

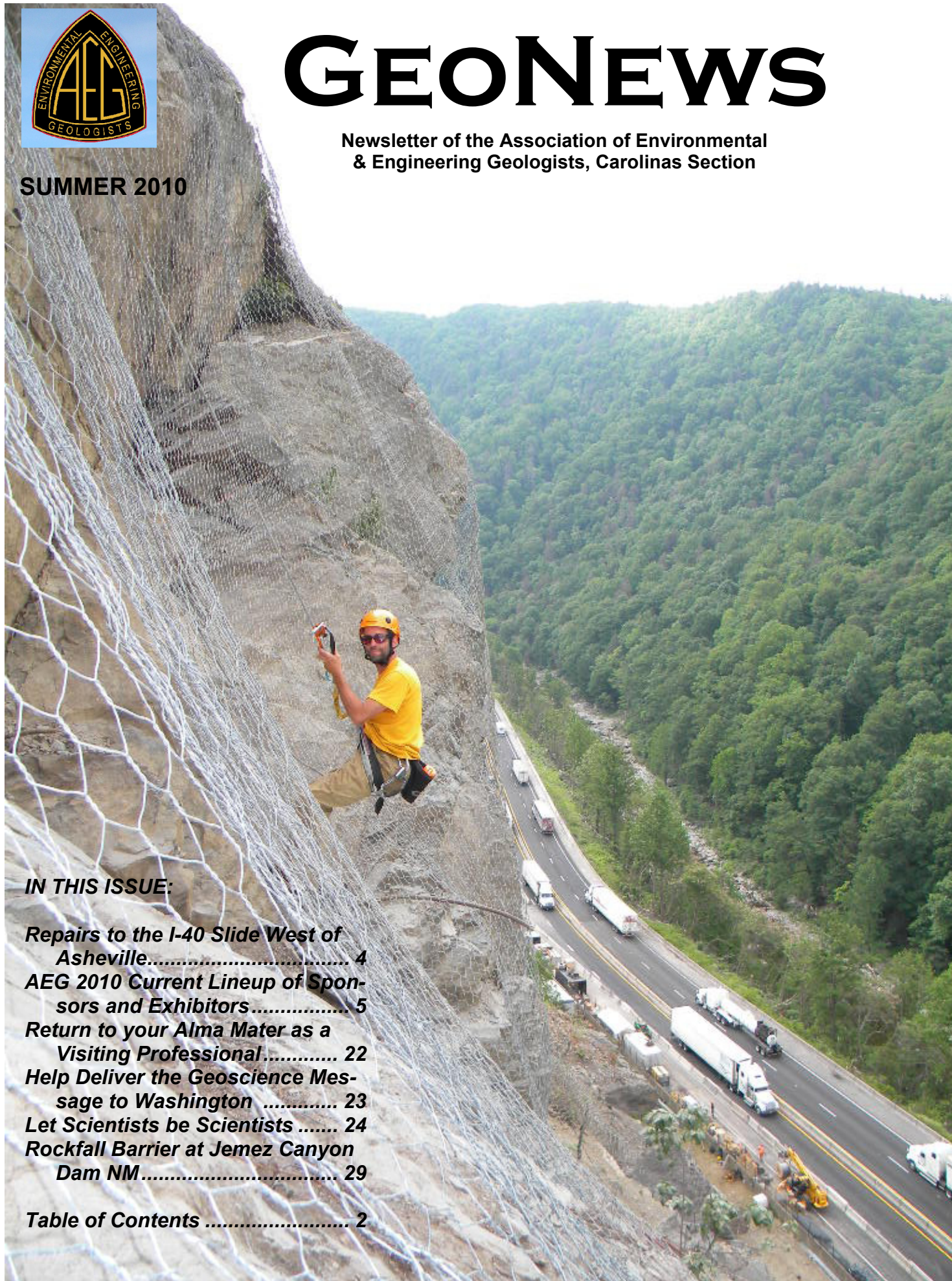
GEO NEWS

Newsletter of the Association of Environmental
& Engineering Geologists, Carolinas Section

SUMMER 2010

IN THIS ISSUE:

| | |
|--|-----------|
| <i>Repairs to the I-40 Slide West of Asheville.....</i> | <i>4</i> |
| <i>AEG 2010 Current Lineup of Spon- sors and Exhibitors.....</i> | <i>5</i> |
| <i>Return to your Alma Mater as a Visiting Professional.....</i> | <i>22</i> |
| <i>Help Deliver the Geoscience Mes- sage to Washington</i> | <i>23</i> |
| <i>Let Scientists be Scientists</i> | <i>24</i> |
| <i>Rockfall Barrier at Jemez Canyon Dam NM.....</i> | <i>29</i> |
| <i>Table of Contents</i> | <i>2</i> |



GEONEWS SUMMER 2010

Issue Date: June 21, 2010

TABLE OF CONTENTS**Articles**

| | |
|---|----|
| Joint AEG-ASCE Dinner Meeting in Asheville— Stabilization along I-40 | 4 |
| AEG 2010 Current Lineup of Sponsors and Exhibitors | 5 |
| Advertising Packages Offered from AEG..... | 10 |
| News from the VA DMG | 11 |
| AEG Congressional Visits Day | 16 |
| AEG 2010 Annual Meeting (flyer) | 19 |
| AEG Mid Year Board Meeting Report..... | 20 |
| Candidates for upcoming AEG Carolinas Section Elections | 28 |

Columns and Regular Features

| | |
|--|----|
| Message from the Chair <i>by Paul Weaver</i> | 3 |
| GeoRamblings— <i>by Dr. Charles Welby</i> | 12 |
| Job Opportunities..... | 25 |
| Announcements..... | 25 |

Education Section

| | |
|--|----|
| Summer REG Review Courses | 21 |
| Presidential Awards for K-12 Math and Science Teaching | 21 |
| Return to your Alma Mater as a Visiting Professional <i>by Rick Kolb, MACTEC</i> | 22 |
| Help Deliver the Geoscience Message to Washington <i>by Rick Kolb, MACTEC</i> | 23 |
| Let Scientists be Scientists <i>By Marsha Mercer; re-printed with permission</i> | 24 |

Technical Section

| | |
|---|----|
| Rockfall Barrier at Jemez Canyon Dam, NM <i>By Frank Amend, Geobrugg</i> | 29 |
|---|----|

Upcoming Events

| | |
|---------------------------------------|-------|
| AEG 2010 Annual Meeting (flyer) | 19 |
| Calendar of 2010 Events | 30-31 |

Section Stuff

| | |
|---|-------|
| Deadlines for Submittals | 2 |
| Section Officers | 2 |
| AEG Carolinas Treasurer's Report | 6 |
| AEG Membership Application (flyer)..... | 32-33 |
| Sponsor Application (flyer)..... | 34 |
| Thanks to our Sponsors..... | 35-36 |

Cover Photo: The cover photo is by Jody Kuhne, a Professional Geologist with the North Carolina Department of Transportation, showing the I-40 rockslide from the perspective of a working geologist. The person hanging from the rock is Matt Mullen, a NC Professional Engineer, also with NCDOT. Note that traffic has been resumed on Interstate 40, below. A description of the talk, by Jody Kuhne and Shane Clark, to a joint AEG-ASCE dinner meeting on August 13 is on page 4.

Disclaimer: © 2010 Association of Environmental & Engineering Geologists - All Rights Reserved. Views expressed in this publication are not necessarily those officially representing the Association of Environmental & Engineering Geologists except where expressly stated.

GeoNews is a publication of the Carolinas Section of AEG. There are four issues per year, with deadlines and issue publication dates listed below. We publish news of the profession, technical articles, and job openings.

Deadlines for submittal to GeoNews (can be flexible depending on events)

Spring – deadline March 1, issue date March 21
 Summer – deadline June 1, issue date June 21
 Fall – deadline September 1, issue date September 18
 Winter – deadline December 1, issue date December 21

Deadlines for submittals for the National AEG News:

March issue – January 15
 June issue – April 15
 September issue – July 15
 December issue – October 15

AEG Carolinas Section Current Officers and Contacts

Chair.....Paul Weaver, Chair@aegcarolinas.org
 Vice-Chair.....Brad Worley, Vicechair@aegcarolinas.org
 Treasurer.....Dave Duncklee, treasurer@aegcarolinas.org
 Secretary.....Kristen Lloyd, secretary@aegcarolinas.org
 Membership Co-Chair.....J.....VACANT
 Membership Co-Chair.....VACANT
 Field Trip Chair.....Ben Draper, Benjamin_draper@golder.com
 Student Liaison.....Rick Kolb, rkolb0915@aol.com
 Past Section Chair.....Rick Kolb, rkolb0915@aol.com
 Advisor.....Jennifer Bauer, jennbbauer@gmail.com
 Advisor.....Gary Rogers, grogers@schnabel-eng.com

AEG Carolinas Section Website.....www.aegcarolinas.org
 Webmaster.....Tami Idol, webmaster@aegcarolinas.org

AEG National Website.....www.aegweb.org

AIPG Carolinas Section – Officers and Contacts

President.....John M. Stewart, 336-668-0093
jmstewart@kleinfelder.com
 Secretary/Treasurer.....Russ Patterson, (919) 774-3770
russ@pattersonexploration.com
 Membership Chair.....Macklin M. Armstrong, (919) 838-9933
armgeoeng@mindspring.com

GeoNews Editor (2003-present)...Jane Gill-Shaler (336) 883-0170
janehgill@stanfordalumni.org
 Editor@aegcarolinas.org

SEE US AT AEG 2010 IN CHARLESTON
SEPTEMBER 20-25 at BOOTH # 31
 See our full page ad on page 18 of this issue


SAEDACCO

South Atlantic Environmental Drilling and Construction Company

Peter I. Byer President

pbyer@saedacco.com Cell: 704.634.1046

Toll Free: 800.849.0353 Tel: 803.548.2180 Fax: 803.548.2181

9088 Northfield Dr. Fort Mill, SC 29707  **SAEDACCO.COM**

MESSAGE FROM THE CHAIR

By Paul Weaver, PG,
Carolinas Section Chair

Greetings to all from the Chair of the Carolinas Section. I hope this edition of GeoNews finds you all doing well and weathering the economy to as great an extent as possible.

I hope you are as excited as I about the upcoming national AEG meeting in Charleston in September. We have all been working hard to assure that this meeting will be a success and I feel very optimistic that it will be. We have an intense three days of technical sessions and symposia planned and, as Chair of the Technical Sessions/Symposia Committee for the meeting, I can assure you that you will find talks that will enhance your knowledge in whatever area of geology you practice. In addition, we have some exciting field trips on the agenda for the meeting, as well as short courses that you may find invaluable in your current or future work. The AEG 2010 Flyer is on page 19.

If you haven't already, I urge you to go on-line to the AEG website (www.aegweb.org), click on the Charleston meeting icon in the middle of the page, and register to attend the meeting and whatever field trips and short courses appeal to you. I also would like to point out that we still need student volunteers to assist with various aspects of the meeting. If you would like to volunteer (*as an incentive, you get your entire meeting registration paid for with 8 hours of volunteer work for the meeting*), please contact Norm Levine at levinen@cofc.edu. We are also in need of additional sponsors to help underwrite the costs of the meeting, so if you think your company or one of the vendors you use might be interested in being a sponsor, please contact Jane Gill-Shaler at janehgill@aol.com. A listing of sponsors and exhibitors starts on page 5.

Now, on to other news... We had a very good turnout at our April meeting at the Fox & Hound Pub and Grill in Raleigh. This meeting featured talks by represen-

tatives of Engineers Without Borders and by Bonnie Ware with NCDENR. This meeting also gave us a chance to use the Section's new sound system. I believe that, with a little "tweaking", this sound system will be of great benefit to our Section, especially to those of us who listened to a little too much Rush at ear-splitting volume in college, in allowing us to actually hear what our distinguished speakers are saying.

We will be having a summer Section meeting on August 13 in Asheville (please see the meeting announcement on page 4 of this newsletter). At this meeting, we will hear presentations from several people who were intimately involved in evaluating and repairing the rockslide that closed off a section of I-40 west of Asheville this winter. I think this will be a very interesting and informative presentation and I hope that all of you who can possibly attend will do so.

You will see in this edition of GeoNews that it is getting close to that time of year again when we elect the Section Board members for the coming year. I'm sad to say that Kristen Lloyd has decided not to run for the Secretary position again. We do appreciate her past work for the Board and she will continue to be involved in other work for the Section. Alex Rutledge of Schnabel has agreed to run for Secretary this year, Dave Duncklee has agreed to run for Treasurer for another year, and Brad Worley of the NCDOT has agreed to run for Vice Chair again. You are free to send us additional nominees for Board positions, to be added to the ballot if you so wish, and instructions on where to send your nominees is included on page 28 of this issue of GeoNews. The Chair position of the Carolinas Section is now a two-year term and I will be starting my second year as of the Charleston national meeting in September. Ballots will be sent out to all Carolinas members in August.

I represented the Carolinas Section at the AEG National Board meeting in April in St. Louis. Among the most exciting decisions that were made at this meeting was that AEG National will no longer charge for student memberships. As you know, the Carolinas Section has had this policy for some time (we paid the membership fees for our student members out of our Section monies). National took its clue from our section, based on the success that we have had with this policy, and decided to follow our lead and take this policy national. This new policy will be a big boost for our section in that we will no longer have to send \$25 per student member to national each year, thus saving us a fairly large yearly expenditure and allowing us to continue to charge only \$25 to members for attending our section meetings. The Mid-Year Board Meeting Report is on page 20 of this issue.

The Carolinas Section needs volunteers to help out with the various committees that allow us to remain strong advocates for our profession. We have committees for membership, field trips, and student outreach, in addition to serving on the Carolinas Section Board of Directors. In addition, Jane Gill-Shaler, who has faithfully put

(Continued on page 6)

SEE US AT AEG 2010 IN CHARLESTON
SEPTEMBER 20-25 Sponsoring the Atlantic to the Appalachians and Back Field Trip.



A.E. DRILLING SERVICES, INC.

Mark Lassiter, P.G.
President

Two United Way
Greenville, South Carolina 29607

Phone: (864) 288-1986
Fax: (864) 288-2272
E-mail: mlassiter@aedrilling.com

JOINT DINNER MEETING ON FRIDAY, AUGUST 13 WITH AEG CAROLINAS AND NC SECTION, WESTERN BRANCH OF ASCE

The Carolinas Section of the Association of Environmental & Engineering Geologists and The Western Branch, North Carolina Section of the American Society of Civil Engineers present guest speakers Jody Kuhne and Shane Clark, NCDOT Geotechnical Engineering Unit, Asheville Regional Office, at a special joint dinner meeting at the Asiana Grand Buffet in Asheville on Friday, August 13, 2010. The meeting is being held on a Friday to allow members who live a great distance from Asheville to spend the weekend and enjoy the cooler mountain air and tour the amenities of the Asheville area.

The talk will be on last fall's huge rock slide that blocked four lanes of Interstate 40. Details and contacts for reservations are in the blue box, below, and directions are detailed on this page.

AEG CAROLINAS and ASCE WESTERN BRANCH SPECIAL JOINT DINNER MEETING FRIDAY, AUGUST 13, 2010

Program: STABILIZATION OF A LARGE POTENTIAL WEDGE FAILURE ALONG INTERSTATE 40 IN WESTERN NORTH CAROLINA, OCTOBER 2009

Speakers: Jody Kuhne and Shane Clark, both with the NCDOT Geotechnical Engineering Unit, Asheville Regional Office

Place: Asiana Grand Buffet-South; 1968 Hendersonville Road, Asheville, North Carolina

Date: Friday, August 13, 2009

Time: 6:00 PM social, 7:00 dinner, 8:00 speaker

Cost: Members/Non-members \$20, includes one beer/wine ticket, Student free with college ID

Reservations: Please make reservations with Kristen Lloyd or Jill Heimburg by Wednesday, August 11th, 2010

Phone for Kristen: 336-834-2106

email: khllloyd@mactec.com

Phone for Jill: 828-252-8130

email: JMHEIMBURG@mactec.com

Directions: See column to the right on this page.

Est. PDH's: 1

Abstract:

STABILIZATION OF A LARGE POTENTIAL WEDGE FAILURE ALONG INTERSTATE 40 IN WESTERN NORTH CAROLINA, OCTOBER 2009

In October 2009, a slide of approximately 50,000 yds³ blocked all four lanes of Interstate 40 at mile marker 2.5 in Western NC. Geologic mapping determined that the failure was a large wedge, with a remaining 310,000 yds³ of rock, perched at the edge of stability, to be removed or stabilized. This presentation will review the design and construction process required to stabilize the mass, including: design assumptions, peer review, utilization of SWEDGE software, survey work (DTM generation and LiDAR), construction under a 60-day contract for 47,000 linear feet of anchor installation, design changes during construction and the installation of a comprehensive monitoring system. The discussion will cover most geologic and engineering aspects of the mitigation.

Speakers' Bios:

Jody Kunhe's bio: Jody loves large Asian buffets, and lives in Asheville with his wife Andrea and son Jeremy. He has worked for the Geotechnical Engineering Unit of NCDOT for 18 years, is licensed in geology and civil engineering, and conducts investigations and performs engineering design with a specialty in slope failures.

Shane Clark's bio: Shane is a graduate of NC State, and has been practicing Geotechnical Engineering for the last 10 years, with the past 6 as a Geotechnical Design Engineer with NCDOT. His areas of work include bridge foundations, retaining walls, slope stability evaluation, hurricane repairs, rock slides, and whatever else seems to come up. He enjoys living in "Beer City USA" with his wife Kelly and two children, Canter and Anna Kate.

Directions: Asiana Grand Buffet, 1968 Hendersonville Rd., Asheville, NC 28803

From the East: Take I-40 to Exit 50A, Hwy 25 South/Hendersonville Rd. Travel about 4 miles south. Asiana will be on the left (east) side of the road.

From the West: Take I-40 to Exit 50, Hwy 25 South/Hendersonville Rd. Travel about 4 miles south. Asiana will be on the left (east) side of the road.

From the South: Take I-26 to Exit 37, Long Shoals Road. Turn right (east) and travel 1.8 miles. Turn left (north) onto Hwy 25/Hendersonville Road. Travel 0.4 miles north. Asiana will be on the right (east) side of the road.

For added interest, you can see the video of the rock slide and progress to date at the NC DOT YouTube site, <http://www.youtube.com/ncdotcommunications#p/u/1/yJQZOcGlxcz>.

SPONSORS AND EXHIBITORS CURRENT LINEUP FOR AEG 2010 IN SEPTEMBER

We have some great Sponsors and Exhibitors lined up for AEG 2010. Some are old and trusted members of our AEG Carolinas Sponsor Family, and others are from other Sections of the country, or are new to AEG entirely. We have listed the background information for our trusty regular Carolinas Section supporters on the back two pages, and listed here are a few newbies that you may not know anything about. Let's give them all a big welcome when we meet them in Charleston!

2010 SPONSORS

Without the help and financial support of the following individuals and companies, it would be impossible to plan the quality meetings to which AEG members have become accustomed. Many sponsors support not only the committee members' time in planning the meeting, but have generously given start up funds as well as constant staff support to make everyone's job easier.

If you would like to join our growing family of sponsors, please email Jane Gill-Shaler, Sponsor Chair, at editor@aegcarolinas.org, or our Meetings Manager, Heather Skladanowski, at Heather@aegweb.org.

CORPORATE BUSINESS MEETING & AWARDS LUNCHEON:

Haynsworth Sinkler Boyd's Environmental Practice Group

John Adams Hodge, P.G., 843.722.3366,

JHodge@hsblawfirm.com

www.hsblawfirm.com

Haynsworth Sinkler Boyd's Environmental Practice Group represents a diverse client group, including large and small businesses, manufacturers, technology companies, and municipal governments. Our attorneys have the vision, creativity, and experience to implement practical and cost effective solutions for our clients. Several attorneys worked for the South Carolina Department of Health and Environmental Control; one is a Professional Geologist (P.G.), and one is a Professor teaching environmental regulations at the graduate level.

EXHIBITOR LUNCHEON:

Schnabel Engineering

Gary Rogers, 336-274-9456, grogers@schnabel-eng.com

Schnabel Engineering is an employee-owned company focused on creating solutions related to the earth and environment throughout the United States and internationally. As an ENR Top 200 Engineering Firm, we provide high-end, value-added services in geotechnical, geostructural and dam engineering; applied geosciences and geophysics; and construction and environmental services.

FIELD TRIPS:

Field Trip #1: From The Atlantic To The Appalachians, And Back!

A.E. Drilling Services, LLC

Mark Lassiter, 864-288-

1986, mlassiter@aedrilling.com

www.aedrilling.com

Geotechnical, Environmental, Mineral Exploration and Water Supply Drilling

Allen V. Shaw, PG, 514.394.4492,

avshaw@bechtel.com

Field Trip #2: Coastal Processes on Kiawah and Seabrook Islands, South Carolina

Duane Kreuger, 314-997-7440,

D_Kreuger@geotechnology.com

Allen V. Shaw, PG, 514.394.4492,

avshaw@bechtel.com

Field Trip #4 and #6: 1886 Charleston Earthquake Walking Tour

Briget C. Doyle, 843-569-7087, doyleb@cofc.edu

HOSPITALITY SUITE

Blackburn Consulting

Patrick Fischer, Principal, 530-887-1494,

patf@blackburnconsulting.com

www.blackburnconsulting.com

Blackburn Consulting provides geotechnical and environmental consulting, materials testing and construction management services for Northern and Central California public sector projects.

ICEBREAKER RECEPTION

AEG Southeastern Section

Chair: Martha Carr, 678-202-9500,

mcarr@geosyntec.com <http://www.aegweb.org/i4a/pages/>

[Index.cfm?pageID=3454](http://www.aegweb.org/i4a/pages/Index.cfm?pageID=3454)

OPENING SESSION –

Gannett Fleming

Paul Lewis, Geotechnical Practice Manager, 717-763-7211, PLewis@gfnet.com www.gannettfleming.com

Gannett Fleming is an International firm that provides solutions for foundation design and rehabilitation, underground construction, earth structures and groundwater resources. Exploration, analysis and design related to soil, rock and groundwater is an essential part of every project. Our engineers and geologists specialize in landslides, sinkholes, mine subsidence, seepage, expansive soils and seismic activity. In addition, Gannett Fleming provides services in Environmental Resources, Transportation, and Planning. The firm has completed projects not only in all 50 states, but also in over 50 countries. Gannett Fleming is also an exhibitor at the AEG 2010 Annual Meeting.

(Continued on page 7)

AEG CAROLINAS SECTION TREASURER'S REPORT

January 1 through March 31, 2010

By David Duncklee, Treasurer

AEG Carolinas Section Treasurer's Report
January 1 to March 31, 2010

Balance As Of December 31, 2009

| | |
|-----------------------------|-------------------|
| Checking Account | \$3,880.63 |
| Money Market Account | \$12,088.78 |
| Charleston Planning Account | <u>\$2,527.48</u> |

INCOME

| | |
|---------------------------|-------------------|
| Dinner Meetings | \$1,295.00 |
| Sponsorships | \$3,625.00 |
| AEG Dues rebates | \$0.00 |
| Defined donations | |
| AGI Toolkits | \$0.00 |
| Scholarships | \$0.00 |
| Short Courses | |
| AEG Short Course Sponsors | \$0.00 |
| Interest | |
| Charleston 2010 Account | \$0.56 |
| Money Market | <u>\$1.22</u> |
| SUBTOTAL | \$4,921.78 |

EXPENSES

| | |
|-------------------------------------|-------------------|
| Dinner Meetings | |
| Concord Meeting | \$69.59 |
| Concord Meeting Venue | \$1,326.29 |
| Educational Programs | |
| AGI Toolkits | \$0.00 |
| Book for Concord Speaker | \$49.95 |
| Jahn's Lecturer expenses | \$322.24 |
| ECU Visiting Professional Visit | \$211.74 |
| Student Memberships | \$550.00 |
| Student Travel Grants | \$0.00 |
| Chair Travel Grant - St. Louis | \$439.80 |
| Sound system for meetings (approx.) | \$200.00 |
| Website | |
| Jon Watkins web design | \$775.00 |
| Charleston 2010 National Meeting | |
| Convention & Visitors Bureau | <u>\$0.00</u> |
| | \$3,944.61 |

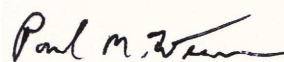
BALANCE As Of March 31, 2010

| | |
|------------------|------------|
| Checking Account | \$4,856.02 |
|------------------|------------|

(Continued from page 3)

together GeoNews for seven years, needs someone to assist her and eventually take over the majority of the work she currently does as newsletter editor. Also, Tami Idol, who has served as our webmaster for many years, would like someone to work with her and eventually take over the webmaster duties so that she can have a break. The Carolinas Section is the envy of much of AEG nationwide because of the strength of our section, and none of that would be possible without our many dedicated volunteers. So please, consider volunteering your time and energy to keep the Carolinas Section going strong well into the future.

Please feel free to contact me with questions, concerns, or ideas to help make the Carolinas Section of AEG even stronger. I look forward to seeing and meeting each of you at one of our quarterly section meetings, and I look forward to seeing you in Charleston in September.



Paul Weaver is Manager of the Transportation / Drilling department of Kleinfelder in Greensboro, NC.

BELFOR ENVIRONMENTAL

With An Average of 14 Years Experience, We Always

Dispatch the Right Team for Your Project

- Underground Storage Tank Removal
- Contaminated Soil Excavation
- Remedial System Installation
 - Soil-Vapor Extraction
 - Groundwater Pump & Treat
 - Air Sparging
 - Treatment/Injection
 - Complete Ancillary Construction
- Demolition Services
- Asbestos & Mold Abatement
- Catastrophe Emergency Response

National Coverage with offices in Atlanta, GA, Phoenix, AZ, Denver, CO, Colorado Springs, CO, Portland, OR, Medford, OR



Regional Contact (Raleigh, NC)
Joel Miller (303) 358-9879
Joel.miller@us.belfor.com

Stop Guessing... Know What's Down Inside Your Well

Water well
video,
analysis, and
repair

Geophysical
Surveys

EGIS, PA

Mike L. Vaught, PG, CWC

(919)929-8363
441 Northside Dr.
Chapel Hill, NC 27516
gwinvest@juno.com

*(Continued from page 5)***PAST PRESIDENTS' LUNCHEON:****Department of Geology, San Jose State University**

John W. Williams, Professor of Geology

408-924-5011, Williams@geosun.sjsu.eduwww.sjsugeology.org

Academic institution offering education through the Master's level in Engineering Geology.

SHORT COURSES:**Short Course #3: Rock Core Descriptions for Engineering & Environmental Purposes****AEG Allegheny-Ohio Section**

Nichole Wendlandt, Chair, 412-922-5575

nwendlandt@gfnet.com<http://devaegweb.i4a.com/i4a/pages/Index.cfm?pageID=3435>**AEG North Central Section**Kevin Richards, Chair, kevinlaurie@sbcglobal.net<http://devaegweb.i4a.com/i4a/pages/Index.cfm?pageID=3446>**Short Course #5: Intermediate Groundwater Geochemistry
Regenesis**Drew Baird, PG, 864-240-9181, 864-884-4346, dbaird@regenesisc.comwww.regenesisc.com

Regenesisc develops, manufactures, and markets innovative technologies to clean up the environment. We are headquartered in San Clemente, CA with regional offices around the country.

SPEAKER/MODERATOR BREAKFAST:**Gill Editing Online****Jane Gill-Shaler, AEG Carolinas GeoNews**336-687-6144, JaneHGill@aol.com

Online editing and formatting of publication documents.

SPECIAL EVENT ON BOARD THE USS YORK-TOWN**AEG Carolinas Section**

Paul M. Weaver, P.G., Chair, 336-668-0093,

pweaver@kleinfelder.com*(Continued on page 8)*

SEE US AT AEG 2010 IN CHARLESTON SEPT 20-25 AT BOOTH #7
AND SPONSORING A TECH SESSION BREAK.

Rentals**Enviro-Equipment, Inc.**Leading Supplier of Quality Environmental
Equipment and Supplies
1-888-274-8929**Sales****Remediation****FREE LOCAL PICKUP AND DELIVERY****TO RECEIVE OTHER SPECIAL OFFERS AND DISCOUNTS****CALL 888-274-8929 TO SIGN UP FOR OUR NEWSLETTER!****WE ARE A PROUD SPONSOR OF THE AEG
CAROLINAS SECTION****SPECIALTY PRODUCTS FOR:**

Water Quality Analysis • Organic Vapor Analysis • Noise Monitoring • Indoor/Outdoor Air Quality
Particulate Monitoring • Gas Detection • Ground-Water Pumps • Sampling Supplies • Tubing
Disposable Bailers • Disposable Nitrile & Latex Gloves • Health & Safety Supplies
Storm Water Sampling • Remediation Pilot Test Systems • Soil & Ground-Water Remediation

Call us toll free at:

888-274-8929

Send us an e-mail at:

rand@enviroequipment.com

Visit our on-line catalog at:

www.enviroequipment.com

(Continued from page 7)

<http://www.aegweb.org/i4a/pages/Index.cfm?pageID=3438>

The Carolinas Section of AEG serves the environmental and engineering geology profession and the public in North Carolina and South Carolina. The Carolinas Section actively seeks section sponsors for our programs, and each year we offer many services to the geological community. We have purchased over 1,500 AGI earth science toolkits for distribution at meetings of the North Carolina Science Teachers Association; we have provided travel grants for university students to attend and present at AEG annual meetings; we provide free admission to chapter dinner meetings for students, and we were the first AEG section to pay for student memberships, which currently number nearly 80. We have an active Visiting Professionals Program, and in the past three years have made presentations to geology departments at 13 colleges and universities in North and South Carolina, Virginia and Tennessee. We are fortunate in being the Host Section for this year's Annual Meeting, and thank Drs. Briget Doyle and Norm Levine for all their efforts in leading our team of volunteers in putting on the meeting. The Carolinas Section welcomes you to the beautiful city of Charleston, where history lives.

STUDENT/PROFESSIONAL NETWORKING SESSION

Patricia and Timothy Bryan

312-259-6759, patty_bryan@urscorp.com

TEACHERS WORKSHOP

Jeff and Julie Keaton

951-780-5717, aegjuliek@aol.com

TECHNICAL SESSIONS: WEDNESDAY

AEG Intermountain Section

Niall Henshaw, Niall.Henshaw@parsons.com

<http://www.aegweb.org/i4a/pages/Index.cfm?pageID=3441>

[pageID=3441](http://www.aegweb.org/i4a/pages/Index.cfm?pageID=3441)

TECHNICAL SESSIONS: THURSDAY

ExoTech

Ken Summerour, ksummerour@exotechinc.com

TECHNICAL SESSION BREAKS:

Wednesday Morning

Charles W. Welby, Raleigh, NC, cwwtaft@aol.com

Parratt-Wolff, Inc

Robert Stevens, 919-644-2814, bstevens@pwinc.com

www.pwinc.com

(Continued on page 9)

Subsurface Sampling, Injection and Data Collection for Environmental Professionals since 1992



- * Real-time Lithology & VOC Logging with MIP
- * Real-time Cone Penetrometer Logging with CPT or CPT/MIP for Soil Stratigraphy & VOC Logging
- * Installation of Monitoring Wells, 2" Prepacks & CMT Multilevel systems.
- * Complete Bioremediation & Chem Ox Injection Services
- * Soil Vapor Intrusion Investigations
- * Geoprobe Subsurface Soil and Groundwater Sampling

Headquarters
NYC, NJ &
Southern
CT Area

LYNBROOK, NY
516-596-6300

ATLANTIC
HIGHLANDS, NJ
732-291-8276

Upstate NY &
New England

ALBANY
518-456-9922

NIAGARA FALLS, NY
716-297-6567

UXBRIDGE, MA
508-581-9880

Mid-Atlantic
Region

★ CARY, NC
919-424-6122

Southeast
Region

TAMPA, FL
813-655-1717

Membrane Interface Probe



MIP

The Membrane Interface Probe (MIP) is a screening tool with semi-quantitative capabilities acting as an interface between the contaminants in the subsurface and gas phase detectors at the surface

Hydraulic Conductivity Tool



HPT

The Hydraulic Profiling Tool (HPT) allows the user to create fast, continuous real-time profiles of soil hydraulic properties in both fine and coarse-grained material.

Electrical Conductivity



EC

Soil conductivity and resistivity (the inverse of conductivity) have long been used as tools to classify soils.

Go to www.teamzebra.com for more information

(Continued from page 8)

Parratt-Wolff is a full-service environmental and geotechnical drilling firm. These services include Geoprobe/direct push, drilling, sampling, well installations, packer testing and others.

Wednesday Afternoon

ENCO Labs

Jim Hays and Susan Purser, 919-467-3090,

jhays@encolabs.com

www.encolabs.com

ENCO operates three full-service environmental testing laboratories. Our commitment to quality and unsurpassed service makes us the laboratory of choice with environmental professionals throughout the Southeast.

Thursday Morning

Enviro-Equipment, Inc.

Brian Chew, 704-588-7970

brianchew@enviroequipment.com

www.enviroequipment.com

Enviro-Equipment, Inc. rents, sells and repairs environmental equipment for groundwater sampling, water level/pressure measurements, water quality monitoring,

Environmental Test Products

Rob Gual, 603-784-5666

robguar@etpproducts.com

www.etpproducts.com

Environmental Test Products produces a complete line of disposable bailers, well plugs, and accessories. Our products are available to end users through a worldwide network of environmental product suppliers. All of our products are produced in a "Lean" manufacturing environment with a focus on minimizing waste and energy usage; and using recycled materials and packaging whenever possible.

Thursday Afternoon

Major Drilling

James Blackwood, 256-270-6333

James.blackwood@majordrilling.com

www.majordrilling.com

Major Drilling Environmental is a contract drilling and sampling company that serves the following markets: Environmental, Geotechnical, Aggregates, Construction, and Mining. MDE is operated by a skilled team of drilling industry professionals that have over 120 years of operations and project management experience.

QROS

J. Felicia Owen, 919-278-8926

fowen@qros.us, www.qros.us

QROS offers a comprehensive suite of on site analytical techniques for contaminated land and groundwater related projects.

Friday Morning

Major Drilling

James Blackwood, 256-270-6333

James.blackwood@majordrilling.com

www.majordrilling.com

Major Drilling Environmental is a contract drilling and sampling company that serves the following markets: Environmental, Geotechnical, Aggregates, Construction, and Mining. MDE is operated by a skilled team of drilling industry professionals that have over 120 years of operations and project management experience.

AEG St. Louis Section

Anna Saindon, Chair, 314-997-7440,

rmsain@gmail.com [http://devaegweb.i4a.com/i4a/](http://devaegweb.i4a.com/i4a/pages/Index.cfm?pageID=3451)

[pages/Index.cfm?pageID=3451](http://devaegweb.i4a.com/i4a/pages/Index.cfm?pageID=3451)

Friday Afternoon

A & D Environmental Services, Inc.

Dan Martin, 803-957-9175, dmartin@edenviro.com

www.adenviro.com

Full service environmental solutions provider offering a wide range of remedial, industrial service, emergency response, waste management, and transportation services.

WOMEN IN AEG/AWG BREAKFAST:

Tilford & Green

Deborah Green, 505-867-0670, tilgreen@aol.com

Tilford & Green is a small, woman-owned business started in 1995. We have served clients in 35 states on a variety of projects. Most often we conduct environmental site investigations and geologic hazards studies, often participating as part of a team or as a sub-contractor for larger geology and engineering consulting firms. With Tilford & Green, you get a geologist with 25 years of experience doing the work from beginning to end - from field work to data interpretation to reporting.

Steele and Associates, LLC

Susan Steele Weir, 303-333-6071, [steele-](mailto:steele-weir@aol.com)

weir@aol.com

Association of Women Geoscientists

Nadine Langley, 530-273-5674, [xeno-](mailto:xeno-lith@copper.net)

lith@copper.net www.awg.org

REGISTRATION GIVEAWAYS:

AEG Beer Glass

Zonge Geosciences, Inc.

Phil Sirles, 720-962-4444,

phils@zonge.us www.zonge.us

Zonge is a worldwide provider of geophysical services and field instrumentation. For 38 years Zonge has been meeting the needs of the engineering, mining, groundwater, and environmental communities. Offices in Nevada, Arizona, Colorado, Minnesota, Texas and Alaska. Zonge is also the sponsor for the AEG Beer Glass giveaway.

Rite in the Rain Notebooks

J.L. Darling Corporation

Ryan McDonald, Marketing Manager, 253-922-5000,

ryan@riteintherain.com

(Continued on page 10)

(Continued from page 9)

www.RiteintheRain.com

"Rite in the Rain" is an all-weather writing paper specifically designed to shed water in any weather condition. Using a pencil or all-weather pen, "Rite in the Rain" ensures your notes survive. See www.RiteintheRain.com to see the full line of writing products available.

Soil Sample Bags

Miners Incorporated

John Sangster, 800-824-7452, sales@minerox.com
www.minerox.com

Serving geologists and engineers with quality products from such manufacturers as Brunton, Bausch and Lomb, Hutchinson Bag, Breithaupt, Suunto, J.L. Darling, Topcon, Meiji, Magellan, Estwing, and many more.

Name Badge Lanyards

Beta Analytic Inc.

Darden Hood, 305-667-5167,
dhood@radiocarbon.com, www.radiocarbon.com

BETA Analytic Inc. the world's largest and most experienced professional Radiocarbon Dating Service. Offering both Radiometric and AMS analyses; results reported within 2-30 business days of receipt. Since 1979, more than 6900 researchers have entrusted BETA with over 157,000 of their research and contract samples.

ANNUAL MEETING GENERAL SPONSORS:

Access Soil Drilling – www.accesssoildrilling.com

Larry Bachman, 415- 808-2200, asdi@myastound.net

SPECIAL THANKS TO:

College of Charleston
 Duncklee & Dunham
 Kleinfelder (Greensboro)
 MACTEC Engineering
 North Carolina Geological Survey
 Schnabel Engineering (Greensboro and West Columbia)
 Wilbur Smith Associates

EXHIBITORS

A & D Environmental Services, Inc – Booth #26
 Advanced Geosciences, Inc. – Booth #6
 AEG 2011 Annual Meeting – Booth #10
 AIS Construction – Booth #11
 ARM Geophysics – Booth #27
 ARMA – Booth #24
 Association of Environmental & Engineering Geologists – Booth #17
 Bucks Geophysical Corp. – Booth #16
 CETCO Construction Drilling Products – Booth #1
 Dataforensics – Booth #21
 Delta Geophysics Inc. – Booth #2
 Enviro-Equipment, Inc. – Booth #7
 Firstsearch Technology Corporation – Booth #29
 Gannett Fleming – Booth #32

ADVERTISING PACKAGES OFFERED FOR AEG 2010 and AEG NEWS

As some of you may know, the AEG Advertising, Sponsorship, and Exhibitor (ASE) Committee has been working on putting together a brochure advertising AEG National's contribution opportunities packages.

We've included a discount to all section sponsors. If the sponsor selects one of the "Exhibitor" or "Plus" packages, then AEG will discount the cost of these packages by the amount that the sponsor contributes to the section. For example, if company ABC is a Platinum sponsor of the Carolinas Section for \$500, and then decides to do the Platinum Plus Exhibitor package from National AEG, then they will get \$500 off of the \$5000 price of the national package. What a deal!

Go to aegweb.org to put in your reservation right away to qualify for the discount!

We look forward to seeing you in Charleston at AEG 2010.

EXHIBITORS (continued)

Geobrugg North America, LLC – Booth #13
 Geokon, Inc. – Booth #15
 GEOVision – Booth #5
 In-Situ Inc. – Booth #20
 Landprobe, LLC – Booth #23
 Layne GeoConstruction – Booth #8
 Mala Geosciences USA, Inc. – #12
 Nicholson Construction Company – Booth #25
 Pine Environmental Services, Inc. – Booth #19
 Rocscience Inc. – Booth #9
 SAEDACCO – Booth #31
 Schnabel Engineering – Booth #4
 Shealy Environmental Services, Inc - Booth #28
 SRT, LLC. – Booth #33
 TAM International, Inc. – Booth #22
 TerraSource Software – Booth #3
 Xenco Laboratories – Booth #18
 Zonge Geosciences, Inc. – Booth #14

Check out the last two pages for our AEG Carolinas Sponsors contact information. We also have exhibitors from other parts of the country. Let them know that their help in putting on this Annual Meeting and Conference is VERY MUCH APPRECIATED!

If you don't see your name here, and would like to be a part of this Annual Meeting, please contact our meetings manager, Heather Skladanowski, at Heather@aegweb.org.

**SEE YOU IN CHARLESTON
SEPTEMBER 20-25!**

NEWS FROM THE VA DIVISION OF GEOLOGY AND MINERAL RESOURCES

By David Spears, PG, VA State Geologist

We're actively recruiting for three vacant positions, all related to federally-funded programs. This will bring our full-time staff to a total of 10 geologists, up from a low of six in the fall of 2009 (we had already filled one vacancy with USGS STATEMAP funds in January 2010). New funding comes from these sources:

U.S. Department of Energy/Association of American State Geologists - \$250,000 over the next three years to gather data on geothermal energy resources;

USGS Mineral Resources External Research Program - \$67,170 to evaluate the potential for undiscovered phosphate deposits in the Coastal Plain;

Minerals Management Service Hard Minerals Program - \$70,000 to identify undeveloped offshore sand resources for beach nourishment; and,

USGS National Coal Resources Data System Program - \$50,000 to evaluate the potential for storing carbon dioxide in saline reservoirs beneath the coalfield of southwestern Virginia.

Of course, geologic mapping continues under the

USGS STATEMAP program, with our FY 2011 award increasing by 18%. We also just received news that our award under the USGS National Geological and Geophysical Data Preservation Program increased by 29% this year, which will allow us to continue to inventory our collections of maps, rocks, fossils, and other holdings. One interesting aspect of this year's work is that we'll be inventorying a recently-acquired collection from the University of Virginia that may contain some Lewis and Clark specimens.

We're nearly finished scanning ALL of our publications, which will be placed on our website for FREE download. Watch the website for details at <http://www.dmme.virginia.gov/divisionmineralresources.shtml>.

Our sales office is now open Monday - Thursday, 8:30 a.m. to noon. Of course, you can always purchase publications through our web store, 24/7, at <https://www.dmme.virginia.gov/commerce/>. We're using proceeds from the sales office to digitize our legacy geologic maps and place them into GIS format. If you'd like to support this effort, just frequent our web store and buy stuff! Can I recommend Publication 173, Historical 15- and 30-minute Topographic Maps of Virginia on CD-ROM? Everyone needs one of these: <https://www.dmme.virginia.gov/commerce/ProductDetails.aspx?productID=2518>

Sorry for the commercial message, but if you're a geologist, I sincerely think you'll find some interesting products while browsing the web store.

David B. Spears, PG, State Geologist, Department of Mines, Minerals and Energy
Division of Geology and Mineral Resources, 900 Natural Resources Drive, Suite 500
Charlottesville, VA 22903, 434-951-6350



800-779-8854 / ContactUs@aedi.biz
NC, SC and VA Licensed and Certified
WWW.AEDI.BIZ

For All Your Drilling Needs

*Environmental - Geotechnical
Auger, Mud Rotary, Air Rotary, Geoprobe*

*Certified NC DOT "DBE" Women Owned Business
and HUB Corporation*



MARK J. DENIL, PG

EM
GPR
RESISTIVITY
SEISMIC
MAGNETOMETRY

700 N. EUGENE STREET
GREENSBORO, NC 27401
OFFICE: 336.286.9718
CELL: 336.339.8390
DENILM@BELLSOUTH.NET

GEORAMBLINGS

By Dr. Charles W. Welby

This epistle starts its life as I sit in a hotel in Anaheim, CA following the combined meeting of the Cordilleran Section of GSA, the Pacific Section of AAPG and the Western North America Regional Section of the Society of Petroleum Engineers. Where once in this area one could stop at a small roadside stand by an orange grove and purchase a refreshing glass of orange juice for ten cents and as a cool refresher in a lengthy motor trip across the area, today it is pavement, buildings, roller coasters, and big-eared "mice" running about. (*Ed: My husband and I remember that, too!*)


Stephen M. Testa, Executive Officer of the California State Mining and Geology Board, has recently had published a book, *One Man's Planet*, in which he brings together with some humor a number of ideas about geology, its relationship to our lives, and how people react politically, sensibly, insensibly, and otherwise. It is available through the American Geological Institute. In the introduction he discusses the source of the aphorism, "Civilization exists by geologic consent," noting that there is some question about how it arrived on the scene. The general attribution is to Will and Ariel Durant in association with their monumental history of human civilization.

The work was published from 1935 to 1975. At Anaheim, geologists and engineers clearly established the importance of understanding the earth as an ongoing operation, and civilization's needs to adapt to the rigors and controls of our earthly environment.


Out of the combined meeting arrangement came the opportunity to enjoy papers about the petroleum industry and production of oil and gas. What was particularly striking in some of the Society of Petroleum Engineers papers was the recognition of the need to understand the geologic framework of the accumulation. That is to say, we must pay attention to the nature of the materials within which the petroleum accumulates, fracture patterns within the rocks, the wetting characteristics of the reservoir materials, and similar physical and chemical matters. So, a good course in fluid mechanics could be useful. Thus the need for a good understanding on the part of the petroleum engineers of the origin of the reservoir rocks as well as the hydrocarbons and manner of accumulation of the oil and gas. Such an understanding aids in choosing the appropriate methods of production to maximize production.

Clay mineralogy, mineral surface chemistry, and geo-technical factors which are more often associated with buildings and infrastructure design become important. This understanding is important not only from the perspective of petroleum production but also in the consid-

(Continued on page 13)



Schnabel
ENGINEERING



- Dam Engineering
- Geotechnical Engineering
- Engineering Geology
- Geophysical Services

Greensboro, North Carolina / 336-274-9456 / schnabel-eng.com

SEE US AT AEG 2010 IN CHARLESTON SC SEPT 20-25 AT BOOTH #4
AND CO-SPONSORING THE EXHIBITORS' LUNCHEON.

SEE US AT AEG 2010 IN CHARLESTON
SEPTEMBER 20-25 Sponsoring a Tech Session Break



**parratt
wolff inc**

ROBERT "BUTCH" STEVENS
VICE PRESIDENT

PO BOX 1029, 501 MILLSTONE DRIVE, HILLSBOROUGH, NC 27278
(919) 644-2814 (800) 627-7920 FAX (919) 644-2817
bstevens@pwinc.com www.pwinc.com
EAST SYRACUSE, NEW YORK (800) 782-7260
ENVIRONMENTAL AND GEOTECHNICAL DRILLING SERVICES



Peter Marotta
Branch Manager

(919) 852-3595
FAX (919) 852-1997

- Emergency Response
- Remediation
- Waste Mgmt.
- Industrial Maintenance
- Products
- Training Svcs.
- Abatement

CAROLINA DIVISION
6001 Chapel Hill Road, Suite 108, Raleigh, NC 27607
Email: pmarotta@epsvermont.com

1-800-THE-TANK 24-HOUR EMERGENCY SERVICE

(Continued from page 12)

eration of carbon dioxide underground disposal. Whether or not carbon dioxide can be used to enhance oil and gas recovery is an environmental and resource production question. And the question of whether or not carbon dioxide can be used to enhance ground water cleanup is another important question.

Stephen Testa presented a noon lecture in which he discussed some of the early history of the California Geological Survey. He noted that one of the early State Geologists, Whitney, announced at one point that there were no petroleum deposits found in California. Well, this pronouncement occurred shortly before people began mining the asphaltum deposits near McKittrick, CA and transporting the solid material about 10 miles to be refined (heating) into kerosene for lighting and warming San Francisco. Also, obviously, it was before the Lakeview Gusher began its excitement about 35 miles southwest of Bakersfield, in the heart of what was to become the Midway Sunset oil field. That well spewed over a million barrels of oil across the desert landscape. Its economic effect was to drive the price of oil down to 10 cents a barrel and to create major economic problems in California and such places as Texas. No one raised the question of the ecologic effect upon the jack rabbits, the sagebrush, the ground squirrels, the chipmunks, a few assorted BIG rattlesnakes, and probably a few other unnamed organisms. This is the year of the 100th anniversary of that event. Is history repeating itself in one way?

One of the ongoing concerns is the manner in which geologic information in a useful form can be utilized for the benefit of the public. We talk among ourselves about the importance of geologic information/data in the making of political decisions about environmental matters. Dr. Lucille Jones of the USGS was the Keynote Speaker at the Anaheim meeting. Her topic, *When the Mountains Come to Main Street: Helping California Live with Natural Disasters*, described the work she is guiding for the USGS. The following paragraphs summarize a few of her comments and observations.

The basic question is simply, "How to get pertinent

information about various geologic hazards to the public agencies and the general public?" From this question arises the necessity to define how the information is to be used. For California, the hazards or disasters-in-waiting are forest fires and subsequent debris flows and landslides, landslides unrelated to forest fires, coastal erosion, and earthquakes. The two-fold basic question lies with the method or methods to be used to get the information to the target audience, and to persuade the members of the audience to respect the hazards.

Debris flow warning systems developed so far have some potential to provide approximately two-years warning of their occurrence in Southern California, perhaps. The most fully developed system has been the one for earthquakes: "What to do when an earthquake takes place." The most basic of the needs is establishing communication systems before the event transpires so that it can be used after the event. In developing the program in conjunction with the USGS, those responsible recognize that Social Science, Engineering, and Earth Science disciplines all have a role to play in the planning and implementation of any plan or procedure.

Out of the work done for Earthquake Hazards a drill called "SHAKE OUT" was developed. It has been utilized at least once, and there has been widespread participation. More information about it reportedly can be found on "www.Shakeout.org" on the web.

Other similar programs are in development. One, "ARKSTORM," with debris flow and flood warning components, has been developed but not yet tested. Elements in the flood warning program involve choices in the decision-making. Questions such as, "Do we lower the level of the reservoirs to lower the chance of flooding and to conserve water for the future (summer)?" and "Which areas are we going to allow to be flooded?" become important political decisions.

We in the East think of hurricanes as being our major storms which create the greatest havoc. Major storms on the West Coast, the "Pineapple Express" in some circles, bring conditions for mass wasting and flooding on many scales. Meteorological evidence provides evidence that storms coming into the West Coast can be characterized as "atmospheric rivers" in contrast to the hurricanes that pass through the Carolinas. The storms in the West provide

(Continued on page 14)



REGENESIS

Drew Baird, P.G.
Southeast District Manager

115-B Broadus Avenue
Greenville, SC 29601

Tel: 864.240.9181 • Cell: 864.884.4346 • Fax: 864.240.9182
dbaird@regenesiS.com • www.regenesiS.com

SEE YOU AT AEG 2010 IN CHARLESTON
SEPTEMBER 20-25 Sponsoring the Groundwater
Geochemistry Intermediate Course

SGS

Environmental Services

SGS Environmental Services Inc.
5500 Business Dr.
Wilmington, NC 28405
www.us.sgs.com

Kendall Sutler

General Manager

t (910) 350-1903
f (910) 350-1557
m (513) 314-9584
e kendall.sutler@sgs.com

(Continued from page 13)

drinking water as well as irrigation water.

The one-in-200 years storm for California occurred in 1861-1862 when rain fell in California for 45 days straight. The Central Valley was flooded, and conditions were almost ripe for drainage of the whole valley to be into San Francisco Bay. The questions are, therefore, "When will the next 200-year storm appear?" and "What preparations and education are needed to handle the associated conditions?" Obviously, the political decisions about whether to hold water prior to the storms or not and about which areas are to be flooded become crucial and difficult. One has to insert at this point the question of what about the levees in the Delta Area?

From a Social Science perspective three observations seem appropriate. (1) Avoid use of probabilities, especially in evaluating earthquake hazards. (2) People will relate to past experiences and be guided by what they have experienced. (Personal Note: Think legislature personnel, in particular.) (3) Emphasize on arriving at a consensus when solving the problem.

A quick review of the Preliminary Program for the Annual AEG meeting in Charleston shows that the sessions have important things to be heard. It appears that the landslide sessions will be of particular value for the mountainous areas of the East, and they continue some of the work that was begun in studies of the landslides along the Blue Ridge Parkway in the 1960s by Leith and Fisher (NCSU Engr. Res. Div. Publication, approximate date

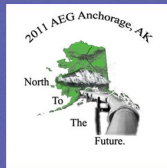
1964). At the time of the 1985 AEG Annual Meeting in Winston-Salem a major landslide just before the meeting provided an important to look at landslide hazards on relatively new I-40 and the opportunity for a field trip for the meeting. And perhaps we all can learn something new about matters related to presenting our knowledge of hazards: mass wasting, coastal erosion, seismic activity, and others that can become important in assessing hazards with which the public needs to be concerned.

And so in conclusion: Problems, Problems, Problems with geologic implications come to mind!!!!!!

Charles W. Welby

PS: In the April 21, 2010, edition of the Raleigh News and Observer John M. Riddle, Alumni Distinguished Professor of History, Emeritus at NCSU, had an "Other Opinion" article. It was written in response to the news about the Iceland volcanic eruption delaying air traffic in Europe and elsewhere. In summary, the article describes events that have been reported worldwide from the years 535 and 536 of our era. He describes a severe climatic change that swept the entire earth, being recorded in Europe, Iraq, Arabia, China, and Indonesia. The world turned cooler, there were massive floods, and the sun apparently was obscured for 18 months in Asia. In Mexico the empire known for its pyramids, Teotihuacan, came to an end, and rats bearing the disease "Black Death" came

(Continued on page 15)



AEG's 2011 Annual Meeting

September 19-24, 2011

Hilton Hotel, Anchorage, Alaska



Photo Credit: Robert Olsen

Join us for the experience of a lifetime:

- Special Event at Alyeska Resort
- Exciting Field Trips
- Educational Short Courses
- Informative Technical Sessions and Symposia



Photo Credit: Grant Keltz

Hosted by the Alaska Section
Stop by Booth #10 at the
2010 Annual Meeting for more
information and prizes!

(Continued from page 14)


from their habitats and destroyed the strength of the Byzantine and Persian empires. A near-arctic climate enveloped northern Europe. Professor Riddle notes that it is believed that Krakatoa in Indonesia was the culprit in causing these climate changes.

Simon Winchester, in his book, *The Day the World Exploded; Krakatoa*, describes the effects of the August 3, 1883, explosion of Krakatoa. In the 19th century, a nearby volcano exploded in 1815, and the year 1816 became known as "The Year without a Summer" in New England and northern Europe. Crops failed and the people were in considerable distress. More recently Mt. Pinatubo in the Philippines exploded in 1991, causing great havoc in the Philippines, and the airborne ash from it apparently contributed to cooling of the atmosphere for a period of time.

So, if one can make an editorial comment, the present volcanic activity in Iceland pales in comparison with some of the past volcanic explosions that the world has had. And so the tale continues – and "Time Marches On."

Dr. Charles W. Welby is a former Section Chair for AEG Carolinas and a regular contributor to this newsletter. He may be reached at cww_ral@hotmail.com.

SEE US AT AEG 2010 IN CHARLESTON
SEPTEMBER 20-25 at BOOTH # 23




LAND PROBE
ENVIRONMENTAL & GEOTECHNICAL DRILLING SERVICES

Licensed Throughout the Southeast

Truck-Mounted & Track-Mounted Geoprobe
CPT
DPT
Well Installation
Injection

Truck-Mounted & All-Terrain Mounted Drill Rigs
Hollow-Stem Auger Drilling
Mud Rotary Drilling
Rock Coring
Air Rotary Rig
Geotechnical Drilling
Undisturbed Sample Collection
Pressure Grouting
Packer Testing

6204 Ponder Court • Greenville, SC 29615 • 1528 Highway 138 SW • Marietta, GA 30065
105 Fairview Road, Suite A • Asheville, NC 28403 • (858)349-0176 • Fax: 854)288-4430
For more information visit us at www.landprobe.com




<http://www.trs-environmental.com>

We provide a wide variety of environmental monitoring, sampling,
field and safety supplies for rent, lease or sale.

Susan Boutwell TRS@trs-environmental.com
1830 West Airfield Drive, P.O. Box 619260,
Dallas-Ft. Worth Airport, TX 75261

Phone: (972) 456-4000

Fax: (972) 456-7011

AEG CONGRESSIONAL VISITS DAY

By Brad Worley, NC DOT

On April 28-29, I was given the unique opportunity to attend the Science, Engineering, and Technology Congressional Visits Day (SET-CVD) in Washington, DC. I traveled up to the DC area after work on Tuesday, April 27. Working in Raleigh, NC, it's about a four hour drive. I had attended the Geosciences CVD in September, 2009, so I had a good idea what to expect. Being a representative of AEG, all of my schedule was coordinated through the American Geological Institute's (AGI) Government Affairs Office. I was actually the only AEG representative at this year's SET-CVD.

On Wednesday morning, I attended the Earth and Space Sciences Briefing Workshop for Earth and Space Scientist at the American Geophysical Union (AGU) Headquarters. The geosciences briefing covers how to speak with legislators, and provided an overview of the federal budget and appropriations process. The briefing included talks by Dr. Michael Uhart (NOAA), Marge Cavanaugh (NSF, Deputy Assistant Director for Geosciences), Tim West (USGS, Congressional Liaison Officer), and Anna Palmisano (DOE Office of Science). During the morning's briefings we were paired with other

geoscientists from our state. There were two others from North Carolina. I was accompanied by Arcot (Raja) Rajasekar (UNC Chapel Hill) and David Kahler (Duke University). During the morning the briefing also covers the core message topics that one should talk about during the congressional visits.

Wednesday afternoon, we headed over to the American Academy for the Advancement of Sciences (AAAS) Headquarters for the "Views from the Administration and Congress" briefing. Speakers included Kei Koizumi (White House Office of Science and Technology Policy), Patrick Clemins (Director, AAAS R&D Budget Program), and Dixon Butler (Majority Staff Assistant, House Appropriations). This briefing was more broad-based and covered budget concerns for all the sciences in general. A particularly "hot" topic was the termination of NASA's Constellation project. Wind energy and carbon capture are reoccurring themes as well. Being an engineering geologist by trade, I was happy to hear concerns about infrastructure such as highways, bridges, slope failures, etc. Also mentioned frequently is the fact that USGS has prospered the least of all federal geoscience-related agencies in the past couple of budget years. Wednesday evening ended with the Laser Fest Exhibition and Reception in the Rayburn House Foyer, celebrating the 50th anniversary of the laser.

Thursday began with Congressional Breakfast in

(Continued on page 17)

Geobrugg protects people and infrastructures from the forces of nature.

Our tested static and dynamic protection systems protect against rockfall (up to 16 metric tons block impacting at 56 mph) and unstable slopes, as well as debris and mud flows.

Discuss your natural hazard problems with Frank Amend, your local Geobrugg sales engineer, at the contact information provided below.



Geobrugg North America, LLC
Geobrugg Protection Systems
PO Box 7453,
Rocky Mount, NC 27804-0453
Phone 252/937-2552
Fax 252/451-1254
www.geobrugg.com
frank.amend@geobrugg.com



**See you at AEG 2010 in
Charleston, booth 13!**

(Continued from page 16)

the Rayburn House Building. The Honorable Vern Ehleres (R-MI, House Committee on Science and Technology) spoke about the need for a scientist on Capitol Hill. My group from North Carolina had four scheduled visits on the Hill that day. Our first meeting was in Congressman David Price's office (D-NC, 4th District). We met with Maile Mercer, legislative assistant to Rep. Price. It is important to note that groups are accompanied by a staff member of a corresponding agency. We were assigned staff members from AGU and AGI throughout the day. Next, we visited Senator Richard Burr's (R-NC) office and met with legislative assistant Kara Weishaar. We had met on my previous visit to that office during the Geoscience CVD.

Our next visit was to Senator Kay Hagan's (D-NC) office to meet with legislative assistant Patrick Brennan. During the Geoscience CVD I had the chance to meet with Mr. Brennan and Senator Hagan and learned that the Senator's daughter had just finished her PhD in Geology. For that reason, Senator Hagan seems to have a "soft spot" for the geosciences! Later in the afternoon we met with Congressman Bob Etheridge (D-NC, 2nd District) and legislative fellow Dr. Jean Camp. I run into



Left to right: Brad Worley, (NCDOT), David Kahler (Duke University), and Arcot (Raja) Rajasekar (UNC CH).

Rep. Etheridge on occasion and we have come to know each other fairly well. That visit went very well.

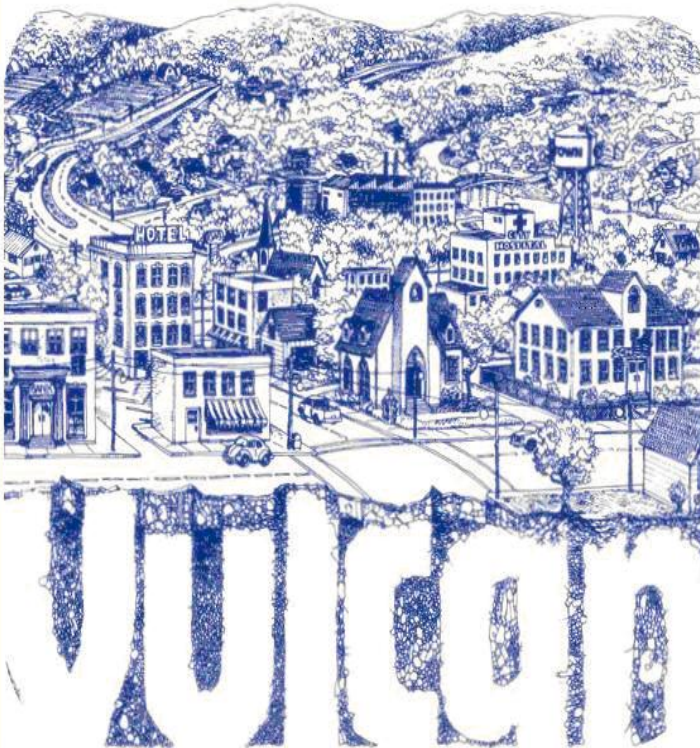
In retrospect, our group's visits were very positive. Having done Congressional visits in the past helped me to center our message, which is for steady federal investments in Earth and space science R&D. Visiting some of the same offices during the SET-CVD, I see the merits of returning yearly (if not twice a year) to remind our elected officials of the importance

of science-related funding, especially when many of the projects that we geologist are involved with are either directly or indirectly federally funded.

Most importantly, participants of CVD become a resource for the legislative offices they visit. Although many representatives have very science-oriented staff, they may not be knowledgeable in geotechnical or geoenvironmental matters. It is not uncommon to be contacted by legislative staff, well after a CVD, and be asked to help provide background information on upcoming science-related legislation.

Brad Worley, LG, is AEG Carolinas Section Vice Chair. He is with the NCDOT Geotechnical Engineering Unit, and may be reached at bdworley@ncdot.gov

Foundations of the community.



Vulcan
Materials Company

*The nation's leading producer
of crushed stone.*

Mideast Division

4401 Patterson Avenue
Winston-Salem, NC 27105
336.767.4600

www.vulcanmaterials.com

SAEDACCO

THE ENVIRONMENTAL INDUSTRY SUPPORT SPECIALIST

7822DT GEOPROBE

saedacco.com

We're proud to announce that we've taken delivery of a new GeoProbe Model 7822DT

Key features of this machine are...

- * 78 in. (1,981 MM) probe cylinder stroke
- * 48,000 lb. (214 kN) pullback for today's larger sampling tools and deeper depths
- * New GH64 Hammer with Modular Percussion Power Cell and integrated two-speed, bi-directional rotation
- * GA4000 Augerhead offers more torque and is integrated onto a redesigned swing-out mounting system
- * Totally redesigned control panel with more options, more controls, more feedback
- * Auxiliary hydraulic power ports
- * Rear stabilizer with Geoprobe Drop Rack System
- * Oscillation provides for easy vertical positioning of the foot on uneven terrain
- * New mast and winch configuration provides better control and faster line speed
- * Powered by a four-cylinder, 58hp, liquid-cooled Tier 3 compliant Kubota turbo diesel engine



To learn more about how the 7822DT can benefit your next project simply reply to this message or give us a call.

saedacco.com



AEG's 2010 Annual Meeting

Association of Environmental & Engineering Geologists



September 20-25, 2010

Charleston, SC

Francis Marion Hotel

Hosted by the

Carolinas Section

Special Event

Evening aboard the USS Yorktown featuring tours of the flight deck & Congressional Medal of Honor Museum. Dinner and Entertainment USO Style!

Technical Program

- Coastal Issues
- Charleston Earthquakes
- Engineering Geology in the Remediation and Maintenance of Dams
- Mineral Aggregates in Transportation
- Environmental Characterization and Remediation
- Envisioning the Future of Engineering Geology
- Computer Applications for Geologic Investigation and Reporting
- Landslides and Slope Stability
- Seismic Hazards
- Role of State Geologic Surveys in the Assessment of Geologic Hazards
- General Geologic Hazards
- Tunneling
- Groundwater and Hydrogeology
- Soil and Rock Mechanics
- Geophysics for Geotechnical and Geoenvironmental Applications
- General Engineering Geology

Field Trips

From the Atlantic to Appalachians and Back!

Overnight trip between Charleston and the North Carolina mountains and back. Includes stops at a landslide in NC, pumped storage project in Western SC, a seismically retrofitted dam site in Central SC, and other interesting stops.

Environmental Remediation and History of the Savannah River Site

One-day trip to nuclear plant to see environmental remediation and other plant technologies at work. US Citizens only.

Coastal Processes on Kiawah and Seabrook Islands, South Carolina

One-day trip to local barrier islands.

Charleston Earthquake Walking Tour

3-4 hours, will run twice during meeting. Shows and discusses evidence of 1886 magnitude 7 Earthquake on structures in Charleston.

Macroeffects of the 1886 Charleston Earthquake

Explore evidence and effects of 1886 Charleston earthquake and paleo-earthquakes throughout the Charleston region, including structural damage, paleo liquefaction evidence, and other earthquake-induced features.

Short Courses

- FEMA/HAZUS Course
- Introduction to Groundwater Chemistry
- Rock Core Descriptions
- Use Of Geophysical Equipment
- Intermediate Groundwater Chemistry
- Practical Rock Slope Engineering

Guest Tours

- Charleston Tea Plantation & Shelling on Edisto Beach
- Doin' the Charleston Tour
- Cypress Gardens
- Gullah Tour of Charleston



Visit AEG's website for more details and registration Information, www.aegweb.org

Technical Program may be subject to change.
Please visit our website for the most up-to-date information.

AEG MID-YEAR BOD MEET - SECRETARY'S REPORT

By Matthew Morris – AEG Secretary

The AEG held its Mid-Year Board of Directors Meeting on May 1st and 2nd, 2010, in St. Louis, Missouri. The AEG Board of Directors (BOD) is comprised of the twenty-five Section representatives and five Executive Council members, totaling thirty Directors. A total of fourteen Section Chairpersons and three Section proxies were present for the Mid-Year Meeting along with the Executive Council.

The Executive Council, COO Roland, and various committee chairs provided reports to the BOD to update them on recent events within the Association and the status of action items from previous meetings. The following items are key points from the reports as well as decisions made by the BOD during the meeting.

- President Kreuger informed the Board that he would welcome additional invitations to additional Sections and Chapters over the summer.
- Vice President Hilton is coordinating the efforts of the existing operating committees and solicited the BOD for potential members to serve on committees.
- Treasurer Bauer summarized the investment allocations made in the Treasurer's Reserve Account and discussed its improved performance (12 percent gain) over the last quarter of 2009 and first quarter of 2010. In addition, the BOD approved the Treasurer's Reserve Investment Policy. This policy will be used by the Executive Council to select and monitor investments, ensuring the continued responsible investment of AEG's reserve account.
- Treasurer Bauer reported that AEG is currently operating at a \$9,300 deficit through the first quarter of 2010. This is primarily due to reduced advertising income and increased publication costs. In order to improve the projected budget deficit, AEG is actively soliciting new advertisers, sponsors, and exhibitors. AEG will also be publishing the E&EG Journal electronically beginning with the May 2010 Issue.
- The AEG Foundation announced that the Beardsly-Kuper Scholarship fund has been established to support students attending field camp. The Foundation Board encourages the BOD to widely publicize the scholarship opportunities to students within their Sections. The BOD raised \$2,600 for the Foundation and two donors contributed matching funds of \$2,000, for a total contribution of \$4,600.
- Chief Operating Officer Roland reported that AEG membership has held steady over the last quarter of 2009 and first quarter of 2010. Phoenix AMC is currently contacting non-renewing members in an effort to maintain and bolster the membership. All AEG members are asked to recruit new AEG members amongst their colleagues. Please contact COO Ro-

land for more information on renewing your membership or recruiting new members.

- Contracts have been signed for all Annual meetings planned through 2013. AEG is currently soliciting applications for the 2014 Annual Meeting, and would like Sections to consider sponsoring a joint meeting between two sections, as the Sacramento and Great Basin Sections accomplished in 2009. Please contact Bruce Hilton for more information on planning joint meetings.
- The AEG Special Publication "Living with Unstable Ground" is available for purchase and sale at the Section level. Contact COO Roland for more information.
- AEG is encouraging AEG members to consider staffing the AEG booth at Geological Society of America (GSA) meetings throughout the next year.
- Past President Molinari discussed his activities working with the Nominations Committee and Technical Working Groups. AEG members are encouraged to participate in a Technical Working Group, and contribute technical information for the AEG News and new Website.
- A workshop was held to support the Advertising, Sponsorship, and Exhibitors Committee. If you are interested in serving on this committee please contact Becky Roland or Jennifer Bauer. The committee is actively promoting AEG's new advertising packages and will be appointing a new Chairperson in the coming months.
- Strategic Planning Chair Paul Hale presented the Strategic Planning Report and informed the BOD that the focus of the Committee will be on completing individual projects in order to keep volunteers engaged and involved in the projects in which they are most interested.
- Website Committee Chair Dale Andrews presented the beta version of the new website and emphasized that the goal of the new website is to streamline the information transfer process and provide a dynamic tool for the membership. Key features include discussion forums, enhanced advertising capabilities, current news feeds, and an improved events calendar.
- The Licensure Committee has appointed Ken Neal (WA) as their Chairperson. The committee is researching the variety of state board licensure models in an effort to leverage AEG's position in maintaining and promoting geology licensure.
- The Student/Young Professional Support Committee (SYSPSC) encouraged all Section Chairs to become members of "New Geologist" Facebook page. The Section Chairs and their members are invited to contact SYSPSC if they are interested in participating in the Visiting Professionals Program.
- President Kreuger provided an update on the Joint Task Force document prepared by the AEG, the American Institute of Professional Geologists

(Continued on page 28)

EDUCATION SECTION

SUMMER 2010 REVIEW COURSES for the ASBOG® GEOLOGY LICENSING EXAM

The Association of Environmental & Engineering Geologists (AEG) is pleased to announce the Summer, 2010 series of review courses for the ASBOG® geology licensing exam taught by REG REVIEW, Inc. AEG and REG REVIEW, Inc. have partnered to provide these courses since 1992. In the Summer of 2010, ten one-day review courses for the ASBOG® licensing exam will be offered regionally throughout the U.S. These ten courses will be spread out into the following regions, the Pacific Northwest, the Southeast, the Central East Coast, the Northeast, the North Central, the Central Midwest, the Central West, as well as the regular Northern and Southern California locations (which are now presented in 2 sections - 1 day for the ASBOG® and part of a day for the CA Supplemental). Specific locations in the southeast are listed below. Other locations may be found by going to the REG website at <http://regreview.com>.

REG REVIEW's approach is to give you the focus and direction needed to appropriately study for the exams. The emphasis of the topics in the course is based on the emphasis on the exams. We cover the approach of the exam and highlight the types of information you would need for exam level questions. For specific information on our course content and study materials please visit our website at regreview.com. Who should take this class? Anyone who feels they need help getting the focus and direction needed to be able to streamline their studying process to adequately address the topics covered by the exam.

Course dates and locations are as follows:

(For more specific location information please go to our website at <http://regreview.com/summer2010courselocations.htm>)

Eastern US Courses - Summer, 2010

Pittsburgh PA - July 18, 2010, 8am to 4pm

(Continued on page 23)

PRESIDENTIAL AWARDS FOR EXCELLENCE IN MATH AND SCIENCE TEACHING

On Monday, June 7, 2010, President Barack Obama named 103 mathematics and science teachers as recipients of the prestigious Presidential Award for Excellence in Mathematics and Science Teaching. The educators will receive their awards in Washington, D.C. later this year.

The Presidential Award for Excellence in Mathematics and Science Teaching was established in 1983 and is awarded annually to the best K-12 science and mathematics teachers from across the country. The winners are selected by a panel of distinguished scientists, mathematicians, and educators. Each year the award alternates between mathematics and science educators teaching Kindergarten through 6th grade, and those teaching 7th through 12th grades.

Winners of this Presidential honor receive a \$10,000 award from the National Science Foundation to be used at their discretion. They also receive an expenses-paid trip to Washington, D.C. for an awards ceremony and several days of educational and celebratory events, including visits with members of Congress and science agency leaders.

The individuals receiving the 2009 Presidential Award for Excellence in Mathematics and Science Teaching this year for North Carolina are Maria Hernandez, The NC School of Science and Mathematics, Durham (Math) and Judith Jones, East Chapel Hill High School, Chapel Hill (Science).

Ragan S. Spain, NBCT is a Science Consultant with the North Carolina Department of Public Instruction, and may be reached at rspain@dpi.state.nc.us

Ed: AEG Carolinas has participated in K-12 science education for several years by funding the purchase of hundreds of AGI Earth Science Kits, which we give to science teachers at the annual NC Science Teachers Association conference.

SEE YOU AT AEG 2010 IN CHARLESTON SC SEPTEMBER 20-25



**Environmental
Conservation Laboratories**

Cary, NC Lab:

ENCOCRY@encolabs.com

Tel: 919-677-1669

Fax: 919-677-9846

Jacksonville, FL Lab:

ENCOJAX@encolabs.com

Tel: 904-296-3007

Fax: 904-296-6210

Orlando, FL Lab:

ENCOORL@encolabs.com

Tel: 407-826-5314

Fax: 407-850-6945

Corporate Office:

10775 Central Port Drive,
Orlando, FL 32824

EDUCATION SECTION

RETURN TO YOUR ALMA MATER AS A VISITING PROFESSIONAL

By Rick Kolb, MACTEC

As many of you know, section members have been making presentations on careers in geology through AEG's Visiting Professional program. Since we began our visits in 2006, section members have presented at the University of North Carolina at Chapel Hill, UNC-Charlotte, UNC-Wilmington, NC State University; Appalachian State University; the College of Charleston, Western Carolina University, Guilford College, Furman University, East Carolina University, Wake Technical Community College, East Tennessee State University, Virginia Tech and Radford University.

Are you an alumnus of a college or university in North or South Carolina, Virginia or Tennessee? Would you be interested in going back to campus as a practicing professional and talking to the geology majors there? Typically we arrange for groups of three professionals

from both the public and private sectors to visit a college.

Each person talks for 15 to 20 minutes about their geology careers, how they got where they were, and provides career advice for students. Everyone has a good time. Send an email to Rick Kolb at rkolb0915@aol.com if you are interested in participating. We welcome new presenters to our group.

Rick Kolb is Student Liaison Coordinator and past Section Chair of AEG Carolinas.

GARCO, Inc.

Environmental, Industrial & Recycling Services

P.O. Box 1907
Asheboro, NC 27204
www.egarco.com

Al King

Sales Representative
alk@egarco.com

† 336.683.0911
c 919.451.3960

**SEE YOU AT AEG 2010 IN CHARLESTON SC
SEPTEMBER 20-25 at BOOTH # 19!**



Pine Environmental Services, Inc.

THE ENVIRONMENTAL SUPPLY & SUPPORT PEOPLE
RENTALS - SALES - REPAIRS

WWW.PINE-ENVIRONMENTAL.COM



The Leading Supplier of Environmental Monitoring, Environmental Sampling and Safety Supplies

Ask us about free delivery and pick-up in your area

Toll Free: (866) 646-PINE (7463)

email: Pine-NC@Pine-Environmental.com

For After Hours Emergency needs Call

Paul Federline (919) 333-6287

Dedicated to Quality and Customer Satisfaction



EDUCATION SECTION

(Continued from page 21)

Manchester NH - July 23, 2010, 8am to 4pm

Orlando FL - July 24, 2010, 8am to 4pm

Raleigh NC - July 25, 2010, 8am to 4pm

Included in the course price are the set of Study Manuals pertinent to the exams you are taking and a packet of course notes (60+ page) that we have developed to present material that is new to the exams. The course notes are only available to our students.

REG REVIEW, Inc. has been teaching these courses in California since 1985. In March 2000, we began to direct our teaching towards the ASBOG® geology licensing exam. The pass rate for students in classes since 2000 has ranged from 85 to 99%. The courses are taught by Patti Sutch, California PG 3949, CEG1641, and CHG 25, Lisa Dirth, California PG 3951, CEG 1240, and North Carolina RG by ASBOG exam, and Elisabeth Ervin-Blankenheim, Pennsylvania PG and past student of REG REVIEW.

Current information on study manuals, flash cards, and courses, including specific locations, may be found online on REG REVIEW, Inc's website at <http://regreview.com>

To contact REG REVIEW Inc.: e-mail - regreview@aol.com; mailing address - 2035 Bluebell Ave, Boulder, CO 80302 ; telephone - East Coast call Lisa Dirth at 603-714-4841. West Coast (evenings) Patti Sutch at 916-456-4870.

Please pass this information on to any geologist that you know that might like our help for preparing for the state licensure examinations.

HELP AEG DELIVER THE GEOSCIENCE MESSAGE TO WASHINGTON

By Rick Kolb, MACTEC

The American Geological Institute, of which AEG is a member society, will host the third annual Geosciences Congressional Visit Days (CVDs) in Washington, D.C. on September 21 and 22, 2010. AGI will co-sponsor the event along with nine other Earth and space-science societies that work together on geoscience policy issues as part of the Geopolicy Working Group in Washington, D. C. Last year, nearly 60 geoscientists from across the country conducted over 100 congressional visits with members of Congress, congressional staff and congressional committees.

Each geoscientist communicated a message about the importance of investing in geoscience R&D and geoscience education at the federal level. Geoscientists had an opportunity to explain their work and its value at a local, state, regional, national and/or international level. AEG was represented by AEG President Mark Molinari, AEG COO Becky Roland, and Carolinas Section Secretary Brad Worley. See the accompanying article on page 16 of this issue, about Brad's experience at the recent Science-Engineering-Technology (CET) CVDs in April.

Are you interested in representing AEG at the CVDs in September 21 and 22 this year? You would spend the first day learning about how Congress works, the current state of the budget process, and how to conduct congressional visits. On the second day you will visit members of Congress and their staff. Practicing geologists are the ideal advocates for our profession; we see first-hand the benefits of our profession to society, and are the best advocates to transmit our message to Congress and the staffers. In addition to the workshops and visits, participants will get to meet other geoscientists and federal science agency representatives.

The 2010 Geoscience CVDs conflict with our annual meeting in Charleston, so EC members will not be able to attend the CVDs. However, we would still like to have AEG represented. If you do not plan to attend our annual meeting, how about a trip to Capitol Hill instead?

AEG considers participation in CVDs to be so important that this year, for the first time, **we will provide financial assistance to cover some of your expenses to attend.** For additional information, contact Rick Kolb, chair of AEG's Advocacy Committee, at rkolb0915@aol.com, or rakolb@macctec.com, or at (919) 831-8054.



geotech
Environmental Equipment, Inc.

The one source for all of your environmental equipment needs

Since 1978, Geotech has been engineering, manufacturing and selecting products that will meet the requirements of groundwater monitoring, analysis, sampling and remediation consultants and engineers. 4,400 clients include governmental, industrial and consulting engineering firms, both nationally and internationally.

Geotech brands include familiar names such as Keck, ORS and Marschalk. In addition, Geotech sells and services select products from Grundfos, RAE, YSI, and many more. Geotech's manufacturing ability creates many custom versions and options of its products.

Value-added services include expert tech support, free training, easy-to-understand rental policies, calibration and repair by factory-trained technicians.

Geotech quickly ships equipment, parts and supplies from its large in-stock inventory. An option for Geotech customers is to rent equipment and wait to buy later. Geotech maintains one of the largest and most up-to-date rental inventories in the industry.

You can contact Geotech for products and services at these convenient office locations:

| | |
|----------------------------|----------------|
| N. Carolina Service Center | 1-800-293-5325 |
| Florida Service Center | 1-800-304-5325 |
| Texas Service Center | 1-800-276-5325 |
| Denver Home Office | 1-800-833-7958 |
| Vermont Service Center | 1-800-558-5325 |
| Michigan Service Center | 1-800-275-5325 |

www.geotechenv.com

EDUCATION SECTION

LET SCIENTISTS BE SCIENTISTS

By Marsha Mercer, free-lance writer

To try to keep scientific research free of politicians' whims, the National Science Foundation is an independent government agency, not an arm of the White House. By design, NSF's director has a six-year term that does not coincide with presidential-election years. Now celebrating its 60th anniversary, NSF has supported science and engineering research that has yielded innovations ranging from American Sign Language to magnetic-resonance imagery and cloud computing. NSF grants have helped 187 Nobel Prize winners.

Of course, no entity that relies on elected officials could ever be free of political shenanigans. Two recent anti-science episodes are reminders that we should vote carefully. On Capitol Hill, Republicans are playing games with reauthorization of the America COMPETES law, which pays for NSF and science programs in other departments. House Republicans derailed the bill May 13 by forcing a vote on an anti-porn measure attached to the bill. Democrats were faced with either voting against punishing federal workers who view porn on the job or for funding science at the full, \$85 billion level. Scared Democrats voted for the anti-porn provision, prompting the House leadership to pull the bill. On Wednesday, a second attempt to pass the bill failed, even though Democrats had agreed to the anti-porn measure and to curtail the reauthorization period to three years instead of five, slashing its costs.

Such election-year posturing is mild mischief compared with what's happening across the Potomac. In Virginia, a scientist's ethics and motives are under attack. Among the researchers NSF has supported over the years is Michael Mann, a climate scientist at Penn State University who formerly was on the University of Virginia fac-

ulty. Virginia Attorney General Ken Cuccinelli II, who does not believe human activity causes climate change, is using the power of the state to investigate whether Mann used fraudulent data in seeking grants and conducting his research into climate change.

Cuccinelli is following up on "climate-gate." Last November, hackers broke into the electronic files of the Climatic Research Center in England and posted private e-mails from scientists engaged in research, including Mann. Some e-mails scorned climate-change skeptics and others were frank discussions about global warming research. Critics said the e-mails proved that the scientists were cooking their data to make it appear that humans were responsible for global warming. The scientists said the messages were taken out of context and were just honest exchanges.

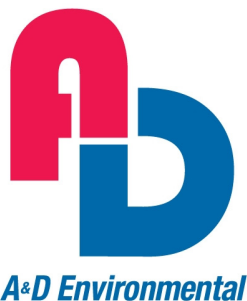
Faking data is an extremely serious charge, and the British House of Commons' Science and Technology Committee, Penn State and other scientific groups have looked into "climate-gate." All have exonerated the scientists, including Mann. The findings from these and other investigations of Mann over the years have failed to satisfy critics; they always claim a whitewash.

To go after Mann, Cuccinelli is using a state law aimed at cracking down on contractors who provide false invoices to bilk the state. He has issued the equivalent of a subpoena, asking the University of Virginia to turn over a huge collection of Mann's e-mails, notes and other documents relating to five grants he had there from 1999 to 2005. Two were NSF grants, two were from the National Oceanic and Atmospheric Administration and one was a university Excellence in Science and Technology grant.

The university has engaged legal counsel. An array of prestigious, national scientific groups and more than 800 scientists and academics in Virginia have written Cuccinelli to protest his fishing expedition. So far, Cuccinelli has dug in his heels. In a statement Wednesday on the Mann matter, Cuccinelli declared, "This is about rooting out possible fraud and not about infringing upon academic freedom." The university has until July 26 to turn over Mann's notes and e-mails.

Sixty years ago, politicians had the wisdom to set science apart from politics. Now more than ever, politicians should set politics apart from science -- and let scientists be scientists.

Marsha Mercer writes from Washington. You may contact her at marsha.mercer@yahoo.com.



Scott Pearce
Vice President

P.O. Box 484
High Point, NC 27261
P: 336.434.7750
F: 336.434.7752
C: 336.803.1783
spearce@adenviro.com
www.adenviro.com

**SEE US AT AEG 2010 IN CHARLESTON
SEPTEMBER 20-25 at BOOTH # 24**

JOB OPPORTUNITIES

ZEBRA Environmental – a leader in Direct Push, Direct Sensing and Drilling Technologies is seeking a Branch Manager for our Mid-Atlantic office currently located in Raleigh, NC. Strong communication skills, industry experience and business development skills are required. The position will include the management of direct push, direct-sensing & drilling field crews and further expansion of our client base. ZEBRA has been providing DPT & Drilling services to consulting firms on the East Coast since 1992. Since then we have completed thousands of projects involving the widest range of work scopes possible using DPT equipment.

This position offers an excellent growth opportunity, with competitive salary and benefits. If you are interested in joining the dynamic team at ZEBRA, please send your resume with salary requirements to HR@zebraenv.com or fax to 813.626.1718.

GeoCorps America Fall Winter Positions available – deadline July 2, 2010

Through the GeoCorps America Program, GSA places all levels of geoscientists — college students, professionals, and retirees — in temporary positions with the National Parks Service, BLM, and the USDA Forest Service. Land managers send position descriptions to GSA, GSA posts the positions and recruits applicants through the GSA web site, a committee screens applicants for those who qualify, and supervisors interview top candidates by phone and make the final selection. Participants receive a living stipend and on-site housing (or housing allowance) during their geoscience project assignment. The Fall-Winter positions are now available for applications. Applications close 2 July 2010.

Follow the link to see: How to Apply Information <http://www.geosociety.org/geocorps/apply.htm>

Copyright © 2010 The Geological Society of America. All rights reserved. 3300 Penrose Place, Boulder, Colorado 80301-1806

ANNOUNCEMENTS

NC Geological Survey Map Release

The North Carolina Geological Survey has released an online map viewer for the Buncombe County Landslide Hazard Maps. View and utilize the maps at http://wfs.enr.state.nc.us/fist/fistMain.php?site=Buncombe_Landslide_Mapviewer.

Schnabel Announcements

Schnabel Engineering is pleased to announce that Dr. Carlos A. Lazarte, PE, GE (Geotechnical Engineer, California) has joined Schnabel's Gaithersburg, Maryland, office as a Senior Associate. Dr. Lazarte will be responsible for providing regional offices with senior technical and project management support, as well as contributing to business opportunities. Dr. Lazarte brings over 22 years of broad professional experience that includes, among various specialty areas, foundation engineering, soft ground engineering, retaining structures, assessment and design in geotechnical earthquake engineering, solid waste, and dam engineering.

Recently, Dr. Lazarte has held leadership roles in the preparation of geotechnical engineering design manuals for various government agencies at all levels, including Federal (e.g., Federal Highway Administration [FHWA] and the National Cooperative Highway Research Program [NCHRP]) and State Agencies (e.g., Maryland Engineering Service) in the topics of soil nail walls, Continuous Flight Auger (CFA) piles, lateral loads on piles, LRFD applications for retaining structures, and geotechnical applications of scrap tires. His previous consulting experience includes Woodward Clyde, URS, and Geosyntec Consultants.

Dr. Lazarte holds a bachelor's degree in civil engineering from the National University of Tucuman, Argentina, a master's degree in civil engineering from Purdue University, and a PhD degree from the University of California at Berkeley. He is a registered Professional Engineer in various states and a Geotechnical Engineer in California. Dr. Lazarte has authored numerous technical publications in most of his engineering practices.

Schnabel Exhibiting and Sponsoring at AEG 2010

Schnabel is a sponsor of the Exhibitors' Luncheon at AEG 2020 in Charleston, and will also be exhibiting at Booth #4. Twelve of their personnel will be attending and giving technical talks. See the technical program in the upcoming issue of AEG News, Program with Abstracts.

AEG Announcements for May 2010

1. 2010 Annual Meeting in Charleston, South Carolina; September 20-25. The registration forms are now available. Also, the new deadline for submittal of

(Continued on page 26)

Patrick Hicks, Ph.D.
Vice President

WAVEFRONT

Phone: 919.424.7563
Cell: 919.518.6993

patrickh@onthewavefront.com

8004 Looking Glass Ct.
Raleigh, NC 27612

ANNOUNCEMENTS (continued)

(Continued from page 25)

abstracts is April 15th, 2010. Click here for details of Technical Sessions, Symposia, Field Trips, Short Courses and Social Events.

2. E-publishing update. The Journal of Environmental & Engineering Geoscience will be available to Members electronically soon. Look for more details in the coming month. Also, the Editors of the Journal want your technical papers and peer-reviewed articles for publication! Please contact Abdul Shakoor if you need more information.

3. Student Members. Student Members are now eligible for complimentary AEG Membership for 2011. The Student Member does not receive paper copies of the publications, but they will be available electronically.

4. The 2010 Mid Year Board of Directors (BOD) Meeting was just held on May 1st and 2nd in St. Louis, Missouri. Please look for a summary report of the BOD Meeting on page 20 of this issue of GeoNews, and one of the next issues of AEG NEWS.

5. American Geological Institute (AGI) Congressional Visit Days (CVDs) are September 21 & 22, 2010. AEG encourages Members and other geoscience professionals to attend one of the scheduled CVDs and talk to our elected officials about the importance of engineering geology. See the article on page 23 of this issue for information on how to participate.

6. AEG Announces new Advertising/Sponsorship/Exhibitor Packages. Our standard advertising-sponsorship & meeting exhibitor plans and rates are still valid. However, in an attempt to bundle some or all of the various opportunities, we have created different levels for our vendors and potential vendors who for instance may run a full page ad in the AEG NEWS and exhibit at an Annual Meeting. See page 3 of your March AEG NEWS or contact AEG Headquarters for more information. More information is on page 10 of this issue.

EBJ Honors Outstanding Environmental Firms with 2009 Business Achievement: Technology Merit Award

EOS Remediation is a winner of an Environmental Business Journal 2009 Business Achievement Award! The Technology

Merit Award was granted for successful commercialization of EAST™, a sulfate-enhanced technology for in situ remediation of contaminated groundwater. The conventional wisdom for remediation of aquifers contaminated with petroleum hydrocarbons (PHCs) is to add oxygen. A recent EPA / British Petroleum study, however, concluded that most hydrocarbon plumes are anaerobic and depleted of sulfate and, therefore, adding oxygen is disadvantageous. Other studies have drawn comparable conclusions. EAST™ is an anaerobic degradation process (U.S. Patent No. 7,138,060) that facilitates natural attenuation of PHCs in the subsurface. Anaerobic degradation, mediated by terminal electron acceptors including nitrate, sulfate, and iron, is now firmly established and is considered to be the dominant driving force in the natural attenuation of PHCs in the subsurface.

EAST™ (Electron Acceptor Solution) stimulates biodegradation by providing a soluble, readily available electron acceptor. In the presence of elevated sulfate, anaerobic groundwater bacteria use the PHCs for carbon and energy while mineralizing the hydrocarbons to carbon dioxide and water. EAST™ enhances natural conditions and reduces the carbon footprint when compared to conventional remediation.

For more information on EOS Remediation, please call 919.873.2204 or visit www.eosremediation.com.

Enviro-Equipment, Inc and OxyGreen Corporation Announce Manufacturing Agreement for OxyGreen Cells and Control Panels

OxyGreen Corporation, an engineering technology company focused on naturally oxygenating and remediating ground-water contamination quickly and cost effectively, awarded Enviro-Equipment, Inc, a provider of environmental monitoring and remediation equipment, an

(Continued on page 27)



EOS Remediation

EOST

NATURAL, SCIENCE-DRIVEN SOLUTIONS

- Patented Methods for *In Situ* Bioremediation
- Featuring AquaBupH™ for Optimal Immediate and Long-Term Dechlorination with *In Situ* pH Adjustment

Please call for a consultation ► ► ► Bioremediation Products • Technical Support
Tel: 888.873.2204 • www.EOSRemediation.com

(Continued from page 26)

exclusive contract to manufacture the newest generation of OxyGreen Corporation's patented cells and systems controls. The contract includes software developed by Enviro-Equipment to monitor and control the OxyGreen system. The OxyGreen system is a proven, patented, green bioremediation technology that cleans soil and groundwater impacted by petrochemicals. "By recirculating large areas of oxygenated groundwater around a vertical well we are able to clean via enhanced bioremediation in any type of soil at a fraction of the current cost and time. We are able to remediate not only to Federal standards, but to further reduce contaminants to the most stringent State standards," states Ed McLaughlin, Chairman of OxyGreen Corporation. "Finding Enviro-Equipment was a big deal for us," states McLaughlin. "Not only are they a UL certified control panel manufacturer, but they also have dozens of remediation systems on trailers in their rental fleet which will allow us to target heavily contaminated sites that require aggressive action prior to the use of the OxyGreen technology to reduce the last remnants of contamination."

According to EEI Vice President Brian E. Chew, Sr. P.G., "We are very excited about this opportunity. The exclusive contract to manufacture OxyGreen cells and controls is a great addition in our Remediation Division.

The OxyGreen system will be instrumental in helping us deliver lower cost solutions for remediation of contaminated groundwater."

OxyGreen Corporation is an engineering technology company that produces U.S. patented in situ groundwater remediation products. It's a 100% permanently and totally disabled combat veteran owned business. The Chairman, Ed McLaughlin, has a clear and simple mission, "I feel that by cleaning God's earth and water I am doing his will." To learn more about Oxygreen Corporation, visit the company's website [<http://www.oxygreen.net>] or call 973-967-0329.

Enviro-Equipment, Inc., a woman-owned small business founded in 1993, rents, sells, and manufactures environmental monitoring equipment used for pollution control, ground-water remediation, water and wastewater treatment, safety and industrial hygiene, and environmental assessment. The Charlotte, NC facility also offers environmental sampling supplies, safety products, equipment repair, and training. Enviro-Equipment's customers include colleges and universities, government agencies, industry, and environmental consultants in the groundwater hydrology and industrial hygiene fields. To learn more, visit the company's website [<http://www.enviroequipment.com>] or call 888-274-8929.

SEE YOU AT AEG 2010 IN CHARLESTON SEPTEMBER 20-25 AT BOOTH # 20.



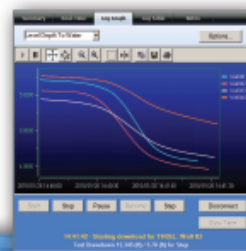
Virtual HERMIT® Kit Streamlines Pump Tests

The **Virtual HERMIT Aquifer Testing Kit** simplifies step-drawdown and constant-rate pump tests. Monitor all deployed **Level TROLL® 700** instruments with one system.

- Rent Virtual HERMIT software and customized instruments only from In-Situ® Rentals.
- Simultaneously configure, start, view, or stop all connected instruments.
- Step a test and capture pump and recovery data on the same log.
- Minimize data processing.

For more information, visit www.in-situ.com
and call us at **1.800.446.7488**
or **1.970.498.1500**

View results during test.



In-Situ Inc.

Innovations in
Water Monitoring

CANDIDATES FOR UPCOMING AEG SECTION ELECTIONS

Candidates for the 2010-2011 AEG Carolinas Board are presented below. If you are a member in good standing with our AEG section, you will receive your ballot in the mail. Below are the candidates running for offices this year, but other candidates may still be proposed by members; we are accepting nominations until the meeting in Asheville, Friday August 13. Please send your nominations to Section Chair Paul Weaver at pweaver@kleinfelder.com. When you receive your ballots in the mail, please mark them and mail them to Kristen Lloyd, G.I.T., Staff Geologist, MACTEC, Inc., 7347-E West Friendly Avenue, Greensboro, NC 27410

Section Chair (not voted on this year): **Paul Weaver**, L.G., Kleinfelder. Paul Weaver is the current Section Chair, and is a Licensed Geologist in both North Carolina and South Carolina. The Section Chair is a two-year term now, so we will not be voting for a new Chair until next year. Paul will be starting the second year of his two year term in September. He has been an AEG member for over eight years. He earned his geology degree from the University of North Carolina at Wilmington in 1981. Paul is currently the Manager of the Transportation/Drilling department of Kleinfelder in Greensboro, North Carolina. Paul resides in Greensboro with his wife and 12-year old son. In his free time, he enjoys wood working and performing in theatre.

Vice Chair: **Brad Worley**, L.G., the current AEG Carolinas Vice-Chair, is with NCDOT Geotechnical Engineering Unit. Brad graduated with a bachelor's degree in geology in 1995 from University of North Carolina at Wilmington. He then entered graduate school at UNC Wilmington, finishing in 2000 with a master's degree in geology. Brad's main emphasis during graduate school was metamorphic petrology/petrography and kinematics in metamorphic terrains. His master's research in the eastern Blue Ridge involved an in-depth and updated study of the deformational history of the Brevard Fault Zone, near the type locality of Brevard, N.C. In May of 2000, Brad began working for the NCDOT Geotechnical Unit, in the Raleigh Field Office, as a field geologist. In September of 2002, he moved to the Geotechnical Unit's Consultant Coordination Unit where he currently works as a Project Geological Engineer. Brad is a licensed geologist in North Carolina. He resides in Pine Level, N.C., and spends most of his time away from work with his 13-year old daughter.

Secretary: **Alex Rutledge**, L.G., E.I.T, Schnabel Engineering. Alex graduated with a bachelor's degree in geology in 2002 from West Virginia University, a master's degree in geophysics in 2004 from the University of Kentucky, and a master's degree in geotechnical engineering in 2006 from Virginia Tech. Alex's professional experience has been primarily related to dams, including

work on various dam inspections, rehabilitation projects, and new dam designs. Alex is a licensed geologist in the state of North Carolina and an Engineer in Training in the Commonwealth of Virginia. He currently works as a Project Geologist/Engineer with Schnabel Engineering in Greensboro. Alex is serving as Moderator Chair for the 2010 National AEG meeting in Charleston, SC.

Treasurer: **Dave Duncklee**, L.G., Duncklee & Dunham, PC. Dave is the president/senior hydrogeologist of the firm and has worked as an environmental consultant for 25 years. He has served the Ground Water Professionals of North Carolina as President, and has assisted on committees with the NGWA and the ITRC. Dave is the current Treasurer of AEG Carolinas Section and also co-chairs the short course committee for the upcoming AEG National Meeting in Charleston, South Carolina. Dave is a licensed geologist in North Carolina and Georgia, holds a BS in Geology from North Carolina State University, has performed graduate level work in geophysics there, and has an AAS degree in Business Data Processing from Wake Technical College

(Continued from page 20)

- (AIPG), and the American Society of Civil Engineers – GeoInstitute (ASCE-GI). A decision was reached by AEG and the ASCE-GI to work on revising the document with input from other geosciences organizations such as ASFE and ARMA. AIPG was not interested in furthering the revision process and will not take part in the joint document. No firm revision process or schedule has been jointly determined at this time.
- The BOD approved changes to the By-Laws and Policies. The By-Law changes were proposed to improve consistency and bring AEG in compliance with the new California Non-Profit legislation, enacted in early 2010.
 - Peter Thams discussed the status of the California Association of Professional Geologists (CAPG) attempts to reinstate the California Board of Geologists and Geophysicists (CABGG). At this point, there appears little can be done to restore the CABGG by means of injunction or lawsuit. Future efforts will focus on passing new legislation that would create a new Licensing Board.
 - The BOD approved complimentary memberships to students, beginning in 2011.
 - Treasurer Bauer presented the initial priorities for the 2011 budget. Planning will begin this month and the Final 2011 Budget will be presented for BOD approval at the 2010 Annual Meeting.

If you have any questions regarding the information provided herein, please contact your Section Chairperson, an Executive Council member, or COO Roland.

TECHNICAL SECTION

GBE BARRIER AT JEMEZ CANYON DAM, NM

By Frank Amend, Geobrugg Protection Systems

In late December 2009, the first GBE rockfall protection barrier in North America was installed at Jemez Canyon Dam, along a utility road. The dam is located in Bernalillo County, New Mexico. The installing contractor was Groundhog Excavating, Inc. of Albuquerque, NM. Design and construction were supervised by USACE, Al-



buquerque District. The project was a 400 ft barrier, with 10 ft height and 40 ft post spacing.

Groundhog Excavating, a first time installing contractor, liked the relative ease of installation of this 1000 kJ barrier. The modular design and light-weight components allowed for a rapid installation. The fully-installed barrier took 8 days to construct.

An installation demonstration video is posted on YouTube under the title: Geobrugg GBE rockfall barrier (time:1:42). The demo barrier was installed in one hour by 5 guys.

GBE barriers are the first and only of any manufactured barriers that have been awarded the European Technical Approval certificate and earned the coveted CE Marking (European Certificate of Conformance). The stringent tests were passed by the 500 kJ and 1000 kJ barriers. The larger energy rating barriers of 2000 and 3000 kJ are currently in progress for this same approval.

Frank Amend is Southeast USA Regional Manager, Geobrugg Protection Systems. He may be reached at frank@geobrugg.com.

Photo 1: The light-weight HEA profile posts are unique in barrier construction, designed specifically to inter-connect with the other barrier hardware.

Photo 2: The mesh panels are ready to pull open. The support ropes are pulled through the folded mesh panels and then tensioned. The opened mesh panels are then quickly and easily connected with shackles.



Travis Bowman
Sales Associate

ChemRem International LLC

PO Box 1239
Davidson, NC 28036
Cell: (704) 728-5800
Toll Free: (877) 243-6736
tbowman@chemrem.com
www.chemrem.com



JOYCE

ENGINEERING, INC.

Joyce Engineering, Inc. is a full-service consulting firm. We provide engineering & environmental solutions to private & public clients throughout the Southeastern United States.

Hannu Kemppinen, Client Services Manager
Joyce Engineering, Inc., 2211 W. Meadowview Road
Greensboro, NC, 27407
phone and fax # (336) 323-0092

hkemppinen@joyceengineering.com

CALENDAR OF EVENTS - 2010

Geological Events in the Carolinas

Courtesy of AEG Carolinas Section – www.aegcarolinas.org. Last updated June 16, 2010

Send updates/corrections to Rick Kolb, MACTEC, rkolb0915@aol.com.

Meeting Date, Time, and Location are Subject to Change – Please Verify Prior to the Meeting

Date: Tuesday, July 6, 2010 (meetings are held monthly on the first Tuesday of the month)

Event: Engineers Without Borders monthly meeting, Research Triangle Park Professional Chapter

Location: 6:30-8:30 PM at the offices of Camp Dresser & McKee; 5400 Glenwood Avenue; Raleigh NC

Contact: Bill Buckner, Chapter President, wbuckner@nc.rr.com

Date: July 12-16, 2010

Event: The Groundwater Pollution and Hydrology Course

Location: Orlando, Florida

Contact: Princeton Groundwater, Inc.; www.princeton-groundwater.com; (813) 964-0800

Date: Thursday, July 15, 2010 (meetings are held monthly on the third Thursday of the month)

Event: South Carolina Association of Environmental Professionals monthly meeting

Location: 6:30 PM at Edens and Avant, 1221 Main Street; Columbia, North Carolina

Contact: Deborah Langley, deborah.langley@pacelabs.com

Est PDH: Unknown

Date: July 25, 2010

Event: Review Course for the ASBOG® geology licensing exam

Location: Raleigh, North Carolina

Contact: regreview@aol.com; telephone - Lisa Dirth at 603-714-4841

SEE article on page 20 for more details

Date: July 26-30, 2010

Event: The Groundwater Pollution and Hydrology Course

Location: San Francisco, California

Contact: Princeton Groundwater, Inc.; www.princeton-groundwater.com; (813) 964-0800

Date: August 2-4, 2010

Event: Understanding Migration, Assessment, and Remediation of Non-Aqueous Phase Liquids (short course #311)

Location: Boston, Massachusetts

Contact: National Ground Water Association; www.ngwa.org; (800) 551-7379

Date: Tuesday, August 3, 2010 (meetings are held monthly on the first Tuesday of the month)

Event: Engineers Without Borders monthly meeting, Research Triangle Park Professional Chapter

Location: 6:30-8:30 PM at the offices of Camp Dresser & McKee; 5400 Glenwood Avenue; Raleigh

Contact: Bill Buckner, Chapter President, wbuckner@nc.rr.com

Date: August 12, 2010 (meetings are held quarterly at Upton Associates in Raleigh)

Event: Meeting of the North Carolina Board for the Licensing of Geologists

Location: 9:00 at Upton Associates; 3733 Benson Drive; Raleigh, North Carolina

Contact: Barbara Geiger, ncblg@bellsouth.net; (919) 850-9669

Date: Friday, August 13, 2010

Event: Joint Meeting of the AEG Carolinas Section and the Western Branch, North Carolina Section of the American Society of Civil Engineers

Speaker: Shane Clark and Jody Kuhne, North Carolina Geological Survey; Asheville, North Carolina

Topic: I-40 Rockslide of October 2009

Location: 6:00-9:00 PM; Asiana Grand Buffet; 1968 Hendersonville Road; Asheville, NC

Contact: Kristen Lloyd, khllloyd@mactec.com

Est PDH—1

SEE article on page 4 of this issue

Date: Thursday, August 19, 2010 (meetings are held monthly on the third Thursday of the month)

Event: South Carolina Association of Environmental Professionals monthly meeting

Location: 6:30 PM at Edens and Avant, 1221 Main Street; Columbia, North Carolina

Contact: Deborah Langley, deborah.langley@pacelabs.com

EST PDH—Unknown

(Continued on page 31)

Date: Tuesday, September 7, 2010 (meetings are held monthly on the first Tuesday of the month)

Event: Engineers Without Borders monthly meeting, Research Triangle Park Professional Chapter

Location: 6:30-8:30 PM at the offices of Camp Dresser & McKee; 5400 Glenwood Avenue; Raleigh

Contact: Bill Buckner, Chapter President, wbuckner@nc.rr.com

Date: September 13 and 14, 2010

Event: Applications of Groundwater Geochemistry (#485) (short course #485)

Location: San Antonio, Texas

Contact: National Ground Water Association; www.ngwa.org; (800) 551-7379

Date: Thursday, Sept. 16, 2010 (meetings are held monthly on the third Thursday of the month)

Event: South Carolina Association of Environmental Professionals monthly meeting

Location: 6:30 PM at Edens and Avant, 1221 Main Street; Columbia, North Carolina

Contact: Deborah Langley, deborah.langley@pacelabs.com

Est. PDH—Unknown

Date: September 21-22, 2010

Event: AGI's Geoscience Congressional Visit Days

Location: Starting at 12:00n at AGU Headquarters; Washington, D.C.

Contact: <http://www.agiweb.org/gap/events/geocvd09/index.html>

Date: September 17-19, 2010

Event: Carolina Geological Society Annual Meeting and Field Trip

Location: Charleston, South Carolina

Contact: Details available in June at www.carolinageologicalsociety.org

Date: September 20-25, 2010

Event: AEG Annual Meeting

Location: Francis Marion Hotel; Charleston, South Carolina

Contact: Briget Doyle; doyleb@cofc.edu
Est. PDH: Not yet established

Date: October 5-8, 2010

Event: The New MODFLOW Course: Theory and Hands-on Applications (short course #259)

Location: Princeton, New Jersey

Contact: National Ground Water Association; www.ngwa.org; (800) 551-7379

Date: October 25-29, 2010

Event: The Remediation Course

Location: Orlando, Florida

Contact: Princeton Groundwater, Inc.; www.princeton-groundwater.com; (813) 964-0800

Date: September 19-24, 2011

Event: AEG Annual Meeting

Location: Anchorage Hilton Hotel; Anchorage, Alaska

Date: November 4-7, 2012

Event: Geological Society of America Annual Meeting

Location: Charlotte, North Carolina

**SEE YOU AT AEG 2010 IN CHARLESTON
SEPTEMBER 20-25 at BOOTH # 25**

NICHOLSON

a SOLETANCHE BACHY Company

At Nicholson, we specialize in versatile geotechnical solutions for deep foundations, earth retention, ground treatment and ground improvement. When your project requires proven performance and technical innovation, build on us.

- | | |
|-------------------|----------------------|
| ■ Micropiles | ■ Anchors |
| ■ Grouting | ■ Augercast Piles |
| ■ Soil Nail Walls | ■ Soil Mixing |
| ■ Diaphragm Wall | ■ Vibro Technologies |

Nicholson Southern District

P.O. Box 7

2117 Immel Mine Road

Mascot, TN 37806

865-933-3111 Phone

865-933-1652 Fax

nicholsonconstruction.com

BUILD ON US

MEMBER BENEFITS

Networking, with colleagues at meetings, through technical publications and on the AEG web page, is a valuable professional development benefit because it allows a member to:

- ♦ Broaden and update technical, practical, and business knowledge.
- ♦ Keep career paths open by assuring that the value, utility and scope of engineering geology is recognized in the scientific, technical, legal, and regulatory arenas.
- ♦ Explore numerous opportunities for career enhancement through contacts at technical meetings and in continuing education programs.
- ♦ Influence the profession of environmental and engineering geology as it serves society and as it is regulated.
- ♦ Establish the standards of the profession.

8888888888888

AEG members receive our quarterly professional journal, *Environmental and Engineering Geoscience* and six-issues of the *AEG NEWS* as a regular dues benefit.

Members also enjoy a 20% "member discount" on all special publications, registration fees at meetings, short courses, and field trips.

PROFESSIONAL DEVELOPMENT

AEG -- Serving Professionals in Environmental, Ground-Water and Engineering Geology since 1957

- ♦ AEG sponsors workshops and short courses for which official Continuing Education Units are offered.
- ♦ AEG encourages its members to participate in activities of mutual interest with other societies and organizations.
- ♦ The annual Richard H. Jahns Distinguished Lecturer in Engineering Geology is co-sponsored by AEG and the GSA Engineering Geology Division.
- ♦ AEG members make presentations and lead field trips for students at all levels.
- ♦ AEG's Technical and Professional Practice Committees keep the Association in a position of influence through their wide-ranging activities.
- ♦ AEG's 25 Sections and 20 Student Chapters provide educational and networking opportunities for members through regular meetings, field trips and local newsletters.
- ♦ Students compete for scholarships and awards, and interact with practicing professionals.
- ♦ Short courses, field trips, and technical sessions provide opportunities for AEG members to enhance their professional practice.
- ♦ International members are found in more than 20 countries and Designated Correspondents enhance technology transfer among more than a dozen countries.

MEMBERSHIP APPLICATION

ASSOCIATION OF ENVIRONMENTAL & ENGINEERING GEOLOGISTS



The Association of Environmental & Engineering Geologists (AEG) is an international, non-profit scientific and technical society, whose 3,000 members include geologists specializing in engineering geology, environmental geology, and ground-water geology as well as other professionals in affiliated fields such as civil and mining engineering, land-use planning, public policy and education.

Through its technical and professional activities, AEG strives to promote the value and importance of geologic practice in:

- ♦ detecting, containing, and remediating contaminated soil and ground water;
- ♦ recognizing and mitigating hazardous geologic processes to promote public safety and welfare; and
- ♦ siting, planning, designing, constructing, and maintaining engineered works.

Check Us Out
www.aegweb.org

MEMBERSHIP REQUIREMENTS

MEMBER: Applicants for Member Class shall 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 geosciences. In addition an applicant shall be practicing in the field of Engineering Geology, Environmental Geology or Hydrogeology. Annual Dues for new (first-time) Members = \$75.00 per year for the first year of membership. Otherwise Annual Dues = \$115.00. Applicants who qualify for Member Class, but are engaged in full-time teaching at the Primary or Secondary (K-12) level are eligible for Teacher Status (Annual Dues = \$35.00).

AFFILIATE: Applicants for Affiliate Member Class shall be scientists or engineers who work with engineering geologists; teachers engaged in middle-school and high school Earth Science education; or persons interested in engineering geology. Annual Dues = \$75.00 (Teacher Dues = \$35.00)

STUDENT: Applicants for Student Member Class shall be full-time students enrolled in an academic program in the geosciences or in a related field in engineering. Annual Dues = \$25.00

INTERNATIONAL: Applicants shall hold the same requirements as for Member Class, but may select from the following dues schedule: \$35, which includes the *Environmental and Engineering Geology Journal*; \$45 with the *Journal*, the *Annual Directory* and the *Annual Meeting Abstracts*; or \$55 with the *Journal*, *Annual Directory*, *Annual Meeting Abstracts* and the *AEG News*.

AEG memberships are based on calendar year. Applications received after October 1 will be entered for following calendar year.

APPLICATION FORM

Please complete this form and mail it with your Annual Dues payment to the Association's Headquarters office for processing. New member applicants do not pay Section dues for their initial year of membership.

Name: _____ (Please print your name as you would like it shown on your membership certificate.)

PREFERRED ADDRESS: _____

WORK PHONE: _____ FAX: _____

PREFERRED E-MAIL: _____

Second Address: _____

Home Phone: _____

DESIRED CLASS OF MEMBERSHIP: _____ ANNUAL DUES AMOUNT: _____

CERTIFICATION:

(Signature)

My signature attests that, to the best of my knowledge, I meet the academic and practice requirements for the membership class I have requested and that all entries on this application are true and correct. I also authorize AEG to charge my credit card for the dues payment, if I selected the credit card payment option.

☐ Enclosed is my check for the amount of Annual Dues of \$ _____

Credit Card Payment Option

☐ Discover ☐ Master Card ☐ Visa Amount of Dues to be charged to my card = \$ _____

Card Number: _____ Expiration Date: _____

SUBMISSION: Send this form with your check or credit card authorization to:
 Association of Environmental & Engineering Geologists, PO Box 460518, Denver, CO 80246
 Phone: 303-757-2926; FAX: 303-757-2969; AEG Web: www.aegweb.org



AEG CAROLINAS SECTION – SPONSOR INFORMATION

The Carolinas Section 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 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 customers in an informal setting.

Our sponsors provide financial support that allows us to have reasonably priced dinner meetings, host seminars, provide discounted dinner meeting costs for students, underwrite the cost of newsletters and our web site, support science education tools to our teachers and in our schools, and provide funding for two \$500 scholarships each year. 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 (\$250):

GeoNews Newsletter: Business card size ad (2" high x 3-1/2" wide), four times per year.

Meetings: Listing on a Sponsor Poster, located at sign-in table. 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 Section email announcement (our email list is currently over 1,000 people)

Web Page: Acknowledgement on the AEG Carolinas Section Web Page, www.aegcarolinas.org, with a link to your site.

Gold Sponsor (\$375):

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 in table. 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 Section email announcement (our email list is currently over 1,000 people)

Web Page: Acknowledgement on the AEG Carolinas Section Web Page, www.aegcarolinas.org, with a link to your site.

Platinum Sponsor (\$500):

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 in table. 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 Section email announcement (our email list is currently over 1,000 people)

Web Page: Acknowledgement on the AEG Carolinas Section Web Page, www.aegcarolinas.org, with a link to your site.

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 Jane Gill-Shaler, AEG Carolinas newsletter editor. Please call or email if you have any questions (contact information below).

AEG Carolinas Section Sponsorship Form

Please begin our sponsorship of the Carolinas Section of the Association of Engineering Geologists. Our sponsorship level is:

- _____ Platinum Section Sponsorship, \$500/year
 _____ Gold Section Sponsorship, \$375/year
 _____ Silver Section Sponsorship, \$250/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 _____

Please enclose a business card or email ad in jpg, pdf, or doc To Jane Gill-Shaler at janehgill@aol.com.

MAKE CHECK OUT TO AEG CAROLINAS

Snail mail form and payment to:

Jane Gill-Shaler, AEG Carolinas Newsletter Editor
 1636 West Lexington Ave., High Point, NC 27262
JaneHGill@aol.com

Thank You, AEG Carolinas Sponsors!!

PLATINUM SPONSORS

Enviro-Equipment, Inc., Denise Chew, 888-274-8929, Denisechew@enviro-equipment.com, www.enviro-equipment.com. We are a Woman-Owned Small Business, staffed by experienced professionals, committed 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 contamination. See us at AEG 2010 in Charleston September 20-25 at BOOTH #7!

Geobrugg North America, Frank Amend, 252-937-2552, frank.amend@geobrugg.com, www.geobrugg.com. GeoBrugg North America is a premier supplier of engineered rockfall protection and slope stabilization systems. Our wirework-based, unobtrusive, and ecology-friendly systems blend well with the natural surroundings. Well-proven anti-corrosion processes permit achieving a useful life up to 100 years and our installed systems require virtually no maintenance. See us at AEG 2010 in Charleston September 20-25 at BOOTH #13!

In-Situ, Inc., Jason Evans, 800-446-7488 ext. 587, www.in-situ.com. In-Situ Inc. designs, manufactures, distributes, and rents environmental equipment for monitoring the quantity and quality of groundwater and surface water. From advanced aquifer characterization, to long-term monitoring, to economical data collection, In-Situ instruments provide accurate results and reliable operation even in harsh conditions. In-Situ Inc.'s headquarters are located in Fort Collins, Colo., USA. In-Situ offers world-class technical support 24 hours a day, 7 days a week. See us at AEG 2010 in Charleston September 20-25 at BOOTH #20!

Pine Environmental, Inc., Paul Federline, 866-646-7463, pfederline@pine-environmental.com. Pine is the leading provider of rental equipment in the nation with the latest instruments available. Pine Environmental Services, Inc. takes pride in their unprecedented customer support and competitive pricing. Extended hours of operation and after-hour emergency support are on hand. See us at AEG 2010 in Charleston September 20-25 at BOOTH #19!

TRS Environmental, Susan Boutwell, 972-456-4000, trs@trs-environmental.com, <http://www.trs-environmental.com>. We provide a wide variety of environmental monitoring, sampling, and field and safety supplies for rent, lease, or sale.

Vulcan Materials Company, Jim Stroud, 336-767-4600, Stroudj@VMCMAIL.com, www.vulcanmaterials.com. Vulcan is the nation's leading producer of crushed stone. *(Editor's note: Vulcan has sponsored AEG Carolinas for over 30 years, and currently prints and mails out our newsletter every quarter. If you see someone from Vulcan at a professional meeting, buy some rock!)*

Zebra Environmental, Inc., Mike Early, 919-424-6122, MikeE@zebraenv.com, www.teamzebra.com. ZEBRA is a specialized environmental contracting company dedicated to providing high quality subsurface sampling, installation, injection and data collection services to engineering and consulting firms. Since 1992, ZEBRA has earned a solid reputation as the most experienced, best equipped and most reliable direct push/probing service provider on the East Coast.

GOLD SPONSORS

American Environmental Drilling, Inc., Guy Veni, 910-944-3140, 800-779-8854, Guy@aedi.biz, <http://aedi.biz>. American Environmental Drilling, Inc. provides competitive full drilling services to North Carolina, South Carolina, and Virginia. Safety is a major factor in what we do and our drilling teams are fully trained and meet OSHA standards. We pride ourselves in being able to provide safe, reliable, fast, and efficient services. Our strong relationships with our clients allow us to understand their needs and be proactive in meeting their requirements.

BELFOR Environmental, Joel Miller, 1 (800) 980-0011 joel.miller@us.belfor.com, www.belforeenvironmental.com. Environmental remediation contractors for hazardous, non-hazardous, asbestos, mold, storage tanks, decontamination, facility services & system installations, demolition, railroad work.

EOS Remediation, Gary Birk, (919) 873-2204, gbirk@eosremediation.com, www.eosremediation.com. EOS Remediation leads in producing scientifically-tested, field-proven products for Enhanced Anaerobic Bioremediation, Enhanced Aerobic Bioremediation and Bioaugmentation. EOS Remediation's products are specifically developed and designed for cost-effective, in situ treatment of groundwater.

Nicholson Construction, Brian M. O'Gara, 412 221 4500, BOGara@NicholsonConstruction.com, <http://www.nicholsonconstruction.com>. Nicholson Construction Company has been setting the industry standard for performance and technical innovation in geotechnical construction. As the North American business unit of the Soletanche Bachy Group, Nicholson is part of a global network of unparalleled geotechnical resources and expertise. See us at AEG 2010 in Charleston September 20-25 at BOOTH #25!

(Continued on page 36)

Thank You, AEG Carolinas Sponsors!!

(Continued from page 35)

SILVER SPONSORS

A & D Environmental Services. Scott Pearce, 336-434-7750, spearce@adenviro.com, <http://adenviro.com/index.html>. A&D Environmental Services, Inc. provides turn-key solutions to our client's environmental and industrial concerns. BOOTH #26, and sponsoring the 9/24 Tech Session Break!

AE Drilling Services, Inc. Mark Lassiter, 864 288 1986, mlas-siter@aedrilling.com, www.aedrilling.com. AE Drilling Services LLC performs geotechnical, environmental, mineral exploration, and water supply drilling services throughout the southeastern U.S. Services include ATV auger, coring, air & mud rotary drilling, probing & reagent injection, inclined drilling, deep & large diameter mud & air rotary drilling, & well rehabilitation. See us at AEG 2010 in Charleston September 20-25 co-sponsoring the Atlantic to the Appalachians and Back Field Trip!

ChemRem International. Travis Bowman (704) 728 5800, tbowman@chemrem.com. Jim Studer, (505) 858 3136, jstuder@chemrem.com. www.chemrem.com. North American manufacturer's representative for FMC's environmental products; Klorz persulfate; PermeOx Plus; Klorz CR.

ENCO Laboratories, Inc. Jim Hays, 919-467-3090, jhays@encolabs.com, <http://www.encolabs.com>. A network of environmental laboratories that has been providing analytical testing services since 1988. See us at AEG 2010 in Charleston September 20-25 sponsoring the 9/22 Tech Session Break!

Environmental Products and Services of Vermont, Inc. Peter Marotta, 919-852-3595, pmarotta@epsofvermont.com, www.epsofvermont.com. EP&S is a comprehensive environmental and industrial contractor providing a wide range of services from Emergency Spill Response, Vacuum Truck Services, Soft Utility Excavations, Tank Removal and Cleaning, Industrial Cleaning and Maintenance Services, Site Remediation, Hazardous and Non-Hazardous Waste Disposal and more.

ESC Lab Sciences. Barry C. Kroll, 1-(800) 767-5859, bkroll@esclabsciences.com, www.esclabsciences.com. ESC Lab Sciences is a nationally accredited environmental laboratory certified for the analysis of soil, water, and air by numerous certifying agencies.

Garco, Inc. Al King, 336-683-0911, alk@egarco.com, <http://www.egarco.com>. GARCO, Inc. provides environmental, industrial, waste transportation, disposal and recycling services to industrial and consulting clientele throughout the Southeast.

Geotech Environmental Equipment, Inc. David Hathaway, 919-460-0604, 919-460-0984, davidh@geotechenv.com, <http://www.geotechenv.com>. Geotech manufactures and distributes sampling, filtration, analytical and remediation products for the ground and surface water industry.

Joyce Engineering, Inc., Greensboro Office. Hannu Kemp-pinen, 336-323-0092, hkemp-pin@joyceengineering.com, www.joyceengineering.com. Joyce Engineering is a full-service solid waste management consulting firm dedicated solely to the solid waste industry. throughout the Mid-Atlantic and Southeastern United States.

KB Labs, Todd Romero, 352-472-5830, toddr@kbmobilelabs.com, www.kbmobilelabs.com. Our mission is to provide high quality mobile analytical and MIP direct sensing technology services meeting the on-site needs of engineering and consulting firms requiring rapid characterization of environmental contaminants.

Parratt-Wolff, Inc. Robert "Butch" Stevens, 800-627-7920, bstevens@pwinc.com, www.pwinc.com. Groundwater Monitoring and Subsurface Exploration Services. See us at AEG 2010 in Charleston September 20-25 sponsoring the 9/22 Tech Session Break

Regenesis. Drew Baird, 864-240-9181 or 864-884-4346, dbaird@regenesi.com, www.regenesis.com. Regenesis develops, manufactures, and markets innovative technologies to clean up the environment. We are headquartered in San Clemente, CA with a regional office in Greenville, SC. See us at AEG 2010 in Charleston September 20-25 sponsoring the Groundwater Chemistry Short Course

SAEDACCO. Pete Byer, 803-548-2180, pbyer@saedacco.com, www.saedacco.com. SAEDACCO is a southeast regional environmental services company headquartered in Fort Mill, SC. SAEDACCO is structured to provide turnkey environmental services including geoprobe, drilling, UST removals, remediation system installations and remediation system fabrication. See us at AEG 2010 in Charleston September 20-25 at BOOTH #31!

SGS Environmental, Wilmington Lab. Adam Phillips, 910-350-1903, Adam.Phillips@sgs.com, www.sgs.com. Present in more than 40 countries with 91 offices and 52 laboratories, SGS Group has the capability to meet the environmental needs of international, as well as domestic industries, service organizations and governments.

WaveFront. Patrick Hicks, (919) 424-7563, patrickh@onthewavefront.com, www.onthewavefront.com. Wavefront provides technology to enhance fluid injection into saturated porous media.

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 firm name here, contact janehgill@aol.com for sponsorship information, or fill out the form on page 34 of this newsletter.