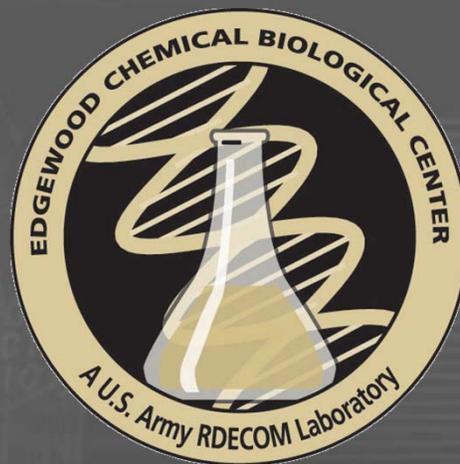




The ECBC Experience: DOD
ELAP Accreditation for
Chemical Warfare Agents
(CWA)



TECHNOLOGY DRIVEN. WARFIGHTER FOCUSED.

DOD Environmental Monitoring Data Quality (EMDQ)
Workshop

John Schwarz, Analytical Chemistry Manager; Environmental Monitoring Laboratory (EML)
April 30, 2015

Approved for Public Release

1. Introduction
2. EML Services
3. Customer Support
4. Seeking Accreditation
5. Challenges
6. Accreditation Benefits



U.S. Army



U.S. Army Materiel Command (AMC)



U.S. Army Research, Development and Engineering Command (RDECOM)



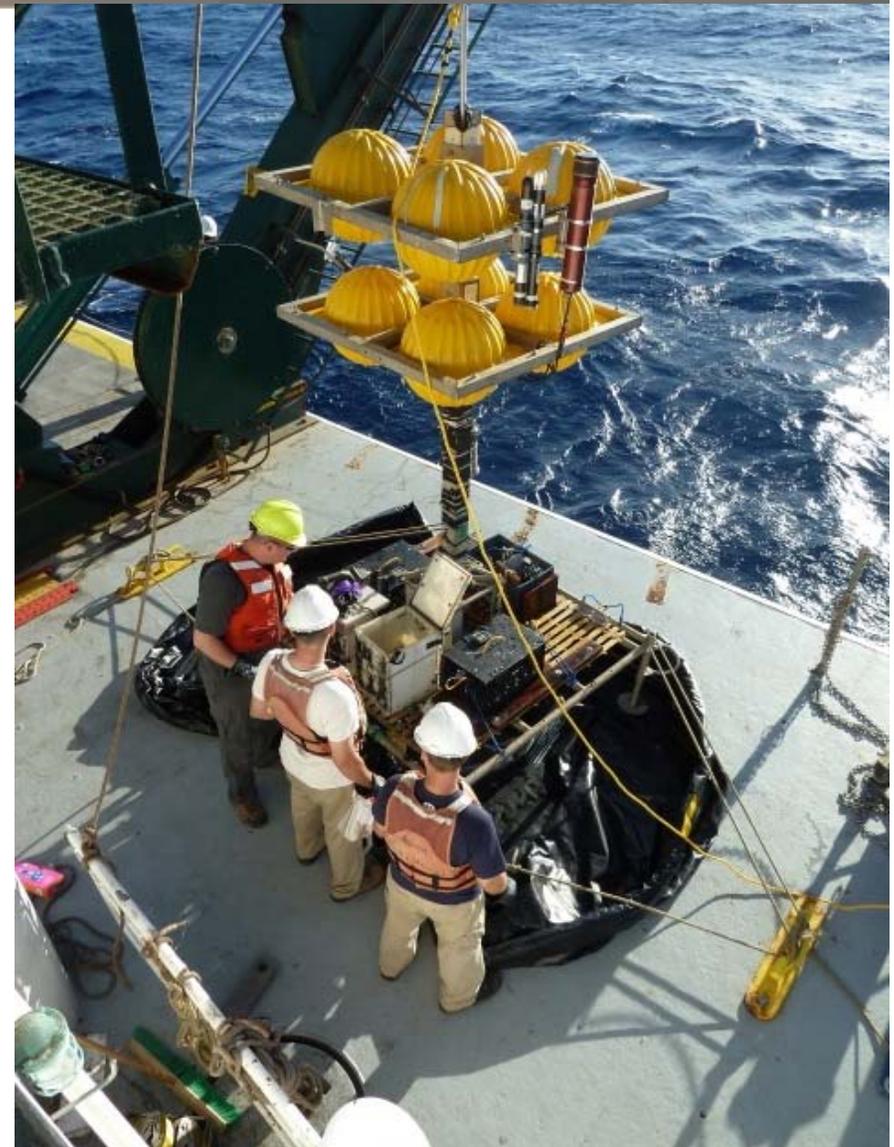
U.S. Army Edgewood Chemical Biological Center (ECBC)



Chemical Biological Applications and Risk Reduction (CBARR)

Environmental Monitoring Laboratory (EML)

- Services laboratory specializing in chemical biological threat agents.
- Provides support through fixed and mobile laboratories to a variety of operations around the world.
- Collection and analysis of air monitoring samples for health & safety, industrial hygiene, vapor screening of items, and historical purposes
- Analysis of environmental samples, verification of destruction, waste samples, and unknowns.



- Sustainment laboratory services to ECBC and MRICD
- **Laboratory and air monitoring support to USACE remedial investigations**
- Operational support for destruction of RCWM
- Operational support to remaining US and global chemical agent stockpiles
- Homeland defense services
- Laboratory services and support to non-government organizations





Why did EML seek Accreditation?



- Customer request and demand
- Meet program requirements
- Third party assessment
- Self-willingness
- Challenging terminology to discuss: costs, competition, availability



ACQUISITION
TECHNOLOGY
AND LOGISTICS

OFFICE OF THE UNDER SECRETARY OF DEFENSE
3000 DEFENSE PENTAGON
WASHINGTON, DC 20301-3000

DEC 24 2008

MEMORANDUM FOR DEPUTY ASSISTANT SECRETARY OF THE ARMY
(ENVIRONMENT, SAFETY AND OCCUPATIONAL
HEALTH)
DEPUTY ASSISTANT SECRETARY OF THE NAVY
(ENVIRONMENT)
DEPUTY ASSISTANT SECRETARY OF THE AIR FORCE
(ENERGY, ENVIRONMENT, SAFETY AND
OCCUPATIONAL HEALTH)
DIRECTOR DEFENSE LOGISTICS AGENCY (DSS-E)

SUBJECT: DoD Environmental Laboratory Accreditation Program (DoD ELAP)

This memorandum establishes the DoD ELAP, a DoD-wide program to accredit laboratories that perform environmental testing in support of the Department of Defense and tasks the DoD Environmental Data Quality Workgroup (EDQW) with responsibility for implementing and providing oversight of this program as outlined in Attachment 1. Third party accrediting bodies will be used to assess laboratories on meeting the requirements of the DoD Quality Systems Manual for Environmental Laboratories (DoD QSM).

DoD ELAP shall implement the quality systems requirements of DoDI 4715.15, "Environmental Quality Systems," dated December 11, 2006 and the DoD policy and guidelines for Acquisitions Involving Environmental Sampling and Testing Services, dated December 4, 2007 (Attachment 2). DoD ELAP supports the goals of the National Technology Transfer and Advancement Act (1996), as implemented by the National Institute of Standards and Technology. The objectives of this accreditation program are to: 1) promote interoperability among DoD Components; 2) promote fair and open competition among commercial laboratories; 3) streamline the process for procuring environmental laboratory services; and 4) promote the collection of data of known and documented quality, suitable for their intended uses. It also complies with Section 515(a) of Public Law 106-554 (the Data Integrity Act) as implemented by OSD memorandum, *Ensuring Quality of Information Disseminated to the Public by the Department of Defense*, February 2003.



- Overall implementation of change impacted more than scope
- Staff
 - Travel
 - Sequestration/Contractor Support
 - Training/DOCs
 - QA/QC Team
- Documentation
 - Integration of existing QA manuals/internal audits
 - Numerous new procedures and forms to fill in gaps
- Maintaining existing workload and TATs
- LIMS improvements



- Lots of time spent on details; changes made weekly
- LOD/LOQs/DOCs
- QC limits
- Data Packages
- Proficiency samples
- Storage Blanks
- Table 14 (tune verification, ICV/CCV criteria, qualifiers)
- COAs, pipettes, balances, thermometers, and lot testing
- More verifications and levels of review

File Clients Samples Workorders Batching Operations Systems Help Window

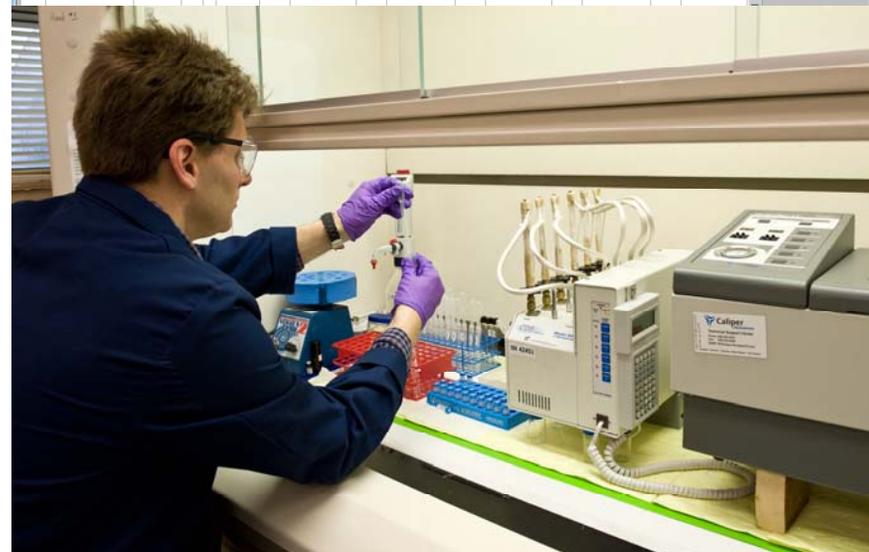
Shgw Text Posting Batch Schedules Update Channel

Data Review

Queue GCM HBN 251918 Status WP From 03/20/12 11:42 Comments

Batch 1086 Instrument GCMS32 Count 8 To 03/20/12 15:43

Pos	Lab ID	Type	CC	A	Dil	Hexachlorob	BFB	1,4-Thioxan	1,4-Dithian	HD
1	E120002801	CHEM	OK	F	1	OK 5000	OK 4477.89	OK 180.96	OK 3442.13	OK 908.96
2	E120002802	CHEM	OK	F	1	IR 5000	IR 4616.66	OK 369.84	RR 16186.36	OK 257.31
3	135435	MB	OK	F	1	OK 5000	OK 4182.34	OK 0	OK 0	OK 0
4	135436	LCS	OK	F	1	OK 5000	OK 4068.8	OK 3771.84	OK 3573.91	OK 3285.27
5	135437	LCS	OK	F	1	OK 5000	OK 4050.53	OK 3186.03	OK 3040.32	OK 2794.48
6	135438	MS	OK	F	1	OK 5000	OK 4361.9	OK 4076.91	OK 7366.64	OK 4904.91
7	135439	MSD	OK	F	1	OK 5000	OK 4421.41	OK 4288.85	OK 7392.59	OK 5028.77
8	E120002802	CHEM	OK	*	2	OK 5000	OK 4442.74		OK 7928.32	





Certification of Accreditation



**LABORATORY
ACCREDITATION
BUREAU** a division of **ASS**



Certificate of Accreditation

ISO/IEC 17025:2005

Certificate Number L2401

**Environmental Monitoring Laboratory (EML)
Edgewood Chemical Biological Center (ECBC)
RDCB-DPO-ML Bldg E3330 Room 184, 5183 Blackhawk Rd.
Gunpowder MD 21010**

has met the requirements set forth in L-A-B's policies and procedures, all requirements of ISO/IEC 17025:2005 "General Requirements for the competence of Testing and Calibration Laboratories" and the U.S. Department of Defense Environmental Laboratory Accreditation Program (DoD ELAP).*

The accredited lab has demonstrated technical competence to a defined "Scope of Accreditation" and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated 8 January 2009).

Accreditation valid through: October 14, 2017

R. Douglas Leonard, Jr., President, COO
Laboratory Accreditation Bureau
Presented the 14th of October 2014

*See the laboratory's Scope of Accreditation for details of accredited parameters

**Laboratory Accreditation Bureau is found to be in compliance with ISO/IEC 17011:2004 and recognized by ILAC (International Laboratory Accreditation Cooperation) and NACIA (National Cooperation for Laboratory Accreditation).
Form 403.14 - Rev 17/3/13

Scope of Accreditation For Environmental Monitoring Laboratory (EML) Edgewood Chemical Biological Center (ECBC)

RDCB-DPO-ML
Bldg E3330 Room 184
5183 Blackhawk Rd
Gunpowder MD 21010
John L. Schwarz
410-436-2150

In recognition of a successful assessment to ISO/IEC 17025:2005 and the requirements of the DoD Environmental Laboratory Accreditation Program (LABPR 403 DoD ELAP) as detailed in the DoD Quality Systems Manual for Environmental Laboratories (DoD QSM V5) based on the TNI Standard - Environmental Laboratory Sector, Volume 1 - Management and Technical Requirements for Laboratories Performing Environmental Analysis, Sept 2009 (EL-V1-2009); accreditation is granted to the Environmental Monitoring Laboratory to perform the following tests:

Accreditation granted through: **October 14, 2017**

Testing - Environmental

Aqueous Liquids		
Technology	Method	Analyte
GCMS	IOP MT-08	Sarin, GB
GCMS	IOP MT-08	Soman, GD
GCMS	IOP MT-08	Tabun, GA
GCMS	IOP MT-08	Cyclosarin, GF
GCMS	IOP MT-08	Sulfur Mustard, H
GCMS	IOP MT-08	Nitrogen Mustard, HN-1
GCMS	IOP MT-08	Nitrogen Mustard, HN-3
GCMS	IOP MT-08	Lewisite, L
GCMS	IOP MT-08	1,4-Thioxane
GCMS	IOP MT-08	1,4-Dithiane
LCMS-MS	IOP MT-57 App IV	Diethanolamine, DEA
LCMS-MS	IOP MT-57 App IV	Triethanolamine, TEA
LCMS-MS	IOP MT-57 App IV	n-ethyl diethanolamine, etDEA
LCMS-MS	IOP MT-57 App V	Thiodiglycol, TDG
LCMS-MS	IOP MT-57 App VI	Diisopropylmethyl phosphonate, DIMP
LCMS-MS	IOP MT-57 App VI	Dimethylmethyl phosphonate, DMMP

Aqueous Liquids		
Technology	Method	Analyte
LCMS-MS	IOP MT-57 App VI	S-2-Diisopropylaminoethyl methylphosphonothioic Acid, EA2192
LCMS-MS	IOP MT-57 App VI	Ethyl methylphosphonic acid, EMPA
LCMS-MS	IOP MT-57 App VI	Isopropyl methylphosphonic acid, IMPA
LCMS-MS	IOP MT-57 App VI	methylphosphonic acid, MPA
LCMS-MS	IOP MT-57 App VI	Pinacoyl methylphosphonic acid, PMPA
LCMS-MS	IOP MT-57 App VII	O-Ethyl-S-(2-diisopropylaminoethyl) methyl phosphonothiolate, VX

Solid and Chemical Materials		
Technology	Method	Analyte
GCMS	IOP MT-08	Sarin, GB
GCMS	IOP MT-08	Soman, GD
GCMS	IOP MT-08	Tabun, GA
GCMS	IOP MT-08	Cyclosarin, GF
GCMS	IOP MT-08	Sulfur Mustard, H
GCMS	IOP MT-08	Nitrogen Mustard, HN-1
GCMS	IOP MT-08	Nitrogen Mustard, HN-3
GCMS	IOP MT-08	Lewisite, L
GCMS	IOP MT-08	1,4-Thioxane
GCMS	IOP MT-08	1,4-Dithiane
LCMS-MS	IOP MT-57 App IV	Diethanolamine, DEA
LCMS-MS	IOP MT-57 App IV	Triethanolamine, TEA
LCMS-MS	IOP MT-57 App IV	n-ethyl diethanolamine, etDEA
LCMS-MS	IOP MT-57 App V	Thiodiglycol, TDG
LCMS-MS	IOP MT-57 App VI	Diisopropylmethyl phosphonate, DIMP
LCMS-MS	IOP MT-57 App VI	Dimethylmethyl phosphonate, DMMP
LCMS-MS	IOP MT-57 App VI	S-2-Diisopropylaminoethyl methylphosphonothioic Acid, EA2192
LCMS-MS	IOP MT-57 App VI	Ethyl methylphosphonic acid, EMPA
LCMS-MS	IOP MT-57 App VI	Isopropyl methylphosphonic acid, IMPA
LCMS-MS	IOP MT-57 App VI	methylphosphonic acid, MPA
LCMS-MS	IOP MT-57 App VI	Pinacoyl methylphosphonic acid, PMPA
LCMS-MS	IOP MT-57 App VII	O-Ethyl-S-(2-diisopropylaminoethyl) methyl phosphonothiolate, VX



Questions



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Directorate of Program Integration
Edgewood Chemical Biological Center (ECBC)
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Please provide us feedback:
<http://www.surveymonkey.com/s/CBARR-EML>