



Ohio Section

American Institute of Professional Geologists

Chartered 1965

November 2022 Newsletter

2022 Executive Committee Officers

President

Robert Andrews, CPG-11975
(614) 645-8441 ext. 146

Past President

Tom Jenkins, CPG-07892
(614) 888-5760

Secretary

Tim Brown, CPG-11637
(614) 619-6160

President-Elect and Treasurer

Dave Follett, CPG-12034
(614) 310-0179

Members-at-Large

Hugh Downer, CPG-11815
(614) 888-5760

Brigitte Petras, ECP-0539

Michael Friedhoff, CPG-11093
(734) 397-3100

Chairmen

Membership Chair

Tom Jenkins, CPG-07892
(614) 888-5760

Historian

Brent Huntsman, CPG-04620
(937) 320-3601

Screening Chair

Craig Cox, CPG-07612
(614) 526-2040

Newsletter Editor

Nelson Novak, CPG-12102
(614) 888-5760

AIPG Ohio Section Annual Meeting

Assembling Records of Environmental Change from Tree Rings

Presenter: Dr. Greg Wiles, Professor
Department of Earth Sciences
College of Wooster

Date: Thursday, November 17, 2022

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

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

Event Registration Payment: <https://www.aipg-ohio.org/eventdetails.php>

See Page 11 for event details

Also In This Issue:

PAGE

Message from the President, Robert Andrews, CPG-11975	2
Ohio Section 2022 Fall Meeting Recap	5
Ohio Section AIPG 2022 New Members	8
Ohio Section 2022 Annual Meeting Abstract	11
Letters to the Editor and Editorial Submittal Guidelines	14



Message from the President

Robert E. Andrews, CPG-11975

Greetings Fellow AIPG Ohio Section Members,

The leaves have changed color and are now falling to the ground. The temperature has also gotten cooler which means fall is officially here. It also means 2022 is coming to a close.

For the Ohio Section 2022 it has been much better than the past two years. I am happy to say that the section has returned to having in person events. Our first quarterly meeting of 2022 year was in February where members learned about the Grand Lake St Marys Watershed from Dr. Stephen Jacquemin of Wright State University. In April at our second quarterly event, we learned about current and future activities of the Ohio Division of Geological Survey from State Geologist and Director Mark Jones. In September, we learned about the legacy of lead in urban soils in Cuyahoga County from Dr. David Singer of Kent State University (see Page 5 for a complete recap). The Ohio Section continued our tradition of hosting a golf scramble in June where we raised over \$3,100 to benefit our Ohio student chapters.

This year Dave Follett and I were given the privilege by our Executive Committee of attending National's 59th Annual Meeting in Marquette, MI where we learned how National is continuing to create programs to mentor young geologists and provide educational opportunities of other professional geologists. In addition, we both learned about the geology and mineral resources of the Michigan's Upper Peninsula.

In the beginning of this year two long serving committee chairmen of the Ohio Section, Robin Roth and Curtis Coe stepped down. Robin Roth served as our Student Chapter Chair and Curtis Coe served as our Awards Committee Chair. I want to personally thank each of them for their years of invaluable service to the Ohio Section.

The end of 2022 will bring to a close the Ohio Section's relationship with our current web services provider Carol Swinehart. She began providing web hosting services for the Ohio Section back in 1990s. At the end of 2021, she officially closed her business to spend more time with her children and grandchildren, but has continued hosting our site and providing technical support for the Ohio Section until we find another provider. I would like to personally thank her for her years of dedicated service to the section.

In preparation for Carol's departure, last year the Executive Committee established a committee to find a new web service provider. This committee, consisting of Brent Smith, Nelson Novak, Michael Friedhoff, and myself, is currently finalizing its recommendation for a provider and we anticipate the new site will be up and running in early 2023. This new site will provide a lot more functionality for members. Details on the site will be forth coming soon.

Moving forward, the Ohio Section has one more event for 2022 and it is our Annual Meeting, which will be held on November 17th at the Boat House at Confluence Park Restaurant and Events Center in Columbus. Our featured speaker will be Dr. Greg Wiles of the Earth Science Department of the College of Wooster where he will be speaking on how tree rings indicate environmental change. There will be a 50/50 raffle to benefit our student chapters as well as door prizes. More details can be found on Page 11 of this newsletter.

Finally, 2023 year will be a big year for the Ohio Section as we will be helping to host National's 60th Annual Conference in Covington, KY September 15th through 19th. Members of the Ohio Section will be leading two field trips in Ohio. A tentative schedule of the conference can be found at <https://aipg.org/page/202360thAnniversaryConference> along with sponsorship and exhibit opportunities.

It has been my pleasure to serve as your 2022 Ohio Section President. I could not have done this without the help of this year's Ohio Section Executive Committee. I want to publicly thank each of them for their support during this year. I now look forward to taking a year out of the limelight as I serve as Past-President next year.

As always, if you have any questions or concerns about activities of the Ohio Section, please feel free to contact me at reandrews@earthlink.net.

Robert E. Andrews, CPG-11975
2022 AIPG Ohio Section President

Your local Brownfield Remediation Expert



Ecological. Environmental. Emergency.

P: 614.769.6535 E: info@ercontractor.com W: ERContractor.com

L I G H T B  X | E D R



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 2022 Fall Meeting Recap

Feature Presentation: Legacy Lead (Pb) In Urban Soils:
An Ongoing Source of Exposure

Presented By: Dr. David Singer, Associated Professor in Department of
Earth Sciences at Kent State University

By Brigitte Petras, ECP-0539

The Ohio Section held its Fall 2022 meeting and dinner presentation at Chateau Michele in Canton, Ohio on Thursday, September 15. The event was sponsored by Alpha Analytical, ALS Environmental, Buckeye Elm Contracting, Environmental Remediation Contractors, Environmental Risk Information Services (ERIS) Ohio Soil Recycling, White Oak Environmental and K3 Complete. Prior to the buffet style dinner being served, President Robert Andrews (CPG-11795), addressed the attendees with welcoming remarks. Robert discussed the successful AIPG national meeting in Marquette, Michigan, and reminded everyone of the Ohio Section's Annual meeting on November 17 and next year's national meeting in Cincinnati.

David Singer was the distinguished speaker of the evening. Dr. Singer is an associate professor at Kent State University's department of geology who researches environmental mineralogy and geochemistry. His presentation "Legacy Lead in Urban Soil: An Ongoing Source of Exposure" highlights multiple studies he has conducted to understand the concentration and distribution of lead in urban soils.

Dr. Singer outlined that natural concentrations of arsenic are typically 10-100 ppm. Lead in the body can be adsorbed to the bone or be in the bloodstream, and the latter is more hazardous to human health.

Historically, lead has been documented to have been used in products and processes since 5000 B.C.E. Leaded paint and gasoline are some of the most common sources of lead contamination in urban areas. Leaded paint production peaked in the 1940s, while leaded gas peaked in the 1990s.

Maps of lead poisoning were noted in Cuyahoga County. In 2017 there was a decrease in lead poisoning due to replacing lead pipes and educating others about lead paint. However,



Dr. David Singer presenting to the audience

10-20% of the population in certain areas of Cuyahoga County still have elevated levels of lead in their bloodstream. This continued lead exposure is neighborhood dependent, whereas communities with more gas emissions that are closer to Cleveland have these elevated lead levels. These areas are primarily minority communities. The source of this lead is in paint, lead dust, and in soil. Taking soil samples to test for lead concentrations is a proactive response for helping these communities.

Dr. Singer highlighted that 400 ppm of lead in soil is the EPA's risk level for garden and agricultural soil. The relationship between elevated blood levels and the amount of soil in lead was plotted. Overall, there is positive feedback between the two variables. However, there are difference trendlines and models that are non-linear. Moreover, concentrations of lead below 400 ppm can have elevated blood levels of lead. Dr. Singer thinks this nonlinear relationship is caused by speciation of lead. The total concentration of lead does not equal the speciation. Lead can be ingested, inhaled, or absorbed to cause elevated blood levels with lead. Based on Dr. Singer's research, the three factors that influence elevated concentrations of lead in the soil are the following: bioaccessibility, particle size, and the type of coating. Transformations such as wind distribution and highway infrastructure could also play a role in the variability of lead concentrations. Transformations were not the focus of this talk.

Dr. Singer acquired a seed grant and manages a project-based learning program in Akron and Painesville. There is also the Science for Community Change program that educates students in Painesville. These two programs enabled these communities to take soil samples to map the distribution of lead in Akron and Painesville.

The methodologies used for these studies include the following: solid characterization (XRF, XRD, SEM, LOI), lead speciation, and GIS analyses.

The first study was a small-scale project characterizing the distribution of extractable lead in the soil around the house. This process involved using weak to strong acids in a sequential order to extract these concentrations. Spatially, more extractable lead concentrations were found close to the house perimeter, while less were identified further from the house. The temporal variations in the soil column had little change, and the speciation trend remained relatively the same as well.

The second study focused on two neighborhoods in West Akron and Summit County. Nitric acid extraction was utilized as a proxy to take the most bioaccessible lead speciations from the soil. Galena identified in the soil was likely sources from raw sewage or more likely from rubber emissions from production. By conducting an isotopic analysis, paint and gas are likely sources for Summit, while Akron's source of lead could be from coal fly ash.

A third study highlighted by Dr. Singer evaluated a city distribution of lead from 11 schools of 100+ student participants. No strong correlations of data has been noted yet, so additional trends of other elements will be evaluated to find a relationship.

Ultimately, lead soil remediation is costly, and lead in soil diminishes through time. A proactive response is best for now.



After some thoughtful questions were answered, Section President Andrews presented Dr. Singer with a decorative plaque adorned with the Ohio state fossil, Isotelus. Robert again thanked everyone in attendance, and especially the following sponsors of the event: Alpha Analytical, ALS Environmental, Buckeye Elm Contracting, Environmental Remediation Contractors, Environmental Risk Information Services (ERIS) Ohio Soil Recycling, White Oak Environmental and K3 Complete.

Robert presenting Dr. Singer with a plaque bearing the Ohio State fossil, the Isotelus Maximus, as a token of appreciation for speaking





BUCKEYE ELM **Safe | Experienced | Trusted**

CONTRACTING **Environmental Solutions**

- Environmental Remediation
- AST/UST Removals
- Landfill Remediation
- Vapor Barrier Installation
- Industrial Cleaning Services
- Fluid Vapor Recovery
- Catastrophe Response Services
- Emergency Response
- In-Situ & Ex-Situ Waste Treatment
- Cut Off & Barrier Wall Installation
- Soil Vapor & Liquid Extraction Systems
- Infectious Disease Decontamination & Cleanup
- Waste Management (Hazardous & Non)
- Demolition

Joel Miller, Principal | 614-400-5460 | joelm@buckeye-elm.com

Bruce Markey, National Account Manager | 614-564-7022 | brucem@buckeye-elm.com

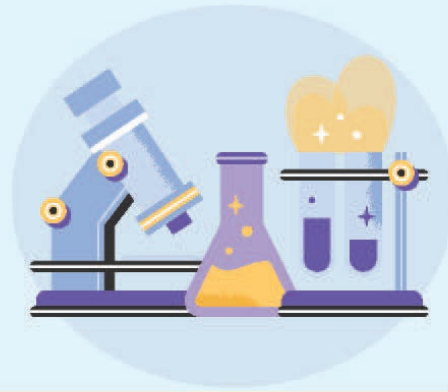
Brandon Markey, Midwest Account Manager | 614-940-9148 | brandonm@buckeye-elm.com

Matt Gillis, Southeast Account Manager | 919-280-7175 | mattg@buckeye-elm.com

Additional solutions & projects at www.buckeye-elm.com

THANK YOU

FOR KEEPING WORK LOCAL!



**Contact ALS Environmental for all
for your analytical laboratory needs!**



LOCATED IN CINCINNATI,
COLUMBUS AND CLEVELAND

alsglobal.com   

1 513 733 5336 | Josh.Mckinney@alsglobal.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.**

1/4" 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



Ohio Section AIPG 2022 New Members

The Ohio Section would like to introduce the following individuals who joined AIPG in 2022. Please welcome them to AIPG.

Zhaozhe Chen, SA-11223
Sylvia Telesz, MEM-3339
Conor Cahill, SA-11296
Sarah Gorman, SA-11227
Jack Moran, SA-11226

Jeremy Conner, MEM-3340
Jamie Singer, SA-11434
Brice Holland, SA-11414
Tyler Tauscher, ECP-0924



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



Civil & Environmental
Consultants, Inc.



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



Cox-Colvin & Associates, Inc. has developed the Vapor Pin™, a unique, patented, re-usable sub-slab soil-gas sampling device.

Our mission is to consistently provide high-quality, cost-effective environmental consulting services, as well as innovative environmental services and solutions, to meet our customers' constantly changing needs.

- Site Investigation
- Remediation
- Groundwater Monitoring
- Vapor Intrusion
- Permitting & Compliance
- Oil & Gas Support
- Due Diligence
- Voluntary Action

Expertise...When You Need It Most!

The Vapor Pin™ has a variety of applications, including but not limited to: Sub-slab soil gas sampling, depressurization studies/testing, stray gas evaluations, source area characterization and mitigation progress monitoring.




when your
research
demands
quality data



FONDRIEST

ENVIRONMENTAL PRODUCTS

fondriest.com 888-426-2151

Ohio Section 2022 Annual Meeting

Feature

Presentation: Assembling Records of Environmental Change from Tree Rings

Presented By: Dr. Greg Wiles, Professor in
Department of Earth Sciences at the College of Wooster

The Ohio Section of AIPG is pleased to host Dr. Greg Wiles at the Section's Annual Meeting presentation, which will take place on Thursday, November 17, 2022 at The Boat House at Confluence Park Restaurant & Events Center in Columbus. Dr. Wiles will be presenting: Assembling Records of Environmental Change from Tree Rings. This event is sponsored by Alpha Analytical, ALS Environmental, Buckeye Elm Contracting, Environmental Remediation Contractors, Environmental Risk Information Services, K3 Complete, Mannik & Smith Group, Ohio Soil Recycling, Terran Corporation, and White Oak Environmental.

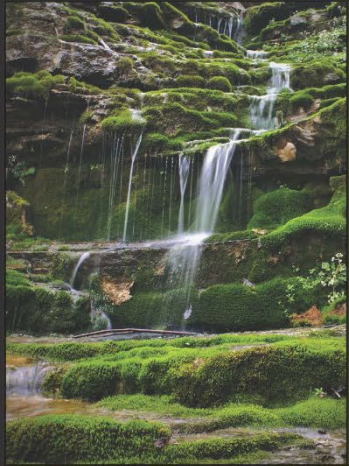
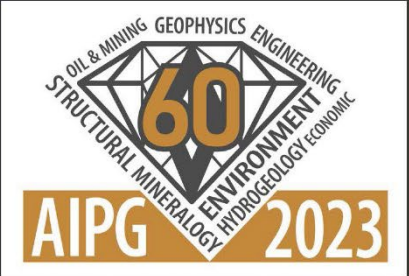

The event begins at 5:00 pm with social hour, followed by dinner at 6:00, and the feature presentation at 7:00. The cost is \$35 for members and guests or \$15 for students. Please preregister and submit payment for the event via PayPal through the AIPG Ohio Section website <https://www.aipg-ohio.org/payment.php>. Registration closes at the end of business on November 14, 2022.



Abstract: Long-lived trees in North America have been tapped for climate information for more than 100 years. The College of Wooster Tree Ring Lab assembles and analyzes tree-ring records from Alaska and Ohio that put cold-and-warm and wet-and-dry times into a long-term context of centuries to millennial. This past perspective on environmental change includes dating glacier changes in Alaska, and changes in the climate and landscape associated with the history of Ohio. The stories that the trees tell provide a context for ongoing climate change and the results are sometimes surprising.

Bio: Dr. Wiles is the Ross K. Shoolroy Chair of Natural Resources in the Earth Sciences Department at The College of Wooster. He teaches courses in hydrology, geomorphology, glaciers and climate change and co-directs The College of Wooster Tree Ring Lab. He has long-term research programs in southern Alaska and Ohio investigating past records of environmental change assembled from trees, lakes, glaciers and rivers.



The Many Facets of Geology - Save the Date!






Join us for AIPG's 60th Anniversary Conference — September 16-19, 2023

Celebrating 60 years of professional geoscientists exchanging information and technology on the many facets of geoscience.

Covington, Kentucky | www.aipg.org/Events



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



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



Terran Corporation
Environmental Services

Protecting, Restoring and Enhancing the Environment

Water Resources

- Groundwater Exploration, Development & Sustainability
- Source Water Protection
- Aquifer Testing & Analysis
- Groundwater/Surface Water Systems
- Water Quality/Quantity Assessments
- Flow & Solute Transport Modeling
- Hydrogeologic Investigations
- Expert Witness Testimony
- Thermometric Monitoring

Contaminant Remediation


- Contaminant Evaluations & Delineations
- Electrokinetic-Based Systems
- Road Salt Contamination - Investigation & Remediation
- In-Situ Treatment Technologies

SACON Ranges & Structures

Environmentally Protective & Safe Firing Ranges, Bullet Traps & Shoot Houses


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

Providing services locally, nationally and internationally for 32 years.




ENGINEERING CONSULTING SERVICES

Engineering Consulting Services (ECS) is a leader in geotechnical, environmental, construction materials and facilities engineering. Our expertise, solution-oriented focus, client responsiveness and commitment to employee and job safety have built our reputation in the industry as the firm to call when exceptional service matters most.






GEOTECHNICAL



CONSTRUCTION MATERIALS




ENVIRONMENTAL



FACILITIES


ECS OHIO OFFICES | CLEVELAND • 216-741-7007 | CINCINNATI • 513-216-5640 | ECSLIMITED.COM



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

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 nnovak@eagoninc.com.

Complete environmental site work

- Environmental Remediation
- Environmental Construction
- Demolition



K3 Complete, LLC

Proudly supporting AIPG.

For additional info
or a project quotation
contact:

Joe Factor

614.562.4730

JFactor@K3Complete.com