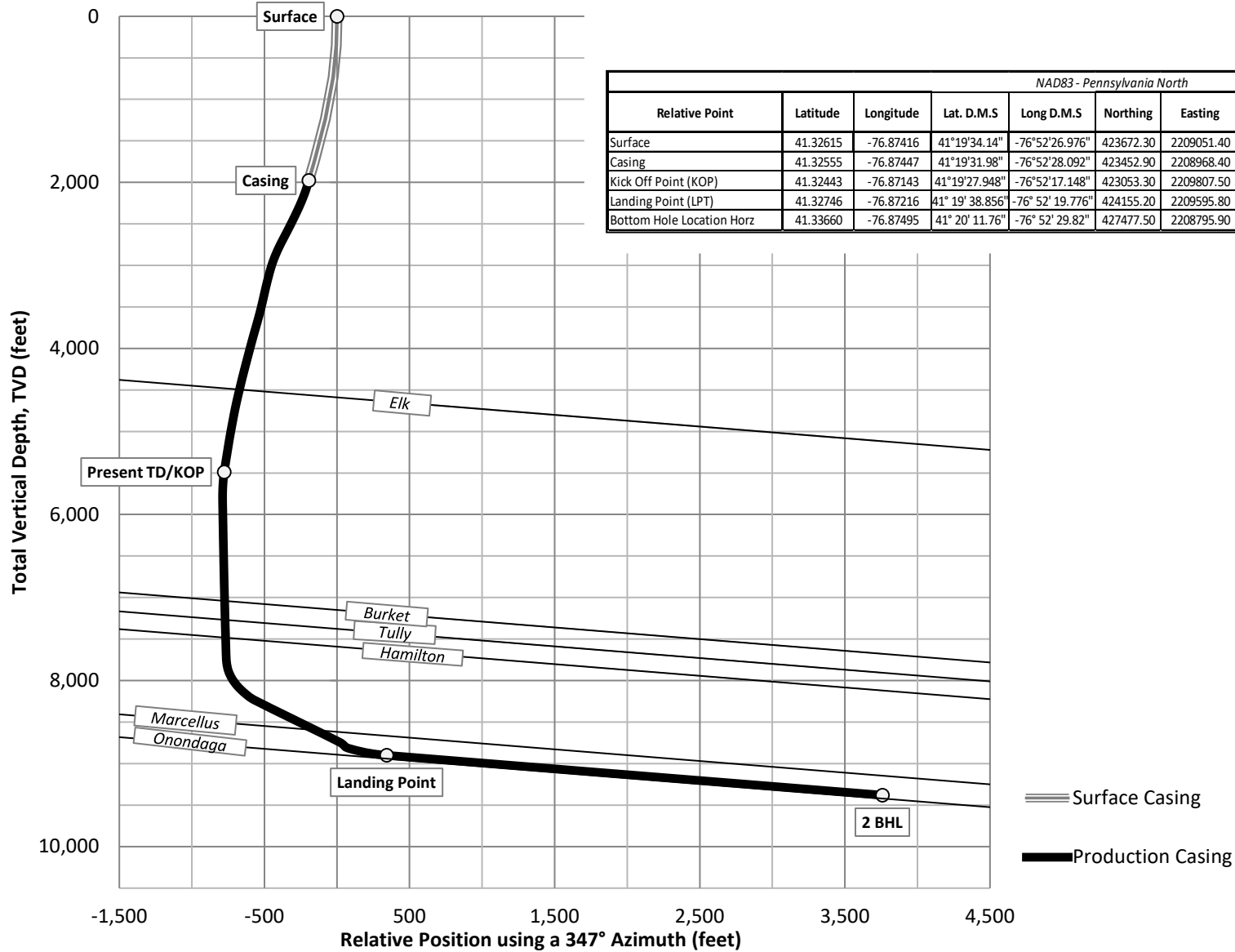


Directional Drilling Plan

Hillegas 2 Marcellus Horizontal



NAD83 - Pennsylvania North												
Relative Point	Latitude	Longitude	Lat. D.M.S	Long D.M.S	Northing	Easting	MD (ft)	TVD (ft)	Inclination (deg)	Azimuth (deg)	N/S (ft)	E/W (ft)
Surface	41.32615	-76.87416	41°19'34.14"	-76°52'26.976"	423672.30	2209051.40	0	0	0	0	0.00	0.00
Casing	41.32555	-76.87447	41°19'31.98"	-76°52'28.092"	423452.90	2208968.40	1995	1976.76	11.32	199.9	-218.60	-83.23
Kick Off Point (KOP)	41.32443	-76.87143	41°19'27.948"	-76°52'17.148"	423053.30	2209807.50	5652	5487.71	10.63	105.01	-624.34	752.03
Landing Point (LPT)	41.32746	-76.87216	41° 19' 38.856"	-76° 52' 19.776"	424155.20	2209595.80	9600	8900.54	82	347	478.21	551.34
Bottom Hole Location Horiz	41.33660	-76.87495	41° 20' 11.76"	-76° 52' 29.82"	427477.50	2208795.90	13050	9380.69	82	347	3807.07	-217.19