



# Wyoming State Geological Survey

## Mission

To promote the beneficial and environmentally sound use of Wyoming's vast geologic, mineral and energy resources while helping to protect the public from geologic hazards.

*The WSGS uses geology and Earth science as well as geographic information systems (GIS) technology for its scientific investigations.*

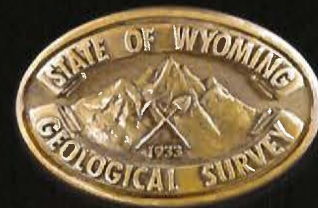
## Research and Information

Our geologists and GIS specialists produce scientific reports and maps with technical analysis on a wide range of subjects. Many of our reports, maps, images and data are available on our website for browsing, purchase or download. Our applied research includes energy resources, geologic hazards, geologic mapping, minerals, water resources, and the geology of Wyoming and Yellowstone National Park.

## Communications and Public Outreach

Our communication efforts are aimed at promoting public awareness (and understanding) of Wyoming's geologic, mineral and energy resources. Through our scientific contributions, we strive to inform policy makers and managers of the state's natural resources. Our research and information products are accessible to other government agencies, the Wyoming Legislature, industry, non-governmental organizations, the public, news media and education community.

*Interpreting the  
past, providing for  
the future*

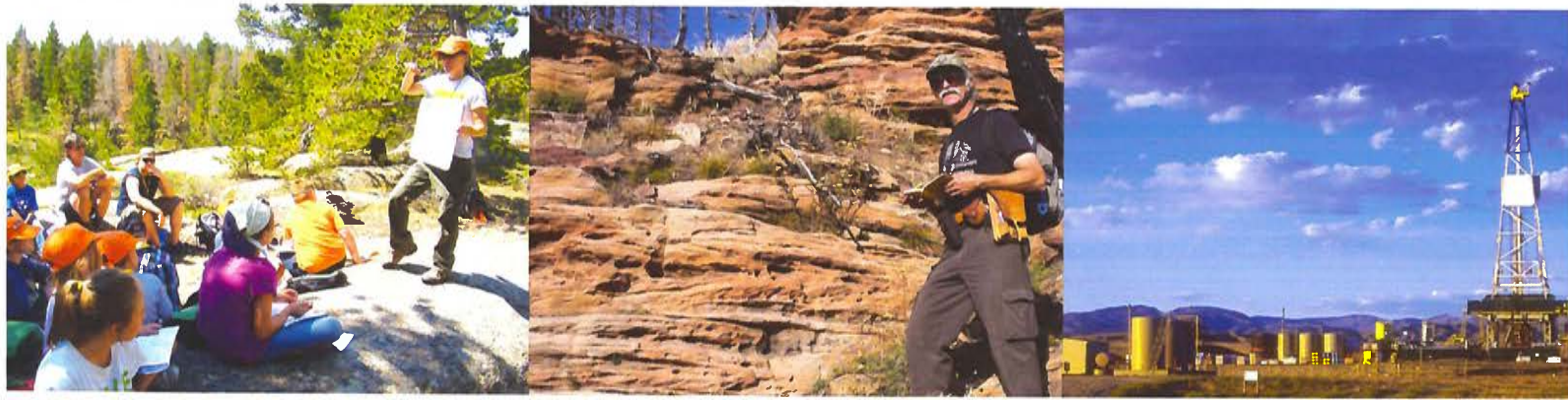


(307) 766-2286

Located on the University of  
Wyoming campus in Laramie

[www.wsgs.uwyo.edu](http://www.wsgs.uwyo.edu)

Logon to our Online Store  
to purchase a wide array of  
publications and maps



Our products result from geologic investigations, extensive fieldwork and mapping efforts. The knowledge we provide through our publications and maps enables Wyoming's residents, land managers, decision makers, planners, researchers, and industry leaders to work together toward responsible, environmentally sound resource development. We also collaborate with state and federal management agencies and the University of Wyoming. Examples of our current and previous work include:

### Current Research Projects

- Developing water plan updates that cover the groundwater resources of each river basin in the state, in collaboration with the Wyoming Water Development Commission.
- Coalbed natural gas groundwater monitoring project, compiling data from the Bureau of Land Management on deep monitoring wells in the Powder River Basin, and tracking and measuring the drawdown and recharge of groundwater resources.
- Evaluating geological CO<sub>2</sub> sequestration sites in the state for the Wyoming Department of Environmental Quality.
- Conducting an investigation on rare earth elements in Wyoming for creating a comprehensive database and WSGS Report of Investigation.

### Example Publications

- *The Shirley Basin Mine and the Development of the Roll-Front Model of Uranium Ore Deposits.*
- Water plan updates for the Green River Basin and the Wind River and Bighorn basins.
- *Velocity Trends in Cretaceous Rocks in Wyoming Laramide Basins.*

### Example Map Projects

- New maps published annually for specific areas in Wyoming, providing geologic information to address water, aggregate and mineral resources, surficial processes and earthquake hazards in the state.
- A new Oil and Gas Map of Wyoming (2012).

### Communications and Public Outreach

- Developed a WSGS Summary Report and launched a website with a database and map on Wyoming's electrical generation resources.
- Created an interactive website with results of earthquake damage scenarios that can be used by emergency planners and managers to better prepare for earthquakes in the state.
- Designed a website with multimedia applications for the Yellowstone Geologic Geographic Information System (GIS) Database, providing researchers and students alike with a look into Yellowstone's geologic past and present.
- Provided numerous presentations at conferences and events, and field trips for various groups.

