

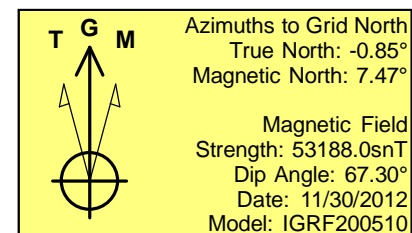
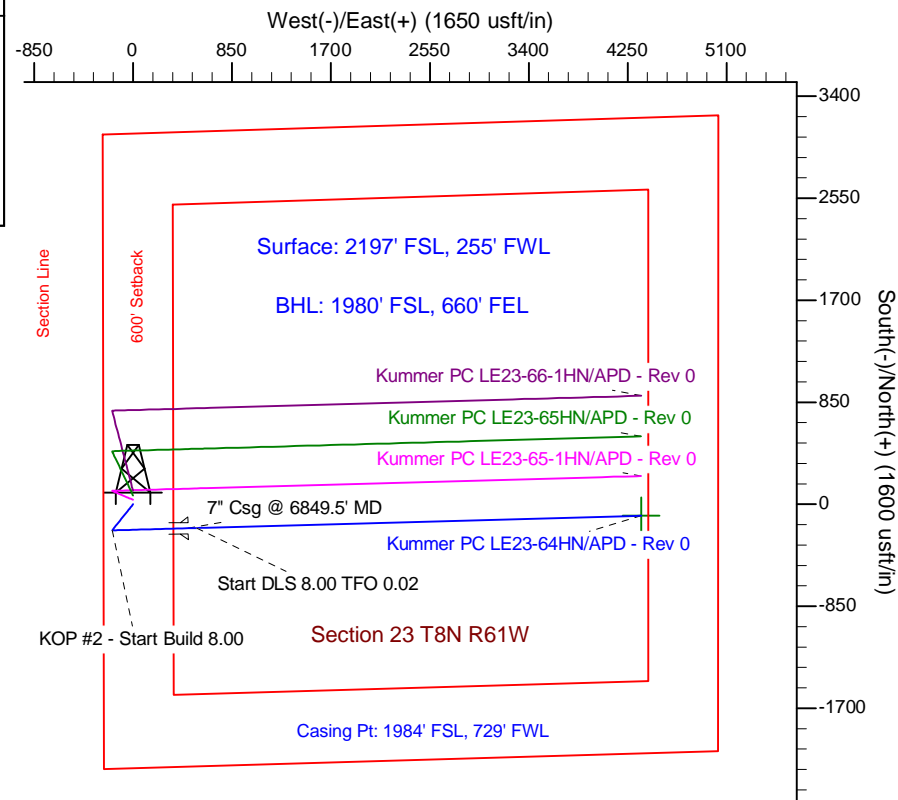
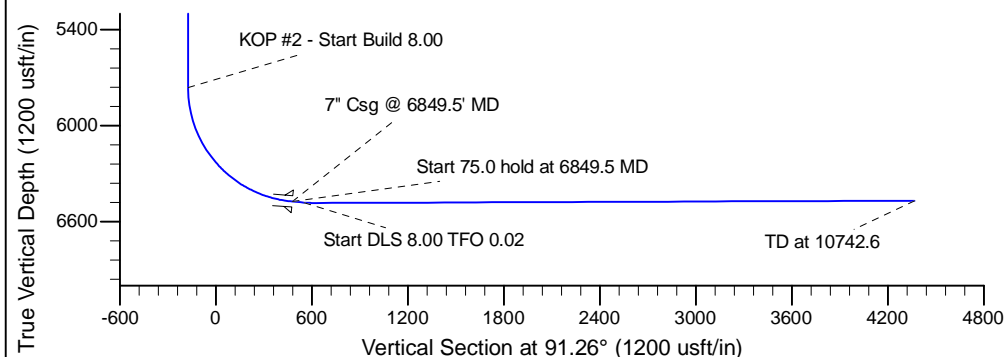
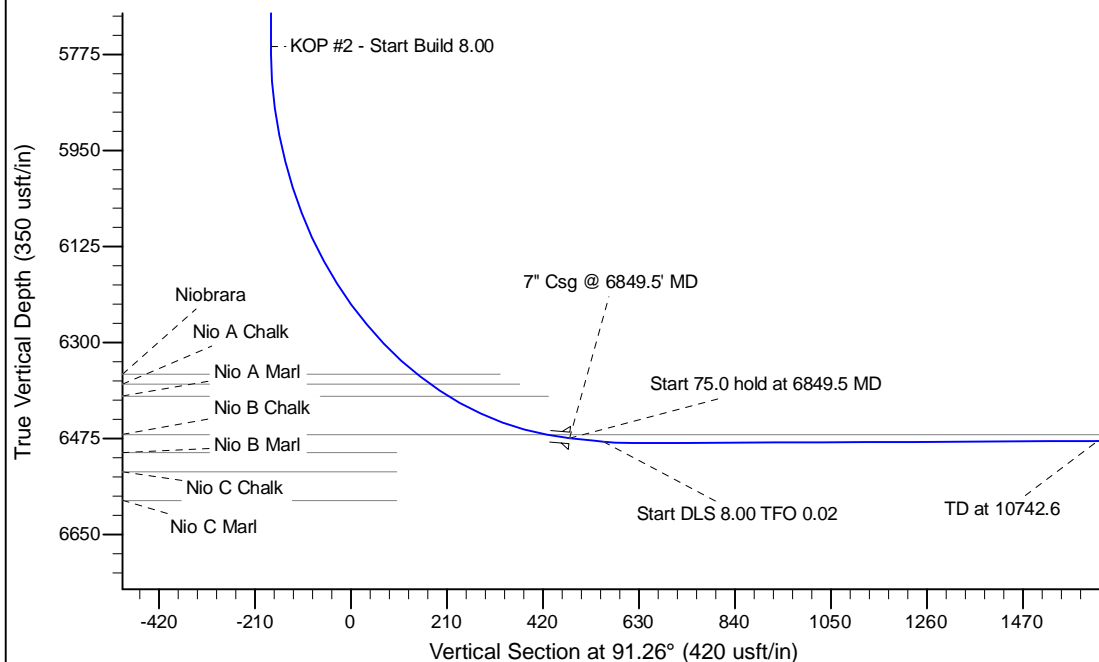
Project: Wattenberg Field  
 Site: LE (Sec.23-T08N-R61W) Weld County, CO  
 Well: Kummer PC LE23-64HN  
 Wellbore: Original Drilling  
 Design: APD - Rev 0

# Northern Region Drilling

Geodetic System: US State Plane 1983  
 Datum: North American Datum 1983  
 Ellipsoid: GRS 1980  
 Zone: Colorado Northern Zone  
 System Datum: Mean Sea Level

## SECTION DETAILS

| Sec | MD      | Inc   | Azi    | TVD    | +N/-S  | +E/-W  | Dleg | TFace  | VSec   | Target                                    |
|-----|---------|-------|--------|--------|--------|--------|------|--------|--------|---|
| 1   | 0.0     | 0.00  | 0.00   | 0.0    | 0.0    | 0.0    | 0.00 | 0.00   | 0.0    |   |
| 2   | 2000.0  | 0.00  | 0.00   | 2000.0 | 0.0    | 0.0    | 0.00 | 0.00   | 0.0    |   |
| 3   | 2480.1  | 12.00 | 219.68 | 2476.6 | -38.6  | -32.0  | 2.50 | 219.68 | -31.1  |   |
| 4   | 3354.0  | 12.00 | 219.68 | 3331.4 | -178.4 | -148.0 | 0.00 | 0.00   | -144.1 |   |
| 5   | 3834.1  | 0.00  | 0.00   | 3808.0 | -217.0 | -180.0 | 2.50 | 180.00 | -175.2 |   |
| 6   | 5787.0  | 0.00  | 0.00   | 5760.9 | -217.0 | -180.0 | 0.00 | 0.00   | -175.2 |   |
| 7   | 6849.5  | 85.00 | 88.47  | 6474.4 | -199.5 | 473.5  | 8.00 | 88.47  | 477.8  |   |
| 8   | 6924.5  | 85.00 | 88.47  | 6480.9 | -197.5 | 548.2  | 0.00 | 0.00   | 552.4  |   |
| 9   | 6989.8  | 90.22 | 88.47  | 6483.6 | -195.8 | 613.4  | 8.00 | 0.02   | 617.5  |   |
| 10  | 10742.6 | 90.22 | 88.47  | 6469.2 | -95.7  | 4364.9 | 0.00 | 0.00   | 4365.9 | Kummer PC LE23-64HN BHL 1980'FSL, 660'FEL |



| WELL DETAILS: Kummer PC LE23-64HN |             |          |            |
|-----------------------------------|-------------|----------|------------|
| Ground Level:                     | 4982.0      | Latitude | 40.646142  |
| Northing                          | 1480952.37  | Easting  | 3365898.52 |
| Longitude                         | -104.181394 |          |            |

Plan: APD - Rev 0 (Kummer PC LE23-64HN/Original Drilling)

Created By: Carrie Willers Date: 13:03, December 05 2012

OK to submit with 2A as per Noble Drilling  
 12/5/12 3:10