

December, 1937.

Heel #1 Ives,  
                  ,11-7S-18W,  
Elevation 1886'

Pennsylvanian conglomerate. 3435-3445'  
3435-3445 Siltstone, sand included in limestone; and  
          clay shale with included sand.

Ordovician Top 3445' 14' Sub-sea, minus 1559'  
Viola residuum 3445-3459'  
3445-3459 Chert, all recognizable types being Viola. Much  
          chay of dark red type.

Decorah 3459-3493' 34'  
3459-3493 Samples contain much Viola chert and red clay. A  
          consistent percentage of the samples is of red  
          and green shale of Decorah type. Much of this  
          shale is sandy and some of it contains partially  
          weathered phosphatic fragments.  
          This Decorah section is badly weathered and does not  
          show a good sequence but it seems highly probable  
          that the greater part is in place.

Arbuckle Top 3493' Penetration 72' Sub-sea, minus 1607'  
3493-3537 Dolomite, white brown and pink, medium to fine.  
          This may be either Miller-Purcell or Cotter. More  
          well sections will be required before this can  
          be determined.  
3537-3565 Cotter dolomite. This belongs in the lower third of  
          the Cotter section.

This test is probably in a local synclinal area on the pre-Pennsylvanian  
surface. At present it should be mapped as an outlier of Viola  
and Decorah. Another such outlier occurs in 1-6S-18W