

GeoEnviroLogic Professional Development



Contaminated Site Investigation: Planning, Field Sampling, and Interpretation

- ▶ Day 1: Soil and Groundwater Media
- ▶ Day 2: Soil Vapour and Other Media

GeoEnviroLogic Professional Development Seminars on Contaminated Sites Topics

Contaminated Site Investigation: Planning, Field Sampling, and Interpretation

- ▶ **Day 1: Soil and Groundwater Media**
- ▶ **Day 2: Soil Vapour and Other Media**

May 27 and 28, 2008, 8:00 am to 4:30 pm
BCIT Campus, 3700 Willingdon Avenue
Burnaby BC

SEMINAR SYNOPSIS

This is a two-day classroom and field program; however, each day can be taken separately for those who wish to do so. The program involves practical aspects of collecting soil, soil vapour, groundwater, surface water, and ambient air samples at contaminated sites.

Topics covered will include development of sampling plans, selection of appropriate field methods, field demonstration of common sampling techniques, data QA/QC, and interpretation of results.

The seminar will assist those who want to learn or improve their field sampling skills; and those who are involved with review of site investigations and need to determine the adequacy of the resulting site characterization.

The contaminated site investigation course will include issues associated with the collection and analysis of data for characterization of common types of contaminants and exposure pathways.

PRESENTERS (in presentation order)

▶ Dr. Reidar Zapf-Gilje, P.Eng.: Adj. Prof., Dept. Civil Eng., UBC; Contaminated Sites Approved Professional; RZG Consulting, and GeoEnvirologic PD

▶ Dr. Ian Hers, P.Eng.: Golder Associates Ltd.; Director, Science Advisory Board for Contaminated Sites, Contaminated Sites Approved Professional

▶ Ryan Stevenson, M.R.M., R.P.Bio.: Golder Associates Ltd.

▶ Brent Mussato, CARO Analytical

MANUAL TABLE OF CONTENTS

This manual is organized by presenter as listed above. Each Presenter listed has one section, defined by a tab, containing all of his or her presentations for both days. Individual presentation within each presenter's section are separated by a coloured sheet of paper.

Cole Bertsch from Blue Max Environmental Drilling and the team from Mud Bay Drilling will provide demonstrations, but do not have materials printed in this manual.

SEMINAR OUTLINE

Day 1: May 27, 2009

- 8:00-8:15 Refreshments and Introductions
- 8:15-10:00 **Reidar Zapf-Gilje**
- Conceptual Model and Sampling Strategy for Soil and Groundwater
- Soil Sampling (design, methods, and tools)
- 10:00-10:15 Refreshment Break
- 10:15-12:15 **Ian Hers**
- Groundwater Sampling (design, methods, and tools)
- 12:15-12:30 Box Lunch and Travel to Site
- 12:30-4:00 **Field Demonstrations**
- Soil and Groundwater Sampling (Ian Hers and Mud Bay Drilling)
- 4:00-4:30 **Wrap-up and Discussion**

SEMINAR OUTLINE

Day 2: May 28, 2009

- 8:00-8:15 Refreshments and Introductions
- 8:15-8:45 **Reidar Zapf-Gilje**
- Data Validation and Interpretation
- 8:45-9:15 **Brent Mussato**
- Lab Methods and QA/QC
- 9:15-10:00 **Ian Hers**
- Sampling of Soil Vapour and Ambient Air
- 10:00-10:15 Refreshment Break
- 10:15-11:15 **Ian Hers**
- Sampling of Soil Vapour and Ambient Air cont'd
- 11:15-12:15 **Ryan Stevenson**
- Sampling of Sediment, Surface Water, and Biota
- 12:15-12:30 Box Lunch and Travel to Site
- 12:30-4:00 **Field Demonstration**
- Sediment/Surface Water Sampling (Stevenson)
- Soil Vapour Probe Installation (Hers and Blue Max Drilling)
- 4:00-4:30 **Wrap-up and Discussion**

Reidar Zapf-Gilje, Ph.D., P.Eng.

- ▶ **Contaminated Sites Approved Professional**
- ▶ **RZG Consulting and GeoEnviroLogic Professional Development**
- ▶ **Adjunct Professor, University of British Columbia**

Ian Hers, Ph.D., P. Eng.

- ▶ **Contaminated Sites Approved Professional**
- ▶ **Director, Science Advisory Board for Contaminated Sites**
- ▶ **Golder Associates Ltd**

**Ryan Stevenson, M.R.M.,
R.P.Bio.**

▶ **Golder Associates Ltd**

Brent Mussato, B.Sc., PChem

▶ **CARO Analytical Services**

