MAPEP Mixed Analyte Performance Evaluation Program

Sample Statistical Summary

MAPEP-11-MaS24

Analyte	T(1)	A(2)	Grand(3) Mean	Std Dev	Ref Value	Ref Unc	Acceptance Range
Inorganic							Units: (mg/kg)
Antimony	23	12	28.9	1.8	35.5	0.7	24.9 - 46.2
Arsenic	24	24	29.8	3.5	28.1	0.6	19.7 - 36.5
Barium	21	21	248	23	252	4	176 - 328
Beryllium	24	23	14.1	1.7	15.1	0.3	10.6 - 19.6
Cadmium	24	23	8.21	0.73	8.35	0.17	5.85 - 10.86
Chromium	23	23	84.2	10.6	88.6	1.7	62.0 - 115.2
Cobalt	24	22	37.5	3.9	42.1	0.8	29.5 - 54.7
Copper	24	23	90.0	10.1	93.8	1.7	65.7 - 121.9
Lead	24	24	36.0	3.9	37.5	0.7	26.3 - 48.8
Mercury	22	18	0.159	0.017	0.162	0.003	0.113 - 0.211
Nickel	24	21	108	11	119	2	83 - 155
Selenium	22	18	11.1	1.3	11.0	0.2	7.7 - 14.3
Silver	21	20	15.78	1.50	16.09	0.16	11.26 - 20.92
Technetium-99	2	1			<0.000012		False Positive Test
Thallium	23	22	52.2	5.1	55.6	1.1	38.9 - 72.3
Uranium-235	17	13	0.105	0.013	0.106	0.005	0.074 - 0.138
Uranium-238	19	15	14.2	1.8	14.8	0.5	10.4 - 19.2
Uranium-Total	21	17	14.1	1.7	14.9	0.5	10.4 - 19.4
Vanadium	24	23	66.6	8.4	68.0	1.7	47.6 - 88.4
Zinc	24	23	170	20	183	4	128 - 238

Analyte	T(1)	A(2)	Grand(3) Mean	Std Dev	Ref Value	Ref Unc	Acceptance Range
Radiological							Units: (Bq/kg)
Americium-241	57	49	58.5	7.7	61.1	0.9	42.8 - 79.4
Cesium-134	69	68	654	69	680	10	476 - 884
Cesium-137	71	69	791	67	758	12	531 - 985
Cobalt-57	70	64	933	107	927	17	649 - 1205
Cobalt-60	71	68	499	44	482	3	337 - 627
Iron-55	8	3	437	23	387	8	271 - 503
Manganese-54	48	47					False Positive Test
Nickel-63	15	11	563	72	582	12	407 - 757
Plutonium-238	38	32		1528.38	0.48	0.11	Sensitivity Evalutation
Plutonium-239/240	38	29	93.9	6.0	98.0	1.5	68.6 - 127.4
Potassium-40	69	62	566	57	540	11	378 - 702
Strontium-90	30	24	146	21	160	3	112 - 208
Technetium-99	20	19					False Positive Test
Uranium-234/233	38	32	171	15	176	5	123 - 229
Uranium-238	40	33	177	18	184	6	129 - 239
Zinc-65	68	62	1461	140	1359	27	951 - 1767

Note: (1) T = Total number of laboratories reporting analyte.
(2) A = Number of laboratories with 'Acceptable' performance.
(3) Mean excludes values derived as total metals and values indicated as "Not Acceptable";
Additionally, mean for organics in soil is the biweight mean of all the data per NELAC FOPT Table.

Other Flags:

A = Result acceptable Bias <=20%

W = Result accepatble with warning 20% < Bias < 30%
N = Result not acceptable Bias > 30%
L = Uncertainty potentially too low (for information purposes only)
H = Uncertainty potentially too high (for information purposes only)
RW = Report Warning
NR = Not Reported