



Newsletter of the Association of Environmental & Engineering Geologists, Carolinas Chapter 2009, 2011, 2013, 2016, and 2017 AEG Chapter of the Year

SUMMER 2019

AEG 2019 - ASHEVILLE, NC Old Mountains - New Beginnings

Using the Past to Map the Future AEGWEB.ORG

SAVE THE DATE

AEG 62nd Annual Meeting Renaissance Asheville Hotel, - Asheville, NC September 17-22, 2019

Carolina Geological Society Annual Meeting Greenville, SC October 4-6, 2019

IN THIS ISSUE

SME Carolinas-Georgia Section Meeting	6
AEG Grand Canyon Field Trip	. 9
2019 Visiting Professionals	.11

GeoNews—Page 2 GeoNews—News of the Profession

GEONEWS SUMMER 2019	GeoNews is a publication of the Carolinas Chapter of AEG.		
Issue Date: August 11, 2019	There are four issues per year, with deadlines and issue publica-		
C ,	tion dates listed below. We publish news of the profession, an- nouncements, student member news, technical articles, and job		
TABLE OF CONTENTS	openings.		
	Deadlines for submittal to AE Carolinas GeoNews		
A d'alas e al Deservito	(can be flexible depending on events)		
Articles and Reports	Spring—deadline March 1, issue date March 21		
SME Section Meeting by Jennifer Thomas6	Summer—deadline June 1, issue date June 21 Fall—deadline Sept 1, issue date Sept 21		
AEG Grand Canyon Field Trip by Daphne Jones9	Fail—deadline Sept 1, issue date Sept 21 Winter—deadline Dec 1, issue date Dec 21		
Beer and Geology Part II by Josh Hanks17	Deadlines for submittal for the National AEG News:		
beer and Geology Part II by Josh Hunks	March issue—January 15		
	June issue—April 15 September issue—July 15		
Columns and Regular Features	December issue—October 15		
Message from the Chair by Susan Avritt			
2019 Visiting Professionals by Brad Worley	AEG Carolinas Chapter		
	Current Officers and Contacts Chair Susan Avritt, P.E., L.G.		
PFAS Conference by Josh Hanks16	susan Avritt, P.E., L.G.		
	Vice Chair Jacob Hundl		
Board Business	geotex02@gmail.com		
	Treasurer Walt Plekan, P.G.		
2 QT 2019 Treasurer's Report by Walt Plekan5	Secretary Jennifer B. Thomas, P.G.		
3-26-19 Meeting Minutes by Jennifer Thomas19	jen@jenntecllc.com		
	Membership Chair Open		
Forms and Flyers	Regional Director/Student Liaison Rick Kolb, P.G.		
AEG 62nd Annual Meeting Announcement10	Rick.kolb1@gmail.com		
AEG's Cities of the World—Asheville15	Social Media Co-Chairs Joanna Harbison joanna.harbison@yahoo.com		
Calendar of Events21	Rohit Warrier		
	rwarrier@geosyntec.com		
AEG Membership Application23	Social Committee Chair Adam Phillips		
Sponsor Application24	aphillips@prismlabs.com Field Trip Chair Rohit Warrier		
	rwarrier@geosyntec.com		
	Chapter Sponsor Co-Chairs Eric Cross, P.G.		
	eric@pyramidenvironmental.com		
Thanks to our Sponsors!	Rebecca Deal		
	RDeal@harthickman.com GeoNews Editor Joshua Hanks, P.G.		
	joshmhanks@gmail.com		
	Advisor Jennifer Bauer, P.G.		
	jennbbauer@gmail.com		
	Advisor Gary Rogers, P.G.		
	<u>grogers@schnabel-eng.com</u> Advisor Paul Weaver, P.G.		
	pweaver@espassociates.com		
	Past Chair Maddie German, P.G. Maddie.german45@gmail.com		
	<u>madure.german+J@gmail.com</u>		
	AEG Carolinas Chapter Website <u>www.aegcarolinas.org</u>		
	AFG National Website www.aegweb.org		

Cover: (Jane Gill-Shaler) AEG 2019 National Meeting Logo

Disclaimer: © 2018 Association of Environmental & Engineering Geologists — All Rights Reserved. Views expressed in this publication are not necessarily hose officially representing the Association of Environmental & Engineering Geologists except where expressly stated.

MESSAGE FROM THE CHAIR

By Susan Avritt, P.E., P.G., Carolinas Chapter Chair

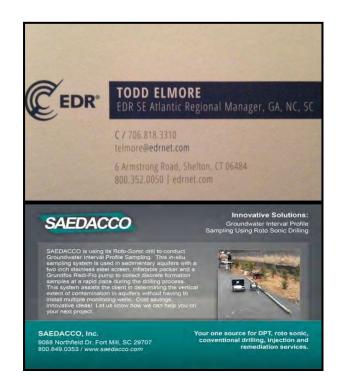
Greetings Carolinas Chapter!

On April 11th we hosted a dinner meeting at Clouds Brewing in Raleigh, North Carolina. Rick Gaskins, environmental attorney and former Executive Director of the Catawba Riverkeeper Foundation presented "There's More Than One Perspective on Coal Ash: Where Are We Now?". We had a great turnout with about 67 professionals and students attending and learned about the current status of coal ash related projects in North Carolina. We thank our drink sponsors EN-CO and CCI for their contribution.

Seeing as that the 2019 AEG National Meeting is being held in Asheville, our next meeting will be in Greensboro, tentatively in late October. We do not yet have a speaker, so if you or someone you know have an interesting topic to present, please let me know.

Please check out Brad Worley's article about our Visiting Professionals program (page 11). Brad is doing an awesome job reaching out to the many schools in the area to have professionals come talk to students about their careers, some of whom have then attended our AEG Chapter meetings. Brad is coordinating Visiting Professional meetings with several schools this fall. If you are interested in visiting schools to discuss your career, etc. with geology students, please contact Brad at <u>brad.worley@summitde.net</u>. The AEG National Annual Meeting will be held in Asheville, North Carolina this year from September 17 to 22, 2019. The Carolinas Chapter members are actively planning the meeting and expect a large crowd for the meeting. The meeting will include technical sessions, field trips, short courses, guest tours, a special event, and many other networking receptions. Note that if you are an AEG member, you will receive a discounted registration rate. Registration is open, so please visit <u>https://www.aegannualmeeting.org/</u> for more information. Also, students can receive a complimentary meeting registration for volunteering for 8 hours. So, students, be sure to sign up, as this is a great opportunity to network with professionals from across the nation (contact heather@aegweb.org for more information).

(Continued on Page 4)



GeoNews—Page 4

GeoNews—News of the Profession

SUMMER 2019

(Continued from Page 3)

Along with UNC-Wilmington and the Bald Head Island Conservancy, we hosted a field trip to Bald Head Island on June 15th where coastal engineering and geomorphology projects were highlighted. Although I didn't attend, it sounds like it was a lot of fun. Look out for a write-up in the next GeoNews. We are planning social outings at the Durham Bulls games and possibly one at the US National Whitewater Center in Charlotte this summer, so be on the lookout for emails regarding these events. If you have ideas for additional social events in your area, please reach out to the Committee Social Chair Adam Phillips (adam.phillips@contestlabs.com).

As always, your board and I look forward to hearing from each of you regarding your suggestions and/or concerns related to our Chapter. We are here to serve the needs of our membership, so your feedback is vital and welcome.

Aman Avrit

Susan Avritt, P.E., P.G. Susan.avritt@woodplc.com AEG Carolinas Chapter Chair





Customer Loyalty through Client Satisfaction

877.627.3772 www.maserconsulting.com

AEG Carolinas Chapter Updated 2Q 2019 Treasurer's Report

By Walt Plekan, P.G., Carolinas Chapter Treasurer

AB	AEG Carolinas Section Treasur April 1, 2019 through June 1	
	s Of April 1, 2019 g Account Account	\$ 6,311.71 \$ 18,603.73 \$24,915.44
INCOME		
Meetings	i April Meeting June Meeting	\$1,185.00 \$1,765.00
Misc	Section Sponsors Member Fees	\$3,475.00 \$221.00
Interest	Interest from savings	1.55
SUBTOT	AL - INCOME	\$6,647.55
EXPENSES Fees		
	Card reader fees Paypal fees	15.97 136.02
Meeting	Expenses April Meeting June Meeting	\$2,615.60 \$450.00
Addition	al Expenses Visiting Professional	\$785.45
SUBTOT	AL - EXPENSES	\$4,003,04
the second s	s Of June 18, 2019 g Account Account	\$ 8,954.67 \$ 18,605.28 \$27,559.95

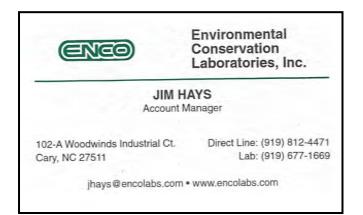
SUMMER 2019

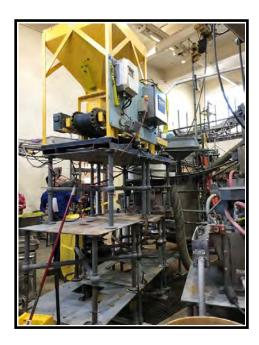
Society for Mining, Metallurgy, and Exploration Carolinas-Georgia Section Meeting

By Jennifer Thomas, P.G., JennTec LLC

On April 26 and 27, I attended the Society for Mining, Metallurgy, and Exploration (SME) Carolinas-Georgia Section meeting. The meeting started in Asheville with a discussion of industrial minerals in Western North Carolina. Due to the complex geology and presence of pegmatite, a variety of minerals form in guantities that make mining economically feasible. Processing techniques were also discussed, which physically and chemically separate the minerals from the ore. Refining processes for each formation mined are developed at a small scale at a laboratory and tested in larger scale at a pilot facility before being used at an industrial scale. The conference also focused on the Quartz Company, which mines high purity quartz in Spruce Pine, North Carolina. This quartz is used for silicon in microchips and other high-tech applications.

We began the morning of the second day at the Mineral Research Laboratory in downtown Asheville. This is a non-profit facility which conducts pilot testing for mineral refining. Its components can be moved around to adjust processes for specific minerals and formations.





The presenter of the meeting, Hamid Akbari, showed us around the facility. He also bid us goodbye as he was soon leaving North Carolina to take a new position in Nebraska.



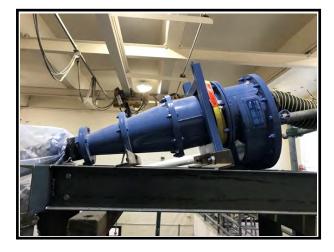
(Continued on Page 7)

GeoNews—Page 7

GeoNews—News of the Profession

SUMMER 2019

(Continued from Page 6)



The facility had a cyclone separator which uses gravity to remove lighter materials from the top and heavier materials from the bottom.



Next we went to the Quartz Company's mine. Everyone collected some beautiful specimens of quartz, feldspar, biotite, and muscovite. Next we went inside the refining plant where the feldspar was separated out. Feldspar is used in ceramics and high temperature applications. The Quartz Company does have a feldspar plant as well but feldspar does not command as high a price as the quartz. Following separation from feldspar, other impurities are removed from the quartz. From this facility, the quartz is sent to a clean room facility to be further refined and sold to manufacturers of electronic components.







Eastern Solutions Is an environmental rental and field service support company. Our inventory continues to grow with new and updated equipment and supplies. The equipment rental services offers free pick-up and delivery 90 miles from Charlotte (includes but not limited to Greensboro, NC; Greenville, SC; Columbia, SC), whether it's to an office or your job site. If you are outside the 90-mile radius, we offer free ground to and from shipping (equipment is shipped in plastic crates with pre-printed return labels inside). We'd like to thank all of our existing clients for their continued support and welcome any new clients. If you are interested in hearing more about Eastern Solutions, please let us know and we would be more than happy to come out and visit.

Below is a quick breakdown of the exciting things happening at ES:



Added Inventory / Supplies:

Along with several items added to our growing inventory, here is a quick list of those specialty items that have been requested:

- Core Drill w/ water kit
- Hammer Drills
- Diaphragm Pumps
- Air-Sparge System (Pilot Testing)
- SVE System (Pilot Testing)
- Sewer Camera w/Locator
- Downhole Camera w/DVR
- ATV / UTV Rental (Coming in April)
- Sand, Bentonite, and 55-Gallon Drums
- Large Selection of Vapor Points
- Carbon (Vapor/Water)

4543 Charlotte Hwy, Suite 8 Lake Wylie, SC 29710



New Support Services

Based on our client's requests to expand our support services, Eastern Solutions now offers the following (Please note these services are for existing rental clients only):

- Bushoging and Heavy Clearing (i.e. Forestry Cutter)
- Small Excavations and Trenching
- Silt Fence Installation
- Minor Storm Water Repair
- Downhole Well Camera w/DVR Service
- Sewer Push Camera w/Locator Service
- Field Personnel Support
- AS/SVE System Support and Installation
- Equipment Calibration and Repair Services

Rentals@EasterSolutionsEnv.com Main Office: 803.746.5180

SUMMER 2019

AEG Grand Canyon Field Trip

By Daphne Jones, P.G., Draper Aden Associates

Twenty-four people including 18 geologists participated in the AEG-sponsored Grand Canyon Rafting Expedition June 8-14, 2019. Geologist Wayne Ranney, who has studied and published information on the Colorado Plateau and Grand Canyon his entire career, was our guide for the trip. The group drove up from Flagstaff to meet the Colorado River and Trail Expedition crew with the two 37-foot motorized rafts at Lees Ferry, and one week later we helicoptered out of the Canyon at Whitmore Wash, 188 miles later. In between we were guided through the Canyon's spectacular geology, with daytime temperatures topping out at 112°, keeping cool with the 52° river water.



The eastern part of the Canyon presented the flat -lying Permian through Cambrian strata as we progressed down the river. The angular unconformity at the bottom the Paleozoic strata overlies the tilted late Proterozoic sedimentary rocks of the Grand Canyon Supergroup. Further down river, the Paleozoic strata directly overlie the basement rocks; the great unconformity represents 1.2 billion years missing in the rock record.



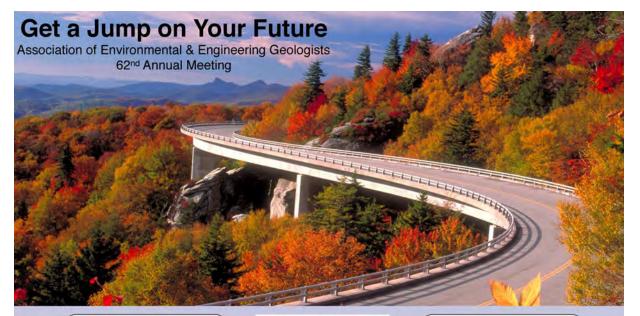


We were immersed in the geology and the river during the day and went to sleep each night under the bright half moon and stars, waking up at dawn, even before the first coffee call. We helped load/unload our dry bags, cots and chairs out of the rafts, but the CRATE crew took care of everything else, and kept us well fed. We had no contact with the outside world during that week. It was a bucket-list kind of trip.



GeoNews—Page 10 GeoNews—News of the Profession

SUMMER 2019



Meet Industry Leaders Don't miss this opportunity to identify career opportunities and network with potential employers.



Call for Technical Papers Abstract Deadline: May 1, 2019 Online submittal www.aegannualmeeting.org

Technical Sessions and Symposia

Proposed Symposia

- · 3D Modeling and Data Visualization
- Speaking Their Language Communicating Science with Non-Scientists - Who, Why, and How Symposium
- Climate Resiliency Bringing Geoscientists and Climate Scientists Together
- Dams (topic TBD)
- · Drones for Geologic Applications
- Environmental (topic TBD)
- · Environmental Remediation and Geochemistry
- Geophysical Characterization of Groundwater Aquifers
 and Bedrock Fractures
- Landslides (topic TBD)
 Naturally Occurring Asbestos
- Tunnaling
- Tunneling

Proposed Technical Sessions

- Complexity in Modern Engineering Geology
- · Emerging Contaminants
- · Environmental Characterization and Remediation
- · Geologic and Geotechnical Site Characterization
- · Geologic Hazard Mapping
- · Geological Engineering of Transportation Projects
- · Groundwater & Karst
- · Hydrogeology and Groundwater Investigations
- Mine Reclamation and Geologic Materials
- · Risk-Based Methodology for Geologic Applications
- Rockfall Mitigation
- · Seismic Hazards Investigation and Mitigation / Mapping
- · Transportation and Infrastructure Projects
- Vapor Intrusion



Volunteer 8 hours and receive a complimentary registration!

AEG's 2019 Annual Meeting

"Old Mountains...New Beginnings" September 17-22, 2019 Asheville, North Carolina visit www.aegannualmeeting.org for more details

AEG Student Registration just \$95

SUMMER 2019

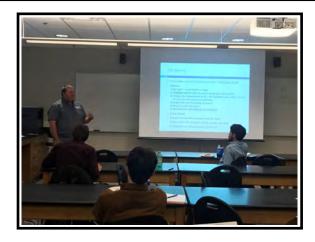
2019 AEG Carolinas—Visiting Professionals

By Brad Worley, P.G., Summit Design and Engineering Services

By now, most of you have probably heard that AEG Carolinas has an active Visiting Professionals (VP for short) program. Rick Kolb, PG, has overseen the VP program in our chapter since its inception. To my knowledge, it is a program that started here in the Carolinas Chapter. It has been picked up by other chapters nationally. As of 2019, Rick decided to step down from leading the VPs. As many of you know, Rick is incredibly dedicated to AEG, both on the national and chapter level. Setting up the logistics for the VPs, and traveling to the schools, takes up a good bit of time, and Rick felt it was time to pass the torch. Having taken part in many VPs since the beginning, I decided to take on the role.

Some of you have taken part in the visits, but some may be unfamiliar. We are blessed to have many universities, with geology or geoscience departments/majors, within reach of our AEG Carolinas Chapter. The Visiting Professionals is one form of outreach for our chapter to these departments. As we all know, professors in academic departments have a well-defined job, to teach students the science of geology. It is not however, as we all learned, the job of the professors, or academic departments, to help the students find a job. Prior to programs like our VPs, most went through an entire undergraduate, and maybe graduate,





degree without anyone ever coming into their department to give a presentation on how they use their geology/geoscience degree in the practical work world. That is where we, as AEG members, can step in and make a difference. We reach out to geology departments, in our region, and offer to come talk to students about how we use our degree in our jobs. We also talk to students about the job search, the job market, resumes, interviews, and all the other things that come up for students about to make the leap into the working world. The speakers at the VPs are volunteers, and we try to have at least one engineering geologist and one environmental geologist. We want to expose students to the types of geosciencebased jobs that are prevalent in our region and stress the importance of professional licensure. We also stress the importance of networking organizations, especially AEG, when looking a job and after you've began your career.

Those who have helped with the VPs will tell you, students are very engaging. They are hungry to learn what kinds of jobs are out there for them. They feed on any experience you can share with them and I can

(Continued on Page 12)

GeoNews—Page 12 GeoNews—News of the Profession

SUMMER 2019

(Continued from Page 11)

tell you it is very meaningful and gratifying. It can also be a source for potential hires for you, or your company.

As the individual presentations end, we open the floor for discussion, and you get a real feel for the student's desire for information on jobs. Also, as a draw, AEG Carolinas always provides pizza and sodas during the talks.

For the spring of 2019, AEG Carolinas visited seven universities in three different states. AEG Carolinas also gained 46 new student memberships.

UNC-Chapel Hill - March 6, 2019: Presentations at Chapel Hill are coordinated/hosted by Dr. Kevin Stewart. Speakers included me (Brad Worley, PG, Summit Design and Engineering Services); Aaron Gross, PG (UNC-CH alumni, Summit Design and Engineering Services); and Alexandria Kintner, GIT (UNC-CH alumni, NCDOT Geotechnical Engineering Unit).



Abatement

Demolition

Emergency Response/Disaster Response

Contaminated Soil Remediation

Industrial Services

Industrial Blasting

Geoseal Vapor Barrier Installation

"Dedicated to our client's success"

East Carolina University - March 18, 2019: Presentations at ECU were coordinated/hosted by Dr. Adriana Heimann and speakers included me and Matthew Hartman, GIT (ECU alumni, S&ME).

UNC-Charlotte – March 19, 2019: Presentations at UNCC were coordinated/hosted by Dr. John Diemer and Jake Armour. Speakers included me and Bonnie Ware, PG (North Carolina Department of Environmental Quality).

Wake Technical Community College – March 20, 2019: Presentations at Wake Tech were coordinated/ hosted by Gretchen Miller, PG. Speakers included me, Bonnie Ware, PG (NCDEQ); Christina Bruinsma, LG, (NCDOT Geotechnical Engineering Unit); and Matthew Hartman, GIT (Wake Tech alumni, S&ME).

Western Carolina University – March 25, 2019: Presentations at WCU were coordinated/hosted by Dr. Cheryl Waters-Tormey. Speakers included me and our very own AEG Carolinas Chapter President, Susan Avritt, PG (Wood.)

East Tennessee State University – April 4, 2019: Presentations at ETSU were coordinated/hosted by Dr. Arpita Nandi. Speakers included me and Crystal Johnson (ETSU alumni, NCDOT Geotechnical Engineering Unit).

Clemson University - April 17, 2019: Presentations at Clemson were coordinated/hosted by Scott Brame. I was the only speaker at Clemson this spring. All that have met me know that was fine because I have the gift of gab!

(Continued on Page 13)

GeoNews—Page 13 GeoNews—News of the Profession

SUMMER 2019

(Continued from Page 12)

In the late summer and fall of this year AEG Carolinas is planning to visit UNC-Asheville, NC State University, Appalachian University. We are hoping to set up visits with UNC-Wilmington, the College of Charleston, Furman, Guilford College, and possibly Virginia Tech. If you are involved in another university's geoscience department, and want to set up a VP, please reach out to me.

I'm sure you are wondering; how can I participate in the Visiting Professionals program? That's easy. Email me and I will put you on the list of potential speakers. Please include which universities you'd like to visit. Most VP speakers bring a short PowerPoint presentation to help them discuss what they do for a living. I've found that the visual presentation is the most effective way to engage students. Some speakers bring soil and rock samples, or tooling, to help in the discussion. The most important thing is that this program will have a positive impact on a student. They gain insight on the possible directions they might explore and have a change to talk to you, the ones that do the hiring, about what steps they need to take. It could have a lasting impact on your company or place of business. Two of my best coworkers learned about engineer-ing/geotechnical at an AEG VP when I visited their school.

Lastly, I want to thank AEG Carolinas, and especially Summit Design and Engineering Services, for seeing the benefit and allowing me the opportunity to visit all these universities. I'm forever grateful for that. I really look forward to the fall semester's visits and hope many of you will reach out and volunteer to help.





Geophysical Services

- Locate abandoned USTs
- Delineate buried waste
- Characterize bedrock fractures
- Map depth to bedrock
- Designate seismic Site Class
- Map subsurface voids
- Locate rebar and PT cables
- Many other applications...

Please contact: Ned Billington, PG, 336-232-5211 geophysics@espassociates.com www.espassociates.com



Your TOTAL Laboratory Resource

We are an industry leading sampling and analytical testing company with **40 years of experience.**

We have the capacity, resources, and efficiency to ensure **the best results** for your projects.

Environmental Analytical Services

- Air Emissions/Stack Testing
- Drinking Water
- Groundwater Monitoring
- Hazardous Waste
- Toxicity Reduction
- Ecological Risk Assessments
- Non-routine Testing

Contact me to see how Pace can help!

Pace Analytic.

Korey S. Drew Senior Account Executive Pace Analytical Services, LLC. 704.315.8068

AEG's Cities of the World - Asheville

By Bart Cattanach, P.G., NC Geological Survey

The North Carolina Geological Survey is spearheading an AEG Cities of the World paper spotlighting Asheville, site of the September 2019 AEG national meeting: We welcome contributions to finish this project by August, so it can be included in the national meeting material. Some areas of need are listed below. Please contact bart.cattanach@ncdenr.gov if you would be interested in contributing to a chapter or if there is a topic you would like covered that isn't listed.

Purpose of the Geology of the Cities of the World series

The purpose of the *Geology of the Cities of the World* series is to convey to practitioners, graduate students, university faculty, planners, engineers, developers, and government officials background information useful for discovering and highlighting geological issues unique to a city.

Benefits of the series

The series benefits include the sharing of information about specific geological issues, a thorough reference list containing information that may be applicable to similar problems in a different setting, and providing contacts for other professionals working on similar problems.

To see more information and examples from other cities visit:

https://www.aegweb.org/page/GeologyCities

What we need

Interested scientists who want to author, or contribute to, the following sections:

Environmental Issues Chapter

What natural or human caused environmental problems are present in the city and what is being done to remediate them? This includes environmental assessment of select problem sites and their remediation and the development of properties that may have had an environmental problem before. Another topic could be the identification, assessment and mitigation of naturally occurring environmental hazards (e.g. radon). How will climate change affect the city?

Engineering Projects Chapter

Describe a few representative and unique engineering projects and how they relate the geology of the city or a nearby area. Infrastructure examples are a great subject of interest to readers. Include a few examples from the view point of a geologist, with images.

Examples could include the North Fork and Bee Tree reservoirs, Beaucatcher tunnel and cut, the Blue Ridge Parkway, and buildings that are unique to Asheville.

As part of the Natural Resources chapter:

A discussion on Asheville's water sources, quantity, quality, future predicted supply and demand, waste water treatment and disposition.

PFAS & Other EC Conference

By Joshua Hanks, P.G.

On April 23 and 24, 2019, Groundwater Professionals of North Carolina (GWPNC) and the American Council of Engineering Companies of North Carolina (ACEC/NC) hosted the PFAS and Other Emerging Contaminants Conference at the Marriott Raleigh City Center. Speakers and attendees consisted of members from the private, regulatory, and academic fields. Presentation topics ranged from in depth discussions on PFAS and their impacts on North Carolina; assessment and treatment of 1,4-Dioxane; and regulatory considerations for other emerging contaminants. Attendees who are looking to review these presentations or anyone who was unable to attend the conference can find copies of the presentations at the following link: http:// gwpnc.org/2019pfaConference.html.



Beer and Geology Part II

By Joshua Hanks, P.G.

In the Spring 2019 GeoNews, I wrote an article titled "Beer and Geology" that highlighted some of the breweries across the country that are influenced by our field of study. Shortly after sharing this article, a colleague informed me of a local brewer who experimented with the idea of introducing rocks to the brewing process. I unfortunately didn't get a chance to try this experimental beer but I was interested in the idea of local geology impacting the flavor of beers during the brewing process.

Elements of water used during the brewing process have the potential to accentuate certain flavors of a beer. Elements such as hardness, alkalinity, pH, and even the ratio of sulfate-to-chloride anions make up what is referred to as the water profile. Several guides have been made detailing various water profiles and which profile is best suited for which type of beer. Profiles that are higher in sulfate tend to be drier and encourages hop bitterness while profiles higher in chloride tend to be less bitter and better for a maltier balance. Higher beer pH makes the beer taste dull while lower beer pH can suppress beer flavors.

(Continued on Page 17)

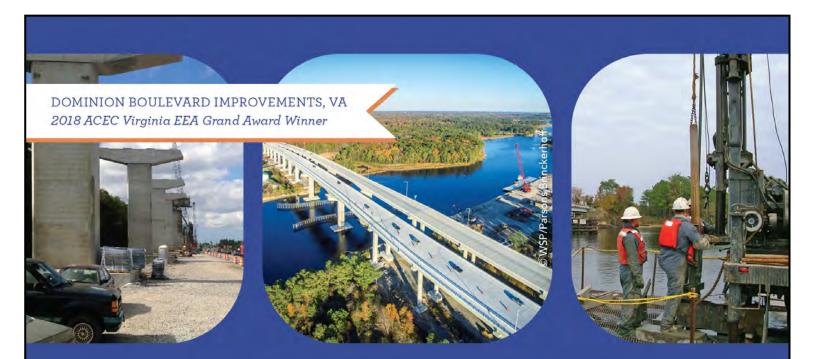


(Continued from Page 16)

Ideally, a common approach to preparing brewing water would be to start with a low hardness, low alkalinity water source that can be adjusted for whatever style of beer you are aiming for. Salts can be added to the brew water to make the necessary adjustments such as calcium sulfate (gypsum) for hoppier style beers and calcium chloride for maltier style beers.

Overall, the source of your drinking water supply is not only important from a risk assessment standpoint but also for your home brewing needs. Municipal and county public works departments will typically provide information about water hardness or alkalinity in the form of a water report (Raleigh has a section just for brewers). For testing groundwater from private supply wells, I am confident I am preaching to the choir when it comes to AEG. To read more about the recommended geochemistry of brewing water, be sure to check out the articles below.

- 1) <u>https://beerandbrewing.com/brewing-water/</u>
- 2) <u>https://sommbeer.com/2019/07/02/recipe-design-for-brewerssimplified-part-4-water/</u>



Integrated dam, geotechnical, and tunnel engineering solutions ranging from subsurface explorations and soil testing to project risk management, engineering analysis, design, and construction support.



schnabel-eng.com

SUMMER 2019



Our Instrument Division Includes:

- Rental instruments and accessories
- Instruments for purchase
- Instrument repair
- Field sampling supplies
- Personal Protective Equipment (PPE) supplies
- Equipment Training

Our Remediation Division Includes:

- Soil and groundwater remediation equipment
- Remediation rental equipment
- New and used remediation systems for sale
- · Pilot testing equipment and support
- Remediation components and parts for sale
- Custom electrical control panels
- Field installation and startup service
- Field repair of remediation systems
- Bulk carbon sales and change-out services
- Carbon injection services



WE RENT THESE ...





...AND SO MUCH MORE!

Call or visit our website today!

EEI is a North Carolina certified "Woman-Owned Business Enterprise" incorporated in January, 1993, and is located at 11180 Downs Road in Pineville, NC 28134. In 2004, EEI opened a 10,000 sqft Remediation System Division at 10120 Industrial Drive in

WE BUILD THESE ...



Carolina Board Meeting Minutes 3-26-2019 from 5pm to 6pm—Conference Call By Jennifer Thomas—Secretary

- 1. Call to Order
- Roll Call: Paul Weaver, Susan Avritt, Jane Gill-Shaler, Beca Deal, Jacob Hundl, Rick Kolb, Maddie German, Walt Plekan, Jenn Thomas, Adam Phillips
- 3. Carolinas Chapter Finances Walt
 - a. Review of current chapter finances:
 - Checking: \$6,172 Savings: \$18,603 PayPal: \$1,081 Total: \$25,856
 - b. Received new card reader; some difficult at Charlotte meeting, maybe due to cell signal
 - c. \$790 from National this year for memberships
- 4. Upcoming Chapter Meetings
 - a. Great turnout at Charlotte meeting
 - i. 88 attendees with 16 being students; 14 RSVP'd but didn't attend
 - ii. Negative ~\$800
 - b. Raleigh meeting
 - i. Josh/Rick planning
 - ii. Speaker: Rick Gaskins
 - iii. Clouds Brewing
 - iv. Drink tickets provided by ENCO and CCI
 - v. Susan will bring card reader, table stands, PPT; Alec bring sponsor poster and receipts



- 5. Carolinas Scholarhsip award
 - a. Evan Miller (NC State) awarded; will use money for field camp
 - b. Currently have \$12,900 in Scholarship fund
 - c. Amount to award: \$2,000
 - d. Can change amount next year
 - e. Carolinas Chapter will earn ~\$4,000 from the Annual Meeting, potential to go to scholarship
- 6. GEONews-Josh
 - a. Josh not on call, but needs Treasurer's report
- 7. Membership—Anthony
 - a. Need new membership chair; Anthony moving to Reno!
 - b. Renwals to date for 2019? As of February, 80 memberships (not including students)
 - c. Updates to developing 2019 membership using NC PG list? There is a \$35 fee for the list.
 - d. Email blast to NC PG list re: annual meeting
- 8. Sponsors—Eric
 - a. We have a couple of new sponsors.
 - b. Several sponsors have indicated they are planning to sponsor, but just need to get the check in the mail.
- 9. Field Trips—Rohit/Rick
 - a. Field trip to Bald Head Island in late May/ early June
 - b. Ferry to island, golf carts
 - c. Waiting for UNCW for information
 - d. Friday night meeting would be good

(Continued on Page 20)

GeoNews—Page 20 GeoNews—News of the Profession

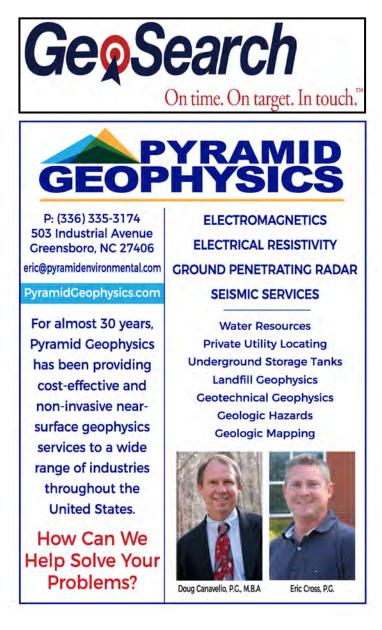
SUMMER 2019

(Continued from Page 19)

- e. Save the date email when we schedule the date
- f. Ideas for Spring 2020? Boone dam in Johnson City, TN (possible side trip to Gray Fossil Museum)?
- 10. Visiting Professionals—Brad
 - a. Spring: UNC Chapel Hill (3/6), East Carolina (3/18), UNC Charlotte (3/19), Wake Tech (3/20), Western Carolina (3/25), East Tennessee (4/4), Clemson (4/17)
 - b. Fall: NCSU, Appalachian State, and UNC Asheville
- 11. Social Activities—Adam/Rick
 - a. Potential activities for the spring/summer in Raleigh? Baseball, spring golf outing, Triad, roller derby
 - b. US National Whitewater Center in Charlotte this summer?
 - c. Pump House Bier Garten or River's Edge
 - d. Both have food and beer
 - e. Weekend or week night? Weekends are busy
 - f. Wednesday at Pump House? Order food from bar, with drinks. Enviro-Equipment drinks at NWWC.
 - c. Doodle poll to email list to see what activities are preferred.
- 12. 2019 Asheville Meeting-Paul
 - a. OEEG award—the Carolinas Chapter voted to endorse the TVE Boone Dam Project.
- 12. Chapter T-Shirts—Rick?
 - a. Student logo contest? This is what Nashville did.
 - b. We will be thinking of potential designs.

- c. Maddie knows of print shop.
- 14. Field day—we should try again, maybe in Raleigh and/or Charlotte in 2020.
- 15. Jahns Lecturer—new lecturer will not be named until this fall, so no action needed at this point.

Call ended at 5:45 pm



SUMMER 2019

CALENDAR OF EVENTS-2019

Geological Events in the Carolinas

Courtesy of AEG Carolinas Chapter—www.aegcarolinas.org. Last updated July 30, 2019 Send updates/corrections to Alec Dziwanowski, adziwanowski@gmail.com Meeting Date, Time, and Location are Subject to Change—Please Verify Prior to the Meeting

Date: Thursday, August 15, 2019

Event: Meeting of South Carolina Association of Environmental Professionals Presentation: TBD (facebook.com/SCAEP.org) Cost: No charge for paid members or first-time attendees Time: Social with food/beverages at 6:30 pm; Meeting 7:00 pm Location: Jim Hamilton-L.B. Owens Airport – 1400 Jim Hamilton Boulevard, Columbia, SC (unless posted otherwise) Contact/RSVP: Melanie Goings at MELA-NIE.GOINGS@santeecooper.com

Date: August 12-15, 2019

<u>Event:</u> Environmental Risk Assessment of PFAS <u>Cost:</u> Members \$500, Nonmember \$700, Student \$200, Student Nonmember \$245, Recent Graduate/ Retired/Developing Country \$325 <u>Location:</u> Durham Convention Center; 301 West Morgan Street, Durham, NC 27701 <u>Details: https://pfas.setac.org/</u>



Date: Tuesday, August 20, 2019

Event: 2019 Annual Regulatory Science Symposium <u>Topic:</u> The Sticky Subject of Non-Stick: Regulatory Science Challenges of Per– and Poly-Fluorinated Compounds (PFAS) <u>Time:</u> 1:00–3:45 PM (Central Time) <u>Details: https://calendar.tamu.edu/toxicology/#!view/</u> <u>event/event_id/90193</u>—includes online login information

Date: September 10-23, 2019

<u>Event:</u> North Carolina Wetland Assessment Method (NC WAM) and Training Course <u>Location:</u> New Hope Center; 4101 Capital Boulevard, Conference Room 436, Raleigh, NC 27604 <u>Details: http://www.ncaep.org/meetings</u>

Date: September 16-21, 2019

<u>Event:</u> AEG 62nd Annual Meeting <u>Location:</u> Asheville, North Carolina <u>Deadline:</u> Early registration ends on Aug. 1; costs increase after Aug. 1 <u>Details: https://www.aegannualmeeting.org/</u> <u>Contact:</u> Heather Clark (<u>heather@aegweb.org</u>)

Date: Thursday, September 19, 2019

Event: Meeting of South Carolina Association of Environmental Professionals <u>Presentation:</u> TBD (<u>facebook.com/SCAEP.org</u>) <u>Cost:</u> No charge for paid members or first-time attendees <u>Time:</u> Social with food/beverages at 6:30 pm; Meeting 7:00 pm <u>Location:</u> Jim Hamilton-L.B. Owens Airport – 1400 Jim Hamilton Boulevard, Columbia, SC (unless posted otherwise) <u>Contact/RSVP:</u> Melanie Goings at <u>MELA-</u><u>NIE.GOINGS@santeecooper.com</u>

Date: Wednesday, September 26, 2019

<u>Event:</u> Emerging Contaminants Environmental Workshop

Location: Embassy Suites by Hilton Charlotte; 4800 South Tryon Street, Charlotte, NC 28217 <u>Time</u>: 11:15 AM—5:00 PM <u>Details: https://enviroworkshops.com/workshop/2019-</u>09-25-charlotte-nc/

(Continued on Page 22)

GeoNews—Page 22

GeoNews—News of the Profession

SUMMER 2019

(Continued from Page 21)

Date: Thursday, September 26, 2019

<u>Event:</u> Emerging Contaminants Environmental Workshop <u>Location:</u> Doubletree by Hilton Raleigh Brownstone-University; 1707 Hillsborough Street, Raleigh, NC 27605 <u>Time</u>: 11:15 AM—5:00 PM <u>Details: https://enviroworkshops.com/</u>

workshop/2019-09-26-raleigh-nc/

Date: Friday, October 4, 2019

<u>Event:</u> ASBOG Geology Exam <u>Registration Deadline:</u> Deadline for indivial applications is Wednesday, August 14, 2019 <u>Location:</u> McKimmon Center, NC State University, Raleigh, NC Details: https://www.ncblg.org/meetings/

Date: October 4-6, 2019

<u>Event:</u> Carolina Geological Society's 2019 Annual Meeting and Field Trip <u>Topic:</u> Sliding and Pushing to the South: Gravitational Collapse of the Paleozoic Thrust Stack and Later Hinterland-Directed Alleghanian Back Thrusting, Inner Piedmont, South & North Carolina <u>Location:</u> TBD - Greenville, SC <u>Details: http://carolinageologicalsociety.org/CGS/</u> <u>Next_Meeting.html</u>

Date: Tuesday, December 3, 2019

<u>Event:</u> Groundwater Professionals of North Carolina Dinner Meeting <u>Presentation:</u> TBD <u>Location:</u> JC Raulston Arboretum at NCSU; 4415 Beryl Road, Raleigh, NC 27606 <u>Details:</u> http://gwpnc.org/meetings.html

Date: April 1-3, 2020

Event: Clemson Hydrogeology Symposium Location: Madren Center at Clemson University; Madren Center Drive, SC, 29631 Registration Deadline: Early Bird: March 1, 2020 / Online Registration—March 22, 2019 Details: https://www.clemson.edu/cecas/ departments/eees/symposium/index.html

Date: September 14-19, 2020

<u>Event:</u> AEG Annual Meeting <u>Location:</u> Portland, Oregon <u>Costs:</u> TBD <u>Contact:</u> Heather Clark (<u>heather@aegweb.org</u>)

Alan King

HERR, Inc. Business Development (910) 640-2607 Work (910) 234-3172 Mobile al.king@herrteam.com 303 S. Maultsby Street Whiteville, NC. 28472 www.herrteam.com



hart 🛃 hickman

SMARTER ENVIRONMENTAL SOLUTIONS

A trusted partner serving your environmental consulting needs.

www.harthickman.com • (704) 586-0007



Association of Environmental & Engineering Geologists

201 E. Main Street, Ste. 1405, Lexington KY 40507 USA • Ph: 844-331-7867 • <u>www.aegweb.org</u> Connecting Professionals, Practice and the Public

AEG membership helps to enhance your technical and business knowledge, provide career opportunities, and introduce you to thousands of other professionals, all while having fun in the process! Visit www.aegweb.org to see the great benefits we have to offer our members.

1. CHOOSE YOUR MEMBERSHIP

FULL MEMBER □ Full Member Dues - \$150* Must be practicing in Engineering Geology and/or Environmental Geology field and hold a degree in geology, engineering geology, or geological engineering, or a degree in a related professional field with 30 semester-hours of credit in the applied geosciences.

AFFILIATE Affiliate Dues - \$100* Must be a scientist or engineer working with engineering geologists, or a person interested in environmental and engineering geology.

TEACHER Sign up at <u>www.aegweb.org/join</u> Must be engaged in full-time teaching at the Primary, Secondary or Post-Secondary level in Earth Science or a related subject.

INTERNATIONAL International Dues - \$25 Must meet the requirements for Full Members above, but not be a citizen of the United States.

Memberships are based on the calendar year. Applications received after October 1 will extend through the following year.

2. INDICATE YOUR CHAPTER

All paying memberships require applicants to pay Chapter dues in addition to the membership fee. Visit <u>www.aegweb.org/Chapters</u> for a list and map. Please call AEG Headquarters for assistance.

Chapter

Chapter Fees \$

3. SELECT OPTIONAL FEATURES

Members receive free digital access to AEG publications. Order printed copies at additional cost by checking the boxes below:

E&EG Journal (print) — additional \$60 USD per year

AEG is proud to be an affiliated member of the International Association for Engineering Geology and the Environment (IAEG). With this affiliation, we can offer a special rate for IAEG benefits (U.S. members only). Fees are in the USD.

One year + digital newsletter \$20/year

One year + digital newsletter & printed Bulletin \$55/year Note: Bulletin issues will be mailed at the end of the year.

4. PROVIDE YOUR CONTACT INFORMATION (please print legibly)

Name	Company
Address	
City	State/Province
ZIP/Postal Code	Country
Work Phone	Mobile Phone
Email	Website
Are you a registered Geologist or Engineer? 🛛 Yes 🖾 No	\Box Please DO NOT list my contact information in the AEG Directory

Signature

My signature attests that, to the best of my knowledge, I meet the academic and practice requirements for the membership class requested and that all information on this application are true and correct.

5. PROVIDE PAYMENT

Check (Payable to AEG) Total Enclosed \$______ (include membership fee, chapter dues, and any optional features) To pay by credit card, please visit www.aegweb.org and *Join or Sign In* (upper right corner). To comply with PCI security regulations, AEG does not accept credit cards by fax, email or mail. For help with your username or password, use the *Forgot Your Password* link and enter the email address associated with your member record. Please contact AEG Headquarters if you have any questions.

AEG's primary form of communication is paperless, which conserves environmental resources while also reducing administrative costs. Please add the aegweb org email domain to your e-mail safe list to help ensure you receive all communications from AEG.

6. SEND YOUR COMPLETED FORM WITH PAYMENT TO THE ADDRESS ABOVE To join online, please visit www.aegweb.org.

*AEG dues are not deductible as a charitable contribution for U.S. Federal income tax purposes but may be deductible as a business expense. However, Full and Affiliate members contribute to the AEG Legislative Fund along with their member dues and this portion does not qualify for any tax deduction. AEG estimates the 2018 legislative contribution made on your behalf to be \$10 for those who reside outside California. For CA residents, who already have an established member supported lobbying effort, AEG estimates the 2018 legislative contribution made on your behalf to be \$5. Chapter fees are non-deductible.

Thank you! We appreciate your support of the Association of Environmental & Engineering Geologists.



AEG CAROLINAS CHAPTER – SPONSOR INFORMATION

The Carolinas Chapter of AEG supports many of its activities with financial assistance provided by our sponsors. Our activities include quarterly meetings, periodic field trips and seminars, a quarterly newsletter, and email announcements about our meetings and geoscience related activities. In addition, we donate large quantities of educational resources to science teachers.

We offer several levels of sponsorship, but they all have one goal: to keep the sponsor's name in front of our members and to bring you business. We have a real commitment to connecting our sponsors to potential buyers and

will do all we can to help you build your business. Most of our members are practicing professionals with responsibility for selecting subcontractors, so our group is a great place to find new customers and to catch up with existing clients in an informal setting. Our sponsors provide the financial support that allows us to have reasonably priced dinner meetings, host seminars, provide dis-

counted dinner meeting costs for students and teachers, underwrite the cost of newsletters and our web site, provide geosciencementors for students and young professionals, and support science education tools to our teachers and in our schools. All costs listed below are per year and end in December. New sponsorships received after October will continue to December of the following year.

Silver Sponsor (\$275):

GeoNews Newsletter: Business card size ad $(2^{"}high \times 3-1/2")$ wide), four times per year.

Meetings: Listing on a Sponsor Poster, located at sign-intable. Verbal acknowledgement by name in Chairman's introductory comments.

Meeting Exhibits: Space for tabletop display at one meeting. Cost of meeting waived for one person on the exhibit date.

Email Announcements: Listing of your company name on each AEG Carolinas Chapter email announcement (our email list is currently over 1,000 people)

Web Page: Acknowledgement on the AEG Carolinas Chapter Web Page, <u>www.aegcarolinas.org</u>, with a link to yoursite.

Gold Sponsor (\$400):

GeoNews Newsletter: Quarter-Page ad (4-1/2" high x 3-1/2" wide), four times per year.

Meetings: Listing on a Sponsor Poster, located at sign intable. Verbal acknowledgement by name in Chairman's introductory comments.

Meeting Exhibits: Space for tabletop display at two meetings. Cost of meeting waived for one person on the exhibit date. Email Announcements: Listing of your company name on each AEG Carolinas Chapter email announcement (our email list is currently over 1,000 people)

Web Page: Acknowledgement on the AEG Carolinas Chapter Web Page, www.aegcarolinas.org, with a link to yoursite.

Platinum Sponsor (\$550):

GeoNews Newsletter: Half-page ad (4-1/2" high x 7" wide), four times per year.

Meetings: Listing on a Sponsor Poster, located at sign intable. Verbal acknowledgement by name in Chairman's introductory comments.

Meeting Exhibit: Space for tabletop display at three meetings. Cost of meeting waived for one person on the exhibit date.

Email Announcements: Listing of your company name on each AEG - Carolinas Chapter email announcement (our email list is currently over 1,000 people)

Web Page: Acknowledgement on the AEG Carolinas Chapter Web Page, <u>www.aegcarolinas.org</u>, with a link to yoursite.

Titanium Sponsor (\$650):

Same as Platinum, but with a FULL PAGE ad in GeoNews. Limited to 2 Sponsors per year.

GeoNews Newsletter Sponsorship Only

Businesses or individuals can also advertise in GeoNews without being a full sponsor. The annual rates for advertising in GeoNews are as follows:

Business Card	\$ 40.00
Quarter Page	\$ 60.00
Half Page	\$ 100.00
Full Page	\$ 200.00

Please complete the form below and mail to Walt Plekan, AEG Carolinas Sponsorship Chair. Please call or email if you have any questions (contact information below).

AEG Carolinas Chapter Sponsorship Form

Platimim Chapte		r Sponsorship, \$550/ye		550/year
	100 P	0.00000000	- T	2012 (2010) C.
			day in the last	A REAL PROPERTY AND A REAL

_____Gold Chapter Sponsorship,\$400/year

_____Silver Chapter Sponsorship, \$275/year

_____GeoNews Newsletter Sponsor Only (see above)

Name:

Address:

City, State, Zip: ______ Phone: ______Fax: _____

Contact Person:

Cell: _____

Email:

Website URL:

Date of Payment: _____

Something about your company (use back of page for more room)

Please enclose a business card or email ad in jpg, pdf, or doc to Eric@pyramidenvironmental.com.

SPONSOR ONLINE AT <u>WWW.AEGWEB.ORG</u> or MAKE CHECK OUT TO AEG CAROLINAS

Snail mail form and payment to:

Eric Cross, P.G., AEG Carolinas Sponsorship Chair 503 Industrial Avenue, Greensboro, NC 27406

** NEW SPONSOR BENEFIT FOR 2017: All sponsors will be listed on the AEG Carolinas Chapter Facebook Page! **

GeoNews—Page 25 GeoNews - News of the Profession SUMMER 2019 Thank You, AEG Carolinas Sponsors!!

TITANIUM SPONSORS

Eastern Solutions, LLC, 4543 Charlotte Hwy, Suite 8 Lake Wylie, SC

29710 www.easternsolutionsenv.com Edgar Alcaraz, Cell: (803) 280-0757, Office: (803) 746-5180 ealcaraz@easternsolutionsenv.com

Eastern Solutions would like to thank all of our clients for their continued support and word of mouth advertising. Our inventory continues to grow with new and updated equipment and supplies. If you would like an updated catalog, please contact us and we'll make sure to send an electronic copy to you. As always our rental services offer free pick-up and delivery 90 miles from Charlotte (includes but not limited to Greensboro, NC; Greenville, SC; Columbia, SC). In addition, to make deliveries more convenient, ES can drop off and pick-up the equipment at your site. If you are outside the 90-mile radius we offer free ground to and from shipping (equipment is shipped in crates for easy returns and return labels are pre-printed inside). If you need anything, please do not hesitate to contact our main office (803) 746-5180. If you are interested in hearing more about Eastern Solutions, please let us know and we would be more than happy to come out and visit.

Enviro-Equipment, Inc. 11180 Downs Road Pineville NC 28134 www.enviroequipment.com

Denise Chew, 704-588-7970, <u>denise@enviroequipment.com</u>, Brian Chew, 888-274-8929, <u>brian@enviroequipment.com</u>; We are a Woman-Owned Small Business, staffed by experienced professionals, commit-ted to providing quality environmental equipment and products for rent or sale at reasonable rates. EEI is a stocking distributor of numerous environmental products for detection of air, water, and soil contamina-tion.

Pace Analytical Services, Inc., 9800 Kincey Avenue; Huntersville, NC 28078; <u>www.pacelabs.com</u> Korey Drew, 704-315-8068, <u>Korey.drew@pacelabs.com</u>

PLATINUM SPONSORS

ESP Associates, P.A. 7204 W. Friendly Ave., Suite G Greensboro NC 27401 www.espassociates.com Paul Weaver, 336-267-2165, pweaver@espassociates.com; ESP Associates with offices in Fort Mill, South Carolina and in Wil-mington, Raleigh, Concord, and Greensboro, North Carolina. Providing Civil Engineering, Water Resources, Mobile 3D Map-ping, 3D Laser Scanning, Geotechnical Engineering, Materials Testing, Special Inspections, Geophysics, Hydrographic Surveys, Transportation Geotechnical Engineering, Environmental Engineering, GIS, Landscape Architecture/Land Planning, and LEED services since 1986

Schnabel Engineering, 11 Oak Branch Drive; Greensboro, NC 27407

www.schnabel-eng.com, Gary Rogers, (336) 274-9456, grogers@schnabel-eng.com. Schnabel provides specialized expertise and design for geotechnical, tunnel, and dam engineering projects across the US and worldwide. We are dedicated to providing technical excel-lence, value, environmental stewardship and innovation on every pro-ject. As an employee-owned company of over 300 diverse profession-als, we have a passion for client service and touch technical challenges. An ENR Top 250 engineering firm, Schnabel serves both public and private sector clients.

GOLD SPONSORS

- Clean Vapor, LLC, PO Box Charlotte; NC 28271; www.cleanvapor.com
 - Tom Hatton, 9083625616, thatton@cleanvapor.com; Clean Vapor, LLC is a design-build vapor intrusion mitigation company with 30 years of experience with offices in New Jersey and North Carolina. We special-ize in existing building and new construction mitigation. Our focus is on integration of energy efficient dynamic controls and remote monitoring technology
- Contaminant Control, Inc. (CCI), 3434 Black & Decker Road, Hope Mills NC 28348. <u>www.cci-env.com</u>, Mark Vestal, 910-484-7000, *mark.vestal@cci-env.com*. CCI is a full service environmental con-sulting company. Our services include asbestos abatement, remedia-tion, demolition & specialty blasting.

Hart & Hickman, PC; 2923 South Tryon Street, Suite 100; Charlotte, NC 28203; www.harthickman.com Rebecca Deal,

704-887-4636; rdeal@harthickman.com

Maser Consulting, PA; 2000 Regency Parkway, Suite 295; Cary, NC 27518; www.maserconsulting.com Robert Memory,

919-439-8461; rmemory@maserconsulting.com

Pyramid Environmental 503 Industrial Avenue Greensboro NC 27406 www.pyramidenvironmental.com Doug Canavello, 336-335-3174,

Doug Canavello, 336-335-3174, doug@pyramidenvironmental.com; Since 1990, as a professional, licensed engineering and geological firm, Pyramid has the expertise to research and analyze relevant environmen-tal regulations, potential hazards, clean-up alternatives and environmen-tal protection issues to design and implement solutions for environmen-tal problems.

Wood Environment and Infrastructure Solutions, 1308 Patton Avenue, Asheville, NC 28806; <u>www.woodplc.com</u>, Susan Avritt, 828-252-8310, <u>susan.avritt@woodplc.com</u>

SILVER SPONSORS

- Con-test Analytical Laboratory, 39 Spruce Street; East Longmeadow, MA 01028; <u>www.contestlabs.com</u> Paul Konnik, 314-302-0431, <u>paul.konnik@contestlabs.com</u>; Con-Test Analytical Laboratory is a full service environmental testing laboratory with capabilities in nearly all soil, air and water analyses. Con-Test has experienced staff and state of the art instrumentation to provide quality analytical services, balancing response and prompt turnaround with precise and reliable analyses, ensuring data integrity. Our value added service includes expertise in technical and customer
- Covanta Environmental Solutions, 2242 Carl Drive, Asheboro, NC 27203; www.covanta.com, Geoff Myers, 336-683-0911, GMyers@covanta.com

service which is reflected in a diverse customer base.

GeoNews—Page 26 GeoNews - News of the Profession Thank You, AEG Carolinas Sponsors!!

EGIS, PA 441 Northside Drive Chapel Hill NC 27516 www.waterwellvideos.com

Mike Vaught, 9199298363, <u>gwinvest@juno.com</u>, Lynn Bressler, 9199298363, ; EGIS, PA specializes in downhole geophysical and borehole video inspection services. We can assist in well develop-ment and rehabilitation.

Environmental Conservation Labs (ENCO) 102-A Woodwinds

Industrial Court Cary NC 27511 www.encolabs.com Jim Hays, 919-467-3090, jhays@encolabs.com, Susan Purser, , spurser@encolabs.com; ENCO Labs is committed to having the best service in the industry. With this service, we ware also the most economical lab to use as well. Fewer errors, less rework time, and solid defensible data.

Environmental Data Resources (EDR) 6 Armstrong Road, Shelton, CT 06484 www.edrnet.com

Todd Elmore, 706-818-3310, telmore@edrnet.com; Founded in 1990 by environmental professionals, EDR is headquartered in Shelton, Connecticut. Twenty regional offices are located through-out the United States. EDR is wholly owned by Daily Mail and General Trust, plc (DMGT) subsidiary <u>DMG Information</u>. Other DMGI companies include Trepp, Landmark Information Group, Lewtan Technologies and Genscape. For more information about EDR, please visit www.edmet.com.

- Envirosmart Inc., 1629 Meeting Street Road, Charleston, SC 29405; www.envirosmart.us, Matthew Cawley, 843-300-9361, mcawley@envirosmart.us
- Geo-Search, 3006 Bee Caves Rd, #230, Austin, TX 78746; www.geo-search.com, Scott Davis, 888-396-0042, <u>scott.davis@geo-search.com</u>; GeoSearch provides customers with fast, accurate, constructive information to help assess and manage environmental risk. GeoSearch is a complete source for all environmental due diligence needs including ASTM Environmental Database Reports, Historic Aerials, City Directory Research, Fire Insurance Maps, Lien and Title Search Investigations, and more all in one place. WDBE/HUB.
- Hazmat Emergency Response and Remediation, Inc. (HERR), 303 S Naultsby Street; Whiteville, NC 28472; www.herrteam.com; Al King, 919-234-3172, al.king@herrteam.com
- Parratt-Wolff, Inc., 501 Millstone Drive, Hillsborough, NC 27278; www.pwinc.com, Gary Ellingworth, 919-644-2814, gellingworth@pwinc.com

Prism Laboratories P. O. Box 240543 Charlotte NC 28224-0543 www.prismlabs.com

Since its inception in 1992, Prism Laboratories, a woman owned small business certified company, has been committed to providing the highest level of quality analytical services and technical sup-port to our customers in the environmental monitoring, water quality and waste disposal market. Our team of highly qualified profes-sionals is focused on ensuring on-time delivery of accurate and precise analytical results, while working one on one with our cus-tomers to provide customized service to suit each client's specific requirements. Prism Laboratories is NELAC and DOD accredited, holds State certifications throughout the Southeast and maintains an extensive list of accreditations and memberships pertinent to the analytical testing and environmental monitoring industry.

SAEDACCO 9088 Northfield Drive Fort Mill SC 29707 www.saedacco.com

Peter Byer, 803-548-2180, pbyer@saedacco.com 803-548-2180; South Atlantic Environmental Drilling and Construction Co, Inc., (SAEDACCO), founded in 1993, is a southeast regional environmental services company. SAEDACCO is located in Fort Mill, SC and special-izes in providing Direct Push, Drilling Construction, and Remediation services for the environmental industry.

Our sponsors are a valuable resource for the funding of meetings, outreach and educational programs. Please honor their support by giving them your business. If you don't see your company name here, contact one of our sponsor chairs, Eric Cross at eric@pyramidenvironmental.com or Rebecca Deal at RDeal@harthickman.com for sponsorship information, or fill out and mail the Sponsorship form on page 41 in this issue.

> You may also renew or join our national sponsors online at www.aegweb.org. Consider becoming a national AEG Sponsor!