



**JOURNAL
OF THE
CANADIAN SOCIETY
OF
EXPLORATION
GEOPHYSICISTS**

TABLE OF CONTENTS

Canadian Mining Geophysics — 1974	Norman R. Paterson	9
Astroblemes in the Williston Basin	H. B. Sawatzky	23
Source Parameter Map — A New Aid to Aeromagnetic Data Interpretation	S. Jain, W. Schuur, C. E. Curtis	39
The Narwal II Submersible System for Seismic Data Acquisition Under the Arctic Ice	J. B. Prendergast & A. A. Lee	52
A Fixed Transit Time Approach to Seismic Interval Velocity	G. D. Feir	62
A Note on the Application of Wiener Multichannel Deconvolution	L. R. Lines	65
An Ideal Performance Property of the Multichannel Wiener Filter	Sven Treitel	71

DEPARTMENTS

Front Advertisements	i-xvi	CSEG Journal Contributions	4
CSEG Executive page	1	President's Page	5
CSEG Committee page	2	CSEG Journal Editor's Report	6
1974 Corporate Members List	3	Biographies	74
Advertisers Index	4	Professional Directory	xvii
		Back Advertisements	xviii

THE CANADIAN SOCIETY OF EXPLORATION GEOPHYSICISTS

The C.S.E.G. was founded in 1949

The Canadian Society of Exploration Geophysicists is an association of exploration professionals who are dedicated to promote the science of geophysics in the fields of petroleum, mining and ground water exploration, and to promote fellowship and cooperation among those persons and organizations interested in geophysical problems.

Our Society has over 1,000 members at the present time. Membership fees are \$7.00 Canadian per year, which also includes the cost of the CSEG annual technical Journal.

Active membership may be granted to anyone engaged or interested in the geophysical profession. All applicants must be sponsored by two members of the Society, with the exception of S.E.G. members who require no sponsors. Enquiries should be directed to the CSEG Membership Committee, P.O. Box 117, Calgary, Alberta.

Technical luncheon meetings are held monthly, except July and August, in Calgary, Alberta.

C.S.E.G. JOURNAL

1. Subscriptions are given to all members of the Society in good standing.
2. Claims for non-receipt must be sent within three months of publication.
3. Advertising rates will be sent upon request.
4. Previous issues are still available. For prices contact the Secretary/Treasurer.

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CANADIAN SOCIETY
OF
EXPLORATION GEOPHYSICISTS
P.O. Box 117, CALGARY, ALBERTA, CANADA

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THE CANADIAN SOCIETY OF EXPLORATION GEOPHYSICISTS

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ADVERTISERS' INDEX

Airborne Geophysical Surveys, Ltd.	xxviii	Nickle Map Services Ltd.	xviii
Alpine Helicopters Ltd.	xxvi	Norcana Exploration Limited	iv
Aqua Terra Consultants, Ltd.	xi	Ed Norton Construction Ltd.	xxxci
Baxendale Seismic Consultants Ltd.	xvii	Northern Geophysical Ltd.	xxx
Beaver Geophysical Services Ltd.	xii	Paterson, Grant & Watson Ltd.	xxxii
Caldraft Ltd.	iv	Petty-Ray Geophysical Engineering Company	xxiii
Canadian Society of Exploration Geophysicists	xix	Photogravity Surveys Ltd.	xv
Century Geophysical Corporation of Canada	iii	Probe Data Market Ltd.	xvii
W. E. Chilton Consultants Ltd.	xvii	Lorne H. Reed & Associates	xvii
Comer & Wilson Ltd.	xvii	Schlumberger of Canada	vii
Compagnie Generale de Geophysique	xiv	Sedco Drilling	vi
Dalcan Equipment Ltd.	xxxii	The Sefel Group	xxxiv
Digicon Exploration, Ltd.	xvii	Seisform Drilling Ltd.	ii
Digitech Corporation Ltd.	xxv	Geo-Seis Ltd.	vi
Dornian Consultants Ltd.	xvii	Seismic Service Supply (1958) Limited	xiii
Dresser Olympic Canada Operations	xxix	Seiscan Delta	i
Eureka Exploration	xx	Seismotech (64) Ltd.	ii
European Association of Exploration Geophysicists	xxi	Sigma Exploration Ltd.	xv
Exploration Data Exchange Ltd.	xx	Stacs Data Storage Centre	xxvii
Explosives Limited	viii	Teledyne Exploration Ltd.	v
Gallacher, J. D.	xvii	United Geophysical Company of America Ltd.	x
Geophysical Service Incorporated ...	xxii	Walker-McDonald Bit Distributors Ltd.	iv
Geo Space Canada Ltd.	xvi	West Canadian Graphic Industries Ltd.	xx
Globe Universal Sciences Canada Ltd.	ix	Western Electronic Systems Co. Ltd.	xxxii
C. L. Hart and Associates Ltd.	xviii	Western Geophysical Co. of Canada Ltd.	xxviii
International Geophysical Consultants Ltd.	xviii	C.S.E.G. JOURNAL CONTRIBUTIONS	
Jean Alix Co. Ltd.	xxvii	The following companies made contribu- tions to C.S.E.G. to support the Journal:	
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PRESIDENT'S PAGE

While the history of the Canadian Society of Exploration Geophysicists goes back a quarter of a century, publishing of a Journal dates from 1965. Although there has been only one issue printed per year, it appears, that past predictions of two per year may be realized in the year now with us.

There are undoubtedly a number of factors which contribute to the ability to increase publication, and to the quality of papers presented. Among these would have to be the maturity of the geophysical industry in Canada and of the people who work in it, as well as their numbers. (It is recorded that at the time of the organizational meeting of the CSEG in 1949 there were 64 persons present; today our members are in excess of 1100). The development of expertise and accumulated experience is now being manifested in the ever increasing abundance of available high calibre papers. Those presented in this Journal are exemplary of the innovations and techniques which have been developed over the years by members of our industry to cope with location of targets which become more and more elusive.

At the same time other heavier demands are being placed on our industry because of a world-wide acceleration in the search for energy and raw materials. The precipitous actions of the OPEC block in late 1973 for

instance opened the eyes of energy consuming nations to the threat of energy famines and economic ruin. The realization of impending shortages has caused nations around the world to mount unprecedented programs of search and development. A slackening of the pace for many years to come is unlikely. We as geophysicists can be looked to for development of expertise which will make each one of us more effective during these years.

On the Canadian as well as on the global scene, there has been a steadily growing environmental concern and influence on how, when and where exploration may be carried on. This, coupled with the fact that we are moving into more remote areas which present increasingly difficult operating conditions, places added burdens on the geophysicist in his data acquisition and processing.

In short, the geophysicist has to be partly economist, politician and environmentalist, while still developing the resourcefulness for which he is so well known.

Finally, I wish to compliment the contributors to this Journal, and to pass on to each of its readers a word of encouragement to submit papers for publication in future Journals.

JOHN H. HARDING

C.S.E.G. JOURNAL EDITOR'S REPORT

An Editor is, by definition, one who prepares manuscripts for publication and who has ultimate charge of that publication. To some he is a kind of extortionist who begs, persuades, bullies or cajoles colleagues or acquaintances into writing articles for publication. This, of course, is pattern behaviour with the Editor trying to survive his term of office and continue the life of his foster child, the Journal. However, the Editor is simply acting as the mechanism whereby articles written by Society members can be published and presented in the Journal to the members. The Journal also provides an advertising outlet for members engaged in consulting practice or the contractor industries.

In a highly illuminating article published in the Bulletin of the American Association of Petroleum Geologists in 1972, the Editor, Frank E. Kottowski, discussed the relationship of the journal to the Society's membership. The members *read* the journal, they *write* it, and they *pay* for it together with other subscribers. The membership is the source of the articles. The members make up the Society. The buck does not stop with the President or the Editor; it stops with the membership who while reading and writing the journal should also criticize and praise it since it reflects the accumulative state of the art in the Society's professional field.

I am frequently asked why the Journal does not appear three or four times each

year. In the first place, the supply flow of articles for publication does not allow for more than one issue. This position is changing with the Annual Convention providing an excellent new source. The second problem is basic economics. In 1973 the total cost of printing and mailing the Journal was \$6,000. This forms a substantial proportion of the Society's budget even though the Journal costs are largely borne by advertising revenue and corporate donations. A healthy journal is needed but the logistics will be formidable.

I would urge any intending authors to read the notes on the inside covers and recommend the following articles for perusement —

1. Landes, K. K., 1951. A scrutiny of the abstract. Am. Assoc. Petr. Geol., Bull 35, 1660.
2. Helbig, K., 1974. How to write for "Geophysical Prospecting". Geoph. Prosp. 22, 203-210.
3. Kottowski, F. E., 1972. The Bulletin — to whom it may concern. Am. Assoc. Petr. Geol., Bull. 56, 193-195.
4. Dobrin, M. E., 1954. Style guide for "Geophysics." Geophysics, 19, 177-185.
5. Trelease, S. F., 1969. How to Write Scientific and Technical Papers. M.I.T. Press, Cambridge, Mass.

One significant point of information is that Landes in his "abstract of his abstracted

abstract" ends up by saying, "The abstract is of utmost importance, for it is read by 10 to 500 times more people than hear or read the entire article. It should not be a mere recital of the subjects covered, replete with such expressions as "is discussed" and "is described". It should be a condensation and concentration of the *essential qualities* of the paper."

I wish to acknowledge the continued support of our President, John Harding, and the executive of the C.S.E.G. I also acknowledge the efforts of Mr. R. Thorburn and Mr. Bob Fyvie in handling the advertising, Mr. Ralph Lundberg and Mr. David Stanley-Jones for the excellent quality of the "News-

letter", Mr. J. Taylor of McAra Printing Ltd., for his assistance in the publication of the Journal and my Assistant Editor, Dr. Hefin ab Iorwerth. A special thanks to Mary Colberg for her continued enthusiasm and help.

In concluding, while Editors have been known to complain about their lot, in my case it has been a pleasure to serve the C.S.E.G. over the last three years. I wish Hefin ab Iorwerth every success as Editor in 1975 and hope that the supply of quality papers will continue.

A. Easton Wren