AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS
Geoscience & Energy Office – Washington, D.C.

Written testimony submitted to:
Senate Appropriations Subcommittee on
Interior, Environment, and Related Agencies
in support of U.S. Geological Survey programs

by

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To the Chair and Members of the Subcommittee:

Thank you for this opportunity to provide testimony on behalf of the American Association of Petroleum Geologists (AAPG) about the importance of the geological programs conducted by the U.S. Geological Survey (USGS).

AAPG is the world's largest scientific and professional geological association. The purpose of the association is to advance the science of geology, foster scientific research, and promote technology. AAPG has over 38,000 members around the world, with roughly two-thirds living and working in the United States. These are the professional geoscientists in industry, government, and academia who practice, regulate, and teach the science and process of finding and producing energy resources from the Earth.

AAPG strives to increase public awareness of the crucial role that the geosciences, and particularly petroleum geology, play in our society. The USGS is crucial to meeting these societal needs, and several of its programs deserve special attention by the Subcommittee.

Hydraulic Fracturing
Multiple Programs
As part of the effort to improve America's energy security, save consumers money, and maintain United States leadership in emerging energy technologies, the USGS, the U.S. Department of Energy (DOE), and the Environmental Protection Agency (EPA) have developed an interagency plan that aims to understand the potential environmental, health, and safety impacts of hydraulically fractured oil and gas resources.

AAPG would like to emphasize that while hydraulic fracturing technology continues to evolve, it is not a new technology and we have substantial knowledge about its impacts as well as evidence of its long-term safety. This should form the basis for any new research. The AAPG supports the USGS budget increase in FY 2014 that will support research efforts that include resource assessments and characterization; water quality; water availability; ecological impacts; effects on people and their communities; and induced seismicity.

Geologic Resource Assessments

Energy Resources Program

The USGS Energy Resources Program (ERP) conducts both basic and applied geoscience research focused on geologic energy resources (both domestic and international), including oil, natural gas, coal, coalbed methane, gas hydrates, geothermal, oil shale, and bitumen and heavy oil.

An urgent problem addressed through the ERP is the **preservation of geological and geophysical data**. The Energy Policy Act of 2005 (EPACT 2005, P.L. 109-58) includes Section 351, Preservation of Geological and Geophysical Data. This program is helping to preserve geological, geophysical data, and engineering data, maps, well logs, and samples. It includes development of a national catalog of this archival material, and providing technical and financial assistance related to the samples and materials. As the Act stipulated, the USGS created the National Geological and Geophysical Data Preservation Program (NGGDPP). Since the beginning of this program, however, it has received insufficient funding to accomplish all of the objectives set out in the authorizing language.

Why is preservation important? Responsible management and efficient development of natural resources requires access to the best available scientific information. Over many years industry, such as petroleum and mining companies, has invested billions of dollars to acquire geological and geophysical data. Because of changing company focus and economic conditions this data may no longer have value to the company that acquired it, and is in jeopardy of being discarded.

But this data still has value to society. The data is valuable for further natural resources exploration and development, and can be applied to basic and applied earth systems research, environmental remediation, and natural-hazard mitigation. It is the type of data that will enable future generations of scientists and policy makers to address the nation's energy, environmental, and natural hazard challenges of the 21st century.

For example, this data has been essential to the development of oil and gas from shales. Geoscientists require previously acquired subsurface cores and samples to identify prospective natural gas deposits that were bypassed before new technology made shale resources economically producible.

The NGGDPP was authorized at $30 million annually in EPACT 2005. Historical allocations for this program have ranged from $750,000 to $1,000,000 per year. These funding levels are inadequate to achieve the program's objectives.

AAPG supports President Obama's FY 2014 request to fund the Energy Resources Program activities at $31 million, and asks the Subcommittee to additionally appropriate $30 million in FY 2014 for the preservation of geological and geophysical data, bringing the total Energy Resource Program budget to $61 million.

Mineral Resources Program
The United States is the world's largest consumer of mineral commodities. They form the building blocks of our economy.

It is therefore essential to the nation's economic and national security that the federal government understands both the domestic and international supply and demand for minerals and mineral materials. This data is used throughout government (Departments of Commerce, Interior, Defense, and State; the Central Intelligence Agency; the Federal Reserve) and the private sector.

The USGS Mineral Resources Program (MRP) is the only federal and publicly-available source for comprehensive information and analysis of mineral commodities and mineral materials.

AAPG supports greater funding than the $46.4 million in President Obama's FY 2014 request for the Mineral Resources Program, and urges the Subcommittee to appropriate a level at least even with the FY 2012 request of $48.76 million.

Geologic Landscape & Coastal Assessments
National Cooperative Geologic Mapping Program
AAPG supports the National Cooperative Geologic Mapping Program (NCGMP). This unique partnership between the federal and State governments and the university community further demonstrates the importance of geoscience to society. The geologic maps produced by this program are used for natural resource management, natural hazard mitigation, water resource management, environmental conservation and remediation, and land-use planning.

NCGMP deserves special commendation for its EDMAP initiative. This university partnership enables students, working in a close mentoring relationship with faculty, to produce maps while learning essential mapping skills. As such, the program delivers an immediate return on the federal investment in terms of beneficial maps, as well as a future return in the form of a trained and competent next generation workforce.

AAPG applauds President Obama's support for the National Cooperative Geologic Mapping Program and his increased funding request of $28.3 million. However, this is essentially the amount authorized for FY 1999. Authorizing legislation envisaged annual increases up to $64 million in appropriated funds. AAPG urges the Subcommittee to fund NCGMP at a level higher than the President's request level in FY 2014.

Thank you for the opportunity to present this testimony to the Subcommittee. In addition, thank you for your leadership and support for the geosciences. As you deliberate appropriate funding levels for these USGS programs, please consider the important public policy implications these choices entail.

If you have any questions about AAPG or this testimony, please contact Edith Allison, the director of our policy office in Alexandria (phone: 202-643-6533, e-mail: eallison@aapg.org).