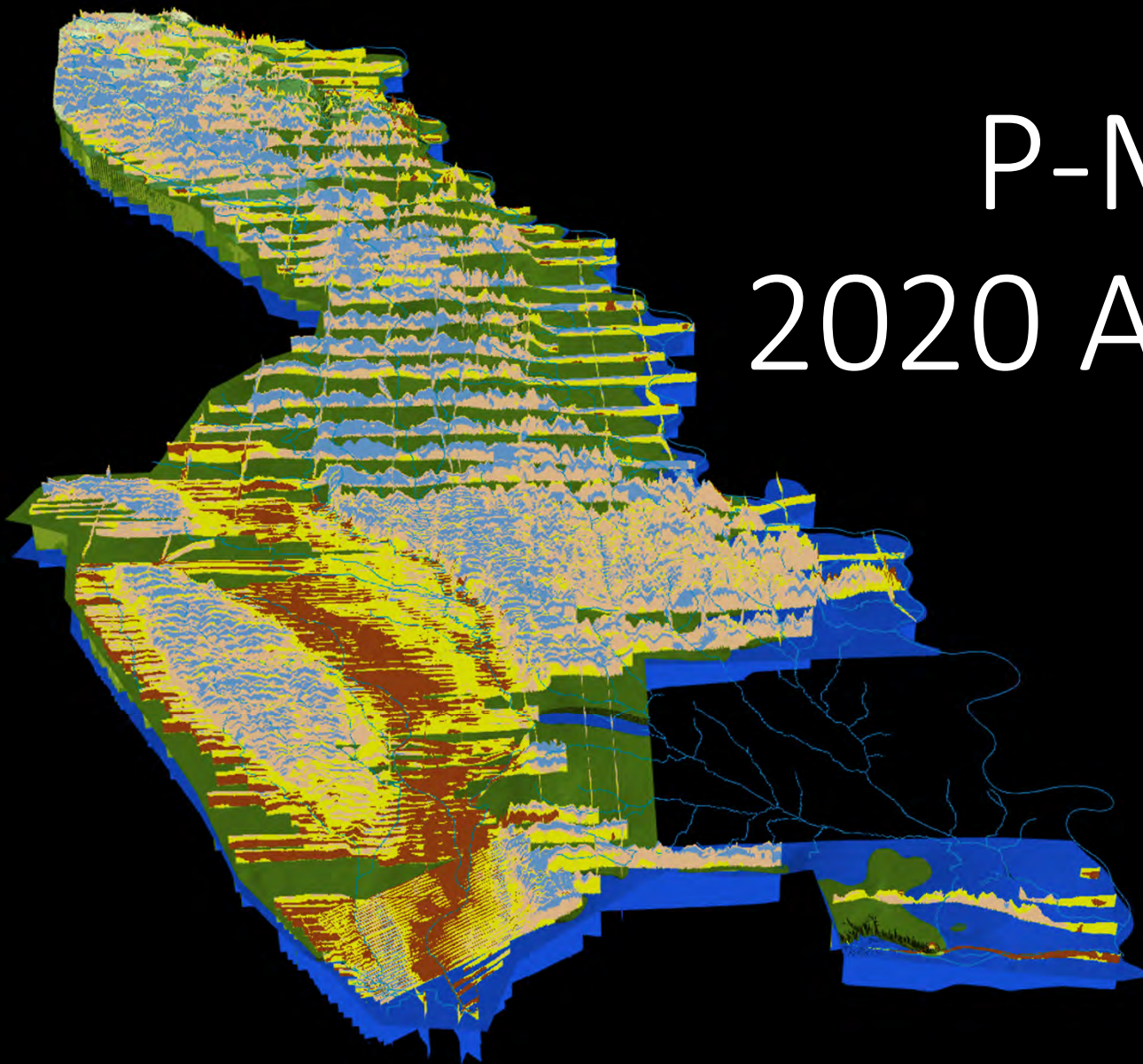
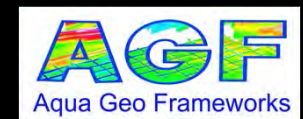




# P-MRNRD 2020 AEM Survey

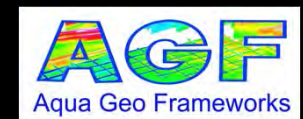
Jared D. Abraham, PG (NE G-0422)  
Aqua Geo Frameworks, LLC  
Fort Laramie, WY





# Project Objectives

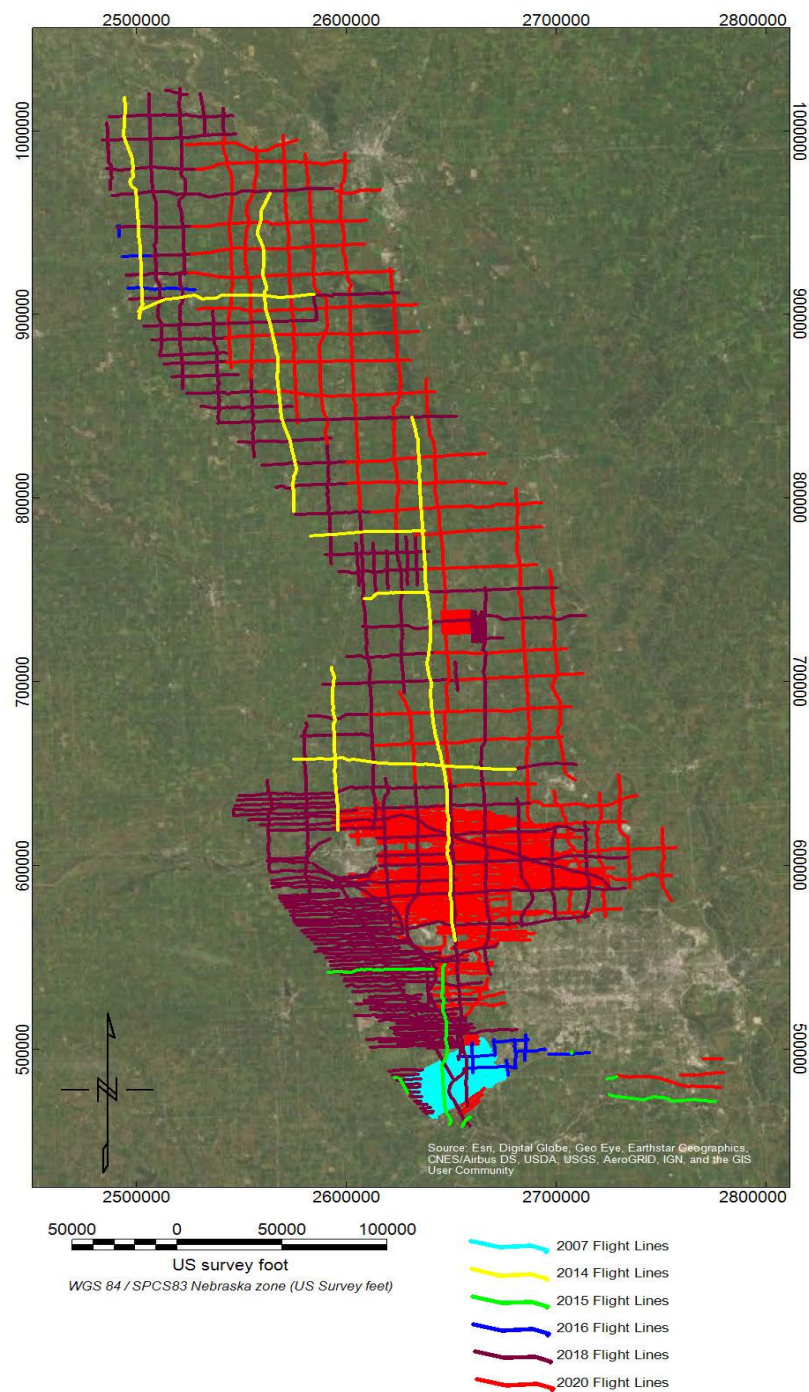
- Map the Hydrogeological Framework and interconnections of the Platte River with the Elkhorn River and the Todd Valley.
- Map the configuration of the Arlington/Washington County Paleochannel and the connections to the Elkhorn River
- Map at a reconnaissance level the remainder of the district at an approximate 3-mile grid
- Map additional areas west of Tekamah, Nebraska for inclusions in groundwater protection plan



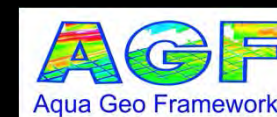
# Project schedule

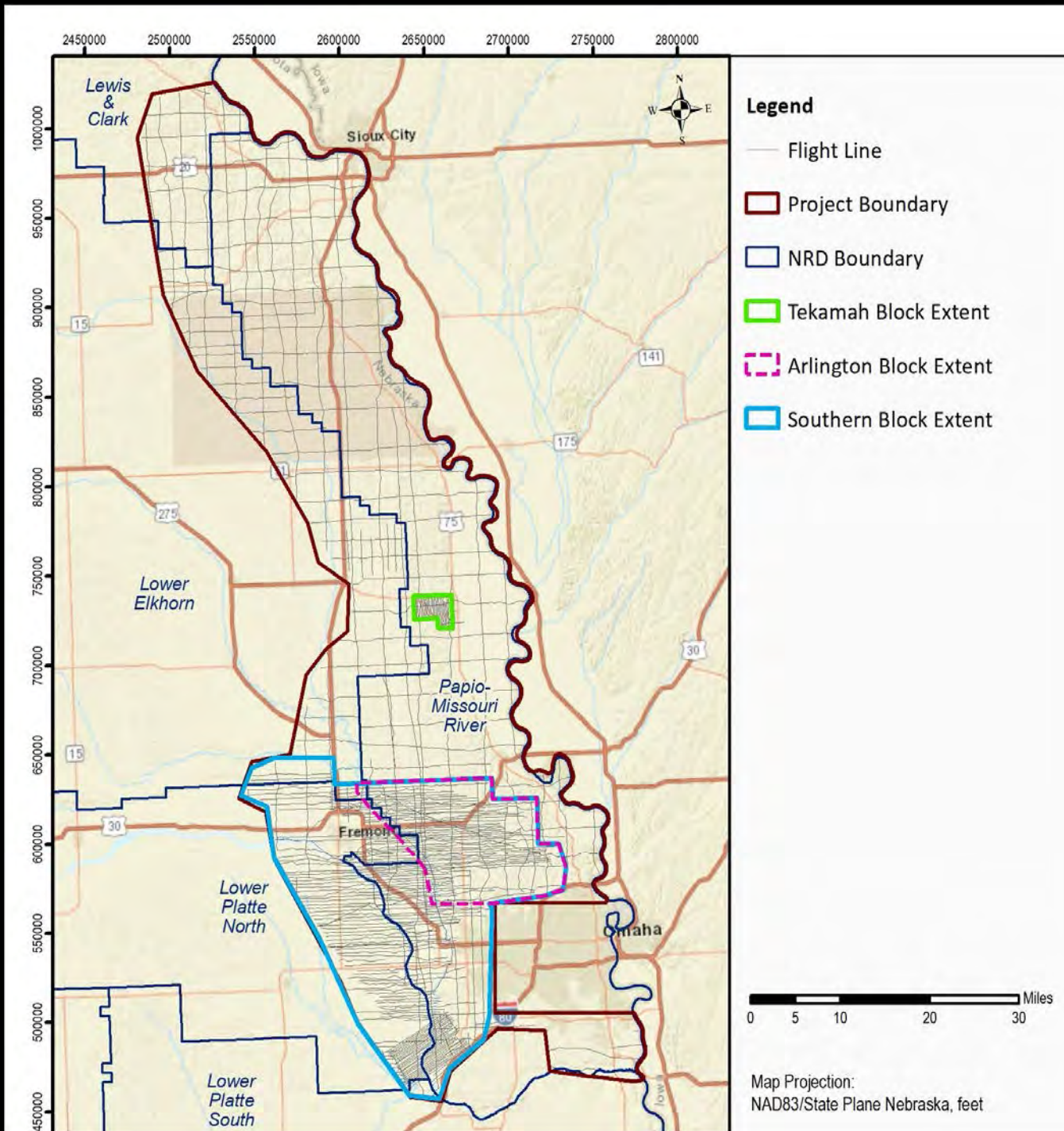
- Project signed February 14, 2020
- Acquisition August 17-23, 2020
- Amendment to include historical data and reinversion of 2007 Ashland data September 28, 2020
- Data delivered to LRE January 30, 2021
- Draft report delivered February 5, 2021
- Final revised report February 22, 2021
- Data posted on Nebraska Geo Cloud March 17, 2021
- Presentation to P-MRNRD April 6, 2021

# AEM Acquisition

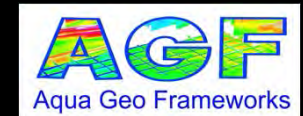


- 2020 1,533 line-miles acquired (contract total was 1,367 line-miles)
- Total 3,543 line-miles in report (2020, 2018, 2016, 2015, 2014, 2007)

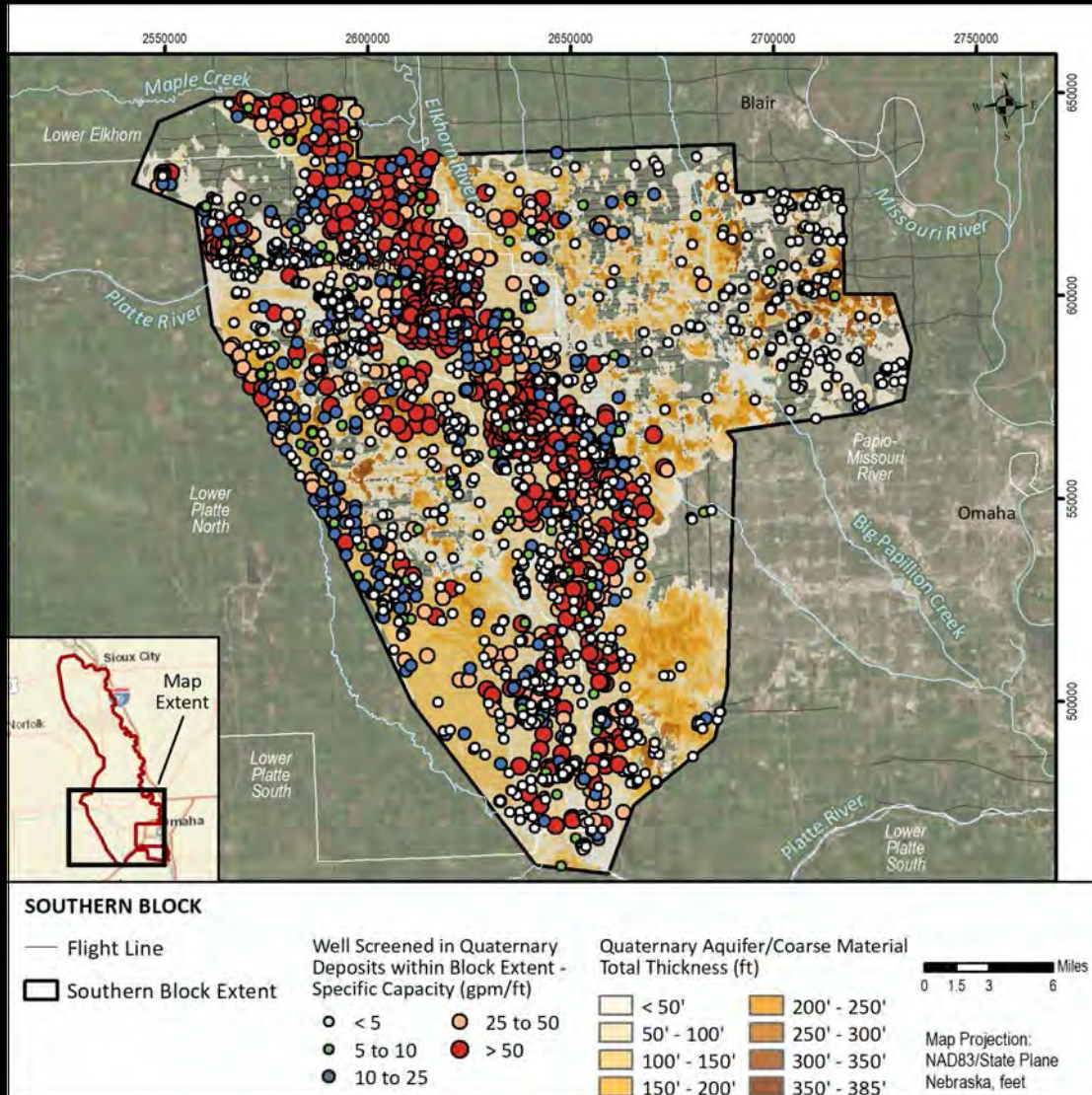




# Study Area Blocks

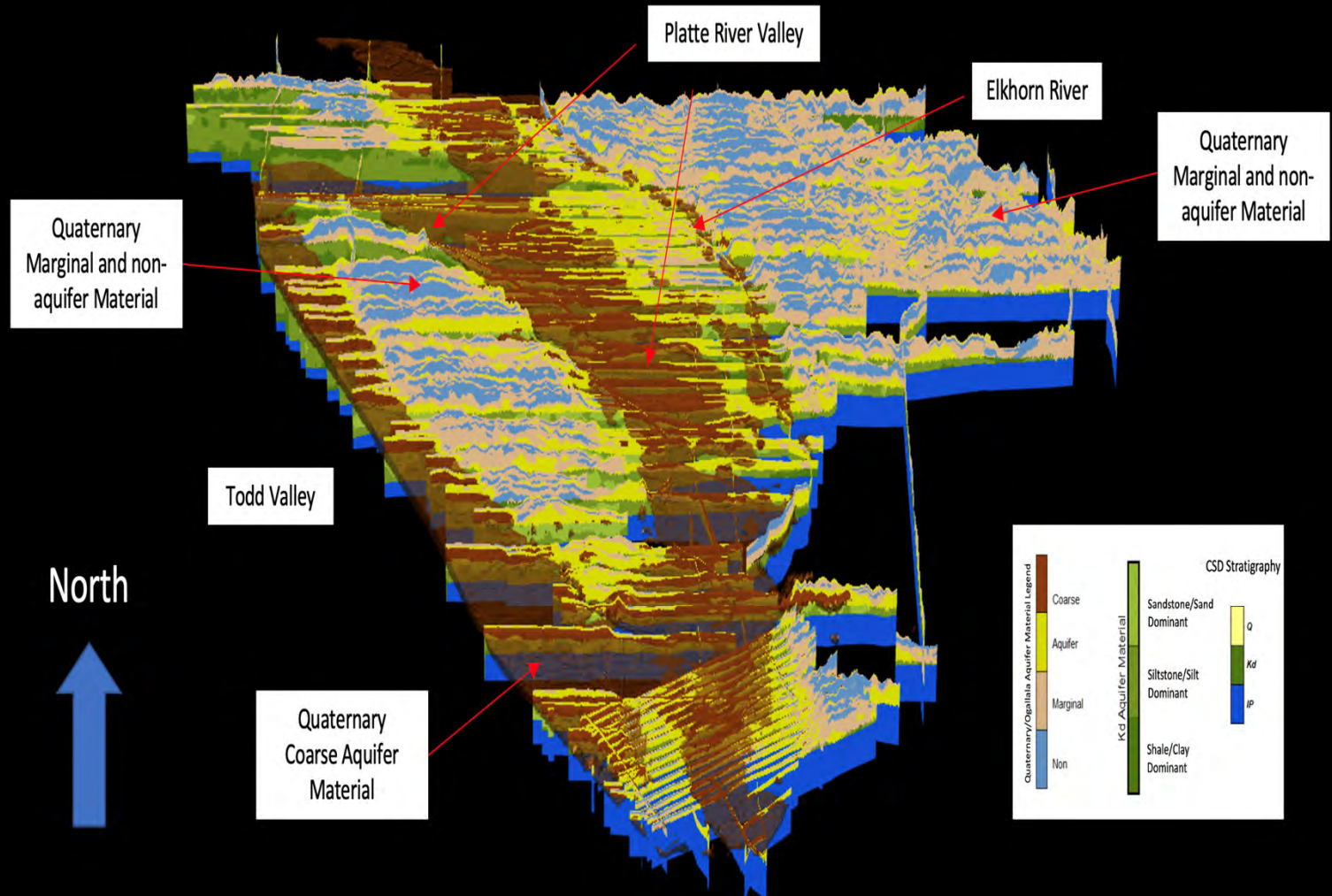


# South Block-Platte River, Elkhorn River Todd Valley



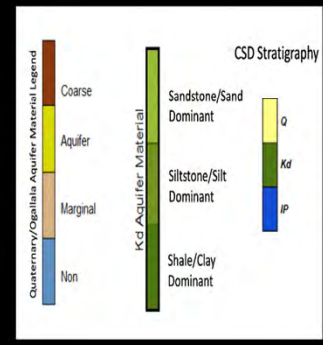
- Saturated Thickness of Quaternary Aquifer and Coarse Aquifer Material (Sand and Gravel)
- Specific Capacity calculated from NE-DNR registered wells



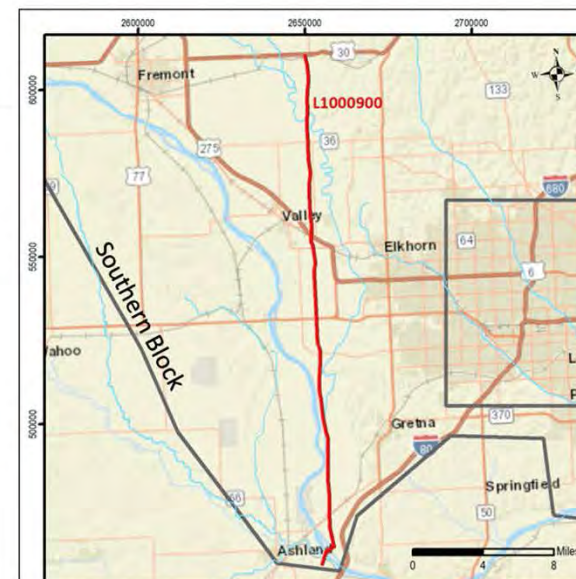
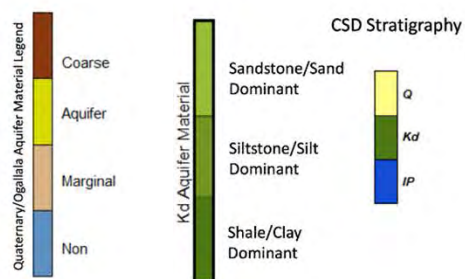
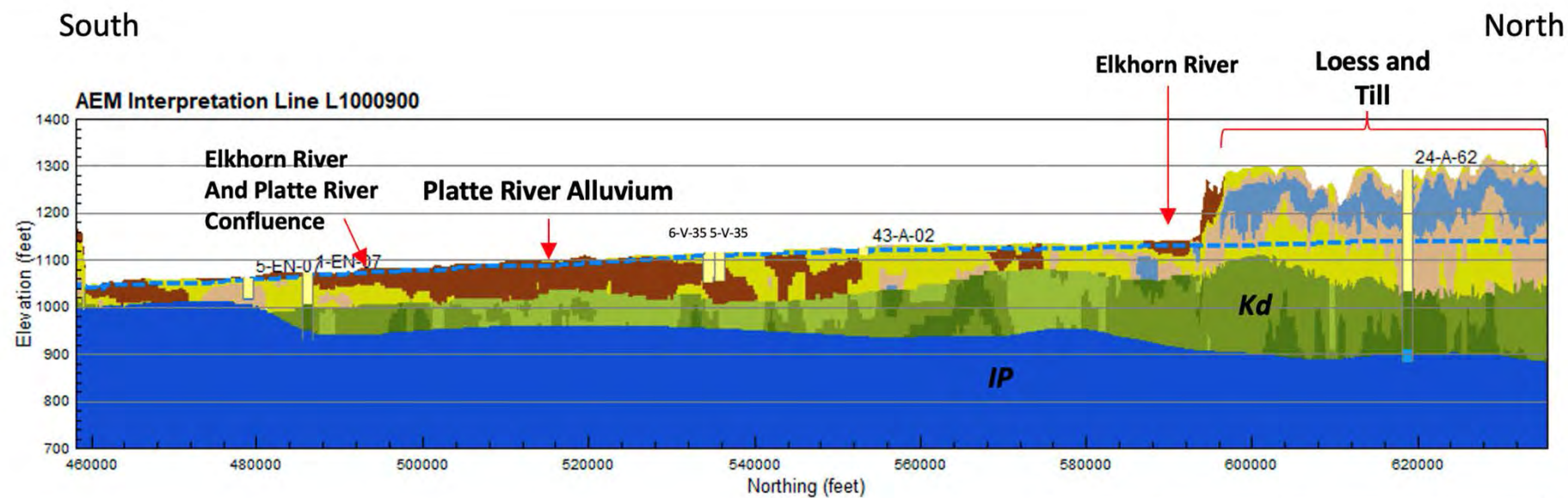


# 3D Platte River Elkhorn River, and Todd Valley

- #D



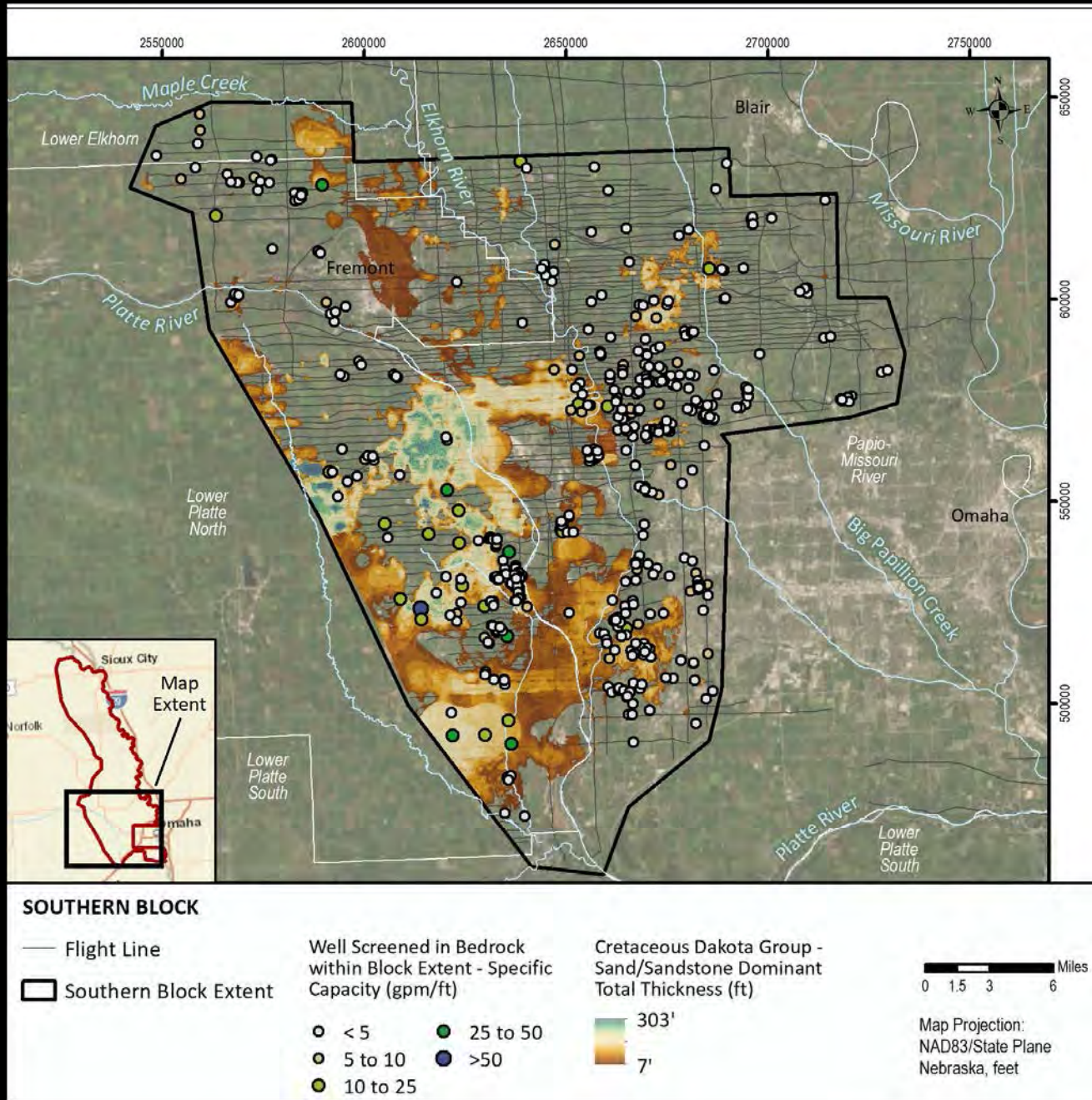
# Profiles within Southern Block





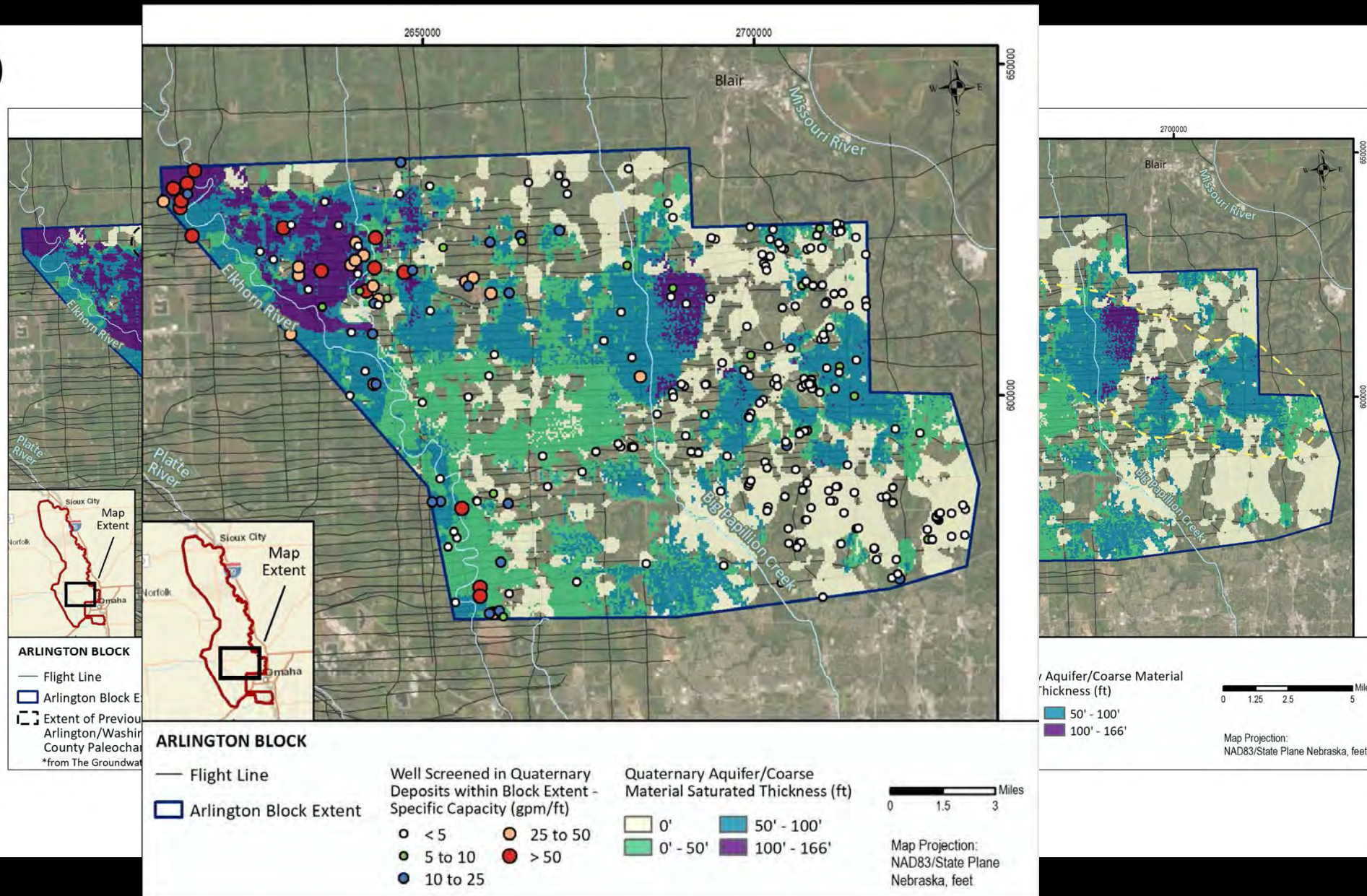
# South Block Cretaceous Dakota

- Three types of Cretaceous Dakota (*Kd*)
  - Sandstone/ Sand Dominant
  - Siltstone/Silt Dominant
  - Shale/Clay Dominant
- Specific Capacity calculated from NE-DNR registered wells screened within the Dakota



# Arlington/Washington County Paleochannel

a)



# Profiles

