



London Air Quality Network Summary Report 2010

December 2012

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Environmental Research Group

King's College London

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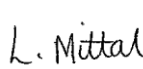
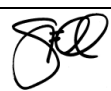
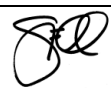
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1 Introduction

This report details the results of air pollution measurements made on the London Air Quality Network during 2010. Measurements have been presented with specific reference to the UK Air Quality Strategy (AQS) Objectives and the EU Limit Values.

The London Air Quality Network (LAQN) is a unique resource, providing robust air pollution measurements that are essential to underpin air quality management and health studies. The public face of the network, the London Air web site (www.londonair.org.uk), is visited by thousands of Londoners seeking hourly updated air pollution information.

The LAQN was formed in 1993 to coordinate and improve air pollution monitoring in London. The majority of London's 33 boroughs supply measurements to the network and in addition these data are increasingly being supplemented by measurements from local authorities surrounding London, thereby providing an overall perspective of air pollution in London and the Home Counties.

The LAQN is operated and managed by the Environmental Research Group (ERG) at King's College London. QA/QC audits are carried out by the National Physical Laboratory (NPL). Each borough funds air quality monitoring in its own area. The Department of Environment, Food and Rural Affairs (Defra) funds King's to operate the Marylebone Road site and to maintain several of the LAQN sites as affiliate sites to the UK Automatic Urban and Rural Network (AURN). This Defra support assists the operation of the overall LAQN. Analysis of LAQN measurements has been augmented by measurements from directly-funded Defra sites in London. Measurements from Defra sites were provided by AEA from the National Air Quality Archive and were included within the LAQN database. Transport for London has also funded monitoring to help assess the air pollution impacts of the Congestion Charging Scheme and Low Emission Zone.

2 Air quality Strategy Objectives and EU Limit Values

There is ample evidence of the adverse health effects caused by air pollution (WHO, 2006). In response to these health impacts, the Air Quality Strategy (AQS) for England, Scotland, Wales and Northern Ireland (Defra, 2008) sets out the UK's way forward on air quality issues, details objectives to be achieved, and proposes measures to help reach them. These UK objectives largely reflect EU Limit Values (EC, 2008). The GLA and the London boroughs and district councils outside the capital have responsibilities for the management of air quality and must work towards the attainment of AQS objectives. The AQS Objectives and EU Limit Values are detailed in Table 1. Monitoring progress towards the attainment of these Objectives and Limit Values forms a core activity for the LAQN.

Pollutant	Air Quality Objective Concentration	Measured as	To be achieved by
Carbon Monoxide (CO)	10.0 mg m ⁻³	Maximum daily running 8-hour mean	31 December 2003
Nitrogen Dioxide (NO ₂)	200 µg m ⁻³ not to be exceeded more than 18 times a year	1-hour mean	31 December 2005
	40 µg m ⁻³	Annual mean	31 December 2005
Sulphur dioxide (SO ₂)	350 µg m ⁻³ , not to be exceeded more than 24 times a year	1-hour mean	31 December 2004
	125 µg m ⁻³ , not to be exceeded more than 3 times a year	24-hour mean	31 December 2004
	266 µg m ⁻³ , not to be exceeded more than 35 times a year	15-minute mean	31 December 2005
Ozone (O ₃)	100 µg m ⁻³ not to be exceeded more than 10 times a year	8 hourly running or hourly mean	31 December 2005
Particles (PM ₁₀) (gravimetric)	50 µg m ⁻³ , not to be exceeded more than 35 times a year	Daily mean	31 December 2004
	40 µg m ⁻³	Annual mean	31 December 2004
Particles (PM _{2.5}) (gravimetric)	25 µg m ⁻³ (target)	Annual mean	2020
	20% cut in urban background exposure	Annual mean	2010 - 2020

Table 1: AQS Objectives and EU Limit Values.

3 Results

The AQS Objective results measured at LAQN sites during 2010 are detailed in Tables 2 to 8.

Key to site types:

RU	=	Rural
S	=	Suburban
U	=	Urban background
R	=	Roadside
K	=	Kerbside
I	=	Industrial

3.1 Carbon Monoxide

Site Name	Type	Capture Rate (%)	No occurrences of rolling 8hr mean $\geq 10\text{mgm}^{-3}$ (8.6ppb)	Achieved?
Bexley - Slade Green	S	93	0	yes
Brent - Kingsbury	S	68	0	n/a
Bromley - Harwood Avenue	R	49	0	n/a
Camden - Bloomsbury	U	97	0	yes
City of London - Walbrook Wharf	R	21	0	n/a
Crystal Palace - Crystal Palace Parade	R	56	0	n/a
Ealing - Acton Town Hall	R	97	0	yes
Hackney - Clapton	U	99	0	yes
Islington - Holloway Road	R	92	0	yes
Kensington and Chelsea - Cromwell Road	R	68	0	n/a
Kensington and Chelsea - North Ken	U	97	0	yes
Newham - Cam Road	R	98	0	yes
Newham - Wren Close	U	95	0	yes
Redbridge - Gardner Close	R	84	0	n/a
Redbridge - South Woodford	R	98	0	yes
Richmond - Hampton Court Road	K	90	0	yes
Sevenoaks - Greatness Park	U	89	0	n/a
Tower Hamlets - Mile End Road	R	94	0	yes
Wandsworth - Wandsworth Town Hall	U	99	0	yes
Westminster - Horseferry Road	U	97	0	yes
Westminster - Marylebone Road	K	95	0	yes

Table 2: AQS Objective results for CO

3.2 Nitrogen Dioxide

Site Name	Type	Capture Rate (%)	Annual Mean < 40 ug ^m ⁻³	Annual Mean Achieved?	No more than 18 occurrences of hourly mean > 200ug ^m ⁻³ (104.7ppb)	Hourly Mean Achieved?
Barking and Dagenham - North Street	K	99	50	no	4	yes
Barking and Dagenham - Rush Green	S	92	26	yes	0	yes
Barking and Dagenham - Scrattons Farm	S	99	35	yes	1	yes
Barnet - Finchley	U	98	32	yes	0	yes
Barnet - Tally Ho Corner	K	93	70	no	33	no
Bexley - Belvedere	S	84	30	n/a	0	n/a
Bexley - Belvedere West	U	32	30	n/a	0	n/a
Bexley - Erith	I	99	29	yes	0	yes
Bexley - Slade Green	S	97	31	yes	0	yes
Bexley - Thames Road North	R	21	45	n/a	0	n/a
Bexley - Thames Road South	R	27	40	n/a	0	n/a
Brent - Ikea	R	73	74	n/a	7	n/a
Brent - John Keble Primary School	R	55	53	n/a	12	n/a
Brent - Kingsbury	S	77	29	n/a	0	n/a
Brent - Neasden Lane	I	63	39	n/a	0	n/a
Brent - St Marys Primary School	U	96	35	yes	0	yes
Brentwood - Brentwood Town Hall	U	89	26	n/a	0	n/a
Bromley - Harwood Avenue	R	49	46	n/a	1	n/a
Camden - Bloomsbury	U	98	55	no	1	yes
Camden - Shaftesbury Avenue	R	72	89	n/a	21	no
Camden - St Martins College (NOX 1)	U	19	48	n/a	0	n/a
Camden - St Martins College (NOX 2)	U	89	58	n/a	1	n/a
Camden - Swiss Cottage	K	82	82	n/a	128	no
Castle Point - Canvey Island	U	52	22	n/a	0	n/a
City of London - Senator House	U	89	51	n/a	2	n/a
City of London - Sir John Cass School	U	95	55	no	3	yes
City of London - Walbrook Wharf	R	99	117	no	646	no
Croydon - George Street	R	90	52	no	0	yes
Croydon - Norbury	K	94	76	no	7	yes
Croydon - Purley Way	R	74	42	n/a	0	n/a
Crystal Palace - Crystal Palace Parade	R	56	47	n/a	0	n/a
Ealing - Acton Town Hall	R	93	55	no	4	yes
Ealing - Ealing Town Hall	U	93	44	no	2	yes
Ealing - Hanger Lane Gyratory	R	87	90	n/a	141	no
Ealing - Horn Lane	I	70	50	n/a	0	n/a
Ealing - Southall	U	99	31	yes	0	yes
Ealing - Western Avenue	R	60	65	n/a	11	n/a
Enfield - Bowes Primary School	R	79	54	n/a	9	n/a
Enfield - Derby Road	R	99	46	no	0	yes
Greenwich - A206 Burrage Grove	R	99	53	no	1	yes
Greenwich - Blackheath	R	99	43	no	0	yes
Greenwich - Eltham	S	98	24	yes	4	yes
Greenwich - Millennium Village	I	96	36	yes	0	yes
Greenwich - Plumstead High Street	R	99	42	no	1	yes
Greenwich - Trafalgar Road	R	99	47	no	0	yes

Site Name	Type	Capture Rate (%)	Annual Mean < 40 $\mu\text{g m}^{-3}$	Annual Mean Achieved?	No more than 18 occurrences of hourly mean > 200 $\mu\text{g m}^{-3}$ (104.7ppb)	Hourly Mean Achieved?
Greenwich - Westthorne Avenue	R	95	46	no	0	yes
Greenwich - Woolwich Flyover	R	99	73	no	38	no
Greenwich and Bexley - Falconwood	R	99	51	no	5	yes
Hackney - Clapton	U	99	49	no	2	yes
Hackney - Old Street	R	77	62	n/a	0	n/a
Haringey - Haringey Town Hall	R	96	44	no	0	yes
Haringey - Priory Park	U	98	34	yes	0	yes
Harrow - Pinner Road	R	99	53	no	4	yes
Harrow - Stanmore	U	90	26	yes	0	yes
Havering - Rainham	R	96	40	no	4	yes
Havering - Romford	R	85	38	n/a	0	n/a
Heathrow Airport	U	85	52	n/a	0	n/a
Hillingdon - Hillingdon Hospital	R	98	37	yes	0	yes
Hillingdon - Oxford Avenue	R	90	42	no	1	yes
Hillingdon - Sipson Road	S	93	53	no	0	yes
Hillingdon - South Ruislip	R	97	46	no	2	yes
Hounslow - Brentford	R	40	69	n/a	1	n/a
Hounslow - Cranford	S	11	24	n/a	0	n/a
Hounslow - Feltham	R	48	47	n/a	0	n/a
Hounslow - Hatton Cross	U	76	38	n/a	0	n/a
Hounslow - Heston Road	R	74	52	n/a	2	n/a
Islington - Arsenal	U	94	37	yes	0	yes
Islington - Holloway Road	R	98	59	no	8	yes
Kensington and Chelsea - Cromwell Road	R	68	74	n/a	1	n/a
Kensington and Chelsea - Earls Court Rd	K	92	113	no	515	no
Kensington and Chelsea - Kings Road	R	90	91	no	63	no
Kensington and Chelsea - Knightsbridge	R	86	91	n/a	307	no
Kensington and Chelsea - North Ken	U	90	37	yes	0	yes
Lambeth - Bondway Interchange	I	99	77	no	17	yes
Lambeth - Brixton Road	K	85	173	n/a	2683	no
Lambeth - Christchurch Road	R	85	55	n/a	14	n/a
Lambeth - Loughborough Junct	U	96	33	yes	0	yes
Lambeth - Streatham Green	U	86	46	n/a	0	n/a
Lewisham - Catford	U	92	55	no	1	yes
Lewisham - New Cross	R	91	59	no	0	yes
Marylebone Road	K	10	89	n/a	31	no
Merton - Morden Civic Centre	R	38	55	n/a	2	n/a
Mole Valley - Dorking	U	95	25	yes	0	yes
Newham - Cam Road	R	97	53	no	13	yes
Newham - Wren Close	U	97	39	yes	2	yes
Reading - Caversham Road	R	97	48	no	7	yes
Reading - Kings Road	R	96	53	no	3	yes
Reading - New Town	U	72	25	n/a	0	n/a
Reading - Oxford Road	R	96	39	yes	0	yes
Redbridge - Fullwell Cross	K	96	51	no	0	yes
Redbridge - Gardner Close	R	86	48	n/a	1	n/a

Site Name	Type	Capture Rate (%)	Annual Mean < 40 $\mu\text{g m}^{-3}$	Annual Mean Achieved?	No more than 18 occurrences of hourly mean > 200 $\mu\text{g m}^{-3}$ (104.7ppb)	Hourly Mean Achieved?
Redbridge - Perth Terrace	U	98	33	yes	0	yes
Redbridge - South Woodford	R	95	55	no	0	yes
Reigate and Banstead - Horley	S	91	29	yes	0	yes
Reigate and Banstead - Horley South	S	92	31	yes	0	yes
Reigate and Banstead - Poles Lane	RU	97	21	yes	0	yes
Reigate and Banstead - Reigate High St	K	42	68	n/a	1	n/a
Richmond - Hampton Court Road	K	97	45	no	0	yes
Richmond - Hampton Court Road (low level)	K	94	47	no	6	yes
Richmond Upon Thames - Barnes Wetlands	S	99	30	yes	0	yes
Richmond Upon Thames - Castlenau	R	98	43	no	1	yes
Richmond Upon Thames - Ntl Physical Lab	S	77	24	n/a	0	n/a
Sevenoaks - Bat and Ball	R	99	30	yes	0	yes
Sevenoaks - Greatness Park	U	97	21	yes	0	yes
Sutton - Beddington Lane north	I	85	45	n/a	1	n/a
Sutton - Carshalton	S	94	31	yes	0	yes
Sutton - Therapia Lane	I	85	34	n/a	0	n/a
Sutton - Wallington	K	98	73	no	70	no
Sutton - Worcester Park	K	98	58	no	5	yes
Thurrock - Calcutta Road Tilbury	R	93	42	no	0	yes
Thurrock - London Road (Grays)	U	84	29	n/a	0	n/a
Thurrock - London Road (Purfleet)	R	96	69	no	12	yes
Thurrock - Stanford-le-Hope	R	97	37	yes	0	yes
Tower Hamlets - Blackwall	R	93	73	no	7	yes
Tower Hamlets - Mile End Road	R	93	65	no	7	yes
Tower Hamlets - Poplar	U	66	36	n/a	0	n/a
Waltham Forest - Crooked Billet	K	98	74	no	15	yes
Waltham Forest - Dawlish Road	U	94	39	yes	3	yes
Waltham Forest - Leyton	R	90	45	no	5	yes
Wandsworth - Putney High Street	K	85	168	n/a	2485	no
Wandsworth - Putney High Street Facade	R	51	135	n/a	1064	no
Wandsworth - Wandsworth Town Hall	U	98	53	no	3	yes
Westminster - Charing Cross Library	R	94	89	no	34	no
Westminster - Covent Garden	U	99	52	no	0	yes
Westminster - Horseferry Road	U	95	49	no	3	yes
Westminster - Marylebone Road	K	97	98	no	534	no
Windsor and Maidenhead - Clarence Road	R	97	39	yes	0	yes
Windsor and Maidenhead - Frascati Way	R	99	51	no	0	yes

Table 3: AQS Objective results for NO₂

3.3 Nitrogen Oxides

Site Name	Type	Capture Rate (%)	Annual Mean NOX as NO2 $\mu\text{g m}^{-3}$
Barking and Dagenham - North Street	K	99	98
Barking and Dagenham - Rush Green	S	92	43
Barking and Dagenham - Scrattons Farm	S	99	57
Barnet - Finchley	U	98	54
Barnet - Tally Ho Corner	K	93	160
Bexley - Belvedere	S	84	45
Bexley - Belvedere West	U	32	53
Bexley - Erith	I	99	60
Bexley - Slade Green	S	97	52
Bexley - Thames Road North	R	21	104
Bexley - Thames Road South	R	27	85
Brent - Ikea	R	73	250
Brent - John Keble Primary School	R	55	105
Brent - Kingsbury	S	77	43
Brent - Neasden Lane	I	63	94
Brent - St Marys Primary School	U	96	56
Brentwood - Brentwood Town Hall	U	89	37
Bromley - Harwood Avenue	R	49	73
Camden - Bloomsbury	U	98	100
Camden - Shaftesbury Avenue	R	72	193
Camden - St Martins College (NOX 1)	U	19	87
Camden - St Martins College (NOX 2)	U	89	101
Camden - Swiss Cottage	K	82	199
Castle Point - Canvey Island	U	52	29
City of London - Senator House	U	89	83
City of London - Sir John Cass School	U	95	89
City of London - Walbrook Wharf	R	99	333
Croydon - George Street	R	90	105
Croydon - Norbury	K	94	196
Croydon - Purley Way	R	74	110
Crystal Palace - Crystal Palace Parade	R	56	93
Ealing - Acton Town Hall	R	93	125
Ealing - Ealing Town Hall	U	93	86
Ealing - Hanger Lane Gyratory	R	87	309
Ealing - Horn Lane	I	70	120
Ealing - Southall	U	99	50
Ealing - Western Avenue	R	60	165
Enfield - Bowes Primary School	R	79	119
Enfield - Derby Road	R	99	102
Greenwich - A206 Burrage Grove	R	99	107
Greenwich - Blackheath	R	99	111
Greenwich - Eltham	S	98	37
Greenwich - Millennium Village	I	96	68
Greenwich - Plumstead High Street	R	99	83
Greenwich - Trafalgar Road	R	99	96
Greenwich - Westthorne Avenue	R	95	108

Site Name	Type	Capture Rate (%)	Annual Mean NOX as NO2 $\mu\text{g m}^{-3}$
Greenwich - Woolwich Flyover	R	99	220
Greenwich and Bexley - Falconwood	R	99	125
Hackney - Clapton	U	99	89
Hackney - Old Street	R	77	138
Haringey - Haringey Town Hall	R	96	92
Haringey - Priory Park	U	98	51
Harrow - Pinner Road	R	99	115
Harrow - Stanmore	U	90	41
Havering - Rainham	R	96	75
Havering - Romford	R	85	70
Heathrow Airport	U	85	138
Hillingdon - Hillingdon Hospital	R	98	71
Hillingdon - Oxford Avenue	R	90	81
Hillingdon - Sipson Road	S	93	114
Hillingdon - South Ruislip	R	97	102
Hounslow - Brentford	R	40	152
Hounslow - Cranford	S	11	36
Hounslow - Feltham	R	48	98
Hounslow - Hatton Cross	U	76	71
Hounslow - Heston Road	R	74	124
Islington - Arsenal	U	94	55
Islington - Holloway Road	R	98	146
Kensington and Chelsea - Cromwell Road	R	68	172
Kensington and Chelsea - Earls Court Rd	K	92	307
Kensington and Chelsea - Kings Road	R	90	208
Kensington and Chelsea - Knightsbridge	R	86	211
Kensington and Chelsea - North Ken	U	90	58
Lambeth - Bondway Interchange	I	99	172
Lambeth - Brixton Road	K	85	500
Lambeth - Christchurch Road	R	85	108
Lambeth - Loughborough Junct	U	96	55
Lambeth - Streatham Green	U	86	89
Lewisham - Catford	U	92	101
Lewisham - New Cross	R	91	140
Merton - Morden Civic Centre	R	38	115
Mole Valley - Dorking	U	95	38
Newham - Cam Road	R	97	98
Newham - Wren Close	U	97	61
Reading - Caversham Road	R	97	100
Reading - Kings Road	R	96	146
Reading - New Town	U	72	38
Reading - Oxford Road	R	96	89
Redbridge - Fullwell Cross	K	96	118
Redbridge - Gardner Close	R	86	96
Redbridge - Perth Terrace	U	98	55
Redbridge - South Woodford	R	95	117
Reigate and Banstead - Horley	S	91	46

Site Name	Type	Capture Rate (%)	Annual Mean NOX as NO2 $\mu\text{g m}^{-3}$
Reigate and Banstead - Horley South	S	92	52
Reigate and Banstead - Poles Lane	RU	97	28
Reigate and Banstead - Reigate High St	K	42	168
Richmond - Hampton Court Road	K	97	98
Richmond - Hampton Court Road (low level)	K	94	104
Richmond Upon Thames - Barnes Wetlands	S	99	43
Richmond Upon Thames - Castlenau	R	98	80
Richmond Upon Thames - Ntl Physical Lab	S	77	34
Sevenoaks - Bat and Ball	R	99	62
Sevenoaks - Greatness Park	U	97	32
Sutton - Beddington Lane north	I	85	90
Sutton - Carshalton	S	94	48
Sutton - Therapia Lane	I	85	59
Sutton - Wallington	K	98	162
Sutton - Worcester Park	K	98	137
Thurrock - Calcutta Road Tilbury	R	93	82
Thurrock - London Road (Grays)	U	84	45
Thurrock - London Road (Purfleet)	R	96	184
Thurrock - Stanford-le-Hope	R	97	78
Tower Hamlets - Blackwall	R	93	173
Tower Hamlets - Mile End Road	R	93	148
Tower Hamlets - Poplar	U	66	49
Waltham Forest - Crooked Billet	K	98	186
Waltham Forest - Dawlish Road	U	94	63
Waltham Forest - Leyton	R	90	91
Wandsworth - Putney High Street	K	85	392
Wandsworth - Putney High Street Facade	R	51	320
Wandsworth - Wandsworth Town Hall	U	98	102
Westminster - Charing Cross Library	R	94	228
Westminster - Covent Garden	U	99	88
Westminster - Horseferry Road	U	95	74
Westminster - Marylebone Road	K	97	280
Windsor and Maidenhead - Clarence Road	R	97	88
Windsor and Maidenhead - Frascati Way	R	99	118

Table 4: Annual Mean values for NOx

3.4 Ozone

Site Name	Type	Capture Rate (%)	No more than 10 days where maximum rolling 8hr mean $\geq 100 \mu\text{g m}^{-3}$ (50ppb)	Achieved?
Camden - Bloomsbury	U	93	1	yes
Bexley - Belvedere West	U	28	0	n/a
Brent - Kingsbury	S	78	21	no
Brent - Ikea	R	80	0	n/a
Bexley - Slade Green	S	93	11	no
Bexley - Thames Road North	R	22	0	n/a
Bexley - Thames Road South	R	28	0	n/a
Bromley - Biggin Hill	S	49	5	n/a
Croydon - Thornton Heath	S	92	5	yes
City of London - Senator House	U	93	2	yes
City of London - Walbrook Wharf	R	54	0	n/a
Ealing - Ealing Town Hall	U	99	2	yes
Ealing - Acton Town Hall	R	95	0	yes
Greenwich and Bexley - Falconwood	R	100	0	yes
Greenwich - Plumstead High Street	R	100	0	yes
Greenwich - Eltham	S	98	7	yes
Greenwich - Woolwich Flyover	R	99	0	yes
Greenwich - Westthorne Avenue	R	95	0	yes
Haringey - Priory Park	U	76	0	n/a
Hillingdon - Sipson Road	S	97	0	yes
Hackney - Clapton	U	100	0	yes
Hackney - Old Street	R	98	0	yes
Hounslow - Cranford	S	11	5	n/a
Kensington and Chelsea - North Ken	U	87	5	n/a
Lewisham - Catford	U	99	0	yes
Windsor and Maidenhead - Ascot	RU	3	0	n/a
Westminster - Marylebone Road	K	94	0	yes
Newham - Cam Road	R	96	5	yes
Newham - Wren Close	U	95	6	yes
Redbridge - Perth Terrace	U	99	6	yes
Reading - New Town	U	99	12	no
Reigate and Banstead - Poles Lane	RU	99	18	no
Richmond Upon Thames - Barnes Wetlands	S	96	6	yes
Richmond - Hampton Court Road	K	97	0	yes
Sutton - Carshalton	S	99	8	yes
Richmond Upon Thames - Ntl Physical Lab	S	83	16	no
Tower Hamlets - Poplar	U	90	7	yes
Tower Hamlets - Blackwall	R	96	0	yes
Thurrock - London Road (Grays)	U	91	7	yes
Wandsworth - Wandsworth Town Hall	U	96	4	yes
Westminster - Horseferry Road	U	96	5	yes
Sevenoaks - Greatness Park	U	95	13	no

Table 5: AQS Objective results for O₃

3.5 Sulphur Dioxide

Site Name	Type	Capture Rate (%)	No more than 35 occurrences of 15min mean $\geq 350\mu\text{g m}^{-3}$ (100ppb)	Achieved?
Barking and Dagenham - Rush Green	S	94	0	yes
Camden - Bloomsbury	U	98	0	yes
Brent - Kingsbury	S	57	0	n/a
Brent - Ikea	R	68	0	n/a
Brent - John Keble Primary School	R	73	0	n/a
Bexley - Slade Green	S	96	0	yes
Castle Point - Canvey Island	U	41	0	n/a
City of London - Senator House	U	69	0	n/a
Crystal Palace - Crystal Palace Parade	R	56	0	n/a
Ealing - Ealing Town Hall	U	89	0	n/a
Enfield - Derby Road	R	96	0	yes
Greenwich - Eltham	S	98	0	yes
Haringey - Haringey Town Hall	R	93	0	yes
Harrow - Stanmore	U	83	0	n/a
Hounslow - Cranford	S	11	0	n/a
Kensington and Chelsea - North Ken	U	93	0	yes
Kensington and Chelsea - Cromwell Road	R	68	0	n/a
Lambeth - Christchurch Road	R	77	0	n/a
Lambeth - Loughborough Junct	U	93	0	yes
Lambeth - Brixton Road	K	83	0	n/a
Lambeth - Bondway Interchange	I	91	0	yes
Lewisham - Catford	U	91	0	yes
Lewisham - New Cross	R	92	0	yes
Westminster - Marylebone Road	K	92	0	yes
Newham - Cam Road	R	87	1	n/a
Newham - Wren Close	U	96	0	yes
Redbridge - Gardner Close	R	84	0	n/a
Richmond - Hampton Court Road	K	97	0	yes
Tower Hamlets - Poplar	U	97	0	yes
Thurrock - London Road (Grays)	U	97	0	yes
Thurrock - Stanford-le-Hope	R	85	0	n/a
Wandsworth - Wandsworth Town Hall	U	91	0	yes
Waltham Forest - Leyton	R	0	0	n/a
Westminster - Horseferry Road	U	96	0	yes
Sevenoaks - Greatness Park	U	89	0	n/a

Table 6: AQS Objective results for SO₂

3.6 PM₁₀

Site Name	Type	Capture Rate (%)	Annual Mean < 40 ug m ⁻³	Annual Mean Achieved?	No more than 35 occurrences of daily mean >= 50 ug m ⁻³	Daily Mean Achieved?
Barking and Dagenham - North Street	K	95	28	yes	12	yes
Barking and Dagenham - Scrattons Farm	S	96	22	yes	3	yes
Barnet - Finchley	U	95	20	yes	1	yes
Barnet - Tally Ho Corner	K	98	24	yes	6	yes
Bexley - Belvedere	S	95	21	yes	2	yes
Bexley - Belvedere FDMS	S	89	22	n/a	5	n/a
Bexley - Belvedere West	U	32	20	n/a	1	n/a
Bexley - Belvedere West FDMS	U	34	18	n/a	1	n/a
Bexley - Erith	I	99	31	yes	56	no
Bexley - Manor Road East Gravimetric	I	81	30	n/a	52	no
Bexley - Manor Road West Gravimetric	I	67	30	n/a	38	no
Bexley - Slade Green	S	91	20	yes	2	yes
Bexley - Thames Road North	R	22	28	n/a	3	n/a
Bexley - Thames Road North FDMS	R	20	26	n/a	4	n/a
Bexley - Thames Road South	R	27	26	n/a	5	n/a
Brent - Ikea	R	80	33	n/a	32	n/a
Brent - John Keble Primary School	R	87	26	n/a	8	n/a
Brent - Kingsbury	S	83	19	n/a	2	n/a
Brent - Neasden Lane	I	81	36	n/a	64	no
Brent - St Marys Primary School	U	95	20	yes	2	yes
Bromley - Harwood Avenue	R	45	18	n/a	0	n/a
Camden - Bloomsbury	U	89	18	n/a	2	n/a
Camden - Shaftesbury Avenue	R	84	29	n/a	5	n/a
Camden - Swiss Cottage	K	86	26	n/a	11	n/a
City of London - Sir John Cass School	U	85	26	n/a	10	n/a
City of London - Upper Thames Street	R	98	37	yes	57	no
Croydon - George Street	R	88	21	n/a	5	n/a
Croydon - Thornton Heath	S	90	20	yes	2	yes
Crystal Palace - Crystal Palace Parade	R	55	23	n/a	1	n/a
Ealing - Acton Town Hall	R	85	24	n/a	8	n/a
Ealing - Acton Town Hall FDMS	R	71	23	n/a	6	n/a
Ealing - Horn Lane	I	95	42	no	93	no
Ealing - Southall	U	96	20	yes	2	yes
Enfield - Bowes Primary School	R	46	26	n/a	4	n/a
Enfield - Derby Road	R	94	28	yes	16	yes
Greenwich - A206 Burrage Grove	R	96	28	yes	18	yes
Greenwich - Blackheath	R	99	28	yes	20	yes
Greenwich - Eltham	S	88	23	n/a	4	n/a
Greenwich - Millennium Village	I	79	22	n/a	9	n/a
Greenwich - Plumstead High Street	R	98	20	yes	7	yes
Greenwich - Trafalgar Road	R	99	22	yes	2	yes
Greenwich - Westthorne Avenue	R	96	22	yes	9	yes
Greenwich - Woolwich Flyover	R	99	33	yes	33	yes
Greenwich and Bexley - Falconwood FDMS	R	99	27	yes	16	yes
Hackney - Old Street	R	92	28	yes	14	yes
Haringey - Haringey Town Hall	R	85	23	n/a	9	n/a

Site Name	Type	Capture Rate (%)	Annual Mean < 40 $\mu\text{g m}^{-3}$	Annual Mean Achieved?	No more than 35 occurrences of daily mean $\geq 50\mu\text{g m}^{-3}$	Daily Mean Achieved?
Haringey - Priory Park	U	98	17	yes	1	yes
Harrow - Pinner Road	R	99	24	yes	4	yes
Harrow - Stanmore	U	91	17	yes	1	yes
Havering - Romford	R	90	21	yes	5	yes
Heathrow Airport	U	84	24	n/a	3	n/a
Hillingdon - Hillingdon Hospital	R	83	21	n/a	1	n/a
Hillingdon - Oxford Avenue	R	92	22	yes	4	yes
Hillingdon - South Ruislip	R	98	23	yes	5	yes
Hounslow - Brentford	R	32	33	n/a	8	n/a
Hounslow - Cranford	S	42	20	n/a	1	n/a
Hounslow - Feltham	R	49	25	n/a	2	n/a
Hounslow - Hatton Cross	U	79	21	n/a	1	n/a
Hounslow - Heston Road	R	77	24	n/a	6	n/a
Islington - Arsenal	U	98	22	yes	5	yes
Islington - Holloway Road	R	99	27	yes	8	yes
Kensington and Chelsea - Cromwell Road	R	62	29	n/a	11	n/a
Kensington and Chelsea - Earls Court Rd	K	90	34	yes	30	yes
Kensington and Chelsea - North Ken	U	96	20	yes	3	yes
Kensington and Chelsea - North Ken FDMS	U	65	21	n/a	3	n/a
Kensington and Chelsea - N Ken Partisol	U	94	16	yes	2	yes
Lambeth - Bondway Interchange	I	78	43	n/a	76	no
Lambeth - Brixton Road	K	76	33	n/a	16	n/a
Lambeth - Christchurch Road	R	82	20	n/a	3	n/a
Lambeth - Loughborough Junct	U	81	21	n/a	3	n/a
Lambeth - Streatham Green	U	69	23	n/a	6	n/a
Lewisham - Mercury Way	I	72	23	n/a	4	n/a
Lewisham - New Cross	R	97	25	yes	6	yes
Marylebone Rd - Partisol PM10 and Magee	K	80	30	n/a	16	n/a
Mole Valley - Dorking	U	95	19	yes	0	yes
Newham - Cam Road	R	76	27	n/a	12	n/a
Newham - Wren Close	U	98	22	yes	3	yes
Reading - Caversham Road	R	94	27	yes	7	yes
Reading - Kings Road	R	90	26	yes	3	yes
Reading - New Town	U	73	16	n/a	1	n/a
Reading - Oxford Road	R	94	25	yes	5	yes
Redbridge - Fullwell Cross	K	94	31	yes	17	yes
Redbridge - Gardner Close	R	75	31	n/a	18	n/a
Redbridge - Perth Terrace	U	97	15	yes	0	yes
Redbridge - South Woodford	R	95	23	yes	7	yes
Reigate and Banstead - Horley	S	75	20	n/a	0	n/a
Richmond - Hampton Court Road	K	95	22	yes	5	yes
Richmond Upon Thames - Barnes Wetlands	S	99	19	yes	1	yes
Richmond Upon Thames - Castlenau	R	98	21	yes	2	yes
Sevenoaks - Bat and Ball	R	98	23	yes	2	yes
Sevenoaks - Greatness Park	U	92	20	yes	1	yes
Southwark - A2 Old Kent Road	R	8	29	n/a	0	n/a

Site Name	Type	Capture Rate (%)	Annual Mean < 40 $\mu\text{g m}^{-3}$	Annual Mean Achieved?	No more than 35 occurrences of daily mean $\geq 50\mu\text{g m}^{-3}$	Daily Mean Achieved?
Sutton - Beddington Lane north	I	92	29	yes	17	yes
Sutton - Therapia Lane	I	87	26	n/a	6	n/a
Sutton - Wallington	K	97	25	yes	5	yes
Sutton - Worcester Park	K	63	27	n/a	10	n/a
Thurrock - London Road (Grays)	U	87	24	n/a	8	n/a
Thurrock - London Road (Purfleet)	R	97	30	yes	23	yes
Thurrock - Stanford-le-Hope	R	88	21	n/a	4	n/a
Tower Hamlets - Blackwall	R	71	29	n/a	18	n/a
Tower Hamlets - Poplar	U	94	22	yes	6	yes
Waltham Forest - Crooked Billet	K	98	30	yes	16	yes
Waltham Forest - Dawlish Road	U	96	22	yes	1	yes
Waltham Forest - Leyton	R	91	25	yes	11	yes
Wandsworth - Putney High Street	K	88	29	n/a	5	n/a
Westminster - Horseferry Road	U	56	21	n/a	1	n/a
Westminster - Marylebone Road	K	96	35	yes	46	no
Westminster - Marylebone Road FDMS	K	92	32	yes	25	yes
Westminster - Oxford St	K	22	27	n/a	4	n/a

Table 7: AQS Objective results for PM_{10} .

All PM_{10} measurements have been converted to gravimetric equivalent by the methods recommended in Defra's Local Air Quality Management Technical Guidance (Defra, 2009), i.e. TEOM measurements have been corrected using the Volatile Correction Model (VCM) and BAM measurements have been multiplied by 0.83.

3.7 PM_{2.5}

Site Name	Type	Instrument	Capture Rate (%)	Annual Mean $\mu\text{g m}^{-3}$ uncorrected
Bexley - Belvedere	S	TEOM	80	10
Bexley - Belvedere West	U	TEOM	32	10
Bexley - Erith	I	FDMS	83	14
Bexley - Slade Green	S	FDMS	91	15
Bexley - Thames Road North	R	TEOM	21	12
Bexley - Thames Road South	R	TEOM	27	11
Bexley - Thamesmead	S	TEOM	99	9
Brent - Ikea	R	TEOM	81	14
Camden - Bloomsbury	U	FDMS	88	16
Camden - Swiss Cottage	K	FDMS	62	17
Ealing - Acton Town Hall	R	TEOM	87	11
Greenwich - A206 Burrage Grove	R	FDMS	85	20
Greenwich - Eltham	S	FDMS	89	17
Greenwich - Millennium Village	I	FDMS	94	16
Greenwich - Plumstead High Street	R	FDMS	99	15
Greenwich - Westthorne Avenue	R	FDMS	91	17
Greenwich - Woolwich Flyover	R	TEOM	98	16
Greenwich and Bexley - Falconwood	R	FDMS	65	18
Hackney - Clapton	U	TEOM	83	12
Hackney - Old Street	R	TEOM	95	13
Haringey - Haringey Town Hall	R	FDMS	97	17
Harrow - Stanmore	U	FDMS	87	13
Kensington and Chelsea - Cromwell Road	R	FDMS	14	16
Kensington and Chelsea - North Ken	U	FDMS	92	14
Kensington and Chelsea - North Ken	U	PARTISOL	88	11
Reading - New Town	U	FDMS	81	13
Redbridge - Fullwell Cross	K	BAM	73	12
Redbridge - Gardner Close	R	BAM	74	16
Richmond Upon Thames - Ntl Physical Lab	S	FDMS	76	14
Thurrock - Stanford-le-Hope	R	FDMS	55	15
Tower Hamlets - Blackwall	R	FDMS	94	18
Westminster - Marylebone Road	K	TEOM	8	17
Westminster - Marylebone Road	K	FDMS	58	23
Westminster - Marylebone Road	K	PARTISOL	51	17

Table 8: AQS Objective results for PM_{2.5}

4 References

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