

Reference Material and Inter-laboratory Quality Control Materials Product Summary

May 2023

Version: 2

Assigned Values: Values provided have been generated from Inter-Laboratory Proficiency Programmes (ILPP) or from data provided by laboratories for the purpose of characterisation. The reference material values provided in this summary are the mean of the results after the exclusion of statistical outliers. The Assigned Range provided for the Inter-laboratory QC Materials is the range of test values available for purchase. Each Reference and QC Material comes with a Data Summary Sheet.

Missing Values and Available Tests: For Reference Materials where property values do not meet the statistical criteria, the summary values have not been provided. For this reason, not all tests will be available for every Reference Material of the same matrix. However, if there are 3 or more data points available, an Assigned Value will be provided with the corresponding QC material.

Sample Sizes: Available sample sizes are shown for reference materials.

Note: When ordering QC materials, please quote both the Product ID AND the process run

QC Material: Water - Basic Chem

Matrix: Water	Product ID	14759-QC	14760-QC
	Process Run	PR10648	PR10648
	Expiry Date	28 May 23	28 May 23
	Sample Size	860mL	860mL
	Conductivity (µS/cm)	228	328
	pH (pH units)	6.82	7.58
	Total suspended Solid (mg/L)	7.20	33.5

QC Material: Water - Synthetic Effluent Water - Base

Matrix: Water	Product ID	14853-QC	14854-QC
	Process Run	PR10749	PR10749
	Expiry Date	7 Aug 23	7 Aug 23
	Sample Size	860mL	860mL
	Alkalinity - Total (mg/L)	49.0	97.3
	Ammonia-N (mg/L)	10.4	5.18
	BOD cBOD (mg/L)	131	54.5
	BOD Total (mg/L)	142	59.3
	Boron (mg/L)	0.137	0.512
	Bromide (mg/L)	0.128	2.10
	Calcium (mg/L)	8.30	24.9
	Carbon - Total Organic (mg/L)	67.6	27.3
	Carbon-NonPurgable Org (mg/L)	65.3	29.7
	Chemical Oxygen Demand (mg/L)	257	145
	Chloride (mg/L)	44.5	59.1
	Conductivity (uS/cm)	349	770
	Fluoride (mg/L)	0.121	0.996
	Hardness - Total (mg/L)	39.6	104
	Magnesium (mg/L)	4.82	10.3
	Nitrate-N (mg/L)		8.43
	Nitrite-N (mg/L)		0.0203
	Nitrogen - Organic (mg/L)		2.44
	Nitrogen - Total (mg/L)	16.0	15.7
	Nitrogen -Tot. Kjeldahl (mg/L)	15.7	7.45
	Nitrogen -Tot. Oxidised (mg/L)	0.0267	8.39
	pH - Base Solution (pH units)	7.35	7.11
	pH - Standard (pH units)	7.71	7.08
	Phosphorus - Total (mg/L)	11.1	32.3
	Phosphorus Dis Reactive (mg/L)	5.31	22.3
	Phosphorus Tot Dissol (mg/L)	10.9	31.4
	Potassium (mg/L)	31.5	94.3
	Silica (as SiO ₂ mg/L)	5.00	35.0

	Sodium (mg/L)	17.1	53.4
	Solids - Tot Suspended (mg/L)	60.1	109
	Solids - Total (mg/L)	379	702
	Solids - Total Volatile (mg/L)	204	188
	Solids - Volatile Susp (mg/L)	43.8	61.8
	Solids -Total Dissolved (mg/L)	269	539
	Sulphate (mg/L)	24.1	93.6
	Turbidity (NTU)	32.7	33.0

QC Material: Water - Synthetic Effluent - Fat Oil and Grease

Matrix: Water	Product ID	14857-QC	14858-QC
	Process Run	PR10749	PR10749
	Expiry Date	14 Jun 23	14 Jun 23
	Sample Size	500mL	500mL
	Fat Oil & Grease (mg/L)	299.087	148.500

QC Material: Water - Synthetic Effluent Water - Trace Elements

Matrix: Water	Product ID	14855-QC	14856-QC
	Process Run	PR10749	PR10749
	Expiry Date	7 Aug 23	7 Aug 23
	Sample Size	200mL	200mL
	Aluminium (mg/L)	0.140	0.995
	Antimony (mg/L)	0.0420	0.299
	Arsenic (mg/L)	0.0304	0.287
	Barium (mg/L)	0.0560	0.117
	Bismuth (mg/L)	0.0219	0.0815
	Cadmium (mg/L)	0.0196	0.194
	Chromium (mg/L)	0.0286	0.480
	Cobalt (mg/L)	0.0176	0.0566
	Copper (mg/L)	0.0407	1.66
	Iron (mg/L)	0.0714	0.701
	Lead (mg/L)	0.0421	1.23
	Lithium (mg/L)	0.0505	0.375
	Manganese (mg/L)	0.1000	0.846
	Mercury (mg/L)	0.00940	0.0233
	Molybdenum (mg/L)	0.0102	0.0843
	Nickel (mg/L)	0.0962	0.0678
	Selenium (mg/L)	0.0696	0.0858
	Strontium (mg/L)	0.137	0.212
	Zinc (mg/L)	0.188	0.929

QC Material: Water - Potable Water - Base

Matrix: Water	Product ID	14763-QC	14764-QC
	Process Run	PR10743	PR10743
	Expiry Date	12 Jun 23	12 Jun 23
	Sample Size	860mL	860mL
	Absorbance at 254nm (AU/cm)	0.0735	0.0339
	Alkalinity to pH 4.5 (mg/ L)	37.4	36.0
	Ammonia-N (mg/L)		0.184
	Boron (mg/L)	0.145	0.147
	Bromide (mg/L)	0.181	0.240
	Calcium (mg/L)	7.94	13.0
	Chloride (mg/L)	21.6	13.2
	Conductivity (uS/cm)	190	193
	Fluoride (mg/L)	0.431	0.789
	Hardness Total (mg/L)	33.8	44.0
	Magnesium (mg/L)	3.71	3.18
	Nitrate-N (mg/L)	1.69	0.836
	Nitrite-N (mg/L)	0.0763	0.0495
	Nitrogen Total (mg/L)	1.78	1.08
	Nitrogen Total Ox. (mg/ L)	1.75	0.872
	NPOC (mg/L)	5.76	2.49
	pH - Base Solution (pH units)	7.51	7.98
	pH - Standard (pH units)	7.51	6.80
	Phosphorus Diss. React (mg/L)	0.591	0.296
	Phosphorus Total (mg/ L)	1.86	1.73
	Phosphorus Total Diss. (mg/L)	2.09	1.75
	Potassium (mg/L)	7.83	7.42
	Silica (as SiO2 mg/L)	5.96	29.4
	Sodium (mg/L)	19.4	15.7
	Sulphate (mg/L)	7.85	26.6
	Turbidity in Base (NTU)	2.50	2.91
	Turbidity Standard (NTU)	0.510	0.771

QC Material: Water - Potable Water - Solids

Matrix: Water	Product ID	14767-QC	14768-QC
	Process Run	PR10743	PR10743
	Expiry Date	6 Jun 23	6 Jun 23
	Sample Size	20mL	20mL
	Total Dissolved Solids (mg/L)	65.9	125
	Total Solids (mg/L)	92.8	195
	Total Suspended Solids (mg/L)	21.1	65.1
	Total Volatile Solids (mg/L)		55.0
	Volatile Susp Solids (mg/L)	14.0	37.8

QC Material: Water - Potable Water - Trace Elements

Matrix: Water	Product ID	14769-QC	14770-QC
	Process Run	PR10743	PR10743
	Expiry Date	12 Jun 23	12 Jun 23
	Sample Size	200mL	200mL
	Aluminium (mg/L)	0.163	0.0947
	Antimony (mg/L)	0.0116	0.00598
	Arsenic (mg/L)	0.0178	0.0134
	Barium (mg/L)	0.0268	0.0238
	Bismuth (mg/L)	0.0143	0.00537
	Cadmium (mg/L)	0.00851	0.00633
	Chromium (mg/L)	0.0484	0.00401
	Cobalt (mg/L)	0.0381	0.0496
	Copper (mg/L)	0.0248	0.0169
	Iron (mg/L)	0.0810	0.114
	Lead (mg/L)	0.0183	0.00520
	Lithium (mg/L)	0.0750	0.197
	Manganese (mg/L)	0.0739	0.0457
	Mercury (mg/L)	0.0112	0.00610
	Molybdenum (mg/L)	0.0817	0.00669
	Nickel (mg/L)	0.0277	0.0639
	Selenium (mg/L)	0.0121	0.0992
	Strontium (mg/L)	0.103	0.0724
	Vanadium (mg/L)	0.0400	0.0141
	Zinc (mg/L)	0.0922	0.0375

