

PDC ENERGY

**WELD COUNTY, COLORADO
NE SW SEC. 7 T4N R64W 6th P.M.
HONEBEIN 7K-223**

ORIGINAL WELLBORE

09 July, 2015

Plan: PROPOSAL #2



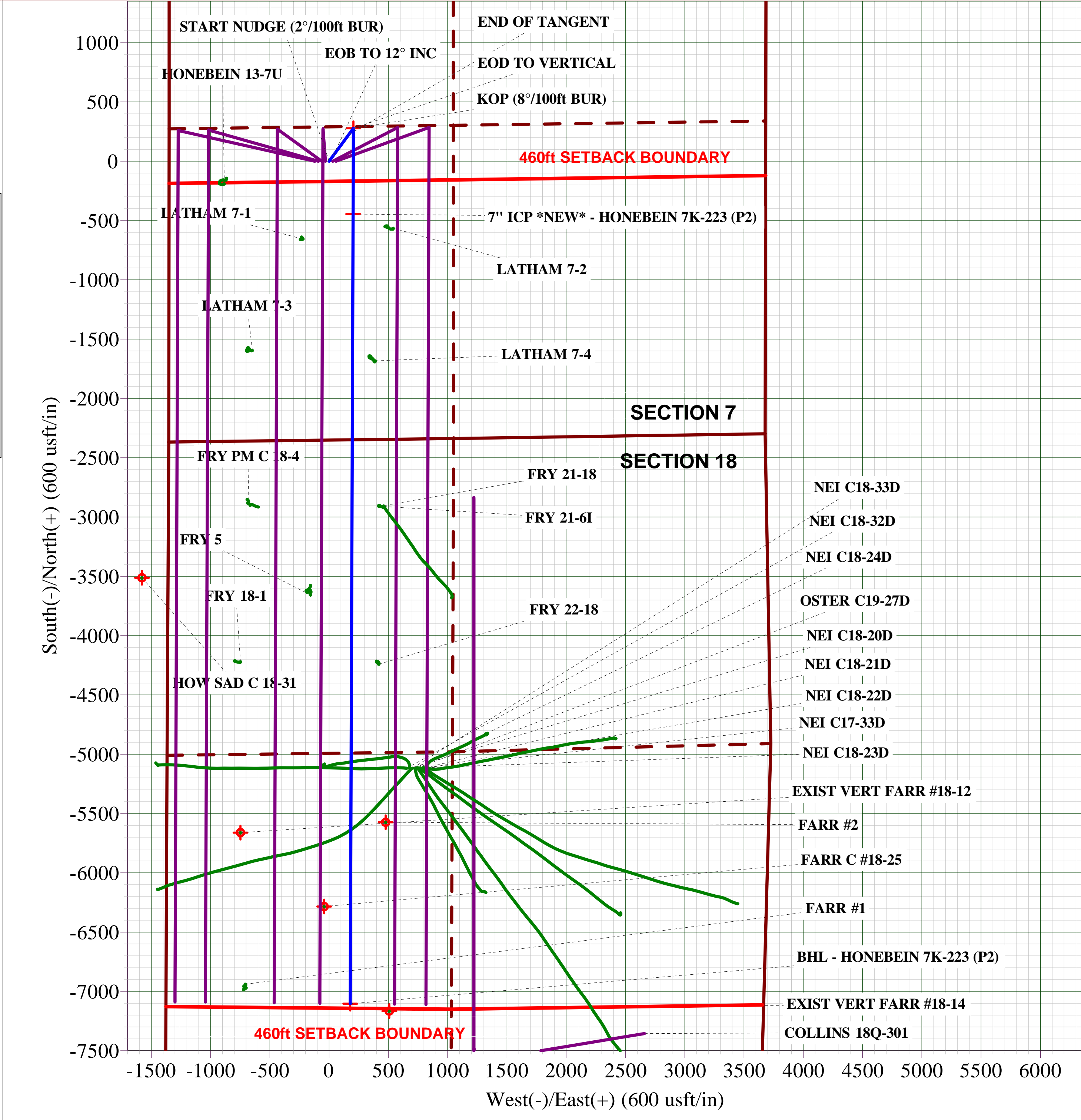
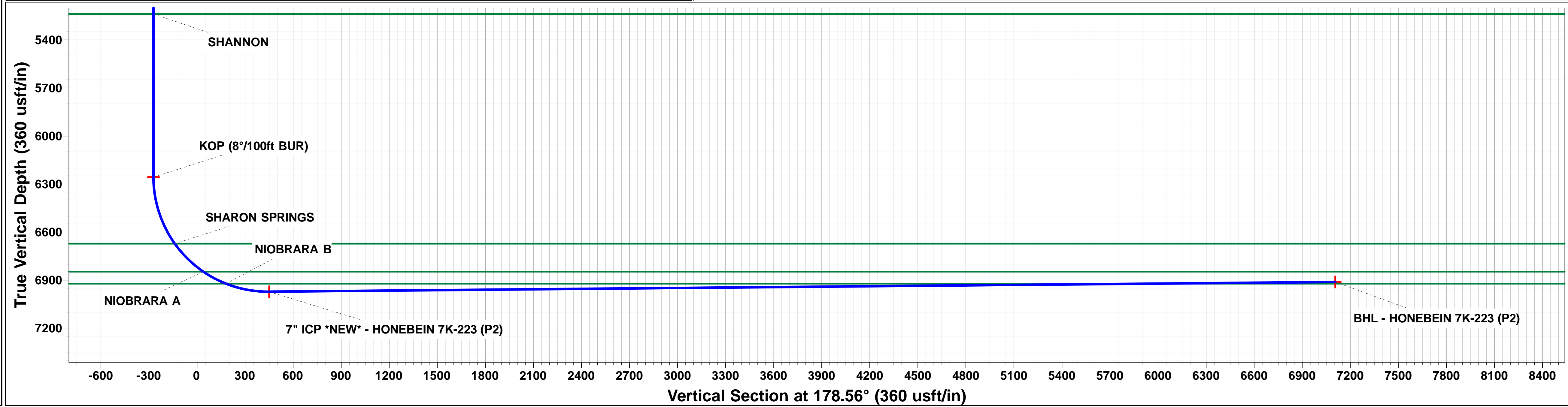
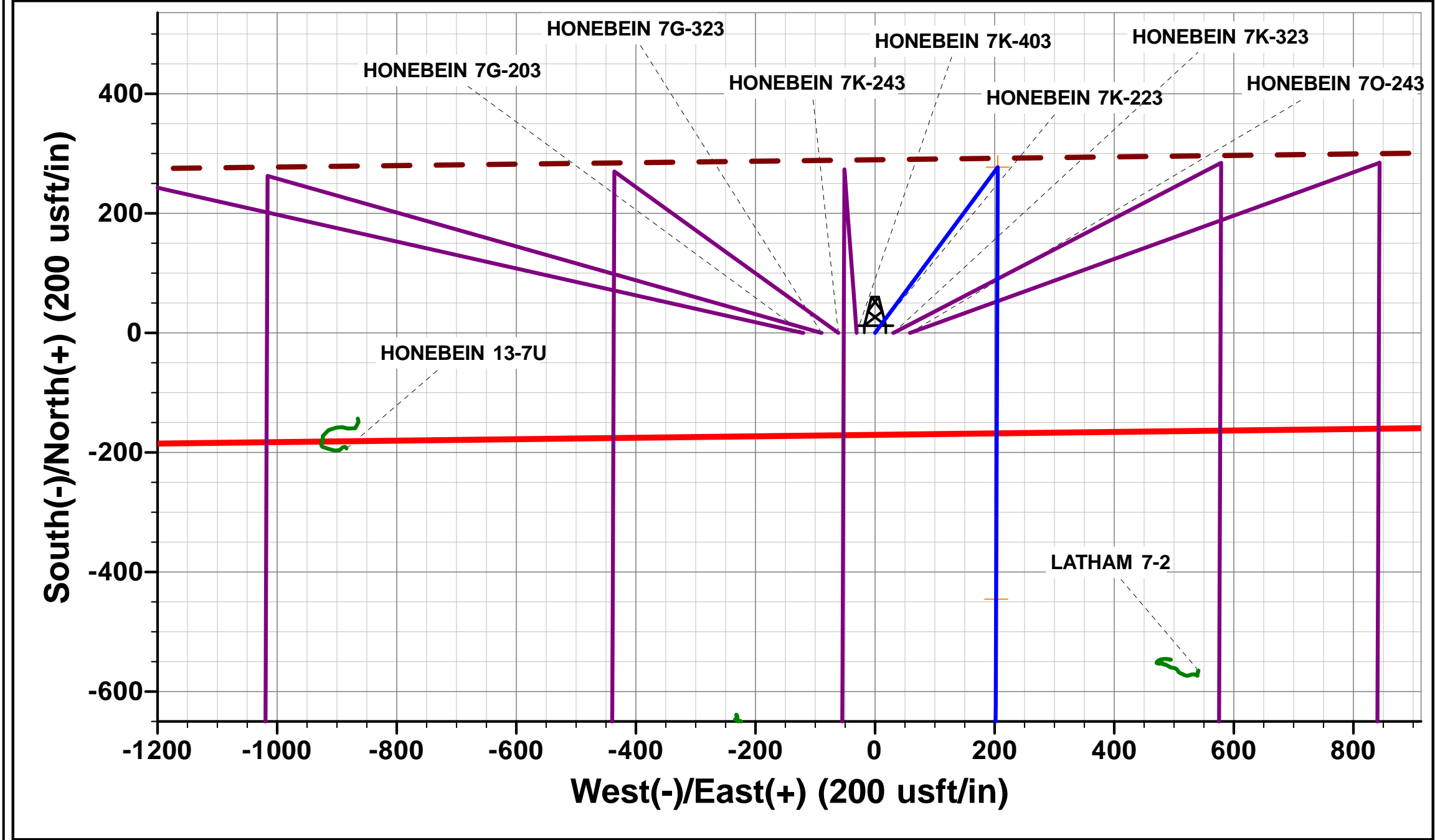
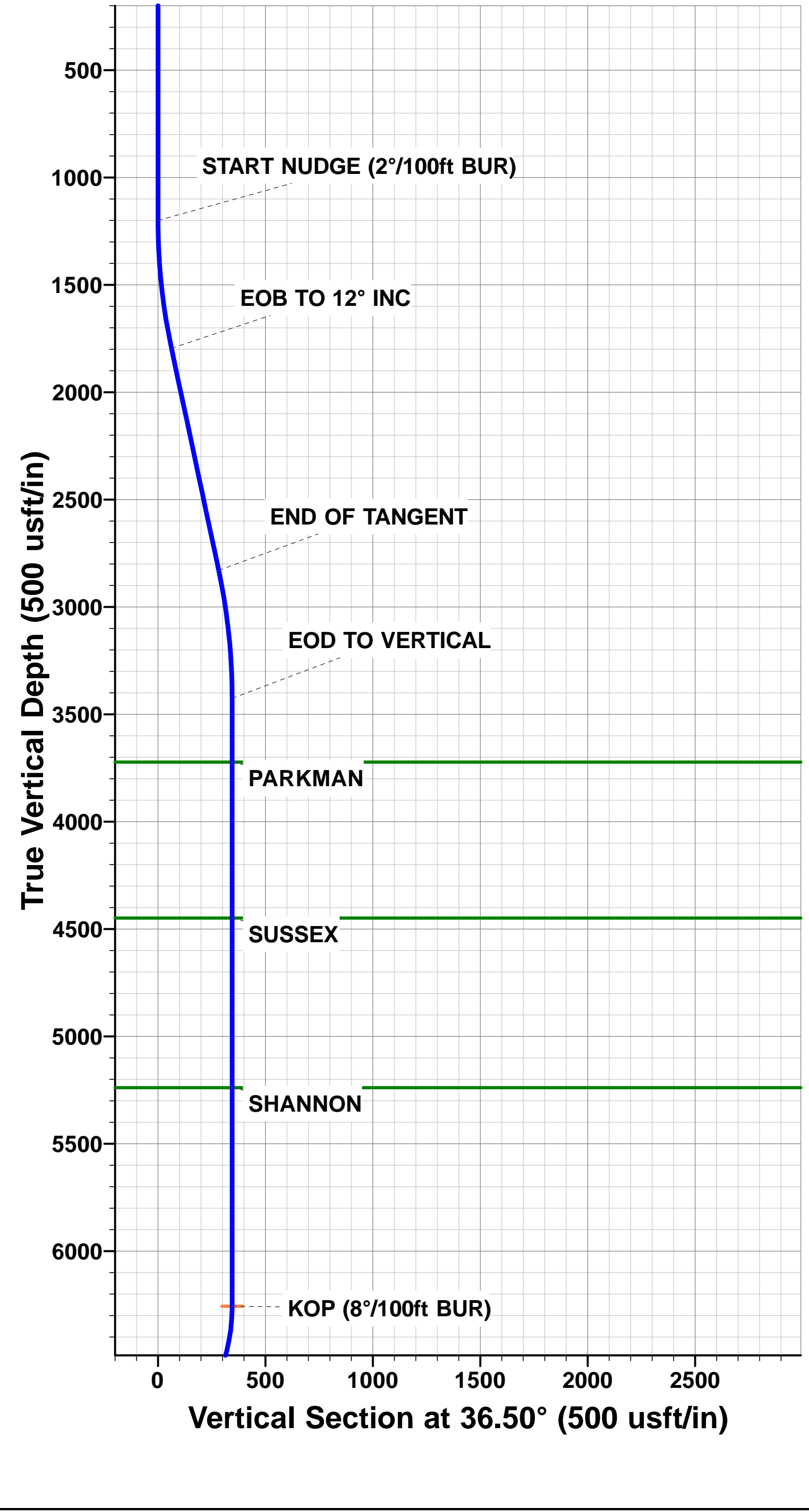


Project: WELD COUNTY, COLORADO
Site: NE SW SEC. 7 T4N R64W 6th P.M.
Well: HONEBEIN 7K-223
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #2

| ANNOTATIONS | | | | | | | | | | |
|-------------|---------|-------|--------|---------|-------|--------|--------|-------------------------------------|--|--|
| TVD | MD | Inc | Azi | +N/-S | +E/-W | VSec | Dep | Annotation | | |
| 1200.0 | 1200.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | START NUDGE (2°/100ft BUR) | | |
| 1795.7 | 1800.1 | 12.00 | 36.50 | 50.3 | 37.3 | -49.4 | 62.6 | EOB TO 12° INC | | |
| 2829.9 | 2857.4 | 12.00 | 36.50 | 227.1 | 168.0 | -222.8 | 282.5 | END OF TANGENT | | |
| 3425.6 | 3457.5 | 0.00 | 0.00 | 277.4 | 205.3 | -272.2 | 345.1 | EOD TO VERTICAL | | |
| 6256.6 | 6288.5 | 0.00 | 0.00 | 277.4 | 205.3 | -272.2 | 345.1 | KOP (8°/100ft BUR) | | |
| 6972.8 | 7420.0 | 90.52 | 180.21 | -445.3 | 202.7 | 450.3 | 1067.8 | 7" ICP *NEW* - HONEBEIN 7K-223 (P2) | | |
| 6912.0 | 14079.0 | 90.53 | 180.21 | -7104.0 | 178.5 | 7106.2 | 7726.5 | BHL - HONEBEIN 7K-223 (P2) | | |

PROPOSED LOCAL COORDINATES:
SHL: 2352ft FSL & 1350t FWL Sec 7
7" ICP *NEW*: 1904.3ft FSL & 1554ft FWL Sec 7
BHL: 500ft FSL & 1554ft FWL of Sec 18

| WELLBORE TARGET DETAILS (LAT/LONG) | | | | | |
|-------------------------------------|--------|---------|-------|-----------|-------------|
| Name | TVD | +N/-S | +E/-W | Latitude | Longitude |
| KOP - HONEBEIN 7K-223 (P2) | 6256.6 | 277.4 | 205.3 | 40.326691 | -104.596464 |
| BHL - HONEBEIN 7K-223 (P2) | 6912.0 | -7104.0 | 178.5 | 40.306430 | -104.596560 |
| 7" ICP *NEW* - HONEBEIN 7K-223 (P2) | 6972.8 | -445.3 | 202.7 | 40.324708 | -104.596473 |



Planning Report



| | | | |
|------------------|--------------------------------|-------------------------------------|--|
| Database: | EDM 5000.1 Single User Db | Local Co-ordinate Reference: | Well HONEBEIN 7K-223 |
| Company: | PDC ENERGY | TVD Reference: | KB-EST @ 4863.5usft (Original Well Elev) |
| Project: | WELD COUNTY, COLORADO | MD Reference: | KB-EST @ 4863.5usft (Original Well Elev) |
| Site: | NE SW SEC. 7 T4N R64W 6th P.M. | North Reference: | True |
| Well: | HONEBEIN 7K-223 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | ORIGINAL WELLBORE | | |
| Design: | PROPOSAL #2 | | |

| | | | |
|--------------------|---------------------------|----------------------|-----------------------------|
| Project | 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 | NE SW SEC. 7 T4N R64W 6th P.M. | | |
| Site Position: | | Northing: | 1,362,859.07 usft |
| From: | Lat/Long | Easting: | 3,251,768.07 usft |
| Position Uncertainty: | 0.0 usft | Slot Radius: | 1.10000ft |
| | | Latitude: | 40.325930 |
| | | Longitude: | -104.596990 |
| | | Grid Convergence: | 0.58 ° |

| | | | |
|-----------------------------|-----------------|----------------------------|------------------|
| Well | HONEBEIN 7K-223 | | |
| Well Position | +N/-S | 0.0 usft | Northing: |
| | +E/-W | -58.6 usft | Easting: |
| Position Uncertainty | 0.0 usft | Wellhead Elevation: | usft |
| | | Latitude: | 40.325930 |
| | | Longitude: | -104.597200 |
| | | Ground Level: | 4,850.0 usft |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | ORIGINAL WELLBORE | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2015 | 30/06/2015 | 8.32 | 66.87 | 52,595 |

| | | | | |
|--------------------------|--------------------------------|---------------------|----------------------|----------------------|
| Design | PROPOSAL #2 | | | |
| Audit Notes: | | | | |
| Version: | Phase: | PROTOTYPE | Tie On Depth: | 0.0 |
| Vertical Section: | Depth From (TVD) (usft) | +N/-S (usft) | +E/-W (usft) | Direction (°) |
| | 6,912.0 | 0.0 | 0.0 | 178.56 |

| Plan Sections | | | | | | | | | | | |
|----------------------|---------|---------|----------------|-----------|--------------|--------------|------------------------|-----------------------|----------------------|---------|----------------|
| MD (usft) | Inc (°) | Azi (°) | Vertical Depth | SS (usft) | +N/-S (usft) | +E/-W (usft) | Dogleg Rate (°/100usf) | Build Rate (°/100usf) | Turn Rate (°/100usf) | TFO (°) | Target |
| 0.0 | 0.00 | 0.00 | 0.0 | -4,863.5 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 1,200.0 | 0.00 | 0.00 | 1,200.0 | -3,663.5 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 1,800.1 | 12.00 | 36.50 | 1,795.7 | -3,067.8 | 50.3 | 37.3 | 2.00 | 2.00 | 0.00 | 36.50 | |
| 2,857.4 | 12.00 | 36.50 | 2,829.9 | -2,033.6 | 227.1 | 168.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 3,457.5 | 0.00 | 0.00 | 3,425.6 | -1,437.9 | 277.4 | 205.3 | 2.00 | -2.00 | 0.00 | 180.00 | |
| 6,288.5 | 0.00 | 0.00 | 6,256.6 | 1,393.1 | 277.4 | 205.3 | 0.00 | 0.00 | 0.00 | 0.00 | KOP - HONEBEIN |
| 7,420.0 | 90.52 | 180.21 | 6,972.8 | 2,109.3 | -445.3 | 202.7 | 8.00 | 8.00 | 0.00 | 180.21 | |
| 14,079.0 | 90.53 | 180.21 | 6,912.0 | 2,048.5 | -7,104.0 | 178.5 | 0.00 | 0.00 | 0.00 | -37.33 | BHL - HONEBEIN |

Planning Report



| | | | |
|------------------|--------------------------------|-------------------------------------|--|
| Database: | EDM 5000.1 Single User Db | Local Co-ordinate Reference: | Well HONEBEIN 7K-223 |
| Company: | PDC ENERGY | TVD Reference: | KB-EST @ 4863.5usft (Original Well Elev) |
| Project: | WELD COUNTY, COLORADO | MD Reference: | KB-EST @ 4863.5usft (Original Well Elev) |
| Site: | NE SW SEC. 7 T4N R64W 6th P.M. | North Reference: | True |
| Well: | HONEBEIN 7K-223 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | ORIGINAL WELLBORE | | |
| Design: | PROPOSAL #2 | | |

| Planned Survey | | | | | | | | | | |
|----------------------------|------------|------------|---------------|--------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| MD (usft) | Inc (°) | Azi (°) | TVD (usft) | SS (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 0.0 | 0.00 | 0.00 | 0.0 | 4,863.50 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 100.0 | 0.00 | 0.00 | 100.0 | 4,763.50 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 200.0 | 0.00 | 0.00 | 200.0 | 4,663.50 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 300.0 | 0.00 | 0.00 | 300.0 | 4,563.50 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 400.0 | 0.00 | 0.00 | 400.0 | 4,463.50 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 500.0 | 0.00 | 0.00 | 500.0 | 4,363.50 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 600.0 | 0.00 | 0.00 | 600.0 | 4,263.50 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 700.0 | 0.00 | 0.00 | 700.0 | 4,163.50 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 800.0 | 0.00 | 0.00 | 800.0 | 4,063.50 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 900.0 | 0.00 | 0.00 | 900.0 | 3,963.50 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,000.0 | 0.00 | 0.00 | 1,000.0 | 3,863.50 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,100.0 | 0.00 | 0.00 | 1,100.0 | 3,763.50 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| START NUDGE (2°/100ft BUR) | | | | | | | | | | |
| 1,200.0 | 0.00 | 0.00 | 1,200.0 | 3,663.50 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,300.0 | 2.00 | 36.50 | 1,300.0 | 3,563.52 | 1.4 | 1.0 | -1.4 | 2.00 | 2.00 | 0.00 |
| 1,400.0 | 4.00 | 36.50 | 1,399.8 | 3,463.66 | 5.6 | 4.2 | -5.5 | 2.00 | 2.00 | 0.00 |
| 1,500.0 | 6.00 | 36.50 | 1,499.5 | 3,364.05 | 12.6 | 9.3 | -12.4 | 2.00 | 2.00 | 0.00 |
| 1,600.0 | 8.00 | 36.50 | 1,598.7 | 3,264.80 | 22.4 | 16.6 | -22.0 | 2.00 | 2.00 | 0.00 |
| 1,700.0 | 10.00 | 36.50 | 1,697.5 | 3,166.03 | 35.0 | 25.9 | -34.3 | 2.00 | 2.00 | 0.00 |
| 1,800.0 | 12.00 | 36.50 | 1,795.6 | 3,067.88 | 50.3 | 37.2 | -49.4 | 2.00 | 2.00 | 0.00 |
| EOB TO 12° INC | | | | | | | | | | |
| 1,800.1 | 12.00 | 36.50 | 1,795.7 | 3,067.78 | 50.3 | 37.3 | -49.4 | 2.00 | 2.00 | 0.00 |
| 1,900.0 | 12.00 | 36.50 | 1,893.4 | 2,970.06 | 67.0 | 49.6 | -65.8 | 0.00 | 0.00 | 0.00 |
| 2,000.0 | 12.00 | 36.50 | 1,991.3 | 2,872.25 | 83.8 | 62.0 | -82.2 | 0.00 | 0.00 | 0.00 |
| 2,100.0 | 12.00 | 36.50 | 2,089.1 | 2,774.44 | 100.5 | 74.4 | -98.6 | 0.00 | 0.00 | 0.00 |
| 2,200.0 | 12.00 | 36.50 | 2,186.9 | 2,676.62 | 117.2 | 86.7 | -115.0 | 0.00 | 0.00 | 0.00 |
| 2,300.0 | 12.00 | 36.50 | 2,284.7 | 2,578.81 | 133.9 | 99.1 | -131.4 | 0.00 | 0.00 | 0.00 |
| 2,400.0 | 12.00 | 36.50 | 2,382.5 | 2,480.99 | 150.6 | 111.5 | -147.8 | 0.00 | 0.00 | 0.00 |
| 2,500.0 | 12.00 | 36.50 | 2,480.3 | 2,383.18 | 167.3 | 123.8 | -164.2 | 0.00 | 0.00 | 0.00 |
| 2,600.0 | 12.00 | 36.50 | 2,578.1 | 2,285.37 | 184.0 | 136.2 | -180.6 | 0.00 | 0.00 | 0.00 |
| 2,700.0 | 12.00 | 36.50 | 2,675.9 | 2,187.55 | 200.8 | 148.6 | -197.0 | 0.00 | 0.00 | 0.00 |
| 2,800.0 | 12.00 | 36.50 | 2,773.8 | 2,089.74 | 217.5 | 160.9 | -213.4 | 0.00 | 0.00 | 0.00 |
| END OF TANGENT | | | | | | | | | | |
| 2,857.4 | 12.00 | 36.50 | 2,829.9 | 2,033.59 | 227.1 | 168.0 | -222.8 | 0.00 | 0.00 | 0.00 |
| 2,900.0 | 11.15 | 36.50 | 2,871.6 | 1,991.86 | 233.9 | 173.1 | -229.5 | 2.00 | -2.00 | 0.00 |
| 3,000.0 | 9.15 | 36.50 | 2,970.1 | 1,893.43 | 248.1 | 183.6 | -243.4 | 2.00 | -2.00 | 0.00 |
| 3,100.0 | 7.15 | 36.50 | 3,069.1 | 1,794.44 | 259.5 | 192.0 | -254.6 | 2.00 | -2.00 | 0.00 |
| 3,200.0 | 5.15 | 36.50 | 3,168.5 | 1,695.02 | 268.1 | 198.4 | -263.0 | 2.00 | -2.00 | 0.00 |
| 3,300.0 | 3.15 | 36.50 | 3,268.2 | 1,595.29 | 273.9 | 202.7 | -268.7 | 2.00 | -2.00 | 0.00 |
| 3,400.0 | 1.15 | 36.50 | 3,368.1 | 1,495.37 | 276.9 | 205.0 | -271.7 | 2.00 | -2.00 | 0.00 |
| EOD TO VERTICAL | | | | | | | | | | |
| 3,457.5 | 0.00 | 0.00 | 3,425.6 | 1,437.87 | 277.4 | 205.3 | -272.2 | 2.00 | -2.00 | 0.00 |
| 3,500.0 | 0.00 | 0.00 | 3,468.1 | 1,395.37 | 277.4 | 205.3 | -272.2 | 0.00 | 0.00 | 0.00 |
| 3,600.0 | 0.00 | 0.00 | 3,568.1 | 1,295.37 | 277.4 | 205.3 | -272.2 | 0.00 | 0.00 | 0.00 |
| 3,700.0 | 0.00 | 0.00 | 3,668.1 | 1,195.37 | 277.4 | 205.3 | -272.2 | 0.00 | 0.00 | 0.00 |
| PARKMAN | | | | | | | | | | |
| 3,754.4 | 0.00 | 0.00 | 3,722.5 | 1,141.00 | 277.4 | 205.3 | -272.2 | 0.00 | 0.00 | 0.00 |
| 3,800.0 | 0.00 | 0.00 | 3,768.1 | 1,095.37 | 277.4 | 205.3 | -272.2 | 0.00 | 0.00 | 0.00 |
| 3,900.0 | 0.00 | 0.00 | 3,868.1 | 995.37 | 277.4 | 205.3 | -272.2 | 0.00 | 0.00 | 0.00 |
| 4,000.0 | 0.00 | 0.00 | 3,968.1 | 895.37 | 277.4 | 205.3 | -272.2 | 0.00 | 0.00 | 0.00 |
| 4,100.0 | 0.00 | 0.00 | 4,068.1 | 795.37 | 277.4 | 205.3 | -272.2 | 0.00 | 0.00 | 0.00 |
| 4,200.0 | 0.00 | 0.00 | 4,168.1 | 695.37 | 277.4 | 205.3 | -272.2 | 0.00 | 0.00 | 0.00 |
| 4,300.0 | 0.00 | 0.00 | 4,268.1 | 595.37 | 277.4 | 205.3 | -272.2 | 0.00 | 0.00 | 0.00 |
| 4,400.0 | 0.00 | 0.00 | 4,368.1 | 495.37 | 277.4 | 205.3 | -272.2 | 0.00 | 0.00 | 0.00 |

Planning Report



| | | | |
|------------------|--------------------------------|-------------------------------------|--|
| Database: | EDM 5000.1 Single User Db | Local Co-ordinate Reference: | Well HONEBEIN 7K-223 |
| Company: | PDC ENERGY | TVD Reference: | KB-EST @ 4863.5usft (Original Well Elev) |
| Project: | WELD COUNTY, COLORADO | MD Reference: | KB-EST @ 4863.5usft (Original Well Elev) |
| Site: | NE SW SEC. 7 T4N R64W 6th P.M. | North Reference: | True |
| Well: | HONEBEIN 7K-223 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | ORIGINAL WELLBORE | | |
| Design: | PROPOSAL #2 | | |

Planned Survey

| MD (usft) | Inc (°) | Azi (°) | TVD (usft) | SS (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|--|--------------|---------------|----------------|------------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| SUSSEX | | | | | | | | | | |
| 4,480.4 | 0.00 | 0.00 | 4,448.5 | 415.00 | 277.4 | 205.3 | -272.2 | 0.00 | 0.00 | 0.00 |
| 4,500.0 | 0.00 | 0.00 | 4,468.1 | 395.37 | 277.4 | 205.3 | -272.2 | 0.00 | 0.00 | 0.00 |
| 4,600.0 | 0.00 | 0.00 | 4,568.1 | 295.37 | 277.4 | 205.3 | -272.2 | 0.00 | 0.00 | 0.00 |
| 4,700.0 | 0.00 | 0.00 | 4,668.1 | 195.37 | 277.4 | 205.3 | -272.2 | 0.00 | 0.00 | 0.00 |
| 4,800.0 | 0.00 | 0.00 | 4,768.1 | 95.37 | 277.4 | 205.3 | -272.2 | 0.00 | 0.00 | 0.00 |
| 4,900.0 | 0.00 | 0.00 | 4,868.1 | -4.63 | 277.4 | 205.3 | -272.2 | 0.00 | 0.00 | 0.00 |
| 5,000.0 | 0.00 | 0.00 | 4,968.1 | -104.63 | 277.4 | 205.3 | -272.2 | 0.00 | 0.00 | 0.00 |
| 5,100.0 | 0.00 | 0.00 | 5,068.1 | -204.63 | 277.4 | 205.3 | -272.2 | 0.00 | 0.00 | 0.00 |
| 5,200.0 | 0.00 | 0.00 | 5,168.1 | -304.63 | 277.4 | 205.3 | -272.2 | 0.00 | 0.00 | 0.00 |
| SHANNON | | | | | | | | | | |
| 5,270.4 | 0.00 | 0.00 | 5,238.5 | -375.00 | 277.4 | 205.3 | -272.2 | 0.00 | 0.00 | 0.00 |
| 5,300.0 | 0.00 | 0.00 | 5,268.1 | -404.63 | 277.4 | 205.3 | -272.2 | 0.00 | 0.00 | 0.00 |
| 5,400.0 | 0.00 | 0.00 | 5,368.1 | -504.63 | 277.4 | 205.3 | -272.2 | 0.00 | 0.00 | 0.00 |
| 5,500.0 | 0.00 | 0.00 | 5,468.1 | -604.63 | 277.4 | 205.3 | -272.2 | 0.00 | 0.00 | 0.00 |
| 5,600.0 | 0.00 | 0.00 | 5,568.1 | -704.63 | 277.4 | 205.3 | -272.2 | 0.00 | 0.00 | 0.00 |
| 5,700.0 | 0.00 | 0.00 | 5,668.1 | -804.63 | 277.4 | 205.3 | -272.2 | 0.00 | 0.00 | 0.00 |
| 5,800.0 | 0.00 | 0.00 | 5,768.1 | -904.63 | 277.4 | 205.3 | -272.2 | 0.00 | 0.00 | 0.00 |
| 5,900.0 | 0.00 | 0.00 | 5,868.1 | -1,004.63 | 277.4 | 205.3 | -272.2 | 0.00 | 0.00 | 0.00 |
| 6,000.0 | 0.00 | 0.00 | 5,968.1 | -1,104.63 | 277.4 | 205.3 | -272.2 | 0.00 | 0.00 | 0.00 |
| 6,100.0 | 0.00 | 0.00 | 6,068.1 | -1,204.63 | 277.4 | 205.3 | -272.2 | 0.00 | 0.00 | 0.00 |
| 6,200.0 | 0.00 | 0.00 | 6,168.1 | -1,304.63 | 277.4 | 205.3 | -272.2 | 0.00 | 0.00 | 0.00 |
| KOP (8°/100ft BUR) | | | | | | | | | | |
| 6,288.5 | 0.00 | 0.00 | 6,256.6 | -1,393.13 | 277.4 | 205.3 | -272.2 | 0.00 | 0.00 | 0.00 |
| 6,300.0 | 0.92 | 180.21 | 6,268.1 | -1,404.63 | 277.3 | 205.3 | -272.1 | 8.02 | 8.02 | 0.00 |
| 6,400.0 | 8.92 | 180.21 | 6,367.7 | -1,504.18 | 268.7 | 205.3 | -263.5 | 8.00 | 8.00 | 0.00 |
| 6,500.0 | 16.92 | 180.21 | 6,465.1 | -1,601.57 | 246.4 | 205.2 | -241.2 | 8.00 | 8.00 | 0.00 |
| 6,600.0 | 24.92 | 180.21 | 6,558.4 | -1,694.90 | 210.7 | 205.1 | -205.5 | 8.00 | 8.00 | 0.00 |
| 6,700.0 | 32.92 | 180.21 | 6,645.9 | -1,782.35 | 162.4 | 204.9 | -157.2 | 8.00 | 8.00 | 0.00 |
| SHARON SPRINGS | | | | | | | | | | |
| 6,732.2 | 35.50 | 180.21 | 6,672.5 | -1,809.00 | 144.3 | 204.8 | -139.1 | 8.00 | 8.00 | 0.00 |
| 6,800.0 | 40.92 | 180.21 | 6,725.7 | -1,862.23 | 102.4 | 204.7 | -97.2 | 8.00 | 8.00 | 0.00 |
| 6,900.0 | 48.92 | 180.21 | 6,796.5 | -1,932.98 | 31.8 | 204.4 | -26.7 | 8.00 | 8.00 | 0.00 |
| NIOBRARA A | | | | | | | | | | |
| 6,983.4 | 55.59 | 180.21 | 6,847.5 | -1,984.00 | -34.1 | 204.2 | 39.2 | 8.00 | 8.00 | 0.00 |
| 7,000.0 | 56.92 | 180.21 | 6,856.7 | -1,993.22 | -47.9 | 204.1 | 53.0 | 8.00 | 8.00 | 0.00 |
| 7,100.0 | 64.92 | 180.21 | 6,905.3 | -2,041.78 | -135.2 | 203.8 | 140.3 | 8.00 | 8.00 | 0.00 |
| NIOBRARA B | | | | | | | | | | |
| 7,143.5 | 68.40 | 180.21 | 6,922.5 | -2,059.00 | -175.1 | 203.6 | 180.2 | 8.00 | 8.00 | 0.00 |
| 7,200.0 | 72.92 | 180.21 | 6,941.2 | -2,077.72 | -228.5 | 203.4 | 233.5 | 8.00 | 8.00 | 0.00 |
| 7,300.0 | 80.92 | 180.21 | 6,963.8 | -2,100.33 | -325.8 | 203.1 | 330.8 | 8.00 | 8.00 | 0.00 |
| 7,400.0 | 88.92 | 180.21 | 6,972.7 | -2,109.17 | -425.3 | 202.7 | 430.3 | 8.00 | 8.00 | 0.00 |
| 7" ICP *NEW* - HONEBEIN 7K-223 (P2) | | | | | | | | | | |
| 7,420.0 | 90.52 | 180.21 | 6,972.8 | -2,109.27 | -445.3 | 202.7 | 450.3 | 7.99 | 7.99 | 0.00 |
| 7,500.0 | 90.52 | 180.21 | 6,972.0 | -2,108.54 | -525.3 | 202.4 | 530.2 | 0.00 | 0.00 | 0.00 |
| 7,600.0 | 90.52 | 180.21 | 6,971.1 | -2,107.63 | -625.3 | 202.0 | 630.2 | 0.00 | 0.00 | 0.00 |
| 7,700.0 | 90.52 | 180.21 | 6,970.2 | -2,106.73 | -725.3 | 201.6 | 730.1 | 0.00 | 0.00 | 0.00 |
| 7,800.0 | 90.52 | 180.21 | 6,969.3 | -2,105.82 | -825.3 | 201.3 | 830.1 | 0.00 | 0.00 | 0.00 |
| 7,900.0 | 90.52 | 180.21 | 6,968.4 | -2,104.91 | -925.3 | 200.9 | 930.1 | 0.00 | 0.00 | 0.00 |
| 8,000.0 | 90.52 | 180.21 | 6,967.5 | -2,104.00 | -1,025.3 | 200.5 | 1,030.0 | 0.00 | 0.00 | 0.00 |
| 8,100.0 | 90.52 | 180.21 | 6,966.6 | -2,103.09 | -1,125.3 | 200.2 | 1,130.0 | 0.00 | 0.00 | 0.00 |
| 8,200.0 | 90.52 | 180.21 | 6,965.7 | -2,102.18 | -1,225.3 | 199.8 | 1,229.9 | 0.00 | 0.00 | 0.00 |
| 8,300.0 | 90.52 | 180.21 | 6,964.8 | -2,101.28 | -1,325.3 | 199.4 | 1,329.9 | 0.00 | 0.00 | 0.00 |

Planning Report



| | | | |
|------------------|--------------------------------|-------------------------------------|--|
| Database: | EDM 5000.1 Single User Db | Local Co-ordinate Reference: | Well HONEBEIN 7K-223 |
| Company: | PDC ENERGY | TVD Reference: | KB-EST @ 4863.5usft (Original Well Elev) |
| Project: | WELD COUNTY, COLORADO | MD Reference: | KB-EST @ 4863.5usft (Original Well Elev) |
| Site: | NE SW SEC. 7 T4N R64W 6th P.M. | North Reference: | True |
| Well: | HONEBEIN 7K-223 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | ORIGINAL WELLBORE | | |
| Design: | PROPOSAL #2 | | |

| Planned Survey | | | | | | | | | | |
|----------------|------------|------------|---------------|--------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| MD (usft) | Inc (°) | Azi (°) | TVD (usft) | SS (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 8,400.0 | 90.52 | 180.21 | 6,963.9 | -2,100.37 | -1,425.3 | 199.1 | 1,429.8 | 0.00 | 0.00 | 0.00 |
| 8,500.0 | 90.52 | 180.21 | 6,963.0 | -2,099.46 | -1,525.3 | 198.7 | 1,529.8 | 0.00 | 0.00 | 0.00 |
| 8,600.0 | 90.52 | 180.21 | 6,962.0 | -2,098.55 | -1,625.3 | 198.3 | 1,629.7 | 0.00 | 0.00 | 0.00 |
| 8,700.0 | 90.52 | 180.21 | 6,961.1 | -2,097.64 | -1,725.3 | 198.0 | 1,729.7 | 0.00 | 0.00 | 0.00 |
| 8,800.0 | 90.52 | 180.21 | 6,960.2 | -2,096.73 | -1,825.3 | 197.6 | 1,829.6 | 0.00 | 0.00 | 0.00 |
| 8,900.0 | 90.52 | 180.21 | 6,959.3 | -2,095.82 | -1,925.3 | 197.2 | 1,929.6 | 0.00 | 0.00 | 0.00 |
| 9,000.0 | 90.52 | 180.21 | 6,958.4 | -2,094.91 | -2,025.2 | 196.9 | 2,029.6 | 0.00 | 0.00 | 0.00 |
| 9,100.0 | 90.52 | 180.21 | 6,957.5 | -2,094.00 | -2,125.2 | 196.5 | 2,129.5 | 0.00 | 0.00 | 0.00 |
| 9,200.0 | 90.52 | 180.21 | 6,956.6 | -2,093.09 | -2,225.2 | 196.1 | 2,229.5 | 0.00 | 0.00 | 0.00 |
| 9,300.0 | 90.52 | 180.21 | 6,955.7 | -2,092.18 | -2,325.2 | 195.8 | 2,329.4 | 0.00 | 0.00 | 0.00 |
| 9,400.0 | 90.52 | 180.21 | 6,954.8 | -2,091.27 | -2,425.2 | 195.4 | 2,429.4 | 0.00 | 0.00 | 0.00 |
| 9,500.0 | 90.52 | 180.21 | 6,953.9 | -2,090.36 | -2,525.2 | 195.1 | 2,529.3 | 0.00 | 0.00 | 0.00 |
| 9,600.0 | 90.52 | 180.21 | 6,952.9 | -2,089.45 | -2,625.2 | 194.7 | 2,629.3 | 0.00 | 0.00 | 0.00 |
| 9,700.0 | 90.52 | 180.21 | 6,952.0 | -2,088.54 | -2,725.2 | 194.3 | 2,729.2 | 0.00 | 0.00 | 0.00 |
| 9,800.0 | 90.52 | 180.21 | 6,951.1 | -2,087.62 | -2,825.2 | 194.0 | 2,829.2 | 0.00 | 0.00 | 0.00 |
| 9,900.0 | 90.52 | 180.21 | 6,950.2 | -2,086.71 | -2,925.2 | 193.6 | 2,929.1 | 0.00 | 0.00 | 0.00 |
| 10,000.0 | 90.52 | 180.21 | 6,949.3 | -2,085.80 | -3,025.2 | 193.2 | 3,029.1 | 0.00 | 0.00 | 0.00 |
| 10,100.0 | 90.52 | 180.21 | 6,948.4 | -2,084.89 | -3,125.2 | 192.9 | 3,129.1 | 0.00 | 0.00 | 0.00 |
| 10,200.0 | 90.52 | 180.21 | 6,947.5 | -2,083.98 | -3,225.2 | 192.5 | 3,229.0 | 0.00 | 0.00 | 0.00 |
| 10,300.0 | 90.52 | 180.21 | 6,946.6 | -2,083.07 | -3,325.2 | 192.1 | 3,329.0 | 0.00 | 0.00 | 0.00 |
| 10,400.0 | 90.52 | 180.21 | 6,945.7 | -2,082.16 | -3,425.2 | 191.8 | 3,428.9 | 0.00 | 0.00 | 0.00 |
| 10,500.0 | 90.52 | 180.21 | 6,944.7 | -2,081.24 | -3,525.2 | 191.4 | 3,528.9 | 0.00 | 0.00 | 0.00 |
| 10,600.0 | 90.52 | 180.21 | 6,943.8 | -2,080.33 | -3,625.2 | 191.1 | 3,628.8 | 0.00 | 0.00 | 0.00 |
| 10,700.0 | 90.52 | 180.21 | 6,942.9 | -2,079.42 | -3,725.2 | 190.7 | 3,728.8 | 0.00 | 0.00 | 0.00 |
| 10,800.0 | 90.52 | 180.21 | 6,942.0 | -2,078.51 | -3,825.2 | 190.3 | 3,828.7 | 0.00 | 0.00 | 0.00 |
| 10,900.0 | 90.52 | 180.21 | 6,941.1 | -2,077.59 | -3,925.2 | 190.0 | 3,928.7 | 0.00 | 0.00 | 0.00 |
| 11,000.0 | 90.52 | 180.21 | 6,940.2 | -2,076.68 | -4,025.1 | 189.6 | 4,028.6 | 0.00 | 0.00 | 0.00 |
| 11,100.0 | 90.52 | 180.21 | 6,939.3 | -2,075.77 | -4,125.1 | 189.2 | 4,128.6 | 0.00 | 0.00 | 0.00 |
| 11,200.0 | 90.52 | 180.21 | 6,938.4 | -2,074.85 | -4,225.1 | 188.9 | 4,228.6 | 0.00 | 0.00 | 0.00 |
| 11,300.0 | 90.52 | 180.21 | 6,937.4 | -2,073.94 | -4,325.1 | 188.5 | 4,328.5 | 0.00 | 0.00 | 0.00 |
| 11,400.0 | 90.52 | 180.21 | 6,936.5 | -2,073.03 | -4,425.1 | 188.2 | 4,428.5 | 0.00 | 0.00 | 0.00 |
| 11,500.0 | 90.52 | 180.21 | 6,935.6 | -2,072.11 | -4,525.1 | 187.8 | 4,528.4 | 0.00 | 0.00 | 0.00 |
| 11,600.0 | 90.52 | 180.21 | 6,934.7 | -2,071.20 | -4,625.1 | 187.4 | 4,628.4 | 0.00 | 0.00 | 0.00 |
| 11,700.0 | 90.52 | 180.21 | 6,933.8 | -2,070.29 | -4,725.1 | 187.1 | 4,728.3 | 0.00 | 0.00 | 0.00 |
| 11,800.0 | 90.52 | 180.21 | 6,932.9 | -2,069.37 | -4,825.1 | 186.7 | 4,828.3 | 0.00 | 0.00 | 0.00 |
| 11,900.0 | 90.52 | 180.21 | 6,932.0 | -2,068.46 | -4,925.1 | 186.3 | 4,928.2 | 0.00 | 0.00 | 0.00 |
| 12,000.0 | 90.52 | 180.21 | 6,931.0 | -2,067.54 | -5,025.1 | 186.0 | 5,028.2 | 0.00 | 0.00 | 0.00 |
| 12,100.0 | 90.52 | 180.21 | 6,930.1 | -2,066.63 | -5,125.1 | 185.6 | 5,128.1 | 0.00 | 0.00 | 0.00 |
| 12,200.0 | 90.52 | 180.21 | 6,929.2 | -2,065.71 | -5,225.1 | 185.3 | 5,228.1 | 0.00 | 0.00 | 0.00 |
| 12,300.0 | 90.52 | 180.21 | 6,928.3 | -2,064.80 | -5,325.1 | 184.9 | 5,328.1 | 0.00 | 0.00 | 0.00 |
| 12,400.0 | 90.52 | 180.21 | 6,927.4 | -2,063.88 | -5,425.1 | 184.5 | 5,428.0 | 0.00 | 0.00 | 0.00 |
| 12,500.0 | 90.52 | 180.21 | 6,926.5 | -2,062.97 | -5,525.1 | 184.2 | 5,528.0 | 0.00 | 0.00 | 0.00 |
| 12,600.0 | 90.52 | 180.21 | 6,925.6 | -2,062.05 | -5,625.1 | 183.8 | 5,627.9 | 0.00 | 0.00 | 0.00 |
| 12,700.0 | 90.52 | 180.21 | 6,924.6 | -2,061.14 | -5,725.1 | 183.5 | 5,727.9 | 0.00 | 0.00 | 0.00 |
| 12,800.0 | 90.52 | 180.21 | 6,923.7 | -2,060.22 | -5,825.1 | 183.1 | 5,827.8 | 0.00 | 0.00 | 0.00 |
| 12,900.0 | 90.52 | 180.21 | 6,922.8 | -2,059.31 | -5,925.1 | 182.7 | 5,927.8 | 0.00 | 0.00 | 0.00 |
| 13,000.0 | 90.52 | 180.21 | 6,921.9 | -2,058.39 | -6,025.1 | 182.4 | 6,027.7 | 0.00 | 0.00 | 0.00 |
| 13,100.0 | 90.52 | 180.21 | 6,921.0 | -2,057.48 | -6,125.0 | 182.0 | 6,127.7 | 0.00 | 0.00 | 0.00 |
| 13,200.0 | 90.52 | 180.21 | 6,920.1 | -2,056.56 | -6,225.0 | 181.7 | 6,227.6 | 0.00 | 0.00 | 0.00 |
| 13,300.0 | 90.53 | 180.21 | 6,919.1 | -2,055.64 | -6,325.0 | 181.3 | 6,327.6 | 0.00 | 0.00 | 0.00 |
| 13,400.0 | 90.53 | 180.21 | 6,918.2 | -2,054.73 | -6,425.0 | 180.9 | 6,427.6 | 0.00 | 0.00 | 0.00 |
| 13,500.0 | 90.53 | 180.21 | 6,917.3 | -2,053.81 | -6,525.0 | 180.6 | 6,527.5 | 0.00 | 0.00 | 0.00 |
| 13,600.0 | 90.53 | 180.21 | 6,916.4 | -2,052.89 | -6,625.0 | 180.2 | 6,627.5 | 0.00 | 0.00 | 0.00 |
| 13,700.0 | 90.53 | 180.21 | 6,915.5 | -2,051.98 | -6,725.0 | 179.9 | 6,727.4 | 0.00 | 0.00 | 0.00 |



| | | | |
|------------------|--------------------------------|-------------------------------------|--|
| Database: | EDM 5000.1 Single User Db | Local Co-ordinate Reference: | Well HONEBEIN 7K-223 |
| Company: | PDC ENERGY | TVD Reference: | KB-EST @ 4863.5usft (Original Well Elev) |
| Project: | WELD COUNTY, COLORADO | MD Reference: | KB-EST @ 4863.5usft (Original Well Elev) |
| Site: | NE SW SEC. 7 T4N R64W 6th P.M. | North Reference: | True |
| Well: | HONEBEIN 7K-223 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | ORIGINAL WELLBORE | | |
| Design: | PROPOSAL #2 | | |

Planned Survey

| MD (usft) | Inc (°) | Azi (°) | TVD (usft) | SS (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|-----------------------------------|--------------|---------------|----------------|------------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| 13,800.0 | 90.53 | 180.21 | 6,914.6 | -2,051.06 | -6,825.0 | 179.5 | 6,827.4 | 0.00 | 0.00 | 0.00 |
| 13,900.0 | 90.53 | 180.21 | 6,913.6 | -2,050.14 | -6,925.0 | 179.1 | 6,927.3 | 0.00 | 0.00 | 0.00 |
| 14,000.0 | 90.53 | 180.21 | 6,912.7 | -2,049.22 | -7,025.0 | 178.8 | 7,027.3 | 0.00 | 0.00 | 0.00 |
| BHL - HONEBEIN 7K-223 (P2) | | | | | | | | | | |
| 14,079.0 | 90.53 | 180.21 | 6,912.0 | -2,048.50 | -7,104.0 | 178.5 | 7,106.2 | 0.00 | 0.00 | 0.00 |

Formations

| MD (usft) | TVD (usft) | Name | Lithology | Dip (°) | Dip Direction (°) |
|--------------|---------------|----------------|-----------|------------|-------------------------|
| 3,754.4 | 3,722.5 | PARKMAN | | 0.00 | |
| 4,480.4 | 4,448.5 | SUSSEX | | 0.00 | |
| 5,270.4 | 5,238.5 | SHANNON | | 0.00 | |
| 6,732.2 | 6,672.5 | SHARON SPRINGS | | 0.00 | |
| 6,983.4 | 6,847.5 | NIOBRARA A | | 0.00 | |
| 7,143.5 | 6,922.5 | NIOBRARA B | | 0.00 | |

Plan Annotations

| MD (usft) | TVD (usft) | Local Coordinates | | Comment |
|--------------|---------------|-------------------|-----------------|-------------------------------------|
| | | +N/-S (usft) | +E/-W (usft) | |
| 1,200.0 | 1,200.0 | 0.0 | 0.0 | START NUDGE (2°/100ft BUR) |
| 1,800.1 | 1,795.7 | 50.3 | 37.3 | EOB TO 12° INC |
| 2,857.4 | 2,829.9 | 227.1 | 168.0 | END OF TANGENT |
| 3,457.5 | 3,425.6 | 277.4 | 205.3 | EOD TO VERTICAL |
| 6,288.5 | 6,256.6 | 277.4 | 205.3 | KOP (8°/100ft BUR) |
| 7,420.0 | 6,972.8 | -445.3 | 202.7 | 7" ICP *NEW* - HONEBEIN 7K-223 (P2) |
| 14,079.0 | 6,912.0 | -7,104.0 | 178.5 | BHL - HONEBEIN 7K-223 (P2) |