

New Publications of the U.S. Geological Survey

IMPORTANT ANNOUNCEMENT FOR SUBSCRIBERS

Effective with the July-September 2003 issue, the U.S. Geological Survey will no longer print and distribute the quarterly version of "New Publications of the U.S. Geological Survey." The July-September 2003 and October-December 2003 issues will be released online through the USGS at <http://pubs.usgs.gov/publications/>

Comments concerning this change may be sent to the U.S. Geological Survey, 903 National Center, Reston, VA 20192.

Lists 1140–1142—Publications issued July–September 2003

AVAILABILITY OF U.S. GEOLOGICAL SURVEY CATALOGS

These permanent catalogs, as well as some others, are available under the conditions indicated below from USGS Information Services, Box 25286, Federal Center, Denver, CO 80225. A \$5 handling charge is applicable on each order. The catalogs are also available over the counter at any of the U.S. Geological Survey offices that sell books.

Permanent catalogs "Publications of the Geological Survey, 1879–1961" and "Publications of the Geological Survey, 1962–1970" may be purchased in paperback book form for \$6.

Permanent catalog "Publications of the U.S. Geological Survey, 1971 through 1981" may be purchased in paperback book form (two volumes, publications listing and index) for \$15.

Supplements for 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, and 2000 may be purchased in paperback book form and are priced as follows: 1982, \$3; 1983, \$3; 1984, \$3.25; 1985, \$3.75; 1986, \$4.25; 1987, \$4; 1988, \$3.75; 1989, \$4; 1990, \$4.50; 1991, \$4.25; 1992, \$5; 1993, \$7.50; 1994, \$7.50; 1995, \$7.50; 1996, \$7.50; 1997, \$7.50; 1998, \$7.50; 1999, \$7.50; 2000, \$7.50. The 2001 and 2002 Annual Supplements are free and available online only at <http://pubs.usgs.gov/publications/>.

"New Publications of the U.S. Geological Survey" is also available electronically through the USGS at <http://pubs.usgs.gov/publications/>.

The U.S. Geological Survey Publications Data Base includes comprehensive bibliographic information on USGS reports and maps published from 1880 to the present and references for non-USGS publications with USGS authors published from 1983 to date—a total of approximately 110,000 publications. Free public access to the data base is provided as a public service by the U.S. Geological Survey at <http://usgs-georef.cos.com> and through the USGS home page at <http://www.usgs.gov>.

**U.S. Department of the Interior
U.S. Geological Survey**

New Publications of the U.S. Geological Survey

Lists 1140–1142 —Publications issued July–September 2003

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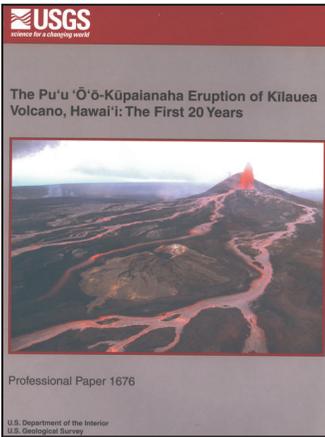
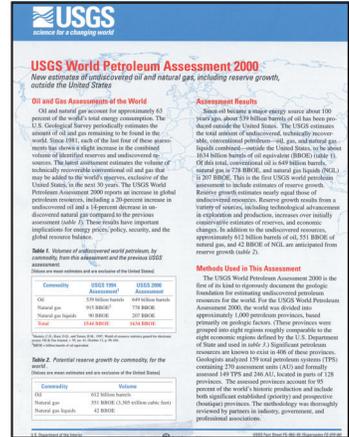
* No new publications in this series for this quarter.

NEW PUBLICATIONS OF SPECIAL INTEREST

Fact Sheet 0062-03

USGS world petroleum assessment 2000; new estimates of undiscovered oil, natural gas, and natural gas liquids, including reserve growth, outside the United States, by T. S. Ahlbrandt, B. S. Pierce and Vito Nuccio. 2003. 2 p. (Supersedes Fact Sheet 070-00.) Available on the web at <http://pubs.usgs.gov/fs/fs-062-03/>

Oil and natural gas account for approximately 63 percent of the world's total energy consumption. The U.S. Geological Survey periodically estimates the amount of oil and gas remaining to be found in the world. The latest assessment estimates the volume of technically recoverable conventional oil and gas that may be added to the world's reserves, exclusive of the United States, in the next 30 years. The USGS World Petroleum Assessment 2000 reports an increase in global petroleum resources, including a 20-percent increase in undiscovered oil and a 14-percent decrease in undiscovered natural gas compared to the previous assessment. These results have important implications for energy prices, policy, security, and the global resource balance.



Professional Paper 1676

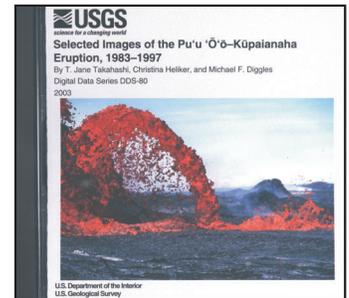
P 1676. HAWAII. The Pu'u 'Ō'ō-Kūpaianaha eruption of Kīlauea Volcano, Hawai'i; the first 20 years, edited by Christina Heliker, D. A. Swanson and T. J. Takahashi. 2003. 206 p. \$35. Available on the web at <http://geopubs.wr.usgs.gov/prof-paper/pp1676/>

The Pu'u 'Ō'ō-Kūpaianaha eruption that began in January 1983 is already the longest eruption of Kīlauea Volcano, Hawai'i, since the 19th century. The 12 chapters in this volume describe and analyze various aspects of the eruption and document the growth in understanding that has resulted from research during the first 20 years of this eruption.

Digital Data Series 0080

DDS-0080. Selected images of the Pu'u 'Ō'ō-Kūpaianaha eruption, 1983-1997, by T. J. Takahashi, Christina Heliker and M. F. Diggles. 2003. One CD-ROM. \$32. Available on the web at <http://geopubs.wr.usgs.gov/dds/dds-80>

The 100 images in this CD-ROM have been selected from the collections of the Hawaiian Volcano Observatory as enduring favorites of the staff, researchers, media, designers, and the public over time. They represent photographs of a variety of geological phenomena and eruptive events, chosen for their content, quality of exposure, and aesthetic appeal. Hawaiian words and place names are listed to facilitate searching.





FORMAL REPORTS

DIGITAL DATA SERIES

The Digital Data Series encompasses a broad range of digital data, including computer programs, interpreted results of investigations, comprehensive reviewed data bases, spatial data sets, digital images and animation, and multimedia presentations that are not intended for printed release. Scientific reports in this series cover a wide variety of subjects on all facets of U.S. Geological Survey investigations and research that are of lasting scientific interest and value. Releases in the Digital Data Series offer access to scientific information that is available in digital form; the information is primarily for viewing, processing, and (or) analyzing by computer.

DDS-0080. Selected images of the Pu'u 'Ō'ō-Kūpaianaha eruption, 1983-1997, by T. J. Takahashi, Christina Heliker and M. F. Diggles. 2003. One CD-ROM. \$32. Available on the web at <http://geopubs.wr.usgs.gov/dds/dds-80/>

This CD-ROM has been produced in accordance with the ISO 9660 Standard and is therefore capable of being read on any computing program that has appropriate CD-ROM driver software installed. System requirements: Macintosh (1) PowerPC processor, (2) Mac OS software version 9.1, 9.2, or OS X, and (3) 64 MB of RAM. Windows (1) Intel Pentium or compatible R-class processor-based personal computer, (2) Microsoft Windows, Windows 98 SE, Windows Millennium, Windows NT 4.0 with Service Pack 5 or 6 (Service Pack 6 recommended), Windows 2000, or Windows XP Professional or Home Edition, and (3) 64 MB of RAM; UNIX: Almost any UNIX system-based or Linux workstation can read these files.

The 100 images in this CD-ROM have been selected from the collections of the Hawaiian Volcano Observatory as enduring favorites of the staff, researchers, media, designers, and the public over time. They represent photographs of a variety of geological phenomena and eruptive events, chosen for their content, quality of exposure, and aesthetic appeal. Hawaiian words and place names are listed to facilitate searching.

PROFESSIONAL PAPERS

Professional Papers are mainly comprehensive scientific reports of wide and lasting interest and importance to professional scientists and engineers. Included are reports on the results of resource studies, and of topographic, hydrologic, and geologic investigations. They also include collections of related papers addressing different aspects of a single scientific topic.

P 1668. IDAHO. Correlation, sedimentology, structural setting, chemical composition, and provenance of selected formations in Mesoproterozoic Lemhi Group, central Idaho, by R. G. Tysdal, D. A. Lindsey and J. E. Taggart, Jr. 2003. 40 p. \$7.50. Available on the web at <http://pubs.usgs.gov/pp/p1668/>

The middle subunit of the Mesoproterozoic Yellowjacket Formation in the Salmon River Mountains is renamed the banded siltite unit and is assigned to the Apple Creek Formation. The overlying sandstone is assigned to the Gunsight Formation. These strata were displaced northeastward as part of the Poison Creek

thrust sheet, which is extended westward from the Lemhi Range into the Salmon River Mountains. Major-oxide ratios, statistical analysis of covariance among major oxides and trace elements, and analysis of variance among stratigraphic units are used to determine relationships between provenance and chemical composition of the Mesoproterozoic Big Creek, Apple Creek, and Gunsight formations.

A. IDAHO. Correlation, sedimentology, and structural setting, upper strata of Mesoproterozoic Apple Creek Formation and lower strata of Gunsight Formation, Lemhi Range to Salmon River Mountains, east-central Idaho, by R. G. Tysdal. p. 1-22.

B. IDAHO. Chemical composition and provenance of the Mesoproterozoic Big Creek, Apple Creek, and Gunsight formations, Lemhi Group, central Idaho, by D. A. Lindsey, R. G. Tysdal and J. E. Taggart, Jr. p. 23-40.

P 1673. ALASKA. Revised Cretaceous and Tertiary stratigraphic nomenclature in the Colville Basin, Northern Alaska, by C. G. Mull, Alaska Division of Oil and Gas; D. W. Houseknecht, and K. J. Bird, U.S. Geological Survey. Prepared in cooperation with the Alaska Department of Natural Resources, Division of Geological and Geophysical Surveys and Division of Oil and Gas. 2003. Available on the web at <http://pubs.usgs.gov/pp/p1673/>

A revised stratigraphic nomenclature is proposed for Cretaceous and Tertiary geologic exposures of the North Slope of Alaska. This nomenclature is a simplified scheme suitable for digital geologic quadrangle maps. This revised nomenclature proposes the abandonment of the Colville Group; demotion of the Nanushuk Group to formation status; abandonment of six formations (Kukpowruk, Tuktu, Grandstand, Corwin, Chandler, and Ninuluk); revision of four formations (Sagavanirktok, Prince Creek, Schrader Bluff, and Seabee); elevation of the Tuluvak Tongue of the Prince Creek Formation to formation status; revision of two members (Franklin Bluffs Member and Sagwon Member of the Sagavanirktok Formation); elimination of eight members or tongues (Kogosukruk, Rogers Creek, Barrow Trail, Sentinel Hill, Ayiyak, Shale Wall, Niakogon, and Killik); and definition of one new member (White Hills Member of the Sagavanirktok Formation).

P 1676. HAWAII. The Pu'u 'Ō'ō-Kūpaianaha eruption of Kīlauea Volcano, Hawai'i; the first 20 years, edited by Christina Heliker, D. A. Swanson and T. J. Takahashi. 2003. 206 p. \$35. Available on the web at <http://geopubs.wr.usgs.gov/prof-paper/pp1676/>

The Pu'u 'Ō'ō-Kūpaianaha eruption that began in January 1983 is already the longest eruption of Kīlauea Volcano, Hawai'i, since the 19th century. The 12 chapters in this volume describe and analyze various aspects of the eruption and document the growth in understanding that has resulted from research during the first 20 years of this eruption.

The first two decades of the Pu'u 'Ō'ō-Kūpaianaha eruption; chronology and selected bibliography, by Christina Heliker and T. N. Mattox. p. 1-27.

The rise and fall of Pu'u 'Ō'ōcone, 1983-2002, by Christina Heliker, Jim Kauahikaua, D. R. Sherrod, Michael Lisowski and P. F. Cervelli. p. 29-51.



Correlation between lava-pond drainback, seismicity, and ground deformation at Pu'u 'Ō'ō, by S. R. Barker, D. R. Sherrod, Michael Lisowski, Christina Heliker and J. S. Nakata. p. 53-62.

HAWAII. Hawaiian lava-flow dynamics during the Pu'u 'Ō'ō-Kūpaianaha eruption; a tale of two decades, by Jim Kauahikaua, D. R. Sherrod, K. V. Cashman, Christina Heliker, Ken Hon, T. N. Mattox and J. A. Johnson. p. 63-87.

The transition from 'a'a to pahoehoe crust on flows emplaced during the Pu'u 'Ō'ō-Kūpaianaha eruption, by Ken Hon, C. A. Gansecki and Jim Kauahikaua. p. 89-103.

Thermal efficiency of lava tubes in the Pu'u 'Ō'ō-Kūpaianaha eruption, by R. T. Helz, Christina Heliker, Ken Hon and Margaret Mangan. p. 105-120.

Magma-reservoir processes revealed by geochemistry of the Pu'u 'Ō'ō-Kūpaianaha eruption, by C. R. Thornber. p. 121-136.

Lava-effusion rates for the Pu'u 'Ō'ō-Kūpaianaha eruption derived from SO₂ emissions and very low frequency (VLF) measurements, by A. J. Sutton, Tamar Elias and Jim Kauahikaua. p. 137-148.

The shallow magmatic system of Kīlauea Volcano, by P. F. Cervelli and Asta Miklius. p. 149-163.

Long-term trends in microgravity at Kīlauea's summit during the Pu'u 'Ō'ō-Kūpaianaha eruption, by Jim Kauahikaua and Asta Miklius. p. 165-171.

Tectonic pulses during Kīlauea's current long-term eruption, by Paul Okubo and J. S. Nakata. p. 173-186.

Stress changes before and during the Pu'u 'Ō'ō-Kūpaianaha eruption, by J. H. Dieterich, Valérie Cayol and Paul Okubo. p. 187-201.

HAWAII. Volunteers at the Hawaiian Volcano Observatory, 1983-2002, by S. R. Brantley. p. 203-206.

BULLETINS

Bulletins contain significant data and interpretations that are of lasting scientific interest but are generally more limited in scope or geographic coverage than Professional Papers. They include the results of resource studies and of geologic and topographic investigations, as well as collections of short papers related to a specific topic.

B 1839-K. OHIO, PENNSYLVANIA, WEST VIRGINIA. Stratigraphic framework of Cambrian and Ordovician rocks in the central Appalachian Basin from Medina County, Ohio, through southwestern and south-central Pennsylvania to Hampshire County, West Virginia, by R. T. Ryder, A. G. Harris, and J. E. Repetski; revised and digitized by R. D. Crangle, Jr. 2003. 40 p., 1 over-size sheet. (Evolution of sedimentary basins; Appalachian Basin.) Available on the web at <http://pubs.usgs.gov/bul/b1839k/>

Oil and gas exploration in the Ohio, Pennsylvania, and West Virginia parts of the Appalachian Basin, from the late 1950's to the middle 1980's, resulted in the drilling of a modest number of holes into Cambrian strata and (or) Precambrian basement rocks. On the basis of geophysical and lithologic logs from these drill holes and paleontologic data from one of these holes. A 275-mi-long restored stratigraphic cross section has been drawn through the Cam-

brian and Ordovician sequence from Medina County, Ohio, through southwestern and south-central Pennsylvania to Hampshire County, West Virginia (section C-C'). The stratigraphic framework of the Cambrian and Ordovician sequence along this cross section and, to a lesser extent, the structure of the underlying block-faulted basement rocks are the main topics of this paper.

B 2064-KK. IDAHO. Geology of an Ordovician stratiform base-metal deposit in the Long Canyon area, Blaine County, Idaho, by B. R. Otto and G. A. Zieg. 2003. 23 p. (Geology and mineral resources of the Hailey 1 degree x 2 degrees quadrangle and the western part of the Idaho Falls 1 degree x 2 degrees quadrangle, Idaho.) Available on the web at <http://pubs.usgs.gov/bul/b2064-kk/index.html>

In the Long Canyon area, Blaine County, Idaho, a stratiform base-metal-bearing gossan is exposed within a complexly folded and faulted sequence of Ordovician strata. Abrupt thickness changes and geochemical zoning in the metal-bearing strata suggest that the gossan is near the source of an Ordovician subaqueous hydrothermal system.

B 2172-D. Modified Arrington method for calculating reserve growth; a new model for United States oil and gas fields, by M. K. Verma. 2003. 14 p. (Geologic, engineering, and assessment studies of reserve growth, edited by T. S. Dyman, J. W. Schmoker, and Mahendra Verma.) Available on the web at <http://pubs.usgs.gov/bul/b2172-d/>

Reserve (or field) growth, an increase in estimated total hydrocarbon reserves through time, plays an important role—especially in mature petroleum provinces (like many in the United States), when the rate of new discoveries reduces to a low level. To forecast reserve growth accurately for the United States, the original Arrington method was critically reviewed for possible improvement. Cumulative growth factor smoothing produces better results and forms the basis for the new growth functions—modified Arrington. Compared to previous functions, the new functions predict reserve growths that are closer to actual known hydrocarbon volumes, particularly for oil, for a 5-year period (1992-96).

B 2172-F. Graphic comparison of reserve-growth models for conventional oil and accumulation, by T. R. Klett. 2003. p. F1-F63. (Geologic, engineering, and assessment studies of reserve growth, edited by T. S. Dyman, J. W. Schmoker, and Mahendra Verma.) Available on the web at <http://pubs.usgs.gov/bul/b2172-f/>

Future reserve growth in existing fields is a major component of remaining U.S. oil and natural gas resources and has therefore become a necessary element of U.S. petroleum resource assessments. Past and currently proposed reserve-growth models are compared to aid in the selection of a suitable algorithm for use in the ongoing National Oil and Gas Assessment Project. The reserve-growth models use past annual volumetric changes of fields and reservoirs that have been grouped by age.

B 2202-H. Total petroleum systems of the Paleozoic and Jurassic, Greater Ghawar Uplift and adjoining provinces of central Saudi Arabia and northern Arabian-Persian Gulf, by R. M. Pollastro. 2003. 100 p. Available on the web at <http://pubs.usgs.gov/bul/b2202-h/>

The Paleozoic and Jurassic total petroleum systems of the central part of the Arabian Peninsula are two of the most prolific hy-



drocarbon-producing systems in the world. This report is part of the USGS World Petroleum Assessment 2000 series and provides details of the various geologic elements and geographical extent of these total petroleum systems. From analysis of the geology, and exploration and production histories, undiscovered conventional oil and gas resources are assessed.

CIRCULARS

Circulars present technical or nontechnical information of wide popular interest in a format designed for distribution at no cost to the public. They are published to disseminate administrative information or important scientific information of an ephemeral nature.

C 1143. Coal; a complex natural resource; an overview of factors affecting coal quality and use in the United States, by S. P. Schweinfurth, with a contribution on coal quality and public health, by R. B. Finkelman. 2003. 39 p. Available on the web at <http://pubs.usgs.gov/circ/c1143>

This report acquaints students, noncoal scientists, and the general public with some basic information on the origins of coal and how they affect coal quality, the complex nature of coal quality, methods for determining coal quality, and the wide variety of coal usage in the United States and how coal quality affects the many byproducts of coal. Some of the factors that contribute to coal's complex nature are the plants in the peat swamps in which coal precursors originate; biological and chemical processes; the swamp geometry, location, and age; mineral matter in the coal; and the process of coalification. A section on coal quality and public health is included to educate the public on the harmful effects of poor coal quality.

C 1196-G. Iron and steel recycling in the United States in 1998, by M. D. Fenton. 2003. p. G1-G8. (Flow studies for recycling metal commodities in the United States.) Available on the web at <http://pubs.usgs.gov/circ/c1196g/>

Consumption of iron and steel scrap and the health of the scrap industry depend directly on the health of the steelmaking industry. The United States, as well as most of the world, is expected to consume increasing amounts of scrap as a steadily increasing population demands more steel products. An estimated 75 million metric tons of scrap was generated during 1998 in the United States, and 35 million tons of old scrap and 18 million tons of new scrap were consumed. The recycling efficiency was calculated to be 52 percent, and the recycling rate was found to be 41 percent.

C 1196-I. Columbium (niobium) recycling in the United States in 1998, by L. D. Cunningham. 2003. p. I1-I9. (Flow studies for recycling metal commodities in the United States.) Available on the web at <http://pubs.usgs.gov/circ/c1196i/>

This report describes the flow of columbium (niobium) in the United States in 1998 with emphasis on the extent to which columbium was recycled or reused. Columbium was mostly recycled from products of columbium-bearing steels and superalloys; little was recovered from products specifically for their columbium content. In 1998, about 1,800 metric tons of columbium was recycled or reused; about 55 percent of that was derived from old scrap. The columbium recycling rate was calculated to be 22 percent, and columbium scrap recycling efficiency, 50 percent.

C 1196-J. Tantalum recycling in the United States in 1998, by L. D. Cunningham. 2003. p. J1-J10. (Flow studies for recycling metal commodities in the United States.) Available on the web at <http://pubs.usgs.gov/circ/c1196j/>

This report describes the flow of tantalum in the United States in 1998 with emphasis on the extent to which tantalum was either recycled or reused. Tantalum was recycled mostly from new scrap that was generated during the manufacture of tantalum-related electronic components and new and old scrap products of tantalum-containing cemented carbides and superalloys. In 1998, about 210 metric tons of tantalum was either recycled or reused, about 43 percent of which was derived from old scrap. The tantalum recycling rate was calculated to be 21 percent, and tantalum scrap recycling efficiency, 35 percent.

C 1196-K. Tin recycling in the United States in 1998, by J. F. Carlin, Jr. 2003. p. K1-K8. (Flow studies for recycling metal commodities in the United States.) Available on the web at <http://pubs.usgs.gov/circ/c1196k/>

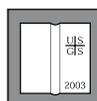
This materials flow study includes a description of tin supply and demand factors for the United States to illustrate the extent of tin recycling and to identify recycling trends. Understanding the flow of materials from source to ultimate disposition can assist in improving the management of the use of natural resources in a manner that is compatible with sound environmental practices. The quantity of tin recycled in 1998 as a percentage of apparent tin supply was estimated to be about 22 percent, and recycling efficiency was estimated to be 75 percent. Of the total tin consumed in products for the U.S. market in 1998, an estimated 12 percent was consumed in products where the tin was not recyclable.

C 1196-L. Molybdenum recycling in the United States in 1998, by J. W. Blossom. 2003. p. L1-L9. (Flow studies for recycling metal commodities in the United States.) Available on the web at <http://pubs.usgs.gov/circ/c1196l/>

This report describes the flow of molybdenum in the United States in 1998 with emphasis on the extent to which molybdenum was recycled. Molybdenum was mostly recycled from products of molybdenum-bearing steels and superalloys; some molybdenum products were recovered specifically for their high molybdenum content. In 1998, 8,000 metric tons of molybdenum were estimated to have been recycled, and the recycling rate was calculated to be 33 percent, with a recycling efficiency of about 30 percent.

C 1247. Evolving issues and practices in managing ground-water resources; case studies on the role of science, by D. L. Galloway, W. M. Alley, P. M. Barlow, T. E. Reilly and Patrick Tucci. 2003. 73 p. Available on the web at <http://water.usgs.gov/pubs/circ/2003/circ1247/>

This Circular describes the role of science in its support of emerging issues and practices in the management of ground-water resources. Ground-water-resource management requires consideration of the interaction among management decisions, the dynamic nature of the ground-water system to be managed, and the environmental and other consequences that result from management actions. Seven case studies demonstrate how data-collection networks, ground-water-resource assessments, and predictive models are used to assist in aquifer management. The case studies are drawn from recently completed and ongoing data-collection activities and ground-water-resource investigations by the U.S. Geological Survey.



MISCELLANEOUS AND SPECIAL BOOKS

Geographic Names Information System (GNIS)

GNIS, developed by the Geographic Names Office, Mapping Applications Center, is the basis for the Digital Gazetteer of the United States (CD-ROM) and includes all names in the data base as of July 1999, as well as the necessary software for searching, analyzing, and exporting the data. The software must be installed onto an IBM-compatible hard disk before the data can be used. The CD-ROM, which can be purchased for \$57 plus \$5.00 shipping, contains the National Geographic Names Data Base (NGNDB), Antarctica Geographic Names Data Base (AGNDB), Topographic Map Names Data Base (TMNDB), and Reference Data Base (RDB). Each record in the NGNDB, AGNDB, and TMNDB can contain a variety of location and description fields. All can be displayed, and most can be searched. Not all fields, however, contain data. The RDB contains one field—bibliography. The CD-ROM is no longer accompanied by a users manual. The installation procedures, readme file, and trouble shooting guide are provided in WordPerfect, HTML, and PDF formats. All necessary information regarding startup procedures are listed in the “Getting_Started” directory on the CD.

The GNIS CD-ROM may be ordered from Information Services, U.S. Geological Survey, DFC, Building 810, MS 306, Denver, CO 80225, or by telephoning 1-888-ASK-USGS. Prepayment is required. Please make check or money order payable to Department of the Interior—USGS. VISA, MasterCard, American Express, and Discover Card are accepted. Prices are subject to change.

Information and Technical Specifications may be requested from U.S. Geological Survey, Manager GNIS, 523 National Center, Reston, VA 20192. 703-648-4544.

FACT SHEETS

Fact Sheets are used to disseminate timely information on scientific and technical programs of the U.S. Geological Survey and are available, at no cost, from USGS Information Services, Box 25286, Denver, CO 80225.

FS 0155-02. Tracking contaminants in Santa Monica Bay, offshore of greater Los Angeles, by H. J. Lee, Megan McQuarrie and Lori Hibbeler. 2003. 4 p. Available on the web at <http://geopubs.wr.usgs.gov/fact-sheet/fs155-02/>

FS 0005-03. NEW MEXICO. Municipal stormwater sampling program, metropolitan area, Albuquerque, New Mexico; summary of sampling, 1992-2002, by J. E. Veenhuis. 2003. 4 p.

FS 0021-03. FLORIDA. Measuring and mapping the topography of the Florida Everglades for ecosystem restoration, by G. B. Desmond. 2003. 4 p.

FS 0022-03. The U.S. Geological Survey Land Remote Sensing Program. 2003. 2 p.

FS 0032-03. Earth Observing-1 extended mission. 2003. 2 p.

FS 0036-03. Rapid-deployment data-collection networks for wildland fire applications, by R. W. Teller, U.S. Geological Survey; M. L. Williams, U.S. Forest Service; T. S. Murphy, National Weather Service; and Pam Buck, Pennington County Emergency Management, South Dakota. 2003. 4 p. Available on the web at <http://water.usgs.gov/pubs/fs/fs03603/fs03603.html>

FS 0038-03. Assessment of undiscovered oil and gas resources of the Black Warrior Basin Province, 2002, by J. R. Hatch, M. J. Pawlewicz, R. R. Charpentier, T. A. Cook, R. A. Crovelli, T. R. Klett, R. M. Pollastro and C. J. Schenk. 2003. 2 p. Available on the

web at

<http://pubs.usgs.gov/fs/fs-038-03/>

FS 0042-03. MASSACHUSETTS. Testing ground-water-management alternatives in the upper Charles River basin, eastern Massachusetts, by Leslie DeSimone. 2003. 8 p. Available on the web at <http://water.usgs.gov/pubs/fs/fs-042-03/>

FS 0046-03. ANSS; reducing the devastating effects of earthquakes, by U. S. Geological Survey, Geologic Hazards Team. 2003. 4 p. Available on the web at <http://pubs.usgs.gov/fs/fs-046-03/>

FS 0047-03. LOUISIANA, MISSISSIPPI. 2002 assessment of undiscovered oil and gas resources of the Jurassic-Cretaceous Cotton Valley Group, Jurassic Smackover Interior Salt Basins total petroleum system, in the Louisiana-Mississippi Salt Basins Province of the northern Gulf Coast region, by T. S. Dyman, S. M. Condon, R. R. Charpentier, T. A. Cook, M. D. Lewan, R. M. Pollastro, C. J. Schenk and J. W. Schmoker. 2003. 2 p.

FS 0050-03. NEW HAMPSHIRE. New Hampshire's stream-gaging network; status and future needs, by S. A. Olson. 2003. 4 p. Available on the web at <http://water.usgs.gov/pubs/fs/fs-050-03/>

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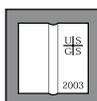
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- OF 03-0227. FLORIDA. West-central Florida coastal classification maps; Ancolte Key to Venice Inlet, by R. A. Morton and R. L. Peterson. (NC, Da, M.) Available on the web at
<http://pubs.usgs.gov/of/2003/of03-227/>
- OF 03-0231. ILLINOIS. Amounts and rates of bluff-top recession along the Lake Michigan shoreline at Fort Sheridan, Illinois, from 1872-1987, by R. W. Jibson. (NC, Da, M; Illinois State Geol. Surv., Natural Resources Bldg., 615 East Peabody Dr., Room 121, Champaign, IL 61820.) Available on the web at
<http://pubs.usgs.gov/of/2003/ofr-03-231/>
- OF 03-0236. National geochronological database, Revised by Jan Sloan, C. D. Henry, Melanie Hopkins, and Steve Ludington; original database by R. E. Zartman, C. A. Bush, and Carl Abston. (NC, Da, M; USGS, Library, 2255 North Gemini Dr., Flagstaff, AZ 86001.) Available on the web at
<http://geopubs.wr.usgs.gov/open-file/of03-236/>
- OF 03-0237. Tethered acoustic doppler current profiler platforms for measuring streamflow, by M. S. Rehmel, J. A. Stewart and S. E. Morlock. 15 p. (NC, Da, M.) Available on the web at
http://in.water.usgs.gov/newreports/abstracts/rehmel_teth_dop-abs.html
- OF 03-0238. ALASKA. Magnetotelluric data in the Delta River mining district, near the Tangle Lakes area of south-central Alaska, by Louise Pellerin and Jay Sampson. 14 p. (NC, M, Da, A; Div. of Geol. & Geophys. Surv., 794 University Ave., Suite 200, Fairbanks, AK 99709-3645; U.S. Department of Interior, Alaska Resources Library, 3150 C St. #100, Anchorage, AK 99503-3916.) Available on the web at
<http://pubs.usgs.gov/of/2003/ofr-03-238/>
- OF 03-0239. SOUTH CAROLINA. Archive of boomer seismic reflection data collected during USGS Cruise 96CCT01, nearshore south central South Carolina coast, June 26-July 1, 1996, by Karynna Calderon, S. V. Dadisman, J. L. Kindinger, J. G. Flocks and D. S. Wiese. One DVD-ROM. (NC, Da, M.) (Disc-on-demand.) \$60.
- This disc has been produced in accordance with the UDF Standard and therefore capable of being read on any computing platform that has a DVD drive.
- OF 03-0247. OKLAHOMA. A digital geologic map database for the state of Oklahoma, compiled by W. D. Heran, G. N. Green and D. B. Stoesser. 1 over-size sheet. (NC, Da, M; Oklahoma Geol. Surv., Univ. of Oklahoma, 830 Van Vleet Oval, Room 163, Norman, OK 73019.) (Map-on-demand.) \$20. Available on the web at
<http://pubs.usgs.gov/of/2003/ofr-03-247/>
- OF 03-0248. MONTANA. Hydrogeologic, water-quality, and geochemical data for the Frohner Meadows area, upper Lump Gulch, Jefferson County, Montana, by T. L. Klein, M. R. Cannon and D. L. Fey. Prepared in cooperation with the U.S. Department of Agriculture, Forest Service. 57 p. (NC, Da, M; Montana Bur. of Mines & Geol., Montana Coll. of Mineral Sci. & Technol., Butte, MT 59701.) Available on the web at
<http://pubs.usgs.gov/of/2003/ofr-03-248/>
- OF 03-0249. NORTH DAKOTA. North Dakota aeromagnetic and gravity maps and data; a web site for distribution of data, by R. E. Sweeney and P. L. Hill. (NC, M, Da; North Dakota Geol. Surv., Univ. Station, Grand Forks, ND 58202-8156.) Available on the web at
<http://pubs.usgs.gov/of/2003/ofr-03-249/>
- OF 03-0253. ALASKA. Structural plays in Ellesmerian sequence and correlative strata of the National Petroleum Reserve, Alaska,



- by T. E. Moore and C. J. Potter. 58 p. (NC, Da, M, A; Alaska Resource Library Information Services [ARLIS], 3150 C St., Suite 100, Anchorage, AK 99503; Alaska Dep. of Natural Resources, Div. of Geol. & Geophys. Surv., 794 University Ave., Suite 200, Fairbanks, AK 99709-3645.) Available on the web at <http://geopubs.wr.usgs.gov/open-file/of03-253/>
- OF 03-0255. MARYLAND. Potentiometric surface of the Aquia Aquifer in southern Maryland, September 2002, by S. E. Curtin, D. C. Andreasen and J. C. Wheeler. Prepared in cooperation with the Maryland Geological Survey; Maryland Department of Natural Resources, Power Plant Assessment Program. 1 over-size sheet. (NC, Da, M.) Available on the web at <http://md.water.usgs.gov/publications/ofr-03-255/>
- OF 03-0256. MARYLAND. Potentiometric surface of the Magothy Aquifer in southern Maryland, September 2002, by S. E. Curtin, D. C. Andreasen and J. C. Wheeler. Prepared in cooperation with the Maryland Geological Survey; Maryland Department of Natural Resources, Power Plant Assessment Program. 1 over-size sheet. (NC, Da, M.) Available on the web at <http://md.water.usgs.gov/publications/ofr-03-256/>
- OF 03-0257. MARYLAND. Potentiometric surface of the upper Patapsco Aquifer in southern Maryland, September 2002, by S. E. Curtin, D. C. Andreasen and J. C. Wheeler. Prepared in cooperation with the Maryland Geological Survey; Maryland Department of Natural Resources, Power Plant Assessment Program. 1 over-size sheet. (NC, Da, M.) Available on the web at <http://md.water.usgs.gov/publications/ofr-03-257/>
- OF 03-0258. MARYLAND. Potentiometric surface of the lower Patapsco Aquifer in southern Maryland, September 2002, by S. E. Curtin, D. C. Andreasen and J. C. Wheeler. Prepared in cooperation with the Maryland Geological Survey; Maryland Department of Natural Resources, Power Plant Assessment Program. 1 over-size sheet. (NC, Da, M.) Available on the web at <http://md.water.usgs.gov/publications/ofr-03-258/>
- OF 03-0259. WISCONSIN, MICHIGAN, MINNESOTA. The geochemical landscape of northwestern Wisconsin and adjacent parts of northern Michigan and Minnesota (geochemical data files), by W. F. Cannon and L. G. Woodruff. (NC, Da, M.) Available on the web at <http://pubs.usgs.gov/of/2003/of03-259/>
- OF 03-0261. Results of the U. S. Geological Survey's analytical evaluation program for standard reference samples distributed in March 2003, by M. T. Woodworth and B. F. Connor. 109 p. (NC, Da, M.) \$28. Available on the web at http://bqs.usgs.gov/srs/Report_Spr03.pdf
- OF 03-0266. ALASKA. Brookian structural plays in the National Petroleum Reserve, Alaska, by C. J. Potter and T. E. Moore. 49 p. (NC, Da, M, A; Alaska Resource Library Information Services [ARLIS], 3150 C St., Suite 100, Anchorage, AK 99503; University Ave., Suite 200, Fairbanks, AK 99709-3645.) Available on the web at <http://geopubs.wr.usgs.gov/open-file/of03-266/>
- OF 03-0268. ALASKA. Density and magnetic susceptibility values for rocks in the Talkeetna Mountains and adjacent region, south-central Alaska, by E. A. Sanger and J. M. G. Glen. 42 p. (NC, Da, M, A; Alaska Resource Library Information Services [ARLIS], 3150 C St., Suite 100, Anchorage, AK 99503; Alaska Dep. of Natural Resources, Div. of Geol. & Geophys. Surv., 794 University Ave., Suite 200, Fairbanks, AK 99709-3645.) Available on the web at <http://geopubs.wr.usgs.gov/open-file/of03-268/>
- OF 03-0269. Isostatic gravity map with simplified geology of the Los Angeles 30 × 60 minute quadrangle, by R. J. Wooley, R. F. Yerkes, V. E. Langenheim and F. C. Chuang. 1 over-size sheet, scale 1:100,000 (1 inch = about 1.6 miles). (NC, Da, M; California Dep. of Conservation, Div. of Mines and Geol., Mail Stop 14-34, Library, 801 K St., Sacramento, CA 95814-3532; 185 Berry St., Suite 210, San Francisco, CA 94107-1728; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.) Available on the web at <http://geopubs.wr.usgs.gov/open-file/of03-269/>
- OF 03-0270. CALIFORNIA. Preliminary geologic map of the Perris 7.5' quadrangle, Riverside County, California, by D. M. Morton. 1 over-size sheet, scale 1:24,000 (1 inch = 2,000 feet). (NC, Da, M; California Dep. of Conservation, Div. of Mines and Geol., Mail Stop 14-34, Library, 801 K St., Sacramento, CA 95814-3532; 185 Berry St., Suite 210, San Francisco, CA 94107-1728; and State Office Bldg., 107 South Broadway, Los Angeles, CA 90012.) Available on the web at <http://geopubs.wr.usgs.gov/open-file/of03-270/>
- OF 03-0276. MICHIGAN. Bedrock soil and lichen geochemistry from Isle Royale National Park, Michigan, by L. G. Woodruff, W. F. Cannon, C. L. Dicken, J. P. Bennett and S. W. Nicolson. 17 p. (NC, Da, M.) Available on the web at <http://pubs.usgs.gov/of/2003/of03-276/>
- OF 03-0280. NEW MEXICO. Questa baseline and pre-mining ground-water quality investigation 6; preliminary brittle structural geologic data, Questa mining district, southern Sangre de Cristo Mountains, New Mexico, by J. S. Caine. Prepared in cooperation with the New Mexico Environment Department. 24 p. (NC, M, Da; New Mexico Bur. of Mines & Mineral Resources, Campus Station, Socorro, NM 87801.) Available on the web at <http://pubs.usgs.gov/of/2003/ofr-03-280/>
- OF 03-0289. Database and map of Quaternary faults and folds of Ecuador and its offshore regions, compiled by Arturo Eguez, Alexandra Alvarado, Hugo Yepes, M. N. Machette, Carlos Costa, R. L. Dart and Lee-Ann Bradley. 71 p., 1 over-size sheet. (NC, Da, M.) Available on the web at <http://pubs.usgs.gov/of/2003/ofr-03-289/>
- OF 03-0321. NEW MEXICO. Water-level data for the Albuquerque Basin and adjacent areas, central New Mexico, period of record through 2002, by R. K. DeWees. Prepared in cooperation with the City of Albuquerque. 41 p. (NC, Da, M.) \$15.
- OF 03-0322. FLORIDA. Coastal classification atlas; southwestern Florida coastal classification maps; Venice Inlet to Cape Romano, by R. A. Morton and R. L. Peterson. (NC, Da, M.) Available on the web at <http://pubs.usgs.gov/of/2003/of03-322/>
- OF 03-0337. An overview of coastal land loss; with emphasis on the southeastern United States, by R. A. Morton. (NC, Da, M.) Available on the web at <http://pubs.usgs.gov/of/2003/of03-337/>





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SHEET 1. Geologic map of the western part of the Salmon National Forest, by R. G. Tysdal, K. I. Lund and K. V. Evans. Lat 45° to 45°30', long 114° to 115°. Scale 1:100,000 (1 inch = about 1.6 miles) Sheet 41 by 58 inches (in color).

SHEET 2. Geologic map of the eastern part of the Salmon National Forest, by K. I. Lund, K. V. Evans, R. G. Tysdal and G. R. Winkler. Lat 44°30' to 45°30', long 113° to 114°. Scale 1:100,000 (1 inch = about 1.6 miles) Sheet 34 1/2 by 58 inches (in color).

I-2789. Map of surficial deposits and materials in the eastern and central United States (east of 102° west longitude), by D. S. Fullerton, C. A. Bush and J. N. Pennell. 2003. Lat 25° to 48°, long 67° to 102°. Scale 1:2,500,000 (1 inch = about 40 miles). Sheet 51 by 47 inches (in color). (Accompanied by 46 page text.) \$7. Available on the web at <http://pubs.usgs.gov/imap/i-2789/>

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MF-2381-A. NEVADA, CALIFORNIA. Geologic map of the Death Valley ground-water model area, Nevada and California, by J. B. Workman, C. M. Menges, W. R. Page, Emily Taylor, E. B. Ekren, P. D. Rowley, G. L. Dixon, R. A. Thompson and L. A. Wright. Prepared in cooperation with the Nevada Operations Office, National Nuclear Security Administration, and U.S. Department of Energy. 2002. Two sheets. Lat 35° to 38°15', long 115° to 118°. Scale 1:250,000 (1 inch = about 4 miles). Sheet 1, 46 by 63 inches; sheet 2, 26 by 36 inches (both in color). (Accompanied by 26 page text.) (Map-on-demand.) \$20 per sheet. Available on the web at <http://pubs.usgs.gov/mf/2002/mf-2381/>

MF-2412. ARKANSAS. Geologic map of the Ponca Quadrangle, Newton, Boone, and Carroll counties, Arkansas, by M. R. Hudson

and K. E. Murray. 2003. Lat 36° to 36°07'30", long 93°15' to 93°22'30". Scale 1:24,000 (1 inch = 2000 feet). Sheet 50 by 39 inches (in color). (Map-on-demand.) \$20. Available on the web at <http://pubs.usgs.gov/mf/2003/mf-2412/>

MF-2420. WASHINGTON. Maps and data from a trench investigation of the Utsalady Point Fault, Whidbey Island, Washington, by S. Y. Johnson, A. R. Nelson, S. F. Personius, R. E. Wells, U.S. Geological Survey; H. M. Kelsey, Humboldt State University; B. L. Sherrod, U.S. Geological Survey; Koji Okumura, Hiroshima University; Rich Koehler, Robert Witter, William Lettiss and Associates; Lee-Ann Bradley, U.S. Geological Survey; and D. J. Harding, NASA. 2003. Sheet 83 by 36 inches (in color). (Map-on-demand.) \$20. Available on the web at <http://pubs.usgs.gov/mf/2003/mf-2420/>



OUTSIDE PUBLICATIONS

ARTICLES AND REPORTS

Articles by USGS personnel in non-USGS publications recently cited in the GeoRef data base of the American Geological Institute are listed below. Non-USGS personnel who share authorship in articles with USGS personnel are indicated by an asterisk (*) immediately following the name. **These publications are not available from the U.S. Geological Survey.**

M. L. Abbott*, D. D. Susong, D. P. Krabbenhoft and A. S. Rood*. Mercury deposition in snow near an industrial emission source in the Western U.S. and comparison to ISC3 model predictions. *Water, Air and Soil Pollution*. v. 139, no. 1-4, September 2002. p. 95-114.

D. S. Aga* and E. M. Thurman. Formation and transport of the sulfonic acid metabolites of alachlor and metolachlor in soil. *Environmental Science & Technology*, ES & T. v. 35, no. 12, 2001. p. 2455-2460.

A. P. Alcaraz*, J. G. Moore and Kazuaki Nakamura*. The September 28-30, 1965 eruption of Taal Volcano, Philippines, in *Pillars of Philippine geology*; Professor Arturo P. Alcaraz (1916-2001); a legacy of pioneering work in volcanology and geothermal energy development. (A. P. Ferrer, editor and others). Manila: PNOC - Energy Development Corporation, 2002. p. 231-232.

R. B. Alexander, A. H. Elliott*, Ude Shankar* and G. B. McBride*. Estimating the sources and transport of nutrients in the Waikato River basin, New Zealand. *Water Resources Research*. v. 38, no. 12, December 2002. 23 p.

J. J. Anderson*, R. V. Fisher*, James Dover, Peter Schultz*, P. L. Williams*, R. L. Threet* and John Osmond*. J. Hoover Mackin; a personal tribute. *Guidebook - Pacific Section, American Association of Petroleum Geologists*, in *The geologic transition, high plateaus to Great Basin; a symposium and field guide; the Mackin volume*. (M. C. Erskine, editor and others). 78, 2001. p. xii-xx.

R. E. Anderson, S. F. Diehl and T. P. Barnhard*. UTAH. Age and style of deformation and stratal thinning at the transition, Wasatch Plateau to Great Basin, central Utah. *Rocky Mountain Geology*. v. 36, no. 1, 2001. p. 49-80.



- T. B. Anderson* and R. G. Stanley (compilers). Field trip road log; Geology and tectonics of the Gualala Block. Book - Pacific Section, Society of Economic Paleontologists and Mineralogists, *in* Geology and tectonics of the Gualala Block, Northern California. (W. P. Elder, editor). 84, 1998. p. 213-222.
- B. P. Baldigo and G. B. Lawrence. Effects of stream acidification and habitat on fish populations of a North American river. *Aquatic Sciences*. v. 63, no. 2, 2001. p. 196-222.
- J. A. Barron, Linda Heusser*, Timothy Herbert* and Mitch Lyle*. CALIFORNIA. High-resolution climatic evolution of coastal Northern California during the past 16,000 years. *Paleoceanography*. v. 18, no. 1, March 2003. p. 20.1-20.19.
- J. A. Barron, Mitchell Lyle* and Itaru Koizumi*. CALIFORNIA. Late Miocene and early Pliocene biosiliceous sedimentation along the California margin. *Revista Mexicana de Ciencias Geológicas*, *in* Pacific Neogene event studies for the 21st century; proceedings of the VII international congress on Pacific Neogene stratigraphy. (Ryuichi Tsuchi, editor and others). v. 19, no. 3, 2002. p. 161-169.
- A. P. Barth*, C. E. Jacobson*, D. S. Coleman* and J. L. Wooden. Construction and tectonic evolution of Cordilleran continental crust; examples from the San Gabriel and San Bernardino Mountains. Book - Pacific Section, Society of Economic Paleontologists and Mineralogists, *in* Geologic excursions in the California deserts and adjacent Transverse Ranges; fieldtrip guidebook and volume prepared for the joint meeting of the Cordilleran Section-GSA and Pacific Section-AAPG; fieldtrips 1-4. (George Dunne, compiler and others). 88, April 2001. p. 17-53.
- Paul Barton (reviewer). Understanding mineral deposits. *Economic Geology and the Bulletin of the Society of Economic Geologists*. v. 96, no. 5, August 2001. p. 1312-1313.
- Giovanni Battista Cimini*, Claudio Chiarabba*, Alessandro Amato* and H. M. Iyer. Large teleseismic P-wave residuals observed at the Alban Hills Volcano, central Italy. *Annali di Geofisica*. v. 37, no. 5, September 1994. p. 969-988.
- M. W. Becker* and A. M. Shapiro. Interpreting tracer breakthrough tailing from different forced-gradient tracer experiment configurations in fractured bedrock. *Water Resources Research*. v. 39, no. 1, January 2003. 13 p.
- N. M. Beeler, T. F. Wong* and S. H. Hickman. On the expected relationships among apparent stress, static stress drop, effective shear fracture energy, and efficiency. *Bulletin of the Seismological Society of America*. v. 93, no. 3, June 2003. p. 1381-1389.
- R. J. Behl*, P. C. Ramirez* and R. G. Stanley (editors). Field guide to the geology of the Neogene Santa Maria Basin; from rift to uplift. Book - Pacific Section, Society of Economic Paleontologists and Mineralogists. 86, September 2000. 31 p.
- J. C. Behrendt, D. D. Blankenship*, D. L. Morse*, C. A. Finn and R. E. Bell*. Subglacial volcanic features beneath the West Antarctic ice sheet interpreted from aeromagnetic and radar ice sounding. *Geological Society Special Publications*, *in* Volcano-ice interaction on Earth and Mars. (J. L. Smellie, editor and others). 202, 2002. p. 337-355.
- J. P. Bennett. Mixed-size sediment transport model for networks of one-dimensional open channels. *Proceedings - Federal Interagency Sedimentation Conference*, *in* Proceedings of the Seventh Federal interagency sedimentation conference. 7, Vol. 1, 2001. p. 1145-1152.
- Larry Benson, Braddock Linsley*, Joe Smoot, Scott Mensing*, Steve Lund*, Scott Stine and Andre Sarna-Wojcicki*. Influence of the Pacific Decadal Oscillation on the climate of the Sierra Nevada, California and Nevada. *Quaternary Research (New York)*. v. 59, no. 2, March 2003. p. 151-159.
- G. C. Bent. MASSACHUSETTS. Effects of basin and land-use characteristics on suspended-sediment yield in the Housatonic River basin, western Massachusetts. *Proceedings - Federal Inter-Agency Sedimentation Conference*, *in* Proceedings of the Seventh Federal interagency sedimentation conference. (G. D. Gylsson, chairperson). 7, Volume 2, 2001. p. X1-X8.
- B. A. Bergamaschi and M. S. Fram. Trihalomethane formation rates of dissolved organic carbon from different carbon sources within a watershed. *Abstracts of Papers - American Chemical Society, National Meeting*, *in* 222nd American Chemical Society national meeting. 222, 2001. 1 p.
- W. R. Bidlake. OREGON. Evapotranspiration from a bulrush-dominated wetland in the Klamath Basin, Oregon. *Journal of the American Water Resources Association*. v. 36, no. 6, December 2000. p. 1309-1320.
- P. R. Bierman*, M. W. Caffee*, P. T. Davis*, Kim Marsella*, Milan Pavich, Patrick Colgan*, David Mickelson* and Jennifer Larsen*. Rates and timing of Earth surface processes from in situ-produced cosmogenic Be-10. *Reviews in Mineralogy and Geochemistry*, *in* Beryllium; mineralogy, petrology, and geochemistry. (E. S. Grew, editor). 50, 2002. p. 147-205. *Available at:* Mineralogical Society of America, Washington, DC, United States.
- W. P. Bolen. Pumice and pumicite. *Mining Engineering*. v. 55, no. 6, June 2003. p. 42-43.
- A. Bombliès*, D. M. McKnight* and E. D. Andrews. Retrospective simulation of lake-level rise in Lake Bonney based on recent 21-yr record; indication of recent climate change in the McMurdo dry valleys, Antarctica. *Journal of Paleolimnology*. v. 25, no. 4, May 2001. p. 477-492.
- D. M. Boore. Phase derivatives and simulation of strong ground motions. *Bulletin of the Seismological Society of America*. v. 93, no. 3, June 2003. p. 1132-1143.
- J. P. Bradbury* and R. M. Forester. CALIFORNIA. Environment and paleolimnology of Owens Lake, California; a record of climate and hydrology for the last 50,000 years. *Smithsonian Contributions to the Earth Sciences*, *in* Great Basin aquatic systems history. (Robert Hershler, editor and others). 33, 2002. p. 145-173.
- P. M. Bradley, J. E. Landmeyer and F. H. Chapelle. Widespread potential for microbial MTBE degradation in surface-water sediments. *Environmental Science & Technology*, ES & T. v. 35, no. 4, February 15, 2001. p. 658-662.
- J. V. Brahana, P. D. Hays, T. M. Kresse, T. J. Sauer* and G. P. Stanton. The Savoy experimental watershed; early lessons for hydrogeologic modeling from a well-characterized karst research site. *Karst Waters Institute Special Publication*, *in* Karst modeling; proceedings of the symposium. (A. N. Palmer, editor and others). 5, 1999. p. 247-254.



- H. R. Bravo*, Jiang Feng* and R. J. Hunt. Parameter estimation for a groundwater flow and heat transport model of a wetland system; selection of time scales through frequency domain analysis. Proceedings of ... Congress of International Association for Hydraulic Research, *in* Environmental hydraulics and eco-hydraulics. (Li Guifen, editor and others). 29, Theme B, September 2001. p. 539-544.
- D. D. Breshears*, M. H. Ebinger*, P. J. Unkefer* and C. D. Allen. Assessing carbon dynamics in semiarid ecosystems; balancing potential gains with potential large rapid losses, *in* First national conference on Carbon sequestration. Report no. DOE/NETL-2001/114, 2001. 7 p. Available at: U. S. Department of Energy, National Energy Technology Laboratory, United States.
- W. E. Brooks. Mineral resources of Peru's ancient societies. *Geotimes*. v. 48, no. 8, August 2003. p. 32-33.
- J. G. Brown and P. D. Glynn. Kinetic dissolution of carbonates and Mn oxides in acidic water; measurement of in situ field rates and reactive transport modeling. *Applied Geochemistry*. v. 18, no. 8, August 2003. p. 1225-1239.
- Marilyn Buccholtz-ten Brink, Bradford Butman, Courtney Harris, Ellen Mecray and William Schwab. NEW YORK. Sediment dynamics and contaminant accumulation in New York Bight. Proceedings - Federal Inter-Agency Sedimentation Conference, *in* Proceedings of the Seventh Federal interagency sedimentation conference. (G. D. Gylsson, chairperson). 7, Volume 2, 2001. p. V63-V66.
- D. L. Calhoun and T. C. Rasmussen*. GEORGIA. Densimetric monitoring of suspended-sediment concentrations, northeastern Georgia. Proceedings - Federal Interagency Sedimentation Conference, *in* Proceedings of the Seventh Federal interagency sedimentation conference. 7, Vol. 1, 2001. p. III86-III93.
- Katherine Campbell*, Andrew Wolfsberg*, June Fabryka-Martin* and Donald Sweetkind. Chlorine-36 data at Yucca Mountain; statistical tests of conceptual models for unsaturated-zone flow. *Journal of Contaminant Hydrology*, *in* Yucca Mountain Project. (G. S. Bodvarsson, editor and others). 62-63, May 2003. p. 43-61.
- M. C. Carpenter, B. L. Cluer*, G. R. Smith*, E. J. Wick*, J. L. Lockett, Jr. and S. J. Brockner. UTAH. Field trials monitoring sand deposition and erosion on a razorback sucker spawning bar on the Green River near Jensen, Utah, and operational description of load-cell scour sensors. Proceedings - Federal Interagency Sedimentation Conference, *in* Proceedings of the Seventh Federal interagency sedimentation conference. 7, Vol. 1, 2001.
- M. H. Carr. Mars Global Surveyor observations of Martian fretted terrain. *Journal of Geophysical Research, E, Planets*, *in* The Mars Global Surveyor mission. (A. L. Albee, prefacer). v. 106, no. 10, October 25, 2001. p. 23,571-23,593.
- S. M. Cather* and R. W. Harrison. NEW MEXICO. Lower Paleozoic isopach maps of southern New Mexico and their implications for Laramide and ancestral Rocky Mountain tectonism. Guidebook - New Mexico Geological Society, *in* Geology of White Sands. (V. W. Lueth, editor and others). 53, 2002. p. 85-101.
- M. G. Chapman. Sub-ice volcanoes and ancient oceans/lakes; a Martian challenge. *Global and Planetary Change*, *in* Subglacial lakes; a planetary perspective. (A. M. Fard, editor). v. 35, no. 3-4, February 2003. p. 185-198.
- M. G. Chapman. Layered, massive and thin sediments on Mars; possible late Noachian to late Amazonian tephra? *Geological Society Special Publications*, *in* Volcano-ice interaction on Earth and Mars. (J. L. Smellie, editor and others). 202, 2002. p. 273-293.
- P. R. Christensen*, J. L. Bandfield*, J. F. Bell, III*, Noel Gorelick*, V. E. Hamilton*, Anton Ivanov*, B. M. Jakosky*, H. H. Kieffer, M. D. Lane*, M. C. Malin*, Timothy McConnochie*, A. S. McEwen*, H. Y. McSween*, G. L. Mehall*, J. E. Moersch*, K. H. Nealson*, J. W. Rice, Jr.* , M. I. Richardson*, S. W. Ruff*, M. D. Smith*, T. N. Titus and M. B. Wyatt*. Morphology and composition of the surface of Mars; Mars Odyssey THEMIS results. *Science*. v. 300, no. 5628, June 27, 2003. p. 2056-2061.
- P. R. Christensen*, J. L. Bandfield*, V. E. Hamilton*, S. W. Ruff*, H. H. Kieffer, T. N. Titus, M. C. Malin*, R. V. Morris*, M. D. Lane*, R. L. Clark, B. M. Jakosky*, M. T. Mellon*, J. C. Pearl*, B. J. Conrath*, M. D. Smith*, R. T. Clancy*, R. O. Kuzmin*, T. Roush*, G. L. Mehall*, N. Gorelick*, K. Bender*, K. Murray*, S. Dason*, E. Greene*, S. Silverman* and M. Greenfield*. Mars Global Surveyor Thermal Emission Spectrometer experiment; investigation description and surface science results. *Journal of Geophysical Research, E, Planets*, *in* The Mars Global Surveyor mission. (A. L. Albee, prefacer). v. 106, no. 10, October 25, 2001. p. 23,823-23,871.
- V. G. Christensen, A. C. Ziegler and Xiaodong Jian. Continuous turbidity monitoring and regression analysis to estimate total suspended solids and fecal coliform bacteria loads in real time. Proceedings - Federal Interagency Sedimentation Conference, *in* Proceedings of the Seventh Federal interagency sedimentation conference. 7, Vol. 1, 2001. p. III94-III101.
- D. A. Clague*, J. G. Moore and A. S. Davis*. HAWAII. Volcanic breccia and hyaloclastite in blocks from the Nuuanu and Wailau landslides, Hawaii. *Geophysical Monograph*, *in* Hawaiian volcanoes; deep underwater perspectives. (Eiichi Takahashi, editor and others). 128, 2002. p. 279-296.
- R. N. Clark, A. J. Gallagher and G. A. Swayze. Material absorption band depth mapping of imaging spectrometer data using a complete band shape least-squares fit with library reference spectra. JPL Publication, *in* Proceedings of the second Airborne Visible/Infrared Imaging Spectrometer (AVIRIS) workshop. (R. O. Green, editor). Report no. 90-54, November 15, 1990. p. 176-186.
- R. N. Clark, G. A. Swayze, T. V. V. King, Barry Middlebrook, W. M. Calvin and Noel Gorelick. The U. S. Geological Survey, digital spectral library and analysis software. JPL Publication, *in* Proceedings of the second Airborne Visible/Infrared Imaging Spectrometer (AVIRIS) workshop. (R. O. Green, editor). Report no. 90-54, November 15, 1990. p. 208-215.
- L. B. Cleckner*, P. J. Garrison*, J. P. Hurley*, M. L. Olson and D. P. Krabbenhoft. FLORIDA. Trophic transfer of methyl mercury in the northern Florida Everglades. *Biogeochemistry* (Dordrecht). v. 40, no. 2-3, 1998. p. 347-361.
- T. A. Cohn, K. K. Gohn and W. H. Hooke* (editors). Lessons from PPP2000; living with Earth's extremes, September 2001. 119 p. Available at: Institute for Business and Home Safety, Tampa, FL, United States.
- Jim Constantz, A. E. Stewart, Richard Niswonger and Lisa Sarma. Analysis of temperature profiles for investigating stream losses



- beneath ephemeral channels. *Water Resources Research*. v. 38, no. 12, December 2002. 13 p.
- Jim Constanz, S. W. Tyler* and Edward Kwicklis*. Temperature-profile methods for estimating percolation rates in arid environments. *Vadose Zone Journal*. v. 2, no. 1, February 2003. p. 12-24.
- H. E. Cook, V. G. Zhemchuzhnikov*, W. G. Zempolich*, V. Y. Zhaimina*, V. M. Buvtyshkin*, E. A. Kotova*, L. Y. Golub*, A. Y. Zorin*, P. J. Lehmann*, D. V. Alexeiev*, Antonio Giovannelli*, Maurizio Viaggi*, Nick Fretwell*, P. A. LaPointe* and J. J. Corboy. Devonian and Carboniferous carbonate platform facies in the Bolshoi Karatau, southern Kazakhstan; outcrop analogs for coeval carbonate oil and gas fields in the North Caspian Basin, western Kazakhstan. Special Publication - Society for Sedimentary Geology, *in* Paleozoic carbonates of the Commonwealth of Independent States (CIS); subsurface reservoirs and outcrop analogs. (W. G. Zempolich, editor and others). 74, December 2002. p. 81-122.
- C. A. Couch. National water quality assessment program; environmental setting of the Apalachicola-Chattahoochee-Flint River basin, *in* Proceedings of the 1993 Georgia water resources conference. (K. J. Hatcher, editor). Athens, GA: University of Georgia, 1993. p. 30-32.
- R. H. Coupe and E. M. Thurman. Pesticide concentrations in the Mississippi River; the importance of degradates. American Water Resources Association Technical Publication Series TPS, *in* Proceedings; Annual spring speciality conference, Water quality monitoring and modeling. (J. J. Warwick, editor). 01-1, 2001. p. 147-152.
- B. F. Cox, J. W. Hillhouse and L. A. Owen*. CALIFORNIA. Pliocene and Pleistocene evolution of the Mojave River, and associated tectonic development of the Transverse Ranges and Mojave Desert, based on borehole stratigraphy studies and mapping of landforms and sediments near Victorville, California. Special Paper - Geological Society of America, *in* Paleoenvironments and paleohydrology of the Mojave and southern Great Basin deserts. (Yehouda Enzel, editor and others). 368, 2003. p. 1-42.
- I. M. Cozzarelli, J. M. Sufliata*, G. A. Ulrich*, S. H. Harris*, M. A. Scholl, J. L. Schlottmann and Scott Christenson. Geochemical and microbiological methods for evaluating anaerobic processes in an aquifer contaminated by landfill leachate. *Environmental Science & Technology*, ES & T. v. 34, no. 18, September 15, 2000. p. 4025-4033.
- A. E. J. Crafford* and V. J. S. Grauch (editors). Deep crustal controls on mineral trends. *Ore Geology Reviews*. v. 21, no. 3-4, December 2002. 225 p.
- A. E. J. Crafford* and V. J. S. Grauch. NEVADA. Geologic and geophysical evidence for the influence of deep crustal structures on Paleozoic tectonics and the alignment of world-class gold deposits, north-central Nevada, USA. *Ore Geology Reviews*, *in* Deep crustal controls on mineral trends. (A. E. J. Crafford, editor and others). v. 21, no. 3-4, December 2002. p. 157-184.
- A. S. Crain. KENTUCKY. Pesticides and nutrients in springs; Green River Basin, Kentucky, May-September 2001. Kentucky Water Resources Annual Symposium, *in* Kentucky water resources annual symposium. 2002, 2002. p. 39.
- C. H. Cramer and Ashok Kumar*. 2001 Bhuj, India, earthquake engineering seismoscope recordings and eastern North America ground-motion attenuation relations. *Bulletin of the Seismological Society of America*. v. 93, no. 3, June 2003. p. 1390-1394.
- C. G. Crawford. Factors affecting pesticide occurrence and transport in a large midwestern river basin. *Journal of the American Water Resources Association*. v. 37, no. 1, February 2001. p. 1-15.
- T. E. Croley, II* and C. L. Luukkonen. MICHIGAN. Potential effects of climate change on ground water in Lansing, Michigan. *Journal of the American Water Resources Association*. v. 39, no. 1, February 2003. p. 149-163.
- Dickson Cunningham*, L. A. Owen*, L. W. Snee and Li Jiliang*. Structural framework of a major intracontinental orogenic termination zone; the easternmost Tien Shan, China. *Journal of the Geological Society of London*. v. 160, no. 4, July 2003. p. 575-590.
- K. J. Cunningham, David Bukry, Tokiyuki Sato*, J. A. Barron, L. A. Guertin* and R. S. Reese. FLORIDA. Sequence stratigraphy of a South Florida carbonate ramp and bounding siliciclastics (late Miocene-Pliocene). Special Publication - Florida Geological Survey, *in* Geology and hydrology of Lee County, Florida. (T. M. Missimer, editor and others). Report no. 49, 2001. p. 35-66.
- K. J. Cunningham, Janine Carlson*, N. F. Hurley* and G. L. Wingard. FLORIDA. New views of the karstic porosity system within Pleistocene high-frequency carbonate cycles of the Biscayne Aquifer, southeastern Florida. *Karst Waters Institute Special Publication*, *in* Hydrogeology and biology of post-Paleozoic carbonate aquifers; proceedings of the symposium, Karst frontiers; Florida and related environments. (J. B. Martin, editor and others). 7, 2002. p. 25-26.
- W. L. Cunningham and E. S. Bair*. *Hydrogeology*. *Geotimes*. v. 48, no. 7, July 2003. p. 24-25.
- G. K. Czamanske*, J. L. Wooden, R. J. Walker*, V. A. Fedorenko*, O. N. Simonov*, J. R. Budahn and D. F. Siems. Geochemical, isotopic, and SHRIMP age data for Precambrian basement rocks, Permian volcanic rocks, and sedimentary host rocks to the ore-bearing intrusions, Noril'sk-Talnakh District, Siberian Russia. *International Book Series*, *in* Frontiers in geochemistry; Konrad Krauskopf volume 1; Global inorganic geochemistry. (W. G. Ernst, editor). 5, 2002. p. 238-270.
- G. K. Czamanske and M. L. Zientek (editors). MONTANA. The Stillwater Complex, Montana; geology and guide. Special Publication - State of Montana Bureau of Mines and Geology. 92, 2002. 396 p., 4 sheets.
- S. L. D'Hondt*, B. B. Jorgensen*, D. J. Miller*, I. W. Aiello*, Barbara Bekins, Ruth Blake*, B. A. Cragg*, Heribert Cypionka*, G. R. Dickens*, Timothy Ferdelman*, K. H. Ford*, G. L. Gettemy*, Gilles Guèrin*, Kai-Uwe Hinrichs*, Nils Holm*, C. H. House*, Fumio Inagaki*, Patrick Meister*, R. M. Mitterer*, T. H. Naehr*, Sachiko Niitsuma*, R. J. Parkes*, Axel Schippers*, C. G. Skilbeck*, D. C. Smith*, A. J. Spivack*, Andreas Teske* and Juergen Wiegel*. Leg 201 summary. Proceedings of the Ocean Drilling Program, Part A: Initial Reports, *in* Proceedings of the Ocean Drilling Program, initial reports; controls on microbial communities in deeply buried sediments, eastern Equatorial Pacific and Peru margin; covering Leg 201 of the cruises of the drilling vessel JOIDES Resolution; San Diego, California, to



- Valparaiso, Chile; sites 1225-1231; 27 January-29 March 2002. (S. L. D'Hondt and others). (Ocean Drilling Program, Leg 201, Shipboard Scientific Party). 201, 2002. 81 p.
- S. L. D'Hondt*, B. B. Jorgensen*, D. J. Miller*, I. W. Aiello*, Barbara Bekins, Ruth Blake*, B. A. Cragg*, Heribert Cypionka*, G. R. Dickens*, Timothy Ferdelman*, K. H. Ford*, G. L. Gettemy*, Gilles Guèrin*, Kai-Uwe Hinrichs*, Nils Holm*, C. H. House*, Fumio Inagaki*, Patrick Meister*, R. M. Mitterer*, T. H. Naehr*, Sachiko Niitsuma*, R. J. Parkes*, Axel Schippers*, C. G. Skilbeck*, D. C. Smith*, A. J. Spivack*, Andreas Teske* and Juergen Wiegel*. Site 1226. Proceedings of the Ocean Drilling Program, Part A: Initial Reports, *in* Proceedings of the Ocean Drilling Program, initial reports; controls on microbial communities in deeply buried sediments, eastern Equatorial Pacific and Peru margin; covering Leg 201 of the cruises of the drilling vessel JOIDES Resolution; San Diego, California, to Valparaiso, Chile; sites 1225-1231; 27 January-29 March 2002. (S. L. D'Hondt and others). (Ocean Drilling Program, Leg 201, Shipboard Scientific Party). 201, 2002. 96 p.
- S. L. D'Hondt*, B. B. Jorgensen*, D. J. Miller*, I. W. Aiello*, Barbara Bekins, Ruth Blake*, B. A. Cragg*, Heribert Cypionka*, G. R. Dickens*, Timothy Ferdelman*, K. H. Ford*, G. L. Gettemy*, Gilles Guèrin*, Kai-Uwe Hinrichs*, Nils Holm*, C. H. House*, Fumio Inagaki*, Patrick Meister*, R. M. Mitterer*, T. H. Naehr*, Sachiko Niitsuma*, R. J. Parkes*, Axel Schippers*, C. G. Skilbeck*, D. C. Smith*, A. J. Spivack*, Andreas Teske* and Juergen Wiegel*. Site 1231. Proceedings of the Ocean Drilling Program, Part A: Initial Reports, *in* Proceedings of the Ocean Drilling Program, initial reports; controls on microbial communities in deeply buried sediments, eastern Equatorial Pacific and Peru margin; covering Leg 201 of the cruises of the drilling vessel JOIDES Resolution; San Diego, California, to Valparaiso, Chile; sites 1225-1231; 27 January-29 March 2002. (S. L. D'Hondt and others). (Ocean Drilling Program, Leg 201, Shipboard Scientific Party). 201, 2002. 64 p.
- S. L. D'Hondt*, B. B. Jorgensen*, D. J. Miller*, I. W. Aiello*, Barbara Bekins, Ruth Blake*, B. A. Cragg*, Heribert Cypionka*, G. R. Dickens*, Timothy Ferdelman*, K. H. Ford*, G. L. Gettemy*, Gilles Guèrin*, Kai-Uwe Hinrichs*, Nils Holm*, C. H. House*, Fumio Inagaki*, Patrick Meister*, R. M. Mitterer*, T. H. Naehr*, Sachiko Niitsuma*, R. J. Parkes*, Axel Schippers*, C. G. Skilbeck*, D. C. Smith*, A. J. Spivack*, Andreas Teske* and Juergen Wiegel*. Explanatory notes. Proceedings of the Ocean Drilling Program, Part A: Initial Reports, *in* Proceedings of the Ocean Drilling Program, initial reports; controls on microbial communities in deeply buried sediments, eastern Equatorial Pacific and Peru margin; covering Leg 201 of the cruises of the drilling vessel JOIDES Resolution; San Diego, California, to Valparaiso, Chile; sites 1225-1231; 27 January-29 March 2002. (S. L. D'Hondt and others). (Ocean Drilling Program, Leg 201, Shipboard Scientific Party). 201, 2002. 103 p.
- S. L. D'Hondt*, B. B. Jorgensen*, D. J. Miller*, I. W. Aiello*, Barbara Bekins, Ruth Blake*, B. A. Cragg*, Heribert Cypionka*, G. R. Dickens*, Timothy Ferdelman*, K. H. Ford*, G. L. Gettemy*, Gilles Guèrin*, Kai-Uwe Hinrichs*, Nils Holm*, C. H. House*, Fumio Inagaki*, Patrick Meister*, R. M. Mitterer*, T. H. Naehr*, Sachiko Niitsuma*, R. J. Parkes*, Axel Schippers*, C. G. Skilbeck*, D. C. Smith*, A. J. Spivack*, Andreas Teske* and Juergen Wiegel*. Site 1225. Proceedings of the Ocean Drilling Program, Part A: Initial Reports, *in* Proceedings of the Ocean Drilling Program, initial reports; controls on microbial communities in deeply buried sediments, eastern Equatorial Pacific and Peru margin; covering Leg 201 of the cruises of the drilling vessel JOIDES Resolution; San Diego, California, to Valparaiso, Chile; sites 1225-1231; 27 January-29 March 2002. (S. L. D'Hondt and others). (Ocean Drilling Program, Leg 201, Shipboard Scientific Party). 201, 2002. 86 p.
- S. L. D'Hondt*, B. B. Jorgensen*, D. J. Miller*, I. W. Aiello*, Barbara Bekins, Ruth Blake*, B. A. Cragg*, Heribert Cypionka*, G. R. Dickens*, Timothy Ferdelman*, K. H. Ford*, G. L. Gettemy*, Gilles Guèrin*, Kai-Uwe Hinrichs*, Nils Holm*, C. H. House*, Fumio Inagaki*, Patrick Meister*, R. M. Mitterer*, T. H. Naehr*, Sachiko Niitsuma*, R. J. Parkes*, Axel Schippers*, C. G. Skilbeck*, D. C. Smith*, A. J. Spivack*, Andreas Teske* and Juergen Wiegel*. Site 1227. Proceedings of the Ocean Drilling Program, Part A: Initial Reports, *in* Proceedings of the Ocean Drilling Program, initial reports; controls on microbial communities in deeply buried sediments, eastern Equatorial Pacific and Peru margin; covering Leg 201 of the cruises of the drilling vessel JOIDES Resolution; San Diego, California, to Valparaiso, Chile; sites 1225-1231; 27 January-29 March 2002. (S. L. D'Hondt and others). (Ocean Drilling Program, Leg 201, Shipboard Scientific Party). 201, 2002. 66 p.
- S. L. D'Hondt*, B. B. Jorgensen*, D. J. Miller*, I. W. Aiello*, Barbara Bekins, Ruth Blake*, B. A. Cragg*, Heribert Cypionka*, G. R. Dickens*, Timothy Ferdelman*, K. H. Ford*, G. L. Gettemy*, Gilles Guèrin*, Kai-Uwe Hinrichs*, Nils Holm*, C. H. House*, Fumio Inagaki*, Patrick Meister*, R. M. Mitterer*, T. H. Naehr*, Sachiko Niitsuma*, R. J. Parkes*, Axel Schippers*, C. G. Skilbeck*, D. C. Smith*, A. J. Spivack*, Andreas Teske* and Juergen Wiegel*. Site 1230. Proceedings of the Ocean Drilling Program, Part A: Initial Reports, *in* Proceedings of the Ocean Drilling Program, initial reports; controls on microbial communities in deeply buried sediments, eastern Equatorial Pacific and Peru margin; covering Leg 201 of the cruises of the drilling vessel JOIDES Resolution; San Diego, California, to Valparaiso, Chile; sites 1225-1231; 27 January-29 March 2002. (S. L. D'Hondt and others). (Ocean Drilling Program, Leg 201, Shipboard Scientific Party). 201, 2002. 107 p.
- S. L. D'Hondt*, B. B. Jorgensen*, D. J. Miller*, I. W. Aiello*, Barbara Bekins, Ruth Blake*, B. A. Cragg*, Heribert Cypionka*, G. R. Dickens*, Timothy Ferdelman*, K. H. Ford*, G. L. Gettemy*, Gilles Guèrin*, Kai-Uwe Hinrichs*, Nils Holm*, C. H. House*, Fumio Inagaki*, Patrick Meister*, R. M. Mitterer*, T. H. Naehr*, Sachiko Niitsuma*, R. J. Parkes*, Axel Schippers*, C. G. Skilbeck*, D. C. Smith*, A. J. Spivack*, Andreas Teske* and Juergen Wiegel*. Site 1228. Proceedings of the Ocean Drilling Program, Part A: Initial Reports, *in* Proceedings of the Ocean Drilling Program, initial reports; controls on microbial communities in deeply buried sediments, eastern Equatorial Pacific and Peru margin; covering Leg 201 of the cruises of the drilling vessel JOIDES Resolution; San Diego, California, to Valparaiso, Chile; sites 1225-1231; 27 January-29 March 2002. (S. L. D'Hondt and others). (Ocean Drilling Program, Leg 201, Shipboard Scientific Party). 201, 2002. 72 p.
- S. L. D'Hondt*, B. B. Jorgensen*, D. J. Miller*, I. W. Aiello*, Barbara Bekins, Ruth Blake*, B. A. Cragg*, Heribert Cypionka*, G. R. Dickens*, Timothy Ferdelman*, K. H. Ford*, G. L.



- Gettemy*, Gilles Guèrin*, Kai-Uwe Hinrichs*, Nils Holm*, C. H. House*, Fumio Inagaki*, Patrick Meister*, R. M. Mitterer*, T. H. Naehr*, Sachiko Niitsuma*, R. J. Parkes*, Axel Schippers*, C. G. Skilbeck*, D. C. Smith*, A. J. Spivack*, Andreas Teske* and Juergen Wiegel*. Site 1229. Proceedings of the Ocean Drilling Program, Part A: Initial Reports, *in* Proceedings of the Ocean Drilling Program, initial reports; controls on microbial communities in deeply buried sediments, eastern Equatorial Pacific and Peru margin; covering Leg 201 of the cruises of the drilling vessel JOIDES Resolution; San Diego, California, to Valparaiso, Chile; sites 1225-1231; 27 January-29 March 2002. (S. L. D'Hondt and others). (Ocean Drilling Program, Leg 201, Shipboard Scientific Party). 201, 2002. 78 p.
- S. L. D'Hondt*, B. B. Jorgensen*, D. J. Miller*, I. W. Aiello*, Barbara Bekins, Ruth Blake*, B. A. Cragg*, Heribert Cypionka*, G. R. Dickens*, Timothy Ferdelman*, K. H. Ford*, G. L. Gettemy*, Gilles Guèrin*, Kai-Uwe Hinrichs*, Nils Holm*, C. H. House*, Fumio Inagaki*, Patrick Meister*, R. M. Mitterer*, T. H. Naehr*, Sachiko Niitsuma*, R. J. Parkes*, Axel Schippers*, C. G. Skilbeck*, D. C. Smith*, A. J. Spivack*, Andreas Teske*, Juergen Wiegel* and L. L. Peters*. CALIFORNIA. Proceedings of the Ocean Drilling Program, initial reports; controls on microbial communities in deeply buried sediments, eastern Equatorial Pacific and Peru margin; covering Leg 201 of the cruises of the drilling vessel JOIDES Resolution; San Diego, California, to Valparaiso, Chile; sites 1225-1231; 27 January-29 March 2002. Proceedings of the Ocean Drilling Program, Part A: Initial Reports. 201, 2002. variously paginated.
- G. N. Delin, R. W. Healy, M. K. London and J. K. Böhlke. Effects of topography and soil properties on recharge at two sites in an agricultural field. *Journal of the American Water Resources Association*. v. 36, no. 6, December 2000. p. 1401-1416.
- D. A. Dellinger. CALIFORNIA. California's unique geologic history and its role in mineral formation, with emphasis on the mineral resources of the California desert region, *in* The California desert mineral symposium; compendium. (U. S. Department of the Interior, Bureau of Land Management). 1989. p. 47-63. *Available at*: U. S. Department of the Interior, Bureau of Land Management, Sacramento, CA, United States.
- M. D. Dettinger, D. S. Battisti*, R. D. Garreaud*, G. J. McCabe, Jr. and C. M. Bitz*. Interhemispheric effects of interannual and decadal ENSO-like climate variations on the Americas, *in* Interhemispheric climate linkages. (Vera Markgraf, editor). San Diego, CA: Academic Press, 2001. p. 1-16.
- G. R. Dickens*, Derryl Schroeder*, Kai-Uwe Hinrichs*, S. D. D'Hondt*, B. B. Jorgensen*, D. J. Miller*, I. W. Aiello*, Barbara Bekins, Ruth Blake*, B. A. Cragg*, Heribert Cypionka*, Timothy Ferdelman*, K. H. Ford*, G. L. Gettemy*, Gilles Guèrin*, Nils Holm*, C. H. House*, Fumio Inagaki*, Patrick Meister*, R. M. Mitterer*, T. H. Naehr*, Sachiko Niitsuma*, R. J. Parkes*, Axel Schippers*, C. G. Skilbeck*, D. C. Smith*, A. J. Spivack*, Andreas Teske* and Juergen Wiegel*. The pressure core sampler (PCS) on ODP Leg 201; general operations and gas release. Proceedings of the Ocean Drilling Program, Part A: Initial Reports, *in* Proceedings of the Ocean Drilling Program, initial reports; controls on microbial communities in deeply buried sediments, eastern Equatorial Pacific and Peru margin; covering Leg 201 of the cruises of the drilling vessel JOIDES Resolution; San Diego, California, to Valparaiso, Chile; sites 1225-1231; 27 January-29 March 2002. (S. L. D'Hondt and others). (Ocean Drilling Program, Leg 201, Shipboard Scientific Party). 201, 2002. 22 p.
- M. F. Diggles. Mineral resource assessments under the wilderness program of the U. S. Geological Survey and the U. S. Bureau of Mines, *in* The California desert mineral symposium; compendium. (U. S. Department of the Interior, Bureau of Land Management). 1989. p. 65-75. *Available at*: U. S. Department of the Interior, Bureau of Land Management, Sacramento, CA, United States.
- J. E. Dixon*, J. R. Filiberto*, J. G. Moore and C. J. Hickson*. Volatiles in basaltic glasses from a subglacial volcano in northern British Columbia (Canada); implications for ice sheet thickness and mantle volatiles. *Geological Society Special Publications, in* Volcano-ice interaction on Earth and Mars. (J. L. Smellie, editor and others). 202, 2002. p. 255-271.
- J. M. Dohm*, R. C. Anderson*, V. R. Baker*, J. C. Ferris*, L. P. Rudd*, T. M. Hare, J. W. Rice, Jr.*, R. R. Casavant*, R. G. Strom*, J. R. Zimbelman* and D. H. Scott*. Latent outflow activity for western Tharsis, Mars; significant flood record exposed. *Journal of Geophysical Research, E, Planets*. v. 106, no. 6, June 25, 2001. p. 12,301-12,314.
- T. P. Dolley. Diatomite. *Mining Engineering*. v. 55, no. 6, June 2003. p. 24-25.
- T. P. Dolley. Industrial sand and gravel. *Mining Engineering*. v. 55, no. 6, June 2003. p. 33-34.
- J. L. Domagalski. CALIFORNIA. Pesticides in the San Joaquin River, California; inputs from dormant sprayed orchards. *Journal of Environmental Quality*. v. 26, no. 2, April 1997. p. 454-465.
- L. J. Drew, M. R. Karlinger, J. H. Schuenemeyer* and T. R. Armstrong. NEW HAMPSHIRE. Hydrogeologic significance of the association between well-yield variability and bedrock geologic structures, Pinardville Quadrangle, New Hampshire. *Natural Resources Research (International Association for Mathematical Geology)*. v. 12, no. 1, March 2003. p. 79-91.
- W. B. Durham* and L. A. Stern. Rheological properties of water ice; applications to satellites of the outer planets. *Annual Review of Earth and Planetary Sciences*. 29, 2001. p. 295-330.
- J. S. Duval. Economic filters applied to quantitative mineral resource simulations. *Natural Resources Research (International Association for Mathematical Geology)*. v. 12, no. 2, June 2003. p. 121-126.
- T. S. Dyman, R. E. Wyman*, V. A. Kuuskraa*, M. D. Lewan and T. A. Cook. Deep natural gas resources. *Natural Resources Research (International Association for Mathematical Geology)*. v. 12, no. 1, March 2003. p. 41-56.
- J. G. Eaton*, Jiri Laurin*, J. I. Kirkland*, N. E. Tibert*, R. M. Leckie*, B. B. Sageman*, P. M. Goldstrand*, D. W. Moore, A. W. Straub, W. A. Cobban and J. D. Dalebout*. UTAH. Cretaceous and early Tertiary geology of Cedar and Parowan canyons, western Markagunt Plateau, Utah. *Guidebook - Pacific Section, American Association of Petroleum Geologists, in* The geologic transition, high plateaus to Great Basin; a symposium and field guide; the Mackin volume. (M. C. Erskine, editor and others). 78, 2001. p. 337-363.



- K. R. Echols, R. W. Gale, T. R. Schwartz, J. N. Huckins, L. L. Williams*, J. C. Meadows, Douglas Morse*, J. D. Petty, C. E. Orazio and D. E. Tillitt. Comparing polychlorinated biphenyl concentrations and patterns in the Saginaw River using sediment, caged fish, and semipermeable membrane devices. *Environmental Science & Technology*, ES & T. v. 34, no. 19, October 1, 2000. p. 4095-4102.
- A. A. Eddebarh*, G. A. Zyvloski*, B. A. Robinson*, E. M. Kwicklis*, P. W. Reimus*, B. W. Arnold*, T. Corbet*, S. P. Kuzio* and Claudia Faunt. The saturated zone at Yucca Mountain; an overview of the characterization and assessment of the saturated zone as a barrier to potential radionuclide migration. *Journal of Contaminant Hydrology*, in *Yucca Mountain Project*. (G. S. Bodvarsson, editor and others). 62-63, May 2003. p. 477-493.
- W. P. Elder*, L. R. Saul* and C. L. Powell, II. Late Cretaceous and Paleogene molluscan fossils of the Gualala Block and their paleogeographic implications. Book - Pacific Section, Society of Economic Paleontologists and Mineralogists, in *Geology and tectonics of the Gualala Block, Northern California*. (W. P. Elder, editor). 84, 1998. p. 149-167.
- J. G. Elliott and R. S. Parker. Overview of the reconfigured-channel monitoring and assessment program. *Proceedings - Federal Inter-Agency Sedimentation Conference*, in *Proceedings of the Seventh Federal interagency sedimentation conference*. (G. D. Gylsson, chairperson). 7, Volume 2, 2001. p. VIII1-VIII8.
- E. R. Engdahl. The Working Group I on siting plans. *Annali di Geofisica*, in 1994 status report of the Federation of Digital Seismographic Networks. (Andrea Morelli, editor). v. 37, no. 5, September 1994. p. 1078-1098.
- R. J. Enkin*, J. B. Mahoney*, Judith Baker*, Mark Kiessling* and R. A. Haugerud. Syntectonic remagnetization in the southern Methow Block; resolving large displacements in the southern Canadian Cordillera. *Tectonics*. v. 21, no. 4, August 2002. 18 p.
- Imma Ferrer and E. T. Furlong. Identification of alkyl dimethylbenzylammonium surfactants in water samples by solid-phase extraction followed by ion trap LC/MS and LC/MS/MS. *Environmental Science & Technology*, ES & T. v. 35, no. 12, 2001. p. 2583-2588.
- A. L. Flint, L. E. Flint, E. M. Kwicklis*, J. T. Fabryka-Martin* and G. S. Bodvarsson*. NEVADA. Estimating recharge at Yucca Mountain, Nevada, USA; comparison of methods. *Hydrogeology Journal*. v. 10, no. 1, 2002. p. 180-204.
- L. E. Flint, A. L. Flint and J. S. Selker*. NEVADA. Influence of transitional volcanic strata on lateral diversion at Yucca Mountain, Nevada. *Water Resources Research*. v. 39, no. 4, April 2003. 17 p.
- L. E. Flint and J. S. Selker*. Use of porosity to estimate hydraulic properties of volcanic tuffs. *Advances in Water Resources*. v. 26, no. 5, May 2003. p. 561-571.
- K. H. Ford*, T. H. Naehr*, C. G. Skilbeck*, S. L. D'Hondt*, B. B. Jorgensen*, D. J. Miller*, I. W. Aiello*, Barbara Bekins, Ruth Blake*, B. A. Cragg*, Heribert Cypionka*, G. R. Dickens*, Timothy Ferdelman*, G. L. Gettemy*, Gilles Guèrin*, Kai-Uwe Hinrichs*, Nils Holm*, C. H. House*, Fumio Inagaki*, Patrick Meister*, R. M. Mitterer*, Sachiko Niitsuma*, R. J. Parkes*, Axel Schippers*, D. C. Smith*, A. J. Spivack*, Andreas Teske* and Juergen Wiegand*. The use of infrared thermal imaging to identify gas hydrate in sediment cores. *Proceedings of the Ocean Drilling Program, Part A: Initial Reports*, in *Proceedings of the Ocean Drilling Program, initial reports; controls on microbial communities in deeply buried sediments, eastern Equatorial Pacific and Peru margin; covering Leg 201 of the cruises of the drilling vessel JOIDES Resolution; San Diego, California, to Valparaiso, Chile; sites 1225-1231; 27 January-29 March 2002*. (S. L. D'Hondt and others). (Ocean Drilling Program, Leg 201, Shipboard Scientific Party). 201, 2002. 20 p.
- T. W. Foresman*, H. V. Wiggins*, D. L. Porter*, Penny Masuoka* and William Acevedo. MARYLAND, DISTRICT OF COLUMBIA. Design and documentation of a Baltimore-Washington regional spatial database testbed for environmental model calibration and verification. *International Conference/Workshop on Integrating Geographic Information Systems & Environmental Modeling*, in *Preliminary proceedings of the Third international conference/workshop on Integrating geographic information systems and environmental modeling*. 3, 1996. unpaginated.
- M. S. Fram, B. A. Bergamaschi, C. Kendall*, S. R. Silva*, G. R. Aiken* and R. Fujii*. Modeling changes in the carbon isotopic composition of trihalomethane formed during chlorination of dissolved humic material. *Abstracts of Papers - American Chemical Society, National Meeting*, in *222nd American Chemical Society national meeting*. 222, 2001. 1 p.
- Jim Freer*, J. J. McDonnell*, K. J. Beven*, N. E. Peters, D. A. Burns*, R. P. Hooper, B. Aulenbach and C. Kendall. The role of bedrock topography on subsurface storm flow. *Water Resources Research*. v. 38, no. 12, December 2002. 16 p.
- E. A. Frick, S. M. Stell and G. R. Buell. National Water Quality Assessment Program; a preliminary evaluation of 1990 nutrient loads for the Apalachicola-Chattahoochee-Flint River basin, in *Proceedings of the 1993 Georgia water resources conference*. (K. J. Hatcher, editor). Athens, GA: University of Georgia, 1993. p. 36-40.
- S. C. Fritz*, S. E. Metcalf* and Walter Dean. Holocene climate patterns in the Americas inferred from paleolimnological records, in *Interhemispheric climate linkages*. (Vera Markgraf, editor). San Diego, CA: Academic Press, 2001. p. 241-263.
- R. V. Gaines*, H. C. W. Skinner*, E. E. Foord, Brian Mason*, Abraham Rosenzweig* and V. T. King*. Dana's new mineralogy; The system of mineralogy of James Dwight Dana and Edward Salisbury Dana New York, NY: John Wiley & Sons, 1997. 1819 p.
- R. S. Ganeshram*, Roger François*, Judy Commeau and S. L. Brown-Leger*. An experimental investigation of barite formation in seawater. *Geochimica et Cosmochimica Acta*. v. 67, no. 14, July 2003. p. 2599-2605.
- J. R. Garbarino, Elaine Snyder-Conn*, T. J. Leiker and G. L. Hoffman. ALASKA. Contamination in arctic snow collected over Northwest Alaskan sea ice. *Water, Air and Soil Pollution*. v. 139, no. 1-4, September 2002. p. 183-214.
- J. W. Gartner and R. T. Cheng. The promises and pitfalls of estimating total suspended solids based on backscatter intensity from acoustic Doppler current profiler. *Proceedings - Federal Interagency Sedimentation Conference*, in *Proceedings of the Seventh Federal interagency sedimentation conference*. 7, Vol. 1, 2001. p. III119-III126.



- Marcus Gary. Understanding Zacatón; exploration and initial interpretation of the world's deepest known phreatic sinkhole and related karst features southern Tamaulipas, Mexico. Karst Waters Institute Special Publication, *in Hydrogeology and biology of post-Paleozoic carbonate aquifers; proceedings of the symposium, Karst frontiers; Florida and related environments.* (J. B. Martin, editor and others). 7, 2002. p. 141-145.
- A. C. Gellis. PUERTO RICO. Factors controlling storm-generated suspended-sediment concentrations and loads in a humid-tropical basin, Quebrada Blanca, Puerto Rico. Proceedings - Federal Inter-Agency Sedimentation Conference, *in Proceedings of the Seventh Federal interagency sedimentation conference.* (G. D. Gylsson, chairperson). 7, Volume 2, 2001. p. V91-V98.
- A. C. Gellis, M. J. Pavich and Amy Ellwein*. NEW MEXICO. Erosion and sediment yields in two subbasins of contrasting land use, Rio Puerco, New Mexico. Proceedings - Federal Inter-Agency Sedimentation Conference, *in Proceedings of the Seventh Federal interagency sedimentation conference.* (G. D. Gylsson, chairperson). 7, Volume 2, 2001. p. V83-V90.
- D. B. Gesch. The effects of DEM generalization methods on derived hydrologic features, *in Spatial accuracy assessment; land information uncertainty in natural resources.* (Kim Lowell, editor and others). Chelsea, MI: Ann Arbor Press, 1999. p. 255-262.
- William Glen. Herbert R. Shaw (1930-2002). *Eos, Transactions, American Geophysical Union.* v. 84, no. 24, June 17, 2003. p. 227, 230.
- J. A. Goff*, R. A. Wheatcroft*, Homa Lee, D. E. Drake*, D. J. P. Swift* and Shejun Fan*. CALIFORNIA. Spatial variability of shelf sediments in the STRATAFORM natural laboratory, Northern California. *Continental Shelf Research.* v. 22, no. 8, May 2002. p. 1199-1223.
- J. Gomberg, B. Waldron*, E. Schweig, H. Hwang*, A. Webbers, R. Van Arsdale*, K. Tucker*, R. Williams, R. Street, P. Mayne*, W. Stephenson, J. Odum, C. H. Cramer, R. Updike, S. Hutson and M. Bradley. TENNESSEE. Lithology and shear-wave velocity in Memphis, Tennessee. *Bulletin of the Seismological Society of America.* v. 93, no. 3, June 2003. p. 986-997.
- D. J. Gooding. Photo-optical sedimentation tube. Proceedings - Federal Interagency Sedimentation Conference, *in Proceedings of the Seventh Federal interagency sedimentation conference.* 7, Vol. 1, 2001.
- M. N. Gooseff*, D. M. McKnight*, W. B. Lyons* and A. E. Blum. Weathering reactions and hyporheic exchange controls on stream water chemistry in a glacial meltwater stream in the McMurdo dry valleys. *Water Resources Research.* v. 38, no. 12, December 2002. 17 p.
- M. N. Gooseff*, D. M. McKnight*, R. L. Runkel and B. H. Vaughn*. Determining long time-scale hyporheic zone flow paths in Antarctic streams. *Hydrological Processes.* v. 17, no. 9, June 30, 2003. p. 1691-1710.
- J. D. Gordon, C. A. Newland* and J. R. Gray. Sediment laboratory quality-assurance project; studies on methods and materials. Proceedings - Federal Inter-Agency Sedimentation Conference, *in Proceedings of the Seventh Federal interagency sedimentation conference.* (G. D. Gylsson, chairperson). 7, Volume 2, 2001. p. VI41-VI48.
- J. R. Gray, J. D. Gordon, Carla Newland and L. J. Schroder. National quality-assurance program for sediment laboratories operated or used by the U. S. Geological Survey. Proceedings - Federal Interagency Sedimentation Conference, *in Proceedings of the Seventh Federal interagency sedimentation conference.* 7, Vol. 1, 2001.
- E. R. Griffin and J. D. Smith. COLORADO. Computation of bankfull and flood-generated hydraulic geometries in East Plum Creek, Colorado. Proceedings - Federal Interagency Sedimentation Conference, *in Proceedings of the Seventh Federal interagency sedimentation conference.* 7, Vol. 1, 2001. p. II50-II56.
- S. J. Gruber and M. D. Munn. Organophosphate and carbamate insecticides in agricultural waters and cholinesterase (ChE) inhibition in common carp (*Cyprinus carpio*). *Archives of Environmental Contamination and Toxicology.* v. 35, no. 3, October 1998. p. 391-396.
- G. F. Guff. NEW MEXICO. Apparent age of groundwater near the southeastern margin of the Tularosa Basin, Otero County, New Mexico. Guidebook - New Mexico Geological Society, *in Geology of White Sands.* (V. W. Lueth, editor and others). 53, 2002. p. 303-307.
- Jianjun Guo*, Leung Tsang*, E. G. Josberger, A. W. Wood*, Jenq-Neng Hwang* and D. P. Lettenmaier*. Mapping the spatial distribution and time evolution of snow water equivalent with passive microwave measurements. *IEEE Transactions on Geoscience and Remote Sensing.* v. 41, no. 3, March 2003. p. 612-621.
- S. C. Gupta. Spatial data exchange and standardization, *in Geographical information systems; principles and applications; Volume 1, Principles.* (D. J. Maguire, editor and others). Harlow: Longman Scientific & Technical, 1991. p. 515-530.
- B. R. Hacker*, T. B. Andersen*, D. B. Root*, L. Mehl*, J. M. Mattinson* and J. L. Wooden. Exhumation of high-pressure rocks beneath the Solund Basin, Western Gneiss region of Norway. *Journal of Metamorphic Geology, in Petrochemical and tectonic processes of UHP/HP terranes II.* (J. G. Liou, editor and others). v. 21, no. 6, August 2003. p. 613-629.
- L. F. Hale*, N. J. Powell*, M. G. Waldon* and C. F. Bryan. Historic patterns of sedimentation in the Atchafalaya Basin floodway system. Proceedings - Federal Inter-Agency Sedimentation Conference, *in Proceedings of the Seventh Federal interagency sedimentation conference.* (G. D. Gylsson, chairperson). 7, Volume 2, 2001. p. XI81-XI88.
- K. J. Halford. Simulation and interpretation of borehole flowmeter results under laminar and turbulent flow conditions. International Symposium on Borehole Geophysics for Minerals, Geotechnical, and Groundwater Applications, *in Proceedings of the Seventh international symposium on Borehole geophysics for minerals, geotechnical, and groundwater applications.* 7, 2000. p. 157-168.
- J. W. Harden, T. L. Fries and M. J. Pavich. IOWA. Cycling of beryllium and carbon through hillslope soils in Iowa. *Biogeochemistry (Dordrecht).* v. 60, no. 3, 2002. p. 317-335.
- E. L. Harp, R. W. Jibson, R. E. Kayen, D. K. Keffer, B. L. Sherrod*, G. A. Carver*, B. D. Collins*, R. E. S. Moss* and Nicolas Sitar*. Landslides and liquefaction triggered by the M 7.9 Denali Fault earthquake of 3 November 2002. *GSA Today.* v. 13, no. 8, August 2003. p. 4-10.



- R. A. Haugerud, D. J. Harding*, S. Y. Johnson, J. L. Harless*, C. S. Weaver and B. L. Sherrod. WASHINGTON. High-resolution lidar topography of the Puget Lowland, Washington. *GSA Today*. v. 13, no. 6, June 2003. p. 4-10.
- J. B. Hedrick. Rare earths, the lanthanides, yttrium and scandium. *Mining Engineering*. v. 55, no. 6, June 2003. p. 43-45.
- R. T. Helz, G. A. Ellrod* and G. Wadge*. Satellite imagery for volcanic hazards mitigation. *International Geoscience and Remote Sensing Symposium*, in *Remote sensing; integrating our view of the planet*. (Ellsworth LeDrew, chairperson). 2002, Volume 2, 2002. p. 757-758.
- A. K. Henderson*, D. M. Moll*, E. A. Frick and S. D. Zaugg. Presence of wastewater tracers and endocrine disrupting chemicals in treated wastewater effluent and in municipal drinking water, Metropolitan Atlanta, 1999. *International Conference on Pharmaceuticals and Endocrine Disrupting Chemicals in Water*, in *2nd international conference on Pharmaceuticals and endocrine disrupting chemicals in water*. (U. S., National Ground Water Association). 2, 2001. p. 110.
- M. C. Hill and Ole Osterby*. Determining extreme parameter correlation in ground water models. *Ground Water*. v. 41, no. 4, August 2003. p. 420-430.
- Jorn Hoffmann*, D. L. Galloway and H. A. Zebker*. CALIFORNIA. Inverse modeling of interbed storage parameters using land subsidence observations, Antelope Valley, California. *Water Resources Research*. v. 39, no. 2, February 2003. 13 p.
- E. F. P. Hollyday, G. E. Hileman and J. E. Duke. The Elkton Aquifer or Western Toe Aquifer of the Blue Ridge Mountains; a regional perspective, in *Karst-water environment symposium; proceedings*. (Tamim Younos, editor and others). Blacksburg, VA: Virginia Polytechnic Institute and State University, 1997. p. 71-79.
- J. V. Holmes*, S. R. Bigl*, D. E. Lawson*, R. R. Seal, II and N. M. Piatak. VERMONT. Spring runoff characterization Ely Mine, Vershire, Vermont, spring 2002. ERDC/CRREL Letter Report, Report no. ERDC/CRREL LR-02-65, August 2002. 49 p.
- D. J. Holtschlag. Computation of suspended-sediment concentrations in streams. *Proceedings - Federal Inter-Agency Sedimentation Conference*, in *Proceedings of the Seventh Federal interagency sedimentation conference*. (G. D. Gylsson, chairperson). 7, Volume 2, 2001. p. VII17-VI24.
- S. E. Hough. Earthquakes. *Geotimes*. v. 48, no. 7, July 2003. p. 12-13.
- Randy Hunt and Chunmiao Zheng*. Debating complexity in modeling. *Eos, Transactions, American Geophysical Union*. v. 80, no. 3, January 19, 1999. p. 29.
- T. G. Huntington. The potential for calcium depletion in forest ecosystems of Southeastern United States; review and analysis. *Global Biogeochemical Cycles*. v. 14, no. 2, June 2000. p. 623-638.
- Shaun Hurwitz and S. E. Ingebritsen. Good news or bad? *Bulletin - Geothermal Resources Council*. v. 32, no. 3, June 2003. p. 111-115.
- C. G. Ingersoll, Nile Kemble, D. D. MacDonald* and Ning Wang*. sediment quality guidelines. *Proceedings - Federal Inter-Agency Sedimentation Conference*, in *Proceedings of the Seventh Federal interagency sedimentation conference*. (G. D. Gylsson, chairperson). 7, Volume 2, 2001. p. VIII28-VIII35.
- R. M. Iverson. How should mathematical models of geomorphic processes be judged? *Geophysical Monograph*, in *Prediction in geomorphology*. (P. R. Wilcock, editor and others). 135, 2003. p. 83-94.
- R. M. Iverson and R. P. Denlinger. Mechanics of debris flows and debris-laden flash floods. *Proceedings - Federal Interagency Sedimentation Conference*, in *Proceedings of the Seventh Federal interagency sedimentation conference*. 7, Vol. 1, 2001. p. IV1-IV8.
- J. A. Izbicki. CALIFORNIA. Transition probability/Markov chain analysis of the subsurface geology of the Victorville Fan in the western part of the Mojave Desert, Southern California. *Quarterly of San Bernardino County Museum Association*, in *Tracks along the Mojave; a field guide from Cajon Pass to the Calico Mountains and Coyote Lake*. (R. E. Reynolds, editor and others). v. 46, no. 3, 1999. p. 55-63.
- R. C. Jachens, C. M. Wentworth and R. J. McLaughlin. Pre-San Andreas location of the Gualala Block inferred from magnetic and gravity anomalies. Book - Pacific Section, Society of Economic Paleontologists and Mineralogists, in *Geology and tectonics of the Gualala Block, Northern California*. (W. P. Elder, editor). 84, 1998. p. 27-63.
- S. M. Jasinski. *Peat. Mining Engineering*. v. 55, no. 6, June 2003. p. 39-40.
- Jiang Dexin* and E. I. Robbins. Quaternary palynofloras and paleoclimate of the Qaidam Basin, Qinghai Province, northwestern China. *Palynology*. 24, 2000. p. 95-112.
- C. A. Johnson and B. J. Skinner*. NEW JERSEY. Geochemistry of the Furnace magnetite bed, Franklin, New Jersey, and the relationship between stratiform iron oxide ores and stratiform zinc, oxide-silicate ores in the New Jersey Highlands. *Economic Geology and the Bulletin of the Society of Economic Geologists*, in *Nonsulfide zinc deposits; a new look*. (D. F. Sangster, editor). v. 98, no. 4, July 2003. p. 837-854.
- J. D. Jorgenson. Mineral resources of the month; germanium. *Geotimes*. v. 48, no. 6, June 2003. p. 31.
- K. E. Juracek. Estimation of potential runoff-contributing areas. *Proceedings - Federal Inter-Agency Sedimentation Conference*, in *Proceedings of the Seventh Federal interagency sedimentation conference*. (G. D. Gylsson, chairperson). 7, Volume 2, 2001. p. VII26-VII33.
- S. J. Kalkhoff. IOWA. Using a geographic information system to determine the relation between stream quality and geology in the Roberts Creek watershed, Clayton County, Iowa. *Proceedings Series - American Water Resources Association*, in *Proceedings of the symposium on Geographic information systems and water resources*. (J. M. Harlin, editor and others). 29, 1993. p. 11-18.
- G. M. Kaminsky* and Guy Gelfenbaum. WASHINGTON. The Southwest Washington coastal erosion study; a scientific research project to address management-scale objectives. *Proceedings of Annual Conference - Coastal Society*, in *Coasts at the millennium*;



- proceedings of the 17th international conference of the Coastal Society. (L. W. Jodice, editor and others). 17, 2000. p. 505-515.
- Jeffrey Kargel, Robert Carlson*, Ashley Davies*, Bruce Fegley, Jr.*, Alan Gillespie*, Ronald Greeley*, Robert Howell*, K. L. Jessup*, Lucas Kamp*, Laszlo Keszthelyi*, Rosaly Lopes*, Timothy MacIntyre*, Franck Marchis*, Alfred McEwen*, Moses Milazzo*, Jason Perry*, Jani Radebaugh*, Laura Schaefer*, Nicholas Schmerr*, William Smythe*, John Spencer*, David Williams*, Ju Zhang* and Mikhail Zolotov*. Extreme volcanism on Io; latest insights at the end of Galileo era. *Eos, Transactions, American Geophysical Union*. v. 84, no. 33, August 19, 2003. p. 313, 318.
- B. G. Katz, J. K. Böhlke and David Hornsby*. Using spring-water chemistry to assess groundwater contamination and ages of shallow and deep ground water flow systems. *Karst Waters Institute Special Publication, in Hydrogeology and biology of post-Paleozoic carbonate aquifers; proceedings of the symposium, Karst frontiers; Florida and related environments*. (J. B. Martin, editor and others). 7, 2002. p. 76-78.
- Irena Kavalek. Notes on National Academy of Sciences digital data meeting. *GIS Newsletter*. 202, June 2003. p. 5-6.
- R. T. Kay, P. C. Mills, J. R. Ursic* and D. J. Yeskis*. ILLINOIS. Hydrogeology of the Galena-Platteville Aquifer in north-central Illinois. *International Symposium on Borehole Geophysics for Minerals, Geotechnical, and Groundwater Applications, in Proceedings of the Seventh international symposium on Borehole geophysics for minerals, geotechnical, and groundwater applications*. 7, 2000. p. 293-302.
- J. W. Kean and J. D. Smith. Computation of sediment erosion from the base of cut banks in river bends. *Proceedings - Federal Inter-Agency Sedimentation Conference, in Proceedings of the Seventh Federal interagency sedimentation conference*. (G. D. Gylsson, chairperson). 7, Volume 2, 2001. p. V31-V38.
- K. D. Kelley and D. L. Kelley*. ALASKA. Metal dispersion and mobility in soils from the Lik Zn-Pb-Ag massive sulphide deposit, NW Alaska; environmental and exploration implications. *Geochemistry - Exploration, Environment, Analysis*. v. 3, no. 2, May 2003. p. 179-195.
- Harvey Kelsey*, Kenji Satake*, Yuki Sawai*, Brian Sherrod, Koichi Shimokawa* and Masanobu Shishikura*. Late Holocene repeated rapid coastal uplift in eastern Hokkaido. *Annual Report on Active Fault and Paleoearthquake Researches*. 2, 2002. p. 223-233.
- Myoung-Jin Kim*, Jerome Nriagu* and S. K. Haack. Arsenic behavior in newly drilled wells. *Chemosphere (Oxford), in Biogeochemical processes and cycling of elements in the environment*. (Jerzy Weber, editor). v. 52, no. 3, July 2003. p. 623-633.
- J. P. King*, I. Loveday* and R. L. Schuster. Bairaman River Landslide and Natural Dam, Papua New Guinea. *Landslide News*. 2, June 1989. p. 10-12.
- P. J. Kinzel, J. M. Nelson and R. S. Parker. NEBRASKA. Application of aerial infrared videography and a 2-dimensional flow model to investigate sandhill crane roosting habitat along the Platte River, Nebraska. *Proceedings - Federal Interagency Sedimentation Conference, in Proceedings of the Seventh Federal interagency sedimentation conference*. 7, Vol. 1, 2001. p. I77-I84.
- R. L. Kirk, Mark Rosiek, Elpitha Howington-Kraus, Eric Eliason, Brent Archinal and E. M. Lee. Planetary geodesy and cartography at the USGS, Flagstaff; Moon, Mars, Venus, and beyond. *Proceedings of the International Cartographic Conference, in Proceedings of the 20th international cartographic conference; ICC 2001; mapping the 21st century*. (International Cartographic Conference, Scientific and Technical Program Committee). 20, Vol. 5, 2001. p. 3304-3315.
- R. M. Kirkham*, R. K. Streufert*, J. R. Budahn, M. J. Kunk and W. J. Perry. COLORADO. Late Cenozoic regional collapse due to evaporite flow and dissolution in the Carbonate collapse center, west-central Colorado. *The Mountain Geologist*. v. 38, no. 4, October 2001. p. 193-210.
- E. V. Kohnen and B. L. Murchey. CALIFORNIA. Age and origin of red chert pebbles in the lower part of the Santa Clara Formation, Northern California. *Book - Pacific Section, Society of Economic Paleontologists and Mineralogists, in Recent geologic studies in the San Francisco Bay area*. (E. M. Sanginès, editor and others). 76, 1995. p. 77-86.
- Andrea Koschinsky* and J. R. Hein. Uptake of elements from seawater by ferromanganese crusts; solid-phase associations and seawater speciation. *Marine Geology*. v. 198, no. 3-4, July 15, 2003. p. 331-351.
- R. D. Koster*, P. A. Dirmeyer*, P. C. D. Milly and G. L. Russell*. Comparing GCM-generated land surface water budgets using a simple common framework. *Water Science and Application, in Land surface hydrology, meteorology, and climate; observations and modeling*. (Venkataraman Lakshmi, editor and others). 3, 2001. p. 95-105.
- D. S. Kostick. Soda ash. *Mining Engineering*. v. 55, no. 6, June 2003. p. 47-48.
- D. Kramer. Nitrogen. *Mining Engineering*. v. 55, no. 6, June 2003. p. 38-39.
- D. A. Kramer. Magnesium compounds. *Mining Engineering*. v. 55, no. 6, June 2003. p. 36-37.
- K. A. Kvenvolden, R. J. Rosenbauer, F. D. Hostettler and T. D. Lorenson. CALIFORNIA. Application of organic geochemistry to coastal tar residues from Central California. *International Book Series, in Frontiers in geochemistry; organic, solution, and ore deposit geochemistry; Konrad Krauskopf volume 2*. (W. G. Ernst, editor). 6, 2002. p. 5-18.
- V. E. Langenheim, R. G. Bohannon, J. M. Glen, R. C. Jachens, J. A. Grow, J. J. Miller, G. L. Dixon* and T. C. Katzer*. NEVADA, UTAH, ARIZONA. Basin configuration of the Virgin River depression, Nevada, Utah, and Arizona; a geophysical view of deformation along the Colorado Plateau-Basin and Range transition. *Guidebook - Pacific Section, American Association of Petroleum Geologists, in The geologic transition, high plateaus to Great Basin; a symposium and field guide; the Mackin volume*. (M. C. Erskine, editor and others). 78, 2001. p. 205-225.
- M. C. Larsen, C. F. Alamo, J. R. Gray and William Fletcher*. Continuous automated sensing of streamflow density as a surrogate for suspended-sediment concentration sampling. *Proceedings - Federal Interagency Sedimentation Conference, in Proceedings of the Seventh Federal interagency sedimentation conference*. 7, Vol. 1, 2001. p. III102-III109.



- M. C. Larsen, G. F. Wiczorek and L. S. Eaton*. The rainfall-triggered landslide and flash flood disaster in northern Venezuela, December 1999. Proceedings - Federal Interagency Sedimentation Conference, *in* Proceedings of the Seventh Federal interagency sedimentation conference. 7, Vol. 1, 2001. p. IV9-IV16.
- K. M. Larson*, Paul Bodin* and Joan Gomberg. Using 1-Hz GPS data to measure deformations caused by the Denali Fault earthquake. *Science*. v. 300, no. 5624, May 30, 2003. p. 1421-1424.
- G. S. Law and G. D. Tasker. TENNESSEE. Flood frequency of unregulated streams of Tennessee using regional-regression equations and the region-of influence method, *in* World water and environmental resources congress 2003 and related symposium; proceedings of the congress. (Paul Bizier, editor and others). (American Society of Civil Engineers, Environmental and Water Resources Institute). American Society of Civil Engineers, 2003. 10 p.
- Byeong-Gweon Lee, Jung-Suk Lee*, S. N. Luoma, H. J. Choi* and Chul-Hwan Koh*. Influence of acid volatile sulfide and metal concentrations on metal bioavailability to marine invertebrates in contaminated sediments. *Environmental Science & Technology, ES & T*. v. 34, no. 21, November 1, 2000. p. 4517-4516.
- Jung-Suk Lee*, Byeong-Gweon Lee, S. N. Luoma, H. J. Choi*, Chul-Hwan Koh* and C. L. Brown. Influence of acid volatile sulfides and metal concentrations on metal partitioning in contaminated sediments. *Environmental Science & Technology, ES & T*. v. 34, no. 21, November 1, 2000. p. 4511-4516.
- B. D. Lindsey, W. J. Gburek* and G. J. Folmar*. Watershed scaling effect on base flow nitrate, Valley and Ridge physiographic province. *Journal of the American Water Resources Association*. v. 37, no. 5, October 2001. p. 1103-1117.
- P. W. Lipman. Climax-stage magmatism; growth history of Kilauea Volcano and its instability. *Geophysical Monograph, in* Hawaiian volcanoes; deep underwater perspectives. (Eiichi Takahashi, editor and others). 128, 2002. p. 103-104.
- P. W. Lipman, T. W. Sisson*, Tadahide Ui*, Tadahide Ui* and J. R. Smith*. Ancestral submarine growth of Kilauea Volcano and instability of its south flank. *Geophysical Monograph, in* Hawaiian volcanoes; deep underwater perspectives. (Eiichi Takahashi, editor and others). 128, 2002. p. 161-191.
- Hui-Hai Liu*, C. B. Haukwa*, C. F. Ahlers*, G. S. Bodvarsson*, A. L. Flint and W. B. Guertal. Modeling flow and transport in unsaturated fractured rock; an evaluation of the continuum approach. *Journal of Contaminant Hydrology, in* Yucca Mountain Project. (G. S. Bodvarsson, editor and others). 62-63, May 2003. p. 173-188.
- T. J. Lopes, J. D. Fallon and T. L. Maluk. Compositing water samples for analysis of volatile organic compounds. *Journal of Environmental Engineering*. v. 126, no. 8, August 2000. p. 769-773.
- V. L. Lopes*, W. R. Osterkamp and Miguel Bravo-Espinosa*. Evaluation of selected bedload equations under transport- and supply-limited conditions. Proceedings - Federal Interagency Sedimentation Conference, *in* Proceedings of the Seventh Federal interagency sedimentation conference. 7, Vol. 1, 2001. p. I192-I198.
- R. B. Lott and R. J. Hunt. Estimating evapotranspiration in natural and constructed wetlands. *Wetlands (Wilmington, NC)*. v. 21, no. 4, December 2001. p. 614-628.
- B. L. Loving, K. M. Waddell* and C. W. Miller*. UTAH. Water and salt balance of Great Salt Lake, Utah, and simulation of water and salt movement through the causeway, 1963-98, *in* Great Salt Lake; an overview of change. (J. W. Gwynn, editor). 2002. p. 143-165. *Available at:* Utah Department of Natural Resources, Utah Geological Survey, Salt Lake City, UT, United States.
- Zhong Lu, Charles Wicks, Jr., Daniel Dzurisin, John Power, Wayne Thatcher and Timothy Masterlark. ALASKA. Interferometric synthetic aperture radar studies of Alaska volcanoes. *Earth Observation Magazine*. v. 12, no. 3, May 2003. p. 8-10, 12, 14, 16-18.
- M. J. Lydy*, C. G. Crawford and J. W. Frey. A comparison of selected diversity, similarity, and biotic indices for detecting changes in benthic-invertebrate community structure and stream quality. *Archives of Environmental Contamination and Toxicology*. v. 39, no. 4, November 2000. p. 469-479.
- G. A. MacDonald and A. P. Alcaraz*. Nuées ardentes of the 1948-1953 eruption of Hibok-Hibok, *in* Pillars of Philippine geology; Professor Arturo P. Alcaraz (1916-2001); a legacy of pioneering work in volcanology and geothermal energy development. (A. P. Ferrer, editor and others). Manila: PNOC - Energy Development Corporation, 2002. p. 156-166.
- L. B. Magoon, P. G. Lillis, T. D. Lorenson and R. G. Stanley. CALIFORNIA. Geochemistry of oil and gas samples from Sargent oil field, California. Open-file Report - California. Division of Oil, Gas, and Geothermal Resources, *in* Tar Creek study, Sargent oil field, Santa Clara County, California. Report no. 5, 2002 unpaginated.
- B. J. Mahler, P. C. VanMetre and J. T. Wilson. TEXAS. Contaminants associated with suspended sediment in urban streams in Austin, Texas. Proceedings - Federal Inter-Agency Sedimentation Conference, *in* Proceedings of the Seventh Federal interagency sedimentation conference. (G. D. Gylsson, chairperson). 7, Volume 2, 2001. p. VII41-VII48.
- J. J. Major. Evolution and timing of suspended-sediment transport following the 1980 Mount St. Helens eruption. Proceedings - Federal Interagency Sedimentation Conference, *in* Proceedings of the Seventh Federal interagency sedimentation conference. 7, Vol. 1, 2001. p. I137-I144.
- David Mallinson*, Albert Hine*, Pamela Hallock*, Stanley Locker*, Eugene Shinn, David Naar*, Brian Donahue* and Douglas Weaver*. FLORIDA. Development of small carbonate banks on the South Florida platform margin; response to sea level and climate change. *Marine Geology*. v. 199, no. 1-2, August 1, 2003. p. 45-63.
- A. H. Manning, D. K. Solomon* and A. L. Sheldon*. Applications of a total dissolved gas pressure probe in ground water studies. *Ground Water*. v. 41, no. 4, August 2003. p. 440-448.
- E. E. Marsh, R. J. Goldfarb, C. J. R. Hart* and C. A. Johnson. Geology and geochemistry of the Clear Creek intrusion-related gold occurrences, Tintina gold province, Yukon, Canada. *Canadian Journal of Earth Sciences = Revue Canadienne des Sciences de la Terre*. v. 40, no. 5, May 2003. p. 681-699.



- B. D. Marshall, L. A. Neymark and Z. E. Peterman. NEVADA. Estimation of past seepage volumes from calcite distribution in the Topopah Spring Tuff, Yucca Mountain, Nevada. *Journal of Contaminant Hydrology*, in *Yucca Mountain Project*. (G. S. Bodvarsson, editor and others). 62-63, May 2003. p. 237-247.
- D. A. Martin and J. A. Moody. COLORADO. The flux and particle size distribution of sediment collected in hillslope traps after a Colorado wildfire. *Proceedings - Federal Interagency Sedimentation Conference*, in *Proceedings of the Seventh Federal interagency sedimentation conference*. 7, Vol. 1, 2001. p. III40-III47.
- J. L. Mason and K. L. Kipp, Jr. UTAH. Investigation of hydrology and solute transport, Bonneville Salt Flats, northwestern Utah, in *Great Salt Lake; an overview of change*. (J. W. Gwynn, editor). 2002. p. 423-432. *Available at*: Utah Department of Natural Resources, Utah Geological Survey, Salt Lake City, UT, United States.
- D. P. Mau and V. G. Christensen. KANSAS. Reservoir sedimentation studies to determine variability of phosphorus deposition in selected Kansas watersheds. *Proceedings - Federal Inter-Agency Sedimentation Conference*, in *Proceedings of the Seventh Federal interagency sedimentation conference*. (G. D. Gylsson, chairperson). 7, Volume 2, 2001. p. IX28-IX34.
- R. B. McCammon. Estimates of number of undiscovered deposits of gold, silver, copper, lead, and zinc in the United States. *Natural Resources Research (International Association for Mathematical Geology)*. v. 12, no. 1, March 2003. p. 67-78.
- R. R. McDonald, J. P. Bennett and J. M. Nelson. The USGS multi-dimensional surface water modeling system. *Proceedings - Federal Interagency Sedimentation Conference*, in *Proceedings of the Seventh Federal interagency sedimentation conference*. 7, Vol. 1, 2001. p. I161-I167.
- Kristin McDougall. Paleogene Foraminifera of the Gualala Block and their relation to local and global events. *Book - Pacific Section, Society of Economic Paleontologists and Mineralogists*, in *Geology and tectonics of the Gualala Block, Northern California*. (W. P. Elder, editor). 84, 1998. p. 169-188.
- Mary McGann. CALIFORNIA. 3500-year B. P. record of climatic change in estuarine deposits from South San Francisco Bay, California. *Book - Pacific Section, Society of Economic Paleontologists and Mineralogists*, in *Recent geologic studies in the San Francisco Bay area*. (E. M. Sanginès, editor and others). 76, 1995. p. 225-236.
- T. E. McKallip, G. F. Koltun, J. R. Gray and G. D. Gylsson. GCLAS; a graphical constituent loading analysis system. *Proceedings - Federal Inter-Agency Sedimentation Conference*, in *Proceedings of the Seventh Federal interagency sedimentation conference*. (G. D. Gylsson, chairperson). 7, Volume 2, 2001. p. VI49-VI55.
- P. B. McMahan, B. W. Bruce, M. F. Becker, L. M. Pope and K. F. Dennehy. Occurrence of nitrous oxide in the central High Plains Aquifer, 1999. *Environmental Science & Technology*, ES & T. v. 34, no. 23, December 1, 2000. p. 4873-4877.
- Robert Meade. Large rivers and their floodplains as conveyers and storers of sediment; an overview. *Proceedings - Federal Interagency Sedimentation Conference*, in *Proceedings of the Seventh Federal interagency sedimentation conference*. 7, Vol. 1, 2001. p. IV17-IV21.
- R. T. Milhous. Specific weight and median size of the bed material of gravel and cobble bed rivers. *Proceedings - Federal Interagency Sedimentation Conference*, in *Proceedings of the Seventh Federal interagency sedimentation conference*. 7, Vol. 1, 2001. p. III70-III77.
- M. Miller. Lime. *Mining Engineering*. v. 55, no. 6, June 2003. p. 35-36.
- M. Miller. Fluorspar. *Mining Engineering*. v. 55, no. 6, June 2003. p. 26-27.
- P. C. D. Milly and K. A. Dunne. Macroscale water fluxes; 1, Quantifying errors in the estimation of basin mean precipitation. *Water Resources Research*. v. 38, no. 10, October 2002. 14 p.
- P. C. D. Milly and K. A. Dunne. Macroscale water fluxes; 2, Water and energy supply control of their interannual variability. *Water Resources Research*. v. 38, no. 10, October 2002. 9 p.
- P. C. D. Milly and K. A. Dunne. Trends in evaporation and surface cooling in the Mississippi River basin. *Geophysical Research Letters*. v. 28, no. 7, April 1, 2001. p. 1219-1222.
- P. C. D. Milly and R. T. Wetherald*. Macroscale water fluxes; 3, Effects of land processes on variability of monthly river discharge. *Water Resources Research*. v. 38, no. 11, November 2002. 12 p.
- D. M. Moll*, E. A. Frick, A. K. Henderson*, E. T. Furlong and M. T. Meyer. GEORGIA. Presence of pharmaceuticals in treated wastewater effluent and surface water supply systems, Metropolitan Atlanta, Georgia, July-September 1999. *International Conference on Pharmaceuticals and Endocrine Disrupting Chemicals in Water*, in *2nd international conference on Pharmaceuticals and endocrine disrupting chemicals in water*. (U. S., National Ground Water Association). 2, 2001. p. 82.
- J. A. Moody. Sediment transport regimes after a wildfire in steep mountainous terrain. *Proceedings - Federal Inter-Agency Sedimentation Conference*, in *Proceedings of the Seventh Federal interagency sedimentation conference*. (G. D. Gylsson, chairperson). 7, Volume 2, 2001. p. X41-X48.
- D. W. Moore and A. W. Straub*. UTAH. Correlation of Upper Cretaceous and Paleogene(?) rocks beneath the Claron Formation, Crow Creek, western Markagunt Plateau, Southwest Utah. *Guidebook - Pacific Section, American Association of Petroleum Geologists*, in *The geologic transition, high plateaus to Great Basin; a symposium and field guide; the Mackin volume*. (M. C. Erskine, editor and others). 78, 2001. p. 75-95.
- J. G. Moore and D. A. Clague*. HAWAII. Mapping the Nuuanu and Wailau landslides in Hawaii. *Geophysical Monograph*, in *Hawaiian volcanoes; deep underwater perspectives*. (Eiichi Takahashi, editor and others). 128, 2002. p. 223-244.
- J. G. Moore, Kazuaki Nakamura* and A. P. Alcaraz*. The 1965 eruption of Taal Volcano; catastrophic explosions are caused by lake water entering a volcanic conduit, in *Pillars of Philippine geology; Professor Arturo P. Alcaraz (1916-2001); a legacy of pioneering work in volcanology and geothermal energy development*. (A. P. Ferrer, editor and others). Manila: PNOC - Energy Development Corporation, 2002. p. 220-230.
- R. H. Morin, G. E. Descamps* and L. D. Cecil. WYOMING. Characterizing englacial structure from analysis of acoustic televue logs, upper Fremont Glacier, Wyoming. *International Symposium*



- on Borehole Geophysics for Minerals, Geotechnical, and Groundwater Applications, *in* Proceedings of the Seventh international symposium on Borehole geophysics for minerals, geotechnical, and groundwater applications. 7, 2000. p. 235-243.
- J. L. Morrison. The organizational home for GIS in the scientific professional community, *in* Geographical information systems; principles and applications; Volume 1, Principles. (D. J. Maguire, editor and others). Harlow: Longman Scientific & Technical, 1991. p. 91-100.
- R. A. Morton, N. A. Purcell and Russell Peterson. TEXAS. Field evidence of subsidence and faulting induced by hydrocarbon production in coastal Southeast Texas. Transactions - Gulf Coast Association of Geological Societies, *in* GCAGS/GSSSEPM transactions of the 51st annual convention; Odyssey to success, 100 years of Gulf Coast oil and gas 1901-2001. (M. T. Roberts, editor and others). 51, 2001. p. 239-248.
- R. M. Moxham and A. P. Alcaraz*. Infrared surveys at Taal Volcano, Philippines; deliver us from the scourage of the volcano!, *in* Pillars of Philippine geology; Professor Arturo P. Alcaraz (1916-2001); a legacy of pioneering work in volcanology and geothermal energy development. (A. P. Ferrer, editor and others). Manila: PNOG - Energy Development Corporation, 2002. p. 197-208.
- D. S. Mueller. ILLINOIS. Characterization of sedimentation patterns at a mussel bed on the Ohio River near Olmsted, Illinois. Proceedings - Federal Inter-Agency Sedimentation Conference, *in* Proceedings of the Seventh Federal interagency sedimentation conference. (G. D. Gylsson, chairperson). 7, Volume 2, 2001. p. XI1-XI8.
- D. R. Muhs and Marcelo Zárate*. Late Quaternary eolian records of the Americas and their paleoclimatic significance, *in* Interhemispheric climate linkages. (Vera Markgraf, editor). San Diego, CA: Academic Press, 2001. p. 183-216.
- Abhijit Mukhopadhyay*, S. Adhikari*, S. P. Roy*, S. Bhattacharyya*, R. C. Milici, P. D. Warwick and E. R. Landis. Eustacy, climate, tectonics, sedimentary environment and the formation of Permian coal measures in the Sohagpur Coalfield, Madhya Pradesh, India. Special Publication Series - Geological Survey of India, *in* Proceedings of the National seminar on Recent advances in geology of coal and lignite basins of India. (A. B. Dutta, editor and others). 54, 2001. p. 305-320.
- Abhijit Mukhopadhyay*, S. Adhikari*, S. P. Roy*, P. D. Warwick, R. C. Milici and E. R. Landis. Rank enhancement of Permian Barakar and Raniganj coal measures in the western part of the Sohagpur Coalfield, Madhya Pradesh, India. Special Publication Series - Geological Survey of India, *in* Proceedings of the National seminar on Recent advances in geology of coal and lignite basins of India. (A. B. Dutta, editor and others). 54, 2001. p. 321-328.
- Gemma Musacchio and W. D. Mooney. Seismic evidence for a mantle source for mid-Proterozoic anorthosites and implications for models of crustal growth. Geological Society Special Publications, *in* The early Earth; physical, chemical and biological development. (C. M. R. Fowler, editor and others). 199, 2002. p. 125-134.
- D. L. Naftz, R. B. See and Pedro Ramirez*. WYOMING. Selenium source identification and biogeochemical processes controlling selenium in surface water and biota, Kendrick Reclamation Project, Wyoming, U.S.A. Applied Geochemistry. v. 8, no. 2, March 1993. p. 115-126.
- S. A. Nagorski*, J. N. Moore*, T. E. McKinnon* and D. B. Smith. Geochemical response to variable streamflow conditions in contaminated and uncontaminated streams. Water Resources Research. v. 39, no. 2, February 2003. 14 p.
- B. J. Nahler. TEXAS. What goes in must come out; temporal variations in concentrations of soluble pesticides discharging from the Barton Springs system, Edwards Aquifer, Texas. Karst Waters Institute Special Publication, *in* Hydrogeology and biology of post-Paleozoic carbonate aquifers; proceedings of the symposium, Karst frontiers; Florida and related environments. (J. B. Martin, editor and others). 7, 2002. p. 169-172.
- Jiro Naka*, Toshiya Kanamatsu*, P. W. Lipman, T. W. Sisson, Nohiro Tsuboyama*, J. K. Morgan*, J. R. Smith* and Tadahide Ui*. HAWAII. Deep-sea volcanoclastic sedimentation around the southern flank of Hawaii. Geophysical Monograph, *in* Hawaiian volcanoes; deep underwater perspectives. (Eiichi Takahashi, editor and others). 128, 2002. p. 29-50.
- C. A. Naus. NEW MEXICO. Conceptual model of the Bolson-Fill Aquifer, Soledad Canyon area, Doña County, New Mexico. Guidebook - New Mexico Geological Society, *in* Geology of White Sands. (V. W. Lueth, editor and others). 53, 2002. p. 309-318.
- J. M. Nelson, M. W. Schmeckle* and R. L. Shreve*. Entrainment revisited; high-frequency measurements of forces on sediment particles in turbulent flow. Proceedings - Federal Inter-Agency Sedimentation Conference, *in* Proceedings of the Seventh Federal interagency sedimentation conference. (G. D. Gylsson, chairperson). 7, Volume 2, 2001. p. XI110-XI117.
- K. D. Newell* and J. R. Hatch. KANSAS. Exploration strategy for the Salina Basin in Kansas based on organic geochemical data and maturation modeling. Circular - Oklahoma Geological Survey, *in* Petroleum systems of sedimentary basins in the southern Midcontinent, 2000 symposium. (K. S. Johnson, editor and others). (Oklahoma Geological Survey). Report no. 106, 2001. p. 111-120.
- M. W. Newhouse* and R. T. Hanson. CALIFORNIA. Application of three-dimensional borehole flow measurements to the analysis of seawater intrusion and barrier injection systems, Los Angeles, California. International Symposium on Borehole Geophysics for Minerals, Geotechnical, and Groundwater Applications, *in* Proceedings of the Seventh international symposium on Borehole geophysics for minerals, geotechnical, and groundwater applications. 7, 2000. p. 281-292.
- D. J. Nichols, M. Watabe*, N. Ichinnorov* and Y. Ariunchimeg*. Preliminary report on the palynology of the Cretaceous of the Gobi Desert, Mongolia. Proceedings - International Palynological Conference, *in* Proceedings of the IX international palynological congress. (D. K. Goodman, editor and others). 9, 2001. p. 131-138.
- A. S. Nieto* and R. L. Schuster. Mass wasting and flooding induced by the 5 March 1987 Ecuador earthquakes. Landslide News. 2, June 1989. p. 5-8.
- J. R. Nimmo, J. A. Deason, J. A. Izbicki and Peter Martin. Evaluation of unsaturated zone water fluxes in heterogeneous alluvium at a



- Mojave Basin site. *Water Resources Research*. v. 38, no. 10, October 2002. 13 p.
- J. E. O'Connor, M. A. Jones and T. L. Haluska. WASHINGTON. Flood plain and channel dynamics of the Quinault and Queets rivers, Washington, USA. *Geomorphology*, in *Interactions between wood and channel forms and processes*. (D. R. Montgomery, editor and others). v. 51, no. 1-3, March 20, 2003. p. 31-59.
- J. A. Ober. Strontium. *Mining Engineering*. v. 55, no. 6, June 2003. p. 48-49.
- J. A. Ober. Mineral resource of the month; sulfur. *Geotimes*. v. 48, no. 7, July 2003. p. 45.
- E. A. Okal*, George Plafker, C. E. Synolakis* and J. C. Borrero*. Near-field survey of the 1946 Aleutian tsunami on Unimak and Sanak islands. *Bulletin of the Seismological Society of America*. v. 93, no. 3, June 2003. p. 1226-1234.
- Francisco Olivera*, M. S. Lear*, J. S. Famiglietti* and Kwabena Asante. Extracting low-resolution river networks from high-resolution digital elevation models. *Water Resources Research*. v. 38, no. 11, November 2002. 8 p.
- D. W. Olson. Gemstones. *Mining Engineering*. v. 55, no. 6, June 2003. p. 28-29.
- D. W. Olson. Industrial diamonds. *Mining Engineering*. v. 55, no. 6, June 2003. p. 32.
- D. W. Olson. Industrial garnet. *Mining Engineering*. v. 55, no. 6, June 2003. p. 33.
- C. G. J. Oviatt* and R. S. Thompson. Recent developments in the study of Lake Bonneville since 1980, in *Great Salt Lake; an overview of change*. (J. W. Gwynn, editor). 2002. p. 1-6. *Available at*: Utah Department of Natural Resources, Utah Geological Survey, Salt Lake City, UT, United States.
- F. L. Paillet. Flow logging in difficult boreholes; making the best of a bad deal. *International Symposium on Borehole Geophysics for Minerals, Geotechnical, and Groundwater Applications*, in *Proceedings of the Seventh international symposium on Borehole geophysics for minerals, geotechnical, and groundwater applications*. 7, 2000. p. 125-135.
- S. Y. Panshin, D. S. Carter and E. R. Bayless. Analysis of atrazine and four degradation products in the pore water of the vadose zone, central Indiana. *Environmental Science & Technology*, ES & T. v. 34, no. 11, June 1, 2000. p. 2131-2137.
- Tom Parsons, Jill McCarthy and G. A. Thompson*. Very different crustal response to extreme extension in the southern Basin and Range and Colorado Plateau transition. *Guidebook - Pacific Section, American Association of Petroleum Geologists*, in *The geologic transition, high plateaus to Great Basin; a symposium and field guide; the Mackin volume*. (M. C. Erskine, editor and others). 78, 2001. p. 291-303.
- S. F. Personius and S. A. Mahan. NEW MEXICO. Paleearthquakes and eolian-dominated fault sedimentation along the Hubbell Spring fault zone near Albuquerque, New Mexico. *Bulletin of the Seismological Society of America*. v. 93, no. 3, June 2003. p. 1355-1369.
- S. G. Peters. The nature of some upper- and lower-plate rocks near the Roberts Mountains thrust, Carlin Trend, in *The Roberts Mountains thrust Elko and Eureka counties, Nevada; Nevada Petroleum Society 1997 field trip guidebook*. (A. J. Perry, editor and others). Reno, NV: Nevada Petroleum Society, September 1997. p. 35-40.
- J. V. Phillips and H. W. Hjalmarson*. Implication of transitory-wave phenomena for engineering design, in *RIVERTECH96; 1st international conference on New/emerging concepts for rivers; proceedings*. (W. H. C. Maxwell, editor and others). Urbana, IL: International Water Resources Association, 1996. p. 453-460.
- P. J. Phillips, G. R. Wall, E. M. Thurman, D. A. Eckhardt and J. Vanhoesen*. Metolachlor and its metabolites in tile drain and stream runoff in the Canajoharie Creek watershed. *Environmental Science & Technology*, ES & T. v. 33, no. 20, October 15, 1999. p. 3531-3537.
- C. M. Pieters*, J. W. Head, III*, L. Gaddis, B. Jolliff* and M. Duke*. Rock types of South Pole-Aitken Basin and extent of basaltic volcanism. *Journal of Geophysical Research*, E, Planets, in *New views of the Moon; Part 3, The nature and evolution of the Moon from surface to core, a series of papers related to the lunar science initiative "New views of the Moon enabled by combined remotely sensed and lunar sample data sets"*. (C. R. Neal, editor). v. 106, no. 11, November 25, 2001. p. 28,001-28,022.
- G. Plaza Nieto*, H. Yepes* and R. L. Schuster. Landslide dam on the Pisque River, northern Ecuador. *Landslide News*. 4, July 1990. p. 2-4.
- L. N. Plummer. FLORIDA, GEORGIA. Geochemical and isotopic studies of paleowaters and recent recharge in parts of the Floridan Aquifer system of Florida and Georgia. *Karst Waters Institute Special Publication*, in *Hydrogeology and biology of post-Paleozoic carbonate aquifers; proceedings of the symposium, Karst frontiers; Florida and related environments*. (J. B. Martin, editor and others). 7, 2002. p. 69-72.
- P. A. Plunkert. Bauxite and alumina. *Mining Engineering*. v. 52, no. 6, June 2000. p. 28-29.
- P. A. Plunkert. Bauxite and alumina. *Mining Engineering*. v. 55, no. 6, June 2003. p. 16.
- C. W. Poag, Edward Mankinen and R. D. Norris*. Late Eocene impacts; geologic record, correlation, and paleoenvironmental consequences, in *From greenhouse to icehouse; the marine Eocene-Oligocene transition*. (D. R. Prothero, editor and others). New York, NY: Columbia University Press, 2003. p. 495-510.
- John Pojeta, Jr., D. J. Eernisse*, R. D. Hoare* and M. D. Henderson*. *Echinochiton dufoei*; a new spiny Ordovician chiton. *Journal of Paleontology*. v. 77, no. 4, July 2003. p. 646-654.
- L. J. Poppe, C. F. Polloni and M. E. Hastings. USGS East-coast marine sediment data on CD-ROM. *Proceedings - Federal Interagency Sedimentation Conference*, in *Proceedings of the Seventh Federal interagency sedimentation conference*. 7, Vol. 1, 2001.
- Donald Porcelli* and P. W. Swarzenski. The behavior of U- and Th-series nuclides in groundwater. *Reviews in Mineralogy and Geochemistry*, in *Uranium-series geochemistry*. (Bernard Bourdon, editor and others). 52, 2003. p. 317-361.
- M. L. Potter and W. Z. Rogers*. Feldspar and nepheline syenite. *Mining Engineering*. v. 55, no. 6, June 2003. p. 25-26.



- H. P. Qi and T. B. Coplen. Evaluation of the $^{34}\text{S}/^{32}\text{S}$ ratio of Soufre de Lacq elemental sulfur isotopic reference material by continuous flow isotope-ratio mass spectrometry. *Chemical Geology*. v. 199, no. 1-2, August 30, 2003. p. 183-187.
- Jay Quade*, R. M. Forester and J. F. Whelan. NEVADA. Late Quaternary paleohydrologic and paleotemperature change in southern Nevada. Special Paper - Geological Society of America, *in* Paleoenvironments and paleohydrology of the Mojave and southern Great Basin deserts. (Yehouda Enzel, editor and others). 368, 2003. p. 165-188.
- D. Ravat*, T. G. Hildenbrand and W. Roest*. New way of processing near-surface magnetic data; the utility of the comprehensive model of the magnetic field. The Leading Edge (Tulsa, OK), *in* Geophysics; doing it in space. (Dhananjay Ravat, prefacer and others). v. 22, no. 8, August 2003. p. 784-785.
- M. C. Reheis, A. M. Sarna-Wojcicki, R. L. Reynolds, C. A. Repenning* and M. D. Mifflin*. Pliocene to middle Pleistocene lakes in the western Great Basin; ages and connections. Smithsonian Contributions to the Earth Sciences, *in* Great Basin aquatic systems history. (Robert Hershler, editor and others). 33, 2002. p. 53-108.
- R. A. Renken, W. C. Ward*, Jesús Rodríguez Martínez and Fernando Gómez Gómez. PUERTO RICO. Geology and hydrogeology of a karst limestone aquifer system on the north coast of Puerto Rico. Karst Waters Institute Special Publication, *in* Hydrogeology and biology of post-Paleozoic carbonate aquifers; proceedings of the symposium, Karst frontiers; Florida and related environments. (J. B. Martin, editor and others). 7, 2002. p. 113-114.
- C. A. Repenning, Oldrich Fejfar* and W. D. Heinrich*. Arvicolid rodent biochronology of the Northern Hemisphere, *in* International symposium on Evolution, phylogeny and biostratigraphy of arvicolids (Rodentia, Mammalia). (Oldrich Fejfar, editor and others). Prague: Geological Survey of Czechoslovakia, 1990. p. 385-418.
- Susan Rhea and R. L. Wheeler. ILLINOIS, INDIANA, KENTUCKY. Seismotectonic maps of the lower Wabash Valley in parts of Illinois, Indiana, and Kentucky. ESRI Map Book, *in* Geography connects our world. (Environmental Systems Research Institute). 11, 1996. p. 28.
- R. L. Rinehart. Bedform mapping in the Sacramento River. Proceedings - Federal Interagency Sedimentation Conference, *in* Proceedings of the Seventh Federal interagency sedimentation conference. 7, Vol. 1, 2001. p. III55-III62.
- J. C. Ritchie*, D. E. Walling* and N. E. Peters (editors). Application of geographic information systems and remote sensing for quantifying patterns of erosion and water quality. *Hydrological Processes*. v. 17, no. 5, April 15, 2003. p. 885-1041.
- J. F. Robertson and R. B. O'Sullivan. NEW MEXICO. The Middle Jurassic Entrada Sandstone near Gallup, New Mexico. *The Mountain Geologist*. v. 38, no. 4, October 2001. p. 228-231.
- N. S. Rogalla*, J. G. Carter* and John Pojeta, Jr. Shell microstructure of the Late Carboniferous rostroconch mollusc *Apotocardium lanterna* (Branson, 1965). *Journal of Paleontology*. v. 77, no. 4, July 2003. p. 655-673.
- T. V. Romanyuk*, W. D. Mooney and S. Detweiler. CALIFORNIA. Models of the density distribution in the lithosphere across the San Andreas Fault, Southern California. *Izvestiya - Russian Academy of Sciences. Physics of the Solid Earth*. v. 39, no. 5, May 2003. p. 365-391.
- Seth Rose* and N. E. Peters. GEORGIA. Effects of urbanization on streamflow in the Atlanta area (Georgia, USA); a comparative hydrological approach. *Hydrological Processes*. v. 15, no. 8, May 15, 2001. p. 1441-1457.
- E. L. Rowan and G. de Marsily*. Infiltration of late Palaeozoic evaporative brines in the Reelfoot Rift; a possible salt source for Illinois Basin formation waters and MVT mineralizing fluids. *Petroleum Geoscience*. v. 7, no. 3, August 2001. p. 269-279.
- T. G. Rowe. CALIFORNIA, NEVADA. Loads and yields of suspended sediment for selected watersheds in the Lake Tahoe Basin, California and Nevada. Proceedings - Federal Interagency Sedimentation Conference, *in* Proceedings of the Seventh Federal interagency sedimentation conference. 7, Vol. 1, 2001. p. III10-III17.
- P. D. Rowley*, L. W. Snee, R. E. Anderson, L. D. Nealey*, D. M. Unruh and D. E. Ferris*. NEVADA, UTAH. Field trip to the Caliente Caldera Complex, east-striking transverse zones, and nearby mining districts in Nevada-Utah; implications for petroleum, ground-water, and mineral resources. Guidebook - Pacific Section, American Association of Petroleum Geologists, *in* The geologic transition, high plateaus to Great Basin; a symposium and field guide; the Mackin volume. (M. C. Erskine, editor and others). 78, 2001. p. 401-418.
- D. M. Rubin, G. B. Tate, D. J. Topping and R. A. Anima. Use of rotating side-scan sonar to measure bedload. Proceedings - Federal Interagency Sedimentation Conference, *in* Proceedings of the Seventh Federal interagency sedimentation conference. 7, Vol. 1, 2001. p. III139-III143.
- D. M. Rubin and D. J. Topping. What regulates suspended-sediment transport in a given setting? Grain size of bed sediment or flow? Proceedings - Federal Interagency Sedimentation Conference, *in* Proceedings of the Seventh Federal interagency sedimentation conference. 7, Vol. 1, 2001. p. I199-I205.
- S. W. Ruff*, P. R. Christensen*, R. N. Clark, H. H. Kieffer, M. C. Malin*, J. L. Bandfield*, B. M. Jakosky*, M. D. Lane*, M. T. Mellon* and M. A. Presley*. Mars' "White Rock" feature lacks evidence of an aqueous origin; results from Mars Global Surveyor. *Journal of Geophysical Research, E, Planets*, *in* The Mars Global Surveyor mission. (A. L. Albee, prefacer). v. 106, no. 10, October 25, 2001. p. 23,921-23,927.
- Leslie Ruppert. Coal science. *Geotimes*. v. 48, no. 7, July 2003. p. 28-29.
- S. S. Russell*, Jutta Zipfel*, J. N. Grossman and M. M. Grady*. The Meteoritical Bulletin, No. 86, 2002 July. *Meteoritics & Planetary Science*, *in* 65th annual meeting of the Meteoritical Society; abstracts. (P. H. Warren, chairperson). v. 37, no. 7, Suppl. July 2002. p. 157-184.
- John Sass and Wendell Duffield*. Geothermal energy. *Geotimes*. v. 48, no. 7, July 2003. p. 22-24.



- K. S. Savage*, D. K. Bird* and R. P. Ashley. Legacy of the California gold rush; environmental geochemistry of arsenic in the southern Mother Lode gold district. International Book Series, *in* Frontiers in geochemistry; organic, solution, and ore deposit geochemistry; Konrad Krauskopf volume 2. (W. G. Ernst, editor). 6, 2002. p. 235-265.
- W. Z. Savage and R. H. Morin. Effects of valley topography on principal stress orientations. Proceedings - Symposium on Rock Mechanics, *in* Proceedings of the 38th U.S. rock mechanics symposium, DC rocks 2001; Rock mechanics in the national interest. (Derek Elsworth, editor and others). 38, Vol. 2, 2001. p. 1397-1400.
- P. Schiffman*, R. J. Southard*, D. D. Eberl and J. L. Bishop*. HA-WAII. Distinguishing palagonitized from pedogenically-altered basaltic Hawaiian tephra; mineralogical and geochemical criteria. Geological Society Special Publications, *in* Volcano-ice interaction on Earth and Mars. (J. L. Smellie, editor and others). 202, 2002. p. 393-405.
- K. M. Schmidt. Mapping. *Geotimes*. v. 48, no. 7, July 2003. p. 22-23.
- D. H. Schoellhamer. Continuous monitoring of suspended sediment in rivers by use of optical sensors. Proceedings - Federal Interagency Sedimentation Conference, *in* Proceedings of the Seventh Federal interagency sedimentation conference. 7, Vol. 1, 2001. p. III160-III167.
- D. W. Scholl*, A. J. Stevenson, M. A. Noble and D. K. Rea*. The Meiji drift body and late Paleogene-Neogene paleoceanography of the North Pacific-Bearing Sea region, *in* From greenhouse to ice-house; the marine Eocene-Oligocene transition. (D. R. Prothero, editor and others). New York, NY: Columbia University Press, 2003. p. 119-153.
- J. D. Schreiber*, R. A. Rebich and C. M. Cooper*. MISSISSIPPI. Comparison of sediment and nutrient transport and best management practices within the Yazoo River basin, Mississippi. Proceedings - Federal Inter-Agency Sedimentation Conference, *in* Proceedings of the Seventh Federal interagency sedimentation conference. (G. D. Gylsson, chairperson). 7, Volume 2, 2001. p. VIII36-VIII43.
- A. P. Schultz* and C. B. Stanley (compilers). VIRGINIA. Geologic map of the Virginia portion of the Lindsides Quadrangle. Virginia Division of Mineral Resources Publication, Report no. 160, 2001 1 sheet.
- P. F. Schuster, M. M. Reddy, J. W. LaBaugh, R. S. Parkhurst, D. O. Rosenberry, T. C. Winter, R. C. Antweiler and W. E. Dean. MINNESOTA. Characterization of lake water and ground water movement in the littoral zone of Williams Lake, a closed-basin lake in north central Minnesota. *Hydrological Processes*. v. 17, no. 4, March 2003. p. 823-838.
- G. E. Schwarz, R. A. Smith, R. B. Alexander and J. R. Gray. A spatially referenced regression model (SPARROW) for suspended sediment in streams of the conterminous U.S. Proceedings - Federal Inter-Agency Sedimentation Conference, *in* Proceedings of the Seventh Federal interagency sedimentation conference. (G. D. Gylsson, chairperson). 7, Volume 2, 2001. p. VII80-VII87.
- J. M. Self-Trail. Trends in late Maastrichtian calcareous nannofossil distribution patterns, western North Atlantic margin. *Micropaleontology*. v. 48, no. 1, 2002. p. 31-52.
- J. M. Self-Trail. Shock-wave-induced fracturing of calcareous nannofossils from the Chesapeake Bay impact crater. *Geology* (Boulder). v. 31, no. 8, August 2003. p. 697-700.
- D. J. Semmens* and W. R. Osterkamp. ARIZONA. Dam removal and reservoir erosion modeling; Zion Reservoir, Little Colorado River, AZ. Proceedings - Federal Inter-Agency Sedimentation Conference, *in* Proceedings of the Seventh Federal interagency sedimentation conference. (G. D. Gylsson, chairperson). 7, Volume 2, 2001. p. IX72-IX79.
- P. T. Seyler* and N. E. Peters. Hydrological and geochemical processes in large-scale river basins. *Hydrological Processes*. v. 17, no. 7, May 2003. p. 1265-1450.
- Chao Shang*, J. A. Rice*, D. D. Eberl and Jar-Shyong Lin*. Measurement of illite particle thickness using a direct fourier transform of small-angle X-ray scattering data. *Clays and Clay Minerals*. v. 51, no. 3, June 1, 2003. p. 293-300.
- W. C. Sidle and R. Bayless. INDIANA. Isotope hydrology dynamics of riverine wetlands in the Kankakee watershed, Indiana. *Journal of the American Water Resources Association*. v. 36, no. 4, August 2000. p. 771-789.
- P. K. Sims, H. J. Stein* and C. A. Finn*. COLORADO. New Mexico structural zone; an analogue of the Colorado mineral belt. *Ore Geology Reviews*, *in* Deep crustal controls on mineral trends. (A. E. J. Crafford, editor and others). v. 21, no. 3-4, December 2002. p. 211-225.
- D. A. Singer and J. D. Bliss. Use of a probabilistic neural network to reduce costs of selecting construction rock. *Natural Resources Research* (International Association for Mathematical Geology). v. 12, no. 2, June 2003. p. 135-140.
- T. W. Sisson*, P. W. Lipman and Jiro Naka*. HAWAII. Submarine alkalic through tholeiitic shield-state development of Kilauea Volcano, Hawai'i. *Geophysical Monograph*, *in* Hawaiian volcanoes; deep underwater perspectives. (Eiichi Takahashi, editor and others). 128, 2002. p. 193-219.
- J. L. Smellie* and M. G. Chapman (editors). Volcano-ice interaction on Earth and Mars. Geological Society Special Publications. 202, 2002. 431 p.
- F. A. Smith* and J. L. Betancourt. IDAHO, UTAH. The effect of Holocene temperature fluctuations on the evolution and ecology of Neotoma (woodrats) in Idaho and northwestern Utah. *Quaternary Research* (New York). v. 59, no. 2, March 2003. p. 160-171.
- J. D. Smith. On quantifying the effects of riparian vegetation in stabilizing single threaded streams. Proceedings - Federal Interagency Sedimentation Conference, *in* Proceedings of the Seventh Federal interagency sedimentation conference. 7, Vol. 1, 2001. p. IV22-IV29.
- J. R. Smith*, Kenji Satake*, J. K. Morgan* and P. W. Lipman. HA-WAII. Submarine landslides and volcanic features on Kohala and Mauna Kea volcanoes and the Hana Ridge, Hawaii. *Geophysical Monograph*, *in* Hawaiian volcanoes; deep underwater perspectives. (Eiichi Takahashi, editor and others). 128, 2002. p. 11-28.
- R. L. Smith, D. N. Miller, M. H. Brooks, M. A. Widdowson* and M. W. Killingstad*. In situ stimulation of groundwater denitrification with formate to remediate nitrate contamination. *Environmental*



- Science & Technology, ES & T. v. 35, no. 1, January 1, 2001. p. 196-203.
- D. R. Soller, S. D. Price and P. H. Packard. Three-dimensional analysis of geological maps at different scales. ESRI Map Book, *in* Geography connects our world. (Environmental Systems Research Institute). 11, 1996. p. 20.
- S. K. Sorenson, P. D. Dileanis and J. L. Riggs*. CALIFORNIA. Occurrence of Giardia cysts in streams in the Sierra Nevada, California, *in* International symposium on Water-related health issues.. American Water Resources Association, 1986. p. 161-165.
- L. E. Spangler. UTAH. Delineation of source-protection zones for carbonate springs in the Bear River Range, northeastern Utah. Karst Waters Institute Special Publication, *in* Karst modeling; proceedings of the symposium. (A. N. Palmer, editor and others). 5, 1999. p. 230-232.
- Timothy Spruill and D. R. Galeone. Effectiveness of riparian buffers in reducing nitrate-nitrogen concentrations in ground water. American Water Resources Association Technical Publication Series TPS, *in* Proceedings; AWRAs 2000 summer speciality conference; Riparian geology and management in multi-land use watersheds. (P. J. Wigington, Jr., editor and others). 00-2, 2000. p. 119-124.
- M. I. Staid and C. M. Pieters*. Mineralogy of the last lunar basalts; results from Clementine. Journal of Geophysical Research, E, Planets, *in* New views of the Moon; Part 3, The nature and evolution of the Moon from surface to core, a series of papers related to the lunar science initiative "New views of the Moon enabled by combined remotely sensed and lunar sample data sets". (C. R. Neal, editor). v. 106, no. 11, November 25, 2001. p. 27,887-27,900.
- R. F. Stallard, D. Mixon*, D. A. Kinner* and B. Worstell*. RESIS-II; making the reservoir survey information system complete and user friendly. Proceedings - Federal Inter-Agency Sedimentation Conference, *in* Proceedings of the Seventh Federal interagency sedimentation conference. (G. D. Gylsson, chairperson). 7, Volume 2, 2001. p. IX9-IX11.
- R. Stanton, R. Flores, P. D. Warwick, Hal Gluskoter and G. D. Stricker. Coal bed sequestration of carbon dioxide, *in* First national conference on Carbon sequestration. Report no. DOE/NETL-2001/114, 2001. 12 p. Available at: U. S. Department of Energy, National Energy Technology Laboratory, United States.
- L. E. Starr and K. E. Anderson. A USGS perspective on GIS, *in* Geographical information systems; principles and applications; Volume 2, Applications. (D. J. Maguire, editor and others). Harlow: Longman Scientific & Technical, 1991. p. 11-22.
- S. M. Stell. National water quality assessment program; analysis of available information on pesticides for the Apalachicola-Chattahoochee-Flint River basin, *in* Proceedings of the 1993 Georgia water resources conference. (K. J. Hatcher, editor). Athens, GA: University of Georgia, 1993. p. 33-35.
- R. G. Striegl, Pirkko Kortelainen*, J. P. Chanton*, K. P. Wickland, G. C. Bugna* and Miitta Rantakari*. Carbon dioxide partial pressure and ^{13}C content of north temperate and boreal lakes at spring ice melt. Limnology and Oceanography. v. 46, no. 4, June 2001. p. 941-945.
- Frederick Stumm, Frederick Paillet, J. H. Williams and J. W. Lane. NEW YORK. Geohydrologic assessment of crystalline bedrock for the New York City Water-Tunnel Project by use of advanced borehole-geophysical methods. International Symposium on Borehole Geophysics for Minerals, Geotechnical, and Groundwater Applications, *in* Proceedings of the Seventh international symposium on Borehole geophysics for minerals, geotechnical, and groundwater applications. 7, 2000. p. 19-27.
- Eric Swain. Dynamic numerical wetland modeling to determine destinations of source waters. American Water Resources Association Technical Publication Series TPS, *in* Proceedings; American Water Resources Association's annual water resources conference; Water quantity and quality issues in coastal urban areas. (R. W. Higgins, editor). 2000-3, 2000. p. 65-68.
- P. W. Swarzenski, Donald Porcelli*, P. S. Andersson* and J. M. Smoak*. The behavior of U- and Th-series nuclides in the estuarine environment. Reviews in Mineralogy and Geochemistry, *in* Uranium-series geochemistry. (Bernard Bourdon, editor and others). 52, 2003. p. 577-606.
- Keita Takada*, Kenji Satake*, Koichi Shimokawa*, Koji Okumura*, Eugene Schweig, Brian Atwater, Laurel Mayrose*, Martitia Tuttle* and Tsuyoshi Haraguchi*. Geoslices of sand blows and their potential source beds at the New Madrid seismic zone, central United States. Annual Report on Active Fault and Paleoseismicity Researches. 2, 2002. p. 257-267.
- Eiichi Takahashi*, P. W. Lipman, M. O. Garcia*, Jiro Naka* and Shigeo Aramaki* (editors). HAWAII. Hawaiian volcanoes; deep underwater perspectives. Geophysical Monograph. 128, 2002. 418 p.
- A. S. Talma*, J. M. C. Weaver*, L. N. Plummer and E. Busenberg. CFC tracing of groundwater in fractured rock aided with ^{14}C and ^3H to identify water mixing. Proceedings of the ... IAH Congress on Groundwater..., *in* Groundwater; past achievements and future challenges. (Oliver Sililo, editor and others). 30, 2000. p. 635-639.
- A. C. Tarr and J. A. Michael. Landslide susceptibility analysis using ARC/INFO. ESRI Map Book, *in* Geography connects our world. (Environmental Systems Research Institute). 11, 1996. p. 47.
- J. G. Taylor and S. D. Ryder*. Use of the Delphi method in resolving complex water resources issues. Journal of the American Water Resources Association. v. 39, no. 1, February 2003. p. 183-189.
- A. J. Tesoriero, F. E. Löffler* and Hugh Liebscher*. Fate and origin of 1,2-dichloropropane in an unconfined shallow aquifer. Environmental Science & Technology, ES & T. v. 35, no. 3, February 1, 2001. p. 455-461.
- E. M. Thurman and A. E. Cromwell*. Atmospheric transport, deposition, and fate of triazine herbicides and their metabolites in pristine areas at Isle Royale National Park. Environmental Science & Technology, ES & T. v. 34, no. 15, August 1, 2000. p. 3079-3085.
- Hanqin Tian*, J. M. Melillo*, D. W. Kicklighter*, Shufen Pan*, Liu Jiyuan*, A. D. McGuire and Berrien Moore, III*. Regional carbon dynamics in monsoon Asia and its implications for the global carbon cycle. Global and Planetary Change, *in* Asia monsoon environment system and global change. (Fu Congbin, editor and others). v. 37, no. 3-4, June 20, 2003. p. 201-217.



- C. R. Tiedeman, M. C. Hill, F. A. D'Agnesse and C. C. Faunt. Methods for using groundwater model predictions to guide hydrogeologic data collection, with application to the Death Valley region groundwater flow system. *Water Resources Research*. v. 39, no. 1, January 2003. 17 p.
- T. N. Titus, H. H. Kieffer, K. F. Mullins and P. R. Christensen*. TES premapping data; slab ice and snow flurries in the Martian north polar night. *Journal of Geophysical Research, E, Planets*. v. 106, no. 10, October 25, 2001. p. 23,181-23,196.
- C. R. Tobias*, J. W. Harvey and I. C. Anderson*. Quantifying groundwater discharge through fringing wetlands to estuaries; seasonal variability, methods comparison, and implications for wetland-estuary exchange. *Limnology and Oceanography*. v. 46, no. 3, May 2001. p. 604-615.
- B. M. Troutman and M. R. Karlinger. Regional flood probabilities. *Water Resources Research*. v. 39, no. 4, April 2003. 15 p.
- Ryuichi Tsuchi*, J. A. Barron and Adolfo Molina-Cruz* (editors). Pacific Neogene event studies for the 21st century; proceedings of the VII international congress on Pacific Neogene stratigraphy. *Revista Mexicana de Ciencias Geológicas*. v. 19, no. 3, 2002. 273 p.
- L. M. Turcios and J. R. Gray. U. S. Geological Survey sediment and ancillary data on the World Wide Web. Proceedings - Federal Interagency Sedimentation Conference, *in* Proceedings of the Seventh Federal interagency sedimentation conference. 7, Vol. 1, 2001.
- Susumu Umino*, Sumie Obata*, P. W. Lipman, J. R. Smith*, Tsugio Shibata*, Jiro Naka* and Frank Trusdell*. HAWAII. Emplacement and inflation structures of submarine and subaerial pahoehoe lavas from Hawaii. *Geophysical Monograph, in* Hawaiian volcanoes; deep underwater perspectives. (Eiichi Takahashi, editor and others). 128, 2002. p. 85-101.
- Nick Van Driel and Tom Loveland. The U. S. Geological Survey's Land Cover Characterization Program. International Conference/Workshop on Integrating Geographic Information Systems & Environmental Modeling, *in* Preliminary proceedings of the Third international conference/workshop on Integrating geographic information systems and environmental modeling. 3, 1996. unpaginated.
- P. C. Van Metre, Edward Callender, B. J. Mahler, J. T. Wilson and M. E. Dorsey. Differences in lake and reservoir sedimentation; implications for sediment coring studies. Proceedings - Federal Interagency Sedimentation Conference, *in* Proceedings of the Seventh Federal interagency sedimentation conference. (G. D. Gylsson, chairperson). 7, Volume 2, 2001. p. IX12-IX19.
- P. C. Van Metre, B. J. Mahler and E. T. Furlong. Urban sprawl leaves its PAH signature. *Environmental Science & Technology, ES & T*. v. 34, no. 19, October 1, 2000. p. 4064-4070.
- M. K. Verma and G. F. Ulmishek. Reserve growth in oil fields of West Siberian Basin, Russia. *Natural Resources Research (International Association for Mathematical Geology)*. v. 12, no. 2, June 2003. p. 105-119.
- J. H. Viellenave*, J. V. Fontana*, R. Wanty and F. Malen*. Probe sampling and geophysics applied to ground water evaluation of mine dumps. *International Symposium on Borehole Geophysics for Minerals, Geotechnical, and Groundwater Applications, in* Proceedings of the Seventh international symposium on Borehole geophysics for minerals, geotechnical, and groundwater applications. 7, 2000. p. 9-18.
- R. L. Virta. Kaolin. *Mining Engineering*. v. 55, no. 6, June 2003. p. 34-35.
- R. L. Virta. Bentonite. *Mining Engineering*. v. 55, no. 6, June 2003. p. 17.
- R. L. Virta. Common clay and shale. *Mining Engineering*. v. 52, no. 6, June 2000. p. 35-36.
- R. L. Virta. Ball clay. *Mining Engineering*. v. 52, no. 6, June 2000. p. 28.
- R. L. Virta. Common clay and shale. *Mining Engineering*. v. 55, no. 6, June 2003. p. 22-23.
- R. L. Virta. Fuller's earth. *Mining Engineering*. v. 55, no. 6, June 2003. p. 27-28.
- R. L. Virta. Fireclay. *Mining Engineering*. v. 52, no. 6, June 2000. p. 39.
- R. L. Virta. Ball clay. *Mining Engineering*. v. 55, no. 6, June 2003. p. 15.
- R. L. Virta. Fire clay. *Mining Engineering*. v. 55, no. 6, June 2003. p. 26.
- R. L. Virta. Kaolin. *Mining Engineering*. v. 52, no. 6, June 2000. p. 47-48.
- V. S. Vishnevskaya* and B. L. Murchey. Climatic affinity and possible correlation of some Jurassic to Lower Cretaceous radiolarian assemblages from Russia and North America. *Micropaleontology, in* Micropaleontology of radiolarians; proceedings of INTERRAD IX. (E. S. Carter, editor and others). 48, Suppl. 1, 2002. p. 89-111.
- I. R. Waite and K. D. Carpenter*. OREGON. Associations among fish assemblage structure and environmental variables in Willamette Basin streams, Oregon. *Transactions of the American Fisheries Society (1900)*. v. 129, no. 3, 2000. p. 754-770.
- J. A. Warrick and J. D. Milliman*. CALIFORNIA. Hyperpycnal sediment discharge from semiarid Southern California rivers; implications for coastal sediment budgets. *Geology (Boulder)*. v. 31, no. 9, September 2003. p. 781-784.
- R. H. Webb, P. G. Griffiths and D. R. Hartley. Techniques for estimating sediment yield of ungaged tributaries on the southern Colorado Plateau. Proceedings - Federal Interagency Sedimentation Conference, *in* Proceedings of the Seventh Federal interagency sedimentation conference. 7, Vol. 1, 2001. p. I24-I31.
- R. H. Webb and Richard Hereford. Floods and geomorphic change in the southwestern United States; an historical perspective. Proceedings - Federal Interagency Sedimentation Conference, *in* Proceedings of the Seventh Federal interagency sedimentation conference. 7, Vol. 1, 2001. p. IV30-IV37.
- L. J. Welch, Jr. and G. K. Butch. NEW YORK. Evaluating selected scour equations for bridge piers in coarse streambeds in New York. Proceedings - Federal Interagency Sedimentation Conference, *in* Proceedings of the Seventh Federal interagency sedimentation conference. 7, Vol. 1, 2001. p. I120-I127.



- C. M. Wentworth, D. L. Jones and E. E. Brabb. CALIFORNIA. Geology and regional correlation of the Cretaceous and Paleogene rocks of the Gualala Block, California. Book - Pacific Section, Society of Economic Paleontologists and Mineralogists, *in* Geology and tectonics of the Gualala Block, Northern California. (W. P. Elder, editor). 84, 1998. p. 3-26.
- R. L. Wesson, W. H. Bakun and D. M. Perkins. Association of earthquakes and faults in the San Francisco Bay area using Bayesian inference. *Bulletin of the Seismological Society of America*. v. 93, no. 3, June 2003. p. 1306-1332.
- F. F. Whitaker*, G. D. Jones*, W. E. Sanford, P. L. Smart* and A. M. Wilson*. Hydrology, geochemistry and diagenetic potential of saline groundwaters; field results from the Bahamas and model studies. Karst Waters Institute Special Publication, *in* Hydrogeology and biology of post-Paleozoic carbonate aquifers; proceedings of the symposium, Karst frontiers; Florida and related environments. (J. B. Martin, editor and others). 7, 2002. p. 124-128.
- G. F. Wieczorek, R. C. Wilson, R. K. Mark, D. K. Keefer, E. L. Harp, S. D. Ellen, W. M. Brown, III and P. Rice. CALIFORNIA. Landslide warning system in the San Francisco Bay region, California. *Landslide News*. 4, July 1990. p. 5.
- S. M. Wiele and M. A. Franseen. Sand transport and bed evolution modeling applications in the Colorado River, Grand Canyon. *Proceedings - Federal Interagency Sedimentation Conference, in* Proceedings of the Seventh Federal interagency sedimentation conference. 7, Vol. 1, 2001. p. 1115-1119.
- P. R. Wilcock* and R. M. Iverson. Prediction in geomorphology; introduction. *Geophysical Monograph, in* Prediction in geomorphology. (P. R. Wilcock, editor and others). 135, 2003. p. 3-11.
- P. R. Wilcock* and R. M. Iverson (editors). Prediction in geomorphology. *Geophysical Monograph*. 135, 2003. 256 p.
- P. R. Wilcock*, J. C. Schmidt*, M. G. Wolman*, W. E. Dietrich*, DeWitt Dominick*, M. W. Doyle*, G. E. Grant*, R. M. Iverson, D. R. Montgomery*, T. C. Pierson, S. P. Schilling and R. C. Wilson. When models meet managers; examples from geomorphology. *Geophysical Monograph, in* Prediction in geomorphology. (P. R. Wilcock, editor and others). 135, 2003. p. 27-40.
- J. H. Williams and C. D. Johnson. Borehole-wall imaging with acoustic and televiewers for fractured-bedrock aquifer investigations. *International Symposium on Borehole Geophysics for Minerals, Geotechnical, and Groundwater Applications, in* Proceedings of the Seventh international symposium on Borehole geophysics for minerals, geotechnical, and groundwater applications. 7, 2000. p. 43-53.
- K. V. Wilson, Jr. MISSISSIPPI. Use of USGS discharge measurements to determine scour and fill at selected stream sites in Mississippi. *Proceedings - Federal Interagency Sedimentation Conference, in* Proceedings of the Seventh Federal interagency sedimentation conference. 7, Vol. 1, 2001.
- R. P. Wintsch*, M. J. Kunk, J. L. Boyd* and J. N. Aleinikoff. P-T-t paths and differential Alleghanian loading and uplift of the Bronson Hill Terrane, south central New England. *American Journal of Science*. v. 303, no. 5, May 2003. p. 410-446.
- Dick Witmer (prefacer). Strategic plan for the National Mapping Division of the U.S. Geological Survey, February 1977. 29 p. *Available at*: U. S. Geological Survey, National Mapping Division, Reston, VA, United States.
- C. S. Wong*, P. D. Capel and L. H. Nowell. National-scale, field-based evaluation of the biota-sediment accumulation factor model. *Environmental Science & Technology, ES & T*. v. 35, no. 9, May 1, 2001. p. 1709-1715.
- C. S. Wong*, A. W. Garrison* and W. T. Foreman. Enantiomeric composition of chiral polychlorinated biphenyl atropisomers in aquatic bed sediment. *Environmental Science & Technology, ES & T*. v. 35, no. 1, January 1, 2001. p. 33-39.
- M. F. Wong and B. R. Hill. HAWAII. Reservoir sedimentation during highway construction, Oahu, Hawaii, 1983-98. *Proceedings - Federal Inter-Agency Sedimentation Conference, in* Proceedings of the Seventh Federal interagency sedimentation conference. (G. D. Gylsson, chairperson). 7, Volume 2, 2001. p. IX35-IX40.
- I. C. Yang, Z. E. Peterman and K. M. Scofield*. NEVADA. Chemical analyses of pore water from boreholes USW SD-6 and USW WT-24, Yucca Mountain, Nevada. *Journal of Contaminant Hydrology, in* Yucca Mountain Project. (G. S. Bodvarsson, editor and others). 62-63, May 2003. p. 361-380.
- Limin Yang*, Zhi-Liang Zhu, J. A. Izaurralde* and J. W. Merchant*. Evaluation of North and South America AVHRR 1-km data for global environmental modeling. *International Conference/Workshop on Integrating Geographic Information Systems & Environmental Modeling, in* Preliminary proceedings of the Third international conference/workshop on Integrating geographic information systems and environmental modeling. 3, 1996. unpaginated.
- Ozcan Yigit* and A. H. Hofstra. NEVADA. Litho-geochemistry of carlin-type gold mineralization in the Gold Bar district, Battle Mountain-Eureka Trend, Nevada. *Ore Geology Reviews*. v. 22, no. 3-4, March 2003. p. 201-224.
- D. Yule*, T. Fumal, S. McGill* and G. Seitz*. Active tectonics and paleoseismic record of the San Andreas Fault, Wrightwood to Indio; working toward a forecast for the next "big event". Book - Pacific Section, Society of Economic Paleontologists and Mineralogists, *in* Geologic excursions in the California deserts and adjacent Transverse Ranges; fieldtrip guidebook and volume prepared for the joint meeting of the Cordilleran Section-GSA and Pacific Section-AAPG; fieldtrips 1-4. (George Dunne, compiler and others). 88, April 2001. p. 91-126.
- R. B. Zelt. Channel characteristics and large organic debris in adjacent burned and unburned watersheds a decade after wildfire. *Proceedings - Federal Inter-Agency Sedimentation Conference, in* Proceedings of the Seventh Federal interagency sedimentation conference. (G. D. Gylsson, chairperson). 7, Volume 2, 2001. p. X57-X64.
- W. G. Zempolich* and H. E. Cook (editors). Paleozoic carbonates of the Commonwealth of Independent States (CIS); subsurface reservoirs and outcrop analogs. Special Publication - Society for Sedimentary Geology. 74, December 2002. 245 p., 4 sheets.
- W. G. Zempolich*, H. E. Cook, V. G. Zhemchuzhnikov*, V. Y. Zhaimina*, A. Y. Zorin*, V. M. Buvtyshkin*, E. A. Kotova*, L. Y. Golub*, Antonio Giovannelli*, Maurizio Viaggi*, P. J. Lehmann*, Nick Fretwell*, D. V. Alexeiev* and P. A. LaPointe*. Biotic and abiotic influence on the stratigraphic architecture and



- diagenesis of middle to upper Paleozoic carbonates of the Bolshoi Karatau Mountains, Kazakhstan and the Southern Urals, Russia; implications for the distribution of early marine cements and reservoir quality in subsurface reservoirs. Special Publication - Society for Sedimentary Geology, *in* Paleozoic carbonates of the Commonwealth of Independent States (CIS); subsurface reservoirs and outcrop analogs. (W. G. Zempolich, editor and others). 74, December 2002. p. 123-180.
- Ming Zhang*, Manabu Takahashi*, R. H. Morin and Tetsuro Esaki*. Evaluation and application of the transient-pulse technique for determining the hydraulic properties of low-permeability rocks; Part 2, Experimental application. ASTM Geotechnical Testing Journal. v. 23, no. 1, March 2000. p. 91-99.
- M. L. Zientek, R. W. Cooper*, S. R. Corson* and E. P. Geraghty*. MONTANA. Platinum-group element mineralization in the Stillwater Complex, Montana. Special Volume - Canadian Institute of Mining and Metallurgy (1982), *in* The geology, geochemistry, mineralogy and mineral beneficiation of platinum-group elements. (L. J. Cabri, editor). 54, 2002. p. 459-481.
- M. L. Zoback, J. A. Olson and R. C. Jachens. CALIFORNIA. Seismicity and basement structure beneath South San Francisco Bay, California. Book - Pacific Section, Society of Economic Paleontologists and Mineralogists, *in* Recent geologic studies in the San Francisco Bay area. (E. M. Sanginès, editor and others). 76, 1995. p. 31-46.
- T. M. Zobeck*, N. C. Parker, S. Haskell and K. Guoding*. Scaling up from field to region for wind erosion prediction using a field-scale wind erosion model and GIS. Agriculture, Ecosystems & Environment, *in* Food and forestry; global change and global challenges. (P. J. Gregory, editor and others). v. 82, no. 1-3, December 2000. p. 247-259.
- G. A. Zyvoloski*, E. M. Kwicklis*, A. A. Eddebarh*, Bill Arnold*, Claudia Faunt and B. A. Robinson*. The site-scale saturated zone flow model for Yucca Mountain; calibration of different conceptual models and their impact on flow paths. Journal of Contaminant Hydrology, *in* Yucca Mountain Project. (G. S. Bodvarsson, editor and others). 62-63, May 2003. p. 731-750.

ABSTRACTS

Abstracts are condensed but informative summaries of presentations made at meetings of scientific and professional organizations. Typically they summarize the principal conclusions of an author's current work but contain little supporting data. Non-USGS personnel who share authorship in abstracts with USGS personnel are indicated by an asterisk (*) immediately following the name. **These publications are not available from the U.S. Geological Survey.**

- T. A. Ager. Paleoenvironments of the Bering land bridge and the North Pacific Coast during the late Wisconsin and early Holocene [abstr.] Program and Abstracts - American Quaternary Association. Conference, *in* Environmental change and human migrations in the North Pacific Basin. (D. R. Yesner, editor). 17, August 2002. p. 10-12.
- Majharul Alam*, Mike Montgomery* and T. D. Byl. Optimization of perchloroethylene dechlorination with vitamin B₁₂ and electrokinesis [abstr.] Proceedings - Annual Tennessee Water Resources Symposium, *in* Proceedings from the Tenth annual Tennessee water resources symposium. 10, April 2000. p. P.21.
- J. S. Alhadeff, D. V. Alhadeff, B. E. McCallum and M. N. Landers. GEORGIA. Digital water resources data for Georgia, 2001 [abstr.] Annual Alabama Water Resources Conference, *in* 16th annual Alabama water resources conference; abstracts for oral and poster presentations. 16, 2002.
- C. N. Alpers, M. P. Hunerlach, R. L. Hothem, J. T. May, H. E. Taylor, J. F. DeWild, M. L. Olson, D. P. Krabbenhoft and Mark Marvin-DiPasquale. CALIFORNIA. Mercury contamination and bioaccumulation associated with historical gold mining in the Bear and Yuba River watersheds, Sierra Nevada, California [abstr.] Eos, Transactions, American Geophysical Union, *in* AGU 2001 fall meeting. v. 82, no. 47, Suppl. November 20, 2001. p. 520.
- E. R. Anderman* and M. C. Hill. The hydrogeologic-unit flow (HUF) package to MODFLOW-2000 [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 338.
- J. L. Anderson*, J. L. Wooden, A. P. Barth* and Jean Morrison*. Cordilleran batholiths of the Mojave crustal province [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 397.
- R. C. Anderson*, A. F. C. Haldemann*, J. M. Dohm*, V. R. Baker*, J. C. Ferris*, K. L. Tanaka* and T. M. Hare. Central Valles Marineris, Mars; center of magmatic-driven doming and possible associated volcanism and hydrothermal activity [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 304.
- I. Artemieva, N. Sleep* and W. D. Mooney. Does 400 km thick continental lithosphere exist? [abstr.] Geophysical Research Abstracts, *in* European Geophysical Society, 25th general assembly. 2, 2000 unpaginated.
- Irina Artemieva*, W. D. Mooney and N. H. Sleep*. Plate motions and the destruction of lithospheric keels [abstr.] Eos, Transactions, American Geophysical Union, *in* AGU 2000 fall meeting. v. 81, no. 48, Suppl. November 28, 2000. p. 1177.
- M. A. Ayers and T. O. Mesko. KENTUCKY. History and overview of current activities of the U.S. Geological Survey, Kentucky District [abstr.] Kentucky Water Resources Annual Symposium, *in* Kentucky water resources annual symposium. 2002, 2002. p. 37-38.
- A. L. Baehr. NEW JERSEY. Occurrence of methyl-tert butyl ether (MTBE) throughout cycle in New Jersey [abstr.] Eos, Transactions, American Geophysical Union, *in* AGU 1999 fall meeting. v. 80, no. 46, November 16, 1999. p. 421.
- M. A. Bailey, P. A. Ferré* and J. P. Hoffmann. Numerical simulation of measured streambed-temperature profiles and soil hydraulic properties to quantify infiltration in an ephemeral stream [abstr.] Eos, Transactions, American Geophysical Union, *in* AGU 2000 fall meeting. v. 81, no. 48, Suppl. November 28, 2000. p. 501-502.
- B. P. Baldigo. NEW YORK. Effects of acid precipitation on fish communities in Neversink River, Catskill Park, New York [abstr.] Abstracts - Annual Meeting - Society of Environmental Toxicology and Chemistry (SETAC), *in* Second SETAC world congress, 16th annual meeting on Global environmental protection; science, politics, and common sense; abstract book. 16, 1995. p. 183.



- J. D. Bales. NORTH CAROLINA. Water-quality indices as measures of reservoir water quality in North Carolina [abstr.] American Water Resources Association Technical Publication Series TPS, *in* Proceedings; Annual spring speciality conference, Water quality monitoring and modeling. (J. J. Warwick, editor). 01-1, 2001. p. 15.
- J. D. Bales and C. J. O. Childress. NORTH CAROLINA. Water-quality indices as measures of reservoir water quality in North Carolina [abstr.] Institute Proceedings Series - Water Resources Research Institute of The University of North Carolina, *in* North Carolina resources; water quality trends and enhancement. (University of North Carolina, Water Resources Research Institute). 12, 1999. p. 7.
- L. S. Balistrieri, R. N. Tempel* and L. L. Stillings. NEVADA. Processes affecting water quality in pit lakes; a case study in Dexter pit lake, Tuscarora, NV [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 344.
- J. A. Barron, J. L. Bischoff, David Bukry, Timothy Herbert* and Mitchell Lyle*. CALIFORNIA. Variable Holocene climate; a comparison of high resolution records from offshore California and the Gulf of California [abstr.] Program and Abstracts - American Quaternary Association. Conference, *in* Environmental change and human migrations in the North Pacific Basin. (D. R. Yesner, editor). 17, August 2002. p. 15.
- G. R. Barth and M. C. Hill. Importance of parameters controlling virus transport in groundwater [abstr.] Eos, Transactions, American Geophysical Union, *in* AGU 2000 fall meeting. v. 81, no. 48, Suppl. November 28, 2000. p. 184.
- J. R. Bartolino, R. G. Niswonger and A. E. Stewart. NEW MEXICO. The use of water temperature and numerical simulation for quantification of ground-water/surface-water interaction of the Rio Grande, Albuquerque, New Mexico [abstr.], *in* New Mexico water research symposium. (New Mexico Water Research Institute). New Mexico Water Resources Institute, August 13, 2002. p. D1.
- W. A. Battaglin, C. A. Langtimm, M. J. Adams, A. L. Gallant and D. L. James. Conceptual design for the Amphibian Research and Monitoring Initiative (ARMI) [abstr.] Eos, Transactions, American Geophysical Union, *in* AGU 2001 fall meeting. v. 82, no. 47, Suppl. November 20, 2001. p. 469.
- W. R. Belcher, C. C. Faunt, F. A. D'Agnes and D. S. Sweetkind. Integration, management, and processing of hydrogeologic data using a digital three-dimensional hydrogeologic framework model of the Death Valley regional ground-water flow system [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 338.
- Yehuda Ben-Zion*, David Okaya*, Zhigang Peng*, A. J. Michael, Leonardo Seeber*, J. G. Armbruster*, Naside Ozer*, Serif Baris* and Mustafa Aktar*. High resolution imaging of the geometry and seismic properties of the Karadere-Duzce branch of the North Anatolian Fault at depth [abstr.] Eos, Transactions, American Geophysical Union, *in* AGU 2000 fall meeting. v. 81, no. 48, Suppl. November 28, 2000. p. 1172-1173.
- Larry Benson, Michaele Kashgarian*, Fred Paillet and Steve Lund*. CALIFORNIA, NEVADA. Sediment-core evidence of multidecadal and multicentennial droughts affecting Northern California and Nevada [abstr.] Eos, Transactions, American Geophysical Union, *in* AGU 2000 fall meeting. v. 81, no. 48, Suppl. November 28, 2000. p. 11.
- Harley Benz, K. P. Furlong* and Antonio Villasenor*. CALIFORNIA. Lithospheric velocity structure of Northern California; constraints on the development of the Mendocino triple junction and San Andreas fault system [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 380.
- B. R. Berger, J. D. Phillips and W. I. Ridley. ARIZONA. The role of basement structures in the localization of Laramide mineralization; examples from the Patagonia Mountains, south-central Arizona [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 393.
- J. Berrocal*, R. E. Engdahl and C. Fernandes*. Geometria da porcao submersa da Placa de Nazca sob a regio andina obtida com dados sismologicos [Geometry of the submerged portion of the Nazca Plate below the Andean region, obtained with seismologic data] [abstr.] Anais da Academia Brasileira de Ciencias. v. 67, no. 4, December 1995. p. 522-523.
- L. M. Bexfield and L. N. Plummer. NEW MEXICO. Occurrence of arsenic in ground water of the middle Rio Grande Basin, central New Mexico [abstr.], *in* New Mexico water research symposium. (New Mexico Water Research Institute). New Mexico Water Resources Institute, August 13, 2002. p. D3.
- J. B. Blainey, A. L. Flint and J. A. Hevesi. Monthly regional climate modeling from 1930 to the present in the arid Southwest [abstr.] Eos, Transactions, American Geophysical Union, *in* AGU 2001 fall meeting. v. 82, no. 47, Suppl. November 20, 2001. p. 460.
- K. W. Blasch, J. B. Fleming, P. A. T. Ferre* and J. P. Hoffmann. One and two dimensional temperature and moisture-content profiling of an ephemeral stream channel in a semiarid watershed [abstr.] Eos, Transactions, American Geophysical Union, *in* AGU 2000 fall meeting. v. 81, no. 48, Suppl. November 28, 2000. p. 502.
- K. W. Blasch, L. J. Meli* and P. A. T. Ferre*. Modification of temperature sensors to aid in determining streamflow timing and duration [abstr.] Eos, Transactions, American Geophysical Union, *in* AGU 2001 fall meeting. v. 82, no. 47, Suppl. November 20, 2001. p. 417.
- D. J. Bove, D. D. Eberl and D. K. McCarty*. COLORADO. Correlation of illite thickness and size distributions with hydrothermal zonation at the Red Mountain alunite deposit, Lake City, Colorado [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 321.
- M. W. Bradley. TENNESSEE. Environmental isotopes in ground water in Shelby County, Tennessee [abstr.] Proceedings - Annual Tennessee Water Resources Symposium, *in* Proceedings from the Tenth annual Tennessee water resources symposium. 10, April 2000. p. 1B.17.
- M. W. Bradley. TENNESSEE. Ground-water monitoring network in Tennessee [abstr.] Proceedings - Annual Tennessee Water Re-



- sources Symposium, *in* Proceedings from the Tenth annual Tennessee water resources symposium. 10, April 2000. p. 2A.5.
- P. M. Bradley, F. H. Chapelle and J. E. Landmeyer. Microbial degradation of MTBE in surface-water sediments [abstr.] American Water Resources Association Technical Publication Series TPS, *in* Proceedings; American Water Resources Association's annual water resources conference; Water quantity and quality issues in coastal urban areas. (R. W. Higgins, editor). 2000-3, 2000. p. 1.
- D. A. Brew. ALASKA. Landforms + generalized bedrock-lithologic units in Glacier Bay National Park, Southeastern Alaska; are they a partial basis for eco(sub)system units? A study still in progress! [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 264.
- M. E. Brigham. Trace elements in streambed sediments of the St. Croix River basin, 2000 [abstr.] Biennial Conference on Water Resources in Minnesota, *in* Working together in a climate of change to management Minnesota's water resources; a collection of abstracts. 8, April 17, 2002 1 page.
- M. E. Brigham, R. M. Goldstein, G. A. Payne and K. E. Lee. MINNESOTA, WISCONSIN. Methylmercury in diverse surface waters of Minnesota and Wisconsin [abstr.] Biennial Conference on Water Resources in Minnesota, *in* Working together in a climate of change to management Minnesota's water resources; a collection of abstracts. 8, April 17, 2002 1 page.
- M. E. Brigham, C. J. McCullough and Paul Wilkinson*. MINNESOTA. Use of fallout radioisotopes to estimate sources of suspended sediment to the Wild Rice River, northwestern Minnesota, 1998 [abstr.] Biennial Conference on Water Resources in Minnesota, *in* Working together in a climate of change to management Minnesota's water resources; a collection of abstracts. 8, April 17, 2002.
- Elisabeth Brouwers and Carleton Bern*. COLORADO. Determination of aquatic conditions in mining regions using sediment cores, Animas watershed, Colorado [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 285.
- M. C. Bruno*, K. C. Cunningham and S. A. Perry*. Crustacean communities from ground waters in the southern Everglades, in relation to hydrological and geological features [abstr.] Florida Scientist, *in* 2002 program issue; the Sixty-sixth annual meeting of the Florida Academy of Sciences in conjunction with the Florida Junior Academy of Science and the Science Talent Search. v. 65, no. 1, Suppl. March 2002. p. 7-8.
- D. Bukry. Neogene Pacific nannofossil stages [abstr.], *in* Pacific Science Association 15th congress; programme, abstracts and congress information. Dunedin: Pacific Science Association, 1983. p. 30.
- M. H. Bulmer*, R. W. Jibson, D. K. Keefer, Franco Mantovani*, William Murphy* and David Petley*. The application of SAR data to the interpretation of landslides [abstr.] Eos, Transactions, American Geophysical Union, *in* AGU 2000 fall meeting. v. 81, no. 48, Suppl. November 28, 2000. p. 7.
- W. C. Burnett*, D. J. Cullen*, D. Z. Piper and E. K. Maughan. Geochemical characteristics of seamount phosphate occurrences [abstr.], *in* Pacific Science Association 15th congress; programme, abstracts and congress information. Dunedin: Pacific Science Association, 1983. p. 30.
- K. R. Burow, J. M. Gamble, Roger Fuji and Jim Constantz. Shallow ground-water flux beneath a restored wetland using two-dimensional simulation of ground-water flow and heat transport [abstr.] Eos, Transactions, American Geophysical Union, *in* AGU 2001 fall meeting. v. 82, no. 47, Suppl. November 20, 2001. p. 446.
- T. D. Byl and S. D. Williams. TENNESSEE. Evidence of chlorinated-ethene biodegradation at a karst site in middle Tennessee [abstr.] Proceedings - Annual Tennessee Water Resources Symposium, *in* Proceedings from the Tenth annual Tennessee water resources symposium. 10, April 2000. p. 1B.39.
- M. J. Byrne and Eduardo Patiño. Feasibility of using acoustic and optical backscatter instruments for estimating total suspended solids concentrations in estuarine environments [abstr.] Proceedings - Federal Interagency Sedimentation Conference, *in* Proceedings of the Seventh Federal interagency sedimentation conference. 7, Vol. 1, 2001. p. III135-III138.
- J. B. Callegary and P. A. T. Ferre*. Borehole geophysics and surface electromagnetic induction surveys to describe ephemeral channel recharge in the Sierra Vista subwatershed of the upper San Pedro Basin [abstr.] Eos, Transactions, American Geophysical Union, *in* AGU 2001 fall meeting. v. 82, no. 47, Suppl. November 20, 2001. p. 462.
- J. P. Calzia, R. W. Kistler, J. L. Wooden and O. T. Ramo*. CALIFORNIA. Late Cenozoic granitic rocks in Death Valley, California [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 397.
- C. C. Cameron, Supardi* and T. J. Malterer*. Peat resources mapping along the Batanghari River, near Djambi, South Sumatra [abstr.], *in* Tropical peat and peatlands for development; abstracts. Gadjah Mada: Gadjah Mada University, 1987. p. 15.
- W. F. Cannon, D. L. Daniels, S. L. Snyder and S. W. Nicholson. WISCONSIN. A preliminary interpretation of new aeromagnetic and gravity data in Wisconsin [abstr.] Proceedings and Abstracts - Institute on Lake Superior Geology. Meeting, *in* 47th annual meeting, Institute on Lake Superior Geology; proceedings, program and abstracts. (M. G. Mudrey, Jr., editor). 47, Part 1, May 2001. p. 14-15.
- W. F. Cannon and L. G. Woodruff. WISCONSIN, MICHIGAN. Regional arsenic anomalies shown by NURE stream sediment and hydrogeochemical data in northern Wisconsin and Michigan [abstr.] Proceedings and Abstracts - Institute on Lake Superior Geology. Meeting, *in* 47th annual meeting, Institute on Lake Superior Geology; proceedings, program and abstracts. (M. G. Mudrey, Jr., editor). 47, Part 1, May 2001. p. 16-17.
- M. C. Carpenter, J. L. Lockett, E. J. Wicks*, George Smith*, B. L. Cluer* and Nathan Blomgren. Monitoring sand deposition and erosion on spawning beds used by razorback suckers on the Green River downstream from flaming Gorge Dam using an array of load-cell scour sensors [abstr.] Eos, Transactions, American Geophysical Union, *in* AGU 1999 fall meeting. v. 80, no. 46, November 16, 1999. p. 448.
- P. E. Carrara, T. A. Ager, J. F. Baichtal* and D. Van Sistine. Glacial limits and possible refugia in the southern Alexander Archipelago



- during the late Wisconsin [abstr.] Program and Abstracts - American Quaternary Association. Conference, *in* Environmental change and human migrations in the North Pacific Basin. (D. R. Yesner, editor). 17, August 2002. p. 23.
- R. L. Carruth and J. P. Hofmann. Ground-water development of the southern Saipan Aquifer system, Commonwealth of the northern Mariana Islands [abstr.] Water Information Bulletin, *in* Water resources management in the Pacific Rim; 1996 Pacific Northwest/Oceania conference; abstracts. 2, 1996. p. 14-15.
- J. M. Carter and D. G. Driscoll. SOUTH DAKOTA, WYOMING. Hydrologic budgets for the Madison and Minnelusa aquifers in the Black Hills area, South Dakota and Wyoming, water years 1987-96 [abstr.] Midwest Ground Water Conference, *in* Forty-seventh annual Midwest ground water conference; program & abstracts. 47, October 2002. p. 49.
- T. J. Casadevall. Pre-eruption hydrothermal systems at Pinatubo, Philippines and El Chichon, Mexico; evidence for degassing magmas beneath dormant volcanoes [abstr.] Chishitsu Chosajo Hokoku = Report - Geological Survey of Japan, *in* Magmatic contributions to hydrothermal systems. (J. W. Hedenquist, editor). 279, 1992. p. 35-38.
- M. G. Chapman and B. K. Lucchitta. New Mars data suggest Melas Chasma interior deposits are sub-ice volcanoes [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 304.
- Jungyill Choi, J. W. Harvey and M. H. Conklin*. Characterizing multiple timescales of stream and storage zone interaction that affect solute fate and transport in drainage basins [abstr.] Eos, Transactions, American Geophysical Union, *in* AGU 1999 fall meeting. v. 80, no. 46, November 16, 1999. p. 341.
- D. A. Christoffel*, D. Seward* and B. R. Lienert. Geomagnetic reversal stratigraphy of the Wanganui Series from the Rangitikei River Section [abstr.], *in* Pacific Science Association 15th congress; programme, abstracts and congress information. Dunedin: Pacific Science Association, 1983. p. 43.
- K. L. Collins*, B. E. Pickup*, A. L. Gillilan*, S. T. Paxton*, R. A. Marston* and Scott Christenson. OKLAHOMA. Geomorphology and sedimentology of the Canadian River floodplain adjacent to the Norman City Landfill, Oklahoma [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 286.
- L. S. Coplin and D. L. Galloway. TEXAS. Historical subsidence in the Houston-Galveston area, Texas [abstr.] Proceedings - State of the Bay Symposium, *in* State of the Bay symposium V. 5, 2001. p. 132.
- M. K. Corcoran*, J. H. Hay*, D. M. Patrick* and Neville Gaggiani. COLORADO. Steady-state evaluations of recharge trenches, Rocky Mountain Arsenal (RMA), Colorado [abstr.] Journal of the Mississippi Academy of Sciences, *in* Mississippi Academy of Sciences; sixty-seventh annual meeting; program and abstracts issue. v. 48, no. 1, January 2003. p. 45.
- H. A. Cowan*, W. P. Montero*, R. L. Dart and M. N. Machette. Maps and databases of Quaternary faults and folds in Panama and Costa Rica and adjoining offshore regions [abstr.] Eos, Transactions, American Geophysical Union, *in* AGU 2000 fall meeting. v. 81, no. 48, Suppl. November 28, 2000. p. 1183-1184.
- H. A. Cowan*, C. S. Prentice, Daniela Pantosti* and P. M. De Martini*. Timing of late Holocene earthquakes on the Aeropuerto Fault, Managua, Nicaragua [abstr.] Eos, Transactions, American Geophysical Union, *in* AGU 2000 fall meeting. v. 81, no. 48, Suppl. November 28, 2000. p. 1184.
- E. J. Crafford* and V. J. S. Grauch. Mineral trends and tectonic processes; connecting the dots to a meaningful interpretation [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 391.
- K. E. Cuff*, S. M. Krasel* and C. D. Farrar. Soil-gas geochemical surveys at Long Valley Caldera [abstr.] Eos, Transactions, American Geophysical Union, *in* AGU 2000 fall meeting. v. 81, no. 48, Suppl. November 28, 2000. p. 1386.
- F. A. D'Agnese. The Death Valley regional ground-water flow system (DVRFS); increasingly complex problems, increasingly complex models [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 337.
- F. A. D'Agnese and C. C. Faunt. NEVADA, CALIFORNIA. Evaluating the significance of hydrogeologic complexity in the Death Valley region, Nevada and California [abstr.] Eos, Transactions, American Geophysical Union, *in* AGU 1999 fall meeting. v. 80, no. 46, November 16, 1999. p. 317.
- R. A. Dahlgren*, A. A. Heusner*, E. E. Van Nieuwenhuyse*, C. R. Kratzer and Zengshou Yu*. CALIFORNIA. Water quality; algae relationships in the lower San Joaquin River, California [abstr.] Eos, Transactions, American Geophysical Union, *in* AGU 2000 fall meeting. v. 81, no. 48, Suppl. November 28, 2000. p. 175.
- D. L. Daniels, S. W. Nicholson, W. F. Cannon and R. P. Kucks. WISCONSIN. New aeromagnetic map of Wisconsin examined in a regional context [abstr.] Proceedings and Abstracts - Institute on Lake Superior Geology. Meeting, *in* 47th annual meeting, Institute on Lake Superior Geology; proceedings, program and abstracts. (M. G. Mudrey, Jr., editor). 47, Part 1, May 2001. p. 22-23.
- W. R. Danskin. Use of simulation and optimization models to facilitate water-management negotiations [abstr.] Eos, Transactions, American Geophysical Union, *in* AGU 1999 fall meeting. v. 80, no. 46, November 16, 1999. p. 352.
- J. H. Davis. FLORIDA, GEORGIA. Regional hydrology of the upper Floridan Aquifer of north-central Florida and southwestern Georgia [abstr.] Special Publication - Florida Geological Survey, *in* The Wakulla Springs Woodville karst plain symposium; transactions. (Walter Schmidt, compiler and others). Report no. 46, 2000. p. 21.
- C. S. de Fontaine*, D. S. Kaufman*, R. S. Anderson*, A. Werner*, C. F. Waythomas, J. R. Hancock*, B. K. Dennison* and K. L. Wallace*. ALASKA. Late Quaternary volcanic ash in three lacustrine records, upper Cook Inlet, Alaska [abstr.] Program and Abstracts - American Quaternary Association. Conference, *in* Environmental change and human migrations in the North Pacific Basin. (D. R. Yesner, editor). 17, August 2002. p. 28.
- R. W. Decker. Reducing volcanic risk [abstr.], *in* Pacific Science Association 15th congress; programme, abstracts and congress information. Dunedin: Pacific Science Association, 1983. p. 58.



- G. N. Delin and W. N. Herkelrath. Long-term monitoring of soil moisture using CS615 reflectometer probes [abstr.] *Eos, Transactions, American Geophysical Union*, in AGU 1998 fall meeting. v. 79, no. 45, Suppl. November 10, 1998. p. 368.
- C. R. Demas, P. A. Ensminger and N. J. Powell*. Comparison of suspended-sediment samplers and procedures for sampling the Lower Mississippi River [abstr.] *Proceedings - Federal Interagency Sedimentation Conference*, in *Proceedings of the Seventh Federal interagency sedimentation conference*. 7, Vol. 1, 2001. p. III9.
- M. D. Dettinger and D. H. Schaefer. NEVADA. Decade-scale hydroclimatic forcing of ground-water levels in the central Great Basin, eastern Nevada [abstr.] *Abstracts - Annual Summer Symposium*, in *Water resources and environmental hazards; emphasis on hydrologic and crustal insight in the Pacific Rim; abstracts*. 1995, 1995. p. 1.
- Ed DeWitt, R. E. Zartman* and Kiyoto Futa. CALIFORNIA. Age and origin of the Mountain Pass Carbonatite, southeastern California [abstr.] *Abstracts with Programs - Geological Society of America*, in *Geological Society of America, 2000 annual meeting*. v. 32, no. 7, 2000. p. 397.
- R. P. Dickerson, D. S. Sweetkind and C. J. Potter. NEVADA, CALIFORNIA. Interpretation of thrust geometry in the vicinity of the Amargosa Desert, Nevada and California [abstr.] *Abstracts with Programs - Geological Society of America*, in *Geological Society of America, 2000 annual meeting*. v. 32, no. 7, 2000. p. 339.
- M. F. Diggles. No longer "out of print"; classic geologic publications reprinted on compact disc and the Web [abstr.] *Abstracts with Programs - Geological Society of America*, in *Geological Society of America, 2000 annual meeting*. v. 32, no. 7, 2000. p. 294-295.
- J. M. Dohm*, J. C. Ferris*, R. C. Anderson*, V. R. Baker*, R. G. Strom*, T. M. Hare*, K. L. Tanaka*, N. G. Barlow* and J. A. Skinner. Paleotopographic reconstruction of the principal magmatic complex of Mars, Tharsis, exposes gigantic drainage basin [abstr.] *Abstracts with Programs - Geological Society of America*, in *Geological Society of America, 2000 annual meeting*. v. 32, no. 7, 2000. p. 304.
- C. E. Dowman, J. P. Hoffmann and P. A. T. Ferre*. Deep temperature profiles to evaluate recharge in the desert Southwest, United States [abstr.] *Eos, Transactions, American Geophysical Union*, in AGU 2001 fall meeting. v. 82, no. 47, Suppl. November 20, 2001. p. 417.
- R. M. Drake, II. Hydrogeologic facies maps for five Tertiary volcanic units in the Death Valley regional flow system [abstr.] *Abstracts with Programs - Geological Society of America*, in *Geological Society of America, 2000 annual meeting*. v. 32, no. 7, 2000. p. 339.
- C. L. Driedger. Effective communication with populations at risk; examples and advice from the Mount Rainier Volcano Hazard Work Group [abstr.] *Abstracts with Programs - Geological Society of America*, in *Geological Society of America, 2000 annual meeting*. v. 32, no. 7, 2000. p. 333.
- W. R. Dripps*, M. P. Anderson* and R. J. Hunt. Incorporating recharge variability into groundwater flow models [abstr.] *Abstracts with Programs - Geological Society of America*, in *Geological Society of America, 2000 annual meeting*. v. 32, no. 7, 2000. p. 335.
- D. G. Driscoll and J. M. Carter. SOUTH DAKOTA. Ground-water and surface-water interactions involving the Madison and Minnelusa aquifers in the Black Hills area, South Dakota [abstr.] *Midwest Ground Water Conference*, in *Forty-seventh annual Midwest ground water conference; program & abstracts*. 47, October 2002. p. 48.
- K. M. Ellett, A. L. Flint and J. W. Hopmans*. Large-scale numerical modeling of flow and transport in a deep unsaturated-zone system for natural and artificial recharge analysis [abstr.] *Eos, Transactions, American Geophysical Union*, in AGU 2001 fall meeting. v. 82, no. 47, Suppl. November 20, 2001. p. 377.
- M. A. Engle*, R. N. Tempel*, A. R. Wallace and M. S. Gustin*. The mobility of mercury in epithermal mercury deposits in an arid environment [abstr.] *Abstracts with Programs - Geological Society of America*, in *Geological Society of America, 2000 annual meeting*. v. 32, no. 7, 2000. p. 344.
- R. L. Ethington*, R. S. Nicoll*, G. S. Nowlan* and J. E. Repetski. Oepikodus biogeography and palaeoecology in the Early Ordovician [abstr.] *Abstracts - Geological Society of Australia*, in *Palaeontology down under 2000*. 61, 2000. p. 30.
- W. C. Evans, M. L. Sorey, A. C. Cook* and B. M. Kennedy*. CALIFORNIA. Magmatic carbon in cold groundwaters at Mammoth Mountain, CA [abstr.] *Eos, Transactions, American Geophysical Union*, in AGU 2000 fall meeting. v. 81, no. 48, Suppl. November 28, 2000. p. 1386.
- C. D. Farrar, M. L. Sorey, D. L. Galloway, J. F. Howle, W. C. Evans, Michelle Sneed and R. D. Jacobson. Results of hydraulic testing and geochemical sampling in the Long Valley experimental well (LVEW), Long Valley Caldera, USA [abstr.] *Eos, Transactions, American Geophysical Union*, in AGU 2000 fall meeting. v. 81, no. 48, Suppl. November 28, 2000. p. 1386.
- D. T. Feinstein, J. T. Krohelski, T. T. Eaton*, K. R. Bradbury* and M. B. Gotkowitz*. WISCONSIN. Data analyses contributing to a regional groundwater flow model of water supply in southeastern Wisconsin [abstr.] *Abstracts with Programs - Geological Society of America*, in *Geological Society of America, 2000 annual meeting*. v. 32, no. 7, 2000. p. 336.
- R. B. Finkelman, W. D. Kalkreuth* and C. J. Willett. Characterization of coals from the Candiotia, Butia-Leao and Santa Terezinha coal deposits, Rio Grande do Sul, Brazil [abstr.] *International Geological Congress, Abstracts = Congrès Géologique International, Résumés*, in *Brazil 2000; 31st international geological congress; abstract volume*. 31, August 2000 unpaginated.
- L. M. Firestone. Geographic processing of census data for loss-risk assessment along the Wasatch Front [abstr.] *Annual Conference Proceedings of the Urban and Regional Information Systems Association*, in *Building on the past, shaping the future; papers from the annual conference of the Urban and Regional Information Systems Association; abstracts; all papers accepted for the 1987 annual conference*. (Libby Clapp, editor). 25, Vol. 5, 1987. p. 11.
- A. L. Flint, L. E. Flint, J. B. Blainey and J. A. Hevesi. Fundamental concepts of recharge in the desert Southwest [abstr.] *Eos, Transactions, American Geophysical Union*, in AGU 2001 fall meeting. v. 82, no. 47, Suppl. November 20, 2001. p. 460.
- A. L. Fong. Ground-water quality in three different land use settings, 1996-98 [abstr.] *Biennial Conference on Water Resources in Min-*



- nesota, in Seventh biennial conference, Minnesota Water 2000; A watershed year, looking back, planning ahead; a collection of abstracts. (University of Minnesota, Water Resources Center). 7, 2000. p. 29.
- R. O. Fournier. The influences of depth of burial and the brittle-plastic transition on the evolution of magmatic fluids [abstr.] Chishitsu Chosajo Hokoku = Report - Geological Survey of Japan, in Magmatic contributions to hydrothermal systems. (J. W. Hedenquist, editor). 279, 1992. p. 57-59.
- D. G. Froese*, D. G. Smith*, J. A. Westgate*, T. A. Ager, S. J. Preece*, Amanjit Sandhu*, R. J. Enkin* and Florence Weber. ALASKA. Recurring middle Pleistocene (0.56-0.78 Ma) outburst floods along the Yukon River in East-Central Alaska [abstr.] Program and Abstracts - American Quaternary Association. Conference, in Environmental change and human migrations in the North Pacific Basin. (D. R. Yesner, editor). 17, August 2002. p. 45.
- Meredith Galanter*, D. M. Sigman*, Hiram Levy*, J. F. Bohlke, Fred Lipschultz* and Eric Steig*. Controls on the oxygen isotopic composition of atmospherically-derived nitrate [abstr.] Eos, Transactions, American Geophysical Union, in AGU 2000 fall meeting. v. 81, no. 48, Suppl. November 28, 2000. p. 191.
- D. L. Galloway and L. S. Coplin. TEXAS. Subsidence and uplift in the coastal plain near Houston, Texas, mapped in spatial detail from space [abstr.] Proceedings - State of the Bay Symposium, in State of the Bay symposium V. 5, 2001. p. 133.
- J. W. Garrett. Summary of nutrient and fecal indicator bacteria data in streams in the lower Tennessee River basin, 1999 [abstr.] Proceedings - Annual Tennessee Water Resources Symposium, in Proceedings from the Tenth annual Tennessee water resources symposium. 10, April 2000. p. 2B.33.
- M. J. Giorgino and R. E. Strain. NORTH CAROLINA. Bathymetry of Bonnie Doone Lake, Kornbow Lake, Mintz Pond, and Glenville Lake, Cumberland County, North Carolina 1996-98 [abstr.] Institute Proceedings Series - Water Resources Research Institute of The University of North Carolina, in North Carolina resources; water quality trends and enhancement. (University of North Carolina, Water Resources Research Institute). 12, 1999. p. 29.
- William Glen. A historian's lessons from Lamont 1949-1999 [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 379.
- H. Gluskoter and R. C. Milici. Assessment of coal resources of the United States of America [abstr.] International Geological Congress, Abstracts = Congrès Géologique International, Résumés, in Brazil 2000; 31st international geological congress; abstract volume. 31, August 2000 unpaginated.
- J. N. Goswami*, M. P. Deomurari*, K. K. Marhas* and J. N. Grossman. Al-Mg isotopic systematics in Semarkona chondrules [abstr.] Meteoritics & Planetary Science, in 65th annual meeting of the Meteoritical Society; abstracts. (P. H. Warren, chairperson). v. 37, no. 7, Suppl. July 2002. p. 55.
- S. J. Grady. Assessment of MTBE in drinking water in 10 eastern states [abstr.] Eos, Transactions, American Geophysical Union, in AGU 1999 fall meeting. v. 80, no. 46, November 16, 1999. p. 420-421.
- G. E. Grant* and J. E. O'Connor. Geologic control of the hydrologic and sediment transport regime of large rivers; some examples from the U.S. Pacific Northwest [abstr.] Chikai = Transactions - Japanese Geomorphological Union, in The International Association of Geomorphologists; fifth international conference on Geomorphology; abstracts of conference papers. v. 22, no. 4, August 2001. p. C-77.
- V. J. S. Grauch, B. D. Rodriguez, Viki Bankey and J. L. Wooden. NEVADA. Geophysical and isotopic evidence for a crustal fault zone along the Battle Mountain-Eureka mineral trend, north-central Nevada [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 392.
- J. N. Grossman. The redistribution of sulfides during metamorphism and alteration of primitive chondrites [abstr.] Meteoritics & Planetary Science, in 65th annual meeting of the Meteoritical Society; abstracts. (P. H. Warren, chairperson). v. 37, no. 7, Suppl. July 2002. p. 57.
- P. J. Haeussler, Dwight Bradley, Marti Miller and Ray Wells. Life and death of the Resurrection Plate; evidence for an additional plate in the NE Pacific in Paleocene-Eocene time [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 382.
- K. M. Haller, Hiroyuki Tsutsumi*, M. N. Machette, James Essex and Dean Hancock. MONTANA. Paleoseismology of the Grayling Creek site, Red Canyon Fault (1959 Hebgen Lake, Montana, earthquake) [abstr.] Eos, Transactions, American Geophysical Union, in AGU 2000 fall meeting. v. 81, no. 48, Suppl. November 28, 2000. p. 1169-1170.
- R. B. Halley, K. K. Yates and R. W. Curry*. Geochemical monitoring of coral in Biscayne National Park [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 264.
- J. R. Hancock*, A. Werner*, D. S. Kaufman*, C. F. Waythomas, C. S. de Fontaine*, K. M. Kathan*, B. K. Dennison*, K. L. Wallace* and E. M. Kingsbury*. ALASKA. Holocene volcanic ash in two lakes near Anchorage, Alaska [abstr.] Program and Abstracts - American Quaternary Association. Conference, in Environmental change and human migrations in the North Pacific Basin. (D. R. Yesner, editor). 17, August 2002. p. 52-53.
- P. E. Hansen and J. D. Fallon. MINNESOTA. U.S. Geological Survey-Minnesota streamflow available on the Internet [abstr.] Biennial Conference on Water Resources in Minnesota, in Seventh biennial conference, Minnesota Water 2000; A watershed year, looking back, planning ahead; a collection of abstracts. (University of Minnesota, Water Resources Center). 7, 2000. p. 10.
- P. E. Hanson and J. R. Stark. MINNESOTA. National Water-Quality Assessment Program; activities in Minnesota [abstr.] Biennial Conference on Water Resources in Minnesota, in Seventh biennial conference, Minnesota Water 2000; A watershed year, looking back, planning ahead; a collection of abstracts. (University of Minnesota, Water Resources Center). 7, 2000. p. 10.
- D. A. Harned. ALABAMA, GEORGIA, MISSISSIPPI. Trends and nutrient loads for the Mobile River basin, Alabama, Georgia and Mississippi, 1970-97 [abstr.] Eos, Transactions, American Geo-



- physical Union, *in* AGU 1999 fall meeting. v. 80, no. 46, November 16, 1999. p. 461-462.
- D. A. Harned, J. S. Harvill and Gerard McMahon. ALABAMA, GEORGIA, MISSISSIPPI. Nutrient mass balance for the Mobile River basin in Alabama, Georgia, and Mississippi [abstr.] *Eos, Transactions, American Geophysical Union, in* AGU 2001 fall meeting. v. 82, no. 47, Suppl. November 20, 2001.
- R. A. Haugerud. Seeing time and tectonics in the topography of the Salish Lowland [abstr.] *Chikei = Transactions - Japanese Geomorphological Union, in* The International Association of Geomorphologists; fifth international conference on Geomorphology; abstracts of conference papers. v. 22, no. 4, August 2001. p. C-87.
- R. A. Haugerud. Mapping Earth surfaces with digital topography; experiences with LIDAR and conventional DEMs [abstr.] *Chikei = Transactions - Japanese Geomorphological Union, in* The International Association of Geomorphologists; fifth international conference on Geomorphology; abstracts of conference papers. v. 22, no. 4, August 2001. p. C-88.
- G. B. Haxel. CALIFORNIA. Primitive, fluorine-rich, ultrapotassic phlogopite shonkinite dikes of the Mountain Pass rare earth district, Southern California [abstr.] *Abstracts with Programs - Geological Society of America, in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 396-397.
- Suzanne Hecker, H. D. Stenner, D. P. Schwartz and J. C. Hamilton. MONTANA. Paleoseismic results from the central part of the 1959 Hebgen Fault rupture, Montana [abstr.] *Eos, Transactions, American Geophysical Union, in* AGU 2000 fall meeting. v. 81, no. 48, Suppl. November 28, 2000. p. 1170.
- J. R. Hein, A. N. Halliday*, K. W. Burton* and Martin Frank*. Cenozoic paleoceanographic history derived from Fe-Mn oxyhydroxide crusts [abstr.] *International Geological Congress, Abstracts = Congrès Géologique International, Résumés, in* Brazil 2000; 31st international geological congress; abstracts volume. 31, August 2000.
- J. R. Hein and R. A. Zierenberg*. CALIFORNIA. Barite deposits from the Southern California continental borderland; bacterially mediated, fault-zone related, seep deposits [abstr.] *International Geological Congress, Abstracts = Congrès Géologique International, Résumés, in* Brazil 2000; 31st international geological congress; abstracts volume. 31, August 2000.
- J. A. Hevesi and A. L. Flint. Evaluation of recharge processes affecting the Death Valley regional groundwater flow system [abstr.] *Abstracts with Programs - Geological Society of America, in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 338.
- J. A. Hevesi, A. L. Flint, L. E. Flint and J. B. Blainey. Calibration of deterministic net infiltration model for the Death Valley region using measured daily stream flows [abstr.] *Eos, Transactions, American Geophysical Union, in* AGU 2001 fall meeting. v. 82, no. 47, Suppl. November 20, 2001. p. 460.
- M. C. Hill. Constraining models of ground-water systems using geologic information [abstr.] *Abstracts with Programs - Geological Society of America, in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 337.
- A. B. Hoos and R. R. Knight. Occurrence and transport of pesticides and selected metabolites in streams in the lower Tennessee River basin, 1999 [abstr.] *Proceedings - Annual Tennessee Water Resources Symposium, in* Proceedings from the Tenth annual Tennessee water resources symposium. 10, April 2000. p. 2B.35.
- S. Hostetler and P. Clark*. Tropical climate change at the last glacial maximum inferred from glacier mass-balance modeling [abstr.] *Abstracts with Programs - Geological Society of America, in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 273.
- Rick Huff and Tracey Jaglowitz. NEW MEXICO. Sensitivity of a transient ground-water-flow simulation to return flows in the Tularosa Basin, south-central New Mexico [abstr.], *in* New Mexico water research symposium. (New Mexico Water Research Institute). New Mexico Water Resources Institute, August 13, 2002. p. D17.
- W. B. Hughes. ALABAMA, FLORIDA, GEORGIA. National Water Quality Assessment (NAWQA) Program activities in the Apalachicola-Chattahoochee-Flint River basin, Alabama, Florida, and Georgia [abstr.] *Annual Alabama Water Resources Conference, in* 16th annual Alabama water resources conference; abstracts for oral and poster presentations. 16, 2002.
- M. P. Hunerlach, C. N. Alpers, R. L. Hothem and J. T. May*. CALIFORNIA. Mercury contamination of water, sediment, and biota in watersheds affected by historic hydraulic gold mining in California [abstr.] *Abstracts with Programs - Geological Society of America, in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 345.
- R. J. Hunt, J. T. Krohelski, D. T. Feinstein, M. P. Anderson* and H. M. Haitjema*. Simulating groundwater-lake interactions with models; past approaches and future directions [abstr.] *Abstracts with Programs - Geological Society of America, in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 336.
- J. E. Huntoon*, J. D. Stanesco*, R. F. Dubiel and J. Dougan*. *Geology of Natural Bridges National Monument* [abstr.] *Abstracts with Programs - Geological Society of America, in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 263.
- Alexander Iriondo and W. W. Atkinson, Jr.*. Orogenic gold mineralization along the proposed trace of the Mojave-Sonora Megashear; evidence for the Laramide Orogeny in NW Sonora, Mexico [abstr.] *Abstracts with Programs - Geological Society of America, in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 393.
- R. C. Jachens, R. J. Blakely and J. P. Calzia. CALIFORNIA. Geophysical expression of magmatism and tectonics of Mojavia, California [abstr.] *Abstracts with Programs - Geological Society of America, in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 396.
- B. E. Jaffe, R. E. Kayen, W. A. Barnhardt, T. E. Reiss, G. R. Cochrane, Steve Yancho* and Max Holden*. MICHIGAN. Recent huge landslides in the Sleeping Bear Dunes National Lakeshore, Michigan; implications for assessing coastal landslide hazards in the parks [abstr.] *Abstracts with Programs - Geological Society of America, in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 264.



- G. P. Johnson. Suspended-sediment budget and yields for the LaGrange Pool of the Illinois River, October 1994–September 1997 [abstr.] Proceedings - Federal Interagency Sedimentation Conference, in Proceedings of the Seventh Federal interagency sedimentation conference. 7, Vol. 1, 2001. p. 1136.
- M. L. Jones and G. M. O'Brien. The Hydrograph Analyst, an ArcView GIS extension that integrates point, spatial, and temporal data and provides a graphical user interface for hydrograph analysis [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 373.
- P. M. Jones, Joseph Magner*, D. O. Rosenberry and E. M. Thurman. MINNESOTA. Hydrologic assessment of sites where frog malformations are present in Minnesota [abstr.] Biennial Conference on Water Resources in Minnesota, in Seventh biennial conference, Minnesota Water 2000; A watershed year, looking back, planning ahead; a collection of abstracts. (University of Minnesota, Water Resources Center). 7, 2000. p. 44.
- P. M. Jones, M. A. Menheer, S. D. Zaugg, H. Taylor, G. Aiken, E. M. Thurman, C. Rostad and D. O. Rosenberry. MINNESOTA. Water-quality assessment of surface-water microlayers at frog malformation sites in Minnesota [abstr.] Biennial Conference on Water Resources in Minnesota, in Working together in a climate of change to management Minnesota's water resources; a collection of abstracts. 8, April 17, 2002 1 page.
- P. M. Jones and Thomas Winterstein. MINNESOTA. Characterization of rainfall-runoff response in a large agricultural watershed, southwestern Minnesota [abstr.] Annual Water Resources Conference, in University of Minnesota 32nd annual Water resources conference. (Wayne Sicora, chairperson). 32, 2000.
- K. E. Juracek. KANSAS. Reservoir sedimentation in Kansas; quantity and quality [abstr.] Proceedings - Annual Kansas Hydrology Seminar, in Proceedings of the 11th annual Kansas hydrology seminar. (American Institute of Hydrology, Kansas Section). 11, 2002.
- K. E. Juracek. KANSAS. Channel stability of the Neosho River downstream from John Redmond Dam, Kansas [abstr.] American Water Resources Association Technical Publication Series TPS, in Proceedings; AWRAs 2000 summer speciality conference; Riparian geology and management in multi-land use watersheds. (P. J. Wigington, Jr., editor and others). 00-2, 2000. p. 593-595.
- K. E. Juracek. Use of stream-gage information to assess changes in river-channel morphology [abstr.] Annual Missouri River Natural Resources Conference, in Missouri River science; meeting the challenge of change. 6, April 2002. p. 42.
- M. C. Kasmarek and E. W. Strom. TEXAS. Hydrogeology and simulation of ground-water flow and land-surface subsidence in the Chicot and Evangeline aquifers, Houston area, Texas [abstr.] Proceedings - State of the Bay Symposium, in State of the Bay symposium V. 5, 2001. p. 134-135.
- B. G. Katz. FLORIDA. Hydrochemical interactions between ground water and surface water in the Woodville karst plain, northern Florida [abstr.] Special Publication - Florida Geological Survey, in The Wakulla Springs Woodville karst plain symposium; transactions. (Walter Schmidt, compiler and others). Report no. 46, 2000. p. 61.
- Jim Kauahikaua and K. V. Cashman*. HAWAII. Reverse engineering Hawaiian lava flows [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 395.
- D. K. Keefer, M. E. Moseley*, D. R. Satterlee* and S. D. deFrance*. El Niño-generated floods dating from 38.2 ka to 1998 at archaeological sites along the far south coast of Peru [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 262.
- S. H. Kirby, E. R. Engdahl and E. A. Okal*. The Juan Fernandez earthquake zone of central Chile and Argentina at 34 to 30.5°S; fine structure and evidence for reactivation of shallow intraplate faults at intermediate depths [abstr.] Eos, Transactions, American Geophysical Union, in AGU 1996 spring meeting. v. 77, no. 17, Suppl. April 23, 1996. p. 275.
- R. R. Knight and J. R. Powell. Occurrence and distribution of synthetic organic compounds and trace elements in fish tissue in the lower Tennessee River basin, 1980-1998 [abstr.] Proceedings - Annual Tennessee Water Resources Symposium, in Proceedings from the Tenth annual Tennessee water resources symposium. 10, April 2000. p. 2B.39.
- Allen Kolker, W. F. Cannon, S. K. Haack, D. B. Westjohn and L. G. Woodruff. MICHIGAN. Hydrogeologic setting of elevated arsenic southeastern Michigan [abstr.] Proceedings and Abstracts - Institute on Lake Superior Geology. Meeting, in 47th annual meeting, Institute on Lake Superior Geology; proceedings, program and abstracts. (M. G. Mudrey, Jr., editor). 47, Part 1, May 2001. p. 46-47.
- D. P. Krabbenhoft, R. J. Hunt, J. F. Walker, T. D. Bullen, C. Kendall, R. L. Michel, M. P. Anderson*, C. J. Bowser* and G. J. Kenoyer*. Delineation of groundwater flowpaths using multidisciplinary approaches; the need for multiple criteria [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 336-337.
- J. R. Krieg*, E. A. Bettis, III*, S. L. Forman* and D. R. Muhs. ILLINOIS. The age and paleoclimatic significance of eolian sand within the Green River lowland, northwestern Illinois [abstr.] Program and Abstracts - American Quaternary Association. Conference, in Environmental change and human migrations in the North Pacific Basin. (D. R. Yesner, editor). 17, August 2002. p. 72.
- S. E. Kroening. Nutrients, suspended sediment, and algae in streams in part of the upper Mississippi River basin, 1984-98 [abstr.] Biennial Conference on Water Resources in Minnesota, in Seventh biennial conference, Minnesota Water 2000; A watershed year, looking back, planning ahead; a collection of abstracts. (University of Minnesota, Water Resources Center). 7, 2000. p. 46.
- J. S. Kuwabara, B. R. Topping, P. F. Woods, W. M. Berelson*, L. S. Balistrieri and D. J. Stedling*. IDAHO. Nutrient flux from sediments into the water column of Lake Coeur d'Alene, Idaho; implications for Zn-P interactive effects on primary production [abstr.] Eos, Transactions, American Geophysical Union, in AGU 2000 fall meeting. v. 81, no. 48, Suppl. November 28, 2000. p. 175.
- Shawn LaBounty*, Andres Aslan* and K. R. Vincent. COLORADO. Anthropogenic influences on the floodplain history of the north fork of the Gunnison River, Colorado [abstr.] Abstracts with



- Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 270.
- L. L. Lambert*, B. F. Glenister* and B. R. Wardlaw. Guadalupe Mountains National Park; steward of the international Middle Permian reference (GSSP) [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 264.
- Michael Land, S. M. Crawford and R. T. Hanson. CALIFORNIA. Seawater intrusion and control in the Dominguez Gap, Los Angeles, California [abstr.] *Eos*, Transactions, American Geophysical Union, *in* AGU 1999 fall meeting. v. 80, no. 46, November 16, 1999. p. 351.
- D. A. Laó-Dávila*, Paul Mann*, C. S. Prentice and Grenville Draper*. PUERTO RICO. Late Quaternary activity of the Cerro Goden fault zone, transpressional uplift of the La Cadena Range, and their possible relation to the opening of the Mona Rift, western Puerto Rico [abstr.] *Eos*, Transactions, American Geophysical Union, *in* AGU 2000 fall meeting. v. 81, no. 48, Suppl. November 28, 2000. p. 1181.
- Claudio Latorre*, J. L. Betancourt and K. A. Rylander. A 45,000-yr record of monsoonal precipitation based on fossil rodent middens from the central Atacama Desert of northern Chile (22-24°S) [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 274.
- S. A. Leake and D. A. Stonestrom. Methods of estimating recharge in the desert Southwest [abstr.] *Eos*, Transactions, American Geophysical Union, *in* AGU 1999 fall meeting. v. 80, no. 46, November 16, 1999. p. 341.
- K. E. Lee, J. R. ZumBerge and S. D. Porter. Phytoplankton community composition in streams in part of the upper Mississippi River basin, April-September, 1996 [abstr.] Biennial Conference on Water Resources in Minnesota, *in* Seventh biennial conference, Minnesota Water 2000; A watershed year, looking back, planning ahead; a collection of abstracts. (University of Minnesota, Water Resources Center). 7, 2000. p. 46.
- Lopaka Lee and M. B. Goldhaber. The effect of MVT mineralization on the background concentrations of dissolved metals in groundwater of the Ozark Plateaus region, USA [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 340.
- A. M. Lewis, J. R. Nimmo and D. A. Stonestrom. NEW MEXICO. Recharge fluxes through the vadose zone; point estimates interpreted from centrifuge hydraulic property measurements of core samples from an ephemeral stream channel, middle Rio Grande Basin, New Mexico [abstr.] *Eos*, Transactions, American Geophysical Union, *in* AGU 1998 fall meeting. v. 79, no. 45, Suppl. November 10, 1998. p. 371.
- P. W. Lipman. Middle Tertiary continental-arc explosive volcanism, caldera formation, and associated mineralization in the South Rocky Mountains, USA [abstr.], *in* *Geoscience 98*; abstracts. London: Geological Society of London, 1998. p. 141.
- D. A. Lockner, Hidemi Tanaka*, Diane Moore, Hisao Ito* and Ryuji Ikeda*. Laboratory analysis of borehole core samples and observations of fault zone properties [abstr.] *Eos*, Transactions, American Geophysical Union, *in* AGU 2000 fall meeting. v. 81, no. 48, Suppl. November 28, 2000. p. 1171-1172.
- J. P. Lockwood*, M. L. Tuttle and C. A. Neal. Communication of geohazards information following the 1986 disaster at Lake Nyos, Cameroon [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 334.
- Steve Ludington, Helen Folger, T. G. Hildenbrand and Boris Kotlyar. Arsenic distribution in surficial materials of the northern Great Basin [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 392.
- W. D. Macdonald*, E. Kent*, H. C. Palmer*, C. S. Gromme and A. Deino*. Correlation of rhyolitic tuffs [abstr.] International Geological Congress, Abstracts = Congrès Géologique International, Résumés, *in* Brazil 2000; 31st international geological congress; abstracts volume. 31, August 2000 unpaginated.
- K. W. Mandernack*, T. D. Bullen, Kelly Taga* and W. C. Shanks. Biogeochemical influences on iron oxidation in a stream impacted by acid mine drainage as inferred from Fe and O isotope systematics [abstr.] *Eos*, Transactions, American Geophysical Union, *in* AGU 2000 fall meeting. v. 81, no. 48, Suppl. November 28, 2000. p. 178.
- W. F. Manley*, D. S. Kaufman*, T. A. Ager, Y. Axford*, J. E. Begét*, N. Balascio*, J. P. Briner*, T. Hamilton*, R. D. Reger*, H. R. Schmoll, R. M. Thorson*, C. F. Waythomas, Florence Weber*, A. Werner* and F. Wilson*. ALASKA. Digital atlas of Alaskan Pleistocene glaciers [abstr.] Program and Abstracts - American Quaternary Association. Conference, *in* Environmental change and human migrations in the North Pacific Basin. (D. R. Yesner, editor). 17, August 2002. p. 86.
- B. D. Marshall and J. F. Whelan. NEVADA. Isotope geochemistry of calcite coatings and the thermal history of the unsaturated zone at Yucca Mountain, Nevada [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 259.
- T. Maruoka*, C. Koeberl* and B. F. Bohor. Carbon isotopic composition of organic matter in continental Cretaceous-Tertiary boundary sediments [abstr.] *Meteoritics & Planetary Science*, *in* 65th annual meeting of the Meteoritical Society; abstracts. (P. H. Warren, chairperson). v. 37, no. 7, Suppl. July 2002. p. 95.
- R. M. Maxwell*, Claire Welty* and R. W. Harvey. Simulation of biocolloidal transport in three-dimensionally heterogeneous geologic media using a streamline approach [abstr.] *Eos*, Transactions, American Geophysical Union, *in* AGU 2000 fall meeting. v. 81, no. 48, Suppl. November 28, 2000. p. 181.
- C. R. McClung*, Jerry Zieg*, M. W. Hitzman* and D. L. Leach. WASHINGTON. Wall rock alteration surrounding the Pend Oreille Zn-Pb deposit, Metaline District, Washington, USA [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 281.
- J. F. McHone*, Marvin Killgore* and D. J. Roddy. ARIZONA. Active sinkholes at Meteor Crater, Arizona [abstr.] *Meteoritics & Planetary Science*, *in* 65th annual meeting of the Meteoritical So-



- ciety; abstracts. (P. H. Warren, chairperson). v. 37, no. 7, Suppl. July 2002. p. 97.
- Karen McLaughlin*, Adina Paytan*, Carol Kendall and Steve Silva. Towards a proxy for phosphate recycling in marine ecosystems [abstr.] *Eos, Transactions, American Geophysical Union, in AGU 2000 fall meeting*. v. 81, no. 48, Suppl. November 28, 2000. p. 176.
- Gerard McMahon and D. A. Harned. NORTH CAROLINA. Trends in surface-water quality for the Contentnea Creek basin, North Carolina, 1980-1996 [abstr.] *Eos, Transactions, American Geophysical Union, in AGU 1999 fall meeting*. v. 80, no. 46, November 16, 1999. p. 471.
- K. R. McPherson and W. R. Danskin. Ground-truthing land subsidence as part of optimal water management [abstr.] *Eos, Transactions, American Geophysical Union, in AGU 1999 fall meeting*. v. 80, no. 46, November 16, 1999. p. 434.
- A. Meibom*, R. Frei*, C. P. Chamberlain*, R. G. Coleman*, M. Hren*, N. H. Sleep* and J. L. Wooden. Os isotopes, deep-rooted mantle plumes and the timing of inner core formation [abstr.] *Meteoritics & Planetary Science, in 65th annual meeting of the Meteoritical Society; abstracts. (P. H. Warren, chairperson)*. v. 37, no. 7, Suppl. July 2002. p. 98.
- D. W. Metge, R. W. Harvey, A. M. Shapiro, M. W. Becker*, Samantha Collins*, G. L. Rowe and R. A. Sheets. What surrogates can tell us about the transport behavior of pathogens in fractured-rock and granular aquifers [abstr.] *Eos, Transactions, American Geophysical Union, in AGU 2000 fall meeting*. v. 81, no. 48, Suppl. November 28, 2000. p. 180.
- John Michael. Rubbersheeting in geologic applications, or, stretching the geology to fit the graticule [abstr.] *Proceedings of the Annual ESRI User Conference, in Proceedings of the eleventh annual ESRI user conference*. 11, Vol. 2, 1991. p. 225.
- M. J. Mihalasky. NEVADA. The northern Nevada geochemical "V"-trend [abstr.] *Abstracts with Programs - Geological Society of America, in Geological Society of America, 2000 annual meeting*. v. 32, no. 7, 2000. p. 392.
- P. C. D. Milly and K. A. Dunne. Interannual variability of macroscale water fluxes; observational evidence of insensitivity to land type [abstr.] *Eos, Transactions, American Geophysical Union, in AGU 2000 spring meeting*. v. 81, no. 19, Suppl. May 9, 2000. p. 215.
- P. C. D. Milly, K. A. Dunne, A. B. Shmakin* and R. T. Wetherald*. Progress report on an integrated observational, theoretical, and modeling study of macroscale land water and energy balance [abstr.] *Eos, Transactions, American Geophysical Union, in AGU 2000 spring meeting*. v. 81, no. 19, Suppl. May 9, 2000. p. 110.
- S. J. Moore and S. K. Anderholm. COLORADO, TEXAS. Spatial and temporal variations in streamflow and dissolved solids in the Rio Grande from Del Norte, Colorado, to El Paso, Texas, 1993-95 [abstr.], *in New Mexico water research symposium. (New Mexico Water Research Institute)*. New Mexico Water Resources Institute, August 13, 2002. p. D27.
- S. J. Moore, A. E. Stewart and Jim Constantz. NEW MEXICO. Instrumentation of two ephemeral streams in central New Mexico to improve understanding of streamflows and ground-water exchanges [abstr.] *Eos, Transactions, American Geophysical Union, in AGU 2000 fall meeting*. v. 81, no. 48, Suppl. November 28, 2000. p. 485-486.
- K. A. Moser*, J. P. Kimball* and S. M. Colman. Diatoms and biogenic silica in large lakes; sensitive monitors of environmental change [abstr.] *Abstracts with Programs - Geological Society of America, in Geological Society of America, 2000 annual meeting*. v. 32, no. 7, 2000. p. 332.
- D. C. Mosher*, S. Y. Johnson, Glenda Rathwell*, Robert Kung*, Susan Rhea, Rick Blakely, Tom Brocher, Antony Hewitt*, Carmel Lowe* and Taimi Mulder*. Neotectonics of the eastern Juan de Fuca Strait; a digital geologic and geophysical atlas [abstr.] *Eos, Transactions, American Geophysical Union, in AGU 2000 fall meeting*. v. 81, no. 48, Suppl. November 28, 2000. p. 1168.
- M. G. Mudrey, Jr.*, B. A. Brown* and D. L. Daniels. WISCONSIN. Preliminary analysis of aeromagnetic data in southern Wisconsin; the role of Precambrian basement in Paleozoic evolution [abstr.] *Proceedings and Abstracts - Institute on Lake Superior Geology. Meeting, in 47th annual meeting, Institute on Lake Superior Geology; proceedings, program and abstracts. (M. G. Mudrey, Jr., editor)*. 47, Part 1, May 2001. p. 61.
- L. J. P. Muffler. The geological setting of coupled igneous-hydrothermal systems; a geothermal perspective [abstr.] *Chishitsu Chosajo Hokoku = Report - Geological Survey of Japan, in Magmatic contributions to hydrothermal systems. (J. W. Hedenquist, editor)*. 279, 1992. p. 110-114.
- L. J. P. Muffler, J. W. Hedenquist*, S. E. Kesler* and Eiji Izawa*. Japan-U.S. seminar on Magmatic contributions to hydrothermal systems [abstr.] *Chishitsu Chosajo Hokoku = Report - Geological Survey of Japan, in Magmatic contributions to hydrothermal systems. (J. W. Hedenquist, editor)*. 279, 1992. p. 1-6.
- D. R. Muhs. Timing and paleoclimate of the last interglacial period in North America [abstr.] *Program and Abstracts - American Quaternary Association. Conference, in Environmental change and human migrations in the North Pacific Basin. (D. R. Yesner, editor)*. 17, August 2002. p. 100-102.
- C. A. Neal. ALASKA. Communication of volcano hazards; approach of the Alaska Volcano Observatory [abstr.] *Abstracts with Programs - Geological Society of America, in Geological Society of America, 2000 annual meeting*. v. 32, no. 7, 2000. p. 335.
- J. C. Neff*, R. M. McKeown*, Jennifer Harden, Bobby Braswell* and D. S. Schimel*. Does carbon fractionate during decomposition? An inverse modeling approach to understanding the genesis of soil ¹³C isotopic profiles and fractionation patterns [abstr.] *Eos, Transactions, American Geophysical Union, in AGU 2000 fall meeting*. v. 81, no. 48, Suppl. November 28, 2000. p. 183.
- M. W. Newhouse and R. T. Hanson. Evaluating seawater intrusion with three dimensional flow measurements [abstr.] *Eos, Transactions, American Geophysical Union, in AGU 1999 fall meeting*. v. 80, no. 46, November 16, 1999. p. 352.
- L. A. Neymark, Y. V. Amelin*, J. B. Paces, J. F. Whelan and Z. E. Peterman. NEVADA. U-Pb dating of opal and chalcedony above and below the modern water table at Yucca Mountain, southern Nevada [abstr.] *Abstracts with Programs - Geological Society of America, in Geological Society of America, 2000 annual meeting*. v. 32, no. 7, 2000. p. 259.



- S. W. Nicholson, T. J. Boerboom*, W. F. Cannon, K. R. Wirth* and C. E. Isachsen*. MINNESOTA, WISCONSIN. A new look at the 1.1 Ga Chengwatana Volcanics in the St. Croix Horst, Minnesota and Wisconsin [abstr.] Proceedings and Abstracts - Institute on Lake Superior Geology. Meeting, in 47th annual meeting, Institute on Lake Superior Geology; proceedings, program and abstracts. (M. G. Mudrey, Jr., editor). 47, Part 1, May 2001. p. 71-72.
- Tracy Nishikawa and J. R. Freckleton. CALIFORNIA. Simulation-optimization model for water-resources and land-subsidence management, Edwards Air Force Base, California [abstr.] Eos, Transactions, American Geophysical Union, in AGU 2001 fall meeting. v. 82, no. 47, Suppl. November 20, 2001. p. 425.
- Tracy Nishikawa, P. M. Martin and C. L. Stamos-Pfeiffer. CALIFORNIA. Effect of pumping on ground-water recharge from the Mojave River, California [abstr.] Eos, Transactions, American Geophysical Union, in AGU 2000 fall meeting. v. 81, no. 48, Suppl. November 28, 2000. p. 463.
- D. K. Nordstrom. Overview of arsenic occurrences and processes controlling arsenic mobility in ground water [abstr.] Proceedings and Abstracts - Institute on Lake Superior Geology. Meeting, in 47th annual meeting, Institute on Lake Superior Geology; proceedings, program and abstracts. (M. G. Mudrey, Jr., editor). 47, Part 1, May 2001. p. 73-74.
- Eric Noreen*, K. L. Tanaka*, M. G. Chapman*, Jeffrey Johnson* and T. N. Titus. Examination of igneous alternatives to Martian hematite using terrestrial analogs [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 303.
- W. R. Normark and Francesca Serra*. Rapid vertical movements of the floor of Escanaba Trough documented by thickness variations in late Quaternary turbidite deposits [abstr.] Eos, Transactions, American Geophysical Union, in AGU 2000 fall meeting. v. 81, no. 48, Suppl. November 28, 2000. p. 1169.
- G. M. O'Brien, F. A. D'Agnese, C. C. Faunt and W. R. Belcher. Hydrogeologic data, parameter estimation, and the Death Valley regional ground-water flow model [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 338.
- G. M. O'Brien and M. L. Jones. NEVADA, CALIFORNIA. An assessment of water-level observations and accuracy for use in calibration of a regional ground-water flow model of the Death Valley region, Nevada and California [abstr.] Eos, Transactions, American Geophysical Union, in AGU 1999 fall meeting. v. 80, no. 46, November 16, 1999. p. 317.
- J. Ollerhead*, D. J. Huntley*, A. R. Nelson and H. M. Kelsey*. OREGON. Optical dating of tsunami-laid sands from Bradley Lake, Oregon, U.S.A. [abstr.] Chikei = Transactions - Japanese Geomorphological Union, in The International Association of Geomorphologists; fifth international conference on Geomorphology; abstracts of conference papers. v. 22, no. 4, August 2001. p. C-179.
- George Outlaw. TENNESSEE. A review of the streamgaging network of the Tennessee District, United States Geological Survey [abstr.] Proceedings - Annual Tennessee Water Resources Symposium, in Proceedings from the Tenth annual Tennessee water resources symposium. 10, April 2000. p. 2A.3.
- J. B. Paces, L. A. Neymark, H. M. Persing and J. L. Wooden. NEVADA. Demonstrating slow growth rates in opal from Yucca Mountain, Nevada, using microdigestion and ion-probe uranium-series dating [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 259.
- J. B. Paces, J. F. Whelan, B. D. Marshall, Z. E. Peterman and L. A. Neymark. NEVADA. Formation of calcite and silica from percolation in a hydrologically unsaturated setting, Yucca Mountain, Nevada [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 259.
- Gary Patterson*, Eugene Schweig and Paul Bodin*. A risky business; promoting seismic hazard awareness in a low recurrence, high consequence region [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 333.
- D. F. Payne, A. M. Provost, C. I. Voss and J. S. Clarke. GEORGIA. Mechanisms of saltwater contamination of ground water in coastal Georgia, U.S.A.; preliminary results of variable-density transport modeling [abstr.] International Conference on Saltwater Intrusion and Coastal Aquifers - Monitoring, Modeling and Management, in First international conference on Saltwater intrusion and coastal aquifers monitoring, modeling, and management; SWICA M³, cyber proceedings. 1, 2001.
- Dorothy Payne, A. M. Provost and C. I. Voss. GEORGIA. Parallel development of MODFLOW and SUTRA models in coastal Georgia, U.S.A; an approach to study regional ground-water flow and local saltwater intrusion [abstr.] International Conference on Saltwater Intrusion and Coastal Aquifers - Monitoring, Modeling and Management, in The Second international conference on Saltwater intrusion and coastal aquifers; monitoring, modeling, and management. 2, 2003.
- K. L. Pierce, D. R. Lageson*, C. A. Ruleman* and R. G. Hintz*. MONTANA. Holocene paleoseismology of Hebgen Lake normal fault, MT; the Cabin Creek site of the Hebgen Lake paleoseismology working group [abstr.] Eos, Transactions, American Geophysical Union, in AGU 2000 fall meeting. v. 81, no. 48, Suppl. November 28, 2000. p. 1170.
- R. J. Pike. Geometric signatures; experimental design, first results [abstr.] Chikei = Transactions - Japanese Geomorphological Union, in The International Association of Geomorphologists; fifth international conference on Geomorphology; abstracts of conference papers. v. 22, no. 4, August 2001. p. C-192.
- R. J. Pike, R. W. Graymer, S. Roberts and N. B. Kalman. A simple GIS model for mapping landslide susceptibility [abstr.] Chikei = Transactions - Japanese Geomorphological Union, in The International Association of Geomorphologists; fifth international conference on Geomorphology; abstracts of conference papers. v. 22, no. 4, August 2001. p. C-193.
- Christa Placzek*, Jay Quade* and J. L. Betancourt. Holocene lake-level fluctuations of Lago Articota, southern Peru [abstr.] Abstracts with Programs - Geological Society of America, in Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 273.



- C. J. Potter, D. S. Sweetkind and C. C. Faunt. Geologic controls on the Death Valley regional flow system [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 337.
- J. R. Powell. ALABAMA, TENNESSEE. Physical, chemical, and biological characteristics of streams in the eastern Highland Rim of the lower Tennessee River basin, Alabama and Tennessee, 1999 [abstr.] Proceedings - Annual Tennessee Water Resources Symposium, *in* Proceedings from the Tenth annual Tennessee water resources symposium. 10, April 2000. p. 2B.41.
- C. S. Prentice, Paul Mann* and G. Burr*. PUERTO RICO. Prehistoric earthquakes associated with a late Quaternary fault in the Lajas Valley, southwestern Puerto Rico [abstr.] *Eos*, Transactions, American Geophysical Union, *in* AGU 2000 fall meeting. v. 81, no. 48, Suppl. November 28, 2000. p. 1182.
- I. A. Pulyaeva* and J. R. Hein. Regional spatial and temporal correlations among Fe-Mn oxyhydroxide crusts, Central Pacific Ocean [abstr.] International Geological Congress, Abstracts = Congrès Géologique International, Résumés, *in* Brazil 2000; 31st international geological congress; abstracts volume. 31, August 2000.
- L. D. Putnam. SOUTH DAKOTA. Analysis of ground-water flow and mixing in the Madison Aquifer using environmental and anthropogenic tracers in the Rapid City, South Dakota area [abstr.] Midwest Ground Water Conference, *in* Forty-seventh annual Midwest ground water conference; program & abstracts. 47, October 2002. p. 47.
- O. T. Ramo*, J. P. Calzia and P. J. Kosunen*. CALIFORNIA. Geochemistry of Mesozoic plutons in the southern Death Valley region, California [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 397.
- J. A. Rech*, Jay Quade* and J. L. Betancourt. Paleo-hydrologic reconstruction of the late glacial/early Holocene period (15-0 kya B.P.) in the northern Atacama Desert, Chile [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 274.
- M. A. Ripich* and J. P. Hoffmann. ARIZONA. Characterization of stream-channel deposits using geophysical methods, Rillito Creek, Pima County, Arizona; preliminary findings [abstr.] *Eos*, Transactions, American Geophysical Union, *in* AGU 1999 fall meeting. v. 80, no. 46, November 16, 1999. p. 292.
- H. M. Roberts*, D. R. Muhs, G. A. T. Duller*, A. G. Wintle* and E. A. Bettis, III*. Determination of dust flux records in Mid-continental North America using optical dating [abstr.] Program and Abstracts - American Quaternary Association. Conference, *in* Environmental change and human migrations in the North Pacific Basin. (D. R. Yesner, editor). 17, August 2002. p. 112.
- J. A. Robinson. Occurrence and distribution of selected trace elements and organic compounds in streambed sediment in the lower Tennessee River basin, 1998 [abstr.] Proceedings - Annual Tennessee Water Resources Symposium, *in* Proceedings from the Tenth annual Tennessee water resources symposium. 10, April 2000. p. 2B.37.
- E. G. Roth, Uri ten Brink, C. G. von Hillebrandt* and Gregory Miller. PUERTO RICO. Seismicity and crustal structure in the northeastern Caribbean; initial results from a joint land/OBS seismic experiment in Puerto Rico [abstr.] *Eos*, Transactions, American Geophysical Union, *in* AGU 2000 fall meeting. v. 81, no. 48, Suppl. November 28, 2000. p. 1182.
- Lipi Saha* and T. D. Byl. The interaction between calcite formation, dissolution, carbon dioxide and perchloroethylene (PCE) solubility [abstr.] Proceedings - Annual Tennessee Water Resources Symposium, *in* Proceedings from the Tenth annual Tennessee water resources symposium. 10, April 2000. p. P.23.
- C. A. San Juan, P. D. Denning and D. S. Sweetkind*. Automating cross section construction of the Death Valley region by integrating GIS and CAD techniques [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 339.
- C. A. Sanocki and Brian Fischer. Web based watershed information system [abstr.] Biennial Conference on Water Resources in Minnesota, *in* Seventh biennial conference, Minnesota Water 2000; A watershed year, looking back, planning ahead; a collection of abstracts. (University of Minnesota, Water Resources Center). 7, 2000. p. 16.
- Robert Sarfo* and T. D. Byl. The use of *Pseudomonas fluorescens* to measure toxicity of industrial effluents [abstr.] Proceedings - Annual Tennessee Water Resources Symposium, *in* Proceedings from the Tenth annual Tennessee water resources symposium. 10, April 2000. p. 1B.47.
- B. D. Schaap, D. M. Lenz* and J. D. Wald. NORTH DAKOTA. A study to assess the effects of variable hydrologic conditions on the western prairie fringed orchid (*Platanthera praeclara*) in the Sheyenne National Grassland, North Dakota [abstr.] Midwest Ground Water Conference, *in* Forty-seventh annual Midwest ground water conference; program & abstracts. 47, October 2002. p. 22.
- C. J. Schenk. Petroleum systems and assessment of oil and gas resources of basins in South America [abstr.] International Geological Congress, Abstracts = Congrès Géologique International, Résumés, *in* Brazil 2000; 31st international geological congress; abstracts volume. 31, August 2000 unpaginated.
- K. J. Schulz. Where will the world's future mineral resources come from? [abstr.] *Episodes*. v. 24, no. 1, March 2001. p. 7.
- W. C. Schwab and E. R. Thieler. Offshore geologic framework, sea-level rise, and coastal evolution [abstr.] National Meeting of the American Association for the Advancement of Science, *in* AAAS annual meeting and science innovation exposition; Science in a connected world. (Rebecca Paulson, editor). 168, 2002. p. A67.
- Antje Schwab* and W. E. Dean. Centennial drought cyclicality in the Great Plains, USA; a dominant climate pattern that started 4000 years ago [abstr.] *Eos*, Transactions, American Geophysical Union, *in* AGU 2000 fall meeting. v. 81, no. 48, Suppl. November 28, 2000. p. 6.
- Kirti Sharma*, Laszlo Keszthelyi*, Carl Thornber and Stephen Self*. Variations in the cooling, crystallization textures and glass chemistry during emplacement of Kilauea pahoehoe lobes, as constrained by in situ field experiments [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 395.

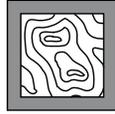


- J. M. Shelton and J. A. Kingsbury. TENNESSEE, ALABAMA. Occurrence and distribution of volatile organic compounds and pesticides in the Mississippian carbonate aquifer of the eastern Highland Rim, Tennessee and Alabama, 1999 [abstr.] Proceedings - Annual Tennessee Water Resources Symposium, *in* Proceedings from the Tenth annual Tennessee water resources symposium. 10, April 2000. p. 2B.45.
- E. A. Shinn, C. W. Holmes and Marci Marot. Short-lived isotopes and the investigation of microbially precipitated calcium carbonate; a new approach to the "whiting problem" [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 279.
- A. B. Shmakin* and P. C. D. Milly. A methodology for evaluation of monthly to interannual variation in water and energy fluxes of large river basins [abstr.] Eos, Transactions, American Geophysical Union, *in* AGU 1998 fall meeting. v. 79, no. 45, Suppl. November 10, 1998. p. 389.
- N. S. Simon, Jenefir Isbister* and Michael Langland. MARYLAND. Factors affecting the bioavailability of phosphate in bottom sediments from the Conowingo Reservoir and Susquehanna River, MD [abstr.] Eos, Transactions, American Geophysical Union, *in* AGU 2000 fall meeting. v. 81, no. 48, Suppl. November 28, 2000. p. 192.
- J. A. Skinner, Jr.* and K. L. Tanaka. MGS-based characterization of the channelized plains deposits of Elysium Planitia, Mars [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 304-305.
- J. F. Slack, J. A. Dumoulin, J. M. Schmidt, K. D. Kelley and R. A. Ayuso. ALASKA. Geochemistry of Paleozoic and Mesozoic sedimentary rocks of the western Brooks Range, Alaska; provenance, diagenetic history, and metallogenic significance [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 281.
- J. F. Slack, Jiang Shao-Yong* and M. R. Palmer*. Involvement of multiple source reservoirs during formation of the Sullivan Pb-Zn-Ag deposit, British Columbia; Sr and Nd isotope evidence [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 281.
- J. P. Smoot. NEVADA, CALIFORNIA. Depositional features in Pyramid Lake, NV and Owens Lake, CA; boundary conditions for interpreting chemical and biological climate proxies [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 331.
- S. L. Snyder, C. P. Ervin*, D. W. Geister* and D. L. Daniels. WISCONSIN. A new gravity map of Wisconsin [abstr.] Proceedings and Abstracts - Institute on Lake Superior Geology. Meeting, *in* 47th annual meeting, Institute on Lake Superior Geology; proceedings, program and abstracts. (M. G. Mudrey, Jr., editor). 47, Part 1, May 2001. p. 94-95.
- S. A. Soule*, J. P. Kauahikaua and K. V. Cashman*. HAWAII. Inferring emplacement dynamics from the surface morphology of rapidly emplaced lava flows, Kilauea Volcano, Hawai'i [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 395.
- P. J. Squillace, M. J. Moran and R. M. Clawges. Occurrence of MTBE in ground water of the United States, 1993-98, and logistic regression analysis of explanatory factors [abstr.] Eos, Transactions, American Geophysical Union, *in* AGU 1999 fall meeting. v. 80, no. 46, November 16, 1999. p. 420.
- S. W. Starratt, J. A. Barron, Tara Kneeshaw, Jake Lowenstern, R. L. Phillips and J. A. Wanket*. CALIFORNIA. A Holocene record from Medicine Lake, Siskiyou County, California; preliminary diatom, pollen, and sedimentological data [abstr.] Program and Abstracts - American Quaternary Association. Conference, *in* Environmental change and human migrations in the North Pacific Basin. (D. R. Yesner, editor). 17, August 2002. p. 121-122.
- H. F. Stockdon and A. H. Sallenger. Large scale estimation of shoreline position from airborne scanning laser altimetry data [abstr.] Eos, Transactions, American Geophysical Union, *in* AGU 1999 fall meeting. v. 80, no. 46, November 16, 1999. p. 549.
- J. F. Sutter, M. E. Siegel* and David Pesanelli*. INDIANA. Communicating natural hazard risk maps to non-geoscientists; the southwestern Indiana experience [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 334.
- D. S. Sweetkind and R. P. Dickerson. NEVADA, CALIFORNIA. Interpretive geologic cross sections of the Death Valley groundwater flow system, Nevada and California [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 337-338.
- D. S. Sweetkind, C. J. Potter and E. R. Verbeek*. NEVADA. Interaction between faults and the fracture network at Yucca Mountain, Nevada [abstr.] Eos, Transactions, American Geophysical Union, *in* AGU 1996 spring meeting. v. 77, no. 17, Suppl. April 23, 1996. p. 266.
- P. J. Talmage*, K. E. Lee*, R. M. Goldstein, J. P. Anderson* and J. D. Fallon. MINNESOTA. Water quality, physical habitat, and fish-community composition in streams in the Twin Cities metropolitan area, Minnesota, 1997 [abstr.] Biennial Conference on Water Resources in Minnesota, *in* Seventh biennial conference, Minnesota Water 2000; A watershed year, looking back, planning ahead; a collection of abstracts. (University of Minnesota, Water Resources Center). 7, 2000.
- C. J. Taylor. KENTUCKY. Physical hydrogeologic and geochemical framework of a "transitional" karst aquifer in south-central Louisville, Kentucky [abstr.] Kentucky Water Resources Annual Symposium, *in* Kentucky water resources annual symposium. 2002, 2002. p. 41.
- R. N. Tempel*, L. S. Balistreri and L. L. Stillings. NEVADA. Geochemical modeling of water chemistry in a mine pit lake; Dexter pit lake, Tuscarora, NV [abstr.] Abstracts with Programs - Geological Society of America, *in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 344.
- W. E. Templin. CALIFORNIA. Ground-water management in California during periods of decreasing water supplies and increasing water demands [abstr.] Abstracts - Annual Summer Symposium, *in* Water resources and environmental hazards; emphasis on



- hydrologic and crustal insight in the Pacific Rim; abstracts. 1995, 1995. p. 1.
- S. J. Tewalt, L. F. Ruppert, L. J. Bragg, N. Fedorko* and J. Hawkins*. Environmental applications of a digital model of the Upper Carboniferous Pittsburgh coal bed, Monongahela Group, Appalachian Basin, USA [abstr.] International Geological Congress, Abstracts = Congrès Géologique International, Résumés, *in* Brazil 2000; 31st international geological congress; abstract volume. 31, August 2000 unpaginated.
- M. P. Tuttle*, K. Dyer-Williams*, E. S. Schweig, C. S. Prentice and J. C. Moya*. PUERTO RICO. Liquefaction induced by historic and prehistoric earthquakes in western Puerto Rico [abstr.] *Eos, Transactions, American Geophysical Union, in* AGU 2000 fall meeting. v. 81, no. 48, Suppl. November 28, 2000. p. 1183.
- T. M. van Dam*, G. Blewitt*, K. Larson*, D. Lavalee*, J. Wahr*, C. Milley and A. Shmakin. Investigating the elastic load response of the Earth using environmental loading forcing and GPS data [abstr.] *Eos, Transactions, American Geophysical Union, in* AGU 1999 fall meeting. v. 80, no. 46, November 16, 1999. p. 429.
- J. Wahr*, I. Velicogna*, S. Swenson*, P. C. D. Milly and A. B. Shmakin*. Time-variable gravity and hydrology [abstr.] *Geophysical Research Abstracts, in* European Geophysical Society, 25th general assembly. 2, 2000 unpaginated.
- Katherine Walton-Day, B. A. Kimball and R. L. Runkel. COLORADO. Diffuse and distinct sources of low-pH and metal-rich water to upper Cement Creek near Silverton, Colorado; implications for remediation [abstr.] *Abstracts with Programs - Geological Society of America, in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 341.
- D. J. Wangness. National water-quality assessment program; overview of the Apalachicola-Chattahoochee-Flint River basin [abstr.], *in* Proceedings of the 1993 Georgia water resources conference. (K. J. Hatcher, editor). Athens, GA: University of Georgia, 1993. p. 29.
- G. A. Wendt, P. A. Hamilton and L. W. McElroy. Do I hear what you hear? How external feedback can enhance science communication [abstr.] *Abstracts with Programs - Geological Society of America, in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 292-293.
- J. F. Whelan, J. B. Paces, L. A. Neymark, B. D. Marshall, Z. E. Peterman, R. J. Moscati and E. Roedder*. NEVADA. Calcite fluid inclusion, paragenetic, and oxygen isotopic records of thermal event(s) at Yucca Mountain, Nevada [abstr.] *Abstracts with Programs - Geological Society of America, in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 259.
- K. A. Winfield, J. R. Nimmo, J. A. Izbicki and P. M. Martin. CALIFORNIA. The effect of small-scale structure on the moisture-retention curves of sediments from two ephemeral washes, upper Mojave River basin, CA [abstr.] *Eos, Transactions, American Geophysical Union, in* AGU 1998 fall meeting. v. 79, no. 45, Suppl. November 10, 1998. p. 371-372.
- J. L. Wooden, R. W. Kistler, R. J. Fleck and R. M. Tosdal*. Constraints on crustal structure and mineral trends in the Great Basin from Pb and Sr isotopic data [abstr.] *Abstracts with Programs - Geological Society of America, in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 392.
- J. L. Wooden, D. M. Miller, A. P. Barth* and E. A. Flodin*. Compositional characteristics of early Proterozoic magmatism in the Mojave crustal province [abstr.] *Abstracts with Programs - Geological Society of America, in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 396.
- L. G. Woodruff, J. W. Attig* and W. F. Cannon. WISCONSIN. Geochemistry of Quaternary deposits in north-central Wisconsin; geochemical exploration and provenance analysis [abstr.] *Proceedings and Abstracts - Institute on Lake Superior Geology. Meeting, in* 47th annual meeting, Institute on Lake Superior Geology; proceedings, program and abstracts. (M. G. Mudrey, Jr., editor). 47, Part 1, May 2001. p. 104-105.
- B. M. Wrege. NORTH CAROLINA. Watershed delineation at Fort Bragg, North Carolina using LIDAR data [abstr.] *Institute Proceedings Series - Water Resources Research Institute of The University of North Carolina, in* Watersheds to estuaries; basin management in the 21st century; abstracts of presentations and posters at the Annual North Carolina water resources research conference. 15, March 29, 2001. p. 56.
- Z. Yang*, E. Y. Graham*, L. V. Benson and W. B. Lyons*. Geochemistry of Pyramid Lake sediments; influence of anthropogenic activities within the basin [abstr.] *Abstracts with Programs - Geological Society of America, in* Geological Society of America, 2000 annual meeting. v. 32, no. 7, 2000. p. 286-287.
- Daniel Yeats. Preliminary results of ground-water exploration on the Island of Tinian, Commonwealth of the Mariana Islands [abstr.] *Water Information Bulletin, in* Water resources management in the Pacific Rim; 1996 Pacific Northwest/Oceania conference; abstracts. 2, 1996. p. 15.
- M. L. Zoback, Valentina Baranova, Michael Landes and W. D. Mooney. Buoyancy-derived global lithospheric thickness and implications for the regional stress field [abstr.] *Eos, Transactions, American Geophysical Union, in* AGU 1996 spring meeting. v. 77, no. 17, Suppl. April 23, 1996. p. 274.
- M. L. Zoback and M. D. Zoback*. Stress field constraints on forces acting on the plates [abstr.] *Eos, Transactions, American Geophysical Union, in* AGU 2000 fall meeting. v. 81, no. 48, Suppl. November 28, 2000. p. 12-13.





TOPOGRAPHIC MAPS

The table below shows new and revised topographic maps printed by the USGS from July through September 2003.

Most USGS map series divide the United States into quadrangles bounded by two lines of latitude and two lines of longitude. The 1:24,000-scale series is usually published in 7.5-minute quadrangles. The 1:100,000-scale series is published in 30- by 60-minute quadrangles. The latitude and longitude that make up the map-bounding rectangle are shown in the table, along with the map name, State, scale, date, map type, and stock number (a unique number needed to process an order). Both an old stock number and a new stock number are listed for each map; when ordering, please use the new stock number.

The map type for 1:24,000-scale map revisions will always be a contour (topographic) edition. The 1:100,000-scale map type will be either Surface Management or Minerals Management.

Ordering forms are located at the back of the catalog. State topographic indexes and map lists are free on request. Each State index shows the areas mapped. The map lists group the map names alphabetically by scale and contain ordering information. Map lists are also available online at <http://mac.usgs.gov/mac/maplists/index.html>. For information on the new USGS initiative, The National Map, please visit <http://nationalmap.usgs.gov>.

New Stock Number	Old Stock Number	Map Name	Scale	Date	Longitude West / East	Latitude South / North	State	Map Type
34822	TAK0642	BRADFIELD CANAL A-2, AK	1:63,360	1/1/2000	-1304000 - -1302000	560000 - 561500	AK	Contours
34826	TAK0646	BRADFIELD CANAL A-6, AK	1:63,360	1/1/2000	-1320000 - -1314000	560000 - 561500	AK	Contours
34831	TAK0651	BRADFIELD CANAL B-6, AK	1:63,360	1/1/2000	-1320000 - -1314000	561500 - 563000	AK	Contours
35019	TAK0841	CORDOVA C-5, AK	1:63,360	1/1/2000	-1455230 - -1453000	603000 - 604500	AK	Contours
35042	TAK0864	CRAIG B-5, AK	1:63,360	1/1/2000	-1334000 - -1332000	551500 - 553000	AK	Contours
35043	TAK0865	CRAIG B-6, AK	1:63,360	1/1/2000	-1340000 - -1334000	551500 - 553000	AK	Contours
35050	TAK0872	CRAIG D-1, AK	1:63,360	1/1/2000	-1322000 - -1320000	554500 - 560000	AK	Contours
35464	TAK1288	JUNEAU A-6, AK	1:63,360	1/1/2000	-1360000 - -1354000	580000 - 581500	AK	Contours
35609	TAK1433	KETCHIKAN D-6, AK	1:63,360	1/1/2000	-1320000 - -1314000	554500 - 560000	AK	Contours
36275	TAK2102	PETERSBURG D-1, AK	1:63,360	1/1/2000	-1322000 - -1320000	564500 - 570000	AK	Contours
36578	TAK2406	SITKA B-2, AK	1:63,360	1/1/2000	-1344000 - -1342000	571500 - 573000	AK	Contours
36595	TAK2423	SITKA D-6, AK	1:63,360	1/1/2000	-1360000 - -1354000	574500 - 580000	AK	Contours
36679	TAK2507	SUMDUM A-2, AK	1:63,360	1/1/2000	-1324000 - -1322000	570000 - 571500	AK	Contours
36684	TAK2512	SUMDUM B-2, AK	1:63,360	1/1/2000	-1324000 - -1322000	571500 - 573000	AK	Contours
36690	TAK2518	SUMDUM C-3, AK	1:63,360	1/1/2000	-1330000 - -1324000	573000 - 574500	AK	Contours
37928	TAL0007	ADDISON, AL	1:24,000	1/1/2000	-871500 - -870730	340730 - 341500	AL	Contours
37956	TAL0038	ARLEY, AL	1:24,000	1/1/2000	-871500 - -870730	340000 - 340730	AL	Contours
37981	TAL0064	BEE BRANCH, AL	1:24,000	1/1/2000	-873000 - -872230	341500 - 342230	AL	Contours
38003	TAL0086	BLACK POND, AL	1:24,000	1/1/2000	-872230 - -871500	340000 - 340730	AL	Contours
38131	TAL0216	CRANE HILL, AL	1:24,000	1/1/2000	-870730 - -870000	340000 - 340730	AL	Contours
38149	TAL0234	DANVILLE, AL	1:24,000	1/1/2000	-870730 - -870000	342230 - 343000	AL	Contours
38167	TAL0253	DOUBLE SPRINGS, AL	1:24,000	1/1/2000	-873000 - -872230	340730 - 341500	AL	Contours
38307	TAL0393	GRAYSON, AL	1:24,000	1/1/2000	-872230 - -871500	341500 - 342230	AL	Contours
38365	TAL0453	HOUSTON, AL	1:24,000	1/1/2000	-872230 - -871500	340730 - 341500	AL	Contours
38409	TAL0497	JONES CHAPEL, AL	1:24,000	1/1/2000	-870730 - -870000	340730 - 341500	AL	Contours
38418	TAL0506	KINLOCK SPRING, AL	1:24,000	1/1/2000	-873730 - -873000	341500 - 342230	AL	Contours
38430	TAL0518	LANDERSVILLE, AL	1:24,000	1/1/2000	-873000 - -872230	342230 - 343000	AL	Contours
38471	TAL0560	MANCHESTER, AL	1:24,000	1/1/2000	-872230 - -871500	335230 - 340000	AL	Contours



38481	TAL0570	MASSEY, AL	1:24,000	1/1/2000	-870730 - -870000	341500 - 342230	AL	Contours
38527	TAL0616	MOULTON, AL	1:24,000	1/1/2000	-872230 - -871500	342230 - 343000	AL	Contours
38546	TAL0635	NAUVOO, AL	1:24,000	1/1/2000	-873000 - -872230	335230 - 340000	AL	Contours
38556	TAL0645	NEWBURG, AL	1:24,000	1/1/2000	-873730 - -873000	342230 - 343000	AL	Contours
38570	TAL0659	OAKVILLE, AL	1:24,000	1/1/2000	-871500 - -870730	342230 - 343000	AL	Contours
38596	TAL0687	PAINT ROCK, AL	1:24,000	1/1/1997	-862230 - -861500	343730 - 344500	AL	Contours
38641	TAL0732	POPLAR SPRINGS, AL	1:24,000	1/1/2000	-873000 - -872230	340000 - 340730	AL	Contours
38747	TAL0839	SUNLIGHT, AL	1:24,000	1/1/2000	-871500 - -870730	335230 - 340000	AL	Contours
38799	TAL0893	UPSHAW, AL	1:24,000	1/1/2000	-871500 - -870730	341500 - 342230	AL	Contours
39848	TAR0518	MALVERN NORTH, AR	1:24,000	1/1/2000	-925230 - -924500	342230 - 343000	AR	Contours
42516	TAZ2114	APACHE, AZ	1:24,000	1/1/1996	-1091500 - -1090730	313730 - 314500	AZ	Contours
40496	TAZ0044	ARIVACA, AZ	1:24,000	1/1/1996	-1112230 - -1111500	313000 - 313730	AZ	Contours
40909	TAZ0464	ARIZONA CITY, AZ (FORMERLY ELOY NW, AZ)	1:24,000	1/1/1996	-1114500 - -1113730	323730 - 324500	AZ	Contours
40540	TAZ0091	BAGDAD, AZ	1:100,000	1/1/1999	-1140000 - -1130000	343000 - 350000	AZ	Surface Management
42524	TAZ2122	BAILEY PEAK, AZ-MEX	1:24,000	1/1/1996	-1123000 - -1122230	314500 - 315230	AZ	Contours
42529	TAZ2127	BEARGRASS BASIN, AZ	1:24,000	1/1/1997	-1101500 - -1100730	330000 - 330730	AZ	Contours
42547	TAZ2146	BLUE MOUNTAIN, AZ	1:24,000	1/1/1998	-1091500 - -1090730	320000 - 320730	AZ	Contours
42494	TAZ2091	BRUNO PEAK, AZ	1:24,000	1/1/1996	-1093000 - -1092230	313730 - 314500	AZ	Contours
42586	TAZ2186	CAPE SOLITUDE, AZ	1:24,000	1/1/1999	-1115230 - -1114500	360730 - 361500	AZ	Contours
40680	TAZ0231	CAPONERA PEAK, AZ-MEX	1:24,000	1/1/1996	-1114500 - -1113730	313000 - 313730	AZ	Contours
42470	TAZ2067	CHIRICAHUA PEAK, AZ	1:24,000	1/1/1997	-1092230 - -1091500	314500 - 315230	AZ	Contours
40770	TAZ0322	COBRE GRANDE MTN, AZ	1:24,000	1/1/1998	-1102230 - -1101500	325230 - 330000	AZ	Contours
40772	TAZ0324	COCHISE HEAD, AZ	1:24,000	1/1/1996	-1092230 - -1091500	320000 - 320730	AZ	Contours
42384	TAZ1979	COCHISE, AZ	1:24,000	1/1/1996	-1100000 - -1095230	320000 - 320730	AZ	Contours
40821	TAZ0373	CUMERO CANYON, AZ	1:24,000	1/1/1996	-1105230 - -1104500	312230 - 313000	AZ	Contours
40870	TAZ0423	DOUBLE ADOBE, AZ	1:24,000	1/1/1996	-1094500 - -1093730	312230 - 313000	AZ	Contours
42640	TAZ2241	DOUBTFUL CANYON, AZ NM	1:24,000	1/1/1998	-1090730 - -1090000	321500 - 322230	AZ NM	Contours
40876	TAZ0431	DOUGLAS NE, AZ	1:24,000	1/1/1996	-1093730 - -1093000	312230 - 313000	AZ	Contours
42644	TAZ2245	DURHAM HILLS, AZ	1:24,000	1/1/1996	-1111500 - -1110730	323730 - 324500	AZ	Contours
42483	TAZ2080	ELFRIDA, AZ	1:24,000	1/1/1986	-1094500 - -1093730	313730 - 314500	AZ	Contours
40910	TAZ0465	ELOY SOUTH, AZ	1:24,000	1/1/1996	-1113730 - -1113000	323730 - 324500	AZ	Contours
42386	TAZ1981	FERRY SWALE, AZ	1:24,000	1/1/1997	-1113730 - -1113000	365230 - 370000	AZ	Contours
40926	TAZ0481	FIFE PEAK, AZ	1:24,000	1/1/1996	-1093000 - -1092230	315230 - 320000	AZ	Contours
40966	TAZ0521	FRIENDLY CORNERS, AZ	1:24,000	1/1/1996	-1113730 - -1113000	323000 - 323730	AZ	Contours
41012	TAZ0567	GRAND CANYON, AZ	1:100,000	1/1/2001	-1130000 - -1120000	360000 - 363000	AZ	Surface Management
42362	TAZ1957	GREASEWOOD MOUNTAIN, AZ	1:24,000	1/1/1996	-1095230 - -1094500	322230 - 323000	AZ	Contours
41146	TAZ0701	IMPERIAL RESERVOIR, AZ CA	1:24,000	1/1/1997	-1143000 - -1142230	325230 - 330000	AZ CA	Contours



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41157	TAZ0712	JACKSON MOUNTAIN, AZ	1:24,000	1/1/1997	-1101500 - -1100730	325230 - 330000	AZ	Contours
113657	-	KAIBAB NATIONAL FOREST, TUSAYAN RD, AZ	1:126,720	1/1/2003	-1123730 - -1114500	350000 - 361500	AZ	No Contours
41185	TAZ0740	KENNEDY PEAK, AZ	1:24,000	1/1/1996	-1102230 - -1101500	323730 - 324500	AZ	Contours
41202	TAZ0757	KLONDYKE, AZ	1:24,000	1/1/1998	-1102230 - -1101500	324500 - 325230	AZ	Contours
42748	TAZ2349	KOHT KOHL HILL, AZ	1:24,000	1/1/1996	-1113730 - -1113000	321500 - 322230	AZ	Contours
42752	TAZ2353	LA LESNA MOUNTAINS, AZ-MEX	1:24,000	1/1/1996	-1121500 - -1120730	313730 - 314500	AZ	Contours
42387	TAZ1982	LEES FERRY, AZ	1:24,000	1/1/1999	-1113730 - -1113000	364500 - 365230	AZ	Contours
41247	TAZ0802	LITTLE WOOD CANYON, AZ	1:24,000	1/1/1996	-1092230 - -1091500	320730 - 321500	AZ	Contours
42484	TAZ2081	MC NEAL, AZ	1:24,000	1/1/1996	-1094500 - -1093730	313000 - 313730	AZ	Contours
42449	TAZ2046	MOIVAYI, AZ	1:24,000	1/1/1996	-1123000 - -1122230	323000 - 323730	AZ	Contours
41371	TAZ0926	MONK DRAW, AZ	1:24,000	1/1/1996	-1094500 - -1093730	322230 - 323000	AZ	Contours
42796	TAZ2398	MT TURNBULL, AZ	1:24,000	1/1/1998	-1102230 - -1101500	330000 - 330730	AZ	Contours
41452	TAZ1008	NEWMAN PEAK, AZ	1:24,000	1/1/1996	-1113000 - -1112230	323730 - 324500	AZ	Contours
41455	TAZ1011	NINETY SIX HILLS NE, AZ	1:24,000	1/1/1997	-1110730 - -1110000	325230 - 330000	AZ	Contours
41473	TAZ1029	OAK GROVE CANYON, AZ	1:24,000	1/1/1996	-1103000 - -1102230	324500 - 325230	AZ	Contours
41485	TAZ1041	OUTLAW MOUNTAIN, AZ	1:24,000	1/1/1996	-1095230 - -1094500	313730 - 314500	AZ	Contours
42833	TAZ2435	PAPAGO FARMS, AZ	1:24,000	1/1/1996	-1122230 - -1121500	314500 - 315230	AZ	Contours
42485	TAZ2082	PAT HILLS SOUTH, AZ	1:24,000	1/1/1996	-1093730 - -1093000	315230 - 320000	AZ	Contours
42390	TAZ1986	PEARCE, AZ	1:24,000	1/1/1996	-1095230 - -1094500	315230 - 320000	AZ	Contours
42474	TAZ2071	PEDREGOSA MOUNTAINS EAST, AZ	1:24,000	1/1/1996	-1092230 - -1091500	313000 - 313730	AZ	Contours
42486	TAZ2083	PEDREGOSA MOUNTAINS WEST, AZ	1:24,000	1/1/1996	-1093000 - -1092230	313000 - 313730	AZ	Contours
41525	TAZ1081	PENA BLANCA LAKE, AZ	1:24,000	1/1/1996	-1110730 - -1110000	312230 - 313000	AZ	Contours
41547	TAZ1104	PICACHO PASS, AZ	1:24,000	1/1/1996	-1112230 - -1111500	323730 - 324500	AZ	Contours
42855	TAZ2457	PORTAL NE, AZ-NM	1:24,000	1/1/1996	-1090730 - -1090000	315230 - 320000	AZ NM	Contours
42856	TAZ2458	PORTAL PEAK, AZ	1:24,000	1/1/1997	-1091500 - -1090730	314500 - 315230	AZ	Contours
42854	TAZ2456	PORTAL, AZ	1:24,000	1/1/1998	-1091500 - -1090730	315230 - 320000	AZ	Contours
41596	TAZ1153	PRESUMIDO PEAK, AZ-MEX	1:24,000	1/1/1996	-1113730 - -1113000	313000 - 313730	AZ	Contours
41639	TAZ1196	RHODES PEAK, AZ	1:24,000	1/1/1996	-1103000 - -1102230	323730 - 324500	AZ	Contours
41643	TAZ1200	RIO RICO, AZ	1:24,000	1/1/1996	-1110000 - -1105230	312230 - 313000	AZ	Contours
81770	TNM2437	RODEO, NM-AZ	1:24,000	1/1/1996	-1090730 - -1090000	314500 - 315230	AZ NM	Contours
41673	TAZ1230	RUSTLER PARK, AZ	1:24,000	1/1/1998	-1092230 - -1091500	315230 - 320000	AZ	Contours
41700	TAZ1257	SAMANIEGO HILLS, AZ	1:24,000	1/1/1996	-1113000 - -1112230	323000 - 323730	AZ	Contours
41702	TAZ1259	SAN AGUSTIN, AZ	1:24,000	1/1/1996	-1120000 - -1115230	313000 - 313730	AZ	Contours
41709	TAZ1266	SAN MIGUEL, AZ	1:24,000	1/1/1996	-1115230 - -1114500	313000 - 313730	AZ	Contours
81776	TNM2443	SAN SIMON CIENEGA, NM AZ	1:24,000	1/1/1996	-1090730 - -1090000	320000 - 320730	AZ NM	Contours



42894	TAZ2497	SANTA ROSA MOUNTAINS NW, AZ	1:24,000	1/1/1996	-1120000 - -1115230	322230 - 323000	AZ	Contours
42896	TAZ2499	SANTA ROSA MOUNTAINS SW, AZ	1:24,000	1/1/1996	-1120000 - -1115230	321500 - 322230	AZ	Contours
41720	TAZ1277	SASABE, AZ-MEX	1:24,000	1/1/1996	-1113730 - -1113000	312230 - 313000	AZ	Contours
42912	TAZ2516	SILVER BELL EAST, AZ	1:24,000	1/1/1996	-1113000 - -1112230	322230 - 323000	AZ	Contours
42913	TAZ2517	SILVER BELL WEST, AZ	1:24,000	1/1/1989	-1113730 - -1113000	322230 - 323000	AZ	Contours
42922	TAZ2527	SOUTH OF BAILEY PEAK, AZ-MEX	1:24,000	1/1/1996	-1123000 - -1122230	313730 - 314500	AZ	Contours
42924	TAZ2529	SOUTH OF PAPAGO FARMS, AZ-MEX	1:24,000	1/1/1996	-1122230 - -1121500	313730 - 314500	AZ	Contours
42488	TAZ2085	SQUARETOP HILLS WEST, AZ	1:24,000	1/1/1996	-1094500 - -1093730	314500 - 315230	AZ	Contours
42479	TAZ2076	STANFORD CANYON, AZ	1:24,000	1/1/1996	-1093000 - -1092230	314500 - 315230	AZ	Contours
42480	TAZ2077	SULPHUR HILLS, AZ	1:24,000	1/1/1996	-1094500 - -1093730	315230 - 320000	AZ	Contours
42489	TAZ2086	SWEDE PEAK, AZ	1:24,000	1/1/1996	-1092230 - -1091500	313730 - 314500	AZ	Contours
42942	TAZ2548	TECOLOTE RANCH, AZ-MEX	1:24,000	1/1/1996	-1120730 - -1120000	313730 - 314500	AZ	Contours
112257	-	TONTO NATIONAL FOREST, AZ	1:126,720	1/1/2001	-1120730 - -1103730	331500 - 343000	AZ	No Contours
42380	TAZ1975	TURQUOISE MOUNTAIN, AZ	1:24,000	1/1/1996	-1095230 - -1094500	314500 - 315230	AZ	Contours
41983	TAZ1543	VAMORI, AZ-MEX	1:24,000	1/1/1996	-1120000 - -1115230	313730 - 314500	AZ	Contours
42963	TAZ2569	VANAR NW, AZ	1:24,000	1/1/1996	-1091500 - -1090730	320730 - 321500	AZ	Contours
42962	TAZ2568	VANAR, AZ NM	1:24,000	1/1/1996	-1090730 - -1090000	320730 - 321500	AZ NM	Contours
42393	TAZ1989	WATER POCKETS, AZ	1:24,000	1/1/1997	-1114500 - -1113730	365230 - 370000	AZ	Contours
42976	TAZ2582	WATERMAN PEAK, AZ	1:24,000	1/1/1996	-1113000 - -1112230	321500 - 322230	AZ	Contours
42373	TAZ1968	WEST OF GREASEWOOD MOUNTAIN, AZ	1:24,000	1/1/1996	-1100000 - -1095230	322230 - 323000	AZ	Contours
42987	TAZ2593	WEST OF VENTANA, AZ	1:24,000	1/1/1996	-1122230 - -1121500	322230 - 323000	AZ	Contours
42394	TAZ1990	WRATHER ARCH, AZ	1:24,000	1/1/1997	-1115230 - -1114500	365230 - 370000	AZ	Contours
42098	TAZ1658	YUMA WEST, AZ	1:24,000	1/1/1997	-1144500 - -1143730	323730 - 324500	AZ CA	Contours
43248	TCA0014	AGUA CALIENTE SPRING, CA	1:24,000	1/1/1997	-1162230 - -1161500	325230 - 330000	CA	Contours
112217	-	ANGELES NATIONAL FOREST-ENGLISH, CA	1:126,720	1/1/2002	-1185230 - -1173000	340730 - 344500	CA	No Contours
43312	TCA0080	ARROYO TAPIADO, CA	1:24,000	1/1/1997	-1161500 - -1160730	325230 - 330000	CA	Contours
46002	TCA2827	BRIDGEPORT, CA	1:100,000	1/1/2003	-1200000 - -1190000	380000 - 383000	CA NV	Surface Management
43628	TCA0406	CAZADERO, CA	1:24,000	1/1/1998	-1230730 - -1230000	383000 - 383730	CA	Contours
115292	DESOLATION WILDERNESS, ELDORADO NF, CA		1:31,680	1/1/2003	-1202000 - -1200230	385000 - 390000	CA	Contours
44134	TCA0921	GOOSE CREEK, CA	1:24,000	1/1/1997	-1210730 - -1210000	381500 - 382230	CA	Contours
44171	TCA0958	GUALALA, CA	1:24,000	1/1/1998	-1233730 - -1233000	384500 - 385230	CA	Contours
44202	TCA0990	HARPERS WELL, CA	1:24,000	1/1/1998	-1160000 - -1155230	330000 - 330730	CA	Contours



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45954	TCA2769	HAYFORK, CA	1:100,000	1/1/2002	-1240000 - -1230000	403000 - 410000	CA	Surface Management
44287	TCA1075	HOWARD RANCH, CA	1:24,000	1/1/1999	-1210730 - -1210000	370730 - 371500	CA	Contours
44312	TCA1100	IN-KO-PAH GORGE, CA	1:24,000	1/1/1997	-1160730 - -1160000	323730 - 324500	CA	Contours
111595	USFS0157	INYO NATIONAL FOREST, CA	1:126,720	1/1/2002	-1192230 - -1180000	360000 - 380730	CA NV	No Contours
44351	TCA1139	JACUMBA, CA	1:24,000	1/1/1997	-1161500 - -1160730	323730 - 324500	CA	Contours
44387	TCA1175	KANE SPRING NW, CA	1:24,000	1/1/1998	-1160000 - -1155230	330730 - 331500	CA	Contours
115224	-	LAKES BASIN PLUMAS-EUREKA STATE PARK	NO SCALE	1/1/2003	-1205000 - -1203500	393500 - 394500	CA	Contours
112310	-	LASSEN NATIONAL FOREST, CA	1:126,720	1/1/1992	-1205230 - -1203730	400000 - 412230	CA	No Contours
112310	-	LASSEN NATIONAL FOREST, CA	1:126,720	1/1/1992	-1205230 - -1203730	400000 - 412230	CA	No Contours
44563	TCA1357	LIVE OAK SPRINGS, CA	1:24,000	1/1/1997	-1162230 - -1161500	323730 - 324500	CA	Contours
44777	TCA1575	MORRO BAY SOUTH, CA	1:24,000	1/1/1998	-1205230 - -1204500	351500 - 352230	CA	Contours
45068	TCA1867	PISMO BEACH, CA	1:24,000	1/1/1998	-1204500 - -1203730	350730 - 351500	CA	Contours
45075	TCA1874	PLACERVILLE, CA	1:100,000	1/1/2002	-1210000 - -1200000	383000 - 390000	CA	Surface Management
111600	USFS0171	PLUMAS NATIONAL FOREST, CA	1:126,720	1/1/2002	-1213730 - -1200000	392230 - 401500	CA	
45118	TCA1917	PORT SAN LUIS, CA	1:24,000	1/1/1998	-1205230 - -1204500	350830 - 351500	CA	Contours
45159	TCA1959	RACKERBY, CA	1:24,000	1/1/2002	-1212230 - -1211500	392230 - 393000	CA	Contours
45288	TCA2091	SALTON, CA	1:24,000	1/1/1998	-1160000 - -1155230	332230 - 333000	CA	Contours
45347	TCA2154	SAN JUAN BAUTISTA, CA	1:24,000	1/1/1997	-1213730 - -1213000	364500 - 365230	CA	Contours
45391	TCA2198	SANTA CATALINA NORTH, CA	1:24,000	1/1/1998	-1183000 - -1182230	332230 - 333000	CA	Contours
45392	TCA2199	SANTA CATALINA SOUTH, CA	1:24,000	1/1/1998	-1183000 - -1182230	331500 - 332230	CA	Contours
45460	TCA2267	SEQUOIA & KINGS CANYON NP, CA	1:125,000	1/1/1996	-1191500 - -1181000	361500 - 371500	CA	Contours
112260	-	SEQUOIA NATIONAL FOREST, GIANT SEQ., CA	1:126,720	1/1/2001	-1191500 - -1180000	-352230 - 365230	CA	No Contours
45541	TCA2351	SOLYO, CA	1:24,000	1/1/1999	-1212230 - -1211500	373000 - 373730	CA	Contours
45542	TCA2352	SOMBRERO PEAK, CA	1:24,000	1/1/1997	-1162230 - -1161500	324500 - 325230	CA	Contours
45620	TCA2431	SWEENEY PASS, CA	1:24,000	1/1/1997	-1161500 - -1160730	324500 - 325230	CA	Contours
47065	TCA3900	TELESCOPE PEAK, CA	1:24,000	1/1/1988	-1170730 - -1170000	360730 - 361500	CA	Contours
45727	TCA2539	TUMEY HILLS, CA	1:24,000	1/1/2000	-1204500 - -1203730	363000 - 363730	CA	Contours
46487	TCA3319	TWENTYNINE PALMS MOUNTAIN, CA	1:24,000	1/1/1997	-1160000 - -1155230	340000 - 340730	CA	Contours
45932	TCA2746	YOSEMITE VALLEY, CA	1:100,000	1/1/2002	-1200000 - -1190000	373000 - 380000	CA	Surface Management
49692	TCO2208	CANON CITY, CO	1:100,000	1/1/2003	-1060000 - -1050000	380000 - 383000	CO	Surface Management
49693	TCO2209	CANON CITY, CO	1:100,000	1/1/2003	-1060000 - -1050000	380000 - 383000	CO	Minerals Management



111531	USFS0039	COMANCHE NATIONAL GRASSLAND, CO	1:126,720	1/1/2003	-1040000 - -1021500	371500 - 380000	CO	No Contours
49707	TCO2224	CORTEZ, CO	1:100,000	1/1/2003	-1090000 - -1080000	370000 - 373000	CO	Surface Management
49708	TCO2225	CORTEZ, CO	1:100,000	1/1/2003	-1090000 - -1080000	370000 - 373000	CO	Minerals Management
49791	TCO2312	DURANGO, CO	1:100,000	1/1/2003	-1080000 - -1070000	370000 - 373000	CO	Surface Management
49792	TCO2313	DURANGO, CO	1:100,000	1/1/2003	-1080000 - -1070000	370000 - 373000	CO	Minerals Management
81410	TNM2067	FARMINGTON, NM	1:100,000	1/1/2003	-1090000 - -1080000	363000 - 370000	CO NM	Surface Management
81411	TNM2068	FARMINGTON, NM	1:100,000	1/1/2003	-1090000 - -1080000	363000 - 370000	CO NM	Minerals Management
80599	TNM1246	NAVAJO RESERVOIR, NM	1:100,000	1/1/2002	-1080000 - -1070000	363000 - 370000	CO NM	Minerals Management
80600	TNM1247	NAVAJO RESERVOIR, NM	1:100,000	1/1/2002	-1080000 - -1070000	363000 - 370000	CO NM	Surface Management
111658	USFS0508	SAN ISABEL NATIONAL FOREST (PLASTIC), CO	1:126,720	1/1/2003	-1063000 - -1045230	371500 - 392230	CO	No Contours
111544	USFS0053	SAN ISABEL NATIONAL FOREST, CO	1:126,720	1/1/2003	-1063000 - -1045230	371500 - 392230	CO	No Contours
111111	TWY1733	SARATOGA, WY	1:100,000	1/1/2003	-1070000 - -1060000	410000 - 413000	CO WY	Surface Management
111112	TWY1734	SARATOGA, WY	1:100,000	1/1/2003	-1070000 - -1060000	410000 - 413000	CO WY	Minerals Management
49297	TCO1809	STEAMBOAT SPRINGS, CO	1:100,000	1/1/2002	-1070000 - -1060000	400000 - 403000	CO	Minerals Management
49298	TCO1810	STEAMBOAT SPRINGS, CO	1:100,000	1/1/2002	-1070000 - -1060000	400000 - 403000	CO	Surface Management
49487	TCO2000	WALDEN, CO	1:100,000	1/1/2002	-1070000 - -1060000	403000 - 410000	CO WY	Minerals Management
49488	TCO2001	WALDEN, CO	1:100,000	1/1/2002	-1070000 - -1060000	403000 - 410000	CO WY	Surface Management
49982	TCT0108	VOLUNTOWN, CT	1:24,000	1/1/2001	-715230 - -714500	413000 - 413730	CT RI	Contours
50160	TFL0060	BAYARD, FL	1:24,000	1/1/1994	-813730 - -813000	300730 - 301500	FL	Contours
51353	TFL1317	FLORIDA SI W/TOPO (S/2 OF SET), FL	1:500,000	1/1/1989	FL	Water		Contours
50611	TFL0523	JACKSONVILLE HEIGHTS, FL	1:24,000	1/1/1994	-815230 - -814500	300730 - 301500	FL	Contours
50771	TFL0685	MAYPORT, FL	1:24,000	1/1/1994	-813000 - -812230	302230 - 303000	FL	Contours
51094	TFL1025	TALLAHASSEE, FL	1:24,000	1/1/1999	-842230 - -841500	302230 - 303000	FL	Contours
51191	TFL1129	WOODVILLE, FL	1:24,000	1/1/1999	-841500 - -840730	301500 - 302230	FL	Contours
51494	TGA0055	AUSTELL, GA	1:24,000	1/1/1999	-844500 - -843730	334500 - 335230	GA	Contours
51509	TGA0071	BALL GROUND EAST, GA	1:24,000	1/1/1999	-842230 - -841500	341500 - 342230	GA	Contours
51592	TGA0155	BUFORD DAM, GA	1:24,000	1/1/1999	-840730 - -840000	340730 - 341500	GA	Contours
51678	TGA0247	CONYERS, GA	1:24,000	1/1/1999	-840730 - -840000	333730 - 334500	GA	Contours
51702	TGA0272	CUMMING, GA	1:24,000	1/1/1999	-841500 - -840730	340730 - 341500	GA	Contours
51762	TGA0333	DULUTH, GA	1:24,000	1/1/1999	-841500 - -840730	340000 - 340730	GA	Contours



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51867	TGA0440	HAMPTON, GA	1:24,000	1/1/1999	-842230 - -841500	332230 - 333000	GA	Contours
52030	TGA0609	LUXOMNI, GA	1:24,000	1/1/1999	-840730 - -840000	335230 - 340000	GA	Contours
52088	TGA0670	MILSTEAD, GA	1:24,000	1/1/1999	-840000 - -835230	333730 - 334500	GA	Contours
52220	TGA0805	REDAN, GA	1:24,000	1/1/1999	-841500 - -840730	333730 - 334500	GA	Contours
52303	TGA0892	SNELLVILLE, GA	1:24,000	1/1/1999	-840730 - -840000	334500 - 335230	GA	Contours
52748	THI0075	KEANAE, HI	1:24,000	1/1/1992	-1561230 - -1560500	205000 - 205730	HI	Contours
52817	THI0144	WEST OF KOKOOLAU, HI (FORMER PU'U'OUO)	1:24,000	1/1/1993	-1554500 - -1553730	193000 - 193730	HI	Contours
112493	-	COUER D'ALENE NATIONAL FOREST, ID	1:126,720	1/1/2003	-1170000 - -1153730	472230 - 480730	ID	No Contours
112494	-	COUER D'ALENE NATIONAL FOREST, ID	1:126,720	1/1/2003	-1170000 - -1153730	472230 - 480730	ID	No Contours
74345	TMT3448	HEBGEN LAKE, MT	1:100,000	1/1/2002	-1120000 - -1110000	443000 - 450000	ID MT WY	Minerals Management
112495	-	KANIKSU NATIONAL FOREST, ID	1:126,720	1/1/2003	-1170730 - -1160000	480000 - 490000	ID	
55075	TID0927	MOUNTAIN HOME, ID	1:100,000	1/1/2003	-1160000 - -1150000	430000 - 433000	ID	Surface Management
55279	TID1138	REXBURG, ID	1:100,000	1/1/2003	-1120000 - -1110000	433000 - 440000	ID WY	Surface Management
55368	TID1232	SAWTELL PEAK, ID-MT	1:24,000	1/1/1997	-1113000 - -1112230	443000 - 443730	ID MT	Contours
55390	TID1254	SHEEP CREEK, ID	1:100,000	1/1/2002	-1160000 - -1150000	420000 - 423000	ID	Surface Management
55436	TID1300	SODA SPRINGS, ID	1:100,000	1/1/2003	-1120000 - -1110000	423000 - 430000	ID WY	Surface Management
55629	TID1501	WHITE CLOUD PEAKS, ID	1:100,000	1/1/2003	-1150000 - -1140000	440000 - 443000	ID	Surface Management
57393	TIL1271	ALTAMONT EAST, IL	1:24,000	1/1/1998	-884500 - -883730	390000 - 390730	IL	Contours
56160	TIL0011	ALTAMONT WEST, IL	1:24,000	1/1/1998	-885230 - -884500	390000 - 390730	IL	Contours
56173	TIL0024	ARGENTA, IL	1:24,000	1/1/1998	-885230 - -884500	395230 - 400000	IL	Contours
57085	TIL0947	ARTHUR, IL	1:24,000	1/1/1998	-883000 - -882230	393730 - 394500	IL	Contours
57065	TIL0927	ASHMORE, IL	1:24,000	1/1/1998	-880730 - -880000	393000 - 393730	IL	Contours
57107	TIL0970	ATWOOD, IL	1:24,000	1/1/1998	-883000 - -882230	394500 - 395230	IL	Contours
56191	TIL0043	AVENA, IL	1:24,000	1/1/1998	-890000 - -885230	390000 - 390730	IL	Contours
56211	TIL0063	BEECHER CITY, IL	1:24,000	1/1/1998	-885230 - -884500	390730 - 391500	IL	Contours
57083	TIL0945	CADWELL, IL	1:24,000	1/1/1998	-883730 - -883000	393730 - 394500	IL	Contours
57102	TIL0965	CERRO GORDO, IL	1:24,000	1/1/1999	-884500 - -883730	395230 - 400000	IL	Contours
57347	TIL1223	CHARLESTON SOUTH, IL	1:24,000	1/1/1998	-881500 - -880730	392230 - 393000	IL	Contours
57090	TIL0952	COOKS MILLS, IL	1:24,000	1/1/1998	-883000 - -882230	393000 - 393730	IL	Contours
57091	TIL0953	DALTON CITY, IL	1:24,000	1/1/1998	-885230 - -884500	393730 - 394500	IL	Contours
57310	TIL1181	DANA, IL	1:24,000	1/1/1999	-890000 - -885230	405230 - 410000	IL	Contours
57394	TIL1272	DIETERICH, IL	1:24,000	1/1/1998	-883000 - -882230	390000 - 390730	IL	Contours
56418	TIL0271	FANCHER, IL	1:24,000	1/1/1998	-885230 - -884500	391500 - 392230	IL	Contours
57088	TIL0950	FINDLAY, IL	1:24,000	1/1/1998	-885230 - -884500	393000 - 393730	IL	Contours
57368	TIL1244	GREENUP, IL	1:24,000	1/1/1998	-881500 - -880730	390730 - 391500	IL	Contours



57105	TIL0968	HAMMOND, IL	1:24,000	1/1/1998	-883730 - -883000	394500 - 395230	IL	Contours
56508	TIL0361	HERRICK, IL	1:24,000	1/1/1998	-890000 - -885230	390730 - 391500	IL	Contours
57043	TIL0905	HINDSBORO, IL	1:24,000	1/1/1998	-881500 - -880730	393730 - 394500	IL	Contours
57068	TIL0930	IVESDALE, IL	1:24,000	1/1/1998	-883000 - -882230	395230 - 400000	IL	Contours
57104	TIL0967	LA PLACE, IL	1:24,000	1/1/1999	-884500 - -883730	394500 - 395230	IL	Contours
56576	TIL0431	LAKEWOOD, IL	1:24,000	1/1/1998	-890000 - -885230	391500 - 392230	IL	Contours
56591	TIL0446	LIBERTYVILLE, IL	1:24,000	1/1/1998	-880000 - -875230	421500 - 422230	IL	Contours
57056	TIL0918	LONGVIEW, IL	1:24,000	1/1/1998	-880730 - -880000	395230 - 400000	IL	Contours
57084	TIL0946	LOVINGTON, IL	1:24,000	1/1/1999	-884500 - -883730	393730 - 394500	IL	Contours
57106	TIL0969	MACON EAST, IL	1:24,000	1/1/1998	-890000 - -885230	393730 - 394500	IL	Contours
56655	TIL0511	MIDDLESWORTH, IL	1:24,000	1/1/1999	-884500 - -883730	392230 - 393000	IL	Contours
57062	TIL0924	MURDOCK, IL	1:24,000	1/1/1998	-880730 - -880000	394500 - 395230	IL	Contours
57343	TIL1219	NEOGA, IL	1:24,000	1/1/1998	-883000 - -882230	391500 - 392230	IL	Contours
57092	TIL0954	OAKLAND, IL	1:24,000	1/1/1998	-880730 - -880000	393730 - 394500	IL	Contours
57101	TIL0964	OBED, IL	1:24,000	1/1/1998	-890000 - -885230	393000 - 393730	IL	Contours
56820	TIL0677	RAYMOND NE, IL	1:24,000	1/1/1998	-893730 - -893000	392230 - 393000	IL	Contours
57397	TIL1275	SHUMWAY, IL	1:24,000	1/1/1998	-884500 - -883730	390730 - 391500	IL	Contours
56912	TIL0771	STEWARDSON EAST, IL	1:24,000	1/1/1998	-883730 - -883000	391500 - 392230	IL	Contours
56913	TIL0772	STEWARDSON WEST, IL	1:24,000	1/1/1998	-884500 - -883730	391500 - 392230	IL	Contours
57081	TIL0943	SULLIVAN, IL	1:24,000	1/1/1998	-883730 - -883000	393000 - 393730	IL	Contours
57400	TIL1278	TEUTOPOLIS, IL	1:24,000	1/1/1998	-883000 - -882230	390730 - 391500	IL	Contours
57066	TIL0928	TOLONO, IL	1:24,000	1/1/1998	-882230 - -881500	395230 - 400000	IL	Contours
56947	TIL0806	TOWER HILL, IL	1:24,000	1/1/1998	-890000 - -885230	392230 - 393000	IL	Contours
57100	TIL0963	TUSCOLA, IL	1:24,000	1/1/1999	-882230 - -881500	394500 - 395230	IL	Contours
57109	TIL0972	VILLA GROVE, IL	1:24,000	1/1/1998	-881500 - -880730	394500 - 395230	IL	Contours
57387	TIL1264	WHEELER, IL	1:24,000	1/1/1998	-882230 - -881500	390000 - 390730	IL	Contours
57010	TIL0871	WHEELING, IL	1:24,000	1/1/1998	-880000 - -875230	420730 - 421500	IL	Contours
57018	TIL0879	WINDSOR, IL	1:24,000	1/1/1998	-883730 - -883000	392230 - 393000	IL	Contours
57392	TIL1269	WOODBURY, IL	1:24,000	1/1/1998	-882230 - -881500	390730 - 391500	IL	Contours
57374	TIL1250	YALE, IL	1:24,000	1/1/1998	-880730 - -880000	390000 - 390730	IL	Contours
57604	TIN0043	BELMONT, IN	1:24,000	1/1/1998	-862230 - -861500	390730 - 391500	IN	Contours
57945	TIN0386	MITCHELL, IN	1:24,000	1/1/2000	-863000 - -862230	383730 - 384500	IN	Contours
57973	TIN0414	NASHVILLE, IN	1:24,000	1/1/1998	-861500 - -860730	390730 - 391500	IN	Contours
108969	TWV0233	MAJESTIC, WV KY VA	1:24,000	1/1/2001	-820730 - -820000	373000 - 373730	KY VA WV	Contours
109172	TWV0439	WHARNCLIFFE, WV VA KY	1:24,000	1/1/2001	-820000 - -815230	373000 - 373730	KY VA WV	Contours
61472	TLA0020	ASHLY, LA	1:24,000	1/1/1998	-910730 - -910000	322230 - 323000	LA MS	Contours
61533	TLA0082	BOSSIER CITY, LA	1:24,000	1/1/1998	-934500 - -933730	323000 - 323730	LA	Contours
61762	TLA0313	HELL HOLE BAYOU, LA	1:24,000	1/1/1998	-920730 - -920000	293000 - 293730	LA	Contours
61891	TLA0442	LOST LAKE, LA	1:24,000	1/1/1998	-910730 - -910000	291500 - 292230	LA	Contours



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61999	TLA0551	PEASON, LA	1:24,000	1/1/1998	-932230 - -931500	312230 - 313000	LA	Contours
62528	TLA1085	VIXEN, LA	1:24,000	1/1/1998	-922230 - -921500	320730 - 321500	LA	Contours
109383	TWV0660	CHERRY RUN, WV-MD-PA	1:24,000	1/1/1998	-780730 - -780000	393730 - 394500	MD PA WV	Contours
67624	TMN1208	PIGEON POINT, MN	1:24,000	1/1/1999	-893730 - -893000	475500 - 480230	MI MN ON	Contours
66763	TMN0325	CRANBERRY BAY, MN-CAN	1:24,000	1/1/1999	-930730 - -930000	483000 - 483730	MN	Contours
66787	TMN0350	DALEY BAY, MN	1:24,000	1/1/1999	-930000 - -925230	482230 - 483000	MN	Contours
66901	TMN0466	ERICSBURG, MN	1:24,000	1/1/1999	-932230 - -931500	482230 - 483000	MN	Contours
67052	TMN0620	GRAND PORTAGE, MN	1:24,000	1/1/1999	-894500 - -893730	475500 - 480230	MN	Contours
67172	TMN0743	INTERNATIONAL FALLS, MN-CAN	1:24,000	1/1/1999	-933000 - -932230	483000 - 483730	MN	Contours
67184	TMN0755	ISLAND VIEW, MN	1:24,000	1/1/1999	-931500 - -930730	483000 - 483730	MN	Contours
67227	TMN0799	KEMPTON BAY, MN-CAN	1:24,000	1/1/1999	-925230 - -924500	483000 - 483730	MN	Contours
67237	TMN0809	KETTLE FALLS, MN	1:24,000	1/1/1999	-924500 - -923730	483000 - 483730	MN	Contours
67445	TMN1024	MINERAL CENTER, MN	1:24,000	1/1/1999	-895230 - -894500	475230 - 480000	MN ON	Contours
67681	TMN1269	RANIER, MN-CAN	1:24,000	1/1/1999	-932230 - -931500	483000 - 483730	MN	Contours
67837	TMN1429	SOLDIER POINT, MN	1:24,000	1/1/1999	-930000 - -925230	483000 - 483730	MN	Contours
111628	USFS0374	SUPERIOR NATIONAL FOREST, MN	1:126,720	1/1/2003	-930730 - -895230	471500 - 483000	MN	No Contours
70756	TMS0727	ASHLAND, MS	1:24,000	1/1/2000	-891500 - -890730	344500 - 345230	MS	Contours
70048	TMS0016	AVENT, MS	1:24,000	1/1/2000	-885230 - -884500	305230 - 310000	MS	Contours
70051	TMS0019	BAGLEY LAKE, MS	1:24,000	1/1/1980	-893000 - -892230	342230 - 343000	MS	Contours
70057	TMS0025	BARBARA, MS	1:24,000	1/1/2000	-890000 - -885230	305230 - 310000	MS	Contours
70074	TMS0042	BEAUMONT, MS	1:24,000	1/1/2000	-890000 - -885230	310730 - 311500	MS	Contours
70079	TMS0047	BENNDALE, MS	1:24,000	1/1/2000	-885230 - -884500	304500 - 305230	MS	Contours
70809	TMS0782	BETHLEHEM, MS	1:24,000	1/1/2000	-892230 - -891500	343000 - 343730	MS	Contours
70814	TMS0787	BLUE MOUNTAIN, MS	1:24,000	1/1/2000	-890730 - -890000	343730 - 344500	MS	Contours
70714	TMS0685	BROOKLYN, MS	1:24,000	1/1/2000	-891500 - -890730	310000 - 310730	MS	Contours
70703	TMS0674	CAMP HILL, MS TN	1:24,000	1/1/2000	-890730 - -890000	345230 - 350000	MS TN	Contours
70702	TMS0673	CANAAN, MS	1:24,000	1/1/1982	-891500 - -890730	345230 - 350000	MS TN	Contours
70815	TMS0788	CHILLI CREEK, MS	1:24,000	1/1/2000	-891500 - -890730	343730 - 344500	MS	Contours
70838	TMS0815	COFFEEVILLE, MS	1:24,000	1/1/2000	-894500 - -893730	335230 - 340000	MS	Water Contours
70824	TMS0800	COKER LAKE, MS	1:24,000	1/1/2000	-895230 - -894500	340000 - 340730	MS	Contours
70166	TMS0135	DENMARK, MS	1:24,000	1/1/1980	-892230 - -891500	341500 - 342230	MS	Contours
70197	TMS0166	ETTA, MS	1:24,000	1/1/2000	-891500 - -890730	342230 - 343000	MS	Contours
70802	TMS0775	FALKNER, MS	1:24,000	1/1/2000	-890000 - -885230	344500 - 345230	MS	Contours
70812	TMS0785	HICKORY FLAT, MS	1:24,000	1/1/2000	-891500 - -890730	343000 - 343730	MS	Contours
70268	TMS0237	HOLLY SPRINGS SE, MS	1:24,000	1/1/2000	-892230 - -891500	344500 - 345230	MS	Contours
70267	TMS0236	HOLLY SPRINGS, MS	1:24,000	1/1/2000	-893000 - -892230	344500 - 345230	MS	Contours



70724	TMS0695	JANICE, MS	1:24,000	1/1/2000	-890730 - -890000	310000 - 310730	MS	Contours
70808	TMS0781	MALONE, MS	1:24,000	1/1/2000	-893000 - -892230	343000 - 343730	MS	Contours
70721	TMS0692	MC LAURIN, MS	1:24,000	1/1/2000	-891500 - -890730	310730 - 311500	MS	Contours
70804	TMS0777	MYRTLE, MS	1:24,000	1/1/2000	-890730 - -890000	343000 - 343730	MS	Contours
70720	TMS0691	NEW AUGUSTA, MS	1:24,000	1/1/2000	-890730 - -890000	310730 - 311500	MS	Contours
70825	TMS0801	OAKLAND, MS	1:24,000	1/1/2000	-900000 - -895230	340000 - 340730	MS	Contours
70813	TMS0786	POTTS CAMP, MS	1:24,000	1/1/2000	-892230 - -891500	343730 - 344500	MS	Contours
70505	TMS0474	PUSKUS LAKE, MS	1:24,000	1/1/2000	-892230 - -891500	342230 - 343000	MS	Contours
70844	TMS0821	SCOBEY, MS	1:24,000	1/1/2000	-895230 - -894500	335230 - 340000	MS	Contours
70605	TMS0574	TAYLOR HILL, MS	1:24,000	1/1/2000	-890000 - -885230	310000 - 310730	MS	Contours
70611	TMS0580	THAXTON, MS	1:24,000	1/1/2000	-891500 - -890730	341500 - 342230	MS	Contours
70830	TMS0807	TILLATOBA, MS	1:24,000	1/1/2000	-900000 - -895230	335230 - 340000	MS	Contours
70700	TMS0671	WALNUT, MS TN	1:24,000	1/1/2000	-890000 - -885230	345230 - 350000	MS TN	Contours
70758	TMS0729	WATERFORD, MS	1:24,000	1/1/2000	-893000 - -892230	343730 - 344500	MS	Contours
70760	TMS0731	WHITTEN TOWN, MS	1:24,000	1/1/2000	-890730 - -890000	344500 - 345230	MS	Contours
70691	TMS0660	YOCONA, MS	1:24,000	1/1/2000	-893000 - -892230	341500 - 342230	MS	Contours
71180	TMT0147	BELMONT POINT, MT	1:24,000	1/1/1999	-1133730 - -1133000	470000 - 470730	MT	Contours
71270	TMT0239	BLUE POINT, MT	1:24,000	1/1/1999	-1135230 - -1134500	465230 - 470000	MT	Contours
71528	TMT0499	COOPERS LAKE, MT	1:24,000	1/1/1999	-1130000 - -1125230	470000 - 470730	MT	Contours
71578	TMT0549	CUT BANK, MT	1:100,000	1/1/2002	-1130000 - -1120000	483000 - 490000	MT	Minerals Management
71579	TMT0550	CUT BANK, MT	1:100,000	1/1/2002	-1130000 - -1120000	483000 - 490000	MT	Surface Management
71675	TMT0649	DUNHAM POINT, MT	1:24,000	1/1/1999	-1131500 - -1130730	470730 - 471500	MT	Contours
73563	TMT2590	EKALAKA, MT	1:100,000	1/1/2002	-1050000 - -1040000	453000 - 460000	MT ND SD	Surface Management
73564	TMT2591	EKALAKA, MT	1:100,000	1/1/2002	-1050000 - -1040000	453000 - 460000	MT ND SD	Minerals Management
71789	TMT0764	FLINT MOUNTAIN, MT	1:24,000	1/1/1999	-1130000 - -1125230	471500 - 472230	MT	Contours
71913	TMT0897	GOLD CREEK PEAK, MT	1:24,000	1/1/1965	-1134500 - -1133730	470000 - 470730	MT	Contours
71964	TMT0951	HAHN CREEK PASS, MT	1:24,000	1/1/1999	-1131500 - -1130730	471500 - 472230	MT	Contours
74346	TMT3449	HEBGEN LAKE, MT	1:100,000	1/1/2002	-1120000 - -1110000	443000 - 450000	MT	Surface Management
72241	TMT1230	LAKE INEZ, MT	1:24,000	1/1/1999	-1133730 - -1133000	471500 - 472230	MT	Contours
72242	TMT1231	LAKE MARSHALL, MT	1:24,000	1/1/1999	-1134500 - -1133730	471500 - 472230	MT	Contours
72246	TMT1235	LAKE MOUNTAIN, MT	1:24,000	1/1/1999	-1130000 - -1125230	470730 - 471500	MT	Contours
74406	TMT3510	LONESOME LAKE, MT	1:100,000	1/1/2002	-1110000 - -1100000	480000 - 483000	MT	Surface Management
114746	TMT3510	LONESOME LAKE, MT	1:100,000	1/1/2002	-1110000 - -1100000	480000 - 483000	MT	Minerals Management
72526	TMT1522	MORRELL LAKE, MT	1:24,000	1/1/1999	-1133000 - -1132230	471500 - 472230	MT	Contours
72527	TMT1523	MORRELL MOUNTAIN, MT	1:24,000	1/1/1965	-1132230 - -1131500	470730 - 471500	MT	Contours
72649	TMT1647	OVANDO, MT	1:24,000	1/1/1999	-1131500 - -1130730	470000 - 470730	MT	Contours



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72846	TMT1847	RINGLING, MT	1:100,000	1/1/2002	-1110000 - -1100000	460000 - 463000	MT	Surface Management
72847	TMT1848	RINGLING, MT	1:100,000	1/1/2002	-1110000 - -1100000	460000 - 463000	MT	Surface Management
72917	TMT1918	SALMON LAKE, MT	1:24,000	1/1/1999	-1133000 - -1132230	470000 - 470730	MT	Contours
72961	TMT1964	SEELEY LAKE EAST, MT	1:24,000	1/1/1999	-1133000 - -1132230	470730 - 471500	MT	Contours
72962	TMT1965	SEELEY LAKE WEST, MT	1:24,000	1/1/1999	-1133730 - -1133000	470730 - 471500	MT	Contours
72959	TMT1962	SEELEY LAKE, MT	1:100,000	1/1/2002	-1140000 - -1130000	470000 - 473000	MT	Minerals Management
72960	TMT1963	SEELEY LAKE, MT	1:100,000	1/1/2002	-1140000 - -1130000	470000 - 473000	MT	Surface Management
73057	TMT2061	SPREAD MOUNTAIN, MT	1:24,000	1/1/1999	-1130730 - -1130000	470730 - 471500	MT	Contours
73120	TMT2124	STUART PEAK, MT	1:24,000	1/1/1999	-1140000 - -1135230	470000 - 470730	MT	Contours
73239	TMT2248	UPPER JOCKO LAKE, MT	1:24,000	1/1/1999	-1134500 - -1133730	470730 - 471500	MT	Contours
73282	TMT2292	WAPITI LAKE, MT	1:24,000	1/1/1999	-1135230 - -1134500	470000 - 470730	MT	Contours
73374	TMT2386	WINIFRED, MT	1:100,000	1/1/2002	-1100000 - -1090000	473000 - 480000	MT	Minerals Management
73375	TMT2388	WINIFRED, MT	1:100,000	1/1/2002	-1100000 - -1090000	473000 - 480000	MT	Surface Management
73404	TMT2422	WOODWORTH, MT	1:24,000	1/1/1999	-1132230 - -1131500	470000 - 470730	MT	Contours
74428	TNC0016	AQUADALE, NC	1:24,000	1/1/2002	-801500 - -800730	350730 - 351500	NC	Contours
74448	TNC0036	BANOAK, NC	1:24,000	1/1/2002	-813000 - -812230	353000 - 353730	NC	Contours
74459	TNC0047	BELEWS CREEK, NC	1:24,000	1/1/2000	-800730 - -800000	360730 - 361500	NC	Contours
74467	TNC0055	BESSEMER CITY, NC	1:24,000	1/1/2002	-812230 - -811500	351500 - 352230	NC	Contours
75258	TNC0851	BOILING SPRINGS NORTH, NC	1:24,000	1/1/2002	-814500 - -813730	351500 - 352230	NC	Contours
74538	TNC0126	CHERRYVILLE, NC	1:24,000	1/1/2002	-813000 - -812230	352230 - 353000	NC	Contours
74584	TNC0172	DAVIS, NC	1:24,000	1/1/2002	-763000 - -762230	344500 - 345230	NC	Contours
74613	TNC0201	EFLAND, NC	1:24,000	1/1/2002	-791500 - -790730	360000 - 360730	NC	Contours
74656	TNC0245	FOREST CITY, NC	1:24,000	1/1/2002	-815230 - -814500	351500 - 352230	NC	Contours
74664	TNC0253	FROG POND, NC	1:24,000	1/1/2002	-802230 - -801500	351500 - 352230	NC	Contours
74666	TNC0255	FRYING PAN, NC	1:24,000	1/1/2002	-760730 - -760000	354500 - 355230	NC	Contours
74674	TNC0263	GASTONIA NORTH, NC	1:24,000	1/1/2002	-811500 - -810730	351500 - 352230	NC	Contours
74681	TNC0270	GILREATH, NC	1:24,000	1/1/2000	-810730 - -810000	360000 - 360730	NC	Contours
74694	TNC0283	GRANDIN, NC	1:24,000	1/1/2000	-813000 - -812230	360000 - 360730	NC	Contours
74722	TNC0314	HARMONY, NC	1:24,000	1/1/2000	-805230 - -804500	355230 - 360000	NC	Contours
74728	TNC0320	HATTERAS, NC	1:24,000	1/1/2002	-754500 - -753730	351100 - 351830	NC	Contours
74753	TNC0345	HORSE GAP, NC	1:24,000	1/1/2000	-812230 - -811500	361500 - 362230	NC	Contours
75263	TNC0858	LAWNDALE, NC	1:24,000	1/1/2002	-813730 - -813000	352230 - 353000	NC	Contours
74822	TNC0414	LITTLE KINNAKEET, NC	1:24,000	1/1/2002	-753400 - -752630	352230 - 353000	NC	Contours
74857	TNC0449	MARSHVILLE, NC	1:24,000	1/1/2002	-802230 - -801500	345230 - 350000	NC	Contours
74877	TNC0469	MIDDLETOWN, NC	1:24,000	1/1/2002	-760730 - -760000	352100 - 353000	NC	Contours
74892	TNC0484	MORAVIAN FALLS, NC	1:24,000	1/1/2000	-811500 - -810730	360000 - 360730	NC	Contours
74893	TNC0485	MORGANTON NORTH, NC	1:24,000	1/1/2002	-814500 - -813730	354500 - 355230	NC	Contours
74906	TNC0498	MOUNT PLEASANT, NC	1:24,000	1/1/2002	-803000 - -802230	352230 - 353000	NC	Contours



74948	TNC0540	OCRACOKE, NC	1:24,000	1/1/2002	-760000 - -755230	350000 - 350730	NC	Contours
75266	TNC0861	POLKVILLE, NC	1:24,000	1/1/2002	-814500 - -813730	352230 - 353000	NC	Contours
75022	TNC0614	RICHFIELD, NC	1:24,000	1/1/2002	-802230 - -801500	352230 - 353000	NC	Contours
75057	TNC0649	RUSSELLVILLE, NC	1:24,000	1/1/2002	-801500 - -800730	345230 - 350000	NC	Contours
75058	TNC0650	RUTHERFORDTON NORTH, NC	1:24,000	1/1/2002	-820000 - -815230	352230 - 353000	NC	Contours
75275	TNC0870	SHELBY, NC	1:24,000	1/1/2002	-813730 - -813000	351500 - 352230	NC	Contours
75128	TNC0721	STANFIELD, NC	1:24,000	1/1/2002	-803000 - -802230	350730 - 351500	NC	Contours
75142	TNC0735	SUNSHINE, NC	1:24,000	1/1/2002	-815230 - -814500	352230 - 353000	NC	Contours
75184	TNC0777	WADESBORO, NC	1:24,000	1/1/2002	-800730 - -800000	345230 - 350000	NC	Contours
75229	TNC0822	WINGATE, NC	1:24,000	1/1/2002	-803000 - -802230	345230 - 350000	NC	Contours
77290	TND1578	BELFIELD, ND	1:100,000	1/1/2002	-1040000 - -1030000	463000 - 470000	ND	Surface Management
77291	TND1579	BELFIELD, ND	1:100,000	1/1/2002	-1040000 - -1030000	463000 - 470000	ND	Minerals Management
76121	TND0401	ELGIN, ND	1:100,000	1/1/2002	-1020000 - -1010000	460000 - 463000	ND	Minerals Management
76122	TND0402	ELGIN, ND	1:100,000	1/1/2002	-1020000 - -1010000	460000 - 463000	ND	Surface Management
79447	TNM0080	ANTON CHICO, NM	1:24,000	1/1/2002	-1051500 - -1050730	350730 - 351500	NM	Contours
79449	TNM0082	APACHE PEAK, NM	1:24,000	1/1/1999	-1074500 - -1073730	330000 - 330730	NM	Contours
81662	TNM2327	APACHE SPRINGS, NM	1:24,000	1/1/2002	-1051500 - -1050730	351500 - 352230	NM	Contours
79463	TNM0096	ARROYO CHIJUILLITA, NM	1:24,000	1/1/2002	-1070730 - -1070000	360000 - 360730	NM	Contours
79481	TNM0114	AURORA, NM	1:24,000	1/1/2002	-1053000 - -1052230	350730 - 351500	NM	Contours
79559	TNM0193	BLACK PEAK, NM	1:24,000	1/1/1999	-1085230 - -1084500	340000 - 340730	NM	Contours
79560	TNM0194	BLACK POINT, NM	1:24,000	1/1/1998	-1090000 - -1085230	312230 - 313000	NM	Contours
81667	TNM2332	BRUSHY MOUNTAIN, NM	1:24,000	1/1/1999	-1084500 - -1083730	324500 - 325230	NM	Contours
79612	TNM0246	BULL CANYON, NM	1:24,000	1/1/2002	-1055230 - -1054500	352230 - 353000	NM	Contours
79629	TNM0263	C BAR RANCH, NM	1:24,000	1/1/1999	-1083000 - -1082230	322230 - 323000	NM	Contours
79670	TNM0304	CAPITOL DOME, NM	1:24,000	1/1/1996	-1074500 - -1073730	320730 - 321500	NM	Contours
79686	TNM0321	CARNE, NM	1:24,000	1/1/1996	-1073730 - -1073000	321500 - 322230	NM	Contours
81493	TNM2155	CARRIZOZO, NM	1:100,000	1/1/2003	-1060000 - -1050000	333000 - 340000	NM	Surface Management
81494	TNM2156	CARRIZOZO, NM	1:100,000	1/1/2003	-1060000 - -1050000	333000 - 340000	NM	Minerals Management
79781	TNM0421	CIRCLE MESA, NM	1:24,000	1/1/1992	-1083000 - -1082230	324500 - 325230	NM	Contours
79784	TNM0424	CLANTON DRAW, NM	1:24,000	1/1/1998	-1090000 - -1085230	313000 - 313730	NM	Contours
79812	TNM0452	COLUMBUS NE, NM	1:24,000	1/1/1996	-1073730 - -1073000	315230 - 320000	NM	Contours
79813	TNM0453	COLUMBUS SE, NM MEX	1:24,000	1/1/1996	-1073730 - -1073000	314500 - 315230	NM	Contours
79811	TNM0451	COLUMBUS, NM MEX	1:24,000	1/1/1996	-1074500 - -1073730	314500 - 315230	NM	Contours
79873	TNM0513	CUBA, NM	1:24,000	1/1/2002	-1070000 - -1065230	360000 - 360730	NM	Contours
79903	TNM0543	DEMING EAST, NM	1:24,000	1/1/1996	-1074500 - -1073730	321500 - 322230	NM	Contours
79904	TNM0544	DEMING WEST, NM	1:24,000	1/1/1996	-1075230 - -1074500	321500 - 322230	NM	Contours
79915	TNM0555	DIABLO RANGE, NM	1:24,000	1/1/1999	-1083000 - -1082230	330730 - 331500	NM	Contours



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79946	TNM0586	EAGLE PEAK, NM	1:24,000	1/1/1999	-1083730 - -1083000	333730 - 334500	NM	Contours
79993	TNM0634	ESPANOLA, NM	1:24,000	1/1/2002	-1060730 - -1060000	355230 - 360000	NM	Contours
80026	TNM0667	FLORIDA GAP, NM	1:24,000	1/1/1996	-1073730 - -1073000	320730 - 321500	NM	Contours
81356	TNM2010	FRENCH MESA, NM	1:24,000	1/1/2002	-1065230 - -1064500	361500 - 362230	NM	Contours
80097	TNM0738	GILMAN, NM	1:24,000	1/1/2002	-1065230 - -1064500	353730 - 354500	NM	Contours
80113	TNM0754	GOLD HILL, NM	1:24,000	1/1/1999	-1083730 - -1083000	322230 - 323000	NM	Contours
80132	TNM0773	GRANNY MOUNTAIN, NM	1:24,000	1/1/1999	-1082230 - -1081500	330000 - 330730	NM	Contours
81557	TNM2220	HENDRICKS PEAK, NM	1:24,000	1/1/1999	-1080000 - -1075230	325230 - 330000	NM	Contours
80211	TNM0854	HONEY BOY RANCH, NM	1:24,000	1/1/2002	-1053730 - -1053000	353730 - 354500	NM	Contours
80216	TNM0859	HORCADO RANCH, NM	1:24,000	1/1/2002	-1060730 - -1060000	354500 - 355230	NM	Contours
80274	TNM0918	JEMEZ PUEBLO, NM	1:24,000	1/1/2002	-1064500 - -1063730	353000 - 353730	NM	Contours
80344	TNM0989	LAGUNA ORTIZ, NM	1:24,000	1/1/2002	-1053730 - -1053000	351500 - 352230	NM	Contours
80380	TNM1025	LEYBA, NM	1:24,000	1/1/2002	-1053730 - -1053000	350730 - 351500	NM	Contours
115311	-	LINCOLN NATIONAL FOREST (PLASTIC), NM	1:126,720	1/1/2003	-1060000 - -1051500	323000 - 331500	NM	No Contours
80421	TNM1068	LOS ALAMOS, NM	1:100,000	1/1/2003	-1070000 - -1060000	353000 - 360000	NM	Minerals Management
80422	TNM1069	LOS ALAMOS, NM	1:100,000	1/1/2003	-1070000 - -1060000	353000 - 360000	NM	Surface Management
80556	TNM1203	MONTEZUMA, NM	1:24,000	1/1/2002	-1052230 - -1051500	353730 - 354500	NM	Contours
80576	TNM1223	MOUNT BALDY, NM	1:24,000	1/1/1997	-1090000 - -1085230	313730 - 314500	NM	Contours
80629	TNM1276	NORTH PEAK, NM	1:24,000	1/1/1996	-1074500 - -1073730	315230 - 320000	NM	Contours
80647	TNM1294	OJITOS FRIOS, NM	1:24,000	1/1/2002	-1052230 - -1051500	353000 - 353730	NM	Contours
80751	TNM1400	PONDEROSA, NM	1:24,000	1/1/2002	-1064500 - -1063730	353730 - 354500	NM	Contours
80789	TNM1439	PUYE, NM	1:24,000	1/1/2002	-1061500 - -1060730	355230 - 360000	NM	Contours
80816	TNM1466	READING MOUNTAIN, NM	1:24,000	1/1/1999	-1082230 - -1081500	325230 - 330000	NM	Contours
81725	TNM2390	REDROCK, NM	1:24,000	1/1/1999	-1084500 - -1083730	323730 - 324500	NM	Contours
80834	TNM1484	RENCONA, NM	1:24,000	1/1/2002	-1054500 - -1053730	351500 - 352230	NM	Contours
80858	TNM1508	ROSWELL, NM	1:100,000	1/1/2002	-1050000 - -1040000	330000 - 333000	NM	Minerals Management
80859	TNM1509	ROSWELL, NM	1:100,000	1/1/2002	-1050000 - -1040000	330000 - 333000	NM	Surface Management
80911	TNM1561	SAN JUAN, NM	1:24,000	1/1/2002	-1052230 - -1051500	350730 - 351500	NM	Contours
81731	TNM2396	SENA, NM	1:24,000	1/1/2002	-1053000 - -1052230	351500 - 352230	NM	Contours
81019	TNM1672	SLAUGHTER MESA, NM	1:24,000	1/1/1999	-1083000 - -1082230	340000 - 340730	NM	Contours
81043	TNM1696	SPRING CANYON, NM	1:24,000	1/1/1999	-1080730 - -1080000	332230 - 333000	NM	Contours
81233	TNM1887	VALLECITOS, NM	1:24,000	1/1/2002	-1062230 - -1061500	360000 - 360730	NM	Contours
81750	TNM2415	VILLANUEVA, NM	1:24,000	1/1/2002	-1052230 - -1051500	351500 - 352230	NM	Contours
82173	TNV0281	CRESCENT VALLEY, NV	1:100,000	1/1/2002	-1170000 - -1160000	400000 - 403000	NV	Surface Management
83408	TNV1564	HIGH ROCK CANYON, NV	1:100,000	1/1/2003	-1200000 - -1190000	410000 - 413000	NV	Surface Management
82952	TNV1092	RUBY LAKE, NV	1:100,000	1/1/2002	-1160000 - -1150000	400000 - 403000	NV	Surface Management
83179	TNV1323	TUSCARORA, NV	1:100,000	1/1/2002	-1170000 - -1160000	410000 - 413000	NV	Surface Management



105558	TWA0309	EATONVILLE, WA	1:24,000	1/1/1998	-1222230 - -1221500	464500 - 465230	OR WA	Contours
105654	TWA0405	GOLDENDALE, WA	1:100,000	1/1/2003	-1210000 - -1200000	453000 - 460000	OR WA	Minerals Management
105655	TWA0406	GOLDENDALE, WA	1:100,000	1/1/2003	-1210000 - -1200000	453000 - 460000	OR WA	Surface Management
111618	USFS0226	ROGUE RIVER NATIONAL FOREST MAP, OR	1:126,720	1/1/2003			OR	
94244	TTN0009	ANTIOCH, TN	1:24,000	1/1/1999	-864500 - -863730	360000 - 360730	TN	Contours
94273	TTN0038	BELLEVUE, TN	1:24,000	1/1/1997	-870000 - -865230	360000 - 360730	TN	Contours
94369	TTN0136	CLARKSVILLE, TN	1:24,000	1/1/1997	-872230 - -871500	363000 - 363730	TN	Contours
94474	TTN0241	FRANKLIN, TN	1:24,000	1/1/1997	-865230 - -864500	355230 - 360000	TN	Contours
94591	TTN0359	LA VERGNE, TN	1:24,000	1/1/1997	-863730 - -863000	360000 - 360730	TN	Contours
94706	TTN0475	NASHVILLE EAST, TN	1:24,000	1/1/1997	-864500 - -863730	360730 - 361500	TN	Contours
94726	TTN0495	OAK HILL, TN	1:24,000	1/1/1997	-865230 - -864500	360000 - 360730	TN	Contours
94824	TTN0594	SCOTTSBORO, TN	1:24,000	1/1/1997	-870000 - -865230	360730 - 361500	TN	Contours
101531	TUT0002	ABES KNOLL, UT	1:24,000	1/1/2001	-1115230 - -1114500	382230 - 383000	UT	Contours
101543	TUT0014	ANNABELLA, UT	1:24,000	1/1/2001	-1120730 - -1120000	383730 - 384500	UT	Contours
101548	TUT0019	ANTELOPE RANGE, UT	1:24,000	1/1/2001	-1121500 - -1120730	383000 - 383730	UT	Contours
101570	TUT0041	AURORA, UT	1:24,000	1/1/2001	-1120000 - -1115230	385230 - 390000	UT	Contours
103243	TUT1724	BEEHIVE PEAK, UT	1:24,000	1/1/2001	-1120730 - -1120000	385230 - 390000	UT	Contours
103622	TUT2105	BLACK RIDGE, UT	1:24,000	1/1/2001	-1123730 - -1123000	381500 - 382230	UT	Contours
101621	TUT0092	BLUFF NW, UT	1:24,000	1/1/1996	-1094500 - -1093730	372230 - 373000	UT	Contours
101630	TUT0101	BOOBE HOLE RESERVOIR, UT	1:24,000	1/1/2001	-1115230 - -1114500	383730 - 384500	UT	Contours
101676	TUT0147	BURRVILLE, UT	1:24,000	1/1/2001	-1115230 - -1114500	383000 - 383730	UT	Contours
103135	TUT1615	CATHEDRAL MOUNTAIN, UT	1:24,000	1/1/2001	-1112230 - -1111500	382230 - 383000	UT	Contours
101720	TUT0191	CHAMPLIN PEAK, UT	1:24,000	1/1/2001	-1121500 - -1120730	393000 - 393730	UT	Contours
101729	TUT0200	CIRCLEVILLE MTN, UT	1:24,000	1/1/2001	-1123000 - -1122230	380730 - 381500	UT	Contours
101728	TUT0199	CIRCLEVILLE, UT	1:24,000	1/1/2001	-1122230 - -1121500	380730 - 381500	UT	Contours
101747	TUT0218	COFFEE PEAK, UT	1:24,000	1/1/2001	-1121500 - -1120730	390000 - 390730	UT	Contours
103297	TUT1778	COVE FORT, UT	1:24,000	1/1/2001	-1123730 - -1123000	383000 - 383730	UT	Contours
101794	TUT0265	DELANO PEAK, UT	1:24,000	1/1/2001	-1122230 - -1121500	381500 - 382230	UT	Contours
103313	TUT1794	DOG VALLEY PEAK, UT	1:24,000	1/1/2001	-1123730 - -1123000	383730 - 384500	UT	Contours
103683	TUT2170	DRUID ARCH, UT	1:24,000	1/1/1997	-1095230 - -1094500	380000 - 380730	UT	Contours
103318	TUT1799	DUGGINS CREEK, UT	1:24,000	1/1/2001	-1122230 - -1121500	390730 - 391500	UT	Contours
103322	TUT1803	ELATERITE BASIN, UT	1:24,000	1/1/1996	-1100730 - -1100000	380730 - 381500	UT	Contours
101857	TUT0328	ELSINORE, UT	1:24,000	1/1/2001	-1121500 - -1120730	383730 - 384500	UT	Contours
101895	TUT0366	FILLMORE, UT	1:24,000	1/1/2001	-1122230 - -1121500	385230 - 390000	UT	Contours
101898	TUT0369	FISH LAKE, UT	1:24,000	1/1/2001	-1114500 - -1113730	383000 - 383730	UT	Contours
103121	TUT1600	FLAT TOP, UT	1:24,000	1/1/2001	-1113000 - -1112230	382230 - 383000	UT	Contours
103186	TUT1666	FOOL CREEK PEAK, UT	1:24,000	1/1/2001	-1121500 - -1120730	392230 - 393000	UT	Contours
101925	TUT0396	FORSYTH RESERVOIR, UT	1:24,000	1/1/2001	-1113730 - -1113000	383000 - 383730	UT	Contours



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101949	TUT0420	GEYSER PEAK, UT	1:24,000	1/1/2001	-1113000 - -1112230	383000 - 383730	UT	Contours
101967	TUT0438	GOOSEBERRY CREEK, UT	1:24,000	1/1/2001	-1114500 - -1113730	384500 - 385230	UT	Contours
101993	TUT0464	GREENWICH, UT	1:24,000	1/1/2001	-1120000 - -1115230	382230 - 383000	UT	Contours
102043	TUT0514	HILGARD MTN, UT	1:24,000	1/1/2001	-1113730 - -1113000	383730 - 384500	UT	Contours
102089	TUT0560	JIMMIES POINT, UT	1:24,000	1/1/1998	-1110730 - -1110000	401500 - 402230	UT	Contours
102091	TUT0562	JOHNS PEAK, UT	1:24,000	1/1/2001	-1113000 - -1112230	383730 - 384500	UT	Contours
102096	TUT0567	JOSEPH PEAK, UT	1:24,000	1/1/2001	-1122230 - -1121500	383730 - 384500	UT	Contours
102103	TUT0574	KANE CANYON, UT	1:24,000	1/1/2001	-1123730 - -1123000	380730 - 381500	UT	Contours
103401	TUT1882	KANOSH, UT	1:24,000	1/1/2001	-1123000 - -1122230	384500 - 385230	UT	Contours
102123	TUT0594	KOOSHAREM, UT	1:24,000	1/1/2001	-1120000 - -1115230	383000 - 383730	UT	Contours
102154	TUT0625	LOA, UT	1:24,000	1/1/2001	-1114500 - -1113730	382230 - 383000	UT	Contours
103125	TUT1605	LYMAN, UT	1:24,000	1/1/2001	-1113730 - -1113000	382230 - 383000	UT	Contours
102185	TUT0658	MALMSTEN PEAK, UT	1:24,000	1/1/2001	-1120730 - -1120000	381500 - 382230	UT	Contours
102200	TUT0673	MARYSVALE CANYON, UT	1:24,000	1/1/2001	-1122230 - -1121500	383000 - 383730	UT	Contours
102201	TUT0674	MARYSVALE PEAK, UT	1:24,000	1/1/2001	-1120730 - -1120000	382230 - 383000	UT	Contours
102199	TUT0672	MARYSVALE, UT	1:24,000	1/1/2001	-1121500 - -1120730	382230 - 383000	UT	Contours
102231	TUT0704	MONROE PEAK, UT	1:24,000	1/1/2001	-1120730 - -1120000	383000 - 383730	UT	Contours
102251	TUT0724	MOUNT BELKNAP, UT	1:24,000	1/1/2001	-1123000 - -1122230	382230 - 383000	UT	Contours
102252	TUT0725	MOUNT BRIGHAM, UT	1:24,000	1/1/2001	-1122230 - -1121500	382230 - 383000	UT	Contours
102259	TUT0732	MT CATHERINE, UT	1:24,000	1/1/2001	-1121500 - -1120730	385230 - 390000	UT	Contours
102273	TUT0746	MT TERRILL, UT	1:24,000	1/1/2001	-1114500 - -1113730	383730 - 384500	UT	Contours
103197	TUT1678	OAK CITY NORTH, UT	1:24,000	1/1/2001	-1122230 - -1121500	392230 - 393000	UT	Contours
103171	TUT1651	OAK CITY SOUTH, UT	1:24,000	1/1/2001	-1122230 - -1121500	391500 - 392230	UT	Contours
102322	TUT0797	OLD WOMAN PLATEAU, UT	1:24,000	1/1/2001	-1113000 - -1112230	384500 - 385230	UT	Contours
102348	TUT0823	PARKER KNOLL, UT	1:24,000	1/1/2001	-1120000 - -1115230	381500 - 382230	UT	Contours
102377	TUT0852	PIUTE RESERVOIR, UT	1:24,000	1/1/2001	-1121500 - -1120730	381500 - 382230	UT	Contours
103621	TUT2104	POLE MOUNTAIN, UT	1:24,000	1/1/2001	-1123730 - -1123000	382230 - 383000	UT	Contours
102421	TUT0896	RASPBERRY KNOLL, UT	1:24,000	1/1/1998	-1110000 - -1105230	401500 - 402230	UT	Contours
102426	TUT0901	RED BREAKS, UT	1:24,000	1/1/1997	-1112230 - -1111500	373730 - 374500	UT	Contours
102436	TUT0911	RED RIDGE, UT	1:24,000	1/1/2001	-1123000 - -1122230	383730 - 384500	UT	Contours
102445	TUT0920	REX RESERVOIR, UT	1:24,000	1/1/2001	-1115230 - -1114500	384500 - 385230	UT	Contours
103506	TUT1989	RICHFIELD, UT	1:24,000	1/1/2001	-1120730 - -1120000	384500 - 385230	UT	Contours
102480	TUT0955	SALINA, UT	1:24,000	1/1/2001	-1115230 - -1114500	385230 - 390000	UT	Contours
102503	TUT0978	SCIPIO LAKE, UT	1:24,000	1/1/2001	-1120730 - -1120000	390000 - 390730	UT	Contours
102505	TUT0980	SCIPIO PASS, UT	1:24,000	1/1/2001	-1121500 - -1120730	390730 - 391500	UT	Contours
102506	TUT0981	SCIPIO SOUTH, UT	1:24,000	1/1/2001	-1120730 - -1120000	390730 - 391500	UT	Contours
102524	TUT0999	SHELLY BALDY PEAK, UT	1:24,000	1/1/2001	-1123000 - -1122230	381500 - 382230	UT	Contours
103515	TUT1998	SIXMILE POINT, UT	1:24,000	1/1/2001	-1123730 - -1123000	384500 - 385230	UT	Contours
103682	TUT2169	SPANISH BOTTOM, UT	1:24,000	1/1/1996	-1100000 - -1095230	380730 - 381500	UT	Contours
102572	TUT1047	STEVES MTN, UT	1:24,000	1/1/2001	-1114500 - -1113730	385230 - 390000	UT	Contours
103534	TUT2017	SUNSET PEAK, UT	1:24,000	1/1/2001	-1122230 - -1121500	384500 - 385230	UT	Contours



102650	TUT1125	TRAIL MOUNTAIN, UT	1:24,000	1/1/2001	-1123000 - -1122230	383000 - 383730	UT	Contours
103131	TUT1611	TWIN ROCKS, UT	1:24,000	1/1/2001	-1112230 - -1111500	381500 - 382230	UT	Contours
102696	TUT1171	WALKER FLAT, UT	1:24,000	1/1/2001	-1112230 - -1111500	384500 - 385230	UT	Contours
102703	TUT1178	WATER CREEK CANYON, UT	1:24,000	1/1/2001	-1120000 - -1115230	383730 - 384500	UT	Contours
102704	TUT1179	WATER HOLLOW RIDGE, UT	1:24,000	1/1/2001	-1113730 - -1113000	385230 - 390000	UT	Contours
103595	TUT2078	WHITE PINE PEAK, UT	1:24,000	1/1/2001	-1121500 - -1120730	384500 - 385230	UT	Contours
103175	TUT1655	WILLIAMS PEAK, UT	1:24,000	1/1/2001	-1121500 - -1120730	391500 - 392230	UT	Contours
102755	TUT1230	YOGO CREEK, UT	1:24,000	1/1/2001	-1113730 - -1113000	384500 - 385230	UT	Contours
105270	TWA0020	ALGER, WA	1:24,000	1/1/1998	-1222230 - -1221500	483000 - 483730	WA	Contours
105281	TWA0031	ANACORTES NORTH, WA	1:24,000	1/1/1998	-1223730 - -1223000	483000 - 483730	WA	Contours
106787	TWA1554	ANDERSON LAKE, WA	1:24,000	1/1/1998	-1220730 - -1220000	463730 - 464500	WA	Contours
105326	TWA0077	BELFAIR, WA	1:24,000	1/1/1999	-1225230 - -1224500	472230 - 473000	WA	Contours
105329	TWA0080	BELLINGHAM SOUTH, WA	1:24,000	1/1/1998	-1223000 - -1222230	483730 - 484500	WA	Contours
106736	TWA1502	BOBS MOUNTAIN, WA	1:24,000	1/1/2000	-1221500 - -1220730	453730 - 454500	WA	Contours
105397	TWA0148	BURLEY, WA	1:24,000	1/1/1999	-1224500 - -1223730	472230 - 473000	WA	Contours
105429	TWA0180	CENTER, WA	1:24,000	1/1/1997	-1225230 - -1224500	475230 - 480000	WA	Contours
105557	TWA0308	EASTSOUND, WA	1:24,000	1/1/1997	-1230000 - -1225230	483730 - 484500	WA	Contours
105629	TWA0380	FOX ISLAND, WA	1:24,000	1/1/1997	-1224500 - -1223730	471500 - 472230	WA	Contours
105631	TWA0382	FREELAND, WA	1:24,000	1/1/1998	-1223730 - -1223000	480000 - 480730	WA	Contours
106524	TWA1279	GIFFORD PEAK, WA	1:24,000	1/1/1998	-1215230 - -1214500	455230 - 460000	WA	Contours
105645	TWA0396	GLACIATE BUTTE, WA	1:24,000	1/1/1998	-1213000 - -1212230	461500 - 462230	WA	Contours
106530	TWA1285	GULER MTN, WA	1:24,000	1/1/1998	-1213730 - -1213000	455230 - 460000	WA	Contours
106742	TWA1508	GUMBOOT MTN, WA	1:24,000	1/1/1998	-1221500 - -1220730	454500 - 455230	WA	Contours
106628	TWA1391	HOFFSTADT MOUNTAIN, WA	1:24,000	1/1/1998	-1223000 - -1222230	461500 - 462230	WA	Contours
105729	TWA0480	HURRICANE HILL, WA	1:24,000	1/1/1999	-1233730 - -1233000	475230 - 480000	WA	Contours
105768	TWA0519	KING MOUNTAIN, WA	1:24,000	1/1/1998	-1213000 - -1212230	460000 - 460730	WA	Contours
106531	TWA1286	KLICKITAT, WA	1:24,000	1/1/2000	-1211500 - -1210730	454500 - 455230	WA	Contours
106889	TWA1659	LAKE ROESIGER, WA	1:24,000	1/1/1997	-1220000 - -1215230	475230 - 480000	WA	Contours
105798	TWA0549	LAKE WOOTEN, WA	1:24,000	1/1/1999	-1230000 - -1225230	472230 - 473000	WA	Contours
106745	TWA1511	LARCH MTN, WA	1:24,000	1/1/2000	-1222230 - -1221500	453730 - 454500	WA	Contours
105831	TWA0582	LONE BUTTE, WA	1:24,000	1/1/1998	-1215230 - -1214500	460000 - 460730	WA	Contours
105834	TWA0585	LONGBRANCH, WA	1:24,000	1/1/1997	-1225230 - -1224500	470730 - 471500	WA	Contours
106737	TWA1503	LOOKOUT MTN, WA	1:24,000	1/1/1998	-1220730 - -1220000	454500 - 455230	WA	Contours
105846	TWA0597	LUMMI BAY, WA	1:24,000	1/1/1997	-1224500 - -1223730	484500 - 485230	WA	Contours
105878	TWA0629	MASON LAKE, WA	1:24,000	1/1/1997	-1230000 - -1225230	471500 - 472230	WA	Contours
106916	TWA1686	MINERAL, WA	1:24,000	1/1/1998	-1221500 - -1220730	463730 - 464500	WA	Contours
105931	TWA0682	MOUNT ADAMS EAST, WA	1:24,000	1/1/1998	-1213000 - -1212230	460730 - 461500	WA	Contours
106614	TWA1375	MOUNT ST HELENS, WA	1:24,000	1/1/1998	-1221500 - -1220730	460730 - 461500	WA	Contours
105963	TWA0714	MT CARRIE, WA	1:24,000	1/1/1999	-1234500 - -1233730	475230 - 480000	WA	Contours
106943	TWA1718	MT STEEL, WA	1:24,000	1/1/1999	-1232230 - -1231500	473730 - 474500	WA	Contours



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106959	TWA1734	OLD SNOWY MTN, WA	1:24,000	1/1/1998	-1213000 - -1212230	463000 - 463730	WA	Contours
106048	TWA0800	ORTING, WA	1:24,000	1/1/1997	-1221500 - -1220730	470000 - 470730	WA	Contours
106135	TWA0887	QUARTZ CREEK BUTTE, WA	1:24,000	1/1/1998	-1215230 - -1214500	460730 - 461500	WA	Contours
106993	TWA1769	SAWTOOTH RIDGE, WA	1:24,000	1/1/1998	-1220000 - -1215230	463730 - 464500	WA	Contours
106217	TWA0969	SEABECK, WA	1:24,000	1/1/1997	-1225230 - -1224500	473730 - 474500	WA	Water Contours
106761	TWA1527	SIOUXON PEAK, WA	1:24,000	1/1/1998	-1221500 - -1220730	455230 - 460000	WA	Contours
106249	TWA1001	SLEEPING BEAUTY, WA	1:24,000	1/1/1998	-1214500 - -1213730	460000 - 460730	WA	Contours
106275	TWA1027	SPENCER BUTTE, WA	1:24,000	1/1/1998	-1220000 - -1215230	460730 - 461500	WA	Contours
107000	TWA1776	SPIRAL BUTTE, WA	1:24,000	1/1/2000	-1212230 - -1211500	463730 - 464500	WA	Contours
106534	TWA1289	STABLER, WA	1:24,000	1/1/1998	-1220000 - -1215230	454500 - 455230	WA	Contours
106305	TWA1057	STEAMBOAT MTN, WA	1:24,000	1/1/1998	-1214500 - -1213730	460730 - 461500	WA	Contours
107014	TWA1790	TATOOSH LAKES, WA	1:24,000	1/1/1998	-1214500 - -1213730	463730 - 464500	WA	Contours
106525	TWA1280	TERMINATION POINT, WA	1:24,000	1/1/1998	-1220000 - -1215230	455230 - 460000	WA	Contours
107016	TWA1792	THE ROCKIES, WA	1:24,000	1/1/1998	-1222230 - -1221500	463730 - 464500	WA	Contours
106375	TWA1127	TOPPENISH, WA	1:100,000	1/1/2002	-1210000 - -1200000	460000 - 463000	WA	Minerals Management
106376	TWA1128	TOPPENISH, WA	1:100,000	1/1/2002	-1210000 - -1200000	460000 - 463000	WA	Surface Management
106384	TWA1136	TROUT LAKE, WA	1:24,000	1/1/1998	-1213730 - -1213000	460000 - 460730	WA	Contours
106623	TWA1386	VANSON PEAK, WA	1:24,000	1/1/1998	-1221500 - -1220730	462230 - 463000	WA	Contours
106426	TWA1178	WALDRON ISLAND, WA	1:24,000	1/1/1997	-1230730 - -1230000	483730 - 484500	WA	Contours
107036	TWA1813	WELLESLEY PEAK, WA	1:24,000	1/1/1999	-1232230 - -1231500	474500 - 475230	WA	Contours
106456	TWA1208	WENATCHEE, WA	1:100,000	1/1/2002	-1210000 - -1200000	470000 - 473000	WA	Minerals Management
106457	TWA1210	WENATCHEE, WA	1:100,000	1/1/2002	-1210000 - -1200000	470000 - 473000	WA	Surface Management
107037	TWA1814	WHITE PASS, WA	1:24,000	1/1/1998	-1213000 - -1212230	463730 - 464500	WA	Contours
106484	TWA1237	WILDCAT LAKE, WA	1:24,000	1/1/1997	-1225230 - -1224500	473000 - 473730	WA	Contours
108868	TWV0131	ERBACON, WV	1:24,000	1/1/1997	-803730 - -803000	383000 - 383730	WV	Contours
108963	TWV0227	LORADO, WV	1:24,000	1/1/1996	-814500 - -813730	374500 - 375230	WV	Contours
108968	TWV0232	MADISON, WV	1:24,000	1/1/1996	-815230 - -814500	380000 - 380730	WV	Contours
108972	TWV0236	MAMMOTH, WV	1:24,000	1/1/1996	-812230 - -811500	381500 - 382230	WV	Contours
108973	TWV0237	MAN, WV	1:24,000	1/1/1996	-820000 - -815230	373730 - 374500	WV	Contours
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