

PROJECT DETAILS: North Park Basin

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 Grid North
 True North: 0.57°
 Magnetic North: 10.46°

Magnetic Field
 Strength: 53192.2snT
 Dip Angle: 66.98°
 Date: 12/31/2009
 Model: IGRF200510

FORMATION TOP DETAILS

| | | | | |
|---------|--------|-----------|----------|--------|
| TVDPath | MDPath | Formation | DipAngle | DipDir |
| 7528.0 | 7699.6 | Niobrara | 0.00 | |

CASING DETAILS

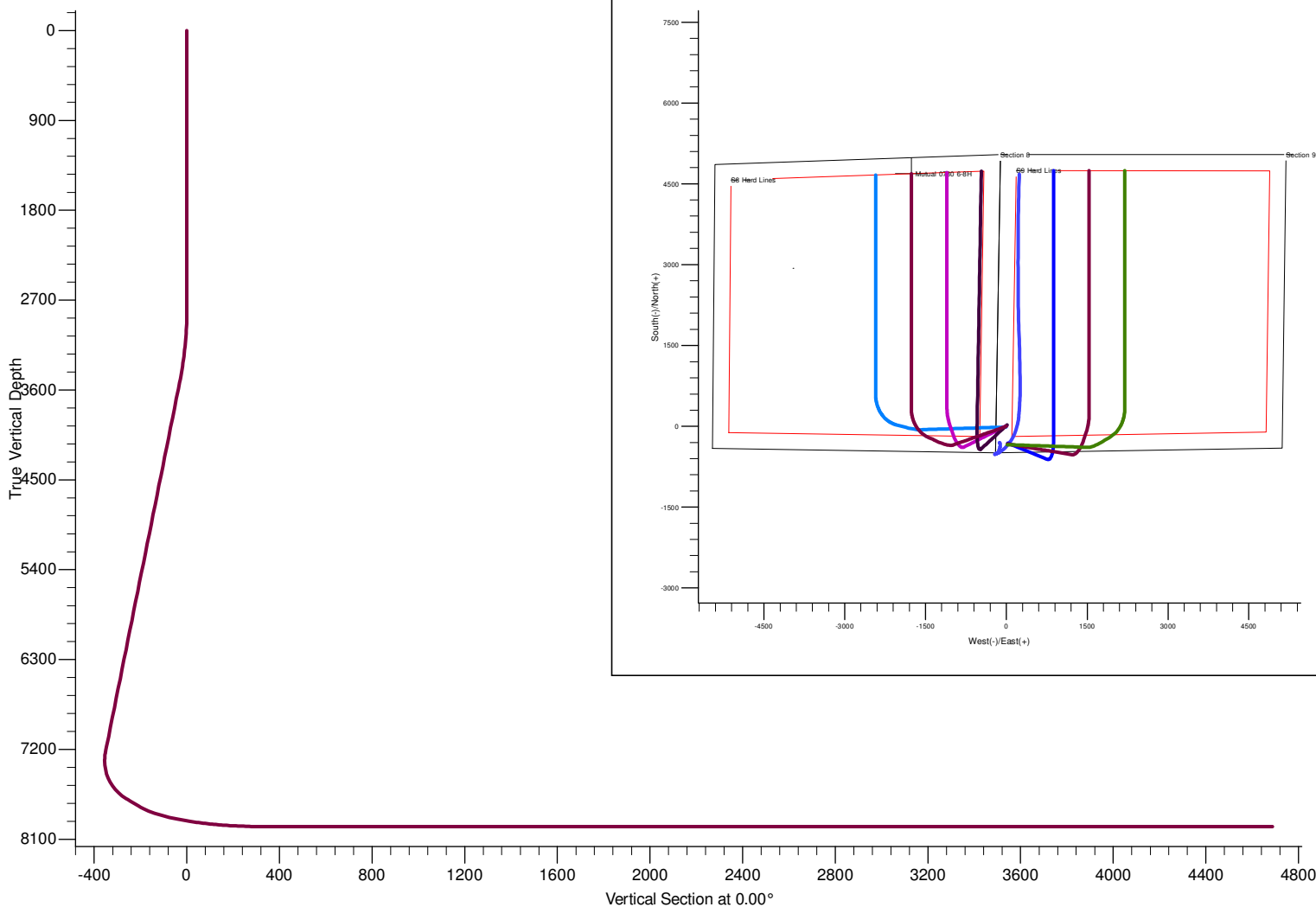
No casing data is available

DESIGN DETAILS: Design #1

0° Vertical Section coordinates

| | | | | | | | | |
|--------|--------|---------|--------|------|-----|-----|------|-----|
| Type | Target | Azimuth | Origin | Type | N/S | E/W | From | TVD |
| Target | | 0.00 | Slot | 0.0 | 0.0 | 0.0 | 0.0 | |

Project: North Park Basin
 Site: T7N-R80W-S9
 Well: Mutual 0780 6-8H
 Wellbore: Wellbore #1
 Design: Design #1



SECTION DETAILS

| Sec | MD | Inc | Azi | TVD | +N-/S | +E-/W | Dleg | TFace | VSect | Target |
|-----|---------|-------|--------|--------|--------|---------|-------|--------|--------|-------------|
| 1 | 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | |
| 2 | 2800.0 | 0.00 | 0.00 | 2800.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | |
| 3 | 3534.4 | 14.69 | 250.71 | 3526.4 | -30.9 | -88.4 | 2.00 | 250.71 | -30.9 | |
| 4 | 7343.8 | 14.69 | 250.71 | 7211.3 | -350.0 | -1000.0 | 0.00 | 0.00 | -350.0 | |
| 5 | 7971.0 | 60.00 | 295.15 | 7703.3 | -254.7 | -1343.1 | 8.00 | 52.14 | -254.7 | |
| 6 | 8121.0 | 60.00 | 295.15 | 7778.3 | -199.5 | -1460.7 | 0.00 | 0.00 | -199.5 | |
| 7 | 8805.1 | 90.00 | 0.00 | 7973.0 | 333.3 | -1766.0 | 10.00 | 76.79 | 333.3 | Mutual 6-8H |
| 8 | 13159.3 | 90.00 | 0.00 | 7973.0 | 4687.6 | -1765.8 | 0.00 | 0.00 | 4687.6 | Mutual 6-8H |