



# HUDSON-MOHAWK PROFESSIONAL GEOLOGISTS' ASSOCIATION

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<http://members.aol.com/hmpga>

Kathy Sanford, Editor  
Vol. 8 No. 8  
April 2002

**April 10, 2002: Bill deLorraine to Share New Insights:**

## **Grand Unifying Theory of Zinc Ore Deposits at Balmat, NY**

Bill deLorraine is the Principal Geologist for Zinc Corporation of Americas' zinc mines in the northwest Adirondack Lowlands near Gouverneur, NY. The zinc mines are located in the Balmat/Edwards/Pierrepoint marble belt, a collection of Precambrian siliceous dolomitic marbles polydeformed and metamorphosed to a very high grade during the Grenville Orogeny about 1.1 billion years ago. Mr. deLorraine has spent the last 28 years studying the structure of the ore bodies and their responses to deformation at 6.5 kbar confining pressure and temperatures approaching 700°C. His work has demonstrated that significant fractions of originally stratiform massive sulfides departed their "source bed" or "parent" bodies by way of plastic flow into other stratigraphic units along macrofractures that developed in close association with nappe-like folds. Insights over the past year have shown that in some places the expelled fractions evolved into separate, discrete, "daughter" ore bodies of their own. Recognition of two thrust fault-hosted ore bodies crosscutting stratigraphy as "orphans", that is, daughter ore bodies lacking a source bed, mandates the presence of at least one additional, as yet undiscovered, high grade parent for these orphans. The talk will illuminate the four phases of deformation that have affected the ore bodies and what lines of geologic evidence pinpoint the location of the predicted "Mother Lode" parent ore body.

### **About the Speaker**

Mr. deLorraine graduated magna cum laude from the State University College at Potsdam in 1974, then worked in the Balmat mines one year before attending the University of Massachusetts at Amherst where he received his MS degree. His thesis was on the detailed structural evolution of the Fowler ore body at Balmat and on the geologic structure of the mining district as a whole. He has authored or co-authored many papers on the geology of the Balmat mines and the northwest Adirondacks. Also an avid mineral collector, he has donated many of the specimens he collected in the course of his underground travels to the State Museum collection at Albany.

### **HMPGA Corporate Members**

(See page 7 for contact names and phone numbers)

*Adirondack Environmental Services, Inc.*  
*Aquifer Drilling & Testing, Inc.*  
*Earth Tech, Inc.*  
*ERM Northeast*  
*GeoTrans, Inc.*  
*Hydrogeologic, Inc.*  
*MARCOR Remediation, Inc.*  
*Parratt Wolff, Inc.*  
*SJB Services, Inc.*  
*Spectra Environmental Group, Inc.*  
*URS Corporation*

### **About Our Meetings**

**Where:** Holiday Inn Turf  
205 Wolf Road, Colonie

**When:** Second Wednesday of every month  
except June, July and August.

Board of Directors Meeting	4:00 pm
Social Hour	5:00 pm
Dinner	6:00 pm
Program	7:00 pm

**Dinner:** \$10.00/person for student members  
\$20.00/person for members  
\$22.00/person for nonmembers

Vegetarian meal options are available with prior request.  
**\*\*\*Individuals will be responsible for the cost of dinner unless cancellation notice is received 24 hours prior to the meeting.\*\*\***

**Reservations:** Call or e-mail Diane Welch at (518) 348-6995 or [dwelch@alphageoscience.com](mailto:dwelch@alphageoscience.com) by the previous Friday. Please register even if you are planning on attending only the talk.

**For HMPGA membership information,  
please contact Curt Cappellano at  
(518) 266-0310.**

## **N** From the President's Desktop

*by George Pafumi*

First, I would like to thank all of the members who helped out at the HMPGA booth at the Gem & Mineral show at the NYS Museum on February 23 and 24. We need to keep a presence at local geological events.

It's election time. Inside this newsletter you will find a ballot for the new Officers and Directors for 2002-2003. These are the volunteers that will carry us forward. They are a very dedicated and talented group; many have sat on other boards and have some great experience. Let's help them continue the work done by those who started this association. It truly has been a great experience working on the board. We are not a large association and as the years pass we have been relying on the same small group to keep HMPGA moving forward. I'm asking each member to consider sitting on the board; we will continue to have openings as Officers move through the ranks. Please take some time and review the candidates, their short biographies, talk with them at the next meeting and express your ideas and thoughts. And most importantly vote. We will be counting

ballots and the new officers and directors will be announced in May. They will take office in June.

If you're keeping up on the status, there is cautious optimism relating to the Geologist's Licensing Bill. Keep in mind that HMPGA will play a big part by offering to its members a quality forum for Continued Education Credits as required under the provisions for licensing.

Don't forget our Spring symposium. This year we have two veteran DNAPL chasers as speakers in a full day seminar on remediation of DNAPL. We need to have at least 50 people enroll. So encourage colleagues to attend. Our friends in the engineering community are more than welcome. I hope to see each of you there.

*HMPGA President George Pafumi is owner and Principal Hydrogeologist of Environmental Maintenance Technology of Schenectady.*

## **Members Sought to Judge Top Science Projects**

The Joseph Henry Science Fair celebrates its sixteenth year on April 26, 2002. This annual science fair is open to all 4<sup>th</sup> through 8<sup>th</sup> grade students attending public or private school in the City of Albany. Any HMPGA members who would like to volunteer to judge the students' projects, please contact George Pafumi. This year's Fair will be held in the University Heights Gymnasium of the Albany School of Pharmacy.

## **Follow the Progress of the Geologists' Licensure Bill**

<http://www.nyscpge.org/>

New York State Council of Professional Geologists

<http://assembly.state.ny.us/leg/>

New York State Assembly  
Bill Search Page

<http://www.senate.state.ny.us/>

New York State Senate  
Click link to "Bills/Laws"

## Careers and Disasters on the World Wide Web

Members Laurie Scheuing and Bill Dickerson report on two websites of potential interest to HMPGA members and friends. Laurie points us to a new web site launched by the American Geological Institute which highlights information on all aspects of geoscience employment. The web site suggested by Bill, posted by the National Aeronautics and Space Administration, features satellite images in near real time over natural hazards around the world.

AGI's website (<http://guide.agiweb.org>) provides a free publication, *Guide to Geoscience Careers and Employers*, which presents information on choosing, maintaining and advancing a career specifically in the geosciences and provides useful geoscience-employer information that students need in order to find geoscience employment. It is designed as a "living" document - one that will be updated and expanded as new information becomes available.

The Guide's overview provides a summary of past and projected geoscience job markets, trends in college enrollments and degrees, employment trends and statistics, and job-hunting hints and strategies. Six employer categories are featured: oil and gas industry, mining industry, consulting firms in water resources and the environment, federal and state government agencies, national laboratories, and K-12 education. For each of these sectors, an experienced professional provides insight into employment trends, skills needed, and future directions applicable to that employment category. Also included are profiles of major companies and agencies, along with contact information, job descriptions, the recruiting process, and summer internship opportunities. A companion publication, the free *Guide to Geoscience Departments*, can also be accessed from this site.

At <http://earthobservatory.nasa.gov/NaturalHazards>, visitors will find images and information about major environmental events that could be hazardous to human populations. Categories of natural hazards to be tracked initially include wildfires, severe storms, floods, volcanic eruptions and major air pollution events such as dust storms, smog and smoke. NASA plans to expand the site to also include information about earthquakes, coastal erosion and landslides. The goal is to help people visualize where and when natural hazards occur, and to help mitigate their effects. The satellite images are available for free to the public and the news media.

Thank you Laurie and Bill for suggesting these two places to surf!

### *HMPGA Announces a day-long workshop on* **Practical Site Characterization & Remediation Techniques for DNAPLs and their Associated Dissolved Phase Plumes**

*Presented By:*

**Dr. John H. Guswa & Dr. Bernard Kueper**

**Holiday Inn Turf, 205 Wolf Road, Albany  
Wednesday, May 8, 2002  
8:00 a.m. – 5:00 p.m.**

#### **Registration**

HMPGA members \$130\*

Non-members \$150\*

(includes lunch)

\*add \$20 if registering after April 24

See insert for registration form,  
sponsor list and other details.

**No evening program on May 8.**

# N From the Secretary's Notepad

## Excerpts from Draft Minutes for March 13, 2002

by Eriko Fujita

**Call to Order:** President George Pafumi called the meeting to order at approximately 4:05 pm. Officers and Board of Directors present were George Pafumi, Laurie Scheuing, Eriko Fujita, Bill Kelly, Mark Davin, Don Cadwell, Curt Cappellano, Mike Palleschi, Kathy Sanford, and Tom Ebert. Also present were Bill Dickerson and Bob Fakundiny.

**Treasurer's Report:** Curt Cappellano provided a revised Treasurer's report for January 10, 2002 through February 13, 2002 and the Treasurer's report for February 13, 2002 through March 13, 2002. The current balance was reported to be \$4,401.66. Curt also reported that he got the restricted access ATM card for deposits only for HMPGA's Key Bank checking account.

**May 8, 2002 Symposium: Laurie Scheuing/Bill Kelly:** Laurie Scheuing reported that the arrangements for the date and place have been made for the DNAPL symposium. The committee is still looking for sponsors. Currently, there are five sponsors and two have been offered one free "spot" to attend the seminar. These two sponsors are Adirondack Environmental Services (\$300) and Parratt-Wolff (\$200) who have offered to cover the expenses for the morning coffee break and afternoon break. Bill Kelly reported that the sponsors have also been offered a booth at the symposium and Laurie is to check with the Holiday Inn about space. A deli buffet and a program materials binder are included with the symposium cost. HMPGA will pay for the copying of the materials and the binders. GeoTrans has covered the costs for the labels and copying of the flyer and NYSGS will cover the postage for distributing the flyer. Laurie anticipates sending out multiple e-mails regarding the symposium to encourage people to sign up. A minimum of 50 people is needed to attend to break even on the costs and the committee anticipates that more than 50 people will attend.

**Education Committee Report:** Bill Dickerson thanked Tom Ebert, John Gansfuss, and others who volunteered for the HMPGA table at the NYS Museum Mineral Show that was held on February 23 and 24, 2002. Bill noted that a poster that provided information on careers in the Earth Sciences field was not available and would have been useful to have on display. Bill said he would try to get a poster from Earth Sciences week permanently mounted for next time. Bill reminded George that a letter of appreciation be sent so that HMPGA may be included next year. Also, Bill noted that the Capital District Mineral Society had a superb "banquet" table. **Program Chair:** HMPGA is still looking for a new program chair for next year. Bob Fakundiny will be the speaker for October 2002. Bob Jacobi from SUNY Buffalo has also agreed to be a speaker next year.

**Web Page:** Laurie Scheuing requested that HMPGA consider getting a new Internet service provider and web page designer to update the web page. George Pafumi moved that a web page committee be formed. Steve Crook seconded the motion, and the Board voted in favor. The committee will be made up of Curt Cappellano, Kathy Sanford, Laurie Scheuing, Bill Kelly, and Don Cadwell.

**Summer Party:** George Pafumi suggested that the party be held in Helderbergs this year. Bill Kelly suggested that either Gerry Friedman or Chuck Ver Straeten could be asked to lead a field trip. Tom Ebert suggested that Thom Engel be also be asked.

**Next Meeting:** April 10, 2002; 4:00 pm; Holiday Inn Turf.

*HMPGA Secretary Eriko Fujita is a Project Geologist with URS Corporation.*

**Next newsletter deadline: April 19, 2002**

Send WordPerfect documents or e-mail text to  
[harrier@worldnet.att.net](mailto:harrier@worldnet.att.net).

*Any content that appears to express an opinion on behalf of HMPGA will be reviewed by the President prior to publication.*

**To advertise in this newsletter, contact Steve Crook.**

Rates (per issue):

Full page	\$100
Half page	50
Quarter page	25
Business card	10

Advance purchase of a full page for one year (10 issues, \$1000) includes one Corporate Membership (value \$100). Purchase of a half page for one year (\$500) offsets half the cost of one Corporate Membership.

## Events Calendar

## HMPGA

<http://members.aol.com/hmpga>

### April 10, 2002

*Grand Unifying Theory of Zinc Ore Deposits at Balmat, NY*  
Bill deLorraine, Zinc Corporation of America

### May 8, 2002

**Daytime Program, 9 am - 4 pm, Holiday Inn Turf**  
*DNAPL Seminar*

Dr. Bernie Kueper, Queens University  
Dr. Jack Guswa, GeoTrans, Inc.

(No Evening Program)

**Program Chair Needed  
to plan and develop next year's  
HMPGA schedule.**

Contact any officer or director.

## Capital District Mineral Club

The Capital District Mineral Club will hold its monthly meeting on Thursday, April 4, 2002 at the New York State Museum, 7:00 pm. Annual dues are \$20. Collecting field trips are scheduled for April through October.

## New York State Museum

<http://www.nysm.nysed.gov/muscalendar.html>

### April 2002

*The "Age of Fishes" - Updating New York's Devonian, 400 Million Years Ago*  
Dr. Charles Ver Straeten

#### All lectures at 7 pm in the Museum Theater

#### April 3, 2002

*Time Traveling to New York's Tropical Seas*

#### April 10, 2002

*Life Emerges - First Forests Across The Land*

#### April 17, 2002

*The Second Crash - Devonian Mountains and Muddy Seas*

#### April 24, 2002

*A Greenhouse World in the "Age of Fishes"*

### April 27, 2002 9 am - 1 pm

*Karst - A Primer by Way of Field Trip*  
Thom Engel

This field trip is part of The Northeast Natural History Conference to be held April 24 - 27 at the NYS Museum. Registration for the trip is limited and is required by April 10. See <http://www.nysm.nysed.gov/nhe>, call (518) 486-4845 or e-mail [bri@mail.nysed.gov](mailto:bri@mail.nysed.gov) for more information.

## RPI & SUNY Albany: Earth Sciences Joint Colloquia Series

<http://ees2.geo.rpi.edu/colloq.html>

<http://www.albany.edu/geosciences/semrcurr.html>

### RPI - April 3, 2002

Dr. Kurt Fiegl, Centre National d'Etudes Spatiales (Paris)

### Albany - April 17, 2002

*Estimating shortening in a penetratively deformed domain of the Cordilleran thrust belt*  
Dr. Tekla Harms, Amherst College

### RPI - April 18

*Is Geology cool? How William Smith became a best-seller*  
Simon Winchester - Author of The Map that Changed the World

### RPI - April 24, 2002

Dr. James Wright, Rutgers University

### Albany - May 3, 2002

*Southern Ocean Impacts on Global Climate: Clues from the Antarctic Margin*  
Dr. Rob Dunbar, Stanford University

## Buffalo Association of Professional Geologists

<http://www.bapg.org>

### April 17, 2002

*Treatment Wetlands for Environmental Remediation*  
Thomas Ferraro, Ecology and Environment, Inc.

### May 15, 2002

*Geotechnical Design and Construction Aspects of the Braddock Dam: In-The-Wet Project*  
Dr. Brian Greene, U.S. Army Corps of Engineers

## Buffalo Geological Society

### April 5, 2002

*Minerals to Gemstones*  
Contact Jon Nickerson at 716-684-8060

Northeast Section - AIPG

<http://www.ne-aipg.org>**May 15, 2002 - Spring Meeting - Weehawken, NJ****3:00 - 5:00 pm***History & Restoration of the Weehawken Fire Tower*  
Presentation and Tour by Eric Holtermann**5:00 pm - 7:00 pm***Social Hour and Dinner***7:00 pm - 7:30 pm***Faults and Fracturing in the Hudson Highlands*  
Dr. Alec Gates, Rutgers-Newark**Long Island Geologists**<http://pbisotopes.ess.sunysb.edu/lig>**April 20, 2002***Ninth Conference on Geology of Long Island and Metropolitan New York***Central New York Association of Professional Geologists**<http://www.dreamscape.com/cnyapg/>**April 10, 2002***A Geological Approach to Simulation of Subsurface Hydrology*

Dr. Graham Fogg, University of California at Davis

**New York State Geological Association: Annual Meetings**<http://www.nysgaonline.org>**September 27 - 29, 2002**Hosted by Colgate University  
Lake George, NY

Fall 2003

Hartwick College and SUNY-Oneonta

Fall 2004

Hosted by SUNY-Potsdam

**Midwest GeoSciences Group - University of Massachusetts at Amherst**<http://www.midwestgeo.com/>

“The Midwest GeoSciences Group is a self-supported organization formed for the sole purpose of geoscience education. The Midwest GeoSciences Group conducts workshops, short courses and field trips focusing on the geologic environment in the Midwestern United States.”

**June 18 - 19, 2002***Improving Hydrogeologic Analysis of Fractured Bedrock Systems***June 20 - 21, 2002***Improving Hydrogeologic Investigations: Advances in Characterizing Ground Water Movement Through Glacial Sequences***HMPGA Corporate Members**

	<i>Contact</i>	<i>Phone</i>
<b>Adirondack Environmental Services, Inc.</b>	Steve Valle	(518) 434-4546
<b>Aquifer Drilling &amp; Testing, Inc.</b>	Joe Miranda	(518) 274-3949
<b>Earth Tech, Inc.</b>	Frank Williams	(518) 458-1313
<b>ERM Northeast</b>	Edward Hinchey	(518) 452-4291
<b>GeoTrans, Inc.</b>	John Guswa	(978) 772-7557
<b>Hydrogeologic, Inc.</b>	Michael D. Jackson	(518) 782-3435
<b>MARCOR Remediation, Inc.</b>	Mark DeAngelo	(518) 456-5909
<b>Parratt Wolff, Inc.</b>	Steve Crook	(518) 827-7797
<b>SJB Services, Inc.</b>	Bill Bosworth	(518) 899-7491
<b>Spectra Environmental Group, Inc.</b>	Robert Lafleur	(518) 782-0882
<b>URS Corporation</b>	Stephen LeFevre	(518) 688-0015

## 2001 - 2002 Board of Directors

### Officers

George Pafumi, President	(518) 357-0908	gfume@aol.com
Laurie Scheuing, Vice President	(518) 373-1200	lescheuing@aol.com
Curt Cappellano, Treasurer	(518) 266-0310	ccappellan@aol.com
Eriko Fujita, Secretary	(518) 688-0015	eriko_fujita@urscorp.com
Bill Kelly, Past President	(518) 474-7559	wkelly@mail.nysed.gov

### Board Members

Don Cadwell	(518) 486-2012	dcadwell@mail.nysed.gov
Steve Crook	(518) 827-7797	scrook@pwinc.com
Mark Davin	(845) 256-3064	davin@ulster.net
Thomas Ebert	(518) 457-1038	tebert@gw.dot.state.ny.us
Mike Palleschi	(518) 783-1805	mpalleschi@alphageoscience.com
Kathy Sanford, Newsletter Editor	(518) 402-8056	harrier@worldnet.att.net

#### Upcoming Deadlines

April meeting reservations:	4/05/02
May newsletter:	4/19/02

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HMPGA  
PO Box 5506  
Albany, NY 12205-0506

FORWARDING SERVICE REQUESTED

FIRST CLASS