Site of AIPG 32nd Annual Meeting

"Prosperity and Professional Geology"

DENVER, COLORADO
October 1 - 5, 1995

A publication of
The American Institute of Professional Geologists
TPG ARTICLES
New Instructions to Authors

The TPG accepts articles of modest length for publication. Submittals should be no more than approximately 1600 words, or six typed pages double spaced. Longer articles may be broken down into parts (e.g. part I and part II), but this is not encouraged. Articles may be technical or professional in nature. General topics are listed below. Articles containing news of importance to professional geologists will also be considered. Except for news articles, or articles containing dated material, submittals should be sent to AIPG headquarters six months in advance of expected publication. Some technical topic issues are planned up to one year before printing, therefore early submissals will be preferred.

Manuscripts should have the following sections:

Title
Author(s) with CPG number and address
Text
Tables if included
Figures with captions if included
Appendix(es) if included
References Cited

One original and two copies of each manuscript should be submitted. Whenever possible, text should also be submitted on diskette (3.5 inch or 5.25 inch IBM/PC format). Headquarters uses DOS WordPerfect 5.1, which is preferred, but Word (for Windows or DOS), ASCII, or translatable files (such as MacWord) are acceptable. The program or format of the text should be clearly marked on the diskette.

Graphics should be clear, camera-ready, line drawings whenever possible. Photographs (color or black and white) are also encouraged. Whenever possible, drawings may be submitted on diskette in .dxf, .hgl, .pic, .pcx, .bmp, .eps, .GIF, or other standard formats.

TPG wants color photographs. Photographs alone may be submitted for the cover. They should have a geologic theme and an informational caption.

General Topics:

**TECHNICAL**

Mining Geology (January)
Petroleum Geology (March)
Hydrogeology (July)
Environmental Geology (September)
Geophysical/Engineering (November)

**PROFESSIONAL** (any issue)

Government and the Geologist
Ethics and Standards of Practice
Public Perception of Geology and Geologists
Definition, Certification, and Licensing
Practicing Geology Internationally

Other suggestions: Forensic Geology, History of Practice in a given field, Book Reviews, Geology and the Military, Unusual Applications of Geology.

Authors are encouraged to communicate with Headquarters via mail, fax, or Internet. Send your article or photograph, or communicate questions to:

The American Institute of Professional Geologists
Wendy Davidson, Publications Manager
7828 Vance Drive, Suite 103
Arvada, CO 80003-8124
Voice (303) 431-0831
FAX (303) 431-1332
Internet aipg@netcom.com

Lyle G. Bruce, Editor
The Professional GEOLOGIST

FEATURES

AIPG 1994 ANNUAL MEETING

Welcome To Colorado! 5
Introduction 6
Short Courses 7
Presentations 8
Program 9
Map Of Field Trips And Tours 12
Registration and Hotel Information 13
Field Trips 14
Geological Field Trips 15
Field Trips For Guests 17
International Opportunities For Prosperity 20
An Evening At The Denver Museum 20
Of Natural History 20
Registration And Reservations Form 21
General Information 22
Proceedings Volume 22
Exhibitors, Ventures, Posters, Advertising 23
And Sponsorship 23
National AIPG Business Events 23
1995 Annual Meeting Steering Committee 24
Members: Colorado Section - AIPG 24

FRONT COVER - A view of downtown Denver and the Rocky Mountains.
Photograph credit: Denver Metro Convention & Visitors Bureau.


DEPARTMENTS

STATE NET 25
TODAY IN WASHINGTON 27
EXECUTIVE DIRECTOR'S ITINERARY 28
APPLICATION AND ADDITIONAL INFORMATION FORM 29
ADVERTISERS INDEX 30
CALENDAR 30
NEW MEMBERS, APPLICANTS, ETC. 31

The Professional Geologist (USPS 690-810 and ISSN 0279-0521) published monthly by the American Institute of Professional Geologists, 7828 Vance Drive, Suite 103, Arvada, Colorado 80003-2124. Second Class postage paid at Arvada, Colorado. Subscriptions for all Members and Affiliates in good standing are included in annual membership dues. Subscription prices are $15.00 a year for Members' additional subscriptions and $25.00 a year for non-members for 12 issues (outside the U.S. add $5.00). Single copy price is $15.00 for Members and $25.00 for non-members. Claims for nonreceipt of or damaged copies are honored for three months.

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POSTMASTER: Send address changes to: AIPG, 7828 Vance Drive, Suite 103, Arvada, Colorado 80003-2124.
AIPG 32nd ANNUAL MEETING

Aerial view of Denver Museum of Natural History, Denver, and the Front Range.
Photograph credit: Denver Museum of Natural History.
WELCOME TO COLORADO!

Colorado is a wonderful place to be in autumn—the air is cool and the sky is a deeper shade of blue after summer. Colors and textures in brilliant sunlight are joyful, and the first week in October is a great time to combine geology and mountain tours. Participants in the 32nd Annual AIPG Conference in Denver can arrive via the new Denver International Airport, enjoy the comfort of the newly-renovated Hyatt Regency Hotel, then escape to the foothills and mountains to get into the rocks.

Choose from a wide variety of interesting field trips. Visit the Jurassic-Cretaceous hogback on the eastern edge of the Front Range; at Dinosaur Ridge outcrop we will see fossilized bones and tracks of Early Cretaceous dinosaurs in preserved tidal-flats of the Western Interior Cretaceous Seaway. We will see how roads and buildings have been effected by swelling soils. Visit the Yule Marble Quarry, deep in the heart of the Rocky Mountains, and stay overnight at the Redstone Inn in the beautiful Crystal River valley. Go underground in the Cross Mine near Boulder to witness hard-rock mining for silver sulfides by an entrepreneur. During the first week of October, enjoy sites in Cherry Creek, Boulder (Celestial Seasonings and US Bureau of Standards), Central City (gambling!), Golden (USGS Earthquake Center and Colorado School of Mines), and Colorado Springs (Garden of the Gods and the Broadmoor Hotel and the Air Force Academy). All trips are designed to be both informative and entertaining, giving you an up-close look at the wonders Colorado has to offer.

At midweek we will dine at the Denver Museum of Natural History, examine spectacular mineral specimens and fossils and we may enjoy a sneak preview of the museum’s "Prehistoric Journey" exhibit. After conference talks, registrants can travel to Glenwood Springs to the magnificent Hotel Colorado and soothe their aches in the restorative waters of the world-famous hot springs pool. Along the way we will see Tertiary through Pennsylvanian sediments on the eastern slope, Precambrian metamorphics of the interior of the Rockies pushed to 14,000-foot peaks, and Cretaceous through Devonian age sediments on the western slope. We will stop to see challenges in engineering geology in the $200 million Interstate highway project and tunnels through Glenwood Canyon. The next day we’ll journey on to Leadville (10,000 feet in elevation), see the sights of the mining boomtown, visit the Climax Mine and return to Denver on Friday.

This conference offers a great opportunity to experience both Denver and the Rocky Mountains. All events and talks will be summarized in a proceedings volume, and AIPG members are welcome to submit an abstract on a subject of special interest. We aim to make your trip a rich experience in new sights and content in practical geology. Bring your family to enjoy the camaraderie of people engaged in the business of geology. Register now for a splendid time in the Rockies!

Ron Pritchett
General Chairman
32nd Annual Meeting

The American Institute of Professional Geologists

"Prosperity and Professional Geology"

DENVER, COLORADO
October 1-5
(And events September 30 and October 5-6)

Program Leaders of the 1995 Annual meeting will examine prosperity in the United States related to five sub-professions in geology: Mining, Petroleum, Environmental, Hydrogeology and Engineering. Participants are encouraged to attend each session to consider the variety of ways geologic practice includes many disciplines and how geology is strengthened by inclusion of methods that cross over from one discipline to another. We will examine the practical side of geology and shed light on issues that make or break geology in business.

Meeting Highlights:
- One-half day is devoted to political relations -- a key to progress for geologists and geologic projects.
- Registrants can improve their abilities via two continuing education courses: Geologist as an Expert Witness and the National AIPG Continuing Education series on Business Management.
- Representatives from the National Association of State Boards of Geology will report on states' moves to register geologists and what the law means to professional geologists.
- In 1995 the United States is not an island of prosperity, and our success will increase by cooperating with people of other countries. We have invited delegates from nations of the world to report on international business opportunities. With speaker-delegates from Europe, South America and the Pacific Rim, we will learn how development of natural resources adds to prosperity outside the United States, and we will discover ways to begin new ventures overseas.

Through three days of presentations and exhibits, program leaders and speakers will report on the status of the US in the sub-professions. We will discuss case histories and hear forecasts of trends and suggestions for better and more profitable business. Invited exhibitors will display tools and techniques for improved earth studies and related business.

The 1995 Annual Meeting is an opportunity to examine prosperity founded on geologic practice. Prosperity is the sum of many parts, including development of natural resources, design and construction in concordance with nature, restoration and protection of physical environments, and negotiation in a nation of laws. Your Proceedings of abstracts and mini-papers will document richness of variety and content in geologic professions. Content of the 1995 Annual Meeting is designed to be a product for the future of AIPG members and for all geologists concerned with growth and quality of life. Your investment will return many times the cost in ideas, methods, contacts with people, and enjoyment of Denver and the Rocky Mountains.

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6 The Professional Geologist • MAY 1995
Short Course #1

The Professional Geologist as an Expert Witness

Saturday, September 30, 8:00 AM - 5:00 PM
Course Fee: $65.00

Geologists are often called to serve as expert witnesses before agency administrators and law judges. Workshop attendees will be exposed to the development and presentation of technical evidence for water rights, environmental, and civil cases. Speakers include trial lawyers and geologists who have experience in the technical and procedural aspects of case preparation, including discovery/disclosure, rules of evidence, depositions and oral testimony. Following these discussions, a court judge will provide important observations on court presentation of technical evidence and expert witness testimony. Register soon for this opportunity to be better prepared when your career leads you into formal administrative and court environments.

All are invited - the course is not restricted to AIPG members.

Workshop Speakers

David M. Abbott, Jr., CPG
Regional Geologist
U.S. Securities & Exchange Commission

Alan L. Dreher, P.G., CPG
Consultant in Hydrogeology
Ground Water Technical Group
Mobil Oil Corporation

Robert Brogden
VP - Bishop-Brogden Assoc., Inc.

John W. Rold, CPG
Consulting Geologist

Malcolm Edward (Sandy) MacDougall, Esq.
MacDougall Law Office

Short Course #2

ASBOG Workshop: Registration of Geologists

Saturday, September 30, 8:30 - 11:30 AM
Course Fee: $10.00

The workshop, presented by the Association of State Boards of Geologists (ASBOG), is directed to those interested in registration law and regulatory boards. Nearly half of the fifty states now have statutory requirements for definition, certification or registration of geologists. Many states have registration laws. Within the states that have definition or certification laws, some state sections of AIPG desire to work with their legislatures to make registration law.

ASBOG has been actively assisting in developing reciprocity between states making registration law. ASBOG’s activities include teaching groups and providing guidance about registration; and a national examination coordinated with each state’s particular examination, as required.

ASBOG is a source for counsel and advice for geologists who desire registration law in their states. The experience of people in states who have been through the process of registration development can be useful to leaders who are making strategic decisions for communicating with elected officials, and a public that may or may not support registration of geologists.

Presented by:

John C. Philley
Executive Vice President for Academic Affairs
Morehead State University

Charles R. Sherman
Aiken, South Carolina

James H. Williams
Missouri State Geologist

Joan E. Underwood
RUST Environmental & Infrastructure
Short Course #3

CONTINUING EDUCATION
Management Development for Geologists and Related Professionals — Operations Management

Saturday, September 30 and Sunday, October 1, 8:00 am - 5:00 pm
Course fee: $300 member/$400 non-member

AIPG is now offering a continuing education program to advance the geological sciences and the profession of geology. This program emphasizes business and management training for geologists and other scientists and engineers. Operations Management, one of five self-contained two-day continuing education sessions, will be offered at the AIPG 1995 Annual Meeting in Denver. The subject matter will include quality analysis and management, quantitative analysis, project planning and budgeting, and project management.

The fee for the session is $300 for AIPG members and $400 for non-members. Participants will receive a Session Certificate and the Colorado School of Mines will award Continuing Education Units (CEUs) for the session. To register, complete the Annual Meeting registration form in this issue.

Presentations - General Sessions

Engineering Geology in the 21st Century

— Monday, October 2, 8:00 - 11:30 am —

Jeffrey L. Hynes, CPG-4558, Colorado Geological Survey

Practice in Engineering Geology is shifting away from a large-scale infrastructure base (as represented by the Interstate Highway System, which is essentially built) into smaller scale community development and private enterprise. In addition, there is increasing engineering geologic work in environmental clean-up and problem mitigation. Qualified engineering geologists have been invited to address these changes. Representative topics include:

• New directions in engineering geology: education & practice
• Glenwood Canyon Project (with preview of field trip)
• Applications of engineering geology to land use planning
• The engineering geologist as a member of a multi-disciplinary team (Total Quality Management)
• Professional relationships between Geologists and Engineers
# Program - 32nd AIPG Annual Meeting

## Saturday, September 30
- 7:30 am - 9:30 am: Continental Breakfast for field trip or short course participants
- 8:00 am - 5:00 pm: AIPG Management Development Session (Course): Operations Management (Day 1)
- 8:00 am - 5:00 pm: Short Course: Professional Geologist as an Expert Witness
- 8:00 am - 5:00 pm: Field Trip #2: Cross Mine Tour
- 8:30 am - 11:30 am: ASBOG Workshop: Registration Of Geologists
- 11:30 am, 09/30/95 - 5:00 pm, 10/01/95: Field Trip #1: Yule Marble Quarry, Redstone, Colorado
  - (Trip begins 11:30 am, September 30 and returns 5:00 pm, October 1.)

## Sunday, October 1
- 8:00 am - 9:30 am: National Executive Committee Breakfast (Executive Session)
- 8:00 am - 5:00 pm: Field Trip #3: Dinosaur Ridge/RedRocks Park/1-70 Roadcut/Swelling Soils
- 8:00 am - 5:00 pm: AIPG Management Development Session (Course):
  - Operations Management (Day 2)
- 9:30 am - 5:00 pm: National Executive Committee (Open)
- 12:00 pm - 1:00 pm: Executive Committee Lunch
- 2:00 pm - 5:00 pm: Event: Panel Discussion: International Opportunities for Prosperity
- 5:00 pm - 6:00 pm: Reception

## Monday, October 2
- 7:30 am - 6:00 pm: Registration
- 8:00 am - 5:30 pm: Field Trip #5: Colorado Springs, Colorado
- 8:00 am - 6:00 pm: Exhibits
- 8:00 am - 11:00 am: 1995 Advisory Board Breakfast Meeting
- 8:00 am - 11:30 am: General Session: Engineering Geology in the 21st Century
- 9:00 am - 4:00 pm: Field Trip #6: Golden, Colorado
- 1:00 pm - 4:00 pm: Foundation Trustees Meeting
- 1:30 pm - 5:00 pm: General Session: Political Relations Symposium
- 5:00 pm - 6:00 pm: Cocktail Reception

## Tuesday, October 3
- 8:00 am - 12:00 pm: Registration
- 8:00 am - 11:00 am: 1996 Advisory Board Breakfast Meeting
- 8:00 am - 11:00 am: Past Presidents Breakfast
- 8:00 am - 11:30 am: General Session: Hydrogeology and Environmental Geology
- 8:00 am - 5:00 pm: Exhibits
- 9:00 am - 4:00 pm: Field Trip #8: Celestial Seasonings Tea Factory/National Bureau of Standards/Pearl Street Mall, Boulder
- 9:30 am - 3:30 pm: Field Trip #7: Denver Botanical Gardens and Cherry Creek Shopping Center
- 1:30 pm - 5:00 pm: General Session: Mining Geology
- 5:00 pm - 6:00 pm: Reception

## Wednesday, October 4
- 7:00 am - 9:00 am: 1995-96 Executive Committee Breakfast Meeting
- 8:00 am - 12:00 pm: Registration
- 8:00 am - 12:00 pm: Exhibits
- 8:00 am - 11:30 am: General Session: The New Domestic Petroleum Industry
- 9:00 am - 12:00 pm: Annual Meeting Committee
- 10:00 am - 3:30 pm: Annual Meeting Committee
- 11:30 am - 1:30 pm: Awards Luncheon
- 1:30 pm - 5:00 pm: Annual Business Meeting
- 5:00 pm - 6:00 pm: Reception
- 6:00 pm - 11:00 pm: Natural History Museum of Denver
  - "Prehistoric Journey" Dinner and IMAX Theater

## Thursday, October 5
- 6:30 am - 7:30 am: Continental Breakfast
- 7:30 am, 10/05/95 - 5:00 pm, 10/06/95: Field Trip #4: Vail/Glenwood Springs/Leadville, Colorado
  - (Trip begins 7:30 am, October 5 and returns 5:00 pm October 6.)
Political Relations Symposium

— Monday, October 2, 1:30 to 5:00 pm —

Thomas G. Fails, CPG-3174, and Lynn Graf, Colorado Section Political Affairs Advisor

Professional geologic practice and economic livelihoods are increasingly circumscribed by public perceptions, laws, and regulations. Many geologists are unsure how to effectively explain and defend geologic work. The Political Relations session will draw upon recent experiences of geologists and their political relations advisors, who have attempted to influence legislators and bureaucrats at both state and Federal levels. Speakers will discuss planning, organization, committee testimony, methods of staying informed and the essential work needed to build relationships with potential legislative allies.

Seven talks will be followed by an open discussion, allowing registrants to comment, ask questions of speakers and make suggestions. Tom Fails will discuss the experience of the Colorado Section in political relations; Lynn Graf (Colorado Section) and Craig Schiffries (AGI) will describe the basics of information transfer and their attempts to influence legislation at the state and Federal levels, respectively. Kathy Benedetto and Debra Strubaker, Nevada Section, will describe visits to Washington and efforts to participate in mining law reform. Ron Baugh will describe the successful “running” of a geologist registration bill through the Wyoming State legislature. John Haun and Logan MacMillan will share a presentation on work with state commissions. Charles Mankin, AIPG Past President, will share his wisdom and advice on ways to deal with legislators and regulators. Sally Hopper, a Colorado State Senator, will speak about a legislator’s view of the geologic community and key issues.

Principles discussed in the Political Relations session can be applied at county, state and Federal levels. AIPG members in all state sections can master these principles and become effective in political relations work.

Hydrogeology and Environmental Geology Session

— Tuesday, October 3, 8:00 - 11:30 am —

William H. Bellis, CPG-3982, Groundwater Specialists

Colorado regulates water use under laws of appropriation, in contrast to riparian law practiced in Eastern States. Colorado has experienced a period of rapid population growth and development along the Front Range. Housing developments have sprung up outside the service areas of existing towns and cities. As a result, new developments are relying on bedrock aquifers for their water source. Because of semiarid conditions east of the Front Range, withdrawal from these aquifers exceeds natural recharge.

In this session, four speakers review Colorado projects and include insight that may apply to water projects in all parts of the country. Hal Simpson, Colorado State Engineer, will speak on the Denver Groundwater Basin of Front Range Colorado; covering law, history, growth and possible solutions in conjunctive use. Larry Cerrillo, Louis Berger & Associates, Inc., will speak on the practical aspects of consulting in the water business; including considerations of client development, marketing, and survival tips. Bruce Lytle, John C. Halepaska and Associates, Inc., will speak on a novel program in conjunctive use currently in the testing phase - injecting surface water into a natural aquifer for storage and later recovery. John Kaufman. Gronning Engineering Company, will speak on water law and supply and demand in the Colorado Springs area; including exchange and augmentation methods used to increase available water and aquifer recharge from urban uses.

Session leaders will encourage discussion among participants and speakers as time allows, and all participants will benefit from the experience of professionals at work on water issues in Colorado.
Environmental Geology

— Tuesday, October 3, 8:00 - 11:30 am —

Ralph Rice, Rice Goodbee & Associates, Inc.

Environmental issues and regulations increasingly dominate the news media and political rhetoric. Environmentalism, in general, has become a dominant factor in how Americans conduct business today, whether through extractive industries, manufacturing or public works development projects. Environmental compliance and cleanup has been one of the growth industries of the early 1990s. Clearly a better understanding of the impacts of past business practices and potential impacts of future activities is critical to robust economic development. Geologic and hydrologic issues are at the root of most environmental discussions either through the protection or remediation of water resources and shallow soil horizons. Speakers will address the interaction between the geologic sciences and environmental concerns. Topics will include:

- A local geohydrologic assessment and cleanup project
- Cooperation between the US and other countries in the adoption and implementation of environmental regulations
- A regulator’s view of a “successful” site cleanup
- A “successful” cleanup or compliance project from the view of a representative of the business community.

Mining Geology

— Tuesday, October 3, 1:30 - 5:00 pm —

Thomas L. Robyn, CPG-7984

Mining in the United States goes forward under an increasing load of cost and time dedicated to compliance with regulations. The challenge is met by operators who simultaneously increase their mining efficiency and plan for compliance.

Gregory A. Hahn (Lisbon Valley Copper) will speak about a Utah open-pit heap leach project for extraction of copper from copper oxides and chalcocite in Cretaceous and Jurassic sandstones. The project is post-feasibility and pre-production. Stuart A. Sanderson (Mineral Law Resource Developments) will examine recent developments in mineral resource law, with emphasis on regulation of coal under the Surface Mining Control and Reclamation Act of 1977 (SMCRA); including the role of science and geology in coal resource law. Jeff Pontius and John Hardaway will speak about the Cresson Mine, Colorado’s largest new gold mine. Located in the historic Cripple Creek Mining District, the mine is a joint venture between Piikes Peak Mining Company and Gold Cycle Gold Corp. Innovative and dedicated work was required to bring this open-pit leach operation to production. The included permitting and engineering beginning in 1993, construction in 1994, and leaching in early 1995 to a 165,000 oz/yr production scale. Cresson is the first mine to be approved under new Colorado state mining and reclamation statutes. Other speakers who may attend include: A. Baldridge on San Luis issues of pit and water; Dino Titaro on ethical conflicts for consultants regarding accuracy of reports and satisfying a client.

Talks have been selected to show how mining in the United States can go forward to profitable production, considering permitting and compliance as ongoing tasks of mining geologists. Geologists in all disciplines share similar challenges.
The New Domestic Petroleum Industry

— Wednesday, October 4, 8:00 - 11:30 am —

Susan M. Landon, CPG-4591, Thomasson Partner Associates

The oil and natural gas industry in the United States is very different than it was a decade ago. Domestic exploration and production has shifted from a business heavily influenced by major oil corporations to vigorous activity among a variety of smaller, more cost-efficient organizations. Smaller exploration targets, the need for cost efficiency, and a focus on exploration has created a niche that is being filled with a variety of newly designed organizations, including independent companies that frequently do not compete with major companies. Partnerships and other non-conventional groups are finding a profitable environment by adapting to a redefined resource base and redefined competition in business. Speakers will address this new industry during the half-day session on petroleum geology. Topics planned for presentation:

- US Resource-Base and Sustainability
- Exploration Vs. Exploitation
- Access to Technological Advances
- New Model for an Exploration Company
- Acquire a Company, Get a Job
- The Independent and Access to International Activity

Field Trips & Tours

1 Redstone-Marble (Yule Marble Quarry)
2 Nederland (Cross Mine)
3 Morrison (Dinosaur Ridge, Red Rocks)
4 Glenwood Springs-I-70 Traverse (Hot Springs)
5 Colorado Springs (Broodmoor Hotel, Garden of the Gods, U.S. Air Force Academy)
6 Golden (CSM-USGS Earthquake Center)
7 Denver-Cherry Creek (Botanic Gardens, Shopping)
8 Boulder (U.S. Bur. of Standards, Celestial Seasonings)
9 Central City (Casinos, Mining History)
Registration and Hotel Information

To Register

Please make all registration arrangements and hotel reservations with:

Conference Associates
1776 Lincoln Street #620
Denver, CO 80203
Phone: 303-863-9506
Fax: 303-863-9507

Please list only one registrant per form. Type or print the registration form clearly and make a copy for your records. Registrations received before September 1, 1995 will be confirmed in writing.

Payment

Make checks payable to Conference Associates. Credit cards (Visa or MasterCard) are also accepted.

Cancellation Policy

No refunds for cancellations will be given after September 1, 1995. Those who cancel prior to September 1, 1995 will receive an 85% refund. This policy applies to all registrations, including short courses, events and field trips. Notification and full refund of short courses, events and field trips will be given in case of cancellation due to insufficient registration.

Venue and Accommodations

The conference will be based at the newly renovated Hyatt Regency, located in the heart of downtown Denver’s financial district. In a setting of rich mahogany and marble, conference attendees will experience Hyatt’s service and attention to detail that ensures a successful event. The hotel offers a full-service restaurant and a lobby cocktail area, along with a rooftop mini-resort for tennis, swimming and jogging.

The Hyatt Regency Denver has offered our attendees the special conference rate of $105 single occupancy/$115 double occupancy (plus tax). To receive this rate, please make all reservations with Conference Associates (see address and phone number above and on registration form). A limited number of rooms is available, so early registration is advised.

Short-Course Series

Finite Element of Flow and Contaminant Transport in Vadose Zones and Groundwater

July 31 - Aug. 4, 1995

Instructors:
G. T. Yeh (Pennsylvania State Univ.),
J. Bear (Technion Univ., Israel)
and N. Jones (Brigham Young Univ.)

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Field Trips

Colorado is home to some of the most interesting and beautiful geology in the western United States, and autumn may be the most spectacular time of all. To share a few of the geological wonders existing in our state, we've scheduled three geological field trips prior to the meeting, and a post-meeting two-day trip over the Continental Divide to the Western Slope of Colorado.

In addition, five spouse/guest trips are planned for the three primary days of the meeting. One-day visits to various sites in Colorado Springs, Golden, Boulder, Central City and the exclusive shopping area of Cherry Creek in Denver will promise to give you a taste of the many attractions surrounding the Denver area. Also, a self-guided tour describing many of the interesting landmarks in the downtown area will be included with registration.

All of the trips are open to geologists and non-geologists. The geological field trips will stress geological aspects while the spouse/guest trips will stress enjoyment of interesting sites and vistas. For all trips, please wear comfortable walking shoes and bring along a jacket (Colorado weather is notoriously fickle). Please reserve your place on desired field trips by completing the registration form in this issue. Trips that do not meet registration minimums by September 1 will be canceled and field trip fees will be refunded. If you have any questions about the trips, contact the Field Trip Chairman, Gary Mitchell, at 303-423-6717.

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Geological Field Trips

Trip #1

Yule Marble Quarry, Redstone, Colorado

Saturday, September 30 - Sunday, October 1
Trip fee: $175 per person/double occupancy
(includes meal & lodging)

Only TEN lucky registrants will visit the historic Yule Marble Quarry at Marble, Colorado near historic Redstone. The Yule marble has been used in many historic buildings, such as the Lincoln Memorial and the Tomb of the Unknown Soldier in our Nation’s Capitol, municipal buildings in San Francisco and New York, and the old Post Office, Customs House, City and County Building and Federal Reserve Bank in Denver. Travel Saturday afternoon will proceed through the Eisenhower Tunnel over Vail Pass, and through Glenwood Canyon to the high country. We will spend Saturday night at the historic Redstone Inn and visit the mine site on Sunday morning. The return to Denver will be through Aspen and over Independence Pass (weather permitting) through the historic mining town of Leadville. Because of logistics this trip is limited to ten registrants, so sign up early.

Trip #2

Cross Mine Tour

Saturday, September 30, 8:00 am - 5:00 pm
Trip fee: $60 per person
(includes refreshments and lunch)

Tour a working underground mine in the Colorado Front Range. Examine firsthand how vein mining is performed and perhaps try your own skills at drilling. See the zeolite water filtration system that cleans mine waters. Ride the ore train and eat lunch in the beautiful mountains west of Boulder. There may also be a demonstration of blasting and mucking at the mine. Designed for professionals and non-professionals; no one under age 12, please. See you underground.

Yule Marble Quarry

Redstone Inn
Trip #3

Dinosaur Ridge/Red Rocks Park/ I-70 Roadcut/Swellling Soils

Sunday, October 1, 8:00 am - 5:00 pm
Trip fee: $50 per person (includes lunch and admission fees)

This full day along the foothills west of Denver will provide close up views of dinosaur footprints along with breathtaking views of the Denver skyline. See the famous I-70 roadcut through the Dakota Hogback and the area affected by tension fractures and landslides, the world famous Red Rocks Amphitheater constructed in the Fountain formation, dinosaur tracks in the Dakota sandstones, dinosaur bones located near the type section of the Morrison Formation, and problems associated with swelling soils in home and road construction. Watch geology in action as we visit a landslide area; a world famous music venue in the rocks; tracks, trails and bones of dinosaurs; and the effect of swelling soils in a unique orientation on construction of homes and roads. There’s a great deal to see without hours of riding to get there!

Top photo: Dinosaur Tracks.
Middle photo: Cross Mine Tour.

Trip #4

Vail/Glenwood Springs/ Leadville, Colorado

Thursday, October 5 (depart 7:30 am) - Friday, October 6 (return 5:00 pm)
Trip fee: $150 per person/double occupancy (includes lodging and lunches)

Travel the I-70 corridor west from Denver through historic Idaho Springs and Georgetown to the Eisenhower Tunnel for a discussion of the tunnel over coffee and donuts. Continue west through many famous Colorado ski towns including Vail. Pass a major active landslide, then travel through the Eagle Valley evaporates to Glenwood Canyon. After lunch, see the engineering geology of I-70 through the canyon. Then it’s on to Silt, Colorado, for a discussion of the Divide Creek gas field that contains the highest producing gas well in the US (10,461 feet), and a discussion of how environmental concerns were overcome by the operator and the Forest Service working together. The day ends at the turn-of-the-century Hotel Colorado in Glenwood Springs. Enjoy the evening in the world’s largest hot springs pool (don’t forget your swimsuit) or strolling the streets of historic Glenwood Springs (the end of the trail for Doc Holiday).
Field Trips for Guests

Trip #5

Colorado Springs, Colorado

Monday, October 2, 8:00 am - 5:30 pm
Trip fee: $60 per person

Travel south of Denver through the Black Forest to the United States Air Force Academy, home to over 4,000 cadets. After a tour of the campus, including the 17-spired futuristic chapel, we move on to the beautiful Broadmoor Hotel for lunch in the Garden Room at the Tavern Restaurant. We then visit the Garden of the Gods, an incredible landscape of red sandstone formations that date back millions of years. Don’t forget to stop at the nearly century-old Trading Post and Art Gallery, displaying unique Navajo and Pueblo Indian artwork and crafts. This promises to be a wonderful way to experience the traditions and elegance of Colorado Springs.

Trip #6

Golden, Colorado

Monday, October 2, 9:00 am - 4:00 pm
Trip fee: $50 per person

Visit Coors Brewery, the largest single brewery site in the world. Watch how beer is made, and at the end of the tour, if you’re of legal drinking age, sample some of the fine Rocky Mountain products. After lunch at the Table Mountain Inn (on your own), we will visit the USGS National Earthquake Information Center, the central recipient of data from earthquakes all around the world. Then, at the nearby Colorado School of Mines, we’ll view beautiful mineral specimens at the Mineral Museum. A relaxed day in Golden, Colorado.
A view of downtown Denver at night.

Trip #7

Denver Botanical Gardens and Cherry Creek Shopping Center

Tuesday, October 3, 9:30 am - 3:30 pm
Trip fee: $25 per person (includes gardens admission fee)

From indoor tropical plants to outdoor Japanese gardens, enjoy the splendor of the beautiful Denver Botanical Gardens. Then put on your walking shoes and open your pocketbooks for a visit to Cherry Creek Shopping Center, home of Neiman Marcus, Saks Fifth Avenue and a myriad of shopping pleasures. Just across the street is Cherry Creek North, featuring tree lined avenues and plazas with many eclectic boutiques, galleries and the Tattered Cover, Denver's renowned four-story bookstore. Leave time for lunch (on your own) at one of many delectable area restaurants.
Trip #8

Celestial Seasonings Tea Factory/
National Bureau of Standards/
Pearl Street Mall, Boulder

Tuesday, October 3, 9:00 am - 4:00 pm
Trip fee: $50 per person

Visit Celestial Seasonings, the largest herb tea manufacturer in the US. Discover how the teas are made, visit the art department where those beautiful labels are created, and after sampling some of the 47 different blends, purchase your favorites at a discount at the Tea Emporium. Then it is on to the National Bureau of Standards for a view of the atomic clock, a cryogenic demonstration and information on the standards for weights and measures. We'll then travel to the colorful brick-paved Pearl Street Mall in downtown Boulder for lunch (on your own) and visits to the many galleries and boutiques. Finally, on the way back, we'll enjoy a quick drive through the beautiful University of Colorado campus.

Trip #9

Central City, Colorado

Wednesday, October 4, 10:00 am - 3:30 pm
Trip fee: $30 per person

Central City first made big news when John A. Gregory discovered the area's first gold in 1859. His original claim made over $60 million in gold, mostly after he sold his interest for $21,000. In 1991, limited stakes gambling returned to Central City. Enjoy the Victorian architecture and the feeling of a genuine, historic "Old West" town on this casual, enjoyable jaunt to the mountains. With limited stakes poker, blackjack and slot machines, perhaps a jackpot is awaiting your arrival.

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International Opportunities for Prosperity

— Sunday, October 1, 2:00 - 5:00 pm —

Coordinated by Trevor R. Ellis, Ellis International Services

Many opportunities exist for geological work outside the US. As the economies of countries expand or are restructured, opportunities for geologists are found in many sectors. Geologists are required in exploration and development of petroleum and minerals, construction and planning for roads and buildings, hydrology, assessment and restoration of the physical environment, and planning for damage minimization. US geologists have opportunities in many countries to work directly on projects or to educate nationals in their field of expertise.

Delegates will report on several countries around the world where opportunities are opening for geologists. Some of the delegates will be citizens representing their respective countries. Others will be US-based experts on various countries.

The delegates have been asked to cover the following subjects in their presentations:

- A brief history of natural resource development
- Current business activity for development of natural resources
- Future potential, concession participation and guidance for resource developers
- Controls in physical environment, during and after development
- National laws that shape the definition and work of qualified geologists
- Opportunities for participation by foreign companies and geologists.

An Evening at the Denver Museum of Natural History

Prehistoric Journey:
The Making of a Major New Exhibit

— Wednesday, October 4, 6:00 - 11:00 pm —

A Presentation by Dr. Kirk R. Johnson, Curator of Paleontology

Enjoy cocktails, socializing and dinner after hours at the Denver Museum of Natural History, where dioramas of actual natural environments truly define the art. We will dine in Mineral Hall, which features the recently found and displayed Alma King rhodochrosite crystal, an exceptionally large, stunning specimen. View the Museum's famous 'Dancing T.rex' along with other actively posed dinosaurs, including a Diplodocus with a full-length tail.

After our multi-course meal, we will be treated to an illustrated lecture about the Museum's Prehistoric Journey exhibit, a brand new display of the history of life now under construction at the Museum and scheduled for opening in late October. Dr. Johnson, a paleobotanist, will describe the creation of the exhibit and his efforts to ensure accurate portrayals of the flora of the ages, followed by a limited sneak preview of the Prehistoric Journey exhibit. We will also be able to view many of the dioramas of modern plants and animals from all over the world. Enjoy a memorable and relaxing evening prior to returning home or joining our field trip to Glenwood Springs and Leadville.
American Institute of Professional Geologists - Registration & Reservations
October 1-6, 1995
Hyatt Regency Hotel - Denver, Colorado

Name (on badge) ____________________________ First ____________________________ Last ____________________________
Spouse/Guest Name (on badge) ________________ ________________
Employer __________________________________ Position __________________________________
Address ___________________________________________________________________________
City __________________ State __________ Zip __________ Country __________________________
Phone Number __________________ Fax __________________

EXPRESS MEMBER REGISTRATION - SAVE $48!
Deadline: August 15, 1995 # _______ @ $195 $ ________
Includes Member Registration, kit and proceedings book, awards luncheon,
and "Prehistoric Journey" dinner and IMAX Theater
Spouse/Guest (by 8/15) # _______ @ $45 $ ________

MEETING REGISTRATION
Member # _______ @ $165 $ ________
(Included in Express Reg)
Non-Member # _______ @ $190 $ ________
Spouse/Guest (after 8/15) # _______ @ $55 $ ________
(Includes Dinner & IMAX)
Student (all tech. sessions) # _______ @ $25 $ ________
One Day Registration # _______ @ $75 $ ________
(members or non-members)

EVENTS
Awards Luncheon # _______ @ $18 $ ________
"Prehistoric Journey" Dinner # _______ @ $45 $ ________
& IMAX (included in Express Reg)
Int'l Opportunities for Prosperity # _______ @ $10 $ ________

SHORT COURSES
Geologist as Expert Witness # _______ @ $65 $ ________
ASBOG Workshop # _______ @ $10 $ ________
Operations Management # _______ @ $300 $ ________
($300 member/$400 non-member) @ $400 $ ________

PUBLICATIONS
Proceedings (abstracts, road logs, tours, speaker profiles:
(included in Express Reg)
AIPG Book: Citizen's Guide to Geologic Hazards # _______ @ $16 $ ________

FIELD TRIPS
#1: Yule Marble Quarry/Redstone, Colorado # _______ @ $175 $ ________
#2: Cross Mine Tour # _______ @ $60 $ ________
#3: Dinosaur Ridge/Red Rocks Park/ I-70 Roadcut/Swelling Soils # _______ @ $50 $ ________
#4: Vail/Glenwood Springs/Lakeville, Colorado # _______ @ $150 $ ________
#5: Colorado Springs, Colorado # _______ @ $60 $ ________
#6: Golden, Colorado # _______ @ $60 $ ________
#7: Denver Botanical Gardens and Cherry Creek Shopping Center # _______ @ $25 $ ________
#8: Celestial Seasonings Tea Factory/National Bureau of Standards/Pearl Street Mall, Boulder # _______ @ $50 $ ________
#9: Central City, Colorado # _______ @ $30 $ ________

PAYMENT (Must be made in U.S. dollars):
Registration: $ ________
Events: $ ________
Short Courses: $ ________
Publications: $ ________
Field Trips: $ ________
TOTAL PAYMENT ENCLOSED: $ ________

Check enclosed for $ ________
Make checks payable to Conference Associates.
Please charge my credit card $ ________

Signature ____________________________
Visa/MC # ____________________________
Exp. Date ____________________________

HOTEL REGISTRATION
Hyatt Regency Hotel, Denver - $105 single/$115 double
Single ______ Double* ______ Smoking ______ Non-Smoking ______
*Name of 2nd person in room: ____________________________
Arrival Date ____________________ Departure Date ____________________
Visa/MC # ____________________________
Exp. Date ____________________________

Please reserve with Conference Associates by August 15, 1995, to insure availability and rate. All reservations require $105 deposit or credit card guarantee. Deposit refundable if reservation is cancelled 72 hours prior to arrival.

To register & reserve accommodations, mail form to:
Conference Associates
1776 Lincoln #620, Denver, CO 80203
Call Conference Associates, 303-863-9506
Fax form to Conference Associates, 303-863-9507
General Information

Denver's Newest Attractions

For more than 125 years, Denver has been the cultural, shopping and entertainment capital of the vast Rocky Mountain region. Whether you're a first-time visitor or a lifetime Colorado aficionado, you're sure to take notice of our many new downtown attractions: a 50,000-seat Major League Baseball stadium, a light rail system, a downtown amusement park and a new library housing five million volumes. If you venture out of downtown, be sure to visit Tropical Discovery, the new exhibit at the Denver Zoo that encloses a complete, two-acre rain forest.

Weather

Fall is one of Denver's most delightful seasons, though changes can come rapidly. Autumn comes early in the high country, and the colorful turning of the aspen leaves can be enjoyed from mid-September through the end of October in the mountains. Down on the plains, Denver enjoys Indian Summer throughout October, with temperatures often reaching the 70s. Of course, it could always go the other way, so please come prepared with a warm jacket.

Altitude Adjustment

The Mile-High City is exactly that: one mile above sea level. Because you may need some help adjusting to the altitude, please heed the following precautions: restrict your activities on your first day in town; consume less alcohol than usual; drink more non-alcoholic liquids than usual to avoid dehydration; and be sure to use sunscreen and wear sunglasses during outdoor activities. The sun's rays are more intense here.

Transportation

Colorado's new state-of-the-art Denver International Airport is served by all major airlines, with frequent shuttle service into the downtown area. For a more scenic journey, try Amtrak's east-west route, with three arrivals daily into Denver's historic Union Station. Once downtown, you'll find the shuttles on the 16th Street Mall are free and fast, running between the Lower Downtown Historic District in the northwest and Civic Center Park and the State Capitol in the southeast. They run approximately every 90 seconds.

Airfare Discounts

Travel King offers 5% off the lowest available fare, 10% off full coach or first class fares, and discounts on international fares on United Airlines.

Call Travel King for additional information on vacation packages and car rental discounts.

Identify yourself as an AIPG registrant for the Annual Program.

Toll-free 800-458-6398, Direct 303-776-4630 or Fax 303-776-5170.

Proceedings Volume

All oral presentations, field trips, continuing education sessions and workshops presented should have an abstract or extended abstract prepared. These will be published before the meeting by AIPG. Materials will be printed exactly as submitted; they will not be retyped.

Organization of Proceedings Volume

The Proceedings volume will have the following sections:

Introduction on Prosperity and Professional Geology

Content Sessions

Engineering Geology
Political Relations
Environmental Geology/Hydrogeology
Mining Geology
Petroleum Geology

Field Trip Guides

Continuing Education Sessions
Workshop Sessions
Other Materials

We encourage any AIPG Member to submit an abstract on a related topic. Please contact the editor to obtain detailed instructions:

William H. Hoyt, Ph.D.
AIPG '95 Meeting Proceedings Editor
Department of Earth Sciences
University of Northern Colorado
Greeley, CO 80639
Phone: 970-351-2487
Fax: 970-351-1269
Exhibits, Ventures, Posters, Advertising and Sponsorship

The Hyatt Regency Denver has limited space for exhibit booths, ventures and posters in the Imperial Ballroom. Booths and other displays will be strategically located within the reception room and adjacent to the Grand Ballroom (General Sessions) and other meeting rooms, to guarantee maximum attention from meeting attendees. Exhibit booths are $550 for three days for a 10 foot by 10 foot booth. The fee includes one conference pass for three days; an additional fee of $20 per worker (unlimited time) will be charged. The daily exhibit fee is $200. Exhibitors can also share booth space for a prorata rate.

In addition to the exhibit booths, space is available for both venture presenters and poster presenters. AIPG will supply basic booth set ups for both. Venture presenters -- defined as those who have something to sell -- are on the same fee schedule as exhibitors, listed above. Poster presenters - defined as those who share results from their studies -- will be charged $25 per person for the first day, and $10 per day for additional days. Please note: venturers, who may be from any resource industry, must have their primary site under contract, and release AIPG and the hotel from any liability.

We also invite you to become a meeting sponsor. Opportunities for general sponsorship or for joint sponsorship of specific events are available. Recognition of sponsors will be prominently displayed in the meeting program and on a poster in the exhibits/reception area.

Advertising space is available in the meeting program and meeting proceedings. Materials should be submitted, camera-ready, in the form of business cards, or half-page or full-page ads. The fees for advertising are:

**Meeting Proceedings**: business cards - $25; half-page - $50; full page - $100; inside front and back covers - $350.

**Meeting Program**: business cards - $20; half-page - $37; full page - $75; inside front and back covers - $260.

For further information on exhibit space, venture or poster space, sponsorships and advertising, please contact: Conference Associates, 1776 Lincoln #620, Denver, CO 80203, Phone: 303-863-9506 or Fax: 303-863-9507.

National AIPG Business Events

**NATIONAL EXECUTIVE SESSION**
(Closed Executive Session 8:00 - approximately 9:30 am; open to AIPG Members thereafter)

**1995 ADVISORY BOARD BREAKFAST MEETING**

**FOUNDATION TRUSTEES MEETING**

**1996 ADVISORY BOARD BREAKFAST MEETING**

**PAST PRESIDENTS BREAKFAST**

**1995-96 EXECUTIVE COMMITTEE BREAKFAST MEETING**

**ANNUAL MEETING COMMITTEE**

**AWARDS LUNCHEON**
Awards Presentations

**ANNUAL BUSINESS MEETING**

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Sunday, October 1
8:00 am - 5:00 pm

Monday, October 2
8:00 am - 11:00 am

Monday, October 2
1:00 am - 4:00 pm

Tuesday, October 3
8:00 am - 11:00 am

Tuesday, October 3
8:00 am - 11:00 am

Wednesday, October 4
7:00 am - 9:00 am

Wednesday, October 4
9:00 am - 12:00 pm

Wednesday, October 4
11:30 am - 1:30 pm

Wednesday, October 4
1:30 pm - 5:00 pm
MINING PROGRAM
Thomas L. Robyn
1551 Prairie Owl Road
Parker, CO 80134-4631
303-841-7657
Fax: 303-841-9320

ENGINEERING GEOLOGY
Jeffrey L. Hynes
2280 Birch Street
Denver, CO 80207
303-866-2611
Fax: 303-866-2461

HOUSING
David M. Abbott, Jr.
1801 California St.
Denver, CO 80202-2648
303-391-6900
Fax: 303-391-6868

CONTINUING EDUCATION
John M. Kaufman
Gronning Engineering Co.
12050 Pecos St. #100
Denver, CO 80234
303-450-0100
Fax: 303-450-0629

PETROLEUM PROGRAM
Susan M. Landon
790 Ballantine Road
Golden, CO 80401
303-436-1930
Fax: 303-436-1935

EXHIBITS/POSTERS/VENTURES
Robert H. Chesson
4160 S. Roslyn St.
Denver, CO 80237-2115
303-741-4018
Fax: 303-863-9507

HYDROGEOLOGY
William H. Bellis
4730 Table Mesa Drive #1-34
Boulder, CO 80303
Phone & Fax: 303-494-8122

ENVIRONMENTAL GEOLOGY
Ralph S. Rice
Rice Goodbee & Assoc., Inc.
2725 S. Pennsylvania St.
Englewood, CO 80110
303-237-2471
Fax: 303-761-4699

GENERAL CHAIR
Ron W. Pritchett
8244 South Leyden Court
Englewood, CO 80112
Phone & Fax: 303-741-0670

POLITICAL RELATIONS
Thomas G. Falls
4101 E. Louisiana #412
Denver, CO 80222
303-759-9733
Fax: 303-759-9731

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24 The Professional Geologist • MAY 1995
STATE NET

UNITED STATES 2883
AGENCY: Department of Energy/Nuclear Regulatory Commission
TOPIC: ENERGY -- 7
SUMMARY: Amends the agency's policy on the protection of public health and safety from activities conducted at a geologic repository operations area before permanent closure.
CITATION: 10 CFR 50
PROPOSAL DATE: 03/02/95
COMMENT DEADLINE: 06/20/95
UNITED STATES H 1330
AUTHOR: Hayes
INTRODUCED: 03/28/95
SUMMARY: Amends the Federal Water Pollution Control Act to establish a comprehensive program for conserving and managing wetlands in the United States.
STATUS: 03/28/95 INTRODUCED.

UNITED STATES S 70
AUTHOR: Dole
INTRODUCED: 01/04/95
SUMMARY: Permits exports of certain domestically produced crude oil.
STATUS: 01/04/95 INTRODUCED.

COLORADO 3740
AGENCY: Department of Natural Resources/Oil and Gas Conservation Commission
TOPIC: ENERGY -- 7
SUMMARY: Implements groundwater standards and classifications with regard to oil and gas operations.
AGENCY CONTACT: Patricia Beaver, Secretary, Oil and Gas Conservation Commission, Docket No. 4-1, 1120 Lincoln Street, Ste. 601, Denver, CO 80203.
CITATION: CCR 404-1 Groundwater Standards/Oil and Gas Operations
PROPOSAL DATE: 03/10/95
HEARING DATE: 04/17/95

FLORIDA 15345
AGENCY: Department of Business and Professional Regulation/Board of Professional Surveyors and Mappers
TOPIC: BUSINESS AND CORPORATIONS -- 2
SUMMARY: Requires licensees to notify the public when they do not carry professional liability insurance coverage.
AGENCY CONTACT: Angel Gonzalez, Executive Director, Board of professional Surveyors and Mappers, Northwood Centre, 1940 N. Monroe Street, Tallahassee, FL 32309-0750.
CITATION: FAC 61G17-2.012 Financial Responsibility
PROPOSAL DATE: 03/03/95

FLORIDA 15270
AGENCY: Department of Business and Professional Regulation/Board of Professional Surveyors and Mappers
TOPIC: BUSINESS AND CORPORATIONS -- 2
SUMMARY: Establishes fees for applications, examinations, and licensure categories identified by the Board of Professional Surveyors and Mappers.
AGENCY CONTACT: Angel Gonzalez, Executive Director, Board of professional Surveyors and Mappers, Northwood Centre, 1940 N. Monroe Street, Tallahassee, FL 32309-0750.
CITATION: FAC 61G17-8.001 Fee
PROPOSAL DATE: 02/10/95
DATE WITHDRAWN: 03/03/95.

FLORIDA 15338
AGENCY: Department of Business and Professional Regulation/Board of Architecture and Interior Design.
TOPIC: BUSINESS AND CORPORATIONS -- 2
SUMMARY: Adds the necessary subsections to the rule in order to define the terms: "provisional licensee", "supervision of provisional licensees", "materially affect", and "in furtherance of a retail sale".
AGENCY CONTACT: Angel Gonzalez, Executive Director, Board of professional Surveyors and Mappers, Northwood Centre, 1940 N. Monroe Street, Tallahassee, FL 32309-0750.
CITATION: FAC 61G1-11.013 Definitions
PROPOSAL DATE: 03/03/95

FLORIDA S 2830
AUTHOR: Jones
INTRODUCED: 03/28/95
SUMMARY: Urges Congress to adopt certain legislation related to nuclear waste.
STATUS: 03/28/95

IDAHO H 336
AUTHOR: Committee on State Affairs
INTRODUCED: 03/01/95
SUMMARY: Amends existing law to revise the licensure requirements for well drillers and operators of well drilling equipment and to increase licensure fees.
STATUS: 03/14/95 TO HOUSE COMMITTEE

INDIANA 2899
AGENCY: Department of Natural Resources
TOPIC: RESOURCE MANAGEMENT AND PRESERVATION -- 18
SUMMARY: Concerns issues raised by the federal Office of Surface Mining in the context of regulatory reform. Addresses hydrogeology, impoundments, roads, support facilities, and additional miscellaneous concerns.
AGENCY CONTACT: Michael Kiley, Chairman, Natural Resources Commission, Indianapolis, IN
CITATION: 31 OAC 12-0.5-78-7 to 12-6-19 Office of Surface Mining-Hydrology, Impoundments, Roads, Support Facilities.
PROPOSAL DATE: 02/01/95

IOWA H 478
AUTHOR: Committee on Env. Protection
INTRODUCED: 03/16/95
SUMMARY: Provides limited immunity for persons responding to oil spills.
STATUS: 03/29/95 PASSED HOUSE

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Short-Course Series
Advanced Groundwater Modeling Using MODFLOW System Components
July 11-14, 1995
Instructors:
Peter F. Anderson and Robert M. Greenwald
(Geo Trans, Inc.)

This advanced modeling course presents approaches and modeling tools for solving complex groundwater flow problems using the USGS MODFLOW model and various add-on public domain and proprietary programs. Topics include: conceptualization and model formulation, grid design, three-dimensional model layering, interfacing with CAD/GIS technology, 3rd type boundaries, aquifer pinchouts, dewatering problems, barrier walls, fracture systems, water budgets, capture zones, well design optimization, and parameter estimation. The course is designed around realistic problems sets addressing practical issues. Course handouts includes various software. Enrollment is limited. Ask for detailed brochure.

For more information contact the IGWMC.

igwmc international ground water modeling center

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STATE NET

IOWA H 508
AUTHOR: Committee on Environmental
INTRODUCED: 03/21/95
SUMMARY: Relates to underground storage tanks by increasing the environmental protection charge, providing for the use of risk-based corrective action standards, expanding property transfer insurance and loan guarantees, extending the compliance date for upgrade requirements, creating marketability and innocent landowner funds and providing benefits, requiring certification or groundwater professionals and creating a penalty, requiring a study, and repeals.
STATUS: 03/21/95 TO HOUSE COMMITTEE.

LOUISIANA H 509
AUTHOR: Holden
INTRODUCED: 03/27/95
SUMMARY: Relates to hazardous wastes and underground injection control; prohibits on and after July 1, 2009, the use of underground injection wells for the disposal of hazardous waste or radioactive waste.
STATUS: 03/27/95 TO HOUSE COMMITTEE.

LOUISIANA H 529
AUTHOR: Hammet
INTRODUCED: 03/27/95
SUMMARY: Surveyors: Amends provisions relative to land surveyors provides that all surveys performed in this state must comply with standards established by the State Board of Registration for Professional Engineers and Land Surveyors; establishes certain requirements for the platting of land surveys; establishes certain requirements for the platting of land into squares or lots prior to sale; changes the domicile of the board.
STATUS: 03/27/95 TO HOUSE COMMITTEE.

LOUISIANA H 1469
AUTHOR: Dorelon
INTRODUCED: 03/27/95
SUMMARY: Relates to oil and gas pooling units; provides for the method of calculating the cost of producing for purposes of allocating certain interests.
STATUS: 03/27/95 TO HOUSE COMMITTEE.

LOUISIANA H 1844
AUTHOR: Dorelon
INTRODUCED: 03/27/95
SUMMARY: Relates to noncoal surface mining, creates the Louisiana Noncoal Surface Mining Law, provides for reclamation and conservation of land; provides for powers and duties of the Department of Natural Resources; provides for powers and duties of the Office of Conservation; provides for permitting, definitions and inspections; provides for fees; provides for violations, notices, hearings, penalties and enforcement. More.
STATUS: 03/27/95 TO HOUSE COMMITTEE.

LOUISIANA S 21
AUTHOR: Cox
INTRODUCED: 03/27/95
SUMMARY: Relates to the procurement of professional services: provides for the selection of professional engineers, architects, landscape architects, and land surveyors based on demonstrated competence and qualifications; provides for related matters.
STATUS: 03/27/95 TO SENATE COMMITTEE.

MARYLAND 5229
AGENCY: Dept. of Licensing and Regulation/Board for Prof. Land Surveyors
TOPIC: BUSINESS AND CORPORATIONS – 2
SUMMARY: Establishes a revised minimum acceptable level of performance to be exercised by professional land surveyors and property surveyors.
AGENCY CONTACT: Mary E. Mays, Executive Director, Board of Professional Land Surveyors, 501 St. Paul Place, Suite 902, Baltimore, MD 21202, (410)333-6322.
CITATION: COMAR 09.13.06 .01-10. .01-14 Minimum Standards of Practice
PROPOSAL DATE: 03/03/95
COMMENT DEADLINE: 04/17/95
HEARING DATE: 05/03/95
ADOPTING DATE: 05/03/95
EFFECTIVE DATE: 05/03/95
EXPIRATION DATE: 05/03/99
MESSAGE: Emergency proposal, simultaneously proposed for permanent adoption.

MASSACHUSETTS 5012
AGENCY: Board of Registration of Hazardous Waste Site Cleanup
TOPIC: LABOR AND EMPLOYMENT – 13
SUMMARY: Addresses the examination for licensure of Licensed Site Professionals (LSPs), the continuing education requirements for LSPs, and other requirements.
AGENCY CONTACT: Ruth Aronson, Board of Registration of Hazardous Waste Site Cleanup Prof., 6th Floor, One Winter St., Boston, PA 02108.
CITATION: 300 CMR 1.00-8-00 Licensure of Licensed Site Professionals
PROPOSAL DATE: 02/10/95
HEARING DATE: 02/21/95, 02/22/95, 02/23/95

MINNESOTA H 1666
AUTHOR: Bertram
SAME AS: S 1170
INTRODUCED: 03/27/95
SUMMARY: Requires licensure or certification of geoscientists.
STATUS: 03/27/95 TO HOUSE COMMITTEE.

MISSOURI H 753
AUTHOR: Dougherty
INTRODUCED: 03/27/95
SUMMARY: Relates to regulation of certain services for radon testing.
STATUS: 03/29/95 TO HOUSE COMMITTEE.

PENNSYLVANIA H 1233
AUTHOR: Lloyd
INTRODUCED: 03/20/95
SUMMARY: Amends the Engineer, Land Surveyor and Geologist Registration Law, Provides for the State Registration Board for professional Engineers, Land Surveyors and Geologists.
STATUS: 03/20/95 TO HOUSE COMMITTEE.

WEST VIRGINIA S 388
AUTHOR: Love
INTRODUCED: 02/16/95
SUMMARY: Establishes procedures in suits filed against professional architects and engineers.
STATUS: 02/16/94 TO SENATE COMMITTEE.

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Short-Course Series
Characterization, Information Management and Modeling of Groundwater Systems
June 5-9, 1995
Instructors:
Dr. Kenneth Kolm
(Colorado School of Mines)
Dr. Jasminko Karanjac
(UN Consultant)

Integrating data acquisition, Conceptualization and simulation of regional and site-specific groundwater systems using the Groundwater Information System Software for Windows developed for the United Nations. (Includes software)
For more information contact the IGWMC.

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26 The Professional Geologist • MAY 1995
F. B. "Ted" Mullin, CPG-1716

Well, here it is - May already. Spring has sprung and I was looking for a proper lead-in for this month. I found it! The following is an excerpt from a Forest Service document which was given to me as an example of what is wrong with the government. I would like to think that this is atypical of the research which the taxpayer supports. Unfortunately, this type of drivel is all too common. You be the judge as to its efficacy. I think that is has certain emetic qualities, don't you?

"Policy-makers and ecosystem managers must understand and manage types of responses to uncertainty and ignorance (Ravetz 1996) to their advantage. Faber and others (1992) provide a taxonomy of ignorance (see fig. 7). If people remain unaware of their ignorance ("closed ignorance"), they perceive no need for additional information and research. Experiences of surprise or shock (Brooks 1986) can provide a sudden awareness of previously closed ignorance. Unexpected or discontinuous enlightenment in societal perceptions can promote uneven evolution in societal thought, technology, policy, and institutions. Precipitous establishment of an Eastside Forest Health Panel to rapidly assemble insights and contexts for ecosystem management in eastern Oregon and Washington is evidence of jolts in awareness of imperfect ecosystem knowledge and land management practices of the past."

The author goes on to divide open ignorance into two groups--Reducible and Irreducible. Reducible ignorance is further divided into Personal ignorance (possible resolution by education) and Communal ignorance (possible resolution by research). Irreducible ignorance is broken up into Stochastic complexity (Chaos) and Unforeseeable novelty (Evolution).

What does this all mean: 1) We are all ignorant. 2) Only the researchers recognize that we are ignorant. 3) We can possible be made aware of our ignorance and educated. 4) Research can solve the community ignorance problem. 5) Everything is in a state of chaos, and last but not least -- Evolution is an unforeseeable novelty. Move over Darwin. This is ecosystem management research at its best.

Yes, there is unrest in the west.

Forest Service buildings have been bombed in Carson City, Nevada and near Elko, Nevada. County and state officials in Montana, Nevada, Utah, Idaho, and New Mexico are advocating local land control and have organized as the Western States Coalition. The Individual Rights Foundation, a Los Angeles-based legal group, is taking court action on behalf of the Coalition. The president of the Coalition stated that these aren't survivalist wackos, they are prominent people in their communities who believe the Federal Government has gone too far.

And, following through with the struggle, the Justice Department sued Nye County, Nevada on March 8th to reaffirm the federal government's rights to ownership and management in the federal lands. The same day, the Nevada Senate voted unanimously to amend the state constitution. The amendment, if passed, would repeal the provision granting Nevada's public land to the federal government in exchange for statehood.

Needless to say, the Justice Department will be busy. One of the proposals of the Secretary of Interior is to turn the Minerals Management Service functions over to the states. People in the oil and gas business should be able to provide Mr. Babbitt with some useful comments about that proposal. More bookkeeping and paperwork. Incidentally, Cynthia Quarterman was named as the new director of the MMS by Secretary Babbitt. She used to work as an attorney in the same law firm as Secretary Babbitt.

In Washington, both the House and the Senate have attached short-term moratorium bills to other legislation which would halt, at least for a short time, all new endangered species listings and critical habitat designations. The moratorium would allow Congress time to develop full-blown legislation to re-write the Endangered Species Act.

And now to the Federal Registers.
Vol. 60, No. 45, 3-8-95, pg 12710
Department of Interior, B.L.M., 43 CFR Part 2720. Conveyance of Federally-Owned Mineral Interests. Final Rule. This rule amends 43 CFR 2720 to streamline and clarify the procedures for conveying Federally-owned mineral interests to the owner of the surface estate overlying the mineral estate.
For further information contact: Clyde Topping, (202) 452-0380.

Vol. 60, No. 49, 3-14-95, pg 13654
Department of Defense, Department of the Army, Corps of Engineers, 33 CFR Parts 320, 325, and 333. Wetland Delineator Certification Program, Proposed Rule.
The Corps of Engineers is establishing a program for the training and certification of individuals as wetland delineators.
This is a good section to read if you are involved in wetlands.
For further information contact: Ms. Karen Kochenbach or Mr. Sam Collinson at the Office of the Chief of Engineers at (202) 272-0199.

Vol. 60, No. 56, 3-23-95, pg 15304

Vol. 60, No. 56, 3-23-95, pg 15304
Minerals Management Service, Outer Continental Shelf Policy Committee, of the Minerals Advisory Board; Notice and Agenda for Meeting. The OCS Committee will meet at the Houstonian Hotel in Houston on May 3-4, 1995. The meeting is open to the public. For further information contact: Terry Holman at (703) 787-1211.

Vol. 60, No. 61, 3-30-95, pg 16424
Department of Interior, B.L.M., 43 CFR Part 3100. Promotion of Development, Reduction of Royalty on Heavy Oil.
Proposed Rule
For further information contact: John W. Bebout, B.L.M., (202) 452-0340.

MEMBERS

You should have recently received your AIPG Membership Directory. Each year, after the deadline for dues payment has passed, listings for active members are posted from information from last year's directory, changes submitted with dues payment, and additions or changes which were submitted separately to Headquarters by members or sections. Please check your listing for accuracy. If you have any changes, please send them in writing to AIPG Headquarters. We consider an accurate directory to be one of our most important services to membership.

Executive Director's Itinerary
(subject to change)
The Executive Director is visiting various Sections, agencies, campuses, and other organizations. He is talking, listening, and exchanging information and ideas. Members are encouraged to attend these meetings whenever and whenever possible. His itinerary for the next several months, as presently scheduled, is:

May 2-4: National Ground Water Association, Las Vegas, NV
May 11-13: Assn. of State Boards of Geology, Orlando, FL
May 18-19: Kentucky Section, Lexington, KY
Jun. 6-7: Geological Society, London, UK
Jun. 9-11: European Federation of Geologists, Dublin, IR
Jul. 8: Executive Committee, Arvada, CO
Jul. 15-18: National Conference of State Legislatures, Milwaukee, WI
Jul. 19-21: Council of Engineering and Scientific Society Executives, Seattle, WA
Aug. 11-23: People to People Mission, Hong Kong and China
Sep. 5-12: Pennsylvania, West Virginia, and Ohio Sections
Oct. 1-5: AIPG, Denver, CO, (includes Executive Comm. Meeting)
Oct. 12-14: National Association of State Boards of Geology, Jackson, WY
Nov. 4: AGI Govt. Affairs Committee, New Orleans, LA
Nov. 5-9: Geological Society of America, New Orleans, LA

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28 The Professional Geologist • MAY 1995
AIPG MEMBERSHIP BENEFITS

Certification

AIPG certifies the qualifications of professional geologists prior to admitting them into membership. By means of a rigorous and thorough peer review process, the Institute investigates applicants who voluntarily apply for self-regulation through the Institute. This screening carefully evaluates their education, experience, technical competence, and ethical conduct. If they meet AIPG's high standards, applicants are granted Certification and the title of "Certified Professional Geologist" (CPG). When the letters CPG follow an individual's name, they proclaim to the public that this person has met the standards and subscribes to the Institute's Code of Ethics and By-laws.

Representation

Members are represented by qualified geological professionals. Congress, Legislatures, and Federal and State agencies are lobbied on specific mining, petroleum, water, environmental and other issues of special interest to geologists.

A portion of AIPG's monthly magazine The Professional Geologist (TPG) is devoted to reporting developments at all government levels. Thirty-six sections of AIPG provide group representation on a state or regional level and offer opportunities to meet, work and exchange ideas and information with colleagues.

Education

At the national and section level, AIPG provides materials designed to enhance the professional knowledge and skills of its members. Educational opportunities range from seminars and short courses to sectional and national meetings. To encourage high standards of educational programs, the Institute recently established a program of Accreditation of Continuing Education opportunities offered by other organizations.

The Institute prepares and distributes comprehensive publications giving background and scientific explanations on geologically-related matters of public concern. Topics include: ground water, radioactive waste, and hazardous waste.


Insurance

Professional liability, health, and life insurance are available to members.

Information

AIPG disseminates information to its members and to the public in a number of ways on a wide variety of topics. The Institute publishes a monthly magazine The Professional Geologist (TPG). It is mailed to members and interested individuals, businesses, and political leaders. Subscriptions are available to non-members.

A comprehensive Membership Directory is published annually. Copies are sent to federal, state, regional and local governments, libraries, consulting firms, corporations, and other potential users of geologic services throughout the United States and abroad. The Directory may also be purchased by non-members.

REQUEST FOR APPLICATION AND ADDITIONAL INFORMATION

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E-mail address: aipg@netcom.com

Please send me information on:

☐ Certification - (degree and 36 semester hours in a geological science, plus five years of experience).

☐ Candidate for Certification - (degree and 36 semester hours, but less than five years of experience).

☐ Student (major in a geological science and minimum of 18 semester hours in geological science)

☐ Continuing Education ☐ Advertising Rates

☐ Insurance ☐ TPG Subscription

☐ Publications ☐ Insignia Items
CALENDAR

1995


Jun. 9-6. International Conference on Carbonate-hosted Lead-Zinc Deposits, St. Louis, Missouri. Contact: Martin Goldhaber, U.S.G.S., P.O. Box 25046, MS 573, Federal Center, Denver, CO 80225. Fax: (303) 236-3200.


Jul. 15. Ecology Field Trip, Bureau of Land Management, Bakersfield to Point Sal, California. Dr. Wilkerson. Ph.: (805) 391-6081 or write to MOTHER LODE c/o Greg Wilkerson, 7005 Hooper Ave., Bakersfield, CA 93308.


Aug. 5. Ecology Field Trip, Bureau of Land Management, Bakersfield to Ojai and Santa Paula, California. Dr. Wilkerson. Ph.: (805) 391-6081 or write to MOTHER LODE c/o Greg Wilkerson, 7005 Hooper Ave., Bakersfield, CA 93308.


Sep. 2. Ecology Field Trip, Bureau of Land Management, Breckenridge Mountain and Havilla, California. Dr. Wilkerson. Ph.: (805) 391-6081 or write to MOTHER LODE c/o Greg Wilkerson, 7005 Hooper Ave., Bakersfield, CA 93308.

Sep. 10-14. Geohazards and Engineering Geology, Coventry University, England. Contact: The Engineering Group of the Geological Society, Conference Secretary, Steve Penn, Coventry University, School of the Built Environment, Priory St., Coventry, UK CV1 5FB.


1996


ADVERTISERS INDEX

Airmag Survey, Inc. 6
Environmental Education Enterprises 2
Geraghty & Miller, Inc. 30
International Ground Water Modeling Center 13
International Ground Water Modeling Center 25
International Ground Water Modeling Center 26
International Ground Water Modeling Center 27
International Ground Water Modeling Center 31
Krueger Enterprises, Inc. 24
Leggette Brashears & Graham, Inc. 14
Pennsylvania Drilling Company 28
Rhodes & Associates, Inc. 19
Applications received (March 30, 1995 - April 27, 1995)

Applicants for certification must meet AIPG's standards as set forth in its Bylaws on education, experience, competence, and personal integrity. If any Member or board has any factual information as to any applicant's qualifications in regard to these standards, whether that information might be positive or negative, please mail that information to Headquarters within thirty (30) days. This information will be circulated only so far as necessary to process and make decisions on the applications. Negative information regarding an applicant's qualifications must be specific and verifiable. Persons who provide information which leads to an applicant's rejection may be called as a witness in any resulting appeal action.

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TN - STEINHAUFS, D. Mark 6820 Stone Mill Drive, Knoxville, TN 37919, Sponsor: Don Byerly, Keith Roberson, Kitanam Srinivasan.

Candidates for Certification

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NEW CANDIDATES FOR CERTIFICATION

WA - MURNANE, John E., CFC-0099 1612 1203rd Street SE, Monroe, WA 98272-9486, (206) 636-8908.

MI - PERRY, Patricia L., CFC-0100 12997 Delta Drive, Brighton, MI 48116, (313) 227-6240.

NM - Pujals, Michael, CFC-0098 5430 San Marco Blvd., #335, Albuquerque, NM 87109, (505) 881-7180.

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