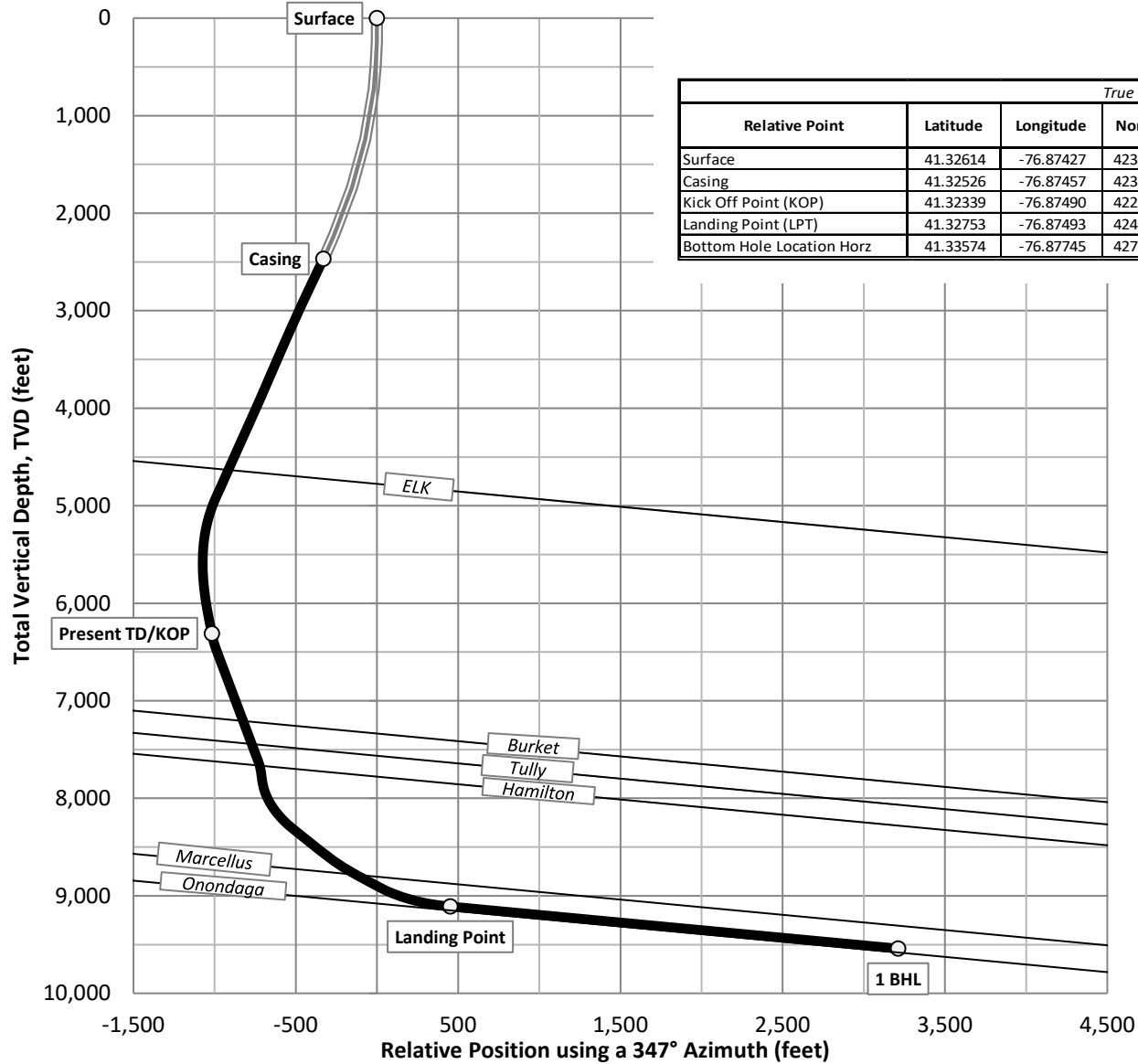


Directional Drilling Plan

Hillegas 1 Marcellus Horizontal



True North NAD83 - Pennsylvania North											
Relative Point	Latitude	Longitude	Northing	Easting	MD (ft)	TVD (ft)	Inclination (deg)	Azimuth (deg)	N/S (ft)	E/W (ft)	
Surface	41.32614	-76.87427	423668.40	2209021.20	0	0	0	0	0.00	0.00	
Casing	41.32526	-76.87457	423346.90	2208942.00	2500	2468.97	15.51	190.82	-319.72	-81.62	
Kick Off Point (KOP)	41.32339	-76.87490	422664.70	2208858.30	6441	6308.69	7.4	42.6	-1003.79	-172.12	
Landing Point (LPT)	41.32753	-76.87493	424173.00	2208834.80	9900	9109.58	82	347	505.70	-181.63	
Bottom Hole Location Horz	41.33574	-76.87745	427157.20	2208112.60	13000	9541.02	82	347	3496.86	-872.20	