

Air Quality and Dust Monitoring Monthly Report – **May 2021**

Three Rivers District Council



Department for Transport

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

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Monthly Summary

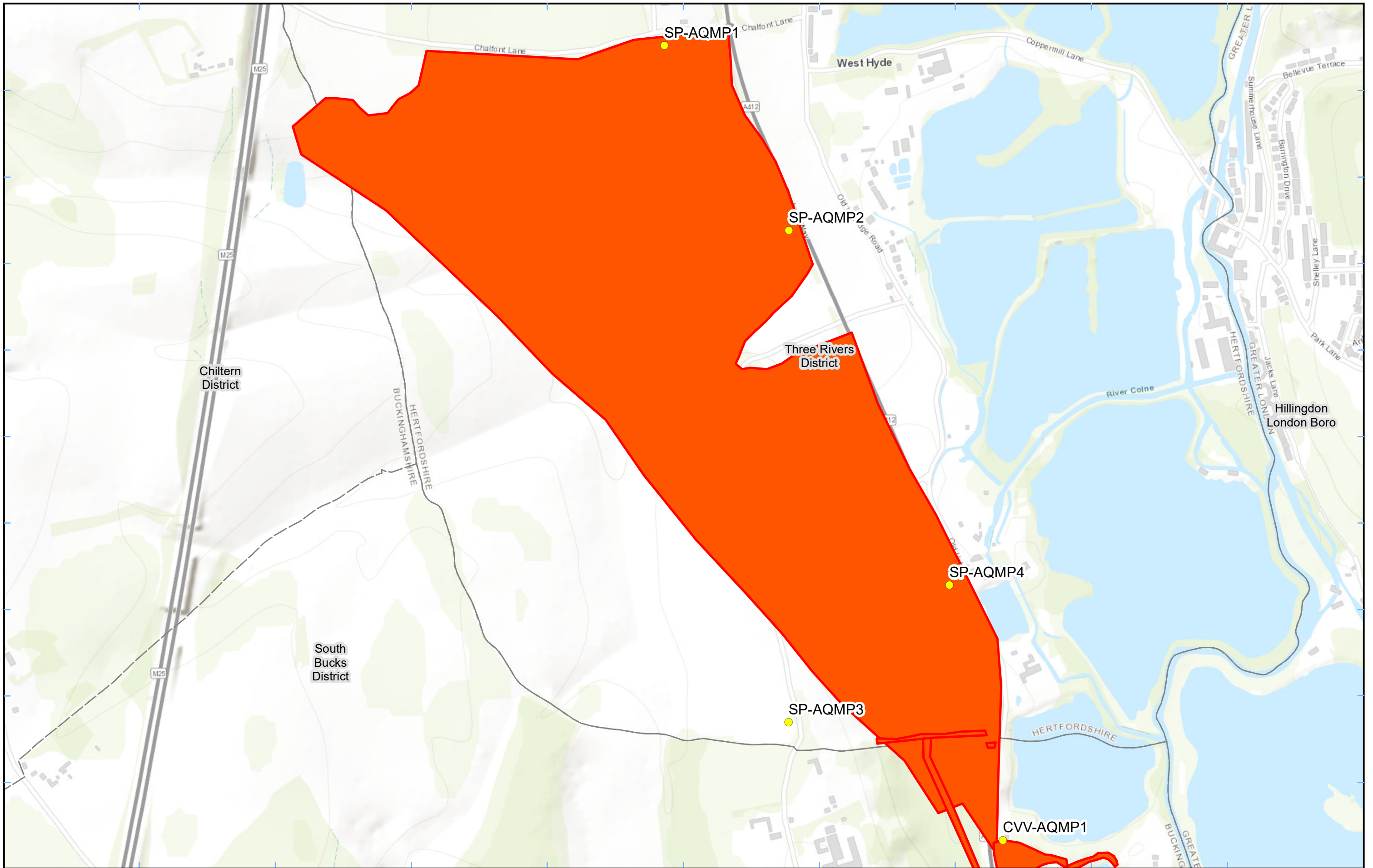
- 1.1.1 This Summary Report is published in fulfilment of commitments detailed in the High Speed Rail (London-West Midlands) Environmental Minimum Requirements, Annex 1: Code of Construction Practice, for the nominated undertaker to present the results of dust monitoring undertaken in the Three Rivers District Council (TRDC) area during May 2021.
- 1.1.2 Figure 1 in Appendix A presents the current worksite together with the dust monitoring locations for May 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 at the South Portal site commenced within TRDC in July 2017 and is currently ongoing. The South Portal site presented in Appendix A, Figure 1, includes following ongoing activities:
- General plant: wheel washers, generators and site wide support plant;
 - Earthworks and drainage: soil strip, excavation, filling, subgrade and ground stabilisation;
 - Road and hardstanding: surfacing, grading and excavation;
 - Civils: platforms, accommodation and slabs, and removal of materials stored in SP10 (car park extension);
 - Superstructure;
 - I&M installation: Pynesfield quarry and site wide;
 - Tilehouse Lane Overbridge: abutment and wing walls, backfill behind abutment walls, bridge beams and deck and ground beams and parapet;
 - Tilehouse Lane realignment and quarry road: earthworks cut and fill and civils and surfacing;
 - Stockpiling: INNS stockpile management and storage of excavated materials from CSP in SP10 and West Hyde Embankment;
 - Utilities: Thames Water sewer diversions;
 - Chalfont Lane establishment - phase d & f fencing; STP acid storage fencing;
 - Batching plant 1, 2 and 3: installation of batching plant units, collection of concrete for D-wall activity at vent shaft sites and batching plant 1, 2&3-deliveries and operation;
 - Site installations: slurry treatment plant, tunnel boring machine and factory fit-outs;
 - Tunnel amenities: cooling plant and A&B component grouting plant;
 - Tunnel precast factory: factory NB2 – production and factory NB1 – production;
 - Shire Lane culvert: preparing ground and backfilling and foundation slab, walls, roof slab, wing walls and transition;
 - Pynesfield ground stabilisation: band drains;
 - Pynesfield cake placement: earthworks chalk cake placement;

- Tunnelling works (surface support);
- CVV jetty pre-cast yard operation; and
- Accommodation block installation and fit-out.

- 1.1.5 Four (4) dust monitors are installed around the worksite, where earthworks, construction and trackout activities are underway. This site returned a medium dust risk rating.
- 1.1.6 Dust monitoring locations and results for May 2021 are presented in Appendix B, Table 1, together with a line chart of monthly data from each dust monitor, presented in Figures 2, 3, 4 and 5. 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 (May 2021).
- 1.1.9 There were no (0) complaints, relating to dust or air quality, received during this reporting period (May 2021).

Appendix A – Worksite and Dust Monitoring Locations


Figure 1: Three Rivers District Council Worksites and Monitoring locations during May 2021



Legend
 ● Dust Monitor
 □ District Borough Unitary Boundaries
 ■ Worksite

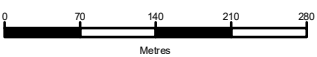
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Map Number
 Worksite and Monitoring Locations
 In TRDC (Sheet 1)
 Three Rivers District Council


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 Metres

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Appendix B – Dust Monitoring Results

Table 1: Dust monitoring locations and May 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 (%)
SP-AQMP1	502922, 191467	On the northern boundary of the site at Chalfont Lane	M	Yes	Yes	6.1	1.0	32.0	0	100
SP-AQMP2	503176, 191090	On the eastern boundary of the site at Denham Way	M	Yes	Yes	6.6	1.0	33.0	0	98
SP-AQMP3	503175, 190086	On the southern boundary of the site at Tilehouse Lane	M	Yes	Yes	5.9	1.0	36.0	0	100
SP-AQMP4	503503, 190366	On the eastern boundary of the site on the A412	M	Yes	Yes	6.3	1.0	36.0	0	100

Figure 2: Continuous dust 1-hour mean indicative PM₁₀ concentration for SP-AQMP1 for May 2021

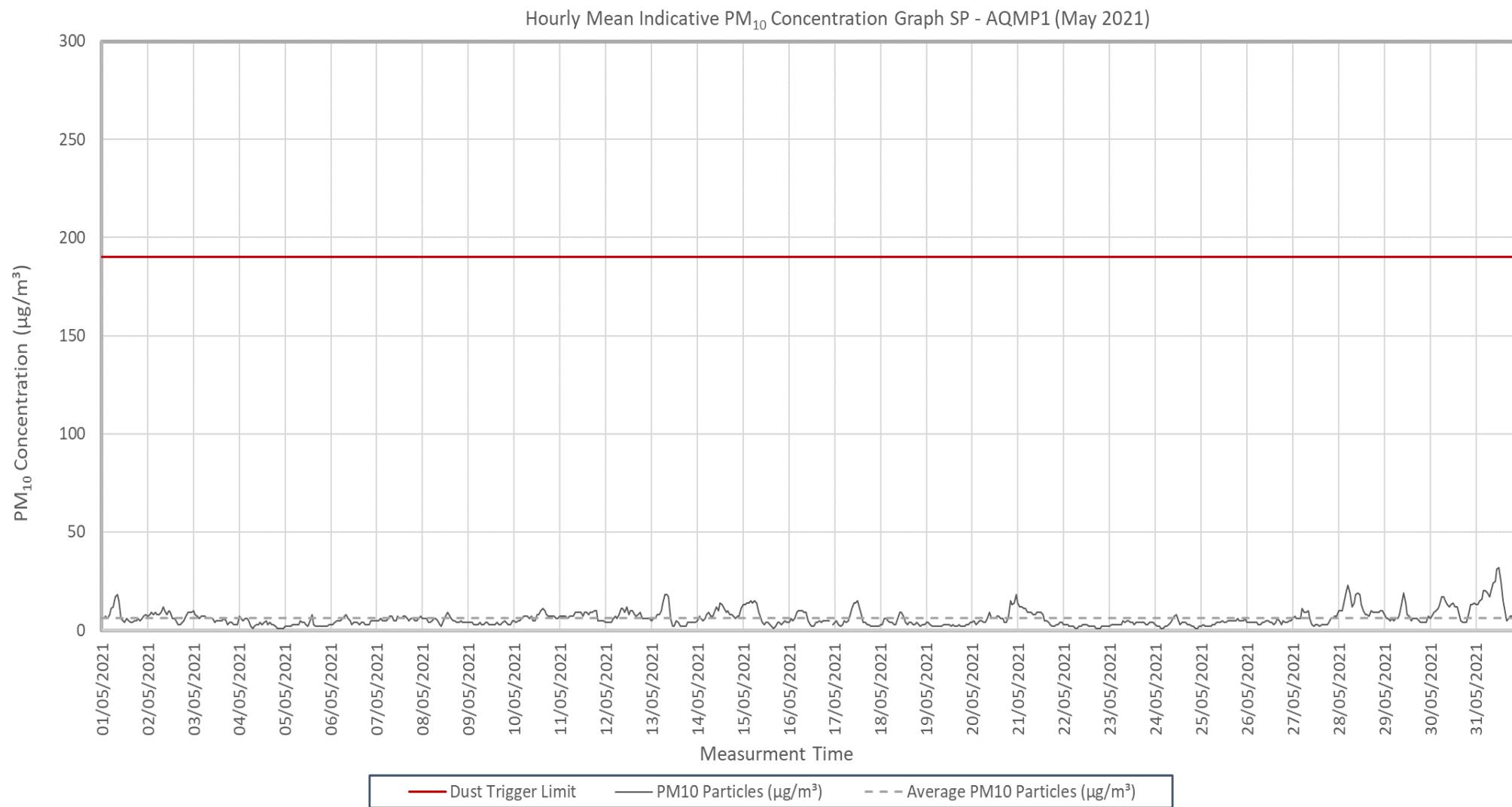


Figure 3: Continuous dust 1-hour mean indicative PM₁₀ concentration for SP-AQMP2 for May 2021

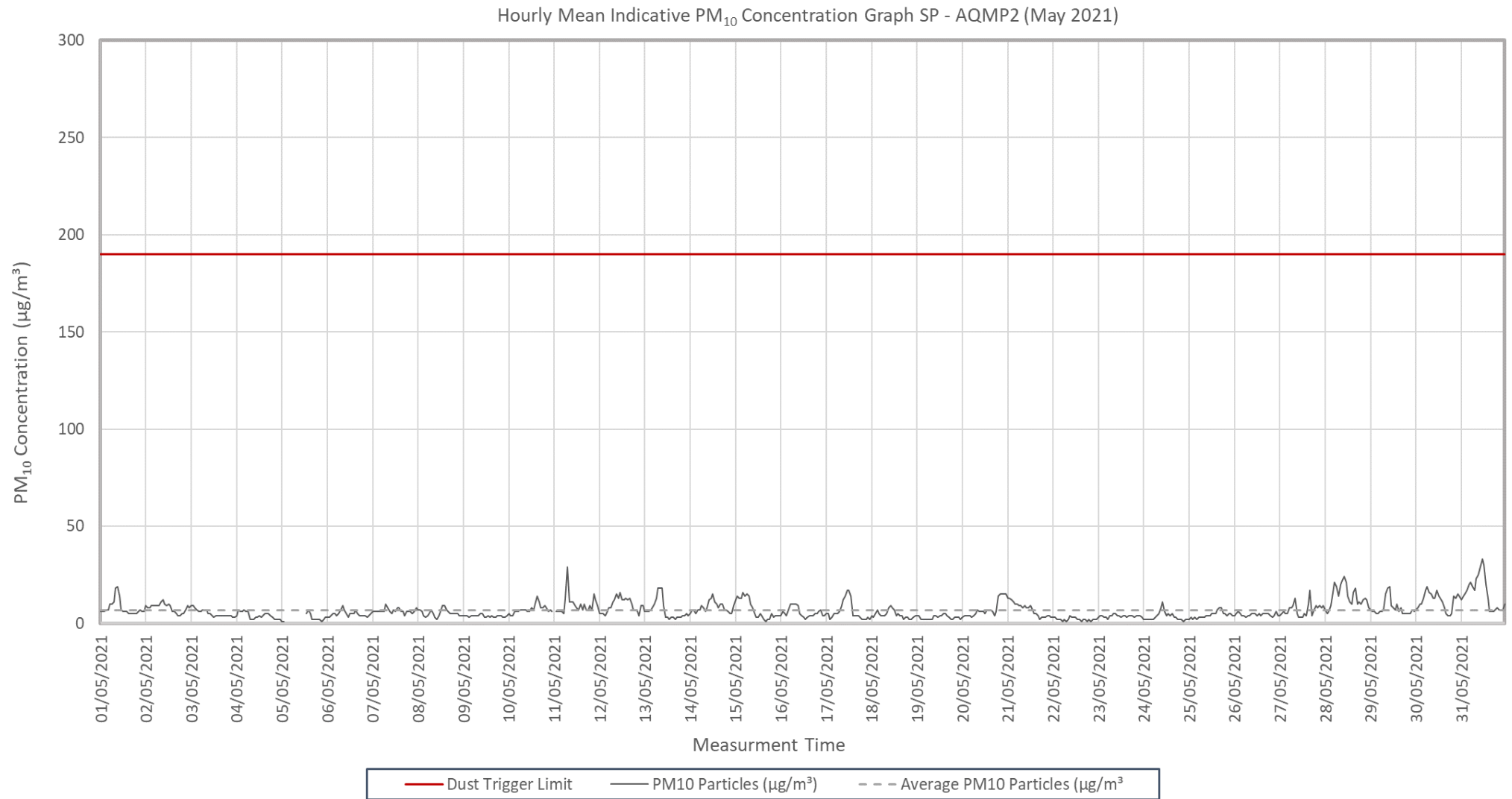


Figure 4: Continuous dust 1-hour mean indicative PM₁₀ concentration for SP-AQMP3 for May 2021

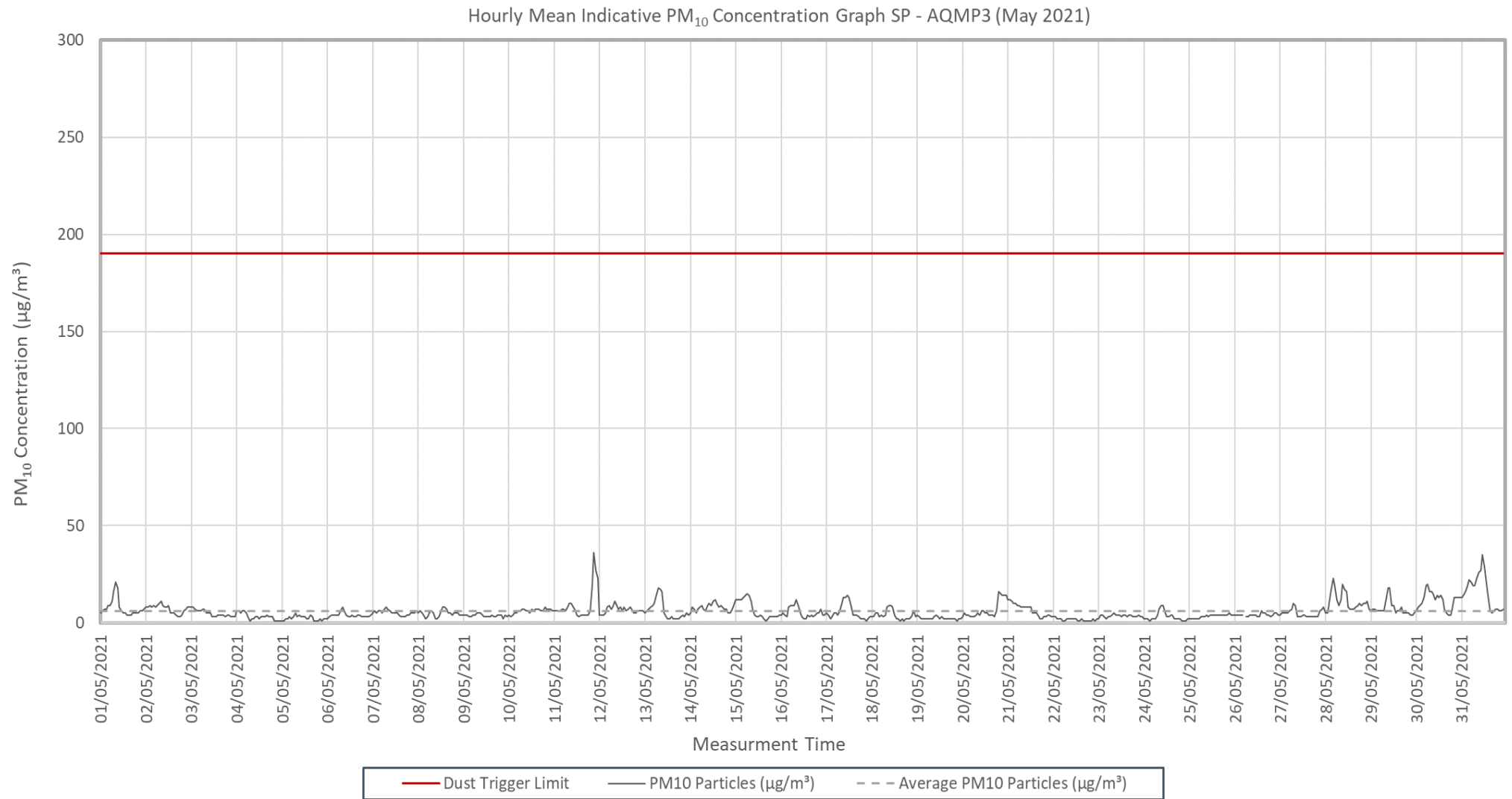


Figure 5: Continuous dust 1-hour mean indicative PM₁₀ concentration for SP-AQMP4 for May 2021

