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CERTIFICATE OF CALIBRATION

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Authorised Signatories:

D Hector ✓
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Signed:



Date of Issue: 18th July 2017

Certificate Number: 3745

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Customer Name and Address:

Scottish Government
Water, Air, Soils and Flooding Division
Environmental Quality Directorate
Scottish Government
Victoria Quay
Edinburgh
EH6 6QQ

Description:

Calibration factors for Angus Council's Forfar air monitoring station.

Site / Date Test Carried Out	Species	Analyser Serial No.	Parameter	Specified Value	Measured Value	Deviation %	Uncertainty %
Forfar Glamis Road 10 th August 2016	FDMS PM ₁₀	26569	Main Flow ¹	3.00	2.97	-0.8	2.25
			Aux Flow ¹	13.67			
			Total Flow	16.67	15.48	-7.1	2.25
			k ₀ ²	14313	14225	-0.6	1.00

¹The measured main flow rate (where applicable) is the flow rate through the sensor unit of the TEOM particulate analyser under test. The measured aux flow rate (where applicable) is the flow rate through the bypass tubing of the TEOM particulate analyser under test. The measured total flow rate is the total flow rate through the particulate analyser under test. Units of flow are l.min⁻¹. Where flow rates are highlighted in bold, it indicates that measurements were not made at the analyser sample inlet. These measurements therefore may not accurately reflect analyser performance in normal operation.

²The calculated k₀ value (TEOM analysers only) is the calculated k₀ spring constant based on tests undertaken with filters of known weight. The % deviation indicates the closeness of the calculated result to the manufacturer's specified k₀ value.

The calibration results shaded are those that fall out with our scope of accreditation, all other results on this certificate are not UKAS accredited, but have been included for completeness.

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2 providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with UKAS requirements.

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