

# On the Rocks



*A Newsletter of the Michigan Basin Geological Society*

2003-2004 Number 10 [www.mbgs.org](http://www.mbgs.org)

May 2004

## EVENTS

**April 30 – May 2, 2004:** Northeast Lower Peninsula Field Conference. For more information see the registration form in this Newsletter or the MBGS website at: [www.mbgs.org](http://www.mbgs.org)

**May 6, 2004:** AIPG Chapter meeting “Superglacial Stream Incision into Debris-Covered Ice, Matanuska Glacier, AK” By Brandi Boyd, Senior at Central Michigan University

**May 19, 2004:** MBGS Meeting in Traverse City on the *third* Wednesday of the month. The speaker is Buddie Wylie of MTU. His topic is: “Michigan Basin Opportunities: Alternative Views of Well Logs Using Log Curve Amplitude Slicing.”

**September 26-29, 2004:** Society of Petroleum Engineers annual meeting Houston, Texas

**October 3-6, 2004:** 33<sup>rd</sup> Annual AAPG Eastern Section Meeting Ramada Plaza Hotel Columbus, Ohio. The theme of this year’s meeting is “Still Economic after all these Years.”

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

**The Ballot for the 2004-2005 MBGS Executive Committee is enclosed. Please take the time to vote.**

# MBGS Meeting

**May 19, 2004**

Location: Mountain Jacks  
5555 US-31 North  
Acme, MI 49610

Schedule: 4:30-5:30 PM Executive Committee Meeting  
5:30-6:15 PM Cash Bar  
6:15-7:15 PM Dinner  
Presentation after Dinner

Cost \$25.00/member \$10.00 Student (includes dinner)

Topic: "Michigan Basin Opportunities: Alternative Views of Well  
Logs Using Log Curve Amplitude Slicing."

By  
Professor Buddy Wylie, Michigan Technological University

## MBGS Dinner Meeting Reservation

Name\_\_\_\_\_

Number attending \_\_\_\_\_ Society\_\_\_\_\_

Enclosed Registration Fee \_\_\_\_\_

Please RSVP to Pat Poli by May 14, 2004 and send payment (make the check out to the  
MBGS) to:

Ms. Pat Poli  
Energy Operations Division  
6545 Mercantile Way  
Lansing, MI 48909

Phone: 517-241-6141, Fax 517-241-6071, E-Mail : [pmpoli@michigan.gov](mailto:pmpoli@michigan.gov)

## **2003-2004 MBGS Officers**

**The Executive Committee meeting minutes are available on the website.**

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ELECTRONIC PUBLICATIONS, MARK WOLLENSAK  
(see above)

WEBMASTER: GREG VARNUM  
[me@gregvarnum.com](mailto:me@gregvarnum.com)

## **University Talks and Seminars Websites**

Western Michigan University:  
[www.wmich.edu/geology/SeminarGeos.html](http://www.wmich.edu/geology/SeminarGeos.html)

Michigan State University:  
[www.glg.msu.edu/news/lectures.html](http://www.glg.msu.edu/news/lectures.html)

University of Michigan, Turner Lecture Series:  
[www.geo.lsa.umich.edu/announce/turner02b.html](http://www.geo.lsa.umich.edu/announce/turner02b.html)

Michigan AIPG Section website: [www.aipg-mi.org](http://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](mailto: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 Ballot 2004-2005

**Vote for not more than one person per office.**

**E-mail your choices or mark this ballot and e-mail as an attachment to Tom Wellman, MBGS Secretary at: [WELLMANT@michigan.gov](mailto:WELLMANT@michigan.gov) or mail to:**

Thomas Wellman  
Geological and Land Management Division, DEQ  
P.O. Box 30256  
Lansing, MI 48909-7756

President:

\_\_\_\_\_ Michael Grammer

Vice-President:

\_\_\_\_\_ Dr. Robb Gillespie

\_\_\_\_\_

Secretary:

\_\_\_\_\_ Robert Reynolds

\_\_\_\_\_

Treasurer:

\_\_\_\_\_ Tom Hoane

\_\_\_\_\_

Business Manager:

\_\_\_\_\_ Pat Poli

\_\_\_\_\_

## MSU Geology Department Field Trip to Marquette

The MSU Geology Department is running a field trip to Marquette, August 27 - 29, 2004 (Labor Day weekend). Friday the 27th will only have an evening meeting to discuss the next two days of field trip, discussion by Dr. F. William Cambray. The cost of the trip will be \$75.00 per person. Included in that cost will be a dinner on Saturday night with the speaker being Dr. Dave Hindle who will discuss the current interpretations of what is happening geologically in the Marquette Super Group. Not included will be transportation to Marquette, lodging and all other meals. Everyone is welcome. This is not just a trip for MSU alumni. I would appreciate it if you would let MBGS members know about this trip and give them my email address and phone number, should they have questions.

Sincerely,

Chuck Julian  
GeoLogic Computer Systems  
2505 Williams Dr.  
Waterford, MI 48328-1869  
248-634-3513 home  
248-335-8863 work

The alumni of the Department of Geological Sciences at MSU are planning a reunion in the field. We will meet at the Holiday Inn, Marquette, on August 27th and spend Saturday and Sunday going over some of the old field camp locations and putting the latest interpretation on them. We promise fine sunshine, no mosquitoes and no final reports due next day! This is a wonderful opportunity to renew acquaintance with old friends and make new ones. The Upper Peninsula of Michigan geology has undergone some remarkable reinterpretations in the years since you were students. The plate margin origin is now well accepted, rift valley geometry and basin inversion has been documented but many aspects remain to be understood. Even the age of the rocks and the deformation leaves room for discussion. It is one of the best areas in the world to study Proterozoic tectonics and to make comparison with modern plate scenarios. The trip will be led by MSU's new structural geologist Dave Hindle and retired structural geologist Bill Cambray. A relaxed and informative trip is planned. Join alumni, their families and friends, to see what they are up to these days and find out the latest developments in the department. For more information contact the field trip co-chairs Chuck Julian or Dave Robbins at the numbers below. The field trip will include breathtaking views along the shore of Lake Superior.

### Questions? Contact the Geology Field Trip Co-Chairs:

Chuck Julian (Class of '75) Dave Robbins (Class of '73)

Phone: 248-634-3513 Phone: 734-737-4693

Chuck.Julian@GeoLogic3d.com David.Robbins2@unisys.com

## SCHEDULE

### Friday, August 27, 2004

7:00 p.m. -9:00 p.m. - Welcome & Presentation by Dr. Cambray on Marquette area geology.

### Saturday, August 28, 2004

8:00 a.m. -5:00 p.m. - Excursions to various sites led by Dr. Hindle & Dr. Cambray. Transportation provided. Sites include: Jasper Knob, Harvey Quarry, Tilden Mine, and other sites.

7:00 p.m. -9:00 p.m. - Banquet Dinner at the Holiday Inn with presentation by Dr. Hindle on current research and initiatives at the MSU Department of Geological Sciences.

### Sunday, August 29, 2004

8:00 a.m. -11:00 a.m. Excursion to area sites, including: Lighthouse Point, Presque Isle

*Locations subject to change.*

This old basin inversion shows very early plate tectonics.

Evidence of old microbes: the Banded Iron Formation at Jasper Knob.

## GRAND CANYON FIELD TRIP 2005

A date has been set: *May 5 through 16, 2005*. We put in the river on May 7 am. Attendance on this trip is on a first-come-first-served basis. We believe this will be a monumental experience for anyone wanting to go back in time.

**Update:** The deposits are in and there is room on the second boat. If you are interested notify Mark Nida (at [mcnida@michigan.gov](mailto:mcnida@michigan.gov)) to get on the list. The next payment due is October 1, 2004.

**The cost will be approximately \$2200 plus transportation cost to Las Vegas. If you are interested in joining MBGS members on this trip, email Mark Nida at [mcnida@michigan.gov](mailto:mcnida@michigan.gov) or Mark Wollensak at [mark@mbgs.org](mailto:mark@mbgs.org).**

## **Professional Licensure for Geologists in Michigan.**

Dear MBGS members:

The American Institute of Professional Geologists (AIPG) is requesting support from the Michigan Basin Geological Society (MBGS) in their effort to establish legislation that would require professional licensure for geologists in Michigan. The fact sheets that follow give information relating this AIPG licensure effort.

The officers of the Michigan Basin Geological Society are seeking input from you on your agreement or disagreement with this licensure effort. Additionally if professional licensure is desired, should it be general in nature or specific. We believe that a decision to support or not support this request should be made only after our membership has had time to consider the issue and a chance to voice their opinions. **Please send your comments to me [godboldt@michigan.gov](mailto:godboldt@michigan.gov).** or to any MBHGS officer. Thank you

### **FACT SHEET**

#### **WHO**

***The American Institute of Professional Geologists Michigan Section is seeking to establish legislation that would require professional licensure for geologists in Michigan***

#### **WHY**

Michigan is a geologically diverse state with extensive mineral, oil & gas, precious metal, and water resources. We also experience hazards such as floods, slope failure, sink holes, rockfalls, and erosion. Groundwater supplies are a significant source of concern throughout the state. Increasingly we are dealing with soil and groundwater contamination, which threatens our drinking water.

Professional geologists are the people who advise **property owners, underwriters, and government agencies** in the public and private sectors about these important matters. Today in Michigan, where a manicurist, an athletic agent and a barber require a professional license, there is no law that protects the public against substandard, fraudulent, or unethical practices by requiring geologists to be licensed.

#### **HOW**

By establishing minimum standards of competency for geologists working in the state, a new professional Geologist (PG) Law will:

*dramatically reduce the risk of error leading to loss of life and property from geologic hazards such as floods, slope failure, sink holes, rockfalls and erosion and greatly reduce the expense of repeating incorrect and/or incomplete work*

- establish a mechanism to determine whether a professional geologist is competent to assess the availability, protection, and quality of groundwater supplies and to assess, investigate, and clean up soil and groundwater contamination.

- place Michigan with the 38 other states that have passed or have pending legislation requiring licensing for geologists.
- end the competitive and economic disadvantage experienced by Michigan geologists seeking assignments in neighboring states. Currently, Michigan geologists must go through a lengthy and costly process to be licensed in other states. Yet geologists from other states have no such requirement to work in Michigan. Once established, other states will readily recognize the Michigan license and put an end to this inequity.
- establish a pre-trial dispute resolution mechanism funded by the geology profession that will reduce lawsuits and their attendant burden on the courts.
- enable Michigan Consumer and Industry Services (CIS) to assess fees for license applications, examination of qualified applicants, licensing, and license renewal for geologists. ***The process will be self-funding, costing the state of Michigan nothing.***

#### **WHO**

The AIPG-Michigan Section has more than 300 active members and represents professional geologic organizations in Michigan and local chapters of national geologic organizations.

#### ***1. Why is licensure of geologists being proposed in Michigan?***

Licensure is being proposed for a variety of reasons. These include –

- a. Michigan has experienced several instances where adequate geological analysis was not performed and the public safety and health have been compromised or funds wasted.
- b. A benefit of minimum standards of practice statutory requirements for certain geologic practice in Michigan provides legal recourse to an injured consumer and enforceability of the regulations. In contrast, it is difficult to rely on regulatory programs in other states to ensure quality geologic work is performed that protects the safety and health of Michigan's citizens.
- c. Certain municipal and government (including federal) projects require geologists providing services to such projects are licensed in one of the 50 states.
- d. Though certification through the national organizations (AIPG, SIPES, AAPG-DPA) is desirable, they cannot effectively enforce their codes locally and most states do not recognize their certification for purposes of licensure.

#### ***2. What are the differences between registration, certification, and licensure?***

Generally, states use the term "registration" to refer to an exam-based formal program that regulates the practice of geology. To be consistent with state laws, some states like Michigan and Indiana use the term "licensure," which means the same thing. In contrast, "certification" by states and professional organizations typically implies a minimum standard of qualifications, but is not exam-based.

#### ***3. Is it proposed that all geologists practicing in Michigan be licensed?***

**No. The proposed program would require licensure only for geologists whose practice may affect the health and safety of the public. This would include those performing many types of environmental work, siting of facilities, land development, and water resource development. Other geologists though, may want to become licensed to enhance their marketing potential.**

#### ***4. What are the proposed requirements to become a licensed Professional Geologist in Michigan?***

The proposed minimum requirements for geologist licensure in Michigan include a bachelors degree in the geosciences with 8 years experience in geologic practice; a masters degree with 7 years experience, or a doctorate degree with 6 years experience; successful

## Frequently Asked Questions

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successful completion of an exam; a demonstrated record of active professional practice in geologic work of a character satisfactory to the board; and submission of written endorsements attesting to the applicant's professional competency.

**5. *Is there a proposed grandfather period to apply for licensure?***

A 1-year grandfather period is proposed. Those who apply during the grandfather period will still need to meet the requirements of experience and education, but will not be required to pass an examination.

**6. *Is it proposed that subdisciplines of geology be licensed?***

Yes, the proposed program includes licensure for all geologists if they are practicing geology before the public. Subdisciplines of geology will not require a separate license.

**7. *Are there continuing education requirements for renewal?***

Yes, nine hours of continuing education credits are proposed over a three year period.

**8. *What is "Practice of Geology Before the Public"?***

The answer to this question is a working definition that may be revised as the licensure effort moves through the legislative process. The current working definition, which has been reviewed by members of the Michigan Chapter of the American Institute of Professional Geologists, is:

**Practice of Geology before the Public means the performance of geological service or work including but not limited to consultation, investigation, evaluation, planning, geologic mapping, interpretation of geologic data, preparation of geologic reports, geologic cross-sections, and geologic maps, inspection of geological work, and the responsible supervision thereof, the performance of which is relevant to public welfare or the safeguarding of life, health, property and the environment, except as otherwise specifically provided by this act. A person shall be construed to practice or offer to practice geology, within the meaning and intent of this act, who practices any branch of the profession of geology; or who by verbal claim, sign, advertisement, letterhead, card or in any other way represents himself or herself to be a geologist; or who through the use of some other title implies that he or she is a geologist or that he or she is registered under this act; or who holds himself or herself out as able to perform or who does perform any geologic services or work recognized by the Board as the practice of geology.**

## **Michigan Basin Opportunities: Alternative Views of Well Logs Using Log Curve Amplitude Slicing and Tomography**

**Dr. Albert “Buddy” Wylie**

Well log tomography is a new technique that generates subhorizontal slices through well log curves on a sample-by-sample basis across petroleum fields or basins. The slices through the log curves represent approximate time lines and are relative chronostratigraphic surfaces that can be contoured to show trends in log curve amplitudes in map view when time-surfaces (e.g., unconformities, flooding surfaces, ash beds) bracket the interval of interest. Animation allows the visualization of changes in the distribution of amplitudes, interpreted lithofacies or reservoir properties between successive slices. Application of the well log tomography technique facilitates correlation because it highlights trends in log curve amplitudes that are not apparent using traditional methods to compare log curves. This presentation will show examples of the on going application of well log tomography to the Antrim, Traverse, Dundee, Niagaran and Trenton Formations in the Michigan Basin.

### **Biography:**

Dr. Buddy Wylie is currently a Research Scientist/Engineer with Michigan Technological University. Buddy has more than 20 years of experience in petroleum exploration and reservoir characterization. He has held positions with Chevron, Santa Fe Energy, and Mobil among others and has been involved in many large exploration and reservoir characterization projects in West Texas, New Mexico, Argentina, and California's heavy oil reservoirs. His present interests include the continued development of log curve amplitude slicing and well log tomography for subsurface imaging and analysis of petroleum systems and reservoirs in Michigan and other areas.

**May 6, 2004:** AIPG Chapter meeting “Superglacial Stream Incision into Debris-Covered Ice, Matanuska Glacier, AK,”  
By Brandi Boyd, Senior at Central Michigan University

At On the Border – Mexican Grill  
21091 Haggerty Road  
Novi, Michigan  
Exit off I-275 at 8 Mile Road, approx. ¼ mile north of 8-Mile on Haggerty Road

Schedule: Cash Bar and appetizers 5:30 PM; Dinner 6:30 PM;  
Meeting 7:15 PM-7:30 PM; Speaker 7:30 PM to 8:15 PM

RSVP by May 3. Telephone or e-mail registration with Name, Company, Address, Phone, Fax, Amount Due, and Dinner Choice to AIPG-Michigan Section, c/o Mr. Scott Cesarz, Superior Environmental, Inc. Contact Telephone is 248-596-1170, the FAX is 248-596-1175, and email address is: [cesarzs@superiorenvironmental.com](mailto:cesarzs@superiorenvironmental.com). Reservations not cancelled by March 1 will be billed. Checks to AIPG-Michigan.

# **NORTHEAST LOWER PENINSULA FIELD CONFERENCE**

## **Sponsors:**

**Michigan Basin Geological Society (MBGS),  
American Institute of Professional Geologists, Michigan Chapter (AIPG)  
Michigan Association of Environmental Geologists (MAEP)**

**Friday, April 30**

**Saturday, May 1**

**Sunday, May 2**

The conference will open Friday evening with presentations followed by all day Saturday and Sunday morning field excursions. Each excursion day will end at Gaylord. Stops on the field excursion will visit natural gas seeps, glacial features (kames, eskers, kettle lakes, moraines) karst features (sinkholes), a local quarry to discuss the Dundee Limestone, geomorphic surface expressions, oil & gas production and some local history. The trip will take us through Alpena, Montmorency, Otsego and Presque Isle Counties.

## **Friday evening presentations:**

### **Gas Seeps of Northeastern Lower Peninsula**

By Tyrone Black, Michigan DEQ Geological and Land Management Division.

### **Evaluation of Relationships between Hydrogeologic Environment and Petroleum**

**Hydrocarbon Remediation in Quaternary Glacial Sediments** by Lisa M. Boettcher and Arden D. Davis, South Dakota School of Mines and Technology.

### **A Poster Presentation: The Glaciated Landscape in the Grand Traverse Bay Region of Michigan and the Nature of the Greatlakean Advance of the Laurentide Ice Sheet in Michigan, USA**

By S.C. Lundstrom, U.S. Geological Survey.

### **The Traverse Group from the Outcrop to the Subsurface: A New View combining the Historical Literature with Log Curve Amplitude Slicing to Identify Exploration Opportunities**

By Albert S. Wylie, Jr., Department of Geological and Mining Engineering and Sciences, Michigan Technological University.

### **How Michigan Got it's Thumb**

By David Baxter, Consultant.

### **Precambrian Basement Structures and Their Possible Role in Karstic Activity Across the Northern Michigan Basin**

By David Baxter, Consultant.

## **REGISTRATION INCLUDES:**

Friday evening presentations, Saturday continental breakfast, Saturday field trip, Saturday lunch, Sunday continental breakfast and field guidebook. Registrants are responsible for their own lodging, meals other than those listed above and transportation both to the Otsego Inn and during the field excursion. We encourage carpooling during the field excursion to minimize the number of vehicles in the caravan.

**CONFERENCE FACILITY AND LODGING:**

The conference will take place at the Otsego Club in Gaylord, Michigan. Registrants are responsible for their own lodging. Group rates for the conference registrants have been arranged for. A rate of \$65 per night will be given to those mentioning the MBGS Conference when booking their room. The Otsego Club (800-752-5510 or 989-732-5181) is located on M-32 one mile east of Gaylord.

**Registration begins at 6:00 pm on Friday, April 30**  
**Friday evening presentations from 7:00 pm to 9:00 pm**  
**in the Spitzman Room, Otsego Club.**  
**Saturday field excursion from 9:00 am to 4:00 pm**  
**Sunday field excursion from 9:00 am to 12:00 pm.**

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**NORTHEAST LOWER PENINSULA FIELD CONFERENCE**  
**REGISTRATION FORM**

Name: \_\_\_\_\_

Address: \_\_\_\_\_

e-mail address: \_\_\_\_\_

Daytime Phone: \_\_\_\_\_

MBGS Member  AIPG Member  MAEP Member

**Registration Fee (per person): \$45.00 US, a confirmation will be sent by e-mail**  
**Limit of 40 registrants. Registration must be received by April 15, 2004.**

**One registration form per person.**

Mail form with payment to (check payable to "MBGS"):  
NELP Field Conference, MBGS  
5711 Ambler Street, Holt Michigan 48842  
Attn: Mark Wollensak  
Direct any questions to Mark at (517) 719-8321 or [mark@mbgs.org](mailto:mark@mbgs.org)