

PDC Energy Inc. DJ Basin



HEN 16N
 Hen Pad
 North American Datum 1983 , US State Plane 1983, Colorado Northern Zone
 Ground Elevation: 4779.0
 +N/-S +E/-W Northing Easting Latitude Longitude
 0.0 0.0 1363611.18 3258633.36 40.327800 -104.572340
 P272 - RKB 28.5' Well @ 4807.5ft (P272 - RKB 28.5')

Hen Pad
 HEN 16N
 HEN 16N Final Surveys
 12:07, November 29 2023



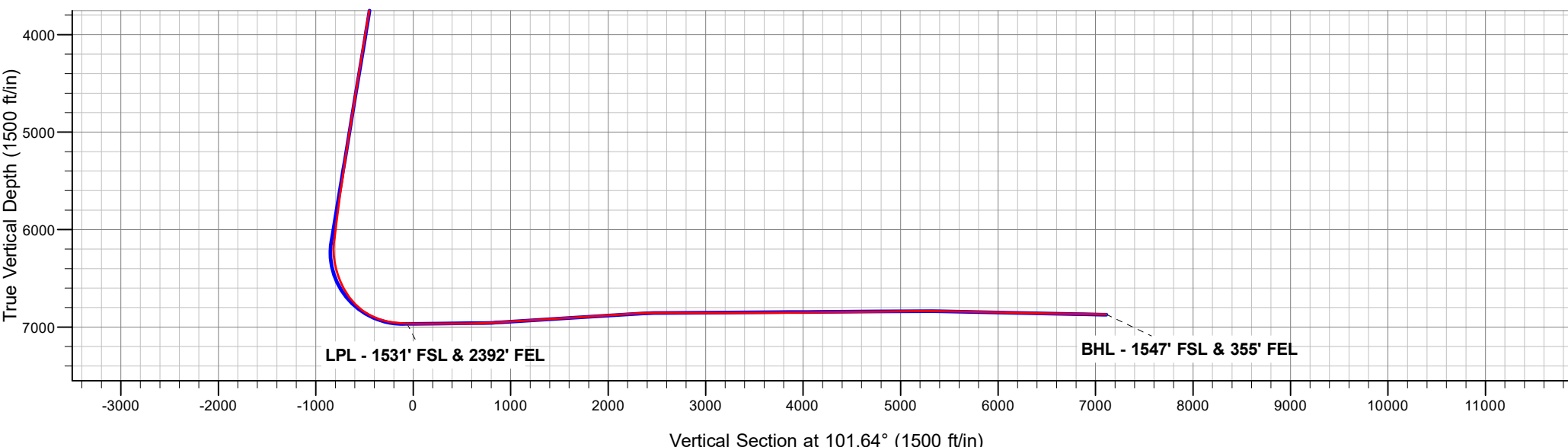
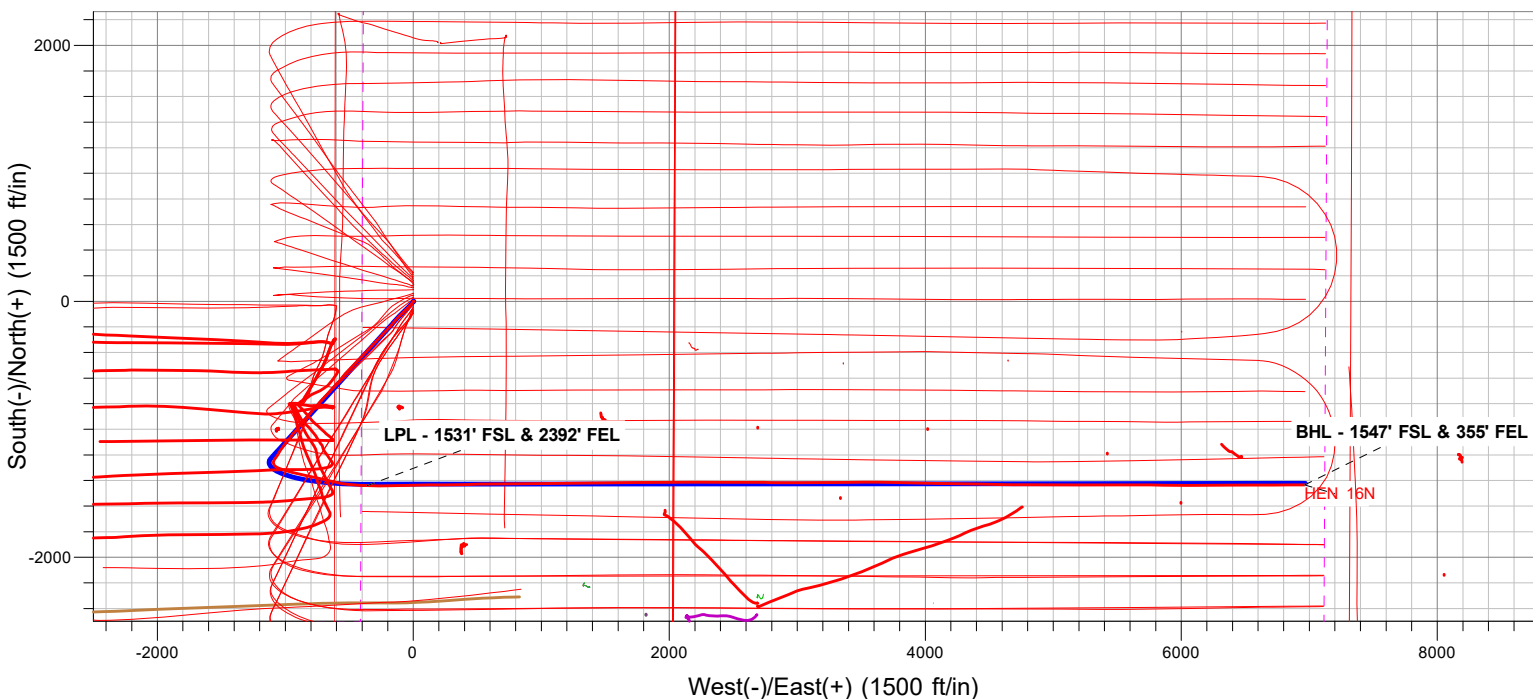
Azimuths to True North
 Magnetic North: 7.67°

Magnetic Field
 Strength: 51700.2nT
 Dip Angle: 66.58°
 Date: 09/15/2023
 Model: HRGM

ANNOTATIONS

| MD | TVD | Annotation |
|---------|--------|-----------------------------|
| 7665.0 | 6964.6 | LPL - 1531' FSL & 2392' FEL |
| 14994.0 | 6870.1 | BHL - 1547' FSL & 355' FEL |

FINAL SURVEY
Projected Bottom Hole Location
14994' MD / 6870.1' TVD
88.99° INC / 89.98° AZM
1547' FSL / 355' FEL



PDC Energy Inc. DJ Basin

SEC.8-T4N-R64W

Hen Pad

HEN 16N

HEN 16N

Design: HEN 16N Final Surveys

Survey Report - Geographic

29 November, 2023

Ensign

Survey Report - Geographic

| | |
|--|--|
| Company: PDC Energy Inc. DJ Basin | Local Co-ordinate Reference: Well HEN 16N |
| Project: SEC.8-T4N-R64W | TVD Reference: Well @ 4807.5ft (P272 - RKB 28.5') |
| Site: Hen Pad | MD Reference: Well @ 4807.5ft (P272 - RKB 28.5') |
| Well: HEN 16N | North Reference: True |
| Wellbore: HEN 16N | Survey Calculation Method: Minimum Curvature |
| Design: HEN 16N Final Surveys | 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 | | | |
| Map Zone: Colorado Northern Zone | Using geodetic scale factor | | |

| | | | |
|-------------------------------------|------------------------------------|---------------------------------|--|
| Site Hen Pad | | | |
| Site Position: | Northing: 1,363,685.50 usft | Latitude: 40.328004 | |
| From: Lat/Long | Easting: 3,258,631.47 usft | Longitude: -104.572344 | |
| Position Uncertainty: 0.0 ft | Slot Radius: 13-3/16 " | Grid Convergence: 0.60 ° | |

| | | | |
|------------------------------------|---------------------|------------------------------------|---------------------------------|
| Well HEN 16N | | | |
| Well Position | +N/-S 0.0 ft | Northing: 1,363,611.18 usft | Latitude: 40.327800 |
| | +E/-W 0.0 ft | Easting: 3,258,633.36 usft | Longitude: -104.572340 |
| Position Uncertainty 0.0 ft | | Wellhead Elevation: ft | Ground Level: 4,779.0 ft |

| Wellbore HEN 16N | | | | | |
|-------------------------|------------|-------------|-----------------|---------------|---------------------|
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | HRGM | 09/15/2023 | 7.67 | 66.58 | 51,700.20799055 |

| Design HEN 16N Final Surveys | | | | | |
|-------------------------------------|-----------------------|--------------------------|------------|---------------|--|
| 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 | 101.64 | |

| Survey Program Date 11/29/2023 | | | | | |
|---------------------------------------|----------|---------------------|-----------------|---|--|
| From (ft) | To (ft) | Survey (Wellbore) | Tool Name | Description | |
| 159.5 | 14,994.0 | Survey #1 (HEN 16N) | MWD+IFR1+SAG+MS | OWSG MWD + IFR1 + Sag + Multi-Station Corre | |

| Survey | | | | | | | | | | |
|---------------------|-----------------|-------------|---------------------|------------|------------|---------------------|--------------------|-----------|-------------|--|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Map Northing (usft) | Map Easting (usft) | Latitude | Longitude | |
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 1,363,611.18 | 3,258,633.36 | 40.327800 | -104.572340 | |
| 159.5 | 1.93 | 69.74 | 159.5 | 0.9 | 2.5 | 1,363,612.14 | 3,258,635.87 | 40.327803 | -104.572331 | |
| 249.5 | 0.88 | 127.05 | 249.4 | 1.0 | 4.5 | 1,363,612.27 | 3,258,637.84 | 40.327803 | -104.572324 | |
| 340.5 | 1.23 | 227.42 | 340.4 | 0.0 | 4.3 | 1,363,611.18 | 3,258,637.69 | 40.327800 | -104.572325 | |
| 456.5 | 1.41 | 223.20 | 456.4 | -1.9 | 2.4 | 1,363,609.28 | 3,258,635.82 | 40.327795 | -104.572332 | |
| 545.5 | 1.23 | 226.71 | 545.4 | -3.4 | 1.0 | 1,363,607.81 | 3,258,634.39 | 40.327791 | -104.572337 | |
| 629.5 | 1.67 | 234.10 | 629.4 | -4.7 | -0.7 | 1,363,606.46 | 3,258,632.75 | 40.327787 | -104.572343 | |
| 715.5 | 2.02 | 221.79 | 715.3 | -6.6 | -2.7 | 1,363,604.58 | 3,258,630.75 | 40.327782 | -104.572350 | |
| 801.5 | 3.43 | 221.79 | 801.2 | -9.6 | -5.4 | 1,363,601.50 | 3,258,628.06 | 40.327774 | -104.572360 | |
| 888.5 | 5.36 | 222.49 | 888.0 | -14.6 | -9.9 | 1,363,596.51 | 3,258,623.63 | 40.327760 | -104.572376 | |
| 977.5 | 7.39 | 222.67 | 976.4 | -21.8 | -16.6 | 1,363,589.17 | 3,258,617.02 | 40.327740 | -104.572400 | |
| 1,066.5 | 9.50 | 222.67 | 1,064.4 | -31.5 | -25.4 | 1,363,579.47 | 3,258,608.26 | 40.327714 | -104.572431 | |

Ensign

Survey Report - Geographic

| | | | |
|------------------|--------------------------|-------------------------------------|------------------------------------|
| Company: | PDC Energy Inc. DJ Basin | Local Co-ordinate Reference: | Well HEN 16N |
| Project: | SEC.8-T4N-R64W | TVD Reference: | Well @ 4807.5ft (P272 - RKB 28.5') |
| Site: | Hen Pad | MD Reference: | Well @ 4807.5ft (P272 - RKB 28.5') |
| Well: | HEN 16N | North Reference: | True |
| Wellbore: | HEN 16N | Survey Calculation Method: | Minimum Curvature |
| Design: | HEN 16N Final Surveys | Database: | US_EDM |

| Survey | | | | | | | | | | |
|---------------------|-----------------|-------------|---------------------|------------|------------|---------------------|--------------------|-----------|-------------|--|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Map Northing (usft) | Map Easting (usft) | Latitude | Longitude | |
| 1,151.5 | 11.96 | 224.43 | 1,147.9 | -42.9 | -36.4 | 1,363,567.91 | 3,258,597.46 | 40.327682 | -104.572471 | |
| 1,237.5 | 13.54 | 226.71 | 1,231.8 | -56.2 | -49.9 | 1,363,554.50 | 3,258,584.03 | 40.327646 | -104.572519 | |
| 1,322.5 | 14.95 | 225.31 | 1,314.2 | -70.7 | -65.0 | 1,363,539.81 | 3,258,569.15 | 40.327606 | -104.572573 | |
| 1,407.5 | 16.36 | 224.60 | 1,396.0 | -86.9 | -81.2 | 1,363,523.41 | 3,258,553.12 | 40.327561 | -104.572631 | |
| 1,495.5 | 17.41 | 223.55 | 1,480.2 | -105.3 | -98.9 | 1,363,504.86 | 3,258,535.54 | 40.327511 | -104.572695 | |
| 1,582.5 | 17.50 | 226.01 | 1,563.2 | -123.8 | -117.3 | 1,363,486.15 | 3,258,517.36 | 40.327460 | -104.572761 | |
| 1,658.5 | 16.44 | 221.79 | 1,635.9 | -139.8 | -132.7 | 1,363,470.03 | 3,258,502.14 | 40.327416 | -104.572816 | |
| 1,732.0 | 16.48 | 220.52 | 1,706.4 | -155.5 | -146.4 | 1,363,454.21 | 3,258,488.60 | 40.327373 | -104.572865 | |
| 1,830.0 | 16.45 | 217.77 | 1,800.4 | -177.0 | -163.9 | 1,363,432.49 | 3,258,471.29 | 40.327314 | -104.572928 | |
| 1,929.0 | 17.77 | 223.20 | 1,895.0 | -199.1 | -182.9 | 1,363,410.20 | 3,258,452.60 | 40.327254 | -104.572996 | |
| 2,027.0 | 17.63 | 222.96 | 1,988.4 | -220.8 | -203.2 | 1,363,388.23 | 3,258,432.48 | 40.327194 | -104.573069 | |
| 2,126.0 | 17.38 | 224.06 | 2,082.8 | -242.4 | -223.7 | 1,363,366.42 | 3,258,412.20 | 40.327135 | -104.573143 | |
| 2,224.0 | 17.03 | 223.11 | 2,176.4 | -263.4 | -243.7 | 1,363,345.22 | 3,258,392.44 | 40.327077 | -104.573214 | |
| 2,320.0 | 17.12 | 223.97 | 2,268.2 | -283.9 | -263.1 | 1,363,324.58 | 3,258,373.24 | 40.327021 | -104.573284 | |
| 2,418.0 | 17.55 | 221.91 | 2,361.7 | -305.3 | -283.0 | 1,363,303.00 | 3,258,353.58 | 40.326962 | -104.573355 | |
| 2,515.0 | 18.24 | 224.26 | 2,454.0 | -327.0 | -303.4 | 1,363,281.03 | 3,258,333.45 | 40.326902 | -104.573428 | |
| 2,611.0 | 18.26 | 224.28 | 2,545.2 | -348.5 | -324.3 | 1,363,259.29 | 3,258,312.69 | 40.326843 | -104.573504 | |
| 2,708.0 | 18.62 | 224.53 | 2,637.2 | -370.5 | -345.8 | 1,363,237.15 | 3,258,291.45 | 40.326783 | -104.573581 | |
| 2,807.0 | 18.01 | 223.27 | 2,731.2 | -392.9 | -367.4 | 1,363,214.51 | 3,258,270.11 | 40.326722 | -104.573658 | |
| 2,904.0 | 18.56 | 224.09 | 2,823.3 | -414.9 | -388.4 | 1,363,192.29 | 3,258,249.32 | 40.326661 | -104.573733 | |
| 3,000.0 | 17.66 | 223.12 | 2,914.6 | -436.5 | -409.0 | 1,363,170.47 | 3,258,228.97 | 40.326602 | -104.573807 | |
| 3,098.0 | 18.08 | 223.51 | 3,007.8 | -458.4 | -429.6 | 1,363,148.38 | 3,258,208.57 | 40.326542 | -104.573881 | |
| 3,195.0 | 17.73 | 223.97 | 3,100.1 | -479.9 | -450.2 | 1,363,126.62 | 3,258,188.18 | 40.326483 | -104.573955 | |
| 3,292.0 | 17.94 | 224.67 | 3,192.5 | -501.2 | -471.0 | 1,363,105.15 | 3,258,167.65 | 40.326424 | -104.574030 | |
| 3,391.0 | 18.35 | 224.01 | 3,286.6 | -523.2 | -492.5 | 1,363,082.88 | 3,258,146.33 | 40.326364 | -104.574107 | |
| 3,488.0 | 17.27 | 223.55 | 3,378.9 | -544.6 | -513.1 | 1,363,061.25 | 3,258,126.03 | 40.326305 | -104.574180 | |
| 3,586.0 | 17.97 | 218.65 | 3,472.3 | -567.0 | -532.5 | 1,363,038.69 | 3,258,106.80 | 40.326244 | -104.574250 | |
| 3,682.0 | 17.97 | 218.89 | 3,563.6 | -590.1 | -551.1 | 1,363,015.41 | 3,258,088.50 | 40.326180 | -104.574317 | |
| 3,780.0 | 18.13 | 222.03 | 3,656.8 | -613.2 | -570.8 | 1,362,992.11 | 3,258,069.04 | 40.326117 | -104.574387 | |
| 3,876.0 | 18.57 | 222.54 | 3,747.9 | -635.5 | -591.1 | 1,362,969.54 | 3,258,048.94 | 40.326056 | -104.574460 | |
| 3,972.0 | 18.21 | 221.73 | 3,839.0 | -658.0 | -611.4 | 1,362,946.88 | 3,258,028.86 | 40.325994 | -104.574533 | |
| 4,069.0 | 18.27 | 222.33 | 3,931.1 | -680.5 | -631.8 | 1,362,924.12 | 3,258,008.77 | 40.325932 | -104.574606 | |
| 4,168.0 | 18.06 | 221.63 | 4,025.2 | -703.5 | -652.4 | 1,362,900.96 | 3,257,988.37 | 40.325869 | -104.574680 | |
| 4,265.0 | 18.04 | 222.10 | 4,117.4 | -725.9 | -672.5 | 1,362,878.37 | 3,257,968.54 | 40.325808 | -104.574752 | |
| 4,362.0 | 17.89 | 222.23 | 4,209.7 | -748.0 | -692.6 | 1,362,855.99 | 3,257,948.69 | 40.325747 | -104.574824 | |
| 4,460.0 | 17.50 | 221.42 | 4,303.1 | -770.2 | -712.4 | 1,362,833.58 | 3,257,929.06 | 40.325686 | -104.574895 | |
| 4,556.0 | 17.58 | 221.82 | 4,394.6 | -791.8 | -731.6 | 1,362,811.76 | 3,257,910.08 | 40.325626 | -104.574964 | |
| 4,653.0 | 18.12 | 222.45 | 4,486.9 | -813.9 | -751.6 | 1,362,789.50 | 3,257,890.36 | 40.325566 | -104.575036 | |
| 4,750.0 | 18.55 | 222.79 | 4,579.0 | -836.3 | -772.2 | 1,362,766.84 | 3,257,869.93 | 40.325504 | -104.575110 | |
| 4,848.0 | 18.14 | 219.19 | 4,672.0 | -859.6 | -792.5 | 1,362,743.36 | 3,257,849.95 | 40.325440 | -104.575182 | |
| 4,944.0 | 18.73 | 220.93 | 4,763.1 | -882.8 | -812.0 | 1,362,719.93 | 3,257,830.65 | 40.325377 | -104.575253 | |
| 5,040.0 | 17.98 | 220.32 | 4,854.2 | -905.8 | -831.7 | 1,362,696.79 | 3,257,811.21 | 40.325314 | -104.575323 | |
| 5,137.0 | 18.23 | 221.27 | 4,946.4 | -928.6 | -851.4 | 1,362,673.77 | 3,257,791.75 | 40.325251 | -104.575394 | |
| 5,233.0 | 18.30 | 221.44 | 5,037.6 | -951.2 | -871.3 | 1,362,650.98 | 3,257,772.11 | 40.325189 | -104.575465 | |
| 5,331.0 | 17.28 | 214.82 | 5,130.9 | -974.7 | -889.8 | 1,362,627.30 | 3,257,753.86 | 40.325125 | -104.575531 | |
| 5,429.0 | 18.39 | 220.82 | 5,224.2 | -998.3 | -908.2 | 1,362,603.46 | 3,257,735.70 | 40.325060 | -104.575597 | |
| 5,526.0 | 18.14 | 219.97 | 5,316.3 | -1,021.5 | -927.9 | 1,362,580.10 | 3,257,716.24 | 40.324996 | -104.575668 | |
| 5,623.0 | 16.85 | 218.80 | 5,408.8 | -1,044.0 | -946.4 | 1,362,557.38 | 3,257,697.97 | 40.324934 | -104.575734 | |
| 5,722.0 | 17.81 | 219.36 | 5,503.3 | -1,066.9 | -965.0 | 1,362,534.30 | 3,257,679.61 | 40.324871 | -104.575801 | |
| 5,820.0 | 18.50 | 216.65 | 5,596.5 | -1,091.0 | -983.8 | 1,362,510.04 | 3,257,661.08 | 40.324805 | -104.575869 | |
| 5,918.0 | 17.16 | 219.04 | 5,689.8 | -1,114.7 | -1,002.2 | 1,362,486.15 | 3,257,642.94 | 40.324740 | -104.575934 | |
| 6,016.0 | 18.05 | 218.62 | 5,783.2 | -1,137.8 | -1,020.8 | 1,362,462.87 | 3,257,624.60 | 40.324677 | -104.576001 | |
| 6,114.0 | 18.68 | 209.68 | 5,876.2 | -1,163.3 | -1,038.0 | 1,362,437.19 | 3,257,607.62 | 40.324607 | -104.576063 | |
| 6,210.0 | 19.66 | 212.23 | 5,966.9 | -1,190.3 | -1,054.2 | 1,362,410.00 | 3,257,591.68 | 40.324533 | -104.576121 | |
| 6,307.0 | 18.75 | 215.06 | 6,058.5 | -1,216.8 | -1,071.9 | 1,362,383.25 | 3,257,574.30 | 40.324460 | -104.576184 | |

Ensign

Survey Report - Geographic

| | | | |
|------------------|--------------------------|-------------------------------------|------------------------------------|
| Company: | PDC Energy Inc. DJ Basin | Local Co-ordinate Reference: | Well HEN 16N |
| Project: | SEC.8-T4N-R64W | TVD Reference: | Well @ 4807.5ft (P272 - RKB 28.5') |
| Site: | Hen Pad | MD Reference: | Well @ 4807.5ft (P272 - RKB 28.5') |
| Well: | HEN 16N | North Reference: | True |
| Wellbore: | HEN 16N | Survey Calculation Method: | Minimum Curvature |
| Design: | HEN 16N Final Surveys | Database: | US_EDM |

| Survey | | | | | | | | | |
|--|--------------------|----------------|---------------------------|---------------|---------------|---------------------------|--------------------------|-----------|-------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Map Northing (usft) | Map Easting (usft) | Latitude | Longitude |
| 6,405.0 | 15.44 | 210.95 | 6,152.1 | -1,240.9 | -1,087.7 | 1,362,359.00 | 3,257,558.79 | 40.324394 | -104.576241 |
| 6,502.0 | 13.11 | 175.34 | 6,246.3 | -1,263.0 | -1,093.4 | 1,362,336.86 | 3,257,553.27 | 40.324333 | -104.576262 |
| 6,599.0 | 12.65 | 140.32 | 6,341.0 | -1,282.2 | -1,085.7 | 1,362,317.78 | 3,257,561.15 | 40.324280 | -104.576234 |
| 6,695.0 | 17.27 | 117.67 | 6,433.8 | -1,296.9 | -1,066.4 | 1,362,303.25 | 3,257,580.66 | 40.324240 | -104.576165 |
| 6,792.0 | 22.10 | 111.80 | 6,525.1 | -1,310.4 | -1,036.7 | 1,362,290.09 | 3,257,610.52 | 40.324203 | -104.576058 |
| 6,888.0 | 29.70 | 106.23 | 6,611.4 | -1,323.8 | -997.0 | 1,362,277.13 | 3,257,650.32 | 40.324166 | -104.575916 |
| 6,986.0 | 35.56 | 102.63 | 6,693.9 | -1,336.8 | -945.8 | 1,362,264.64 | 3,257,701.62 | 40.324131 | -104.575732 |
| 7,082.0 | 45.30 | 102.86 | 6,766.9 | -1,350.5 | -885.2 | 1,362,251.55 | 3,257,762.40 | 40.324093 | -104.575515 |
| 7,179.0 | 53.43 | 102.19 | 6,830.0 | -1,366.4 | -813.4 | 1,362,236.37 | 3,257,834.36 | 40.324049 | -104.575257 |
| 7,277.0 | 62.79 | 102.91 | 6,881.8 | -1,384.5 | -732.2 | 1,362,219.14 | 3,257,915.67 | 40.324000 | -104.574966 |
| 7,372.0 | 71.05 | 103.80 | 6,919.0 | -1,404.7 | -647.3 | 1,362,199.84 | 3,258,000.82 | 40.323944 | -104.574662 |
| 7,469.0 | 78.27 | 99.79 | 6,944.6 | -1,423.8 | -555.8 | 1,362,181.75 | 3,258,092.51 | 40.323892 | -104.574334 |
| 7,567.0 | 85.26 | 93.74 | 6,958.7 | -1,435.1 | -459.6 | 1,362,171.39 | 3,258,188.84 | 40.323861 | -104.573988 |
| 7,665.0 | 87.74 | 91.49 | 6,964.6 | -1,439.6 | -361.9 | 1,362,167.95 | 3,258,286.57 | 40.323848 | -104.573638 |
| LPL - 1531' FSL & 2392' FEL | | | | | | | | | |
| 7,761.0 | 89.84 | 90.35 | 6,966.7 | -1,441.1 | -265.9 | 1,362,167.42 | 3,258,382.54 | 40.323844 | -104.573294 |
| 7,859.0 | 90.48 | 88.01 | 6,966.4 | -1,439.7 | -167.9 | 1,362,169.84 | 3,258,480.50 | 40.323848 | -104.572943 |
| 7,957.0 | 90.45 | 89.33 | 6,965.6 | -1,437.5 | -70.0 | 1,362,173.14 | 3,258,578.43 | 40.323854 | -104.572591 |
| 8,055.0 | 90.13 | 89.90 | 6,965.1 | -1,436.8 | 28.0 | 1,362,174.83 | 3,258,676.41 | 40.323856 | -104.572240 |
| 8,153.0 | 90.34 | 89.40 | 6,964.7 | -1,436.2 | 126.0 | 1,362,176.45 | 3,258,774.39 | 40.323858 | -104.571888 |
| 8,250.0 | 90.52 | 89.10 | 6,964.0 | -1,434.9 | 223.0 | 1,362,178.73 | 3,258,871.36 | 40.323861 | -104.571540 |
| 8,348.0 | 90.49 | 88.72 | 6,963.1 | -1,433.1 | 321.0 | 1,362,181.62 | 3,258,969.31 | 40.323866 | -104.571189 |
| 8,442.0 | 91.85 | 88.89 | 6,961.2 | -1,431.1 | 414.9 | 1,362,184.57 | 3,259,063.24 | 40.323872 | -104.570852 |
| 8,539.0 | 93.38 | 88.59 | 6,956.8 | -1,429.0 | 511.8 | 1,362,187.71 | 3,259,160.08 | 40.323878 | -104.570505 |
| 8,636.0 | 93.64 | 89.64 | 6,950.8 | -1,427.5 | 608.6 | 1,362,190.22 | 3,259,256.86 | 40.323882 | -104.570158 |
| 8,734.0 | 93.51 | 89.81 | 6,944.7 | -1,427.0 | 706.4 | 1,362,191.71 | 3,259,354.65 | 40.323883 | -104.569807 |
| 8,832.0 | 93.70 | 89.49 | 6,938.6 | -1,426.4 | 804.2 | 1,362,193.33 | 3,259,452.44 | 40.323885 | -104.569456 |
| 8,929.0 | 93.56 | 89.28 | 6,932.4 | -1,425.4 | 901.0 | 1,362,195.38 | 3,259,549.22 | 40.323887 | -104.569109 |
| 9,027.0 | 93.52 | 89.33 | 6,926.4 | -1,424.2 | 998.8 | 1,362,197.59 | 3,259,647.00 | 40.323891 | -104.568758 |
| 9,125.0 | 93.60 | 89.10 | 6,920.3 | -1,422.8 | 1,096.6 | 1,362,199.95 | 3,259,744.78 | 40.323894 | -104.568407 |
| 9,221.0 | 93.65 | 89.27 | 6,914.2 | -1,421.5 | 1,192.4 | 1,362,202.32 | 3,259,840.55 | 40.323898 | -104.568064 |
| 9,319.0 | 93.50 | 89.35 | 6,908.1 | -1,420.3 | 1,290.2 | 1,362,204.52 | 3,259,938.33 | 40.323901 | -104.567713 |
| 9,415.0 | 93.62 | 89.38 | 6,902.1 | -1,419.2 | 1,386.1 | 1,362,206.58 | 3,260,034.12 | 40.323904 | -104.567369 |
| 9,514.0 | 93.46 | 89.31 | 6,896.0 | -1,418.1 | 1,484.9 | 1,362,208.75 | 3,260,132.91 | 40.323907 | -104.567015 |
| 9,610.0 | 93.57 | 89.32 | 6,890.1 | -1,417.0 | 1,580.7 | 1,362,210.89 | 3,260,228.70 | 40.323910 | -104.566671 |
| 9,705.0 | 93.63 | 89.25 | 6,884.2 | -1,415.8 | 1,675.5 | 1,362,213.07 | 3,260,323.48 | 40.323914 | -104.566331 |
| 9,801.0 | 93.49 | 89.87 | 6,878.2 | -1,415.0 | 1,771.3 | 1,362,214.81 | 3,260,419.27 | 40.323916 | -104.565988 |
| 9,899.0 | 93.86 | 89.89 | 6,871.9 | -1,414.8 | 1,869.1 | 1,362,216.03 | 3,260,517.06 | 40.323916 | -104.565637 |
| 9,997.0 | 93.64 | 89.79 | 6,865.5 | -1,414.6 | 1,966.9 | 1,362,217.33 | 3,260,614.84 | 40.323917 | -104.565286 |
| 10,094.0 | 93.56 | 89.94 | 6,859.4 | -1,414.3 | 2,063.7 | 1,362,218.57 | 3,260,711.63 | 40.323918 | -104.564939 |
| 10,191.0 | 91.03 | 90.07 | 6,855.5 | -1,414.3 | 2,160.6 | 1,362,219.58 | 3,260,808.54 | 40.323917 | -104.564592 |
| 10,286.0 | 90.65 | 89.66 | 6,854.1 | -1,414.1 | 2,255.6 | 1,362,220.79 | 3,260,903.52 | 40.323918 | -104.564251 |
| 10,385.0 | 89.67 | 89.98 | 6,853.9 | -1,413.8 | 2,354.6 | 1,362,222.14 | 3,261,002.50 | 40.323919 | -104.563896 |
| 10,482.0 | 89.81 | 90.49 | 6,854.3 | -1,414.2 | 2,451.6 | 1,362,222.76 | 3,261,099.49 | 40.323918 | -104.563548 |
| 10,580.0 | 89.85 | 90.18 | 6,854.6 | -1,414.8 | 2,549.6 | 1,362,223.21 | 3,261,197.49 | 40.323916 | -104.563197 |
| 10,676.0 | 89.93 | 89.56 | 6,854.8 | -1,414.6 | 2,645.6 | 1,362,224.43 | 3,261,293.47 | 40.323917 | -104.562852 |
| 10,773.0 | 89.86 | 91.24 | 6,855.0 | -1,415.2 | 2,742.6 | 1,362,224.77 | 3,261,390.47 | 40.323915 | -104.562504 |
| 10,872.0 | 89.72 | 90.02 | 6,855.3 | -1,416.3 | 2,841.6 | 1,362,224.72 | 3,261,489.46 | 40.323912 | -104.562149 |
| 10,967.0 | 90.23 | 90.38 | 6,855.4 | -1,416.7 | 2,936.6 | 1,362,225.38 | 3,261,584.45 | 40.323911 | -104.561809 |
| 11,065.0 | 90.52 | 89.49 | 6,854.7 | -1,416.6 | 3,034.6 | 1,362,226.52 | 3,261,682.44 | 40.323911 | -104.561457 |
| 11,162.0 | 90.45 | 90.14 | 6,853.9 | -1,416.2 | 3,131.6 | 1,362,227.84 | 3,261,779.42 | 40.323912 | -104.561109 |
| 11,257.0 | 90.08 | 89.26 | 6,853.5 | -1,415.7 | 3,226.6 | 1,362,229.33 | 3,261,874.40 | 40.323913 | -104.560769 |
| 11,354.0 | 90.42 | 89.66 | 6,853.0 | -1,414.8 | 3,323.5 | 1,362,231.26 | 3,261,971.38 | 40.323916 | -104.560421 |
| 11,452.0 | 90.68 | 89.41 | 6,852.1 | -1,414.0 | 3,421.5 | 1,362,233.08 | 3,262,069.35 | 40.323918 | -104.560069 |
| 11,549.0 | 90.69 | 89.14 | 6,850.9 | -1,412.8 | 3,518.5 | 1,362,235.32 | 3,262,166.31 | 40.323921 | -104.559722 |

Ensign

Survey Report - Geographic

| | | | |
|------------------|--------------------------|-------------------------------------|------------------------------------|
| Company: | PDC Energy Inc. DJ Basin | Local Co-ordinate Reference: | Well HEN 16N |
| Project: | SEC.8-T4N-R64W | TVD Reference: | Well @ 4807.5ft (P272 - RKB 28.5') |
| Site: | Hen Pad | MD Reference: | Well @ 4807.5ft (P272 - RKB 28.5') |
| Well: | HEN 16N | North Reference: | True |
| Wellbore: | HEN 16N | Survey Calculation Method: | Minimum Curvature |
| Design: | HEN 16N Final Surveys | Database: | US_EDM |

| Survey | | | | | | | | | | |
|---------------------------------------|-----------------|-------------|---------------------|------------|------------|---------------------|--------------------|-----------|-------------|--|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Map Northing (usft) | Map Easting (usft) | Latitude | Longitude | |
| 11,646.0 | 90.19 | 91.04 | 6,850.2 | -1,413.0 | 3,615.5 | 1,362,236.19 | 3,262,263.30 | 40.323921 | -104.559374 | |
| 11,743.0 | 90.17 | 91.20 | 6,849.9 | -1,414.9 | 3,712.5 | 1,362,235.31 | 3,262,360.29 | 40.323916 | -104.559026 | |
| 11,841.0 | 90.02 | 91.30 | 6,849.7 | -1,417.0 | 3,810.5 | 1,362,234.19 | 3,262,458.28 | 40.323910 | -104.558675 | |
| 11,939.0 | 90.09 | 91.24 | 6,849.6 | -1,419.2 | 3,908.5 | 1,362,233.05 | 3,262,556.27 | 40.323904 | -104.558323 | |
| 12,036.0 | 90.37 | 90.80 | 6,849.2 | -1,420.9 | 4,005.4 | 1,362,232.33 | 3,262,653.26 | 40.323899 | -104.557975 | |
| 12,134.0 | 90.79 | 91.02 | 6,848.3 | -1,422.4 | 4,103.4 | 1,362,231.80 | 3,262,751.25 | 40.323895 | -104.557624 | |
| 12,232.0 | 90.78 | 90.99 | 6,846.9 | -1,424.2 | 4,201.4 | 1,362,231.11 | 3,262,849.23 | 40.323890 | -104.557273 | |
| 12,329.0 | 90.83 | 91.31 | 6,845.6 | -1,426.1 | 4,298.4 | 1,362,230.18 | 3,262,946.21 | 40.323884 | -104.556925 | |
| 12,427.0 | 90.99 | 90.37 | 6,844.0 | -1,427.5 | 4,396.3 | 1,362,229.77 | 3,263,044.20 | 40.323880 | -104.556573 | |
| 12,525.0 | 90.58 | 91.73 | 6,842.7 | -1,429.3 | 4,494.3 | 1,362,228.99 | 3,263,142.18 | 40.323875 | -104.556222 | |
| 12,623.0 | 90.87 | 90.88 | 6,841.4 | -1,431.6 | 4,592.3 | 1,362,227.79 | 3,263,240.16 | 40.323869 | -104.555871 | |
| 12,722.0 | 90.57 | 90.86 | 6,840.2 | -1,433.1 | 4,691.3 | 1,362,227.32 | 3,263,339.14 | 40.323865 | -104.555516 | |
| 12,818.0 | 91.02 | 89.50 | 6,838.8 | -1,433.4 | 4,787.2 | 1,362,228.02 | 3,263,435.12 | 40.323864 | -104.555172 | |
| 12,915.0 | 90.93 | 90.51 | 6,837.2 | -1,433.4 | 4,884.2 | 1,362,229.03 | 3,263,532.10 | 40.323864 | -104.554824 | |
| 13,012.0 | 90.64 | 90.26 | 6,835.9 | -1,434.0 | 4,981.2 | 1,362,229.39 | 3,263,629.09 | 40.323862 | -104.554476 | |
| 13,109.0 | 90.43 | 90.24 | 6,834.9 | -1,434.5 | 5,078.2 | 1,362,229.98 | 3,263,726.07 | 40.323861 | -104.554128 | |
| 13,206.0 | 89.22 | 89.99 | 6,835.2 | -1,434.7 | 5,175.2 | 1,362,230.80 | 3,263,823.06 | 40.323861 | -104.553780 | |
| 13,304.0 | 88.65 | 89.80 | 6,837.1 | -1,434.5 | 5,273.2 | 1,362,232.01 | 3,263,921.04 | 40.323861 | -104.553429 | |
| 13,400.0 | 88.80 | 90.20 | 6,839.2 | -1,434.5 | 5,369.2 | 1,362,233.01 | 3,264,017.00 | 40.323861 | -104.553085 | |
| 13,497.0 | 88.59 | 90.21 | 6,841.4 | -1,434.8 | 5,466.1 | 1,362,233.68 | 3,264,113.97 | 40.323860 | -104.552737 | |
| 13,594.0 | 89.12 | 89.66 | 6,843.4 | -1,434.7 | 5,563.1 | 1,362,234.80 | 3,264,210.94 | 40.323860 | -104.552389 | |
| 13,691.0 | 88.92 | 90.29 | 6,845.0 | -1,434.7 | 5,660.1 | 1,362,235.86 | 3,264,307.91 | 40.323860 | -104.552041 | |
| 13,790.0 | 88.68 | 90.02 | 6,847.1 | -1,434.9 | 5,759.1 | 1,362,236.63 | 3,264,406.89 | 40.323859 | -104.551686 | |
| 13,888.0 | 88.41 | 90.89 | 6,849.6 | -1,435.7 | 5,857.1 | 1,362,236.88 | 3,264,504.85 | 40.323857 | -104.551335 | |
| 13,985.0 | 88.89 | 90.76 | 6,851.9 | -1,437.1 | 5,954.0 | 1,362,236.49 | 3,264,601.82 | 40.323853 | -104.550987 | |
| 14,083.0 | 88.72 | 90.43 | 6,853.9 | -1,438.1 | 6,052.0 | 1,362,236.50 | 3,264,699.79 | 40.323850 | -104.550636 | |
| 14,179.0 | 88.45 | 89.48 | 6,856.3 | -1,438.1 | 6,148.0 | 1,362,237.58 | 3,264,795.75 | 40.323851 | -104.550292 | |
| 14,276.0 | 88.80 | 89.30 | 6,858.6 | -1,437.0 | 6,244.9 | 1,362,239.63 | 3,264,892.70 | 40.323853 | -104.549944 | |
| 14,374.0 | 89.39 | 89.70 | 6,860.1 | -1,436.2 | 6,342.9 | 1,362,241.51 | 3,264,990.66 | 40.323856 | -104.549592 | |
| 14,470.0 | 88.93 | 90.32 | 6,861.6 | -1,436.2 | 6,438.9 | 1,362,242.49 | 3,265,086.64 | 40.323856 | -104.549248 | |
| 14,568.0 | 89.14 | 89.91 | 6,863.2 | -1,436.4 | 6,536.9 | 1,362,243.32 | 3,265,184.62 | 40.323855 | -104.548897 | |
| 14,666.0 | 88.91 | 89.91 | 6,864.9 | -1,436.2 | 6,634.9 | 1,362,244.50 | 3,265,282.59 | 40.323855 | -104.548545 | |
| 14,765.0 | 89.42 | 88.79 | 6,866.3 | -1,435.1 | 6,733.8 | 1,362,246.66 | 3,265,381.55 | 40.323858 | -104.548190 | |
| 14,862.0 | 88.93 | 89.88 | 6,867.7 | -1,434.0 | 6,830.8 | 1,362,248.80 | 3,265,478.51 | 40.323861 | -104.547843 | |
| 14,959.0 | 88.99 | 89.98 | 6,869.5 | -1,433.9 | 6,927.8 | 1,362,249.93 | 3,265,575.49 | 40.323862 | -104.547495 | |
| 14,994.0 | 88.99 | 89.98 | 6,870.1 | -1,433.8 | 6,962.8 | 1,362,250.31 | 3,265,610.48 | 40.323862 | -104.547369 | |
| BHL - 1547' FSL & 355' FEL | | | | | | | | | | |

| Design Annotations | | | | | |
|---------------------|---------------------|-------------------|------------|-----------------------------|--|
| Measured Depth (ft) | Vertical Depth (ft) | Local Coordinates | | Comment | |
| | | +N/-S (ft) | +E/-W (ft) | | |
| 7,665.0 | 6,964.6 | -1,439.6 | -361.9 | LPL - 1531' FSL & 2392' FEL | |
| 14,994.0 | 6,870.1 | -1,433.8 | 6,962.8 | BHL - 1547' FSL & 355' FEL | |

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