

United States
Environmental Protection
Agency

Technology Transfer

Seminar on Site Characterization for Subsurface Remediations

October 3-4, 1989
Chicago, IL

October 5-6, 1989
Kansas City, MO

October 17-18, 1989
Denver, CO

October 19-20, 1989
Dallas, TX

November 27-28, 1989
Lowell, MA

November 29-30, 1989
New York, NY

January 16-17, 1990
Atlanta, GA

January 18-19, 1990
Philadelphia, PA

February 5-6, 1990
Seattle, WA

February 7-8, 1990
San Francisco, CA

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United States
Environmental Protection
Agency

Center for Environmental Research
Information
Cincinnati, OH 45268

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- 3:20 p.m. **Session 2: Continued**
Part 3: Ground Water Sample Collection and
Data Interpretation
- 4:30 p.m. **Panel Discussion**
- 5:00 p.m. **Adjourn**
- Day Two
- 8:00 a.m. **Session 3: Characterization of
Subsurface Physiochemical Processes**
Palmer
Part 1: Determination of Soil-Liquid Partition
Coefficients
Part 2: Determination of Facilitated Transport
Part 3: Estimation of Inorganic Speciation and
Complexation
Part 4: Estimation and Measurement of VOC
Volatilization from Soil
- 10:00 a.m. **Break**
- 10:20 a.m. **Session 4: Characterization of
Subsurface Degradation Processes**
Henson
Part 1: Abiotic Degradation
Part 2: Biotic Degradation
- 11:30 a.m. **Lunch**
- 12:30 p.m. **Session 5: Applications and Limitations
of In-Situ Soils Remediation**
Sims
Part 1: Soil Vacuum Extraction
Part 2: Bioreclamation
Part 3: Contaminant Immobilization
Part 4: Contaminant Mobilization
(soils flushing)
- 2:00 p.m. **Break**
- 2:20 p.m. **Session 6: Aquifer Restoration –
Applications and Limitations**
Sims
Part 1: Product Removal
Part 2: Pump and Treat
Part 3: Biorestitution
- 4:00 p.m. **Summary and Conclusions/
Panel Discussion**
- 5:00 p.m. **Adjourn**

TRISHA HASCH
EASTERN RESEARCH GROUP, INC.
6 WHITTEMORE STREET
ARLINGTON, MA 02174

Place
Stamp
Here

Purpose

This seminar series is sponsored by the Robert S. Kerr Environmental Research Laboratory, Ada, Oklahoma, the Center for Environmental Research Information, Cincinnati, Ohio, and the Office for Solid Waste and Emergency Response.

These seminars are being presented to examine the site characterization requirements necessary to select the most appropriate remediation technologies for contaminated soils and ground water at hazardous waste sites. The major emphasis is on in-situ technologies and the extraction aspect of the pump and treat process.

The primary audience is EPA Regional personnel, State regulators, consultants, and others responsible for making decisions on remediation technology.

The seminars provide a summary and application of subsurface physical, chemical, and biological fundamentals critical to understanding and managing the transport and transformation of contaminants in soils and ground waters. The relationship of these processes to water and contaminant movement in the subsurface and the application of various remediation techniques, such as pump and treat, soil vacuum extraction, soils flushing, and bioremediation will be examined.

Registration

There is no fee for seminar registration. To register, complete the registration blank on the back of this announcement indicating the seminar(s) you wish to attend and return to the address shown thereon.

Hotel Information

A block of rooms has been reserved at the hotels listed below and will be issued on a first-come, first-served basis. The reserved block of rooms will be held until the cut-off date, which is three weeks prior to each seminar. Room reservations are to be made directly by you with the hotel. Reference the "EPA Seminar" to receive the special room rate.

October 3-4, 1989
Ramada Inn (O'Hare Airport)
6600 North Mannheim Road
Rosemont, IL 60018
(312) 827-5131
Govt. and Non-Govt. Rate
Single and Double: \$73.87

October 5-6, 1989
Park Place Hotel
1601 N. Universal Ave.
Kansas City, MO
(816) 483-9900
Govt. and Non-Govt. Rate
Single and Double: \$52.54

October 17-18, 1989
Marriott City Center
1701 California Street
Denver, CO 80202
(303) 297-1300
Govt. and Non-Govt. Rate
Single and Double: \$65.00

October 19-20, 1989
Park Inn Plaza
1914 Commerce Street
Dallas, TX 75201
(214) 747-7000
Govt. and Non-Govt. Rate
Single: \$45.00; Double: \$55.00

November 27-28, 1989
Lowell Hilton
50 Warren Street
Lowell, MA 01852
(508) 452-1200
Govt. and Non-Govt. Rate
Single and Double: \$72.00

November 29-30, 1989
Days Inn-New York City
440 West 57th Street
New York, NY 10019
(212) 581-8100
Govt. and Non-Govt. Rates
Single: \$85.00; Double: \$95.00

January 16-17, 1990
Hyatt Regency in
Peachtree Center
265 Peachtree St., NE
Atlanta, GA 30301
(404) 577-1234
Govt. and Non-Govt. Rates
Single: \$64.00; Double: \$84.00

January 18-19, 1990
Wyndham Franklin Plaza Hotel
Two Franklin Plaza
Philadelphia, PA 19103
(215) 448-2000
Govt. and Non-Govt. Rate
Single and Double: \$66.67

February 5-6, 1990
Seattle Hilton
Sixth and University
Seattle, WA 98111
(206) 244-6000
Govt. and Non-Govt. Rates
Single: \$53.00; Double: \$63.00

February 7-8, 1990
Cathedral Hill Hotel
Van Ness & Geary
San Francisco, CA 94109-6986
(415) 776-8200
Govt. and Non-Govt. Rates
Single: \$78.00; Double: \$100.00

For additional seminar information, contact :

Trisha Hasch
Eastern Research Group, Inc.
6 Whittemore St.
Arlington, MA 02174
(617) 648-7811

Speakers

Michael J. Barcelona, Illinois State Water Survey (SWS),
Champaign, IL

J. Michael Henson, RMT Engineering and Environmental
Management Services, Greenville, SC

James W. Mercer, GeoTrans, Inc., Herndon, VA

Carl D. Palmer, Oregon Graduate Center,
Beaverton, OR

Ronald C. Sims, Utah State University, Logan, UT

Agenda

Day One

- 7:30 a.m. Registration
- 8:00 a.m. Introduction/Seminar Overview –
Need, Selection, and Effectiveness of
Various Remedial Alternatives
Mercer
- 9:00 a.m. Session 1: Characterization of Water
Movement in the Subsurface
Mercer
Part 1: Determination of Water Movement in
the Vadose Zone
- 10:00 a.m. Break
- 10:20 a.m. Session 1: Continued
Part 2: Determination of Water Movement in
Saturated Porous Media
Part 3: Determination of Water Movement in
Saturated Fractured Media
- 12:00 Noon Lunch
- 1:00 p.m. Session 2: Determination of Extent and
Magnitude of Contamination in the
Subsurface
Barcelona
Part 1: Subsurface Geochemical Conditions:
variability, controlling factors, and
sampling considerations
Part 2: Soil and Aquifer Sediment Sample
Collection and Data Interpretation
- 3:00 p.m. Break

**Seminar Registration Form
Site Characterization for Subsurface Remediations**

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Name _____

Title _____

Organization _____

Address _____

City, State, Zip Code _____

Telephone _____

Mail Registration to: Trisha Hasch, Eastern Research Group, Inc., 6 Whittemore Street, Arlington, MA 02174, (617) 648-7811.