



MICHIGAN SECTION AIPG NEWSLETTER



IN THIS ISSUE

From the President's Desk

by Amy Hoeksema, CPG

I love rocks! When I was young, I picked up rocks everywhere I went. I was always curious about where they came from and how they were made. My mom was the one who introduced me to the potential opportunity of becoming a geologist. From that point, at 10 years old, I had my heart set on becoming a geologist. I am sure you all have a story to tell about how you found geology (or it found you). I suspect that many of you had that special person that introduced you to geology.

My career path has been relatively straightforward, and I never realized or paid much attention to the fact that in the 1980s (when I graduated college), the profession was dominated by men (i.e. "poorly graded"). In fact, when I started my career, it was difficult to find a company that would hire a female geologist. One interviewer asked me directly if I knew that there were spiders and snakes outside with those rocks. "Really?" My first weekend job was hauling cuttings on a drill rig. You should have seen the horror in the driller's eyes when I showed up because he was convinced that a woman was bad luck on a drill rig. I remember that first day, hoping and praying that nothing would break. The next job I had, I was not allowed to go into the

field with the male geologists. So, I was only allowed to work in the office with the maps. It wasn't a bad job and I learned a lot, but nothing can replace seeing, touching and logging rock samples right out of the ground. I tried not to let the discriminating comments bother me and used it as a motivation to work harder. And, one time, when I was called for a new job opportunity and their reason for wanting me was to fill a quota, I said "you have the wrong person; I would never want to get a job for that reason."

A lot has changed over the last 30 years and from my viewpoint, I believe that the geology profession has become more diverse, at least for women in the profession. In fact, I noticed at our last AIPG National Executive Board meeting that there was a 50/50 split between men and women officers. In my opinion, geologists are some of the nicest, down to earth, accepting people. However, we all have our own sieves which filter out information based on the environment we grew up in. If we only use one size sieve, then everything looks the same.

Article continues on Page 7



10th Annual Workshop Update

The Section's 10th annual technical workshop is coming up next year. Learn about the meeting theme!

Page 7



PFAS in Michigan

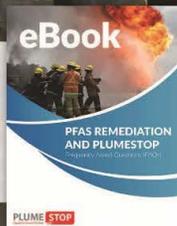
State of Michigan has proposed draft rules related to PFAS drinking water standards.

Page 14

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Engineering News Record

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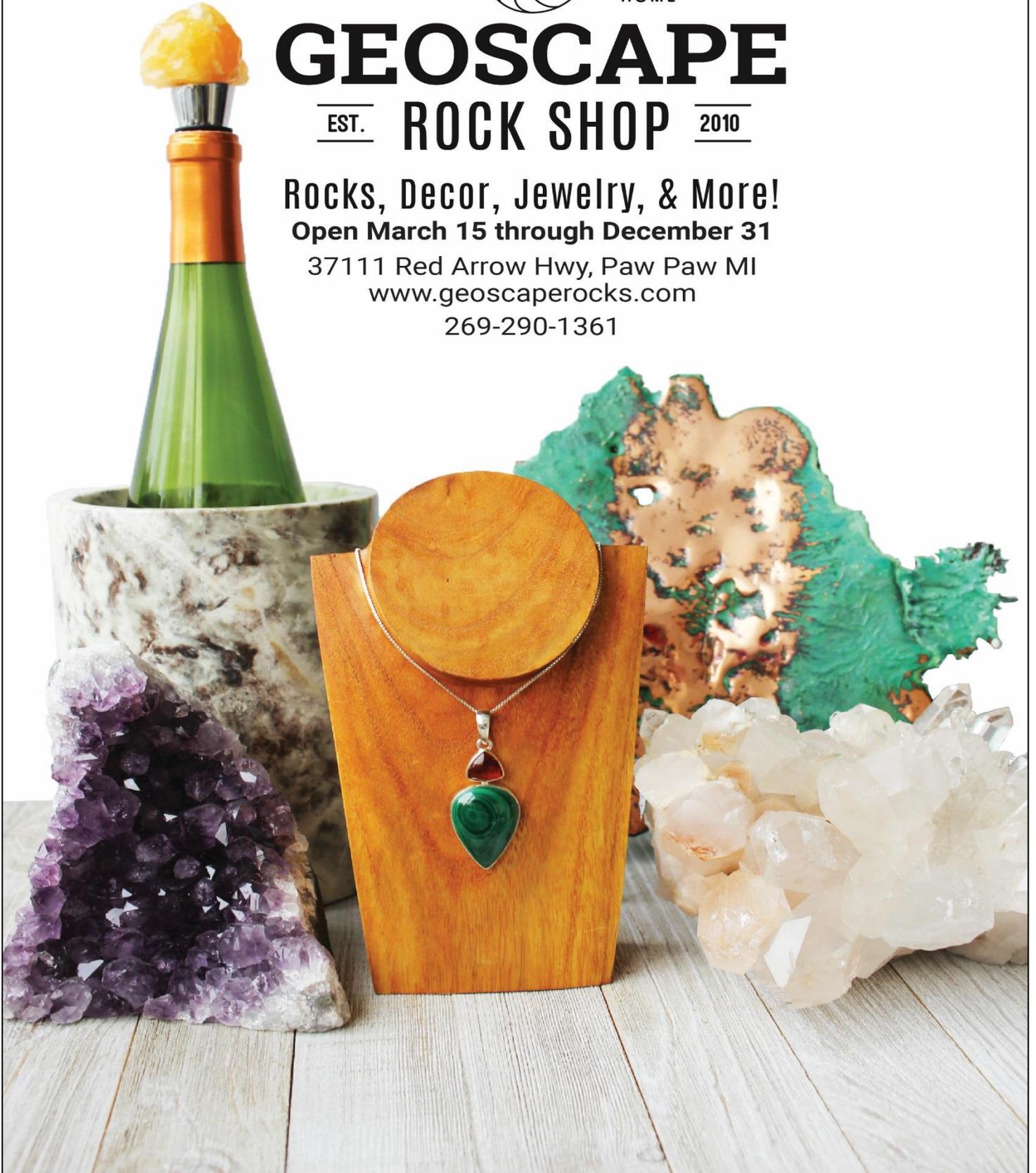
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- Continued from Page 1 -

Each experience we have, be it good or bad, shapes our way of solving problems and these problems of today really need our best “well graded” teams to solve.



Amy Hoeksema in the Vermont Oven. From the 2019 Annual Meeting.

My ask is that each of you reach out to the youth organizations of your community and share your experience as a geologist with the young people, especially in those underrepresented groups. Show them the wealth of opportunity waiting for them to be part of something bigger. Your investment of time will help to keep our profession healthy and will increase our ability to solve the tough problems ahead. For those who are already doing this, thank you. You Rock!

Environmental Risk Management Workshop: The Data Tells the Story

The AIPG Michigan Section will be celebrating the 10th anniversary of the Environmental Risk Management Workshop in 2020! The theme for this year's workshop is “The Data Tells the Story.” Data is the core of our work. It drives the scientific process and the decisions that we make every day. Data collection, interpretation, and presentation are an artform mastered by environmental professionals.

In our 10th year of this workshop, we are aiming to break new ground and focus on the data itself: what do we collect, best ways to collect it, how to validate, how to manage it, how to interpret it, when is it enough, what tools do we use for communicating it, and more.

Be sure to watch for the “Call for Abstracts” that will be coming out in November!

Save the date to join us on June 16-17, 2020 in Roscommon, Michigan at the Ralph A. MacMullen Conference Center!

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.

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 or Sara at 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!

Michigan Section Awards Program

The AIPG Michigan Section believes recognizing those contributing to our organization or our profession is important to our sustainability as a professional group. The Executive Committee decided to initiate an awards program in 1997 and held the first awards ceremony 1998. Since that time, awards have been given out at each annual meeting of the Michigan Section. The Michigan Section Awards Committee is seeking nominations for several awards including the **Significant Contribution to the Michigan Section** award, the **Outstanding**

Professional Geologist award, **Legislative Award**, **Outstanding Regulator** award, and **Outstanding Educator** award.

Students, we strongly encourage you to nominate one of your geology professors for the Outstanding Educator Award. This award provides you with an excellent opportunity to recognize a geology professor that has made a positive impact on your education.

If you would like to nominate an individual for an award, please fill out the awards form found on the AIPG Michigan Section website (<http://mi.aipg.org/awards.htm>) and email a copy to the Awards Chairperson Mellisa Powers-Taylor at Powerstaylor@michigan.gov. Questions about an individual award or the MI Section Awards program can be directed to Mellisa Powers-Taylor.

Below is a description of each award.

Member Awards (given to an active member of the AIPG)

- **Significant Contribution to the Michigan Section** – Given to an active AIPG Member for making significant contributions to the Michigan Section.

- **Outstanding Professional Geologist** – Given to an AIPG Member for making a significant contribution to the field of Geology.

Member or Non-Member Awards (may be awarded to an AIPG member or a non-member)

- **Legislative Award** – Given to an individual who has contributed to the development of legislation related to the practice of the geological sciences that is deemed beneficial to our profession and/or society.

- **Outstanding Regulator** – Given to those working in the public sector for making outstanding contributions to regulatory programs impacting the profession of geology.

- **Outstanding Educator** – Given to those making outstanding contributions in geological education.

Mellisa Powers-Taylor, Awards Committee Chair

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

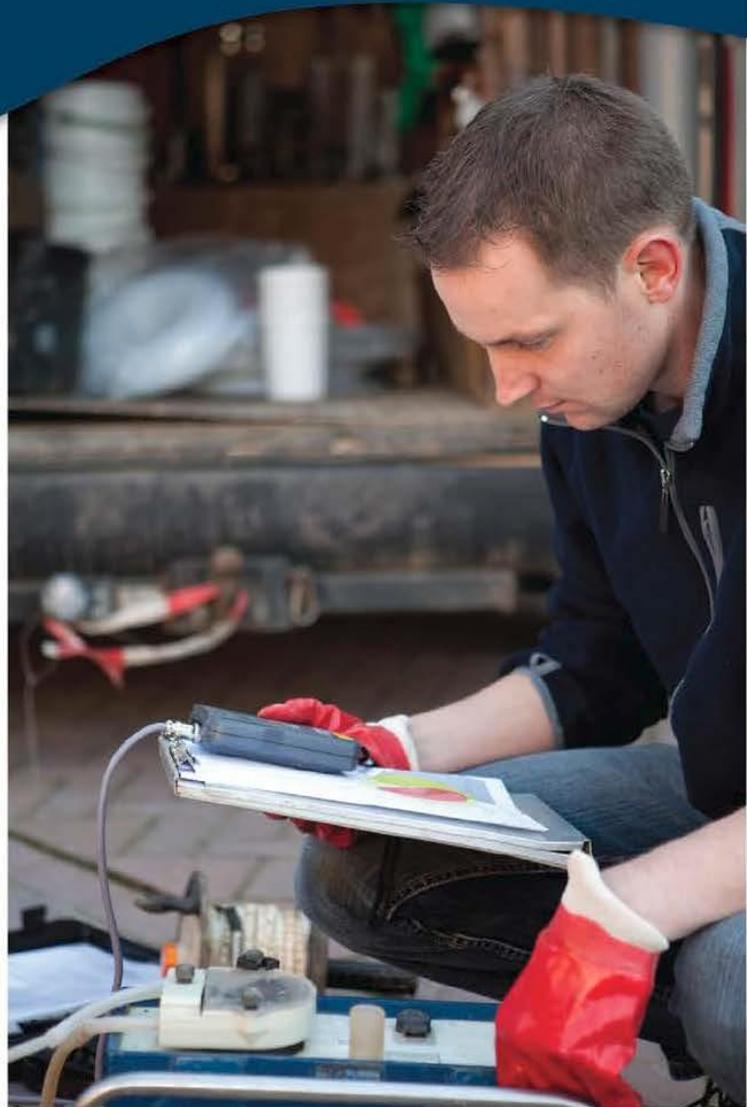


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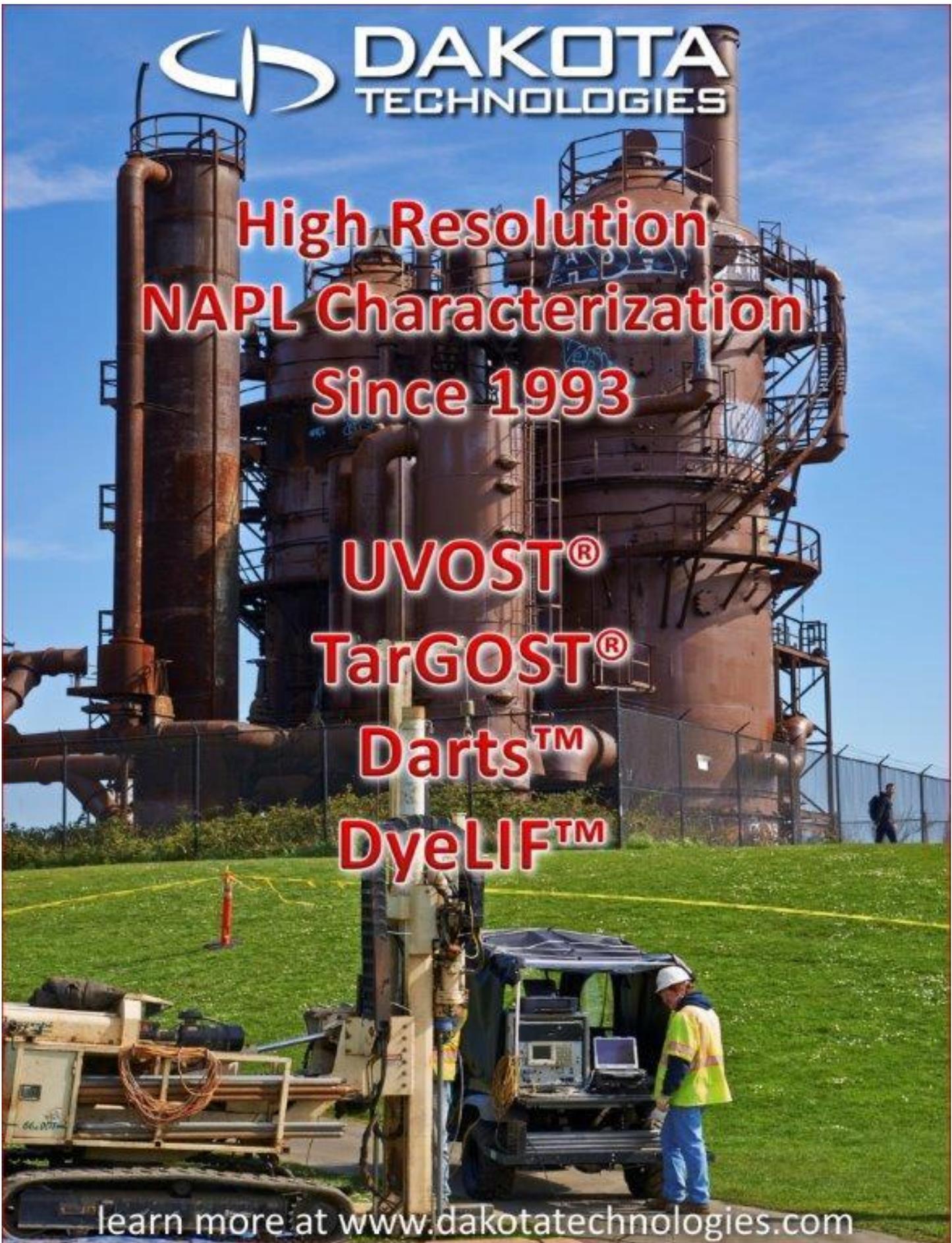
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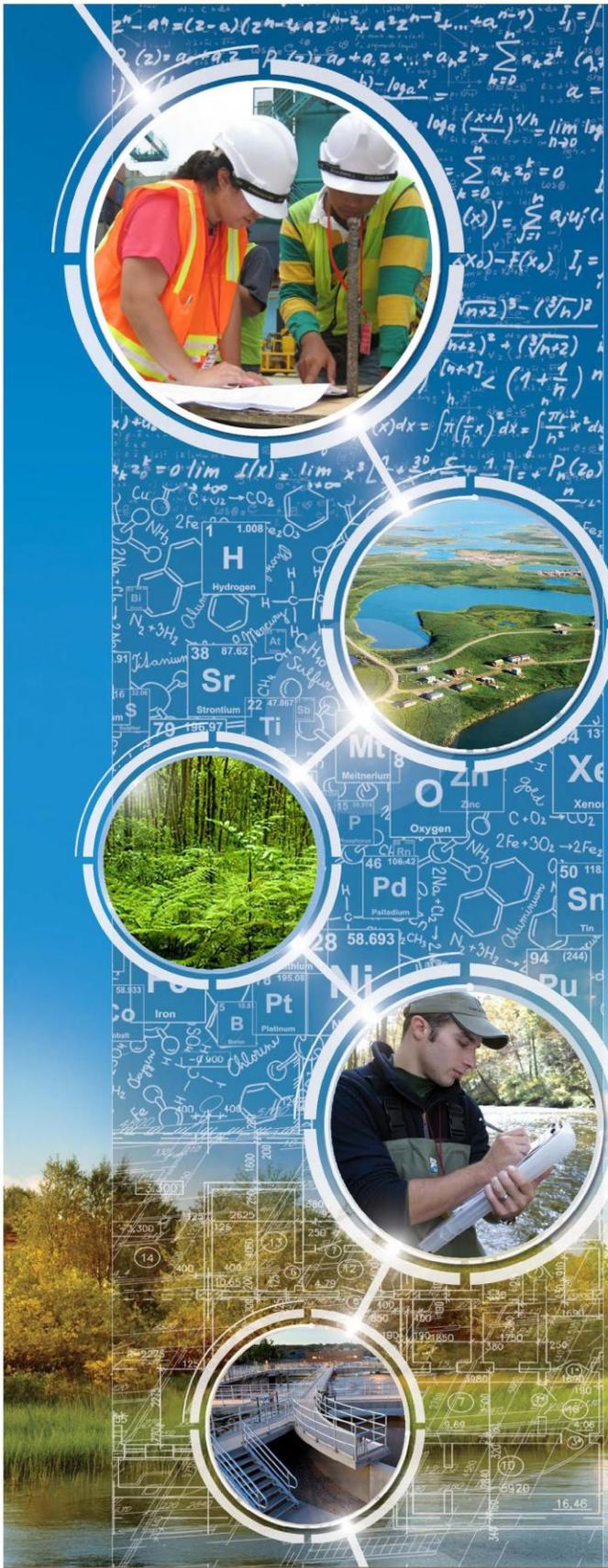


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when you speak with their representatives, let them know that you saw their ad in the Michigan Section newsletter!

Where in Michigan? Contest

The August 2019 edition of the newsletter featured a photograph of the angular unconformity between the Mesnard Quartzite and the Jacobsville Sandstone along the shore of Lake Superior south of Marquette. No one correctly identified 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.

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:

Wayne Kukuk (CPG-11992), Madison Jones (SA-10409), Colleen Rankin (SA-10399), Jackie Wrage (SA-10349), Kyle Merandi (SA-10341), Rush Rodwan (SA-10334), Jarrett Humpula (SA-10329), Victoria Konieczka (SA-10319), Alexys Peplinski (SA-10321), Lathan Saperstein (SA-10308), Kelly Powser (SA-10242), Laura Shoudy (SA-10196), Julia VanDam (SA-10195), Audrey Cook (SA-10179), Chris Demos (SA-10180), Danielle Donovan (SA-10181), Ashlie Willis-Crandall (SA-10080), Makala O'Donnell (SA-10060), Emilie Pray (SA-10059), Mitchell Dominski (YP-0564), Kent Rugenstein (YP-0546), Gavin Balcom (YP-0544), Jacqueline Freiberg (YP-0540), Sydney Ruhala (YP-0535), Matt Tunnell (YP-0533), Nicholas Justice (YP-0528), Hannah Koskiniemi (YP-0519), Ashley Richardson (YP-0515), and Zach Curry (YP-0512).

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.

Regulatory Roundup

Our Regulatory Roundup update continues with the topic of Per- and polyfluoroalkyl substances (PFAS) that has dominated the conversation in Michigan all year. Michigan is leading the way proposing new rules and drinking water standards for specific compounds within the PFAS group of

chemicals. The request for rulemaking was submitted earlier this year in March by the Drinking Water and Environmental Health Division of the Department of Environment, Great Lakes, and Energy with the goal of submitting a full draft rule package by October 1, 2019. The draft rule package has been submitted. The following article from Gongwer News Service dated September 27, 2019 provides additional information about the rules package.

PFAS Draft Rule to Be Submitted by Oct. 1

September 27, 2019 from Gongwer News Service – Draft rules for state drinking water standards are expected to be filed ahead of the October 1 timeline to keep on track with having rules put into effect as early as April 2020, members of the Michigan PFAS Action Response Team were told Friday.

The draft rules will be submitted in the coming days and go through the rulemaking process, a Department of Environment, Great Lakes and Energy official told the board.

Once adopted, these rules would establish a maximum contaminant level – referred to as MCLs under the Safe Water Drinking Act – with which water suppliers would have to comply.

EGLE officials said about 2,700 larger suppliers in the state would be affected by the rules. Sampling and reporting requirements would be part of the rules, as would calculations for being compliant. The reporting process for not achieving compliance would also be within the rules.

Approved as part of the process Friday was a summary of conclusions and input on health-based values for PFAS in drinking water.

Stakeholders including 3M and environmental groups had provided input during meetings over the summer.

Kory Groetsch with the Department of Health and Human Services said the observations and recommendations provided by stakeholders during the summer meetings were not groundbreaking nor were they anything that needed to be used at this time to amend the health-based values. However, he and others during the meeting said the items provided by stakeholders can always be revisited at a later date or if more science backs various observations.

"(This) is simply reaffirming that the science hasn't changed since June 27," Mr. Groetsch said.

MPART chair Steve Sliver agreed with the content of the health-based values as recommended, calling it "a foundation for moving forward."

These recommendations for acceptable levels of chemical in residential drinking water were presented to the board at its June 27 meeting.

The amounts recommended by MPART's Science Advisory Workgroup as outlined in June included: PFAS at 16 parts per trillion, PFOA at 8-ppt, PFNA at 6-ppt, PFHxS at 51-ppt, PFBS at 420-ppt, PFHxA at 400,000-ppt and Gen X at 370-ppt.

Once submitted, the draft rules will be discussed by various groups of lawmakers, utility companies, industries, environmental groups and others until final rules are adopted on or before a spring deadline.

MPART member and EGLE Director Liesl Clark praised the work being done by the group and stakeholders so far and said the pace needs to be maintained.

"We've got to keep our foot on the accelerator," Ms. Clark said, adding the groundwork laid so far has been critical to tackling the growing threat of PFAS.

Sen. Winnie Brinks (D-Grand Rapids) in a statement said she was pleased the state will submit the draft rule by the October 1 deadline.

"Our residents are counting on state government to set a strong limit that protects our families, kids and communities from these toxic chemicals in their drinking water. This is a critical step in our state's response to addressing PFAS contamination," Ms. Brinks said.

Follow the link below to the draft rule request and rule language.

https://dtmb.state.mi.us/ARS_Public/Transaction/RFRTransaction?TransactionID=29

On October 25, 2019, additional news regarding EGLE's efforts on PFAS was published by Gongwer.

PFAS Testing Could Expand to Assess Weather, Seasonal Impact

October 25, 2019 from Gongwer News Service - The Michigan PFAS Action Response Team is considering additional testing of per- and polyfluoroalkyl substances to assess how the chemical compounds are affected by colder temperatures or rainier seasons.

The idea was featured during testimony given Thursday by officials with the Department of Environment, Great Lakes and Energy to members of the House Natural Resources Commission, updating the legislators on the department's goal of mitigating PFAS exposure in the state.

"We are looking at expanding our testing program but are still in the planning mode on that effort," said Eric Oswald, director of EGLE's drinking water and environmental health division. "We have seen a little variability, but nothing that shows a large swing in sample analysis."

What was supposed to be a project done in three years, testing Michigan waterways for PFAS contamination and identifying repositories where the chemical compounds were coming from, was completed in one. But the original statewide testing was based on samples pulled during one period during the year, Mr. Oswald said, and now with extra time and money the department felt it pertinent to go back and assess other factors.

He also added, due to the particular rainy season Michigan experienced, MPART also wants to assess how PFAS reacts with river sediments after various weather events. More testing, Mr. Oswald said, is expected in 2020 though he did not say when.

"We were concerned that with heavier rains, it might stir up sediments... we actually found that, it's not a huge variation but it's enough of a variation that we're concerned that we need more data on that," Mr. Oswald said. "We're going to go to a more frequent testing of our surface water sources, to make sure we capture, what we expect, after a heavy precipitation event that would kick up dirt, to understand how PFAS reacts when it sits at the bottom of, say, a river. Does it attach to the sediments? Does it break loose?"

When pressed about the potential impact of seasonal changes from leachate on landfills,

which have been found to be problem areas that leak PFAS into groundwater, Mr. Oswald said there is not much research out on the subject.

He did say however that leachate releases slowly, and that even if a landfill site were completely cleaned of PFAS today, the ground in that area could still test positive for the "forever chemical" up to 30 years later.

Mr. Oswald, along with MPART Executive Director Steve Sliver, also told the committee that research indicated PFAS chemicals could be incinerated at a temperature of up to 1,700 degrees Fahrenheit. The two were cautious about labeling this as a way to deal with PFAS, as not enough data is available as to whether this simply removes the chemical from water or ground sources and then contaminates the air.

Mr. Sliver said the department is working with various groups, including the U.S. Environmental Protection Agency, to verify the best, safest way to destroy PFAS and other "forever chemicals."

In addition to the new testing interest, the two also refreshed the committee on what all was entailed with the PFAS draft rules submitted to the state in September (See Gongwer Michigan Report, September 27, 2019).

When pressed by lawmakers as to why the draft rules did not have lower acceptable levels of PFAS and other chemical compounds, the two said it was due to focus groups and other stakeholders agreeing that the rules had to be realistically enforceable.

For additional information on the latest bills related to PFAS and other environmental issues in Michigan, please search the links below. It is time as professionals for us to join the conversation, learn from each other and work collectively to solve the complex problems facing us in the environmental industry every day. Let's stay informed.

Proposed Rules

Natural Resources and Environmental Protection Act, PA 451 of 1994, as amended, bill search

Safe Drinking Water Act, PA 399 of 1976, as amended, bill search

Gas Safety Standards, PA 165 of 1969, as amended, bill search

Article provided by Sara Pearson, CPG – EGLE RRD

2019 Andrew Mazola Memorial Scholarship

Congratulations to Dustin Helmer, the 2019 recipient of the Andrew Mazola Memorial Scholarship!

Dustin is an undergraduate student from Michigan Technological University. He has interests in mining, hydrogeology and geochronology, but has not yet decided which to pursue in his future studies. Dustin was elected as president of the MTU AIPG student chapter, and is involved with the MTU geology club and Society of Mining, Metallurgy and Exploration. Dustin was touted as a top performer in class who maintains deep and broad understanding of geology and provides input in class. His professor considers him a rising star with skills at the highest level. The Michigan Section AIPG Executive Committee wishes Dustin the very best in his future career in geology.



Dustin Helmer (left) being presented with the 2019 Mazola Scholarship award by Michigan Section Past President Tim Woodburne. Photo provided by Tim Woodburne.

Newsletter Notice via E-mail

Make sure we have your correct email address to ensure 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. 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.

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

How the Indonesia Earthquake Made Soil Flow Like Water Video:
<https://www.nytimes.com/video/world/asia/10000006138189/indonesia-earthquake-damage-liquefaction.html?emc=eta1>.

Mud Pool on Fire Video!
<https://www.youtube.com/watch?v=4-RenWh5vT8>.

Section Website Reminders

Hey Shutterbugs! Show us the geologist's point of view and send in photographs that you would like to share with the section. We would like to use them in this newsletter and our website. Please submit photographs that you are willing to share to Adam Heft at adam.heft@wsp.com. Don't forget to include your name and a short explanation of what the photograph depicts.

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.

Member Geologists on the Road

If you plan your vacation based on road-cut quality, you might be a geologist...

Geology: It's not just a career... it's a lifestyle!

Stop the car! I see a rock!

These sayings and more define who we are, what we do, and how we have fun doing it. We'd like to showcase our members and what they have been up to. If you were on vacation and geology played a part in it, we want to hear about it. Please send your photos to

adam.heft@wsp.com for use in the newsletter and our annual slide show that plays at the annual Section meeting.

2020 Section Secretary Election

The Michigan Section AIPG Executive Committee is still looking for at least two candidates to run for Section Secretary for 2020. No one has stepped up so far to offer to run, and we need YOU to help keep the momentum of what the Section has accomplished going!

The responsibility of the position is on the Section website at: <http://mi.aipg.org/officers.htm>. Note that the Secretary position succeeds to Treasurer, and on up through Past President; this is a five-year commitment. The overall time commitment is not that great during any given year. If you would like additional information about the position or time commitment, feel free to contact any of the Section's Executive Committee members cc'd on this email.

If you are interested in running for Secretary, please respond to this email with a statement of interest and a short bio by October 29, 2019. Note that CPGs, YPs, and professional members are all eligible to run for office and serve on the Section's Executive Committee. The Election will open on November 1st, and will run through 5 pm on December 11th (right before the Section's annual meeting).

We need new people to step up to serve so those that have been involved can let others take their place. Please consider giving some of your time back to AIPG by serving as a Section officer.

Did You Know?

This article 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...

Section 6.3 of the National bylaws states, "No Member or Adjunct shall have the authority to speak or act for the Institute, except by express delegation of authority from the Executive Committee or the President."

First-of-Its-Kind Great Lakes Environmental Remediation and Redevelopment Conference Brings Environmental Professionals Together

EGLE took the first step and started the conversation with the Great Lakes Remediation and Redevelopment Conference. It turned out to be a great conversation.

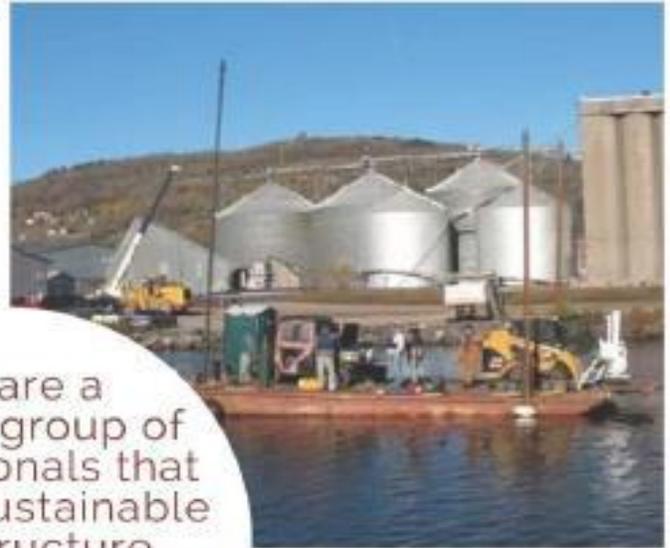
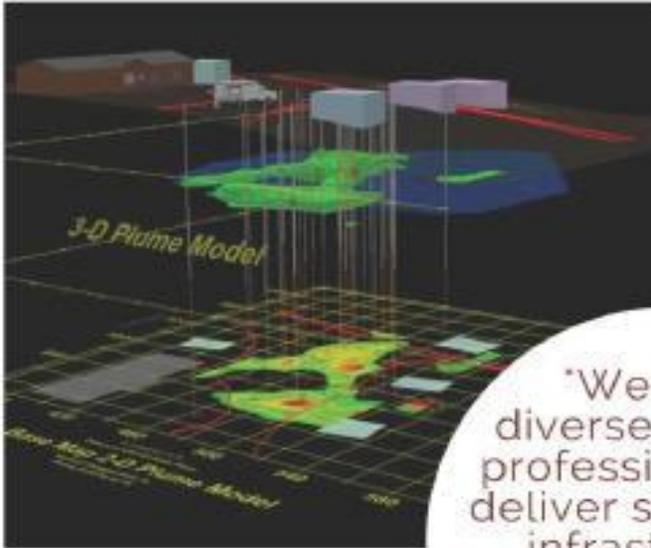
EGLE extended an invitation to the US EPA, Region 5 states, (Minnesota, Wisconsin, Illinois, Indiana, and Ohio), 35 federally recognized tribal communities, and nationally-recognized experts to join us for the two-and-a-half-day conference to share case studies, hear about the lessons learned, and celebrate the successes of environmental remediation and development projects across the region. More than 600 environmental professionals attended the sold-out conference to join the conversation. The conference featured 63 exhibitors and 30 sponsors. Thank you to the many AIPG members who joined us as speakers, exhibitors, sponsors, and participants!

We shared our perspectives on the topics of cleanup, community revitalization, emerging contaminants, program implementation, and other regional topics of interest. We saw demonstrations highlighting equipment and technologies commonly used to collect information about contamination at properties. We made new connections with other professionals who are facing similar challenges.

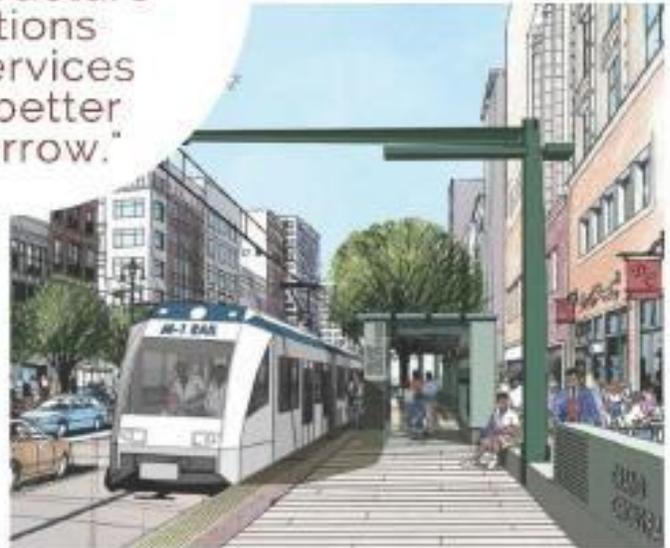
The conference kicked-off with the keynote delivered by Grant Tigger, Michigan Cleanup Manager for the RACER Trust. The Trust, which is tasked with the cleanup and redevelopment of former General Motors facilities, is a unique example of how partnerships bring all interested parties including the regulatory agencies, owners responsible for the contamination, consultants, communities, and developers to tackle the common goal of cleaning up the properties so that they can be safely put back to productive use. This model of everyone working together was a key theme of the conference to ensure that we are protecting public health.

The conversation would have been incomplete without the topic of emerging contaminants and PFAS. Robert Bilott,

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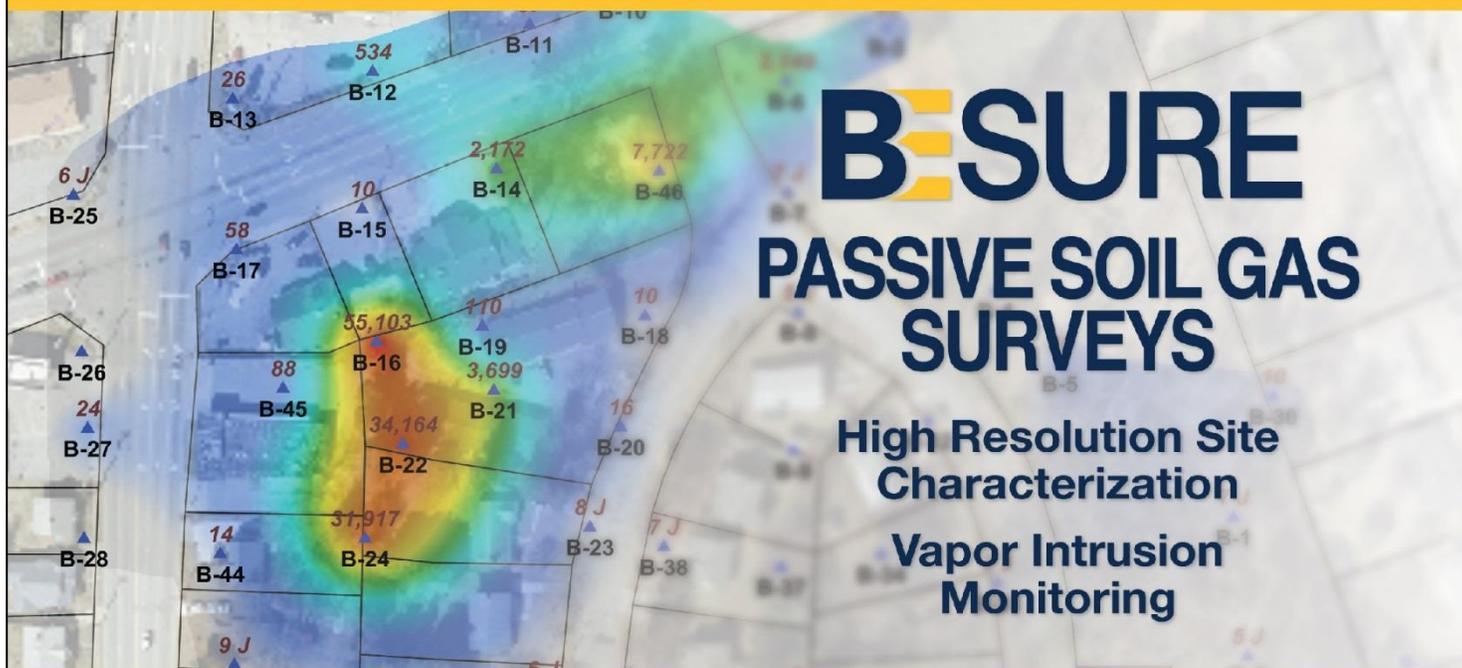
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partner at Taft, Stettinius, & Hollister LLP, told attendees about his 20-year battle against DuPont over PFOA contamination. Discussions about PFAS continued through the conference ending on day 3 of the event with an entire session dedicated to it hosted by EGLE's MPART team. The latest research on how to determine that treatment of these chemicals works as well as perspectives on challenges posed by the contaminants amongst the states in the region were shared.

As the backdrop of the conference, Michigan's capitol served as a prime example of how contaminated properties can be safely put back into productive use and were featured in a brownfield walking tour. The tour showcased how the vision, partnership, and expertise brought new land uses for the community to enjoy.

Why should we face the challenges alone?

We are now looking forward to fueling the flame that the first-of-its-kind Great Lakes Environmental Remediation and Redevelopment Conference sparked with future opportunities to bring people together and solve the problems we all face caused by environmental contamination in our communities.

Michigan Section ASBOG Fundamentals of Geology Exam at CMU

Qualified geologists working in Michigan can take the National Association of State Boards of Geology (ASBOG) Fundamentals of Geology (FG) examination at Central Michigan University.

The FG exam is given twice each year (March and October). It emphasizes knowledge and skills that undergraduates typically acquire in the process of obtaining a baccalaureate degree in geology and is an important step toward professional certification as a geologist in many states. Geologists who pass the FG exam in Michigan enjoy reciprocity with the 32 ASBOG Member Board Regulatory States.

Registration is now open for the March 20, 2020 FG examination, with an application deadline of January 15, 2020. More information on taking the exam at CMU is available at <http://se.cmich.edu/asbog>.

Editor's Note: If you have any questions regarding taking the exam, please contact Dr. Larry Lemke at: lemke1ld@cmich.edu.

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...

June 16-17, 2020: Michigan Section's 10th Annual Environmental Risk Management Workshop: "The Data Tells the Story" at the Ralph A. MacMullan Conference Center, Roscommon, Michigan.

October 3-6, 2020: 57th Annual AIPG Meeting to be held in Sacramento, California. The Role of Geoscientists for Resiliency, Sustainability and Opportunities in a Changing Environment. The meeting venue will be the Hilton Sacramento Arden West.

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

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

December 11, 2019: Michigan Section AIPG annual meeting and awards presentation, Weber's Inn, Ann Arbor. Details and registration information forthcoming.



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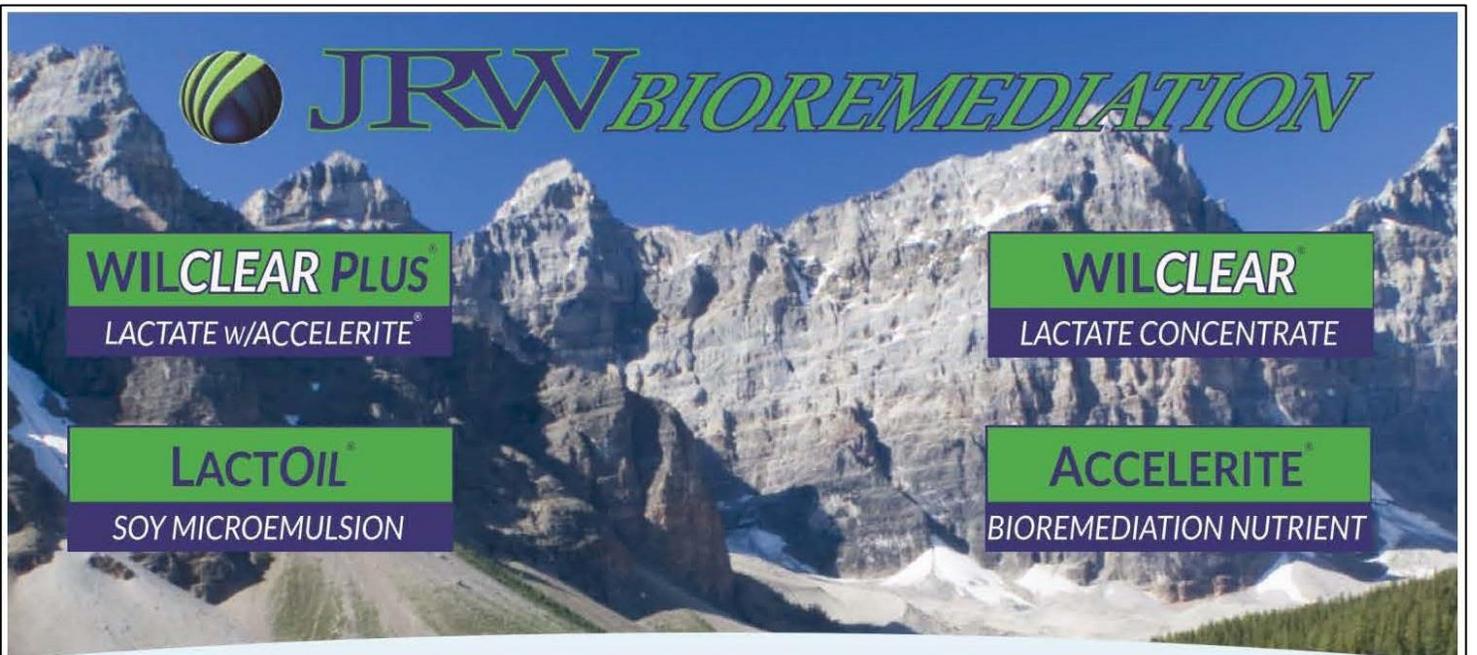
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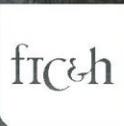
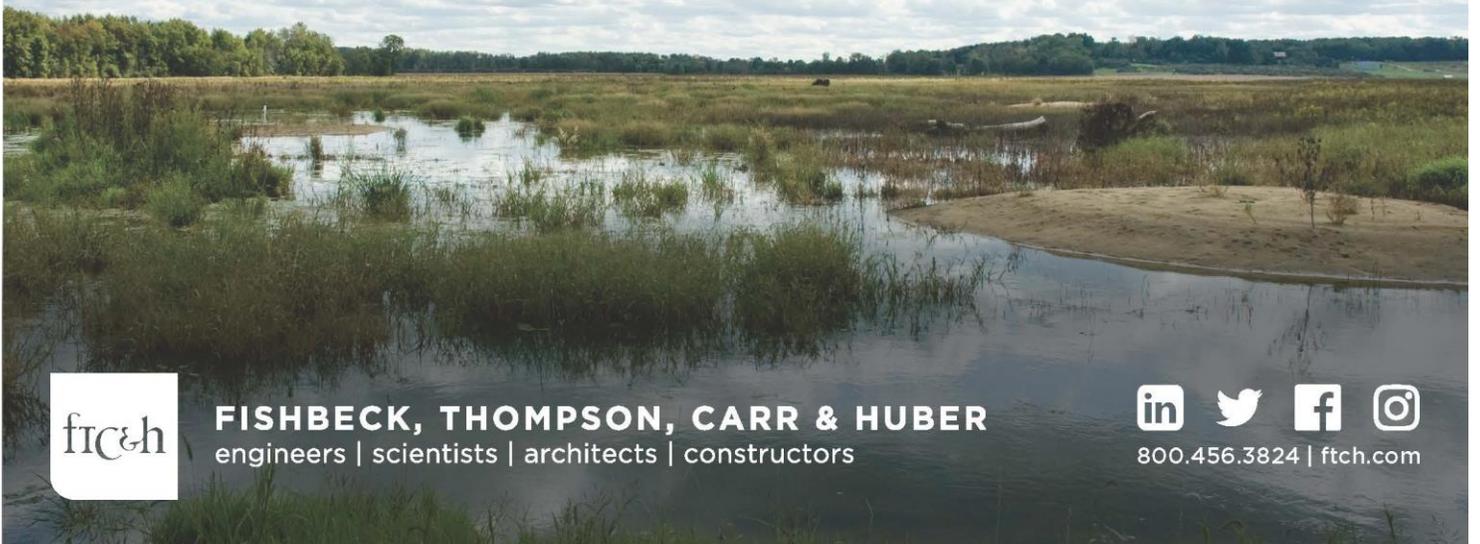
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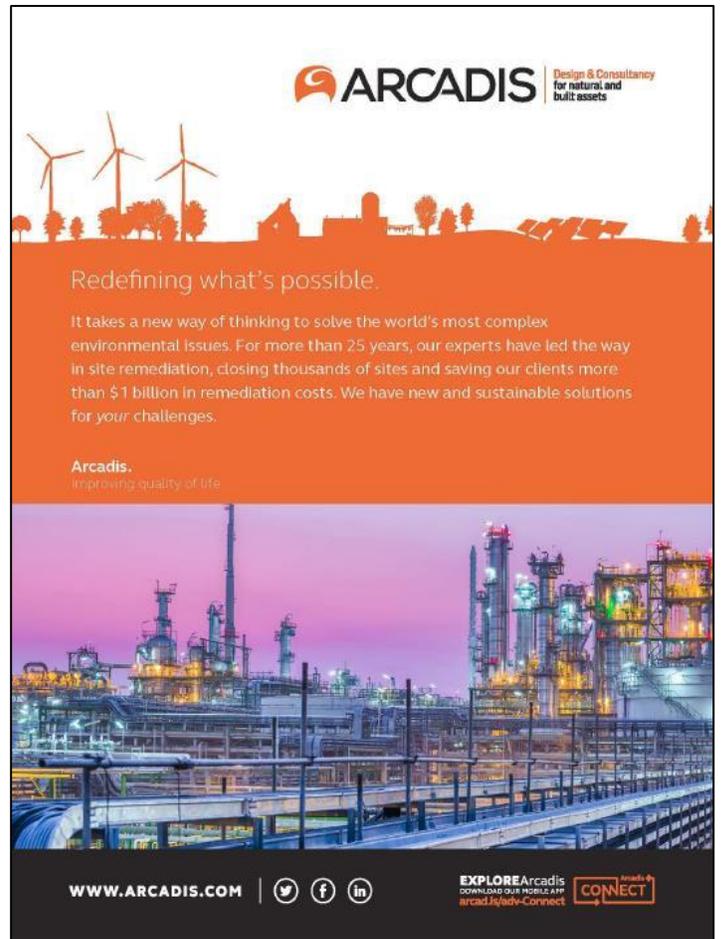
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