

Air Quality and Dust Monitoring Monthly Report – January 2021

Birmingham City Council



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 dust monitoring undertaken within Birmingham City Council (BCC) during January 2021.
- 1.1.2 Figure 1 and Figure 2 in Appendix A present the current worksites within BCC together with dust monitoring locations for January 2021.
- 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 works commenced within BCC during July 2018 and is expected to be completed by 2025. The current worksites at Birmingham Museum Trust (BMT), Curzon Street Station and Washwood Heath Depot are presented in Appendix A, Figures 1 and Figure 2. Activities for each worksite within January 2021 included:
- Archaeology ground investigation works at Curzon Street Station; and,
 - Mobilisation and setup works at Washwood Heath Depot.
- 1.1.5 There are five (5) dust monitors installed for the current phase of works within BCC. Two (2) dust monitors are installed at the BMT (one inside the building (artefact storage area) and the other outside the building), two (2) dust monitors are installed at Curzon Street Station and one (1) dust monitor is installed at Washwood Heath Depot, near receptors on Drews Lane. The Washwood Heath Depot site returned a low risk rating for dust soiling and health effects; therefore, automatic monitoring is not required at this site, however is installed on a trial basis to test the reliability of a renewable power kit (solar panel and battery) before additional solar power kits are deployed at other construction assets. Dust Risk Assessments for the other worksites returned a high dust risk rating.
- 1.1.6 Dust monitoring locations and results for January 2021 are presented in Appendix B, Table 1 together with line charts for January 2021 from each dust monitor presented in Figures 3 to 7. 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 the monitoring period (January 2021).
- 1.1.9 Data capture for dust monitors #775 and WHD001 was below 90% for the month of January 2021. Missing data was due to the loss of continuous site power to the monitoring locations, or due to the loss of renewable power, caused by a lack of sunlight. The power supply was reinstated, and the monitoring resumed.
- 1.1.10 There were no (0) complaints, relating to dust or air quality, received during this reporting period (January 2021).

Appendix A –Worksite and Dust Monitoring Locations

Figure 1: Birmingham City Council Worksites and monitoring locations during January 2021.

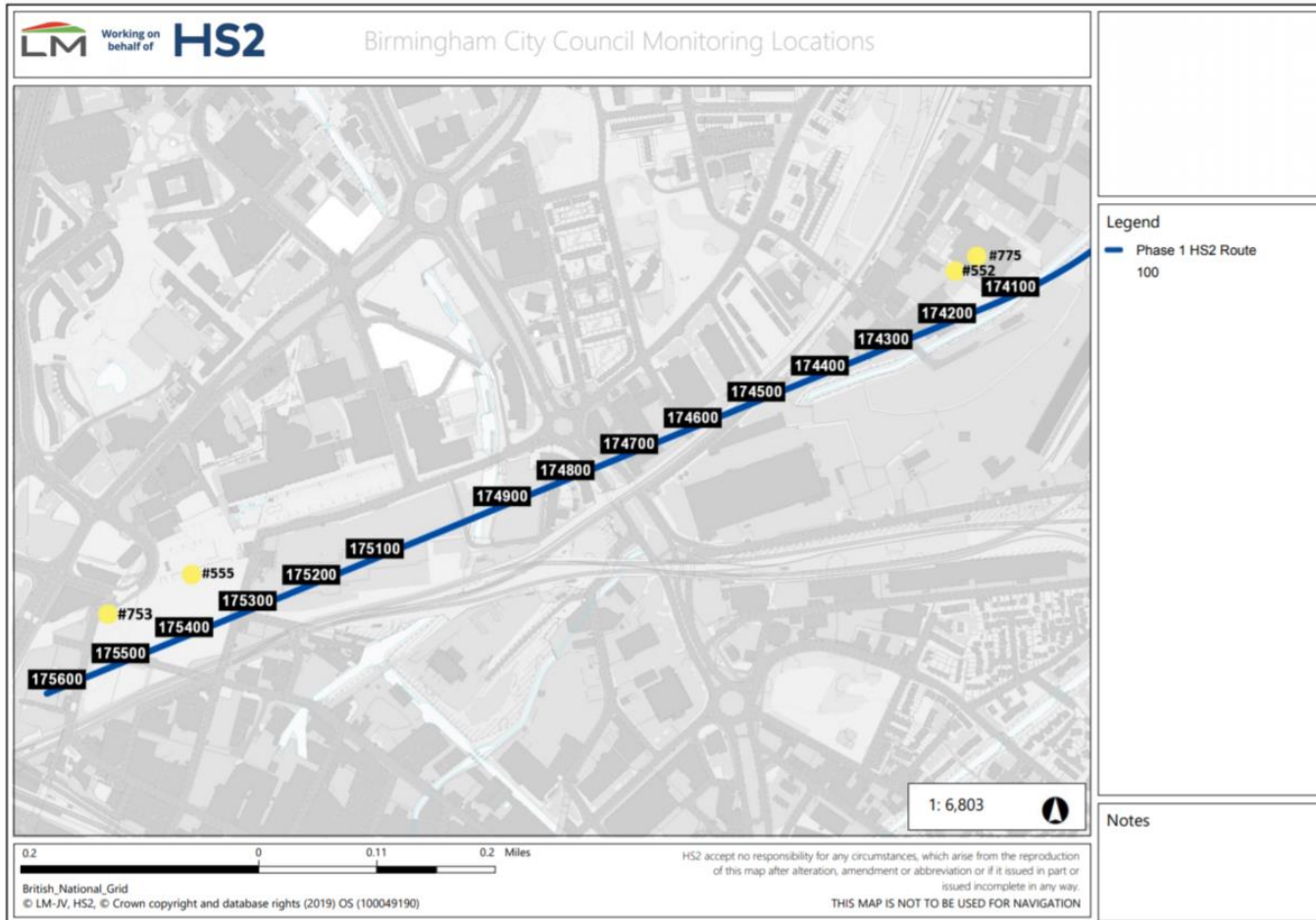
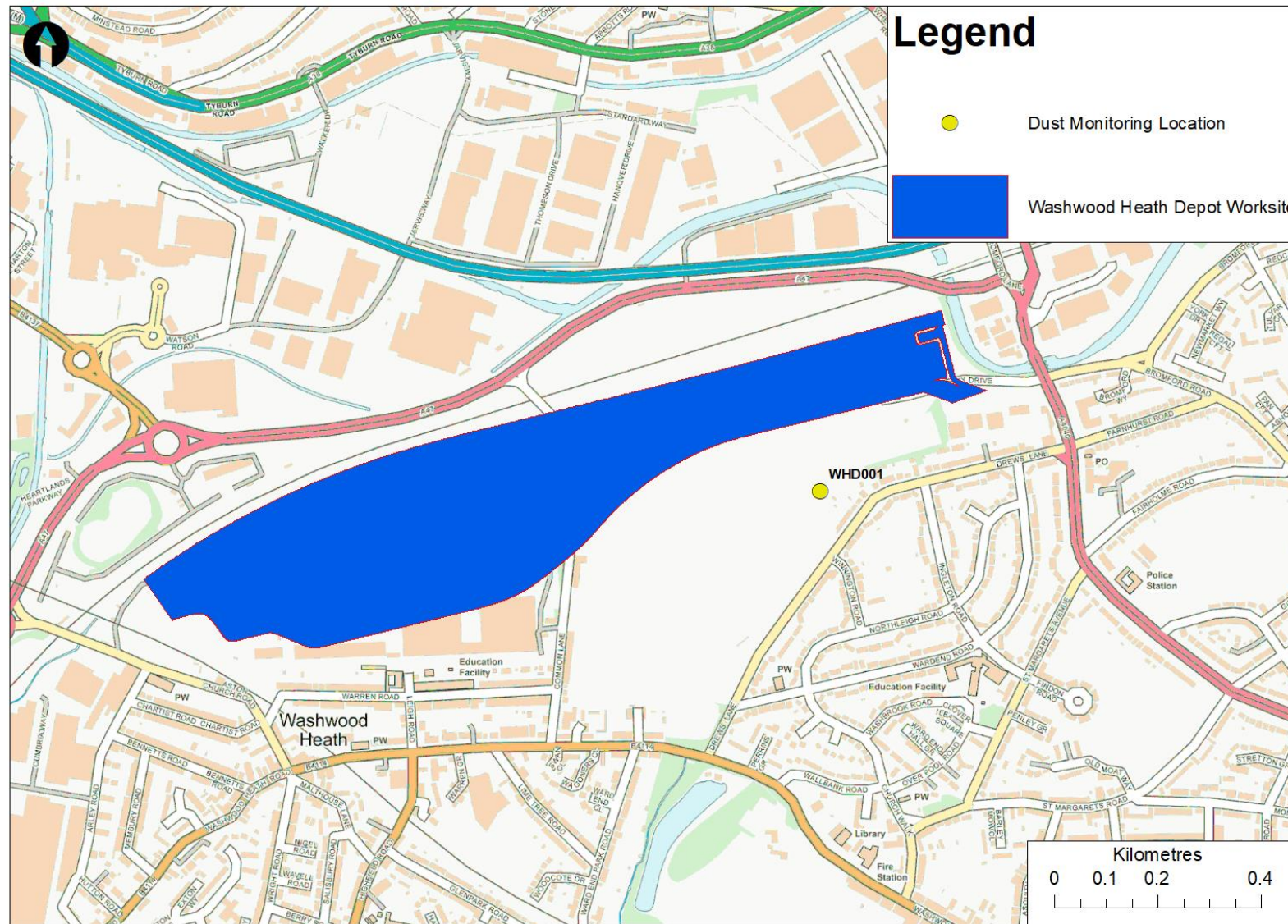


Figure 2: Birmingham City Council Worksites and monitoring locations during January 2021



Appendix B – Dust Monitoring Results

Table 1: Dust monitoring locations and January 2021 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 rate (%)
Dust #552 (old #82)	408811, 287485	Monitor outside the building	H	N/A	N/A	11.8	0.3	45.7	0	100
Dust #775 (old #85)	408841, 287529	Monitor secured inside the building	H	N/A	N/A	8.4	6.3	15.4	0	81
Dust #530 (old #555)	407702, 287079	Curzon Street Station HS2 Site	H	N/A	N/A	7.9	0.1	41.6	0	98
Dust #753	407619, 287006	Curzon Street Station HS2 Site	H	N/A	N/A	6.3	0.1	38.6	0	97
WHD001	411221, 289245	Washwood Heath Depot, near receptors on Drews Lane	L	Yes	N/A	13.6	0.1	60.9 ¹	0	87

¹ Maximum PM₁₀ concentration coincident with New Year's Eve celebrations and unlikely to be a result of sources associated with the worksite.

Figure 3: Construction dust hourly mean indicative PM₁₀ concentration for Dust #552 (January 2021)

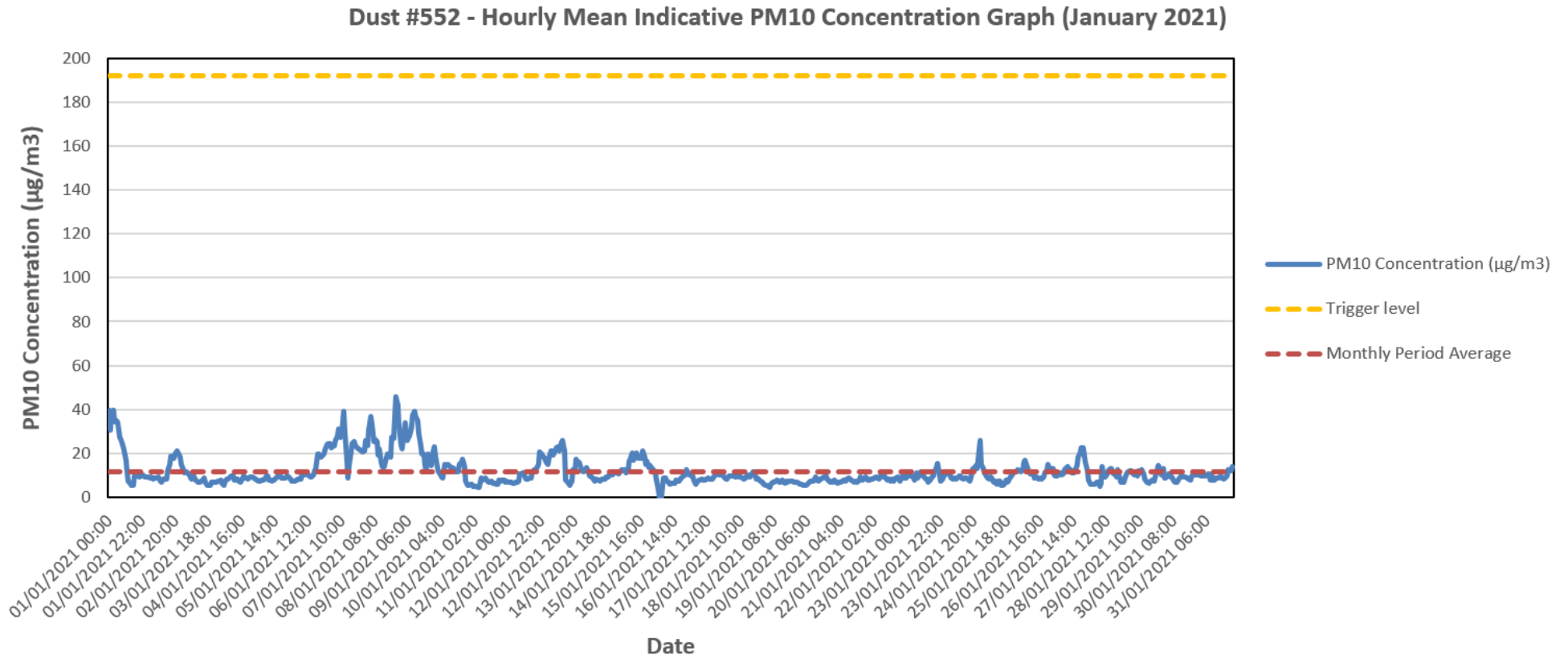


Figure 4: Construction dust hourly mean indicative PM₁₀ concentration for Dust #775 (January 2021)

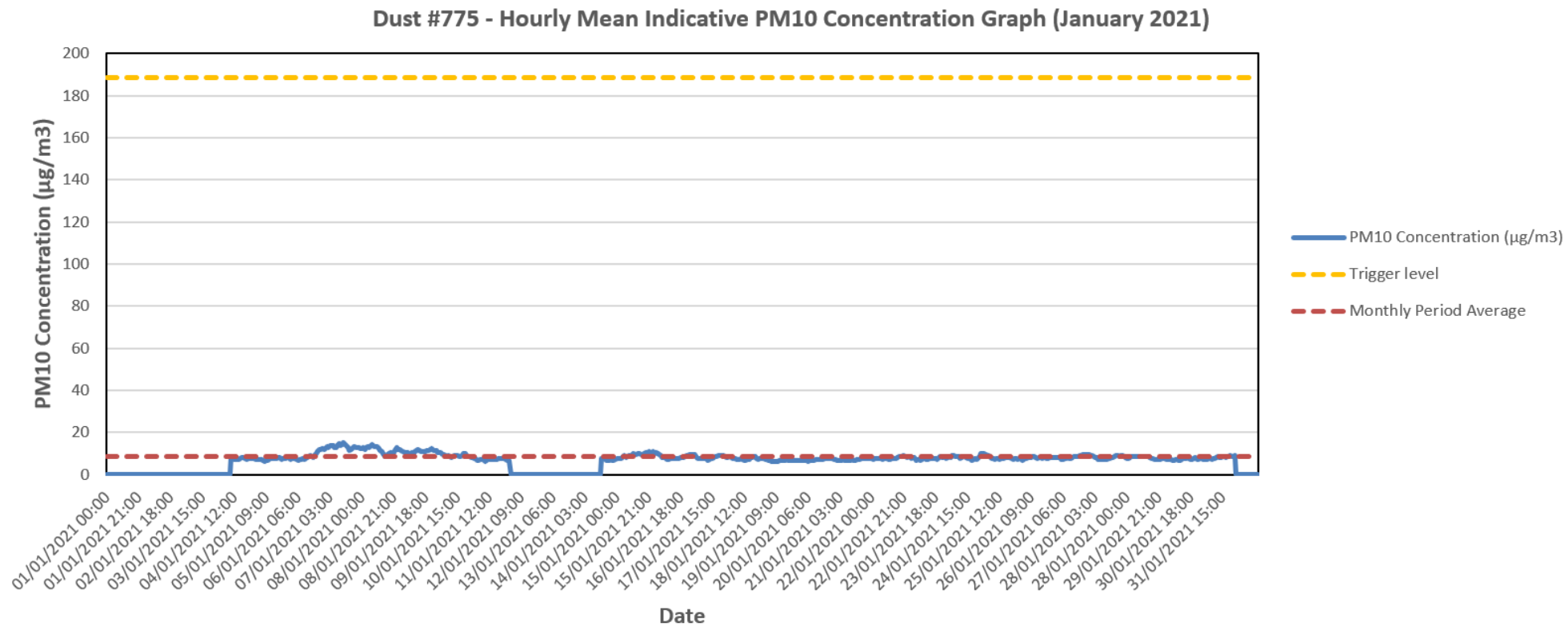


Figure 5: Construction dust hourly mean indicative PM₁₀ concentration for Dust #530 (old #555) (January 2021)

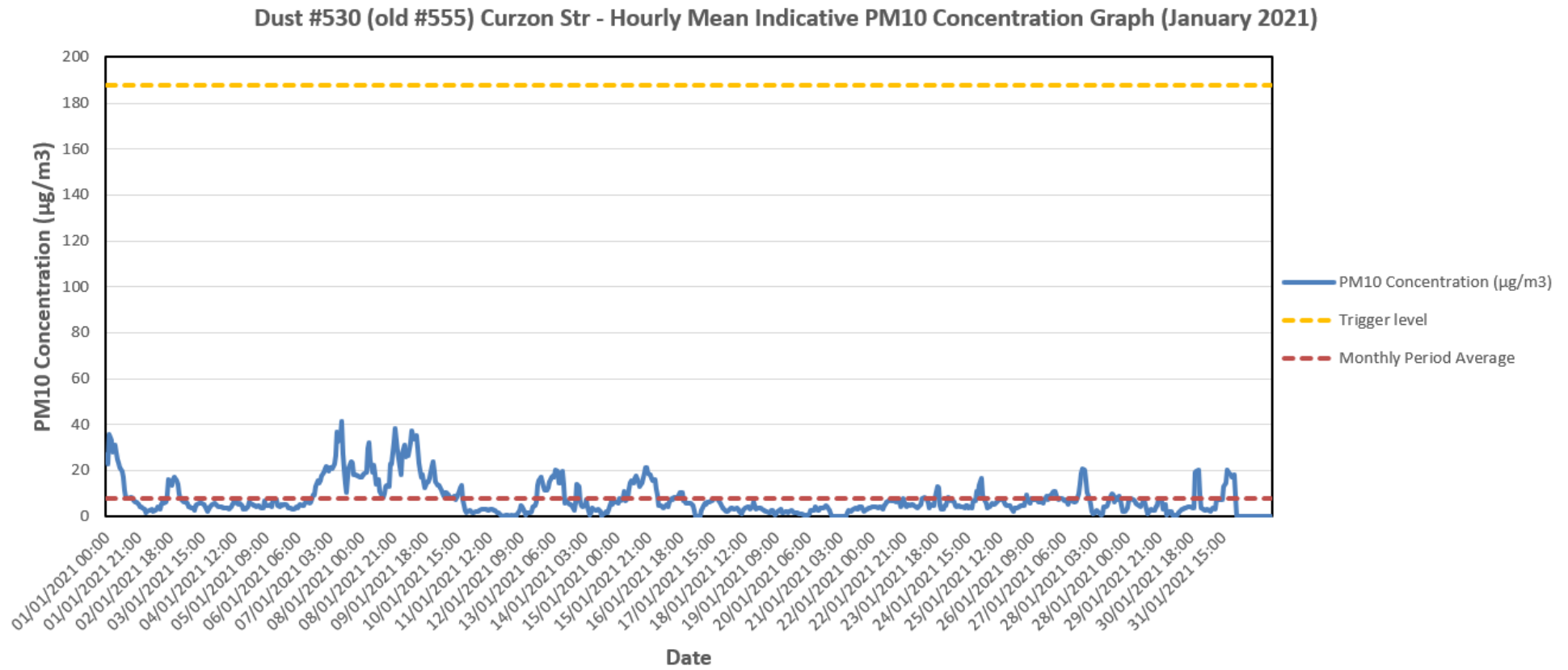


Figure 6: Construction dust hourly mean indicative PM₁₀ concentration for Dust #753 (January 2021)

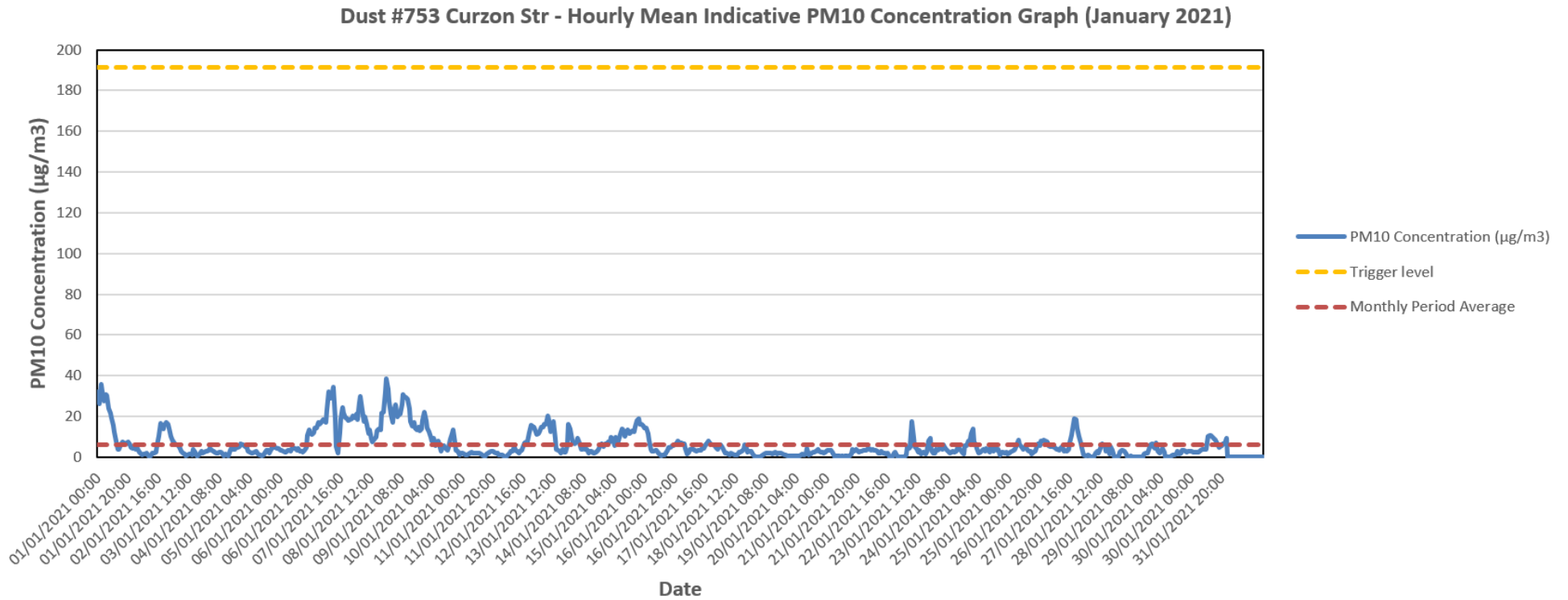


Figure 7: Construction dust hourly mean indicative PM₁₀ concentration for dust monitor WHD001 (January 2021)

