

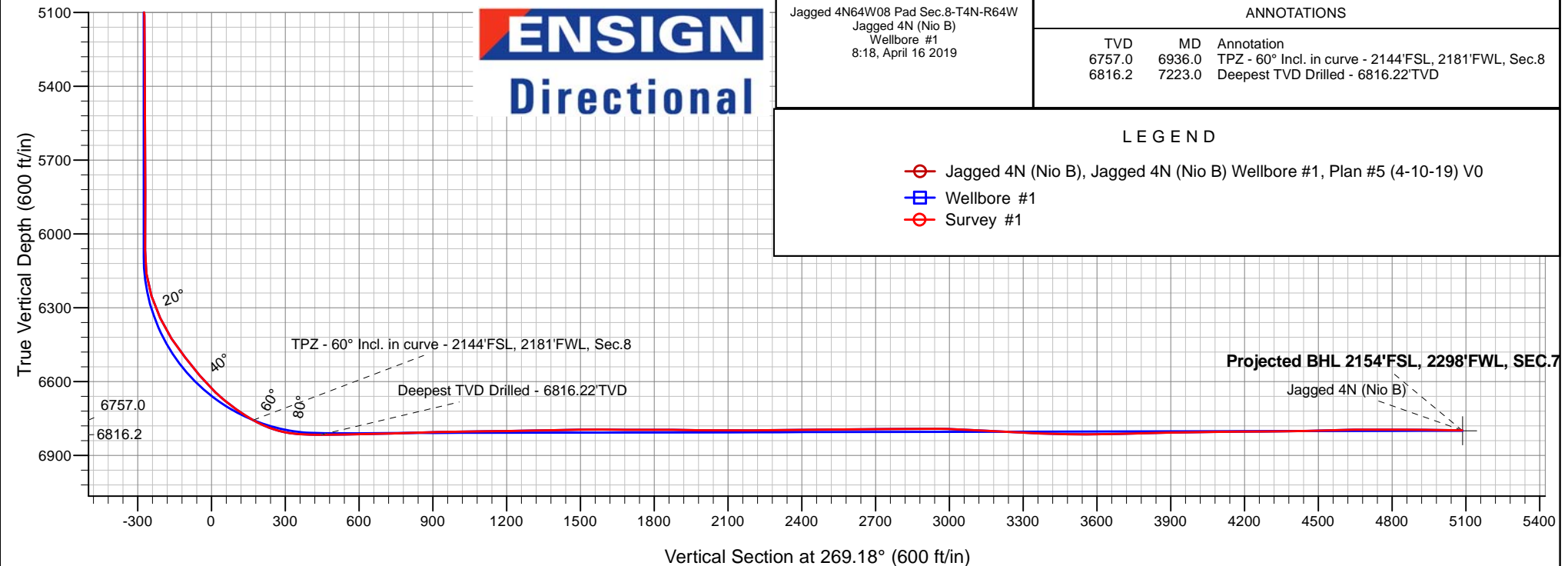
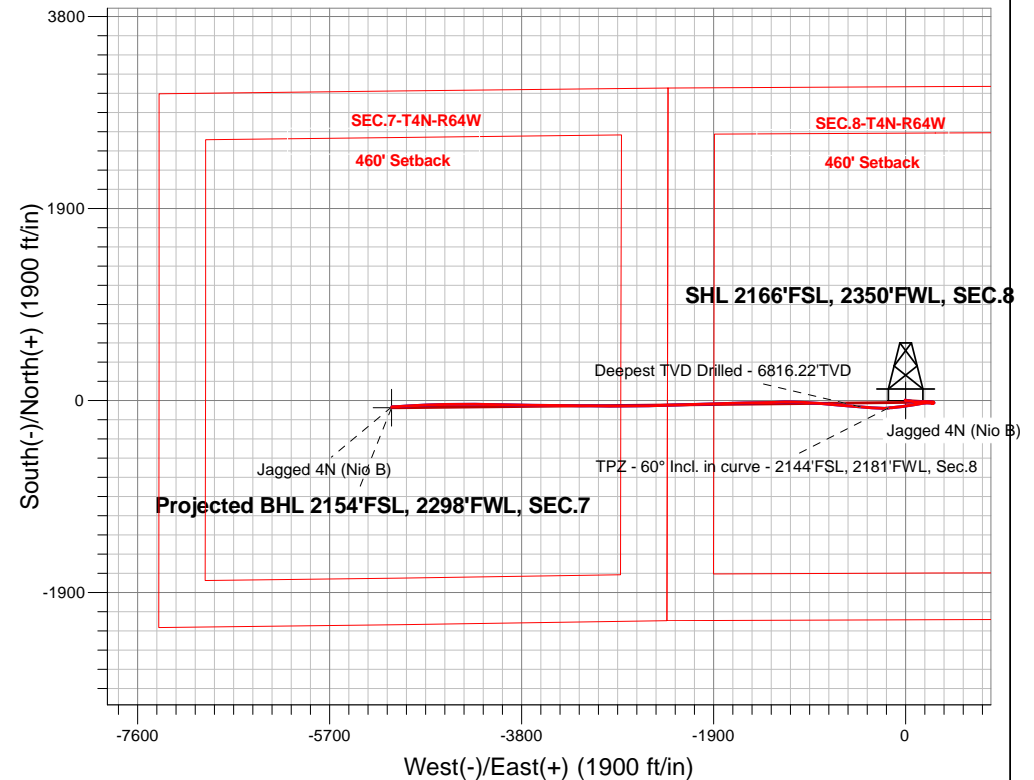
PDC Energy Inc. DJ Basin

Well Name: **Jagged 4N (Nio B)**

Surface Location: Jagged 4N64W08 Pad Sec.8-T4N-R64W
North American Datum 1983 , US State Plane 1983, Colorado Northern Zone
Ground Elevation: 4772.0
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.0 0.0 1362799.03 257742.93 40.325596 -104.575564
Original Well Elev WELL @ 4795.0ft (Original Well Elev)

FINAL SURVEY

Projected Bottom Hole Location
11,867'MD 6799'TVD 63'S & 5085'W of SHL
89.15 degree Incl @ 266.72 degree AZM





PDC Energy Inc. DJ Basin

SEC.8-T4N-R64W

Jagged 4N64W08 Pad Sec.8-T4N-R64W

Jagged 4N (Nio B)

Jagged 4N (Nio B) Wellbore #1

Survey: Survey #1

Standard Survey Report

12 July, 2019

| | | | |
|------------------|-----------------------------------|-------------------------------------|--------------------------------------|
| Company: | PDC Energy Inc. DJ Basin | Local Co-ordinate Reference: | Well Jagged 4N (Nio B) |
| Project: | SEC.8-T4N-R64W | TVD Reference: | WELL @ 4795.0ft (Original Well Elev) |
| Site: | Jagged 4N64W08 Pad Sec.8-T4N-R64W | MD Reference: | WELL @ 4795.0ft (Original Well Elev) |
| Well: | Jagged 4N (Nio B) | North Reference: | True |
| Wellbore: | Jagged 4N (Nio B) Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Wellbore #1 | Database: | US_EDM |

| | | | |
|--------------------|---------------------------------------|----------------------|-----------------------------|
| Project | SEC.8-T4N-R64W, Weld County, Colorado | | |
| Map System: | US State Plane 1983 | System Datum: | Mean Sea Level |
| Geo Datum: | North American Datum 1983 | | Using Well Reference Point |
| Map Zone: | Colorado Northern Zone | | Using geodetic scale factor |

| Site | | Jagged 4N64W08 Pad Sec.8-T4N-R64W | | | |
|-----------------------|----------|-----------------------------------|-------------------|-------------------|-------------|
| Site Position: | | Northing: | 1,362,819.46 usft | Latitude: | 40.325651 |
| From: | Lat/Long | Easting: | 3,257,787.75 usft | Longitude: | -104.575403 |
| Position Uncertainty: | 0.0 ft | Slot Radius: | 13-3/16 " | Grid Convergence: | 0.60 ° |

| Well | Jagged 4N (Nio B) | | | | | |
|----------------------|-------------------|--------|---------------------|-------------------|---------------|-------------|
| Well Position | +N-S | 0.0 ft | Northing: | 1,362,799.05 usft | Latitude: | 40.325596 |
| | +E-W | 0.0 ft | Easting: | 3,257,742.93 usft | Longitude: | -104.575564 |
| Position Uncertainty | | 0.0 ft | Wellhead Elevation: | 0.0 ft | Ground Level: | 4,772.0 ft |

| | | | | | |
|------------------|-------------------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | Jagged 4N (Nio B) Wellbore #1 | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | HDGM | 4/10/2019 | 8.17 | 66.82 | 52,157 |

| | | | | | |
|--------------------------|------------------------------|-------------------|-------------------|----------------------|-----|
| Design | Wellbore #1 | | | | |
| Audit Notes: | | | | | |
| Version: | 1.0 | Phase: | ACTUAL | Tie On Depth: | 0.0 |
| Vertical Section: | Depth From (TVD) (ft) | +N/-S (ft) | +E/-W (ft) | Direction (°) | |
| | 0.0 | 0.0 | 0.0 | 269.18 | |

| | | | | | |
|-----------------------|----------------|--|------------------|--------------------|--|
| Survey Program | Date | 4/16/2019 | | | |
| From (ft) | To (ft) | Survey (Wellbore) | Tool Name | Description | |
| 250.0 | 11,867.0 | Survey #1 (Jagged 4N (Nio B) Wellbore #1 | MWD | MWD - Standard | |

| | | | | | | | | | | |
|--------------------------------------|------------------------|--------------------|----------------------------|-------------------|-------------------|------------------------------|--------------------------------|-------------------------------|------------------------------|--|
| 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) | |
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | |
| 1.0 | 0.00 | 336.60 | 1.0 | 0.0 | 0.0 | 0.0 | 0.28 | 0.28 | 0.00 | |
| SHL 2166'FSL, 2350'FWL, SEC.8 | | | | | | | | | | |
| 250.0 | 0.70 | 336.60 | 250.0 | 1.4 | -0.6 | 0.6 | 0.28 | 0.28 | 0.00 | |
| 440.0 | 0.70 | 316.00 | 440.0 | 3.3 | -1.9 | 1.8 | 0.13 | 0.00 | -10.84 | |
| 536.0 | 0.50 | 320.30 | 536.0 | 4.0 | -2.5 | 2.5 | 0.21 | -0.21 | 4.48 | |
| 631.0 | 0.50 | 301.60 | 631.0 | 4.6 | -3.2 | 3.1 | 0.17 | 0.00 | -19.68 | |
| 725.0 | 0.70 | 284.10 | 725.0 | 4.9 | -4.1 | 4.0 | 0.29 | 0.21 | -18.62 | |
| 821.0 | 0.60 | 274.90 | 821.0 | 5.1 | -5.1 | 5.1 | 0.15 | -0.10 | -9.58 | |
| 915.0 | 0.90 | 153.80 | 915.0 | 4.5 | -5.3 | 5.2 | 1.40 | 0.32 | -128.83 | |
| 1,011.0 | 2.80 | 131.90 | 1,010.9 | 2.3 | -3.2 | 3.2 | 2.08 | 1.98 | -22.81 | |

| | | | |
|------------------|-----------------------------------|-------------------------------------|--------------------------------------|
| Company: | PDC Energy Inc. DJ Basin | Local Co-ordinate Reference: | Well Jagged 4N (Nio B) |
| Project: | SEC.8-T4N-R64W | TVD Reference: | WELL @ 4795.0ft (Original Well Elev) |
| Site: | Jagged 4N64W08 Pad Sec.8-T4N-R64W | MD Reference: | WELL @ 4795.0ft (Original Well Elev) |
| Well: | Jagged 4N (Nio B) | North Reference: | True |
| Wellbore: | Jagged 4N (Nio B) Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Wellbore #1 | Database: | 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) |
| 1,106.0 | 4.20 | 114.20 | 1,105.7 | -0.7 | 1.7 | -1.7 | 1.84 | 1.47 | -18.63 |
| 1,201.0 | 5.30 | 99.20 | 1,200.4 | -2.8 | 9.2 | -9.1 | 1.74 | 1.16 | -15.79 |
| 1,296.0 | 6.00 | 94.80 | 1,294.9 | -4.0 | 18.5 | -18.4 | 0.87 | 0.74 | -4.63 |
| 1,391.0 | 5.70 | 97.90 | 1,389.4 | -5.0 | 28.1 | -28.0 | 0.46 | -0.32 | 3.26 |
| 1,486.0 | 5.80 | 96.00 | 1,484.0 | -6.2 | 37.5 | -37.4 | 0.23 | 0.11 | -2.00 |
| 1,581.0 | 4.80 | 95.50 | 1,578.6 | -7.1 | 46.3 | -46.1 | 1.05 | -1.05 | -0.53 |
| 1,636.0 | 4.60 | 97.80 | 1,633.4 | -7.6 | 50.7 | -50.6 | 0.50 | -0.36 | 4.18 |
| 1,771.0 | 4.75 | 98.16 | 1,767.9 | -9.1 | 61.6 | -61.5 | 0.11 | 0.11 | 0.27 |
| 1,866.0 | 4.63 | 96.84 | 1,862.6 | -10.1 | 69.3 | -69.2 | 0.17 | -0.13 | -1.39 |
| 1,960.0 | 4.55 | 96.57 | 1,956.3 | -11.0 | 76.8 | -76.6 | 0.09 | -0.09 | -0.29 |
| 2,055.0 | 4.37 | 96.07 | 2,051.0 | -11.8 | 84.1 | -84.0 | 0.19 | -0.19 | -0.53 |
| 2,151.0 | 4.37 | 95.74 | 2,146.7 | -12.6 | 91.4 | -91.2 | 0.03 | 0.00 | -0.34 |
| 2,246.0 | 4.33 | 94.86 | 2,241.5 | -13.2 | 98.6 | -98.4 | 0.08 | -0.04 | -0.93 |
| 2,341.0 | 4.38 | 87.80 | 2,336.2 | -13.4 | 105.8 | -105.6 | 0.57 | 0.05 | -7.43 |
| 2,437.0 | 4.14 | 87.40 | 2,431.9 | -13.1 | 112.9 | -112.7 | 0.25 | -0.25 | -0.42 |
| 2,532.0 | 4.13 | 82.79 | 2,526.7 | -12.5 | 119.7 | -119.5 | 0.35 | -0.01 | -4.85 |
| 2,627.0 | 6.87 | 91.43 | 2,621.2 | -12.2 | 128.8 | -128.6 | 3.01 | 2.88 | 9.09 |
| 2,723.0 | 6.74 | 92.25 | 2,716.6 | -12.6 | 140.2 | -140.0 | 0.17 | -0.14 | 0.85 |
| 2,818.0 | 6.79 | 89.66 | 2,810.9 | -12.8 | 151.4 | -151.2 | 0.33 | 0.05 | -2.73 |
| 2,913.0 | 6.69 | 86.83 | 2,905.2 | -12.4 | 162.5 | -162.3 | 0.37 | -0.11 | -2.98 |
| 3,030.0 | 6.31 | 86.75 | 3,021.5 | -11.7 | 175.7 | -175.5 | 0.32 | -0.32 | -0.07 |
| 3,125.0 | 6.02 | 82.80 | 3,115.9 | -10.8 | 185.9 | -185.7 | 0.54 | -0.31 | -4.16 |
| 3,220.0 | 5.56 | 80.64 | 3,210.5 | -9.4 | 195.4 | -195.2 | 0.54 | -0.48 | -2.27 |
| 3,316.0 | 4.81 | 90.31 | 3,306.1 | -8.7 | 204.0 | -203.8 | 1.20 | -0.78 | 10.07 |
| 3,411.0 | 4.68 | 100.55 | 3,400.7 | -9.4 | 211.8 | -211.6 | 0.90 | -0.14 | 10.78 |
| 3,505.0 | 4.69 | 101.14 | 3,494.4 | -10.8 | 219.3 | -219.1 | 0.05 | 0.01 | 0.63 |
| 3,601.0 | 4.58 | 99.39 | 3,590.1 | -12.2 | 226.9 | -226.7 | 0.19 | -0.11 | -1.82 |
| 3,696.0 | 4.66 | 98.49 | 3,684.8 | -13.4 | 234.5 | -234.3 | 0.11 | 0.08 | -0.95 |
| 3,792.0 | 4.60 | 99.20 | 3,780.5 | -14.6 | 242.2 | -241.9 | 0.09 | -0.06 | 0.74 |
| 3,886.0 | 4.65 | 97.53 | 3,874.2 | -15.7 | 249.7 | -249.4 | 0.15 | 0.05 | -1.78 |
| 4,077.0 | 4.77 | 98.68 | 4,064.5 | -17.9 | 265.2 | -264.9 | 0.08 | 0.06 | 0.60 |
| 4,172.0 | 4.58 | 96.32 | 4,159.2 | -18.9 | 272.9 | -272.6 | 0.28 | -0.20 | -2.48 |
| 4,268.0 | 3.00 | 114.62 | 4,255.0 | -20.4 | 279.0 | -278.6 | 2.05 | -1.65 | 19.06 |
| 4,363.0 | 1.79 | 173.82 | 4,349.9 | -22.9 | 281.4 | -281.0 | 2.73 | -1.27 | 62.32 |
| 4,459.0 | 0.91 | 204.27 | 4,445.9 | -25.1 | 281.2 | -280.8 | 1.15 | -0.92 | 31.72 |
| 4,555.0 | 1.12 | 311.06 | 4,541.9 | -25.2 | 280.2 | -279.8 | 1.70 | 0.22 | 111.24 |
| 4,744.0 | 0.90 | 299.76 | 4,730.9 | -23.2 | 277.5 | -277.2 | 0.16 | -0.12 | -5.98 |
| 4,934.0 | 0.64 | 253.81 | 4,920.9 | -22.8 | 275.2 | -274.9 | 0.34 | -0.14 | -24.18 |
| 5,029.0 | 0.45 | 269.22 | 5,015.9 | -22.9 | 274.3 | -274.0 | 0.25 | -0.20 | 16.22 |
| 5,125.0 | 0.75 | 247.72 | 5,111.9 | -23.2 | 273.4 | -273.0 | 0.39 | 0.31 | -22.40 |
| 5,220.0 | 0.66 | 223.39 | 5,206.8 | -23.8 | 272.4 | -272.0 | 0.33 | -0.09 | -25.61 |
| 5,316.0 | 0.74 | 206.51 | 5,302.8 | -24.8 | 271.8 | -271.4 | 0.23 | 0.08 | -17.58 |
| 5,412.0 | 0.72 | 206.73 | 5,398.8 | -25.9 | 271.2 | -270.8 | 0.02 | -0.02 | 0.23 |

| | | | |
|------------------|-----------------------------------|-------------------------------------|--------------------------------------|
| Company: | PDC Energy Inc. DJ Basin | Local Co-ordinate Reference: | Well Jagged 4N (Nio B) |
| Project: | SEC.8-T4N-R64W | TVD Reference: | WELL @ 4795.0ft (Original Well Elev) |
| Site: | Jagged 4N64W08 Pad Sec.8-T4N-R64W | MD Reference: | WELL @ 4795.0ft (Original Well Elev) |
| Well: | Jagged 4N (Nio B) | North Reference: | True |
| Wellbore: | Jagged 4N (Nio B) Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Wellbore #1 | Database: | 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) |
| 5,698.0 | 0.52 | 194.20 | 5,684.8 | -28.7 | 270.1 | -269.6 | 0.08 | -0.07 | -4.38 |
| 5,793.0 | 0.20 | 177.17 | 5,779.8 | -29.3 | 270.0 | -269.5 | 0.35 | -0.34 | -17.93 |
| 5,888.0 | 0.06 | 284.74 | 5,874.8 | -29.5 | 269.9 | -269.5 | 0.24 | -0.15 | 113.23 |
| 5,983.0 | 0.26 | 350.76 | 5,969.8 | -29.2 | 269.9 | -269.4 | 0.25 | 0.21 | 69.49 |
| 6,078.0 | 0.63 | 79.87 | 6,064.8 | -28.9 | 270.3 | -269.9 | 0.71 | 0.39 | 93.80 |
| 6,174.0 | 7.32 | 273.75 | 6,160.6 | -28.4 | 264.8 | -264.3 | 8.26 | 6.97 | -173.04 |
| 6,269.0 | 17.96 | 276.28 | 6,253.1 | -26.4 | 244.1 | -243.7 | 11.21 | 11.20 | 2.66 |
| 6,365.0 | 25.44 | 271.22 | 6,342.3 | -24.4 | 208.7 | -208.3 | 8.02 | 7.79 | -5.27 |
| 6,460.0 | 32.78 | 261.20 | 6,425.3 | -27.9 | 162.8 | -162.4 | 9.25 | 7.73 | -10.55 |
| 6,555.0 | 39.05 | 259.71 | 6,502.2 | -37.2 | 107.9 | -107.4 | 6.66 | 6.60 | -1.57 |
| 6,650.0 | 39.86 | 261.65 | 6,575.5 | -46.9 | 48.3 | -47.7 | 1.55 | 0.85 | 2.04 |
| 6,745.0 | 46.76 | 262.86 | 6,644.6 | -55.7 | -16.2 | 17.0 | 7.32 | 7.26 | 1.27 |
| 6,841.0 | 54.40 | 261.95 | 6,705.5 | -65.5 | -89.7 | 90.6 | 7.99 | 7.96 | -0.95 |
| 6,936.0 | 60.00 | 264.94 | 6,757.0 | -74.5 | -169.0 | 170.0 | 6.46 | 5.90 | 3.15 |
| TPZ - 60° Incl. in curve - 2144'FSL, 2181'FWL, Sec.8 | | | | | | | | | |
| 6,937.0 | 60.06 | 264.97 | 6,757.5 | -74.6 | -169.8 | 170.9 | 6.46 | 5.93 | 2.96 |
| 7,032.0 | 72.65 | 270.25 | 6,795.5 | -78.0 | -256.6 | 257.6 | 14.19 | 13.25 | 5.56 |
| 7,128.0 | 86.04 | 276.16 | 6,813.2 | -72.7 | -350.5 | 351.5 | 15.20 | 13.95 | 6.16 |
| 7,223.0 | 90.37 | 275.08 | 6,816.2 | -63.4 | -445.0 | 445.8 | 4.70 | 4.56 | -1.14 |
| Deepest TVD Drilled - 6816.22'TVD | | | | | | | | | |
| 7,223.4 | 90.37 | 275.08 | 6,816.2 | -63.3 | -445.4 | 446.3 | 0.68 | 0.55 | -0.40 |
| LPL 2144'FSL, 1908'FWL, SEC.8 | | | | | | | | | |
| 7,319.0 | 90.90 | 274.70 | 6,815.2 | -55.2 | -540.6 | 541.3 | 0.68 | 0.55 | -0.40 |
| 7,414.0 | 91.12 | 274.67 | 6,813.5 | -47.4 | -635.3 | 635.9 | 0.23 | 0.23 | -0.03 |
| 7,509.0 | 91.44 | 274.42 | 6,811.4 | -39.9 | -730.0 | 730.4 | 0.43 | 0.34 | -0.26 |
| 7,604.0 | 92.26 | 274.81 | 6,808.3 | -32.3 | -824.6 | 825.0 | 0.96 | 0.86 | 0.41 |
| 7,700.0 | 91.08 | 274.28 | 6,805.5 | -24.7 | -920.2 | 920.5 | 1.35 | -1.23 | -0.55 |
| 7,796.0 | 90.94 | 273.04 | 6,803.8 | -18.5 | -1,016.0 | 1,016.2 | 1.30 | -0.15 | -1.29 |
| 7,891.0 | 90.67 | 271.10 | 6,802.5 | -15.1 | -1,111.0 | 1,111.1 | 2.06 | -0.28 | -2.04 |
| 7,987.0 | 90.77 | 268.50 | 6,801.3 | -15.4 | -1,206.9 | 1,207.0 | 2.71 | 0.10 | -2.71 |
| 8,083.0 | 91.00 | 268.50 | 6,799.8 | -18.0 | -1,302.9 | 1,303.0 | 0.24 | 0.24 | 0.00 |
| 8,178.0 | 91.15 | 268.19 | 6,798.0 | -20.7 | -1,397.8 | 1,398.0 | 0.36 | 0.16 | -0.33 |
| 8,274.0 | 91.36 | 269.05 | 6,795.9 | -23.0 | -1,493.8 | 1,494.0 | 0.92 | 0.22 | 0.90 |
| 8,370.0 | 89.37 | 268.65 | 6,795.3 | -24.9 | -1,589.8 | 1,590.0 | 2.11 | -2.07 | -0.42 |
| 8,466.0 | 89.43 | 268.83 | 6,796.3 | -27.1 | -1,685.7 | 1,686.0 | 0.20 | 0.06 | 0.19 |
| 8,561.0 | 90.27 | 268.60 | 6,796.5 | -29.2 | -1,780.7 | 1,780.9 | 0.92 | 0.88 | -0.24 |
| 8,656.0 | 89.52 | 268.55 | 6,796.7 | -31.5 | -1,875.7 | 1,875.9 | 0.79 | -0.79 | -0.05 |
| 8,752.0 | 89.44 | 268.05 | 6,797.6 | -34.4 | -1,971.6 | 1,971.9 | 0.53 | -0.08 | -0.52 |
| 8,847.0 | 89.73 | 267.91 | 6,798.3 | -37.7 | -2,066.6 | 2,066.9 | 0.34 | 0.31 | -0.15 |
| 8,943.0 | 90.10 | 268.21 | 6,798.4 | -41.0 | -2,162.5 | 2,162.9 | 0.50 | 0.39 | 0.31 |
| 9,039.0 | 90.04 | 267.63 | 6,798.3 | -44.5 | -2,258.5 | 2,258.9 | 0.61 | -0.06 | -0.60 |
| 9,134.0 | 90.60 | 267.33 | 6,797.8 | -48.7 | -2,353.4 | 2,353.8 | 0.67 | 0.59 | -0.32 |
| 9,230.0 | 91.08 | 269.05 | 6,796.4 | -51.7 | -2,449.3 | 2,449.8 | 1.86 | 0.50 | 1.79 |
| 9,326.0 | 90.95 | 269.46 | 6,794.7 | -52.9 | -2,545.3 | 2,545.8 | 0.45 | -0.14 | 0.43 |

| | | | |
|------------------|-----------------------------------|-------------------------------------|--------------------------------------|
| Company: | PDC Energy Inc. DJ Basin | Local Co-ordinate Reference: | Well Jagged 4N (Nio B) |
| Project: | SEC.8-T4N-R64W | TVD Reference: | WELL @ 4795.0ft (Original Well Elev) |
| Site: | Jagged 4N64W08 Pad Sec.8-T4N-R64W | MD Reference: | WELL @ 4795.0ft (Original Well Elev) |
| Well: | Jagged 4N (Nio B) | North Reference: | True |
| Wellbore: | Jagged 4N (Nio B) Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Wellbore #1 | Database: | 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) |
| 9,421.0 | 90.34 | 269.40 | 6,793.6 | -53.9 | -2,640.3 | 2,640.8 | 0.65 | -0.64 | -0.06 |
| 9,517.0 | 90.07 | 270.10 | 6,793.2 | -54.3 | -2,736.3 | 2,736.8 | 0.78 | -0.28 | 0.73 |
| 9,613.0 | 90.29 | 269.71 | 6,792.9 | -54.5 | -2,832.3 | 2,832.7 | 0.47 | 0.23 | -0.41 |
| 9,708.0 | 90.41 | 270.76 | 6,792.4 | -54.1 | -2,927.3 | 2,927.7 | 1.11 | 0.13 | 1.11 |
| 9,804.0 | 87.61 | 270.32 | 6,794.0 | -53.2 | -3,023.2 | 3,023.7 | 2.95 | -2.92 | -0.46 |
| 9,899.0 | 87.13 | 270.13 | 6,798.4 | -52.8 | -3,118.1 | 3,118.6 | 0.54 | -0.51 | -0.20 |
| 9,995.0 | 86.86 | 270.73 | 6,803.4 | -52.1 | -3,214.0 | 3,214.4 | 0.68 | -0.28 | 0.63 |
| 10,090.0 | 86.88 | 270.44 | 6,808.6 | -51.1 | -3,308.8 | 3,309.2 | 0.31 | 0.02 | -0.31 |
| 10,186.0 | 88.94 | 270.67 | 6,812.1 | -50.2 | -3,404.8 | 3,405.1 | 2.16 | 2.15 | 0.24 |
| 10,282.0 | 88.87 | 270.16 | 6,813.9 | -49.5 | -3,500.8 | 3,501.1 | 0.54 | -0.07 | -0.53 |
| 10,377.0 | 90.78 | 270.91 | 6,814.2 | -48.6 | -3,595.7 | 3,596.1 | 2.16 | 2.01 | 0.79 |
| 10,472.0 | 91.20 | 270.67 | 6,812.6 | -47.3 | -3,690.7 | 3,691.0 | 0.51 | 0.44 | -0.25 |
| 10,568.0 | 91.50 | 271.30 | 6,810.3 | -45.6 | -3,786.7 | 3,786.9 | 0.73 | 0.31 | 0.66 |
| 10,664.0 | 91.33 | 271.66 | 6,808.0 | -43.2 | -3,882.6 | 3,882.8 | 0.41 | -0.18 | 0.38 |
| 10,759.0 | 90.90 | 271.05 | 6,806.1 | -40.9 | -3,977.6 | 3,977.7 | 0.79 | -0.45 | -0.64 |
| 10,855.0 | 90.58 | 271.16 | 6,804.9 | -39.1 | -4,073.5 | 4,073.7 | 0.35 | -0.33 | 0.11 |
| 10,950.0 | 90.61 | 270.61 | 6,803.9 | -37.6 | -4,168.5 | 4,168.6 | 0.58 | 0.03 | -0.58 |
| 11,046.0 | 90.24 | 270.40 | 6,803.2 | -36.7 | -4,264.5 | 4,264.6 | 0.44 | -0.39 | -0.22 |
| 11,142.0 | 90.42 | 269.79 | 6,802.6 | -36.6 | -4,360.5 | 4,360.6 | 0.66 | 0.19 | -0.64 |
| 11,237.0 | 91.53 | 268.98 | 6,801.0 | -37.6 | -4,455.5 | 4,455.6 | 1.45 | 1.17 | -0.85 |
| 11,333.0 | 91.95 | 268.90 | 6,798.1 | -39.4 | -4,551.4 | 4,551.5 | 0.45 | 0.44 | -0.08 |
| 11,428.0 | 90.45 | 267.74 | 6,796.1 | -42.2 | -4,646.4 | 4,646.5 | 2.00 | -1.58 | -1.22 |
| 11,524.0 | 90.08 | 267.66 | 6,795.6 | -46.0 | -4,742.3 | 4,742.5 | 0.39 | -0.39 | -0.08 |
| 11,619.0 | 89.64 | 267.62 | 6,795.9 | -49.9 | -4,837.2 | 4,837.4 | 0.47 | -0.46 | -0.04 |
| 11,714.0 | 89.54 | 267.04 | 6,796.6 | -54.4 | -4,932.1 | 4,932.4 | 0.62 | -0.11 | -0.61 |
| 11,809.0 | 89.15 | 266.72 | 6,797.6 | -59.5 | -5,027.0 | 5,027.3 | 0.53 | -0.41 | -0.34 |
| 11,867.0 | 89.15 | 266.72 | 6,798.5 | -62.8 | -5,084.9 | 5,085.2 | 0.00 | 0.00 | 0.00 |
| Target BHL 2144'FSL, 2297'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 2166'FSL, 2350'FW - hit/miss target - Shape - Point | 0.00 | 0.00 | 1.0 | 0.0 | 0.0 | 1,362,799.07 | 3,257,742.93 | 40.325596 | -104.575564 |
| Target BHL 2144'FSL, 2: - survey misses target center by 10.0ft at 11867.0ft MD (6798.5 TVD, -62.8 N, -5084.9 E) - Point | 0.00 | 0.00 | 6,800.0 | -72.6 | -5,086.3 | 1,362,673.39 | 3,252,657.84 | 40.325395 | -104.593806 |

| | | | |
|------------------|-----------------------------------|-------------------------------------|--------------------------------------|
| Company: | PDC Energy Inc. DJ Basin | Local Co-ordinate Reference: | Well Jagged 4N (Nio B) |
| Project: | SEC.8-T4N-R64W | TVD Reference: | WELL @ 4795.0ft (Original Well Elev) |
| Site: | Jagged 4N64W08 Pad Sec.8-T4N-R64W | MD Reference: | WELL @ 4795.0ft (Original Well Elev) |
| Well: | Jagged 4N (Nio B) | North Reference: | True |
| Wellbore: | Jagged 4N (Nio B) Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Wellbore #1 | Database: | US_EDM |

| Survey Annotations | | | | |
|---------------------|---------------------|-------------------|------------|--|
| Measured Depth (ft) | Vertical Depth (ft) | Local Coordinates | | Comment |
| | | +N/-S (ft) | +E/-W (ft) | |
| 6,936.0 | 6,757.0 | -74.5 | -169.0 | TPZ - 60° Incl. in curve - 2144'FSL, 2181'FWL, Sec.8 |
| 7,223.0 | 6,816.2 | -63.4 | -445.0 | Deepest TVD Drilled - 6816.22'TVD |

| | | |
|-------------------|--------------------|-------------|
| Checked By: _____ | Approved By: _____ | Date: _____ |
|-------------------|--------------------|-------------|