WANTED

AIPG needs quality articles for future issues of *The Professional Geologist*. Members are encouraged to submit articles or call Headquarters and recommend individuals who should be asked to submit articles. Photographs enhance articles and make great TPG covers. Be sure to send photographs when possible with your articles OR send your favorite photograph for consideration as the cover for a future TPG issue.

### Editorial Calendar

<table>
<thead>
<tr>
<th>ISSUE</th>
<th>TOPIC</th>
<th>DEADLINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>July, 1992</td>
<td>Geologists and Engineers</td>
<td>June 1, 1992</td>
</tr>
<tr>
<td>Sept., 1992</td>
<td>Geoscience Education, Continuing Education</td>
<td>August 1, 1992</td>
</tr>
<tr>
<td></td>
<td>and Careers</td>
<td></td>
</tr>
<tr>
<td>Jan., 1993</td>
<td>Geologic Hazards</td>
<td>December 1, 1992</td>
</tr>
<tr>
<td>Mar., 1993</td>
<td>Petroleum Geology</td>
<td>February 1, 1993</td>
</tr>
</tbody>
</table>

Send your article and/or photograph TODAY to:

*The Professional Geologist*
AIPG - Editor
7828 Vance Drive, Suite 103
Arvada, CO 80003

For questions or further information on articles or advertising call Wendy Davidson at (303) 431-0831 • M - F • 7:30 - 4:00 MT.

SUBSCRIBE NOW!

AIPG is now offering subscriptions to its monthly publication, *The Professional Geologist*. 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). All payments in U.S. funds.

To enter your subscription to *The Professional Geologist*, fill out and mail in the form below along with your prepayment.

Please enter my subscription to: *The Professional Geologist*, 7828 Vance Drive, Suite 103, Arvada, CO 80003
Phone: (303) 431-0831 • FAX (303) 431-1332

<table>
<thead>
<tr>
<th>$15.00 a year (12 issues) Members</th>
<th>$25.00 a year (12 issues) Non-members</th>
</tr>
</thead>
<tbody>
<tr>
<td>(outside the U.S., $20.00)</td>
<td>(outside the U.S., $30.00)</td>
</tr>
<tr>
<td>Payment enclosed</td>
<td>Charge to my credit card:</td>
</tr>
<tr>
<td>(All payments in U.S. fund)</td>
<td>□ Mastercard □ Visa</td>
</tr>
</tbody>
</table>

Card Number_________________________ Expiration Date_________________________

Signature_____________________________

Name_________________________________

Street_______________________________

City_________________________State_____Zip____

Is this your □ home or □ office address?

Please indicate your title, specialty, or technical society certification_________________________

(name of company)
The Professional GEOLOGIST

FEATURES

Environmental Geology 4

Kentucky Professional Geologists Registration Bill Signed 6

One View of the Current Oil and Gas Industry in the U.S., and What We Should Be Doing 8

A New Pair of Eyes 9

AIPG Long Range Planning Committee Report 12

Executive Committee Meeting Report January 25, 1992 18

Executive Committee Approves Income And Health Insurance Programs 19

National Geologic Mapping Act Status 20

COVER - The Natural Bridge of Virginia, a bridge composed of Chepultepec Limestone which is situated, appropriately enough, in Rockbridge County, Virginia. Courtesy of John A. Blair, CPG-3815 - article on page 9.

DEPARTMENTS

STUDENTS’ AND CANDIDATES’ PAGE 13

STATE NET 14

TODAY IN WASHINGTON... 15

EXECUTIVE DIRECTOR’S ITINERARY 16

EXECUTIVE DIRECTOR’S COLUMN 17

CALENDAR 21

IN MEMORIAL 22

NEW MEMBERS, APPLICANTS, ETC. 23

POSTMASTER: Send address changes to AIPG, 7828 Vance Drive, Suite 108, Arvada, Colorado 80003. Second Class postage paid at Arvada, Colorado. Subscriptions for all Members and Affiliates in good standing are included in annual membership dues. Subscription rates are $15.00 a year for Members, additional subscriptions $25.00. Single copy price is $15.00 for Members and $25.00 for non-members.

The Professional Geologist (USPS 590-810 and ISSN 0379-0651) published monthly by the American Institute of Professional Geologists, 7828 Vance Drive, Suite 108, Arvada, Colorado 80003. Second Class postage paid at Arvada, Colorado. Subscriptions for all Members and Affiliates in good standing are included in annual membership dues. Subscription rates are $15.00 a year for Members, additional subscriptions $25.00. Single copy price is $15.00 for Members and $25.00 for non-members.

The purpose of AIPG is to strengthen the geological sciences as a profession with all reasonable actions, to establish professional qualifications, to certify those qualifications to the public, and to evaluate continuously the ethical conduct of its members. Further, the Institute establishes ethical standards to protect the public and geological sciences from nonprofessional practices, monitors governmental and other activities affecting the geological sciences, and communicates with the public.
Environmental Geology

Thomas J. Hansen, CPG-3339

Fear of contamination makes people pay high prices for bottled water, when the water is safe 'as is' from their own kitchen sink faucet. This statement is true, if you are buying water from the City of Wichita, Kansas. Water sold for use by the City of Wichita is tested and must meet the water quality standards for public drinking water set and enforced by the EPA. If you live in the country and have your own water well, the purity of your water depends upon you and the sources of contamination in the area.

Now, how much do you pay for water? Since most of us are, or have been associated with the oil and gas industry; we will compare the cost of water to the cost of a barrel (42 gallons) of oil. Prices for the water were collected on December 26, 1991, from the City of Wichita, Albertsons, and Dillons. The City of Wichita sells water based on usage and size of meter. A small meter and low usage (0 to 6000 gallons) costs us $8.75 per 1000 gallons. To put this in oil and gas terminology, a barrel of water would cost $0.36. Not very expensive compared to other things we must purchase to live. A barrel of oil in Kansas is selling for $17.50. Gasoline costs 99.9 cents per gallon. Subtract the 33 cents per gallon tax on each gallon and gasoline costs us 66.9 cents per gallon. Now convert to oil and gas terms and you have $28.10 per barrel at the pump.

In my trip to Dillons and Albertsons, in Kansas, to do research for this article, prices of various brands of water were obtained. These prices were then converted to correspond to a barrel of water. Listed in Figure 1 are the prices when converted to cost per barrel.

When compared to the cost of tap water, bottled water and name brand sparkling water is high. Coors Rocky Mountain Sparkling Water is over 1000 times more costly than City of Wichita water or approximately 22 times more expensive than a barrel of crude oil. The lowest priced water is 54.8 times more expensive than City of Wichita water or $2.74 more than a barrel of crude oil. The problem is we cannot drink crude oil or burn water in our car engines. Maybe one of these days gasoline will become the 'in thing' and you can sell it for over $300.00 per barrel or, on second thought, probably not in our lifetime.

Please remember, some of the bottled drinking water is nothing more than City water, which has been placed in plastic or glass bottles. Most of the bottled water on the shelf has no water analysis listed on its label. It would be interesting to obtain an analysis from the bottling company, to see what is in the bottle. Apollinaris sparkling mineral water had a partial analysis on its label. It listed the dissolved minerals solids of the water to be 2508 ppm. The KDHE lists the secondary drinking water standard for total dissolved solids at 500 ppm. So people still pay money for bottled water high in total dissolved solids, which the City of Wichita would not be able to sell. It wasn't long ago, when Perrier found benzene in its bottled water and removed it from the store shelves.

If you have a private well, you should test at least annually. The minimum test should check for nitrate and bacteria, which are the most common contaminants found in a water well. Send your water sample to a lab which is certified by the State. Also, keep the water test results in your file, so the water quality can be compared from year to year.

The best solution to having a usable water supply is to live in an area which has uncontaminated ground water and use good waste management practices so it will not become contaminated. Water treatment equipment is available to

---

<table>
<thead>
<tr>
<th>Product</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Wichita-Water</td>
<td>$0.36/barrel</td>
</tr>
<tr>
<td>Kansas Crude</td>
<td>$17.50/barrel</td>
</tr>
<tr>
<td>Gasoline</td>
<td>$28.10/barrel</td>
</tr>
<tr>
<td>Dillons Water</td>
<td>$19.74/barrel</td>
</tr>
<tr>
<td>Dillons Distilled Water</td>
<td>$28.98/barrel</td>
</tr>
<tr>
<td>Conway Spring Drinking Water</td>
<td>$34.86/barrel</td>
</tr>
<tr>
<td>Anjou Drinking Water</td>
<td>$126.18/barrel</td>
</tr>
<tr>
<td>Evian Natural Spring Water</td>
<td>$179.20/barrel</td>
</tr>
<tr>
<td>Excelsior Springs</td>
<td>$106.03/barrel</td>
</tr>
<tr>
<td>Coors Rocky Mountain Sparkling Water</td>
<td>$384.59/barrel</td>
</tr>
<tr>
<td>Perrier</td>
<td>$182.78/barrel</td>
</tr>
<tr>
<td>LaCroix</td>
<td>$142.80/barrel</td>
</tr>
<tr>
<td>Clearly Canadian (flavored)</td>
<td>$348.27/barrel</td>
</tr>
<tr>
<td>Apollinaris Sparkling Mineral Water</td>
<td>$283.11/barrel</td>
</tr>
<tr>
<td>Swiss Altima Sparkling Mineral Water</td>
<td>$348.24/barrel</td>
</tr>
</tbody>
</table>

---

*Figure 1*
remove some contaminants. This includes sediment filters, which strain out visible particles and sediment. These are used to protect other equipment. Carbon filters are used to absorb organics, improve taste and odor, remove chlorine, reduce volatile organics, and reduce some pesticides. A carbon filter must only be used to filter disinfected water. The filter should be changed every 6 months to a year. This avoids bacteria growth and overloading of the filter.

If your water is hard, you may want to use a softener. A softener will reduce iron and manganese if present in the water, which improves the water for use in laundry and dish washing. One word of caution, a softener adds sodium. You may wish to drink unsalted water to protect yourself from ingesting too much sodium.

Distillers remove all minerals, but require regular cleaning. Also, a distiller uses considerable electricity. I did not obtain a cost per gallon for water produced by a distiller.

A reverse osmosis unit usually consists of a sediment and carbon filter, which will reduce such minerals as sodium, hardness, nitrate, and lead. The unit requires regular maintenance and testing to ensure a reliable source of good water. A reverse osmosis unit wastes from 5 to 10 gallons of water for each gallon of usable water produced.

A water purifier normally has a sediment and a carbon filter. These units will not remove bacteria or virus. Simply stated they will not make unsafe water safe.

Ensuring a safe private water supply is your responsibility. It will take effort on your part to maintain a usable water supply. You must be sure your well is located away from potential sources of contamination at your site. The water well must be constructed using safe construction standards. This does not mean a piece of casing stuck in an open hole. Before using your newly constructed water well and water system, it must be disinfected. Test your water regularly and evaluate the water tests for any changes which may indicate a potential problem exists in your water supply. If any changes do occur, you may need to select one of the water treatment systems previously mentioned for your water supply. As I have already stated, be sure to know the potential sources for contamination at your site and the surrounding area. Be sure to manage these sources and encourage your neighbors to do the same. It is nice to know some things in life are a bargain, namely City tap water. Water is a precious commodity; just ask someone who has to haul water for everyday use. As we use or pollute our waters, supply and demand will push the cost of water higher and higher.

How much tap water would you use (or could you afford), if it cost as much as crude oil? •

You can rent geophysical instruments – for big jobs or small!

When Tom Dobiecki of McBride-Ratcliff and Assoc., needed a seismograph to study the Sphinx foundation, he rented an ES-2401 from EG&G Geometrics. This let him use the most powerful shallow exploration seismograph available, without any capital investment. You can do the same in your consulting practice.

Need to locate buried drums or underground storage tanks? Rent a G-856 magnetometer, the most popular unit in production today. EG&G Geometrics has a broad line of seismographs and magnetometers available for rent. For land, marine and airborne surveys, our economical daily rates can fit the budget of most any size project. Domestic and international rentals are available. And, we offer attractive rental conversions should you elect to purchase.

For more information on our geophysical equipment, applications, assistance, or prices, contact: EG&G Geometrics, 395 Java Drive, Sunnyvale, California 94089 U.S.A., phone, 408/734-4616; fax 408/745-6131. In Europe contact: 44/734-773003; or fax 44/734-773493.

EG&G GEOMETRICS
Kentucky Professional Geologists
Registration Bill Signed

The bill for the registration of professional geologists in Kentucky, HB 494 (BR 1913), was signed by Governor Berretton Jones on March 19. The signing culminated a vigorous effort on the part of many geologists and the AIPG Kentucky Section lobbyist to ensure the passage of a "clean" bill. The numerous telephone calls, letters, and meetings with the legislators made a significant impact on the passage of the bill. In addition, the funds that were donated enabled the Kentucky Section to retain the services of a lobbyist throughout the session. Also, the agreement that was made with the Kentucky Society of Professional Engineers removed a historically adversarial force from the legislative effort.

Highlights of the signed bill are as follows:

• Effective date of the Act is July 1, 1992.

• The Act creates a Board of Registration for Professional Geologists that will consist of five members: the State Geologist, three registered geologists (initially qualified geologists), and one member of the public at large. A joint committee of the AIPG Kentucky Section and the GSK (Geological Society of Kansas) will submit a list of not more than three nominations to the Board. The Governor will appoint the members from the list. The initial terms will vary from 1 to 4 years. Thereafter, the appointments will be for 4 years. The initial appointments commence within 90 days of the effective date of the Act.

• The Board will promulgate regulations consistent with the Act, including a code of professional conduct. The Board may revoke or suspend registration due to violation of the provisions of the Act and of the code of ethics, due to fraud, deceit, gross negligence, or misconduct.

• The Board will maintain offices within the Commonwealth.

• The minimum qualifications consist of 30 semester hours or 45 quarter hours of geology course work, a Baccalaureate or advanced degree in the geological sciences from an accredited institution, five years of experience in professional geologic work (one year credit given for each Master's or Doctoral degree), and the successful completion of an examination designed to demonstrate geologic knowledge and skill.

• For a one year period, beginning 180 days from the effective date of the Act, the Board will waive the examination requirement for applicants qualified by education and experience.

• For a one year period, beginning 180 days from the effective date of the Act, registration may be provided to members of the AIPG or the Division of professional Affairs of the AAPG.

• The Act provides for reciprocity with states with at least equal requirements.

• The Board is designed to be self-funding, with the application and annual renewal fees to be set by the Board.

• The Board will issue a certificate of registration and will make available a seal or stamp designed by the Board that will contain the legend "Registered Professional Geologist".

• The following persons are exempt from registration: Local, State and Federal employees; persons engaged solely in geologic research or instruction; professional engineers who apply geology to the practice of engineering; and persons not engaged in the public practice of geology.

• It will be unlawful (Class B Misdemeanor) for any person other than a registered geologist to prepare any geologic reports or documents that are required by statute or administrative regulation to be prepared by a registered geologist.

• It will be unlawful (Class B Misdemeanor) for any person to convey to the public that they are a registered geologist unless they have been duly registered under the provisions of the Act.

AIPG Kentucky Section Newsletter, April 1992

Insitu Termination of Groundwater Movement Through Soil and Bedrock


"The Pressure Grouting Specialist"

Contact: Dave Taylor 314-828-5858
Change...

...Everybody needs it.

ATEC Associates, Inc. knows about change...when to invest it and when to make it. We began in 1958 as a geotechnical, drilling and materials testing company. In the early '90's, we expanded our services to help address the world's environmental concerns. Now, ATEC has grown into one of the largest privately-held environmental consulting firms in the United States.

Growth does not occur without change. ATEC finances growth with the profits we earn through the work of dedicated employees. ATEC hires the best people in the industry and supports them with state-of-the-art technology and training. ATEC gives employees the freedom necessary to contribute to the growth of the following environmental programs:

- Environmental Property Assessments
- Environmental Compliance Audits
- Underground Storage Tank Management
- Solid & Hazardous Waste Facility Development
- Environmental Remediation
- Remedial Construction
- Industrial Hygiene
- Air Quality
- Analytical Laboratory Services

If you can accept change and want to work for a company that will continue to serve clients with the dedication they deserve and expect, then contact ATEC.

Invest in your future, today.

ATEC Associates, Inc.
Billy Logue, Director of Corporate Recruiting
Department P6-01
P.O. Box 501970
Indianapolis, Indiana 46250-1970
(317) 577-1761

E.O.E./A.A.
OPINION PAPER

One View of the Current Oil and Gas Industry in the U.S., and What We Should Be Doing

Albert F. Allong, CPG-6390

It appears that the Domestic Oil Industry is wilting in contrast to a near-booming cycle abroad. Almost weekly, newspapers report that organizations are down-sizing, while several others abroad (some conglomerates, others independents or Government controlled) are making major discoveries. The situation can be described as ambiguous at best, leading into an unpredictable future.

The explanations for the faltering domestic industry are numerous, but the number one implied reason is the low market value of oil ($18/bbl). Some industry people suggest that a $21/bbl price represents the true worth. Assuming that economics is the linchpin in resource exploration and development, there are at least two courses of action for those remaining in the industry: (1) Prepare to be a victim of circumstance; cut staff, restrain spending, wait for change, and try to predict the future, or (2) Do things which contribute to changing the circumstances. If one assumes that the high cost of E&P is due to dwindling reserves, or lack of technical know-how, or inept management, or a combination thereof, then we ought to address these factors quickly in order to revitalize our industry.

We can do very little about dwindling reserves, with the exception of conserving. Mobil Oil may be on to something by manufacturing a replacement product. Under present circumstances, many organizations cannot look for, nor produce, small volumes of oil economically. Their departure from the domestic theater seems inevitable. On the other hand, the vacuum created by their leaving can be filled by small operators. One immediate advantage anticipated is increased daily production coupled with a lower decline rate in reserves, once the small operator moves in.

Within any organization, a lack of technical know-how may be a contributing factor, but this is easily corrected by implementing a vigorous continuing education program which, by itself, may go a long way in the evolution of ideas, but can not be counted on to find new deposits without strong leadership may be a partial solution to this dilemma.

The "shape up or ship out" incentive is yet another method by which any down-slice in technical know-how can be reversed. Given fair warning, most employees (including supervisors) will produce if they know how to. Those who don't can be transferred to a less stressful position. The use of consultants is yet another way to add to the technical know-how base because, if for no other reason, the outside expert opinion strengthens the organization. It is a recognized concept in exploration that ideas find oil. Therefore, by introducing more ideas, the probability of success increases. Finally, experienced personnel helps, especially in the realization of the potential of the newly hired.

Inept management creeps into even the best organization. It is difficult to recognize, much less report, by anyone from within the organization. Management must be nurtured to maintain its strength. In the decade of the 80s, managers concentrated on delegating. Today, they must be able to help subordinates; and, at the same time, develop and utilize tools such as Visual and Critical Path Analysis Charts.

A few in upper management may have developed the "bean-counter" mentality as a result of the 80s pressures and goals. This has to be modified, particularly as it relates to research and development. The costs of R&D should not be viewed along the lines of a quarterly or annual balance sheet, but as an investment in employees. R&D may take years to pay off or it may not pay off at all.

The Oil Industry must assume a leadership role in Corporate America, in establishing a bottom line which includes, not only a satisfactory profit margin, but equally important, the well-being of its employees. The consequences of an unchecked, wilting industry may include fewer graduating professionals; fewer discoveries worldwide; and, indirectly, even a world at war for dwindling reserves. On the other hand, if the challenges are addressed, we are looking at a viable economic and social industry.
A New Pair of Eyes

John A. Blair, CPG-3815

Many geologists no longer work in their chosen profession because the need for geologists in industries such as mining and petroleum has seemed to dry up. These situations are depressing, because there are no more prospects in the fields these people love.

Although my degree is in geology, I have worked as a geotechnical engineer, a petroleum reservoir engineer, and a quality assurance engineer, as well as a geologist. At times I felt I no longer belonged to my profession. A trip down the Valley of Virginia taught me otherwise.

As a native Virginian, I went to school at Virginia Tech. Before I went to college, I traveled the Valley of Virginia that parallels the West Virginia border for a good distance and extends into Virginia from the Maryland border to the Tennessee and North Carolina borders. As a child, I went with my parents to see the Natural Bridge of Virginia, a bridge composed of Chepultepec Limestone which is situated, appropriately enough, in Rockbridge County, Virginia. The Natural Bridge is considered by many to be one of the natural wonders of the World. Surveyed by George Washington and owned by Thomas Jefferson, it is now a privately owned tourist attraction with a nightly light drama about the Story of Creation.

Strangely enough, I never went to see the Natural Bridge while I was a student at Tech, even though the bridge was just up the valley, and the geology department had the policy of familiarizing its students with the local geology. In fact, since I started my geological education, I have visited many other geologic wonders including the Grand Canyon and Mt. Etna in eruption. In 1974, my aunt and I walked across the Grand Canyon from the north to the south rim, and she asked many embarrassing questions about what the different formations were. I learned then, from sad experience, that it is a wise geologist who studies something about a famous geologic landmark before visiting it with a layperson.

I also learned to see what a non-geologist sees. At Phantom Ranch, down in the bottom of the canyon, I listened to a guide describe a rock formation that looks like "Little Lulu", a cartoon character. Later on, as I went to the Palos Verde Canyon in 1987, I tried to see the "Spanish Skirts" as well as the layers of gyp-
sum, shale strata, or gravity deposits. Now that I was a geologist, I saw these phenomena as a geologist would see them. I had forgotten what it was like to see something in the eyes of a layman. The Natural Bridge was destined to teach me an important lesson about how much I had changed.

While living in the Washington, D.C. area, I have had many chances to visit my parents down the valley. The Natural Bridge lies just to the east of Interstate 81 and about 90 miles northeast of my hometown and approximately 195 miles southwest of Washington. On one of these trips, I decided to visit the bridge once again. I paid my money and went down the path to the bridge. I looked at rock strata. Something in my mind had changed. I walked under the bridge and up the stream about a mile until I came to a feature called "Lace Falls", a pattern of water caused by a stream passing over upturned layers of limestone.

I walked downstream and came to the old salt peter cave that had been used in the time of the Civil War and past an old "Lost" river that emerged from limestone rock. As I walked under the bridge, I noticed that those inclined layers of rock which had been at the "Lace Falls" had flattened out. Just a bit further on under the bridge and to the other side, I noticed the rocks were now inclined in the other direction but still toward the bridge. In about half an hour I had learned something I had never really known before.

I now know that the Natural Bridge lies on the axis of a syncline. Rocks on either side of the bridge tend to fall because they are inclined toward the bridge, and rocks forming the bridge itself will be the last to fall because they are lying flat. After going to the bridge, I checked out the geologic literature and learned that my interpretation agrees with that of other geologists (Spencer, E.W., 1985, Guidebook to the Natural Bridge and Natural Bridge Caverns, Poorhouse Mountain Studios, Lexington, VA).

As a child, I looked at that big bridge and was overwhelmed with the drama of creation. As a geologist I revisited that same bridge after years of geologic training and experience. I had traveled and seen volcanoes erupting and the Grand Canyon. I am still overwhelmed, but I now have an understanding of that bridge. I know I will always be a geologist regardless of my title or responsibilities because the thrill of discovery showed me that I had acquired a new pair of eyes.
Seistronix  Model TL-300  Borehole Temperature Logging System

A revolutionary well logger that produces indisputable data which everyone can interpret ... Quickly, Easily and Inexpensively!

TL-300 Logger and Cable  (Shown with optional winch)

Utilizing a new approach to well logging, this compact system can provide you with information on new or existing wells which is difficult or impossible to get in any other way. For more information on this new instrument please contact:

Seistronix, Inc.  180B Blue Ravine Rd.  Folsom, CA  95630  Phone: (916) 985-8661

It pays to associate with Alamo.

As a member of Alamo's Association Program, you can enjoy great benefits every time you rent from Alamo. You can start by using the attached certificate for $5 to $10 off your next association weekly rental. You'll also receive unlimited free mileage on every rental in the U.S. or U.K., discounted daily and weekly rates and a $5000 maximum responsibility for car damage, loss of use or theft if CDW is declined. Plus, you can earn Frequent Flyer miles with Alaska, Delta and United airlines. So you can see, it really does pay to associate with Alamo.

$5 - $10 OFF  Your next rental.

• (In the U.S.) Valid for $5 OFF association weekly rentals (5 days or more) in compact through premium car categories, or $10 OFF association weekly rentals on any full-size or luxury car only.
• (In the United Kingdom) Valid for £5 OFF association weekly rentals on group B through group F car category only.
• Reservations are subject to availability at time of booking. A 24-hour advance reservation is required.
• One certificate per rental accepted; must be presented at the Alamo counter on arrival. Once redeemed, the certificate is void.
• This certificate and the car rental receipt are subject to Alamo's conditions at the time of rental. May be redeemed for the base rate of the Alamo non-members which does not include taxes and other optional items.
• Offer valid through 12/31/92 (except 4/9/92 - 6/15/92).

For reservations in the U.S. or United Kingdom call your Professional Travel Agent or call Alamo at 1-800-327-9633 (U.S.) or 1-800-322-9460 (U.K.). You must request Rate Code BY and use your membership ID number.

Alamo features fine General Motors cars like this Buick Regal.

JUNE 1992 • The Professional Geologist  11
AIPG Long Range Planning Committee Report

EXECUTIVE SUMMARY
THE INSTITUTE IN EVOLUTION

December 30, 1991

Recognizing that AIPG is a service organization whose existence, effectiveness and growth are dependent on how well it meets the needs of its members and the public, the objective of the AIPG Long Range Planning Committee is to suggest how the Institute should manage for growth in a dynamically changing professional and societal environment.

To do this, the Committee first examined the mission of the Institute as stated in its Bylaws, both as viewed by its membership and as to the continuing relevance of that mission. We looked at trends in education, employment and hiring in the geologic profession. We studied the present and past demography of the Institute. We gathered the opinions of Members. We reviewed prior planning efforts both within AIPG and by other organizations. We considered the views of the Executive Director. And lastly, we relied on the experience of individual Committee Members.

Based on these studies, the Committee concludes and recommends:

A. The mission of AIPG is appropriately stated in Article 1.2 of the Bylaws. The statement meets the expectations of Members and represents a realistic guide for the future operations of the Institute.

B. The great strength of the Institute is its geographic and professional diversity, representing all segments of the geologic profession in every state.

C. We recommend certain specific actions be taken by the Institute including:

1. Increasing Institute involvement in the political arena at the national level through adoption and pursuit of a well defined legislative program.
2. Increasing emphasis on national affairs by holding the annual meeting in Washington, D.C. at least every fourth year.
3. Encouraging state sections to adopt well defined state legislative programs.
4. Providing increased support to state sections by National Headquarters.
5. Improving the image of the Institute through:
   a. Improving the form and technical content of national meetings.
   b. Broadening the scope of Institute publications.
   c. Marketing those publications more effectively.

   d. Facilitating participation of state sections in local public and educational affairs such as science fairs.
   e. Involving the Institute and state sections in teacher-training programs.
   f. Increasing professionalism through requiring continuing education of members.
   g. Strengthening the Institute’s involvement in review and accreditation of curricula

6. Increasing the emphasis on professional ethics through increased discussion of ethical issues both within and without the Institute and assuring that unethical conduct by Members or non-members will not be condoned.

7. Clarifying the Institute’s position registration of geologists, generally and on specialty registration of geologists.
   a. In this regard, the Committee finds that regulation is a state and not a national issue.
   b. The Committee recommends that the position of the Institute be that it desires to reflect the views of its Members in each individual state.
   c. Where legal registration is adopted by a state, we recommend that such registration be managed by boards on which professional geologists are well represented.
   d. We further recommend there should be the maximum degree of reciprocity between states.
   e. Speciality certification by professional societies is most appropriate; however, in states where legislatures adopt speciality registration, it should come only as a second step after general registration of geologists.

8. Improving the structure of the Institute through:
   a. Improvements in Headquarters organization and additional career development of staff members.
   b. Re-examination of the mechanism of selecting the Advisory Board membership.

9. Strengthening the finances of the Institute to provide for a higher level of services to Members.

10. Assuring that the Institute’s programs and operations continually evolve to meet the needs of current and future Members.

The Long Term Goals Ad Hoc Committee Members are Ernest K. Lehmann, Chrs.; Susan M. Landon, Charles J. Mankin, Norman K. Olson, and Richard J. Proctor**
A Survey of Job Search Techniques

Tom H. Warren, CPG-7833

We all know, today's job markets are very competitive. Learning and using basic job search skills and techniques will help in these competitive markets. These skills and techniques consist of a series of marketing approaches.

As scientists, we are sometimes reluctant to market our skills. We feel our achievements should speak for themselves. Unfortunately, these achievements may not speak loudly or clearly enough to make a prospective employer realize the need for hiring us. In less competitive markets, one may be hired simply for being able. In today's markets, we will be hired only when an employer realizes a need for our skills.

It is therefore important to develop a plan to: a) present our skills and achievements in the best possible light and b) explain to an employer why hiring us would be advantageous.

Here are ten steps that will provide an outline for the marketing approach to your job search.

1. ASSESS YOUR SKILLS AND ACCOMPLISHMENTS
Make complete lists of your skills, education, experience, personal traits and accomplishments. Include accomplishments, discoveries and activities from your thesis, dissertation, or other independent study or research. These will become building blocks for your resume and for interviews.

2. DEFINE YOUR JOB TARGET
Develop a specific definition of the job you want to target. Include type of industry or organization, your personal preferences as to organizational size and culture, geographic location, and compensation required.

3. FOCUS YOUR RESUME ON YOUR JOB TARGET
Prepare your resume as though it were a 30 to 45 second commercial for your relevant skills, etc. Use attention-getting statements in a summary section. Utilize relevant portions of lists of your skills, education, experience, personal traits and accomplishments. Choose a format which is most appropriate for demonstrating how you meet an employer's needs. Use action verbs and numbers for impact.

4. DO LIBRARY RESEARCH
Develop lists of companies, organizations and individuals that fit the job target you have defined. Once these lists are made and information researched, assertively make contact with these individuals and companies to uncover hidden job leads. Also, use research to develop detailed information for interviews.

5. DEVELOP SPECIFIC JOB LEADS BY NETWORKING
Networking is a process for contacting people to uncover hidden job leads and to research prospective hiring organizations. More than 70% of professional jobs are found through networking. Start with lists of people you know. Ask these contacts for advice, information, and the names of other people to contact. Don't ask for a job. Asking for a job in a direct manner will tend to close the mind of the network contact. Increase visibility by widening your circle of friends and associates. Be active in professional organizations. Do volunteer work. Attend alumni meetings.

6. PREPARE FOR INTERVIEWS BY
(a) researching employer needs, preferences, and businesses, (b) practicing positive answers to tough interview questions, and (c) visualizing yourself as successful. Be prepared to answer general questions such as: "Tell me about yourself", "What are your strengths?", "What are your weaknesses?" At the end of the interview, summarize ways you would be good at the job discussed.

7. USE REFERENCES EFFECTIVELY BY
(a) asking, (b) briefing/reminding as to your qualifications, and (c) debriefing after a reference check is made. Have a list of references available for contacting.

8. FOLLOW-UP WITH A LETTER AND TELEPHONE CALLS
Follow-up will help you stand out from other applicants by demonstrating positive traits of persistence and thoroughness. Your letters and telephone calls should emphasize benefits you will bring to the organization if hired.

9. DON'T GET OR APPEAR DISCOURAGED! ALWAYS APPEAR ENERGETIC AND ENTHUSIASTIC
A job search is sometimes difficult and discouraging. Become philosophical and analytical about rejections. Recognize the validity of feelings of discouragement; however, always present yourself in a positive manner during networking or job interviews.

10. NEGOTIATION
When you get a job offer, you may be able to negotiate some aspects of pay, benefits, and/or job description. Negotiate with care and work for a win/win situation. Evaluate risks of losing the offer versus probability of success versus rewards for conducting the negotiation.

In this article, we have surveyed some of the techniques for a job search. This survey will provide a convenient checklist for your plan and a series of ideas for getting started. For further information, the reader is referred to the numerous books on job searches, resumes, and interviewing. These publications may be accessed in most libraries and large book stores.

In subsequent months, we will discuss several aspects of job search techniques in greater detail.

Tom Warren, an AIPG Member in Golden, Colorado, now works as a career and outplacement consultant.
and to recommend guidelines for the perpetuation of functions fulfilled by July 1993.

STATUS: 3/2/92 INTRODUCED TO HOUSE COMMITTEE ON RULES & EXECUTIVE NOMINATIONS.

NJ 5092
AGENCY: Dept. of Law & Pub. Safety/State Board of Professional Engineers & Land Surveyors.
TOPIC: BUSINESS & CORPORTATIONS
SUMMARY: Proposes a general increase in the fee schedule of the State Board of Professional Engineers & Land Surveyors for application & testing.
AGENCY CONTACT: Arthur Russo, Exec. Dir., State Board of Professional Engineers & Land Surveyors, P.O. Box 45105, Newark, NJ 07101.
CITATION: NJAC 13:40-6.1(c)
PROPOSAL DATE: 4/6/92
COMMENT DEADLINE: 5/6/92

NY S 7329
AUTHOR: Lombardi
TOPIC: POLITICS & GOVT.
SUBTOPIC: GOVERNMENT-MISC.
SUMMARY: Increases from $25,300 to $100,000 the minimum amount that requires the State to enter into negotiations for architectural, engineering or surveying services after selection of the most qualified firm, rather than using the competitive bidding process.
STATUS: 3/16/92 INTRODUCED TO SENATE COMMITTEE ON TRANSPORTATION & FINANCE.

OR 8576
AGENCY: Dept. of Environmental Quality
TOPIC: ENVIRONMENTAL PROTECTION & POLLUTION CONTROL
SUMMARY: Amends the underground storage tank (UST) cleanup rules; establishes numeric groundwater cleanup standards & associated procedures for petroleum UST Cleanups; revisions based on public comments from hearings held in Jan. '92.
AGENCY CONTACT: Alan Kipnuk, Dept. of Environmental Quality, Environmental Cleanup Division, UST Cleanup Section, 811 SW 6th Ave., Portland, OR 97204, (503) 220-4844.
CITATION: OAR 340-122-205 thru 340-122-360
PROPOSAL DATE: 4/1/92

TN 2123
AGENCY: Dept. of Environment & Conservation/Division of Solid Waste Management
TOPIC: ENVIRONMENTAL PROTECTION & POLLUTION CONTROL
SUMMARY: Amends rules relating to solid waste management; refers to landfill; defines purpose of such amendments; relates to discarded tires.
AGENCY CONTACT: Mike Apple, Division of Solid Waste Management, Dept. of Environment & Conservation, Customs House, 701 Broadway, 4th Floor, Nashville, TN 37243-1535, (615) 741-3424.
CITATION: TAC 1200-1-7.01(3), 1200-1-7-02
PROPOSAL DATE: 2/14/92
COMMENT DEADLINE: 3/23/92

TN 2136
AGENCY: TN Dept. of Conservation
TOPIC: RESOURCE MANAGEMENT & PRESERVATION
SUMMARY: Provides requirements for permit for Coal Surface mining, procedures for the processing of permit applications, expiration permits, & for hearings & appeals; provides requirements for permit applications for both underground & special categories of mining; provides general performance standards.
AGENCY CONTACT: TN Dept. of Conservation, Nashville, TN
CITATION: TNAR 0400-1-1 thru 0400-1-31; Division of Surface Mining
PROPOSAL DATE: 1/21/92

TX 9906
AGENCY: General Land Office
TOPIC: POLITICS & GOVT.
SUMMARY: Concerns exploration & development of state minerals other than oil & gas; concerns permit permits on state lands; mining leases on properties subject to prospect, mining leases on relinquishment Act lands, assignments, releases, reports, royalty payments, inspections, forfeitures, & reinstatements, & mineral awards & patents.
AGENCY CONTACT: Stroud Kelley, General Counsel Office, 1700 N. Congress Ave., Austin, TX 78701, (512) 463-5394.
CITATION: 31 TAC 10.2, 10.3, 10.5, 10.8, 10.9
PROPOSAL DATE: 3/27/92
COMMENT DEADLINE: 4/27/92

TX 9929
AGENCY: General Land Office
TOPIC: ENERGY
SUMMARY: Concerns geophysical & geochemical exploration permits, leasing state property for oil & gas, & discontinuing the leasehold relationship.
AGENCY CONTACT: Stroud Kelley, General Counsel Office, 1700 N. Congress Ave., Austin, TX 78701, (512) 463-5394
CITATION: 31 TAC 9.4, 9.5, 9.8
PROPOSAL DATE: 3/31/92

UT 4007
AGENCY: Environmental Quality/Division of Solid & Hazardous Waste
TOPIC: ENVIRONMENTAL PROTECTION & POLLUTION CONTROL
SUMMARY: Specifies application & plan approval procedures for hazardous waste facilities.
AGENCY CONTACT: Rusty Lundberg, Environmental Quality, Division of Solid & Hazardous Waste, 288 N. 1460 West, Salt Lake City, UT 84114-4860, (801) 538-6170.
CITATION: R 315-3
PROPOSAL DATE: 4/1/92
COMMENT DEADLINE: 5/1/92

UT 4012
AGENCY: Dept. of Environmental Quality/Division of Solid & Hazardous Waste
TOPIC: ENVIR. PROT. & POLLUTION CONTROL
SUMMARY: Refines statistical methods that must be used to evaluate presence or increase in contamination of groundwater; outlines sampling procedures & performance standards designed to help minimize event that statistical method will indicate contamination when it is not present & fail to detect contamination when it is present; associated with federal hazardous waste regulation previously adopted & incorporated into this rule; reflects recommendations made in '91 Administrative Rules Review Committee of Legislature.
AGENCY CONTACT: Rusty Lundberg, Div. of Solid & Hazardous Waste, Dept. of Environmental Quality, 288 N. 1460 West, Salt Lake City, UT 84114-4860, (801) 538-6170.
CITATION: R 315-4
PROPOSAL DATE: 4/1/92
COMMENT DEADLINE: 5/1/92

TODAY IN WASHINGTON

F. B. "Ted" Mullin, CPG-1716

The Security and Exchange Commission is in the process of revising their regulations for small business and are moving the minimum disclosure rules from F-18 to Industry Guide No. 7. The rules for small mines are being relocated with no change in substance.

For further information call: David M. Abbott, Jr. (303) 391-6900.

The Department of Interior Inspector General has written a report condemning owners of inactive or abandoned hardrock mining sites. This report provides a lot of substantive ammunition for those who would change the 1872 Mining Law. According to the IG, the BLM has been neglectful in their efforts to force the claimants to clean up their sites. Sixty-eight sites were visited and the IG estimates that it will cost $2 million to do the evaluation and cleanup. To obtain the IG report, Hardrock

Federal Register Notes of Interest


For further information: contact NPDES Storm Water Hotline at (703) 821-4823 or: Kevin Weiss, Office of Wastewater Enforcement and Compliance, EPA, 401 M St. SW, Washington, DC 20460.

The DOJ (DOJ) has published the Final Rule (Vol. 57, No. 70, April 10, 1992) for Claims Under the Radiation Exposure Compensation Act. The Act authorizes the Attorney General to establish procedures for making payments to certain individuals who develop one of the diseases specified in the Act following 1) presumptive exposure to radiation related to the government's atmospheric testing of nuclear weapons or 2) actual exposure to radiation from employment in a uranium mine. Claim forms and other information may be obtained from the Radiation Exposure Compensation Program, USDOJ, P.O. Box 146, Ben Franklin Station, Washington, D.C. 20044-0146 or calling 1-800-RECP.

EPA has renewed the Policy Dialogue Committee on Mining Wastes (Vol. 57, No. 70) - Persons needing information of the mining waste program should call Steve Hoffman, Office of Solid Waste, USEPA, (703) 308-8413.

The office of Thrift Supervision (Treasury) is amending its appraisal regulations to identify transactions for which the services of an appraiser are not required. The regulations add a definition of "real estate" and "real property" to clarify that the appraisal does not apply to transactions involving mineral rights, timber rights, growing crops, water rights, or similar interests when the transaction does not involve the associated parcel or tract of land. (Vol. 57, No. 71, April 13, 1992)

Now then, how about this one?? It looks as though the U.S. has finally found a way to deal with Rad Waste. Vol. 57, No. 82 contains a Proposed Rule from the Nuclear Regulatory Commission regarding the Import and Export of Radioactive Wastes. That's right folks. If we can export it, we don't have to deal with it. Most of the 8-page proposal refers to the exporting of wastes with the exception of one very short paragraph dealing with imports. So much for the HOT news.

The Federal Energy Regulatory Commission (FERC) 18 CFR Part 271, Final Rule on Qualifying Certain Tight Formation Gas for Tax Credit, was issued April 9, 1992 in Vol. 57, No. 69. For further information, contact Sandra Elliott, Office of General Counsel, FERC, 825 N. Capitol St., NE, Washington, D.C. 20426 or (202) 208-0694.

For those who like extra curricular reading, Vol. 57, No. 81 (April 27, 1992), Books 3 and 4 contain the Unified Agenda of Federal Regulations. These tome identify rules and regulations proposed in prerule, proposed rule, final rule stages and the completed actions. Each Federal Agency is required to do this list semi-annually under the Regulatory Flexibility Act (5 U.S.C. 601).

The IRS has 563 actions listed in 144 pages: the DOE covers 22 pages, and the EPA - 82 pages. I couldn't help notice that following EPA's list is the Equal Employment Opportunity Commission's list with 3.5 pages. I guess that with the EPA and DOE creating the work and IRS taking the money, there isn't much opportunity for employment - equal or otherwise.

Here is an example of what is found in each listing:

EPA-RCRA pg 17424, Vol. 57, No. 81 Final Rule Stage #3201 Amendments to Groundwater Monitoring Requirements at Hazardous Waste Facilities
Significance: Regulatory Progress
Legislative Authority: 42 USC 6924 to 6927/RCA 3004 to 3007
CFR Citation: 40CFR 260; 40 CFR 264; 40 CFR 270
Legal Deadline: none
Abstract: Omitted here-too long
Timetable:
Action date FR Cite
NPRM
[Notice of Prop. Rule] 7-26-88 53 FR 28169
Final action 6-00-92
Additional Information: Sen No. 2277
Agency Contact: Hugh David (202) 260-7656
Address omitted
Individual copies of the Federal Register may be obtained from the Government Printing Office at (202) 783-3233 between 8am and 4pm Eastern time, m-f. And yes, they take MC and Visa.*

---

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 wherever and whenever possible. His itinerary for the next six months, as presently scheduled, is:

<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jun. 1-2</td>
<td>AGI - Government Affairs Program Committee, Alexandria, VA</td>
<td></td>
</tr>
<tr>
<td>Jun. 15</td>
<td>Irish Association for Economic Geology, Dublin, Ireland</td>
<td></td>
</tr>
<tr>
<td>Jun. 19-22</td>
<td>European Federation of Geologists, Latin American Geological Congress &amp; Spanish Geological Congress, Salamanca, Spain</td>
<td></td>
</tr>
<tr>
<td>Jul. 18</td>
<td>AIPG Executive Committee, Avada, CO</td>
<td></td>
</tr>
<tr>
<td>Jul. 26-28</td>
<td>National Conference of State Legislators, Cincinnati, OH</td>
<td></td>
</tr>
<tr>
<td>Jul. 28-31</td>
<td>Tentative Council of Eng. and Scientific Society Executives, Detroit, MI</td>
<td></td>
</tr>
<tr>
<td>Sep. 11</td>
<td>Univ. of Northern Colorado, Greeley, CO</td>
<td></td>
</tr>
<tr>
<td>Sep. 27-30</td>
<td>AIPG Annual Meeting, Lake Tahoe, NV</td>
<td></td>
</tr>
<tr>
<td>Oct. 5</td>
<td>Geoenvironmental Forum, Denver, CO</td>
<td></td>
</tr>
<tr>
<td>Oct. 17</td>
<td>American Institute of Hydrology, Portland, OR</td>
<td></td>
</tr>
<tr>
<td>Oct. 20</td>
<td>Colorado Section, Denver, CO</td>
<td></td>
</tr>
<tr>
<td>Oct. 21-23</td>
<td>Ohio Section and campuses, Cincinnati, Dayton, and Columbus, OH</td>
<td></td>
</tr>
<tr>
<td>Oct. 24-28</td>
<td>Geological Society of America, Cincinnati, OH</td>
<td></td>
</tr>
<tr>
<td>Nov. 13-14</td>
<td>Association of State Boards of Geology, Portland, OR</td>
<td></td>
</tr>
</tbody>
</table>
"Cleanin’ Up Our Mess - Makin’ Mama Proud"

William V. Knight, CPG-0153

In The Professional Geologist for April, President Miller and I presented a discussion of Pipelines, Environment and Geology in which we called attention to a number of opportunities which geologists seem to be missing.

After reading the article, an engineer of long acquaintance shared with me a few more observations and ideas which I found very interesting, if not entirely to my taste. In this and some future columns, I will pass some of them on to you for whatever use you want to put them to. So, in a way, this is a guest column, he being my guest.

This engineer grew up in an oil patch family in Oklahoma and still lives there, though not working in petroleum. Thus, he has the advantage of insider knowledge and insight with outsider perspective.

He observed that many of the basic skills needed in environmental clean-up in the oil field are the same skills that made the mess in the first place. Now, we see geologists, engineers, landmen, drillers, roustabouts, etc., wringing their hands over the demise of the oil industry and the consequent loss of employment. They lament the passage of an industry, trying to delay giving it its last rites with cries for restoration of this or that tax advantage or other favored treatment. Meanwhile, others (whom they view as ‘outsiders’) are finding profitable employment in the environmental clean-up of that same industry. All the while, our oil field friends drive around looking for work with bumper stickers carrying legends like "Oil Field Trash and Proud of It", and "Environmentalists Eat Jobs", etc., etc., etc., ad nauseam.

Why, he asked, don’t these erstwhile oil field workers adapt their skills and compete with the "outsiders" for these environmental jobs? Then, they could change their bumper stickers to things like "Environmentalist and Proud of It", and "Cleanin’ Up Our Mess - Makin’ Mama Proud". He speculated that the employment potential in this may be at least as great as during the average times in the exploration, development, and production phases of the oil business; may even experience a few booms; and should certainly be better than what they have now. He figures this should be recognized as just another phase of the oil industry and treat it as such. I pointed out that some people have done just what he suggests, as witness the popularity of hydrogeology courses, etc. Further, many of the oil companies have set up environmental departments and are hiring geologists to staff them. He recognized this, but also remarked that companies seem to be terminating exploration geologists, on one hand, while hiring environmental geologists, on the other. Would it not be better to retrain, or cross train, these exploration geologists than to hire totally new people? He wondered what the result would be if all these unemployed geologists, engineers, and landmen would work as hard identifying and promoting clean-up projects as they did identifying and promoting drilling and production deals. And, he asked, couldn’t the same thing apply to the mining industry?

As I said, it was an interesting conversation.

In fairness to the oil companies, many actually are doing what my engineer friend suggests. It is reported that several hundred geologists and engineers have been shifted rather than terminated. Some were retrained by their employers, some were not. Some have seen the need for retraining after getting into these new assignments and have gotten it on their own. Others have seen the opportunity and worked to take advantage of it. Too many have not. There has been a definite anti-oil bias among environmental managers, but this is fading as more and more are making the switch and performing well. There also is the problem of thoughtlessness. It just does not occur to some environmental managers that they have capable people right in their own companies; that they really do not have to go outside. But, the thrust of my friend’s discussion was that the geologists (and engineers and landmen) need to take charge of the situation themselves; that they need to "muscle their way in", as one person has put it. So far, they too often have been "muscle out" or upstaged, as they were on the K ern River project described in the April article, "Pipelines, Environment And Geology".

In some future columns, I will pass on some more of my observations and ideas. You may think they are more than a bit "off the wall", but they do give us something to think about from someone who knows us, but can see our problem from a whole different point of view.

Revised Catalog Describes 160 Software Programs

A newly revised catalog of microcomputer software is available free of charge from RockWare, Inc. The catalog lists over 50 new products, for a total of 160 software programs. Products are listed by application, including academic, civil and geotechnical engineering, petroleum, hydrology/ground-water, archaeology, mining, and graphic utilities. Two new products from RockWare are described: ROSE-PC, a rose diagram and histogram plotting package, and MGAP, a geostatistics package for the Mac. Contact RockWare, 4251 Kipling Street, Suite 595, Wheat Ridge, CO 80033 (303) 423-5645, FAX (303) 423-6171.

JUNE 1992 • The Professional Geologist
Executive Committee Meeting Report
January 25, 1992

Frank S. Turek, Advisory Board Delegate to The Executive Committee

The meeting was called to order at 8:00 a.m. at AIPG Headquarters in Arvada, Colorado and all Executive Committee members were present.

The Secretary's Report showed 4,468 Institute members as of 12/21/91. This is a 2 percent membership increase in 1991 as compared to 1990. There was a 27 percent application increase during the same period. Bylaws have been approved for 40 percent of the Sections. The bylaws for Alabama, Arizona, Northeast, Ohio, and Utah were approved and adopted by the Committee at this meeting. Nevada has a conditional approval and the Texas Section Bylaws still needs some work. The remainder of the Sections are operating on the model bylaws because their submittals are past due.

The Treasurer's Report had a focus on the 1992 budget. Using trends from 1991, the Committee voted to adopt a temporary budget reflecting the income developed using 90 percent membership dues payments. In April, the final budget will be adopted based on the actual 1992 dues payments.

The Editor's Report started with a report of the financial savings of 32 percent for the 1991 Membership Directory as compared to 1990. The Professional Geologist has also undergone major revisions. Due to this increase in quality, advertising revenues in 1991 were up 50 percent as compared to 1990. Additional savings and an increase in quality will occur in 1992 due to changing printers.

The report continued with the status of AIPG's publications and discussions of publishing options. This will be subject of additional discussions of publishing options in April. The Executive Committee authorized research to develop a subscription rate for TPG for nonmembers. This will also be discussed in April.

Bill Knight gave the Headquarters Report including an introduction of the staff and discussion of staff duties. The Committee approved a proposal for the issuance of an AIPG Master Card program. The Institute has no obligation or risk but can receive income. Since our stock of insignia items is low, we are pursuing new vendors to develop new items and replenish our stock of existing items. This will be discussed in more detail in April.

The President's Report dealt with the standing and ad hoc committees. The committee duties have been finalized and almost all of the chairs are set.

The Executive Committee then went into executive session to discuss special case applications. When the Committee returned to the regular meeting we shifted to Committee Reports.

- Long Term Goals Committee reported on the 5-year plan for AIPG. Copies were given to Headquarters and will be distributed to the Executive Committee for review.

- Government Affairs Committee reported on several issues but had a focus on real estate appraisals. This Committee is working to ensure the recognition of geologists in mineral and water rights appraisals and to ensure a real estate appraisers license is not required to provide these services.

- Annual Meetings Committee. A report by Ron Zurawski of Tennessee on the Gatlinburg meeting showed 163 people attended including 96 members, 44 spouses, and 23 others. Nevada will waive the registration for 4 Institute guest registrations but proposed National pay for additional guests. This was approved.

Planning is on schedule for the 1993 meeting in Massachusetts and the 1994 meeting in Arizona. Bill Knight reported two sections have expressed interest in hosting the 1995 meeting.
Sewage Sludge Detected on Ocean Floor Topic at Geophysical Meeting

Every year since 1986, 8 million tons of raw sewage have been dumped into the ocean at the Mid-Atlantic Bight, an area 100 miles off the coast of New York and New Jersey. Originally, this location was thought to be a safe dump-site because of its considerable depth and strong ocean currents which would prevent sewage from accumulating on the ocean floor. Recently, several scientists tested that assumption and found evidence for significant amounts of sewage accumulation at the dump-site.

Scientific studies of this dump-site, coordinated by the National Undersea Research Program at NOAA, were presented at the 1992 Ocean Science Meeting of the American Geophysical Union (AGU) in January 1992. The goal of this session was to reveal the extent of sewage sludge accumulation at the Mid-Atlantic Bight and determine the environmental impact that significant accumulations of this material will have on the ocean environment.


Executive Committee Approves Income And Health Insurance Programs

At its April meeting, the Executive Committee of AIPG approved the adoption of a package of insurance to be made available to the Members. The package includes seven different, distinct plans: Term Life, Disability Income, High-Limit Accident, Comprehensive Health Care, Excess Major Medical, In-Hospital Protection, and Cancer Expense Insurance.

Availability of the package is contingent upon AIPG being accepted as a participant in the Trust by the Trust's other members. This is expected shortly. AIPG Members should receive information and applications from the Trust manager, Seabury and Smith, sometime during the next few months.

This is the second step in AIPG's drive to provide a full range of insurance for its Members. It follows the Professional Liability Insurance program, designed especially for geologists by Johnson and Higgins, the program manager, with the help of the AIPG Insurance Committee. This plan has been available to Members since late in 1991.

The Insurance Committee now is turning its attention to development of a Portable Retirement plan for Members. Several proposals have been received and will be reviewed with the goal of having a plan in place before year end. For more information on AIPG's insurance plans, contact Ed Belsky at Johnson & Higgins, 1215 - 4th Avenue, Seattle, WA 98161, (206) 233-2205 phone or (206) 621-1168 FAX.

INTERFAX

MINING IN THE COMMONWEALTH
EXCERPT FROM May 4-11 REPORT
UKRAINIAN LAW ON FOREIGN INVESTMENT

The Ukrainian Parliament has approved a Law on Foreign Investment, which, until the passing of special legislation on underground resources, will govern the influx of foreign capital into the mining industry and the fuel and power complex. Foreign investors have the right to make investments in the following forms:

- share participation in joint enterprises or the acquisition of stock in active companies;
- forming enterprises that belong wholly to the foreign investor, or branches and other sub units of foreign companies or purchasing outright ongoing enterprises;
- acquiring premises or movable property through direct purchasing or through the acquisition of shares, bonds or other securities;
- the independent acquisition of land rights and concessions for the use of natural resources.

*1-800-729-9250

The PETROLEUM IN THE COMMONWEALTH report is available for subscription. Call John Nedecker at (303) 753-9250 (in Colorado), or 1-800-729-9250

June 1992 • The Professional Geologist 19
National Geologic Mapping Act Status

The House Interior Subcommittee on Mining and Natural Resources marked-up H.R. 2763, the National Geologic mapping Act of 1991 on November 7. Chairman Rahall (D-WV), and a sponsor of the bill, offered several technical amendments which were accepted by voice vote. One amendment addressed the educational component of the geologic mapping program [Section 49d (4)(B)] "to provide for broad education in geologic mapping and field analysis through support of field teaching institutes".

Another amendment added a requirement to the Geologic Mapping Program Implementation Plan (Section 6) that the U.S. Geological Survey consider the degree to which geologic mapping activities "can be contracted to professional private mapping firms". Companion legislation, S. 1179, was approved October 30 by the Senate Energy Committee.

Final Congressional Passage of the National Geologic Mapping Act of 1992 (H.R. 2763) took place on April 30, 1992. The bill will be sent to President Bush for his signature in early May.

The bill authorizes a total of $37 million for the national geologic mapping program in fiscal 1993, increasing to $55.5 million in fiscal 1996. The total includes $15 million for matching grants to states in fiscal 1993, increasing to $25 million in fiscal 1996. It also includes $0.5 million for educational support activities in fiscal 1993, increasing to $1.5 million in fiscal 1996. The existing federal geologic mapping program received $21.8 million in appropriations for fiscal 1992.

Two important steps remain to be accomplished in order to implement the legislation. First, the President needs to sign the bill. Second, Congress needs to appropriate the funds authorized by the bill. Efforts to accomplish these objectives are already underway.

The Association of American State Geologists (AASG) has been a leading proponent of the National Geologic Mapping Act for several years. Their efforts are coordinated by Dr. Charles J. Mankin, CPG-1415, State Geologist of Oklahoma. He can be reached at (405) 325-3031. •

Krueger Enterprises, Inc.
Geochron Laboratories Division
Isotopic Analyses for
Geology and Hydrology

- K-Ar age determinations
- 14C age determinations
- 14C analyses by A.M.S.
- Tritium analyses
- Rb-Sr age determinations
- Sr isotope analyses
- Stable Isotope Ratio Analyses (SIRA)
  18O/16O  13C/12C  D/H
  15N/14N  34S/32S
- Full-time professional staff
- Serving the geological community since 1960

Our expert staff is available to advise you in sample collection, and to assist in the interpretation of results. Please contact us for a complete price list and brochure.

24 Blackstone Street
Cambridge, MA 02139
(617) 876-3691
FAX: (617) 661-0148

New Geologic Map of Portland,
Oregon Quadrangle Released

The Oregon Department of Geology and Mineral Industries (DOGAMI) has released a new geologic map of the Portland 7-1/2 minute quadrangle, which includes the central and northern parts of the Portland metropolitan area. The map is intended to serve as an important basic tool for earthquake-hazard mitigation.


The new map is printed on a sheet approximately 27 by 40 inches in size. The geology of the quadrangle is shown with about 20 differentiated bedrock and surficial rock units and their structural relationships, both on the map and on two accompanying cross sections. The structure of the Portland Hills area in the quadrangle is discussed briefly in a special text section.

The new geologic map GMS-75 is now available at the Oregon Department of Geology and Mineral Industries, 910 State Office Building, 1400 SW Fifth Avenue, Portland, Oregon 97201-5528. The price is $7. Orders may be charged to credit cards by mail, FAX, or phone. FAX number is (503) 229-5639. Orders under $50 require prepayment except for credit-card orders. •


October 13-15, 1992. FOCUS Conference on Eastern Region Ground Water Issues, Newton, MA. Contact: NGWA, P.O. Box 182039, Dept. #017, Columbus, OH 43218-2039, Ph.: 614) 761-1711.

October 26-28, 1992. International Conference on Extractive Metallurgy of Gold and Base Metals, Kalgoorlie, WA, Australia. Call for papers. Contact: Dr. V. N. Misra, Conference Chairman, Kalgoorlie Metallurgical Laboratory, P.O. Box 881, Kalgoorlie, WA 6430, Australia, Ph.: (090) 720 120, Fax: (090) 712 762.

November 4-8, 1992. Petroleum Hydrocarbons and Organic Chemicals in Ground Water: Prevention, Detection, and Restoration, Houston, TX. Contact: NGWA, P.O. Box 182039, Dept. #017, Columbus, OH 43218-2039, Ph.: 614) 761-1711.


February 23-26, 1993. International Erosion Control Association, Indianapolis, IN. Call for papers. Contact: Jared S. Fifield, IECA Program Chair, HydroDynamics, Inc., P.O. Box 1327, 18039 E. Plaza Drive, Parker, CO 80134, Ph.: (303) 841-0377, Fax: (303) 841-6396. Abstract deadline: July 1, 1992.


March 30 - April 4, 1993. AusDMM Annual Conference celebrates the Centenary of The Institution, Adelaide, South Australia. Call for papers. Contact: R. K. Johns, C/-Department of Mines and Energy, 191 Greenhill Road, Parkside, South Australia 5063, Ph.: (08) 274-7500, Fax: (08) 272-7597. Abstract deadline: May 1, 1992.

April 17 - 20, 1993. SEGC Conference '93, Integrated Methods In Exploration and Discovery, Denver, CO. Call for papers and posters. Contact: SEGC Conference '93, P.O. Box 571, Golden, CO 80402, USA, J. Alan Coope, Ph.: (303) 892-6594 or (303) 791-7231 or Richard L. Nielsen, Fax: (303) 797-3118.


June 24-25, 1993. ASTM Symposium on Analysis of Soils Contaminated with Petroleum Constituents, Atlanta, GA. Contact: Symposium Chairman Tracey O'Shay, Gordon and Lawton, P.O. Box 80072, Austin, TX 78727-0072, Ph.: (512) 475-2920. Abstract deadline: June 23, 1992.


Kansas Geological Survey
The University of Kansas
Lawrence, Kansas 66047

Anticipate temporary outside funds during 1992. Establishing geoscientist applications pool of geologists, geological engineers, hydrogeologists, geophysicists to conduct original geoscience studies under specific research grants/contract terms. May include field mapping, surfacing mapping and interpretation; petrographic rock studies; oil and gas production and reservoir statistical studies; shallow seismic data acquisition and interpretation. Experience and background as related to specific tasks of individual projects will be criteria for selection for employment. Previous geoscience industrial experience desired. MA/MS or equivalent demonstrated ability to conduct independent research required. Appointment for term of project(s). Salaries competitive and negotiable. Send letter, complete resume, three professional references (names, addresses, telephone numbers) to: Personnel Services, Attn: S. Cox, Kansas Geological Survey, 1930 Constant Avenue, The University of Kansas, Lawrence, Kansas 66047. (913) 864-3965. First screening of applications may occur as early as May/June, 1992. Subsequent screenings will occur as position(s) become available. EO/AA Employer.
Are you qualified by education, professional experience, and standing among your peers?

Why Not Join AIPG?

The Institute welcomes the membership application of those who may meet its high standards for acceptance as Certified Professional Geologists.

AIPG service to its members, and to the public, include certification, education, information, and representation.

If you would like to receive more information please fill out and mail or fax in the form below.

RETURN THIS FORM FOR APPLICATION INFORMATION

NAME__________________________

ORGANIZATION____________________

STREET__________________________

CITY__________________STATE_____

ZIP__________TELEPHONE__________

Please send me information on:

☐ Certification - (degree and minimum of five years of experience).

☐ Candidate for Certification - (degree and less than five years of experience).

☐ Student - (major in geology and minimum of eighteen semester hours of geology course work).

American Institute of Professional Geologists
National Headquarters
7828 Vance Drive, Suite 103
Arvada, CO 80003
(303) 431-0831 • Fax (303) 431-1332

IN MEMORIAL

Mason L. Hill, CPG-0020
1904-1992

Mason L. Hill, CPG-0020, died on March 11, in Whittier, California. He was 88 years old.

As an executive with Richfield Oil Corporation, Hill is credited as being the driving force in assisting in the discovery of Prudhoe Bay, successfully urging his company to acquire a large land position and drill on Alaska's North Slope. Mason is best known for his landmark paper, "Classification of Faults" which appeared in the 1947 AAPG Bulletin. He expanded on the concept in the same journal in 1959 and introduced the terms "right-lateral" and left-lateral" strike slip faults.

Mason received a bachelor's degree from Pomona College and a doctorate from the University of Wisconsin. He was AAPG's 45th president in 1961-62, received Honorary Membership in 1969 and the President's Award in 1973, and was awarded the Powers Medal in 1981.

Mason ended his career in 1969 as Vice President, International Division of Atlantic Richfield Company, later to become ARCO.

AIPG Membership Totals

<table>
<thead>
<tr>
<th></th>
<th>As of 05/30/91</th>
<th>As of 05/22/92</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active</td>
<td>3,725</td>
<td>3,842</td>
</tr>
<tr>
<td>Retired</td>
<td>515</td>
<td>509</td>
</tr>
<tr>
<td>Affiliates</td>
<td>19</td>
<td>39</td>
</tr>
<tr>
<td>TOTALS</td>
<td>4,259</td>
<td>4,390</td>
</tr>
</tbody>
</table>
NEW INSIGNIA ITEMS AVAILABLE

AIPG INSIGNIA ORDER FORM

Late last year we announced the results of our survey on expanding the range of insignia items for sale to Members and non-Members. As a beginning, we are stocking the five leading items in the survey. These are in addition to the Membership certificates, seals and walnut plaques which we continue to make available. Current prices as of May 1, 1992.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Quantity</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>Tee Shirt, Russell, 50% cotton, white with royal blue silk screen AIPG seal.</td>
<td>M, L, XL</td>
<td>$12.50</td>
</tr>
<tr>
<td>E</td>
<td>Sweat Shirt, Russell 9 oz, 50% cotton, royal blue with white silk screen AIPG seal.</td>
<td>M, L, XL</td>
<td>$21.50</td>
</tr>
<tr>
<td>W</td>
<td>Golf Shirt, Outerbanks, 100% cotton, white with royal blue embroidery of AIPG in upper left chest.</td>
<td>M, L, XL</td>
<td>$30.00</td>
</tr>
<tr>
<td>I</td>
<td>Golf Cap, Poplin, sewn eyelets, adjustable leather strap, stay-front liner, traditional green under visor, plastic visor insert, royal blue with white silk screen AIPG seal.</td>
<td></td>
<td>$15.50</td>
</tr>
<tr>
<td>T</td>
<td>Coffee Mug, 12 oz., ironstone, shatterproof, microwaveable, cobalt blue, gold band and AIPG seal.</td>
<td></td>
<td>$10.50</td>
</tr>
<tr>
<td>E</td>
<td>Plaque, walnut, for 8.5&quot; x 11&quot; certificate, with acrylic cover and brass tacks.</td>
<td></td>
<td>$38.00</td>
</tr>
<tr>
<td>M</td>
<td>Deluxe Ballpoint Pen.</td>
<td></td>
<td>$5.95</td>
</tr>
<tr>
<td>S</td>
<td>Gold Lapel Pin/Tie Tack</td>
<td></td>
<td>$17.00</td>
</tr>
<tr>
<td></td>
<td>Certificate</td>
<td></td>
<td>$7.50</td>
</tr>
<tr>
<td></td>
<td>Self-Inking Stamp</td>
<td></td>
<td>$28.00</td>
</tr>
<tr>
<td></td>
<td>Steel Die (left, right, or bottom)</td>
<td></td>
<td>$35.00</td>
</tr>
<tr>
<td></td>
<td>Steel Die (replacement insert)</td>
<td></td>
<td>$28.00</td>
</tr>
</tbody>
</table>

TOTAL AMOUNT $

Order From:
AIPG, 7828 Vance Drive, Suite 103, Arvada, CO 80003
(303) 431-0831 • FAX (303) 431-1332

Checks should be made payable to the American Institute of Professional Geologists.

Prices include shipping and handling. Allow 4-6 weeks for domestic and 6-10 weeks for foreign.

All orders must be accompanied by payment. Visa and Mastercard accepted.

☐ Payment enclosed
☐ Charge to my credit card: ☐ Mastercard ☐ Visa

(All payments in U.S. funds)

Card Number Expiration Date

Signature

Name CPG Number:

Street

City State Zip

Day Phone Number Is this your ☐ home or ☐ office address?