



American Institute of Professional Geologists Michigan Section

March 2012

From the President's Desk

Having regular, quality meetings is vital to provide a sense of community and a forum for the issues affecting our profession in Michigan. The executive committee is working together and is committed to hosting four meetings per year. In addition, our section members have been busy coordinating the annual golf outing, summer field trip and the second annual technical workshop to be held in June 2012. Our meetings are kept at a low cost to members, and professionals, and are free to students in effort to support growth of the profession. We put forth every effort to have featured speakers that highlight key topics and initiatives to the geologic community. Further, the meetings are held in the evenings to make them accessible to as many as possible. It is our hope that the combination of low cost, valuable content and convenient access will convince you to join us!

Another critical communication tool is our newsletter. Many thanks to Adam Heft for coordinating the publication of our quarterly newsletter. Our objective is to provide members information that is fresh and relevant to our profession. As such, we are issuing an open invitation to the geologic community to contact us if there are issues of concern or if there are hot topics we may have overlooked. And of course, if you would like to join AIPG, be part of the leadership team, or have a technical article we will be pleased to accept it. I wish to reach out to our members and ask that you get involved with your profession. We all have very busy lives. However, participating in AIPG can be very rewarding. Our objective is to increase participation at our meetings and to publish our meeting highlights within The Professional Geologist (TPG) published by AIPG National and our Section newsletter.

The Michigan Section of AIPG is pleased to announce that the Spring 2012 meeting will be held at the Fetzer Center on the campus of Western Michigan University on May 3, 2012. Please check the meeting announcement at the back of the

newsletter for details. I look forward to seeing you there.

Dawn Prell, CPG – 2012 Michigan Section President

Section Officers Reports

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

Vice President: No report.

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

Secretary: **March 1, 2012 Executive Committee meeting minutes are as follows:**

- I. Call to Order: 4:00 PM
 - Attendees: Dawn Prell, John Barkach, Craig Savage, Don Conway, Adam Heft, Kevin Lund, and Tim Cullen;
 - There were no minutes from the previous Executive Committee meeting presented for review/approval.
- II. Treasurer's Report:
 - The Michigan Section treasury begins the year with \$25,256.94;
 - Two of five certificates of deposit (CDs) will mature this year and will roll-over;
 - A suggestion was made that the Section support the MDNR Academy of Natural Resources with a one-time donation (\$3500) in the form of a scholarship to support several needy yet qualified recipients. The MDNR would administer the distribution of the funds. Recipients would be required to submit feedback to the Section.
 - Letters of appreciation were received from two recipients of last year's AIPG Educational Grant awards: Kenneth Mault of Midland Public Schools and Linda Barker of Traverse City West Middle School;

- John Barkach and new Treasurer Craig Savage will meet during the next several days to transfer the paperwork and bank documents.

III. AIPG National Update:

- John Barkach (Section VP) will attend the national meeting held Sept. 22-25 in Rapid City, SD.

IV. 2012 Meeting Schedule & Speakers:

- March 1st at the Kellogg Center, Lansing, MI
Speaker: Anne Couture, MDEQ;
- May 3rd at the Fetzer Center at WMU, Kalamazoo, MI
Speaker: TBD;
- September 13th at the University Center, Mt. Pleasant, MI (co-sponsored with CMU Student Section)
Speaker – TBD;
- November 29th in Howell, MI
Speaker: Joyce Dunkin.

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

- The annual golf outing will be held on May 15th at the Lyon Oaks Golf Course, Oakland County;
 - More details will be forthcoming in the next few weeks;
 - Three or four sponsors have already been signed up;
 - Additional sponsors are urged to contact Kevin Lund (klund@g-eri.com).
- 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.
 - It is expected that there will be between 200 – 225 participants;
 - Registration fees will be as follows:
 - AIPG Members - \$275;
 - Non-members - \$400;
 - MDEQ - \$225
 - Registration will be open in the next few weeks;
 - Sponsors are urged to contact Tim Cullen (trcullen@umich.edu) for information concerning the various sponsor opportunities that are available.

VI. Student Chapters:

- No news regarding the status of new student chapters;
- A student inquired if a poster could be displayed at the March 1st meeting. Although the usual poster display and judging takes place during the December meeting, he was told he could display his poster. No feedback was received.
- Seven (7) issues of TPG were distributed to the student registrants who attended the March 1st meeting.

VII. Field Trips:

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

VIII. Newsletter Dates to Remember:

- Issue Date: March 23rd with articles due on March 16th
- Issue Date: June 29th with articles due on June 22nd
- Issue Date: August 17th with articles due on August 10th
- Issue Date: October 19th with articles due on October 12th

IX. Other Business:

- Don Conway announced that the WMU Geologic Group has invited a member of the Michigan Section to participate.

X. March 1st Meeting Breakdown (not on the Executive Committee Meeting Agenda):

- 89 Registrants
 - 9 Students
 - Two “no shows”

XI. Next Meeting:

- Scheduled for May 3rd in Kalamazoo prior to the Section Meeting

XII. Adjournment: 5:25 p.m.

Coming Events

April 18, 2012: Michigan Basin Geologic Society membership meeting to be held at the Michigan Geological Repository for Research and Education Building, Kalamazoo. For details, contact Tom Hoane, Ph: 517-241-3769, hoanet@michigan.gov.

April 18, 2012: Michigan Oil and Gas Association (MOGA) and the Northern Michigan Chapter of the

American Petroleum Institute (API) 10th Annual Michigan Petroleum Conference, <http://www.michiganoilandgas.org/2012PetroleumConference.aspx>.

April 19th, 2012: OGS Meeting, Columbus, Ohio, Detecting faults that you couldn't see before and their impact on fracking and injection decisions, presented by Gary Perry from Geotrace, www.ohgeosoc.org.

May 3, 2012: "Earthquake-Induced Initiation/Regrowth of Speleothems During the Holocene Epoch and Earlier in Midwestern US Caves" by Samuel V. Panno.

Location: The Fetzer Center, Western Michigan University, Kalamazoo.

Dinner: Choice of: Pecan Crusted Chicken with a traditional sweet butter cream sauce, roasted sweet potatoes, peas, and pearl onions; Pesto Crusted Salmon with salsa romesco, orzo pasta and sautéed zucchini and peppers; Western Aged Flatiron Steak with portabella mushroom demi glace, with roasted garlic mashed potatoes and poached green beans.

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 May 1, 2012: RSVP to Tim Cullen at 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.

May 15, 2012: Michigan Section AIPG 8th Annual Golf Outing, Lyon Oaks Golf Course, Wixom. Forms can be faxed to (888) 417-4440 or e-mailed to klund@g-eri.com or Bob@ERGrp.net.

June 20-21, 2012: Michigan Section AIPG and MDEQ LNAPL Conference, RAM Center, Higgins Lake. See information in this newsletter; program information and full details coming soon.

September 13, 2012: Michigan Section AIPG Meeting, Mt. Pleasant. Information forthcoming.

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 50th Annual Meeting, Omni Interlocken Resort, Broomfield, Colorado. <http://www.aipg.org>.

Annual Golf Outing – Save the Date!

It is time to start planning for our Eighth Annual AIPG Golf Outing. We hope to continue to add to our numbers of golfers and sponsors this year. This event will take place on May 15, 2012. We plan to return to Lyon Oaks Golf Course in Wixom, MI.

This event has become a great opportunity to spend time with clients, network with colleagues, and celebrate the return of warm weather to Michigan. This event is open to everybody, so please come and take advantage of the opportunity.

Please pass this information along to your service providers/contractors/suppliers. This event offers excellent exposure for companies that support and serve our profession.

The money we raise is put toward the Michigan Section's K-12 educational grant recipients. To insure continued success, please assist us by participating, sponsoring, soliciting sponsors, and/or donating prizes or items. Call Bob Reichenbach at 734-476-5933 or Kevin Lund at 888-417-4440 to register or to offer your time to assist with the event.

The registration and sponsorship form is included in this newsletter and has been posted to the Michigan Section's website <http://mi.aipg.org/>. Click on the "Golf Outing" tab. Forms can be faxed to (888) 417-4440 or e-mailed to klund@g-eri.com or Bob@ERGrp.net.

We hope to see you May 15!

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

March Section Meeting Summary

The AIPG Michigan Section held its first meeting of 2012 on Thursday, March 1st at the Kellogg Center on the campus of Michigan State University in East Lansing.



Anne Couture beginning her presentation on the Update on the MDEQ's Efforts to Reinvent the State's Environmental Cleanup Program. Photograph courtesy of Adam Heft.

The meeting was well attended with about 70 members, including several students. Anne Couture of the MDEQ provided information about the upcoming reinvention of the state's environmental cleanup program.

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 10 to 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 will be forthcoming soon – stay tuned!

Sara Pearson, CPG

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:

Louis Stultz, Dayna Kent, Cora Hemmila, Alexander Sprague, Jillian Votava, Scott Simonson, Rachael Pressley, Rachel Moran, Kraig Koruleski, and Bruce Silver.

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.

DEQ Initiates Reinvention of Environmental Cleanup and Redevelopment Program with Collaborative Governance Approach

The Collaborative Stakeholder Initiative (CSI) was initiated by the Michigan Department of Environmental Quality (DEQ) in response to the recommendations for change to the environmental cleanup program.

Governor Rick Snyder has sought to reinvent Michigan including Michigan's government, and as part of the process, the governor created the Office of Regulatory Reinvention. The Office of Regulatory Reinvention examined Michigan's regulations and made recommendations for changes government-wide. The Environmental Advisory Rules Committee approved a total of 79 recommendations for the DEQ and 16 of the 79 specifically targeted regulations relating to the Remediation Division. The CSI process was initiated by the Remediation Division in response to the 16 recommendations as an effort to improve the state's environmental stewardship with a reinvented, durable remediation and Brownfield redevelopment program. The recommendations are available through the following link

http://www.michigan.gov/documents/lara/ORR_-_Environmental_Recommendations_377252_7.pdf

The reinvented program is being developed in support of Governor Snyder's vision of creating more and better jobs, restoring our cities, enhancing our image on both the national and international fronts, reinventing the government, protecting the environment, and solving problems through relentless positive action. With the governor's objectives in mind, the collaborative governance initiative was designed by professional educators from Michigan State University, facilitators and policy experts. They developed a fast paced process that had two main goals to address seven specific issues within three sessions over the course of six weeks to emerge with a series of implementable recommendations for the cleanup program to move Michigan forward.

The goals developed for this process are the following:

1. Foster an improved climate of trust, cultural understanding and cooperation among stakeholders and state agency staff.
2. Set the stage for swift and durable implementation that addresses seven key issue groupings that affect progress in Michigan's cleanup and redevelopment program.

The CSI process convened at Michigan State University on February 3, 2012 where leaders from stakeholder groups like the Michigan Municipal League, law firms, redevelopment authorities, the Michigan Economic Development Corporation, Michigan State Housing Development Authority, Dow Chemical, BP, Shell Oil, Valero, Enbridge Energy, Racer Trust, environmental consultants, financial institutions, General Motors, and many others along with leaders from the DEQ began the collaborative effort to reinvent the cleanup program with the intention of creating a durable cleanup program to effectively manage the risks associated with environmentally contaminated sites. The process included two additional sessions. The second session was held February 15-17, 2012 at the Kellogg Biological Station on Gull Lake in a "retreat-type atmosphere" where group participants were tasked with developing their recommendations for reinventing the cleanup program by the end of the session. The third session was completed on March 15, 2012 after all of the recommendations had been compiled into a final report. This session included a presentation of the highlights of the process and a rollout of the recommendations.

The collaborative effort involved seven specific issue groups with eight to 12 leaders per team. The issues identified for each group were based on recommendations from the Environmental Advisory Rules Committee. The seven issues include groundwater/surface water interface (GSI) ,

Brownfield redevelopment, due care obligations, vapor intrusion, cleanup criteria, Part 201 Rules, and free product/source removal/ C_{sat} or non-aqueous phase liquid (NAPL).

This collaborative effort produced 90 recommendations ranging from immediately implementable policy changes for the cleanup program to drafted statutory language for amendment to the environmental protection regulations Parts 201 and 213. The outcome of this collaborative effort and recommendations are posted on the DEQ's website at http://www.michigan.gov/documents/deq/deq-rrd-CSI-FinalCSIReport3-14-2012_379271_7.pdf

This process is intended to be the "spark" toward continuing the collaborative process in moving Michigan forward toward a sustainable future. Additional information on the process may also be obtained from the website and may be easily found by searching "collaborative stakeholder initiative" on the www.michigan.gov website. A mechanism for feedback on the recommendations may be introduced in the near future.

DEQ Director Dan Wyant fully supports this process and in his closing remarks at the March 15, 2012 session, he indicated that the DEQ is committed to reinventing the cleanup program with these recommendations to improve environmental stewardship across the state and provide better management of the risks that environmentally contaminated sites may pose.

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

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.

Save the Date!

The American Institute of Professional Geologist (AIPG) – Michigan Section is sponsoring a Light Nonaqueous Phase Liquids (LNAPL) workshop. This workshop is endorsed by the Michigan Department of Environmental Quality but is not MDEQ sanctioned training.

The workshop will be held at the Ralph A. MacMullan Conference Center located at 104 Conservation Drive in Roscommon, Michigan. The workshop will be held on Wednesday June 20 through Thursday June 21. [Add to my calendar](#)

The primary goal of the workshop is to advance the knowledge of LNAPL behavior in the subsurface, including flow, transfer of components to water and gas phases, migration and distribution; fundamental issues pertaining to site characterization and monitoring; fundamental issues pertaining to remediation methods and see examples from consultants, owners and regulator on the application of a science-based LNAPL guidance developed by ITRC to efficiently move sites to closure. In addition this workshop will promote scientific information interchange between regulators, owners, and practitioners working in Michigan.

The first day is devoted to concepts found in the ITRC LNAPL Guidance Document. The second day of the workshop will be devoted to case studies of highly complex sites. The speakers will use the case studies to illustrate how ASTM and ITRC guidance can be applied to a site.

Attendees will gain experience in the development of a site's LNAPL Conceptual Model, LNAPL stability analysis and LNAPL recoverability evaluation. The speakers will highlight the perspective of both the consulting and regulatory decision makers on how information regarding LNAPL stability and recoverability is used to develop realistic and effective remedial endpoints at a site.

These concepts have been introduced in Senate Bills 528, 529, 530, 531, 532, and 533 as pending in the Michigan legislature. These bills represent several changes to the leaking underground storage tanks, Part 213 program. Attendance at the workshop will better prepare you to implement the changes proposed in the Senate Bills and apply these remedial endpoints at Part 111, 115, and 201 sites of contamination.

As a reminder, ITRC is holding a two-day classroom training on LNAPLs in Boston on April 5 and 6. This training is similar to the AIPG workshop. It 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.

ITRC also offers free Internet-based training on LNAPL. Three classes are offered in May, each class lasts approximately two hours, and covers technical and regulatory information specific to environmental technologies and innovative approaches. Here is a list of the ITRC training offered:

LNAPL Training Part 1: An Improved Understanding of LNAPL Behavior in the Subsurface - State of Science vs. State of Practice

- May 10, 2012 (Thursday) 11:00 a.m. - 1:15 p.m.
EASTERN TIME [Click Here to Register](#)

LNAPL Training Part 2: LNAPL Characterization and Recoverability – Improved Analysis - Do you know where the LNAPL is and can you recover it?

- May 17, 2012 (Thursday) 11:00 a.m. - 1:15 p.m.
EASTERN TIME [Click Here to Register](#)

LNAPL Training Part 3: Evaluating LNAPL Remedial Technologies for Achieving Project Goals

- May 24, 2012 (Thursday) 11:00 a.m. - 1:15 p.m.
EASTERN TIME [Click Here to Register](#)

The ITRC online training is a good primer for the AIPG LNAPL workshop. Look for more information in your email.

For more information contact either Kevin Lund or Sara Pearson at aipg.mi.section@gmail.com.

For sponsor opportunities, contact Tim Cullen at trcullen@umich.edu.

We hope to see you at the RAM!!!

Kevin Lund, CPG, and Sara Pearson, CPG

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. 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.

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. 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.

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.

This newsletter edition features our 2012 Secretary, Tim Cullen.

Tim is a 25-year member of AIPG-Michigan Section. He arrived in Michigan in 1981 after spending his formative years as an Engineering Geologist on the East Coast (DC, Baltimore and Boston). It was quite a shock to arrive in Ann Arbor after spending the previous 6 years on various rapid transit tunneling projects and not see a rock that qualified for outcrop status. Now 30 years on, he is still trying to adjust.

Tim's wife Claire is a Pediatric Dentist who was recruited to teach at the University of Detroit Dental School. It was her career move that brought the young couple to Michigan. Tim was able to negotiate a transfer with Bechtel Corp. who he was working for at the time. He became quickly immersed in various projects: Midland Nuclear Power Plant: site dewatering, Category I Structure underpinning (sort of tunneling); G-T-G Project in New Plymouth, NZ: pre-construction site dewatering. This was followed by a variety of projects that kept him on the road and living out of a suitcase when the Bechtel Ann Arbor office was downsized due to the shrinking Nuclear Power industry in general and the decision by Consumer's Energy to repurpose the Midland Plant from nuclear to natural gas in the mid-80's.

With the arrival of his daughter Abbey in 1982, Tim's professional focus shifted from road trips to remote parts of the world and various corners of the U.S. to more local based projects. In the ensuing 30 years Tim has worked for several consultants based in Michigan on projects that included foundation studies; soil and groundwater contamination and remediation; Environmental Site Assessments; as a Field Geologist, Project Manager and Principal.

In 1995 Tim was offered a position at the University of Michigan on the Occupational Safety and Environmental Health (OSEH) Department. During his tenure at UM he has managed various programs: Hazardous Materials Management, Environmental

Protection and Permitting, Hazardous Materials and Remediation Services. His accomplishments during this time include: Negotiation of a Part B TSD Permit for the storage of mixed waste; environmental Due Diligence prior to the acquisition of the Pfizer Campus in Ann Arbor; Disposal of five years accumulation of LLRW and Mixed Waste; Disposal of high level waste components from the Ford Nuclear Reactor prior to its decommissioning; streamlining the procurement of consultants and professional services for the OSEH Department; conducting a number of EAs on federally funded projects on UM Campus.

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.

No members were seeking employment or provided potential employment opportunities for this newsletter edition.

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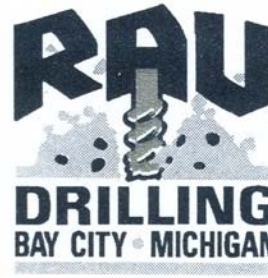
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351 North Tuscola Road
Bay City, MI 48708

AIPG – 8th Annual AIPG Michigan Section Golf Outing

Tuesday May 15, 2012

Sponsor Information

Exclusive Dinner Sponsor- \$1,250

Investment includes:

- 1 foursome
- Signage at club house and lunch area
- Corporate recognition*

Beverage Cart/Oasis Sponsors - \$550 (2)

Investment includes:

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

Luncheon Sponsors - \$550 (2)

Investment includes:

- Signage at the grill.
- Corporate recognition*

Hole-in-one Sponsors - \$400 (4)

Will have visible exposure on ALL Par 3 Holes.

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 Sponsor - \$200

(18) Available

Investment includes:

- Tee box signage
- Corporate recognition*

Skill Sponsors – \$375

Investment includes:

(6) Available

"Longest Drive" "Closest to Pin" awards to Male/female for each.

Putting contest for \$\$, Signage on the hole or putting area, corporate* recognition during the event (includes contest coordination [at the turn](#)).

Goodie Bag Sponsor - \$100 plus 144 goodie bag items

*Dinner and Beverage Cart/Oasis Sponsors will receive AIPG membership. All sponsors will be recognized in the Quarterly News letter and on the Michigan Section Web Site.

This event is our annual Fund Raiser. The Michigan Section of AIPG Golf fundraiser benefits the Michigan Section's ability to support K-12 education grants and scholarships.

Place: Lyon Oaks Golf Course

Event: 18-hole Scramble

Date: May 15, 2012 Tuesday

Registration: 8:00 to 9:30 AM

Tee Time: 9:30 AM

Rainout Date: May 17, 2012 (based on course availability).

Includes: Continental Breakfast, green fees, cart, range balls, Lunch on the course, networking opportunities, and DINNER.

Also includes prizes for winners, 50-50 and Grand Prize raffles along with other prizes, inc., "\$10,000 Hole in One" Trips, Putt for \$2,500, men's and women's longest Drive and Closest to pin contests, \$20 gas cards to the four golfers traveling the furthest and goodie bag for all golfers.

Golfer Sign-up Due:
May 4, 2012

Registration

Individual = \$130 Team = \$480 (4 players)

Player One: _____

Player Two: _____

Player Three: _____

Player Four: _____

Contact Name, Company and Phone Number for your Foursome:

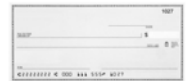
Accepted forms of payment include:



or



or



○ **Make Checks to:**

Michigan Section-AIPG
C/O ERG, LLC
PO Box 1172
Union Lake, Michigan 48387-1172

Contact:

Kevin Lund klund@g-eri.com

Bob Reichenbach bob.reichenbach@ergrp.net

CALL or FAX to reserve your place!

888-417-4440

The AIPG-MI Section is a nonprofit 501(c)(6) Organization

AIPG – 8th Annual AIPG Michigan Section Golf Outing

Tuesday May 15, 2012



Arthur Hills-designed
18-hole course on 230
acres

- "Up North" feel in southwest Oakland County
- Par-72 championship golf course
- Hardwood forests and wetlands enhance natural golfing experience

- "Nature, Of Course!" interpretive signs along cart paths point out natural features of interest or significance
- Wide fairways enhance playability
- Wetlands and ponds increase challenge of play
- Sand bunkers and freshwater lakes provide a strategic challenge for accomplished golfers
- Multiple tees on every hole make the course playable and enjoyable by all level players
- State of the art practice facility with target greens and sand traps
- Picturesque clubhouse with expansive views of the course accommodates parties of up to 450 for wedding receptions, banquets and educational meetings
- [Lyon Oaks County Park](#)'s day-use area features a 13-acre Dog Park and 2.5 miles of hiking trails
- Day-use park area also includes a picnic shelter, playground and recreational fields
- Trail head and parking for Lake Community Trail

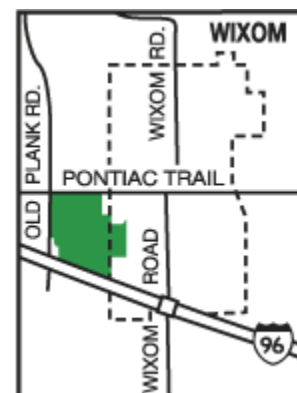
Accolades

- Included in 2008 The Oakland Press' "*Ten to Try This Summer*" listing of Oakland County Public Golf Courses
- Member of *Arthur Hills Golf Trail*, featuring acclaimed Art Hills courses throughout the state
- Garnered a 4.5 star rating by *Golf Digest 2007* and named the #2 course in Detroit

to play in ESPN's *Sports Travel Golf Course Guide* of the Best Places to Play

- Named #4 in Jeff Lesson's Top 10 Public Golf Courses in southeast Michigan. (Lesson hosts "*Lesson on Golf*" on WXYT and WWJ radio stations)
- Named in 2005 Detroit Free Press *Top 10 Public Courses*

| Yardage | GAM Ratings |
|--------------|-------------------------------------|
| Black - 6837 | Men's Black Tee - 72.7, Slope 137 |
| Blue - 6427 | Men's Blue Tee - 70.7, Slope 133 |
| White - 6133 | Men's White Tee - 69.3, Slope 131 |
| Gold - 5389 | Men's Gold Tee - 65.6, Slope 115 |
| Green - 4525 | Women's White Tee - 75.5, Slope 145 |
| | Women's Gold Tee - 70.8, Slope 131 |
| | Women's Green Tee - 66.7, Slope 112 |



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

May 3, 2012

**EARTHQUAKE-INDUCED INITIATION/REGROWTH OF
SPELEOTHEMS DURING THE HOLOCENE EPOCH AND EARLIER IN
MIDWESTERN US CAVES**

Featured Speaker:

[Samuel V. Panno](#)

Location: Fetzer Center, Western Michigan University, Kalamazoo, 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: Pecan Crusted Chicken with a traditional sweet butter cream sauce, roasted sweet potatoes, peas, and pearl onions; Pesto Crusted Salmon with salsa romesco, orzo pasta and sautéed zucchini and peppers; Western Aged Flatiron Steak with portabella mushroom demi glace, with roasted garlic mashed potatoes and poached green beans.

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 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.

Samuel Panno Samuel V. Panno is a Senior Geochemist and has been with the Illinois State Geological Survey since 1988. Mr. Panno received a M.S. degree in Geology from Southern Illinois University, a B.S. degree in Geology from Oregon State University, and a B.S. degree in Biology from Eureka College. He has also done post-graduate work at George Washington University in Hydrogeology. Prior to joining the ISGS, Mr. Panno worked as a Geochemist/Hydrogeologist with Rogers and Associates Engineering Corporation, and as an Associate Geochemist with Brookhaven National Laboratory. He is a Certified Ground Water Professional with The Association of Ground Water Scientists and Engineers. Currently, Mr. Panno is leading research efforts on evidence of earthquake activity in caves of the Midwestern US, the location and chemical characterization and origin of saline springs of the Illinois Basin, the character and origin of hypersaline brines within Cambrian-age sedimentary rock of the Illinois Basin, and the use of Lidar imagery to characterize karst terrain.

AIPG Section Meeting May 3, 2012

Fetzer Center, WMU, Kalamazoo



WESTERN MICHIGAN UNIVERSITY CAMPUS

