

Recap of PHC CWS Analytical Methods Workshop

May 31/01

Red Deer, AB


Alberta
ENVIRONMENT



Environment
Canada

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Canada

Workshop Objectives

- **Review scientific basis of PHC CWS**
- **Review PHC CWS analytical method**
 - prescriptive- and performance-based elements
- **Discuss roles of SCC and CAEAL in accreditation**
- **Hear from Alberta analytical laboratories on early experience working with PHC CWS methods**
- **Discuss performance-based enhancements**
 - procedures for documentation and vetting
- **Identify issues**
- **Develop recommendations for resolution of issues**

Summary of Recommendations 1

1. No performance-based modification of the CWS method will be accepted until a validation process is in place.

Status: Substantially upheld ... 9-12 of 39 labs in the CAEAL study reported implementation of the reference method

2. Alberta Environment should lead development of a validation protocol as soon as possible.

Status: initiative undertaken immediately following release of the CAEAL report

3. Validation criteria for performance-based methods should address soil texture, moisture content and organic matter content.

Status: To be determined

Summary of Recommendations 2

4. **CCME should contact CAEAL to request proficiency testing samples for the method.**

Status: Pending. Interlaboratory study requested first

5. **The first CAEAL interlab study should provide an assessment of the method rather than a proficiency test. CAEAL should accredit the method as it is documented in the CWS.**

Status: Done. 24 hits for PHC on SCC Scope of Accreditation. 8 for CCME PHC CWS. 6 labs; 2 with 2 sites

6. **Develop a method for high temperature GC that includes an upper limit for F4.**

Status: Unknown. No formal action by CCME or AENV

Summary of Recommendations 3

7. Procedures should be available for fine and coarse textured soils.

Status: CCME Reference Method intended for both

8. Use the Canadian Society of Soil Science method for determination of percent sand.

Status: AENV confirms that methods in Chapter 47 of Soil Sampling and Methods of Analysis to be used

9. In order to offer the method to clients now, labs must apply for CAEAL accreditation and must participate in round robin testing when available.

Status: Seven additional audit-level accreditations by SCC in the past year

Summary of Recommendations 4

10. Future drafts of the method should be made available to the public via Alberta Environment and CCME

**Status: Method and amendments posted at CCME website.
No additional Alberta specifications at this point**

11. The unmodified CCME method should be used for compliance samples while the validation protocols are being worked out.

Status: See Recommendation 1

12. Analytical decisions should be clearly communicated to clients.

Status: CCME Method posted at CCME website. Many analytical questions addressed in AENV FAQ at our website. AENV posted a Laboratory Data Quality Assurance Policy in winter 2002.

AENV/SRD Lab Data QA Policy

Purpose

- **Data submitted to AENV/SRD are legally and technically defensible**
- **Data are consistent with respect to sources and times**
- **Documented procedures that can be improved as needed**
- **Department and its clients receive full value for services**
- **Consistent standards for contracts and approvals**
- **Provide clear expectations to clients**
- **Data are consistent with national and international standards**

AENV/SRD Lab Data QA Policy

Statement 1

All analytical data required by AENV and SRD must be analyzed by laboratories that are accredited by the Standards Council of Canada for the parameters being reported, except as indicated under this policy ...

AENV/SRD Lab Data QA Policy

Statement 2

If no SCC accreditation for the parameter of interest:

- **Must have overall accreditation for other parameters**
- **For parameters in question**
 - **Must maintain QA/QC manuals**
 - **Must participate in an available PT program**
 - **Manuals and test results must be available to AENV/SRD staff**
 - **Must maintain same standards of training, equipment maintenance and documentation as for accredited parameters**

AENV/SRD Lab Data QA Policy

Application and Exemptions

- **Applies to data submitted to support Alberta's regulatory, environmental assessment and management activities**
- **Includes orders, permits, licences, approvals**
- **Exceptions include health data (e.g., microbiological data) that may be analyzed by provincial health labs accredited by the College of Physicians and Surgeons**
- **Non-SCC accredited data may be accepted only with prior approval by a Director**