

EXTRACTION OIL & GAS

**WELD COUNTY, COLORADO (NAD 83)
SW NW SEC. 15 T5N R65W 6th P.M.
VETTING 17**

**ORIGINAL WELLBORE
PROPOSAL #2**

Anticollision Report

10 March, 2016



Anticollision Report



| | | | |
|---------------------------|---------------------------------|-------------------------------------|--|
| Company: | EXTRACTION OIL & GAS | Local Co-ordinate Reference: | Well VETTING 17 |
| Project: | WELD COUNTY, COLORADO (NAD 83) | TVD Reference: | KB-EST @ 4664.0usft (Original Well Elev) |
| Reference Site: | SW NW SEC. 15 T5N R65W 6th P.M. | MD Reference: | KB-EST @ 4664.0usft (Original Well Elev) |
| Site Error: | 0.0 usft | North Reference: | True |
| Reference Well: | VETTING 17 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | EDM 5000.1 Single User Db |
| Reference Design: | PROPOSAL #2 | Offset TVD Reference: | Offset Datum |

| | | | |
|-------------------------------------|---|-----------------------|---------------------|
| Reference | PROPOSAL #2 | | |
| Filter type: | NO GLOBAL FILTER: Using user defined selection & filtering criteria | | |
| Interpolation Method: | MD + Stations Interval 98.4usft | Error Model: | ISCWSA |
| Depth Range: | Unlimited | Scan Method: | Closest Approach 3D |
| Results Limited by: | Maximum center-center distance of 10,000.0 us | Error Surface: | Elliptical Conic |
| Warning Levels Evaluated at: | 2.00 Sigma | Casing Method: | Not applied |

| | | | | |
|----------------------------|------------------|---------------------------------|------------------|--------------------|
| Survey Tool Program | Date | 10/03/2016 | | |
| From (usft) | To (usft) | Survey (Wellbore) | Tool Name | Description |
| 0.0 | 15,284.8 | PROPOSAL #2 (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 | | | | | | |
| SW NW SEC. 15 T5N R65W 6th P.M. | | | | | | |
| ABDN VERT LORENZ FARM INC #1 - Wellbore #1 - De | 5,088.1 | 4,600.0 | 1,722.6 | 1,603.6 | 14.471 | CC |
| ABDN VERT LORENZ FARM INC #1 - Wellbore #1 - De | 5,100.0 | 4,600.0 | 1,722.7 | 1,603.5 | 14.461 | ES |
| ABDN VERT LORENZ FARM INC #1 - Wellbore #1 - De | 5,216.5 | 4,600.0 | 1,727.4 | 1,607.5 | 14.406 | SF |
| CARLSON A-15-16HN - Wellbore #1 - Design #1 | 9,999.0 | 14,862.7 | 3,499.5 | 3,180.9 | 10.982 | CC |
| CARLSON A-15-16HN - Wellbore #1 - Design #1 | 10,100.0 | 14,862.7 | 3,501.0 | 3,179.6 | 10.892 | ES |
| CARLSON A-15-16HN - Wellbore #1 - Design #1 | 11,100.0 | 14,862.7 | 3,668.6 | 3,319.6 | 10.511 | SF |
| CARLSON B-15-16HC - Wellbore #1 - Design #1 | 9,998.4 | 14,905.1 | 3,336.3 | 3,018.0 | 10.480 | CC |
| CARLSON B-15-16HC - Wellbore #1 - Design #1 | 10,100.0 | 14,905.1 | 3,337.9 | 3,016.7 | 10.394 | ES |
| CARLSON B-15-16HC - Wellbore #1 - Design #1 | 11,000.0 | 14,905.1 | 3,483.4 | 3,137.5 | 10.069 | SF |
| CARLSON C-15-16HN - Wellbore #1 - Design #1 | 9,997.6 | 14,796.3 | 3,169.9 | 2,851.7 | 9.961 | CC |
| CARLSON C-15-16HN - Wellbore #1 - Design #1 | 10,100.0 | 14,796.3 | 3,171.6 | 2,850.5 | 9.879 | ES |
| CARLSON C-15-16HN - Wellbore #1 - Design #1 | 10,900.0 | 14,796.3 | 3,295.9 | 2,952.8 | 9.606 | SF |
| CARLSON D-15-16HN - Wellbore #1 - Design #1 | 9,996.3 | 14,777.6 | 2,839.8 | 2,522.0 | 8.934 | CC |
| CARLSON D-15-16HN - Wellbore #1 - Design #1 | 10,100.0 | 14,777.6 | 2,841.7 | 2,521.0 | 8.860 | ES |
| CARLSON D-15-16HN - Wellbore #1 - Design #1 | 10,700.0 | 14,777.6 | 2,925.7 | 2,588.5 | 8.675 | SF |
| CARLSON E-15-16HC - Wellbore #1 - Design #1 | 9,995.6 | 14,848.6 | 2,677.1 | 2,359.3 | 8.424 | CC |
| CARLSON E-15-16HC - Wellbore #1 - Design #1 | 10,039.3 | 14,848.6 | 2,677.4 | 2,358.4 | 8.393 | ES |
| CARLSON E-15-16HC - Wellbore #1 - Design #1 | 10,629.9 | 14,848.6 | 2,751.2 | 2,415.9 | 8.207 | SF |
| CARLSON F-15-16HN - Wellbore #1 - Design #1 | 9,995.1 | 14,769.7 | 2,559.7 | 2,242.1 | 8.059 | CC |
| CARLSON F-15-16HN - Wellbore #1 - Design #1 | 10,039.3 | 14,769.7 | 2,560.1 | 2,241.3 | 8.030 | ES |
| CARLSON F-15-16HN - Wellbore #1 - Design #1 | 10,531.5 | 14,769.7 | 2,615.3 | 2,283.0 | 7.869 | SF |
| CARLSON G-15-16HN - Wellbore #1 - Design #1 | 9,993.3 | 14,787.6 | 2,139.7 | 1,822.4 | 6.744 | CC |
| CARLSON G-15-16HN - Wellbore #1 - Design #1 | 10,039.3 | 14,787.6 | 2,140.2 | 1,821.6 | 6.718 | ES |
| CARLSON G-15-16HN - Wellbore #1 - Design #1 | 10,400.0 | 14,787.6 | 2,178.0 | 1,849.5 | 6.631 | SF |
| CARLSON H-15-16HC - Wellbore #1 - Design #1 | 9,992.6 | 14,883.6 | 1,977.7 | 1,660.8 | 6.241 | CC |
| CARLSON H-15-16HC - Wellbore #1 - Design #1 | 10,039.3 | 14,883.6 | 1,978.2 | 1,660.1 | 6.218 | ES |
| CARLSON H-15-16HC - Wellbore #1 - Design #1 | 10,334.6 | 14,883.6 | 2,007.0 | 1,680.8 | 6.151 | SF |
| CARLSON I-15-16HN - Wellbore #1 - Design #1 | 9,991.7 | 14,836.2 | 1,759.8 | 1,442.7 | 5.549 | CC |
| CARLSON I-15-16HN - Wellbore #1 - Design #1 | 10,039.3 | 14,836.2 | 1,760.5 | 1,442.0 | 5.528 | ES |
| CARLSON I-15-16HN - Wellbore #1 - Design #1 | 10,236.2 | 14,836.2 | 1,776.7 | 1,452.9 | 5.486 | SF |
| CARLSON J-15-16HN - Wellbore #1 - Design #1 | 9,990.3 | 14,901.4 | 1,429.8 | 1,112.9 | 4.512 | CC |
| CARLSON J-15-16HN - Wellbore #1 - Design #1 | 10,039.3 | 14,901.4 | 1,430.6 | 1,112.4 | 4.495 | ES |
| CARLSON J-15-16HN - Wellbore #1 - Design #1 | 10,137.8 | 14,901.4 | 1,437.4 | 1,116.4 | 4.478 | SF |
| CARLSON K-15-16HC - Wellbore #1 - Design #1 | 9,989.6 | 15,013.6 | 1,269.5 | 953.4 | 4.016 | CC |
| CARLSON K-15-16HC - Wellbore #1 - Design #1 | 10,039.3 | 15,013.6 | 1,270.5 | 953.0 | 4.002 | ES |
| CARLSON K-15-16HC - Wellbore #1 - Design #1 | 10,137.8 | 15,013.6 | 1,278.1 | 958.0 | 3.992 | SF |
| CARLSON L-15-16HN - Wellbore #1 - Design #1 | 9,988.9 | 14,977.0 | 1,099.8 | 783.0 | 3.472 | CC |

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

Anticollision Report



| | | | |
|---------------------------|---------------------------------|-------------------------------------|--|
| Company: | EXTRACTION OIL & GAS | Local Co-ordinate Reference: | Well VETTING 17 |
| Project: | WELD COUNTY, COLORADO (NAD 83) | TVD Reference: | KB-EST @ 4664.0usft (Original Well Elev) |
| Reference Site: | SW NW SEC. 15 T5N R65W 6th P.M. | MD Reference: | KB-EST @ 4664.0usft (Original Well Elev) |
| Site Error: | 0.0 usft | North Reference: | True |
| Reference Well: | VETTING 17 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | EDM 5000.1 Single User Db |
| Reference Design: | PROPOSAL #2 | Offset TVD Reference: | Offset Datum |

Summary

| Site Name Offset Well - Wellbore - Design | Reference Measured Depth (usft) | Offset Measured Depth (usft) | Distance Between Centres (usft) | Between Ellipses (usft) | Separation Factor | Warning |
|--|--|---------------------------------------|--|-------------------------------|----------------------|---------------------|
| SW NW SEC. 15 T5N R65W 6th P.M. | | | | | | |
| CARLSON L-15-16HN - Wellbore #1 - Design #1 | 10,000.0 | 14,977.0 | 1,099.8 | 782.8 | 3.469 | ES |
| CARLSON L-15-16HN - Wellbore #1 - Design #1 | 10,100.0 | 14,977.0 | 1,105.4 | 785.6 | 3.456 | SF |
| EXIST DD BMC #B8 - Wellbore #1 - Wellbore #1 | 14,243.6 | 7,078.0 | 1,091.1 | 856.6 | 4.652 | CC |
| EXIST DD BMC #B8 - Wellbore #1 - Wellbore #1 | 14,271.6 | 7,077.9 | 1,091.5 | 856.2 | 4.638 | ES |
| EXIST DD BMC #B8 - Wellbore #1 - Wellbore #1 | 14,400.0 | 7,077.7 | 1,102.3 | 863.4 | 4.613 | SF |
| EXIST DD BUS BARN #A5 - Wellbore #1 - Wellbore #1 | 11,647.6 | 7,229.7 | 997.3 | 828.6 | 5.911 | CC |
| EXIST DD BUS BARN #A5 - Wellbore #1 - Wellbore #1 | 11,700.0 | 7,229.1 | 998.7 | 828.5 | 5.869 | ES |
| EXIST DD BUS BARN #A5 - Wellbore #1 - Wellbore #1 | 11,811.0 | 7,227.7 | 1,010.6 | 837.3 | 5.833 | SF |
| EXIST DD CDOT 2 #D7 - Wellbore #1 - Wellbore #1 | 14,972.5 | 7,150.4 | 1,595.3 | 1,334.3 | 6.113 | CC |
| EXIST DD CDOT 2 #D7 - Wellbore #1 - Wellbore #1 | 15,000.0 | 7,150.4 | 1,595.6 | 1,333.8 | 6.096 | ES |
| EXIST DD CDOT 2 #D7 - Wellbore #1 - Wellbore #1 | 15,255.9 | 7,150.5 | 1,620.3 | 1,351.4 | 6.026 | SF |
| EXIST DD CDOT 3 # D2 - Wellbore #1 - Wellbore #1 | 13,570.2 | 6,902.7 | 1,610.5 | 1,404.7 | 7.828 | CC |
| EXIST DD CDOT 3 # D2 - Wellbore #1 - Wellbore #1 | 13,600.0 | 6,902.5 | 1,610.7 | 1,404.2 | 7.797 | ES |
| EXIST DD CDOT 3 # D2 - Wellbore #1 - Wellbore #1 | 13,900.0 | 6,900.9 | 1,643.9 | 1,428.9 | 7.648 | SF |
| EXIST DD CLARK #A1 - Wellbore #1 - Wellbore #1 | 12,294.1 | 7,771.4 | 306.9 | 179.8 | 2.415 | CC |
| EXIST DD CLARK #A1 - Wellbore #1 - Wellbore #1 | 12,303.1 | 7,768.7 | 307.1 | 178.9 | 2.396 | ES |
| EXIST DD CLARK #A1 - Wellbore #1 - Wellbore #1 | 12,400.0 | 7,739.3 | 323.1 | 183.2 | 2.310 | SF |
| EXIST DD CLASSIC LANES #C9 - Wellbore #1 - Wellbo | 15,284.8 | 7,609.5 | 434.6 | 149.2 | 1.523 | CC, ES, SF |
| EXIST DD COUNTRYSIDE CENTER C3 - Wellbore #1 - | 12,398.0 | 7,586.0 | 994.4 | 806.7 | 5.297 | CC |
| EXIST DD COUNTRYSIDE CENTER C3 - Wellbore #1 - | 12,401.5 | 7,586.2 | 994.4 | 806.6 | 5.294 | ES |
| EXIST DD COUNTRYSIDE CENTER C3 - Wellbore #1 - | 12,500.0 | 7,591.5 | 999.6 | 809.0 | 5.245 | SF |
| EXIST DD DELTA PARK #A2 - Wellbore #1 - Wellbore # | 11,642.9 | 7,397.4 | 269.0 | 100.9 | 1.600 | CC, ES, SF |
| EXIST DD DISTRICT SIX #C6 - Wellbore #1 - Wellbore # | 14,336.8 | 7,887.4 | 1,596.0 | 1,352.8 | 6.563 | CC |
| EXIST DD DISTRICT SIX #C6 - Wellbore #1 - Wellbore # | 14,370.0 | 7,888.5 | 1,596.3 | 1,352.2 | 6.540 | ES |
| EXIST DD DISTRICT SIX #C6 - Wellbore #1 - Wellbore # | 14,600.0 | 7,896.0 | 1,617.5 | 1,367.0 | 6.456 | SF |
| EXIST DD DRIFTWOOD #D1 - Wellbore #1 - Wellbore # | 14,818.9 | 7,272.4 | 379.9 | 122.2 | 1.474 | Level 3, CC, ES, SF |
| EXIST DD EHRLICH MOTORS #D8 - Wellbore #1 - Well | 15,284.8 | 7,250.2 | 1,822.8 | 1,532.7 | 6.284 | CC, ES, SF |
| EXIST DD GARDEN CITY #D5 - Wellbore #1 - Wellbore | 15,284.8 | 7,366.5 | 992.4 | 711.4 | 3.532 | CC, ES, SF |
| EXIST DD GREELEY IND SOUTH #B9 - Wellbore #1 - V | 14,287.0 | 7,299.8 | 183.5 | -54.1 | 0.772 | Level 1, CC |
| EXIST DD GREELEY IND SOUTH #B9 - Wellbore #1 - V | 14,300.0 | 7,301.5 | 184.0 | -54.3 | 0.772 | Level 1, ES, SF |
| EXIST DD HWY 34-1 #A-7 - Wellbore #1 - Wellbore #1 | 12,229.8 | 6,949.1 | 1,711.4 | 1,536.3 | 9.774 | CC |
| EXIST DD HWY 34-1 #A-7 - Wellbore #1 - Wellbore #1 | 12,300.0 | 6,949.2 | 1,712.8 | 1,535.8 | 9.675 | ES |
| EXIST DD HWY 34-1 #A-7 - Wellbore #1 - Wellbore #1 | 12,696.8 | 6,949.5 | 1,774.0 | 1,585.8 | 9.431 | SF |
| EXIST DD HWY 34-2 #A-8 - Wellbore #1 - Wellbore #1 | 11,008.8 | 7,294.9 | 1,706.3 | 1,542.7 | 10.429 | CC |
| EXIST DD HWY 34-2 #A-8 - Wellbore #1 - Wellbore #1 | 11,023.6 | 7,294.7 | 1,706.3 | 1,542.3 | 10.404 | ES |
| EXIST DD HWY 34-2 #A-8 - Wellbore #1 - Wellbore #1 | 11,500.0 | 7,288.5 | 1,775.5 | 1,598.3 | 10.019 | SF |
| EXIST DD HWY 85-1 #B-12 - Wellbore #1 - Wellbore #1 | 12,858.8 | 6,977.7 | 1,030.1 | 842.7 | 5.497 | CC |
| EXIST DD HWY 85-1 #B-12 - Wellbore #1 - Wellbore #1 | 12,893.7 | 6,977.6 | 1,030.7 | 842.3 | 5.472 | ES |
| EXIST DD HWY 85-1 #B-12 - Wellbore #1 - Wellbore #1 | 13,000.0 | 6,977.5 | 1,039.7 | 848.4 | 5.434 | SF |
| EXIST DD HWY 85-2 #B11 - Wellbore #1 - Wellbore #1 | 13,085.2 | 7,149.2 | 245.4 | 54.0 | 1.282 | Level 3, CC |
| EXIST DD HWY 85-2 #B11 - Wellbore #1 - Wellbore #1 | 13,090.5 | 7,149.0 | 245.4 | 53.9 | 1.282 | Level 3, ES, SF |
| EXIST DD HWY 85-3 #C4 - Wellbore #1 - Wellbore #1 | 12,912.6 | 7,536.0 | 1,519.1 | 1,320.8 | 7.664 | CC |
| EXIST DD HWY 85-3 #C4 - Wellbore #1 - Wellbore #1 | 12,992.1 | 7,535.6 | 1,521.1 | 1,320.7 | 7.590 | ES |
| EXIST DD HWY 85-3 #C4 - Wellbore #1 - Wellbore #1 | 13,200.0 | 7,534.7 | 1,546.0 | 1,339.9 | 7.501 | SF |
| EXIST DD KUETTEL #11-15 - Wellbore #1 - Wellbore #1 | 0.0 | 0.0 | 2,461.9 | | | |
| EXIST DD KUETTEL #11-15 - Wellbore #1 - Wellbore #1 | 295.3 | 273.9 | 2,462.3 | 2,461.5 | 3,027.202 | ES |
| EXIST DD KUETTEL #11-15 - Wellbore #1 - Wellbore #1 | 15,284.8 | 6,997.4 | 9,284.1 | 9,026.8 | 36.073 | SF |
| EXIST DD KUETTEL #21-15 - Wellbore #1 - Wellbore #1 | 0.0 | 0.0 | 2,484.6 | | | |
| EXIST DD KUETTEL #21-15 - Wellbore #1 - Wellbore #1 | 655.2 | 693.8 | 2,485.0 | 2,482.8 | 1,121.828 | ES |
| EXIST DD KUETTEL #21-15 - Wellbore #1 - Wellbore #1 | 14,566.9 | 7,124.3 | 9,998.2 | 9,754.7 | 41.051 | SF |
| EXIST DD KUETTEL #CNW-15 - Wellbore #1 - Wellbore | 2,123.8 | 2,995.0 | 2,353.3 | 2,339.8 | 173.377 | CC |
| EXIST DD KUETTEL #CNW-15 - Wellbore #1 - Wellbore | 2,165.3 | 3,021.1 | 2,353.5 | 2,339.7 | 170.413 | ES |
| EXIST DD KUETTEL #CNW-15 - Wellbore #1 - Wellbore | 15,284.8 | 7,112.0 | 9,897.7 | 9,639.7 | 38.361 | SF |

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

Anticollision Report



| | | | |
|---------------------------|---------------------------------|-------------------------------------|--|
| Company: | EXTRACTION OIL & GAS | Local Co-ordinate Reference: | Well VETTING 17 |
| Project: | WELD COUNTY, COLORADO (NAD 83) | TVD Reference: | KB-EST @ 4664.0usft (Original Well Elev) |
| Reference Site: | SW NW SEC. 15 T5N R65W 6th P.M. | MD Reference: | KB-EST @ 4664.0usft (Original Well Elev) |
| Site Error: | 0.0 usft | North Reference: | True |
| Reference Well: | VETTING 17 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | EDM 5000.1 Single User Db |
| Reference Design: | PROPOSAL #2 | Offset TVD Reference: | Offset Datum |

Summary

| Site Name Offset Well - Wellbore - Design | Reference Measured Depth (usft) | Offset Measured Depth (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Separation Factor | Warning |
|---|--|---------------------------------------|--|---|----------------------|-----------------|
| SW NW SEC. 15 T5N R65W 6th P.M. | | | | | | |
| EXIST DD PARKVIEW AOUTH #A3 - Wellbore #1 - Well | 10,534.1 | 7,702.8 | 396.8 | 239.9 | 2.530 | CC, ES, SF |
| EXIST DD SAM PAK #A6 - Wellbore #1 - Wellbore #1 | 10,276.5 | 7,633.7 | 949.2 | 792.1 | 6.043 | CC |
| EXIST DD SAM PAK #A6 - Wellbore #1 - Wellbore #1 | 10,300.0 | 7,629.1 | 949.5 | 791.7 | 6.018 | ES |
| EXIST DD SAM PAK #A6 - Wellbore #1 - Wellbore #1 | 10,433.0 | 7,601.8 | 961.5 | 799.9 | 5.951 | SF |
| EXIST DD SMITH 5 SPOT #A4 - Wellbore #1 - Wellbore | 11,103.8 | 7,426.0 | 488.1 | 326.0 | 3.011 | CC |
| EXIST DD SMITH 5 SPOT #A4 - Wellbore #1 - Wellbore | 11,122.0 | 7,422.9 | 488.4 | 325.7 | 3.002 | ES, SF |
| EXIST DD STATE #16-6B - Wellbore #1 - Wellbore #1 | 10,272.0 | 7,155.2 | 1,564.5 | 1,435.5 | 12.130 | CC |
| EXIST DD STATE #16-6B - Wellbore #1 - Wellbore #1 | 10,300.0 | 7,155.4 | 1,564.7 | 1,435.0 | 12.059 | ES |
| EXIST DD STATE #16-6B - Wellbore #1 - Wellbore #1 | 10,800.0 | 7,158.9 | 1,651.2 | 1,507.6 | 11.501 | SF |
| EXIST DD UNION PACIFIC #C5 - Wellbore #1 - Wellbore | 13,643.8 | 7,538.2 | 969.3 | 752.4 | 4.468 | CC |
| EXIST DD UNION PACIFIC #C5 - Wellbore #1 - Wellbore | 13,681.1 | 7,539.1 | 970.0 | 752.0 | 4.449 | ES |
| EXIST DD UNION PACIFIC #C5 - Wellbore #1 - Wellbore | 13,779.5 | 7,541.4 | 978.8 | 758.0 | 4.434 | SF |
| EXIST DD UNIVERSITY 5 SPOT #D4 - Wellbore #1 - W | 15,284.8 | 7,674.9 | 994.0 | 695.8 | 3.334 | CC, ES, SF |
| EXIST DD UNIVERSITY SQUARE #D6 - Wellbore #1 - V | 15,284.8 | 7,220.7 | 1,854.3 | 1,579.0 | 6.735 | CC, ES, SF |
| EXIST DD VOLK #C7 - Wellbore #1 - Wellbore #1 | 14,906.5 | 7,735.1 | 943.2 | 678.4 | 3.561 | CC, ES |
| EXIST DD VOLK #C7 - Wellbore #1 - Wellbore #1 | 15,000.0 | 7,735.1 | 947.8 | 680.4 | 3.544 | SF |
| EXIST DD WHEELER #D3 - Wellbore #1 - Wellbore #1 | 15,284.8 | 7,969.7 | 1,558.1 | 1,269.2 | 5.392 | CC, ES, SF |
| EXIST VERT EISENMAN #22-15 - Wellbore #1 - Wellbor | 697.7 | 689.4 | 1,581.2 | 1,579.3 | 829.730 | CC |
| EXIST VERT EISENMAN #22-15 - Wellbore #1 - Wellbor | 700.0 | 691.8 | 1,581.2 | 1,579.3 | 827.204 | ES |
| EXIST VERT EISENMAN #22-15 - Wellbore #1 - Wellbor | 14,700.0 | 6,600.0 | 9,951.1 | 9,729.0 | 44.803 | SF |
| EXIST VERT FAY #1 - Wellbore #1 - Design #1 | 9,014.7 | 6,864.1 | 1,666.1 | 1,463.1 | 8.208 | CC |
| EXIST VERT FAY #1 - Wellbore #1 - Design #1 | 9,055.1 | 6,864.1 | 1,666.6 | 1,462.5 | 8.167 | ES |
| EXIST VERT FAY #1 - Wellbore #1 - Design #1 | 9,400.0 | 6,864.1 | 1,710.1 | 1,496.7 | 8.015 | SF |
| EXIST VERT HARRINGTON #1 - Wellbore #1 - Design # | 4,285.5 | 4,054.3 | 285.3 | 181.1 | 2.738 | CC |
| EXIST VERT HARRINGTON #1 - Wellbore #1 - Design # | 4,330.7 | 4,096.6 | 285.8 | 180.4 | 2.713 | ES |
| EXIST VERT HARRINGTON #1 - Wellbore #1 - Design # | 4,429.1 | 4,188.7 | 289.8 | 182.2 | 2.694 | SF |
| EXIST VERT SANDUSKY #1 - Wellbore #1 - Wellbore # | 617.2 | 599.5 | 46.5 | 44.8 | 26.941 | CC, ES |
| EXIST VERT SANDUSKY #1 - Wellbore #1 - Wellbore # | 787.4 | 769.6 | 51.4 | 49.3 | 23.932 | SF |
| VETTING 12 - ORIGINAL WELLBORE - PROPOSAL #2 | 100.0 | 100.0 | 120.6 | 120.5 | 639.004 | CC, ES |
| VETTING 12 - ORIGINAL WELLBORE - PROPOSAL #2 | 15,284.8 | 15,067.6 | 1,005.5 | 528.5 | 2.108 | SF |
| VETTING 13 - ORIGINAL WELLBORE - PROPOSAL #2 | 200.0 | 200.0 | 95.3 | 94.7 | 149.333 | CC, ES |
| VETTING 13 - ORIGINAL WELLBORE - PROPOSAL #2 | 15,284.8 | 15,279.1 | 846.1 | 380.0 | 1.815 | SF |
| VETTING 14 - ORIGINAL WELLBORE - PROPOSAL #2 | 300.0 | 300.0 | 72.8 | 71.7 | 66.902 | CC, ES |
| VETTING 14 - ORIGINAL WELLBORE - PROPOSAL #2 | 15,284.8 | 15,098.4 | 659.4 | 182.0 | 1.381 | Level 3, SF |
| VETTING 15 - ORIGINAL WELLBORE - PROPOSAL #2 | 400.0 | 400.0 | 47.5 | 46.0 | 30.889 | CC |
| VETTING 15 - ORIGINAL WELLBORE - PROPOSAL #2 | 15,284.8 | 15,171.7 | 327.9 | -150.8 | 0.685 | Level 1, ES, SF |
| VETTING 16 - ORIGINAL WELLBORE - PROPOSAL #2 | 500.0 | 500.0 | 25.3 | 23.3 | 12.748 | CC |
| VETTING 16 - ORIGINAL WELLBORE - PROPOSAL #2 | 15,284.8 | 15,409.8 | 254.8 | -72.9 | 0.778 | Level 1, ES, SF |
| VETTING 18 - ORIGINAL WELLBORE - PROPOSAL #2 | 600.0 | 600.0 | 22.6 | 20.1 | 9.266 | CC |
| VETTING 18 - ORIGINAL WELLBORE - PROPOSAL #2 | 15,284.8 | 15,420.3 | 331.5 | -147.8 | 0.692 | Level 1, ES, SF |
| VETTING 19 - ORIGINAL WELLBORE - PROPOSAL #2 | 600.0 | 600.0 | 47.9 | 45.5 | 19.671 | CC |
| VETTING 19 - ORIGINAL WELLBORE - PROPOSAL #2 | 2,755.9 | 2,780.7 | 68.3 | 43.3 | 2.728 | ES |
| VETTING 19 - ORIGINAL WELLBORE - PROPOSAL #2 | 15,284.8 | 15,682.9 | 532.5 | 85.8 | 1.192 | Level 2, SF |
| VETTING 20 - ORIGINAL WELLBORE - PROPOSAL #2 | 600.0 | 600.0 | 70.5 | 68.0 | 28.928 | CC, ES |
| VETTING 20 - ORIGINAL WELLBORE - PROPOSAL #2 | 15,284.8 | 15,616.6 | 659.4 | 179.2 | 1.373 | Level 3, SF |
| VETTING 21 - ORIGINAL WELLBORE - PROPOSAL #2 | 600.0 | 600.0 | 95.8 | 93.4 | 39.324 | CC, ES |
| VETTING 21 - ORIGINAL WELLBORE - PROPOSAL #2 | 15,284.8 | 15,843.4 | 990.9 | 510.6 | 2.063 | SF |
| VETTING 22 - ORIGINAL WELLBORE - PROPOSAL #2 | 600.0 | 600.0 | 118.4 | 116.0 | 48.590 | CC, ES |
| VETTING 22 - ORIGINAL WELLBORE - PROPOSAL #2 | 15,284.8 | 16,129.6 | 1,171.2 | 698.0 | 2.475 | SF |
| VETTING 23 - ORIGINAL WELLBORE - PROPOSAL #2 | 600.0 | 600.0 | 143.7 | 141.3 | 58.985 | CC, ES |
| VETTING 23 - ORIGINAL WELLBORE - PROPOSAL #2 | 15,284.8 | 16,069.4 | 1,318.8 | 837.8 | 2.742 | SF |
| VETTING 24 - ORIGINAL WELLBORE - PROPOSAL #2 | 600.0 | 600.0 | 165.8 | 163.3 | 68.038 | CC, ES |
| VETTING 24 - ORIGINAL WELLBORE - PROPOSAL #2 | 15,284.8 | 16,281.8 | 1,650.3 | 1,169.1 | 3.430 | SF |

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

Anticollision Report



| | | | |
|---------------------------|---------------------------------|-------------------------------------|--|
| Company: | EXTRACTION OIL & GAS | Local Co-ordinate Reference: | Well VETTING 17 |
| Project: | WELD COUNTY, COLORADO (NAD 83) | TVD Reference: | KB-EST @ 4664.0usft (Original Well Elev) |
| Reference Site: | SW NW SEC. 15 T5N R65W 6th P.M. | MD Reference: | KB-EST @ 4664.0usft (Original Well Elev) |
| Site Error: | 0.0 usft | North Reference: | True |
| Reference Well: | VETTING 17 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | EDM 5000.1 Single User Db |
| Reference Design: | PROPOSAL #2 | Offset TVD Reference: | Offset Datum |

| Offset Design | | | | | | | | | | | | Offset Site Error: | 0.0 usft |
|-----------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|---------------------------|--------------------|----------|
| Survey Program: 0-INC | | | | | | | | | | | | Offset Well Error: | 0.0 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | |
| 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) | Minimum Separation (usft) | Separation Factor | Warning |
| 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -178.38 | -1,153.8 | -32.6 | 1,154.9 | | | | |
| 98.4 | 98.4 | 59.4 | 59.4 | 0.1 | 0.6 | -178.38 | -1,153.8 | -32.6 | 1,154.2 | 1,153.5 | 0.69 | 1,682.553 | |
| 100.0 | 100.0 | 61.0 | 61.0 | 0.1 | 0.6 | -178.38 | -1,153.8 | -32.6 | 1,154.2 | 1,153.5 | 0.70 | 1,640.706 | |
| 196.8 | 196.8 | 157.8 | 157.8 | 0.3 | 2.3 | -178.38 | -1,153.8 | -32.6 | 1,154.2 | 1,151.6 | 2.66 | 433.586 | |
| 200.0 | 200.0 | 161.0 | 161.0 | 0.3 | 2.4 | -178.38 | -1,153.8 | -32.6 | 1,154.2 | 1,151.5 | 2.74 | 420.833 | |
| 295.3 | 295.3 | 256.3 | 256.3 | 0.5 | 4.5 | -178.38 | -1,153.8 | -32.6 | 1,154.2 | 1,149.2 | 5.04 | 229.054 | |
| 300.0 | 300.0 | 261.0 | 261.0 | 0.5 | 4.6 | -178.38 | -1,153.8 | -32.6 | 1,154.2 | 1,149.1 | 5.15 | 224.207 | |
| 393.7 | 393.7 | 354.7 | 354.7 | 0.8 | 6.5 | -178.38 | -1,153.8 | -32.6 | 1,154.2 | 1,146.9 | 7.29 | 158.382 | |
| 400.0 | 400.0 | 361.0 | 361.0 | 0.8 | 6.7 | -178.38 | -1,153.8 | -32.6 | 1,154.2 | 1,146.8 | 7.43 | 155.337 | |
| 492.1 | 492.1 | 453.1 | 453.1 | 1.0 | 8.5 | -178.38 | -1,153.8 | -32.6 | 1,154.2 | 1,144.7 | 9.51 | 121.342 | |
| 500.0 | 500.0 | 461.0 | 461.0 | 1.0 | 8.7 | -178.38 | -1,153.8 | -32.6 | 1,154.2 | 1,144.5 | 9.69 | 119.119 | |
| 590.5 | 590.5 | 551.5 | 551.5 | 1.2 | 10.5 | -178.38 | -1,153.8 | -32.6 | 1,154.2 | 1,142.5 | 11.73 | 98.422 | |
| 600.0 | 600.0 | 561.0 | 561.0 | 1.2 | 10.7 | -178.38 | -1,153.8 | -32.6 | 1,154.2 | 1,142.3 | 11.94 | 96.672 | |
| 689.0 | 689.0 | 650.0 | 650.0 | 1.4 | 12.5 | -14.34 | -1,153.8 | -32.6 | 1,152.9 | 1,139.0 | 13.91 | 82.891 | |
| 700.0 | 700.0 | 661.0 | 661.0 | 1.4 | 12.7 | -14.34 | -1,153.8 | -32.6 | 1,152.5 | 1,138.4 | 14.15 | 81.446 | |
| 787.4 | 787.3 | 748.3 | 748.3 | 1.6 | 14.5 | -14.42 | -1,153.8 | -32.6 | 1,148.3 | 1,132.2 | 16.05 | 71.545 | |
| 800.0 | 799.8 | 760.8 | 760.8 | 1.6 | 14.8 | -14.43 | -1,153.8 | -32.6 | 1,147.5 | 1,131.2 | 16.32 | 70.304 | |
| 885.8 | 885.4 | 846.4 | 846.4 | 1.8 | 16.5 | -14.56 | -1,153.8 | -32.6 | 1,140.4 | 1,122.3 | 18.17 | 62.771 | |
| 900.0 | 899.5 | 860.5 | 860.5 | 1.8 | 16.8 | -14.58 | -1,153.8 | -32.6 | 1,139.0 | 1,120.6 | 18.47 | 61.669 | |
| 984.2 | 983.1 | 944.1 | 944.1 | 2.0 | 18.5 | -14.76 | -1,153.8 | -32.6 | 1,129.3 | 1,109.1 | 20.26 | 55.747 | |
| 1,000.0 | 998.7 | 959.7 | 959.7 | 2.0 | 18.8 | -14.80 | -1,153.8 | -32.6 | 1,127.2 | 1,106.7 | 20.59 | 54.752 | |
| 1,082.7 | 1,080.4 | 1,041.4 | 1,041.4 | 2.3 | 20.4 | -15.03 | -1,153.8 | -32.6 | 1,115.0 | 1,092.7 | 22.31 | 49.973 | |
| 1,100.0 | 1,097.5 | 1,058.5 | 1,058.5 | 2.3 | 20.8 | -15.09 | -1,153.8 | -32.6 | 1,112.1 | 1,089.4 | 22.67 | 49.061 | |
| 1,181.1 | 1,177.1 | 1,138.1 | 1,138.1 | 2.6 | 22.4 | -15.37 | -1,153.8 | -32.6 | 1,097.4 | 1,073.1 | 24.32 | 45.119 | |
| 1,200.0 | 1,195.6 | 1,156.6 | 1,156.6 | 2.7 | 22.7 | -15.44 | -1,153.8 | -32.6 | 1,093.7 | 1,069.0 | 24.70 | 44.274 | |
| 1,279.5 | 1,273.2 | 1,234.2 | 1,234.2 | 3.0 | 24.3 | -15.79 | -1,153.8 | -32.6 | 1,076.7 | 1,050.4 | 26.29 | 40.959 | |
| 1,300.0 | 1,293.1 | 1,254.1 | 1,254.1 | 3.1 | 24.7 | -15.89 | -1,153.8 | -32.6 | 1,072.0 | 1,045.3 | 26.69 | 40.168 | |
| 1,377.9 | 1,368.4 | 1,329.4 | 1,329.4 | 3.4 | 26.2 | -16.29 | -1,153.8 | -32.6 | 1,052.8 | 1,024.6 | 28.20 | 37.335 | |
| 1,400.0 | 1,389.6 | 1,350.6 | 1,350.6 | 3.5 | 26.6 | -16.42 | -1,153.8 | -32.6 | 1,047.1 | 1,018.4 | 28.62 | 36.587 | |
| 1,476.4 | 1,462.8 | 1,423.8 | 1,423.8 | 3.9 | 28.1 | -16.89 | -1,153.8 | -32.6 | 1,025.9 | 995.8 | 30.06 | 34.130 | |
| 1,500.0 | 1,485.3 | 1,446.3 | 1,446.3 | 4.0 | 28.6 | -17.05 | -1,153.8 | -32.6 | 1,019.0 | 988.5 | 30.49 | 33.415 | |
| 1,574.8 | 1,556.1 | 1,517.1 | 1,517.1 | 4.5 | 30.0 | -17.60 | -1,153.8 | -32.6 | 995.9 | 964.0 | 31.86 | 31.256 | |
| 1,600.0 | 1,579.8 | 1,540.8 | 1,540.8 | 4.6 | 30.5 | -17.80 | -1,153.8 | -32.6 | 987.8 | 955.4 | 32.31 | 30.568 | |
| 1,621.5 | 1,600.0 | 1,561.0 | 1,561.0 | 4.7 | 30.9 | -17.98 | -1,153.8 | -32.6 | 980.6 | 947.9 | 32.70 | 29.992 | |
| 1,673.2 | 1,648.5 | 1,609.5 | 1,609.5 | 5.0 | 31.8 | -18.31 | -1,153.8 | -32.6 | 963.4 | 929.6 | 33.79 | 28.508 | |
| 1,686.5 | 1,660.9 | 1,621.9 | 1,621.9 | 5.1 | 32.1 | -18.39 | -1,153.8 | -32.6 | 959.0 | 924.9 | 34.08 | 28.140 | |
| 1,696.3 | 1,670.1 | 1,631.1 | 1,631.1 | 5.2 | 32.3 | -18.48 | -1,153.8 | -32.6 | 955.7 | 921.4 | 34.25 | 27.902 | |
| 1,700.0 | 1,673.5 | 1,634.5 | 1,634.5 | 5.2 | 32.4 | -18.51 | -1,153.8 | -32.6 | 954.4 | 920.1 | 34.33 | 27.802 | |
| 1,771.6 | 1,740.6 | 1,701.6 | 1,701.6 | 5.7 | 33.7 | -19.00 | -1,153.8 | -32.6 | 930.4 | 894.5 | 35.87 | 25.939 | |
| 1,800.0 | 1,767.1 | 1,728.1 | 1,728.1 | 5.9 | 34.2 | -19.20 | -1,153.8 | -32.6 | 920.9 | 884.4 | 36.48 | 25.242 | |
| 1,870.1 | 1,832.7 | 1,793.7 | 1,793.7 | 6.3 | 35.6 | -19.71 | -1,153.8 | -32.6 | 897.4 | 859.4 | 38.00 | 23.616 | |
| 1,900.0 | 1,860.7 | 1,821.7 | 1,821.7 | 6.5 | 36.1 | -19.94 | -1,153.8 | -32.6 | 887.4 | 848.8 | 38.65 | 22.959 | |
| 1,968.5 | 1,924.8 | 1,885.8 | 1,885.8 | 7.0 | 37.4 | -20.48 | -1,153.8 | -32.6 | 864.6 | 824.5 | 40.15 | 21.534 | |
| 2,000.0 | 1,954.3 | 1,915.3 | 1,915.3 | 7.2 | 38.0 | -20.74 | -1,153.8 | -32.6 | 854.2 | 813.3 | 40.85 | 20.912 | |
| 2,066.9 | 2,016.9 | 1,977.9 | 1,977.9 | 7.7 | 39.3 | -21.31 | -1,153.8 | -32.6 | 832.0 | 789.7 | 42.32 | 19.657 | |
| 2,100.0 | 2,047.9 | 2,008.9 | 2,008.9 | 7.9 | 39.9 | -21.60 | -1,153.8 | -32.6 | 821.0 | 778.0 | 43.06 | 19.068 | |
| 2,165.3 | 2,109.1 | 2,070.1 | 2,070.1 | 8.3 | 41.1 | -22.20 | -1,153.8 | -32.6 | 799.5 | 755.0 | 44.52 | 17.959 | |
| 2,200.0 | 2,141.5 | 2,102.5 | 2,102.5 | 8.6 | 41.8 | -22.54 | -1,153.8 | -32.6 | 788.1 | 742.8 | 45.30 | 17.399 | |
| 2,263.8 | 2,201.2 | 2,162.2 | 2,162.2 | 9.0 | 43.0 | -23.17 | -1,153.8 | -32.6 | 767.2 | 720.5 | 46.74 | 16.415 | |
| 2,300.0 | 2,235.1 | 2,196.1 | 2,196.1 | 9.2 | 43.6 | -23.55 | -1,153.8 | -32.6 | 755.4 | 707.8 | 47.56 | 15.883 | |
| 2,362.2 | 2,293.3 | 2,254.3 | 2,254.3 | 9.7 | 44.8 | -24.23 | -1,153.8 | -32.6 | 735.1 | 686.2 | 48.98 | 15.008 | |
| 2,400.0 | 2,328.7 | 2,289.7 | 2,289.7 | 9.9 | 45.5 | -24.65 | -1,153.8 | -32.6 | 722.9 | 673.0 | 49.85 | 14.500 | |

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

Anticollision Report



| | | | |
|---------------------------|---------------------------------|-------------------------------------|--|
| Company: | EXTRACTION OIL & GAS | Local Co-ordinate Reference: | Well VETTING 17 |
| Project: | WELD COUNTY, COLORADO (NAD 83) | TVD Reference: | KB-EST @ 4664.0usft (Original Well Elev) |
| Reference Site: | SW NW SEC. 15 T5N R65W 6th P.M. | MD Reference: | KB-EST @ 4664.0usft (Original Well Elev) |
| Site Error: | 0.0 usft | North Reference: | True |
| Reference Well: | VETTING 17 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | EDM 5000.1 Single User Db |
| Reference Design: | PROPOSAL #2 | Offset TVD Reference: | Offset Datum |

| Offset Design SW NW SEC. 15 T5N R65W 6th P.M. - EXIST VERT HARRINGTON #1 - Wellbore #1 - Design #1 | | | | | | | | | | | | Offset Site Error: | 0.0 usft |
|---|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|---------------------------|---------------------------|----------|
| Survey Program: 0-INC | | | | | | | | | | | | Offset Well Error: | 0.0 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | |
| 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) | Minimum Separation (usft) | Separation Factor | Warning |
| 2,460.6 | 2,385.4 | 2,346.4 | 2,346.4 | 10.4 | 46.7 | -25.37 | -1,153.8 | -32.6 | 703.3 | 652.1 | 51.26 | 13.721 | |
| 2,500.0 | 2,422.3 | 2,383.3 | 2,383.3 | 10.6 | 47.4 | -25.86 | -1,153.8 | -32.6 | 690.7 | 638.5 | 52.18 | 13.236 | |
| 2,559.0 | 2,477.5 | 2,438.5 | 2,438.5 | 11.0 | 48.5 | -26.62 | -1,153.8 | -32.6 | 671.8 | 618.2 | 53.57 | 12.540 | |
| 2,600.0 | 2,515.9 | 2,476.9 | 2,476.9 | 11.3 | 49.3 | -27.18 | -1,153.8 | -32.6 | 658.7 | 604.2 | 54.55 | 12.077 | |
| 2,657.5 | 2,569.6 | 2,530.6 | 2,530.6 | 11.7 | 50.4 | -27.99 | -1,153.8 | -32.6 | 640.5 | 584.6 | 55.92 | 11.454 | |
| 2,700.0 | 2,609.4 | 2,570.4 | 2,570.4 | 12.0 | 51.2 | -28.63 | -1,153.8 | -32.6 | 627.2 | 570.2 | 56.95 | 11.012 | |
| 2,755.9 | 2,661.8 | 2,622.8 | 2,622.8 | 12.4 | 52.2 | -29.50 | -1,153.8 | -32.6 | 609.7 | 551.4 | 58.32 | 10.454 | |
| 2,800.0 | 2,703.0 | 2,664.0 | 2,664.0 | 12.7 | 53.1 | -30.22 | -1,153.8 | -32.6 | 596.0 | 536.6 | 59.42 | 10.031 | |
| 2,854.3 | 2,753.9 | 2,714.9 | 2,714.9 | 13.1 | 54.1 | -31.16 | -1,153.8 | -32.6 | 579.3 | 518.5 | 60.78 | 9.531 | |
| 2,900.0 | 2,796.6 | 2,757.6 | 2,757.6 | 13.4 | 54.9 | -31.99 | -1,153.8 | -32.6 | 565.3 | 503.4 | 61.93 | 9.128 | |
| 2,952.7 | 2,846.0 | 2,807.0 | 2,807.0 | 13.8 | 55.9 | -33.00 | -1,153.8 | -32.6 | 549.4 | 486.1 | 63.29 | 8.680 | |
| 3,000.0 | 2,890.2 | 2,851.2 | 2,851.2 | 14.1 | 56.8 | -33.95 | -1,153.8 | -32.6 | 535.2 | 470.7 | 64.52 | 8.295 | |
| 3,051.2 | 2,938.1 | 2,899.1 | 2,899.1 | 14.5 | 57.8 | -35.03 | -1,153.8 | -32.6 | 520.1 | 454.2 | 65.88 | 7.894 | |
| 3,100.0 | 2,983.8 | 2,944.8 | 2,944.8 | 14.8 | 58.7 | -36.13 | -1,153.8 | -32.6 | 505.8 | 438.6 | 67.19 | 7.527 | |
| 3,149.6 | 3,030.2 | 2,991.2 | 2,991.2 | 15.2 | 59.6 | -37.30 | -1,153.8 | -32.6 | 491.4 | 422.9 | 68.55 | 7.170 | |
| 3,200.0 | 3,077.4 | 3,038.4 | 3,038.4 | 15.5 | 60.6 | -38.56 | -1,153.8 | -32.6 | 477.1 | 407.1 | 69.95 | 6.821 | |
| 3,248.0 | 3,122.3 | 3,083.3 | 3,083.3 | 15.9 | 61.5 | -39.83 | -1,153.8 | -32.6 | 463.6 | 392.3 | 71.30 | 6.502 | |
| 3,300.0 | 3,171.0 | 3,132.0 | 3,132.0 | 16.2 | 62.5 | -41.29 | -1,153.8 | -32.6 | 449.4 | 376.5 | 72.80 | 6.172 | |
| 3,346.4 | 3,214.5 | 3,175.5 | 3,175.5 | 16.6 | 63.3 | -42.66 | -1,153.8 | -32.6 | 436.8 | 362.7 | 74.17 | 5.890 | |
| 3,400.0 | 3,264.6 | 3,225.6 | 3,225.6 | 16.9 | 64.4 | -44.34 | -1,153.8 | -32.6 | 422.7 | 347.0 | 75.77 | 5.579 | |
| 3,444.9 | 3,306.6 | 3,267.6 | 3,267.6 | 17.2 | 65.2 | -45.83 | -1,153.8 | -32.6 | 411.2 | 334.1 | 77.14 | 5.331 | |
| 3,500.0 | 3,358.2 | 3,319.2 | 3,319.2 | 17.6 | 66.2 | -47.77 | -1,153.8 | -32.6 | 397.4 | 318.6 | 78.86 | 5.040 | |
| 3,543.3 | 3,398.7 | 3,359.7 | 3,359.7 | 17.9 | 67.1 | -49.38 | -1,153.8 | -32.6 | 387.0 | 306.8 | 80.23 | 4.824 | |
| 3,600.0 | 3,451.7 | 3,412.7 | 3,412.7 | 18.3 | 68.1 | -51.62 | -1,153.8 | -32.6 | 373.8 | 291.7 | 82.06 | 4.555 | |
| 3,641.7 | 3,490.8 | 3,451.8 | 3,451.8 | 18.6 | 68.9 | -53.35 | -1,153.8 | -32.6 | 364.5 | 281.0 | 83.43 | 4.369 | |
| 3,700.0 | 3,545.3 | 3,506.3 | 3,506.3 | 19.0 | 70.0 | -55.92 | -1,153.8 | -32.6 | 352.0 | 266.7 | 85.37 | 4.124 | |
| 3,740.1 | 3,582.9 | 3,543.9 | 3,543.9 | 19.3 | 70.8 | -57.78 | -1,153.8 | -32.6 | 344.0 | 257.2 | 86.72 | 3.966 | |
| 3,800.0 | 3,638.9 | 3,599.9 | 3,599.9 | 19.8 | 71.9 | -60.71 | -1,153.8 | -32.6 | 332.6 | 243.9 | 88.76 | 3.748 | |
| 3,838.6 | 3,675.0 | 3,636.0 | 3,636.0 | 20.0 | 72.6 | -62.69 | -1,153.8 | -32.6 | 325.9 | 235.8 | 90.08 | 3.617 | |
| 3,900.0 | 3,732.5 | 3,693.5 | 3,693.5 | 20.5 | 73.8 | -65.99 | -1,153.8 | -32.6 | 316.0 | 223.8 | 92.19 | 3.428 | |
| 3,937.0 | 3,767.1 | 3,728.1 | 3,728.1 | 20.7 | 74.5 | -68.07 | -1,153.8 | -32.6 | 310.6 | 217.1 | 93.45 | 3.324 | |
| 4,000.0 | 3,826.1 | 3,787.1 | 3,787.1 | 21.2 | 75.6 | -71.74 | -1,153.8 | -32.6 | 302.5 | 206.9 | 95.57 | 3.165 | |
| 4,035.4 | 3,859.3 | 3,820.3 | 3,820.3 | 21.4 | 76.3 | -73.88 | -1,153.8 | -32.6 | 298.6 | 201.8 | 96.75 | 3.086 | |
| 4,100.0 | 3,919.7 | 3,880.7 | 3,880.7 | 21.9 | 77.5 | -77.90 | -1,153.8 | -32.6 | 292.7 | 193.9 | 98.83 | 2.962 | |
| 4,133.8 | 3,951.4 | 3,912.4 | 3,912.4 | 22.1 | 78.2 | -80.06 | -1,153.8 | -32.6 | 290.3 | 190.4 | 99.88 | 2.906 | |
| 4,200.0 | 4,013.3 | 3,974.3 | 3,974.3 | 22.6 | 79.4 | -84.36 | -1,153.8 | -32.6 | 286.9 | 185.0 | 101.86 | 2.817 | |
| 4,232.3 | 4,043.5 | 4,004.5 | 4,004.5 | 22.8 | 80.0 | -86.48 | -1,153.8 | -32.6 | 285.9 | 183.2 | 102.77 | 2.782 | |
| 4,285.5 | 4,093.3 | 4,054.3 | 4,054.3 | 23.2 | 81.0 | -90.00 | -1,153.8 | -32.6 | 285.3 | 181.1 | 104.20 | 2.738 CC | |
| 4,300.0 | 4,106.9 | 4,067.9 | 4,067.9 | 23.3 | 81.3 | -90.96 | -1,153.8 | -32.6 | 285.4 | 180.8 | 104.57 | 2.729 | |
| 4,330.7 | 4,135.6 | 4,096.6 | 4,096.6 | 23.5 | 81.9 | -92.99 | -1,153.8 | -32.6 | 285.8 | 180.4 | 105.33 | 2.713 ES | |
| 4,400.0 | 4,200.5 | 4,161.5 | 4,161.5 | 24.0 | 83.2 | -97.54 | -1,153.8 | -32.6 | 288.1 | 181.2 | 106.93 | 2.695 | |
| 4,429.1 | 4,227.7 | 4,188.7 | 4,188.7 | 24.2 | 83.7 | -99.43 | -1,153.8 | -32.6 | 289.8 | 182.2 | 107.54 | 2.694 SF | |
| 4,500.0 | 4,294.1 | 4,255.1 | 4,255.1 | 24.7 | 85.1 | -103.92 | -1,153.8 | -32.6 | 295.1 | 186.2 | 108.92 | 2.710 | |
| 4,527.5 | 4,319.8 | 4,280.8 | 4,280.8 | 24.9 | 85.6 | -105.63 | -1,153.8 | -32.6 | 297.8 | 188.4 | 109.42 | 2.722 | |
| 4,600.0 | 4,387.6 | 4,348.6 | 4,348.6 | 25.4 | 86.9 | -109.97 | -1,153.8 | -32.6 | 306.1 | 195.5 | 110.61 | 2.767 | |
| 4,626.0 | 4,412.0 | 4,373.0 | 4,373.0 | 25.6 | 87.4 | -111.48 | -1,153.8 | -32.6 | 309.5 | 198.5 | 111.00 | 2.788 | |
| 4,700.0 | 4,481.2 | 4,442.2 | 4,442.2 | 26.1 | 88.8 | -115.60 | -1,153.8 | -32.6 | 320.5 | 208.5 | 112.05 | 2.860 | |
| 4,724.4 | 4,504.1 | 4,465.1 | 4,465.1 | 26.3 | 89.3 | -116.89 | -1,153.8 | -32.6 | 324.5 | 212.1 | 112.38 | 2.888 | |
| 4,800.0 | 4,574.8 | 4,535.8 | 4,535.8 | 26.8 | 90.7 | -120.73 | -1,153.8 | -32.6 | 338.0 | 224.7 | 113.34 | 2.982 | |
| 4,822.8 | 4,596.2 | 4,557.2 | 4,557.2 | 27.0 | 91.1 | -121.84 | -1,153.8 | -32.6 | 342.4 | 228.8 | 113.61 | 3.014 | |
| 4,900.0 | 4,668.4 | 4,629.4 | 4,629.4 | 27.5 | 92.6 | -125.38 | -1,153.8 | -32.6 | 358.1 | 243.6 | 114.54 | 3.127 | |
| 4,921.2 | 4,688.3 | 4,649.3 | 4,649.3 | 27.7 | 93.0 | -126.30 | -1,153.8 | -32.6 | 362.7 | 247.9 | 114.78 | 3.160 | |

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

Anticollision Report



| | | | |
|---------------------------|---------------------------------|-------------------------------------|--|
| Company: | EXTRACTION OIL & GAS | Local Co-ordinate Reference: | Well VETTING 17 |
| Project: | WELD COUNTY, COLORADO (NAD 83) | TVD Reference: | KB-EST @ 4664.0usft (Original Well Elev) |
| Reference Site: | SW NW SEC. 15 T5N R65W 6th P.M. | MD Reference: | KB-EST @ 4664.0usft (Original Well Elev) |
| Site Error: | 0.0 usft | North Reference: | True |
| Reference Well: | VETTING 17 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | EDM 5000.1 Single User Db |
| Reference Design: | PROPOSAL #2 | Offset TVD Reference: | Offset Datum |

| Offset Design | | | | | | | | | | | | Offset Site Error: | 0.0 usft |
|-----------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|---------------------------|--------------------|----------|
| Survey Program: 0-INC | | | | | | | | | | | | Offset Well Error: | 0.0 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | |
| 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) | Minimum Separation (usft) | Separation Factor | Warning |
| 5,000.0 | 4,762.0 | 4,723.0 | 4,723.0 | 28.2 | 94.5 | -129.55 | -1,153.8 | -32.6 | 380.5 | 264.8 | 115.71 | 3.288 | |
| 5,019.7 | 4,780.4 | 4,741.4 | 4,741.4 | 28.4 | 94.8 | -130.31 | -1,153.8 | -32.6 | 385.1 | 269.2 | 115.94 | 3.321 | |
| 5,100.0 | 4,855.6 | 4,816.6 | 4,816.6 | 28.9 | 96.4 | -133.27 | -1,153.8 | -32.6 | 404.6 | 287.7 | 116.89 | 3.462 | |
| 5,118.1 | 4,872.5 | 4,833.5 | 4,833.5 | 29.1 | 96.7 | -133.90 | -1,153.8 | -32.6 | 409.2 | 292.1 | 117.11 | 3.494 | |
| 5,200.0 | 4,949.2 | 4,910.2 | 4,910.2 | 29.6 | 98.2 | -136.58 | -1,153.8 | -32.6 | 430.3 | 312.2 | 118.12 | 3.643 | |
| 5,216.5 | 4,964.6 | 4,925.6 | 4,925.6 | 29.8 | 98.5 | -137.09 | -1,153.8 | -32.6 | 434.7 | 316.4 | 118.33 | 3.674 | |
| 5,300.0 | 5,042.8 | 5,003.8 | 5,003.8 | 30.3 | 100.1 | -139.54 | -1,153.8 | -32.6 | 457.3 | 337.9 | 119.40 | 3.830 | |
| 5,314.9 | 5,056.8 | 5,017.8 | 5,017.8 | 30.5 | 100.4 | -139.95 | -1,153.8 | -32.6 | 461.4 | 341.8 | 119.60 | 3.858 | |
| 5,400.0 | 5,136.4 | 5,097.4 | 5,097.4 | 31.1 | 102.0 | -142.17 | -1,153.8 | -32.6 | 485.3 | 364.6 | 120.75 | 4.019 | |
| 5,413.4 | 5,148.9 | 5,109.9 | 5,109.9 | 31.2 | 102.3 | -142.50 | -1,153.8 | -32.6 | 489.2 | 368.2 | 120.93 | 4.045 | |
| 5,500.0 | 5,230.0 | 5,191.0 | 5,191.0 | 31.8 | 103.9 | -144.53 | -1,153.8 | -32.6 | 514.2 | 392.1 | 122.16 | 4.210 | |
| 5,511.8 | 5,241.0 | 5,202.0 | 5,202.0 | 31.8 | 104.1 | -144.79 | -1,153.8 | -32.6 | 517.7 | 395.4 | 122.33 | 4.232 | |
| 5,524.4 | 5,252.8 | 5,213.8 | 5,213.8 | 31.9 | 104.3 | -145.07 | -1,153.8 | -32.6 | 521.4 | 398.9 | 122.51 | 4.256 | |
| 5,600.0 | 5,323.9 | 5,284.9 | 5,284.9 | 32.4 | 105.8 | -146.84 | -1,153.8 | -32.6 | 543.1 | 418.9 | 124.16 | 4.374 | |
| 5,610.2 | 5,333.6 | 5,294.6 | 5,294.6 | 32.4 | 106.0 | -147.06 | -1,153.8 | -32.6 | 545.9 | 421.6 | 124.39 | 4.389 | |
| 5,700.0 | 5,418.9 | 5,379.9 | 5,379.9 | 32.8 | 107.7 | -148.82 | -1,153.8 | -32.6 | 569.8 | 443.4 | 126.44 | 4.506 | |
| 5,708.6 | 5,427.2 | 5,388.2 | 5,388.2 | 32.9 | 107.8 | -148.97 | -1,153.8 | -32.6 | 572.0 | 445.4 | 126.64 | 4.517 | |
| 5,800.0 | 5,515.0 | 5,476.0 | 5,476.0 | 33.2 | 109.6 | -150.44 | -1,153.8 | -32.6 | 594.0 | 465.2 | 128.83 | 4.611 | |
| 5,807.1 | 5,521.8 | 5,482.8 | 5,482.8 | 33.3 | 109.8 | -150.54 | -1,153.8 | -32.6 | 595.6 | 466.6 | 129.00 | 4.617 | |
| 5,900.0 | 5,612.0 | 5,573.0 | 5,573.0 | 33.6 | 111.6 | -151.76 | -1,153.8 | -32.6 | 615.5 | 484.2 | 131.27 | 4.689 | |
| 5,905.5 | 5,617.3 | 5,578.3 | 5,578.3 | 33.6 | 111.7 | -151.82 | -1,153.8 | -32.6 | 616.6 | 485.2 | 131.41 | 4.692 | |
| 6,000.0 | 5,709.7 | 5,670.7 | 5,670.7 | 34.0 | 113.5 | -152.82 | -1,153.8 | -32.6 | 634.2 | 500.4 | 133.73 | 4.742 | |
| 6,003.9 | 5,713.6 | 5,674.6 | 5,674.6 | 34.0 | 113.6 | -152.86 | -1,153.8 | -32.6 | 634.8 | 501.0 | 133.83 | 4.744 | |
| 6,100.0 | 5,808.2 | 5,769.2 | 5,769.2 | 34.2 | 115.5 | -153.67 | -1,153.8 | -32.6 | 649.9 | 513.7 | 136.17 | 4.773 | |
| 6,102.3 | 5,810.5 | 5,771.5 | 5,771.5 | 34.2 | 115.6 | -153.69 | -1,153.8 | -32.6 | 650.2 | 514.0 | 136.23 | 4.773 | |
| 6,200.0 | 5,907.2 | 5,868.2 | 5,868.2 | 34.5 | 117.5 | -154.32 | -1,153.8 | -32.6 | 662.6 | 524.0 | 138.56 | 4.782 | |
| 6,200.8 | 5,907.9 | 5,868.9 | 5,868.9 | 34.5 | 117.5 | -154.33 | -1,153.8 | -32.6 | 662.7 | 524.1 | 138.58 | 4.782 | |
| 6,299.2 | 6,005.8 | 5,966.8 | 5,966.8 | 34.7 | 119.5 | -154.80 | -1,153.8 | -32.6 | 672.2 | 531.3 | 140.86 | 4.772 | |
| 6,300.0 | 6,006.6 | 5,967.6 | 5,967.6 | 34.7 | 119.5 | -154.80 | -1,153.8 | -32.6 | 672.2 | 531.4 | 140.88 | 4.772 | |
| 6,397.6 | 6,104.0 | 6,065.0 | 6,065.0 | 34.8 | 121.5 | -155.11 | -1,153.8 | -32.6 | 678.6 | 535.6 | 143.06 | 4.744 | |
| 6,400.0 | 6,106.3 | 6,067.3 | 6,067.3 | 34.9 | 121.5 | -155.11 | -1,153.8 | -32.6 | 678.7 | 535.6 | 143.11 | 4.743 | |
| 6,496.0 | 6,202.3 | 6,163.3 | 6,163.3 | 35.0 | 123.4 | -155.27 | -1,153.8 | -32.6 | 682.0 | 536.9 | 145.15 | 4.699 | |
| 6,500.0 | 6,206.3 | 6,167.3 | 6,167.3 | 35.0 | 123.5 | -155.27 | -1,153.8 | -32.6 | 682.1 | 536.9 | 145.23 | 4.696 | |
| 6,555.7 | 6,262.0 | 6,223.0 | 6,223.0 | 35.0 | 124.6 | 40.64 | -1,153.8 | -32.6 | 682.6 | 525.3 | 157.27 | 4.340 | |
| 6,585.7 | 6,292.0 | 6,253.0 | 6,253.0 | 35.0 | 125.2 | 40.64 | -1,153.8 | -32.6 | 682.6 | 524.7 | 157.90 | 4.323 | |
| 6,594.5 | 6,300.7 | 6,261.7 | 6,261.7 | 35.0 | 125.4 | 130.68 | -1,153.8 | -32.6 | 682.6 | 535.4 | 147.23 | 4.636 | |
| 6,600.0 | 6,306.3 | 6,267.3 | 6,267.3 | 35.0 | 125.5 | 130.68 | -1,153.8 | -32.6 | 682.7 | 535.3 | 147.36 | 4.633 | |
| 6,650.0 | 6,356.1 | 6,317.1 | 6,317.1 | 35.1 | 126.5 | 130.73 | -1,153.8 | -32.6 | 684.9 | 536.7 | 148.20 | 4.622 | |
| 6,692.9 | 6,398.5 | 6,359.5 | 6,359.5 | 35.2 | 127.4 | 130.81 | -1,153.8 | -32.6 | 689.1 | 540.6 | 148.49 | 4.641 | |
| 6,700.0 | 6,405.5 | 6,366.5 | 6,366.5 | 35.2 | 127.5 | 130.82 | -1,153.8 | -32.6 | 690.0 | 541.5 | 148.50 | 4.647 | |
| 6,750.0 | 6,454.0 | 6,415.0 | 6,415.0 | 35.3 | 128.5 | 130.95 | -1,153.8 | -32.6 | 698.0 | 549.8 | 148.24 | 4.709 | |
| 6,791.3 | 6,493.2 | 6,454.2 | 6,454.2 | 35.4 | 129.3 | 131.05 | -1,153.8 | -32.6 | 706.9 | 559.3 | 147.60 | 4.789 | |
| 6,800.0 | 6,501.3 | 6,462.3 | 6,462.3 | 35.4 | 129.4 | 131.06 | -1,153.8 | -32.6 | 709.0 | 561.6 | 147.42 | 4.809 | |
| 6,850.0 | 6,547.0 | 6,508.0 | 6,508.0 | 35.5 | 130.4 | 131.13 | -1,153.8 | -32.6 | 723.0 | 576.9 | 146.10 | 4.949 | |
| 6,889.7 | 6,581.9 | 6,542.9 | 6,542.9 | 35.7 | 131.1 | 131.11 | -1,153.8 | -32.6 | 736.3 | 591.6 | 144.73 | 5.088 | |
| 6,900.0 | 6,590.7 | 6,551.7 | 6,551.7 | 35.7 | 131.2 | 131.08 | -1,153.8 | -32.6 | 740.1 | 595.8 | 144.33 | 5.128 | |
| 6,950.0 | 6,632.2 | 6,593.2 | 6,593.2 | 35.9 | 132.1 | 130.88 | -1,153.8 | -32.6 | 760.3 | 618.0 | 142.27 | 5.344 | |
| 6,988.2 | 6,662.2 | 6,623.2 | 6,623.2 | 36.0 | 132.7 | 130.56 | -1,153.8 | -32.6 | 777.8 | 637.2 | 140.63 | 5.531 | |
| 7,000.0 | 6,671.1 | 6,632.1 | 6,632.1 | 36.1 | 132.9 | 130.43 | -1,153.8 | -32.6 | 783.6 | 643.5 | 140.12 | 5.592 | |
| 7,050.0 | 6,707.1 | 6,668.1 | 6,668.1 | 36.3 | 133.6 | 129.67 | -1,153.8 | -32.6 | 809.9 | 671.8 | 138.18 | 5.862 | |
| 7,086.6 | 6,731.5 | 6,692.5 | 6,692.5 | 36.5 | 134.1 | 128.87 | -1,153.8 | -32.6 | 831.1 | 694.0 | 137.10 | 6.062 | |
| 7,100.0 | 6,739.9 | 6,700.9 | 6,700.9 | 36.6 | 134.2 | 128.51 | -1,153.8 | -32.6 | 839.3 | 702.4 | 136.81 | 6.134 | |

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

Anticollision Report



| | | | |
|---------------------------|---------------------------------|-------------------------------------|--|
| Company: | EXTRACTION OIL & GAS | Local Co-ordinate Reference: | Well VETTING 17 |
| Project: | WELD COUNTY, COLORADO (NAD 83) | TVD Reference: | KB-EST @ 4664.0usft (Original Well Elev) |
| Reference Site: | SW NW SEC. 15 T5N R65W 6th P.M. | MD Reference: | KB-EST @ 4664.0usft (Original Well Elev) |
| Site Error: | 0.0 usft | North Reference: | True |
| Reference Well: | VETTING 17 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | EDM 5000.1 Single User Db |
| Reference Design: | PROPOSAL #2 | Offset TVD Reference: | Offset Datum |

| Offset Design | | | | | | | | | | | | Offset Site Error: | 0.0 usft |
|-----------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|---------------------------|--------------------|----------|
| Survey Program: 0-INC | | | | | | | | | | | | Offset Well Error: | 0.0 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | |
| 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) | Minimum Separation (usft) | Separation Factor | Warning |
| 7,150.0 | 6,769.4 | 6,730.4 | 6,730.4 | 36.9 | 134.8 | 126.83 | -1,153.8 | -32.6 | 871.4 | 734.9 | 136.48 | 6.385 | |
| 7,185.0 | 6,787.8 | 6,748.8 | 6,748.8 | 37.1 | 135.2 | 125.28 | -1,153.8 | -32.6 | 895.5 | 758.4 | 137.09 | 6.532 | |
| 7,200.0 | 6,795.2 | 6,756.2 | 6,756.2 | 37.2 | 135.4 | 124.50 | -1,153.8 | -32.6 | 906.2 | 768.6 | 137.61 | 6.585 | |
| 7,250.0 | 6,817.2 | 6,778.2 | 6,778.2 | 37.6 | 135.8 | 121.36 | -1,153.8 | -32.6 | 943.4 | 802.9 | 140.55 | 6.712 | |
| 7,283.4 | 6,829.6 | 6,790.6 | 6,790.6 | 37.9 | 136.1 | 118.71 | -1,153.8 | -32.6 | 969.5 | 825.9 | 143.59 | 6.752 | |
| 7,300.0 | 6,835.1 | 6,796.1 | 6,796.1 | 38.0 | 136.2 | 117.21 | -1,153.8 | -32.6 | 982.7 | 837.3 | 145.38 | 6.760 | |
| 7,350.0 | 6,849.0 | 6,810.0 | 6,810.0 | 38.4 | 136.4 | 111.83 | -1,153.8 | -32.6 | 1,023.9 | 872.2 | 151.70 | 6.749 | |
| 7,381.9 | 6,855.6 | 6,816.6 | 6,816.6 | 38.7 | 136.6 | 107.68 | -1,153.8 | -32.6 | 1,050.9 | 894.8 | 156.04 | 6.735 | |
| 7,400.0 | 6,858.6 | 6,819.6 | 6,819.6 | 38.9 | 136.6 | 105.04 | -1,153.8 | -32.6 | 1,066.5 | 908.1 | 158.41 | 6.732 | |
| 7,450.0 | 6,863.9 | 6,824.9 | 6,824.9 | 39.4 | 136.7 | 96.76 | -1,153.8 | -32.6 | 1,110.2 | 946.6 | 163.60 | 6.786 | |
| 7,480.3 | 6,865.0 | 6,826.0 | 6,826.0 | 39.7 | 136.8 | 91.08 | -1,153.8 | -32.6 | 1,137.1 | 972.1 | 165.00 | 6.891 | |
| 7,485.8 | 6,865.0 | 6,826.0 | 6,826.0 | 39.8 | 136.8 | 90.01 | -1,153.8 | -32.6 | 1,141.9 | 976.9 | 165.05 | 6.919 | |
| 7,500.0 | 6,865.0 | 6,826.0 | 6,826.0 | 40.0 | 136.8 | 90.01 | -1,153.8 | -32.6 | 1,154.6 | 989.3 | 165.33 | 6.984 | |
| 7,578.7 | 6,865.0 | 6,826.0 | 6,826.0 | 40.9 | 136.8 | 90.01 | -1,153.8 | -32.6 | 1,225.5 | 1,058.6 | 166.93 | 7.341 | |
| 7,600.0 | 6,865.0 | 6,826.0 | 6,826.0 | 41.2 | 136.8 | 90.01 | -1,153.8 | -32.6 | 1,244.8 | 1,077.5 | 167.36 | 7.438 | |
| 7,677.1 | 6,865.0 | 6,826.0 | 6,826.0 | 42.2 | 136.8 | 90.01 | -1,153.8 | -32.6 | 1,315.4 | 1,146.4 | 169.02 | 7.782 | |
| 7,700.0 | 6,865.0 | 6,826.0 | 6,826.0 | 42.5 | 136.8 | 90.01 | -1,153.8 | -32.6 | 1,336.4 | 1,166.9 | 169.51 | 7.884 | |
| 7,775.6 | 6,865.0 | 6,826.0 | 6,826.0 | 43.6 | 136.8 | 90.01 | -1,153.8 | -32.6 | 1,406.4 | 1,235.2 | 171.21 | 8.214 | |
| 7,800.0 | 6,865.0 | 6,826.0 | 6,826.0 | 44.0 | 136.8 | 90.01 | -1,153.8 | -32.6 | 1,429.1 | 1,257.4 | 171.76 | 8.321 | |
| 7,874.0 | 6,865.0 | 6,826.0 | 6,826.0 | 45.2 | 136.8 | 90.01 | -1,153.8 | -32.6 | 1,498.3 | 1,324.9 | 173.48 | 8.637 | |
| 7,900.0 | 6,865.0 | 6,826.0 | 6,826.0 | 45.6 | 136.8 | 90.01 | -1,153.8 | -32.6 | 1,522.8 | 1,348.7 | 174.08 | 8.748 | |
| 7,972.4 | 6,865.0 | 6,826.0 | 6,826.0 | 46.9 | 136.8 | 90.01 | -1,153.8 | -32.6 | 1,591.1 | 1,415.3 | 175.81 | 9.050 | |
| 8,000.0 | 6,865.0 | 6,826.0 | 6,826.0 | 47.4 | 136.8 | 90.01 | -1,153.8 | -32.6 | 1,617.2 | 1,440.7 | 176.47 | 9.164 | |
| 8,070.8 | 6,865.0 | 6,826.0 | 6,826.0 | 48.7 | 136.8 | 90.01 | -1,153.8 | -32.6 | 1,684.4 | 1,506.3 | 178.19 | 9.453 | |
| 8,100.0 | 6,865.0 | 6,826.0 | 6,826.0 | 49.2 | 136.8 | 90.01 | -1,153.8 | -32.6 | 1,712.2 | 1,533.3 | 178.90 | 9.571 | |
| 8,169.3 | 6,865.0 | 6,826.0 | 6,826.0 | 50.6 | 136.8 | 90.01 | -1,153.8 | -32.6 | 1,778.4 | 1,597.7 | 180.62 | 9.846 | |
| 8,200.0 | 6,865.0 | 6,826.0 | 6,826.0 | 51.2 | 136.8 | 90.01 | -1,153.8 | -32.6 | 1,807.8 | 1,626.4 | 181.38 | 9.967 | |
| 8,267.7 | 6,865.0 | 6,826.0 | 6,826.0 | 52.6 | 136.8 | 90.01 | -1,153.8 | -32.6 | 1,872.8 | 1,689.7 | 183.09 | 10.229 | |
| 8,300.0 | 6,865.0 | 6,826.0 | 6,826.0 | 53.3 | 136.8 | 90.01 | -1,153.8 | -32.6 | 1,903.8 | 1,719.9 | 183.90 | 10.352 | |
| 8,366.1 | 6,865.0 | 6,826.0 | 6,826.0 | 54.7 | 136.8 | 90.01 | -1,153.8 | -32.6 | 1,967.5 | 1,781.9 | 185.59 | 10.602 | |
| 8,400.0 | 6,865.1 | 6,826.1 | 6,826.1 | 55.4 | 136.8 | 90.01 | -1,153.8 | -32.6 | 2,000.2 | 1,813.8 | 186.45 | 10.728 | |
| 8,464.5 | 6,865.1 | 6,826.1 | 6,826.1 | 56.8 | 136.8 | 90.01 | -1,153.8 | -32.6 | 2,062.6 | 1,874.5 | 188.11 | 10.965 | |
| 8,500.0 | 6,865.1 | 6,826.1 | 6,826.1 | 57.6 | 136.8 | 90.01 | -1,153.8 | -32.6 | 2,097.0 | 1,908.0 | 189.03 | 11.093 | |
| 8,563.0 | 6,865.1 | 6,826.1 | 6,826.1 | 59.0 | 136.8 | 90.01 | -1,153.8 | -32.6 | 2,158.1 | 1,967.4 | 190.67 | 11.319 | |
| 8,600.0 | 6,865.1 | 6,826.1 | 6,826.1 | 59.9 | 136.8 | 90.01 | -1,153.8 | -32.6 | 2,194.0 | 2,002.4 | 191.63 | 11.449 | |
| 8,661.4 | 6,865.1 | 6,826.1 | 6,826.1 | 61.3 | 136.8 | 90.01 | -1,153.8 | -32.6 | 2,253.7 | 2,060.5 | 193.24 | 11.663 | |
| 8,700.0 | 6,865.1 | 6,826.1 | 6,826.1 | 62.2 | 136.8 | 90.01 | -1,153.8 | -32.6 | 2,291.3 | 2,097.1 | 194.25 | 11.796 | |
| 8,759.8 | 6,865.1 | 6,826.1 | 6,826.1 | 63.6 | 136.8 | 90.01 | -1,153.8 | -32.6 | 2,349.6 | 2,153.8 | 195.82 | 11.999 | |
| 8,800.0 | 6,865.1 | 6,826.1 | 6,826.1 | 64.6 | 136.8 | 90.01 | -1,153.8 | -32.6 | 2,388.8 | 2,192.0 | 196.88 | 12.133 | |
| 8,858.2 | 6,865.1 | 6,826.1 | 6,826.1 | 66.0 | 136.8 | 90.01 | -1,153.8 | -32.6 | 2,445.7 | 2,247.3 | 198.43 | 12.326 | |
| 8,900.0 | 6,865.1 | 6,826.1 | 6,826.1 | 67.0 | 136.8 | 90.01 | -1,153.8 | -32.6 | 2,486.6 | 2,287.0 | 199.53 | 12.462 | |
| 8,956.7 | 6,865.1 | 6,826.1 | 6,826.1 | 68.4 | 136.8 | 90.01 | -1,153.8 | -32.6 | 2,542.0 | 2,341.0 | 201.04 | 12.644 | |
| 9,000.0 | 6,865.1 | 6,826.1 | 6,826.1 | 69.4 | 136.8 | 90.01 | -1,153.8 | -32.6 | 2,584.5 | 2,382.3 | 202.20 | 12.782 | |
| 9,055.1 | 6,865.1 | 6,826.1 | 6,826.1 | 70.8 | 136.8 | 90.01 | -1,153.8 | -32.6 | 2,638.5 | 2,434.8 | 203.67 | 12.954 | |
| 9,100.0 | 6,865.1 | 6,826.1 | 6,826.1 | 71.9 | 136.8 | 90.01 | -1,153.8 | -32.6 | 2,682.5 | 2,477.6 | 204.88 | 13.093 | |
| 9,153.5 | 6,865.1 | 6,826.1 | 6,826.1 | 73.2 | 136.8 | 90.01 | -1,153.8 | -32.6 | 2,735.0 | 2,528.7 | 206.31 | 13.257 | |
| 9,200.0 | 6,865.1 | 6,826.1 | 6,826.1 | 74.4 | 136.8 | 90.01 | -1,153.8 | -32.6 | 2,780.7 | 2,573.1 | 207.56 | 13.397 | |
| 9,251.9 | 6,865.1 | 6,826.1 | 6,826.1 | 75.7 | 136.8 | 90.01 | -1,153.8 | -32.6 | 2,831.8 | 2,622.8 | 208.96 | 13.551 | |
| 9,300.0 | 6,865.1 | 6,826.1 | 6,826.1 | 76.9 | 136.8 | 90.01 | -1,153.8 | -32.6 | 2,879.0 | 2,668.7 | 210.26 | 13.693 | |
| 9,350.4 | 6,865.1 | 6,826.1 | 6,826.1 | 78.2 | 136.8 | 90.01 | -1,153.8 | -32.6 | 2,928.6 | 2,717.0 | 211.62 | 13.839 | |
| 9,400.0 | 6,865.1 | 6,826.1 | 6,826.1 | 79.5 | 136.8 | 90.01 | -1,153.8 | -32.6 | 2,977.4 | 2,764.5 | 212.96 | 13.981 | |
| 9,448.8 | 6,865.1 | 6,826.1 | 6,826.1 | 80.8 | 136.8 | 90.01 | -1,153.8 | -32.6 | 3,025.5 | 2,811.2 | 214.29 | 14.119 | |

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

Anticollision Report



| | | | |
|---------------------------|---------------------------------|-------------------------------------|--|
| Company: | EXTRACTION OIL & GAS | Local Co-ordinate Reference: | Well VETTING 17 |
| Project: | WELD COUNTY, COLORADO (NAD 83) | TVD Reference: | KB-EST @ 4664.0usft (Original Well Elev) |
| Reference Site: | SW NW SEC. 15 T5N R65W 6th P.M. | MD Reference: | KB-EST @ 4664.0usft (Original Well Elev) |
| Site Error: | 0.0 usft | North Reference: | True |
| Reference Well: | VETTING 17 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | EDM 5000.1 Single User Db |
| Reference Design: | PROPOSAL #2 | Offset TVD Reference: | Offset Datum |

| Offset Design | | | | | | | | | | | | Offset Site Error: | 0.0 usft |
|-----------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|---------------------------|--------------------|----------|
| Survey Program: 0-INC | | | | | | | | | | | | Offset Well Error: | 0.0 usft |
| Reference | | Offset | | Semi Major Axis | | Distance | | | | | | | 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) | Minimum Separation (usft) | Separation Factor | |
| 9,500.0 | 6,865.1 | 6,826.1 | 6,826.1 | 82.1 | 136.8 | 90.01 | -1,153.8 | -32.6 | 3,076.0 | 2,860.3 | 215.67 | 14.262 | |
| 9,547.2 | 6,865.1 | 6,826.1 | 6,826.1 | 83.3 | 136.8 | 90.01 | -1,153.8 | -32.6 | 3,122.5 | 2,905.6 | 216.96 | 14.392 | |
| 9,600.0 | 6,865.1 | 6,826.1 | 6,826.1 | 84.7 | 136.8 | 90.01 | -1,153.8 | -32.6 | 3,174.6 | 2,956.2 | 218.39 | 14.536 | |
| 9,645.6 | 6,865.1 | 6,826.1 | 6,826.1 | 85.8 | 136.8 | 90.01 | -1,153.8 | -32.6 | 3,219.6 | 3,000.0 | 219.64 | 14.659 | |
| 9,700.0 | 6,865.1 | 6,826.1 | 6,826.1 | 87.3 | 136.8 | 90.01 | -1,153.8 | -32.6 | 3,273.3 | 3,052.2 | 221.12 | 14.803 | |
| 9,744.1 | 6,865.1 | 6,826.1 | 6,826.1 | 88.4 | 136.8 | 90.01 | -1,153.8 | -32.6 | 3,316.8 | 3,094.5 | 222.32 | 14.919 | |
| 9,800.0 | 6,865.1 | 6,826.1 | 6,826.1 | 89.9 | 136.8 | 90.01 | -1,153.8 | -32.6 | 3,372.1 | 3,148.2 | 223.85 | 15.064 | |
| 9,842.5 | 6,865.1 | 6,826.1 | 6,826.1 | 91.0 | 136.8 | 90.01 | -1,153.8 | -32.6 | 3,414.1 | 3,189.1 | 225.01 | 15.173 | |
| 9,900.0 | 6,865.1 | 6,826.1 | 6,826.1 | 92.5 | 136.8 | 90.01 | -1,153.8 | -32.6 | 3,470.9 | 3,244.3 | 226.58 | 15.319 | |
| 9,940.9 | 6,865.1 | 6,826.1 | 6,826.1 | 93.6 | 136.8 | 90.01 | -1,153.8 | -32.6 | 3,511.4 | 3,283.7 | 227.70 | 15.421 | |
| 10,000.0 | 6,865.1 | 6,826.1 | 6,826.1 | 95.2 | 136.8 | 90.01 | -1,153.8 | -32.6 | 3,569.8 | 3,340.5 | 229.32 | 15.567 | |
| 10,039.3 | 6,865.1 | 6,826.1 | 6,826.1 | 96.2 | 136.8 | 90.01 | -1,153.8 | -32.6 | 3,608.8 | 3,378.4 | 230.40 | 15.663 | |
| 10,100.0 | 6,865.1 | 6,826.1 | 6,826.1 | 97.8 | 136.8 | 90.01 | -1,153.8 | -32.6 | 3,668.8 | 3,436.7 | 232.06 | 15.809 | |
| 10,137.8 | 6,865.1 | 6,826.1 | 6,826.1 | 98.8 | 136.8 | 90.01 | -1,153.8 | -32.6 | 3,706.2 | 3,473.1 | 233.10 | 15.899 | |
| 10,200.0 | 6,865.1 | 6,826.1 | 6,826.1 | 100.5 | 136.8 | 90.01 | -1,153.8 | -32.6 | 3,767.8 | 3,533.0 | 234.81 | 16.046 | |
| 10,236.2 | 6,865.1 | 6,826.1 | 6,826.1 | 101.4 | 136.8 | 90.01 | -1,153.8 | -32.6 | 3,803.7 | 3,567.9 | 235.81 | 16.131 | |
| 10,300.0 | 6,865.1 | 6,826.1 | 6,826.1 | 103.1 | 136.8 | 90.01 | -1,153.8 | -32.6 | 3,866.9 | 3,629.3 | 237.56 | 16.277 | |
| 10,334.6 | 6,865.1 | 6,826.1 | 6,826.1 | 104.1 | 136.8 | 90.01 | -1,153.8 | -32.6 | 3,901.2 | 3,662.7 | 238.51 | 16.356 | |
| 10,400.0 | 6,865.1 | 6,826.1 | 6,826.1 | 105.8 | 136.8 | 90.01 | -1,153.8 | -32.6 | 3,966.0 | 3,725.7 | 240.31 | 16.503 | |
| 10,433.0 | 6,865.1 | 6,826.1 | 6,826.1 | 106.7 | 136.8 | 90.01 | -1,153.8 | -32.6 | 3,998.8 | 3,757.6 | 241.23 | 16.577 | |
| 10,500.0 | 6,865.1 | 6,826.1 | 6,826.1 | 108.5 | 136.8 | 90.01 | -1,153.8 | -32.6 | 4,065.2 | 3,822.1 | 243.07 | 16.724 | |
| 10,531.5 | 6,865.1 | 6,826.1 | 6,826.1 | 109.4 | 136.8 | 90.01 | -1,153.8 | -32.6 | 4,096.4 | 3,852.5 | 243.94 | 16.793 | |
| 10,600.0 | 6,865.1 | 6,826.1 | 6,826.1 | 111.2 | 136.8 | 90.01 | -1,153.8 | -32.6 | 4,164.4 | 3,918.6 | 245.83 | 16.940 | |
| 10,629.9 | 6,865.1 | 6,826.1 | 6,826.1 | 112.0 | 136.8 | 90.01 | -1,153.8 | -32.6 | 4,194.1 | 3,947.4 | 246.66 | 17.004 | |
| 10,700.0 | 6,865.1 | 6,826.1 | 6,826.1 | 113.9 | 136.8 | 90.01 | -1,153.8 | -32.6 | 4,263.6 | 4,015.0 | 248.59 | 17.151 | |
| 10,728.3 | 6,865.1 | 6,826.1 | 6,826.1 | 114.7 | 136.8 | 90.01 | -1,153.8 | -32.6 | 4,291.7 | 4,042.4 | 249.38 | 17.210 | |
| 10,800.0 | 6,865.1 | 6,826.1 | 6,826.1 | 116.6 | 136.8 | 90.00 | -1,153.8 | -32.6 | 4,362.9 | 4,111.5 | 251.36 | 17.357 | |
| 10,826.7 | 6,865.1 | 6,826.1 | 6,826.1 | 117.3 | 136.8 | 90.00 | -1,153.8 | -32.6 | 4,389.5 | 4,137.4 | 252.10 | 17.412 | |
| 10,900.0 | 6,865.1 | 6,826.1 | 6,826.1 | 119.3 | 136.8 | 90.00 | -1,153.8 | -32.6 | 4,462.2 | 4,208.1 | 254.12 | 17.559 | |
| 10,925.2 | 6,865.1 | 6,826.1 | 6,826.1 | 120.0 | 136.8 | 90.00 | -1,153.8 | -32.6 | 4,487.2 | 4,232.4 | 254.82 | 17.609 | |
| 11,000.0 | 6,865.1 | 6,826.1 | 6,826.1 | 122.0 | 136.8 | 90.00 | -1,153.8 | -32.6 | 4,561.6 | 4,304.7 | 256.89 | 17.757 | |
| 11,023.6 | 6,865.1 | 6,826.1 | 6,826.1 | 122.7 | 136.8 | 90.00 | -1,153.8 | -32.6 | 4,585.0 | 4,327.5 | 257.55 | 17.803 | |
| 11,100.0 | 6,865.1 | 6,826.1 | 6,826.1 | 124.8 | 136.8 | 90.00 | -1,153.8 | -32.6 | 4,660.9 | 4,401.3 | 259.66 | 17.950 | |
| 11,122.0 | 6,865.1 | 6,826.1 | 6,826.1 | 125.4 | 136.8 | 90.00 | -1,153.8 | -32.6 | 4,682.8 | 4,422.5 | 260.27 | 17.992 | |
| 11,200.0 | 6,865.1 | 6,826.1 | 6,826.1 | 127.5 | 136.8 | 90.00 | -1,153.8 | -32.6 | 4,760.3 | 4,497.9 | 262.43 | 18.139 | |
| 11,220.4 | 6,865.1 | 6,826.1 | 6,826.1 | 128.0 | 136.8 | 90.00 | -1,153.8 | -32.6 | 4,780.6 | 4,517.6 | 263.00 | 18.177 | |
| 11,300.0 | 6,865.1 | 6,826.1 | 6,826.1 | 130.2 | 136.8 | 90.00 | -1,153.8 | -32.6 | 4,859.7 | 4,594.5 | 265.21 | 18.324 | |
| 11,318.9 | 6,865.1 | 6,826.1 | 6,826.1 | 130.7 | 136.8 | 90.00 | -1,153.8 | -32.6 | 4,878.5 | 4,612.8 | 265.73 | 18.359 | |
| 11,400.0 | 6,865.1 | 6,826.1 | 6,826.1 | 133.0 | 136.8 | 90.00 | -1,153.8 | -32.6 | 4,959.2 | 4,691.2 | 267.98 | 18.506 | |
| 11,417.3 | 6,865.1 | 6,826.1 | 6,826.1 | 133.4 | 136.8 | 90.00 | -1,153.8 | -32.6 | 4,976.4 | 4,707.9 | 268.46 | 18.537 | |
| 11,500.0 | 6,865.1 | 6,826.1 | 6,826.1 | 135.7 | 136.8 | 90.00 | -1,153.8 | -32.6 | 5,058.6 | 4,787.9 | 270.76 | 18.683 | |
| 11,515.7 | 6,865.1 | 6,826.1 | 6,826.1 | 136.1 | 136.8 | 90.00 | -1,153.8 | -32.6 | 5,074.3 | 4,803.1 | 271.20 | 18.711 | |
| 11,600.0 | 6,865.1 | 6,826.1 | 6,826.1 | 138.4 | 136.8 | 90.00 | -1,153.8 | -32.6 | 5,158.1 | 4,884.6 | 273.54 | 18.857 | |
| 11,614.1 | 6,865.1 | 6,826.1 | 6,826.1 | 138.8 | 136.8 | 90.00 | -1,153.8 | -32.6 | 5,172.2 | 4,898.3 | 273.93 | 18.881 | |
| 11,700.0 | 6,865.1 | 6,826.1 | 6,826.1 | 141.2 | 136.8 | 90.00 | -1,153.8 | -32.6 | 5,257.6 | 4,981.3 | 276.32 | 19.027 | |
| 11,712.6 | 6,865.1 | 6,826.1 | 6,826.1 | 141.5 | 136.8 | 90.00 | -1,153.8 | -32.6 | 5,270.1 | 4,993.5 | 276.67 | 19.049 | |
| 11,800.0 | 6,865.1 | 6,826.1 | 6,826.1 | 143.9 | 136.8 | 90.00 | -1,153.8 | -32.6 | 5,357.2 | 5,078.1 | 279.10 | 19.195 | |
| 11,811.0 | 6,865.1 | 6,826.1 | 6,826.1 | 144.2 | 136.8 | 90.00 | -1,153.8 | -32.6 | 5,368.1 | 5,088.7 | 279.40 | 19.213 | |
| 11,900.0 | 6,865.1 | 6,826.1 | 6,826.1 | 146.7 | 136.8 | 90.00 | -1,153.8 | -32.6 | 5,456.7 | 5,174.8 | 281.88 | 19.358 | |
| 11,909.4 | 6,865.1 | 6,826.1 | 6,826.1 | 146.9 | 136.8 | 90.00 | -1,153.8 | -32.6 | 5,466.1 | 5,183.9 | 282.14 | 19.373 | |
| 12,000.0 | 6,865.1 | 6,826.1 | 6,826.1 | 149.4 | 136.8 | 89.99 | -1,153.8 | -32.6 | 5,556.3 | 5,271.6 | 284.66 | 19.519 | |
| 12,007.8 | 6,865.1 | 6,826.1 | 6,826.1 | 149.6 | 136.8 | 89.99 | -1,153.8 | -32.6 | 5,564.1 | 5,279.2 | 284.88 | 19.531 | |

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

Anticollision Report



| | | | |
|---------------------------|---------------------------------|-------------------------------------|--|
| Company: | EXTRACTION OIL & GAS | Local Co-ordinate Reference: | Well VETTING 17 |
| Project: | WELD COUNTY, COLORADO (NAD 83) | TVD Reference: | KB-EST @ 4664.0usft (Original Well Elev) |
| Reference Site: | SW NW SEC. 15 T5N R65W 6th P.M. | MD Reference: | KB-EST @ 4664.0usft (Original Well Elev) |
| Site Error: | 0.0 usft | North Reference: | True |
| Reference Well: | VETTING 17 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | EDM 5000.1 Single User Db |
| Reference Design: | PROPOSAL #2 | Offset TVD Reference: | Offset Datum |

| Offset Design | | | | | | | | | | | | Offset Site Error: | 0.0 usft |
|-----------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|---------------------------|--------------------|----------|
| Survey Program: 0-INC | | | | | | | | | | | | Offset Well Error: | 0.0 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | |
| 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) | Minimum Separation (usft) | Separation Factor | Warning |
| 12,100.0 | 6,865.1 | 6,826.1 | 6,826.1 | 152.2 | 136.8 | 89.99 | -1,153.8 | -32.6 | 5,655.8 | 5,368.4 | 287.45 | 19.676 | |
| 12,106.3 | 6,865.1 | 6,826.1 | 6,826.1 | 152.3 | 136.8 | 89.99 | -1,153.8 | -32.6 | 5,662.1 | 5,374.5 | 287.62 | 19.686 | |
| 12,200.0 | 6,865.1 | 6,826.1 | 6,826.1 | 154.9 | 136.8 | 89.99 | -1,153.8 | -32.6 | 5,755.4 | 5,465.2 | 290.23 | 19.830 | |
| 12,204.7 | 6,865.1 | 6,826.1 | 6,826.1 | 155.1 | 136.8 | 89.99 | -1,153.8 | -32.6 | 5,760.1 | 5,469.7 | 290.36 | 19.838 | |
| 12,300.0 | 6,865.1 | 6,826.1 | 6,826.1 | 157.7 | 136.8 | 89.99 | -1,153.8 | -32.6 | 5,855.0 | 5,562.0 | 293.02 | 19.982 | |
| 12,303.1 | 6,865.1 | 6,826.1 | 6,826.1 | 157.8 | 136.8 | 89.99 | -1,153.8 | -32.6 | 5,858.1 | 5,565.0 | 293.10 | 19.987 | |
| 12,400.0 | 6,865.1 | 6,826.1 | 6,826.1 | 160.4 | 136.8 | 89.99 | -1,153.8 | -32.6 | 5,954.6 | 5,658.8 | 295.80 | 20.130 | |
| 12,401.5 | 6,865.1 | 6,826.1 | 6,826.1 | 160.5 | 136.8 | 89.99 | -1,153.8 | -32.6 | 5,956.2 | 5,660.3 | 295.85 | 20.133 | |
| 12,500.0 | 6,865.1 | 6,826.1 | 6,826.1 | 163.2 | 136.8 | 89.99 | -1,153.8 | -32.6 | 6,054.3 | 5,755.7 | 298.59 | 20.276 | |
| 12,598.4 | 6,865.1 | 6,826.1 | 6,826.1 | 165.9 | 136.8 | 89.99 | -1,153.8 | -32.6 | 6,152.3 | 5,851.0 | 301.33 | 20.417 | |
| 12,600.0 | 6,865.1 | 6,826.1 | 6,826.1 | 166.0 | 136.8 | 89.99 | -1,153.8 | -32.6 | 6,153.9 | 5,852.5 | 301.38 | 20.419 | |
| 12,696.8 | 6,865.1 | 6,826.1 | 6,826.1 | 168.6 | 136.8 | 89.99 | -1,153.8 | -32.6 | 6,250.4 | 5,946.3 | 304.08 | 20.555 | |
| 12,700.0 | 6,865.1 | 6,826.1 | 6,826.1 | 168.7 | 136.8 | 89.99 | -1,153.8 | -32.6 | 6,253.6 | 5,949.4 | 304.17 | 20.560 | |
| 12,795.2 | 6,865.1 | 6,826.1 | 6,826.1 | 171.4 | 136.8 | 89.99 | -1,153.8 | -32.6 | 6,348.5 | 6,041.7 | 306.82 | 20.691 | |
| 12,800.0 | 6,865.1 | 6,826.1 | 6,826.1 | 171.5 | 136.8 | 89.98 | -1,153.8 | -32.6 | 6,353.2 | 6,046.3 | 306.96 | 20.697 | |
| 12,893.7 | 6,865.1 | 6,826.1 | 6,826.1 | 174.1 | 136.8 | 89.98 | -1,153.8 | -32.6 | 6,446.6 | 6,137.0 | 309.57 | 20.824 | |
| 12,900.0 | 6,865.1 | 6,826.1 | 6,826.1 | 174.3 | 136.8 | 89.98 | -1,153.8 | -32.6 | 6,452.9 | 6,143.1 | 309.75 | 20.833 | |
| 12,992.1 | 6,865.1 | 6,826.1 | 6,826.1 | 176.8 | 136.8 | 89.98 | -1,153.8 | -32.6 | 6,544.7 | 6,232.4 | 312.32 | 20.955 | |
| 13,000.0 | 6,865.1 | 6,826.1 | 6,826.1 | 177.0 | 136.8 | 89.98 | -1,153.8 | -32.6 | 6,552.6 | 6,240.0 | 312.54 | 20.966 | |
| 13,090.5 | 6,865.1 | 6,826.1 | 6,826.1 | 179.5 | 136.8 | 89.98 | -1,153.8 | -32.6 | 6,642.8 | 6,327.8 | 315.06 | 21.084 | |
| 13,100.0 | 6,865.1 | 6,826.1 | 6,826.1 | 179.8 | 136.8 | 89.98 | -1,153.8 | -32.6 | 6,652.3 | 6,336.9 | 315.33 | 21.096 | |
| 13,188.9 | 6,865.1 | 6,826.1 | 6,826.1 | 182.3 | 136.8 | 89.98 | -1,153.8 | -32.6 | 6,740.9 | 6,423.1 | 317.81 | 21.210 | |
| 13,200.0 | 6,865.1 | 6,826.1 | 6,826.1 | 182.6 | 136.8 | 89.98 | -1,153.8 | -32.6 | 6,752.0 | 6,433.8 | 318.12 | 21.225 | |
| 13,287.4 | 6,865.1 | 6,826.1 | 6,826.1 | 185.0 | 136.8 | 89.98 | -1,153.8 | -32.6 | 6,839.1 | 6,518.5 | 320.56 | 21.335 | |
| 13,300.0 | 6,865.1 | 6,826.1 | 6,826.1 | 185.3 | 136.8 | 89.98 | -1,153.8 | -32.6 | 6,851.7 | 6,530.8 | 320.91 | 21.351 | |
| 13,385.8 | 6,865.1 | 6,826.1 | 6,826.1 | 187.7 | 136.8 | 89.98 | -1,153.8 | -32.6 | 6,937.2 | 6,613.9 | 323.31 | 21.457 | |
| 13,400.0 | 6,865.1 | 6,826.1 | 6,826.1 | 188.1 | 136.8 | 89.98 | -1,153.8 | -32.6 | 6,951.4 | 6,627.7 | 323.71 | 21.474 | |
| 13,484.2 | 6,865.1 | 6,826.1 | 6,826.1 | 190.5 | 136.8 | 89.97 | -1,153.8 | -32.6 | 7,035.4 | 6,709.3 | 326.06 | 21.577 | |
| 13,500.0 | 6,865.1 | 6,826.1 | 6,826.1 | 190.9 | 136.8 | 89.97 | -1,153.8 | -32.6 | 7,051.1 | 6,724.6 | 326.50 | 21.596 | |
| 13,582.6 | 6,865.1 | 6,826.1 | 6,826.1 | 193.2 | 136.8 | 89.97 | -1,153.8 | -32.6 | 7,133.5 | 6,804.7 | 328.81 | 21.695 | |
| 13,600.0 | 6,865.1 | 6,826.1 | 6,826.1 | 193.7 | 136.8 | 89.97 | -1,153.8 | -32.6 | 7,150.9 | 6,821.6 | 329.29 | 21.716 | |
| 13,681.1 | 6,865.1 | 6,826.1 | 6,826.1 | 195.9 | 136.8 | 89.97 | -1,153.8 | -32.6 | 7,231.7 | 6,900.2 | 331.56 | 21.811 | |
| 13,700.0 | 6,865.1 | 6,826.1 | 6,826.1 | 196.4 | 136.8 | 89.97 | -1,153.8 | -32.6 | 7,250.6 | 6,918.5 | 332.09 | 21.833 | |
| 13,779.5 | 6,865.1 | 6,826.1 | 6,826.1 | 198.6 | 136.8 | 89.97 | -1,153.8 | -32.6 | 7,329.9 | 6,995.6 | 334.31 | 21.925 | |
| 13,800.0 | 6,865.1 | 6,826.1 | 6,826.1 | 199.2 | 136.8 | 89.97 | -1,153.8 | -32.6 | 7,350.3 | 7,015.5 | 334.88 | 21.949 | |
| 13,877.9 | 6,865.1 | 6,826.1 | 6,826.1 | 201.4 | 136.8 | 89.97 | -1,153.8 | -32.6 | 7,428.1 | 7,091.0 | 337.06 | 22.038 | |
| 13,900.0 | 6,865.1 | 6,826.1 | 6,826.1 | 202.0 | 136.8 | 89.97 | -1,153.8 | -32.6 | 7,450.1 | 7,112.4 | 337.68 | 22.063 | |
| 13,976.3 | 6,865.1 | 6,826.1 | 6,826.1 | 204.1 | 136.8 | 89.97 | -1,153.8 | -32.6 | 7,526.3 | 7,186.5 | 339.81 | 22.148 | |
| 14,000.0 | 6,865.1 | 6,826.1 | 6,826.1 | 204.8 | 136.8 | 89.96 | -1,153.8 | -32.6 | 7,549.9 | 7,209.4 | 340.47 | 22.175 | |
| 14,074.8 | 6,865.1 | 6,826.1 | 6,826.1 | 206.9 | 136.8 | 89.96 | -1,153.8 | -32.6 | 7,624.5 | 7,281.9 | 342.56 | 22.257 | |
| 14,100.0 | 6,865.1 | 6,826.1 | 6,826.1 | 207.6 | 136.8 | 89.96 | -1,153.8 | -32.6 | 7,649.6 | 7,306.4 | 343.27 | 22.285 | |
| 14,173.2 | 6,865.1 | 6,826.1 | 6,826.1 | 209.6 | 136.8 | 89.96 | -1,153.8 | -32.6 | 7,722.7 | 7,377.3 | 345.32 | 22.364 | |
| 14,200.0 | 6,865.1 | 6,826.1 | 6,826.1 | 210.3 | 136.8 | 89.96 | -1,153.8 | -32.6 | 7,749.4 | 7,403.3 | 346.07 | 22.393 | |
| 14,271.6 | 6,865.1 | 6,826.1 | 6,826.1 | 212.3 | 136.8 | 89.96 | -1,153.8 | -32.6 | 7,820.9 | 7,472.8 | 348.07 | 22.469 | |
| 14,300.0 | 6,865.1 | 6,826.1 | 6,826.1 | 213.1 | 136.8 | 89.96 | -1,153.8 | -32.6 | 7,849.2 | 7,500.3 | 348.86 | 22.499 | |
| 14,370.0 | 6,865.1 | 6,826.1 | 6,826.1 | 215.1 | 136.8 | 89.96 | -1,153.8 | -32.6 | 7,919.1 | 7,568.3 | 350.82 | 22.573 | |
| 14,400.0 | 6,865.0 | 6,826.0 | 6,826.0 | 215.9 | 136.8 | 89.96 | -1,153.8 | -32.6 | 7,949.0 | 7,597.3 | 351.66 | 22.604 | |
| 14,468.5 | 6,865.0 | 6,826.0 | 6,826.0 | 217.8 | 136.8 | 89.96 | -1,153.8 | -32.6 | 8,017.3 | 7,663.7 | 353.58 | 22.675 | |
| 14,500.0 | 6,865.0 | 6,826.0 | 6,826.0 | 218.7 | 136.8 | 89.96 | -1,153.8 | -32.6 | 8,048.8 | 7,694.3 | 354.46 | 22.707 | |
| 14,566.9 | 6,865.0 | 6,826.0 | 6,826.0 | 220.6 | 136.8 | 89.96 | -1,153.8 | -32.6 | 8,115.5 | 7,759.2 | 356.33 | 22.775 | |
| 14,600.0 | 6,865.0 | 6,826.0 | 6,826.0 | 221.5 | 136.8 | 89.95 | -1,153.8 | -32.6 | 8,148.6 | 7,791.3 | 357.26 | 22.809 | |
| 14,665.3 | 6,865.0 | 6,826.0 | 6,826.0 | 223.3 | 136.8 | 89.95 | -1,153.8 | -32.6 | 8,213.7 | 7,854.7 | 359.08 | 22.874 | |

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

Anticollision Report



| | | | |
|---------------------------|---------------------------------|-------------------------------------|--|
| Company: | EXTRACTION OIL & GAS | Local Co-ordinate Reference: | Well VETTING 17 |
| Project: | WELD COUNTY, COLORADO (NAD 83) | TVD Reference: | KB-EST @ 4664.0usft (Original Well Elev) |
| Reference Site: | SW NW SEC. 15 T5N R65W 6th P.M. | MD Reference: | KB-EST @ 4664.0usft (Original Well Elev) |
| Site Error: | 0.0 usft | North Reference: | True |
| Reference Well: | VETTING 17 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | EDM 5000.1 Single User Db |
| Reference Design: | PROPOSAL #2 | Offset TVD Reference: | Offset Datum |

| Offset Design | | SW NW SEC. 15 T5N R65W 6th P.M. - EXIST VERT HARRINGTON #1 - Wellbore #1 - Design #1 | | | | | | | | | | Offset Site Error: | 0.0 usft |
|-----------------------|-----------------------|--|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|---------------------------|---------------------------|----------|
| Survey Program: 0-INC | | | | | | | | | | | | Offset Well Error: | 0.0 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | |
| 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) | Minimum Separation (usft) | Separation Factor | Warning |
| 14,700.0 | 6,865.0 | 6,826.0 | 6,826.0 | 224.3 | 136.8 | 89.95 | -1,153.8 | -32.6 | 8,248.4 | 7,888.3 | 360.05 | 22.909 | |
| 14,763.7 | 6,865.0 | 6,826.0 | 6,826.0 | 226.0 | 136.8 | 89.95 | -1,153.8 | -32.6 | 8,312.0 | 7,950.1 | 361.84 | 22.972 | |
| 14,800.0 | 6,865.0 | 6,826.0 | 6,826.0 | 227.0 | 136.8 | 89.95 | -1,153.8 | -32.6 | 8,348.2 | 7,985.3 | 362.85 | 23.007 | |
| 14,862.2 | 6,865.0 | 6,826.0 | 6,826.0 | 228.8 | 136.8 | 89.95 | -1,153.8 | -32.6 | 8,410.2 | 8,045.6 | 364.59 | 23.068 | |
| 14,900.0 | 6,865.0 | 6,826.0 | 6,826.0 | 229.8 | 136.8 | 89.95 | -1,153.8 | -32.6 | 8,448.0 | 8,082.3 | 365.65 | 23.104 | |
| 14,960.6 | 6,865.0 | 6,826.0 | 6,826.0 | 231.5 | 136.8 | 89.95 | -1,153.8 | -32.6 | 8,508.5 | 8,141.1 | 367.35 | 23.162 | |
| 15,000.0 | 6,865.0 | 6,826.0 | 6,826.0 | 232.6 | 136.8 | 89.95 | -1,153.8 | -32.6 | 8,547.8 | 8,179.3 | 368.45 | 23.199 | |
| 15,059.0 | 6,865.0 | 6,826.0 | 6,826.0 | 234.3 | 136.8 | 89.94 | -1,153.8 | -32.6 | 8,606.7 | 8,236.6 | 370.10 | 23.255 | |
| 15,100.0 | 6,865.0 | 6,826.0 | 6,826.0 | 235.4 | 136.8 | 89.94 | -1,153.8 | -32.6 | 8,647.6 | 8,276.4 | 371.25 | 23.293 | |
| 15,157.4 | 6,865.0 | 6,826.0 | 6,826.0 | 237.0 | 136.8 | 89.94 | -1,153.8 | -32.6 | 8,705.0 | 8,332.1 | 372.86 | 23.347 | |
| 15,200.0 | 6,865.0 | 6,826.0 | 6,826.0 | 238.2 | 136.8 | 89.94 | -1,153.8 | -32.6 | 8,747.4 | 8,373.4 | 374.05 | 23.386 | |
| 15,255.9 | 6,865.0 | 6,826.0 | 6,826.0 | 239.8 | 136.8 | 89.94 | -1,153.8 | -32.6 | 8,803.2 | 8,427.6 | 375.61 | 23.437 | |
| 15,284.8 | 6,865.0 | 6,826.0 | 6,826.0 | 240.6 | 136.8 | 89.94 | -1,153.8 | -32.6 | 8,832.1 | 8,455.6 | 376.42 | 23.463 | |

Anticollision Report



| | | | |
|---------------------------|---------------------------------|-------------------------------------|--|
| Company: | EXTRACTION OIL & GAS | Local Co-ordinate Reference: | Well VETTING 17 |
| Project: | WELD COUNTY, COLORADO (NAD 83) | TVD Reference: | KB-EST @ 4664.0usft (Original Well Elev) |
| Reference Site: | SW NW SEC. 15 T5N R65W 6th P.M. | MD Reference: | KB-EST @ 4664.0usft (Original Well Elev) |
| Site Error: | 0.0 usft | North Reference: | True |
| Reference Well: | VETTING 17 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | EDM 5000.1 Single User Db |
| Reference Design: | PROPOSAL #2 | Offset TVD Reference: | Offset Datum |

| Offset Design | | | | | | | | | | | | Offset Site Error: | 0.0 usft |
|----------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|---------------------------|--------------------|----------|
| Survey Program: 100-GYD_CT | | | | | | | | | | | | Offset Well Error: | 0.0 usft |
| Reference | Offset | Semi Major Axis | | Distance | | | | | | | | | |
| 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) | Minimum Separation (usft) | Separation Factor | Warning |
| 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 16.19 | 47.0 | 13.6 | 52.1 | | | | |
| 98.4 | 98.4 | 80.5 | 80.5 | 0.1 | 0.0 | 16.45 | 46.9 | 13.8 | 48.9 | 48.8 | 0.14 | 352.602 | |
| 100.0 | 100.0 | 82.1 | 82.1 | 0.1 | 0.0 | 16.46 | 46.9 | 13.9 | 48.9 | 48.7 | 0.14 | 345.925 | |
| 196.8 | 196.8 | 178.9 | 178.9 | 0.3 | 0.2 | 17.24 | 46.6 | 14.4 | 48.7 | 48.2 | 0.50 | 98.242 | |
| 200.0 | 200.0 | 182.1 | 182.1 | 0.3 | 0.2 | 17.26 | 46.5 | 14.5 | 48.7 | 48.2 | 0.51 | 95.884 | |
| 295.3 | 295.3 | 277.5 | 277.5 | 0.5 | 0.3 | 17.89 | 46.1 | 14.9 | 48.5 | 47.7 | 0.81 | 59.905 | |
| 300.0 | 300.0 | 282.2 | 282.2 | 0.5 | 0.3 | 17.91 | 46.1 | 14.9 | 48.5 | 47.6 | 0.82 | 58.851 | |
| 393.7 | 393.7 | 376.0 | 376.0 | 0.8 | 0.3 | 18.06 | 45.6 | 14.9 | 48.0 | 46.9 | 1.10 | 43.677 | |
| 400.0 | 400.0 | 382.3 | 382.3 | 0.8 | 0.4 | 18.06 | 45.6 | 14.9 | 47.9 | 46.8 | 1.12 | 42.921 | |
| 492.1 | 492.1 | 474.5 | 474.5 | 1.0 | 0.4 | 17.91 | 45.0 | 14.5 | 47.3 | 45.9 | 1.38 | 34.208 | |
| 500.0 | 500.0 | 482.3 | 482.3 | 1.0 | 0.4 | 17.89 | 44.9 | 14.5 | 47.2 | 45.8 | 1.40 | 33.619 | |
| 590.5 | 590.5 | 572.9 | 572.8 | 1.2 | 0.5 | 17.59 | 44.4 | 14.1 | 46.6 | 45.0 | 1.66 | 28.107 | |
| 600.0 | 600.0 | 582.3 | 582.3 | 1.2 | 0.5 | 17.55 | 44.4 | 14.0 | 46.6 | 44.9 | 1.69 | 27.632 | |
| 617.2 | 617.2 | 599.5 | 599.5 | 1.3 | 0.5 | -178.47 | 44.3 | 13.9 | 46.5 | 44.8 | 1.73 | 26.941 CC, ES | |
| 689.0 | 689.0 | 671.3 | 671.3 | 1.4 | 0.5 | -178.82 | 44.0 | 13.6 | 47.4 | 45.5 | 1.91 | 24.830 | |
| 700.0 | 700.0 | 682.3 | 682.3 | 1.4 | 0.5 | -178.87 | 43.9 | 13.5 | 47.7 | 45.7 | 1.94 | 24.616 | |
| 787.4 | 787.3 | 769.6 | 769.6 | 1.6 | 0.6 | -179.31 | 43.4 | 13.0 | 51.4 | 49.3 | 2.15 | 23.932 SF | |
| 800.0 | 799.8 | 782.2 | 782.2 | 1.6 | 0.6 | -179.37 | 43.3 | 13.0 | 52.2 | 50.0 | 2.18 | 23.947 | |
| 885.8 | 885.4 | 867.7 | 867.7 | 1.8 | 0.6 | -179.81 | 42.9 | 12.4 | 58.9 | 56.5 | 2.40 | 24.540 | |
| 900.0 | 899.5 | 881.8 | 881.8 | 1.8 | 0.6 | -179.88 | 42.9 | 12.4 | 60.3 | 57.9 | 2.44 | 24.737 | |
| 984.2 | 983.1 | 965.4 | 965.4 | 2.0 | 0.6 | 179.75 | 42.6 | 11.8 | 70.0 | 67.3 | 2.66 | 26.268 | |
| 1,000.0 | 998.7 | 981.0 | 981.0 | 2.0 | 0.7 | 179.68 | 42.6 | 11.7 | 72.0 | 69.3 | 2.70 | 26.635 | |
| 1,082.7 | 1,080.4 | 1,062.6 | 1,062.6 | 2.3 | 0.7 | 179.29 | 42.5 | 11.1 | 84.5 | 81.5 | 2.93 | 28.799 | |
| 1,100.0 | 1,097.5 | 1,079.7 | 1,079.7 | 2.3 | 0.7 | 179.22 | 42.5 | 10.9 | 87.4 | 84.4 | 2.98 | 29.322 | |
| 1,181.1 | 1,177.1 | 1,159.2 | 1,159.2 | 2.6 | 0.7 | 178.89 | 42.6 | 10.1 | 102.5 | 99.3 | 3.21 | 31.923 | |
| 1,200.0 | 1,195.6 | 1,177.7 | 1,177.7 | 2.7 | 0.7 | 178.82 | 42.6 | 9.9 | 106.3 | 103.1 | 3.26 | 32.583 | |
| 1,279.5 | 1,273.2 | 1,254.9 | 1,254.9 | 3.0 | 0.8 | 178.55 | 42.9 | 9.1 | 124.0 | 120.5 | 3.50 | 35.445 | |
| 1,300.0 | 1,293.1 | 1,274.7 | 1,274.7 | 3.1 | 0.8 | 178.48 | 43.0 | 8.8 | 128.9 | 125.4 | 3.56 | 36.238 | |
| 1,377.9 | 1,368.4 | 1,349.1 | 1,349.1 | 3.4 | 0.8 | 178.27 | 43.7 | 8.0 | 149.3 | 145.5 | 3.80 | 39.292 | |
| 1,400.0 | 1,389.6 | 1,369.9 | 1,369.9 | 3.5 | 0.8 | 178.22 | 44.0 | 7.7 | 155.5 | 151.6 | 3.87 | 40.214 | |
| 1,476.4 | 1,462.8 | 1,441.5 | 1,441.4 | 3.9 | 0.8 | 178.09 | 45.3 | 7.1 | 178.6 | 174.5 | 4.11 | 43.408 | |
| 1,500.0 | 1,485.3 | 1,463.4 | 1,463.3 | 4.0 | 0.8 | 178.07 | 45.7 | 6.9 | 186.2 | 182.0 | 4.19 | 44.450 | |
| 1,574.8 | 1,556.1 | 1,532.8 | 1,532.7 | 4.5 | 0.8 | 178.09 | 47.5 | 6.7 | 212.0 | 207.5 | 4.44 | 47.700 | |
| 1,600.0 | 1,579.8 | 1,556.2 | 1,556.1 | 4.6 | 0.8 | 178.11 | 48.1 | 6.7 | 221.1 | 216.6 | 4.53 | 48.851 | |
| 1,621.5 | 1,600.0 | 1,576.1 | 1,576.0 | 4.7 | 0.8 | 178.14 | 48.7 | 6.7 | 229.0 | 224.4 | 4.60 | 49.805 | |
| 1,673.2 | 1,648.5 | 1,623.7 | 1,623.5 | 5.0 | 0.8 | 178.23 | 50.0 | 6.9 | 248.4 | 243.6 | 4.75 | 52.237 | |
| 1,686.5 | 1,660.9 | 1,635.8 | 1,635.7 | 5.1 | 0.8 | 178.25 | 50.3 | 6.9 | 253.4 | 248.6 | 4.80 | 52.811 | |
| 1,696.3 | 1,670.1 | 1,644.8 | 1,644.7 | 5.2 | 0.8 | 178.27 | 50.5 | 7.0 | 257.1 | 252.2 | 4.83 | 53.214 | |
| 1,700.0 | 1,673.5 | 1,648.2 | 1,648.0 | 5.2 | 0.8 | 178.28 | 50.6 | 7.0 | 258.5 | 253.6 | 4.84 | 53.375 | |
| 1,771.6 | 1,740.6 | 1,713.7 | 1,713.6 | 5.7 | 0.9 | 178.42 | 52.6 | 7.5 | 285.7 | 280.7 | 5.07 | 56.375 | |
| 1,800.0 | 1,767.1 | 1,740.0 | 1,739.8 | 5.9 | 0.9 | 178.49 | 53.4 | 7.7 | 296.5 | 291.4 | 5.16 | 57.460 | |
| 1,870.1 | 1,832.7 | 1,804.9 | 1,804.7 | 6.3 | 0.9 | 178.65 | 55.3 | 8.5 | 323.3 | 317.9 | 5.39 | 60.007 | |
| 1,900.0 | 1,860.7 | 1,832.6 | 1,832.4 | 6.5 | 0.9 | 178.73 | 56.1 | 8.9 | 334.7 | 329.2 | 5.48 | 61.028 | |
| 1,968.5 | 1,924.8 | 1,896.1 | 1,895.9 | 7.0 | 0.9 | 178.93 | 57.8 | 10.0 | 360.7 | 355.0 | 5.71 | 63.218 | |
| 2,000.0 | 1,954.3 | 1,924.8 | 1,924.5 | 7.2 | 0.9 | 179.02 | 58.5 | 10.6 | 372.7 | 366.9 | 5.81 | 64.152 | |
| 2,066.9 | 2,016.9 | 1,985.5 | 1,985.2 | 7.7 | 0.9 | 179.24 | 60.2 | 12.1 | 398.4 | 392.4 | 6.03 | 66.028 | |
| 2,100.0 | 2,047.9 | 2,016.0 | 2,015.7 | 7.9 | 0.9 | 179.35 | 61.1 | 12.9 | 411.1 | 405.0 | 6.14 | 66.913 | |
| 2,165.3 | 2,109.1 | 2,077.5 | 2,077.1 | 8.3 | 0.9 | 179.59 | 62.7 | 14.9 | 436.2 | 429.8 | 6.36 | 68.542 | |
| 2,200.0 | 2,141.5 | 2,110.1 | 2,109.7 | 8.6 | 0.9 | 179.73 | 63.4 | 16.1 | 449.4 | 442.9 | 6.48 | 69.355 | |
| 2,263.8 | 2,201.2 | 2,170.3 | 2,169.8 | 9.0 | 1.0 | 179.98 | 64.6 | 18.3 | 473.6 | 466.9 | 6.69 | 70.769 | |
| 2,300.0 | 2,235.1 | 2,204.5 | 2,204.0 | 9.2 | 1.0 | -179.87 | 65.2 | 19.7 | 487.3 | 480.5 | 6.81 | 71.518 | |
| 2,362.2 | 2,293.3 | 2,263.4 | 2,262.8 | 9.7 | 1.0 | -179.63 | 66.1 | 22.0 | 510.7 | 503.6 | 7.02 | 72.714 | |

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

Anticollision Report



| | | | |
|---------------------------|---------------------------------|-------------------------------------|--|
| Company: | EXTRACTION OIL & GAS | Local Co-ordinate Reference: | Well VETTING 17 |
| Project: | WELD COUNTY, COLORADO (NAD 83) | TVD Reference: | KB-EST @ 4664.0usft (Original Well Elev) |
| Reference Site: | SW NW SEC. 15 T5N R65W 6th P.M. | MD Reference: | KB-EST @ 4664.0usft (Original Well Elev) |
| Site Error: | 0.0 usft | North Reference: | True |
| Reference Well: | VETTING 17 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | EDM 5000.1 Single User Db |
| Reference Design: | PROPOSAL #2 | Offset TVD Reference: | Offset Datum |

| Offset Design | | | | | | | | | | | | Offset Site Error: | 0.0 usft |
|----------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|---------------------------|--------------------|----------|
| Survey Program: 100-GYD_CT | | | | | | | | | | | | Offset Well Error: | 0.0 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | 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) | Minimum Separation (usft) | Separation Factor | |
| 2,400.0 | 2,328.7 | 2,299.2 | 2,298.6 | 9.9 | 1.0 | -179.50 | 66.6 | 23.4 | 524.8 | 517.7 | 7.15 | 73.392 | |
| 2,460.6 | 2,385.4 | 2,356.7 | 2,356.0 | 10.4 | 1.0 | -179.28 | 67.2 | 25.8 | 547.4 | 540.1 | 7.36 | 74.404 | |
| 2,500.0 | 2,422.3 | 2,394.0 | 2,393.3 | 10.6 | 1.0 | -179.14 | 67.5 | 27.4 | 562.0 | 554.5 | 7.49 | 75.019 | |
| 2,559.0 | 2,477.5 | 2,448.9 | 2,448.1 | 11.0 | 1.0 | -178.94 | 67.9 | 29.8 | 583.9 | 576.2 | 7.70 | 75.871 | |
| 2,600.0 | 2,515.9 | 2,486.8 | 2,486.0 | 11.3 | 1.0 | -178.81 | 68.1 | 31.5 | 599.1 | 591.2 | 7.84 | 76.434 | |
| 2,657.5 | 2,569.6 | 2,539.7 | 2,538.9 | 11.7 | 1.0 | -178.64 | 68.5 | 33.8 | 620.4 | 612.3 | 8.04 | 77.170 | |
| 2,700.0 | 2,609.4 | 2,578.8 | 2,578.0 | 12.0 | 1.0 | -178.52 | 68.8 | 35.5 | 636.2 | 628.0 | 8.19 | 77.691 | |
| 2,755.9 | 2,661.8 | 2,630.7 | 2,629.8 | 12.4 | 1.1 | -178.37 | 69.3 | 37.8 | 657.0 | 648.6 | 8.39 | 78.342 | |
| 2,800.0 | 2,703.0 | 2,671.9 | 2,670.9 | 12.7 | 1.1 | -178.25 | 69.6 | 39.7 | 673.4 | 664.8 | 8.54 | 78.833 | |
| 2,854.3 | 2,753.9 | 2,722.5 | 2,721.4 | 13.1 | 1.1 | -178.11 | 70.0 | 42.0 | 693.6 | 684.8 | 8.73 | 79.405 | |
| 2,900.0 | 2,796.6 | 2,764.8 | 2,763.7 | 13.4 | 1.1 | -178.01 | 70.3 | 43.9 | 710.5 | 701.6 | 8.90 | 79.868 | |
| 2,952.7 | 2,846.0 | 2,813.7 | 2,812.6 | 13.8 | 1.1 | -177.89 | 70.7 | 46.1 | 730.1 | 721.0 | 9.08 | 80.377 | |
| 3,000.0 | 2,890.2 | 2,857.6 | 2,856.4 | 14.1 | 1.1 | -177.80 | 71.0 | 48.0 | 747.7 | 738.4 | 9.25 | 80.812 | |
| 3,051.2 | 2,938.1 | 2,905.2 | 2,904.1 | 14.5 | 1.1 | -177.72 | 71.5 | 49.9 | 766.7 | 757.3 | 9.44 | 81.263 | |
| 3,100.0 | 2,983.8 | 2,952.3 | 2,951.0 | 14.8 | 1.1 | -177.64 | 71.8 | 51.8 | 784.8 | 775.2 | 9.61 | 81.676 | |
| 3,149.6 | 3,030.2 | 3,000.0 | 2,998.7 | 15.2 | 1.1 | -177.56 | 72.1 | 53.7 | 803.1 | 793.3 | 9.79 | 82.067 | |
| 3,200.0 | 3,077.4 | 3,046.3 | 3,045.0 | 15.5 | 1.2 | -177.49 | 72.4 | 55.4 | 821.6 | 811.7 | 9.97 | 82.446 | |
| 3,248.0 | 3,122.3 | 3,090.2 | 3,088.9 | 15.9 | 1.2 | -177.44 | 72.7 | 57.0 | 839.3 | 829.2 | 10.14 | 82.796 | |
| 3,300.0 | 3,171.0 | 3,139.6 | 3,138.3 | 16.2 | 1.2 | -177.39 | 73.1 | 58.7 | 858.5 | 848.2 | 10.32 | 83.155 | |
| 3,346.4 | 3,214.5 | 3,184.2 | 3,182.8 | 16.6 | 1.2 | -177.36 | 73.4 | 60.0 | 875.6 | 865.1 | 10.49 | 83.455 | |
| 3,400.0 | 3,264.6 | 3,237.1 | 3,235.7 | 16.9 | 1.2 | -177.32 | 73.7 | 61.5 | 895.1 | 884.4 | 10.68 | 83.793 | |
| 3,444.9 | 3,306.6 | 3,282.1 | 3,280.6 | 17.2 | 1.2 | -177.30 | 73.7 | 62.7 | 911.4 | 900.5 | 10.84 | 84.054 | |
| 3,500.0 | 3,358.2 | 3,336.0 | 3,334.6 | 17.6 | 1.2 | -177.27 | 73.7 | 64.1 | 931.1 | 920.1 | 11.04 | 84.352 | |
| 3,543.3 | 3,398.7 | 3,378.0 | 3,376.5 | 17.9 | 1.2 | -177.25 | 73.6 | 65.1 | 946.6 | 935.4 | 11.19 | 84.570 | |
| 3,600.0 | 3,451.7 | 3,432.3 | 3,430.9 | 18.3 | 1.2 | -177.23 | 73.4 | 66.4 | 966.7 | 955.3 | 11.40 | 84.833 | |
| 3,641.7 | 3,490.8 | 3,472.1 | 3,470.6 | 18.6 | 1.3 | -177.22 | 73.2 | 67.2 | 981.5 | 969.9 | 11.55 | 85.012 | |
| 3,700.0 | 3,545.3 | 3,526.9 | 3,525.4 | 19.0 | 1.3 | -177.20 | 72.9 | 68.4 | 1,002.1 | 990.4 | 11.76 | 85.248 | |
| 3,740.1 | 3,582.9 | 3,564.3 | 3,562.8 | 19.3 | 1.3 | -177.19 | 72.7 | 69.2 | 1,016.3 | 1,004.4 | 11.90 | 85.402 | |
| 3,800.0 | 3,638.9 | 3,621.0 | 3,619.5 | 19.8 | 1.3 | -177.18 | 72.4 | 70.4 | 1,037.5 | 1,025.4 | 12.12 | 85.626 | |
| 3,838.6 | 3,675.0 | 3,658.7 | 3,657.1 | 20.0 | 1.3 | -177.16 | 72.2 | 71.3 | 1,051.1 | 1,038.8 | 12.26 | 85.755 | |
| 3,900.0 | 3,732.5 | 3,717.5 | 3,716.0 | 20.5 | 1.3 | -177.13 | 71.6 | 72.7 | 1,072.6 | 1,060.2 | 12.48 | 85.951 | |
| 3,937.0 | 3,767.1 | 3,751.4 | 3,749.9 | 20.7 | 1.3 | -177.12 | 71.3 | 73.5 | 1,085.6 | 1,073.0 | 12.61 | 86.065 | |
| 4,000.0 | 3,826.1 | 3,809.1 | 3,807.6 | 21.2 | 1.3 | -177.08 | 70.8 | 75.1 | 1,107.8 | 1,094.9 | 12.84 | 86.256 | |
| 4,035.4 | 3,859.3 | 3,841.7 | 3,840.1 | 21.4 | 1.4 | -177.06 | 70.5 | 76.0 | 1,120.3 | 1,107.3 | 12.97 | 86.354 | |
| 4,100.0 | 3,919.7 | 3,900.0 | 3,898.4 | 21.9 | 1.4 | -177.03 | 70.1 | 77.6 | 1,143.1 | 1,129.9 | 13.21 | 86.534 | |
| 4,133.8 | 3,951.4 | 3,931.4 | 3,929.8 | 22.1 | 1.4 | -177.02 | 69.9 | 78.4 | 1,155.1 | 1,141.7 | 13.33 | 86.623 | |
| 4,200.0 | 4,013.3 | 3,991.0 | 3,989.4 | 22.6 | 1.4 | -177.01 | 69.7 | 79.6 | 1,178.6 | 1,165.0 | 13.58 | 86.809 | |
| 4,232.3 | 4,043.5 | 4,020.1 | 4,018.5 | 22.8 | 1.4 | -177.01 | 69.7 | 80.1 | 1,190.1 | 1,176.4 | 13.70 | 86.900 | |
| 4,300.0 | 4,106.9 | 4,081.2 | 4,079.5 | 23.3 | 1.4 | -177.05 | 69.9 | 80.7 | 1,214.4 | 1,200.4 | 13.94 | 87.096 | |
| 4,330.7 | 4,135.6 | 4,109.4 | 4,107.7 | 23.5 | 1.4 | -177.07 | 70.1 | 80.8 | 1,225.4 | 1,211.4 | 14.06 | 87.184 | |
| 4,400.0 | 4,200.5 | 4,175.8 | 4,174.1 | 24.0 | 1.4 | -177.13 | 70.7 | 80.9 | 1,250.3 | 1,236.0 | 14.31 | 87.375 | |
| 4,429.1 | 4,227.7 | 4,203.6 | 4,201.9 | 24.2 | 1.4 | -177.17 | 70.9 | 80.8 | 1,260.7 | 1,246.3 | 14.42 | 87.452 | |
| 4,500.0 | 4,294.1 | 4,269.5 | 4,267.9 | 24.7 | 1.4 | -177.24 | 71.4 | 80.5 | 1,286.1 | 1,271.4 | 14.68 | 87.634 | |
| 4,527.5 | 4,319.8 | 4,295.1 | 4,293.5 | 24.9 | 1.4 | -177.27 | 71.6 | 80.3 | 1,295.9 | 1,281.2 | 14.78 | 87.704 | |
| 4,600.0 | 4,387.6 | 4,362.4 | 4,360.7 | 25.4 | 1.4 | -177.35 | 72.2 | 79.9 | 1,321.9 | 1,306.8 | 15.04 | 87.875 | |
| 4,626.0 | 4,412.0 | 4,386.5 | 4,384.8 | 25.6 | 1.4 | -177.38 | 72.4 | 79.8 | 1,331.2 | 1,316.0 | 15.14 | 87.935 | |
| 4,700.0 | 4,481.2 | 4,456.8 | 4,455.1 | 26.1 | 1.5 | -177.45 | 73.1 | 79.4 | 1,357.7 | 1,342.3 | 15.41 | 88.098 | |
| 4,724.4 | 4,504.1 | 4,480.1 | 4,478.4 | 26.3 | 1.5 | -177.48 | 73.2 | 79.3 | 1,366.4 | 1,350.9 | 15.50 | 88.149 | |
| 4,800.0 | 4,574.8 | 4,552.3 | 4,550.7 | 26.8 | 1.5 | -177.56 | 73.8 | 78.7 | 1,393.4 | 1,377.6 | 15.78 | 88.301 | |
| 4,822.8 | 4,596.2 | 4,574.2 | 4,572.5 | 27.0 | 1.5 | -177.58 | 73.9 | 78.6 | 1,401.5 | 1,385.6 | 15.86 | 88.345 | |
| 4,900.0 | 4,668.4 | 4,647.8 | 4,646.2 | 27.5 | 1.5 | -177.65 | 74.4 | 78.2 | 1,428.9 | 1,412.8 | 16.15 | 88.484 | |
| 4,921.2 | 4,688.3 | 4,668.1 | 4,666.4 | 27.7 | 1.5 | -177.67 | 74.5 | 78.1 | 1,436.4 | 1,420.2 | 16.23 | 88.521 | |

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

Anticollision Report



| | | | |
|---------------------------|---------------------------------|-------------------------------------|--|
| Company: | EXTRACTION OIL & GAS | Local Co-ordinate Reference: | Well VETTING 17 |
| Project: | WELD COUNTY, COLORADO (NAD 83) | TVD Reference: | KB-EST @ 4664.0usft (Original Well Elev) |
| Reference Site: | SW NW SEC. 15 T5N R65W 6th P.M. | MD Reference: | KB-EST @ 4664.0usft (Original Well Elev) |
| Site Error: | 0.0 usft | North Reference: | True |
| Reference Well: | VETTING 17 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | EDM 5000.1 Single User Db |
| Reference Design: | PROPOSAL #2 | Offset TVD Reference: | Offset Datum |

| Offset Design SW NW SEC. 15 T5N R65W 6th P.M. - EXIST VERT SANDUSKY #1 - Wellbore #1 - Wellbore #1 | | | | | | | | | | | | Offset Site Error: | 0.0 usft |
|---|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|---------------------------|---------------------------|----------|
| Survey Program: 100-GYD_CT | | | | | | | | | | | | Offset Well Error: | 0.0 usft |
| 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) | Minimum Separation (usft) | Separation Factor | Warning |
| 5,000.0 | 4,762.0 | 4,742.3 | 4,740.6 | 28.2 | 1.5 | -177.73 | 74.8 | 77.7 | 1,464.3 | 1,447.8 | 16.52 | 88.648 | |
| 5,019.7 | 4,780.4 | 4,760.6 | 4,758.9 | 28.4 | 1.5 | -177.75 | 74.8 | 77.6 | 1,471.3 | 1,454.7 | 16.59 | 88.678 | |
| 5,100.0 | 4,855.6 | 4,835.0 | 4,833.4 | 28.9 | 1.5 | -177.81 | 75.1 | 77.3 | 1,499.8 | 1,482.9 | 16.89 | 88.797 | |
| 5,118.1 | 4,872.5 | 4,851.7 | 4,850.0 | 29.1 | 1.5 | -177.82 | 75.2 | 77.2 | 1,506.2 | 1,489.2 | 16.96 | 88.822 | |
| 5,200.0 | 4,949.2 | 4,927.5 | 4,925.8 | 29.6 | 1.5 | -177.87 | 75.5 | 77.1 | 1,535.3 | 1,518.0 | 17.26 | 88.932 | |
| 5,216.5 | 4,964.6 | 4,943.0 | 4,941.3 | 29.8 | 1.5 | -177.88 | 75.6 | 77.1 | 1,541.2 | 1,523.8 | 17.33 | 88.953 | |
| 5,300.0 | 5,042.8 | 5,021.5 | 5,019.8 | 30.3 | 1.5 | -177.92 | 75.8 | 77.1 | 1,570.8 | 1,553.2 | 17.64 | 89.055 | |
| 5,314.9 | 5,056.8 | 5,035.8 | 5,034.1 | 30.5 | 1.5 | -177.92 | 75.9 | 77.2 | 1,576.1 | 1,558.4 | 17.69 | 89.073 | |
| 5,400.0 | 5,136.4 | 5,117.0 | 5,115.3 | 31.1 | 1.6 | -177.95 | 76.0 | 77.5 | 1,606.3 | 1,588.2 | 18.01 | 89.169 | |
| 5,413.4 | 5,148.9 | 5,129.7 | 5,128.0 | 31.2 | 1.6 | -177.96 | 76.0 | 77.6 | 1,611.0 | 1,592.9 | 18.06 | 89.183 | |
| 5,500.0 | 5,230.0 | 5,211.6 | 5,209.9 | 31.8 | 1.6 | -177.98 | 75.9 | 78.1 | 1,641.6 | 1,623.2 | 18.39 | 89.270 | |
| 5,511.8 | 5,241.0 | 5,222.4 | 5,220.7 | 31.8 | 1.6 | -177.98 | 75.9 | 78.1 | 1,645.8 | 1,627.3 | 18.43 | 89.281 | |
| 5,524.4 | 5,252.8 | 5,234.0 | 5,232.3 | 31.9 | 1.6 | -177.98 | 75.9 | 78.2 | 1,650.2 | 1,631.8 | 18.48 | 89.294 | |
| 5,600.0 | 5,323.9 | 5,303.6 | 5,302.0 | 32.4 | 1.6 | -178.01 | 75.9 | 78.8 | 1,676.0 | 1,657.4 | 18.67 | 89.768 | |
| 5,610.2 | 5,333.6 | 5,312.8 | 5,311.2 | 32.4 | 1.6 | -178.01 | 75.9 | 78.9 | 1,679.4 | 1,660.7 | 18.69 | 89.842 | |
| 5,700.0 | 5,418.9 | 5,394.1 | 5,392.4 | 32.8 | 1.6 | -178.04 | 75.9 | 79.7 | 1,707.5 | 1,688.6 | 18.88 | 90.455 | |
| 5,708.6 | 5,427.2 | 5,400.0 | 5,398.3 | 32.9 | 1.6 | -178.04 | 75.9 | 79.8 | 1,710.0 | 1,691.1 | 18.89 | 90.520 | |
| 5,800.0 | 5,515.0 | 5,484.8 | 5,483.1 | 33.2 | 1.6 | -178.06 | 76.3 | 80.6 | 1,735.8 | 1,716.8 | 19.05 | 91.122 | |
| 5,807.1 | 5,521.8 | 5,491.2 | 5,489.5 | 33.3 | 1.6 | -178.06 | 76.3 | 80.6 | 1,737.7 | 1,718.7 | 19.06 | 91.171 | |
| 5,900.0 | 5,612.0 | 5,581.3 | 5,579.6 | 33.6 | 1.7 | -178.09 | 76.9 | 81.3 | 1,761.0 | 1,741.8 | 19.19 | 91.761 | |
| 5,905.5 | 5,617.3 | 5,586.7 | 5,585.0 | 33.6 | 1.7 | -178.09 | 76.9 | 81.4 | 1,762.3 | 1,743.1 | 19.20 | 91.797 | |
| 6,000.0 | 5,709.7 | 5,682.6 | 5,680.9 | 34.0 | 1.7 | -178.09 | 77.3 | 82.5 | 1,782.7 | 1,763.4 | 19.30 | 92.374 | |
| 6,003.9 | 5,713.6 | 5,686.6 | 5,684.9 | 34.0 | 1.7 | -178.09 | 77.3 | 82.5 | 1,783.5 | 1,764.2 | 19.30 | 92.399 | |
| 6,100.0 | 5,808.2 | 5,784.3 | 5,782.6 | 34.2 | 1.7 | -178.07 | 77.2 | 84.3 | 1,800.7 | 1,781.4 | 19.37 | 92.948 | |
| 6,102.3 | 5,810.5 | 5,786.7 | 5,785.0 | 34.2 | 1.7 | -178.07 | 77.2 | 84.4 | 1,801.1 | 1,781.8 | 19.38 | 92.961 | |
| 6,200.0 | 5,907.2 | 5,893.5 | 5,891.7 | 34.5 | 1.7 | -178.03 | 76.8 | 86.2 | 1,815.0 | 1,795.6 | 19.42 | 93.463 | |
| 6,200.8 | 5,907.9 | 5,894.3 | 5,892.6 | 34.5 | 1.7 | -178.03 | 76.8 | 86.2 | 1,815.1 | 1,795.7 | 19.42 | 93.467 | |
| 6,299.2 | 6,005.8 | 5,991.0 | 5,989.2 | 34.7 | 1.8 | -178.01 | 76.2 | 87.6 | 1,825.5 | 1,806.0 | 19.44 | 93.912 | |
| 6,300.0 | 6,006.6 | 5,991.7 | 5,990.0 | 34.7 | 1.8 | -178.01 | 76.2 | 87.6 | 1,825.5 | 1,806.1 | 19.44 | 93.915 | |
| 6,397.6 | 6,104.0 | 6,093.1 | 6,091.3 | 34.8 | 1.8 | -177.97 | 75.6 | 88.9 | 1,832.4 | 1,813.0 | 19.44 | 94.270 | |
| 6,400.0 | 6,106.3 | 6,095.6 | 6,093.8 | 34.9 | 1.8 | -177.97 | 75.6 | 88.9 | 1,832.5 | 1,813.1 | 19.44 | 94.276 | |
| 6,496.0 | 6,202.3 | 6,188.9 | 6,187.1 | 35.0 | 1.8 | -177.94 | 75.0 | 90.0 | 1,835.9 | 1,816.5 | 19.42 | 94.525 | |
| 6,500.0 | 6,206.3 | 6,192.7 | 6,190.9 | 35.0 | 1.8 | -177.94 | 75.0 | 90.0 | 1,836.0 | 1,816.6 | 19.42 | 94.531 | |
| 6,555.7 | 6,262.0 | 6,245.3 | 6,243.5 | 35.0 | 1.8 | 18.00 | 74.8 | 90.5 | 1,836.5 | 1,799.8 | 36.73 | 50.005 | |
| 6,585.7 | 6,292.0 | 6,273.4 | 6,271.7 | 35.0 | 1.8 | 18.01 | 74.7 | 90.8 | 1,836.5 | 1,799.8 | 36.76 | 49.965 | |
| 6,594.5 | 6,300.7 | 6,281.6 | 6,279.9 | 35.0 | 1.8 | 108.06 | 74.7 | 90.9 | 1,836.6 | 1,817.1 | 19.50 | 94.179 | |
| 6,600.0 | 6,306.3 | 6,286.8 | 6,285.1 | 35.0 | 1.8 | 108.06 | 74.7 | 91.0 | 1,836.6 | 1,817.1 | 19.52 | 94.067 | |
| 6,650.0 | 6,356.1 | 6,336.2 | 6,334.4 | 35.1 | 1.8 | 108.06 | 74.6 | 91.5 | 1,837.8 | 1,818.0 | 19.74 | 93.081 | |
| 6,692.9 | 6,398.5 | 6,378.9 | 6,377.2 | 35.2 | 1.8 | 108.07 | 74.6 | 92.0 | 1,839.9 | 1,819.9 | 19.94 | 92.292 | |
| 6,700.0 | 6,405.5 | 6,386.0 | 6,384.2 | 35.2 | 1.8 | 108.07 | 74.6 | 92.0 | 1,840.3 | 1,820.3 | 19.97 | 92.166 | |
| 6,750.0 | 6,454.0 | 6,434.8 | 6,433.0 | 35.3 | 1.9 | 108.06 | 74.5 | 92.5 | 1,844.2 | 1,824.0 | 20.20 | 91.310 | |
| 6,791.3 | 6,493.2 | 6,474.1 | 6,472.3 | 35.4 | 1.9 | 108.02 | 74.4 | 92.9 | 1,848.5 | 1,828.2 | 20.40 | 90.624 | |
| 6,800.0 | 6,501.3 | 6,482.2 | 6,480.4 | 35.4 | 1.9 | 108.01 | 74.4 | 93.0 | 1,849.6 | 1,829.1 | 20.44 | 90.485 | |
| 6,850.0 | 6,547.0 | 6,528.5 | 6,526.8 | 35.5 | 1.9 | 107.92 | 74.4 | 93.4 | 1,856.4 | 1,835.7 | 20.71 | 89.649 | |
| 6,889.7 | 6,581.9 | 6,564.2 | 6,562.4 | 35.7 | 1.9 | 107.80 | 74.3 | 93.6 | 1,863.0 | 1,842.1 | 20.95 | 88.934 | |
| 6,900.0 | 6,590.7 | 6,573.2 | 6,571.4 | 35.7 | 1.9 | 107.76 | 74.3 | 93.7 | 1,864.9 | 1,843.8 | 21.01 | 88.750 | |
| 6,950.0 | 6,632.2 | 6,614.9 | 6,613.1 | 35.9 | 1.9 | 107.49 | 74.2 | 94.0 | 1,874.9 | 1,853.5 | 21.37 | 87.728 | |
| 6,988.2 | 6,662.2 | 6,644.3 | 6,642.5 | 36.0 | 1.9 | 107.18 | 74.1 | 94.2 | 1,883.7 | 1,862.0 | 21.70 | 86.812 | |
| 7,000.0 | 6,671.1 | 6,653.1 | 6,651.3 | 36.1 | 1.9 | 107.06 | 74.1 | 94.3 | 1,886.6 | 1,864.8 | 21.80 | 86.521 | |
| 7,050.0 | 6,707.1 | 6,688.4 | 6,686.6 | 36.3 | 1.9 | 106.46 | 74.1 | 94.5 | 1,900.1 | 1,877.7 | 22.33 | 85.078 | |
| 7,086.6 | 6,731.5 | 6,700.0 | 6,698.2 | 36.5 | 1.9 | 105.61 | 74.0 | 94.6 | 1,911.1 | 1,888.3 | 22.80 | 83.824 | |
| 7,100.0 | 6,739.9 | 6,700.0 | 6,698.2 | 36.6 | 1.9 | 105.17 | 74.0 | 94.6 | 1,915.4 | 1,892.5 | 22.98 | 83.353 | |

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

Anticollision Report



| | | | |
|---------------------------|---------------------------------|-------------------------------------|--|
| Company: | EXTRACTION OIL & GAS | Local Co-ordinate Reference: | Well VETTING 17 |
| Project: | WELD COUNTY, COLORADO (NAD 83) | TVD Reference: | KB-EST @ 4664.0usft (Original Well Elev) |
| Reference Site: | SW NW SEC. 15 T5N R65W 6th P.M. | MD Reference: | KB-EST @ 4664.0usft (Original Well Elev) |
| Site Error: | 0.0 usft | North Reference: | True |
| Reference Well: | VETTING 17 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | EDM 5000.1 Single User Db |
| Reference Design: | PROPOSAL #2 | Offset TVD Reference: | Offset Datum |

| Offset Design | | | | | | | | | | | | Offset Site Error: | 0.0 usft |
|----------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|---------------------------|--------------------|----------|
| Survey Program: 100-GYD_CT | | | | | | | | | | | | Offset Well Error: | 0.0 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | 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) | Minimum Separation (usft) | Separation Factor | |
| 7,150.0 | 6,769.4 | 6,700.0 | 6,698.2 | 36.9 | 1.9 | 103.35 | 74.0 | 94.6 | 1,933.0 | 1,909.2 | 23.76 | 81.371 | |
| 7,185.0 | 6,787.8 | 6,700.0 | 6,698.2 | 37.1 | 1.9 | 101.92 | 74.0 | 94.6 | 1,946.5 | 1,922.2 | 24.37 | 79.871 | |
| 7,200.0 | 6,795.2 | 6,700.0 | 6,698.2 | 37.2 | 1.9 | 101.27 | 74.0 | 94.6 | 1,952.6 | 1,928.0 | 24.64 | 79.255 | |
| 7,250.0 | 6,817.2 | 6,700.0 | 6,698.2 | 37.6 | 1.9 | 98.93 | 74.0 | 94.6 | 1,974.1 | 1,948.5 | 25.59 | 77.149 | |
| 7,283.4 | 6,829.6 | 6,700.0 | 6,698.2 | 37.9 | 1.9 | 97.23 | 74.0 | 94.6 | 1,989.3 | 1,963.1 | 26.25 | 75.794 | |
| 7,300.0 | 6,835.1 | 6,700.0 | 6,698.2 | 38.0 | 1.9 | 96.35 | 74.0 | 94.6 | 1,997.1 | 1,970.6 | 26.56 | 75.190 | |
| 7,350.0 | 6,849.0 | 6,700.0 | 6,698.2 | 38.4 | 1.9 | 93.55 | 74.0 | 94.6 | 2,021.6 | 1,994.1 | 27.51 | 73.484 | |
| 7,381.9 | 6,855.6 | 6,700.0 | 6,698.2 | 38.7 | 1.9 | 91.67 | 74.0 | 94.6 | 2,037.8 | 2,009.7 | 28.09 | 72.546 | |
| 7,400.0 | 6,858.6 | 6,700.0 | 6,698.2 | 38.9 | 1.9 | 90.57 | 74.0 | 94.6 | 2,047.2 | 2,018.8 | 28.39 | 72.100 | |
| 7,450.0 | 6,863.9 | 6,700.0 | 6,698.2 | 39.4 | 1.9 | 87.44 | 74.0 | 94.6 | 2,073.8 | 2,044.6 | 29.17 | 71.087 | |
| 7,480.3 | 6,865.0 | 6,700.0 | 6,698.2 | 39.7 | 1.9 | 85.49 | 74.0 | 94.6 | 2,090.2 | 2,060.7 | 29.58 | 70.674 | |
| 7,485.8 | 6,865.0 | 6,700.0 | 6,698.2 | 39.8 | 1.9 | 85.13 | 74.0 | 94.6 | 2,093.2 | 2,063.6 | 29.64 | 70.620 | |
| 7,500.0 | 6,865.0 | 6,700.0 | 6,698.2 | 40.0 | 1.9 | 85.13 | 74.0 | 94.6 | 2,101.0 | 2,071.1 | 29.92 | 70.225 | |
| 7,578.7 | 6,865.0 | 6,700.0 | 6,698.2 | 40.9 | 1.9 | 85.13 | 74.0 | 94.6 | 2,145.5 | 2,114.0 | 31.51 | 68.080 | |
| 7,600.0 | 6,865.0 | 6,700.0 | 6,698.2 | 41.2 | 1.9 | 85.13 | 74.0 | 94.6 | 2,157.9 | 2,125.9 | 31.95 | 67.547 | |
| 7,677.1 | 6,865.0 | 6,700.0 | 6,698.2 | 42.2 | 1.9 | 85.13 | 74.0 | 94.6 | 2,203.8 | 2,170.2 | 33.60 | 65.590 | |
| 7,700.0 | 6,865.0 | 6,700.0 | 6,698.2 | 42.5 | 1.9 | 85.13 | 74.0 | 94.6 | 2,217.8 | 2,183.7 | 34.09 | 65.057 | |
| 7,775.6 | 6,865.0 | 6,700.0 | 6,698.2 | 43.6 | 1.9 | 85.13 | 74.0 | 94.6 | 2,264.9 | 2,229.1 | 35.78 | 63.295 | |
| 7,800.0 | 6,865.0 | 6,700.0 | 6,698.2 | 44.0 | 1.9 | 85.13 | 74.0 | 94.6 | 2,280.5 | 2,244.1 | 36.33 | 62.770 | |
| 7,874.0 | 6,865.0 | 6,700.0 | 6,698.2 | 45.2 | 1.9 | 85.13 | 74.0 | 94.6 | 2,328.5 | 2,290.5 | 38.05 | 61.204 | |
| 7,900.0 | 6,865.0 | 6,700.0 | 6,698.2 | 45.6 | 1.9 | 85.13 | 74.0 | 94.6 | 2,345.7 | 2,307.1 | 38.65 | 60.695 | |
| 7,972.4 | 6,865.0 | 6,700.0 | 6,698.2 | 46.9 | 1.9 | 85.13 | 74.0 | 94.6 | 2,394.5 | 2,354.1 | 40.37 | 59.310 | |
| 8,000.0 | 6,865.0 | 6,700.0 | 6,698.2 | 47.4 | 1.9 | 85.13 | 74.0 | 94.6 | 2,413.4 | 2,372.4 | 41.03 | 58.822 | |
| 8,070.8 | 6,865.0 | 6,700.0 | 6,698.2 | 48.7 | 1.9 | 85.13 | 74.0 | 94.6 | 2,462.7 | 2,419.9 | 42.75 | 57.602 | |
| 8,100.0 | 6,865.0 | 6,700.0 | 6,698.2 | 49.2 | 1.9 | 85.13 | 74.0 | 94.6 | 2,483.3 | 2,439.8 | 43.46 | 57.136 | |
| 8,169.3 | 6,865.0 | 6,700.0 | 6,698.2 | 50.6 | 1.9 | 85.13 | 74.0 | 94.6 | 2,532.8 | 2,487.7 | 45.18 | 56.063 | |
| 8,200.0 | 6,865.0 | 6,700.0 | 6,698.2 | 51.2 | 1.9 | 85.13 | 74.0 | 94.6 | 2,555.1 | 2,509.2 | 45.94 | 55.619 | |
| 8,267.7 | 6,865.0 | 6,700.0 | 6,698.2 | 52.6 | 1.9 | 85.13 | 74.0 | 94.6 | 2,604.8 | 2,557.2 | 47.64 | 54.676 | |
| 8,300.0 | 6,865.0 | 6,700.0 | 6,698.2 | 53.3 | 1.9 | 85.13 | 74.0 | 94.6 | 2,628.8 | 2,580.4 | 48.45 | 54.255 | |
| 8,366.1 | 6,865.0 | 6,700.0 | 6,698.2 | 54.7 | 1.9 | 85.13 | 74.0 | 94.6 | 2,678.5 | 2,628.3 | 50.14 | 53.425 | |
| 8,400.0 | 6,865.1 | 6,700.0 | 6,698.2 | 55.4 | 1.9 | 85.13 | 74.0 | 94.6 | 2,704.2 | 2,653.2 | 51.00 | 53.026 | |
| 8,464.5 | 6,865.1 | 6,700.0 | 6,698.2 | 56.8 | 1.9 | 85.13 | 74.0 | 94.6 | 2,753.7 | 2,701.0 | 52.66 | 52.295 | |
| 8,500.0 | 6,865.1 | 6,700.0 | 6,698.2 | 57.6 | 1.9 | 85.13 | 74.0 | 94.6 | 2,781.1 | 2,727.6 | 53.57 | 51.917 | |
| 8,563.0 | 6,865.1 | 6,700.0 | 6,698.2 | 59.0 | 1.9 | 85.13 | 74.0 | 94.6 | 2,830.3 | 2,775.1 | 55.20 | 51.272 | |
| 8,600.0 | 6,865.1 | 6,700.0 | 6,698.2 | 59.9 | 1.9 | 85.13 | 74.0 | 94.6 | 2,859.5 | 2,803.3 | 56.16 | 50.915 | |
| 8,661.4 | 6,865.1 | 6,700.0 | 6,698.2 | 61.3 | 1.9 | 85.13 | 74.0 | 94.6 | 2,908.3 | 2,850.5 | 57.77 | 50.345 | |
| 8,700.0 | 6,865.1 | 6,700.0 | 6,698.2 | 62.2 | 1.9 | 85.13 | 74.0 | 94.6 | 2,939.2 | 2,880.4 | 58.78 | 50.006 | |
| 8,759.8 | 6,865.1 | 6,700.0 | 6,698.2 | 63.6 | 1.9 | 85.13 | 74.0 | 94.6 | 2,987.4 | 2,927.1 | 60.35 | 49.502 | |
| 8,800.0 | 6,865.1 | 6,700.0 | 6,698.2 | 64.6 | 1.9 | 85.13 | 74.0 | 94.6 | 3,020.1 | 2,958.7 | 61.41 | 49.181 | |
| 8,858.2 | 6,865.1 | 6,700.0 | 6,698.2 | 66.0 | 1.9 | 85.13 | 74.0 | 94.6 | 3,067.7 | 3,004.7 | 62.95 | 48.734 | |
| 8,900.0 | 6,865.1 | 6,700.0 | 6,698.2 | 67.0 | 1.9 | 85.13 | 74.0 | 94.6 | 3,102.1 | 3,038.0 | 64.05 | 48.430 | |
| 8,956.7 | 6,865.1 | 6,700.0 | 6,698.2 | 68.4 | 1.9 | 85.13 | 74.0 | 94.6 | 3,149.0 | 3,083.4 | 65.56 | 48.033 | |
| 9,000.0 | 6,865.1 | 6,700.0 | 6,698.2 | 69.4 | 1.9 | 85.13 | 74.0 | 94.6 | 3,185.1 | 3,118.4 | 66.71 | 47.745 | |
| 9,055.1 | 6,865.1 | 6,700.0 | 6,698.2 | 70.8 | 1.9 | 85.13 | 74.0 | 94.6 | 3,231.3 | 3,163.1 | 68.18 | 47.392 | |
| 9,100.0 | 6,865.1 | 6,700.0 | 6,698.2 | 71.9 | 1.9 | 85.13 | 74.0 | 94.6 | 3,269.1 | 3,199.7 | 69.38 | 47.118 | |
| 9,153.5 | 6,865.1 | 6,700.0 | 6,698.2 | 73.2 | 1.9 | 85.13 | 74.0 | 94.6 | 3,314.4 | 3,243.6 | 70.81 | 46.804 | |
| 9,200.0 | 6,865.1 | 6,700.0 | 6,698.2 | 74.4 | 1.9 | 85.13 | 74.0 | 94.6 | 3,353.9 | 3,281.9 | 72.06 | 46.543 | |
| 9,251.9 | 6,865.1 | 6,700.0 | 6,698.2 | 75.7 | 1.9 | 85.13 | 74.0 | 94.6 | 3,398.3 | 3,324.9 | 73.46 | 46.263 | |
| 9,300.0 | 6,865.1 | 6,700.0 | 6,698.2 | 76.9 | 1.9 | 85.13 | 74.0 | 94.6 | 3,439.6 | 3,364.9 | 74.75 | 46.015 | |
| 9,350.4 | 6,865.1 | 6,700.0 | 6,698.2 | 78.2 | 1.9 | 85.13 | 74.0 | 94.6 | 3,483.1 | 3,406.9 | 76.11 | 45.764 | |
| 9,400.0 | 6,865.1 | 6,700.0 | 6,698.2 | 79.5 | 1.9 | 85.13 | 74.0 | 94.6 | 3,526.0 | 3,448.6 | 77.45 | 45.528 | |
| 9,448.8 | 6,865.1 | 6,700.0 | 6,698.2 | 80.8 | 1.9 | 85.13 | 74.0 | 94.6 | 3,568.5 | 3,489.7 | 78.77 | 45.304 | |

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

Anticollision Report



| | | | |
|---------------------------|---------------------------------|-------------------------------------|--|
| Company: | EXTRACTION OIL & GAS | Local Co-ordinate Reference: | Well VETTING 17 |
| Project: | WELD COUNTY, COLORADO (NAD 83) | TVD Reference: | KB-EST @ 4664.0usft (Original Well Elev) |
| Reference Site: | SW NW SEC. 15 T5N R65W 6th P.M. | MD Reference: | KB-EST @ 4664.0usft (Original Well Elev) |
| Site Error: | 0.0 usft | North Reference: | True |
| Reference Well: | VETTING 17 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | EDM 5000.1 Single User Db |
| Reference Design: | PROPOSAL #2 | Offset TVD Reference: | Offset Datum |

| Offset Design | | | | | | | | | | | | Offset Site Error: | 0.0 usft |
|----------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|---------------------------------------|-------------------------------------|--------------|------------------------|-------------------------|---------------------------|--------------------|----------|
| Survey Program: 100-GYD_CT | | | | | | | | | | | | Offset Well Error: | 0.0 usft |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Semi Major Axis Highside Toolface (") | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning |
| 9,500.0 | 6,865.1 | 6,700.0 | 6,698.2 | 82.1 | 1.9 | 85.13 | 74.0 | 94.6 | 3,613.2 | 3,533.0 | 80.15 | 45.079 | |
| 9,547.2 | 6,865.1 | 6,700.0 | 6,698.2 | 83.3 | 1.9 | 85.13 | 74.0 | 94.6 | 3,654.5 | 3,573.1 | 81.43 | 44.878 | |
| 9,600.0 | 6,865.1 | 6,700.0 | 6,698.2 | 84.7 | 1.9 | 85.13 | 74.0 | 94.6 | 3,700.9 | 3,618.1 | 82.86 | 44.663 | |
| 9,645.6 | 6,865.1 | 6,700.0 | 6,698.2 | 85.8 | 1.9 | 85.13 | 74.0 | 94.6 | 3,741.2 | 3,657.1 | 84.10 | 44.484 | |
| 9,700.0 | 6,865.1 | 6,700.0 | 6,698.2 | 87.3 | 1.9 | 85.13 | 74.0 | 94.6 | 3,789.3 | 3,703.7 | 85.58 | 44.278 | |
| 9,744.1 | 6,865.1 | 6,700.0 | 6,698.2 | 88.4 | 1.9 | 85.13 | 74.0 | 94.6 | 3,828.5 | 3,741.7 | 86.78 | 44.117 | |
| 9,800.0 | 6,865.1 | 6,700.0 | 6,698.2 | 89.9 | 1.9 | 85.13 | 74.0 | 94.6 | 3,878.3 | 3,790.0 | 88.30 | 43.920 | |
| 9,842.5 | 6,865.1 | 6,700.0 | 6,698.2 | 91.0 | 1.9 | 85.13 | 74.0 | 94.6 | 3,916.2 | 3,826.8 | 89.46 | 43.776 | |
| 9,900.0 | 6,865.1 | 6,700.0 | 6,698.2 | 92.5 | 1.9 | 85.13 | 74.0 | 94.6 | 3,967.8 | 3,876.7 | 91.03 | 43.587 | |
| 9,940.9 | 6,865.1 | 6,700.0 | 6,698.2 | 93.6 | 1.9 | 85.13 | 74.0 | 94.6 | 4,004.5 | 3,912.4 | 92.15 | 43.457 | |
| 10,000.0 | 6,865.1 | 6,700.0 | 6,698.2 | 95.2 | 1.9 | 85.13 | 74.0 | 94.6 | 4,057.7 | 3,964.0 | 93.76 | 43.277 | |
| 10,039.3 | 6,865.1 | 6,700.0 | 6,698.2 | 96.2 | 1.9 | 85.13 | 74.0 | 94.6 | 4,093.3 | 3,998.4 | 94.84 | 43.160 | |
| 10,100.0 | 6,865.1 | 6,700.0 | 6,698.2 | 97.8 | 1.9 | 85.13 | 74.0 | 94.6 | 4,148.1 | 4,051.7 | 96.50 | 42.987 | |
| 10,137.8 | 6,865.1 | 6,700.0 | 6,698.2 | 98.8 | 1.9 | 85.13 | 74.0 | 94.6 | 4,182.4 | 4,084.9 | 97.53 | 42.882 | |
| 10,200.0 | 6,865.1 | 6,700.0 | 6,698.2 | 100.5 | 1.9 | 85.13 | 74.0 | 94.6 | 4,239.0 | 4,139.8 | 99.24 | 42.716 | |
| 10,236.2 | 6,865.1 | 6,700.0 | 6,698.2 | 101.4 | 1.9 | 85.13 | 74.0 | 94.6 | 4,272.0 | 4,171.8 | 100.23 | 42.622 | |
| 10,300.0 | 6,865.1 | 6,700.0 | 6,698.2 | 103.1 | 1.9 | 85.13 | 74.0 | 94.6 | 4,330.3 | 4,228.3 | 101.98 | 42.462 | |
| 10,334.6 | 6,865.1 | 6,700.0 | 6,698.2 | 104.1 | 1.9 | 85.13 | 74.0 | 94.6 | 4,362.0 | 4,259.0 | 102.93 | 42.378 | |
| 10,400.0 | 6,865.1 | 6,700.0 | 6,698.2 | 105.8 | 1.9 | 85.13 | 74.0 | 94.6 | 4,421.9 | 4,317.2 | 104.73 | 42.224 | |
| 10,433.0 | 6,865.1 | 6,700.0 | 6,698.2 | 106.7 | 1.9 | 85.13 | 74.0 | 94.6 | 4,452.3 | 4,346.6 | 105.63 | 42.148 | |
| 10,500.0 | 6,865.1 | 6,700.0 | 6,698.2 | 108.5 | 1.9 | 85.13 | 74.0 | 94.6 | 4,513.9 | 4,406.4 | 107.47 | 42.000 | |
| 10,531.5 | 6,865.1 | 6,700.0 | 6,698.2 | 109.4 | 1.9 | 85.13 | 74.0 | 94.6 | 4,542.9 | 4,434.6 | 108.34 | 41.932 | |
| 10,600.0 | 6,865.1 | 6,700.0 | 6,698.2 | 111.2 | 1.9 | 85.13 | 74.0 | 94.6 | 4,606.2 | 4,496.0 | 110.23 | 41.789 | |
| 10,629.9 | 6,865.1 | 6,700.0 | 6,698.2 | 112.0 | 1.9 | 85.13 | 74.0 | 94.6 | 4,633.9 | 4,522.8 | 111.05 | 41.728 | |
| 10,700.0 | 6,865.1 | 6,700.0 | 6,698.2 | 113.9 | 1.9 | 85.12 | 74.0 | 94.6 | 4,698.9 | 4,585.9 | 112.98 | 41.590 | |
| 10,728.3 | 6,865.1 | 6,700.0 | 6,698.2 | 114.7 | 1.9 | 85.12 | 74.0 | 94.6 | 4,725.2 | 4,611.4 | 113.76 | 41.536 | |
| 10,800.0 | 6,865.1 | 6,700.0 | 6,698.2 | 116.6 | 1.9 | 85.12 | 74.0 | 94.6 | 4,791.8 | 4,676.1 | 115.74 | 41.403 | |
| 10,826.7 | 6,865.1 | 6,700.0 | 6,698.2 | 117.3 | 1.9 | 85.12 | 74.0 | 94.6 | 4,816.7 | 4,700.2 | 116.47 | 41.354 | |
| 10,900.0 | 6,865.1 | 6,700.0 | 6,698.2 | 119.3 | 1.9 | 85.12 | 74.0 | 94.6 | 4,885.0 | 4,766.5 | 118.50 | 41.225 | |
| 10,925.2 | 6,865.1 | 6,700.0 | 6,698.2 | 120.0 | 1.9 | 85.12 | 74.0 | 94.6 | 4,908.5 | 4,789.3 | 119.19 | 41.182 | |
| 11,000.0 | 6,865.1 | 6,700.0 | 6,698.2 | 122.0 | 1.9 | 85.12 | 74.0 | 94.6 | 4,978.5 | 4,857.2 | 121.26 | 41.058 | |
| 11,023.6 | 6,865.1 | 6,700.0 | 6,698.2 | 122.7 | 1.9 | 85.12 | 74.0 | 94.6 | 5,000.6 | 4,878.7 | 121.91 | 41.020 | |
| 11,100.0 | 6,865.1 | 6,700.0 | 6,698.2 | 124.8 | 1.9 | 85.12 | 74.0 | 94.6 | 5,072.2 | 4,948.2 | 124.02 | 40.899 | |
| 11,122.0 | 6,865.1 | 6,700.0 | 6,698.2 | 125.4 | 1.9 | 85.12 | 74.0 | 94.6 | 5,092.9 | 4,968.3 | 124.63 | 40.865 | |
| 11,200.0 | 6,865.1 | 6,700.0 | 6,698.2 | 127.5 | 1.9 | 85.12 | 74.0 | 94.6 | 5,166.2 | 5,039.4 | 126.78 | 40.749 | |
| 11,220.4 | 6,865.1 | 6,700.0 | 6,698.2 | 128.0 | 1.9 | 85.12 | 74.0 | 94.6 | 5,185.4 | 5,058.1 | 127.35 | 40.719 | |
| 11,300.0 | 6,865.1 | 6,700.0 | 6,698.2 | 130.2 | 1.9 | 85.12 | 74.0 | 94.6 | 5,260.4 | 5,130.8 | 129.55 | 40.606 | |
| 11,318.9 | 6,865.1 | 6,700.0 | 6,698.2 | 130.7 | 1.9 | 85.12 | 74.0 | 94.6 | 5,278.2 | 5,148.1 | 130.07 | 40.579 | |
| 11,400.0 | 6,865.1 | 6,700.0 | 6,698.2 | 133.0 | 1.9 | 85.12 | 74.0 | 94.6 | 5,354.8 | 5,222.5 | 132.31 | 40.470 | |
| 11,417.3 | 6,865.1 | 6,700.0 | 6,698.2 | 133.4 | 1.9 | 85.12 | 74.0 | 94.6 | 5,371.1 | 5,238.3 | 132.79 | 40.447 | |
| 11,500.0 | 6,865.1 | 6,700.0 | 6,698.2 | 135.7 | 1.9 | 85.12 | 74.0 | 94.6 | 5,449.4 | 5,314.3 | 135.08 | 40.341 | |
| 11,515.7 | 6,865.1 | 6,700.0 | 6,698.2 | 136.1 | 1.9 | 85.12 | 74.0 | 94.6 | 5,464.3 | 5,328.7 | 135.52 | 40.321 | |
| 11,600.0 | 6,865.1 | 6,700.0 | 6,698.2 | 138.4 | 1.9 | 85.12 | 74.0 | 94.6 | 5,544.2 | 5,406.3 | 137.85 | 40.218 | |
| 11,614.1 | 6,865.1 | 6,700.0 | 6,698.2 | 138.8 | 1.9 | 85.12 | 74.0 | 94.6 | 5,557.6 | 5,419.3 | 138.25 | 40.201 | |
| 11,700.0 | 6,865.1 | 6,700.0 | 6,698.2 | 141.2 | 1.9 | 85.12 | 74.0 | 94.6 | 5,639.1 | 5,498.5 | 140.62 | 40.101 | |
| 11,712.6 | 6,865.1 | 6,700.0 | 6,698.2 | 141.5 | 1.9 | 85.12 | 74.0 | 94.6 | 5,651.1 | 5,510.1 | 140.97 | 40.086 | |
| 11,800.0 | 6,865.1 | 6,700.0 | 6,698.2 | 143.9 | 1.9 | 85.12 | 74.0 | 94.6 | 5,734.3 | 5,590.9 | 143.40 | 39.989 | |
| 11,811.0 | 6,865.1 | 6,700.0 | 6,698.2 | 144.2 | 1.9 | 85.12 | 74.0 | 94.6 | 5,744.7 | 5,601.0 | 143.70 | 39.977 | |
| 11,900.0 | 6,865.1 | 6,700.0 | 6,698.2 | 146.7 | 1.9 | 85.12 | 74.0 | 94.6 | 5,829.6 | 5,683.4 | 146.17 | 39.882 | |
| 11,909.4 | 6,865.1 | 6,700.0 | 6,698.2 | 146.9 | 1.9 | 85.12 | 74.0 | 94.6 | 5,838.5 | 5,692.1 | 146.43 | 39.872 | |
| 12,000.0 | 6,865.1 | 6,700.0 | 6,698.2 | 149.4 | 1.9 | 85.12 | 74.0 | 94.6 | 5,925.0 | 5,776.1 | 148.94 | 39.780 | |
| 12,007.8 | 6,865.1 | 6,700.0 | 6,698.2 | 149.6 | 1.9 | 85.12 | 74.0 | 94.6 | 5,932.5 | 5,783.4 | 149.16 | 39.772 | |

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

Anticollision Report



| | | | |
|---------------------------|---------------------------------|-------------------------------------|--|
| Company: | EXTRACTION OIL & GAS | Local Co-ordinate Reference: | Well VETTING 17 |
| Project: | WELD COUNTY, COLORADO (NAD 83) | TVD Reference: | KB-EST @ 4664.0usft (Original Well Elev) |
| Reference Site: | SW NW SEC. 15 T5N R65W 6th P.M. | MD Reference: | KB-EST @ 4664.0usft (Original Well Elev) |
| Site Error: | 0.0 usft | North Reference: | True |
| Reference Well: | VETTING 17 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | EDM 5000.1 Single User Db |
| Reference Design: | PROPOSAL #2 | Offset TVD Reference: | Offset Datum |

| Offset Design SW NW SEC. 15 T5N R65W 6th P.M. - EXIST VERT SANDUSKY #1 - Wellbore #1 - Wellbore #1 | | | | | | | | | | | | Offset Site Error: | 0.0 usft |
|---|-----------------------|-----------------------|-----------------------|------------------|---------------|---------------------------------------|-------------------------------------|--------------|------------------------|-------------------------|---------------------------|---------------------------|----------|
| Survey Program: 100-GYD_CT | | | | | | | | | | | | Offset Well Error: | 0.0 usft |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Semi Major Axis Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning |
| 12,100.0 | 6,865.1 | 6,700.0 | 6,698.2 | 152.2 | 1.9 | 85.12 | 74.0 | 94.6 | 6,020.6 | 5,868.9 | 151.72 | 39.682 | |
| 12,106.3 | 6,865.1 | 6,700.0 | 6,698.2 | 152.3 | 1.9 | 85.12 | 74.0 | 94.6 | 6,026.6 | 5,874.7 | 151.89 | 39.676 | |
| 12,200.0 | 6,865.1 | 6,700.0 | 6,698.2 | 154.9 | 1.9 | 85.12 | 74.0 | 94.6 | 6,116.4 | 5,961.9 | 154.50 | 39.589 | |
| 12,204.7 | 6,865.1 | 6,700.0 | 6,698.2 | 155.1 | 1.9 | 85.12 | 74.0 | 94.6 | 6,120.9 | 5,966.2 | 154.63 | 39.585 | |
| 12,300.0 | 6,865.1 | 6,700.0 | 6,698.2 | 157.7 | 1.9 | 85.12 | 74.0 | 94.6 | 6,212.2 | 6,055.0 | 157.27 | 39.500 | |
| 12,303.1 | 6,865.1 | 6,700.0 | 6,698.2 | 157.8 | 1.9 | 85.12 | 74.0 | 94.6 | 6,215.2 | 6,057.9 | 157.36 | 39.497 | |
| 12,400.0 | 6,865.1 | 6,700.0 | 6,698.2 | 160.4 | 1.9 | 85.12 | 74.0 | 94.6 | 6,308.2 | 6,148.2 | 160.05 | 39.414 | |
| 12,401.5 | 6,865.1 | 6,700.0 | 6,698.2 | 160.5 | 1.9 | 85.12 | 74.0 | 94.6 | 6,309.7 | 6,149.6 | 160.09 | 39.413 | |
| 12,500.0 | 6,865.1 | 6,700.0 | 6,698.2 | 163.2 | 1.9 | 85.12 | 74.0 | 94.6 | 6,404.4 | 6,241.5 | 162.83 | 39.332 | |
| 12,598.4 | 6,865.1 | 6,700.0 | 6,698.2 | 165.9 | 1.9 | 85.12 | 74.0 | 94.6 | 6,499.1 | 6,333.5 | 165.57 | 39.254 | |
| 12,600.0 | 6,865.1 | 6,700.0 | 6,698.2 | 166.0 | 1.9 | 85.12 | 74.0 | 94.6 | 6,500.6 | 6,335.0 | 165.61 | 39.253 | |
| 12,696.8 | 6,865.1 | 6,700.0 | 6,698.2 | 168.6 | 1.9 | 85.12 | 74.0 | 94.6 | 6,593.9 | 6,425.6 | 168.30 | 39.179 | |
| 12,700.0 | 6,865.1 | 6,700.0 | 6,698.2 | 168.7 | 1.9 | 85.12 | 74.0 | 94.6 | 6,597.0 | 6,428.6 | 168.39 | 39.177 | |
| 12,795.2 | 6,865.1 | 6,700.0 | 6,698.2 | 171.4 | 1.9 | 85.12 | 74.0 | 94.6 | 6,688.9 | 6,517.8 | 171.04 | 39.107 | |
| 12,800.0 | 6,865.1 | 6,700.0 | 6,698.2 | 171.5 | 1.9 | 85.12 | 74.0 | 94.6 | 6,693.4 | 6,522.3 | 171.17 | 39.104 | |
| 12,893.7 | 6,865.1 | 6,700.0 | 6,698.2 | 174.1 | 1.9 | 85.12 | 74.0 | 94.6 | 6,783.9 | 6,610.1 | 173.78 | 39.038 | |
| 12,900.0 | 6,865.1 | 6,700.0 | 6,698.2 | 174.3 | 1.9 | 85.12 | 74.0 | 94.6 | 6,790.0 | 6,616.0 | 173.95 | 39.034 | |
| 12,992.1 | 6,865.1 | 6,700.0 | 6,698.2 | 176.8 | 1.9 | 85.12 | 74.0 | 94.6 | 6,879.0 | 6,702.5 | 176.52 | 38.971 | |
| 13,000.0 | 6,865.1 | 6,700.0 | 6,698.2 | 177.0 | 1.9 | 85.12 | 74.0 | 94.6 | 6,886.7 | 6,709.9 | 176.74 | 38.966 | |
| 13,090.5 | 6,865.1 | 6,700.0 | 6,698.2 | 179.5 | 1.9 | 85.12 | 74.0 | 94.6 | 6,974.3 | 6,795.0 | 179.25 | 38.907 | |
| 13,100.0 | 6,865.1 | 6,700.0 | 6,698.2 | 179.8 | 1.9 | 85.12 | 74.0 | 94.6 | 6,983.4 | 6,803.9 | 179.52 | 38.901 | |
| 13,188.9 | 6,865.1 | 6,700.0 | 6,698.2 | 182.3 | 1.9 | 85.12 | 74.0 | 94.6 | 7,069.6 | 6,887.6 | 181.99 | 38.845 | |
| 13,200.0 | 6,865.1 | 6,700.0 | 6,698.2 | 182.6 | 1.9 | 85.12 | 74.0 | 94.6 | 7,080.3 | 6,898.0 | 182.30 | 38.838 | |
| 13,287.4 | 6,865.1 | 6,700.0 | 6,698.2 | 185.0 | 1.9 | 85.12 | 74.0 | 94.6 | 7,165.0 | 6,980.2 | 184.73 | 38.785 | |
| 13,300.0 | 6,865.1 | 6,700.0 | 6,698.2 | 185.3 | 1.9 | 85.12 | 74.0 | 94.6 | 7,177.2 | 6,992.1 | 185.09 | 38.778 | |
| 13,385.8 | 6,865.1 | 6,700.0 | 6,698.2 | 187.7 | 1.9 | 85.12 | 74.0 | 94.6 | 7,260.4 | 7,073.0 | 187.47 | 38.728 | |
| 13,400.0 | 6,865.1 | 6,700.0 | 6,698.2 | 188.1 | 1.9 | 85.12 | 74.0 | 94.6 | 7,274.2 | 7,086.4 | 187.87 | 38.720 | |
| 13,484.2 | 6,865.1 | 6,700.0 | 6,698.2 | 190.5 | 1.9 | 85.12 | 74.0 | 94.6 | 7,356.0 | 7,165.8 | 190.22 | 38.672 | |
| 13,500.0 | 6,865.1 | 6,700.0 | 6,698.2 | 190.9 | 1.9 | 85.12 | 74.0 | 94.6 | 7,371.3 | 7,180.7 | 190.65 | 38.663 | |
| 13,582.6 | 6,865.1 | 6,700.0 | 6,698.2 | 193.2 | 1.9 | 85.12 | 74.0 | 94.6 | 7,451.6 | 7,258.7 | 192.96 | 38.618 | |
| 13,600.0 | 6,865.1 | 6,700.0 | 6,698.2 | 193.7 | 1.9 | 85.12 | 74.0 | 94.6 | 7,468.5 | 7,275.1 | 193.44 | 38.609 | |
| 13,681.1 | 6,865.1 | 6,700.0 | 6,698.2 | 195.9 | 1.9 | 85.12 | 74.0 | 94.6 | 7,547.3 | 7,351.6 | 195.70 | 38.566 | |
| 13,700.0 | 6,865.1 | 6,700.0 | 6,698.2 | 196.4 | 1.9 | 85.12 | 74.0 | 94.6 | 7,565.7 | 7,369.5 | 196.23 | 38.556 | |
| 13,779.5 | 6,865.1 | 6,700.0 | 6,698.2 | 198.6 | 1.9 | 85.12 | 74.0 | 94.6 | 7,643.1 | 7,444.7 | 198.44 | 38.516 | |
| 13,800.0 | 6,865.1 | 6,700.0 | 6,698.2 | 199.2 | 1.9 | 85.11 | 74.0 | 94.6 | 7,663.1 | 7,464.0 | 199.01 | 38.506 | |
| 13,877.9 | 6,865.1 | 6,700.0 | 6,698.2 | 201.4 | 1.9 | 85.11 | 74.0 | 94.6 | 7,738.9 | 7,537.8 | 201.18 | 38.467 | |
| 13,900.0 | 6,865.1 | 6,700.0 | 6,698.2 | 202.0 | 1.9 | 85.11 | 74.0 | 94.6 | 7,760.4 | 7,558.6 | 201.80 | 38.456 | |
| 13,976.3 | 6,865.1 | 6,700.0 | 6,698.2 | 204.1 | 1.9 | 85.11 | 74.0 | 94.6 | 7,834.8 | 7,630.9 | 203.93 | 38.420 | |
| 14,000.0 | 6,865.1 | 6,700.0 | 6,698.2 | 204.8 | 1.9 | 85.11 | 74.0 | 94.6 | 7,857.9 | 7,653.3 | 204.59 | 38.409 | |
| 14,074.8 | 6,865.1 | 6,700.0 | 6,698.2 | 206.9 | 1.9 | 85.11 | 74.0 | 94.6 | 7,930.8 | 7,724.1 | 206.67 | 38.374 | |
| 14,100.0 | 6,865.1 | 6,700.0 | 6,698.2 | 207.6 | 1.9 | 85.11 | 74.0 | 94.6 | 7,955.4 | 7,748.0 | 207.37 | 38.363 | |
| 14,173.2 | 6,865.1 | 6,700.0 | 6,698.2 | 209.6 | 1.9 | 85.11 | 74.0 | 94.6 | 8,026.8 | 7,817.4 | 209.41 | 38.330 | |
| 14,200.0 | 6,865.1 | 6,700.0 | 6,698.2 | 210.3 | 1.9 | 85.11 | 74.0 | 94.6 | 8,053.0 | 7,842.8 | 210.16 | 38.318 | |
| 14,271.6 | 6,865.1 | 6,700.0 | 6,698.2 | 212.3 | 1.9 | 85.11 | 74.0 | 94.6 | 8,122.9 | 7,910.8 | 212.16 | 38.287 | |
| 14,300.0 | 6,865.1 | 6,700.0 | 6,698.2 | 213.1 | 1.9 | 85.11 | 74.0 | 94.6 | 8,150.6 | 7,937.7 | 212.95 | 38.275 | |
| 14,370.0 | 6,865.1 | 6,700.0 | 6,698.2 | 215.1 | 1.9 | 85.11 | 74.0 | 94.6 | 8,219.1 | 8,004.2 | 214.90 | 38.246 | |
| 14,400.0 | 6,865.0 | 6,700.0 | 6,698.2 | 215.9 | 1.9 | 85.11 | 74.0 | 94.6 | 8,248.3 | 8,032.6 | 215.74 | 38.233 | |
| 14,468.5 | 6,865.0 | 6,700.0 | 6,698.2 | 217.8 | 1.9 | 85.11 | 74.0 | 94.6 | 8,315.2 | 8,097.6 | 217.65 | 38.205 | |
| 14,500.0 | 6,865.0 | 6,700.0 | 6,698.2 | 218.7 | 1.9 | 85.11 | 74.0 | 94.6 | 8,346.1 | 8,127.5 | 218.53 | 38.193 | |
| 14,566.9 | 6,865.0 | 6,700.0 | 6,698.2 | 220.6 | 1.9 | 85.11 | 74.0 | 94.6 | 8,411.5 | 8,191.1 | 220.39 | 38.166 | |
| 14,600.0 | 6,865.0 | 6,700.0 | 6,698.2 | 221.5 | 1.9 | 85.11 | 74.0 | 94.6 | 8,443.9 | 8,222.5 | 221.32 | 38.153 | |
| 14,665.3 | 6,865.0 | 6,700.0 | 6,698.2 | 223.3 | 1.9 | 85.11 | 74.0 | 94.6 | 8,507.8 | 8,284.6 | 223.14 | 38.128 | |

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

Anticollision Report



| | | | |
|---------------------------|---------------------------------|-------------------------------------|--|
| Company: | EXTRACTION OIL & GAS | Local Co-ordinate Reference: | Well VETTING 17 |
| Project: | WELD COUNTY, COLORADO (NAD 83) | TVD Reference: | KB-EST @ 4664.0usft (Original Well Elev) |
| Reference Site: | SW NW SEC. 15 T5N R65W 6th P.M. | MD Reference: | KB-EST @ 4664.0usft (Original Well Elev) |
| Site Error: | 0.0 usft | North Reference: | True |
| Reference Well: | VETTING 17 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | EDM 5000.1 Single User Db |
| Reference Design: | PROPOSAL #2 | Offset TVD Reference: | Offset Datum |

| Offset Design SW NW SEC. 15 T5N R65W 6th P.M. - EXIST VERT SANDUSKY #1 - Wellbore #1 - Wellbore #1 | | | | | | | | | | | | Offset Site Error: | 0.0 usft |
|---|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|---------------------------|---------------------------|----------|
| Survey Program: 100-GYD_CT | | | | | | | | | | | | Offset Well Error: | 0.0 usft |
| Reference | Offset | Semi Major Axis | | Distance | | | | | | | | | |
| 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) | Minimum Separation (usft) | Separation Factor | Warning |
| 14,700.0 | 6,865.0 | 6,700.0 | 6,698.2 | 224.3 | 1.9 | 85.11 | 74.0 | 94.6 | 8,541.7 | 8,317.6 | 224.10 | 38.115 | |
| 14,763.7 | 6,865.0 | 6,700.0 | 6,698.2 | 226.0 | 1.9 | 85.11 | 74.0 | 94.6 | 8,604.1 | 8,378.2 | 225.88 | 38.091 | |
| 14,800.0 | 6,865.0 | 6,700.0 | 6,698.2 | 227.0 | 1.9 | 85.11 | 74.0 | 94.6 | 8,639.6 | 8,412.7 | 226.89 | 38.078 | |
| 14,862.2 | 6,865.0 | 6,700.0 | 6,698.2 | 228.8 | 1.9 | 85.11 | 74.0 | 94.6 | 8,700.5 | 8,471.9 | 228.63 | 38.055 | |
| 14,900.0 | 6,865.0 | 6,700.0 | 6,698.2 | 229.8 | 1.9 | 85.11 | 74.0 | 94.6 | 8,737.6 | 8,507.9 | 229.68 | 38.042 | |
| 14,960.6 | 6,865.0 | 6,700.0 | 6,698.2 | 231.5 | 1.9 | 85.11 | 74.0 | 94.6 | 8,796.9 | 8,565.6 | 231.37 | 38.020 | |
| 15,000.0 | 6,865.0 | 6,700.0 | 6,698.2 | 232.6 | 1.9 | 85.11 | 74.0 | 94.6 | 8,835.6 | 8,603.1 | 232.47 | 38.007 | |
| 15,059.0 | 6,865.0 | 6,700.0 | 6,698.2 | 234.3 | 1.9 | 85.11 | 74.0 | 94.6 | 8,893.4 | 8,659.3 | 234.12 | 37.986 | |
| 15,100.0 | 6,865.0 | 6,700.0 | 6,698.2 | 235.4 | 1.9 | 85.11 | 74.0 | 94.6 | 8,933.6 | 8,698.3 | 235.26 | 37.973 | |
| 15,157.4 | 6,865.0 | 6,700.0 | 6,698.2 | 237.0 | 1.9 | 85.11 | 74.0 | 94.6 | 8,989.9 | 8,753.1 | 236.87 | 37.953 | |
| 15,200.0 | 6,865.0 | 6,700.0 | 6,698.2 | 238.2 | 1.9 | 85.11 | 74.0 | 94.6 | 9,031.7 | 8,793.6 | 238.06 | 37.939 | |
| 15,255.9 | 6,865.0 | 6,700.0 | 6,698.2 | 239.8 | 1.9 | 85.11 | 74.0 | 94.6 | 9,086.5 | 8,846.9 | 239.61 | 37.921 | |
| 15,284.8 | 6,865.0 | 6,700.0 | 6,698.2 | 240.6 | 1.9 | 85.11 | 74.0 | 94.6 | 9,114.9 | 8,874.4 | 240.42 | 37.912 | |

| | | | |
|---------------------------|---------------------------------|-------------------------------------|--|
| Company: | EXTRACTION OIL & GAS | Local Co-ordinate Reference: | Well VETTING 17 |
| Project: | WELD COUNTY, COLORADO (NAD 83) | TVD Reference: | KB-EST @ 4664.0usft (Original Well Elev) |
| Reference Site: | SW NW SEC. 15 T5N R65W 6th P.M. | MD Reference: | KB-EST @ 4664.0usft (Original Well Elev) |
| Site Error: | 0.0 usft | North Reference: | True |
| Reference Well: | VETTING 17 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | EDM 5000.1 Single User Db |
| Reference Design: | PROPOSAL #2 | Offset TVD Reference: | Offset Datum |

Reference Depths are relative to KB-EST @ 4664.0usft (Original Well ECoordinates are relative to: VETTING 17

Offset Depths are relative to Offset Datum

Coordinate System is US State Plane 1983, Colorado Northern Zone

Central Meridian is -105.500000

Grid Convergence at Surface is: 0.54°

Separation Factor Plot

