



Project: Weld County, CO
Site: Sec 8-T10N-R57W
Well: Horsetail #08D-1734
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
1554.30	1556.15	Upper Pierre
3504.30	3509.29	Hygiene
3654.30	3659.53	Lower Pierre
5519.30	5526.74	P200 Marker
5534.30	5541.94	P300 Marker
5554.30	5562.33	P350 Marker
5706.30	5726.19	Sharon Springs
5711.30	5732.00	Niobrara
5731.30	5755.66	Top A Chalk
5768.30	5801.48	Top A Marl
5787.30	5826.28	A Marl
5796.30	5838.40	Top Upper B
5824.30	5877.91	Base Upper B
5841.30	5903.54	Top Lower B
5861.30	5935.77	Base Lower B
5868.30	5947.69	Top B Marl
5918.30	6048.66	Top C Chalk
5926.30	6069.09	Middle C Chalk
5940.30	6110.75	Middle C Marl
5959.30	6198.47	Lower C Chalk

WELL DETAILS: Horsetail #08D-1734

+N/-S	+E/-W	Northing	Ground Level:	Easting	Latitude	Longitude	Slot
0.00	0.00	1560706.22	4960.20	3474790.83	40° 51' 35.640 N	103° 47' 0.590 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	462.50	3.25	348.00	462.41	4.51	-0.96	2.00	348.00	-4.50	
4	4812.50	3.25	348.00	4805.42	245.73	-52.23	0.00	0.00	-245.45	
5	4975.00	0.00	0.00	4967.83	250.24	-53.19	2.00	180.00	-249.95	
6	5450.30	0.00	0.00	5443.13	250.24	-53.19	0.00	0.00	-249.95	
7	6268.48	90.00	180.00	5964.00	-270.63	-53.22	11.00	180.00	270.91	PBHL 1734
8	16202.49	90.00	180.00	5964.00	-10204.64	-53.81	0.00	0.00	10204.78	PBHL 1734

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'
462.41	462.50	3.25	348.00	4.51	-0.96	-4.50	4.61	Hold 3.25° Inc
4805.42	4812.50	3.25	348.00	245.73	-52.23	-245.45	251.22	Drop 2°/100'
4967.83	4975.00	0.00	0.00	250.24	-53.19	-249.95	255.83	Hold Vertical
5443.13	5450.30	0.00	0.00	250.24	-53.19	-249.95	255.83	KOP, Build 11°/100'
5964.00	6268.48	90.00	180.00	-270.63	-53.22	270.91	776.70	LP @ 90° Inc, Hold
5964.00	16202.49	90.00	180.00	-10204.64	-53.81	10204.78	10710.71	TD at 16202.49' MD

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL 1734	5964.00	-10204.64	-53.81	1550502.45	3474934.55	40° 49' 54.810 N	103° 47' 1.290 W



Azimuths to True North
Magnetic North: 7.86°

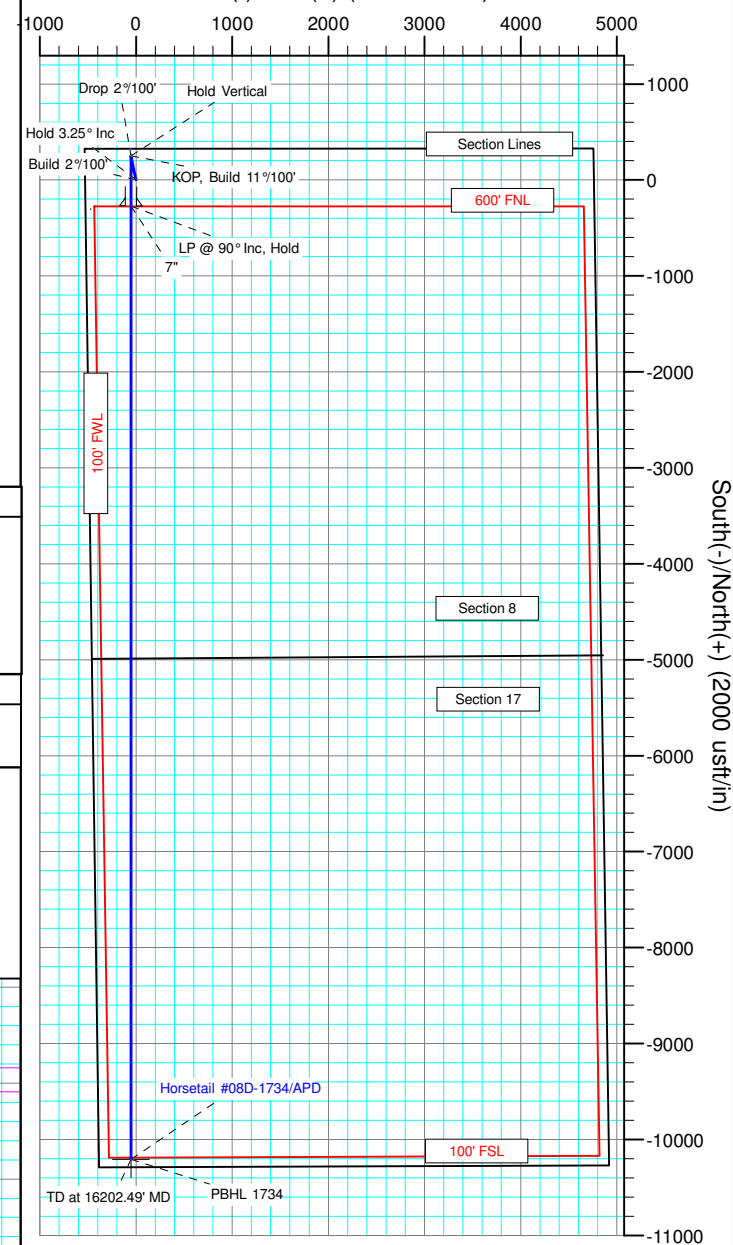
Magnetic Field
Strength: 53082.2nT
Dip Angle: 67.44°
Date: 2/6/2015
Model: IGRF2010

SHL:
330' FNL, 531' FWL
Sec8-T10N-R57W

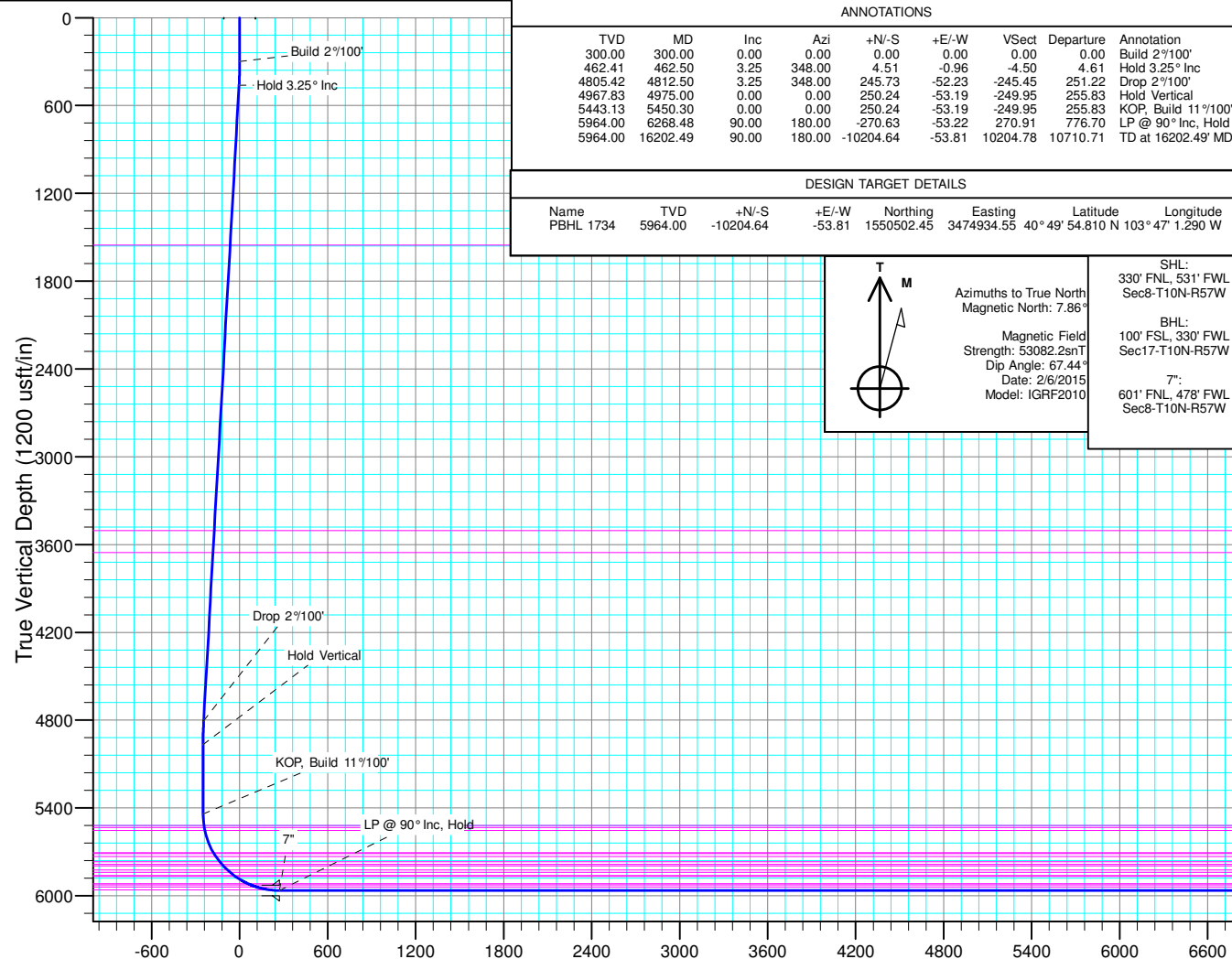
BHL:
100' FSL, 330' FWL
Sec17-T10N-R57W

7":
601' FNL, 478' FWL
Sec8-T10N-R57W

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



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



Vertical Section at 180.30° (1200 usft/in)