



# American Institute of Professional Geologists Michigan Section

June 2012

## From the President's Desk

Kudos to Kevin Lund and Sara Pearson for their efforts in coordinating a successful LNAPL workshop! Tremendous effort was put forth to make this event informative and beneficial to all. Please extend a bit of gratitude to each of them the next time you are together.

Your executive committee has also been working hard to coordinate a few more events through 2012. We are pulling together the details of our next meeting that is scheduled for September 13<sup>th</sup> in Lansing, MI. We put forth every effort to have featured speakers that highlight key topics and initiatives of interest to the geologic community. That being said, if there is a topic of interest to you or a topic you'd like to present, please contact a member of the executive committee. Our annual meeting is scheduled for November 29<sup>th</sup> in Howell, MI. Please note our annual meeting will once again include a student poster award contest. Members, please encourage students you may know to participate. Awards of up to \$500 will be given to students posting their work at our annual meeting.

I'm sure you all are aware, the American Institute of Professional Geologist's 49th Annual Meeting, Geology and Natural Resources of the Black Hills and Adjoining Basins is being held in Rapid City, South Dakota. Consider participating in the 2012 AIPG Annual Meeting. The technical sessions, short courses and field trips are technically rewarding and fun.

Our focus this year is to increase member involvement. I'd like to personally welcome all our new student members, members, and CPGs. Please feel free to contact me or another member of the executive committee to get involved.

Dawn Prell, CPG – 2012 Michigan Section President

## Section Officers Reports

President: Information presented in the "From the President's Desk" article above.

Vice President: See article below regarding scholarship award to teachers for MDNR Academy.

Treasurer: Details of the Section accounts are summarized in the Secretary's report.

Secretary: **June 5, 2012 Executive Committee meeting minutes are as follows:**

- I. 1. Call to Order: 10:00 AM
  - Attendees: Dawn Prell, John Barkach, Craig Savage, Don Conway, Adam Heft, Kevin Lund, and Tim Cullen;
  - The Executive Committee meeting was held via conference call because the May 3rd Section Meeting was cancelled due to low registration;
  - There were no minutes from the previous Executive Committee meeting presented for review/approval.
- II. Treasurer's Report (Craig Savage)
  - The Michigan Section balance is running around \$52,800;
  - The account is in a noticeable state of flux due to significant cash flow into the account from the LNAPL Workshop and the Golf Outing;
  - The account activity is expected to stabilize later in the summer after the workshop and golf outing expenses are resolved;
  - At that time the committee will consider opening an additional CD.
- III. AIPG National Update
  - John Barkach (Section VP) will attend the national meeting held Sept. 22-25 in Rapid City, SD;
  - Adam Heft said he also plans to attend.
- IV. 2012 Meeting Schedule & Speakers (Open)

- March 1st @ Kellogg Center, Lansing, MI  
Speaker: Anne Couture, MDEQ;
- May 3rd @ Fetzer Center at WMU,  
Kalamazoo, MI (CANCELLED)
- September 13th @ Mt. Pleasant, MI (co-  
sponsored with CMU Student Section)  
Location/Speaker – Jim Olsen (tentative) to  
speak about environmental impacts resulting  
from Hydrofracturing;
- November 29th @ Howell, MI (venue is being  
vetted further due to cost) Speaker: Joyce  
Dunkin to speak about Offshore Coring  
Feasibility Studies – Geotechnical  
Investigations to Support a Potential Large  
Water Intake.

#### V. Golf Outing/LNAPL Training Workshop Update (Kevin Lund)

- The annual golf outing was held on May 15th  
at the Lyon Oaks Golf Course, Oakland  
County;
  - Approximately 78 golfers participated;
  - Kevin Lund and Bob Reichenbach were  
instrumental in planning, organizing and  
overseeing the day's activities.
- The LNAPL Training Workshop will be offered  
over a two day schedule on June 20th – 21st  
at the Ralph A. MacMullan (RAM)  
Conference Center, Roscommon, MI on  
Higgins Lake.
  - 170 attendees have registered, there is  
room for several more;
  - Registration fees will be as follows:
    - AIPG Members - \$275;
    - Non-members - \$400;
    - MDEQ - \$200;
  - Sponsors are urged to contact Tim Cullen  
(trcullen@umich.edu) for information  
concerning the various sponsor  
opportunities that are available.

#### VI. Student Chapters (John Barkach, Dawn Prell)

- A Student Chapter is in the process of  
forming at Wayne State;
- It has been slowed by student turnover but is  
expected to move forward in the Fall;
- An announcement concerning the Student  
Poster competition to be held in conjunction  
with the November Section meeting will  
appear in the June 29th Newsletter.

#### VII. Field Trips (Adam Heft for Sara Pearson)

- Tentatively scheduled for Mackinac Island or  
Beaver Island in early August.

#### VIII. Newsletter Dates to Remember (Adam Heft)

- Issue Date: March 23<sup>rd</sup>, Articles Due: March  
16<sup>th</sup>
- Issue Date: June 29<sup>th</sup>, Articles Due: June  
22<sup>nd</sup>
- Issue Date: August 17<sup>th</sup>, Articles Due:  
August 10<sup>th</sup>
- Issue Date: October 19<sup>th</sup>, Articles Due:  
October 12<sup>th</sup>

#### IX. Other Business

- AIPG National has requested information  
from the membership regarding the history of  
the Section in conjunction with the Michigan  
Section 50th Anniversary (2013);
  - The Executive Committee is seeking input  
from the membership;
  - Compilation of information is expected to  
be completed by November and sent to  
National.
- March 1st Meeting Breakdown (not on the Ex  
Comm Meeting Agenda):
  - 89 Registrants
  - Nine students
  - Two no shows

#### X. Next Executive Committee Meeting

- Scheduled for September 13<sup>th</sup> in Mt. Pleasant  
prior to the Section Meeting.

#### XI. Adjournment: 11:00 AM

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### Coming Events

**August 10-11, 2012:** Michigan Section AIPG Summer  
Field Trip to Mackinac Island and the eastern Upper  
Peninsula. Additional details of the field trip are  
attached to this newsletter; contact Sara Pearson at  
[pearsons@michigan.gov](mailto:pearsons@michigan.gov) to RSVP.

**September 13, 2012:** Michigan Section AIPG section  
meeting. Speaker and topic to be announced.

Location: The Kellogg Center, Michigan State University,  
East Lansing.

Dinner: Mediterranean Stuffed Breast of Chicken  
w/Olives, Sun-Dried Tomatoes, Arugula and Goat  
Cheese with Puttanesca Sauce; Chipotle Honey Glazed  
Salmon Fillet w/Cinnamon-Scented Cous Cous;  
Marinated London Broil, Grilled flank Steak w/Burgundy  
Sauce; served with Roasted Redskin Potatoes.

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

Cost: Students free, Members \$35.00, Non-members \$40.00.

**RSVP by September 11, 2012:** RSVP to Tim Cullen at [trcullen@umich.edu](mailto:trcullen@umich.edu). Please remember to include your meal choice. Notice by e-mail is preferred, and please include AIPG Section Meeting in the subject line. Tim can also be reached at (734) 763-5267.

**September 22-25, 2012:** AIPG Annual Meeting, Best Western Ramkota Rapid City Hotel & Conference Center, Rapid City, South Dakota. <http://www.aipg.org>.

**November 29, 2012:** Michigan Section AIPG Annual Meeting, Cleary College, Howell. "Offshore Coring Feasibility Studies – Geotechnical Investigations to Support a Potential Large Water Intake" by Joyce Dunkin.

**October 23-26, 2013:** AIPG 50<sup>th</sup> Annual Meeting, Omni Interlocken Resort, Broomfield, Colorado. <http://www.aipg.org>.

## Annual Golf Outing Summary

2012 was a successful year for our Eighth Annual AIPG Michigan Chapter Golf Outing. 86 players enjoyed a day of golf and camaraderie for this year's event. Proceeds from this event continue to support our K-12 educational grants.



Golfers trying their luck at the putting contest. Photograph courtesy of Kevin Lund.

The perfect day facilitated some very competitive golf. A Low Total of 61 was posted by the foursome of Dale Schrader, Abdul Abdul, Dave Brochu, and Bob Reichenbach.

The Grand Prize Raffle (Amazon Kindle Fire) was won by Craig Marlow –CEMCOR Marketing. The 50/50 Raffle was also won by Craig.

Our sponsors, without whom this event would not take place, were as follows:

- Stock Well Drilling/The Underground Detective-Dinner
- Orin Remediation Technologies, Inc.-All Closest-to-Pin and Hole-in-One Prizes
- Fibertec-Beverage Oasis

- Schrader Environmental Services-Longest Drive (men and women)



Roy Hoin with his prizes; Larry Kinsman and Brian Pals are in the background. Photograph courtesy of Bob Reichenbach.

Tee Box Sponsors:

- Ashtead Technology Rentals
- ECS
- Environmental Resources Group (ERG)
- Groundwater & Environmental Services (GES)
- Job Site Services
- MATECO Drilling
- Regenesys
- Schrader Environmental Services



Craig Marlow being presented with the Grand Prize Kindle Fire. Photograph courtesy of Bob Reichenbach.

Goodie Bag Items and other raffle prizes were provided by:

- Ashtead Technology Rentals
- Pace Analytical
- The Underground Detective
- Wilcox Professional Services





Laura Lambert with her dad Rick Sage. Photograph courtesy of Bob Reichenbach.

Thank you to all our sponsors. Additional thanks to Sue Graves-ERG for assisting with the hole-in-one grand prize hole and taking team photographs. Thanks also to Laura Lambert-ERG, Josh Ruffles-Pace who assisted with registering golfers and sponsors.



Diane Holmes winning a raffle prize (with her own ticket). Photograph courtesy of Bob Reichenbach.

A special thanks to Cheri DeLyon and Megan Bugaski from Fibertec for assisting with the raffles and with the awards ceremony.

Thanks to all attendees!

Bob Reichenbach, CPG and Kevin Lund, CPG – Michigan Section Golf Outing Co Chairs

## LNAPL Workshop Summary

The American Institute of Professional Geologist (AIPG) – Michigan Section held a light non-aqueous phase liquids (LNAPL) Workshop on June 20 and 21, 2012 at the Ralph A. MacMullan Conference Center located at 104 Conservation Drive on the north shore of Higgins Lake in Roscommon, Michigan. This Workshop was endorsed by the Michigan Department of Environmental Quality, but was not MDEQ sanctioned training.



Registration for the Workshop on July 20<sup>th</sup>. Photograph courtesy of Trevre Andrews.

The primary goal of the Workshop was to advance the knowledge of LNAPL behavior in the subsurface, including flow, transfer of components to water and gas phases, migration and distribution; site characterization and monitoring fundamental issues; key remediation concerns; and consultant's case studies. The workshop also focused on the perspectives of owners and regulators on the application of a science-based LNAPL guidance developed by ITRC to efficiently move sites to closure and on creating a forum to promote the scientific information interchange between regulators, owners, and practitioners working in Michigan.

The first day was devoted to fundamental concepts, and the second day of the workshop was devoted to case studies of highly complex sites. The case studies illustrated how ASTM and ITRC guidance can be applied to a site. Mark Adamski with BP and Trevre Andrews with AECOM noted the workshop was the largest collection of presentations on LNAPL at a single workshop or conference in over five years.

Weather the first day was hot, but otherwise nice, allowing lunch and dinner to be eaten on the lake shore. Unfortunately, the facility's air conditioning was not fully operational.





Attendees preparing for the kickoff of the conference as the first speaker is introduced by Kevin Lund and Sara Pearson. Photograph courtesy of Adam Heft.

196 attendees heard presentations on development of a site's LNAPL Conceptual Site Model, LNAPL stability analysis and LNAPL recoverability evaluation. The cross section of speakers included representatives from academia, industry, regulatory, and consulting that presented the perspective of how information regarding LNAPL stability and recoverability is used to develop a realistic and effective conceptual site model used to establish remedial endpoints at a site. AIPG Michigan Section would like to thank all who attended the workshop and encourage you to share the knowledge gained at this informative presentation.



Attendees enjoying a barbeque lunch on the shore of Higgins Lake. Photograph courtesy of Adam Heft.

After the first day of presentations and dinner, attendees enjoyed an evening social gathering and plenty of liquid refreshment.

A quick reminder, ITRC is holding a 2-day classroom training on LNAPLs on October 16-17, 2012 in Novi, Michigan. This 2-day ITRC classroom training on LNAPLs will enable you to develop and apply an LNAPL Conceptual Site Model (LCSM), understand

and assess LNAPL subsurface behavior, develop and justify LNAPL remedial objectives including maximum extent practicable considerations, select appropriate LNAPL remedial technologies and measure progress, and use ITRC's science-based LNAPL guidance to efficiently move sites to closure.



Attendees absorbing details of one of the second day's breakout sessions. Photograph courtesy of Adam Heft.

Several sponsors made the event possible and enjoyable for all. The sponsors include: Barr Engineering, Bureau Veritas, Conestoga Rovers & Assoc., Dakota Technologies, Dune Technologies, Fibertec, Inc., Fishbeck Thompson Carr & Huber, Gannett Fleming, Global Remediation Technologies, Haley & Aldrich, Mateco Drilling, and Stock Drilling. Our thanks to all the sponsors!

The Section Executive Committee would like to extend its appreciation to Sara Pearson and Kevin Lund, the event organizers, for putting together another great workshop!

Adam Heft, CPG with contributions by Kevin Lund and Sara Pearson

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## AIPG Michigan Section Summer Field Trip

We are still working on plans for the AIPG Michigan Section Summer Field Trip that will be held August 11-12, 2012. The trip will be to the Eastern Upper Peninsula and Mackinac Island. This will be a family-friendly, two day, geology-based field trip. Additional details are in the attached field trip announcement.

Sara Pearson, CPG

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## 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:

David Forse, Thomas Timmermans, Emily Bertolini, Blake Lytle, Ren Keyport, Paula Giryn, Austin Bugg, Andrew Holmes, Kathleen McKee, Mark Gayeski, Joel Taylor, Kathryn Titus, and Jessica Szkody.

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

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## CMU Chapter News

Hello AIPG Members,

I hope everybody was able to attend the awards banquet last week! Big news; the tallies are in on elections.

Your new CMU student chapter e-board members for 2012-2013 are as follows:

President- Rebecca Jones

Vice President- Montana Krukowski

Treasurer- Darren Rugenstein

Secretary- Cassandra Javor

CONGRATULATIONS!!! I am very excited to see what you guys will do this coming year with AIPG. This coming semester looks great, especially with the conference coming up.

I would also like to take this opportunity to thank my e-board members as well as all the members for all their help over the past year. I am very grateful for having the opportunity to have been your Chapter President.

I want to wish everybody a great summer and good luck on the fast approaching finals!

Have a great day,

Jamie Hockemeyer, President of AIPG CMU Student Chapter, May 2011-May 2012

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## DEQ Makes Strides in Reinventing the Remediation and Redevelopment Program

On June 19, 2012, the DEQ delivered the 90-Day Progress Report detailing results from the continuing Collaborative Stakeholders Initiative (CSI) efforts to nearly 300 interested parties in Michigan, across the country, and Canada. The DEQ had news to report on several key issues that were part of the CSI process to reinvent the remediation and redevelopment program. The key issues were identified through the Office of Regulatory Reinvention, and through a collaborative effort,

stakeholders and DEQ staff are working to streamline the program through innovation by using the latest advances in science and technology to evaluate sites and manage risks posed by the contaminants present at them.

One of the many items the DEQ had to report on included the signing of groundwater venting to surface water statutory language amendments to Part 201 identified as Senate Bill 1090 by Governor Snyder. The draft language for this bill was written in February 2012 as part of the CSI "spark" and within four months the language became a statutory amendment to Part 201 with the support of both the DEQ and stakeholders. Public Act 190 is available at <http://www.legislature.mi.gov/documents/2011-2012/publicact/pdf/2012-PA-0190.pdf>.

The benefits of the new legislation are that it creates flexibility in allowing for more progressive options in addressing groundwater venting to surface water including mixing zones, alternative monitoring points, and ecological and/or modeling demonstrations. For example, it provides resolution in cases where groundwater is venting to storm sewers by moving the compliance point to the outfall at the point of discharge to the surface water body. The bill broadens the options for self-implementation and defines the department's involvement in the approval process, when needed.

During the webinar, the DEQ also encouraged stakeholders to review the draft Vapor Intrusion Guidance Document and provide comments by August 1, 2012. Several presentations on the vapor intrusion document have been given to professional groups across the state. The power point presentation and the draft document are available for review with instructions for providing comments on the DEQ's Remediation Division webpage at [www.michigan.gov/degrrd](http://www.michigan.gov/degrrd).

The DEQ's full 90-Day Progress report in webinar and newsletter formats is currently available for viewing on the DEQ's Remediation Division webpage.

Sara Pearson, CPG, MDEQ RD Senior Geologist, Grand Rapids District

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## Support our Sponsors!

The Section Executive Committee would like to remind its members to support the companies that are advertisers 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.



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## **Geologists rock Michigan teachers with scholarships to DNR Academy**

The Michigan Section of the American Institute of Professional Geologists has pledged scholarship money totaling \$3,500 for Michigan teachers to participate in the Academy of Natural Resources this July 15-20 at the DNR's conference center on Higgins Lake.

The Academy, now in its 5th year, is open to all educators who wish to learn more about natural resources in this week-long mixture of classroom and field experiences taught by a variety of professionals. The Academy offers four separate courses during the week, each with a different focus, but all connecting educators from the outdoors to the classroom. This year's selections include: Forests, Fields and Fins; NatureQuest; Teachers into the WILD, and Natural Resources Curricula Certification.

Total cost for the Academy is \$350.00 but the scholarships (at 100.00 per teacher) reduce the cost substantially. The remaining \$250 cost covers five nights lodging, 15 meals and course materials. University Graduate credits are extra and up to 3.5 CEUs can be earned.

For more information check [www.michigan.gov/anr](http://www.michigan.gov/anr) or contact ANR Coordinator Kevin Frailey at (517) 373-7306 or [fraileyk@michigan.gov](mailto:fraileyk@michigan.gov).

John Barkach, CPG

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## **Rockport State Recreation Area Grand Opening Set for June 29**

The Michigan Department of Natural Resources' Parks and Recreation Division will celebrate the grand opening of Rockport State Recreation Area – its newest state recreation area, just north of Alpena – with a ribbon-cutting ceremony at 10 a.m. on Friday, June 29. The ceremony will take place at Rockport's boat launch area.

The property's 4,300 acres include a deep-water protected harbor, a 300-acre limestone quarry with Devonian period fossils and a unique series of sinkholes to explore. The new park also includes the Besser Natural Area and a broad range of land types, vegetative cover, cultural resources and recreation opportunities.

Members of the newly formed volunteer group, Friends of Rockport/Besser Natural Area, will host events from 10 a.m. to 3 p.m. on Saturday, June 30, to acquaint visitors with the many points of interest within the new recreation area. Saturday's events include a hands-on Intro to Fishing program and wagon rides to the sinkholes and throughout other parts of the park. Boat tours around Middle Island will leave from the boat launch. The cost for the

rides, provided by a local vendor, will be \$25 per person, which is a reduction from the normal cost of \$35 per person.

Guest speakers will lead tours and discuss fossils, birding, coastal habitats and other natural habitats. Saturday's activities take place at the south end of the park near the boat launch area and at the north end of the park at the Besser Natural Area. To get to the Rockport boat launch, take the Rockport Road exit east off of US-23 and drive approximately three miles down the gravel road.

To get to the Besser Natural Area, take East Grand Lake Road north off of US-23 for approximately four and one-half miles to the stop sign. Turn right to follow East Grand Lake Road for approximately one mile to the Besser Natural Area entrance.

The property was maintained by the DNR's Forest Resources Division from 1997 until December 2011 when it was transferred to the Parks and Recreation Division for future management.

Information on these events will be available at Rockport State Recreation Area the weekend of June 29-30, or by calling Harrisville State Park, 989-724-5126. The events are free; however, a Recreation Passport is required for all vehicles entering the recreation area.

MDNR Press Release

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## **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 [heft@pbworld.com](mailto:heft@pbworld.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.

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## **Section Website Reminders**

As you may have noticed, the Michigan Section is working on building a database of geologic photographs on our website. We would like to continue building this collection. Please submit photographs that you are willing to share to Adam Heft at [heft@pbworld.com](mailto:heft@pbworld.com). Don't forget to include your name and a short explanation of what the photograph depicts. The photographs will be periodically uploaded to the website once several have been received.

You will also note that the Section website now has a history page. Currently, it includes information on Douglas Houghton, Michigan's first State Geologist. We will be including information on the Section's officers in the near future. If you have suggestions

on other items that should be included on this page, please let a member of the Section Executive Committee know.

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## 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.*

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## Employment Opportunities/Seeking Employment

*To serve our members, and provide added value, the Michigan Section Executive Committee has decided to allow ads for employment opportunities to be posted in the Section newsletters. Employment ads will run for one edition unless renewed. There is no cost to our members or sponsors for this service. Send your employment opportunities to the Editor.*

### Seeking Employment:

I am a recent CMU graduate who is seeking an entry level, environmental consulting position. I have a double major in Environmental Studies and Hydrogeology and am willing to relocate. I have professional experience interning with the Department of Environmental Quality. My email is [degra1a@cmich.edu](mailto:degra1a@cmich.edu). Thank you, Angela DeGrandis.

### Position Available:

UM OSEH Rep II – Storm Water Specialist

This is a mid-level technical position within the UM Occupational Safety & Environmental Health (OSEH) Dept. A more complete description of the position and application process can be found on the UM jobs website (<http://umjobs.org/>).

### Basic Function and Responsibility

Develop, implement, promote, and maintain occupational health and safety, and environmental programs and projects. Plan, manage and coordinate the activities and operation of the University of Michigan Storm Water Program under the supervision of the Program Manager or his designee.

### Characteristic Duties and Responsibilities:

- Ensure compliance with applicable standards and requirements as set forth in the approved MDEQ NPDES Permit.
- Plan, organize, and coordinate daily activities of the University of Michigan Storm water Program.

- Coordinate maintenance operations, design review, and water quality programs related to the storm water system.
- Develop and maintain guidance documents on use of Best Management Practices (BMPs) and coordinate education programs regarding the use of BMPs.
- Coordinate and record storm water related activities that are being performed by other UM departments/activities.
- Review plans prepared in support of special planning areas, i.e. Floodplain Permitting; Wetland Permitting, and Joint Permit Applications.
- Review post-construction storm water management plans including BMP design and calculations.
- Prepare periodic reports, guidelines, manuals, newsletters, summaries, and bulletins.
- Perform O&M on environmental monitoring equipment.
- Construction plan review for EHS compliance.
- Assist in the development, review, and project management of contracts and service agreements with procurement of outside vendors and services.
- Participate in emergency response activities.

### Qualifications

- A Bachelor's degree in occupational health, safety, environmental, engineering, chemical sciences, or a related field is necessary. A Master's degree in occupational health, safety, environmental, engineering, chemical sciences, or a related field or equivalent combination of education and experience is desirable.
- Three to five years experience in administering environmental projects is necessary. Some experience in program development is desirable.
- Certified Storm Water Operator – preferably for Construction and Industrial Sites.
- Certified Soil Erosion and Sedimentation Control Inspector.

Additional questions regarding this position may be directed to Tim Cullen at: (734) 763-5267.



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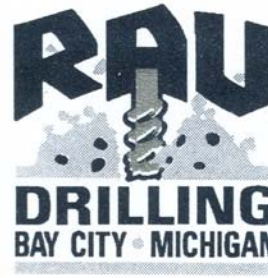
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**Michigan Chapter  
American Institute of Professional Geologists  
FIELD TRIP ANNOUNCEMENT**

**AUGUST 11 & 12, 2012**

**MACKINAC ISLAND  
AND  
UPPER PENINSULA QUARRIES**

**Locations:** Mackinac Island, Michigan  
Ozark, Scott's, and Fiborn Quarries, and the Hendrie River Water Cave, Eastern  
Upper Peninsula

*The AIPG Michigan Section is extending an invitation to all geologists, friends, and families to join us in a field trip to Mackinac Island and see the Karst features of the eastern Upper Peninsula.*

The field trip will kick off Saturday at 12:00 p.m. with a walking and/or biking tour of Mackinac Island, Michigan guided by Delta College Geology Professor, Dr. Timothy Clarey, Ph.D. Dr. Clarey will take us all around the island to see the geologic features. We will visit Arch Rock, Skull Cave, the 2 Ice Age lake terraces, the Nipissing and Algonquin, Sugar Loaf, the Cave of the Woods, and the Crack in the Island and hear all about the geology as we go. Bring your walking shoes!

On Sunday morning, we will travel to the several quarries and a cave in the Eastern Upper Peninsula. We are planning to view the Karst features at the Ozark, Scott's, and Fiborn quarries, and the Hendrie River Water cave. The Ozark and Scott's quarries offer opportunities to see the limestone outcrops and collect fossils at the Scott's Quarry. The Fiborn Karst Preserve, owned by the Michigan Karst Conservancy, is a 480 acre preserve at the site of a former limestone quarry that operated from 1905 to 1936. The limestone outcrops are part of the Niagara Escarpment, a band of resistant rocks (mostly Silurian dolomite) ringing Michigan's lower peninsula from the hills of Wisconsin's Dorr Peninsula through Michigan's upper peninsula to Ontario's Niagara Falls and beyond..

The Cordell formation contains fossils of brachiopods, corals, etc... Hopefully, the weather will be fantastic and everyone will be able to collect some great specimens!

**Cost:** \$24.00 per adult and \$12.00 per child (ages 5-12) roundtrip for the Sheplers Ferry and Arnolds Transit Ferry to the Island if tickets are purchased at the dock. Children five and under are free on the boat. The cost for bringing a bicycle is an additional \$8.00. There are discounts and packages available to get to the island and stay. The discounts are at the following links: <http://sheplersferry.com/tickets/#specials> and [http://www.arnoldline.com/package\\_pricing.htm](http://www.arnoldline.com/package_pricing.htm) Meals are not included. Make your own arrangements for lodging. The link provides several locations for hotels or campsites in the area [www.mackinaw-city.com](http://www.mackinaw-city.com) and [www.stignace.com](http://www.stignace.com)

Join us and bring the family. It's going to be fun! A more complete itinerary will be sent to those who RSVP. Hope to see you this summer!

**For more info & RSVP:** Please contact Sara Pearson at [pearsons@michigan.gov](mailto:pearsons@michigan.gov) or (616) 356-0253 no later than July 25, 2012. If we have less than 10 RSVPs, we will cancel the trip.

**Michigan Chapter  
American Institute of Professional Geologists  
MEETING ANNOUNCEMENT**

**September 13, 2012**

**TOPIC TO BE ANNOUNCED**

Featured Speaker:  
To Be Announced

**Location:** Kellogg Center, Michigan State University, East Lansing, MI (Map attached)

**Cost:** Students Free, Members \$35.00, Non-members \$40.00 **Registration is payable at the door by cash or check; however, prepayment is preferred and speeds up the check-in process at the door.** *Please note: Cancellations made within 24 hours of the meeting and/or "No Shows" will be charged and expected to pay the registration fee.*

**Dinner:** Choice of: Mediterranean Stuffed Breast of Chicken w/Olives, Sun-Dried Tomatoes, Arugula and Goat Cheese with Puttanesca Sauce; Chipotle Honey Glazed Salmon Fillet w/Cinnamon-Scented Cous Cous; Marinated London Broil, Grilled flank Steak w/Burgundy Sauce; served with Roasted Redskin Potatoes.

**Time:** Cash Bar 5:30-6:30 PM, Dinner 6:30 PM, and Speaker 7:30-9:00 PM

**RSVP:** Tim Cullen, at [trcullen@umich.edu](mailto:trcullen@umich.edu) or 734-763-5267 no later than May 1, 2012 and include your meal choice! Please include "AIPG Section Meeting" in the subject line. Checks may be mailed to Tim at this address: 21857 Parklane St., Farmington Hills, MI 48335. Payment may also be made at the door.



# AIPG Section Meeting September 13, 2012

## Kellogg Center, East Lansing

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When using any driving directions or map, its a good idea to double check and make sure the road still exists, watch out for construction, and follow all traffic safety precautions. This is only to be used as an aid in planning

**From the East - I-96 West, to US-127 (exit 106) North (3.1 miles) to Trowbridge Road exit East (.5 miles) to Harrison Avenue; turn left North approximately 1 mile on the right (four traffic lights up).**

**From the Southwest - I-94 East to I-69 North, to I-496 East; East (5 miles) to Trowbridge Road (exit 9) East (.5 miles) to Harrison Avenue; turn left North approximately 1 mile on the right (four traffic lights up).**

**From the West - East on I-96 to I-496 (exit 95) East (9.7 miles) to Trowbridge Road (exit 9) East (.5 miles) to Harrison Avenue; turn left North approximately 1 mile on the right (four traffic lights up).**

**From the North - South on US-27 to US-127 South (8.5 miles) to Trowbridge Road exit East (.5 miles) to Harrison Avenue; turn left North approximately 1 mile on the right (four traffic lights up).**