



ON THE ROCKS

A Newsletter of the Michigan Basin Geological Society

2019-2020 Edition 2

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October 2019



ANNOUNCEMENTS

MBGS Membership Meeting, October 9th, 2019: Michigan Basin Geologic Society meeting will be hosted at Michigan State University in the Natural Science Building, East Lansing, Michigan. Paul Meneghini and Bryan Stiemsma, Enbridge will present "Update on Enbridge – Kalamazoo Oil Spill and Line 5". Information is included in the newsletter.

OTHER NEWS

Former MBGS President Wins Award - Harold R. Fitch, a longtime Michigan oil and gas regulator, received the E.W. Marland Award at the 2019 Annual Conference of the Interstate Oil and Gas Compact Commission (IOGCC) in Medora, North Dakota.

The prestigious award, which recognizes an outstanding state regulator, is named for E.W. Marland, the former Oklahoma governor who led in chartering the compact in 1935. IOGCC's current chair, North Dakota Governor Doug Burgum, presented the award to Fitch for his many years of dedicated service in support of IOGCC's mission.

Fitch served as Director of the Oil, Gas and Minerals Division for the Michigan Department of Environmental Quality from 1996 until he retired in April of 2019. In 2011, Fitch was appointed by Michigan Governor Rick Snyder to serve as the state's Official Representative to IOGCC, and he remained in that role until his retirement. He also completed terms on various IOGCC committees, including the Steering Committee, Resolutions Committee, and Environment and Safety Committee.

After his retirement from Michigan's Department of Environmental Quality, Fitch went on to start his own consulting firm, H.R. Fitch Consulting Services, where he uses his 40 years of state government experience to assist his clients with government affairs issues. He is currently assisting IOGCC with an update of its publications on state regulations concerning idle and orphan oil and gas wells.



Left to Right: North Dakota Governor, Doug Burgum with 2019 Marland Award Winner, Harold R. Fitch.



October 2019 MBGS Membership Meeting

When: October 9th, 2019, 7:00PM

Where: Michigan State University in the Natural Science Building, East Lansing, Michigan

Speaker: Paul Meneghini and Bryan Stiemsma, Enbridge

Presentation: "Update on Enbridge – Kalamazoo Oil Spill and Line 5 "

Abstract: Paul and Bryan will provide a brief overview of Enbridge assets in North America, an update on the restoration following the 2010 Kalamazoo River Spill and wrap up with a discussion on Enbridge's plan to replace a segment of Line 5 in the Straits of Mackinac into an underground tunnel.

Biography: Paul Meneghini and Bryan Stiemsma, Enbridge

Paul Meneghini is a native of the Upper Peninsula of Michigan and has a Civil Engineering Degree from Michigan Technological University in Houghton, Michigan and an MBA in Environmental Management from the University of St. Thomas in St. Paul, Minnesota. Paul worked in the environmental consulting industry for the first 9 years of his career involved in all aspects of various site remediation projects including soil boring oversight, data collection, remediation system design and risk assessments for a variety of clients in the banking, real estate, petroleum and public sectors. For the past 16 years Paul has been with Enbridge currently located out of their Duluth, Minnesota office. Over the course of his career with Enbridge he has held various rolls involved in environmental remediation, environmental permitting, regulatory permitting and compliance, major pipeline project development, project management and most recently public affairs. Currently, Paul is the Manager, Community Engagement for the Great Lakes Region which consists of Enbridge pipeline assets in the States of Michigan, Illinois, Indiana and part of Ohio and New York State. In this role, Paul leads a team of outreach professionals within the region managing stakeholder interests.

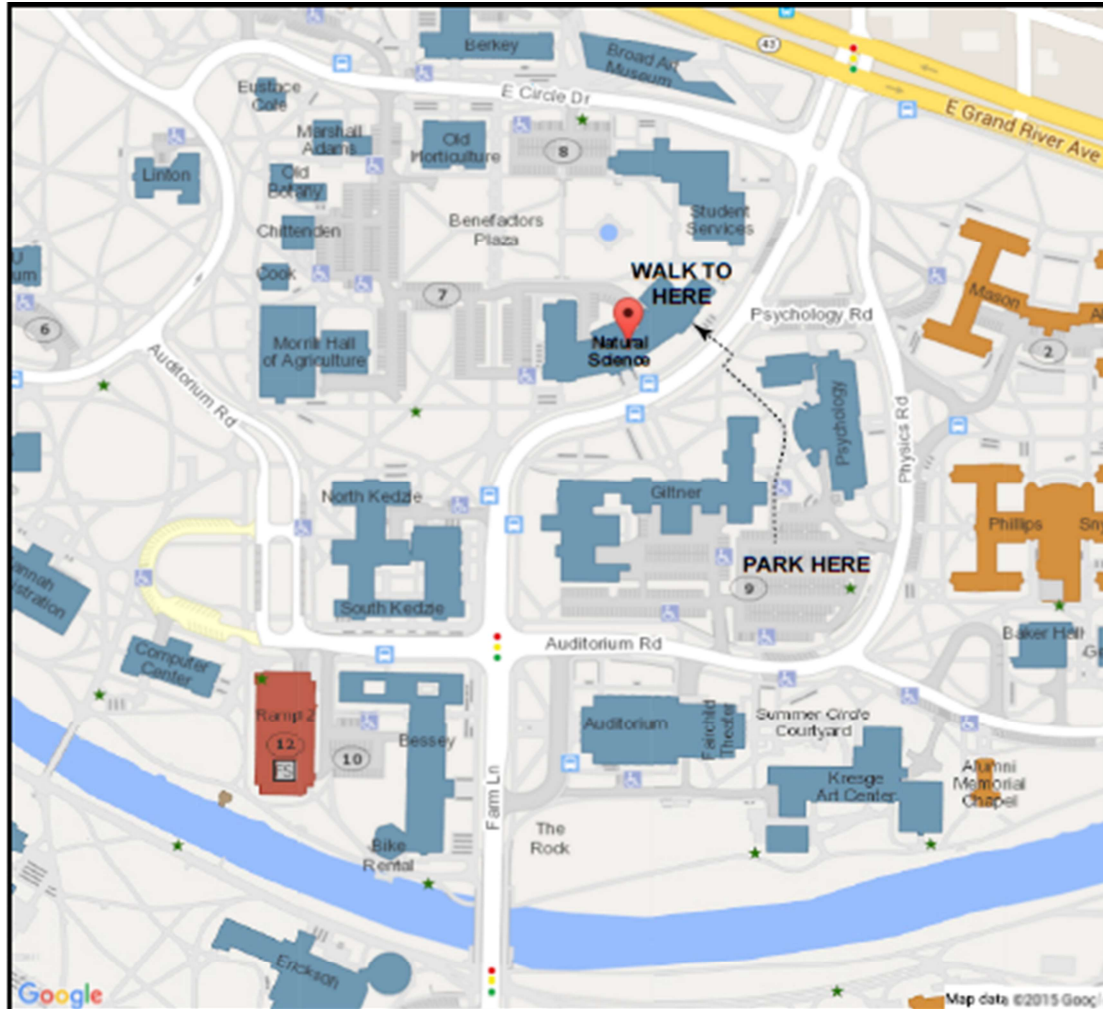
Bryan Stiemsma was born and raised in Battle Creek Michigan. He received his undergraduate degree from The University of Michigan in 1981 specializing in geology. Bryan worked for 10 years as a well site geologist in the oil and gas industry across the US eventually returning to the Michigan Basin. Subsequently Bryan entered the environmental consulting profession where he worked for over 20 years assisting a wide variety of clients including mining companies, utilities, railroads, and municipalities in managing environmental issues. During the last ten years as a consultant, Bryan was primarily engaged in working for the State of Michigan in investigating and remediating orphaned contaminated sites across the state. While working as a consultant, Bryan was selected to be the lead for the coordination and supervision of a variety of environmental consultants who responded to the July 2010 Enbridge oil release. Bryan has worked on the Kalamazoo River response project since August of 2010 being formerly employed by Enbridge in 2013 as Manager of the Michigan Remediation project. Bryan still remains in Marshall where in addition to the Kalamazoo River project he works on other remediation sites for Enbridge.

MBGS Monthly Membership Meeting, October 9th, 2019

Michigan State University

College of Natural Science Building, Room 204

288 Farm Lane, East Lansing, MI 48823, (517) 355-4470



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. MSU Interactive Map: <https://maps.msu.edu/>





EVENTS

October 5-6th, 2019: Mineralogical & Lapidary Society Rock Swap, Belleville, Michigan <http://www.mmls.us/>

October 9th, 2019: EGLE Michigan Petroleum Storage Tanker Conference Series, Grand Rapids, Michigan, https://www.michigan.gov/egle/0,4561,7-135-3308_3333-491838--,00.html

October 11-13th, 2019: “75th Anniversary” Greater Detroit Gem, Mineral & Fossil Show, Warren, Michigan, https://docs.wixstatic.com/ugd/ceb2d5_9075cba89f7040b0a5bd6a9d1fdb16bf.pdf

October 12-16th, 2019: 48th Annual AAPG Eastern Section Annual Meeting, Columbus, Ohio, <https://www.esaapg.org/annual-meeting/>

October 16-18th, 2019: EGLE Great Lakes Environmental Remediation and Redevelopment Conference, Lansing, Michigan, https://www.michigan.gov/egle/0,9429,7-135-3308_3333-490862--,00.html

October 18-20th, 2019: Central Michigan Gem & Mineral Show, Mason, Michigan, <http://www.michrocks.org/>

October 19-20th, 2019: Flint Rock & Gem Show, Clio, Michigan <http://www.flintrockandgem.org/>

October 23rd, 2019: 2019 Annual MiCorps Conference & Training, Kettunen Center, Tustin, Michigan <https://micorps.net/events/>

October 23rd, 2019: EGLE Michigan Petroleum Storage Tanker Conference Series, Dearborn, Michigan, https://www.michigan.gov/egle/0,4561,7-135-3308_3333-491838--,00.html

November 2-3rd, 2019: Gem and Mineral Show, Midland, Michigan, <http://www.midmichrockclub.com/>

November 11th, 2019: Michigan Mineral Society Auction, Bloomfield Hills, Michigan <http://www.michmin.org/>

November 20-21st, 2019: EGLE Michigan Sustainability Conference, Lansing Center, Lansing, Michigan, https://www.michigan.gov/egle/0,9429,7-135-3308_3333-393527--,00.html

December 11th, 2019: Michigan Section AIPG Meeting, Weber’s Inn, Ann Arbor, Michigan, <http://mi.aipg.org/default.htm>

EGLE Calendar of Training and Workshops

https://www.michigan.gov/egle/0,9429,7-135-3308_3333---,00.html

ONLINE RESOURCES

- **Michigan Geology Maps Available:** <https://www.michigan.gov/deq/0,4561,7-135-3304-116670--,00.html>
- **Digital Geology Library Overview:** https://www.michigan.gov/documents/deq/GIMDL-Catalog-2010-01-20_307979_7.pdf
- **GeoWebFace:** https://www.michigan.gov/deq/0,4561,7-135-3311_60700---,00.html
- **Digital Geology Library Mining Overview:** https://www.michigan.gov/documents/deq/GIMDL-Catalog-2013_06_22_mining_425595_7.pdf
- **Michigan Geological Survey:** <https://wmich.edu/geologysurvey>
- **USGS Michigan Geological Map Data:** <https://mrdata.usgs.gov/geology/state/state.php?state=MI>
- **CMU, Clarke Historical Library, Michigan Geology:**
https://www.cmich.edu/library/clarke/ResearchResources/Michigan_Material_Statewide/Michigan_Oil_and_Gas_Industry/History_of_Michigan_Oil_and_Gas/Pages/Michigan-Geology.aspx

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MBGS PUBLICATIONS

<http://www.mbgs.org/publications.html>

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Historical CD #1: Nine out-of-print publications from 1949 through 1965 and 1998, 2000, \$15

- 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- Waubesa, 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. Cercione and J.M. Budai (eds.), 96 pp., illus.
- Upper Keweenaw 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.

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