

**1<sup>st</sup> Annual Workshop**  
**THE ANALYSIS OF SOIL**

Sponsored by the Western Enviro-Agricultural Laboratory Association

Monday, February 18, 1985  
1:00 – 4:30 P.M.  
Lethbridge Lodge, Lethbridge, Alberta

Technical Sessions:

- |              |  |  |
|--------------|--|--|
| 12:30 – 1:00 | Registration                               |  |
| 1:00 – 1:30  | Opening Remarks                            |  |
| 1:30 – 2:00  | Soil Sampling                              | Robert Valteau, P.Ag.<br>Western Reclamation Services          |
| 2:00 – 2:30  | What is Quality Control/Quality Assurance? | Dr. Byron Kratochvil<br>Chemistry Department, University of AB |
| 2:30 – 3:00  | How to Implement a QA/QC programme         | Dr. Byron Kratochvil   |
| 3:00 – 3:30  | Coffee Break                               |  |
| 3:30 – 4:00  | Panel Discussion                           |  |
- ‘How will laboratory accreditation affect soil laboratories and the analytical results they produce?’
- Panelists
- Dr. Byron Kratochvil      Chem Dept, U of A
  - Mr. Don Laverty, P.Ag    Alberta Agriculture
  - Mr. Ray Juska              Lakeside Research Ltd.
  - Mr. David Paton, P.Ag    Chemex Labs (Alberta) Ltd.

**Western Enviro-Agricultural Laboratory Association**  
**2<sup>nd</sup> Annual Workshop**  
**February 26 – 27, 1986**

**Soil Analysis: Impact on Agricultural and Resource Industries**

SESSION I: AGRICULTURAL INDUSTRY (February 26, 1986 3:00 – 4:00)

Session Chairman: Dr. B. Kamara

Location: Sheraton East and West

3:00 – 3:30 Case Studies – Soil Fertilization, problems and solutions

- Dr. R. Kusey – Lethbridge Research Station

3:30 – 4:00 Spacial Mapping of Soil Properties

- Dr. W. Pettapiece – Agriculture Canada

SESSION II: RESOURCE INDUSTRIES (February 27, 1986 8:00 – 12:00)

Session Chairman: Dave Paton

Location: Canadian Room

8:00 – 8:30 Pipelining – Soil Surveys

- Al Twardy – Pedology Consultants

8:30 – 9:00 Coal Mining - Soil Surveys

- Malcolm Ross – Crows Nest Resources Ltd.

9:00 – 9:30 Sour Gas – pH monitoring

- Dave McCoy – Canterra Ltd.

9:30 – 10:00 Forestry – Soil Fertility

- Dr. I. Edwards – Canadian Forest Service

10:00 – 10:30 Coffee Break

10:30 – 11:00 Petroleum Industry – Salt Spill Reclamation

- John Patterson – Western Oilfield Environmental Services Ltd.

11:00 – 11:30 Future Trends – Pesticides and their analysis

- Dennis Erickson – EnviroTest Laboratories

11:30 – 12:00 Rapporteur

- Dr. W. McGill – University of Alberta

12:00 – 1:00 Non-hosted Lunch

1:00 – 5:00 WEALA Annual Meeting - Barlow Room



### 3<sup>rd</sup> ANNUAL WORKSHOP

April 14, 1987

Alberta Research Council – Edmonton

#### AGENDA

- 8:15 – 8:45 Registration  
8:45 – 9:00 Welcome – Opening Remarks – D. White, President  
9:00 – 9:30 Heavy Metal Analysis – S. Abboud – ARC  
- environmental & agricultural applications  
9:30 – 10:00 Microwave Digestion – A. Bollo-Kamara – ASAN Lab  
- technique & process, advantages and disadvantages  
10:00 – 10:45 Pesticide Residues in Crops & Soil – P. Sharma – AEC  
- avenues of contamination in industry and agriculture  
- guidelines for diagnosis of suspected problems

#### BREAK

- 11:00 – 12:00 Annual Meeting

#### LUNCH BREAK

- 1:00 – 1:45 Oilfield Spills – M. Korchinski – ARCB Lab  
- effects of spills – clean-up requirements  
- technological and analytical needs  
- analytical methods for HC's – problems  
1:45 – 2:15 ICP Mass Spectrometer – R. Ing – Sherritt Gordon Mines Lab  
- applications for environment and agriculture  
2:15 – 2:45 Ion Chromatography – D. Laberg – Chemex Lab  
- application for environment and agriculture  
2:45 – 3:00 Vacuum Extraction Units – S. Abboud – ARC Lab  
- technique and process – advantages and disadvantages

#### BREAK

- 3:30 – 4:30 Tour of Alberta Research Council – S. Abboud – ARC Lab



---

Executive 1987 – 88:

President: Yash P. Kalra, Canadian Forest Service, Edmonton, Alberta, T6H 3S5 Phone 435-7210

Vice-President: Erv Callin, Norwest Soil Research Ltd., Edmonton, Alberta T6E 0P5 Phone 438-5522

Secretary-Treasurer: Paul Yeung, AB Environmental Centre, Vegreville, Alberta T0B 4L0 Phone 632-6761

---

## **4<sup>th</sup> Annual Workshop**

### **“Lab Automation”**

Date: April 15, 1988

Place: West Hall, Energy Resources Conservation Board  
640 – 5<sup>th</sup> Ave. SW, Calgary, Alberta

Contact: Merl Korchinski 297-2450 (Calgary)

#### Agenda

8:15 Registration

9:00 Opening Remarks and Welcome – Yash Kalra

9:10 A Lab Automation System: Environmental Applications and Instrument  
Integration – Ian Brown, Perkin Elmer Corp., Toronto, ON

9:50 Auto-Analyzer Using IBM PC – Paul Yeung, Alberta Environmental  
Centre, Vegreville, AB

10:20 Coffee Break

10:40 Lab Automation Using Robotics – Kelly Moynihan, Esso Resources  
Research, Calgary, AB

11:50 Lunch (on your own)

13:30 Unified Approach to Data Collection & to Interfacing with Other  
Computer Systems – Gordon Shefford, Hewlett Packard

14:45 Coffee Break

15:00 Annual Meeting



**5<sup>th</sup> ANNUAL TECHNICAL WORKSHOP**  
**"Heavy Metals in the Environment"**

Thursday, March 21, 1991

Alberta Research Council, 250 Karl Clark Road, Edmonton, Alberta

- 8:00 Registration
- 8:45 - 8:50 Welcome by the Alberta Research Council
- 8:50 - 9:00 Introductory Remarks (Session Chair)
- 9:00 - 9:45 "Heavy metals in the environment: the philosophy of metal extractions and its relationship to risk assessment and environmental interpretations". (Dr. Tom Bates, University of Guelph).
- 9:45 - 10:15 "Total heavy metal analysis methods: comparison of various digestion techniques". (Dr. Salim Abboud, Alberta Research Council)
- 10:15 - 10:20 Questions and Discussions.
- 10:20 - 10:40 COFFEE BREAK
- 10:40 - 11:10 "Leachate extractions for heavy metals: recent approaches and regulatory limits". (Dr. Dan Conrad, Alberta Environmental Center).
- 11:10 - 11:40 "Metal extraction methods for agriculture: comparison of different approaches and relationship to total extraction". (Dr. Y.K. Soon, Agriculture Canada).
- 11:40 - 12:10 "Quality control in the analysis of heavy metals in solids". (Ms. Nancy Maxwell, Chemex Labs).
- 12:10 - 12:15 Questions and Discussions.
- 12:15 - 1:30 L U N C H (Provided)
- 1:30 - 2:15 "Regulatory limits on heavy metals in land application of wastes: review of national and international approaches". (Dr. Mel Webber, Environment Canada).
- 2:15 - 2:45 "Heavy metal in Alberta's soils, sediments and waters". (Dr. Marv Dudas, University of Alberta).
- 2:45 - 2:50 Questions and Discussions.
- 2:50 - 3:10 COFFEE BREAK
- 3:10 - 3:40 "Statistics of sampling for soils, wastes and other natural materials". (Dr. B. Kratochvil, University of Alberta).
- 3:40 - 4:10 "Sampling and analysis requirements for environmental investigations". (Mr. Al Leander, Stanley Associates).

For more Information and Registration call:

Salim Abboud 450-5470, Erv Callin 438-5522, Dave Paton 948-2238



## **6<sup>th</sup> ANNUAL TECHNICAL WORKSHOP**

### **"Advances in Environmental Analytical Chemistry"**

Thursday, April 22, 1993

Alberta Research Council

250 Karl Clark Road

Edmonton, Alberta

- 8:00 Registration
- 8:45 - 8:50 Welcome by the Alberta Research Council
- 8:50 - 9:00 Introductory Remarks (Session Chair)
- 9:00 - 9:45 "Performance based methods in the environmental laboratory". (Dr. Richard Turle, Environment Canada, Ottawa).
- 9:45 - 10:15 "Supercritical extraction and chromatography in environmental analysis". (Dr. Bryan Fuhr, Alberta Research Council)
- 10:15 - 10:20 Questions and Discussions.
- 10:20 - 10:40 COFFEE BREAK
- 10:40 - 11:10 "Flow injection - atomic absorption spectroscopy for the analysis of hydride metals in environmental samples". (Ms. Mary Mayes, Ron LeClair and W. Massiah, Chemex Labs).
- 11:10 - 11:40 "Organic analysis by liquid chromatography - mass spectroscopy (LS-MS)". (Dr. Gary Bruns, Envirotest Labs).
- 11:40 - 12:10 "Environmental analysis using inductively coupled plasma - mass spectroscopy (ICP-MS)". (Dr. Gary Horlick, University of Alberta).
- 12:10 - 12:15 Questions and Discussions.
- 12:15 - 1:30 L U N C H (Provided)
- 1:30 - 2:15 "The Use of Thermal Desorption/Gas Chromatography/Mass Spectroscopy for the analysis of Environmental Samples". (Dr. Mike Gray and M. Rawluk, Alberta Research Council).
- 2:15 - 2:45 "Use of ion exchange membranes in routine soil testing". (Dr. P. Qian, University of Saskatchewan).
- 2:45 - 2:50 Questions and Discussions.
- 2:50 - 3:10 COFFEE BREAK
- 3:10 - 3:40
- 3:40 - 4:10

For more Information and Registration (\$50. includes proceedings and lunch) call:

Salim Abboud 450-5470

Erv Callin 438-5522

Mary Mayes 291-3077



**7th ANNUAL TECHNICAL WORKSHOP**  
**WEALA AND AWAC**

**"Environmental Sampling, Analysis and Interpretation"**

Tuesday, April 12, 1994  
Alberta Research Council  
250 Karl Clark Road  
Edmonton, Alberta

- 8:00 Registration
- 8:55 - 9:00 Welcome and Introductory Remarks (Salim Abboud, Alberta Research Council)
- 9:00 - 9:45 "Interrelationships of environmental sampling, analysis and interpretation". (Mr. Louis Blume, U.S. Environmental Protection Agency).
- 9:45 - 10:15 "Sampling of wastes and wastewaters". (Mr. Tony Fernandes, Alberta Environmental Protection Department)
- 10:15 - 10:30 COFFEE BREAK
- 10:30 - 11:00 "Sampling of soils and waters". (Mr. Bob Innis, SENTAR).
- 11:00 - 11:30 "Analysis of liquid/fluid materials". (Ms. Mary Mayes, Chemex Labs).
- 11:30 - 12:00 "Analysis of solid/soil materials". (Mr. Erv Callin, Envirotest Labs).
- 12:00 - 1:00 L U N C H (Provided)
- 1:00 - 1:30 "Interpretation of environmental data from a government perspective". (Mr. Henry Regier, Alberta Environmental Protection Department).
- 1:30 - 2:00 "Interpretation of environmental data from an industry perspective". (Dr. Kelly Moynihan, Imperial Oil).
- 2:00 - 2:30 "Interpretation of environmental data from a consulting industry perspective". (Mr. Graham Hawkins, O'Connor Associates).
- 2:30 - 3:00 COFFEE BREAK
- 3:00 - 5:00 WEALA Annual Meeting

For more Information and Registration (\$50. includes proceedings and lunch) call:  
Salim Abboud 450-5470  
Erv Callin 434-9509  
Mary Mayes 291-3077



8<sup>th</sup>

## Annual WEALA and AWAC Workshop

*“Environmental & Analytical Aspects of  
Contaminated Site Assessments”*

### Day 1

Speakers from government agencies, consulting firms and analytical laboratories will discuss issues related to contaminated site assessment.

### Day 2

Toxicity Characteristic Leachate Procedures (TCLP) Course. Instructor: Dr. Larry Jackson, consultant to the USEPA

Fees:           Day 1           \$50.00  
                  Day 2           \$175.00  
                  Combined       \$200.00

Dates:           April 18 and 19, 1995

Place:           Alberta Research Council  
                  250 Karl Clark Road  
                  Edmonton, Alberta

Contact:  
Edmonton:   Randy Neumann       (403) 438-5522  
                  Erv Callin           (403) 434-9509 (298)  
Calgary:     Mary Mayes          (403) 735-2201



## AGENDA

**DAY 1 – APRIL 18<sup>TH</sup>**

<b>TIME</b>	<b>TOPIC</b>	<b>SPEAKER</b>
8:45 – 9:00	Welcome and Introductory Remarks	Dr. Salim Abboud Alberta Research Council
9:00 – 9:45	Keynote Speaker (CCME Contaminated Sites Program)	Dr. Ted Nason Chairman of CCME National Contaminated Sites Remediation Program (NCSRP), AB. Env. Protection
9:45 – 10:15	Contaminated Sites Program in Alberta	Mr. Gordon Dinwoodie AB Env. Protection
10:15 – 10:30	Coffee	
10:30 – 11:00	Sampling Plans for Contaminated Sites	Ms. Kathryn Bessie EBA Engineering
11:00 – 11:30	Computer Simulation for Risk Assessment	Mr. Al McDonald Hycal Energy Research
11:30 – 12:00	“Bioassay Directed Analyses in Support of Site Remediation Activities”	Dr. Detlef (Deib) Birkholz EnviroTest Labs
12:00 – 13:00	Lunch	
13:00 – 13:30	QC Issues for Laboratory Data Used in Risk Assessment	Dr. Bob Rogers Toxcon
13:30 – 14:00	A Case Study Using a Mobile Lab on a Site Assessment / Remediation Project	Mukesh Kapilia & Darly Hass Triwaste Reduction Christing O’Grady Chemex Labs
14:00 – 14:30	Field Screening and Testing Techniques	Mr. George Ruddock Osprey Scientific
14:30 – 14:45	Coffee	
14:45 – 15:15	Health and Safety Training Aspects of Site Assessment	Mr. Randy Stegner Wastewater Technology Centre
15:45 – 17:00	WEALA Annual Meeting	

## DAY 2 – APRIL 19, 1995

8:30 – 9:30	<b>Overview of Regulating Dilute Hazardous Wastes, Alberta/Canadian Requirements</b> – Mr. Silver Lupul, Branch head, Industrial Wastes, Alberta Environment
9:30 – 10:30	<b>Regulatory Applications of the TCLP in the US</b> – Dr. Larry Jackson This will include a brief discussion of all programs currently using the TCLP as part of their regulatory approach.
10:30 – 10:45	Break
10:45 – 12:00	<b>Evolution of the TCLP Test</b> This will include a description of the EPA landfill and leaching model including the fate and attenuation assumptions applied to released constituents. The discussion will point out the technical/theoretical characteristics of the model and their weaknesses. The evolution of the laboratory leaching model will be described beginning with the EP Toxicity Test to the TCLP including the ZHE.
12:00 – 13:00	Lunch
13:00 – 13:30	<b>Factors Affecting Selection of Methods and Analytes for TCLP</b> Discussion will focus on technical/cost considerations in how to best analyze the waste and extract for target analytes. Methods sensitivity, selectivity and cost effectiveness will be covered.
13:30 – 14:15	<b>Field Sample Design and Collection for TCLP Analysis</b> Discussion will cover how to collect the proper number and size of samples for complete TCLP analysis including sufficient material for required QA/QC.
14:15 – 14:30	Break
14:30 – 16:30	<b>How to Properly Conduct the TCLP</b> Presentation will be based on a set of bench record sheets and will walk the group through the complete TCLP. Proper conduct and documentation of the test will be stressed. Pitfalls and technical ambiguities will be pointed out along with suggested solutions.
16:30 – 17:00	<b>Dealing with Multi-phasic and Oily Wastes</b> Brief discussion of the special problems posed by these wastes.



## **WEALA AND AWAC 9th ANNUAL TECHNICAL WORKSHOP**

### **"Petroleum Hydrocarbons in Wastes, Soils and Waters. - Analytical and Regulatory Concerns"**

April 16 and 17, 1996  
Alberta Research Council, 250 Karl Clark Road  
Edmonton, Alberta

#### **April 16 (Workshop)**

- 8:00 Registration
- 8:55 - 9:00 Welcome and Introductory Remarks. (Dr. Salim Abboud, Alberta Research Council)
- 9:00 - 9:45 "Hydrocarbon analysis, a historical review and future directions". (Dr. Peter Fowlie, Wastewater Technology Centre).
- 9:45 - 10:15 "Alberta Environment's view of hydrocarbon analysis". (Dr. Arthur Bollo-Kamara and Walter Nahulak, Alberta Environmental Protection Department)
- 10:15 - 10:45 COFFEE BREAK
- 10:45 - 11:15 "Hydrocarbon analysis of soils, an industry view". (Dr. Adolpho Silva, Petro Canada).
- 11:15 - 11:45 "Hydrocarbon analysis of wastes and waters, an industry view". (Mr. Jeff Wright, Suncor).
- 11:45 - 12:15 "Hydrocarbon analysis, a consulting industry view". (Dr. Raider Zalf-Gilje, Golder Associates).
- 12:15 - 1:15 L U N C H (Provided)
- 1:15 - 2:00 "Hydrocarbon analysis, the analytical issues". (Mr. Erv Callin and Don Laberge, Envirotest and Chemex Laboratories).
- 2:00 - 2:30 "Hydrocarbon analysis, field instrumentation". (Paul Kelly, Kaizen Environmental Sampling).
- 2:30 - 3:00 PANEL DISCUSSION of all speakers.
- 3:00 - 3:30 COFFEE BREAK
- 3:30 - 5:00 WEALA Annual Meeting

For more Information and Registration (\$50. includes proceedings and lunch) call:  
Edmonton (Salim Abboud 450-5470 or Erv Callin 413-5244), Calgary (Don Laberge 291-3077)

# **WEALA AND AWAC 9th ANNUAL TECHNICAL WORKSHOP**

## **"Petroleum Hydrocarbons in Wastes, Soils and Waters. - Analytical and Regulatory Concerns"**

April 16 and 17, 1996  
Alberta Research Council, 250 Karl Clark Road  
Edmonton, Alberta

### **April 17 (Analytical Equipment Presentations and Display)**

- 8:30 - 9:15 "Field screening of total petroleum hydrocarbons, a new turbidimetric method." (Dr. Ted Lynn, Dexsil Corp and Mr. George Ruddick, Osprey Scientific)
- 9:15 - 10:00 "Accelerated Solvent Extractor, ASE 200. NEW EPA Method 3545 for the extraction of pollutants from solid samples." (Mr. Dave Knowles and Kham Lin, Dionex Corp.)
- 10:00 - 10:30 COFFEE BREAK
- 10:30 - 11:15 "Solid phase extraction for diesel range organics, petroleum hydrocarbons, and oil and grease determinations." (Ms. Susan Price, Environmental Express/3M Corp)
- 11:15 - 12:00 "Analytical options for the extraction and analysis of total petroleum." (Joy Jennison, Varian Canada)
- 12:00 - 1:00 L U N C H (Provided)
- 1:00 - 3:00 Equipment displays and discussions with industry representatives.

For more Information and Registration call: Calgary (Don Laberge 291-3077) or  
Edmonton (Salim Abboud 450-5470 or Erv Callin 413-5244)



## **WEALA/AWAC/WCMUC 10th ANNUAL TECHNICAL WORKSHOP**

### **"Toxicity Testing in Soils and Waters. - Analytical and Regulatory Issues"**

April 8, 1997

Alberta Research Council, 250 Karl Clark Road,  
Edmonton, Alberta

- 8:00 Registration
- 8:40 - 8:45 Welcome and Introductory Remarks. (Salim Abboud, Alberta Research Council)
- 8:45 - 9:30 "Assessment of Chemical Contamination in the Environment using Laboratory Based Toxicity Tests and Chemical Analysis" (Joe Green, Green Environment Services, Philomath, Oregon)
- 9:30 - 10:00 "The Alberta Regulatory Perspective on Toxicity Testing". (Ted Nason, Alberta Environmental Protection Department)
- 10:00 - 10:15 COFFEE BREAK
- 10:15 - 11:00 "Environment Canada's Toxicology and Method Development Program". (Richard Scroggins, Environment Canada, Ottawa)
- 11:00 - 11:30 "Use of Toxicity Testing Methods to Characterize the Toxicity Associated with Oil Sands". (Mike MacKinnon, Research Department, Syncrude Canada)
- 11:30 - 12:00 "Developing Remediation Criteria on the Basis of Human and Ecological Risk Assessment at the Okotoks Gas Plant Site". (Gordon Brown and Darrel Chollak, Cantox and Canadian Occidental Petroleum)
- 12:00 - 1:00 L U N C H (Provided)
- 1:00 - 1:30 "Assessment of Soil Toxicity and Treatability Using the Microtox Test". (Ansar Qureshi, Azure Environmental, California)
- 1:30 - 2:00 "Case Study, Toxicity Based Approaches to the Remediation of Complicated Waste Sites". (Bob Rogers and Deib Birkholtz, Toxcon and Envirotest Laboratories, Alberta)
- 2:00 - 2:30 "Aquatic Toxicity, Analytical Protocols". (Allen Verbeek, Chemex labs, Alberta)
- 2:30 - 3:00 PANEL DISCUSSION
- 3:00 - 3:30 COFFEE BREAK
- 3:30 - 5:00 WEALA Annual Meeting

For more Information and Registration (\$60, includes Lunch) call:

Edmonton (Salim Abboud 450-5470 or Erv Callin 413-5244), Calgary (Don Laberge 291-9897)



## **WEALA/AWAC/WCMUC 11th ANNUAL TECHNICAL WORKSHOP**

### **"Environmental and Analytical Issues of Agricultural Waste Management"**

April 21, 1998

Alberta Research Council, 250 Karl Clark Road,  
Edmonton, Alberta

- 8:00 Registration
- 8:40 - 8:45 Welcome and Introductory Remarks. (Salim Abboud, Alberta Research Council)
- 8:45 - 9:30 "Current and Future Trends in Agricultural Waste Management" (Jerry Leonard, University of Alberta)
- 9:30 - 10:00 "Environmental Aspects of Agricultural Waste Management". (Bill McGill, University of Alberta)
- 10:00 - 10:15 COFFEE BREAK
- 10:15 - 11:00 "Metal Analysis of Solid Materials using ICP-MS". (Shaole Wu, Alberta Research Council)
- 11:00 - 11:30 "Environmental microbiology". (Shirley Dzogan, Enviro-Test Laboratories)
- 11:30 - 12:00 "Artifacts in environmental analytical chemistry". (Hongmao Tang, Maxxam Analytics)
- 12:00 - 1:00 L U N C H (Provided)
- 1:00 - 1:30 "Regulatory Aspects of Agricultural Waste Management". (Brian West, Alberta Agriculture)
- 1:30 - 2:00 "Industry view of the Environmental issues of Agricultural Waste Management". (Ed Schultz, Alberta Pork Producers Development Corporation)
- 2:00 - 2:30 "Co-Composting of Sewage Sludge and Municipal Solid Waste". (Garry MacPherson, TransAlta Enterprises)
- 2:30 - 3:00 PANEL DISCUSSION
- 3:00 - 3:30 COFFEE BREAK
- 3:30 - 5:00 WEALA Annual Meeting

For more Information and Registration (\$60, includes Lunch) call:  
Edmonton (Salim Abboud 450-5470 or Erv Callin 413-5244), Calgary (Wayne Rae 291-3077)



## **WEALA/AWAC/WCMUC 12th ANNUAL TECHNICAL WORKSHOP**

### **"Scientific, Environmental and Analytical Issues of Greenhouse Gas Emissions and Global Warming"**

April 11, 2001

Alberta Research Council, 250 Karl Clark Road,  
Edmonton, Alberta

- 8:00 Registration
- 8:40 - 8:45 Welcome and Introductory Remarks. (Salim Abboud, Alberta Research Council)
- 8:45 - 9:30 "The Scientific and Environmental Issues related to Greenhouse Gas Emissions and Global Warming, and Possible Solutions: Mitigation vs. Adaptation" (Bill Gunter, Alberta Research Council)
- 9:30 - 10:00 "Regulatory Aspects of Greenhouse Gas Emissions and Global Warming". (John Donner, Government of Alberta and NCCP member)
- 10:00 - 10:15 COFFEE BREAK
- 10:15 - 10:45 "Coal Bed Methane Technology and its Role in Mitigation of Greenhouse Gas Emissions" (Ken Sinclair, Gas Technology Institute)
- 10:45 - 11:30 "Agricultural Issues Related to Greenhouse Gas Emissions : Effect on Agriculture and Agriculture's Role in Mitigation" (Karen Haugen-Kozyra, Alberta Agriculture)
- 11:30 - 12:00 "Alberta Climate Change Central and its Role in Issues Related to Greenhouse Gas Emissions and Global Warming". (Allen Amey, Climate Change Central)
- 12:00 - 1:00 L U N C H (Provided)
- 1:00 - 1:30 "Oil and Gas Industry Response to Issues related to Greenhouse Gas Emissions and Global Warming". (Rick Hyndman, CAPP)
- 1:30 - 2:00 "Power Industry Response to Issues Related to Greenhouse Gas Emissions and Global Warming". (Joe Nodelman, EPCOR)
- 2:00 - 2:30 "Analytical Issues Related to Greenhouse Gas Emissions and Global Warming". (Regis Karamanos and Larry Serbin)
- 2:30 - 3:00 PANEL DISCUSSION
- 3:00 - 3:30 COFFEE BREAK
- 3:30 - 5:00 WEALA Annual Meeting

For more Information and Registration (\$60, includes Lunch) call:  
Edmonton (Salim Abboud 450-5470 or Erv Callin 413-5244),  
Calgary (Lloyd Hodgins 250-4650 or Wayne Wrae 291-3077)



## **WEALA 13th ANNUAL TECHNICAL WORKSHOP**

### **"The Environmental Aspects of Accelerated Oil Sands Development in Alberta"**

April 11, 2002

Alberta Research Council, 250 Karl Clark Road,  
Edmonton, Alberta

- 8:00 Registration
- 8:45 - 8:50 Welcome and Introductory Remarks. (Salim Abboud, Alberta Research Council)
- 8:50 - 9:25 "Accelerated Development of Alberta's Oil Sands: Technical, Social and Economic Issues" (Wayne McKee, Syncrude Research)
- 9:25 - 10:00 "Environmental Challenges faced as a Result of Accelerated Oil Sands Development". (Don Klym, Suncor)
- 10:00 - 10:15 COFFEE BREAK
- 10:15 - 10:45 "Deposition of Acid and Acid Forming Substances in the Oil Sands Region: Impact of Accelerated Oil Sand Development " (Ron Pauls, Syncrude Canada)
- 10:45 - 11:30 "Water Quality and Distribution: Issues faced as a Result of Accelerated Oil Sand Development " (Bryan Kemper, Kemper2)
- 11:30 - 12:00 "Total Disturbances of Mined Lands: Impact of Accelerated Oil Sand Development ". (Clara Qualizza, Syncrude Canada)
- 12:00 - 1:00 L U N C H (Provided)
- 1:00 - 1:30 "The Regulatory Response to Accelerated Oil Sands Development: A Provincial Perspective". (Mike Boyd, Alberta Environment)
- 1:30 - 2:00 "Environmental Aspects of Accelerated Oil Sands Development: Consulting Companies Perspective". (Ken Foster, AMEC)
- 2:00 - 2:30 "Analytical Aspects of Accelerated Oil Sands Development". (John Ashworth, Enviro Test Labs)
- 2:30 - 3:00 PANEL DISCUSSION
- 3:00 - 3:30 COFFEE BREAK
- 3:30 - 5:00 WEALA Annual Meeting

For more Information and Registration (\$60, includes Lunch) call:  
Edmonton (Brenda Chomin 436-2152 Ext. 262 or Salim Abboud 450-5470),  
Calgary (Lloyd Hodgins 250-4650 or Wayne Wrae 291-3077)





## 14<sup>th</sup> ANNUAL WORKSHOP INVITATION

Announcing the 2003 Spring WEALA Workshop to be held **Thursday April 10<sup>th</sup>, 2003**  
at

Alberta Research Council  
250 Karl Clark Road  
Edmonton, Alberta

Our annual workshop this year is entitled “**Advances in Laboratory Technology**”

We are having a vendor show with presentations and displays by instrument manufacturers and laboratory equipment suppliers and their new equipment currently on the market as well as other displays of interest to the laboratory community.

### Workshop format:

8:30 am	Registration
9:00	Greeting by host
9:15 – 9:45	Varian Presentation on new 1200 MS/MS
9:45 – 10:15	Dionex Presentation on Accelerated Solvent Extraction
10:15 - 10:45	Coffee / visit Exhibits
10:45 – 11:15	SCP Science Presentation on Microwave Digestion
11:15 – 11:45	Leco Presentation on Advances in Soil CNS Analysis
11:45 – 12:15	ATS Scientific Presentation on New Tekmar Velocity XPT Purge & Trap Concentrator
12:15 – 1:00pm	Stand up Lunch provided & Visit Exhibits
1:00 – 1:30	Mandel Scientific Presentation on PC-TitratiON plus line of products for Environmental and Agricultural Analysis
1:30 – 2:00	Exhibits
2:15 – 3:30pm	WEALA Annual General Meeting

Some of the Exhibits will include a representative from:

- Varian Canada Inc.
- LECO Instruments Ltd.
- Mandel Scientific
- Dionex Canada Ltd.
- SCP Science
- ATS Scientific Inc.
- Fisher Scientific



**15<sup>th</sup> Annual WEALA Workshop.**

**Alberta Research Council, 250 Karl Clark Road, Edmonton AB**

**Thursday, April 15, 2004**

**"Regulatory Aspects of By-Product Management and Testing"**

**Workshop Schedule**

<b>8:00 - 8:40 a.m.</b>	<b>Coffee and registration</b>	
<b>8:45 - 9:00</b>	<b>Welcome to participants</b>	<b>Salim Abboud, ARC; James LeBlanc, WEALA</b>

***Seminar presentations***

<b>9:00 - 9:40</b>	<b>Salt-contaminated wastes &amp; soils</b>	<b>Gordon Dinwoodie, Alberta Environment</b>
--------------------	---	--

<b>9:40 - 10:20</b>	<b>Challenges for labs from new G-50</b>	<b>John Ashworth, EnviroTest Labs</b>
---------------------	--	---

**Refreshments**

<b>10:40 – 11:30</b>	<b>Effective soil sampling protocols</b>	<b>Doug Penney, Alberta Agriculture</b>
----------------------	--	---

<b>11:30 – 11:50</b>	<b>Field studies of soil-test Phosphorus and its relationship to P in run-off</b>	<b>Sheilah Nolan, Alberta Agriculture</b>
----------------------	---	---

***Lunch provided in ARC cafeteria 12:00 – 1:00 p.m.***

<b>1:00 - 1:40</b>	<b>Land application of municipal and industrial by-products</b>	<b>Doug Keyes, Norwest Labs</b>
--------------------	---	---------------------------------

<b>1:40 - 2:20</b>	<b>By-products from intensive livestock operations</b>	<b>Jim McKinley, NRCB</b>
--------------------	--	---------------------------

**Refreshments**

<b>2:40 – 3:20</b>	<b>Soil criteria for Barium and barite</b>	<b>Chris Meloche, Chevron</b>
	<b>Final comments, and wrap-up</b>	<b>James LeBlanc, WEALA</b>

\* \* \* \* \*

<b>3:30</b>	<b>WEALA Annual General Meeting (AGM) meeting</b>	
-------------	---	--



Western Enviro - Agricultural Laboratory Association  
www.weala.com

16<sup>th</sup> Annual WEALA Workshop.

**Alberta Research Council, 250 Karl Clark Road, Edmonton AB**

Thursday, April 14, 2005

**"Current Water Quality Issues"**

**Workshop Schedule**

**8:00 - 8:40 a.m.      Coffee and registration**

**8:45 - 9:00            Welcome to participants                      Salim Abboud, ARC;  
Curtis Olive, WEALA**

***Seminar presentations***

**9:00 - 9:40      Heavy Oil Extraction and Groundwater Quality      Jon Fennell,  
Komex International**

**9:40 - 10:20    Toxic Chemical Identification in Plant Cooling Water      Deib Birkholz,  
EnviroTest Labs**

**Refreshments**

**10:40 - 11:10    Coal-bed Methane Development and Groundwater Quality      Nga de la Cruz,  
Alberta Environment**

**11:10 - 11:50    Aspects of Water Quality and Conservation Related to Tar Sands Extraction      Mike MacKinnon  
Syncrude Canada**

*Lunch provided in ARC cafeteria 12:00 – 1:00 p.m.*

**1:00 - 1:40      Alternative Water Sources in Drilling Fluid Formulation      Jason Desilets,  
EnCana Corp.**

**1:40 - 2:20      Intensive Livestock Operations and Surface Water Quality      Brent Paterson,  
Alberta Agriculture**

**Refreshments**

**2:40 - 3:20      Panel Discussion**

**Final comments, and wrap-up                      Curtis Olive, WEALA**

\* \* \* \* \*

**3:30              WEALA Annual General Meeting (AGM) meeting**



## **WEALA 17<sup>th</sup> ANNUAL TECHNICAL WORKSHOP**

### **"Environmental Monitoring: Collection, Analysis and Use of the Data by Industry, Government and Research"**

April 19, 2006

Alberta Research Council, 250 Karl Clark Road,  
Edmonton, Alberta

<b>8:00</b>	<b>Registration and coffee</b>	
<b>8:55 - 9:00</b>	<b>Welcome and Introductory Remarks Council</b>	<b>Salim Abboud Alberta Research</b>
<b>9:00 - 10:00</b>	<b>"Statistical Analysis of monitoring data"</b>	<b>Carl Schwarz Simon Fraser University</b>
<b>10:00 - 10:30</b>	<b>COFFEE BREAK</b>	
<b>10:30 - 11:15</b>	<b>"Alberta Environment's Strategy for Monitoring, Evaluation and Reporting: A Systems Approach"</b>	<b>Bob Stone Alberta Environment</b>
<b>11:15 - 12:00</b>	<b>"The National Pollutant Release Inventory (NPRI): An Introduction for Data Users"</b>	<b>Art Beckett Environment Canada</b>
<b>12:00 - 1:00</b>	<b>L U N C H (Provided)</b>	
<b>1:00 - 1:45</b>	<b>"LTSAM plots: long term monitoring of acid deposition in Alberta"</b>	<b>Gordon Dinwoodie Alberta Environment</b>
<b>1:45 - 2:30</b>	<b>"TEEM plots and monitoring for environmental effects in the Oil Sands region"</b>	<b>Larry Turchenek AMEC</b>
<b>2:30 - 3:00</b>	<b>"Analytical Issues Related to Monitoring data"</b>	<b>John Ashworth ALS Laboratories</b>
<b>3:00 - 3:30</b>	<b>COFFEE BREAK</b>	
<b>3:30 - 5:00</b>	<b>WEALA Annual General Meeting</b>	

**Register online: <http://weala.com/workshop.htm>  
For more Information and Registration (\$75, includes Lunch) call:  
Joel Crumbaugh (780) 435-7297**