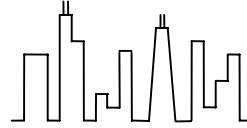


CHICAGO SECTION NEWSLETTER

February 2002-Website Edition



Newsletter of the Chicago Section of the Society for Mining, Metallurgy, and Exploration, Inc. - Founded Spring 1987

MEETING: Wednesday, February 27, 2002

Topic: “Overview of the Hydrogeological Effects of Longwall Coal Mining on Overlying Aquifers”

Guest Speaker: Prof. Colin J. Booth, Professor, Department of Geology and Environmental Sciences, Northern Illinois University, DeKalb, Illinois

Time: 5:30 PM Social Hour
6:30 PM Dinner
7:30 PM Speaker

Place: Weinkeller Brewery
651 Westmont Drive, Westmont, Illinois
Telephone: 630-789-2236

Directions:

From I-294: Exit at I-88 Westbound, Pay 40 cent Toll, Exit at Route 83 South, Route 83 South to Ogden Avenue, Ogden Avenue West to Westmont Avenue on Right (North Side)

From I-290 Westbound: Exit at Route 83 South, Route 83 South to Ogden Avenue, Ogden Avenue West to Westmont Avenue on Right (North Side)

From I-88 Eastbound: Exit at Highland Avenue, Left to Southbound on Highland Avenue to Ogden Avenue, Left to Easton Ogden Avenue, East to Westmont Avenue on Left (North Side)

From I-355: Exit to I-88 Eastbound, Exit at Highland Avenue, Left to Southbound on Highland Avenue to Ogden Avenue, Left to Easton Ogden Avenue, East to Westmont Avenue on Left (North Side)

Menu: “Family Style German Feast,” which will include potato pancakes, chicken schnitzel, a couple of German sausage choices, cooked cabbage, sauerkraut, potatoes and desert.

Cost: \$25 for dinner/meeting. If you pay the \$20 annual Section dues the dinner cost will only be \$10. If you bring a first-time non-member or long time non-attender, their meal is only \$10 and if they pay (join the section) the annual fee their meal is free. Any Science teachers or professors brought as a guest will get dinner free. Students dinners will only be \$5.

Call: Sarah Schlichtholz of Continental Placer, Inc. at 630-469-6340x109 or E-mail at sschlic@continentalplacer.com by Monday, February 25, 2002.

From the Chairman I was very pleased to see such a great turnout for last month’s Section meeting. The discussion by Chris Laughton on the neutrino project at FermiLab was quite interesting. I suspect the talk was of particular interest to our members, not because of our intrinsic regard for particle physics, but because of the tunneling (mining) portion of the project. I am aware that many of the aggregate producers in the Section have been tossing around the idea of going underground to mine the [high-quality] Silurian and Ordovician dolomites for a number of years. Some have been doing that for a while now, some are currently in the process, and others have attempted and failed for one reason or another. The approaches are varied, but one underlying problem is how to deal with the problematic shales of the Maquoketa Group. In addition, I suspect that many of the producers have not been too willing (for obvious reasons) to share success and failure stories with one another. I know we are beginning to realize that the problems associated with moving our aggregates operations underground can be reasonably and safely solved within workable budgets. That’s one of the reasons we have technical discussions at our meetings...to promote the education of our Section members. I hope to see many of you again this month. This time we will be discussing another subsurface issue vexing subsurface mining...Groundwater. I know that Colin Booth’s talk will be informative and we all will come away better educated. I hope to see you there.

From the Vice Chairman/ Program Chairman This Meeting

Overview of the Hydrogeological Effects of Longwall Coal Mining on Overlying Aquifers: Longwall underground coal mines can act as groundwater drains, but their effects on shallower aquifers primarily work through subsidence rather than drainage. The heavily fractured strata immediately above the mine dewater, but these are normally overlain by a zone of coherent settlement and low permeability which prevents shallower aquifers from draining to the mine. In shallow bedrock aquifers, fracturing during subsidence creates new void space which takes up water, so that groundwater levels above the longwall panel typically drop rapidly. Increased fracture permeability also affects the system by lowering hydraulic gradients and up-gradient heads, and by causing upper aquifers in high relief areas to lose water through fractured aquitards to lower aquifers and discharge areas. Outside the panel, a drawdown effect spreads out laterally through transmissive aquifers from the subsiding zone. However, water levels often recover within months to a few years after mining, due to closure of fractures and to recharge. Currently, fully integrated numerical models of the complete groundwater response to longwall mining are not practically available, but the hydrogeological effects in shallow aquifers not in direct contact with the mine could be simulated using readily available groundwater flow models.

The Speaker

Colin Booth is a Professor in the Department of Geology and Environmental Sciences at Northern Illinois University, where he teaches a variety of hydrogeology courses at both undergraduate and graduate level. He received his B.Sc. in Environmental Sciences from the University of East Anglia, UK in 1974, and his Ph.D. in Geology from Penn State University in 1984, and has worked as a geologist in both the petroleum and groundwater fields. He is a licensed P.G. in Illinois, a member of the Illinois Low-Level Radioactive Waste Task Group, current Chair of the Illinois Groundwater Association, and Secretary-Treasurer of the

US chapter of the International Association of Hydrogeologists.

GEM News

The **2002 Science Teacher's Workshop** is scheduled for August 12th thru 14th, 2002 at Pierre Marquette State Park. This will be our 6th workshop. Anyone interested in volunteering or able to make a donation, please contact me at 708-583-9290 or email: rdcdill@rdc-drill.com. Any members able to donate corporate memorabilia please feel free to bring it along to the meeting in quantities of 35. April is approaching quickly and plans are being set for Earth Day. This is another opportunity to volunteer your time towards education. If you are interested or would like more information, just give me a call. See you at the meeting! *Anne Leslie*

Chicago Section of SME Website is Up-and-Running.

Check it out at www.ChicagoSME.org. Access the website to discover where and when the next meeting will be held or who the speaker will be -- even before newsletters are sent -- or download directions to the meeting location. Also available is contact information for current officers.

The website is a work in progress and expect many improvements. We have posted a calendar of events and links to other websites of interest to SME members. Soon we shall provide information regarding becoming a local member or renewing your current membership.

Also available on the website is our monthly newsletter. Eventually, our goal is to reduce the volume of paper newsletters distributed each month. Instead, those with access to our website will receive monthly email links as the newsletter is posted to view it directly online or print it from your workstation. If you have access to the Internet and would like to get started, again, just e-mail us.

Sarah Schlichtholz
Website Coordinator
webmaster@ChicagoSME.org

Paleofest in Rockford

This is our fourth year with America's largest annual paleontology speaker series.

The event is February 23 & 24, 2002, and details can be gained at www.burpee.org. Paleontologists that will be speaking are: **Bob Bakker** of Jurassic Park fame; **Virginia Naples** on saber tooth cats; **Dino Russ Jacobson**, Utah dinosaur project; **David Des Marais**, NASA, fossilized bacteria from Mars?; **Mike Everhart**, mosasaurs; **Michael Parrish**, bio-mechanics of sauropods; **Philip Currie**, theropod hunting behavior; **Gabrielle Lyon**, Super Croc, Sarchosuchus. Lunches and workshops for kids with the scientists are filling up fast, call 815-965-3433 for tickets.

Dan Fischer

Mine Safety Improves to a Record

MSHA has reported that 72 miners died on the job in 2001, the lowest figure on record, 13 less than for 2000. Metal/non-metal mines set a record low of 30 in 2001, versus 47 in 2000 and 40 in 1994, a previous low. Coal mines increased by four from 2000 to 42 in 2001, 13 occurred at the Jim Walter's No 5 mine explosion.

Martin Joins Flender

Paul Martin has moved to the area and has joined **Flender Corporation** in Elgin in technical sales/project management, associated with power transmission equipment, as applied to mining and bulk material handling equipment. Flender information can be viewed at www.flenderusa.com or the parent company www.flender.com

Paul has a Degree in Mining Engineering – Colorado School of Mines, 1979, 12 years in mining equipment (draglines) sales, application engineering, and project management for Page Engineering (McCook) and P&H (Milwaukee), 9 years as an engineering consultant with Martin Consultants, Inc (Golden CO), specializing in mine planning, equipment selection/acquisition, haulage system and plant design, feasibility studies. We welcome Paul to Chicagoland and to the Chicago Section.

Useless Information Dept.

I'll bet you slept right through it:
02:02 AM, 02/02/02. Maybe next time.