

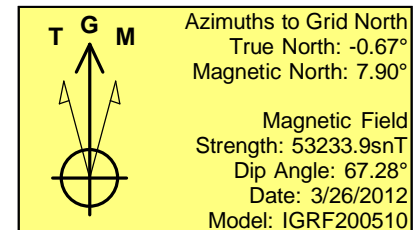
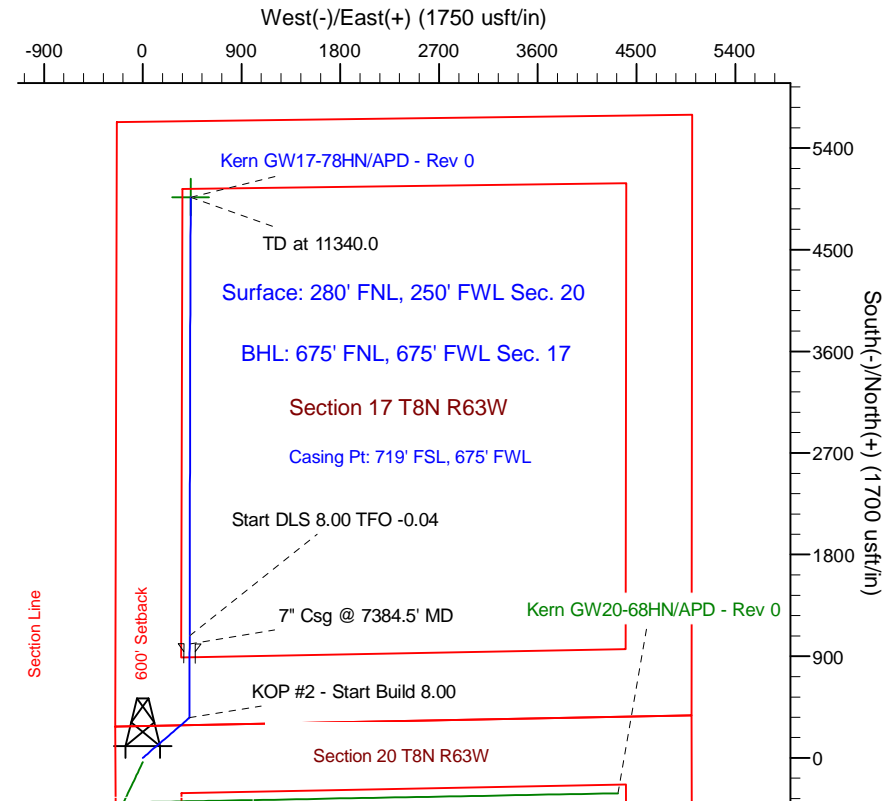
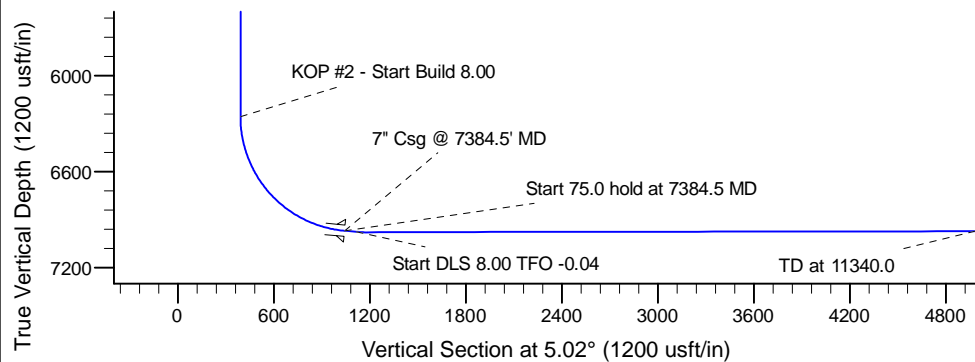
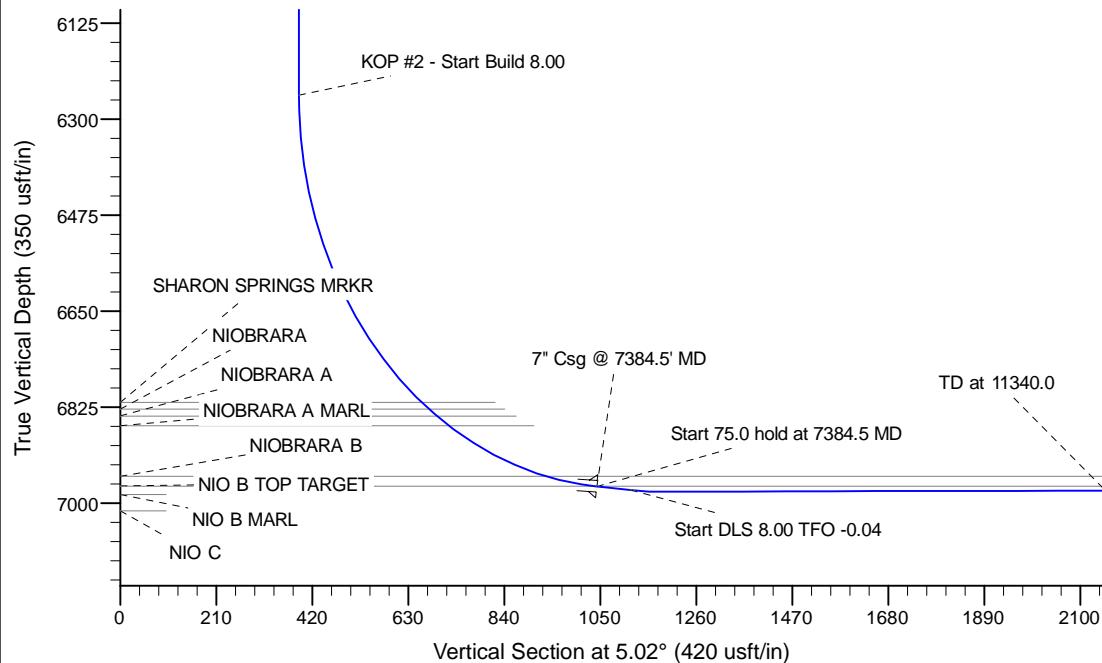
Project: Wattenberg Field
 Site: GW (Sec.20-T08N-R63W) Weld County, CO
 Well: Kern GW17-78HN
 Wellbore: Original Drilling
 Design: APD - Rev 0

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	2200.0	0.00	0.00	2200.0	0.0	0.0	0.00	0.00	0.0	
3	2798.1	14.95	50.13	2791.4	49.8	59.6	2.50	50.13	54.8	
4	4342.7	14.95	50.13	4283.6	305.2	365.4	0.00	0.00	336.1	
5	4940.8	0.00	0.00	4875.0	355.0	425.0	2.50	180.00	390.8	
6	6322.0	0.00	0.00	6256.2	355.0	425.0	0.00	0.00	390.8	
7	7384.5	85.00	0.14	6969.6	1008.8	426.6	8.00	0.14	1042.2	
8	7459.5	85.00	0.14	6976.2	1083.5	426.8	0.00	0.00	1116.7	
9	7523.2	90.10	0.14	6978.9	1147.1	426.9	8.00	-0.04	1180.1	
10	11340.0	90.10	0.14	6972.3	4963.9	436.0	0.00	0.00	4983.0	Kern GW17-78HN BHL 675'FNL, 675'FWL



WELL DETAILS: Kern GW17-78HN

Ground Level: 4977.0
 Northing 1482326.55 Easting 3286585.78 Latitude 40.652800 Longitude -104.467130

Plan: APD - Rev 0 (Kern GW17-78HN/Original Drilling)

Created By: Carrie Willers Date: 17:48, April 02 2012

OK to submit with 2A as per Noble Drilling
 4/3/2012 1:50