

PETROLEUM DEVELOPMENT CORP Weld County CO

Well Name: **Sunmarke 28W-414**

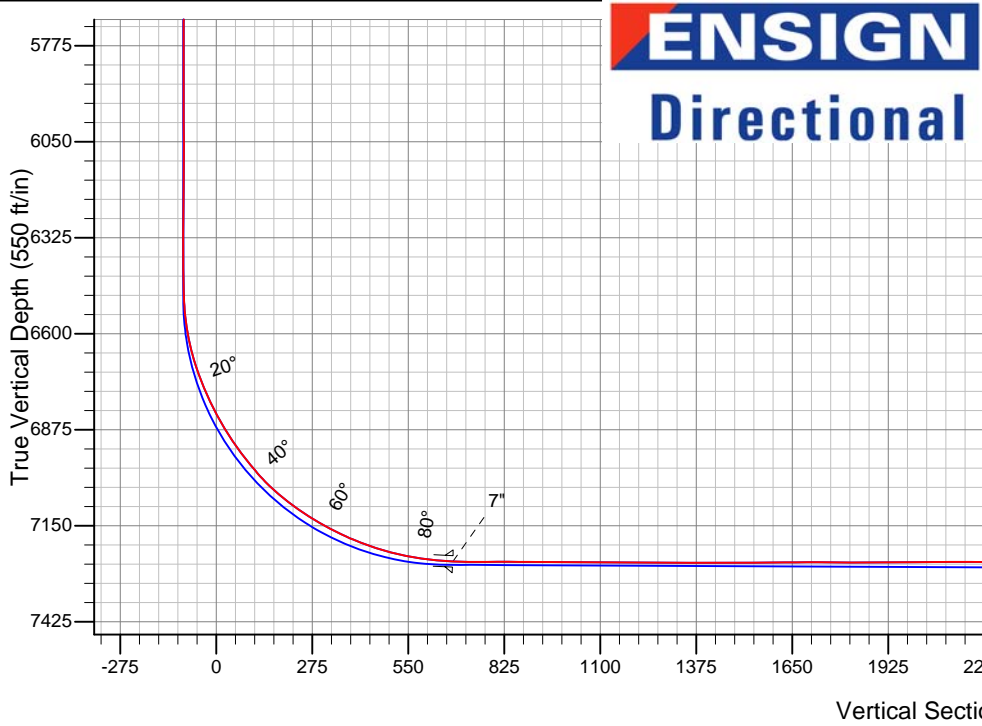
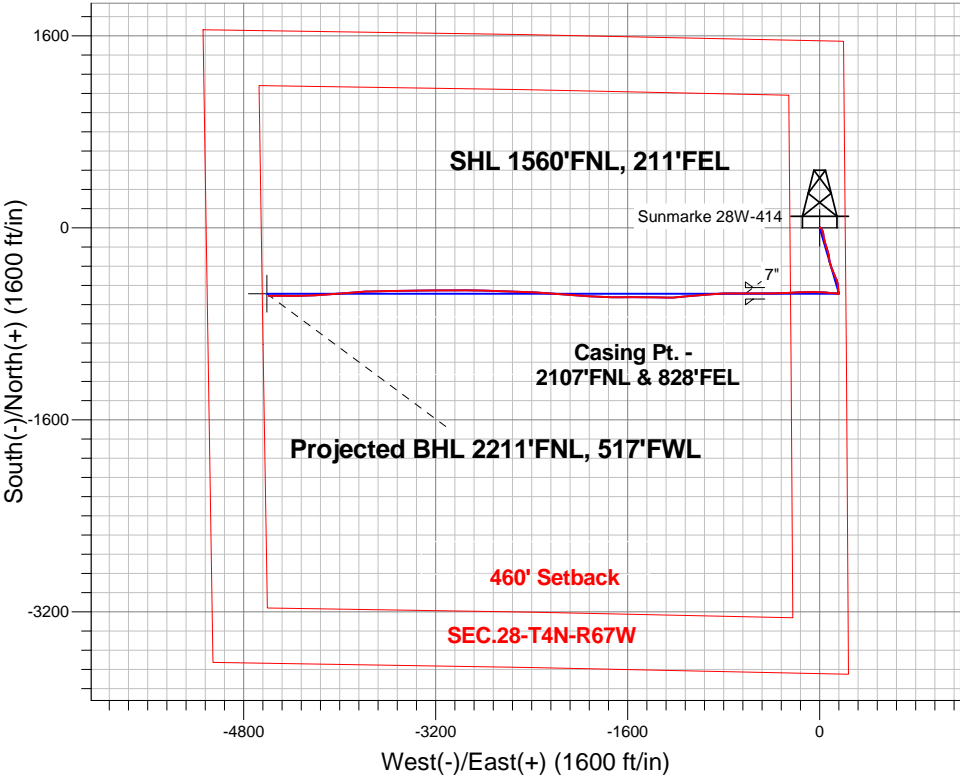
Surface Location: Sunmarke 28V-HZ Pad Sec.28-T4N-R67W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

Ground Elevation: 4908.0

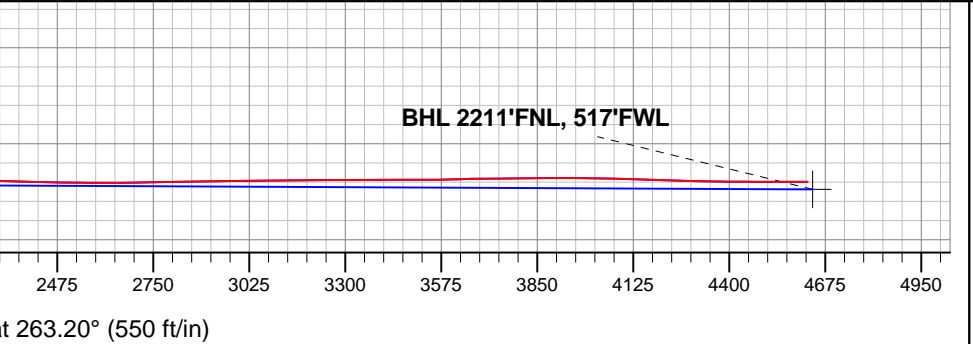
| +N/-S | +E/-W | Northing | Easting | Latitude | Longitude | Slot |
|---------------------------------------|-------|------------|------------|-----------|-------------|------|
| 0.0 | 0.0 | 1347866.25 | 3171019.26 | 40.286670 | -104.886970 | |
| RKB - 15' WELL @ 4923.0ft (RKB - 15') | | | | | | |

FINAL SURVEY

Projected Bottom Hole Location
11698'MD 7259'TVD 567'S & 4589'W of SHL
90.2 degree Incl @ 269.4 degree AZM



| | |
|---|----------------------------------|
| Sunmarke 28V-HZ Pad Sec.28-T4N-R67W Sunmarke 28W-414 Wellbore #1 8:40, September 09 2014 | ANNOTATIONS |
| | No annotation data is available. |
| LEGEND | |
| Sunmarke 28W-414, Wellbore #1, Plan #2 (8-13-14) V0 | |
| Wellbore #1 | |
| Survey #1 | |





PETROLEUM DEVELOPMENT CORP Weld County CO

SEC.28-T4N-R67W

Sunmarke 28V-HZ Pad Sec.28-T4N-R67W

Sunmarke 28W-414

Wellbore #1

Survey: Survey #1

Standard Survey Report

09 September, 2014

| | | | |
|------------------|---|-------------------------------------|-----------------------------|
| Company: | PETROLEUM DEVELOPMENT CORP Weld County CO | Local Co-ordinate Reference: | Well Sunmarke 28W-414 |
| Project: | SEC.28-T4N-R67W | TVD Reference: | WELL @ 4923.0ft (RKB - 15') |
| Site: | Sunmarke 28V-HZ Pad Sec.28-T4N-R67W | MD Reference: | WELL @ 4923.0ft (RKB - 15') |
| Well: | Sunmarke 28W-414 | North Reference: | True |
| Wellbore: | Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Wellbore #1 | Database: | Landmark |

| | | | |
|--------------------|--|----------------------|-----------------------------|
| Project | SEC.28-T4N-R67W, 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 | | Sunmarke 28V-HZ Pad Sec.28-T4N-R67W | | | |
| Site Position: | | Northing: | 1,347,957.33ft | Latitude: | 40.286920 |
| From: | Lat/Long | Easting: | 3,171,018.63ft | Longitude: | -104.886970 |
| Position Uncertainty: | 0.0 ft | Slot Radius: | " | Grid Convergence: | 0.40 ° |

| | | | | | | |
|----------------------|------------------|--------|---------------------|-----------------|---------------|-------------|
| Well | Sunmarke 28W-414 | | | | | |
| Well Position | +N-S | 0.0 ft | Northing: | 1,347,866.25 ft | Latitude: | 40.286670 |
| | +E-W | 0.0 ft | Easting: | 3,171,019.26 ft | Longitude: | -104.886970 |
| Position Uncertainty | | 0.0 ft | Wellhead Elevation: | ft | Ground Level: | 4,908.0 ft |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | Wellbore #1 | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2010 | 8/21/2014 | 8.49 | 66.83 | 52,723 |

| | | | | | |
|-------------------|--------------------------|---------------|---------------|------------------|-----|
| 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 | 263.20 | |

| | | | | | |
|-----------------------|----------------|--------------------------|------------------|--------------------|--|
| Survey Program | Date | 9/9/2014 | | | |
| From (ft) | To (ft) | Survey (Wellbore) | Tool Name | Description | |
| 143.0 | 11,698.0 | Survey #1 (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 (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | |
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | |
| 1.0 | 0.01 | 62.20 | 1.0 | 0.0 | 0.0 | 0.0 | 0.77 | 0.77 | 0.00 | |
| SHL 1560'FNL, 211'FEL | | | | | | | | | | |
| 143.0 | 1.10 | 62.20 | 143.0 | 0.6 | 1.2 | -1.3 | 0.77 | 0.77 | 0.00 | |
| 234.0 | 0.90 | 46.50 | 234.0 | 1.5 | 2.5 | -2.7 | 0.37 | -0.22 | -17.25 | |
| 326.0 | 1.10 | 44.40 | 326.0 | 2.7 | 3.6 | -3.9 | 0.22 | 0.22 | -2.28 | |
| 417.0 | 1.00 | 115.70 | 417.0 | 2.9 | 5.0 | -5.3 | 1.35 | -0.11 | 78.35 | |
| 509.0 | 1.60 | 117.40 | 508.9 | 2.0 | 6.8 | -7.0 | 0.65 | 0.65 | 1.85 | |
| 600.0 | 1.90 | 141.30 | 599.9 | 0.2 | 8.9 | -8.9 | 0.86 | 0.33 | 26.26 | |
| 692.0 | 2.60 | 140.30 | 691.8 | -2.5 | 11.2 | -10.8 | 0.76 | 0.76 | -1.09 | |
| 783.0 | 3.40 | 150.20 | 782.7 | -6.5 | 13.9 | -13.0 | 1.04 | 0.88 | 10.88 | |
| 889.0 | 4.40 | 153.00 | 888.4 | -12.8 | 17.3 | -15.6 | 0.96 | 0.94 | 2.64 | |

| | | | |
|------------------|---|-------------------------------------|-----------------------------|
| Company: | PETROLEUM DEVELOPMENT CORP Weld County CO | Local Co-ordinate Reference: | Well Sunmarke 28W-414 |
| Project: | SEC.28-T4N-R67W | TVD Reference: | WELL @ 4923.0ft (RKB - 15') |
| Site: | Sunmarke 28V-HZ Pad Sec.28-T4N-R67W | MD Reference: | WELL @ 4923.0ft (RKB - 15') |
| Well: | Sunmarke 28W-414 | North Reference: | True |
| Wellbore: | Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Wellbore #1 | Database: | Landmark |

| 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) |
| 1,003.0 | 4.60 | 153.90 | 1,002.1 | -20.8 | 21.3 | -18.6 | 0.19 | 0.18 | 0.79 |
| 1,094.0 | 5.30 | 154.70 | 1,092.8 | -27.9 | 24.7 | -21.2 | 0.77 | 0.77 | 0.88 |
| 1,186.0 | 6.20 | 163.40 | 1,184.3 | -36.5 | 27.9 | -23.4 | 1.36 | 0.98 | 9.46 |
| 1,280.0 | 6.50 | 174.40 | 1,277.7 | -46.7 | 29.9 | -24.1 | 1.33 | 0.32 | 11.70 |
| 1,375.0 | 7.00 | 172.80 | 1,372.1 | -57.8 | 31.1 | -24.1 | 0.56 | 0.53 | -1.68 |
| 1,470.0 | 7.00 | 171.70 | 1,466.3 | -69.2 | 32.7 | -24.2 | 0.14 | 0.00 | -1.16 |
| 1,565.0 | 7.60 | 169.60 | 1,560.6 | -81.1 | 34.6 | -24.8 | 0.69 | 0.63 | -2.21 |
| 1,659.0 | 8.60 | 169.00 | 1,653.6 | -94.2 | 37.1 | -25.7 | 1.07 | 1.06 | -0.64 |
| 1,754.0 | 9.00 | 164.50 | 1,747.5 | -108.3 | 40.5 | -27.3 | 0.84 | 0.42 | -4.74 |
| 1,849.0 | 8.80 | 164.60 | 1,841.4 | -122.5 | 44.4 | -29.5 | 0.21 | -0.21 | 0.11 |
| 1,945.0 | 9.00 | 162.60 | 1,936.2 | -136.7 | 48.6 | -32.0 | 0.38 | 0.21 | -2.08 |
| 2,039.0 | 8.80 | 161.70 | 2,029.1 | -150.5 | 53.0 | -34.8 | 0.26 | -0.21 | -0.96 |
| 2,134.0 | 8.70 | 163.70 | 2,123.0 | -164.3 | 57.3 | -37.4 | 0.34 | -0.11 | 2.11 |
| 2,229.0 | 8.10 | 163.00 | 2,217.0 | -177.6 | 61.3 | -39.8 | 0.64 | -0.63 | -0.74 |
| 2,324.0 | 7.80 | 162.40 | 2,311.1 | -190.2 | 65.2 | -42.2 | 0.33 | -0.32 | -0.63 |
| 2,419.0 | 7.30 | 162.40 | 2,405.2 | -202.1 | 69.0 | -44.5 | 0.53 | -0.53 | 0.00 |
| 2,515.0 | 7.50 | 165.10 | 2,500.4 | -213.9 | 72.4 | -46.6 | 0.42 | 0.21 | 2.81 |
| 2,610.0 | 7.90 | 171.00 | 2,594.6 | -226.4 | 75.0 | -47.7 | 0.93 | 0.42 | 6.21 |
| 2,705.0 | 7.90 | 170.40 | 2,688.7 | -239.3 | 77.2 | -48.3 | 0.09 | 0.00 | -0.63 |
| 2,800.0 | 7.40 | 171.30 | 2,782.8 | -251.8 | 79.2 | -48.8 | 0.54 | -0.53 | 0.95 |
| 2,894.0 | 6.90 | 171.80 | 2,876.1 | -263.3 | 80.9 | -49.1 | 0.54 | -0.53 | 0.53 |
| 2,989.0 | 6.50 | 174.20 | 2,970.4 | -274.3 | 82.2 | -49.2 | 0.51 | -0.42 | 2.53 |
| 3,084.0 | 6.40 | 166.20 | 3,064.8 | -284.8 | 84.1 | -49.7 | 0.95 | -0.11 | -8.42 |
| 3,179.0 | 5.80 | 166.30 | 3,159.3 | -294.6 | 86.5 | -50.9 | 0.63 | -0.63 | 0.11 |
| 3,274.0 | 5.80 | 160.90 | 3,253.8 | -303.8 | 89.2 | -52.5 | 0.57 | 0.00 | -5.68 |
| 3,369.0 | 6.20 | 158.40 | 3,348.3 | -313.1 | 92.6 | -54.9 | 0.50 | 0.42 | -2.63 |
| 3,464.0 | 6.90 | 163.20 | 3,442.7 | -323.4 | 96.2 | -57.2 | 0.93 | 0.74 | 5.05 |
| 3,559.0 | 7.30 | 162.30 | 3,537.0 | -334.6 | 99.6 | -59.3 | 0.44 | 0.42 | -0.95 |
| 3,655.0 | 7.10 | 157.50 | 3,632.2 | -345.9 | 103.8 | -62.1 | 0.66 | -0.21 | -5.00 |
| 3,749.0 | 7.20 | 157.70 | 3,725.5 | -356.7 | 108.2 | -65.2 | 0.11 | 0.11 | 0.21 |
| 3,844.0 | 7.10 | 157.80 | 3,819.7 | -367.6 | 112.7 | -68.3 | 0.11 | -0.11 | 0.11 |
| 3,940.0 | 7.30 | 158.50 | 3,915.0 | -378.8 | 117.2 | -71.5 | 0.23 | 0.21 | 0.73 |
| 4,034.0 | 6.90 | 157.00 | 4,008.3 | -389.6 | 121.6 | -74.6 | 0.47 | -0.43 | -1.60 |
| 4,129.0 | 6.70 | 153.10 | 4,102.6 | -399.7 | 126.3 | -78.1 | 0.53 | -0.21 | -4.11 |
| 4,224.0 | 6.90 | 156.20 | 4,196.9 | -409.9 | 131.1 | -81.6 | 0.44 | 0.21 | 3.26 |
| 4,319.0 | 6.80 | 157.60 | 4,291.2 | -420.3 | 135.6 | -84.8 | 0.20 | -0.11 | 1.47 |
| 4,414.0 | 6.20 | 155.40 | 4,385.6 | -430.2 | 139.8 | -87.9 | 0.68 | -0.63 | -2.32 |
| 4,508.0 | 6.80 | 162.70 | 4,479.0 | -440.1 | 143.6 | -90.4 | 1.09 | 0.64 | 7.77 |
| 4,603.0 | 6.40 | 166.30 | 4,573.4 | -450.6 | 146.5 | -92.1 | 0.61 | -0.42 | 3.79 |
| 4,698.0 | 5.90 | 167.10 | 4,667.8 | -460.5 | 148.9 | -93.3 | 0.53 | -0.53 | 0.84 |
| 4,793.0 | 6.80 | 170.70 | 4,762.3 | -470.9 | 150.9 | -94.0 | 1.04 | 0.95 | 3.79 |
| 4,888.0 | 6.40 | 173.40 | 4,856.6 | -481.7 | 152.4 | -94.3 | 0.53 | -0.42 | 2.84 |
| 4,981.0 | 5.60 | 172.00 | 4,949.1 | -491.3 | 153.6 | -94.3 | 0.87 | -0.86 | -1.51 |
| 5,076.0 | 5.80 | 176.60 | 5,043.7 | -500.7 | 154.6 | -94.1 | 0.52 | 0.21 | 4.84 |
| 5,172.0 | 5.10 | 178.00 | 5,139.2 | -509.8 | 155.0 | -93.5 | 0.74 | -0.73 | 1.46 |
| 5,267.0 | 4.40 | 178.90 | 5,233.9 | -517.7 | 155.2 | -92.8 | 0.74 | -0.74 | 0.95 |
| 5,362.0 | 3.60 | 177.10 | 5,328.7 | -524.3 | 155.4 | -92.2 | 0.85 | -0.84 | -1.89 |
| 5,457.0 | 2.70 | 171.10 | 5,423.5 | -529.5 | 155.9 | -92.1 | 1.01 | -0.95 | -6.32 |
| 5,552.0 | 2.50 | 168.80 | 5,518.4 | -533.7 | 156.7 | -92.3 | 0.24 | -0.21 | -2.42 |
| 5,647.0 | 2.30 | 158.40 | 5,613.3 | -537.5 | 157.8 | -93.0 | 0.50 | -0.21 | -10.95 |
| 5,741.0 | 1.90 | 172.90 | 5,707.3 | -540.8 | 158.7 | -93.5 | 0.70 | -0.43 | 15.43 |
| 5,836.0 | 1.80 | 171.40 | 5,802.2 | -543.9 | 159.1 | -93.5 | 0.12 | -0.11 | -1.58 |
| 5,931.0 | 0.70 | 187.60 | 5,897.2 | -545.9 | 159.2 | -93.4 | 1.20 | -1.16 | 17.05 |
| 6,026.0 | 0.40 | 158.30 | 5,992.2 | -546.8 | 159.3 | -93.4 | 0.42 | -0.32 | -30.84 |

| | | | |
|------------------|---|-------------------------------------|-----------------------------|
| Company: | PETROLEUM DEVELOPMENT CORP Weld County CO | Local Co-ordinate Reference: | Well Sunmarke 28W-414 |
| Project: | SEC.28-T4N-R67W | TVD Reference: | WELL @ 4923.0ft (RKB - 15') |
| Site: | Sunmarke 28V-HZ Pad Sec.28-T4N-R67W | MD Reference: | WELL @ 4923.0ft (RKB - 15') |
| Well: | Sunmarke 28W-414 | North Reference: | True |
| Wellbore: | Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Wellbore #1 | Database: | Landmark |

| 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) |
| 6,122.0 | 0.40 | 164.20 | 6,088.2 | -547.4 | 159.5 | -93.5 | 0.04 | 0.00 | 6.15 |
| 6,217.0 | 0.40 | 147.90 | 6,183.2 | -548.0 | 159.8 | -93.7 | 0.12 | 0.00 | -17.16 |
| 6,312.0 | 0.40 | 138.20 | 6,278.2 | -548.5 | 160.2 | -94.0 | 0.07 | 0.00 | -10.21 |
| 6,407.0 | 0.50 | 151.40 | 6,373.2 | -549.2 | 160.6 | -94.4 | 0.15 | 0.11 | 13.89 |
| 6,439.0 | 0.40 | 170.40 | 6,405.2 | -549.4 | 160.7 | -94.4 | 0.56 | -0.31 | 59.38 |
| 6,470.0 | 0.10 | 258.00 | 6,436.2 | -549.5 | 160.7 | -94.4 | 1.32 | -0.97 | 282.58 |
| 6,502.0 | 1.40 | 278.00 | 6,468.2 | -549.5 | 160.2 | -94.0 | 4.08 | 4.06 | 62.50 |
| 6,534.0 | 3.30 | 280.60 | 6,500.2 | -549.2 | 158.9 | -92.7 | 5.95 | 5.94 | 8.13 |
| 6,565.0 | 5.30 | 280.00 | 6,531.1 | -548.8 | 156.7 | -90.5 | 6.45 | 6.45 | -1.94 |
| 6,596.0 | 7.10 | 278.40 | 6,561.9 | -548.3 | 153.4 | -87.3 | 5.83 | 5.81 | -5.16 |
| 6,627.0 | 9.50 | 276.10 | 6,592.6 | -547.7 | 148.9 | -83.0 | 7.81 | 7.74 | -7.42 |
| 6,659.0 | 12.30 | 275.90 | 6,624.0 | -547.1 | 142.9 | -77.1 | 8.75 | 8.75 | -0.63 |
| 6,690.0 | 15.10 | 274.70 | 6,654.1 | -546.4 | 135.6 | -69.9 | 9.08 | 9.03 | -3.87 |
| 6,722.0 | 17.90 | 274.60 | 6,684.8 | -545.7 | 126.5 | -61.0 | 8.75 | 8.75 | -0.31 |
| 6,753.0 | 20.20 | 275.20 | 6,714.1 | -544.8 | 116.4 | -51.1 | 7.45 | 7.42 | 1.94 |
| 6,784.0 | 22.10 | 274.40 | 6,743.0 | -543.9 | 105.3 | -40.1 | 6.20 | 6.13 | -2.58 |
| 6,816.0 | 24.30 | 274.80 | 6,772.4 | -542.9 | 92.7 | -27.8 | 6.89 | 6.88 | 1.25 |
| 6,848.0 | 26.40 | 275.00 | 6,801.3 | -541.7 | 79.1 | -14.3 | 6.57 | 6.56 | 0.63 |
| 6,879.0 | 28.50 | 275.10 | 6,828.8 | -540.5 | 64.9 | -0.4 | 6.78 | 6.77 | 0.32 |
| 6,911.0 | 30.40 | 274.40 | 6,856.7 | -539.2 | 49.2 | 15.1 | 6.03 | 5.94 | -2.19 |
| 6,943.0 | 32.60 | 273.80 | 6,884.0 | -538.0 | 32.5 | 31.5 | 6.94 | 6.88 | -1.88 |
| 6,974.0 | 34.70 | 273.00 | 6,909.8 | -537.0 | 15.4 | 48.4 | 6.92 | 6.77 | -2.58 |
| 7,006.0 | 36.40 | 272.30 | 6,935.8 | -536.1 | -3.2 | 66.7 | 5.46 | 5.31 | -2.19 |
| 7,038.0 | 38.90 | 270.90 | 6,961.1 | -535.6 | -22.8 | 86.1 | 8.26 | 7.81 | -4.38 |
| 7,069.0 | 39.60 | 270.50 | 6,985.1 | -535.3 | -42.4 | 105.5 | 2.40 | 2.26 | -1.29 |
| 7,100.0 | 42.40 | 269.70 | 7,008.5 | -535.3 | -62.7 | 125.7 | 9.19 | 9.03 | -2.58 |
| 7,132.0 | 45.30 | 269.20 | 7,031.6 | -535.5 | -84.9 | 147.7 | 9.13 | 9.06 | -1.56 |
| 7,163.0 | 48.70 | 268.80 | 7,052.7 | -535.9 | -107.5 | 170.3 | 11.01 | 10.97 | -1.29 |
| 7,194.0 | 51.60 | 268.50 | 7,072.6 | -536.5 | -131.3 | 194.0 | 9.38 | 9.35 | -0.97 |
| 7,226.0 | 53.80 | 268.00 | 7,092.0 | -537.2 | -156.8 | 219.3 | 6.99 | 6.88 | -1.56 |
| 7,258.0 | 55.90 | 267.70 | 7,110.4 | -538.2 | -182.9 | 245.4 | 6.61 | 6.56 | -0.94 |
| 7,289.0 | 58.10 | 267.30 | 7,127.3 | -539.4 | -208.9 | 271.3 | 7.18 | 7.10 | -1.29 |
| 7,320.0 | 60.30 | 267.00 | 7,143.2 | -540.7 | -235.5 | 297.9 | 7.15 | 7.10 | -0.97 |
| 7,352.0 | 62.50 | 267.00 | 7,158.5 | -542.2 | -263.5 | 325.9 | 6.88 | 6.88 | 0.00 |
| 7,384.0 | 64.20 | 267.20 | 7,172.8 | -543.6 | -292.1 | 354.5 | 5.34 | 5.31 | 0.63 |
| 7,415.0 | 66.60 | 267.90 | 7,185.8 | -544.8 | -320.3 | 382.6 | 8.01 | 7.74 | 2.26 |
| 7,446.0 | 69.10 | 268.60 | 7,197.4 | -545.7 | -349.0 | 411.2 | 8.33 | 8.06 | 2.26 |
| 7,478.0 | 70.50 | 268.60 | 7,208.5 | -546.4 | -379.0 | 441.1 | 4.38 | 4.38 | 0.00 |
| 7,509.0 | 72.70 | 268.40 | 7,218.3 | -547.2 | -408.4 | 470.3 | 7.12 | 7.10 | -0.65 |
| 7,541.0 | 75.60 | 269.20 | 7,227.0 | -547.8 | -439.2 | 501.0 | 9.38 | 9.06 | 2.50 |
| 7,572.0 | 78.10 | 270.10 | 7,234.1 | -548.0 | -469.3 | 531.0 | 8.55 | 8.06 | 2.90 |
| 7,604.0 | 80.40 | 270.50 | 7,240.0 | -547.8 | -500.8 | 562.2 | 7.29 | 7.19 | 1.25 |
| 7,635.0 | 82.20 | 271.10 | 7,244.7 | -547.4 | -531.4 | 592.5 | 6.11 | 5.81 | 1.94 |
| 7,666.0 | 84.00 | 270.90 | 7,248.4 | -546.9 | -562.2 | 623.0 | 5.84 | 5.81 | -0.65 |
| 7,698.0 | 86.40 | 269.80 | 7,251.1 | -546.7 | -594.1 | 654.7 | 8.25 | 7.50 | -3.44 |
| 7,721.0 | 87.40 | 269.61 | 7,252.4 | -546.8 | -617.0 | 677.5 | 4.43 | 4.35 | -0.81 |
| 7" | | | | | | | | | |
| 7,760.0 | 89.10 | 269.30 | 7,253.6 | -547.2 | -656.0 | 716.2 | 4.43 | 4.35 | -0.81 |
| 7,790.0 | 89.50 | 269.30 | 7,253.9 | -547.5 | -686.0 | 746.1 | 1.33 | 1.33 | 0.00 |
| 7,820.0 | 90.60 | 270.80 | 7,253.9 | -547.5 | -716.0 | 775.8 | 6.20 | 3.67 | 5.00 |
| 7,851.0 | 90.20 | 270.20 | 7,253.7 | -547.2 | -747.0 | 806.6 | 2.33 | -1.29 | -1.94 |
| 7,881.0 | 89.70 | 269.20 | 7,253.7 | -547.4 | -777.0 | 836.4 | 3.73 | -1.67 | -3.33 |
| 7,911.0 | 89.80 | 267.90 | 7,253.8 | -548.2 | -807.0 | 866.3 | 4.35 | 0.33 | -4.33 |

| | | | |
|------------------|---|-------------------------------------|-----------------------------|
| Company: | PETROLEUM DEVELOPMENT CORP Weld County CO | Local Co-ordinate Reference: | Well Sunmarke 28W-414 |
| Project: | SEC.28-T4N-R67W | TVD Reference: | WELL @ 4923.0ft (RKB - 15') |
| Site: | Sunmarke 28V-HZ Pad Sec.28-T4N-R67W | MD Reference: | WELL @ 4923.0ft (RKB - 15') |
| Well: | Sunmarke 28W-414 | North Reference: | True |
| Wellbore: | Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Wellbore #1 | Database: | Landmark |

| 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) |
| 7,941.0 | 90.40 | 267.50 | 7,253.8 | -549.4 | -837.0 | 896.2 | 2.40 | 2.00 | -1.33 |
| 7,972.0 | 89.50 | 266.40 | 7,253.8 | -551.0 | -867.9 | 927.1 | 4.58 | -2.90 | -3.55 |
| 8,002.0 | 89.80 | 265.60 | 7,254.0 | -553.1 | -897.9 | 957.1 | 2.85 | 1.00 | -2.67 |
| 8,034.0 | 89.90 | 264.70 | 7,254.1 | -555.8 | -929.7 | 989.0 | 2.83 | 0.31 | -2.81 |
| 8,063.0 | 89.20 | 264.80 | 7,254.3 | -558.5 | -958.6 | 1,018.0 | 2.44 | -2.41 | 0.34 |
| 8,093.0 | 90.10 | 265.90 | 7,254.5 | -560.9 | -988.5 | 1,048.0 | 4.74 | 3.00 | 3.67 |
| 8,123.0 | 89.50 | 265.70 | 7,254.6 | -563.1 | -1,018.4 | 1,078.0 | 2.11 | -2.00 | -0.67 |
| 8,153.0 | 89.50 | 265.20 | 7,254.9 | -565.5 | -1,048.3 | 1,108.0 | 1.67 | 0.00 | -1.67 |
| 8,183.0 | 89.50 | 264.90 | 7,255.1 | -568.1 | -1,078.2 | 1,137.9 | 1.00 | 0.00 | -1.00 |
| 8,214.0 | 89.70 | 264.70 | 7,255.3 | -570.9 | -1,109.1 | 1,168.9 | 0.91 | 0.65 | -0.65 |
| 8,245.0 | 89.60 | 264.80 | 7,255.5 | -573.7 | -1,140.0 | 1,199.9 | 0.46 | -0.32 | 0.32 |
| 8,275.0 | 89.10 | 264.60 | 7,255.9 | -576.5 | -1,169.8 | 1,229.9 | 1.80 | -1.67 | -0.67 |
| 8,305.0 | 89.30 | 265.90 | 7,256.3 | -579.0 | -1,199.7 | 1,259.9 | 4.38 | 0.67 | 4.33 |
| 8,336.0 | 90.10 | 267.80 | 7,256.4 | -580.7 | -1,230.7 | 1,290.8 | 6.65 | 2.58 | 6.13 |
| 8,367.0 | 89.50 | 268.60 | 7,256.6 | -581.6 | -1,261.7 | 1,321.7 | 3.23 | -1.94 | 2.58 |
| 8,397.0 | 89.50 | 270.00 | 7,256.8 | -582.0 | -1,291.7 | 1,351.5 | 4.67 | 0.00 | 4.67 |
| 8,427.0 | 90.60 | 272.80 | 7,256.8 | -581.3 | -1,321.6 | 1,381.2 | 10.03 | 3.67 | 9.33 |
| 8,457.0 | 90.20 | 272.80 | 7,256.6 | -579.8 | -1,351.6 | 1,410.8 | 1.33 | -1.33 | 0.00 |
| 8,488.0 | 90.60 | 271.70 | 7,256.4 | -578.6 | -1,382.6 | 1,441.4 | 3.78 | 1.29 | -3.55 |
| 8,519.0 | 90.30 | 270.60 | 7,256.1 | -578.0 | -1,413.6 | 1,472.1 | 3.68 | -0.97 | -3.55 |
| 8,551.0 | 90.50 | 269.80 | 7,255.9 | -577.9 | -1,445.6 | 1,503.9 | 2.58 | 0.63 | -2.50 |
| 8,583.0 | 90.70 | 269.50 | 7,255.6 | -578.0 | -1,477.6 | 1,535.7 | 1.13 | 0.63 | -0.94 |
| 8,614.0 | 90.20 | 268.60 | 7,255.3 | -578.6 | -1,508.6 | 1,566.5 | 3.32 | -1.61 | -2.90 |
| 8,646.0 | 90.00 | 268.60 | 7,255.3 | -579.3 | -1,540.6 | 1,598.4 | 0.63 | -0.63 | 0.00 |
| 8,678.0 | 90.20 | 269.80 | 7,255.2 | -579.8 | -1,572.6 | 1,630.2 | 3.80 | 0.63 | 3.75 |
| 8,709.0 | 90.60 | 270.80 | 7,255.0 | -579.6 | -1,603.6 | 1,660.9 | 3.47 | 1.29 | 3.23 |
| 8,741.0 | 90.30 | 269.80 | 7,254.7 | -579.5 | -1,635.6 | 1,692.7 | 3.26 | -0.94 | -3.13 |
| 8,773.0 | 90.10 | 269.60 | 7,254.6 | -579.6 | -1,667.6 | 1,724.5 | 0.88 | -0.63 | -0.63 |
| 8,804.0 | 89.70 | 270.80 | 7,254.7 | -579.5 | -1,698.6 | 1,755.3 | 4.08 | -1.29 | 3.87 |
| 8,836.0 | 89.40 | 272.10 | 7,254.9 | -578.7 | -1,730.5 | 1,786.9 | 4.17 | -0.94 | 4.06 |
| 8,868.0 | 89.40 | 272.20 | 7,255.3 | -577.5 | -1,762.5 | 1,818.5 | 0.31 | 0.00 | 0.31 |
| 8,899.0 | 89.80 | 272.20 | 7,255.5 | -576.3 | -1,793.5 | 1,849.1 | 1.29 | 1.29 | 0.00 |
| 8,931.0 | 89.80 | 272.20 | 7,255.6 | -575.1 | -1,825.5 | 1,880.7 | 0.00 | 0.00 | 0.00 |
| 8,963.0 | 90.20 | 272.80 | 7,255.6 | -573.7 | -1,857.4 | 1,912.3 | 2.25 | 1.25 | 1.88 |
| 8,995.0 | 91.00 | 273.40 | 7,255.3 | -572.0 | -1,889.4 | 1,943.8 | 3.12 | 2.50 | 1.88 |
| 9,027.0 | 90.90 | 273.10 | 7,254.7 | -570.2 | -1,921.3 | 1,975.4 | 0.99 | -0.31 | -0.94 |
| 9,058.0 | 90.50 | 273.90 | 7,254.4 | -568.3 | -1,952.3 | 2,005.9 | 2.89 | -1.29 | 2.58 |
| 9,090.0 | 90.60 | 273.50 | 7,254.0 | -566.2 | -1,984.2 | 2,037.3 | 1.29 | 0.31 | -1.25 |
| 9,122.0 | 90.10 | 274.10 | 7,253.9 | -564.1 | -2,016.1 | 2,068.8 | 2.44 | -1.56 | 1.88 |
| 9,153.0 | 89.90 | 274.20 | 7,253.9 | -561.8 | -2,047.1 | 2,099.2 | 0.72 | -0.65 | 0.32 |
| 9,185.0 | 90.00 | 274.30 | 7,253.9 | -559.5 | -2,079.0 | 2,130.6 | 0.44 | 0.31 | 0.31 |
| 9,217.0 | 89.70 | 274.10 | 7,254.0 | -557.1 | -2,110.9 | 2,162.0 | 1.13 | -0.94 | -0.63 |
| 9,248.0 | 89.30 | 274.50 | 7,254.2 | -554.8 | -2,141.8 | 2,192.4 | 1.82 | -1.29 | 1.29 |
| 9,280.0 | 88.80 | 274.50 | 7,254.8 | -552.3 | -2,173.7 | 2,223.8 | 1.56 | -1.56 | 0.00 |
| 9,312.0 | 88.80 | 274.50 | 7,255.4 | -549.8 | -2,205.6 | 2,255.2 | 0.00 | 0.00 | 0.00 |
| 9,344.0 | 88.60 | 274.50 | 7,256.2 | -547.3 | -2,237.5 | 2,286.6 | 0.63 | -0.63 | 0.00 |
| 9,375.0 | 88.50 | 274.50 | 7,256.9 | -544.8 | -2,268.4 | 2,316.9 | 0.32 | -0.32 | 0.00 |
| 9,407.0 | 88.10 | 273.40 | 7,257.9 | -542.6 | -2,300.3 | 2,348.4 | 3.66 | -1.25 | -3.44 |
| 9,439.0 | 88.40 | 272.90 | 7,258.9 | -540.9 | -2,332.2 | 2,379.9 | 1.82 | 0.94 | -1.56 |
| 9,470.0 | 88.40 | 272.50 | 7,259.7 | -539.4 | -2,363.2 | 2,410.4 | 1.29 | 0.00 | -1.29 |
| 9,502.0 | 88.60 | 272.50 | 7,260.6 | -538.0 | -2,395.1 | 2,442.0 | 0.63 | 0.63 | 0.00 |
| 9,533.0 | 89.00 | 272.30 | 7,261.2 | -536.7 | -2,426.1 | 2,472.6 | 1.44 | 1.29 | -0.65 |
| 9,565.0 | 89.40 | 272.40 | 7,261.7 | -535.4 | -2,458.1 | 2,504.2 | 1.29 | 1.25 | 0.31 |

| | | | |
|------------------|---|-------------------------------------|-----------------------------|
| Company: | PETROLEUM DEVELOPMENT CORP Weld County CO | Local Co-ordinate Reference: | Well Sunmarke 28W-414 |
| Project: | SEC.28-T4N-R67W | TVD Reference: | WELL @ 4923.0ft (RKB - 15') |
| Site: | Sunmarke 28V-HZ Pad Sec.28-T4N-R67W | MD Reference: | WELL @ 4923.0ft (RKB - 15') |
| Well: | Sunmarke 28W-414 | North Reference: | True |
| Wellbore: | Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Wellbore #1 | Database: | Landmark |

| 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) |
| 9,597.0 | 89.60 | 272.40 | 7,261.9 | -534.1 | -2,490.0 | 2,535.8 | 0.63 | 0.63 | 0.00 |
| 9,628.0 | 89.70 | 272.20 | 7,262.1 | -532.8 | -2,521.0 | 2,566.4 | 0.72 | 0.32 | -0.65 |
| 9,660.0 | 89.80 | 272.10 | 7,262.3 | -531.6 | -2,553.0 | 2,598.0 | 0.44 | 0.31 | -0.31 |
| 9,692.0 | 90.20 | 272.30 | 7,262.3 | -530.4 | -2,585.0 | 2,629.6 | 1.40 | 1.25 | 0.63 |
| 9,724.0 | 90.40 | 272.00 | 7,262.1 | -529.2 | -2,616.9 | 2,661.2 | 1.13 | 0.63 | -0.94 |
| 9,756.0 | 90.90 | 272.20 | 7,261.7 | -528.0 | -2,648.9 | 2,692.8 | 1.68 | 1.56 | 0.63 |
| 9,787.0 | 91.20 | 272.00 | 7,261.2 | -526.9 | -2,679.9 | 2,723.4 | 1.16 | 0.97 | -0.65 |
| 9,819.0 | 91.40 | 272.20 | 7,260.5 | -525.7 | -2,711.9 | 2,755.0 | 0.88 | 0.63 | 0.63 |
| 9,850.0 | 91.10 | 272.00 | 7,259.8 | -524.6 | -2,742.8 | 2,785.7 | 1.16 | -0.97 | -0.65 |
| 9,882.0 | 90.70 | 271.10 | 7,259.3 | -523.7 | -2,774.8 | 2,817.3 | 3.08 | -1.25 | -2.81 |
| 9,912.0 | 90.90 | 271.00 | 7,258.9 | -523.2 | -2,804.8 | 2,847.0 | 0.75 | 0.67 | -0.33 |
| 9,943.0 | 91.00 | 271.10 | 7,258.3 | -522.6 | -2,835.8 | 2,877.7 | 0.46 | 0.32 | 0.32 |
| 9,974.0 | 90.50 | 270.60 | 7,257.9 | -522.1 | -2,866.8 | 2,908.5 | 2.28 | -1.61 | -1.61 |
| 10,006.0 | 90.50 | 270.20 | 7,257.7 | -521.9 | -2,898.8 | 2,940.2 | 1.25 | 0.00 | -1.25 |
| 10,037.0 | 90.70 | 270.20 | 7,257.3 | -521.8 | -2,929.8 | 2,971.0 | 0.65 | 0.65 | 0.00 |
| 10,068.0 | 90.90 | 270.10 | 7,256.9 | -521.7 | -2,960.8 | 3,001.7 | 0.72 | 0.65 | -0.32 |
| 10,100.0 | 91.20 | 270.00 | 7,256.3 | -521.7 | -2,992.8 | 3,033.5 | 0.99 | 0.94 | -0.31 |
| 10,131.0 | 90.50 | 270.10 | 7,255.9 | -521.7 | -3,023.8 | 3,064.3 | 2.28 | -2.26 | 0.32 |
| 10,163.0 | 90.30 | 269.80 | 7,255.6 | -521.7 | -3,055.8 | 3,096.1 | 1.13 | -0.63 | -0.94 |
| 10,195.0 | 90.50 | 269.90 | 7,255.4 | -521.8 | -3,087.8 | 3,127.8 | 0.70 | 0.63 | 0.31 |
| 10,226.0 | 90.70 | 270.10 | 7,255.1 | -521.8 | -3,118.8 | 3,158.6 | 0.91 | 0.65 | 0.65 |
| 10,258.0 | 91.10 | 270.30 | 7,254.6 | -521.7 | -3,150.8 | 3,190.4 | 1.40 | 1.25 | 0.63 |
| 10,289.0 | 90.40 | 270.20 | 7,254.2 | -521.5 | -3,181.8 | 3,221.1 | 2.28 | -2.26 | -0.32 |
| 10,321.0 | 90.30 | 270.00 | 7,254.0 | -521.5 | -3,213.8 | 3,252.9 | 0.70 | -0.31 | -0.63 |
| 10,352.0 | 89.80 | 269.30 | 7,253.9 | -521.7 | -3,244.8 | 3,283.7 | 2.77 | -1.61 | -2.26 |
| 10,383.0 | 89.70 | 268.70 | 7,254.1 | -522.2 | -3,275.8 | 3,314.6 | 1.96 | -0.32 | -1.94 |
| 10,415.0 | 90.00 | 268.90 | 7,254.2 | -522.9 | -3,307.7 | 3,346.4 | 1.13 | 0.94 | 0.63 |
| 10,446.0 | 90.40 | 269.10 | 7,254.1 | -523.4 | -3,338.7 | 3,377.2 | 1.44 | 1.29 | 0.65 |
| 10,478.0 | 89.90 | 269.20 | 7,254.0 | -523.9 | -3,370.7 | 3,409.1 | 1.59 | -1.56 | 0.31 |
| 10,510.0 | 89.80 | 269.20 | 7,254.1 | -524.3 | -3,402.7 | 3,440.9 | 0.31 | -0.31 | 0.00 |
| 10,541.0 | 90.10 | 269.40 | 7,254.1 | -524.7 | -3,433.7 | 3,471.7 | 1.16 | 0.97 | 0.65 |
| 10,573.0 | 90.40 | 269.50 | 7,253.9 | -525.0 | -3,465.7 | 3,503.5 | 0.99 | 0.94 | 0.31 |
| 10,604.0 | 90.70 | 269.50 | 7,253.7 | -525.3 | -3,496.7 | 3,534.3 | 0.97 | 0.97 | 0.00 |
| 10,636.0 | 90.90 | 269.40 | 7,253.2 | -525.6 | -3,528.7 | 3,566.1 | 0.70 | 0.63 | -0.31 |
| 10,668.0 | 91.30 | 269.40 | 7,252.6 | -525.9 | -3,560.7 | 3,597.9 | 1.25 | 1.25 | 0.00 |
| 10,699.0 | 91.60 | 269.40 | 7,251.8 | -526.3 | -3,591.7 | 3,628.8 | 0.97 | 0.97 | 0.00 |
| 10,731.0 | 91.70 | 269.10 | 7,250.9 | -526.7 | -3,623.7 | 3,660.6 | 0.99 | 0.31 | -0.94 |
| 10,762.0 | 90.80 | 268.40 | 7,250.2 | -527.4 | -3,654.7 | 3,691.4 | 3.68 | -2.90 | -2.26 |
| 10,794.0 | 90.20 | 267.90 | 7,249.9 | -528.4 | -3,686.7 | 3,723.3 | 2.44 | -1.88 | -1.56 |
| 10,826.0 | 90.50 | 267.90 | 7,249.7 | -529.6 | -3,718.6 | 3,755.2 | 0.94 | 0.94 | 0.00 |
| 10,857.0 | 90.50 | 267.90 | 7,249.5 | -530.7 | -3,749.6 | 3,786.1 | 0.00 | 0.00 | 0.00 |
| 10,889.0 | 90.40 | 267.50 | 7,249.2 | -532.0 | -3,781.6 | 3,818.0 | 1.29 | -0.31 | -1.25 |
| 10,920.0 | 90.50 | 267.20 | 7,249.0 | -533.4 | -3,812.6 | 3,848.9 | 1.02 | 0.32 | -0.97 |
| 10,951.0 | 90.40 | 266.70 | 7,248.7 | -535.1 | -3,843.5 | 3,879.8 | 1.64 | -0.32 | -1.61 |
| 10,983.0 | 90.40 | 266.10 | 7,248.5 | -537.1 | -3,875.4 | 3,911.8 | 1.87 | 0.00 | -1.88 |
| 11,014.0 | 89.40 | 265.30 | 7,248.6 | -539.4 | -3,906.4 | 3,942.7 | 4.13 | -3.23 | -2.58 |
| 11,046.0 | 89.60 | 265.00 | 7,248.8 | -542.1 | -3,938.2 | 3,974.7 | 1.13 | 0.63 | -0.94 |
| 11,078.0 | 89.40 | 264.40 | 7,249.1 | -545.1 | -3,970.1 | 4,006.7 | 1.98 | -0.63 | -1.88 |
| 11,109.0 | 88.90 | 264.40 | 7,249.6 | -548.1 | -4,000.9 | 4,037.7 | 1.61 | -1.61 | 0.00 |
| 11,140.0 | 88.50 | 264.70 | 7,250.3 | -551.0 | -4,031.8 | 4,068.7 | 1.61 | -1.29 | 0.97 |
| 11,171.0 | 88.40 | 264.90 | 7,251.1 | -553.8 | -4,062.7 | 4,099.7 | 0.72 | -0.32 | 0.65 |
| 11,203.0 | 88.20 | 265.60 | 7,252.1 | -556.5 | -4,094.5 | 4,131.6 | 2.27 | -0.63 | 2.19 |
| 11,234.0 | 87.90 | 266.40 | 7,253.1 | -558.6 | -4,125.4 | 4,162.6 | 2.75 | -0.97 | 2.58 |
| 11,266.0 | 88.00 | 266.90 | 7,254.3 | -560.5 | -4,157.4 | 4,194.5 | 1.59 | 0.31 | 1.56 |

| | | | |
|------------------|---|-------------------------------------|-----------------------------|
| Company: | PETROLEUM DEVELOPMENT CORP Weld County CO | Local Co-ordinate Reference: | Well Sunmarke 28W-414 |
| Project: | SEC.28-T4N-R67W | TVD Reference: | WELL @ 4923.0ft (RKB - 15') |
| Site: | Sunmarke 28V-HZ Pad Sec.28-T4N-R67W | MD Reference: | WELL @ 4923.0ft (RKB - 15') |
| Well: | Sunmarke 28W-414 | North Reference: | True |
| Wellbore: | Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Wellbore #1 | Database: | Landmark |

| 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) |
| 11,298.0 | 88.10 | 267.20 | 7,255.4 | -562.2 | -4,189.3 | 4,226.4 | 0.99 | 0.31 | 0.94 |
| 11,329.0 | 88.10 | 268.10 | 7,256.4 | -563.4 | -4,220.3 | 4,257.3 | 2.90 | 0.00 | 2.90 |
| 11,361.0 | 88.90 | 268.90 | 7,257.2 | -564.3 | -4,252.2 | 4,289.1 | 3.53 | 2.50 | 2.50 |
| 11,392.0 | 89.20 | 269.50 | 7,257.7 | -564.7 | -4,283.2 | 4,320.0 | 2.16 | 0.97 | 1.94 |
| 11,424.0 | 89.40 | 269.90 | 7,258.1 | -564.9 | -4,315.2 | 4,351.8 | 1.40 | 0.63 | 1.25 |
| 11,455.0 | 89.40 | 269.70 | 7,258.4 | -565.0 | -4,346.2 | 4,382.6 | 0.65 | 0.00 | -0.65 |
| 11,487.0 | 89.20 | 269.30 | 7,258.8 | -565.3 | -4,378.2 | 4,414.4 | 1.40 | -0.63 | -1.25 |
| 11,518.0 | 89.60 | 269.50 | 7,259.2 | -565.6 | -4,409.2 | 4,445.2 | 1.44 | 1.29 | 0.65 |
| 11,550.0 | 89.80 | 269.60 | 7,259.3 | -565.8 | -4,441.2 | 4,477.0 | 0.70 | 0.63 | 0.31 |
| 11,582.0 | 89.80 | 269.30 | 7,259.4 | -566.1 | -4,473.2 | 4,508.8 | 0.94 | 0.00 | -0.94 |
| 11,613.0 | 89.90 | 269.20 | 7,259.5 | -566.5 | -4,504.2 | 4,539.6 | 0.46 | 0.32 | -0.32 |
| 11,644.0 | 90.20 | 269.40 | 7,259.5 | -566.9 | -4,535.2 | 4,570.4 | 1.16 | 0.97 | 0.65 |
| 11,698.0 | 90.20 | 269.40 | 7,259.3 | -567.5 | -4,589.2 | 4,624.1 | 0.00 | 0.00 | 0.00 |
| BHL 2193'FNL, 500'FWL | | | | | | | | | |

| Casing Points | | | | |
|---------------------|---------------------|------|---------------------|-------------------|
| Measured Depth (ft) | Vertical Depth (ft) | Name | Casing Diameter (") | Hole Diameter (") |
| 7,721.0 | 7,252.4 | 7" | 7 | 7-1/2 |

Checked By: _____ Approved By: _____ Date: _____