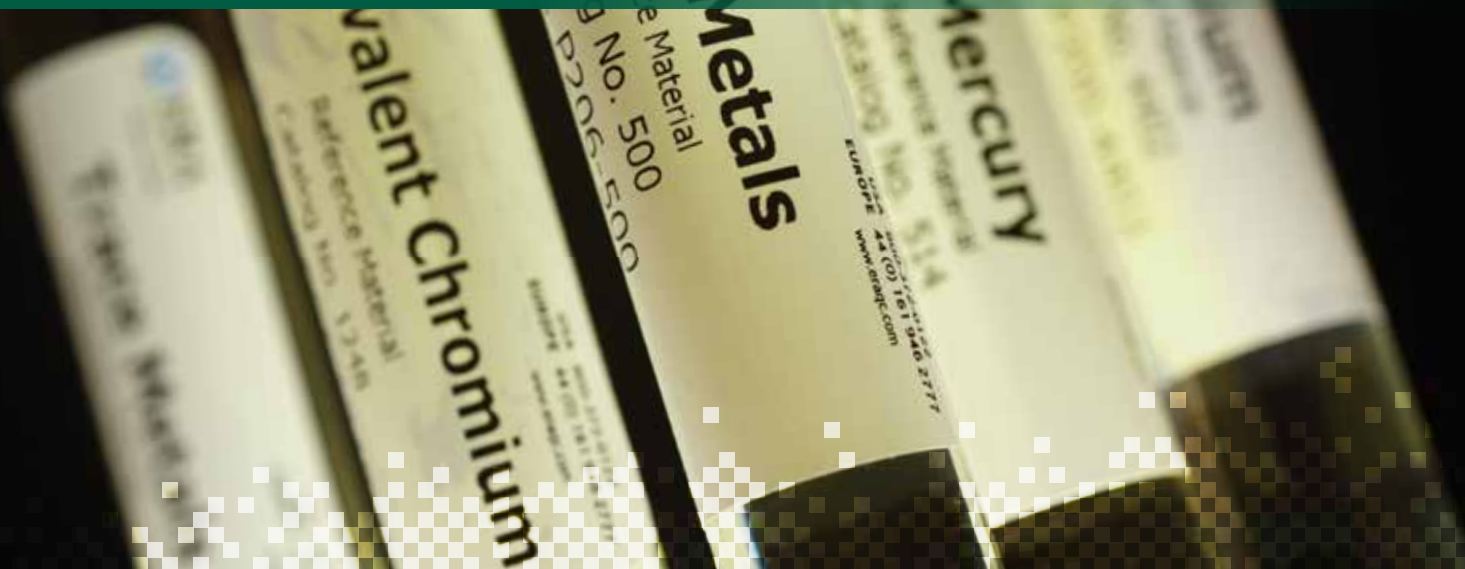


# WATER POLLUTION

Matrices with high concentrations of analytes for testing water pollution or waste water. Standards are based on requirements of the United States Environmental Protection Agency Clean Water Act and may be used to satisfy PT requirements worldwide.



## 2015 Water Pollution PT Scheme Schedule

	Scheme #	Opens	Closes
<b>Q</b>	WP 240	Jan 12	Feb 26
	WP 241	Feb 16	Apr 2
	WP 242	Mar 9	Apr 23
<b>Q</b>	WP 243	Apr 13	May 28
	WP 244	May 11	Jun 25
	WP 245	Jun 15	Jul 30
<b>Q</b>	WP 246	Jul 13	Aug 27
	WP 247	Aug 10	Sep 24
	WP 248	Sep 14	Oct 29
<b>Q</b>	WP 249	Oct 16	Nov 30
	WP 250	Nov 13	Dec 28
	WP 251	Dec 14	Jan 28, 2016

Schedule subject to change – see ERA’s website at [www.eraqc.com](http://www.eraqc.com)

## 2016 Water Pollution PT Scheme Schedule

	Scheme #	Opens	Closes
<b>Q</b>	WP 252	Jan 18	Mar 3
	WP 253	Feb 15	Mar 31
	WP 254	Mar 7	Apr 21
<b>Q</b>	WP 255	Apr 11	May 26
	WP 256	May 16	Jun 30
	WP 257	Jun 13	Jul 28
<b>Q</b>	WP 258	Jul 18	Sep 1
	WP 259	Aug 15	Sep 29
	WP 260	Sep 12	Oct 27
<b>Q</b>	WP 261	Oct 14	Nov 28
	WP 262	Nov 7	Dec 22
	WP 263	Dec 12	Jan 26, 2017

Schedule subject to change – see ERA’s website at [www.eraqc.com](http://www.eraqc.com)

Description	CRM	PT	QR	Page
Acidity	915	885 <b>Q</b>	915QR	16
Acids	712	834 <b>M</b>	712QR	18
Boron	919	886 <b>Q</b>	919QR	16
Base/Neutrals	711	833 <b>M</b>	711QR	18
Bromide	769	887 <b>Q</b>	769QR	16
BTEX & MTBE	760	643 <b>Q</b>	760QR	17
Carbamate Pesticides	908	899 <b>Q</b>	908QR	19
Chlordane	716	837 <b>M</b>	716QR	19
Chlorinated Acid Herbicides	718	829 <b>M</b>	718QR	17
Color	070	882 <b>Q</b>	070QR	15
Complex Nutrients	525	579 <b>M</b>	525QR	12
Cyanide & Phenol	502	588 <b>M</b>	502QR	15
Demand	516	578 <b>M</b>	516QR	13
Diesel Range Organics (DRO) in Water	764	641 <b>Q</b>	764QR	18
EDB/DBCP/TCP	692	562 <b>Q</b>	692QR	18
Gasoline Range Organics (GRO)	762	640 <b>Q</b>	762QR	17
Glycols in Water	401	271 <b>Q</b>	401QR	18
Hardness	507	580 <b>M</b>	507QR	12
HEM/SGT-HEM	519	489 <b>Q</b>	519QR	13
Hexavalent Chromium	984	898 <b>M</b>	984QR	14
Lithium	4992	4990 <b>*</b>	4992QR	14
Low-Level Mercury	931	896 <b>Q</b>	931QR	14
Low-Level Nitroaromatics & Nitramines	677	932 <b>Q</b>	677QR	18
Low-Level PAHs	715	836 <b>Q</b>	715QR	18
Low-Level Total Residual Chlorine (TRC)	917	881 <b>M</b>	917QR	16
Mercury	514	574 <b>M</b>	514QR	14
Minerals	506	581 <b>M</b>	506QR	12
Nitrite	770	888 <b>M</b>	770QR	12
Nitrogen Pesticides	674	487 <b>Q</b>	674QR	19

**CRM** – Certified Reference Material

**PT** – Proficiency Testing

**QR** – QuiK Response

All ERA WP PTs open monthly (**M**) or quarterly (**Q**) unless otherwise noted.

**\*** WP Lithium PTs open in February and August. WP Sulfite PTs open in January and July.

Quarterly months are January, April, July, and October.

Description	CRM	PT	QR	Page
Oil & Grease				see page 13 for options
Organochlorine Pesticides	713	831 <b>M</b>	713QR	19
Organophosphorous Pesticides	665	934 <b>Q</b>	665QR	19
PAHs-GC/GCMS	4882	4880 <b>Q</b>	4882QR	18
PCBs in Oil	729S	835S <b>M</b>	729SQR	17
PCBs in Water	734S	832S <b>M</b>	734SQR	17
pH	977	577 <b>M</b>	977QR	12
QC Plus				see pages 21-22 for options
Ready-to-Use CRMS				see page 20 for options
Settleable Solids	911	883 <b>M</b>	911QR	12
Silica	775	890 <b>Q</b>	775QR	15
Simple Nutrients	505	584 <b>M</b>	505QR	12
Solids	499	241 <b>M</b>	499QR	12
Solids Concentrate	4032	4030 <b>M</b>	4032QR	12
Surfactants-MBAS	776	892 <b>Q</b>	776QR	15
Sulfide	071	891 <b>M</b>	071QR	15
Sulfite	534	244 <b>*</b>	534QR	15
Tin & Titanium	517	573 <b>M</b>	517QR	14
Total Organic Halides (TOX)	670	895 <b>Q</b>	670QR	15
Total Phenolics (4-AAP)	515	589 <b>M</b>	515QR	15
Total Residual Chlorine (TRC)	501	587 <b>M</b>	501QR	16
Toxaphene	717	838 <b>M</b>	717QR	19
TPH in Water	600/601	642 <b>Q</b>	602QR	13
Trace Metals	500	586 <b>M</b>	500QR	14
Turbidity	777	893 <b>M</b>	777QR	15
Uranium	4402	4400 <b>Q</b>	4402QR	14
Volatile Aromatics	4452	4450 <b>Q</b>	4452QR	17
Volatiles	710	830 <b>M</b>	710QR	17
Volatile Solids	913	884 <b>M</b>	913QR	12

### QuiK Response PT

Need PT results fast? Available 52 weeks a year, QuiK Response PTs are on demand PTs that return final results within minutes of submitting your data online. In the US, please call ERA customer service at 800-372-0122 or 303-431-8454 to order. Outside of the US, please contact your authorized ERA sales partner to order.

# MINERALS/SOLIDS

## Minerals

CRM Cat. #506	PT M Cat. #581	QR Cat. #506QR
------------------	-------------------	-------------------

One 500 mL whole-volume bottle is ready to analyze.

Total alkalinity as CaCO <sub>3</sub> .....	25-400 mg/L
Chloride.....	35-275 mg/L
Fluoride.....	0.4-4 mg/L
Potassium.....	4-40 mg/L
Sodium.....	10-100 mg/L
Specific conductance at 25 °C.....	200-1200 µmhos/cm
Sulfate.....	5-125 mg/L
Total dissolved solids at 180 °C.....	140-800 mg/L
Total solids at 105 °C.....	140-800 mg/L

## Hardness

CRM Cat. #507	PT M Cat. #580	QR Cat. #507QR
------------------	-------------------	-------------------

One 500 mL whole-volume bottle is ready to analyze.

Calcium .....	10-100 mg/L
Calcium hardness as CaCO <sub>3</sub> .....	25-250 mg/L
Total hardness as CaCO <sub>3</sub> .....	40-415 mg/L
Magnesium.....	4-40 mg/L
Total suspended solids (TSS).....	20-100 mg/L

## pH

CRM Cat. #977	PT M Cat. #577	QR Cat. #977QR
------------------	-------------------	-------------------

One 250 mL whole-volume bottle is ready to analyze.

pH.....	5-10 units
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## Settleable Solids

CRM Cat. #911	PT M Cat. #883	QR Cat. #911QR
------------------	-------------------	-------------------

One 60 mL poly bottle with a solid yields 1 liter after dilution. Use with EPA method 160.5, Standard Methods 2540F, or other applicable method.

Settleable solids.....	5-50 mL/L
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## Volatile Solids

CRM Cat. #913	PT M Cat. #884	QR Cat. #913QR
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One 12 mL screw-cap vial with a solid yields 1 liter after dilution. Use with EPA method 160.4, Standard Methods 2540E, or other applicable method.

Total volatile solids .....	100-500 mg/L
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## Solids Concentrate

CRM Cat. #4032	PT M Cat. #4030	QR Cat. #4032QR
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One 24 mL screw-cap vial with a powder yields 1 liter of solution.

Total solids at 105 °C.....	140-800 mg/L
Total dissolved solids at 180 °C.....	140-800 mg/L
Total suspended solids (TSS).....	20-100 mg/L

## Solids

CRM Cat. #499	PT M Cat. #241	QR Cat. #499QR
------------------	-------------------	-------------------

One 500 mL whole-volume bottle is ready to analyze.

Total solids at 105 °C.....	140-800 mg/L
Total dissolved solids at 180 °C.....	140-800 mg/L
Total suspended solids (TSS).....	20-100 mg/L

# NUTRIENTS

## Simple Nutrients

CRM Cat. #505	PT M Cat. #584	QR Cat. #505QR
------------------	-------------------	-------------------

One 15 mL screw-cap vial yields up to 2 liters after dilution.

Ammonia as N.....	1-20 mg/L
Nitrate as N.....	2-25 mg/L
Nitrate plus nitrite as N.....	2.5-25 mg/L
ortho-Phosphate as P.....	0.5-5.5 mg/L

## Complex Nutrients

CRM Cat. #525	PT M Cat. #579	QR Cat. #525QR
------------------	-------------------	-------------------

One 15 mL screw-cap vial yields up to 2 liters after dilution.

Total Kjeldahl Nitrogen as N.....	3-35 mg/L
Total phosphorus as P.....	0.5-10 mg/L

## Nitrite

CRM Cat. #770	PT M Cat. #888	QR Cat. #770QR
------------------	-------------------	-------------------

One 15 mL screw-cap vial yields up to 2 liters after dilution.

Nitrite as N.....	0.4-4 mg/L
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# OIL & GREASE/TOTAL PETROLEUM HYDROCARBONS

▶▶▶ When ordering Oil & Grease or Total Petroleum Hydrocarbons (TPH) PTs, please specify if you need a sample compatible with SPE.

## Oil & Grease

**CRM**  
Cat. #504

One 250 mL whole-volume bottle is ready to analyze.  
Oil & Grease ..... 20-200 mg/bottle

## Oil & Grease Concentrate

<b>CRM</b> Cat. #4122	<b>PT M</b> Cat. #4120	<b>QR</b> Cat. #4122QR
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One 24 mL screw-cap vial yields up to 2 liters after dilution. Use with EPA method 1664, or other applicable method. Gravimetric analysis only.  
Oil & Grease ..... 20-200 mg/L

## 1 Liter Oil & Grease

<b>CRM</b> Cat. #518	<b>PT M</b> Cat. #582	<b>QR</b> Cat. #518QR
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One liter whole-volume glass bottle with a 33-430 thread is ready to analyze. For gravimetric and IR analyses.  
Oil & Grease ..... 20-200 mg/L

## 1 Liter Boston Round Oil & Grease

<b>CRM</b> Cat. #818	<b>PT M</b> Cat. #582	<b>QR</b> Cat. #818QR
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One liter whole-volume glass bottle with a 33-400 thread is ready to analyze. For gravimetric and IR analyses.  
Oil & Grease ..... 20-200 mg/L

## HEM/SGT-HEM

<b>CRM</b> Cat. #519	<b>PT Q</b> Cat. #489	<b>QR</b> Cat. #519QR
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One 5 mL flame-sealed ampule yields up to 2 liters after dilution. Use with EPA method 1664, or other applicable method to measure hexane extractable material (HEM) and silica gel treated-HEM. Contains both hexadecane and stearic acid. Note: If a NELAC compliant PT is required, use Cat. #582 or Cat. #4120.

Hexane extractable material..... 5-100 mg/L  
Silica gel treated-HEM..... 5-100 mg/L

## Total Petroleum Hydrocarbons (TPH) in Water

<b>CRM</b> Cat. #600	<b>PT Q</b> Cat. #642	<b>QR</b> Cat. #602QR
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One liter whole-volume bottle is ready to analyze for TPH without interfering fatty acids. Use with EPA methods 418.1, 1664, 5520, or other applicable method.  
Total Petroleum Hydrocarbons..... 20-200 mg/L

## Total Petroleum Hydrocarbons (TPH) in Water

<b>CRM</b> Cat. #601	<b>PT Q</b> Cat. #642	<b>QR</b> Cat. #602QR
-------------------------	--------------------------	--------------------------

One liter whole-volume bottle is ready to analyze for TPH in the presence of interfering fatty acids. Use with EPA methods 418.1, 1664, 5520, or other applicable method.  
Total Petroleum Hydrocarbons..... 20-200 mg/L

## DEMAND

### Demand

<b>CRM</b> Cat. #516	<b>PT M</b> Cat. #578	<b>QR</b> Cat. #516QR
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One 15 mL screw-cap vial yields up to 2 liters after dilution.  
5-day BOD ..... 18-230 mg/L  
Carbonaceous BOD..... 18-230 mg/L  
COD ..... 30-250 mg/L  
TOC..... 6-100 mg/L

# METALS

## Trace Metals

CRM Cat. #500	PT <sup>M</sup> Cat. #586	QR Cat. #500QR
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One 15 mL screw-cap vial yields up to 1 liter after dilution. Use with AA, ICP-OES or ICP-MS and selected colorimetric methods.

Aluminum .....	200-4,000 µg/L
Antimony .....	90-900 µg/L
Arsenic .....	90-900 µg/L
Barium .....	100-2,500 µg/L
Beryllium .....	50-500 µg/L
Boron .....	800-2,000 µg/L
Cadmium .....	100-1,000 µg/L
Chromium .....	100-1,000 µg/L
Cobalt .....	100-1,000 µg/L
Copper .....	100-1,000 µg/L
Iron .....	200-4,000 µg/L
Lead .....	100-1,500 µg/L
Manganese .....	200-2,000 µg/L
Molybdenum .....	60-600 µg/L
Nickel .....	200-2,000 µg/L
Selenium .....	100-1,000 µg/L
Silver .....	100-1,000 µg/L
Strontium .....	50-500 µg/L
Thallium .....	80-800 µg/L
Vanadium .....	50-2,000 µg/L
Zinc .....	300-2,000 µg/L



## Mercury

CRM Cat. #514	PT <sup>M</sup> Cat. #574	QR Cat. #514QR
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One 15 mL screw-cap vial yields up to 1 liter after dilution. Analyze for total mercury.  
Mercury, total..... 3-30 µg/L

## Low-Level Mercury

CRM Cat. #931	PT <sup>Q</sup> Cat. #896	QR Cat. #931QR
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One 5 mL flame-sealed ampule yields up to 4 liters after dilution. Use with EPA 1631, or other sensitive mercury analysis methods.

Mercury, total.....	20-100 ng/L
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*ERA Low-Level Mercury is also available during February and March WPPT schemes.*

## Hexavalent Chromium

CRM Cat. #984	PT <sup>M</sup> Cat. #898	QR Cat. #984QR
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One 15 mL screw-cap vial yields up to 2 liters after dilution. Use with IC or colorimetric methods.

Hexavalent chromium.....	90-900 µg/L
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## Tin and Titanium

CRM Cat. #517	PT <sup>M</sup> Cat. #573	QR Cat. #517QR
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One 15 mL screw-cap vial yields up to 1 liter after dilution. Use with AA, ICP-OES or ICP-MS methods.

Tin.....	200-2,000 µg/L
Titanium .....	60-300 µg/L

## Uranium

CRM Cat. #4402	PT <sup>Q</sup> Cat. #4400	QR Cat. #4402QR
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One 15 mL screw-cap vial yields up to 1 liter after dilution.

Uranium .....	25-200 µg/L
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## Lithium

CRM Cat. #4992	PT <sup>*</sup> Cat. #4990	QR Cat. #4992QR
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One 15 mL screw-cap vial yields up to 2 liters after dilution. Designed for the Ohio VAP program.

Lithium.....	50-500 µg/L
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**\*** ERA WP Lithium PTs open in February and August.

## PHYSICAL PROPERTY

### Color

CRM	PT <b>Q</b>	QR
Cat. #070	Cat. #882	Cat. #070QR

One 125 mL whole-volume bottle is ready to analyze. Use with EPA methods 110.1, 110.2, and 110.3, Standard Methods 2120B, 2120C, 2120E, or other applicable method.

Color.....10-75 PC units

### Turbidity

CRM	PT <b>M</b>	QR
Cat. #777	Cat. #893	Cat. #777QR

One 15 mL screw-cap vial yields up to 1 liter after dilution. Use with nephelometric methods.

Turbidity.....2-30 NTU

## MISCELLANEOUS CHEMISTRY

### Cyanide & Phenol

CRM	PT <b>M</b>	QR
Cat. #502	Cat. #588	Cat. #502QR

One 15 mL screw-cap vial yields up to 2 liters after dilution. The CRM is also certified for Phenol at 0.05-5 mg/L. For a Total Phenolics PT, order Cat #589.

Total Cyanide.....0.1-1 mg/L

Amenable Cyanide.....0.1-1 mg/L

### Total Organic Halides (TOX)

CRM	PT <b>Q</b>	QR
Cat. #670	Cat. #895	Cat. #670QR

One 2 mL flame-sealed ampule yields up to 2 liters after dilution. Analyze for total organic halides with adsorption pyrolysis titrimetric methods.

TOX.....300-1,500 µg/L

### Total Phenolics (4-AAP)

CRM	PT <b>M</b>	QR
Cat. #515	Cat. #589	Cat. #515QR

One 2 mL flame-sealed ampule yields up to 2 liters after dilution. Analyze for total phenolic compounds by 4-AAP methods.

Total Phenolics by 4-AAP.....0.5-5 mg/L

### Silica

CRM	PT <b>Q</b>	QR
Cat. #775	Cat. #890	Cat. #775QR

One 60 mL poly bottle yields up to 1 liter after dilution. Analyze for silica as SiO<sub>2</sub> with colorimetric or ICP methods.

Silica as SiO<sub>2</sub>.....50-250 mg/L

### Sulfide

CRM	PT <b>M</b>	QR
Cat. #071	Cat. #891	Cat. #071QR

One 10 mL flame-sealed ampule yields up to 1 liter after dilution. Preserved sample is guaranteed stable. Analyze for sulfide by titrimetric or colorimetric methods or ISE.

Sulfide.....2-10 mg/L

### Sulfite

CRM	PT <b>*</b>	QR
Cat. #534	Cat. #244	Cat. #534QR

One 10 mL concentrate yields up to 2 liters after dilution.

Sulfite.....10-250 mg/L

\* ERA WP Sulfite PTs open in January and July.

### Surfactants-MBAS

CRM	PT <b>Q</b>	QR
Cat. #776	Cat. #892	Cat. #776QR

One 15 mL screw-cap vial yields up to 2 liters after dilution. Analyze for Surfactants-MBAS with EPA method 425.1, or other applicable method.

Surfactants-MBAS.....0.2-1 mg/L

## MISCELLANEOUS CHEMISTRY

### Acidity

<b>CRM</b> Cat. #915	<b>PT Q</b> Cat. #885	<b>QR</b> Cat. #915QR
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One 250 mL whole-volume bottle is ready to analyze. Designed for use with titrimetric methods to a pH endpoint of 8.3 S.U.

Acidity as CaCO<sub>3</sub>.....650-1,800 mg/L

### Boron

<b>CRM</b> Cat. #919	<b>PT Q</b> Cat. #886	<b>QR</b> Cat. #919QR
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One unpreserved 60 mL poly bottle yields in excess of 2 liters after dilution. Designed for colorimetric methods.

Boron.....800-2000 µg/L

### Bromide

<b>CRM</b> Cat. #769	<b>PT Q</b> Cat. #887	<b>QR</b> Cat. #769QR
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One 15 mL screw-cap vial yields up to 2 liters after dilution. Use with ion chromatography or colorimetric methods.

Bromide.....1-10 mg/L

### Total Residual Chlorine (TRC)

<b>CRM</b> Cat. #501	<b>PT M</b> Cat. #587	<b>QR</b> Cat. #501QR
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One 2 mL flame-sealed ampule yields up to 2 liters after dilution. Use with titrimetric or colorimetric methods.

Total Residual Chlorine.....0.5-3 mg/L

### Low-Level Total Residual Chlorine (TRC)

<b>CRM</b> Cat. #917	<b>PT M</b> Cat. #881	<b>QR</b> Cat. #917QR
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Designed for testing at low µg/L levels. One 2 mL flame-sealed ampule yields up to 2 liters after dilution. Use with sensitive titrimetric or colorimetric methods.

Total Residual Chlorine.....75-250 µg/L



Studies

Reports

Statistics

Resources

Search for studies



Customer Number  
E667501

The screenshot displays four study progress cards. Each card shows the study ID, dates, and completion status. WP-227, RAD-97, and MRAD-207 are at 0 out of 4 steps completed, while WS-647 is 'Study completed'. Each card has an 'ENTER/UPDATE DATA' button, and the WS-647 card also has 'VIEW SUMMARY' and 'UPDATE DATA' buttons.

Welcome to eData

## eDATA 2.0: The Next Evolution of PT Informatics Arrives in 2015.

QR-021714TES  
(03/05/2014 - 04/04/2014)

SOIL-83(08/01/2014 - 09/12/2014)

Study begins in  
65 days

WP-221(08/08/2014 - 09/15/2014)

Study begins in  
72 days

## VOLATILES

## Volatiles

CRM Cat. #710	PT <b>M</b> Cat. #830	QR Cat. #710QR
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One 2 mL flame-sealed ampule yields in excess of 200 mL after dilution. Use with EPA methods 601, 602, 8021, 624, 8260, or other applicable method. Contains a subset of the analytes listed below at 5-300 µg/L.

Acetone	(DBCP)	4-Methyl-2-pentanone (MIBK)
Acetonitrile	1,2-Dibromoethane (EDB)	Methylene chloride
Acrolein	Dibromomethane	Naphthalene
Acrylonitrile	1,2-Dichlorobenzene	Nitrobenzene
Benzene	1,3-Dichlorobenzene	n-Propylbenzene
Bromobenzene	1,4-Dichlorobenzene	Styrene
Bromochloromethane	Dichlorodifluoromethane	1,1,1,2-Tetrachloroethane
Bromodichloromethane	1,1-Dichloroethane	1,1,2,2-Tetrachloroethane
Bromoform	1,2-Dichloroethane	Tetrachloroethene
Bromomethane	cis-1,2-Dichloroethene	Toluene
2-Butanone (MEK)	1,1-Dichloroethene	1,2,3-Trichlorobenzene
n-Butylbenzene	trans-1,2-Dichloroethene	1,2,4-Trichlorobenzene
sec-Butylbenzene	1,3-Dichloropropane	1,1,1-Trichloroethane
tert-Butylbenzene	1,2-Dichloropropane	1,1,2-Trichloroethane
Carbon disulfide	2,2-Dichloropropane	Trichloroethene
Carbon tetrachloride	cis-1,3-Dichloropropene	Trichlorofluoromethane
Chlorobenzene	1,1-Dichloropropene	1,2,3-Trichloropropane
Chlorodibromomethane	trans-1,3-Dichloropropene	1,2,4-Trimethylbenzene
Chloroethane	Ethylbenzene	1,3,5-Trimethylbenzene
2-Chloroethyl vinyl ether	Hexachlorobutadiene	Vinyl acetate
Chloroform	Hexachloroethane	Vinyl chloride
Chloromethane	2-Hexanone	m&p Xylene
2-chlorotoluene	Isopropylbenzene	o-Xylene
4-chlorotoluene	p-Isopropyltoluene	Xylenes, total
1,2-Dibromo-3-chloropropane	Methyl tert-butyl ether (MTBE)	

## Volatile Aromatics

CRM Cat. #4452	PT <b>Q</b> Cat. #4450	QR Cat. #4452QR
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One 2 mL flame-sealed ampule yields in excess of 200 mL after dilution. Use with EPA methods 602, 8021, or other applicable method. Each standard contains all listed analytes at 5-300 µg/L after dilution.

Benzene	Ethylbenzene	1,3,5-Trimethylbenzene
Chlorobenzene	Naphthalene	m&p Xylene
1,2-Dichlorobenzene	Toluene	o-Xylene
1,3-Dichlorobenzene	1,2,4-Trichlorobenzene	Xylenes, total
1,4-Dichlorobenzene	1,2,4-Trimethylbenzene	

## BTEX &amp; MTBE in Water

CRM Cat. #760	PT <b>Q</b> Cat. #643	QR Cat. #760QR
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One 2 mL flame-sealed ampule yields in excess of 200 mL after dilution. Use with EPA methods 602, 8021, or other applicable method. Includes all BTEX compounds and MTBE at 5-300 µg/L after dilution.

## Gasoline Range Organics (GRO) in Water

CRM Cat. #762	PT <b>Q</b> Cat. #640	QR Cat. #762QR
------------------	--------------------------	-------------------

One 2 mL flame-sealed ampule yields up to 2 liters after dilution. Use with both purge & trap and modified EPA 8015 GC/FID methods or other applicable methods to test for GRO at 400-4,000 µg/L. Also use to test for BTEX in gasoline.

## HERBICIDES

## Chlorinated Acid Herbicides

CRM Cat. #718	PT <b>M</b> Cat. #829	QR Cat. #718QR
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One 2 mL flame-sealed ampule yields up to 2 liters after dilution. Use with EPA methods 615, 8151, or other applicable methods. Contains a subset of the analytes or other applicable methods listed below at 2-10 µg/L (except MCPA and MCPP at 10-100 µg/L).

*Note: 4-nitrophenol and pentachlorophenol are not within the EPA/NELAC range. Use the Acids standard (page 13) for these compounds in the EPA/NELAC range.*

Acifluorfen	Dalapon	MCPP
Bentazone	Dicamba	4-Nitrophenol
Chloramben	3,5-Dichlorobenzoic acid	Pentachlorophenol
2,4-D	Dichlorprop	Picloram
2,4-DB	Dinoseb	2,4,5-T
Dacthal diacid (DCPA)	MCPA	2,4,5-TP (Silvex)

## PCBs

## PCBs in Water

CRM Cat. #734S	PT <b>M</b> Cat. #832S	QR Cat. #734SQR
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One 2 mL flame-sealed ampule yields up to 2 liters after dilution. Use with EPA methods 608, 8082, or other applicable method. Contains a different Aroclor, randomly selected from the list below at 2-10 µg/L.

Aroclor 1016	Aroclor 1242	Aroclor 1254
Aroclor 1221	Aroclor 1248	Aroclor 1260
Aroclor 1232		

## PCBs in Oil

CRM Cat. #729S	PT <b>M</b> Cat. #835S	QR Cat. #729SQR
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One 10 mL flame-sealed ampule is ready to analyze. Use with EPA method 8082, or other applicable method. Contains a different Aroclor, randomly selected from the list below at 12-50 mg/kg.

Aroclor 1016	Aroclor 1254	Aroclor 1260
Aroclor 1242		



## SEMIVOLATILES

## Base/Neutrals

CRM	PT M	QR
Cat. #711	Cat. #833	Cat. #711QR

One 2 mL flame-sealed ampule yields up to 2 liters after dilution. Use with EPA methods 625, 8270, or other applicable method. Contains a subset of the analytes listed below at 10-225 µg/L (except Benzidine at 200-1,000 µg/L).

Acenaphthene	2-Chloronaphthalene	Hexachlorocyclopentadiene
Acenaphthylene	4-Chlorophenyl phenyl ether	Hexachloroethane
2-Amino-1-methylbenzene	Chrysene	Indeno(1,2,3-cd)pyrene
(o-Toluidine)	Dibenz(a,h)anthracene	Isophorone
Aniline	Dibenzofuran	2-Methylnaphthalene
Anthracene	1,2-Dichlorobenzene	Naphthalene
Benzidine	1,3-Dichlorobenzene	2-Nitroaniline
Benzo(a)anthracene	1,4-Dichlorobenzene	3-Nitroaniline
Benzo(b)fluoranthene	3,3'-Dichlorobenzidine	4-Nitroaniline
Benzo(k)fluoranthene	Diethyl phthalate	Nitrobenzene
Benzo(g,h,i)perylene	Dimethyl phthalate	N-Nitrosodiethylamine
Benzo(a)pyrene	Di-n-butyl phthalate	N-Nitrosodimethylamine
Benzyl alcohol	2,4-Dinitrotoluene	N-Nitroso-di-n-propylamine
4-Bromophenyl phenyl ether	2,6-Dinitrotoluene	N-Nitrosodiphenylamine
Butyl benzyl phthalate	Di-n-octyl phthalate	Pentachlorobenzene
Carbazole	bis(2-Ethylhexyl)phthalate	Phenanthrene
4-Chloroaniline	Fluoranthene	Pyrene
bis(2-Chloroethoxy)methane	Fluorene	Pyridine
bis(2-Chloroethyl)ether	Hexachlorobenzene	1,2,4,5-Tetrachlorobenzene
bis(2-Chloroisopropyl)ether	Hexachlorobutadiene	1,2,4-Trichlorobenzene
1-Chloronaphthalene		

## Acids

CRM	PT M	QR
Cat. #712	Cat. #834	Cat. #712QR

One 2 mL flame-sealed ampule yields up to 2 liters after dilution. Use with EPA methods 604, 625, 8041, 8270, or other applicable method. Contains a subset of the analytes listed below at 30-200 µg/L.

Benzoic Acid	2,4-Dinitrophenol	Pentachlorophenol
4-Chloro-3-methylphenol	2-Methyl-4,6-dinitrophenol	Phenol
2-Chlorophenol	2-Methylphenol	2,3,4,6-Tetrachlorophenol
2,4-Dichlorophenol	3 & 4-Methylphenol	2,4,5-Trichlorophenol
2,6-Dichlorophenol	2-Nitrophenol	2,4,6-Trichlorophenol
2,4-Dimethylphenol	4-Nitrophenol	

## Diesel Range Organics (DRO) in Water

CRM	PT Q	QR
Cat. #764	Cat. #641	Cat. #764QR

One 2 mL flame-sealed ampule yields up to 2 liters after dilution. Use with modified EPA 8015 GC/FID methods, or other applicable method. Includes #2 Diesel at 800-6,000 µg/L.

## EDB/DBCP/TCP

CRM	PT M	QR
Cat. #692	Cat. #562	Cat. #692QR

One 2 mL flame-sealed ampule yields in excess of 200 mL after dilution. Use with EPA method 8011, or other applicable method. Each lot contains all analytes at 15-150 µg/L.

1,2-Dibromo-3-chloropropane (DBCP)	15-150 µg/L
1,2-Dibromoethane (EDB)	10-120 µg/L
1,2,3-Trichloropropane (TCP)	15-150 µg/L

## Glycols in Water

RM	PT Q	QR
Cat. #401	Cat. #271	Cat. #401QR

One 2 mL flame-sealed ampule yields up to 2 liters after dilution. Use with EPA methods 8015B, 8430, 1671, or other applicable method.

Diethylene glycol	Propylene glycol	Triethylene glycol
Ethylene glycol	Tetraethylene glycol	

## Low-Level Nitroaromatics &amp; Nitramines

CRM	PT Q	QR
Cat. #677	Cat. #932	Cat. #677QR

One 2 mL flame-sealed ampule yields up to 2 liters of sample after dilution. Use with EPA methods 8330, 8091, or other applicable method for explosive and explosive residue analytes. Contains at least 80% of the analytes, randomly selected from the list below at 1-20 µg/L.

4-Amino-2,6-dinitrotoluene	HMX	RDX
2-Amino-4,6-dinitrotoluene	Nitrobenzene	Tetryl
1,3-Dinitrobenzene	2-Nitrotoluene	1,3,5-Trinitrobenzene
2,4-Dinitrotoluene	3-Nitrotoluene	2,4,6-Trinitrotoluene
2,6-Dinitrotoluene	4-Nitrotoluene	

## Low-Level PAHs

CRM	PT Q	QR
Cat. #715	Cat. #836	Cat. #715QR

One 2 mL flame-sealed ampule yields up to 2 liters after dilution. Use with EPA HPLC methods 610, 8310, or other applicable method, and GC/MS method 8270 SIM. Contains a subset of the analytes listed below at 0.5-20 µg/L.

Acenaphthene	Benzo(g,h,i)perylene	Fluorene
Acenaphthylene	Benzo(a)pyrene	Indeno(1,2,3-cd)pyrene
Anthracene	Chrysene	Naphthalene
Benzo(a)anthracene	Dibenz(a,h)anthracene	Phenanthrene
Benzo(b)fluoranthene	Fluoranthene	Pyrene
Benzo(k)fluoranthene		

## PAHs – GC/GCMS

CRM	PT Q	QR
Cat. #4882	Cat. #4880	Cat. #4882QR

One 2 mL flame-sealed ampule yields up to 2 liters after dilution. Use with EPA methods 625, 8100, 8270, or other applicable method. Each standard contains a subset of the analytes listed below at 10-200 µg/L.

Acenaphthene	Benzo(k)fluoranthene	Fluorene
Acenaphthylene	Benzo(g,h,i)perylene	Indeno(1,2,3-cd)pyrene
Anthracene	Chrysene	Naphthalene
Benzo(a)anthracene	Dibenz(a,h)anthracene	Phenanthrene
Benzo(a)pyrene	Fluoranthene	Pyrene
Benzo(b)fluoranthene		

## PESTICIDES

## Organochlorine Pesticides

CRM	PT <b>M</b>	QR
Cat. #713	Cat. #831	Cat. #713QR

One 2 mL flame-sealed ampule yields up to 2 liters after dilution. Use with EPA methods 608, 8081, or other applicable method. Contains a subset of the analytes listed below at 1-20 µg/L.

Aldrin	4,4'-DDD	Endrin
alpha-BHC	4,4'-DDE	Endrin aldehyde
beta-BHC	4,4'-DDT	Endrin ketone
delta-BHC	Dieldrin	Heptachlor
gamma-BHC (Lindane)	Endosulfan I	Heptachlor epoxide (beta)
alpha-Chlordane	Endosulfan II	Methoxychlor
gamma-Chlordane	Endosulfan sulfate	

## Nitrogen Pesticides

CRM	PT <b>Q</b>	QR
Cat. #674	Cat. #487	Cat. #674QR

One 2 mL flame-sealed ampule yields up to 2 liters after dilution. Use with EPA methods 619, 633, 8141, 8270, or other applicable method. Contains a subset of the analytes listed below at 2-20 µg/L.

Alachlor	Deethyl atrazine	Prometon
Ametryn	Deisopropyl atrazine	Prometryn
Anilazine	Diaminotrazine	Pronamide
Atraton	EPTC (Eptam)	Propachlor
Atrazine	Hexazinone	Propazine
Bromacil	Metolachlor	Simazine
Butachlor	Metribuzin	Terbacil
Butylate	Napropamide	Trifluralin
Cyanazine		

As your partner in defensible data, we are dedicated to ensuring your successful PT performance by helping you solve analytical challenges and improve root cause analysis and corrective action.

## Chlordane

CRM	PT <b>M</b>	QR
Cat. #716	Cat. #837	Cat. #716QR

One 2 mL flame-sealed ampule yields up to 2 liters of sample after dilution. Use with EPA methods 608, 8081, or other applicable method. Contains technical chlordane at 3-25 µg/L.

## Toxaphene

CRM	PT <b>M</b>	QR
Cat. #717	Cat. #838	Cat. #717QR

One 2 mL flame-sealed ampule yields up to 2 liters of sample after dilution. Use with EPA methods 608, 8081, or other applicable method. Contains toxaphene at 20-100 µg/L.

## Carbamate Pesticides

CRM	PT <b>Q</b>	QR
Cat. #908	Cat. #899	Cat. #908QR

One 2 mL flame-sealed ampule yields up to 2 liters after dilution. Use with EPA method 632, or other applicable method. Contains a subset of the analytes listed below at 5-200 µg/L.

Aldicarb	Carbaryl	Methiocarb
Aldicarb sulfone	Carbofuran	Methomyl
Aldicarb sulfoxide	Diuron	Oxamyl
Baygon	3-Hydroxycarbofuran	Propham

## Organophosphorus Pesticides (OPP)

CRM	PT <b>Q</b>	QR
Cat. #665	Cat. #934	Cat. #665QR

One 2 mL flame-sealed ampule yields up to 2 liters after dilution. Use with EPA methods 614, 622, 8141, or other applicable method. Contains a subset of the analytes listed below at 2-20 µg/L.

Azinphos-methyl (Guthion)	Dioxathion	Malathion
Carbophenothion	Disulfoton	Methyl parathion
Chlorpyrifos	Ethion	Phorate
Demeton O & S	Ethoprop	Phosmet
Diazinon	Ethyl Parathion (Parathion)	Ronnel
Dichlorvos (DDVP)	Famphur	Stirophos (tetrachlorovinphos)
Dimethoate	Fonofos	Terbufos

## READY-TO-USE CRMS

The following whole-volume standards are ready-to-use as provided and require no dilution before analysis.\*

### Minerals

**CRM**  
Cat. #506

One 500 mL whole-volume bottle is ready to analyze.

Total alkalinity as CaCO <sub>3</sub> .....	25-400 mg/L
Chloride.....	35-275 mg/L
Fluoride.....	0.4-4 mg/L
Potassium.....	4-40 mg/L
Sodium.....	10-100 mg/L
Specific conductance at 25 °C.....	200-1,200 µmhos/cm
Sulfate.....	5-125 mg/L
Total dissolved solids at 180 °C.....	140-800 mg/L
Total solids at 105 °C.....	140-800 mg/L

### Hardness

**CRM**  
Cat. #507

One 500 mL whole-volume bottle is ready to analyze.

Calcium.....	10-100 mg/L
Calcium hardness as CaCO <sub>3</sub> .....	25-250 mg/L
Total hardness as CaCO <sub>3</sub> .....	40-415 mg/L
Magnesium.....	4-40 mg/L
Total suspended solids (TSS).....	20-100 mg/L

### pH

**CRM**  
Cat. #977

One 250 mL whole-volume bottle is ready to analyze. Use with electrometric methods.

pH.....	5-10 units
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### Oil & Grease

**CRM**  
Cat. #504

One 250 mL whole-volume bottle is ready to analyze. Use with EPA hexane extraction method 1664, or other applicable method. Certified values are provided for IR and gravimetric methods. For additional Oil & Grease CRMs see page 13.

Oil & Grease.....	20-200 mg/bottle
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### Solids

**CRM**  
Cat. #499

One 500 mL whole-volume bottle is ready to analyze.

Total solids at 105 °C.....	140-800 mg/L
Total dissolved solids at 180 °C.....	140-800 mg/L
Total suspended solids (TSS).....	20-100 mg/L
pH.....	5-10 units

### Trace Metals\*

**CRM**  
Cat. #740

One 500 mL whole-volume bottle is ready to analyze. Use with AA, ICP-OES or ICP-MS methods.

Aluminum.....	200-4,000 µg/L
Antimony.....	90-900 µg/L
Arsenic.....	90-900 µg/L
Barium.....	100-2,500 µg/L
Beryllium.....	50-500 µg/L
Boron.....	800-2,000 µg/L
Cadmium.....	100-1,000 µg/L
Chromium.....	100-1,000 µg/L
Cobalt.....	100-1,000 µg/L
Copper.....	100-1,000 µg/L
Iron.....	200-4,000 µg/L
Lead.....	100-1,500 µg/L
Manganese.....	200-2,000 µg/L
Molybdenum.....	60-600 µg/L
Nickel.....	200-2,000 µg/L
Selenium.....	100-1,000 µg/L
Silver.....	100-1,000 µg/L
Strontium.....	50-500 µg/L
Thallium.....	80-800 µg/L
Vanadium.....	50-2,000 µg/L
Zinc.....	300-2,000 µg/L

### Demand\*

**CRM**  
Cat. #743

One 500 mL whole-volume bottle is ready to analyze.

5-day BOD.....	18-230 mg/L
Carbonaceous BOD.....	18-230 mg/L
COD.....	30-250 mg/L
TOC.....	6-100 mg/L

### Simple Nutrients\*

**CRM**  
Cat. #739

One 500 mL whole-volume bottle is ready to analyze.

Ammonia as N.....	1-20 mg/L
Nitrate as N.....	2-25 mg/L
Nitrate plus nitrite as N.....	2.5-25 mg/L
ortho-Phosphate as P.....	0.5-5.5 mg/L

### Complex Nutrients\*

**CRM**  
Cat. #741

One 500 mL whole-volume bottle is ready to analyze.

Total Kjeldahl Nitrogen as N.....	3-35 mg/L
Total phosphorus as P.....	0.5-10 mg/L

\*These standards are guaranteed stable for a minimum of one month after receipt at your facility.

# QC PLUS

ERA's QC Plus program includes environmental analytes at concentrations that reflect realistic levels of pollutants in industrial settings.

Each sample level is designed for wastewater and industrial analysis. These Reference Materials (RM) are an asset to any quality assurance program because they enable you to test your internal systems to ensure that your equipment, methods, and analysts are producing quality data.

## QC Plus – Demand

**RM**

Cat. #4013

One 24 mL screw-cap vial yields up to 1 liter after dilution.

5-day BOD	100-300 mg/L
Carbonaceous BOD	87.0-256 mg/L
COD	150-500 mg/L
TOC	50.0-200 mg/L

## QC Plus – Hexavalent Chromium

**RM**

Cat. #4183

One 15 mL screw-cap vial yields up to 2 liters after dilution.

Hexavalent chromium	100-1000 µg/L
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## QC Plus – Minerals

**RM**

Cat. #4053

Two 30 mL screw-cap vials to be diluted together to yield up to 2 liters of sample.

Alkalinity as CaCO <sub>3</sub>	10.0-300 mg/L
Calcium	5.00-150 mg/L
Calcium Hardness as CaCO <sub>3</sub>	12.5-375 mg/L
Chloride	10.0-700 mg/L
Conductivity	100-4000 µmhos/cm
Magnesium	1.00-50.0 mg/L
Potassium	1.00-300 mg/L
Sodium	10.0-300 mg/L
Sulfate	10.0-300 mg/L
Total dissolved solids at 180 °C	20.0-2400 mg/L
Total Hardness as CaCO <sub>3</sub>	15.0-600 mg/L

## QC Plus – Nutrients

**RM**

Cat. #4023

Two 15 mL screw-cap vials yield up to 2 liters each after dilution.

Ammonia Nitrogen as N	0.250-10.0 mg/L
Nitrate Nitrogen as N	0.250-10.0 mg/L
ortho-Phosphate as P	0.0500-10.0 mg/L
Total Kjeldahl Nitrogen	0.250-10.0 mg/L
Total phosphorus as P	0.100-10.0 mg/L

## QC Plus – Oil & Grease

**RM**

Cat. #4123

One 24 mL screw-cap vial yields up to 2 liters after dilution.

Oil & Grease	10.0-100 mg/L
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## QC Plus – pH

**RM**

Cat. #4063

One 250 mL whole-volume bottle is ready to analyze.

pH	2.00-12.0 Units
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## QC Plus – Fluoride

**RM**

Cat. #4423

One 15 mL screw-cap vial yields up to 2 liters after dilution.

Fluoride	5-20 mg/L
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# QC plus

## QC Plus – Solids

**CRM**  
Cat. #4033

One 24 mL screw-cap vial with a powder yields 1 liter after dilution.

Total dissolved solids at 180 °C.....	500-2000 mg/L
Total solids at 105 °C.....	600-2500 mg/L
Total suspended solids (TSS).....	100-500 mg/L

## QC Plus – Total Cyanide

**CRM**  
Cat. #4093

One 15 mL screw-cap vial yields up to 2 liters after dilution.

Total Cyanide.....	1.00-5.00 mg/L
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## QC Plus – Total Phenolics

**CRM**  
Cat. #4083

One 24 mL screw-cap vial yields up to 2 liters after dilution.

Total phenolics by 4-AAP.....	0.05-0.5 mg/L
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## QC Plus – Total Residual Chlorine

**CRM**  
Cat. #4103

One 24 mL amber vial with screw-cap yields up to 2 liters of solution after dilution.

Total Residual Chlorine.....	0.100-1.00 mg/L
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## QC Plus – Trace Metals

**CRM**  
Cat. #4073

Two 15 mL screw-cap vials to be diluted together to yield up to 2 liters of sample.

Aluminum.....	50.0-200 µg/L
Antimony.....	10.0-300 µg/L
Arsenic.....	10.0-250 µg/L
Barium.....	50.0-500 µg/L
Beryllium.....	5.00-100 µg/L
Boron.....	50.0-250 µg/L
Cadmium.....	5.00-100 µg/L
Chromium.....	15.0-500 µg/L
Cobalt.....	25.0-500 µg/L
Copper.....	15.0-500 µg/L
Iron.....	25.0-500 µg/L
Lead.....	50.0-500 µg/L
Manganese.....	50.0-500 µg/L
Mercury.....	0.500-5.00 µg/L
Molybdenum.....	20.0-500 µg/L
Nickel.....	50.0-500 µg/L
Selenium.....	10.0-100 µg/L
Silver.....	10.0-100 µg/L
Strontium.....	50.0-500 µg/L
Thallium.....	10.0-250 µg/L
Tin.....	200-1000 µg/L
Titanium.....	10.0-100 µg/L
Vanadium.....	50.0-250 µg/L
Zinc.....	25.0-250 µg/L



**Easy to prepare and analyze standards, crystal clear instructions, streamlined reporting, and powerful eDATA tools purposely designed to make your job easier and give you greater insight.**



# The Industry Standard.

## Your Partner In Defensible Data

We understand that the art of our superior service is just as important as the science of our superior standards, our goal is to help you successfully complete your accreditation requirements and ensure the reliability of the data you report to your customers.

- Customer Service and Technical experts with over 200 combined years of experience in the environmental testing field
- Available 6:00 am to 6:00 pm MT Monday – Thursday, and 6:00 am to 5:00 pm MT Friday.

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### Corrective action support

When failures occur, your accreditation and the defensibility of the results you report to your clients depends on effectively determining root cause and implementing appropriate corrective actions. Our technical experts have many years of environmental analytical experience and are here to help you solve your analytical challenges.

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- Lead Operator, Virginia

# DMR-QA

The DMR-QA Proficiency Testing scheme, targeted towards customers holding NPDES permits, is designed to meet the requirements of the United States Environmental Protection annual DMR-QA program. Due to the duration of the DMR-QA study, these standards are not NELAC compliant. If you need NELAC compliant standards, please participate in one of our WP studies.



## 2015 DMR-QA PT Scheme Schedule

	Scheme #	Opens	Closes
	DMR-QA 35	EST Mar 16	TBD
<b>Q</b>	WP 240	Jan 12	Feb 26
	WP 241	Feb 16	Apr 2
	WP 242	Mar 9	Apr 23
<b>Q</b>	WP 243	Apr 13	May 28
	WP 244	May 11	Jun 25

Schedule subject to change – see ERA’s website at [www.eraqc.com](http://www.eraqc.com)

## 2016 DMR-QA PT Scheme Schedule

	Scheme #	Opens	Closes
	DMR-QA 36	EST Mar 18	TBD
<b>Q</b>	WP 252	Jan 18	Mar 3
	WP 253	Feb 15	Mar 31
	WP 254	Mar 7	Apr 21
<b>Q</b>	WP 255	Apr 11	May 26
	WP 256	May 16	Jun 30

Schedule subject to change – see ERA’s website at [www.eraqc.com](http://www.eraqc.com)

Description	CRM	PT	QR	Page
DMR-QA Sets	see page 28 for options			
Complex Nutrients	525	579	525QR	27
Demand	516	578	516QR	26
Hardness/TSS	507	580	507QR	26
Hexavalent Chromium	984	898	984QR	26
Low-Level Mercury	931	896	931QR	26
Low-Level Total Residual Chlorine (TRC)	917	881	917QR	27
Mercury	514	574	514QR	26
Minerals	506	581	506QR	26
Nitrite	770	888	770QR	27
Oil & Grease	see page 27 for options			
pH	977	577	977QR	26

**CRM** – Certified Reference Material

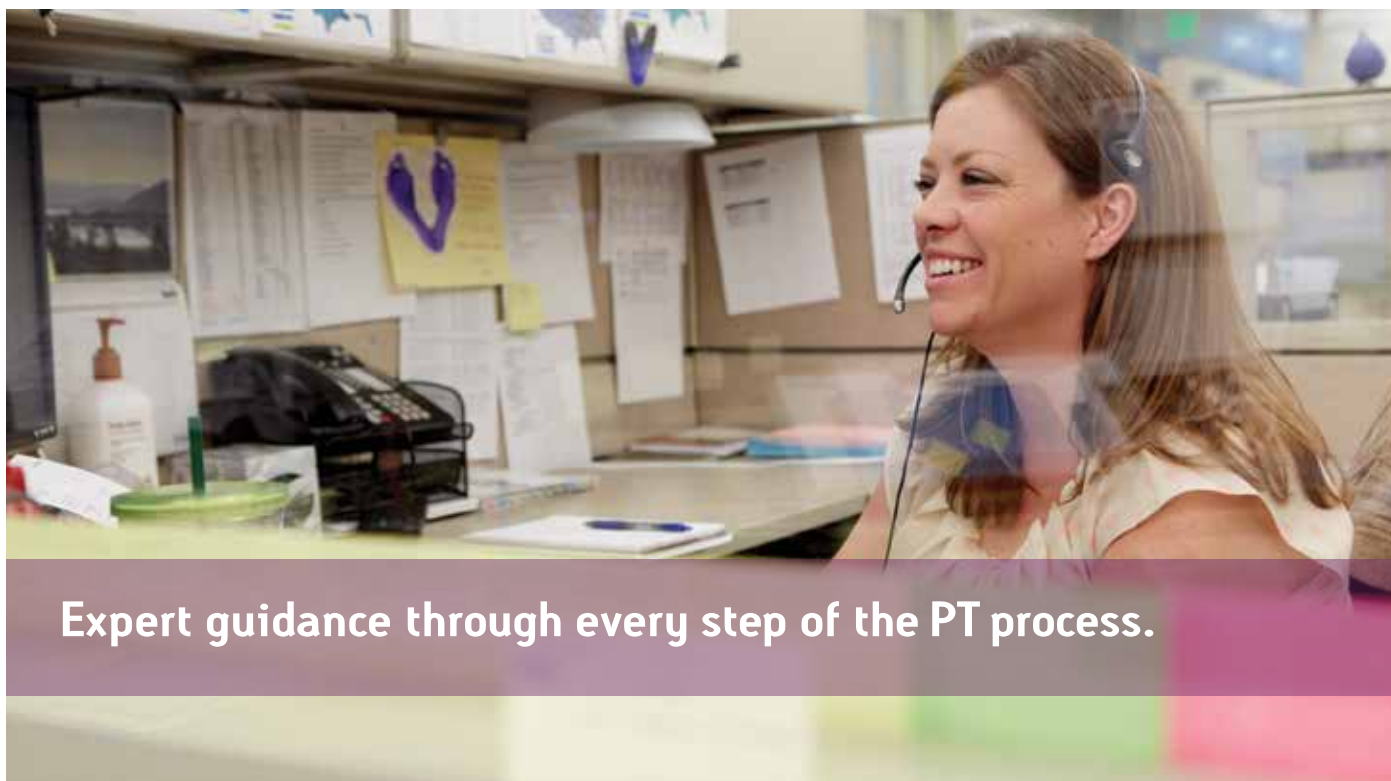
**PT** – Proficiency Testing

**QR** – QuiK Response

Description	CRM	PT	QR	Page
Settleable Solids	911	883	911QR	28
Simple Nutrients	505	584	505QR	27
Solids	499	241	499QR	26
Solids Concentrate	4032	4030	4032QR	26
Cyanide & Phenol	502	588	502QR	27
Total Phenolics (4-AAP)	515	589	515QR	28
Total Residual Chlorine (TRC)	501	587	501QR	27
Trace Metals	500	586	500QR	26
Turbidity	777	893	777QR	28
Wastewater Coliform Microbe	083	576	786QR	28
Whole Effluent Toxicity (WET)	see page 29 for options			

### QuiK Response PT

Need PT results fast? Available 52 weeks a year, QuiK Response PTs are on demand PTs that return final results within minutes of submitting your data online. In the US, please call ERA customer service at 800-372-0122 or 303-431-8454 to order. Outside of the US, please contact your authorized ERA sales partner to order.



Expert guidance through every step of the PT process.



## Trace Metals

CRM	PT	QR
Cat. #500	Cat. #586	Cat. #500QR

One 15 mL screw-cap vial yields up to 1 liter after dilution.

Aluminum	200-4,000 µg/L
Antimony	90-900 µg/L
Arsenic	90-900 µg/L
Barium	100-2,500 µg/L
Beryllium	50-500 µg/L
Boron	800-2,000 µg/L
Cadmium	100-1,000 µg/L
Chromium	100-1,000 µg/L
Cobalt	100-1,000 µg/L
Copper	100-1,000 µg/L
Iron	200-4,000 µg/L
Lead	100-1,500 µg/L
Manganese	200-2,000 µg/L
Molybdenum	60-600 µg/L
Nickel	200-2,000 µg/L
Selenium	100-1,000 µg/L
Silver	100-1,000 µg/L
Strontium	50-500 µg/L
Thallium	80-800 µg/L
Vanadium	50-2,000 µg/L
Zinc	300-2,000 µg/L

## Hexavalent Chromium

CRM	PT	QR
Cat. #984	Cat. #898	Cat. #984QR

One 15 mL screw-cap vial yields up to 2 liters after dilution.

Hexavalent chromium	90-900 µg/L
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## Mercury

CRM	PT	QR
Cat. #514	Cat. #574	Cat. #514QR

One 15 mL screw-cap vial yields up to 1 liter after dilution. Analyze for total mercury.

Mercury, total	3-30 µg/L
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## Low-Level Mercury

CRM	PT	QR
Cat. #931	Cat. #896	Cat. #931QR

One 5 mL flame-sealed ampule yields up to 4 liters after dilution. Use with EPA1631, or other sensitive CVAA methods.

Mercury, total	20-100 ng/L
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## Demand

CRM	PT	QR
Cat. #516	Cat. #578	Cat. #516QR

One 15 mL screw-cap vial yields up to 2 liters after dilution.

5-day BOD	18-230 mg/L
Carbonaceous BOD	18-230 mg/L
COD	30-250 mg/L
TOC	6-100 mg/L

## Solids Concentrate

CRM	PT	QR
Cat. #4032	Cat. #4030	Cat. #4032QR

One 24 mL glass screw-cap vial with a powder yields 1 liter after dilution.

Total solids at 105 °C	140-800 mg/L
Total dissolved solids at 180 °C	140-800 mg/L
Total Suspended Solids	20-100 mg/L

## Solids

CRM	PT	QR
Cat. #499	Cat. #241	Cat. #499QR

One 500 mL whole-volume bottle is ready to analyze.

Total solids at 105 °C	140-800 mg/L
Total dissolved solids at 180 °C	140-800 mg/L
Total Suspended Solids	20-100 mg/L

## pH

CRM	PT	QR
Cat. #977	Cat. #577	Cat. #977QR

One 250 mL whole-volume bottle is ready to analyze.

pH	5-10 units
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## Minerals

CRM	PT	QR
Cat. #506	Cat. #581	Cat. #506QR

One 500 mL whole-volume bottle is ready to analyze.

Total alkalinity as CaCO <sub>3</sub>	25-400 mg/L
Chloride	35-275 mg/L
Fluoride	0.4-4 mg/L
Potassium	4-40 mg/L
Sodium	10-100 mg/L
Specific conductance at 25 °C	200-1,200 µmhos/cm
Sulfate	5-125 mg/L
Total dissolved solids at 180 °C	140-800 mg/L
Total solids at 105 °C	140-800 mg/L

## Hardness/TSS

CRM	PT	QR
Cat. #507	Cat. #580	Cat. #507QR

One 500 mL whole-volume bottle is ready to analyze.

Calcium	10-100 mg/L
Calcium hardness as CaCO <sub>3</sub>	25-250 mg/L
Total hardness as CaCO <sub>3</sub>	40-415 mg/L
Magnesium	4-40 mg/L
Total suspended solids (TSS)	20-100 mg/L

### Simple Nutrients

CRM	PT	QR
Cat. #505	Cat. #584	Cat. #505QR

One 15 mL screw-cap vial yields up to 2 liters after dilution.

Ammonia as N ..... 1-20 mg/L  
 Nitrate as N ..... 2-25 mg/L  
 Nitrate plus nitrite as N ..... 2.5-25 mg/L  
 ortho-Phosphate as P ..... 0.5-5.5 mg/L

### Complex Nutrients

CRM	PT	QR
Cat. #525	Cat. #579	Cat. #525QR

One 15 mL screw-cap vial yields up to 2 liters after dilution.

Total Kjeldahl Nitrogen as N ..... 3-35 mg/L  
 Total phosphorus as P ..... 0.5-10 mg/L

### Oil & Grease Concentrate

CRM	PT	QR
Cat. #4122	Cat. #4120	Cat. #4122QR

One 24 mL screw-cap vial yields up to 2 liters after dilution. Use with EPA method 1664.

Oil & Grease ..... 20-200 mg/L

### Cyanide & Phenol

CRM	PT	QR
Cat. #502	Cat. #588	Cat. #502QR

One 15 mL screw-cap vial yields up to 2 liters after dilution. Analyze for total cyanide using distillation followed by colorimetric, titrimetric or ISE methods. The CRM is also certified for Phenol at 0.05-5 mg/L. For a Total Phenolics PT, order Cat #589.

Total Cyanide ..... 0.1-1 mg/L  
 Amenable Cyanide ..... 0.1-1 mg/L



### Nitrite

CRM	PT	QR
Cat. #770	Cat. #888	Cat. #770QR

One 15 mL screw-cap vial yields up to 2 liters after dilution.

Nitrite as N ..... 0.4-4 mg/L

### Total Residual Chlorine (TRC)

CRM	PT	QR
Cat. #501	Cat. #587	Cat. #501QR

One 2 mL flame-sealed ampule yields up to 2 liters after dilution. Use with titrimetric or colorimetric methods.

Total Residual Chlorine ..... 0.5-3 mg/L

### 1 Liter Oil & Grease

CRM	PT	QR
Cat. #518	Cat. #582	Cat. #518QR

One liter whole-volume glass bottle with a 33-430 thread is ready to analyze.

For SPE compatible QC (33-400 thread), use Cat #818 1 liter Boston Round Oil & Grease. Please specify if for SPE compatible PT.

Oil & Grease ..... 20-200 mg/L

### Low-Level Total Residual Chlorine (TRC)

CRM	PT	QR
Cat. #917	Cat. #881	Cat. #917QR

Designed for testing at low µg/L levels. One 2 mL flame-sealed ampule yields up to 2 liters after dilution. Use with sensitive titrimetric or colorimetric methods.

Total Residual Chlorine ..... 50-250 µg/L

**Total Phenolics (4-AAP)**

CRM	PT	QR
Cat. #515	Cat. #589	Cat. #515QR

One 2 mL flame-sealed ampule yields up to 2 liters after dilution. Analyze for total phenolic compounds by 4-AAP methods.

Total phenolics by 4-AAP ..... 0.05-5 mg/L

**Settleable Solids**

CRM	PT	QR
Cat. #911	Cat. #883	Cat. #911QR

One 60 mL poly bottle with a solid yields 1 liter after dilution. Use with EPA method 160.5 and Standard Methods 2540F.

Settleable solids ..... 5-50 mL/L

**Turbidity**

CRM	PT	QR
Cat. #777	Cat. #893	Cat. #777QR

One 15 mL screw-top vial yields up to 1 liter after dilution. Use with nephelometric methods.

Turbidity ..... 2-30 NTU

**Wastewater Coliform Microbe**

CRM	PT	QR
Cat. #083	Cat. #576	Cat. #786QR

Includes one lyophilized quantitative standard for use with all Clean Water Act quantitative methods, including MF and MPN. Total Coliforms, Fecal Coliforms and E. coli, are present in the range of 20-2,400 CFU/100 mL or MPN/100 mL.

The CRM standard contains two samples, one quantitative positive and one blank.

**DMR-QA SETS****DMR-QA Mini Set #1**

CRM	PT
Cat. #102	Cat. #186

Set includes Hardness/TSS, pH, and TRC.

**DMR-QA Mini Set #2**

CRM	PT
Cat. #103	Cat. #187

Set includes Demand, Hardness/TSS, and pH.

**DMR-QA Mini Set #3**

CRM	PT
Cat. #104	Cat. #188

Set includes Demand, Hardness/TSS, pH, and TRC.

**DMR-QA Mini Set #4**

CRM	PT
Cat. #106	Cat. #189

Set includes Demand, Hardness/TSS, Simple Nutrients, pH, and TRC.

**DMR-QA Mini Set #5**

CRM	PT
Cat. #6151	Cat. #6150

Set includes Solids Concentrate, pH, and TRC.

**DMR-QA Mini Set #6**

CRM	PT
Cat. #6161	Cat. #6160

Set includes Demand, Solids Concentrate, and pH.

**DMR-QA Mini Set #7**

CRM	PT
Cat. #6171	Cat. #6170

Set includes Demand, Solids Concentrate, TRC, and pH.

**DMR-QA Mini Set #8**

CRM	PT
Cat. #6181	Cat. #6180

Set includes Demand, Simple Nutrients, Solids Concentrate, pH, and TRC.

**DMR-QA Complete Set**

CRM	PT
Cat. #108	Cat. #174

Set includes Hardness/TSS, pH, Oil & Grease, Trace Metals, Mercury, Demand, Simple Nutrients, Complex Nutrients, Total Cyanide, Total Phenolics, Total Residual Chlorine, Minerals, Settleable Solids, Nitrite, Turbidity, and Hexavalent Chromium.

## WHOLE EFFLUENT TOXICITY

Description	USEPA Test Code	USEPA Method Code	CRM	PT	QR
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### Fathead Minnow (*Pimephales promelas*)

48-hour acute, non-renewal, 25 °C, MHSF.	13	2000	AQC002	WET002	AQC002QR
48-hour acute, non-renewal, 25 °C, 20% DMW.	14	2000	AQC003	WET003	AQC003QR
7-day short-term chronic, daily renewal, 25 °C, MHSF.	15	1000	AQC004	WET004	AQC004QR
7-day short-term chronic, daily renewal, 25 °C, 20% DMW.	16	1000	AQC005	WET005	AQC005QR

### Ceriodaphnia Dubia

48-hour acute, daily renewal, 25 °C, MHSF.	19	2002	AQC008	WET008	AQC008QR
48-hour acute, daily renewal, 25 °C, 20% DMW.	20	2002	AQC009	WET009	AQC009QR
7-day short-term chronic, daily renewal, 25 °C, MHSF.	21	1002	AQC010	WET010	AQC010QR
7-day short-term chronic, daily renewal, 25 °C, 20% DMW.	22	1002	AQC011	WET011	AQC011QR

### Daphnia Magna

48-hour acute, non-renewal, 25 °C, MHSF.	32	2021	AQC012	WET012	AQC012QR
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### Daphnia Pulex

48-hour acute, non-renewal, 25 °C, MHSF.	38	2021	AQC015	WET015	AQC015QR
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### Mysid (*Mysidopsis bahia*)

48-hour acute, non-renewal, 25 °C, 40 fathoms seawater.	42	2007	AQC016	WET016	AQC016QR
7-day short-term chronic, daily renewal, 25 °C, 40 fathoms seawater.	43	1007	AQC017	WET017	AQC017QR

### Inland Silverside (*Menidia beryllina*)

48-hour acute, non-renewal, 25 °C, 40 fathoms seawater.	44	2006	AQC018	WET018	AQC018QR
7-day short-term chronic daily renewal, 25 °C, 40 fathoms seawater.	45	1006	AQC013	WET013	AQC013QR

### Sheepshead Minnow (*Cyprinodon variegatus*)

48-hour acute, non-renewal, 25 °C, 40 fathoms seawater.	46	2004	AQC019	WET019	AQC019QR
7-day short-term chronic, daily renewal, 25 °C, 40 fathoms seawater.	47	1004	AQC020	WET020	AQC020QR