

Air Quality and Dust Monitoring Monthly Report – February 2020

London Borough of Camden



SKANSKA



Department for Transport

High Speed Two (HS2) Limited has been tasked by the Department for Transport (DfT) with managing the delivery of a new national high speed rail network. It is a non-departmental public body wholly owned by the DfT.

High Speed Two (HS2) Limited,
Two Snowhill
Snow Hill Queensway
Birmingham B4 6GA

Telephone: 08081 434 434

General email enquiries: HS2enquiries@hs2.org.uk

Website: www.gov.uk/hs2

A report prepared by Costain Skanska on behalf of HS2 Ltd.

High Speed Two (HS2) Limited has actively considered the needs of blind and partially sighted people in accessing this document. The text will be made available in full on the HS2 website. The text may be freely downloaded and translated by individuals or organisations for conversion into other accessible formats. If you have other needs in this regard please contact High Speed Two (HS2) Limited.

© High Speed Two (HS2) Limited, 2020, except where otherwise stated.

Copyright in the typographical arrangement rests with High Speed Two (HS2) Limited.

This information is licensed under the Open Government Licence v2.0. To view this licence, visit www.nationalarchives.gov.uk/doc/open-government-licence/version/2 **OGI** or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or e-mail: psi@nationalarchives.gsi.gov.uk. Where we have identified any third-party copyright information you will need to obtain permission from the copyright holders concerned.



Printed in Great Britain on paper containing at least 75% recycled fibre.

Monthly Summary

- 1.1.1 This Summary Report is published in fulfilment of commitments detailed in the High Speed Rail (London-West Midlands) Environmental Minimum Requirements, Annex 1: Code of Construction Practice, for the nominated undertaker to present the results of air quality and dust monitoring undertaken in the London Borough of Camden (LBC) during January and February 2020 respectively.
- 1.1.2 Figure 1 to Figure 3 in Appendix A indicate the current worksites together with air quality and dust monitoring locations.
- 1.1.3 This summary should be read in conjunction with the overview monitoring report available from www.gov.uk/government/collections/monitoring-the-environmental-effects-of-hs2, which highlights: the applicable standards and guidance, as well as the air quality and dust monitoring methodologies to be implemented by nominated undertakers throughout construction.
- 1.1.4 The current phase of enabling works commenced within the LBC during December 2017 and is expected to be completed by October 2020. The next concurrent phase of construction works commenced in November 2019 and is expected to be completed by 2025. The current, completed and planned worksites, include:

Current & Planned -

- Site office and welfare on the adjacent former Addison Lee compound on Granby Terrace, worksite ref. S001-WS01.
- Archaeological dig at St James' Gardens, groundworks and materials management; worksite ref. S003-WS01.
- Demolition, materials management and groundworks at:
 - IBIS Hotel, 3 Cardington Street, worksite ref. S003-WS05;
 - Thistle Hotel, Cardington Street, worksite ref. S003-WS04;
 - Cobourg Street / Euston Street, worksite ref. S003-WS05;
 - Regents Park Estate worksite ref. S001-WS07;
 - Walkden House, 67-75 & 77-79 Euston Street, worksite ref. S003-WS03;
 - One Euston Square, 40 Melton Street and Grant Thornton House, 22 Melton Street, worksite ref. S003-WS09; and
 - 132 – 140 Hampstead Road and Petrol Station, worksite ref. S001-WS02.
- National Temperance Hospital, Site Office and Welfare 110-122 Hampstead Road, worksite ref. S003-WS06 and S003-WS02.
- Thames Water Compound, worksite ref. S001-WS05.
- Vehicle Holding Area, mobilisation, site set up and groundworks; worksite ref. S001-WS04.
- Euston Approaches mobilisation and site set up and crushing and storage of spoil (on the former DB Cargo site), worksite ref. S001-WS01.

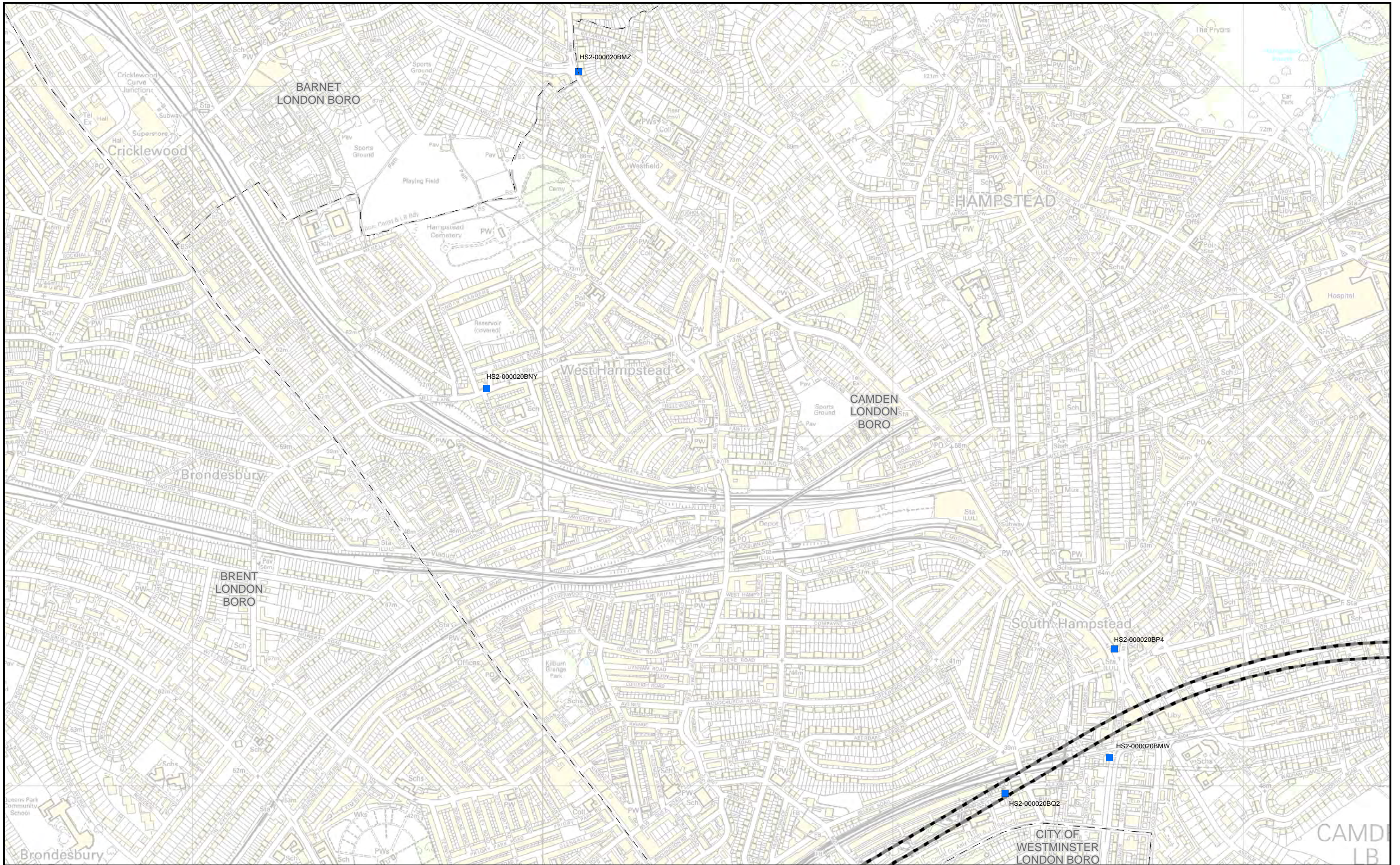
Complete -

- Taxi rank in Euston Square Gardens, worksite ref. S003-WS08.

- 1.1.5 Twenty (20) dust monitors are installed around worksites, where demolition, groundworks and materials management are underway. These sites returned a medium or high dust risk rating.
- 1.1.6 Dust monitoring locations and results are presented in Appendix B, Table1, together with line charts of monthly data from each dust monitor in Figure 4. All continuous dust monitoring is undertaken using indicative monitors. Despite being Environment Agency (MCERTS) certified, indicative monitors carry a higher level of uncertainty than reference monitors, and therefore cannot be strictly compared with Air Quality Standards for human health and the environment. The purpose of the monitoring undertaken is to ensure the effectiveness of the on-site mitigation.
- 1.1.7 The trigger level of $190 \mu\text{g}/\text{m}^3$, over a 1-hour period, in accordance with the updated guidance document '*Guidance on Monitoring in the Vicinity of Demolition and Construction Sites – (October 2018)*' has been applied.
- 1.1.8 There was one (1) dust trigger alert associated with our works, and a number of false triggers, due to faulty monitors, recorded during the monitoring period (February 2020). Exceedances are presented in Appendix B, Table2. All other results were in line with expected ranges.
- 1.1.9 Diffusion tube monitoring of Nitrogen Dioxide (NO_2) was undertaken at sixty-four (64) locations in January 2020, around highways within the LBC as part of the management of air quality where significant effects may occur as a result of the scheme.
- 1.1.10 Diffusion tube monitoring results are provided from the laboratory analysis, and therefore still require various analysis and adjustments to be undertaken. Final corrected results will be presented and described in the annual report. However, based on the results to date, no unexpected values were recorded during the monitoring period.
- 1.1.11 NO_2 monitoring locations and results are presented in Appendix C, Table3, together with the 2020 running mean.
- 1.1.12 No (0) complaints were received, relating to air quality and dust, during this monitoring period (February 2020).

Appendix A – Worksites and Monitoring Locations

Figure 1 to Figure 3: Worksites and monitoring locations within the LBC



Legend

- Route in tunnel
- Route on surface
- Diffusion tube monitoring location

Figure Number

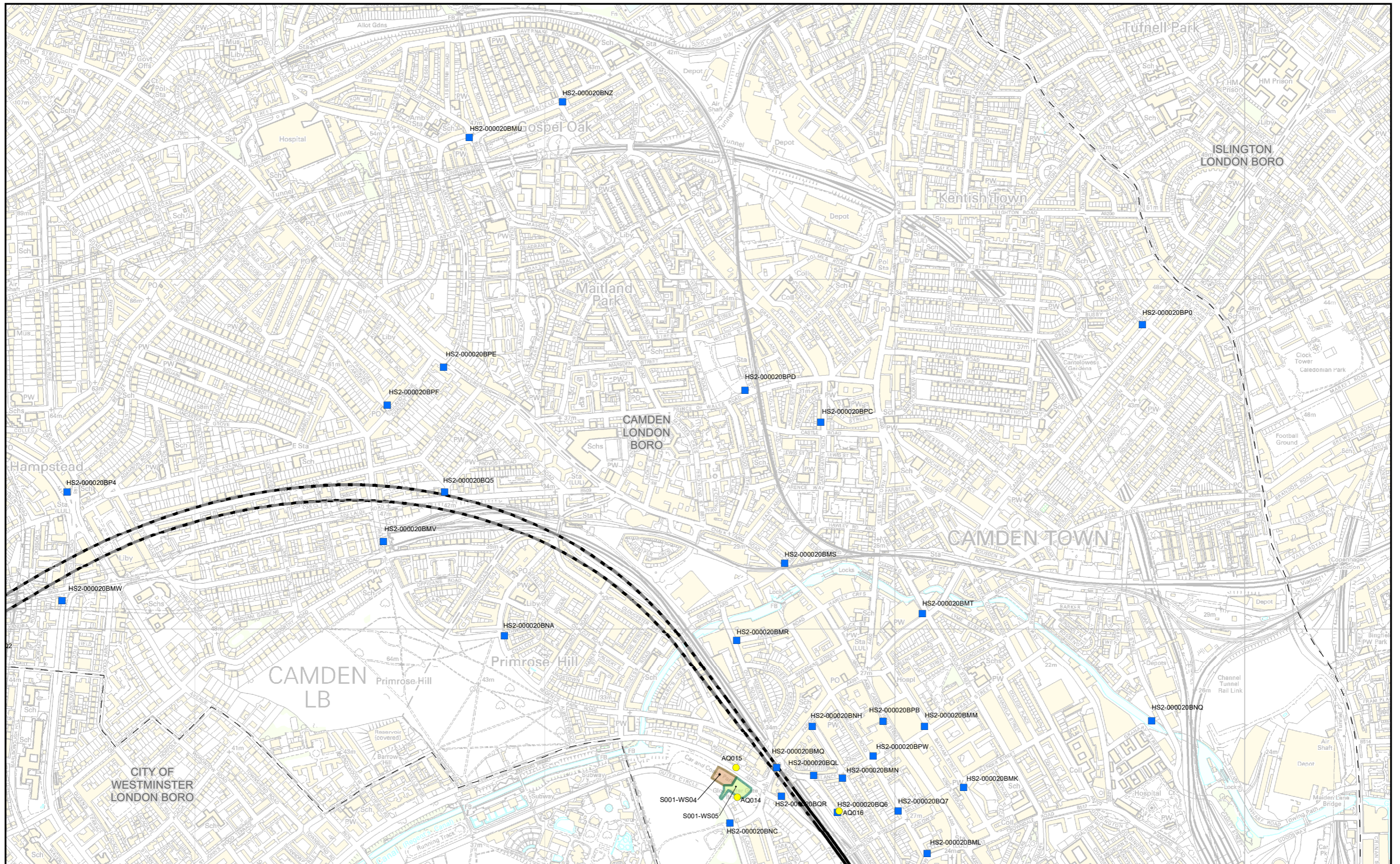
Figure Name
Worksites and Monitoring locations in LBC

London Borough of Camden

HS2 Ltd accept no responsibility for any circumstances, which arise from the reproduction of this map after alteration, amendment or abbreviation or if it is issued in part or issued incomplete in any way.

Scale at A3: 10,000

© Crown copyright and database rights 2016.
 Ordnance Survey Licence Number 100049190.
 Map Number: 1EW02-CSJ-EV-REP-S000-000017_appAFig1.pdf **Date: 13/07/18**



- Legend**
- Route in tunnel
 - Route on surface
 - Diffusion tube monitoring location
 - Dust monitoring location
 - Vehicle Holding Area
 - Thames Water Compound

Figure Number

Figure Name
Worksites and Monitoring locations in LBC
 (sheet 2)

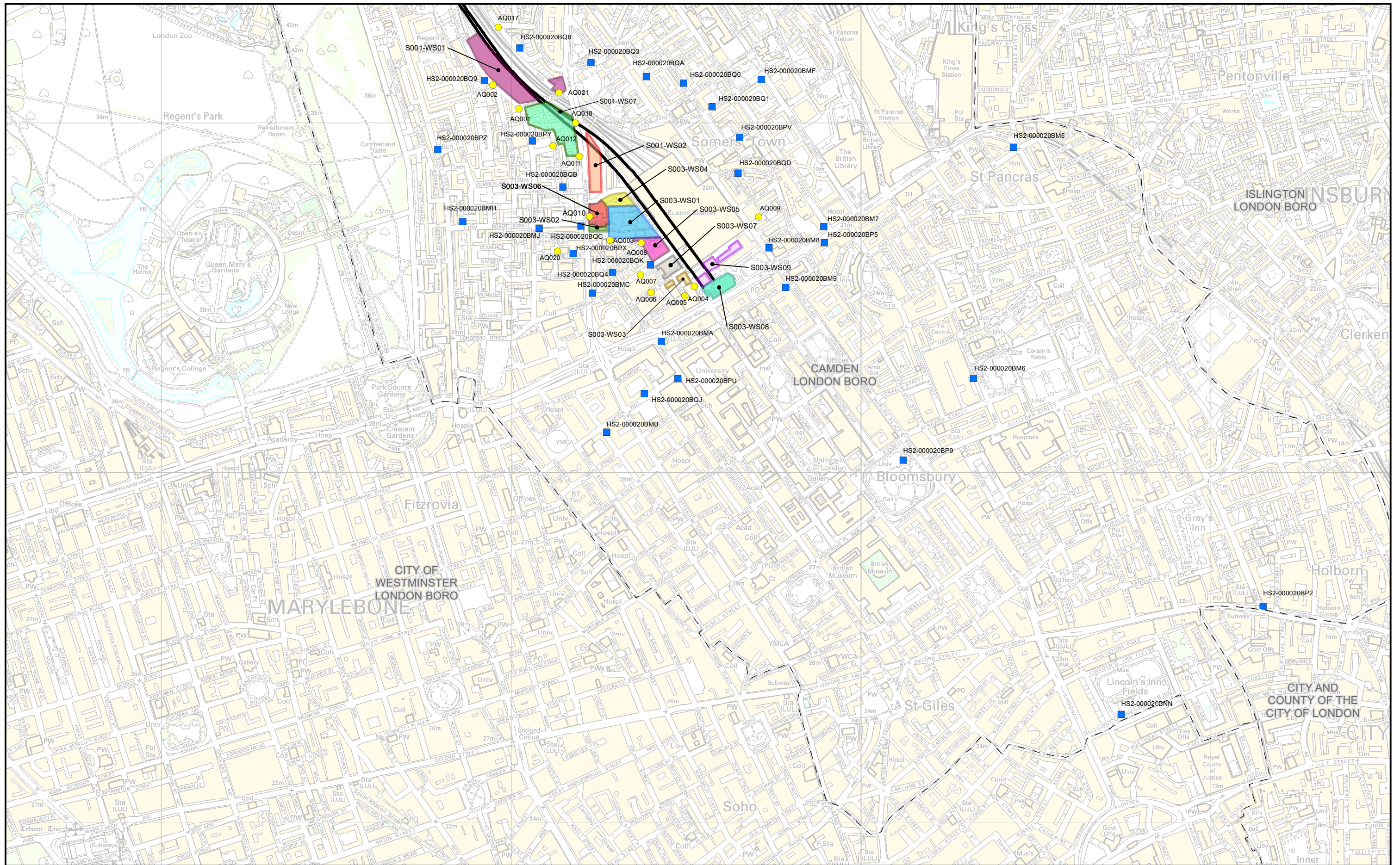
London Borough of Camden

HS2 Ltd accept no responsibility for any circumstances, which arise from the reproduction of this map after alteration, amendment or abbreviation or if it is issued in part or issued incomplete in any way.

Scale at A3: 10,000

Metres

© Crown copyright and database rights 2016.
 Ordnance Survey Licence Number 100049190.
 Map Number: 1EW02-CSJ-EV-REP-S000-000017_appAFig1.pdf **Date: 20/03/20**



Legend			
	Route in tunnel		National Temperance Hospital worksite
	Route on surface		Ibis Hotel, 3 Cardington Street & 1-3 Cobourg Street
	Diffusion tube monitoring location		National Temperance Hospital, Insull Wing
	Dust monitoring location		Walkden House, 65-75 & 77-79 Euston Street
	DB Cargo Shed and Compound worksite		Thistle Hotel, Cardington Street
	St. James' Gardens worksite		Regents Park Estate
			Euston Street, Melton Street, Drummond Street block

Figure Number	
Figure Name	Worksites and Monitoring locations in LBC (sheet 3)
London Borough of Camden	

HS2 Ltd accept no responsibility for any circumstances, which arise from the reproduction of this map after alteration, amendment or abbreviation or if it is issued in part or issued incomplete in any way.

Scale at A3: 10,000

Metres

© Crown copyright and database rights 2016. Ordnance Survey Licence Number 100049190.
 Map Number: 1EW02-CSJ-EV-REP-S000-000017_appAFig1.pdf Date: 09/04/19

Appendix B – Dust Monitoring Results

Table1: Dust monitoring locations and February 2020 Results

Monitoring site ID	Coordinates (X,Y)	Location description	Dust risk rating for site	Monitoring site active during period	Change to site since previous period report	Mean 1-hour PM ₁₀ concentration (µg/m ³)	Minimum 1-hour PM ₁₀ concentration (µg/m ³)	Maximum 1-hour PM ₁₀ concentration (µg/m ³)	Number of 1- hour periods exceeding trigger level of 190 µg/m ³	Data capture (%)
AQ001	529022, 183040	Junction of Park Village East, Stanhope Street and Granby Terrace	H	Yes	N	45.4	0.3	2,328.8	36	100
AQ002	528945, 183105	Park Village East	H	Yes	N	11.9	0.6	63.6	0	100
AQ003	529279, 182698	St James Gardens	M	Yes	N	13.9	0.7	77.1	0	100
AQ004	529523, 182533	Melton Street	H	Yes	N	14.9	0.8	82.2	0	100
AQ005	529496, 182505	Stephenson Way	H	Yes	N	14.7	0.9	94.2	0	100
AQ006	529399, 182514	Euston Street	H	Yes	N	11.5	0.7	59.3	0	100
AQ007	529369, 182564	Drummond Street	H	Yes	N	13.0	0.9	62.2	0	100
AQ008	529372, 182657	Cobourg Street	H	Yes	N	18.2	0.8	90.9	0	100
AQ009	529707, 182730	Lancing Street	H	Yes	N	13.9	0.6	87.6	0	100
AQ010	529223, 182732	Hampstead Road South	H	Yes	N	12.6	1.0	62.1	0	100
AQ011	529193, 182921	Hampstead Road	H	Yes	N	15.3	1.0	69.3	0	100

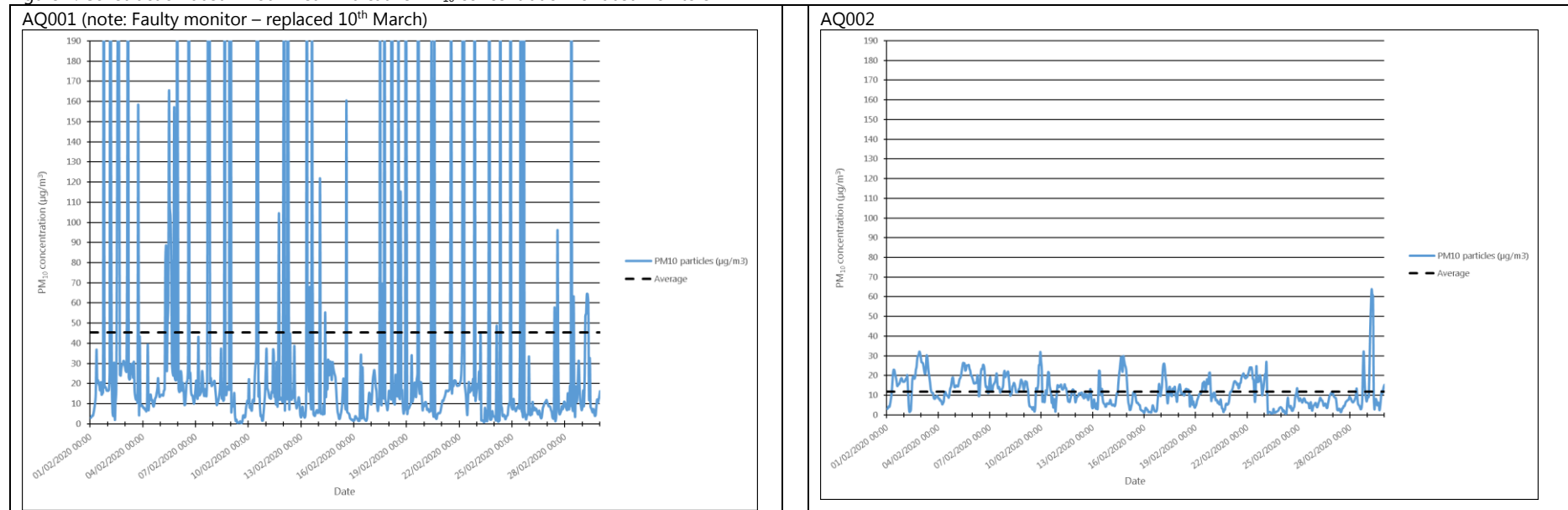
Monitoring site ID	Coordinates (X,Y)	Location description	Dust risk rating for site	Monitoring site active during period	Change to site since previous period report	Mean 1-hour PM ₁₀ concentration (µg/m ³)	Minimum 1-hour PM ₁₀ concentration (µg/m ³)	Maximum 1-hour PM ₁₀ concentration (µg/m ³)	Number of 1- hour periods exceeding trigger level of 190 µg/m ³	Data capture (%)
AQ012	529145, 182941	Rear of Coniston House	H	Yes	N	14.7	0.6	243.6	1	97.3
AQ013	529086, 182983	Regents Park Estate	H	Yes	N	20.1	1.0	137.1	0	99.1
AQ014	528550, 183518	Thames Water Compound	L	Yes	N	11.8	0.6	69.1	0	99.3
AQ015	528546, 183604	Prince Albert Road	L	Yes	N	9.9	0.5	51.2	0	100
AQ016	528840, 183466	Mornington Terrace North	H	Yes	N	10.8	0.5	44.7	0	100
AQ017	528963, 183274	Mornington Terrace South	H	Yes	N	10.6	0.5	53.3	0	100
AQ018	529184, 182999	Hampstead Road North	H	Yes	N	14.9	0.7	132.3	0	100
AQ020	529109, 182605	Netley School	n/a	Yes	N	22.4	0.3	491.9	3	99.9
AQ021	529136, 183086	Site compound at the Junction of Hampstead Road & Granby Terrace Bridge.	H	Yes	N	14.0	1.0	74.0	0	100

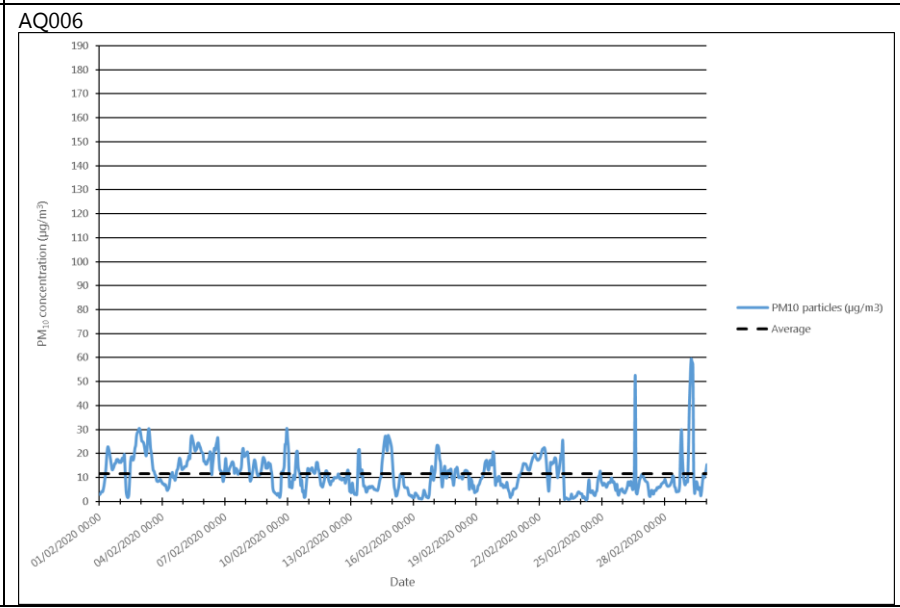
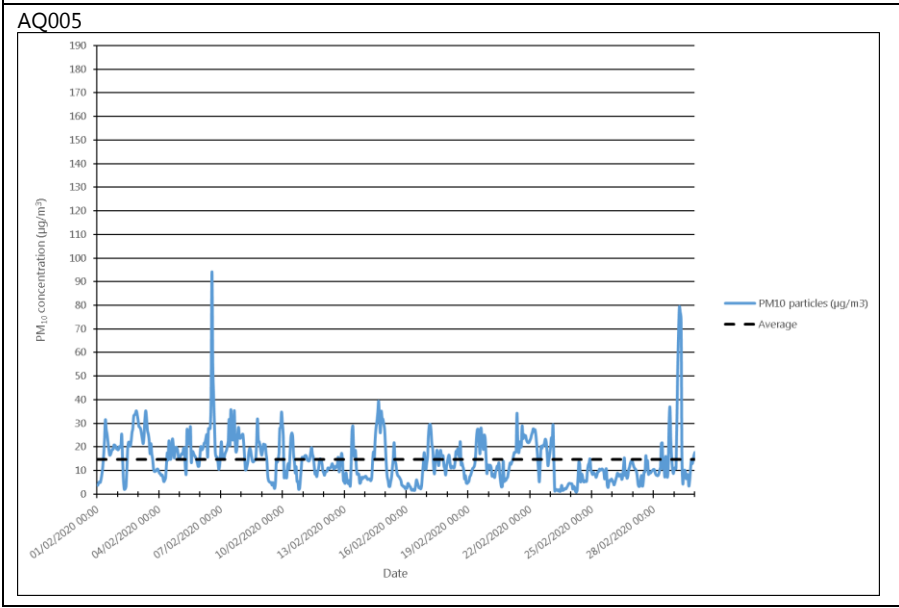
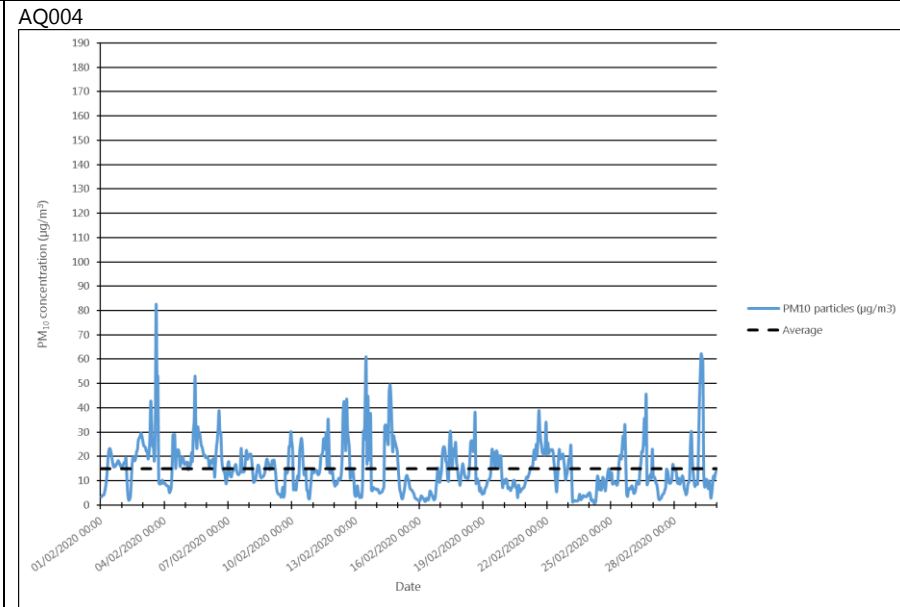
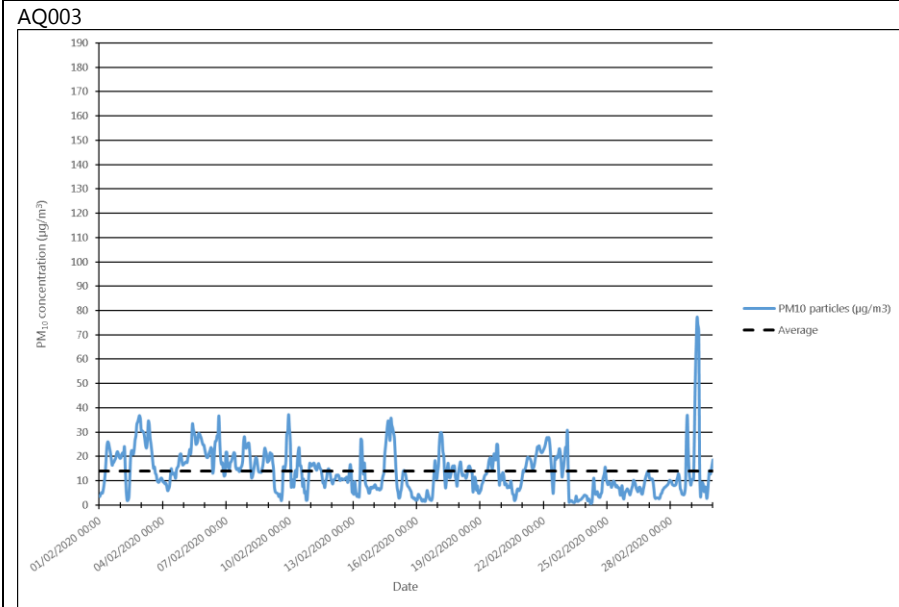
Table2: Summary of exceedances of trigger level in February 2020

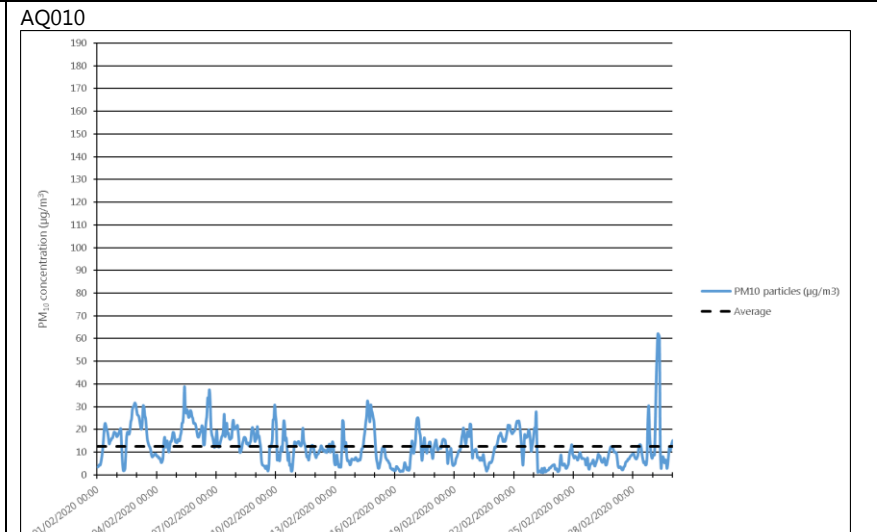
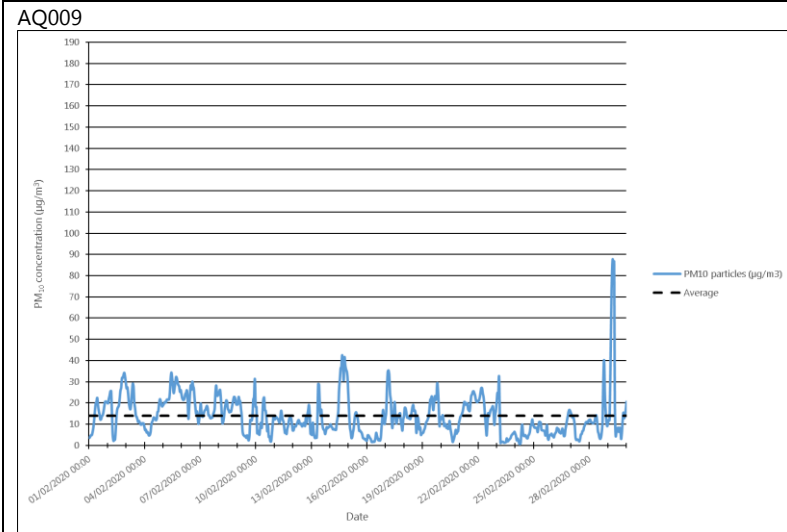
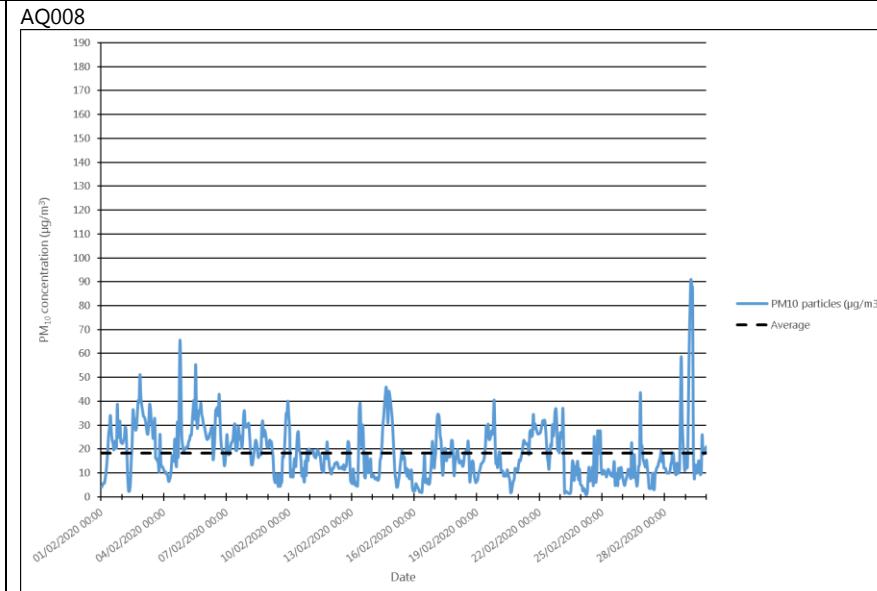
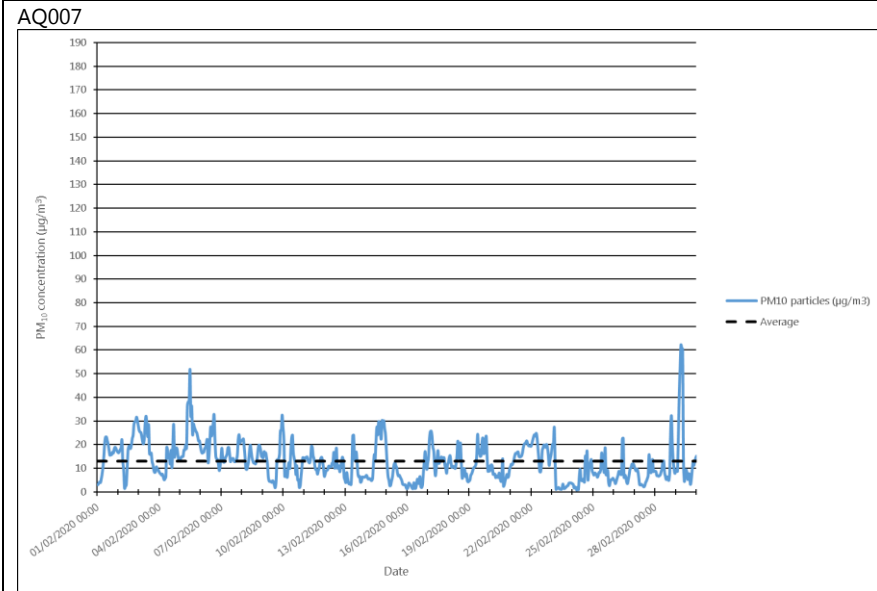
Period exceeding trigger level	Worksite reference	Monitoring site ID	Complaint reference number (if applicable)	Reason	Resolution
01/02/2020 18:01 – 19:00	S001-WS01	AQ001	n/a	Monitor faulty and early access to the monitor was not possible due to utilities works around the monitor during February.	On 27 th February the monitor was serviced but this did not resolve the fault. It was then determined that the replacement of the monitor was necessary. (the monitor was replaced on the 10 th March).
02/02/2020 03:01 – 04:00	S001-WS01	AQ001	n/a		
02/02/2020 13:01 – 15:00 (x2 alerts)	S001-WS01	AQ001	n/a		
03/02/2020 03:01 – 04:00	S001-WS01	AQ001	n/a		
05/02/2020 22:01 – 23:00	S001-WS01	AQ001	n/a		
06/02/2020 14:01 – 15:00	S001-WS01	AQ001	n/a		
07/02/2020 16:01 – 19:00 (x3 alerts)	S001-WS01	AQ001	n/a		
08/02/2020 15:01 – 16:00	S001-WS01	AQ001	n/a		
08/02/2020 22:01 – 00:00 (x2 alerts)	S001-WS01	AQ001	n/a		
10/02/2020 11:01 – 13:00 (x2 alerts)	S001-WS01	AQ001	n/a		
12/02/2020 00:01 – 01:00	S001-WS01	AQ001	n/a		
12/02/2020 05:01 – 06:00	S001-WS01	AQ001	n/a		
13/02/2020 07:01 – 08:00	S001-WS01	AQ001	n/a		
13/02/2020 14:01 – 15:00	S001-WS01	AQ001	n/a		
17/02/2020 11:01 – 12:00	S001-WS01	AQ001	n/a		
17/02/2020 17:01 – 18:00	S001-WS01	AQ001	n/a		
18/02/2020 03:01 – 04:00	S001-WS01	AQ001	n/a		
18/02/2020 12:01 – 13:00	S001-WS01	AQ001	n/a		
18/02/2020 22:01 – 23:00	S001-WS01	AQ001	n/a		
19/02/2020 15:01 – 16:00	S001-WS01	AQ001	n/a		
20/02/2020 13:01 – 14:00	S001-WS01	AQ001	n/a		
21/02/2020 12:01 – 13:00	S001-WS01	AQ001	n/a		
22/02/2020 04:01 – 06:00 (x2 alerts)	S001-WS01	AQ001	n/a		
22/02/2020 20:01 – 21:00	S001-WS01	AQ001	n/a		
23/02/2020 16:01 – 17:00	S001-WS01	AQ001	n/a		
24/02/2020 07:01 – 08:00	S001-WS01	AQ001	n/a		
24/02/2020 21:01 – 22:00	S001-WS01	AQ001	n/a		
25/02/2020 11:01 – 12:00	S001-WS01	AQ001	n/a		
25/02/2020 15:01 – 16:00	S001-WS01	AQ001	n/a		
28/02/2020 08:01 – 09:00	S001-WS01	AQ001	n/a		
19/02/2020 08:01 – 09:00	S001-WS02	AQ012	n/a	Demolition works began on the West Wing of Silverdale at 08:30, using the high reach excavator on the first and second floors. A combination of dust suppression was being implemented at the time including the built-in	The delivery team were briefed again regarding the need for diligent dust suppression highlighting

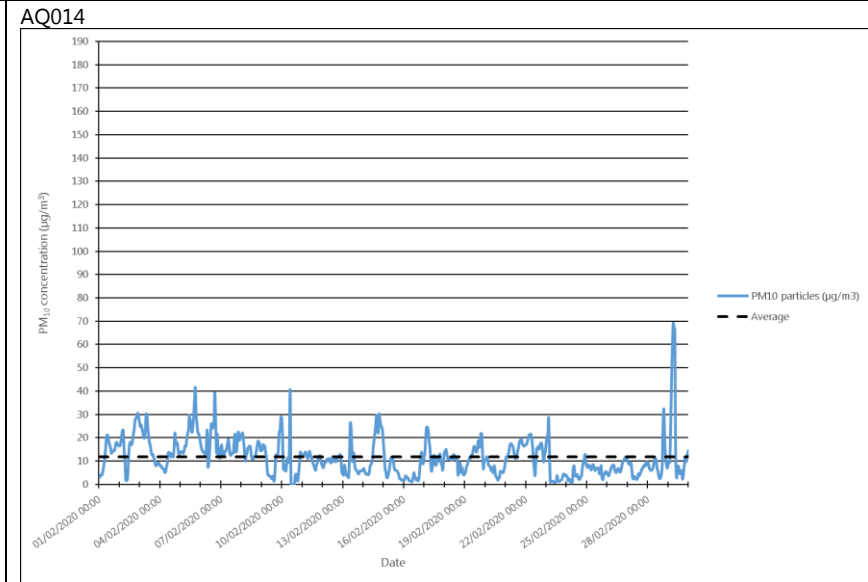
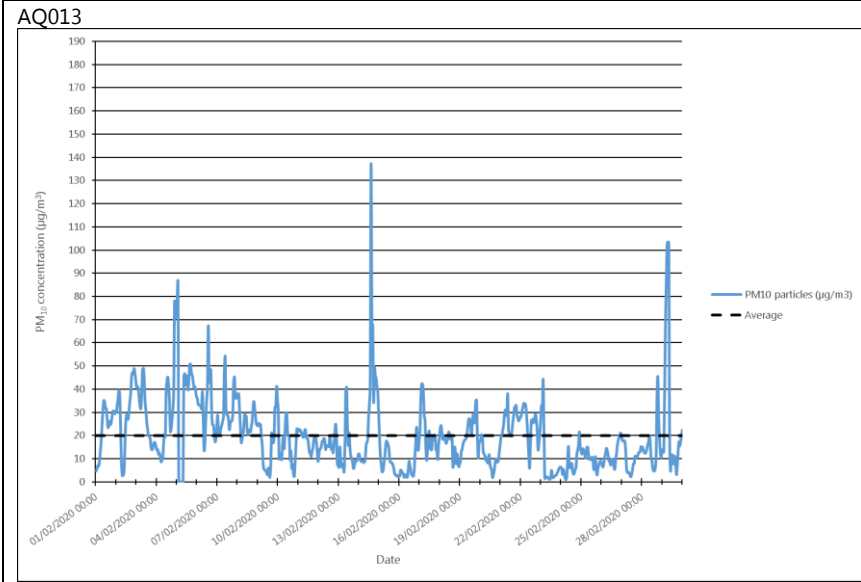
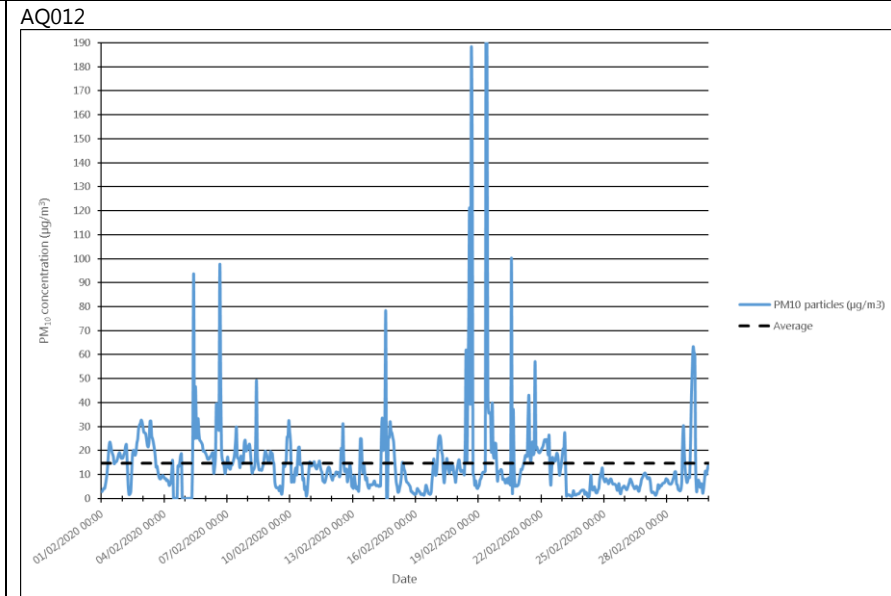
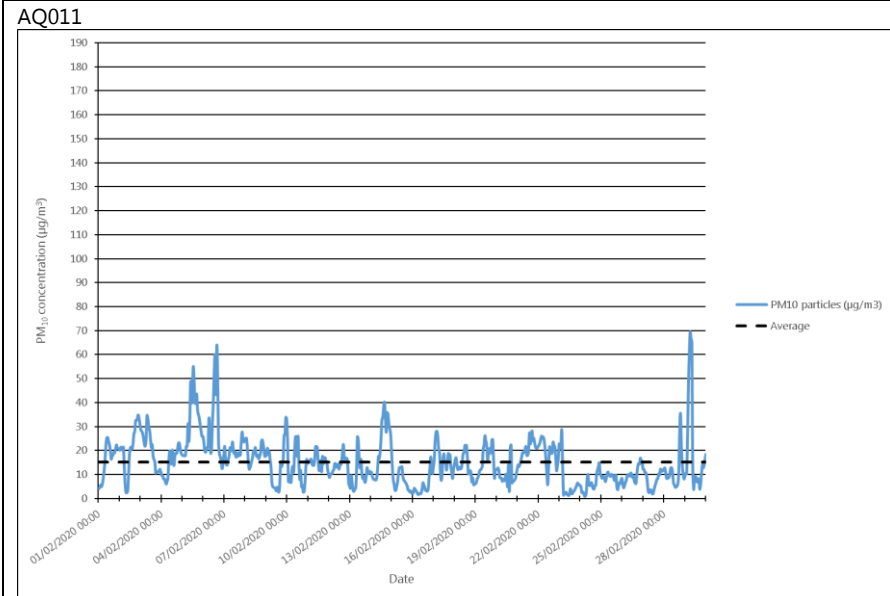
				<p>water spray systems, an operator with a hose, numerous moto fogs and a dust cannon.</p> <p>At 09:00 an alert was received from the monitor which is located approximately 3 metres from the demolition works.</p> <p>Upon investigation, the dust suppression appeared to be very effective, with the operative using the hose to follow the point of demolition as it moved across the building.</p> <p>However, works were stopped immediately following the trigger and a review of the dust suppression carried out.</p>	<p>the very close proximity of Coniston House.</p> <p>The dust suppression was redeployed the next day and works recommenced.</p>
02/02/2020 21:01 – 22:00	S003-WS01	AQ020	n/a	Trigger alerts associated with a faulty monitor.	Monitor was replaced on the 6 th February.
06/02/2020 07:01 – 09:00 (x2 alerts)	S003-WS01	AQ020	n/a		

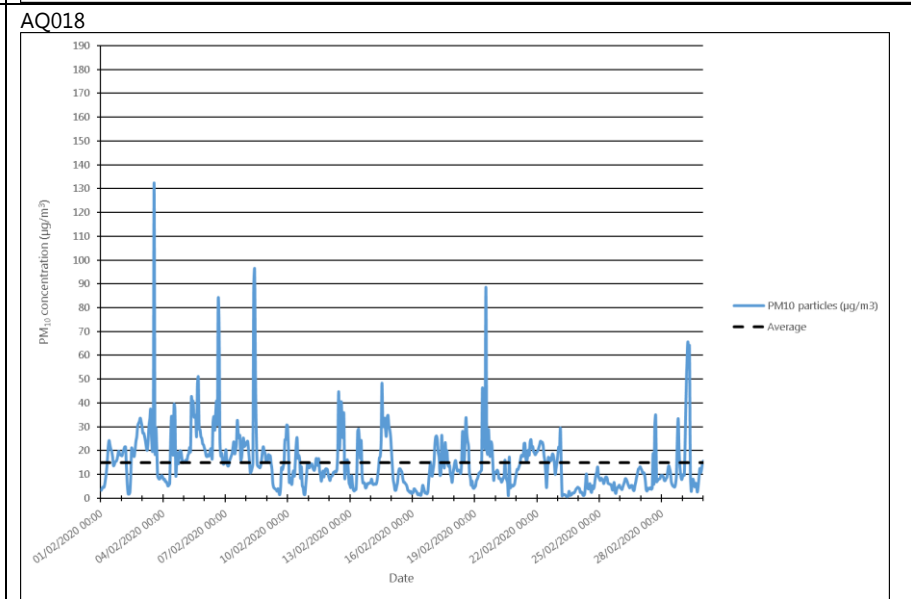
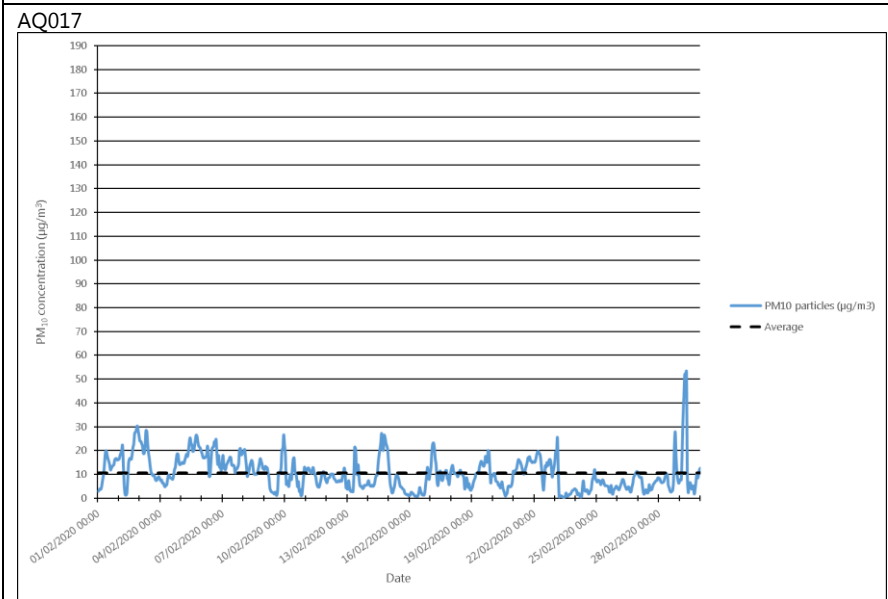
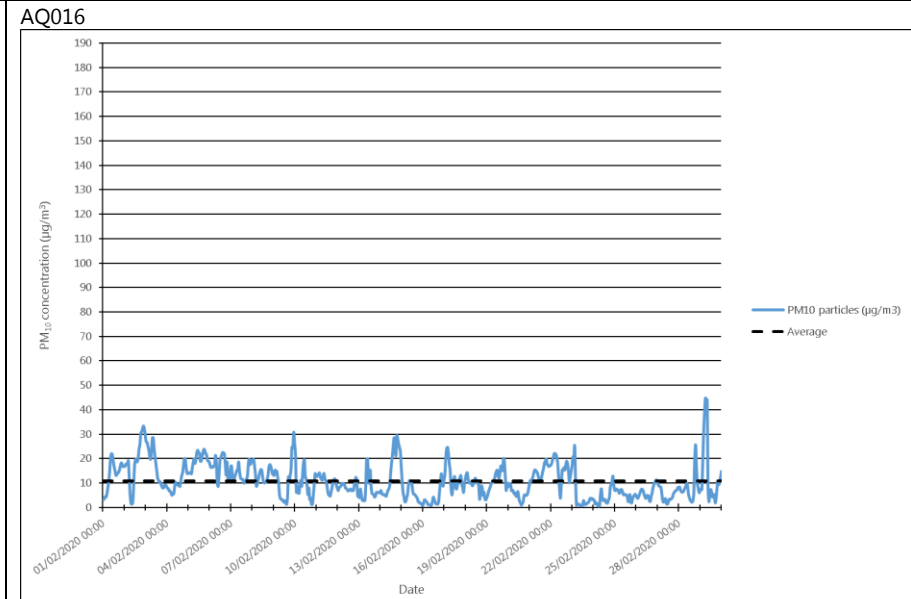
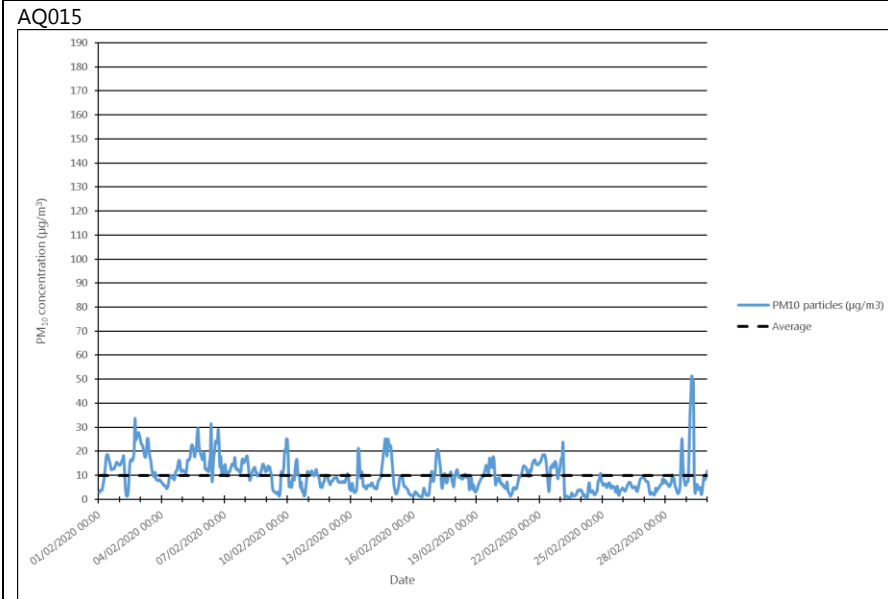
Figure 1: Construction dust 1-hour mean indicative PM₁₀ concentration for dust monitors

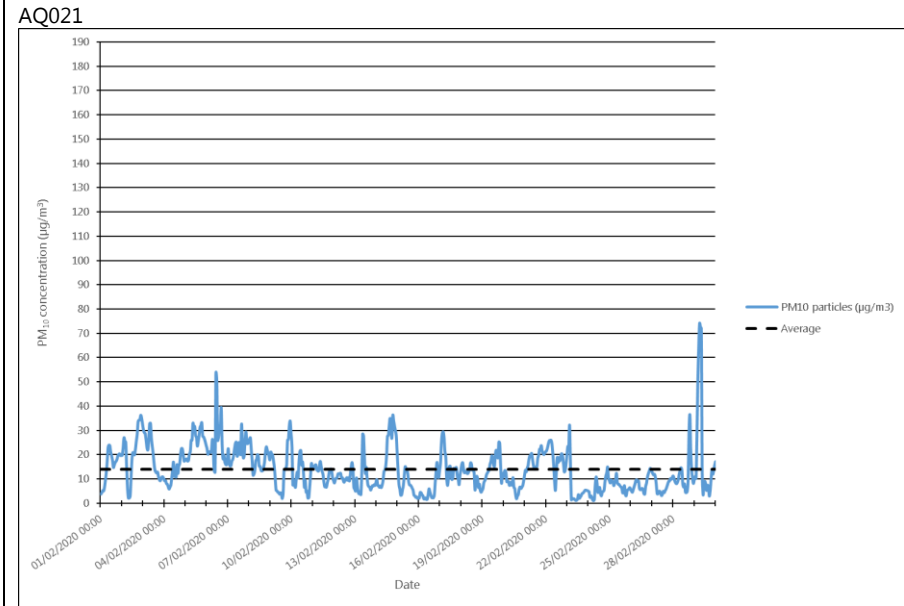
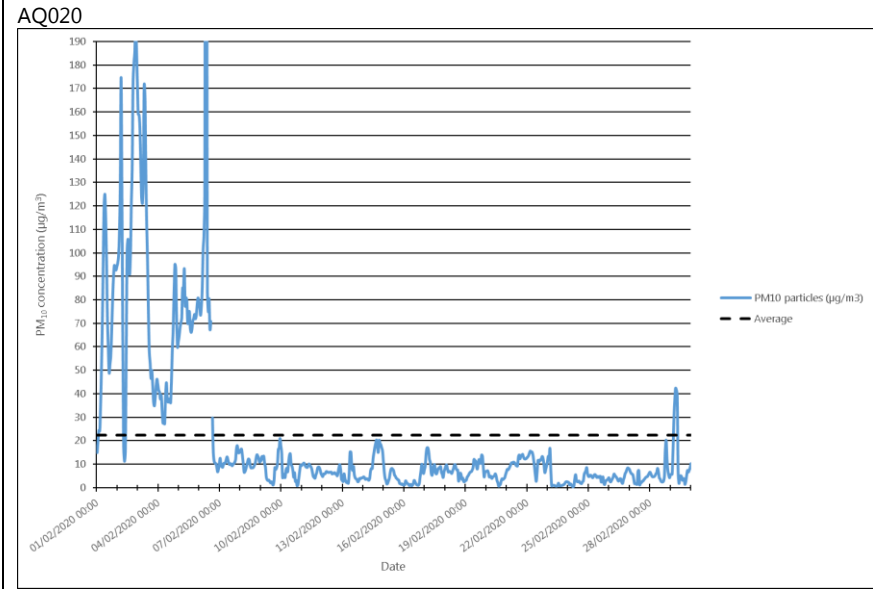












Appendix C – Air Quality Monitoring Results

Table 3: NO₂ monitoring locations around highways, NO₂ concentrations and monthly monitoring results with running mean for 2020 (µg/m³)

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ¹
HS2-000020BM5	Junction of St Chad's Street and Grays Inn Road	530436, 182929	56												56
HS2-000020BM6	Brunswick Square	530321, 182268	55												55
HS2-000020BM7	Chalton Street	529894, 182702	66												66
HS2-000020BM8	Junction of Euston Square and Grafton Place	529737, 182641	57												57
HS2-000020BM9	Junction of Endsleigh Gardens and Upper Woburn Place	529785, 182529	56												56
HS2-000020BMA	Junction of Euston Road and Gower Street	529429, 182375	59												59
HS2-000020BMB	Whitfield Street	529273, 182114	45												45
HS2-000020BMC	Hampstead Road	529232, 182511	58												58
HS2-000020BMF	Junction of Polygon Road and Ossulston Street	529715, 183123	38												38
HS2-000020BMH	Nash Street	528861, 182717	44												44
HS2-000020BMJ	Junction on Robert Street and Stanhope Street	529080, 182698	39												39

¹ Note: to aid interpretation and conform with best practice, the monthly measurements in this table are reported rounded to the nearest whole number. The annual mean presented here is calculated based on laboratory data to 4 significant figures, rounded to a whole number, and therefore may differ slightly to a mean derived from averaging the rounded monthly measurements in the table.

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ¹
HS2-000020BMK	Junction of Plender Street and Bayham Street	529196, 183546	56												56
HS2-000020BML	Junction of Arlington Road and Mornington Crescent	529093, 183356	44												44
HS2-000020BMM	Junction of Bayham Street and Pratt Street	529084, 183722	62												62
HS2-000020BMN	Junction of Delancey Street and Albert Street	528850, 183573	45												45
HS2-000020BMQ	Junction of Parkway and Delancey Street	528662, 183604	51												51
HS2-000020BMR	Junction of Oval Road and Jamestown Road	528548, 183967	42												42
HS2-000020BMS	Junction of Chalk Farm Road and Castlehaven Road	528685, 184188	52												52
HS2-000020BMT	Junction of Camden Road and Camden Street	529079, 184043	51												51
HS2-000020BMU	Junction of Southampton Road and Fleet Road	527783, 185407	45												45
HS2-000020BMV	Primrose Hill Road	527538, 184250	44												44
HS2-000020BMW	Junction of Finchley Road and Hilgrove Road	526619, 184081	Tube missing												-
HS2-000020BMZ	Junction of Finchley Road and Hendon Way	525102, 186042	82												82
HS2-000020BNA	Junction of Regent's Park Road and Rothwell Street	527884, 183980	42												42
HS2-000020BNC	Junction of Outer Circle and Gloucester Gate	528528, 183443	33												33

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ¹
HS2-000020BNH	Junction of Parkway and Albert Street	528763, 183720	46												46
HS2-000020BNN	Lincoln's Inn Fields	530744, 181308	41												41
HS2-000020BNQ	Camley Street	529735, 183737	Tube missing												-
HS2-000020BNY	Junction of Mill Lane and Hillfield Road	524839, 185136	45												45
HS2-000020BNZ	Mansfield Road	528050, 185508	40												40
HS2-000020BP0	Junction of Camden Road and Torriano Avenue	529708, 184871	58												58
HS2-000020BP2	Junction of Grays Inn Road and Holborn	531149, 181616	48												48
HS2-000020BPB	Camden High Street	528966, 183735	65												65
HS2-000020BPC	Castlehaven Road	528788, 184591	43												43
HS2-000020BPD	Prince of Wales Road	528571, 184683	39												39
HS2-000020BPE	Haverstock Hill	527710, 184749	52												52
HS2-000020BPF	Junction of Primrose Gardens and England's Lane	527549, 184640	47												47
HS2-000020BPU	Junction of Gower Street and Grafton Way	529476, 182267	56												56
HS2-000020BPW	Junction of Delancey Street and Arlington Road	528939, 183637	50												50
HS2-000020BPX	Netley Street	529177, 182625	34												34
HS2-000020BPY	Stanhope Street	529060, 182947	40												40

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ¹
HS2-000020BPZ	Albany Street	528790, 182923	44												44
HS2-000020BQ0	Werrington Street	529493, 183113	42												42
HS2-000020BQ1	Polygon Road	529574, 183045	44												44
HS2-000020BQ2	Alexandra Place	526320, 183980	39												39
HS2-000020BQ3	Harrington Square	529228, 183172	50												50
HS2-000020BQ4	Junction of North Gower Street and Starcross Street	529290, 182572	44												44
HS2-000020BQ5	Adelaide Road	527713, 184392	Tube missing												-
HS2-000020BQ6	Mornington Terrace	528836, 183474	39												39
HS2-000020BQ7	Arlington Road	529009, 183479	40												40
HS2-000020BQ8	Clarkson Row	529024, 183213	39												39
HS2-000020BQ9	Park Village East	528923, 183121	37												37
HS2-000020BQA	Eversholt Street	529386, 183132	60												60
HS2-000020BQB	Junction of Harrington Street and Varndell Street	529147, 182816	41												41
HS2-000020BQC	Junction of Robert Street and Hampstead Road	529199, 182704	47												47
HS2-000020BQD	Drummond Crescent	529648, 182856	Tube missing												-
HS2-000020BQJ	Grafton Way	529380, 182225	55												55
HS2-000020BQL	Delancey Street	528768, 183581	44												44

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ¹
HS2-000020BQR	Lamp post on Park Village East	528682, 183505	37												37
HS2-000020BQS	Opposite Maria fidelis school on Pheonix Road	529670, 182982	40												40
HS2-000020BQT	Drummond Street	529385, 182581	47												47
HS2-000020BP4	Triplicate site on Finchley Road next to Swiss Cottage kerbside automatic monitoring station	526633, 184392	54												54
HS2-000020BP5	Triplicate site next to the Euston Road roadside automatic monitoring stations	529895, 182657	69												69
HS2-000020BP9	Triplicate site in Russell Square next to Bloomsbury urban background automatic monitoring station	530120, 182034	44												44