SUMMARY OF THE
TNI CHEMISTRY EXPERT COMMITTEE MEETING

NOVEMBER 30, 2012

The Committee held a conference call on Friday, November 30, 2012, at 2:00 pm EDT.

1 – Roll call

Richard Burrows, Test America (Lab)	Present
Francoise Chauvin, NYC DEP (Lab)	Present
Brooke Connor, USGS (Other)	Present
Dan Dickinson, NYSDOH (Accreditation Body)	Present
Tim Fitzpatrick, Florida DEP (Lab)	Present
Nancy Grams, Advanced Earth Technologists, Inc. (Other)	Present
Anand Mudambi, USEPA (Other)	Present
John Phillips, Ford Motor Co., (Other)	Present
Lee Wolf, Columbia Analytical Services (Lab)	Present
Ken Jackson, Program Administrator	Present

Associate Committee Members present: Arthur Denny; Dianna Shannon; Dale Rushnek

2 – Minutes from November 16

On the second page, the sentence beginning "John added that another example….", and further down under Procedure the sentence beginning "John reminded the Committee.." should both be attributed to Tim, not John. With these changes it was moved by Francoise and seconded by Nancy to approve the minutes as presented. All were in favor except Brooke, Lee, and Anand who abstained. The minutes were therefore approved.

3 – Procedure for the Determination of MDL

John said the EPA Office of Water (OW) had requested that ELAB put together a stakeholder group to review the proposed modified MDL procedure. They want to be sure the effort is coordinated between TNI and ELAB, and they suggested having a joint TNI/ELAB letter to present to the OW, asking what kind of stakeholder composition they want ELAB to put together. John will draft the letter for this Committee to review. When complete it will then be sent to the TNI Board of Directors and ELAB for joint approval and signatures. Nancy asked if there is a listing of the people who commented on the last proposed rule, since they might be appropriate to comment again.

Richard introduced the continued discussion on the MDL procedure, remarking that this is the second time through the document, so comments were already attached for further consideration.

John remarked that his wording for the Scope and Application section had been inadvertently omitted. Therefore, it was added as a third sentence to the second paragraph; i.e., "The MDL is not applicable to pass/fail, comparative or scalar methods, which do not require sensitivity determinations (such as color, flavor rating assessment, temperature, pH and oxidation reduction potential)." In the last sentence, Tim asked for "data…is" to be changed to "data… are".

The next section to be considered was 4a. In the first paragraph, Richard noted the earlier addition of spreading the preparation and analysis of the replicates over at least three days, and requiring distribution over all of the instruments. Brooke asked about the MDL formula further down the section where one of them has the mean + st and the other does not. Therefore, up here in the text, if this is a new method would it be recommended they run blanks so they can do the mean + st? Nancy added that perhaps the MDL should be left as it is with the replicates without the mean for its initial determination and then only in the verification section to add the rest including the mean. This makes it simple and retains the historic MDL measurement. Richard said perhaps a piece should be added that it may be technically and economically desirable to run blanks along with the 7 aliquots. The following sentence was therefore added at the end of this section: "It may also be technically and economically desirable to analyze method blanks along with the 7 replicates to enable the determination of the blank based MDL described in section XXXX." Brooke remarked that, in addition to stating the replicates should be spread over the instruments, perhaps that should also be said for the preparation batches. Also when stating they should be spread over 3 days, the way it is written you could prep all of them on day 1 and analyze all of them on day 3. Also, Nancy did not like the imprecise expression "spread over". Therefore, after some discussion, it was agreed to change the second sentence of 4a to read: "Both preparation and analysis of the samples must include at least three batches on three separate days." This involved changing "replicates" to "samples". In the first sentence, "aliquots of the sample" was changed to "samples" to avoid the incorrect use of "aliquots". On John's suggestion Richard added a note to check that "samples" is used consistently. Nancy asked the meaning of "entire analytical method" in the first sentence, and Richard added a note that the phrase requires a definition. There was also discussion on the grammatical use of the phrase "Take a minimum of..", and it was decided to leave it, since it was considered desirable to retain the original text where feasible. In the third sentence, the word "evenly" was removed.

It was discussed whether the paragraph 4b is needed, since it just says the MDL can come out too high if you spike too high, and it has sometimes been interpreted that in such a case the MDL does not count. It is a recommendation and auditors have seldom bothered with it. Richard added a note to check later if this paragraph is needed.

In 5 it was questioned why variance and standard deviation are calculated in 2 separate steps, or why variance is even considered. Rather than change the equation, which would require an explanation, it was decided to just move it onto 2 lines to show the variance and standard deviation calculations separately. A note was added to this effect.

In 6a, on Nancy's suggestion, it was clarified that it is a one-sided t value. To be consistent with earlier, changes, "replicate" was changed to "sample in both 6a and 6b.

The need for calculation of confidence limits in 6b was discussed, since it may not have been used. Brooke said it can tell you whether you need to update an MDL if it is still within a confidence interval. Richard added a note that a table may need to be included for this distribution, or maybe it should be removed if not used. It may be useful as a guide for equivalence of multiple MDL results. The Committee will evaluate if it is needed once the procedure is complete.

4 – Next Steps

Ken reminded the Committee that its Modified Working Draft Standard on calibration needs to be voted out of committee and then published on the website by December 14. It was agreed Ken will clean up the document with tracking to show the changes made from the Working Draft Standard. He will then circulate it for electronic voting by December 11.

It was decided, rather than present the incomplete MDL document in Denver, it would be better to just present highlights on the progress made.

5– Adjournment

The meeting was adjourned at3:30 pm EST. The next conference call will be on December 14, 2012 at 2:00 pm EST.

LIST OF ACTION ITEMS TO BE COMPLETED

Item No.	Date Proposed	Action	Assigned to:	To be Completed by:
1	1/31/12	Add a definition of Reporting Limit or Quantitation limit to the standard.	Committee	Defer to quantitation sections
2	1/31/12	Continue to consider the concept of routine low-level QC in the standard.	Committee	Ongoing
3	1/31/12	Review Sections 1.5 and 1.6 of the 2009 standard's chemistry module to determine if current calibration requirements are adequate.	Committee	Not determined
4	1/31/12	Spacing of calibration standards will be considered for the guidance document.	Committee	Ongoing
5	2/17/12	Draft language for items in the calibration standard	Richard (Items 1 and 2) Anand (Item 3) Nancy (Item 5) Anand and Francoise (Item 6) Tim (Item 11)	Complete
6	2/17/12	Review Volume 1 Module 4 of the 2009 standard to identify any inconsistencies with the new language	All Committee Members	Complete
7	3/2/12	Add 1-2 sentences under the header 1.7.1 to explain that method is also included in calibration.	John	Complete
8	3/2/12	Clean up the parts of Section 1.7.1 referring to initial calibration and the parts referring to continuing calibration.	Committee	Complete
9	3/2/12	Add criteria for rejection of calibration standards to the guidance document.	Committee	Not determined
10	3/2/12	Add to the guidance document discussion of	Committee	Complete (done in the

Item No.	Date Proposed	Action	Assigned to:	To be Completed by:
		analysts using the most recent calibration rather than choosing which of 2 or more curves to use.		standard)
11	3/2/12	Include a paragraph in the standard that addresses a single-point calibration for P/A testing.	Committee	Complete
12	3/30/12	Check the language does not contradict the existing standard regarding meeting method requirements vs. standard requirements for calibration.	Committee	Not determined
13	3/30/12	Sections 1.7.1.1 j and k will be modified further as a result of the March 30 discussions.	Anand and Francoise	Complete
14	3/30/12	Have the guidance document consider orders of magnitude in deciding the minimum number of standards, and keep a placeholder in Section 1.7.1 to refer to it.	Committee	Not determined
15	3/30/12	Add a definition for threshold testing	Committee	Not determined
16	3/30/12	Richard's, John's and Anand's March 30 changes will be incorporated into a single document.	Ken	Complete
17	5/4/12	Add to the guidance document that Section 1.7.1.1 (g) requirements should also be applicable for average response, when you evaluate with the RSD, and that is numerically the same value as the RSE.	Committee	Not determined

Item No.	Date Proposed	Action	Assigned to:	To be Completed by:
18	5/4/12	Discuss in the guidance document how to check quarterly (ref. Section 1.7.1.1 (j) (i).	Committee	Not determined
19	6/1/12	Bullet points will be drafted for a proposed PowerPoint presentation	Brooke, Richard, Tim, Francoise, Anand	Complete
20	6/1/12	Bullet points will be drafted for a slide that will describe the items to be discussed in the guidance document.	John	Complete
21	7/20/12	Explain in the guidance document the difference between MDL and the true detection limit.	Committee	Not determined
22	10/5/12	A note will be appended to the draft language of Section 1.7.1.1 n until the CCV language has been written.	Anand	Complete
23	11/2/12	For the MDL document, language will be drafted in the scope to limit the use.	John	Complete
24	11/2/12	In the Scope and Application section of the edited MDL document, the sentence "To accomplish this, the procedure was made device- or instrument-independent." Will be re-worked.	John	Complete
25	11/30/12	A letter will be drafted to the EPA OW, asking what kind of stakeholder composition they want ELAB to put together for reviewing the modified MDL procedure.	John	12/14/12