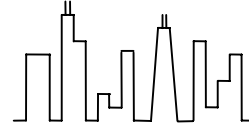


CHICAGO SECTION NEWSLETTER

March 2003 – Website Edition



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

MEETING: Tuesday, March 25, 2003

Topic: “*The Chicagoland Underflow Plan (CUP) McCook Reservoir Grout Test Project*”

Guest Speaker: Faruk Oksuz, Project Manager,
Black & Veatch Corporation, Chicago

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

Place: Golden Duck Restaurant & Bar Bohemian-American Home Cooking
500 Ogden Avenue, Downers Grove, IL. Telephone 630-968-8887

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 Just Past Fairview Avenue on Right (North Side)

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

From I-88 Eastbound: Exit at Highland Avenue, Left to Southbound on Highland Avenue to Ogden Avenue, Left to East on Ogden Avenue, East to Restaurant on Left (North Side) Just Past Dunkin Donuts

From I-355: Exit to I-88 Eastbound, Exit at Highland Avenue, Left to Southbound on Highland Avenue to Ogden Avenue, Left to East on Ogden Avenue, East Restaurant on Left (North Side) Just Past Dunkin Donuts

Menu: Entrees will be Chicken Paprika, Fried Fish and Roast Beef. Other items the same...soup, mashed potatoes, dumplings, sauerkraut, cabbage, vegetable, coffee and homemade dessert selection.

Cost: \$25 for dinner/meeting for Members, \$30 for Non-Members. Any Science teachers or professors are considered a guest of the Section and will get dinner free. Student’s dinners will only be \$5.

Call: Sarah Schlichholz of Continental Placer, Inc. at 630-469-6340x109
or E-mail at sschlic@continentalplacer.com anytime up to morning of meeting.

From the Chairman:

No motivational rants, no profound words of wisdom, just big THANKS. Thanks to all of you who support our Chicago Section of SME by attending our meetings and encouraging other to do so, too. Our meeting attendance has been really good this (meeting) year, despite confounding weather conditions. In fact, it’s been great. Our most recent meeting held on March 4 to hear Dr. Wu is a prime example. From the best estimates we have, there were over 60 in attendance. Yes, it was a joint AEG meeting, but only about 15 or so of the attendees could be directly attributed to AEG, the rest were SME members and guests! If the weather hadn’t been so bad, we probably would have topped 90 at the meeting based on call-in reservations. Nevertheless, in support of our GEMS efforts to motivate secondary school teachers, college professors and college student attendance we had several instructors, and a sizable entourage of students representing at least three institutions. Thanks to Frank Kendorski for inviting Dr. Wu, and thanks too, to our Program Chair, Raj and others who have helped bring in great speakers. Once again, THANKS...and I hope to see you at our next meeting.

.-Gordie

From the Program Chairman

This Meeting

The **CUP McCook Reservoir Project** will provide one of the three reservoirs of the **Tunnel and Reservoir Plan (TARP)**. The reservoir will store combined sewer overflow (CSO) waters conveyed for the TARP Mainstream and Des Plaines Deep Tunnel systems until floodwaters recede and the CSO can be pumped to a nearby water treatment plant. The project site is located on the **Metropolitan Water Reclamation District of Greater Chicago (MWRDGC)** Lawndale Avenue Solids Management Area (LASMA). LASMA is located within Lyons Township in western Cook County and is bounded by the Des Plaines River and I-55 to the northwest, the Indiana Harbor Belt Railroad to the northeast, the Sanitary Ship Canal to the southeast, and LaGrange Road to the southwest.

The reservoir design includes tunnels, shafts, chambers, buildings, gates and valves, and will also feature a groundwater pollution control system consisting of an overburden cut-off wall and a grout curtain around the perimeter of the reservoir. The project is being designed and constructed by the U.S. Army Corps of Engineers, Chicago District (USACE) in cooperation with the project local sponsor, MWRDGC. Black & Veatch has designed a test grout curtain program to gather site specific data so that the USACE can evaluate and judge the feasibility of the curtain grouting program for the entire perimeter of the final reservoir.

The Speaker

Mr. Faruk Oksuz, P.E., is a Project Manager with **Black & Veatch Corporation** in the Chicago office. His responsibilities include project management and technical oversight for a variety of geotechnical engineering, tunneling, water resources and environmental management projects. He received his Mining Engineering Degree from Technical University of Istanbul,

Turkey in 1986, and Masters Degree from Southern Illinois University at Carbondale, Illinois in 1989. Some of the projects he managed include the design of the Northwest Side Sewer Relief Tunnel for Milwaukee Metropolitan Sewerage District, Cady Marsh Drainage Tunnel for the U.S. Army Corps of Engineers, and several significant flood control projects for DuPage. Mr. Oksuz's mining and geotechnical engineering experience and background includes feasibility studies, evaluation, design and construction management of dams and reservoirs, shafts, tunnels, surface and underground metallic and non-metallic mines, mine support systems, bulkheads, blast plan design and monitoring, slope stability and foundation investigations, and grouting and shotcrete applications.

Last Meeting

Dr. Kelvin Wu of Technical Support of MSHA in Pittsburgh gave a fascinating and carefully-considered talk on the Rescue at Quecreek last July. We had a Joint Meeting with the **North Central Chapter of the Association of Engineering Geologists (AEG)** and 65 people braved the developing snowstorm to attend. (This is the third time in a row our meetings have been on major snowstorm days – maybe we should contact NOAA with our expertise?) The official MSHA Final Report on the incident is final but not yet cleared for release, so Kelvin cautioned us that he could not answer some questions, which he did not. Nevertheless, the talk was extremely interesting and informative on the many technical issues that had to be tackled in a political environment.

The entire Federal/State/Local/Company team pulled it off and all 9 miners were rescued after 60 hours of lack of communication and crouching in 50-degree water. We welcomed an entire geology class and faculty from **Northeastern Illinois University** and several student and faculty from **Wheaton College**. Several spouses and long-strayed SME Members also were present.

Next Meeting

John Weibmar of **Caterpillar** on new technologies in mobile equipment on **April 22**, and **Satya Harpalani** of **SIU** on **May 27** on new development in coal mining downstate. Please note that dates often change due to last-minute changes in speaker's schedules.

Raj Rajaram

GEM News

Plans for 2003 Science Teachers Workshop are really coming together. We are still in need of 35 samples of any rock or mineral. The workshop scheduled for this summer is fast approaching and it never hurts to be prepared! Do not hesitate to bring corporate trinkets in quantities of 35 to our next meeting for the Science Teacher's Workshop 2003. Remember: "If it can't be grown, it has to be mined!"

Annie Leslie

Stevens Represents AIME/SME at Washington Award Commission Ceremony for Astronaut Gene Cernan

Washington Award Commission and 2003 Award Recipient Capt. (Ret.) Eugene Cernan (Center standing). **Gordon M Stevens** AIME/SME representative standing on left, Lt. General Robert B. Flowers, Chief of Engineers US Army Corp of Engineers standing on right.

Chicago native **Captain Cernan** made his third space flight as spacecraft commander of **Apollo 17**--the last scheduled manned mission to the moon for the United States--which commenced at 11:33 P.M. (CST), December 6, 1972, with the first manned nighttime launch, and concluded on December 19, 1972. With him on the voyage of the command module "America" and the lunar module "Challenger" were Ronald Evans (command module pilot) and Harrison H. (Jack) Schmitt (lunar module

pilot). In maneuvering "Challenger" to a landing at Taurus-Littrow, located on the southeast edge of Mare Serenitatis, Cernan and Schmitt activated a base of operations from which they completed three highly successful excursions to the nearby craters and the Taurus mountains, making the Moon their home for over three days. Apollo 17 ended with a splashdown in the Pacific Ocean approximately 0.4 miles from the target point and 4.3 miles from the prime recovery ship USS TICONDEROGA.

Captain Cernan has logged 566 hours and 15 minutes in space-of which more than 73 hours were spent on the surface of the moon.

Pincomb Has a Connection to Apollo 17

Art Pincomb, Chicago SME member, consulted with **Harrison (Jack) Schmidt** on several gold and copper projects in Arizona and New Mexico in the early 1980's. In addition to being the first scientist to walk on the moon, Jack was also a U.S. Senator from New Mexico. Jack still works for NASA, and is active in mineral exploration, primarily copper in New Mexico.

Serious Injuries from Frozen Highwall Collapses – Be Careful in Wintertime!

**Worker injured by quarry wall collapse
Quick rescue made at cement company.**

Wednesday, February 26, 2003

**By BRIAN SHAPPELL
The Express-Times**

U. NAZARETH TWP. -- Quick thinking by quarry workers saved a Palmerton man working on Hercules Cement Co. property from serious injury Tuesday afternoon after a rock and ice wall collapsed and trapped him.

Upper Nazareth Police Chief Alan Siegfried said the victim, 43-year-old Chris Flannery, suffered only minor injuries to his knee, hand and neck. Flannery was listed in fair condition Tuesday evening at

St. Luke's Hospital in Fountain Hill, a hospital spokeswoman said.

Pospisil said Flannery, a contractor for A. Scott Enterprise Inc., was inside an excavating machine when part of a quarry wall collapsed about 12:40 p.m. and trapped him inside the machine's cab.

"A huge chunk of ice and rock collapsed off the wall, bounced off the boom on the excavator, fell onto the cab and smashed the cab down and in," Pospisil said.

Flannery was trapped inside the cab of the excavator by the fallen rocks, dirt and ice.

Pospisil said the workers attached a chain to a front-end loader and used it to remove the rubble that had trapped Flannery inside the cab.

"Before the emergency equipment came, we were able to lift the cab and pull him out," Pospisil said. "He walked, assisted, over to a truck. It could have been a lot worse."

Wright miner dies after fall in plant

By DUSTIN BLEIZEFFER Star-Tribune energy reporter

WRIGHT -- Wright man Rick Richardson, 44, died early Wednesday morning of injuries sustained in a fall February 20 at the Black Thunder coal mine where he was a plant manager.

Richardson is the second miner to be killed at the mine in year. Allen "Big A" Greger was killed on Feb. 20, 2002, when a section of highwall came loose and smashed the rubber-tire dozer he was operating in the pit.

A spokesman for Arch Coal, which owns the Black Thunder mine, said Richardson's accident is still under investigation with the Mine Safety and Health Administration and the State Mine Inspector's office.

Spokesman Greg Schaefer said Richardson, an experienced miner, was by himself when he fell through an open section of a walkway in the plant. Sections of the walkway were removed to allow parts to be transported in the plant, Schaefer said.

Richardson fell about 19 feet, sustaining traumatic injuries to the head. He was taken by Life Flight from the mine to the

Wyoming Medical Center in Casper where he remained in critical condition until his death. When the accident occurred, the mine shut down operations until the next morning

"Everybody from top to bottom at the mine is numb from this," Schaefer said of Richardson's death.

Another Black Thunder miner, Les Butts, is still recovering from a separate highwall accident that happened in January 2002. A large rock crashed down on a vehicle being operated by Butts. He suffered severe spinal injuries. Butts is still in a wheelchair and has not returned to work.

Looking for Next Season's SME Officers and Volunteers

Our elections for the next season will be held at our May meeting. We need volunteers for all positions for 2003-2004. Some may move up or over, but some fresh faces would be welcome. Please give this careful thought, we need you! Also, after a long run, the Newsletter Editor position will be open in the fall. Editing the newsletter in WORD takes about 4 to 6 hours for this 6-page version if you are on the lookout for news articles and fillers. Of course, a simpler one-pager is just minutes.

Ireland's Most Dangerous Job?

14 fatalities over 5 years makes quarrying the most dangerous occupation in Ireland. **The Health and Safety Authority** has released the findings of an intensive campaign of quarry inspections carried out during Quarry Safety Action Week.

This was held in the last week of September, following a doubling of fatalities in the sector over the past 10 years. There have been 14 fatalities in the sector over the last 5 years (1997-2001), which is a huge increase on the previous 5-year figure of 7 fatalities (1992-1996). The 2 fatalities already this year, one involving contact with a conveyor (fixed plant) and the other involving contact with an excavator (mobile plant) continues this alarming accident rate trend. Such shocking statistics bear testament to the fact that quarrying remains a high-risk activity and a priority sector for the Authority's attention.

Quarry Safety Inspectors continued to find poor management of fixed and mobile plant at quarries and their associated manufacturing units. Commenting, the Authority's Senior Inspector for Mines & Quarries, Pat Griffin said "While much is being done for the sector both by the Authority and by representative bodies, the general findings of the majority of quarry Inspectors during the Safety Week was that the level of safety awareness in quarries remains poor and an ongoing cause for concern. The findings and outcomes have been very revealing and have confirmed to me that much work remains to be done in the sector."

Commenting on Quarry Safety Week, Tom Beegan, Director General of the Health and Safety Authority urged the quarry sector to make a conscious effort to ensure that every week is a safe week. "This is the only way," he said, "of reducing the pain and misery caused by quarrying accidents."

Quarry Safety Guidelines Drawn Up

The Health and Safety Authority's Quarries 5-year initiative aims to reduce all accidents by 50 per cent by the year 2006. To achieve this target, the Authority has drawn up a set of comprehensive draft 'Safe Quarry' guidelines, which are planned to accompany the Safety, Health and Welfare at Work (Quarries) Regulations due for completion by 2003.

These draft guidelines cover the duties and responsibilities of quarry operators and contractors and outlines what should be contained in safety statements. Under Section 12 of the Safety, Health and Welfare at Work Act, 1989, all quarries are required to have a safety statement in place containing a written identification of the risks involved in the operation. Other areas covered include guidelines on escape and rescue facilities, fire and explosion hazards and the identification of danger areas.

The full article first appeared in the November/December issue of Irish Construction Industry Magazine.

To subscribe to the magazine, contact Debbie Hogan on 01-2833233 or e-mail her at dhogan@irishconstruction.com for more details.

For industry reports, check out the markets page on www.irishconstruction.com.

Editor's Note: John Head always told me that the most dangerous job in Ireland was pub-crawling.

Helm Group Receives Special Outreach Award

The Helm Group - Conmat, Inc. was recently recognized with a special Outreach Award by the **IL Dept. of Natural Resources**. Conmat's Dwyer Quarry at Freeport, IL was the host for Quarry Day 2002. The company worked with Pretzel City USA to recruit 200 volunteers for this family oriented event. Approximately 3,500 people came out to see the quarry and try the various activities. Children could make concrete, build brick walls, climb a rock wall, paint a pet rock, dig for fossils and fool's gold, or "drive" a piece of equipment. High school teams competed in a sand sculpting contest. The National Guard had a display along with the local rock club. Food and t-shirt vendors also contributed to the profits. The \$3500 raised was contributed to the local schools and a domestic violence shelter serving Stephenson County.

Linda Hiltabrand

OMM Director Neal Merrifield presents the Outreach Award to Jeff Bussan, President of Conmat, Inc.

Penetrability of Some Ontario Construction Aggregates by the Eastern Subterranean Termite (Isoptera: Rhinotermitidae)

Sociobiology, Volume 30, Part 3, Pages 277-288, 1997.

Ontario populations of the eastern subterranean termite, *Reticulitermes flavipes* (Kollar) were tested for their ability to penetrate various types of soil, sand, and common construction aggregates. Of seven whole aggregates that were evaluated, six were readily penetrated because the particle sizes were either too coarse or too fine or had too few particles in the effective particle size range to serve as a barrier to termite tunnelling. Only one of the whole materials, a crushed limestone (WP2 sand), prevented termite penetration. The termites most readily penetrated coarse gravel, with particle diameters greater than 3.35 mm, by crawling through the interstices between the particles, traversing a six centimeter layer in one day. They also readily passed through fine sand, with particle diameters less than 0.71 mm, by excavating particles with their mandibles, tunnelling through a six centimeter layer in two to three days. Penetration was delayed from four to six days in sieve fractions with particle diameters greater than 0.71 and less than 1.0 mm. Sieve fractions from 1.0 to 2.0 and 2.0 to 3.35 mm were impenetrable. Although the particle size range of some commercial sand barriers products have been more narrowly constituted, these results show that either crushed or natural aggregate mixtures, with broader particle size ranges from 1.0 to 3.35 (100% passing Mesh 6 and 0% passing Mesh 18) can serve as effective barriers to subterranean termites. These wider particle size ranges may reduce production costs and thereby promote wider commercial development of sand barriers. Other aspects of the commercial development of sand barriers for termite control are also discussed.

Timothy G. Myles
University of Toronto
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