ENVIRONMENTAL LABORATORY ADVISORY BOARD (ELAB)
Face-to-Face Meeting/Teleconference: 866-299-3188/9195415544#
Webinar: http://epawebconferencing.acms.com/elab-aug16/
Hyatt Regency Orange County, Garden Grove, California
August 8, 2016; 1:00 – 5:00 p.m. PDT

MEETING SUMMARY

The U.S. Environmental Protection Agency's (EPA) Environmental Laboratory Advisory Board (ELAB or Board) face-to-face meeting was held on August 8, 2016, as a session at the 2016 National Environmental Monitoring Conference/Environmental Measurement Symposium in Orange County, California. 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 AND OVERVIEW OF BOARD GOALS

Ms. Lara Phelps, Designated Federal Officer (DFO) for the Board, and Dr. Dallas Wait, Chair of ELAB, welcomed the members and guests to the meeting, allowing the Board members present and those Board members and guests participating via teleconference to introduce themselves.

Dr. Wait explained that the Board operates under the Federal Advisory Committee Act. 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).

APPROVAL OF JUNE AND JULY MINUTES

Dr. Wait explained that the June 2016 minutes could not be approved during the Board's July meeting; although a quorum was present, an abstention caused quorum not to be met for the vote. The motion made during the Board's July meeting to accept the minutes with Dr. Mike Delaney's changes—made by Dr. Mahesh Pujari and seconded by Dr. Delaney—remains on the table for ELAB voting. The Board unanimously approved the July motion to accept the June minutes with the specified changes.

Dr. Wait asked whether any members had comments on the July minutes; there were none. Dr. Henry Leibovitz moved to accept the July minutes; Dr. Kitty Kong seconded the motion. The Board unanimously approved the July minutes.

CHARTER HIGHLIGHTS

Since ELAB's prior face-to-face meeting in January 2016, the Board has advised the Agency regarding laboratory involvement in the data quality objectives (DQO) process in a letter sent in

April 2016. ELAB also provided recommendations to the Agency regarding methods harmonization in a letter sent in April 2016.

UPDATES FROM THE DFO

Ms. Phelps explained that ELAB undergoes a membership drive every 2 years, with each 2-year term beginning on October 1 of even years. With very rare exceptions, members are allowed to serve no more than three 2-year terms, which do not need to be consecutive. Recruitment begins approximately 10 months prior to the term start date, with a *Federal Register* notice placed in February or March that provides interested candidates 6 to 8 weeks to respond. The current Board is set to expire on September 30, 2016. The new Board is expected to be approved by the Administrator this week; until this approval is received, Ms. Phelps is not at liberty to provide any specific details about the members. Historically, ELAB has struggled to attract representatives from academia, but this year the response rate from academia was higher than that of the laboratory community. If the package is approved as is, ELAB's membership will rise to 16. The new Board members will be invited to attend ELAB's September teleconference.

ELAB's website is being updated, with a targeted completion date of September 30, 2016. During the move from the previous website system to the new Drupal system, EPA responses to the Board's letters were removed from the FEM website. The website update will include a new column format for displaying ELAB products with their accompanying EPA responses.

ACTIVITIES SINCE JANUARY 2016

Since the Board's January meeting, as described above, ELAB has provided recommendations to the Agency regarding laboratory involvement in the DQO process and methods harmonization. The Board also is working with EPA regarding in-line and on-line monitoring, working with external experts to develop a set of proposed minimum selected ion monitoring (SIM) criteria, working on the issue of whole effluent toxicity (WET) testing, and determining whether to examine cyanide methodology.

CURRENT 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.

Interagency Data Quality Task Force (IDQTF)/DQO Process

Dr. Leibovitz explained that the Board had provided recommendations to the Agency regarding laboratory involvement in the DQO process, and the effort has been tabled until a response is received from the FEM. According to the Federal Acquisition Regulation (FAR), environmental contractors choose whether to include environmental laboratories in the DQO process. The essence of ELAB's recommendation is for organizations that represent environmental laboratories to promote laboratory involvement earlier in the DQO process by educating environmental contractors, potentially through sessions at conferences that environmental contractors attend.

Ms. Phelps asked Dr. Jordan Adelson (U.S. Navy), the Chair of the IDQTF who had been instrumental in helping the Board to develop its recommendations, to provide further comments. Dr. Adelson explained that the IDQTF is developing a Uniform Federal Policy regarding Quality Assurance Project Plan (QAPP) development. Members of the IDQTF and EPA's Quality Staff are discussing how to establish guidance because the current FAR process does not facilitate earlier laboratory involvement. The IDQTF and EPA Quality Staff will meet this fall to discuss this guidance. Following the meeting(s), Dr. Adelson can provide the Board with an update during a future ELAB teleconference. Ms. Phelps added that Ms. Charlotte Bertrand (EPA), who serves as Dr. Adelson's boss, is fully engaged in this effort.

Methods Harmony

Dr. Wait explained that Board had provided to the Agency methods harmonization suggestions in six different areas that could benefit government and commercial laboratories:
(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 effort has been tabled until the Board receives an in-depth response from the Agency. ELAB received an interim response in June, in which the FEM noted that it "appreciated the thoughtful and detailed method comparisons" and is "sharing with key individuals over next 3 months."

Ms. Phelps explained that the FEM had met the prior week and discussed the next steps. A list of key individuals who should be involved in this effort is due to Ms. Phelps by August 19, 2016. Those individuals will meet by teleconference at least twice in September and possibly once in early October. The next FEM meeting is October 25, 2016, and Ms. Phelps will be able to update ELAB following that meeting.

Method Update Rule (MUR)

EPA has indicated that the MUR will be finalized prior to the end of calendar year 2016, and ELAB will proactively seek to be involved in the next MUR process as it has been in previous MUR cycles.

In-Line/On-Line Monitoring

Mr. Michael Flournoy explained that the Task Group devoted to the in-line and on-line monitoring first determined whether this was an appropriate topic for ELAB to address and then refocused the question to define the essence of the issue. The Task Group decided that the key element is the quality control (QC) element. Once this was established, the group identified key EPA personnel and successfully partnered with Mr. Lemuel Walker (OW), Ms. Janet Goodwin (OW), Dr. Joel Creswell (ORD), Ms. Denise Shaw (ORD) and Dr. Alan Lindquist (ORD/NRMRL), among other EPA staff members.

Several related discussions have occurred at other venues, and previous studies were presented at the 2016 National Water Quality Monitoring Conference in Florida regarding *Escherichia coli* and enterococci, arsenic, harmful algal blooms, and total nitrogen and phosphorous. These studies showed that in-line and on-line monitoring can be used to make real-time decisions, and these sensors must be field deployable, portable and affordable. The drawbacks presented in

these studies are consistent with the Task Group's finding that there is little or no comparison with some or many laboratory QC elements specifically prescribed in 40 CFR 136.

Mr. Flournoy described EPA's Sensor Challenge, in which the Agency challenged industry and academia to develop a nutrient sensor that costs less than $5,000, with the ability to validate the sensor's accuracy, precision, range and deployment length. Some QC elements were covered in the challenge, but not all comply with regulations. Achievable QC elements include system calibration, control charts, acceptance criteria for available QC elements, and corrective actions when out of specification. Because regulations are mostly constrained to batches, and monitors and sensors collect continuously and not in a batch-specific manner, batch versus continuous/instantaneous monitoring is a challenging QC element. Also challenging are blanks, blank spikes and matrix spikes.

Although EPA has been using air quality monitoring sensors for some time (as long as the instruments are checked for accuracy regularly through that program's Relative Accuracy Test Audit), obstacles prevent the use of sensors for water quality compliance. Technology is constantly evolving, and the question is whether regulations can adjust to technology. Because of this constantly advancing technology, it is necessary to ask whether manufacturers can use current laboratory quality systems when designing new technology and whether this is cost-effective or efficient. Finally, how can manufacturers use validation for processes that are already defined? ELAB's goal is to provide advice on how EPA can keep up with technology development.

The Task Group will continue to communicate with EPA through focused monthly meetings and use a feedback loop to provide insight to new and previously posed questions. The Task Group also will respond to a new EPA formal request that the Agency is developing to include lessons learned and more focused questions. Ultimately, the goal is to develop a formal recommendation, hopefully by the Board's next face-to-face meeting in January 2017. The biggest element will be to focus so that the recommendation is meaningful.

Mr. Bob Wyeth (Independent Consultant) asked about the validation of existing, defined processes. He asked whether the validation process of an in-line monitor would need to be redefined. Mr. Flournoy responded in the affirmative and explained that the redeveloped EPA question will be more focused.

Dr. Leibovitz noted that a new MUR cycle will be starting soon. It may be beneficial to select one technology that comes closest to meeting the regulations and does not require certification and request that this technology be incorporated into the MUR. New criteria, such as a virtual batch, could be developed.

Ms. Sharon Mertens (Milwaukee Metropolitan Sewerage District) commented that EPA had recently approved in-line monitoring for drinking water and wondered if the Task Group had considered this. Mr. Flournoy indicated that the group had; the Alternate Test Procedure for drinking water is specific, reliable and efficient, which allows that program to approve alternate methods more easily than the Office of Water (OW) is able to. The refined request is being developed by OW, which is constrained by the QC elements in 40 CFR 136. The drinking water

matrix is very different from the wastewater matrix. It will be necessary to create a rule that will fit with the technology.

Ms. Goodwin thanked the Task Group for its efforts and noted that OW has one on-line continuous method for pH, but the office has found it challenging to broaden this to other methods. OW has been discussing a total residual chlorine continuous monitor with the Hampton Roads Sanitation District, which may be included in the MUR cycle that follows the upcoming MUR cycle.

Ms. Phelps explained that she had provided to OW an example format of previous EPA requests to ELAB, and she will be reviewing it prior to its submission to the Board. Also, the FEM currently is brainstorming activities that can foster Agency use of technology innovations. EPA has not been able to take advantage of exciting new technologies because of the gap between the technologies and rules, regulations, methods and even guideline documents. Companies do not have the tools or connections to bridge these gaps and provide the additional pieces that the Agency needs to use the technologies. It takes years for EPA to be able to budget for and develop the missing pieces. Even with the performance-based measurement system, which ELAB has discussed in the past, the gaps must be filled to allow the Agency to be nimble and take advantage of these technologies immediately.

SIM

Dr. Delaney explained that in SIM gas chromatography/mass spectrometry (GC/MS), a small number of masses are monitored for each target analyte, and masses are chosen carefully to be significant contributors to the MS of the target compounds. The set of masses is changed in timed sequence throughout the chromatographic run to correlate with the characteristic ions of the analytes, surrogate standards and internal standards. Sensitivity is increased because more time is spent measuring the masses present in the eluting compounds rather than measuring all masses. The goal of SIM is to obtain more sensitivity by focusing on the masses present.

During a previous ELAB face-to-face meeting, the Board received a public request to investigate the issues related to SIM GC/MS methods. As a result, ELAB advised EPA about several potential SIM issues regarding technology and QC similar to the methods harmonization advice, and the Agency indicated an interest in pursuing this with ELAB. The established Task Group met several times and gathered information and reviews from SIM experts with the goal of developing minimum criteria for SIM methods. Dr. Delaney asked for input regarding these criteria during this meeting.

Most full-scan GC/MS methods could be used in SIM mode. Without a full mass spectrum, it is necessary to balance the chance of false positives and negatives. Furthermore, the minimum criteria should be tight enough to require fairly strong analytical signals without being so restrictive as to demand perfection. Dr. Delaney noted that the terminology may vary between various instrument manufacturers and MS types, but these differences should not preclude a laboratory from configuring a SIM method that meets these minimum criteria. Dr. Delaney provided examples of some of the terminology definitions and described in general the suggested minimum SIM criteria, which include personnel, method flexibility, MS type and tuning criteria, number of scans per peak, number of scan descriptors, SIM acquisition parameters, sensitivity,

retention time windows, identification and identification verification criteria (key criterion), and automated peak detection. The suggested minimum SIM criteria developed by the Task Group, available on request via email (mike.delaney@mwra.com), contain the specific details of the criteria. For criteria not specifically mentioned, the method should be followed. By setting reasonable criteria, false positives and negatives are minimized.

Mr. Dave Speis (Eurofins QC, Inc.) expressed concerns about the ±20 percent absolute abundance range for low relative abundance ions used in compound identification for SIM analysis. Allowing the addition of 20 percent absolute abundance to a small relative abundance ion of 10 percent has the potential to distort the spectra, resulting in false positive identifications. The question is how to adjust the instrument tuning to assure optimum conditions in the ion ranges being searched for compounds such as polycyclic aromatic hydrocarbons, which rely on small secondary ions for identification. The abundance of these small ions can vary greatly using quadrupole systems. Dr. Delaney agreed, noting that the application matters. Working with a complete unknown provides a much larger challenge.

Dr. Pujari noted that the SIM criteria will help laboratories, and Dr. Leibovitz thought that in terms of following the method for criteria not mentioned, guidelines could be developed regarding spiking levels with methods that are written for full-scan methodology but allow SIM analysis. Dr. Wait agreed with this point and Mr. Speis' above point.

Mr. Flournoy noted that it is necessary to keep the criteria flexible while incorporating a validation process that allows for verification; the system must allow deviation. Not all compounds act the same, so adaptation is necessary. Dr. Wait agreed, noting that Dr. Delaney also had pointed this out in his presentation.

Mr. Speis further commented that the sensitivity of quadrupole instruments are being pushed to their maximum to achieve the highest sensitivity. Other instruments exist, such as high-resolution mass spectrometers, that can provide a more definitive identification in full-scan mode and exact mass ion specificity in SIM mode. The caveat is that data from SIM produced using quadrupole GC/MS systems should be viewed with some degree of skepticism because the instruments are being pushed to their maximum sensitivity limits.

Mr. Flournoy stated that the Task Group will continue to work on the issues raised by the participants and invited the participants to join the Task Group. Dr. Delaney will send the Board members the suggested minimum SIM criteria via email; ELAB members will provide their comments on the criteria no later than September 2, 2016.

WET Testing

Dr. Wait explained that in early 2016, the Board was approached by The NELAC Institute's (TNI) WET Expert Committee and asked to critique a white paper concerning quality assurance aspects of WET proficiency testing (PT) and possibly provide a letter of support for TNI's recommendation. Ms. Phelps added that ELAB will determine the best method to bring this issue to the attention of EPA because the Board cannot provide advice to outside organizations, such as TNI.

Dr. Wait asked Ms. Katie Payne (Nautilus Environmental) of the TNI WET Expert Committee to provide information about the committee's white paper. Ms. Payne explained that WET testing is an important component of EPA's integrated approach to protect surface waters from pollutants. It typically is included in National Permit Discharge Elimination System permitting and used to assess the adverse effects or toxicity of an effluent in a population of test organisms (e.g., water flea, fathead minnow larvae). Ultimately, the testing assesses the combined effects of potential contaminants in effluent.

The purpose of the TNI PT program is to provide a means for a primary accreditation body to evaluate a laboratory's performance under specified conditions relative to a given set of criteria in a specific area of testing. The WET Expert Committee began as a subcommittee of the PT Executive Committee. As a result of inconsistencies found among PT providers, the PT Executive Committee solicited input from state agencies about the primary purpose of WET PT testing to ensure consistency. The majority responded that the purpose was to ensure that laboratories performed methods according to permit requirements. The WET Expert Committee disagreed with this finding and drafted the white paper to explain that the primary purpose should be to assess a laboratory's ability to perform the method according to permit requirements or to assess a laboratory's ability to perform the method under standard conditions so that data from multiple laboratories can be compared quantitatively. The ultimate goal is to differentiate between laboratories capable of adhering to methods and those that are deficient.

Accuracy does not apply to toxicity testing in the same way it would apply to a solution of metals or pesticides for analytical testing. "True" or assigned values (and acceptance limits) are derived from participating laboratory data, and toxicity endpoints can be affected by a number of variables depending on the nature of the toxicant (e.g., temperature, test duration, water hardness).

Regarding the first WET approach (i.e., performing methods per permit requirements), it is important to note that WET test requirements may vary among states and EPA regions and even within states. Dissimilar methods result in greater data variability, making it difficult to identify laboratories with deficient techniques. This approach may be acceptable for testing within states in which the requirements are consistent, but it is not suitable for a national program (e.g., discharge monitoring report-quality assurance [DMR-QA]). In terms of the second approach (i.e., comparison of all laboratories), all laboratories should perform tests using the same methods. It is not sufficient to say that methods must follow 40 CFR 136 guidelines or EPA 2002 manuals. For this reason, the WET Expert Committee created a list of baseline test conditions. The ultimate logic is to obtain acceptable DMR-QA results in specifically defined conditions.

Acute WET testing uses a point estimate endpoint (LC_{50}), whereas chronic WET testing uses a hypothesis testing endpoint (no-observable effect concentration [NOEC]) as well as a point estimate endpoint (IC_{25}). The WET Expert Committee recommends endpoint standardization: one endpoint for acute WET testing (LC_{50}) and one endpoint for chronic WET testing (IC_{25}, which all WET laboratories can produce). Additionally, NOEC values should not be averaged. This increases the number of comparable data points and, therefore, the reliability of the conclusions. The committee also recommended standardizing DMR-QA and PT test methods

and using IC_{25} as the primary chronic endpoint for DMR-QA/PT (i.e., discontinue use of NOEC).

Following Ms. Payne's presentation, Dr. Wait explained that ELAB had convened a Task Group to evaluate the suggestions made in the white paper. Recognizing that the Task Group did not contain the required expertise, the members consulted WET experts, including Dr. Timothy Ward (former owner of T.R. Wilbury aquatic toxicity laboratory) and Dr. Brandi Echols (ecotoxicology expert with Chevron). The Task Group completed an initial review of the white paper and has mostly favorable comments.

DISCUSSION: CYANIDE IN DRINKING WATER

Dr. Delaney presented information (including a graph of results) about a simple but illuminating experiment that highlights the issue of false-positive results and the resulting need that laboratories have for alternative cyanide methodologies. In 2007, the Massachusetts Water Resources Authority (MWRA) was approved to use immediate on-site distillation and avoid sodium hydroxide (NaOH). In 2015, MWRA switched to free-cyanide analysis, demonstrating that field dilution, avoidance of NaOH and same-day analysis supported by field spikes could provide substantiated results without false positives. These results have been published in the peer-reviewed literature. Recently, another public water supply detected free cyanide in treated water but not in source water; the free-cyanide level appeared to depend on how carefully the hypochlorite was neutralized with ascorbic acid.

From a regulatory point of view, 40 CFR 141.23 provides the required preservation techniques and approved test method (Method OIA-1677-04[1]). The regulation takes precedence over the analytical method, and the federal regulation takes precedence over the state regulation. EPA only will only approve national Alternative Test Procedures only for drinking water. EPA contends that laboratories still must preserve samples with NaOH, despite the fact that Method OIA-1677-04 provides conflicting information regarding preservation. From a scientific point of view, maintaining sample integrity is paramount, and changes in the sample resulting from sampling, preservation, storage and testing should be avoided. Also, testing sooner is better than later, and cyanide testing is problematic, with multiple possible positive and negative interferences. Therefore, minimizing sample manipulations and testing quickly seems advisable for cyanide.

The choices are to blindly follow the regulations and methods or use best scientific judgment to avoid obtaining false-positive or false-negative results. Dr. Delaney presented this information to determine whether ELAB would be willing to form a Task Group to examine this issue in more depth and advise EPA. He also sought input from the meeting participants.

Dr. Wait noted that it is important that ELAB explore the issue if it is a pervasive problem and not limited to one or two public water systems. He asked why the false positive was not seen in the validation process. Dr. Delaney said that the method was published by EPA in 2004 or thereabouts, but he had not seen the validation study data.

[1] Although the method was identified during the meeting as Method OIA-1677-04, the correct method number is Method OIA-1677-DW.

Mr. Dan Hautman (EPA/OW) asked Dr. Delaney several clarifying questions about the specific methods that MWRA uses so that he could best provide input. He thought that the false-positive issue might be related to the ascorbic acid phenomenon. Exploring this issue might be Dr. Delaney's most direct way of solving the problem of false positives.

In response to a question from Dr. Leibovitz, Mr. Hautman explained that the regulations include a blanket statement that any detected contaminants must be included in the CCR. A participant noted that if the false positive is showing up in a blank, the argument that it is a false positive is valid. Mr. Hautman explained that it still must be reported in the CCR.

Dr. Wait reiterated that it would be helpful to review the validation studies. Mr. Hautman was unsure whether they were available, and the person responsible for them has passed away and cannot be consulted.

Mr. Scott Hoatson (Oregon Department of Environmental Quality) commented that harmonization is key to this issue. He recommended that Dr. Delaney consult with the EPA staff focused on 40 CFR 136, who have done a good deal of cyanide work, to determine their findings.

Dr. Leibovitz asked whether studies exist that examine wastewater preservation with NaOH. Mr. Hautman was not sure, noting that this was something that ELAB and his office could explore.

Ms. Silky Labie stated that other interferences (e.g., sulfides) exist within cyanide analysis that are not dealt with in the regulations, and Mr. Hautman agreed.

Mr. Paul Junio (Northern Lake Service, Inc.) commented that his commercial laboratory prepares NaOH bottles but does not add additional treatment to the sample bottles because the regulations of interest, and therefore the various preservation methods, vary among clients.

Mr. Flournoy commented that the question is the source of the false positive, and he thought that the ascorbic acid phenomenon should be explored to determine whether a different dechlorinating agent could be used. Dr. Delaney added that other dechlorinating agents exist, but they are not included in the method.

Ms. Mertens explained that sessions regarding this topic were offered in 2013 and 2014, but a definitive answer has not been found. The next step may be to conduct more research about past efforts; some wastewater research also may be necessary.

Mr. Hautman and Dr. Delaney discussed the differences between how the states of Massachusetts and New Hampshire, as primacy agencies, handle this issue. Massachusetts will not certify for free cyanide because no PT is available.

The ELAB members and participants agreed that the problem may be more widespread than reported because of the number of variables and the manner in which laboratories report detects.

Mr. Doug Wolfe (McCoy & McCoy Laboratories, Inc.) described his experience with this problem; he eventually gave up on Method OIA-1677-04 and now uses different methods.

The Board agreed to establish a Task Group to explore this issue after the new Board has taken effect in October 2016; Dr. Delaney will develop a specific directive to guide the Task Group. The Task Group may have no more than seven members. Dr. Delaney volunteered to lead the Task Group, and Dr. Leibovitz and Ms. Patty Carvajal volunteered to serve on the group.

OPEN DISCUSSION/NEW ITEMS

Mr. Larry Penfold (TestAmerica Laboratories, Inc.) explained that inconsistencies exist across EPA methods regarding the requirements for GC/MS spectral library sources. SW-846 requirements have led laboratories to use false spectral libraries. For example, Method 624 instructs laboratories to use the National Institute of Standards and Technology (NIST) spectral libraries or develop their own libraries. Method 625 states that laboratories must use the NIST libraries. Method 8270 instructs laboratories to develop their own libraries without any other guidance. In developing libraries, spurious peaks may exist as a result of carryover, leading to the development of false libraries. Mr. Penfold thought that methods should recommend the use of authoritative spectral libraries, and he asked the Board to explore this issue.

Dr. Pujari agreed that this is a valid issue. Until EPA develops its own MS spectral library, NIST libraries must be used, or laboratories must develop their own.

Dr. Leibovitz thought that the SW-846 methods were guidance. QAPPs should specify which libraries are to be used. Mr. Penfold explained that because of state regulations, methods cannot be treated as guidance. To be accredited, laboratories must follow the methods. Also, the vast majority of work is not performed under QAPPs.

ELAB agreed to establish a Task Group to explore this issue once the new Board is seated.

REVIEW ACTION ITEMS/CLOSING REMARKS/ADJOURNMENT

Ms. Kristen LeBaron (The Scientific Consulting Group, Inc.) reviewed the action items identified during the meeting, which can be found in Attachment C.

Citing no additional comments or issues, Dr. Wait asked for a motion to adjourn.
Mr. Flournoy made the motion, which Dr. Pujari seconded. The meeting was adjourned at 4:29 p.m.

Attachment A

ENVIRONMENTAL LABORATORY ADVISORY BOARD (ELAB)
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Hyatt Regency Orange County, Garden Grove, California
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AGENDA

1:00 – 5:00 p.m.	Opening Remarks, Roll Call, Mission Statement and Overview of Board Goals
	Approval of June and July Minutes
	Charter Highlights
	Updates From the Designated Federal Officer
	Activities Since January 2016
	Current Task Group Updates
	Discussion: Cyanide in Drinking Water
	Open Discussion/New Items
	Review Action Items/Closing Remarks/Adjournment

Attachment B

PARTICIPANTS LIST

Board Members

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

PARTICIPANTS LIST (CONT)

Contractors and Guests

Attendance (Y/N)	Name	Affiliation
Y	Ms. Kristen LeBaron (Contractor)	The Scientific Consulting Group, Inc. (SCG)
Y	Dr. Jordan Adelson (Guest)	U.S. Navy
Y	Ms. Janet Goodwin (Guest)	EPA
Y	Mr. Dan Hautman (Guest)	EPA
Y	Mr. Scott Hoatson (Guest)	Oregon Department of Environmental Quality
Y	Mr. Paul Junio (Guest)	Northern Lake Service, Inc.
Y	Ms. Sharon Mertens (Guest)	Milwaukee Metropolitan Sewerage District
Y	Ms. Katie Payne (Guest)	Nautilus Environmental
Y	Mr. Larry Penfold (Guest)	TestAmerica Laboratories, Inc.
Y	Mr. Dave Speis (Guest)	Eurofins QC, Inc.
Y	Mr. Doug Wolfe (Guest)	McCoy & McCoy Laboratories, Inc.
Y	Mr. Bob Wyeth (Guest)	Independent Consultant

Attachment C

ACTION ITEMS

1. Ms. LeBaron will finalize the June and July 2016 teleconference minutes and send them via email to Ms. Phelps.

2. Dr. Delaney will send the Board members the suggested minimum SIM criteria via email; ELAB members will provide their comments on the criteria no later than September 2, 2016.

3. The SIM Task Group will continue to explore the issues raised during the face-to-face meeting.

4. After the new Board is installed, ELAB will establish a Task Group to explore cyanide methodologies in drinking water (Cyanide Methodology Task Group).

5. Dr. Delaney will develop a specific directive to guide the Cyanide Methodology Task Group.

6. After the new Board is installed, ELAB will establish a Task Group to explore the issue of conflicting information in EPA methods regarding GC/MS spectral libraries.

Attachment D

I hereby certify that this is the final version of minutes for the Environmental Laboratory Advisory Board Meeting held on August 8, 2016.

Signature, Chair

Dr. Dallas Wait

Print Name, Chair