

Nichols 0994-24-12E
Mesa County, CO
Q180328 & RM-180287
Design #2

Company Name: Laramie Energy, LLC
Nichols 0994-24-12E
Mesa County, CO
Rig: H&P #290
Created By: Will Jircik
Date: 3/20/2018

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

T

M

Azimuths to True North

Magnetic North: 9.45°

Strength: 51314.5snT

Dip Angle: 65.40°

Date: 3/14/2018

Model: USER DEFINED



| FORMATION TOP DETAILS | | |
|-----------------------|--------|-----------------|
| TVDPath | MDPath | Formation |
| 2461.0 | 2540.5 | G' Sand |
| 4211.0 | 4379.0 | Williams Fork |
| 5611.0 | 5829.8 | TOG |
| 6511.0 | 6729.8 | Cameo |
| 7171.0 | 7389.8 | Base Cameo Coal |
| 7211.0 | 7429.8 | Rollins |
| 7236.0 | 7454.8 | Corcoran |
| 7236.0 | 7454.8 | Cozzette |

| DESIGN TARGET DETAILS | | | | | | | | |
|----------------------------|-------|--------|--------|------------|------------|-----------|-------------|-----------------------|
| Name | TVD | +N/-S | +E/-W | Northing | Easting | Latitude | Longitude | Shape |
| PBHL - Nichols 0994-24-12E | 461.0 | -430.1 | 1389.9 | 1528806.80 | 2341515.07 | 39.262163 | -107.825922 | Circle (Radius: 50.0) |

| DESIGN ANNOTATIONS | | | | | | | | | |
|--------------------|-------|--------|--------|--------|--------|--------|-----------|---------------------------------|--|
| MD | Inc | Azi | TVD | +N/-S | +E/-W | VSec | Departure | Annotation | |
| 494.0 | 0.00 | 0.00 | 494.0 | 0.0 | 0.0 | 0.0 | 0.0 | KOP (Build 3° / 100') | |
| 1089.1 | 17.85 | 107.19 | 1079.5 | -27.2 | 87.9 | 92.0 | 92.0 | EOB @ 17.85° Inc. / 107.19° Azm | |
| 5234.7 | 17.85 | 107.19 | 5025.5 | -402.9 | 1302.1 | 1363.0 | 1363.0 | Drop 3° / 100' | |
| 5829.8 | 0.00 | 0.00 | 5611.0 | -430.1 | 1389.9 | 1454.9 | 1454.9 | EOB @ Vertical | |
| 7679.8 | 0.00 | 0.00 | 7461.0 | -430.1 | 1389.9 | 1454.9 | 1454.9 | TD @ 7679.8' MD / 7461.0' TVD | |

| ANNOTATIONS | | | | | | | | | |
|-------------|------|--------|--------|--------|--------|--------|-----------|---|--|
| MD | Inc | Azi | TVD | +N/-S | +E/-W | VSec | Departure | Annotation | |
| 335.0 | 2.20 | 72.00 | 334.9 | 2.0 | 6.1 | 5.3 | 6.4 | First MWD Survey @ 335.0' MD / 334.9' TVD | |
| 7648.0 | 0.97 | 265.48 | 7440.1 | -423.6 | 1405.0 | 1467.4 | 1489.3 | Projection to TD @ 7648.0' MD / 7440.1' TVD | |

| WELL DETAILS: Nichols 0994-24-12E | | | | | | | |
|-----------------------------------|-------|------------|------------|---------------|--------|-----------|-------------|
| +N/-S | +E/-W | Northing | Easting | Ground Level: | 7212.0 | Latitude | Longitude |
| 0.0 | 0.0 | 1529272.40 | 2340136.63 | | | 39.263344 | -107.830831 |

