

Operator: United Fuel Gas Co.

Farm: Bull Creek Coal Co.

Well No.: 9582

Elevation: 1307.71'

Location: Buchanan County

Quadrangle: Harman

2000' W of 82°10'

1500' S of 37°17'30"

Total Depth: ~~4098'~~ 5600'

Remarks: Geologic log supplement by Marshall S. Miller, VDMR, December, 1971.

<u>Depth</u>	<u>Thickness</u>	<u>Description</u>
1290-1330	40'	Sandstone, white, quartzose, fine to medium grained, subangular to subround, moderately to well sorted, small amount of clay matrix material, 90 to 95% quartz, scattered dark gray, finely micaceous, shaly material present in cuttings, which may be due to thin shale stringers is present in 1290-1300, 1320-1330, over 90% quartz
1330-1340	10'	Sandstone, white, quartzose, medium grained to granular, with scattered conglomeratic quartz pebbles, subangular to subround, poorly sorted, little to no matrix material, no shaly present, over 90% quartz
1340-1370	30'	Sandstone, white, quartzose, fine to medium grained, subangular to subround, small amount of clay matrix material, scattered dark rock fragments, over 90% quartz
1370-1380	10'	Sandstone, white, quartzose, granular and conglomeratic, rounded to angular, poorly sorted, scattered dark rock fragments, rare matrix material, over 95% quartz
1380-1400	20'	Sandstone, white, quartzose, medium grained, subrounded, moderately well sorted, small amount of matrix material and scattered dark rock fragments, over 90% quartz

1400-1440	40'	Sandstone, white, quartzose, fine grained to granular, subangular to subround, poorly sorted, over 90% quartz, a scattered amount of reworked argillaceous, silty, micaceous, and coaly material
1440-1450	10'	Sandstone, white, quartzose, granular and conglomeratic, secondary quartz overgrowth visible, with little to no matrix material
1450-1455	5'	Coal, good vitreous luster, appears pure, with blocky and conchoidal fracture
1455-1485	30'	Shale, gray, silty, finely micaceous, locally carbonaceous
1485-1520	35'	Sandstone, light gray to gray, fine to coarse grained, subangular, poorly sorted, with scattered coarse grained muscovite, dark argillaceous and carbonaceous rock fragments, traces of feldspar, interstitially silty, about 75% quartz
1520-1521	1'	Coal, hard, vitreous luster, shaly in part
1521-1530	9'	Siltstone, gray to light gray, siliceous
1530-1570	40'	Shale, gray, greenish gray, rare greenish yellow, silty, locally calcareous
1570-1595	25'	Shale, gray, silty, fissile, calcareous
1595-1600	5'	Claystone, pastel green, and gray, very calcareous, with lesser amounts of light tan to light gray mudstone or siltstone, with black spherulitic nodules
1600-1630	30'	Shale, gray, clay-like, soft crumbly, with equal amounts of greenish gray, gray, light gray, calcareous, siltstone, and smaller amounts pastel green, calcareous shale
1630-1700	70'	Shale, red, green, and gray, generally calcareous, locally silty, generally micaceous
1700-1730	30'	Shale, gray, generally silty, calcareous with equal amounts of tan siltstone

1730-1900	170'	Siltstone, tan, coarse grained, with lesser amounts of gray, argillaceous, material
1900-1990	90'	Siltstone, gray, argillaceous
1990-2000	10'	Sandstone, light tan, very fine grained, very silty
2000-2100	100'	No samples
2100-2180	80'	Sandstone, white to light gray, very fine to fine grained, very silty, with rare mica, locally calcareous
2180-2200	20'	Siltstone, tan, brownish gray, very calcareous
2200-2210	10'	Siltstone, red, calcareous
2210-2270	60'	Sandstone, white, very fine to fine grained, very silty, very calcareous

Operator: United Fuel Gas Co.  
 Farm: Bull Creek Coal Co.  
 Well No.: 9582  
 Elevation: 1307.71'  
 Location: Buchanan County  
           2100' W of 82°10'  
           1500' S of 37°17'30"  
 Total Depth: 5600'

Remarks: Elevation and location of well with reference to: measured sections Nos. 190, 193, and 194; Six and Twenty mile core 3 1/2 miles east; and Stilton Creek core 3 miles NE; indicate that well spudded about 120' below the Splash Dam coal, and 130' above the Kennedy.

Note: Formational boundaries determined from geophysical well logs except for interval 1290-2270. Depths are measured from 9 feet above ground level.

<u>Formation</u>	<u>Top</u>	<u>Bottom</u>	<u>Thickness</u>
<b>Pennsylvanian System</b>			
Post Lee Formation "in at surface"		720	720'
		Splash Dam coal horizon at -120'	
		Kennedy coal at 160'	
		McClure sand 178-258	80'
Lee Formation	725	1450	725'
		quartzose sand 725-765	40'
		quartzose sand 773-780	7'
		quartzose sand 785-793	8'
		quartzose sand 817-827	10'
		quartzose sand 832-846	14'
		War Creek coal horizon at 1040'	9'
		quartzose sand 1250-1450	200'
		total quartzose sand	279'
Pocahontas Formation	1450	1595	145'
		Pocahontas #3 coal 1450-1455 (1451-1454) Diller	
<b>Mississippian System</b>			
Bluestone Formation	1595	1995	400'
Pride Shale	?	1995	
Princeton Interval	1995	2180	185'

Little Stone Gap Mem.	2180	2200	20'
Maxon Sands	2362	2405	43'
	2710	2771	
Greenbrier Formation	2825 <sub>4</sub>	<sup>2175</sup> 3285	460'
MacCrary	3285 <sub>4</sub>	<u>1308</u> 1977	