

Air Quality and Dust Monitoring Monthly Report – December 2023

London Borough of Brent



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.

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A report prepared by EWCs and MWCCs on behalf of HS2 Ltd.

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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 Brent (LBB) during November 2023 and December 2023 respectively.

1.1.2 Figure 1 in Appendix A presents 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 worksites, as presented in Appendix A, Figure 1, include:

Canterbury Road Vent Shaft

- Concreting;
- Materials management; and
- Ventilation shaft construction and lining.

1.1.5 Two (2) dust monitors are installed around this worksite, where works are underway. These sites returned a medium 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, presented in Figure 2. 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.

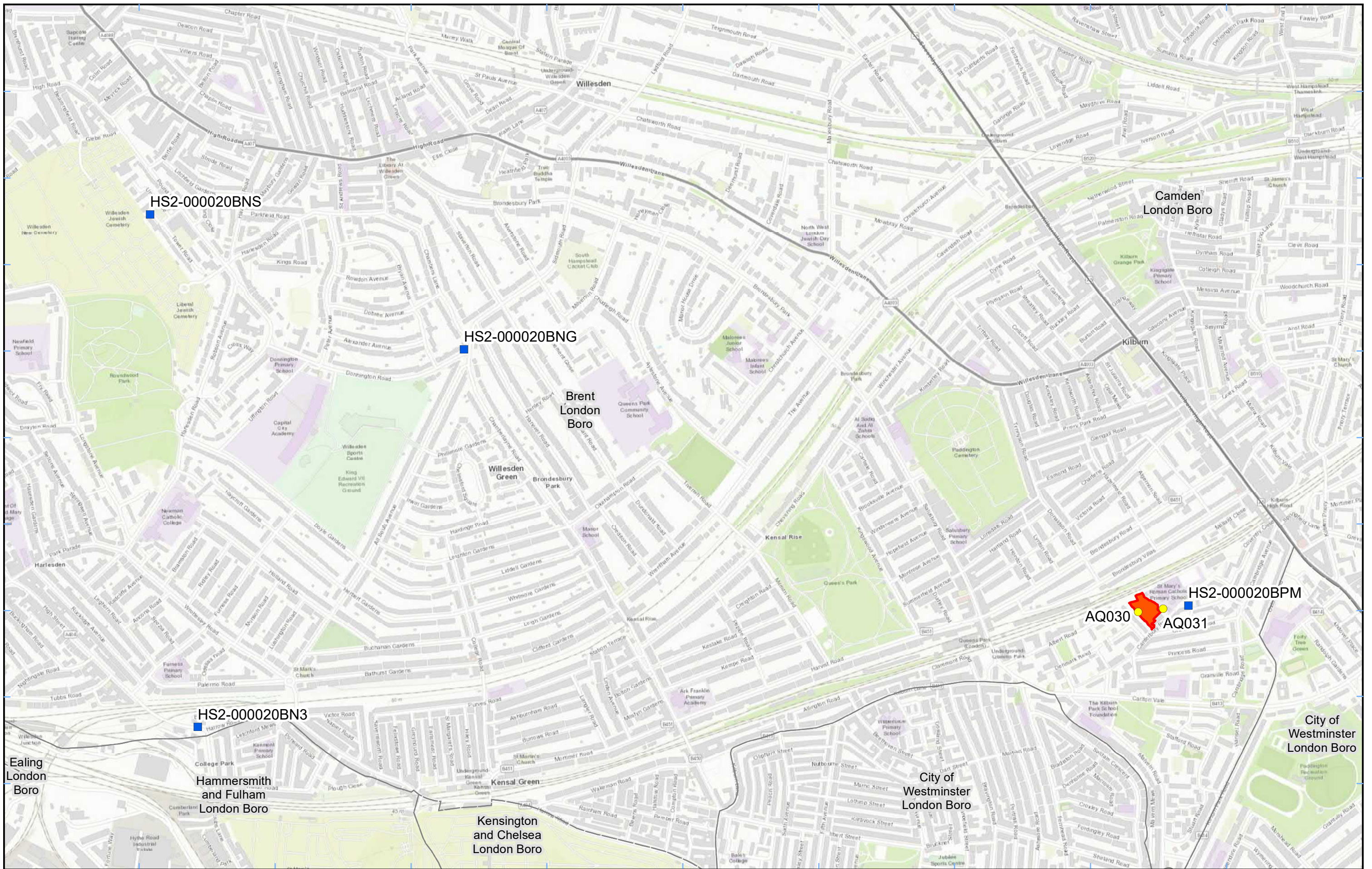
1.1.8 No (0) dust trigger alerts were recorded during the monitoring period (December 2023).

- 1.1.9 Diffusion tube monitoring of Nitrogen Dioxide (NO₂) is undertaken at four (4) locations around highways within the LBB 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 as 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 NO₂ monitoring locations and results are presented in Appendix C, Table 2, together with the 2023 running mean.
- 1.1.12 There were no (0) complaints received during the reporting period (December 2023).

Appendix A – Worksites and Monitoring Locations

Figure 1: Worksites and Monitoring Locations within the LBB





Legend

- Diffusion Tube
- Worksite
- Dust Monitor
- District Borough Unitary Boundaries

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Map Number

Map Name

Worksite and Monitoring Locations In LBB

London Borough of Brent

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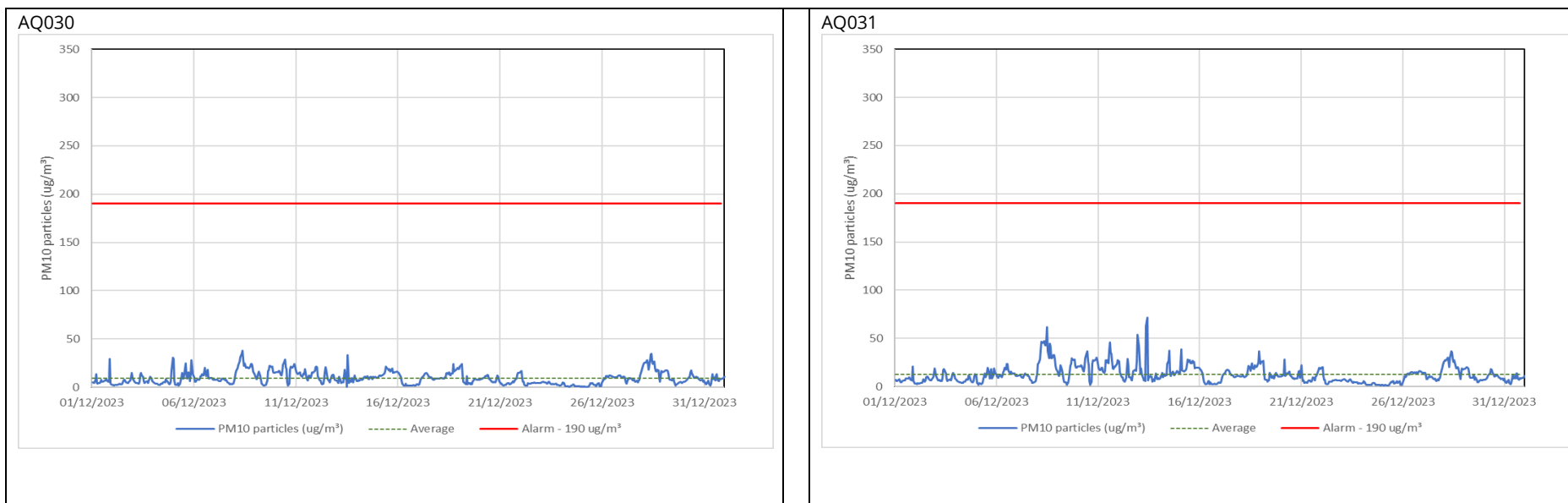
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Appendix B – Dust Monitoring Results

Table 1: Dust Monitoring Locations and 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 (%)
AQ030	525093, 183264	Western Hoarding of Canterbury Road works site	M	Yes	N	9.4	0.2	38.1	0	99.9
AQ031	525112, 183320	Eastern Hoarding of Canterbury Road works site	M	No	N	12.6	1.1	71.3	0	100.0

Figure 2: Construction dust 1-hour mean indicative PM₁₀ concentration for dust monitors



Appendix C - Air Quality Monitoring Results

Table 2: NO₂ monitoring locations around highways, NO₂ concentrations and monthly monitoring results with running mean for 2023 (µg/m³)

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ¹
HS2-000020BN3	Sign post on High Street Harlesden	522335, 182955	53	54	43	47	55	41	34	37	49	52	22		44
HS2-000020BNG	Lamp post on Donnington Road	523110, 184055	44	44	32	Tube Missing	24	24	21	24	31	35	38		32
HS2-000020BNS	Lamp post on Tower Road by Willesden Jewish Cemetery	522196, 184448	27	34	17	23	Tube Missing	18	14	15	20	32	26		22
HS2-000020BPM	Lamp post along Gorefield Place near block of flats	525222, 183309	36	37	22	19	18	19	16	19	24	29	30		24

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.