

THE ASSOCIATION OF EXPLORATION GEOCHEMISTS



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Membership List

You will shortly receive a new membership list updated to the end of 1974. Please check the entry of your name and report promptly on the form supplied, to the Secretary any changes. Because of the value of the list in assisting prospective members to locate supporters, it will be further updated during the year, and published as part of the Journal.

Journal

The Journal's editor-in-chief, Eion Cameron, and business manager, John Hansuld are currently negotiating with Elsevier on the terms of a new contract. Dr. Cameron has supplied the following report.

NEWSLETTER NO. 15

December, 1975

I'll take this opportunity to wish all of you a happy, healthy and prosperous 1975 in spite of the rather bleak outlook for the mining industry in several parts of the world.

Association Executive for 1975-76

The Executive group for the coming year will be as follows :-

President	R.W. Boyle
Vice Presidents :	C.F. Gleeson (1974-76) R.F. Horsnail(1975-77)
Secretary :	E.V. Post
Treasurer :	F.N. Ward

These members will take up their offices at the Annual General Meeting which will be held during the C.I.M.M. meeting in Toronto May 4-8th, 1975.

New Council Members

Attached to this newsletter is a ballot for the election of new councillors to replace those whose term of office has expired or who have joined the executive. Instructions for voting and a brief resume for each candidate are given on the ballot sheet.

Annual General Meeting - 1975

The fifth Annual General Meeting of the Association will be held during the C.I.M.M. meeting in Toronto between May 4-8th, 1975. This is somewhat later than usual, but bearing in mind the difficulties of acquiring travel funds there seems no other alternative. It is unfortunate that there is no suitable national meeting in the U.S.A. during April, as I feel it would have been appropriate to hold the A.G.M. in the United States this year.

"Time flies'. We are now midway in preparation of the fourth volume, which is the final one of our initial four-year contract with Elsevier. At this time, as John Hansuld, the business editor, and I renegotiate the agreement, it is appropriate to briefly review progress made and our aims for the future.

A most surprising feature has been the very rapid growth of the number of subscribers to the Journal. At the time it was conceived both we and the publishers thought (optimistically) in terms of 400 or more Association subscriptions, plus, perhaps two or three hundred other subscribers by the end of 1975. In fact, the total number has now exceeded 1000, with 400+ of these being from the Association. Some time ago, at a lower number, the J.G.E. was near the top of the list of Elsevier's earth science journals. With this further increase our Journal can now claim, in terms of subscriptions at least, to being one of the major international publications in the earth sciences.

This has two important consequences. Firstly, authors can be assured that their works are reaching a wide international audience. This, in turn, will allow the editorial board to select from the best papers available in the field. Secondly, the broad subscription base should help to lower the cost of A.E.G. subscriptions. In the initial agreement signed with Elsevier, the Association received a small share of the total subscription monies, once the number of subscriptions exceeds 1000. It is probable that Council will allocate these funds to reducing the subscription costs of each A.E.G. member.

The publishing industry has not escaped the ravages of inflation. Compounding this, in our case, has been the substantial decline in the dollar, relative to Dutch currency. Together, they make a price rise inevitable during the next period of the agreement, even on the basis of the present 400-page volume.

We are also discussing with the publishers a possible expansion to 600 pages per year. The present flow of manuscripts assures the annual 400-page length with a reasonable rejection rate. Expansion to 600 pages will allow a modest increase in the number of papers published, plus one "theme" issue per year. By "theme" publication we mean a case history issue such as that edited by Peter Bradshaw (to be published early in the New Year) or one devoted to a particular topic or area. We believe that such issues are appreciated by the readers. It should be emphasized that Council believes that any such expansion depends on the price being right. Since the publishers also wish expansion, we believe that they may make an attractive offer.

In terms of editorial policy, the objective of the first four-year term was to establish a viable and financially stable publication. The succeeding term will clearly be one of consolidation. But, hopefully, new features will be added that make it more useful and interesting to the readers. Please remember that this is your Journal. The editorial board and Council will be delighted to have your comments, criticism or suggestions."

BIBLIOGRAPHY COMMITTEE - H.E. Hawkes, Chairman

Herb Hawkes has supplied the following annual report for his bibliography committee.

"The 1973 Supplement to the A.E.G. Bibliography of Geochemical Exploration appeared in the Journal of Geochemical Exploration v.3 no.1 p.88-128, 1974. This Supplement consisted of 495 citations, of which 54 were Canadian, 90 American, 46 British and 207 Russian. The dominant languages were English and Russian.

Entries for the 1974 Supplement will close on December 1, the manuscript (hopefully) will be in Amsterdam on December 15, and will appear in v.4 no.2 of the Journal. It will differ from previous editions in that electrochemical prospecting will be included.

Plans are under way for a cumulative bibliography of geochemical exploration covering the period 1960 to 1975, to be ready for release at the 1976 Symposium in Sydney. If this plan materializes, there will be no 1975 Supplement in the Journal.

As always, contributions, corrections, criticisms and compliments are earnestly solicited; they may be submitted to any member of the Committee.

Membership in the 1974 Bibliography Committee consisted of:

Bjorn Bolviken (Europe and Electrochemistry)
Dan Boyle (United Kingdom)
Frank Canney (United States)
Graham Closs (Distribution)
Peter Donovan (Australia)
Chris Gleeson (Canada)
Herb Hawkes (Chairman)

CONSTITUTION COMMITTEE - J.A. Coope, Chairman

One of the last contributions of this committee before it was dissolved was the preparation of a report on professional practice and qualifications for the exploration geochemist. A copy of this report is attached. The recognition of exploration geochemistry as requiring specific training and experience, and as carrying a degree of public responsibility was the principal force behind the formation of the Association. Since 1970 significant changes in attitudes have taken place.

In universities exploration geochemistry is increasingly recognized as a legitimate subject for teaching, and research. (See R.H. Carpenter's this newsletter). As was foreshadowed when the committee began its study there has been an increasing trend in demands for certification of professionals. It was on the basis that active exploration geochemists (rather than some government mandarin) are best able to define their own standards of qualification and practice that this report was prepared.

RESEARCH AND EDUCATION COMMITTEE - R.H. Carpenter, Chairman

Attached is a report by Bob Carpenter on the status of exploration geochemistry in U.S. and Canadian universities. It is most gratifying to see the increase in opportunity for undergraduates and post graduates to receive training in exploration geochemistry. This wider educational exposure can only lead to a better appreciation of the value of geochemistry in an integrated exploration programme, and hopefully, to a rise in technical and professional standards in its application.

Dr. Carpenter would appreciate hearing of changes, omissions or errors in the table presented with the report.

TECHNICAL MEETINGS

Notices giving further details of the 6th International Geochemical Exploration Symposium and the Second Meeting on Prospecting in areas of glacial terrain are included with this newsletter.

The forthcoming New York AIME meeting will include two interesting sessions on Applied Geochemistry. Under the chairmanship of R.S. Good and D.F. Denison these will be, "Geochemical Exploration for Porphyry Copper Deposits:", and "Geochemical Developments in Eastern North America and Canada" on the mornings of February 19th and 20th respectively.

ASSOCIATION SUBSCRIPTIONS

Annual subscriptions are due on January 1st. Please use the attached form to remit your dues if you have not already paid them.



I.L. Elliott,
President

Encls.

[END]

STATUS OF EXPLORATION GEOCHEMISTRY

IN

U.S. AND CANADIAN UNIVERSITIES

R.H. Carpenter, University of Georgia, Athens, Georgia 30602

INTRODUCTION

This report summarizes a questionnaire which solicited information on the status of education and research in exploration geochemistry in U.S. and Canadian Universities. The questionnaire was distributed during the Fall, 1973, to Geoscience Departments listed in the AGI Geoscience Directory which offer a M.S. or Ph.D. degree. One hundred and eighty-one questionnaires were distributed with 85 Departments responding (47%). Most of the questions were identical to those contained in a previous questionnaire survey conducted by Hal Bloom in 1971 in which 66 Geoscience Departments in the U.S. and Canada responded. By comparing results from the same questions over the two to three year time-gap between the surveys, it was hoped that any trends in the adoption of applied geochemistry in U.S. and Canadian Universities could be ascertained. In addition, the present survey attempted to solicit specific information on educational and research programs in Geoscience Departments with active programs in this field. A table summarizing course offerings in applied or exploration geochemistry in U.S. and Canadian Universities is included in Table 1. In future reports, summaries of programs of individual Geoscience Departments will be submitted by the Research and Education Committee.

RESULTS

The questions asked and the results compared with those of the Bloom survey are as follows:

(1) Do you offer any courses in geochemical exploration?

Bloom 40 yes Present Survey 27 yes

Although it might appear that course offerings are declining, this is probably not the case. In the present survey, about 40 respondents marked yes but commented that exploration or applied geochemistry was actually included in a broader course such as economic geology, exploration for mineral deposits, or general geochemistry. Table 1 attempts to differentiate between those Departments that offer regularly scheduled courses exclusively devoted to exploration or applied geochemistry and those which cover the subject in either broader courses or as special topics courses.

(2) Do you offer a degree in Geochemical Exploration?

Bloom 0 yes Present Survey 0 yes

In Bloom's International Survey, separate degrees in geochemical exploration were offered in certain Universities in Finland, South Africa, and New Zealand. In U.S. and Canadian Universities, there are no apparent trends to specialize the Geoscience programs to the extent that a special degree is conferred in geochemical exploration.

(3) Are research programs that involve applied geochemistry acceptable in the graduate program as thesis material?

Bloom 37 yes 29no Present Survey 73 yes 1 no

(19 declined to answer)

The difference in response between the two surveys is somewhat surprising considering the similar responses to most other questions. It suggests that the general impression that applied or exploration geochemistry lacked "sophistication" has been dispelled in many Universities. If so, this may be due to the many recent publications which have appeared in a variety of Journals. Perhaps the utility of the literature developed in exploration geochemistry to environmental geochemists has contributed to greater acceptance of the discipline. Another possibility is a growing appreciation of the effectiveness of geochemistry in the discovery of critical raw materials, and a

corresponding awareness of the basic responsibility of geology Departments to train students to function in the "real world".

(3b) Please state how many such theses have been completed during the past five years?

Responding Geoscience Departments reported that 163 such theses have been completed in the last five years. This reflects substantial research activity at a number of Universities at the M.S. and Ph.D. level. Although there is no basis for comparison, it would appear that much more thesis research is being devoted to applied or exploration geochemistry than was the case five years ago.

(4) Are members of your teaching staff engaged in geochemical prospecting programs with companies during the summer?

Bloom 42 yes Present Survey 46 yes

The number of Departments whose staff have been involved directly in geochemical exploration has not changed appreciably since the Bloom Survey.

(5) Does your Department receive financial support from oil or mining companies for research in Geochemical Prospecting?

Bloom 20 yes Present Survey 20 yes

There apparently has been no significant change in the level of company support of research in exploration geochemistry in the past two to three years.

(6) Do your students find work in geochemical prospecting programs with companies during the summer?

Bloom 47 yes Present Survey 54 yes

The difference is not large, but suggests a nominal increase in the number of Departments whose students find summer employment in exploration geochemistry.

(7) Do you anticipate an increase in course offerings in applied geochemistry during the next five years?

Bloom 22 yes 38 no Present Survey
14 yes 31 no
17 maybe

The decrease in the number of respondents answering yes suggests some tapering off in the increase of course offerings in applied geochemistry. However, in the present survey, 31 out of 62 Departments (50% of those responding) indicate a possibility of increasing course offerings in applied geochemistry in the next five years.

The present status of course offerings in U.S. and Canadian Universities as summarized from the questionnaires is included in Table 1. Because some Departments did not provide all of the information requested, there are some gaps in the Table. Twenty-three Departments offer courses in applied or exploration geochemistry, 15 in the U.S. and eight in Canada. Three other Departments indicated that a course was offered, but did not provide any information. Nine other Departments cited in Table 1 offer instruction in applied geochemistry in conjunction with other courses, or as special topics courses.

CONCLUSIONS

In a Review Article published in Mining Engineering in 1968, Wayne Cavender presented the following conclusions on university involvement in instruction of exploration geochemistry.

"At present, most personnel training is done by geochemical departments in government organizations and industry groups. Most schools in the United States and Canada do not offer geochemical training, particularly at graduate levels, due to faculty limitations, lack of budgetary support, and the erroneous impression that applied geochemistry is not sufficiently academic. As a result, some companies have found it expedient to send selected personnel to European schools for advanced training. A critical personnel shortage now exists and will probably continue into the near future."

The Bloom Survey (1971) and the present survey reveal rather dramatically the significant increase in the role of applied geochemistry in U.S. and Canadian universities in the past five to seven years. Probably less than eight Departments offered courses in applied geochemistry in 1967 compared to 23 departments included in Table 1. Differences in response between the Bloom survey and the present survey indicate some levelling-off during the past two to three years. However, widespread acceptance of applied and exploration geochemistry as a contributing subdiscipline of the Geosciences is apparent.

Table 1. Courses in Applied or Exploration Geochemistry offered in U.S. and Canadian Universities

<u>University</u>	<u>Course Title</u>	<u>Course No.</u>	<u>Credit</u>	<u>Sem/Qtr</u>	<u>Level</u>
Univ. of Alaska	Geophysical and Geochemical Expl	Min 405	3 hrs	-	undergrad
Univ. of Arizona	?	Geosc 259	3 hrs	-	grad/undergrad
Colorado School of Mines	Geochemical Exploration	GC 411	2 or 3 hrs	sem	undergrad
Colorado School of Mines	Geochemical Exploration	GC 412	2 or 3 hrs	sem	undergrad
Colorado School of Mines	Geochemical Exploration	GC 671	2 or 3 hrs	sem	grad
George Washington Univ.	Geochemical Prospecting	Geology 243	3 hrs	-	grad
Univ. of Georgia	Applied Geochemistry	Gly 802	5 hrs	qtr	grad
Univ. of Idaho	Geochemical Exploration	Geol 485	-	-	undergrad
Univ. of Kentucky	Mineral Exploration	-	1 hr	-	grad
Michigan Technological Univ.	Applied Geochemistry	-	4 hrs	-	undergrad
Univ. of Missouri, Rolla	Applied Geochemistry	-	3 hrs	-	grad/undergrad
Univ. of Montana	Geochemical Prospecting	-	-	-	grad
Univ. of New Mexico	Inst. Methods in Geochem.	-	4 hrs	sem	grad
New Mexico Inst. Tech.	-	Geochem 556	3 hrs	-	grad
Pennsylvania State Univ.	Geochemical Exploration	Geochem 457	3 hrs	sem	grad/undergrad
University of Tennessee	Geochemical Prospecting	-	3 hrs	qtr	grad
Univ. of Wisconsin, Milwaukee	Geochemical Exploration	-	-	-	grad/undergrad
Univ. of Acadia	Applied Geochemistry	-	-	sem	grad
Univ. of New Brunswick	Applied Geochemistry	6601	½ course	-	grad
Univ. of New Brunswick	Applied Geochemistry	6602	½ course	-	grad
Carleton Univ.	Exploration Geochemistry	Gly 67-483	6 hrs	-	undergrad
Laurentian Univ.	Exploration Geochemistry	(Course in preparation)	-	-	undergrad
Laval Univ.	Applied Geochemistry	-	-	sem	undergrad
Laval Univ.	Mercury in the Environment	-	-	sem	grad
Laval Univ.	Studies in Applied Geochemistry	-	-	sem	grad
Memorial Univ. of Newfoundland	Introductory Geochemistry	-	-	-	-
Memorial Univ. of Newfoundland	Advanced Geochemistry	-	-	-	-
Univ. of Montreal, Ecole Polytechnique	Geochemical Prospecting	7.593	-	sem	undergrad
	Geochem of Ores and Assoc. Rocks	7.619	-	sem	grad
Queens University	Exploration Geochemistry	Gly 439	½ course	-	undergrad
Queens University	Exploration Geochemistry	Gly 852	full course	-	grad

Exploration or applied geochemistry is taught in conjunction with other geochemistry or economic geology courses at the following universities: Univ. of British Columbia; Univ. of Colorado; Colorado State Univ.; Univ. of Delaware; Univ. of Idaho (Advanced Mineral Deposits); Univ. of Illinois; Univ. of Maine (Ore Deposits Exploration); Univ. of Manitoba (Metalliferous Exploration and Industrial Minerals); Pennsylvania State University (Aqueous Geochemistry, Element Distribution, and Instrumental Analytical Methods).

Exploration or applied geochemistry is taught occasionally as a special topics course at the following universities: Boise State College; Brigham Young University; University of Idaho.

[END]

THE PROFESSIONAL EXPLORATION GEOCHEMIST

At the Council Meeting of the Association of Exploration Geochemists held in Vancouver on March 31, 1974 the Council accepted and approved a definition of the Professional Exploration Geochemist prepared by the Constitution Committee of the Association.

The formulation of this definition was prompted by the actions of local governments in the U.S.A., Canada, Australia and elsewhere to push through legislation requiring geologists and other geoscientists, active in

mineral exploration, to be registered by the local authorities before being able to practice in specific areas of jurisdiction. Such legislation was in answer to public pressure on anti-pollution and ecological matters and so affected not only the mining industry but employees in other industries as well.

Within the AEG, it was argued that a non-cooperative or indifferent attitude on the part of geochemists was not advisable in such situations because legislation would then be drafted and passed without consultation with those concerned. The net result is likely to be unacceptable to the professional, ineffective as a guarantee of quality work and performance and an unwarranted hindrance to exploration activity and development.

Since the AEG is concerned with the future of exploration geochemistry and the status of exploration geochemist, the Constitution Committee was asked to draft satisfactory qualifications of the Professional Exploration Geochemist that would be widely acceptable both to the legislators and the exploration geochemical and geological fraternities in all parts of the world.

The accompanying definition has been drafted following consultation in the Constitution Committee and in Council over the past 2 years. The draft was completed after an exhaustive study of legislation proposed and in effect in North America. As noted above, the draft was approved by Council in Vancouver and the definition is being made available to the membership through this Newsletter. The definition will be used by the Association as a reference in presenting the exploration geochemist's case to any regulatory body in any part of the world. It is also being made available to members of the Association who, individually, may be arguing their case with a regulatory body. In this way, it is designed to standardize qualifications of the Professional Exploration Geochemist worldwide - a prime requisite for the universal acceptance of the exploration geochemist as a professional.

It must be understood that the accompanying definition is a reference only and describes a standard which has the backing and approval of the Asso-

ciation of Exploration Geochemists. The AEG has no regulatory or licensing power and legislators have the prerogative of accepting the AEG's recommendations or refusing them. Since the accompanying definition has been worded to include similar phraseology, qualifications and experience contained in legislation controlling geologists which is either pending or in effect, it is likely that the definition will be favourably received by law-makers.

The members are urged to make full use of the accompanying definition of the Professional Exploration Geochemist in order to standardize an acceptable measure of qualification.

The Council of the Association of Exploration Geochemists has also accepted the Constitution Committee's recommendations that the AEG be prepared to assist regulatory bodies qualifying Professional Exploration Geochemists in the following manner:

- (a) Offer to act on behalf of regulatory bodies as an arbiter regarding a particular candidate's professional stature.
- (b) Assist in the formulation of a curriculum on which an examination on "principles and practice of applied geochemistry" might be based.

This definition of the Professional Exploration Geochemist will not be included in the Constitution of the Association but will form part of the records of the AEG. The adoption of the Professional Exploration Geochemist definition will in no way affect the present organization of the Association and the constitutional requirements for admission of members.

If a member of the Association wishes to have his qualifications and experience examined by Council to determine if he satisfies the requirements of Professional Exploration Geochemist he may voluntarily request

such an examination by contacting the Secretary. The requirements for qualification as a Professional Exploration Geochemist state that the candidate should be favourably endorsed by three (3) referees who themselves qualify as Professional Exploration Geochemists. It is appreciated that this requirement cannot be fully enforced until a representative group of Professional Exploration Geochemists have been named. Until then, Council will accept as referees competent geologists and geochemists or other geoscientists who are active in fields involving exploration geochemistry and satisfy all other qualifications required.

It is emphasized, however, that the AEG has no licensing power and the decision of the AEG is in no way obligatory on other organizations unless the judgment of the Council has been officially recognized by these organizations.

To qualify as a PROFESSIONAL EXPLORATION GEOCHEMIST a person should:

- [A]
- (i) Produce evidence to the satisfaction of the Council that he has, at some time, successfully passed through a course of study, and obtained a degree, in pure or applied geological science at a University or School of Mining recognized by the Council.
 - (ii) Have been actively engaged, for at least five additional years, in practicing or teaching geology or geochemistry, of which four years must have involved work of a responsible nature, calling for independent judgement:
 - (a) in charge of and actively directing geochemical exploration programs, or
 - (b) as a consultant or advisor on geochemical exploration programs, or
 - (c) as a teacher holding an important academic position, supervising postgraduate students in exploration geochemistry.
 - (iii) Be actively practicing his profession and shall satisfy the Council that he is a fit and proper person to become a Professional Exploration Geochemist.

Supervised postgraduate studies leading to a M.Sc. degree in exploration geochemistry, mineral exploration or economic geology at a recognized University or School of Mining may be considered as geological or geochemical practice up to a maximum of one year.

Supervised postgraduate studies leading to a Ph.D. degree in exploration geochemistry, mineral exploration or economic geology at a recognized University or School of Mining may be considered as geological or geochemical practice up to a maximum of two years.

Graduates of recognized Universities or Schools of Mining in sciences other than the geological sciences who through involvement and experience in the field of exploration geochemistry meet the requirements of paragraphs (ii) and (iii) above may, following approval by Council, be judged professionally qualified without satisfying the academic qualifications outlined in paragraph (i).

[B]

In order to be recognized, the candidate should be favourably endorsed by a minimum of three referees who have personal knowledge of the candidate and his work and who, themselves, satisfy the qualifications set out in [A] above.

SIXTH INTERNATIONAL GEOCHEMICAL EXPLORATION SYMPOSIUM, 1976

The Sixth International Geochemical Exploration Symposium will be held in conjunction with the 25th International Geological Congress in Sydney, Australia, 16-25th August, 1976. The Sixth Symposium will last 3 full days, probably in the first week of the Congress. All technical sessions of the Sixth Symposium, which will include part of Congress Section 10, are being organized by the Association of Exploration Geochemists, who will also be arranging some separate social functions for members.

Because of the identification of the Symposium with the International Geological Congress, attendance will be limited to Congress registrants only. Thus, intending participants should follow the registration procedures issued by the Congress Organizing Committee, who are responsible for arranging accommodation, social functions and a range of field excursions throughout Australia. All A.E.G. members will be receiving copies of the Second Circular of the I.G.C., to be issued in January 1975. In addition, members will be kept informed periodically about arrangements for the symposium via newsletters. In the meantime, information about the Congress can be obtained from the Secretary General, 25th I.G.C., P.O. Box 1892, Canberra City, A.C.T. 2601, Australia. Enquiries about the Sixth International Geochemical Exploration Symposium should be directed to:-

Dr. C.R.M. Butt, Division of Mineralogy, CSIRO, Private Bag, P.O., Wembley, Western Australia. 6014

or Dr. P.R. Donovan, 6A David Street, Clifton Gardens, N.S.W. 2088, Australia.

FIFTH INTERNATIONAL GEOCHEMICAL EXPLORATION SYMPOSIUM

Proceedings of the Fifth Symposium, held at Vancouver in April 1974, will be available in March 1975. The cost of this volume is \$32 but AEG members are entitled to a special price of \$25 for up to one year following publication. Copies may be ordered through the Association Secretary

or directly from the publishers:

Elsevier Scientific Publishing Company
Attention: Dr. F. van Eysinga
Box 211
AMSTERDAM
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THE INSTITUTION OF
MINING AND
METALLURGY

FOR PUBLICATION OR DISPLAY

RELEASE - IMMEDIATE

9 August, 1974

PROSPECTING IN AREAS OF GLACIATED TERRAIN

Following the successful meeting held in Trondheim, Norway, in 1973 (Prospecting in areas of glacial terrain; London: IMM, 1973), the Institution of Mining and Metallurgy will hold a two-day meeting on the topic "Prospecting in areas of glaciated terrain" in Edinburgh in September, 1975. The two-day meeting will be followed by short field excursions.

Members and non-members are invited to contribute papers dealing with exploration for metalliferous minerals in regions affected by glaciation. Case histories of recent prospecting based on geophysical and geochemical techniques and evaluation studies of the effectiveness of different techniques will be particularly welcome. Intending authors should submit abstracts of their proposed contributions (200 - 300 words) to the Editor by 1 December, 1974. Papers selected by the Organizing Committee for publication will be required by the Editor in final form before 1 May, 1975, and published in a special volume prior to the meeting.

Full details of the meeting and excursions will be given in the circular/registration form; requests for further information should be made to the Editor, The Institution of Mining and Metallurgy, 44 Portland Place, London W1N 4BR.

AEG COUNCIL ELECTIONS

The terms of office of five of our Councillors expire at the next AGM and, accordingly, an election must be held to fill these vacancies. The new Councillors will serve for two years from 1975 to 1977.

Council elections are important in that they provide a means whereby the Membership at large can significantly influence the policies and actions of the Association. A periodic infusion of "new blood" to the Council will prevent our becoming dominated by a self-perpetuating and, possibly, inward-looking clique.

In past elections the proportion of Voting Members who actually cast ballots was disappointingly small (approximately 25%). This year we have, in my opinion at least, a particularly fine list of candidates and I urge all members eligible to do so to exercise their right to vote. Biographical sketches of the candidates are given below and a ballot form is attached - please return the latter, preferably in a sealed envelope marked AEG election, to me at the following address:

R.F. Horsnail
AEG Secretary
AMAX Exploration Inc.
4704 Harlan Street
DENVER, Colo 80212 U.S.A.

R.H. CARPENTER Bob Carpenter was born in 1937 in Chattanooga, Tennessee; he holds a PhD in Geology from the University of Wisconsin and is currently a Professor of Geology at the University of Georgia. Bob has an impressive publication record and has made several solid contributions to AEG affairs.

M.A. CHAFFEE Maurice Chaffee was born in 1937 in Wilkes-Barre Pennsylvania and holds a PhD from the University of Arizona. Since 1967 Maurice has been with the USGS Branch of Exploration Research and his work in the porphyry copper districts of the Southwest has been particularly noteworthy.

J.A. COOPE Alan Coope was born in Derbyshire, England in 1935. He holds a PhD in Applied Geochemistry from the Royal School of Mines; his industrial experience covers half the world and he is currently Chief Geochemist and Eastern Division Manager for Newmont Mining Corporation of Canada. Alan was almost single-handedly responsible for the inception of the AEG and was its first President.

W.K. FLETCHER "K" Fletcher was born in 1943 in Bolton, England and graduated from the Royal School of Mines with a PhD in Applied Geochemistry in 1968. Since that time he has worked at the University of British Columbia where he is now energetically carrying on the torch first lit by H.V. Warren.

G.J.S. GOVETT Gerry Govett was born in 1937 in Glamorgan, Wales and holds a PhD in Applied Geochemistry from the Royal School of Mines; he is currently a Professor at the University of New Brunswick. Gerry is an extremely stimulating personality and an original thinker.

H.E. HAWKES As one of the true Elder Statesmen of the geochemical world Herb Hawkes needs little, if any, introduction to AEG members. Herb was born in New York in 1912 and holds a PhD from MIT. His contributions to geochemistry are outstanding and too numerous to list.

L.D. JAMES Lloyd James was born in London in 1932 and graduated from the Royal School of Mines with a PhD in Applied Geochemistry in 1965; he is currently Chief Geochemist for ASARCO. Lloyd has, for several years, been a capable behind-the-scenes AEG worker.

A.A. LEVINSON Al Levinson was born in 1927 on Staten Island, New York and holds a PhD from the University of Michigan; he is at present a Professor at the University of Calgary. Al is a dynamic personality and incisive thinker; he has recently published a fine textbook on Exploration Geochemistry.

J.L. WALKER Johnny Walker's many friends will testify that, despite being born in Aberdeen (in 1930) he is far from being the dour Scot of mythology. Johnny was awarded a PhD in Applied Geochemistry by the Royal School of Mines in 1963; his experience is world-wide and he is currently Exploration Manager for Barringer Research.

W.J. WOLFE Bill Wolfe was born in Ottawa, Ontario in 1937 and was awarded a PhD by Yale University in 1966. Bill, who is currently employed by Cominco, is thoroughly familiar with all aspects of Exploration Geochemistry, particularly in the Canadian Shield.