

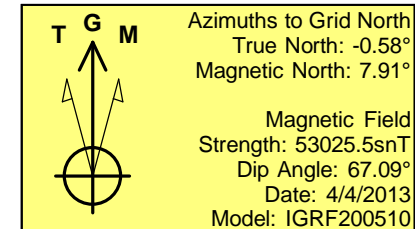
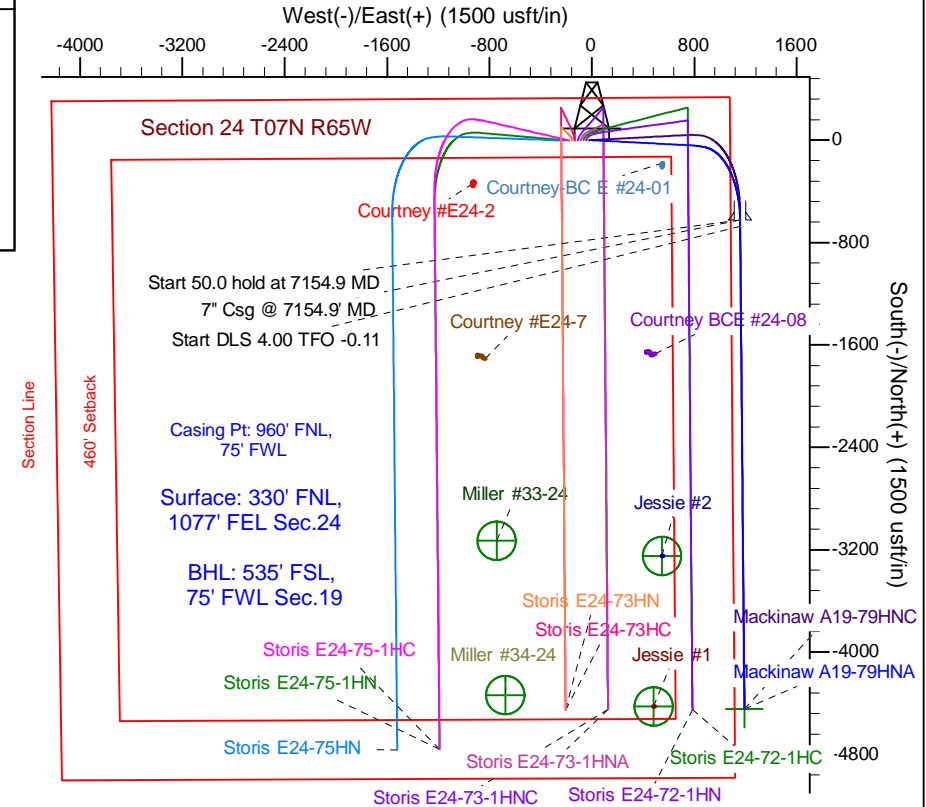
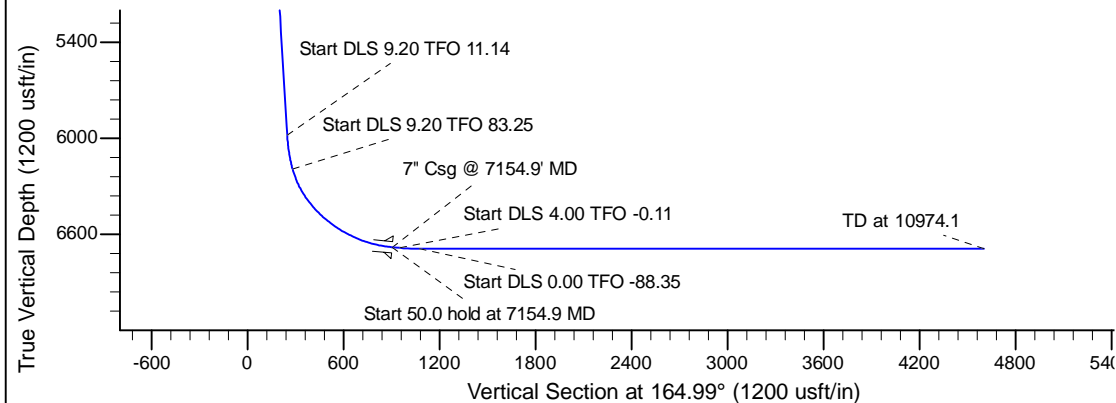
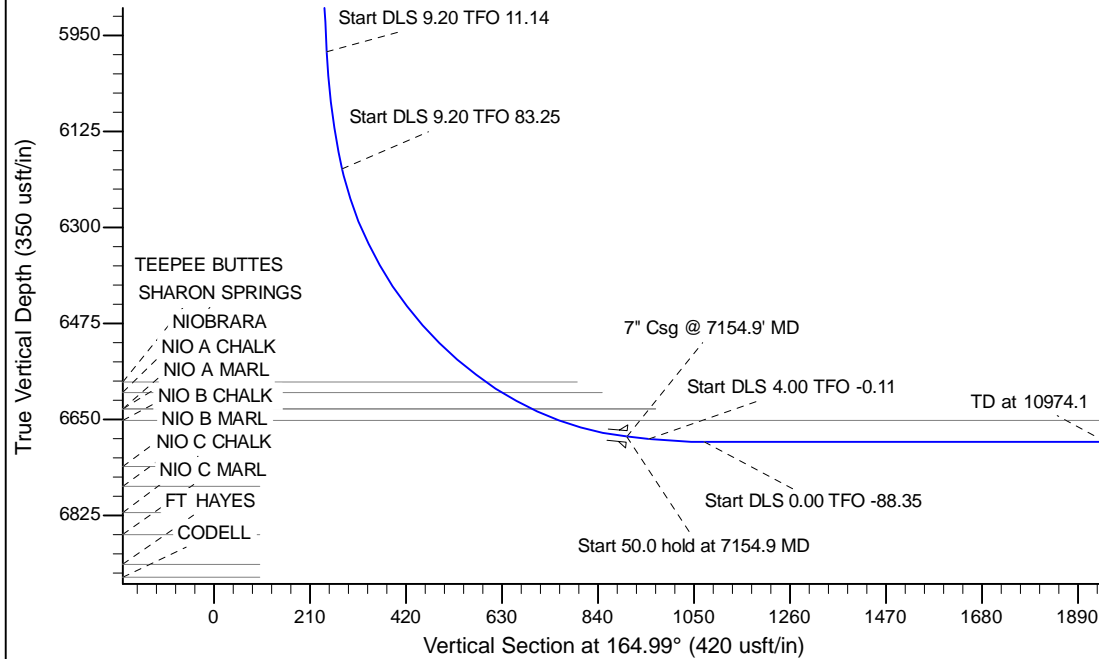
Project: Wattenberg Field  
Site: E (Sec.24-T06N-R65W) Weld County, CO  
Well: Mackinaw A19-79HNA  
Wellbore: Original Drilling  
Design: APD - Rev 0

# 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	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1600.0	0.00	0.00	1600.0	0.0	0.0	0.00	0.00	0.0	
3	2150.0	11.00	93.00	2146.6	-2.8	52.6	2.00	93.00	16.3	
4	6055.1	11.00	93.00	5980.0	-41.8	796.7	0.00	0.00	246.6	
5	6286.0	32.09	100.57	6193.6	-54.3	879.9	9.20	11.14	280.3	
6	7154.9	85.00	179.50	6681.2	-625.0	1157.0	9.20	83.25	903.3	
7	7204.9	85.00	179.50	6685.6	-674.8	1157.4	0.00	0.00	951.5	
8	7329.9	90.00	179.49	6691.0	-799.6	1158.5	4.00	-0.11	1072.4	
9	10974.1	90.00	179.48	6691.0	-4443.8	1191.3	0.00	-88.35	4600.7	Mackinaw A19-79HNA BHL 535'FSL, 75'FWL



WELL DETAILS: Mackinaw A19-79HNA				
Ground Level: 4684.0				
0.0	0.0	Northing	Easting	Latitude
		1418164.61	3248770.56	40.477820
				Longitude
				-104.605740
Plan: APD - Rev 0 (Mackinaw A19-79HNA/Original Drilling)				
Created By: Shailey Jewell		Date: 13:59, May 08 2013		
Checked: _____		Date: _____		
Reviewed: _____		Date: _____		
Approved: _____		Date: _____		