



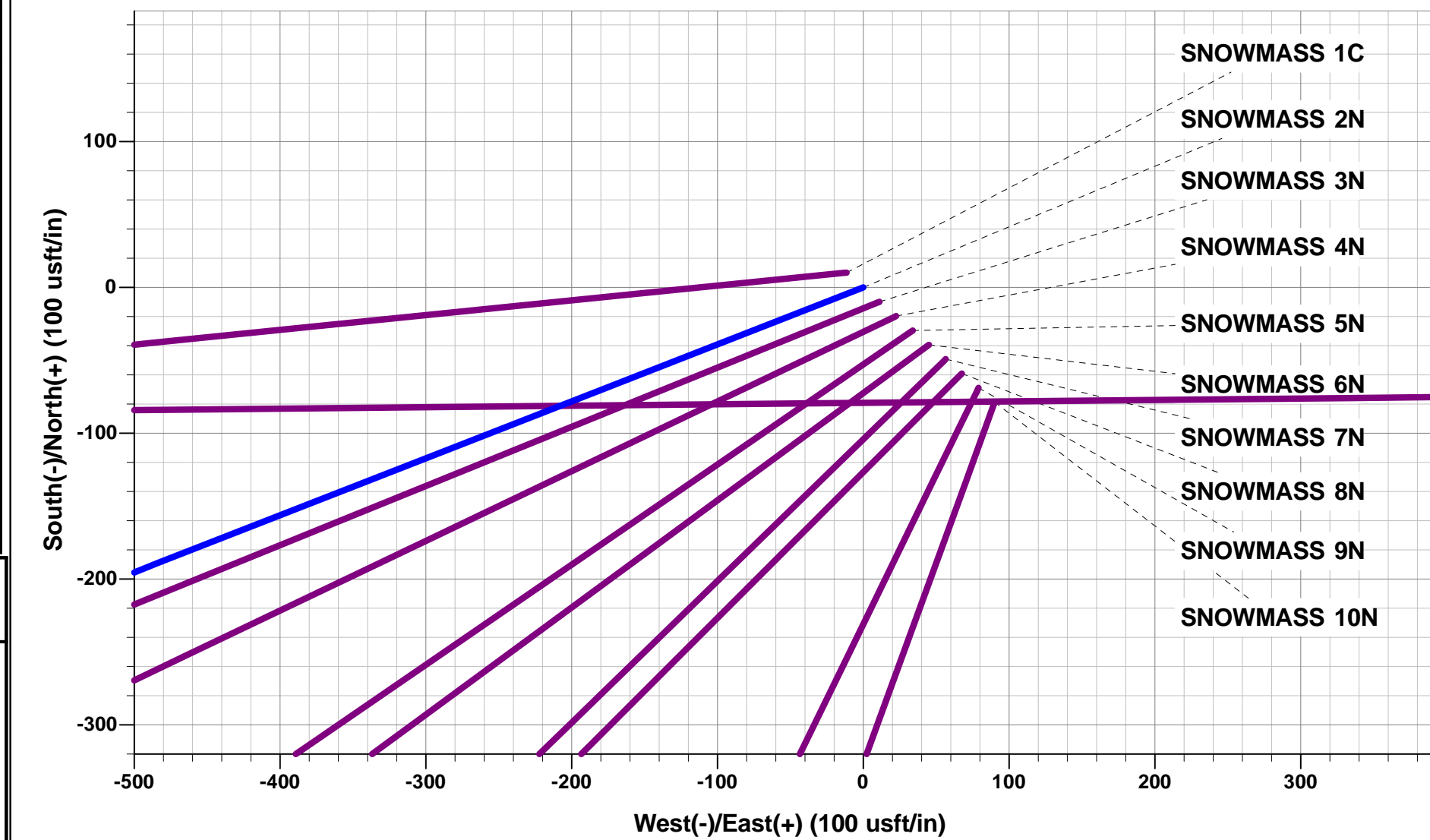
Project: WELD COUNTY, COLORADO  
Site: NW NE SEC. 5 T5N R64W 6th P.M.  
Well: SNOWMASS 2N  
Wellbore: ORIGINAL WELLBORE  
Design: PROPOSAL #3

#### ANNOTATIONS

| TVD    | MD      | Inc   | Azi    | +N/-S  | +E/-W  | VSec   | Dep    | Annotation                                   |
|--------|---------|-------|--------|--------|--------|--------|--------|--|
| 0.0    | 0.0     | 0.00  | 0.00   | 0.0    | 0.0    | 0.0    | 0.0    | SHL: 98ft FNL & 1820ft FEL of Sec 5          |
| 400.0  | 400.0   | 0.00  | 0.00   | 0.0    | 0.0    | 0.0    | 0.0    | START NUDGE (2°/100ft BUR)                   |
| 995.4  | 999.8   | 12.00 | 248.66 | -22.8  | -58.3  | -57.2  | 62.6   | EOB TO 12° INC                               |
| 5448.3 | 5552.1  | 12.00 | 248.66 | -367.0 | -939.6 | -922.9 | 1008.8 | END OF TANGENT                               |
| 6043.8 | 6152.0  | 0.00  | 0.00   | -389.8 | -997.9 | -980.1 | 1071.3 | EOD TO VERTICAL                              |
| 6093.8 | 6202.0  | 0.00  | 0.00   | -389.8 | -997.9 | -980.1 | 1071.3 | KOP (8°/100ft BUR)                           |
| 6810.0 | 7333.6  | 90.53 | 89.42  | -382.5 | -275.1 | -258.3 | 1794.1 | HZ LP *NEW*: 480ft FNL & 2098ft FEL of Sec 5 |
| 6742.0 | 14729.1 | 90.53 | 89.42  | -307.8 | 7119.7 | 7126.3 | 9189.3 | BHL: 480ft FNL & 0ft FEL of Sec 4            |

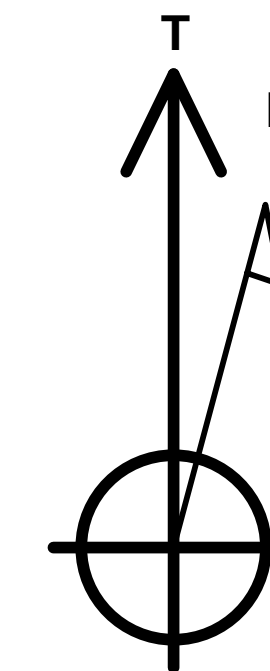
#### WELLBORE TARGET DETAILS (LAT/LONG)

| Name                           | TVD    | +N/-S  | +E/-W  | Latitude  | Longitude   |
|--------------------------------|--------|--------|--------|-----------|-------------|
| KOP - SNOWMASS 2N (P3)         | 6093.8 | -389.8 | -997.9 | 40.433942 | -104.574910 |
| HZ LP *NEW* - SNOWMASS 2N (P3) | 6810.0 | -382.5 | -275.1 | 40.433962 | -104.572313 |
| BHL - SNOWMASS 2N (P3)         | 6742.0 | -307.8 | 7119.7 | 40.434164 | -104.545750 |



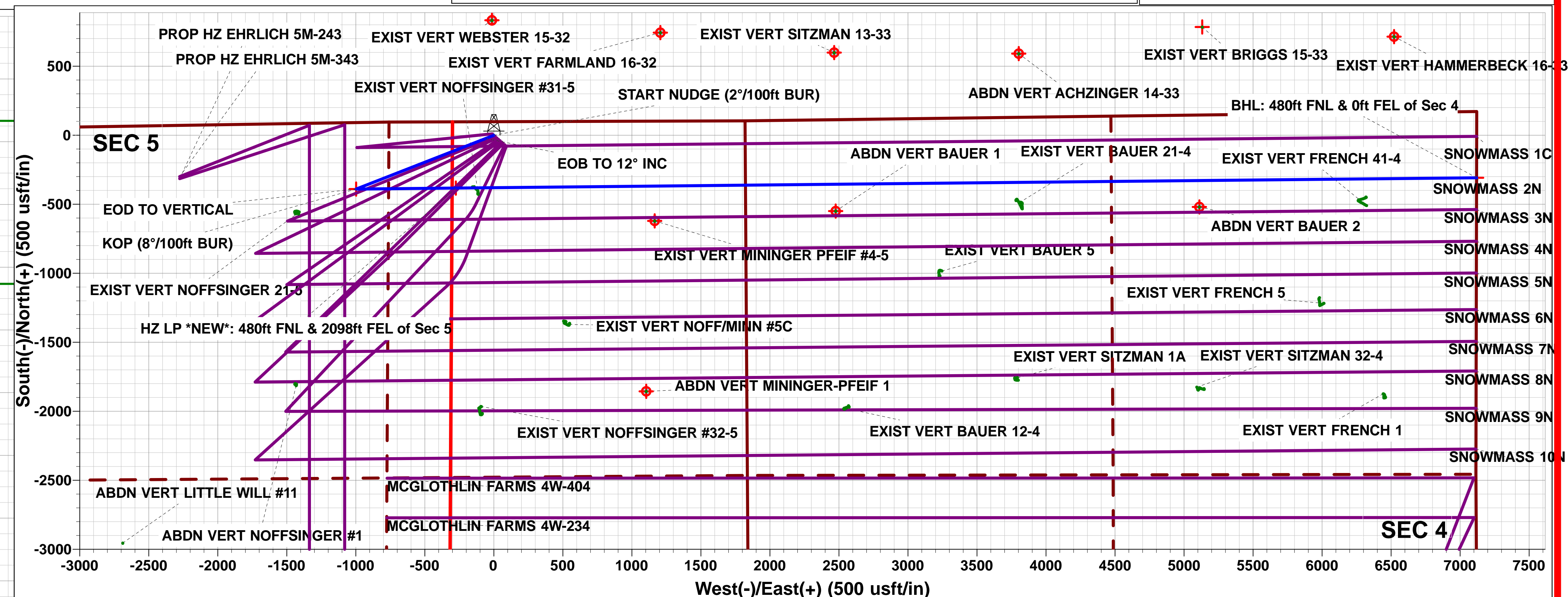
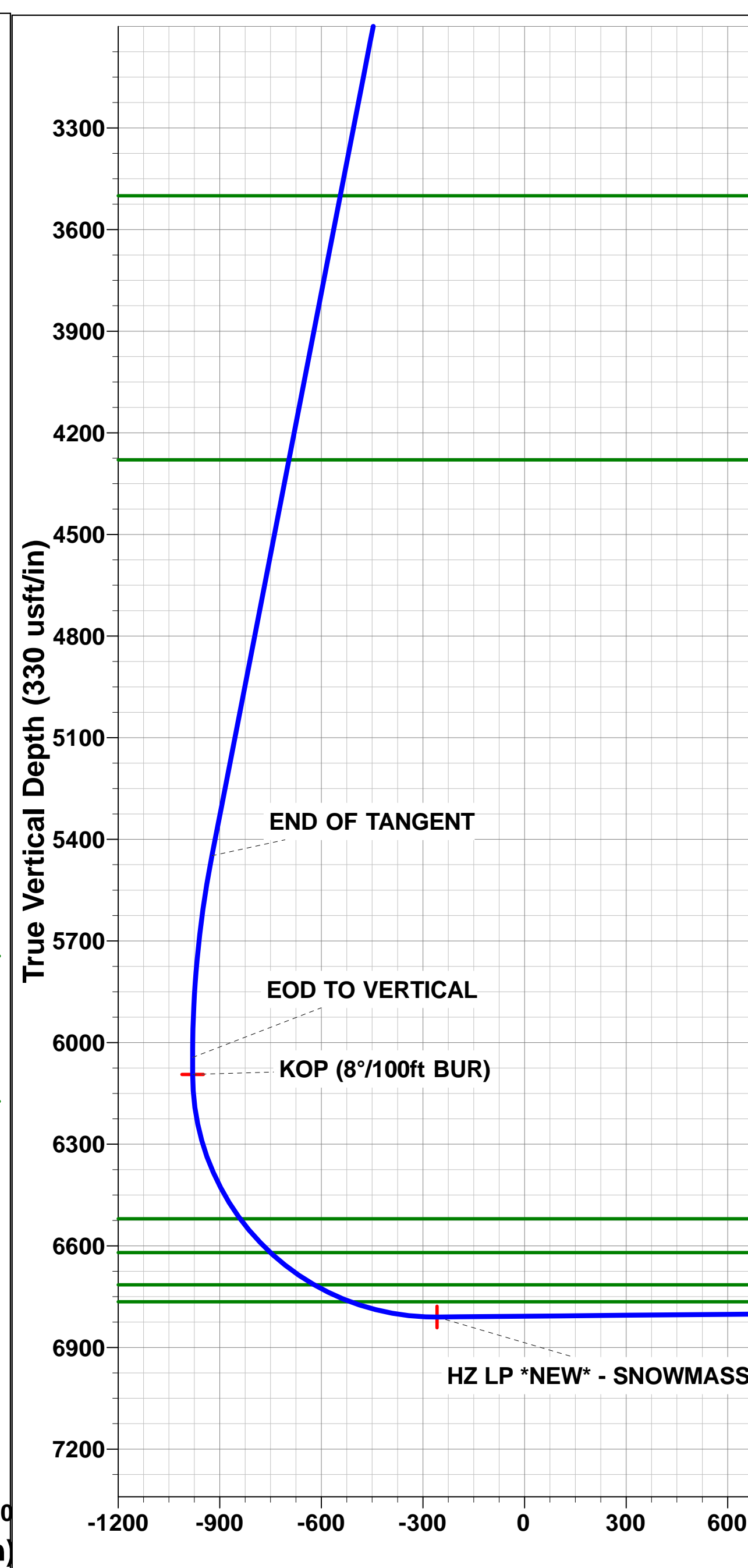
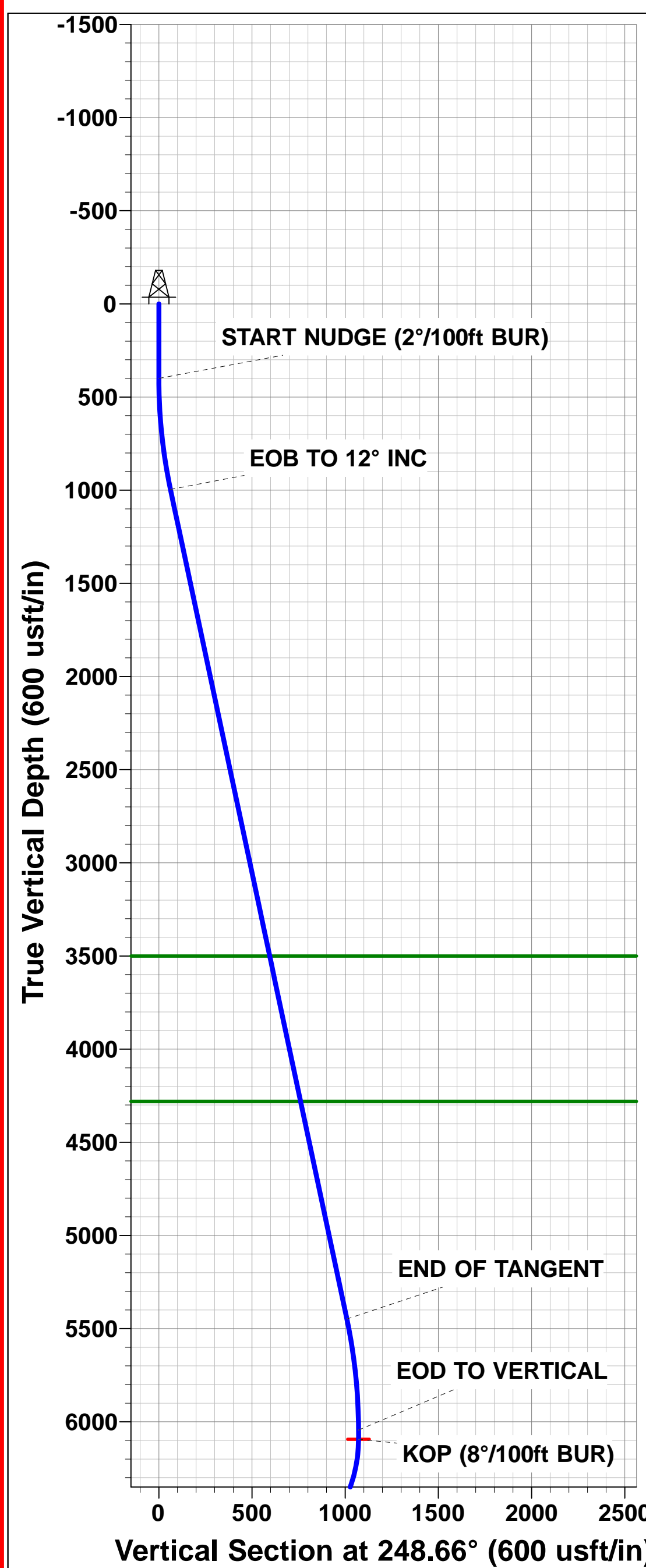
#### PROPOSED LOCAL COORDINATES:

SHL: 98ft FNL & 1820ft FEL of Sec 5  
HZ LP \*NEW\*: 480ft FNL & 2098ft FEL of Sec 5  
BHL: 480ft FNL & 0ft FEL of Sec 4



Azimuths to True North  
Magnetic North: 8.12°

Magnetic Field  
Strength: 52444.4snT  
Dip Angle: 66.91°  
Date: 09/05/2017  
Model: IGRF2015



# Anticollision Report



|                           |                                |                                     |  |
|---------------------------|--------------------------------|-------------------------------------|--|
| <b>Company:</b>           | PDC ENERGY                     | <b>Local Co-ordinate Reference:</b> | Well SNOWMASS 2N                         |
| <b>Project:</b>           | WELD COUNTY, COLORADO          | <b>TVD Reference:</b>               | KB-EST @ 4657.0usft (Original Well Elev) |
| <b>Reference Site:</b>    | NW NE SEC. 5 T5N R64W 6th P.M. | <b>MD Reference:</b>                | KB-EST @ 4657.0usft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0 usft                       | <b>North Reference:</b>             | True                                     |
| <b>Reference Well:</b>    | SNOWMASS 2N                    | <b>Survey Calculation Method:</b>   | Minimum Curvature                        |
| <b>Well Error:</b>        | 0.0 usft                       | <b>Output errors are at</b>         | 2.00 sigma                               |
| <b>Reference Wellbore</b> | ORIGINAL WELLBORE              | <b>Database:</b>                    | EDM 5000.1 Single User Db                |
| <b>Reference Design:</b>  | PROPOSAL #3                    | <b>Offset TVD Reference:</b>        | Offset Datum                             |

|                                     |   |                       |                     |
|-------------------------------------|---|-----------------------|---------------------|
| <b>Reference</b>                    | PROPOSAL #3   |                       |                     |
| <b>Filter type:</b>                 | NO GLOBAL FILTER: Using user defined selection & filtering criteria |                       |                     |
| <b>Interpolation Method:</b>        | MD + Stations Interval 100.0usft                                    | <b>Error Model:</b>   | ISCWSA              |
| <b>Depth Range:</b>                 | Unlimited   | <b>Scan Method:</b>   | Closest Approach 3D |
| <b>Results Limited by:</b>          | Maximum center-center distance of 10,000.0 us                       | <b>Error Surface:</b> | Elliptical Conic    |
| <b>Warning Levels Evaluated at:</b> | 2.00 Sigma  | <b>Casing Method:</b> | Not applied         |

|                            |                        |                                 |                  |                    |
|----------------------------|------------------------|---------------------------------|------------------|--------------------|
| <b>Survey Tool Program</b> | <b>Date</b> 09/05/2017 |                                 |                  |                    |
| <b>From (usft)</b>         | <b>To (usft)</b>       | <b>Survey (Wellbore)</b>        | <b>Tool Name</b> | <b>Description</b> |
| 0.0                        | 14,729.1               | PROPOSAL #3 (ORIGINAL WELLBORE) | MWD              | MWD - Standard     |

| Summary  |                                 |                              |                                 |                                  |                   |                     |
|--|---------------------------------|------------------------------|---------------------------------|----------------------------------|-------------------|---------------------|
| Site Name  | Reference Measured Depth (usft) | Offset Measured Depth (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Separation Factor | Warning             |
| Offet Well - Wellbore - Design                     |                                 |                              |                                 |                                  |                   |                     |
| NW NE SEC. 5 T5N R64W 6th P.M.                     |                                 |                              |                                 |                                  |                   |                     |
| ABDN VERT ACHZINGER 14-33 - Wellbore #1 - Design   | 11,421.1                        | 6,752.4                      | 932.9                           | 671.4                            | 3.568             | CC, ES              |
| ABDN VERT ACHZINGER 14-33 - Wellbore #1 - Design   | 11,500.0                        | 6,751.7                      | 936.2                           | 672.6                            | 3.551             | SF                  |
| ABDN VERT BAUER 1 - Wellbore #1 - Design #1        | 10,083.5                        | 6,805.7                      | 194.5                           | -31.0                            | 0.863             | Level 1, CC, ES, SF |
| ABDN VERT BAUER 2 - Wellbore #1 - Design #1        | 12,718.4                        | 6,740.5                      | 191.2                           | -106.0                           | 0.643             | Level 1, CC, ES, SF |
| EXIST HZ LUCCI STATE B3-69HNL - Wellbore #1 - Wel  | 14,729.1                        | 17,000.0                     | 671.2                           | 159.9                            | 1.313             | Level 3, CC, ES, SF |
| EXIST VERT BAUER 21-4 - Wellbore #1 - Wellbore #1  | 11,393.2                        | 6,500.0                      | 279.1                           | 205.0                            | 3.768             | CC                  |
| EXIST VERT BAUER 21-4 - Wellbore #1 - Wellbore #1  | 11,400.0                        | 6,500.0                      | 279.2                           | 205.0                            | 3.764             | ES, SF              |
| EXIST VERT BAUER 5 - Wellbore #1 - Wellbore #1     | 10,850.0                        | 6,700.0                      | 637.6                           | 525.5                            | 5.687             | CC, ES              |
| EXIST VERT BAUER 5 - Wellbore #1 - Wellbore #1     | 11,000.0                        | 6,700.0                      | 655.0                           | 538.8                            | 5.635             | SF                  |
| EXIST VERT BRIGGS 15-33 - Wellbore #1 - Design #1  | 12,752.5                        | 6,745.2                      | 1,112.4                         | 814.2                            | 3.730             | CC                  |
| EXIST VERT BRIGGS 15-33 - Wellbore #1 - Design #1  | 12,800.0                        | 6,744.7                      | 1,113.4                         | 813.9                            | 3.717             | ES                  |
| EXIST VERT BRIGGS 15-33 - Wellbore #1 - Design #1  | 12,900.0                        | 6,743.8                      | 1,122.1                         | 819.8                            | 3.712             | SF                  |
| EXIST VERT FARMLAND 16-32 - Wellbore #1 - Design # | 8,826.2                         | 6,785.3                      | 1,111.1                         | 919.2                            | 5.788             | CC, ES              |
| EXIST VERT FARMLAND 16-32 - Wellbore #1 - Design # | 9,000.0                         | 6,783.7                      | 1,124.6                         | 928.2                            | 5.726             | SF                  |
| EXIST VERT FRENCH 41-4 - Wellbore #1 - Wellbore #1 | 13,923.9                        | 6,400.0                      | 345.7                           | 246.6                            | 3.490             | CC, ES, SF          |
| EXIST VERT FRENCH 5 - Wellbore #1 - Wellbore #1    | 13,582.5                        | 6,700.0                      | 857.3                           | 669.2                            | 4.558             | CC                  |
| EXIST VERT FRENCH 5 - Wellbore #1 - Wellbore #1    | 13,600.0                        | 6,700.0                      | 857.5                           | 668.9                            | 4.547             | ES                  |
| EXIST VERT FRENCH 5 - Wellbore #1 - Wellbore #1    | 13,700.0                        | 6,700.0                      | 865.3                           | 673.9                            | 4.522             | SF                  |
| EXIST VERT GRANADOS #4-3 - Wellbore #1 - Design #  | 14,729.1                        | 6,717.0                      | 733.9                           | 381.1                            | 2.080             | CC, ES, SF          |
| EXIST VERT HAMMERBECK 16-33 - Wellbore #1 - Des    | 14,141.4                        | 6,732.4                      | 1,028.7                         | 692.0                            | 3.055             | CC, ES              |
| EXIST VERT HAMMERBECK 16-33 - Wellbore #1 - Des    | 14,200.0                        | 6,731.9                      | 1,030.4                         | 692.1                            | 3.046             | SF                  |
| EXIST VERT MININGER PFEIF #4-5 - Wellbore #1 - Des | 8,771.4                         | 6,779.8                      | 252.0                           | 61.5                             | 1.323             | Level 3, CC, ES, SF |
| EXIST VERT NOFFSINGER/MINN #5C - Wellbore #1 - V   | 8,121.8                         | 6,764.7                      | 975.6                           | 934.8                            | 23.911            | CC, ES              |
| EXIST VERT NOFFSINGER/MINN #5C - Wellbore #1 - V   | 8,700.0                         | 6,762.1                      | 1,134.1                         | 1,079.3                          | 20.697            | SF                  |
| EXIST VERT SITZMAN 13-33 - Wellbore #1 - Design #1 | 10,084.1                        | 6,764.7                      | 953.9                           | 728.8                            | 4.238             | CC                  |
| EXIST VERT SITZMAN 13-33 - Wellbore #1 - Design #1 | 10,100.0                        | 6,764.6                      | 954.0                           | 728.5                            | 4.231             | ES                  |
| EXIST VERT SITZMAN 13-33 - Wellbore #1 - Design #1 | 10,200.0                        | 6,763.7                      | 960.9                           | 732.7                            | 4.211             | SF                  |
| EXIST VERT WEBSTER 15-32 - Wellbore #1 - Design #  | 400.0                           | 386.0                        | 833.3                           | 825.5                            | 107.430           | CC                  |
| EXIST VERT WEBSTER 15-32 - Wellbore #1 - Design #  | 600.0                           | 585.8                        | 835.8                           | 823.5                            | 68.400            | ES                  |
| EXIST VERT WEBSTER 15-32 - Wellbore #1 - Design #  | 7,800.0                         | 6,791.7                      | 1,228.3                         | 1,060.2                          | 7.309             | SF                  |
| SNOWMASS 10N - ORIGINAL WELLBORE - PROPOSAL        | 300.0                           | 300.0                        | 119.7                           | 118.6                            | 111.644           | CC, ES              |
| SNOWMASS 10N - ORIGINAL WELLBORE - PROPOSAL        | 14,729.1                        | 16,156.5                     | 1,965.3                         | 1,509.1                          | 4.308             | SF                  |
| SNOWMASS 1C - ORIGINAL WELLBORE - PROPOSAL         | 300.0                           | 300.0                        | 15.3                            | 14.2                             | 14.275            | CC                  |
| SNOWMASS 1C - ORIGINAL WELLBORE - PROPOSAL         | 14,729.1                        | 14,784.4                     | 315.0                           | -102.8                           | 0.754             | Level 1, ES, SF     |
| SNOWMASS 3N - ORIGINAL WELLBORE - PROPOSAL         | 400.0                           | 400.0                        | 14.9                            | 13.3                             | 9.764             | CC                  |
| SNOWMASS 3N - ORIGINAL WELLBORE - PROPOSAL         | 14,729.1                        | 15,301.7                     | 238.8                           | -196.9                           | 0.548             | Level 1, ES, SF     |
| SNOWMASS 4N - ORIGINAL WELLBORE - PROPOSAL         | 400.0                           | 400.0                        | 29.9                            | 28.4                             | 19.665            | CC                  |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



# Anticollision Report



|                           |                                |                                     |  |
|---------------------------|--------------------------------|-------------------------------------|--|
| <b>Company:</b>           | PDC ENERGY                     | <b>Local Co-ordinate Reference:</b> | Well SNOWMASS 2N                         |
| <b>Project:</b>           | WELD COUNTY, COLORADO          | <b>TVD Reference:</b>               | KB-EST @ 4657.0usft (Original Well Elev) |
| <b>Reference Site:</b>    | NW NE SEC. 5 T5N R64W 6th P.M. | <b>MD Reference:</b>                | KB-EST @ 4657.0usft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0 usft                       | <b>North Reference:</b>             | True                                     |
| <b>Reference Well:</b>    | SNOWMASS 2N                    | <b>Survey Calculation Method:</b>   | Minimum Curvature                        |
| <b>Well Error:</b>        | 0.0 usft                       | <b>Output errors are at</b>         | 2.00 sigma                               |
| <b>Reference Wellbore</b> | ORIGINAL WELLBORE              | <b>Database:</b>                    | EDM 5000.1 Single User Db                |
| <b>Reference Design:</b>  | PROPOSAL #3                    | <b>Offset TVD Reference:</b>        | Offset Datum                             |

## Summary

| Site Name<br>Offset Well - Wellbore - Design         | Reference<br>Measured<br>Depth<br>(usft) | Offset<br>Measured<br>Depth<br>(usft) | Distance<br>Between<br>Centres<br>(usft) | Distance<br>Between<br>Ellipses<br>(usft) | Separation<br>Factor | Warning         |
|--|--|---------------------------------------|--|---|----------------------|-----------------|
| NW NE SEC. 5 T5N R64W 6th P.M.                       |  |                                       |  |   |                      |                 |
| SNOWMASS 4N - ORIGINAL WELLBORE - PROPOSAL           | 14,729.1                                 | 15,738.0                              | 460.1                                    | 2.2                                       | 1.005                | Level 2, ES, SF |
| SNOWMASS 5N - ORIGINAL WELLBORE - PROPOSAL           | 400.0                                    | 400.0                                 | 45.0                                     | 43.5                                      | 29.567               | CC, ES          |
| SNOWMASS 5N - ORIGINAL WELLBORE - PROPOSAL           | 14,729.1                                 | 15,407.4                              | 693.1                                    | 244.0                                     | 1.543                | SF              |
| SNOWMASS 6N - ORIGINAL WELLBORE - PROPOSAL           | 400.0                                    | 400.0                                 | 59.8                                     | 58.3                                      | 39.331               | CC, ES          |
| SNOWMASS 6N - ORIGINAL WELLBORE - PROPOSAL           | 14,729.1                                 | 15,878.1                              | 955.0                                    | 497.9                                     | 2.089                | SF              |
| SNOWMASS 7N - ORIGINAL WELLBORE - PROPOSAL           | 400.0                                    | 400.0                                 | 74.9                                     | 73.4                                      | 49.233               | CC, ES          |
| SNOWMASS 7N - ORIGINAL WELLBORE - PROPOSAL           | 14,729.1                                 | 15,556.6                              | 1,188.2                                  | 738.0                                     | 2.639                | SF              |
| SNOWMASS 8N - ORIGINAL WELLBORE - PROPOSAL           | 400.0                                    | 400.0                                 | 89.8                                     | 88.3                                      | 58.996               | CC, ES          |
| SNOWMASS 8N - ORIGINAL WELLBORE - PROPOSAL           | 14,729.1                                 | 16,001.5                              | 1,400.3                                  | 942.8                                     | 3.061                | SF              |
| SNOWMASS 9N - ORIGINAL WELLBORE - PROPOSAL           | 400.0                                    | 400.0                                 | 104.8                                    | 103.3                                     | 68.898               | CC, ES          |
| SNOWMASS 9N - ORIGINAL WELLBORE - PROPOSAL           | 14,729.1                                 | 15,681.0                              | 1,672.3                                  | 1,222.9                                   | 3.721                | SF              |
| NW NW SEC. 5 T5N R64W 6th P.M.                       |  |                                       |  |   |                      |                 |
| ABDN VERT LITTLE WILL #11 - Wellbore #1 - Design #1  | 6,202.0                                  | 6,052.8                               | 3,071.6                                  | 2,928.2                                   | 21.408               | CC, ES, SF      |
| ABDN VERT NOFFSINGER #1 - Wellbore #1 - Wellbore     | 6,227.2                                  | 6,104.2                               | 1,478.2                                  | 1,455.4                                   | 64.797               | CC, ES          |
| ABDN VERT NOFFSINGER #1 - Wellbore #1 - Wellbore     | 14,729.1                                 | 6,400.0                               | 8,693.8                                  | 8,480.3                                   | 40.724               | SF              |
| EHRlich 5M-243 - ORIGINAL WELLBORE - PROPOSAL        | 6,500.0                                  | 6,981.9                               | 307.7                                    | 264.9                                     | 7.192                | SF              |
| EHRlich 5M-243 - ORIGINAL WELLBORE - PROPOSAL        | 6,640.1                                  | 7,071.1                               | 270.1                                    | 236.1                                     | 7.943                | CC, ES          |
| EHRlich 5M-343 - ORIGINAL WELLBORE - PROPOSAL        | 6,250.0                                  | 6,376.6                               | 570.4                                    | 523.4                                     | 12.126               | SF              |
| EHRlich 5M-343 - ORIGINAL WELLBORE - PROPOSAL        | 6,550.0                                  | 6,906.5                               | 516.0                                    | 480.6                                     | 14.592               | ES              |
| EHRlich 5M-343 - ORIGINAL WELLBORE - PROPOSAL        | 6,560.8                                  | 6,916.2                               | 515.8                                    | 480.9                                     | 14.783               | CC              |
| EXIST VERT NOFFSINGER #21-5 - Wellbore #1 - Wellbore | 6,142.1                                  | 6,015.1                               | 452.8                                    | 436.2                                     | 27.159               | CC              |
| EXIST VERT NOFFSINGER #21-5 - Wellbore #1 - Wellbore | 6,152.0                                  | 6,025.0                               | 452.8                                    | 426.6                                     | 17.270               | ES              |
| EXIST VERT NOFFSINGER #21-5 - Wellbore #1 - Wellbore | 6,202.0                                  | 6,075.7                               | 453.0                                    | 426.7                                     | 17.235               | SF              |
| EXIST VERT NOFFSINGER #31-5 - Wellbore #1 - Wellbore | 7,498.6                                  | 6,500.0                               | 291.7                                    | 273.8                                     | 16.265               | CC              |
| EXIST VERT NOFFSINGER #31-5 - Wellbore #1 - Wellbore | 7,500.0                                  | 6,500.0                               | 291.7                                    | 273.8                                     | 16.259               | ES, SF          |
| EXIST VERT NOFFSINGER #32-5 - Wellbore #1 - Wellbore | 7,498.8                                  | 6,798.9                               | 1,584.4                                  | 1,555.5                                   | 54.834               | CC              |
| EXIST VERT NOFFSINGER #32-5 - Wellbore #1 - Wellbore | 7,500.0                                  | 6,798.9                               | 1,584.4                                  | 1,555.5                                   | 54.803               | ES              |
| EXIST VERT NOFFSINGER #32-5 - Wellbore #1 - Wellbore | 10,800.0                                 | 6,712.9                               | 3,660.8                                  | 3,549.7                                   | 32.939               | SF              |
| EXIST VERT PLUMB #B5-11 - Wellbore #1 - Wellbore #1  | 6,293.3                                  | 6,228.4                               | 2,842.6                                  | 2,818.9                                   | 119.696              | CC, ES          |
| EXIST VERT PLUMB #B5-11 - Wellbore #1 - Wellbore #1  | 14,729.1                                 | 6,750.0                               | 9,167.1                                  | 8,946.9                                   | 41.634               | SF              |
| EXIST VERT PLUMB B5-14 - Wellbore #1 - Wellbore #1   | 6,086.9                                  | 5,886.0                               | 3,974.8                                  | 3,950.5                                   | 163.268              | CC, ES          |
| EXIST VERT PLUMB B5-14 - Wellbore #1 - Wellbore #1   | 14,729.1                                 | 6,621.2                               | 9,426.2                                  | 9,206.3                                   | 42.864               | SF              |

## Anticollision Report



|                           |                                |                                     |  |
|---------------------------|--------------------------------|-------------------------------------|--|
| <b>Company:</b>           | PDC ENERGY                     | <b>Local Co-ordinate Reference:</b> | Well SNOWMASS 2N                         |
| <b>Project:</b>           | WELD COUNTY, COLORADO          | <b>TVD Reference:</b>               | KB-EST @ 4657.0usft (Original Well Elev) |
| <b>Reference Site:</b>    | NW NE SEC. 5 T5N R64W 6th P.M. | <b>MD Reference:</b>                | KB-EST @ 4657.0usft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0 usft                       | <b>North Reference:</b>             | True                                     |
| <b>Reference Well:</b>    | SNOWMASS 2N                    | <b>Survey Calculation Method:</b>   | Minimum Curvature                        |
| <b>Well Error:</b>        | 0.0 usft                       | <b>Output errors are at</b>         | 2.00 sigma                               |
| <b>Reference Wellbore</b> | ORIGINAL WELLBORE              | <b>Database:</b>                    | EDM 5000.1 Single User Db                |
| <b>Reference Design:</b>  | PROPOSAL #3                    | <b>Offset TVD Reference:</b>        | Offset Datum                             |

## Summary

| Site Name   | Reference Measured Depth (usft) | Offset Measured Depth (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Separation Factor | Warning    |
|---|---------------------------------|------------------------------|---------------------------------|----------------------------------|-------------------|------------|
| Offset Well - Wellbore - Design                     |                                 |                              |                                 |                                  |                   |            |
| SE SE SEC. 4 T5N R64W 6th P.M.                      |                                 |                              |                                 |                                  |                   |            |
| ABDN VERT ACHZIGER B5-9 - Wellbore #1 - Wellbore #  | 8,784.8                         | 6,785.0                      | 2,727.7                         | 2,670.9                          | 48.028            | CC         |
| ABDN VERT ACHZIGER B5-9 - Wellbore #1 - Wellbore #  | 8,900.0                         | 6,782.8                      | 2,730.1                         | 2,670.3                          | 45.692            | ES         |
| ABDN VERT ACHZIGER B5-9 - Wellbore #1 - Wellbore #  | 12,600.0                        | 6,705.0                      | 4,689.4                         | 4,528.7                          | 29.198            | SF         |
| ABDN VERT MININGER-PFEIF 1 - Wellbore #1 - Design   | 8,697.7                         | 6,782.5                      | 1,486.4                         | 1,299.7                          | 7.963             | CC         |
| ABDN VERT MININGER-PFEIF 1 - Wellbore #1 - Design   | 8,700.0                         | 6,782.4                      | 1,486.4                         | 1,299.6                          | 7.961             | ES         |
| ABDN VERT MININGER-PFEIF 1 - Wellbore #1 - Design   | 9,000.0                         | 6,779.7                      | 1,516.8                         | 1,322.4                          | 7.804             | SF         |
| EXIST DD MILLAGE 13-3D - Wellbore #1 - Wellbore #1  | 14,729.1                        | 6,731.4                      | 2,786.4                         | 2,554.3                          | 12.003            | CC, ES, SF |
| EXIST VERT ACHZINGER 1 - Wellbore #1 - Wellbore #1  | 9,827.2                         | 6,755.1                      | 2,750.8                         | 2,666.4                          | 32.621            | CC         |
| EXIST VERT ACHZINGER 1 - Wellbore #1 - Wellbore #1  | 9,900.0                         | 6,753.6                      | 2,751.7                         | 2,665.4                          | 31.889            | ES         |
| EXIST VERT ACHZINGER 1 - Wellbore #1 - Wellbore #1  | 12,300.0                        | 6,718.5                      | 3,698.6                         | 3,546.3                          | 24.287            | SF         |
| EXIST VERT BAUER 12-4 - Wellbore #1 - Design #1     | 10,163.7                        | 6,766.0                      | 1,615.1                         | 1,387.7                          | 7.103             | CC         |
| EXIST VERT BAUER 12-4 - Wellbore #1 - Design #1     | 10,200.0                        | 6,765.7                      | 1,615.5                         | 1,387.1                          | 7.074             | ES         |
| EXIST VERT BAUER 12-4 - Wellbore #1 - Design #1     | 10,500.0                        | 6,762.9                      | 1,649.7                         | 1,413.2                          | 6.975             | SF         |
| EXIST VERT BAUER 12-4 - Wellbore #1 - Wellbore #1   | 10,134.4                        | 6,528.0                      | 1,639.5                         | 1,547.4                          | 17.791            | CC         |
| EXIST VERT BAUER 12-4 - Wellbore #1 - Wellbore #1   | 10,200.0                        | 6,528.0                      | 1,640.8                         | 1,546.9                          | 17.470            | ES         |
| EXIST VERT BAUER 12-4 - Wellbore #1 - Wellbore #1   | 10,900.0                        | 6,528.0                      | 1,809.5                         | 1,696.6                          | 16.030            | SF         |
| EXIST VERT FLACK 5-3 - Wellbore #1 - Design #1      | 14,729.1                        | 6,711.0                      | 1,642.0                         | 1,289.1                          | 4.652             | CC, ES, SF |
| EXIST VERT FRENCH 1 - Wellbore #1 - Wellbore #1     | 14,040.8                        | 6,714.4                      | 1,585.3                         | 1,384.4                          | 7.892             | CC         |
| EXIST VERT FRENCH 1 - Wellbore #1 - Wellbore #1     | 14,100.0                        | 6,714.1                      | 1,586.4                         | 1,383.9                          | 7.833             | ES         |
| EXIST VERT FRENCH 1 - Wellbore #1 - Wellbore #1     | 14,400.0                        | 6,712.6                      | 1,625.5                         | 1,414.6                          | 7.707             | SF         |
| EXIST VERT OGRADY 1 - Wellbore #1 - Wellbore #1     | 12,667.5                        | 6,741.0                      | 2,845.9                         | 2,683.3                          | 17.506            | CC         |
| EXIST VERT OGRADY 1 - Wellbore #1 - Wellbore #1     | 12,700.0                        | 6,740.9                      | 2,846.1                         | 2,682.6                          | 17.411            | ES         |
| EXIST VERT OGRADY 1 - Wellbore #1 - Wellbore #1     | 14,100.0                        | 6,736.1                      | 3,186.1                         | 2,983.6                          | 15.736            | SF         |
| EXIST VERT OGRADY 43-4 - Wellbore #1 - Wellbore #1  | 14,031.8                        | 6,686.8                      | 2,986.6                         | 2,786.1                          | 14.894            | CC         |
| EXIST VERT OGRADY 43-4 - Wellbore #1 - Wellbore #1  | 14,100.0                        | 6,686.9                      | 2,987.4                         | 2,784.9                          | 14.758            | ES         |
| EXIST VERT OGRADY 43-4 - Wellbore #1 - Wellbore #1  | 14,729.1                        | 6,687.7                      | 3,066.9                         | 2,846.9                          | 13.941            | SF         |
| EXIST VERT SITZMAN 1A - Wellbore #1 - Wellbore #1   | 11,395.3                        | 6,700.0                      | 1,434.1                         | 1,306.7                          | 11.257            | CC         |
| EXIST VERT SITZMAN 1A - Wellbore #1 - Wellbore #1   | 11,400.0                        | 6,700.0                      | 1,434.1                         | 1,306.6                          | 11.246            | ES         |
| EXIST VERT SITZMAN 1A - Wellbore #1 - Wellbore #1   | 11,800.0                        | 6,700.0                      | 1,490.1                         | 1,351.5                          | 10.753            | SF         |
| EXIST VERT SITZMAN 23-4 - Wellbore #1 - Wellbore #1 | 11,567.9                        | 6,600.0                      | 2,840.3                         | 2,708.3                          | 21.513            | CC         |
| EXIST VERT SITZMAN 23-4 - Wellbore #1 - Wellbore #1 | 11,600.0                        | 6,600.0                      | 2,840.5                         | 2,707.5                          | 21.370            | ES         |
| EXIST VERT SITZMAN 23-4 - Wellbore #1 - Wellbore #1 | 13,300.0                        | 6,600.0                      | 3,326.8                         | 3,146.7                          | 18.475            | SF         |
| EXIST VERT SITZMAN 32-4 - Wellbore #1 - Design #1   | 12,739.3                        | 6,737.3                      | 1,507.8                         | 1,209.8                          | 5.061             | CC         |
| EXIST VERT SITZMAN 32-4 - Wellbore #1 - Design #1   | 12,800.0                        | 6,736.7                      | 1,509.0                         | 1,209.4                          | 5.036             | ES         |
| EXIST VERT SITZMAN 32-4 - Wellbore #1 - Design #1   | 13,000.0                        | 6,734.9                      | 1,530.1                         | 1,225.0                          | 5.015             | SF         |
| EXIST VERT SITZMAN 32-4 - Wellbore #1 - Wellbore #1 | 12,688.6                        | 6,475.0                      | 1,519.2                         | 1,357.9                          | 9.417             | CC         |
| EXIST VERT SITZMAN 32-4 - Wellbore #1 - Wellbore #1 | 12,700.0                        | 6,475.0                      | 1,519.2                         | 1,357.6                          | 9.399             | ES         |
| EXIST VERT SITZMAN 32-4 - Wellbore #1 - Wellbore #1 | 13,100.0                        | 6,475.0                      | 1,573.9                         | 1,401.3                          | 9.118             | SF         |
| MCGLOTHLIN FARMS 4W-234 - ORIGINAL WELLBORI         | 6,750.0                         | 14,507.5                     | 2,386.4                         | 2,148.7                          | 10.037            | SF         |
| MCGLOTHLIN FARMS 4W-234 - ORIGINAL WELLBORI         | 6,800.0                         | 14,494.3                     | 2,385.4                         | 2,148.1                          | 10.053            | ES         |
| MCGLOTHLIN FARMS 4W-234 - ORIGINAL WELLBORI         | 6,864.7                         | 14,444.5                     | 2,385.0                         | 2,149.2                          | 10.115            | CC         |
| MCGLOTHLIN FARMS 4W-404 - ORIGINAL WELLBORI         | 6,750.0                         | 14,720.3                     | 2,111.5                         | 1,874.0                          | 8.890             | SF         |
| MCGLOTHLIN FARMS 4W-404 - ORIGINAL WELLBORI         | 6,950.0                         | 14,587.3                     | 2,102.0                         | 1,868.3                          | 8.996             | ES         |
| MCGLOTHLIN FARMS 4W-404 - ORIGINAL WELLBORI         | 7,099.7                         | 14,451.0                     | 2,100.6                         | 1,870.3                          | 9.122             | CC         |

| <b>Offset Design</b>  |                       | NW NE SEC. 5 T5N R64W 6th P.M. - ABDN VERT ACHZINGER 14-33 - Wellbore #1 - Design #1 |                       |                  |               |                       |                                     |                   |                        | <b>Offset Site Error:</b> | 0.0 usft |
|-----------------------|-----------------------|--|-----------------------|------------------|---------------|-----------------------|-------------------------------------|-------------------|------------------------|---------------------------|----------|
| Survey Program: 0-INC |                       |  |                       |                  |               |                       |                                     |                   |                        | <b>Offset Well Error:</b> | 0.0 usft |
| Reference             | Offset                | Semi Major Axis  |                       | Distance         |               | Minimum Separation    |                                     | Separation Factor |                        | Warning                   |          |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft)  | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft)      | Between Centres (usft) | Between Ellipses (usft)   |          |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation