	-0.65	-1.94
2,434.0	7.90	35.88	2,422.1	160.6	52.3	-42.9	1.97	0.96	13.29
2,530.0	7.92	34.91	2,517.2	171.4	59.9	-49.9	0.14	0.02	-1.01
2,626.0	7.58	35.60	2,612.4	182.0	67.4	-56.8	0.37	-0.35	0.72
2,721.0	7.22	40.54	2,706.6	191.6	74.9	-63.7	0.77	-0.38	5.20
2,817.0	6.95	38.44	2,801.8	200.7	82.4	-70.7	0.39	-0.28	-2.19
2,937.0	10.40	43.66	2,920.4	214.3	94.4	-81.9	2.95	2.88	4.35
3,033.0	10.25	38.49	3,014.9	227.2	105.7	-92.5	0.98	-0.16	-5.39
3,129.0	10.83	30.63	3,109.3	241.7	115.7	-101.5	1.61	0.60	-8.19
3,225.0	10.42	28.93	3,203.6	257.0	124.4	-109.4	0.54	-0.43	-1.77
3,320.0	9.83	28.72	3,297.1	271.7	132.5	-116.6	0.62	-0.62	-0.22
3,416.0	10.49	21.89	3,391.6	287.0	139.7	-122.9	1.43	0.69	-7.11
3,512.0	10.05	20.28	3,486.1	302.9	145.9	-128.1	0.55	-0.46	-1.68
3,608.0	9.54	18.07	3,580.7	318.3	151.2	-132.6	0.66	-0.53	-2.30
3,797.0	8.58	13.30	3,767.3	346.9	159.3	-139.0	0.64	-0.51	-2.52
3,893.0	8.50	15.26	3,862.3	360.8	162.8	-141.8	0.31	-0.08	2.04
4,083.0	8.32	14.91	4,050.2	387.6	170.1	-147.4	0.10	-0.09	-0.18
4,179.0	7.84	21.02	4,145.3	400.4	174.2	-150.8	1.02	-0.50	6.36
4,275.0	7.75	17.92	4,240.4	412.7	178.6	-154.4	0.45	-0.09	-3.23
4,370.0	7.76	15.23	4,334.5	425.0	182.2	-157.4	0.38	0.01	-2.83
4,465.0	8.90	24.20	4,428.5	437.9	186.9	-161.3	1.82	1.20	9.44
4,561.0	8.60	23.03	4,523.4	451.2	192.8	-166.4	0.36	-0.31	-1.22
4,656.0	8.54	22.91	4,617.4	464.3	198.3	-171.2	0.07	-0.06	-0.13
4,752.0	4.39	23.95	4,712.7	474.2	202.6	-174.8	4.32	-4.32	1.08
4,847.0	4.31	23.00	4,807.5	480.8	205.4	-177.3	0.11	-0.08	-1.00
4,943.0	1.38	347.38	4,903.3	485.3	206.6	-178.2	3.42	-3.05	-37.10
5,039.0	1.19	321.49	4,999.3	487.2	205.7	-177.2	0.63	-0.20	-26.97
5,134.0	1.81	332.74	5,094.3	489.3	204.4	-175.8	0.72	0.65	11.84

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<b>Design:</b>	Challenger 4N (Nio C) Wellbore #1	<b>Database:</b>	US_EDM

Survey									
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5,230.0	1.82	119.60	5,190.3	489.9	205.0	-176.4	3.62	0.01	152.98
5,325.0	1.83	125.08	5,285.2	488.3	207.6	-179.1	0.18	0.01	5.77
5,420.0	0.68	293.92	5,380.2	487.6	208.3	-179.8	2.63	-1.21	177.73
5,516.0	0.30	303.63	5,476.2	488.0	207.6	-179.1	0.40	-0.40	10.11
5,612.0	0.28	232.18	5,572.2	488.0	207.2	-178.7	0.35	-0.02	-74.43
5,707.0	0.22	196.68	5,667.2	487.7	207.0	-178.5	0.17	-0.06	-37.37
5,803.0	0.63	149.88	5,763.2	487.0	207.2	-178.7	0.53	0.43	-48.75
5,899.0	0.49	131.67	5,859.2	486.3	207.7	-179.3	0.23	-0.15	-18.97
5,994.0	0.85	86.68	5,954.2	486.1	208.7	-180.3	0.64	0.38	-47.36
6,089.0	0.76	40.22	6,049.2	486.6	209.9	-181.4	0.67	-0.09	-48.91
6,185.0	0.97	54.60	6,145.2	487.5	210.9	-182.4	0.31	0.22	14.98
6,280.0	5.02	247.20	6,240.1	486.4	207.8	-179.3	6.28	4.26	-176.21
6,375.0	14.93	261.52	6,333.5	483.0	191.8	-163.6	10.67	10.43	15.07
6,470.0	21.03	264.75	6,423.8	479.6	162.7	-134.7	6.50	6.42	3.40
6,566.0	24.90	270.53	6,512.2	478.2	125.3	-97.5	4.66	4.03	6.02
6,661.0	29.58	268.03	6,596.7	477.6	81.8	-54.1	5.07	4.93	-2.63
6,756.0	41.24	270.54	6,674.0	477.1	26.9	0.7	12.37	12.27	2.64
6,852.0	54.01	268.90	6,738.5	476.6	-43.9	71.3	13.36	13.30	-1.71
6,947.0	59.90	267.97	6,790.3	474.4	-123.4	150.6	6.25	6.20	-0.98
6,949.3	60.00	268.02	6,791.5	474.4	-125.4	152.6	4.62	4.27	2.02
TPZ - 60° Incl. in curve - 896'FNL, 2304'FWL, Sec.8									
7,042.0	63.97	269.82	6,835.0	472.8	-207.2	234.2	4.62	4.28	1.95
7,137.0	69.65	271.57	6,872.4	473.9	-294.5	321.4	6.21	5.98	1.84
7,231.0	75.22	273.03	6,900.8	477.5	-384.0	410.9	6.11	5.93	1.55
7,326.0	82.69	272.29	6,918.9	481.9	-477.1	504.1	7.90	7.86	-0.78
7,378.4	86.92	270.91	6,923.7	483.3	-529.3	556.3	8.49	8.07	-2.63
LPL 882'FNL & 1900'FWL, Sec.8									
7,421.0	90.36	269.80	6,924.7	483.6	-571.8	598.8	8.49	8.08	-2.61
Deepest TVD Drilled - 6924.69' TVD									
7,516.0	90.24	269.99	6,924.2	483.4	-666.8	693.6	0.24	-0.13	0.20
7,611.0	89.81	270.37	6,924.2	483.7	-761.8	788.5	0.60	-0.45	0.40
7,706.0	89.80	270.51	6,924.5	484.4	-856.8	883.3	0.15	-0.01	0.15
7,801.0	90.36	270.27	6,924.3	485.1	-951.8	978.2	0.64	0.59	-0.25
7,896.0	90.16	270.26	6,923.9	485.5	-1,046.8	1,073.1	0.21	-0.21	-0.01
7,990.0	90.27	269.99	6,923.6	485.7	-1,140.8	1,166.9	0.31	0.12	-0.29
8,086.0	90.60	269.40	6,922.8	485.2	-1,236.8	1,262.7	0.70	0.34	-0.61
8,180.0	90.45	269.69	6,922.0	484.5	-1,330.8	1,356.5	0.35	-0.16	0.31
8,275.0	90.72	269.26	6,921.0	483.6	-1,425.8	1,451.3	0.53	0.28	-0.45
8,370.0	91.26	268.74	6,919.4	481.9	-1,520.8	1,546.0	0.79	0.57	-0.55
8,561.0	91.83	269.02	6,914.2	478.2	-1,711.7	1,736.4	0.33	0.30	0.15
8,656.0	91.92	269.10	6,911.1	476.7	-1,806.6	1,831.1	0.13	0.09	0.08
8,750.0	89.78	271.01	6,909.7	476.7	-1,900.6	1,924.9	3.05	-2.28	2.03
8,846.0	89.78	271.44	6,910.1	478.8	-1,996.5	2,020.9	0.45	0.00	0.45
8,941.0	89.05	271.80	6,911.0	481.5	-2,091.5	2,115.8	0.86	-0.77	0.38

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9,035.0	88.80	272.32	6,912.8	484.9	-2,185.4	2,209.8	0.61	-0.27	0.55	
9,131.0	88.91	272.33	6,914.7	488.8	-2,281.3	2,305.7	0.12	0.11	0.01	
9,227.0	89.42	270.07	6,916.1	490.8	-2,377.3	2,401.7	2.41	0.53	-2.35	
9,322.0	89.83	269.84	6,916.8	490.7	-2,472.3	2,496.5	0.49	0.43	-0.24	
9,416.0	90.24	269.38	6,916.7	490.1	-2,566.3	2,590.3	0.66	0.44	-0.49	
9,512.0	90.59	269.04	6,916.0	488.7	-2,662.3	2,686.0	0.51	0.36	-0.35	
9,607.0	90.85	268.84	6,914.8	487.0	-2,757.2	2,780.8	0.35	0.27	-0.21	
9,703.0	90.45	269.05	6,913.7	485.2	-2,853.2	2,876.5	0.47	-0.42	0.22	
9,797.0	89.76	268.72	6,913.5	483.4	-2,947.2	2,970.2	0.81	-0.73	-0.35	
9,892.0	89.48	268.48	6,914.2	481.1	-3,042.2	3,064.9	0.39	-0.29	-0.25	
9,988.0	89.03	269.01	6,915.4	478.9	-3,138.1	3,160.6	0.72	-0.47	0.55	
10,084.0	88.66	269.07	6,917.4	477.3	-3,234.1	3,256.3	0.39	-0.39	0.06	
10,179.0	88.36	269.06	6,919.8	475.8	-3,329.1	3,351.0	0.32	-0.32	-0.01	
10,274.0	90.03	269.64	6,921.2	474.7	-3,424.0	3,445.7	1.86	1.76	0.61	
10,369.0	89.64	269.78	6,921.4	474.2	-3,519.0	3,540.5	0.44	-0.41	0.15	
10,465.0	90.91	269.36	6,921.0	473.5	-3,615.0	3,636.3	1.39	1.32	-0.44	
10,561.0	90.92	269.45	6,919.4	472.5	-3,711.0	3,732.1	0.09	0.01	0.09	
10,656.0	90.59	269.67	6,918.2	471.8	-3,806.0	3,826.9	0.42	-0.35	0.23	
10,752.0	90.74	269.14	6,917.1	470.8	-3,902.0	3,922.7	0.57	0.16	-0.55	
10,847.0	91.49	269.03	6,915.2	469.3	-3,997.0	4,017.4	0.80	0.79	-0.12	
10,943.0	91.93	268.59	6,912.4	467.3	-4,092.9	4,113.1	0.65	0.46	-0.46	
11,037.0	92.62	268.05	6,908.6	464.5	-4,186.8	4,206.6	0.93	0.73	-0.57	
11,133.0	90.93	268.58	6,905.7	461.7	-4,282.7	4,302.2	1.84	-1.76	0.55	
11,228.0	90.29	268.02	6,904.6	458.9	-4,377.7	4,396.8	0.90	-0.67	-0.59	
11,324.0	90.06	268.05	6,904.4	455.6	-4,473.6	4,492.4	0.24	-0.24	0.03	
11,419.0	89.68	268.30	6,904.6	452.6	-4,568.5	4,587.0	0.48	-0.40	0.26	
11,515.0	89.29	268.17	6,905.4	449.6	-4,664.5	4,682.7	0.43	-0.41	-0.14	
11,610.0	89.31	268.48	6,906.6	446.8	-4,759.4	4,777.3	0.33	0.02	0.33	
11,705.0	89.28	268.77	6,907.8	444.6	-4,854.4	4,872.0	0.31	-0.03	0.31	
11,801.0	89.00	269.27	6,909.2	442.9	-4,950.4	4,967.7	0.60	-0.29	0.52	
11,896.0	88.61	268.40	6,911.2	441.0	-5,045.3	5,062.4	1.00	-0.41	-0.92	
11,991.0	88.10	267.64	6,913.9	437.7	-5,140.2	5,156.9	0.96	-0.54	-0.80	
12,086.0	87.75	267.25	6,917.3	433.5	-5,235.1	5,251.4	0.55	-0.37	-0.41	
12,181.0	90.95	268.54	6,918.4	430.0	-5,330.0	5,345.9	3.63	3.37	1.36	
12,276.0	90.69	268.31	6,917.1	427.4	-5,425.0	5,440.6	0.37	-0.27	-0.24	
12,371.0	90.73	267.99	6,915.9	424.3	-5,519.9	5,535.2	0.34	0.04	-0.34	
12,467.0	90.73	267.31	6,914.7	420.4	-5,615.8	5,630.7	0.71	0.00	-0.71	
12,562.0	91.43	267.45	6,912.9	416.0	-5,710.7	5,725.2	0.75	0.74	0.15	
12,658.0	91.60	271.23	6,910.3	414.9	-5,806.6	5,820.9	3.94	0.18	3.94	
12,754.0	92.29	270.76	6,907.1	416.6	-5,902.6	5,916.8	0.87	0.72	-0.49	
12,849.0	93.28	270.32	6,902.5	417.5	-5,997.5	6,011.6	1.14	1.04	-0.46	
12,945.0	90.26	270.75	6,899.5	418.4	-6,093.4	6,107.4	3.18	-3.15	0.45	
13,040.0	89.73	270.14	6,899.5	419.1	-6,188.4	6,202.3	0.85	-0.56	-0.64	

<b>Company:</b>	PDC Energy Inc. DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Challenger 4N (Nio C)
<b>Project:</b>	SEC.8-T4N-R64W	<b>TVD Reference:</b>	WELL @ 4798.0ft (Original Well Elev)
<b>Site:</b>	Challenger 4N64W8 Pad Sec.8-T4N-R64W	<b>MD Reference:</b>	WELL @ 4798.0ft (Original Well Elev)
<b>Well:</b>	Challenger 4N (Nio C)	<b>North Reference:</b>	True
<b>Wellbore:</b>	Challenger 4N (Nio C) Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Challenger 4N (Nio C) 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)	
13,136.0	89.30	268.98	6,900.3	418.4	-6,284.4	6,298.1	1.29	-0.45	-1.21	
13,231.0	89.52	268.75	6,901.3	416.5	-6,379.4	6,392.8	0.34	0.23	-0.24	
13,327.0	88.99	270.88	6,902.5	416.2	-6,475.3	6,488.6	2.29	-0.55	2.22	
13,422.0	88.93	270.35	6,904.3	417.2	-6,570.3	6,583.4	0.56	-0.06	-0.56	
13,517.0	88.71	269.97	6,906.2	417.5	-6,665.3	6,678.3	0.46	-0.23	-0.40	
13,613.0	88.72	269.98	6,908.4	417.4	-6,761.3	6,774.1	0.01	0.01	0.01	
13,709.0	88.60	269.64	6,910.6	417.1	-6,857.2	6,869.9	0.38	-0.13	-0.35	
13,804.0	90.23	271.11	6,911.6	417.7	-6,952.2	6,964.8	2.31	1.72	1.55	
13,900.0	91.17	270.91	6,910.4	419.4	-7,048.2	7,060.7	1.00	0.98	-0.21	
13,996.0	92.24	270.55	6,907.6	420.7	-7,144.2	7,156.5	1.18	1.11	-0.38	
14,111.0	92.87	270.25	6,902.4	421.5	-7,259.0	7,271.3	0.61	0.55	-0.26	
14,168.0	92.87	270.25	6,899.6	421.7	-7,316.0	7,328.1	0.00	0.00	0.00	
Projected BHL 883'FNL & 151'FWL, Sec.7										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
SHL 1373'FNL & 2431'F	0.00	0.00	1.0	0.0	0.0	1,364,535.23	3,257,809.56	40.330360	-104.575260	
- hit/miss target										
- Shape										
- survey hits target center										
- Point										
Projected BHL 883'FNL	0.00	0.00	6,905.0	423.0	-7,316.8	1,364,881.84	3,250,489.05	40.331518	-104.601504	
- survey misses target center by 5.6ft at 14168.0ft MD (6899.6 TVD, 421.7 N, -7316.0 E)										
- Point										

Survey Annotations					
Measured Depth (ft)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Local Coordinates	
6,949.3	6,791.5	474.4	-125.4	TPZ - 60° Incl. in curve - 896'FNL, 2304'FWL, Sec.8	
7,421.0	6,924.7	483.6	-571.8	Deepest TVD Drilled - 6924.69' TVD	

Checked By: _____	Approved By: _____	Date: _____
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