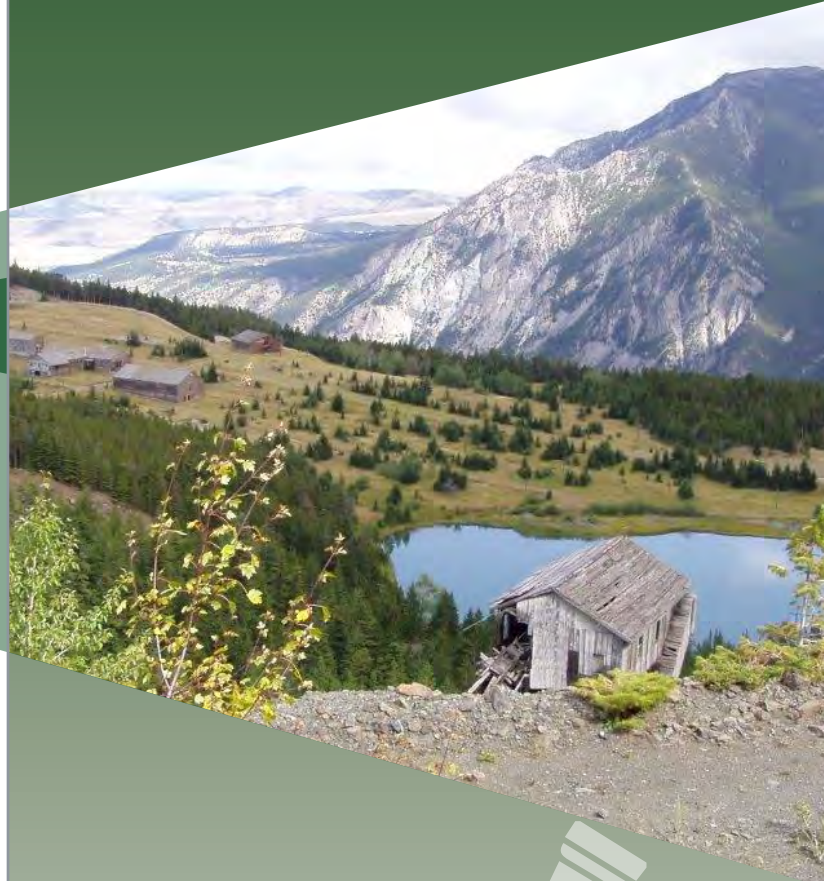


MONTANA GEOLOGICAL SOCIETY

NEWSLETTER

Vol. 62 No. 1

November 2017



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P2 / PRESIDENT'S LETTER

Look at geology through a historical lens in Kevin's final letter as MGS President.



P5 / ELECTION RESULTS

Congratulations to the new officers of the MGS for the upcoming 2017-2018 term!



P5 / SCHOLARSHIP

Know a student looking for monetary support for research? Please pass on this resource!



P7 / CONSULTANTS

Consider expanding your reach as an independent consultant by creating a listing for the MGS website.

Upcoming Event:

Dec 21 - Oilies Christmas Party

Don't miss out!
Renew your membership
now for 2018

Contact Us:

mtgeo.org / montanageologicalsociety@gmail.com

Add our email address to your contacts so your Newsletters & Luncheon announcements don't end up in Spam!

Find us on 

PO Box 844
Billings, MT 59103

President's Letter

Dear Membership,

Welcome to the holiday season with all the hustle and hype. So what was geology like during the pilgrim times? It seems much of the debate was over the age and creation of the earth, and how observations of the physical world could be explained by religion. It was a time of speculative cosmogony, heavy on the speculation side. Like the pilgrims, some of the early earth scientists faced religious persecution.

Ulisse Aldrovandi (1552-1605) studied natural history and is given credit for being the first to use the term Geology. He was arrested for his religious views in 1549.

Rene Descartes (1596-1650) supported the heliocentric view of the world, but in 1633 decided not to publish his ideas in the treatise The World after condemnation of Galileo by the Roman Catholic Church.

Nicolas Steno (1638-1686) is given credit as the father of stratigraphy by defining four principles; the law of superposition, the principle of original horizontality, the principle of lateral continuity, and the



principle of cross-cutting relationships. Steno was also a catholic bishop and was opposed to many of the ideas of science. He documented the similarities between modern shark teeth and fossils he found in rocks and theorized on the process of fossilization. He also believed in the great flood, and that subterranean cavities opened up to drain the flood waters. This ideas helped explain ocean type deposits observed on land.



Thomas Burnet

Thomas Burnet (1635-1715) promoted the idea of a hollow earth with most of the water inside until cracks allowed water flow out and create Noah's flood. In this world, water flowed freely from the poles toward the equator in a paradise before the great flood. I think they made a move about this one!



Ulisse Aldrovandi

2016-2017 MGS Officers

President	Kevin Chandler	406-272-1605
Vice President	Felipe Pimentel	352-514-3607
Treasurer	Sarah Friedman	406-896-5931
Secretary	Tom Hewett	406-281-8203
Past President	Riley Brinkerhoff	

cont. on page 3

Other individuals contributed to our understanding of geology by their contributions in biology and technology. Robert Hooke (1635-1703) is given credit for the development of the light microscope. He was able to view fossils with his microscope and theorized that the once living had been replaced by mineral solutions and were now petrified. He was a strong supporter of the ideas of evolution and extinction, two radical ideas of the 17th century.

I find it interesting that we still have people trying to defend a flat, young world with unchanging plant and animal populations today using the same arguments used against science 400 years ago. Our work promoting science, and being champions for decisions based on sound science continues to be critical to our society. It's not hard to find a movie or show about science gone wrong and support for those trying to lead us backwards. Keep up the fight for science, and be sure to join us for up-coming presentations and social activities at MGS.



Hooke's microscope

Happy Holidays,

Kevin Chandler
MGS President

ELECTION RESULTS: MGS OFFICERS, 2017-2018

We are pleased to announce the winners of the election and new officers for 2017-2018!

President: Felipe Pimentel
Vice President/Speaker Coordinator: Sarah Friedman
Treasurer: Tom Hewett
Secretary: Spenser Kuhn

Thank you for volunteering to serve with your time and efforts to the society.

We would also like to specifically thank Betsy Campen and Mike Bryant for their service as board members the past few years. For the time being, Don French and Joe Carlisle will be helping provide guidance to the officers along with Bob Schalla and Steve VanDelinder.

Congrats to Kevin Chandler for completing his service as an MGS officer!

Who's Who of the MGS

BOARD OF DIRECTORS

Mike Bryant
Steven W. VanDelinder
Betsy Campen
Robert Schalla

AAPG-ROCKY MOUNTAIN SECTION

Delgate: Mark Millard
Alternate: Don French
Foundation: Rob Diedrich 303-830-5875
Chair for 2017 AAPG Section Meeting:
Robert Schalla

COMMITTEES

Awards and Continuing Education:
Anna Phelps

Field Trips:
Gary Hughes 861-2072

Social:
Betsy Campen 652-1760

University Liaison:
Steven W. VanDelinder

Publications:
Duncan McBane 252-3170
Montana Oil & Gas Fields Update:
Jim Halvorson 656-0040

PUBLICATION SALES

Doretta Brush 259-8790

NEWSLETTER EDITOR

Jessica Renstrom 294-7841

MGS Classifieds

*You might be a
geologist if...*

*Your photos include
people only for
scale.*

*Have something geological to sell, give, or find?
Place a free ad in our MGS Classifieds!
Contact the Newsletter Editor for more information.*



Montana Geological Society 2018-2019 Annual Research Scholarships

Purpose

The Montana Geological Society (MGS) is a non-profit organization created in 1949 "...to promote interest and research in geology and allied sciences and their practical application, and to encourage fellowship and cooperation among the members." This annual award supports these goals by providing financial assistance for up to two student dissertation, thesis, or senior projects involving Montana geology and by providing a venue for students to present their work to geology professionals in Montana.

Award

Up to two scholarships, one for **\$2,000**, and one for **\$1,000**, may be awarded each year to the most qualified applicants. The successful applicants agree to present their research results at a luncheon meeting of the MGS in Billings, MT, and will receive reimbursement for travel expenses to and from Billings in addition to the scholarship amount.

Basis of Award

All projects will be reviewed by a committee composed of Officers and Board Members of the MGS. The award will be made based on project merit, difficulty, and innovation appropriate for the applicant's educational level. Projects in the early to middle stages of research will receive preferential consideration over those at or near completion. The awards will only be made to fully qualified and deserving applicants, if any, as determined by the committee.

Eligibility

Scholarships are available to full-time students working toward a BA, BS, MS, or Ph. D degree in an accredited geology or earth science program at a Montana college or university. The research area must be based at least partially in the state of Montana.

Application Packet

Applicants must submit **1.)** a **brief** cover letter that summarizes the applicant's educational background, current student status (B.S., M.S., Ph. D), anticipated graduation date, and research interests. Include name, mailing address, email address, and phone number, **2.)** a **short** (300 words or less), **concise** summary of their approved or proposed project that includes study area, purpose, and applicability of research to Montana geology, along with an advisor's signature, **3.)** a work flow timeline, and **4.)** an estimated itemized annual budget which specifies how the funds from this award will be used. The budget must include the amount and source of all other project funding.

Deadlines

Applications can be emailed (preferred) or mailed. Emailed applications (as attached file(s) in any standard format) must be sent to montanageologicalsociety@gmail.com no later than 11:59 p.m., **January 31, 2018**. Mailed applications must be post marked no later than **February 1, 2018**, and should be addressed to: Montana Geological Society, PO Box 844, Billings, MT 59103. Awards will be announced and payment made in the form of a check to the successful applicant(s) by **April 1st**.

“Scientists reveals the mystery about the origin of gold”

“Scientists have shed new light on the origin of gold, one of the most intriguing mysteries for humankind since ancient times.”

To read the article, please visit:

<https://www.sciencedaily.com/releases/2017/11/171121095128.htm>

“A popular tool to trace Earth's oxygen history can give false positives”

“If someone cries 'Eureka!' because it looks like oxygen appeared in Earth's ancient atmosphere long before the body of evidence indicated, be careful. If it was a chromium isotope system reading that caused the enthusiasm, it might need to be curbed.”

To read the rest of the article, please visit:

<https://www.sciencedaily.com/releases/2017/11/171117085219.htm>

“Geologists uncover Antarctica’s fossil forests”

“Prehistoric polar forests were built for survival, but were not hardy enough to live in ultra-high concentrations of atmospheric carbon dioxide. A geologist is studying the tree fossil record in Antarctica from a mass extinction 250 million years ago, looking for clues to how greenhouse gases affected plants -- then and now.”

To read the article, please visit:

<https://www.sciencedaily.com/releases/2017/11/171113162825.htm>

For Independent Consultants

MGS Membership,

The Montana Geological Society is conducting an annual update of its website, including the Consultant Directory. This Directory is mean as a service to those members who operate as independent consultants; and the goal is to provide a means for the general public to locate geologic consultants with various types of technical expertise.

If you are a consultant and wish to be included in the list on the MGS website, please complete the attached form and return it to the MGS (via email or other) before December 31. All submissions will be subject to review and approval by the MGS Board of Directors prior to posting.

NAME: _____
COMPANY NAME (if applicable): _____
PHONE NUMBER: _____
EMAIL ADDRESS: _____

Are you an Active or Honorary member of the MGS ? ____ Y/N

Are you professionally certified or a certified geologist with the AIPG or similar professional societies? If so, list certifications:

Do you consider yourself to be an “independent consultant” ? ____ Y/N

Are you actively seeking consulting work ? ____ Y/N

Brief description of your area(s) of expertise:

Indicate your preference for being listed in one of the following categories:

- | | |
|--|---|
| <input type="checkbox"/> Petroleum/Oil & Gas | <input type="checkbox"/> Environmental/Hydrogeology |
| <input type="checkbox"/> Hardrock/Mining | <input type="checkbox"/> Geophysics |
| <input type="checkbox"/> General Geology | <input type="checkbox"/> Geotechnical Data Services |

You are cordially invited to the

2017 Oilies Christmas Party

*Let us eat, drink and be merry, and
share the spirit of the season with friends.*

**Thursday, December 21th, 2017
5 p.m. to 10 p.m.**

**The Petroleum Club
22nd floor of the Double Tree Hotel
(formerly Crowne Plaza)
27 N. 27th Street, Billings, Montana**

Great food. Free beer and wine. Cash bar for well drinks.

Presented by:



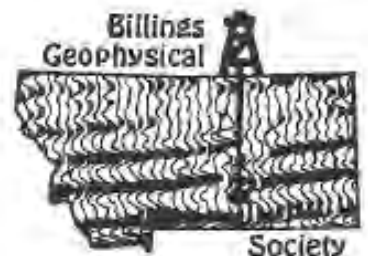
Billings Petroleum Section

Montana
Association of
Professional Landmen



MGS

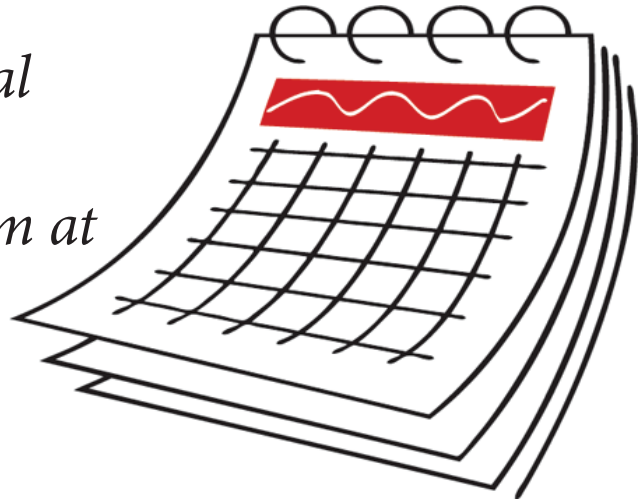
Montana Geological Society



It's that time of year again....


Time to Renew your MGS Membership!

Use our convenient online renewal system at mtgeo.org, or print & complete the renewal form at the back of the Newsletter!



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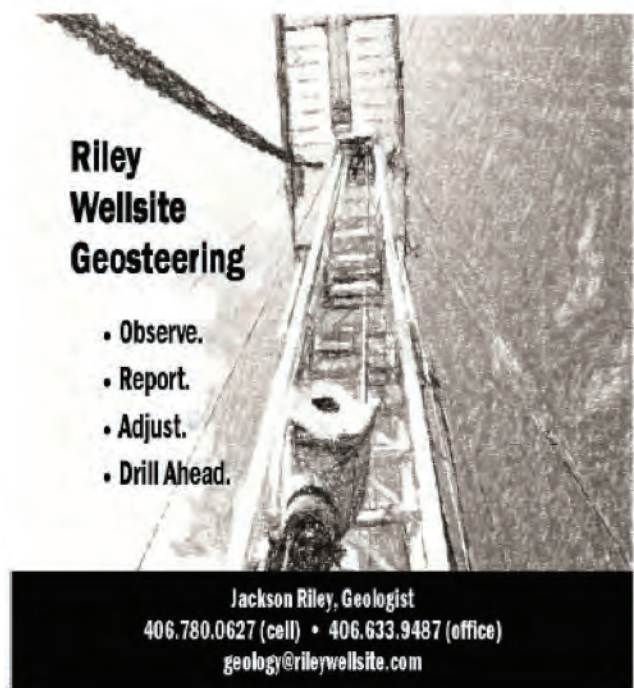
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MONTANA GEOLOGICAL SOCIETY

P.O. Box 844

Billings, MT 59103

Membership Renewal

Last Name _____

First Name _____ **Middle Initial** _____

ANNUAL DUES:

_____ **\$20.00 Regular**

_____ **\$10.00 Student**

Please update the information below if needed. Please leave blank if nothing has changed:

Company/Affiliation _____

Mailing Address (work or home)

Street _____

City _____ **State** _____ **Zip** _____

Phone (w) _____ **Phone (h)** _____ **Phone (c)** _____

E-Mail _____

AAPG Member (please circle) YES NO

Education (School, Degree, Year)

Degree #1 _____

Degree #2 _____

Degree #3 _____

MONTANA GEOLOGICAL SOCIETY

PUBLICATION	QUANTITY	PRICE	TOTAL
2006 Montana Oil & Gas Fields CD		\$65.00	
2006 AAPG Datapages - MGS Publications DVD		\$180.00	
2006 AAPG Datapages - MGS Publications DVD (MGS Member price)		\$150.00	
2000 50th Anniversary Symposium		\$20.00	
1999 Thrust Systems of the Helena Salient		\$20.00	
1998 8th Int'l Williston Basin Symposium		\$20.00	
1998 8th Int'l Williston Basin Symposium Core Workshop		\$20.00	
1997 Big Horn Basin Symposium		\$20.00	
1997 MGS-TRGS: The Edge of the Crazies		\$20.00	
1997 AAPG - Rocky Mtn. Section Meeting / Abstract Volume		\$10.00	
1996 AAPG - Rocky Mtn. Section Meeting / Abstract Volume		\$10.00	
1993 Energy and Mineral Resources of Montana		\$20.00	
1991 6th International Williston Basin Symposium		\$20.00	
1991 Geology & Horizontal Drilling of the Bakken		\$20.00	
1991 AAPG - RMS Field Trip: Beartooth Mountains		\$7.50	
1991 AAPG - RMS Field Trip: Eagle Sandstone, Billings		\$7.50	
1991 RMS Field Trip #1 Nye-Bowler Linemont		\$7.50	
1991 Sequence Stratigraphy of Eagle Sandstone		\$7.50	
1990 Bakken Workshop Short Course Study Notes #1		\$10.00	
1989 Geologic Resources of Montana		\$20.00	
1986 Geology of the Beartooth Uplift		\$20.00	
1985 Montana Oil & Gas Fields		\$20.00	
1971 Stratigraphic Names of Montana		\$10.00	
1969 Economic Geology of Montana		\$20.00	
Shipping and Handling charges - \$5.00 per CD/DVD \$8.00 per book			
Total Due			

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 Address _____ City, State, Zip _____
 Email Address _____

Please make checks payable to: Montana Geological Society. Visa and MasterCard also accepted.

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 Name as it appears on the Card _____
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