



Project: Weld County, CO
Site: Sec 25-T10N-R58W
Well: Razor #250-2443
Wellbore: Hz
Design: APD

PROJECT DETAILS: Weld County, CO
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone
System Datum: Mean Sea Level



Azimuths to True North
Magnetic North: 7.84°
Magnetic Field
Strength: 53022.2nT
Dip Angle: 67.38°
Date: 5/21/2015
Model: IGRF2010

FORMATION TOP DETAILS

| | TVDPath | MDPath | Formation |
|---------|---------|---------|----------------|
| 1550.00 | 1552.73 | 1552.73 | Upper Pierre |
| 3500.00 | 3507.37 | 3507.37 | Hygiene |
| 3650.00 | 3657.39 | 3657.39 | Lower Pierre |
| 5444.00 | 5460.30 | 5460.30 | P200 Marker |
| 5464.00 | 5482.99 | 5482.99 | P300 Marker |
| 5480.00 | 5501.55 | 5501.55 | P350 Marker |
| 5494.00 | 5518.13 | 5518.13 | Sharon Springs |
| 5498.00 | 5522.93 | 5522.93 | Niobrara |
| 5515.00 | 5543.67 | 5543.67 | Top A Chalk |
| 5545.00 | 5581.85 | 5581.85 | Top A Marl |
| 5557.00 | 5597.79 | 5597.79 | A Marl |
| 5565.00 | 5608.67 | 5608.67 | Top Upper B |
| 5589.00 | 5642.69 | 5642.69 | Base Upper B |
| 5605.00 | 5666.75 | 5666.75 | Top Lower B |
| 5634.00 | 5714.12 | 5714.12 | Base Lower B |
| 5647.00 | 5737.45 | 5737.45 | Top B Marl |
| 5689.00 | 5828.24 | 5828.24 | Top C Chalk |
| 5697.00 | 5850.17 | 5850.17 | Middle C Chalk |
| 5711.00 | 5896.37 | 5896.37 | Middle C Marl |
| 5729.00 | 6033.70 | 6033.70 | Lower C Chalk |

WELL DETAILS: Razor #250-2443

| +N/-S | +E/-W | Northing | Ground Level: | 4717.00 | Longitude | Slot |
|-------|-------|------------|---------------|------------|------------------|-------------------|
| 0.00 | 0.00 | 1539953.92 | Easting | 3467769.99 | 40° 48' 11.960 N | 103° 48' 37.090 W |

SECTION DETAILS

| Sec | MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | TFace | VSec | Target |
|-----|----------|-------|--------|---------|----------|---------|-------|--------|----------|-----------|
| 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 2 | 300.00 | 0.00 | 0.00 | 300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 3 | 500.00 | 4.00 | 220.00 | 499.84 | -5.35 | -4.49 | 2.00 | 220.00 | -5.28 | |
| 4 | 3400.00 | 4.00 | 220.00 | 3392.77 | -160.31 | -134.52 | 0.00 | 0.00 | -158.46 | |
| 5 | 3600.00 | 0.00 | 0.00 | 3592.61 | -165.66 | -139.00 | 2.00 | 180.00 | -163.75 | |
| 6 | 5215.52 | 0.00 | 0.00 | 5208.13 | -165.66 | -139.00 | 0.00 | 0.00 | -163.75 | |
| 7 | 6033.70 | 90.00 | 360.00 | 5729.00 | 355.21 | -139.01 | 11.00 | 360.00 | 357.08 | PBHL 2443 |
| 8 | 15874.95 | 90.00 | 360.00 | 5729.00 | 10196.46 | -139.14 | 0.00 | 0.00 | 10197.41 | PBHL 2443 |

ANNOTATIONS

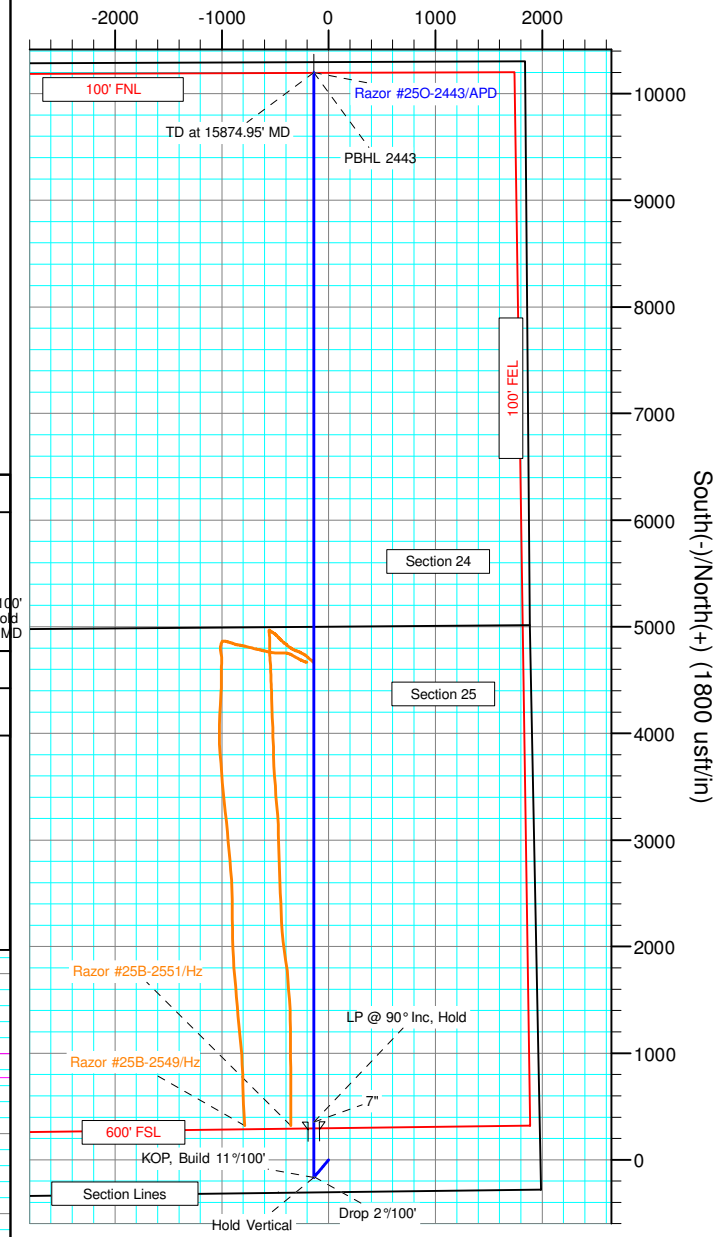
| TVD | MD | Inc | Azi | +N/-S | +E/-W | VSec | Departure | Annotation |
|---------|----------|-------|--------|----------|---------|----------|-----------|---------------------|
| 300.00 | 300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Build 2°/100' |
| 499.84 | 500.00 | 4.00 | 220.00 | -5.35 | -4.49 | -5.28 | 6.98 | Hold 4° Inc |
| 3392.77 | 3400.00 | 4.00 | 220.00 | -160.31 | -134.52 | -158.46 | 209.27 | Drop 2°/100' |
| 3592.61 | 3600.00 | 0.00 | 0.00 | -165.66 | -139.00 | -163.75 | 216.25 | Hold Vertical |
| 5208.13 | 5215.52 | 0.00 | 0.00 | -165.66 | -139.00 | -163.75 | 216.25 | KOP, Build 11°/100' |
| 5729.00 | 6033.70 | 90.00 | 360.00 | 355.21 | -139.01 | 357.08 | 737.12 | LP @ 90° Inc, Hold |
| 5729.00 | 15874.95 | 90.00 | 360.00 | 10196.46 | -139.14 | 10197.41 | 10578.37 | TD at 15874.95' MD |

DESIGN TARGET DETAILS

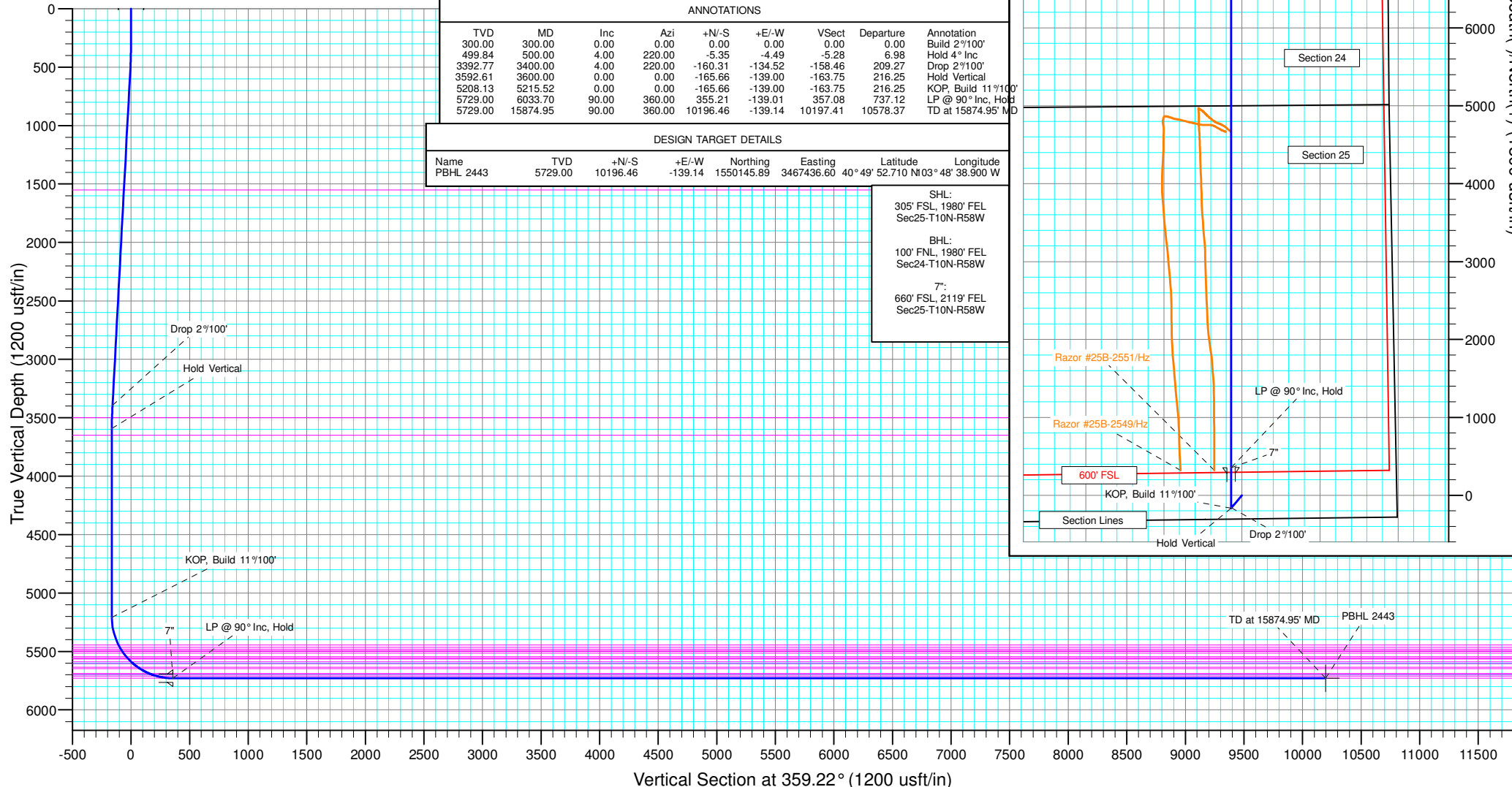
| Name | TVD | +N/-S | +E/-W | Northing | Easting | Latitude | Longitude |
|-----------|---------|----------|---------|------------|------------|------------------|-------------------|
| PBHL 2443 | 5729.00 | 10196.46 | -139.14 | 1550145.89 | 3467436.60 | 40° 49' 52.710 N | 103° 48' 38.900 W |

SHL:
305' FSL, 1980' FEL
Sec25-T10N-R58W
BHL:
100' FNL, 1980' FEL
Sec24-T10N-R58W
7":
660' FSL, 2119' FEL
Sec25-T10N-R58W

West(-)/East(+) (1800 usft/in)



South(-)/North(+) (1800 usft/in)





Whiting Petroleum Corp.

**Weld County, CO
Sec 25-T10N-R58W
Razor #25O-2443**

Hz

Plan: APD

Standard Planning Report

22 May, 2015



WOG

Planning Report

| | | | |
|------------------|-------------------------|-------------------------------------|--|
| Database: | LandmarkEDM | Local Co-ordinate Reference: | Well Razor #25O-2443 |
| Company: | Whiting Petroleum Corp. | TVD Reference: | KBE @ 4738.00usft (Original Well Elev) |
| Project: | Weld County, CO | MD Reference: | KBE @ 4738.00usft (Original Well Elev) |
| Site: | Sec 25-T10N-R58W | North Reference: | True |
| Well: | Razor #25O-2443 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Hz | | |
| Design: | APD | | |

| | | | |
|--------------------|---------------------------|----------------------|----------------|
| Project | Weld County, CO | | |
| Map System: | US State Plane 1983 | System Datum: | Mean Sea Level |
| Geo Datum: | North American Datum 1983 | | |
| Map Zone: | Colorado Northern Zone | | |

| | | | | | |
|-----------------------|-----------|------------------|-------------------|-------------------|-------------------|
| Site | | Sec 25-T10N-R58W | | | |
| Site Position: | | Northing: | 1,544,564.45 usft | Latitude: | 40° 48' 58.050 N |
| From: | Lat/Long | Easting: | 3,464,883.62 usft | Longitude: | 103° 49' 13.480 W |
| Position Uncertainty: | 0.00 usft | Slot Radius: | 13.200 in | Grid Convergence: | 1.09 ° |

| Well | | Razor #25O-2443 | | | | |
|----------------------|-------|-----------------|---------------------|-------------------|---------------|-------------------|
| Well Position | +N/-S | -4,664.37 usft | Northing: | 1,539,953.93 usft | Latitude: | 40° 48' 11.960 N |
| | +E/-W | 2,798.53 usft | Easting: | 3,467,769.99 usft | Longitude: | 103° 48' 37.090 W |
| Position Uncertainty | | 0.00 usft | Wellhead Elevation: | | Ground Level: | 4,717.00 usft |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | Hz | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2010 | 5/21/2015 | 7.84 | 67.38 | 53,022 |

| | | | | |
|--------------------------|--------------------------------|---------------------|----------------------|----------------------|
| Design | APD | | | |
| Audit Notes: | | | | |
| Version: | Phase: | PROTOTYPE | Tie On Depth: | 0.00 |
| Vertical Section: | Depth From (TVD) (usft) | +N/-S (usft) | +E/-W (usft) | Direction (°) |
| | 0.00 | 0.00 | 0.00 | 359.22 |

| Plan Sections | | | | | | | | | | |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-----------------------|----------------------|---------------------|---------|-----------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | TFO (°) | Target |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 300.00 | 0.00 | 0.00 | 300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 500.00 | 4.00 | 220.00 | 499.84 | -5.35 | -4.49 | 2.00 | 2.00 | 0.00 | 220.00 | |
| 3,400.00 | 4.00 | 220.00 | 3,392.77 | -160.31 | -134.52 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 3,600.00 | 0.00 | 0.00 | 3,592.61 | -165.66 | -139.00 | 2.00 | -2.00 | 0.00 | 180.00 | |
| 5,215.52 | 0.00 | 0.00 | 5,208.13 | -165.66 | -139.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 6,033.70 | 90.00 | 360.00 | 5,729.00 | 355.21 | -139.01 | 11.00 | 11.00 | 0.00 | 360.00 | PBHL 2443 |
| 15,874.95 | 90.00 | 360.00 | 5,729.00 | 10,196.46 | -139.14 | 0.00 | 0.00 | 0.00 | 0.00 | PBHL 2443 |



WOG

Planning Report

| | | | |
|------------------|-------------------------|-------------------------------------|--|
| Database: | LandmarkEDM | Local Co-ordinate Reference: | Well Razor #25O-2443 |
| Company: | Whiting Petroleum Corp. | TVD Reference: | KBE @ 4738.00usft (Original Well Elev) |
| Project: | Weld County, CO | MD Reference: | KBE @ 4738.00usft (Original Well Elev) |
| Site: | Sec 25-T10N-R58W | North Reference: | True |
| Well: | Razor #25O-2443 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Hz | | |
| Design: | APD | | |

| Planned Survey | | | | | | | | | |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-----------------------|----------------------|---------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100.00 | 0.00 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 200.00 | 0.00 | 0.00 | 200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 300.00 | 0.00 | 0.00 | 300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Build 2°/100' | | | | | | | | | |
| 400.00 | 2.00 | 220.00 | 399.98 | -1.34 | -1.12 | -1.32 | 2.00 | 2.00 | 0.00 |
| 500.00 | 4.00 | 220.00 | 499.84 | -5.35 | -4.49 | -5.28 | 2.00 | 2.00 | 0.00 |
| Hold 4° Inc | | | | | | | | | |
| 600.00 | 4.00 | 220.00 | 599.59 | -10.69 | -8.97 | -10.57 | 0.00 | 0.00 | 0.00 |
| 700.00 | 4.00 | 220.00 | 699.35 | -16.03 | -13.45 | -15.85 | 0.00 | 0.00 | 0.00 |
| 800.00 | 4.00 | 220.00 | 799.11 | -21.38 | -17.94 | -21.13 | 0.00 | 0.00 | 0.00 |
| 900.00 | 4.00 | 220.00 | 898.86 | -26.72 | -22.42 | -26.41 | 0.00 | 0.00 | 0.00 |
| 1,000.00 | 4.00 | 220.00 | 998.62 | -32.06 | -26.90 | -31.69 | 0.00 | 0.00 | 0.00 |
| 1,100.00 | 4.00 | 220.00 | 1,098.38 | -37.41 | -31.39 | -36.98 | 0.00 | 0.00 | 0.00 |
| 1,200.00 | 4.00 | 220.00 | 1,198.13 | -42.75 | -35.87 | -42.26 | 0.00 | 0.00 | 0.00 |
| 1,300.00 | 4.00 | 220.00 | 1,297.89 | -48.10 | -40.36 | -47.54 | 0.00 | 0.00 | 0.00 |
| 1,400.00 | 4.00 | 220.00 | 1,397.65 | -53.44 | -44.84 | -52.82 | 0.00 | 0.00 | 0.00 |
| 1,500.00 | 4.00 | 220.00 | 1,497.40 | -58.78 | -49.32 | -58.10 | 0.00 | 0.00 | 0.00 |
| 1,552.73 | 4.00 | 220.00 | 1,550.00 | -61.60 | -51.69 | -60.89 | 0.00 | 0.00 | 0.00 |
| Upper Pierre | | | | | | | | | |
| 1,600.00 | 4.00 | 220.00 | 1,597.16 | -64.13 | -53.81 | -63.39 | 0.00 | 0.00 | 0.00 |
| 1,700.00 | 4.00 | 220.00 | 1,696.91 | -69.47 | -58.29 | -68.67 | 0.00 | 0.00 | 0.00 |
| 1,800.00 | 4.00 | 220.00 | 1,796.67 | -74.81 | -62.78 | -73.95 | 0.00 | 0.00 | 0.00 |
| 1,900.00 | 4.00 | 220.00 | 1,896.43 | -80.16 | -67.26 | -79.23 | 0.00 | 0.00 | 0.00 |
| 2,000.00 | 4.00 | 220.00 | 1,996.18 | -85.50 | -71.74 | -84.51 | 0.00 | 0.00 | 0.00 |
| 2,100.00 | 4.00 | 220.00 | 2,095.94 | -90.84 | -76.23 | -89.80 | 0.00 | 0.00 | 0.00 |
| 2,200.00 | 4.00 | 220.00 | 2,195.70 | -96.19 | -80.71 | -95.08 | 0.00 | 0.00 | 0.00 |
| 2,300.00 | 4.00 | 220.00 | 2,295.45 | -101.53 | -85.20 | -100.36 | 0.00 | 0.00 | 0.00 |
| 2,400.00 | 4.00 | 220.00 | 2,395.21 | -106.88 | -89.68 | -105.64 | 0.00 | 0.00 | 0.00 |
| 2,500.00 | 4.00 | 220.00 | 2,494.97 | -112.22 | -94.16 | -110.92 | 0.00 | 0.00 | 0.00 |
| 2,600.00 | 4.00 | 220.00 | 2,594.72 | -117.56 | -98.65 | -116.21 | 0.00 | 0.00 | 0.00 |
| 2,700.00 | 4.00 | 220.00 | 2,694.48 | -122.91 | -103.13 | -121.49 | 0.00 | 0.00 | 0.00 |
| 2,800.00 | 4.00 | 220.00 | 2,794.23 | -128.25 | -107.61 | -126.77 | 0.00 | 0.00 | 0.00 |
| 2,900.00 | 4.00 | 220.00 | 2,893.99 | -133.59 | -112.10 | -132.05 | 0.00 | 0.00 | 0.00 |
| 3,000.00 | 4.00 | 220.00 | 2,993.75 | -138.94 | -116.58 | -137.33 | 0.00 | 0.00 | 0.00 |
| 3,100.00 | 4.00 | 220.00 | 3,093.50 | -144.28 | -121.07 | -142.62 | 0.00 | 0.00 | 0.00 |
| 3,200.00 | 4.00 | 220.00 | 3,193.26 | -149.62 | -125.55 | -147.90 | 0.00 | 0.00 | 0.00 |
| 3,300.00 | 4.00 | 220.00 | 3,293.02 | -154.97 | -130.03 | -153.18 | 0.00 | 0.00 | 0.00 |
| 3,400.00 | 4.00 | 220.00 | 3,392.77 | -160.31 | -134.52 | -158.46 | 0.00 | 0.00 | 0.00 |
| Drop 2°/100' | | | | | | | | | |
| 3,500.00 | 2.00 | 220.00 | 3,492.63 | -164.32 | -137.88 | -162.42 | 2.00 | -2.00 | 0.00 |
| 3,507.37 | 1.85 | 220.00 | 3,500.00 | -164.51 | -138.04 | -162.61 | 2.00 | -2.00 | 0.00 |
| Hygiene | | | | | | | | | |
| 3,600.00 | 0.00 | 0.00 | 3,592.61 | -165.66 | -139.00 | -163.75 | 2.00 | -2.00 | 0.00 |
| Hold Vertical | | | | | | | | | |
| 3,657.39 | 0.00 | 0.00 | 3,650.00 | -165.66 | -139.00 | -163.75 | 0.00 | 0.00 | 0.00 |
| Lower Pierre | | | | | | | | | |
| 3,700.00 | 0.00 | 0.00 | 3,692.61 | -165.66 | -139.00 | -163.75 | 0.00 | 0.00 | 0.00 |
| 3,800.00 | 0.00 | 0.00 | 3,792.61 | -165.66 | -139.00 | -163.75 | 0.00 | 0.00 | 0.00 |
| 3,900.00 | 0.00 | 0.00 | 3,892.61 | -165.66 | -139.00 | -163.75 | 0.00 | 0.00 | 0.00 |
| 4,000.00 | 0.00 | 0.00 | 3,992.61 | -165.66 | -139.00 | -163.75 | 0.00 | 0.00 | 0.00 |
| 4,100.00 | 0.00 | 0.00 | 4,092.61 | -165.66 | -139.00 | -163.75 | 0.00 | 0.00 | 0.00 |
| 4,200.00 | 0.00 | 0.00 | 4,192.61 | -165.66 | -139.00 | -163.75 | 0.00 | 0.00 | 0.00 |



WOG Planning Report

| | | | |
|------------------|-------------------------|-------------------------------------|--|
| Database: | LandmarkEDM | Local Co-ordinate Reference: | Well Razor #25O-2443 |
| Company: | Whiting Petroleum Corp. | TVD Reference: | KBE @ 4738.00usft (Original Well Elev) |
| Project: | Weld County, CO | MD Reference: | KBE @ 4738.00usft (Original Well Elev) |
| Site: | Sec 25-T10N-R58W | North Reference: | True |
| Well: | Razor #25O-2443 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Hz | | |
| Design: | APD | | |

| Planned Survey | | | | | | | | | |
|----------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-----------------------|----------------------|---------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 4,300.00 | 0.00 | 0.00 | 4,292.61 | -165.66 | -139.00 | -163.75 | 0.00 | 0.00 | 0.00 |
| 4,400.00 | 0.00 | 0.00 | 4,392.61 | -165.66 | -139.00 | -163.75 | 0.00 | 0.00 | 0.00 |
| 4,500.00 | 0.00 | 0.00 | 4,492.61 | -165.66 | -139.00 | -163.75 | 0.00 | 0.00 | 0.00 |
| 4,600.00 | 0.00 | 0.00 | 4,592.61 | -165.66 | -139.00 | -163.75 | 0.00 | 0.00 | 0.00 |
| 4,700.00 | 0.00 | 0.00 | 4,692.61 | -165.66 | -139.00 | -163.75 | 0.00 | 0.00 | 0.00 |
| 4,800.00 | 0.00 | 0.00 | 4,792.61 | -165.66 | -139.00 | -163.75 | 0.00 | 0.00 | 0.00 |
| 4,900.00 | 0.00 | 0.00 | 4,892.61 | -165.66 | -139.00 | -163.75 | 0.00 | 0.00 | 0.00 |
| 5,000.00 | 0.00 | 0.00 | 4,992.61 | -165.66 | -139.00 | -163.75 | 0.00 | 0.00 | 0.00 |
| 5,100.00 | 0.00 | 0.00 | 5,092.61 | -165.66 | -139.00 | -163.75 | 0.00 | 0.00 | 0.00 |
| 5,200.00 | 0.00 | 0.00 | 5,192.61 | -165.66 | -139.00 | -163.75 | 0.00 | 0.00 | 0.00 |
| 5,215.52 | 0.00 | 0.00 | 5,208.13 | -165.66 | -139.00 | -163.75 | 0.00 | 0.00 | 0.00 |
| KOP, Build 11°/100' | | | | | | | | | |
| 5,250.00 | 3.79 | 360.00 | 5,242.59 | -164.52 | -139.00 | -162.60 | 11.00 | 11.00 | 0.00 |
| 5,300.00 | 9.29 | 360.00 | 5,292.24 | -158.82 | -139.00 | -156.91 | 11.00 | 11.00 | 0.00 |
| 5,350.00 | 14.79 | 360.00 | 5,341.12 | -148.39 | -139.00 | -146.48 | 11.00 | 11.00 | 0.00 |
| 5,400.00 | 20.29 | 360.00 | 5,388.78 | -133.33 | -139.00 | -131.42 | 11.00 | 11.00 | 0.00 |
| 5,450.00 | 25.79 | 360.00 | 5,434.77 | -113.76 | -139.00 | -111.86 | 11.00 | 11.00 | 0.00 |
| 5,460.30 | 26.93 | 360.00 | 5,444.00 | -109.19 | -139.00 | -107.28 | 11.00 | 11.00 | 0.00 |
| P200 Marker | | | | | | | | | |
| 5,482.99 | 29.42 | 360.00 | 5,464.00 | -98.48 | -139.00 | -96.57 | 11.00 | 11.00 | 0.00 |
| P300 Marker | | | | | | | | | |
| 5,500.00 | 31.29 | 360.00 | 5,478.68 | -89.88 | -139.00 | -87.98 | 11.00 | 11.00 | 0.00 |
| 5,501.55 | 31.46 | 360.00 | 5,480.00 | -89.08 | -139.00 | -87.17 | 11.00 | 11.00 | 0.00 |
| P350 Marker | | | | | | | | | |
| 5,518.13 | 33.29 | 360.00 | 5,494.00 | -80.20 | -139.00 | -78.30 | 11.00 | 11.00 | 0.00 |
| Sharon Springs | | | | | | | | | |
| 5,522.93 | 33.81 | 360.00 | 5,498.00 | -77.55 | -139.00 | -75.64 | 11.00 | 11.00 | 0.00 |
| Niobrara | | | | | | | | | |
| 5,543.67 | 36.10 | 360.00 | 5,515.00 | -65.66 | -139.00 | -63.76 | 11.00 | 11.00 | 0.00 |
| Top A Chalk | | | | | | | | | |
| 5,550.00 | 36.79 | 360.00 | 5,520.09 | -61.90 | -139.00 | -60.00 | 11.00 | 11.00 | 0.00 |
| 5,581.85 | 40.30 | 360.00 | 5,545.00 | -42.06 | -139.00 | -40.16 | 11.00 | 11.00 | 0.00 |
| Top A Marl | | | | | | | | | |
| 5,597.79 | 42.05 | 360.00 | 5,557.00 | -31.56 | -139.01 | -29.66 | 11.00 | 11.00 | 0.00 |
| A Marl | | | | | | | | | |
| 5,600.00 | 42.29 | 360.00 | 5,558.63 | -30.08 | -139.01 | -28.18 | 11.00 | 11.00 | 0.00 |
| 5,608.67 | 43.25 | 360.00 | 5,565.00 | -24.19 | -139.01 | -22.30 | 11.00 | 11.00 | 0.00 |
| Top Upper B | | | | | | | | | |
| 5,642.69 | 46.99 | 360.00 | 5,589.00 | -0.10 | -139.01 | 1.80 | 11.00 | 11.00 | 0.00 |
| Base Upper B | | | | | | | | | |
| 5,650.00 | 47.79 | 360.00 | 5,593.95 | 5.29 | -139.01 | 7.18 | 11.00 | 11.00 | 0.00 |
| 5,666.75 | 49.64 | 360.00 | 5,605.00 | 17.87 | -139.01 | 19.77 | 11.00 | 11.00 | 0.00 |
| Top Lower B | | | | | | | | | |
| 5,700.00 | 53.29 | 360.00 | 5,625.71 | 43.88 | -139.01 | 45.77 | 11.00 | 11.00 | 0.00 |
| 5,714.12 | 54.85 | 360.00 | 5,634.00 | 55.31 | -139.01 | 57.20 | 11.00 | 11.00 | 0.00 |
| Base Lower B | | | | | | | | | |
| 5,737.45 | 57.41 | 360.00 | 5,647.00 | 74.68 | -139.01 | 76.57 | 11.00 | 11.00 | 0.00 |
| Top B Marl | | | | | | | | | |
| 5,750.00 | 58.79 | 360.00 | 5,653.63 | 85.33 | -139.01 | 87.22 | 11.00 | 11.00 | 0.00 |
| 5,800.00 | 64.29 | 360.00 | 5,677.45 | 129.27 | -139.01 | 131.16 | 11.00 | 11.00 | 0.00 |
| 5,828.24 | 67.40 | 360.00 | 5,689.00 | 155.04 | -139.01 | 156.92 | 11.00 | 11.00 | 0.00 |
| Top C Chalk | | | | | | | | | |



WOG
Planning Report

| | | | |
|-----------|-------------------------|------------------------------|--|
| Database: | LandmarkEDM | Local Co-ordinate Reference: | Well Razor #25O-2443 |
| Company: | Whiting Petroleum Corp. | TVD Reference: | KBE @ 4738.00usft (Original Well Elev) |
| Project: | Weld County, CO | MD Reference: | KBE @ 4738.00usft (Original Well Elev) |
| Site: | Sec 25-T10N-R58W | North Reference: | True |
| Well: | Razor #25O-2443 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | HZ | | |
| Design: | APD | | |

| Planned Survey | | | | | | | | | | |
|---|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-----------------------------|----------------------------|---------------------------|--|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | |
| 5,850.00 | 69.79 | 360.00 | 5,696.94 | 175.30 | -139.01 | 177.18 | 11.00 | 11.00 | 0.00 | |
| 5,850.17 | 69.79 | 360.00 | 5,697.00 | 175.46 | -139.01 | 177.34 | 0.00 | 0.00 | 0.00 | |
| Middle C Chalk | | | | | | | | | | |
| 5,896.37 | 74.89 | 360.00 | 5,711.00 | 219.47 | -139.01 | 221.34 | 11.04 | 11.04 | 0.00 | |
| Middle C Marl | | | | | | | | | | |
| 5,900.00 | 75.29 | 360.00 | 5,711.93 | 222.98 | -139.01 | 224.85 | 11.00 | 11.00 | 0.00 | |
| 5,950.00 | 80.79 | 360.00 | 5,722.29 | 271.87 | -139.01 | 273.74 | 11.00 | 11.00 | 0.00 | |
| 6,000.00 | 86.29 | 360.00 | 5,727.91 | 321.54 | -139.01 | 323.40 | 11.00 | 11.00 | 0.00 | |
| 6,033.70 | 90.00 | 360.00 | 5,729.00 | 355.21 | -139.01 | 357.08 | 11.00 | 11.00 | 0.00 | |
| LP @ 90° Inc, Hold - Lower C Chalk - 7" | | | | | | | | | | |
| 6,100.00 | 90.00 | 360.00 | 5,729.00 | 421.51 | -139.01 | 423.37 | 0.00 | 0.00 | 0.00 | |
| 6,200.00 | 90.00 | 360.00 | 5,729.00 | 521.51 | -139.01 | 523.36 | 0.00 | 0.00 | 0.00 | |
| 6,300.00 | 90.00 | 360.00 | 5,729.00 | 621.51 | -139.01 | 623.35 | 0.00 | 0.00 | 0.00 | |
| 6,400.00 | 90.00 | 360.00 | 5,729.00 | 721.51 | -139.01 | 723.34 | 0.00 | 0.00 | 0.00 | |
| 6,500.00 | 90.00 | 360.00 | 5,729.00 | 821.51 | -139.02 | 823.33 | 0.00 | 0.00 | 0.00 | |
| 6,600.00 | 90.00 | 360.00 | 5,729.00 | 921.51 | -139.02 | 923.32 | 0.00 | 0.00 | 0.00 | |
| 6,700.00 | 90.00 | 360.00 | 5,729.00 | 1,021.51 | -139.02 | 1,023.31 | 0.00 | 0.00 | 0.00 | |
| 6,800.00 | 90.00 | 360.00 | 5,729.00 | 1,121.51 | -139.02 | 1,123.31 | 0.00 | 0.00 | 0.00 | |
| 6,900.00 | 90.00 | 360.00 | 5,729.00 | 1,221.51 | -139.02 | 1,223.30 | 0.00 | 0.00 | 0.00 | |
| 7,000.00 | 90.00 | 360.00 | 5,729.00 | 1,321.51 | -139.02 | 1,323.29 | 0.00 | 0.00 | 0.00 | |
| 7,100.00 | 90.00 | 360.00 | 5,729.00 | 1,421.51 | -139.02 | 1,423.28 | 0.00 | 0.00 | 0.00 | |
| 7,200.00 | 90.00 | 360.00 | 5,729.00 | 1,521.51 | -139.03 | 1,523.27 | 0.00 | 0.00 | 0.00 | |
| 7,300.00 | 90.00 | 360.00 | 5,729.00 | 1,621.51 | -139.03 | 1,623.26 | 0.00 | 0.00 | 0.00 | |
| 7,400.00 | 90.00 | 360.00 | 5,729.00 | 1,721.51 | -139.03 | 1,723.25 | 0.00 | 0.00 | 0.00 | |
| 7,500.00 | 90.00 | 360.00 | 5,729.00 | 1,821.51 | -139.03 | 1,823.24 | 0.00 | 0.00 | 0.00 | |
| 7,600.00 | 90.00 | 360.00 | 5,729.00 | 1,921.51 | -139.03 | 1,923.23 | 0.00 | 0.00 | 0.00 | |
| 7,700.00 | 90.00 | 360.00 | 5,729.00 | 2,021.51 | -139.03 | 2,023.22 | 0.00 | 0.00 | 0.00 | |
| 7,800.00 | 90.00 | 360.00 | 5,729.00 | 2,121.51 | -139.03 | 2,123.21 | 0.00 | 0.00 | 0.00 | |
| 7,900.00 | 90.00 | 360.00 | 5,729.00 | 2,221.51 | -139.03 | 2,223.20 | 0.00 | 0.00 | 0.00 | |
| 8,000.00 | 90.00 | 360.00 | 5,729.00 | 2,321.51 | -139.04 | 2,323.19 | 0.00 | 0.00 | 0.00 | |
| 8,100.00 | 90.00 | 360.00 | 5,729.00 | 2,421.51 | -139.04 | 2,423.18 | 0.00 | 0.00 | 0.00 | |
| 8,200.00 | 90.00 | 360.00 | 5,729.00 | 2,521.51 | -139.04 | 2,523.18 | 0.00 | 0.00 | 0.00 | |
| 8,300.00 | 90.00 | 360.00 | 5,729.00 | 2,621.51 | -139.04 | 2,623.17 | 0.00 | 0.00 | 0.00 | |
| 8,400.00 | 90.00 | 360.00 | 5,729.00 | 2,721.51 | -139.04 | 2,723.16 | 0.00 | 0.00 | 0.00 | |
| 8,500.00 | 90.00 | 360.00 | 5,729.00 | 2,821.51 | -139.04 | 2,823.15 | 0.00 | 0.00 | 0.00 | |
| 8,600.00 | 90.00 | 360.00 | 5,729.00 | 2,921.51 | -139.04 | 2,923.14 | 0.00 | 0.00 | 0.00 | |
| 8,700.00 | 90.00 | 360.00 | 5,729.00 | 3,021.51 | -139.04 | 3,023.13 | 0.00 | 0.00 | 0.00 | |
| 8,800.00 | 90.00 | 360.00 | 5,729.00 | 3,121.51 | -139.05 | 3,123.12 | 0.00 | 0.00 | 0.00 | |
| 8,900.00 | 90.00 | 360.00 | 5,729.00 | 3,221.51 | -139.05 | 3,223.11 | 0.00 | 0.00 | 0.00 | |
| 9,000.00 | 90.00 | 360.00 | 5,729.00 | 3,321.51 | -139.05 | 3,323.10 | 0.00 | 0.00 | 0.00 | |
| 9,100.00 | 90.00 | 360.00 | 5,729.00 | 3,421.51 | -139.05 | 3,423.09 | 0.00 | 0.00 | 0.00 | |
| 9,200.00 | 90.00 | 360.00 | 5,729.00 | 3,521.51 | -139.05 | 3,523.08 | 0.00 | 0.00 | 0.00 | |
| 9,300.00 | 90.00 | 360.00 | 5,729.00 | 3,621.51 | -139.05 | 3,623.07 | 0.00 | 0.00 | 0.00 | |
| 9,400.00 | 90.00 | 360.00 | 5,729.00 | 3,721.51 | -139.05 | 3,723.06 | 0.00 | 0.00 | 0.00 | |
| 9,500.00 | 90.00 | 360.00 | 5,729.00 | 3,821.51 | -139.06 | 3,823.05 | 0.00 | 0.00 | 0.00 | |
| 9,600.00 | 90.00 | 360.00 | 5,729.00 | 3,921.51 | -139.06 | 3,923.05 | 0.00 | 0.00 | 0.00 | |
| 9,700.00 | 90.00 | 360.00 | 5,729.00 | 4,021.51 | -139.06 | 4,023.04 | 0.00 | 0.00 | 0.00 | |
| 9,800.00 | 90.00 | 360.00 | 5,729.00 | 4,121.51 | -139.06 | 4,123.03 | 0.00 | 0.00 | 0.00 | |
| 9,900.00 | 90.00 | 360.00 | 5,729.00 | 4,221.51 | -139.06 | 4,223.02 | 0.00 | 0.00 | 0.00 | |
| 10,000.00 | 90.00 | 360.00 | 5,729.00 | 4,321.51 | -139.06 | 4,323.01 | 0.00 | 0.00 | 0.00 | |
| 10,100.00 | 90.00 | 360.00 | 5,729.00 | 4,421.51 | -139.06 | 4,423.00 | 0.00 | 0.00 | 0.00 | |
| 10,200.00 | 90.00 | 360.00 | 5,729.00 | 4,521.51 | -139.06 | 4,522.99 | 0.00 | 0.00 | 0.00 | |
| 10,300.00 | 90.00 | 360.00 | 5,729.00 | 4,621.51 | -139.07 | 4,622.98 | 0.00 | 0.00 | 0.00 | |



WOG

Planning Report

| | | | |
|------------------|-------------------------|-------------------------------------|--|
| Database: | LandmarkEDM | Local Co-ordinate Reference: | Well Razor #25O-2443 |
| Company: | Whiting Petroleum Corp. | TVD Reference: | KBE @ 4738.00usft (Original Well Elev) |
| Project: | Weld County, CO | MD Reference: | KBE @ 4738.00usft (Original Well Elev) |
| Site: | Sec 25-T10N-R58W | North Reference: | True |
| Well: | Razor #25O-2443 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | HZ | | |
| Design: | APD | | |

| Planned Survey | | | | | | | | | |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-----------------------|----------------------|---------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 10,400.00 | 90.00 | 360.00 | 5,729.00 | 4,721.51 | -139.07 | 4,722.97 | 0.00 | 0.00 | 0.00 |
| 10,500.00 | 90.00 | 360.00 | 5,729.00 | 4,821.51 | -139.07 | 4,822.96 | 0.00 | 0.00 | 0.00 |
| 10,600.00 | 90.00 | 360.00 | 5,729.00 | 4,921.51 | -139.07 | 4,922.95 | 0.00 | 0.00 | 0.00 |
| 10,700.00 | 90.00 | 360.00 | 5,729.00 | 5,021.51 | -139.07 | 5,022.94 | 0.00 | 0.00 | 0.00 |
| 10,800.00 | 90.00 | 360.00 | 5,729.00 | 5,121.51 | -139.07 | 5,122.93 | 0.00 | 0.00 | 0.00 |
| 10,900.00 | 90.00 | 360.00 | 5,729.00 | 5,221.51 | -139.07 | 5,222.92 | 0.00 | 0.00 | 0.00 |
| 11,000.00 | 90.00 | 360.00 | 5,729.00 | 5,321.51 | -139.07 | 5,322.91 | 0.00 | 0.00 | 0.00 |
| 11,100.00 | 90.00 | 360.00 | 5,729.00 | 5,421.51 | -139.08 | 5,422.91 | 0.00 | 0.00 | 0.00 |
| 11,200.00 | 90.00 | 360.00 | 5,729.00 | 5,521.51 | -139.08 | 5,522.90 | 0.00 | 0.00 | 0.00 |
| 11,300.00 | 90.00 | 360.00 | 5,729.00 | 5,621.51 | -139.08 | 5,622.89 | 0.00 | 0.00 | 0.00 |
| 11,400.00 | 90.00 | 360.00 | 5,729.00 | 5,721.51 | -139.08 | 5,722.88 | 0.00 | 0.00 | 0.00 |
| 11,500.00 | 90.00 | 360.00 | 5,729.00 | 5,821.51 | -139.08 | 5,822.87 | 0.00 | 0.00 | 0.00 |
| 11,600.00 | 90.00 | 360.00 | 5,729.00 | 5,921.51 | -139.08 | 5,922.86 | 0.00 | 0.00 | 0.00 |
| 11,700.00 | 90.00 | 360.00 | 5,729.00 | 6,021.51 | -139.08 | 6,022.85 | 0.00 | 0.00 | 0.00 |
| 11,800.00 | 90.00 | 360.00 | 5,729.00 | 6,121.51 | -139.08 | 6,122.84 | 0.00 | 0.00 | 0.00 |
| 11,900.00 | 90.00 | 360.00 | 5,729.00 | 6,221.51 | -139.09 | 6,222.83 | 0.00 | 0.00 | 0.00 |
| 12,000.00 | 90.00 | 360.00 | 5,729.00 | 6,321.51 | -139.09 | 6,322.82 | 0.00 | 0.00 | 0.00 |
| 12,100.00 | 90.00 | 360.00 | 5,729.00 | 6,421.51 | -139.09 | 6,422.81 | 0.00 | 0.00 | 0.00 |
| 12,200.00 | 90.00 | 360.00 | 5,729.00 | 6,521.51 | -139.09 | 6,522.80 | 0.00 | 0.00 | 0.00 |
| 12,300.00 | 90.00 | 360.00 | 5,729.00 | 6,621.51 | -139.09 | 6,622.79 | 0.00 | 0.00 | 0.00 |
| 12,400.00 | 90.00 | 360.00 | 5,729.00 | 6,721.51 | -139.09 | 6,722.78 | 0.00 | 0.00 | 0.00 |
| 12,500.00 | 90.00 | 360.00 | 5,729.00 | 6,821.51 | -139.09 | 6,822.78 | 0.00 | 0.00 | 0.00 |
| 12,600.00 | 90.00 | 360.00 | 5,729.00 | 6,921.51 | -139.10 | 6,922.77 | 0.00 | 0.00 | 0.00 |
| 12,700.00 | 90.00 | 360.00 | 5,729.00 | 7,021.51 | -139.10 | 7,022.76 | 0.00 | 0.00 | 0.00 |
| 12,800.00 | 90.00 | 360.00 | 5,729.00 | 7,121.51 | -139.10 | 7,122.75 | 0.00 | 0.00 | 0.00 |
| 12,900.00 | 90.00 | 360.00 | 5,729.00 | 7,221.51 | -139.10 | 7,222.74 | 0.00 | 0.00 | 0.00 |
| 13,000.00 | 90.00 | 360.00 | 5,729.00 | 7,321.51 | -139.10 | 7,322.73 | 0.00 | 0.00 | 0.00 |
| 13,100.00 | 90.00 | 360.00 | 5,729.00 | 7,421.51 | -139.10 | 7,422.72 | 0.00 | 0.00 | 0.00 |
| 13,200.00 | 90.00 | 360.00 | 5,729.00 | 7,521.51 | -139.10 | 7,522.71 | 0.00 | 0.00 | 0.00 |
| 13,300.00 | 90.00 | 360.00 | 5,729.00 | 7,621.51 | -139.10 | 7,622.70 | 0.00 | 0.00 | 0.00 |
| 13,400.00 | 90.00 | 360.00 | 5,729.00 | 7,721.51 | -139.11 | 7,722.69 | 0.00 | 0.00 | 0.00 |
| 13,500.00 | 90.00 | 360.00 | 5,729.00 | 7,821.51 | -139.11 | 7,822.68 | 0.00 | 0.00 | 0.00 |
| 13,600.00 | 90.00 | 360.00 | 5,729.00 | 7,921.51 | -139.11 | 7,922.67 | 0.00 | 0.00 | 0.00 |
| 13,700.00 | 90.00 | 360.00 | 5,729.00 | 8,021.51 | -139.11 | 8,022.66 | 0.00 | 0.00 | 0.00 |
| 13,800.00 | 90.00 | 360.00 | 5,729.00 | 8,121.51 | -139.11 | 8,122.65 | 0.00 | 0.00 | 0.00 |
| 13,900.00 | 90.00 | 360.00 | 5,729.00 | 8,221.51 | -139.11 | 8,222.65 | 0.00 | 0.00 | 0.00 |
| 14,000.00 | 90.00 | 360.00 | 5,729.00 | 8,321.51 | -139.11 | 8,322.64 | 0.00 | 0.00 | 0.00 |
| 14,100.00 | 90.00 | 360.00 | 5,729.00 | 8,421.51 | -139.11 | 8,422.63 | 0.00 | 0.00 | 0.00 |
| 14,200.00 | 90.00 | 360.00 | 5,729.00 | 8,521.51 | -139.12 | 8,522.62 | 0.00 | 0.00 | 0.00 |
| 14,300.00 | 90.00 | 360.00 | 5,729.00 | 8,621.51 | -139.12 | 8,622.61 | 0.00 | 0.00 | 0.00 |
| 14,400.00 | 90.00 | 360.00 | 5,729.00 | 8,721.51 | -139.12 | 8,722.60 | 0.00 | 0.00 | 0.00 |
| 14,500.00 | 90.00 | 360.00 | 5,729.00 | 8,821.51 | -139.12 | 8,822.59 | 0.00 | 0.00 | 0.00 |
| 14,600.00 | 90.00 | 360.00 | 5,729.00 | 8,921.51 | -139.12 | 8,922.58 | 0.00 | 0.00 | 0.00 |
| 14,700.00 | 90.00 | 360.00 | 5,729.00 | 9,021.51 | -139.12 | 9,022.57 | 0.00 | 0.00 | 0.00 |
| 14,800.00 | 90.00 | 360.00 | 5,729.00 | 9,121.51 | -139.12 | 9,122.56 | 0.00 | 0.00 | 0.00 |
| 14,900.00 | 90.00 | 360.00 | 5,729.00 | 9,221.51 | -139.13 | 9,222.55 | 0.00 | 0.00 | 0.00 |
| 15,000.00 | 90.00 | 360.00 | 5,729.00 | 9,321.51 | -139.13 | 9,322.54 | 0.00 | 0.00 | 0.00 |
| 15,100.00 | 90.00 | 360.00 | 5,729.00 | 9,421.51 | -139.13 | 9,422.53 | 0.00 | 0.00 | 0.00 |
| 15,200.00 | 90.00 | 360.00 | 5,729.00 | 9,521.51 | -139.13 | 9,522.52 | 0.00 | 0.00 | 0.00 |
| 15,300.00 | 90.00 | 360.00 | 5,729.00 | 9,621.51 | -139.13 | 9,622.52 | 0.00 | 0.00 | 0.00 |
| 15,400.00 | 90.00 | 360.00 | 5,729.00 | 9,721.51 | -139.13 | 9,722.51 | 0.00 | 0.00 | 0.00 |
| 15,500.00 | 90.00 | 360.00 | 5,729.00 | 9,821.51 | -139.13 | 9,822.50 | 0.00 | 0.00 | 0.00 |
| 15,600.00 | 90.00 | 360.00 | 5,729.00 | 9,921.51 | -139.13 | 9,922.49 | 0.00 | 0.00 | 0.00 |
| 15,700.00 | 90.00 | 360.00 | 5,729.00 | 10,021.51 | -139.14 | 10,022.48 | 0.00 | 0.00 | 0.00 |



WOG

Planning Report

| | | | |
|------------------|-------------------------|-------------------------------------|--|
| Database: | LandmarkEDM | Local Co-ordinate Reference: | Well Razor #25O-2443 |
| Company: | Whiting Petroleum Corp. | TVD Reference: | KBE @ 4738.00usft (Original Well Elev) |
| Project: | Weld County, CO | MD Reference: | KBE @ 4738.00usft (Original Well Elev) |
| Site: | Sec 25-T10N-R58W | North Reference: | True |
| Well: | Razor #25O-2443 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Hz | | |
| Design: | APD | | |

| Planned Survey | | | | | | | | | |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-----------------------|----------------------|---------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 15,800.00 | 90.00 | 360.00 | 5,729.00 | 10,121.51 | -139.14 | 10,122.47 | 0.00 | 0.00 | 0.00 |
| 15,874.95 | 90.00 | 360.00 | 5,729.00 | 10,196.46 | -139.14 | 10,197.41 | 0.00 | 0.00 | 0.00 |
| TD at 15874.95' MD | | | | | | | | | |

| Design Targets | | | | | | | | | |
|---------------------------|---------------|--------------|------------|--------------|--------------|-----------------|----------------|------------------|-------------------|
| Target Name | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude | Longitude |
| - hit/miss target | | | | | | | | | |
| - Shape | | | | | | | | | |
| PBHL 2443 | 0.00 | 0.00 | 5,729.00 | 10,196.46 | -139.14 | 1,550,145.89 | 3,467,436.59 | 40° 49' 52.710 N | 103° 48' 38.900 W |
| - plan hits target center | | | | | | | | | |
| - Point | | | | | | | | | |

| Casing Points | | | | | | Casing Diameter (in) | Hole Diameter (in) |
|-----------------------|-----------------------|------|--|--|--|----------------------|--------------------|
| Measured Depth (usft) | Vertical Depth (usft) | Name | | | | | |
| 6,033.70 | 5,729.00 | 7" | | | | 7.000 | 8.750 |

| Formations | | | | | | |
|-----------------------|-----------------------|----------------|-----------|---------|-------------------|--|
| Measured Depth (usft) | Vertical Depth (usft) | Name | Lithology | Dip (°) | Dip Direction (°) | |
| 1,552.73 | 1,550.00 | Upper Pierre | | | | |
| 3,507.37 | 3,500.00 | Hygiene | | | | |
| 3,657.39 | 3,650.00 | Lower Pierre | | | | |
| 5,460.30 | 5,444.00 | P200 Marker | | | | |
| 5,482.99 | 5,464.00 | P300 Marker | | | | |
| 5,501.55 | 5,480.00 | P350 Marker | | | | |
| 5,518.13 | 5,494.00 | Sharon Springs | | | | |
| 5,522.93 | 5,498.00 | Niobrara | | | | |
| 5,543.67 | 5,515.00 | Top A Chalk | | | | |
| 5,581.85 | 5,545.00 | Top A Marl | | | | |
| 5,597.79 | 5,557.00 | A Marl | | | | |
| 5,608.67 | 5,565.00 | Top Upper B | | | | |
| 5,642.69 | 5,589.00 | Base Upper B | | | | |
| 5,666.75 | 5,605.00 | Top Lower B | | | | |
| 5,714.12 | 5,634.00 | Base Lower B | | | | |
| 5,737.45 | 5,647.00 | Top B Marl | | | | |
| 5,828.24 | 5,689.00 | Top C Chalk | | | | |
| 5,850.17 | 5,697.00 | Middle C Chalk | | | | |
| 5,896.37 | 5,711.00 | Middle C Marl | | | | |
| 6,033.70 | 5,729.00 | Lower C Chalk | | | | |



WOG
Planning Report

| | | | |
|------------------|-------------------------|-------------------------------------|--|
| Database: | LandmarkEDM | Local Co-ordinate Reference: | Well Razor #25O-2443 |
| Company: | Whiting Petroleum Corp. | TVD Reference: | KBE @ 4738.00usft (Original Well Elev) |
| Project: | Weld County, CO | MD Reference: | KBE @ 4738.00usft (Original Well Elev) |
| Site: | Sec 25-T10N-R58W | North Reference: | True |
| Well: | Razor #25O-2443 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Hz | | |
| Design: | APD | | |

| Plan Annotations | | | | |
|-----------------------------|-----------------------------|-------------------|-----------------|---------------------|
| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates | | Comment |
| | | +N/-S (usft) | +E/-W (usft) | |
| 300.00 | 300.00 | 0.00 | 0.00 | Build 2°/100' |
| 500.00 | 499.84 | -5.35 | -4.49 | Hold 4° Inc |
| 3,400.00 | 3,392.77 | -160.31 | -134.52 | Drop 2°/100' |
| 3,600.00 | 3,592.61 | -165.66 | -139.00 | Hold Vertical |
| 5,215.52 | 5,208.13 | -165.66 | -139.00 | KOP, Build 11°/100' |
| 6,033.70 | 5,729.00 | 355.21 | -139.01 | LP @ 90° Inc, Hold |
| 15,874.95 | 5,729.00 | 10,196.46 | -139.14 | TD at 15874.95' MD |