Noise Impact Assessment for a Proposed Carbon Capture Facility

Viridor Runcorn CCS Ltd

Report Quality Management			
Prepared by:	Peter Barling BSc (Hons), PGDip, MIOA	Associate Acoustics, Noise and Vibration	
Review & Authorisation:	Phil Evans BSc (Hons), MSc, FIOA, FGS	Director Acoustics, Noise and Vibration	
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Assessment/Calculations Quality Management		
Prepared by:	Peter Barling BSc (Hons), PGDip, MIOA	Associate Acoustics, Noise and Vibration
Reviewed by:	Phil Evans BSc (Hons), MSc, FIOA, FGS	Director Acoustics, Noise and Vibration

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01	03/10/2023	First Issue
02	15/11/2023	Comments
03	01/08/2024	2024 baseline data and inclusion of existing EfW in noise assessment
04	05/08/2024	Comments
05	08/08/2024	Comments
06	06/12/2024	Revised design
07	06/12/2024	Comments

Contents

Tables, Figures and Appendices

Tables

Figures

Appendices

1 Executive Summary

1.1 The Acoustics, Noise and Vibration Team at Savills has been appointed by Viridor Runcorn CCS Limited (Viridor) to undertake a 'noise impact assessment' (NIA) in relation to an Environment Agency, 'Environmental Permit' (EP) application to develop a proposed 'monoethanolamine' (MEA) based Carbon Capture facility (CC facility). The CC facility will be constructed on land adjacent to the existing Runcorn Energy from Waste' (EfW) Facility.

1.2 This NIA considers impacts associated with the following scenarios: the adjacent existing and operational EfW only; the proposed CC facility only; and the existing EfW and proposed CC facility in combination. In all cases, the baseline situation is the acoustic environment in the absence of the operational EfW facility.

1.3 From a noise emissions perspective, the primary sources of noise associated with the operation of the CC facility would be the operation of 18 hybrid coolers, flue gas fan and flue gas discharge at the stack exit. Whist additional noise sources would also be present, these would be located within buildings/structures or be relatively minor noise sources such as pumps housed in enclosures etc..

1.4 Noise emissions from the CC facility will be controlled through the selection of quiet plant (e.g. variable speed fans for the coolers) and inclusion of physical mitigation measures (parapet walls, silencers and enclosures) in accordance with the requirement to provide "Best Available Technique" (BAT). Due to technical and spatial constraints (cooling demand required and area of site respectively), it is not feasible to include additional techniques.

1.5 With regard to the existing EfW facility, several noise control methods/techniques have been applied to the facility since the commencement of operations, including as to how waste is received (railhead improvements), improvements to the boiler and turbine hall silencers and the cooling fans.

1.6 For 99.6% of the year, noise emissions from the operation of the proposed CC facility only would result in negligible impact at all NSRs and for all time periods (daytime, evening and night-time). For the remaining 0.4% of the year (11 hours), noise emissions would be higher, and a minor adverse impact could result at two NSRs (residential dwellings on Clarkes Terrace and Mersey View).

1.7 However, as this minor impact would only occur for 11 hours in a year, and would be limited to the daytime period only, not affecting sleep, it is considered that, on balance and over the entire year period, the overall impact would be minor at worst.

1.8 The CC facility would not increase potentially significant existing adverse impacts associated with the EfW to worsen in future. In this regard it should be noted that at the time of the design, build and initial operation of the EfW the background sound level was significantly higher, such that no significant impact was occurring. It is only a result of lower background sound levels since EfW

operations commenced, i.e. no increased EfW noise emissions, that the potential impact of the EfW has increased.

1.9 Background sound levels at all NSRs were significantly higher at the time of the initial design, construction and operation of the existing EfW facility. The reduction in sound levels since then is likely due to significantly reduced traffic movements on the A557, following the opening of the Mersey Gateway Bridge and potentially reduced noise emissions from other existing industrial/commercial facilities in the area, i.e. factors outside the control of the EfW operator.

1.10 Notwithstanding the above, Viridor has undertaken significant investment in reducing noise emissions from the EfW to minimise the offsite impact.

1.11 On the basis that significant adverse impacts associated with operation of the CC facility would be avoided, adverse impacts minimised and that operation of the CC facility would not result in potential significant impacts from the EfW to worsen, operation of the proposed CC facility would comply with the policy aims of the 'Noise Policy Statement for England' (NPSE) which sets out the long term overarching vision of Government noise policy.

2 Introduction

2.1 The Acoustics, Noise and Vibration Team at Savills has been appointed by Viridor Runcorn CCS Limited (Viridor) to undertake a noise impact assessment in relation to an Environment Agency (EA), 'Environmental Permit' (EP) variation application for a proposed 'monoethanolamine' (MEA) based 'carbon capture' (CC) facility. The CC facility will be constructed on land adjacent to the existing Runcorn 'energy from waste' (EfW) facility.

2.2 From a noise emissions perspective, the primary sources of noise associated with operation of the CC facility would be the operation of 18 hybrid coolers, flue gas fan and flue gas discharge at the stack exit. Whist additional noise sources would also be present, these would be located within buildings/structures or be relatively minor noise sources such as pumps housed in enclosures etc..

2.3 The CC facility would operate on a 24/7 basis; however, noise emissions would vary depending on the 'wet bulb' (WB) temperature. This is as the coolers operate at an increased fan speed at higher WB temperatures to provide the necessary cooling demand. Based on data provided by BAC (the proposed cooler manufacturer), the coolers would only operate at 100% fan speed (and maximum noise emissions) for only 0.4% of the year (when the WB temperature is >19°C) and, for 85% of the time, would operate with a fan speed of <50% (when the WB temperature is <14°C).

2.4 In addition to an assessment of the CC facility only, consideration is also given to the scenario of the existing EfW alone and the cumulative scenario of the proposed CC facility and existing EfW facility.

2.5 The assessment has been undertaken based upon information on the proposed development provided by the project team. The assessment considers potential adverse noise impacts affecting the nearest 'noise sensitive receptors' (NSRs) to the proposed development. The assessment has been undertaken following a baseline noise survey and desktop assessment.

2.6 As the CC facility is a new addition, and is not currently constructed/operational, no previous surveys or assessments have been completed. However, it should be noted that the proposed CC facility is located adjacent to the permitted Runcorn EfW, for which previous surveys and assessments have been completed. It is also understood that additional noise mitigation works at the EfW have recently been completed by Viridor.

2.7 The technical content of this assessment has been provided by Savills personnel, all of whom are corporate members, i.e. Member (MIOA) or Fellow (FIOA), of the Institute of Acoustics (IOA), the UK's professional body for those working in acoustics, noise and vibration. The assessment has been undertaken with integrity, objectivity and honesty in accordance with the Code of Conduct of the IOA.

2.8 The Team is also a member of the Association of Noise Consultants (ANC) which seeks to raise the standards of acoustics consultancy and improve recognition of the vital role which good

acoustics, and the management and mitigation of noise and vibration play in achieving good design and effective planning in the built and natural environment. Membership of the ANC indicates that the Team is sufficiently competent to pass the high standards for entry to the association.

2.9 This report and assessment have been peer reviewed within the Savills team to ensure that it is technically robust and meets the requirements of our Integrated Management System.

2.10 Personnel and individual qualifications are provided within the Quality Management table at the start of this report and in Appendix A in accordance with the requirement of Section 12 of British Standard (BS) 4142:2014+A1:2019 'Methods for rating and assessing industrial and commercial sound' (BS 4142) [1].

3 Site, Area and Baseline Acoustic Environment

Site Layout & Noise Sources

3.1 Figure 3.1 below shows the current proposed site layout for the CC facility. The 18 coolers will be located on the roof of the Compressor House and CC structure buildings. The flue gas stack exit point will be at ~105 m above ground level.

3.2 Other noise sources will be located within the Compressor House, CC structure and Carbon Capture buildings buildings/structures.

3.3 The existing EfW facility is located on adjacent land to the east and south.

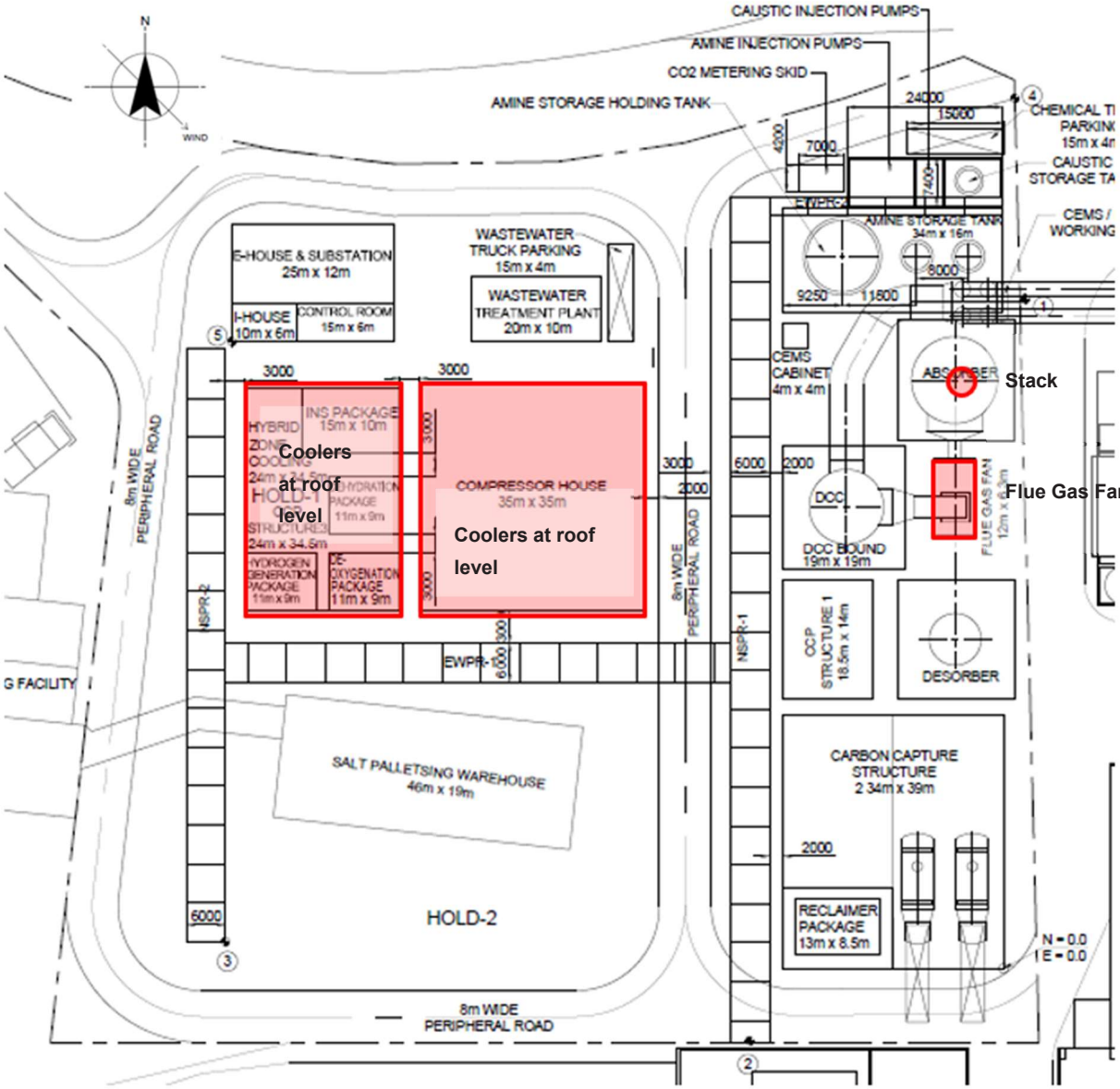


Figure 3.1: Site Layout & Noise Sources

Site and Wider Area

3.4 Figure 3.2 below shows the proposed installation boundary, wider area and identified NSRs. Also identified are the locations of baseline sound level monitoring locations (LT1, LT2 and LT3), with surveys undertaken in August 2023, as detailed below.

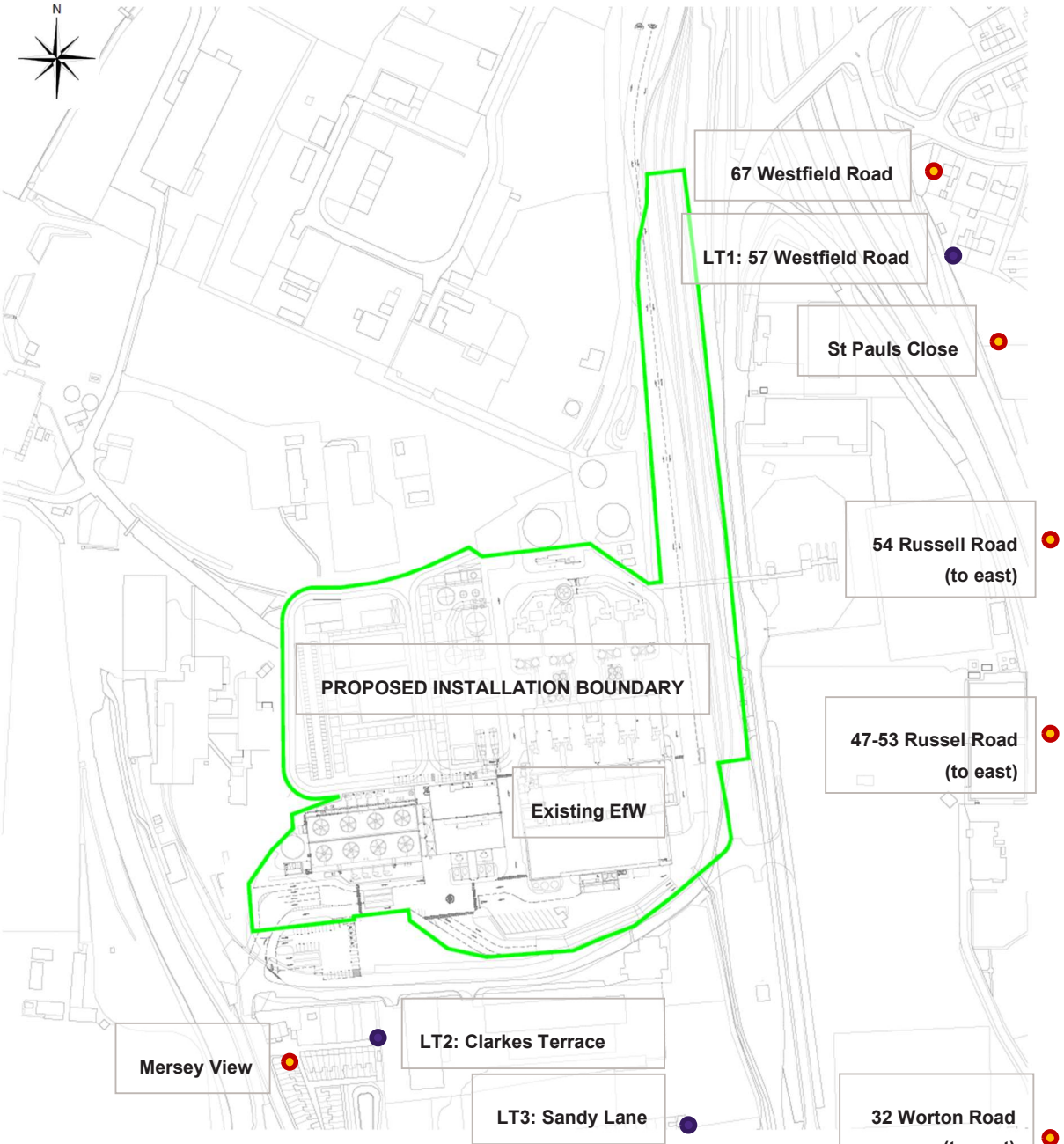


Figure 3.2: Site, Wider Area and Baseline Sound Level Monitoring Locations

3.5 Other existing commercial and industrial land uses are also located in the immediate vicinity of the proposed CC facility, particularly to the north, including recycling and manufacturing facilities. Historically, the area has been used for commercial and/or industrial purposes for a number of decades.

3.6 On the basis of the above, sound of an industrial and/or commercial nature will have historically affected the acoustic environment in the area around and close to the site.

3.7 The ground type between the site and the nearest NSRs to the south (Clarkes Terrace and Mersey View) is hard, albeit there are existing and substantial intervening structures associated with the existing EfW facility which provide barrier attenuation (which are incorporated in the noise model, detailed below).

3.8 The ground type between the site and NSRs located further to the north-east, east and south-east is generally soft (grass fields, foliage etc.), with some hard ground (roads etc.) with an increasing number of intervening structures further from the site. The land is generally elevated away from the site.

Baseline Conditions

2023 Surveys

3.9 In order to establish baseline acoustic conditions at NSR locations, three long term, unattended sound level surveys (LT1, LT2 and LT3) were deployed on Thursday 10 August and collected on Monday 21 August 2023.

3.10 LT1 was deployed at 57 Westfield Road, located approximately 450 m to the north-east of the site boundary. Due to the proximity of the A557 (located between the site and survey location) and distance to the site, it is considered that the acoustic environment at LT1 would be similar to the acoustic environment more generally at locations to the east, i.e. on/close to Russel Road.

3.11 The microphone was mounted at 2.3 m above ground level in a free-field position (at least 3.5 m from any reflecting surface, excluding the ground) using a Rion NL-52 all-weather kit.

3.12 At the time of setting up and collecting the LT1 survey, the following noise sources were noted as affecting the acoustic environment: regular road traffic movements on the A557 (the road was considered to be busy with regular vehicle movements, including HGVs, albeit with periods with low/negligible flow) and commercial aircraft soon after taking off from Liverpool John Lennon Airport (i.e. relatively low). At no point was noise from the existing EfW facility noted as being audible.

3.13 LT2 was deployed on the south-eastern boundary of a local commercial facility on Mersey View Road at 2 m above ground in a free field position, located approximately 200 m to the south of the site boundary and approximately 10 m north of NSRs on Clarkes Terrace. Due to the close

proximity, this location is considered to be a representative of the acoustic environment of the nearest NSRs to the south, i.e. at Clarkes Terrace and Mersey View.

3.14 At the time of setting up and collecting the LT2 survey, the following noise sources were noted as affecting the acoustic environment: a slight rattle of an operational fan from the neighbouring commercial premises (not the EfW facility), distant road traffic movements and a fan located on the EfW site. It should be noted that, whilst audible, the EfW fan noise source was not considered to be loud, or particularly discernible, i.e. tonal, rather a low level relatively broadband noise.

3.15 LT3 was deployed on a fence adjacent to 39 Sandy Lane at 2 m above ground in a free field position at a position approximately 280 m to the south-east of the site boundary and immediately adjacent to dwellings on Sandy Lane. Due to the proximity of Sandy Lane and distance to the site, it is considered that the acoustic environment at LT3 would be similar to the acoustic environment more generally to the south-east, i.e. on/close to Sandy Lane.

3.16 At the time of setting up and collecting the LT3 survey, the following noise sources were noted as affecting the acoustic environment: road traffic movements on the (regular movements, including HGVs, albeit with periods with low/negligible flow), distant road traffic movements and pedestrians walking on the footway. At no point was noise from the existing EfW facility noted as being audible.

3.17 The LT1 sound level measurements were made using a Rion NL-52 sound level meter (SLM)[1] in accordance with BS 7445-2:1991 ‘Description and measurement of environmental noise Part 2: Guide to the acquisition of data pertinent to land use’ [2]. The SLM was set to log the A-weighted broadband sound pressure level (SPL) in 125 ms periods at 1/3 octave bands. Raw data were post processed into 15-minute periods.

3.18 The LT2 and LT3 sound level measurements were made using NSRT Mk3 SLMs in accordance with BS 7445. The SLMs were set to log the A-weighted broadband SPL in 15-minute periods.

3.19 The equipment calibration level for each instrument was checked with a Svantek SV33B handheld calibrator[2] to 94.0 dB prior to and after the monitoring periods; no significant deviation (i.e. above 0.5 dB) was noted.

3.20 Meteorological conditions were monitored with a Luft WS600-UMB Smart Weather Sensor, deployed at the location of LT1. The survey period was largely dry with only one period of rain and wind speeds were low at all times (below 5 m/s). As such, sound level data logged during the period of rain have been removed from the subsequent analysis. However, it should be noted that

[1] S/N: 520993, purchased 17/02/2023.

[2] S/N: 123979, purchased 06/06/2022

comparison of the complete and rain removed data sets shows only negligible difference of less than 1 dB and only for some metrics.

3.21 Raw data, time histories, equipment details (serial numbers etc.) and photos of survey locations are provided in Appendix B.

2024 Surveys

3.22 In order to establish baseline acoustic conditions at NSR locations in the absence of the operation of the existing EFW facility, a further two long term unattended sound level surveys (LT4 and LT5) were deployed on Monday 08 July and collected on Tuesday 16 July 2024.

3.23 LT4 was deployed at 16 South Road (EPA Ltd), approximately 300 m south of the site boundary. The microphone was mounted at 2.3 m above ground level in a free-field position (at least 3.5 m from any reflecting surface, excluding the ground) using the Rion NL-52 all-weather kit.

3.24 At the time of setting up and collecting the LT4 survey, the following noise sources were noted as affecting the acoustic environment: distant road traffic movements and commercial aircraft soon after taking off from Liverpool John Lennon Airport (i.e. relatively low).

3.25 At no point on deployment, or during an attended site visit on the night of Monday 08 July 2024, was noise from the existing EfW facility noted as being audible.

3.26 Due to the proximity of this location to dwellings on Clarkes Terrace (110 m to the north), it is considered that the acoustic environment at LT4 would be similar to the acoustic environment at Clarkes Terrace in the absence of sound from the existing EfW.

3.27 It should be noted that the survey location LT4 was selected to be representative of the acoustic environment at NSRs at Clarkes Terrace but unaffected by noise from the existing EfW. Other dwellings to the north of the survey location, between the LT4 and the existing EfW will have provided significant screening affects, hence the EfW not being audible at this location.

3.28 It should be noted that, as it was not possible to cease/interrupt EfW operations during the baseline surveys, the background sound level was measured at the LT4 proxy location, located 120 m to the south of the NSRs. This was a location selected on the basis that it was unaffected by EfW noise, as requested by the EA, but also unavoidably less affected by noise associated with other existing industrial activities to the north (INEOS Enterprises Salt, Veolia. Runcorn Wood Recycling Facility and Runcorn Vehicle Recycling). As such, it is considered likely that background sound levels would be higher at the NSRs than that used in lieu of data acquired at these locations, potentially by several dB.

3.29 LT5 was deployed in the front garden area of 54 Sandy Lane at 1.5 m above ground in a free field position (i.e. 3.5 m from the façade of 54 Sandy Lane) and approximately 280 m to the south-east of the site boundary and immediately adjacent to dwellings on Sandy Lane.

3.30 At the time of setting up and collecting the LT5 survey, the following noise sources were noted as affecting the acoustic environment: local road traffic movements on Sandy Lane; distant road traffic movements; and commercial aircraft soon after taking off from Liverpool John Lennon Airport (i.e. relatively low).

3.31 At no point on deployment or during an attended site visit on the night of Monday 08 July 2024 was noise from the existing EfW facility noted as being audible. In addition, on deployment of the LT5 survey, the occupant at the premises, and the neighbour, both confirmed that the existing EfW facility was not generally audible, apart from occasional sound associated with the unloading of train deliveries; an activity that would not generally affect background sound levels.

3.32 LT4 and LT5 sound level measurements were made using Rion NL-53 SLMs in accordance with BS 7445-2:1991 'Description and measurement of environmental noise Part 2: Guide to the acquisition of data pertinent to land use'. The SLMs was set to log the A-weighted broadband sound pressure level (SPL) in 125 ms periods. Raw data were post processed into 15-minute periods.

3.33 The equipment calibration level for each measurement was checked with a Rion NC-75 handheld calibrator to 94.0 dB prior to and after the monitoring period; no significant deviation (i.e. above 0.5 dB) was noted.

3.34 Meteorological conditions were monitored with a Luft WS600-UMB Smart Weather Sensor, deployed at the location of LT4. The survey period was largely dry with only one period of rain and wind speeds were low at all times (below 5 m/s). As such, sound level data logged during the period of rain have been removed from the subsequent analysis. However, it should be noted that comparison of the complete and rain removed data sets shows only negligible difference of less than 1 dB and only for some metrics.

3.35 Raw data, time histories, equipment details (serial numbers etc.) and photos of survey locations are provided in Appendix B.

4 Methodology

Assessment Methodology

4.1 In accordance with EA guidance[3], this assessment has been undertaken based on the methodology detailed in BS 4142, a summary of which is provided below.

4.2 BS 4142 primarily provides a numerical method by which to determine the significance of sound of a commercial and/or industrial nature, i.e. the 'specific sound', at NSR locations.

4.3 The specific sound level may then be corrected for the character of the sound, if appropriate, and is then termed the 'Rating Level' whether corrections are made or not.

4.4 The commentary to paragraph 9.2 of BS 4142 suggests the following subjective methods for the determination of the rating penalty for tonal, impulsive and/or intermittent specific sounds:

"Tonality

For sound ranging from not tonal to prominently tonal the Joint Nordic Method gives a correction of between 0 dB and +6 dB for tonality. Subjectively, this can be converted to a rating penalty of 2 dB for a tone which is just perceptible at the noise receptor, 4 dB where it is clearly perceptible, and 6 dB where it is highly perceptible.

Impulsivity

A correction of up to +9 dB can be applied for sound that is highly impulsive, considering both the rapidity of the change in sound level and the overall change in sound level. Subjectively, this can be converted to a penalty of 3 dB for impulsivity which is just perceptible at the noise receptor, 6 dB where it is clearly perceptible, and 9 dB where it is highly perceptible.

Intermittency

When the specific sound has identifiable on/off conditions, the specific sound level should be representative of the time period of length equal to the reference time interval which contains the greatest total amount of on time. … If the intermittency is readily distinctive against the residual acoustic environment, a penalty of 3 dB can be applied.

Other sound characteristics

[3] https://www.gov.uk/government/publications/noise-and-vibration-management-environmental-permits/noise-and-vibration-management-environmental-permits

Where the specific sound features characteristics that are neither tonal nor impulsive, nor intermittent, though otherwise are readily distinctive against the residual acoustic environment, a penalty of 3 dB can be applied."

4.5 The Rating Level is then compared to the background sound level, which should be representative of the period being assessed.

4.6 The approach that has been adopted for this project is based on unattended surveys to obtain 15-minute values of $L_{A90,T}$ for a continuous period of at least 1-week at each assessment location. Representative background sound levels for the daytime and night-time have been derived from a combination of: statistical data analysis; review of the temporal variations of sound and meteorological data throughout the survey period; and professional judgment supplemented by aural and visual observations of the acoustic environment at the survey locations.

4.7 Only data that was measured when the wind speeds were at, or less than, 5 m/s were included in the dataset used to derive the baseline noise levels. The standard indicates that measurements can be taken in wind speeds up to 5 m/s, i.e. it states, *"Exercise caution when making measurements in poor weather conditions such as wind speeds greater than 5 m/s"*. It is considered that, by only using data obtained when wind speeds are at or less than 5 m/s, data used in the assessment would be in accordance with BS 4142.

4.8 An initial estimate of the impact of the specific sound is obtained by subtracting the representative background sound level from the Rating Level.

4.9 Typically, the greater this difference, the greater is the magnitude of the impact:

- A difference of around +10 dB or more is likely to be an indication of a significant adverse impact, depending on the context.
- A difference of around +5 dB is likely to be an indication of an adverse impact, depending on the context.

4.10 The lower the rating level is relative to the representative background sound level, the less likely it is that the specific sound source will have an adverse impact or a significant adverse impact. Where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact, depending on the context.

4.11 The significance of the effect of the noise in question should be determined on the basis of the initial estimate of impact significance from the BS 4142 assessment with reference to the examples of outcomes described within the PPG-N and after having considered the context of the sound. It is necessary to consider all pertinent factors, including:

- the absolute level of sound;

- the character and level of the residual sound compared to the character and level of the specific sound; and
- the sensitivity of the receptor and whether dwellings or other premises used for residential purposes will already incorporate design measures that secure good internal and/or outdoor acoustic conditions.

Noise Propagation Methodology

4.12 As the CC facility is not yet operational, specific sound levels associated with operation of the CC facility at NSR locations have been predicted using a 3D sound model, built using SoundPLAN v9.1 noise modelling software.

4.13 The model predicts sound levels under light down-wind conditions based on hemispherical sound propagation with corrections for atmospheric absorption, ground effects, screening and directivity based on the procedure detailed in ISO 9613-2:2024 'Acoustics — Attenuation of sound during propagation outdoors Part 2: Engineering method for the prediction of sound pressure levels outdoors' [3].

5 Noise Monitoring Data and Predictions

Representative Baseline Sound Levels

5.1 Tables 5.1 to 5.5 and Figures 5.1 to 5.5 below provide a tabular and graphical summary of the 15-minute baseline sound levels measured at LT1 to LT5 respectively, for the daytime (07:00 to 19:00 hours), evening (19:00 to 23:00 hours) and night-time (23:00 to 07:00 hours) periods. Note that the figures only show background sound levels.

5.2 BS 4142 requires that the background sound levels adopted for the assessment are representative of the period being assessed. The Standard recommends that the background sound level should be derived from continuous measurements of normally not less than 15-minute intervals, which can be contiguous or disaggregated (paragraph 8.13 of BS 4142).

5.3 However, the Standard states that there is no 'single' background sound level that can be derived from such measurements. It is particularly difficult to determine what is 'representative' of the night-time period because it can be subject to a wide variation in background sound levels between the beginning and end of the night period, and the quieter middle part of the night period. The accompanying note states that *"a representative level should account for the range of background sounds levels and should not automatically be assumed to be either the minimum or modal value"*.

5.4 In this instance, the 25th percentile levels of the long term survey data have been used to characterise the baseline sound environment at all NSRs.

5.5 This is not the lowest sound level encountered but is lower than that obtained using the average. It therefore represents somewhere in the range of lower sound levels that are likely to be encountered and provides a precautionary assessment. For 75% of the time, baseline sound levels will be higher than the 25th percentile levels. Use of the 25th percentile ensures that any periods when higher wind speeds (or other extraneous noise) could have affected the measured baseline sound levels do not unduly affect the analysis.

5.6 It should also be noted that use of the 25th percentile $L_{A90,T}$ values tend to be lower, or the same as, the modal values.

5.7 Similarly, representative baseline residual levels have been based on the 25th percentile level.

Table 5.1: LT1 Baseline Sound Levels

Period	Background Sound Levels (dB $L_{A90,15min}$)					Residual Sound Levels (dB $L_{Aeq,15min}$)				
	Min	25th %1	50th %	75th %	Max	Min	25th %	50th %	75th %	Max
Daytime	43	50	52	54	57	54	61	62	63	77
Evening	40	45	47	48	57	53	57	58	60	77
Night-time	38	42	44	46	53	45	52	54	56	66

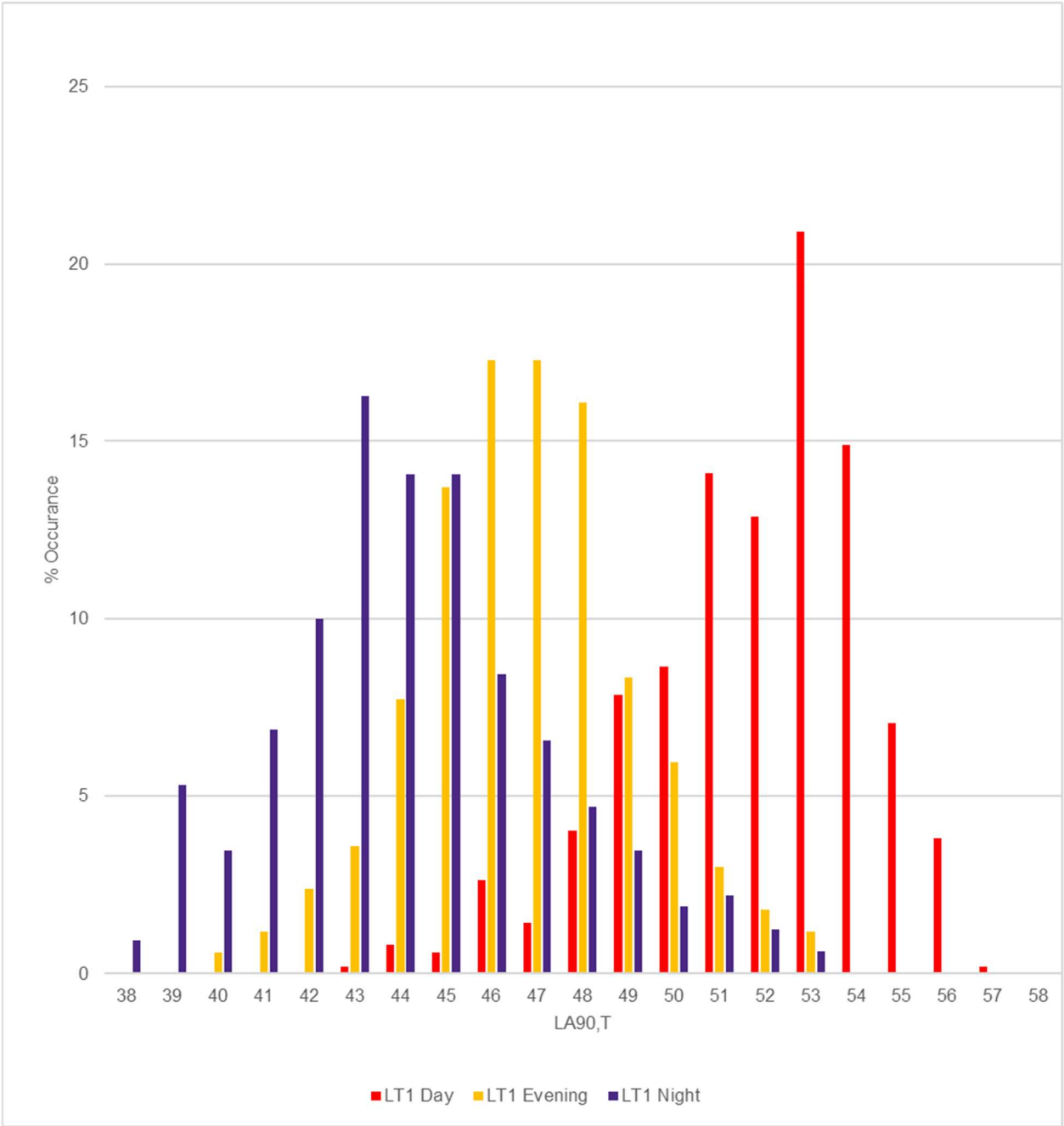


Figure 5.1: LT1 $L_{A90,T}$ Distribution

Table 5.2: LT2 Baseline Sound Levels

Period	Background Sound Levels (dB $L_{A90,15min}$)					Residual Sound Levels (dB $L_{Aeq,15min}$)				
	Min	25th %[1]	50th %	75th %	Max	Min	25th %	50th %	75th %	Max
Daytime	45	47	48	49	54	47	51	52	54	67
Evening	45	46	47	49	54	47	48	49	51	53
Night-time	45	46	46	47	51	46	47	48	49	56

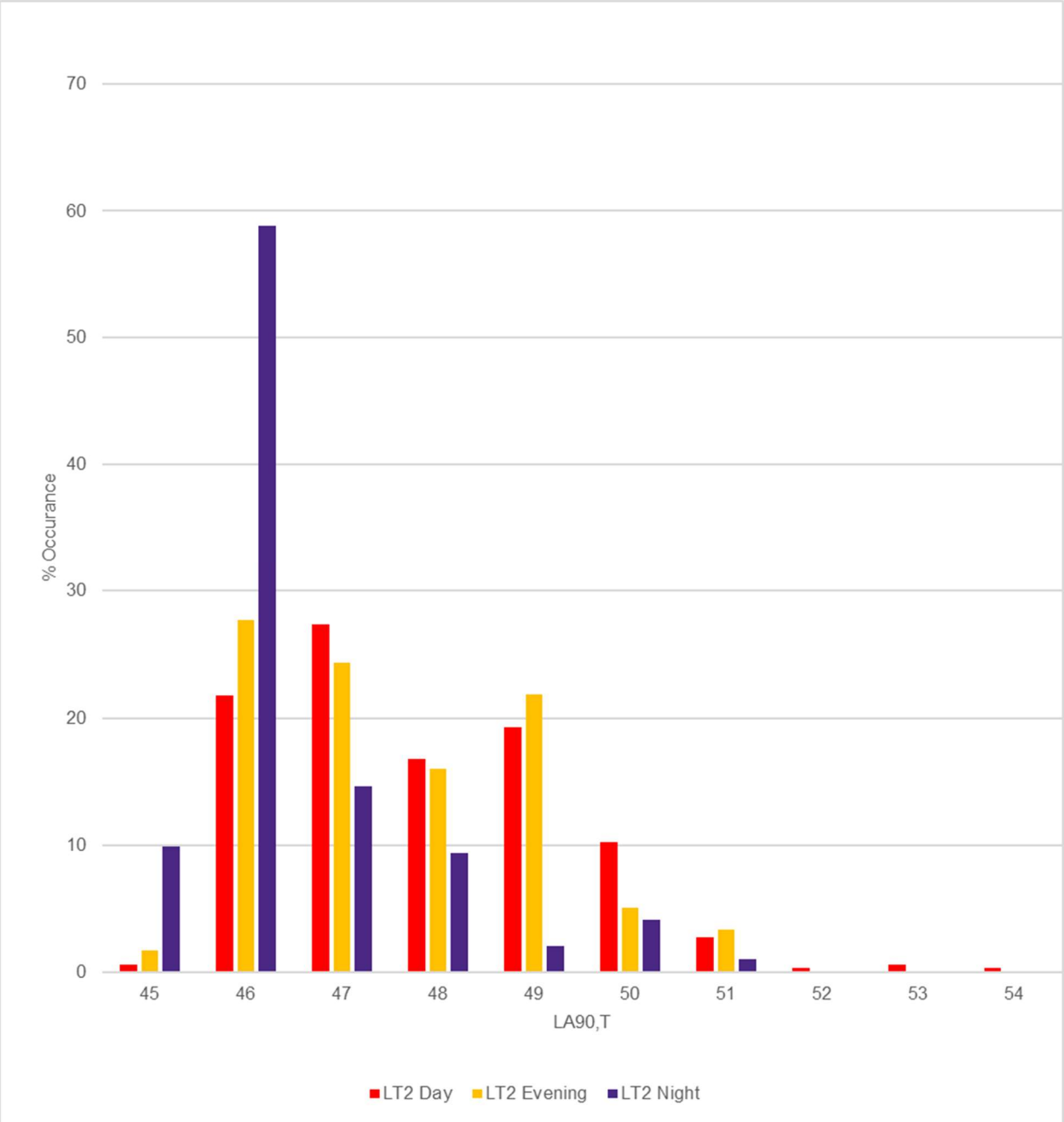


Figure 5.2: LT2 $L_{A90,T}$ Distribution

Table 5.3: LT3 Baseline Sound Levels

Period	Background Sound Levels (dB $L_{A90,15min}$)					Residual Sound Levels (dB $L_{Aeq,15min}$)				
	Min	25th %[1]	50th %	75th %	Max	Min	25th %	50th %	75th %	Max
Daytime	42	44	46	47	51	45	51	52	53	59
Evening	41	43	44	46	51	44	48	50	51	63
Night-time	39	40	41	43	49	40	43	45	48	56

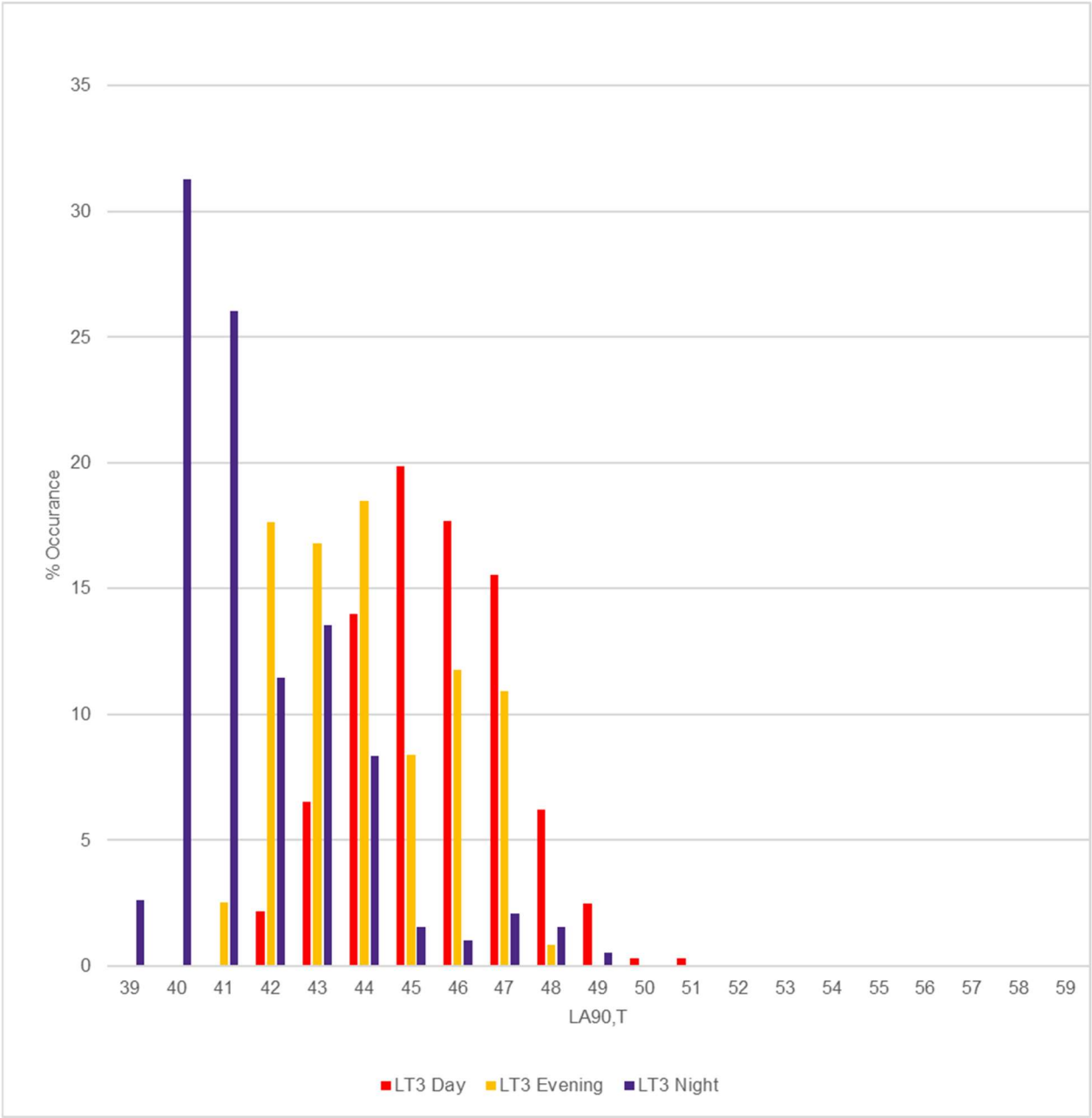


Figure 5.3: LT3 $L_{A90,T}$ Distribution

Table 5.4: LT4 Baseline Sound Levels

Period	Background Sound Levels (dB $L_{A90,15min}$)					Residual Sound Levels (dB $L_{Aeq,15min}$)				
	Min	25th %[1]	50th %	75th %	Max	Min	25th %	50th %	75th %	Max
Daytime	36	40	42	44	51	42	50	52	54	69
Evening	36	38	39	41	51	39	45	47	49	57
Night-time	35	37	38	43	58	36	41	44	49	61

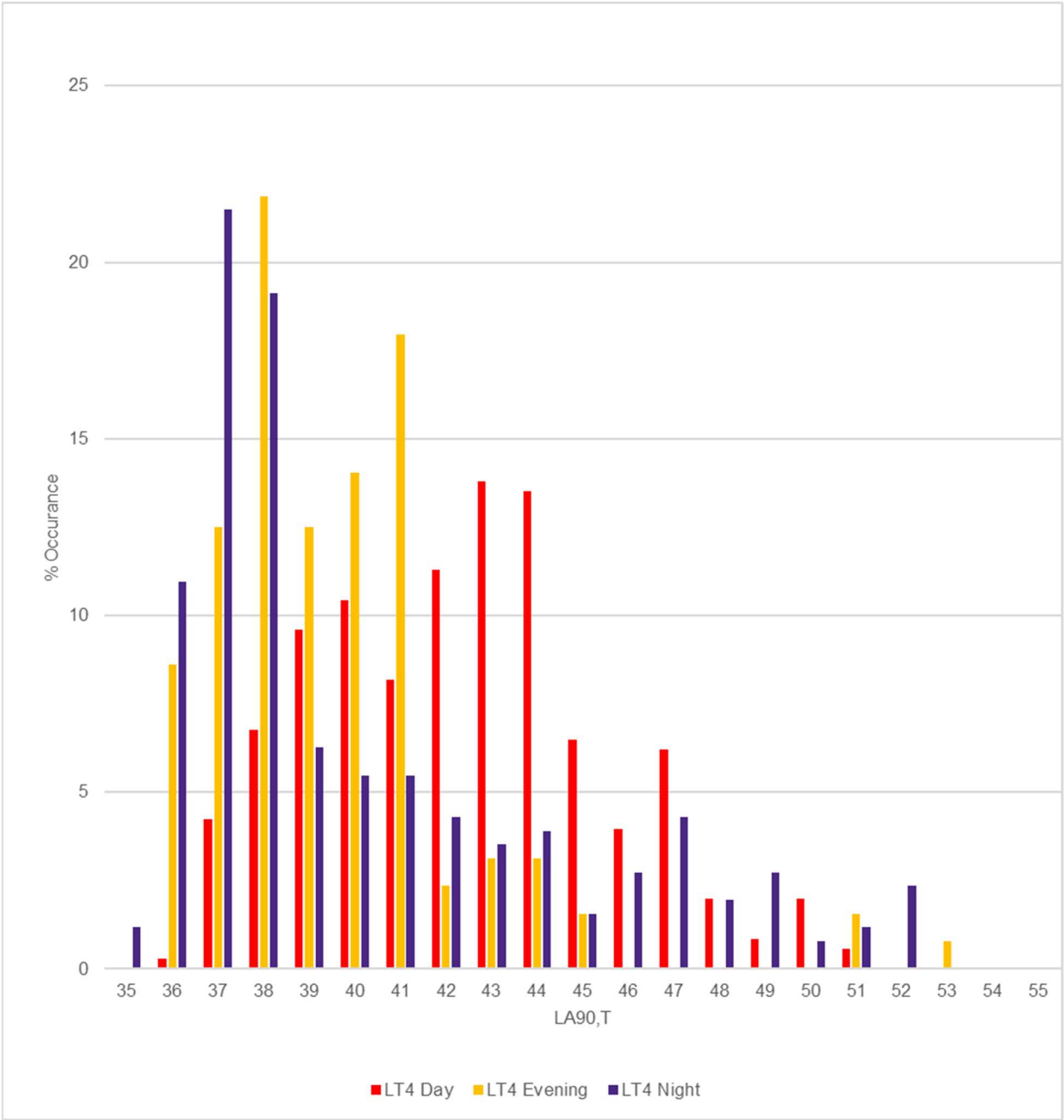


Figure 5.4: LT4 $L_{A90,T}$ Distribution

Table 5.5: LT5 Baseline Sound Levels

Period	Background Sound Levels (dB $L_{A90,15min}$)					Residual Sound Levels (dB $L_{Aeq,15min}$)				
	Min	25th %[1]	50th %	75th %	Max	Min	25th %	50th %	75th %	Max
Daytime	41	45	46	48	54	48	55	56	58	70
Evening	37	40	43	44	54	43	49	51	53	63
Night-time	36	39	41	44	58	38	45	47	50	60

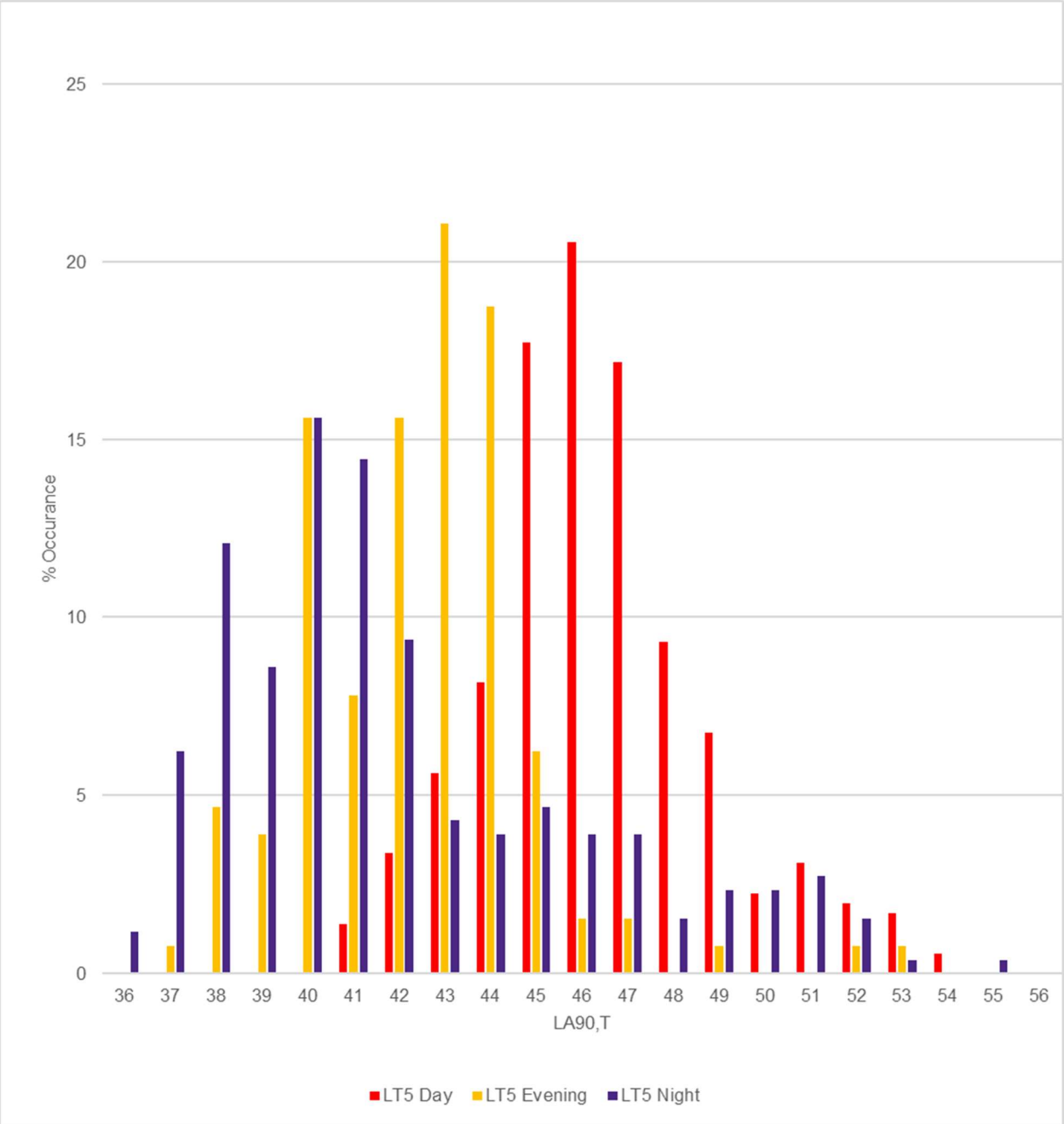


Figure 5.5: LT5 $L_{A90,T}$ Distribution

5.8 On the basis of the above, Tables 5.6 to 5.10 below provide representative baseline sound levels that have been used in the subsequent assessment.

Table 5.6: LT1 Representative Baseline Sound Levels (Westfield Road & Russel Road)

Period	Background Sound Level $L_{A90,T}$ (dB)	Residual Sound Level $L_{Aeq,T}$ (dB)
Daytime[1]	50[4]	61[7]
Evening[2]	45[5]	57[8]
Night-time[3]	42[6]	52[9]

Notes
1. 07:00 hours and 19:00 hours.
2. 19:00 to 23:00 hours.
3. 23:00 to 07:00 hours.
4. 51 dB $L_{A90,T}$ when considering weekend periods only (Friday 23:00 hours to Monday 07:00 hours).
5. 45 dB $L_{A90,T}$ when considering weekend periods only.
6. 41 dB $L_{A90,T}$ when considering weekend periods only.
7. 62 dB $L_{Aeq,T}$ when considering weekend periods only.
8. 57 dB $L_{Aeq,T}$ when considering weekend periods only.
9. 52 dB $L_{Aeq,T}$ when considering weekend periods only.

Table 5.7: LT2 Representative Baseline Sound Levels (Clarkes Terrace & Mersey View)

Period	Background Sound Level $L_{A90,T}$ (dB)	Residual Sound Level $L_{Aeq,T}$ (dB)
Daytime	47	51
Evening	46	48
Night-time	46	47

Table 5.8: LT3 Representative Baseline Sound Levels (Sandy Lane & Worton Road)

Period	Background Sound Level $L_{A90,T}$ (dB)	Residual Sound Level $L_{Aeq,T}$ (dB)
Daytime	44	51
Evening	43	48
Night-time	40	43

Table 5.9: LT4 Representative Baseline Sound Levels (Clarkes Terrace & Mersey View)

Period	Background Sound Level $L_{A90,T}$ (dB)	Residual Sound Level $L_{Aeq,T}$ (dB)
Daytime	40[1]	50[4]
Evening	38[2]	45[5]
Night-time	37[3]	41[6]

1. 38 dB $L_{A90,T}$ when considering weekend periods only (Friday 23:00 hours to Monday 07:00 hours).
2. 36 dB $L_{A90,T}$ when considering weekend periods only.
3. 36 dB $L_{A90,T}$ when considering weekend periods only.
4. 48 dB $L_{Aeq,T}$ when considering weekend periods only.
5. 44 dB $L_{Aeq,T}$ when considering weekend periods only.
6. 40 dB $L_{Aeq,T}$ when considering weekend periods only.

Table 5.10: LT5 Representative Baseline Sound Levels (Sandy Lane & Worton Road)

Period	Background Sound Level $L_{A90,T}$ (dB)	Residual Sound Level $L_{Aeq,T}$ (dB)
Daytime	45[1]	55[4]
Evening	40[2]	49[5]
Night-time	39[3]	45[6]

1. 43 dB $L_{A90,T}$ when considering weekend periods only (Friday 23:00 hours to Monday 07:00 hours).
2. 40 dB $L_{A90,T}$ when considering weekend periods only.
3. 39 dB $L_{A90,T}$ when considering weekend periods only.
4. 53 dB $L_{Aeq,T}$ when considering weekend periods only.
5. 49 dB $L_{Aeq,T}$ when considering weekend periods only.
6. 45 dB $L_{Aeq,T}$ when considering weekend periods only.

Comment

Westfield Road & Russel Road (LT1)

5.9 Review of the baseline data at LT1 shows a broad range of sound levels, lower in the evening and night-time periods, typical of locations close to transport links. As observed when deploying the survey, vehicle movements were the dominant source of noise. Residual sound levels are ~10 dB higher than background sound levels, again typical of locations close to transport links where vehicle movements are the primary noise source.

5.10 A review of the graphical data shows that background sound levels do not 'bottom out' at night, indicating that noise from the existing EfW facility was not significantly contributing the measured level. During the daytime period on deployment EfW was not audible.

5.11 On the basis of the above, it is considered that the data obtained at LT1 is representative of the acoustic environment in the absence of the existing EfW facility in operation.

5.12 Weekend period (Friday 23:00 hours to Monday 07:00 hours) background and residual sound levels are the same or negligibly higher or lower than for the week period as a whole.

Clarkes Terrace & Mersey View (LT2 and LT4)

5.13 Review of the baseline data at LT2 shows a quite narrow range of sound levels, with residual sound levels only a few dB higher than the background levels. Following observation on site, this is considered to be due to regular constant noise, likely operation of a fan or similar on the EfW site and potentially the adjacent commercial facility. Whilst this commercial noise is primarily 'controlling' the acoustic environment, the magnitude of noise is not considered to be particularly high and, whilst on site at LT2, the noise was not noted to be particularly discernible or distinguishable, and subjectively not tonal.

5.14 Review of the baseline data at LT4 shows a broader range of sound levels, lower in the evening and night-time periods, typical for locations primarily affected by distant road traffic movements and

other sources. Residual sound levels are ~10 to 7 dB higher than background sound levels, indicating that non constant noise sources are not controlling the acoustic environment.

5.15 At the time of deployment and during an attended site visit on the night of Monday 08 July 2024, noise from the existing EfW facility was not noted as being audible at the LT4 location

5.16 A review of the graphical data shows that background sound levels, generally, do not 'bottom off' at night, indicating that noise from the existing EfW facility and/or other existing land use were not significantly contributing to the measured level.

5.17 On the basis of the above, it is considered that data obtained at LT4 is representative of the acoustic environment at NSRs on Clarkes Terrace and Mersey View in the absence of the existing EfW facility in operation.

5.18 Weekend period (Friday 23:00 hours to Monday 07:00 hours) background and residual sound levels, in the absence of EfW noise, are negligibly lower (1 to 2 dB) than for the week period as a whole.

5.19 It should be noted that, as it was not possible to cease/interrupt EfW operations during the baseline surveys, the background sound level was measured at the LT4 proxy location, located 120 m to the south of the NSRs. This was a location selected on the basis that it was unaffected by EfW noise, as requested by the EA, but also unavoidably less affected by noise associated with other existing industrial activities to the north (INEOS Enterprises Salt, Veolia. Runcorn Wood Recycling Facility and Runcorn Vehicle Recycling). As such, it is considered likely that background sound levels would be higher at the NSRs than that used in lieu of data acquired at these locations, potentially by several dB.

Sandy Lane & Worton Road (LT3 and LT5)

5.20 Review of the baseline data at LT3 and LT5 shows a broader range of sound levels, similar to location LT1, lower in the evening and night-time periods, indicating that vehicle movements on Sandy Lane and the more distant A557 are the primary noise sources, as observed when at the LT3 survey location.

5.21 It is noted that background sound levels 'bottom out' at ~ 40 dB $L_{A90,T}$ during the night-time period at LT3 and this may be due to constant noise emissions from the existing commercial facilities to the north (as affecting Clarkes Terrace). However, it should be noted that no commercial/industrial noise was noted during the daytime period.

5.22 At the time of deployment and during an attended site visit on the night of Monday 08 July 2024, noise from the existing EfW facility was not noted as being audible at the LT5 location.

5.23 A review of the graphical data shows that background sound levels, generally, do not 'bottom out' at night either at this location, indicating that noise from the existing EfW facility (or other existing land uses) was not significantly contributing to the measured level.

5.24 On the basis of the above, it is considered that the data obtained at LT5 is representative of the acoustic environment at NSRs on Clarkes Terrace and Mersey View in the absence of the existing EfW facility in operation.

5.25 Table 5.11 below provides a summary of representative baseline sound levels at NSR locations in the absence of sound from the existing EfW facility.

5.26 Weekend period (Friday 23:00 hours to Monday 07:00 hours) background and residual sound levels, in the absence of EfW noise, are the same or negligibly lower (2 dB) than for the week period as a whole.

Table 5.11: Lowest Representative Baseline Sound Levels in Absence of EfW

NSR	Period	Background Sound Level $L_{A90,\,T}$ (dB)	Residual Sound Level $L_{Aeq,\,T}$ (dB)
Westfield Road & Russel Road	Daytime	50	61
	Evening	45	57
	Night-time	41	52
Clarkes Terrace & Mersey View	Daytime	38	48
	Evening	36	44
	Night-time	36	40
Sandy Lane & Worton Road	Daytime	43	53
	Evening	40	49
	Night-time	39	45
Note: Levels are the lower of either weekday or weekends for each period.			

Comparison with Historic Baseline Data

5.27 Prior to the Runcorn EfW facility becoming operational, baseline sound level monitoring was undertaken in the vicinity of the site in similar locations to the surveys undertaken in 2023 and 2024.

5.28 These previous surveys were undertaken on a similar basis, i.e. to establish representative background and ambient sound levels at NSR locations close to the then proposed EfW.

5.29 The results of those surveys are summarised below in Table 5.12.

Table 5.12: Historic Baseline Sound Levels

Period	Russell Road		Clarkes Terrace		Sandy Lane (east)	
	$L_{A90,\,T}$ (dB)	$L_{Aeq,\,T}$ (dB)	$L_{A90,\,T}$ (dB)	$L_{Aeq,\,T}$ (dB)	$L_{A90,\,T}$ (dB)	$L_{Aeq,\,T}$ (dB)
Daytime	61	67	50	55	56	65
Night-time	46	53	49	52	45	50

5.30 With reference to Table 5.11 above and Tables 5.4 to 5.6, baseline sound levels measured in 2023 and 2024 are significantly lower than in 2009. For example, at Russel Road, considered representative of Westfield Road, the historic daytime and night-time background sound levels are 61 and 46 dB $L_{A90,T}$ respectively; whereas in 2023, they have been measured to be 50 and 41 dB $L_{A90,T}$ respectively.

5.31 At Clarkes Terrace, the historic daytime and night-time background sound levels were 50 and 49 dB $L_{A90,T}$ respectively; whereas in 2024, they have been measured to be 38 and 36 dB $L_{A90,T}$ respectively, a significant 12 and 13 dB lower.

5.32 It is considered that this is likely due to (at least in part) reduced traffic movements on the A557, following the opening of the Mersey Gateway Bridge in 2017 and potentially reduced noise emissions from the existing industrial/commercial facilities in the area.

Specific Sound Level Predictions

CC Facility

5.33 The externally located noise generating aspects of the CC facility include 18 hybrid coolers, (located at roof level of the Compressor House and CCP structure buildings), an enclosed axial flue gas fan and flue gas discharge point (at ~105 m AGL). There will also be other noise sources, although these will be located within structure/buildings and hence are not considered sufficiently significant to include within the noise model.

Hybrid Coolers

5.34 One-third-octave 'sound power levels' (SWL) of the proposed hybrid coolers have been based on data provided by BAC, the proposed cooler manufacturer, as summarised below. Based on these data, each cooler unit has a maximum operational A-weighted SWL of 107 dBA L_W. A manufacturer's data sheet, including 1/3 octave band data is provided in Appendix C. Note that the data indicates the source is not tonal.

Table 5.13 Hybrid Cooler SWL Data

One-third-octave Band SWL (dB L_W)																			
50	63	80	100	125	160	200	250	315	400	500	630	800	1k	1.25	1.6k	2.0k	2.5k	3.15	4.0k
93	103	95	97	100	97	98	101	97	99	98	96	97	96	94	98	97	93	92	89

5.35 The coolers have been modelled as 3D structures with two radiating facades, the top/roof and one vertical side, reflecting the air discharge and air intake sections of the coolers, respectively. The top/discharge and the side/intake have been assigned a SWL of 105 and 100 dBA L_W respectively. No directivity has been applied.

5.36 The 18 coolers include a 'low sound fan', with the rooftop areas with parapet wall on three sides to provide some screening effects. Due to peak cooling demand, it is not feasible to select a lower number of coolers and, due to airflow constraints, it is not feasible to further enclose the coolers.

5.37 The coolers have been modelled on top of the Compressor House and CCP structure buildings, approximately 5 m AGL. Due to spatial constraints, it is not feasible to locate the coolers at ground level.

5.38 Based on professional experience, cooling units such as those that will be utilised, when operating with a lower fan speed (due to higher cooling efficiency resulting from lower WB temperatures) have a lower operational SWL, with typical SWLs reduced by 6 and 11 dB when operating at 90 and 50% maximum fan speed respectively (101 and 96 dBA L_W respectively).

5.39 Based on data supplied by BAC (provided in Appendix C), the cooler units would only operate at 100% capacity (i.e. an airflow of 40 m^3/s) when the WB is >19°C, which would occur for only 0.4% of the year (38 hours/year) and very unlikely during the night-time period when temperatures are lower. The coolers are expected to operate at 80% capacity, or lower, for 99% of the year and 50% capacity, or lower, for 85% of the year. This is summarised in Table 5.14 below.

Table 5.14 Hybrid Cooler Operational Status

Wet Bulb Temp (C)	Fan Speed	Hours per Year	% of Year
24	100%	0	0%
23	100%	0	0%
22	100%	1	0%
21	100%	2	0%
20	100%	8	0%
19	100%	28	0%
18	90%	71	1%
17	80%	138	2%
16	70%	227	3%
15	60%	321	4%
14	55%	478	5%
<=13	<=49%	7,486	85%

5.40 On the basis of the above, specific sound levels associated with the operation of the coolers have been calculated for three scenarios, one when operating at 50% capacity or less (85% of the time), one for 50 to 80% capacity (12% of the time) and one for 100% capacity (0.4% of the time).

Flue Gas Fan & Stack Discharge

5.41 As no specific axial flue gas fan has been selected yet, the SWL and 1/1 octave band spectra has been calculated based on the fan properties[4] and empirical formula[5]. Based on the fan properties, the A weighted SWL is 134 dBA L_W (138 dB L_W).

Table 5.15 Flue Gas Fan SWL Data

Broadband SWL (dBA L_W)	Octave Band SWL (dB L_W)							
	63	125	250	500	1k	2k	4k	8k
134	131	129	131	131	130	127	122	120

5.42 The fan breakout SWL has been calculated based on the fan housed within a 100 mm thick enclosure providing a weighted sound reduction index value of 44 dB R_W, such that the enclosed flue gas fan has facades with a unit area operational SWL of 79 dBA L_W''.

5.43 The flue gas fan enclosure has been modelled as a 3D structure with five radiating facades, each with a unit area SWL of 79 dBA L_W'' (total SWL 102 dBA L_W). No directivity has been applied.

5.44 The SWL of the flue gas exhaust at the stack exit has been calculated, based on the inclusion provided by a silencer (providing 20 dB overall attenuation), one 90° bend and the attenuation along the 105 m stack calculated based on Verein Deutscher Ingenieure (VDI) 3733:1997 'Geräusche bei Rohrleitungen' [4], as summarised below.

Table 5.16: Flue Gas Fan

	63	125	250	500	1k	2k	4k	8k
Induct SWL (dB)	131	129	131	131	130	127	122	120
Silencer Attenuation (dB)	*-13*	*-27*	*-41*	*-45*	*-46*	*-44*	*-39*	*-24*
Bend Attenuation (dB)	*0*	*-1*	*-2*	*-3*	*-3*	*-3*	*-3*	*-3*
Stack Attenuation (dB)	*-3*	*-3*	*-3*	*-3*	*-5*	*-7*	*-10*	*-12*
SWL at Stack Exit (dB)	115	98	85	80	76	73	70	81

5.45 On the basis of the above, the flue gas exhaust has been modelled as a point source with an A-weighted broadband SWL of 90 dBA L_W, with directivity applied based on that within the SoundPLAN library for a 3 m stack diameter at 20 C.

[4] 2,500 kW motor power (S) and 244 m^3/s discharge (Q).

[5] $L_N = 94 + 20 \log(S) - 10 \log(Q)$.

Other Sources

5.46 In addition to the above, the Compressor House, CCP structure, Carbon Capture Structure, Wastewater Treatment Plant, Amine Storage Tank, CCP Structure 1 and Desorber have been included in the model as industrial building noise sources.

5.47 These have all been modelled with an internal reverberant SPL of 80 dBA L_{pi} (the lower exposure action value outlined in the Control of Noise at Work Regulations 2005) and constructed from standard cladding providing an overall attenuation of 24 dB R_W.

5.48 The following assumptions have been incorporated into the noise model:

- the topography of the site and the surrounding area has been obtained from publicly available data sources (Defra 1 m resolution Lidar data);
- the effect of screening from solid structures (buildings) has been incorporated into the modelling process by importing OS Open Data 'Settlement Area' shape file data into the model and publicly available data; and
- the ground type in the model has been set G=1 for the site and immediate surrounding area and soft (G=0) for the surrounding area.

5.49 On the basis of the above, Tables 5.17 to 5.19 below provide a summary of modelled specific sound levels at first floor level (4 m), at the nearest NSRs for the following three scenarios respectively:

- Scenario 1: Coolers operating with an airflow at 50% capacity (or less), occurring for 85% of the year when the WB temperature is <14°C. Due to the fact that this would be the dominant operational scenario, this is considered to be representative of 'normal' conditions and likely how the coolers would operate at night when temperatures are lower.
- Scenario 2: Coolers operating with an airflow between 50% and 80% capacity, occurring for 14% of the year when the WB temperature is between 14 and 16°C. This scenario is considered to be a 'reasonable worst case' daytime scenario.
- Scenario 3: Coolers operating with an airflow at 100% capacity (40 m^3/s), occurring for 0.4% of the year (11 hours) when the WB temperature is >19°C. This is considered to be a 'worst case' scenario and would only occur during the daytime period in summer for a very limited period of time.

Table 5.17 Predicted Specific Sound Levels (CC Facility Scenario 1)

NSR	Specific Sound Level $L_{Aeq,Tr}$ (dB)
	First Floor
1-13 Mersey View	36
23 St Pauls Close	40
32 Worton Road	33

NSR	Specific Sound Level $L_{Aeq,Tr}$ (dB)
	First Floor
37 Sandy Lane	32
47-53 Russell Road	40
54 Russel Road	42
57 Westfield Road	43
67 Westfield Road	42
Clarks Terrace	37

Table 5.18 Predicted Specific Sound Levels (CC Facility Scenario 2)

NSR	Specific Sound Level $L_{Aeq,Tr}$ (dB)
	First Floor
1-13 Mersey View	37
23 St Pauls Close	41
32 Worton Road	35
37 Sandy Lane	33
47-53 Russell Road	41
54 Russel Road	43
57 Westfield Road	44
67 Westfield Road	43
Clarks Terrace	37

Table 5.19 Predicted Specific Sound Levels (CC Facility Scenario 3)

NSR	Specific Sound Level $L_{Aeq,Tr}$ (dB)
	First Floor
1-13 Mersey View	43
23 St Pauls Close	49
32 Worton Road	42
37 Sandy Lane	40
47-53 Russell Road	47
54 Russel Road	50
57 Westfield Road	52
67 Westfield Road	50
Clarks Terrace	44

Rating Levels

5.50 With reference to BS 4142, a character correction can be applied to the specific sound level depending on the acoustic characteristics of the sound at the assessment location, including impulsivity, tonality, intermittency or other distinctive character.

5.51 In this case, it has not been considered appropriate to apply any correction for Scenarios 1 and 2 at any assessment/NSR location. This is on the basis that:

1. The specific sound would not be impulsive or intermittent, rather it would be on for a full assessment period (1-hour during the daytime, 15-minutes during the night-time), potentially gradually ramping up/down reflecting the demand for cooling at any one time.
2. Based on professional experience, whilst the coolers incorporate a fan, with potential for tonal emissions, the surrounding parts of the coolers (grilles etc.) act to provide a masking sound such that the resulting emissions are more broadband and *'whooshing'* in nature. This is further 'backed' up by the one-third-octave data showing no objective indication for tonal features.
3. Specific sound levels are of a low magnitude and would be of a relatively broadband character, with no distinctive features and not be dissimilar to sources affecting the existing acoustic environment including other industrial activities and road traffic movements.
4. The sound would be of a similar character and coming from a similar direction as that currently affecting the acoustic environment, i.e. existing commercial/industrial activity. On this basis, if noticeable, the specific sound would be less distinguishable compared to a new source type.

5.52 On the basis of the above, specific sound levels are equal to the Rating Level at all NSRs for all scenarios.

EfW Facility

5.53 Specific sound levels at NSRs associated with operation of the existing EfW facility have been previously calculated by SLR, as part of compliance surveys and similar. The most recent assessment undertaken by SLR included an assessment of EfW noise which was undertaken on the basis of source term measurements at the EfW site and noise modelling[6].

5.54 It should be noted that specific sound levels have not been calculated at all NSR locations as considered in this assessment; as such, the location closest to and most representative has been selected, which is indicated below in red italics.

Table 5.20 EfW Specific Sound Levels

NSR	Specific Sound Level $L_{Aeq,Tr}$ (dB)
1-13 Mersey View	*48*
23 St Pauls Close	*40*
32 Worton Road	*40*
37 Sandy Lane	44

[6] BS4142:2014+A1:2019 Noise Assessment SLR Ref No: 403.00036.00982.002 Version No:3 August 2022

NSR	Specific Sound Level $L_{Aeq,Tr}$ (dB)
47-53 Russell Road	40
54 Russel Road	*40*
57 Westfield Road	*40*
67 Westfield Road	*40*
Clarks Terrace	48

5.55 Following time spent in the area around the existing EfW facility, noise emissions from the EfW facility were not noted to be impulsive, tonal or intermittent, which SLR similarly concluded during their surveys and observations.

5.56 In addition, the sound was not considered by Savills, on survey deployments and collections in 2023 and 2024, to be either readily distinctive, distinguishable or otherwise incongruous. The specific sound was not immediately obvious when arriving at a location close to Clarks Terrace, and was considered to not be dissimilar to distant road traffic noise.

5.57 As such, no correction has been applied to the specific sound levels and these are equal to Rating Levels at all NSRs

6 Noise Impact Assessment

6.1 The following section provides an assessment of likely noise impacts associated with the operation of the existing EfW only and the proposed CC facility only.

6.2 For the proposed CC facility, three operational scenarios have been considered:

- Scenario 1: Coolers operating with an airflow at 50% capacity (or less), occurring for 85% of the year when the WB temperature is <14°C. Due to the fact that this would be the dominant operational scenario this is considered to be representative of 'normal' conditions and likely how the coolers would operate at night when temperatures are lower.
- Scenario 2: Coolers operating with an airflow between 50% and 80% capacity, occurring for 14% of the year when the WB temperature is between 14 and 17°C. This scenario is considered to be a 'reasonable worst case' daytime scenario.
- Scenario 3: Coolers operating with an airflow at 100% capacity (40 m^3/s), occurring for 0.4% of the year (11 hours) when the WB temperature is >19°C. This is considered to be a 'worst case' scenario and would only occur during the daytime period in summer.

6.3 Three CC scenarios have been considered on the basis that noise emissions would vary over the day/year and would not be consistent (that is not to say they would be intermittent or impulsive, rather ramping up/down over the day according to cooling demand). The scenarios selected are considered to be representative of typical operating conditions occurring for 85% of the time, worstcase evening and night-time operating conditions and worst-case daytime.

6.4 As such, a total of four situations have been assessed:

- Situation 1: Existing EfW only;
- Situation 2a: Proposed CC facility only, with coolers operating with an airflow at 50% capacity (or less);
- Situation 2b: Proposed CC facility only, with coolers operating with an airflow between 50% and 90%; and
- Situation 2c: Proposed CC facility only, with coolers operating with an airflow at 100% capacity

6.5 For all situations considered above, the baseline situation is with the existing EfW not being in operation, as requested by the EA, i.e. sound levels presented in Table 5.11.

Situation 1: Existing EfW Facility Only

6.6 Tables 6.1 to 6.3 below provide an initial estimate of the noise impact at the nearest NSRs for operation of the existing EfW only for the daytime, evening and night-time periods respectively. Note that Rating Levels are as detailed in the previously submitted SLR report .

Table 6.1 Situation 1 Existing EfW Facility Only: Daytime (07:00 to 19:00 hours) Assessment

NSR	Specific Sound Level, dB $L_{Aeq,Tr}$	Rating Penalty, dB	Rating Level, dB $L_{Ar,Tr}$	Background Level, dB $L_{A90,T}$	Rating / Background Level Difference, dB
1-13 Mersey View	48	0	48	38	+10
23 St Pauls Close	40	0	40	50	-10
32 Worton Road	40	0	40	43	-3
37 Sandy Lane	44	0	44	43	+1
47-53 Russell Road	40	0	40	50	-10
54 Russel Road	40	0	40	50	-10
57 Westfield Road	40	0	40	50	-10
67 Westfield Road	40	0	40	50	-10
Clarks Terrace	48	0	48	38	+10

Table 6.2 Situation 1 Existing EfW Facility Only: Evening (19:00 to 23:00 hours) Assessment

NSR	Specific Sound Level, dB $L_{Aeq,Tr}$	Rating Penalty, dB	Rating Level, dB $L_{Ar,Tr}$	Background Level, dB $L_{A90,T}$	Rating / Background Level Difference, dB
1-13 Mersey View	48	0	48	36	+12
23 St Pauls Close	40	0	40	45	-5
32 Worton Road	40	0	40	40	0
37 Sandy Lane	44	0	44	40	+4
47-53 Russell Road	40	0	40	45	-5
54 Russel Road	40	0	40	45	-5
57 Westfield Road	40	0	40	45	-5
67 Westfield Road	40	0	40	45	-5
Clarks Terrace	48	0	48	36	+12

Table 6.3 Situation 1 Existing EfW Facility Only: Night-time (23:00 to 07:00 hours) Assessment

NSR	Specific Sound Level, dB $L_{Aeq,Tr}$	Rating Penalty, dB	Rating Level, dB $L_{Ar,Tr}$	Background Level, dB $L_{A90,T}$	Rating / Background Level Difference, dB
1-13 Mersey View	48	0	48	36	+12
23 St Pauls Close	40	0	40	41	-1
32 Worton Road	40	0	40	39	+1
37 Sandy Lane	44	0	44	39	+5
47-53 Russell Road	40	0	40	41	-1
54 Russel Road	40	0	40	41	-1
57 Westfield Road	40	0	40	41	-1
67 Westfield Road	40	0	40	41	-1
Clarks Terrace	48	0	48	36	+12

6.7 With regard to the rating/background level differences, BS 4142:2014+A1:2019 states:

- A difference of around +10 dB or more is likely to be an indication of a significant adverse impact, depending on the context;
- A difference of around +5 dB is likely to be an indication of an adverse impact, depending on the context; and
- The lower the rating level is relative to the measured background sound level, the less likely it is that the specific sound source will have an adverse impact or a significant adverse impact. Where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact, depending on the context.

6.8 On the basis of the above, and with reference to Tables 6.1 to 6.3, it is considered that significant impacts/effects may result at the NSRs closest to the EfW site on Mersey View and Clarkes Terrace during the evening and night-time periods and potentially during the day, depending on the context.

6.9 For all other NSRs, significant effects would be unlikely during all time periods, albeit adverse impacts may result at NSRs on Sandy Lane during the evening or night-time periods depending on the context.

6.10 In this this instance, it is considered that the context of the noise does further reduce the risk for adverse impact such that significant adverse impacts would be unlikely to occur at all NSRs, apart from those potentially on Mersey View and Clarkes Terrace, as explained below.

6.11 At all NSRs apart from those on Clarks Terrace, Mersey View, and Sandy Lane, the maximum Rating Level of 40 dB $L_{Ar,Tr}$ is considered to be of a reasonably low magnitude (note that the 1997 revision of BS 4142 considered Rating Levels below 35 dB $L_{Ar,Tr}$ to be very low) and not of a

magnitude on its own unlikely to result in adverse impact regardless of the difference to the background sound level.

6.12 At all NSR locations, apart from those on Clarks Terrace and Mersey View (i.e. including Sandy Lane), during time spent on site during the daytime and night-time periods, the specific sound was not noted as being audible/discernible. On this basis there would be no impact.

6.13 With reference to Table 5.11, during the daytime period at the NSRs on Clarks Terrace and Mersey View, the residual sound level is 50 dB $L_{Aeq,T}$ and the specific sound level is 48 dB $L_{Aeq,Tr}$; as such, the resultant ambient sound level would be 52 dB $L_{Aeq,T}$, a marginal 2 dB increase, which would be unlikely to be particularly noticeable. Furthermore, resultant ambient sound levels would be 3 dB below the level above which serious annoyance may result[7].

6.14 Furthermore, the +10 dB difference is based on the weekend period background sound level which is 2 dB lower than for the weekday period. On this basis, for 70% of the daytime in the year, the Rating Level would be 'only' 8 dB above the background sound level.

6.15 Whilst the Rating/background level difference is up to +12 dB during the night-time period, this relates to an external assessment location, whereas, during this period, residents are more likely to be inside dwellings, where associated sound levels would be lower (it should also be noted that for the most affected NSRs on Clarkes Terrace, external amenity areas are south facing, with the site to the north).

6.16 Resultant ambient sound levels during the night-time period would be would be 49 dB $L_{Aeq,T}$[8], and provided facades of dwellings attenuated external sound be at least 19 dB, appropriate internal sound levels for sleeping would be achieved, i.e. internal sound levels <30 dB $L_{Aeq,8h}$[9].

6.17 A façade providing 19 dB attenuation is not a high specification and it is likely that existing facades provide at least this level of attenuation, for example basic double glazing provides 25 dB $R_w + C_{tr}$ of attenuation[10].

6.18 On the basis of the above, sleep disturbance would be unlikely to result due to operation of the EfW facility, particularly as the specific sound is not impulsive, intermittent or tonal, or otherwise readily distinctive.

6.19 In addition, the risk for adverse impacts during all time periods is considered to be further mitigated due to the fact the noise emissions from the Weston Point industrial area generally have affected

[7] 55 dB $L_{Aeq,T}$, as outlined in the 'Guidelines For Community Noise' document, published by the World Health Organization.

[8] Specific sound level of 48 dBA + residual sound level of 41 dBA.

[9] As outlined in the 'Guidelines For Community Noise' document, published by the World Health Organization.

[10] For example 4 / 6 to 20 mm / 4 glazing, as per Table B.1 of BS 12354-3:2000

the acoustic environment for decades. On this basis, the sound would be less noticeable and incongruous than if the type and location of the noise source was new.

6.20 It should also be noted that, with reference to Table 5.12 and paragraphs 5.29 to 5.31, the historic night-time background sound level at NSRs on Clarks Terrace and Mersey View, prior to the EfW facility becoming operational, was 49 dB $L_{A90,T}$, i.e.12 dB higher than measured in 2024.

6.21 It is not known for certain, but it is considered highly likely that this is a combined result of reduced traffic movements on the A557, following the opening of the Mersey Gateway Bridge in 2017 and potentially reduced noise emissions from the existing industrial/commercial facilities in the area.

6.22 If it were still the case that night-time background sound levels at NSRs on Clarks Terrace were 49 dB $L_{A90,T}$, as they were prior to and during the early years of EfW operations, the Rating Level would be 1 dB below the background, indicative of a low risk for adverse impact and a very low risk of significant adverse impact.

6.23 On the basis of the above, Situation 1 impacts are summarised in Table 6.4 below. Impacts associated with the operation of the existing EfW facility would be negligible at all times at the majority of NSRs, varying between minor to moderate adverse at NSRs closest to the site, namely those on Clarks Terrace and Mersey View during the evening and night-time periods. These may potentially be considered significant.

6.24 It should be noted that, as it was not possible cease/interrupt EfW operations during the baseline surveys, the background sound level was measured at a proxy location. This was a location selected on the basis that it was unaffected by EfW noise, as requested by the EA, but also unavoidably less affected by noise associated with other existing industrial activities to the north. As such, it is considered likely that background sound levels would be higher at the NSRs than that used in lieu of data acquired at these locations, potentially by several dB.

6.25 Consequently, the noise assessment in this report presents a very much worst-case assessment and it is not unreasonable to suggest that the operational EfW facility is not currently resulting in significant adverse impacts at NSRs, i.e. EfW Rating Levels do not exceed 10 dB above the representative background sound level, albeit it is not possible to say with certainty in this report.

6.26 Notwithstanding the above, it is acknowledged that the community response includes complaints made to the EA associated with operation of the EfW, including noise. Whilst these claims may be valid, in that significant adverse effects are occurring[11], it is outside the technical scope of this assessment to confirm if this is the case or not.

[11] Such as the noise causing a material change in behaviour, attitude or other physiological response, having to keep windows closed most of the time, 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.

Table 6.4 Situation 1 Existing EfW Facility Only: Site Noise Impact

NSR	Situation 1 EfW Facility Only: Site Noise Impact		
	Daytime	Evening	Night-time
1-13 Mersey View	Minor	Moderate	Moderate*
23 St Pauls Close	Negligible	Negligible	Negligible
32 Worton Road	Negligible	Negligible	Negligible
37 Sandy Lane	Negligible	Minor	Minor
47-53 Russell Road	Negligible	Negligible	Negligible
54 Russel Road	Negligible	Negligible	Negligible
57 Westfield Road	Negligible	Negligible	Negligible
67 Westfield Road	Negligible	Negligible	Negligible
Clarks Terrace	Minor	Moderate	Moderate*

Situation 2a: Proposed CC facility only with coolers at <50%

6.27 Tables 6.5 to 6.7 below provide an initial estimate of the noise impact at the nearest NSRs for Situation 2a, i.e. with the CC facility coolers operating with a fan speed at up to 50% capacity, occurring for 85% of the year, for the daytime, evening and night-time periods respectively. Rating Levels are at first floor level, as per EA guidance.

6.28 Figure 1 at the end of the report provides a graphical presentation of the Situation 2a specific sound level at 4 m AGL (note only Situation 2a has been calculated graphically on the basis this is the most likely operating scenario and very likely the only scenarios that would occur during the night-time period).

Table 6.5 Situation 2a Proposed CC Facility Only Coolers @ 50%: Daytime Assessment

NSR	Specific Sound Level, dB $L_{Aeq,Tr}$	Rating Penalty, dB	Rating Level, dB $L_{Ar,Tr}$	Background Level, dB $L_{A90,T}$	Rating / Background Level Difference, dB
1-13 Mersey View	36	0	36	38	-2
23 St Pauls Close	40	0	40	50	-10
32 Worton Road	33	0	33	43	-10
37 Sandy Lane	32	0	32	43	-11
47-53 Russell Road	40	0	40	50	-10
54 Russel Road	42	0	42	50	-8
57 Westfield Road	43	0	43	50	-7
67 Westfield Road	42	0	42	50	-8
Clarks Terrace	37	0	37	38	-1

Table 6.6 Situation 2a Proposed CC Facility Only Coolers @ 50%: Evening Assessment

NSR	Specific Sound Level, dB $L_{Aeq,Tr}$	Rating Penalty, dB	Rating Level, dB $L_{Ar,Tr}$	Background Level, dB $L_{A90,T}$	Rating / Background Level Difference, dB
1-13 Mersey View	36	0	36	36	0
23 St Pauls Close	40	0	40	45	-5
32 Worton Road	33	0	33	40	-7
37 Sandy Lane	32	0	32	40	-8
47-53 Russell Road	40	0	40	45	-5
54 Russel Road	42	0	42	45	-3
57 Westfield Road	43	0	43	45	-2
67 Westfield Road	42	0	42	45	-3
Clarks Terrace	37	0	37	36	+1

Table 6.7 Situation 2a Proposed CC Facility Only Coolers @ 50%: Night-time Assessment

NSR	Specific Sound Level, dB $L_{Aeq,Tr}$	Rating Penalty, dB	Rating Level, dB $L_{Ar,Tr}$	Background Level, dB $L_{A90,T}$	Rating / Background Level Difference, dB
1-13 Mersey View	36	0	36	36	0
23 St Pauls Close	40	0	40	41	-1
32 Worton Road	33	0	33	39	-6
37 Sandy Lane	32	0	32	39	-7
47-53 Russell Road	40	0	40	41	-1
54 Russel Road	42	0	42	41	+1
57 Westfield Road	43	0	43	41	+2
67 Westfield Road	42	0	42	41	+1
Clarks Terrace	37	0	37	36	+1

6.29 With reference to Tables 6.5 to 6.7 above, it is considered that for 85% of the year, there is a low risk that operation of the CC facility would result in significant adverse impact at all NSRs for all time periods, depending on the context.

6.30 In this instance, it is considered that the context of the noise does further reduce the risk for adverse impact such that an adverse impact would be unlikely to occur as explained below.

6.31 For NSRs with the highest difference, the maximum Rating Level of 37 dB $L_{Ar,Tr}$ is considered to be of a low magnitude and not of a magnitude on its own to result in adverse impact regardless of the difference to the background sound level.

6.32 Whilst the Rating/background level difference is highest at up to +1 dB during the night-time period, this relates to an external assessment location, whereas during this period, residents are more likely to be inside dwellings, where associated sound levels would be lower.

6.33 Resultant ambient sound levels during the night-time period would be would be 40 dB $L_{Aeq,T}$[12], and provided facades of dwellings attenuated external sound be at least 10 dB, appropriate internal sound levels for sleeping would be achieved, i.e. internal sound levels <30 dB $L_{Aeq,8h}$.

6.34 A façade providing 10 dB attenuation is not a high specification and it is likely that existing facades provide at least this level of attenuation, for example basic double glazing provides 25 dB $R_w + C_{tr}$ of attenuation and a partially open window provides 15 dB of attenuation.

6.35 On the basis of the above, sleep disturbance would be unlikely to result due to operation of the CC facility, particularly as the specific sound would not be impulsive, intermittent or tonal, or otherwise readily distinctive.

6.36 In addition, the risk for adverse impacts during all time periods is considered to be further mitigated due to the fact the noise emissions from the Weston Point industrial area generally have affected the acoustic environment for decades. On this basis, the sound would be less noticeable and incongruous than if the type and location of the noise source was new.

6.37 On the basis of the above, Situation 2a impacts are summarised in Table 6.8 below. Impacts associated with the operation of the proposed CC facility would be negligible at all times at the majority of NSRs and up to minor adverse impact at NSRs closest to the site during the evening and night-time periods, namely those on Clarks Terrace and Mersey View. Significant adverse impacts would be avoided.

Table 6.8 Situation 2a Proposed CC Facility Only Coolers @ 50%: Site Noise Impact

NSR	Situation 2a EfW Facility Only Coolers @ 50%: Site Noise Impact		
	Daytime	Evening	Night-time
1-13 Mersey View	Negligible	Negligible	Negligible
23 St Pauls Close	Negligible	Negligible	Negligible
32 Worton Road	Negligible	Negligible	Negligible
37 Sandy Lane	Negligible	Negligible	Negligible
47-53 Russell Road	Negligible	Negligible	Negligible
54 Russel Road	Negligible	Negligible	Negligible
57 Westfield Road	Negligible	Negligible	Negligible
67 Westfield Road	Negligible	Negligible	Negligible

[12] Specific sound level of 37 dBA + residual sound level of 37 dBA.

NSR	Situation 2a EfW Facility Only Coolers @ 50%: Site Noise Impact		
	Daytime	Evening	Night-time
Clarks Terrace	Negligible	Negligible	Negligible

Situation 2b: Proposed CC facility only with coolers at 50 to 80%

6.38 Tables 6.9 to 6.11 below provide an initial estimate of the noise impact at the nearest NSRs for Scenario 2b, i.e. with the coolers operating at a fans speed of between 50 and 80% capacity, occurring for 12% of the year, for the daytime, evening and night-time periods, respectively. Note Rating Levels are at first floor level.

Table 6.9 Situation 2b Proposed CC Facility Only Coolers @ 50 to 80%: Daytime Assessment

NSR	Specific Sound Level, dB $L_{Aeq,Tr}$	Rating Penalty, dB	Rating Level, dB $L_{Ar,Tr}$	Background Level, dB $L_{A90,T}$	Rating / Background Level Difference, dB
1-13 Mersey View	37	0	37	38	-1
23 St Pauls Close	41	0	41	50	-9
32 Worton Road	35	0	35	43	-8
37 Sandy Lane	33	0	33	43	-10
47-53 Russell Road	41	0	41	50	-9
54 Russel Road	43	0	43	50	-7
57 Westfield Road	44	0	44	50	-6
67 Westfield Road	43	0	43	50	-7
Clarks Terrace	37	0	37	38	-1

Table 6.10 Situation 2b Proposed CC Facility Only Coolers @ 50 to 90%: Evening Assessment

NSR	Specific Sound Level, dB $L_{Aeq,Tr}$	Rating Penalty, dB	Rating Level, dB $L_{Ar,Tr}$	Background Level, dB $L_{A90,T}$	Rating / Background Level Difference, dB
1-13 Mersey View	37	0	37	36	+1
23 St Pauls Close	41	0	41	45	-4
32 Worton Road	35	0	35	40	-5
37 Sandy Lane	33	0	33	40	-7
47-53 Russell Road	41	0	41	45	-4
54 Russel Road	43	0	43	45	-2
57 Westfield Road	44	0	44	45	-1
67 Westfield Road	43	0	43	45	-2
Clarks Terrace	37	0	37	36	+1

Table 6.11 Situation 2b Proposed CC Facility Only Coolers @ 50 to 90%: Night-time Assessment

NSR	Specific Sound Level, dB $L_{Aeq,Tr}$	Rating Penalty, dB	Rating Level, dB $L_{Ar,Tr}$	Background Level, dB $L_{A90,T}$	Rating / Background Level Difference, dB
1-13 Mersey View	37	0	37	36	+1
23 St Pauls Close	41	0	41	41	0
32 Worton Road	35	0	35	39	-4
37 Sandy Lane	33	0	33	39	-6
47-53 Russell Road	41	0	41	41	0
54 Russel Road	43	0	43	41	+2
57 Westfield Road	44	0	44	41	+3
67 Westfield Road	43	0	43	41	+2
Clarks Terrace	37	0	37	36	+1

6.39 With reference to Tables 6.9 to 6.11 above, it is considered that, for 15% of the year (i.e. when the WB temperature is between 14 and 18°C), there is a low risk that operation of the CC facility would result in significant adverse impact at all NSRs for all time periods, depending on the context.

6.40 In this instance, it is considered that the context of the noise does further reduce the risk for adverse impact such that an adverse impact would be unlikely to occur as explained below.

6.41 At the NSRs with the highest difference, the Rating Level of 44 dB $L_{Ar,Tr}$ is considered to be of a reasonably low magnitude (note that the 1997 revision of BS 4142 considered Rating Levels below 35 dB to be very low) and not considered to not be of sufficient magnitude likely to result in adverse impact, such as sleep disturbance (as detailed further below).

6.42 Whilst the Rating/background level difference is highest at up to +3 dB during the night-time period, this relates to an external assessment location, whereas during this period, residents are more likely to be inside dwellings, where associated sound levels would be lower.

6.43 Resultant ambient sound levels during the night-time period would increase by less than 1 dB[13], and provided facades of dwellings attenuated external sound by at least 14 dB, appropriate internal sound levels for sleeping would be achieved, i.e. internal sound levels <30 dB $L_{Aeq,8h}$.

6.44 A façade providing 14 dB attenuation is not a high specification and it is likely that existing facades provide at least this level of attenuation, for example basic double glazing provides 22 dB $R_w + C_{tr}$.

[13] Specific sound level of 44 dBA + residual sound level of 52 dBA. = 52.6 dBA

6.45 On the basis of the above, sleep disturbance would be unlikely to result due to operation of the CC facility, particularly as the specific sound would not be impulsive, intermittent or tonal, or otherwise readily distinctive.

6.46 In addition, the risk for adverse impacts during all time periods is considered to be further mitigated due to the fact the noise emissions from the Weston Point industrial area generally have affected the acoustic environment for decades. On this basis, the sound would be less noticeable and incongruous than if the type and location of the noise source was new.

6.47 On the basis of the above, Situation 2b impacts are summarised in Table 6.12 below. Impacts associated with the operation of the proposed CC facility would be negligible at all times at all NSRs. Significant adverse impacts would be avoided.

Table 6.12 Situation 2b Proposed CC Facility Only Coolers @ 50% to 80%: Site Noise Impact

NSR	Situation 2b EfW Facility Only Coolers @ 50% to 80%: Site Noise Impact		
	Daytime	Evening	Night-time
1-13 Mersey View	Negligible	Negligible	Negligible
23 St Pauls Close	Negligible	Negligible	Negligible
32 Worton Road	Negligible	Negligible	Negligible
37 Sandy Lane	Negligible	Negligible	Negligible
47-53 Russell Road	Negligible	Negligible	Negligible
54 Russel Road	Negligible	Negligible	Negligible
57 Westfield Road	Negligible	Negligible	Negligible
67 Westfield Road	Negligible	Negligible	Negligible
Clarks Terrace	Negligible	Negligible	Negligible

Situation 2c: Proposed CC facility only with coolers at 100%

6.48 Table 6.13 below provides an initial estimate of the noise impact at the nearest NSRs for Scenario 2c, i.e. with the coolers operating at 100% fan speed, which would occur for 0.4% of the year (11 hours) when the WB temp is >19 C, for the daytime period.

6.49 Note that as this scenario would only occur at maximum WB temperatures, only a daytime assessment has been undertaken as maximum WB temperatures would not occur during the evening or night-time periods. Rating Levels are at ground floor level.

Table 6.13 Situation 2c Proposed CC Facility Only Coolers @ 100% Assessment

NSR	Specific Sound Level, dB $L_{Aeq,Tr}$	Rating Penalty, dB	Rating Level, dB $L_{Ar,Tr}$	Background Level, dB $L_{A90,T}$	Rating / Background Level Difference, dB
1-13 Mersey View	43	0	43	38	+5
23 St Pauls Close	49	0	49	50	-1
32 Worton Road	42	0	42	43	-1
37 Sandy Lane	40	0	40	43	-3
47-53 Russell Road	47	0	47	50	-3
54 Russel Road	50	0	50	50	0
57 Westfield Road	52	0	52	50	+2
67 Westfield Road	50	0	50	50	0
Clarks Terrace	44	0	44	38	+6

6.50 With reference to Tables 6.13 above, it is considered that, during periods when the WB temperature is >19°C, (i.e. for <1% of the year), there is a risk that operation of the CC facility would result in adverse impact at the NSRs on Clarkes Terrace and Mersey View during the daytime period depending on the context, albeit a low risk for significant adverse impact.

6.51 At all other NSRs, it is considered that, during periods when the WB temperature is >19°C, (i.e. for <1% of the year), there is, at worst, a low risk that operation of the CC facility would result in adverse impact significant or otherwise.

6.52 In this instance, it is considered that the context of the noise does reduce the risk for adverse impact such that significant adverse impact would be unlikely at all NSRs to occur as explained below.

6.53 During the daytime period at the NSRs on Clarks Terrace and Mersey View, the residual sound level is 48 dB $L_{Aeq,T}$ and the specific sound level is 44 dB $L_{Aeq,Tr}$, as such, the resultant ambient sound level would be 49 dB $L_{Aeq,T}$, a negligible 1 dB increase, which would likely not be noticeable. Furthermore, resultant ambient sound levels would be 4 dB below the level above which serious annoyance may result.

6.54 The change is considered to be further mitigated due to the fact the noise source/character is not new. Noise emissions from the Weston Point industrial area have affected the acoustic environment for decades and, as such, any change would be less noticeable than if the type and location of the noise source was new.

6.55 Similarly, it should also be noted that the numeric BS 4142 assessment is based on the 25th percentile value of the measured background sound level and, for the majority of the time, the background sound level is higher.

6.56 It should also be noted that the Rating Level at Clarks Terrace is based on this NSR being downwind of the sources (which are to the north) under favourable noise propagation conditions. In reality Situation 2c would only occur during the warmest periods of the year when winds tend to be from a southerly direction, i.e. the NSRs would be upwind of the source.

6.57 On this basis, it is considered unlikely that, when the coolers are operating at 100% capacity, Clarkes Terrace would be downwind of the coolers, rather upwind and, as such, specific sound levels would be significantly lower by several dB. On this basis the +6 dB Rating background sound level difference is a very worst-case scenario, that would be unlikely to actually occur.

6.58 On the basis of the above, Situation 2c impacts are summarised in Table 6.15 below. Impacts associated with the operation of the proposed CC facility would be negligible or minor at the majority of NSRs and up to minor adverse impact at NSRs closest to the site, namely those on Clarks Terrace. Significant adverse impacts would be avoided.

6.59 As weekend period baseline sound levels are only marginally lower (and only by 1 dB at night at all NSRs), weekend impacts would not be materially different when considering the week/yearly period as a whole.

Table 6.14 Situation 2c Proposed CC Facility Only Coolers @ 100%: Site Noise Impact

NSR	Situation 2c EfW Facility Only Coolers 100%: Site Noise Impact Daytime
1-13 Mersey View	Minor
23 St Pauls Close	Negligible
32 Worton Road	Negligible
37 Sandy Lane	Negligible
47-53 Russell Road	Negligible
54 Russel Road	Negligible
57 Westfield Road	Negligible
67 Westfield Road	Negligible
Clarks Terrace	Minor

7 Existing EfW and Proposed CC Facility

7.1 With reference to Section 6 above, as Rating Levels during the evening and night-time periods from the existing EfW facility are potentially up to 12 dB above the background sound level (albeit likely less and potentially not exceeding 10 dB above, as outlined below) at NSRs on Clarkes Terrace and Mersey View, there is a risk that significant impacts are resulting.

7.2 However, it should be noted that, as it was not possible to cease/interrupt EfW operations during the baseline surveys, the background sound level was measured at a proxy location 120 m to the south of the NSRs. This was a location selected on the basis that it was unaffected by EfW noise, as requested by the EA, but also unavoidably less affected by noise associated with other existing industrial activities to the north (INEOS Enterprises Salt, Veolia. Runcorn Wood Recycling Facility and Runcorn Vehicle Recycling).

7.3 As such, it is considered likely that background sound levels would be higher at the NSRs than that used in lieu of data acquired at these locations, with Rating Levels potentially not being 10 dB or more above the background sound level at the actual NSR location.

7.4 Consequently, the noise assessment in this report presents a very much worst-case assessment and it is not unreasonable to suggest that the EfW facility is not resulting in significant adverse impacts at NSRs, albeit it is not possible to say with certainty in this report.

7.5 Nevertheless, in order for these potential significant adverse impacts to not worsen in future, it would be necessary for noise from the CC facility to not result in any increase in overall noise emissions at the NSRs where significant impacts may currently be resulting.

7.6 On the basis of the above, Table 7.1 below provides a summary of EfW specific sound levels and the highest CC facility specific sound levels that would occur during the evening and night-time periods, the cumulative specific sound levels and resulting changes.

Table 7.1 EfW & CC Facility: Specific Sound Levels

NSR	Specific Sound Level, dB $L_{Aeq,Tr}$			Change (dB)
	EfW	CCF	Cumulative	
1-13 Mersey View	48	37	48	0
Clarks Terrace	48	37	48	0

7.7 With reference to the tables above, the introduction of the CC facility would not result in overall specific sound levels from the combined sites at the NSRs where significant impacts may currently possibly be resulting, increasing.

7.8 Consequently, the CC facility would not increase the potential for significant adverse impacts to worsen in future.

8 Noise Impact Assessment Summary

8.1 A total of four situations have been assessed:

- Situation 1: Existing EfW only;
- Situation 2a: Proposed CC facility only, with coolers operating with an airflow at 50% capacity (or less);
- Situation 2b: Proposed CC facility only, with coolers operating with an airflow between 50% and 80%; and
- Situation 2c: Proposed CC facility only, with coolers operating with an airflow at 100% capacity.

8.2 For all situations considered above, the baseline situation is with the existing EfW not being in operation, as requested by the EA, i.e. sound levels presented in Table 5.11.

Situation 1

8.3 With regard to Situation 1 (Existing EfW only), Rating Levels are up to 12 dB above the background sound level at NSR locations as used in this assessment during the evening and night-time periods, respectively. However, it should be reiterated that the background sound level was measured at a proxy location unaffected by EfW noise, as requested by the EA, but also unavoidably less affected by noise associated with other existing industrial activities to the north. As such, it is considered likely that background sound levels would be higher at the NSRs than that used in lieu of data acquired at these locations, with Rating Levels potentially not being 10 dB or more above the background sound level at the actual NSR location.

8.4 Whilst this is potentially indicative of significant impacts occurring, consideration of the context reduces the risk for adverse impact such that a significant adverse impact would be unlikely to occur at all NSRs, as summarised below.

8.5 At the most affected NSRs (those on Clarks Terrace and Mersey View), the resultant ambient sound level would increase by a marginal 2 dB, to 52 dB $L_{Aeq,T}$, which would be unlikely to be particularly noticeable and be 3 dB below the level above which serious annoyance may result.

8.6 Whilst the Rating/background level difference is up to +12 dB during the night-time period, this relates to an external assessment location, whereas during this period residents are more likely to be inside dwellings, where associated sound levels would be lower. On the basis that the facades of dwellings attenuated external sound by at least 19 dB (considered to be a reasonable assumption), appropriate internal sound levels for sleeping would be achieved, and sleep disturbance would be unlikely to result.

8.7 Due to the fact the noise emissions from the Weston Point industrial area generally have affected the acoustic environment for decades, sound from the EfW would be less noticeable and incongruous than if the type and location of the noise source was new, or the NSRs had not been previously in an area affected by industrial noise.

8.8 In this regard, the historic night-time background sound levels at NSRs on Clarks Terrace and Mersey View (where EfW sound is highest), prior to the EfW facility becoming operational, was 49 dB $L_{A90,T}$, i.e.12 dB higher than measured in 2024.

8.9 If it were still the case that night-time background sound levels at NSRs on Clarks Terrace were 49 dB $L_{A90,T}$, as they were prior to and during the early years of EfW operations, the Rating Level would be 1 dB below the background, indicative of a low risk of adverse impact and a very low risk of significant adverse impact.

8.10 It should be noted that as it was not possible to cease/interrupt EfW operations during the baseline surveys, the background sound level was measured at a proxy location 120 m to the south of the NSRs. This was a location selected on the basis that it was unaffected by EfW noise, as requested by the EA, but also unavoidably less affected by noise associated with other existing industrial activities to the north (INEOS Enterprises Salt, Veolia. Runcorn Wood Recycling Facility and Runcorn Vehicle Recycling).

8.11 As such, it is considered likely that background sound levels would be higher at the NSRs than that used in lieu of data acquired at these locations, with Rating Levels potentially being <10 dB above the background sound level the actual NSR location.

8.12 Consequently, the noise assessment in this report presents a very much worst case assessment and it is not unreasonable to suggest that the EfW facility is not resulting in significant adverse impacts at NSRs, albeit it is not possible to say with certainty in this report.

Situations 2a, 2b and 2c

8.13 For Situations 2a and 2b, i.e. when the coolers are operating at up to 80% fan speed, which would occur for 99% of the year, Rating Levels would be 1 dB below, 1 dB above and 3 dB above the representative background sound level at NSR locations during the day, evening and night-time periods, respectively.

8.14 This is indicative of a low risk for adverse impact and a very low risk for significant impacts occurring and consideration of the context reduces the risk for adverse impact further such that any significant adverse impact would be very unlikely to occur at all NSRs, as summarised below.

8.15 The maximum Rating Level of 44 dB $L_{Ar,Tr}$ is considered to be of a reasonably low magnitude (note that the 1997 revision of BS 4142 considered Rating Levels below 35 dB to be very low), and not considered to not be of sufficient magnitude likely to result in adverse impact, such as sleep disturbance (as detailed further below).

8.16 Whilst the Rating/background level difference is up to +3 dB during the night-time period, this relates to an external assessment location, whereas during this period residents are more likely to be inside dwellings, where associated sound levels would be lower. On the basis that the facades of dwellings will attenuate external sound by at least 16 dB (considered to be a reasonable assumption), appropriate internal sound levels for sleeping would be achieved, and sleep disturbance would be unlikely to result.

8.17 Due to the fact the noise emissions from the Weston Point industrial area generally have affected the acoustic environment for decades, the sound from the EfW would be less noticeable and incongruous than if the type and location of the noise source was new, or the NSRs had not been previously in an area affected by industrial noise.

8.18 For Situation 2c, i.e. with the coolers operating at >90% fan speed, which would occur for 0.4% of the year when the WB temp is >19 C, the Rating Level would be up to 6 dB above the daytime background sound level.

8.19 While this is indicative of an adverse impact occurring, albeit a low risk for significant adverse impact, consideration of the context reduces the risk for adverse impact such that a significant adverse impact would be very unlikely to occur at all NSRs, as summarised below.

8.20 Primarily, this impact would only occur for ~11 hours per year, a very limited time and only during the day. Also, the Rating Level at Clarks Terrace is based on this NSR being downwind of the sources (which are to the north) under favourable noise propagation conditions. In reality Situation 2c would only occur during the warmest periods of the year (when the WB temp is >19 °C) when winds tend to be from a southerly direction, i.e. the NSRs would be upwind of the source.

8.21 On this basis, it is considered unlikely that, when the coolers are operating at 100% capacity, Clarkes Terrace would be downwind of the coolers, rather upwind and as such specific sound levels would be significant lower by several dB. On this basis, the +6 dB Rating background sound level difference is a very worst case scenario, that would be unlikely to actually occur in reality.

8.22 Due to the fact the noise emissions from the Weston Point industrial area generally have affected the acoustic environment for decades, the sound from the EfW would be less noticeable and incongruous than if the type and location of the noise source was new, or the NSRs had not been previously in an area affected by industrial noise.

8.23 On the basis of the above, impacts associated with the operation of the existing proposed CC facility would be negligible at all times at the majority of NSRs, varying between minor to moderate adverse at NSRs closest to the site, namely those on Clarks Terrace and Mersey View. Significant adverse impacts would be avoided.

Existing EfW and Proposed CC Facility

8.24 The introduction of the CC facility would not result in overall noise levels at the NSRs where significant impacts may currently be resulting increasing.

8.25 Consequently, the CC facility would not worsen, in future, the existing impact.

Summary

8.26 On the basis that significant adverse impacts associated with operation of the CC facility would be avoided, and that operation of the CC facility would not result in potential significant impacts from the EfW to worsen, operation of the proposed CC facility would comply with the 'Noise Policy Statement for England' (NPSE) [5], which sets out the long term overarching vision of Government noise policy.

8.27 It should also be noted that background sound levels at all NSRs were significantly higher at the time of the initial design, construction and operation of the existing EfW facility, with night-time background sound levels at NSRs on Clarks Terrace previously 12 dB higher (49 compared to 37 dB $L_{A90,T}$ currently).

8.28 This reduction is likely due to (at least in part) significantly reduced traffic movements on the A557, following the opening of the Mersey Gateway Bridge in 2017, and potentially reduced noise emissions from other existing industrial/commercial facilities in the area, i.e. factors outside the control of the EfW operator.

8.29 If it was still the case that the night-time background sound level at NSRs on Clarks Terrace was 49 dB $L_{A90,T}$, the Rating Level would not exceed the background sound level, indicative of a low risk of adverse impact and a very low risk of significant adverse impact.

8.30 Whilst outside the technical scope of this assessment, it is considered that there is a balance between the risk for adverse or significant adverse noise impact occurring and the wider benefit provided by the activity/process that causes the risk of adverse impact. In this instance, the benefit provided by the proposed activity/process is the reduction of carbon dioxide discharged to atmosphere (900,000 tonnes per annum) which would reduce adverse effects of climate change.

9 Noise Control

9.1 With reference to Section 8 above, operation of the proposed CC and existing EfW facility over the entire year period would not result in significant adverse impact at all NSRs for all time periods. However, this is based on the following application of noise control methods/techniques to the proposed CC facility:

- the proposed coolers being fitted with low noise fans;
- three sides of the roof top areas, where the coolers are installed, having parapet walls;
- the flue gas fan having a silencer fitted; and
- the flue gas fan being housed in an enclosure.

9.2 Due to technical and spatial constraints, it is not feasible to select coolers with lower noise emissions or install the coolers differently, i.e. at low/ground level or be more enclosed.

9.3 On the basis of the above, all techniques have been employed to minimise noise emissions as far as reasonably practicable and best available techniques (BAT) have therefore been applied.

9.4 With regard to the existing EfW facility, it is understood that several noise control methods/techniques have been applied to the facility since the commencement of operations, including as to how waste is received (railhead improvements), improvement to the boiler and turbine hall silencers and the cooling fans.

9.5 With regard to the EfW cooling fans, the dominant sound source affecting NSRs to the south, works have included the addition of silencer baffles and waterfall noise reducers, and all available techniques have been employed to minimise noise emissions from these as far as reasonable. As such, no practicable measures exist for reducing noise emissions further.

9.6 It is understood that works to the EfW cooling fans specifically has resulted in broadband sound level at the NSRs to the south being approximately 8 dB lower, a substantial reduction.

10 Uncertainty

10.1 In all assessments, it is good practice to consider the uncertainty which can arise from a number of different aspects. There are degrees of uncertainty associated with: instrumentation used for surveying; measurement technique and the variables influencing the measurement results such as transmission path and weather conditions; source terms used for modelling; calculation uncertainty; assessment uncertainty; and the subjective response of residents to noise sources.

10.2 Uncertainty due to instrumentation has been significantly reduced with the introduction of more modern instrumentation and is reduced further by undertaking field calibration checks on sound level meters before and after each measurement period with no significant drifty (less than 0.5 dB) and that all instrumentation is within accepted laboratory calibration intervals.

10.3 Every effort has been made to reduce the uncertainty of the baseline sound level measurements. The duration of the baseline survey is considered to significantly reduce the uncertainty associated with the baseline sound levels. Data logged during periods of rainfall has been removed from the analysis. Based on professional judgement including substantial experience of acquiring and analysing baseline data for numerous sites in various locations, and a desk-based review of the site and surrounding area, it is considered that the baseline data acquired during the survey is typical of the area.

10.4 Representative baseline sound levels used in the assessment have been based on the 25% of all data logged, i.e. for 75% of the time, baseline sound levels are higher than used in the assessment. This approach will favour a reasonable ‘worst case’ scenario and a robust assessment to be completed. Representative baseline sound levels have been calculated for three accepted time periods daytime (07:00 to 19:00 hours), evening (19:00 to 23:00 hours) and night-time (23:00 to 07:00 hours).

10.5 Representative baseline sound levels used in the assessment are unaffected by existing EfW as far as reasonably practicable. This has been confirmed when on site with attended daytime and night-time observations and review of the data obtained.

10.6 Calculation uncertainty and assessment uncertainty have been reduced by peer review of all baseline data, model input data, model results and assessment calculations, and by using the appropriate level of precision at each stage of the assessment calculations.

10.7 With regard to the primary CC facility noise source, the 18 hybrid coolers, acoustic and operational data has been provided by the manufacturer (BAC) so it is considered there is minimal uncertainty with regard to this data. Acoustic data for the flue gas fan has been calculated based on accepted empirical formula.

10.8 With regard to the EfW facility specific noise levels have been based on data provided by SLR, rather than Savills directly, however this has been confirmed as appropriate in advance with the EA.

10.9 There are uncertainties in any prediction methodology. ISO 9613 Part 2 provides a method for predicting acoustic propagation outdoors. The method is applicable in practice to a great variety of sound sources and environments. It is applicable (directly or indirectly) to most situations including industrial sound sources, construction activities and many other ground-based sound sources. The estimated accuracy for values of the average downwind sound pressure level is stated as +/-3 dB for a mean source/receptor height of up to five metres and source/propagation separation distance of up to 1 km. For a mean source height between 5 and 30 m, the estimated accuracy is given as +/-1 dB for a source/propagation separation distance of 0 to 100 m and +/- 3 dB for a source/propagation separation distance of >100 m. This is a standard approach and is considered to be an acceptable prediction methodology.

10.10 Specific sound levels have been calculated at first floor level at locations of facades albeit in free-field locations.

10.11 Intervening structures between the site and NSR location and the ground type has been based on a review of mapping and site observations.

10.12 A quantitative assessment has been undertaken based on information provided by the project team for the proposed development and professional judgement based on recognised and accepted empirical calculation methodologies. Where assumptions have been made, these have been informed through assessment and visiting similar facilities and have favoured a worst-case scenario, allowing for a reasonable and robust assessment.

10.13 With regards to the subjective response of residents, the noise standards adopted for the assessment are based upon the subjective response of the majority of the population or will be based upon the most likely response of the majority of the population. This is considered to be the best that can be achieved in a population of varying subjective response which will vary dependent upon a wide range of factors.

10.14 All areas and potential consequences of uncertainty have been minimised at every stage of the assessment process. On the basis of the above, and in the context of subjective response, the effects of uncertainty on the assessment conclusions are considered minimal.

11 Summary and Conclusions

11.1 The Acoustics, Noise and Vibration Team at Savills has been appointed by Viridor Runcorn CCS Limited (Viridor) to undertake a 'noise impact assessment' (NIA) in relation to an Environment Agency, 'Environmental Permit' (EP) application for a proposed 'monoethanolamine' (MEA) based 'carbon capture and storage' (CC) facility.

11.2 This NIA considers impacts associated with the adjacent existing and operational 'energy from waste' (EfW) facility only, the proposed CC facility only and the existing EfW and proposed CC facility in combination. In all cases the baseline situation is the acoustic environment in the absence of the operational EfW facility.

11.3 Noise emissions from the CC facility will be controlled through the application of noise control measures, i.e. best available techniques which have been described. Due to technical and spatial constraints, it is not feasible to incorporate additional noise control techniques.

11.4 Noise emissions from the EfW are controlled with the application of inherent noise control measures/techniques and significant additional measures since commencement of operation, including mitigation applied to the EfW cooling fans (addition of silencer baffles and waterfall noise reducers) resulting in noise emissions a significant 8 dB lower at NSRs to the south.

11.5 Operation of the existing EfW facility only would result in impacts of negligible magnitude at the majority of 'noise sensitive receptors' (NSRs), varying between minor to moderate adverse at NSRs closest to the site, namely those on Clarks Terrace and Mersey View. Significant adverse impacts may occur at Clarks Terrace and Mersey View, although it is not possible to conclude with certainty in this report.

11.6 It should also be noted that the historic background sound level at NSRs on Clarks Terrace and Mersey View, prior to the EfW facility becoming operational, at the time of the original EfW EP application was significantly higher (12 dB higher) than measured in 2024. It is not known for certain, but it is considered highly likely that this is a combined result of reduced traffic movements on the A557, following the opening of the Mersey Gateway Bridge in 2017 and potentially reduced noise emissions from the existing industrial/commercial facilities in the area. If it were still the case that night-time background sound levels at NSRs on Clarks Terrace were 49 dB $L_{A90,T}$, as they were prior to and during the early years of EfW operations, the Rating Level would be 1 dB below the background, indicative of a low risk for adverse impact and a very low risk of significant adverse impact.

11.7 For 99.6% of the year, noise emissions from operation of the proposed CC facility only would result in negligible impact at all noise sensitive receptors (NSRs) and for all time periods (daytime, evening and night-time). For the remaining 0.4% of the year (11 hours), noise emissions would be higher, and a minor adverse impact would likely result at two NSRs.

11.8 However, as this minor impact would only occur for 11 hours in a year, and would be limited to the daytime period only, not affecting sleep, it is considered that, on balance and over the entire year period, the overall impact would be negligible.

11.9 The CC facility would not increase potential existing significant adverse impacts associated with the EfW to worsen in future.

11.10 Background sound levels at all NSRs were significantly higher at the time of the initial design, construction and operation of the existing EfW facility. This reduction is likely due to significantly reduced traffic movements on the A557, following the opening of the Mersey Gateway Bridge, and potentially reduced noise emissions from other existing industrial/commercial facilities in the area, i.e. factors outside the control of the EfW operator. Rating Levels from the existing EfW and the proposed CC facility would not exceed historical baseline sound levels, indicative of a low risk of adverse impact and very low risk of significant adverse impact based on the historical context.

11.11 On the basis that significant adverse impacts associated with operation of the CC facility would be avoided and that operation of the CC facility would not result in potential significant impacts from the EfW to worsen, operation of the proposed CC facility would comply with the 'Noise Policy Statement for England' (NPSE) which sets out the long term overarching vision of Government noise policy.

11.12 Whilst outside the technical scope of this assessment, it is considered that there is a balance between the risk of adverse or significant adverse noise impact occurring, and the wider benefit provided by the activity/process that causes the risk of adverse impact. In this instance, the benefit provided by the proposed activity/process is the reduction of carbon dioxide discharged to atmosphere (900,000 tonnes per annum) which would reduce adverse effects of climate change.

References

1 British Standards Institution. British Standard 4142:2014+A1:2019. Methods for rating and assessing industrial and commercial sound.

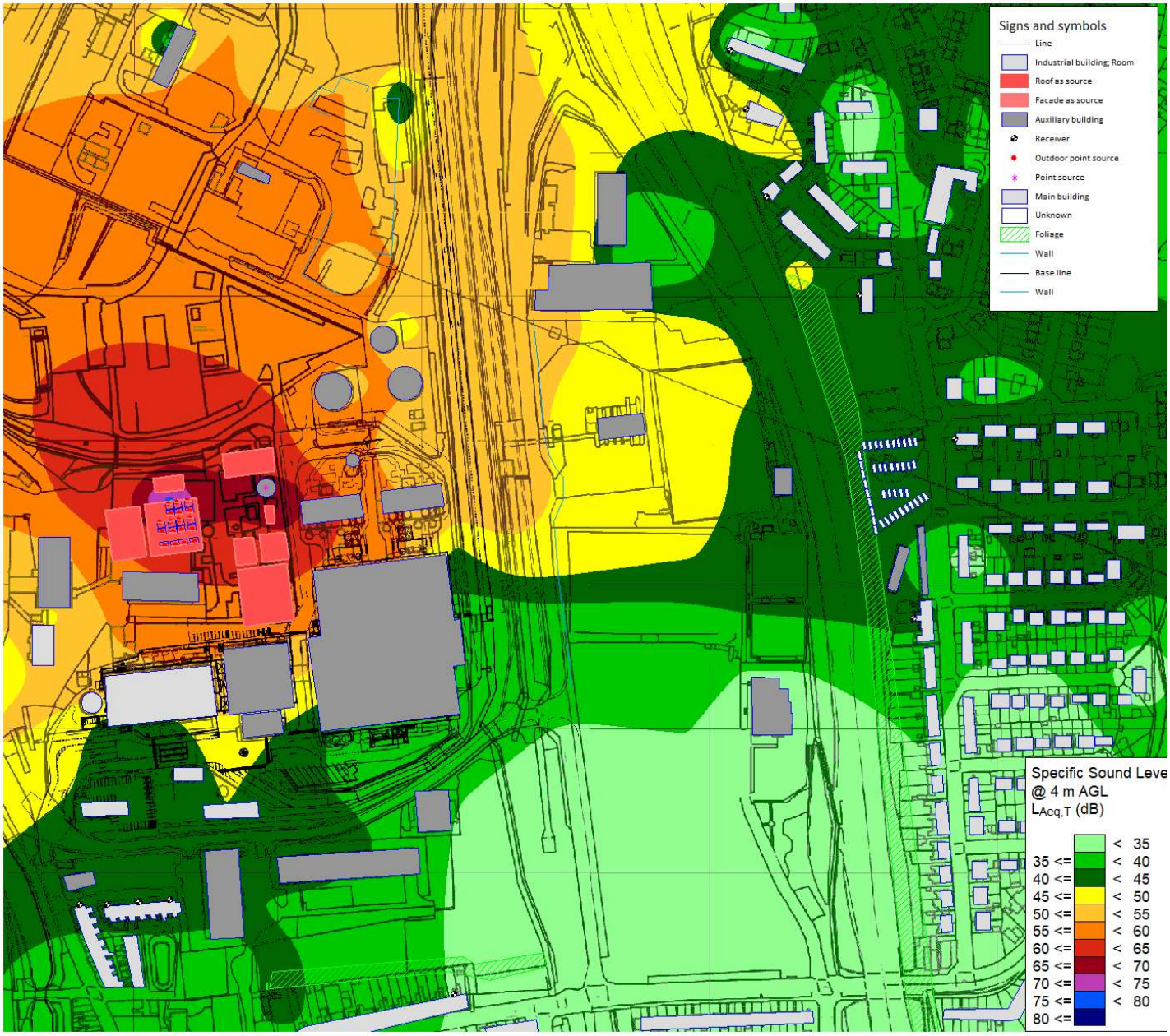
2 British Standards Institution. British Standard 7445-2:1991 'Description and measurement of environmental noise Part 2: Guide to the acquisition of data pertinent to land use.

3 ISO. International Standard ISO 9613-2:2024. Acoustics — Attenuation of sound during propagation outdoors Part 2: Engineering method for the prediction of sound pressure levels outdoors.

4 Verein Deutscher Ingenieure. VDI 3733 Geräusche bei Rohrleitungen. 1996.

5 Department for Environment, Food and Rural Affairs. Noise Policy Statement for England. Defra. 2010.

Figures



Notes
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Mocatta House, Trafalgar Place
Brighton, East Sussex BN1 4DU

Client: Viridor Energy Limited

Project: Proposed Carbon Capture Facility

Job Ref: 642310

File location:

Date: 09/12/2024	Rev: 3
Drawn: GR	Checked: PB

Figure 1: Specific Sound Levels @ 4 m AGL

Appendices

Appendix A: BS 4142 Statements

Phil Evans: Director - Acoustics

BSc (Hons) Geology; MSc Acoustics, Vibration and Noise Control; Fellow of the Geological Society; Fellow of the Institute of Acoustics; Associate Member Acoustical Society of America

A.1 Phil is a Director and leads the Savills Acoustics Team. He is a specialist in environmental acoustics and is active on a number of committees including the Association of Noise Consultants' Vibration Working Group; British Standards Institution (BSi) Committee GME/21/6/4 - BS 6472: Guide to Evaluation of Human Exposure to Vibration in Buildings; BSi Committee B/564/01 on BS 5228: Noise and Vibration Control on Construction and Open Sites which has now also revised and issued BS 8233:2014 Guidance on sound insulation and noise reduction in buildings. He has been a corporate Member of the Institute of Acoustics (MIOA) for over 20 years.

A.2 Phil has over 35 years' experience in the project management of, and technical input to, environmental noise and vibration impact assessments for major developments. He is an expert in the industrial/commercial, transportation and construction sectors including the measurement, calculation, evaluation and mitigation of environmental noise and vibration. Phil has significant experience in the preparation and presentation of technical evidence and reports for public inquiries and planning applications. He is experienced in consultation and liaison with government departments, local authorities and other statutory bodies. He is an experienced expert witness. He has a Continuous Professional Development Record to support this competency and experience.

A.3 Phil has been involved in many BS 4142 noise assessments for both the previous and current 2014 version of BS 4142. He has given evidence at public inquiries where BS 4142 has been the primary assessment methodology. He is very familiar with the Standard and attended the joint ANC/BSi launch of the 2014 version of the Standard. On the basis of Phil's overall experience in acoustics combined with particular focus on BS 4142, he is deemed competent for BS 4142 assessments.

A.4 For this project, Phil as taken on the role of Project Director and has been responsible for overseeing and delivering the project.

Peter Barling: Associate - Acoustics

BSc (Hons) Physics; PGDip Environmental Assessment and Management; Member of the Institute of Acoustics

A.6 Peter is an Associate Consultant in Acoustics and environmental acoustics specialist with over 10e years' experience. He has a Degree in Physics and also has a Post Graduate Diploma in Environmental Assessment and Management. He has been a member of the Institute of Acoustics since 2013.

A.7 Peter has project managed and undertaken noise assessments for a variety of developments, including: large scale mixed-use developments, incorporating commercial, retail, leisure and residential elements; on-shore substations for off-shore windfarms; energy from waste facilities; manufacturing facilities; distribution centres; retail units; minerals extraction and exploration; solar farms; and petrol service filling stations. He has provided input into Environmental Impact Assessments (EIAs) and undertaken noise assessments to support planning applications and discharge planning conditions. He has a Continuous Professional Development (CPD) Record to support this competency and experience.

A.8 Peter has undertaken BS 4142 noise assessments for both the previous and current 2014 version of BS 4142. He is familiar with the Standard and has attended and participated in internal and external CPD training seminars regarding the revised 2014 version of the Standard. On the basis of Peter's overall experience in acoustics, combined with particular focus on BS 4142, he is deemed competent for BS 4142 assessments.

A.9 Peter was responsible for undertaking the baseline acoustic survey, and preparation of the assessment and report.

Appendix B: Baseline Data

Sound Level Survey Record

Project Name and Number		Runcorn CCS	
Location		LT1	
Purpose of Monitoring		Baseline	
Relevant Guidance / Standard		BS 4142:2014	
Sound Measurement System			
ID	Manufacturer / Model	Serial Number	Last Lab Verification
-	Rion NL-52	SLM1	17/02/2023
Microphone Height	Façade / Freefield	Measurement Interval	Filename
2.3	Free	125 ms	1

		START	END
Personnel		PB	PB
Date / time		10/08/2023 10:00	21/08/2023 13:45
Cali brat	Reference level	94.0	94.0
	Meter reading	94.0	94.1

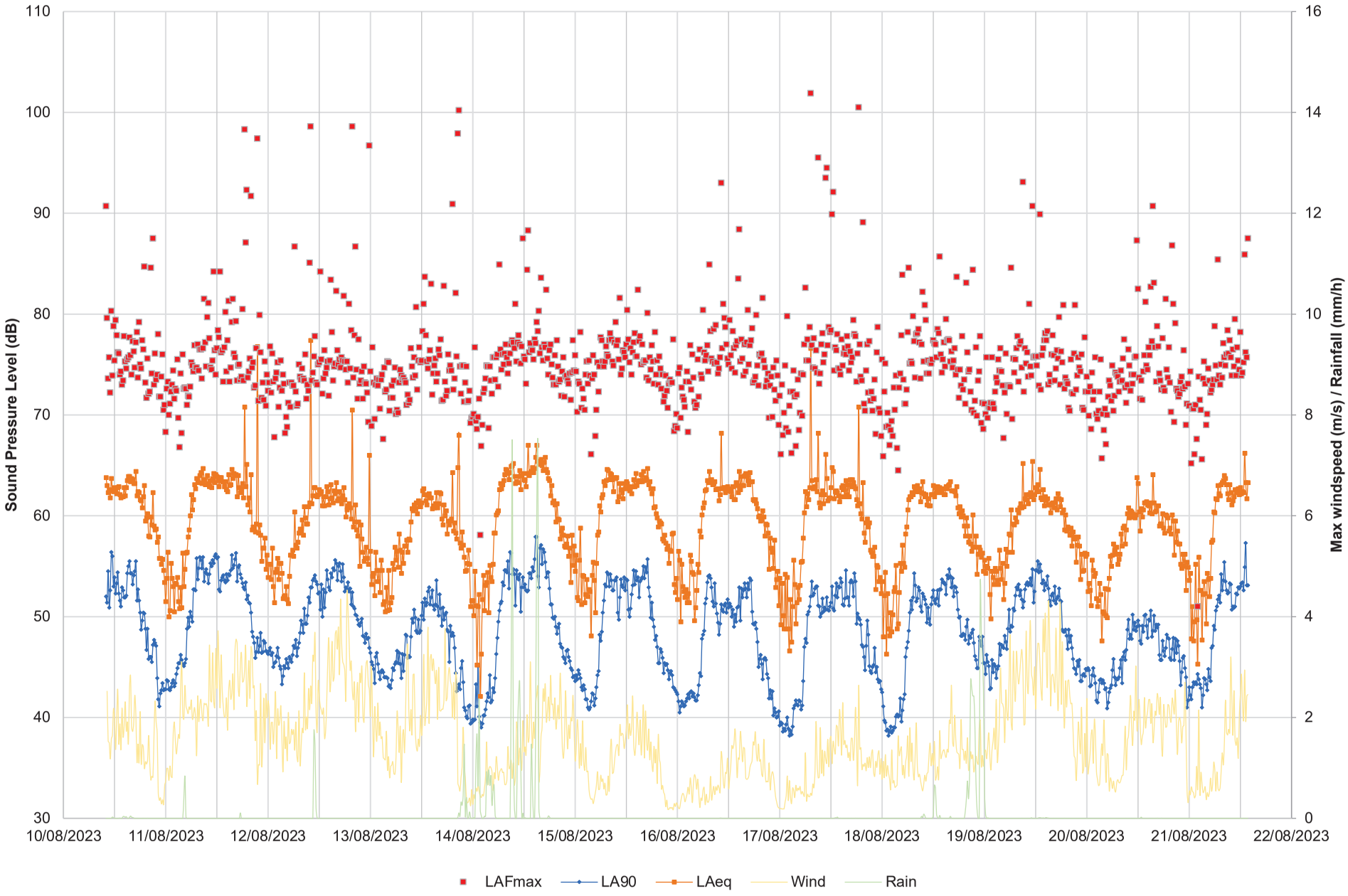
Photographs of Measurement Location

Description of site (location of equipment, general surroundings, nature of ground between NSR and sound source(s) (hard/ soft ground, topography, intervening features, reflecting surfaces))

LT1 was deployed at 57 Westfield Road, approximately 450 m to the north-east of the site boundary. Due to the proximity of the A557 (located between the site and survey location) and distance to site, it is considered that the acoustic environment at LT1 would be similar to the acoustic environment more generally at locations to the east, i.e. on/close to Russel Road.

Description of sound environment (principal environmental and natural sound sources, which sources are dominant, character of the sound environment cf. to the character of the new source)

At the time of setting up and collecting the LT1 survey, the following noise sources were noted as affecting the acoustic environment: regular road traffic movements on the (the road was considered to be busy with regular vehicle movements, including HGVs, albeit with periods with low/negligible flow) and commercial aircraft soon after taking off from Liverpool John Lennon Airport (i.e. relatively low). At no point was noise from the existing EfW facility noted as being audible.


Sound Pressure Level (dB)
Max windspeed (m/s) / Rainfall (mm/h)
110
100
90
80
70
60
50
40
30
16
14
12
10
8
6
4
2
0
10/08/2023
11/08/2023
12/08/2023
13/08/2023
14/08/2023
15/08/2023
16/08/2023
17/08/2023
18/08/2023
19/08/2023
20/08/2023
21/08/2023
22/08/2023
LAFmax
LA90
LAeq
Wind
Rain

Sound Level Survey Record

Project Name and Number		Runcorn CCS	
Location		LT1	
Purpose of Monitoring		Baseline	
Relevant Guidance / Standard		BS 4142:2014	
Sound Measurement System			
ID	Manufacturer / Model	Serial Number	Last Lab Verification
-	Convergance	SLM2	27/12/2021
Microphone Height	Façade / Freefield	Measurement Interval	Filename
1.5	Free	125 ms	1

		START	END
Personnel		PB	PB
Date / time		10/08/2023 10:45	17/08/2023 22:30
Cali brat	Reference level	94.0	94.0
	Meter reading	94.0	93.8

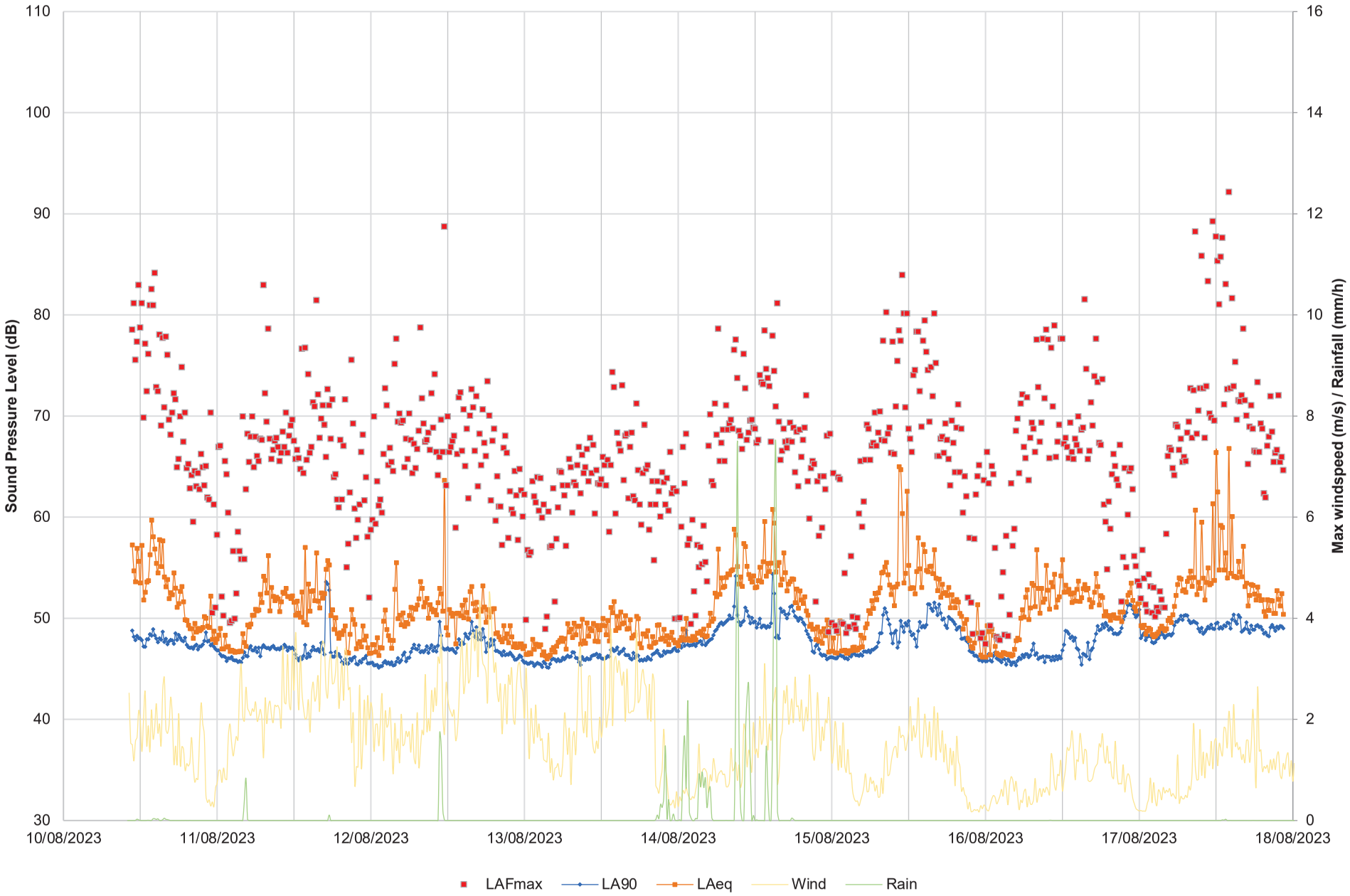
Photographs of Measurement Location

Description of site (location of equipment, general surroundings, nature of ground between NSR and sound source(s) (hard/ soft ground, topography, intervening features, reflecting surfaces))

LT2 was deployed on the south-eastern boundary of a local commercial facility on Mersey View Road at 2 m above ground in a free field position, approximately 200 m to the south of the site boundary and approximately 10 m north of NSRs on Clarkes Terrace. Due to the close proximity, this location is considered to be a representative of the acoustic environment of the nearest NSRs to the south, i.e. at Clarkes Terrace and Mersey View.

Description of sound environment (principal environmental and natural sound sources, which sources are dominant, character of the sound environment cf. to the character of the new source)

At the time of setting up and collecting the LT2 survey, the following noise sources were noted as affecting the acoustic environment: a slight rattle of an operational fan from the neighbouring commercial premises (not the EfW facility), distant road traffic movements and noise from a fan located on the EfW site. It should be noted that, whilst audible, the EfW fan noise source was not considered to be loud, or particularly discernible, i.e. tonal, rather a low level relatively broadband noise.


110
100
90
80
70
60
50
40
30
16
14
12
10
8
6
4
2
0
Sound Pressure Level (dB)
Max windspeed (m/s) / Rainfall (mm/h)
10/08/2023
11/08/2023
12/08/2023
13/08/2023
14/08/2023
15/08/2023
16/08/2023
17/08/2023
18/08/2023
LAFmax
LA90
LAeq
Wind
Rain

Sound Level Survey Record

Project Name and Number		Runcorn CCS	
Location		LT1	
Purpose of Monitoring		Baseline	
Relevant Guidance / Standard		BS 4142:2014	
Sound Measurement System			
ID	Manufacturer / Model	Serial Number	Last Lab Verification
-	Rion NL-52	SLM3	27/12/2021
Microphone Height	Façade / Freefield	Measurement Interval	Filename
2	Free	125 ms	1

		START	END
Personnel		GR	GR
Date / time		10/08/2023 11:00	17/08/2023 07:00
Cali brat	Reference level	94.0	94.0
	Meter reading	94.0	93.9

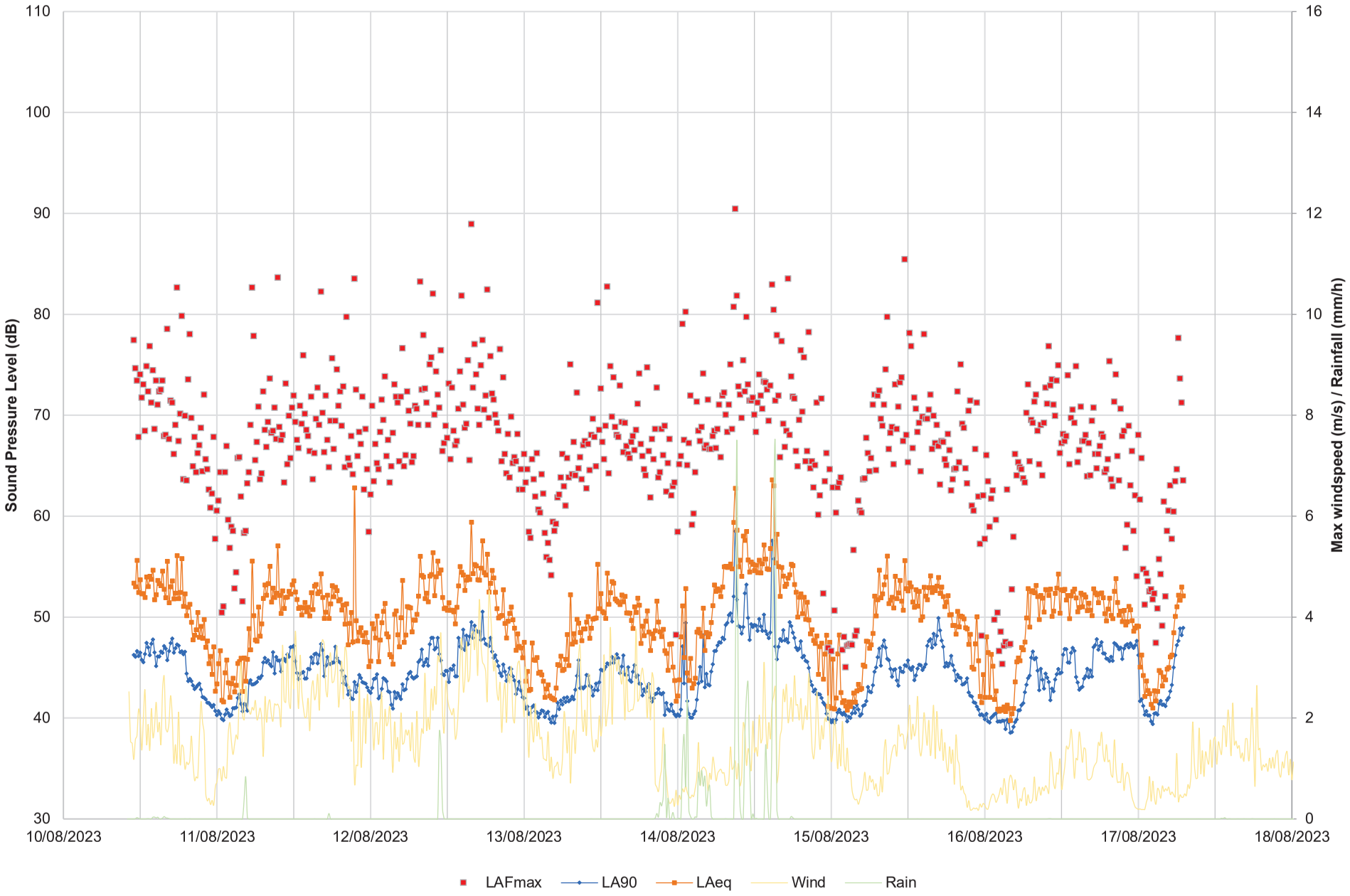
Photographs of Measurement Location

Description of site (location of equipment, general surroundings, nature of ground between NSR and sound source(s) (hard/ soft ground, topography, intervening features, reflecting surfaces))

LT3 was deployed on a fence adjacent to 39 Sandy Lane at 2 m above ground in a free field position at a position approximately 280 m to the south-east of the site boundary and immediately adjacent to dwellings on Sandy Lane. Due to the proximity of Sandy Lane and distance to the site, it is considered that the acoustic environment at LT3 would be similar to the acoustic environment more generally to the south-east, i.e. on/close to Sandy Lane.

Description of sound environment (principal environmental and natural sound sources, which sources are dominant, character of the sound environment cf. to the character of the new source)

At the time of setting up and collecting the LT3 survey, the following noise sources were noted as affecting the acoustic environment: road traffic movements on the (regular movements, including HGVs, albeit with periods with low/negligible flow), distant road traffic movements and pedestrians walking on the footway. At no point was noise from the existing EfW facility noted as being audible.


110
100
90
80
70
60
50
40
30
16
14
12
10
8
6
4
2
0
Sound Pressure Level (dB)
Max windspeed (m/s) / Rainfall (mm/h)
10/08/2023
11/08/2023
12/08/2023
13/08/2023
14/08/2023
15/08/2023
16/08/2023
17/08/2023
18/08/2023
LAFmax
LA90
LAeq
Wind
Rain

Start	LT1 (dB)		LT2 dB)		LT3 (dB)		Max Wind	Rain
	LA90	LAeq	LA90	LAeq	LA90	LAeq	(m/s)	(mm/s)
10/08/2023 10:00	52.0	63.8						0.0
10/08/2023 10:15	51.4	63.0					2.5	0.0
10/08/2023 10:30	54.5	62.3					1.5	0.0
10/08/2023 10:45	50.9	62.6	48.8	57.3			1.5	0.0
10/08/2023 11:00	52.6	61.8	48.2	54.7	46.2	53.4	1.2	0.0
10/08/2023 11:15	56.4	63.7	47.8	53.6	46.1	53.0	1.6	0.0
10/08/2023 11:30	56.0	62.5	48.3	56.9	46.6	55.6	1.7	0.0
10/08/2023 11:45	53.0	62.4	48.0	55.6	46.1	52.5	2.2	0.0
10/08/2023 12:00	53.9	62.8	48.0	53.5	46.5	53.7	2.0	0.0
10/08/2023 12:15	52.3	62.6	47.8	57.2	45.8	52.3	1.4	0.0
10/08/2023 12:30	53.3	62.2	47.2	51.8	45.5	52.3	2.0	0.0
10/08/2023 12:45	54.4	62.8	47.2	52.6	46.3	51.9	2.6	0.0
10/08/2023 13:00	52.3	62.9	47.9	53.6	47.5	54.0	1.5	0.0
10/08/2023 13:15	51.6	62.1	47.9	53.7	47.0	53.0	1.9	0.0
10/08/2023 13:30	51.0	61.8	48.4	56.3	46.2	54.1	1.4	0.0
10/08/2023 13:45	52.9	61.9	48.3	59.7	47.4	53.8	2.2	0.0
10/08/2023 14:00	52.6	61.9	48.9	58.1	47.8	54.7	1.6	0.0
10/08/2023 14:15	51.9	62.8	48.3	56.8	46.5	51.7	1.8	0.0
10/08/2023 14:30	51.9	62.0	48.0	55.4	45.1	52.2	2.3	0.0
10/08/2023 14:45	52.1	62.8	47.6	54.5	46.1	53.6	1.7	0.0
10/08/2023 15:00	54.3	63.5	48.0	57.8	46.1	53.3	1.9	0.0
10/08/2023 15:15	55.0	63.9	47.9	55.1	46.6	53.1	1.5	0.0
10/08/2023 15:30	55.5	63.9	48.7	57.7	46.5	54.6	2.6	0.0
10/08/2023 15:45	54.3	63.4	47.6	54.1	47.1	52.8	2.8	0.0
10/08/2023 16:00	54.3	63.7	48.0	53.1	46.9	51.9	1.8	0.0
10/08/2023 16:15	53.2	63.6	47.4	53.8	45.7	55.5	1.7	0.0
10/08/2023 16:30	54.1	63.2	47.7	52.0	46.6	51.4	1.9	0.0
10/08/2023 16:45	54.5	63.2	47.9	52.5	47.4	53.0	2.4	0.0
10/08/2023 17:00	55.5	64.4	47.8	52.3	47.9	53.6	2.1	0.0
10/08/2023 17:15	51.6	62.0	47.5	54.5	46.5	51.8	1.1	0.0
10/08/2023 17:30	52.7	62.4	48.5	53.0	46.9	52.4	1.5	0.0
10/08/2023 17:45	51.6	62.3	47.9	51.1	47.3	56.1	1.1	0.0
10/08/2023 18:00	50.4	61.6	48.4	51.5	47.2	51.8	2.1	0.0
10/08/2023 18:15	48.7	61.5	48.1	52.7	46.5	52.4	1.1	0.0
10/08/2023 18:30	49.6	60.8	47.8	53.2	46.6	55.8	1.5	0.0
10/08/2023 18:45	50.4	61.9	47.7	51.6	46.3	51.1	1.4	0.0
10/08/2023 19:00	50.3	63.0	48.1	49.9	46.6	52.3	1.0	0.0
10/08/2023 19:15	48.8	59.5	47.4	49.8	44.4	50.2	1.1	0.0
10/08/2023 19:30	46.7	59.8	47.1	49.3	43.7	51.0	1.1	0.0
10/08/2023 19:45	48.8	60.2	47.1	49.0	43.9	51.3	1.1	0.0
10/08/2023 20:00	45.8	58.0	47.1	49.0	43.7	49.5	1.6	0.0
10/08/2023 20:15	46.0	57.9	47.0	48.0	43.2	47.8	1.1	0.0
10/08/2023 20:30	46.0	59.9	47.2	49.5	42.9	48.2	0.8	0.0
10/08/2023 20:45	45.5	59.1	47.4	48.7	43.1	48.8	0.8	0.0
10/08/2023 21:00	47.2	62.3	46.9	49.0	43.3	50.5	0.8	0.0
10/08/2023 21:15	47.7	59.0	47.2	48.8	43.4	48.0	1.6	0.0
10/08/2023 21:30	47.4	58.6	47.2	48.9	42.8	49.1	2.3	0.0
10/08/2023 21:45	47.1	58.7	47.4	49.1	42.1	47.9	1.9	0.0
10/08/2023 22:00	43.9	57.4	47.8	50.2	42.0	49.8	1.7	0.0
10/08/2023 22:15	41.8	57.9	48.6	50.0	41.9	47.0	0.5	0.0
10/08/2023 22:30	41.1	55.8	47.7	49.2	41.5	47.7	0.4	0.0
10/08/2023 22:45	42.4	55.8	47.8	49.1	41.5	45.4	0.4	0.0
10/08/2023 23:00	42.7	55.2	47.3	52.2	41.3	46.1	0.3	0.0
10/08/2023 23:15	43.4	55.7	47.5	47.9	41.1	44.3	0.4	0.0
10/08/2023 23:30	42.7	54.6	47.2	48.7	41.3	47.1	0.3	0.0
10/08/2023 23:45	42.8	53.4	47.0	47.6	40.7	42.7	0.6	0.0
11/08/2023 00:00	42.8	51.5	46.8	48.0	40.3	43.4	0.7	0.0
11/08/2023 00:15	43.7	53.8	46.8	48.3	40.7	45.4	1.0	0.0
11/08/2023 00:30	43.6	56.4	46.4	49.0	40.4	46.7	1.0	0.0

Start	LT1 (dB)		LT2 dB)		LT3 (dB)		Max Wind (m/s)	Rain (mm/s)
	LA90	LAeq	LA90	LAeq	LA90	LAeq		
11/08/2023 00:45	42.8	50.0	46.2	47.0	39.9	41.8	0.8	0.0
11/08/2023 01:00	42.7	50.6	46.3	47.0	39.8	41.6	1.0	0.0
11/08/2023 01:15	43.0	55.3	46.2	48.3	40.3	44.5	0.8	0.0
11/08/2023 01:30	43.4	53.8	45.8	47.2	40.8	45.8	0.8	0.0
11/08/2023 01:45	43.7	53.0	46.0	47.2	40.5	43.5	1.7	0.0
11/08/2023 02:00	43.1	50.5	46.0	46.7	40.2	42.1	1.9	0.0
11/08/2023 02:15	43.4	53.3	46.2	46.9	40.3	43.4	1.5	0.0
11/08/2023 02:30	44.3	53.2	45.9	46.8	41.0	44.0	1.3	0.0
11/08/2023 02:45	44.9	53.9	45.8	46.7	41.0	42.6	1.5	0.0
11/08/2023 03:00	45.4	51.5	45.8	46.7	41.1	43.3	1.7	0.0
11/08/2023 03:15	45.4	50.8	45.7	46.7	42.0	45.4	1.6	0.0
11/08/2023 03:30	46.2	52.9	45.8	46.8	42.3	45.6	2.6	0.0
11/08/2023 03:45	45.7	50.9	45.6	46.7	41.4	45.9	3.1	0.0
11/08/2023 04:00	45.2	56.3	46.1	48.5	40.7	42.6	2.1	0.0
11/08/2023 04:15	45.1	53.0	46.7	47.6	41.4	46.0	2.0	0.4
11/08/2023 04:30	45.4	54.7	46.3	47.2	41.3	43.7	2.6	0.8
11/08/2023 04:45	45.8	56.3	46.2	49.3	40.7	45.8	2.2	0.0
11/08/2023 05:00	48.8	56.4	47.0	49.2	43.5	48.9	2.2	0.0
11/08/2023 05:15	49.9	57.9	47.2	49.4	43.7	46.8	2.1	0.0
11/08/2023 05:30	49.0	58.6	46.8	50.3	43.3	55.6	2.2	0.0
11/08/2023 05:45	50.5	60.0	46.8	50.3	43.3	50.1	2.2	0.0
11/08/2023 06:00	50.0	62.1	47.1	50.9	43.4	47.7	2.3	0.0
11/08/2023 06:15	49.5	60.6	46.6	50.7	43.6	47.6	2.0	0.0
11/08/2023 06:30	52.7	61.6	47.1	50.8	44.0	51.0	2.1	0.0
11/08/2023 06:45	52.7	63.1	46.2	52.4	43.9	48.1	2.2	0.0
11/08/2023 07:00	52.6	62.7	47.1	51.6	44.2	49.3	2.0	0.0
11/08/2023 07:15	55.8	63.7	47.4	54.2	45.5	51.9	1.2	0.0
11/08/2023 07:30	53.7	63.5	47.2	53.7	46.0	53.2	2.4	0.0
11/08/2023 07:45	54.8	63.3	47.1	52.5	45.5	52.2	1.9	0.0
11/08/2023 08:00	55.9	64.0	47.1	56.2	45.7	53.3	2.2	0.0
11/08/2023 08:15	55.6	64.3	46.9	50.7	45.3	55.0	2.4	0.0
11/08/2023 08:30	54.8	63.2	47.1	53.1	45.1	51.5	2.1	0.0
11/08/2023 08:45	55.9	64.7	47.3	52.2	46.5	52.9	1.9	0.0
11/08/2023 09:00	53.5	63.6	47.0	51.7	44.4	52.0	2.3	0.0
11/08/2023 09:15	54.4	63.1	46.9	52.1	46.1	52.4	2.3	0.0
11/08/2023 09:30	54.7	63.1	47.0	51.9	45.7	57.1	2.3	0.0
11/08/2023 09:45	54.2	64.0	46.9	50.7	45.7	52.1	2.2	0.0
11/08/2023 10:00	53.3	63.2	47.1	51.6	44.6	50.4	1.9	0.0
11/08/2023 10:15	54.2	62.9	47.0	52.6	45.8	52.6	3.4	0.0
11/08/2023 10:30	55.3	63.5	47.4	52.5	45.9	50.9	2.4	0.0
11/08/2023 10:45	55.0	62.8	47.2	53.0	45.6	52.0	2.3	0.0
11/08/2023 11:00	55.6	63.7	46.8	52.1	46.3	52.0	3.3	0.0
11/08/2023 11:15	55.3	64.2	47.1	52.2	46.1	52.6	2.3	0.0
11/08/2023 11:30	56.0	63.3	47.0	52.0	47.0	52.3	2.2	0.0
11/08/2023 11:45	56.2	64.1	47.1	52.2	47.0	53.2	3.4	0.0
11/08/2023 12:00	55.8	63.9	46.9	51.6	47.2	53.6	2.6	0.0
11/08/2023 12:15	55.9	63.5	46.4	50.3	45.6	52.5	3.7	0.0
11/08/2023 12:30	52.7	62.9	46.0	51.7	44.5	51.8	2.9	0.0
11/08/2023 12:45	52.5	63.8	45.8	50.5	43.9	50.9	2.2	0.0
11/08/2023 13:00	53.6	63.8	46.1	50.1	44.4	51.0	3.2	0.0
11/08/2023 13:15	53.9	63.4	46.0	52.6	44.5	50.2	2.5	0.0
11/08/2023 13:30	54.1	63.4	46.3	49.6	44.6	50.9	2.2	0.0
11/08/2023 13:45	53.6	62.9	47.4	57.0	43.9	51.5	2.0	0.0
11/08/2023 14:00	53.4	63.4	46.1	49.4	43.9	50.5	2.0	0.0
11/08/2023 14:15	54.2	62.6	46.5	53.4	44.9	51.0	2.4	0.0
11/08/2023 14:30	53.6	62.4	46.2	50.7	44.8	50.1	1.7	0.0
11/08/2023 14:45	54.2	64.1	46.8	52.7	46.0	52.4	2.5	0.0
11/08/2023 15:00	54.1	63.0	47.2	52.7	45.4	50.8	2.7	0.0
11/08/2023 15:15	54.6	63.1	46.9	51.8	46.3	53.1	2.4	0.0

Start	LT1 (dB)		LT2 dB)		LT3 (dB)		Max Wind	Rain
	LA90	LAeq	LA90	LAeq	LA90	LAeq	(m/s)	(mm/s)
11/08/2023 15:30	56.1	64.6	46.8	56.5	46.4	53.2	2.5	0.0
11/08/2023 15:45	54.8	63.7	47.0	51.7	45.4	52.3	2.9	0.0
11/08/2023 16:00	55.1	64.2	46.7	51.0	46.2	52.5	2.2	0.0
11/08/2023 16:15	55.7	64.0	47.6	52.5	47.3	54.3	3.3	0.0
11/08/2023 16:30	56.3	64.1	46.9	52.0	46.7	51.9	3.6	0.0
11/08/2023 16:45	53.5	61.9	46.4	52.5	44.2	49.9	3.5	0.0
11/08/2023 17:00	54.9	64.0	53.6	54.9	45.2	50.5	2.6	0.0
11/08/2023 17:15	55.1	62.8	53.4	55.7	46.0	52.2	2.4	0.0
11/08/2023 17:30	54.2	62.3	52.8	55.3	45.4	49.9	3.1	0.1
11/08/2023 17:45	53.8	62.7	46.6	50.3	45.4	51.3	3.3	0.0
11/08/2023 18:00	53.3	63.2	46.2	50.9	45.5	53.1	2.7	0.0
11/08/2023 18:15	52.9	61.8	46.2	48.9	45.5	52.0	2.7	0.0
11/08/2023 18:30	52.7	70.8	46.7	50.1	47.1	53.0	3.0	0.0
11/08/2023 18:45	53.4	62.9	46.3	48.5	46.0	52.6	3.4	0.0
11/08/2023 19:00	51.7	65.1	46.5	48.0	45.6	51.6	2.2	0.0
11/08/2023 19:15	52.1	61.1	46.2	48.6	45.5	51.8	2.6	0.0
11/08/2023 19:30	51.4	61.8	45.7	48.4	44.7	50.7	3.1	0.0
11/08/2023 19:45	51.3	60.4	45.5	48.8	43.5	51.2	2.4	0.0
11/08/2023 20:00	50.4	64.1	46.0	49.2	44.1	49.3	3.4	0.0
11/08/2023 20:15	48.5	58.6	45.6	46.6	43.3	51.3	3.3	0.0
11/08/2023 20:30	48.0	58.9	45.5	46.6	42.3	47.3	2.6	0.0
11/08/2023 20:45	47.4	58.8	46.0	48.4	42.7	49.4	2.6	0.0
11/08/2023 21:00	45.9	58.4	45.8	50.9	41.9	50.5	1.5	0.0
11/08/2023 21:15	46.5	59.2	46.1	49.9	41.9	47.5	2.1	0.0
11/08/2023 21:30	47.9	76.8	46.2	49.4	43.6	62.8	0.7	0.0
11/08/2023 21:45	46.5	58.3	45.5	47.0	42.6	49.7	1.1	0.0
11/08/2023 22:00	47.1	59.1	45.4	47.5	43.3	47.6	1.1	0.0
11/08/2023 22:15	48.4	58.1	45.8	47.7	44.3	48.5	2.7	0.0
11/08/2023 22:30	46.4	55.5	45.6	47.2	44.0	49.0	1.1	0.0
11/08/2023 22:45	46.5	56.8	46.0	49.3	43.6	48.2	1.5	0.0
11/08/2023 23:00	47.6	56.8	46.0	47.9	43.5	47.6	2.4	0.0
11/08/2023 23:15	47.4	57.8	46.3	48.2	43.4	48.5	1.5	0.0
11/08/2023 23:30	46.6	54.7	45.5	47.1	43.0	47.5	2.5	0.0
11/08/2023 23:45	46.5	56.1	45.5	46.5	42.7	45.1	2.0	0.0
12/08/2023 00:00	46.3	53.9	45.6	46.6	42.5	45.6	2.3	0.0
12/08/2023 00:15	46.6	55.2	45.6	47.4	43.0	49.4	2.1	0.0
12/08/2023 00:30	46.9	55.2	45.3	47.4	43.9	48.9	1.4	0.0
12/08/2023 00:45	46.2	53.7	45.4	46.7	43.9	48.0	1.9	0.0
12/08/2023 01:00	46.4	56.8	45.4	48.1	44.3	50.1	1.9	0.0
12/08/2023 01:15	45.0	53.0	45.1	46.3	42.0	45.6	1.5	0.0
12/08/2023 01:30	45.4	51.4	45.3	47.1	42.1	47.7	1.9	0.0
12/08/2023 01:45	45.5	54.4	45.3	47.1	42.9	49.4	2.5	0.0
12/08/2023 02:00	46.1	54.7	45.6	49.7	44.0	50.6	1.2	0.0
12/08/2023 02:15	46.9	55.8	45.8	50.8	43.8	51.4	2.2	0.0
12/08/2023 02:30	45.9	53.7	45.5	48.9	43.6	48.4	1.8	0.0
12/08/2023 02:45	45.1	55.3	45.6	48.3	42.6	48.0	1.9	0.0
12/08/2023 03:00	44.8	55.3	45.4	47.8	42.6	46.3	2.2	0.0
12/08/2023 03:15	43.3	54.3	45.7	47.0	41.3	46.1	1.6	0.0
12/08/2023 03:30	44.1	51.8	45.4	47.8	40.9	45.3	0.9	0.0
12/08/2023 03:45	45.1	52.0	45.4	52.9	42.6	50.3	1.9	0.0
12/08/2023 04:00	44.9	52.1	45.7	55.5	42.0	50.6	1.4	0.0
12/08/2023 04:15	45.8	53.0	46.1	50.0	42.5	48.3	1.6	0.0
12/08/2023 04:30	45.4	51.7	45.6	50.3	42.2	47.1	1.1	0.0
12/08/2023 04:45	44.9	51.3	45.8	49.4	41.9	49.9	2.1	0.0
12/08/2023 05:00	46.0	54.0	46.4	50.5	43.3	53.6	1.5	0.0
12/08/2023 05:15	45.8	56.1	46.6	49.2	42.8	47.5	1.5	0.0
12/08/2023 05:30	45.5	56.1	45.7	49.6	42.8	48.2	1.8	0.0
12/08/2023 05:45	46.2	56.6	46.1	49.5	43.9	51.0	1.7	0.0
12/08/2023 06:00	47.1	56.0	46.1	50.3	44.4	51.0	1.8	0.0

Start	LT1 (dB)		LT2 dB)		LT3 (dB)		Max Wind	Rain
	LA90	LAeq	LA90	LAeq	LA90	LAeq	(m/s)	(mm/s)
12/08/2023 06:15	46.9	60.4	46.7	51.1	44.6	50.9	1.3	0.0
12/08/2023 06:30	47.7	57.1	47.0	49.9	44.1	48.5	1.9	0.0
12/08/2023 06:45	46.1	56.8	47.4	51.0	43.9	49.7	1.2	0.0
12/08/2023 07:00	46.9	57.4	47.0	50.9	44.0	49.7	1.1	0.0
12/08/2023 07:15	47.4	58.3	46.9	51.3	44.1	50.3	2.1	0.0
12/08/2023 07:30	48.4	58.7	47.3	51.9	45.6	52.1	1.1	0.0
12/08/2023 07:45	49.6	58.5	46.6	53.6	45.8	56.0	1.4	0.0
12/08/2023 08:00	49.2	59.6	46.8	53.0	46.8	54.1	1.8	0.0
12/08/2023 08:15	48.4	58.1	46.6	51.1	45.2	54.0	1.7	0.0
12/08/2023 08:30	50.8	60.9	46.8	51.6	45.5	51.8	2.9	0.0
12/08/2023 08:45	49.3	59.8	47.2	52.0	45.9	52.4	1.8	0.0
12/08/2023 09:00	49.3	59.2	46.6	50.0	45.2	51.5	2.0	0.0
12/08/2023 09:15	50.1	59.2	47.0	51.3	47.3	54.1	1.8	0.0
12/08/2023 09:30	51.9	60.9	47.3	50.9	48.0	54.2	2.6	0.0
12/08/2023 09:45	51.4	61.3	46.8	50.6	47.9	56.4	2.2	0.0
12/08/2023 10:00	52.9	77.4	47.1	50.8	46.8	52.1	2.6	0.0
12/08/2023 10:15	52.9	61.2	46.7	50.4	47.0	54.0	2.3	0.0
12/08/2023 10:30	53.6	62.0	47.3	51.6	47.9	55.6	3.2	0.0
12/08/2023 10:45	53.8	62.8	49.7	53.0	46.3	54.3	3.1	1.7
12/08/2023 11:00	54.1	62.8	48.3	52.4	45.7	54.7	3.7	1.4
12/08/2023 11:15	53.5	62.0	47.0	50.7	44.4	52.0	2.1	0.2
12/08/2023 11:30	53.2	61.9	46.9	63.7	44.3	50.8	1.7	0.0
12/08/2023 11:45	52.3	62.1	46.9	49.1	44.7	50.9	2.7	0.0
12/08/2023 12:00	52.4	62.6	47.0	48.4	44.6	50.7	2.4	0.0
12/08/2023 12:15	50.7	62.2	46.9	50.9	43.6	51.4	2.2	0.0
12/08/2023 12:30	53.2	62.4	46.9	50.5	44.9	50.7	2.1	0.0
12/08/2023 12:45	50.0	61.0	47.0	50.2	44.8	50.7	2.1	0.0
12/08/2023 13:00	52.7	61.9	46.7	50.5	45.2	50.5	2.2	0.0
12/08/2023 13:15	50.9	61.0	46.6	47.5	44.1	49.3	1.6	0.0
12/08/2023 13:30	52.4	61.9	47.1	50.5	44.1	51.0	1.7	0.0
12/08/2023 13:45	54.6	62.9	47.9	50.5	47.9	53.1	2.3	0.0
12/08/2023 14:00	53.7	62.4	47.4	50.3	47.1	55.0	3.1	0.0
12/08/2023 14:15	52.9	61.1	47.6	51.3	46.9	54.4	3.6	0.0
12/08/2023 14:30	52.6	61.7	47.5	50.1	48.8	54.2	2.5	0.0
12/08/2023 14:45	54.3	63.1	48.5	51.8	46.8	52.7	2.8	0.0
12/08/2023 15:00	53.9	61.8	48.2	50.6	48.2	53.7	3.5	0.0
12/08/2023 15:15	54.8	61.3	48.0	49.9	47.3	54.0	2.7	0.0
12/08/2023 15:30	54.6	62.5	48.5	52.7	48.1	53.7	2.8	0.0
12/08/2023 15:45	55.6	62.2	49.7	53.1	49.5	59.4	3.6	0.0
12/08/2023 16:00	55.3	63.3	48.8	51.5	47.9	54.3	3.7	0.0
12/08/2023 16:15	53.6	61.5	48.2	50.8	49.2	55.2	3.4	0.0
12/08/2023 16:30	55.0	61.7	49.1	51.6	48.7	55.1	3.8	0.0
12/08/2023 16:45	55.3	62.4	47.9	50.2	48.5	53.7	2.8	0.0
12/08/2023 17:00	54.5	61.7	48.5	50.9	48.6	53.7	4.3	0.0
12/08/2023 17:15	53.5	61.2	47.9	50.7	47.7	54.9	3.5	0.0
12/08/2023 17:30	55.2	62.0	49.0	53.2	50.5	57.6	3.1	0.0
12/08/2023 17:45	53.9	62.8	48.1	51.1	47.8	54.4	3.1	0.0
12/08/2023 18:00	52.5	61.6	46.7	49.6	47.3	54.2	2.9	0.0
12/08/2023 18:15	52.9	59.9	47.6	50.9	47.2	56.2	2.4	0.0
12/08/2023 18:30	52.7	60.6	47.2	50.1	47.1	52.5	4.5	0.0
12/08/2023 18:45	53.4	61.0	47.9	50.7	47.9	53.3	4.1	0.0
12/08/2023 19:00	52.5	61.2	47.4	50.9	46.6	54.6	3.5	0.0
12/08/2023 19:15	52.8	60.8	47.8	51.0	46.0	53.9	2.9	0.0
12/08/2023 19:30	51.2	59.7	46.8	48.5	46.2	52.5	3.1	0.0
12/08/2023 19:45	52.4	70.5	46.8	48.6	45.6	50.9	2.5	0.0
12/08/2023 20:00	51.0	58.9	46.7	48.2	45.1	49.9	2.4	0.0
12/08/2023 20:15	50.8	59.4	46.6	47.9	44.4	50.1	2.7	0.0
12/08/2023 20:30	50.2	61.1	46.3	47.7	44.2	50.2	1.7	0.0
12/08/2023 20:45	50.1	58.6	46.7	49.3	45.3	52.7	2.4	0.0

Start	LT1 (dB)		LT2 dB)		LT3 (dB)		Max Wind	Rain
	LA90	LAeq	LA90	LAeq	LA90	LAeq	(m/s)	(mm/s)
12/08/2023 21:00	49.7	58.0	46.4	48.0	44.6	49.4	2.7	0.0
12/08/2023 21:15	49.2	59.4	46.4	48.5	43.7	47.9	1.9	0.0
12/08/2023 21:30	49.1	55.0	46.4	47.6	44.3	49.6	2.9	0.0
12/08/2023 21:45	49.4	59.1	46.6	49.3	44.9	50.4	2.7	0.0
12/08/2023 22:00	49.8	57.7	46.4	48.2	44.9	51.0	3.0	0.0
12/08/2023 22:15	48.1	56.4	46.2	47.2	44.1	49.7	2.0	0.0
12/08/2023 22:30	48.0	55.5	45.9	47.5	43.7	48.9	1.9	0.0
12/08/2023 22:45	47.4	55.8	45.9	47.1	42.4	46.7	2.6	0.0
12/08/2023 23:00	48.3	56.9	46.1	47.2	42.9	48.3	3.1	0.0
12/08/2023 23:15	47.8	55.8	46.3	47.5	43.6	47.1	3.1	0.0
12/08/2023 23:30	47.9	55.2	46.2	47.5	42.7	47.0	2.7	0.0
12/08/2023 23:45	46.9	66.0	45.8	47.0	42.1	46.0	2.5	0.0
13/08/2023 00:00	46.4	56.5	45.6	47.3	42.0	47.5	2.0	0.0
13/08/2023 00:15	45.5	53.2	45.6	46.4	40.9	43.7	3.0	0.0
13/08/2023 00:30	45.2	54.0	45.5	46.4	41.1	44.6	2.0	0.0
13/08/2023 00:45	44.8	54.3	45.5	46.6	40.4	42.7	1.2	0.0
13/08/2023 01:00	43.4	52.1	45.6	46.5	40.5	42.8	2.2	0.0
13/08/2023 01:15	46.0	56.4	45.6	47.9	41.1	47.5	1.8	0.0
13/08/2023 01:30	46.4	54.6	45.3	46.9	41.2	45.8	1.5	0.0
13/08/2023 01:45	45.3	53.5	45.4	47.5	40.7	45.7	2.3	0.0
13/08/2023 02:00	44.5	54.6	45.6	47.4	40.5	46.0	1.7	0.0
13/08/2023 02:15	43.8	52.4	45.5	47.2	40.0	44.4	1.9	0.0
13/08/2023 02:30	44.5	55.6	45.4	47.4	40.4	44.6	1.6	0.0
13/08/2023 02:45	44.7	54.6	45.2	46.4	40.7	44.3	1.6	0.0
13/08/2023 03:00	44.5	51.2	45.7	46.7	40.7	43.7	1.2	0.0
13/08/2023 03:15	44.0	51.5	45.5	46.3	40.1	42.0	1.2	0.0
13/08/2023 03:30	44.0	50.5	45.2	46.0	40.5	42.9	1.2	0.0
13/08/2023 03:45	44.0	52.9	45.1	46.2	40.6	43.3	1.7	0.0
13/08/2023 04:00	43.9	50.6	45.5	46.4	39.9	42.2	1.0	0.0
13/08/2023 04:15	43.1	54.6	45.9	46.9	39.5	42.0	1.2	0.0
13/08/2023 04:30	43.2	50.7	46.0	47.1	40.1	41.9	0.8	0.0
13/08/2023 04:45	42.9	51.4	45.9	46.7	39.5	41.8	1.0	0.0
13/08/2023 05:00	43.7	51.9	45.7	47.3	40.2	43.0	1.1	0.0
13/08/2023 05:15	44.9	55.3	46.0	47.6	41.5	45.3	1.1	0.0
13/08/2023 05:30	44.7	54.7	45.8	47.8	40.9	45.2	0.9	0.0
13/08/2023 05:45	45.3	56.9	45.8	48.1	41.7	46.1	0.9	0.0
13/08/2023 06:00	45.5	55.6	46.1	47.7	41.3	44.7	1.2	0.0
13/08/2023 06:15	46.6	56.5	45.9	48.0	42.0	44.8	2.1	0.0
13/08/2023 06:30	45.4	54.9	46.2	47.0	41.6	45.8	1.8	0.0
13/08/2023 06:45	46.4	58.2	46.3	49.5	42.1	48.3	1.3	0.0
13/08/2023 07:00	45.3	56.6	46.2	48.6	41.6	45.2	1.8	0.0
13/08/2023 07:15	43.9	54.3	46.2	49.0	41.8	52.2	0.7	0.0
13/08/2023 07:30	46.3	56.4	46.6	48.1	42.1	47.3	1.6	0.0
13/08/2023 07:45	44.6	55.3	46.6	49.5	41.9	48.4	1.8	0.0
13/08/2023 08:00	46.2	57.0	46.1	48.4	42.8	47.5	1.3	0.0
13/08/2023 08:15	48.2	57.0	46.0	49.2	44.2	49.8	2.1	0.0
13/08/2023 08:30	48.1	57.6	45.6	49.2	45.7	49.4	3.2	0.0
13/08/2023 08:45	45.9	56.4	45.4	47.5	43.0	48.5	3.4	0.0
13/08/2023 09:00	46.1	57.7	46.2	49.9	43.0	47.7	2.2	0.0
13/08/2023 09:15	46.0	57.6	45.9	47.8	42.9	48.8	1.7	0.0
13/08/2023 09:30	48.0	59.4	45.9	47.5	43.1	48.8	2.2	0.0
13/08/2023 09:45	49.8	60.7	46.1	49.5	44.3	49.5	1.7	0.0
13/08/2023 10:00	49.4	60.5	46.0	48.2	44.2	50.0	2.8	0.0
13/08/2023 10:15	50.7	61.1	46.0	49.0	43.2	47.9	2.9	0.0
13/08/2023 10:30	49.9	60.7	46.3	48.8	43.1	48.9	1.8	0.0
13/08/2023 10:45	48.6	61.3	46.3	49.5	42.2	49.8	1.4	0.0
13/08/2023 11:00	48.4	60.2	46.4	47.8	42.8	49.9	1.3	0.0
13/08/2023 11:15	49.7	61.5	46.5	49.3	43.4	49.9	1.6	0.0
13/08/2023 11:30	48.4	61.2	46.1	47.7	42.8	55.2	1.4	0.0

Start	LT1 (dB)		LT2 dB)		LT3 (dB)		Max Wind	Rain
	LA90	LAeq	LA90	LAeq	LA90	LAeq	(m/s)	(mm/s)
13/08/2023 11:45	48.6	60.9	46.4	48.9	43.6	50.8	2.0	0.0
13/08/2023 12:00	50.1	61.3	46.1	49.3	44.8	52.3	1.6	0.0
13/08/2023 12:15	51.4	62.5	46.0	50.0	44.7	50.6	2.0	0.0
13/08/2023 12:30	49.7	62.7	46.0	49.3	44.8	50.4	3.3	0.0
13/08/2023 12:45	51.8	62.1	46.1	48.4	45.1	49.9	1.9	0.0
13/08/2023 13:00	51.1	61.5	46.3	49.8	45.4	54.4	2.1	0.0
13/08/2023 13:15	51.4	61.1	46.2	47.8	45.3	51.3	2.4	0.0
13/08/2023 13:30	52.5	62.0	46.9	51.1	45.4	52.4	3.8	0.0
13/08/2023 13:45	52.9	62.2	47.0	50.6	46.0	53.5	1.9	0.0
13/08/2023 14:00	51.2	61.8	46.8	51.7	45.5	53.4	3.1	0.0
13/08/2023 14:15	51.9	61.8	46.8	48.8	45.9	51.8	3.2	0.0
13/08/2023 14:30	52.6	60.7	47.1	50.2	46.3	51.6	2.9	0.0
13/08/2023 14:45	51.1	61.0	46.5	49.0	45.9	51.5	3.2	0.0
13/08/2023 15:00	50.7	60.8	46.7	50.6	44.5	51.2	2.9	0.0
13/08/2023 15:15	51.2	61.2	46.8	49.5	45.1	52.2	2.7	0.0
13/08/2023 15:30	53.6	62.3	47.0	49.5	46.2	51.5	2.9	0.0
13/08/2023 15:45	51.0	60.8	46.4	50.3	44.3	52.1	2.0	0.0
13/08/2023 16:00	50.1	61.2	46.4	48.9	44.3	50.4	3.0	0.0
13/08/2023 16:15	52.2	62.3	46.4	49.0	45.0	50.4	2.1	0.0
13/08/2023 16:30	50.8	62.2	46.0	49.9	43.7	50.4	2.1	0.0
13/08/2023 16:45	49.1	59.7	45.9	48.1	43.6	49.7	2.2	0.0
13/08/2023 17:00	50.9	59.1	46.6	48.3	44.6	48.9	2.2	0.0
13/08/2023 17:15	49.7	61.1	46.1	48.4	45.2	51.0	2.4	0.0
13/08/2023 17:30	50.2	60.0	46.3	50.2	44.1	50.5	3.8	0.0
13/08/2023 17:45	50.4	60.5	46.3	50.0	44.2	51.9	2.3	0.0
13/08/2023 18:00	48.7	58.2	45.8	47.5	43.4	51.2	2.4	0.0
13/08/2023 18:15	48.5	59.5	45.9	47.1	43.4	47.4	2.8	0.0
13/08/2023 18:30	45.5	59.1	45.8	48.5	42.2	49.1	3.0	0.0
13/08/2023 18:45	49.1	59.5	45.9	48.5	42.9	48.2	2.7	0.0
13/08/2023 19:00	48.1	59.7	45.9	48.2	42.6	49.6	2.6	0.0
13/08/2023 19:15	48.4	64.3	46.2	48.8	43.1	50.6	2.0	0.0
13/08/2023 19:30	48.1	58.5	46.0	47.2	43.4	48.5	2.7	0.0
13/08/2023 19:45	46.9	59.3	45.9	47.2	42.0	46.7	2.0	0.0
13/08/2023 20:00	44.4	58.3	46.4	48.2	41.6	48.3	2.9	0.0
13/08/2023 20:15	42.6	57.7	46.5	47.5	41.9	47.9	2.7	0.0
13/08/2023 20:30	42.9	64.8	46.6	47.6	42.4	48.7	0.7	0.0
13/08/2023 20:45	43.3	68.0	46.8	49.3	42.4	51.6	0.6	0.1
13/08/2023 21:00	42.8	57.3	46.5	49.4	42.9	49.5	0.5	0.0
13/08/2023 21:15	44.9	56.8	46.3	47.9	42.4	48.6	0.8	0.3
13/08/2023 21:30	45.6	58.4	46.3	48.0	42.4	48.1	1.0	0.3
13/08/2023 21:45	43.5	57.1	46.7	48.9	42.5	48.8	1.8	0.4
13/08/2023 22:00	41.0	55.9	46.5	47.7	40.3	46.7	1.1	1.5
13/08/2023 22:15	40.7	54.5	46.7	48.3	41.5	46.4	0.8	0.1
13/08/2023 22:30	40.1	54.6	46.7	47.4	40.9	44.7	0.4	0.4
13/08/2023 22:45	39.9	55.3	46.7	48.1	40.7	47.3	0.3	0.0
13/08/2023 23:00	41.1	56.6	46.7	48.6	41.3	47.4	0.3	0.0
13/08/2023 23:15	41.2	55.2	47.0	47.9	40.7	45.1	0.4	0.1
13/08/2023 23:30	39.4	51.0	47.1	47.6	40.4	43.7	0.3	0.0
13/08/2023 23:45	39.5	51.6	46.8	47.6	40.2	41.7	0.6	0.0
14/08/2023 00:00	39.8	51.6	46.8	47.3	40.4	42.2	0.3	0.0
14/08/2023 00:15	39.7	50.1	47.3	47.8	40.2	43.8	0.5	0.0
14/08/2023 00:30	39.8	54.5	47.1	48.1	40.8	48.1	0.4	0.0
14/08/2023 00:45	43.3	51.1	47.7	48.9	47.1	51.1	0.6	1.2
14/08/2023 01:00	41.1	45.2	47.3	47.9	43.4	46.0	0.5	1.7
14/08/2023 01:15	45.1	51.0	48.8	50.0	49.4	52.8	0.7	0.6
14/08/2023 01:30	40.1	52.2	47.4	48.0	41.7	44.5	0.5	2.4
14/08/2023 01:45	39.5	42.1	47.3	47.8	40.4	43.7	0.4	0.2
14/08/2023 02:00	39.0	46.3	47.3	47.8	40.1	45.9	0.4	0.1
14/08/2023 02:15	39.4	51.7	47.4	48.2	40.0	43.0	0.5	0.0

Start	LT1 (dB)		LT2 dB)		LT3 (dB)		Max Wind (m/s)	Rain (mm/s)
	LA90	LAeq	LA90	LAeq	LA90	LAeq		
14/08/2023 02:30	40.2	54.1	47.4	48.1	40.4	43.4	0.4	0.0
14/08/2023 02:45	40.2	50.6	47.3	47.9	40.7	44.0	0.6	0.0
14/08/2023 03:00	40.8	53.1	47.6	48.6	41.8	48.5	0.8	0.0
14/08/2023 03:15	41.6	53.4	47.7	48.5	43.4	48.8	1.5	0.9
14/08/2023 03:30	42.4	54.4	47.8	48.7	45.1	48.4	0.7	0.7
14/08/2023 03:45	42.0	50.4	47.4	48.4	43.6	48.1	1.0	1.0
14/08/2023 04:00	44.2	55.1	48.2	48.9	48.2	50.9	1.0	0.6
14/08/2023 04:15	41.5	53.9	47.4	48.2	43.0	46.7	1.0	0.8
14/08/2023 04:30	41.7	53.5	47.6	48.3	44.4	48.5	0.9	0.3
14/08/2023 04:45	42.9	55.2	47.7	49.3	43.3	48.0	0.6	0.6
14/08/2023 05:00	42.5	58.3	47.9	50.5	43.2	48.4	0.9	0.7
14/08/2023 05:15	43.9	58.3	48.0	49.7	44.6	49.5	0.8	0.1
14/08/2023 05:30	46.3	60.1	48.3	50.0	45.3	51.1	1.2	0.0
14/08/2023 05:45	47.9	60.3	48.7	52.5	46.6	53.2	1.0	0.0
14/08/2023 06:00	49.5	60.5	48.9	52.1	46.7	52.6	0.8	0.0
14/08/2023 06:15	50.6	62.6	49.2	56.9	47.2	52.8	0.9	0.0
14/08/2023 06:30	51.3	63.2	49.4	52.4	47.5	52.7	1.0	0.0
14/08/2023 06:45	51.5	62.7	49.6	54.0	47.5	52.0	1.0	0.0
14/08/2023 07:00	53.4	63.1	49.4	53.1	48.0	53.0	0.9	0.0
14/08/2023 07:15	53.1	63.5	49.5	53.2	47.8	55.0	0.9	0.0
14/08/2023 07:30	54.6	64.1	49.7	54.0	49.2	55.0	0.7	0.0
14/08/2023 07:45	54.6	64.6	49.8	54.4	49.4	54.9	0.7	0.0
14/08/2023 08:00	54.4	64.5	50.3	54.3	50.2	55.0	0.8	0.0
14/08/2023 08:15	55.5	64.2	50.0	54.7	50.4	55.3	1.4	0.0
14/08/2023 08:30	52.8	63.6	50.0	54.8	49.6	54.8	1.0	0.0
14/08/2023 08:45	56.4	64.3	51.2	58.8	52.1	59.4	1.0	0.0
14/08/2023 09:00	56.3	64.9	54.2	58.3	58.5	62.8	1.1	2.7
14/08/2023 09:15	54.2	65.0	50.3	55.1	51.7	58.6	0.8	7.5
14/08/2023 09:30	54.7	65.2	49.6	53.4	49.1	55.0	1.1	1.7
14/08/2023 09:45	54.2	63.9	49.3	54.1	49.0	55.7	0.7	0.3
14/08/2023 10:00	51.1	63.2	49.6	53.2	48.4	54.0	0.8	0.0
14/08/2023 10:15	54.6	63.4	49.8	57.4	49.0	58.0	1.9	0.0
14/08/2023 10:30	53.9	63.3	51.1	57.1	52.4	57.6	1.7	1.6
14/08/2023 10:45	53.7	63.9	50.7	55.1	53.2	58.5	1.1	2.4
14/08/2023 11:00	54.2	64.5	50.2	54.3	49.9	55.7	1.4	2.7
14/08/2023 11:15	50.5	62.6	49.5	53.9	47.7	54.5	1.2	1.1
14/08/2023 11:30	52.9	64.0	50.0	53.6	49.3	55.5	1.0	0.0
14/08/2023 11:45	53.9	64.2	49.6	54.2	49.0	55.3	1.9	0.1
14/08/2023 12:00	52.9	63.6	49.7	53.0	49.2	54.6	1.3	0.0
14/08/2023 12:15	53.2	63.5	49.1	53.1	49.2	55.2	1.4	0.0
14/08/2023 12:30	52.6	62.9	49.5	53.7	48.6	54.4	1.3	0.0
14/08/2023 12:45	52.5	64.2	50.0	55.1	49.8	55.7	2.1	0.0
14/08/2023 13:00	52.6	67.0	49.1	53.6	49.1	54.4	1.5	0.0
14/08/2023 13:15	54.3	64.0	49.3	55.6	48.6	55.3	1.6	0.0
14/08/2023 13:30	54.3	64.3	49.3	59.6	50.2	57.2	3.1	0.0
14/08/2023 13:45	53.8	64.4	49.0	54.2	48.6	55.8	2.0	1.5
14/08/2023 14:00	54.9	64.8	49.2	55.4	48.3	54.8	1.4	0.6
14/08/2023 14:15	54.5	64.3	49.1	54.6	47.9	54.7	1.9	0.0
14/08/2023 14:30	55.7	64.7	49.5	55.5	48.5	56.8	1.6	0.0
14/08/2023 14:45	57.9	65.8	54.4	60.8	57.6	63.6	2.3	1.9
14/08/2023 15:00	57.9	67.0	52.4	59.4	55.8	63.0	2.4	6.0
14/08/2023 15:15	54.0	65.4	48.1	54.6	47.1	55.4	2.6	7.4
14/08/2023 15:30	52.9	65.1	48.3	55.2	45.8	58.2	0.7	0.2
14/08/2023 15:45	56.8	65.4	48.0	55.5	47.1	55.0	0.9	0.0
14/08/2023 16:00	57.1	65.6	51.0	53.3	47.8	52.1	1.6	0.0
14/08/2023 16:15	55.2	65.0	50.6	53.9	47.7	54.9	1.8	0.0
14/08/2023 16:30	56.7	64.5	50.7	56.5	48.7	54.1	2.6	0.0
14/08/2023 16:45	56.4	65.3	50.4	54.5	47.7	53.1	2.3	0.0
14/08/2023 17:00	55.4	65.8	50.0	52.7	47.8	53.3	2.7	0.0

Start	LT1 (dB)		LT2 dB)		LT3 (dB)		Max Wind	Rain
	LA90	LAeq	LA90	LAeq	LA90	LAeq	(m/s)	(mm/s)
14/08/2023 17:15	53.9	64.6	50.4	53.4	47.5	53.9	1.9	0.0
14/08/2023 17:30	54.4	64.3	51.1	53.6	49.5	54.2	2.1	0.0
14/08/2023 17:45	54.4	63.7	51.2	53.9	49.1	55.2	2.4	0.0
14/08/2023 18:00	52.8	63.5	50.7	53.9	48.5	55.1	1.9	0.0
14/08/2023 18:15	51.2	62.0	50.2	51.5	47.9	53.2	2.8	0.0
14/08/2023 18:30	51.2	63.0	50.0	52.9	47.0	52.5	2.3	0.0
14/08/2023 18:45	49.9	61.3	49.8	51.0	46.7	50.0	2.3	0.0
14/08/2023 19:00	49.8	61.5	50.0	52.7	46.9	52.0	2.0	0.0
14/08/2023 19:15	50.0	61.1	49.9	51.8	47.6	52.3	2.4	0.0
14/08/2023 19:30	49.0	59.4	49.6	51.5	46.0	50.4	1.8	0.0
14/08/2023 19:45	48.3	61.2	49.4	52.1	46.2	52.0	2.0	0.0
14/08/2023 20:00	48.9	59.7	48.8	50.7	45.7	49.8	2.2	0.0
14/08/2023 20:15	49.3	59.6	48.4	50.3	45.6	51.5	2.0	0.0
14/08/2023 20:30	47.3	57.7	48.1	49.2	45.0	49.7	2.9	0.0
14/08/2023 20:45	47.0	58.5	47.8	49.4	43.6	48.3	2.2	0.0
14/08/2023 21:00	46.9	58.8	46.7	48.9	43.3	48.7	1.4	0.0
14/08/2023 21:15	46.0	58.1	46.6	49.0	42.6	47.7	1.2	0.0
14/08/2023 21:30	45.8	57.0	47.3	47.9	42.8	47.4	1.5	0.0
14/08/2023 21:45	45.4	56.9	47.5	49.1	42.3	48.1	2.5	0.0
14/08/2023 22:00	46.6	57.2	46.9	47.7	42.4	44.3	1.9	0.0
14/08/2023 22:15	46.7	58.0	46.5	48.7	42.3	47.1	1.4	0.0
14/08/2023 22:30	46.0	56.0	46.3	47.5	42.0	47.4	1.8	0.0
14/08/2023 22:45	45.6	56.8	46.4	49.0	41.5	43.9	1.6	0.0
14/08/2023 23:00	44.9	53.4	46.3	48.3	41.3	46.3	2.0	0.0
14/08/2023 23:15	44.7	58.1	45.9	49.8	40.4	48.2	1.9	0.0
14/08/2023 23:30	44.0	55.1	46.1	46.7	39.9	41.2	2.4	0.0
14/08/2023 23:45	44.1	57.0	46.1	49.4	39.8	47.5	1.8	0.0
15/08/2023 00:00	43.6	54.5	46.1	46.8	39.6	41.0	1.1	0.0
15/08/2023 00:15	44.2	56.1	46.1	48.1	39.8	45.9	1.4	0.0
15/08/2023 00:30	43.8	51.9	46.0	46.6	39.5	40.9	2.0	0.0
15/08/2023 00:45	44.7	51.6	46.0	46.6	39.8	42.0	1.6	0.0
15/08/2023 01:00	44.3	55.6	46.3	48.5	40.5	46.4	1.0	0.0
15/08/2023 01:15	43.9	58.8	46.4	49.7	40.8	48.2	1.5	0.0
15/08/2023 01:30	43.0	51.2	46.3	46.8	40.5	42.5	1.1	0.0
15/08/2023 01:45	42.7	54.1	46.2	46.8	40.4	41.5	1.9	0.0
15/08/2023 02:00	43.2	54.0	46.0	46.9	40.5	41.7	1.1	0.0
15/08/2023 02:15	42.8	51.4	46.1	46.6	40.3	41.2	1.0	0.0
15/08/2023 02:30	41.8	52.2	45.9	46.6	39.7	40.8	1.4	0.0
15/08/2023 02:45	41.8	53.7	46.3	46.8	40.1	41.6	0.9	0.0
15/08/2023 03:00	41.0	52.0	46.2	46.8	40.0	41.2	0.9	0.0
15/08/2023 03:15	40.8	52.7	46.5	47.1	40.5	41.6	0.6	0.0
15/08/2023 03:30	41.0	52.5	46.6	47.2	41.0	42.5	0.4	0.0
15/08/2023 03:45	41.6	48.1	46.4	46.8	40.5	41.6	0.4	0.0
15/08/2023 04:00	42.4	54.1	46.3	46.9	41.3	42.7	0.4	0.0
15/08/2023 04:15	42.3	55.4	46.3	47.1	40.8	43.4	0.3	0.0
15/08/2023 04:30	41.2	53.6	46.4	48.3	40.2	42.8	0.4	0.0
15/08/2023 04:45	41.9	50.4	46.3	47.2	40.4	42.9	0.5	0.0
15/08/2023 05:00	43.0	55.3	46.7	48.1	41.2	45.3	0.7	0.0
15/08/2023 05:15	44.2	58.1	46.7	49.1	41.3	45.1	0.9	0.0
15/08/2023 05:30	44.6	58.4	46.7	49.5	41.7	47.6	0.6	0.0
15/08/2023 05:45	48.2	61.0	46.8	50.8	43.1	47.6	0.6	0.0
15/08/2023 06:00	47.6	60.4	46.6	50.5	42.6	46.9	0.9	0.0
15/08/2023 06:15	48.5	61.8	46.9	51.8	42.5	47.3	0.7	0.0
15/08/2023 06:30	50.4	62.1	46.9	51.0	43.3	48.4	0.8	0.0
15/08/2023 06:45	51.6	63.4	47.0	52.5	44.6	52.1	0.6	0.0
15/08/2023 07:00	53.2	63.0	47.2	51.9	45.0	50.1	0.7	0.0
15/08/2023 07:15	53.0	63.5	47.6	52.5	46.0	51.7	0.5	0.0
15/08/2023 07:30	54.4	64.6	48.5	53.0	46.9	54.7	0.5	0.0
15/08/2023 07:45	54.2	64.5	48.5	54.5	45.2	51.9	0.8	0.0

Start	LT1 (dB)		LT2 dB)		LT3 (dB)		Max Wind	Rain
	LA90	LAeq	LA90	LAeq	LA90	LAeq	(m/s)	(mm/s)
15/08/2023 08:00	53.0	63.6	50.3	54.6	47.1	52.3	0.5	0.0
15/08/2023 08:15	54.2	64.2	51.0	55.1	47.7	53.2	1.3	0.0
15/08/2023 08:30	53.6	64.1	50.6	55.5	47.0	54.0	1.6	0.0
15/08/2023 08:45	52.6	63.6	49.9	54.3	45.9	56.1	0.9	0.0
15/08/2023 09:00	52.6	62.4	49.4	53.3	45.7	51.3	0.9	0.0
15/08/2023 09:15	53.6	63.8	48.5	52.4	44.9	51.7	1.1	0.0
15/08/2023 09:30	53.6	63.7	47.5	53.1	44.1	52.0	1.3	0.0
15/08/2023 09:45	53.9	63.8	48.6	51.3	44.8	50.9	1.4	0.0
15/08/2023 10:00	50.4	61.4	48.8	53.1	44.8	54.0	1.5	0.0
15/08/2023 10:15	49.7	61.9	47.1	53.4	43.7	51.8	1.3	0.0
15/08/2023 10:30	51.9	63.2	47.6	65.0	43.2	52.4	1.9	0.0
15/08/2023 10:45	53.7	62.6	49.8	64.7	45.0	53.6	1.6	0.0
15/08/2023 11:00	53.1	62.3	49.2	60.4	44.6	51.6	1.7	0.0
15/08/2023 11:15	52.9	61.7	48.7	53.5	44.6	50.7	1.7	0.0
15/08/2023 11:30	53.9	63.2	49.5	54.5	45.2	55.6	1.4	0.0
15/08/2023 11:45	52.6	62.7	49.3	62.6	45.2	52.8	1.5	0.0
15/08/2023 12:00	53.7	63.4	49.7	55.2	45.7	52.6	1.8	0.0
15/08/2023 12:15	53.6	63.2	48.7	53.0	45.0	53.4	2.3	0.0
15/08/2023 12:30	50.7	62.8	48.3	53.0	44.8	53.0	1.6	0.0
15/08/2023 12:45	50.0	62.5	48.4	53.0	45.1	51.5	1.9	0.0
15/08/2023 13:00	50.8	62.9	47.9	52.4	43.8	51.0	1.6	0.0
15/08/2023 13:15	52.2	62.2	47.2	54.6	44.2	52.7	1.8	0.0
15/08/2023 13:30	53.1	62.9	48.7	58.0	44.9	51.1	2.4	0.0
15/08/2023 13:45	54.6	63.6	49.6	54.9	45.3	52.6	1.4	0.0
15/08/2023 14:00	53.2	62.9	49.1	53.0	45.2	49.7	1.2	0.0
15/08/2023 14:15	54.5	64.2	49.2	57.3	44.8	50.0	1.5	0.0
15/08/2023 14:30	53.6	63.0	49.1	56.6	45.0	53.0	2.1	0.0
15/08/2023 14:45	53.9	63.4	49.4	54.7	45.3	52.1	1.8	0.0
15/08/2023 15:00	51.9	63.5	51.4	54.6	47.2	51.7	1.5	0.0
15/08/2023 15:15	53.5	63.4	51.4	55.1	47.6	52.9	2.0	0.0
15/08/2023 15:30	53.7	64.1	51.0	55.2	47.8	54.1	1.3	0.0
15/08/2023 15:45	53.9	63.4	50.7	54.4	47.0	52.5	1.6	0.0
15/08/2023 16:00	55.0	64.4	51.5	56.8	48.3	52.9	2.2	0.0
15/08/2023 16:15	53.8	63.5	51.0	54.0	47.3	52.6	1.2	0.0
15/08/2023 16:30	54.9	63.8	50.3	52.7	48.1	53.1	2.1	0.0
15/08/2023 16:45	54.4	63.6	51.4	53.9	49.9	53.9	1.5	0.0
15/08/2023 17:00	55.7	64.7	50.5	52.1	48.7	52.4	1.4	0.0
15/08/2023 17:15	52.9	63.1	49.9	53.4	47.7	53.0	1.8	0.0
15/08/2023 17:30	52.0	63.4	50.0	52.5	47.1	52.0	1.2	0.0
15/08/2023 17:45	49.9	62.7	49.3	52.6	45.1	51.1	1.5	0.0
15/08/2023 18:00	51.4	62.2	49.0	52.3	45.5	51.5	1.1	0.0
15/08/2023 18:15	49.7	62.7	50.1	53.0	45.1	52.1	0.9	0.0
15/08/2023 18:30	49.0	60.8	49.9	51.1	45.4	50.2	1.4	0.0
15/08/2023 18:45	47.7	60.9	49.9	52.3	46.2	50.3	1.1	0.0
15/08/2023 19:00	48.1	60.2	49.7	51.7	45.2	49.2	1.4	0.0
15/08/2023 19:15	47.0	59.8	49.4	51.1	44.7	49.2	0.7	0.0
15/08/2023 19:30	45.4	58.9	48.9	51.9	43.7	48.3	1.7	0.0
15/08/2023 19:45	45.4	59.5	49.1	51.6	44.3	50.6	1.2	0.0
15/08/2023 20:00	46.8	59.3	49.1	50.5	44.0	49.0	1.1	0.0
15/08/2023 20:15	46.5	59.2	48.0	50.2	44.0	50.1	0.6	0.0
15/08/2023 20:30	45.9	57.7	48.0	48.9	43.3	50.0	0.7	0.0
15/08/2023 20:45	44.4	57.5	48.1	49.5	43.4	49.8	0.5	0.0
15/08/2023 21:00	45.4	58.1	47.8	49.9	43.5	49.0	0.5	0.0
15/08/2023 21:15	45.2	57.3	47.6	48.0	43.9	48.9	0.2	0.0
15/08/2023 21:30	45.3	56.7	46.8	47.8	42.5	47.3	0.4	0.0
15/08/2023 21:45	44.7	57.0	46.7	47.2	42.2	48.3	0.2	0.0
15/08/2023 22:00	43.8	55.3	46.6	47.0	42.1	45.0	0.2	0.0
15/08/2023 22:15	44.4	56.6	46.3	47.6	41.6	44.9	0.2	0.0
15/08/2023 22:30	44.6	56.5	46.3	48.6	41.5	47.3	0.2	0.0

Start	LT1 (dB)		LT2 dB)		LT3 (dB)		Max Wind (m/s)	Rain (mm/s)
	LA90	LAeq	LA90	LAeq	LA90	LAeq		
15/08/2023 22:45	44.2	58.2	46.2	51.4	41.1	50.0	0.2	0.0
15/08/2023 23:00	43.0	58.3	45.9	48.5	40.8	45.7	0.2	0.0
15/08/2023 23:15	42.9	53.2	45.9	46.4	40.3	42.1	0.3	0.0
15/08/2023 23:30	42.7	52.4	45.7	46.2	40.4	41.5	0.2	0.0
15/08/2023 23:45	42.5	53.8	45.9	48.1	40.2	44.3	0.3	0.0
16/08/2023 00:00	42.3	51.7	45.7	46.2	39.9	42.1	0.3	0.0
16/08/2023 00:15	41.6	56.5	45.8	49.3	40.4	48.1	0.2	0.0
16/08/2023 00:30	40.5	55.6	46.5	48.7	39.7	46.5	0.2	0.0
16/08/2023 00:45	41.1	49.5	45.8	46.4	39.6	42.1	0.3	0.0
16/08/2023 01:00	41.6	55.2	45.7	48.9	40.0	46.3	0.4	0.0
16/08/2023 01:15	41.4	53.0	46.3	48.3	40.2	45.2	0.5	0.0
16/08/2023 01:30	41.1	52.5	46.6	47.2	40.4	41.9	0.5	0.0
16/08/2023 01:45	41.2	51.9	46.0	46.5	40.5	42.7	0.3	0.0
16/08/2023 02:00	41.6	52.7	45.9	46.4	39.7	40.9	0.4	0.0
16/08/2023 02:15	41.9	51.4	45.8	46.4	39.7	40.7	0.5	0.0
16/08/2023 02:30	42.3	52.3	45.7	46.3	39.7	40.9	0.6	0.0
16/08/2023 02:45	41.9	51.4	46.0	46.6	39.7	40.8	0.5	0.0
16/08/2023 03:00	42.5	56.1	45.9	46.5	39.7	41.1	0.8	0.0
16/08/2023 03:15	42.6	55.5	45.4	46.5	38.9	40.7	0.6	0.0
16/08/2023 03:30	42.1	54.4	45.9	46.4	39.8	41.3	0.3	0.0
16/08/2023 03:45	42.4	54.2	45.7	46.5	39.6	41.0	0.7	0.0
16/08/2023 04:00	42.0	49.6	45.4	46.3	38.5	39.7	0.9	0.0
16/08/2023 04:15	41.7	50.9	45.6	46.4	38.6	40.4	0.8	0.0
16/08/2023 04:30	41.7	52.6	45.6	46.9	39.1	41.0	0.6	0.0
16/08/2023 04:45	42.2	55.2	45.3	47.8	39.6	43.6	0.8	0.0
16/08/2023 05:00	43.2	54.4	45.8	48.0	39.9	45.6	0.5	0.0
16/08/2023 05:15	44.4	58.5	46.1	47.9	40.7	46.0	0.2	0.0
16/08/2023 05:30	44.1	57.9	46.0	50.0	40.8	45.7	0.4	0.0
16/08/2023 05:45	47.8	60.1	46.4	50.8	41.3	47.0	0.4	0.0
16/08/2023 06:00	48.2	60.8	46.1	50.1	41.5	46.8	0.6	0.0
16/08/2023 06:15	48.6	61.3	46.4	52.1	42.6	47.5	0.6	0.0
16/08/2023 06:30	51.3	62.5	46.5	52.8	43.3	49.9	0.3	0.0
16/08/2023 06:45	51.8	62.6	46.2	49.9	44.0	52.8	0.5	0.0
16/08/2023 07:00	53.4	63.5	46.3	51.0	44.2	49.0	0.3	0.0
16/08/2023 07:15	54.0	63.3	46.8	53.5	46.0	52.5	0.3	0.0
16/08/2023 07:30	54.1	64.4	47.5	53.3	46.6	52.6	0.4	0.0
16/08/2023 07:45	53.8	63.5	46.4	51.2	45.8	52.4	0.8	0.0
16/08/2023 08:00	52.9	63.6	46.6	56.8	46.0	53.2	0.4	0.0
16/08/2023 08:15	51.5	63.1	46.0	53.0	44.7	52.0	0.5	0.0
16/08/2023 08:30	51.0	63.2	46.1	50.5	42.8	49.8	0.6	0.0
16/08/2023 08:45	53.3	63.4	46.1	53.0	44.9	52.1	0.5	0.0
16/08/2023 09:00	51.3	62.6	46.2	51.6	43.8	51.9	0.6	0.0
16/08/2023 09:15	50.3	62.6	45.7	51.9	42.9	50.5	0.6	0.0
16/08/2023 09:30	49.4	62.7	46.2	55.2	44.4	52.7	0.7	0.0
16/08/2023 09:45	48.2	61.5	46.2	52.8	44.0	52.7	0.6	0.0
16/08/2023 10:00	49.3	62.1	46.2	50.9	43.6	52.2	0.5	0.0
16/08/2023 10:15	51.2	68.2	45.8	53.6	41.8	52.8	1.3	0.0
16/08/2023 10:30	50.7	62.7	46.2	53.1	42.9	50.1	1.1	0.0
16/08/2023 10:45	50.5	62.8	45.9	54.4	42.7	50.6	0.7	0.0
16/08/2023 11:00	51.1	62.8	46.3	51.1	43.8	52.4	0.6	0.0
16/08/2023 11:15	51.3	62.3	45.9	51.8	44.3	52.9	0.9	0.0
16/08/2023 11:30	50.4	62.5	46.3	52.1	44.9	54.3	0.9	0.0
16/08/2023 11:45	51.7	62.9	46.0	54.2	44.4	50.4	1.2	0.0
16/08/2023 12:00	50.9	62.5	46.8	55.8	44.5	52.7	0.6	0.0
16/08/2023 12:15	51.3	62.7	47.4	52.6	46.3	52.6	0.8	0.0
16/08/2023 12:30	51.0	62.4	48.8	53.3	46.8	52.8	1.0	0.0
16/08/2023 12:45	50.0	61.9	48.7	52.6	46.8	51.7	1.4	0.0
16/08/2023 13:00	50.7	62.9	48.5	52.9	45.5	52.2	1.4	0.0
16/08/2023 13:15	49.0	61.6	48.0	52.4	45.5	49.9	1.5	0.0

Start	LT1 (dB)		LT2 dB)		LT3 (dB)		Max Wind	Rain
	LA90	LAeq	LA90	LAeq	LA90	LAeq	(m/s)	(mm/s)
16/08/2023 13:30	50.2	61.6	48.2	51.6	46.5	52.1	1.8	0.0
16/08/2023 13:45	49.5	63.3	47.8	52.5	47.0	52.5	1.4	0.0
16/08/2023 14:00	50.9	63.0	48.1	51.7	46.7	52.8	0.8	0.0
16/08/2023 14:15	51.0	62.3	47.0	52.9	44.1	51.9	1.2	0.0
16/08/2023 14:30	52.9	64.4	46.9	53.7	43.5	50.5	1.2	0.0
16/08/2023 14:45	49.6	62.6	46.1	51.7	42.8	51.0	1.7	0.0
16/08/2023 15:00	52.8	63.9	45.4	52.0	43.0	52.4	1.5	0.0
16/08/2023 15:15	51.9	63.0	46.5	52.9	43.1	51.0	1.1	0.0
16/08/2023 15:30	52.6	63.0	46.4	53.4	43.9	52.2	1.4	0.0
16/08/2023 15:45	53.3	64.0	46.2	52.8	44.1	52.0	1.4	0.0
16/08/2023 16:00	52.8	64.2	47.6	53.0	44.9	50.6	0.8	0.0
16/08/2023 16:15	51.9	63.9	45.9	51.8	44.0	51.4	0.8	0.0
16/08/2023 16:30	53.3	63.5	46.8	51.1	44.7	50.7	0.8	0.0
16/08/2023 16:45	52.7	63.1	47.1	51.6	44.1	50.1	0.8	0.0
16/08/2023 17:00	53.8	64.3	47.8	52.6	47.0	52.8	1.0	0.0
16/08/2023 17:15	53.6	63.4	48.5	54.4	47.2	52.4	1.1	0.0
16/08/2023 17:30	50.5	63.4	49.2	53.2	47.8	52.2	1.1	0.0
16/08/2023 17:45	49.3	61.6	48.8	51.3	46.8	51.4	1.5	0.0
16/08/2023 18:00	49.2	61.5	48.9	52.3	47.1	52.3	1.5	0.0
16/08/2023 18:15	49.4	61.6	49.4	52.1	47.5	52.4	1.7	0.0
16/08/2023 18:30	48.8	61.2	49.1	50.2	46.4	51.9	1.3	0.0
16/08/2023 18:45	47.5	60.7	49.6	50.7	46.4	50.4	1.1	0.0
16/08/2023 19:00	45.0	59.9	49.3	50.3	45.9	49.6	1.5	0.0
16/08/2023 19:15	45.8	60.0	48.9	50.2	45.9	50.8	1.1	0.0
16/08/2023 19:30	46.2	59.5	49.1	49.8	45.6	51.9	1.2	0.0
16/08/2023 19:45	45.3	59.6	48.9	50.3	46.1	50.2	0.9	0.0
16/08/2023 20:00	43.8	60.5	48.5	50.4	45.7	49.9	0.8	0.0
16/08/2023 20:15	45.8	59.9	48.5	50.0	47.4	52.6	1.6	0.0
16/08/2023 20:30	45.9	58.0	48.4	50.0	47.3	53.8	1.0	0.0
16/08/2023 20:45	45.7	59.2	48.4	50.1	47.1	51.5	0.7	0.0
16/08/2023 21:00	44.3	59.1	48.6	50.6	46.8	50.2	0.7	0.0
16/08/2023 21:15	43.9	58.3	49.0	49.7	47.0	50.6	0.7	0.0
16/08/2023 21:30	41.9	54.7	49.8	50.6	45.8	49.6	1.1	0.0
16/08/2023 21:45	42.7	57.8	50.2	51.6	46.9	50.7	0.6	0.0
16/08/2023 22:00	41.9	56.8	50.6	51.6	47.2	49.2	0.8	0.0
16/08/2023 22:15	42.6	56.4	51.3	52.3	47.3	49.5	0.9	0.0
16/08/2023 22:30	40.2	54.8	51.4	52.5	47.0	51.1	0.9	0.0
16/08/2023 22:45	40.9	57.6	51.3	53.5	47.4	50.7	0.6	0.0
16/08/2023 23:00	40.5	52.9	50.9	51.8	47.1	49.6	0.4	0.0
16/08/2023 23:15	40.0	53.7	50.4	51.1	47.0	48.6	0.3	0.0
16/08/2023 23:30	40.1	54.5	50.1	50.7	47.2	48.9	0.2	0.0
16/08/2023 23:45	40.6	51.1	50.3	51.4	47.6	49.1	0.2	0.0
17/08/2023 00:00	39.2	53.8	50.9	51.5	46.2	49.1	0.2	0.0
17/08/2023 00:15	39.5	49.2	48.0	49.3	41.7	45.1	0.2	0.0
17/08/2023 00:30	39.4	53.3	48.3	49.1	41.9	46.3	0.2	0.0
17/08/2023 00:45	38.6	50.1	48.5	49.3	41.2	44.2	0.2	0.0
17/08/2023 01:00	38.9	48.8	47.8	48.4	40.3	42.1	0.2	0.0
17/08/2023 01:15	38.7	54.2	48.2	48.8	40.7	43.7	0.3	0.0
17/08/2023 01:30	39.3	48.8	48.3	49.0	40.2	42.7	0.4	0.0
17/08/2023 01:45	40.0	53.9	48.2	48.9	40.3	42.4	0.8	0.0
17/08/2023 02:00	38.9	48.8	47.6	48.4	39.7	41.4	0.4	0.0
17/08/2023 02:15	38.2	46.6	47.6	48.2	39.4	41.0	0.7	0.0
17/08/2023 02:30	38.7	51.7	47.6	48.3	40.4	42.7	0.4	0.0
17/08/2023 02:45	38.3	47.5	47.9	48.5	40.5	41.7	0.3	0.0
17/08/2023 03:00	39.1	51.0	48.0	48.7	40.4	42.6	0.6	0.0
17/08/2023 03:15	40.9	55.6	48.4	49.0	41.4	44.7	0.6	0.0
17/08/2023 03:30	41.2	53.2	48.6	49.2	41.7	44.5	0.4	0.0
17/08/2023 03:45	41.7	49.3	48.4	49.0	41.3	43.2	0.7	0.0
17/08/2023 04:00	41.3	51.4	48.1	48.8	41.3	44.1	0.5	0.0

Start	LT1 (dB)		LT2 dB)		LT3 (dB)		Max Wind	Rain
	LA90	LAeq	LA90	LAeq	LA90	LAeq	(m/s)	(mm/s)
17/08/2023 04:15	41.2	52.9	48.3	49.0	41.2	43.8	0.6	0.0
17/08/2023 04:30	41.7	51.7	48.4	49.8	41.8	44.8	0.6	0.0
17/08/2023 04:45	41.6	53.1	48.4	50.0	42.0	45.0	0.6	0.0
17/08/2023 05:00	40.8	55.4	48.3	49.6	42.6	46.1	0.5	0.0
17/08/2023 05:15	41.2	55.5	48.5	50.4	43.3	46.2	0.5	0.0
17/08/2023 05:30	43.6	57.8	49.3	51.2	45.0	48.5	0.5	0.0
17/08/2023 05:45	47.0	60.3	49.7	52.3	46.2	50.1	0.4	0.0
17/08/2023 06:00	47.8	62.4	49.6	53.4	47.2	51.0	1.3	0.0
17/08/2023 06:15	47.4	60.9	49.9	54.0	47.6	52.2	0.3	0.0
17/08/2023 06:30	50.2	62.2	50.3	53.9	48.9	51.7	0.5	0.0
17/08/2023 06:45	50.5	61.6	49.8	52.7	48.2	53.0	0.4	0.0
17/08/2023 07:00	51.0	62.8	50.3	52.8	48.9	52.1	0.4	0.0
17/08/2023 07:15	52.0	76.6	50.3	52.6			0.5	0.0
17/08/2023 07:30	53.5	63.5	50.3	53.7			0.5	0.0
17/08/2023 07:45	52.1	62.7	49.8	54.0			0.7	0.0
17/08/2023 08:00	52.3	62.8	49.5	54.7			0.6	0.0
17/08/2023 08:15	52.8	62.9	49.6	53.2			0.9	0.0
17/08/2023 08:30	53.0	63.6	49.7	54.0			1.9	0.0
17/08/2023 08:45	53.0	62.4	49.6	60.7			1.1	0.0
17/08/2023 09:00	51.1	68.2	49.5	52.4			0.8	0.0
17/08/2023 09:15	51.0	61.3	49.0	53.6			0.8	0.0
17/08/2023 09:30	50.0	60.8	48.7	53.0			1.8	0.0
17/08/2023 09:45	50.3	62.1	49.1	59.5			0.9	0.0
17/08/2023 10:00	51.8	62.5	48.5	54.0			1.4	0.0
17/08/2023 10:15	50.5	61.2	48.6	51.8			0.8	0.0
17/08/2023 10:30	50.9	62.1	48.9	53.6			1.3	0.0
17/08/2023 10:45	50.7	66.1	49.2	55.0			1.2	0.0
17/08/2023 11:00	51.9	63.7	49.0	53.3			1.1	0.0
17/08/2023 11:15	50.7	61.5	49.4	53.5			1.6	0.0
17/08/2023 11:30	50.6	61.7	49.0	61.3			1.0	0.0
17/08/2023 11:45	51.0	61.8	48.9	53.8			1.6	0.0
17/08/2023 12:00	51.4	62.8	49.5	66.4			1.6	0.0
17/08/2023 12:15	53.0	64.8	49.6	62.5			1.1	0.0
17/08/2023 12:30	50.8	64.4	49.0	54.8			1.5	0.0
17/08/2023 12:45	50.6	61.7	49.1	59.2			1.4	0.0
17/08/2023 13:00	52.1	62.4	49.0	59.0			1.3	0.0
17/08/2023 13:15	53.3	62.5	49.3	54.8			1.8	0.0
17/08/2023 13:30	51.9	62.3	49.2	56.5			1.8	0.0
17/08/2023 13:45	53.0	62.0	49.6	54.0			1.4	0.0
17/08/2023 14:00	52.9	61.4	49.5	66.8			2.2	0.0
17/08/2023 14:15	53.8	61.9	49.0	54.5			1.8	0.0
17/08/2023 14:30	53.4	62.8	49.9	60.1			1.3	0.0
17/08/2023 14:45	51.2	63.0	50.3	54.2			2.3	0.0
17/08/2023 15:00	51.1	62.6	49.7	54.1			1.5	0.0
17/08/2023 15:15	51.8	61.9	49.5	54.0			1.5	0.0
17/08/2023 15:30	54.6	63.5	50.3	55.6			1.4	0.0
17/08/2023 15:45	51.9	62.1	50.1	54.6			1.4	0.0
17/08/2023 16:00	51.9	63.1	48.7	54.1			1.2	0.0
17/08/2023 16:15	51.1	61.9	48.8	57.1			1.3	0.0
17/08/2023 16:30	53.4	63.6	49.0	53.1			1.1	0.0
17/08/2023 16:45	53.6	62.9	49.6	53.5			1.6	0.0
17/08/2023 17:00	53.4	63.6	48.9	51.2			1.6	0.0
17/08/2023 17:15	52.0	63.3	48.6	52.3			1.1	0.0
17/08/2023 17:30	54.3	62.9	49.3	53.3			1.5	0.0
17/08/2023 17:45	53.5	62.7	48.9	53.3			2.2	0.0
17/08/2023 18:00	49.3	61.6	48.9	52.4			1.5	0.0
17/08/2023 18:15	50.3	61.0	49.2	51.8			0.7	0.0
17/08/2023 18:30	49.9	70.8	49.3	53.1			2.6	0.0
17/08/2023 18:45	49.7	61.2	49.1	52.2			1.4	0.0

Start	LT1 (dB)		LT2 dB)		LT3 (dB)		Max Wind	Rain
	LA90	LAeq	LA90	LAeq	LA90	LAeq	(m/s)	(mm/s)
17/08/2023 19:00	49.2	60.2	49.2	51.8			1.4	0.0
17/08/2023 19:15	47.2	59.7	48.9	51.8			1.0	0.0
17/08/2023 19:30	47.0	63.3	48.5	50.7			1.1	0.0
17/08/2023 19:45	46.0	58.3	48.6	50.2			1.0	0.0
17/08/2023 20:00	44.7	57.4	48.3	51.8			1.1	0.0
17/08/2023 20:15	47.1	59.3	48.2	50.8			0.9	0.0
17/08/2023 20:30	49.6	59.7	49.1	51.8			1.2	0.0
17/08/2023 20:45	48.2	58.9	49.3	51.7			1.0	0.0
17/08/2023 21:00	45.1	59.3	49.1	50.5			1.2	0.0
17/08/2023 21:15	44.6	56.6	48.8	50.5			1.0	0.0
17/08/2023 21:30	44.4	56.4	49.2	52.8			1.3	0.0
17/08/2023 21:45	45.0	56.0	49.0	51.9			1.3	0.0
17/08/2023 22:00	45.2	56.0	49.2	51.2			0.9	0.0
17/08/2023 22:15	46.9	56.9	49.2	52.5			0.8	0.0
17/08/2023 22:30	44.5	52.7	49.0	50.4			1.1	0.0
17/08/2023 22:45	45.0	55.1					1.0	0.0
17/08/2023 23:00	43.8	54.9					1.3	0.0
17/08/2023 23:15	43.5	53.5					1.3	0.0
17/08/2023 23:30	43.6	53.9					0.9	0.0
17/08/2023 23:45	42.8	52.3					1.2	0.0
18/08/2023 00:00	42.5	53.5					0.8	0.0
18/08/2023 00:15	41.1	48.0					1.1	0.0
18/08/2023 00:30	39.7	52.1					0.8	0.0
18/08/2023 00:45	39.5	54.4					1.3	0.0
18/08/2023 01:00	38.7	46.3					0.8	0.0
18/08/2023 01:15	38.8	52.3					1.0	0.0
18/08/2023 01:30	38.2	48.8					0.9	0.0
18/08/2023 01:45	38.6	48.1					0.8	0.0
18/08/2023 02:00	39.1	50.4					0.6	0.0
18/08/2023 02:15	38.5	48.5					1.4	0.0
18/08/2023 02:30	38.7	50.2					0.7	0.0
18/08/2023 02:45	39.0	52.5					0.7	0.0
18/08/2023 03:00	39.0	52.9					0.6	0.0
18/08/2023 03:15	40.1	55.1					0.6	0.0
18/08/2023 03:30	40.3	48.8					0.7	0.0
18/08/2023 03:45	40.1	49.3					1.6	0.0
18/08/2023 04:00	40.2	52.4					1.3	0.0
18/08/2023 04:15	41.9	55.3					1.3	0.0
18/08/2023 04:30	39.6	54.5					1.4	0.0
18/08/2023 04:45	40.7	57.1					0.9	0.0
18/08/2023 05:00	41.8	55.3					1.1	0.0
18/08/2023 05:15	42.3	54.9					0.8	0.0
18/08/2023 05:30	46.0	58.2					1.1	0.0
18/08/2023 05:45	46.9	58.9					1.3	0.0
18/08/2023 06:00	47.5	60.6					1.6	0.0
18/08/2023 06:15	48.6	61.6					0.8	0.0
18/08/2023 06:30	50.4	61.9					1.8	0.0
18/08/2023 06:45	51.6	61.9					1.1	0.0
18/08/2023 07:00	50.7	62.3					1.5	0.0
18/08/2023 07:15	51.9	62.1					1.0	0.0
18/08/2023 07:30	54.3	62.9					0.8	0.0
18/08/2023 07:45	53.1	62.5					1.3	0.0
18/08/2023 08:00	51.5	62.4					1.9	0.0
18/08/2023 08:15	51.8	63.0					1.0	0.0
18/08/2023 08:30	52.9	62.4					0.8	0.0
18/08/2023 08:45	52.6	62.7					0.9	0.0
18/08/2023 09:00	51.0	61.4					0.7	0.0
18/08/2023 09:15	50.5	62.3					0.6	0.0
18/08/2023 09:30	52.3	63.4					0.5	0.0

Start	LT1 (dB)		LT2 dB)		LT3 (dB)		Max Wind	Rain
	LA90	LAeq	LA90	LAeq	LA90	LAeq	(m/s)	(mm/s)
18/08/2023 09:45	52.0	62.2					0.7	0.1
18/08/2023 10:00	51.7	61.9					0.9	0.0
18/08/2023 10:15	51.2	62.1					0.7	0.0
18/08/2023 10:30	49.4	61.1					0.9	0.0
18/08/2023 10:45	50.9	61.7					0.9	0.0
18/08/2023 11:00	49.8	61.0					1.3	0.0
18/08/2023 11:15	49.2	61.0					1.5	0.0
18/08/2023 11:30	51.2	62.1					1.0	0.0
18/08/2023 11:45	51.9	62.1					1.3	0.0
18/08/2023 12:00	52.6	63.0					1.1	0.1
18/08/2023 12:15	51.6	61.9					1.5	0.7
18/08/2023 12:30	51.3	62.8					0.8	0.6
18/08/2023 12:45	51.8	62.3					0.8	0.1
18/08/2023 13:00	52.6	62.9					1.0	0.0
18/08/2023 13:15	51.1	62.5					0.8	0.0
18/08/2023 13:30	52.7	62.8					1.7	0.1
18/08/2023 13:45	52.7	62.3					1.2	0.0
18/08/2023 14:00	53.7	62.4					1.3	0.0
18/08/2023 14:15	53.4	62.7					1.3	0.0
18/08/2023 14:30	53.4	62.1					1.4	0.0
18/08/2023 14:45	53.2	62.1					1.3	0.0
18/08/2023 15:00	52.2	62.9					1.2	0.0
18/08/2023 15:15	54.1	62.7					1.4	0.0
18/08/2023 15:30	53.8	63.0					1.3	0.0
18/08/2023 15:45	54.7	63.1					1.9	0.0
18/08/2023 16:00	54.0	63.4					1.9	0.0
18/08/2023 16:15	52.9	62.5					2.6	0.0
18/08/2023 16:30	53.8	62.5					1.5	0.0
18/08/2023 16:45	52.0	62.5					1.4	0.0
18/08/2023 17:00	53.0	62.4					2.0	0.0
18/08/2023 17:15	52.9	62.0					1.6	0.0
18/08/2023 17:30	52.4	62.9					1.3	0.0
18/08/2023 17:45	50.7	60.8					1.3	0.0
18/08/2023 18:00	49.9	60.2					1.3	0.0
18/08/2023 18:15	50.0	60.9					1.0	0.0
18/08/2023 18:30	48.1	59.9					2.0	0.0
18/08/2023 18:45	48.1	60.5					1.4	0.0
18/08/2023 19:00	48.3	60.0					1.4	0.0
18/08/2023 19:15	48.2	59.0					1.2	0.0
18/08/2023 19:30	47.7	58.0					1.3	0.1
18/08/2023 19:45	49.0	59.8					1.1	0.4
18/08/2023 20:00	49.7	59.0					1.6	0.7
18/08/2023 20:15	47.3	57.4					1.0	0.4
18/08/2023 20:30	48.1	58.0					1.0	0.9
18/08/2023 20:45	47.9	57.2					1.3	2.8
18/08/2023 21:00	48.4	56.5					1.2	2.6
18/08/2023 21:15	48.7	60.1					1.3	2.4
18/08/2023 21:30	47.4	56.9					0.9	2.4
18/08/2023 21:45	46.1	56.9					1.1	1.8
18/08/2023 22:00	45.7	58.0					1.2	0.7
18/08/2023 22:15	44.9	54.2					1.1	0.2
18/08/2023 22:30	44.9	56.2					1.1	0.0
18/08/2023 22:45	48.0	56.9					1.8	0.0
18/08/2023 23:00	47.6	56.6					1.9	4.6
18/08/2023 23:15	47.1	55.9					1.0	3.7
18/08/2023 23:30	48.0	56.3					1.2	3.1
18/08/2023 23:45	45.4	54.5					1.0	2.6
19/08/2023 00:00	45.4	55.6					1.3	0.6
19/08/2023 00:15	44.3	54.3					1.4	0.1

Start	LT1 (dB)		LT2 dB)		LT3 (dB)		Max Wind	Rain
	LA90	LAeq	LA90	LAeq	LA90	LAeq	(m/s)	(mm/s)
19/08/2023 00:30	46.2	55.0					1.2	0.0
19/08/2023 00:45	45.5	54.8					1.4	0.0
19/08/2023 01:00	45.1	55.8					1.7	0.0
19/08/2023 01:15	42.8	52.2					1.2	0.0
19/08/2023 01:30	42.9	49.8					1.0	0.0
19/08/2023 01:45	45.7	54.5					1.3	0.0
19/08/2023 02:00	44.5	53.9					1.5	0.0
19/08/2023 02:15	45.3	53.2					1.8	0.0
19/08/2023 02:30	45.1	54.8					1.4	0.0
19/08/2023 02:45	43.9	54.5					2.4	0.0
19/08/2023 03:00	44.8	53.6					1.1	0.0
19/08/2023 03:15	45.1	53.2					1.4	0.0
19/08/2023 03:30	47.3	56.6					2.0	0.0
19/08/2023 03:45	46.2	54.8					3.0	0.0
19/08/2023 04:00	47.2	53.7					2.3	0.0
19/08/2023 04:15	47.0	55.3					2.3	0.0
19/08/2023 04:30	46.9	51.7					2.1	0.0
19/08/2023 04:45	48.1	53.3					1.5	0.0
19/08/2023 05:00	47.5	56.7					2.5	0.0
19/08/2023 05:15	46.8	55.0					2.1	0.0
19/08/2023 05:30	48.8	56.4					2.0	0.0
19/08/2023 05:45	50.7	58.2					2.7	0.0
19/08/2023 06:00	48.5	58.1					3.6	0.0
19/08/2023 06:15	49.1	60.6					1.9	0.0
19/08/2023 06:30	49.0	56.4					1.8	0.0
19/08/2023 06:45	50.8	59.2					3.3	0.0
19/08/2023 07:00	50.6	59.1					2.7	0.0
19/08/2023 07:15	52.1	59.8					2.3	0.0
19/08/2023 07:30	52.9	59.4					3.3	0.0
19/08/2023 07:45	52.7	60.6					2.9	0.0
19/08/2023 08:00	53.2	60.3					2.7	0.0
19/08/2023 08:15	52.1	60.8					2.9	0.0
19/08/2023 08:30	52.6	61.2					3.2	0.0
19/08/2023 08:45	51.7	60.8					3.3	0.0
19/08/2023 09:00	50.9	65.2					3.0	0.0
19/08/2023 09:15	51.5	60.9					1.9	0.0
19/08/2023 09:30	52.7	61.7					1.9	0.0
19/08/2023 09:45	53.2	62.1					3.7	0.0
19/08/2023 10:00	53.4	61.6					2.7	0.0
19/08/2023 10:15	53.1	61.2					2.5	0.0
19/08/2023 10:30	53.3	62.1					3.3	0.0
19/08/2023 10:45	53.8	62.3					3.9	0.0
19/08/2023 11:00	53.1	61.9					2.9	0.0
19/08/2023 11:15	54.7	65.4					2.8	0.0
19/08/2023 11:30	51.4	61.6					2.4	0.0
19/08/2023 11:45	52.5	62.1					3.0	0.0
19/08/2023 12:00	54.6	62.8					2.2	0.0
19/08/2023 12:15	54.6	62.4					3.0	0.0
19/08/2023 12:30	55.5	63.1					3.5	0.0
19/08/2023 12:45	54.4	62.4					3.5	0.0
19/08/2023 13:00	55.2	64.6					3.0	0.0
19/08/2023 13:15	54.5	61.8					2.5	0.0
19/08/2023 13:30	53.3	61.6					2.4	0.0
19/08/2023 13:45	53.6	62.6					3.9	0.0
19/08/2023 14:00	52.6	61.0					3.3	0.0
19/08/2023 14:15	53.3	61.9					4.1	0.0
19/08/2023 14:30	53.1	61.5					3.1	0.0
19/08/2023 14:45	54.0	61.7					2.6	0.0
19/08/2023 15:00	52.8	61.1					4.3	0.0

Start	LT1 (dB)		LT2 dB)		LT3 (dB)		Max Wind	Rain
	LA90	LAeq	LA90	LAeq	LA90	LAeq	(m/s)	(mm/s)
19/08/2023 15:15	51.6	61.1					3.6	0.0
19/08/2023 15:30	51.1	60.3					2.2	0.0
19/08/2023 15:45	52.1	61.2					2.8	0.0
19/08/2023 16:00	52.3	61.3					2.9	0.0
19/08/2023 16:15	51.6	60.8					2.7	0.0
19/08/2023 16:30	53.0	61.3					2.5	0.0
19/08/2023 16:45	51.3	61.7					3.8	0.0
19/08/2023 17:00	51.8	60.6					2.8	0.0
19/08/2023 17:15	52.0	62.2					2.1	0.0
19/08/2023 17:30	52.8	61.7					2.9	0.0
19/08/2023 17:45	51.6	60.9					4.3	0.0
19/08/2023 18:00	51.5	61.6					2.3	0.0
19/08/2023 18:15	48.7	60.3					3.5	0.0
19/08/2023 18:30	48.5	60.6					2.4	0.0
19/08/2023 18:45	48.5	58.6					1.8	0.0
19/08/2023 19:00	48.7	60.1					2.7	0.0
19/08/2023 19:15	48.1	58.5					2.2	0.0
19/08/2023 19:30	46.8	58.9					2.7	0.0
19/08/2023 19:45	48.7	58.7					2.7	0.0
19/08/2023 20:00	47.5	58.1					2.4	0.0
19/08/2023 20:15	48.1	58.8					2.3	0.0
19/08/2023 20:30	46.9	57.0					2.3	0.0
19/08/2023 20:45	45.8	58.4					1.8	0.0
19/08/2023 21:00	44.9	57.9					1.2	0.0
19/08/2023 21:15	44.8	57.7					1.2	0.0
19/08/2023 21:30	44.3	55.4					0.7	0.0
19/08/2023 21:45	45.6	57.1					1.2	0.0
19/08/2023 22:00	45.1	57.9					1.9	0.0
19/08/2023 22:15	45.7	57.0					1.6	0.0
19/08/2023 22:30	43.6	53.7					1.3	0.0
19/08/2023 22:45	43.6	56.2					2.2	0.0
19/08/2023 23:00	44.2	54.5					0.9	0.0
19/08/2023 23:15	44.3	54.6					1.0	0.0
19/08/2023 23:30	44.1	56.3					1.7	0.0
19/08/2023 23:45	44.8	56.0					1.0	0.0
20/08/2023 00:00	44.7	56.2					2.4	0.0
20/08/2023 00:15	44.9	52.5					0.9	0.0
20/08/2023 00:30	44.7	53.3					1.1	0.0
20/08/2023 00:45	43.1	52.6					1.3	0.0
20/08/2023 01:00	43.2	51.1					1.6	0.0
20/08/2023 01:15	44.2	55.6					1.7	0.0
20/08/2023 01:30	44.9	54.6					1.1	0.0
20/08/2023 01:45	44.1	54.0					2.0	0.0
20/08/2023 02:00	43.4	54.3					1.7	0.0
20/08/2023 02:15	41.7	51.8					0.9	0.0
20/08/2023 02:30	41.5	51.0					0.8	0.0
20/08/2023 02:45	42.5	51.6					0.6	0.0
20/08/2023 03:00	43.7	53.3					0.7	0.0
20/08/2023 03:15	43.8	52.2					1.1	0.0
20/08/2023 03:30	43.4	47.6					1.5	0.0
20/08/2023 03:45	43.7	50.5					1.3	0.0
20/08/2023 04:00	43.4	50.3					2.0	0.0
20/08/2023 04:15	42.8	52.8					1.3	0.0
20/08/2023 04:30	42.9	50.1					0.7	0.0
20/08/2023 04:45	40.9	49.9					1.3	0.0
20/08/2023 05:00	41.5	52.7					1.2	0.0
20/08/2023 05:15	42.5	53.8					0.5	0.0
20/08/2023 05:30	42.9	56.0					0.8	0.0
20/08/2023 05:45	43.2	55.0					0.7	0.0

Start	LT1 (dB)		LT2 dB)		LT3 (dB)		Max Wind	Rain
	LA90	LAeq	LA90	LAeq	LA90	LAeq	(m/s)	(mm/s)
20/08/2023 06:00	44.7	56.1					0.6	0.0
20/08/2023 06:15	45.8	57.2					0.7	0.0
20/08/2023 06:30	44.0	56.6					0.6	0.0
20/08/2023 06:45	43.2	56.2					0.5	0.0
20/08/2023 07:00	43.8	56.9					0.7	0.0
20/08/2023 07:15	43.8	55.2					0.8	0.0
20/08/2023 07:30	44.0	55.7					0.7	0.0
20/08/2023 07:45	44.9	56.2					0.7	0.0
20/08/2023 08:00	45.7	58.2					0.8	0.0
20/08/2023 08:15	43.4	57.0					0.9	0.0
20/08/2023 08:30	46.0	58.8					0.9	0.0
20/08/2023 08:45	46.5	59.0					1.3	0.0
20/08/2023 09:00	45.7	57.2					1.8	0.0
20/08/2023 09:15	46.7	58.6					1.0	0.0
20/08/2023 09:30	48.7	60.2					1.5	0.0
20/08/2023 09:45	49.7	60.8					1.6	0.0
20/08/2023 10:00	47.8	59.8					2.0	0.0
20/08/2023 10:15	48.2	60.5					2.4	0.0
20/08/2023 10:30	47.8	60.4					1.8	0.0
20/08/2023 10:45	50.2	60.2					1.5	0.0
20/08/2023 11:00	48.7	59.9					2.1	0.0
20/08/2023 11:15	49.4	59.8					2.0	0.0
20/08/2023 11:30	48.6	60.1					3.0	0.0
20/08/2023 11:45	49.0	63.8					1.8	0.0
20/08/2023 12:00	49.6	63.2					2.0	0.0
20/08/2023 12:15	49.1	60.4					2.4	0.0
20/08/2023 12:30	47.6	58.5					1.9	0.0
20/08/2023 12:45	47.3	60.7					1.5	0.0
20/08/2023 13:00	49.1	59.9					1.6	0.0
20/08/2023 13:15	48.5	60.6					1.7	0.0
20/08/2023 13:30	50.1	61.3					2.4	0.0
20/08/2023 13:45	50.2	61.3					1.8	0.0
20/08/2023 14:00	49.1	61.4					2.0	0.0
20/08/2023 14:15	47.9	61.1					2.1	0.0
20/08/2023 14:30	49.7	61.0					2.4	0.0
20/08/2023 14:45	49.6	60.3					2.4	0.0
20/08/2023 15:00	50.6	61.3					1.9	0.0
20/08/2023 15:15	48.0	60.2					2.3	0.0
20/08/2023 15:30	48.6	64.1					1.5	0.0
20/08/2023 15:45	50.1	61.3					1.7	0.0
20/08/2023 16:00	48.6	60.4					2.1	0.0
20/08/2023 16:15	49.2	60.5					2.0	0.0
20/08/2023 16:30	48.9	61.0					2.5	0.0
20/08/2023 16:45	49.2	61.0					2.3	0.0
20/08/2023 17:00	46.2	59.0					2.1	0.0
20/08/2023 17:15	45.7	59.2					2.4	0.0
20/08/2023 17:30	45.7	59.2					1.5	0.0
20/08/2023 17:45	47.6	60.2					1.2	0.0
20/08/2023 18:00	46.6	58.8					2.2	0.0
20/08/2023 18:15	46.1	58.3					2.0	0.0
20/08/2023 18:30	46.9	60.1					1.8	0.0
20/08/2023 18:45	48.2	60.0					1.8	0.0
20/08/2023 19:00	47.9	59.8					2.3	0.0
20/08/2023 19:15	47.8	58.5					2.2	0.0
20/08/2023 19:30	45.9	58.8					2.0	0.0
20/08/2023 19:45	45.7	58.2					1.9	0.0
20/08/2023 20:00	46.8	60.1					2.4	0.0
20/08/2023 20:15	47.9	59.5					2.2	0.0
20/08/2023 20:30	45.7	56.1					2.1	0.0

Start	LT1 (dB)		LT2 dB)		LT3 (dB)		Max Wind	Rain
	LA90	LAeq	LA90	LAeq	LA90	LAeq	(m/s)	(mm/s)
20/08/2023 20:45	47.8	59.5					2.5	0.0
20/08/2023 21:00	46.4	57.4					1.8	0.0
20/08/2023 21:15	47.6	58.5					1.3	0.0
20/08/2023 21:30	47.1	57.2					1.9	0.0
20/08/2023 21:45	45.6	57.2					2.0	0.0
20/08/2023 22:00	43.2	55.2					1.9	0.0
20/08/2023 22:15	44.5	54.8					1.5	0.0
20/08/2023 22:30	45.9	56.2					1.8	0.0
20/08/2023 22:45	46.1	55.0					1.8	0.0
20/08/2023 23:00	44.9	56.2					2.7	0.0
20/08/2023 23:15	44.0	52.6					1.7	0.0
20/08/2023 23:30	41.0	55.4					0.5	0.0
20/08/2023 23:45	41.7	54.9					0.3	0.0
21/08/2023 00:00	43.0	53.6					0.5	0.0
21/08/2023 00:15	42.2	54.3					0.5	0.0
21/08/2023 00:30	41.8	47.8					0.6	0.0
21/08/2023 00:45	43.0	51.0					0.5	0.0
21/08/2023 01:00	43.5	47.6					0.5	0.0
21/08/2023 01:15	43.3	49.5					0.4	0.0
21/08/2023 01:30	43.5	55.2					0.5	0.0
21/08/2023 01:45	43.3	49.7					1.0	0.0
21/08/2023 02:00	44.3	45.3					0.6	0.0
21/08/2023 02:15	43.8	55.9					2.1	0.0
21/08/2023 02:30	43.3	52.6					0.5	0.0
21/08/2023 02:45	42.9	52.6					0.9	0.0
21/08/2023 03:00	41.0	47.7					0.7	0.0
21/08/2023 03:15	42.2	52.2					0.5	0.0
21/08/2023 03:30	43.9	53.5					0.6	0.0
21/08/2023 03:45	43.8	52.3					0.6	0.0
21/08/2023 04:00	43.3	49.3					0.4	0.0
21/08/2023 04:15	42.7	54.3					0.5	0.0
21/08/2023 04:30	44.8	53.7					0.4	0.0
21/08/2023 04:45	44.0	52.0					0.5	0.0
21/08/2023 05:00	43.6	53.8					0.8	0.0
21/08/2023 05:15	46.9	57.4					0.5	0.0
21/08/2023 05:30	47.1	57.6					0.7	0.0
21/08/2023 05:45	49.1	60.4					1.1	0.0
21/08/2023 06:00	48.7	60.3					1.0	0.0
21/08/2023 06:15	50.6	61.7					0.5	0.0
21/08/2023 06:30	51.0	61.6					0.9	0.0
21/08/2023 06:45	51.7	63.0					0.6	0.0
21/08/2023 07:00	52.1	62.2					0.5	0.0
21/08/2023 07:15	51.4	62.0					0.6	0.0
21/08/2023 07:30	54.2	63.1					0.9	0.0
21/08/2023 07:45	52.6	63.3					1.3	0.0
21/08/2023 08:00	53.6	63.5					1.1	0.0
21/08/2023 08:15	55.4	64.0					1.5	0.0
21/08/2023 08:30	53.5	63.7					2.3	0.0
21/08/2023 08:45	52.6	63.1					1.7	0.0
21/08/2023 09:00	52.3	62.2					1.7	0.0
21/08/2023 09:15	52.4	61.6					1.8	0.0
21/08/2023 09:30	53.3	63.1					1.7	0.0
21/08/2023 09:45	53.2	62.3					3.2	0.0
21/08/2023 10:00	50.7	61.1					2.3	0.0
21/08/2023 10:15	51.0	61.5					1.6	0.0
21/08/2023 10:30	50.9	61.9					2.5	0.0
21/08/2023 10:45	51.0	62.6					1.6	0.0
21/08/2023 11:00	52.3	62.3					1.4	0.0
21/08/2023 11:15	52.2	62.4					1.6	0.0

Start	LT1 (dB)		LT2 dB)		LT3 (dB)		Max Wind (m/s)	Rain (mm/s)
	LA90	LAeq	LA90	LAeq	LA90	LAeq		
21/08/2023 11:30	52.9	62.7					1.2	0.0
21/08/2023 11:45	52.8	62.1					2.0	0.0
21/08/2023 12:00	53.0	62.8					2.5	0.0
21/08/2023 12:15	53.3	62.2					2.9	0.0
21/08/2023 12:30	53.4	62.4					2.3	0.0
21/08/2023 12:45	52.6	62.3					2.0	0.0
21/08/2023 13:00	54.9	66.2					2.9	0.0
21/08/2023 13:15	57.3	63.3					1.9	0.0
21/08/2023 13:30	53.1	61.7					2.4	0.0
21/08/2023 13:45	53.1	63.3					2.5	0.0

Sound Level Survey Record

Project Name and Number		Runcorn CCS	
Location		LT4	
Purpose of Monitoring		Baseline	
Relevant Guidance / Standard		BS 4142:2014	
Sound Measurement System			
ID	Manufacturer / Model	Serial Number	Last Lab Verification
-	Rion NL-53	730383	
Microphone Height	Façade / Freefield	Measurement Interval	Filename
2	Free	125 ms	1

		START	END
Personnel		PB	PB
Date / time		08/07/2024 16:00	16/07/2024 09:15
Cali brat	Reference level	94.0	94.0
	Meter reading	94.0	93.9

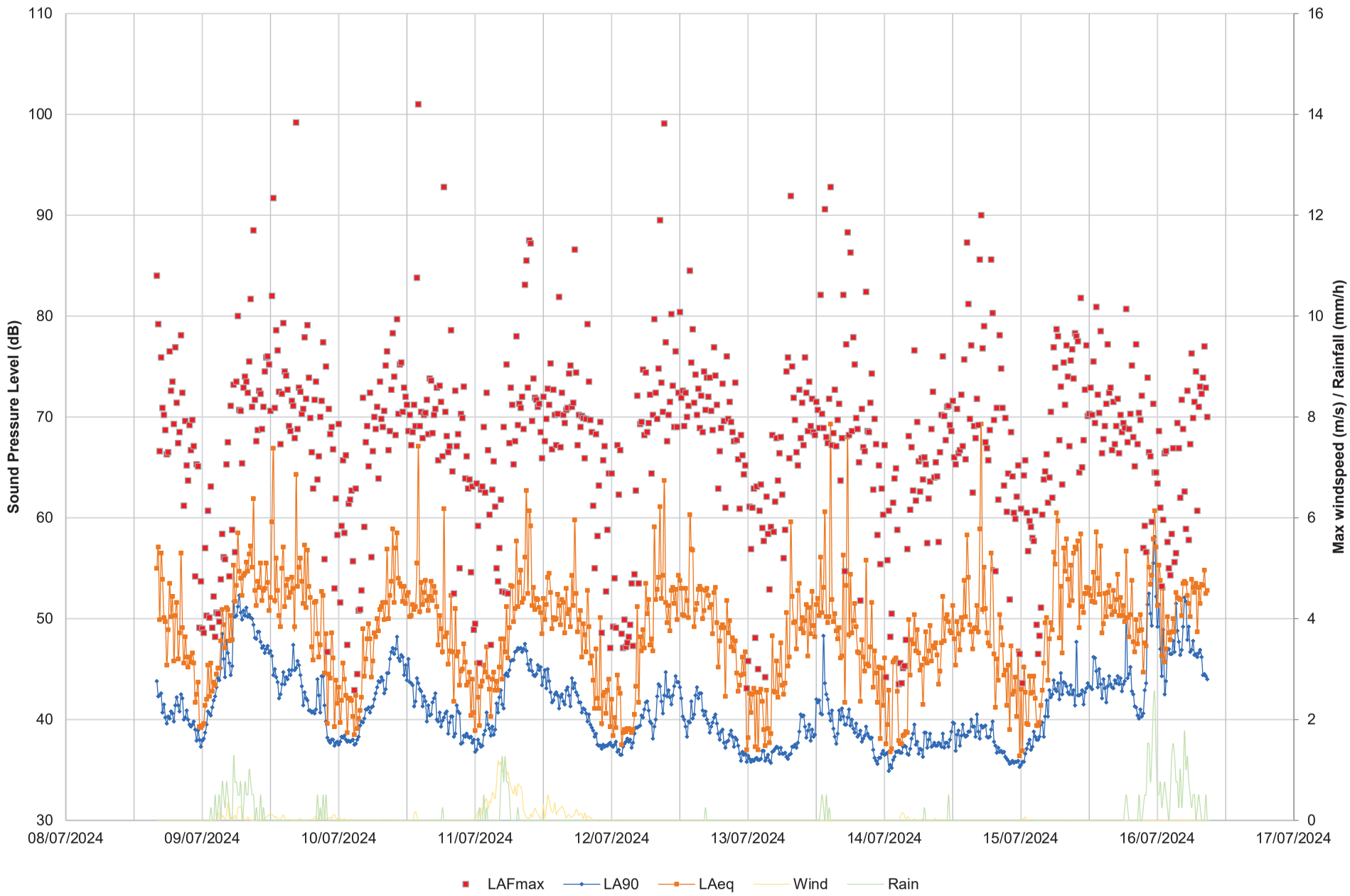
Photographs of Measurement Location

Description of site (location of equipment, general surroundings, nature of ground between NSR and sound source(s) (hard/ soft ground, topography, intervening features, reflecting surfaces))

LT4 was deployed at 16 South Road (EPA Ltd), approximately 300 m south of the site boundary. The microphone was mounted at 2.3 m above ground level in a free-field position (at least 3.5 m from any reflecting surface, excluding the ground) using the Rion NL-52 all-weather kit.

Description of sound environment (principal environmental and natural sound sources, which sources are dominant, character of the sound environment cf. to the character of the new source)

At the time of setting up and collecting the LT4 survey, the following noise sources were noted as affecting the acoustic environment: distant road traffic movements and commercial aircraft soon after taking off from Liverpool John Lennon Airport (i.e. relatively low). At no point on deployment, or during an attended site visit on the night of Monday 08 July 2024, was noise from the existing EfW facility noted as being audible.


110
100
90
80
70
60
50
40
30
16
14
12
10
8
6
4
2
0
Sound Pressure Level (dB)
Max windspeed (m/s) / Rainfall (mm/h)
08/07/2024
09/07/2024
10/07/2024
11/07/2024
12/07/2024
13/07/2024
14/07/2024
15/07/2024
16/07/2024
17/07/2024
LAFmax
LA90
LAeq
Wind
Rain

Sound Level Survey Record

Project Name and Number		Runcorn CCS	
Location		LT5	
Purpose of Monitoring		Baseline	
Relevant Guidance / Standard		BS 4142:2014	
Sound Measurement System			
ID	Manufacturer / Model	Serial Number	Last Lab Verification
-	Rion NL-53	1130792	
Microphone Height	Façade / Freefield	Measurement Interval	Filename
2	Free	125 ms	1

		START	END
Personnel		PB	PB
Date / time		08/07/2024 16:32	16/07/2024 09:17
Cali brat	Reference level	94.0	94.0
	Meter reading	94.0	93.9

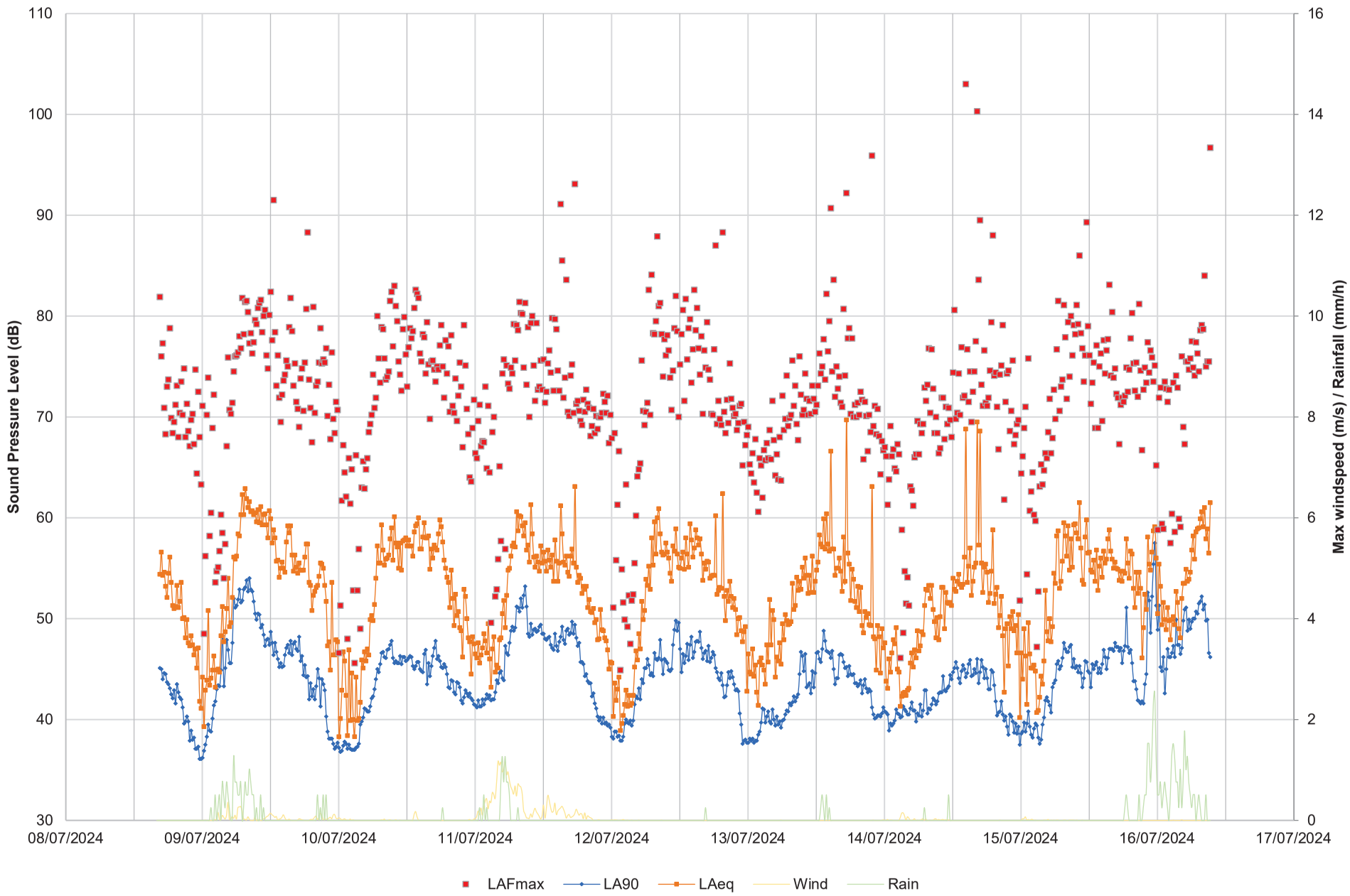
Photographs of Measurement Location

Description of site (location of equipment, general surroundings, nature of ground between NSR and sound source(s) (hard/ soft ground, topography, intervening features, reflecting surfaces))

LT5 was deployed in the front garden area of 54 Sandy Lane at 1.5 m above ground in a free field position (i.e. 3.5 m from the façade of 54 Sandy Lane) and approximately 280 m to the south-east of the site boundary and immediately adjacent to dwellings on Sandy Lane.

Description of sound environment (principal environmental and natural sound sources, which sources are dominant, character of the sound environment cf. to the character of the new source)

At the time of setting up and collecting the LT5 survey, the following noise sources were noted as affecting the acoustic environment: local road traffic movements on Sandy lane, distant road traffic movements and commercial aircraft soon after taking off from Liverpool John Lennon Airport (i.e. relatively low). At no point on deployment or during an attended site visit on the night of Monday 08 July 2024 was noise from the existing EfW facility noted as being audible. In addition, on deployment of the LT5 survey, the occupant at the premises, and the neighbour, both confirmed that the existing EfW facility was not generally audible, apart from occasional sound associated with the unloading of vehicles, an activity that would not affect background sound levels.


Sound Pressure Level (dB)
Max windspeed (m/s) / Rainfall (mm/h)
110
100
90
80
70
60
50
40
30
16
14
12
10
8
6
4
2
0
08/07/2024
09/07/2024
10/07/2024
11/07/2024
12/07/2024
13/07/2024
14/07/2024
15/07/2024
16/07/2024
17/07/2024
LAFmax
LA90
LAeq
Wind
Rain

Start	Clarks Terrace		Sandy Lane		Wind (m/s)	Rain (mm/s)
	dB LA90,T	dB LAeq,T	dB LA90,T	dB LAeq,T		
08/07/2024 16:00	43.8	55			0.0	0.0
08/07/2024 16:15	42.3	57.1			0.0	0.0
08/07/2024 16:30	42.4	49.9	45.1	54.4	0.0	0.0
08/07/2024 16:45	42.6	56.5	45	56.6	0.0	0.0
08/07/2024 17:00	40.7	53.9	44	54.3	0.0	0.0
08/07/2024 17:15	41.5	50.1	44.6	54.6	0.0	0.0
08/07/2024 17:30	40.2	49.7	44.5	53.2	0.0	0.0
08/07/2024 17:45	39.6	45.4	43.7	52.1	0.0	0.0
08/07/2024 18:00	40.3	48.9	43.5	54.5	0.0	0.0
08/07/2024 18:15	40.1	53.5	43.1	56.1	0.0	0.0
08/07/2024 18:30	40.8	50.2	42.5	53.6	0.0	0.0
08/07/2024 18:45	40.6	52.2	42.1	51.3	0.0	0.0
08/07/2024 19:00	39.8	45.8	42.9	51	0.0	0.0
08/07/2024 19:15	41.4	50.3	41.6	51.2	0.0	0.0
08/07/2024 19:30	42.2	51.6	43.5	53.3	0.0	0.0
08/07/2024 19:45	41.4	46	42.7	51.1	0.0	0.0
08/07/2024 20:00	40.8	48.6	42.2	51.7	0.0	0.0
08/07/2024 20:15	42.5	56.5	42	53.6	0.0	0.0
08/07/2024 20:30	42.1	49.1	41.2	50	0.0	0.0
08/07/2024 20:45	40	45.6	39.6	50.1	0.0	0.0
08/07/2024 21:00	40.2	48.2	39.8	48.1	0.0	0.0
08/07/2024 21:15	40.9	46.2	40.3	49.9	0.0	0.0
08/07/2024 21:30	40	45.2	39.8	47.6	0.0	0.0
08/07/2024 21:45	39.5	46.2	37.9	47.3	0.0	0.0
08/07/2024 22:00	39.3	45.7	38.9	48.3	0.0	0.0
08/07/2024 22:15	39.5	46.6	38	47.4	0.0	0.0
08/07/2024 22:30	39.8	45.6	38.2	46.4	0.0	0.0
08/07/2024 22:45	39	41.7	37.1	47	0.0	0.0
08/07/2024 23:00	37.9	42.5	37.1	45.1	0.0	0.0
08/07/2024 23:15	38.9	43.7	37.3	47.1	0.0	0.0
08/07/2024 23:30	38	39.3	36.1	41.8	0.0	0.0
08/07/2024 23:45	37.3	39.2	36.1	41.1	0.0	0.0
09/07/2024 00:00	37.9	39.4	36.2	44.2	0.0	0.0
09/07/2024 00:15	38.1	39.6	36.9	39.3	0.0	0.0
09/07/2024 00:30	38.7	41.4	37.5	42.9	0.0	0.0
09/07/2024 00:45	39.5	42	38.3	43.9	0.0	0.0
09/07/2024 01:00	40.8	45.4	39.5	50.8	0.0	0.0
09/07/2024 01:15	40.6	42.3	38.9	43.4	0.0	0.0
09/07/2024 01:30	40.4	45.6	38.8	44.1	0.0	0.3
09/07/2024 01:45	41.2	42.8	40.1	44.9	0.0	0.0
09/07/2024 02:00	41.9	43.7	41.4	46.3	0.0	0.0
09/07/2024 02:15	42.3	43.4	41.8	43.2	0.0	0.5
09/07/2024 02:30	43.2	44.5	43	44.9	0.0	0.0
09/07/2024 02:45	44.1	45.1	43.4	45	0.2	0.3
09/07/2024 03:00	43.9	45.1	43.3	44.7	0.0	0.5
09/07/2024 03:15	45.1	47.8	44.9	48.3	0.0	0.0
09/07/2024 03:30	48.5	50.9	48.3	51.2	0.1	0.8
09/07/2024 03:45	46	49.4	43.3	47.7	0.1	0.5
09/07/2024 04:00	44.2	47.1	45.1	48.7	0.0	0.3
09/07/2024 04:15	47.8	51.1	47.9	51	0.1	0.8
09/07/2024 04:30	46.6	50.9	46.9	54	0.4	0.5
09/07/2024 04:45	45.6	47.8	45.6	49.2	0.0	0.3
09/07/2024 05:00	44.4	50.3	45.6	49.6	0.0	0.0
09/07/2024 05:15	45.3	47.9	47.6	52.1	0.1	0.0
09/07/2024 05:30	51.7	55.3	52	56.1	0.0	1.3

Start	Clarks Terrace		Sandy Lane		Wind (m/s)	Rain (mm/s)
	dB LA90,T	dB LAeq,T	dB LA90,T	dB LAeq,T		
09/07/2024 05:45	50.2	51.7	51.1	55.9	0.1	0.8
09/07/2024 06:00	50.3	53.3	51.3	56.2	0.0	0.8
09/07/2024 06:15	51.2	58.5	51.9	58.4	0.3	0.5
09/07/2024 06:30	52.3	54.7	52.9	58.2	0.3	0.5
09/07/2024 06:45	50.6	54	51.6	60.3	0.3	0.8
09/07/2024 07:00	49.9	52.3	51.8	62.3	0.2	0.0
09/07/2024 07:15	50.8	54.3	52.9	60.3	0.0	0.3
09/07/2024 07:30	50.3	54.5	53.1	62.9	0.0	0.8
09/07/2024 07:45	51.1	55.6	53.8	61.9	0.0	0.5
09/07/2024 08:00	50.2	54.7	52.7	61	0.1	0.5
09/07/2024 08:15	50.4	56.4	54	61.6	0.0	1.0
09/07/2024 08:30	50.1	57.2	52.9	60.6	0.0	0.8
09/07/2024 08:45	50	55.1	52.7	60.7	0.0	0.5
09/07/2024 09:00	49.4	61.9	51.7	60.3	0.0	0.5
09/07/2024 09:15	48.1	52.8	50.5	60.5	0.1	0.0
09/07/2024 09:30	48	51.3	49.9	59.6	0.0	0.3
09/07/2024 09:45	48.7	53.7	50.5	60.8	0.0	0.0
09/07/2024 10:00	48.7	53.1	50.4	59.5	0.0	0.0
09/07/2024 10:15	47.7	55.5	49.1	61.1	0.0	0.5
09/07/2024 10:30	47.1	51.8	49.4	59.3	0.0	0.0
09/07/2024 10:45	47.3	52.8	48.4	60.3	0.0	0.3
09/07/2024 11:00	46.6	53	47.3	60.4	0.0	0.0
09/07/2024 11:15	47	55.5	47.9	59.3	0.1	0.0
09/07/2024 11:30	47.3	53.6	48	58	0.1	0.0
09/07/2024 11:45	46.6	50.8	47.4	60.7	0.1	0.0
09/07/2024 12:00	46.8	52.1	48.7	59.9	0.1	0.0
09/07/2024 12:15	46.3	59.6	47.6	57.5	0.1	0.0
09/07/2024 12:30	44.4	66.9	46.4	58.8	0.1	0.0
09/07/2024 12:45	45	51.8	47.6	58	0.1	0.0
09/07/2024 13:00	44.2	56	46.7	55.7	0.1	0.0
09/07/2024 13:15	43.7	52.8	46	55.8	0.0	0.0
09/07/2024 13:30	42.1	50.3	45.2	54.1	0.0	0.0
09/07/2024 13:45	42.5	49.2	45.6	55	0.0	0.0
09/07/2024 14:00	43.5	55	45.2	55.6	0.1	0.0
09/07/2024 14:15	44.7	57.1	45.3	55	0.1	0.0
09/07/2024 14:30	43.5	51.2	46.4	54.6	0.1	0.0
09/07/2024 14:45	44.2	53.3	47.1	57.6	0.0	0.0
09/07/2024 15:00	44	53.9	47.4	59.2	0.0	0.0
09/07/2024 15:15	44.9	52.1	46.6	58.5	0.0	0.0
09/07/2024 15:30	44.4	52.6	47.8	59.2	0.0	0.0
09/07/2024 15:45	44.9	54.1	46.4	56.3	0.0	0.0
09/07/2024 16:00	47.4	53	47.5	54.7	0.0	0.0
09/07/2024 16:15	44.9	49.2	47.7	56.3	0.0	0.0
09/07/2024 16:30	45.1	64.3	47	55.1	0.0	0.0
09/07/2024 16:45	45.8	53.2	46.8	54.5	0.0	0.0
09/07/2024 17:00	45.4	55.1	48.2	55.5	0.0	0.0
09/07/2024 17:15	44.4	56	45.8	54.8	0.0	0.0
09/07/2024 17:30	43.3	53.7	46.3	54.8	0.0	0.0
09/07/2024 17:45	41.4	51.5	44.4	54.8	0.0	0.0
09/07/2024 18:00	42.7	57.3	45.4	56.1	0.0	0.0
09/07/2024 18:15	42.1	51.1	44.2	57.4	0.0	0.0
09/07/2024 18:30	41.9	56.8	44.3	57.4	0.0	0.0
09/07/2024 18:45	40.9	53.2	42	53.6	0.0	0.0
09/07/2024 19:00	40.9	52.1	43.6	53.3	0.0	0.0
09/07/2024 19:15	40.7	47.2	42.3	50.8	0.0	0.0

Start	Clarks Terrace		Sandy Lane		Wind (m/s)	Rain (mm/s)
	dB LA90,T	dB LAeq,T	dB LA90,T	dB LAeq,T		
09/07/2024 19:30	40.8	45.9	43	52.3	0.0	0.0
09/07/2024 19:45	40.6	51.6	42	52.7	0.1	0.0
09/07/2024 20:00	41	51.7	43.3	53.1	0.1	0.0
09/07/2024 20:15	44	48.5	45	53.3	0.0	0.5
09/07/2024 20:30	42.4	46.2	44.1	54.2	0.1	0.0
09/07/2024 20:45	40.7	47.4	41.3	55.5	0.1	0.3
09/07/2024 21:00	44.3	52.7	44	55.4	0.1	0.0
09/07/2024 21:15	44.3	52.3	43.5	55	0.0	0.5
09/07/2024 21:30	41.4	44.6	42.9	53.3	0.0	0.0
09/07/2024 21:45	39.8	48.5	40.3	51.7	0.0	0.5
09/07/2024 22:00	38.2	39.6	38.8	47.3	0.0	0.0
09/07/2024 22:15	37.9	44.5	38.1	47.7	0.0	0.0
09/07/2024 22:30	37.7	44.1	38.1	44.9	0.1	0.0
09/07/2024 22:45	38	48.6	38.1	53.6	0.0	0.0
09/07/2024 23:00	38	46.1	37.6	46.4	0.1	0.0
09/07/2024 23:15	37.4	39.3	37.1	46.4	0.1	0.0
09/07/2024 23:30	37.7	43.9	37.3	47.9	0.0	0.0
09/07/2024 23:45	37.8	41.6	37.7	47.7	0.0	0.0
10/07/2024 00:00	37.5	43.2	37.2	38.3	0.1	0.0
10/07/2024 00:15	37.8	39.7	36.8	40.1	0.0	0.0
10/07/2024 00:30	38.3	41.9	36.9	42.9	0.0	0.0
10/07/2024 00:45	38.2	45.6	37.4	46.7	0.0	0.0
10/07/2024 01:00	38.4	44	37.8	45.8	0.0	0.0
10/07/2024 01:15	38	42.4	37.6	42.4	0.0	0.0
10/07/2024 01:30	37.8	38.7	37.1	38.4	0.0	0.0
10/07/2024 01:45	37.9	42.1	37.5	46.9	0.0	0.0
10/07/2024 02:00	37.8	42.1	37.1	39.9	0.0	0.0
10/07/2024 02:15	37.9	41.9	37	44.6	0.0	0.0
10/07/2024 02:30	38	40.3	37	40	0.0	0.0
10/07/2024 02:45	37.5	38.5	37	38.3	0.0	0.0
10/07/2024 03:00	37.6	42.4	37.2	44.2	0.0	0.0
10/07/2024 03:15	38	39.1	37.3	39.9	0.0	0.0
10/07/2024 03:30	38.3	40.1	37.6	40.1	0.0	0.0
10/07/2024 03:45	39.4	40.9	39.5	41.7	0.0	0.0
10/07/2024 04:00	39.8	42.2	39.8	45.9	0.0	0.0
10/07/2024 04:15	39.7	49	40.2	45.1	0.0	0.0
10/07/2024 04:30	40.1	44.3	41.1	46.7	0.0	0.0
10/07/2024 04:45	41	46	41	45.8	0.0	0.0
10/07/2024 05:00	41	48	40.8	47	0.0	0.0
10/07/2024 05:15	41.2	49.5	40.8	46.4	0.0	0.0
10/07/2024 05:30	40.7	48	41.3	49.9	0.0	0.0
10/07/2024 05:45	41.2	44.2	42.1	50.3	0.0	0.0
10/07/2024 06:00	41.3	45.8	42.3	49.8	0.0	0.0
10/07/2024 06:15	42	48.6	43	51.4	0.0	0.0
10/07/2024 06:30	42.6	48.2	44	54	0.0	0.0
10/07/2024 06:45	43.2	50	45	57.2	0.0	0.0
10/07/2024 07:00	43.8	48.8	44.7	55.5	0.0	0.0
10/07/2024 07:15	43.7	50.9	45.5	55.5	0.0	0.0
10/07/2024 07:30	44.2	51.2	46.6	59.3	0.0	0.0
10/07/2024 07:45	43.9	51.6	46.7	56.8	0.0	0.0
10/07/2024 08:00	42.6	49.9	46.2	55.3	0.0	0.0
10/07/2024 08:15	43	51.6	46.1	55.9	0.0	0.0
10/07/2024 08:30	44.6	56.9	46.9	56	0.0	0.0
10/07/2024 08:45	44.6	50	47	56.3	0.0	0.0
10/07/2024 09:00	46	52.3	47.4	57.9	0.0	0.0

Start	Clarks Terrace		Sandy Lane		Wind (m/s)	Rain (mm/s)
	dB LA90,T	dB LAeq,T	dB LA90,T	dB LAeq,T		
10/07/2024 09:15	46.7	53.7	47.8	59	0.0	0.0
10/07/2024 09:30	47.1	58.9	46.1	55.8	0.0	0.0
10/07/2024 09:45	46.5	51.6	45.6	60.1	0.0	0.0
10/07/2024 10:00	47	57	45.8	57.5	0.0	0.0
10/07/2024 10:15	48.2	58.5	45.6	57.1	0.0	0.0
10/07/2024 10:30	46.1	54	45.6	55	0.0	0.0
10/07/2024 10:45	45.8	53.5	46.3	57.5	0.0	0.0
10/07/2024 11:00	46.4	53.2	45.5	54.8	0.0	0.0
10/07/2024 11:15	46.2	51.7	46.2	57.7	0.0	0.0
10/07/2024 11:30	44.4	53.2	46.2	57.8	0.0	0.0
10/07/2024 11:45	45.4	51.5	45.8	58	0.0	0.0
10/07/2024 12:00	43.9	52.3	45.9	57.2	0.0	0.0
10/07/2024 12:15	46	52.6	46.1	57.8	0.0	0.0
10/07/2024 12:30	43.7	50.2	46.3	57.2	0.0	0.0
10/07/2024 12:45	43.6	50.3	46.2	57.2	0.0	0.0
10/07/2024 13:00	43.4	51.4	45.3	56.2	0.0	0.0
10/07/2024 13:15	41.3	50.9	45	58.6	0.1	0.0
10/07/2024 13:30	41.8	51.2	45.3	59.2	0.2	0.0
10/07/2024 13:45	44.1	55.5	45.7	59.4	0.1	0.0
10/07/2024 14:00	43.6	67.1	45.7	60	0.0	0.0
10/07/2024 14:15	43	50.7	45	56.9	0.0	0.0
10/07/2024 14:30	42.8	53.6	44.8	56.9	0.0	0.0
10/07/2024 14:45	41.3	51.4	44.7	58.1	0.0	0.0
10/07/2024 15:00	42.3	52.6	46.5	59.5	0.0	0.0
10/07/2024 15:15	41.8	53.8	46.9	58	0.0	0.0
10/07/2024 15:30	39.8	51.8	43.5	58	0.0	0.0
10/07/2024 15:45	41.4	50.8	45.6	58.2	0.0	0.0
10/07/2024 16:00	40.4	52.2	44.3	54.9	0.0	0.0
10/07/2024 16:15	40.5	53.7	45.3	56.9	0.0	0.0
10/07/2024 16:30	41.7	51.8	46.3	56	0.0	0.0
10/07/2024 16:45	42.1	53.2	47.1	57.3	0.0	0.0
10/07/2024 17:00	42.6	52.6	47.8	57	0.0	0.0
10/07/2024 17:15	40	51.2	46	56.8	0.0	0.0
10/07/2024 17:30	39.8	47.4	46.3	58.4	0.0	0.0
10/07/2024 17:45	40.7	50.3	45.8	59.8	0.0	0.0
10/07/2024 18:00	39.3	49	45.2	59.1	0.0	0.0
10/07/2024 18:15	39.9	46.7	45.1	57.6	0.0	0.3
10/07/2024 18:30	40.2	60.9	45.5	55.8	0.0	0.0
10/07/2024 18:45	40.6	48.2	45.2	55	0.0	0.0
10/07/2024 19:00	40.8	48.6	44.5	54.1	0.0	0.0
10/07/2024 19:15	38.6	45.5	43.2	53.6	0.0	0.0
10/07/2024 19:30	39.7	46.8	43.1	51.1	0.0	0.0
10/07/2024 19:45	40.3	52.3	43.9	54.8	0.0	0.0
10/07/2024 20:00	40.3	46.7	43.8	52	0.0	0.0
10/07/2024 20:15	38.3	41.8	42.7	49.3	0.0	0.0
10/07/2024 20:30	38.6	51	42.5	52.4	0.0	0.0
10/07/2024 20:45	41.4	46.3	43.7	50.3	0.0	0.0
10/07/2024 21:00	40.8	46.7	43.6	50.7	0.0	0.0
10/07/2024 21:15	40.6	43.4	43.2	49.1	0.0	0.0
10/07/2024 21:30	37.6	44.8	41.9	48.8	0.0	0.0
10/07/2024 21:45	37.7	45	41.6	46.2	0.0	0.0
10/07/2024 22:00	38.4	47.5	42.2	52.9	0.0	0.0
10/07/2024 22:15	38.3	45.7	42.9	52.2	0.0	0.0
10/07/2024 22:30	38.6	43.4	42.6	50	0.0	0.0
10/07/2024 22:45	38.3	43.7	42.3	48.1	0.0	0.0

Start	Clarks Terrace		Sandy Lane		Wind (m/s)	Rain (mm/s)
	dB LA90,T	dB LAeq,T	dB LA90,T	dB LAeq,T		
10/07/2024 23:00	38.2	44.7	42.6	47.7	0.0	0.0
10/07/2024 23:15	38.3	40.4	42.1	44.5	0.0	0.0
10/07/2024 23:30	37.7	44	41.9	48.2	0.0	0.0
10/07/2024 23:45	38	40.7	41.5	47.5	0.0	0.0
11/07/2024 00:00	36.8	38.9	41.4	46.5	0.0	0.0
11/07/2024 00:15	37	45.6	41.2	46.1	0.1	0.0
11/07/2024 00:30	38	42.2	41.9	47.6	0.2	0.0
11/07/2024 00:45	37.6	39.4	41.3	45.6	0.1	0.3
11/07/2024 01:00	37.3	43.3	41.3	46.4	0.2	0.0
11/07/2024 01:15	37.4	43.8	42	47.1	0.1	0.0
11/07/2024 01:30	38.5	45.4	41.5	48.5	0.3	0.5
11/07/2024 01:45	38.9	44.7	42	47.8	0.4	0.0
11/07/2024 02:00	40.7	47.2	42.5	46.6	0.4	0.3
11/07/2024 02:15	39.5	44.2	42.1	49.5	0.2	0.0
11/07/2024 02:30	39.1	43	42.4	46	0.4	0.0
11/07/2024 02:45	38.4	40.3	41.9	43.2	0.4	0.0
11/07/2024 03:00	39.3	44	42	47	0.6	0.0
11/07/2024 03:15	38.5	44.7	42	48.2	0.5	0.0
11/07/2024 03:30	39	42.9	42.7	44.7	0.4	0.0
11/07/2024 03:45	41.6	43.8	43.9	45.4	0.7	0.0
11/07/2024 04:00	40.7	42.9	43.6	45.1	1.2	0.0
11/07/2024 04:15	42.2	45.2	44.6	47.9	1.1	0.0
11/07/2024 04:30	42.9	48	44.8	48.1	1.2	0.8
11/07/2024 04:45	41.5	44	44.1	50.5	1.0	1.3
11/07/2024 05:00	41.1	48	43.9	51.8	1.0	0.8
11/07/2024 05:15	44.4	46.7	47.3	49.1	1.2	1.3
11/07/2024 05:30	44.6	51.2	46.6	52.3	0.9	0.8
11/07/2024 05:45	44.3	46.1	46.4	54.8	1.0	0.8
11/07/2024 06:00	44.9	49.1	47.6	55	0.8	0.5
11/07/2024 06:15	45.8	53.3	48.8	56.2	0.7	0.0
11/07/2024 06:30	45.9	53.2	49.2	57.2	0.6	0.0
11/07/2024 06:45	45.9	49.7	48.8	57.5	0.5	0.0
11/07/2024 07:00	46.7	51	49.1	57.1	0.7	0.0
11/07/2024 07:15	46.8	57.7	51.2	60.6	0.5	0.0
11/07/2024 07:30	47.1	51.2	51.1	58.7	0.7	0.3
11/07/2024 07:45	47	53.6	50.7	60.2	0.7	0.0
11/07/2024 08:00	47.1	54.8	52	60.1	0.7	0.0
11/07/2024 08:15	46.7	51.6	51.1	59.2	0.5	0.0
11/07/2024 08:30	47	52	52.3	58.2	0.2	0.0
11/07/2024 08:45	47.5	56.1	53.2	59.5	0.1	0.0
11/07/2024 09:00	46.8	62.7	51.2	56.8	0.1	0.0
11/07/2024 09:15	45.5	52.5	48.5	57.3	0.0	0.0
11/07/2024 09:30	44.9	60.7	48.2	55.6	0.0	0.0
11/07/2024 09:45	45.9	59.2	49.5	61.3	0.1	0.0
11/07/2024 10:00	44.8	51.3	48.4	58.4	0.1	0.0
11/07/2024 10:15	44.4	53.1	48.9	56.1	0.2	0.0
11/07/2024 10:30	44.3	50.9	49	55.1	0.2	0.0
11/07/2024 10:45	44.5	52	48.7	56.2	0.2	0.0
11/07/2024 11:00	45.4	51.9	48.8	55.6	0.1	0.0
11/07/2024 11:15	44.9	51.1	49.2	54.7	0.1	0.0
11/07/2024 11:30	45.2	50.6	49.4	57.2	0.0	0.0
11/07/2024 11:45	43.4	48.5	48.5	55.5	0.1	0.0
11/07/2024 12:00	44.2	52	48.5	56.6	0.3	0.0
11/07/2024 12:15	44.9	49.9	48	55.7	0.0	0.0
11/07/2024 12:30	43.1	51.4	47.9	54.7	0.2	0.0

Start	Clarks Terrace		Sandy Lane		Wind (m/s)	Rain (mm/s)
	dB LA90,T	dB LAeq,T	dB LA90,T	dB LAeq,T		
11/07/2024 12:45	45	54.1	48.1	56.8	0.5	0.0
11/07/2024 13:00	43.8	54.5	48.2	55.8	0.4	0.0
11/07/2024 13:15	42.7	52.6	47.4	55.1	0.3	0.0
11/07/2024 13:30	41.7	49	47.1	56.3	0.2	0.0
11/07/2024 13:45	41.9	50.1	46.9	53.7	0.2	0.0
11/07/2024 14:00	42.5	49.9	48.5	57.8	0.3	0.0
11/07/2024 14:15	42.7	50	47.3	55.7	0.1	0.0
11/07/2024 14:30	42.4	52.4	46.8	53.7	0.2	0.0
11/07/2024 14:45	41.1	51.3	47.7	55.5	0.2	0.0
11/07/2024 15:00	42.2	49.4	48.2	61.2	0.2	0.0
11/07/2024 15:15	42.5	51.9	49.2	58.4	0.3	0.0
11/07/2024 15:30	41.8	51.6	47.9	55.6	0.2	0.0
11/07/2024 15:45	41.5	48.6	47.5	55.3	0.1	0.0
11/07/2024 16:00	42.9	53	48.8	56.2	0.0	0.0
11/07/2024 16:15	43.2	50.5	49	54.6	0.1	0.0
11/07/2024 16:30	42.4	50.9	48.4	54.2	0.1	0.0
11/07/2024 16:45	41.3	49.2	48.6	56.2	0.1	0.0
11/07/2024 17:00	44.1	54.3	49.7	56.9	0.1	0.0
11/07/2024 17:15	43.1	51.3	48.5	55.5	0.1	0.0
11/07/2024 17:30	43.6	59.8	49.4	63.1	0.1	0.0
11/07/2024 17:45	42.7	52.5	48.1	55.1	0.2	0.0
11/07/2024 18:00	42.4	48.7	47.3	53.6	0.2	0.0
11/07/2024 18:15	41.7	49.9	47.6	54.3	0.1	0.0
11/07/2024 18:30	41.7	50.8	45.7	54	0.1	0.0
11/07/2024 18:45	40.7	46.2	45.7	52.5	0.1	0.0
11/07/2024 19:00	41.1	49.5	45.5	53.2	0.0	0.0
11/07/2024 19:15	41	48.4	44.3	52.9	0.1	0.0
11/07/2024 19:30	40.6	46.7	44.5	53.2	0.0	0.0
11/07/2024 19:45	39.8	52.8	43.8	51.1	0.1	0.0
11/07/2024 20:00	40.5	49.2	43.6	51.9	0.1	0.0
11/07/2024 20:15	39.5	45.6	43.6	50.7	0.1	0.0
11/07/2024 20:30	39.2	46.3	42.3	50.6	0.0	0.0
11/07/2024 20:45	38.9	43.9	42.6	51	0.0	0.0
11/07/2024 21:00	38.3	41.1	41.6	49.6	0.0	0.0
11/07/2024 21:15	38.6	47	41.1	49.9	0.0	0.0
11/07/2024 21:30	37.5	42.1	40.3	47.9	0.0	0.0
11/07/2024 21:45	37.4	41.1	39.9	48	0.0	0.0
11/07/2024 22:00	37.4	50.1	40.2	50.9	0.0	0.0
11/07/2024 22:15	37.1	39.6	39.6	48.9	0.0	0.0
11/07/2024 22:30	37.5	42.4	40.2	48.8	0.0	0.0
11/07/2024 22:45	37.3	42.7	39.6	48.1	0.0	0.0
11/07/2024 23:00	37.4	40.6	39.7	47.8	0.0	0.0
11/07/2024 23:15	37.4	42.9	39.4	46.9	0.0	0.0
11/07/2024 23:30	37.6	44	39.5	45	0.0	0.0
11/07/2024 23:45	37.7	39.3	39.2	45.7	0.0	0.0
12/07/2024 00:00	37.4	42	38.3	45.6	0.0	0.0
12/07/2024 00:15	37.3	38.4	38.1	40.3	0.0	0.0
12/07/2024 00:30	37.5	40.2	38.8	43.6	0.0	0.0
12/07/2024 00:45	37.8	39.2	38.8	41.9	0.0	0.0
12/07/2024 01:00	36.8	44.4	38.3	43	0.0	0.0
12/07/2024 01:15	37	43.1	38.4	44.2	0.0	0.0
12/07/2024 01:30	36.5	42.6	37.9	38.9	0.0	0.0
12/07/2024 01:45	36.5	37.5	37.9	39.6	0.0	0.0
12/07/2024 02:00	37.3	38.7	38.3	40.4	0.0	0.0
12/07/2024 02:15	37.6	39	39.6	41.5	0.0	0.0

Start	Clarks Terrace		Sandy Lane		Wind (m/s)	Rain (mm/s)
	dB LA90,T	dB LAeq,T	dB LA90,T	dB LAeq,T		
12/07/2024 02:30	37.8	38.8	40	42.9	0.0	0.0
12/07/2024 02:45	38.1	39.1	39.7	41.3	0.0	0.0
12/07/2024 03:00	37.8	39.1	39.6	42.4	0.0	0.0
12/07/2024 03:15	38	39	39.9	41.4	0.0	0.0
12/07/2024 03:30	37.2	38.7	39.4	41.6	0.0	0.0
12/07/2024 03:45	37.7	39	39.9	42.4	0.0	0.0
12/07/2024 04:00	38.6	40.5	41.5	45.2	0.0	0.0
12/07/2024 04:15	39.2	43.3	42.3	46.8	0.0	0.0
12/07/2024 04:30	39.2	51.2	42.1	45.9	0.0	0.0
12/07/2024 04:45	39.3	41.7	43.1	48.5	0.0	0.0
12/07/2024 05:00	39.4	48.2	42	47	0.0	0.0
12/07/2024 05:15	40.4	46.8	44	51.7	0.0	0.0
12/07/2024 05:30	40.2	48.9	43.6	49.9	0.0	0.0
12/07/2024 05:45	41	47.1	45.1	50.8	0.0	0.0
12/07/2024 06:00	41.7	53.5	45.1	53.9	0.0	0.0
12/07/2024 06:15	41.8	50.5	46	53.3	0.0	0.0
12/07/2024 06:30	40.9	51.9	45.4	55.2	0.0	0.0
12/07/2024 06:45	39.8	47.4	44.4	52.9	0.0	0.0
12/07/2024 07:00	39.6	48	44.6	58	0.0	0.0
12/07/2024 07:15	38.1	46.8	44.3	55.3	0.0	0.0
12/07/2024 07:30	39.3	59.1	46.6	59.6	0.0	0.0
12/07/2024 07:45	40	51.9	46	56.4	0.0	0.0
12/07/2024 08:00	42.3	52.9	45.9	60	0.0	0.0
12/07/2024 08:15	43.5	54.1	46.1	60.9	0.0	0.0
12/07/2024 08:30	43.3	61.1	47.9	58.4	0.0	0.0
12/07/2024 08:45	41.8	52	45.9	56.6	0.0	0.0
12/07/2024 09:00	40.6	54.3	44.5	56.3	0.0	0.0
12/07/2024 09:15	42.4	63.7	46	56.4	0.0	0.0
12/07/2024 09:30	44.7	51.6	45.8	57.5	0.0	0.0
12/07/2024 09:45	42.3	49.6	45.6	56.6	0.0	0.0
12/07/2024 10:00	42.9	51.3	44.9	56	0.0	0.0
12/07/2024 10:15	42.2	48.8	44.8	54.5	0.0	0.0
12/07/2024 10:30	41.5	52.8	45	53.7	0.0	0.0
12/07/2024 10:45	42.4	53.1	47.4	57.2	0.0	0.0
12/07/2024 11:00	43.3	51.5	48.9	56.7	0.0	0.0
12/07/2024 11:15	44.3	52.9	49.8	58.9	0.0	0.0
12/07/2024 11:30	43.7	49.9	48.8	56.4	0.0	0.0
12/07/2024 11:45	43.7	54.3	49.6	55.1	0.0	0.0
12/07/2024 12:00	43.2	53.8	47	55	0.0	0.0
12/07/2024 12:15	42.1	53	44.7	56	0.0	0.0
12/07/2024 12:30	40.3	50.4	46.5	56.6	0.0	0.0
12/07/2024 12:45	40	50.3	45.6	54.9	0.0	0.0
12/07/2024 13:00	39.3	53	46.3	58	0.0	0.0
12/07/2024 13:15	38.3	51.8	47.5	56.4	0.0	0.0
12/07/2024 13:30	39.8	50.1	45.9	55.1	0.0	0.0
12/07/2024 13:45	39.7	60.3	47.4	59.4	0.0	0.0
12/07/2024 14:00	41.8	56.9	48.2	57.8	0.0	0.0
12/07/2024 14:15	40.1	56.8	46.1	56.1	0.0	0.0
12/07/2024 14:30	40.5	49.2	46.7	57	0.0	0.0
12/07/2024 14:45	42.4	50.9	47.7	58.8	0.0	0.0
12/07/2024 15:00	43.2	51.5	47.8	58	0.0	0.0
12/07/2024 15:15	42.1	52.9	47.7	57.3	0.0	0.0
12/07/2024 15:30	42.6	53.2	48.7	57.9	0.0	0.0
12/07/2024 15:45	42.6	52.9	47.1	56.4	0.0	0.0
12/07/2024 16:00	40.9	50	46	53.8	0.0	0.0

Start	Clarks Terrace		Sandy Lane		Wind (m/s)	Rain (mm/s)
	dB LA90,T	dB LAeq,T	dB LA90,T	dB LAeq,T		
12/07/2024 16:15	40.4	50.8	46.6	55.5	0.0	0.0
12/07/2024 16:30	40.8	52.8	46.8	54.9	0.0	0.3
12/07/2024 16:45	40	53	45.8	55.7	0.0	0.0
12/07/2024 17:00	39.6	52.3	47.3	55.6	0.0	0.0
12/07/2024 17:15	38.7	51.1	45.7	54	0.0	0.0
12/07/2024 17:30	39.3	51.4	46.1	54.2	0.0	0.0
12/07/2024 17:45	39.7	48.5	46.7	54.3	0.0	0.0
12/07/2024 18:00	40.2	52.6	46.4	54.3	0.0	0.0
12/07/2024 18:15	40.5	53.1	45.1	60.2	0.0	0.0
12/07/2024 18:30	39.6	49.6	44.7	52.4	0.0	0.0
12/07/2024 18:45	38.6	45.2	44.1	52.8	0.0	0.0
12/07/2024 19:00	38	47.8	43.9	53.1	0.0	0.0
12/07/2024 19:15	38.8	49.1	44.6	53	0.0	0.0
12/07/2024 19:30	39	49.4	43.4	62.4	0.0	0.0
12/07/2024 19:45	37.7	49.1	42.2	52.2	0.0	0.0
12/07/2024 20:00	37.2	42.3	42.3	49.8	0.0	0.0
12/07/2024 20:15	37.8	51.8	43.4	52.8	0.0	0.0
12/07/2024 20:30	37.9	48.6	44.7	51.7	0.0	0.0
12/07/2024 20:45	38.5	49.8	44.1	53.7	0.0	0.0
12/07/2024 21:00	38.9	47.2	44.8	52.2	0.0	0.0
12/07/2024 21:15	38.3	48.1	44.2	51.1	0.0	0.0
12/07/2024 21:30	37.3	46.8	43.5	52	0.0	0.0
12/07/2024 21:45	38.2	47.8	42.9	50.9	0.0	0.0
12/07/2024 22:00	38	44.6	43	48.4	0.0	0.0
12/07/2024 22:15	37.4	42.8	42.8	50	0.0	0.0
12/07/2024 22:30	36.6	43.4	40.6	50.1	0.0	0.0
12/07/2024 22:45	35.9	44.4	39.5	48.8	0.0	0.0
12/07/2024 23:00	36.8	46.2	37.6	47.7	0.0	0.0
12/07/2024 23:15	36.5	44.5	37.9	48.7	0.0	0.0
12/07/2024 23:30	36.6	46.7	38	49.2	0.0	0.0
12/07/2024 23:45	35.8	37	37.7	42.8	0.0	0.0
13/07/2024 00:00	36.4	38.2	37.7	46.5	0.0	0.0
13/07/2024 00:15	36.1	42.6	38.1	44.7	0.0	0.0
13/07/2024 00:30	35.8	40.7	37.9	44.5	0.0	0.0
13/07/2024 00:45	36	42.5	38.1	47	0.0	0.0
13/07/2024 01:00	35.9	43.1	37.7	44.3	0.0	0.0
13/07/2024 01:15	36.1	37.3	37.9	45.4	0.0	0.0
13/07/2024 01:30	36.2	42.7	37.9	42.7	0.0	0.0
13/07/2024 01:45	36	37	38.5	41.4	0.0	0.0
13/07/2024 02:00	36	42.7	38.8	45.7	0.0	0.0
13/07/2024 02:15	36.1	43	39.7	46.1	0.0	0.0
13/07/2024 02:30	36.9	41.8	41.1	45.4	0.0	0.0
13/07/2024 02:45	36.9	39	41	44.9	0.0	0.0
13/07/2024 03:00	35.9	37.4	39.7	43.5	0.0	0.0
13/07/2024 03:15	36.2	42.9	40.3	47.4	0.0	0.0
13/07/2024 03:30	36.5	39.1	40.8	45.7	0.0	0.0
13/07/2024 03:45	35.9	37.7	39.8	51.9	0.0	0.0
13/07/2024 04:00	35.7	38.6	39.6	47.4	0.0	0.0
13/07/2024 04:15	36.8	48.3	41	50.8	0.0	0.0
13/07/2024 04:30	36.9	42.8	40	49.9	0.0	0.0
13/07/2024 04:45	37.1	42.7	39.4	44.2	0.0	0.0
13/07/2024 05:00	37.3	45.8	40.3	46.2	0.0	0.0
13/07/2024 05:15	37.2	42.2	39.5	45.8	0.0	0.0
13/07/2024 05:30	36.6	44.4	39.8	47.6	0.0	0.0
13/07/2024 05:45	37.2	47.6	39.2	45.5	0.0	0.0

Start	Clarks Terrace		Sandy Lane		Wind (m/s)	Rain (mm/s)
	dB LA90,T	dB LAeq,T	dB LA90,T	dB LAeq,T		
13/07/2024 06:00	36.6	43.4	39.9	49.5	0.0	0.0
13/07/2024 06:15	36.6	42.5	40	47.9	0.0	0.0
13/07/2024 06:30	36.7	43.6	40.5	50.4	0.0	0.0
13/07/2024 06:45	36.3	50.6	40.9	49.8	0.0	0.0
13/07/2024 07:00	36.1	45.3	40.8	49.4	0.0	0.0
13/07/2024 07:15	36.5	46.2	41.6	49.5	0.0	0.0
13/07/2024 07:30	36.6	59.6	41.4	49.7	0.0	0.0
13/07/2024 07:45	37.3	52.2	41.7	53.5	0.0	0.0
13/07/2024 08:00	37.3	49.6	42.3	50.9	0.0	0.0
13/07/2024 08:15	37.5	49.7	41.8	51.3	0.0	0.0
13/07/2024 08:30	37.2	47	42.2	54.1	0.0	0.0
13/07/2024 08:45	37.7	52.8	42.5	52.8	0.0	0.0
13/07/2024 09:00	38.8	53.5	44.5	53.7	0.0	0.0
13/07/2024 09:15	40.5	49	46.7	52.9	0.0	0.0
13/07/2024 09:30	40.3	50.1	46.3	55.1	0.0	0.0
13/07/2024 09:45	40.4	48.6	44.8	54	0.0	0.0
13/07/2024 10:00	39.3	49.8	46.5	56	0.0	0.0
13/07/2024 10:15	38.2	51.4	43.2	54.3	0.0	0.0
13/07/2024 10:30	38.9	46.3	43.4	52.5	0.0	0.0
13/07/2024 10:45	39.5	51.1	43.6	54.3	0.0	0.0
13/07/2024 11:00	37.9	48.5	42.6	52.6	0.0	0.0
13/07/2024 11:15	39	52.7	44.8	56.2	0.0	0.0
13/07/2024 11:30	38.3	49.3	43.2	52.6	0.0	0.0
13/07/2024 11:45	38.5	48.2	44.6	53.7	0.0	0.0
13/07/2024 12:00	42	51.4	46.6	54.8	0.0	0.0
13/07/2024 12:15	41.7	52	46.7	55.6	0.0	0.0
13/07/2024 12:30	41.9	50.3	46	58.3	0.0	0.0
13/07/2024 12:45	40.6	56.1	45.7	57.4	0.0	0.3
13/07/2024 13:00	40.5	50.6	47	57.1	0.0	0.5
13/07/2024 13:15	48.3	53.1	48.8	59.9	0.0	0.3
13/07/2024 13:30	43.6	60.6	47.8	56.9	0.0	0.0
13/07/2024 13:45	42.5	50.2	46.8	60.4	0.0	0.5
13/07/2024 14:00	42	49.6	46.7	57.4	0.0	0.0
13/07/2024 14:15	40.6	50.2	46.6	56.7	0.0	0.3
13/07/2024 14:30	39.9	69.3	46.1	66.6	0.0	0.0
13/07/2024 14:45	40.9	51.9	46.8	56.9	0.0	0.0
13/07/2024 15:00	39.1	49.7	45	56.9	0.0	0.0
13/07/2024 15:15	38.3	50.5	43.5	54.3	0.0	0.0
13/07/2024 15:30	37.6	48.8	44.1	55	0.0	0.0
13/07/2024 15:45	38.6	48	44.1	55	0.0	0.0
13/07/2024 16:00	40.9	49.1	46.4	56	0.0	0.0
13/07/2024 16:15	40	46.1	46.5	54.7	0.0	0.0
13/07/2024 16:30	41.1	46.3	46.4	52.7	0.0	0.0
13/07/2024 16:45	40.3	56.3	45.7	58.1	0.0	0.0
13/07/2024 17:00	39.5	41.7	45.1	53.7	0.0	0.0
13/07/2024 17:15	39.5	53.3	45.2	69.7	0.0	0.0
13/07/2024 17:30	40.2	68	44.3	56.5	0.0	0.0
13/07/2024 17:45	41	48.4	45.3	55.4	0.0	0.0
13/07/2024 18:00	39.4	54.4	44.5	51.8	0.0	0.0
13/07/2024 18:15	40	48.6	44.4	54.9	0.0	0.0
13/07/2024 18:30	39.1	49.8	44.5	53.9	0.0	0.0
13/07/2024 18:45	38.7	51.5	43.6	51.7	0.0	0.0
13/07/2024 19:00	39.6	49.2	43.6	51.1	0.0	0.0
13/07/2024 19:15	38.3	46.7	43.3	53.2	0.0	0.0
13/07/2024 19:30	38.5	46.6	43.5	50.7	0.0	0.0

Start	Clarks Terrace		Sandy Lane		Wind (m/s)	Rain (mm/s)
	dB LA90,T	dB LAeq,T	dB LA90,T	dB LAeq,T		
13/07/2024 19:45	38.9	41.8	43.9	53.1	0.0	0.0
13/07/2024 20:00	37.8	47.9	42.6	49.3	0.0	0.0
13/07/2024 20:15	38.1	46.2	43.4	48.6	0.0	0.0
13/07/2024 20:30	38.4	44.8	44	50.7	0.0	0.0
13/07/2024 20:45	39.3	55.8	43.1	50.1	0.0	0.0
13/07/2024 21:00	38.6	45.5	42.7	50.5	0.0	0.0
13/07/2024 21:15	38.3	45.3	43	49.4	0.0	0.0
13/07/2024 21:30	38.1	47.2	42.8	49.3	0.0	0.0
13/07/2024 21:45	38.2	51.6	41.2	63.1	0.0	0.0
13/07/2024 22:00	37	43.2	40.5	48.2	0.0	0.0
13/07/2024 22:15	36.2	46.8	40.1	48	0.0	0.0
13/07/2024 22:30	35.9	44.6	40.2	44.9	0.0	0.0
13/07/2024 22:45	35.6	41.7	40.4	49.3	0.0	0.0
13/07/2024 23:00	36.2	45.2	40.4	48.2	0.0	0.0
13/07/2024 23:15	36.2	38.1	40.3	44.6	0.0	0.0
13/07/2024 23:30	36.6	45.1	40.6	49	0.0	0.0
13/07/2024 23:45	36.9	41.4	41.2	47.1	0.0	0.0
14/07/2024 00:00	36.5	46.1	40.8	47.6	0.0	0.0
14/07/2024 00:15	36.6	37.6	40.7	43.8	0.0	0.0
14/07/2024 00:30	36.7	39.5	40.5	43.1	0.0	0.0
14/07/2024 00:45	34.9	42.9	38.9	46	0.0	0.0
14/07/2024 01:00	35.5	36.8	39.6	44.7	0.0	0.0
14/07/2024 01:15	35.2	37.1	39.4	46.6	0.0	0.0
14/07/2024 01:30	36	45.7	39.6	47.9	0.0	0.0
14/07/2024 01:45	36.3	45.9	39.9	47.5	0.0	0.0
14/07/2024 02:00	36.8	46.1	41	49.1	0.0	0.0
14/07/2024 02:15	36.8	42.8	40.6	45	0.0	0.0
14/07/2024 02:30	36.9	37.9	40.5	44.7	0.0	0.0
14/07/2024 02:45	36.7	37.6	40.2	41.3	0.1	0.0
14/07/2024 03:00	36.7	37.6	40.3	42.3	0.1	0.0
14/07/2024 03:15	37.3	38.4	41.3	42.6	0.1	0.0
14/07/2024 03:30	37.4	38.5	41	42.7	0.1	0.0
14/07/2024 03:45	37.3	38.8	40.8	42.4	0.0	0.0
14/07/2024 04:00	36.6	38.7	40.5	42.9	0.1	0.0
14/07/2024 04:15	36.5	49.9	40.5	43.1	0.0	0.0
14/07/2024 04:30	37.1	44.4	41.1	45.6	0.0	0.0
14/07/2024 04:45	38.1	47.9	41.7	46.6	0.0	0.0
14/07/2024 05:00	38.6	47.5	40.9	45.2	0.0	0.0
14/07/2024 05:15	39.5	50.4	40.9	46.9	0.0	0.0
14/07/2024 05:30	37.5	46.8	39.8	46.1	0.0	0.0
14/07/2024 05:45	37.8	48.9	40.6	48.8	0.0	0.0
14/07/2024 06:00	36.6	46.6	40.4	46.8	0.0	0.0
14/07/2024 06:15	37.1	44.9	41.5	47.3	0.0	0.0
14/07/2024 06:30	37	45.4	40.3	48.7	0.0	0.0
14/07/2024 06:45	36.3	41.5	40.9	48.4	0.0	0.0
14/07/2024 07:00	38.7	46	42.9	51.3	0.0	0.3
14/07/2024 07:15	38.7	48.7	42.9	52.9	0.0	0.0
14/07/2024 07:30	37.2	45.6	40.6	52.8	0.0	0.0
14/07/2024 07:45	38	46.8	41.1	53.3	0.0	0.0
14/07/2024 08:00	38.6	49.3	41	52	0.0	0.0
14/07/2024 08:15	37.3	45.8	41.5	53.3	0.0	0.0
14/07/2024 08:30	37.4	47.3	42.1	50.9	0.0	0.0
14/07/2024 08:45	37.7	47.1	41.9	49.7	0.0	0.0
14/07/2024 09:00	37.4	47.6	41.5	48.1	0.0	0.0
14/07/2024 09:15	37.4	46.4	41.8	50.1	0.0	0.0

Start	Clarks Terrace		Sandy Lane		Wind (m/s)	Rain (mm/s)
	dB LA90,T	dB LAeq,T	dB LA90,T	dB LAeq,T		
14/07/2024 09:30	37.7	43.5	42.6	47.9	0.0	0.0
14/07/2024 09:45	37.6	44.8	42.7	50.2	0.0	0.0
14/07/2024 10:00	37.3	47.6	42.7	53.1	0.0	0.0
14/07/2024 10:15	38.6	52.2	44.3	53.1	0.0	0.0
14/07/2024 10:30	37.2	47.8	42.9	49	0.0	0.0
14/07/2024 10:45	37.7	50	42.8	52.6	0.0	0.0
14/07/2024 11:00	37.7	50.4	43.1	51.6	0.0	0.0
14/07/2024 11:15	37.3	49.7	43.3	51.5	0.0	0.5
14/07/2024 11:30	38	48.8	44.4	51.6	0.0	0.0
14/07/2024 11:45	38.8	48.6	44	51.3	0.0	0.0
14/07/2024 12:00	39.7	51.3	44.7	54	0.0	0.0
14/07/2024 12:15	39.6	48	45.1	52.9	0.0	0.0
14/07/2024 12:30	36.9	45.4	45.7	52.7	0.0	0.0
14/07/2024 12:45	38.5	49.7	45.1	53.7	0.0	0.0
14/07/2024 13:00	38.9	48.5	44.1	54.4	0.0	0.0
14/07/2024 13:15	37.4	46.9	43.6	53.4	0.0	0.0
14/07/2024 13:30	38.4	50.1	44.8	53.1	0.0	0.0
14/07/2024 13:45	39.5	48.9	45.4	53.4	0.0	0.0
14/07/2024 14:00	38.5	53.8	45	56.1	0.0	0.0
14/07/2024 14:15	38.3	50.2	44.2	68.8	0.0	0.0
14/07/2024 14:30	38.4	58.3	44.6	53.6	0.0	0.0
14/07/2024 14:45	38.8	54.1	45.5	55.2	0.0	0.0
14/07/2024 15:00	38.8	49.4	45.9	57	0.0	0.0
14/07/2024 15:15	40	48.7	44.3	52.3	0.0	0.0
14/07/2024 15:30	39.3	47	44.4	53.7	0.0	0.0
14/07/2024 15:45	39.3	49	45	55.1	0.0	0.0
14/07/2024 16:00	38.3	49.1	44.6	55.5	0.0	0.0
14/07/2024 16:15	40.5	51.3	46	69.5	0.0	0.0
14/07/2024 16:30	38.8	48.7	43.6	57.3	0.0	0.0
14/07/2024 16:45	38.1	58.9	44.7	68.6	0.0	0.0
14/07/2024 17:00	39.4	69.3	45.9	55.5	0.0	0.0
14/07/2024 17:15	39.2	50.9	45.2	52.6	0.0	0.0
14/07/2024 17:30	39.3	55.1	44.1	55.1	0.0	0.0
14/07/2024 17:45	39.4	51	45	55.4	0.0	0.0
14/07/2024 18:00	38.3	48.6	44.1	54.6	0.0	0.0
14/07/2024 18:15	38.2	47.6	43	51.6	0.0	0.0
14/07/2024 18:30	38.3	47.3	43	52.5	0.0	0.0
14/07/2024 18:45	39	56.5	44.9	54.7	0.0	0.0
14/07/2024 19:00	39.8	54.9	44.7	58.8	0.0	0.0
14/07/2024 19:15	37.8	46.5	43.4	51.5	0.0	0.0
14/07/2024 19:30	37.4	41.2	41.8	52.4	0.0	0.0
14/07/2024 19:45	36.7	46	40.4	53.1	0.0	0.0
14/07/2024 20:00	37.2	43.9	40.7	49.1	0.0	0.0
14/07/2024 20:15	36.8	50.4	40.8	50.3	0.0	0.0
14/07/2024 20:30	36.9	49.1	41.8	52.2	0.0	0.0
14/07/2024 20:45	36.7	47.4	40.5	48.3	0.0	0.0
14/07/2024 21:00	36.8	44.4	39.9	42.7	0.0	0.0
14/07/2024 21:15	36.3	44.9	40.3	49	0.0	0.0
14/07/2024 21:30	36.1	41.4	39.3	49.5	0.0	0.0
14/07/2024 21:45	35.9	45.4	38.5	45.3	0.0	0.0
14/07/2024 22:00	35.6	39	40.5	50.2	0.0	0.0
14/07/2024 22:15	35.7	47.3	40.3	49	0.0	0.0
14/07/2024 22:30	35.9	42.5	39.8	50.7	0.0	0.0
14/07/2024 22:45	35.7	42.8	38.7	48.8	0.0	0.0
14/07/2024 23:00	35.8	44.2	39.6	49.3	0.0	0.0

Start	Clarks Terrace		Sandy Lane		Wind (m/s)	Rain (mm/s)
	dB LA90,T	dB LAeq,T	dB LA90,T	dB LAeq,T		
14/07/2024 23:15	35.8	40.3	38.6	46.6	0.0	0.0
14/07/2024 23:30	35.9	46.8	39.3	50.4	0.0	0.0
14/07/2024 23:45	35.3	36.4	37.5	40.2	0.0	0.0
15/07/2024 00:00	35.5	43	38.6	46.6	0.0	0.0
15/07/2024 00:15	35.8	36.9	38.8	44	0.0	0.0
15/07/2024 00:30	35.8	45.2	39.7	49	0.0	0.0
15/07/2024 00:45	36.6	42.7	38.8	46.3	0.1	0.0
15/07/2024 01:00	37.1	39.6	39.6	41.5	0.0	0.0
15/07/2024 01:15	37.6	39.5	40.8	49.6	0.0	0.0
15/07/2024 01:30	38	44.3	39.3	46.5	0.0	0.0
15/07/2024 01:45	37	42.6	38.5	45.1	0.0	0.0
15/07/2024 02:00	37.3	42.7	38.2	45.1	0.0	0.0
15/07/2024 02:15	38.8	44.3	39.1	45.4	0.0	0.0
15/07/2024 02:30	38.3	42.1	39.6	44.8	0.0	0.0
15/07/2024 02:45	38	39.4	39.4	40.7	0.0	0.0
15/07/2024 03:00	38	39.4	38.2	40.9	0.0	0.0
15/07/2024 03:15	38.3	39.7	37.6	42.2	0.0	0.0
15/07/2024 03:30	39.5	41.4	38	44.3	0.0	0.0
15/07/2024 03:45	39.7	42.9	39.5	43.5	0.0	0.0
15/07/2024 04:00	38.3	45.6	40.2	45.8	0.0	0.0
15/07/2024 04:15	40.3	49.6	41.9	52.8	0.0	0.0
15/07/2024 04:30	41.9	50.1	42.2	48.7	0.0	0.0
15/07/2024 04:45	40.3	43.9	41.8	47.8	0.0	0.0
15/07/2024 05:00	42.9	48	41.4	50	0.0	0.0
15/07/2024 05:15	42.2	49.6	40.7	47.7	0.0	0.0
15/07/2024 05:30	42.5	48.9	43.2	49.2	0.0	0.0
15/07/2024 05:45	43.9	56.6	43.6	54.5	0.0	0.0
15/07/2024 06:00	43	55.4	43.9	53.5	0.0	0.0
15/07/2024 06:15	42.8	60.5	45.5	58.2	0.0	0.0
15/07/2024 06:30	43.6	59.7	45.8	58.7	0.0	0.0
15/07/2024 06:45	42	48.1	45	53	0.0	0.0
15/07/2024 07:00	44.6	53.2	45.3	53.7	0.0	0.0
15/07/2024 07:15	42.5	46.6	46.1	55.7	0.0	0.0
15/07/2024 07:30	43.7	57	47.6	59.5	0.0	0.0
15/07/2024 07:45	43.6	54.7	47	58.2	0.0	0.0
15/07/2024 08:00	43.3	57.9	46.7	56.2	0.0	0.0
15/07/2024 08:15	42.7	53.9	46.7	59.2	0.0	0.0
15/07/2024 08:30	42.5	51.3	47.2	54.8	0.0	0.0
15/07/2024 08:45	43.4	55.3	47.4	57.9	0.0	0.0
15/07/2024 09:00	42.5	51.8	45.2	55.1	0.0	0.0
15/07/2024 09:15	42.9	56.5	46	59.3	0.0	0.0
15/07/2024 09:30	41.4	57.1	45.1	59.4	0.0	0.0
15/07/2024 09:45	47.7	56.9	45.3	58.5	0.0	0.0
15/07/2024 10:00	42.4	57.7	44.7	57.9	0.0	0.0
15/07/2024 10:15	42.4	49.1	45.3	61.5	0.0	0.0
15/07/2024 10:30	42.5	58.4	44.6	57	0.0	0.0
15/07/2024 10:45	42.9	51.2	43.2	53.8	0.0	0.0
15/07/2024 11:00	41.5	50.6	44.1	53.4	0.0	0.0
15/07/2024 11:15	42.7	52.5	45.8	58.1	0.0	0.0
15/07/2024 11:30	43.1	53.1	45.7	59.8	0.0	0.0
15/07/2024 11:45	43.6	52.5	44.8	56.5	0.0	0.0
15/07/2024 12:00	43.3	53	44.6	56.6	0.0	0.0
15/07/2024 12:15	43.2	52.3	43.2	54.8	0.0	0.0
15/07/2024 12:30	43	51.7	45.5	54.6	0.0	0.0
15/07/2024 12:45	46.2	54.6	45	55.8	0.0	0.0

Start	Clarks Terrace		Sandy Lane		Wind (m/s)	Rain (mm/s)
	dB LA90,T	dB LAeq,T	dB LA90,T	dB LAeq,T		
15/07/2024 13:00	46.1	51.6	45.4	53.7	0.0	0.0
15/07/2024 13:15	44.8	58.6	45.7	56.8	0.0	0.0
15/07/2024 13:30	43.2	54	44.6	52.8	0.0	0.0
15/07/2024 13:45	45	52.4	45.1	55.2	0.0	0.0
15/07/2024 14:00	43.5	57.2	44.6	56	0.0	0.0
15/07/2024 14:15	42.1	48.6	45.5	54.1	0.0	0.0
15/07/2024 14:30	44	49.5	46.9	56.7	0.0	0.0
15/07/2024 14:45	43.1	52.5	46.2	55.5	0.0	0.0
15/07/2024 15:00	41.7	50.2	45	55.9	0.0	0.0
15/07/2024 15:15	43.3	52.6	46.1	57.9	0.0	0.0
15/07/2024 15:30	44.3	53.3	47	58.8	0.0	0.0
15/07/2024 15:45	43.5	51.2	47	56.7	0.0	0.0
15/07/2024 16:00	43.2	50.4	47	55.9	0.0	0.0
15/07/2024 16:15	43.1	52.8	46.8	55	0.0	0.0
15/07/2024 16:30	43.9	50.7	47.6	55.6	0.0	0.0
15/07/2024 16:45	43.6	51.9	47.2	55	0.0	0.0
15/07/2024 17:00	44.3	54.4	47.2	54.9	0.0	0.0
15/07/2024 17:15	43.5	50.3	46.8	53.8	0.0	0.0
15/07/2024 17:30	44.1	52.1	47.1	54.7	0.0	0.0
15/07/2024 17:45	42.8	50.3	45.6	53.7	0.0	0.0
15/07/2024 18:00	43.5	51.3	46.8	54.7	0.0	0.0
15/07/2024 18:15	43.8	49.7	47.3	54.5	0.0	0.3
15/07/2024 18:30	50.1	56.7	51.1	57.9	0.0	0.5
15/07/2024 18:45	44.1	50.1	47.2	55.5	0.0	0.3
15/07/2024 19:00	44.5	48.2	46.6	54	0.0	0.0
15/07/2024 19:15	45.2	50.4	46.9	56.7	0.0	0.0
15/07/2024 19:30	42.8	53.8	45.6	56.4	0.0	0.0
15/07/2024 19:45	42.5	47.7	43.8	53	0.0	0.0
15/07/2024 20:00	41.3	46.7	43.8	51.1	0.0	0.0
15/07/2024 20:15	41.2	49.9	43	54.6	0.0	0.0
15/07/2024 20:30	40.4	47.5	41.9	52.5	0.0	0.0
15/07/2024 20:45	40.1	48.8	41.8	54.6	0.0	0.5
15/07/2024 21:00	41	50.4	41.6	53	0.0	0.0
15/07/2024 21:15	40.3	48.9	41.8	46.1	0.0	0.0
15/07/2024 21:30	40.6	44.7	41.6	49.1	0.0	0.3
15/07/2024 21:45	42.9	47.6	43.5	52.4	0.0	0.5
15/07/2024 22:00	43.6	47.3	44.5	50.9	0.0	0.5
15/07/2024 22:15	51.4	56.6	52.6	58.1	0.0	1.5
15/07/2024 22:30	52.5	55.1	51.8	55.4	0.0	1.5
15/07/2024 22:45	50.5	53.4	48.6	54.8	0.0	0.8
15/07/2024 23:00	49.3	54.3	52.2	56.6	0.0	1.3
15/07/2024 23:15	55.5	57.9	55.4	58.7	0.0	2.3
15/07/2024 23:30	58.1	60.7	57.5	59.1	0.0	2.5
15/07/2024 23:45	52.2	57.1	51.3	56	0.0	1.3
16/07/2024 00:00	49.2	51.3	48.9	50.5	0.0	0.5
16/07/2024 00:15	51.4	55.3	51.3	55.4	0.0	0.5
16/07/2024 00:30	47	53.8	45.2	53.2	0.0	0.8
16/07/2024 00:45	44.3	46.3	44.8	49.4	0.0	0.3
16/07/2024 01:00	48.9	53	46.2	51.6	0.0	0.5
16/07/2024 01:15	42.5	45.7	42.6	49.9	0.0	0.8
16/07/2024 01:30	43.8	47	45	48.9	0.0	0.5
16/07/2024 01:45	46.9	50.2	47	51.1	0.0	0.3
16/07/2024 02:00	47	48.6	46.2	49.8	0.0	0.0
16/07/2024 02:15	46.5	47.9	46.2	47.9	0.0	0.5
16/07/2024 02:30	46.5	48.7	46.6	49.9	0.0	1.3

Start	Clarks Terrace		Sandy Lane		Wind (m/s)	Rain (mm/s)
	dB LA90,T	dB LAeq,T	dB LA90,T	dB LAeq,T		
16/07/2024 02:45	47.8	50	47.3	50.2	0.0	1.5
16/07/2024 03:00	46.7	48.7	46.2	49.4	0.0	1.3
16/07/2024 03:15	51.5	52.6	49.9	52.7	0.0	0.8
16/07/2024 03:30	48.8	52.1	47.4	51.6	0.0	0.8
16/07/2024 03:45	47.7	52	47.4	49	0.0	0.3
16/07/2024 04:00	46.4	51.9	46.5	48.1	0.0	1.0
16/07/2024 04:15	46.9	50.3	47.1	52	0.0	0.3
16/07/2024 04:30	49.2	53.5	49.8	53.5	0.0	0.8
16/07/2024 04:45	52.1	53.7	50.9	53.5	0.0	1.8
16/07/2024 05:00	51.7	53.5	51.1	54.9	0.0	1.0
16/07/2024 05:15	47.9	52.3	48.8	53.7	0.0	1.3
16/07/2024 05:30	49.2	51.5	49.9	53.9	0.0	0.8
16/07/2024 05:45	46.7	50.2	49	54.6	0.0	0.5
16/07/2024 06:00	46.9	53.9	49.7	56.8	0.0	0.3
16/07/2024 06:15	47.8	53.1	50	58.2	0.0	0.5
16/07/2024 06:30	46.4	52.6	50	55.9	0.0	0.5
16/07/2024 06:45	46.5	53.5	50.7	58.6	0.0	0.0
16/07/2024 07:00	46.2	48.7	50.5	58.9	0.0	0.3
16/07/2024 07:15	46.6	53.1	51.5	59	0.0	0.5
16/07/2024 07:30	46.9	51.5	51.7	59.9	0.0	0.3
16/07/2024 07:45	46.2	53.4	52.2	60.6	0.0	0.0
16/07/2024 08:00	44.4	53.3	50.9	59.1	0.0	0.0
16/07/2024 08:15	44.5	54.8	51.4	61	0.0	0.0
16/07/2024 08:30	44.3	52.5	49.8	57.9	0.0	0.5
16/07/2024 08:45	44	52.8	49.9	58.9	0.0	0.0
16/07/2024 09:00	43.1	52.4	46.6	56.5	0.0	0.0
16/07/2024 09:15	41.5	48.6	46.2	61.5	0.0	0.0

CERTIFICATE OF CALIBRATION

0653

Date of Issue: 13 March 2024 **Certificate Number: UCRT24/1405**

Calibrated at & Certificate issued by:
ANV Measurement Systems
Beaufort Court
17 Roebuck Way
Milton Keynes MK5 8HL
Telephone 01908 642846 Fax 01908 642814
E-Mail: info@noise-and-vibration.co.uk
Web: www.noise-and-vibration.co.uk
Acoustics Noise and Vibration Ltd trading as ANV Measurement Systems

Approved Signatory

K. Mistry

Customer	ANV Measurement Systems Beaufort Court 17 Roebuck Way Milton Keynes MK5 8HL			
Order No.	ANV MS HIRE			
Test Procedure	Procedure TP 14 Calibration of Sound Calibrators (60942:2017)			
Description	Acoustic Calibrator			
Identification	*Manufacturer*	*Instrument*	*Model*	*Serial No.*
	Rion	Calibrator	NC-75	35292145
	Public evidence of Type Approval	Yes	Approved by PTB	

The calibrator has been tested as specified in Annex B of IEC 60942:2017. As public evidence was available, from a testing organisation responsible for approving the results of pattern evaluation tests, to demonstrate that the model of sound calibrator fully conformed to the requirements for pattern evaluation described in Annex A of IEC 60942:2017, the sound calibrator tested is considered to conform to all the class 1 requirements of IEC 60942:2017.

ANV Job No.	UKAS24/03222	
Date Received	12 March 2024	
Date Calibrated	13 March 2024	
Previous Certificate	*Dated*	21 April 2023
	Certificate No.	UCRT23/1538
	Laboratory	0653

Measurements

The sound pressure level generated by the calibrator (averaged over a 20 to 25 second period) in its WS2 configuration was measured five times (rotating the calibrator on the microphone each time) by the Insert Voltage Method using a microphone as detailed below. The mean of the results obtained is shown below.

The frequency of the sound from the calibrator was measured five times over a 20 to 25 second period and the average frequency calculated.

The total distortion + noise of the sound from the calibrator was measured, using a rejection filter distortion factor meter, five times over a 20 to 25 second period and the average distortion + noise calculated.

Test Microphone

Manufacturer	*Type*
Brüel & Kjær	4134

Nominal Setting dB / Hz	Mean Level dB rel 20 µPa	Frequency	Distortion + Noise
94 / 1000	94.02 ± 0.10	1000.00 ± 0.12Hz	(0.15 ± 0.03) %

Environmental conditions during tests	Start	End			
Temperature	22.87	23.05	±	0.30	°C
Humidity	48.9	45.2	±	3.0	%RH
Ambient Pressure	100.060	100.058	±	0.030	kPa

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a coverage probability of approximately 95%. The uncertainty evaluation has been carried out in accordance with UKAS requirements.

The uncertainties refer to the measured values only with no account being taken of the ability of the instrument to maintain its calibration.

A small correction factor may need to be applied to the sound pressure level quoted above if the device is used to calibrate a sound level meter which is fitted with a free-field response microphone. See manufacturers handbook for details.

Note: Calibrator adjusted prior to calibration? NO

Additional Comments The results on this certificate only relate to the items calibrated as identified above.
None

Calibrated by: B. Bogdan R 2

…… END ……

CERTIFICATE OF CALIBRATION

0653

Date of Issue: 15 January 2024 **Certificate Number: UCRT24/1067**

Calibrated at & Certificate issued by:
ANV Measurement Systems
Beaufort Court
17 Roebuck Way
Milton Keynes MK5 8HL
Telephone 01908 642846 Fax 01908 642814
E-Mail: info@noise-and-vibration.co.uk
Web: www.noise-and-vibration.co.uk
Acoustics Noise and Vibration Ltd trading as ANV Measurement Systems

Approved Signatory

K. Mistry

Customer	ANV Measurement Systems Beaufort Court 17 Roebuck Way Milton Keynes MK5 8HL
Order No.	ANV MS HIRE
Description	Sound Level Meter / Pre-amp / Microphone / Associated Calibrator

Identification

Manufacturer	*Instrument*	*Type*	*Serial No. / Version*
Rion	Sound Level Meter	NL-53	00730383
Rion	Firmware		01.00
Rion	Pre Amplifier	NH-25	33235
Rion	Microphone	UC-59	23735
Rion	Calibrator	NC-75	34334830
	Calibrator adaptor type if applicable		NC-75-022

Performance Class	1
Test Procedure	TP 10. SLM 61672-3:2013
	Procedures from IEC 61672-3:2013 were used to perform the periodic tests.
Type Approved to IEC 61672-1:2013	No
	If YES above there is public evidence that the SLM has successfully completed the applicable pattern evaluation tests of IEC 61672-2:2013
Date Received	12 January 2024 ANV Job No. UKAS24/01033
Date Calibrated	15 January 2024

The sound level meter submitted for testing has successfully completed the periodic tests of IEC 61672-3:2013, for the environmental conditions under which the tests were performed. However, no general statement or conclusion can be made about conformance of the sound level meter to the full specifications of IEC 61672-1:2013 because (a) evidence was not publicly available, from an independent testing organisation responsible for pattern approvals, to demonstrate that the model of sound level meter fully conformed to the class 1 specifications in IEC 61672-1:2013 and (b) because the periodic tests of IEC 61672-3:2013 cover only a limited subset of the specifications in IEC 61672-1:2013.

Previous Certificate	*Dated*	*Certificate No.*	*Laboratory*
	Initial Calibration		

CERTIFICATE OF CALIBRATION

Certificate Number
UCRT24/1067

UKAS Accredited Calibration Laboratory No. 0653

Sound Level Meter Instruction manual and data used to adjust the sound levels indicated.

SLM instruction manual title	NL-53 NL-43 Instruction Manual Technical Guide		
SLM instruction manual ref / issue	66200 23-02		
Date provided or internet download date	11 May 2023	Source	Rion

	Case Corrections	Wind Shield Corrections	Mic Pressure to Free Field Corrections
Uncertainties provided	Yes	Yes	Yes

Total expanded uncertainties within the requirements of IEC 61672-1:2013	YES	
Specified or equivalent Calibrator	Specified	
Customer or Lab Calibrator	Lab Calibrator	
Calibrator adaptor type if applicable	NC-75-022	
Calibrator cal. date	18 December 2023	
Calibrator cert. number	UCRT23/2596	
Calibrator cal cert issued by Lab	0653	
Calibrator SPL @ STP	94.01 dB	Calibration reference sound pressure level
Calibrator frequency	1000.00 Hz	Calibration check frequency
Reference level range	Single dB	

Accessories used or corrected for during calibration - Extension Cable & Wind Shield WS-15

Note - The Extension Cable was used between the SLM and the pre-amp for this calibration.

Environmental conditions during tests	Start	End	
Temperature	21.60	24.13	± 0.30 °C
Humidity	33.4	32.0	± 3.00 %RH
Ambient Pressure	100.06	100.08	± 0.03 kPa

Indication at the Calibration Check Frequency			Calibration carried out using channel	N/A	
Initial indicated level	93.9	dB	Adjusted indicated level	94.0	dB
Uncertainty of calibrator used for Indication at the Calibration Check Frequency ±				0.10	dB

Self Generated Noise

Microphone installed - Less Than 19.9 dB A Weighting

Microphone replaced with electrical input device - UR = Under Range indicated

Weighting	A			C			Z		
	11.9	dB	UR	14.6	dB	UR	20.5	dB	UR

Self Generated Noise reported for information only and not used to assess conformance to a requirement

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor *k* =2, providing a coverage probability of approximately 95%. The uncertainty evaluation has been carried out in accordance with UKAS requirements.

Additional Comments The results on this certificate only relate to the items calibrated as identified above.

None

…… END ……

Calibrated by: K. Zablocki

CERTIFICATE OF CALIBRATION

0653

Date of Issue: 16 April 2024 **Certificate Number: UCRT24/1591**

Calibrated at & Certificate issued by:
ANV Measurement Systems
Beaufort Court
17 Roebuck Way
Milton Keynes MK5 8HL
Telephone 01908 642846 Fax 01908 642814
E-Mail: info@noise-and-vibration.co.uk
Web: www.noise-and-vibration.co.uk
Acoustics Noise and Vibration Ltd trading as ANV Measurement Systems

Approved Signatory

K. Mistry

Customer	ANV Measurement Systems Beaufort Court 17 Roebuck Way Milton Keynes MK5 8HL
Order No.	ANV MS Hire
Description	Sound Level Meter / Pre-amp / Microphone / Associated Calibrator

Identification

Manufacturer	*Instrument*	*Type*	*Serial No. / Version*
Rion	Sound Level Meter	NL-53	01130789
Rion	Firmware		01.01
Rion	Pre Amplifier	NH-25	33680
Rion	Microphone	UC-59	25170
Rion	Calibrator	NC-75	34334830
	Calibrator adaptor type if applicable		NC-75-022

Performance Class	1
Test Procedure	TP 10. SLM 61672-3:2013
	Procedures from IEC 61672-3:2013 were used to perform the periodic tests.
Type Approved to IEC 61672-1:2013	No
	If YES above there is public evidence that the SLM has successfully completed the applicable pattern evaluation tests of IEC 61672-2:2013
Date Received	15 April 2024 ANV Job No. UKAS24/04307
Date Calibrated	16 April 2024

The sound level meter submitted for testing has successfully completed the periodic tests of IEC 61672-3:2013, for the environmental conditions under which the tests were performed. However, no general statement or conclusion can be made about conformance of the sound level meter to the full specifications of IEC 61672-1:2013 because (a) evidence was not publicly available, from an independent testing organisation responsible for pattern approvals, to demonstrate that the model of sound level meter fully conformed to the class 1 specifications in IEC 61672-1:2013 and (b) because the periodic tests of IEC 61672-3:2013 cover only a limited subset of the specifications in IEC 61672-1:2013.

Previous Certificate	*Dated*	*Certificate No.*	*Laboratory*
	Initial Calibration		

CERTIFICATE OF CALIBRATION

Certificate Number	
UCRT24/1591	
UKAS Accredited Calibration Laboratory No. 0653	Page 2 of 2 Pages

Sound Level Meter Instruction manual and data used to adjust the sound levels indicated.

SLM instruction manual title	NL-53 NL-43 Instruction Manual Technical Guide		
SLM instruction manual ref / issue	66200 23-02		
Date provided or internet download date	11 May 2023	Source	Rion

	Case Corrections	Wind Shield Corrections	Mic Pressure to Free Field Corrections
Uncertainties provided	Yes	Yes	Yes

Total expanded uncertainties within the requirements of IEC 61672-1:2013	YES	
Specified or equivalent Calibrator	Specified	
Customer or Lab Calibrator	Lab Calibrator	
Calibrator adaptor type if applicable	NC-75-022	
Calibrator cal. date	27 March 2024	
Calibrator cert. number	UCRT24/1501	
Calibrator cal cert issued by Lab	0653	
Calibrator SPL @ STP	93.95 dB	Calibration reference sound pressure level
Calibrator frequency	1000.00 Hz	Calibration check frequency
Reference level range	Single dB	

Accessories used or corrected for during calibration - Extension Cable & Wind Shield WS-15

Note - The Extension Cable was used between the SLM and the pre-amp for this calibration.

Environmental conditions during tests	Start	End	
Temperature	23.73	23.49	± 0.30 °C
Humidity	42.3	44.8	± 3.00 %RH
Ambient Pressure	100.32	100.32	± 0.03 kPa

Indication at the Calibration Check Frequency			Calibration carried out using channel	N/A	
Initial indicated level	93.9	dB	Adjusted indicated level	94.0	dB
Uncertainty of calibrator used for Indication at the Calibration Check Frequency ±				0.10	dB

Self Generated Noise

Microphone installed - Less Than 18.0 dB A Weighting

Microphone replaced with electrical input device - UR = Under Range indicated

Weighting	A			C			Z		
	13.5	dB	UR	17.2	dB	UR	23.9	dB	UR

Self Generated Noise reported for information only and not used to assess conformance to a requirement

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor *k* =2, providing a coverage probability of approximately 95%. The uncertainty evaluation has been carried out in accordance with UKAS requirements.

Additional Comments The results on this certificate only relate to the items calibrated as identified above.

None

…… END ……

Calibrated by: B. Bogdan R 2

CERTIFICATE OF CALIBRATION

0653

Date of Issue: 16 April 2024 **Certificate Number: UCRT24/1589**

Calibrated at & Certificate issued by:
ANV Measurement Systems
Beaufort Court
17 Roebuck Way
Milton Keynes MK5 8HL
Telephone 01908 642846 Fax 01908 642814
E-Mail: info@noise-and-vibration.co.uk
Web: www.noise-and-vibration.co.uk
Acoustics Noise and Vibration Ltd trading as ANV Measurement Systems

Approved Signatory

K. Mistry

Customer	ANV Measurement Systems Beaufort Court 17 Roebuck Way Milton Keynes MK5 8HL			
Order No.	ANV MS Hire			
Description	Sound Level Meter / Pre-amp / Microphone / Associated Calibrator			
Identification	*Manufacturer*	*Instrument*	*Type*	*Serial No. / Version*
	Rion	Sound Level Meter	NL-53	01130792
	Rion	Firmware		01.01
	Rion	Pre Amplifier	NH-25	33683
	Rion	Microphone	UC-59	25173
	Rion	Calibrator	NC-75	34334830
		Calibrator adaptor type if applicable		NC-75-022
Performance Class	1			
Test Procedure	TP 10. SLM 61672-3:2013 *Procedures from IEC 61672-3:2013 were used to perform the periodic tests.*			
Type Approved to IEC 61672-1:2013	No *If YES above there is public evidence that the SLM has successfully completed the applicable pattern evaluation tests of IEC 61672-2:2013*			
Date Received	15 April 2024	ANV Job No.	UKAS24/04307	
Date Calibrated	16 April 2024			

The sound level meter submitted for testing has successfully completed the periodic tests of IEC 61672-3:2013, for the environmental conditions under which the tests were performed. However, no general statement or conclusion can be made about conformance of the sound level meter to the full specifications of IEC 61672-1:2013 because (a) evidence was not publicly available, from an independent testing organisation responsible for pattern approvals, to demonstrate that the model of sound level meter fully conformed to the class 1 specifications in IEC 61672-1:2013 and (b) because the periodic tests of IEC 61672-3:2013 cover only a limited subset of the specifications in IEC 61672-1:2013.

Previous Certificate	*Dated*	*Certificate No.*	*Laboratory*
	Initial Calibration		

CERTIFICATE OF CALIBRATION

Certificate Number
UCRT24/1589

UKAS Accredited Calibration Laboratory No. 0653

Sound Level Meter Instruction manual and data used to adjust the sound levels indicated.

SLM instruction manual title	NL-53 NL-43 Instruction Manual Technical Guide		
SLM instruction manual ref / issue	66200 23-02		
Date provided or internet download date	11 May 2023	Source	Rion

	Case Corrections	Wind Shield Corrections	Mic Pressure to Free Field Corrections
Uncertainties provided	Yes	Yes	Yes

Total expanded uncertainties within the requirements of IEC 61672-1:2013	YES		
Specified or equivalent Calibrator	Specified		
Customer or Lab Calibrator	Lab Calibrator		
Calibrator adaptor type if applicable	NC-75-022		
Calibrator cal. date	27 March 2024		
Calibrator cert. number	UCRT24/1501		
Calibrator cal cert issued by Lab	0653		
Calibrator SPL @ STP	93.95	dB	Calibration reference sound pressure level
Calibrator frequency	1000.00	Hz	Calibration check frequency
Reference level range	Single	dB	

Accessories used or corrected for during calibration - Extension Cable & Wind Shield WS-15

Note - The Extension Cable was used between the SLM and the pre-amp for this calibration.

Environmental conditions during tests	Start	End	
Temperature	23.36	23.46	± 0.30 °C
Humidity	44.2	42.6	± 3.00 %RH
Ambient Pressure	100.25	100.25	± 0.03 kPa

Indication at the Calibration Check Frequency			Calibration carried out using channel	N/A
Initial indicated level	93.9	dB	Adjusted indicated level	94.0 dB
Uncertainty of calibrator used for Indication at the Calibration Check Frequency ±			0.10	dB

Self Generated Noise				
Microphone installed -	Less Than	17.8	dB	A Weighting
Microphone replaced with electrical input device -			UR = Under Range indicated	

Weighting	A			C			Z		
	13.6	dB	UR	18.2	dB	UR	22.9	dB	UR

Self Generated Noise reported for information only and not used to assess conformance to a requirement

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor *k* =2, providing a coverage probability of approximately 95%. The uncertainty evaluation has been carried out in accordance with UKAS requirements.

Additional Comments The results on this certificate only relate to the items calibrated as identified above.

None

…… END ……

Calibrated by: B. Bogdan

Appendix C: Model Input Data

Baltimore Aircoil Company

Closed Circuit Product Selection Report

Version: 7.8.17 NA
Product data correct as of: August 30, 2023

Project Name: Virodor
Selection Name: Cowi
Project State/Province: Liverpool
Project Country: United Kingdom
Date: September 05, 2023

Model Information

Product Line: HXV Hybrid Cooler
Model: HXV-1218N-1C30TB-O
Number of Units: 1
Wet Coil Type: Standard Coil
Dry Coil Type: Copper-Aluminum (10 FPI) w/ Coating
Intake Option: None
Internal or Const. Option: None
Discharge Option: None

Fan Type: Low Sound Fan
Fan Motor: (1) 22.00 + (1) 11.24 = 33.24 kW/Unit
Total Standard Fan Power: 86% of Full Speed, 21.14 kW/Unit
Total Pump Motor Power: (1) 7.50 = 7.50 kW/Unit

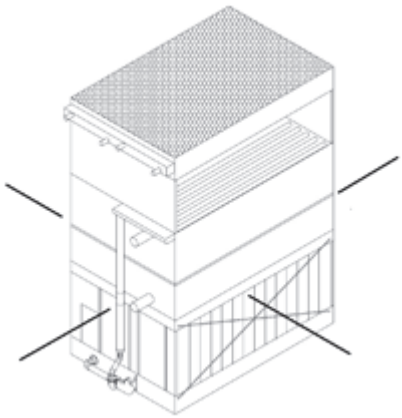
Octave band and A-weighted sound pressure levels (Lp) are expressed in decibels (dB) reference 0.0002 microbar. Sound power levels (Lw) are expressed in decibels (dB) reference one picowatt. Octave band 1 has a center frequency of 63 Hertz.

Top Lp
Sound Pressure (dB)

Octave Band	Distance 1.5 m	Distance 15 m
1	88	71
2	84	71
3	82	70
4	80	70
5	75	69
6	76	70
7	71	63
8	56	58
A-wgtd	**82**	**75**

Back Lp
Sound Pressure (dB)

Octave Band	Distance 1.5 m	Distance 15 m
1	70	65
2	63	58
3	66	63
4	62	53
5	55	50
6	53	45
7	51	45
8	39	26
A-wgtd	**63**	**58**



End Lp
Sound Pressure (dB)

Octave Band	Distance 1.5 m	Distance 15 m
1	70	64
2	72	60
3	68	60
4	59	55
5	57	52
6	53	45
7	51	40
8	46	29
A-wgtd	**64**	**57**

Connection End Lp
Sound Pressure (dB)

Octave Band	Distance 1.5 m	Distance 15 m
1	72	64
2	72	60
3	69	60
4	61	55
5	58	52
6	57	45
7	54	40
8	49	29
A-wgtd	**66**	**57**

Air Inlet Lp
Sound Pressure (dB)

Octave Band	Distance 1.5 m	Distance 15 m
1	82	74
2	79	71
3	84	76
4	78	71
5	67	64
6	58	60
7	58	56
8	51	59
A-wgtd	**78**	**72**

Sound Power (dB)

Octave Band	Center Frequency (Hertz)	Lw
1	63	104
2	125	103
3	250	104
4	500	102
5	1000	101
6	2000	101
7	4000	94
8	8000	90
A-wgtd		**107**

Note: The use of frequency inverters (variable frequency drives) can increase sound levels.
Extra Notes: Sound data provided by CTI ATC-128 sound test code revision 2019

Model:	(15) HXV-1218N-1C30TB-O-4	Design load:	Cte: 120000 kW
Location:	ASHRAE 2017 - United Kingdom - L	Target delta T:	20 °C
COC:	3	Target outlet:	23 °C

Cumm %	HRS	Wb(°C)	Db(°C)	Mode	VFD(%)	Evap (m³/h)	cc	Make-up (m³/h)	Bleed (m³/h)	Evap TOT(m³)	Make-up TOT(m³)	Bleed TOT(m³)	Total BHP (kW)	E TOT(kWh)	Values are per cell: Unit Air in W (g/kg)	Unit Air out W (g/kg)	Moisture pick up (g/kg)	Airflow (m³/s)
100.0	0.04	24	25.0	WET	1	79.9	3.0	119.9	40.0	3.2	4.8	1.6	2430	97	18.5	26.5	8.0	40.0
100.0	0.12	23	27.3	WET	1	98.8	3.0	148.2	49.4	11.9	17.8	5.9	2430	292	15.9	25.9	10.0	40.0
100.0	0.56	22	28.9	WET	1	112.7	3.0	169.0	56.3	63.1	94.7	31.6	2430	1361	13.8	25.2	11.4	40.0
100.0	1.57	21	26.1	WET	1	101.7	3.0	152.5	50.8	159.6	239.4	79.8	2430	3815	13.5	23.7	10.2	40.0
100.0	8.37	20	25.6	WET	1	103.4	3.0	155.1	51.7	865.5	1298.3	432.8	2430	20339	12.4	22.7	10.3	40.0
99.9	27.72	19	24.0	WET	1	99.4	3.0	149.1	49.7	2755.6	4133.5	1377.8	2430	67360	11.7	21.6	9.9	40.0
99.6	71.45	18	22.4	WET	0.9	95.9	3.0	143.8	47.9	6851.7	10277.6	3425.9	1893	135285	11.1	21.6	10.5	36.0
98.7	138.05	17	20.4	WET	0.8	91.6	3.0	137.4	45.8	12649.9	18974.9	6325.0	1464	202072	10.7	21.9	11.2	32.0
97.2	226.69	16	19.1	WET	0.7	91.0	3.0	136.5	45.5	20624.3	30936.4	10312.1	1129	255965	10.1	22.7	12.7	28.0
94.6	321.24	15	17.8	WET	0.6	91.0	3.0	136.5	45.5	29243.2	43864.7	14621.6	878	281946	9.5	24.2	14.7	24.0
90.9	478.3	14	16.8	WET	0.55	91.2	3.0	136.8	45.6	43613.6	65420.3	21806.8	779	372798	8.8	24.8	16.0	22.0
85.5	588.18	13	15.6	WET	0.49	91.2	3.0	136.8	45.6	53660.2	80490.3	26830.1	683	401695	8.3	26.1	17.9	19.6
78.7	633.15	12	14.5	WET	0.45	91.3	3.0	136.9	45.6	57781.8	86672.8	28890.9	630	399155	7.7	27.1	19.4	18.0
71.5	608.11	11	13.3	WET	0.42	90.5	3.0	135.8	45.3	55058.9	82588.3	27529.4	597	362856	7.2	27.7	20.5	16.8
64.6	677.6	10	12.0	WET	0.38	90.0	3.0	135.0	45.0	61005.7	91508.6	30502.9	559	378539	6.8	29.2	22.4	15.2
56.8	630.48	9	11.1	WET	0.35	90.3	3.0	135.5	45.2	56948.1	85422.1	28474.0	535	337239	6.3	30.6	24.3	14.0
49.6	837.99	8	9.9	WET	0.33	89.3	3.0	133.9	44.6	74819.3	112228.9	37409.6	521	436723	5.9	31.2	25.3	13.2
40.1	608.04	7	8.6	WET	0.32	89.3	3.0	133.9	44.6	54288.4	81432.5	27144.2	515	313068	5.6	31.6	26.0	12.8
33.1	597.59	6	7.5	WET	0.32	89.3	3.0	133.9	44.6	52908.9	79363.4	26454.5	515	305113	5.2	31.1	25.9	12.8
26.4	526.79	5	6.6	WET	0.3	83.4	3.0	125.1	41.7	43927.9	65891.9	21964.0	503	265218	4.8	30.5	25.7	12.0
20.4	451.19	4	5.5	WET	0.3	80.7	3.0	121.0	40.3	36390.9	54586.3	18195.4	503	227156	4.4	29.2	24.7	12.0
15.2	367.43	3	4.5	WET	0.3	78.1	3.0	117.2	39.1	28712.0	43068.0	14356.0	503	184986	4.1	28.0	23.9	12.0
11.0	316.09	2	3.4	WET	0.3	75.2	3.0	112.8	37.6	23764.7	35647.1	11882.4	503	159139	3.8	26.6	22.9	12.0
7.4	237.78	1	2.3	WET	0.3	72.5	3.0	108.8	36.3	17249.6	25874.4	8624.8	503	119713	3.5	25.5	22.0	12.0
4.7	170.68	0	1.2	WET	0.3	69.2	3.0	103.8	34.6	11811.4	17717.1	5905.7	503	85931	3.3	24.2	20.9	12.0
2.7	122.25	-1	0.2	WET	0.3	66.7	3.0	100.1	33.4	8154.5	12231.8	4077.3	503	61548	3.0	23.0	20.0	12.0
1.3	60.83	-2	-1.1	WET	0.3	63.1	3.0	94.7	31.6	3838.9	5758.3	1919.4	503	30625	2.8	21.7	18.8	12.0
0.6	31.98	-3	-2.2	WET	0.3	60.1	3.0	90.1	30.0	1921.4	2882.1	960.7	503	16101	2.6	20.5	17.9	12.0
0.3	14.57	-4	-3.4	WET	0.3	56.8	3.0	85.2	28.4	827.5	1241.2	413.7	503	7335	2.5	19.3	16.8	12.0
0.1	5.16	-5	-4.6	WET	0.3	53.0	3.0	79.5	26.5	273.4	410.2	136.7	503	2598	2.3	17.9	15.6	12.0
0.1	1.92	-6	-5.7	WET	0.3	51.1	3.0	76.6	25.5	98.1	147.1	49.0	503	967	2.1	17.1	15.0	12.0
0.0	1.42	-7	-6.7	WET	0.3	47.8	3.0	71.7	23.9	67.9	101.8	33.9	503	715	2.0	15.9	14.0	12.0
0.0	0.76	-8	-7.9	WET	0.3	43.8	3.0	65.7	21.9	33.3	49.9	16.6	503	383	1.9	14.6	12.7	12.0
0.0	0.51	-9	-8.9	WET	0.3	40.6	3.0	61.0	20.3	20.7	31.1	10.4	503	257	1.7	13.5	11.8	12.0
0.0	0.3	-10	-10.0	WET	0.3	38.9	3.0	58.4	19.5	11.7	17.5	5.8	503	151	1.6	12.8	11.2	12.0
0.0	0.08	-11	-11.0	WET	0.3	39.8	3.0	59.8	19.9	3.2	4.8	1.6	503	40	1.5	12.9	11.4	12.0