

SPHERES OF INFLUENCE

A QUARTERLY NEWSLETTER FOR DEG – JULY 2011

Welcome and Introduction to the DEG E-Newsletter

On behalf of the Division of Environmental Geosciences of AAPG, I welcome readers of this e-newsletter, our latest effort to get timely information to our members and the energy industry in general. This first issue contains short biographies for myself, our immediate Past President (Mary Harris), and our Editor (Kris Carter) to help you get to know the DEG Executive Committee a little better. The two biographies for our newest Executive Committee members (as of July 1) and our Vice-President will appear in a future issue of the e-newsletter. Also in this issue are links to special interest websites that we hope will be informative to you and a picture of the month. A comment from an AAPG member helps round out the issue. In the future, additional features such as book reviews, state-of-the-DEG notes, an “ask the editor” section, and a technology-oriented question and answer section will be added. We also encourage you, our readers and members, to let us know if there are short features you would like to see included in the newsletter or if you have any contributions to submit to the newsletter. Please be sure to contact Danielle Deemer, the e-newsletter editor, if you have any comments or content to contribute. We hope you find this and future issues of interest and use in your professional efforts!

*By Douglas C. Peters,
DEG President 2011-2012*

Message from the Senior Editors

Hello everyone! The editors of *Environmental Geosciences* would like to welcome you to the inaugural DEG newsletter, which we’ve decided to call ***Spheres of Influence***, highlighting the many areas that Environmental Geoscience impacts. Our goals for the newsletter are to:

- Address current events
- Engage members
- Communicate across AAPG divisions
- Promote the AAPG and DEG mission
- Provide an introduction to upcoming Environmental Geosciences issues
- Increase current membership

For this inaugural issue, we’d like to focus on introducing you to some of the key people within DEG. We welcome your comments and feedback, and we look forward to this exciting new beginning!

*Kristin Carter, DEG Editor-In-Chief
Danielle Deemer, Managing Editor*

Division of Environmental Geosciences Mission Statement and Purpose:

EDUCATING the membership of AAPG and the general public about important issues that affect petroleum energy minerals exploration and production.

- **COMMUNICATING** to the general public and government agencies the Association’s commitment to protect the environment while developing the world’s natural resources in a responsible manner.
- **APPLYING** the expertise developed in the petroleum/energy minerals industries and hydrogeology to resolve environmental problems.
- **PROMOTING** environmental self-regulation within the petroleum/energy minerals industries.
- **PROVIDING** relevant educational opportunities and services for professional development of the AAPG membership through seminars and conferences in environmental geosciences, hydrogeology, and related fields.



SPHERES OF INFLUENCE

BIOGRAPHIES



President (2011-12)

Douglas C. Peters
President and COO of ARNEVUT Resources Inc.
Lakewood, Colorado

Douglas C. Peters is President and COO of ARNEVUT Resources Inc., a precious metals and uranium exploration company based in Lakewood, Colorado. Current exploration properties and projects are in Nevada, New Mexico, and Utah. Mr. Peters also is the owner of Peters Geosciences, a remote sensing and GIS consultancy in Golden, Colorado which began business in 1996. Services are provided in the areas of photo interpretation, image processing and analysis, GIS database development and documentation, field studies, training in GIS and remote sensing technology and concepts, and technical writing and editing. Mr. Peters also serves as Principal and Treasurer of Afghan American Engineering, LLC, a company originated to plan and perform engineering and development projects in Afghanistan. Mr. Peters formerly was a Principal Investigator for the U.S. Bureau of Mines Denver Research Center, specializing in remote sensing and GIS applications for the mining industry in coal mining, abandoned coal and metal mines, and environmental topic areas.

Mr. Peters received M.Sc. degrees in Geology and Mining Engineering from the Colorado School of Mines. His B.Sc. degree was in Earth & Planetary Sciences from the University of Pittsburgh. He is a Certified Professional Geologist through the American Institute of Professional Geologists (AIPG), and he is a licensed Professional Geologist in Pennsylvania, Texas, Utah, Washington, and Wyoming. He has more than 70 publications in the areas of coal geology, remote sensing,

caving mining, ground control, computer-aided geoscience, and GIS technology.

Mr. Peters has been a member of AAPG since 1977. His activities in AAPG have included President-Elect and President of the Energy Minerals Division (EMD) (among other past and present division activities), Vice-Chair of the Publications Committee and ongoing member of that committee, Co-Founder, Vice Chair, and ongoing member of the Astrogeology Committee, is a past member of the Committee on Committees, a past member of the 21st Century Committee, has served as a Vice Chair for EMD and the Astrogeology Committee for past AAPG annual meetings, and session chair for technical sessions at past annual meetings. He also serves as the Chair of the Acid Drainage Technology Initiative-Metal Mining Sector (ADTI-MMS) Steering Committee and is a member of the ADTI Operations Committee. He also is a member of AIPG, American Society for Photogrammetry and Remote Sensing, Association of Applied Geochemists, Colorado Mining Association, Denver Mining Club, Denver Region Exploration Geologists Society, Geological Remote Sensing Group of the Geological Society of London, Geological Society of America, National Ground Water Association, Pittsburgh Geological Society, and Rocky Mountain Association of Geologists, and the Society for Mining, Metallurgy and Exploration (SME; where he served as Secretary, Vice-Chair, Chair, and Past Chair of the SME Environmental Division).

Welcome to Doug Peters, 2011-2012 DEG President!



Past-President (2010-11)

Mary K. Harris
Director of Computational Sciences
at the Savannah River National Laboratory
Aiken, South Carolina

Dr. Harris joined the AAPG in 1984 while at the University of Idaho. During that time she was the secretary/treasurer for the AAPG student chapter. When DEG was formed in 1992 she joined and became a charter member of the Hydrogeology Committee. Dr. Harris served as the DEG Vice President prior to becoming DEG President. As the DEG President over the past year Dr. Harris has served on the AAPG Advisory Council. She also attended AAPG Leadership Days in both 2009 and 2010. Dr. Mary K. Harris is the Director of Computational Sciences at the Savannah River National

Laboratory (SRNL). Her experience includes twenty-six (26) years in scientific and environmental positions. Dr. Harris is experienced in leading and interfacing with multidisciplinary organizations within a task team or matrixed framework and fostering an atmosphere that promotes high performance work teams. Over the past twelve (13) years at SRNL her responsibilities have been broad including technical (R&D), programmatic, and regulatory arenas.

Special Thanks to Mary Harris for an excellent job as the 2010-2011 DEG President!



Environmental Geosciences Editor-In-Chief (2009-12)

*Kristin M. Carter
Section Chief
PA DCNR, Bureau of Topographic and Geologic Survey*

Kristin Carter serves as Chief of the Pennsylvania Geological Survey's Petroleum and Subsurface Geology Section in Pittsburgh, Pennsylvania. Prior to joining the Survey in 2001, Kristin worked as a consulting geologist for nine years, performing hydrogeologic and geochemical investigations in Pennsylvania and surrounding states. In addition, she worked as a geology intern with Cabot Oil and Gas Corporation while in college, focusing on

Medina Group exploration efforts. Kristin received a B.S. in Geology from Allegheny College (Meadville, PA) in 1991 and an M.S. in Geology from Lehigh University (Bethlehem, PA) in 1993.

As Chief of the Petroleum and Subsurface Geology Section, Kristin manages the Survey's oil and gas reservoir research projects, prepares technical reports, and assists with the management and maintenance of the PA*IRIS/WIS System, Pennsylvania's statewide database of oil and gas well record documents and the technical data they contain. In addition, Kristin provides educational outreach and handles public requests regarding petroleum, groundwater, subsurface geology, and mapping issues. Current work being performed by the Survey's Petroleum and Subsurface Geology Section includes the research of organic-rich shale gas reservoirs (Marcellus and Utica shales), a rebuild of the PA*IRIS/WIS System, and ongoing geologic carbon sequestration reservoir mapping.

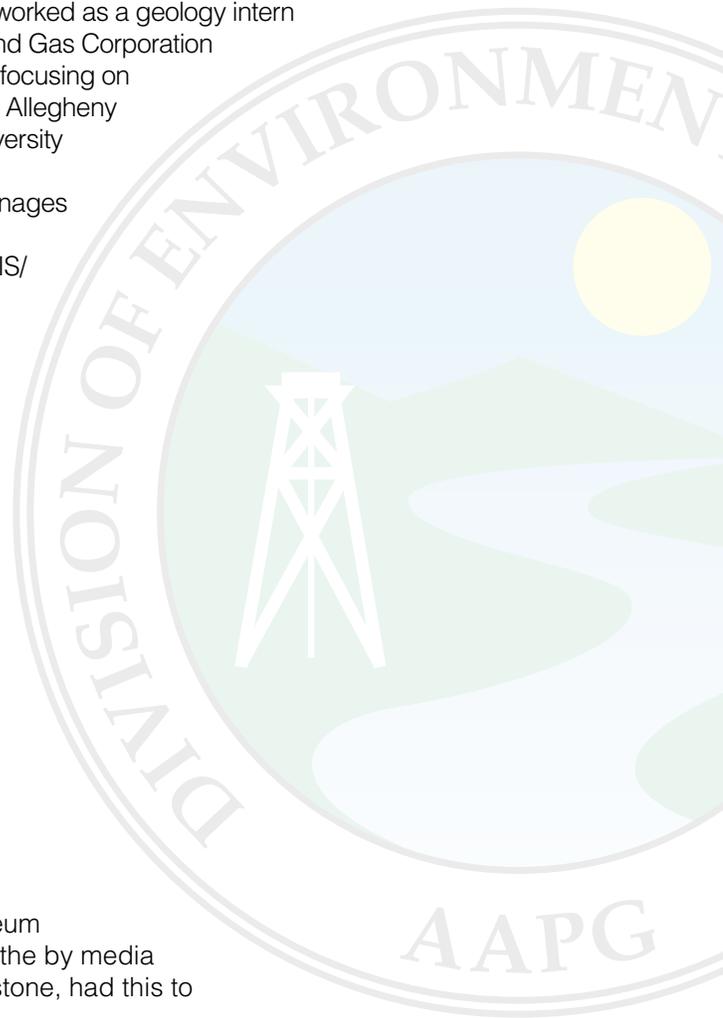
In addition to her full-time job, Kristin is a certified Master Well Owner in the Pennsylvania Master Well Owner Network, an advisor to the Board of Directors of the Friends of Drake Well, Inc., and member of both the Pittsburgh Association of Petroleum Geologists and Pittsburgh Geological Society. Kristin has been an AAPG member since 2007.

Comment from AAPG Membership

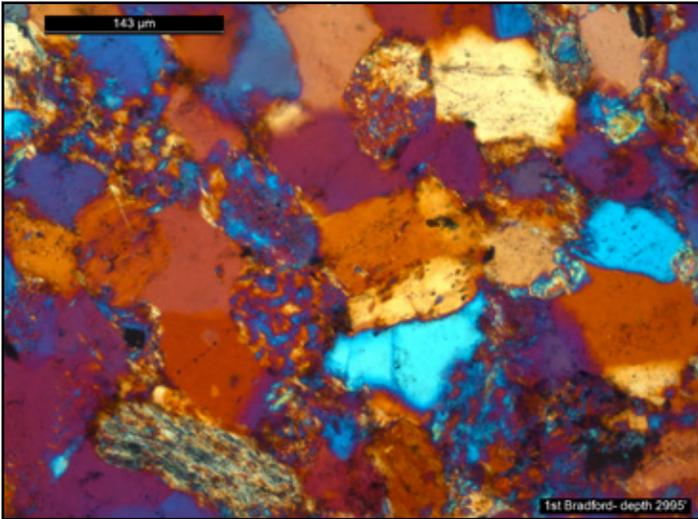
In today's energy-conscious world, so much of our work as petroleum geologists is scrutinized and utilized not only by our peers, but also the by media and government agencies. Our fellow AAPG member, Greg Wrightstone, had this to say on this topic.

"Good scientific work needs to be utilized by politicians when they are considering enactment of new legislation that impacts the public health or the environment. The scientists involved in providing information on these important issues should be well credentialed in the actual scientific specialty in question and provide data that was thoroughly researched and vetted using accepted scientific methods."

*Greg Wrightstone, VP of Geology,
Mountaineer Keystone, LLC*

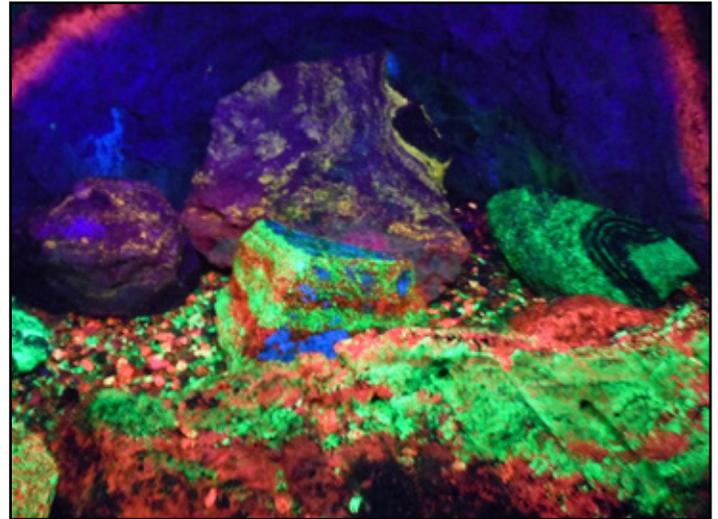


Beauty in Geology



*Michele Cooney,
Allegheny College, Meadville, PA*

[thin-section of 1st Bradford sandstone, exhibiting quartz and feldspar, depth 2,295 feet, view under crossed nicols]. Geology is not usually associated with the word beauty. For most, rocks and soil hardly strike the imagination as fascinating. However, it is geologic processes and the investigation of that which seems ordinary which fuels the passion geologists have for their field. This photomicrograph of an “ordinary-looking” sandstone from Pennsylvania reveals the spectacular, and almost other-worldly, detail locked inside. Without the use of a microscope, this new and beautiful view of an otherwise “common” rock would have remained hidden. From snow-capped mountain ranges and wave-beaten shorelines to thin-sections of rocks and minerals, the beauty of geology surrounds us, brought to light by those who find passion for it.



*Heather Atkins and Kaitlyn Stuckert,
University of Pittsburgh, Johnstown, PA*

Sterling Hill Mineral Mine located in Ogdensburg, New Jersey is famous for a few things including fluorescent minerals and the “Rainbow Room” where you can see them lit up. In this room when ultraviolet lights are turned on in a dark area the zinc ore minerals in the walls such as, willemite (green) and also calcite (red) fluoresce as shown in the picture. This is caused by an activator in the mineral which is usually an impurity, such as manganese, and is shown when the sample is put under an ultraviolet light.

Links of Interest

<http://www.aapg.org/>
<http://deg.aapg.org/>
<http://eg.geoscienceworld.org/>
<http://www.dcnr.state.pa.us/index.aspx>
<http://geology.about.com/>
<http://www.netl.doe.gov/>
<http://www.fcopg.org/>
<http://water.epa.gov/type/groundwater/uic/class2/hydraulicfracturing/index.cfm>
<http://marcelluscoalition.org/home/>
http://www.netl.doe.gov/technologies/carbon_seq/refshelf/atlas/
<http://www.oil150.com/about-oil/appalachian-natural-gas-timeline/>



<http://deg.aapg.org>

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