

PDC Energy Inc. DJ Basin

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

Surface Location: Erwin 5N64W27 1-6 Pad Sec.27-T5N-R64W
North American Datum 1983 , US State Plane 1983, Colorado Northern Zone

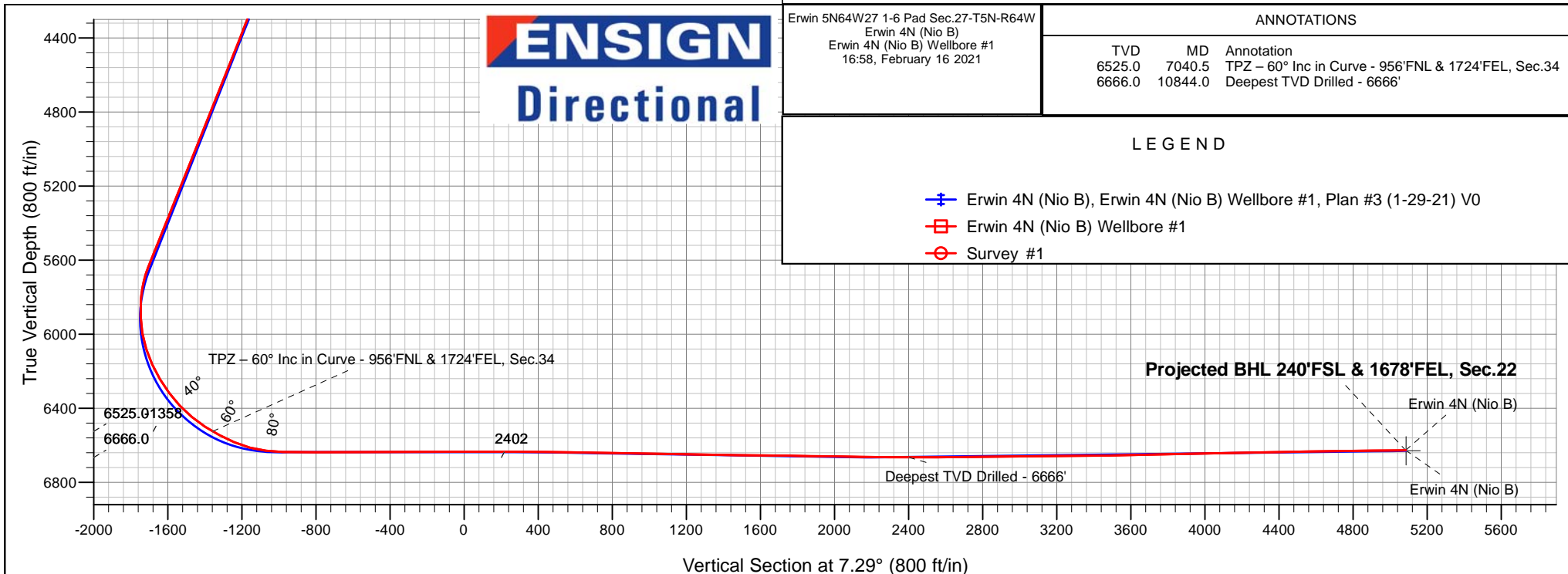
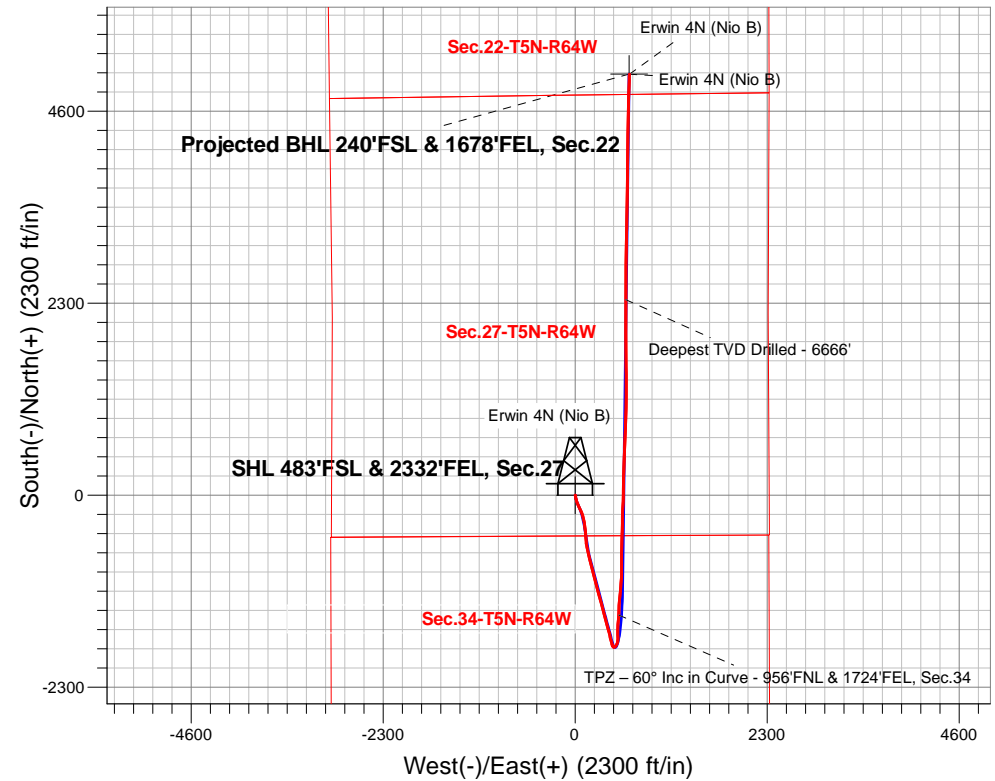
Ground Elevation: 4639.0

| +N/-S | +E/-W | Northing | Easting | Latitude | Longitude | Slot |
|-------|-------|------------|------------|-----------|-------------|------|
| 0.0 | 0.0 | 1377057.15 | 3268974.51 | 40.364405 | -104.534727 | |

Ensign 142 RKB - 28' WELL @ 4667.0ft (Ensign 142 RKB - 28')

FINAL SURVEY

Projected Bottom Hole Location
13,544'MD 6627'TVD 5047'N & 1124'E of SHL
89.94 degree Inc @ 1.00 degree Azm





PDC Energy Inc. DJ Basin

SEC.27-T5N-R64W

Erwin 5N64W27 1-6 Pad Sec.27-T5N-R64W

Erwin 4N (Nio B)

Erwin 4N (Nio B) Wellbore #1

Survey: Survey #1

Standard Survey Report

16 February, 2021

| | | | |
|------------------|---------------------------------------|-------------------------------------|--|
| Company: | PDC Energy Inc. DJ Basin | Local Co-ordinate Reference: | Well Erwin 4N (Nio B) |
| Project: | SEC.27-T5N-R64W | TVD Reference: | WELL @ 4667.0ft (Ensign 142 RKB - 28') |
| Site: | Erwin 5N64W27 1-6 Pad Sec.27-T5N-R64W | MD Reference: | WELL @ 4667.0ft (Ensign 142 RKB - 28') |
| Well: | Erwin 4N (Nio B) | North Reference: | True |
| Wellbore: | Erwin 4N (Nio B) Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Erwin 4N (Nio B) Wellbore #1 | Database: | US_EDM |

| | | | |
|--------------------|--|----------------------|-----------------------------|
| Project | SEC.27-T5N-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 | | Erwin 5N64W27 1-6 Pad Sec.27-T5N-R64W | | | | | | |
|-----------------------|----------|---------------------------------------|--------------|---------|------------|-------------------|------|---|
| Site Position: | | Northing: | 1,377,056.42 | usft | Latitude: | 40.364404 | | |
| From: | Lat/Long | Easting: | 3,268,929.60 | usft | Longitude: | -104.534888 | | |
| Position Uncertainty: | 0.0 | ft | Slot Radius: | 13-3/16 | " | Grid Convergence: | 0.62 | ° |

| Well | Erwin 4N (Nio B) | | | | | |
|----------------------|------------------|--------|---------------------|-------------------|---------------|-------------|
| Well Position | +N/-S | 0.0 ft | Northing: | 1,377,057.15 usft | Latitude: | 40.364405 |
| | +E/-W | 0.0 ft | Easting: | 3,268,974.51 usft | Longitude: | -104.534727 |
| Position Uncertainty | | 0.0 ft | Wellhead Elevation: | 0.0 ft | Ground Level: | 4,639.0 ft |

| | | | | | |
|------------------|------------------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | Erwin 4N (Nio B) Wellbore #1 | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | HDGM | 01/29/2021 | 7.75 | 66.77 | 51,977 |

| | | | | | |
|--------------------------|------------------------------|-------------------|-------------------|----------------------|-----|
| Design | Erwin 4N (Nio B) 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 | 7.29 | |

| | | | | | |
|-----------------------|----------------|--|------------------|--------------------|--|
| Survey Program | Date | 02/16/2021 | | | |
| From (ft) | To (ft) | Survey (Wellbore) | Tool Name | Description | |
| 162.0 | 13,544.0 | Survey #1 (Erwin 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 | |
| 162.0 | 1.00 | 144.00 | 162.0 | -1.1 | 0.8 | -1.0 | 0.62 | 0.62 | 0.00 | |
| 253.0 | 1.10 | 141.10 | 253.0 | -2.5 | 1.8 | -2.2 | 0.12 | 0.11 | -3.19 | |
| 343.0 | 1.10 | 141.10 | 343.0 | -3.8 | 2.9 | -3.4 | 0.00 | 0.00 | 0.00 | |
| 463.0 | 1.10 | 139.40 | 462.9 | -5.6 | 4.4 | -5.0 | 0.03 | 0.00 | -1.42 | |
| 552.0 | 1.00 | 290.40 | 551.9 | -6.0 | 4.2 | -5.4 | 2.28 | -0.11 | 169.66 | |
| 642.0 | 1.40 | 295.90 | 641.9 | -5.2 | 2.5 | -4.8 | 0.46 | 0.44 | 6.11 | |
| 731.0 | 0.90 | 225.00 | 730.9 | -5.2 | 1.0 | -5.1 | 1.57 | -0.56 | -79.66 | |
| 820.0 | 3.10 | 152.20 | 819.8 | -7.8 | 1.7 | -7.6 | 3.33 | 2.47 | -81.80 | |
| 909.0 | 4.70 | 161.20 | 908.6 | -13.4 | 4.0 | -12.8 | 1.92 | 1.80 | 10.11 | |

| | | | |
|------------------|---------------------------------------|-------------------------------------|--|
| Company: | PDC Energy Inc. DJ Basin | Local Co-ordinate Reference: | Well Erwin 4N (Nio B) |
| Project: | SEC.27-T5N-R64W | TVD Reference: | WELL @ 4667.0ft (Ensign 142 RKB - 28') |
| Site: | Erwin 5N64W27 1-6 Pad Sec.27-T5N-R64W | MD Reference: | WELL @ 4667.0ft (Ensign 142 RKB - 28') |
| Well: | Erwin 4N (Nio B) | North Reference: | True |
| Wellbore: | Erwin 4N (Nio B) Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Erwin 4N (Nio B) 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) |
| 998.0 | 6.70 | 171.60 | 997.2 | -22.0 | 5.9 | -21.1 | 2.52 | 2.25 | 11.69 |
| 1,088.0 | 7.50 | 172.30 | 1,086.5 | -33.0 | 7.4 | -31.8 | 0.89 | 0.89 | 0.78 |
| 1,177.0 | 8.50 | 166.00 | 1,174.6 | -45.2 | 9.8 | -43.6 | 1.49 | 1.12 | -7.08 |
| 1,263.0 | 10.40 | 162.10 | 1,259.5 | -58.7 | 13.7 | -56.5 | 2.33 | 2.21 | -4.53 |
| 1,352.0 | 12.20 | 162.80 | 1,346.7 | -75.4 | 19.0 | -72.3 | 2.03 | 2.02 | 0.79 |
| 1,442.0 | 12.00 | 157.90 | 1,434.7 | -93.1 | 25.3 | -89.1 | 1.16 | -0.22 | -5.44 |
| 1,530.0 | 12.00 | 157.30 | 1,520.8 | -110.0 | 32.3 | -105.0 | 0.14 | 0.00 | -0.68 |
| 1,625.0 | 13.40 | 157.00 | 1,613.5 | -129.3 | 40.4 | -123.1 | 1.48 | 1.47 | -0.32 |
| 1,701.0 | 13.00 | 155.15 | 1,687.5 | -145.1 | 47.4 | -137.9 | 0.77 | -0.53 | -2.43 |
| 1,791.0 | 12.34 | 154.46 | 1,775.3 | -163.0 | 55.8 | -154.6 | 0.75 | -0.73 | -0.77 |
| 1,880.0 | 13.59 | 152.97 | 1,862.0 | -180.9 | 64.7 | -171.2 | 1.45 | 1.40 | -1.67 |
| 1,970.0 | 15.16 | 157.68 | 1,949.2 | -201.2 | 74.0 | -190.2 | 2.17 | 1.74 | 5.23 |
| 2,059.0 | 17.65 | 160.24 | 2,034.6 | -224.7 | 83.0 | -212.3 | 2.91 | 2.80 | 2.88 |
| 2,149.0 | 21.25 | 163.85 | 2,119.4 | -253.2 | 92.1 | -239.5 | 4.22 | 4.00 | 4.01 |
| 2,239.0 | 23.78 | 167.18 | 2,202.6 | -286.5 | 100.7 | -271.5 | 3.15 | 2.81 | 3.70 |
| 2,329.0 | 24.16 | 170.26 | 2,284.8 | -322.4 | 107.8 | -306.1 | 1.45 | 0.42 | 3.42 |
| 2,419.0 | 25.83 | 171.33 | 2,366.4 | -359.9 | 113.9 | -342.6 | 1.92 | 1.86 | 1.19 |
| 2,509.0 | 26.56 | 175.96 | 2,447.1 | -399.4 | 118.3 | -381.2 | 2.41 | 0.81 | 5.14 |
| 2,599.0 | 26.94 | 174.52 | 2,527.5 | -439.8 | 121.6 | -420.8 | 0.83 | 0.42 | -1.60 |
| 2,689.0 | 26.61 | 175.39 | 2,607.9 | -480.1 | 125.2 | -460.4 | 0.57 | -0.37 | 0.97 |
| 2,778.0 | 26.80 | 175.08 | 2,687.4 | -520.0 | 128.5 | -499.5 | 0.26 | 0.21 | -0.35 |
| 2,868.0 | 26.67 | 175.24 | 2,767.7 | -560.3 | 131.9 | -539.1 | 0.17 | -0.14 | 0.18 |
| 2,958.0 | 26.75 | 171.31 | 2,848.2 | -600.5 | 136.7 | -578.3 | 1.96 | 0.09 | -4.37 |
| 3,047.0 | 26.28 | 167.66 | 2,927.8 | -639.5 | 143.9 | -616.1 | 1.91 | -0.53 | -4.10 |
| 3,137.0 | 23.39 | 166.62 | 3,009.5 | -676.4 | 152.3 | -651.6 | 3.25 | -3.21 | -1.16 |
| 3,227.0 | 23.68 | 166.53 | 3,092.0 | -711.4 | 160.6 | -685.2 | 0.32 | 0.32 | -0.10 |
| 3,316.0 | 23.43 | 166.25 | 3,173.6 | -745.9 | 169.0 | -718.5 | 0.31 | -0.28 | -0.31 |
| 3,406.0 | 23.31 | 166.67 | 3,256.2 | -780.6 | 177.4 | -751.8 | 0.23 | -0.13 | 0.47 |
| 3,495.0 | 23.25 | 165.67 | 3,337.9 | -814.8 | 185.8 | -784.6 | 0.45 | -0.07 | -1.12 |
| 3,585.0 | 23.36 | 166.31 | 3,420.6 | -849.3 | 194.4 | -817.8 | 0.31 | 0.12 | 0.71 |
| 3,674.0 | 23.76 | 165.87 | 3,502.2 | -883.9 | 202.9 | -851.0 | 0.49 | 0.45 | -0.49 |
| 3,763.0 | 23.60 | 166.02 | 3,583.7 | -918.5 | 211.6 | -884.3 | 0.19 | -0.18 | 0.17 |
| 3,852.0 | 23.37 | 164.63 | 3,665.3 | -952.8 | 220.6 | -917.2 | 0.67 | -0.26 | -1.56 |
| 3,943.0 | 23.30 | 165.27 | 3,748.9 | -987.7 | 230.0 | -950.5 | 0.29 | -0.08 | 0.70 |
| 4,032.0 | 23.37 | 164.02 | 3,830.6 | -1,021.6 | 239.3 | -983.0 | 0.56 | 0.08 | -1.40 |
| 4,122.0 | 23.40 | 164.56 | 3,913.2 | -1,056.0 | 249.0 | -1,015.9 | 0.24 | 0.03 | 0.60 |
| 4,211.0 | 23.57 | 165.29 | 3,994.8 | -1,090.3 | 258.2 | -1,048.7 | 0.38 | 0.19 | 0.82 |
| 4,301.0 | 23.34 | 165.23 | 4,077.4 | -1,124.9 | 267.3 | -1,081.9 | 0.26 | -0.26 | -0.07 |
| 4,391.0 | 23.52 | 166.07 | 4,160.0 | -1,159.6 | 276.2 | -1,115.2 | 0.42 | 0.20 | 0.93 |
| 4,481.0 | 23.24 | 164.29 | 4,242.6 | -1,194.1 | 285.3 | -1,148.3 | 0.84 | -0.31 | -1.98 |
| 4,570.0 | 22.95 | 165.73 | 4,324.4 | -1,227.8 | 294.3 | -1,180.6 | 0.71 | -0.33 | 1.62 |
| 4,660.0 | 22.54 | 163.79 | 4,407.4 | -1,261.4 | 303.5 | -1,212.7 | 0.95 | -0.46 | -2.16 |
| 4,749.0 | 23.28 | 164.89 | 4,489.4 | -1,294.8 | 312.8 | -1,244.6 | 0.96 | 0.83 | 1.24 |
| 4,840.0 | 23.57 | 165.65 | 4,572.9 | -1,329.8 | 322.0 | -1,278.2 | 0.46 | 0.32 | 0.84 |

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| Well: | Erwin 4N (Nio B) | North Reference: | True |
| Wellbore: | Erwin 4N (Nio B) Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Erwin 4N (Nio B) 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) |
| 4,930.0 | 22.94 | 165.81 | 4,655.6 | -1,364.2 | 330.8 | -1,311.2 | 0.70 | -0.70 | 0.18 |
| 5,020.0 | 23.36 | 165.23 | 4,738.4 | -1,398.5 | 339.6 | -1,344.1 | 0.53 | 0.47 | -0.64 |
| 5,109.0 | 23.88 | 165.46 | 4,819.9 | -1,432.9 | 348.7 | -1,377.1 | 0.59 | 0.58 | 0.26 |
| 5,199.0 | 23.65 | 164.71 | 4,902.3 | -1,468.0 | 358.0 | -1,410.7 | 0.42 | -0.26 | -0.83 |
| 5,289.0 | 23.17 | 164.40 | 4,984.9 | -1,502.5 | 367.5 | -1,443.7 | 0.55 | -0.53 | -0.34 |
| 5,378.0 | 23.41 | 165.10 | 5,066.6 | -1,536.4 | 376.8 | -1,476.2 | 0.41 | 0.27 | 0.79 |
| 5,468.0 | 23.53 | 165.63 | 5,149.2 | -1,571.1 | 385.8 | -1,509.4 | 0.27 | 0.13 | 0.59 |
| 5,558.0 | 22.91 | 164.78 | 5,231.9 | -1,605.4 | 394.9 | -1,542.3 | 0.78 | -0.69 | -0.94 |
| 5,647.0 | 23.56 | 165.85 | 5,313.7 | -1,639.4 | 403.8 | -1,574.9 | 0.87 | 0.73 | 1.20 |
| 5,737.0 | 23.45 | 165.87 | 5,396.2 | -1,674.2 | 412.6 | -1,608.3 | 0.12 | -0.12 | 0.02 |
| 5,827.0 | 23.44 | 166.27 | 5,478.8 | -1,708.9 | 421.2 | -1,641.7 | 0.18 | -0.01 | 0.44 |
| 5,916.0 | 23.43 | 165.84 | 5,560.4 | -1,743.3 | 429.7 | -1,674.7 | 0.19 | -0.01 | -0.48 |
| 6,006.0 | 22.82 | 165.02 | 5,643.2 | -1,777.5 | 438.6 | -1,707.5 | 0.77 | -0.68 | -0.91 |
| 6,096.0 | 14.49 | 152.76 | 5,728.4 | -1,804.4 | 448.3 | -1,733.0 | 10.18 | -9.26 | -13.62 |
| 6,186.0 | 8.32 | 127.73 | 5,816.6 | -1,818.4 | 458.6 | -1,745.6 | 8.64 | -6.86 | -27.81 |
| 6,275.0 | 8.05 | 79.36 | 5,904.8 | -1,821.2 | 469.8 | -1,746.9 | 7.52 | -0.30 | -54.35 |
| 6,365.0 | 11.16 | 40.79 | 5,993.7 | -1,813.5 | 481.7 | -1,737.7 | 7.74 | 3.46 | -42.86 |
| 6,455.0 | 19.35 | 30.62 | 6,080.4 | -1,794.0 | 495.0 | -1,716.7 | 9.54 | 9.10 | -11.30 |
| 6,544.0 | 24.86 | 12.86 | 6,162.9 | -1,763.0 | 506.7 | -1,684.5 | 9.67 | 6.19 | -19.96 |
| 6,634.0 | 30.84 | 0.85 | 6,242.5 | -1,721.4 | 511.3 | -1,642.7 | 9.08 | 6.64 | -13.34 |
| 6,724.0 | 36.63 | 357.26 | 6,317.4 | -1,671.5 | 510.3 | -1,593.2 | 6.80 | 6.43 | -3.99 |
| 6,813.0 | 43.97 | 1.28 | 6,385.2 | -1,614.0 | 509.8 | -1,536.3 | 8.75 | 8.25 | 4.52 |
| 6,903.0 | 50.03 | 4.80 | 6,446.6 | -1,548.3 | 513.4 | -1,470.7 | 7.31 | 6.73 | 3.91 |
| 6,993.0 | 56.88 | 4.14 | 6,500.1 | -1,476.3 | 519.0 | -1,398.5 | 7.63 | 7.61 | -0.73 |
| 7,040.5 | 59.99 | 3.19 | 6,525.0 | -1,435.9 | 521.5 | -1,358.1 | 6.78 | 6.56 | -2.01 |
| TPZ - 60° Inc in Curve - 956'FNL & 1724'FEL, Sec.34 | | | | | | | | | |
| 7,082.0 | 62.72 | 2.40 | 6,544.9 | -1,399.5 | 523.3 | -1,321.8 | 6.78 | 6.57 | -1.89 |
| 7,172.0 | 66.01 | 3.02 | 6,583.8 | -1,318.5 | 527.2 | -1,241.0 | 3.71 | 3.66 | 0.69 |
| 7,261.0 | 75.65 | 5.79 | 6,613.0 | -1,234.8 | 533.7 | -1,157.1 | 11.22 | 10.83 | 3.11 |
| 7,351.0 | 82.41 | 4.88 | 6,630.1 | -1,146.9 | 541.9 | -1,068.8 | 7.58 | 7.51 | -1.01 |
| 7,441.0 | 89.15 | 5.27 | 6,636.7 | -1,057.5 | 549.8 | -979.2 | 7.50 | 7.49 | 0.43 |
| 7,530.0 | 89.75 | 2.78 | 6,637.6 | -968.7 | 556.1 | -890.4 | 2.88 | 0.67 | -2.80 |
| 7,619.0 | 90.06 | 357.65 | 6,637.7 | -879.8 | 556.4 | -802.1 | 5.77 | 0.35 | -5.76 |
| 7,709.0 | 90.19 | 1.28 | 6,637.6 | -789.8 | 555.5 | -712.9 | 4.04 | 0.14 | 4.03 |
| 7,798.0 | 89.94 | 0.37 | 6,637.4 | -700.8 | 556.8 | -624.5 | 1.06 | -0.28 | -1.02 |
| 7,888.0 | 90.24 | 2.13 | 6,637.3 | -610.8 | 558.8 | -535.0 | 1.98 | 0.33 | 1.96 |
| 7,977.0 | 90.46 | 359.60 | 6,636.8 | -521.8 | 560.1 | -446.6 | 2.85 | 0.25 | -2.84 |
| 8,067.0 | 90.29 | 2.70 | 6,636.2 | -431.9 | 561.9 | -357.1 | 3.45 | -0.19 | 3.44 |
| 8,157.0 | 89.97 | 0.65 | 6,636.0 | -341.9 | 564.6 | -267.5 | 2.31 | -0.36 | -2.28 |
| 8,247.0 | 90.33 | 1.72 | 6,635.7 | -251.9 | 566.4 | -178.0 | 1.25 | 0.40 | 1.19 |
| 8,337.0 | 90.21 | 3.03 | 6,635.3 | -162.0 | 570.2 | -88.4 | 1.46 | -0.13 | 1.46 |
| 8,427.0 | 90.13 | 1.85 | 6,635.0 | -72.1 | 574.0 | 1.3 | 1.31 | -0.09 | -1.31 |
| 8,517.0 | 90.29 | 1.08 | 6,634.7 | 17.9 | 576.3 | 90.8 | 0.87 | 0.18 | -0.86 |

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| 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) |
| 8,607.0 | 89.97 | 3.29 | 6,634.5 | 107.8 | 579.7 | 180.5 | 2.48 | -0.36 | 2.46 |
| 8,697.0 | 89.75 | 359.87 | 6,634.7 | 197.7 | 582.2 | 270.0 | 3.81 | -0.24 | -3.80 |
| 8,787.0 | 89.13 | 0.39 | 6,635.6 | 287.7 | 582.4 | 359.3 | 0.90 | -0.69 | 0.58 |
| 8,877.0 | 89.37 | 2.64 | 6,636.8 | 377.7 | 584.8 | 448.8 | 2.51 | 0.27 | 2.50 |
| 8,966.0 | 89.26 | 1.21 | 6,637.9 | 466.6 | 587.8 | 537.4 | 1.61 | -0.12 | -1.61 |
| 9,055.0 | 89.19 | 2.26 | 6,639.1 | 555.6 | 590.5 | 626.0 | 1.18 | -0.08 | 1.18 |
| 9,144.0 | 88.82 | 3.69 | 6,640.6 | 644.4 | 595.1 | 714.7 | 1.66 | -0.42 | 1.61 |
| 9,234.0 | 88.97 | 2.66 | 6,642.3 | 734.3 | 600.1 | 804.5 | 1.16 | 0.17 | -1.14 |
| 9,324.0 | 88.93 | 2.56 | 6,644.0 | 824.2 | 604.2 | 894.2 | 0.12 | -0.04 | -0.11 |
| 9,414.0 | 88.97 | 1.78 | 6,645.6 | 914.1 | 607.6 | 983.8 | 0.87 | 0.04 | -0.87 |
| 9,503.0 | 89.07 | 0.46 | 6,647.2 | 1,003.1 | 609.3 | 1,072.3 | 1.49 | 0.11 | -1.48 |
| 9,593.0 | 89.30 | 0.57 | 6,648.4 | 1,093.1 | 610.1 | 1,161.6 | 0.28 | 0.26 | 0.12 |
| 9,683.0 | 89.03 | 359.97 | 6,649.7 | 1,183.0 | 610.6 | 1,251.0 | 0.73 | -0.30 | -0.67 |
| 9,772.0 | 89.06 | 359.81 | 6,651.2 | 1,272.0 | 610.4 | 1,339.2 | 0.18 | 0.03 | -0.18 |
| 9,861.0 | 89.14 | 0.18 | 6,652.6 | 1,361.0 | 610.4 | 1,427.5 | 0.43 | 0.09 | 0.42 |
| 9,951.0 | 89.00 | 359.60 | 6,654.1 | 1,451.0 | 610.2 | 1,516.7 | 0.66 | -0.16 | -0.64 |
| 10,041.0 | 89.32 | 0.14 | 6,655.4 | 1,541.0 | 610.0 | 1,605.9 | 0.70 | 0.36 | 0.60 |
| 10,130.0 | 89.97 | 357.45 | 6,656.0 | 1,630.0 | 608.1 | 1,694.0 | 3.11 | 0.73 | -3.02 |
| 10,220.0 | 88.93 | 1.12 | 6,656.8 | 1,719.9 | 607.0 | 1,783.1 | 4.24 | -1.16 | 4.08 |
| 10,310.0 | 89.04 | 359.49 | 6,658.4 | 1,809.9 | 607.5 | 1,872.4 | 1.81 | 0.12 | -1.81 |
| 10,400.0 | 88.99 | 359.39 | 6,660.0 | 1,899.9 | 606.6 | 1,961.5 | 0.12 | -0.06 | -0.11 |
| 10,490.0 | 89.28 | 359.27 | 6,661.3 | 1,989.9 | 605.5 | 2,050.6 | 0.35 | 0.32 | -0.13 |
| 10,580.0 | 89.27 | 0.96 | 6,662.5 | 2,079.9 | 605.7 | 2,139.9 | 1.88 | -0.01 | 1.88 |
| 10,670.0 | 88.88 | 2.23 | 6,663.9 | 2,169.8 | 608.2 | 2,229.5 | 1.48 | -0.43 | 1.41 |
| 10,759.0 | 89.38 | 358.82 | 6,665.3 | 2,258.8 | 609.0 | 2,317.8 | 3.87 | 0.56 | -3.83 |
| 10,844.0 | 89.70 | 358.85 | 6,666.0 | 2,343.8 | 607.3 | 2,401.9 | 0.38 | 0.38 | 0.03 |
| Deepest TVD Drilled - 6666' | | | | | | | | | |
| 10,849.0 | 89.72 | 358.85 | 6,666.0 | 2,348.8 | 607.2 | 2,406.8 | 0.38 | 0.38 | 0.03 |
| 10,939.0 | 90.69 | 0.54 | 6,665.7 | 2,438.8 | 606.7 | 2,496.0 | 2.17 | 1.08 | 1.88 |
| 11,028.0 | 90.62 | 0.16 | 6,664.6 | 2,527.8 | 607.3 | 2,584.4 | 0.43 | -0.08 | -0.43 |
| 11,118.0 | 90.61 | 0.59 | 6,663.7 | 2,617.8 | 607.9 | 2,673.7 | 0.48 | -0.01 | 0.48 |
| 11,208.0 | 90.65 | 359.91 | 6,662.7 | 2,707.8 | 608.3 | 2,763.0 | 0.76 | 0.04 | -0.76 |
| 11,297.0 | 90.68 | 359.75 | 6,661.6 | 2,796.7 | 608.0 | 2,851.3 | 0.18 | 0.03 | -0.18 |
| 11,387.0 | 90.75 | 2.48 | 6,660.5 | 2,886.7 | 609.8 | 2,940.7 | 3.03 | 0.08 | 3.03 |
| 11,476.0 | 90.27 | 0.70 | 6,659.7 | 2,975.7 | 612.2 | 3,029.3 | 2.07 | -0.54 | -2.00 |
| 11,566.0 | 90.37 | 1.99 | 6,659.2 | 3,065.6 | 614.3 | 3,118.8 | 1.44 | 0.11 | 1.43 |
| 11,655.0 | 90.51 | 1.49 | 6,658.5 | 3,154.6 | 617.0 | 3,207.4 | 0.58 | 0.16 | -0.56 |
| 11,745.0 | 90.63 | 359.97 | 6,657.7 | 3,244.6 | 618.2 | 3,296.8 | 1.69 | 0.13 | -1.69 |
| 11,835.0 | 90.62 | 0.66 | 6,656.7 | 3,334.6 | 618.7 | 3,386.1 | 0.77 | -0.01 | 0.77 |
| 11,925.0 | 90.99 | 1.79 | 6,655.4 | 3,424.6 | 620.6 | 3,475.6 | 1.32 | 0.41 | 1.26 |
| 12,014.0 | 91.16 | 0.94 | 6,653.7 | 3,513.5 | 622.7 | 3,564.1 | 0.97 | 0.19 | -0.96 |
| 12,104.0 | 91.37 | 0.87 | 6,651.7 | 3,603.5 | 624.1 | 3,653.5 | 0.25 | 0.23 | -0.08 |
| 12,193.0 | 91.19 | 0.62 | 6,649.8 | 3,692.4 | 625.3 | 3,741.9 | 0.35 | -0.20 | -0.28 |
| 12,283.0 | 91.08 | 1.27 | 6,648.0 | 3,782.4 | 626.8 | 3,831.4 | 0.73 | -0.12 | 0.72 |

| | | | |
|------------------|---------------------------------------|-------------------------------------|--|
| Company: | PDC Energy Inc. DJ Basin | Local Co-ordinate Reference: | Well Erwin 4N (Nio B) |
| Project: | SEC.27-T5N-R64W | TVD Reference: | WELL @ 4667.0ft (Ensign 142 RKB - 28') |
| Site: | Erwin 5N64W27 1-6 Pad Sec.27-T5N-R64W | MD Reference: | WELL @ 4667.0ft (Ensign 142 RKB - 28') |
| Well: | Erwin 4N (Nio B) | North Reference: | True |
| Wellbore: | Erwin 4N (Nio B) Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Erwin 4N (Nio B) 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) | |
| 12,373.0 | 91.11 | 359.42 | 6,646.3 | 3,872.4 | 627.3 | 3,920.7 | 2.06 | 0.03 | -2.06 | |
| 12,463.0 | 91.08 | 359.51 | 6,644.5 | 3,962.4 | 626.5 | 4,009.8 | 0.11 | -0.03 | 0.10 | |
| 12,553.0 | 90.92 | 1.17 | 6,643.0 | 4,052.4 | 627.0 | 4,099.2 | 1.85 | -0.18 | 1.84 | |
| 12,643.0 | 91.51 | 0.48 | 6,641.1 | 4,142.3 | 628.3 | 4,188.6 | 1.01 | 0.66 | -0.77 | |
| 12,733.0 | 91.02 | 1.63 | 6,639.1 | 4,232.3 | 630.0 | 4,278.0 | 1.39 | -0.54 | 1.28 | |
| 12,822.0 | 91.25 | 0.59 | 6,637.3 | 4,321.2 | 631.7 | 4,366.5 | 1.20 | 0.26 | -1.17 | |
| 12,912.0 | 91.19 | 359.94 | 6,635.4 | 4,411.2 | 632.1 | 4,455.8 | 0.73 | -0.07 | -0.72 | |
| 13,002.0 | 90.92 | 1.74 | 6,633.7 | 4,501.2 | 633.4 | 4,545.2 | 2.02 | -0.30 | 2.00 | |
| 13,092.0 | 90.74 | 2.23 | 6,632.4 | 4,591.1 | 636.5 | 4,634.8 | 0.58 | -0.20 | 0.54 | |
| 13,182.0 | 90.54 | 2.20 | 6,631.4 | 4,681.1 | 640.0 | 4,724.4 | 0.22 | -0.22 | -0.03 | |
| 13,272.0 | 90.72 | 1.38 | 6,630.4 | 4,771.0 | 642.8 | 4,814.0 | 0.93 | 0.20 | -0.91 | |
| 13,362.0 | 90.68 | 1.44 | 6,629.3 | 4,861.0 | 645.1 | 4,903.5 | 0.08 | -0.04 | 0.07 | |
| 13,452.0 | 90.59 | 0.58 | 6,628.3 | 4,951.0 | 646.6 | 4,993.0 | 0.96 | -0.10 | -0.96 | |
| 13,522.0 | 90.80 | 2.72 | 6,627.5 | 5,020.9 | 648.7 | 5,062.6 | 3.07 | 0.30 | 3.06 | |
| 13,544.0 | 90.80 | 2.72 | 6,627.2 | 5,042.9 | 649.7 | 5,084.6 | 0.00 | 0.00 | 0.00 | |

| Design Targets | | | | | | | | | | |
|--|---------------|--------------|----------|------------|------------|-----------------|----------------|-----------|--|--|
| Target Name | Dip Angle (°) | Dip Dir. (°) | TVD (ft) | +N/-S (ft) | +E/-W (ft) | Northing (usft) | Easting (usft) | Latitude | | |
| SHL 483'FSL & 2332'FE | 0.00 | 0.00 | 1.0 | 0.0 | 0.0 | 1,377,057.17 | 3,268,974.51 | 40.364405 | | |
| - hit/miss target | | | | | | | | | | |
| - Shape | | | | | | | | | | |
| - survey hits target center | | | | | | | | | | |
| - Point | | | | | | | | | | |
| BHL 242'FSL & 1683'FE | 0.00 | 0.00 | 6,630.3 | 5,044.6 | 645.2 | 1,382,108.29 | 3,269,564.77 | 40.378252 | | |
| - survey misses target center by 5.7ft at 13544.0ft MD (6627.2 TVD, 5042.9 N, 649.7 E) | | | | | | | | | | |
| - Point | | | | | | | | | | |

| Survey Annotations | | | | | |
|---------------------|---------------------|-------------------|------------|---|--|
| Measured Depth (ft) | Vertical Depth (ft) | Local Coordinates | | | |
| | | +N/-S (ft) | +E/-W (ft) | Comment | |
| 7,040.5 | 6,525.0 | -1,435.9 | 521.5 | TPZ – 60° Inc in Curve - 956'FNL & 1724'FEL, Sec.34 | |
| 10,844.0 | 6,666.0 | 2,343.8 | 607.3 | Deepest TVD Drilled - 6666' | |

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