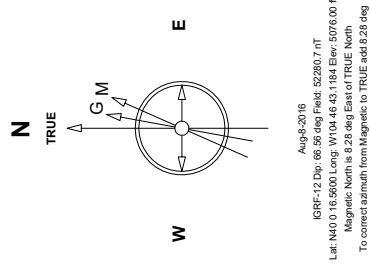


Great Western Operating Company, LLC

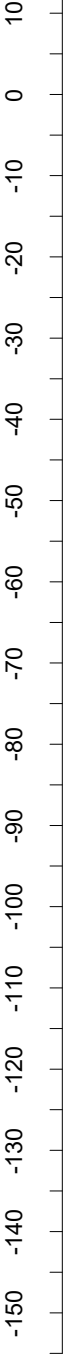
Location	Colorado	Slot	S23 - Ottesen LE 06-050HNX
Field	Wattenburg	Well	Ottesen LE 06-050HNX
Installation	Ottesen	Wellbore	Ottesen LE 06-050HNX - Surface Hole

Created by mmount
Date plotted 23-Mar-2020
Plot reference is Ottesen LE 06-050HNX - Surface Hole.
Ref wellpath is Ottesen LE 06-050HNX (AWP#1).
Coordinates are in Feet reference S23 - Ottesen LE 06-050HNX.
True Vertical Depths are reference Rig Datum.
Measured Depths are reference Rig Datum.
Rig Datum: Actual Datum #1
Rig Datum to Mean Sea Level: 5082.00 ft.
Plot North is aligned to TRUE North.

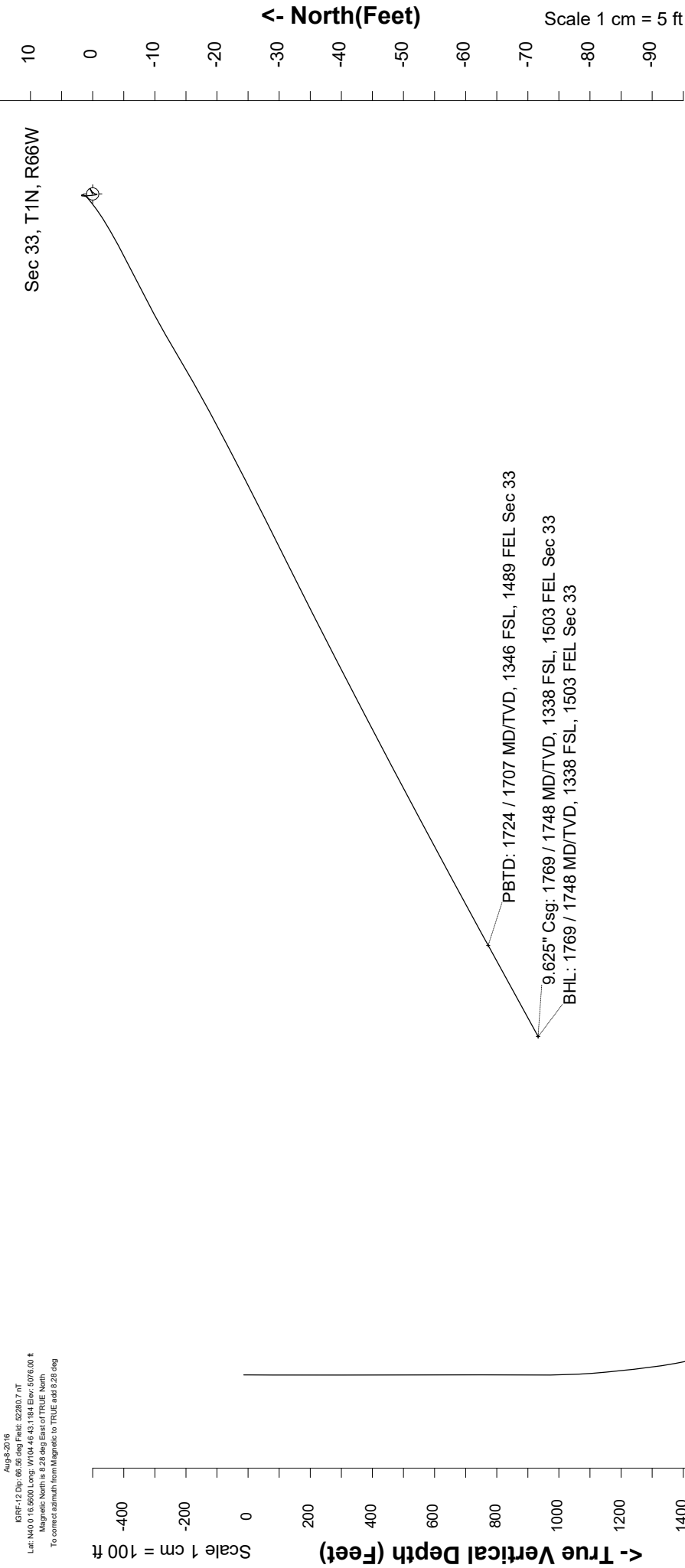


Scale 1 cm = 5 ft

East (Feet) ->



ISREF-12 Dip: 06.56 deg Field: 52280.7 nT
Lat: N40 0 16.5000 Long: W104 46 43.1784 Elev: 5076.00 ft
Magnetic North is 6.28 deg East of TRUE North
To correct azimuth from Magnetic to TRUE add 6.28 deg



Great Western Operating Co, LLC Directional Survey Report Wellpath: Ottesen LE 06-050HNX MDs and TVDs are from Rig Floor 5082.0ft above Mean Sea Level

Wellbore Information

Date Created	Date Revised	API #	RKB above GL	Well Name
Mar-23-2020	Mar-23-2020	05-001-48289	6.00	Ottesen LE 06-050HNX - Surface Hole

Slot Coordinates

Latitude	Longitude
40.00432600	-104.77757300

Pad Information

Pad Name	Ground Elev.
Ottesen	5076.00

Field

Name
Wattenburg

Wellpath Report

MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	DLS [deg/100ft]	Vertical Section[ft]	Lat - NAD 83	Long - NAD 83
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	40.00432600	-104.77757300
78.00	0.31	59.24	78.00	0.11	0.18	0.00	-0.21	40.00432630	-104.77757235
165.00	0.40	69.52	165.00	0.33	0.67	0.00	-0.75	40.00432692	-104.77757062
251.00	0.13	256.99	251.00	0.42	0.85	0.00	-0.95	40.00432715	-104.77756995
343.00	0.57	235.72	343.00	0.14	0.37	0.00	-0.39	40.00432637	-104.77757166
433.00	0.35	182.55	432.99	-0.39	-0.01	0.00	0.19	40.00432493	-104.77757303
523.00	0.09	223.15	522.99	-0.72	-0.07	0.00	0.40	40.00432403	-104.77757324
613.00	0.18	355.08	612.99	-0.63	-0.13	0.00	0.41	40.00432428	-104.77757346
703.00	0.97	352.00	702.99	0.27	-0.25	0.00	0.09	40.00432674	-104.77757388
793.00	0.57	1.14	792.98	1.47	-0.34	0.00	-0.38	40.00433004	-104.77757423
883.00	0.26	128.58	882.98	1.79	-0.18	0.00	-0.68	40.00433091	-104.77757363
973.00	0.66	212.26	972.97	1.22	-0.29	0.00	-0.31	40.00432936	-104.77757404
1063.00	2.99	233.70	1062.92	-0.60	-2.46	0.00	2.46	40.00432434	-104.77758179
1153.00	5.67	241.44	1152.66	-4.12	-8.26	0.00	9.23	40.00431469	-104.77760248
1242.00	6.06	243.54	1241.19	-8.31	-16.33	0.00	18.32	40.00430318	-104.77763128
1332.00	8.53	239.15	1330.46	-13.86	-26.31	0.00	29.74	40.00428797	-104.77766692
1422.00	11.78	242.40	1419.04	-21.54	-40.19	0.00	45.59	40.00426688	-104.77771645
1512.00	16.17	243.54	1506.35	-31.38	-59.56	0.00	67.32	40.00423986	-104.77778559
1602.00	18.41	242.40	1592.28	-43.55	-83.37	0.00	94.06	40.00420645	-104.77787061
1692.00	21.36	241.70	1676.90	-57.91	-110.41	0.00	124.67	40.00416703	-104.77796710
1719.00	21.97	241.26	1702.00	-62.67	-119.16	0.00	134.64	40.00415397	-104.77799836
1769.00	21.97	241.26	1748.37	-71.66	-135.57	0.00	153.34	40.00412928	-104.77805691

Comments

MD[ft]	TVD[ft]	North[ft]	East[ft]	Lat - NAD 83	Long - NAD 83	Comment
1724.28	1706.89	-63.62	-120.90	40.00415136	-104.77800454	PBTD: 1724 / 1707 MD/TVD, 1346 FSL, 1489 FEL Sec 33
1769.00	1748.37	-71.66	-135.57	40.00412928	-104.77805691	9.625" Csg: 1769 / 1748 MD/TVD, 1338 FSL, 1503 FEL Sec 33
1769.00	1748.37	-71.66	-135.57	40.00412928	-104.77805691	BHL: 1769 / 1748 MD/TVD, 1338 FSL, 1503 FEL Sec 33

Hole Sections

Diameter [in]	Start MD[ft]	Start TVD[ft]	Start North[ft]	Start East[ft]	End MD[ft]	End TVD[ft]	End North[ft]	End East[ft]
13.500	0.00	0.00	0.00	0.00	1769.00	1748.37	-71.66	-135.57

Casings

Name	Top MD[ft]	Top TVD[ft]	Top North[ft]	Top East[ft]	Shoe MD[ft]	Shoe TVD[ft]	Shoe North[ft]	Shoe East[ft]
9 5/8in Casing	0.00	0.00	0.00	0.00	1769.00	1748.37	-71.66	-135.57

Survey Tool Program

Reference	Survey Name	MD[ft]	TVD[ft]	Survey Tool
810736	Surface Hole - 20200323	1769.00	1748.37	MWD

Coordinates are from Slot
MD's and TVD's are from Rig Floor 5082.0ft above Mean Sea Level
Vertical Section is from Wellhead on azimuth 242.14 degrees
Bottom hole distance is 153.34 Feet on azimuth 242.14 degrees from Wellhead
Survey calculation uses Minimum Curvature method