

Appendix C: Details of Annualisation and Façade Correction

This appendix includes the data that has been gathered and used to formulate the ASR report which can be seen by following the link below.

[Details of Annualisation and Facade Correction](#)

Table C.1 Diffusion Tube Annualisation and façade correction

Site Code	location	Grid Reference		Our Tube No.	Pollutant monitored	In AQMA ?	Is monitoring collocated with a Diffusion Tube (Y/N) ?	Relevant Exposure? (Y/N with distance (m) to relevant exposure)	Distance to kerb of nearest road (N/A if not applicable)	Worst-case Location ?	Measurement Period (ug.m ⁻³)												MEAN	BIAS =	0.92	length of monitoring period (months)	annualisation (see Box 3.2 pg 3-4 of TG(09) where annual data coverage for a site is <75% site has been excluded)						façade correction - fall-off in nitrogen dioxide concentrations with distance from road See Box 2.3 pg 2-6 of LAQM.TG(09)			
		X	Y								1	2	3	4	5	6	7	8	9	10	11	12		Bias Adjusted Mean	No of results		period mean		Ratio (annual mean / period mean)		annualised bias adjusted mean (Bias adjusted mean x R _a)		background concentration grid reference		relevant background concentration	receptor correction for roadside tubes (Bias adjusted mean)
																											jan-AUG	SEPT-DEC	jan-AUG	SEPT-DEC	jan-mar	apr-dec	X	Y		
06N	Broomleys junction (1)	443632	314026	6	NO ₂	Y	n	5.8	2	Y	42	36	36	33	32	30	39	41	39	39	36	41	37.01	34.05	12	12	36.18	38.69	1.023	0.957			443500	313500	11.75	26.94
08N	End Cottage Copt Oak	448138	313012	8	NO ₂	N	n	0	N/A	N	30	29	29	23	22	19	25	26	25	25	27		25.42	23.39	11	12	25.33	25.67	1.004	0.990			447500	312500	18.84	
12N	Aeropark	444161	326355	12	NO ₂	N	n	N	N/A	N	19	25		20		12			18	20	26	26	20.80	19.14	8	12					443500	325500	13.69			
14N	69 High St CD	444216	326788	14	NO ₂	N	n	0	2.9	Y	28	29	31	28	26	22	30	22	21		20	29	26.01	23.93	11	12	27.03	23.27	0.962	1.118			443500	326500	13.80	
16N	crossroads CD	444450	327233	16	NO ₂	Y	n	7.53	1	Y	35	38	36	39	39	43	41	36	36	48	39	37	38.98	35.86	12	12	38.42	40.10	1.015	0.972			443500	326500	13.80	26.33
17N	13 Bondgate CD	444512	327335	17	NO ₂	Y	n	2	2.5	Y	40	40	46	43	35	40	45	37	37	40	37	41	40.19	36.97	12	12	40.80	38.97	0.985	1.031			443500	326500	13.80	33.61
18N	34 Bondgate CD	444580	327411	18	NO ₂	Y	n	0	2.3	Y	58	79	60	55	58		65	44	45	54	53	50	56.45	51.93	11	12	59.80	50.57	0.944	1.116			444500	326500	15.31	
19N	94 Bondgate CD	444707	327603	19	NO ₂	Y	n	0.8	1.4	Y	33	40	34	32	29	31	35	29	28	36	37	36	33.34	30.67	12	12	33.00	34.03	1.010	0.980			444500	327500	13.58	29.00
20N	Derby Rd Kegworth (Benny's Hill)	448523	326885	20	NO ₂	Y	n	3.2	1	Y		37	30	25	19	21	24	26	27	31	28	36	27.57	25.37	11	12	25.85	30.58	1.067	0.902			447500	326500	22.88	24.65
22N	Keg A6 2	448817	326621	22	NO ₂	Y	n	0	2.3	Y	34	33	28	32	29	28	30	28	29	32		36	30.90	28.43	11	12	30.28	32.56	1.021	0.949			448500	326500	16.85	
23N	120 Whatton road Kegworth	448108	326305	23	NO ₂	N	n	N	N/A	Y			22	19	15		18	22	24	27	20	27	21.53	19.81	9	12	19.04	24.65	1.131	0.874			447500	325500	20.75	
26N	Molehill House	447457	326420	26	NO ₂	Y	n	0	50	Y															0	12							446500	325500	19.42	
31N	Sinope	440167	315264	31	NO ₂	N	n	7.8	3.2	Y				23	22	19	25	22	25	27	26	29	24.25	22.31	9	12	22.25	26.76	1.090	0.906			439500	314500	9.26	18.07
32N	M1 Bridge Copt Oak	448082	313100	30	NO ₂	N	n	N	N/A	Y	70	59	59	68	57	63	70	69	68	63	58	72	64.64	59.47	12	12	64.40	65.12	1.004	0.993			447500	312500	18.84	
35N	monitoring station Coalville (1)	443660	314002	7	NO ₂	Y	y	5.8	2	Y		43	40			48		35					41.71	38.38	4	12					39.0		443500	313500	11.75	29.89
36N	monitoring station Coalville (2)	443660	314002	27	NO ₂	Y	y	5.8	2	Y		45	43			51		38					44.29	40.74	4	12					41.4		443500	313500	11.75	31.50
39N	LW new M1	446935	323744	11	NO ₂	N	n	N	N/A	N									29	28	24	25	26.50	24.38	4	12						23.9	446500	323500	16.26	
40N	35 High Street castle Donington	444323	326975	13	NO ₂	N	n	3	0.9	Y	22	33	27	29	28	27	29	23	24	30	34	32	27.96	25.72	12	12	27.13	29.60	1.030	0.944			443500	326500	13.80	22.27
41N	18 High Street castle Donington	444474	327171	15	NO ₂	N	n	4	1	Y	43	47	49	42	25	55	56	48	49	50	44	48	46.38	42.67	12	12	45.72	47.71	1.014	0.972			443500	326500	13.80	33.31
43N	Direction Sign Bardon	443675	313642	2	NO ₂	Y	n	2.4	3	N	28	34	34	25	31	28	32	27		34	36	34	31.26	28.76	11	12	29.89	34.91	1.046	0.895			443500	313500	11.75	26.17

Site Code	location	Grid Reference		Our Tube No.	Pollutant monitored	In AQMA ?	Is monitoring collocated with a Continuous Analyser (Y/N)	Relevant Exposure? (Y/N with distance (m) to relevant exposure)	Distance to kerb of nearest road (N/A if not applicable)	Worst-case Location ?	Measurement Period (ug.m ⁻³)												MEAN	BIAS = Bias Adjusted Mean	0.92 No of results	length of monitoring period (months)	annualisation (see Box 3.2 pg 3-4 of TG(09) where annual data coverage for a site is <75% site has been excluded)						façade correction - fall-off in nitrogen dioxide concentrations with distance from road See Box 2.3 pg 2-6 of LAQM.TG(09)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
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Table C2 Automatic Monitor Annualisation

	Period	Leicester A594 Roadside	Leicester University	Nottingham Centre	Nottingham Western Boulevard	Stephenson's Way Coalville
period mean	19/02/2018 16:00 to 24/09/2018 00:00	31.894	20.017	24.256	30.277	41.83
annual mean		35.784	23.245	27.513	34.133	
ratio		0.891	0.861	0.882	0.887	
annualised value						36.82
mean ratio					0.880	

Raw data obtained from https://uk-air.defra.gov.uk/data/data_selector

A copy of the data is included with the attached spreadsheet Appendix C2 automatic monitor annualisation