

Air Quality and Dust Monitoring Monthly Report – March 2020

London Borough of Ealing



SKANSKA



Department for Transport

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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 Ealing (LBE) during February and March 2020 respectively.
- 1.1.2 Figure 1 and Figure 2 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 construction works commenced in October 2019 and is expected to be completed by 2025. The current and completed worksites, as presented in Appendix A, Figure 1 and Figure 2, include:

Current -

- Demolition and groundworks at Old Oak Common Depot (located in the London Borough of Hammersmith and Fulham);
- Victoria Road Crossover Box and Flat Iron Site mobilisation, site set up and groundworks;
- Willesden Euro Terminal mobilisation and site set up;
- Atlas Road mobilisation and site set up;
- Green Park Way Vent Shaft – yet to be established; and
- Mandeville Road Vent Shaft mobilisation and site set up.

Completed -

- Demolition of buildings on Atlas Road;
- Demolition of buildings on Victoria Road;
- Demolition works at Willesden Euro Terminal; and
- Demolition of buildings at Mandeville Road Pumping Station.

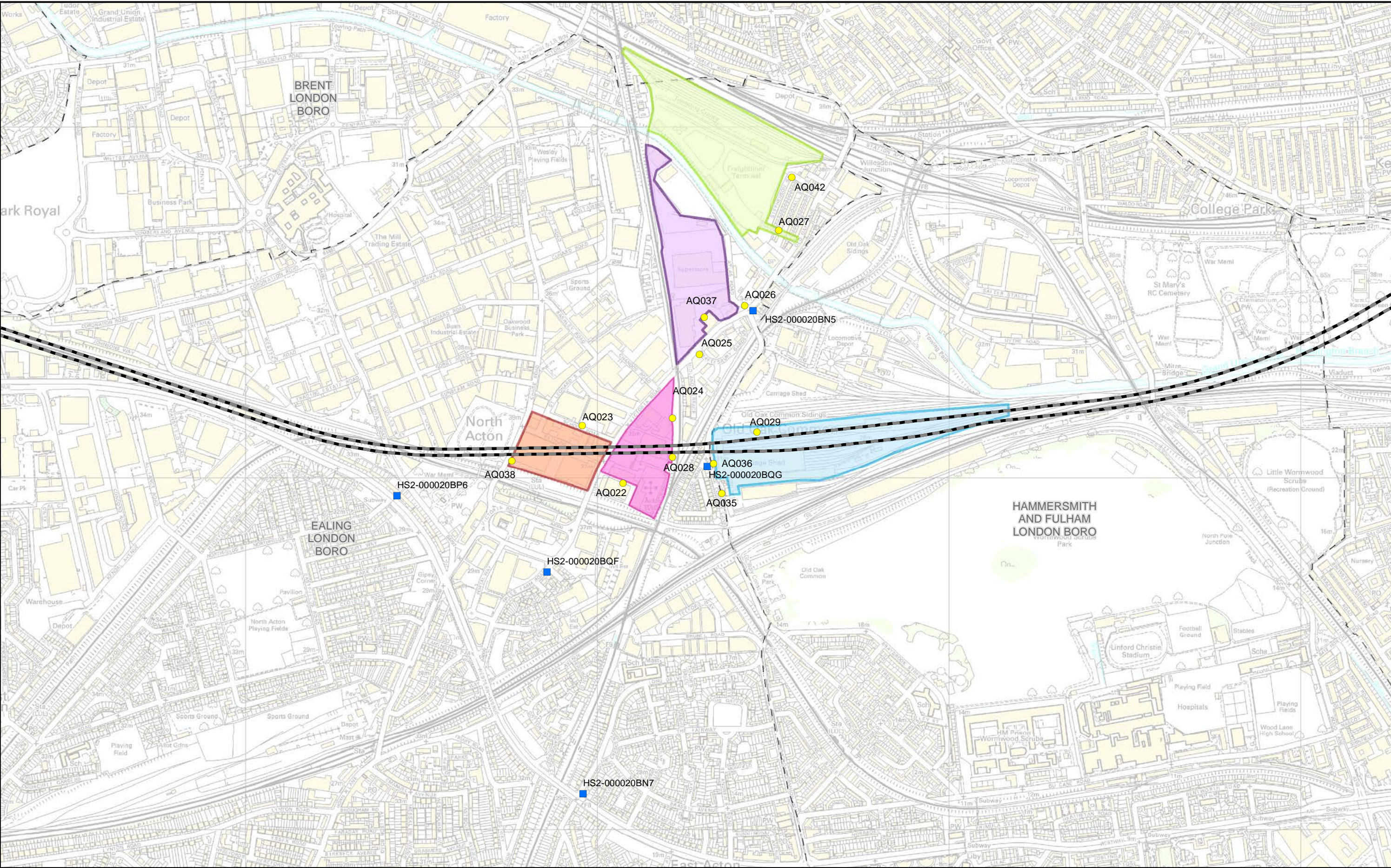
- 1.1.5 Eleven (11) dust monitors are installed around worksites, where works are underway. These sites returned a medium or high dust risk rating.
- 1.1.6 Dust monitoring locations and results are presented in Appendix B, Table 1, together with line charts of monthly data from each dust monitor. All 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 for PM₁₀ concentrations of 190 µg/m³, 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 were no (0) dust trigger alerts recorded during this monitoring period (March 2020).
- 1.1.9 Data capture for AQ042 was 0% for the month of March 2020. This was due to a fault with the monitor. It was programmed to be repaired/replaced on the 26/03/20 but the visit was postponed due to the site operations being shut down during the COVID-19 pandemic and government lock-down.
- 1.1.10 Diffusion tube monitoring of Nitrogen Dioxide (NO₂) was undertaken at six (6) locations in February 2020, around highways within the LBE as part of the management of air quality where significant effects may occur as a result of the scheme.
- 1.1.11 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.
- 1.1.12 NO₂ monitoring locations and results are presented in Appendix C, Table 2, together with the 2020 running mean.
- 1.1.13 There were no (0) complaints received, relating to air quality, during this monitoring period (March 2020).


Appendix A – Worksites and Monitoring Locations

Figure 1 and 2: Worksites and monitoring locations within the LBE




- Legend**
- Route in tunnel
 - Route on surface
 - Diffusion tube monitoring location
 - Dust monitoring location
 - Willesden Euro worksite
 - Victoria Road Crossover Box
 - Old Oak Common worksite
 - Atlas Road worksite
 - Flat Iron Compound


Figure Number
Figure Name
Worksites and Monitoring locations in LBE (sheet 1)
London Borough of Ealing



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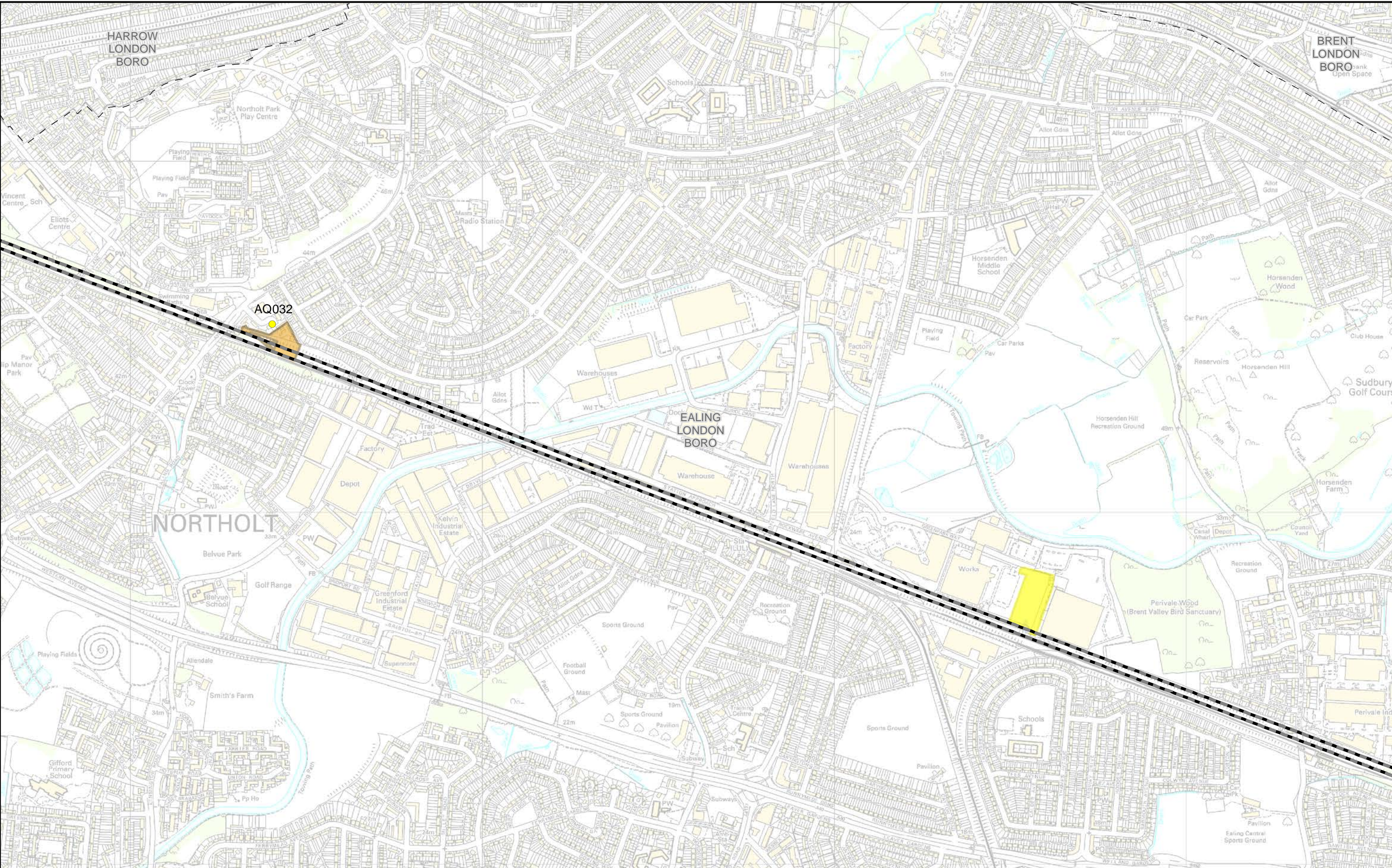


Scale at A3: 10,000



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- Legend**
- Route in tunnel
 - Route on surface
 - Diffusion tube monitoring location
 - Dust monitoring location
 - Greenway Park Vent Shaft
 - Mandeville Road Vent Shaft

Figure Number

Figure Name

Worksites and Monitoring locations in LBE (sheet 2)

London Borough of Ealing

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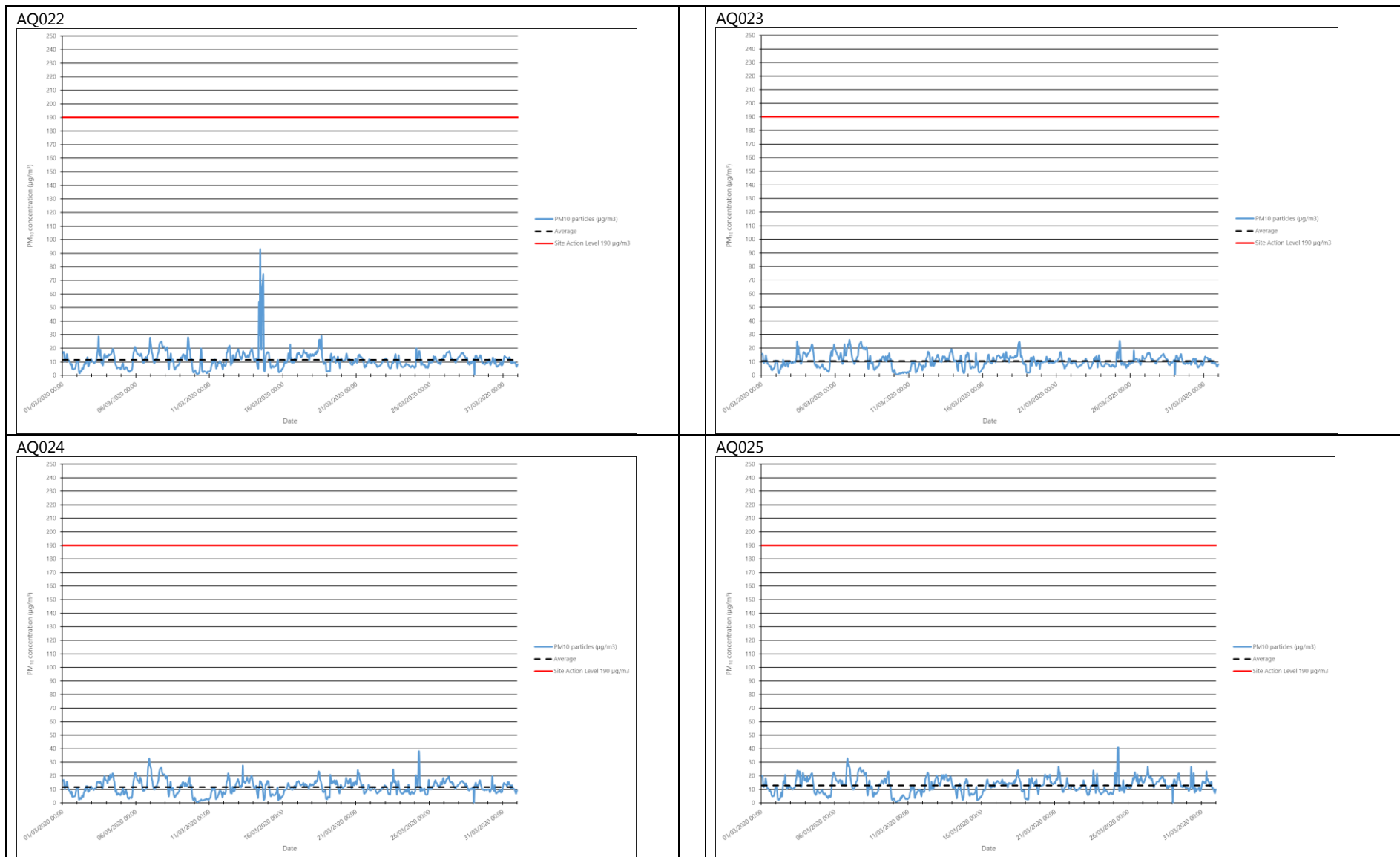
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Appendix B – Dust Monitoring Results

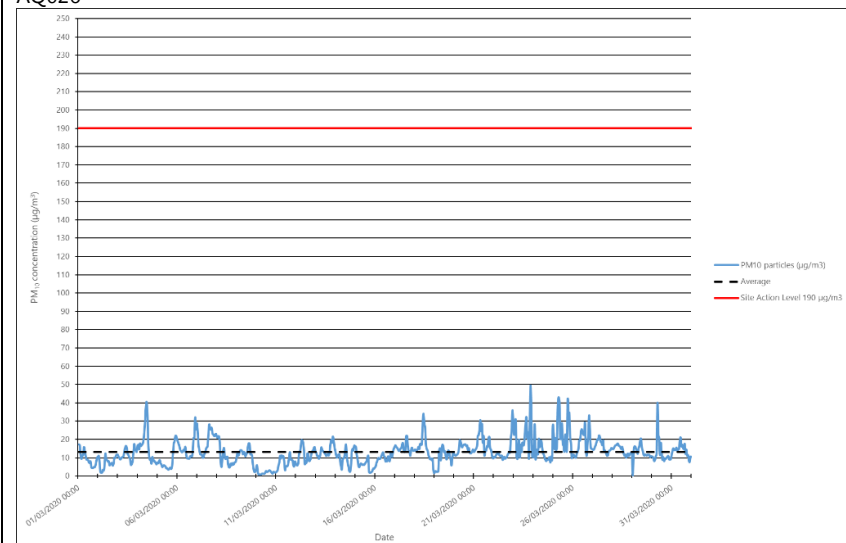
Table 1 Dust monitoring locations and March 2020 Results

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 (%)
AQ022	521072, 181985	Boden House	H	Yes	N	11.5	1.0	93.2	0	99.9
AQ023	520956, 182149	School Road	H	Yes	N	10.5	0.7	26.2	0	99.9
AQ024	521214, 182223	Braitrim House	H	Yes	N	11.7	0.8	38.3	0	99.9
AQ025	521295, 182360	Victoria Road	H	Yes	N	12.9	0.9	40.7	0	99.9
AQ026	521419, 182497	Old Oak Lane	H	Yes	N	13.0	0.8	49.6	0	99.9
AQ027	521515, 182706	Channel Gate Road	H	Yes	N	14.0	0.8	114.5	0	99.9
AQ028	521302, 182067	Wells House Road	H	Yes	N	13.2	0.9	86.0	0	99.9
AQ032	513402, 184536	Badminton Close	M	Yes	N	9.3	0.7	27.7	0	99.9
AQ037	521304, 182464	Atlas Road	M	No	N	9.8	0.6	32.8	0	99.9
AQ038	520756, 182049	Chase Road	H	Yes	N	12.2	0.9	84.3	0	99.9
AQ042	521537, 182826	Stephenson Road	H	No	N	No data	No data	No data	No data	00.0

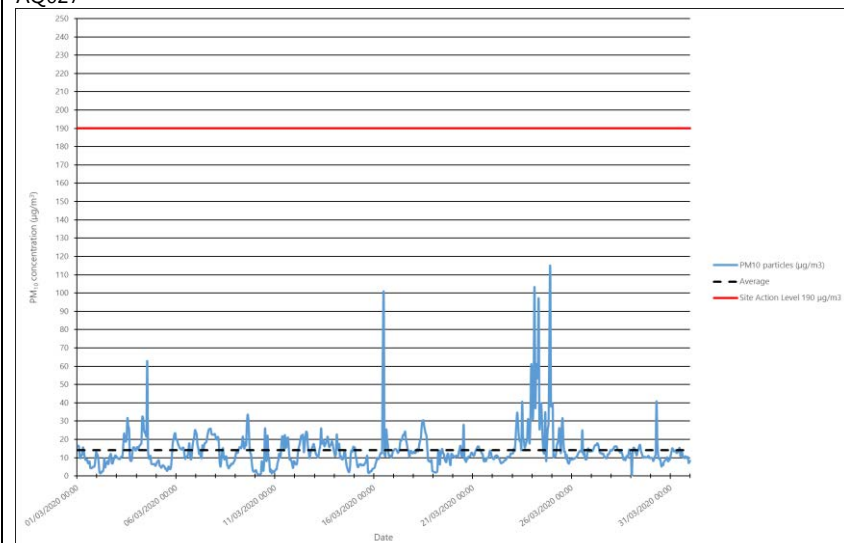
Figure 1: Construction dust 1-hour mean indicative PM₁₀ concentration for dust monitors



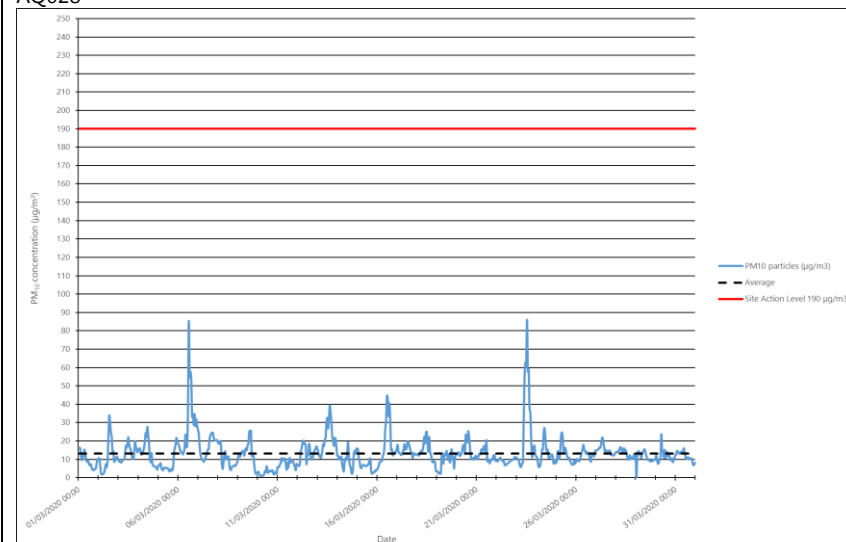
AQ026



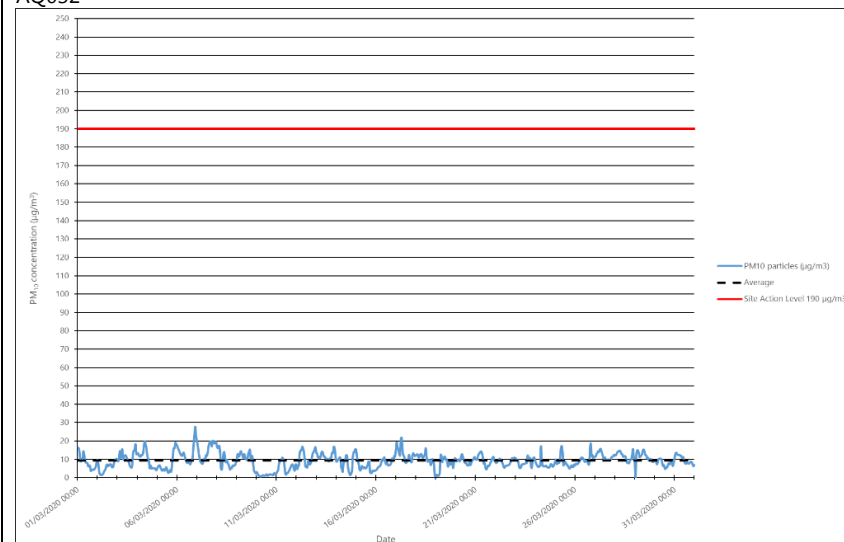
AQ027



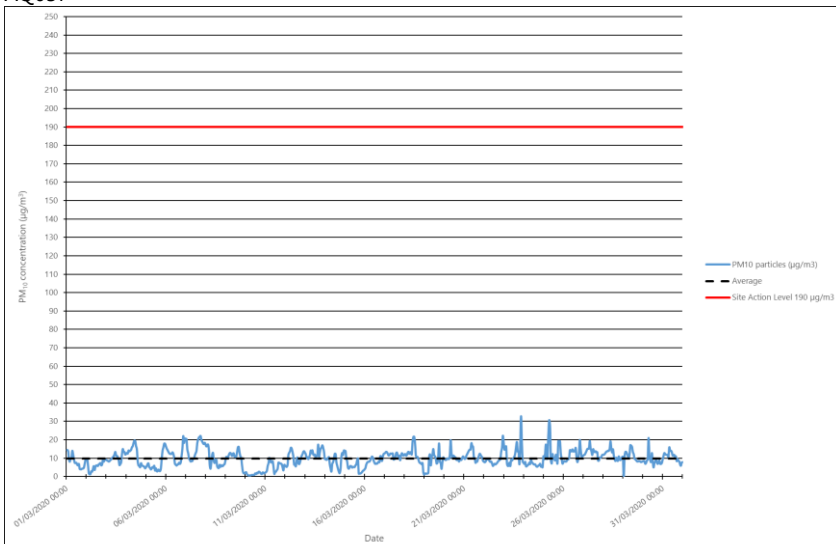
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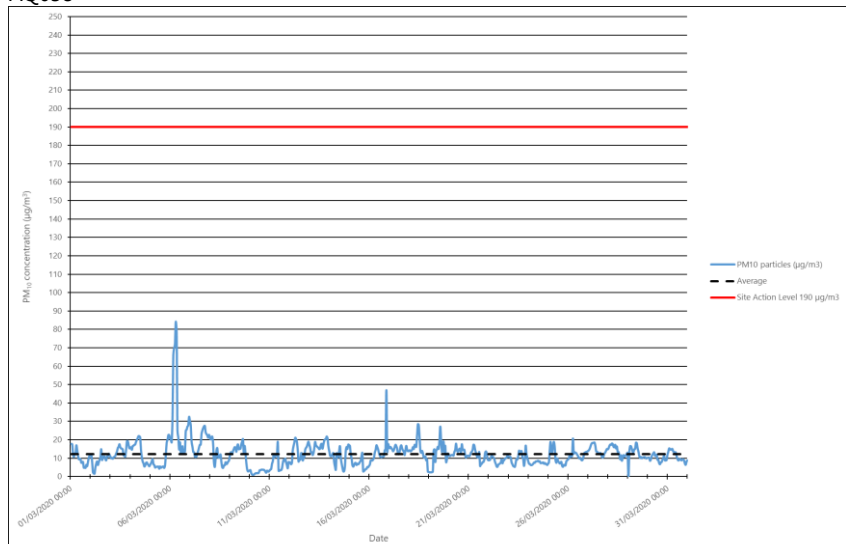
AQ032



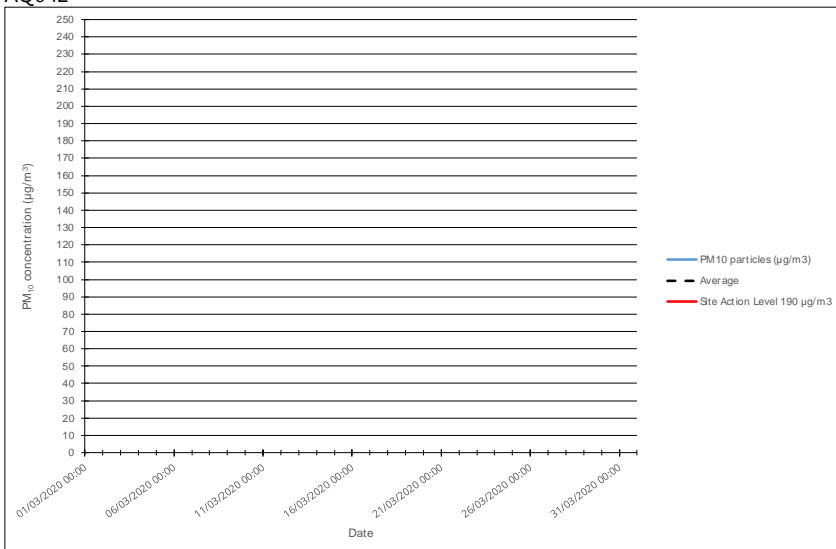
AQ037



AQ038



AQ042



Appendix C – Air Quality Monitoring Results

Table 2 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
HS2-000020BN5	Sign post on Victoria Road	521443, 182477	Tube missing	46											46
HS2-000020BN7	The Approach street sign	520959, 181102	64	55											60
HS2-000020BQF	Conway Drive sign post	520856, 181733	61	51											56
HS2-000020BQG	Lamp post outside No 1. Wells House Road on Old Oak Common Lane	521312, 182033	68	55											61
HS2-000020BP6	Triplicate site next to the Ealing, Western Avenue Acton roadside automatic monitoring station	520430, 181950	56	46											51
HS2-000020BP7	Triplicate site next to the Ealing, Hangar Lane Gyratory roadside automatic monitoring station	518537, 182708	77	61											69

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.