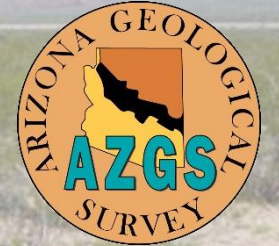


CUSP – Arizona: Carbon Capture and Sequestration potential in Arizona



by Arizona Geological Survey (AZGS)
Basin Analysis Group



CUSP Annual Meeting

June 20-22, 2023 – Lawrence, Kansas



- Overview of CUSP-Arizona statewide work
- CUSP Focused Project summary
- Summary of projects & CUSP-related proposals



AZGS Basin Analysis Group



Brian F. Gootee (Lead)
Research Geologist
Tribal Liaison
bgootee@arizona.edu

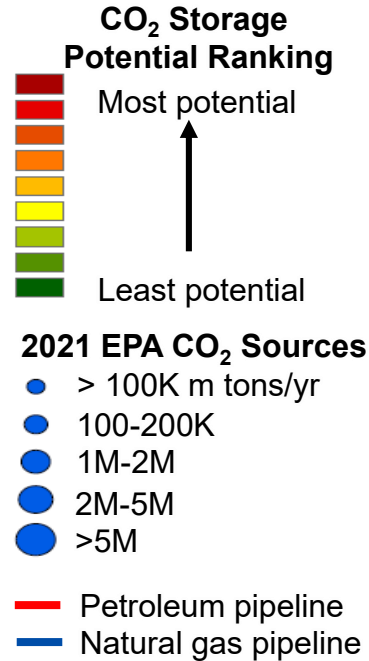
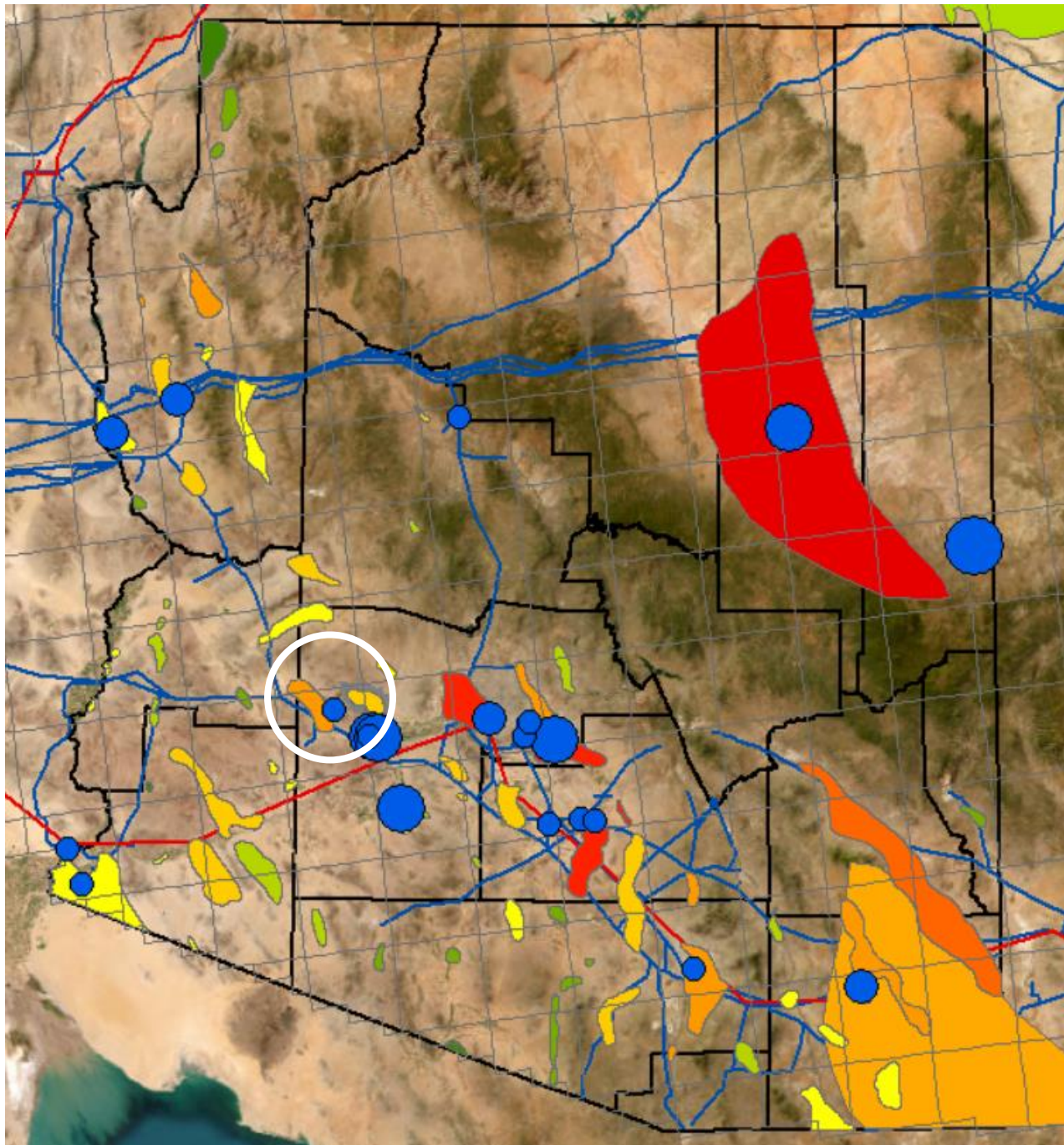


Lisa A. Thompson
Research Geologist
lathompson@arizona.edu



Tawnya Wilson
Research Geologist
tawnyawilson@arizona.edu

CUSP-AZ Statewide



Storage Types

- 57 sed. Basins
- Saline-Basalt-Basement
- Variable data quality

Seals

- Salts, fine-grained seds, basalt(?)
- Largest uncertainty

BP3 Deliverables

- SCOT2 50+10 km²
- Data Org via EXL, CUSP and AZGS Viewer

CUSP-Focused Project: Harquahala Basin

See Poster by Tawnya Wilson

Major Findings and Takeaways

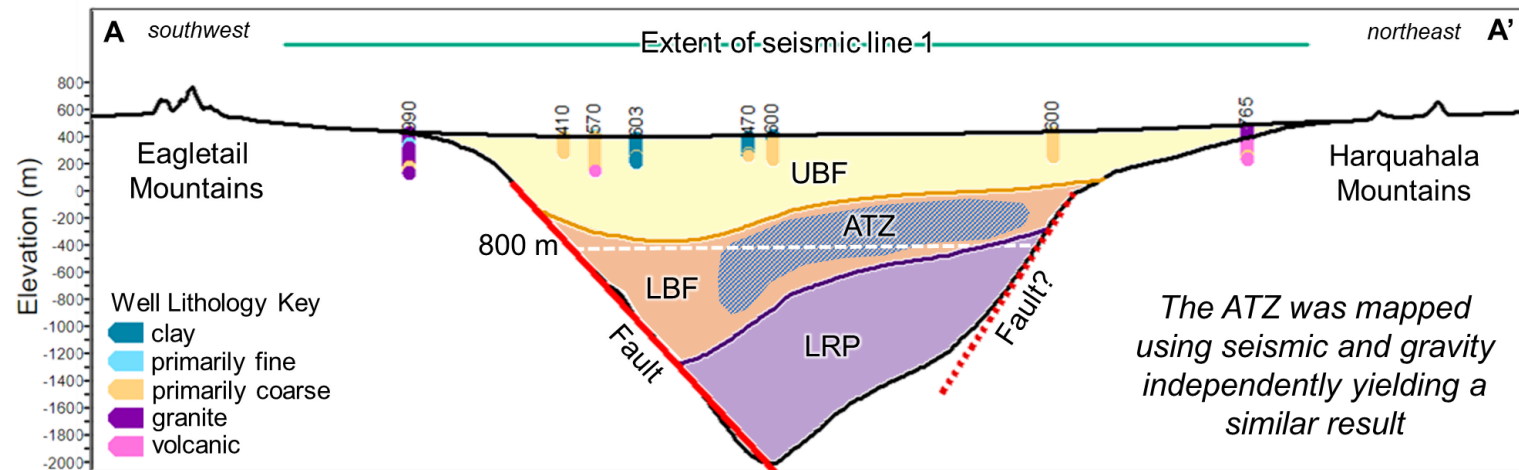
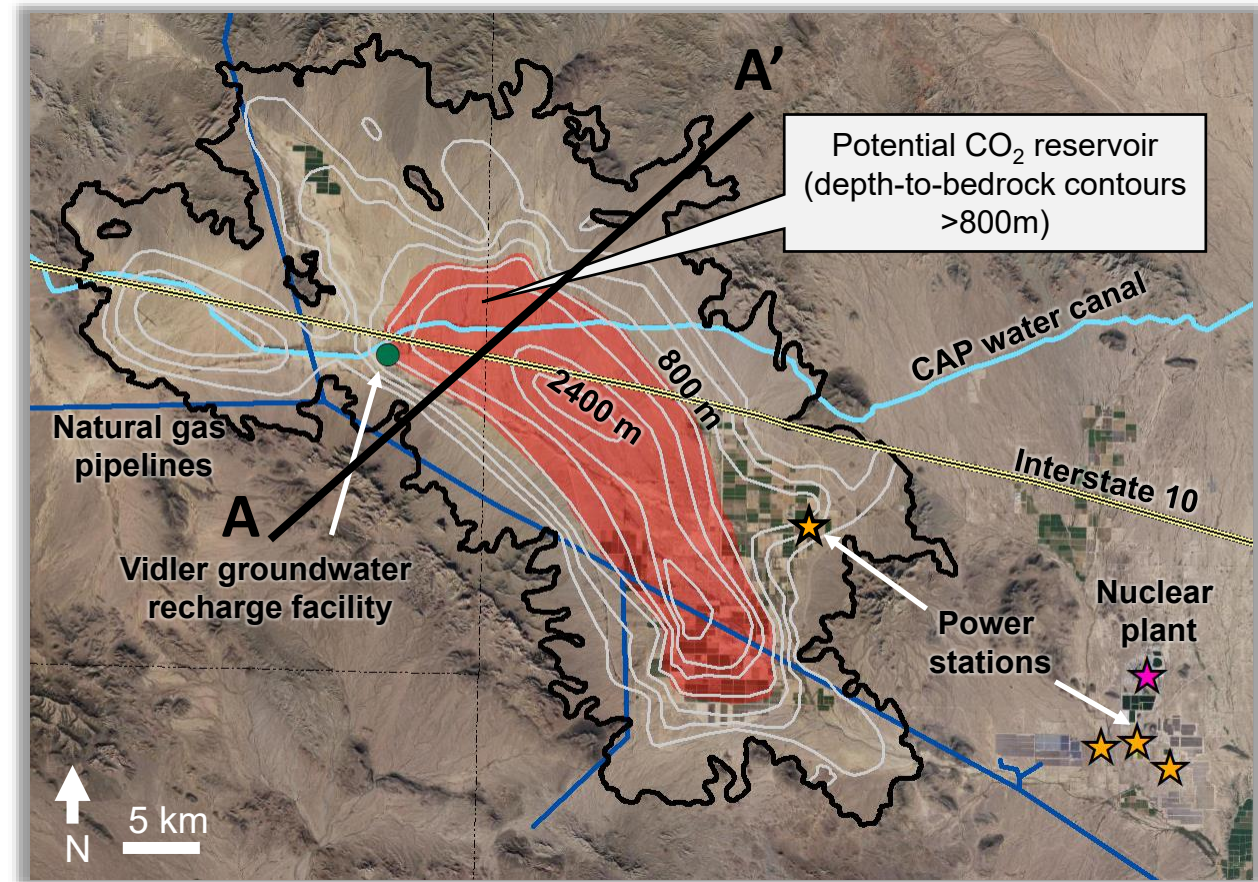
- Large saline basin volume (300 km³)
- 5 facilities >10 Mmt/yr
- 5 vintage seismic lines
- 3-4 Types of Storage
- ~2,000 Mmt CO₂ (P50)
- Favorable geothermal potential
- Proximity to 5 power plants

Completed Phase I

CO₂ Harquahala StoryMap

Applying for CarbonSAFE II Jan. 2024

Excellent support from State, utilities



CUSP and Arizona CCS Related Proposals

1. DE-FOA 2000: CUSP Statewide
2. DE-FOA 2000: Phase I – Harquahala w/NMT and Nikola (AZGS-UA)
3. DOE 2614: Mafic Rock Mineralization (AZGS-UA)
4. DE-FOA 2711: CarbonSAFE III at St. Johns (GTI-Proton Green)
5. DE-FOA 2799: Four Corners (NMT)
6. DE-FOA 2799: Southwest US (NMT)
7. DE-FOA 2735: DAC Hub (ASU)
8. NSF Engines: Enhanced Helium (UU)
9. DE-FOA 2711: CarbonSAFE II Harquahala (AZGS-UA)

