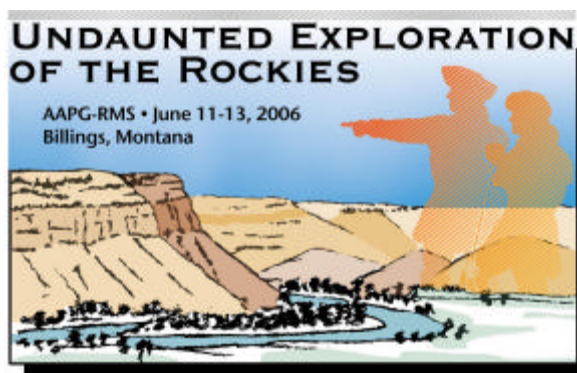


May 2006

MGS Luncheon
Meeting Schedule
for May 2006

Rocky Mountain Section Meeting Billings, Montana, June 11-13, 2006

Celebrate the spirit of exploration at the 2006 AAPG Rocky Mountain Section Meeting, hosted by the Montana Geological Society, in Billings, June 11th-13th. Our hard-working conference committee, led by Dave Ballard, has put together a superb conference that will educate, inspire and entertain all participants. Two hundred years ago, Lewis and Clark's Corps of Discovery explored the Northern Rockies and journeyed down the Yellowstone River through the Billings area. Our Meeting's theme, "**Undaunted Exploration of the Rockies**," is inspired by this historic event and pays tribute to both Lewis and Clark and today's petroleum explorers whose determination and innovative ideas are producing exciting new oil and gas plays in the Rocky Mountain Region.



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The conference kicks off on Sunday afternoon with an Energy Forum entitled "Significance of the Upstream Petroleum Industry on the Economies of Montana, North Dakota, and Wyoming." This forum features a panel of economic experts who will compare and contrast the economic impact of oil and gas exploration and development activity on the neighboring states of Montana, Wyoming and North Dakota.

This year's RMS Meeting provides a host of educational opportunities for our attendees. The technical program includes nearly 90 talks and poster sessions that feature:

- *Rocky Mountain Oil including sessions on EOR projects and plays in the Williston Basin*
- *Rocky Mountain Gas focusing on shallow and tight-gas sand plays*
- *Recent Developments and Advancements in Rockies Stratigraphy*
- *Recent Developments in Rockies Structural Geology focusing on thrust-belt and Laramide tectonics*
- *Technology Advancements in Exploration, Development and Environmental Management*

Four Field Trips examine the geology of some of the region's most active oil and gas plays and provide opportunities to enjoy varied Northern Rocky Mountain landscapes:

- *Marine Cretaceous Reservoirs in Central and Northern Montana*
- *Tensleep and Greybull Stratigraphy of the Big Horn Basin*
- *Coalbed Natural Gas Development and Surface Mining near Decker, Montana*
- *Geology of the Billings area, including Billings' striking Rimrocks*

Three short courses offer insight for both exploration and development:

- *Source Rocks 101: What geoscientists and engineers should know about petroleum source rocks*
- *Perspectives on the Bakken Play* led by a group of seven Bakken experts
- *A Core Workshop* designed to examine significant Rocky Mountain reservoirs

TO RSVP FOR MEETINGS:
Call Colleen Duffy,
406-252-7921.

MGS HOME PAGE:
<http://www.montanags.org>

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“QUOTE OF THE MONTH”

We are trained to think that the “hard science” models of quantification, experimentation, and replication are inherently superior and exclusively canonical, so that any other set of techniques can only pale by comparison. But historical science proceeds by reconstructing a set of contingent events, explaining in retrospect what could not have been predicted beforehand. If the evidence be sufficient, the explanation can be as rigorous and confident as anything done in the realm of experimental science. In any case, this is the way the world works; no apologies needed.

Stephen Jay Gould
(1941 – 2002)

- The Corner for Continuing and/or Remedial Education -
(The Word of the Month Club – use it three times and it’s yours to keep!)

Definitions: sedimentology

Hyperpycnal inflow – Flowing water that is denser than the body of water it enters, resulting in the formation of a turbidity current. Its flow pattern is that of a *plane jet*. Cf: *hypopycnal inflow*; *homopycnal inflow*.

THIS DAY IN HISTORY

May 22

On this date in 1869, the first earthquake ever to be recorded in the Montana Territory occurred near Helena. The quake reached an intensity of VI on the Modified Mercalli Intensity scale. Because of the sparse population, little damage was reported. Two additional quakes hit the Helena area on December 10 and 11 of the same year.

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The All Convention Luncheon will celebrate the bicentennial of the Lewis and Clark Expedition with a special presentation: “*Charles Fritz, an Artist with the Corps of Discovery.*” Mr. Fritz, a noted western artist has spent the past seven years retracing the Corps of Discovery’s footsteps and, for the first time since their writing, has comprehensively illustrated the journals of Lewis and Clark. His 68 painting exhibit, which highlights the landscapes and key moments of the Expedition’s 1803-1806 journey, is now touring major museums across the country and will be on display at the Yellowstone Art Museum, in downtown Billings, during the AAPG-RMS convention dates.



Charles Fritz

Monday evening’s social event, “Dinner Under the Big Sky at Pompey’s Pillar” captures the Lewis and Clark theme. Pompey’s Pillar, a 150-foot sandstone butte overlooking the Yellowstone River, bears the only remaining physical evidence of the Lewis and Clark Expedition: On July 25, 1806, Captain Clark, while camping at this site, carved his name in this sandstone butte. . We’ve planned an unforgettable barbeque in this historic and scenic setting along the Yellowstone River at the sight of Captain Clark’s camp.

The last AAPG Rocky Mountain Section meeting held in Billings was 10 years ago and there was some debate whether the MGS had the local resources to host another meeting of this size. I’m proud to say that the MGS membership has risen to the challenge and has planned an outstanding conference. This meeting is important to the society, for not only does it present an opportunity to share our unique northern Rocky Mountain geology with our colleagues, but it also provides financial support. As the host society, the MGS will receive 40% of any profits that the meeting generates, a much needed ‘shot in the arm’ for our dwindling bank account. I am very appreciative of the countless planning hours that have donated by our exceptional conference committee and volunteers.

I encourage all MGS members to join us in Billings this June for an *undaunted* Rocky Mountain Section conference! For more information, please visit the RMS conference website: www.montanags.org. The deadline for early registration is May 19th.

Rob Diedrich
Conference Co-chair and RMS-AAPG President

NEW MGS OIL AND GAS FIELD VOLUME

You may or may not be aware that a group of relentlessly and determined MGS members, under the astute leadership of one Jim Halvorson, are currently in the process of creating an updated version of the society’s 1985 magnum opus “Oil and Gas Fields of Montana”.

The new volume will include information not only on post-1985 discoveries, like CX Ranch and Elm Coulee, but will also contain information on many older fields that were not covered in the 1985 volume and updates on others. In addition, Jim has already done a magnificent job of scanning the field studies completed for all previous oil and gas field volumes published by the society, dating back to 1958; all of which will included in the new volume.

The new publication, which is tentatively planned for completion in time for the Rocky Mountain Section Meeting in June, will be available only as a CD. Many thanks to the numerous MGS volunteers who have offered to submit papers for the new volume, the Oil and Gas Field Committee appreciates your efforts and would like to encourage you to get your work to Jim as quickly as possible, so the scanning and compilation work can be completed before June.

NEW AND RETURNING MEMBERS

George Moncure

George is a brewer and distiller by trade, but a geochemist by training. He is co-owner of Yellowstone Valley Brewing in Billings. George has a Ph.D. in geochemistry from the University of Wyoming and when not making beer manages to do some geological consulting.

William Walters

Bill is the operator of Imperial Oil of North Dakota. His main office is in Williston, but he has a second home in Billings. Bill has a law degree from the University of Montana.

THE WAR BETWEEN THE STATES ???

For those of you who might have missed it, the following is a press release issued by the Governor of Wyoming early last month. In my view it sets the stage for an interesting showdown regarding coalbed methane development in the greater Powder River Basin.

OFFICE OF GOVERNOR DAVE FREUDENTHAL
State Capitol - Cheyenne, WY 82002

April 5, 2006

***** FOR IMMEDIATE RELEASE *****

CHEYENNE, Wyo. - Gov. Dave Freudenthal is asking federal officials to help resolve a dispute, which could impact Wyoming's economy and ability to regulate coalbed methane, between Wyoming and Montana over water discharged by CBM operations.

Over the past several years, Wyoming and Montana state officials have discussed the quality of water that flows from Wyoming into Montana via the Powder and Tongue rivers.

But, last month, the Montana Board of Environmental Review adopted "anti-degradation" rules that essentially prohibit any discharge of CBM water that will degrade any waters in Montana. By passing these rules, Montana can now ask the US Environmental Protection Agency to adopt the Montana rules and standards. If adopted by the EPA, the standards likely would affect CBM production in Wyoming by limiting the amount of water that can be produced from CBM wells in Wyoming that may drain into the Powder or Tongue rivers.

"The adoption of the unfounded rules by the EPA and the enforcement of Montana standards on Wyoming producers could have an incredible impact on Wyoming," Freudenthal said. "This is important because the effect of the Montana rules is not just felt in Montana, but it reaches over and affects both the economy and the ability of Wyoming to regulate CBM production, and we would like to have those arguments heard before EPA acts."

Wyoming officials objected to the new rules throughout Montana's process, arguing that:

- The rules favor Montana CBM producers over Wyoming producers, in violation of the US Commerce Clause;
- There is no sound scientific basis in support of changing the existing standards;
- The rules provide for a higher standard than the quality of the rivers during most of the year, meaning they would require higher water quality than what naturally occurs;
- Historical data shows that the Tongue River becomes impaired hundreds of miles into Montana and only after virtually all water is withdrawn by Montanan irrigators; and
- Historical data also shows that CBM production in Wyoming is not affecting the quality of water flowing into Montana via the Powder and Tongue rivers.

Despite the clear arguments against the new rules, Wyoming officials expect the state of Montana to ask the EPA to adopt the rules in the near future. In a letter this week, Freudenthal asked EPA Administrator Steve Johnson to intervene and attempt to mediate the issue. The state of Wyoming and counties collect **about \$380,000 per day** (*emphasis added – ed.*) in severance and ad valorem taxes and royalties on CBM production.

REMINDERS

- May 7-9** **14th Annual Williston Basin Petroleum Conference and Prospect Expo**, Minot, North Dakota, contact North Dakota Petroleum Council (701) 223-6380.
- May 7-11** **AAPG Pacific Section Meeting**, Anchorage, Alaska, detailed information and registration is available at <http://anchorage2006.com>.
- May 8-10** **Geological Society of America, Cordilleran Section Meeting**, Anchorage, Alaska, detailed information and registration is available at <http://anchorage2006.com>.
- May 17-19** **Geological Society of America, Rocky Mountain Section Meeting**, Gunnison, Colorado, detailed information and registration is available at <http://www.geosociety.org>.
- May 31** **BLM – Federal Oil and Gas Lease Sale** (Montana, North Dakota, South Dakota), Billings, Montana, 9:00 am, for more information contact – Tessie (406) 896-5091.
- June 2-4** **12th Annual Symposium on Paleontology and Geology** – Track-ways and trace fossils, Tate Museum, Casper, Wyoming – contact: David Brown, (307) 268-2447.
- June 6** **State of Montana – Oil and Gas Lease Sale**, Dept. of Transportation Bldg., Helena, Montana, 9:00 am, for more information contact – Julie David (406) 444-4576.
- June 11-13** **AAPG Rocky Mountain Section Meeting**, Billings, Montana, detailed information and registration is available at <http://www.montanags.org>.

NEW PUBLICATIONS OF THE NORTH DAKOTA GEOLOGICAL SURVEY

LeFever, J.A., 2005, Hydrocarbon Potential of the Bakken Formation, North Dakota, *presented at the 13th Williston Basin Petroleum Conference*: NDGS Geologic Investigations No. 15. A Powerpoint presentation available only online (www.nd.us/ndgs/Bakken). Price: No charge.

Helms, L. D. and LeFever, J.A., 2005, Middle Bakken Play – Technical Problems and Questions – Possible Solutions: NDGS Geologic Investigations No. 16. A Powerpoint presentation available only online (www.nd.us/ndgs/Bakken). Price: No charge.

LeFever, J.A., 2005, Overview of Bakken Stratigraphy in North Dakota and a “Mini” Workshop Handout: NDGS Geologic Investigations No. 17, 10 slides. Available only online (www.nd.us/ndgs/Bakken). Price: No charge.

LeFever, J.A., 2005, Horizontal Drilling Potential of the Middle Member Bakken, *A Powerpoint presentation from the AAPG Rocky Mountain Sectional Meeting*: NDGS Geologic Investigations No. 18, 27 slides. Available only online (www.nd.us/ndgs/Bakken). Price: No charge.

LeFever, J.A., 2005, Overview of Bakken Stratigraphy in North Dakota and a “Mini” Workshop: *handout for the PTTC Core Workshop presented at the AAPG Rocky Mountain Sectional Meeting*: NDGS Geologic Investigations No. 19, 33 slides. Available only online (www.nd.us/ndgs/Bakken). Price: No charge.

Sperr, Tom and Burke, R.B., 2005, The Upper Birdbear (Nisku) of western North Dakota: Another emerging Williston Basin Oil Play: *A Powerpoint presentation from the AAPG Rocky Mountain Sectional Meeting*: NDGS Geologic Investigations No. 20, 27 slides. Available only online (www.nd.us/ndgs/Bakken). Price: No charge.

Burke, R.B., 2005, North Dakota Deep Gas Potential: NDGS Miscellaneous Map No. 38. Price: \$5.00.

Ulishney, A.J., LeFever, R.D., and LeFever, J.A., 2005, Oil and Gas Potential of the Icebox Formation (Ordovician): NDGS Report of Investigations No. 102, available only on CD. Price: \$5.00.

LeFever, J.A., and LeFever, R.D., 2005, Distribution of Salts in the Williston Basin: NDGS Report of Investigations No. 103, available only on CD. Price: \$5.00.

Murphy, E.C., 2005, Lignite Reserves Bowman 100k Sheet, North Dakota: NDGS 100k Series Bwmn-c 1:100,000 scale. Price: \$5.00.



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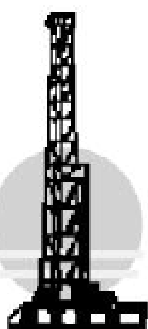


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2000 Guidebook: <i>Northern Montana & the Montana/Alberta Thrust Belt(2 vol. set)</i> <i>50th Anniversary Symposium</i> -----	125.00
1998 <i>8th International Williston Basin Symposium</i> -----	55.00
1998 <i>Core Workshop guide for Williston Basin Symposium</i> -----	30.00
1997 <i>Big Horn Symposium Guidebook</i> -----	50.00
1997 MGS-TRGS Field Conference Guide: <i>The Edge of the Crazies: Where the Mountains Meet the Plains</i> -----	25.00
1996 AAPG Rocky Mountain Section Meeting <i>Expanded Abstracts Volume</i> -----	25.00
1995 Guidebook: <i>Seventh International Williston Basin Symposium</i> -----	100.00
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1989 Guidebook: <i>Geologic Resources of Montana</i> -----	80.00
1986 Guidebook: <i>Geology of the Beartooth Uplift and Adjacent Basins</i> -----	45.00
1985 Symposium: <i>Montana Oil & Gas Fields</i> -----	55.00
1978 <i>Economic Geology of the Williston Basin</i> -----	100.00
1971 <i>Catalog of Stratigraphic Names</i> -----	10.00
1969 Guidebook: <i>Economic Geology of Montana</i> -----	8.50
1951 <i>BGS 2nd Annual Central Montana Field Conference</i> -----	12.50
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