

On the Rocks



A Newsletter of the Michigan Basin Geological Society

2004-2005 Number 2

www.mbgs.org

October 2004

EVENTS

September 29-October 1, 2004: Michigan Chapter of the Association of Engineering Geologists Annual Meeting in Dearborn, Michigan. Additional information at www.aegweb.org

October 2-3, 2004: Tri-State Geological Field Conference, "A Geologic Tour Around Lake Winnebago and the Fox River Valley", Wisconsin. See more information below. See more information below and at <http://www.fox.uwc.edu/wesm/events.html>

October 3-6, 2004: 33rd Annual AAPG Eastern Section Meeting Ramada Plaza Hotel, Columbus, Ohio. The theme of this year's meeting is "Still Economic after all these Years." More information at: <http://www.ohiodnr.com/geosurvey/aapg04.htm>

October 5, 2004: Society of Petroleum Engineers monthly meeting "The Art & Practice of Acid Placement and Diversion: History, Present State and Future" speaker is Leonard J. Kalfayan. At the Golden Rose Restaurant near Okemos. Contact Tim Griffin tim.griffin@elpaso.com; Tel 248-994-4016; fax 248-994-4116 to make a reservation. See additional information below.

October 13, 2004: **MBGS Meeting** "Reservoir Characteristics" speaker is **Dr. Roger M Slatt**. See abstract and biography below.

May 5-16, 2005: MBGS Grand Canyon Field Trip.

2004-2005 MBGS Officers

The Executive Committee meeting minutes are available on the website.

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University Talks and Seminars Websites

Western Michigan University:
www.wmich.edu/geology/SeminarGeos.html

Michigan State University:
www.glg.msu.edu/news/lectures.html

University of Michigan, Turner Lecture Series:
www.geo.lsa.umich.edu/announce/turner02b.html

Michigan AIPG Section website: www.aipg-mi.org.

MEETING CANCELLATION POLICY

Monthly meetings will be automatically cancelled whenever the National Weather Service issues a "Storm Warning" for the Lansing area. If driving conditions are poor but a "Warning" has not been issued please contact any member of the Executive Committee for the status of the meeting.

MICHIGAN BASIN GEOLOGICAL SOCIETY PUBLICATIONS

Historical CD #1: Nine out-of-print publications from 1949 through 1965 and 1998, Devonian to Silurian Rock Fieldtrips to MI, WI, IL and Ontario, 2000, \$15

Historical CD #2: Four out-of-print publications from 1947, 1959, 1983 and 1991, Northern Devonian and UP Fieldtrips in MI, 2001, \$10

Historical CD #3: Six out-of-print publications from 1947, 1959, 1983 and 1991, Northern Devonian and UP Fieldtrips in MI, 2001, \$12

Special Price - Historical CD #1, #2 & #3, \$30

Stratigraphic Lexicon for Michigan, 2001, prepared by MBGS and published by DEQ, 56 pp., chart, \$2.65 picked up or \$4 mailed, Can be ordered from MBGS or Geological Survey Div. of the DEQ

Price Includes postage, handling and any applicable sales tax. MBGS Members receive a 10% discount on MBGS publications. Orders for publications should be prepaid in U.S. Funds and addressed to:
MBGS - Publications
c/o Dept. of Geological Sciences
206 Natural Sciences Building
Michigan State University
East Lansing, Michigan 48824-1115

MBGS Mug and Jacket Sale

The Michigan Basin Geological Society is offering mugs and jackets with the society logo for sale. The mugs are \$5.00 each. The jackets are \$60.00 each plus postage. Please contact Dan McGuire at: Phone (517) 772-5219, Fax (517) 772-7021, or danmcguire@sensible-net.com. Remember to include the correct size of the jacket and the quantity of each item. Checks should be made out to the MBGS.

MBGS MEMBER WINS COVETED AWARD

It is with great pride that President Michael Grammer announces that Dr. Aureal Cross will be awarded the AAPG Distinguished Educator Award at the 2005 Annual Meeting in Calgary Alberta. The AAPG selected Dr Cross from nominations across the country for making distinguished and outstanding contributions to geological education. Congratulations Dr. Cross!

DUES TIME STILL

If your newsletter is mailed to you and indicates an 04-renewal date, your MBGS dues have not been paid this year. Our Treasurer Tom Hoane encourages you to renew your memberships. Timely renewal helps your officers plan for the upcoming year and is the best way to ensure there will be no interruptions in receiving your On the Rocks newsletter.

Michigan Basin Geological Society Dues Notice

Please fill out this form when paying your dues for 2004-2005. Dues are \$25.00 for active member and \$10.00 for students.

Name _____

Address _____

Phone _____

E-Mail _____

Amount enclosed _____

Send Newsletter by e-mail _____ or Mail _____ @ address above

Make check payable to: MBGS

Send to: Tom Hoane
1748 Danby Lane SE
Grand Rapids, MI 49506

MEETING LOCATION

Following last year's closing of the Lansing Mountain Jacks, we have searched for another site, which is convenient and affordable to hold MBGS meetings. The next few MBGS sponsored meetings will be held at **Coyote Creek** (formerly The Pour House), 6951 Lansing Road, Diamondale 48821. Take Exit 98 south off 1-96. Coyote Creek is on the west side of Lansing road, south of I-96 (in front of the State Secondary Complex).

Map available at :

http://maps.infospace.com/1_BBCT160222TT7E_info.four/kevmap?op=MoveMap&otmpl=%2Fkevmap%2Fmap-out.htm&lat=42.6778&long=-84.6515&lat_p=42.6778&long_p=-84.6515&QA=6951+Lansing+&QC=Lansing&QS=mi&QZ=48821&QO=US&width_o=360&height_o=270&detail_o=1&scale_o=1&matchpass=ZIP9&width=478&height=359&detail=1&scale=2

MBGS Meeting

October 13, 2004 (WEDNESDAY)

Coyote Creek
6951 Lansing Rd, Dimondale, MI.

Schedule: 5:30 to 6:15 PM Social Hour
6:15 PM Dinner
Presentation after dinner

Cost \$25.00/member \$15.00 Student (includes dinner)

Topic: "Reservoir Characteristics"

By
Dr. Roger Slatt
School of Geology, Oklahoma University

MBGS Dinner Meeting Reservation

Name _____

Number attending _____ Society _____

Enclosed Registration Fee _____

Please make checks payable to **MBGS** and return to Pat Poli by **October 9, 2004**. Members are welcome to attend the presentation after dinner for no charge. Please contact Pat Poli to ensure adequate seating. Send reservations to:

Pat Poli
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Lansing, MI 48909
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“RESERVOIR CHARACTERISTICS” ABSTRACT

The subject at our October meeting will be “Reservoir Characteristics” by Dr. Roger M. Slatt. Accurate reservoir characterization is critical in understanding both aquifer systems and petroleum systems. Interpretations of interwell-scale lateral continuity (and discontinuity) of strata depend not only upon the reliability of the available subsurface data, but also upon the ability of the interpreter to visualize the data in context with appropriate depositional models. Examples are presented that show:

- (1) Reliability of subsurface log correlations can be greatly improved by understanding expected subsurface depositional geometries and lateral facies changes.
- (2) Wireline log correlations in stratigraphically and structurally complex settings may not be reliable without sufficient coring and special logging in addition to well testing, and
- (3) Correlations and stratigraphic and reservoir quality interpretations of subsurface wireline logs can be improved by comparing the subsurface logs with detailed outcrop studies and outcrop gamma-ray logs of nearby analogous strata.

Proper reservoir characterization allows for a more accurate interpretation of flow units within the aquifer/petroleum system, which leads to more appropriate completion techniques and greater production.

Dr. Roger M. Slatt is currently chair of the School of Geology at Oklahoma University in Norman, Oklahoma. A native of San Francisco, Dr. Slatt earned his bachelor’s degree from California State University in Jan Jose, and a master’s and doctorate from the University of Alaska. Dr. Slatt worked as a junior soils engineer with the California State Division of Highways and, while a student, as a research assistant. He taught at Memorial University of Newfoundland (Canada) for five years after a six-month post-doctoral fellowship and for two years at Arizona State University. Dr. Slatt joined Atlantic Richfield in 1978 as a senior research geologist and became stratigraphy manager at Cities Service in 1980. In 1983, he rejoined Arco and became director of litho-stratigraphic evaluation and later director of reservoir evaluation and manager of stratigraphic exploration research. In 1990, he became manager of reservoir evaluation for Arco International. In 1992, he left Arco to assume the chairmanship of the Geology and Engineering Department at Colorado School of Mines. Dr. Slatt assumed his current position at Oklahoma University in 2001.

LICENSING GEOLOGISTS IN MICHIGAN

As you may know, a bill was introduced June 30, 2004, into the Michigan House to license Professional Geologists. You may view the entire text of that bill by going to the following website. <http://www.michiganlegislature.org/documents/2003-2004/billintroduced/house/pdf/2004-HIB-6063.pdf>

Society of Petroleum Engineers
Distinguished Lecturer 2004-05 Lecture Season



The Art and Practice of Acid Placement and Diversion:
History, Present State, and Future
Leonard J. Kalfayan
BJ Services Company

Abstract:

To be successful, acidizing procedures require distribution of stimulation fluids across the desired treatment interval. Historically, this has been approached through mechanical placement means or chemical diversion of treatment fluids. Method selection is crucial to treatment success – and an increasing number of options exist – each with their own set of limitations and uncertainties. Preferences and success vary for sandstone acidizing, carbonate matrix and fracture acidizing, in vertical and deviated well bores, and in cased and perforated, gravel pack, and open hole completions. Method selection and implementation can be daunting but greatly rewarding – calling for creativity, experimentation and open-mindedness.

This lecture focuses on the important role of acid placement and diversion, and the types, purposes, benefits and pitfalls of the methods currently in practice. The importance of treatment placement was evident and recognized in the earliest acid treatments conducted in the late 19th century. Although this need has been recognized since the dawn of acidizing, at no point in its history has a diversion method found universal reliability and acceptance. Ineffective treatment interval coverage is perhaps still the most common reason why acid jobs often fail to meet expectations. A well-conceived treatment in all other aspects of design (damage assessment, selection of fluids and additives, and volumes) can go for naught if the treatment does not enter or cover those portions of the interval with the greatest need of stimulation.

Since the first commercial acid treatments in the 1930s, mechanical placement has evolved from crude rubber “packers” to advanced coiled tubing technologies. Chemical and particulate diverters have evolved from chicken feed to specialized chemical systems, including self-diverting acid fluid systems. With chemical diversion, different methods have come into and fallen out of favor – replaced by new ideas, or those forgotten and revived.

Within its historical perspective, this lecture discusses present-day acid placement and diversion methods, their best applications and their limitations – with a view and emphasis on industry needs and direction for the future.

NEW PUBLICATIONS

Mineralogy of Michigan, update and revised by George W. Robinson.

This is a major revision of this important reference. Now in an 8.5” by 11” format with over one hundred full color illustrations of minerals found in Michigan. To order, contact Ms. Sharon Carter, Office of Geological Survey, DEQ, 525 W. Allegan Lansing, MI 48909-7756. Or call 517-241-1520 or email at carters1@michigan.gov

Price \$ 45.00 (plus shipping)



**2004 TRI-STATE GEOLOGICAL
FIELD CONFERENCE
2-3 OCTOBER 2004**

**Join us for a geologic journey around
Lake Winnebago and the Fox River Valley**

- See Pleistocene localities related to Glacial Lake Oshkosh •
 - Explore the Silurian rocks of the Niagara Escarpment •
- Learn about the regional lime & building stone industry •
 - Examine groundwater issues related to urbanization •
 - Study the complexities of Ordovician geology •
 - Go caving in the Niagara Escarpment •
 - Visit the Weis Earth Science Museum •

**Sponsored by the
Weis Earth Science Museum**

**Check our website at www.fox.uwc.edu/wesm/events.html
and scroll to Tri-State for registration information,
or call 920.832.0125**

•• Registration form and payment due September 20, 2004 ••

Registration Information

Fees: The fee is \$55 for students and \$65 for all other registrants. The registration fee includes reception on Friday night, transportation, snacks, lunch and the banquet on Saturday, snacks on Sunday morning, and the guidebook. The registration fee does *not* include any lodging nor lunch and transportation on Sunday.

Registration: Please complete the registration form (please print), and send it along with your payment (check or money order made payable to WESM/Tri-State) to:

Weis Earth Science Museum
UW-Fox Valley
1478 Midway Rd.
Menasha, WI 54952

Confirmation of Registration: Confirmation and additional field trip information will be sent upon receipt of the registration form and fees. This information will be sent by e-mail, when possible.

Deadline for receipt of registration is September 20, 2004.

Questions? e-mail jkluesse@uwc.edu or call 920.832.0125

A Reminder about Lodging

Make your hotel reservations early; there is a Packer home game that weekend and rooms are in short supply. Visit the Weis website at www.fox.uwc.edu/wesm for hotel information.