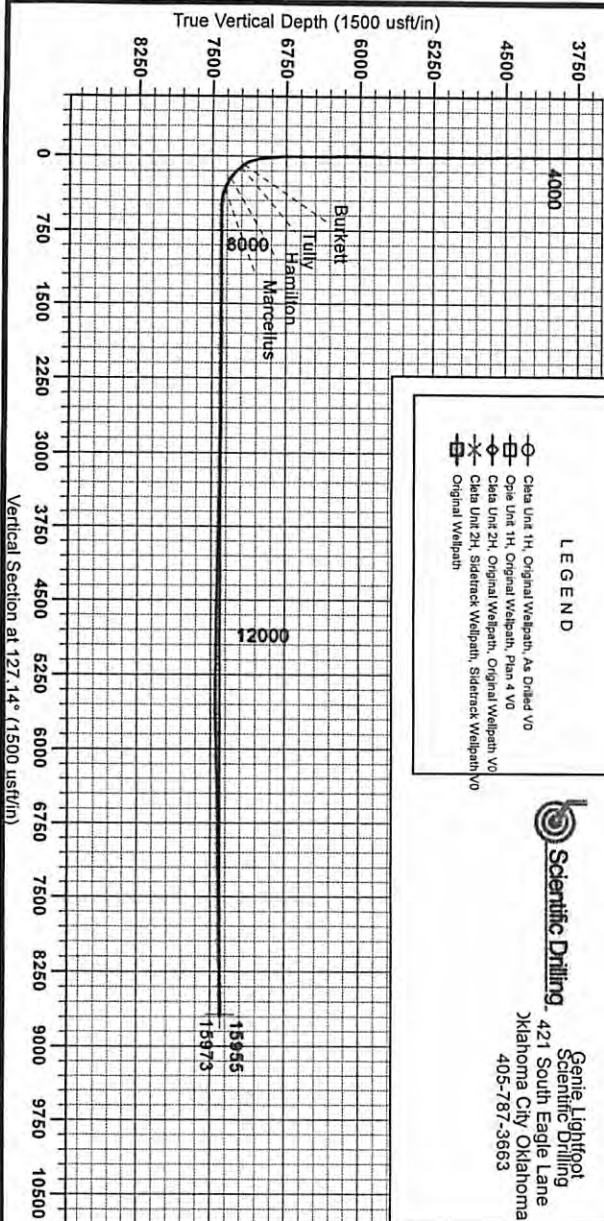




Antero Resources  
 Opie Unit 1H  
 Harrison County West Virginia  
 Northing: 14243191.51  
 Easting: 1766868.61  
 Original Wellpath



**WELL DETAILS:** Opie Unit 1H

+N/S	+E/W	Northing	Easting	Latitude	Longitude	Slat
0.0	0.0	14243191.51	1766868.61	39° 13' 20.313" N	80° 33' 12.616" W	

**DESIGN TARGET DETAILS(NAD 83)**

Name	TVD	+N/S	+E/W	Northing	Easting	Latitude	Longitude	Shape
SHL Opie Unit 1H	0.0	0.0	0.0	0.01424319151	1766868.61397	39° 13' 20.313" N	80° 33' 12.616" W	Point
Actual BHL Opie Unit 1H	7393.5	-5237.1	6920.21	4237954.42	1773798.82397	39° 12' 28.185" N	80° 31' 44.899" W	Point
Original Wellpath				4230.95625228m	3007.621100m			

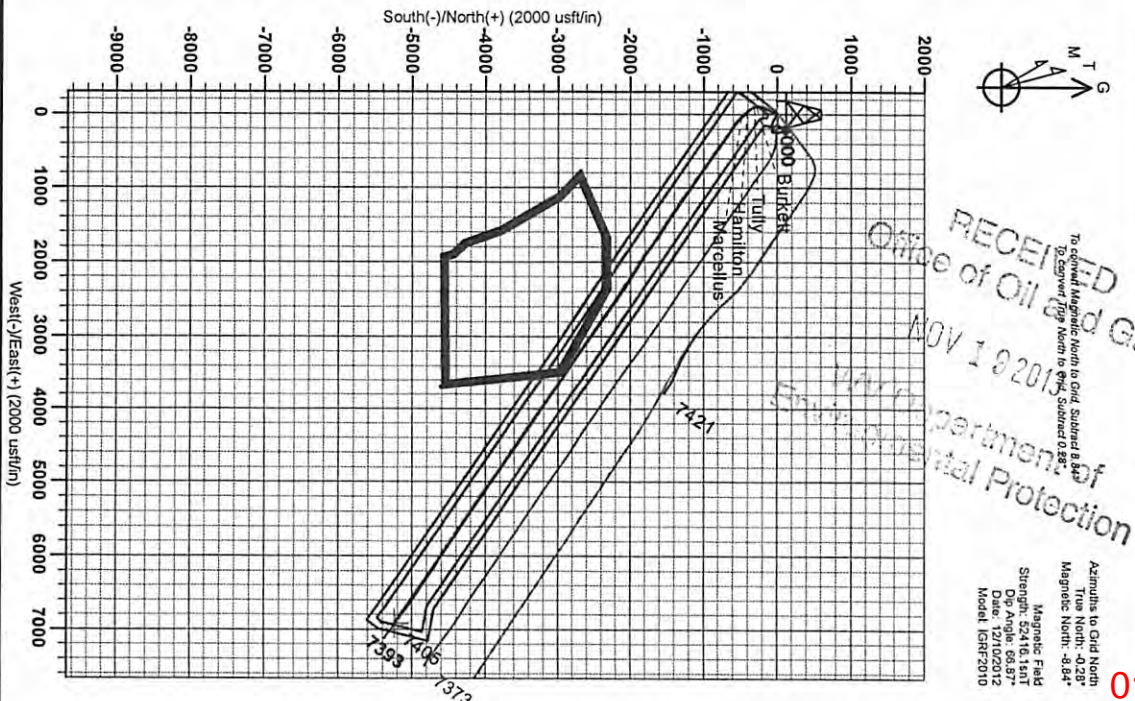
**PROJECT DETAILS:** Harrison County West Virginia  
 Geologic System: Uniformal Transpressa Member (US Survey Feet)  
 Datum: NAD 1983 (NAD83 CONUS)  
 Ellipsoid: Clarke 1866  
 Zone: Zone 17N (94 W to 78 W)  
 System Datum: Mean Sea Level

**REFERENCE INFORMATION**  
 Coordinates: UTM Reference: UTM Opie Unit 1H, Zone 17N, UTM Easting: 1766868.61397, UTM Northing: 14243191.51  
 Wellbore: Section V(9) Reference: 882 (1024, D85)  
 Wellbore: Section V(9) Reference: 882 (1024, D85)  
 Calculation Method: Minimum Curvature

**LEGEND**

- Data Unit 1H, Original Wellpath, As Drilled VO
- Data Unit 1H, Original Wellpath, Plan 4 VO
- Data Unit 2H, Original Wellpath, Original Wellpath VO
- Data Unit 2H, Sidetrack Wellpath, Sidetrack Wellpath VO
- Original Wellpath

**Scientific Drilling**  
 421 South Eagle Lane  
 Oklahoma City, Oklahoma  
 405-787-3663



RECEIVED  
 Office of Oil and Gas  
 NOV 10 2013  
 Department of  
 Environmental Protection

To convert Magnetic North to Grid, Subtract 8.84°  
 To convert True North to Grid, Subtract 0.28°  
 To convert Grid North to True North, Add 0.28°

Magnetic Field  
 Strength: 52416.15nT  
 Dip Angle: 66.93°  
 Date: 12/15/2012  
 Model: IGRF2010

Azimuth to Grid North  
 True North: -0.28°  
 Magnetic North: -8.84°