Preservation of Geological and Geophysical Data

**Issue:** Responsible management and efficient development of petroleum and energy mineral resources require improved access to the best available scientific information. Geological and geophysical data provide critical information required for sound exploration, development, and environmental decisions. Future generations of scientists and policy-makers must be able to use these data to address the energy, environmental, and natural-disaster challenges facing the nation in the 21st century.

**Background:** The episodic downsizing of the energy and minerals industries combined with public-sector budgetary constraints jeopardizes vast quantities of valuable geological and geophysical data. These data are critical to our understanding of the earth’s natural resources and environment. The data represent capital investments measured in billions of dollars. Many of these immense data holdings are irreplaceable.

Preservation and access to these data are critical to energy security and economic prosperity. These data enable energy and minerals companies to enhance their exploration and production programs for improved recovery of oil, gas, and mineral resources. Applications for these data extend beyond the petroleum industry, including environmental protection, water resource management, global change studies, and basic and applied research. These data are also used for reducing risks from earthquakes and other geologic hazards, as well as screening sites for waste disposal and designing highways and other infrastructure.

State geological surveys are a major source of public repositories and play a major role in the preservation and access to geoscience data. Efforts to preserve data should build upon existing state and regional data centers, which should have a legal first right-of-refusal for any data being transferred into the public domain.

**Statement:** Over many years, the petroleum sector has invested billions of dollars in acquisition of geological and geophysical data. Because of changing exploration targets and economic conditions, significant amounts of data are in jeopardy of
being lost or destroyed. These data remain valuable not only to future petroleum exploration but also to basic and applied research, natural hazard mitigation, and environmental remediation. Thus, AAPG encourages efforts that seek to preserve and improve access to geological and geophysical data. Such voluntary programs are especially important in the United States and other nations where companies retain ownership of their data. Where the various states may not have facilities or mission to archive data, the U.S. Geological Survey and the Minerals Management Service should be given the task to undertake the preservation of geological data, and should be funded to support state data repositories as well as a national repository. AAPG also encourages state regulatory bodies to require and enforce timely release of well logs and other data.