Ohio Section
American Institute of Professional Geologists
Chartered 1965
February 2024 Newsletter

2024 Executive Committee
Officers

President
Michael Friedhoff, CPG-11093

Past President
Dave Follett, CPG-12034

Secretary
Paul Chasco, CPG-12024

President-Elect
Dave Follett, CPG-12034

Treasurer
Hugh Downer, CPG-11815

Members-at-Large
Hannah Weaver, ECP-1014

Michael Giggard, MEM-3726

Michelle Torres, MEM-2972

Chairmen

Membership Chair
Tom Jenkins, CPG-07892

Historian
Brent Huntsman, CPG-04620

Screening Chair
Craig Cox, CPG-07612

Newsletter Editor
Paul Chasco, CPG-12024

Website
Nelson Novak, CPG-12102

AIPG Ohio Section Winter Meeting

Revisiting a CSM: Building a Better Model Based on the Larger Body of Work and Teaching Groundwater at Otterbein University: The 15 Year Evolution of the Otterbein Lake Well Field

Presenter: **Dr. Kevin Svitana, Professor in the Department of Biology and Earth Sciences at Otterbein University**

Date: Thursday, February 22, 2024

Location: The Boat House at Confluence Park
679 W. Spring Street
Columbus, OH 43215

Schedule: Social hour begins at 5:00 pm followed by Dinner at 6:00 and Presentation at 7:00

Event Registration Payment: https://aipg-ohio.org/meetinginfo.php
See Page 10 for event details

Also In This Issue:

	PAGE
Message from the President, Mike Friedhoff, *CPG-11093*	2
Ohio Section 2023 Annual Meeting Recap	5
Ohio Section 2024 Winter Meeting Abstract	10
Letters to the Editor and Editorial Submittal Guidelines	13

Message from the President

Mike Friedhoff, CPG - 11093

Dear Fellow AIPG Ohio Section Members,

I am excited and honored to serve as your President for 2024. I hope to be an effective advocate for the mission of AIPG Ohio, serve our members, and help the section provide value to our members in their membership. Before I introduce the rest of this year's Executive Committee and discuss the exciting things planned for the coming year, I would like to thank Dave Follett for serving as the Ohio Section President in 2023. Dave did an excellent job leading the section last year and I thank him for his service.

The 2024 Executive Committee is made up of multiple hard-working individuals, including: Michael Giggard, Hannah Weaver, and Michelle Torres, Members-At-Large; Paul Chasco, Secretary; Hugh Downer, Treasurer; and Dave Follett, Past-President and President-Elect. I look forward to working with these elected individuals, as well as the committee chairs, including: Paul Chasco, Newsletter Editor; Nelson Novak, Webmaster; Tom Jenkins, Student Chapter and Membership; Robert Andrews, Awards Committee; Brent Huntsman, Historian; and Craig Cox, Screening Committee.

To introduce myself, here is just a little about me. I'm currently a Senior Project Manager at PSARA Technologies, Inc. I have over 25 years of experience in the environmental industry, including managing and conducting hydrogeologic, environmental, and geophysical projects throughout the Midwest. I earned a Bachelor of Science degree in Geology from the University of Cincinnati, a Master of Science degree in Geology from the University of Toledo, and recently, a Master of Business Administration degree from Xavier University. The rest of my bio can be found on the section website.

The Winter Quarterly Meeting and Dinner Presentation is coming up shortly on February 22 at The Boat House at Confluence Park, in Columbus, OH. We're also working on multiple exciting events for 2024, including the 6th Annual Charity Golf Scramble in order to raise money for our student chapters. More details on the golf scramble will be coming soon.

I look forward to serving as your President in 2024. If you have any questions or concerns about activities of the Ohio Section, do not hesitate to contact me.

Michael J. Friedhoff, CPG-11093
2024 AIPG Ohio Section President

BOWSER MORNER

Build on our experience.
Trust in our results.

Engineering & Environmental

- Geotechnical Engineering
- Civil Engineering
- Environmental Services
- Drone Mapping

Construction Support

- QA/QC Testing
- Construction Materials Testing
- Field Testing
- Special Inspections

Laboratory Services

- Consulting Geology
- Geotechnical Laboratory
- Analytical Chemistry
- Calibration Services
- Radon Reference Lab

www.Bowser-Morner.com 4518 Taylorsville Rd., Dayton, Ohio 45424 (937) 236-8805

U.S.T. Environmental Contractor is your **reliable business partner** to assist with:

- Underground and above ground storage tank removals and installations
- Management of investigation derived waste and other drummed wastes
- Demolition projects
- Soil excavation, treatment, and disposal
- Emergency response
- Vacuum truck services
- Pressure washing/pipe jetting
- Roll-off container services

U.S.T.

Environmental Contractor

Balancing the needs of industry with concern for the environment since 1995

- Pre-construction services
- Multiphase Liquid Recovery

Visit us on the web: www.ust-env.com or call 800-UST-1727 for more info.

Wilmington, Ohio **Columbus, Ohio**

Direct industry experience
WE OWN IT.
Manufacturing
Mining
Oil & Gas
Power
Public Sector
Real Estate
Solid Waste
CINCINNATI | CLEVELAND | COLUMBUS | TOLEDO
www.cecinc.com
888.598.6808
CEC
Civil & Environmental
Consultants, Inc.

Responsive.
Resourceful | Reliable
For more than 50 years, Terracon has provided solutions to environmental, facilities, geotechnical, and materials engineering challenges. Our national network of more than 140 offices coast-to-coast provides local expertise backed by national resources to get the job done. On both small and large projects, our more than 4,000 employee owners work closely with our clients to achieve success on time and on budget.
Call us for your next project.
Terracon
Ohio Offices
Cincinnati (513) 321 5816
Cleveland (216) 459 8378
Columbus (614) 863 3113
terracon.com
Environmental ■ Facilities ■ Geotechnical ■ Materials

Ohio Section 2024 Winter Meeting Recap

Feature Presentation: Thomas Jefferson's "Great Claw" And the Birth of American Paleontology

Presented By: Dr. Loren Babcock, Professor of Earth Sciences And Director of the Orton Geological Museum at The Ohio State University

By Paul Chasco, CPG-12024

On November 16, 2023, the Ohio Section held its Annual Meeting at the Boat House Event and Conference Center at Confluence Park in Columbus, Ohio. The event was well attended, with a nice crowd of members and their spouses. The evening began with a social hour featuring a cash bar.

Prior to the dinner being served, President David Follett (CPG-12034), addressed the attendees with welcoming remarks and provided a summary of the Section's accomplishments during 2023. In addition, David recognized the generous contributions of our meeting sponsors Alpha Analytical, ALS, Buckeye Elm Contracting, Environmental Remediation Contractors, ERIS – Environmental Risk Information Services, IE Monitoring Instruments, K3 Complete, Ohio Soil Recycling, and Terran Corporation. Being Gold Level Sponsors of the event, Chris McGovern with Environmental Remediation Contractors and Brent Huntsman with Terran Corporation provided remarks to the audience about their respective companies.

President Follett thanking the meeting's sponors

Dr. Babcock presenting to the audience

At the conclusion of the meal, President Follett introduced the evening's guest speaker, Loren Babcock. Dr. Babcock serves as Professor of Earth Sciences and Director of the Orton Geological Museum at The Ohio State University. The title of his presentation was Thomas Jefferson's "Great-Claw" and the Birth of American Paleontology.

Dr. Babcock began his presentation by describing how Thomas Jefferson became a founding father of paleontology in addition to America. During a meeting of the American Philosophical Society in 1797, Thomas Jefferson delivered the first oral paper on fossils in the United States. Published in 1799, the paper on a few bony remains included a description of the first genus of fossil animal, Megalonyx ("Great-Claw"), named from the USA. Together with an

accompanying paper by Caspar Wistar, these papers mark the beginning of the science of paleontology in America.

Dr. Babcock went on to discuss how Jefferson's fascination with the paleo sciences shaped hallmark moments in American history. Examples of Jefferson's scientific drive include a lesser-known goal of the Lewis and Clark expedition, which was to discover living examples of either the Megalonyx or Mastodon. After his presidency, Jefferson fought against the theory of New World degeneracy, made popular by the world's leading natural historian, Count Buffon.

Dr. Babcock then tied Megalonyx to Ohio by discussing the first substantial remains of the giant Quaternary ground sloth that were unearthed on a farm in Holmes County, Ohio, in December 1890. The skeletal material was mounted, with reconstructed parts, for the Orton Geological Museum at The Ohio State University, in 1896. Today, it stands as the oldest surviving mount of a prehistoric vertebrate animal in America. This skeleton has appeared in numerous scientific papers and published media sources.

Dr. Babcock receiving the plaque with the plaque bearing the Ohio State Fossil,

Dr. Babcock concluded his presentation by revealing that the university has rediscovered the original Homes County 1890 dig site and is making plans to return in the near future to continue the excavation.

After questions from the audience, President Follett presented Dr. Babcock with a plaque bearing the Ohio State Fossil, the Isotelus Maximus, as a token of appreciation for speaking.

President Follett then recognized the following for significant membership milestones for 2023:

Recognition for 55 Years of Membership
William Shafer (CPG Emeritus)

Recognition for 40 Years of Membership
Curtis Coe (CPG), F. Lynn Kantner (CPG Emeritus), and William Thompson (CPG Emeritus)

Recognition for 35 Years of Membership
David Carson (CPG), David Rodriguez (CPG), and Julie Weatherington-Rice (CPG Emeritus)

Recognition for 30 Years of Membership
George Colvin (CPG), Stephen Doe (CPG), Philip Jagucki (CPG Emeritus), and Richard Kenter (CPG)

Recognition for 25 Years of Membership
Cynthia Jacobsen (CPG), Frank Majchszak (CPG), and Jeffrey Varga (CPG)

Recognition for 20 Years of Membership
Jeffrey DeVaughn (CPG), Michael Friedhoff (CPG), Howard Miller (CPG), Kevin Reaman (CPG), and Scott Spesshardt (CPG)

Recognition for 15 Years of Membership

Michelle Eckles (CPG), D. Mark Jones (CPG), Brett Latta (CPG), Colleen Lear (CPG), Jeffrey Myers (CPG), Matthew Pesci (CPG), and John Schneider

Recognition for 10 Years of Membership

Deb Dickas, Bradley Keller (CPG), Michael O'Connell, Nicholas Petruzzi (CPG), and Michelle Torres

Recognition for 5 Years of Membership

Jacob Ardner, Rebecca Finnigan (CPG), Adam Flege, Bobby Fowler (CPG), Kyle Rawson (CPG), Brigitte Petras, and Melissa Stonerook

Award of Honor: Robert Andrews, CPG-11975

The Award of Honor is presented to individuals who have demonstrated a record of distinguished service to the Section.

President Follett presented this Award to Robert Andrews in recognition of his outstanding service to the profession, the public, and the Institute. As a geologist serving as the Wellfield Protection Coordinator for the City of Columbus, Robert contributed greatly to the protection of the City of Columbus' groundwater resources. Robert served the Ohio Section through many years of service on numerous committees and by serving in elected offices as well as assisting in launching our new website on Star Chapter which many of you used to register for this very meeting. Robert also represented the Ohio Section as a delegate to AIPG National who was also recently elected as Secretary for Nationals. President Follett noted that Robert is an exemplary example of future generations of Ohio geologists.

Robert Andrews receiving Award of Honor from President Follett

Award of Outstanding Service to the Institute: Brent Smith, CPG-11130

Brent Smith receiving the Outstanding Service to the Institute Award from President Follett

The Outstanding Service to the Institute Award was awarded to Brent in recognition of this outstanding service to the profession, the public, and the Institute.

President Follett presented this award to Brent Smith and noted that since 2013, Brent served as Chair of the website Committee. During that time, he worked tirelessly to maintain updated content of the Ohio Section's website as well as managing the transition to the section's new website. Brent served the Ohio Section of AIPG through the holding of numerous elected offices and represented the Ohio Section as a delegate to AIPG Nationals. In recognition of his years of service, Brent Smith was presented with this high honor.

Following the presentation of awards, President Follett introduced the elected officers for 2023. Then President-Elect Michael Friedhoff (CPG- 11093) outlined his goals for 2024.

Attendees were then entertained with a door prize giveaway of AIPG and geology themed items, including a very nice Estwing provided hammer won by yours truly.

Again, special thanks to Dr. Babcock, all members who attended, and the 2023 Executive Committee, for making this a fun and memorable event! Also special thanks to Alpha Analytical, ALS, Buckeye Elm Contracting, Environmental Remediation Contractors, ERIS – Environmental Risk Information Services, IE Monitoring Instruments, K3 Complete, Ohio Soil Recycling, and Terran Corporation for sponsoring the event and continued support to the Ohio Section of AIPG.

Complete environmental site work

- Environmental Remediation
- Environmental Construction
- Demolition

K3 Complete

K3 Complete, LLC

Proudly supporting AIPG.

For additional info
or a project quotation
contact:
Joe Factor
614.562.4730
JFactor@K3Complete.com

TERRAN

Terran Corporation
Environmental Services

Protecting, Restoring and Enhancing the Environment

❑ Water Resources
- Groundwater Exploration, Development & Sustainability Solutions
- Source Water Protection Stratagems
- Aquifer Testing & Analyses
- Groundwater/Surface Water Linkages
- Water Quality/Quantity Assessments
- Flow & Solute Transport Modeling
- Hydrogeologic Investigations
- Expert Witness Services & Testimony
- Thermometric Monitoring Programs

❑ Contaminant Remediation
- Surface/Subsurface Contaminant Evaluations & Corrective Actions
- Electrokinetic-Based Systems
- Salt & Brine Contamination - Investigation & Remediation
- In-Situ Treatment Technologies

❑ SACON Ranges & Structures
- Environmentally Protective & Safe Firing Ranges - Shoot Houses for Military & Law Enforcement

4080 Executive Dr., Beavercreek, OH
(937) 320-3601 www.terrancorp.com

Providing services locally, nationally and internationally for 40 years.

RockWater Drilling

Wooster, Ohio

Environmental/ Geotechnical Drilling

- Environmental Drilling, Sampling, and Well Installation
- Geotechnical Investigation and Instrumentation Installation
- Mineral Aggregate Exploration
- Advanced Capabilities Including ATV Rigs
- Angle Drilling – Marine Drilling

Stephen R Wright Office: 330-263-7725 Cell: 330-465-6685 E-Mail: swright@rockwaterdrilling.com

www.rockwaterdrilling.com

Sonic – Hollow Stem Auger – Direct Push – Air/ Mud Rotary

ALS

right solutions.
right partner.

Ohio Section 2024 Winter Meeting

Feature Presentation:	Revisiting a CSM: Building a Better Model Based on the Larger Body of Work Teaching Groundwater at Otterbein University: The 15 Year Evolution of the Otterbein Lake Well Field
Presented By:	Dr. Kevin Svitana, Professor in the Department of Biology and Earth Sciences at Otterbein University in Westerville, Ohio

The Ohio Section of AIPG is pleased to host Dr. Kevin Svitana, at the Section's Winter Meeting presentation, which will take place Thursday, February 22, 2024 at The Boat House at Confluence Park located at 679 W. Spring Street in Columbus. Dr Svitana will be presenting Revisiting a CSM: Building a Better Model Based on the Larger Body of Work and Teaching Groundwater at Otterbein University: The 15 Year Evolution of the Otterbein Lake Well Field. This event is sponsored by ALS Environmental, Buckeye Elm Contracting, Environmental Risk Information Services, K3 Complete, Lightbox, Ohio Soil Recycling, and White Oak Environmental & Safety.

The event begins at 5:00 pm with social hour, followed by dinner at 6:00, and the feature presentation at 7:00. The cost is $35 for members and guests or $15 for students. Please preregister and submit payment for the event via the AIPG Ohio Section website https://aipg-ohio.org/meetinginfo.php.

SME

Xenon Geosciences, Inc.
geology & geophysics
52 W. Broadway Street
Danville, IN 46122
(317) 745-0002

Revisiting a CSM: Building a Better Model Based on the Larger Body of Work

Dr. Kevin Svitana

ABSTRACT

When the hazardous waste regulations and associated groundwater remediation requirements were enacted the available technologies, experience of professionals and scientific understanding of site models and contaminant fate and transport were limited. However, partially in response to public concern associated with uncertain hazards, many groundwater remediation strategies were implemented more from reaction to public concern than a firm understanding of site conditions. At many sites the initial remedial approach had little positive impact, raising questions about the efficiency of the remedial approach. For sites where closure objectives are unmet, reevaluation of site conditions is needed. Often these sites are further complicated by the addition of emerging contaminants to the COC's.
This presentation looks at former municipal landfill that became one of the early Superfund sites added to the NPL. The primary COC's at this site were chlorinated solvents that were derived from the waste mass. An alternate remedy was selected for the site in the late 1990s using enhanced landfill gas extraction of methane from the waste as the primary method of source control for the chlorinated solvents. Data collected during the past 20 years has resulted in a better understanding of the subsurface conditions at the former landfill where impacts to groundwater persist. The simplistic model used as the basis of the alternate remedy is being reevaluated.

Both legacy data and new data are being incorporated into state-of-the-art modeling to reassess methods for source control of COC's that persist in the waste mass. The presentation will show three-dimension depictions of the interaction of the waste mass, leachate, and groundwater in an updated CSM that focuses on a data derived fate and transport model for reassessing remedial actions to reduce the source of groundwater impacts, reduce operating costs and protect the public. The evaluation is ongoing.

Teaching Groundwater at Otterbein University, The 15 Year Evolution of the Otterbein Lake Well Field

Dr. Kevin Svitana

ABSTRACT

A unique groundwater teaching resource was established in 2008 at Otterbein University (née College); the Otterbein Lake well field. This presentation chronicles the evolution and growth of the well field and how this resource was incorporated into curriculums and applications at Otterbein and beyond, extending collaborative opportunities to local and international groups.
The well field began as a scientific inquiry- when drained, why did Otterbein Lake have offset water levels? Six monitoring wells were installed to begin the initial investigation. This set of wells answered the first inquiry with solid data and a few lessons learned, the hard way.

As time progressed, groups including CSCC, NGWA and Ohio EPA became aware of the well field and they began to use the wells for education, outreach and training. At first the main use

was to train students and groundwater professionals regarding different sampling techniques using a variety of equipment available from local providers.

The next evolution involved constructing larger diameter wells to accommodate submersible pumps to create effective drawdown. When 10 gpm pumping rates could be maintained, hydraulic evaluations of the aquifer were readily achievable. Equipment was acquired and sustainable aquifer analysis became part of the curriculum.

The final evolution includes off-grid pumping thanks to the generous donation of an Otterbein Alum and his partner. The solar powered pumping system coupled with purchase of telemetry/internet-based monitoring equipment now enables students to participate in remote monitoring to assess sustainable, off-grid pumping operations at the well field.

All in all, a generation of students and ground water professionals have benefited from the hands-on learning facilitated through the Otterbein Lake well field. The new goal is to continue this unique resource into the future.

Bio:

Dr. Kevin Svitana is a Professor in the Department of Biology and Earth Sciences at Otterbein University, in Westerville Ohio. He received a Bachelor of Science from Juniata College in 1981, and MS from West Virginia University in 1983 and a PhD from The Ohio State University in 2005. At Otterbein University, Dr. Svitana teaches environmental and earth science classes.

Dr. Svitana also works as an environmental consultant with BSI. His experience includes assessment and remediation of hazardous-waste sites, Brownfield redevelopment, coal mining projects, water supply development projects, and sustainable resource management. He also is a program manager for a federal Superfund site in Pennsylvania.

Dr. Svitana is a licensed professional geologist in Pennsylvania, Kentucky, North Carolina and South Carolina and an Ohio EPA Voluntary Action Program Certified Professional. He is a member of the Geological Society of America and the American Institute of Professional Geologists. He is active with the National Groundwater Association, where he is on several advisory committees and is actively developing conferences and continuing education opportunities related to PFAS, uncommon groundwater contaminants and conceptual site models.

EAGON
& ASSOCIATES, INC.
100 W Old Wilson Bridge Rd. Suite 115
Worthington, Ohio 43085
eagoninc.com | 614.888.5760

Hydrogeologic Consulting
Groundwater Supply Evaluation and Management
Siting and Monitoring of Waste Facilities
Investigation & Remediation of Aquifer Contamination
Mining and Construction Dewatering
Groundwater Modeling
Residential Well Monitoring and Impact Mitigation

Letters to the Editor and Editorial Submittal Guidelines

The Ohio Section welcomes and encourages membership discourse via the Section newsletter on relevant geopolitical and geological topics, in accordance with our chartered purpose. Contributing authors are requested to abide by the following guidelines to ensure civility and professionalism.

1. Scientific interpretations should include accurate and effective references.

2. Opinion pieces should be presented with reasoning. Fellow members may choose to comment or challenge a submittal with their own contribution.

3. Authors must abide by the AIPG Code of Ethics. Any author who violates this code will not be published. Authors must be respectful to fellow members, all political parties, officials and candidates.

4. Letters to the Editor should be under one page in 12 pt. Arial font.

5. Member authors should provide their name and certification number.

6. The Ohio Section also welcomes and will consider relevant articles from non-members, provided contributions abide by the above stated guidelines.

Contributions to the Ohio Section newsletter do not necessarily reflect the opinion of the Ohio Section or the editor. We reserve the right to edit for clarity and space considerations.
Please send submittals to the editor at pchasco@nrmsolution.com or pdchasco@gmail.com.

White Oak
Environmental & Safety

4026 North Hampton Drive | Powell, OH 43065 | (614) 389-1430 | www.whiteoakenv.com

New Dedicated Well Cap Assemblies for Bladder Pumps

Works with all bladder pumps on the market!

2" & 4" Caps Available.

Hi-Viz Black Ring for Water Level Measurement at Original TOC Elevation.

¼" or 3/8" Discharge Available.

Dedicated Discharge Tubing Option Stores in Water Level Access Hole.

Complete Custom Dedicated Assemblies w/ QED, Solinst or Geotech Pumps Available.

Also Available for 12 VDC Pumps