



Project: Weld County, CO  
Site: Sec 8-T10N-R57W  
Well: Horsetail #08B-1743  
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	5618.35	P200 Marker
5619.00	5634.81	P300 Marker
5639.00	5657.15	P350 Marker
5654.00	5674.23	Sharon Springs
5666.00	5688.14	Niobrara
5681.00	5705.83	Top A Chalk
5723.00	5757.69	Top A Marl
5742.00	5782.53	A Marl
5748.00	5790.59	Top Upper B
5779.00	5834.25	Base Upper B
5783.00	5840.17	Top Lower B
5816.00	5892.25	Base Lower B
5831.00	5918.39	Top B Marl
5871.00	6000.82	Top C Chalk
5883.00	6031.76	Middle C Chalk
5897.00	6075.38	Middle C Marl
5918.00	6221.87	Lower C Chalk

WELL DETAILS: Horsetail #08B-1743

+N/-S	+E/-W	Northing	Ground Level:	4890.00	Easting	Latitude	Longitude	Slot
0.00	0.00	1560769.59	3477637.03	40° 51' 35.720 N	103° 46' 23.540 W			

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	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	22.00	499.84	6.47	2.61	2.00	22.00	-6.45	
4	3850.00	4.00	22.00	3841.68	223.14	90.15	0.00	0.00	-222.31	
5	4050.00	0.00	0.00	4041.51	229.61	92.77	2.00	-180.00	-228.76	
6	5405.62	0.00	0.00	5397.13	229.61	92.77	0.00	0.00	-228.76	
7	6223.80	90.00	180.00	5918.00	-291.26	92.74	11.00	180.00	292.09	PBHL 1743
8	16124.02	90.00	180.00	5918.00	-10191.49	92.25	0.00	0.00	10191.90	PBHL 1743

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	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	22.00	6.47	2.61	-6.45	6.98	Hold 4° Inc
3841.68	3850.00	4.00	22.00	223.14	90.15	-222.31	240.66	Drop 2°/100'
4041.51	4050.00	0.00	0.00	229.61	92.77	-228.76	247.64	Hold Vertical
5397.13	5405.62	0.00	0.00	229.61	92.77	-228.76	247.64	KOP, Build 11°/100'
5918.00	6223.80	90.00	180.00	-291.26	92.74	292.09	768.51	LP @ 90° Inc, Hold
5918.00	16124.02	90.00	180.00	-10191.49	92.25	10191.90	10668.74	TD at 16124.02' MD

DESIGN TARGET DETAILS

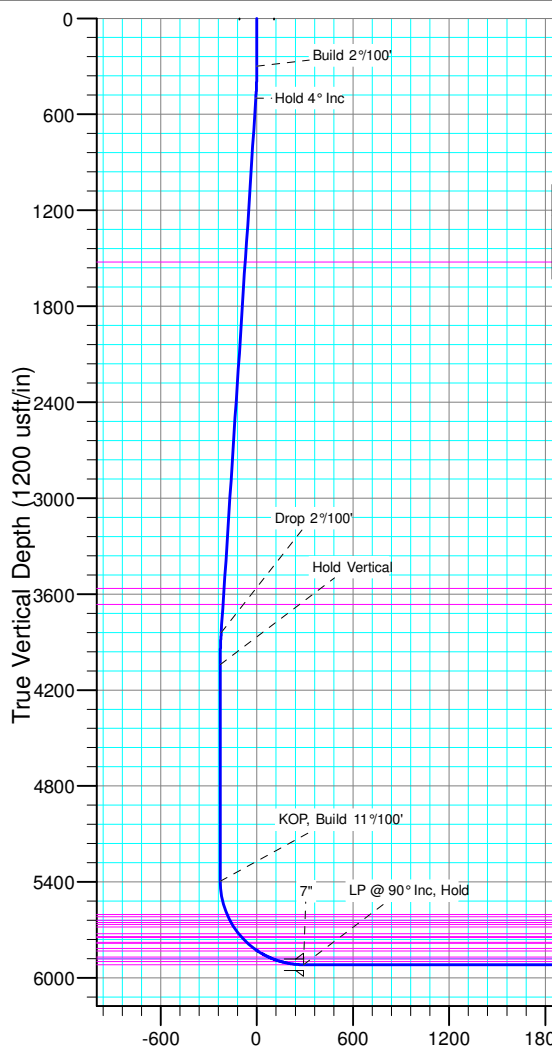
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL 1743	5918.00	-10191.49	92.25	1550581.83	3477927.70	40° 49' 55.020 N	103° 46' 22.340 W



Azimuths to True North  
Magnetic North: 7.85°

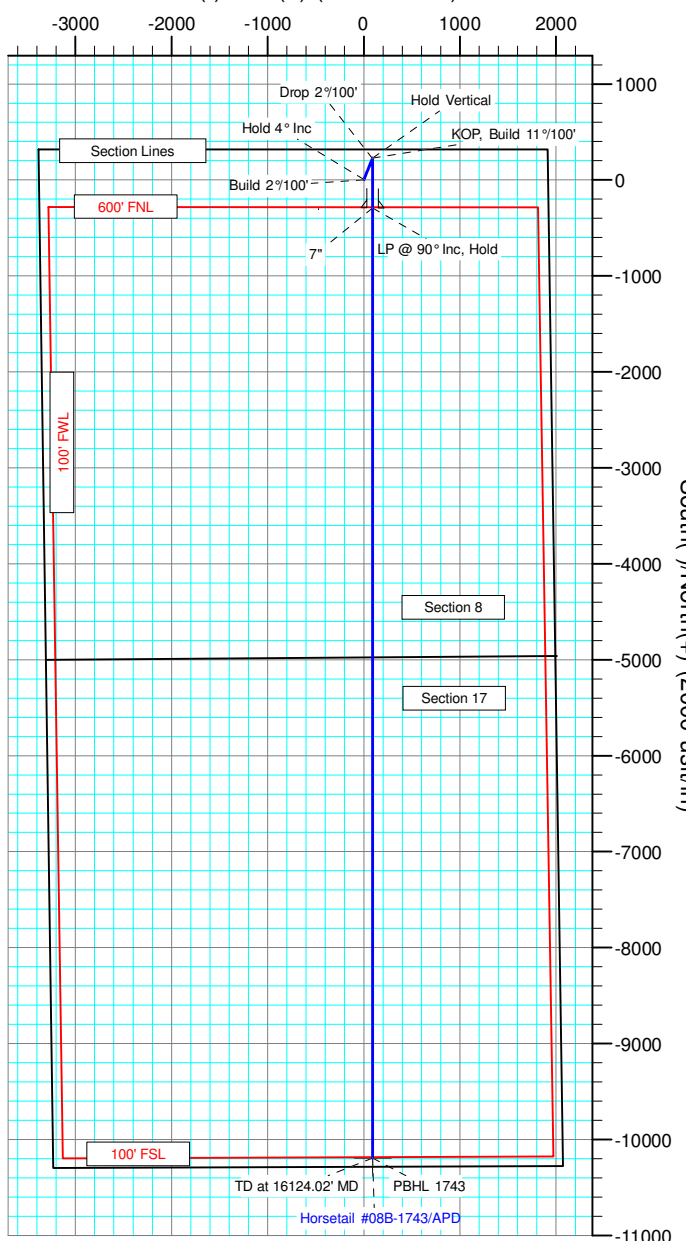
Magnetic Field  
Strength: 53076.8nT  
Dip Angle: 67.44°  
Date: 3/2/2015  
Model: IGRF2010

SHL:  
330' FNL, 1919' FEL  
Sec8-T10N-R57W  
  
BHL:  
100' FSL, 1980' FEL  
Sec17-T10N-R57W  
  
7°:  
621' FNL, 1827' FEL  
Sec8-T10N-R57W



Vertical Section at 179.48° (1200 usft/in)

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



Horsetail #08B-1743/APD