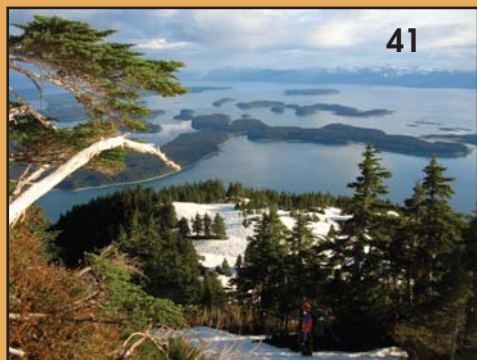


Inside This Issue



FEATURES

AIPG National Officer Election Results	3
AIPG Foundation Report	4
Celebrate Earth Science Week	6
Ethics Training <i>George T. FitzGerald, CPG-06582</i>	8
AIPG Annual Meeting Supporters	11/25
AIPG Annual Meeting Program	12
AIPG Annual Meeting Registration Form	13

PEER REVIEW

Illinois Sulfate Pilot Test to Enhance Anaerobic Degradation of Hydrocarbons <i>Lyle G. Bruce, CPG-07714, Hernando Albarracin, Mike Lowder Michael Teeling, CPG-10498, John Puckett and Arati Kolhatkar</i>	16
Drilling: The Most Cost Effective Technique for Mineral Resource Evaluation <i>Barton G. Stone, CPG-11114</i>	26
Ordinary Soot Key to Saving Arctic Sea Ice	35
Michigan's Mythical Mines <i>Franklin G. Pardee</i>	50
Geoscience NSF Graduate Fellowships Quadrupled in 2009	60

ON THE COVER -Florida's Everglades encompasses a sheet of water 60 miles wide and over 100 miles long that slowly moves across shallow limestone bedrock from Lake Okeechobee to Florida Bay. Photo by Daniel R. Heidenreich, CPG-10085.

PRESIDENT - Michael D. Lawless, CPG
Draper Aden Associates
O: (540) 552-0444 / mlawless@daa.com

PRESIDENT-ELECT - Samuel Gowan, CPG
Alpha Geoscience, Inc.
O: (518) 348-6995
sgowan@alphageoscience.com

PAST-PRESIDENT - John L. Bognar, CPG
BCI Engineers & Scientists, Inc.
O: (314) 894-5889 / jlbognar@bcieng.com

VICE PRESIDENT - Ronald J. Wallace CPG
State of Georgia
O: (404) 362-2589 / ronald_wallace@dnr.state.ga.us

SECRETARY - Adam W. Heft, CPG
Parsons Brinckerhoff
O: (517) 886-7400 / heft@pbworld.com

TREASURER - David R. Rhode, CPG
RBC Wealth Management
O: (303) 488-3645 / dave.rhode@rbc.com

EDITOR - Robert A. Stewart, CPG
Arcadis US, Inc.
O: (860) 533-9901 / bob.stewart@arcadis-us.com

ADVISORY BOARD REPRESENTATIVES
James D. Hirsch, MEM
Water and Air Research, Inc.
O: (352) 372-1500
jhirsch@waterandair.com

J. Matthew Justice, CPG
H: (937) 879-2186
matt.justice@sbcglobal.net

Barbara H. Murphy, CPG
Clear Creek Associates
O: (480) 659-7131
bmurphy@clearcreekassociates.com

J. Foster Sawyer, CPG
SD School of Mines and Technology
O: (605) 394-2462
foster.sawyer@sdsmt.edu

NATIONAL HEADQUARTERS
12000 N. Washington St, Suite 285
Thornton, CO 80241
7:30 AM - 4:30 PM MDT; M-F
(303) 412-6205 • Fax (303) 253-9220
aipg@aipg.org • www.aipg.org

EXECUTIVE DIRECTOR - William J. Siok, CPG - wsiok@aipg.org
ASSISTANT DIRECTOR - Wendy J. Davidson - wjd@aipg.org
PROFESSIONAL SERVICES MGR - Cathy L. Duran - cld@aipg.org
MEMBERSHIP SERVICES MGR - Vickie L. Hill - vlh@aipg.org
OFFICE ASSISTANT - Cristie J. Valero - cjv@aipg.org
ADMINISTRATIVE ASSISTANT - Dianna de Cordoba - ddc@aipg.org

LIFE AND HEALTH INSURANCE
GeoCare Benefits Insurance Plan
Phone: 800-337-3140 or 805-566-9191
http://www.geocarebenefits.com/
E-mail: geocarebenefits@agia.com

AUTO AND HOME INSURANCE
Liberty Mutual
Phone: 800-524-9400
http://www.libertymutual.com/lm/aipg

SUPPLEMENTAL INSURANCE
AFLAC
Phone (303) 674-1808
http://www.aflac.com

PROFESSIONAL & GENERAL LIABILITY INSURANCE
The Wright Group
Phone (800) 322-9773 (303) 863-7788
http://www.thewrightgroupinc.com

ALAMO RENTAL CAR -
(800) 354-2322 - Member #BY-706768

AVIS RENTAL CAR -
(800) 831-8000 - Member AWD #T00300

BUDGET RENTAL CAR -
(800) 455-2848 - Member BCD #Z663100

AIPG FOUNDATION
Ray Talkington, CPG
Geosphere Environmental Management, Inc.
51 Portsmouth Avenue
Exeter, New Hampshire 03833
(603) 773-0075/FAX (603) 773-0077
RTALKINGTON@geosphereh.com

DEPARTMENTS

- 11 Student Chapters
- 15 Editor's Corner
- 33 Test Your Knowledge
- 34 President's Message
- 36 Test Your Knowledge Answers
- 37 Executive Director's Column
- 38 Professional Ethics and Practices
- 42 Hydrothink
- 43 Student's Voice
- 44 In Memory
- 46 Professional Services Directory
- 47 AIPG Membership Application
- 48 AIPG Student Application
- 49 New Applicants and Members
- 55 Section News
- 58 Members in the News
- 58 Student News
- 59 AIPG President Travels
- 61 AIPG Store

American Institute of Professional Geologists (AIPG) is the only national organization that certifies the competence and ethical conduct of geological scientists in all branches of the science. It adheres to the principles of professional responsibility and public service, and is the ombudsman for the geological profession. It was founded in 1963 to promote the profession of geology and to provide certification for geologists to establish a standard of excellence for the profession. Since then, more than 10,000 individuals have demonstrated their commitment to the highest levels of competence and ethical conduct and been certified by AIPG.

The mission of the American Institute of Professional Geologists (AIPG) is to be an effective advocate for the profession of geology and to serve its members through activities and programs that support continuing professional development and promote high standards of ethical conduct.



The Professional Geologist (USPS 590-810 and ISSN 0279-0521) is published bi-monthly by the American Institute of Professional Geologists, 12000 N. Washington St., Suite 285, Thornton, CO 80241-3134. Periodicals Postage Paid at Denver, Colorado and additional mailing offices.

POSTMASTER: Send address changes to *The Professional Geologist*, AIPG, 12000 N. Washington St., Suite 285, Thornton, CO 80241

Subscriptions for all Members and Adjuncts in good standing are included in annual membership dues. Subscription prices are \$20.00 a year for Members' additional subscriptions and \$30.00 a year for non-members for 6 issues (for postage outside of the U.S. add \$10.00). Single copy price is \$4.00 for Members and \$6.00 for non-members. Claims for non-receipt or for damaged copies are honored for three months.

Entire contents copyright 2010 by *The Professional Geologist*. Original material may be reprinted with permission. Deadline for articles and advertisements is six weeks preceding publication. Advertising rates available upon request. Opinions and views expressed by the authors are their own and do not necessarily reflect those of the American Institute of Professional Geologists, its staff, or its advertisers.

Printed in U.S.A. by Modern Litho-Print Company in Jefferson City, Missouri.

For AIPG news and activities go to www.aipg.org.