ENVIRONMENTAL LABORATORY ADVISORY BOARD (ELAB)
Face-to-Face Meeting/Teleconference: 866-299-3188/9195415544#
Hyatt Regency Tulsa, Tulsa, Oklahoma
January 25, 2016; 1:30 – 5:00 p.m. CDT

MEETING SUMMARY

The U.S. Environmental Protection Agency's (EPA) Environmental Laboratory Advisory Board (ELAB or Board) face-to-face meeting was held on January 25, 2016, as a session at the Winter 2016 Forum on Laboratory Accreditation in Tulsa, Oklahoma. The agenda for this meeting is provided as Attachment A, a list of meeting participants is provided as Attachment B, and action items are included as Attachment C. The official certification of the minutes by the Chair or Vice-Chair is included as Attachment D.

OPENING REMARKS, ROLL CALL, MISSION STATEMENT, OVERVIEW OF BOARD GOALS AND HIGHLIGHTS OF ELAB OUTPUTS

Ms. Lara Phelps, Designated Federal Officer (DFO) for the Board, and Ms. Patty Carvajal, Chair of ELAB, welcomed the members and guests to the meeting, allowing the Board members to introduce themselves.

Ms. Carvajal explained that the Board operates under the Federal Advisory Committee Act (FACA). ELAB's mission is to provide consensus advice, information and recommendations on issues related to enhancing EPA's measurement programs and facilitating the operation and expansion of a national environmental accreditation program. ELAB provides this advice, information and/or recommendations to the EPA Administrator, EPA Science Advisor and/or Forum on Environmental Measurements (FEM).

Since the previous face-to-face meeting in August 2015, the Board has:

- Worked with the Interagency Data Quality Task Force (IDQTF) on how to include laboratories earlier in the data quality objective (DQO) process.
- Begun developing recommendations to EPA regarding test methods that might be harmonized among EPA program offices.
- Initiated work with the Agency to develop recommendations for in-line and on-line monitoring.
- Provided recommendations to EPA regarding "Reporting of Compliance Data With Qualifiers That Do Not Impact Data Usability."
- Recently established a task group to investigate selected ion monitoring (SIM).

APPROVAL OF DECEMBER MINUTES

Ms. Carvajal asked whether there were any comments about the December meeting minutes; there were none. The Board unanimously approved a motion to accept the December minutes.

UPDATES FROM THE DFO

Ms. Phelps reported that the Office of Personnel Management is improving its process to update the national FACA database quarterly rather than annually. If the Board has any topics of interest for the FEM, the FEM will hold its first quarterly meeting of 2016 on February 3.

TASK GROUP UPDATES

The Board possesses broad expertise and works on a variety of topics identified by ELAB members, the Agency or the environmental laboratory community. The Board addresses these topics through temporary Task Groups. The Task Group leaders provided a report of current topics/activities.

IDQTF/DQO Process

Dr. Henry Leibovitz explained that this topic had prompted an in-depth discussion during the Board's prior face-to-face meeting in Chicago, Illinois, in August 2015. He recapped that the IDQTF is an initiative of the Environmental Data Quality Workgroup (EDQW), which is tasked by EPA, the Department of Defense (DoD) and the Department of Energy (DOE) to identify industry, DoD, DOE and EPA best practices to save time, reduce program costs, improve data quality and ensure that sound data are used to make decisions. To achieve this, the EDQW has created a strategy that includes implementing national standards, using a systematic planning process, and providing quality assurance and quality control (QA/QC) guidance. The IDQTF works collaboratively to, among other goals, promote consistent and transparent intergovernmental quality systems at federal facilities for planning, collecting and using environmental data of appropriate quality. The IDQTF promotes the use of the Uniform Federal Policy for Quality Assurance Project Plans (QAPPs), which encourages a team-based approach to planning project objectives, schedules, resources and requirements. The IDQTF is not responsible for the level of laboratory involvement in QAPP development.

Dr. Leibovitz introduced Federal Acquisition Regulations (FAR) Subpart 37.6 regarding performance-based acquisition, which represents a high-level government decision to utilize a results-oriented contracting method that requires prime contractors to achieve contract-specified outcomes. Performance-based contracting reduces the government's direct involvement in clean-up projects. A supplement to the FAR, the Defense FAR (commonly known as DFAR), dictates performance requirements for hiring, implements quality systems standards through contracting, requires federal chemist involvement and QA/QC surveillance, and specifies prohibited laboratory practices.

Prime contractors (primes) publish laboratory requests, often with short notice, with laboratories submitting their most competitive bids with the expressed ability to achieve QAPP measurement quality objectives (MQOs); the primes then contract qualified laboratories. Primes are responsible for meeting contract performance requirements, delivering the agency-provided QAPP to the laboratory, and validating laboratory data. Laboratories must maintain required certification, meet QAPP requirements and deliver legally defensible analytical results to primes in a timely manner for validation.

Following the Board's discussion with the IDQTF, ELAB has developed the following recommendations: (1) Improve communication and interaction between primes and contract laboratories. (2) Increase laboratory awareness of prime contractors' hiring processes and the need for laboratory marketing. (3) Involve laboratory scientists earlier in the QAPP process. (4) Do not contract laboratories without strong confidence in their abilities to meet the performance requirements. These recommendations will be provided to ELAB's DFO.

To improve the project planning process, the laboratory workforce generally agrees that supporting primes during the QAPP process is the best approach. Laboratory chemists possess the expertise to communicate with and assist the primes' scientists when scientific questions and concerns arise. Laboratories can assist with approved method selection, recommend medications necessary to achieve project MQOs, increase transparency, increase data completeness rates, fully review project plans to ensure technical objectives can be met, and facilitate the DQO process.

It will be necessary to identify organizations that are able to provide outreach to primes and explain the benefits of extensively coordinating with laboratories during the project planning process. The lead organization(s) should be familiar with EDQW strategies and the IDQTF objectives for the project planning process and also be able to convey to engineering firms the benefits of working closely with laboratories to strengthen project outcomes. Suggestions for leads include the American Council of Independent Laboratories (ACIL), The NELAC Institute (TNI) and environmental consultants. Outreach can be performed via conference sessions, training workshops and webinars.

The extent of laboratory involvement in the project planning process is the prime's decision. When primes involve laboratories, they support the tasks of the EDQW charter and IDQTF, which is part of their performance-based contract. They also gain a better understanding of methodology, sample matrices, and laboratory capacity and capability to improve project planning and achieve the MQOs.

Dr. Ed Askew (Askew Scientific Consulting) noted the lack of understanding among chemical, civil and environmental engineers regarding laboratory capabilities and their unrealistic timeframe for expecting answers from laboratories. It would be helpful to offer training at state, regional and national meetings of civil engineering and public works associations regarding how to develop a QAPP in conjunction with a certified commercial laboratory. Engineers generally lack a basic understanding of regulatory requirements of laboratory analysis in terms of the Clean Water and Safe Drinking Water Acts. Dr. Leibovitz agreed, noting that the question is which organizations will best represent the laboratories in providing outreach and training to engineering associations.

A participant thought that ELAB should develop a subcommittee to approach TNI to develop a training protocol for engineers. Dr. Leibovitz said that the Board's recommendations would include a suggestion that TNI develop training. Dr. Dallas Wait noted that ELAB's purview is to provide recommendations to the Agency. Ms. Phelps confirmed that, unless the Agency requests further action from the Board, that sort of implementation would not fall under the Board's charter or purview.

A participant wondered whether a history exists of primes that have been successful in this process; if these could be identified, they may be able to help provide the necessary education. Dr. Leibovitz agreed and hoped that ACIL and TNI members know of such success stories and could include them in any training that ultimately is developed.

Mr. Earl Hansen (TNI) commented that this is not a new problem, and many consulting firms prefer not to interact with chemists. Bridging the gap between engineering firms and laboratories requires trust to be built. Dr. Leibovitz agreed and added that the laboratory community must build relationships with engineers and increase the ability to market laboratory services to primes.

A participant from Florida noted that, if the ultimate goal is to ensure that primes include laboratories earlier in the QAPP development process, convincing presentations are needed more than simple training. Drs. Leibovitz and Wait agreed. Ms. Carvajal commented that this will be an ongoing issue for the laboratory community.

Methods Harmony

Dr. Wait explained that this Task Group's goal is to provide recommendations to EPA regarding test methods that might be harmonized among program offices. The Task Group previously met with representatives from the Agency, who asked ELAB to identify three to five test methods that could be harmonized. Method harmonization can improve efficiencies (e.g., data validation) and costs for commercial and EPA laboratories as well as enhance comparability among different laboratory results. Promulgated regulatory requirements, matrix issues and differing DQOs, however, may be reasons for differences in similar test methods.

The Task Group is developing harmonization suggestions in six different areas (all methods assume an aqueous matrix): (1) pharmaceuticals and other liquid chromatography-tandem mass spectrometry (LC-MS/MS) methods, (2) herbicides, (3) ion chromatography, (4) total organic carbon, (5) metals by inductively coupled plasma, and (6) metals by inductively coupled plasma-mass spectrometry. The Task Group has prepared a letter for the Board's discussion that includes these comparisons (via detailed tables) and suggestions for the Agency to consider as it moves forward with new method development or current method updates. The tables highlight elements within methods that have potential for harmonization. Dr. Wait highlighted some of the elements within each of the six groups (e.g., confirmatory ions within LC-MS/MS methods, calibration standards within most groups).

A participant asked whether the wastewater and solid waste issues would be addressed by making tighter restrictions. Dr. Wait explained that the Board's effort focused on highlighting differences among the methods that EPA could consider when developing new methods or updating current methods. Any changes in restrictions would be in the Agency's purview rather than ELAB's. Ms. Carvajal agreed.

Dr. Leibovitz asked for clarification about whether the goal of this effort is to allow laboratories to follow one set of standard operating procedures within each method group. Dr. Wait responded that such a goal would assume that every element of a method could be harmonized, and he is not sure that is possible. The Task Group focused on simplifying methods that have

elements that are amenable to harmonization. Ms. Aurora Shields added that some elements can be harmonized without affecting program or office DQOs; this was another key issue that the Task Group addressed.

A participant asked how the Task Group had identified the six groups it had chosen to explore. Dr. Wait responded that the Task Group began with a broad range of options. The Board recently reviewed several method updates (e.g., Methods 624 and 625) and incorporated suggestions regarding methods harmonization in ELAB's comments; therefore, it would have been redundant to review those methods. The Agency initially had requested that the Board explore three to five possibilities, so the Task Group tried to focus on no more than that. ELAB is amenable to exploring more methods at EPA's request.

A participant noted that a potential unintended consequence could be the Agency tightening the restrictions for wastewater standards, requiring that drinking water standards be met; some laboratories would be unable to meet these potential new restrictions. Dr. Leibovitz responded that the Board is not suggesting harmonizing matrices but rather is focusing on QA/QC requirements. Dr. Wait added that the Board is not providing specific recommendations; the letter highlights elements that have the potential to be harmonized. ELAB would like the Agency to consider these elements, even if the ultimate outcome is that EPA determines that harmonization cannot occur. Ms. Shields commented that several versions of a method may exist within one EPA office or program, even for the same technology and contaminant.

Mr. Scott Siders (Illinois EPA) commented that this is a noble effort, noting that more than three deterrents exist to harmonization, including historical relationships among EPA offices and programs. Laboratories have learned how to navigate method differences and will continue to do so if the Agency is reluctant to harmonize. Ms. Shields explained that she did not think that the Agency is reluctant to address this issue because an effort already exists among different Agency offices and programs to discuss harmonization and other issues. Ms. Phelps reiterated that EPA is trying to improve in this area, with offices and programs engaging in cross-communication. Although the methods may not have been developed collaboratively originally, EPA now is highly aware of this issue and has developed cross-Agency teams to address these types of issues and find opportunities to harmonize when possible. EPA is amenable and invited this opportunity for ELAB to provide specific examples for the Agency to consider.

Mr. Askew suggested that ELAB select one of the method groups and determine which agency retains copies of the validation study used to create the method, which could allow the use of pooled standard deviations to adjust QA/QC requirements. He also suggested that the Task Group choose one of the method groups and harmonize it as an example. Dr. Wait noted that such an effort was outside of EPA's original request. Ms. Phelps explained that the Board could include additional information/suggestions that might be helpful to the Agency.

Mr. Michael Flournoy thought that it was important to consider that a limited amount of data existed when the methods originally were developed. Now, particularly in the regulatory realm, large amounts of laboratory data exist. Ultimately, the information must be viable to ensure public health is safe from the concern being addressed. EPA statisticians have access to the data to help make these determinations.

Dr. Richard Burrows (TestAmerica Laboratories, Inc.) agreed that the Agency has been making strides in this area in recent years (e.g., harmonizing whether or not the laboratory control sample is a second source from the calibration), which highlights that EPA is paying attention. He wondered whether including drinking water methods was beneficial; certain restrictions for drinking water do not exist in the SW-846 and 40 CFR 136 methods. It may make sense to attempt to harmonize methods within SW-846 and 40 CFR 136 first.

Mr. Dan Hautman (EPA Office of Water [OW]) commended ELAB on its methods harmonization efforts, reiterating that the Agency endorsed these efforts and is eager to review the suggestions. He noted that certain elements have very specific rationalization for their inclusion in methods.

The next step for the Task Group is to finalize the letter and tables for the Board's review.

Method Update Rule (MUR)

In 2014, ELAB formally requested to engage with the Agency on any future MUR development. The Board provided comments on the most recent MUR on May 20, 2015. The Agency received 400 pages of comments, and EPA's response to these comments likely will result in a 1,000-page tabulated response document. The MUR may be finalized in late 2016. Individuals interested in receiving email updates regarding the MUR or viewing other related information may visit www.regulations.gov/#!docketDetail;D=EPA-HQ-OW-2014-0797.

In-Line/On-Line Monitoring

Ms. Silky Labie explained that Mr. Flournoy is the lead for this effort. The original concern brought to the Board was that industry would like to use continuous monitoring (i.e., in- and on-line) data to demonstrate compliance, but there is a broad, accompanying concern because monitors cross several different matrices and technologies. The Task Group is determining the possibility of recommending minimum requirements for quality determination (e.g., comparison of monitoring and laboratory data) to allow utilization of existing methods and guidance.

The Task Group has invited Ms. Janet Goodwin (EPA OW) and Mr. Lem Walker (EPA OW) to participate in the effort and has discovered that Dr. Joel Creswell (EPA Office of Research and Development [ORD]) also is examining in- and on-line monitoring. ORD hosted a "Problem Definition" meeting with representatives from the Agency, industry, laboratories and manufacturers; those present agreed that utilizing these instruments for noncompliance data is useful, but the technology may not be ready for compliance use. Continuous monitors currently are used to collect noncompliance data for nitrate, total phosphorous and dissolved oxygen. Ms. Labie described the use of continuous monitoring to collect noncompliance data in the Florida Everglades; these monitoring data are similar to laboratory data.

The main concern is whether these monitors can produce compliant data: What are the specific quality issues that will need to be identified for compliance? Are engineering control samples currently being monitored at the same location as compliance samples? Could continuous monitors help to determine whether regulations are appropriate? Which entity—manufacturers or instrument owners—will provide the largest push to allow continuous monitoring to be used for collection of compliance data?

Current laboratory techniques comply with quality standards consistent with regulations, whereas monitors do not. Accuracy and reproducibility are the criteria essential to ensure high-quality data specifically for monitors. Depending on the compound and health concerns, more data may be equivalent to one or more quality standards. Another question is whether increased data collected over time provide a more accurate weighted average than grab samples depending on the compound and health concerns. Most engineering control samples are monitored at different locations than the compliance samples. Therefore, permittee help will be needed to determine whether there is an effect on data quality or matrix interference if monitoring is performed at the same location as compliance samples. It will be necessary to compare compliance samples with data from monitors, examining data at the time of grab as well as averaged data. To determine whether regulations are appropriate, it will be necessary to evaluate engineering data and compare the data with regulatory requirements as well as to evaluate comparison data from laboratory grab samples and continuous monitors. Finally, could funding for this endeavor be obtained from manufacturers or instrument owners? Do other sources exist to help subsidize at least the development phase?

Mr. Flournoy added that the ultimate goal of this effort is to identify opportunities in which technology can be utilized for data collection while ensuring the protection of human health. He acknowledged that the topic is broad, and the Task Group is exploring what details need to be uncovered so that continuous monitoring can be utilized for compliance data collection.

Dr. Askew asked Mr. Hautman whether Dr. Creswell is working with the EPA drinking water group on this issue. Mr. Hautman explained that Dr. Creswell belongs to a cross-Agency workgroup addressing various aspects of this issue (e.g., data evaluation, data management). Dr. Askew reported that he is advising a drinking water group in Japan regarding on-line monitoring, and his recommendation is to keep the "dirty dozen"[1] contaminants in mind as the technology moves forward. Fitting engineering controls into regulatory compliance will be key during regulation development. Mr. Hautman agreed, noting that these types of issues have been considered during discussions about this topic.

Mr. Hansen reported that Mr. Walker is organizing a half- to full-day technical session on this topic at the August 2016 National Environmental Monitoring Conference in Orange County, California.

A participant noted that it is important to determine the specifics of certification and accreditation. Some accreditation is based on the facility, and continuous monitors are not located at the facility.

Mr. Hautman stressed that EPA recognizes the benefit of sensors for nonregulatory purposes.

Qualification of Drinking Water Data

Ms. Carvajal explained that ACIL and the Pennsylvania Association of Accredited Environmental Laboratories had brought to ELAB concerns about the implementation of a policy

[1] The "dirty dozen" refers to a group of persistent organic pollutants; more information can be found at www.epa.gov/international-cooperation/persistent-organic-pollutants-global-issue-global-response

that prohibits the reporting of qualified drinking water data into the Pennsylvania Department of Environmental Protection's (PaDEP) Drinking Water Electronic Lab Reporting database, essentially requiring that all drinking water data be qualification free. This issue is not isolated to drinking water programs.

The Board worked on the issue for several months, inviting Ms. Aaren Alger of PaDEP to present to ELAB, and ultimately recommended that the Agency: (1) develop and implement a data-reporting document that would provide guidance to laboratories regarding which types of "out of control" situations can be accepted and which ones would invalidate data from being reported and also regarding suggested data qualifiers or narratives that should accompany such data; and (2) encourage consistency among state programs on the use of qualified data and the types of allowable qualifiers.

A participant shared his experiences with qualified data and data evaluation after his company purchased a laboratory in a different state. Mr. Siders commented that his experience is that guidance begins within various EPA or state programs regarding what qualifiers can be used, and then state programs must develop policy regarding how to use qualified data. Policies vary between wastewater and drinking water programs. Disparity among laboratories must be addressed at the EPA and state levels.

Mr. Hautman noted that drinking water is a product that, because it is directly consumed, affects public health, and there are many questions surrounding the acceptance of qualified data. During method development, EPA can include provisions regarding data that are not "perfect" but are acceptable for reporting.

Dr. Leibovitz noted that specific methods can be taken into account when considering the use of qualified data. Mr. Hautman agreed with the caveat that proper steps must be included when reporting qualified data.

Mr. Paul Junio (Northern Lake Service, Inc.) commented that data flagged because of over-calibration but that still fall below the safety threshold should be re-run. It may be easiest to develop a list of variables that can be qualified. His state's electronic reporting system does not include an option to report qualified data other than potentially in a comment field.

Mr. Dave Speis (Eurofins QC, Inc.) noted that all qualifiers could not be treated in the same manner (i.e., "painting everything with the same brush"). If laboratories use guidelines that clarify which data still can be used, then qualified data can be explained easily.

Mr. Hautman said that it would be beneficial to examine the frequency at which the error is occurring (e.g., once per week vs. once per year), and the laboratory should take steps to address the error. Given the number of different details that would have to be addressed, comprehensive guidance would be prohibitively long. Even in the presence of federal policy on this issue, the likelihood exists that some states would not accept qualifiers.

Ms. Carvajal thought that communication among laboratories, states and EPA could be improved so that they all are "on the same page" regarding this issue.

A participant stated that the purpose of qualified data is to provide information about the data to allow the end user to make a decision, adding that this way of thinking needs to be brought back. Laboratories that consistently fix their issues should not be penalized. Ms. Labie added that systematic laboratory problems are required to be reported and corrective action taken. Some end users are not comfortable with any level of qualified data. The acceptance process is one of education so that end users understand the information given to them by the laboratory so that their decisions can be properly informed. Publishing guidelines for data users is different than publishing guidelines for laboratories. The focus must be on providing education to recipients of laboratory information. Mr. Speis thought that the issue is that data users are not able to see explanations for qualified data. To make informed decisions, data users must be able to have access to all of the information about the data. Ms. Carvajal agreed, reiterating that communication among the laboratories, states and EPA is necessary.

Dr. Leibovitz said that it is not always apparent whether a data user has a QAPP or how the data user determines the quality of data provided by a laboratory. Asking end users to define this would be a good start.

SIM

Ms. Carvajal explained that the Board recently has begun to address the issue of SIM; the topic originally had been tabled while the Board members addressed other topics. Dr. Mike Delaney explained that ELAB plans to provide input on potential issues that have been identified, such as a lack of appropriate QA/QC measures for some methods that employ this technique, to support the objective of producing data of known and documented quality. A favorable response to the Board's request to initiate a dialogue on this topic was received from the FEM in February 2015.

At a previous face-to-face meeting, the Board approved a motion to develop reasonable criteria for the control of SIM and work with EPA to collaboratively develop criteria for SIM analysis that can be incorporated into commonly used methods or standards. The Task Group seeks to identify the methods that currently or could allow SIM, identify QA/QC in these methods, and perform outreach to contacts at other laboratories to determine how SIM already is being used.

As an example, Method 624 does not mention SIM, but the proposed Method 624.3 from the MUR includes detailed requirements for successful SIM monitoring. Potential minimum criteria for use of SIM include mass spectrometry type, mass spectrometry tuning criteria, scan descriptor criteria, and identification and identification verification criteria. Finally, Dr. Delaney highlighted drinking water information regarding SIM and various EPA methods provided by Eurofins Eaton Analytical, Inc.

Ms. Carvajal encouraged participants who are interested to assist the Board with this new effort.

FEM'S CURRENT AGENDA

Ms. Phelps explained that the FEM is undertaking an effort to review and update its guidelines and policies. It implemented a formal process in January 2015 to ensure that the FEM's documents are reviewed every 5 years so that the information remains current and accurate. One document of interest to this community and the Board is the *Policy to Assure Competency of*

Laboratories, Field Sampling, and Other Organizations Generating Environmental Measurement Data Under Agency-Funded Acquisitions.

Another FEM initiative begun approximately 1.5 years ago under the recommendation of EPA's Science and Technology Policy Council was to engage with the EPA Science Advisory Board. Following a request to develop a report, the FEM efficiently drafted the report before the decision was made to refocus the document. Following personnel change, the FEM now is ready to develop a more narrowly focused report. This effort fits well with some of ELAB's efforts (e.g., sensors, monitoring).

OPEN DISCUSSION/NEW ITEMS

No new items were introduced by the environmental laboratory community.

This is Ms. Carvajal's last face-to-face meeting as Chair, but she will continue to serve on the Board. Dr. Wait will assume the role of Chair. Ms. Phelps thanked Ms. Carvajal for her leadership while looking forward to Dr. Wait's leadership. She also thanked the ELAB members for their commitment. The target size for the Board is 15 to 17 members, although ELAB is well short of that at this point, further underscoring the current members' efforts in keeping the work moving forward. Diversity in a variety of areas (e.g., expertise, representation, geography) is another goal when selecting the composition of the Board.

A *Federal Register* notice soliciting members for ELAB will be published soon. The membership selection process takes several months. Participants are encouraged to contact Ms. Phelps if they are interested in serving on ELAB and also to inform their colleagues of the membership drive. The goal is to assemble the Board by the end of August or beginning of September so that there is a smooth transition when the new ELAB term commences in October.

REVIEW ACTION ITEMS/CLOSING REMARKS/ADJOURNMENT

Ms. Carvajal reviewed the action item identified during the meeting, which can be found in Attachment C.

Citing no additional comments or issues, Ms. Carvajal asked for a motion to adjourn. Ms. Michelle Wade made the motion, which Dr. Leibovitz seconded. The meeting was adjourned at 4:18 p.m.

Attachment A

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Hyatt Regency Tulsa, Tulsa, OK
January 25, 2016; 1:30 – 5:00 p.m. CST

AGENDA

1:30 – 5:00 p.m.	Opening Remarks, Roll Call, Mission Statement, Overview of Board Goals and Highlights of ELAB Outputs
	Approval of December Minutes
	Updates From the Designated Federal Officer
	Current Task Group Updates
	FEM's Current Agenda
	Open Discussion/New Items
	Review Action Items/Closing Remarks/Adjournment

Attachment B

PARTICIPANTS LIST

Board Members

Attendance (Y/N)	Name	Affiliation
Y	Ms. Patricia (Patty) M. Carvajal (Chair)	San Antonio River Authority Representing: Watershed/Restoration
Y (via teleconference)	Dr. A. Dallas Wait (Vice-Chair)	Gradient Representing: Consumer Products Industry
Y (via teleconference)	Ms. Lara P. Phelps, DFO	U.S. Environmental Protection Agency Representing: EPA
Y (via teleconference)	Dr. Michael (Mike) Delaney	Massachusetts Water Resources Authority Representing: Massachusetts Water Resources Authority
Y (via teleconference)	Mr. Michael Flournoy	Eurofins Environment Testing USA Representing: American Council of Independent Laboratories
Y	Dr. Deyuan (Kitty) Kong	Chevron Energy Technology Company Representing: Chevron
Y	Ms. Sylvia (Silky) S. Labie	Environmental Laboratory Consulting & Technology, LLC Representing: Third-Party Assessors
Y	Dr. Henry Leibovitz	Rhode Island State Health Laboratories Representing: Association of Public Health Laboratories
Y (via teleconference)	Dr. Mahesh P. Pujari	City of Los Angeles Representing: National Association of Clean Water Agencies
N	Ms. Patsy Root	IDEXX Laboratories, Inc. Representing: Laboratory Product Developers
Y (via teleconference)	Ms. Aurora Shields	City of Lawrence, Kansas Representing: Wastewater Laboratories
Y	Ms. Michelle L. Wade	Kansas Department of Health and the Environment Representing: Laboratory Accreditation Bodies

PARTICIPANTS LIST (CONT)

Contractors and Guests

Attendance (Y/N)	Name	Affiliation
Y	Dr. Ed Askew (Guest)	Askew Scientific Consulting
Y	Dr. Richard Burrows (Guest)	TestAmerica Laboratories, Inc.
Y	Mr. Earl Hansen (Guest)	The NELAC Institute
Y	Mr. Dan Hautman (Guest)	EPA
Y	Mr. Paul Junio (Guest)	Northern Lake Service, Inc.
Y	Ms. Kristen LeBaron (Guest; via teleconference)	The Scientific Consulting Group, Inc. (SCG)
Y	Mr. Jerry Parr (Guest)	The NELAC Institute
Y	Mr. Scott Siders (Guest)	Illinois EPA
Y	Mr. Dave Speis (Guest)	Eurofins QC, Inc.

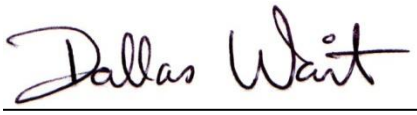
Attachment C

ACTION ITEM

1. Once the current task order request is approved, Ms. Kristen LeBaron will finalize the December 2015 teleconference minutes and send them via email to Ms. Phelps.

Attachment D

I hereby certify that this is the final version of minutes for the Environmental Laboratory Advisory Board Meeting held on January 25, 2016.



Signature, Chair

Dr. Dallas Wait

Print Name, Chair