

# Acton • Mickelson • Environmental, Inc.



## June 2006 Newsletter

### From the President

We are expanding our use of LPS tools to all AME projects, not only ExxonMobil projects. We are obtaining the rights to use LPS throughout all our work activities from Dr. Jim Bennett. Dr. Bennett developed the LPS system and provides consulting services in loss prevention and safety management to companies and government agencies such as ExxonMobil, Chevron, Sumitomo, NASA, Environmental Protection Agency, General Electric, and Caterpillar. Working directly with Dr. Bennett will provide us with specialized software to create and track LPS metrics. After several months using these tools throughout our organization we will have a workshop with Dr. Bennett to review and refine our use of these tools. We all need to participate in LPS tool use. The system only works if all of us are involved. LPS does not reside in a single person or position. LPS will work if AME owners, Project Managers, engineers, geologists, technicians and subcontractors take responsibility for their own and their coworkers safety so that Nobody Gets Hurt.

### New Employee Welcome

Marc Fawns, an assistant staff geologist, began working for AME El Dorado Hills on June 5, 2006. He received his Bachelor of Science in Geology from California State University, Chico, and has completed extensive coursework in Hydrogeology. Marc's training includes a Drill Core Course (Taber Consultants 2006), Hazardous Material Course, Bloodborne Pathogen Training, Hazardous Waste Cradle to Grave Responsibility, Universal Waste Quest to Recycle, and a Defensive Driver Training Program.

Please welcome Marc and get him involved in your projects!

### Measurement of Capillary Pressures

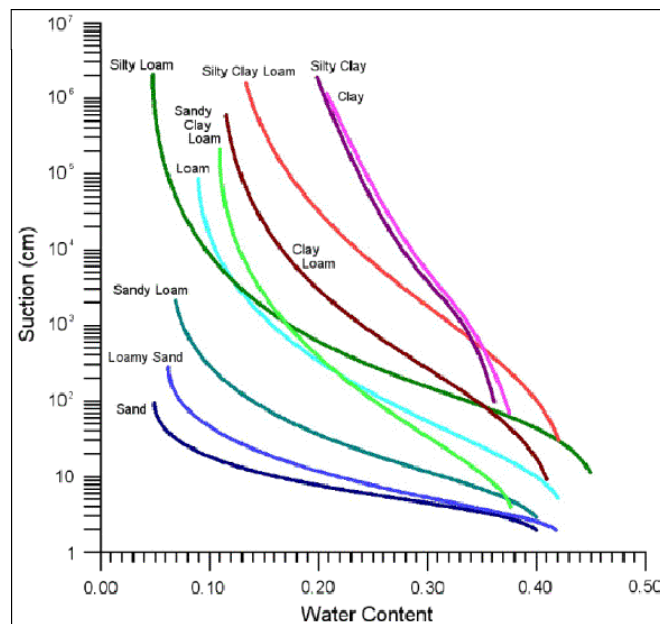
#### **The Measurement of Capillary Pressures, by Jeffrey Johnson**

Whenever two or more fluids co-exist in a system of capillaries, the combination of surface tension and curvature due to the capillaries causes the two phases to experience different pressures. The relative pressures of the fluids change as the saturations of the fluids vary. The difference between the pressures of any two phases is referred to as the capillary pressure. By measuring the capillary pressures and different saturations, the capillary curve can be generated.

Capillary pressures are commonly measured in the laboratory by two instruments : porous plate

desaturation cells or centrifuges. The porous plate method entails drainage of the soil over a period of days to several weeks. Although it is generally thought to be the more accurate method it is rarely performed for the environmental industry due to the time requirements. In contrast, the centrifuge method spins the sample at a fixed rate inducing a known pressure. The fluid saturations are then measured. Using the centrifuge method the capillary curve can be generated within a day. As a result, it is the preferred method in LNAPL and unsaturated flow studies. Figure 1 illustrates the capillary curves for different soil types in an air-water system.

Capillary curves for different soil types.



### New Projects

AME has recently taken responsibility for three new ExxonMobil sites in the Northwest. The first location is just south of Seattle in Renton, Washington. The project consists of annual ground water sampling of approximately 30 wells, semi-annual collection of water samples from the remediation system and twice a month operation & maintenance checks on the ground water and extraction treatment system. The system consists of two submersible pumps that pump impacted ground water to an oil/water separator, the water is then pumped to an air stripper and the oil is collected for off site disposal. The system has operated on a limited basis the last three years. Now that AME has assumed responsibility for the site operating runtime improvement will be a priority. (Project Numbers 13042.01-13042.06).

The second location (Canal), north of downtown Seattle, was a former Mobil bulk plant site, but is currently an active landscape business. Work will include semi-annual ground water sampling for approximately seven wells. **(Project Number 13043.01/13043.02).**

The third project is located in Baker City, Oregon and is also a former Mobil Oil bulk plant. The property is currently a storage lot for electrical supplies. ExxonMobil submitted a work plan to the DEQ for the investigation of soil and ground water conditions at the site on June 14, 2006. Pending DEQ approval investigation AME will be conducting the investigation before year end. **(Project Numbers 13053.01/13053.02).**

These projects are listed on the newest AME project list. If you need a copy, please request one from Ellen Frosch.

### Port of Oakland News

Sampling Event Results: The first half 2006 ground water monitoring event was completed on June 8<sup>th</sup> with the help of Blaine Tech Services. The operation was a success because no one got hurt. With the help of Blaine Tech Services, AME was able to work more efficiently completing the entire sampling event in only three days.

Operation: We have reached a milestone. On May 19, 2006 AME reached an extraction level of 500,000 pounds of hydrocarbons removed from the Port of Oakland site. Many thanks are owed to all that have helped out along the way from construction to current operation. Keep up the good work out there.

### 401k Program

July 1, 2006 is an important date in the 401k plan. This is the date that newly eligible individuals can join the plan, and existing participants can make a change to their salary deduction. All individuals to whom this applies were notified by e-mail. If you received an e-mail from Ellen Frosch and you want to join the 401k Plan or change your existing deduction, please submit your forms by July 6, 2006. Call Ellen if you have any questions.

If you are wondering how to calculate when you can join the 401k plan, here is the information. You must complete one year of service, and then you may join the plan on the next plan entry date. Plan entry dates are January 1 and July 1 of each year. Example: Jane Doe begins working for AME on September 15, 2005. She continues working, and has her one year anniversary on September 15, 2006. She may join the 401k plan on the next available plan entry date, which is January 1, 2007.

### Travel Program

When you acquire a receipt from your hotel stay, please write the project number associated with the travel and return the receipt to Jennifer. It makes it a lot easier to bill the client when she has the receipt and know what project to bill the cost to.

### Timesheets

Please make sure timesheets are completely filled out when turned in. If you need a project list to determine what project number your time is billed to, please ask Ellen Frosch or Jennifer Guthmiller.

When there is a company holiday, please record those 8 hours under a line item "Company Holiday." For Memorial Day a few people put it under vacation and that is not correct. We don't want to accidentally deduct your vacation for a paid holiday!

### Office Supplies

Please let Jennifer Guthmiller know when an office supply or kitchen product is running low so that she can reorder the item. Please do not wait until it is all gone.

### A Quote From Grace Willis' Desk

"When we accept tough jobs as a challenge and wade into them with joy and enthusiasm, miracles can happen." - Arland Gilbert

"One of the greatest discoveries a man makes, one of his great surprises, is to find he can do what he was afraid he couldn't do." - Henry Ford

### Humor

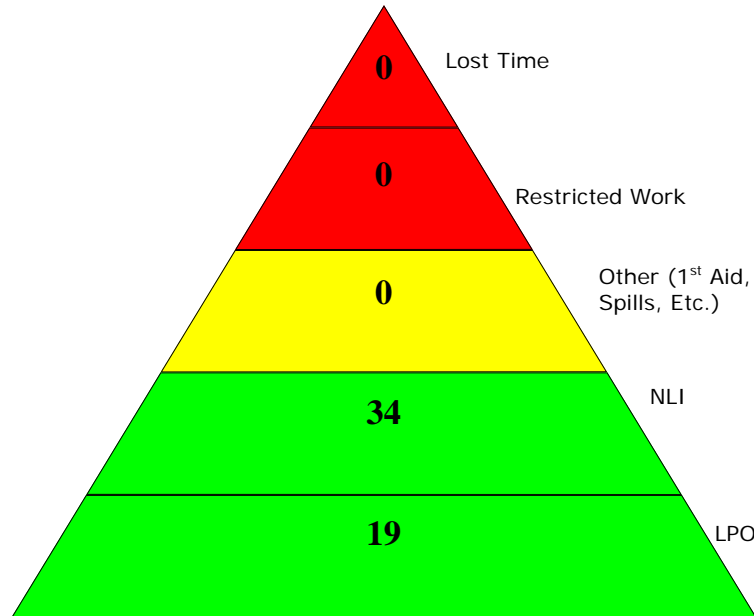
Photo Courtesy of Grace Willis:



The bird flu has hit Florida!

## Safety Matters

2006 YTD (through April)  
AME Total ExxonMobil Hours Worked YTD (2006): 6,234



### LPS Metrics for May

Our monthly metrics report to ExxonMobil indicates that AME completed 418 hours of fieldwork, of which 93 were subcontractor hours. In this period we conducted 3 Loss Prevention Observations (LPO) and completed 14 Near Loss Incident (NLI) reports. All three LPO's were for Operation and Maintenance related activities. Questionable behaviors identified included one body use and positioning finding, two work environment findings, two operating procedures findings, and one tools and equipment finding. We identified four root causes as "doing the job according to procedures or acceptable practices takes more time or effort", one root cause as "in the past I did not follow procedures or acceptable practices and no incident occurred", and one other root cause as a lack of or inadequate tools or equipment. Eric Chase has the details of these findings. The rate of AME's NLI report production has been praised by Kurt Fischer of ExxonMobil. We will be working in the near future on refining our use of the NLI as a learning tool, and on more effective root cause identification and hazard reduction. Nice work, everyone!

### LPS Stewardship Workshop

Project managers from the entire western region convened in early May for a one-day AME Loss Prevention System Stewardship Workshop, conducted by AME's LPS coordinator Eric Chase at the AME Headquarters office in El Dorado Hills, CA. Examples were given of numerous safety incidents from an earlier day, recalling Eric's 38 years of field experience. A comprehensive review of AME's LPS performance

metrics was also presented, illustrating the key areas for focus in improving our safety awareness going forward. The format of the workshop was interactive, which thanks to the experience of the PM's resulted in a valuable exchange of ideas regarding appropriate stewardship of the program, including emphasis on refining our use of the seven LPS tools. Several Near Loss Incident Reports prepared over the past four months were reviewed to emphasize areas of challenge and to point out the things we are doing right. Another such workshop is already in the planning stages.

### LPS Training for Blaine Tech

In an effort to spread LPS, training was conducted for Blaine Tech by Jim Twiford on June 5<sup>th</sup> 2006. The LPS training was given to seven employees including four technicians, two managing employees, and the health and safety officer of Blaine Tech. The training was also attended by the oversight of the Oakland sampling event (Dan Sweet and Dan Lafontaine). The training was a complete success. We welcome Blaine Tech into LPS and encourage people from any of their offices to attend any of our safety meetings and plan to attend theirs as well.

### Respirator Fit Testing

During the month of May, Ellen Frosh conducted respirator fit testing on quite a few employees. Part of the fit testing required the employees to walk around the office for 10 minutes while the respirator fit to their face. Scary! They sounded a bit like Darth Vader if you had to talk to them. After the respirator was

molded to their face, Ellen took them outside and tested them under a yellow hood. Pictured is Jim Twiford during his fit testing.



### Fire Extinguisher Training

On May 16, 2006, Captain Brad Ballenger of the El Dorado Hills Fire Department conducted Fire Extinguisher training at the El Dorado Hills Office. We learned to identify different classes of fires, how to choose the appropriate extinguisher, how to use a fire extinguisher, and fire extinguisher maintenance. A power-point presentation of the training was sent to the satellite offices, so everyone can learn about the appropriate use of fire extinguishers. Captain Ballenger provided some very important factors. You do not use a fire extinguisher unless the fire is small and contained, you have pulled the fire alarm and the fire department has been notified, there is no smoke, there is a clear exit (the exit must be behind you), and you have been trained to use the fire extinguisher. Remember **PASS** (pull the pin, aim the nozzle, squeeze the trigger, and sweep at the base of the fire).



### Sonic Rig

On May 15, 2006 during our LPS Workshop, Water Development, Inc. brought their newest sonic rig to El Dorado Hills so that AME staff could see and learn about the safety innovations they have incorporated into the rig/service truck interface.



### Safety Tip

**From John Matthey:** When in the field, it is good practice to double knot your steel toed boots. It's pretty embarrassing, and dangerous, to trip on your own boot lace around a drill rig or sea cliff.

