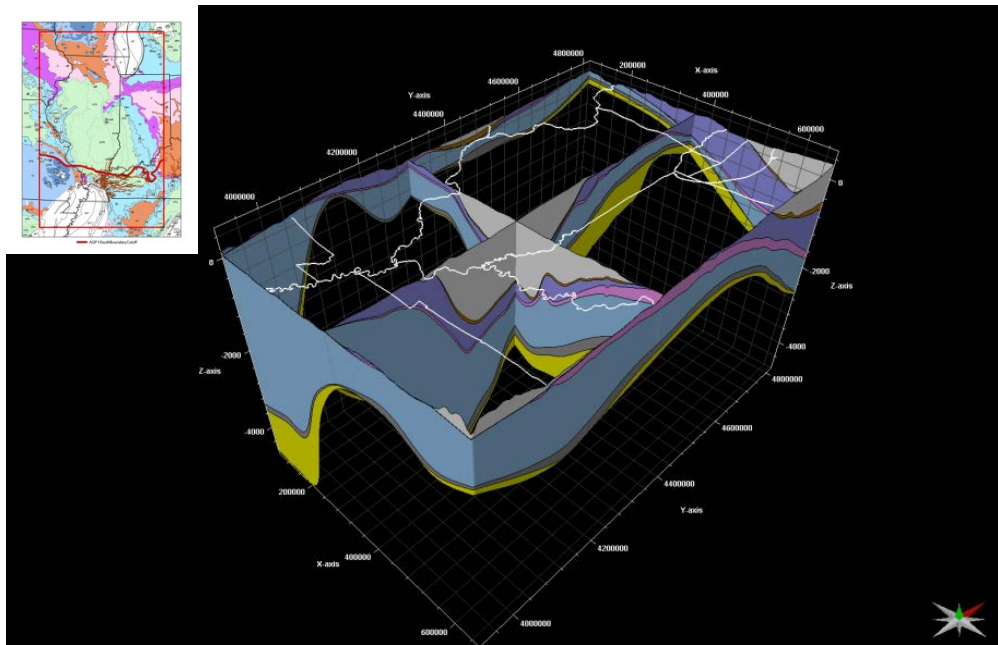


Illinois Basin 3D Geological Model



a

System	Hydrostratigraphic Unit (Model Layer)	Dominant Lithology	Illinois	Indiana	Kentucky
Pleistocene-Holocene		Glacially-derived sediments	Quaternary sediments	Quaternary sediments	Quaternary sediments
Pennsylvanian		Predominantly siliciclastics with interbedded coals			
	Upper		Tradewater Fm.	McLeansboro Gr.	Sturgis Fm.
	Lower Middle			Carbondale Gr.	Tradewater Fm.
Mississippian	Upper	Interbedded carbonates and siliciclastics	Caseville Fm.	Raccoon Creek Gr.	Caseville Fm.
	Middle		West Baden Gr./Cedar Bluff Gr.	Stephensport Gr.	Degonia Ss./Buffalo Wallow Fm.
	Lower	Predominantly carbonates	Aux Vases Ss./Ste Genevieve Ls.	Blue River Gr.	Aux Vases Fm./Ste Genevieve Ls.
Devonian	Upper				
	Middle				
	Lower				
Silurian	Upper				
	Middle				
	Lower				
Ordovician	Upper				
	Middle				
	Lower				
Cambrian	Upper				
	Middle				
	Lower				

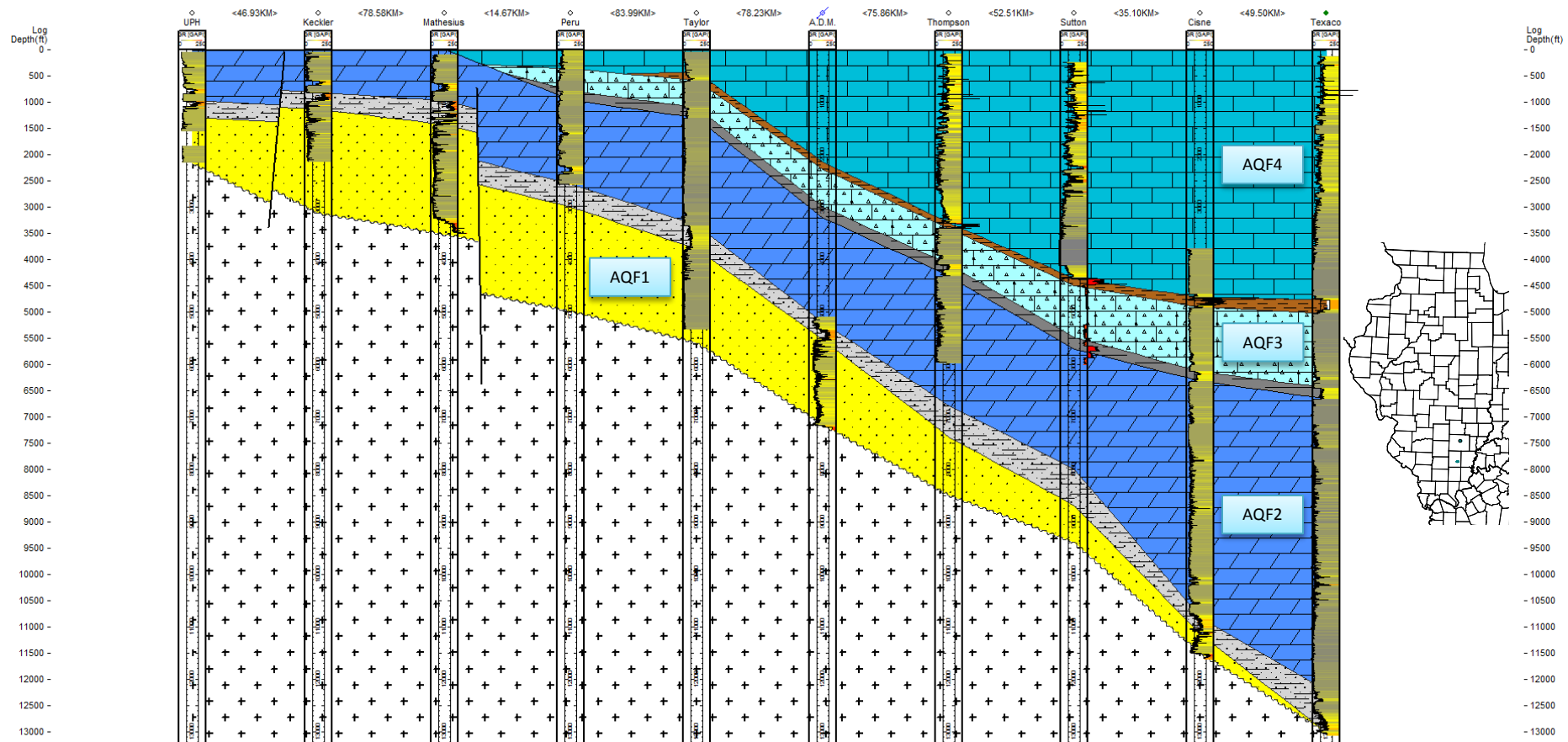
b

Figure 1. (a) Fence diagram of the 7-layer geological framework model corresponding with the hydrostratigraphic column shown in (b).

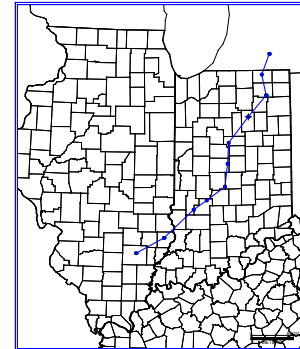
Illinois Basin N-S Cross Section

NORTH

SOUTH

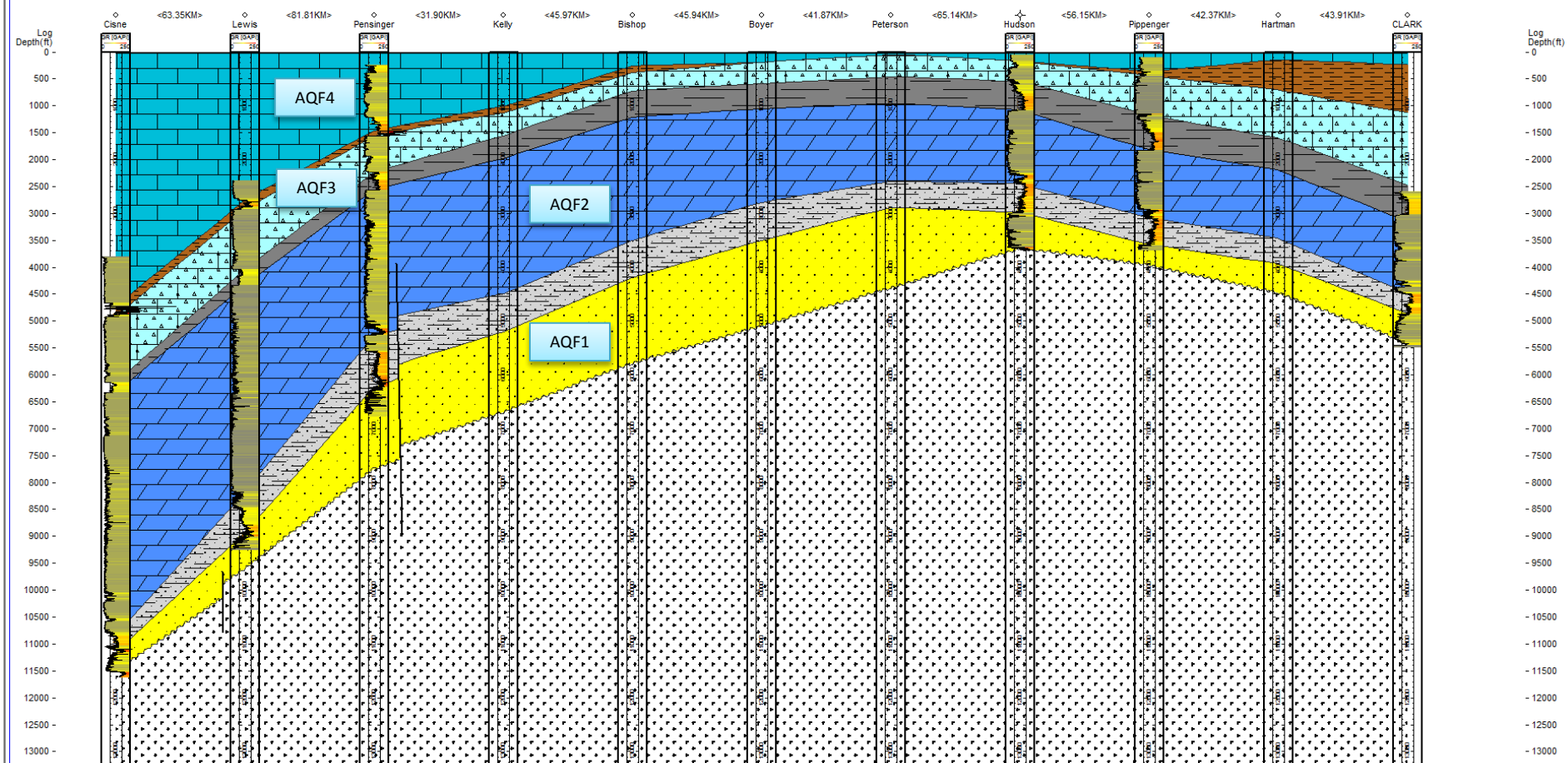


Illinois Basin SW-NE Cross Section

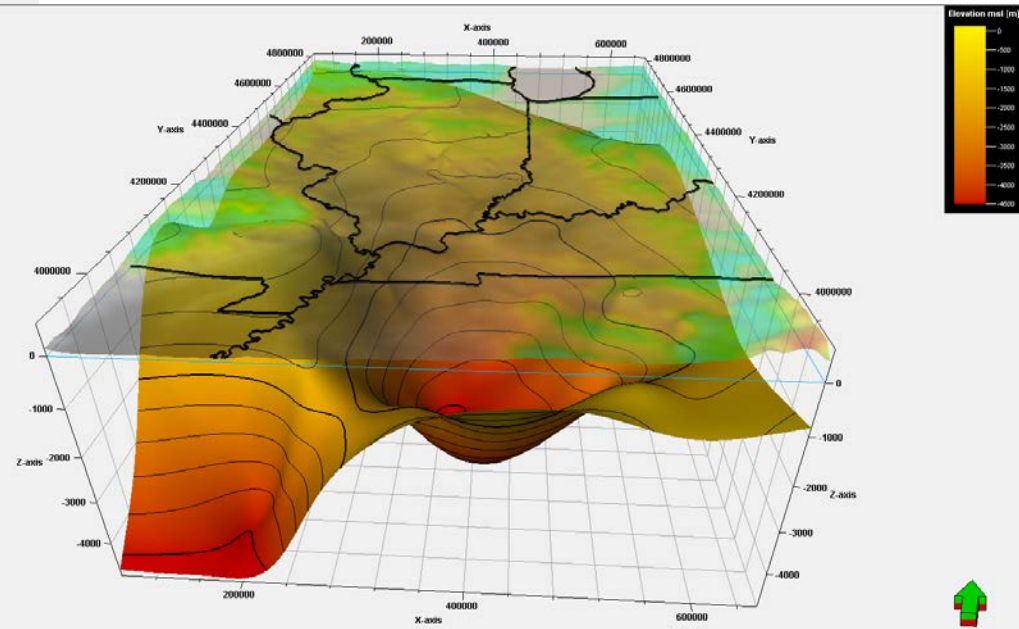
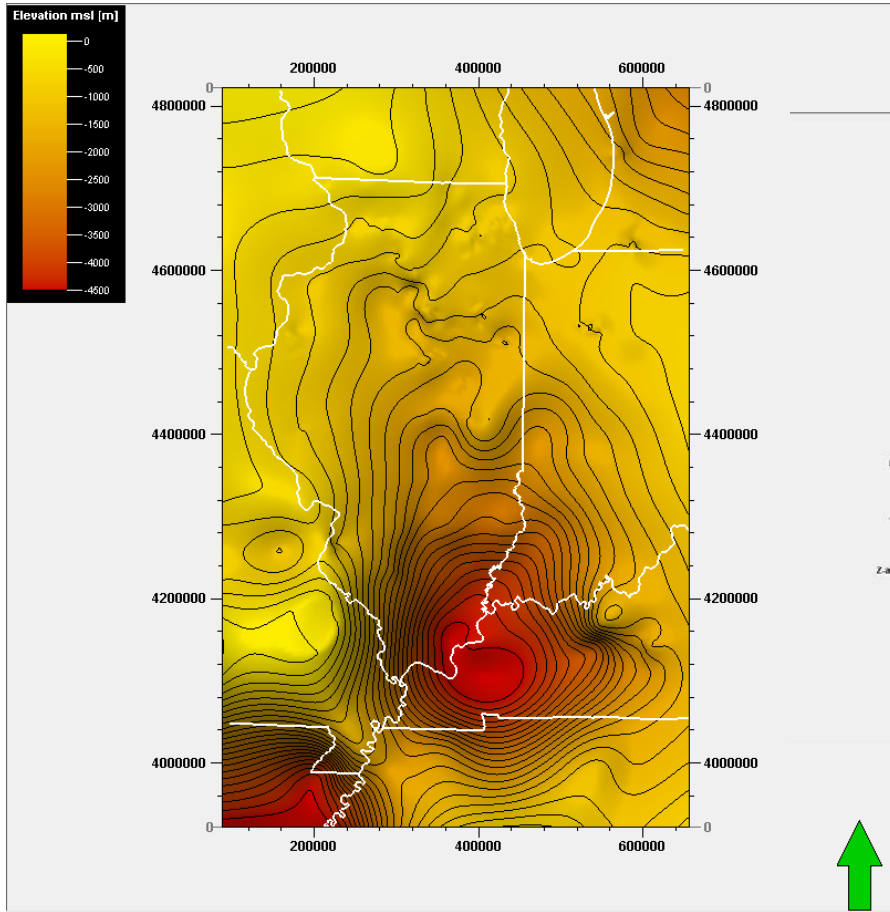


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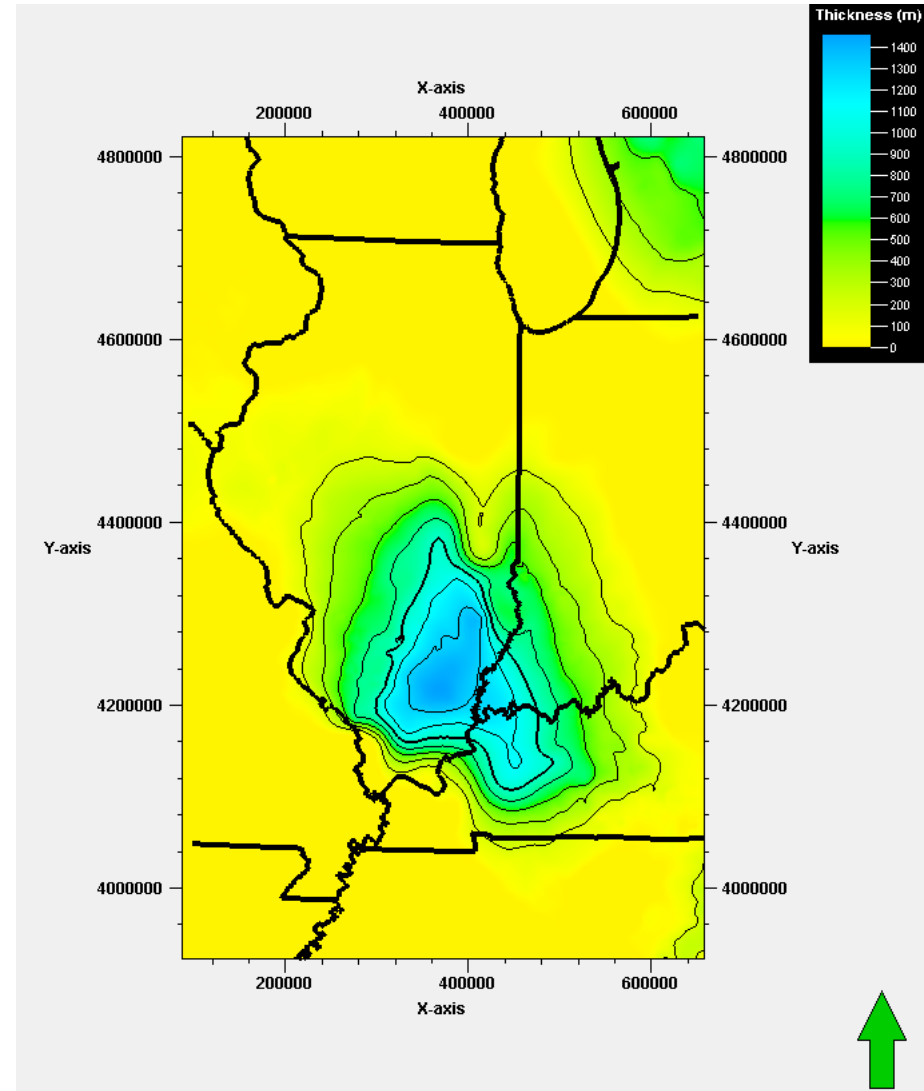
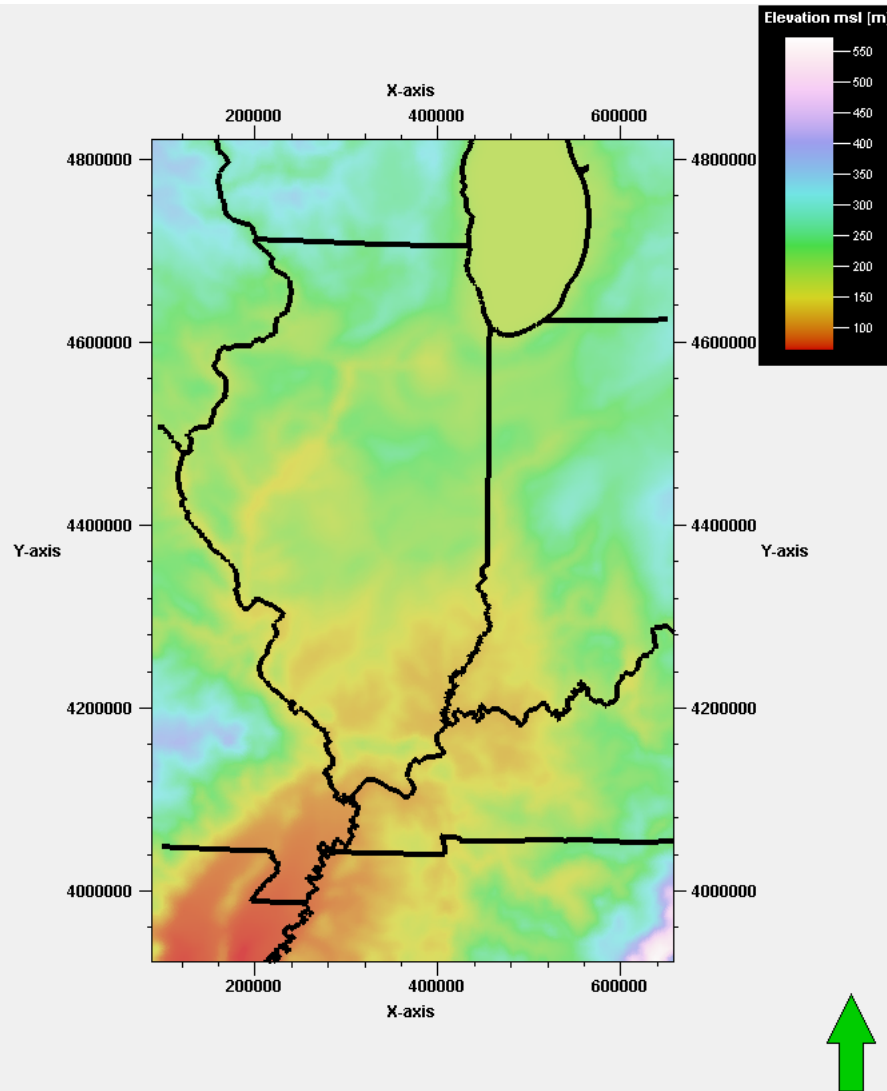
NORTH



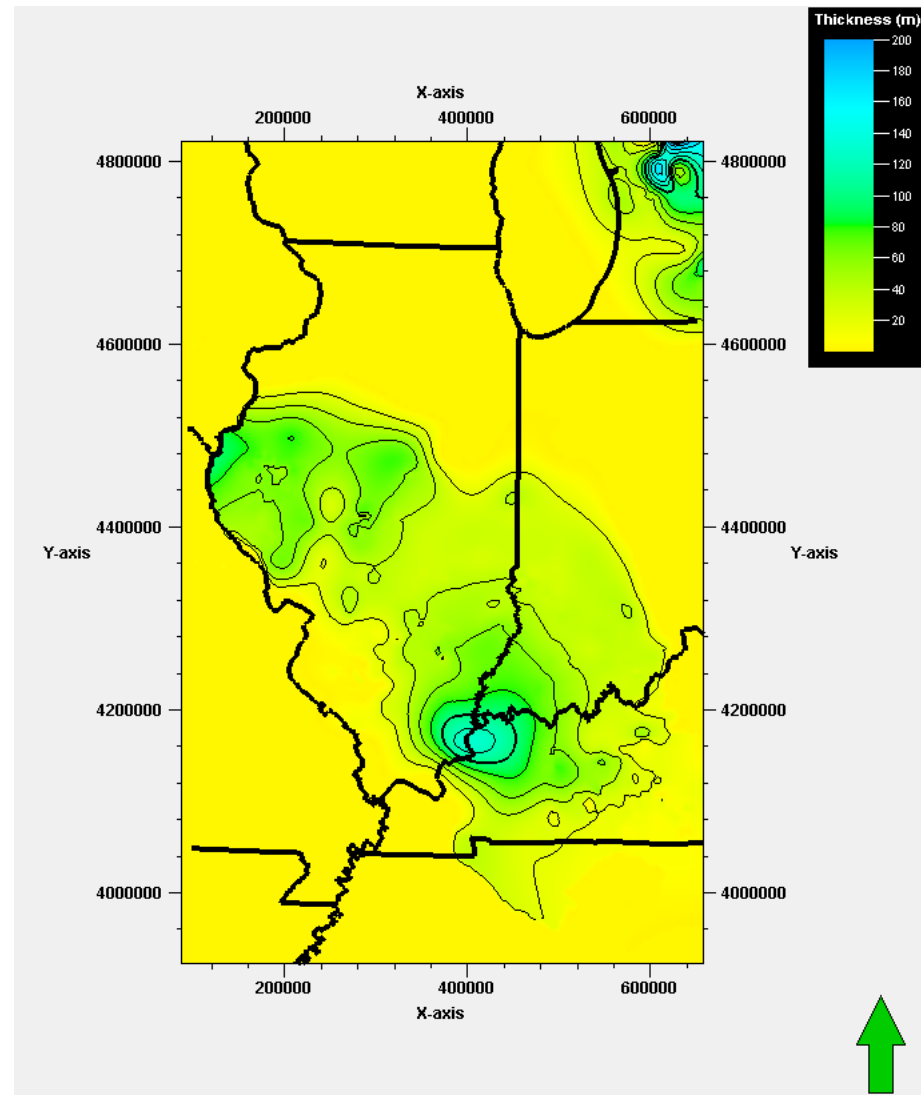
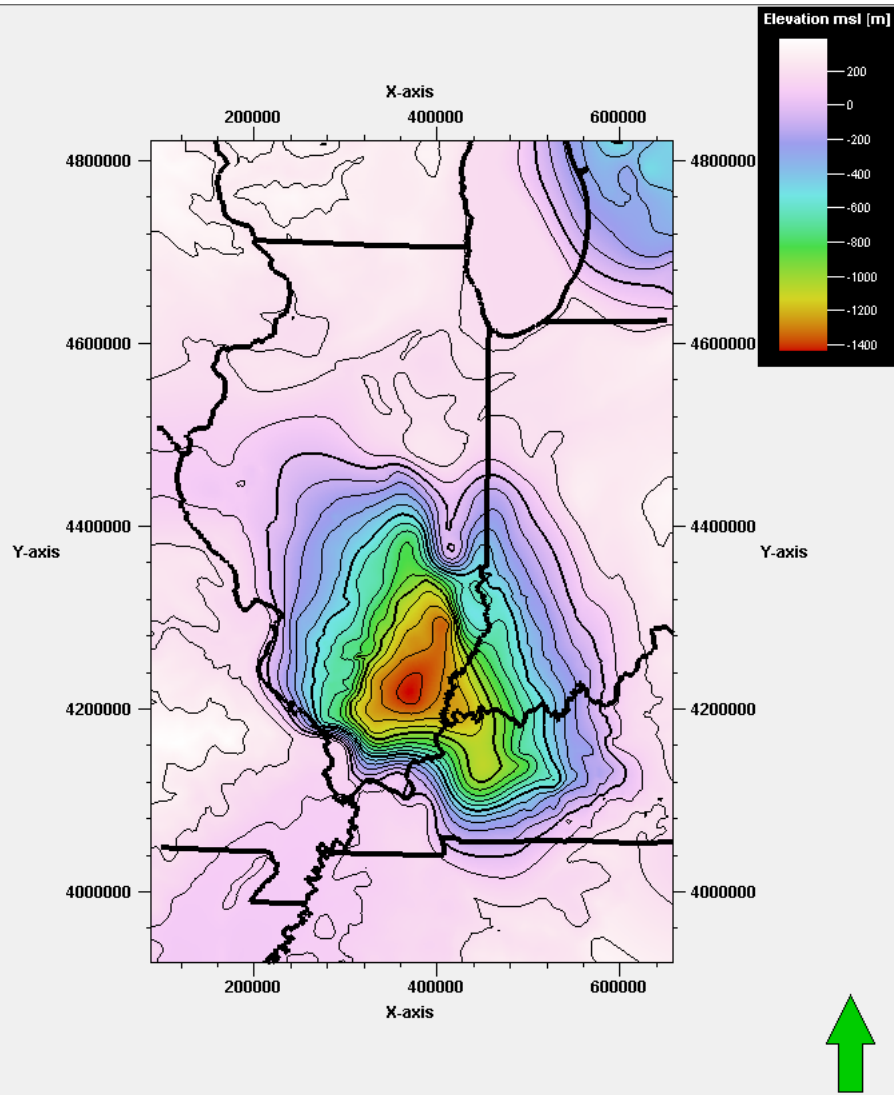
Structure Map of Precambrian Basement (Layer 0) and 3D view with transparent top of AQF4 (Layer 7; Miss-Penn+Quaternary)



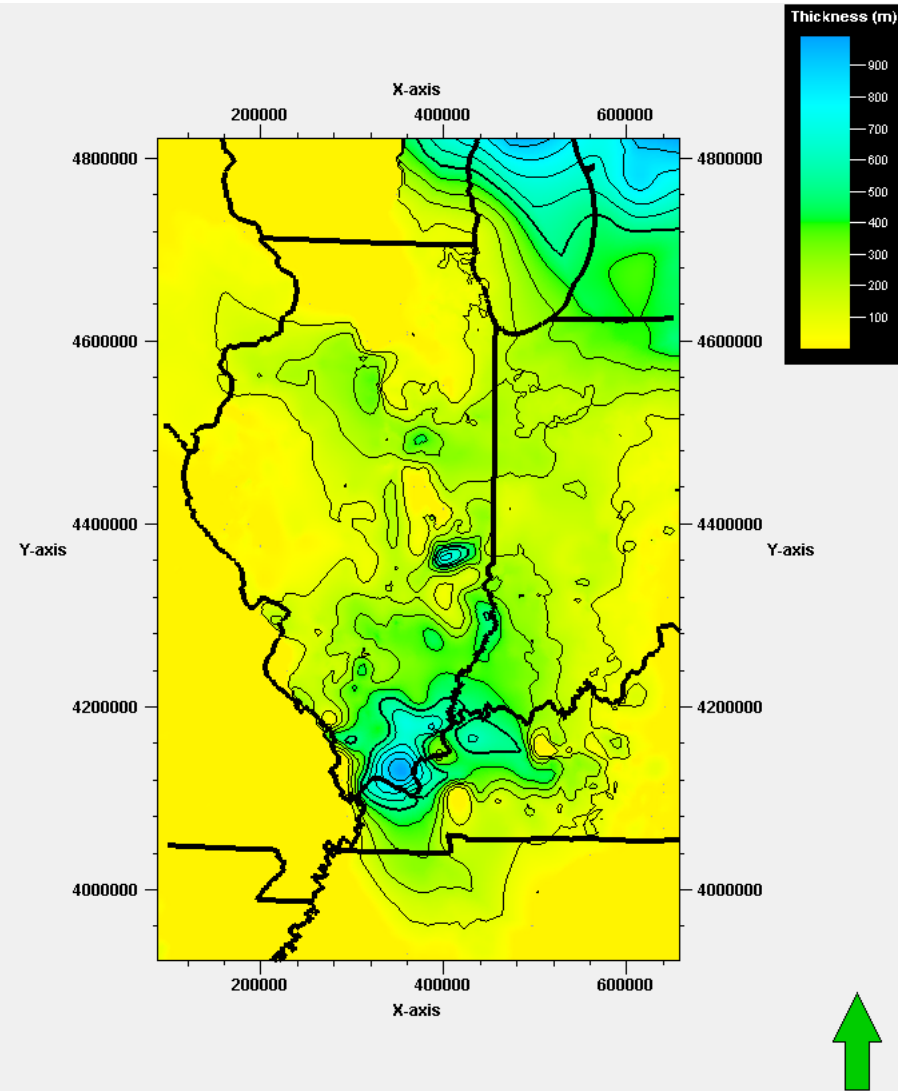
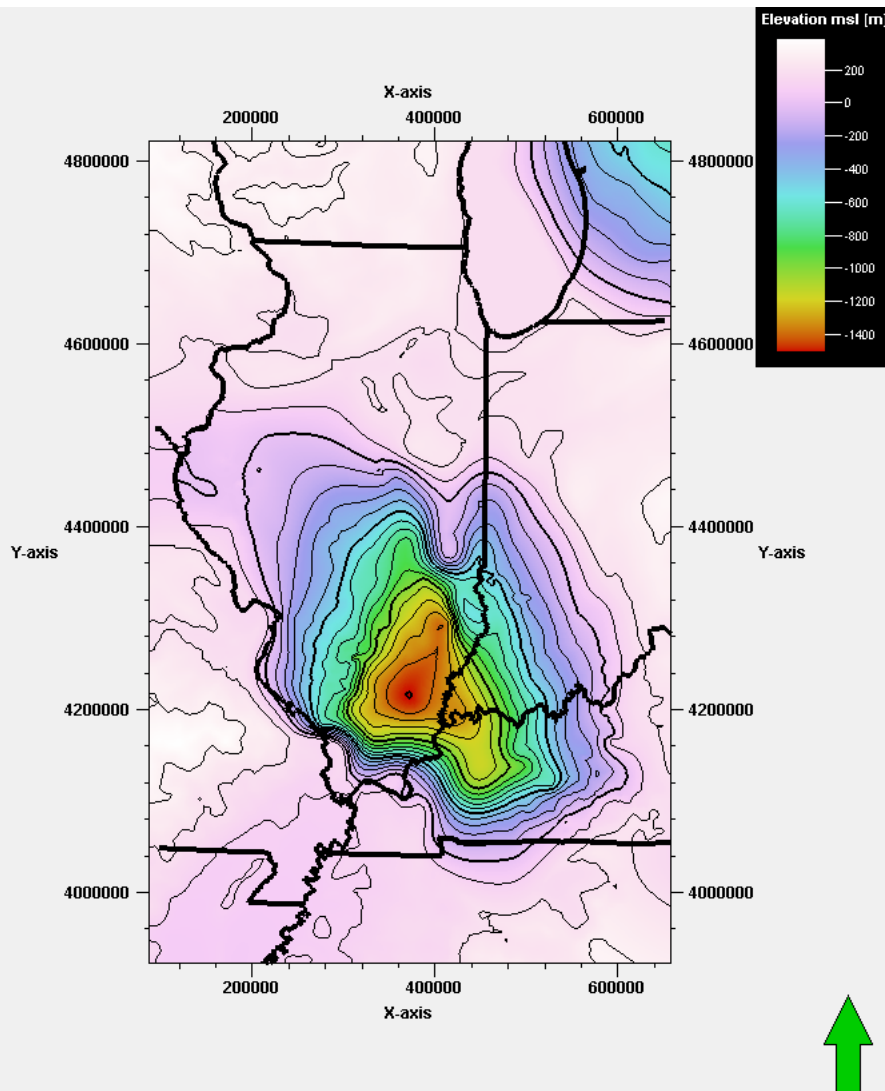
Layer 7 (AQF4: Miss-Penn+Quaternary) structure and thickness



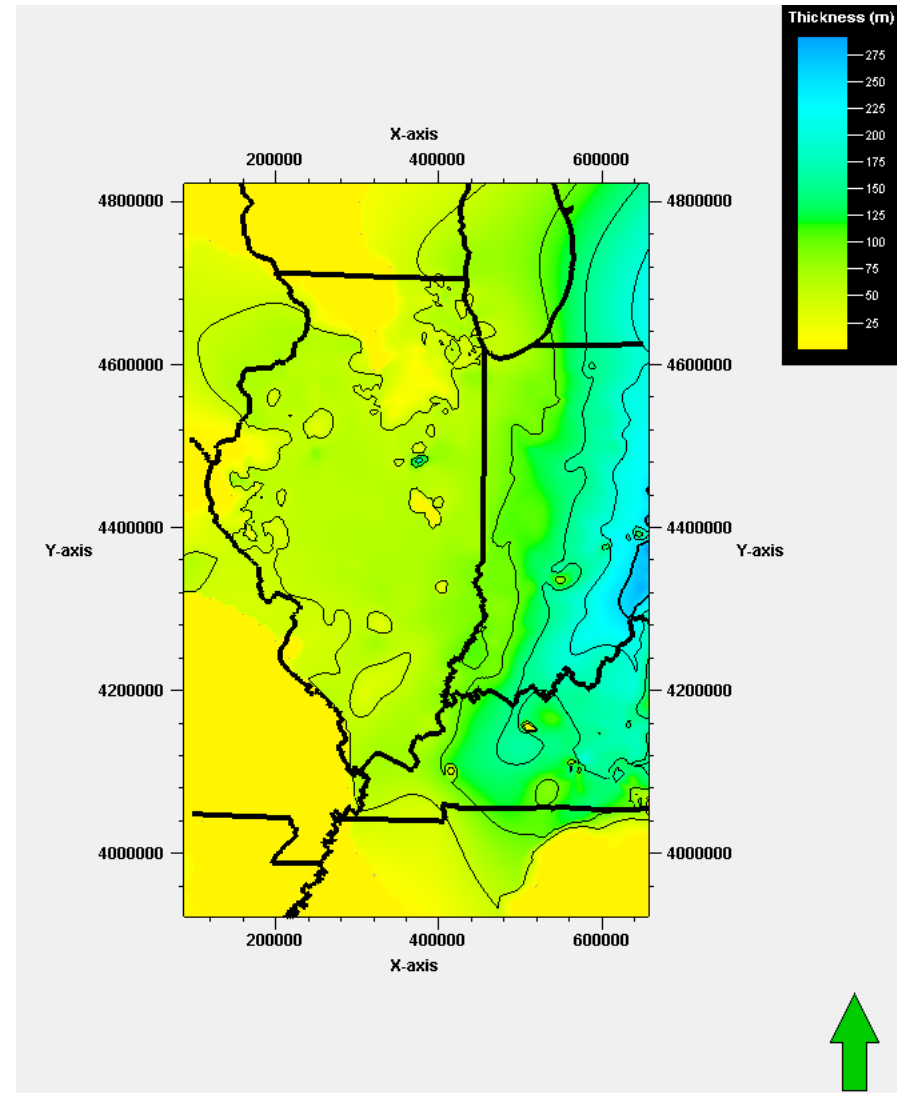
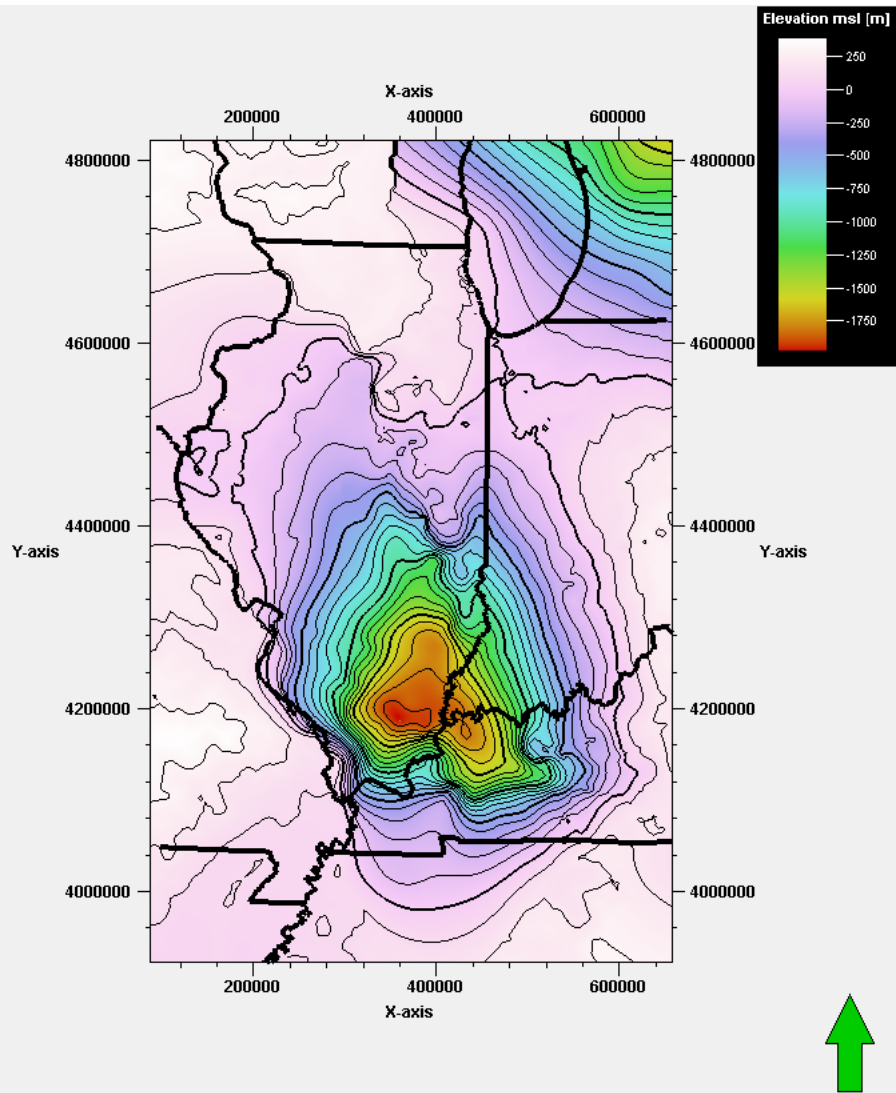
Layer 6 (AQT3: New Albany Shale) structure and thickness



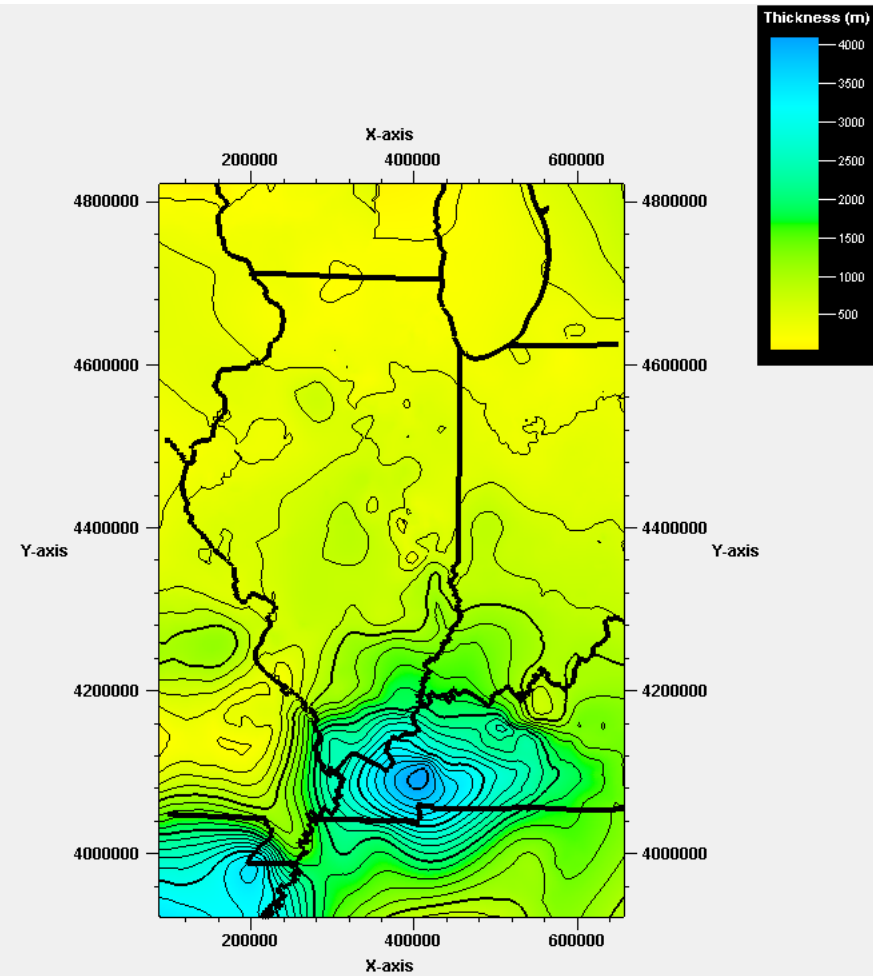
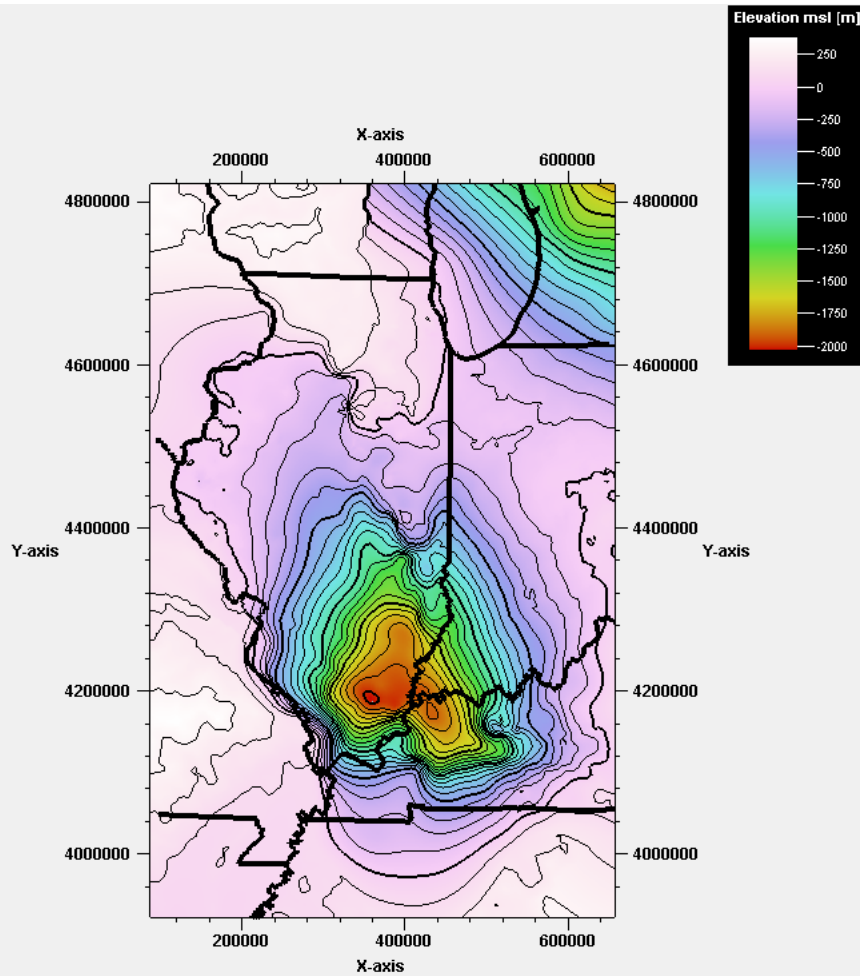
Layer 5 (AQF3: Sil-Dev) structure and thickness



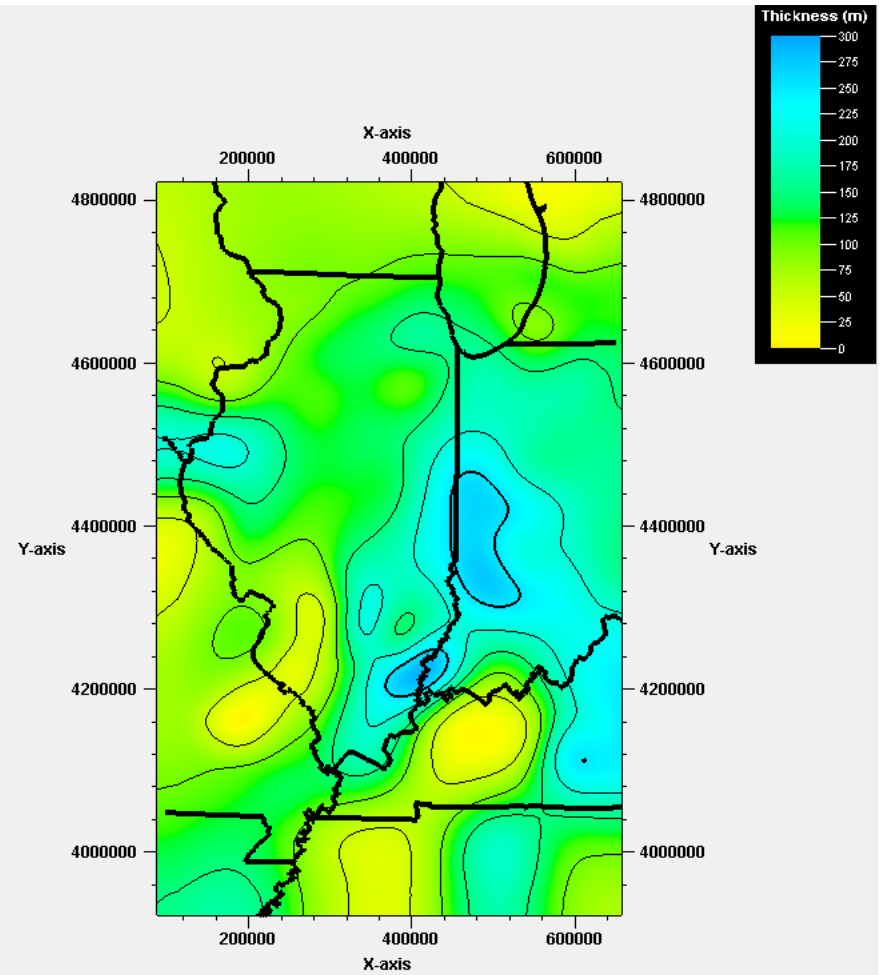
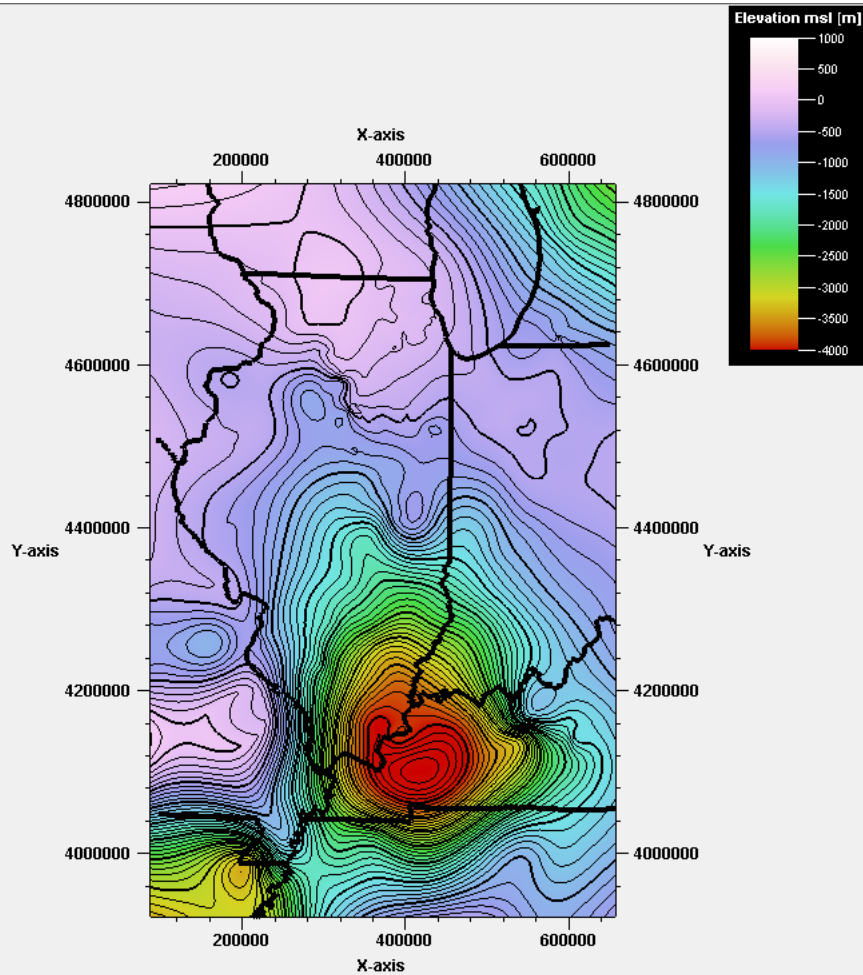
Layer 4 (AQT2: Maquoketa Sh.) structure and thickness



Layer 3 (AQF2: Cambro-Ordo) structure and thickness



Layer 2 (AQT1: Eau Claire Fm.) structure and thickness



Layer 1 (AQF1: Mount Simon Ss.) structure and thickness

