

December, 1935.

Derby and Empire #1 Kraus, (C)
Sec. 17-14S-19W, NW SW SW
Elevation 2199'
2192 DFL (Printed)

Pennsylvanian conglomerate ~~3813-3840~~ 3813-3840'

3813-3840 Clay shales with included sand; thin layers of clayey medium sand with some asphaltic material in interstices. Rare cherts, mainly brown to amber Cotter types, which are included in the clay shales. Not a conglomerate proper but a ~~series~~ series of sandy clays with interbedded sandy layers.

Pennsylvanian conglomerate or Cotter Residuum. 3840-3880'

3840-3880 Chert and sand, with cavings of shale and also gray green sandy shale which appears to be in place. The chert is brown quartzose and is all of Cotter type. A few fragments of dolomite were seen in the sample from 3845-3850' but no beds of solid dolomite were reached.

Remarks: Although no dolomite in place was found, this should be mapped as Penn. in contact with Cotter, for in the case of either conglomerate or residuum, the abundance of Cotter chert indicates Cotter to be present.

Thickness estimate Cotter 100' plus or minus
Pre-Cotter 300
400' " " "

3840
2199
1641