
Environmental Laboratory Accreditation Proficiency Test Study Requirements

In accordance with 25 Pa. Code § 252.501(a) (relating to proficiency test study requirements), the Department of Environmental Protection (Department) is providing the following list of fields of accreditation (FOA) and fields of proficiency testing (FoPT) for which proficiency test (PT) studies are available. To obtain or maintain a FOA, the Department requires that an environmental laboratory successfully participate in PT studies when available.

The following FoPT listing updates the previous listings published at 36 Pa.B. 8006 (December 30, 2006), 39 Pa.B. 1447 (March 21, 2009) and 39 Pa.B. 2636 (May 23, 2009). The new FoPT listings are effective immediately. Note that this listing of FoPTs includes additions to those previously printed on December 30, 2006, March 21, 2009, and May 23, 2009. Environmental laboratories seeking to maintain accreditation for an analyte that has been added to the tables by this notice must successfully complete a PT study for that analyte(s) by April 1, 2013. The new analytes are identified by an asterisk "*" after the analyte name.

Additionally, the Department has identified some analytes as multi-matrix analytes using the identifier

“DW/NPW” in the “Matrix” column of the tables. Laboratories seeking to obtain or maintain accreditation for these analytes must successfully complete a PT in either the Drinking Water or Non-Potable Water matrix, as specified by the appropriate footnote for each analyte, to obtain or maintain accreditation in both matrices. Environmental laboratories seeking to maintain accreditation for an analyte that has been designated as “DW/NPW” by this notice must successfully complete a PT study for that analyte by June 30, 2012.

Environmental laboratories seeking initial accreditation or laboratories seeking to add FOAs to their current Scope of Accreditation must successfully complete a PT study before accreditation is granted. Accredited environ-

mental laboratories must successfully complete at least one PT study for each FOA, where available, once every 12 months to maintain accreditation. Additional information regarding the proficiency test study requirements is in 25 Pa. Code Chapter 252, Subchapter E (relating to proficiency test study requirements).

Updates to the following additions will be published in the *Pennsylvania Bulletin* as revisions are made. Questions concerning this notice, including the lists of proficiency testing currently available, should be directed to Aaren S. Alger, Department of Environmental Protection, Bureau of Laboratories, (717) 346-8212, aaalger@pa.gov.

MICHAEL L. KRANCER,
Secretary

**Pennsylvania State (Chapter 252) Accreditation
Fields of Proficiency Testing
Drinking Water
Effective April 28, 2012**

<i>Matrix</i>	<i>Analyte</i> ⁹	<i>PTRL</i>	<i>Units</i>
	Microbiology		
DW	Total Coliform ¹	P/A	N/A
DW	Fecal Coliform ¹	P/A	N/A
DW	E.coli ¹	P/A	N/A
DW	Heterotrophic Plate Count (MF, PP) ²	2	CFU (MPN)/mL
DW	Heterotrophic Plate Count (MPN) ³	2	CFU (MPN)/mL
DW	E.coli (MF) ²	2	CFU (MPN)/100 mL
DW	E.coli (MPN) ³	2	CFU (MPN)/100 mL
DW	Fecal Coliform (MF) ²	2	CFU (MPN)/100 mL
DW	Fecal Coliform (MPN) ³	2	CFU (MPN)/100 mL
DW	Total Coliform (MF) ²	2	CFU (MPN)/100 mL
DW	Total Coliform (MPN) ³	2	CFU (MPN)/100 mL
	Trace Metals		
DW	Aluminum	104	µg/L
DW	Antimony	4.2	µg/L
DW	Arsenic	3.5	µg/L
DW	Barium	420	µg/L
DW	Beryllium	1.7	µg/L
DW	Boron	680	µg/L
DW	Cadmium	1.6	µg/L
DW	Chromium	8.5	µg/L
DW	Hexavalent Chromium (VI)*	4	µg/L
DW	Copper	45	µg/L
DW	Iron	80	µg/L
DW	Lead	3.5	µg/L
DW	Manganese	34	µg/L
DW	Mercury	0.35	µg/L
DW	Molybdenum	13	µg/L
DW	Nickel	8.5	µg/L
DW	Selenium	8	µg/L
DW	Silver	14	µg/L
DW	Thallium	1.4	µg/L
DW	Vanadium	42	µg/L
DW	Zinc	170	µg/L
DW/NPW	Cobalt ⁸	22	µg/L
DW/NPW	Strontium ⁸	22	µg/L
DW/NPW	Tin ⁸	790	µg/L
DW/NPW	Titanium ⁸	67	µg/L
	Nutrients		
DW	Nitrate as N	2.7	mg/L
DW	Nitrate + Nitrite as N	2.6	mg/L
DW	Nitrite as N	0.34	mg/L

<i>Matrix</i>	<i>Analyte</i> ⁹	<i>PTRL</i>	<i>Units</i>
DW	Orthophosphate as P	0.43	mg/L
DW/NPW	Ammonia as N ⁸	0.35	mg/L
DW/NPW	Total Kjeldahl-Nitrogen ⁸	1.1	mg/L
DW/NPW	Total Phosphorus ⁸	0.34	mg/L
Minerals			
DW	Chloride	17	mg/L
DW	Fluoride	0.9	mg/L
DW	Sulfate	21	mg/L
DW	Potassium	8.5	mg/L
DW	Sodium	11	mg/L
DW	Calcium	26	mg/L
DW	Magnesium	1.7	mg/L
DW	Ca Hardness as CaCO ₃	64	mg/L
DW	Total Hardness as CaCO ₃	71	mg/L
DW/NPW	Sulfide ⁸	0.1	mg/L
DW/NPW	Total Solids ⁸	106	mg/L
Inorganic Disinfection By-Products			
DW	Bromate	4.9	µg/L
DW	Bromide	42	µg/L
DW	Chlorate	42	µg/L
DW	Chlorite	70	µg/L
Misc Analytes			
DW	Alkalinity as CaCO ₃ /L	22	mg/L
DW	Asbestos	1	MF/L
DW	Corrosivity*	N/A	N/A
DW	Cyanide, Total	0.075	mg/L
DW	Dissolved Organic Carbon (DOC)*	1.1	mg/L
DW	Perchlorate*	3.2	ug/L
DW	pH	N/A	N/A
DW	Residual Free Chlorine	0.37	mg/L
DW	Silica as SiO ₂ *	4.2	mg/L
DW	Specific Conductance	117	µmhos/cm
DW	Surfactants - MBAS*	0.02	mg/L
DW	Total Residual Chlorine	0.4	mg/L
DW	Total Filterable Residue	80	mg/L
DW	Total Organic Carbon	1	mg/L
DW	Turbidity	0.36	NTU
DW	UV 254 Absorbance*	0.038	cm-1
DW/NPW	Acidity as CaCO ₃ /L ⁸	585	mg/L
DW/NPW	Non-Filterable Residue (TSS) ⁸	14	mg/L
DW/NPW	Total Phenolics (4AAP) ⁸	0.01	mg/L
DW/NPW	5-day BOD ⁸	4.5	mg/L
DW/NPW	Carbonaceous BOD ⁸	3.7	mg/L
DW/NPW	COD ⁸	17	mg/L
DW/NPW	n-Hexane Extractable Material (O&G) ^{8,14}	8.8	mg/L
DW/NPW	Non-Polar Extractable Material (TPH) ^{8,15}	7.6	mg/L
Regulated Volatile Organic Compounds (VOCs)⁷			
DW	Benzene ^{7,13}	1.2	µg/L
DW	Carbon Tetrachloride ^{7,13}	1.2	µg/L
DW	Chlorobenzene ^{7,13}	1.2	µg/L
DW	1,2-Dichlorobenzene ^{7,13}	1.2	µg/L
DW	1,4-Dichlorobenzene ^{7,13}	1.2	µg/L
DW	1,2-Dichloroethane ^{7,13}	1.2	µg/L
DW	1,1-Dichloroethylene ^{7,13}	1.2	µg/L
DW	Cis-1,2-Dichloroethylene ^{7,13}	1.2	µg/L
DW	Trans-1,2-Dichloroethylene ^{7,13}	1.2	µg/L
DW	Dichloromethane (Methylene Chloride) ^{7,13}	1.2	µg/L
DW	1,2 Dichloropropane ^{7,13}	1.2	µg/L
DW	Ethylbenzene ^{7,13}	1.2	µg/L
DW	Styrene ^{7,13}	1.2	µg/L
DW	Tetrachloroethylene ^{7,13}	1.2	µg/L
DW	Toluene ^{7,13}	1.2	µg/L
DW	1,1,1-Trichloroethane ^{7,13}	1.2	µg/L
DW	1,1,2-Trichloroethane ^{7,13}	1.2	µg/L

<i>Matrix</i>	<i>Analyte</i> ⁹	<i>PTRL</i>	<i>Units</i>
DW	Trichloroethylene ^{7,13}	1.2	µg/L
DW	1,2,4-Trichlorobenzene ^{7,13}	1.2	µg/L
DW	Vinyl Chloride ⁷	1.2	µg/L
DW	Total Xylenes ^{7,13}	1.2	µg/L
Low Level Volatile Organic Compounds (VOCs)¹⁶			
DW	1,2-Dibromo-3-chloropropane (DBCP) ¹⁶	0.06	µg/L
DW	Ethylene Dibromide (EDB) ¹⁶	0.03	µg/L
DW	1,2,3-Trichloropropane ¹⁶	0.12	µg/L
Total Trihalomethanes (TTHMs)⁴			
DW	Bromodichloromethane ⁴	4	µg/L
DW	Bromoform ⁴	4	µg/L
DW	Chlorodibromomethane ⁴	4	µg/L
DW	Chloroform ⁴	4	µg/L
Volatile Organic Compounds (VOCs)			
DW	Bromobenzene	1.2	µg/L
DW	Bromochloromethane	1.2	µg/L
DW	Bromomethane	3	µg/L
DW	n-Butylbenzene	1.2	µg/L
DW	Sec-Butylbenzene	1.2	µg/L
DW	Tert-Butylbenzene	1.2	µg/L
DW	Chloroethane	3	µg/L
DW	Chloromethane	3	µg/L
DW	2-Chlorotoluene	1.2	µg/L
DW	4-Chlorotoluene	1.2	µg/L
DW	Dibromomethane	1.2	µg/L
DW	1,3-Dichlorobenzene	1.2	µg/L
DW	Dichlorodifluoromethane	3	µg/L
DW	1,1-Dichloroethane	1.2	µg/L
DW	1,3-Dichloropropane	1.2	µg/L
DW	2,2-Dichloropropane	1.2	µg/L
DW	1,1-Dichloropropene	1.2	µg/L
DW	Cis-1,3-Dichloropropene	1.2	µg/L
DW	Trans-1,3-Dichloropropene	1.2	µg/L
DW	Hexachlorobutadiene	3	µg/L
DW	Isopropylbenzene	1.2	µg/L
DW	4-Isopropyltoluene	1.2	µg/L
DW	Methyl-tert-butylether (MTBE)	3	µg/L
DW	Naphthalene*	1.2	µg/L
DW	n-Propylbenzene	1.2	µg/L
DW	1,1,1,2-Tetrachloroethane	1.2	µg/L
DW	1,1,2,2-Tetrachloroethane	1.2	µg/L
DW	1,2,3-Trichlorobenzene	3	µg/L
DW	Trichlorofluoromethane	3	µg/L
DW	1,2,3-Trichloropropane	1.2	µg/L
DW	1,2,4-Trimethylbenzene	1.2	µg/L
DW	1,3,5-Trimethylbenzene	1.2	µg/L
Pesticides			
DW	Alachlor	1.1	µg/L
DW	Aldrin	0.08	µg/L
DW	Atrazine	1.1	µg/L
DW	Butachlor	1.1	µg/L
DW	Chlordane (technical)	1.1	µg/L
DW	Dieldrin	0.28	µg/L
DW	Endrin	0.14	µg/L
DW	Heptachlor	0.11	µg/L
DW	Heptachlor Epoxide (beta)	0.11	µg/L
DW	Hexachlorobenzene	0.22	µg/L
DW	Hexachlorocyclopentadiene	0.49	µg/L
DW	Lindane	0.11	µg/L
DW	Methoxychlor	1.1	µg/L
DW	Metolachlor	1.1	µg/L
DW	Metribuzin	1	µg/L
DW	Propachlor	0.55	µg/L
DW	Simazine	1.1	µg/L

<i>Matrix</i>	<i>Analyte</i> ⁹	<i>PTRL</i>	<i>Units</i>
DW	Toxaphene (total)	1.1	µg/L
DW	Trifluralin	0.55	µg/L
Carbamates & Vydate			
DW	Aldicarb	11	µg/L
DW	Aldicarb Sulfone	11	µg/L
DW	Aldicarb Sulfoxide	11	µg/L
DW	Carbaryl	11	µg/L
DW	Carbofuran	8.3	µg/L
DW	3-Hydroxycarbofuran	12	µg/L
DW	Methomyl	12	µg/L
DW	Oxamyl (Vydate)	11	µg/L
Chlorinated Acid Herbicides			
DW	Acifluorfen	5	µg/L
DW	2,4-D	5	µg/L
DW	2,4-DB	10	µg/L
DW	Dalapon	5	µg/L
DW	Dicamba	10	µg/L
DW	Dinoseb	3.1	µg/L
DW	Pentachlorophenol	0.5	µg/L
DW	Picloram	5	µg/L
DW	2,4,5-TP (Silvex)	5	µg/L
DW	2,4,5-T	5	µg/L
Other Herbicides			
DW	Diquat	4	µg/L
DW	Endothall	40	µg/L
DW	Glyphosate	300	µg/L
Haloacetic acids			
DW	Bromochloroacetic Acid	3	µg/L
DW	Dibromoacetic Acid ⁵	3	µg/L
DW	Dichloroacetic Acid ⁵	3	µg/L
DW	Monobromoacetic Acid ⁵	3	µg/L
DW	Monochloroacetic Acid ⁵	6	µg/L
DW	Trichloroacetic Acid ⁵	3	µg/L
Adipate/Phthalate			
DW	Di(2-Ethylhexyl) Adipate	2.5	µg/L
DW	Di(2-Ethylhexyl) Phthalate	2.4	µg/L
PCBs in Water⁶			
DW	PCBs as Decachlorobiphenyl ⁶	0.05	µg/L
DW	PCB Aroclor Identification ⁶	N/A	N/A
PAH			
DW	Benzo(a)pyrene	0.02	µg/L
Dioxin			
DW	2,3,7,8-Tetrachloro-dibenzodioxin	11	pg/L
Radiochemistry			
DW/NPW	Gross Alpha ¹²	3	pCi/L
DW/NPW	Gross Beta ¹²	3	pCi/L
DW/NPW	Iodine-131 ¹²	2.1	pCi/L
DW/NPW	Radium-226 ¹²	0.86	pCi/L
DW/NPW	Radium-228 ¹²	0.88	pCi/L
DW/NPW	Natural Uranium ¹²	1.2	pCi/L
DW/NPW	Uranium (mass) ¹²	1.8	ug/L
DW/NPW	Strontium-89 ¹²	3.8	pCi/L
DW/NPW	Strontium-90 ¹²	1.4	pCi/L
DW/NPW	Tritium ¹²	760	pCi/L
Gamma Emitters			
DW/NPW	Barium-133 ^{10,12}	6.4	pCi/L
DW/NPW	Cesium-134 ^{10,11,12}	6.6	pCi/L
DW/NPW	Cesium-137 ^{10,11,12}	16	pCi/L

<i>Matrix</i>	<i>Analyte</i> ⁹	<i>PTRL</i>	<i>Units</i>
DW/NPW	Cobalt-60 ^{10,12}	7.2	pCi/L
DW/NPW	Zinc-65 ^{10,12}	25	pCi/L

*) Identifies New Field of Proficiency Testing.

- 1) Laboratories analyzing qualitative sample sets for more than one method in a particular study shall obtain a unique ten-sample set for each method reported.
- 2) These limits are for quantitative methods using membrane filtration (MF) or pour-plate (PP) techniques.
- 3) These limits are for quantitative methods using most probable number (MPN) techniques.
- 4) Laboratories seeking or maintaining accreditation for DW TTHMs must meet PT requirements for all 4 TTHM FoPTs in the given study, by method.
- 5) Laboratories seeking or maintaining accreditation for DW HAA5 must meet PT requirements for 4 out of 5 HAA5 FoPTs in the given study, by method.
- 6) One sample in every study, containing one Aroclor, selected at random from among the Aroclors listed (1016, 1221, 1232, 1242, 1248, 1254 or 1260) for the analysis of PCBs as decachlorobiphenyl. Laboratories must analyze and report results for all Arochlors in an individual PT study. Incorrect identification or quantitation of one Arochlor will result in failure for the group.
- 7) Unless a fixed limit is specified, the acceptance limits for regulated volatiles are $\pm 20\%$ at $\geq 10\mu\text{g/L}$ or $< 40\%$ at $< 10\mu\text{g/L}$.
- 8) Laboratories seeking to obtain or maintain accreditation for these analytes in the DW matrix must successfully perform a PT in the Non-Potable Water Matrix, also known as a WP study.
- 9) All FoPTs must meet the design, verification, homogeneity, stability, and acceptance limits described in 40 CFR Part 141, V3 of the TNI Standard, and the TNI FoPT Tables.
- 10) Laboratories seeking or maintaining accreditation for Gamma (Photon) Emitters must meet PT requirements for all Gamma Emitter analytes in the FoPT in a given PT study, by technology/method (Barium-133, Cesium-134, Cesium-137, Cobalt-60, Zinc-65).
- 11) Laboratories seeking or maintaining accreditation for Radioactive Cesium must meet PT requirements for both Radioactive Cesium analytes in the FoPT in a given PT study, by technology/method (Cesium-134, Cesium-137).
- 12) Laboratories seeking to obtain or maintain accreditation for these analytes in the NPW matrix must successfully perform a PT in the Drinking Water Matrix, also known as a WS study.
- 13) These 20 VOCs constitute the USEPA's Group 1 VOCs. Laboratories seeking or maintaining accreditation for Group 1 VOCs must analyze and report results for all 20 Group 1 VOCs in a given study. Not Acceptable results for ≥ 5 compounds results in a Failure for all 20 compounds.
- 14) n-Hexane Extractable Material (HEM) per solvent extraction followed by gravimetric or infrared spectrometric analysis (Oil & Grease).
- 15) non-Polar Extractable Material per solvent extraction and Silica Gel Treated (SGT) followed by gravimetric or infrared spectrometric analysis (Total Petroleum Hydrocarbons).
- 16) The Low Level Analytes are specifically intended for technologies/methods that can achieve the listed PTRL. Laboratories analyzing routine environmental samples using technologies/methods that can achieve the listed PTRLs must analyze the Low Level Analyte PT samples.

**Pennsylvania State (Chapter 252) Accreditation
Fields of Proficiency Testing
Nonpotable Water
Effective April 28, 2012**

<i>Matrix</i>	<i>Analyte</i> ⁷	<i>PTRL</i>	<i>Units</i>
	Microbiology		
NPW	Total Coliform, MF	2	CFU/100mL
NPW	Fecal Coliform, MF	2	CFU/100mL
NPW	E.coli, MF	2	CFU/100mL
NPW	Enterococci, MF	2	CFU/100mL
NPW	Total Coliform, MPN	2	MPN/100 mL
NPW	Fecal Coliform, MPN	2	MPN/100 mL
NPW	E.coli, MPN	2	MPN/100 mL
NPW	Enterococci, MPN	2	MPN/100 mL
	Trace Metals		
NPW	Aluminum	130	$\mu\text{g/L}$
NPW	Antimony	55	$\mu\text{g/L}$
NPW	Arsenic	54	$\mu\text{g/L}$
NPW	Barium	86	$\mu\text{g/L}$

<i>Matrix</i>	<i>Analyte</i> ⁷	<i>PTRL</i>	<i>Units</i>
NPW	Beryllium	5.3	µg/L
NPW	Boron	660	µg/L
NPW	Cadmium	5.9	µg/L
NPW	Chromium, total	12	µg/L
NPW	Chromium VI	31	µg/L
DW/NPW	Cobalt ⁸	22	µg/L
NPW	Copper	32	µg/L
NPW	Iron	170	µg/L
NPW	Lead	54	µg/L
NPW	Manganese	60	µg/L
NPW	Mercury	1.2	µg/L
NPW	Molybdenum	45	µg/L
NPW	Nickel	65	µg/L
NPW	Selenium	67	µg/L
NPW	Silver	21	µg/L
DW/NPW	Strontium ⁸	22	µg/L
NPW	Thallium	21	µg/L
DW/NPW	Tin ⁸	790	µg/L
DW/NPW	Titanium ⁸	67	µg/L
NPW	Vanadium	47	µg/L
NPW	Zinc	83	µg/L
Demands			
DW/NPW	5-day BOD ⁸	4.5	mg/L
DW/NPW	Carbonaceous BOD ⁸	3.7	mg/L
DW/NPW	COD ⁸	17	mg/L
NPW	TOC	4.8	mg/L
Minerals			
NPW	Alkalinity, total (CaCO ₃)	6.8	mg/L
NPW	Bromide*	0.56	mg/L
NPW	Calcium	2.7	mg/L
NPW	Chloride	29	mg/L
NPW	Fluoride	0.13	mg/L
NPW	Calcium hardness as CaCO ₃	6.8	mg/L
NPW	Hardness, total (CaCO ₃)	8.4	mg/L
NPW	Magnesium	1.6	mg/L
NPW	Potassium	3	mg/L
NPW	Sodium	5.1	mg/L
NPW	Spec. Cond. (25°C)	170	µmhos/cm
NPW	Sulfate	2.8	mg/L
DW/NPW	Sulfide ⁸	0.1	mg/L
NPW	Total Dissolved Solids at 180°C	98	mg/L
DW/NPW	Total Solids ⁸	106	mg/L
Nutrients			
DW/NPW	Ammonia as N ⁸	0.35	mg/L
NPW	Nitrate as N	0.19	mg/L
NPW	Nitrate-nitrite as N	0.2	mg/L
NPW	Nitrite as N	0.28	mg/L
NPW	Orthophosphate as P	0.34	mg/L
DW/NPW	Total Kjeldahl-Nitrogen ⁸	1.1	mg/L
DW/NPW	Total Phosphorus ⁸	0.34	mg/L
Misc. Analytes			
DW/NPW	Acidity, as CaCO ₃ ^{8*}	585	mg/L
NPW	Color*	1.7	PC units
DW/NPW	Non-Filterable Residue (TSS) ⁸	14	mg/L
NPW	pH	N/A	N/A
NPW	Total Cyanide	0.01	mg/L
DW/NPW	Total Phenolics (4AAP) ⁸	0.01	mg/L
NPW	Total Residual Chlorine	0.36	mg/L
NPW	Settleable solids*	2.9	mL/L
NPW	Silica as SiO ₂ *	38	mg/L
NPW	Surfactants - MBAS	0.1	mg/L
NPW	Turbidity*	1.2	NTU
NPW	Volatile solids, Total*	41	mg/L

<i>Matrix</i>	<i>Analyte</i> ⁷	<i>PTRL</i>	<i>Units</i>
	Low Level Analytes 1		
NPW	Mercury ¹	9.7	ng/L
NPW	Total Residual Chlorine ¹	15	µg/L
	Volatile Aromatics		
NPW	Benzene	4.6	µg/L
NPW	Chlorobenzene	7.1	µg/L
NPW	1,2-Dichlorobenzene ²	4.9	µg/L
NPW	1,3-Dichlorobenzene ²	5.2	µg/L
NPW	1,4-Dichlorobenzene ²	4.9	µg/L
NPW	Ethylbenzene	5.8	µg/L
NPW	Naphthalene ^{2*}	6.3	µg/L
NPW	Toluene	4.9	µg/L
NPW	1,2,4-Trichlorobenzene ^{2*}	4.3	µg/L
NPW	Xylenes, total	10	µg/L
	Volatile Ketones/Ethers		
NPW	2-Hexanone*	4.4	µg/L
NPW	4-Methyl-2-pentanone (MIBK)	4.3	µg/L
NPW	Methyl tert-butyl ether (MTBE)*	9	µg/L
	Volatile Halocarbons		
NPW	Bromodichloromethane	5	µg/L
NPW	Bromoform	5.6	µg/L
NPW	Bromomethane	8	µg/L
NPW	Carbon tetrachloride	6	µg/L
NPW	Chloroethane	8	µg/L
NPW	Chloroform	8.1	µg/L
NPW	Chloromethane	8	µg/L
NPW	Dibromochloromethane	7.2	µg/L
NPW	1,1-Dichloroethane*	6.4	µg/L
NPW	1,2 Dichloroethane	6.8	µg/L
NPW	1,1-Dichloroethene	6.1	µg/L
NPW	Cis-1,2-Dichloroethene*	7	µg/L
NPW	Trans-1,2-Dichloroethene	3.6	µg/L
NPW	1,2-Dichloropropane	5.9	µg/L
NPW	Cis-1,3-Dichloropropene*	5.1	µg/L
NPW	Trans-1,3-Dichloropropene	3.9	µg/L
NPW	Methylene Chloride	5.8	µg/L
NPW	Styrene	13	µg/L
NPW	1,1,2,2-Tetrachloroethane	3.9	µg/L
NPW	Tetrachloroethene	4.3	µg/L
NPW	1,1,1-Trichloroethane	6.5	µg/L
NPW	1,1,2-Trichloroethane	17	µg/L
NPW	Trichloroethene	6.2	µg/L
NPW	Trichlorofluoromethane	8	µg/L
NPW	Vinyl chloride	8	µg/L
	Volatile Petroleum Hydrocarbons		
NPW	Gasoline range organics (GRO)*	55	µg/L
	Base/Neutrals		
NPW	Acenaphthene	5.6	µg/L
NPW	Acenaphthylene	3	µg/L
NPW	Anthracene	4.9	µg/L
NPW	Benzidine	20	µg/L
NPW	Benzo(a)anthracene	3.9	µg/L
NPW	Benzyl butyl phthalate	5	µg/L
NPW	Benzo(b)fluoranthene	5.8	µg/L
NPW	Benzo(k)fluoranthene	5	µg/L
NPW	Benzo(g,h,i)perylene	2.9	µg/L
NPW	Benzo(a)pyrene	6.4	µg/L
NPW	4-Bromophenyl-phenylether	8.1	µg/L
NPW	bis(2-Chloroethoxy)methane	3.6	µg/L
NPW	bis(2-Chloroethyl)ether	4.8	µg/L
NPW	bis(2-Chloroisopropyl) ether	9.6	µg/L
NPW	4-Chlorophenyl-phenylether	9.9	µg/L
NPW	2-Chloronaphthalene	5.4	µg/L

<i>Matrix</i>	<i>Analyte</i> ⁷	<i>PTRL</i>	<i>Units</i>
NPW	Chrysene	5.2	µg/L
NPW	Dibenzo(a,h)anthracene	4.9	µg/L
NPW	Dibenzofuran	11	µg/L
NPW	1,2-Dichlorobenzene ²	3	µg/L
NPW	1,3-Dichlorobenzene ²	4.5	µg/L
NPW	1,4-Dichlorobenzene ²	3	µg/L
NPW	3,3'-Dichlorobenzidine	10	µg/L
NPW	Diethyl phthalate	10	µg/L
NPW	Dimethyl phthalate	10	µg/L
NPW	Di-n-butyl phthalate	14	µg/L
NPW	2,4-Dinitrotoluene	5.3	µg/L
NPW	2,6-Dinitrotoluene	6.7	µg/L
NPW	Di-n-octyl phthalate	14	µg/L
NPW	bis(2-Ethylhexyl) phthalate	6.6	µg/L
NPW	Fluoranthene	14	µg/L
NPW	Fluorene	10	µg/L
NPW	Hexachlorobenzene	7.7	µg/L
NPW	Hexachlorobutadiene	5	µg/L
NPW	Hexachlorocyclopentadiene	10	µg/L
NPW	Hexachloroethane	5	µg/L
NPW	Indeno(1,2,3-cd)pyrene	4.3	µg/L
NPW	Isophorone	13	µg/L
NPW	2-Methylnaphthalene	3.5	µg/L
NPW	Naphthalene ²	10	µg/L
NPW	Nitrobenzene	7.2	µg/L
NPW	N-Nitrosodimethylamine	7.5	µg/L
NPW	N-Nitroso-di-n-propylamine	4.8	µg/L
NPW	N-Nitrosodiphenylamine	6.4	µg/L
NPW	Phenanthrene	15	µg/L
NPW	Pyrene	9.6	µg/L
NPW	1,2,4-Trichlorobenzene ²	5	µg/L
Acids			
NPW	4-Chloro-3-methylphenol	10	µg/L
NPW	2-Chlorophenol	10	µg/L
NPW	2,4-Dichlorophenol	11	µg/L
NPW	2,6-Dichlorophenol*	15	µg/L
NPW	2,4-Dimethylphenol	10	µg/L
NPW	2,4-Dinitrophenol	10	µg/L
NPW	2-Methyl-4,6-Dinitrophenol	14	µg/L
NPW	2-Methylphenol (o-Cresol)	9.5	µg/L
NPW	4-Methylphenol (p-Cresol) ³	5	µg/L
NPW	2-Nitrophenol	16	µg/L
NPW	4-Nitrophenol	10	µg/L
NPW	Phenol	10	µg/L
NPW	Pentachlorophenol	11	µg/L
NPW	2,4,5-Trichlorophenol	19	µg/L
NPW	2,4,6-Trichlorophenol	16	µg/L
PCBs in Water ⁴			
NPW	Aroclor 1016 ⁴	1.4	µg/L
NPW	Aroclor 1221 ⁴	0.13	µg/L
NPW	Aroclor 1232 ⁴	0.61	µg/L
NPW	Aroclor 1242 ⁴	1.4	µg/L
NPW	Aroclor 1248 ⁴	0.6	µg/L
NPW	Aroclor 1254 ⁴	0.64	µg/L
NPW	Aroclor 1260 ⁴	0.62	µg/L
Organochlorine Pesticides			
NPW	Aldrin	0.17	µg/L
NPW	alpha-BHC	0.6	µg/L
NPW	beta-BHC	0.77	µg/L
NPW	delta-BHC	0.57	µg/L
NPW	gamma-BHC (Lindane)	0.74	µg/L
NPW	alpha-Chlordane	0.43	µg/L
NPW	gamma-Chlordane	0.55	µg/L
NPW	Chlordane (total)	1.1	µg/L
NPW	4,4'-DDD	0.97	µg/L

<i>Matrix</i>	<i>Analyte</i> ⁷	<i>PTRL</i>	<i>Units</i>
NPW	4,4'-DDE	0.84	µg/L
NPW	4,4'-DDT	0.38	µg/L
NPW	Dieldrin	0.43	µg/L
NPW	Endosulfan I	0.83	µg/L
NPW	Endosulfan II	1.4	µg/L
NPW	Endosulfan sulfate	0.69	µg/L
NPW	Endrin	0.85	µg/L
NPW	Endrin aldehyde	0.93	µg/L
NPW	Endrin ketone*	2	µg/L
NPW	Heptachlor	0.33	µg/L
NPW	Heptachlor Epoxide (beta)	0.42	µg/L
NPW	Methoxychlor	0.4	µg/L
NPW	Toxaphene	2	µg/L
Herbicides			
NPW	2,4-D	0.2	µg/L
NPW	Dicamba	0.2	µg/L
NPW	2,4,5-T	0.2	µg/L
NPW	2,4,5-TP (Silvex)	0.2	µg/L
Low Level Polyaromatic Hydrocarbons (PAHs)¹			
NPW	Acenaphthene ^{1*}	0.79	µg/L
NPW	Acenaphthylene ^{1*}	0.73	µg/L
NPW	Anthracene ^{1*}	0.14	µg/L
NPW	Benzo(a)anthracene ^{1*}	0.2	µg/L
NPW	Benzo(a)pyrene ^{1*}	0.21	µg/L
NPW	Benzo(b)fluoranthene ^{1*}	0.25	µg/L
NPW	Benzo(g,h,i)perylene ^{1*}	0.18	µg/L
NPW	Benzo(k)fluoranthene ^{1*}	0.22	µg/L
NPW	Chrysene ^{1*}	0.23	µg/L
NPW	Dibenz(a,h)anthracene ^{1*}	0.1	µg/L
NPW	Fluoranthene ^{1*}	0.25	µg/L
NPW	Fluorene ^{1*}	0.74	µg/L
NPW	Indeno(1,2,3-cd)pyrene ^{1*}	0.2	µg/L
NPW	Naphthalene ^{1*}	0.56	µg/L
NPW	Phenanthrene ^{1*}	0.24	µg/L
NPW	Pyrene ^{1*}	0.28	µg/L
Petroleum Hydrocarbons			
NPW	Diesel range organics (DRO) *	80	µg/L
DW/NPW	n-Hexane Extractable Material (O&G) ^{5,8}	8.8	mg/L
DW/NPW	non-Polar Extractable Material (TPH) ^{6,8}	7.6	mg/L
Radiochemistry			
DW/NPW	Gross Alpha ¹¹	3	pCi/L
DW/NPW	Gross Beta ¹¹	3	pCi/L
DW/NPW	Iodine-131 ¹¹	2.1	pCi/L
DW/NPW	Radium-226 ¹¹	0.86	pCi/L
DW/NPW	Radium-228 ¹¹	0.88	pCi/L
DW/NPW	Natural Uranium ¹¹	1.2	pCi/L
DW/NPW	Uranium (mass) ¹¹	2	ug/L
DW/NPW	Strontium-89 ¹¹	3.8	pCi/L
DW/NPW	Strontium-90 ¹¹	1.4	pCi/L
DW/NPW	Tritium ¹¹	760	pCi/L
Gamma Emitters			
DW/NPW	Barium-133 ^{9,11}	6.4	pCi/L
DW/NPW	Cesium-134 ^{9,10,11}	6.6	pCi/L
DW/NPW	Cesium-137 ^{9,10,11}	16	pCi/L
DW/NPW	Cobalt-60 ^{9,11}	7.2	pCi/L
DW/NPW	Zinc-65 ^{9,11}	25	pCi/L

*) Identifies new FoPT.

1) The Low Level Analytes are specifically intended for technologies/methods that can achieve the listed PTRL. Laboratories analyzing routine environmental samples using technologies/methods that can achieve the listed PTRLs must analyze the Low Level Analyte PT samples.

2) Analysis required per volatile analytical technologies and solvent extraction/semivolatile analytical technologies.

- 3) Laboratories seeking or maintaining accreditation for Non-Potable Water 4-Methylphenol or the coeluting isomer pair of 3-Methylphenol and 4-Methylphenol must meet the PT requirements for this FoPT (4-Methylphenol).
- 4) Laboratories must analyze and report results for all Arochlors in an individual PT study. Incorrect identification or quantitation of one Arochlor will result in failure for the group.
- 5) n-Hexane Extractable Material (HEM) per solvent extraction followed by gravimetric or infrared spectrometric analysis (Oil & Grease).
- 6) non-Polar Extractable Material per solvent extraction and Silica Gel Treated (SGT) followed by gravimetric or infrared spectrometric analysis (Total Petroleum Hydrocarbons).
- 7) All FoPTs must meet the design, verification, homogeneity, stability, and acceptance limits described in V3 of the TNI Standard and the TNI FoPT Tables.
- 8) Laboratories seeking to obtain or maintain accreditation for these analytes in the DW matrix must successfully perform a PT in the Non-Potable Water Matrix, also known as a WP study.
- 9) Laboratories seeking or maintaining accreditation for Gamma (Photon) Emitters must meet PT requirements for all Gamma Emitter analytes in the FoPT in a given PT study, by technology/method (Barium-133, Cesium-134, Cesium-137, Cobalt-60, Zinc-65).
- 10) Laboratories seeking or maintaining accreditation for Radioactive Cesium must meet PT requirements for both Radioactive Cesium analytes in the FoPT in a given PT study, by technology/method (Cesium-134, Cesium-137).
- 11) Laboratories seeking to obtain or maintain accreditation for these analytes in the NPW matrix must successfully perform a PT in the Drinking Water Matrix, also known as a WS study.

**Pennsylvania State (Chapter 252) Accreditation
Fields of Proficiency Testing
Solid and Chemical Materials
Effective April 28, 2012**

<i>Matrix</i>	<i>Analyte</i> ⁶	<i>PTRL</i>	<i>Units</i>
	Trace Metals		
SOLIDS	Aluminum	100	mg/kg
SOLIDS	Antimony	8	mg/kg
SOLIDS	Arsenic	4	mg/kg
SOLIDS	Barium	10	mg/kg
SOLIDS	Beryllium	4	mg/kg
SOLIDS	Boron*	48	mg/kg
SOLIDS	Cadmium	4	mg/kg
SOLIDS	Calcium	150	mg/kg
SOLIDS	Chromium	4	mg/kg
SOLIDS	Chromium VI	4	mg/kg
SOLIDS	Cobalt	4	mg/kg
SOLIDS	Copper	4	mg/kg
SOLIDS	Iron	100	mg/kg
SOLIDS	Lead	4	mg/kg
SOLIDS	Magnesium	120	mg/kg
SOLIDS	Manganese	10	mg/kg
SOLIDS	Mercury	0.1	mg/kg
SOLIDS	Molybdenum	3	mg/kg
SOLIDS	Nickel	4	mg/kg
SOLIDS	Potassium	140	mg/kg
SOLIDS	Selenium	4	mg/kg
SOLIDS	Silver	2	mg/kg
SOLIDS	Sodium	15	mg/kg
SOLIDS	Strontium	4	mg/kg
SOLIDS	Thallium	4	mg/kg
SOLIDS	Tin	7.5	mg/kg
SOLIDS	Vanadium	4	mg/kg
SOLIDS	Zinc	10	mg/kg
	Minerals		
SOLIDS	Bromide*	1	mg/kg
SOLIDS	Chloride*	20	mg/kg
SOLIDS	Fluoride*	2.5	mg/kg
SOLIDS	Nitrate as N*	2.5	mg/kg
SOLIDS	Sulfate*	2.5	mg/kg
	Nutrients		
SOLIDS	Ammonia as N*	30	mg/kg
SOLIDS	Total Kjeldahl-Nitrogen*	40	mg/kg
SOLIDS	Total Phosphorus*	30	mg/kg

<i>Matrix</i>	<i>Analyte</i> ⁶	<i>PTRL</i>	<i>Units</i>
	Misc Analytes		
SOLIDS	Corrosivity (pH)	N/A	N/A
SOLIDS	Cyanide, total	2	mg/kg
SOLVENT	Ignitability (Flashpoint)	N/A	N/A
	Low Level Volatile Aromatics ¹		
SOLIDS	Benzene ¹	10	µg/kg
SOLIDS	Chlorobenzene ¹	10	µg/kg
SOLIDS	1,2-Dichlorobenzene ^{1,2}	8.9	µg/kg
SOLIDS	1,3-Dichlorobenzene ^{1,2}	5.1	µg/kg
SOLIDS	1,4-Dichlorobenzene ^{1,2}	7	µg/kg
SOLIDS	Ethylbenzene ¹	9.4	µg/kg
SOLIDS	Naphthalene ^{1,2}	6	µg/kg
SOLIDS	Styrene ^{1*}	24	µg/kg
SOLIDS	Toluene ¹	11	µg/kg
SOLIDS	1,2,4-Trichlorobenzene ^{1,2}	16	µg/kg
SOLIDS	Xylenes, total ¹	18	µg/kg
	Low Level Volatile Halocarbons ¹		
SOLIDS	Bromodichloromethane ¹	10	µg/kg
SOLIDS	Bromoform ¹	9.3	µg/kg
SOLIDS	Carbon tetrachloride ¹	9.9	µg/kg
SOLIDS	Chloroform ¹	11	µg/kg
SOLIDS	Dibromochloromethane ¹	9.9	µg/kg
SOLIDS	1,2-Dibromo-3-chloropropane (DBCP) ^{1*}	4	µg/kg
SOLIDS	1,2-Dibromoethane (EDB) ^{1 *}	24	µg/kg
SOLIDS	1,1-Dichloroethane ¹	11	µg/kg
SOLIDS	1,2-Dichloroethane ¹	12	µg/kg
SOLIDS	1,1-Dichloroethene ^{1*}	13	µg/kg
SOLIDS	cis-1,2-Dichloroethene ^{1*}	20	µg/kg
SOLIDS	trans-1,2-Dichloroethene ^{1*}	23	µg/kg
SOLIDS	Dichloromethane (Methylene chloride) ¹	9	µg/kg
SOLIDS	1,2-Dichloropropane ¹	12	µg/kg
SOLIDS	1,1,1,2-Tetrachloroethane ¹	12	µg/kg
SOLIDS	1,1,2,2-Tetrachloroethane ¹	8.9	µg/kg
SOLIDS	Tetrachloroethene ¹	8.3	µg/kg
SOLIDS	1,1,1-Trichloroethane ¹	9	µg/kg
SOLIDS	1,1,2-Trichloroethane ¹	13	µg/kg
SOLIDS	Trichloroethene ¹	9.7	µg/kg
SOLIDS	1,2,3-Trichloropropane ¹	8.3	µg/kg
	Low Level Volatile Ketone/Ethers ¹		
SOLIDS	Acetone ¹	20	µg/kg
SOLIDS	2-Butanone (Methyl ethyl ketone) ¹	10	µg/kg
SOLIDS	2-Hexanone ^{1*}	20	µg/kg
SOLIDS	4-Methyl-2-pentanone (MIBK) ¹	32	µg/kg
SOLIDS	Methyl-tert-butyl ether (MTBE) ¹	7.8	µg/kg
	Medium Level Volatile Aromatics		
SOLIDS	Benzene	656	µg/kg
SOLIDS	Chlorobenzene	648	µg/kg
SOLIDS	1,2-Dichlorobenzene ²	618	µg/kg
SOLIDS	1,3-Dichlorobenzene ²	500	µg/kg
SOLIDS	1,4-Dichlorobenzene ²	596	µg/kg
SOLIDS	Ethylbenzene	697	µg/kg
SOLIDS	Naphthalene ²	721	µg/kg
SOLIDS	Styrene*	1200	µg/kg
SOLIDS	Toluene	665	µg/kg
SOLIDS	1,2,4-Trichlorobenzene ²	1200	µg/kg
SOLIDS	Xylenes, total	931	µg/kg
	Medium Level Volatile Halocarbons		
SOLIDS	Bromodichloromethane	479	µg/kg
SOLIDS	Bromoform	415	µg/kg
SOLIDS	Carbon tetrachloride	480	µg/kg
SOLIDS	Chloroform	550	µg/kg
SOLIDS	Dibromochloromethane	642	µg/kg

<i>Matrix</i>	<i>Analyte</i> ⁶	<i>PTRL</i>	<i>Units</i>
SOLIDS	1,2-Dibromo-3-chloropropane (DBCP)*	1200	µg/kg
SOLIDS	1,2-Dibromoethane (EDB)*	1200	µg/kg
SOLIDS	Dibromomethane	1200	µg/kg
SOLIDS	1,1-Dichloroethane	676	µg/kg
SOLIDS	1,2-Dichloroethane	663	µg/kg
SOLIDS	1,1-Dichloroethene*	1000	µg/kg
SOLIDS	cis-1,2-Dichloroethene*	1200	µg/kg
SOLIDS	trans-1,2-Dichloroethene*	1200	µg/kg
SOLIDS	Dichloromethane (Methylene chloride)	435	µg/kg
SOLIDS	1,2-Dichloropropane	1400	µg/kg
SOLIDS	1,1,1,2-Tetrachloroethane	520	µg/kg
SOLIDS	1,1,2,2-Tetrachloroethane	455	µg/kg
SOLIDS	Tetrachloroethene	543	µg/kg
SOLIDS	1,1,1-Trichloroethane	530	µg/kg
SOLIDS	1,1,2-Trichloroethane	732	µg/kg
SOLIDS	Trichloroethene	638	µg/kg
SOLIDS	1,2,3-Trichloropropane	407	µg/kg
Medium Level Volatile Ketone/Ethers			
SOLIDS	Acetone	929	µg/kg
SOLIDS	2-Butanone (Methyl ethyl ketone)	808	µg/kg
SOLIDS	2-Hexanone*	2000	µg/kg
SOLIDS	4-Methyl-2-pentanone (MIBK)	1630	µg/kg
SOLIDS	Methyl-tert-butyl ether (MTBE)	1400	µg/kg
Volatile Petroleum Hydrocarbons			
SOLIDS	Gasoline Range Organics (GRO)	10	mg/kg
Base/Neutrals			
SOLIDS	Acenaphthene	100	µg/kg
SOLIDS	Acenaphthylene	100	µg/kg
SOLIDS	Anthracene	100	µg/kg
SOLIDS	Benzo(a)anthracene	100	µg/kg
SOLIDS	Benzo(b)fluoranthene	100	µg/kg
SOLIDS	Benzo(k)fluoranthene	100	µg/kg
SOLIDS	Benzo(g,h,i)perylene	100	µg/kg
SOLIDS	Benzo(a)pyrene	100	µg/kg
SOLIDS	4-Bromophenyl-phenylether	150	µg/kg
SOLIDS	Butylbenzylphthalate	150	µg/kg
SOLIDS	bis(2-Chloroethyl)ether*	150	µg/kg
SOLIDS	bis(2-Chloroethoxy)methane	150	µg/kg
SOLIDS	bis(2-Chloroisopropyl)ether	150	µg/kg
SOLIDS	2-Chloronaphthalene	100	µg/kg
SOLIDS	4-Chlorophenyl-phenylether	150	µg/kg
SOLIDS	Chrysene	100	µg/kg
SOLIDS	Dibenz(a,h)anthracene	100	µg/kg
SOLIDS	Dibenzofuran	150	µg/kg
SOLIDS	1,2-Dichlorobenzene ²	150	µg/kg
SOLIDS	1,3-Dichlorobenzene ²	150	µg/kg
SOLIDS	1,4-Dichlorobenzene ²	150	µg/kg
SOLIDS	Diethylphthalate	150	µg/kg
SOLIDS	Dimethylphthalate	150	µg/kg
SOLIDS	Di-n-butylphthalate	150	µg/kg
SOLIDS	2,4-Dinitrotoluene	150	µg/kg
SOLIDS	2,6-Dinitrotoluene	150	µg/kg
SOLIDS	Di-n-octylphthalate	150	µg/kg
SOLIDS	bis(2-Ethylhexyl)phthalate	150	µg/kg
SOLIDS	Fluoranthene	100	µg/kg
SOLIDS	Fluorene	100	µg/kg
SOLIDS	Hexachloroethane*	150	µg/kg
SOLIDS	Hexachlorobenzene	150	µg/kg
SOLIDS	Hexachlorobutadiene	150	µg/kg
SOLIDS	Indeno(1,2,3-cd)pyrene	100	µg/kg
SOLIDS	Isophorone*	150	µg/kg
SOLIDS	2-Methylnaphthalene*	100	µg/kg
SOLIDS	Naphthalene ²	100	µg/kg
SOLIDS	Nitrobenzene	150	µg/kg
SOLIDS	N-Nitroso-di-n-propylamine	150	µg/kg

<i>Matrix</i>	<i>Analyte</i> ⁶	<i>PTRL</i>	<i>Units</i>
SOLIDS	Phenanthrene	100	µg/kg
SOLIDS	Pyrene	100	µg/kg
SOLIDS	1,2,4-Trichlorobenzene ²	150	µg/kg
Acids			
SOLIDS	4-Chloro-3-methylphenol	150	µg/kg
SOLIDS	2-Chlorophenol	150	µg/kg
SOLIDS	2,4-Dichlorophenol	150	µg/kg
SOLIDS	2-Methylphenol (o-Cresol)	300	µg/kg
SOLIDS	4-Methylphenol (p-Cresol)* ⁴	300	µg/kg
SOLIDS	2-Nitrophenol	300	µg/kg
SOLIDS	4-Nitrophenol	300	µg/kg
SOLIDS	Phenol	150	µg/kg
SOLIDS	Pentachlorophenol	300	µg/kg
SOLIDS	2,4,5-Trichlorophenol	150	µg/kg
SOLIDS	2,4,6-Trichlorophenol	150	µg/kg
PCBs ³			
SOLIDS	Aroclor 1016 ³	0.1	mg/kg
SOLIDS	Aroclor 1221 ³	0.1	mg/kg
SOLIDS	Aroclor 1232 ³	0.1	mg/kg
SOLIDS	Aroclor 1242 ³	0.1	mg/kg
SOLIDS	Aroclor 1248 ³	0.1	mg/kg
SOLIDS	Aroclor 1254 ³	0.1	mg/kg
SOLIDS	Aroclor 1260 ³	0.1	mg/kg
PCBs in Oil ³			
OIL	Aroclor 1016 ³	1.7	mg/kg
OIL	Aroclor 1242 ³	1.7	mg/kg
OIL	Aroclor 1254 ³	1.6	mg/kg
OIL	Aroclor 1260 ³	2.4	mg/kg
Organochlorine Pesticides			
SOLIDS	Aldrin	5	µg/kg
SOLIDS	alpha-BHC	5	µg/kg
SOLIDS	beta-BHC	5	µg/kg
SOLIDS	delta-BHC	5	µg/kg
SOLIDS	gamma-BHC(Lindane)	5	µg/kg
SOLIDS	alpha-Chlordane	5	µg/kg
SOLIDS	gamma-Chlordane	5	µg/kg
SOLIDS	Chlordane, Technical	20	µg/kg
SOLIDS	4,4'-DDD	5	µg/kg
SOLIDS	4,4'-DDE	5	µg/kg
SOLIDS	4,4'-DDT	5	µg/kg
SOLIDS	Dieldrin	5	µg/kg
SOLIDS	Endosulfan I	5	µg/kg
SOLIDS	Endosulfan II	5	µg/kg
SOLIDS	Endosulfan sulfate	5	µg/kg
SOLIDS	Endrin	5	µg/kg
SOLIDS	Endrin aldehyde	5	µg/kg
SOLIDS	Endrin ketone	5	µg/kg
SOLIDS	Heptachlor	5	µg/kg
SOLIDS	Heptachlor epoxide (beta)	5	µg/kg
SOLIDS	Methoxychlor	5	µg/kg
SOLIDS	Toxaphene	20	µg/kg
Herbicides			
SOLIDS	2,4-D	10	µg/kg
SOLIDS	2,4-DB*	10	µg/kg
SOLIDS	Dicamba	10	µg/kg
SOLIDS	Dinoseb*	10	µg/kg
SOLIDS	Pentachlorophenol*	10	µg/kg
SOLIDS	2,4,5-T	10	µg/kg
SOLIDS	2,4,5-TP (Silvex)	10	µg/kg
Petroleum Hydrocarbons			
SOLIDS	Diesel Range Organics (DRO)	30	mg/kg
SOLIDS	n-Hexane Extractable Material (O&G) ⁵	30	mg/kg

<i>Matrix</i>	<i>Analyte</i> ⁶	<i>PTRL</i>	<i>Units</i>
	Low Level Polyaromatic Hydrocarbons (PAHs)¹		
SOLIDS	Acenaphthene ¹	15	µg/kg
SOLIDS	Acenaphthylene ¹	15	µg/kg
SOLIDS	Anthracene ¹	10	µg/kg
SOLIDS	Benzo(a)anthracene ¹	5	µg/kg
SOLIDS	Benzo(b)fluoranthene ¹	5	µg/kg
SOLIDS	Benzo(k)fluoranthene ¹	5	µg/kg
SOLIDS	Benzo(g,h,i)perylene ¹	10	µg/kg
SOLIDS	Benzo(a)pyrene ¹	5	µg/kg
SOLIDS	Chrysene ¹	5	µg/kg
SOLIDS	Dibenz(a,h)anthracene ¹	5	µg/kg
SOLIDS	Fluoranthene ¹	10	µg/kg
SOLIDS	Fluorene ¹	5	µg/kg
SOLIDS	Indeno(1,2,3-cd)pyrene ¹	5	µg/kg
SOLIDS	Naphthalene ¹	15	µg/kg
SOLIDS	Phenanthrene ¹	10	µg/kg
SOLIDS	Pyrene ¹	5	µg/kg

*) Identifies new FoPT.

1) The Low Level Analytes are specifically intended for technologies/methods that can achieve the listed PTRL. Laboratories analyzing routine environmental samples using technologies/methods that can achieve the listed PTRLs must analyze the Low Level Analyte PT samples.

2) Analysis required per volatile analytical technologies and solvent extraction/semivolatile analytical technologies.

3) Laboratories must analyze and report results for all Arochlors for a given matrix in an individual PT study. Incorrect identification or quantitation of one Arochlor will result in failure for the group.

4) Laboratories seeking to report data for Solid and Chemical Material analyte 4-Methylphenol or the coeluting isomer pair of 3-Methylphenol and 4-Methylphenol must report the data as 4-Methylphenol.

5) n-Hexane Extractable Material (HEM) per solvent extraction followed by gravimetric or infrared spectrometric analysis (Oil & Grease).

6) All FoPTs must meet the design, verification, homogeneity, stability, and acceptance limits described in V3 of the TNI Standard and the TNI FoPT Tables.

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