



Project: Weld County, CO
Site: Sec 8-T10N-R57W
Well: Horsetail #08B-1742
Wellbore: Hz
Design: APD

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

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1525.00	1527.67	Upper Pierre
3565.00	3572.65	Hygiene
3665.00	3672.89	Lower Pierre
5604.00	5617.35	P200 Marker
5619.00	5633.20	P300 Marker
5639.00	5654.61	P350 Marker
5654.00	5670.91	Sharon Springs
5666.00	5684.11	Niobrara
5681.00	5700.83	Top A Chalk
5723.00	5749.27	Top A Marl
5742.00	5772.12	A Marl
5748.00	5779.49	Top Upper B
5779.00	5818.83	Base Upper B
5783.00	5824.09	Top Lower B
5816.00	5869.39	Base Lower B
5831.00	5891.35	Top B Marl
5871.00	5955.90	Top C Chalk
5883.00	5977.60	Middle C Chalk
5897.00	6004.88	Middle C Marl
5918.00	6051.44	Lower C Chalk
5945.00	6130.87	Lower C Marl
5964.00	6270.85	Lower C Marker

WELL DETAILS: Horsetail #08B-1742

+N/-S	+E/-W	Northing	Ground Level:	4890.00	Latitude	Longitude	Slot
0.00	0.00	1560769.01	Easting	3477607.06	40° 51' 35.720 N	103° 46' 23.930 W	

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	500.00	4.00	318.00	499.84	5.19	-4.67	2.00	318.00	-5.09	
4	4750.00	4.00	318.00	4739.48	225.50	-203.04	0.00	0.00	-221.32	
6	4950.00	0.00	0.00	4939.32	230.69	-207.71	2.00	180.00	-226.41	
6	5453.81	0.00	0.00	5443.13	230.69	-207.71	0.00	0.00	-226.41	
7	6271.99	90.00	180.00	5964.00	-290.18	-207.70	11.00	180.00	294.35	PBHL 1742
8	16176.33	90.00	180.00	5964.00	-10194.53	-207.55	0.00	0.00	10196.64	PBHL 1742

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'
499.84	500.00	4.00	318.00	5.19	-4.67	-5.09	6.98	Hold 4° Inc
4739.48	4750.00	4.00	318.00	225.50	-203.04	-221.32	303.44	Drop 2°/100'
4939.32	4950.00	0.00	0.00	230.69	-207.71	-226.41	310.42	Hold Vertical
5443.13	5453.81	0.00	0.00	230.69	-207.71	-226.41	310.42	KOP, Build 11°/100'
5964.00	6271.99	90.00	180.00	-290.18	-207.70	294.35	831.29	LP @ 90° Inc, Hold
5964.00	16176.33	90.00	180.00	-10194.53	-207.55	10196.64	10735.64	TD at 16176.33' MD

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL 1742	5964.00	-10194.53	-207.55	1550572.38	3477598.05	40° 49' 54.990 N	103° 46' 26.630 W



Azimuths to True North
Magnetic North: 7.85°

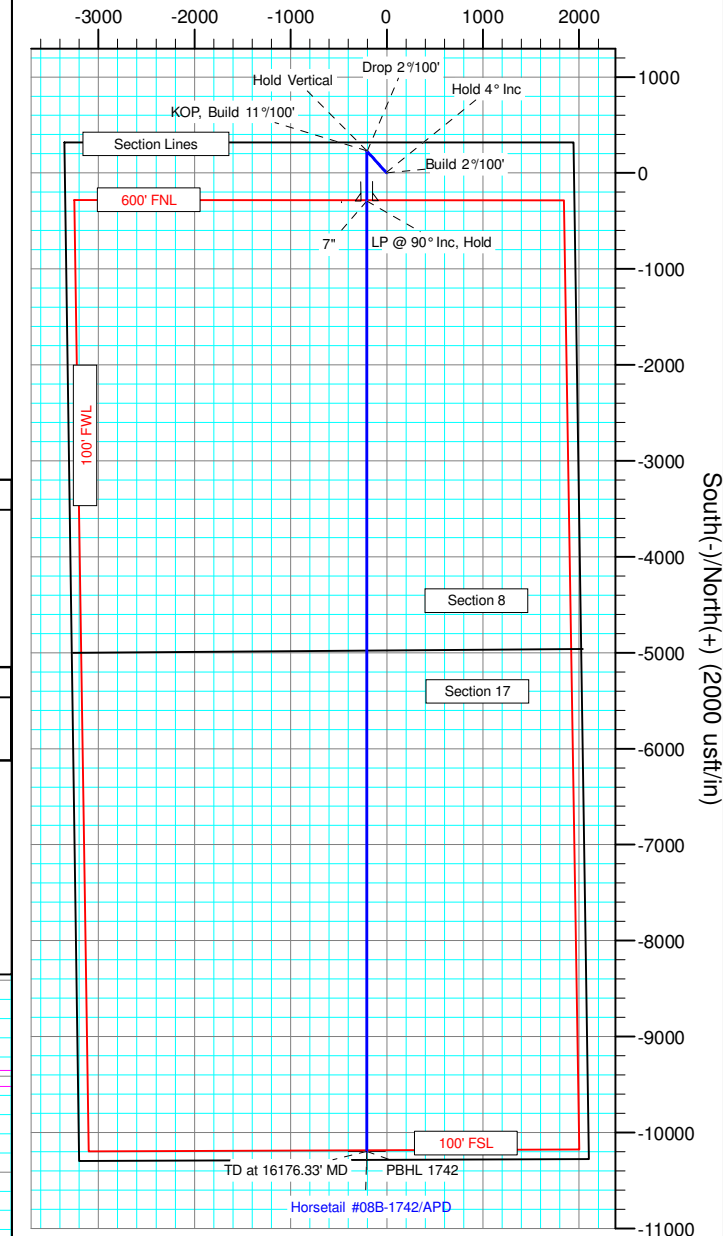
Magnetic Field
Strength: 53076.8nT
Dip Angle: 67.44°
Date: 3/2/2015
Model: IGRF2010

SHL:
330' FNL, 1949' FEL
Sec8-T10N-R57W

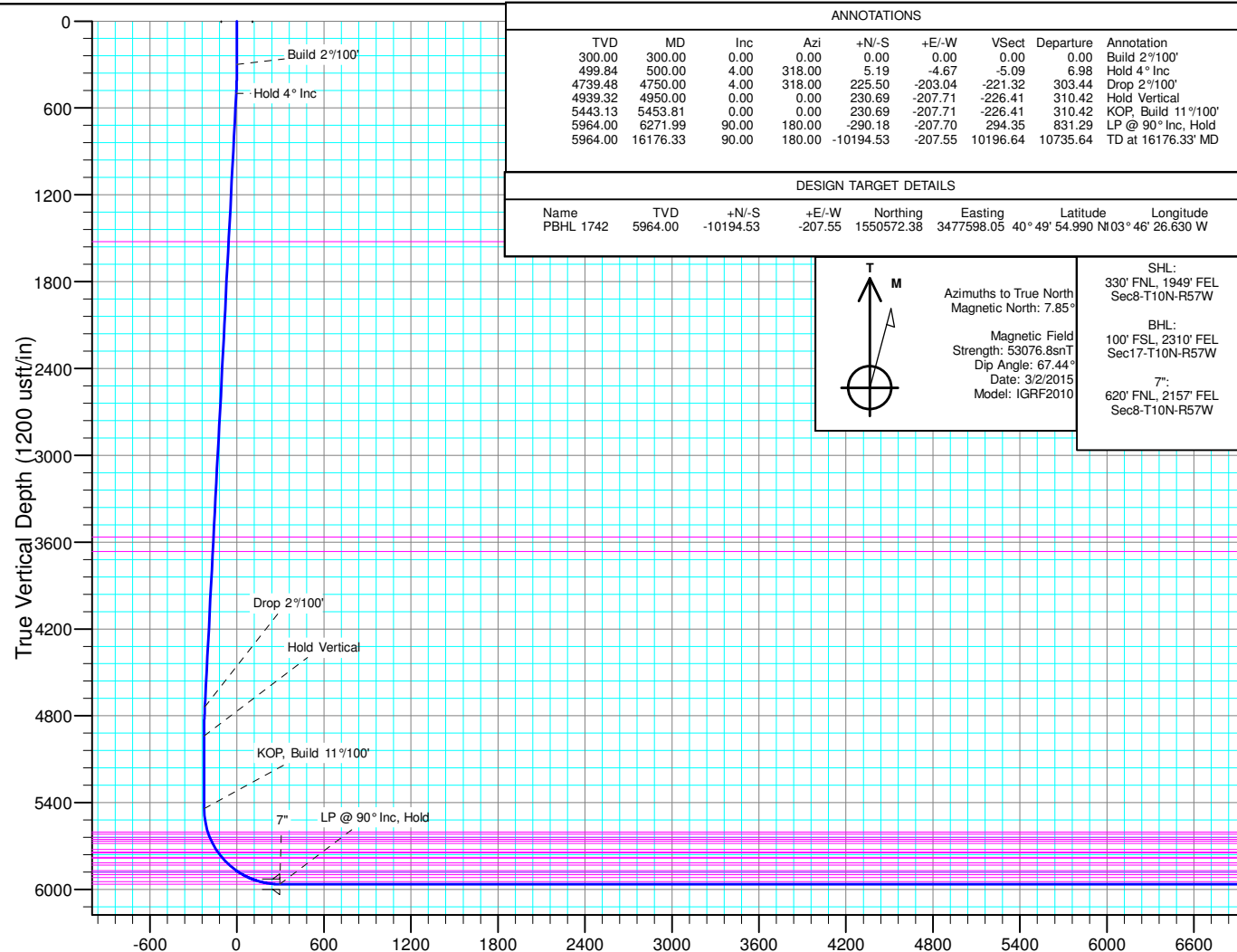
BHL:
100' FSL, 2310' FEL
Sec17-T10N-R57W

7°:
620' FNL, 2157' FEL
Sec8-T10N-R57W

West(-)/East(+) (2000 usft/in)



South(-)/North(+) (2000 usft/in)



Vertical Section at 181.17° (1200 usft/in)