

## Community Exposure Associated with Water Quality Near Unconventional Oil and Gas Development in Southwestern Pennsylvania

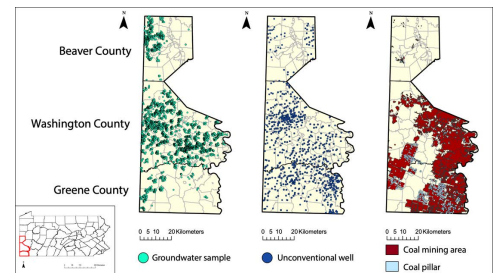
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### Study Description

**ABOUT** Fact sheet in [English](#) and [Spanish](#)

**GOAL** Conduct a community-informed analysis of water quality data to produce a framework for studying the relationship between specific unconventional oil and gas (UOGD) processes and potential groundwater contamination. The framework will be broadly applicable to oil and gas regions in the United States.



*Southwestern Pennsylvania study and sampling locations*

### What's happened?

- Transcribed part of a water quality data set from the Pennsylvania Department of Environmental Protection and inputted 479,382 measurements from 5,806 water sampling sites into the [Shale Network database](#). As of June 2022, the Shale Network database contains 2,035,761 water quality measurements from 59,191 sampling sites.
- Published the work of research team members: [Geochemical Evidence of Potential Groundwater Contamination with Human Health Risks Where Hydraulic Fracturing Overlaps with Extensive Legacy Hydrocarbon Extraction](#).

### What's new?

- Analyzing data from focus groups of community members obtained in the summer of 2022 to learn about their concerns.
- Continuing analysis of the water quality dataset.
- Beginning synthesis of focus group data and water quality data.
- Continuing to investigate mathematical tools that could isolate the impacts on water quality from UOGD and other types of energy development.

### What's next?

- Complete preliminary analysis of water quality data.
- Host follow-up community focus groups to review the analysis of water quality data.
- Use community feedback from the May 2022 [Shale Network Workshop](#) to prepare for the 2023 workshop.

### UPCOMING EVENTS

**May 2023**

Penn State Shale Network Workshop  
*Registration link coming soon*

### LEARN MORE

**Study page on HEI Energy website**