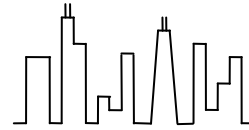


# CHICAGO SECTION NEWSLETTER

## March 2007



Newsletter of the Chicago Section of the Society for Mining, Metallurgy, and Exploration, Inc. - Founded Spring 1987 – [www.chicagosme.org](http://www.chicagosme.org)

## MEETING: Tuesday, March 20, 2007

**Topic:** 3-D Images for Mining Applications - Think “Holodeck”

**Guest Speaker:** Mitch Schefcik, Optira Inc., Omaha, Nebraska

**Time:** 5:30 PM Social Hour  
6:30 PM Dinner

*Please - We need advance reservations – check the menu below.*

**Meeting Location:** **Finley’s Grill Room**  
**3131 Finley Rd., Downers Grove, Illinois**

**Directions:** *Northern and Northwest Suburbs:* Take Route 53 south/I-290 east to the North-South Tollway (I-355) going south. Exit at Butterfield (Rte. 56). Turn left on Butterfield and proceed East to Finley Ave. Turn South (right) on Finley and turn left at first opportunity (Blanding Ave.). Finley Grill is on your right.

*Western Suburbs:* Take East-West Tollway I-88 east to exit to I-355 North. Exit from I-355 at Butterfield and turn right. Finley is the first light. Turn South (right) on Finley and turn left at first opportunity (Blanding Ave.). Finley Grill is on your right.

*Downtown Chicago:* Take I-290 west to East-West Tollway (I-88) west toward Aurora. Take East-West Tollway I-88 east to Highland Ave. exit. Turn North (right) on Highland and immediately turn left on Butterfield Road. Follow Butterfield Road to Finley Road and turn south (left). Once on Finley turn left at your first opportunity (Blanding Ave.). Finley Grill is on your right.

*Southwest Suburbs:* Take I-55 to I-355 north one exit beyond I-88 and exit at Butterfield Road Turn right onto Butterfield Road and proceed to the first light (Finley). Turn South (right) on Finley and turn left at first opportunity (Blanding Ave.). Finley Grill is on your right.

*Southeast Suburbs:* Take Tri-State Tollway (I-294) north to the East-West Tollway (I-88) exit. Take East-West Tollway I-88 east to Highland Ave. exit. Turn North (right) on Highland and immediately turn left on Butterfield Road. Follow Butterfield Road to Finley Road and turn south (left). Once on Finley turn left at your first opportunity (Blanding Ave.). Finley Grill is on your right.

**Menu:** Appetizers: Buschetta or Spinach and Artichoke Dip; House Salad with choice of dressing or Caesar Salad;

Entrées: Marinated Skirt Steak or Cedar Plank Salmon

Served with Finley's Smashed Potatoes, and a Fresh Vegetable Medley; dessert consists of New York Style Cheese Cake or Key Lime Pie. Dinner will be family style with choice of coffee, tea or soft drink and rolls. A vegetarian plate is available on request.

**Cost:** \$32 for dinner/meeting for Members, \$35 for Non-Members  
Science teachers or professors are considered guests of the Section and will get dinner free.  
Students’ dinners are \$5.

If you plan to attend, RSVP; PLEASE before Friday, March 16, 2007. Call or email **Agapito Associates, Inc.** at either **630-792-1520 (office)**, **630-240-8730 (Frank’s cell)** or **frank@agapito.com**.

## From the Program Chairman

### Next Meeting: 3-D Images for Mining Applications - Think "Holodeck"

### Guest Speaker: Mitch Schefcik, Optira Inc., Omaha, Nebraska Topic:

Recent improvements in laser scanning and in post processing of the resulting point clouds enables precise 3-D images to be generated in minutes, not hours.

These images can be of stockpiles for inventory control, underground mine openings to clarify clearance issues, and "as-builts" of plants and surface facilities for design of modifications. They can also be used as the foundations for sophisticated data management systems to track assets - hard (tangible assets) or soft (human capital). Additional uses include hands-on safety management procedures: "What valve do I need to turn off to isolate this line? And where is it?"

Additional uses of the animated images can be for emergency response activities or for accident reconstruction. Photos taken, for example, by first responders with digital cameras can be superimposed on later scanned images to provide scalable details of the immediate aftermath of the accident. The technology is almost at the level where scanned images are almost indistinguishable from movie footage - hence the reference to the Star Trek "Holodeck".

### Speaker:

Mitch Schefcik is the founder of Optira Inc., based in Omaha, Nebraska. He developed the algorithms to take the scanned points into 3-D space. But, more importantly, he has seen the potential applications of this powerful tool. This visionary approach has led to significant work with clients as diverse as small limestone operations to Bechtel, from the Department of Homeland Security to major law firms.

## The Last Meeting:

Jessica Kaminsky, a civil engineer at CH2M HILL in Chicago and President of the Chicagoland Professional Chapter of Engineers Without Borders (EWB), spoke to the Chicago Section at its February 1, 2007 meeting. EWB is a non-profit humanitarian organization that partners with developing communities worldwide in order to improve their quality of life through the implementation of environmentally and economically sustainable engineering projects. This presentation discussed water supply projects in Thailand and Guatemala that have been performed by EWB using labor from engineering students and inhabitants of the villages receiving the water. She emphasized that the villagers must buy into the project and be willing to maintain the pipes and facilities. She also discussed an upcoming project in Mexico in karstic terrain that faced some technical challenges and wondered if there was appropriate expertise available in the audience. Several members discussed their ideas and experience with Jessica after the meeting.



Speaker **Jessica Kaminsky** in action



Speaker **Jessica Kaminsky** with SME member **Dean Ennis** in background

By the Editor

## Meeting Location Confusion

I am sorry for the constantly changing venue for our meetings. We had hoped to settle on the Holiday Inn in Glen Ellyn for a semi-permanent location. Then they started a major reconstruction project. So we have been floundering around for a home...

The Finley Grill offers a stop-gap, until the Holiday Inn (new Crown Plaza) is available again in the late summer.

I hope you enjoy the talk, meal and location on the 20<sup>th</sup>...

**H. John Head**  
Chairman, SME Chicago Chapter

## Looking for Speakers for This Year:

**The Chicago SME is in the process of scheduling speakers for this year.** If you have a subject you are interested in hearing presented, know of someone you would like to have speak to our group, or would like to give a talk yourself, please contact our program chair, **Frank Kendorski at 630-792-1520** or you can e-mail him at [frank@agapito.com](mailto:frank@agapito.com).

## Doug Hambley Joins Agapito Associates, Inc.

On March 1, 2007, **Doug Hambley** joined **Agapito Associates, Inc's Chicago Office** as an Associate. In this position, Doug will provide consulting services in the areas of mine and shaft design, roof and pillar support, mine ventilation, mine water issues, and blasting to local, regional and international mines and quarries, as well as heavy construction projects. Doug has a BSc (Hons.) in Mining Engineering from Queen's University in Canada, an MBA from Lewis University and a PhD in Earth Sciences from the University of Waterloo in Canada. He has over 30 years experience in mining, geological and environmental engineering and is a Licensed Professional Engineer in Illinois, Wisconsin, Pennsylvania, Virginia, Maryland, and Ontario, Canada and a Licensed Professional Geologist in Illinois, Indiana, Pennsylvania, and Wisconsin.

## **SUPPORT FOR CENTRAL GREAT LAKES MAPPING COALITION**

The Illinois State Geological Survey, as a member of the Central Great Lakes Geologic Mapping Coalition (CGLGMC) (which includes the state geological surveys of Illinois, Indiana, Michigan, and Ohio, as well as the U.S. Geological Survey), has been working with our Congressional Delegations since 1999 to increase the geologic mapping effort, expand the geologic map coverage, and develop more geologic map products in Illinois and the other CGLGMC states. They are asking that users of their maps and mapping services write letters to their Congressman and Senators in support of the Coalition's request of Congress for \$5 million for 1:24,000-scale, 3-D geologic mapping in those four states. The ISGS would receive about \$1M of that amount. The CGLGMC currently receives \$500,000/yr, which is split between the four states and the USGS. At this minuscule funding level, it will take several hundred years to complete the geologic mapping required for today's needs.

If you would be willing to write letters, ISGS will send you a digital draft letter to customize and send to your Congressman and our Senators. (ISGS will supply addresses as well.) ISGS needs to mobilize as much local stakeholder support as possible this budget season in order to increase their appropriation. ISGS efforts to gain political support and to increase their funding for geologic mapping are now entering its 8<sup>th</sup> year. The Coalition has political support; however, financial support will only come if there is visible support from stakeholders, that is, consultants and other geological professionals who use the geologic maps and expertise from ISGS to make decisions. A letter from you is extremely important for the growth of ISGS' geologic mapping program in Illinois.

**Note from the Editor:** The contact person at ISGS is Steve Wald at [Wald@isgs.uiuc.edu](mailto:Wald@isgs.uiuc.edu).

## **UPCOMING MEETINGS & EVENTS**

*For your schedules:*

**University of Florida's Geotechnical Instrumentation Course, March 18-20, 2007**, Hilton St. Petersburg Bayfront Hotel, St. Petersburg, Florida.

The course director is John Dunncliff. For full course information and arrangements and for registration, please visit

<http://www.doce-conferences.ufl.edu/geotech/>.

## **NEWS TO USE**

### **Permitting of Kennecott Eagle Minerals Mine near Marquette, MI Postponed**

The Michigan Department of Environmental Quality announced March 1 that it had withdrawn its proposed decision to approve a permit for the Kennecott Eagle Minerals Company to conduct mining operations at the proposed Eagle Project Mine. The decision was made after discovering that two reports on the structural integrity of the mine were not properly made part of the public record or given a comprehensive technical review.

"This department has committed itself to making this process as open and transparent as possible," said DEQ Director Steven E. Chester. "In light of this information, we must allow the needed time for ourselves, as well as the public, to give it the appropriate review."

In addition to a technical review of the reports, the department will be undertaking an extensive procedural review to determine how these documents were not immediately given the proper consideration and to ensure that there is a complete public record of information related to the mining proposal and its review. During this review, affected staff will be reassigned to other projects.

The DEQ will share the findings of its review with the public as that information becomes available, and the technical reports will be posted on the DEQ's Web site at [www.michigan.gov/deqogs](http://www.michigan.gov/deqogs), then click on Kennecott Eagle Project.

Eagle, discovered in 2002, is a massive to semi-massive magmatic sulphide deposit with an indicated resource of 3.6 million tonnes grading 3.8% nickel and 3% copper, with 0.8 gram platinum, 0.5 gram palladium and 0.3 gram gold per tonne. Another 500,000 tonnes of inferred material grades 2.2% nickel and 2.2% copper plus 0.4 gram platinum and 0.3 gram palladium per tonne, and an inferred low-grade resource in the peridotite host rock contains 8.1 million tonnes grading 0.5% nickel and 0.4% copper.

Kennecott has no plans to build a mill at Eagle because permitting one in an area used heavily for recreation would have been overly difficult. Instead, it will have the ore custom-milled, probably at Xstrata's (formerly Falconbridge's) Kidd Creek operation in Timmins, Ont.

The mine is anticipated to produce 2,000 tonnes per day and employ about 120 people when in production. Kennecott plans to develop via a decline and have limited surface facilities. Waste rock will all be returned to the mine as backfill.

*Extracted from the MDEQ website .and modified by the Editor.*

### **Vulcan buys Florida Rock**

Vulcan Materials on February 20 said it has entered into an agreement to buy Florida Rock Industries Inc. for \$4.6 billion.

Vulcan is already the biggest producer of highway construction materials in the U.S. The acquisition allows them to expand into a Florida building market that has been one of the nation's most profitable in recent years - and also one of the hardest hit in the housing downturn of the last year. The deal, which values Florida Rock shares at \$68.03, will pay 70% in cash and supplement that with shares in Vulcan on a pro-rated basis.

Another perk for Vulcan is an increase in its reserve of the crushed stone and sand used to make concrete, especially in resource-light Florida.

The acquisition should close in the middle of this year. Shares in Florida Rock jumped \$15.04, or 32.03%, to \$62.00 on the news; competitor Rinker Group traded higher by 6.7% in Australia on hopes it would be the target of a lucrative buyout offer from Cemex.

*Extracted from ARI News*

## **GLOBAL MINING RiSC LLC Formed to Advise Mines on Risk**

Christensen, a global capital-markets advisory firm, and Engineering Consulting Services Inc. (ECSI), a multi-disciplinary engineering, mining, and environmental-services consultancy (both with over 25 years in business), announced on February 21 the creation of their joint venture, Global Mining RiSC LLC ("GMR"). This new corporation will be providing uniquely integrated, comprehensive risk analysis; safety and training oversight; and crisis avoidance-

and-communications services for the worldwide mining industry.

GMR's goal is to partner with senior management at coal, hard rock and aggregate operations to conduct independent, comprehensive, and integrated analyses of operations' risks, safety and environmental performance, and programs and provide modern crisis avoidance tools by developing background information, action plans, training and key staff in the event of a serious incident.

Incorporated near year end 2006, GMR has broad industry experience, spanning aggregates, coal and metal/non-metal sectors. J. Steven Gardner and Richard W. Phelps are GMR's managing directors with combined, engineering/operations — 'face' to top-level — mining experience of over 70 years.

Complementing the firm's senior-level staff, GMR's advisory board is comprised of prominent industry leaders who bring additional broad industry, technical and regulatory experience:

- Dr. R. Larry Grayson
- David A. Zegeer
- Dr. Stanley Suboleski
- Dr. John Wilson
- Robert Leahy

*Contributed by Dick Phelps*

## Peabody, Rentech Agree On Coal Supply Terms

On Tuesday, March 7, 2007, **Rentech Inc.** announced that it signed a term sheet with **Peabody Energy** for the initial coal supply contract for **Rentech Energy Midwest Corp.'s** (REMC) ultra-clean fuels conversion project in East Dubuque, Illinois.

The coal will come from **Peabody's Gateway Mine** near Coulterville, Illinois. The REMC project will convert the existing natural gas-fired ammonia fertilizer facility into what Rentech said will be the United States' first Fischer-Tropsch and ammonia fertilizer production facility using clean coal technologies.

Under the deal, Peabody will provide up to about 7.2 million tons of Illinois coal starting between August 2009 and January 2010 through December 2017. The contract allows for a five-year extension. Peabody Energy and Rentech agreed in July to evaluate sites in the Midwest and Montana for projects that would transform coal into diesel and jet fuel.

Denver-based Rentech (Amex: RTK - News) is a developer of Fischer-

Tropsch coal-to-liquids and gas-to-liquids technologies. St. Louis-based Peabody Energy (NYSE: BTU - News) is one of the world's largest coal producers.

*Contributed by Dick Phelps*

## IDNR Happenings

### The IDNR Reclamation Awards Program

The purpose of the program is to recognize outstanding achievements in reclamation and increase public awareness of the mining industry's efforts to protect the environment. Applications for the IDNR Reclamation Award Program are available at the Office of Mines and Mineral's web page at

<http://www.dnr.state.il.us/mines/lrd/forms/LRDAWARD.pdf>

More information or hard copies of the forms can be obtained from Linda Hiltabrand of the IDNR at 815-481-2201. Two completed application packages are due on or before October 1, 2007.

### IAAP Teachers Workshop, July 16-18

The PIE Committee was in Peoria Nov., 2-3 for the IL Science Teachers Association convention to promote the upcoming IAAP teachers workshop will be held July 16-18 at the Cliffbreakers Resort in Rockford.

**Please encourage teachers from your community to register.** Information plus teacher and sponsor registration forms may be found at:

<http://www.iaap-aggregates.org/workshop.htm>

*Contributed by Linda Hiltabrand, IDNR*

### IDNR Changes E-Mail Address Format

The State has changed the format of the IDNR email addresses. The old ones will work for about a year, but you might want to change your listings now. The format below will allow you to reach any employee.

[firstname.lastname@illinois.gov](mailto:firstname.lastname@illinois.gov)

For example to e-mail Linda Hiltabrand of the IDNR in Peru, IL the new address is:

[linda.hiltabrand@illinois.gov](mailto:linda.hiltabrand@illinois.gov)

The office address for Peru is now:

IDNR-Office of Mines & Minerals

1825 Baker Lane, Suite A

Peru, IL 61354

815/223-9422; cell: 815/481-2201

*Information Provided by Linda Hiltabrand*

## Rock Scientists to Make Map of the World

By Jeremy Lovell

LONDON (Reuters) - Rock scientists from across the world will start next week to put

together the first geological map of earth in a bid to better understand the planet.

**OneGeology Project**, bringing together scientists from more than 55 countries, will pool national geological survey information and present it on the Internet for all to see rather like Google Earth already does with satellite images.

In doing so it will not only provide people with access to the first detailed images of the ground beneath their feet but also expose the yawning gaps that exist in knowledge. "The geological data exists. What we are trying to do is unlock it and make it universally available," **Ian Jackson** of the **British Geological Survey** told a news conference on Thursday. "It is like piecing together a global jigsaw puzzle."

"We believe that increasing the availability of geological data will increase our knowledge of environmental factors that affect human health and welfare," he added. One aim will be to start to identify deep geological structures that might be used for the safe long-term storage of the main greenhouse gas carbon dioxide produced from burning fossil fuels to generate electricity.

Many scientists and politicians believe that Carbon Capture and Storage is one of the key tools in the battle against global warming. But Jackson said One Geology could also help spot potential problems before they flared into conflict given that geology was no respecter of national boundaries. "If someone is extracting water from one side of a geological structure that crosses a political boundary while on the other side someone is polluting it, that is a problem," he said. "Knowing the structure crosses that border can pre-empt that."

The project, which was not even a proposal a year ago, is due to start producing results by mid-2008 and grow steadily from there as more countries start to pool data that they already hold and start to fill in the gaps. One of the troubles is that while the data exists nationally, much is held in formats that are not compatible, so the project will convert the information into the new GeoSciML universal geological language.

The project will start at a meeting in southern Britain's coastal resort of Brighton on March 12-16. [www.onegeology.org](http://www.onegeology.org).

## 2006-2007 Chicago Section SME Officers

<b>Chairman</b>	<b>H. John Head</b> Continental Placer, Inc. Wheaton, IL 630-407-0800 x 103 Fax 630-407-0799 jhead@continentalplacer.com	<b>Program Chairman</b>	<b>Frank Kendorski</b> Agapito Associates, Inc. Lombard, IL 630-792-1520 Fax 630-792-1580 frankatagapito@sbcglobal.net
<b>Vice-Chairman</b>	<b>Gord Stevens</b> Civil & Engineering Consultants, Inc. Downers Grove, IL 630-963-6026 Fax 630-963-6027 gstevens@cecinc.com	<b>Newsletter Editor</b>	<b>Doug Hambley</b> Agapito Associates, Inc. Lombard, IL 630-792-1520 Fax 630-792-1580 dougatagapito@sbcglobal.net
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<b>Membership</b>	<b>vacant</b>	<b>GEM Coordinator</b>	<b>Anne Leslie</b> Raimonde Drilling, Inc. Chicago, IL rdcdrill@rdc-drill.com

**SME Chicago Section Membership Dues Form - NOTE: You do not need to be a national member to join the local section. To become a member of SME at the national level, please join at [www.smenet.org](http://www.smenet.org) or get an application from Gordie Stevens.**

**NAME:** \_\_\_\_\_

**AFFILIATION:** \_\_\_\_\_

**ADDRESS:** \_\_\_\_\_

**E-MAIL:** \_\_\_\_\_ @ \_\_\_\_\_

**DAYTIME TEL. NUMBER:** \_\_\_\_\_

**SPONSOR'S NAME:** \_\_\_\_\_

**STUDENT** \_\_\_\_\_ **RETIRED** \_\_\_\_\_

Make Check for \$20.00 (\$10.00 for Student or Retired) out to "Chicago Section – SME" and mail to: Brad Renwick, Treasurer, Chicago Section of SME, Civil & Environmental Consultants., 3041 Woodcreek Drive. Suite 210, Downers Grove, IL 60515



**NEXT MEETING**  
**Tuesday, March 20, 2007, 5:30 PM**

***Topic: 3-D Images for Mining Applications - Think 'Holodeck'***

***Guest Speaker:***

**Mitch Schefcik,**  
Optira Inc.,  
13335 "A" St.,  
Omaha, Nebraska

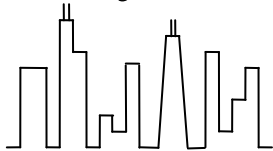
**at**  
**Finley's Grill Room**

***Located at***  
**3131 Finley Road, Downers Grove, IL.**

Doug Hambley  
Newsletter Editor, Chicago Section SME  
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