CERTIFICATE OF PARTICIPATION

Radongas srl participated in the 2022 UKHSA Intercomparison of Passive Radon Detectors with two sets of detectors.

The submitted results for set **136-1**, % measurement errors and corresponding ranks are given in Table 1 below for the five exposures:

Table 1 – set 136-1 - etched track detectors

Reference exposure [kBq m^{-3} h]	Mean [kBq m^{-3} h]	1SD [kBq m^{-3} h]	% Measurement error	Rank
138	147.9	2.5	7.4	A
383	387.3	10.4	2.9	A
732	746.7	20.6	3.4	A
1387	1382.4	41.6	3.0	A
2501	2478.5	61.0	2.6	A

The submitted results for set **136-2**, % measurement errors and corresponding ranks are given in Table 2 below for the five exposures:

Table 2 – set 136-2 - badge (etched track detectors without rigid casing)

Reference exposure [kBq m^{-3} h]	Mean [kBq m^{-3} h]	1SD [kBq m^{-3} h]	% Measurement error	Rank
138	142.0	3.7	3.9	A
383	383.9	8.3	2.2	A
732	720.0	16.7	2.8	A
1387	1395.7	21.7	1.7	A
2501	2499.7	82.5	3.3	A

$$\% \text{ Measurement error} = \sqrt[2]{[\frac{Mean - Reference}{Reference} \times 100]^2 + [\frac{1SD}{Mean} \times 100]^2}$$

If the measurement error is:

- less than 10%, the rank is A
- greater than or equal to 10% and less than 20%, the rank is B
- greater than or equal to 20% and less than 30%, the rank is C
- greater than or equal to 30% and less than 40%, the rank is D
- greater than or equal to 40% and less than 50%, the rank is E
- greater than or equal to 50%, the rank is F

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