November 2025

HS2

Construction Noise and Vibration Monthly Report – September 2025

Warwick District Council

| Non- | Technical Summary | 1 |
|--------|--|--------|
| Abbr | reviations and Descriptions | 2 |
| 1 | Introduction | 3 |
| | 1.2 Measurement Locations | 5 |
| 2 | Summary of Results | 7 |
| | 2.1 Summary of Measured Noise and Vibration Levels | 7 |
| | 2.2 Exceedances of the LOAEL and SOAEL | 12 |
| | 2.3 Exceedances of Trigger Level | 16 |
| | 2.4 Complaints | 16 |
| Appe | endix A Site Locations | 17 |
| Appe | endix B Monitoring Locations | 24 |
| Арре | endix C Data | 30 |
| List o | of Tables | |
| | e 1: Table of Abbreviations e 2: Monitoring Locations | 2 5 |
| Table | e 3: Summary of Measured dB L _{Aeq} Data over the Monitoring Period | 8 |
| | e 4: Summary of Measured PPV Data over the Monitoring Period | 12 |
| | e 5: Summary of Exceedances of LOAEL and SOAEL | 13 |
| | e 6: Summary of Total Exceedances of SOAEL | 15 |
| | e 6: Summary of Exceedances of Trigger Levels | 16 |
| rable | e 7: Summary of Complaints | 16 |

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 Warwick District Council (WDC) area during the month of September 2025.

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

- Burton Green Tunnel worksite (ref.: BGT), where steel fixing works and tunnel works were underway.
- Burton Green Tunnel South Portal worksite (ref.: BSP), where landscape filling, structural works and topsoil stripping were underway.
- Bockenden Cutting worksite (ref.: BC), where site maintenance and structural works were underway.
- Kenilworth Road Overbridge worksite (ref.: A429), where road and water course realignment works, excavation and crushing were underway.
- A46 Compound and Dalehouse Lane worksite (ref.: A46C & DHL) where earthworks, wood cutting, vegetation strimming and vehicle movements were underway.
- Stoneleigh Village worksite (ref.: SV), where road realignment works were underway.
- Stoneleigh Park worksite (ref.: SP), where bridge construction works, dust suppression, usage of haul routes were underway.
- Cubbington Road worksite (ref.: C), where vegetation clearance, formwork, concrete pours, stell reinforcement works and earthworks were underway.
- Offchurch Cutting worksite (ref.: OC), where earthworks, haul road works, utility works, dust suppression, drainage and manhole installation, dig and replace, excavation, backfilling, waterproofing, vegetation clearance, landscaping, movements and deliveries 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 exceeded due to HS2 works on one (1) occasion during September 2025.

There were no exceedance(s) of trigger levels as defined in section 61 consents during the reporting period.

No complaints regarding noise and vibration were received by HS2 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 +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 June 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.
- 1.1.2 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 Warwick District Council (WDC) area for the period 1st to 30th September 2025.
- 1.1.3 Construction sites in the local authority area where noise and vibration monitoring were undertaken during this period include:
 - Burton Green Tunnel worksite (ref.: BGT, see plan 1 in Appendix A) where work activities included:
 - Steel fixing works
 - Doka system works on tunnel.
 - Burton Green Tunnel Southern Portal worksite (ref.: BSP, see plan 1 in Appendix A) where work activities included:
 - Landscape filling
 - Structural works
 - Topsoil stripping
 - Bockenden Cutting worksite (ref.: BC, see plan 1 in Appendix A), where no works were included:
 - Site maintenance
 - Fire tank structure works

- A429 Kenilworth Road Overbridge worksite (ref.: A429, see plan 2 in Appendix A), where work activities included:
 - o Road and water course realignment works.
 - Excavation
 - Crushing
 - Mainline cutting
- A46 Compound and Dalehouse Lane worksite (ref.: A46C & DHL, see plan 3 in Appendix A), where work activities included:
 - Wood cutting
 - Earthworks
 - Vegetation strimming
 - Vehicle movements
- Stoneleigh Village worksite (ref.: SV, see plan 3 in Appendix A), where work activities included:
 - Road realignment works including earthworks, landscaping, utility works and cement works
- Stoneleigh Park worksite (ref.: SP, see plan 3 in Appendix A), where work activities included:
 - Bridge construction works
 - Dust suppression.
 - Usage of haul routes.
- Cubbington Road worksite (ref.: C, see plan 4 in Appendix A), where work activities included:
 - Vegetation clearance
 - Reinforcement works
 - o River works including concrete pours and stell reinforcement works
 - Earthworks and formwork
- Offchurch Cutting worksite (ref.: OC, see plan 5 in Appendix A), where work activities included:
 - o Earthworks.
 - o Haul road works including diversion and maintenance.
 - Utility works including drainage.
 - Dust suppression.

- o Drainage and manhole installation.
- o Dig and replace including soil stabilisation.
- Excavation.
- o Backfilling.
- Waterproofing.
- Vegetation clearance.
- Duct installation.
- Deliveries.
- Landscaping.
- 1.1.4 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 Nineteen (19) noise and six (6) vibration monitoring installations were installed in June in the WDC area. Table 2 summarises the location of the noise and vibration monitoring installations within the WDC area in September 2025.
- 1.2.2 The noise monitor at measurement location ref.: SV-N2, worksite ref.: SV, was removed on the 5th of September as works in the vicinity / at the worksite have ceased.
- 1.2.3 Maps showing the position of the noise and vibration monitoring installations are presented in Appendix B.

Table 2: Monitoring Locations

| Worksite Reference | Measurement Reference | Address |
|-----------------------|--------------------------|--|
| BGT | BGT-N5 | Alms House, Cromwell Lane, Burton Green |
| | BGT-V3 | Alms House, Cromwell Lane, Burton Green |
| | BGT-N8 | 301 Cromwell Lane, Burton Green |
| | BGT-V11 | 301 Cromwell Lane, Burton Green |
| BSP | BSP-N1 | 33 Broadwell Woods, Red Lane, Burton Green, Kenilworth |
| ВС | BC-N1 | Thistle Estate, Red Lane, Burton Green |

| Worksite Reference | Measurement Reference | Address |
|-----------------------|--------------------------|--|
| A429 | A429-N1 | Millburn Grange, Coventry Road, Kenilworth |
| | A429-N2 | Brookview, Milburn Grange, Coventry Road, Kenilworth |
| | A429-N3 | 16 Kenilworth Road, Kenilworth |
| DHL | DHL-N1 | Four Winds, Dalehouse Lane, Kenilworth |
| A46C | A46C-N1 | Kingswood Farmhouse, Dalehouse Lane, Kenilworth |
| | A46C-V1 | Kingswood Farmhouse, Dalehouse Lane, Kenilworth |
| | A46C-N2 | A46 Barns, Dalehouse Lane, Kenilworth |
| SV | SV-N2 | 5 Birmingham Rd, Stoneleigh, Coventry |
| | SV-N4 | Crewe Lane, Stoneleigh, Coventry |
| SP | SP-N1 | Stoneleigh, Kenilworth |
| | SP-N2 | Stoneleigh Park, Kenilworth |
| | SP-V1 | Stoneleigh, Kenilworth |
| С | C-N1 | Wychwood, Cubbington Road, Leamington Spa |
| | C-V1 | Wychwood, Cubbington Road, Leamington Spa |
| ОС | OC-N1 | Welsh Road Farm, Welsh Road, Offchurch, Leamington Spa |
| | OC-N2 | Valley Fields, Offchurch, Leamington Spa |
| | OC-N3 | Brickyard Cottage, Welsh Road, Offchurch |
| | FOS-N1 | Long Itchington Road, Offchurch |
| | FOS-V1 | Long Itchington Road, Offchurch |

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 $L_{Aeq,T}$ is presented for each of the relevant time periods averaged over the calendar month, along with the highest single period $L_{Aeq,T}$ that was found to occur within the month.

Table 3: Summary of Measured dB L_{Aeq} Data over the Monitoring Period

| Worksite Reference | Measurement Reference | Site Address | Free-Field or Façade | çade | | | | | | ay Avera st Day L | | т | | Sunday / Public Holiday Average L _{Aeq,T} (Highest Day L _{Aeq,T}) | |
|-----------------------|--------------------------|---|-------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------------|----------------|----------------|----------------|--|----------------|
| | | | Measurement | 0700 - 0800 | 0800 - 1800 | 1800 - 1900 | 1900 - 2200 | 2200 - 0700 | 0700 - 0800 | 0800 - 1300 | 1300 - 1400 | 1400 - 2200 | 2200 - 0700 | 0700 - 2200 | 2200 - 0700 |
| BGT | BGT-N5 | Alms House, Cromwell Lane, Burton Green | Free-field | 50.7 (53.6) | 52.4 (67.7) | 48.3 (50.6) | 44.2 (48.8) | 40.8 (50.6) | 48.9 (50.5) | 49.8 (51.0) | 47.5 (50.1) | 47.1 (52.0) | 40.4 (48.0) | 47.7 (55.1) | 42.4 (52.4) |
| BGT | BGT-N8 | 301 Cromwell Lane, Burton Green | Free-field | 45.5 (47.4) | 60.0 (73.0) | 44.9 (52.1) | 41.6 (46.2) | 38.0 (45.6) | 43.9 (45.4) | 53.7 (56.2) | 45.3 (48.9) | 44.8 (49.6) | 39.2 (46.9) | 43.3 (49.0) | 39.5 (47.1) |
| BSP | BSP-N1 | 33 Broadwell Woods Caravan Park, Red Lane, Burton Green | Free-field | 46.0 (49.1) | 56.5 (66.4) | 45.9 (57.1) | 42.5 (57.4) | 38.8 (63.0) | 43.9 (44.4) | 46.5 (49.8) | 44.7 (47.8) | 44.1 (47.2) | 38.9 (47.7) | 42.8 (47.5) | 41.4 (58.5) |
| ВС | BC-N1 | Thistle Estate, Red Lane, Burton Green | Free-field | 41.3 (44.7) | 44.0 (67.0) | 40.3 (47.3) | 38.2 (46.7) | 36.6 (49.0) | 40.8 (41.3) | 42.1 (43.5) | 40.8 (42.8) | 41.0 (45.1) | 37.2 (50.0) | 40.5 (47.4) | 35.8 (44.9) |

| Worksite Reference | Measurement Reference | Site Address | Free-Field or Façade | | ay Aver st Day L | | л | | | ay Aver st Day L | | т | | Sunday Public I Averag (Highes L _{Aeq,T}) | Holiday e L _{Aeq,T} |
|-----------------------|--------------------------|--|-------------------------|----------------|---------------------|----------------|----------------|----------------|----------------|---------------------|----------------|----------------|----------------|---|---------------------------------|
| | | | Measurement | 0700 - 0800 | 0800 - 1800 | 1800 - 1900 | 1900 - 2200 | 2200 - 0700 | 0700 - 0800 | 0800 - 1300 | 1300 - 1400 | 1400 - 2200 | 2200 - 0700 | 0700 - 2200 | 2200 - 0700 |
| A429 | A429-N1 | Millburn Grange, Coventry Road, Kenilworth | Free-field | 50.4 (53.5) | 54.4 (67.7) | 52.9 (56.5) | 50.0 (54.5) | 49.2 (58.6) | 49.1 (50.4) | 50.3 (51.7) | 51.1 (51.6) | 49.8 (53.0) | 40.9 (48.6) | 49.0 (54.3) | 44.2 (50.5) |
| | A429-N2 | Brookview, Milburn Grange, Coventry Road, Kenilworth | Free-field | 49.3 (53.0) | 52.2 (60.3) | 49.4 (52.4) | 47.0 (55.2) | 45.4 (54.0) | 47.1 (49.0) | 50.2 (52.1) | 48.6 (49.3) | 46.7 (48.9) | 40.0 (47.2) | 47.9 (53.2) | 42.5 (50.7) |
| | A429-N3 | 16 Kenilworth Road, Kenilworth | Free-field | 51.7 (60.2) | 59.2 (66.3) | 52.3 (59.8) | 48.0 (58.0) | 45.5 (59.9) | 50.3 (56.3) | 57.8 (59.9) | 55.8 (59.1) | 53.5 (59.0) | 46.5 (56.0) | 57.0 (66.8) | 47.2 (56.3) |
| DHL | DHL-N1 | Four Winds, Dalehouse Lane, Kenilworth. | Free-field | 55.0 (57.0) | 57.8 (67.3) | 52.8 (67.3) | 47.9 (51.3) | 47.0 (55.5) | 49.7 (50.8) | 50.6 (51.0) | 50.9 (52.4) | 49.7 (52.3) | 45.1 (48.4) | 47.4 (51.5) | 46.8 (55.3) |
| A46C | A46C-N1 | Kingswood Farmhouse, Dalehouse Lane, Kenilworth | Free-field | 59.2 (61.6) | 61.6 (66.5) | 57.5 (61.2) | 55.7 (59.6) | 54.0 (62.5) | 57.5 (60.3) | 62.1 (62.7) | 61.5 (63.4) | 59.3 (62.9) | 51.1 (55.8) | 56.0 (60.5) | 54.2 (59.9) |
| | A46C-N2 | A46 Barns, Dalehouse Lane, Kenilworth | Free-field | 56.6 (58.7) | 58.0 (64.2) | 53.2 (57.1) | 52.5 (65.4) | 50.9 (59.2) | 54.5 (56.8) | 57.9 (60.0) | 57.6 (59.8) | 55.0 (60.2) | 47.6 (53.0) | 52.2 (57.3) | 51.5 (58.6) |

| Worksite Reference | Measurement Reference | Site Address | Free-Field or Façade Measurement | | ay Aver st Day L | | л | | Saturday Average L _{Aeq,T} (Highest Day L _{Aeq,T}) | | | | | Sunday / Public Holiday Average L _{Aeq,T} (Highest Day L _{Aeq,T}) | |
|-----------------------|--------------------------|--|--|----------------|---------------------|----------------|----------------|----------------|--|----------------|----------------|----------------|----------------|--|----------------|
| | | | Measurement | 0700 - 0800 | 0800 - 1800 | 1800 - 1900 | 1900 - 2200 | 2200 - 0700 | 0700 - 0800 | 0800 - 1300 | 1300 - 1400 | 1400 - 2200 | 2200 - 0700 | 0700 - 2200 | 2200 - 0700 |
| SV | SV-N2 | 5 Birmingham Rd, Stoneleigh, Coventry | Free-field | 54.3 (57.5) | 53.5 (54.8) | 52.6 (55.3) | 48.7 (52.0) | 44.3 (52.5) | - * - * | - * - * | - * - * | - * - * | - * - * | - * - * | - * (49.5) |
| | SV-N4 | Crewe Lane, Stoneleigh, Coventry | Free-field | 57.4 (62.8) | 60.2 (70.4) | 55.9 (60.6) | 53.6 (68.0) | 51.8 (69.5) | 52.7 (54.8) | 55.6 (58.6) | 54.2 (60.4) | 52.4 (57.5) | 50.1 (55.7) | 55.3 (62.5) | 52.5 (58.0) |
| SP | SP-N1 | Stoneleigh, Kenilworth | Free-field | 53.7 (55.1) | 56.7 (59.0) | 50.7 (53.4) | 48.0 (53.0) | 44.4 (52.8) | 49.4 (52.4) | 56.1 (57.1) | 53.5 (54.7) | 50.7 (55.3) | 45.2 (56.3) | 49.8 (55.0) | 45.2 (52.7) |
| | SP-N2 | Stoneleigh Park, Kenilworth | Façade | 55.6 (60.0) | 57.2 (70.3) | 50.7 (55.1) | 47.1 (55.1) | 44.0 (53.8) | 48.8 (49.8) | 54.5 (56.0) | 53.5 (55.2) | 52.4 (60.3) | 41.9 (50.5) | 49.5 (57.5) | 44.9 (52.1) |
| С | C-N1 | Wychwood, Cubbington Road, Lillington | Free-field | 53.0 (54.3) | 54.6 (63.5) | 51.9 (55.9) | 48.8 (55.0) | 43.8 (59.1) | 48.0 (49.8) | 53.2 (54.2) | 52.7 (53.3) | 51.0 (54.4) | 44.5 (52.7) | 51.0 (54.3) | 44.7 (52.9) |

| Worksite Reference | Measurement Reference | Site Address | Free-Field or Façade | | ay Aver st Day L | age L _{Aeq} _{Aeq,T}) | т | | | ay Avera st Day L | | т | | Sunday Public H Average (Highes L _{Aeq,T}) | Holiday e L _{Aeq,T} |
|-----------------------|--------------------------|---|-------------------------|----------------|---------------------|--|----------------|----------------|----------------|----------------------|----------------|----------------|----------------|--|---------------------------------|
| | | | Measurement | 0700 - 0800 | 0800 - 1800 | 1800 - 1900 | 1900 - 2200 | 2200 - 0700 | 0700 - 0800 | 0800 - 1300 | 1300 - 1400 | 1400 - 2200 | 2200 - 0700 | 0700 - 2200 | 2200 - 0700 |
| ОС | OC-N1 | Welsh Road Farm, Welsh Road, Offchurch | Free-field | 63.9 (65.4) | 62.6 (66.9) | 62.1 (67.9) | 58.7 (65.2) | 52.4 (60.5) | 59.5 (60.6) | 61.3 (62.0) | 61.0 (61.6) | 59.0 (61.5) | 50.5 (55.2) | 60.3 (70.1) | 52.1 (60.3) |
| | OC-N2 | Valley Fields, Offchurch | Free-field | 50.2 (53.0) | 52.2 (57.3) | 44.9 (52.7) | 42.1 (50.1) | 41.7 (50.7) | 48.9 (50.4) | 47.1 (48.2) | 49.1 (52.8) | 44.2 (53.0) | 41.8 (51.2) | 43.7 (49.2) | 44.5 (51.3) |
| | OC-N3 | Brickyard Cottage, Welsh Road, Offchurch | Free-field | 56.7 (68.1) | 56.9 (66.8) | 53.7 (57.9) | 50.8 (59.8) | 45.6 (65.3) | 50.4 (52.4) | 54.8 (58.6) | 51.6 (53.4) | 52.0 (58.6) | 46.9 (64.3) | 53.3 (67.3) | 46.3 (53.1) |
| | FOS-N1 | Long Itchington Road, Offchurch | Free-field | 48.9 (50.9) | 51.4 (60.2) | 44.4 (48.1) | 42.5 (49.4) | 40.2 (49.7) | 44.2 (45.5) | 49.2 (49.9) | 47.3 (48.5) | 46.7 (54.5) | 40.7 (47.4) | 44.0 (51.4) | 41.9 (51.7) |

^{*}No data measured within period due to the decommissioning of the monitor as works within the area have ceased.

2.1.2 Table 4 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 |
|-----------------------|--------------------------|--|---|
| BGT | BGT-V3 | Alms House, Cromwell Lane, Burton Green | 1.29 (Y-axis) |
| | BGT-V11 | 301 Cromwell Lane, Burton Green | 3.44 (Z-axis) |
| A46C | A46C-V1 | Kingswood Farmhouse, Dalehouse Lane, Kenilworth | 5.37 (Z-axis) |
| SP | SP-V1 | East Lodge, Stoneleigh | 1.12 (Y-axis) |
| ОС | FOS-V1 | Long Itchington Road, Offchurch | 0.87 (Y-axis) |
| С | C-V1 | Wychwood, Cubbington Road, Lillington | 5.85 (X-axis) |

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 L_{Aeq} values and, where relevant, the L_{Aeq,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 LOAELs and SOAELs for construction noise.
- 2.2.4 Where reported construction noise levels exceed the LOAEL and SOAEL, relevant periods will be identified. Summary statistics to evaluate ongoing qualification for noise insulation and temporary rehousing are also presented where relevant.
- 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 |
|-----------------------|--------------------------|--|--|----------------|--------------------------------|--------------------------------|
| BGT | BGT-N5 | Alms House, Cromwell Lane, Burton Green, Warwick | Weekday | 0800-1800 | 2 | No exceedances |
| | BGT-N8 | 301 Cromwell Lane, Burton Green, Warwick | Weekday | 0800-1800 | 5 | 1 |
| BSP | BSP-N1 | 33 Broadwell Woods Caravan Park, Red Lane, Burton Green | Weekday | 0800-1800 | 4 | No exceedances |
| ВС | BC-N1* | Thistle Estate, Red Lane, Burton Green | Weekday | 0800-1800 | 1 | No exceedances |

| Worksite Reference | Measurement Reference | Site Address | Day (Weekday, Saturday, Sunday, Night) | Time period | Number of exceedances of LOAEL | Number of exceedances of SOAEL |
|-----------------------|--------------------------|---|--|----------------|--------------------------------|--------------------------------|
| A429 | A429-N1 | Millburn Grange, Coventry Road, Kenilworth | Weekday | 0800-1800 | 1 | No exceedances |
| | A429-N2 | Brookview, Milburn Grange, Coventry Road, Kenilworth | All days | All periods | No exceedances | No exceedances |
| | A429-N3 | 16 Kenilworth Road, Kenilworth | Weekday | 0800-1800 | 1 | No exceedances |
| DHL | DHL-N1* | Four Winds, Dalehouse Lane, Kenilworth. | Weekday | 0800-1800 | 1 | No exceedances |
| A46C | A46C-N1* | Kingswood Farmhouse, Dalehouse Lane, Kenilworth | Weekday | 0800-1800 | 1 | No exceedances |
| | A46C-N2* | A46 Barns, Dalehouse Lane, Kenilworth | All days | All periods | No exceedances | No exceedances |
| SV | SV-N2 | 5 Birmingham Rd, Stoneleigh | All days | All periods | No exceedances | No exceedances |
| | SV-N4 | Crewe Lane, Stoneleigh, Coventry | Weekday | 0800-1800 | 2 | No exceedances |
| SP | SP-N1* | Stoneleigh Park, Kenilworth | All days | All periods | No exceedances | No exceedances |
| | SP-N2* | Stoneleigh Park, Kenilworth | Weekday | 0800-1800 | 1 | No exceedances |
| С | C-N1 | Wychwood, Cubbington Road, Lillington Spa | All days | All periods | No exceedances | No exceedances |

| Worksite Reference | Measurement Reference | Site Address | Day (Weekday, Saturday, Sunday, Night) | Time period | Number of exceedances of LOAEL | Number of exceedances of SOAEL |
|-----------------------|--------------------------|---|--|----------------|--------------------------------|--------------------------------|
| ос | OC-N1* | Welsh Road Farm, Welsh Road, Offchurch | All days | All periods | No exceedances | No exceedances |
| | OC-N2 | Valley Fields, Hunningham Road, Offchurch | All days | All periods | No exceedances | No exceedances |
| | OC-N3* | Brickyard Cottage, Welsh Road, Offchurch, | Weekday | 0800-1800 | 3 | No exceedances |
| | FOS-N1* | Long Itchington Road, Offchurch | All days | All periods | No exceedances | No exceedances |

^{*} Note: A distance correction has been applied while calculating exceedances of the LOAEL and SOAEL.

- 2.2.6 There were exceedances of the LOAEL due to HS2 construction works at eleven (11) monitoring locations during weekday daytime periods.
- 2.2.7 There were exceedances of the SOAEL due to HS2 construction works at one (1) monitoring location during weekday daytime periods.
- 2.2.8 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 |
|-----------------------|--------------------------|---|---|
| BGT | BGT-N8 | 301 Cromwell Lane, Burton Green, Warwick | 1 |

2.2.9 There was one (1) 24-hour periods where the SOAEL was exceeded due to HS2 construction works during September 2025

2.3 Exceedances of Trigger Level

2.3.1 Table 6 provides a summary of exceedances of the Section 61 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 7 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 |
|----------------------------------|-----------------------|-----------------------------|--------------------------|---------------|
| - | - | - | - | - |

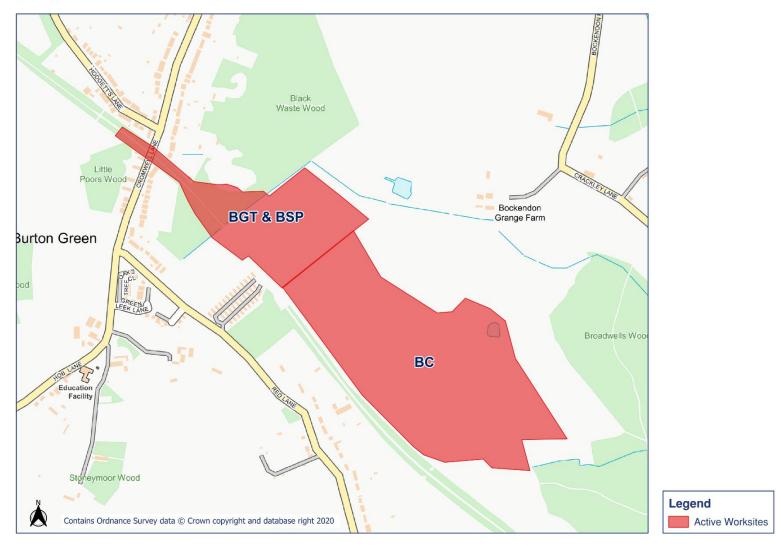
Appendix A Site Locations

HS2 Worksite Identification Plan - Overview

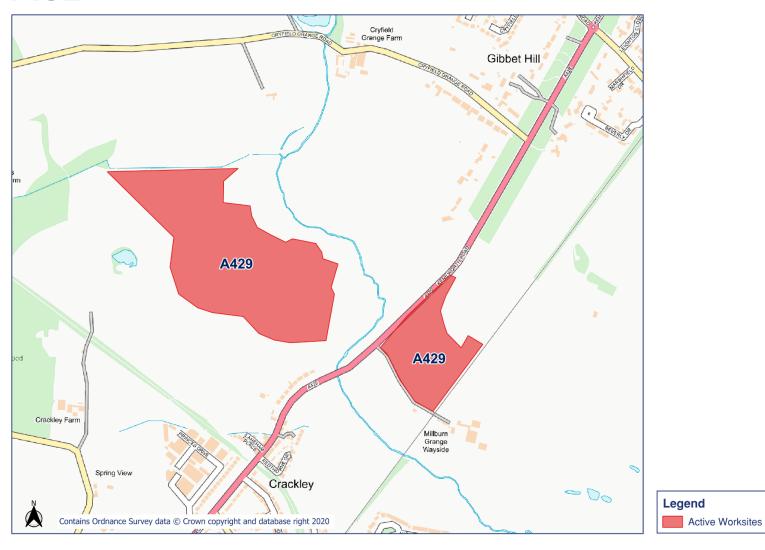


HS2

Worksite Identification Plan - 1

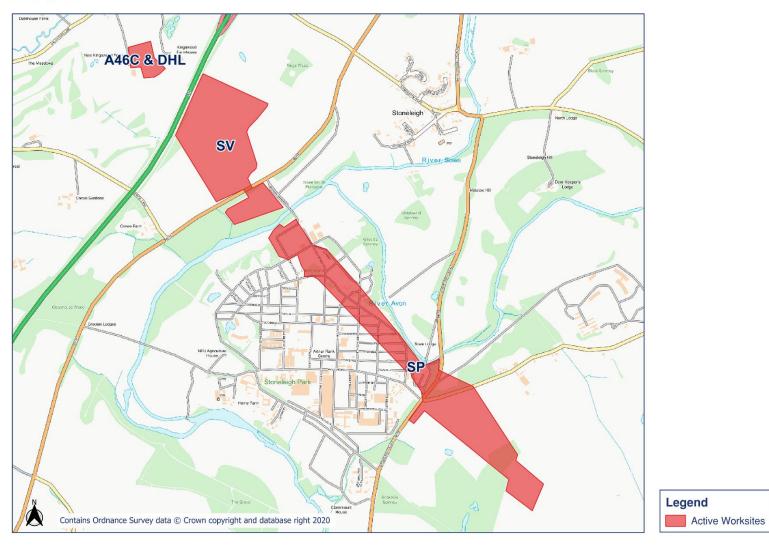


HS2 Worksite Identification Plan - 2



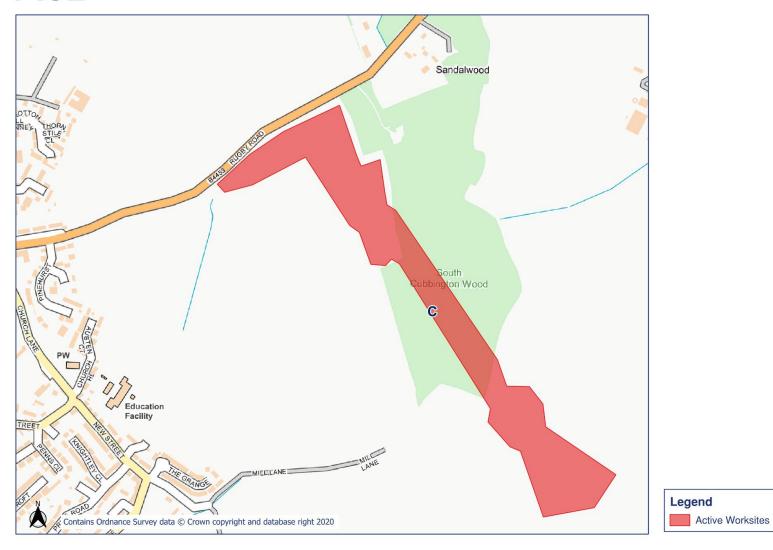
HS2

Worksite Identification Plan - 3

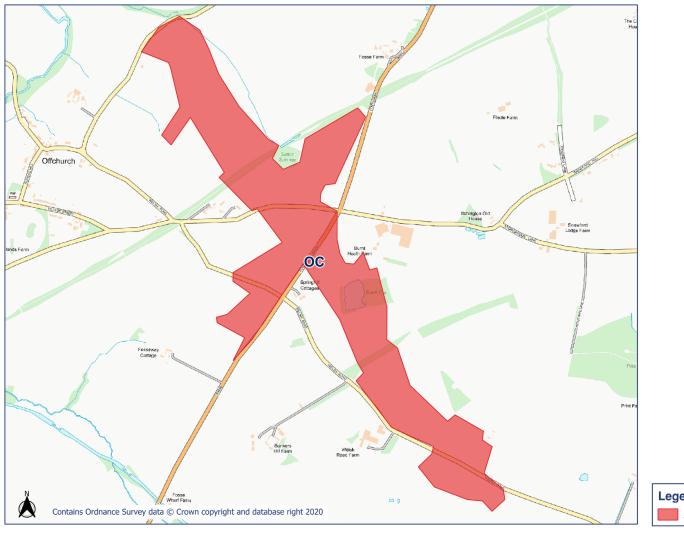


HS2

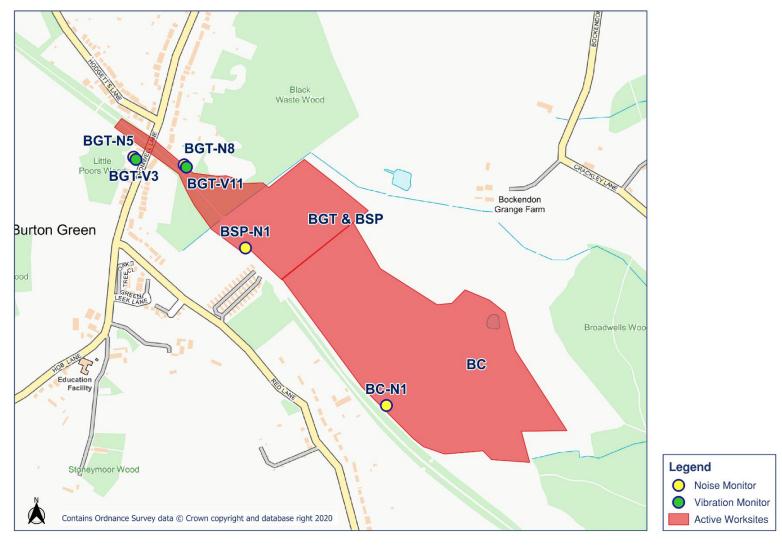
Worksite Identification Plan - 4

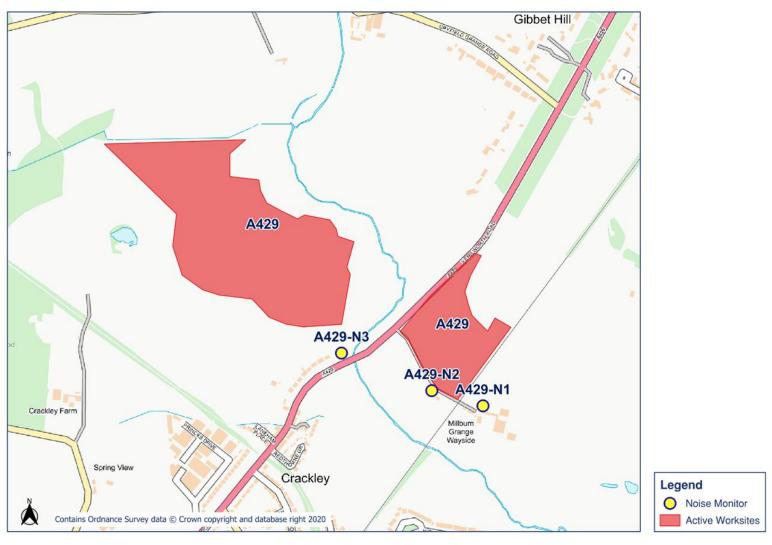


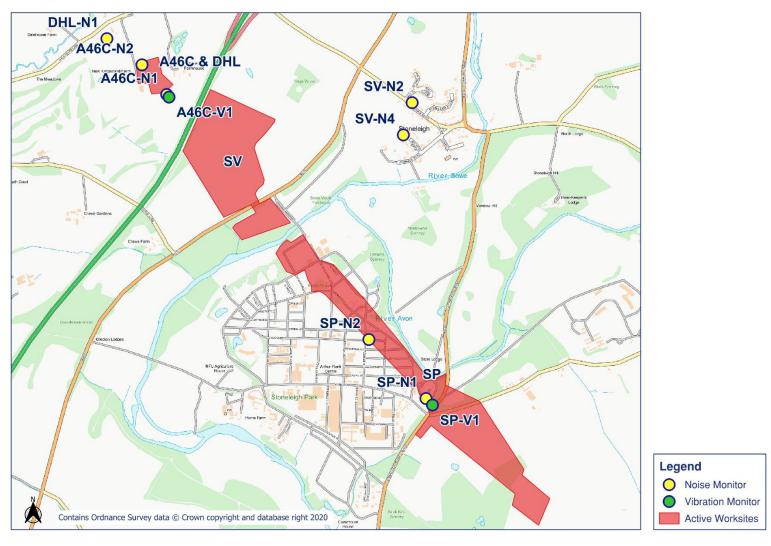
HS2 Worksite Identification Plan - 5

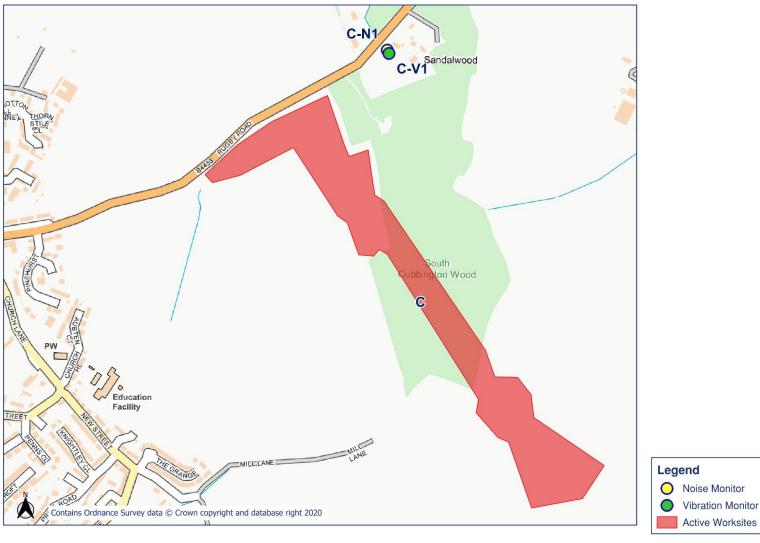


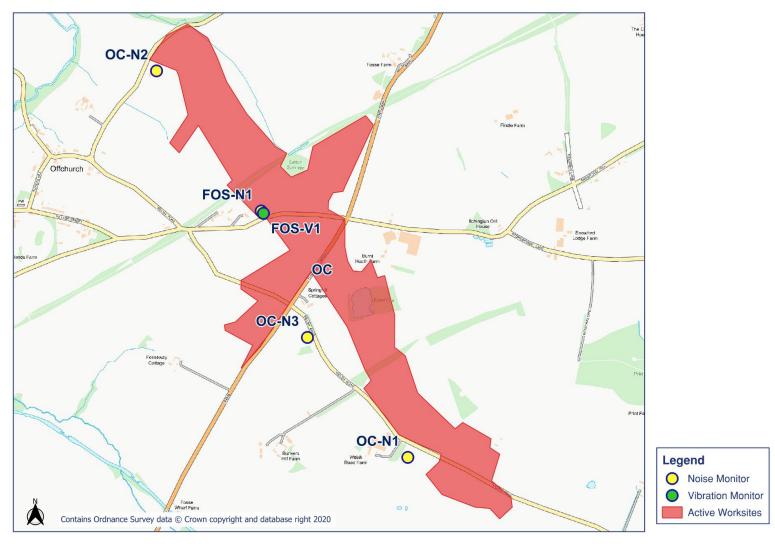
Appendix B Monitoring Locations









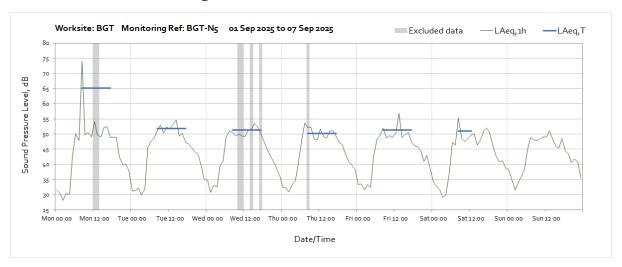


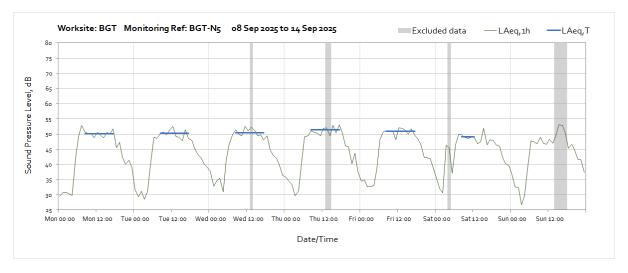
Appendix C Data

Noise

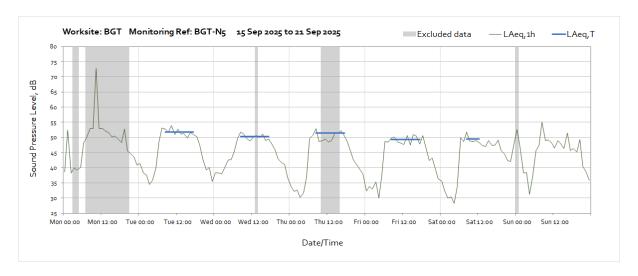
The following graphs show the hourly measured ambient noise level $L_{Aeq,1h}$ and, where relevant, the averaged noise level $L_{Aeq,T}$ values, where the time period T is as specified in Table 1 of HS2 Information Paper E23. Periods where noise levels are adversely affected by weather or only measured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

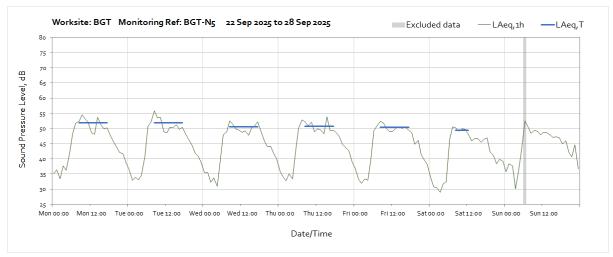
Worksite: BGT - Monitoring Ref: BGT-N5

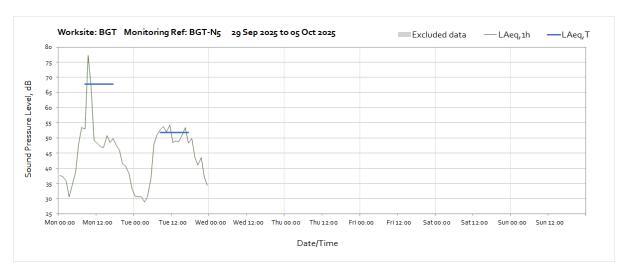




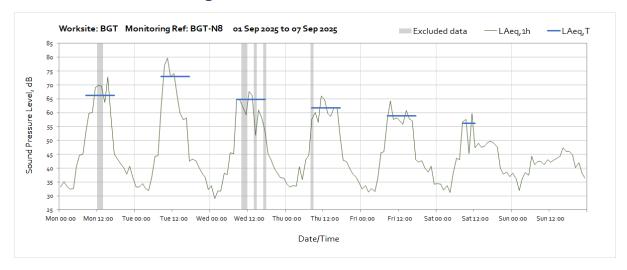
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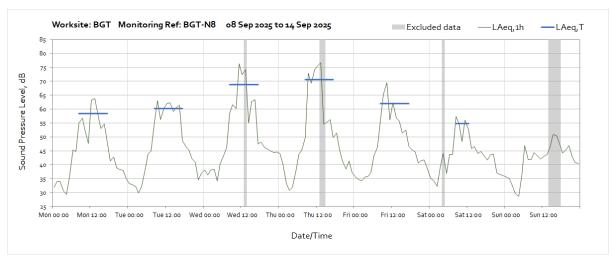


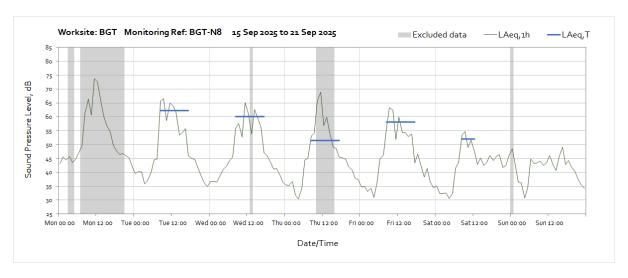


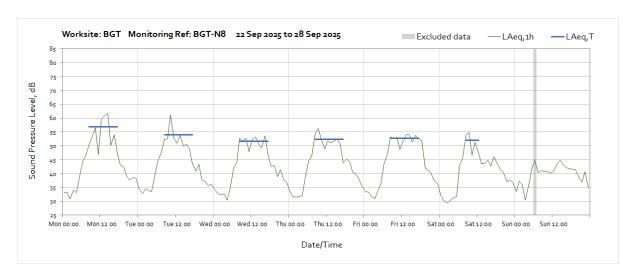


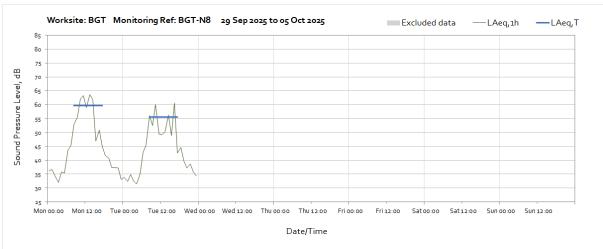
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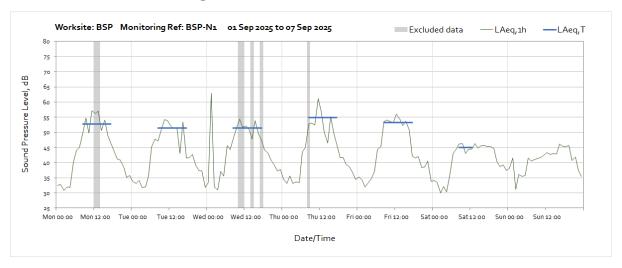


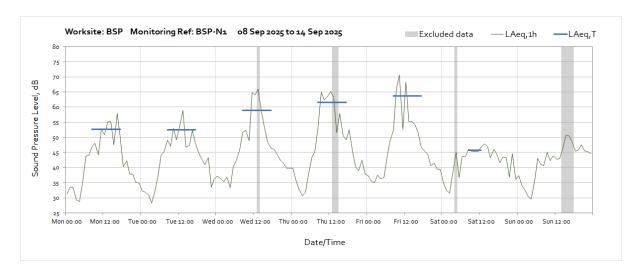


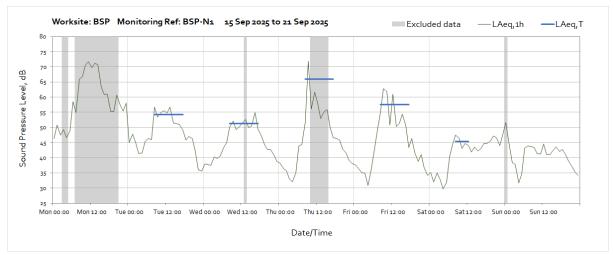


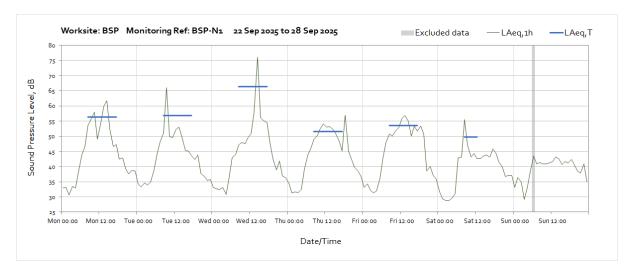


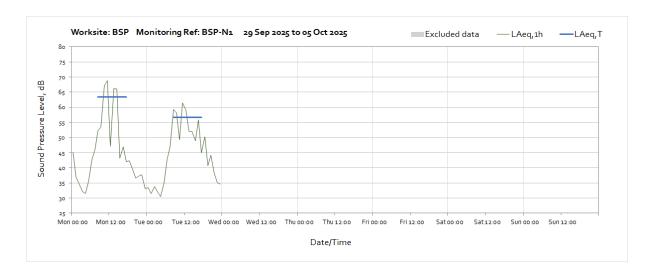
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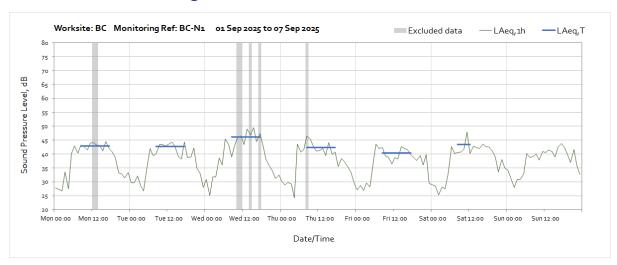


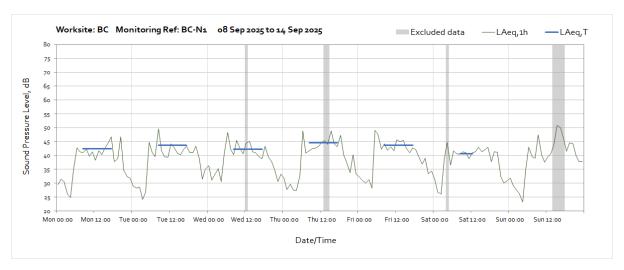


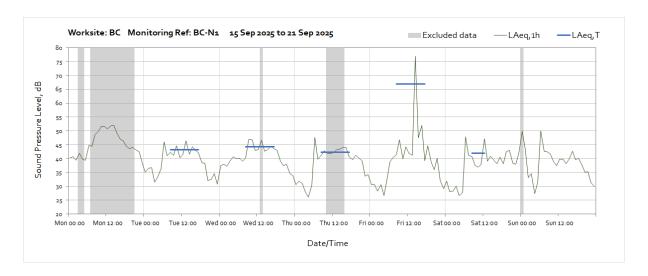


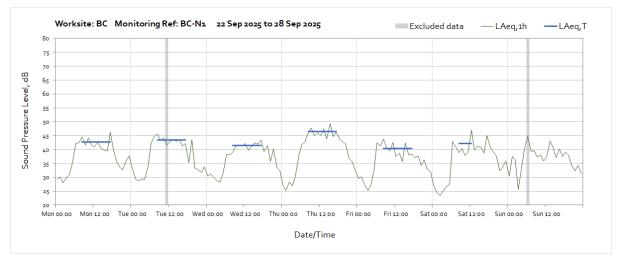


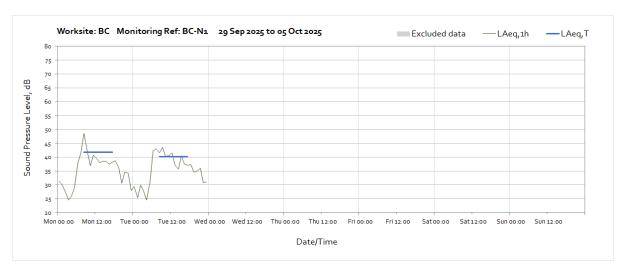
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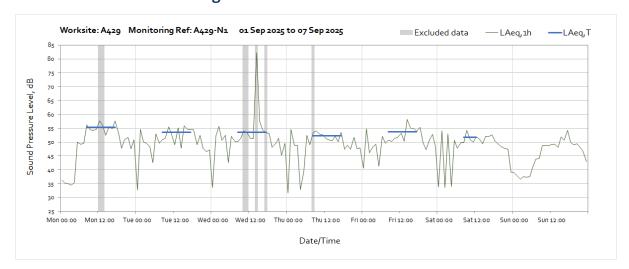


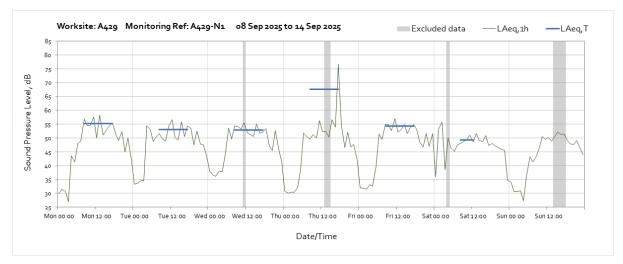


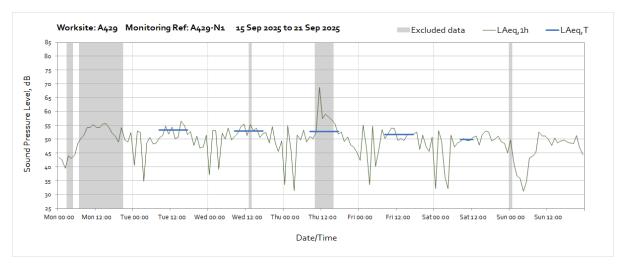


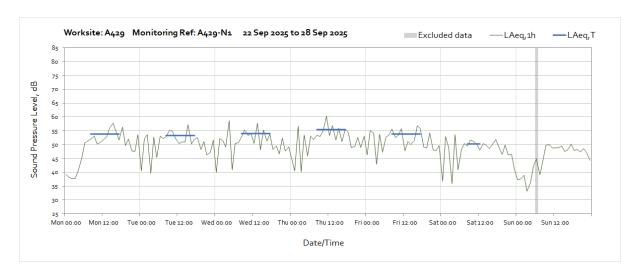


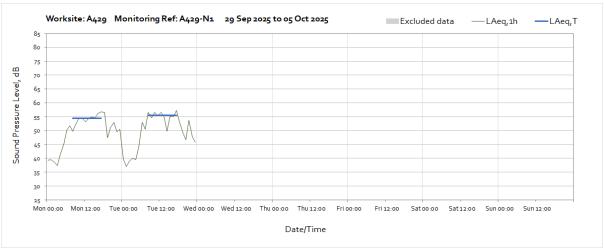
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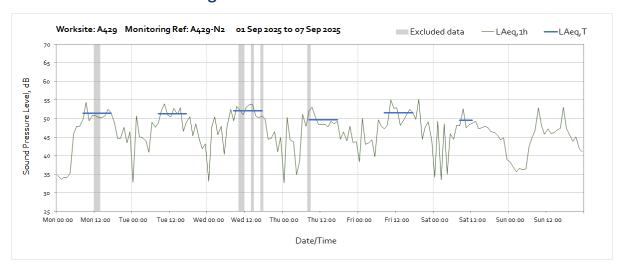


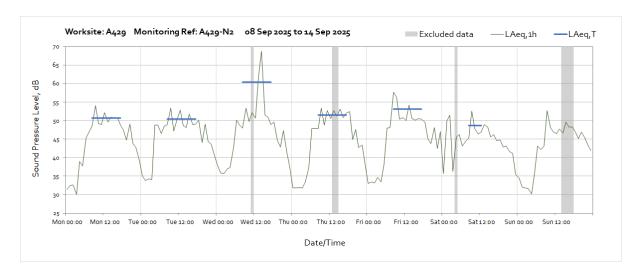




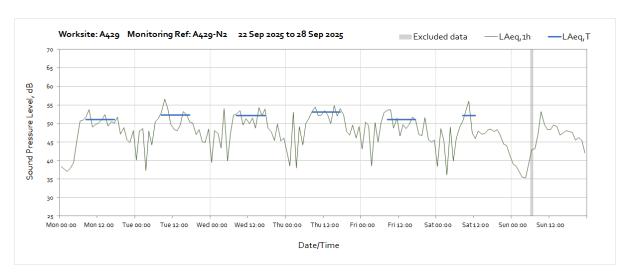


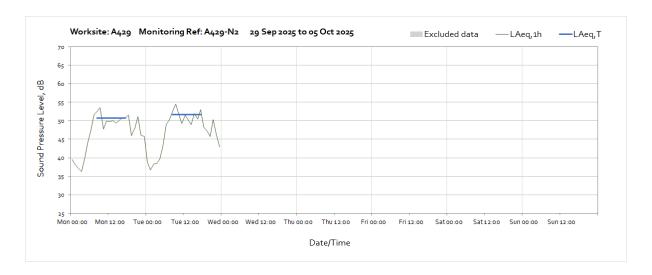
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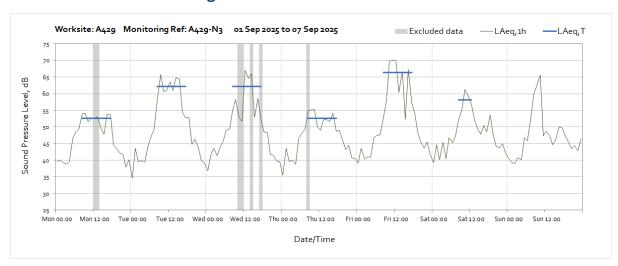


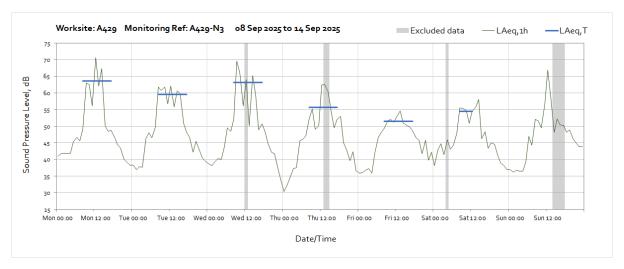


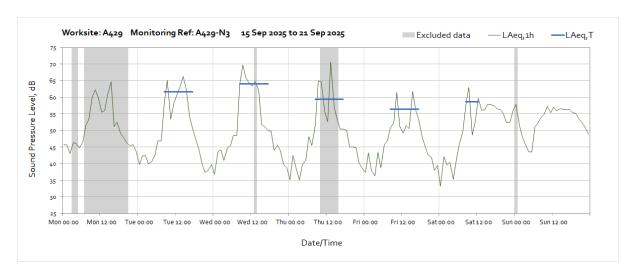




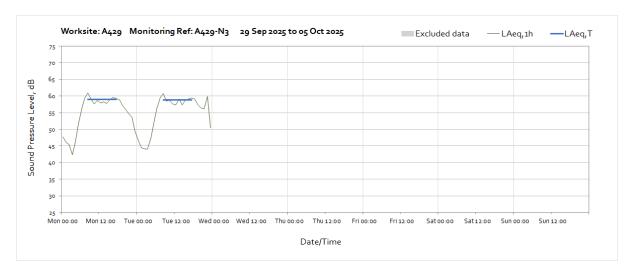
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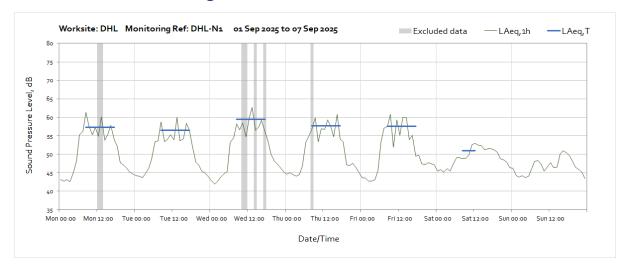


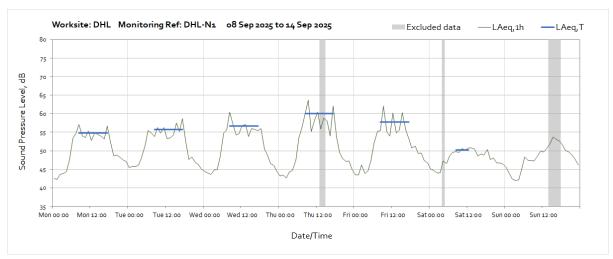


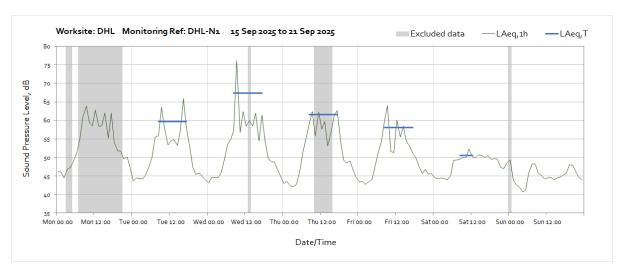


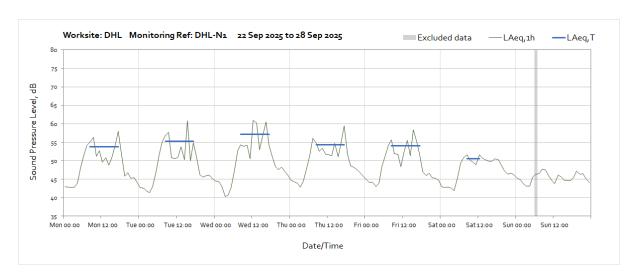


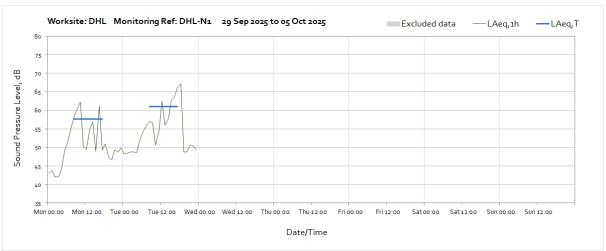
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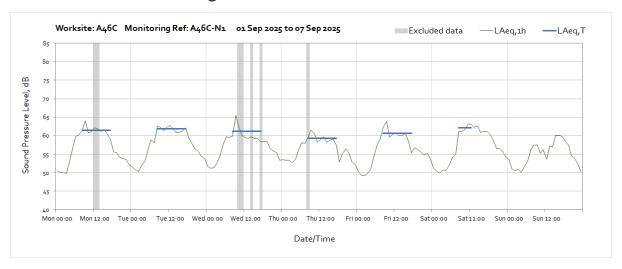


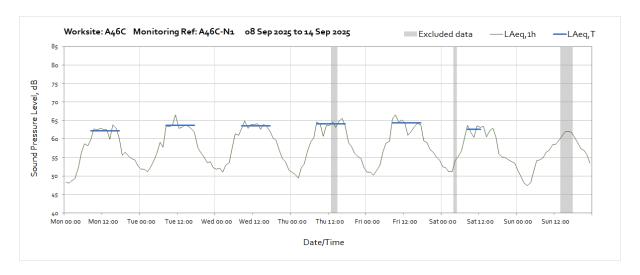


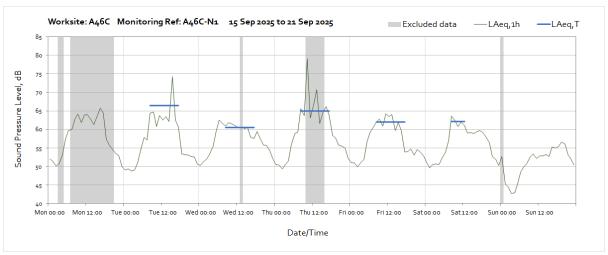


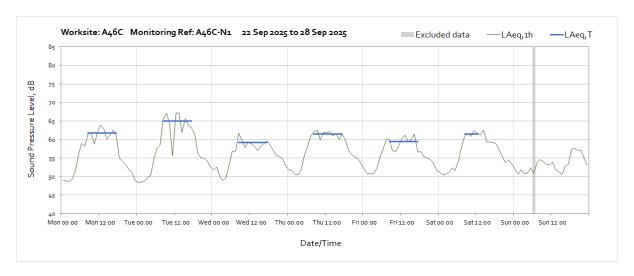


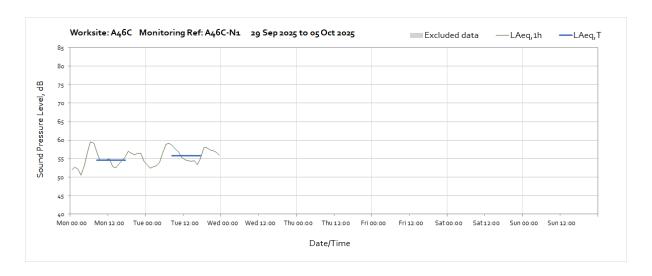
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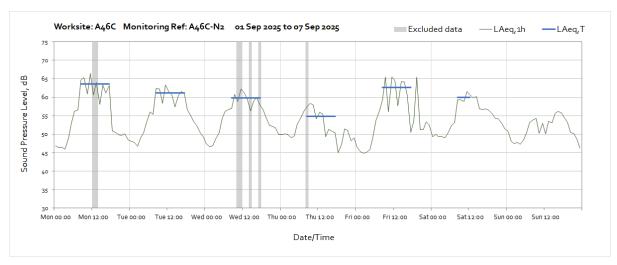


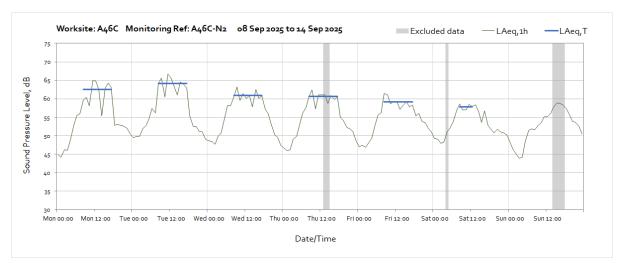


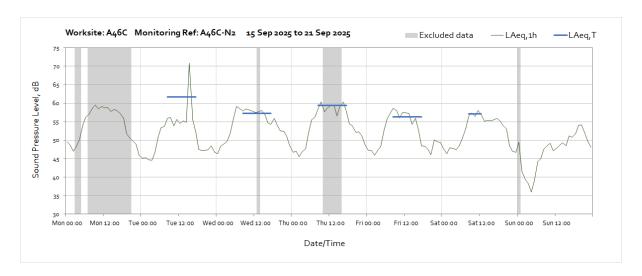


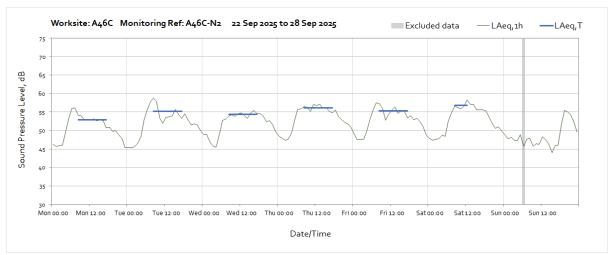


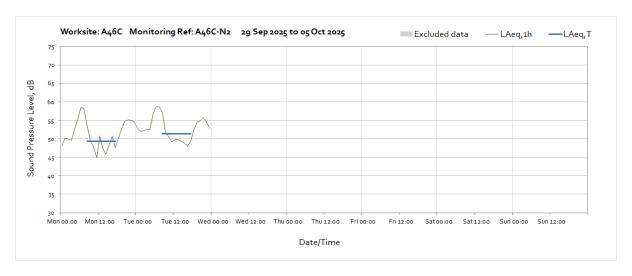
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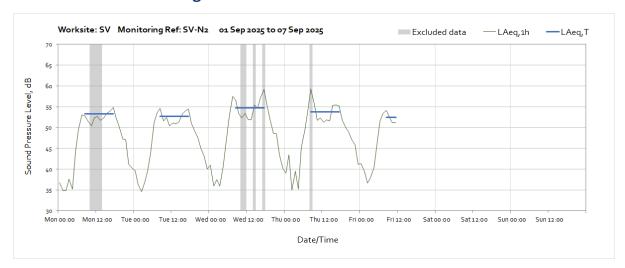






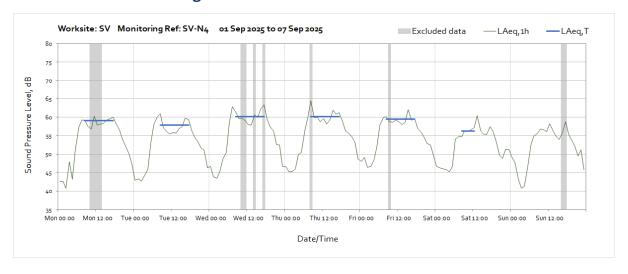


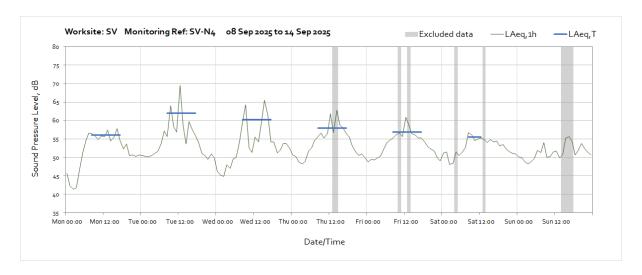
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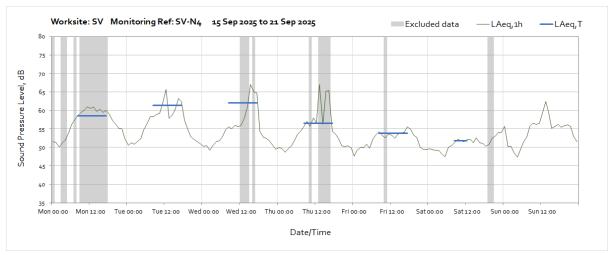


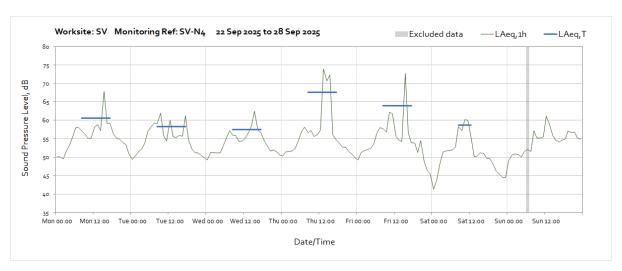
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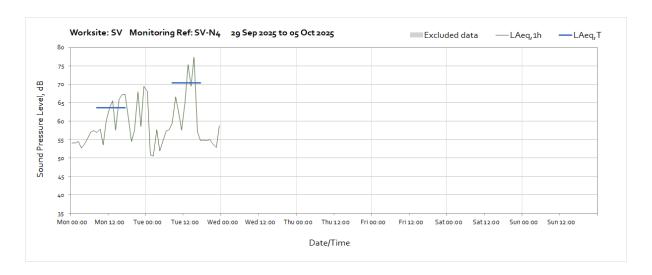
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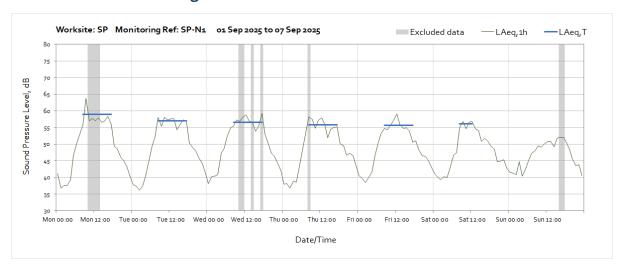


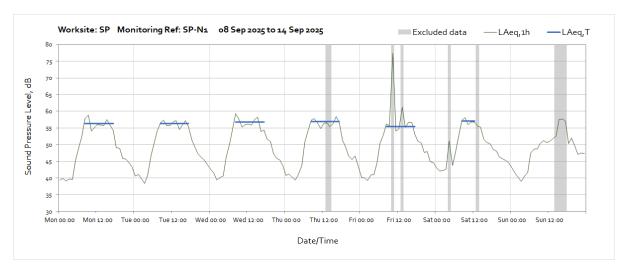


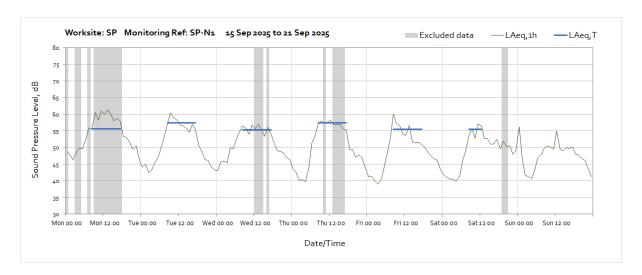


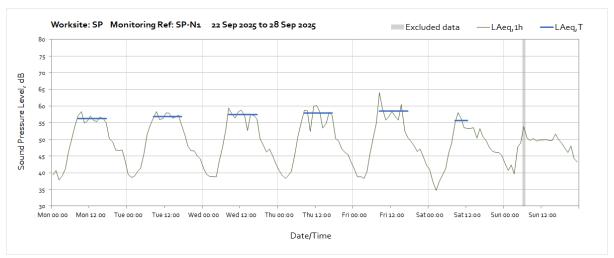


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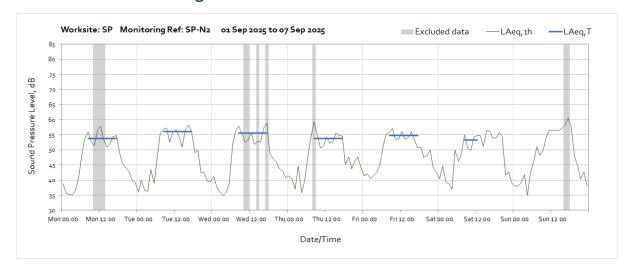


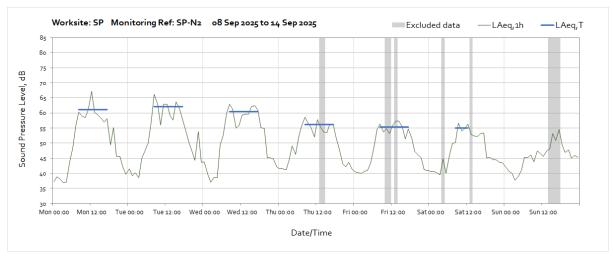


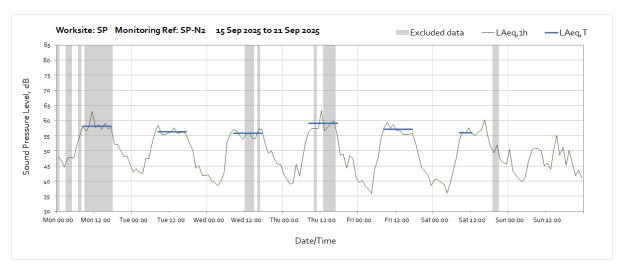


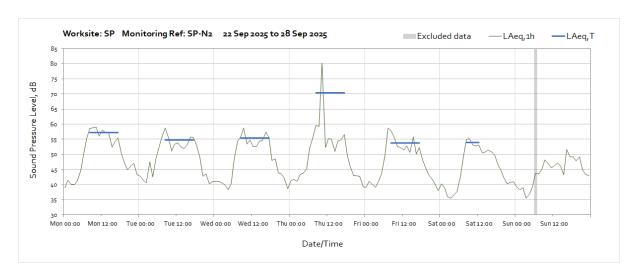


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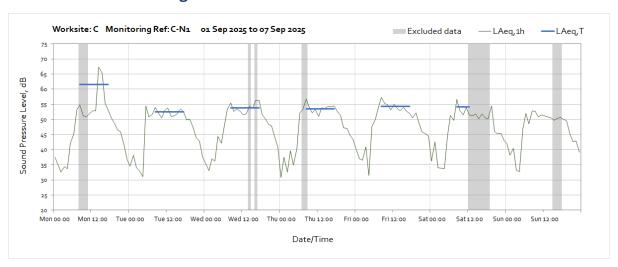


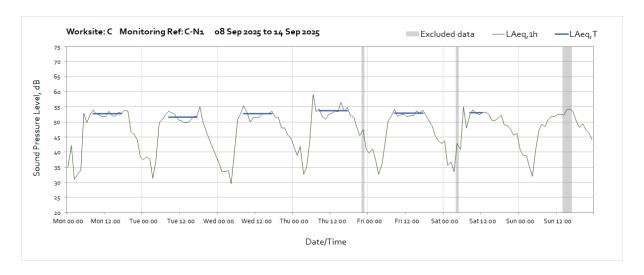




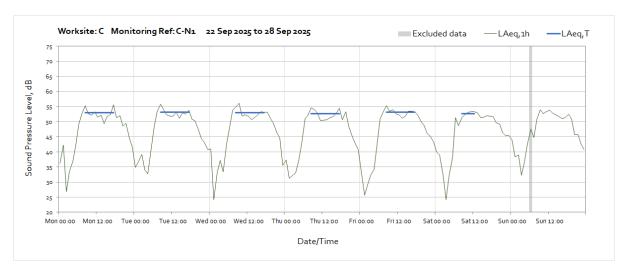


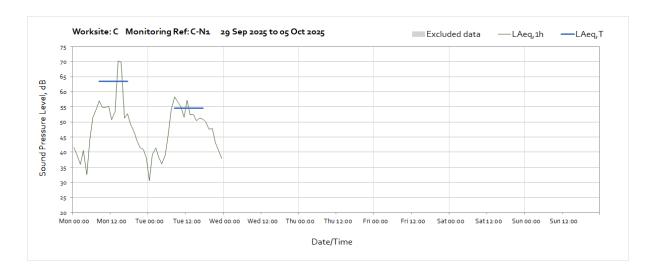
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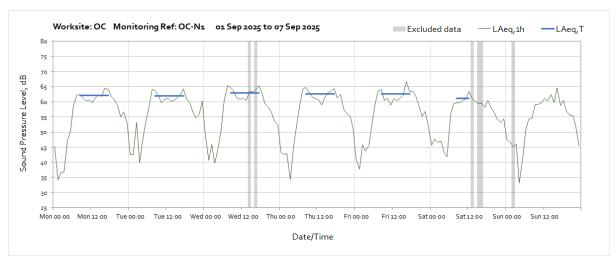


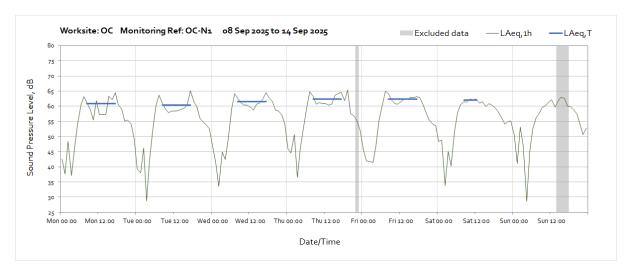


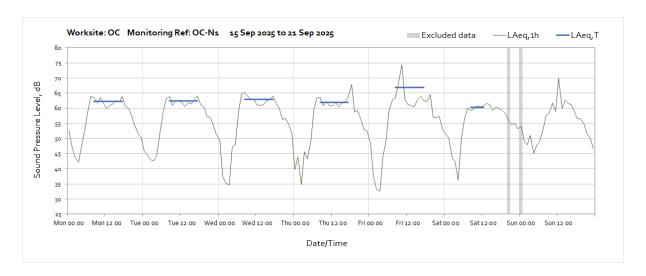


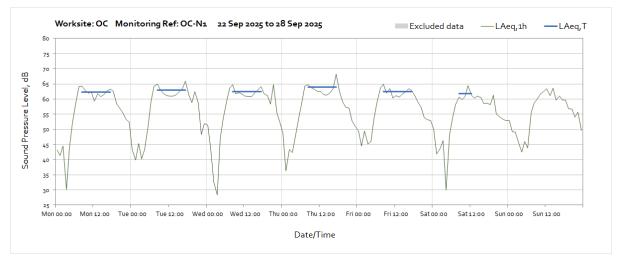


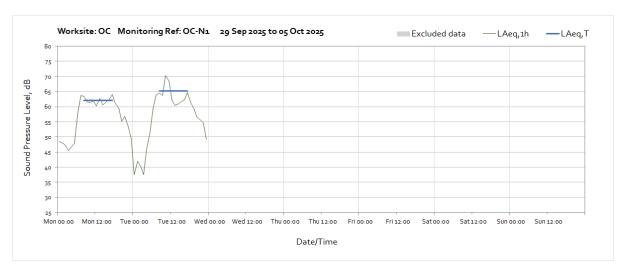
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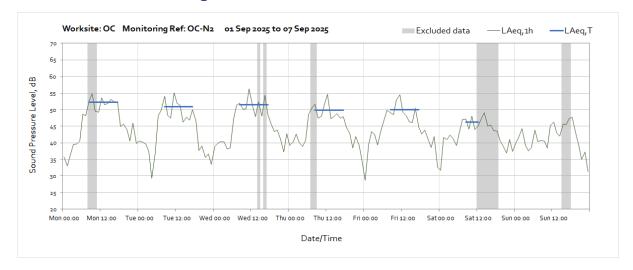


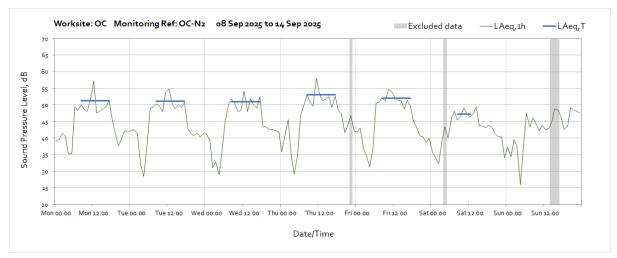


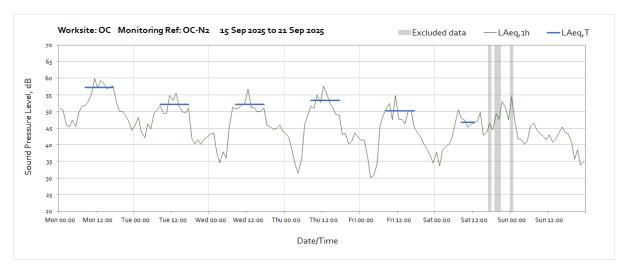


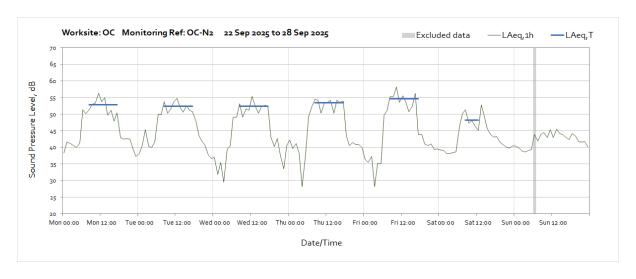


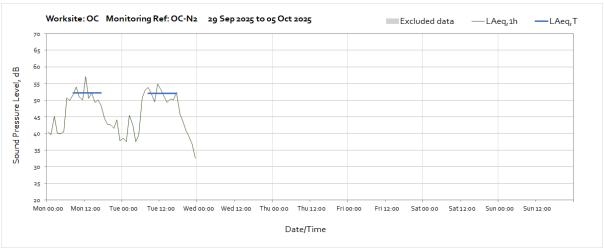
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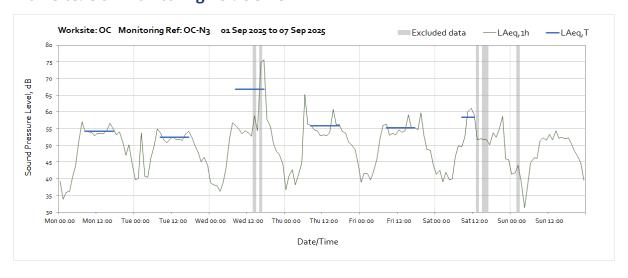


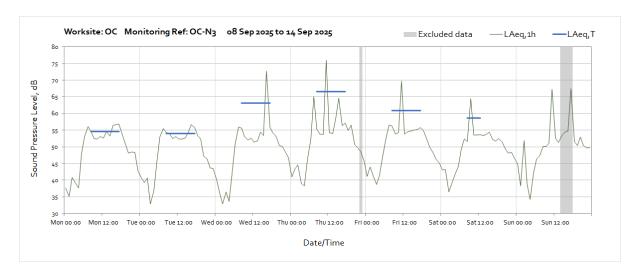


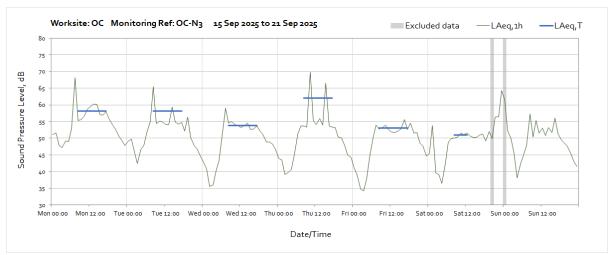


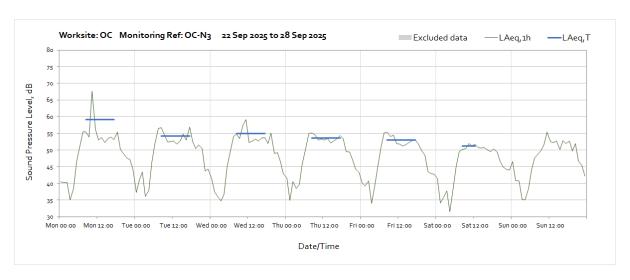


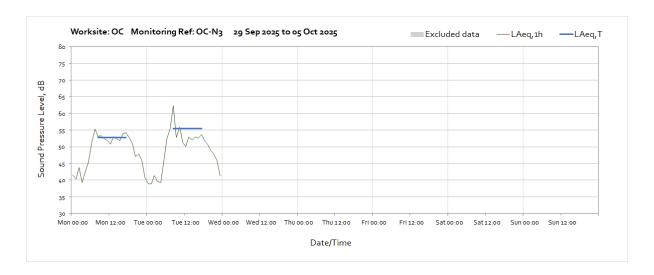
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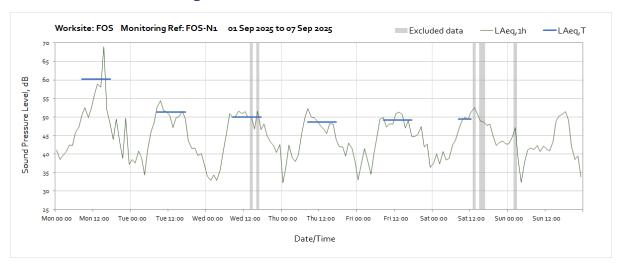


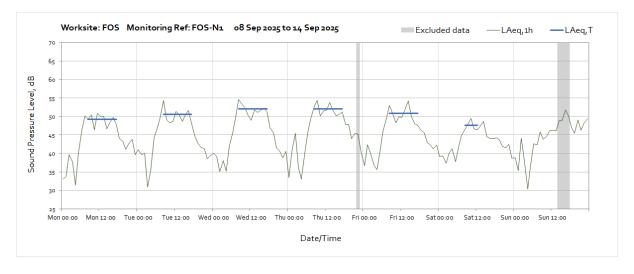


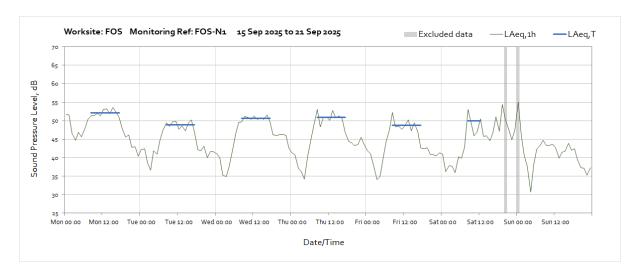


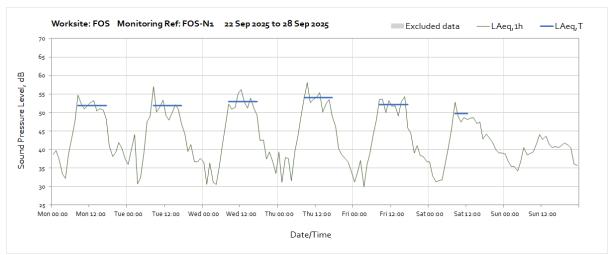


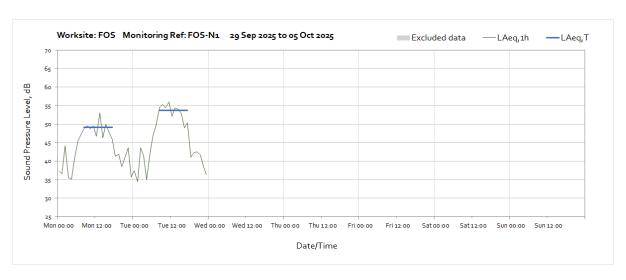
Worksite: OC - Monitoring Ref: FOS-N1







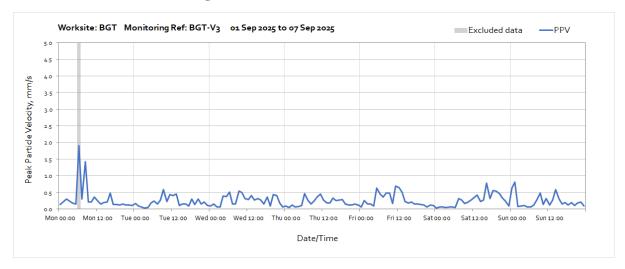


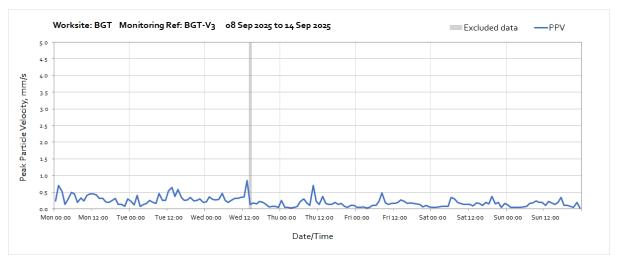


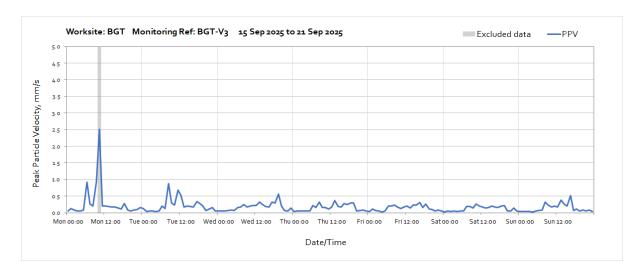
Vibration

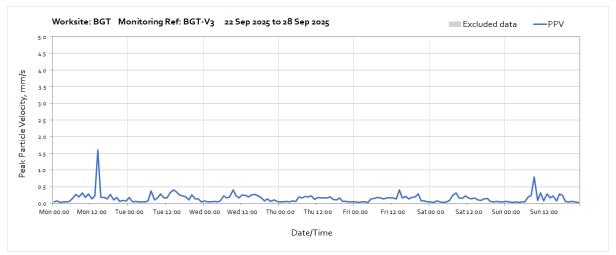
The following graphs show the hourly measured peak particle velocity PPV recorded during the monitoring period. The graphs show the highest PPV of the three orthogonal axes x, y and z. Periods where PPV values have been affected by local interference with the vibration monitor or only measured for part of the period, which are not representative of HS2 construction works , have been greyed out and excluded when calculating values in Table 4 of the main report.

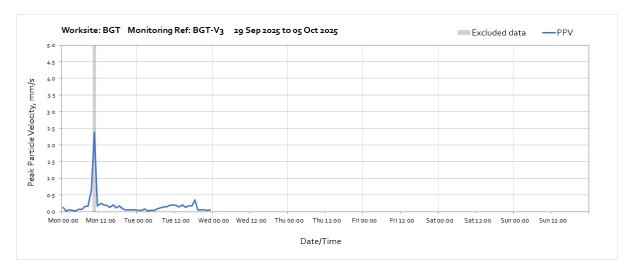
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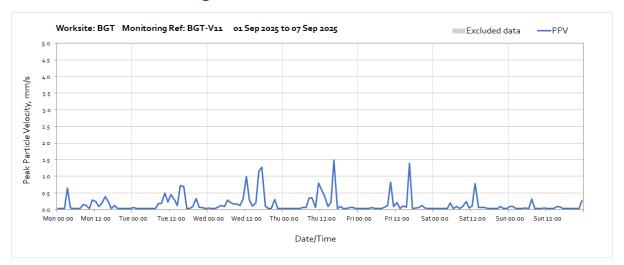


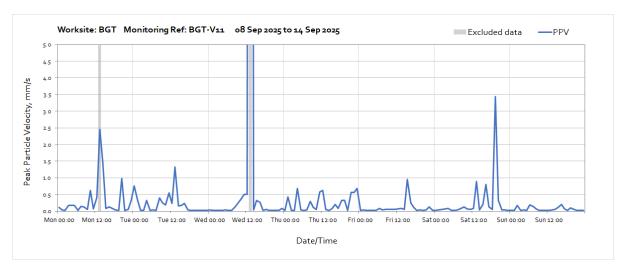


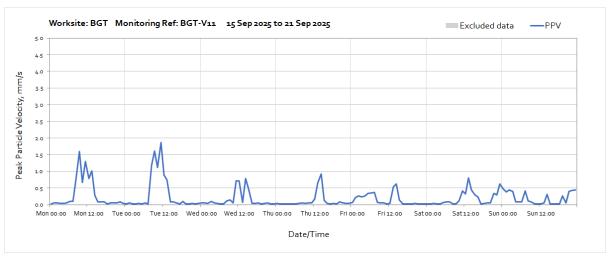


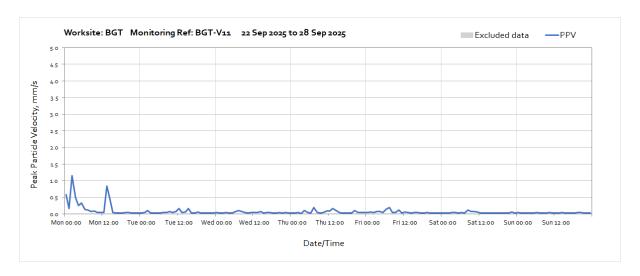


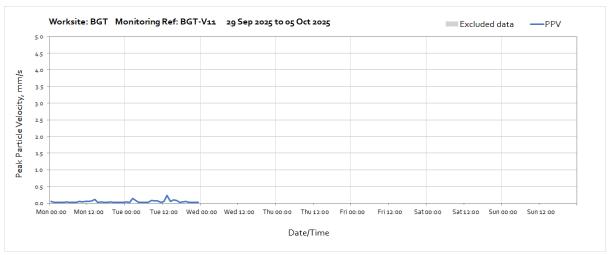
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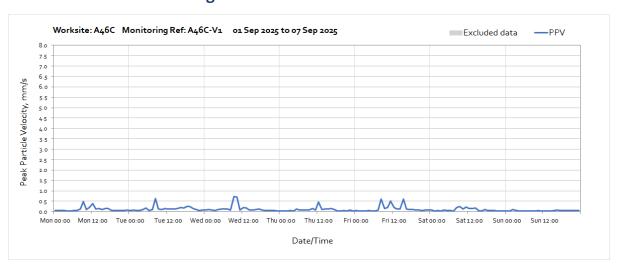


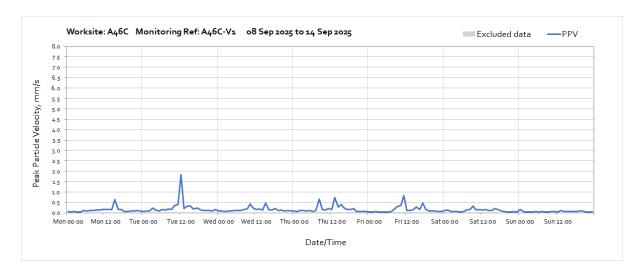


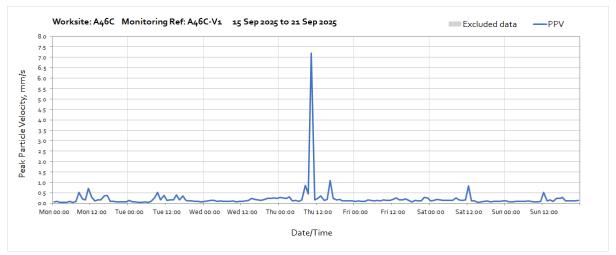


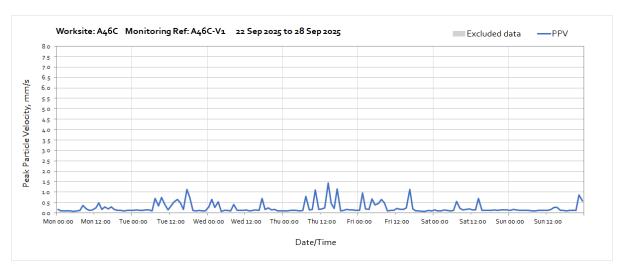


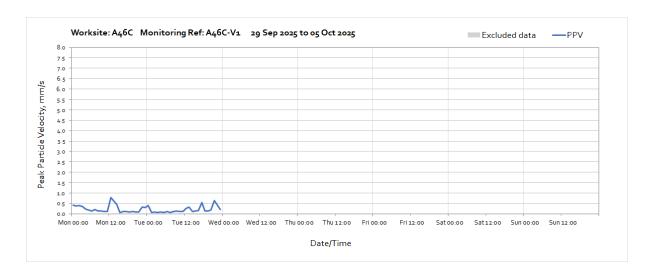
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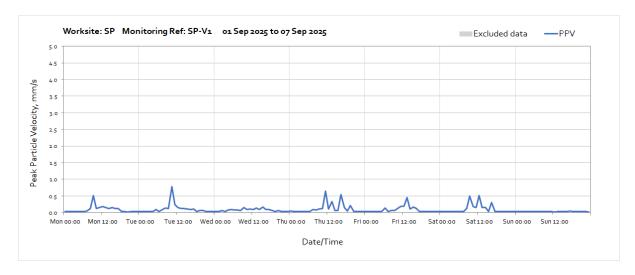


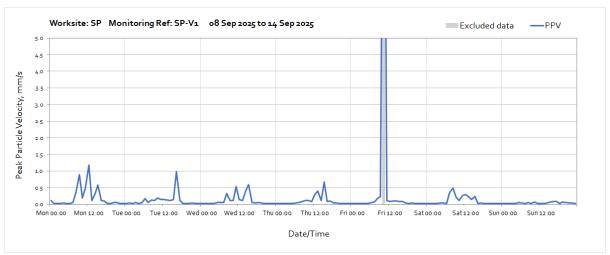


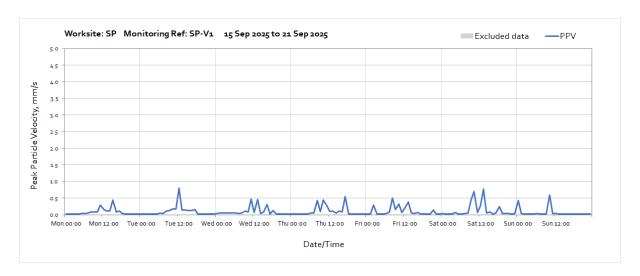


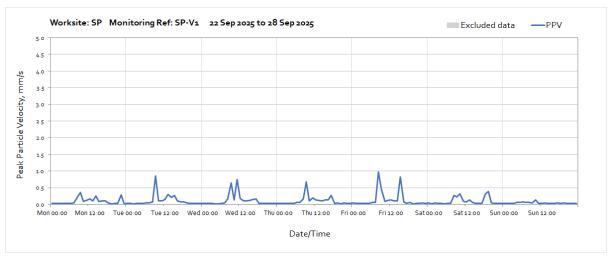


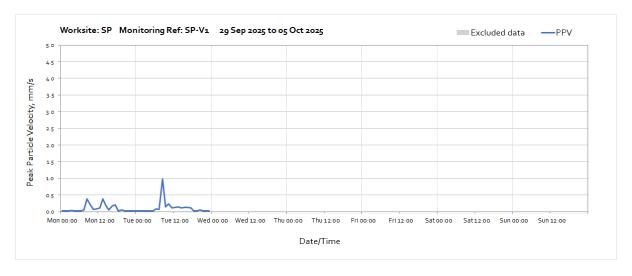
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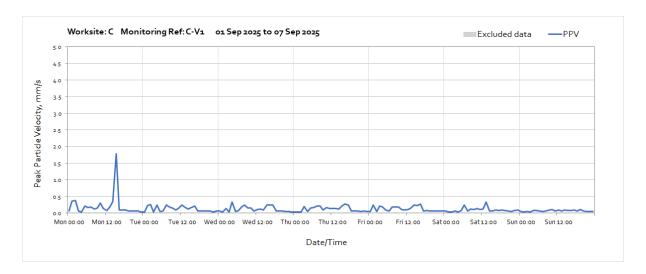


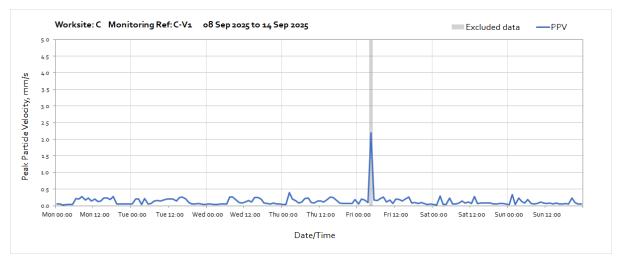


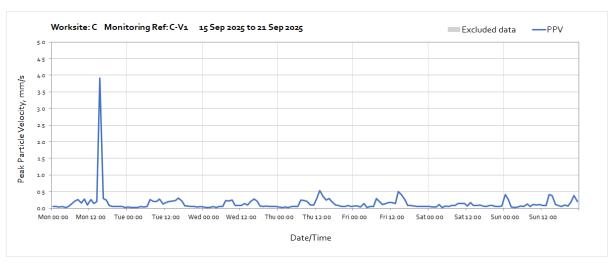


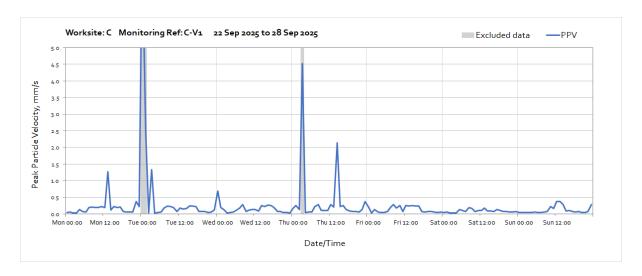


Worksite: C - Monitoring Ref: C-V1











Worksite: OC - Monitoring Ref: FOS-V1

