Meeting Minute Approval Sheet

222-S Project Managers' Meeting
And Miscellaneous Laboratory Issues
(TSD: TS-2-1; Operating Unit 8)

Via Microsoft Teams
January 13, 2021
8:00 a.m. – 9:00 a.m.

DOE: RICHARD VALLE Digitally signed by RICHARD VALLE Date: 2021.03.03 13:40:35 -08'00'

Richard Valle Date

ECOLOGY: Digitally signed by Elsethagen, Kelly (ECY) Date: 2021.03.04 11:44:02 -08'00'

Kelly Elsethagen Date

222-S PMM MEETING MINUTES
January 13, 2021

Meeting Attendees:

- Due to telework the attendance roster was not provided to the attendees.
- The following attendees were present for this meeting:
    - Kelly Elsethagen – Ecology
    - Jackson Davis – Ecology
    - Richard Valle – ORP
    - Jeff Cheadle – ORP
    - Gae Neath – ORP
    - Sue Kon – WHL
    - Ken Chapin – WRPS
    - Keith Greenough – WRPS
    - Maria Lopez – WRPS
    - Melanie Myers – WRPS
    - Robin Varljen – WRPS

Agreements, Commitments, and Action Items:

- November's meeting minutes will be submitted as soon as received from Ecology.
- Melanie Myers provided input on November's waste shipments. Few shipments dues to the holidays.
- Sue Kon provided status and letters of accreditation. They will be attached to these meeting minutes.

222-S Laboratory Operations and Analytical Status:

- Operational and analytical information is attached to these minutes.
- Completed transfer of lab waste to 219-S through 2-B sink since daily sampling is occurring.
- The fire alarm system upgrade completed the acceptance testing.
- The T-8 sump and alcove inspections were completed along with hot cell air flow and filter. This area is a high contamination area and not frequently accessed for good ALARA practices. Additionally it is a high resource job to enter the area.
- The site prep for new lab office is set to commence in February 2021.
- As indicated in the Analytical Equipment section, completion of instrument installations are awaiting for Phase 3 resumption of work.
- Melanie from Waste Management mentioned the increase in shipments.
- Sue Kon from WHL discussed a second shift was implemented to accommodate with sampling.
- Attached is the 222-S Quarterly Report provided by WHL along with letters to show follow up with PT inquiry and accreditation from November.

- Overall, WHL is Metrics on delivery, proficiency tests, and holding times are meeting regulatory requirements, and AN-106 Core project is almost complete. Due to weather this should be completed at the end of January.

Next Meeting:

March 10th, 2021 on Teams at 8 a.m.

Action Items for Next Meeting:

- Waste Shipments time frame to be provided on new meeting minutes.

Attachment 1

1. Agenda
2. Attendance Roster
3. 222-S Lab Operations and Analytical Reports
4. Reports provided by WHL

And Miscellaneous Laboratory Issues

Via TEAMs

November 18th, 2020

Agenda

1. Introductions
2. Approval of Previous Meeting Minutes:
    - Waiting on Ecology to approve edits for September
3. Agreements, Commitments, and Status of Action Items
    - None
4. 222-S TSD or Miscellaneous Issues
5. 222-S Laboratory - Attached
    - Operations Report
    - Analytical Report
6. Review of New Action Items

Activities of Note	
Operational Activities	**Date**
Completed transfer of lab waste to 219-S through 2-B sink.	9/22/2020
Performed calibration of the 219-S tank level indication.	9/30/2020
Completed semi-annual preventative maintence on 222-S primary exhaust fans.	10/7/2020
Completed 296-S-21 (222-S main) stack flow testing.	10/7/2020
Performed calibration of 296-S-21 stack sampling instrumentation.	10/7/2020
Completed monthly running of 219-S tank agitators	10/12/2020
Performed monthly testing of 219-S leak detection alarms	10/13/2020
Performed calibration of 222-SC HEPA filter differential pressure instruments.	10/15/2020
Completed sampling of 207-SL liquid retention basin for TEDF compliance acceptance criteria verification.	10/19/2020
Hanford Fire completed cold weather protection maintenance of dry risers.	10/19/2020
Completed transfer of lab waste to 219-S through 2-B sink.	10/21/2020
Completed six month preventative maintenance on EF-4 diesel engine.	10/21/2020
Hanford Fire completed annual portable fire extinguisher inspections.	10/23/2020
Completed testing of the 219-S PTRAEU filter.	11/3/2020

FY2020 222-S Laboratory Upgrades	
222-S Fire Alarm System upgrade: Construction continues on the fire alarm system upgrade. Testing of the new system is underway.	Status as of 11/18/2020
Lab Complex Office building upgrade: Building design is obtaining final approvals and PE stamp. Site prep design is complete and construction project is out for bids.	

FY 2020 Analytical Equipment
• Confocal Microscope (Complete) • GC/MS with Thermal Desorption Unit (Complete) • Gamma Energy Analyzer. Scheduled for Phase 3 resumption of work. • Gas Pycnometer. Scheduled for Phase 3 resumption of work. • GC/MS for Semi-Volatile Organic Analysis. (Complete) • GC-ECD for Pesticide/PCB Analysis (Complete) • X-ray Microtomograph. Scheduled for Phase 3 resumption of work.

Waste Shipments			
Waste Type	***Containers Shipped from 222S***	***Receiving Facility***	***Timeframe***
LLW	12	PFNW	October, November, December
DW	7	CLEAN HARBOR/DEER TRAIL	October, November
MW	3	PFNW	December
TRU	0	NA	NA
Recycle	5	CCRC	October, Dec

LLW: Low-level radioactive waste
DW: Dangerous Waste (non-radioactive Dangerous Waste)
MW: Mixed Waste
TRU: Transuranic Waste

Wastren Advantage, Inc. Hanford Laboratory (WHL)

222-S Analytical Contractor Quarterly Report – October 31, 2020

Events of Interest

WHL returned all non-portable workers in active status to work September 30, 2020. All in-house training that had expired during the partial stop work was completed in a timely manner. Prior to the start of Phase 2 laboratory equipment was brought on-line, validated, and calibrated to minimize delays in analytical operations

Contract Performance Metrics

Delivery

Deliverable metric for FY 2020 is 97.6%

Monthly Completed Deliverable Packages													
	Oct	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sept**	**TOTAL**
FY 2020	34	31	54	36	32	33	2	1	1	4	11	16	279
FY 2021	44												

QA Evaluations/Proficiency Tests:

Analytical Performance Evaluation for FY 2020 is 97.6%.

PROFICIENCY TESTING- STUDY SUMMARY: FY 2020				
Report Period	**Study**	**Reported**	**Correct**	**Study%**
Jul- 2020		0	0	N/A
Aug- 2020		16	16	100.0
Sept- 2020		52	52	100.0
FY 2020- TOTAL to DATE		418	408	**97.6**

Analytical Performance Evaluation for FY 2021 is 98.6

PROFICIENCY TESTING- STUDY SUMMARY: October FY 2020				
Report Date	**Study**	**Reported**	**Correct**	**Study%**
10/08/2020	Quick Turn 082420J	63	61	96.8
10/16/2020	1-2020 (I-129)	1	1	100.0
10/17/2020	2-2020 (Tc-99)	1	0	0.0
10/26/2020	Air PT-040	16	16	100.0
10/27/2020	WP-308	103	103	100.0
10/29/2020	MRAD-32	36	36	100.0
Total October		220	217	98.6
FY 2021- TOTAL to DATE		**220**	**217**	**98.6**

Holding Time Performance:

The holding times metric for FY 2020 is 98.0%.

PEMP Holding Time Metric for FY 2020 Status as of 10/4/2020				
Month Performed	Total	Met	Missed	% Met
July	15	15	0	100%
August	41	41	0	100%
September	57	57	0	100%
4th Quarter	**113**	**113**	**0**	**100%**
FY 2020	2414	2365	49	98.0%

The holding times metric for FY 2021 is 98.9%.

PEMP Holding Time Metric for FY 2021 Status as of 11/09/2020				
Month Performed	Total	Met	Missed	% Met
October	369	365	4	98.9%
1st Quarter	**369**	**365**	**4**	**98.9%**
FY 2021	**369**	**365**	**4**	**98.9%**

Projects in Progress

AN-106 Core
Vadose Samples
A-104 Grab
A-AX Focus Area 1
AN-101 Grab
AW-105 SPC
AZ-101 Grab
AY-101

30-Day Forecast

AX-102 Grab
2019 AN-107 Core
2019 AY-101
2019 AY 2010 Core APD
Continue HG/NH3 Vapor Tubes
AN-106 Core

Washington State Department of Ecology

Technical Report

For:	WAI Hanford
Author:	Ryan Zboralski, WA Laboratory Accreditation Unit
Date:	November 18, 2020
Re:	Request to approve Eckhart Ziegler as a PT provider for radiochemistry analysis

TNI requirements for PT providers

- **ISO 17043:2010 – Proficiency Testing Provider** from an approved accreditation body. TNI's approved accrediting bodies are:
    - American Association of Laboratory Accreditation, A2LA
    - ANSI-ASQ National Accreditation Board, ANAB
- **ISO 17025:2005 – General Requirements for the Competency of Testing and Calibration Laboratories** from a TNI approved accrediting body.
- **ISO 17034:2016 – General Requirements for the Competence of Reference Material Producers** from a TNI approved accrediting body.
    - This is only required if the PT provider is generating their own reference material

Comparison to ERA

- Both have accreditation to **ISO 17043:2010 – Proficiency Testing Provider** by a TNI approved accreditation body
- Both have accreditation to **ISO 9001:2015 – Quality Management Systems** by a TNI approved accreditation body.
- Both have accreditation to **ISO 17025:2005 – General Requirements for the Competency of Testing and Calibration Laboratories** by a TNI approved accreditation body.
- ERA has accreditation to **ISO 17034:2016 – General Requirements for the Competence of Reference Material Producers** by a TNI approved accreditation body.
- Provides isotopes such as Selenium-75 and I-129 that ERA does not
- Both offer rapid-return PTs

Comparison to MAPEP

- Both are accredited to **ISO 17043:2010 – Proficiency Testing Provider** by a TNI approved accreditation body
- Both are accredited to **ISO 17025:2005 – General Requirements for the Competency of Testing and Calibration Laboratories** by a TNI approved accreditation body.
- Both have accreditation to **ISO 9001:2015 – Quality Management Systems** by a TNI approved accreditation body.

- MAPEP has accreditation to **ISO 17034:2016 – General Requirements for the Competence of Reference Material Producers** by a TNI approved accreditation body.
- Provides isotopes such as Selenium-75 and I-129 that MAPEP does not
- Provides matrices for their isotopes that MAPEP does not
- MAPEP is no longer required by DOE QSM 5.2
- MAPEP does not offer rapid-return PTs

Eckert & Ziegler Accreditation documents looked for and reviewed

- **ISO 17043:2010 – Proficiency Testing Provider**
- **ISO 9001:2015 – Quality Management Systems**
- **ISO 17025:2016 – General Requirements for the Competency of Testing and Calibration Laboratories**
- **ANSI N42.22 - American National Standard - Traceability of Radioactive Sources to the National Institute of Standards and Technology (NIST) and Associated Instrument Quality Control**
    - Eckert & Ziegler do not produce their own reference material for their PTs. However, following this standard supports that their reference material is traceable to NIST. I believe this is a viable substitute for ISO 17034:2016 for radionucleotides.

Recommendation

It is my recommendation that Eckert & Ziegler is approved for use by WAI Hanford. They have accreditation from ANAB to ISO standards 17043, 147025, and 9001. They also provide PTs for isotopes and matrices that MAPEP does not provide. MAPEP also does not provide rapid-return PTs while Eckert & Ziegler does. Since Eckert and Ziegler does not produce the reference material for their PTs and their material is traceable to NIST (accredited by ANSI N42.22), they do not need to be ISO 17034 accredited.

WASHINGTON STATE DEPARTMENT OF ECOLOGY

ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM

SCOPE OF ACCREDITATION

WAI Hanford Laboratory (WHL) - 222-S

Richland, WA

is accredited for the analytes listed below using the methods indicated. Full accreditation is granted unless stated otherwise in a note. EPA is the U.S. Environmental Protection Agency. SM is "Standard Methods for the Examination of Water and Wastewater." SM refers to EPA approved method versions. ASTM is the American Society for Testing and Materials. USGS is the U.S. Geological Survey. AOAC is the Association of Official Analytical Chemists. Other references are described in notes.

Matrix/Analyte	Method	Notes
Non-Potable Water		
Acetate	EPA 300.0_2.1_1993	1
Bromide	EPA 300.0_2.1_1993	
Chloride	EPA 300.0_2.1_1993	
Fluoride	EPA 300.0_2.1_1993	
Formate	EPA 300.0_2.1_1993	1
Glycolate	EPA 300.0_2.1_1993	1
Nitrate	EPA 300.0_2.1_1993	
Nitrate + Nitrite	EPA 300.0_2.1_1993	
Nitrite	EPA 300.0_2.1_1993	
Orthophosphate	EPA 300.0_2.1_1993	
Oxalate	EPA 300.0_2.1_1993	1
Sulfate	EPA 300.0_2.1_1993	
Ammonium	EPA 300.7	
Solids, Total Dissolved	SM 2540 C-2011	
Solids, Total Suspended	SM 2540 D-2011	3
Total Organic Carbon	SM 5310 B-2011	3
Tritium	LA-508-122	
Solid and Chemical Materials		
Chromium, Hexavalent	EPA 7196A_1_1992	
Cyanide, Total	EPA 9014_ (7/14)	
pH	EPA 9040C_2004	2
pH	EPA 9045 D_2004	
Acetate	EPA 9056A_(02/07)	1
Bromide	EPA 9056A_(02/07)	
Chloride	EPA 9056A_(02/07)	
Fluoride	EPA 9056A_(02/07)	

Matrix/Analyte	Method	Notes
Solid and Chemical Materials		
Formate	EPA 9056A_(02/07)	1
Glycolate	EPA 9056A_(02/07)	1
Nitrate	EPA 9056A_(02/07)	
Nitrate + Nitrite	EPA 9056A_(02/07)	2
Orthophosphate	EPA 9056A_(02/07)	
Oxalate	EPA 9056A_(02/07)	1
Sulfate	EPA 9056A_(02/07)	
Sulfide	EPA 9215	2,3
Total Organic Carbon	SM 5310 B-2011	2,3
Aluminum	EPA 6010D_(7/14)	
Antimony	EPA 6010D_(7/14)	
Arsenic	EPA 6010D_(7/14)	
Barium	EPA 6010D_(7/14)	
Beryllium	EPA 6010D_(7/14)	
Bismuth	EPA 6010D_(7/14)	1
Boron	EPA 6010D_(7/14)	
Cadmium	EPA 6010D_(7/14)	
Calcium	EPA 6010D_(7/14)	
Chromium	EPA 6010D_(7/14)	
Cobalt	EPA 6010D_(7/14)	
Copper	EPA 6010D_(7/14)	
Hardness, Total (as CaCO3)	EPA 6010D_(7/14)	
Iron	EPA 6010D_(7/14)	
Lead	EPA 6010D_(7/14)	
Lithium	EPA 6010D_(7/14)	2,4
Magnesium	EPA 6010D_(7/14)	
Manganese	EPA 6010D_(7/14)	
Molybdenum	EPA 6010D_(7/14)	
Nickel	EPA 6010D_(7/14)	
Phosphorus, Total	EPA 6010D_(7/14)	2
Potassium	EPA 6010D_(7/14)	
Selenium	EPA 6010D_(7/14)	
Silica	EPA 6010D_(7/14)	
Silver	EPA 6010D_(7/14)	
Sodium	EPA 6010D_(7/14)	
Strontium	EPA 6010D_(7/14)	
Thallium	EPA 6010D_(7/14)	

Matrix/Analyte	Method	Notes
Solid and Chemical Materials		
Thorium	EPA 6010D_(7/14)	1
Titanium	EPA 6010D_(7/14)	1
Vanadium	EPA 6010D_(7/14)	
Zinc	EPA 6010D_(7/14)	
Zirconium	EPA 6010D_(7/14)	
Antimony	EPA 6020B_(7/14)	
Arsenic	EPA 6020B_(7/14)	
Barium	EPA 6020B_(7/14)	
Beryllium	EPA 6020B_(7/14)	
Cadmium	EPA 6020B_(7/14)	
Chromium	EPA 6020B_(7/14)	
Cobalt	EPA 6020B_(7/14)	
Lead	EPA 6020B_(7/14)	
Manganese	EPA 6020B_(7/14)	
Molybdenum	EPA 6020B_(7/14)	
Selenium	EPA 6020B_(7/14)	
Silver	EPA 6020B_(7/14)	
Thallium	EPA 6020B_(7/14)	
Tin	EPA 6020B_(7/14)	4
Total Uranium	EPA 6020B_(7/14)	
Uranium	EPA 6020B_(7/14)	3
Uranium 234	EPA 6020B_(7/14)	3,5
Uranium 235	EPA 6020B_(7/14)	3
Uranium 238	EPA 6020B_(7/14)	3
Vanadium	EPA 6020B_(7/14)	
Mercury	EPA 7470A_1_1994	
Mercury	EPA 7471B_(1/98)	
Aroclor-1016 (PCB-1016)	EPA 8082A_(2/07)	4
Aroclor-1221 (PCB-1221)	EPA 8082A_(2/07)	4
Aroclor-1232 (PCB-1232)	EPA 8082A_(2/07)	4
Aroclor-1242 (PCB-1242)	EPA 8082A_(2/07)	4
Aroclor-1248 (PCB-1248)	EPA 8082A_(2/07)	4
Aroclor-1254 (PCB-1254)	EPA 8082A_(2/07)	4
Aroclor-1260 (PCB-1260)	EPA 8082A_(2/07)	4
1,1,1-Trichloroethane	EPA 8260D_4_(6/18)	3
1,1,2,2-Tetrachloroethane	EPA 8260D_4_(6/18)	3
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	EPA 8260D_4_(6/18)	3

Matrix/Analyte	Method	Notes
Solid and Chemical Materials		
1,1,2-Trichloroethane	EPA 8260D_4_(6/18)	3
1,1-Dichloroethane	EPA 8260D_4_(6/18)	3
1,1-Dichloroethylene	EPA 8260D_4_(6/18)	3
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260D_4_(6/18)	3
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260D_4_(6/18)	3
1,2-Dichlorobenzene	EPA 8260D_4_(6/18)	3
1,2-Dichloroethane (Ethylene dichloride)	EPA 8260D_4_(6/18)	3
1,2-Dichloropropane	EPA 8260D_4_(6/18)	3
1,3-Dichlorobenzene	EPA 8260D_4_(6/18)	3
1,4-Dichlorobenzene	EPA 8260D_4_(6/18)	3
1,4-Dioxane (1,4- Diethyleneoxide)	EPA 8260D_4_(6/18)	3
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260D_4_(6/18)	3
2-Hexanone	EPA 8260D_4_(6/18)	3
2-Nitropropane	EPA 8260D_4_(6/18)	3
4-Methyl-2-pentanone (MIBK)	EPA 8260D_4_(6/18)	3
Acetone	EPA 8260D_4_(6/18)	3
Benzene	EPA 8260D_4_(6/18)	3
Bromodichloromethane	EPA 8260D_4_(6/18)	3
Bromoform	EPA 8260D_4_(6/18)	3
Carbon disulfide	EPA 8260D_4_(6/18)	3
Carbon tetrachloride	EPA 8260D_4_(6/18)	3
Chlorobenzene	EPA 8260D_4_(6/18)	3
Chlorodibromomethane	EPA 8260D_4_(6/18)	3
Chloroethane (Ethyl chloride)	EPA 8260D_4_(6/18)	3
Chloroform	EPA 8260D_4_(6/18)	3
cis-1,2-Dichloroethylene	EPA 8260D_4_(6/18)	3
cis-1,3-Dichloropropene	EPA 8260D_4_(6/18)	3
Cyclohexanone	EPA 8260D_4_(6/18)	3
Dichlorodifluoromethane (Freon-12)	EPA 8260D_4_(6/18)	3
Diethyl ether	EPA 8260D_4_(6/18)	3
Ethylbenzene	EPA 8260D_4_(6/18)	3
Hexachloroethane	EPA 8260D_4_(6/18)	3
Isobutyl alcohol (2-Methyl-1-propanol)	EPA 8260D_4_(6/18)	3
Isopropylbenzene	EPA 8260D_4_(6/18)	3
m+p-xylene	EPA 8260D_4_(6/18)	3
Methanol	EPA 8260D_4_(6/18)	3
Methyl bromide (Bromomethane)	EPA 8260D_4_(6/18)	3

Matrix/Analyte	Method	Notes
Solid and Chemical Materials		
Methyl chloride (Chloromethane)	EPA 8260D_4_(6/18)	3
Methyl tert-butyl ether (MTBE)	EPA 8260D_4_(6/18)	3
Methylene chloride (Dichloromethane)	EPA 8260D_4_(6/18)	3
n-Butyl alcohol (1-Butanol, n-Butanol)	EPA 8260D_4_(6/18)	3
n-Butylbenzene	EPA 8260D_4_(6/18)	3
o-Xylene	EPA 8260D_4_(6/18)	3
Pyridine	EPA 8260D_4_(6/18)	3
Styrene	EPA 8260D_4_(6/18)	3
Tetrachloroethylene (Perchloroethylene)	EPA 8260D_4_(6/18)	3
Tetrahydrofuran (THF)	EPA 8260D_4_(6/18)	3
Toluene	EPA 8260D_4_(6/18)	3
trans-1,2-Dichloroethylene	EPA 8260D_4_(6/18)	3
trans-1,3-Dichloropropylene	EPA 8260D_4_(6/18)	3
Trichloroethene (Trichloroethylene)	EPA 8260D_4_(6/18)	3
Trichlorofluoromethane (Freon 11)	EPA 8260D_4_(6/18)	3
Vinyl chloride	EPA 8260D_4_(6/18)	3
Xylene (total)	EPA 8260D_4_(6/18)	3
1,2,4-Trichlorobenzene	EPA 8270E_6_(6/18)	3
1,2-Dichlorobenzene	EPA 8270E_6_(6/18)	3
1,4-Dichlorobenzene	EPA 8270E_6_(6/18)	3
2,4,5-Trichlorophenol	EPA 8270E_6_(6/18)	3
2,4,6-Trichlorophenol	EPA 8270E_6_(6/18)	3
2,4-Dichlorophenol	EPA 8270E_6_(6/18)	3
2,4-Dimethylphenol	EPA 8270E_6_(6/18)	3
2,4-Dinitrophenol	EPA 8270E_6_(6/18)	3
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270E_6_(6/18)	3
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270E_6_(6/18)	3
2-Butoxyethanol	EPA 8270E_6_(6/18)	3
2-Chloronaphthalene	EPA 8270E_6_(6/18)	3
2-Chlorophenol	EPA 8270E_6_(6/18)	3
2-Ethoxyethanol (cellosolve)	EPA 8270E_6_(6/18)	3
2-Methyl-4,6-dinitrophenol	EPA 8270E_6_(6/18)	3
2-Methylnaphthalene	EPA 8270E_6_(6/18)	3
2-Methylphenol (o-Cresol)	EPA 8270E_6_(6/18)	3
2-Nitroaniline	EPA 8270E_6_(6/18)	3
2-Nitrophenol	EPA 8270E_6_(6/18)	3
3-Methylphenol (m-Cresol)	EPA 8270E_6_(6/18)	3

Matrix/Analyte	Method	Notes
Solid and Chemical Materials		
3-Nitroaniline	EPA 8270E_6_(6/18)	3
4-Bromophenyl phenyl ether (BDE-3)	EPA 8270E_6_(6/18)	3
4-Chloro-3-methylphenol	EPA 8270E_6_(6/18)	3
4-Chloroaniline	EPA 8270E_6_(6/18)	3
4-Chlorophenyl phenylether	EPA 8270E_6_(6/18)	3
4-Methylphenol (p-Cresol)	EPA 8270E_6_(6/18)	3
4-Nitroaniline	EPA 8270E_6_(6/18)	3
4-Nitrophenol	EPA 8270E_6_(6/18)	3
Acenaphthene	EPA 8270E_6_(6/18)	3
Acenaphthylene	EPA 8270E_6_(6/18)	3
Anthracene	EPA 8270E_6_(6/18)	3
Benzo(a)anthracene	EPA 8270E_6_(6/18)	3
Benzo(a)pyrene	EPA 8270E_6_(6/18)	3
Benzo(g,h,i)perylene	EPA 8270E_6_(6/18)	3
Benzo(k)fluoranthene	EPA 8270E_6_(6/18)	3
Benzo[b]fluoranthene	EPA 8270E_6_(6/18)	3
bis(2-Chloroethoxy)methane	EPA 8270E_6_(6/18)	3
bis(2-Chloroethyl) ether	EPA 8270E_6_(6/18)	3
bis(2-Chloroisopropyl) ether	EPA 8270E_6_(6/18)	3
Butyl benzyl phthalate	EPA 8270E_6_(6/18)	3
Butylated Hydroxy Toluene (BHT)	EPA 8270E_6_(6/18)	3
Chrysene	EPA 8270E_6_(6/18)	3
Di(2-ethylhexyl)phthalate	EPA 8270E_6_(6/18)	3
Dibenz(a,h) anthracene	EPA 8270E_6_(6/18)	3
Dibenzofuran	EPA 8270E_6_(6/18)	3
Diethyl phthalate	EPA 8270E_6_(6/18)	3
Dimethyl phthalate	EPA 8270E_6_(6/18)	3
Di-n-butyl phthalate	EPA 8270E_6_(6/18)	3
Di-n-octyl phthalate	EPA 8270E_6_(6/18)	3
Diphenylamine	EPA 8270E_6_(6/18)	3
Ethyl acetate	EPA 8270E_6_(6/18)	3
Fluoranthene	EPA 8270E_6_(6/18)	3
Fluorene	EPA 8270E_6_(6/18)	3
Hexachlorobenzene	EPA 8270E_6_(6/18)	3
Hexachlorobutadiene	EPA 8270E_6_(6/18)	3
Hexachlorocyclopentadiene	EPA 8270E_6_(6/18)	3
Hexachloroethane	EPA 8270E_6_(6/18)	3

Matrix/Analyte	Method	Notes
Solid and Chemical Materials		
Indeno(1,2,3-cd) pyrene	EPA 8270E_6_(6/18)	3
Isophorone	EPA 8270E_6_(6/18)	3
Naphthalene	EPA 8270E_6_(6/18)	3
Nitrobenzene	EPA 8270E_6_(6/18)	3
N-Nitrosodimethylamine	EPA 8270E_6_(6/18)	3
N-Nitroso-di-n-propylamine	EPA 8270E_6_(6/18)	3
N-Nitrosomorpholine	EPA 8270E_6_(6/18)	3
Pentachlorophenol	EPA 8270E_6_(6/18)	3
Phenanthrene	EPA 8270E_6_(6/18)	3
Phenol	EPA 8270E_6_(6/18)	3
Pyrene	EPA 8270E_6_(6/18)	3
Pyridine	EPA 8270E_6_(6/18)	3
Nickel-63	LA-508-122	
Technetium-99	LA-508-122	
Gross Alpha	LA-508-124	
Gross Beta	LA-508-124	
Strontium-90	LA-508-124	
Cesium 137	LA-508-167	
Cesium-134	LA-508-167	
Cobalt 60	LA-508-167	
Cobalt-57	LA-508-167	
Gamma Emitters	LA-508-167	
Iodine 129	LA-508-167	
Lead-212	LA-508-167	
Lead-214	LA-508-167	
Manganese-54	LA-508-167	
Potassium-40	LA-508-167	
Thorium-234	LA-508-167	
Zinc 65	LA-508-167	
Americium 241	LA-508-168	
Plutonium-238	LA-508-168	
Plutonium-239	LA-508-168	

Matrix/Analyte	Method	Notes

Accredited Parameter Note Detail

(1) Method modified to determine this analyte according to lab SOP. (2) Limited to aqueous samples. (3) Interim accreditation pending the successful completion of an on-site audit to verify method capabilities (WAC 173-50-100). (4) Provisional accreditation pending submittal of acceptable Proficiency Testing (PT) results (WAC 173-50-110). (5) Derived by calculation based on abundance relative to Uranium-235.

12/17/2020

Authentication Signature

Date

Rebecca Wood, Lab Accreditation Unit Supervisor