



Project: Weld County, CO
Site: Sec 7-T10N-R57W
Well: Horsetail #07H-1813
Wellbore: Hz
Design: Design #1

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: 7.88°
Magnetic Field
Strength: 53088.0snT
Dip Angle: 67.44°
Date: 1/6/2015
Model: IGRF2010

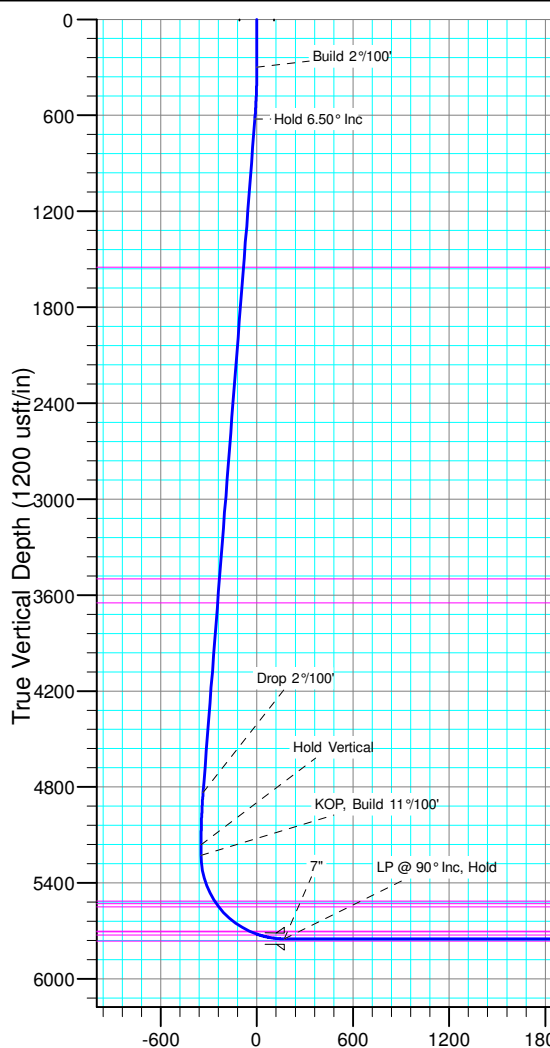
WELL DETAILS: Horsetail #07H-1813

| +N/-S | +E/-W | Northing | Ground Level: | Easting | Latitude | Longitude | Slot |
|-------|-------|------------|---------------|------------|------------------|-------------------|------|
| 0.00 | 0.00 | 1558372.83 | 4908.90 | 3473683.86 | 40° 51' 12.800 N | 103° 47' 15.580 W | |

| SECTION DETAILS | | | | | | | | | |
|-----------------|----------|-------|--------|---------|----------|---------|-------|--------|---------|
| Sec | MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | TFace | Vsect |
| 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 | 625.00 | 6.50 | 315.00 | 624.30 | 13.02 | -13.02 | 2.00 | 315.00 | -12.40 |
| 4 | 4865.00 | 6.50 | 315.00 | 4837.05 | 352.42 | -352.42 | 0.00 | 0.00 | -335.73 |
| 5 | 5190.00 | 0.00 | 0.00 | 5161.35 | 365.44 | -365.44 | 2.00 | 180.00 | -348.13 |
| 6 | 5257.78 | 0.00 | 0.00 | 5229.13 | 365.44 | -365.44 | 0.00 | 0.00 | -348.13 |
| 7 | 6075.96 | 90.00 | 180.00 | 5750.00 | -155.43 | -365.47 | 11.00 | 180.00 | 172.18 |
| 8 | 13816.65 | 90.00 | 180.00 | 5750.00 | -7896.11 | -365.91 | 0.00 | 0.00 | 7904.59 |

FORMATION TOP DETAILS

| TVDPath | MDPath | Formation |
|---------|---------|----------------|
| 1550.00 | 1556.69 | Upper Pierre |
| 3500.00 | 3519.30 | Hygiene |
| 3650.00 | 3670.27 | Lower Pierre |
| 5515.00 | 5560.39 | P200 Marker |
| 5530.00 | 5578.54 | P300 Marker |
| 5550.00 | 5603.47 | P350 Marker |
| 5702.00 | 5850.59 | Sharon Springs |
| 5707.00 | 5862.83 | Niobrara |
| 5727.00 | 5920.59 | Top A Chalk |



| ANNOTATIONS | | | | | | | | | |
|-------------|----------|-------|--------|----------|---------|---------|-----------|---------------------|--|
| TVD | MD | Inc | Azi | +N/-S | +E/-W | Vsect | Departure | Annotation | |
| 300.00 | 300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Build 2°/100' | |
| 624.30 | 625.00 | 6.50 | 315.00 | 13.02 | -13.02 | -12.40 | 18.42 | Hold 6.50° Inc | |
| 4837.05 | 4865.00 | 6.50 | 315.00 | 352.42 | -352.42 | -335.73 | 498.40 | Drop 2°/100' | |
| 5161.35 | 5190.00 | 0.00 | 0.00 | 365.44 | -365.44 | -348.13 | 516.81 | Hold Vertical | |
| 5229.13 | 5257.78 | 0.00 | 0.00 | 365.44 | -365.44 | -348.13 | 516.81 | KOP, Build 11°/100' | |
| 5750.00 | 6075.96 | 90.00 | 180.00 | -155.43 | -365.47 | 172.18 | 1037.68 | LP @ 90° Inc, Hold | |
| 5750.00 | 13816.65 | 90.00 | 180.00 | -7896.11 | -365.91 | 7904.59 | 8778.37 | TD at 13816.65' MD | |

| DESIGN TARGET DETAILS | | | | | | | |
|-----------------------|---------|----------|---------|------------|------------|------------------|------------------|
| Name | TVD | +N/-S | +E/-W | Northing | Easting | Latitude | Longitude |
| PBHL 1813A | 5750.00 | -7896.11 | -365.91 | 1550471.12 | 3473470.49 | 40° 49' 54.780 N | 03° 47' 20.340 W |

SHL:
2634' FNL, 658' FEL
Sec7-T10N-R57W

BHL:
100' FSL, 1135' FEL
Sec18-T10N-R57W

7":
2532' FSL, 1023' FEL
Sec7-T10N-R57W

