



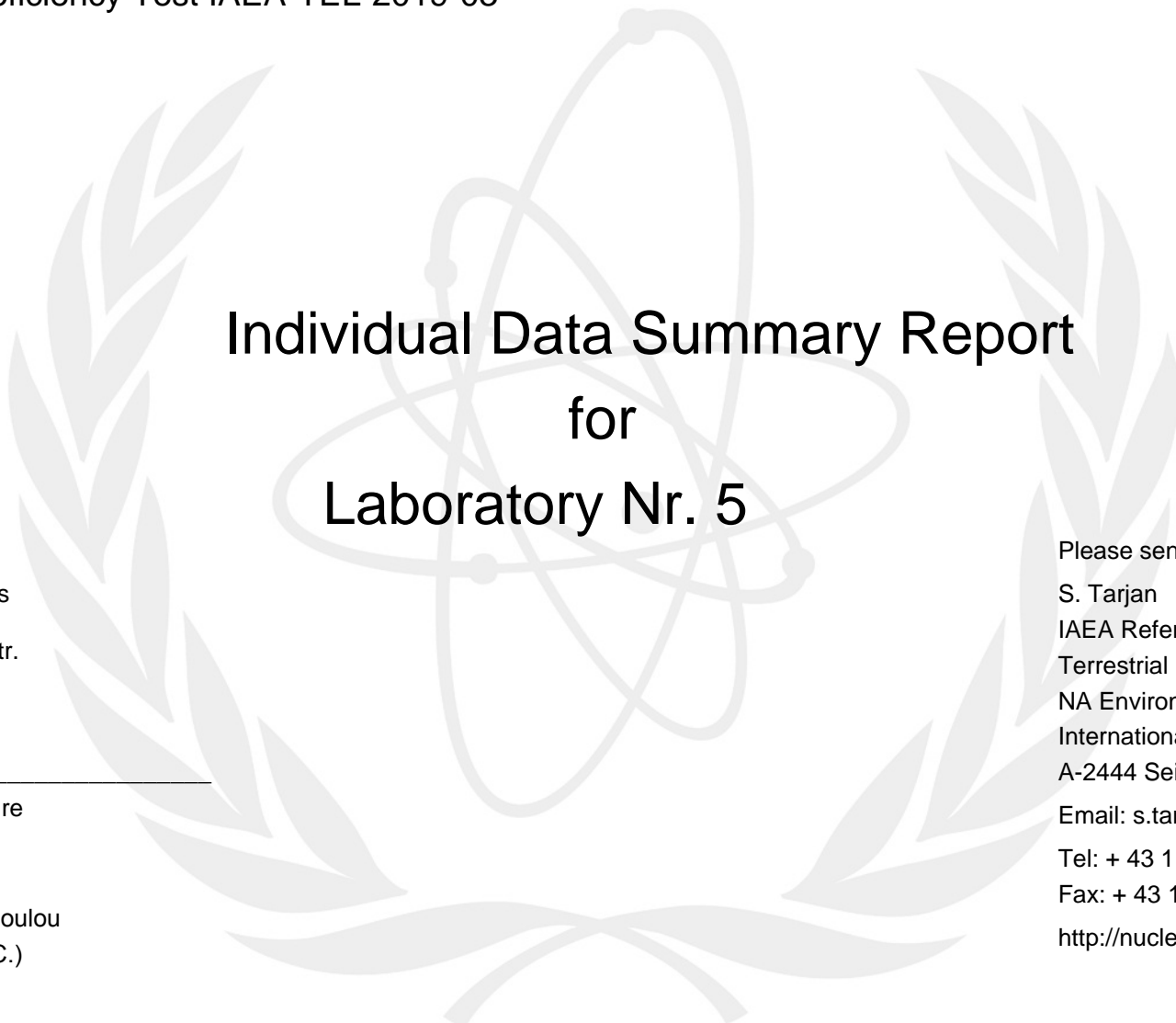
The IAEA-TEL-2019-03 world wide open proficiency test on the determination of anthropogenic and natural radionuclides in water, shrimp and simulated aerosol filter samples

**Laboratory's Final Report
Laboratory Code: 5 (CuNo: 13949)
Total Pages (with cover): 10**



Data Summary Report

for the World Wide Proficiency Test IAEA-TEL-2019-03



Individual Data Summary Report for Laboratory Nr. 5

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World Wide Proficiency Test IAEA-TEL-2019-03 Data Summary Report

Created on 2019-10-07

Sample 01

Sample Code	Analyte	Measured by	Reported Value	Reported Uncertainty
1	gross_alpha	alpha/beta	21.4	1.9
1	gross_beta	alpha/beta	88	14
1	Ra-224	alpha/beta		
1	Ra-226	alpha/beta	7.59	0.71
1	Ra-228	alpha/beta	24.4	2.3
1	Sr-90	alpha/beta		
1	Ac-228	gamma	22.0	2.0
1	Cs-134	gamma	8.95	0.60
1	Cs-137	gamma	8.6	1.0

Values and Uncertainties for Sample 01 (water) in Bq/kg.

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World Wide Proficiency Test IAEA-TEL-2019-03 Data Summary Report

Created on 2019-10-07

Sample 02

Sample Code	Analyte	Measured by	Reported Value	Reported Uncertainty
2	gross_alpha	alpha/beta	3.74	0.37
2	gross_beta	alpha/beta	23.9	4.0
2	Ra-224	alpha/beta		
2	Ra-226	alpha/beta	1.36	0.13
2	Ra-228	alpha/beta	4.44	0.43
2	Sr-90	alpha/beta		
2	Ac-228	gamma		
2	Cs-134	gamma	4.49	0.40
2	Cs-137	gamma	4.55	0.53

Values and Uncertainties for Sample 02 (water) in Bq/kg.

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World Wide Proficiency Test IAEA-TEL-2019-03 Data Summary Report

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Sample 04

Sample Code	Analyte	Measured by	Reported Value	Reported Uncertainty
4	gross_alpha	alpha/beta		
4	gross_beta	alpha/beta	392	61
4	Pb-210	alpha/beta		
4	Po-210	alpha/beta		
4	Ra-224	alpha/beta		
4	Ra-226	alpha/beta		
4	Ra-228	alpha/beta		
4	U-234	alpha/beta		
4	U-235	alpha/beta		
4	U-238	alpha/beta		
4	Ac-228	gamma		
4	Cs-137	gamma		
4	K-40	gamma	339	42
4	Pb-210	gamma		
4	Pb-212	gamma		
4	Tl-208	gamma		

Values and Uncertainties for Sample 04 (shrimp) in Bq/kg d.w. .

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World Wide Proficiency Test IAEA-TEL-2019-03 Data Summary Report

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Sample 05

Sample Code	Analyte	Measured by	Reported Value	Reported Uncertainty
5	gross_beta	alpha/beta	20.8	7.0
5	Co-60	gamma		
5	Cs-134	gamma	9.92	0.79
5	Cs-137	gamma	12.3	1.0

Values and Uncertainties for Sample 05 (simulated filter) in Bq/filter.

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Sample 06

Sample Code	Analyte	Measured by	Reported Value	Reported Uncertainty
6	gross_beta	alpha/beta	25.5	8.5
6	Co-60	gamma		
6	Cs-134	gamma	18.6	1.5
6	Cs-137	gamma	11.92	0.99
6	Eu-152	gamma		

Values and Uncertainties for Sample 06 (simulated filter) in Bq/filter.

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Sample 07

Sample Code	Analyte	Measured by	Reported Value	Reported Uncertainty
7	gross_beta	alpha/beta	30	10
7	Cs-134	gamma	5.86	0.47
7	Cs-137	gamma	23.3	1.9

Values and Uncertainties for Sample 07 (simulated filter) in Bq/filter.

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NAEL Proficiency Test Reporting

IAEA-TEL-2019-03 Summary Tables

Labcode:5

Record	Labcode	Sample	Method	Isotope	Activity Value	Activity Uncertainty Coverage Factor k=1	Detection Limit	Unit
Rec. 0	5	1	alpha/beta	gross_alpha	21.4	1.9	0.29	[Bq/kg]
Rec. 1	5	1	alpha/beta	gross_beta	88	14	2.0	[Bq/kg]
Rec. 2	5	1	alpha/beta	Ra-224				[Bq/kg]
Rec. 3	5	1	alpha/beta	Ra-226	7.59	0.71	0.0040	[Bq/kg]
Rec. 4	5	1	alpha/beta	Ra-228	24.4	2.3	0.17	[Bq/kg]
Rec. 5	5	1	alpha/beta	Sr-90				[Bq/kg]
Rec. 6	5	2	alpha/beta	gross_alpha	3.74	0.37	0.32	[Bq/kg]
Rec. 7	5	2	alpha/beta	gross_beta	23.9	4.0	2.0	[Bq/kg]
Rec. 8	5	2	alpha/beta	Ra-224				[Bq/kg]
Rec. 9	5	2	alpha/beta	Ra-226	1.36	0.13	0.0028	[Bq/kg]
Rec. 10	5	2	alpha/beta	Ra-228	4.44	0.43	0.11	[Bq/kg]
Rec. 11	5	2	alpha/beta	Sr-90				[Bq/kg]
Rec. 12	5	4	alpha/beta	gross_alpha				[Bq/kg d.w.]
Rec. 13	5	4	alpha/beta	gross_beta	392	61	20	[Bq/kg d.w.]
Rec. 14	5	4	alpha/beta	Pb-210				[Bq/kg]
Rec. 15	5	4	alpha/beta	Po-210				[Bq/kg]
Rec. 16	5	4	alpha/beta	Ra-224				[Bq/kg]
Rec. 17	5	4	alpha/beta	Ra-226				[Bq/kg]
Rec. 18	5	4	alpha/beta	Ra-228				[Bq/kg]
Rec. 19	5	4	alpha/beta	U-234				[Bq/kg]
Rec. 20	5	4	alpha/beta	U-235				[Bq/kg]
Rec. 21	5	4	alpha/beta	U-238				[Bq/kg]
Rec. 22	5	5	alpha/beta	gross_beta	20.8	7.0	0.86	[Bq/kg]
Rec. 23	5	6	alpha/beta	gross_beta	25.5	8.5	0.85	[Bq/kg]
Rec. 24	5	7	alpha/beta	gross_beta	30	10	0.84	[Bq/kg]
Rec. 25	5	1	gamma	Ac-228	22.0	2.0	11	[Bq/kg]
Rec. 26	5	1	gamma	Cs-134	8.95	0.60	1.7	[Bq/kg]
Rec. 27	5	1	gamma	Cs-137	8.6	1.0	2.9	[Bq/kg]
Rec. 28	5	2	gamma	Ac-228			11	[Bq/kg]
Rec. 29	5	2	gamma	Cs-134	4.49	0.40	1.5	[Bq/kg]
Rec. 30	5	2	gamma	Cs-137	4.55	0.53	2.5	[Bq/kg]
Rec. 31	5	4	gamma	Ac-228			25	[Bq/kg]
Rec. 32	5	4	gamma	Cs-137			6.0	[Bq/kg]
Rec. 33	5	4	gamma	K-40	339	42	72	[Bq/kg]
Rec. 34	5	4	gamma	Pb-210			13	[Bq/kg]
Rec. 35	5	4	gamma	Pb-212			12	[Bq/kg]
Rec. 36	5	4	gamma	Tl-208			6.3	[Bq/kg]
Rec. 37	5	5	gamma	Co-60			0.39	[]
Rec. 38	5	5	gamma	Cs-134	9.92	0.79	0.11	[Bq/kg]
Rec. 39	5	5	gamma	Cs-137	12.3	1.0	0.12	[Bq/kg]
Rec. 40	5	6	gamma	Co-60			0.38	[]
Rec. 41	5	6	gamma	Cs-134	18.6	1.5	0.12	[Bq/kg]
Rec. 42	5	6	gamma	Cs-137	11.92	0.99	0.12	[Bq/kg]

Rec. 43	5	6	gamma	Eu-152			0.98	[Bq/filter]
Rec. 44	5	7	gamma	Cs-134	5.86	0.47	0.11	[Bq/kg]
Rec. 45	5	7	gamma	Cs-137	23.3	1.9	0.11	[Bq/kg]

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