

Air Quality and Dust Monitoring Monthly Report – **September** 2020

Three Rivers District Council



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 Align JV 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

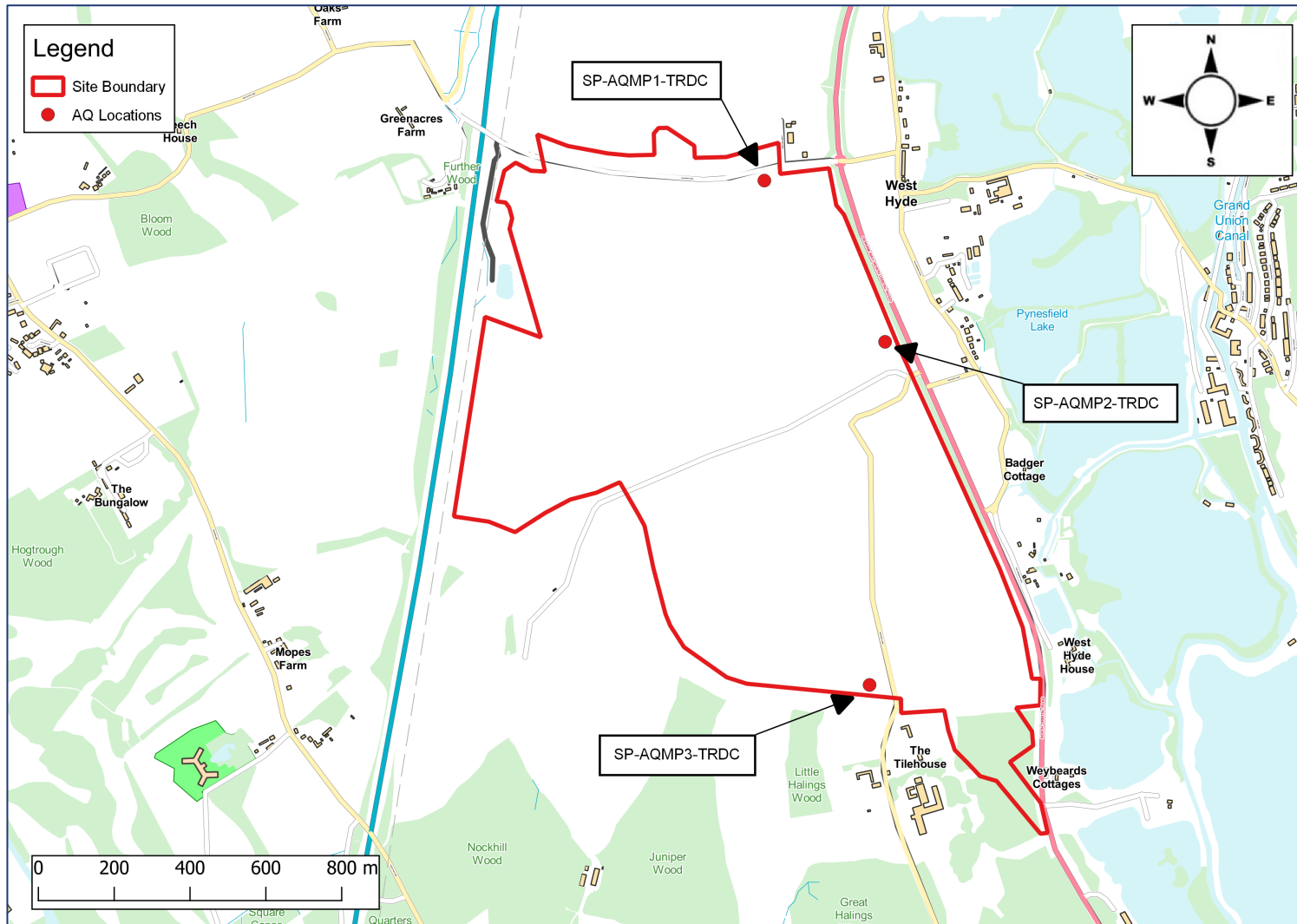
- 1.1.1 This Summary Report is published in fulfilment of commitments detailed in the High Speed Rail (London-West Midlands) Environmental Minimum Requirements, Annex 1: Code of Construction Practice, for the nominated undertaker to present the results of dust monitoring undertaken in the Three Rivers District Council (TRDC) area during September 2020.
- 1.1.2 Figure 1 in Appendix A indicates the current worksite together with the dust monitoring locations for September 2020.
- 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 worksite as presented in Appendix A, Figure 1, includes the following ongoing works:
- Wernick superstructure: main office 2nd floor fit out works (indoor) and canteen 1st floor fit-out works (indoor);
 - Select superstructure: tunnel office internal fit-out works (indoor) and installation of tunnel precast yard pod (1 day lifting and internal fit-out);
 - Caunton superstructure: steelwork installation of tunnel precast factory – phase 3, cladding of tunnel precast factory – phases 1 & 2, cladding on batching plant 2 & 3 aggregate bin roofs, steelwork installation cladding on tunnel boring machine (TBM) workshop and cladding of TBM workshop;
 - Earthworks undertaken by Roadbridge: foundation treatment at interface SPC-WHE, foundation treatment at interface WHE-quarry road-TLC, TBM storage platform delivery for cutterheads, working platforms for KVJV works (dissolution features), TLC excavation; haul road works and trial pits in Pynesfield quarry; and
 - Groundworks undertaken by KVJV: compaction grouting on the viaduct precast yard.
- 1.1.5 Three (3) dust monitors are installed around the worksite, where earthworks, construction and trackout activities are underway. This site returned a medium dust risk rating (for works currently active on site).
- 1.1.6 Dust monitoring locations and results are presented in Appendix B, Table 1, together with a line chart of monthly data from each dust monitor presented in Figures 2, 3 and 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 mitigations.

- 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 four (4) dust trigger alerts recorded during the monitoring period (September 2020). Exceedances are presented in Appendix B, Table 2. All other results were in line with expected ranges.
- 1.1.9 Data capture was below 90% for SP-AQMP2-TRDC for the month of September 2020. This was due to a fault with the solar controller and the loss of power supply from the leisure batteries. Following each instance of power loss, the leisure batteries were replaced. The fault with the solar controller was resolved on 15/09/20.
- 1.1.10 There were no (0) complaints received, relating to air quality, during this reporting period (September 2020).

Appendix A –Monitoring Locations

Figure 1: Worksites and Monitoring locations during September 2020



Appendix B – Dust Monitoring Results

Table 1: Dust monitoring locations and September 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 (%)
SP-AQMP1-TRDC	502885, 191488	On the northern boundary of the site at Chalfont Lane	M	Yes	Yes	13.1	0.1	159.5	0	91
SP-AQMP2-TRDC	503209, 190991	On the eastern boundary of the site at Denham Way	M	Yes	Yes	15.9	2.0	157.4	0	72
SP-AQMP3-TRDC	503154, 190062	On the southern boundary of the site at Tilehouse Lane	M	Yes	Yes	16.3	1.9	1046.7	4	100

Table 2: Summary of exceedances during period (September 2020)

Period exceeding trigger level	Worksite	Monitoring Site ID	Complaint reference number (if applicable)	Reason	Resolution
14/09/2020 01:01 – 04:00 (x4)	South Portal worksite	SP-AQMP3_TRDC	n/a	No site activity was being undertaken at the time of the triggers. Upon investigation it was confirmed that the exceedances were due to the heated inlet not working at full capacity which led to water infiltrating the unit, due to fog/dew in the area.	The heated inlet was repaired on 15/09/20 and is being monitored closely.

Figure 2: Continuous dust 1-hour mean indicative PM₁₀ concentration for SP-AQMP1-TRDC for September 2020

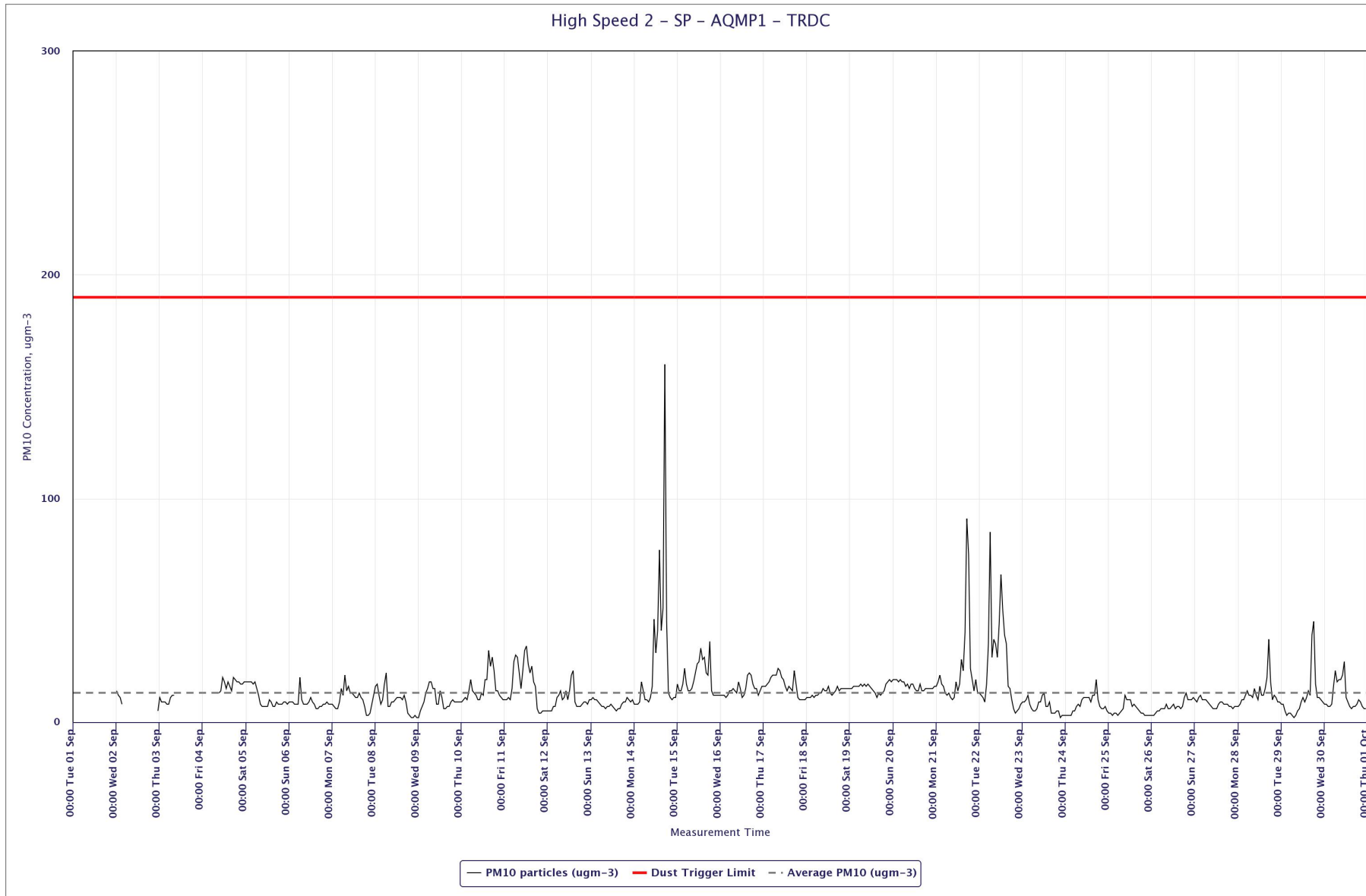


Figure 3: Continuous dust 1-hour mean indicative PM₁₀ concentration for SP-AQMP2-TRDC for September 2020

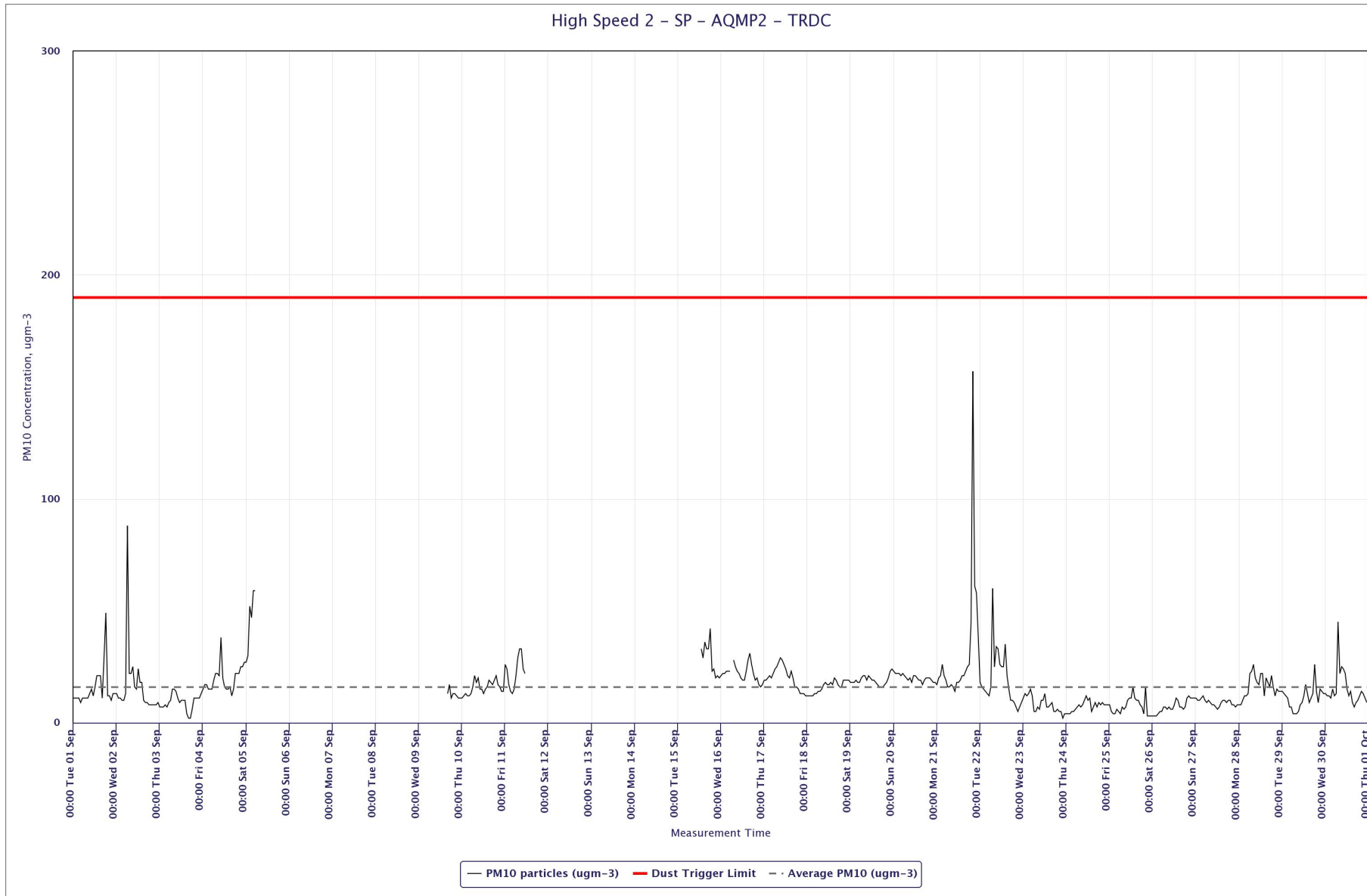


Figure 4: Continuous dust 1-hour mean indicative PM₁₀ concentration for SP-AQMP3-TRDC for September 2020

