

Individual Evaluation Report

for the World-Wide Open Proficiency Test IAEA-TERC-2022-01 Part II

Individual Evaluation Report for Laboratory Nr. 57

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Proficiency Test IAEA-TERC-2022-01 Evaluation Report Part II

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Evaluation Tables for Labcode 57. (Values and uncertainties expressed in Bq/kg)

Evaluation Result Table for Sample 1

Sample Code	Analyte	Target Value	Target Unc.	MARB	Rep. Value	Rep. Unc	Rel. Bias	Robust SD	Z-Score	Accuracy	P	Precision	Final Score
1	Co-60	17.7	1.1	20 %	18.52	0.88	4.63 %	1.1	0.75	A	7.82	A	A
1	Cs-134	15.9	1	20 %	15.78	0.76	-0.75 %	1	0.12	A	7.92	A	A
1	Cs-137	24.2	1.5	20 %	24.32	1.52	0.50 %	1.5	0.08	A	8.80	A	A
1	Pb-210	31.3	1.9	30 %	32.57	5.08	4.06 %	1.9	0.67	A	16.74	A	A
1	Po-210	31.6	1.9	30 %	32.87	2.75	4.02 %	1.9	0.67	A	10.30	A	A
1	Sr-90	26.4	1.6	30 %	26.14	0.63	-0.98 %	1.6	0.16	A	6.52	A	A

Evaluation Result Table for Sample 2

Sample Code	Analyte	Target Value	Target Unc.	MARB	Rep. Value	Rep. Unc	Rel. Bias	Robust SD	Z-Score	Accuracy	P	Precision	Final Score
2	Am-241	10.1	0.6	30 %	9.95	1.03	-1.49 %	0.6	0.25	A	11.94	A	A
2	Cs-137	8.36	0.5	20 %	8.43	0.60	0.84 %	0.5	0.14	A	9.30	A	A
2	H-3	10.8	0.6	30 %	10.45	0.65	-3.24 %	0.6	0.58	A	8.34	A	A
2	Sr-90	7.42	0.45	30 %	7.17	0.31	-3.37 %	0.45	0.56	A	7.45	A	A

Evaluation Result Table for Sample 3

Sample Code	Analyte	Target Value	Target Unc.	MARB	Rep. Value	Rep. Unc	Rel. Bias	Robust SD	Z-Score	Accuracy	P	Precision	Final Score
3	Cs-134	12.1	0.7	20 %	11.81	0.59	-2.40 %	0.7	0.41	A	7.64	A	A
3	Cs-137	22.6	1.4	20 %	22.33	1.41	-1.19 %	1.4	0.19	A	8.85	A	A
3	Pu-239	5.16	0.31	30 %	4.34	0.2	-15.89 %	0.31	2.65	A	7.57	A	A

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Values and uncertainties for Sample 5

Evaluation Result Table for Sample 5

Sample Code	Analyte	Target Value	Target Unc.	MARB	Rep. Value	Rep. Unc	Rel. Bias	Robust SD	Z-Score	Accuracy	P	Precision	Final Score
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Intercomparison Parameter Evaluation: (Units specified in Part I)

Sample Code	Analyte	Robust Mean	Robust SD	Rep. Value	Rep. Unc	Z-Score	Z-Score Evaluation
1	gross_beta	124.75	29.46	107.35	2.81	0.59	A
2	gross_beta	28.94	6.35	24.78	0.74	0.66	A
3	gross_beta	27.63	6.78	22.93	0.74	0.69	A
5	Cs-137	0.332	0.048	0.339	0.02	0.15	A
7	Ac-228	36.27	3.03	36.99	1.93	0.24	A
7	Am-241	78.89	7.59	78.36	8.15	0.07	A
7	Ba-133	62.13	8.76	65.54	5.30	0.39	A
7	Bi-214	31.49	3.39	31.68	0.80	0.06	A
7	Co-60	123.96	8.12	126.66	5.24	0.33	A
7	Cs-134	39.8	3.85	40.72	1.83	0.24	A
7	Cs-137	83.2	4.79	83.81	5.12	0.13	A
7	K-40	449.74	31.25	439.58	19.87	0.33	A
7	Pb-210	621.79	80.1	634.15	92.59	0.15	A

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