



EP Energy E&P Company, L.P.

Reagan Co., TX

University Central 0823

DH

OH

Design: Surveys

Standard Survey Report

06 November, 2017



| | | | |
|------------------|-----------------------------|-------------------------------------|---------------------------------------------|
| Company: | EP Energy E&P Company, L.P. | Local Co-ordinate Reference: | Well DH |
| Project: | Reagan Co., TX | TVD Reference: | KB=27 (Nabors 888) @ 2872.00ft (Nabors 888) |
| Site: | University Central 0823 | MD Reference: | KB=27 (Nabors 888) @ 2872.00ft (Nabors 888) |
| Well: | DH | North Reference: | Grid |
| Wellbore: | OH | Survey Calculation Method: | Minimum Curvature |
| Design: | Surveys | Database: | RyanUSA_ODBC_32Bit |

| | | | |
|--------------------|--------------------------------------|----------------------|----------------|
| Project | Reagan Co., TX, Texas, U.S.A. | | |
| Map System: | US State Plane 1927 (Exact solution) | System Datum: | Mean Sea Level |
| Geo Datum: | NAD 1927 (NADCON CONUS) | | |
| Map Zone: | Texas Central 4203 | | |

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|------------------------------|-------------------------|--------------------------|--------------------|
| Site | University Central 0823 | | |
| Site Position: | | Northing: | 547,741.660 usft |
| From: | Map | Easting: | 1,588,120.240 usft |
| Position Uncertainty: | 0.00 ft | Slot Radius: | 13-3/16 " |
| | | Latitude: | 31° 9' 57.78552 N |
| | | Longitude: | 101° 39' 1.01925 W |
| | | Grid Convergence: | -0.68 ° |

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|-----------------------------|--------------|----------------------------|------------------------------------|
| Well | DH | | |
| Well Position | +N/-S | 0.00 ft | Northing: 547,650.610 usft |
| | +E/-W | 0.00 ft | Easting: 1,588,445.450 usft |
| Position Uncertainty | 0.00 ft | Wellhead Elevation: | ft |
| | | Latitude: | 31° 9' 56.92243 N |
| | | Longitude: | 101° 38' 57.26381 W |
| | | Ground Level: | 2,845.00 ft |

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|------------------|-------------------|--------------------|--------------------------------------------|
| Wellbore | OH | | |
| Magnetics | Model Name | Sample Date | Declination (°) |
| | HDGM | 9/13/2017 | 5.93 |
| | | | Dip Angle (°) 59.52 |
| | | | Field Strength (nT) 47,546.80000000 |

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|--------------------------|------------------------------|----------------------|-----------------------------|
| Design | Surveys | | |
| Audit Notes: | | | |
| Version: | 1.0 | Phase: | ACTUAL |
| | | Tie On Depth: | 0.00 |
| Vertical Section: | Depth From (TVD) (ft) | +N/-S (ft) | +E/-W (ft) |
| | 0.00 | 0.00 | 0.00 |
| | | | Direction (°) 181.17 |

| | | | | |
|-----------------------|----------------|----------------------------|--------------------|----------------------------------------------------|
| Survey Program | Date | 11/6/2017 | | |
| From (ft) | To (ft) | Survey (Wellbore) | Tool Name | Description |
| 27.00 | 835.00 | Survey #1 - MS Survey (OH) | GYRO-GMS-ISGYRO-WL | MSE ISGYRO multishot memory rate gyro running in w |
| 993.00 | 16,456.00 | Survey #2 - NDS MWD (OH) | MWD+HRGM | OWSG MWD + HRGM |

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|----------------------------|------------------------|--------------------|----------------------------|-------------------|-------------------|------------------------------|------------------------------|-----------------------------|----------------------------|--|
| Survey | | | | | | | | | | |
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 27.00 | 0.00 | 360.00 | 27.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 77.00 | 0.84 | 98.35 | 77.00 | -0.05 | 0.36 | 0.05 | 1.68 | 1.68 | 0.00 | |
| 127.00 | 0.85 | 98.73 | 126.99 | -0.16 | 1.09 | 0.14 | 0.02 | 0.02 | 0.76 | |
| 177.00 | 0.79 | 95.32 | 176.99 | -0.25 | 1.80 | 0.21 | 0.15 | -0.12 | -6.82 | |
| 227.00 | 0.64 | 88.62 | 226.98 | -0.28 | 2.42 | 0.23 | 0.34 | -0.30 | -13.40 | |
| 277.00 | 0.50 | 87.19 | 276.98 | -0.26 | 2.92 | 0.20 | 0.28 | -0.28 | -2.86 | |
| 327.00 | 0.47 | 63.41 | 326.98 | -0.16 | 3.32 | 0.09 | 0.40 | -0.06 | -47.56 | |
| 377.00 | 0.19 | 59.37 | 376.98 | -0.02 | 3.58 | -0.05 | 0.56 | -0.56 | -8.08 | |
| 427.00 | 0.21 | 57.02 | 426.98 | 0.07 | 3.73 | -0.15 | 0.04 | 0.04 | -4.70 | |

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| Site: | University Central 0823 | MD Reference: | KB=27 (Nabors 888) @ 2872.00ft (Nabors 888) |
| Well: | DH | North Reference: | Grid |
| Wellbore: | OH | Survey Calculation Method: | Minimum Curvature |
| Design: | Surveys | Database: | RyanUSA_ODBC_32Bit |

| Survey | | | | | | | | | |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 477.00 | 0.06 | 146.46 | 476.98 | 0.10 | 3.82 | -0.18 | 0.44 | -0.30 | 178.88 |
| 527.00 | 0.28 | 185.91 | 526.98 | -0.05 | 3.82 | -0.03 | 0.47 | 0.44 | 78.90 |
| 577.00 | 0.28 | 207.49 | 576.98 | -0.28 | 3.75 | 0.20 | 0.21 | 0.00 | 43.16 |
| 627.00 | 0.38 | 192.89 | 626.98 | -0.55 | 3.66 | 0.47 | 0.26 | 0.20 | -29.20 |
| 677.00 | 0.33 | 188.11 | 676.98 | -0.85 | 3.60 | 0.78 | 0.12 | -0.10 | -9.56 |
| 727.00 | 0.41 | 164.50 | 726.97 | -1.16 | 3.63 | 1.09 | 0.34 | 0.16 | -47.22 |
| 777.00 | 0.56 | 157.57 | 776.97 | -1.56 | 3.77 | 1.49 | 0.32 | 0.30 | -13.86 |
| 827.00 | 0.28 | 151.85 | 826.97 | -1.90 | 3.92 | 1.82 | 0.57 | -0.56 | -11.44 |
| 835.00 | 0.26 | 147.94 | 834.97 | -1.93 | 3.94 | 1.85 | 0.34 | -0.25 | -48.88 |
| 993.00 | 0.38 | 162.88 | 992.97 | -2.73 | 4.28 | 2.65 | 0.09 | 0.08 | 9.46 |
| 1,183.00 | 2.38 | 11.00 | 1,182.92 | 0.54 | 5.22 | -0.64 | 1.43 | 1.05 | -79.94 |
| 1,372.00 | 1.63 | 21.20 | 1,371.80 | 6.90 | 6.94 | -7.04 | 0.44 | -0.40 | 5.40 |
| 1,561.00 | 4.13 | 356.41 | 1,560.56 | 16.20 | 7.49 | -16.35 | 1.45 | 1.32 | -13.12 |
| 1,750.00 | 10.50 | 5.73 | 1,747.93 | 40.15 | 8.78 | -40.32 | 3.42 | 3.37 | 4.93 |
| 1,939.00 | 11.63 | 10.48 | 1,933.41 | 76.02 | 13.97 | -76.29 | 0.77 | 0.60 | 2.51 |
| 2,128.00 | 11.56 | 13.99 | 2,118.56 | 113.13 | 22.01 | -113.55 | 0.38 | -0.04 | 1.86 |
| 2,318.00 | 12.06 | 5.91 | 2,304.55 | 151.35 | 28.66 | -151.90 | 0.91 | 0.26 | -4.25 |
| 2,505.00 | 12.25 | 8.02 | 2,487.36 | 190.42 | 33.44 | -191.07 | 0.26 | 0.10 | 1.13 |
| 2,695.00 | 11.25 | 356.59 | 2,673.40 | 228.89 | 35.15 | -229.56 | 1.33 | -0.53 | -6.02 |
| 2,885.00 | 11.13 | 0.11 | 2,859.79 | 265.73 | 34.08 | -266.37 | 0.36 | -0.06 | 1.85 |
| 3,074.00 | 11.75 | 1.86 | 3,045.04 | 303.21 | 34.74 | -303.85 | 0.38 | 0.33 | 0.93 |
| 3,264.00 | 11.94 | 3.27 | 3,230.99 | 342.16 | 36.49 | -342.84 | 0.18 | 0.10 | 0.74 |
| 3,453.00 | 11.94 | 6.08 | 3,415.90 | 381.12 | 39.67 | -381.85 | 0.31 | 0.00 | 1.49 |
| 3,643.00 | 8.13 | 2.04 | 3,602.96 | 414.11 | 42.23 | -414.88 | 2.04 | -2.01 | -2.13 |
| 3,833.00 | 1.94 | 3.62 | 3,792.14 | 430.76 | 42.92 | -431.55 | 3.26 | -3.26 | 0.83 |
| 4,022.00 | 1.75 | 352.37 | 3,981.04 | 436.81 | 42.73 | -437.59 | 0.22 | -0.10 | -5.95 |
| 4,211.00 | 1.38 | 3.80 | 4,169.97 | 441.94 | 42.50 | -442.72 | 0.26 | -0.20 | 6.05 |
| 4,400.00 | 0.88 | 14.52 | 4,358.93 | 445.62 | 43.02 | -446.40 | 0.29 | -0.26 | 5.67 |
| 4,590.00 | 0.75 | 22.78 | 4,548.91 | 448.18 | 43.86 | -448.98 | 0.09 | -0.07 | 4.35 |
| 4,779.00 | 0.81 | 59.87 | 4,737.90 | 449.99 | 45.50 | -450.82 | 0.26 | 0.03 | 19.62 |
| 4,968.00 | 1.44 | 155.85 | 4,926.87 | 448.49 | 47.63 | -449.37 | 0.91 | 0.33 | 50.78 |
| 5,158.00 | 0.69 | 125.97 | 5,116.84 | 445.64 | 49.53 | -446.56 | 0.48 | -0.39 | -15.73 |
| 5,347.00 | 0.81 | 126.32 | 5,305.82 | 444.18 | 51.53 | -445.14 | 0.06 | 0.06 | 0.19 |
| 5,536.00 | 0.38 | 245.85 | 5,494.82 | 443.14 | 52.03 | -444.11 | 0.56 | -0.23 | 63.24 |
| 5,725.00 | 0.44 | 282.41 | 5,683.81 | 443.03 | 50.75 | -443.98 | 0.14 | 0.03 | 19.34 |
| 5,914.00 | 0.06 | 113.49 | 5,872.81 | 443.15 | 50.13 | -444.08 | 0.26 | -0.20 | -89.38 |
| 6,103.00 | 0.13 | 84.83 | 6,061.81 | 443.13 | 50.44 | -444.07 | 0.04 | 0.04 | -15.16 |
| 6,293.00 | 0.06 | 102.59 | 6,251.81 | 443.13 | 50.75 | -444.07 | 0.04 | -0.04 | 9.35 |
| 6,482.00 | 0.19 | 47.57 | 6,440.81 | 443.32 | 51.08 | -444.27 | 0.09 | 0.07 | -29.11 |
| 6,671.00 | 0.13 | 71.82 | 6,629.81 | 443.60 | 51.51 | -444.56 | 0.05 | -0.03 | 12.83 |
| 6,860.00 | 0.38 | 99.77 | 6,818.81 | 443.56 | 52.33 | -444.53 | 0.14 | 0.13 | 14.79 |
| 7,050.00 | 0.50 | 112.78 | 7,008.80 | 443.13 | 53.72 | -444.13 | 0.08 | 0.06 | 6.85 |
| 7,160.00 | 0.56 | 101.36 | 7,118.80 | 442.84 | 54.69 | -443.86 | 0.11 | 0.05 | -10.38 |

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| Survey | | | | | | | | | |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 7,173.88 | 0.96 | 144.63 | 7,132.68 | 442.73 | 54.82 | -443.76 | 4.87 | 2.91 | 311.72 |
| 0823DH_KOP | | | | | | | | | |
| 7,235.00 | 3.81 | 170.97 | 7,193.74 | 440.30 | 55.44 | -441.34 | 4.87 | 4.66 | 43.10 |
| 7,330.00 | 5.75 | 166.57 | 7,288.40 | 432.56 | 57.04 | -433.63 | 2.08 | 2.04 | -4.63 |
| 7,425.00 | 6.81 | 137.22 | 7,382.86 | 423.79 | 61.97 | -424.97 | 3.51 | 1.12 | -30.89 |
| 7,519.00 | 25.06 | 170.61 | 7,472.99 | 399.82 | 69.07 | -401.15 | 20.97 | 19.41 | 35.52 |
| 7,614.00 | 39.13 | 176.77 | 7,553.29 | 349.78 | 74.07 | -351.22 | 15.19 | 14.81 | 6.48 |
| 7,709.00 | 59.25 | 176.41 | 7,615.06 | 278.37 | 78.36 | -279.92 | 21.18 | 21.18 | -0.38 |
| 7,804.00 | 80.19 | 176.41 | 7,647.80 | 189.93 | 83.91 | -191.61 | 22.04 | 22.04 | 0.00 |
| 7,923.00 | 94.50 | 182.04 | 7,653.31 | 71.43 | 85.48 | -73.16 | 12.92 | 12.03 | 4.73 |
| 8,018.00 | 92.69 | 184.15 | 7,647.35 | -23.24 | 80.36 | 21.59 | 2.92 | -1.91 | 2.22 |
| 8,038.28 | 92.65 | 184.08 | 7,646.41 | -43.44 | 78.91 | 41.82 | 0.42 | -0.20 | -0.37 |
| 0823DH_EOC | | | | | | | | | |
| 8,043.07 | 92.64 | 184.06 | 7,646.18 | -48.21 | 78.57 | 46.60 | 0.42 | -0.20 | -0.37 |
| 0823DH_FTP | | | | | | | | | |
| 8,113.00 | 92.50 | 183.80 | 7,643.05 | -117.91 | 73.78 | 116.38 | 0.42 | -0.20 | -0.37 |
| 8,207.00 | 93.19 | 183.97 | 7,638.38 | -211.58 | 67.42 | 210.16 | 0.76 | 0.73 | 0.18 |
| 8,301.00 | 90.44 | 185.91 | 7,635.41 | -305.17 | 59.33 | 303.90 | 3.58 | -2.93 | 2.06 |
| 8,396.00 | 90.44 | 184.15 | 7,634.68 | -399.80 | 51.00 | 398.67 | 1.85 | 0.00 | -1.85 |
| 8,491.00 | 90.06 | 183.80 | 7,634.26 | -494.57 | 44.41 | 493.56 | 0.54 | -0.40 | -0.37 |
| 8,585.00 | 91.31 | 183.97 | 7,633.14 | -588.34 | 38.05 | 587.44 | 1.34 | 1.33 | 0.18 |
| 8,679.00 | 91.94 | 183.62 | 7,630.47 | -682.10 | 31.83 | 681.31 | 0.77 | 0.67 | -0.37 |
| 8,774.00 | 88.56 | 183.27 | 7,630.06 | -776.91 | 26.12 | 776.22 | 3.58 | -3.56 | -0.37 |
| 8,868.00 | 90.19 | 184.68 | 7,631.08 | -870.68 | 19.60 | 870.09 | 2.29 | 1.73 | 1.50 |
| 8,963.00 | 84.94 | 182.74 | 7,635.12 | -965.35 | 13.46 | 964.88 | 5.89 | -5.53 | -2.04 |
| 9,057.00 | 86.75 | 179.93 | 7,641.93 | -1,059.07 | 11.28 | 1,058.62 | 3.55 | 1.93 | -2.99 |
| 9,152.00 | 86.88 | 179.05 | 7,647.21 | -1,153.92 | 12.12 | 1,153.43 | 0.93 | 0.14 | -0.93 |
| 9,247.00 | 88.94 | 177.47 | 7,650.67 | -1,248.80 | 15.01 | 1,248.23 | 2.73 | 2.17 | -1.66 |
| 9,342.00 | 92.63 | 176.59 | 7,649.37 | -1,343.65 | 19.93 | 1,342.96 | 3.99 | 3.88 | -0.93 |
| 9,411.72 | 93.79 | 178.67 | 7,645.47 | -1,413.19 | 22.81 | 1,412.43 | 3.41 | 1.66 | 2.99 |
| 0823DH_T1 | | | | | | | | | |
| 9,436.00 | 94.19 | 179.40 | 7,643.78 | -1,437.41 | 23.21 | 1,436.64 | 3.41 | 1.66 | 2.99 |
| 9,531.00 | 91.75 | 180.46 | 7,638.86 | -1,532.27 | 23.33 | 1,531.48 | 2.80 | -2.57 | 1.12 |
| 9,626.00 | 92.13 | 179.58 | 7,635.64 | -1,627.22 | 23.29 | 1,626.40 | 1.01 | 0.40 | -0.93 |
| 9,721.00 | 89.44 | 182.74 | 7,634.34 | -1,722.17 | 21.37 | 1,721.37 | 4.37 | -2.83 | 3.33 |
| 9,815.00 | 89.44 | 181.34 | 7,635.26 | -1,816.10 | 18.03 | 1,815.36 | 1.49 | 0.00 | -1.49 |
| 9,910.00 | 90.56 | 181.69 | 7,635.26 | -1,911.07 | 15.51 | 1,910.35 | 1.24 | 1.18 | 0.37 |
| 10,005.00 | 92.50 | 183.09 | 7,632.72 | -2,005.95 | 11.55 | 2,005.29 | 2.52 | 2.04 | 1.47 |
| 10,100.00 | 87.19 | 180.46 | 7,632.98 | -2,100.86 | 8.61 | 2,100.24 | 6.24 | -5.59 | -2.77 |
| 10,195.00 | 87.63 | 179.40 | 7,637.27 | -2,195.76 | 8.73 | 2,195.12 | 1.21 | 0.46 | -1.12 |
| 10,289.00 | 87.81 | 178.70 | 7,641.01 | -2,289.67 | 10.29 | 2,288.98 | 0.77 | 0.19 | -0.74 |
| 10,384.00 | 88.19 | 178.52 | 7,644.33 | -2,384.58 | 12.59 | 2,383.83 | 0.44 | 0.40 | -0.19 |
| 10,479.00 | 88.81 | 179.40 | 7,646.81 | -2,479.53 | 14.31 | 2,478.73 | 1.13 | 0.65 | 0.93 |
| 10,573.00 | 88.38 | 179.05 | 7,649.12 | -2,573.50 | 15.58 | 2,572.64 | 0.59 | -0.46 | -0.37 |

| | | | |
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| Well: | DH | North Reference: | Grid |
| Wellbore: | OH | Survey Calculation Method: | Minimum Curvature |
| Design: | Surveys | Database: | RyanUSA_ODBC_32Bit |

| Survey | | | | | | | | | | |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|--|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | |
| 10,668.00 | 91.75 | 180.28 | 7,649.01 | -2,668.48 | 16.14 | 2,667.59 | 3.78 | 3.55 | 1.29 | |
| 10,762.00 | 91.81 | 180.28 | 7,646.09 | -2,762.43 | 15.68 | 2,761.54 | 0.06 | 0.06 | 0.00 | |
| 10,857.00 | 92.38 | 184.15 | 7,642.62 | -2,857.28 | 12.01 | 2,856.44 | 4.11 | 0.60 | 4.07 | |
| 10,951.00 | 93.00 | 183.45 | 7,638.21 | -2,950.97 | 5.79 | 2,950.24 | 0.99 | 0.66 | -0.74 | |
| 11,024.57 | 90.92 | 183.04 | 7,635.69 | -3,024.38 | 1.63 | 3,023.71 | 2.89 | -2.83 | -0.56 | |
| 0823DH_T2 | | | | | | | | | | |
| 11,046.00 | 90.31 | 182.92 | 7,635.46 | -3,045.77 | 0.51 | 3,045.13 | 2.89 | -2.83 | -0.56 | |
| 11,141.00 | 90.13 | 180.28 | 7,635.10 | -3,140.73 | -2.14 | 3,140.12 | 2.79 | -0.19 | -2.78 | |
| 11,235.00 | 89.88 | 179.23 | 7,635.09 | -3,234.73 | -1.74 | 3,234.09 | 1.15 | -0.27 | -1.12 | |
| 11,330.00 | 90.88 | 184.32 | 7,634.46 | -3,329.65 | -4.68 | 3,329.05 | 5.46 | 1.05 | 5.36 | |
| 11,425.00 | 89.50 | 186.26 | 7,634.14 | -3,424.23 | -13.44 | 3,423.79 | 2.51 | -1.45 | 2.04 | |
| 11,520.00 | 89.75 | 186.08 | 7,634.77 | -3,518.68 | -23.65 | 3,518.43 | 0.32 | 0.26 | -0.19 | |
| 11,614.00 | 89.94 | 184.68 | 7,635.02 | -3,612.26 | -32.46 | 3,612.17 | 1.50 | 0.20 | -1.49 | |
| 11,709.00 | 90.56 | 183.97 | 7,634.60 | -3,706.99 | -39.62 | 3,707.03 | 0.99 | 0.65 | -0.75 | |
| 11,804.00 | 91.81 | 184.50 | 7,632.64 | -3,801.71 | -46.64 | 3,801.87 | 1.43 | 1.32 | 0.56 | |
| 11,899.00 | 89.50 | 183.62 | 7,631.55 | -3,896.46 | -53.36 | 3,896.74 | 2.60 | -2.43 | -0.93 | |
| 11,993.00 | 89.13 | 182.74 | 7,632.68 | -3,990.31 | -58.58 | 3,990.67 | 1.02 | -0.39 | -0.94 | |
| 12,088.00 | 89.13 | 182.22 | 7,634.12 | -4,085.21 | -62.69 | 4,085.63 | 0.55 | 0.00 | -0.55 | |
| 12,114.15 | 88.97 | 182.02 | 7,634.55 | -4,111.34 | -63.65 | 4,111.78 | 0.96 | -0.60 | -0.75 | |
| 0823DH_T3 | | | | | | | | | | |
| 12,183.00 | 88.56 | 181.51 | 7,636.04 | -4,180.14 | -65.78 | 4,180.61 | 0.96 | -0.60 | -0.75 | |
| 12,278.00 | 93.88 | 182.57 | 7,634.01 | -4,275.02 | -69.16 | 4,275.54 | 5.71 | 5.60 | 1.12 | |
| 12,372.00 | 88.31 | 183.62 | 7,632.22 | -4,368.83 | -74.23 | 4,369.43 | 6.03 | -5.93 | 1.12 | |
| 12,467.00 | 87.38 | 182.92 | 7,635.79 | -4,463.60 | -79.64 | 4,464.30 | 1.22 | -0.98 | -0.74 | |
| 12,561.00 | 87.38 | 180.81 | 7,640.09 | -4,557.45 | -82.70 | 4,558.19 | 2.24 | 0.00 | -2.24 | |
| 12,656.00 | 88.00 | 180.99 | 7,643.92 | -4,652.36 | -84.19 | 4,653.11 | 0.68 | 0.65 | 0.19 | |
| 12,751.00 | 88.88 | 181.86 | 7,646.50 | -4,747.29 | -86.55 | 4,748.07 | 1.30 | 0.93 | 0.92 | |
| 12,845.00 | 88.94 | 180.46 | 7,648.29 | -4,841.25 | -88.46 | 4,842.05 | 1.49 | 0.06 | -1.49 | |
| 12,940.00 | 88.56 | 179.58 | 7,650.36 | -4,936.23 | -88.49 | 4,937.01 | 1.01 | -0.40 | -0.93 | |
| 13,034.00 | 88.56 | 179.05 | 7,652.73 | -5,030.19 | -87.37 | 5,030.93 | 0.56 | 0.00 | -0.56 | |
| 13,129.00 | 90.81 | 179.75 | 7,653.25 | -5,125.18 | -86.37 | 5,125.88 | 2.48 | 2.37 | 0.74 | |
| 13,224.00 | 88.56 | 182.57 | 7,653.77 | -5,220.14 | -88.29 | 5,220.86 | 3.80 | -2.37 | 2.97 | |
| 13,318.00 | 88.88 | 181.69 | 7,655.87 | -5,314.05 | -91.79 | 5,314.82 | 1.00 | 0.34 | -0.94 | |
| 13,339.66 | 88.15 | 181.77 | 7,656.43 | -5,335.70 | -92.44 | 5,336.47 | 3.38 | -3.36 | 0.37 | |
| 0823DH_T4 | | | | | | | | | | |
| 13,413.00 | 85.69 | 182.04 | 7,660.37 | -5,408.89 | -94.87 | 5,409.69 | 3.38 | -3.36 | 0.37 | |
| 13,508.00 | 85.44 | 181.16 | 7,667.72 | -5,503.56 | -97.52 | 5,504.41 | 0.96 | -0.26 | -0.93 | |
| 13,603.00 | 84.69 | 180.63 | 7,675.89 | -5,598.20 | -99.00 | 5,599.05 | 0.97 | -0.79 | -0.56 | |
| 13,697.00 | 86.31 | 180.11 | 7,683.26 | -5,691.90 | -99.60 | 5,692.75 | 1.81 | 1.72 | -0.55 | |
| 13,791.00 | 86.19 | 179.40 | 7,689.41 | -5,785.70 | -99.20 | 5,786.52 | 0.76 | -0.13 | -0.76 | |
| 13,886.00 | 88.56 | 179.58 | 7,693.76 | -5,880.59 | -98.36 | 5,881.37 | 2.50 | 2.49 | 0.19 | |
| 13,981.00 | 94.06 | 179.58 | 7,691.59 | -5,975.53 | -97.66 | 5,976.27 | 5.79 | 5.79 | 0.00 | |
| 14,045.52 | 94.36 | 179.10 | 7,686.86 | -6,039.87 | -96.92 | 6,040.59 | 0.87 | 0.46 | -0.74 | |
| 0823DH_T5 | | | | | | | | | | |

| | | | |
|------------------|-----------------------------|-------------------------------------|---------------------------------------------|
| Company: | EP Energy E&P Company, L.P. | Local Co-ordinate Reference: | Well DH |
| Project: | Reagan Co., TX | TVD Reference: | KB=27 (Nabors 888) @ 2872.00ft (Nabors 888) |
| Site: | University Central 0823 | MD Reference: | KB=27 (Nabors 888) @ 2872.00ft (Nabors 888) |
| Well: | DH | North Reference: | Grid |
| Wellbore: | OH | Survey Calculation Method: | Minimum Curvature |
| Design: | Surveys | Database: | RyanUSA_ODBC_32Bit |

| Survey | | | | | | | | | |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 14,076.00 | 94.50 | 178.88 | 7,684.50 | -6,070.25 | -96.39 | 6,070.95 | 0.87 | 0.46 | -0.74 |
| 14,170.00 | 93.63 | 179.58 | 7,677.84 | -6,164.01 | -95.13 | 6,164.66 | 1.19 | -0.93 | 0.74 |
| 14,265.00 | 95.06 | 179.58 | 7,670.64 | -6,258.73 | -94.43 | 6,259.35 | 1.51 | 1.51 | 0.00 |
| 14,360.00 | 92.75 | 180.81 | 7,664.17 | -6,353.50 | -94.76 | 6,354.11 | 2.75 | -2.43 | 1.29 |
| 14,454.00 | 93.75 | 180.28 | 7,658.84 | -6,447.34 | -95.65 | 6,447.95 | 1.20 | 1.06 | -0.56 |
| 14,549.00 | 91.38 | 181.34 | 7,654.59 | -6,542.23 | -96.99 | 6,542.84 | 2.73 | -2.49 | 1.12 |
| 14,644.00 | 91.56 | 179.58 | 7,652.15 | -6,637.19 | -97.75 | 6,637.80 | 1.86 | 0.19 | -1.85 |
| 14,738.00 | 90.31 | 177.47 | 7,650.62 | -6,731.14 | -95.34 | 6,731.68 | 2.61 | -1.33 | -2.24 |
| 14,833.00 | 92.38 | 178.88 | 7,648.39 | -6,826.06 | -92.31 | 6,826.52 | 2.64 | 2.18 | 1.48 |
| 14,927.00 | 93.94 | 179.93 | 7,643.21 | -6,919.90 | -91.34 | 6,920.33 | 2.00 | 1.66 | 1.12 |
| 15,022.00 | 91.63 | 180.99 | 7,638.59 | -7,014.78 | -92.10 | 7,015.20 | 2.67 | -2.43 | 1.12 |
| 15,116.00 | 94.00 | 181.69 | 7,633.98 | -7,108.64 | -94.29 | 7,109.08 | 2.63 | 2.52 | 0.74 |
| 15,211.00 | 90.56 | 183.80 | 7,630.20 | -7,203.43 | -98.84 | 7,203.95 | 4.25 | -3.62 | 2.22 |
| 15,305.00 | 89.06 | 184.85 | 7,630.51 | -7,297.16 | -105.93 | 7,297.80 | 1.95 | -1.60 | 1.12 |
| 15,400.00 | 91.38 | 185.20 | 7,630.14 | -7,391.79 | -114.25 | 7,392.58 | 2.47 | 2.44 | 0.37 |
| 15,495.00 | 87.50 | 183.27 | 7,631.07 | -7,486.50 | -121.26 | 7,487.42 | 4.56 | -4.08 | -2.03 |
| 15,590.00 | 87.50 | 182.57 | 7,635.22 | -7,581.29 | -126.10 | 7,582.28 | 0.74 | 0.00 | -0.74 |
| 15,684.00 | 89.88 | 182.22 | 7,637.36 | -7,675.17 | -130.02 | 7,676.23 | 2.56 | 2.53 | -0.37 |
| 15,779.00 | 90.19 | 181.51 | 7,637.31 | -7,770.12 | -133.12 | 7,771.22 | 0.82 | 0.33 | -0.75 |
| 15,873.00 | 90.75 | 180.11 | 7,636.54 | -7,864.11 | -134.44 | 7,865.21 | 1.60 | 0.60 | -1.49 |
| 15,968.00 | 90.88 | 176.94 | 7,635.18 | -7,959.05 | -132.00 | 7,960.09 | 3.34 | 0.14 | -3.34 |
| 16,062.00 | 91.81 | 178.35 | 7,632.98 | -8,052.94 | -128.14 | 8,053.88 | 1.80 | 0.99 | 1.50 |
| 16,157.00 | 93.38 | 178.88 | 7,628.68 | -8,147.82 | -125.84 | 8,148.69 | 1.74 | 1.65 | 0.56 |
| 16,251.00 | 93.81 | 178.00 | 7,622.78 | -8,241.60 | -123.29 | 8,242.39 | 1.04 | 0.46 | -0.94 |
| 16,346.00 | 94.88 | 177.47 | 7,615.58 | -8,336.25 | -119.55 | 8,336.95 | 1.26 | 1.13 | -0.56 |
| 16,456.00 | 94.88 | 177.47 | 7,606.23 | -8,445.74 | -114.71 | 8,446.32 | 0.00 | 0.00 | 0.00 |
| PTB - 0823DH_BHL | | | | | | | | | |

| Design Annotations | | | | |
|---------------------|---------------------|-------------------|------------|---------|
| Measured Depth (ft) | Vertical Depth (ft) | Local Coordinates | | Comment |
| | | +N/-S (ft) | +E/-W (ft) | |
| 16,456.00 | 7,606.23 | -8,445.74 | -114.71 | PTB |

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