



MICHIGAN SECTION AIPG NEWSLETTER

# Michigan Newsletter



IN THIS ISSUE

## From the President's Desk

by Amy Hoeksema, CPG

### Willingness to Share and Care - Mentorship

When I look back on my career, I see that my choices could have taken me down many paths. I have come to realize that the paths I took were very much influenced by the people I met along the way who were willing to offer advice, advocacy, counseling, i.e. mentoring. I thought for this newsletter, I would provide some of the turning points in my career to illustrate the importance of mentoring.

During my college days, I worked with a man named Ham in the gold mining industry of Nevada. Ham said to me one day, "if you like to travel a lot, go into exploration, but if you want to pick where you want to live and put down roots, go into groundwater. This statement resonated with me because I have strong ties to Michigan and my family and I was concerned about leaving. That one piece of advice sent me down the path of environmental geology and hydrogeology and believe it or not, my first job was for a company in my home town of Grand Ledge, Michigan.

As a young geologist, working behind a drill rig, I was mentored by a hydrogeologist named Tom. Tom was great at providing the "why" behind the science and became a

trusted advisor as we put in over 400 soil borings to site a landfill. That year of working with Tom allowed me to learn very quickly in the field from a very experienced geologist which gave me a strong base for the next level of my career. Not only did he teach me about glacial geology and Drambuie, he taught me about how to work with drillers!

Once I started working with the data, Betsy was the next influential person to provide me with good counsel. She was very strong with regulations and her advice was if I wanted to be seen as something other than a data droid, I needed to learn the environmental regulations, how they applied to the work I was doing and how to help clients meet the regulations. This led me down the path of lots of reading so that I could become a subject matter expert and be a trusted advisor.

Chris and Gary showed me what a good supervisor looked like and this led me down the management path and Dan was the mentor who helped me to see what customer focus and service was about and what a good leader looks like.

Article continues on Page 7...



### Annual Golf Outing Information

The Section's annual golf outing will be on May 14<sup>th</sup> at Moose Ridge in South Lyon.

Page 14



### Student Chapter News

Check out what the EMU student chapter is up to.

Page 14





# GEOSCAPE

EST. ROCK SHOP 2010

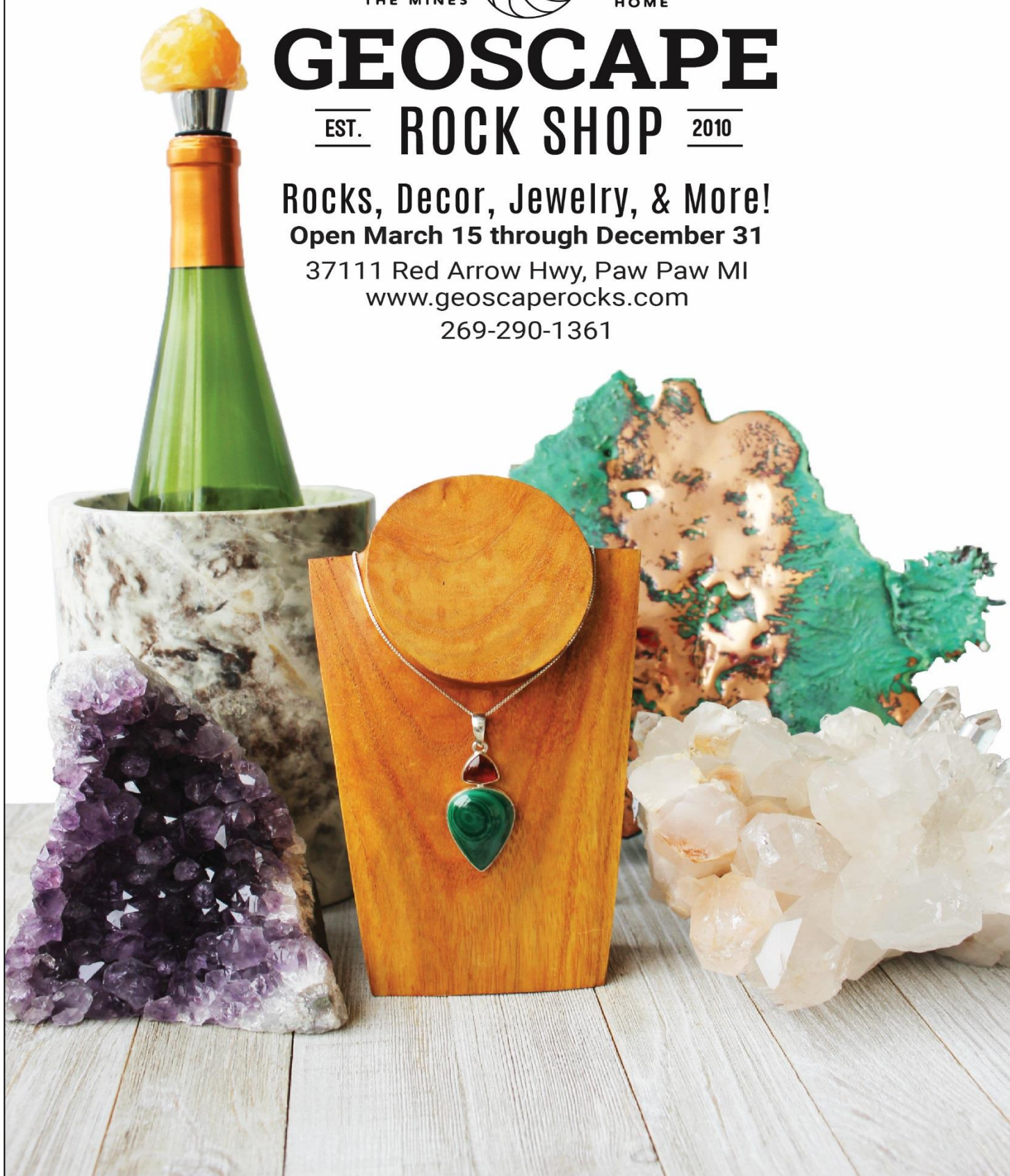
**Rocks, Decor, Jewelry, & More!**

**Open March 15 through December 31**

37111 Red Arrow Hwy, Paw Paw MI

[www.geoscaperocks.com](http://www.geoscaperocks.com)

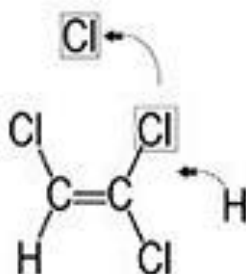
269-290-1361



# ORIN Technologies



Chemical Oxidation



Reductive Dechlorination



Free Product Removal



Metal Remediation



Traditional and Advanced  
Oxidation



Wastewater Treatment

**ORIN Technologies, Inc. (ORIN)**  
*mission is to provide innovative  
remediation and water treatment  
services using emerging and proven  
technologies resulting in total client  
satisfaction.*

**ORIN TECHNOLOGIES**  
405 INVESTMENT COURT  
VERONA, WI 53593  
(608) 838-6699  
lkinsman@orinrt.com  
<http://ORINRT.com>



Regulations are complex.

Potential environmental impacts  
put your business at risk.

Getting stakeholders onboard is critical.

Environmental due diligence addresses  
the issues upfront.

# We thrive on challenges

[golder.com](http://golder.com)



ESC is a single location nationally certified full service environmental laboratory. We provide analyses on soil, groundwater, wastewater, drinking water, air, mold and TCLP matrices. With over 90,000 operational square feet on a single campus, nearly 24/7 staffing and redundant instrumentation for most analyses, our 250+ staff owners are prepared to meet today's challenges of large sample sets, low reporting limits and fast turnaround.

ESC is well positioned to serve as your primary laboratory resource in quality, service and capacity. Our demonstrated commitment to being the industry leader in certifications held, easy-to-use field ready sample kits and sample transport logistics has provided us many growth opportunities in major metropolitan areas as well as in the far off corners of the United States

Internet Access - Password Protected Web Site  
Custom Sampling Kits  
Saturday Receiving

ESC is accepting the Reduced Volume methods for Groundwater samples for PAHs, DROs, SVOCs, PCBs, & Pesticides in Michigan.

Using 40 mL amber vials and/or 100 mL amber jars, these Reduced Volume methods replace the 1 liter amber bottles that have previously been used.

ESC is pleased to announce the acquisition of Outreach Laboratory. The result of this acquisition is the expansion of technologies, expertise, and capabilities of the nation's most certified and accredited laboratory to include radiochemistry testing

**NELAC, A2LA, AIHA, Corps of Engineers  
DOD, EPA, USDA Certified.**

Please contact Duane Hatten (616) 307-1587 or [dhatten@esclabsciences.com](mailto:dhatten@esclabsciences.com)

ESC Lab Sciences  
[www.esclabsciences.com](http://www.esclabsciences.com)





***Our Job is Boring!***



## DRILLING SERVICES:

1/2" THRU 10" WELL INSTALLATION  
 2.25" THRU 12.25" HAS DRILLING  
 SONIC DRILLING 4" TO 12"  
 SOLID STEM AUGER DRILLING  
 MUD & AIR ROTARY  
 CABLE TOOL DRILLING 4" THRU 8"  
 CORE DRILLING  
 GEOPROBE DRILLING GEOPROBE  
 WATER SAMPLING  
 HYDROPUNCH SAMPLING  
 INFLATABLE PACKERS  
 SCREENED AUGERS  
 VERTICAL AQUIFER PROFILING  
 CHEMICAL AND MECHANICAL  
 WELL DEVELOPMENT &  
 REHABILITATION  
 ORC & INJECTION SERVICES WELL  
 REPAIR & CLEANING WELL  
 REMOVAL AND ABANDONMENT  
 REMEDIATION SYSTEM  
 INSTALLATION AND  
 REPAIR/ABANDONMENT  
 METHANE EXTRACTION POINTS  
 PUMPING SYSTEM INSTALLATION,  
 REPAIR & SERVICE REMOTE  
 WATER PUMPING SYSTEMS  
 TRENCHING AND LIGHT  
 EXCAVATION SERVICES  
 AIRKNIFE SERVICES

## DIRECT IMAGING SERVICES:

•MIP/MIHPT/LLMIP •HPT •EC  
 •OIP/OIHPT •LIF •CPT  
 •GAMMA LOGGING  
 •DOWNHOLE HD VIDEO

## CONTACT US AT:

RICH@STOCKDRILLING.COM

734-279-2059

734-279-2076 FAX

WWW.STOCKDRILLING.COM





## High Resolution Site Characterization

## Vapor Intrusion Monitoring

# WE CAN BE YOUR GUIDE

## TIME-INTEGRATED PASSIVE AIR SAMPLERS



**Laboratory - DoD ELAP, NELAP, & ISO/IEC 17025**  
**Sampling - TNI NEFAP | Soil gas & air sampling**

**WWW.BEACON-USA.COM**  
**INFO@BEACON-USA.COM**  
**800-878-5510**



- Continued from Page 1 -

I have been very blessed and am thankful for those who provided mentorship over the years. Studies show that people who have mentors are more successful. I truly believe that to be the case.

Thank you to all the mentors out there and if you haven't taken that step, I hope these stories will help you to move ahead. Anyone can be a mentor; you are probably already doing it. It doesn't take much, just a little time and willingness to share and care. Visit the AIPG website and sign up to be a mentor.

## MDEQ to Host First Great Lakes Environmental Remediation and Redevelopment Conference this Fall

For the first time, the Michigan Department of Environmental Quality Remediation and Redevelopment Division is hosting a Great Lakes regional environmental conference. The conference is being held at the Lansing Center in Lansing, Michigan on October 16-

18, 2019. This conference is structured similarly to past conferences hosted by the division like the Environmental Remediation and Risk Management Conference held a few years ago. The difference is that we are inviting our sister US EPA Region 5 states, Illinois, Indiana, Ohio, Minnesota, and Wisconsin, the US EPA, and the 35 federally recognized tribes along with consultants, owners, local units of government, academics, attorneys, and other environmental practitioners to participate and share knowledge about four key topics that we work on daily. These tracks are Remediation, Emerging Contaminants, Program Implementation and Performance, and Redevelopment.

We are seeking case studies showcasing these topics to promote the sharing of successes as well as lessons learned, partnerships and best practices for achieving goals and objectives on properties where hazardous substances released to the environment pose a concern. We are inviting you to submit abstracts and attend this one-of-a-kind event this fall (see the flyer attached to this newsletter). Additionally, as a sneak peek, we will be offering sponsorship and exhibit space opportunities. Stay tuned; more announcements to come...

## Support Our Sponsors!

The Section Executive Committee would like to remind its members to support the companies advertising in the newsletter. Consider working with these companies, and when you speak with their representatives, let them know that you saw their ad in the Michigan Section newsletter.

## February Section Meeting

The Section held its first meeting of 2019 on February 21<sup>st</sup> at the Kellogg Center in East Lansing. John Bradley of the MDEQ discussed "Wurtsmith AFB, Oscoda, MI."



Meeting attendees networking before dinner. Photo courtesy of Adam Heft.

The presentation gave attendees an overview of the geology of the Wurtsmith base and

# EFFECTIVE Vapor Barrier Systems For Lower Total Cost-To-Closure

 **Land Science®**  
a division of REGENESIS®

 [www.landsciencetech.com](http://www.landsciencetech.com)



surrounding area, and how PFAS changed the game for the investigation at the base.



Meeting attendees networking before dinner. Photo courtesy of Adam Heft.

## Member Input Sought

The Section Executive Committee is seeking input from members on a variety of topics. Do you have any suggestions regarding speakers/presentation topics that you would like to hear? What about field trips or other events? Some place you'd like to see us go, or something you think the membership would enjoy doing? Then make your voice heard; please send your suggestions to one of the members of the Executive Committee; any of the six members would be glad to hear from you. AIPG is your organization. Please help keep it relevant and interesting for all by participating.

## 9<sup>th</sup> Annual Michigan Section Technical Workshop News

Registration is open for 9th Annual Technical Workshop, which will be held June 11-12, 2019 at the Ralph A. MacMullan Conference Center on Higgins Lake in Roscommon County!

This year's theme is "Hazardous Substances in Groundwater, Soil, & Vapors: The New Turning Point." Please see the flyer attached to this newsletter for the Registration Information. Mark your calendars! Be sure to sign up early to ensure your spot at this very popular and event; it is sure to sell out again!

## Welcome New Members!

The Michigan Section is continuing to grow. Please welcome the following new CPGs, Professional Members, Young Professional Members, Associate Members, and Students:

Michael Micallef (AS-0170), Daryl Strandberg (AS-0164), Arlene Anderson-Vincent (CPG-11963), Rafal Danigier (CPG-11968), Aaron Martin (CPG-11969), Thomas Quigley (CPG-11962), Brian Westhoff (CPG11947), Renee Whitlock (MEM-3076), Brendan Alvis, (SA-9759), Leon Bryson (SA-9788), Forrest Clark

(SA-9785), Lauren DeVries (SA-9620), Gregory Ferreira (SA-9768), Lauren Galien (SA-9612), Benediktas Gaskevicius (SA-9767), Dustin Helmer (SA-9632), Zachary Henzel (SA-9756), Braedon Dale Hooker (SA-9765), Jack Hybza (SA-9691), Julia Jakonen (SA-9761), Devyn Kadlec (SA-9760), Amy Kenley (SA-9766), Eleanore Larson (SA-9751), Gjulian Mecaj (SA-9780), Julia Michienti (SA-9737), Breana Murray (SA-9764), John Niedoliwka (SA-9757), Stephen Ogden (SA-9735), Grace Ojala (SA-9664), Madison Penque (SA-9814), Mitchell Pepper (SA-9774), Benjamin Pummell (SA-9783), Maria Rodriguez Mustafa (SA-9781), Brendan Towle (SA-9758), Jacob VanderRoest (SA-9736), Madison Witkowski (SA-9731), Jacob Zieziul (SA-9643), Steven Moorhead (YP-0434), and Adam Richmond (YP-0415).

To each of our new members, welcome to our Section. We encourage you to attend Section meetings and other events. You are also welcome to provide information for the Member's Corner articles.

## Where in Michigan? Contest

The January 2019 edition of the newsletter featured a photograph of the approximately 1.1 Ga Copper Harbor Conglomerate from the Brockway Mountain Overlook near Copper Harbor. Mark Petrie was the first to correctly identify the photograph.

This edition features a new photograph at the top of the first page. The first person to correctly identify what the photograph depicts (feature name, location, and formation) will win AIPG swag! Submit your entry to the editor; only one per person per issue please.

## Annual Meeting Planning

The Michigan Section will be hosting the 2021 Annual Meeting in Marquette. The planning committee is in the process of being put together and needs your help! The committee will be co-chaired by Adam Heft and Sara Pearson. If you are interested in helping with the planning of the 2021 Annual Meeting or would like to be on the planning committee, please email Adam at [adam.heft@wsp.com](mailto:adam.heft@wsp.com) or Sara at [pearsons@michigan.gov](mailto:pearsons@michigan.gov).

As one of the most active AIPG Sections, Michigan wants to have an exciting program and a highly successful Annual Meeting with many attendees. If you have any suggestions or ideas that will make the 2021 Annual Meeting one to remember, please pass them along to Adam or Sara.

Look for periodic updates on the status of the Annual Meeting planning in future editions of the newsletter!

## Regulatory Roundup

The Michigan Department of Environmental Quality will become the Michigan Department of Environment, Great Lakes, and Energy (EGLE) on April 22, 2019 per the Executive Order signed by Governor Whitmer on February 20, 2019. From the February 20, 2019, Governor's office press release, "Executive Order 2019-6 restructures the Department of Environmental Quality as the Department of Environment, Great Lakes, and Energy, which will be focused on improving the quality of Michigan's air, land, and water, protecting public health, and encouraging the use of clean energy. The new department will serve as a full-time guardian of the Great Lakes, our freshwater, and our public water supplies. EO 2019-6 requires submission to the legislature and takes effect after 60 days." Water is a critical component to this administration.

Rightly so, most would agree that water is one of the resources that sets Michigan apart. Arguably, geology plays the most significant role in where water resources are located, how well they produce and recharge, and the quality. We as geologists are experts on this topic. Let's be sure that we join the conversation. We have a great opportunity to inform policy makers and the public about our resources. We have the power to improve the credibility of our profession with the public. We are providing the following links to help you find the most current trending topics.

There are a number of bills that have been introduced this year that are directed toward the protection of our water resources. For example, House Bill 4096 proposes to increase penalties for pollutant and oil spills into the Great Lakes. Senate Bill 116 proposes a requirement for cleanup to residential and safe drinking water standards unless a cleanup is technically unfeasible. Senate Bill 49 creates a Human Right to Water Act and requires all state departments and agencies to establish certain water affordability criteria. Senate Bill 14 provides a maximum for certain contaminant levels allowed in drinking water under the Safe Drinking Water Act. This bill is related to the regulation of perfluoroalkyl and polyfluoroalkyl substances (PFAS). The latest article from Gongwer News Services on February 14, 2019 discusses the US Environmental Protection Agency's plan to have regulations by the end of 2019. The following is the article.



# Solutions in Perfect Balance

At ARCADIS, we share a single purpose to improve the environments and lives we touch. A lofty goal, but one we deliver on every day.

Between the creative and the functional, the innovative and the tried and true, the natural and the built environments, present needs and future legacy, imagination and results. We envision a better world. Then we engineer it.

**Together we can do a world of good.**

[www.arcadis-us.com](http://www.arcadis-us.com)  
Imagine the result





# OUR SERVICES



Environmental Construction & Site Remediation

For more information, please visit [jssmi.com](http://jssmi.com)

Contact: Derek at [dmarranca@jssmi.com](mailto:dmarranca@jssmi.com)

- ◇ Excavation & Transportation
- ◇ Remediation System Construction
- ◇ Site Remediation
- ◇ Riverbank Restoration
- ◇ Slope Stabilization & Erosion Controls
- ◇ Sediment Removal & Stabilization
- ◇ Wetlands Construction
- ◇ UST/AST
- ◇ Landfill
- ◇ Operation & Maintenance
- ◇ HDPE Fusion Welding & Fabrication
- ◇ Air Knife, Soft Dig & Vacuum Extraction

EXPERIENCE

SAFETY

RESULTS

Since 1999

4395 Wilder Road  
Bay City, Michigan 48706  
Phone: (989) 671-3318







## Clear Solutions for a Complex World

Tetra Tech's innovative, sustainable solutions help our clients reach their goals for water, environment, infrastructure, resource management, energy, and international development projects.

We are proud to be home to leading technical experts in every sector and to use that expertise throughout the project life cycle. Our commitment to safety is ingrained in our culture and at the forefront of every project.



## EPA To Announce PFAS Regulation Plans By The End Of 2019

The U.S. Environmental Protection Agency said Thursday it would decide how to regulate perfluoroalkyl and polyfluoroalkyl substances, also known as PFAS, by the end of the year, prompting criticism that it is moving too slowly on the chemicals that have become an emerging concern.

Regulating PFAS has been largely left to the states as the EPA's current health advisory level of 70 parts per trillion is unenforceable.

With PFAS crises in Oscoda, northern Kent County and Parchment among more than 70 sites of PFAS contamination across the state, debate is heated in Michigan about setting a state standard.

"While we continue to support federal action on PFAS, we are concerned that the timeline for federal action on PFAS standards and regulations is not more aggressive," Department of Environmental Quality spokesperson Scott Dean said in a statement. "We look forward to receiving more clarity from EPA on its anticipated timetable for accomplishing the priorities it laid out this morning."

Stakeholders in the state agree the maximum contaminant level should be lower than the EPA's current standard. However, disagreements remain on just how low is appropriate.

The exact date of the rule change was not specified in the EPA's PFAS Action Plan. Lawmakers and activists in Michigan are attempting to act sooner. SB 14, sponsored by Sen. Winnie Brinks (D-Grand Rapids), seeks to reduce the advisory level to 5 parts per trillion as a part of the Safe Water Drinking Act.

The EPA also plans to provide guidance for groundwater cleanup at contaminated sites, its report said. Those guidelines are also expected to be published later this year.

Environmental activists criticized the EPA's decision to set an advisory in the future. The Michigan League of Conservation Voters said the delay may be detrimental to communities affected by the contaminants.

"It doesn't reflect the urgency of where the crisis is in the country," Projects Manager Bentley Johnson said. "There's movement in the right direction but this is kicking it down the road. Setting a health advisory standard

could take years. Our families, children and impacted communities don't have that time."

Studies show there is a relationship between PFAS and health risks like certain cancers and hypertension. The toxins are unusual because they stay in a person's body and build up over time as more are ingested. Ms. Brinks said while the perceived delay on the federal government's behalf is disappointing, she is pleased the report suggests federal resources may be provided to states in the future.

"We're going to need some additional help to solve this," she said. "Not just in Michigan but across the country."

U.S. Sen. Gary Peters (D-Bloomfield Township) said he was disappointed in the EPA's plan and urged Congress to create legislation instead.

"EPA has yet to publish important groundwater cleanup standards that have been in White House interagency review for six months, so I have little confidence in the agency's ability to initiate enforceable cleanup and drinking water regulations," Mr. Peters said in a statement.

The Michigan Chemistry Council said it supported the EPA's cautious approach. MCC

## The Choice of Environmental Professionals

### Make Fibertec Your One-Stop Shop for:

Analytical Laboratory  
Geoprobe/Subsurface Investigations  
Industrial Hygiene  
Private Utility Locating  
Drum Disposal  
NELAC Accredited  
Electronic Data Deliverables (EDDs)



Holt • 517-699-0345  
Brighton • 810-220-3300  
Cadillac • 231-775-8368  
E: lab@fibertec.us  
W: www.fibertec.us





Executive Director John Dulmes said the report is significant for Michigan.

"While Michigan continues to be a trailblazer in many areas of PFAS response, we believe the EPA and other federal agencies are ultimately best-positioned to develop consistent science-based standards, test methods, and guidance," Mr. Dulmes said in a statement.

U.S. Rep. Bill Huizenga (R-Zeeland), a member of the Congressional PFAS Task Force, said he supported the EPA's "first step" in addressing the issue and creating a maximum contaminant level.

"I believe a federal standard should be created; however, this process needs to be determined by public health officials and scientists, not politicians," Mr. Huizenga said in a statement. "I encourage the EPA to continue working to develop federally enforceable standards with urgency."

**PFAS TESTING:** Meanwhile, the DEQ announced Thursday that it was reducing testing requirements for the city of Kalamazoo wastewater treatment plant because effluent from the plant is meeting quality standards.

"Our success in driving down PFAS levels in the Kalamazoo River is a direct result of

MPART's work to identify and mitigate sources of PFAS contamination," DEQ Director Liesl Clark said in a statement. "In this case, our IPP program identified and eliminated PFAS discharges from the abandoned Production Plated Plastics site and our public water system program identified the contaminated municipal wells in Parchment – both of which were threatening public health and polluting the Kalamazoo River."

The city had been testing the water at the plant, both incoming and outgoing, weekly but DEQ officials said the water has met standards since August so the weekly testing is no longer required.

Search for rules and bills by following the links below.



Article provided by Sara Pearson, CPG – MDEQ RRD

## 2019 Summer Field Trip

The Michigan Section Executive Committee has been working hard to plan fun and interesting field trips for members. Over the last several years, we've been to Kelly's Quarry, areas of karst near Alpena, Drummond Island, Pictured Rocks and Michigan's longest cave, the Porcupine Mountains and northeastern Wisconsin, and last year to the Eagle Mine, Republic Mine, Champion Mine, and Lindburg Quarry. The AIPG members and non-members have attended these trips have all had a great time and learned a lot about the local geology.

This year, our field trip will take us a bit farther afield than in past years. On August 9-11, 2019, we will be heading to Bancroft, Ontario to do some mineral collecting. Complete details and a registration link are in the flyer attached to this newsletter. The cost of the trip will be \$60 per participant, and the trip will be limited to 20. We anticipate some fantastic mineral collecting on this trip; many of the minerals we expect to find are not ones found in Michigan.

Plan to come join us for a long weekend of fun in the field! Be sure to register early to secure your spot. Also, make arrangements early for

# Field proven remediation technologies for the most challenging sites.

- *In Situ* Chemical Oxidation
- *In Situ* Chemical Reduction
- Bioremediation
- Stabilization



[www.peroxychem.com/remediation](http://www.peroxychem.com/remediation)

lodging as there are limited options and they tend to fill up early.

## Newsletter Notice via E-mail

Please be sure that you continue to receive the Section newsletters and other announcements. Submit an updated e-mail address to Adam Heft at [adam.heft@wsp.com](mailto:adam.heft@wsp.com). If you move or change places of employment, don't forget to send your new contact information to both the Section and to National. If you are not receiving announcements directly from the Editor, it is because your email address is not up to date.

## 15<sup>th</sup> Annual Michigan Section Golf Outing - May 14, 2019

Now is the time to Sign Up! You can register on Eventbrite at:

<https://www.eventbrite.com/e/aipg-mi-section-15th-annual-golf-outing-tickets-54305209343?aff=ebdssbdestsearch>

or by contacting Bob Reichenbach directly at [bob.reichenbach@ERGrp.net](mailto:bob.reichenbach@ERGrp.net). Ph. 248-773-7986, Fax 248-924-3108.

The outing will again be held at Moose Ridge Golf Course in South Lyon. Great sponsorships and spots for golfers are available, but are going fast. To assist the organizers in planning, please register early. The Registration Form is provided with this newsletter.

The AIPG K-12 Education Grant fund has provided thousands of dollars to a variety of worthy projects, made possible in part to the money raised through our annual golf outing. Your generosity has been, and will continue to be, the key to enabling organizations/schools to provide meaningful environmental educational programs and activities in the Geosciences.

Thank you for your support!

Bob Reichenbach, Golf Outing Chairman

## Interesting Geology Links

*The Editor has received links to various interesting geology-related sites. Some of the more interesting links are included here. If you have any links to geology-related links that you would like to share, please forward them (with a citation, if applicable) to the Editor.*

Thanks to Mark Francek of Central Michigan University for sharing via the "Earth Science Site of the Week" emails. This edition features a few "fun" links

Crater Lurks Beneath the Ice:  
<https://earthobservatory.nasa.gov/images/144279/crater-lurks-beneath-the-ice>.

Frost Action in Soils:  
[https://www.youtube.com/watch?v=uFdf8m\\_moopc&list=PLfp1hFsaJhK\\_amaO1aDlzSBA92v6yQ5\\_t6&t=0s&index=3](https://www.youtube.com/watch?v=uFdf8m_moopc&list=PLfp1hFsaJhK_amaO1aDlzSBA92v6yQ5_t6&t=0s&index=3).

## Section Website Reminders

The Michigan Section has created a database of geologic photographs on our website. Please submit photographs that you are willing to share to Adam Heft at [adam.heft@wsp.com](mailto:adam.heft@wsp.com). Don't forget to include your name and a short explanation of what the photograph depicts. The photographs will be uploaded to the website periodically.

If you have suggestions on other items that should be included on the History page, please let a member of the Section Executive Committee know.

## Student Chapter News

**E** The EMU AIPG Student Chapter officers attended an EMU Foundation donor event to help celebrate the re-opening of Strong Hall after a \$40 million renovation. Strong Hall is the portion of the Science Complex that houses the Geography and Geology Department. We were able to share with donors the significance of this building to our students and staff and point out some awesome new geologic additions (like Peruvian travertine walls and a 6' by 10' backlit image of Picture Rocks). The funding was accomplished by a lobbying effort EMU hosts called "EMU Day in Lansing", which one of our officers took part in last April.

The geology faculty at EMU recently created the Geology Field Experience Fund to assist students with the expense of attending geology field camp, which is a major expense and geology graduation requirement. Anyone interested in contributing to this new fund can visit <https://www.emich.edu/foundation/give/?fund=02512>.

Our chapter hosted multiple study sessions to assist students in preparing for exams. Upper-level geology students volunteered by

assisting lower-level students in understanding foundational lecture and laboratory material.



Jean Butchart with student project displays at the Strong donor event. Photo courtesy of Rachel Merz.

Each study session has been successful and students who attend have given feedback that they feel confident and prepared for exams after attending. We plan to host more study sessions for lecture and lab exams. The lab exam study sessions will include mock practicals, where we help students with specimen identification.



Rachel Merz with rock and mineral samples at the Strong donor event. Photo courtesy of Jean Butchart.

Students are preparing to present at EMU's Undergraduate Symposium. Every year, our chapter becomes more represented at the symposium resulting from an increased



initiative to get more students to present their work. Students will be presenting on topics within geochemistry, hydrogeology, geomorphology, and paleontology.



Atrium of the newly renovated Strong Hall. Photo courtesy of Leah VanLandingham.

Many students are preparing to attend field camp this summer. The EMU AIPG student chapter will be giving away a "field camp preparedness kit" in an upcoming raffle. This basket will include field camp essentials, including rite-in-rain books and a rock hammer. In addition, multiple field camp scholarships will be offered to alleviate the cost of field camp.

Article submitted by Leah VanLandingham, Secretary, & Jean Butchart, Treasurer

## 2019 National Election

Pay special attention to the upcoming April, May, June 2019 edition of TPG. Why? You will find that our very own **Sara Pearson** is running for National Secretary for the 2020-21 term! Be sure to exercise your member rights by voting in the election and make your voice heard. Let's try to keep a Michigan Section on the National Executive Committee for a couple more years; our Section has had a member serving since 2016.

## Did You Know?

*This article is a new feature of the newsletter and is intended to remind members of various aspects of AIPG and benefits of membership. If there is something you would like to see featured in this column, please contact the Editor...*

Dues for 2019 AIPG membership were due and payable on January 1, 2019 in accordance with the bylaws. Members who have not paid by February 15<sup>th</sup> were suspended, and are no longer considered members.

If you have not paid your dues for 2019, you may not use the CPG designation if you had previously obtained that certification, or otherwise hold yourself out to be a member. Please contact Dorothy Combs at National Headquarters to renew your membership for 2019 if you have not already done so.

## Member's Corner

*The Member's Corner includes information about the Section's membership. This is your chance to provide information on where you are and what you are doing. Simply send the information to the Editor for inclusion in this section.*

No Members Corner articles were received for this edition of the newsletter.

## We Need You!

The Michigan Section needs your help! From providing articles or other content for the newsletter, to stepping up to volunteer to run for section office or being part of a committee, serving as a mentor for students, or helping out and participating at section events, please consider giving a little of your time and expertise back to our Section. The more people that are involved, the better it is for everyone. This is your section; let's keep it active and interesting. Make the most of it!

## 2019 Michigan Section Executive Committee

Here are the current officers of the Michigan Section. Be sure to talk with them at the Section's events when you see them...

Schedule: Cash Bar 5:30-6:30 PM, Dinner 6:30 PM, and Speaker 7:30-9:00 PM.

Cost: Students free, Members \$30.00, Non-members \$50.00.

**RSVP by April 15, 2019.** Registration link forthcoming.

**May 3-5, 2019:** 60<sup>th</sup> Anniversary Rock and Mineral Show "Rockrama". Kalamazoo County Expo Center. Information is available at: [www.kalamazoorockclub.org](http://www.kalamazoorockclub.org).

**June 11-12, 2019:** AIPG Michigan Section's Environmental Risk Management Workshop at the Ralph A. MacMullen Conference Center in Roscommon, Michigan. Register today!

**August 9-11, 2019:** Michigan Section summer field trip to Bancroft, Ontario. Registration link and complete information in the attached flyer.

**September, 2019:** Joint Michigan Section AIPG and MAEP joint meeting. Location and details forthcoming.

**September 14-17, 2019:** 56<sup>th</sup> Annual AIPG Meeting in Burlington, Vermont.

**December 11, 2019:** Michigan Section AIPG

### 2019 AIPG Michigan Section Executive Committee



Past President  
Tim Woodburne



President  
Amy Hoeskema



Vice President  
Sara Pearson



Treasurer  
Bill Mitchell



Secretary  
Mellisa Powers-Taylor



Newsletter Editor  
Adam Heft

## Coming Events

**April 18, 2019:** Michigan Section AIPG Meeting, Location, speaker, and presentation details to be announced.

annual meeting and awards presentation, Weber's Inn, Ann Arbor.

**October 11-13, 2019:** Michigan Mineralogical Society, "The Show" Greater Detroit Gem,

Mineral, and Fossil Show. Information is available at: [www.michmin.org](http://www.michmin.org).

**Fall 2020:** 57th Annual AIPG Meeting to be held in Sacramento, California; dates TBD.

**Fall 2021:** 58th Annual AIPG Meeting to be held in Marquette, Michigan; dates TBD. See article in this newsletter regarding meeting planning.



**FONDRIEST**  
ENVIRONMENTAL PRODUCTS

when your  
research  
demands  
quality data

888.426.2151 [fondriest.com](http://fondriest.com)

## HAMP MATHEWS & ASSOCIATES

<http://hampmathews.com/>

Thank you for sponsoring  
the 2017 AIPG Michigan  
Environmental Risk  
Management Workshop as a  
Huron Level Sponsor!

Applied Water Quality and  
Environmental Sciences  
Since 1992

**GLEC**  
Great Lakes Environmental Center  
[glec.com](http://glec.com)



- Ecological Assessments
- Vibracore Sediment Sampling
- Water and Sediment Toxicity Testing
- Groundwater - Surface Water Interface Studies

• John Barkach ph:238-538-0900 [jbarkach@glec.com](mailto:jbarkach@glec.com)

 **CASCADE**

<http://cascade-env.com/>

Thank you for sponsoring  
the 2017 AIPG Michigan  
Environmental Risk  
Management Workshop as a  
Huron Level Sponsor!





**DAKOTA  
TECHNOLOGIES**

**High Resolution  
NAPL Characterization  
Since 1993**

**UVOST®  
TarGOST®  
Darts™  
DyeLIF™**

learn more at [www.dakotatechnologies.com](http://www.dakotatechnologies.com)





# Service from a larger **footprint**

Conestoga-Rovers & Associates (CRA) and GHD have come together in an exciting merger unparalleled in our industry

We have joined together to create a global leader in engineering, environmental consulting, architecture, and construction services

For more information about GHD, visit **[www.ghd.com](http://www.ghd.com)**





**Somat Engineering,**  
INCORPORATED

Specializing in engineering services vital to our community and quality of life.

- Environmental Engineering ■ Construction Testing ■ Civil Engineering
- Geotechnical Engineering ■ Structural Engineering ■ UVOST Services

660 Woodward Avenue  
Suite 2430  
Detroit, Michigan 48226

**313.963.2721**  
[www.somateng.com](http://www.somateng.com)

Detroit ■ Taylor ■ Grand Rapids ■ Cleveland ■ Brooklyn Heights ■ Beltsville ■ Washington, DC

Many Thanks to  
**Somat Engineering**  
for sponsoring the  
2017 AIPG Michigan  
Environmental Risk Management Workshop  
as a  
Superior Level Sponsor!



## Geotechnical and Environmental Drilling

Since 1974 MATECO Drilling has offered ground breaking solutions on a large variety of geotechnical and environmental drilling projects throughout the United States. Staying up to date with the latest drilling technology including our rotary sonic drill and ground penetrating radar is our top priority for the success of your projects.

**Let's work together. Contact us today.**

[www.mateco.com](http://www.mateco.com) | [info@mateco.com](mailto:info@mateco.com) | 616-863-6890



- Geotechnical Drilling
- Environmental Drilling
- Sonic Drilling
- Direct Push Drilling
- Amphibious Soil Sampling
- Direct Image Testing
- Utility Location and Safe Exposure

**Contractor Compliant With:**







TECHNICAL SKILL .  
CREATIVE SPIRIT .

**Celebrating Over 55 Years of Award Winning Service**

## Engineering Solutions that work for your business

SURVEYING  
GEOTECHNICAL ENGINEERING  
CIVIL ENGINEERING  
LANDSCAPE ARCHITECTURE  
ENVIRONMENTAL CONSULTING  
CONSTRUCTION ENGINEERING



**Canton, MI**  
(734) 397-3100

**Detroit, MI**  
(313) 961-9500

**Lansing, MI**  
(517) 316-9232

**Monroe, MI**  
(734) 289-2200

**Traverse City, MI**  
(231) 929-7330

**Maumee, OH**  
(419) 891-2222

**Columbus, OH**  
(614) 441-4222

**Cleveland, OH**  
(216) 378-1490

**WWW.MANNIKSMITHGROUP.COM**





**Geosyntec**  
consultants


We are  
engineers, scientists  
and innovators.

Providing  
exceptional project  
solutions related to  
the environment,  
natural resources,  
and civil  
infrastructure

**Contact**  
Rob Ferree  
3520 Green Court  
Ste. 275  
Ann Arbor, MI 48105  
(734) 332-8004

geosyntec.com

Many Thanks to  
Geosyntec Consultants  
for sponsoring the  
2017 AIPG Michigan  
Environmental Risk  
Management Workshop  
as a  
Superior Level Sponsor!



**EverydayBrilliance**  
Brilliant engineering solutions - delivered daily.

**50**  
Celebrating 50 Years of  
Engineering Excellence

Energy • Water Resources • Public Infrastructure • Urban Renewal

**LimnoTech**

Water | Scientists  
Environment | Engineers

**LimnoTech is an international leader in helping clients make informed decisions to solve their water resource challenges using the latest water science and engineering.**

- Watershed Planning and Management
- Environmental Modeling
- Aquatic Ecosystem Assessment and Restoration
- Drinking Water Supply and Protection
- Contaminated Site Evaluation and Remediation
- Surface Water and Groundwater Characterization
- Stormwater and Nonpoint Source Water Management
- Permitting and Regulatory Assistance
- Hydrogeological Studies
- Green Infrastructure, Water Footprinting and Low-Impact Development Solutions
- Climate Change Adaption and Water Sustainability

**www.limno.com**

Ann Arbor, MI • Washington, DC  
Minneapolis-St. Paul Region • Los Angeles Region





**PROVIDING SUSTAINABLE SOLUTIONS  
FOR DEVELOPMENT, CONSTRUCTION,  
RESTORATION AND REDEVELOPMENT  
CHALLENGES FOR OVER  
50 YEARS**

**Passionate People Building and  
Revitalizing our World**

**(800) 837-8800  
www.sme-usa.com  
Indiana • Michigan • Ohio**

**VaporPin®**



To Learn More Visit Us at [VaporPin.coxcolvin.com](http://VaporPin.coxcolvin.com)

Advantages of the Vapor Pin®  
over other methods include:

Use **Coupon Code aipg17**  
for 10% off your next order.  
Valid until 3/31/2018.

- No leaks during sample collection, improving sample quality;
- Disposable seal eliminates the need for grout, increasing productivity;
- Connects easily to sampling equipment;
- Easily installed, sampled, and retrieved for reuse;
- Improves diagnostic testing, spatial resolution;
- Reduces sampling time allowing more samples for less cost.



Applications include, but are not limited to:

- Sub-slab soil gas sampling
- De-pressurization studies/testing
- Stray gas evaluations
- Source area characterization
- Mitigation progress monitoring

**[Vaporpin@gmail.com](mailto:Vaporpin@gmail.com)**



**DUNE**  
TECHNOLOGIES, LLC

***In-Situ Remediation & Instrumentation***

**David A. Wardwell**  
*President*

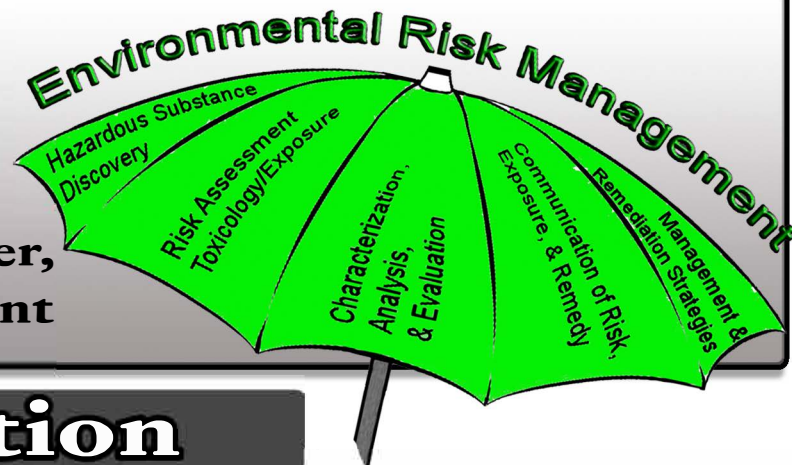
1477 South Shore Drive  
Holland, Michigan 49423  
T 616.377.7043  
M 616.450.5788

[dave@dunetechnologies.com](mailto:dave@dunetechnologies.com)  
[www.dunetechnologies.com](http://www.dunetechnologies.com)

*AIPG Michigan Section Announces the*

# 9<sup>TH</sup> ANNUAL

**Environmental Risk Management Workshop  
Hazardous Substances in Groundwater,  
Soil, & Vapors: The New Turning Point**



## Registration Information

Registration is now open for the 9th Annual AIPG Michigan Workshop on June 11 and 12, 2019, at the Ralph A. MacMullan Conference Center on Higgins Lake in Roscommon, Michigan. Early bird discounts are available. Click on the “Register Here” below.

This 9th 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 using innovative approaches 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 **Hazardous Substances in Groundwater, Soil, & Vapors: The New Turning Point**. Advances in science and technology along with the discovery of new contaminants has changed the way we investigate, remediate and manage risks from hazardous substances released to the environment. We are at a turning point in the environmental industry. In some situations, science and technology have resulted in greater accuracy and efficiency; in others, the advances raise more questions than answers; and as we are discovering, new situations where the science and technology are non-existent.

Hazardous substances volatilizing to indoor air from contaminated soil and groundwater is at the forefront of concern across the nation. In the past decade, we have learned more about these invisible threats and means for managing the risks associated with them. AIPG is dedicating an entire track at this year’s workshop to vapor intrusion including demonstrations with opportunities for workshop attendee participation.

The presentations in the 1st track at this workshop will feature the many aspects of the volatilization to indoor air pathway (VIAP) including investigation, sampling, analytical, and mitigation methodologies. The 2nd track will focus on innovative approaches to evaluating the risks, characterizing the contaminants, communicating the risks, and management and remediation strategies in all media. This workshop will provide 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 sharing the latest information on the advances in the science as well as the regulatory requirements and other legal issues, we can make better, informed decisions regarding the risks associated with these substances in the environment.

**Register Here**

**See you at the Workshop!**

Questions? Contact Sara (pearsons@michigan.gov) or Tammy (tammy.rabideau@ergrp.net)

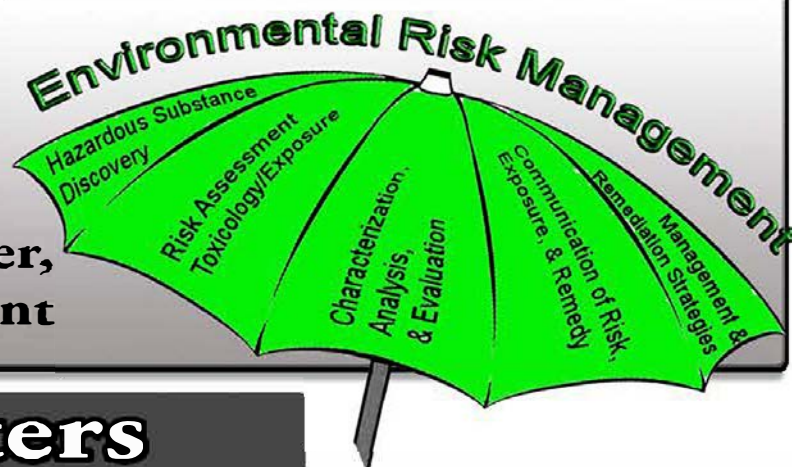




*AIPG Michigan Section Announces the*

# 9<sup>TH</sup> ANNUAL

**Environmental Risk Management Workshop  
Hazardous Substances in Groundwater,  
Soil, & Vapors: The New Turning Point**



## Call for Student Posters

The American Institute of Professional Geologists' (AIPG) Michigan Section for the first time is calling for student posters for the 9th Annual AIPG Michigan Workshop to be held June 11-12, 2019, at the Ralph A. MacMullan Conference Center on Higgins Lake in Roscommon, Michigan.

For this 9th workshop in the series of annual training events, the AIPG Michigan Section is extending an invitation to students to participate in the workshop by bringing a poster highlighting their research and interests in the environmental field. We are dedicating an entire segment of the workshop as a student poster session to give students the opportunity to talk with professionals about their interests.

The AIPG Michigan Section offers a unique workshop forum that promotes collaboration for solving tough environmental problems. We are inviting students to attend and learn along with our practitioners in the field to share the innovative approaches and encourage more innovation with fresh perspectives on problems. The workshop is an excellent opportunity for exchange of ideas and networking with great potential for launching professional careers.

The theme for this year's Environmental Risk Management Workshop is **Hazardous Substances in Groundwater, Soil, & Vapors: The New Turning Point**. Advances in science and technology along with the discovery of new contaminants has changed the way we investigate, remediate and manage risks from hazardous substances released to the environment. We are at a turning point in the environmental industry. In some situations, science and technology have resulted in greater accuracy and efficiency; in others, the advances raise more questions than answers; and as we are discovering, there are new situations where the science and technology are non-existent.

The poster registration deadline is April 15, 2019. Discounted student rates for registration will be available, and the Michigan Section offers two scholarships per AIPG student chapter that include registration, lodging and meals.

Questions? Please contact Co-Chairs:  
Sara Pearson ([pearsons@michigan.gov](mailto:pearsons@michigan.gov)) or  
Tammy Rabideau at ([tammy.rabideau@ergrp.net](mailto:tammy.rabideau@ergrp.net)).



**Registration Deadline: April 15, 2019**

# 15th Annual AIPG Michigan Section Golf Outing

## Tuesday May 14, 2019

The 15<sup>th</sup> Annual AIPG Michigan Section Golf Outing promises to be another successful event. Proceeds generated from the outing benefit the AIPG K-12 Education Grant fund, which provides thousands of dollars to a variety of worthy projects every year. Your generosity has been and will continue to be the key to enabling organizations and schools to provide meaningful educational programs and activities in the Geosciences.

This event also offers our sponsors exposure to many of the most influential professionals in our industry.

The outing will take place at Moose Ridge Golf Course in South Lyon, Michigan.

**Place:** Moose Ridge Golf Course  
11801 Doane Road  
South Lyon, MI 48178

**Event:** 18-Hole Scramble

**Date:** May 14, 2019

**Registration:** 8:00 to 9:15 am

**Shotgun Start:** 9:30

Rainout Date: May 16, 2019 (based on availability)

### Registration

Register/Pay by April 30, \$600/foursome, \$170/Individual  
Register/Pay after April 30, \$680/foursome, \$190/Individual

Golfer 1: \_\_\_\_\_

Golfer 2: \_\_\_\_\_

Golfer 3: \_\_\_\_\_

Golfer 4: \_\_\_\_\_

### **Accepted forms of payment include:**

Eventbrite-search AIPG Michigan

<https://www.eventbrite.com/e/aipg-mi-section-15th-annual-golf-outing-tickets-54305209343?aff=ebdssbdestsearch>

**Please provide the point of contact for your foursome:**



or



**Make Checks to:**  
**Michigan Section-AIPG**  
**c/o ERG**  
**28003 Center Oaks Ct., Suite 106**  
**Wixom, Michigan 48393**  
**Attn: Bob Reichenbach** [bob.reichenbach@ergrp.net](mailto:bob.reichenbach@ergrp.net)

**Company:** \_\_\_\_\_

**Contact:** \_\_\_\_\_

**Email:** \_\_\_\_\_

CALL 248-773-7986, or  
FAX 248-924-3108 to reserve your place!  
The AIPG-MI Section is a nonprofit  
501(c)(6) Organization.

**Phone:** \_\_\_\_\_

*Includes: Continental Breakfast, green fees, range balls, lunch at turn, networking opportunities, and DINNER. Also includes: 50-50 and Grand Prize raffles along with other prizes including, \$10,000, vacations, or sets of clubs for a "Hole in One", Putt-4 Dough \$2,500, men's and women's Longest Drive and Closest to Pin contests, and goodie bags for all participants.*



# 15th Annual AIPG Michigan Section Golf Outing

## Tuesday May 14, 2019

### **Sponsor Package Information**

#### **Executive Copper Sponsor - \$2,500**

- **1 foursome** and 33% discount for additional golfers
- Highest Visibility Signage at the Event
- Corporate recognition at the awards presentation

#### **Exclusive Dinner Sponsor- \$1,800**

##### **Investment includes:**

- **1 foursome** and 33% discount for additional golfers
- Signage at the Dinner
- Corporate recognition

#### **Beverage Sponsor - \$1,000 (2 available)**

##### **Investment includes:**

- Signage at the club house and on the Beverage Cart or Oasis.
- Corporate recognition

#### **Breakfast/Luncheon Sponsor - \$800**

##### **Investment includes:**

- Signage at the grill/tent.
- Corporate recognition

#### **Hole-in-one Sponsor - \$500 (4 available)**

Will have visible exposure on a Par 3 Hole.

If a golfer hits a hole-in-one, the prize will be, either \$10,000, a golf vacation or a deluxe set of irons.

#### **Tee Box or Hole/Flag Sponsor - \$280 (18 available)**

##### **Investment includes:**

- Tee box signage and
- Pin Flag with logo

#### **Skill Sponsor – \$400**

##### **Investment includes:**

**(4 available)**

“Longest Drive”, “Closest to Pin” awards to Male/female for each.

#### **Practice Tee Sponsor – \$300**

##### **Investment includes:**

**(1 available)**

Exclusive Signage at the Practice Tee

**Putt-4-Dough Sponsor – \$400** Signage on the putting area, corporate\* recognition during the event (includes contest coordination at the turn and following golf provided by you). Provides interaction with all participants.

#### **Team Photo Sponsor:**

**\$300 SPONSOR FEE** – Signage and option to provide a photographer from your organization.

**Goodie Bag Sponsor - Give-away items for 120 or more golfers**



**GREAT LAKES**  
ENVIRONMENTAL REMEDIATION  
AND REDEVELOPMENT CONFERENCE

**October 16-18, 2019**

LANSING, MI

---

**SAVE THE DATE**

---

**Date:** October 16, 2019 - October 18, 2019

**Location:** Lansing Center, Lansing, Michigan

The **Great Lakes Environmental Remediation and Redevelopment Conference** in Lansing, Michigan is a first-of-its-kind conference that will provide a unique forum to focus on remediation and redevelopment in the Great Lakes Region. Stakeholders from Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin, the U.S. Environmental Protection Agency Region V, and the 35 federally recognized Tribes will share perspectives and lessons learned during this comprehensive conference.

The Great Lakes Environmental Remediation and Redevelopment Conference is designed to promote the sharing of knowledge surrounding key issues that confront environmental professionals every day. Four main tracks will engage attendees in topics such as remediation, emerging contaminants, program implementation and performance, and redevelopment. Participants will learn about management methods, successful solutions, and best practices. ***Who should attend?***

- Owners and operators of contaminated properties
- Realtors and developers
- Environmental consultants
- Attorneys
- State and local units of government
- Federal and tribal agencies
- Environmental organizations

**Mark your calendars and stay tuned to [www.michigan.gov/deqevents](http://www.michigan.gov/deqevents) for more conference information!**



# **GREAT LAKES**

## **ENVIRONMENTAL REMEDIATION AND REDEVELOPMENT CONFERENCE**

**October 16-18, 2019**

LANSING, MI

---

# **CALL FOR ABSTRACTS**

---

You are invited to participate as a presenter at the Great Lakes Environmental Remediation and Redevelopment Conference in Lansing, Michigan.

Protecting human health and the environment is a critical aspect of professionals working in the environmental industry managing properties with remediation needs and redevelopment prospects. The Great Lakes Environmental Remediation and Redevelopment Conference is designed to promote the sharing of knowledge surrounding key issues that confront environmental professionals every day. Participants will learn about management methods, successful solutions, and best practices.

This conference is expected to draw more than 500 environmental professionals including local, state, federal, tribal, academic, and private industry sectors. This is the first conference of its kind focusing on remediation and redevelopment topics in the Great Lakes Region, including Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin, the U.S. Environmental Protection Agency Region V, and 35 federally recognized tribes. Speakers from all sectors are invited to share perspectives on four main tracks: Remediation, Emerging Contaminants, Program Implementation and Performance, and Redevelopment.

### **Abstract Submission Guidelines ([Printable Submission Guidelines](#))**

Interested presenters are invited to submit one or more abstracts for oral presentation.

- **Abstract submission deadline is April 12, 2019.**
- Abstract Title: Limited to 12 words.
- Abstract Length: Limited to 500 words.
- Presenting Author Biography: Limited to 150 words.
- Specify preferred presentation day: October 16, 17, 18, or No Preference

Presentations should be at least 30 minutes, and not more than 45 minutes, in length, but no more than 45 minutes. Longer presentations must be submitted as two separate presentations of equal length (e.g., Part 1 and Part 2).

Conference sessions will include topic areas (tracks) as shown below. Please review the topics to consider the category where your presentation would best fit. Authors may suggest additional topics that are not on the list, but they must fit a general topic area related to environmental remediation and redevelopment.

LCD projectors/laptops will be provided for oral presentations, and panel sessions can be accommodated with multiple microphones. Acceptable presentation formats are PowerPoint (.ppt) or Adobe Acrobat (.pdf). Presenters will be instructed on how to submit their presentation files, embedded video, and audio clips before the conference begins on October 16, 2019. Presentations will, upon approval, be posted online for viewing after the conference. There will be no written presentations or formal proceedings.

Authors of accepted abstracts will be notified by June 7, 2019. Presenters will receive a discounted conference registration fee.

## **Session Topics**

### **Remediation**

- Complex environments: complicated hydrogeologic settings, sensitive habitats, infrastructure influences
- Innovative technologies: research news, university projects, implementing existing technologies in new ways, treatment trains, remediation optimization
- Site characterization: tools and methods, 3-D imagery, data collection technologies, data interpretation
- Remedial options: strategy evaluation and selection, risk management, institutional controls
- Stormwater Infiltration on Contaminated Sites

### **Emerging Contaminants**

- Contaminants: source identification, characterization, fate and transport, toxicology
- Research: reliable sources, information sharing, newly identified, university projects
- Management: strategy, collaboration across departments/jurisdictions, planning
- Communication: best practices, public engagement, outreach and partnerships

### **Program Implementation and Performance**

- Incentive programs: reimbursement programs, grants and loans, financing/funding
- Volunteer programs: administering, compliance, enforcement, financing/funding
- Audit programs: Field Auditing Program examples and case studies, enforcement protocols

### **Redevelopment**

- Outreach: Communication Strategies, use of social media, etc.
- Collaboration: Partnerships, community engagement, design charrettes
- Return on Investment: cost/benefit, placemaking, planning
- Community Engagement: public-private partnerships, job creation, outreach,
- Financing: incentives, land banks, banking, HUD, ROI
- Sustainable Development: renewable energy, climate change, LEED, Green Infrastructure, Historic Preservation



- Successful Redevelopment Projects: discuss creative, innovative, and/or difficult or unique projects

To submit an abstract, please complete the [Abstract Submission Form](https://www.surveymonkey.com/r/GLERRC-Abstracts) at [www.surveymonkey.com/r/GLERRC-Abstracts](https://www.surveymonkey.com/r/GLERRC-Abstracts).



#### QUESTIONS:

Abstract submission topics and content:

- Remediation - Sara Pearson at [pearsons@michigan.gov](mailto:pearsons@michigan.gov)
- Emerging Contaminants - David Harn at [harnd@michigan.gov](mailto:harnd@michigan.gov)
- Program Implementation - Sara Pearson at [pearsons@michigan.gov](mailto:pearsons@michigan.gov)
- Redevelopment - Janet Michaluk at [michalukj@michigan.gov](mailto:michalukj@michigan.gov)

Abstract submission process: Contact Alana Berthold at [bertholda@michigan.gov](mailto:bertholda@michigan.gov)

Conference venue and logistics: Contact Matt Tomlinson at [tomlinsonm@michigan.gov](mailto:tomlinsonm@michigan.gov)



# Announcing!

## MINERAL COLLECTING

Summer Field Trip

Presented by the  
**American Institute of Professional Geologists  
Michigan Section**

**August 9-11, 2019**  
**Bancroft, Ontario**

**Register Here**



Join us for our guided tour with local mineral expert Alfred Newnham.

**Day 1: Smart Mine/Craigmont Corundum Mine**

**Day 2: Beryl Pit/Rose Quartz Pit**

**Day 3: Princess Sodalite Mine & Rock Shop**

**Cost: \$60 per person plus specimen fees\***

**Trip Limit: 20 People**



Sodalite



Apatite  
Crystals

**Apatite Friday 8/9** – Join us as we search the Miller property (Smart Mine) in the morning for apatite, titanite, feldspar, augite, zircon, and a pegmatite vein with amazonite and smoky and white quartz. We will make a stop for lunch at the York River skarn zone (viewing only, no collecting at this location). In the afternoon, we'll be working a corundum mine property with corundum, scapolite, micas, and schorl. An alternate location has corundum, feldspar, and some sodalite and cancrinite.

**Of Quartz its Saturday 8/10** – We'll be making two stops today; one at a location where up to 30 minerals have been found (the beryl pit). Radioactive minerals include allanite and euxenite; schorl and peristerite are common, beryl less so. The other location is a rose quartz pit that was originally worked for beryl and feldspar. The beryl at this location is yellowish green. Columbite and small zircons are also plentiful. The cost for collecting rose quartz is \$2 to \$5 per pound (depending on quality).

**Sodalite Sunday 8/11** – The final day will be spent at the Princess Sodalite Mine. The primary minerals found here include sodalite and feldspar with magnetite and nepheline as well. We may tour the original mine quarries, the present day quarry, and be able to collect in the original mine dumps. There is also a "rock farm" and store if you are unable to find what you are looking for. The first five pounds of sodalite are free, but a charge of \$5 per pound applies beyond that amount. Other minerals are free. Minerals collected from the "rock farm" is at \$1.50 per pound.

Lodging and meals are on your own. We recommend packing your favorite picnic lunches and snacks. We are planning a cookout on Saturday night! So be sure to join us for the fun! Additional details will be provided to those who have registered.

\*Trip costs do not include meals (other than a picnic dinner on Saturday), lodging/camping, or for per pound fees for minerals at certain locations.