



WELL DETAILS: OTTESEN 28N

| +N/-S | +E/-W | Northing | Easting | Latitude | Longitude |
|-------|-------|------------|------------|-----------------|-------------------|
| 0.0 | 0.0 | 1245345.59 | 3202224.76 | 40° 0' 16.559 N | 104° 46' 41.189 W |

Project: WELD COUNTY
 Site: Ottesen Pad
 Well: OTTESEN 28N
 Wellbore: OWB
 Design: Plan #2
 Lat: 40° 0' 16.559 N
 Long: 104° 46' 41.189 W
 GL: 5076.0
 KB: KB 20' @ 5096.0usft

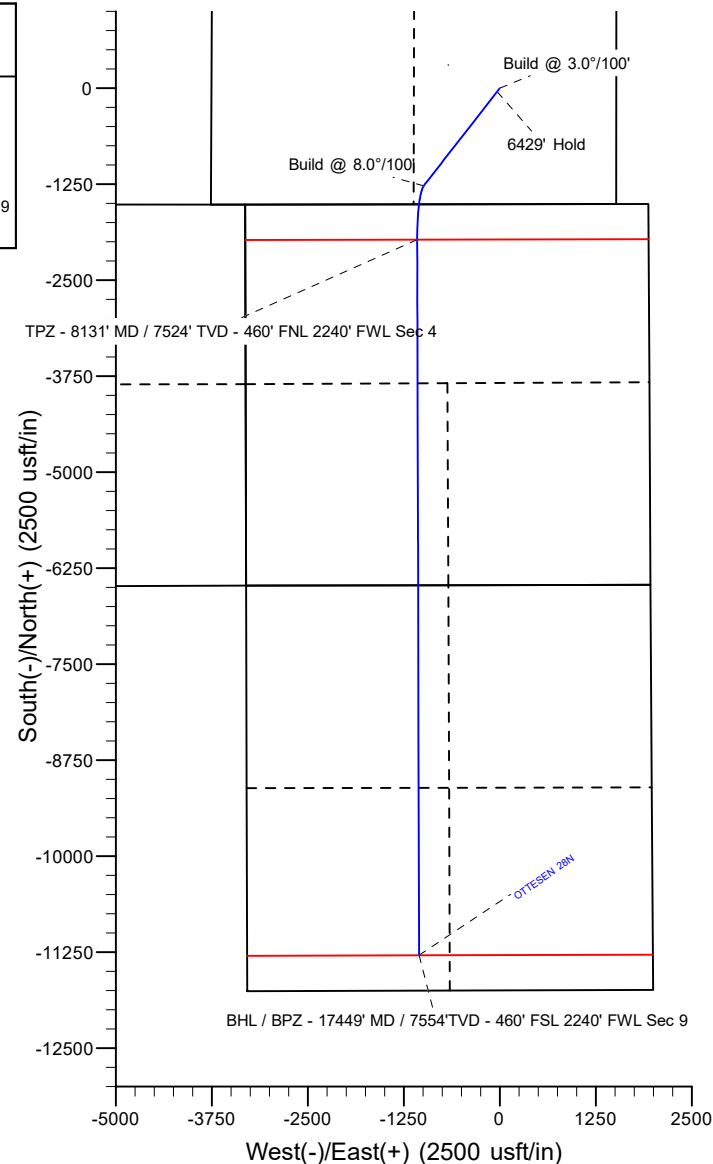
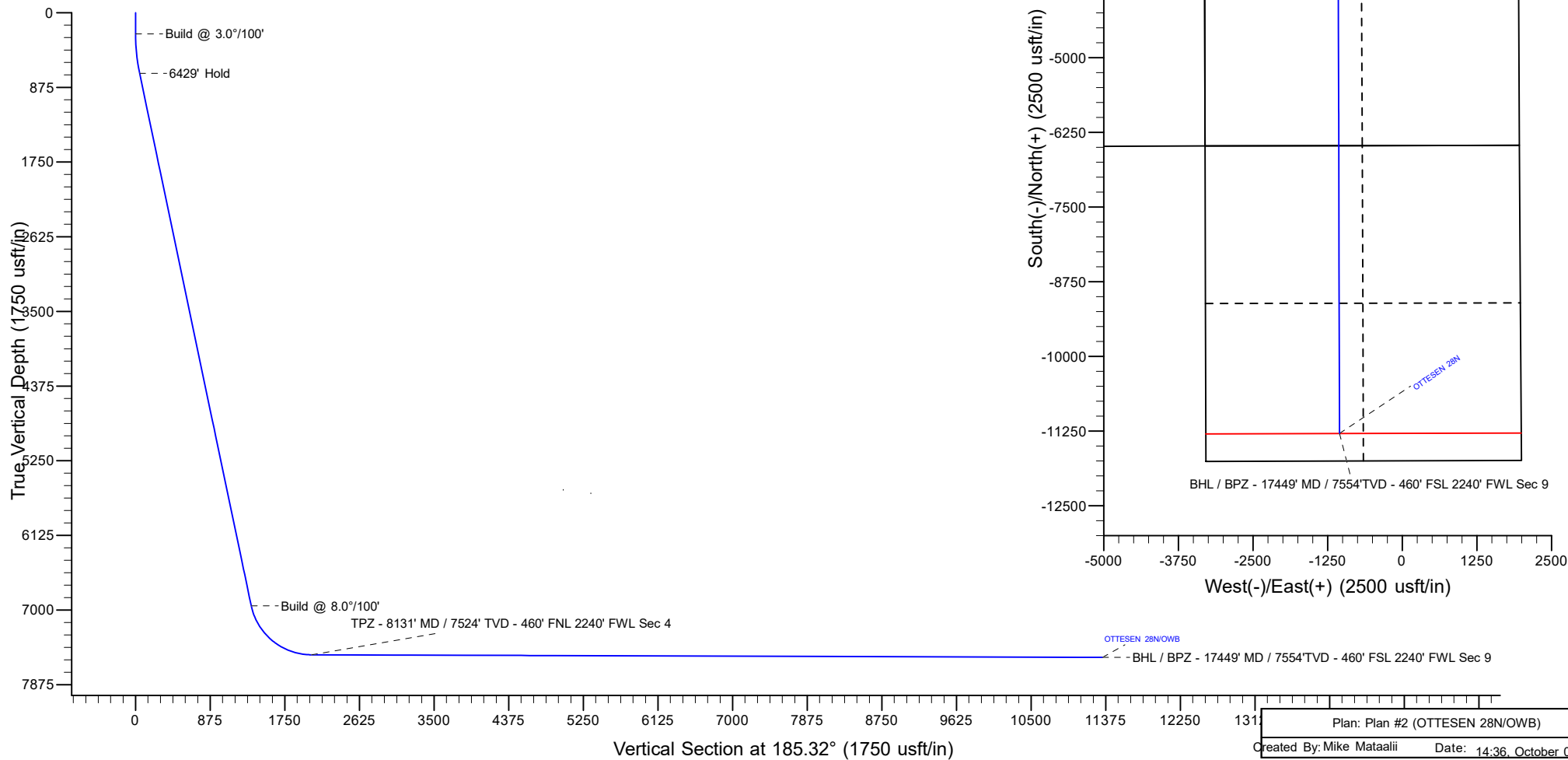


Azimuths to True North
 Magnetic North: 7.73°

Magnetic Field
 Strength: 51656.7nT
 Dip Angle: 66.30°
 Date: 4/12/2022
 Model: IGRF2000

SECTION DETAILS

| MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | TFace | VSect | Annotation |
|---------|-------|--------|--------|----------|---------|------|--------|---------|---|
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | |
| 250.0 | 0.00 | 0.00 | 250.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | Build @ 3.0°/100' |
| 716.0 | 13.98 | 217.91 | 711.4 | -44.6 | -34.8 | 3.00 | 217.91 | 47.7 | 6429' Hold |
| 7145.8 | 13.98 | 217.91 | 6950.7 | -1270.2 | -989.4 | 0.00 | 0.00 | 1356.5 | Build @ 8.0°/100' |
| 8131.5 | 89.82 | 179.85 | 7524.0 | -1971.3 | -1075.2 | 8.00 | -38.93 | 2062.5 | TPZ - 8131' MD / 7524' TVD - 460' FNL 2240' FWL Sec 4 |
| 17449.6 | 89.82 | 179.85 | 7554.0 | -11289.4 | -1051.0 | 0.00 | 0.00 | 11338.2 | BHL / BPZ - 17449' MD / 7554'TVD - 460' FSL 2240' FWL Sec 9 |



PDC Energy Inc.
Anticollision Summary Report

| | | | |
|---------------------------|-------------------|-------------------------------------|----------------------------|
| Company: | GWP - PLANNING DB | Local Co-ordinate Reference: | Well OTTESEN 28N |
| Project: | WELD COUNTY | TVD Reference: | KB 20' @ 5096.0usft |
| Reference Site: | Ottesen Pad | MD Reference: | KB 20' @ 5096.0usft |
| Site Error: | 0.0 usft | North Reference: | True |
| Reference Well: | OTTESEN 28N | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OWB | Database: | EDM 5000.15 Single User Db |
| Reference Design: | Plan #2 | Offset TVD Reference: | Offset Datum |

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

| | | | | |
|----------------------------|------------------|--------------------------|------------------|---------------------|
| Survey Tool Program | Date | 10/3/2022 | | |
| From (usft) | To (usft) | Survey (Wellbore) | Tool Name | Description |
| 0.0 | 17,449.6 | Plan #2 (OWB) | MWD | OWSG MWD - Standard |

| Summary | | | | | | |
|------------------------------------|---------------------------------|------------------------------|---------------------------------|----------------------------------|-------------------|-------------------------------|
| Site Name | Reference Measured Depth (usft) | Offset Measured Depth (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Separation Factor | Warning |
| Offset Well - Wellbore - Design | | | | | | |
| Ottesen Offsets | | | | | | |
| Bailey #1 - OWB - OWB | 8,990.4 | 7,505.8 | 1,425.2 | 1,358.2 | 21.245 | CC |
| Bailey #1 - OWB - OWB | 9,000.0 | 7,505.8 | 1,425.3 | 1,358.0 | 21.188 | ES |
| Bailey #1 - OWB - OWB | 9,400.0 | 7,507.1 | 1,482.9 | 1,409.2 | 20.097 | SF |
| Great Western Sugar 3X - OWB - OWB | | | | | | Out of range |
| Grein #1 - OWB - OWB | 8,917.4 | 7,449.5 | 3,846.0 | 3,780.1 | 58.358 | CC |
| Grein #1 - OWB - OWB | 9,000.0 | 7,449.8 | 3,846.9 | 3,779.6 | 57.180 | ES |
| Grein #1 - OWB - OWB | 11,000.0 | 7,456.2 | 4,373.6 | 4,277.7 | 45.578 | SF |
| OTTESEN LE 06-290HN - OWB - OWB | 992.4 | 980.1 | 2.7 | -4.8 | 0.364 | No-Go Zone - Stop Drilling, (|
| OTTESEN LE 06-290HN - OWB - OWB | 2,663.3 | 2,684.8 | 6.9 | -13.6 | 0.336 | No-Go Zone - Stop Drilling, E |
| OTTESEN LE 06-290HNX - OWB - OWB | 2,000.0 | 1,994.1 | 6.3 | -13.3 | 0.321 | No-Go Zone - Stop Drilling, E |
| OTTESEN LE 06-290HNX - OWB - OWB | 2,021.1 | 2,014.8 | 4.8 | -11.2 | 0.300 | No-Go Zone - Stop Drilling, (|
| OTTESEN LE 06-311HC - OWB - OWB | 2,234.0 | 2,230.9 | 7.7 | -9.9 | 0.439 | No-Go Zone - Stop Drilling, (|
| OTTESEN LE 06-311HN - OWB - OWB | 1,630.3 | 1,614.2 | 18.0 | 4.9 | 1.378 | Collision Avoidance Req., CC |
| OTTESEN LE 06-311HN - OWB - OWB | 1,700.0 | 1,682.8 | 21.0 | 4.7 | 1.290 | Collision Avoidance Req., ES |
| OTTESEN LE 06-351HN - OWB - OWB | 1,441.7 | 1,419.4 | 45.2 | 31.4 | 3.279 | CC |
| OTTESEN LE 06-351HN - OWB - OWB | 1,500.0 | 1,476.1 | 46.4 | 31.3 | 3.082 | ES |
| OTTESEN LE 06-351HN - OWB - OWB | 1,600.0 | 1,573.4 | 53.6 | 36.0 | 3.043 | SF |
| OTTESEN LE 06-351HNX - OWB - OWB | 1,142.1 | 1,110.9 | 96.2 | 82.1 | 6.823 | CC |
| OTTESEN LE 06-351HNX - OWB - OWB | 1,200.0 | 1,167.2 | 96.8 | 81.7 | 6.425 | ES |
| OTTESEN LE 06-351HNX - OWB - OWB | 1,300.0 | 1,262.9 | 100.4 | 83.8 | 6.060 | SF |
| OTTESEN LE 06-370HC - OWB - OWB | 1,350.5 | 1,321.0 | 85.2 | 71.3 | 6.130 | CC |
| OTTESEN LE 06-370HC - OWB - OWB | 1,400.0 | 1,368.5 | 85.8 | 71.1 | 5.840 | ES |
| OTTESEN LE 06-370HC - OWB - OWB | 1,500.0 | 1,460.9 | 92.7 | 76.0 | 5.558 | SF |
| OTTESEN LE 06-370HN - OWB - OWB | 914.2 | 873.8 | 161.8 | 148.7 | 12.319 | CC, ES |
| OTTESEN LE 06-370HN - OWB - OWB | 12,400.0 | 9,717.4 | 2,226.5 | 2,005.3 | 10.069 | SF |
| OTTESEN LE 09-362HC - OWB - OWB | 0.0 | 0.5 | 194.4 | | | |
| OTTESEN LE 09-362HC - OWB - OWB | 250.0 | 249.9 | 195.7 | 192.4 | 59.000 | ES |
| OTTESEN LE 09-362HC - OWB - OWB | 17,449.6 | 17,870.3 | 2,522.1 | 2,119.3 | 6.261 | SF |
| OTTESEN LE 09-363HN - OWB - OWB | 0.0 | 0.5 | 164.1 | | | |
| OTTESEN LE 09-363HN - OWB - OWB | 250.0 | 250.1 | 164.3 | 161.0 | 49.790 | ES |
| OTTESEN LE 09-363HN - OWB - OWB | 17,449.6 | 17,493.7 | 2,177.1 | 1,776.1 | 5.429 | SF |
| OTTESEN LE 09-365HC - OWB - OWB | 0.0 | 0.5 | 133.8 | | | |
| OTTESEN LE 09-365HC - OWB - OWB | 200.0 | 199.3 | 135.1 | 132.1 | 44.963 | ES |
| OTTESEN LE 09-365HC - OWB - OWB | 17,449.6 | 17,665.6 | 1,831.0 | 1,430.7 | 4.574 | SF |
| OTTESEN LE 09-365HN - OWB - OWB | 0.0 | 0.5 | 148.5 | | | |
| OTTESEN LE 09-365HN - OWB - OWB | 200.0 | 199.4 | 149.3 | 146.3 | 49.706 | ES |
| OTTESEN LE 09-365HN - OWB - OWB | 17,449.6 | 17,626.0 | 1,910.0 | 1,507.5 | 4.746 | SF |

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

PDC Energy Inc.
Anticollision Summary Report

| | | | |
|---------------------------|-------------------|-------------------------------------|----------------------------|
| Company: | GWP - PLANNING DB | Local Co-ordinate Reference: | Well OTTESEN 28N |
| Project: | WELD COUNTY | TVD Reference: | KB 20' @ 5096.0usft |
| Reference Site: | Ottesen Pad | MD Reference: | KB 20' @ 5096.0usft |
| Site Error: | 0.0 usft | North Reference: | True |
| Reference Well: | OTTESEN 28N | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OWB | Database: | EDM 5000.15 Single User Db |
| Reference Design: | Plan #2 | Offset TVD Reference: | Offset Datum |

| Summary | | | | | | |
|----------------------------------|---------------------------------|------------------------------|---------------------------------|----------------------------------|-------------------|---------|
| Site Name | Reference Measured Depth (usft) | Offset Measured Depth (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Separation Factor | Warning |
| Offset Well - Wellbore - Design | | | | | | |
| Ottesen Offsets | | | | | | |
| OTTESEN LE 09-366HN - OWB - OWB | 0.0 | 0.5 | 105.0 | | | |
| OTTESEN LE 09-366HN - OWB - OWB | 255.8 | 256.5 | 105.3 | 102.0 | 31.781 | ES |
| OTTESEN LE 09-366HN - OWB - OWB | 17,449.6 | 17,533.2 | 1,411.2 | 1,010.3 | 3.520 | SF |
| OTTESEN LE 09-366HNX - OWB - OWB | 0.0 | 0.5 | 119.8 | | | |
| OTTESEN LE 09-366HNX - OWB - OWB | 250.0 | 250.4 | 120.6 | 117.4 | 36.599 | ES |
| OTTESEN LE 09-366HNX - OWB - OWB | 17,449.6 | 17,237.7 | 1,572.6 | 1,180.3 | 4.009 | SF |
| OTTESEN LE 09-368HC - OWB - OWB | 0.0 | 0.5 | 74.6 | | | |
| OTTESEN LE 09-368HC - OWB - OWB | 200.0 | 200.0 | 75.3 | 72.3 | 25.041 | ES |
| OTTESEN LE 09-368HC - OWB - OWB | 17,449.6 | 17,677.0 | 1,071.0 | 672.6 | 2.689 | SF |
| OTTESEN LE 09-368HN - OWB - OWB | 0.0 | 0.5 | 89.4 | | | |
| OTTESEN LE 09-368HN - OWB - OWB | 250.0 | 250.1 | 89.6 | 86.3 | 27.149 | ES |
| OTTESEN LE 09-368HN - OWB - OWB | 17,449.6 | 17,468.1 | 1,149.0 | 751.0 | 2.887 | SF |

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|---------------------------|-------------------|-------------------------------------|----------------------------|
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| Project: | WELD COUNTY | TVD Reference: | KB 20' @ 5096.0usft |
| Reference Site: | Ottesen Pad | MD Reference: | KB 20' @ 5096.0usft |
| Site Error: | 0.0 usft | North Reference: | True |
| Reference Well: | OTTESEN 28N | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OWB | Database: | EDM 5000.15 Single User Db |
| Reference Design: | Plan #2 | Offset TVD Reference: | Offset Datum |

| Summary | | | | | | |
|------------------------------|---------------------------------|------------------------------|---------------------------------|----------------------------------|-------------------|------------------------------------|
| Site Name | Reference Measured Depth (usft) | Offset Measured Depth (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Separation Factor | Warning |
| Ottesen Pad | | | | | | |
| OTTESEN 15C - OWB - OWB | 0.0 | 0.0 | 180.1 | | | |
| OTTESEN 15C - OWB - OWB | 400.0 | 400.0 | 180.7 | 176.8 | 46.119 | ES |
| OTTESEN 15C - OWB - OWB | 1,704.5 | 1,734.0 | 228.4 | 209.6 | 12.138 | SF |
| OTTESEN 15C - OWB - Plan #2 | 2,558.2 | 2,619.8 | 30.4 | 7.2 | 1.308 | Collision Avoidance Req., CC |
| OTTESEN 16N - OWB - OWB | 247.3 | 247.3 | 192.1 | 189.1 | 65.439 | CC |
| OTTESEN 16N - OWB - OWB | 400.0 | 399.5 | 192.8 | 188.8 | 48.012 | ES |
| OTTESEN 16N - OWB - OWB | 1,700.0 | 1,735.0 | 307.8 | 289.2 | 16.551 | SF |
| OTTESEN 16N - OWB - Plan #2 | 2,890.4 | 2,976.2 | 72.5 | 45.8 | 2.711 | CC, ES, SF |
| OTTESEN 17N - OWB - OWB | 893.1 | 882.7 | 131.0 | 124.3 | 19.639 | CC |
| OTTESEN 17N - OWB - OWB | 900.0 | 889.4 | 131.0 | 124.3 | 19.525 | ES |
| OTTESEN 17N - OWB - OWB | 1,300.0 | 1,279.6 | 162.6 | 152.1 | 15.405 | SF |
| OTTESEN 17N - OWB - Plan #2 | 893.1 | 882.7 | 131.0 | 124.3 | 19.639 | CC |
| OTTESEN 17N - OWB - Plan #2 | 900.0 | 889.4 | 131.0 | 124.3 | 19.525 | ES |
| OTTESEN 17N - OWB - Plan #2 | 17,449.6 | 17,949.3 | 2,095.0 | 1,696.8 | 5.261 | SF |
| OTTESEN 18C - OWB - Plan #2 | 250.0 | 250.0 | 150.3 | 147.5 | 53.804 | CC |
| OTTESEN 18C - OWB - Plan #2 | 500.0 | 483.7 | 153.8 | 146.2 | 20.280 | ES |
| OTTESEN 18C - OWB - Plan #2 | 17,449.6 | 17,825.8 | 1,912.5 | 1,516.6 | 4.830 | SF |
| OTTESEN 19NA - OWB - Plan #2 | 250.0 | 250.0 | 135.3 | 132.5 | 48.419 | CC |
| OTTESEN 19NA - OWB - Plan #2 | 400.0 | 391.1 | 136.6 | 131.2 | 25.616 | ES |
| OTTESEN 19NA - OWB - Plan #2 | 17,449.6 | 17,654.6 | 1,724.9 | 1,325.6 | 4.320 | SF |
| OTTESEN 20N - OWB - Plan #2 | 250.0 | 250.0 | 120.3 | 117.5 | 43.064 | CC |
| OTTESEN 20N - OWB - Plan #2 | 400.0 | 392.1 | 121.6 | 116.2 | 22.857 | ES |
| OTTESEN 20N - OWB - Plan #2 | 17,449.6 | 17,784.6 | 1,519.6 | 1,120.7 | 3.809 | SF |
| OTTESEN 21N - OWB - OWB | 734.6 | 729.0 | 84.2 | 78.5 | 14.664 | CC, ES |
| OTTESEN 21N - OWB - OWB | 1,000.0 | 988.1 | 103.6 | 94.6 | 11.520 | SF |
| OTTESEN 21N - OWB - Plan #2 | 734.6 | 729.0 | 84.2 | 78.5 | 14.664 | CC, ES |
| OTTESEN 21N - OWB - Plan #2 | 17,449.6 | 17,855.2 | 1,331.2 | 932.9 | 3.342 | SF |
| OTTESEN 22C - OWB - Plan #2 | 250.0 | 250.0 | 90.3 | 87.5 | 32.327 | CC |
| OTTESEN 22C - OWB - Plan #2 | 500.0 | 490.4 | 93.5 | 86.1 | 12.515 | ES |
| OTTESEN 22C - OWB - Plan #2 | 17,449.6 | 17,850.3 | 1,152.3 | 760.0 | 2.938 | SF |
| OTTESEN 23NA - OWB - Plan #2 | 250.0 | 250.0 | 75.3 | 72.5 | 26.947 | CC |
| OTTESEN 23NA - OWB - Plan #2 | 500.0 | 492.1 | 78.2 | 70.8 | 10.567 | ES |
| OTTESEN 23NA - OWB - Plan #2 | 17,449.6 | 17,444.9 | 976.0 | 580.8 | 2.469 | SF |
| OTTESEN 24N - OWB - OWB | 590.2 | 588.2 | 52.1 | 46.8 | 9.900 | CC |
| OTTESEN 24N - OWB - OWB | 600.0 | 597.7 | 52.2 | 46.8 | 9.760 | ES |
| OTTESEN 24N - OWB - OWB | 716.0 | 708.9 | 62.0 | 54.4 | 8.175 | SF |
| OTTESEN 24N - OWB - Plan #2 | 590.2 | 588.2 | 52.1 | 46.8 | 9.900 | CC |
| OTTESEN 24N - OWB - Plan #2 | 600.0 | 597.7 | 52.2 | 46.8 | 9.760 | ES |
| OTTESEN 24N - OWB - Plan #2 | 17,449.6 | 17,737.1 | 759.8 | 361.8 | 1.909 | Collision Risk Procedures Req., SF |
| OTTESEN 25N - OWB - Plan #2 | 250.0 | 250.0 | 45.1 | 42.3 | 16.145 | CC |
| OTTESEN 25N - OWB - Plan #2 | 500.0 | 495.6 | 47.3 | 40.1 | 6.565 | ES |
| OTTESEN 25N - OWB - Plan #2 | 17,449.6 | 17,469.6 | 573.0 | 173.7 | 1.435 | Collision Avoidance Req., SF |
| OTTESEN 26C - OWB - Plan #2 | 250.0 | 250.0 | 30.5 | 27.7 | 10.931 | CC |
| OTTESEN 26C - OWB - Plan #2 | 500.0 | 497.1 | 32.2 | 25.1 | 4.545 | ES |
| OTTESEN 26C - OWB - Plan #2 | 17,449.6 | 17,679.4 | 412.2 | 45.7 | 1.125 | Collision Avoidance Req., SF |
| OTTESEN 27NA - OWB - OWB | 429.9 | 429.6 | 11.6 | 7.6 | 2.888 | CC, ES |
| OTTESEN 27NA - OWB - OWB | 500.0 | 499.2 | 14.1 | 8.7 | 2.593 | SF |
| OTTESEN 27NA - OWB - Plan #2 | 429.9 | 429.6 | 11.6 | 7.6 | 2.888 | CC |
| OTTESEN 27NA - OWB - Plan #2 | 17,449.6 | 17,364.8 | 294.5 | -6.6 | 0.978 | No-Go Zone - Stop Drilling, ES |
| OTTESEN 29C - OWB - Plan #2 | 250.0 | 250.0 | 14.6 | 11.8 | 5.215 | CC |
| OTTESEN 29C - OWB - Plan #2 | 17,449.6 | 17,591.8 | 245.2 | -92.6 | 0.726 | No-Go Zone - Stop Drilling, ES |
| OTTESEN 30N - OWB - OWB | 258.1 | 258.2 | 28.9 | 25.8 | 9.289 | CC |
| OTTESEN 30N - OWB - OWB | 300.0 | 300.2 | 29.2 | 25.6 | 8.223 | ES |

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

PDC Energy Inc.
Anticollision Summary Report

| | | | |
|---------------------------|-------------------|-------------------------------------|----------------------------|
| Company: | GWP - PLANNING DB | Local Co-ordinate Reference: | Well OTTESEN 28N |
| Project: | WELD COUNTY | TVD Reference: | KB 20' @ 5096.0usft |
| Reference Site: | Ottesen Pad | MD Reference: | KB 20' @ 5096.0usft |
| Site Error: | 0.0 usft | North Reference: | True |
| Reference Well: | OTTESEN 28N | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OWB | Database: | EDM 5000.15 Single User Db |
| Reference Design: | Plan #2 | Offset TVD Reference: | Offset Datum |

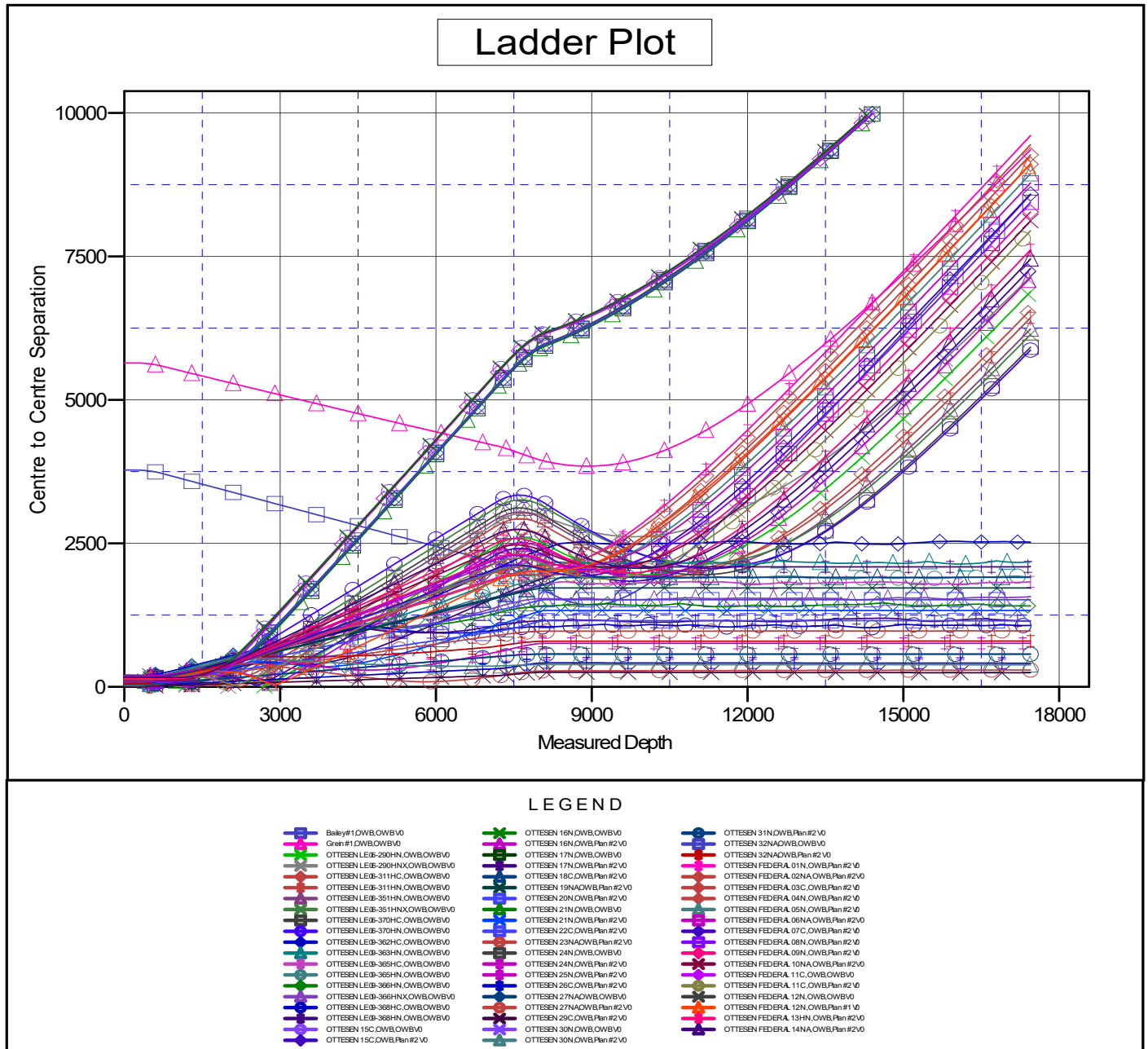
| Summary | | | | | | |
|--------------------------------------|---------------------------------|------------------------------|---------------------------------|----------------------------------|-------------------|-------------------------------|
| Site Name | Reference Measured Depth (usft) | Offset Measured Depth (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Separation Factor | Warning |
| Offset Well - Wellbore - Design | | | | | | |
| Ottesen Pad | | | | | | |
| OTTESEN 30N - OWB - OWB | 500.0 | 499.3 | 41.2 | 34.3 | 5.970 | SF |
| OTTESEN 30N - OWB - Plan #2 | 258.1 | 258.2 | 28.9 | 25.8 | 9.289 | CC |
| OTTESEN 30N - OWB - Plan #2 | 17,449.6 | 17,395.0 | 384.6 | -8.0 | 0.980 | No-Go Zone - Stop Drilling, E |
| OTTESEN 31N - OWB - Plan #2 | 250.0 | 250.0 | 45.1 | 42.3 | 16.145 | CC |
| OTTESEN 31N - OWB - Plan #2 | 400.0 | 401.3 | 46.5 | 42.0 | 10.195 | ES |
| OTTESEN 31N - OWB - Plan #2 | 17,449.6 | 17,390.0 | 569.9 | 170.9 | 1.428 | Collision Avoidance Req., SF |
| OTTESEN 32NA - OWB - OWB | 204.5 | 204.5 | 57.8 | 55.2 | 21.974 | CC |
| OTTESEN 32NA - OWB - OWB | 300.0 | 300.4 | 58.2 | 55.1 | 18.299 | ES |
| OTTESEN 32NA - OWB - OWB | 600.0 | 598.0 | 82.6 | 74.8 | 10.637 | SF |
| OTTESEN 32NA - OWB - Plan #2 | 204.5 | 204.5 | 57.8 | 55.2 | 21.974 | CC |
| OTTESEN 32NA - OWB - Plan #2 | 300.0 | 300.4 | 58.2 | 55.1 | 18.299 | ES |
| OTTESEN 32NA - OWB - Plan #2 | 17,449.6 | 17,211.7 | 798.3 | 418.4 | 2.101 | SF |
| OTTESEN FEDERAL 01N - OWB - Plan #2 | 762.5 | 735.5 | 108.7 | 94.0 | 7.409 | CC |
| OTTESEN FEDERAL 01N - OWB - Plan #2 | 800.0 | 770.9 | 109.1 | 94.0 | 7.225 | ES |
| OTTESEN FEDERAL 01N - OWB - Plan #2 | 900.0 | 864.9 | 114.0 | 97.8 | 7.056 | SF |
| OTTESEN FEDERAL 02NA - OWB - Plan #2 | 775.9 | 751.0 | 100.3 | 85.6 | 6.834 | CC |
| OTTESEN FEDERAL 02NA - OWB - Plan #2 | 800.0 | 773.9 | 100.5 | 85.5 | 6.708 | ES |
| OTTESEN FEDERAL 02NA - OWB - Plan #2 | 900.0 | 868.5 | 104.6 | 88.4 | 6.471 | SF |
| OTTESEN FEDERAL 03C - OWB - Plan #2 | 789.8 | 767.0 | 93.9 | 79.4 | 6.477 | CC |
| OTTESEN FEDERAL 03C - OWB - Plan #2 | 800.0 | 776.7 | 93.9 | 79.3 | 6.419 | ES |
| OTTESEN FEDERAL 03C - OWB - Plan #2 | 900.0 | 871.9 | 97.1 | 81.2 | 6.088 | SF |
| OTTESEN FEDERAL 04N - OWB - Plan #2 | 806.9 | 786.3 | 89.1 | 75.1 | 6.356 | CC, ES |
| OTTESEN FEDERAL 04N - OWB - Plan #2 | 1,000.0 | 970.3 | 99.0 | 82.1 | 5.881 | SF |
| OTTESEN FEDERAL 05N - OWB - Plan #2 | 823.6 | 805.1 | 87.3 | 74.1 | 6.586 | CC, ES |
| OTTESEN FEDERAL 05N - OWB - Plan #2 | 1,000.0 | 974.0 | 95.0 | 78.9 | 5.880 | SF |
| OTTESEN FEDERAL 06NA - OWB - Plan #2 | 840.9 | 824.5 | 88.2 | 75.9 | 7.181 | CC |
| OTTESEN FEDERAL 06NA - OWB - Plan #2 | 900.0 | 881.6 | 89.0 | 75.7 | 6.690 | ES |
| OTTESEN FEDERAL 06NA - OWB - Plan #2 | 1,100.0 | 1,071.9 | 104.5 | 87.6 | 6.163 | SF |
| OTTESEN FEDERAL 07C - OWB - Plan #2 | 858.6 | 844.5 | 92.2 | 81.1 | 8.293 | CC |
| OTTESEN FEDERAL 07C - OWB - Plan #2 | 900.0 | 884.6 | 92.5 | 80.7 | 7.820 | ES |
| OTTESEN FEDERAL 07C - OWB - Plan #2 | 1,100.0 | 1,075.9 | 105.1 | 89.2 | 6.619 | SF |
| OTTESEN FEDERAL 08N - OWB - Plan #2 | 880.4 | 868.5 | 97.9 | 87.7 | 9.613 | CC |
| OTTESEN FEDERAL 08N - OWB - Plan #2 | 900.0 | 887.6 | 98.0 | 87.5 | 9.317 | ES |
| OTTESEN FEDERAL 08N - OWB - Plan #2 | 1,200.0 | 1,173.2 | 120.6 | 103.7 | 7.162 | SF |
| OTTESEN FEDERAL 09N - OWB - Plan #2 | 898.7 | 888.9 | 106.0 | 96.6 | 11.289 | CC |
| OTTESEN FEDERAL 09N - OWB - Plan #2 | 1,000.0 | 987.4 | 107.6 | 96.3 | 9.550 | ES |
| OTTESEN FEDERAL 09N - OWB - Plan #2 | 1,200.0 | 1,177.0 | 124.4 | 108.6 | 7.879 | SF |
| OTTESEN FEDERAL 10NA - OWB - Plan #2 | 915.3 | 907.8 | 115.5 | 106.6 | 13.078 | CC |
| OTTESEN FEDERAL 10NA - OWB - Plan #2 | 1,000.0 | 990.3 | 116.4 | 106.1 | 11.320 | ES |
| OTTESEN FEDERAL 10NA - OWB - Plan #2 | 1,300.0 | 1,272.6 | 146.1 | 129.1 | 8.603 | SF |
| OTTESEN FEDERAL 11C - OWB - OWB | 509.3 | 507.9 | 131.7 | 127.1 | 28.729 | CC |
| OTTESEN FEDERAL 11C - OWB - OWB | 1,719.1 | 1,736.0 | 140.5 | 121.8 | 7.521 | ES, SF |
| OTTESEN FEDERAL 11C - OWB - Plan #2 | 2,132.1 | 2,169.5 | 37.1 | 18.4 | 1.977 | Collision Risk Procedures Re |
| OTTESEN FEDERAL 12N - OWB - OWB | 510.3 | 510.1 | 143.8 | 139.2 | 31.854 | CC, ES |
| OTTESEN FEDERAL 12N - OWB - OWB | 1,712.6 | 1,742.0 | 276.8 | 258.8 | 15.343 | SF |
| OTTESEN FEDERAL 12N - OWB - Plan #1 | 2,888.9 | 2,966.4 | 40.2 | 14.5 | 1.565 | Collision Risk Procedures Re |
| OTTESEN FEDERAL 13HN - OWB - Plan #2 | 957.3 | 956.7 | 151.2 | 143.0 | 18.471 | CC |
| OTTESEN FEDERAL 13HN - OWB - Plan #2 | 1,000.0 | 998.6 | 151.4 | 142.7 | 17.371 | ES |
| OTTESEN FEDERAL 13HN - OWB - Plan #2 | 1,400.0 | 1,373.7 | 187.0 | 170.3 | 11.185 | SF |
| OTTESEN FEDERAL 14NA - OWB - Plan #2 | 964.1 | 965.7 | 164.5 | 156.3 | 20.198 | CC |
| OTTESEN FEDERAL 14NA - OWB - Plan #2 | 1,000.0 | 1,001.0 | 164.5 | 156.0 | 19.266 | ES |
| OTTESEN FEDERAL 14NA - OWB - Plan #2 | 1,500.0 | 1,464.4 | 218.5 | 200.4 | 12.056 | SF |

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

Anticollision Summary Report

| | | | |
|---------------------------|-------------------|-------------------------------------|----------------------------|
| Company: | GWP - PLANNING DB | Local Co-ordinate Reference: | Well OTTESEN 28N |
| Project: | WELD COUNTY | TVD Reference: | KB 20' @ 5096.0usft |
| Reference Site: | Ottesen Pad | MD Reference: | KB 20' @ 5096.0usft |
| Site Error: | 0.0 usft | North Reference: | True |
| Reference Well: | OTTESEN 28N | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OWB | Database: | EDM 5000.15 Single User Db |
| Reference Design: | Plan #2 | Offset TVD Reference: | Offset Datum |

Coordinates are relative to: OTTESEN 28N
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.47°



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

PDC Energy Inc.
Anticollision Summary Report

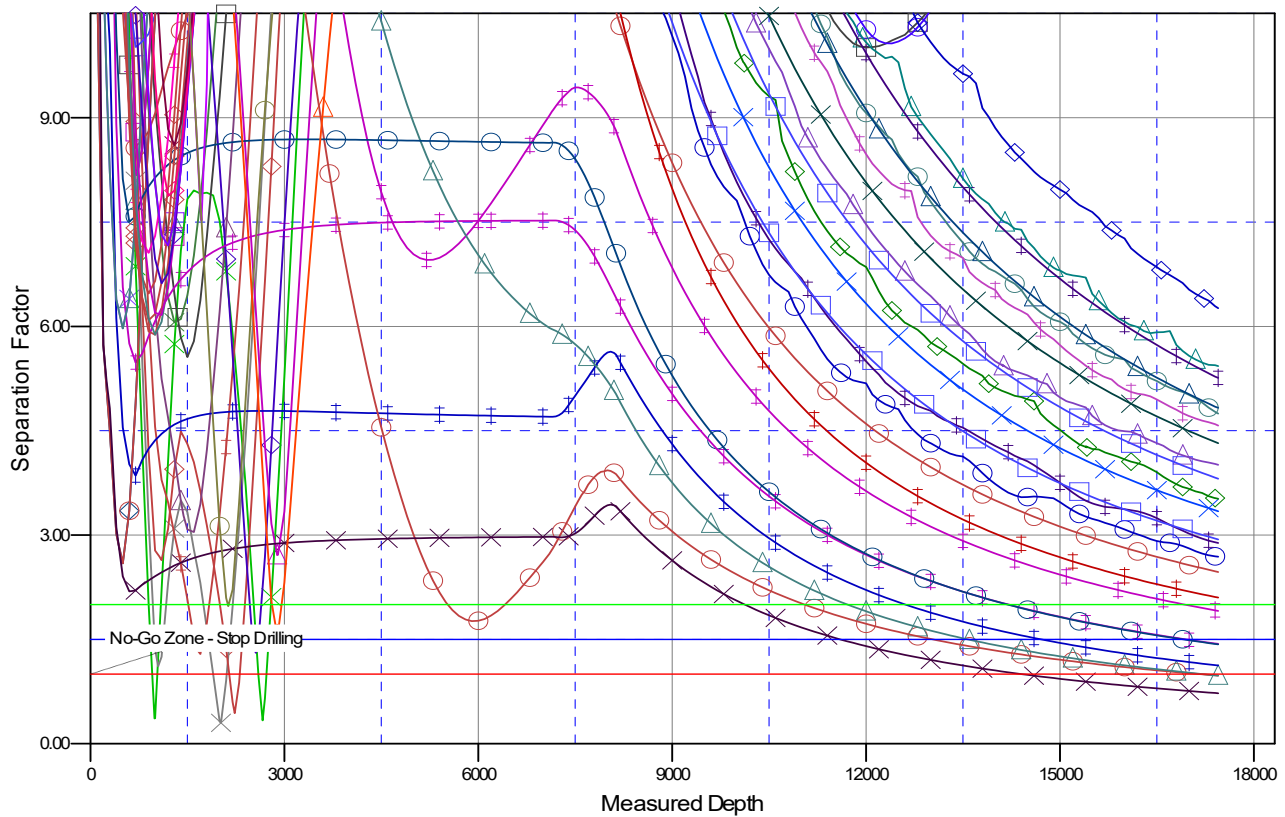
Company: GWP - PLANNING DB
Project: WELD COUNTY
Reference Site: Ottesen Pad
Site Error: 0.0 usft
Reference Well: OTTESEN 28N
Well Error: 0.0 usft
Reference Wellbore: OWB
Reference Design: Plan #2

Local Co-ordinate Reference: Well OTTESEN 28N
TVD Reference: KB 20' @ 5096.0usft
MD Reference: KB 20' @ 5096.0usft
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.15 Single User Db
Offset TVD Reference: Offset Datum

Reference Depths are relative to KB 20' @ 5096.0usft
Offset Depths are relative to Offset Datum
Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: OTTESEN 28N
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.47°

Separation Factor Plot



LEGEND

| | | |
|--------------------------------|-----------------------------|--------------------------------------|
| ● Bailey#11.OWB,OWB#0 | ● OTTESEN 16N.OWB,OWB#0 | ● OTTESEN 31N.OWB,Plan#2 V0 |
| ● Otter#11.OWB,OWB#0 | ● OTTESEN 16N.OWB,Plan#2 V0 | ● OTTESEN 32N.OWB,OWB#0 |
| ● OTTESEN LE03-250HN.OWB,OWB#0 | ● OTTESEN 17N.OWB,OWB#0 | ● OTTESEN 32N.OWB,Plan#2 V0 |
| ● OTTESEN LE03-311HC.OWB,OWB#0 | ● OTTESEN 18C.OWB,Plan#2 V0 | ● OTTESEN FEDERAL 01N.OWB,Plan#2 V0 |
| ● OTTESEN LE03-311HN.OWB,OWB#0 | ● OTTESEN 18N.OWB,Plan#2 V0 | ● OTTESEN FEDERAL 02N.OWB,Plan#2 V0 |
| ● OTTESEN LE03-351HN.OWB,OWB#0 | ● OTTESEN 20N.OWB,Plan#2 V0 | ● OTTESEN FEDERAL 03C.OWB,Plan#2 V0 |
| ● OTTESEN LE03-351HN.OWB,OWB#0 | ● OTTESEN 21N.OWB,OWB#0 | ● OTTESEN FEDERAL 04N.OWB,Plan#2 V0 |
| ● OTTESEN LE03-370HC.OWB,OWB#0 | ● OTTESEN 21N.OWB,Plan#2 V0 | ● OTTESEN FEDERAL 05N.OWB,Plan#2 V0 |
| ● OTTESEN LE03-370HN.OWB,OWB#0 | ● OTTESEN 22C.OWB,Plan#2 V0 | ● OTTESEN FEDERAL 06N.OWB,Plan#2 V0 |
| ● OTTESEN LE03-362HC.OWB,OWB#0 | ● OTTESEN 23N.OWB,Plan#2 V0 | ● OTTESEN FEDERAL 07C.OWB,Plan#2 V0 |
| ● OTTESEN LE03-363HN.OWB,OWB#0 | ● OTTESEN 24N.OWB,OWB#0 | ● OTTESEN FEDERAL 08N.OWB,Plan#2 V0 |
| ● OTTESEN LE03-365HC.OWB,OWB#0 | ● OTTESEN 24N.OWB,Plan#2 V0 | ● OTTESEN FEDERAL 09N.OWB,Plan#2 V0 |
| ● OTTESEN LE03-365HN.OWB,OWB#0 | ● OTTESEN 25N.OWB,Plan#2 V0 | ● OTTESEN FEDERAL 10N.OWB,Plan#2 V0 |
| ● OTTESEN LE03-365HN.OWB,OWB#0 | ● OTTESEN 26C.OWB,Plan#2 V0 | ● OTTESEN FEDERAL 11C.OWB,OWB#0 |
| ● OTTESEN LE03-366HN.OWB,OWB#0 | ● OTTESEN 27N.OWB,OWB#0 | ● OTTESEN FEDERAL 11C.OWB,Plan#2 V0 |
| ● OTTESEN LE03-368HC.OWB,OWB#0 | ● OTTESEN 27N.OWB,Plan#2 V0 | ● OTTESEN FEDERAL 12N.OWB,OWB#0 |
| ● OTTESEN LE03-368HN.OWB,OWB#0 | ● OTTESEN 29C.OWB,Plan#2 V0 | ● OTTESEN FEDERAL 12N.OWB,Plan#1 V0 |
| ● OTTESEN 15C.OWB,OWB#0 | ● OTTESEN 30N.OWB,OWB#0 | ● OTTESEN FEDERAL 13HN.OWB,Plan#2 V0 |
| ● OTTESEN 15C.OWB,Plan#2 V0 | ● OTTESEN 30N.OWB,Plan#2 V0 | ● OTTESEN FEDERAL 14N.OWB,Plan#2 V0 |

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