



## International Society of Environmental Forensics

### Overview and Application of Environmental Forensics in Soil and Groundwater

November 4 - 5, 2003  
Mission Valley Marriott Hotel  
San Diego, CA

#### Day One: November 4, 2003

##### Overview Session:

- 8:00-8:30     **Registration** (coffee)
- 8:30-9:00     **Welcome and Workshop Orientation: History and Evolution of Environmental Forensics**  
Paul T. KostECKi, Ph.D. (Moderator), ISEF, Amherst, MA
- 9:00-9:30     **Overview of Forensic Data Analysis and Interpretation**  
Robert I. Haddad, Ph.D., Applied Geochemical Strategies, Inc., Arroyo Grande, CA
- 9:30-10:00    **Overview of Historical Environmental Forensic Techniques: Aerial Photography, Artifact Sampling, Chemical Usage History, Commercial Formulations and Ratios, Scanning Electron Microscope, Microbiological/DNA**  
Robert D. Morrison, Ph.D., DPRA, Inc., San Marcos, CA
- 10:00-10:15   **Break**
- 10:15-10:55   **Geochemical Testing Techniques for Petroleum Hydrocarbons and Other Contaminants: GC, GC/MS, GC-IRMS**  
Allen Uhler, Ph.D., Battelle Memorial Institute, Duxbury, MA
- 10:55-11:40   **Overview of Application of Statistical Methods**  
Shahrokh Rouhani, Ph.D., New Fields, Inc., Atlanta, GA
- 11:40-12:00   **Environmental Forensics Application at Department of Defense Sites**  
Fred E. Goetz, Ph.D., U.S. Navy, NFESC, Port Hueneme, CA
- 12:00-1:00    **Lunch**

## **Focused Presentations:**

- 1:00-2:00     **1,4-Dioxane and Other Solvent Stabilizers in Environmental Forensic Investigations**  
Thomas K. Mohr, R.G., Santa Clara Valley Water District, San Jose, CA
- 2:00-3:00     **Application and Challenges in Groundwater Modeling for Environmental Forensic Investigations**  
Brendan M. Harley, Ph.D., CDM International Inc., Cambridge, MA
- 3:00-3:15     **Break**
- 3:15-4:15     **PAH Data as Forensic Source Identification Tools: The Good, the Bad, and the Ugly!**  
Robert I. Haddad, Ph.D., Applied Geochemical Strategies, Inc., Arroyo Grande, CA
- 4:15-5:00     **Isotope Applications for Contaminant Source Identification and Allocation: Theory to Practice**  
Julie Sueker, Ph.D., P.H., P.E., BBL, Inc., Golden, CO
- 5:00            **Adjourn**

## **Day Two: November 5, 2003**

- 8:15-8:30     **Review and Introduction to the Morning Session**  
Robert I. Haddad, Ph.D. (Moderator), Applied Geochemical Strategies, Inc., Arroyo Grande, CA
- 8:30-9:15     **PCB Fingerprinting**  
Glenn Johnson, Ph.D., The University of Utah, Salt Lake City, UT
- 9:15-10:00    **Perchlorate: Source Identification and Release Reconstruction Techniques**  
Peter M. Mesard, P.E., C.E.G., Exponent, Inc., Oakland, CA
- 10:00-10:15   **Break**
- 10:15-11:00   **The Implications Of Bioavailability In Determining Risk-Based Sediment Cleanup Standards: New Regulations And New Perspectives**  
Andy Davis, Ph.D., Geomega, Boulder, CO

- 11:00-12:00 **Geochemistry and Source Speciation of Hexavalent Chromium in a California Aquifer**  
William E. Motzer, Ph.D., R.G., Todd Engineers, Emeryville, CA
- 12:00-1:00 **Lunch**
- 1:00-1:45 **Forensic Review of Upward Vapor Intrusion Models: A Reality Check**  
Blayne Hartman, Ph.D., Transglobal Environmental Geochemistry, Solano Beach, CA
- 1:45-2:30 **Molecular Microbiology Applications in Environmental Forensics**  
Raul J. Cano, Ph.D., Environmental Biotechnology Institute, California Polytechnic State University, San Luis Obispo, CA
- 2:30-2:45 **Break**
- 2:45-3:30 **Forensic Evaluation of Contamination by Solvents Originating from Coatings Used in Public Water Supply Storage and Distribution Facilities**  
Thomas M. Johnson, R.G., C.HG., LFR Levine Fricke, Emeryville, CA
- 3:30-4:00 **Forensic Analysis of Fugitive Methane Gas Emissions**  
Alan Jeffrey, Ph.D., ZymaX Forensics, San Luis Obispo, CA
- 4:00-4:45 **Forensic Interpretation of *Typical* Petroleum Hydrocarbon and Oxygenate Analytical Data**  
Dawn A. Zemo, R.G., C.E.G., Zemo & Associates, LLC, San Francisco, CA
- 4:45-5:00 **Questions & Answers of Faculty**  
Robert I. Haddad, Ph.D., Applied Geochemical Strategies, Inc., Arroyo Grande, CA
- 5:00 **Adjourn**

## **Mission Valley Marriott Hotel Information:**

The Mission Valley Marriott is just 10 minutes (8 mi SW) from San Diego International Airport (SAN). By car: Take Harbor Drive to Hwy 5 North then to Hwy 8 East. Exit the Qualcomm exit. Turn left on Qualcomm Way. Turn right on Rio San Diego Drive. Hotel is on your right.

The hotel does not provide a shuttle, however, many ground transportation options are available directly from the airport. "Cloud Nine Shuttle" is \$7.50 per person. Reservations are not necessary; cross the street upon exiting baggage claim and Cloud Nine Shuttles are located at the curb near the taxis and other ground transportation.

San Diego boasts an almost perfect year-round climate. Most days are sunny, averaging 70 deg. F with low humidity. Delight in a world of sightseeing pleasures on your trip to San Diego. Major attractions include: miles of white-sand, sunny beaches, charming Old Town, the Gaslamp District, the San Diego Zoo, Sea World, Wild Animal Park, U.S. Navy facilities and Qualcomm Stadium. Get a taste of Mexico in Tijuana, just a short drive south.

The Mission Valley Marriott hotel has 17 floors and 350 guest rooms --all with multiple PC data ports with high-speed Internet access. Enjoy casual all-day dining at Café Del Sol or unwind at The Cantina, the hotel's on-site happy hour bar. Visit the website for a full description of amenities at the hotel: <http://www.marriotthotels.com>

**The Mission Valley Marriott**  
**8757 Rio San Diego Drive**  
**San Diego, CA 92108**  
**Tel: 619-692-3800 or 800-842-5329**  
**Fax: 619-692-0769**

### *Accommodations Information:*

Single/Double: \$139.00, Triple: \$149.00, Quad: \$159.00, Suite: \$418.00

- Participants are responsible for making their own room reservations. Please contact the hotel at the above phone or fax, or visit the website to make an on-line reservation.
- Cut off date for reservations: October 6, 2003 to receive the above rates.
- You must mention the group name (International Society of Environmental Forensics or ISEF) to receive our special group rates listed above.
- A cash or credit card deposit is required to make your reservation.
- Check in time 4 PM, check out time 11 AM
- Onsite parking available for \$10.00 per day (Self Park) or \$13.00 per day (Valet).
- You may cancel your reservation without penalty before 6 PM on the day of arrival.

Special Note: Early reservations are recommended and encouraged. The hotel is anticipating a full house due to other groups coinciding with our workshop. Please make your room reservations early!

[www.EnvironmentalForensics.org](http://www.EnvironmentalForensics.org)