

July, 1938.

Sayre #1 Ryersee  
 C NE SE, 34-188-21W.  
 Elevation 2201' ✓

Mississippian	Top 4270'		Sub-sea, minus 2069'
Unit 3	4270-4380'	110'	
Unit 4	4380-4445	65'	
Kinderhook	4445-4455	10'	
		<u>185'</u>	

Unit 4 is coarsely crystalline lime, white to brown. The division termed Kinderhook is mainly shale with traces of sand. This top of the Kinderhook is not necessarily accurate, but is a lithologic point.

Ordovician	Top 4455'	171'	Sub-sea, minus 2254'
Viola	4455-4626'		
4455-4590	Dolomite, fine, brown; highly cherty.		
4590-4626	Dolomites and dense limes; with some glauconite and phosphate. A part of this may be equivalent to some of the Simpson of Oklahoma but as no shale member or sand layer is in evidence, it is probable that this unit is <sup>younger</sup> <del>older</del> than the shale phase of the Decorah further southeast. Economically it does not rank with the shale from the standpoint of making a trap or seal for a reservoir.		

Decorah Absent. See discussion of basal Viola.

Arbuckle	Top 4626'	Penetration 70'	Sub-sea, minus 2425'
4626-4696	Miller-Purcell dolomite.		
	The samples, although rotary, are very good. Comparison of residues with those from Barndall #1 Lank, 35-188-21W, show a general similarity. There are marked differences of position of milky and opaque cherts. It is now doubtful if 4625' in 35-188-21W represents the top of the Cotter.		

Just below 4555' in the Barndall #1 Lank are green shales and sands which belong with the Miller-Purcell. The break is above these shales as the ~~test goes out of Viola~~ <sup>test goes out of Viola</sup> nearly the same. In other words, the Sayre test goes out of Viola into slightly scalped Post-Cotter and the Barndall test goes from the same Viola into a full section of post-Cotter dolomite which has some shale and sand above. The point 4626' in the Sayre test may be the same Arbuckle ~~as~~ <sup>as</sup> 4625' in the Barndall test.