



Project: Weld County, CO
Site: Sec 7-T10N-R57W
Well: Horsetail #07F-1805
Wellbore: Hz
Design: Design #1

PROJECT DETAILS: Weld County, CO

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 True North
Magnetic North: 7.88°
Magnetic Field
Strength: 53087.5snT
Dip Angle: 67.44°
Date: 1/5/2015
Model: IGRF2010

WELL DETAILS: Horsetail #07F-1805

+N/-S	+E/-W	Northing	Ground Level:	4925.70	Eastings	4925.70	Latitude	40° 51' 13.480 N	Longitude	103° 47' 46.571 W	Slot
0.00	0.00	1558395.77			3471301.45						

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	800.00	10.00	295.00	797.46	18.39	-39.44	2.00	295.00	-15.47	
4	4035.00	10.00	295.00	3983.32	255.80	-548.56	0.00	0.00	-215.08	
5	4535.00	0.00	0.00	4480.78	274.19	-588.01	2.00	180.00	-230.54	
6	5283.35	0.00	0.00	5229.13	274.19	-588.01	0.00	0.00	-230.54	
7	6101.53	90.00	179.97	5750.00	-246.68	-587.69	11.00	179.97	288.91	PBHL 1805A
8	13820.81	90.00	179.97	5750.00	-7965.95	-583.00	0.00	0.00	7987.26	PBHL 1805A

FORMATION TOP DETAILS

TVDPATH	MDPATH	FORMATION
1550.00	1564.14	Upper Pierre
3500.00	3544.23	Hygiene
3650.00	3696.54	Lower Pierre
5515.00	5585.95	P200 Marker
5530.00	5604.11	P300 Marker
5550.00	5629.04	P350 Marker
5702.00	5876.15	Sharon Springs
5707.00	5888.39	Niobrara
5727.00	5946.15	Top A Chalk

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSec	Departure	Annotation
300.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	Build 2°/100'
797.46	800.00	10.00	295.00	18.39	-39.44	-15.47	43.52	Hold 10° Inc
3983.32	4035.00	10.00	295.00	255.80	-548.56	-215.08	605.27	Drop 2°/100'
4480.78	4535.00	0.00	0.00	274.19	-588.01	-230.54	648.80	Hold Vertical
5229.13	5283.35	0.00	0.00	274.19	-588.01	-230.54	648.80	KOP, Build 11°/100'
5750.00	6101.53	90.00	179.97	-246.68	-587.69	288.91	1169.67	LP @ 90° Inc, Hold
5750.00	13820.81	90.00	179.97	-7965.95	-583.00	7987.26	8888.94	TD at 13820.85' MD

DESIGN TARGET DETAILS

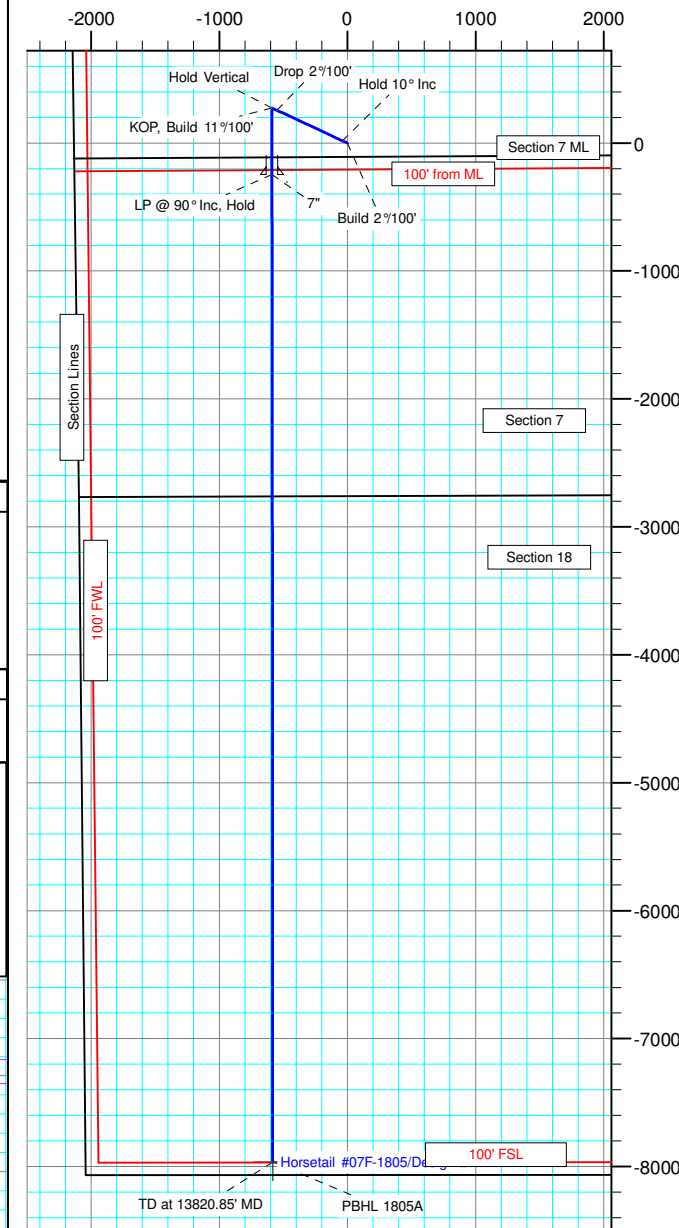
Name	TVD	+N/-S	+E/-W	Northing	Eastings	Latitude	Longitude
PBHL 1805A	5750.00	-7965.95	-583.00	1550420.09	3470871.60	40° 49' 54.770 N	103° 47' 54.155 W

SHL:
2543' FNL, 2149' FWL
Sec7-T10N-R57W

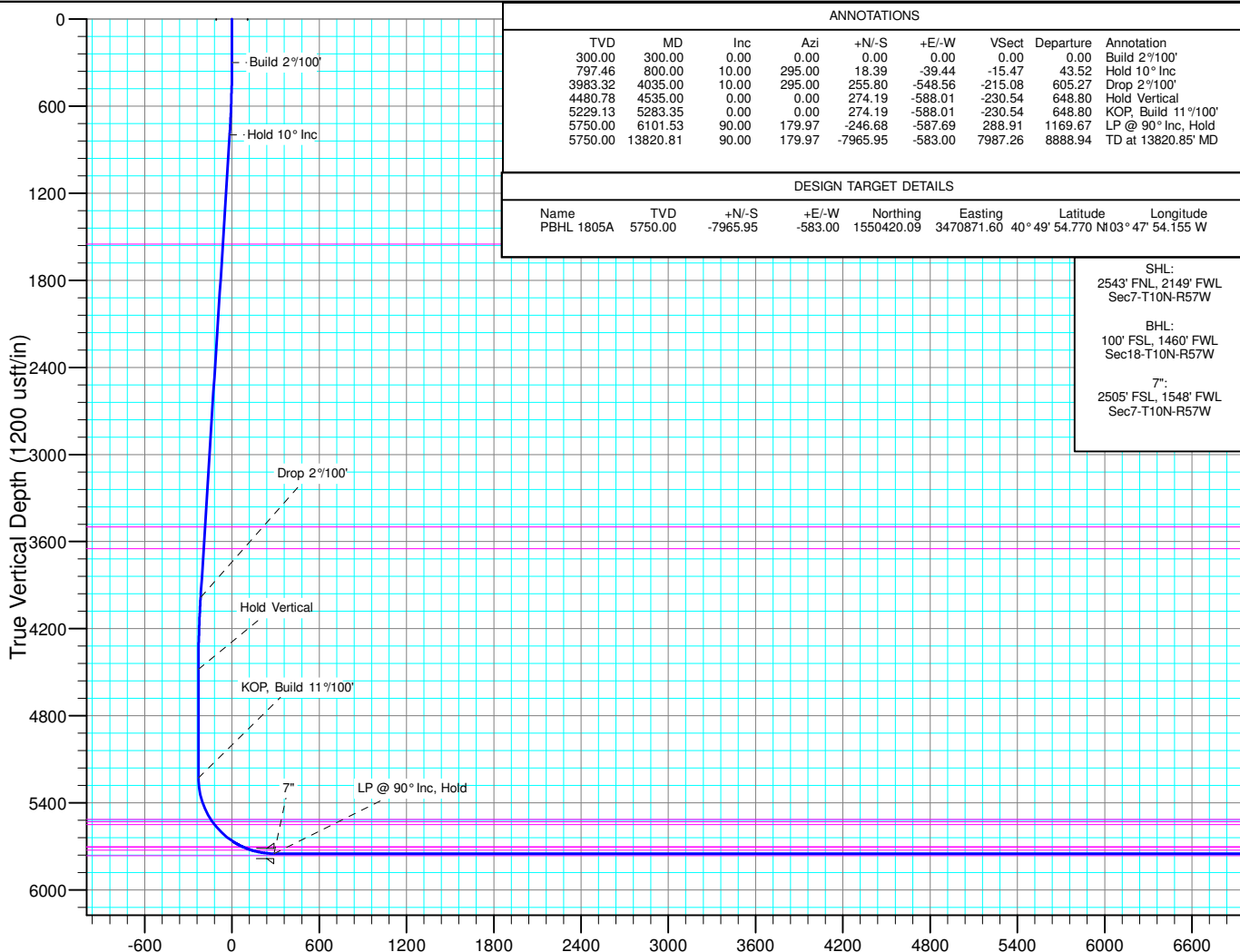
BHL:
100' FSL, 1460' FWL
Sec18-T10N-R57W

7":
2505' FSL, 1548' FWL
Sec7-T10N-R57W

West(-)/East(+) (1500 usft/in)



South(-)/North(+) (1500 usft/in)



Vertical Section at 184.19° (1200 usft/in)