



WCMUC semi-annual meeting
Thurs. Nov. 20th, 2008 10:00 a.m.
ALS Laboratory Group, 9936-67 Ave., Edmonton, AB

The meeting was called to order at 10:10 by Chair John Ashworth.

1. Preliminaries

1.1 Introductions

Members introduced themselves. (See attached attendance list)

1.2 Approve Agenda

Agenda was approved as circulated.

2. Approve Minutes of previous meeting, May 8, 2008

No written minutes were available. John A. summarized his notes from this meeting. The minutes were approved as summarized.

2.1 Matters Arising.

(a) Workshop feasibility study group.

This group met about 1 month after the last meeting. They decided it would not be feasible to have a workshop on its own, but perhaps as an adjunct to another meeting. George stated that workshops are normally for training people who are not knowledgeable about a procedure. George will work with Gord to set up a training program, perhaps in May and try to coordinate this with SDI. John asked George to produce a proposal for the next meeting. John, George, Gord, and Tracy are to meet to discuss this item.

2 New Business

2.1 Questions for / Report from Tracy Weidman, SDI technical support

QA/QC was discussed at the May meeting. Earlier in the year, SDI had reagent issues. They identified gaps in manufacturing and quality. Now a scientist is dedicated to Microtox Quality. There has been process and manufacturing improvement. An issue with stoppers was identified – supplier of stoppers changed something in their production resulting in a loss of vacuum. This resulted in viability issues. This has since been remedied and the last two lots have had good vacuum.

SDI has brought in a statistician for a more robust QC program. They had followed the previous Azur program. The statistician has designed a sampling

and stability plan. They have focused on the release specifications. Tracy did not know if they were looking at the long-term QC stats.

A new analyzer is in the works but they have been addressing reagent quality in this last year. A question of reagent stability at room temperature was raised and they are looking at it.

Omni software version 4.0 is available. There are still a few bugs.

Tracy will contact Michael Jones regarding the new analyzer. As well, George will look into it. John asked if there will still be several cooling units in the new analyzer as outline in the original prototype. Ansar asked about built in colour correction capabilities.

3 Round Robin Report # 39 (Irene Gaudet)

Irene went over Round Robin 39 results (reports sent to member laboratories prior to the meeting).

3.1 Review data

Three samples were included in this study.

Sample 1 was the phenol at a concentration of 110 mg/L with 0.4% wool dye. The mean EC₅₀ 15 minute was 9.9% after rejection of outlier data. Colour correction for this sample produced a mean EC₅₀ 15 minute of 13.6%. This sample had a lot of problems with colour correction.

Sample 2 was the standard reference toxicant zinc sulphate at a concentration of 10.53 mg/L Zn²⁺. The mean EC₅₀ 15 minute was 6.8% after rejection of outlier data. The back calculated EC₅₀ 15 minute value of 1.0 mg/L Zn²⁺ falls within the long term data of 0.6 to 2.2 mg/L Zn²⁺.

Sample 3 was potassium dichromate at a concentration of 100.1 mg/L Cr⁶⁺. The mean EC₅₀ 15 minute was 54.9%. The back calculated value is 9.0 mg/L Cr⁶. Due to pH adjustment variations, the amount of more toxic Cr⁶⁺ versus less toxic Cr³⁺ would be different between labs and might account for some variability.

Overall, there were some very big problems with the analysis in this round robin.

3.2 Colour correction (John Ashworth)

We should be colour correcting samples for ALL coloured samples, regardless of the specific colour. It was also pointed out that for the round robin, participants need to follow the directions given with the samples.

Colour correction was intended for slightly coloured waters. A question of where the calculation equations originated was raised. The equations used are $A=1.75 \times \text{ABS}_{(490)}$ and $T = (1 - e^{-A})/A$
John stated that normally the T equation in texts is $T=e^{-A}$

3.3 Open discussion

The Microtox test has regulatory implications from many jurisdictions.

Labs need to pay a lot more attention to these as QC (PT - performance testing) samples.

Are there still some reagent issues? Phenol toxicity increases from 5 to 15 minutes. Members stated that sometimes specific vials have problems, not usually the whole lot.

3.4 Determine sample type and date for RR # 40

Next samples will be shipped the week of April 16, 2009 with analysis on April 23 and 24. Out of country samples will be shipped the week of April 6. Results to be reported by May 7. One sample will be a repeat of this round robin sample - wool dye with added phenol supplied by John. A second sample will be potassium dichromate - NO pH adjustment for this sample. The final sample will be zinc sulphate.

4 Treasurer's Report (Anthony Neumann)

Anthony discussed his financial summary. (attached)

5 Election of new WCMUC executive officers

5.1 Secretary John Ashworth

5.2 Treasurer Anthony will continue as treasurer and try to find a replacement within Bodycote for the next meeting.

5.3 President Ansar Qureshi. Ansar will talk to other members (Epcor?) for a replacement

6 Any other business

6.1 Future outlook for WCMUC

Spain and Alberta re the two main pockets of Microtox testing. Osprey will send out the WCMUC pamphlet to all Canadian users. The US is concerned with drug release into municipal systems and is using the test for the purpose. There is also a future in municipal waste. Most samples in Alberta are still Drilling Waste related.

Microtox was used for emergency response in the China earthquake and is also used in EPA contaminated sites. The ATP assay (luciferase) can also be run on the Microtox machine and shows biological contamination.

In the US drinking water and wastewater are the biggest clients.

7 Next meeting

7.1 Time and place

Thursday, May 28, 2009 at 10:00. Bodycote (or whatever their new name is) 7217 Roper Road, Edmonton.

7.2 Topics for discussion

Colour correction - where did that formula originate?
Delta tox Demo; Update on Model X

9. Adjourn

Meeting was adjourned at 14:10.

Irene Gaudet
Acting Secretary

Attachment 1

List of Attendees:

Name	Organization	e-mail	Phone
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