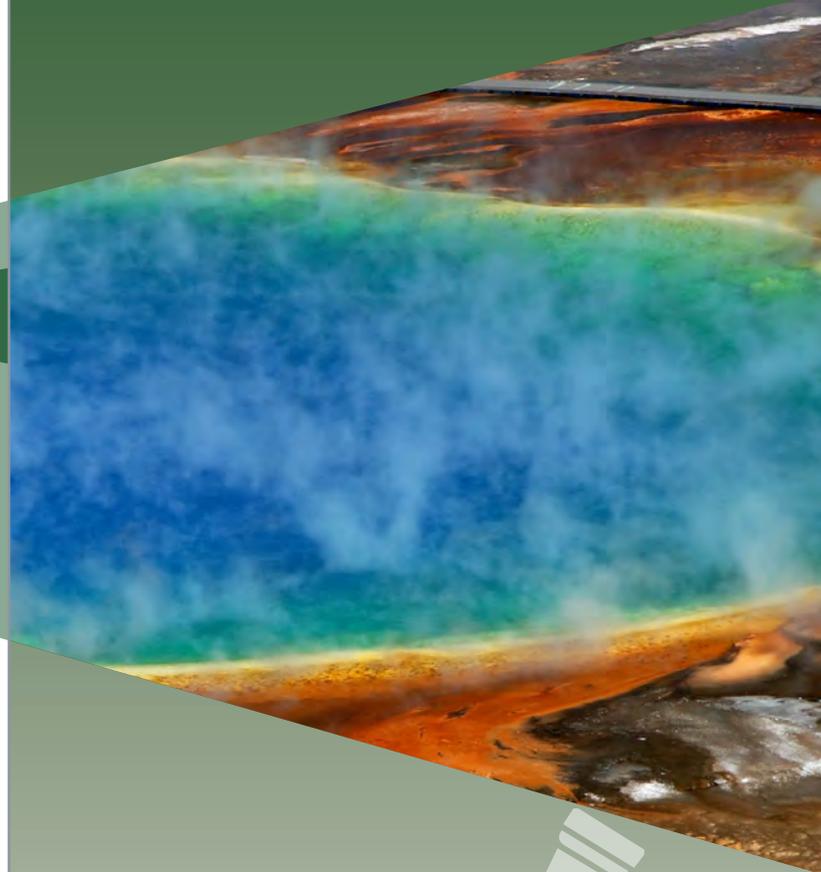




# MONTANA GEOLOGICAL SOCIETY

## NEWSLETTER

Vol 62 No. 11



### Inside this Issue:



#### **P2 / PRESIDENT'S LETTER**

In his farewell letter, our outgoing President Felipe reflects on his time serving the MGS.



#### **P4 / MBMG**

Read the highlights & intriguing updates of this year's 4th Annual Mining & Mineral Symposium.



#### **P5 / WEST HIGH**

Review snapshots of the Billings West High School Geology Club's recent trip through the Bighorn Basin, partially funded by the MGS - Thank you!



#### **P10 / SCHOLARSHIP**

It's that time of year -- time to apply for the MGS Scholarship Awards! Please pass on this application to students you know who could use assistance.

### Upcoming Event:

Dec 14 - Oilies Christmas Party (see page 9)

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Find us on 

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

PO Box 844  
Billings, MT 59103



# President's Letter

Membership,

For my last letter as outgoing President I wanted to take a brief moment to reflect on the past few years serving as an officer in the MGS. I began serving in September of 2015, close to a year into the slowdown in the oil & gas industry in which I work. A year later the MGS lost many of its active young professionals with the leaving of SM Energy from Billings. Despite these difficulties, the MGS pressed on and continued to do good work. I've felt the most proud of our involvement with awarding scholarships to students and teaching awards to the best science teachers in Montana. I've also enjoyed personally interacting with young people at events such as Science Expo, STEM Billings, and Girls-N-Science. Most recently we've sponsored a field trip put on by Jon Bushey who took some of his high school students on a trip to the Bighorn Basin (check the rest of the newsletter for details on that). We've recently also agreed to sponsor the Yellowstone Bighorn Research Association (YBRA) and their program to run workshops to further train science educators in Montana.

My time with the MGS has been a rewarding and humbling experience in no small part due to the privilege of volunteering alongside some great, selfless people. I've also gotten to know some of our members better and I have really enjoyed that aspect of my roles. I'd like to thank the following folks for their leadership and help during my time as an officer: Bob Schalla, Steve Vandeliner, Don French, Joe Carlisle, Mike Bryant, Betsy Campen, Jay Gunderson, Kevin Chandler, Tom Hewett, Sarah Friedman, and Spenser Kuhn. Thanks for all you do! I will be continuing to serve this year as Past President and hand off presidential duties to Sarah. Go get 'em.

Thanks for reading,  
Felipe Pimentel

## 2017-2018 MGS Officers

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*Kevin Chandler*

# Call for Photos!

Do you have photos of past MGS events,  
MGS members, or Montana geology?  
If so, we'd like to see them!

For a chance to have your photo featured in  
the MGS Newsletter & MGS Facebook page,  
please submit your  
high-resolution photograph(s) and full name  
to [montanageologicalsociety@gmail.com](mailto:montanageologicalsociety@gmail.com)



## Who's Who of the MGS

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student buy for  
the dark room?*

*Sodalite*

*Have something geological to sell, give,  
or find?*

*Place a free ad in our MGS Classifieds!*

Contact the Newsletter Editor for more information.

# MBMG Symposium Summary

## MBMG's 4th Annual Mining and Mineral Symposium

The Montana Bureau of Mines and Geology hosted its 4th Annual Mining and Mineral Symposium October 10–13, 2018 in Butte, Montana. Speakers included geologists, consultants, professors, and graduate students from Montana, Colorado, and Washington. Symposium lectures highlighted current Montana mining activity, mineral deposits and development (both historical and potential), and current geologic research projects. Other topics included Yellowstone's geothermal systems, the changing water chemistry of the Berkeley Pit, J.T. Pardee's early mining career, and events that led to Montana's moniker as the Treasure State.

Francis Grondin, a Montana Tech Geological Engineering graduate student, won the Poster Competition. He presented his research about mineralogy and fluid inclusions at the Crystal Mountain fluorite deposit in Ravalli County, Montana.

Special events included a Mineral Show, Used Book Sale, Meet and Greet, Map Chat with MBMG Geologists (sampling Butte's specialty brews) and barbecue, and a field trip to the Cable Mountain Mine in Deer Lodge County, which included snow at no extra charge!

Plans are already underway for next year's Symposium. We hope you can join us. For more details, please visit the MBMG Symposium webpage at <http://mbmg.mtech.edu/symposium/>.

Peggy Delaney  
Professional Scientist, MBMG



# West High Geology

The following photos are from a trip taken by Billings West High School's Geology Class. This trip was partially funded by the Montana Geological Society. As a member, your contributions help sponsor trips like these, which enable the next generation to learn about and develop a passion for the earth sciences -- Thank you!



## About The Trip

As told by Jon Bushey, Geology & Honors Earth Science Teacher at Billings West High:

“It is a great experience for the students to see some world class geologic features in their own backyard. We visit the Wyoming Dinosaur Center and see one of the few Archaeopteryx fossils in the world, the Red Gulch Dinosaur Track site, Wind River Canyon for the classic Paleozoic – Early Mesozoic stratigraphy, and Fives Springs and Shell Canyons for classic Laramide Structures. We also take a side trip back to the Medicine Wheel, which most of the students have never seen before. This creates comradery among the members of the class and gives them real-life experience to draw back to as we cover the various geology topics throughout the year.

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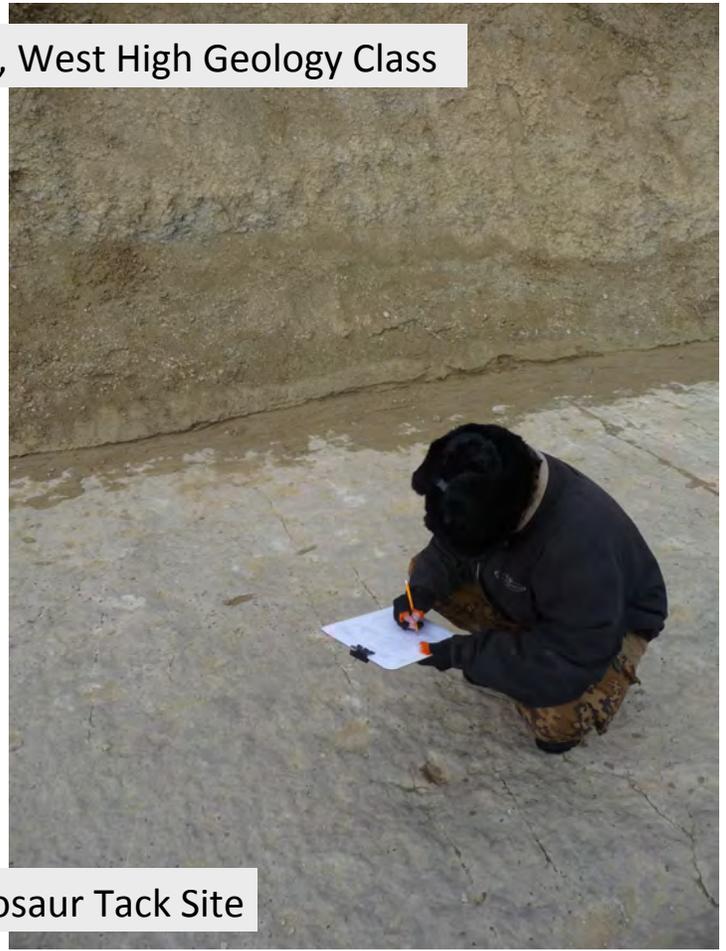
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2018 Bighorn Basin Field Trip, West High Geology Class



Red Gulch Dinosaur Track Site

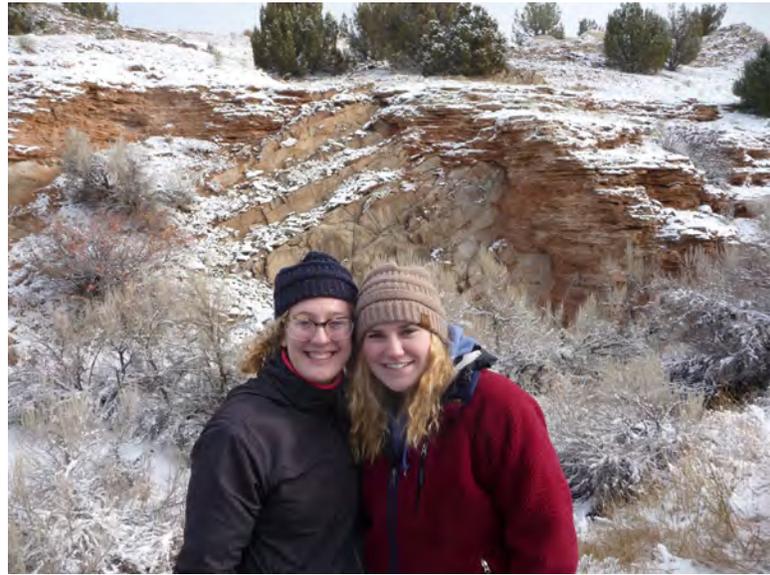
2018 Bighorn Basin Field Trip, West High Geology Class



Wyoming Dinosaur Center, Thermopolis



Gallatin Fm. Flat Pebble Conglomerate



Angular Unconformity, Travertine on top of Sundance Fm.?, Hot Spring State Park

2018 Bighorn Basin Field Trip, West High Geology Class



The Monocline, Shell Canyon

***Want to see more trips like these?***

Contact us at [montanageologicalsociety@gmail.com](mailto:montanageologicalsociety@gmail.com) for more information about Outreach, Donations, & how you can get involved.

INVITATION 2018



# OILIES CHRISTMAS PARTY 2018

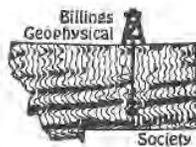
In the spirit of the season and our tradition,  
let us gather together for good cheer and friendly festivities!

Billings Petroleum Club  
22nd floor of the Double Tree Hotel (formerly Crowne Plaza)  
27 N. 27<sup>th</sup> Street Billings, Montana  
Friday, December 14, 2018  
5 - 10 pm



Great food  
Complimentary keg beer and selected wines  
Cash bar for cocktails

Organized by our professional associations and societies - land, geology, engineering and geophysics





## 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 only 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](mailto:montanageologicalsociety@gmail.com) no later than 11:59 p.m., **January 31<sup>st</sup>**. Mailed applications must be post marked no later than **February 1<sup>st</sup>**, 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 no later than **April 1<sup>st</sup>**.



# *Happy Thanksgiving*

## *from the MGS*

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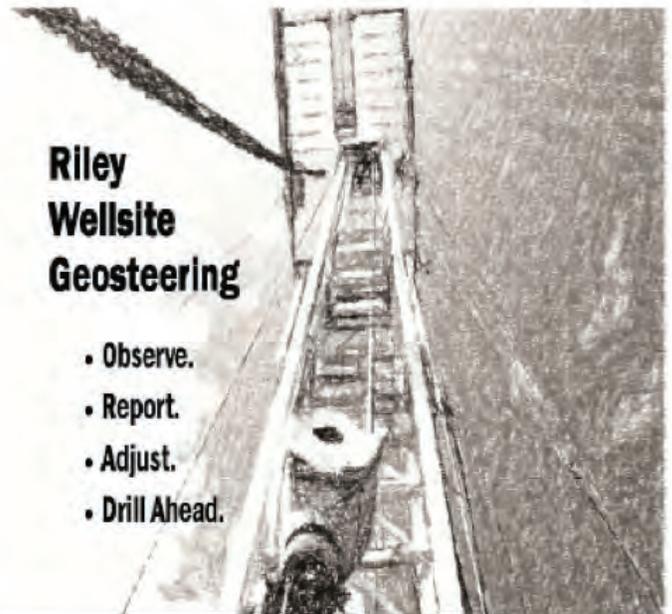
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2006 AAPG Datapages - MGS Publications DVD		\$180.00	
2006 AAPG Datapages - MGS Publications DVD (MGS Member price)		\$150.00	
2000 50th Anniversary Symposium		\$20.00	
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