National Geological Mapping Program

Charles J. Mankin, Director, Oklahoma Geological Survey, Norman, Oklahoma

The Association of American State Geologists (AASG), in cooperation with the US Geological Survey, have developed plans for an expanded program in detailed surficial and bedrock geological mapping for the United States. Authorizing legislation has been introduced in the Congress by Senator Bennett Johnston (SB 1179), and companion legislation soon will be introduced in the House.

The Bill authorizes funding for an expanded program in geological mapping by the federal and state geological surveys, and grant funding for colleges and universities to aid in improving training in geological mapping.

In 1988, the NAS/NRC Committee on Geologic Mapping released a report on future geological mapping needs (Mankin et al., 1988). The overwhelming priority identified from the national survey conducted by this committee was for the increased production of detailed geologic maps.

Geological mapping at a scale of about 1:24,000 has been identified by the AASG as the highest priority need of state geological surveys. Almost all other geological activities conducted by state surveys are based upon detailed geological maps. Investigations, such as siting of municipal landfills and hazardous-waste facilities, development of groundwater protection plans, location of utility corridors, identification of mineral resources, and the location and mitigation of natural hazards, all require a detailed knowledge of the surficial and bedrock geology.

In spite of our advanced development in many areas, the United States is the most poorly geologically mapped country in the industrialized world. Information compiled by the AASG demonstrates that less than 20 percent of the Nation is geologically mapped at the scale of the standard topographic quadrangle. Coverages range from 100 percent in Kentucky to zero in Iowa, New York, North Dakota, and West Virginia.

The cover is a geologic map and cross section of a portion of the Arbuckle Mountains along Interstate 35 in southern Oklahoma. The map and cross section were prepared for a guidebook along I-35 through the Arbuckle Mountains (Fay, 1989). The version on the cover is from the Decade of North American Geology Centennial Field Guide Volume 4 (Fay, 1988).

Roeks exposed in this area are mostly formations of the Arbuckle Group overlying a crystalline basement of Middle Cambrian age (Colbert-Rhyolite Porphyry). These rock units are among the most intensely examined strata in the world. They are the best and most complete exposures of a sequence of lower Paleozoic sedimentary rocks that yield significant quantities of oil and gas throughout the Southern Midcontinent region.

For more than 90 years students from the University of Oklahoma have taken class field trips to the Arbuckle Mountains where almost 5,000 geology majors received their first exposure to field geology. In recent years, scores of field trips have been conducted annually by college and university societies, and companies to examine the excellent exposures along I-35.

References Cited


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On Our Cover

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See inside cover for more details.

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 non-professional practices, monitors governmental and other activities affecting the geological sciences, and communicates with the public.

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Position Statement on the "Mineral Exploration And Development Act Of 1991"

Approved by the Executive Committee April 13, 1991

On September 6, 1990, the American Institute of Professional Geologists (AIPG) responded to an invitation to comment on H.R. 3866. At that time, the AIPG commended the author, Representative Nick J. Rahall, II, for his initiative in recommending that mining law procedures be updated. The AIPG did comment, however, that H.R. 3866 contained provisions that would cause significant adverse effects to the welfare of both the Nation and the geological profession. The Institute provided constructive suggestions to be incorporated in any new or modified mining law.

We, as an Institute dedicated and committed to serving both the public and the geologic profession on geologic matters, are responsible for providing to the government and to the public information based on science and logic, not on emotion. Our members are active in all facets of the geological profession, including both environmental and mining. Thus, we are familiar with the problems inherent in seeking to reconcile conflicting concerns. Our position on mineral resources is based on our desire to assist in developing a workable domestic minerals policy. We honestly believe that H.R. 918 will serve to seriously undermine and damage the mining industry of the United States without providing compensating benefits. For this reason, the AIPG cannot support H.R. 918.

The Institute does support the concept that certain portions of the Mining Law of 1872 could be modified to better meet today's societal needs and better utilize today's technology. The AIPG recommends that any changes in the Mining Law be accomplished by modification of the current law and existing regulations through careful and intelligent bipartisan study.

A proposal has been made by the Northwest Mining Association to form a Commission to study the existing laws and procedures related to mining. The AIPG endorses this proposal in the expectation that it will permit an orderly and objective process whereby input from all concerned groups can be obtained, substantial consensus can be reached and informed recommendations can be achieved for both legislation and regulation.

The American Institute of Professional Geologists, in keeping with our mandate to speak out forthrightly and objectively on issues of concern to the geologic profession, stand firm in opposing H.R. 918 as it is now written. We cannot accept, nor will we assist, any effort that, in our judgement, jeopardizes a major component of the economy and security of the United States.

NOTE: This position statement was prepared by the Ad Hoc Committee on Revision to the 1872 Mining Law: Steve Friberg (Chair), Fred Beck, Dick Hahman, Sr., Ernest Lehmann, Susan Landon, and Ted Mullin.

Statement by Ernest K. Lehmann on Behalf of AIPG to the Subcommittee on Mining and Natural Resources

June 20, 1991

The American Institute of Professional Geologists is deeply appreciative of this opportunity to again appear before you on this important issue as we did in September of 1990. The Institute's more than 4500 members are a unique group. Not only are they all highly qualified professional earth scientists but also the members represent the broadest possible geographic and disciplinary cross section of the geological profession. Our members reside in all 50 states, the District of Columbia and 15 foreign countries. They include professionals in federal, state and local government, the academic community, the research sector, and industry. These individuals work in a variety of disciplines including oil and gas, hydrology and hydrogeology, engineering geology, environmental geology, marine geology, coal, and industrial, fertilizer and metallic minerals. I make this point to emphasize that the great majority of our membership does not work directly in the mining industry. Rather, our membership's concerns with the Mining Law should be viewed in the broader context of concerns for the wise use and conservation of our resources. That is, our concern as earth science professionals is with proper multiple use of the nation's land and natural resources, and the strategic minerals position and economic well-being of the nation.

We commend Representative Rahall for his willingness to undertake this enormous task of revising the Mining Law.

In spite of its complexity, most of us in the geologic profession believe the law has served this nation well and played a significant role in this nation becoming the greatest industrial and agricultural power in the world. This achievement was significantly affected by a unique public lands policy, of which the Mining Law was a part, that permitted private enterprise to develop the nation's agricultural, timber and mineral resources. Nevertheless, there is no doubt that the Mining Law can be clarified and improved to better serve the current and future needs of the American people. In this spirit, we presented testimony last year trying to make some constructive comments on Mr. Rahall's predecessor proposal.

However, in our view, the current bill, HR 918, introduces new complexities that give us great pause. These include

In Title I, the level of rentals and development expenditures, the noncumulative nature of these expenditure requirements, aspects of the proposed location and recordation rules, and the proposed provisions for penalties concern us.

Also, Title II concerns us greatly in several aspects. The relationship to existing Land Use Management Plans is not clear. Such plans now include, or should include, consideration of minerals. An effective land use plan should include consideration of all potential land uses, not just mining. We question the justification of a separate, new or redundant planning effort that is specific to mineral development. Further, we believe the proposed legislation does not fully appreciate the geologic factors that make land use planning so difficult with respect to minerals. We favor realistic reclamation requirements, but we question the scope and wording setting out these requirements in the Act. We also, are concerned with many other issues addressed in Title II including the removal of any threshold of acreage to be considered as significant disturbance, and the issues related to penalties and citizen suits.

As for Title III, though we agree with the objective, we have questions about the equities and mechanics proposed.

Title IV raises a number of issues with respect to transitional rules and user fees that need to be resolved.

In summary, as we indicated before, the issue of the Mining Law is highly complex and in some circles (including with some of our own members), it is highly emotional. We believe this Committee has benefited from excellent testimony that discusses the complexities and impacts cited above and does so much more ably than I can. I particularly commend to your study the testimony by Clayton Parr and Patrick Garver on the complex legal issues, by Mr. Landefeld and Mr. Snow of Barranca Resources on the economics of mineral exploration and development, and by AIPG member John Wright on the perspective of the small miner.

THE PROFESSIONAL GEOLOGIST
Because of the complexity of the issues, the American Institute of Professional Geologists has adopted a position that I believe expresses the same views as those of Chairman Miller when he appeared before this committee on June 23, 1987, and I quote: "I would find it refreshing if both industry and the conservation community could sit down together and come up with a list of mutually agreeable changes to modernize the Mining Act." Though there have been efforts by groups such as Public Resource Associates to foster ad hoc working relationships between groups, we echo Congressman Miller’s suggestion and urge that Congress now step in, provide the needed leadership, and create a commission that would strive to thoroughly resolve these complexities and controversies and thereby, reach a workable and much needed consensus. AIPG therefore supports the recommendation of the Northwest Mining Association that Congress create a commission that will expeditiously report back to Congress on a carefully structured and balanced revision of the Mining Law.

Letter to Senator Bingaman

June 11, 1991
Dear Senator Bingaman:

I am writing as President of the American Institute of Professional Geologists (AIPG) to express our concerns with S.433, a bill introduced by Senator Bumpers and others referred to the "Mining Law Reform Act of 1991". The AIPG is composed of 4500 professional geologists with specialties ranging from hydrology, mining, oil and gas exploration to teaching and government service. We recognize that some changes to the 1872 Mining Law are undoubtedly needed and encourage a thorough review and debate on the entire issue of exploration and mining on public lands.

We feel the 1872 Mining Law has yielded a strong and well established body of law which has provided individuals and corporations alike with incentive and protection while at the same time providing our country with an adequate supply of mineral commodities. We are aware, of course, of the concerns voiced by some groups who wish to make extensive changes to, or eliminate, the 1872 law. We are also aware of those who are stridently opposed to any changes. In our judgment these issues have become highly emotional. We feel this setting would not be conducive to developing a balanced approach if now lawmakers are attempting to resolve them.

We strongly support the concept of a full congressional review of the Mining Law such as provided for in S.785 which was introduced by Senator Burns and others establishing a Commission to study the existing laws. We feel that an objective and thorough review of the 1872 law by responsible experts is in the best interests of our diverse membership as well as all citizens dependent on a continuing supply of mineral products.

We recognize that this is a complex issue and stand ready to provide technical assistance to your committee if requested. Thank you for the opportunity to express our position.

Haydn H. Murray
President, AIPG

Letter to Congressman Yates

May 29, 1991
Dear Congressman Yates:

I am writing as President of the American Institute of Professional Geologists (AIPG) to express our opinion on the proposed Mining Claim Holding Fees, currently under consideration for insertion in the 1992 budget for the Department of Interior. The AIPG is an organization with over 4,500 professional geological scientists who apply the science of geology to society's needs for water, raw mineral materials, and oil and gas. Our members are concerned with matters that affect both the welfare of this Nation and of the geological profession. We believe the issue of claims holding fees would have a deleterious effect on both the nation and the profession.

On September 6, 1990, the AIPG presented testimony to the Subcommittee on Mining and Natural Resources, Committee on Interior and Insular Affairs concerning H.R. 3866, Mineral Exploration and Development Act of 1990. At that time, we presented nine positive recommendations for updating the Mining Law of 1872. Three of the nine recommendations pertained to assessment work on mining claims and are quoted below.

"(6) Payment in lieu of assessment work, at the rate of one half that of the required assessment work, should be implemented. This would be allowed after the first year of staking and should not be allowed for more than three out of every five years the claim is held.

(7) All work pertaining to the development of the mineral resources, including reclamation, should count towards the required work assessments. Any excess in one year should be applied towards the following years.

(8) Strong Federal penalties are recommended to prevent false assessment filing."

The AIPG is opposed to the Mining Claim Holding Fees proposal in its present form based on the following points:

(a) In the long run, the Nation benefits more from exploration dollars spent to discover and develop mineral resources than in the limited amount of fees that this proposal would generate for the Federal Treasury. Exploration and development result in increasing production of minerals which in turn provides jobs, pays federal, state, and local taxes and decreases balance of payments deficits. The proposed fees, which would go to the Federal Treasury, would reduce the amount of money available by private enterprise for exploration by an equal amount. This reduction would mainly affect grass roots exploration by smaller companies or individuals who historically make most of the initial discoveries of mineral resources.

(b) Though under certain circumstances AIPG favors a system whereby payments could be made in lieu of assessment work, we do not feel that such payments should be looked upon as a significant revenue generator for the Federal Treasury. In fact, we believe that the effect of the proposed $100 per claim fee would be to cause many claims to be abandoned, especially by smaller, more entrepreneurial operators. We believe that this abandonment will be considerably higher than the 18.75% predicted by the GAO. This proposed fee would thus, at the same time, reduce the likelihood of mineral discovery and result in an increasing concentration of mineral resources in the hands of larger companies while having little positive financial affect on the government.

(c) Unless the legislation clearly states that the fee requirement preempts any state laws respecting assessment work requirements on unpatented mining claims, the operator may well be faced with at least the legal question of whether he is required to both do
work under state law and pay the fee under the proposed Federal law. This will put a double burden on the small operator.

d) The attempt of the proposed fee to address abuses by claimants making false assessment work filings can better be addressed by Federal regulation or reform of the Mining Law as is currently being discussed in several proposals before the House and the Senate.

e) The proposed fee will do little or nothing to address environmental issues related to mining. Such issues are already addressed by several states in their extensive permitting processes as well as by Federal land management agencies under existing rules and by the EPA through its various regulatory programs for water, air, and solid wastes.

In summary, we believe that the proposed Mining Claim Holding Fee is not in best interest of the Nation. We, therefore, recommend that it be stricken from the Interior Budget request. We would be pleased to expand further on this matter should you so request.

Haydn H. Murray
President, AIPG

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**Coal Mine Salaries Outpace Metal and Industrial Mineral Mine Salaries According to Recent Survey**

Technical and managerial personnel at U.S. coal mines earn considerably more than their counterparts at metal and industrial mineral mines according to a recent salary survey by Mining Cost Service. The salary survey was conducted between October 1990 and February 1991, in conjunction with the annual Mining cost Service wage and benefit survey which included 149 U.S. mines this year. The survey results are available in two reports containing salary information for the first time, as well as new wage and incentive bonus plan information.

Salaries at 38 surveyed coal mines averaged about 11% higher than salaries at the 42 surveyed metal mines and about 31% higher than salaries at the 17 industrial mineral mines responding to the survey. For example, the chief engineer at an average industrial mineral mine earns about $48,000 per year, while at an average metal mine a chief engineer earns about $52,000 per year. His or her counterpart at a typical U.S. coal mine earns $61,000 per year. Mine manager salaries showed the same trend, but over a much broader range, with the largest salaries being paid at high tonnage surface coal mines. Mine geologist salaries varied over a smaller range, with the underground coal mines reporting the highest average.

Of 69 coal mines responding to this year's wage survey, 16 reported no change in wages in the 12 months preceding the survey, and 53 reported increases averaging about 2% to 3%. Of 80 surveyed metal and industrial mineral mines, 18 reported no change in wages, while 61 reported increases averaging 4.9% to 5.4%. One metal mine reported a major decrease in wages.

Thirty percent of the coal mines and 46% of the metal and industrial mineral mines had incentive bonus systems in place at the time of the survey. This represents a reversal in the recent trend towards increased utilization of these systems by U.S. mining companies. In 1987, incentive bonus systems were utilized by 20% of the surveyed mines, both coal and non-coal combined. This percentage grew to 23% in 1988 and 42% in 1990, compared to 39% this year.

Full results of the surveys are available in two reports, one covering coal mines and the other metal and industrial mineral mines. Coal Mine Salaries, Wages & Benefits, 1990 - 1991 Survey Results includes salary schedules for technical, managerial, and administrative personnel at 38 coal mines, along with wage and benefit scales at 69 coal mines across the United States. Metal and Industrial Mineral Mine Salaries, Wages & Benefits, 1990 - 1991 Survey Results includes salary schedules for 42 metal and industrial mineral mines, and wage and benefit scales for 80 mines. Both reports contain salary and wage comparisons by type of mine, region, and union vs. non-union status. Descriptions of incentive bonus systems are also included. The reports can be ordered from Mining Cost Service, West 222 Mission Avenue, Suite 218, Spokane, WA 99201, (509)328-8023, (509)328-2028 FAX. Price: $180.00 for each report or $275.00 for both reports.

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For more information contact:

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Survival Techniques
A Consultant’s Guide to the Doldrums

I. S. Parrish, CPG 4612, President - DMBW, Inc.

Introduction

Several years ago I participated in a professional meeting whose theme, Survival Techniques, was directed at a mining industry in recession. I gave a paper, "The Consultant’s Contribution", outlining ways in which the mining consultant can assist the industry.

The current contraction in the mining industry is as severe as any in recent times. Many well-qualified professionals accustomed to regular paychecks, ongoing project assignments, and the support of a rigid corporate or bureaucratic structure find themselves unemployed. A goodly number of these have opted to "hang out their shingle" and try consulting.

It is principally for these neophytes that this article is intended. I shall not presume to advise them on the "how-to's" of consulting when there is work to be done. What the following paragraphs will do is offer suggestions on what to do with the periodic and unavoidable intervals when there are no clients, no commissions, no work to do. For the new consultant this can be a time of great stress. As one who has been consulting for nearly fifteen years, there are a number of ways I have developed to relieve the stress, make use of the "dead" time and tide me over until the next rush of business.

Aims and Objectives

The first and most important concept the starting consultant must grasp is to cope with the "dead" times that business will improve. The doldrums are finite and a challenge is just ahead.

Realizing this, the consultant can take advantage of the time at his disposal. There are many things he can do. For ease of discussion I have grouped these as: Generative, Speculative, Operational, Educational, and Personal.

Generative

By Generative I refer to those activities designed specifically to generate work.

The most productive of these is the telephone contact. When work is sparse, or absent, it is the ideal time to phone your contacts in the industry and determine their present and projected needs for outside assistance. You can also inquire as to the progress of any specific project that you have worked on in the past. If practical, you may wish to extend the contact by arranging for a luncheon date, or arrange to get together at some future professional meeting.

Persons less well-known to you, or whose schedules make them hard to reach, you might approach by mail. Letters to prospective clients should, where feasible, make reference to your past meetings or contacts. Letters to prospective clients with whom you’ve had little or no contact should include data on your own background and strengths. Written contact will produce far fewer immediate projects than telephone or personal contacts, but does serve to keep your name, and availability in front of the client. Do not be embarrassed about repeated written contact. A client may be one of the large bureaucracies once offered this friendly advice. 'Mr. Parrish, see this pile? It is from consultants like yourself. The most recent letter is on top. When I need someone I reach for the pile and look for an appropriate expert. The closer your letter is to the top, the better your chance of selection. This is not a crass or lazy attitude. There are any number of highly qualified consultants. The client, having having located one, or two, or three possibilities will not extend his search "deeper into the pile".

One last form of contact is the door-to-door variety. This is probably the least efficient in terms of producing an immediate commission. It is by far the best for re-establishing acquaintances and cementing relationships. Confirming by phone or letter a particular time for your meeting is preferable to a "cold" call. Appearing unexpected at a client’s office may result in a non-event if your contact is away, or an uncomfortable embarrassment for your contact either in trying to "work" you into his schedule, or "politely" telling you he has no free time.

An extension of the contact scenarios is to offer the client some project ideas such as models or areas for exploration, or properties for acquisition or joint venture. For the initial contact the level of detail may be superficial. Should the client exhibit interest, you can follow up with a full-blown description. Your objective here, of course, is to perform all or part of the exploration program, or in the case of acquisition, to participate in the evaluation, or perhaps to earn a finder's-fee.

Some consultants will carry this project idea practice one step further and actually produce finished products for sale. You will frequently find consultants offering to sell compilations, or volumes, summarizing the geologic potential of say Columbia, or Tanzania, or of some commodity such as barite, or rare earths. Such studies are usually offered in limited number and at fairly steep prices. In this way the consultant uses his "dead" time to compile his notes and produce a study on some area or subject in which he has particular knowledge. Offering it for sale provides not only the possibility of immediate income, but is also Generative in that the general public becomes aware of the consultant’s expertise in said area or subject.

Each of the above Generative pursuits is really a form of advertising - a very personal form. Which brings us to the final Generative suggestion, advertising itself. You can place ads or notices in a plethora of publications, the efficacy of publishing your business card, or of a bit of artwork is a moot point. I believe some advertising is useful, almost mandatory, but for the small or private consultant it is through past clients, contacts, and word of mouth that most of his commissions will be generated. One can use one’s "dead" time to review your advertising program and revise or redirect it as you deem necessary.

A final form of Generative action is to peruse trade and professional journals looking for ads asking for tenders on certain jobs, or news articles inferring that certain studies may be required. Letters or phone calls responding to these leads do, albeit infrequently, lead to paying commissions. In addition to trade journals, the U.S. Commerce Business Daily lists Federal government contracts that are open for bid. Some of the headings frequently contain projects such as sampling, mapping, drilling, etc. in which a consultant might be interested. Completing the forms required by the government as part of your bid will absorb endless quantities of "dead" time.

Speculative

Speculative activities, for the most part, require more time and financial support. They are not aimed directly at creating consulting work, but could lead to that. Under Speculative activity I would include, prospecting, staking claims, or otherwise realizing a land position. Through these measures the consultant crosses the fine line between an expert on-looker to an active player. Many consultants will not cross this line, believing that it tarnishes their image and might affect their reporting. For many others becoming a property owner proves their worth and allows them to "practice what they preach". There is no doubt that using the doldrums to actively apply your expertise in mineral economics and exploration permits you to hone your talents, keep in touch with changing regulations and
markets, and provide some enjoyment (It is assumed that you first went into the mining field because you enjoyed such activities).

Having become an active player, you can now go back to the Generative mode and offer your contacts the opportunity to joint venture, or acquire your properties. If nothing else, your activity will be seen by your clients as a sign of your interest and will shine from him the fact that you had no paying business at the time.

There are other forms of activity not connected to securing mineral rights that I would also classify as Speculative in that they require your personal time, possibly money, and are not generative in themselves. These include preparing and publishing, or giving, a professional paper and active participation in professional societies.

Publishing a paper does several things. First, it occupies some of your "dead" time. Second, like prospecting etc., it allows you the opportunity to practice your profession. As a consultant, writing is an integral part of your life and writing for publication provides the editing and discipline you need to maintain your proficiency. Thirdly, although not directly generative, it is an effective form of advertising by placing your name and area of expertise before the general public. As a result of this your circle of contacts will grow. In the academic field an oft-quoted axiom is "Publish or Perish". Although it may not be as dire for industrial geologists, or engineers, it remains a significant bit of advice.

Should you not wish to expend the effort for a fully fledged paper you might, as some of my acquaintances do, become one of those who writes letters to the editor thereby keeping their own name before their peers.

A final speculative endeavor and one that could take considerable time is to take an active role as an officer, or otherwise, in one of the many professional societies, local or national. The time (and money) spent will repay itself in additional contacts, as a form of advertising, and perhaps even as a lead to a grant or commission. More importantly, you will be doing something that is worthwhile, will have long term benefits to your profession, and will make you feel good about yourself. During the doldrums one needs to feel a sense of participation and accomplishment.

Operational

The Operational area is what my secretary refers to as "busy work". It is also the sort of thing I do when I am procrastinating prior to starting something of greater import or urgency. Operational duties are the ideal means to fill "dead" time and in most instances far out last the amount of "dead" time forced upon us.

Amongst Operational duties, the most universal is filing. Clearing up ones files, both financial and professional, discarding outdated material, combining duplicated data, cross referencing related items, etc. will make work, when times are busy, so much easier.

While going through the files you'll come across items that should be reviewed and possibly revised such as insurance, lease-held equipment, and even the office lease itself. "Dead" time is the perfect time for looking at alternate office space, moving material into storage, watching demonstrations of new office equipment, etc.

Other "busy" work would include meetings with tax accountants, checking your frequent flyer-type accounts, cleaning and servicing vehicles and equipment, or redoing your resume or company brochure. If, like most mining people, you have a collection of rocks, this is the time to number, classify, and organize them.

None of the above is Generative or Speculative. These tasks will not bring in business. They will serve to make your work easier once business begins to flow again and could well make it more profitable. And, they will take time.

Educational

Each of us wishes we had the time to expand our abilities. "Dead" time is the perfect time for such action. One of the priority tasks that could be accomplished is simply to catch-up on all the literature that comes by mail each month. Magazines, newsletters, government reports are often put aside during the busy cycles. "Dead" time affords the opportunity to read those articles you flagged for future reading.

If the doldrums coincide with the schedule for one of the myriad of specialized short courses, you would be well advised to invest in a course on say Valuation, or Remote Sensing and thereby not only improve and expand your skills, but also enlarge your contacts in some particular field.

In truth, professional meetings of any sort I would consider as an Educational use of your time. Meetings could range from Annual National Conventions to weekly club luncheons. Attendance increases your visibility, your contacts, and every so often a paper will be given that enhances your understanding.

You might also take the time to write to the author of a particularly interesting paper (published or given) expressing your appreciation and requesting further data, or additional references.

If the slow period gives sign of being extended, you may wish to embark on a study outside of your own field. Obviously, improving your computer skills would rank high in this regard, especially as many of the professionals who are becoming the new consultants were educated at a time when the closest thing to a computer was a slide rule.

With the current trend towards overseas investment and exploration, learning a second language would be a wise investment of your time and money.

I would suggest you arrange to visit the facilities of your prime subcontractors such as assay offices, drafting groups, copying companies, etc. Learn what these people can do for you that might improve the quality of the service you provide your client. Inspection of facilities at competing subcontractors may lead you to prefer one to another.

Lastly, I would urge you to call upon your contacts to assist you in visiting various mining properties. The more geology, mines, and recovery plants you see the broader will be your background and the more valuable a consultant you will become.

One of the most difficult problems of being a consultant is to keep up with developments in your field. For the consultant there is no company policy that offers you the education opportunity. The expense of education must be borne entirely by yourself. The impetus must also come from yourself. In good times one can put off education by citing the lack of time, but during "dead" periods this apology is invalid. Self-discipline must rule.

Personal

The fifth and last group of choices the bemalmed consultant can occupy himself with are Personal. He can make those medical and dental visits one tends to put off ad infinitum. He can join and use a health club. He can take a vacation, or if he is so inclined, he can work on the home front (and back) painting, repairing, gardening, etc.

Unlike each of the preceding four areas (Generative, Speculative, Operational, and Educational) which are aimed at improving the quality and quantity of your consultancy, attending to Personal items will not enhance your professional life. However, these tasks, and especially the final items, may considerably enhance your domestic life.

Conclusion

The preceding pages have offered a number of ideas for utilizing the days (and sometimes weeks) of inactivity that periodically plague the practicing consultant. The list of ideas is not meant to be complete, but merely to indicate the nature and scope of "dead-time" chores developed by one consultant over the past fifteen years.

And, to the ever increasing number of professionals joining the consulting field - welcome, c'mon in, the water's fine. If you don't know how to swim this is a fine time to learn.*

THE PROFESSIONAL GEOLOGIST
The Professional Geologist
To Have New Format

Attention fellow AIPG Members, The Professional Geologist will continue to arrive for your reading enjoyment each month. However, beginning with the July 1991 issue a new format will appear. TPG will have thematic issues on alternate months.

All monthly issues of TPG will continue with regular columns and sections such as the President’s Message, the Executive Director’s Column, the Members in the News Section, State Net, and the lists of Application’s Received and New Members. But, in addition, thematic issues will focus on guest articles, papers, and news briefs related to the theme topics.

In particular, I hope to capitalize on the knowledge and expertise of the AIPG membership. I need your help! If you would like to submit an article or paper (professional and/or technical) for one of these issues, please do so. Articles/papers/opinion papers should range in length from 400-1600 words. High quality photographs (for reproduction purposes I need slides or negatives), figures, drawings, and tables are welcome. Also, I am looking for high quality color photographs/slides for the TPG cover which reflect the issue themes. All slides/negatives will be returned to the author.

The purpose of the thematic issues is to feature material that is practical in nature and of value and interest to our membership. Therefore, you are invited to submit articles, papers, opinion papers, news briefs to me on the themes in the adjoining column according to the submission deadlines indicated.

Editor

1991-1992
TPG EDITORIAL CALENDAR

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Submit to:
Thomas Z. Jones
AIPG Editor
Office of Vice President for Academic Affairs
Columbus College
Columbus, GA 31993

Northwest Mining Association

Annual Convention

The 97th Annual Convention of the Northwest Mining Association will be held in Spokane, Washington at the Sheraton Hotel on December 4-6, 1991. The theme of the conference, "Mineral Supply - Starts With Policy," has been chosen because the survival of the domestic mining industry is so dependent on the attitudes and actions of government during the balancing of environment policy with the need for materials.

The 1991 pre-convention short course is Explosives Applications for Mining, December 1-3, 1991. The course will cover varied topics as a comprehensive introduction to explosives and their practical effect on blasting results. The course has been specifically designed to benefit those performing blasting operations, managing those operations, or who have a regulatory responsibility for blasting practices.

For more information contact: Northwest Mining Association, 10 N. Post, Ste. 414, Spokane, WA 99201-0772, (509) 624-1156 FAX (509) 623-1241.

GERAGHTY & MILLER, INC.
Environmental Services

Corporate Headquarters:
125 East Bethpage Road
Plainview, NY 11803
516/249-7600 • 1-800-225-8419
Offices Located Nationwide
Larry R. Rhodes

The Executive Committee convened its spring meeting on April 13, 1991, at 8:15 a.m. in Arvada, Colorado. A brief summary of the business conducted follows:

Secretary, Larry R. Rhodes, presented the Model Section Bylaws. Discussion followed regarding the Model Bylaws, and they were approved unanimously by the Committee.

Treasurer, Dale O. Reese, stated that the new budget will be set at this meeting. The audit which is performed each two years at the end of the outgoing Treasurer’s term, indicated that everything was in order.

Larry Anna and Ruth Anna discussed AIPG Annual Meetings. Larry Anna’s report was accepted, and it was requested that he present the next stage of his report by this June.

Editor, Thomas Z. Jones, discussed TPG. Favorable comments have been received on the layout changes initiated by Publications Specialist Wendy J. Davidson. He stated that the comments on the cover change have been excellent. Thematic issues of TPG will be published every other month, with 28 pages and color. Alternate months will have 16-20 pages. Ruth Anna discussed advertising in TPG. She thinks the new look of TPG will attract more advertising.

Executive Director, William V. Knight, discussed the program of accreditation of continuing education. His resolution to accept the forms he presented for the program was approved. A resolution was also approved to expand the National Screening Committee from three to a maximum of seven members. President Murray and Executive Director, Knight will attend the quarterly meeting of the European Federation of Geologists in Stockholm, Sweden. Knight will be on the program.

President, Hayden H. Murray discussed the hearing on the revisions to the 1872 Mining Law. There is a need to follow-up by National and by the Sections on the distribution of membership packets. Only two (2) percent of those handed out are returned. It was suggested that applicants should be helped to start filling out the applications.

Larry Weber, Tennessee Section, General Chairman of the 1991 Annual Meeting, discussed plans for the meeting, which is to be held in Gatlinburg, Tennessee on October 16-19. Larry said fifteen (15) exhibit spaces will be available at $200.00 each. Field trips are planned for Oak Ridge, Tennessee, and the Biltmore Estate in North Carolina. The theme will be "Energy vs. Environment".

Administrative Manager, Carol A. Beckett, discussed staffing needs for the Headquarters office.

Standing Committee reports were given on Continuing Education - Accreditation and Continuing Education - Program Development by Executive Director Knight.

An ad hoc committee report was given on E&O Insurance by Gail Waggone and Mike Bziee. They are to obtain a copy of the actual proposed policy, review it, and report back to the Executive Committee at the July meeting. Other committee reports were also given for Nominations and Honors and Awards.

Treasurer Reese suggested using TPG to solicit sample contracts from members. After an attorney has looked them over, they could then be sold. President Murray formed an ad hoc committee to look into this possibility, with Reese as Chairman.

The meeting was adjourned at 4:31 p.m.*

MEMBERS IN THE NEWS

Konrad J. Banaszak, CPG 3981, has been appointed to the position of Associate by Geragthy & Miller, Inc. In addition to fulfilling his new responsibilities, Dr. Banaszak will continue as Midwestern Regional Discipline Director for the Ground-Water Consulting Division. A hydrogeologist and geochemist with nearly 25 years of experience, Dr. Banaszak has been responsible for a wide variety of projects involving water quality issues, contaminant transport, water rights, water supply development, and expert witness testimony.

Brian C. Martinek, CPG 7640, has been appointed to the position of Associate by Geragthy & Miller, Inc. In addition to fulfilling his new responsibilities, Mr. Martinek will continue as manager of the ground-water consulting division at the firm’s Denver, Colorado office.

William E. Harrison, CPG 3319, has been promoted to Manager of the Geosciences Group in the Science and Technology Department of EG&G Idaho, Inc. EG&G is the prime contractor for the U.S. Department of Energy Idaho Operations Office which operates the Idaho National Engineering Laboratory (INEL). Bill is responsible for programs in geology, geophysics, geochemistry, fluid transport modeling, seismology, hydrology and statistical risk assessment. He was an explorationist with Shell and a Research Director at ARCO prior to joining EG&G in 1989 as Unit Manager.

LETTER TO THE EDITOR

Dear Editor:

It has come to the board’s attention that some members of AIPG are using their membership number and the AIPG seal as a title and seal for geologic reports for clients in California when they are not registered.

When the AIPG Member is a registered geologist in California, the membership title and number and the use of the seal is appropriate if the individual wishes to embellish his report. The major consideration is for the individual to be registered.

An unlicensed geologist consulting in this state using his AIPG title, number and seal probably would be in violation of your code of ethics. When this occurs, I think it is due more to ignorance of the law rather than contempt of the law.

The board is aware of and applauds AIPG’s high professional standards and its code of ethics. AIPG has promoted professional geology throughout the United States. This problem or mistaken oversight of AIPG Members could be corrected if a notice could be placed in your monthly newsletter about licensing requirements and AIPG’s request for its Members to adhere to the code of ethics and comply with the law.

Frank Dellescheit
Executive Officer
State Board of Registration for Geologists and Geophysicists
Consumer Services Agency
State of California
Personal Liability, Professionalism, And Ethics
In Geological Practice - Part 1

David M. Abbott, Jr., CPG 4570, Regional Geologist

Introduction
In this paper I address the liabilities you face as individual geologists practicing your profession. I also suggest how a variety of professional practices coupled with constant consideration of ethical issues can help you avoid or minimize the liabilities you face. While my experience in this field relates to the considerable liabilities for geologists under the securities laws, I will address a broader range of areas. I will begin by focusing on the liabilities—the personal and professional risks—each of you assumes by practicing geology. I do this to get your attention and to demonstrate why practicing your profession in a careful, consistent, professional, and ethical manner is worth the time and effort.

General Character Of The Liabilities
The liabilities faced by the practicing geologist are stipulated by a variety of laws. I won’t attempt to make a list of all the laws; I will simply state that if a project you have worked on doesn’t go as expected, you may be faced with the possibility that some upset party will be looking to sue—an increasingly common event in these days of dramatically increased litigation.

The possible liabilities stemming from geologic practice run a gamut from:

- simply losing out on a promotion or repeat or referral business;
- losing your professional stature;
- being fired from your job or by your clients;
- being enjoined and/or fined in a civil lawsuit; to
- being jailed for a criminal violation for participation in fraud.

Any of these liabilities adversely impacts your bank account. Some do so severely and dramatically and some so subtly that you may not be aware of them immediately.

Regardless of their severity, these liabilities stem from actual or perceived unprofessional or unethical practice. By "perceived," I am including those instances where you did not, in fact, practice unprofessionally or unethically but were perceived to have done so by the party making the allegation. We must to remember here that PERCEPTION IS REALITY regardless of the truth of the matter. Unless you become aware of the perception—and you may not—and you change it, the negative consequences will follow. These consequences may not include the actual imposition of one of legal penalties listed above. They can, however, easily include time and money lost in defending yourself against a charge that is made.

Sources Of Liability
What sorts of events trigger consideration of a lawsuit by an aggrieved party? Simply, something didn’t turn out as planned. Money was lost because of such things as:

- the well was dry or watered out after 6 months;
- the gold grade turned out lower than expected or the wrong bulk density was used;
- the dam whose foundation you engineered broke;
- a drinking water supply was contaminated;
- a house slid down the hill or into a sink hole, or was hit by a falling rock or flood or mud slide; or
- some insider trading occurred.

All of us can easily conceive of all sorts of things that could and sometimes do go wrong. As a final example, consider the U.S. Park Service’s and U.S. Forest Service’s decision to let naturally caused forest fires burn and the results of that policy in Yellowstone National Park during the summer of 1988. The political heat and even scientific debate over an environmental science-based decision has been intense for the responsible personnel in these agencies, including the scientists who recommended the policy.

The point of this gloomy—even frightening—beginning is simply to recognize that we live in an increasingly litigious society. Malpractice suits and damage suits against all types of professionals are proliferating. Malpractice insurance coverage is increasingly difficult and expensive to obtain. And if you don’t have insurance, your house, your bank account, and all your other assets may be on the line.

Avoiding Or Reducing Your Liability
Now let me turn to some things you can do and can avoid doing in order not to experience personally, or at least to minimize, the impact of the foregoing events. I will do this using the AIPG’s Code of Ethics. Rather than going through the whole Code, I am going to use various parts to illustrate examples of appropriate and inappropriate professional and ethical practice. However, if you haven’t read the Code of Ethics recently, I suggest that you do so. And while reading the Code, think about how the principles in it apply to your particular practice.

The results of our professional practice are almost always put into reports of some sort. In this paper I am going to call the geologist’s work product a "report" regardless of form. By "report" I mean any form of written work product, maps, cross sections, photographs, drawings, results of computer programs utilizing data you analyzed, etc. on which you have recorded your observations and interpretations, and any oral reports of your observations and interpretations, again regardless of type.

Section 1 of the Code of Ethics, General Principles, addresses the need to exercise the highest standards of professional responsibility, scientific knowledge, and personal honor. Honesty, integrity, loyalty, fairness, impartiality, candor, fidelity to trust, inviolability of confidence, and honorable conduct are identified as dynamic living principles for guiding professional practice and life in general. These principles seem simple. But careful, honest reflection suggests that they are goals to strive for, goals that are never perfectly attained. The rest of the Code of Ethics addresses specific issues related to these principles. Fundamentally these General Principles are tied not only to the particular actions discussed in the rest of the Code but also to one’s feelings about those actions. Reflect on a particular proposed action, recommendation, whatever. Do you honestly feel comfortable about it? If you do, fine. If not, then your gut is telling you that something must be changed. I know this sounds very unscientific. But I am learning how important it is to stop and reflect on what’s happening and how I’m feeling about it in all aspects of my life, personal and professional. I’m much more comfortable with myself and what I’m doing when I take this time for reflection. And commonly enough, I’ve heard other geologists who are involved with some sort of troubled project mention that something didn’t feel right about the project, the recommendations, the way work was actually done, or the people involved. Pay attention to these feelings.
Sections 2 and 3 of the Code of Ethics address relations of members to the public and to the employer or client. These sections contain more concrete suggestions than those in the General Principles of Section 1.

Subsection 4 of Section 2 provides fundamental guidance for practice. It states:

A member should not give a professional opinion or submit a report without being as thoroughly informed as might be reasonably expected, considering the purpose for which the opinion or report is requested.

Subsections 8 and 10 of Section 3 also contain fundamental admonitions:

8. A member shall engage, or advise an employer or client to engage, and cooperate with, other experts and specialists whenever the employer’s or client’s best interests would be best served by such service.

10. A member shall make an effort to issue professional advice primarily within the member’s expertise. An employer or client shall be notified if any professional advice outside of the member’s expertise is issued.

To me these provisions of the Code of Ethics require the professional and ethical geologist to ascertain not only what he is being asked to do, but also to ascertain the purpose for which the information is being obtained: how the report or opinion will be used. The answers to these questions will suggest the degree of detail required, the amount of money available to do the work, whether the requested work will answer the ultimate questions for which the work is being done, and whether the geologist is competent to perform the work or whether others are actually better qualified for the job or should be employed as part of a team.

Two Examples--determining The Nature Of The Job

Let me give you a personal example. Carleen Achuff, the other Commission geologist, and I are essentially in-house consultants. Our "clients" are the lawyers in the various Commission offices. One recent case involved the question of whether or not a particular property contained gold reserves as claimed by the property’s promoter. The lawyers, who were not familiar with mining geology, asked if we could prove that there was no gold on this property. We explained that to literally do what was asked would require many months and hundreds of thousands of dollars in drilling. Nor was it necessary to do this drilling to establish that the promoter was making misrepresentations. The real question was whether the Commission could show that the promoter had no basis for representing that gold existed in the claimed quantities. This was a much easier and cheaper question to answer. We could take a few samples in the areas the promoter identified as high-grade and, if the assays failed to support the claimed amounts of gold, we would have a basis for proving that the promoter was making fraudulent claims.

Another example illustrates how a professional’s work failed the client through failure to fully ascertain what the requested work was to be used A geologist was hired by a state securities agency to go out and sample a property. All he was told was where the property was located. The geologist took a few scattered samples as instructed. But the money and time spent was wasted. All the samples had to do was claim that the samples had been taken in the wrong place. This is an example of the client not understanding how the job should be done and the geologist failing to ask about the purpose for which his examination was sought.

These two examples illustrate the importance of determining what you are being employed to do and the use to be made of your work. Only if you understand what is really wanted can you determine whether the appropriate type and degree of work are being requested by the client and whether you are capable of doing the work.

Footnotes

1. Regional Geologist, U.S. Securities & Exchange Commission, Denver Regional Office, 410-17th St., Suite 700, Denver, CO 80202. The Securities & Exchange Commission, as a matter of policy, disclaims responsibility for any private publication or statement by any of its employees. The views expressed herein are Mr. Abbott’s and do not necessarily reflect the views of the Commission or of Mr. Abbott’s colleagues on the Commission’s staff.

2. An earlier version of this paper was presented at the AIPG’s Annual Meeting in Tulsa, Oklahoma on September 29, 1988. A samizdat edition of this paper has been in circulation for about 2 years now. This edition differs from the earlier edition only in bringing this footnote and footnote 3 up to date and in the correction of some grammatical and typing errors.

3. In writing this paper (June 1989) I used the Code of Ethics existing in 1988 and published in the 1989 Membership Directory. The Code of Ethics was revised on December 11, 1989. However, I believe that the general ethical concepts addressed in this paper are still valid even the organization and wording of the Code of Ethics have changed.
FROM WASHINGTON

E. G. Newton & Associates, Inc.

Mining Policy Legislation

Senator Conrad Burns (R-MT), with eight western, mainly Republican, colleagues as cosponsors, has introduced a bill that calls for an examination of current federal mining laws and procedures.

The proposed legislation, S.785, the "Minerals Policy Review Commission Act" seeks to establish a commission to examine the legislative and regulatory mandates for management of the public-owned mineral estate. The proposed eleven member commission would be chaired by the Secretary of Interior. In addition to four congressional members, membership would include six mineral experts from the private sector appointed by the President. The commission would be charged to submit a report of recommendations to the Congress by the end of 1993.

The bill, although sweeping in both concept and scope apparently would address only tax exempt, locatable mineral issues. Coal management issues, tax exempt, are specifically excluded from the Act.

S.785 joins several other major "mining reform" bills now being considered in the 102nd Congress.

In the Senate, S.433, was recently introduced by Senator Dale Bumpers (D-AR). This bill, from "the other side of the aisle" is a 1991 version of Senator Bumpers previously proposed legislation to change the General Mining Law into something akin to a hybrid leasing law.

In the House, Representative Nick Joe Rahall (D-WV) has also introduced another "mining reform" bill, H.R. 918. [see FROM WASHINGTON April 1991]. H.R. 918 is considered to be "milder" than the Bumpers bill. The House bill also has a more positive future at this point. one of the bill's cosponsors, Representative George Miller (D-CA), has been named to replace just retired Representative "Mo" Udall (D-AZ) as Chairman of the House Interior Committee where the bill is being considered.

It looks as if "mining law reform" may become one of the biggie geo-issues of the 102nd Congress.

U.S. Enviro-Investment

A recently issued report from the Environmental Protection Agency (EPA) estimates that the U.S. will invest about $150 billion, or 2.5% of its gross national product (GNP), by the year 2000, in order to comply with environmental regulations. The EPA report, ENVIRONMENTAL INVESTMENTS: THE COST OF A CLEAN ENVIRONMENT, states that the U.S. spent $115 billion to address pollution problems in 1990. An amount that is equal to about 40% of the defense budget and represents 2% of the GNP.

These investment projections are based upon actual environmental expenditures in the private sector and by federal agencies over a fifteen year period, 1972-1987. The cost of compliance with new and proposed environmental regulations through the year 2000 was included by EPA in the development of the investment projections. The projections in the report are limited to the investment costs of compliance with pollution control measures. The report does not address costs associated with conservation or other environmental programs.

EPA's own direct expenditure for environmental programs was $5.5 billion in 1990; an amount that represents a small portion of the overall U.S. enviro-investment of $115 billion.

The outstanding costs of environmental compliance are borne, of course, in the U.S. by consumers and private industry.

New NSF Director

Walter F. Massey was recently confirmed by the Senate to become the ninth Director of the National Science Foundation. Dr. Massey is the former Vice President for Research, the University of Chicago and for the Argonne National Laboratory. Dr. Massey is a former member of the National Science Board and a past-president of the American Association for the Advancement of Science. Massey, a physicist, has extensive experience in research, teaching, and administration.

The ANWR-Leasing Hearings Fast, Frantic and Fun

The proposal to lease lands in a portion of the Arctic National Wildlife Refuge (ANWR) for oil and gas exploration now has status in Washington as "fad de jour".

Congressional hearings on the Administration's National Energy Strategy (NES) proposal [FROM WASHINGTON February 91] were held in early Spring. More recently, a series of hearings have begun for the several legislative packages, offered both by the House and by the Senate, that address also the prospect of leasing in ANWR.

These days, congressional hearings are almost too numerous to attend. Some hearings address legislation for leasing; some, for legislation against leasing; and several hearings are for bills offering some imaginative compromises. Regardless of the particular legislative position, each and every ANWR-issue hearing produces much attention and a "cast of thousands".

By now, several legions of ANWR-experts, of all persuasions, have been welcomed at the witness table. Media stars and other notables about. One recent round of witnesses included: a five week old baby, who with its spokes-Mom, endorsed leasing; Sam Malone, the television show CHEERS barkeep [aka Ted Danson]; native American mystics and religious leaders; numerous residents from areas in both the Alaskan and Canadian arctic; the usual assortment of cabinet officials with accompanying staff experts; oil industry reps., and multitudes of scientists. Scientists of all and every stripe, save one--the Geo-community. Apparently, some of those who could contribute the most to an examination of the issues, stuffed off the opportunity to participate.

The hearing sessions also have a permanent population. Hard core ANWRites who follow the issue for various professional reasons. This horde of ANWR-groups is an informal fraternity--bonded together by unceasing, necessary, and restless searches for hearing testimony copy, news tidbits, scarce chairs, and the correct spelling for geo-terminology and witness names.

The issues, however, that surround the prospect for any leasing in ANWR, must be examined by several committees in both the House and the Senate. It will be some time, therefore, before the necessary legislative accommodations and compromises can be worked out.

So just how many years might it take to develop ANWR? At one recent hearing, Representative Gerry Studds (D-MA) guesstimated that production from ANWR oil fields will be available "either during the third Quayle Administration or early in the first term of the Schwarzkoepf Administration."

Feds Directed to Cut Energy Use

The President has signed Executive Order 12759 that commits federal agencies to an across the board reduction of energy consumption by the year 2000.

The order requires reductions in energy use in both buildings and for industrial processes. Agencies that operate large fleets of vehicles will be required to reduce gasoline and diesel fuel consumption 10% by 1995. The order also calls for utilization of alternatively fueled vehicles in the federal sector. The federal procurement system will now require that federal agencies consider
potential energy savings as a factor in the purchase of energy efficient goods and products.

The federal government spends about $4 billion annually on energy consumption in buildings. It is estimated that this will have about $800 million annually by the year 2000 for all federal energy consumption costs.

PAC-Use Curbs Proposed

Representative William Archer (R-TX), the ranking Republican on the House Ways and Means Committee, has introduced legislation that would prevent contributions by Political Action Committees (PACs) from being used in election campaigns for federal office. The bill would also require candidates to raise at least 80% of their campaign funds within their home states.

Rep. Archer, who has never accepted any PAC funds, says that he wants to end the "aura of influence peddling around Congress" and "curb the explosive growth in campaign spending". The legislation is needed, according to Rep. Archer, in order to reduce the influence of special interests in Congress and in the electoral process.

OCS Lease Reacquisition Estimate

The General Accounting Office (GAO) has reported that the federal government would incur a cost of $1 billion dollars to reacquire 123 leases in several OCS areas. The study was undertaken to advise Congress on the costs associated with reacquiring the leases. The study involves the possible buyback of 27 leases off North Carolina, 73 in the Gulf of Mexico, and 23 in the North Aleutian basin, off Alaska.

Industry investment in the leases, according to GAO, has been over $900 million in bonus payments, rentals and interest. About $43 million have been spent in exploration.

Selected Federal Register Notices (04/91)

Federal Energy Regulatory Commission

Notice of proposed rulemaking 18 CFR Part 271 Qualifying certain tight formation gas for tax credit. Contact: Darrell Blakeway (202) 208-0224. 56 FR 13094.

Hydroelectric applications for Construction: Project #7105-055, Scott Co., Iowa & Rock Island Co., Illinois (Contact: Ed Lee (202) 219-2809); Project #11046-000, Albany and Rensselaer Co., New York (Contact: Julie Bernt (202) 219-2814). 56 FR 14262.

Federal Highway Administration


Internal Revenue Service

Nonconventional source fuel credit; inflation adjustment factor and reference price for calendar year 1990. Contact: Thomas Thompson (202) 233-1210 (inflation factor); David McMunn (202) 566-3553 (reference price). 56 FR 13361.

Environmental Protection Agency


Notice Asbestos. Advisory to the Public. Contact: Michael Stahl (202) 554-0551. 56 FR 13472. [Re: asbestos control in schools and other buildings]

Notice of availability Technical support document for water quality-based toxics control; final guidance. Contact: Jackie Romney (202) 475-9528. 56 FR 13827.


Establishment of the Policy Dialogue Committee on Mining. Contact: Stephen Hoffman (703) 308-8413. 56 FR 19538.

Bureau of Reclamation

Criteria for coordinated long-range operation of Colorado River reservoirs. Contact: Bruce Moore (702) 723-7411. 56 FR 14273.

Notice of intent to propose rule. 43 CFR Part 3160 Operator self-inspection of oil and gas production handling facilities and verification of measurements involving all transactions by oil and gas purchasers; amendment of onshore oil and gas order 4-3Site Security. Contact: Sie Ling Chiang (202) 653-2133. 56 FR 15061.

National Oceanic and Atmospheric Administration


Notice of availability summary of injuries to natural resources as a result of the Exxon Valdez oil spill. Contact: Daniel Addison (202) 377-1400. 56 FR 14687.

Corps of Engineers

Proposed rule 33 CFR Part 330 Proposal to amend Nationwide Permit (NWP) Program regulations and issue, reissue, and modify nationwide permits. Contact: Sam Collinston (202) 272-1782. 56 FR 14598.

Department of Agriculture


Department of Transportation


U.S. Forest Service

Notice of revised policy and procedures National Environmental Policy Act (NEPA) and request for comments. Contact: Stephen Stine (202) 447-4708. 56 FR 19718.

Department of Interior

Notice of proposed rulemaking 43 CFR Part 11 Natural resource damage assessments. Contact: Cecil Hoffmann (202) 208-3301. 56 FR 19752.
Register Geologists?

Ronald W. Pritchett, CPG 7063

Sixteen states now require registration of geologists by title or practice. To forecast the trend: there will come a time when you and I will be in violation of state law by holding ourselves out to the public as professional geologists without state sanction - all experience and education aside.

For or Against Registration

For Registration:

- If you can’t beat’em, join’em. Many employed geologists who are not registered now find themselves supervised by professionals who are - for example PEs, CPAs, and LL.Ds. Generally through the last decade we witnessed geologists being displaced by engineers, appraisers, and negotiators, and the trend of management rank is especially true in environmental fields;
- The phrase “Registered Professional Geologist” may carry more credibility than “Certified Professional Geologist” (assuming either is credible);
- A balanced State Board can set quality standards, education and continuing-education standards for geologic work;
- The public would not be subjected to decisions made by registered professionals who have little training in geology;
- A registration system promises to discipline people who would engage in destructive geologic practice;
- Petroleum geologists should register because their work ultimately affects the public; sub-standard geologic practice drives investors away.

Against Registration:

- The practice of geology is a basic right, like freedom of speech. We hold to this belief until the law forces registration or until we no longer make a living at the practice of geology, whichever comes first;
- The term “Registered Professional Geologist” is merely a label and a handy excuse to tax geologists; a title has nothing to do with the quality of work. Any company that has money can buy a registered professional to serve its needs;
- A State Board created under the highest of standards will inevitably become infested with politics, and will be unable to make those decisions that are both constructive and unpopular;
- Registered Professional Engineers know better than to make decisions about the earth without the advice of geologists;
- Few incompetent registered geologists would lose licenses to practice because the cost to prove fraud or willful negligence is so high;
- Petroleum geologists don’t need to be registered because they don’t deal with the public.

THE PROFESSIONAL GEOLOGIST
Executive Director's Column

AIPG & INTERNATIONAL OPPORTUNITIES

William V. Knight

On May 25 and 26 President Murray and I attended the regular meeting of the Council of the European Federation of Geologists in Stockholm, Sweden. We found our Swedish hosts to be most generous and gracious. For those of you who may be interested, and for future reference in planning such events, the host organization paid most of the expenses or arranged for them to be underwritten. In this case, the host organization was the Swedish Association of Scientists/Geology Section. We are very grateful to them for their especially warm hospitality. They did an outstanding job.

We were invited there as guests to observe and to describe to them how the geological profession is organized in the United States, with particular reference to registration and certification. It will be recalled that the European Federation of Geologists sent three representatives to the AIPG meeting in Long Beach last October.

This was a very enlightening meeting for us. All their business is conducted in three official languages, English, French and Spanish. Thus, translation of every conversation is required. This frequently leads to misunderstandings which must be resolved before the meeting can proceed (President Richard Fox displayed monumental patience.) As with our own States, each country has its own special problems, both internal and external. But, they are working to solve them to the end that practice across national boundaries will be as though the boundaries do not exist. We picked up some ideas that might be adaptable to the states.

The countries are represented by professional organizations, rather than State Boards of Geology. It is these organizations that provide the credentials recognition, instead of the national governments, themselves, although the national governments can give official recognition to the organizations within their countries. This is somewhat parallel to the statutory recognition of AIPG by the States of Alaska and Indiana. At the present time, only two countries require geologists to be so "registered". They are Spain and Italy.

The member societies of the Federation represent Belgium/ Luxembourg, Finland, France, Germany, Ireland, Italy, Portugal, Spain, Sweden and the United Kingdom. All but Spain were represented at this meeting. We understand prospective new members to be professional societies in Greece, Holland, Austria/Switzerland, and Norway/Iceland. Further, they are in the process of developing links with the Advisory Board of Directors for Geological Services of Latin America and the Caribbean. More about this below.

The main interest of AIPG in attending this meeting (aside from general interest) was to learn (1) how things are being done in Europe, (2) whether some of their ideas might be useful to us, and (3) what opportunities might be made available to our Members through some sort of correspondent relationship with the Federation or one or more of its member societies. As it turns out, the useful ideas and the potential opportunities are considerable. We were informed as follows:

- It is becoming increasingly necessary to have some international recognition in order to practice our profession. This seems to parallel the apparent trend toward requirements for professional recognition in some of our States.
- The European Parliament has encouraged the Federation to progress toward proprietorship of the Title of "European Geologist". Those individual geologists who the member societies of the Federation find to be qualified may, upon application, be granted the Title of European Geologist.
- The Title will be recognized in all member countries. Thus, a European Geologist will find it easier to practice in any country whose society is a member of the Federation ("Reciprocity").
- This is expected to become operational sometime in 1992.
- The education and experience requirements for certification by AIPG appear to meet or exceed those for qualification as a "European Geologist".
- By special arrangements which we are investigating, AIPG may be able to secure the Title of European Geologist for those of its Members who desire it ("Comity" for AIPG Members to practice in European countries).
- By extension, similar arrangements may be possible in the future with the Latin American countries ("Comity" for AIPG Members to practice in Latin America).

In furtherance of the last point, we have been invited to send representatives to a meeting to be held in conjunction with the III Spanish Geological Conference and the VIII Latin American Geological Conference, convening together in Salamanca, Spain, next June (1992).

The United States is not an island. Nor does it hold the overwhelmingly dominant position that it once held in the world economy. This is particularly true in the development and stewardship of natural resources. Thus, the employment opportunities in geology, especially for our Members, is increasingly global in scope. To properly serve its Members, AIPG must seek to develop and expand its links with similar organizations in other countries. We must make the path for our own Members as smooth as possible as they seek to exploit those employment opportunities which they find beyond our borders.

This meeting in Stockholm, and the one next year in Salamanca, are necessary steps in this process. They represent a small investment with a potentially larger return for our Members, wherever they may find themselves. The interaction between geologists internationally as we work together on professional matters holds great promise, both for our Members and for our colleagues around the world.*

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JUNE 1991
New Publications Released

State of Washington and Department of Natural Resources
Division of Geology and Earth Resources
New Publications Released

The Division of Geology and Earth Resources has released several new bibliographies of geologic information. Five of these were prepared in support of the Growth Management Act; they bring to 23 the number of such county bibliographies. The five counties for which bibliographies have just been made available are listed below (with the size of the disc file in parentheses):

- Benton County (281 k)
- Douglas County (35 k)
- Franklin County (56 k)
- Kittitas County (102 k)
- Walla Walla County (26 k)

Copies of these bibliographies are available either on paper or on disc (IBM-compatible, in WordPerfect 5.0). The paper copies are free on request, but please include $1 with each order for postage and handling. To obtain the disc copies, please note the size of the file(s) desired, and send us enough 5.25-inch formatted discs to hold the file(s). We will copy the file(s) and return the disc(s) to you.

The Division has recently released Open File Report 91-3, Preliminary bibliography and index of the geology and mineral resources of Washington, 1990. This 128-page report covers the 975 journal articles, theses, abstracts, maps and other reports added to the Division library in 1990 and was compiled by Connie J. Manson. The price is $3.71 + 0.29 (tax for Washington residents only) = $4.00.

These publications are available from the Washington Department of Natural Resources, Division of Geology and Earth Resources, Mail Stop PY-12, Olympia, WA 98504.

Call For Papers

Symposium on Durability and Specification Conformance Testing of Rock Used for Erosion Control

Original papers are needed for the Symposium on Durability and Specification Conformance Testing of Rock Used for Erosion Control, sponsored by ASTM Committee D-18 on Soil and Rock. The symposium will be held June 18, 1992, in Louisville, Kentucky in conjunction with the June 14-16, 1992 standards development meeting of Committee D-18.

The symposium will be organized into two sessions: (I) durability testing, evaluation, and improvement control, and (II) quality control and assurance. Papers are solicited for Session I on such subjects as physical and chemical properties related to durability, accelerated weathering tests, specimen preparation, correlation of specimen size to test results, special field studies, and evaluation methods and treatment methods for improving performance. Topics for Session II may include physical measurements, visual comparisons or any other appropriate methods.

Prospective authors are asked to submit a title, a 300-500 word abstract (in English), and the ASTM Paper Submittal Form by July 12, 1991 to Dorothy Savini, Symposium Operations, ASTM, 1916 Race Street, Philadelphia, PA 19103, (215) 299-5413. Paper Submittal Forms are available from Symposia Operations or from the symposium chairman.

Applications Received

(as of May 31, 1991)

Applicants for certification must meet AIPG's standards as set forth in its Bylaws on education, experience and competence, and personal integrity. If any Member 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.

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JUNE 1991