

HS2

March 2026

**Construction noise and vibration
Monthly Report – March 2026**
North Warwickshire Borough Council

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Non-Technical Summary

This Noise and Vibration Monitoring Report fulfils HS2 Limited's commitment detailed in the Environmental Minimum Requirements (EMRs), Annex 1, Code of Construction Practice, to present the results of noise and vibration monitoring carried out within North Warwickshire Borough Council during the month of March 2026.

Within this period noise and vibration monitoring were undertaken at the following worksites:

- Church Lane Embankment worksite (ref.: CLE), where no works were underway.
- Kingsbury Main Compound worksite (ref.: KMC), where material deliveries and operation of precast yard, offices and welfare facilities were underway.
- Marston Box worksite (ref.: MB), where no works were underway.
- Faraday Avenue Embankment and Underbridge worksite (ref.: FAEU), where span construction was underway.
- Chattle Hill Box Structure worksite (ref.: CHBS), where no works were underway.
- Attleboro Lane Overbridge worksite (ref.: ALO), where drainage ditch construction works, sheet piling and retaining wall construction were underway.
- Marsh Lane Embankment (ref.: MLE) worksites, where dig and replace, stockpiling, embankment construction, compound operation, haul road operation and maintenance, traffic management and material movements were underway
- Gilson Embankment worksite (ref.: GE), where retaining wall works, drainage works and platform construction were underway.
- Gilson Drive worksite (ref.: GLD), where culvert construction, backfilling, site grading, drainage works, site maintenance, landscaping and stockpiling were underway.
- Birmingham Road worksite (ref.: BRD), where batter trimming, topsoiling and haul road maintenance were underway.
- Water Orton South Compound (ref.: WOSC), where pile cropping, excavation and formwork reinforcement were underway.

The HS2 threshold levels for significant noise impacts, which are defined in Information Paper E23 (<https://www.gov.uk/government/publications/hs2-information-papers-environment>), were not exceeded due to HS2 works during February 2026.

There were no exceedances of trigger levels as defined in section 61 consents during the reporting period at any monitoring position.

No complaints were received during the monitoring period.

Abbreviations and Descriptions

The abbreviations, descriptions and project terminology used within this report can be found in Table 1.

Table 1: Table of Abbreviations

Acronym/Term	Definition
L _{Aeq,T}	See equivalent continuous sound pressure level.
Ambient Sound	A description of the all-encompassing sound at a given location and time which will include sound from many sources near and far. Ambient sound can be quantified in terms of the equivalent continuous sound pressure level, L _{pAeq,T}
Decibel(s), or dB	Between the quietest audible sound and the loudest tolerable sound there is a million to one ratio in sound pressure (measured in Pascal (Pa)). Because of this wide range, a level scale called the decibel (dB) scale, based on a logarithmic ratio, is used in sound measurement. Audibility of sound covers a range of approximately 0-140dB.
Decibel(s) A-weighted, or dB(A)	The human ear system does not respond uniformly to sound across the detectable frequency range and consequently instrumentation used to measure sound is weighted to represent the performance of the ear. This is known as the 'A weighting' and is written as 'dB(A)'.
Equivalent continuous sound pressure level, or L _{Aeq,T}	An index used internationally for the assessment of environmental sound impacts. It is defined as the notional unchanging level that would, over a given period of time (T), deliver the same sound energy as the actual time-varying sound over the same period. Hence fluctuating sound levels can be described in terms of an equivalent single figure value, typically expressed as a decibel level.
Exclusion of data	Measurement of noise levels can be affected by weather conditions such as prolonged periods of rain, winds speeds higher than 5m/s and snow/ice ground cover. Noise levels measured during these periods are considered not representative of normal noise conditions at the site and, for the purposes of this report, are excluded from the assessment of exceedances and calculation of typical noise levels and are also greyed out in charts. Identifiable incongruous noise and vibration events not attributable to HS2 construction noise are also excluded.
Façade	A facade noise level is the noise level 1m in front of a large reflecting surface. The effect of reflection, is to produce a slightly higher (typically +2.5 to +3 dB) sound level than it would be if the reflecting surface was not there.
Free-field	A free-field noise level is the noise level measured at a location where no reflective surfaces, other than the ground, lies within 3.5 metres of the microphone position.
LOAEL	Lowest Observed Adverse Effect Level - the level above which adverse effects on health and quality of life can be detected.
Peak particle velocity, or PPV	Instantaneous maximum velocity reached by a vibrating element as it oscillates about its rest position. The PPV is a simple indicator of perceptibility and risk of damage to structures due to vibration. It is usually measured in mm/s.
SOAEL	Significant Observed Adverse Effect Level - the level above which significant adverse effects on health and quality of life occur.

Sound pressure level	The parameter by which sound levels are measured in air. It is measured in decibels. The threshold of hearing has been set at 0dB, while the threshold of pain is approximately 120dB. Normal speech is approximately 60dB at a distance of 1 metre and a change of 3dB in a time varying sound signal is commonly regarded as being just detectable. A change of 10dB is subjectively twice, or half, as loud.
Vibration dose value, or VDV	An index used to evaluate human exposure to vibration in buildings. While the PPV provides information regarding the magnitude of single vibration events, the VDV provides a measure of the total vibration experienced over a specified period of time (typically 16h daytime and 8h night-time). It takes into account the magnitude, the number and the duration of vibration events and can be used to quantify exposure to continuous, impulsive, occasional and intermittent vibration. The vibration dose value is measured in $m/s^{1.75}$.

1 Introduction

1.1.1 HS2 is required to undertake noise (and vibration) monitoring as necessary to comply with the requirements of the High Speed Rail (London-West Midlands) Environmental Minimum Requirements, including specifically Annex 1: Code of Construction Practice, in addition to any monitoring requirements arising from conditions imposed through consents under Section 61 of the Control of Pollution Act, 1974 or through Undertakings & Assurances given to third parties. Such monitoring may be undertaken for the following purposes:

- monitoring the impact of construction works;
- to investigate complaints, incidents and exceedance of trigger levels; or
- monitoring the effectiveness of noise and vibration control measures.

Monitoring data and interpretive reports are to be provided to each relevant local authority on a monthly basis and shall include a summary of the construction activities occurring, the data recorded over the monitoring period, any complaints received, any periods in exceedance of agreed trigger levels, the results of any investigations and any actions taken or mitigation measures implemented. This report provides noise data, and interpretation thereof, for monitoring carried out by HS2 within the North Warwickshire Borough Council (NWBC) area for the period 1-31 March 2026.

Construction sites in the local authority area where monitoring was undertaken during this period include:

- Church Lane Embankment worksite, ref.: CLE (see Plan 1 Appendix A), where no works were undertaken
- Kingsbury Main Compound worksite, ref.: KMC (see Plan 2 in Appendix A), where works activities included:
 - Material deliveries
 - Operation of precast yard
 - Operation of offices and welfare facilities
- Marston Box/Marston Lane worksite, ref.: MB (see Plan 2 in Appendix A), where no works were undertaken.
- Faraday Avenue Embankment and Underbridge worksite, ref.: FAEU (see Plan 3 in Appendix A), where works activities included:
 - Span construction
- Chattle Hill Box Structure worksite, ref.: CHBS (see Plan 4 in Appendix A), where no works were undertaken.
- Attleboro Lane Overbridge worksite, ref.: ALO (See Plan 4 in Appendix A), where work activities included:
 - Drainage ditch construction

- Retaining wall construction, including base slab, capping beams, walls, roof and base slab installation
- Marsh Lane Embankment worksite, ref: MLE (See Plan 4 in Appendix A), where work activities included:
 - Stockpiling
 - Dig and replace
 - Embankment construction
 - Compound operation
 - Haul road operation and maintenance
 - Traffic management
 - Material movements
- Gilson Embankment worksite, ref.: GE (see Plan 4 in Appendix A), where work activities included:
 - Retain wall works
 - Platform construction
- Gilson Drive worksite, ref.: GLD (see Plan 4 in Appendix A), works activities included:
 - Culvert construction
 - Backfilling
 - Site grading
 - Drainage works
 - Site maintenance
 - Landscaping
 - Stockpiling
- Birmingham Road worksite, ref.: BRD (see Plan 4 in Appendix A), where activities included:
 - Batter trimming.
 - Topsoiling.
 - Haul road maintenance.
- Water Orton Sound Compound, ref.: WOSC (see Plan 4 in Appendix A), work activities included:
 - Pile cropping.
 - Excavation.

- Formwork reinforcement.

1.1.2 The applicable standards, guidance, and monitoring methodology is outlined in the construction noise and vibration monitoring methodology report which can be found at the following location <https://www.gov.uk/government/collections/monitoring-the-environmental-effects-of-hs2>. Noise and vibration monitoring reports for previous months can also be found at this location.

1.2 Measurement Locations

1.2.1 14 noise and 8 vibration monitoring installations were active in March in the North Warwickshire Borough Council area. Tables 2a and 2b summarise the position of noise and vibration monitoring installations within the North Warwickshire Borough Council area in March 2026.

1.2.2 Maps showing the position of noise and vibration monitoring installations are presented in Appendix B.

Table 2a: Noise Monitoring Locations

Worksite Reference	Measurement Reference	Address
AFE	AFE-N1	(south east of) Attleboro Farm, Attleboro Lane
ALO	ALO-N1	(west of) 47 Attleboro Lane, Water Orton
	ALO-N2	(south of) 57 Attleboro Lane, Water Orton
BRD	BRD-N2	(east of) 1 New Cottage, Birmingham Road, Coleshill
	BRD-N3	(north west of) 1 New Cottage, Birmingham Road, Coleshill
CHBS	CHBS-N1	(west of) 6 Gorseway Way, Coleshill
CLE	CLE-N1	Highfields Farmhouse, Church Lane, Tamworth
FAEU	FAEU-N1	(south of) Orchard Cottage, Newlands Lane, Curdworth
GE	GE-N2	(east of) Lovegrove Cottage, Gilson Road, Coleshill
GLD	GLD-N1	10 Gilson Drive, Coleshill
KMC	KMC-N1	(west of) Wheatley House, Kingsbury Road, Sutton Coldfield
MB	MB-N1	(west of) Elford House, Kingsbury Road, Curdworth
MLE	MLE-N1	Rostrevor, Vicarage Lane, Water Orton
WOSC	WOSC-N3	(south of) 53 Watton Lane, Water Orton

Table 2b: Vibration Monitoring Locations

Worksite Reference	Measurement Reference	Address
ALO	AFE-V1	(south east of) Attleboro Farm, Attleboro Lane
	ALO-V1	(west of) 47 Attleboro Lane, Water Orton
	ALO-V5	(south of) 57 Attleboro Lane, Water Orton
BRD	BRD-V1	(north west of) 1 New Cottage, Birmingham Road, Coleshill
CHBS	CHBS-V3	(west of) 6 Gorseway Way, Coleshill
FAEU	FAEU-V1	(south of) Orchard Cottage, Newlands Lane, Curdworth
GLD	GLD-V1	10 Gilson Drive, Coleshill
MB	MB-V1	(west of) Elford House, Kingsbury Road, Curdworth

2 Summary of Results

2.1 Summary of Measured Noise and Vibration Levels

2.1.1 Table 3 presents a summary of the measured noise levels at each monitoring location over the reporting period. The LAeq,T is presented for each of the relevant time periods averaged over the calendar month, along with the highest single period LAeq,T that was found to occur within the month.

Table 3: Summary of Measured dB LAeq Data over the Monitoring Period

Worksite Reference.	Measurement Reference	Site Address	Free-Field or Façade Measurement	Weekday Average LAeq,T (Highest Day LAeq,T)					Saturday Average LAeq,T (Highest Day LAeq,T)					Sunday / Public Holiday LAeq,T (Highest Day LAeq,T)	
				0700 - 0800	0800 - 1800	1800 - 1900	1900 - 2200	2200 - 0700	0700 - 0800	0800 - 1300	1300 - 1400	1400 - 2200	2200 - 0700	0700 - 2200	2200 - 0700
WOSC	WOSC-N3	(south of) 53 Watton Lane, Water Orton	Free field	63.7 (65.5)	63.3 (64.9)	62.1 (63.9)	59.9 (61.9)	58.1 (64.8)	59.3 (59.7)	61.2 (61.7)	61.1 (62.1)	60.1 (62.3)	55.4 (58.7)	60.6 (63.5)	57.5 (63.5)
ALO	AFE-N1	(south east of) Attleboro Farm, Attleboro Lane	Free field	63.5 (67.8)	64.1 (66.9)	62.0 (67.1)	61.3 (66.3)	59.7 (67.7)	59.8 (64.8)	61.1 (64.8)	59.7 (64.1)	60.7 (65.8)	58.5 (62.9)	63.2 (68.9)	61.0 (67.1)
	ALO-N1	(west of) 47 Attleboro Lane, Water Orton	Free field	58.6 (64.5)	58.8 (63.4)	56.7 (63.0)	56.2 (62.3)	54.9 (63.8)	55.5 (59.4)	56.2 (57.7)	53.5 (57.0)	53.8 (58.2)	54.4 (58.0)	59.4 (64.1)	55.7 (63.2)
	ALO-N2	(south of) 57 Attleboro Lane, Water Orton	Free field	58.6 (64.4)	59.2 (63.2)	56.4 (62.9)	55.9 (62.1)	54.7 (63.7)	54.7 (59.7)	56.3 (59.1)	52.4 (57.2)	53.2 (58.8)	53.4 (57.7)	58.1 (64.3)	55.4 (63.0)
BRD	BRD-N2	(east of) 1 New Cottage, Birmingham Road, Coleshill,	Free field	62.6 (64.5)	62.4 (64.3)	61.2 (62.9)	59.6 (62.7)	58.5 (65.0)	58.0 (60.0)	60.2 (62.1)	60.2 (62.6)	58.5 (61.5)	57.0 (59.1)	59.9 (62.3)	57.7 (63.0)
	BRD-N3	(north west of) 1 New Cottage, Birmingham Road, Coleshill,	Free field	70.0 (72.3)	68.8 (70.4)	68.2 (69.7)	66.4 (68.5)	63.7 (70.2)	65.8 (66.7)	68.1 (68.2)	68.1 (68.4)	67.0 (68.2)	62.0 (66.1)	67.2 (69.8)	62.8 (68.6)
CHBS	CHBS-N1	(west of) 6 Gorsey Way, Coleshill,	Free field	63.1 (65.5)	62.6 (64.2)	61.3 (67.4)	58.7 (67.4)	57.4 (64.6)	58.7 (60.5)	62.7 (65.3)	63.5 (67.9)	60.3 (64.8)	54.3 (58.5)	60.0 (67.2)	56.1 (62.8)
CLE	CLE-N1	Highfields Farmhouse, Church Lane, Tamworth	Free field	50.6 (61.5)	48.4 (55.7)	47.8 (55.0)	44.2 (51.6)	50.9 (67.1)	45.3 (47.1)	48.1 (50.1)	47.3 (52.9)	45.9 (53.3)	54.8 (67.9)	48.3 (54.9)	51.5 (68.4)
FAEU	FAEU-N1	(south of) Orchard Cottage, Newlands Lane, Curdworth,	Free field	56.7 (60.8)	56.0 (60.9)	54.8 (59.7)	54.8 (60.8)	54.0 (61.4)	54.4 (57.3)	54.3 (58.2)	51.4 (57.7)	52.7 (57.8)	51.5 (56.0)	53.7 (59.0)	52.1 (59.2)
GE	GE-N2	(east of) Lovegrove Cottage, Gilson Road, Coleshill	Free field	61.5 (65.6)	60.9 (64.8)	59.9 (64.5)	58.3 (63.4)	56.9 (64.5)	56.3 (60.7)	58.5 (62.4)	57.7 (61.7)	57.1 (62.2)	54.1 (57.9)	59.6 (64.9)	56.9 (63.7)
GLD	GLD-N1	10 Gilson Drive, Coleshill	Façade	58.5 (61.8)	60.5 (63.1)	56.8 (63.1)	55.0 (58.2)	53.6 (60.5)	55.5 (57.9)	55.8 (59.4)	53.5 (55.3)	53.5 (56.2)	52.6 (57.9)	55.6 (58.4)	53.4 (59.6)

KMC	KMC-N1	(west of) Wheatley House, Kingsbury Road, Sutton Coldfield	Free field	60.1 (68.0)	62.7 (69.6)	57.6 (65.9)	55.3 (69.0)	57.1 (69.3)	53.6 (58.9)	55.4 (61.0)	55.0 (60.0)	56.9 (69.3)	57.2 (68.6)	57.8 (63.5)	57.8 (73.4)
MB	MB-N1	(west of) Elford House, Kingsbury Road, Curdworth,	Free field	58.2 (62.9)	57.1 (61.5)	56.8 (61.4)	55.7 (60.4)	54.5 (61.5)	54.7 (58.4)	56.1 (61.0)	56.0 (61.0)	55.9 (61.8)	51.6 (57.1)	55.9 (61.8)	53.2 (59.9)
MLE	MLE-N1	Rostrevor, Vicarage Lane, Water Orton,	Free field	56.5 (62.0)	55.4 (59.4)	54.3 (58.4)	53.8 (57.5)	52.4 (60.4)	53.3 (57.4)	51.9 (54.7)	50.2 (53.6)	50.9 (55.0)	51.1 (55.3)	54.7 (59.3)	53.2 (60.2)

2.1.2 Table 4: Summary of Measured PPV Data over the Monitoring Period presents a summary of the measured vibration levels at each monitoring location over the reporting period. The highest PPV measured during the monitoring along any axis is presented in the table.

Table 4: Summary of Measured PPV Data over the Monitoring Period

Worksite Reference	Measurement Reference	Monitor Address	Highest PPV measured in any axis, mm/s
ALO	AFE-V1	(southeast of) Attleboro Farm, Attleboro Lane	0.82 (Z-axis)
	ALO-V1	(west of) 47 Attleboro Lane, Water Orton	3.82 (Z-axis)
	ALO-V5	(south of) 57 Attleboro Lane, Water Orton	0.42 (Y-axis)
BRD	BRD-V1	(north west of) 1 New Cottage, Birmingham Road, Coleshill	1.72 (Z-axis)
CHBS	CHBS-V3	(west of) 6 Gorseway Way, Coleshill	(*)
FAEU	FAEU-V1	(south of) Orchard Cottage, Newlands Lane, Curdworth	1.65 (Y-axis)
GLD	GLD-V1	10 Gilson Drive, Coleshill	47.10 (Y-axis)
MB	MB-V1	(west of) Elford House, Kingsbury Road, Curdworth, Sutton Coldfield	8.48 (Z-axis)

*Note: No data captured for the month of March 2026 was due to a monitoring station malfunction caused by flooding of the monitoring position.

2.1.3 Appendix C presents graphs of the noise and vibration monitoring data over the month for each of the measurement locations. Noise data presented consists of the hourly LAeq values and, where relevant, the LAeq,T values (where the time period T has been taken to be the averaging period as specified in Table 1 of HS2 Information Paper E23). Vibration data presented consist of hourly PPV values. The full data set for the monitoring equipment can be found at the following location: <https://data.gov.uk/dataset/24542ae7-dd44-444f-b259-871c4cc43b5e/environmental-monitoring-data>.

2.2 Exceedances of the LOAEL and SOAEL

2.2.1 The lowest observed adverse effect level (LOAEL) is defined in the Planning Practice Guidance – Noise (PPG) as the level above which "noise starts to cause small changes in behaviour and/or attitude, e.g. turning up volume of television; speaking more loudly; where there is no alternative ventilation, having to close windows for some of the time

because of the noise. Potential for some reported sleep disturbance. Affects the acoustic character of the area such that there is a perceived change in the quality of life".

- 2.2.2 The significant observed adverse effect level (SOAEL) is defined in the 'Planning Practice Guidance – Noise' as the level above which "noise causes a material change in behaviour and/or attitude, e.g. avoiding certain activities during periods of intrusion; where there is no alternative ventilation, having to keep windows closed most of the time because of the noise. Potential for sleep disturbance resulting in difficulty in getting to sleep, premature awakening and difficulty in getting back to sleep. Quality of life diminished due to change in acoustic character of the area."
- 2.2.3 HS2 Phase One Information Paper E23: Control of Construction Noise and Vibration sets out the LOAEL and SOAELs for construction noise.
- 2.2.4 Where construction noise levels exceed the SOAEL, relevant periods will be identified, and summary statistics provided in order to evaluate ongoing qualification for noise insulation and temporary rehousing.
- 2.2.5 Table 5 presents a summary of recorded exceedances of the LOAEL and SOAEL at each measurement location over the reporting period, including the number of exceedances during each time period.

Table 5: Summary of Exceedances of LOAEL and SOAEL

Worksite Reference	Measurement Reference	Site Address	Day (Weekday, Saturday, Sunday, Night)	Time period	Number of exceedances of LOAEL	Number of exceedances of SOAEL
ALO	AFE-N1		Weekday	0800 - 1800	4	No exceedances
	ALO-N1		Weekday	0700 - 0800	8	No exceedances
				1800 - 1900	3	No exceedances
ALO-N2		Weekday	0800 - 1800	No exceedances	No exceedances	
BRD	BRD-N2		Weekday	0800 - 1800	No exceedances	No exceedances
	BRD-N3		Weekday	0800 - 1800	No exceedances	No exceedances
CHBS	CHBS-N1		Weekday	0800 - 1800	No exceedances	No exceedances
CLE	CLE-N1		Weekday	0800 - 1800	No exceedances	No exceedances
FAEU	FAEU-N1		Weekday	1900 - 2200	1	No exceedances
			Night	2200 - 0700	11	No exceedances
GE	GE-N2		Weekday	1900 - 2200	2	No exceedances
GLD	GLD-N1		Weekday	0800 - 1800	No exceedances	No exceedances
KMC	KMC-N1		Weekday	0800 - 1800	No exceedances	No exceedances
MB	MB-N1		Weekday	0800 - 1800	No exceedances	No exceedances
MLE	MLE-N1		Weekday	0800 - 1800	No exceedances	No exceedances
WOSC	WOSC-N3		Night	2200 - 0700	9	No exceedances

- 2.2.6 There were exceedances of the LOAEL, during March 2026, due to HS2 construction works.

2.2.7 For the purpose of assessing eligibility for noise insulation or temporary rehousing, multiple exceedances of the SOAEL in a 24-hour period would be counted as a single exceedance during that day. Over the reporting period, the overall number of SOAEL exceedances at each measurement location is shown in Table 6 and may be lower than the total sum of individual exceedances reported in Table 5 for each location.

Table 6: Summary of Total Exceedances of SOAEL

Worksite Reference	Measurement Reference	Monitor Address	Total of SOAEL exceedances in the month
-	-	-	-

2.3 Exceedances of Trigger Level

2.3.1 Table 7 provides a summary of exceedances of the S61 trigger noise levels determined to be due to HS2 related construction noise measured during the reporting period, along with the findings of any investigation.

Table 7: Summary of Exceedances of Trigger Levels

Complaint Reference Number (if applicable)	Worksite Reference	Date and Time Period	Identified Source	Results of Investigation (including noise monitoring results)	Actions Taken
-	-	-	-	-	-

2.4 Complaints

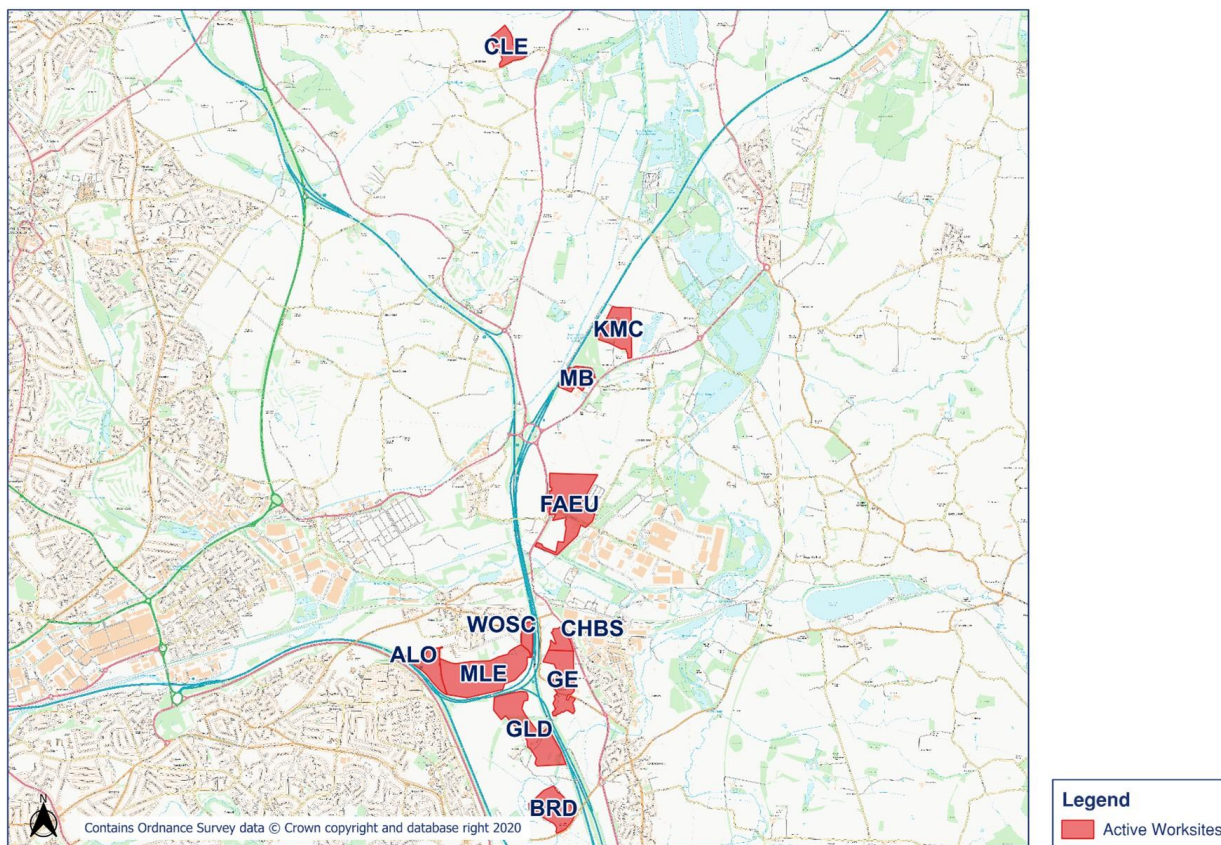
2.4.1 Table 8 provides a summary of complaint information related to noise and vibration received during the reporting period, along with the findings of any investigation.

Table 8: Summary of Complaints

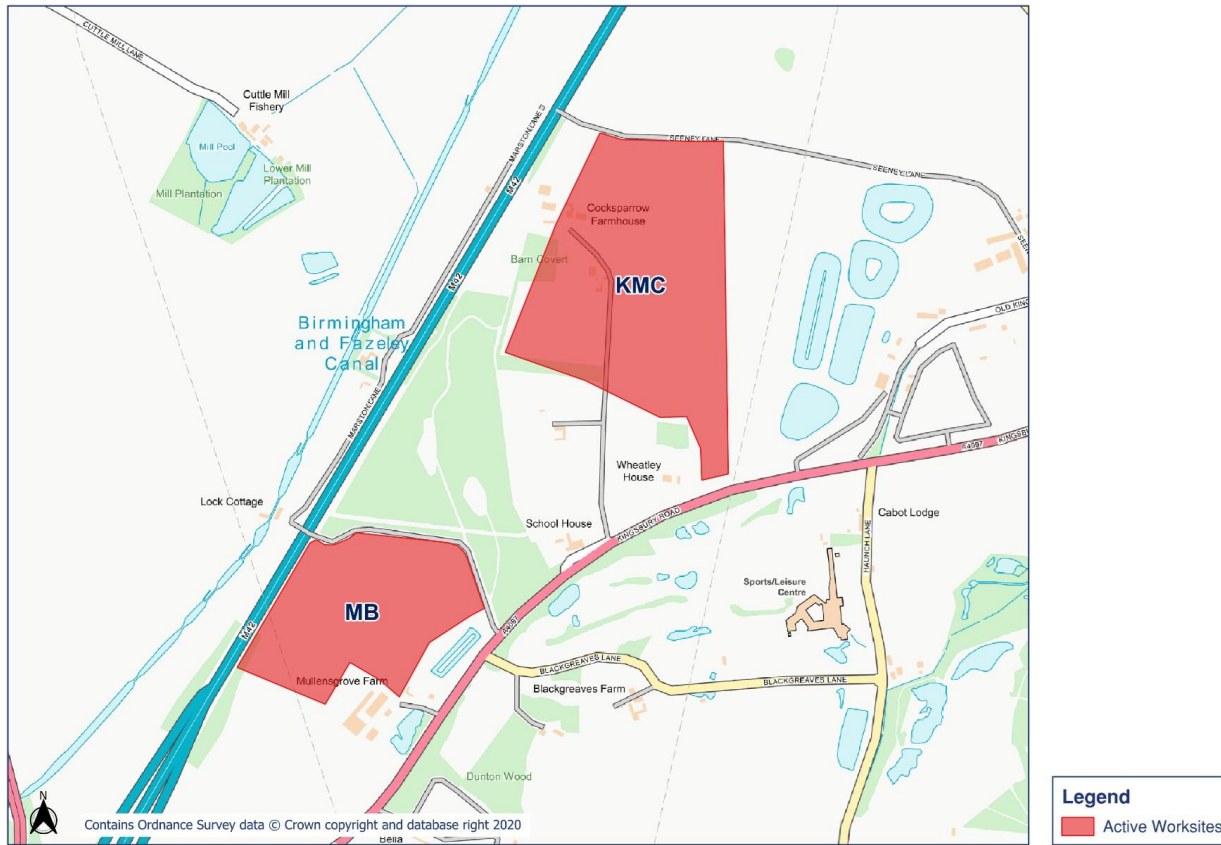
Complaint Reference Number	Worksite Reference	Description of Complaint	Results of Investigation	Actions Taken
-	-	-	-	-

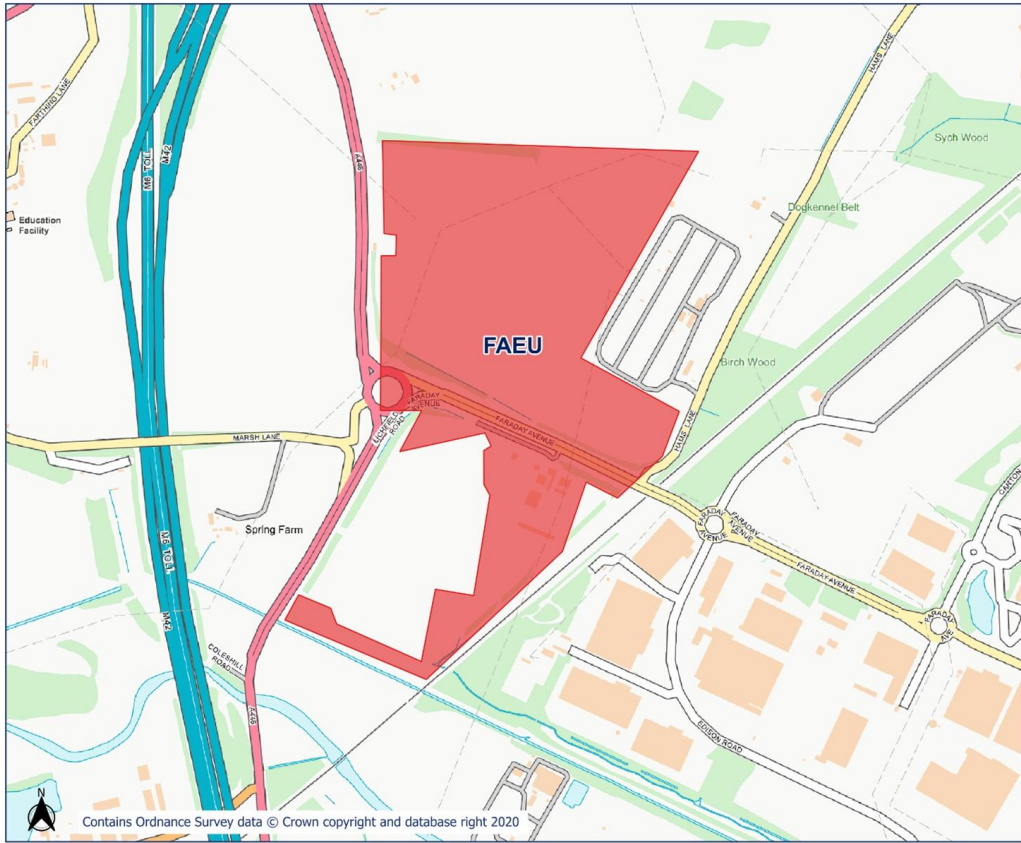
Appendix A Site Locations

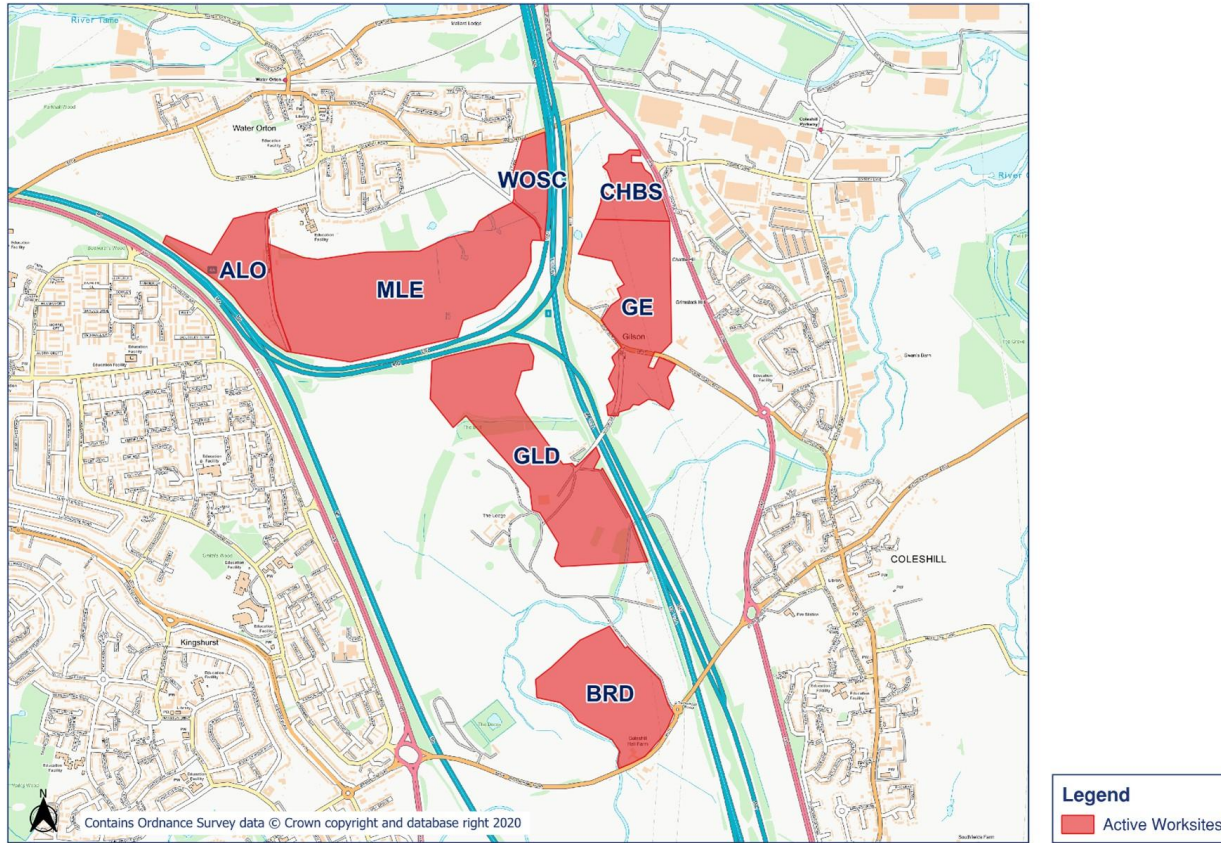
HS2 Worksite Identification Plan - Overview









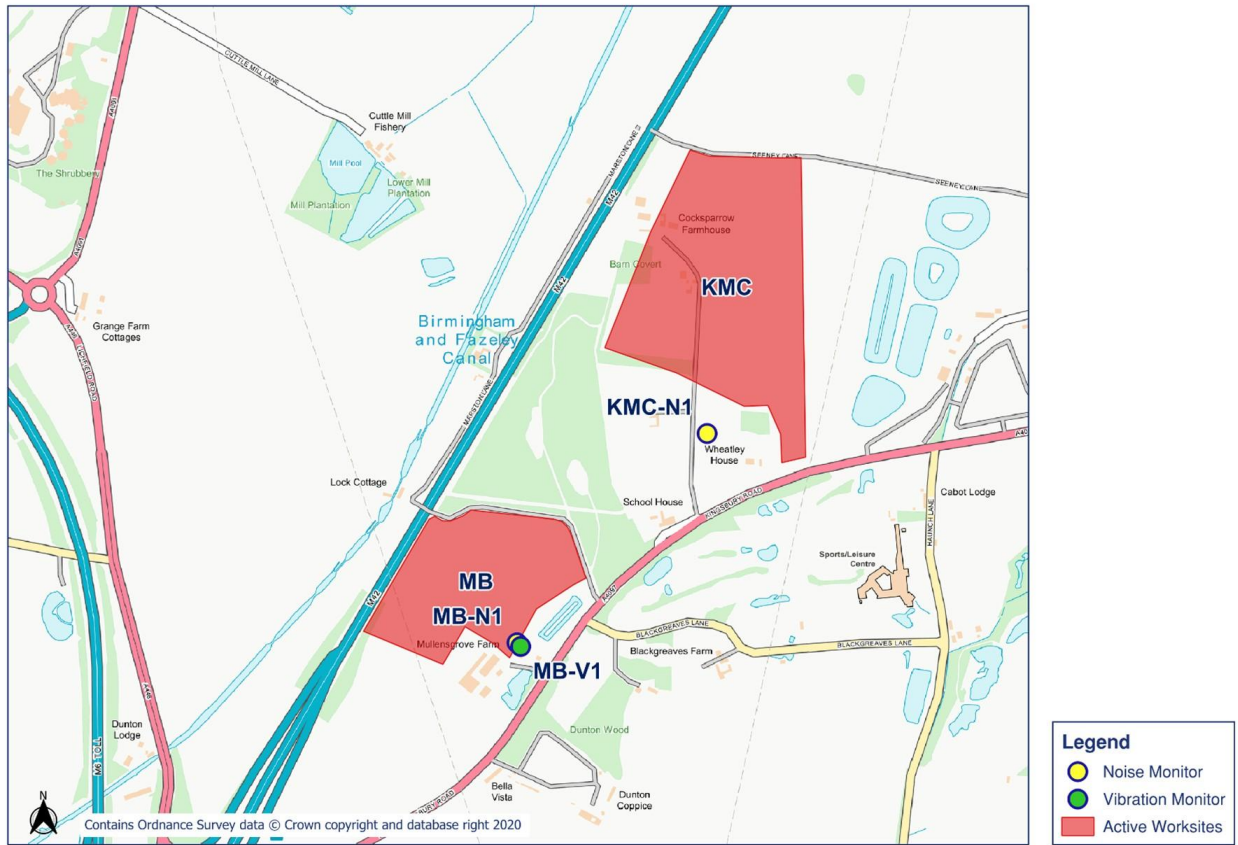


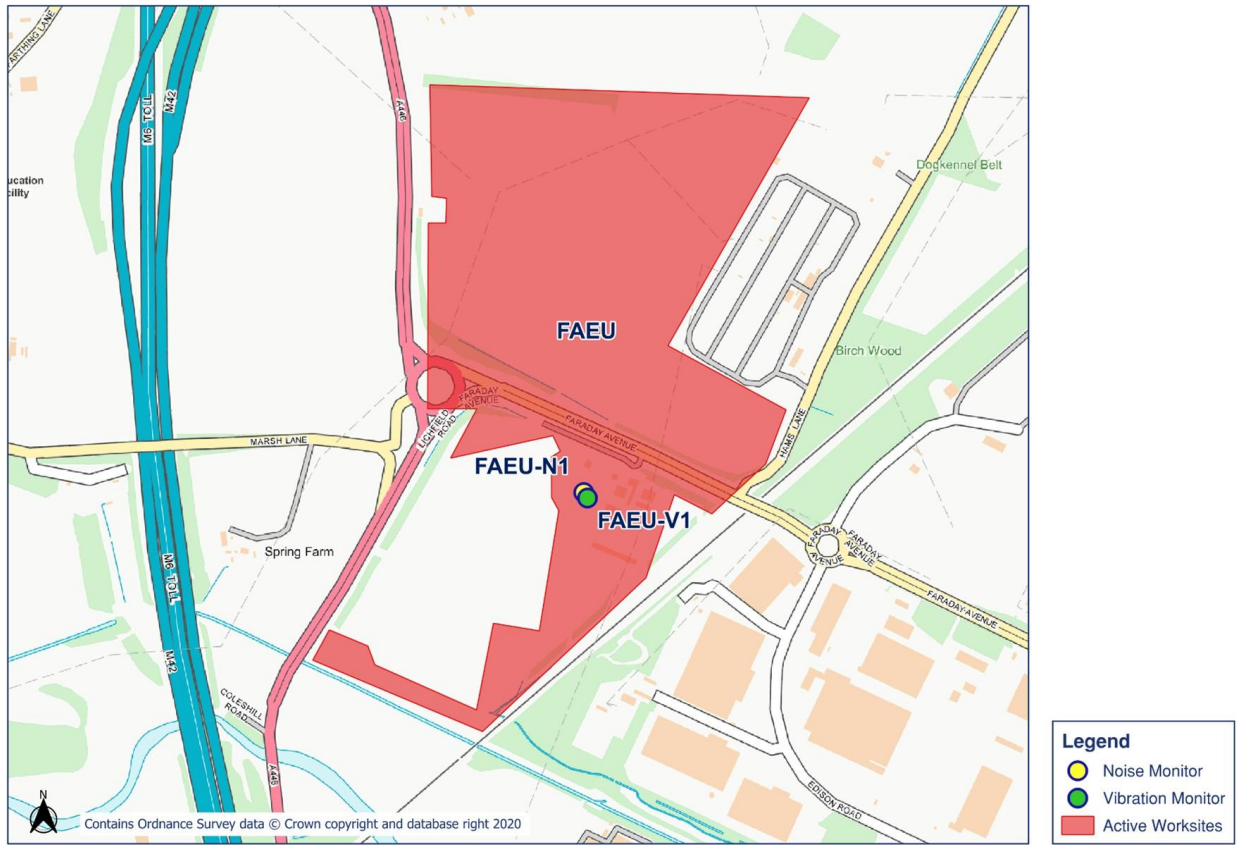
Appendix B Monitoring Locations

HS2 Noise and Vibration Monitoring Plan - 1

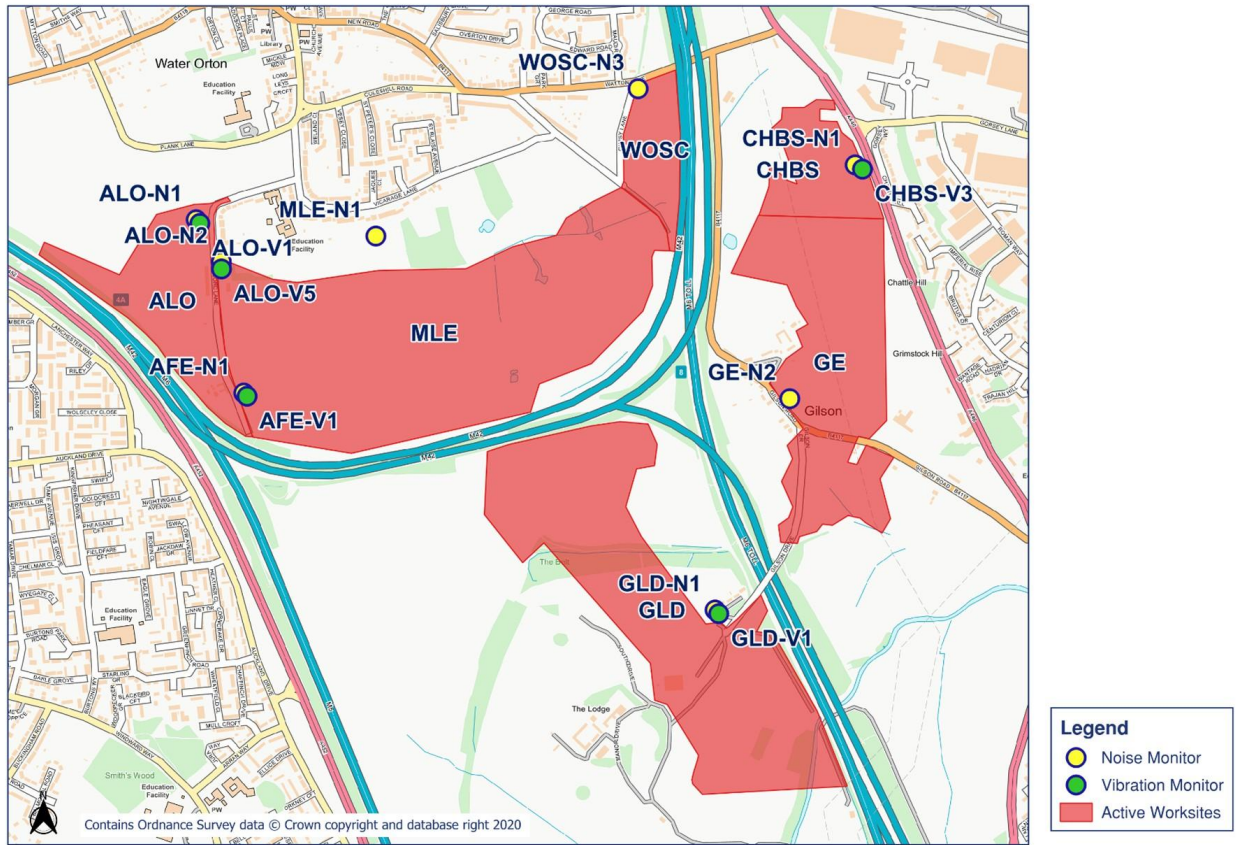


HS2 Noise and Vibration Monitoring Plan - 2

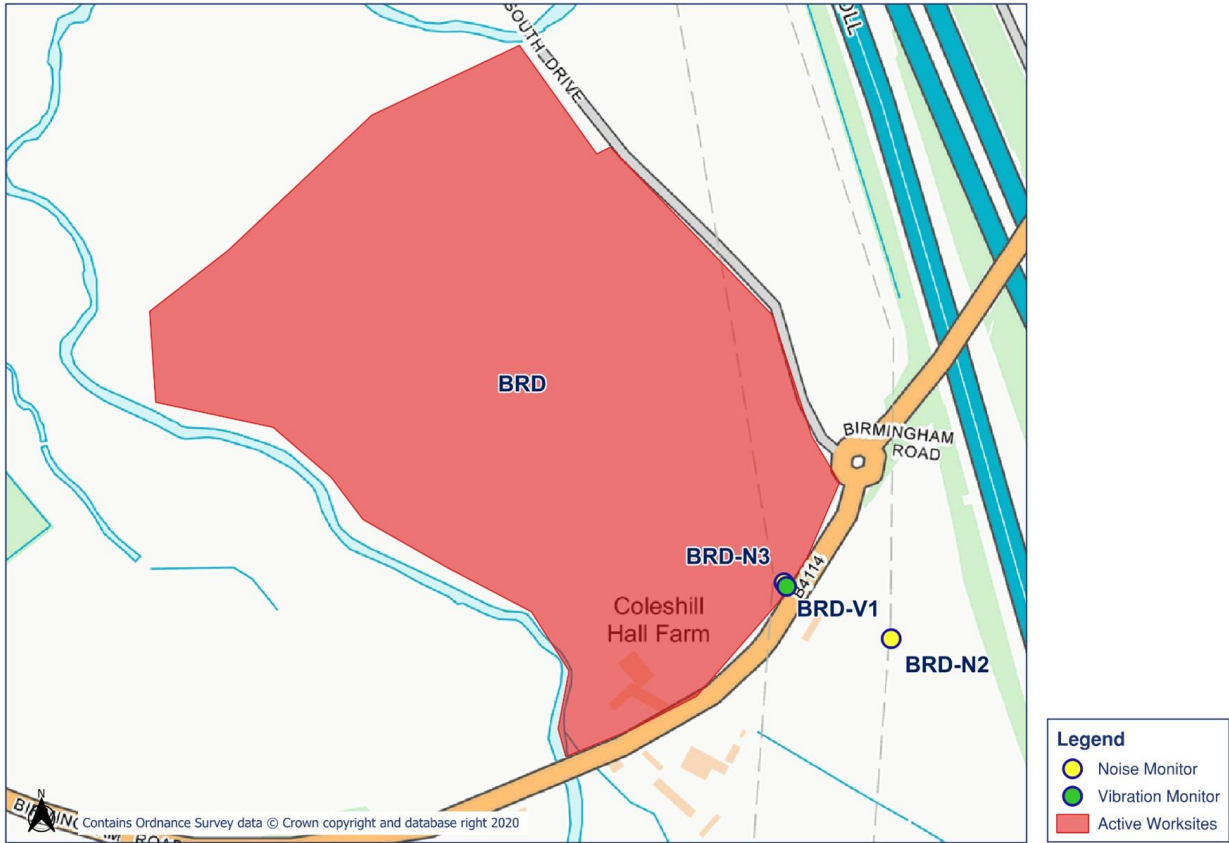




HS2 Noise and Vibration Monitoring Plan - 4



HS2 Noise and Vibration Monitoring Plan - 5



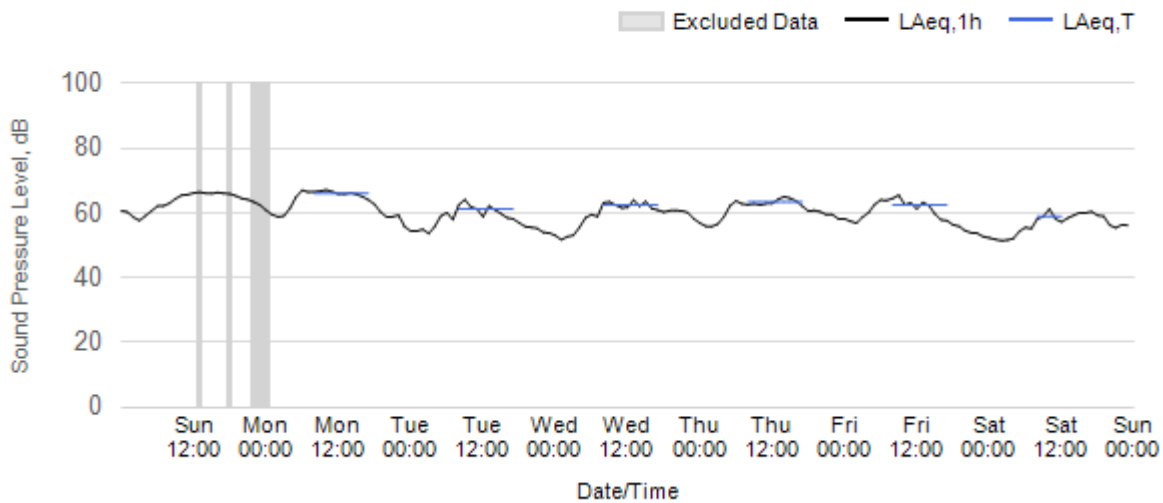
Appendix C Data

Noise

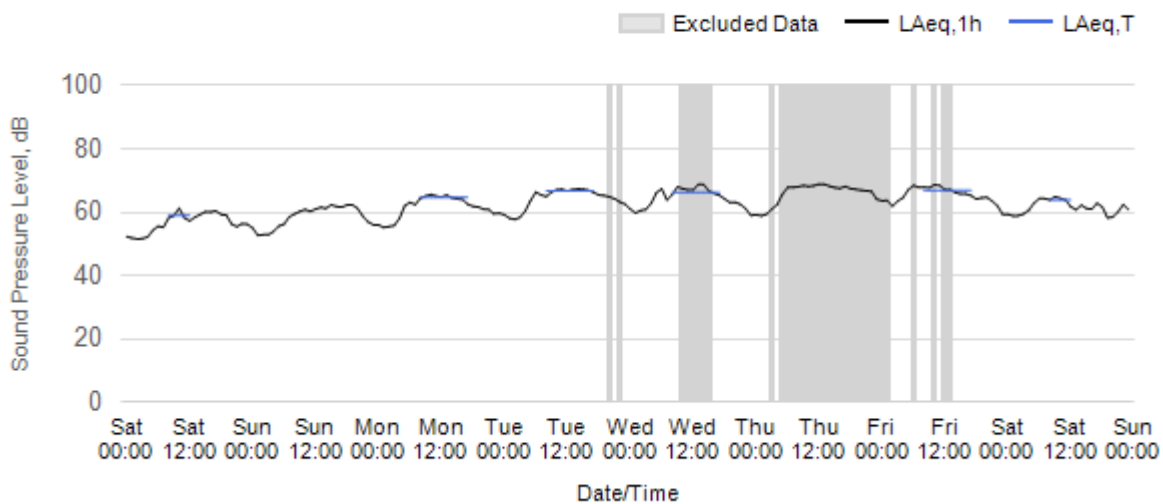
The following graphs show the hourly measured ambient noise level LAeq,1h and, where relevant, the averaged noise level LAeq,T values, where the time period T is as specified in Table 1 of HS2 Information Paper E23. Periods where noise levels are adversely affected by weather or only measured for part of the period, which are not representative of HS2 construction works, have been greyed out and excluded from the calculation of the LAeq,T values in in Table 3 of the main report.

Worksite: AFE - Monitoring Ref: AFE-N1

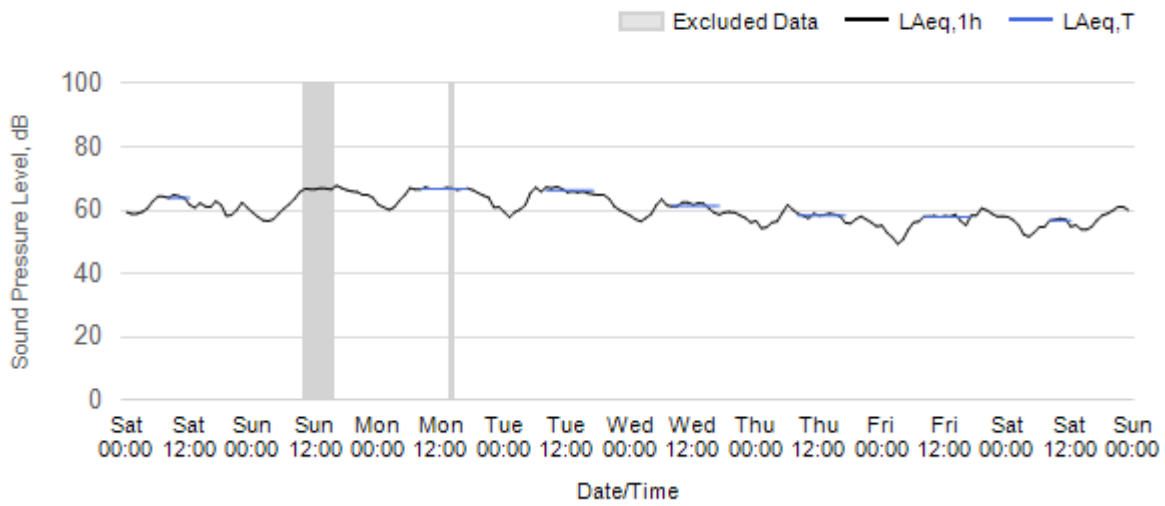
Worksite: AFE Monitoring Ref: AFE-N1 01 March 2026 to 07 March 2026



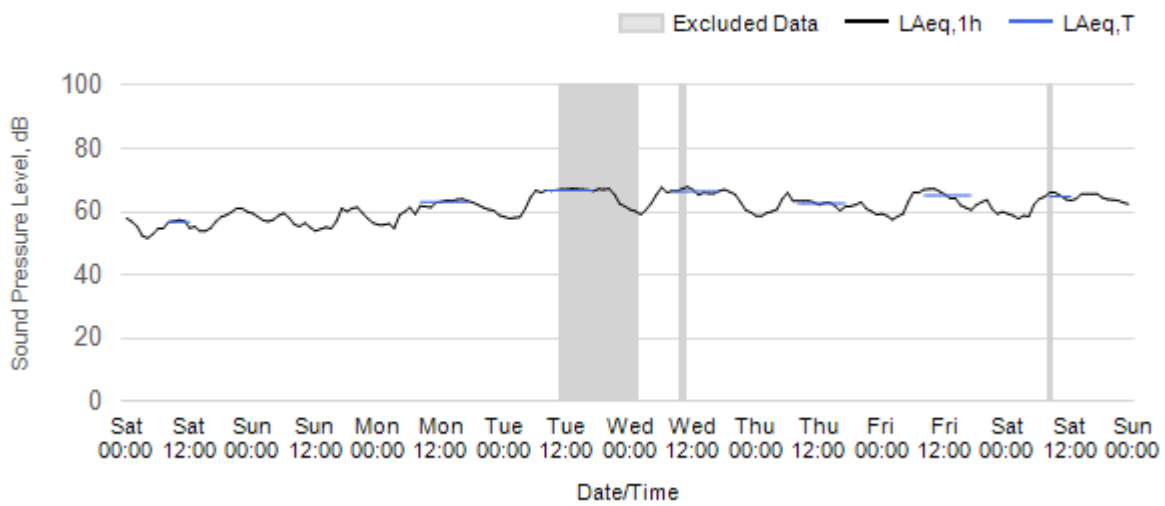
Worksite: AFE Monitoring Ref: AFE-N1 08 March 2026 to 14 March 2026



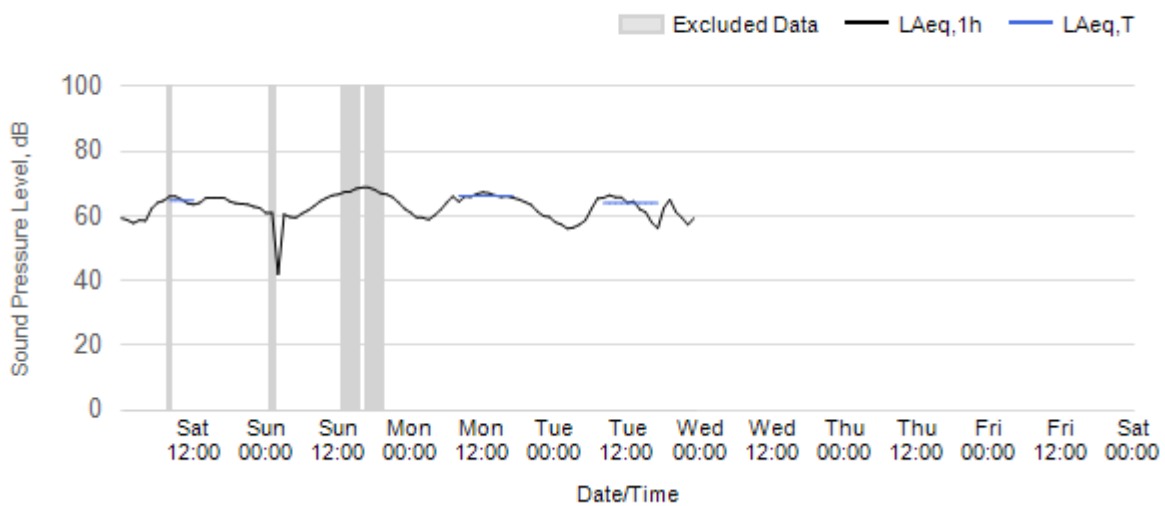
Worksite: AFE Monitoring Ref: AFE-N1 15 March 2026 to 21 March 2026



Worksite: AFE Monitoring Ref: AFE-N1 22 March 2026 to 28 March 2026

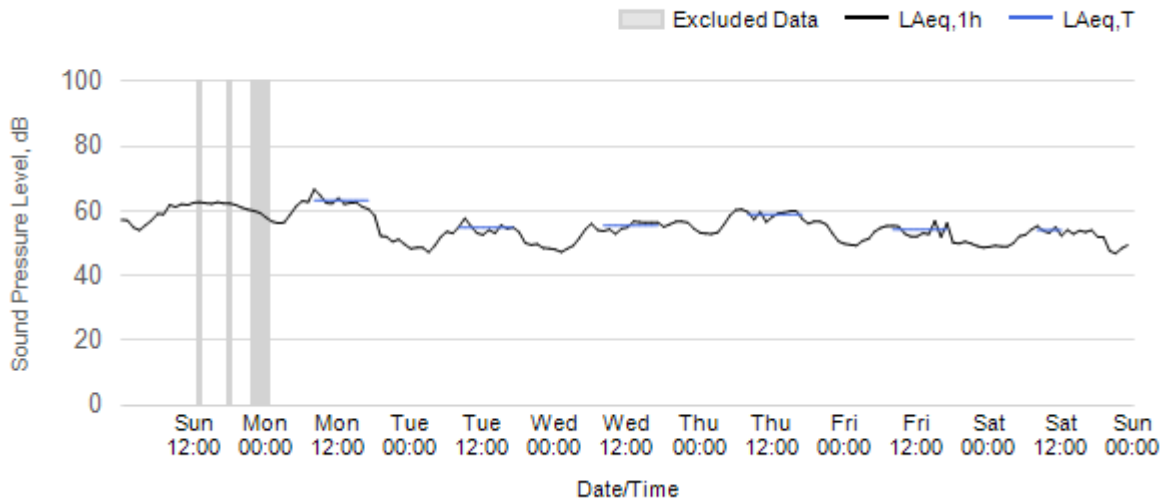


Worksite: AFE Monitoring Ref: AFE-N1 29 March 2026 to 4 April 2026

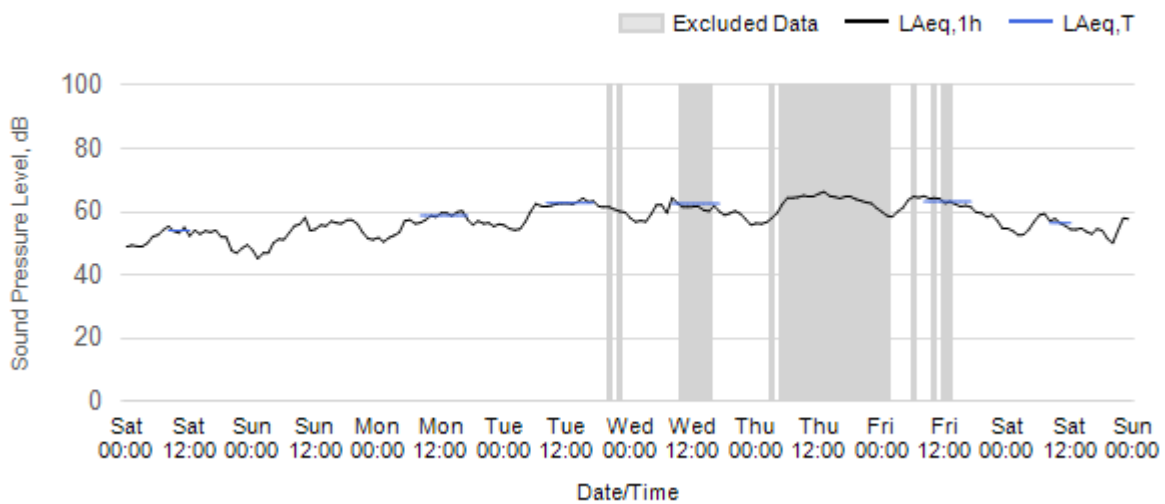


Worksite: ALO - Monitoring Ref: ALO-N1

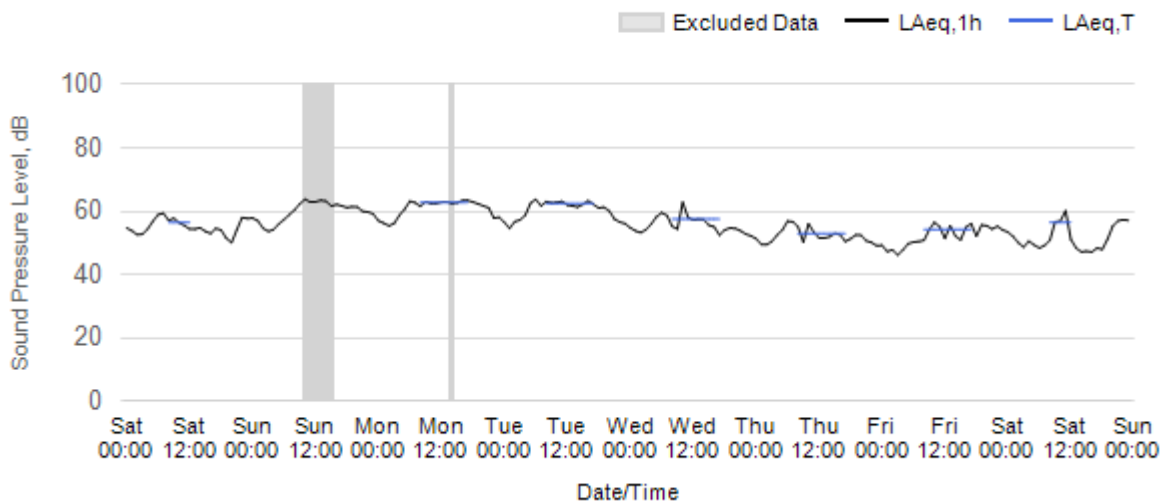
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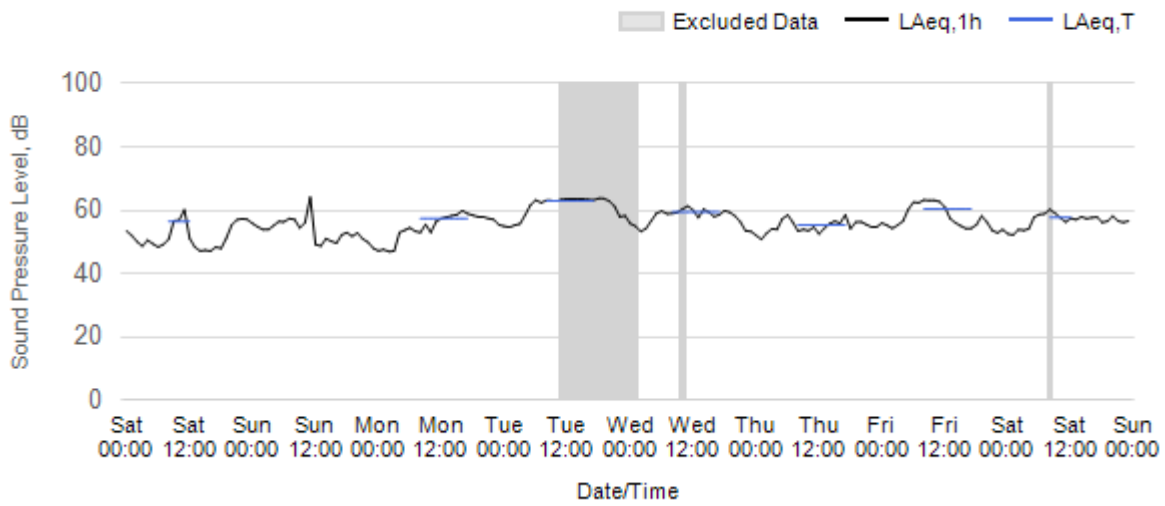
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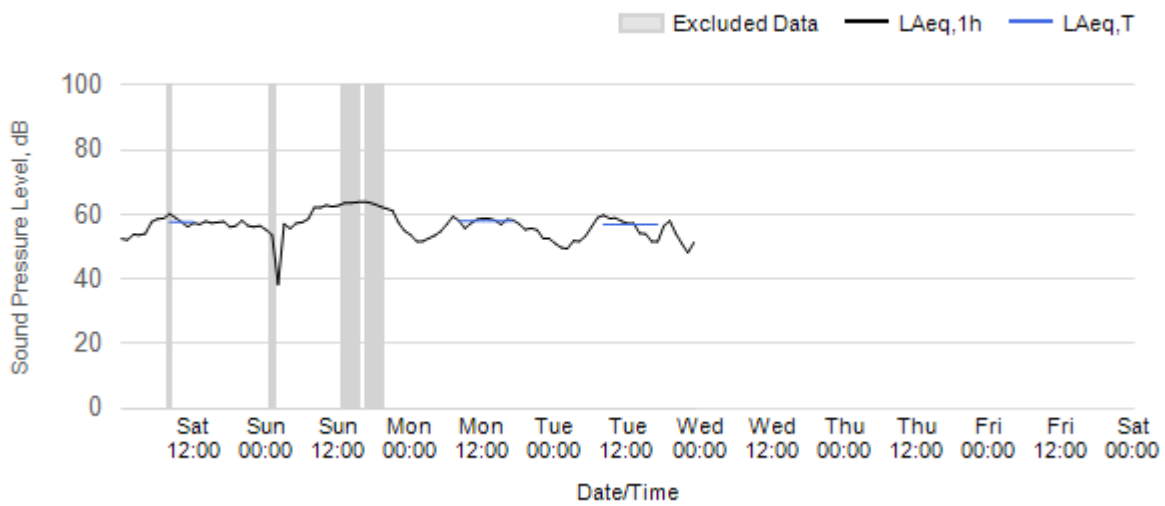
Worksite: ALO Monitoring Ref: ALO-N1 15 March 2026 to 21 March 2026



Worksite: ALO Monitoring Ref: ALO-N1 22 March 2026 to 28 March 2026

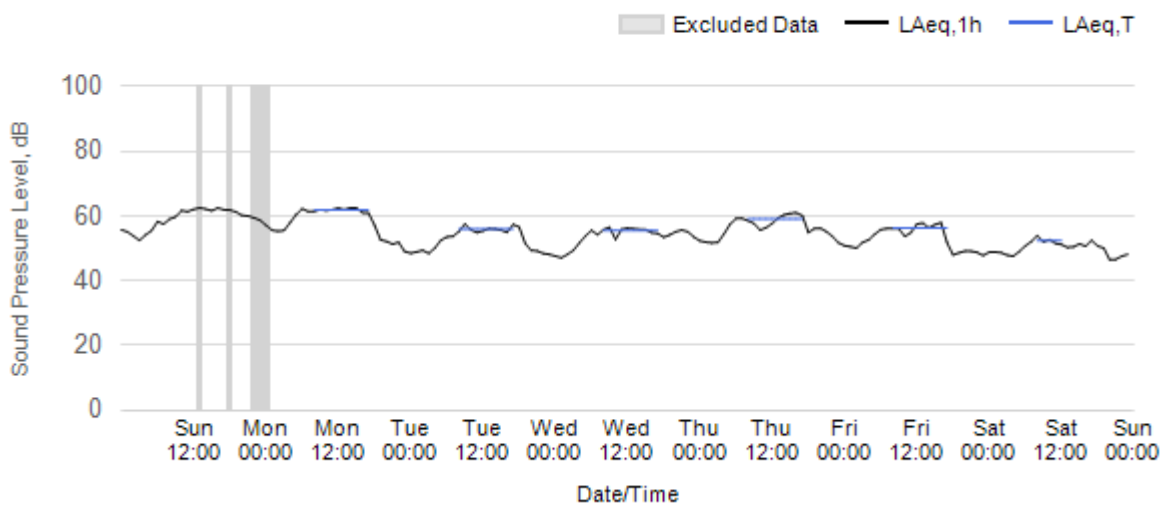


Worksite: ALO Monitoring Ref: ALO-N1 29 March 2026 to 4 April 2026

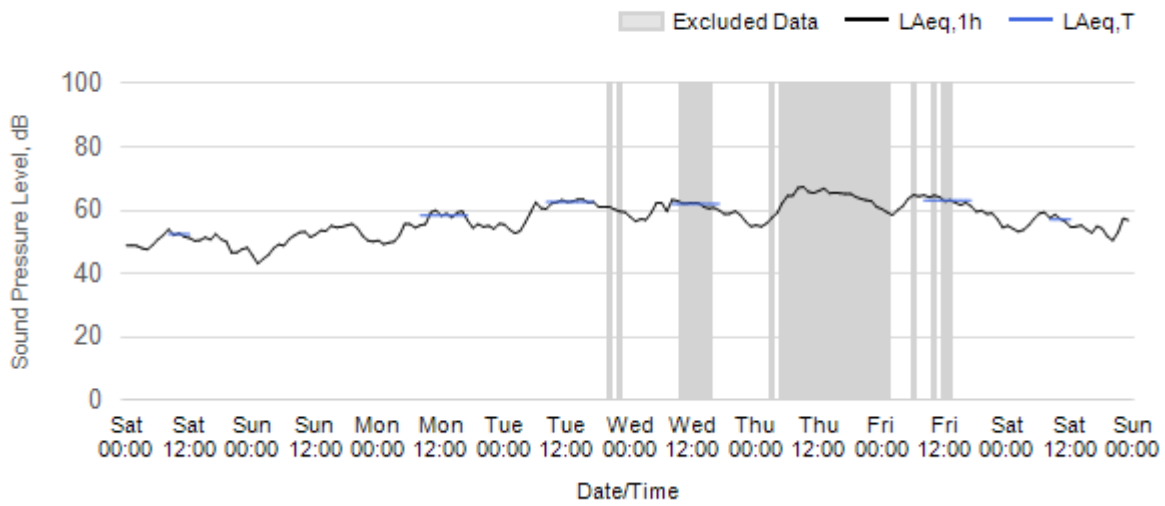


Worksite: ALO - Monitoring Ref: ALO-N2

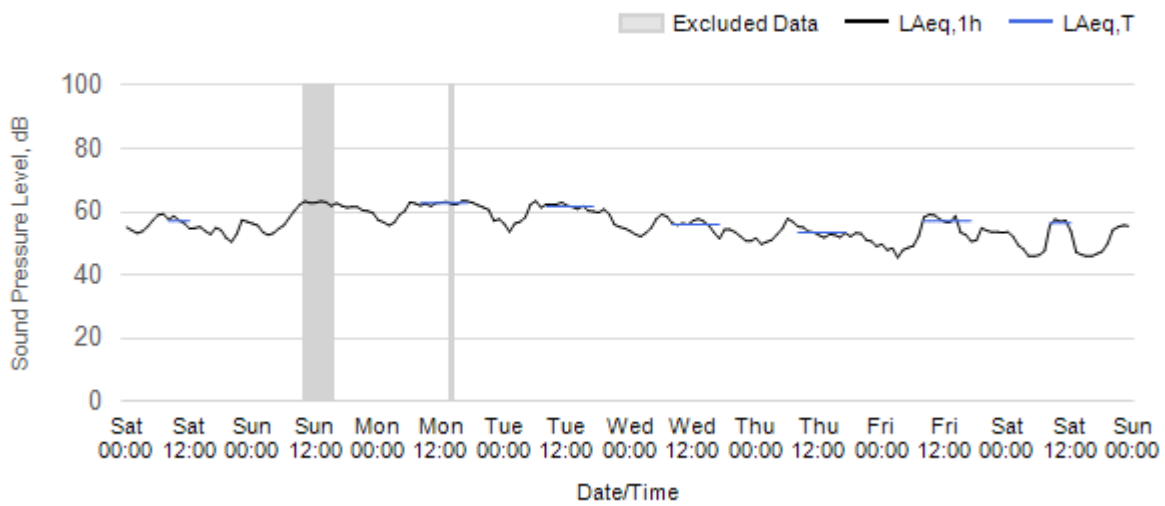
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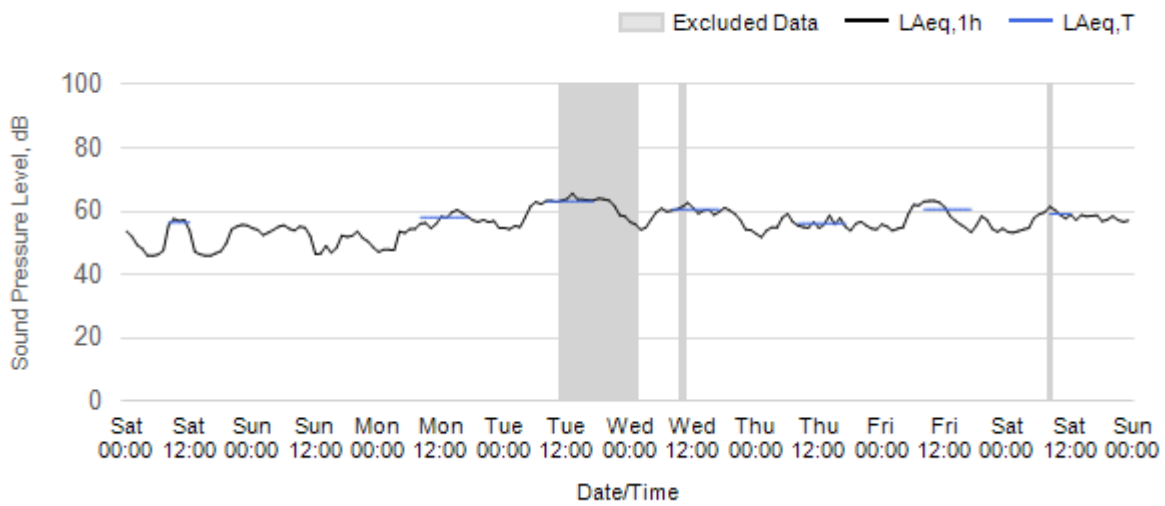
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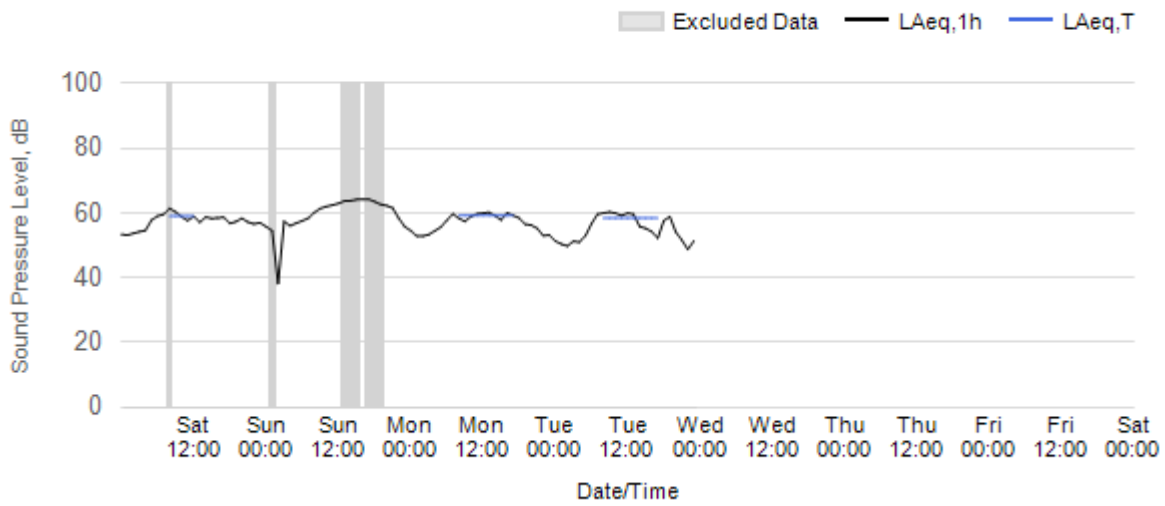
Worksite: ALO Monitoring Ref: ALO-N2 15 March 2026 to 21 March 2026



Worksite: ALO Monitoring Ref: ALO-N2 22 March 2026 to 28 March 2026

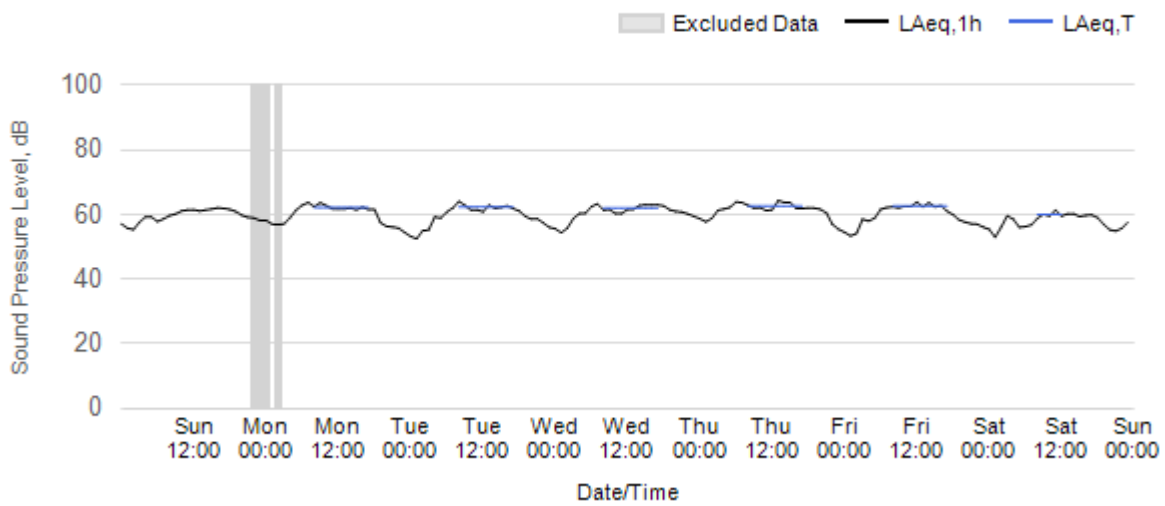


Worksite: ALO Monitoring Ref: ALO-N2 29 March 2026 to 4 April 2026

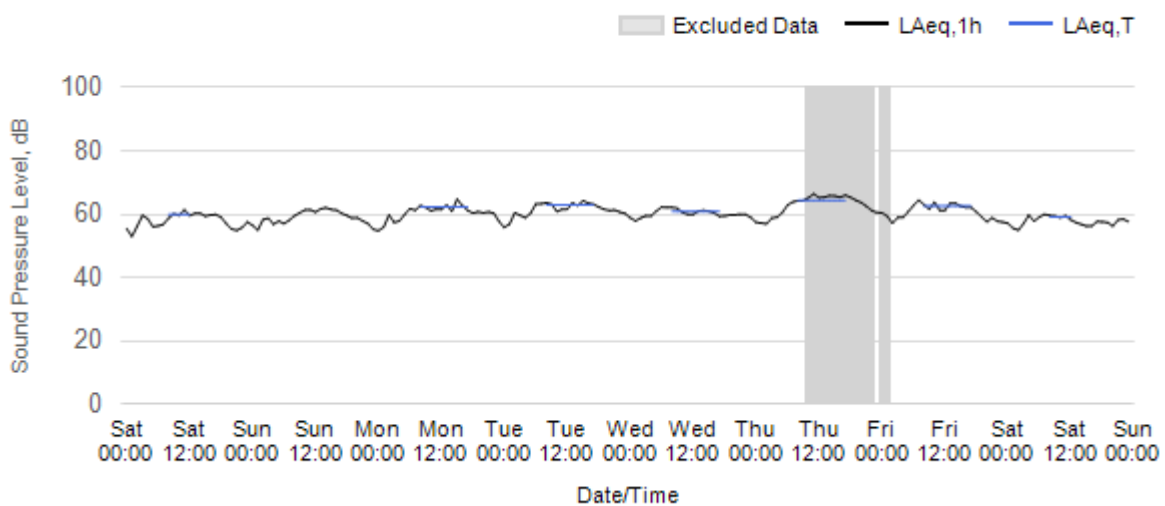


Worksite: BRD - Monitoring Ref: BRD-N2

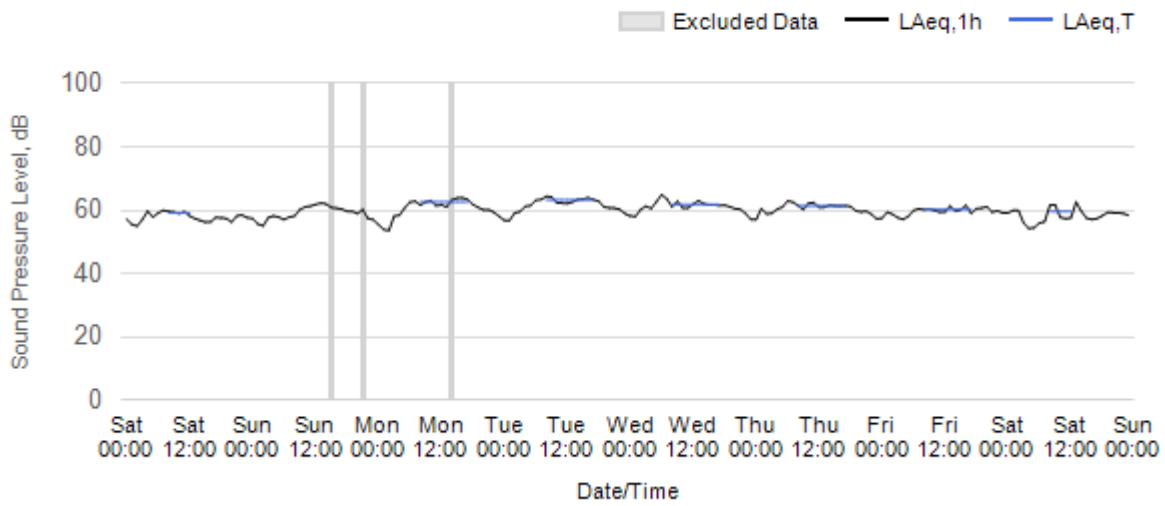
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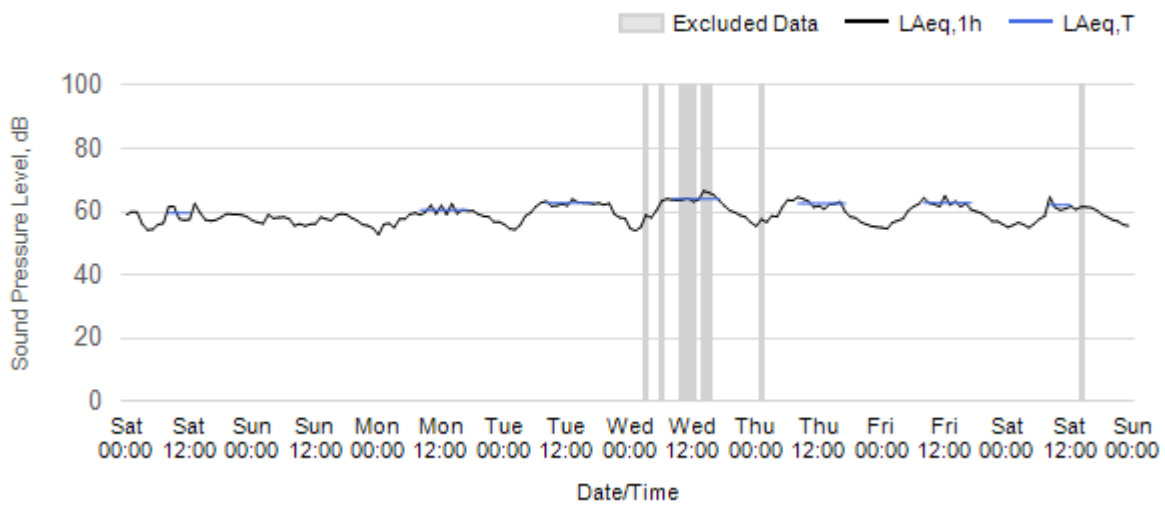
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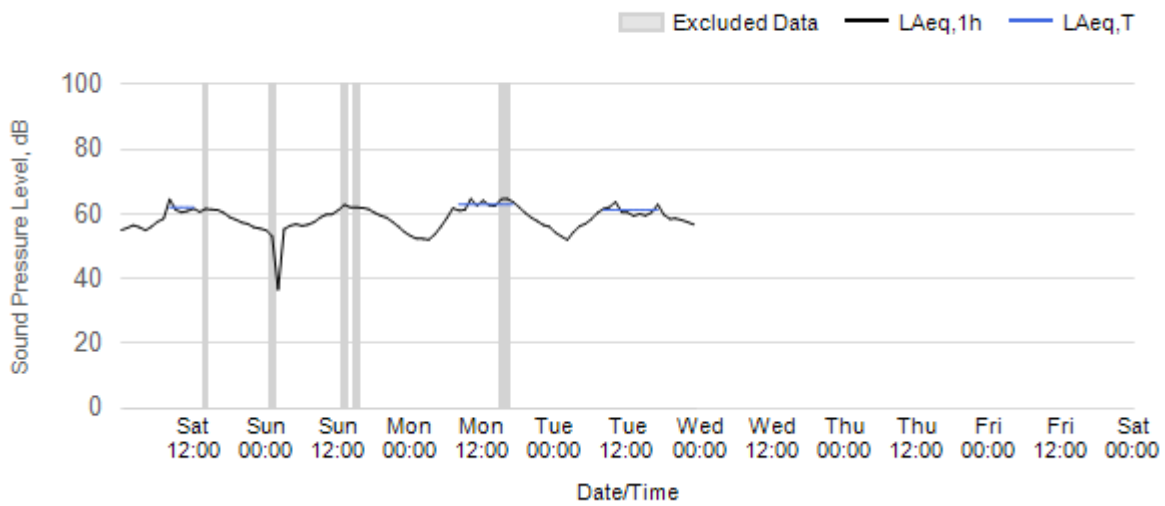
Worksite: BRD Monitoring Ref: BRD-N2 15 March 2026 to 21 March 2026



Worksite: BRD Monitoring Ref: BRD-N2 22 March 2026 to 28 March 2026

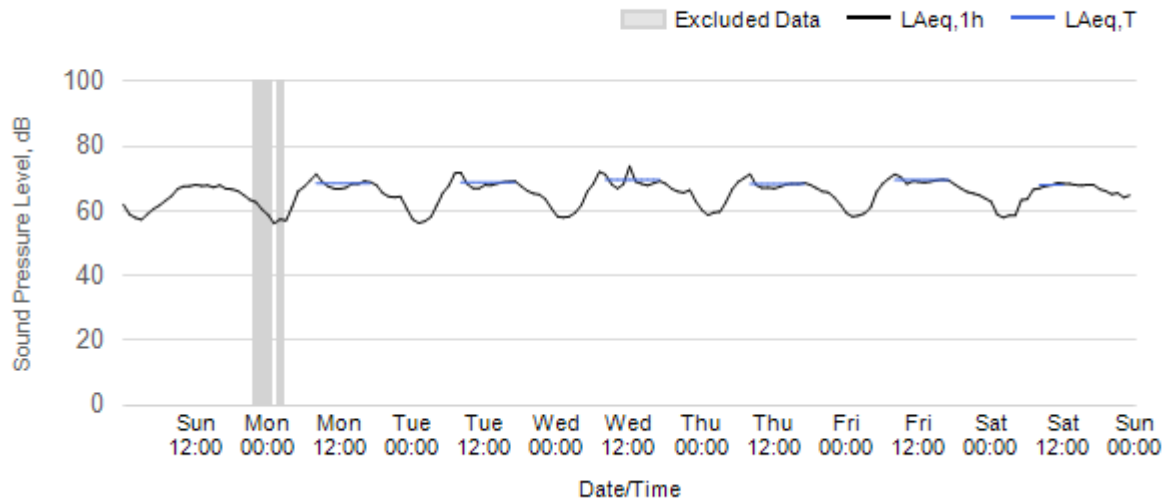


Worksite: BRD Monitoring Ref: BRD-N2 29 March 2026 to 4 April 2026

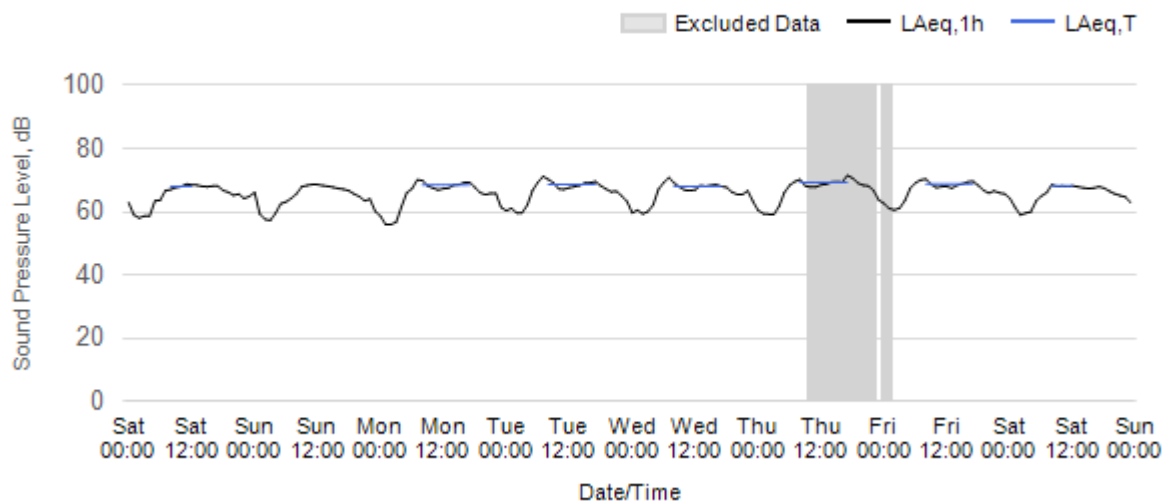


Worksite: BRD - Monitoring Ref: BRD-N3

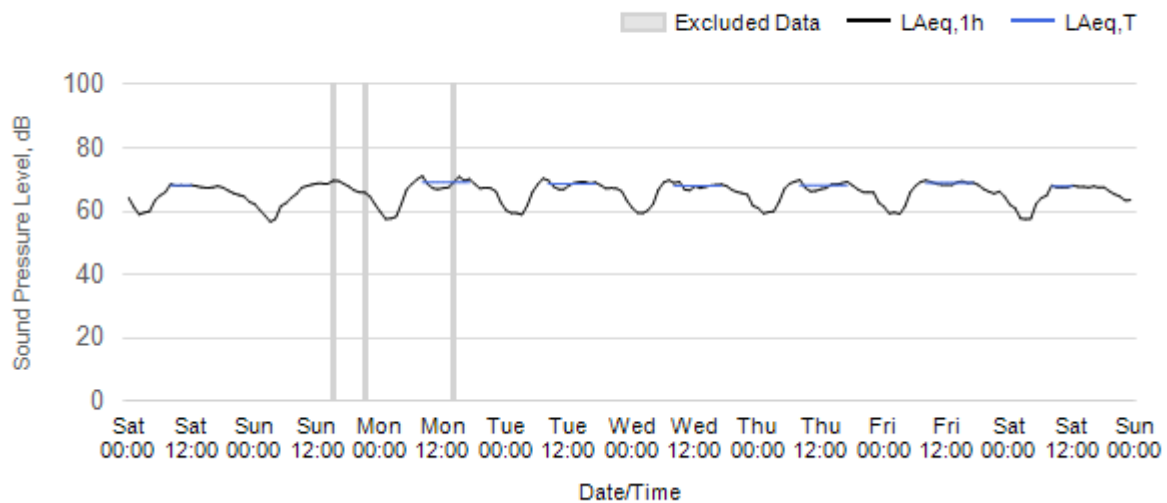
Worksite: BRD Monitoring Ref: BRD-N3 01 March 2026 to 07 March 2026



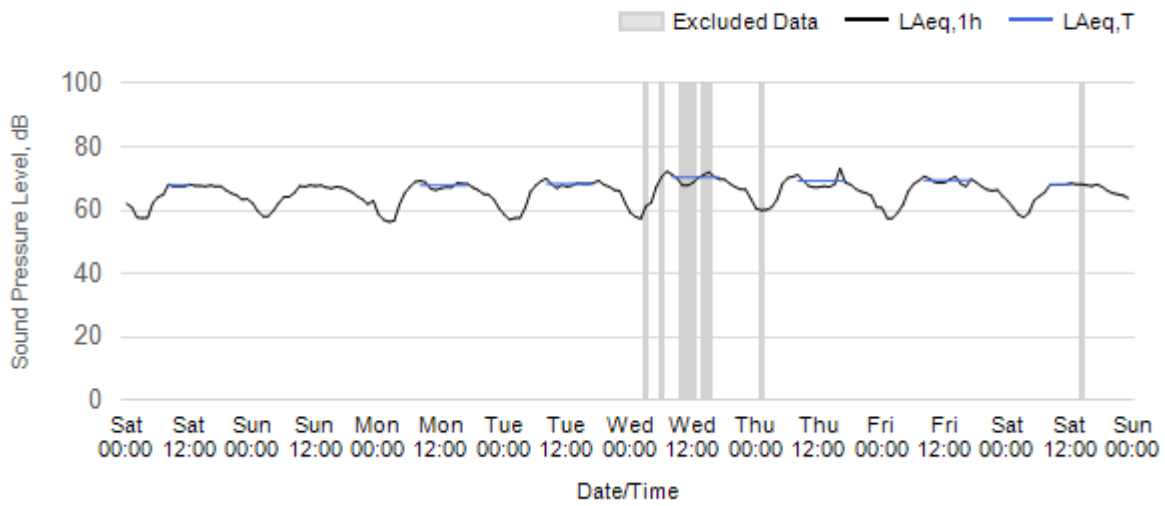
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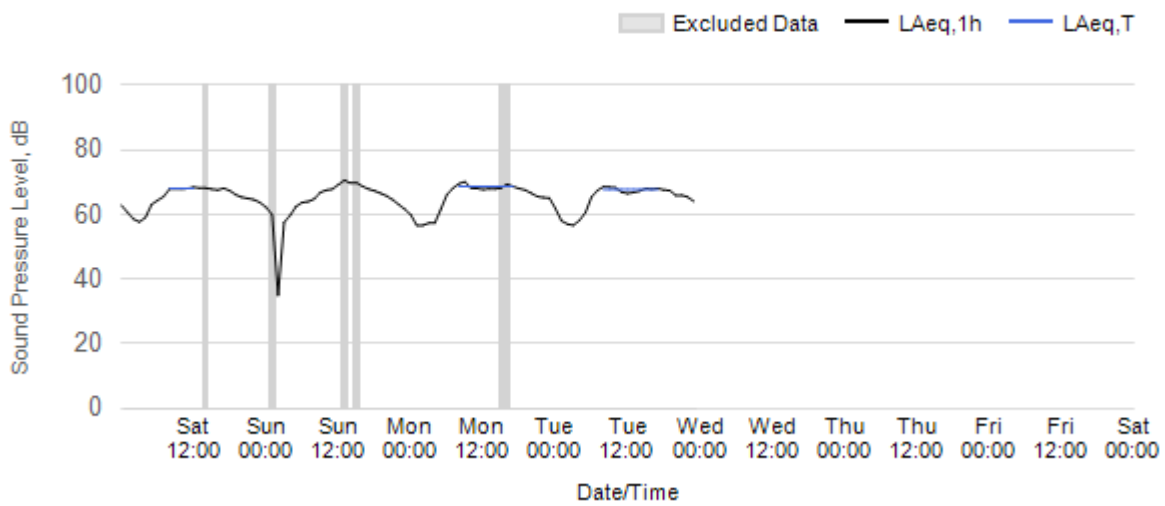
Worksite: BRD Monitoring Ref: BRD-N3 15 March 2026 to 21 March 2026



Worksite: BRD Monitoring Ref: BRD-N3 22 March 2026 to 28 March 2026

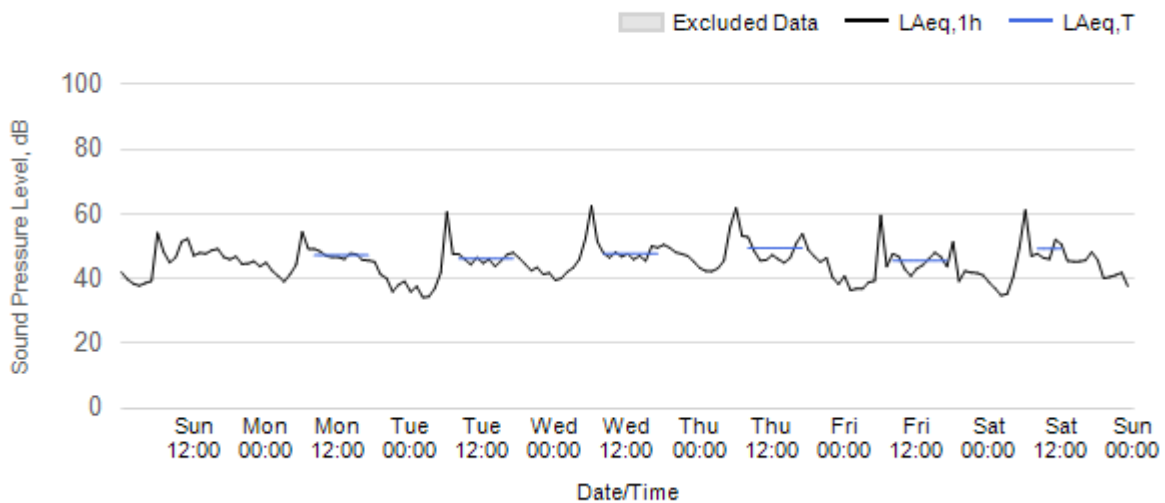


Worksite: BRD Monitoring Ref: BRD-N3 29 March 2026 to 4 April 2026

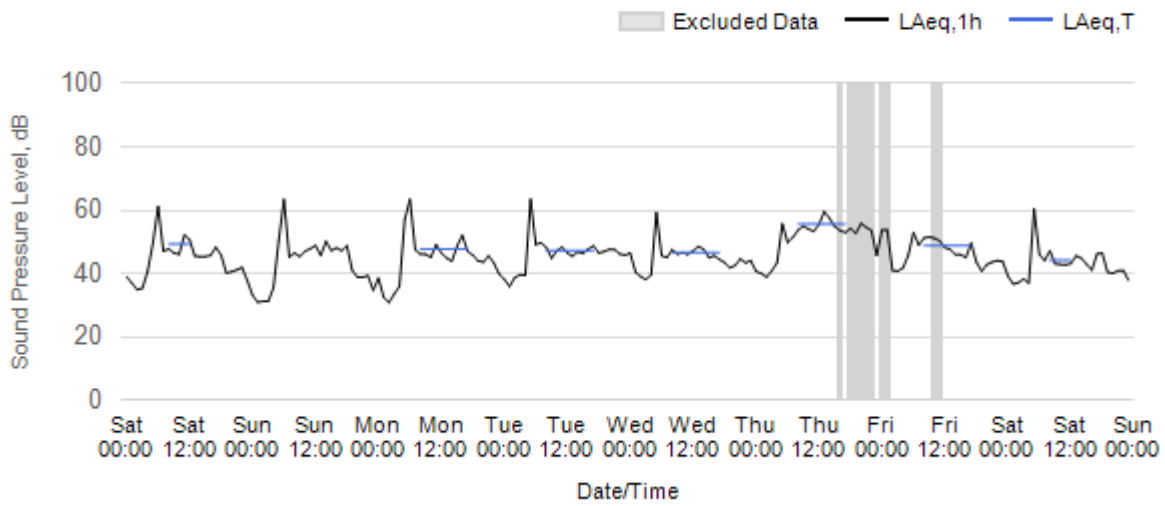


Worksite: CLE - Monitoring Ref: CLE-N1

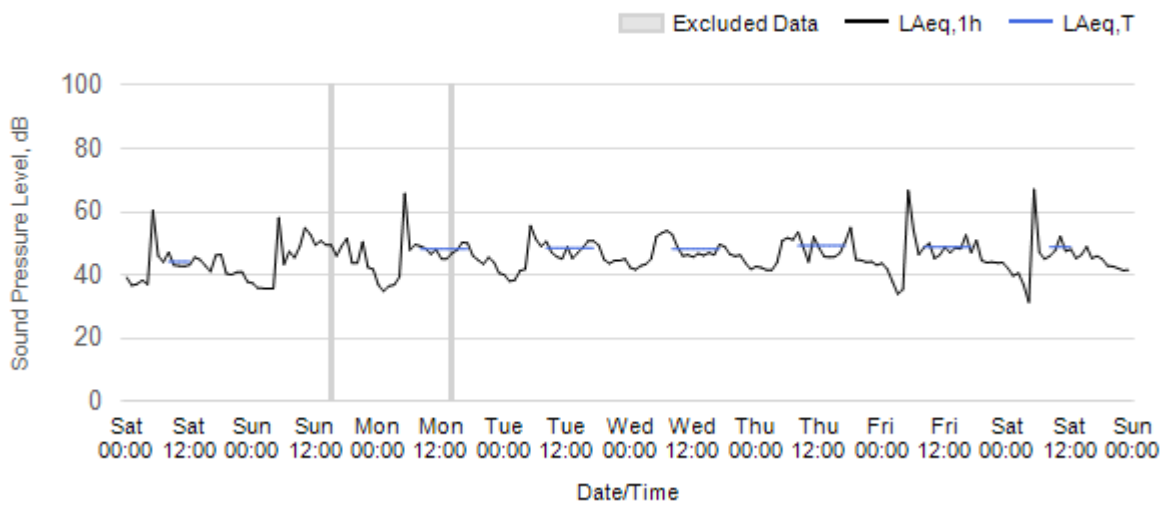
Worksite: CLE Monitoring Ref: CLE-N1 01 March 2026 to 07 March 2026



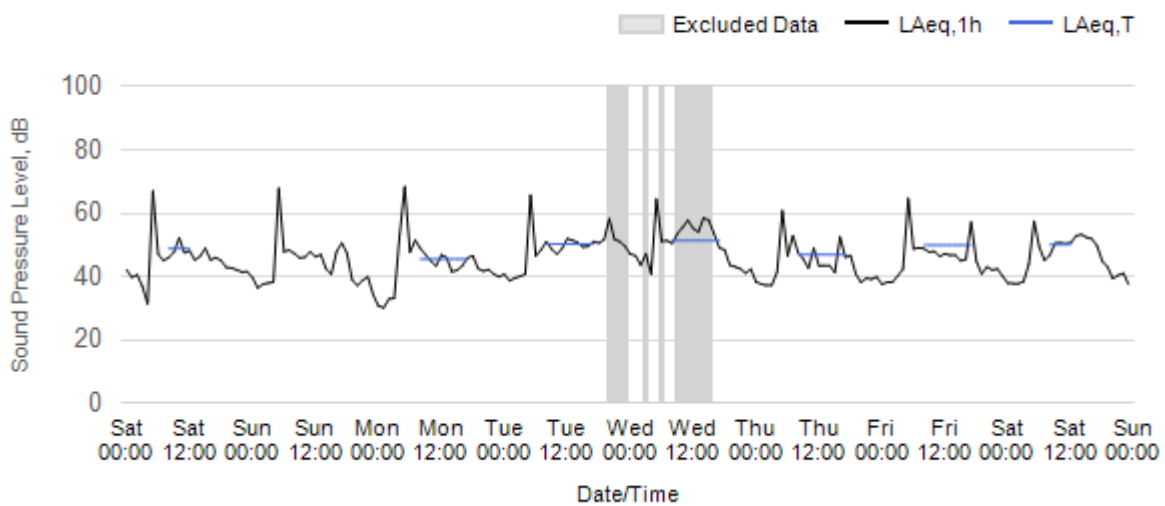
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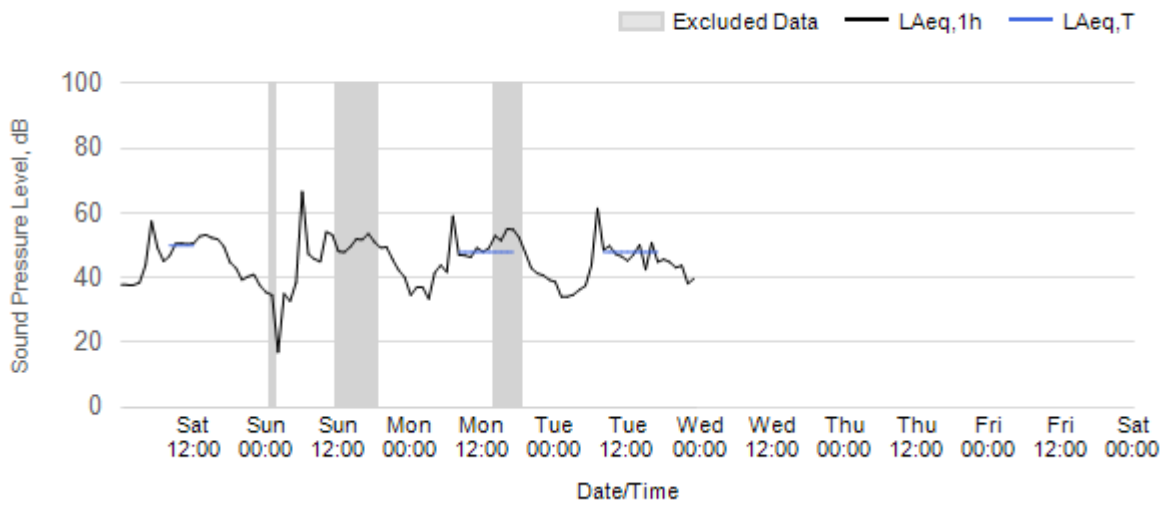
Worksite: CLE Monitoring Ref: CLE-N1 15 March 2026 to 21 March 2026



Worksite: CLE Monitoring Ref: CLE-N1 22 March 2026 to 28 March 2026

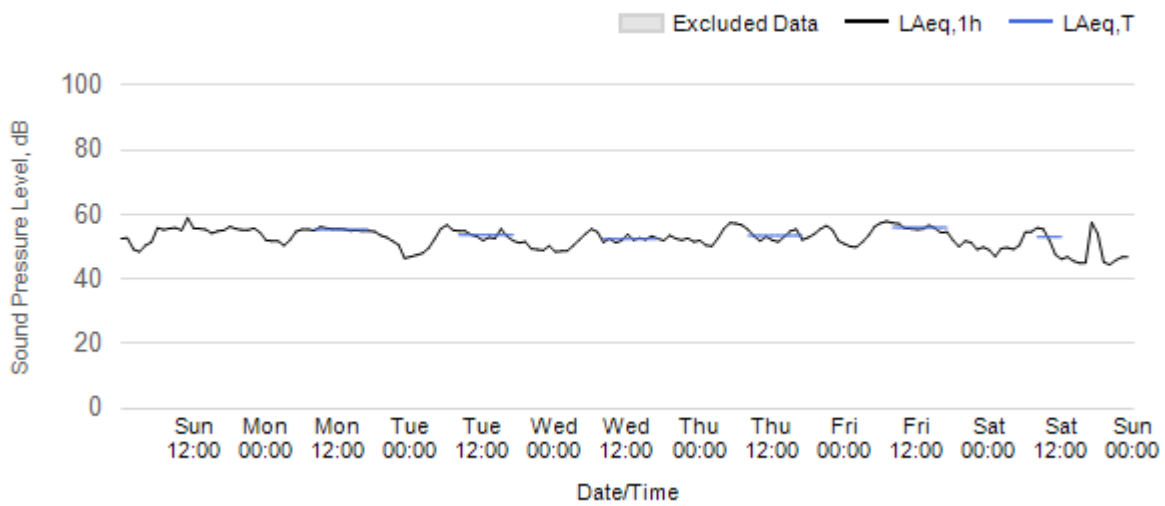


Worksite: CLE Monitoring Ref: CLE-N1 29 March 2026 to 4 April 2026

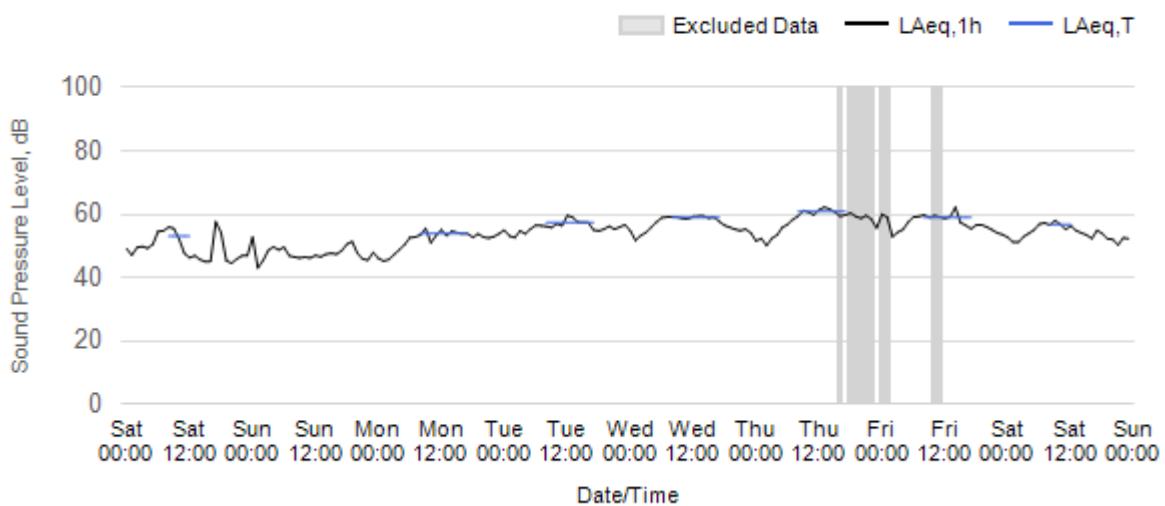


Worksite: FAEU - Monitoring Ref: FAEU-N1

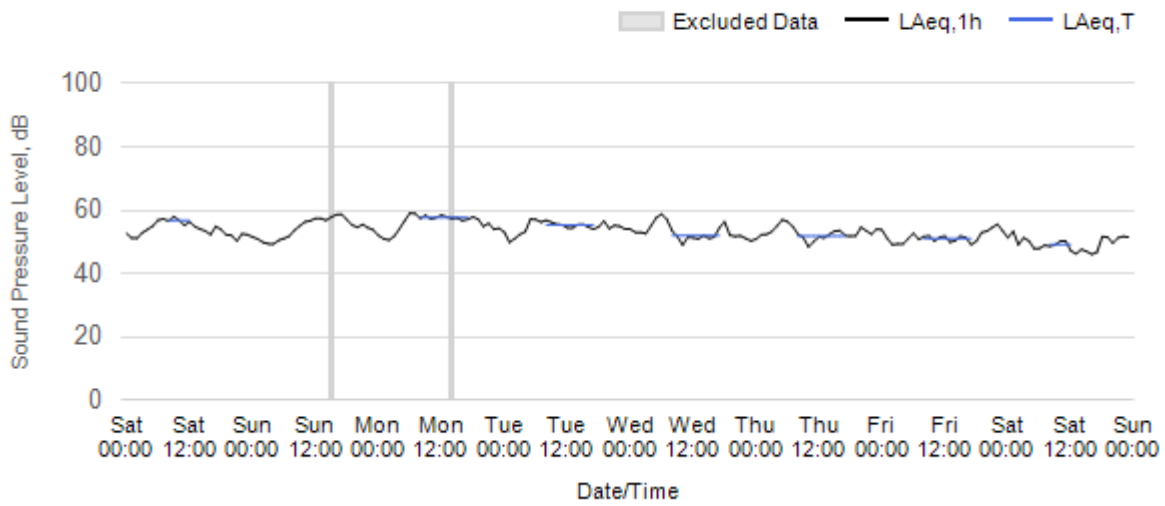
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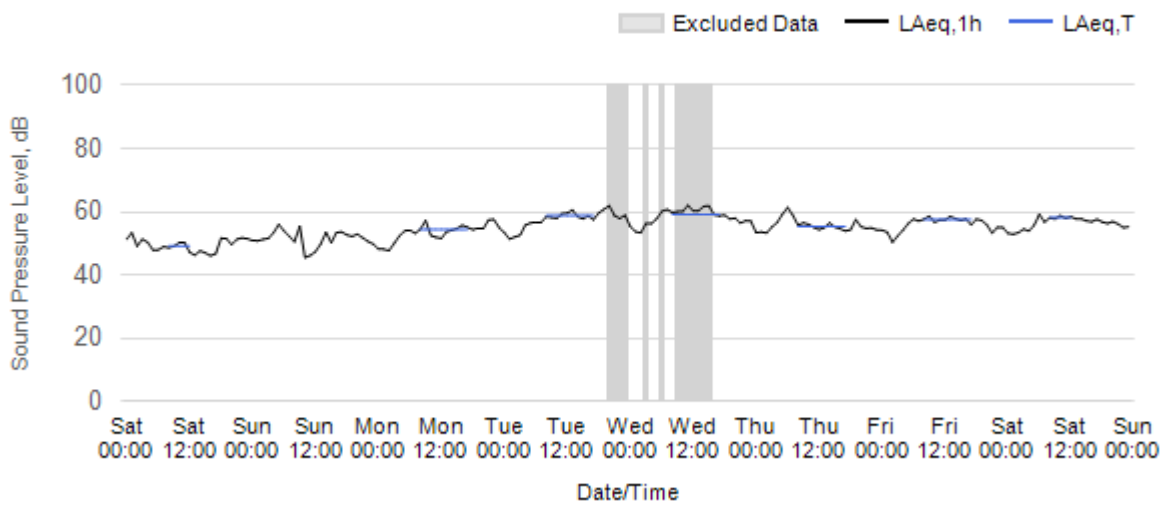
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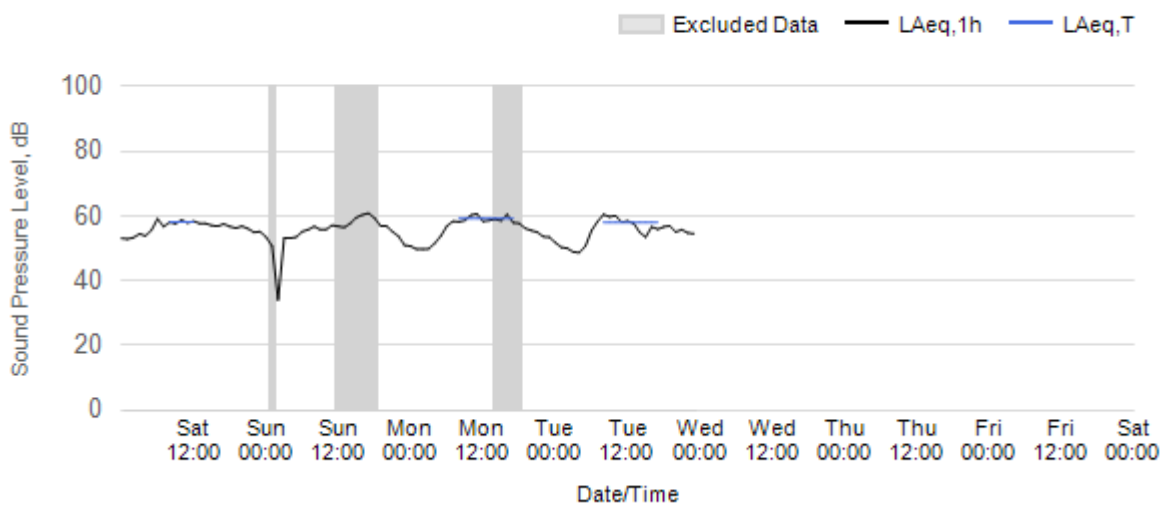
Worksite: FAEU Monitoring Ref: FAEU-N1 15 March 2026 to 21 March 2026



Worksite: FAEU Monitoring Ref: FAEU-N1 22 March 2026 to 28 March 2026

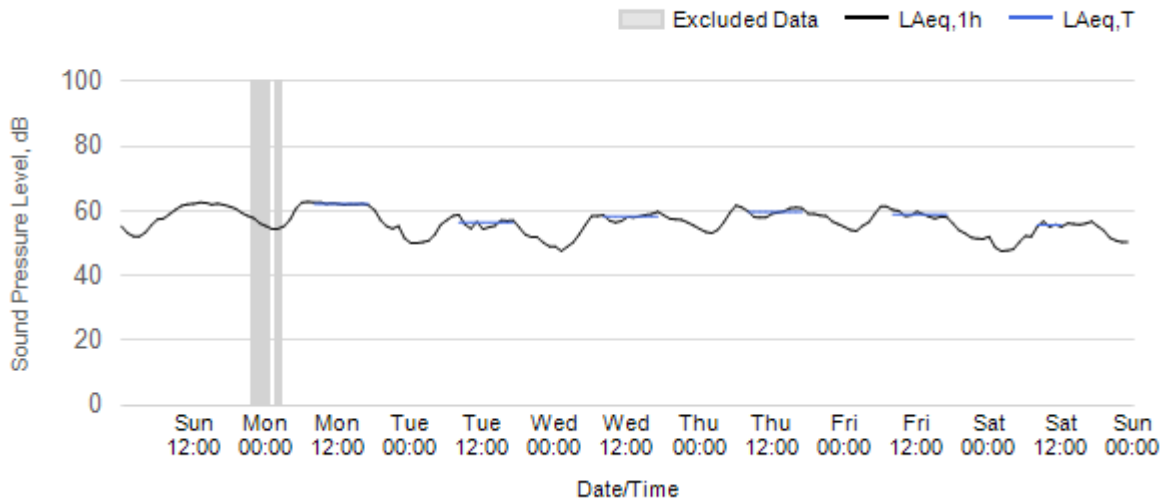


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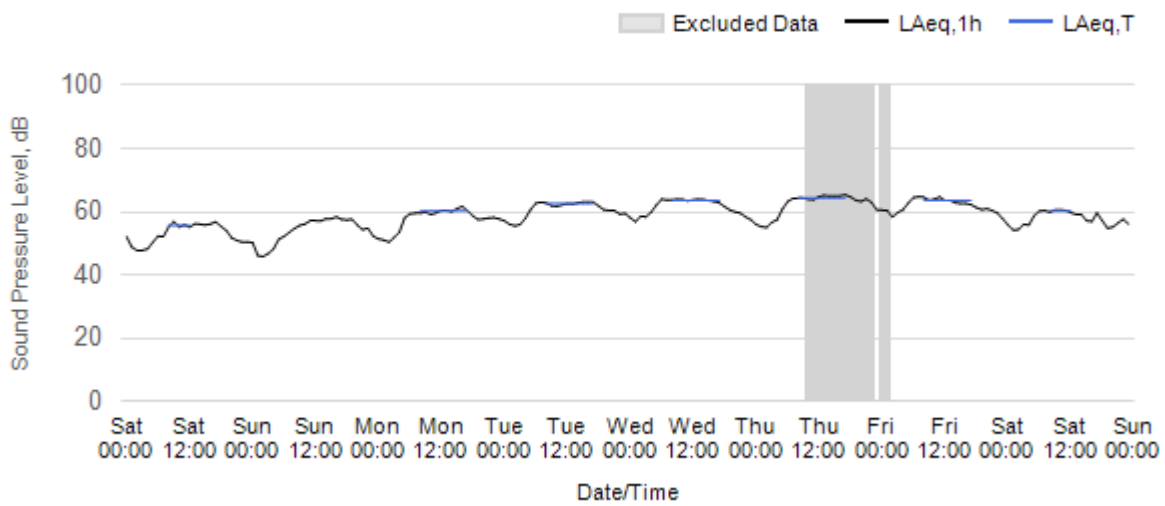


Worksite: GE - Monitoring Ref: GE-N2

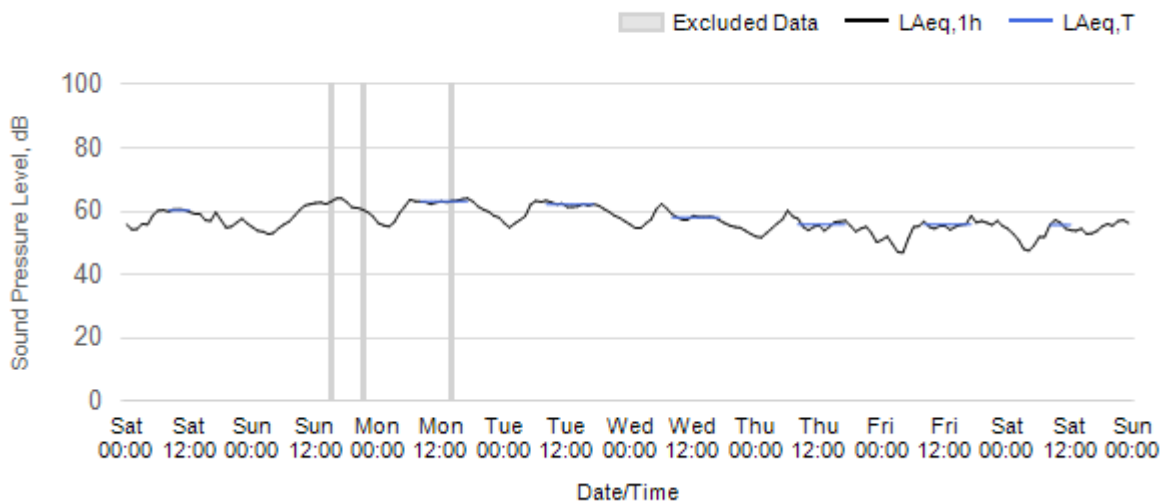
Worksite: GE Monitoring Ref: GE-N2 01 March 2026 to 07 March 2026



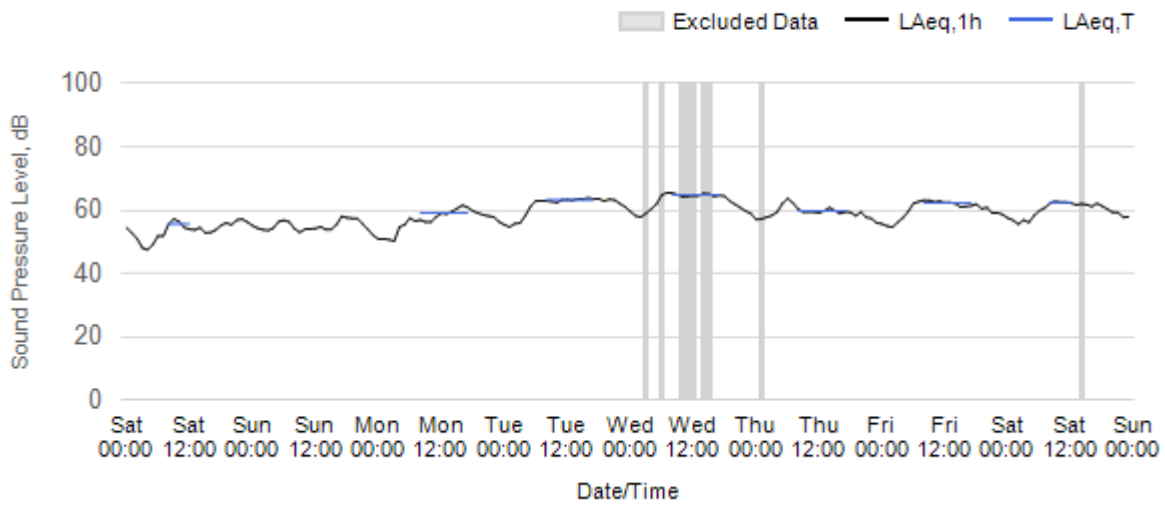
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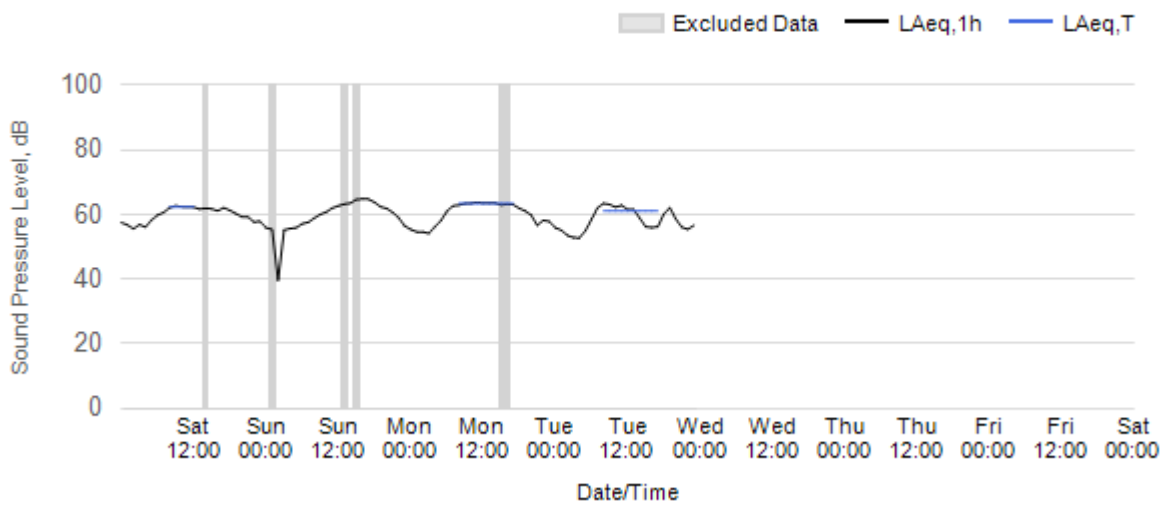
Worksite: GE Monitoring Ref: GE-N2 15 March 2026 to 21 March 2026



Worksite: GE Monitoring Ref: GE-N2 22 March 2026 to 28 March 2026

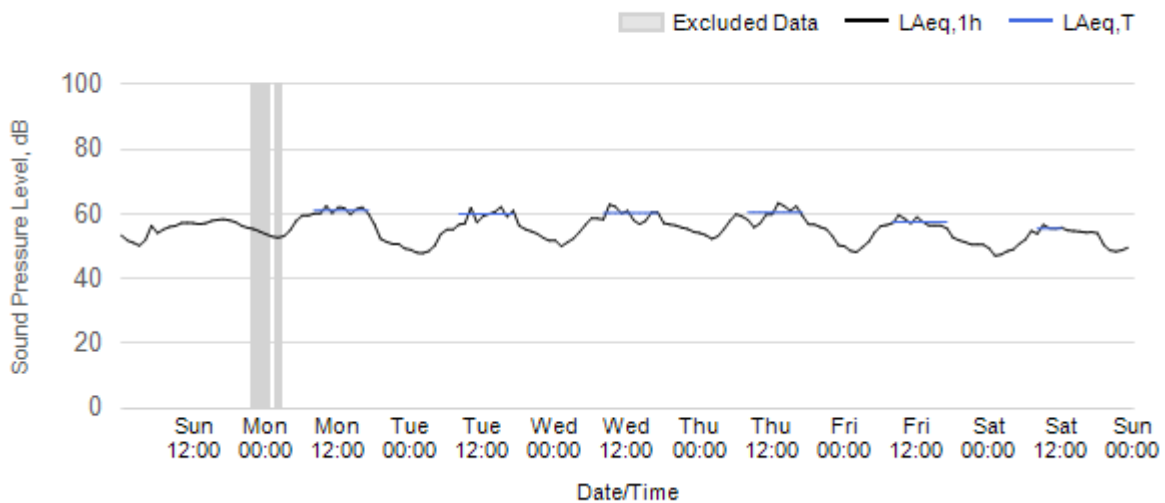


Worksite: GE Monitoring Ref: GE-N2 29 March 2026 to 4 April 2026

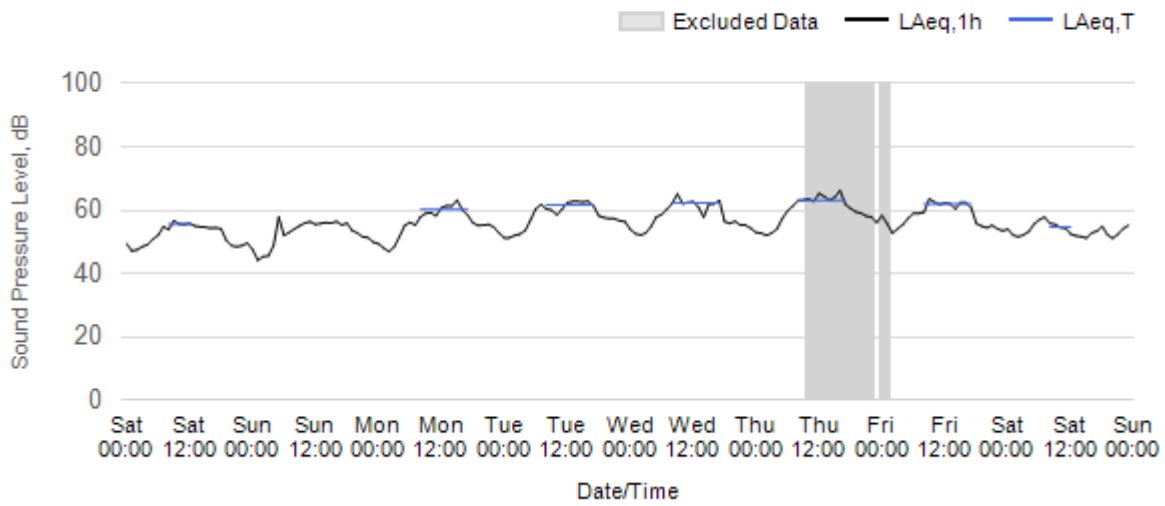


Worksite: GLD - Monitoring Ref: GLD-N1

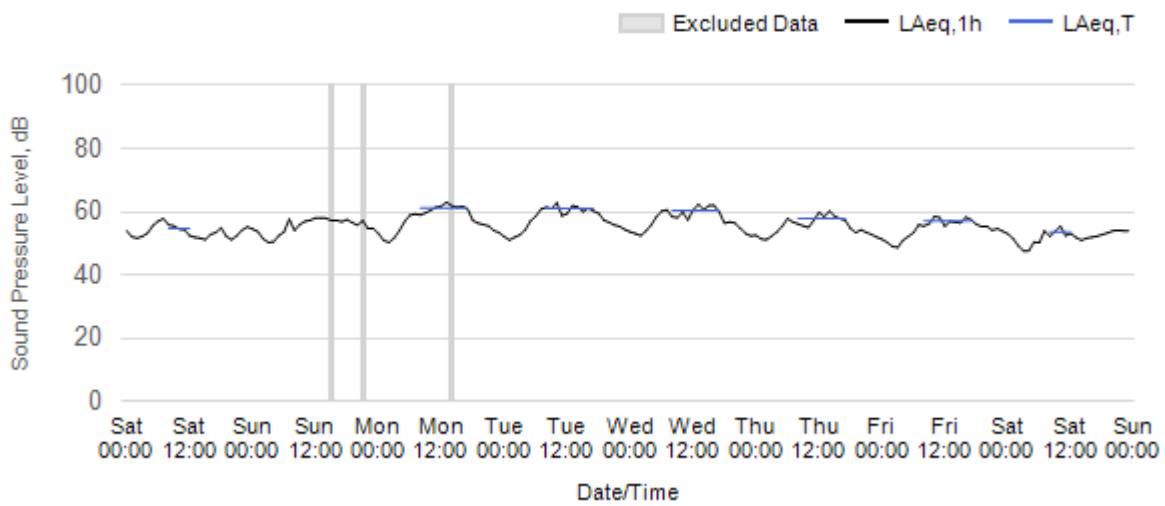
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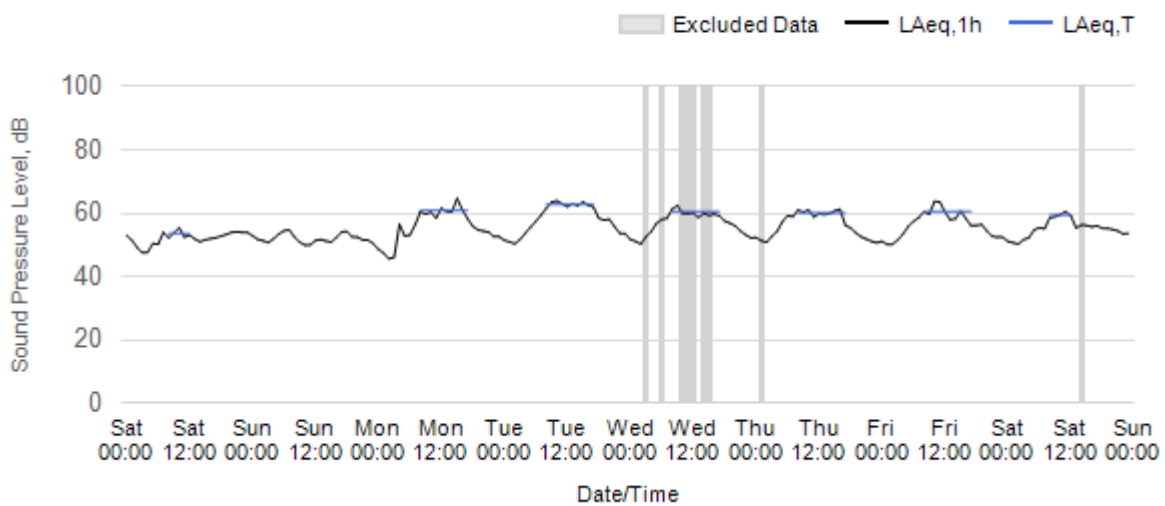
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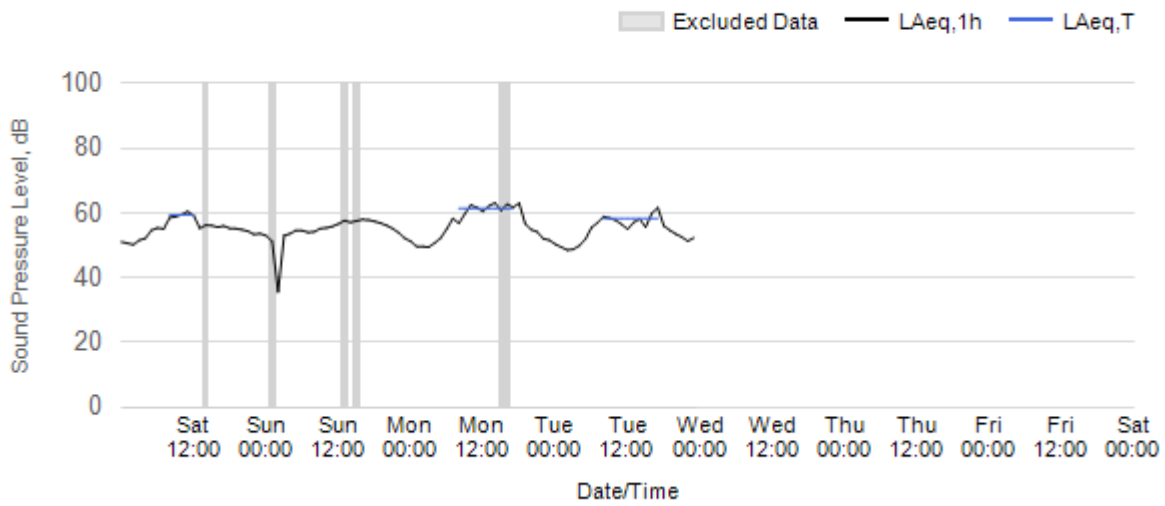
Worksite: GLD Monitoring Ref: GLD-N1 15 March 2026 to 21 March 2026



Worksite: GLD Monitoring Ref: GLD-N1 22 March 2026 to 28 March 2026

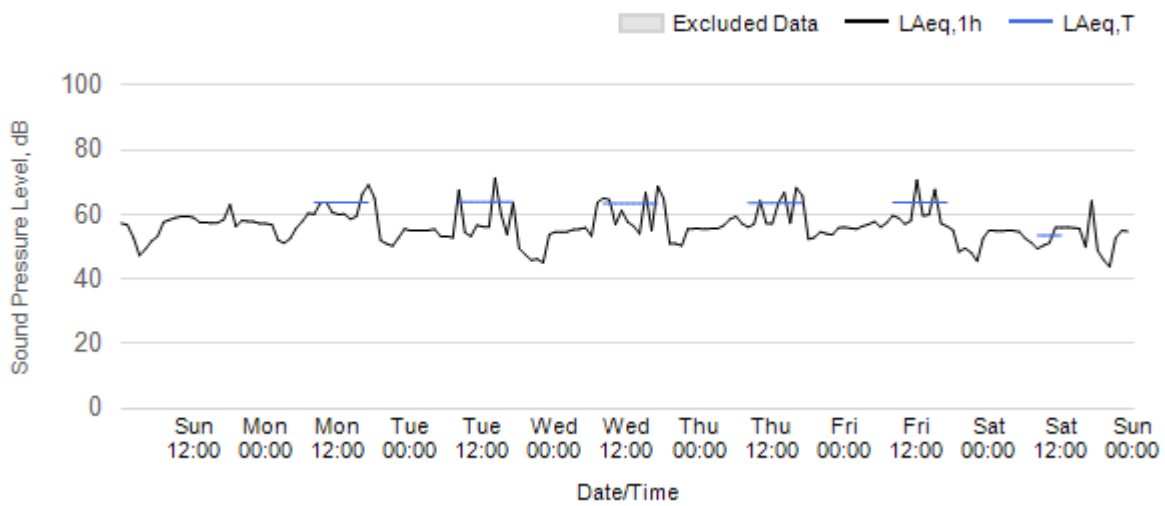


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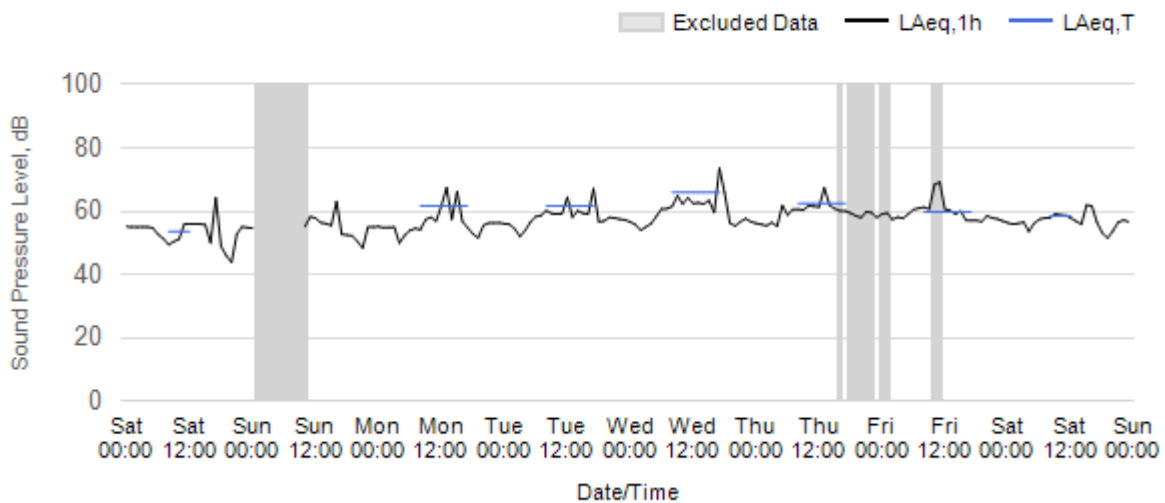


Worksite: KMC - Monitoring Ref: KMC-N1

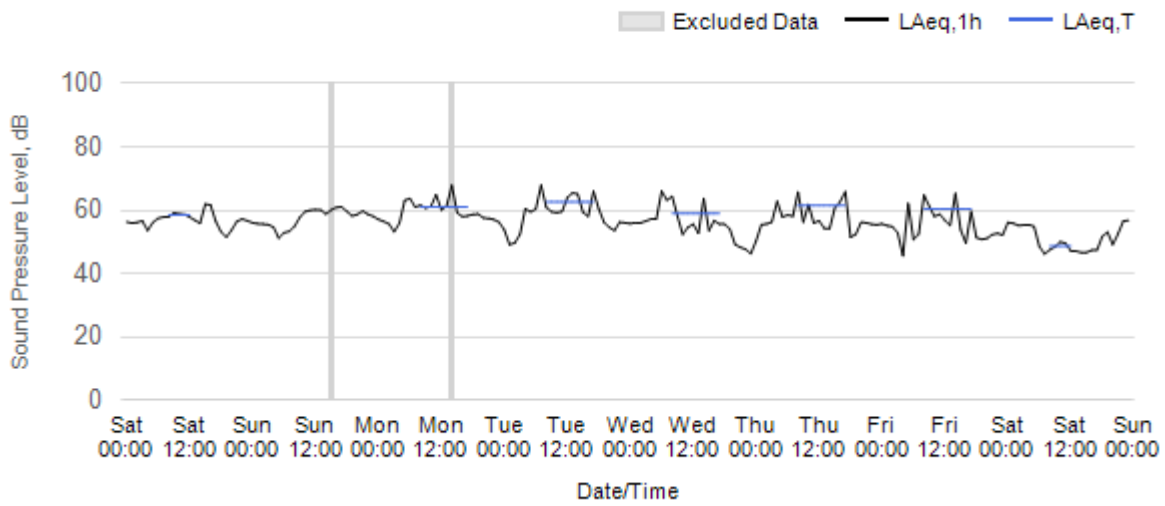
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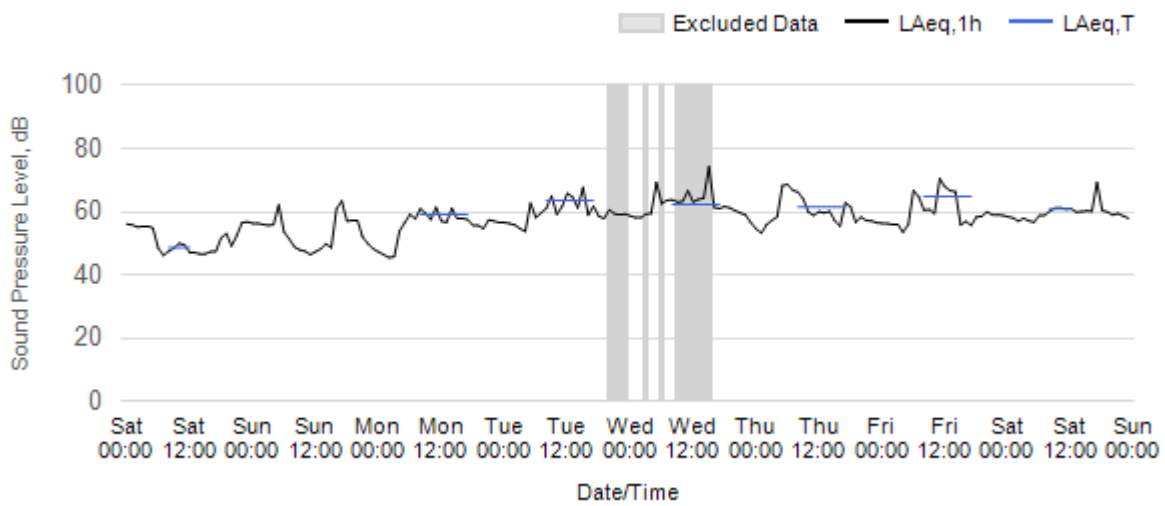
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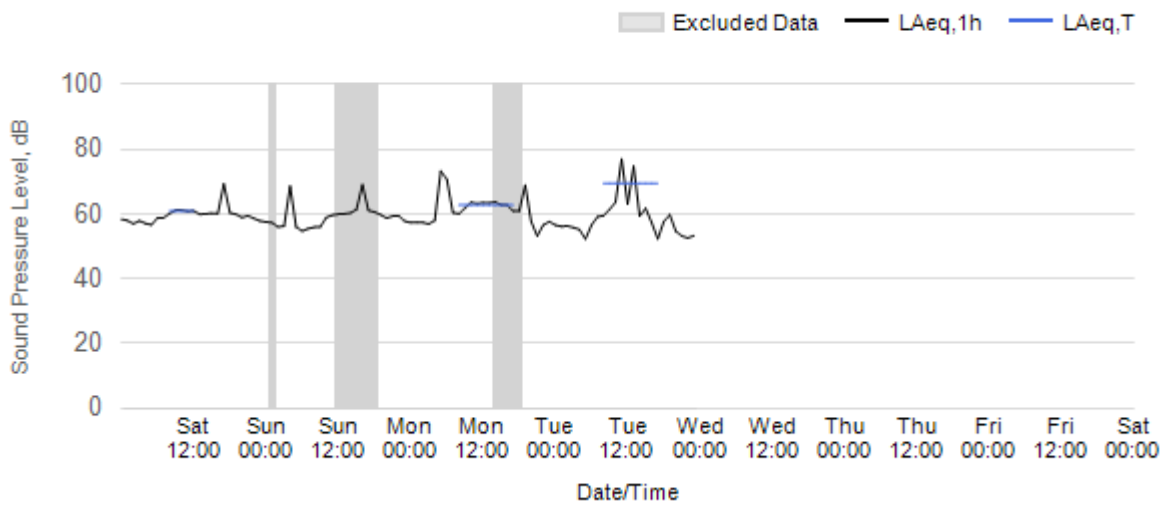
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Worksite: KMC Monitoring Ref: KMC-N1 22 March 2026 to 28 March 2026

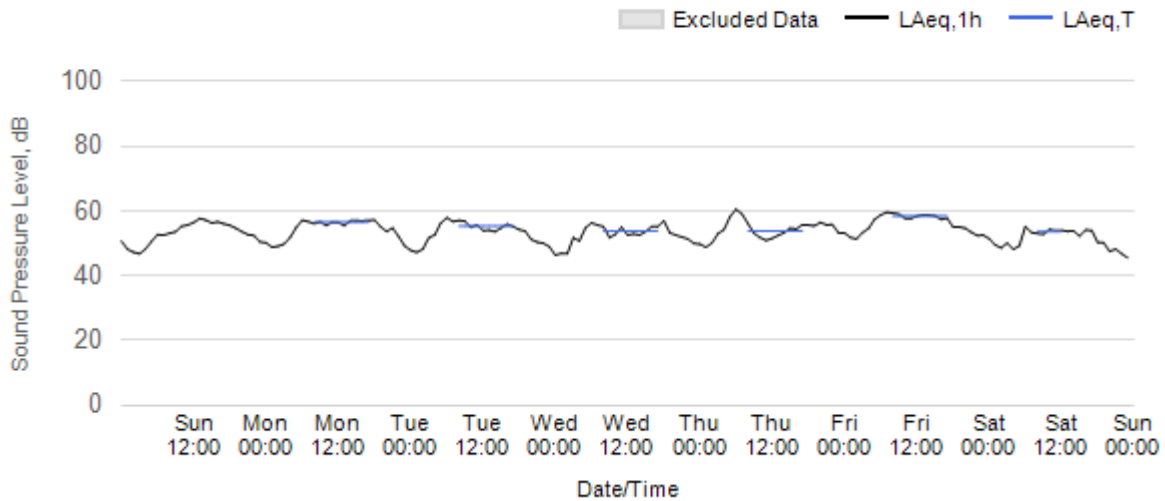


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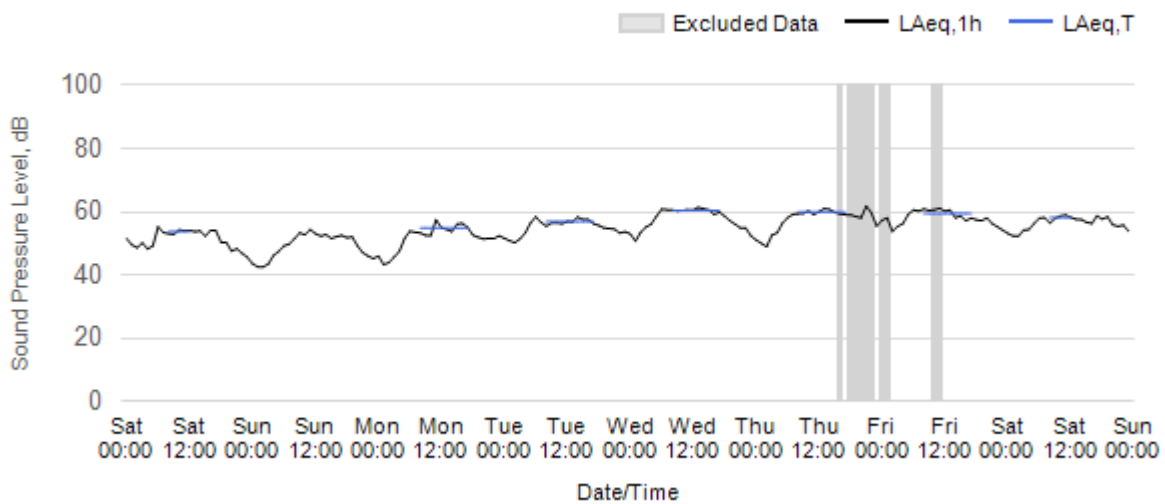


Worksite: MB - Monitoring Ref: MB-N1

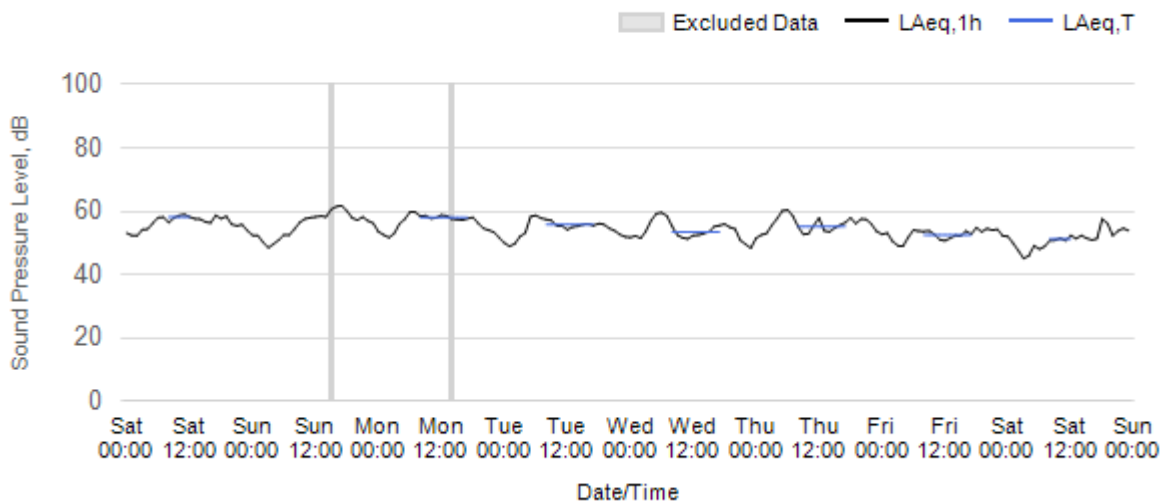
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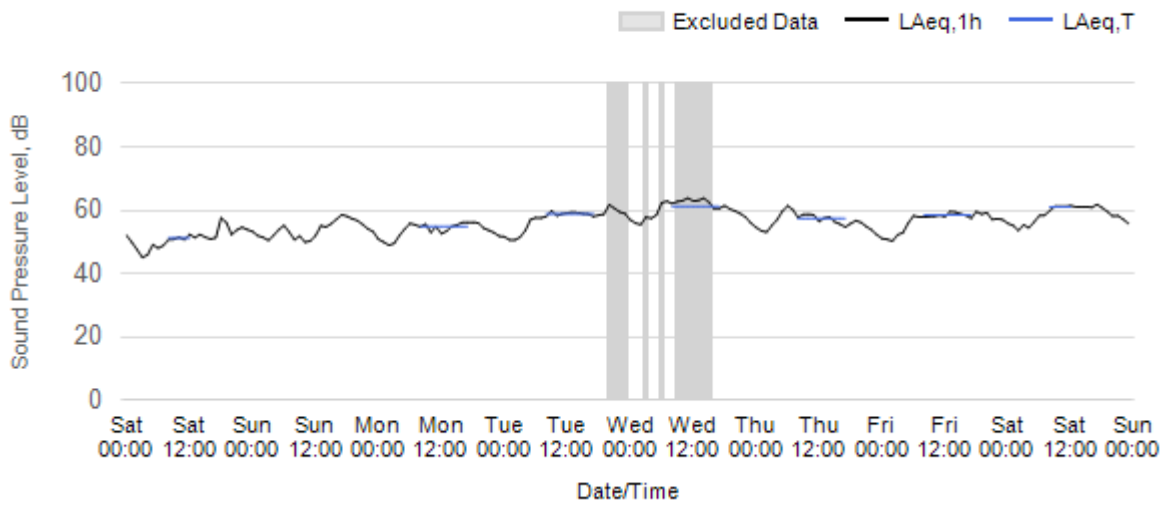
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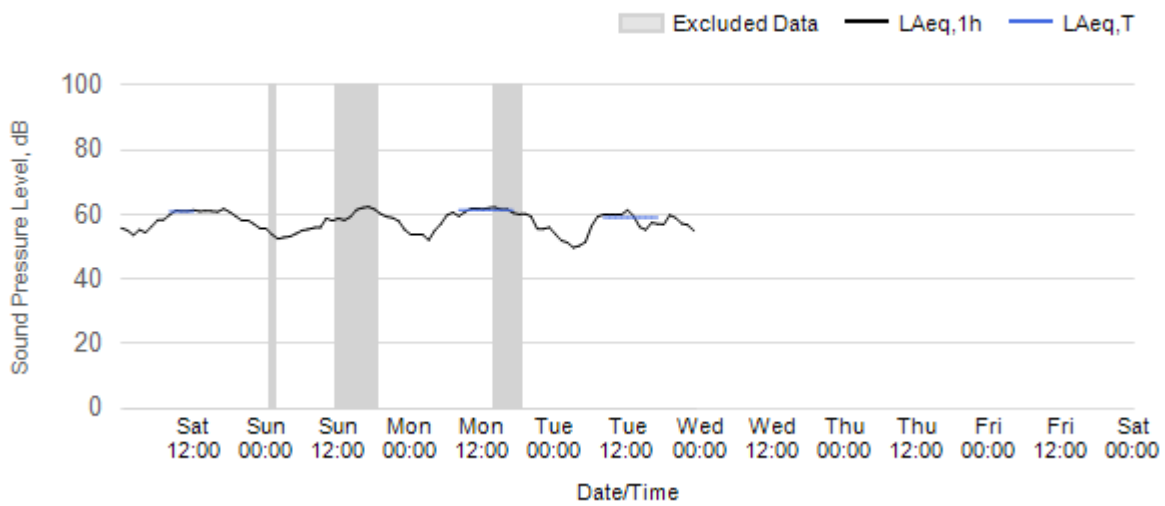
Worksite: MB Monitoring Ref: MB-N1 15 March 2026 to 21 March 2026



Worksite: MB Monitoring Ref: MB-N1 22 March 2026 to 28 March 2026

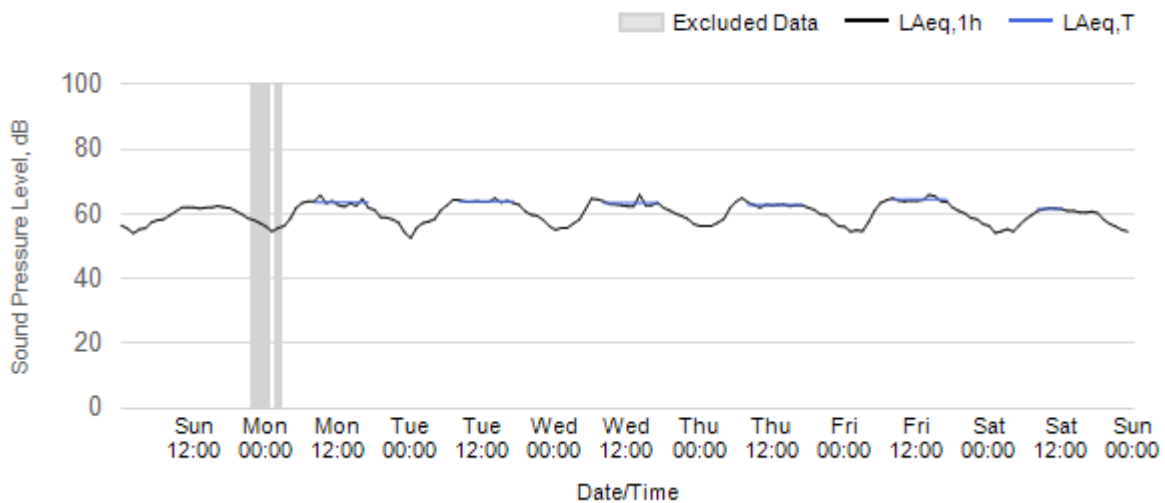


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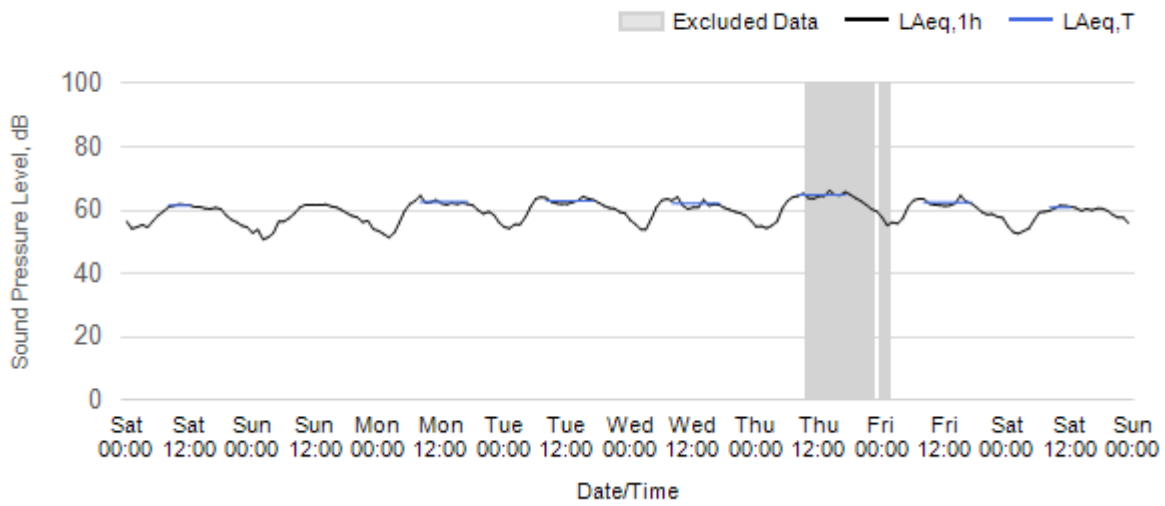


Worksite: WOSC - Monitoring Ref: WOSC-N3

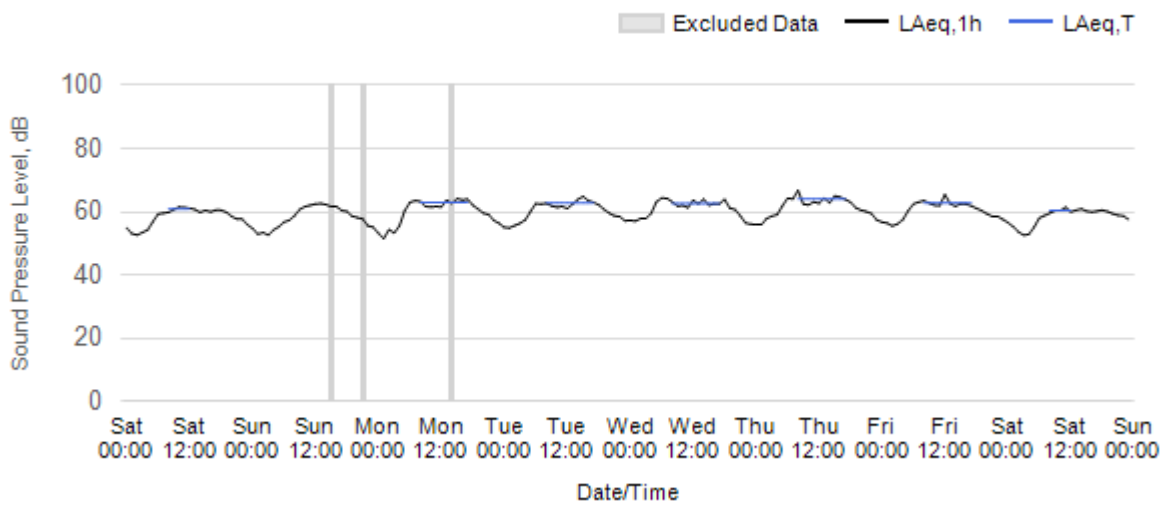
Worksite: WOSC Monitoring Ref: WOSC-N3 01 March 2026 to 07 March 2026



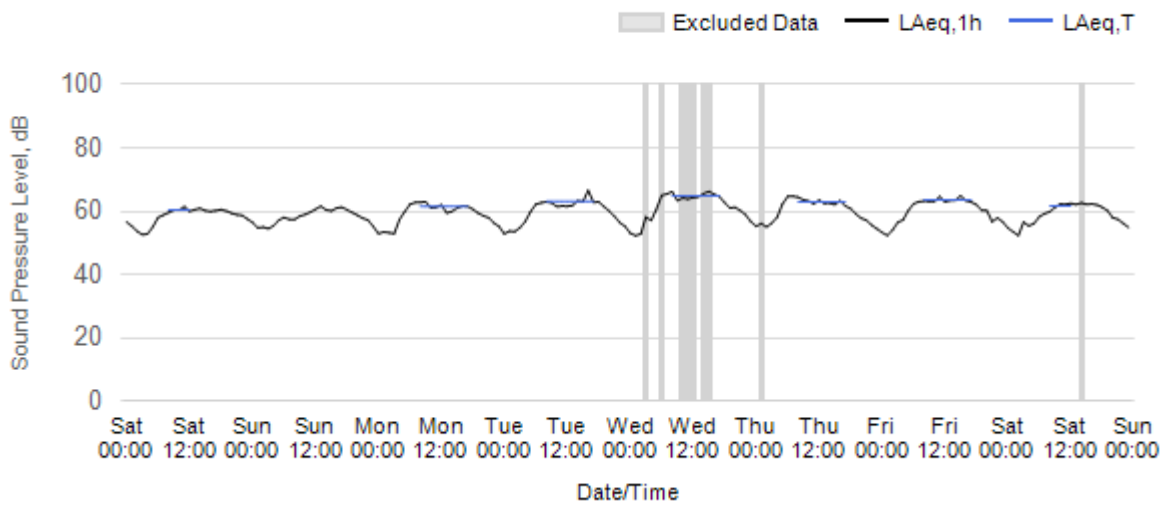
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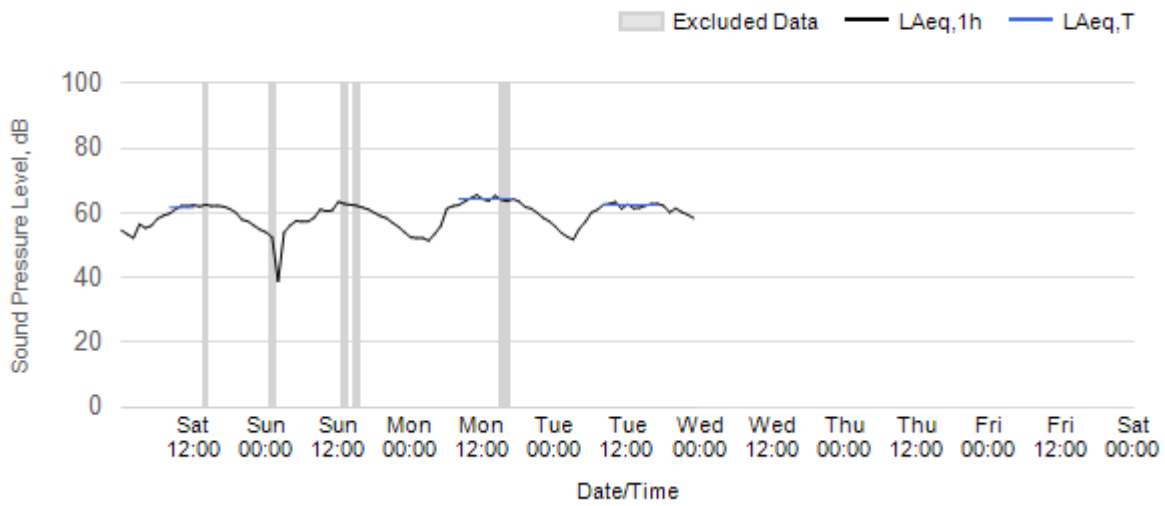
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Worksite: WOSC Monitoring Ref: WOSC-N3 22 March 2026 to 28 March 2026

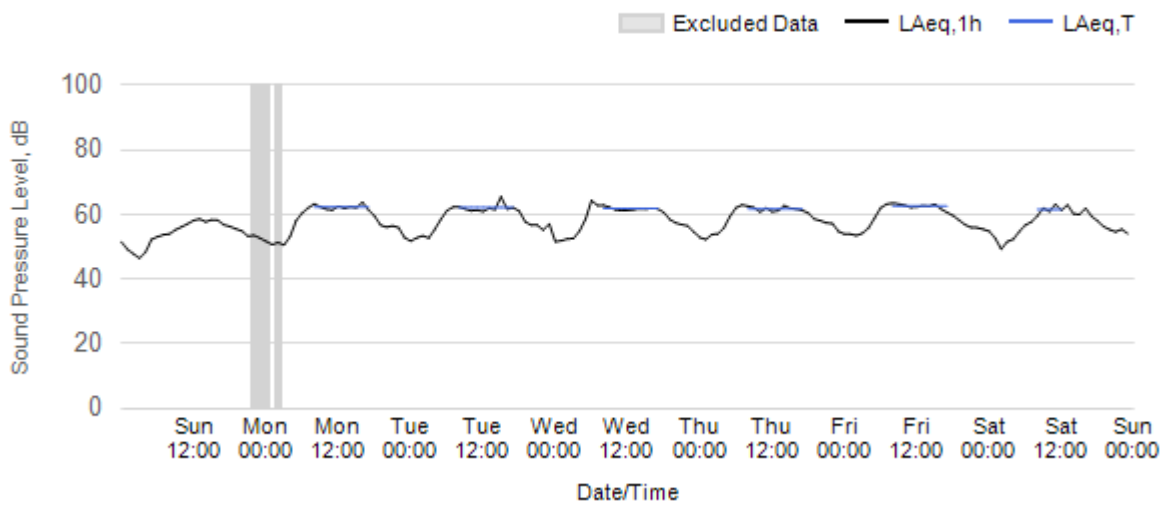


Worksite: WOSC Monitoring Ref: WOSC-N3 29 March 2026 to 4 April 2026

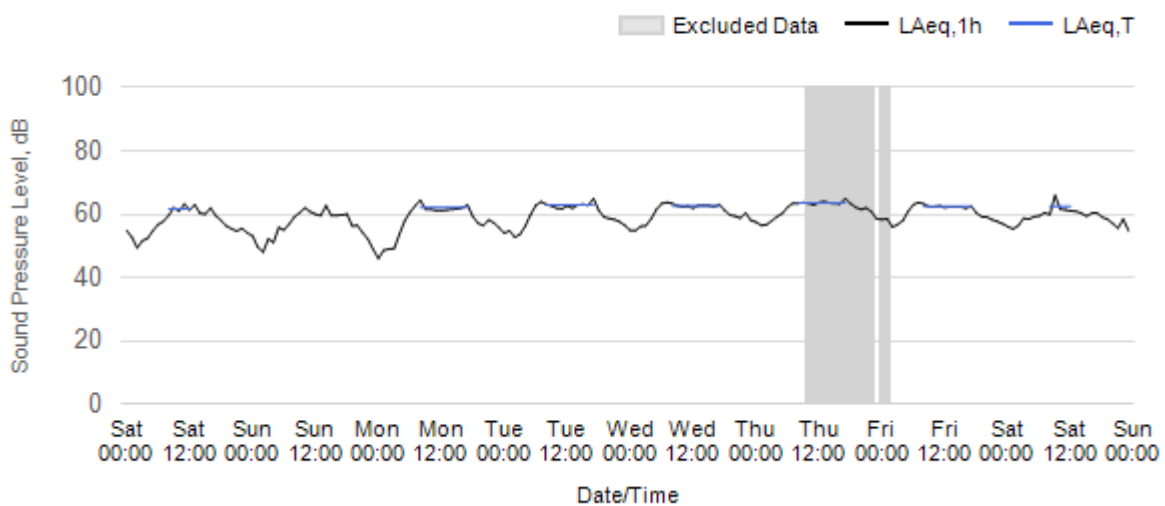


Worksite: CHBS - Monitoring Ref: CHBS-N1

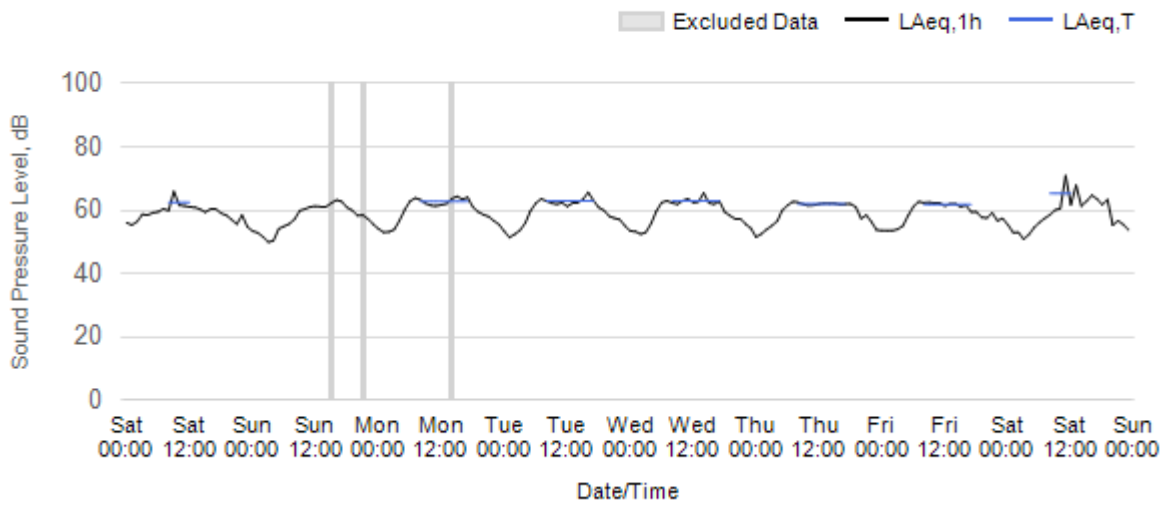
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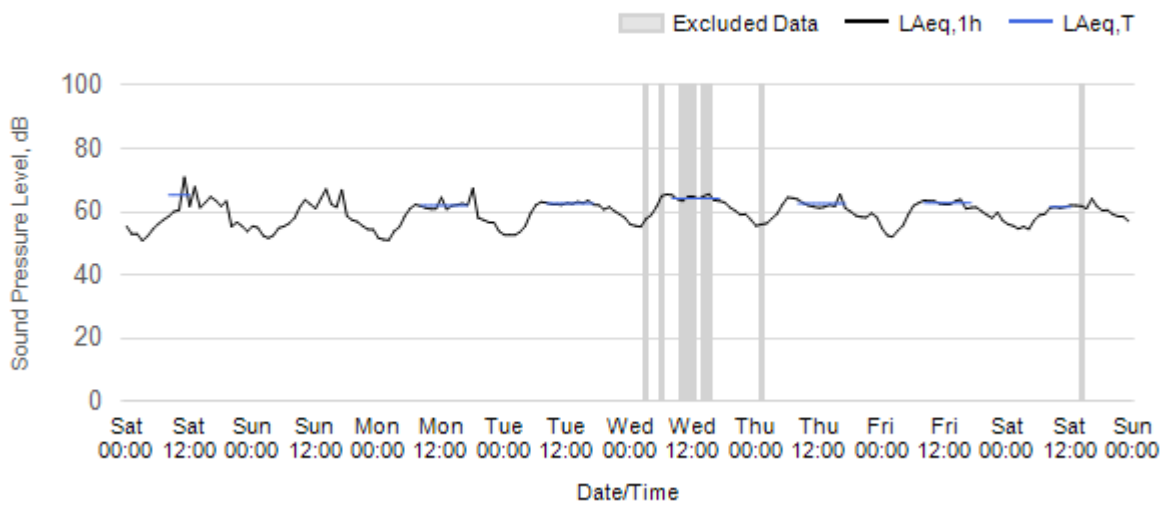
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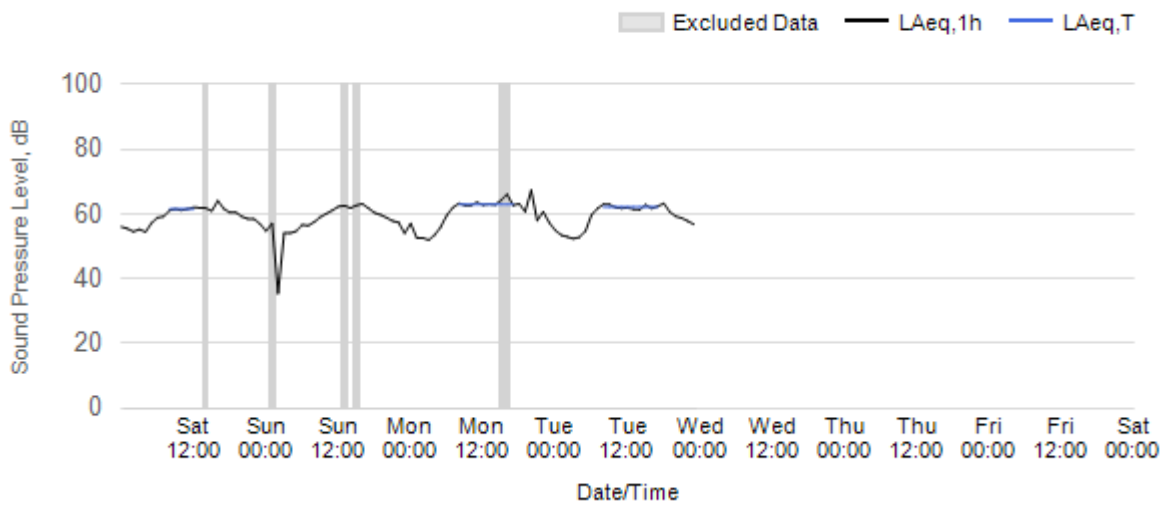
Worksite: CHBS Monitoring Ref: CHBS-N1 15 March 2026 to 21 March 2026



Worksite: CHBS Monitoring Ref: CHBS-N1 22 March 2026 to 28 March 2026

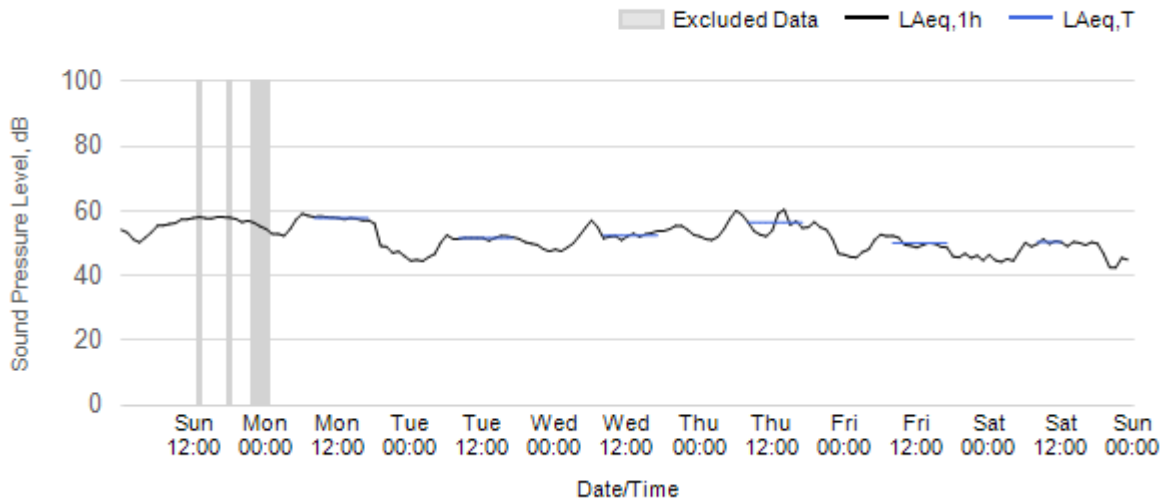


Worksite: CHBS Monitoring Ref: CHBS-N1 29 March 2026 to 4 April 2026

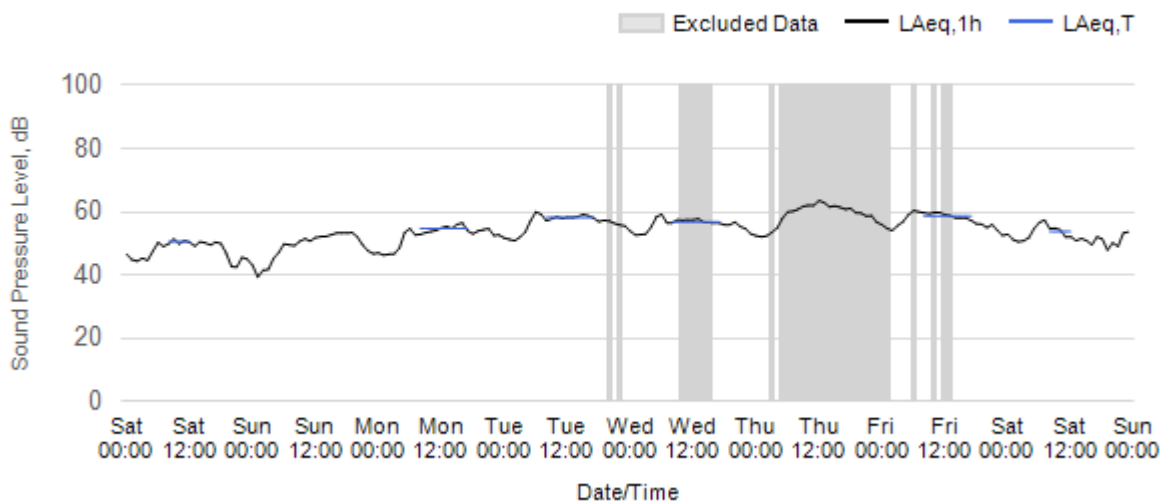


Worksite: MLE - Monitoring Ref: MLE-N1

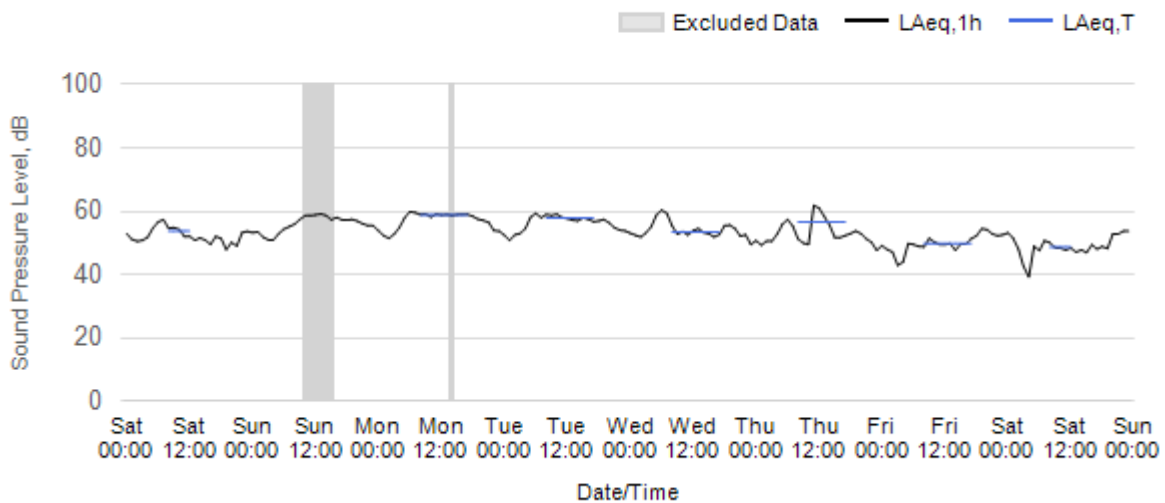
Worksite: MLE Monitoring Ref: MLE-N1 01 March 2026 to 07 March 2026



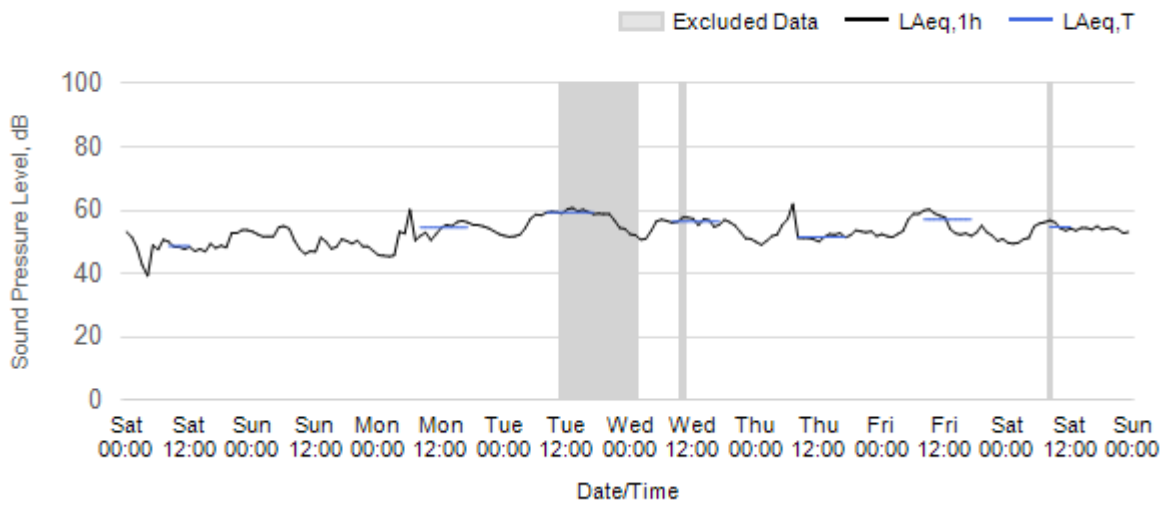
Worksite: MLE Monitoring Ref: MLE-N1 08 March 2026 to 14 March 2026



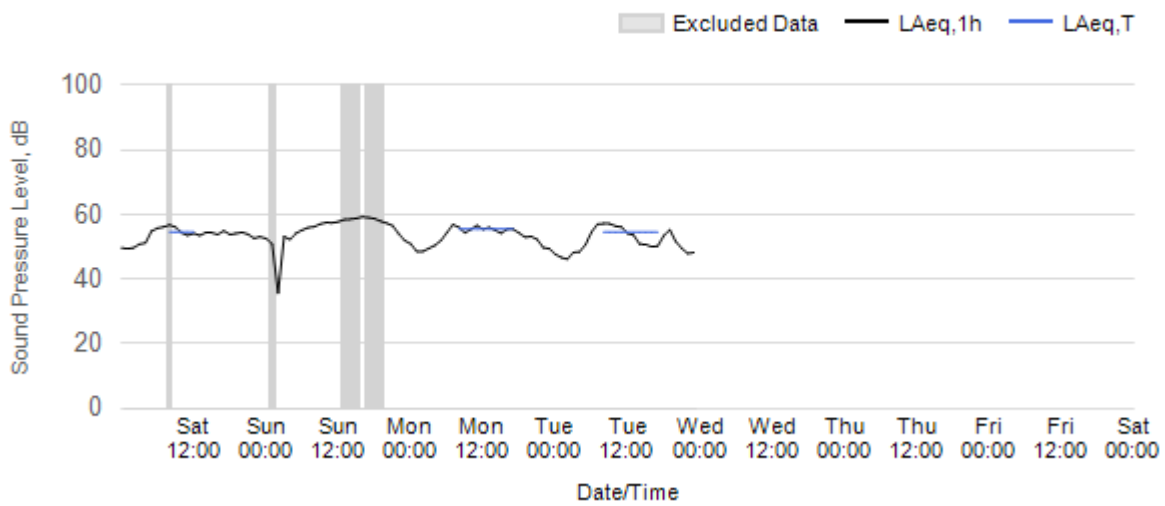
Worksite: MLE Monitoring Ref: MLE-N1 15 March 2026 to 21 March 2026



Worksite: MLE Monitoring Ref: MLE-N1 22 March 2026 to 28 March 2026



Worksite: MLE Monitoring Ref: MLE-N1 29 March 2026 to 4 April 2026

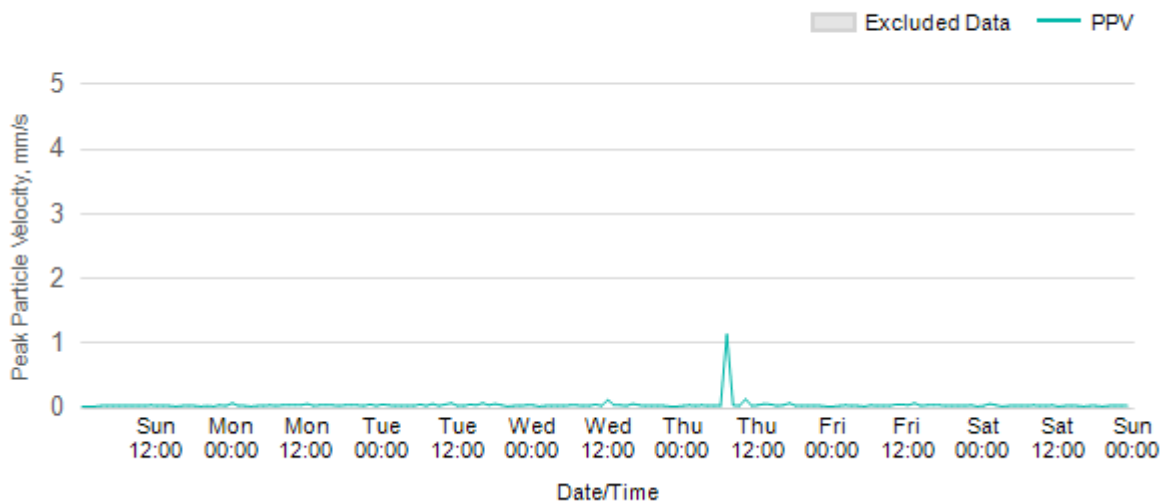


Vibration

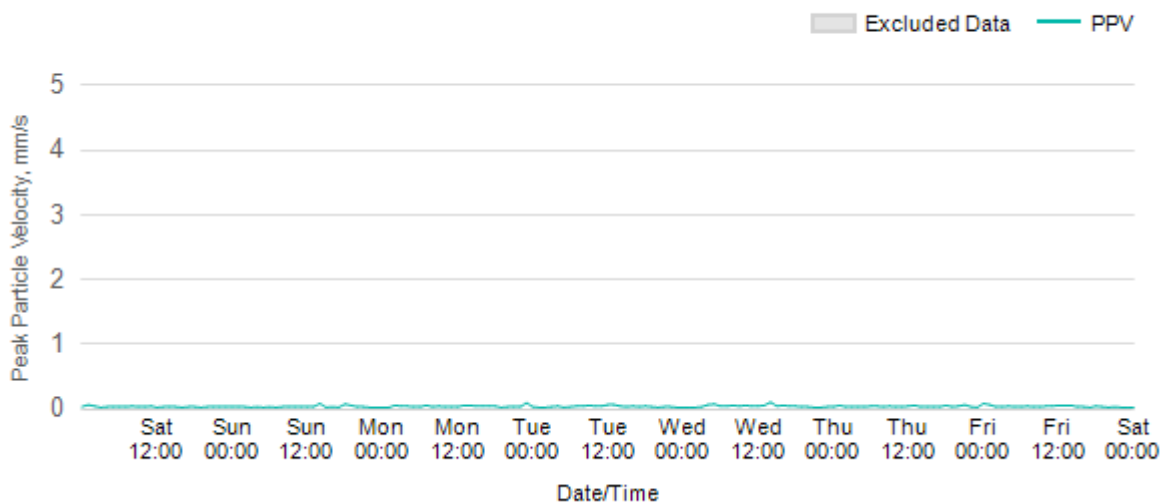
The following graphs show the hourly measured peak particle velocity PPV recorded during the monitoring period. The graphs show the resultant PPV due to vibration components on three orthogonal axis x, y and z. Where high values of PPV were caused by local interference with the vibration monitor, which are not representative of HS2 construction works, these values have been greyed out in the following charts and have been excluded to calculate values in Table 4 of the main report.

Worksite: MB - Monitoring Ref: MB-V1

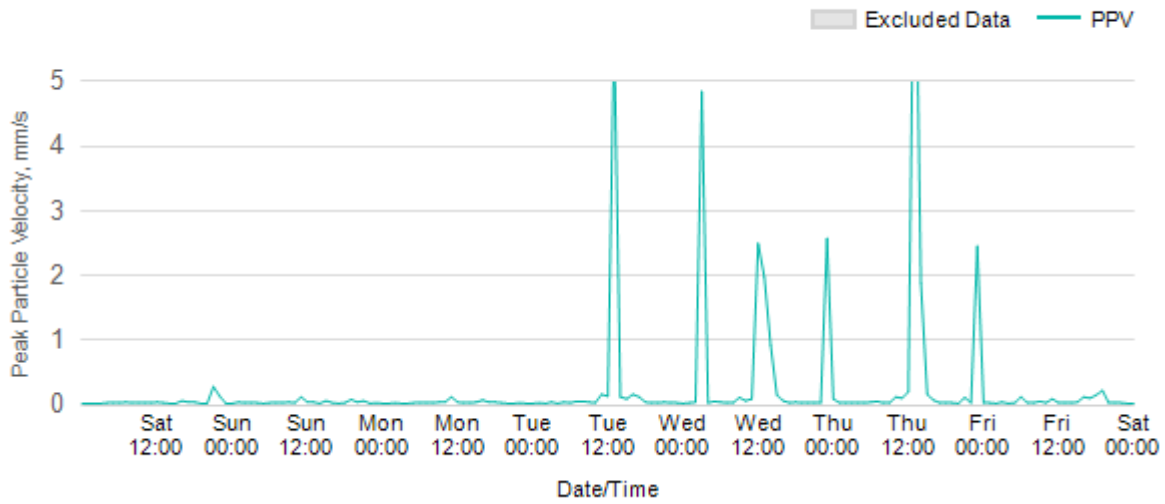
Worksite: MB Monitoring Ref: MB-V1 01 March 2026 to 07 March 2026



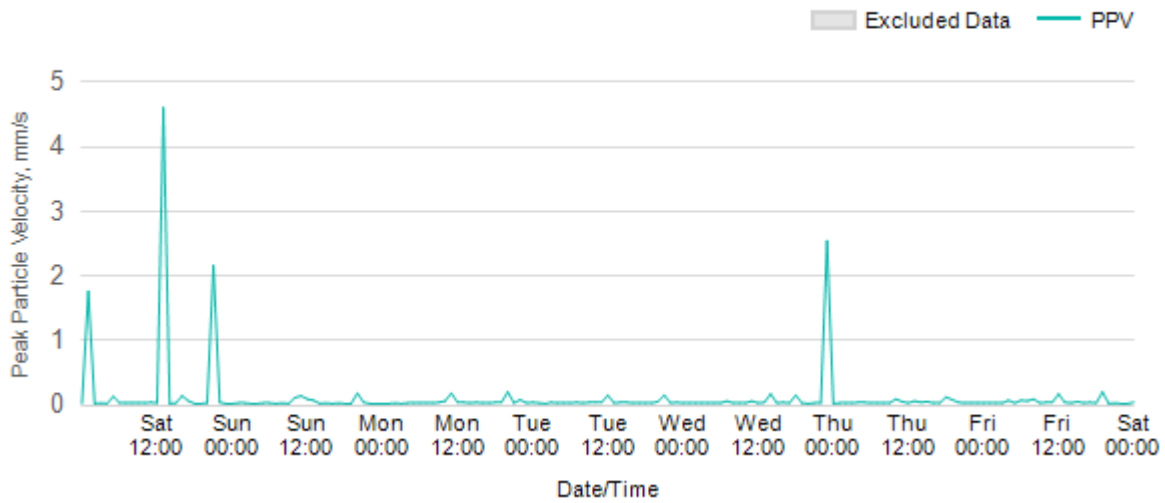
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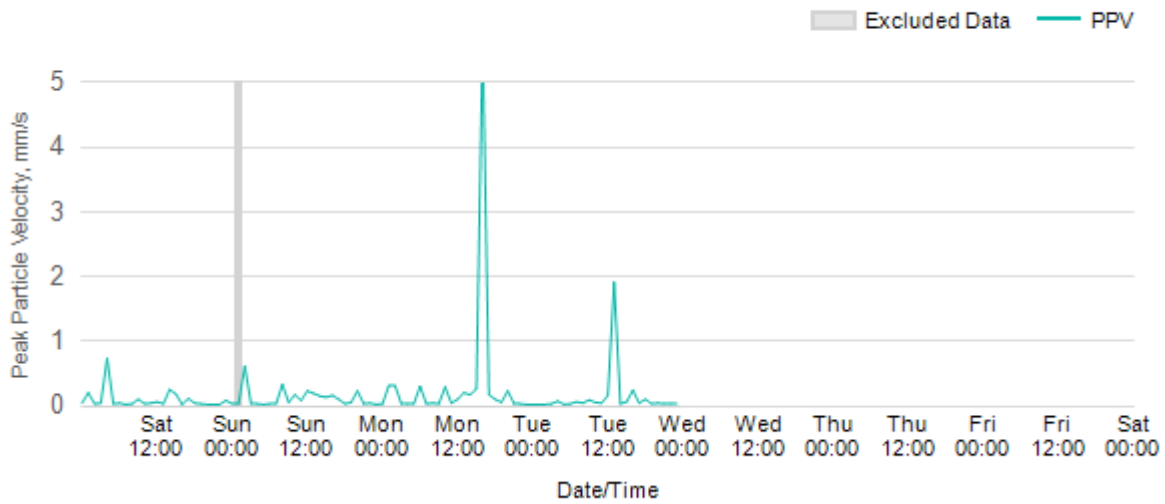
Worksite: MB Monitoring Ref: MB-V1 15 March 2026 to 21 March 2026



Worksite: MB Monitoring Ref: MB-V1 22 March 2026 to 28 March 2026

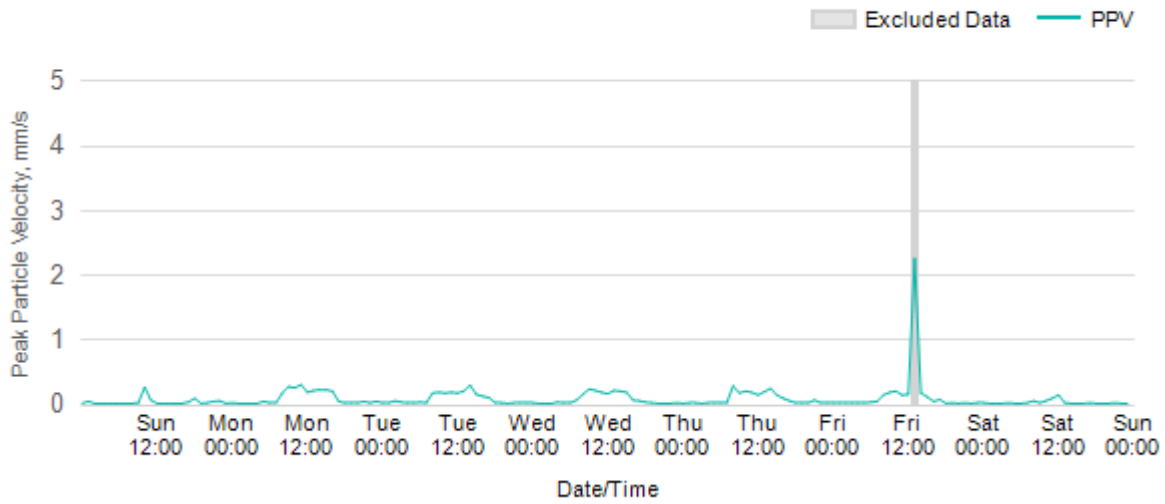


Worksite: MB Monitoring Ref: MB-V1 29 March 2026 to 4 April 2026

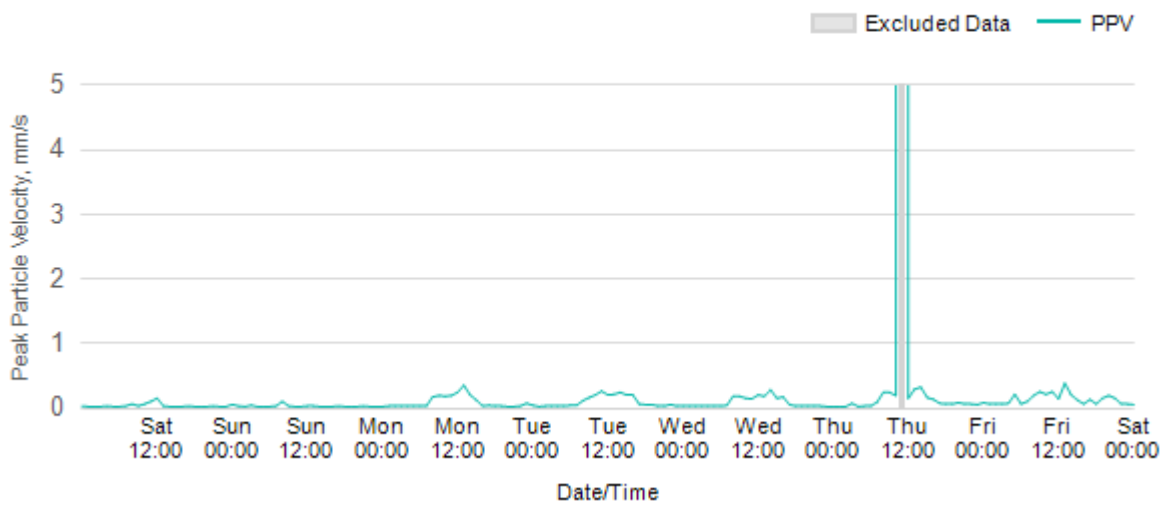


Worksite: AFE - Monitoring Ref: AFE-V1

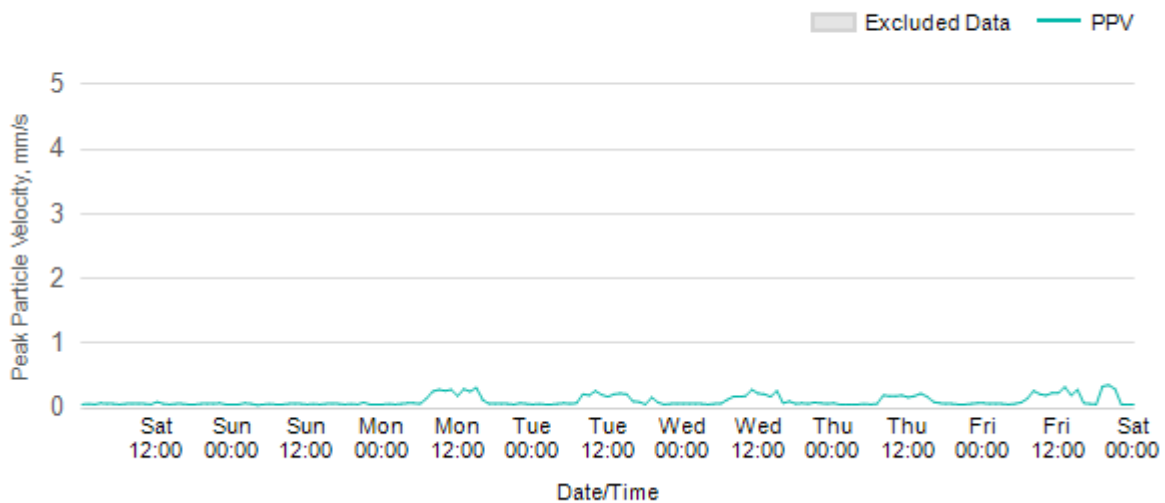
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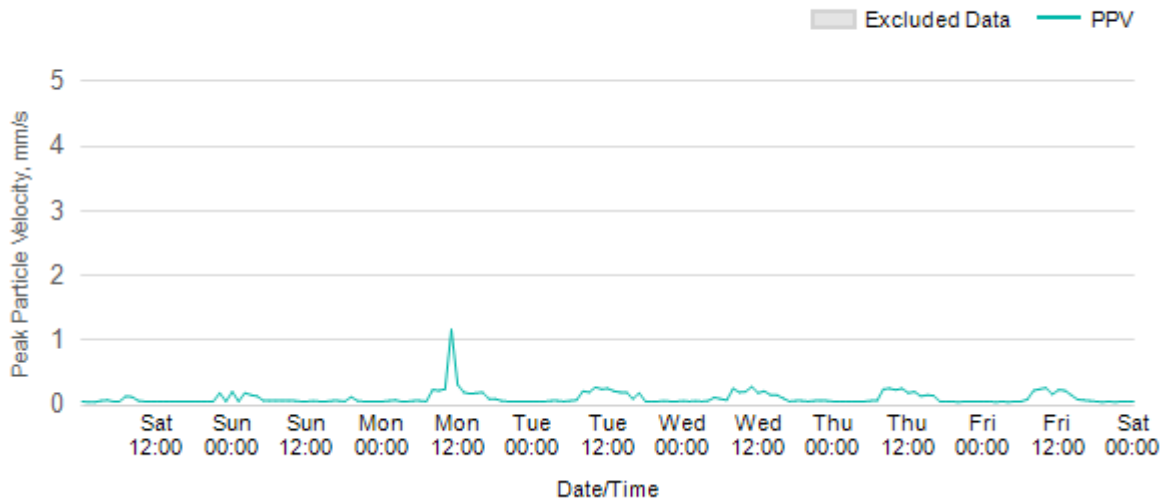
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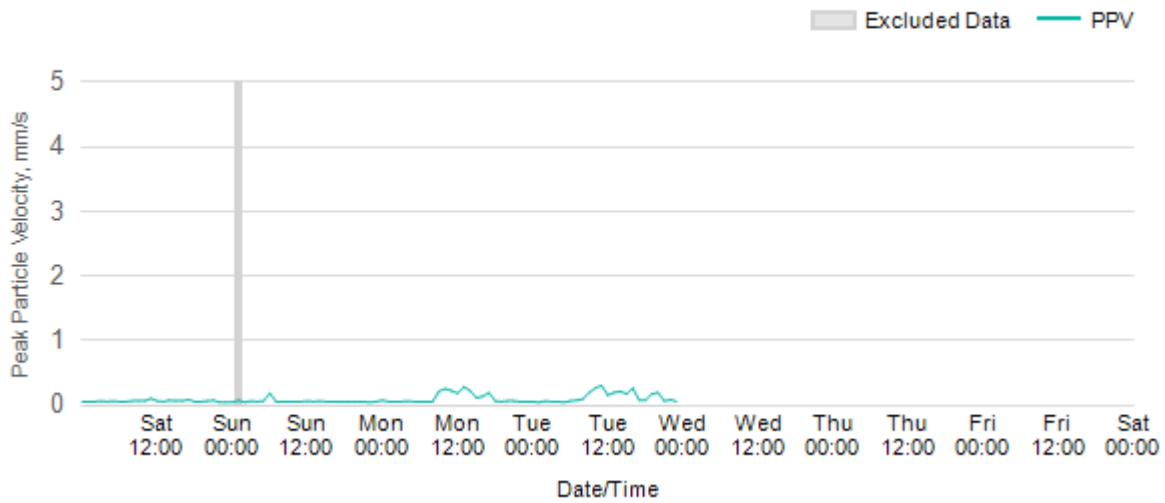
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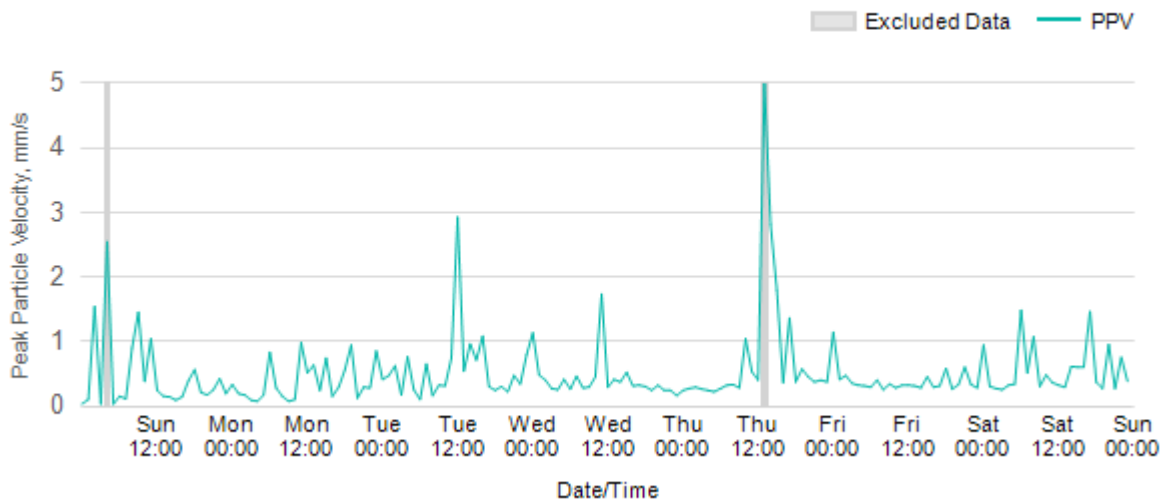


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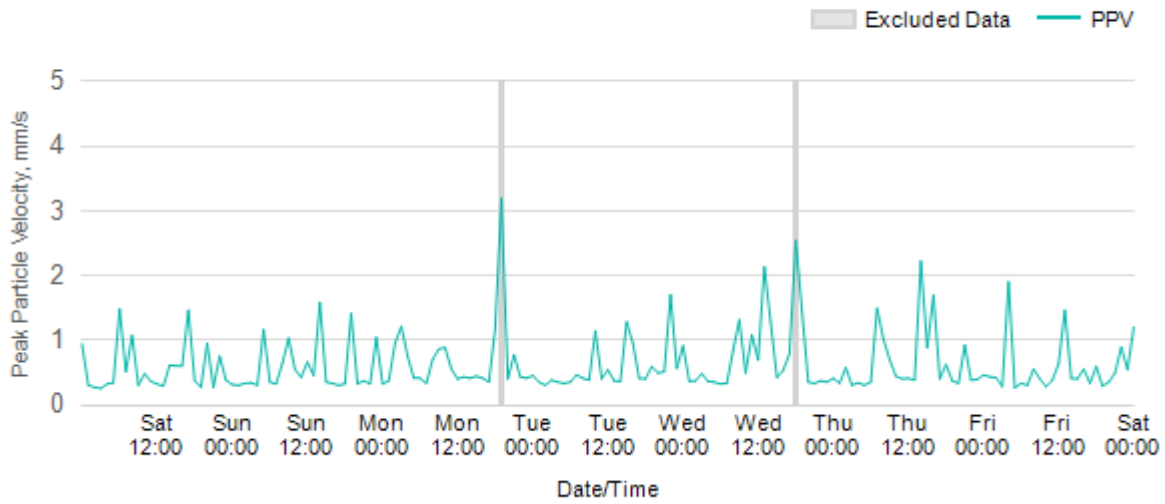


Worksite: ALO - Monitoring Ref: ALO-V1

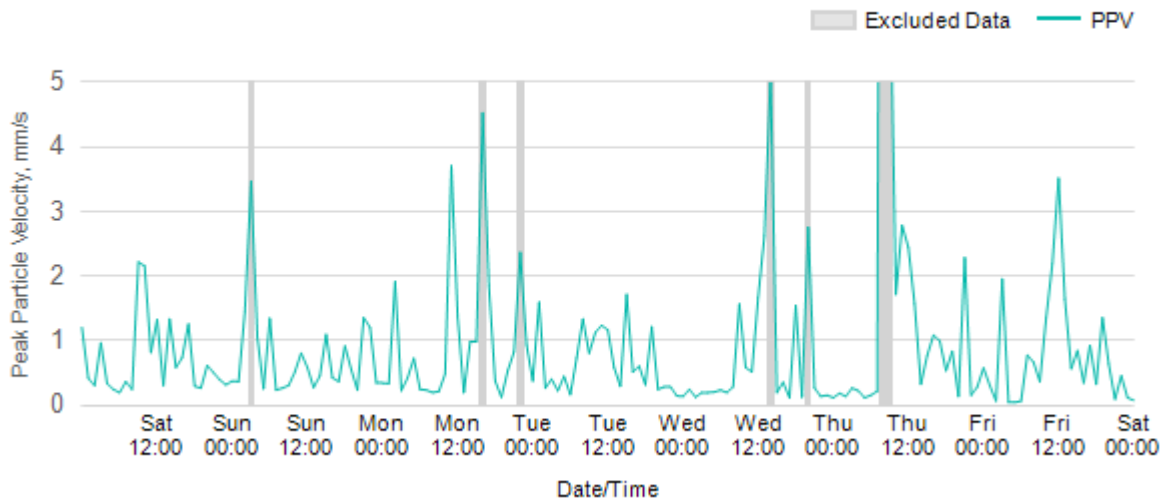
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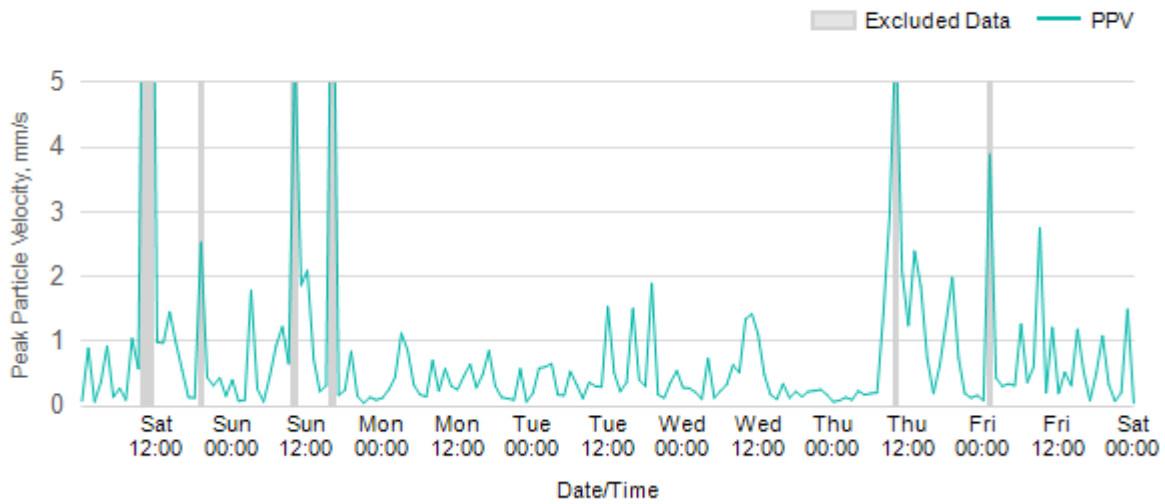
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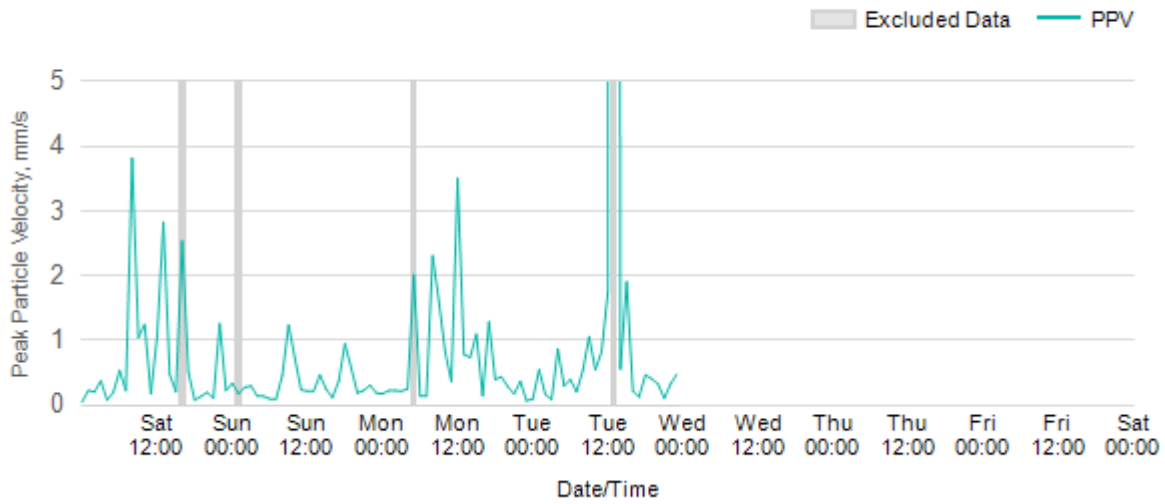
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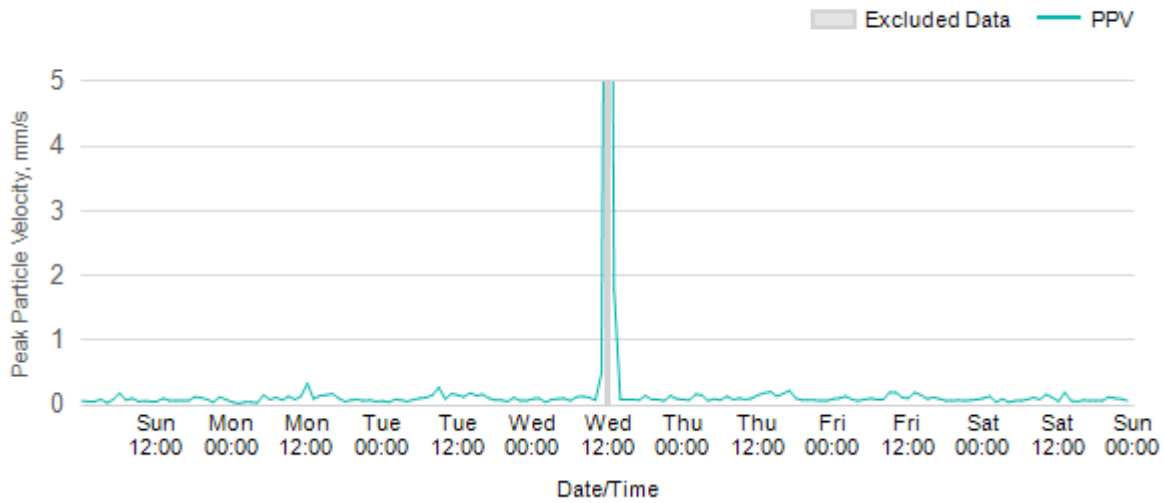


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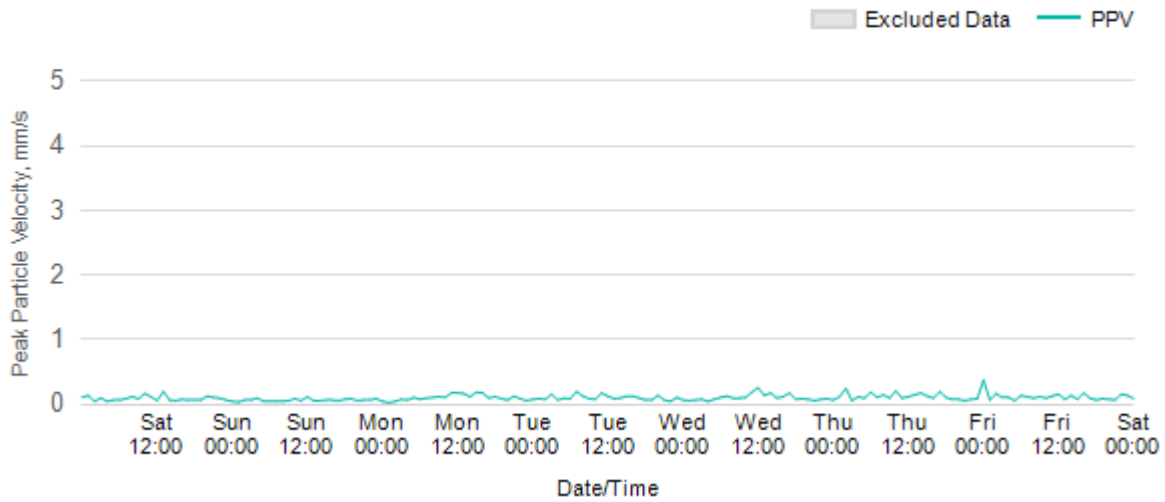


Worksite: BRD - Monitoring Ref: BRD-V1

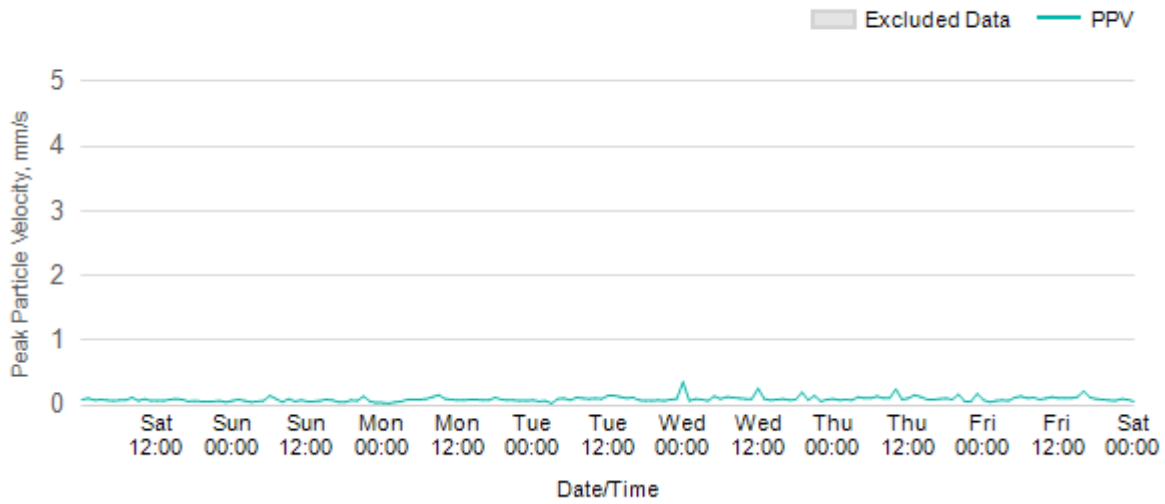
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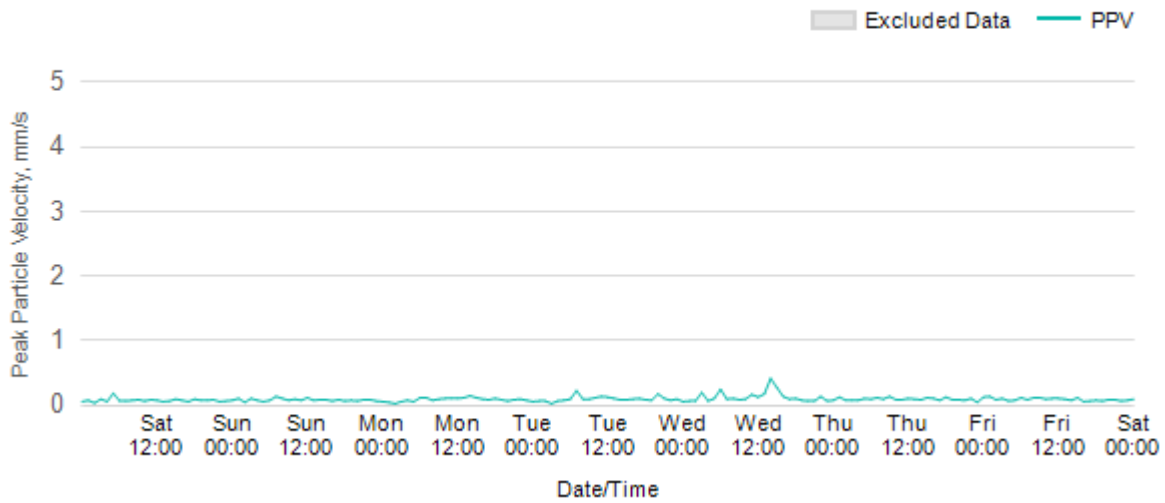
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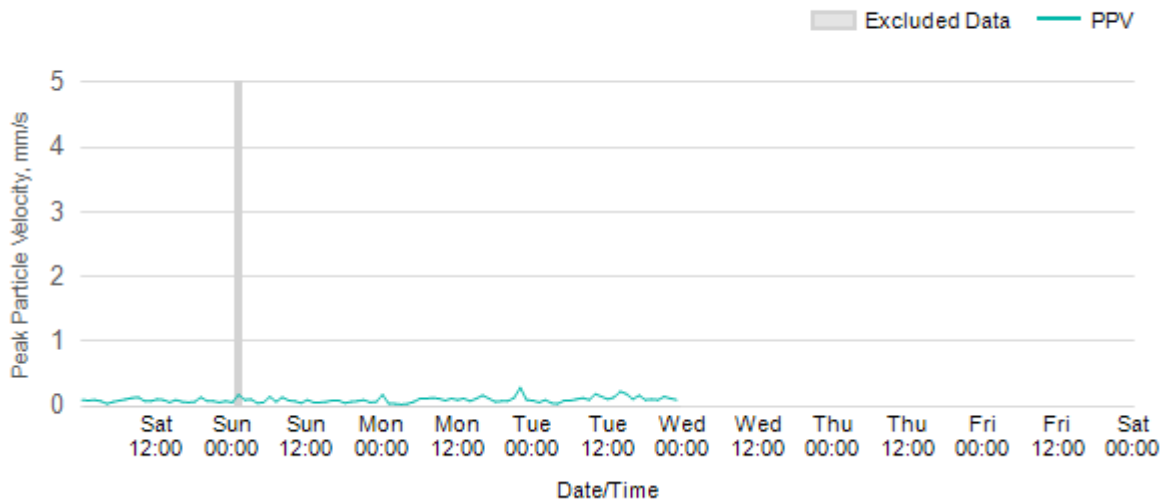
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Worksite: BRD Monitoring Ref: BRD-V1 22 March 2026 to 28 March 2026

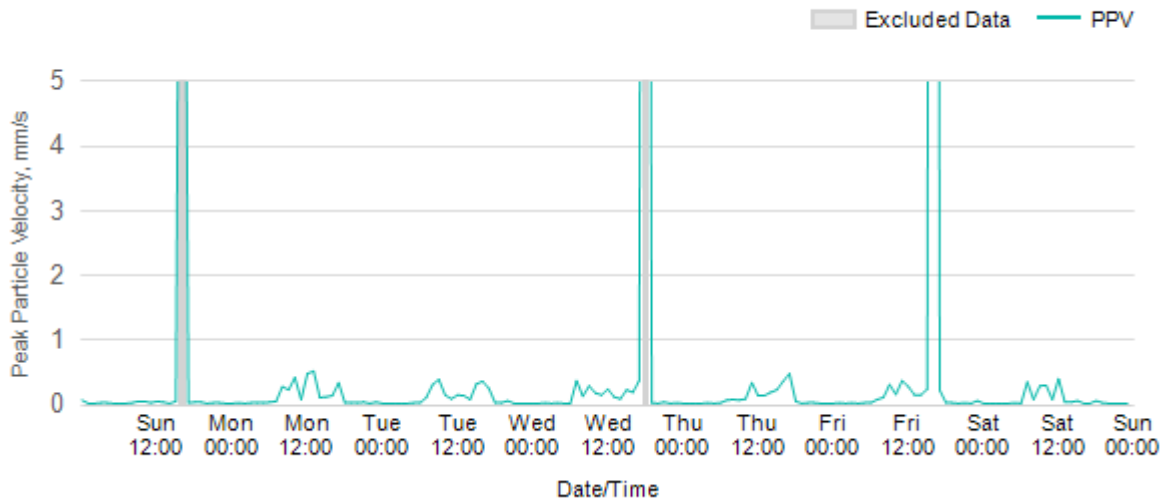


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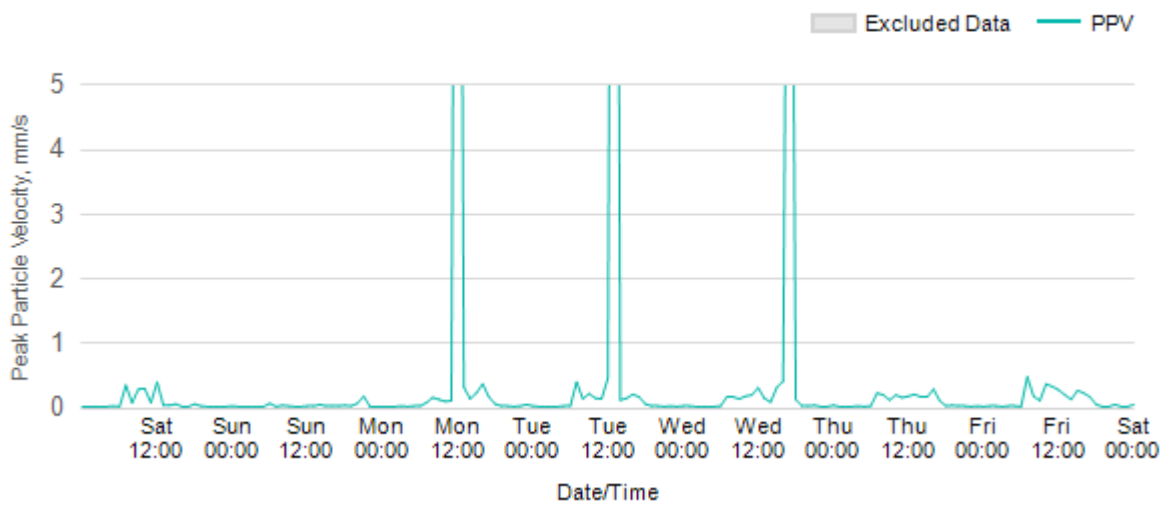


Worksite: GLD - Monitoring Ref: GLD-V1

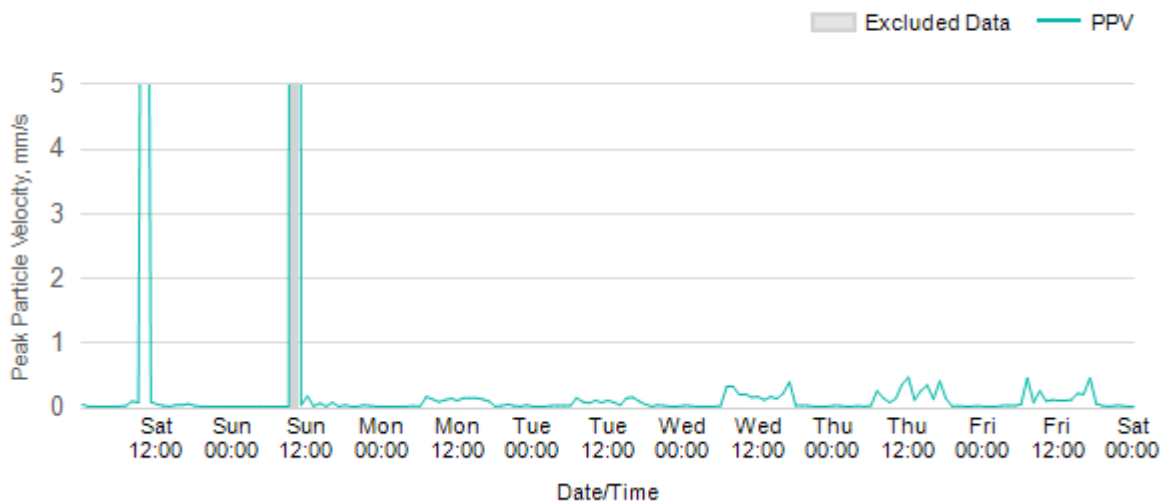
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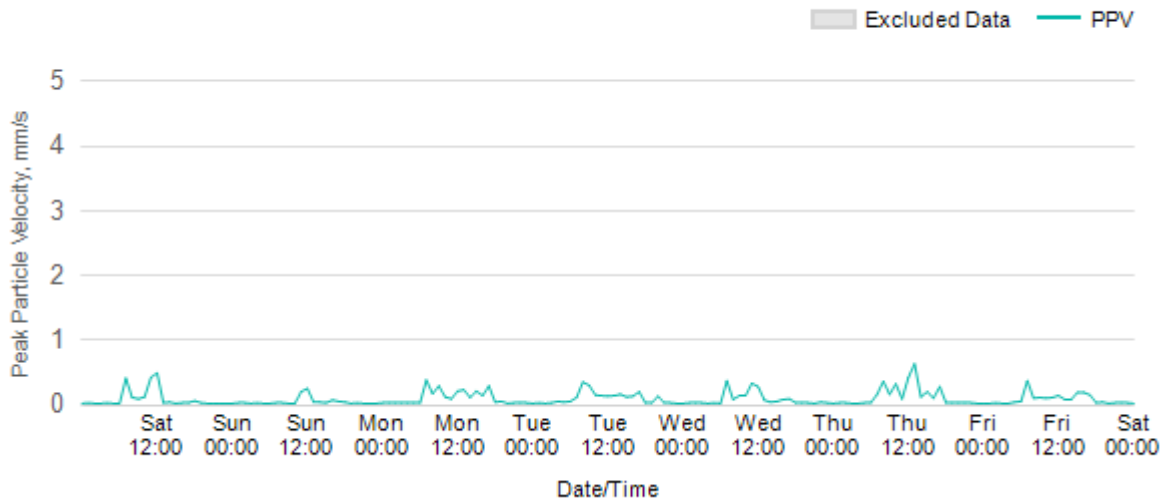
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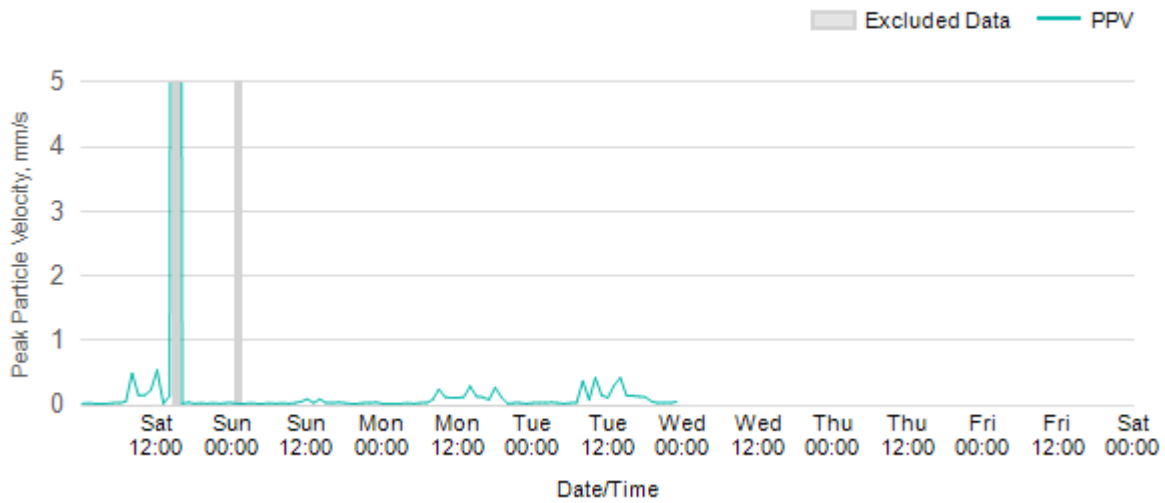
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Worksite: GLD Monitoring Ref: GLD-V1 22 March 2026 to 28 March 2026

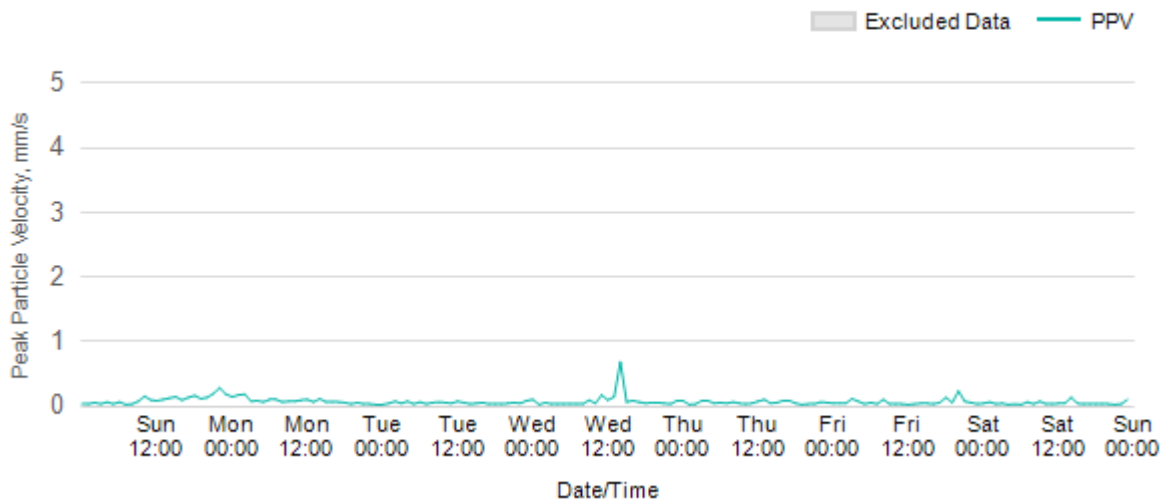


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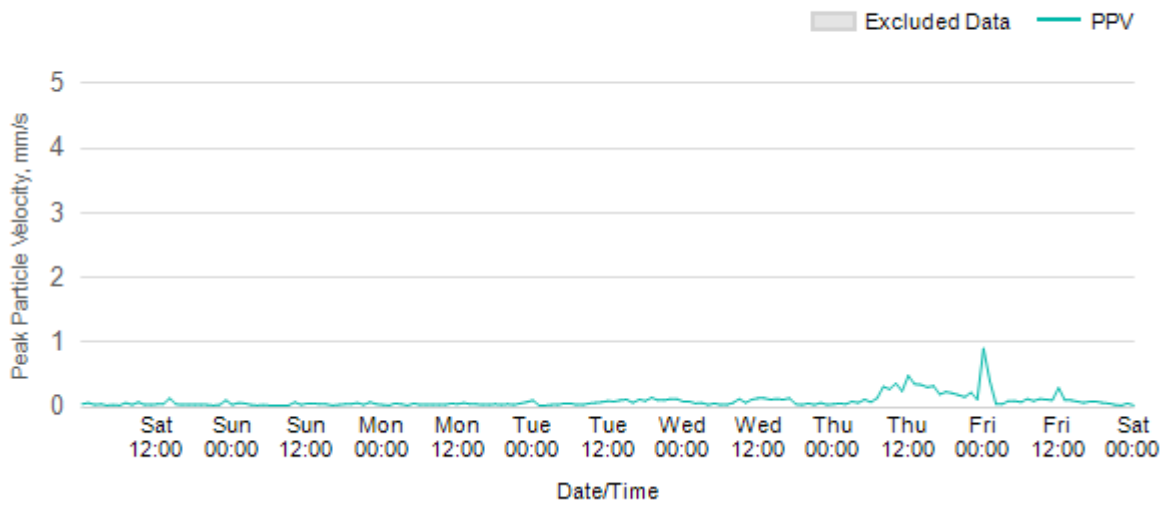


Worksite: FAEU - Monitoring Ref: FAEU-V1

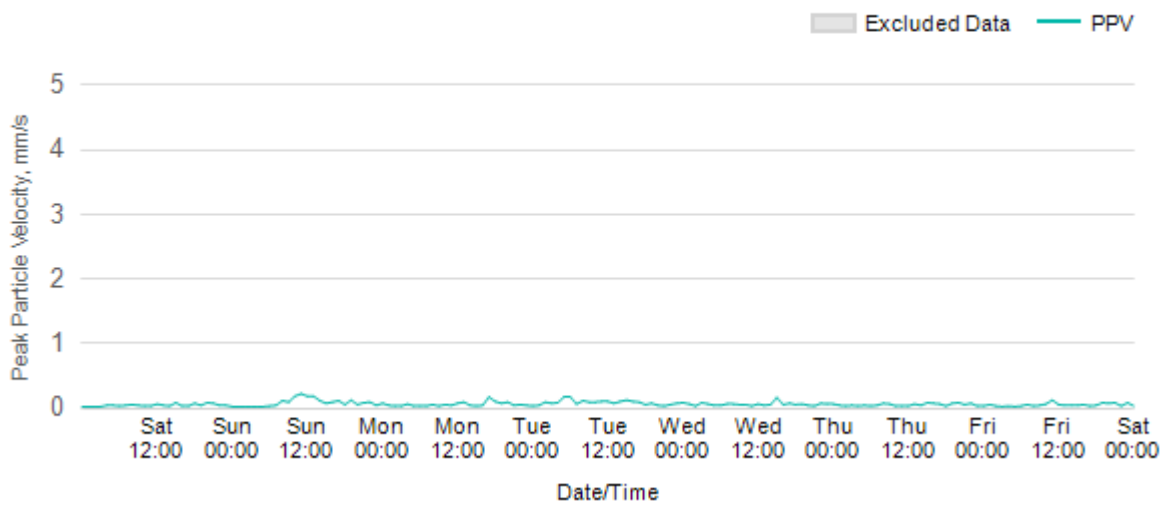
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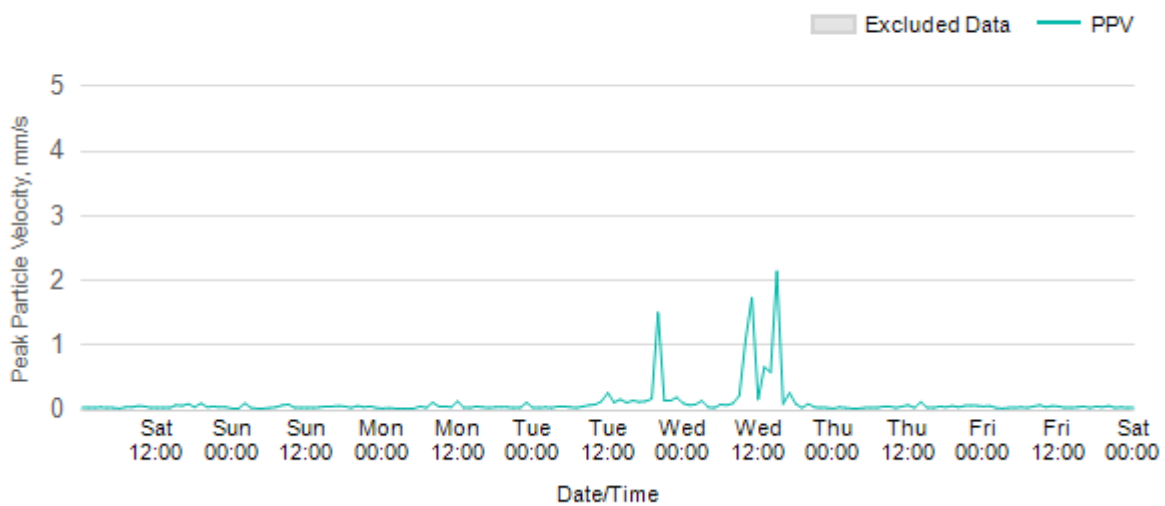
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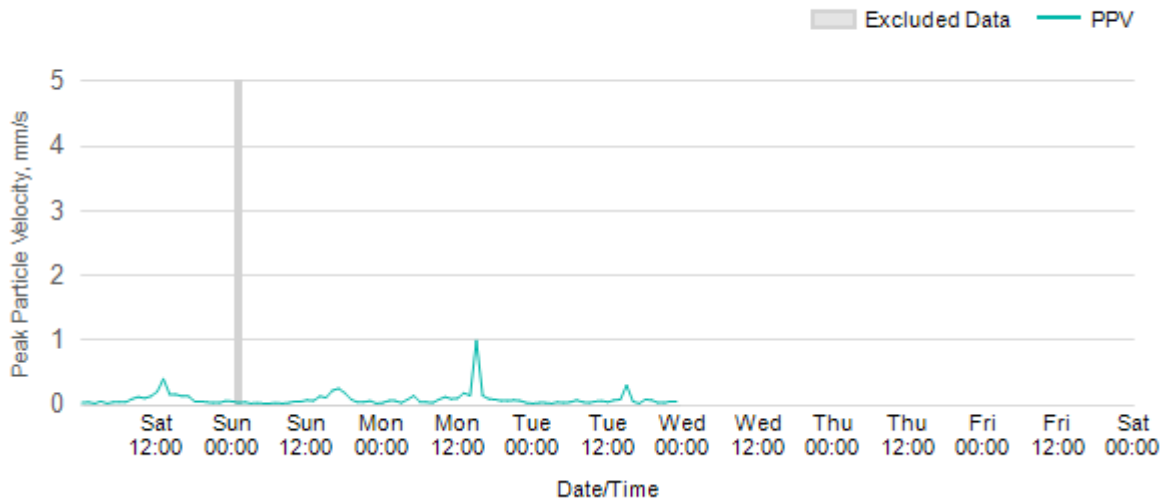
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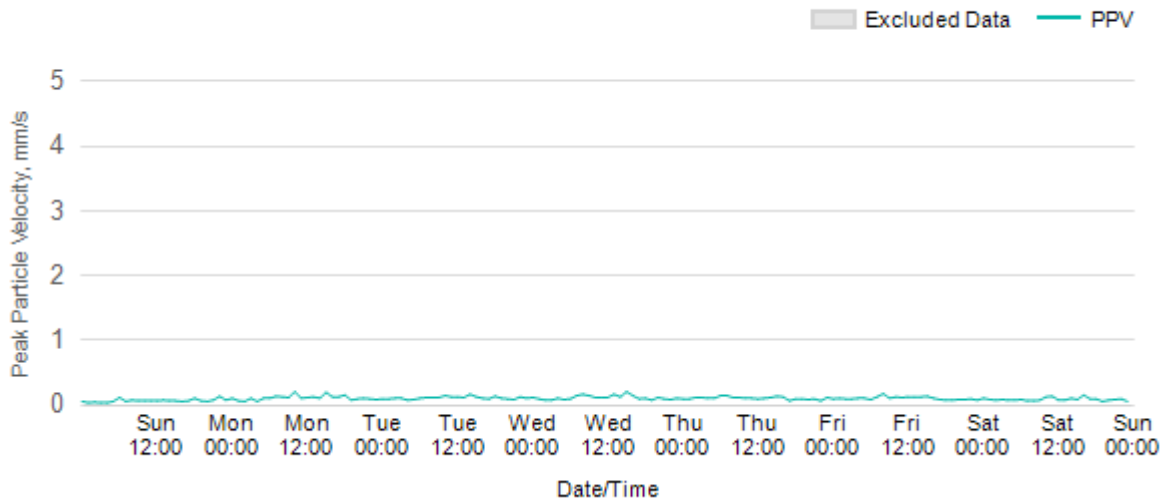


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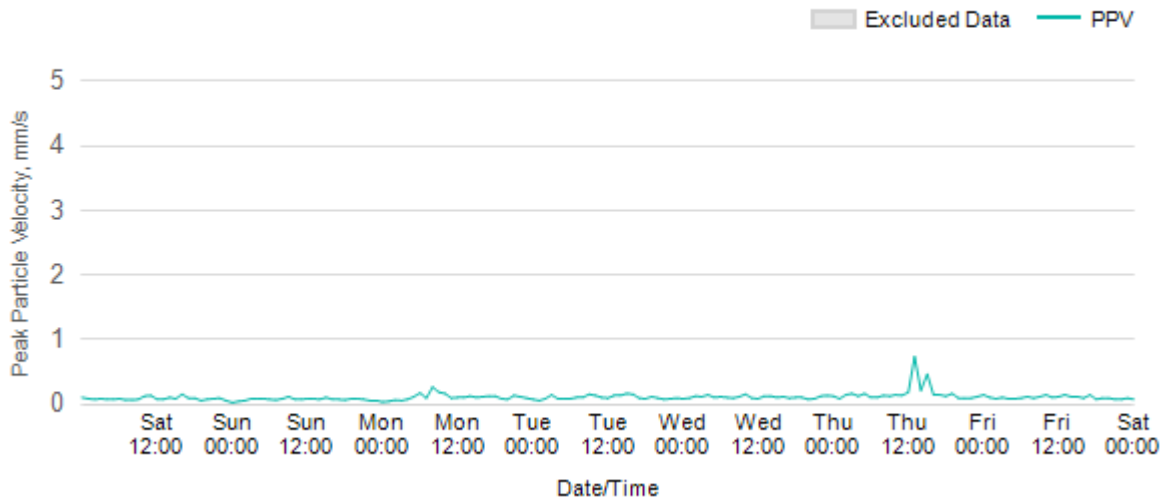


Worksite: CHBS - Monitoring Ref: CHBS-V3

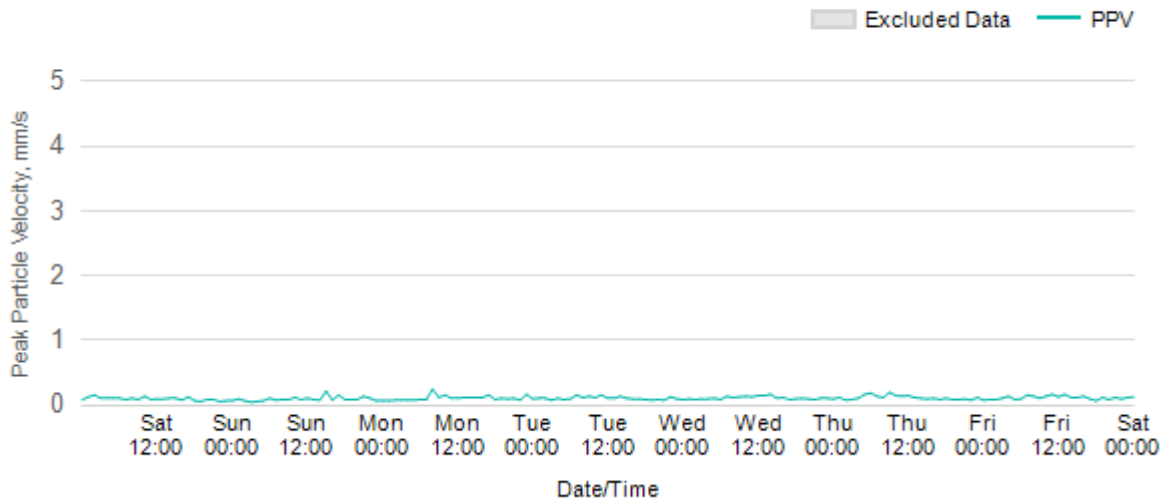
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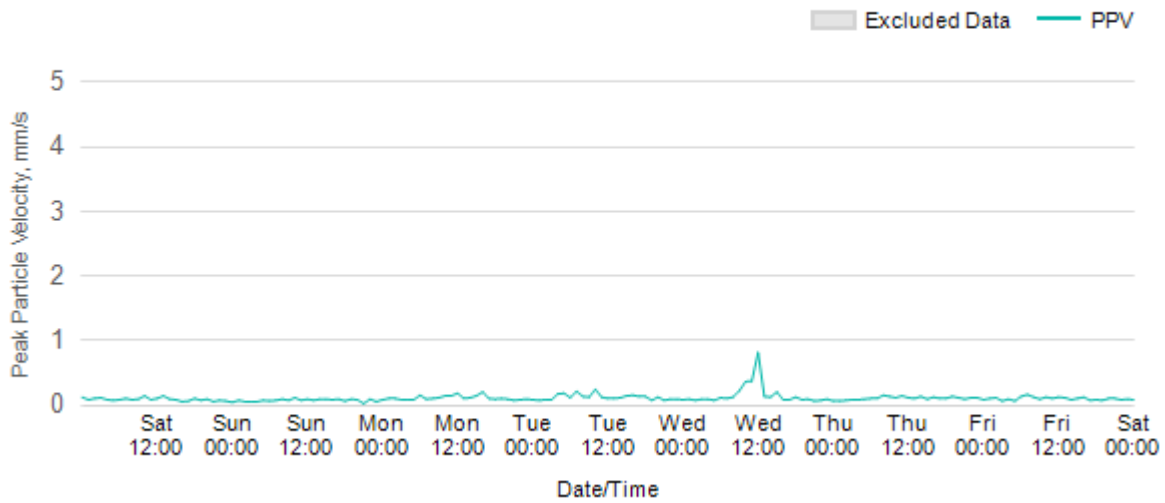
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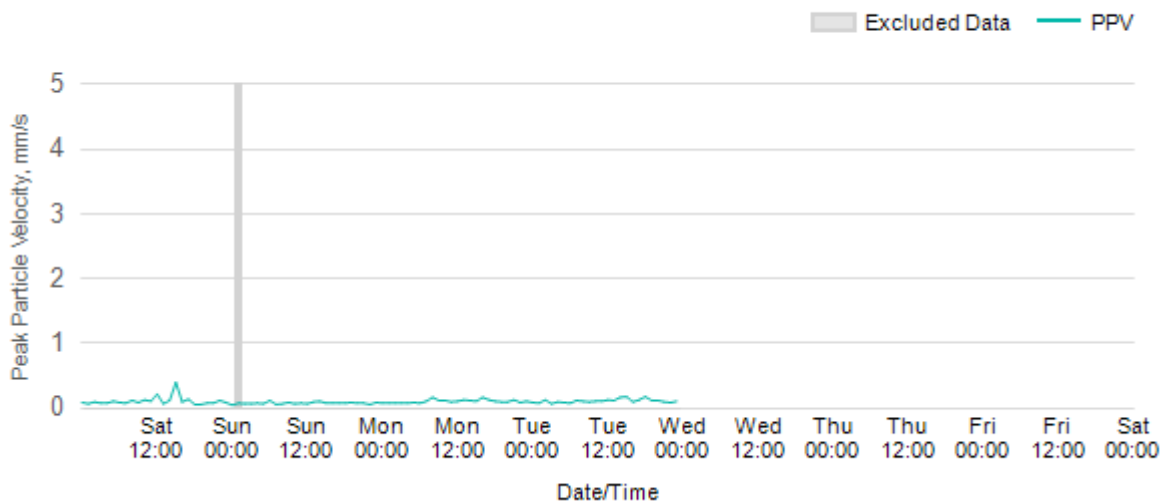
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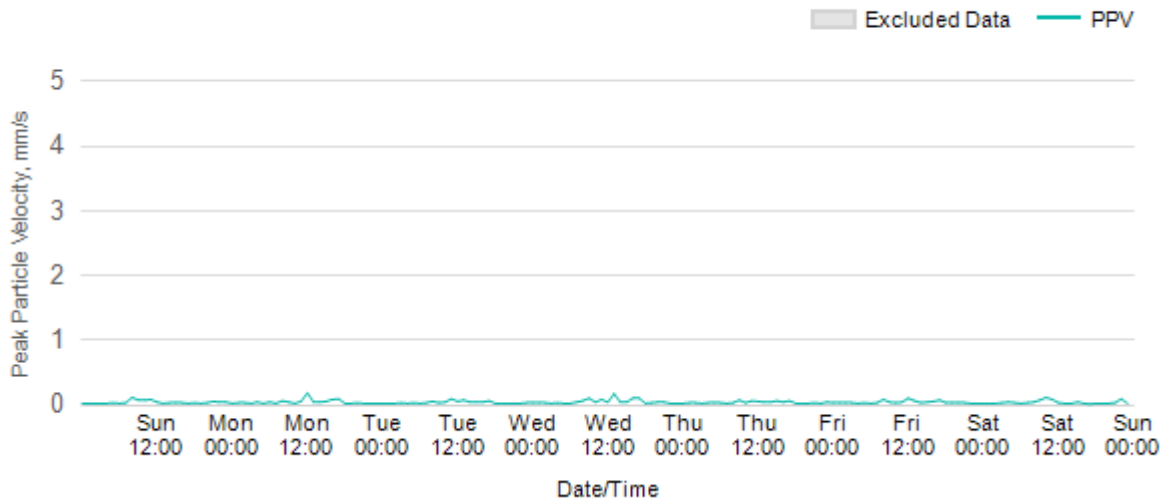


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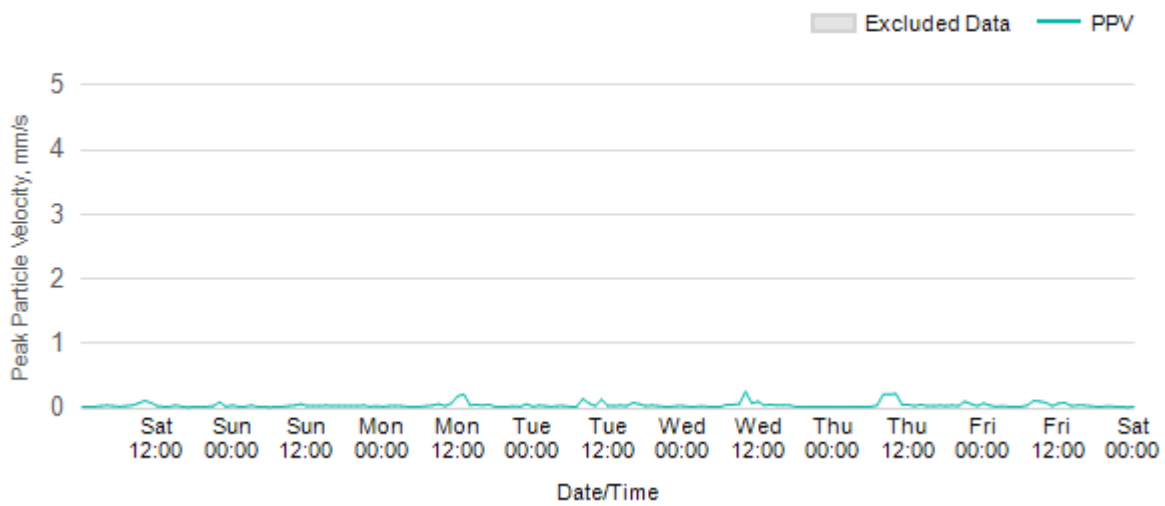


Worksite: ALO - Monitoring Ref: ALO-V5

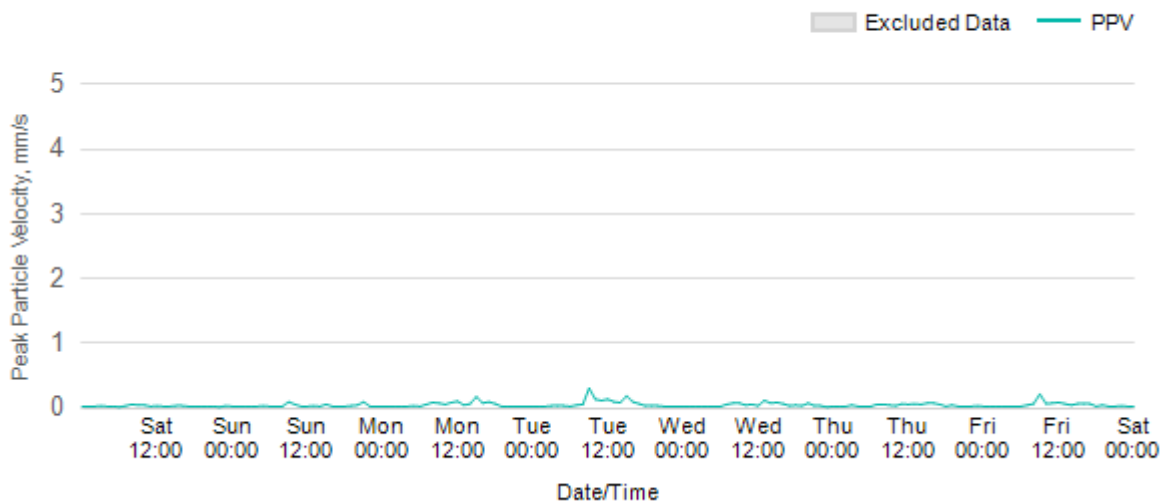
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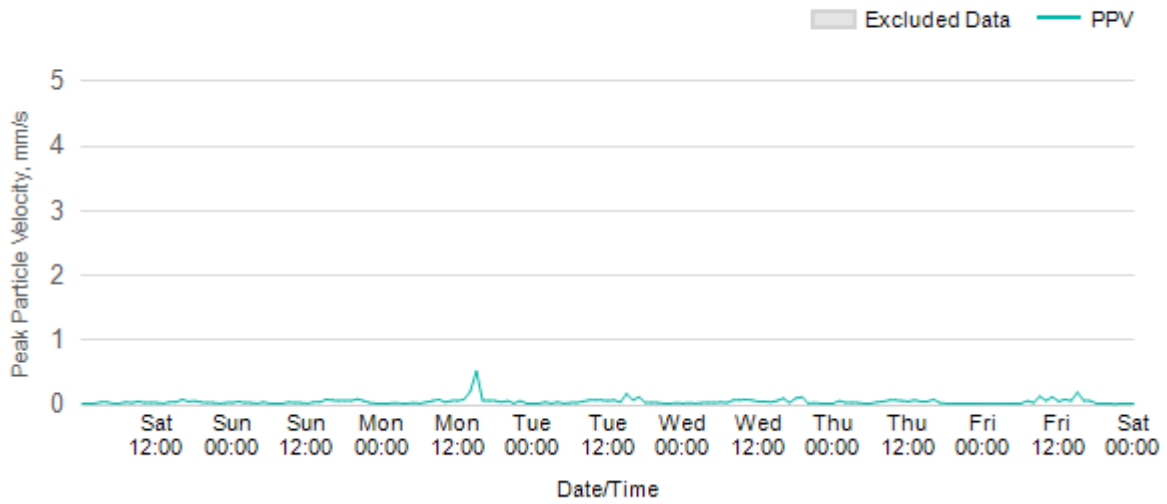
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Worksite: ALO Monitoring Ref: ALO-V5 15 March 2026 to 21 March 2026



Worksite: ALO Monitoring Ref: ALO-V5 22 March 2026 to 28 March 2026



Worksite: ALO Monitoring Ref: ALO-V5 29 March 2026 to 4 April 2026

