ON THE ROCKS

A Newsletter of the Michigan Basin Geological Society

2016-2017 Edition 4 *www.mbgs.org* *December 2016*

MBGS MEMBERSHIP MEETING

The December meeting will be held on December14th, 2016 at Michigan State University, Natural Science building at 7:00 pm in Room 116. John Yellich, Director of Michigan Geological Survey, Western Michigan University, will be presenting "The 21st Century - Natural Resource Geological Assessments". Additional information is included in the newsletter.

2016-2017 MEMBERSHIP DUES

It is time to submit the 2016-2017 MBGS membership dues. Included in the newsletter are two renewal notices. Annual membership is $25 for members and $10 for students. Please fill out the **appropriate membership form** and mail in with payment. You must renew by December 31, 2016 to ensure continued delivery of the monthly newsletter and other member benefits. Renew today!

We are planning monthly lectures typically on the 2nd Wednesday of each month (September through May). Our field trip directors are busy working on numerous field trips for the upcoming year. Watch the newsletter for lecture and field trip details, dates and times.

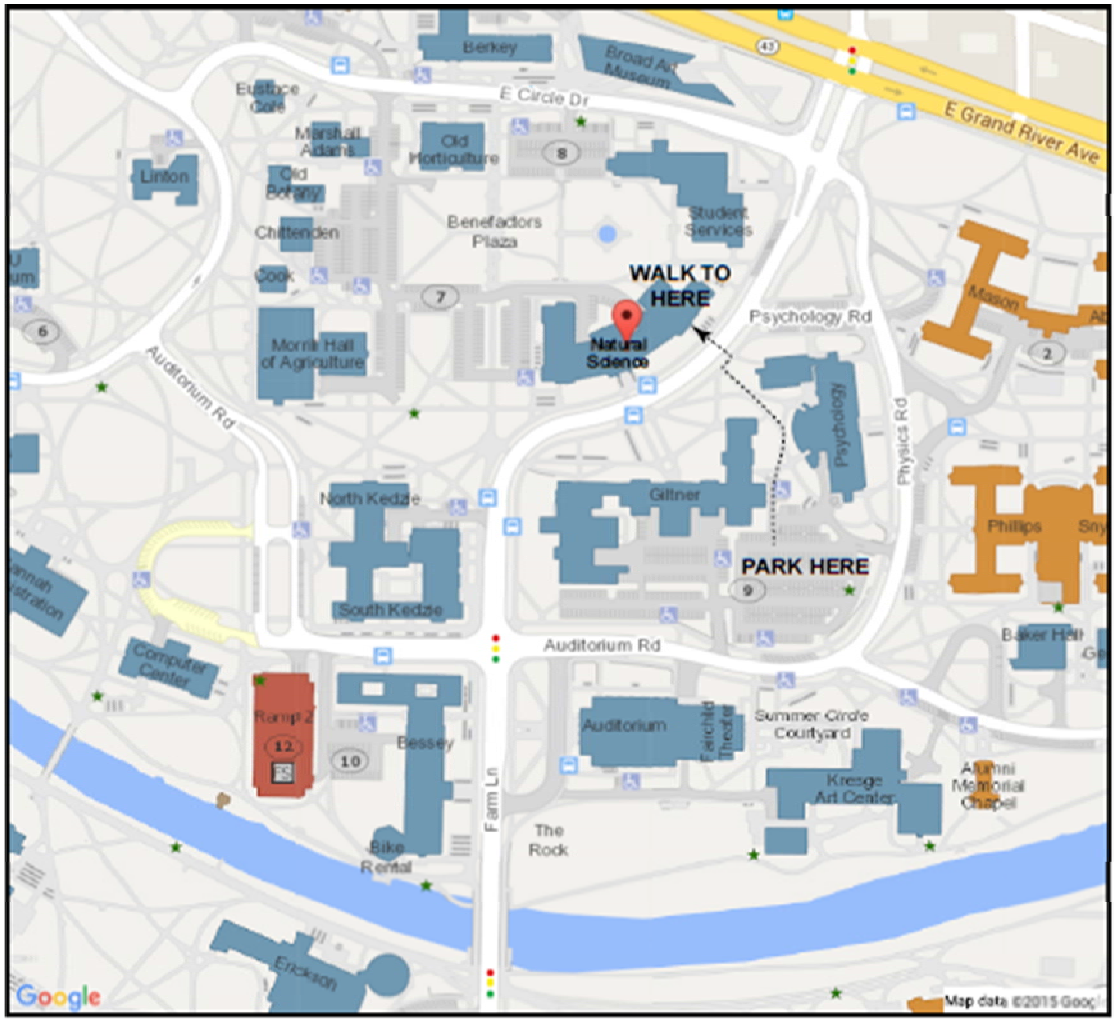
LED FIELD LENS AND MBGS LANYARD AVAILABLE

The Michigan Basin Geological Society is offering to its members and non- members this geological field hand lens and lanyard (photo attached). The field hand lens is a large 21mm lens with a 20X magnification. A pair of white LEDs provides illumination for all those darkened close-up viewing of rocks, minerals and fossils. A case is provided for the field lens with a key to remove the batteries. Batteries are included. The green lanyard has MICHIGAN BASIN GEOLOGICAL SOCIETY printed on one side of the unfussy 1" wide webbing. This lanyard is designed with a breakaway buckle clip and detachable keychain for versatile use and comfortable wearing. MBGS is offering the Lanyard/LED Hand Lens and Case combo for $15 each and the Lanyard alone for $5 each if picked up at a meeting or field trip. If you request to have your purchase mailed, standard costs for mailing container and postage will apply. Please contact Mark Wollensak at wollensak@voyager.net to order.

Michigan Basin Geological Society
December 2016 Membership Meeting

When:	Wednesday, December 14th, 2016
Location:	Michigan State University, Natural Science Building, Room 116
When	7:00 PM
Topic:	The 21st Century - Natural Resource Geological Assessments
Presenter:	John Yellich, Michigan Geological Survey
Costs:	No charge for this meeting for members

Executive Committee Meeting: 4:30 PM at Claddagh Irish Pub, Lansing. Members are welcome to attend.



Between 5pm & 6pm you can park in Lot 9 behind Giltner Hall and the Psychology Building (former Physics and Astronomy building) for free. Otherwise you can try your luck with the metered slots clustered around the Natural Science Building and the adjacent Student Services Bldg, no charge after 6.

The 21st Century - Natural Resource Geological Assessments

John A. Yellich, CPG
Director, the Michigan Geological Survey

The Michigan Geological Survey is requesting public input in order to develop an approach for assessing natural resources data acquisition requirements that will meet the public and scientific needs into the 22nd Century. Geologic mapping and data collection and its dissemination to the public and to the scientific community have all changed dramatically over the last 20+ years. In addition, the users of validated public data developed by the geological survey has changed as well. The revitalized Michigan Geological Survey (MGS) is polling the scientific, environmental, and citizen communities in an effort to determine, and to prioritize, geological aspects of Michigan's natural resources that are poorly understood; what data sets are being used; what data format is needed; and if there are specific areas of concern.

Fundamental questions are:

- Who are the users of resource data, scientists and/or non-scientists?
- What data format(s) is needed so it is useable by the largest audience?
- What new data sets are needed?
- What old data is still valid?

Many users of geologic information, do not know what is valid or what is not. Data that is thought to be valid may not be so. Scientific information must be capable of being used into the next century. The collection and, specifically, the format of validated data is critically relevant today and preliminary results of stakeholders requests are presented.

JOHN A. YELLICH, CPG, DIRECTOR OF GEOLOGICAL SURVEY

John A. Yellich was appointed the Director of the Michigan Geological Survey effective October 2, 2013. Mr. John A. Yellich obtained his Bachelors and Masters degrees in geology from Western Michigan University and for over 30 years, has been a Certified Professional Geologist (American Institute Professional Geologists) and member of the Society of Mining, Metallurgy & Exploration (SME) for 25 + years. Mr. Yellich brings more than 40 years of geologic experience in mineral exploration, mineral development, environmental consulting, business operations, and safety compliance. He has worked in more than 30 States, conducted mineral assessments in Canada and Australia, and both mineral and petroleum assessments in China.

Mr. Yellich is an exploration, mineral development and environmental geologist with experience in selective mineral resource areas in all the states west of the Mississippi; upper Midwest (Minnesota, Wisconsin, Michigan); the Piedmont province of the East; selective areas of the Canadian provinces of Ontario, Saskatchewan, and Alberta; Northern and South Eastern Australian Territories; and selective oil and mineral provinces in China. He has authored a number of 43-101 Reports (Canadian Securities Administration – Feasibility Report) to validate exploration information on selective projects. In addition, he guided and reviewed surface water and groundwater investigations and evaluations and negotiated regulatory agreements on many sites in 15 states during the conduct of environmental liability assessments for a Fortune 50 company, Union Pacific Corporation.

UPCOMING EVENTS

December 14, 2016: MBGS Membership Meeting, speaker John Yellich, Michigan Geological Survey director, presenting "Natural Resources of Michigan, How do you see their function and role in the 21st Century?" .

January 9, 2017: Western Michigan University Geosciences, Seminar Series, Michigan Natural Resources Production Statistics, Dr. Peter Voice, https://wmich.edu/geology/events/seminar

January 11, 2017: MBGS Membership Meeting, speaker Doug Elenbaas, independent consultant, presenting "History of Oil and Gas in Michigan" .

January 23, 2017: Western Michigan University Geosciences, Seminar Series, Straight Talk on Geoscience Careers: County Drain and Stormwater Management, Dr. Patricia Crowley, https://wmich.edu/geology/events/seminar

February 8, 2017: MBGS Membership Meeting, speaker Colin Plank, AECOM, presenting "The importance of detailed site stratigraphy in understanding site contaminant transport and storage" .

March 8, 2017: MBGS Membership Meeting, speaker Chad Kotke, DEQ - WRD, presenting "Stamp Sands in Michigan".

March 23, 2017: MBGS and MI SPE Joint Meeting, the speaker is Michael Gillen presenting "Applications and Advantages of Logging-While-Drilling in High Angle and Horizontal Wells".

May 15, 2017: MI SPE Membership Meeting, the speaker is Frank Blaskovich presenting "Energy Policy: Is it Effective? Is it Fair?".

June 13-14, 2017: 7th Annual Michigan Section AIPG Technical Workshop, RAM Center, Roscommon. Topic TBA.

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MICHIGAN BASIN GEOLOGICAL SOCIETY OFFICERS 2016-2017

PRESIDENT: JOHN SHOOK, PE, VP Operations
Detroit Salt, Mine
12841 Sanders St., Detroit, MI 48217
W (313) 841-5144 x 121 (C) 707-293-7306

VICE PRESIDENT: PETER ROSE, Geologist
Office of Minerals Management, Michigan Department of Natural Resources
W (517) 284-5901 , RoseP1@michigan.gov

SECRETARY: JOHN YELLICH, Director
Michigan Geological Survey, Western Michigan University
1903 West Michigan Ave, Kalamazoo, MI 49008-5241
(W) 269-387-8649 (C) 303-901-2886; john.a.yellich@wmich.edu

TREASURER: MIKE POZNIAK
Arcadis
101 S. Washington Square, Ste 400, Lansing, MI 48933
(W) 517-324-5054 (C) 517-898-3839 mike.pozniak@arcadis-us.com

BUSINESS MANAGER: EMANUAL "EZ" MANOS, President,
Detroit Salt Company LLC
12841 Sanders St., Detroit, MI 48217 ezmanos@detroitsalt.com

PAST – PRESIDENT : DAVE BARNES
GEOS, Western Michigan University,
1903 West Michigan Ave, Kalamazoo, MI 49008-5241
(W) 269-387-8617 (C) 269-365-4561; barnes@wmich.edu

FIELDTRIP DIRECTOR: MARK WOLLENSAK, CPG
Hamp, Mathews & Assoc, Inc,
15266 Ann Drive, Bath, MI 48808
(W) 517-641-7333 (C) 517-719-8321, wollensak@voyager.net

FIELDTRIP DIRECTOR: LUKE DEWIG
TransCanada
5250 Corporate Drive, Troy, MI 48098
(C) 248-904-8154, luke_dewig@transcanada.com

NEWSLETTER EDITOR: ARLENE ANDERSON-VINCENT
Nestle Waters North America
19275 Eight Mile Road, Stanwood MI 49346
(W) 231-823-8451 arlene.anderson-vincent@waters.nestle.com

ELECTRONIC PUBLICATIONS: MARK WOLLENSAK, (see above)

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- The Stratigraphy of Manitoulin Island, Ontario, Canada, June 19-20, 1954
- The Devonian and Silurian Rocks of Parts of Ontario, Canada and Western New York, June 22-23, 1951
- The Traverse Group of the Northern Part of the Southern Peninsula of Michigan, June 16-17, 1949
- The Devonian Strata of the London-Sarnia Area, Southwestern Ontario, Compiled by Erwin C. Stumm, Lewis B. Kellum and Jean Davies Wright, June 9-10, 1956
- The Ordovician Rocks of the Escanaba-Stonington Area, Led by R. C. Hussey , June 2-3, 1950
- The Niagara Escarpment of Peninsular Ontario, Canada, June 18-19, 1955
- Lower Paleozoic and Pleistocene Stratigraphy Across Central Wisconsin, Compiled by C. E. Prouty, Led by L. M. Cline, J. L. Hough and R. F. Black, 1960
- Classic Silurian Reefs of the Chicago Area, by Donald G. Mikulic and Joanne Kluessendorf , June 27, 1998
- Geology of Central Ontario, Canada, 1965

Historical CD #2: Four out-of-print publications from 1947, 1959, 1983 and 1991, 2001, $15

- Copper Country Field Trip, Michigan, June 20-22, 1947
- Geology of Mackinac Island and Lower and Middle Devonian, South of the Straits of Mackinac, June 12-14, 1959
- Tectonics, Structure and Karst in Northern Lower Michigan, August 1983
- Geology of the Pictured Rocks, Upper Peninsula, Michigan, July 11-13, 1991

Historical CD #3: Six out-of-print publications from 1948, 1952, 1990 - 1995, 2001, $15

- Pleistocene and Early Paleozoic of the Eastern Part of the Northern Peninsula of Michigan, June 18-21, 1948
- Stratigraphy and Structure of the Devonian Rocks in Southeastern MI and Northwestern OH, June 20-21, 1952
- Lower Ordovician and Upper Cambrian of Wisconsin , May 10-12, 1990
- Guidebook to the Precambrian Geology and Metallogeny of the Central Upper Peninsula of Michigan September 12-13, 1991

Historical CD #4: Six out-of-print publications from 1957, 1958, 1961, 1967, 1968 and 1970, 2004, $15

- Silurian Rocks of the Northern Peninsula of Michigan , 1957
- Cambrian Geology of Parts of Dickinson and Iron Counties, Michigan, June 1958
- Geologic Features of Parts of Houghton, Keweenaw, Baraga and Ontonagon Counties, Michigan, May 19-21, 1961
- Correlation Problems of the Cambrian and Ordovician Outcrops Areas, Northern Peninsula of Michigan 1967
- The Geology of Manitoulin Island, June 1968
- Devonian Strata of Alpena and Presque Isle Counties, Michigan 1970

Historical CD #5: Five out-of-print publications from 1971, 1989, 2001, and **Oil & Gas Fields Vol. 1 & 2, 1969 & 1992**, 2006, $50

- Oil & Gas Fields Symposium, Volume 1**,** April 1969**,** 200 pp., maps, illus., second printing with updates
- Oil & Gas Fields Manual of the Michigan Basin, Volume 2**,** 1992**,** 520 pp., maps, illus.
- Glacial Geology of Southwestern Michigan**,** 1989**,** 53 pp. by A. Kehew, L. J. Schmaltz, and W. T. Straw
- Geology of the Lake Erie Islands and Adjacent Shores**,** 1971**,** 65pp., maps, illus. by Jane L. Forsyth
- Glacial Geology of Southwestern Michigan, Landforms of the Lake Michigan Lobe, Southwestern Michigan, 2001, AAPG Eastern Section Meeting Field Trip, 32 pp., maps, illus. by A Kehew and A. Kozlowski

Historical CD #6: Six out-of-print publications from 1946, 1953, 1963, 1966, 1978 & 1987 plus the Richfield Challenge, 1952 & Tom Knapp's MS Thesis, 2007 $15.

- Guidebook for Ordovician Stratigraphy of the Cincinnati, Ohio and Richmond, Indiana Areas, June 12, 13, 1953 by W. H. Shideler and B. T. Sandefur
- Guidebook for Ontario Geological Excursion to Kettle Point – Owen Sound- Waubaushene, June 21, 22, 23 1946 by W. A. Roliff, C.S. Evans and J.F. Caley
- Guidebook for the Stratigraphy of the Silurian Rocks in Western Ohio, May 31-June 2, 1963 by C. H. Summerson, Jane L. Forsyth, Karl V. Hoover and J. R. Ulteig
- Guidebook for Cambrian Stratigraphy in Western Wisconsin, May 21, 22, 1966 by Merideth E. Ostrom
- Geology of the Manitoulin Area, Special Papers #3, September 29, 30 and October 1, 1978 by J. T. Sanford
- and R. E. Mosher
- Middle Devonian Cratonic Carbonates and Shales in Southwestern Ontario, November 14, 1987 by Bruce Wilkinson
- The Richfield Challenge, A Review of the Richfield Developments in Michigan, 1952 by Gordon H. Hautan
- A Theory of Rogers City and Dundee Relationships in Central Michigan, Masters Thesis, 1947 by Tom Knapp

Historical CD #7: Field Guidebooks from 1962, 1969, 1977, 1980, 1985 & 1988, $15

- Silurian Rocks of the Southern Lake Michigan Area, 1962, James H. Fisher, Chairman, MBGS Annual Field Conference
- Studies of the Precambrian of the Michigan Basin, by Harold B. Stonehouse, 1969
- The Geology of the Marquette District: a Field Guide By F. W. Cambray, 1977
- Ordovician and Silurian Geology of the N. Peninsula of Michigan, 1980, R.B. Votaw, 40 pp., illus., maps
- Special Paper #4: Ordovician and Silurian Rocks of the Michigan Basin and its Margins, 1985 K.R. Cercone and J.M. Budai (eds.), 96 pp., illus.
- Upper Keweenawan Rift-Fill Sequence, Mid-Continent Rift System, Michigan, 1988, P.A. Daniels and R.D. Elmore, M.S. Wollensak, ed., 150 pp., illus., maps

OTHER SPECIAL OFFERS

- **Historical CD Set - # 1 – 7 (detailed above) for a special purchase price of $95**

- **NE Lower Peninsula Geological Field Conf.,** 2004, T. Black, M. Wollensak, On CD $10

- **Stratigraphic Lexicon for Michigan,** 2001, prepared by MBGS and published by DEQ, $4

- **Robert E. Mosher Geological Studies** A lifetime of geological research on Silurian Rocks with John T. Sanford. The disks are organized chronologically and include field work in North America and Europe. 2007, 2 CDs $35.

MBGS ONLINE STORE

The Michigan Basin Geological Society now has an on-line store. Shop for shirts, hats, bags and other items at http://www.cafepress.com/mbgs.

7th Annual AIPG Michigan Section Workshop

Environmental Risk Management: Characterization's Role in Remedy Selection

Call for Abstracts

The AIPG Michigan Section is calling for abstracts for the 7th Annual AIPG Michigan Workshop to be held June 13 and 14, 2017, at the Ralph A. MacMullan Conference Center on Higgins Lake in Roscommon County, Michigan.

This 7th workshop in the series of annual training events hosted by the AIPG Michigan Section focuses on providing quality technical information and case studies. These environmental workshops bring together a broad base of topic expertise from consulting, regulatory, academic, and owner perspectives. This unique workshop forum promotes collaboration for solving tough environmental problems through real site case studies as valuable technical learning tools to develop strategies for evaluating and managing risks associated with releases of hazardous substances to the environment.

The theme for this year's Environmental Risk Management Workshop is **Characterization's Role in Remedy Selection**. Managing risks from hazardous substances released to the environment requires thoughtful decision making to ensure that human health and the environment are protected. To make well informed decisions, the information and data collected are expected to support the conclusions and selected remedial solutions to manage site contaminant risks.

The AIPG Michigan Section is seeking abstracts for new case studies that highlight the latest tools and innovative methods used to help us characterize sites and collect information that guide our risk management decisions.

The presentations at this workshop will focus on how to identify risk management remedies ranging from aggressive removal to long term exposure maintenance, what are the right questions to ask, and how to collect the data to answer those questions. This workshop will provide the same thought provoking, high quality technical presentations and discussions that have come to be expected of the AIPG Michigan Section's annual workshop. As professionals working in the environmental industry, we make decisions regarding potential and real exposures daily using tools developed from the latest advances in science and technology, statutory requirements and professional experience.

Abstracts Due: January 13, 2017

Selection Notification: February 10, 2017

The program will be developed on the basis of a review of abstracts. One page abstracts are to be submitted as Microsoft Word files, single spaced, and 12 point Arial font. Submit Abstract to: AIPG.MI.Section@gmail.com

Questions? Contact Co-Chairs Rick Dunkin or Sara Pearson

Michigan State University - Emeritus Professor Dr. Jim Trow dies at 94

Emeritus faculty member Dr. James "Jim" Trow passed away last Thursday, November 17, 2016. Jim was a professor of Mining and Geology from 1947 to 1997. Jim's emphasis was on mining exploration, structural geology, sedimentology (diamonds) and innovation.

Michigan Environmental Education Expands Curriculum Support Online

Tom Occhipinti, 517-284-6867, occhipintit@michigan.gov
Michael Shore, 517-388-9211, shorem2@michigan.gov

The Michigan Department of Environmental Quality (MDEQ) has expanded the Michigan Environmental Education Curriculum Support (MEECS) to include online support modules for educators. Created in partnership with Grand Valley State University (GVSU) and the Public Broadcasting Service (PBS), the video modules demonstrate hands-on activities, provide lesson objectives, and explain how each lesson connects to Department of Education teaching standards.

MEECS contains seven Michigan-specific units for students in grades 3-9 to learn about Michigan's economy and environment through outstanding, inquiry-oriented, data-based lessons in science and social studies. Until now, training for these resources was only offered in person. While in-person workshops are still available, educators can now access the modules anytime, free of charge by visiting the PBS Learning Media Web page (www.pbslearningmedia.org) and typing 'MEECS' in the search bar.

"We are very pleased to provide Michigan educators with the new MEECS Online Learning Modules," said MDEQ Director Heidi Grether. "While MDEQ has been providing environmental education materials and workshops since 2006, this partnership with GVSU and PBS greatly expands their availability."

The response from educators has been positive. "I love that the MEECS lessons are already planned for me," said Christopher Trepanowski, a teacher from Harper Woods. "And, my students love the hands-on activities, getting outside, and learning about local issues."

MEECS materials can be used individually, adopted into a school's multi-year science curricula, or combined to form the basis for an integrated science course. They can be purchased through the Central Michigan University Web site (www.cmich.edu), then enter 'MEECS' in the search bar.

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QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
1	ANNUAL STUDENT MEMBERSHIP DUES for 2016-2017	10.00	$ 10.00
		SUBTOTAL	$ 10.00
		TAX	$ -
		FREIGHT	$ -
			$ 10.00
			PAY THIS AMOUNT

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		TAX	$ -
		FREIGHT	$ -
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