TNI Chemistry FoPT Subcommittee
Meeting Summary
October 7, 2014

1. Roll call and Meeting Minutes:

Chair Carl Kircher called the meeting of the Chemistry FoPT Subcommittee to order on October 7, 2014 at 12:05 ET. Attendance is recorded in Attachment A. There were 6 members on the call.

2. SCM Analyte Considerations

The subcommittee worked off of files sent by Carl on September 17, 2014.

Potassium

The study concentration was 2220 – 11400 mg/Kg. SOP criteria was passed, but it did not pass criteria for fixed limits. The PDF is dated 9-17-14. The current concentration range is 1400 – 25000 mg/Kg.

There are not a lot of outliers. There is not a lot of change in PT acceptance criteria between the new and old equation. The concentration is similar to Calcium and Magnesium.

A motion was made by Dan to leave a concentration limit of 1400 - 25000 mg/Kg for Potassium on the SCM FoPT accreditation table and use the new regression equations c&d as tabulated on the PDF file dated 9-17-14. The motion was seconded by Andy.

Discussion:

Jeff asked if the subcommittee has been looking at PTRLs. They have not. He commented that this needs to be looked at, especially with this element. He brought the last page to the subcommittees attention and commented that the recoveries are about 90% and the acceptance criteria is +/- 27% around 90% - yet the PTRL is down at 140 or 10% of the lowest concentration. Some sort of a rule should be set to make sure PTRLs are good. Carl said all the metals he looked at showed that the PTRLs are all $1/10^{th}$ of the lowest concentration range and they look fine. Jeff thinks 10% is the wrong number. Carl noted this can be looked at when the table is complete and there is data for comparison. Jeff is concerned looking at this later will require the team to open up all the files again at the end of the process.

Andy noted that recovery limits for Potassium are 80-120% for SRMs in his lab. Both Andy and Stacey were not concerned about detecting Potassium at 140 mg/Kg.

Vote: Unanimously approved.

Sodium

The study concentration was 261 - 12800 mg/Kg. SOP criteria was passed and it passed criteria for fixed limits at 27.5%. The PDF is dated 9-17-14. The current concentration range is 150 – 15000 mg/Kg.

Carl commented that the subcommittee could go with the same or the new equations.

Andy noted he has 2 SRMs – one is 50-120% and the other is 55-123%. Jeff asked about concentration – Andy responded it is 206 mg/Kg.

Jeff noted that this is one of the widest concentration ranges on the table and he does not feel there is enough data down at the lower end. He suggested raising the lower concentration to 1500 mg/Kg unless it will interfere with other elements. Andy's information on SRM concentration seems to indicate the 150 is probably acceptable.

A motion was made by Dan to leave a concentration limit of 150 - 15000 mg/Kg for Sodium on the SCM FoPT accreditation table and use the new regression equations c&d as tabulated on the PDF file dated 9-17-14. The motion was seconded by Stephen and unanimously approved.

Tin

The study concentration was 74.2 – 214 mg/Kg. It did pass the SOP criteria, but did not pass fixed limit criteria. The current concentration is 75 - 250 mg/Kg. The PDF file was dated 8-19-14. There are not a lot of outliers and Carl noted there would not be much change between the old and new regression equation.

Andy's SRM has a concentration of 81 mg/Kg and recovery limits of 68-120% and 68-110%. Stacey is running her SRM at 100 mg/Kg and her recovery limits are 79-112%.

Andy noted the point that looked like an outlier on the graph and Carl confirmed that the point was taken out of the equation.

Jeff thinks the concentration range should be looked at. He thinks a wider range should be considered.

Carl looked at the limits at the bounds of the current concentration limits. It is 56-144% at the lower concentration.

A motion was made by Jeff to change the concentration limit to 50-250 mg/Kg for Tin on the SCM FoPT accreditation table and to leave the present regression equation in place. The motion was seconded by Stacey and unanimously approved.

Antimony

The study concentration was 84-544 mg/Kg. It did pass the SOP criteria. It did not pass fixed limit criteria. The current concentration is 80-300 mg/Kg. The PDF file is dated 4-30-14.

Andy noted that the recovery limits in the SRM his lab is analyzing are 0-120%. It is 0-92% for another SRM they are running. The concentration is 126 mg/Kg. The majority of the data shows 50-70% recovery. Stephen and Dan agreed with Jeff - they are seeing 10-110%. There is not much difference between the old and new regression equations.

Stephen asked if this PT is really a performance test? He thinks there is no value. The committee agreed to leave the PT on the table because the ABs would still want it.

A motion was made by Stephen to leave all current limits for Antimony in place. The motion was seconded by Jeff and unanimously approved.

Silver

The study concentration was 30.1-178 mg/Kg. It did pass the SOP criteria. Fixed limit criteria passed at 27.3%. The current concentration is 20-100 mg/Kg. The PDF file is dated 9-17-14. Carl used Dan's data.

Carl saw a lot of odd behavior at concentrations above 130 mg/Kg. The current PTRL is 2 mg/Kg.

Andy noted that his SRM data shows 67-120, 67-112 and 83-140% recovery at a concentration of 69 mg/Kg.

A motion was made by Dan to leave a concentration limit of 20-100 mg/Kg for Silver on the SCM FoPT accreditation table and use the new regression equations c&d as tabulated on the PDF file dated 9-17-14. The motion was seconded by Andy and unanimously approved.

Hexavalent Chromium

The subcommittee could not find the file, so it will be looked at during the next meeting.

Iron

The study concentration was 7620 - 22400 mg/Kg. SOP criteria was passed except for Stdev R^2 Eval > 0.75. It passed criteria for fixed limits at 46.6%. The PDF is dated 9-17-14. The current concentration range is 1000 – 50000 mg/Kg.

Iron is another prominent element. Carl suggested leaving the current regression equation because of the criteria failure or use study mean +/- 3 Standard Deviations.

Jeff commented that the data does not support the lower concentration range of 1000 mg/Kg. It has a large d value of 1500 in the present data. He thinks it should be 5000 mg/kg. Andy commented that his SRM recovery limits show 47-167% and 39 – 139%. He usually sees 70-80% recovery at a concentration of 22,000 mg/Kg. His reporting limit is 5 mg/Kg for ICP. ICP-MS is more sensitive.

A motion was made by Jeff to change the concentration limit to 5000 - 50000 mg/Kg for Iron on the SCM FoPT accreditation table and leave the current regression equation in place. The motion was seconded by Stephen and unanimously approved.

Carl will send an updated Excel summary table to the subcommittee. The remaining FoPTs available are Aluminum, Hexavalent Chromium, Ignitability and Soil pH. SVOAs will be next.

3. Action Items

See action item table in attachments.

4. New Business

- None.

5. Next Meeting

The next meeting of the Chemistry FoPT Subcommittee has been scheduled for October 21, 2014.

Action Items are included in Attachment B and Attachment C includes a listing of reminders.

The call was ended at 1:30pm EST. Motion – Jeff Second – Andy Unanimously approved.

Attachment A

Participants
TNI
Chemistry FoPT Subcommittee

Members	Affiliation	Contact Information
Carl Kircher, Chair **Present**	Florida DOH	carl_kircher@doh.state.fl.us
Joe Morotti **Absent**	Sigma-Aldrich RTC	Joe.morotti@sial.com
Melanie Ollila **Absent**	Pace Analytical Services, Inc.	MOllila@pacelabs.com
Jeff Lowry **Present**	Phenova	JeffL@phenova.com
Stephen Arpie **Present**	Absolute Standards, Inc.	stephenarpie@mac.com
Dan Dickinson **Present**	New York, DOH	dmd15@health.state.ny.us
Stacey Fry **Present**	E.S. BABCOCK & Sons, Inc.	sfry@babcocklabs.com
Joe Pardue **Absent**	Pro2Serve, Inc.	423-337-3121 joe_pardue@charter.net
Dr. Andy Valkenburg **Present**	Energy Laboratories, Inc.	avalkenburg@energylab.com 406-869-6254
Ilona Taunton, Program Administrator **Recorded**	TNI	Ilona.taunton@nelac-institute.org 828-712-9242

Attachment B

Action Items – Chemistry FoPT Subcommittee

	Action Item	Who	Expected Completion	Actual Completion
111	Receive info on Class 1 Ozone Exemption from Joe M. and forward to Michella.	Carl	6/16/14	
113	Send updated Excel Summary table to subcommittee members.	Carl	10/20/14	

Attachment C

Backburner / Reminders – Chemistry FoPT Subcommittee

	Item	Meeting Reference	Comments
4	Consider nomenclature differences between the analyte codes and the FoPT tables.	2-23-10	
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