A66 Northern Trans-Pennine Project
TR010062

3.4 Environmental Statement Appendix 12.1 Baseline Noise Survey Results

APFP Regulations 5(2)(a)

Planning Act 2008

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

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Infrastructure Planning

Planning Act 2008

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

A66 Northern Trans-Pennine Project Development Consent Order 202x

3.4 ENVIRONMENTAL STATEMENT APPENDIX 12.1 BASELINE NOISE SURVEY RESULTS

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Planning Inspectorate Scheme Reference	TR010062
Application Document Reference	3.4
Author:	A66 Northern Trans-Pennine Project Team, National Highways

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Rev 1	13/06/22	DCO Application

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12.1 Baseline Noise Surveys

12.1.1 Introduction

12.1.1.1 This Appendix provides additional details of the baseline noise surveys which were undertaken between Monday 28 June 2021 and Friday 2 July 2021. The surveys were a combination of 24-hour unattended noise monitoring and shorter duration measurements made in accordance with the 'Shortened measurement procedure' defined in CRTN. A summary of the monitoring locations is provided in Table 1: Summary of monitoring locations and are shown in ES Figure 12.1: Operational Noise Study Area (Application Document 3.3).

12.1.1.2 Surveys were undertaken to inform the establishment of the Project's existing noise baseline. The measurement locations are representative of the closest sensitive receptors with the potential to be impacted by the construction and operation of the Project. The exact locations were defined where it was safe to work and where landowner access permission was granted.

Table 1: Summary of monitoring locations

Relevant Scheme	ID	Address	Location
M6 Junction 40 to Kemplay Bank Penrith to Temple Sowerby	1	4 Eamont Terrace	NY 50544 28697
	2	Skirsgill Lodge	NY 50816 28811
	3	35 Clifford Road	NY 51822 29046
	4	11 Carleton Hall Gardens	NY 51804 29034
Penrith to Temple Sowerby	5	School House	NY 57488 28924
	6	Whinfell Park Cottages	NY 55891 28800
Temple Sowerby to Appleby	7	Castrigg Lane	NY 67411 22403
	8	48 Sanderson Croft	NY 64122 25987
	9	12 Long Maroen Road	NY 68089 21334
	10	Crackenthorpe Junction	NY 66246 21978
	11	Bridge Hotel	NY 63534 25331
	12	Comrie Lea	NY 61590 26602
Appleby to Brough Temple	13	Walkmill	NY 74964 16384
	14	Wheatsheaf Farm	NY 74480 16642
	15	Near Croft Cottage off A66	NY 78644 14902
Bowes By-pass	16	Kilmond View	NY 99313 13634
	17	Unicorn Inn	NY 99505 13560
Stephen Bank to Carkin Moor	18	The Laurels	NZ 14219 09875
	19	Foxhall Inn	NZ 14745 09151
	20	Foxwell Farm	NZ 14981 09059

12.1.1.3 The following equipment was used when undertaking noise measurements and calibration certificates for all equipment are available upon request:

- Larson Davis LXT 831 - serial number (s/n) 0003986
- Larson Davis LXT T1L - s/n 0005851
- Larson Davis LXT Lx T1L - s/n 0004721
- Larson David LCT 831 - s/n 0002857
- Larson Davis LXT 831 - s/n 0004442
- B&K 2250 - s/n 3015050
- B&K 2250 Lite - s/n 3003207
- Larson Davis CAL 200 Calibrator - s/n 7846
- B&K Type 4231 calibrator - s/n 3015050
- B&K Type 4231 calibrator - s/n 3006969.
- Larson Davis Vantage Vue (model 6250UK) weather station (manufacturer code – MR 190403008).

12.1.2 Measurement methodology

12.1.2.1 At each measurement location, the following A-weighted broadband noise measurements were taken, using a 'Fast' (0.15s) weighted time constant: $L_{PAeq,}$ and L_{pA10}.

12.1.2.2 The sound level meters were mounted onto tripods, with microphones set at approximately 1.5m above local ground level. Where possible, measurements were taken under acoustically free-field conditions, except where otherwise stated. An appropriate windshield (as supplied by the manufacturer) was fitted to the microphones throughout the measurement periods, to minimise wind-induced noise.

12.1.2.3 Attended measurements were undertaken at repeated intervals during the daytime hours between 10:00 and 17:00 hours. Attended measurements were undertaken for a period of 3 hours in accordance with the 'Shortened measurement procedure' defined in CRTN.

12.1.3 Summary of Measurement Locations

M6 Junction 40 to Kemplay Bank

4 Eamont Terrace

12.1.3.1 Monitoring equipment was set up on 30th June 2021 and was left unattended in a façade position for a period of 24 hours as per Plate 1: Noise monitoring equipment at 4 Eamont Terrace

Plate 1: Noise monitoring equipment at 4 Eamont Terrace

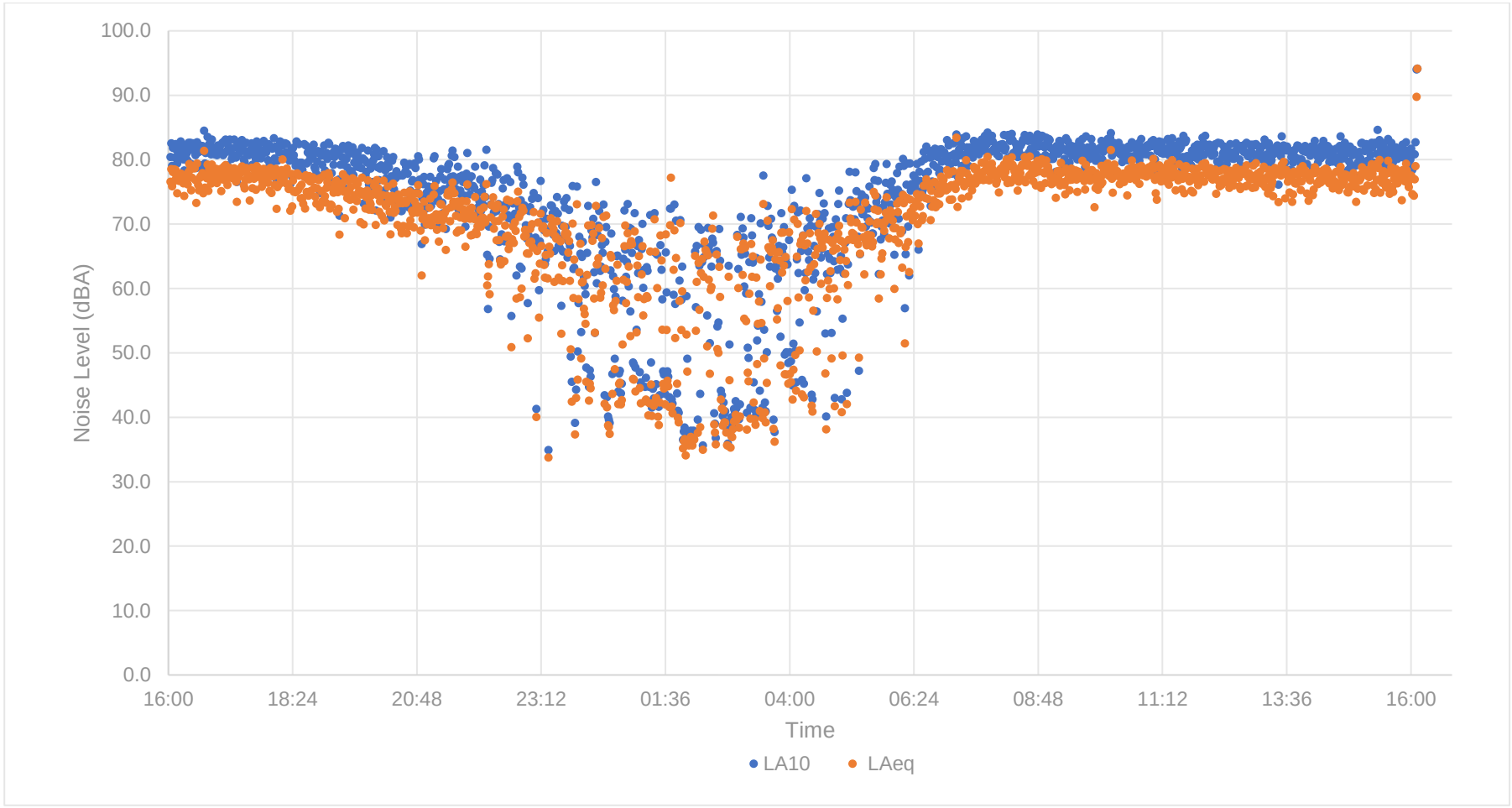
12.1.3.2 The monitoring equipment calibration was checked both before and after the measurement period using an acoustic calibrator, which has itself been calibrated against a reference set traceable to National and International Standards. There was no significant shift in the observed calibration level.

12.1.3.3 The main noise sources were noted to be road traffic noise from the A66 and M6.

12.1.3.4 Throughout the survey, the weather remained suitable for noise monitoring as per BS 7445 - Description and measurement of environmental noise. The weather remained dry with average wind speeds below $5ms^{-1}$.

12.1.3.5 Noise levels recorded throughout the monitoring period are shown in Plate 2: Measured noise levels at 4 Eamont Terrace.

Plate 2: Measured noise levels at 4 Eamont Terrace



Skirsgill Lodge

12.1.3.6 Monitoring equipment was set up on 30th June 2021 and a 3-hour noise measurement was undertaken. The equipment was set up in a free field position as per Plate 3: Noise monitoring equipment at Skirsgill Lodge.

Plate 3: Noise monitoring equipment at Skirsgill Lodge

12.1.3.7 The monitoring equipment calibration was checked both before and after the measurement period using an acoustic calibrator, which has itself been calibrated against a reference set traceable to National and International Standards. There was no significant shift in the observed calibration level.

12.1.3.8 The main noise sources were noted to be road traffic noise, primarily from the A66 and M6. Birds could occasionally be heard during any lulls in the traffic.

12.1.3.9 Throughout the survey, the weather remained suitable for noise monitoring as per BS 7445 - Description and measurement of environmental noise. The weather remained dry with average wind speeds below $5ms^{-1}$.

12.1.3.10 Noise levels recorded throughout the monitoring period are provided in Table 2: Measured noise levels recorded at Skirsgill Lodge. The

reported $L_{Aeq,T}$ is the logarithmically averaged noise level; the $L_{A10,T}$ level is the arithmetical average.

Table 2: Measured noise levels recorded at Skirsgill Lodge

Start Time	Duration	L_{A10T}	L_{AeqT}
10:00	1 hour	80.1	76.4
11:00	1 hour	80.1	76.3
12:00	1 hour	80.0	76.2
Average		80.0	76.3

35 Clifford Road

12.1.3.11 Monitoring equipment was set up on 30th June 2021 and was left unattended for a period of 24 hours. The equipment was set up in a free field position as per Plate 4: Noise monitoring equipment at 35 Clifford Road.

Plate 4: Noise monitoring equipment at 35 Clifford Road

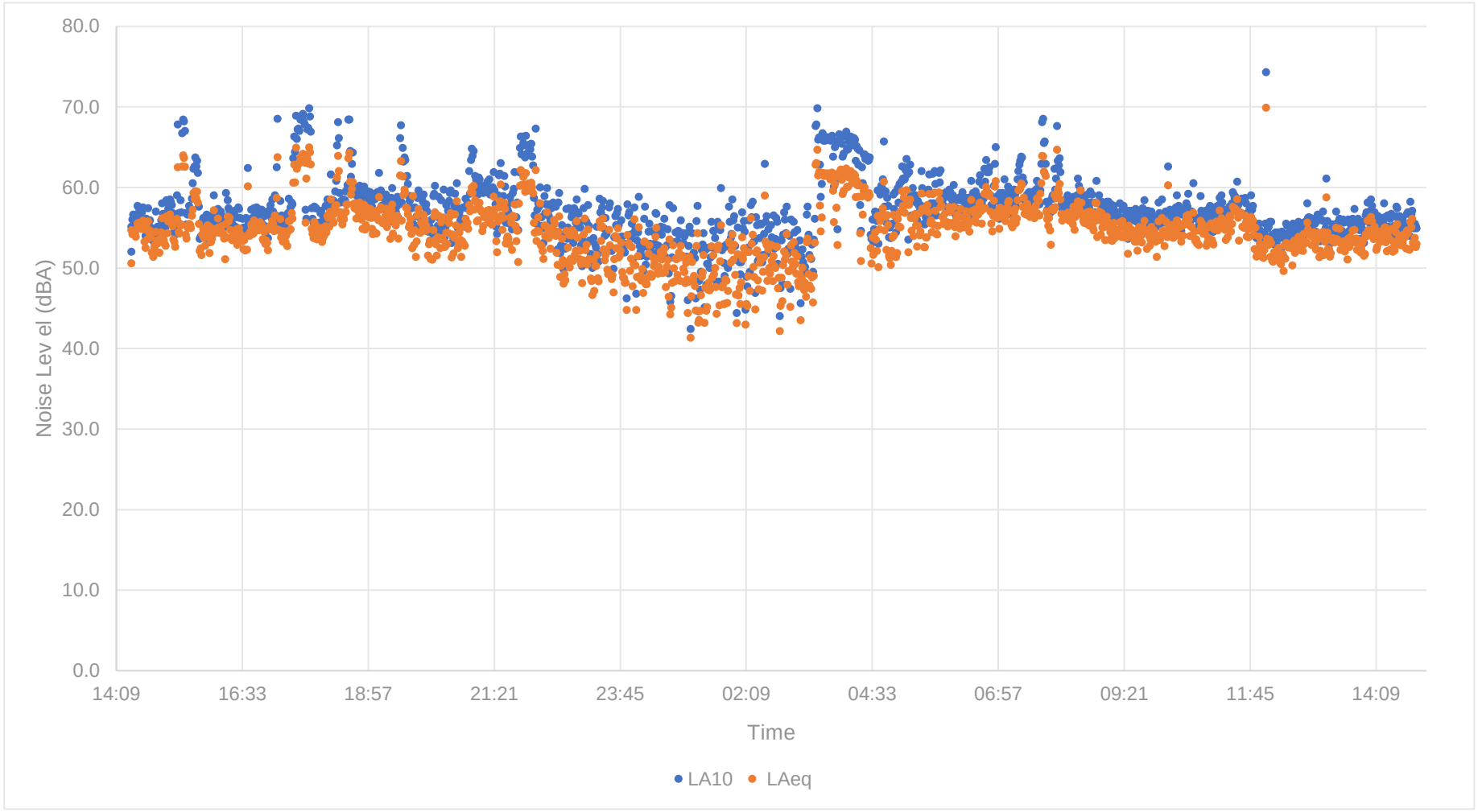
12.1.3.12 The monitoring equipment calibration was checked both before and after the measurement period using an acoustic calibrator, which has itself been calibrated against a reference set traceable to National and International Standards. There was no significant shift in the observed calibration level.

12.1.3.13 The main noise sources were noted to be road traffic noise from the A66. Voices of residents could also be heard in the nearby gardens.

12.1.3.14 Throughout the survey, the weather remained suitable for noise monitoring as per BS 7445 - Description and measurement of environmental noise. The weather remained dry with average wind speeds below $5ms^{-1}$.

12.1.3.15 Noise levels recorded throughout the monitoring period are shown in Plate 5: Measured noise levels at 35 Clifford Road.

Plate 5: Measured noise levels at 35 Clifford Road



11 Carlton Hall Gardens

12.1.3.16 Monitoring equipment was set up on 30th June 2021 and a 3-hour noise measurement was undertaken. The equipment was set up in a free field position as per Plate 6: Noise monitoring equipment at 11 Carlton Hall Gardens.

Plate 6: Noise monitoring equipment at 11 Carlton Hall Gardens

12.1.3.17 The monitoring equipment calibration was checked both before and after the measurement period using an acoustic calibrator, which has itself been calibrated against a reference set traceable to National and International Standards. There was no significant shift in the observed calibration level.

12.1.3.18 The main noise sources were noted to be road traffic noise from the A66. Birds could occasionally be heard during lulls in the traffic.

12.1.3.19 Throughout the survey, the weather remained suitable for noise monitoring as per BS 7445 - Description and measurement of environmental noise. The weather remained dry with average wind speeds below $5ms^{-1}$.

12.1.3.20 Noise levels recorded throughout the monitoring period are provided in Table 3: Measured noise levels at 11 Carlton Hall Gardens. The reported $L_{Aeq,T}$ is the logarithmically averaged noise level; the $L_{A10,T}$ is the arithmetical average.

Table 3: Measured noise levels at 11 Carlton Hall Gardens

Start Time	Duration	L_{A10T}	L_{AeqT}
10:00	1 hour	63.7	60.2
11:00	1 hour	64.5	61.2
12:00	1 hour	63.8	60.8
Average		64.0	60.7

Penrith to Temple Sowerby

School House, Lane Ends

12.1.3.21 Monitoring equipment was set up on 30th June 2021 and was left unattended for a period of 24 hours. The equipment was set up in a free field position as per Plate 7: Noise monitoring equipment at School House.

Plate 7: Noise monitoring equipment at School House

12.1.3.22 The monitoring equipment calibration was checked both before and after the measurement period using an acoustic calibrator, which has itself been calibrated against a reference set traceable to National and

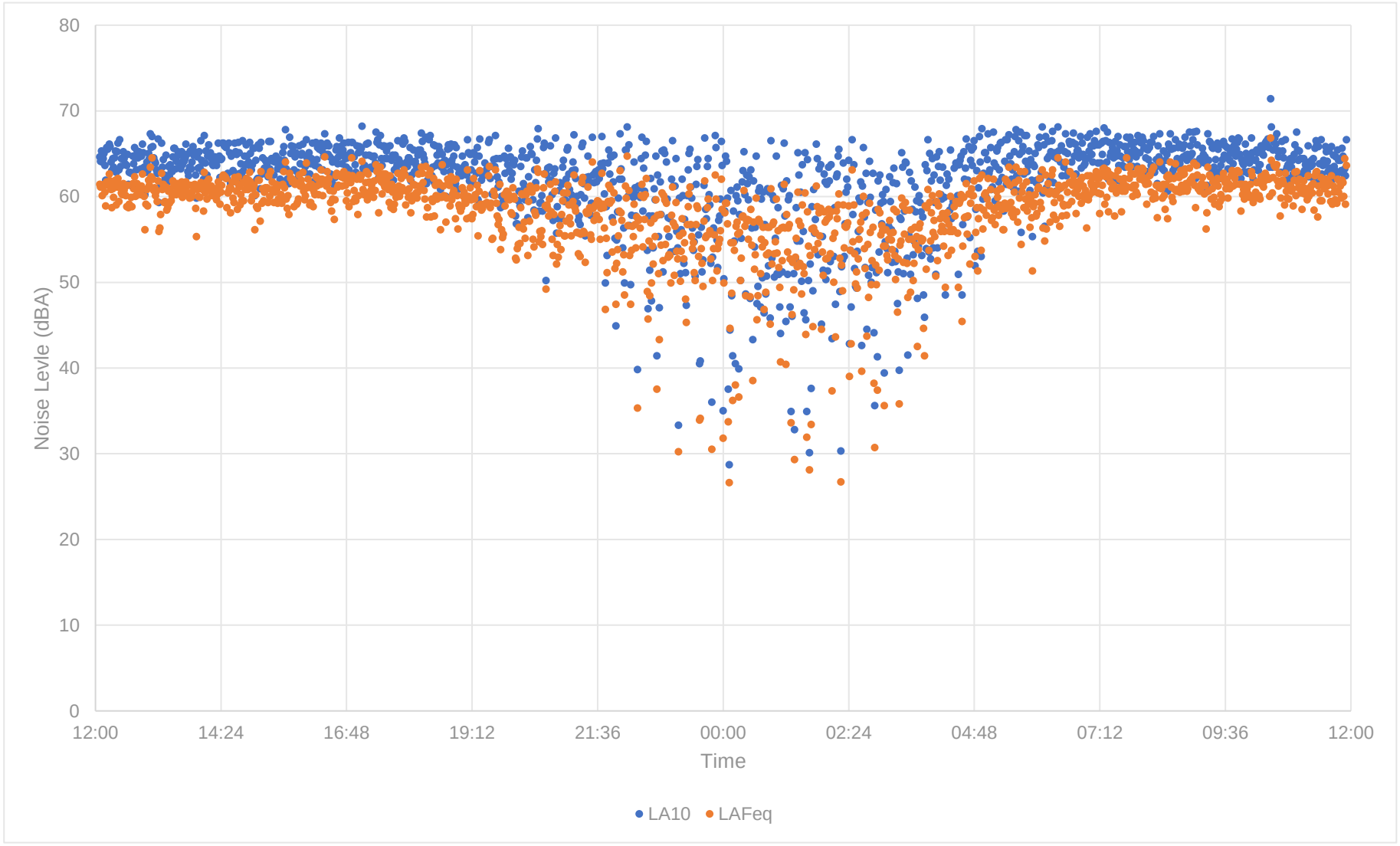
International Standards. There was no significant shift in the observed calibration level.

12.1.3.23 The main noise sources were noted to be road traffic noise from the A66. Birds could occasionally be heard during lulls in the traffic.

12.1.3.24 Throughout the survey, the weather remained suitable for noise monitoring as per BS 7445 - Description and measurement of environmental noise. The weather remained dry with average wind speeds below $5ms^{-1}$.

12.1.3.25 Noise levels recorded throughout the monitoring period are shown in Plate 8: Measured Noise levels at the School House.

Plate 8: Measured Noise levels at the School House



3 Whinfell Park Cottages

12.1.3.26 Monitoring equipment was set up on 29th June 2021 and a 3-hour CRTN noise measurement was undertaken. The equipment was set up in a free field position, however, due to technical difficulties, no site photos are available. The location of the equipment is shown below in Plate 9: Location of monitoring equipment at Whinfell Cottages.

Plate 9: Location of monitoring equipment at Whinfell Cottages

12.1.3.27 The monitoring equipment calibration was checked both before and after the measurement period using an acoustic calibrator, which has itself been calibrated against a reference set traceable to National and International Standards. There was no significant shift in the observed calibration level.

12.1.3.28 The main noise sources were noted to be road traffic noise from the A66. Birds could occasionally be heard during lulls in the traffic. Birds, farm vehicles and aircraft could also be heard occasionally throughout the survey.

12.1.3.29 Throughout the survey, the weather remained suitable for noise monitoring as per BS 7445 - Description and measurement of environmental noise. The weather remained dry with average wind speeds below $5ms^{-1}$.

12.1.3.30 Noise levels recorded throughout the monitoring period are provided in Table 4: Measured noise levels at 3 Whinfell Cottages.

Table 4: Measured noise levels at 3 Whinfell Cottages

Start Time	Duration	L_{A10T}	L_{AeqT}
13:30	1 hour	62.7	60.8
14:30	1 hour	62.1	59.6
15:30	1 hour	62.9	60.4
Average		62.6	60.3

Temple Sowerby to Appleby

Castrigg Lane

12.1.3.31 Monitoring equipment was set up on 29th June 2021 and was left unattended for a period of 24 hours. The equipment was set up in a free field position as per Plate 10: Noise monitoring equipment at Castrigg Lane.

Plate 10: Noise monitoring equipment at Castrigg Lane

12.1.3.32 The monitoring equipment calibration was checked both before and after the measurement period using an acoustic calibrator, which has itself been calibrated against a reference set traceable to National and

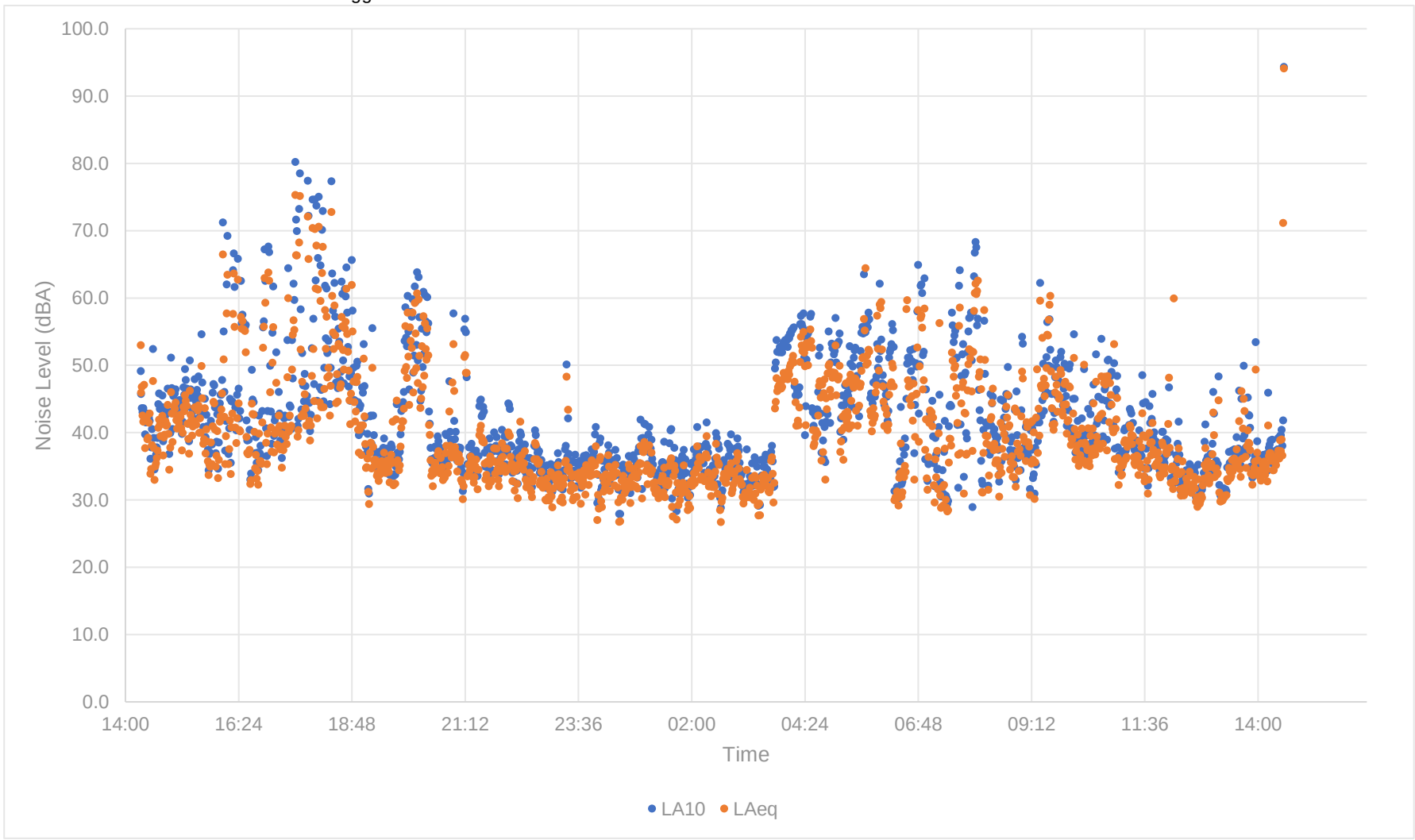
International Standards. There was no significant shift in the observed calibration level.

12.1.3.33 The main noise sources were noted to be road traffic noise from the local road network and voices from residents in their gardens. Occasional trains pass-bys from the Appleby - Langwathby railway line were recorded as well as noise from aircraft.

12.1.3.34 Throughout the survey, the weather remained suitable for noise monitoring as per BS 7445 - Description and measurement of environmental noise. The weather remained dry with average wind speeds below $5ms^{-1}$.

12.1.3.35 Noise levels recorded throughout the monitoring period are shown in Plate 11: Measured noise levels at Castrigg Lane.

Plate 11: Measured noise levels at Castrigg Lane



48 Sanderson Croft

12.1.3.36 Monitoring equipment was set up on 29th June 2021 and was left unattended for a period of 24 hours. The equipment was set up in a free field position as per Plate 12: Noise monitoring equipment at 48 Sanderson Croft.

Plate 12: Noise monitoring equipment at 48 Sanderson Croft

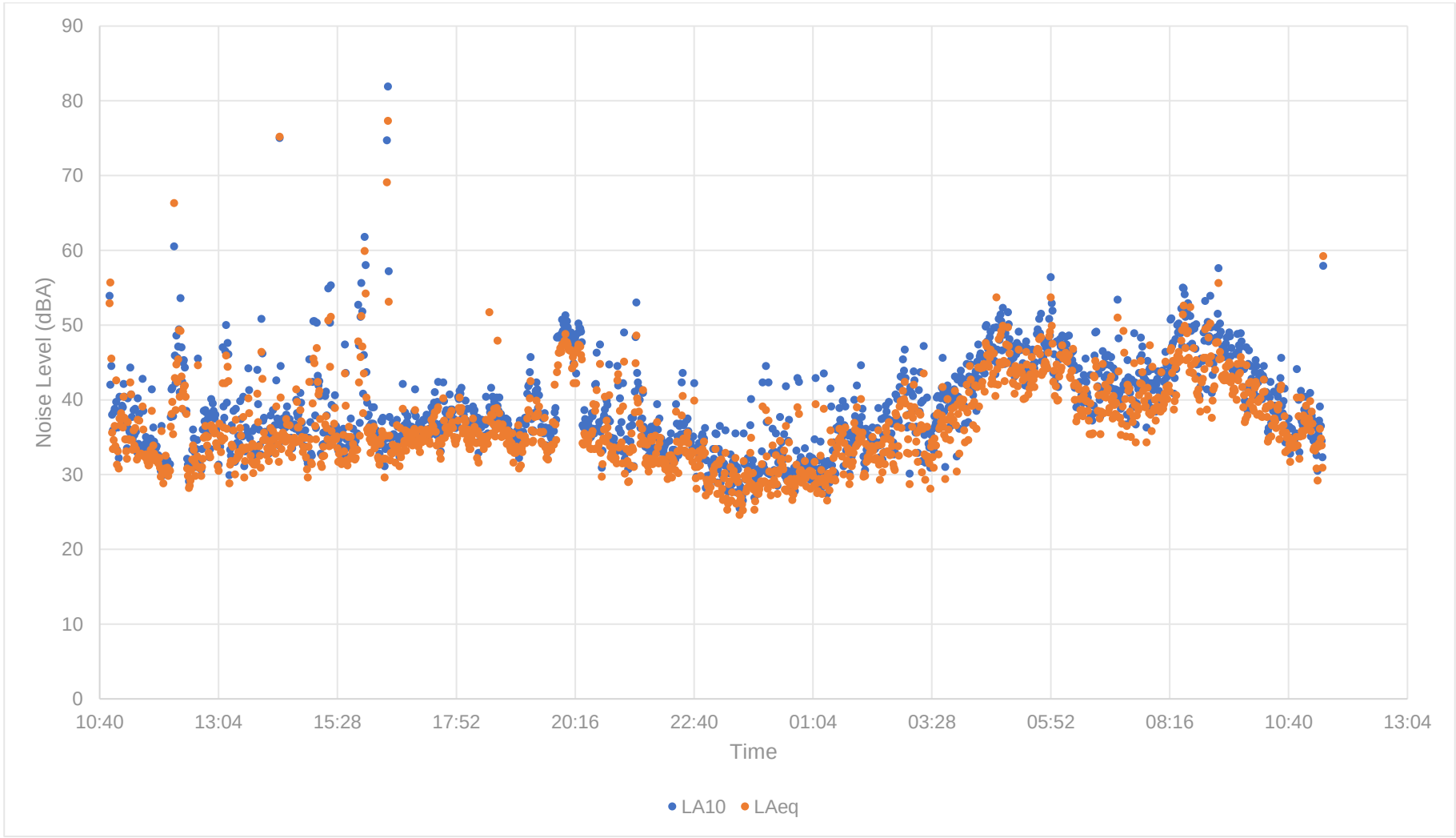
12.1.3.37 The monitoring equipment calibration was checked both before and after the measurement period using an acoustic calibrator, which has itself been calibrated against a reference set traceable to National and International Standards. There was no significant shift in the observed calibration level.

12.1.3.38 The main noise sources were noted to be road traffic noise from the local road network, birds and voices from residents in their gardens. Occasional aircraft and distant industrial noise was also noted during equipment set up.

12.1.3.39 Throughout the survey, the weather remained suitable for noise monitoring as per BS 7445 - Description and measurement of environmental noise. The weather remained dry with average wind speeds below $5ms^{-1}$.

12.1.3.40 Noise levels recorded throughout the monitoring period are shown in Plate 13: Measured levels at 48 Sanderson Croft.

Plate 13: Measured levels at 48 Sanderson Croft



12 Long Marten Road

12.1.3.41 Monitoring equipment was set up on 29th June 2021 and was left unattended for a period of 24 hours. The equipment was set up in a free field position as per Plate 14: Noise monitoring equipment at 12 Long Marten Road.

Plate 14: Noise monitoring equipment at 12 Long Marten Road

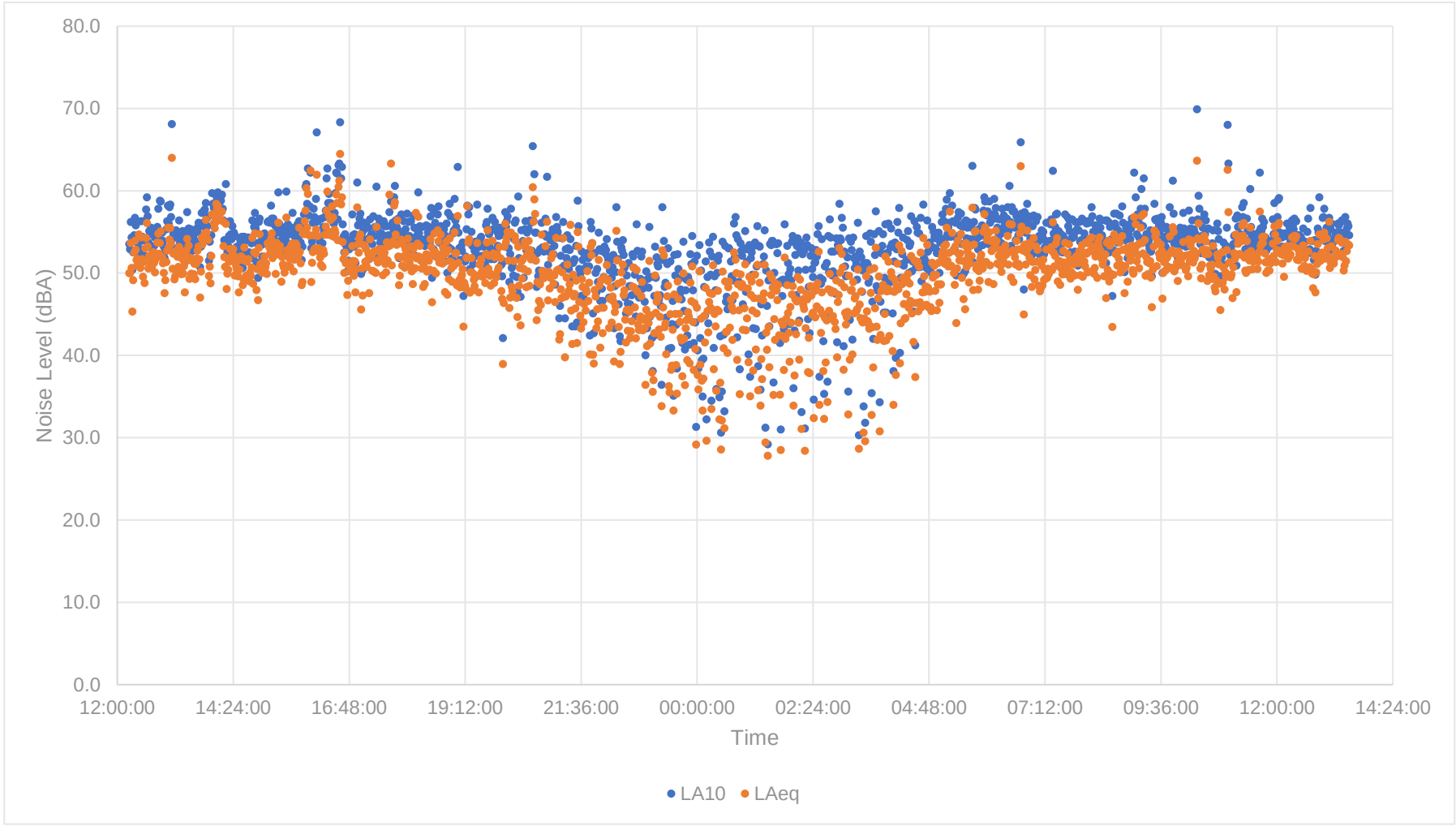
12.1.3.42 The monitoring equipment calibration was checked both before and after the measurement period using an acoustic calibrator, which has itself been calibrated against a reference set traceable to National and International Standards. There was no significant shift in the observed calibration level.

12.1.3.43 The main noise sources were noted to be road traffic noise from the local road network and voices from residents in their gardens. Occasional trains pass-bys on the Appleby - Langwathby railway line and aircraft were also noted.

12.1.3.44 Throughout the survey, the weather remained suitable for noise monitoring as per BS 7445 - Description and measurement of environmental noise. The weather remained dry with average wind speeds below $5ms^{-1}$.

12.1.3.45 Noise levels recorded throughout the monitoring period are shown in Plate 15: Noise measurements at 12 Long Marten Road.

Plate 15: Noise measurements at 12 Long Marten Road



Crackenthorpe Junction

12.1.3.46 Monitoring equipment was set up on 29th June 2021 and a 3-hour noise measurement was undertaken. The equipment was set up in a free field position as per

12.1.3.47 Plate 16: Noise monitoring equipment at Crackenthorpe Junction.

Plate 16: Noise monitoring equipment at Crackenthorpe Junction

12.1.3.48 The monitoring equipment calibration was checked both before and after the measurement period using an acoustic calibrator, which has itself been calibrated against a reference set traceable to National and International Standards. There was no significant shift in the observed calibration level.

12.1.3.49 The main noise sources were noted to be road traffic noise from A66.

12.1.3.50 Throughout the survey, the weather remained suitable for noise monitoring as per BS 7445 - Description and measurement of environmental noise. The weather remained dry with average wind speeds below $5ms^{-1}$.

12.1.3.51 Noise levels recorded throughout the monitoring period are provided in Table 5; Measured noise levels at Crackenthorpe Junction. The reported $L_{Aeq,T}$ is the logarithmically averaged noise level; the $L_{A10,T}$ is the arithmetical average.

Table 5; Measured noise levels at Crackenthorpe Junction

Start Time	Duration	L_{A10T}	L_{AeqT}
13:00	1 hour	79.2	75.4
14:00	1 hour	78.5	75.0
15:00	1 hour	79.0	75.2
Average		78.9	75.5

Bridge Hotel

12.1.3.52 Monitoring equipment was set up on 29th June 2021 and a 3-hour noise measurement was undertaken. The equipment was set up in a free field position as per Plate 17: Noise monitoring equipment at Bridge Hotel.

Plate 17: Noise monitoring equipment at Bridge Hotel

12.1.3.53 The monitoring equipment calibration was checked both before and after the measurement period using an acoustic calibrator, which has itself been calibrated against a reference set traceable to National and International Standards. There was no significant shift in the observed calibration level.

12.1.3.54 The main noise sources were noted to be road traffic noise from A66.

12.1.3.55 Throughout the survey, the weather remained suitable for noise monitoring as per BS 7445 - Description and measurement of

environmental noise. The weather remained dry with average wind speeds below 5ms^{-1}.

12.1.3.56 Noise levels recorded throughout the monitoring period are provided in Table 6: Measured noise levels at Bridge Hotel. The reported $L_{Aeq,T}$ is the logarithmically averaged noise level; the $L_{A10,T}$ is the arithmetical average.

Table 6: Measured noise levels at Bridge Hotel

Start Time	Duration	L_{A10T}	L_{AeqT}
10:15	1 hour	80.2	77.2
11:15	1 hour	80.4	77.2
12:15	1 hour	80.3	77.0
Average		80.3	77.1

Comrie Lea

12.1.3.57 Monitoring equipment was set up on 29th June 2021 and a 3-hour noise measurement was undertaken. The equipment was set up in a free field position as per Plate 18: Noise monitoring equipment at Comrie Lea.

Plate 18: Noise monitoring equipment at Comrie Lea

12.1.3.58 The monitoring equipment calibration was checked both before and after the measurement period using an acoustic calibrator, which has itself

been calibrated against a reference set traceable to National and International Standards. There was no significant shift in the observed calibration level.

12.1.3.59 The main noise sources were noted to be road traffic noise from A66. Birds, farm vehicles and aircraft could also be heard during traffic lulls.

12.1.3.60 Throughout the survey, the weather remained suitable for noise monitoring as per BS 7445 - Description and measurement of environmental noise. The weather remained dry with average wind speeds below $5ms^{-1}$.

12.1.3.61 Noise levels recorded throughout the monitoring period are provided in Table 7: Measured noise levels at Comrie Lea. The reported $L_{Aeq,T}$ is the logarithmically averaged noise level; the $L_{A10,T}$ is the arithmetical average.

Table 7: Measured noise levels at Comrie Lea

Start Time	Duration	L_{A10T}	L_{AeqT}
10:00	1 hour	60.9	57.6
11:00	1 hour	60.7	57.5
12:00	1 hour	59.7	56.6
Average		60.4	57.3

Appleby to Brough

Walkmill

12.1.3.62 Monitoring equipment was set up on 30th June 2021 and was left unattended for a period of 24 hours. The equipment was set up in a free field position as per Plate 19: Noise monitoring equipment at Walkmill.

Plate 19: Noise monitoring equipment at Walkmill

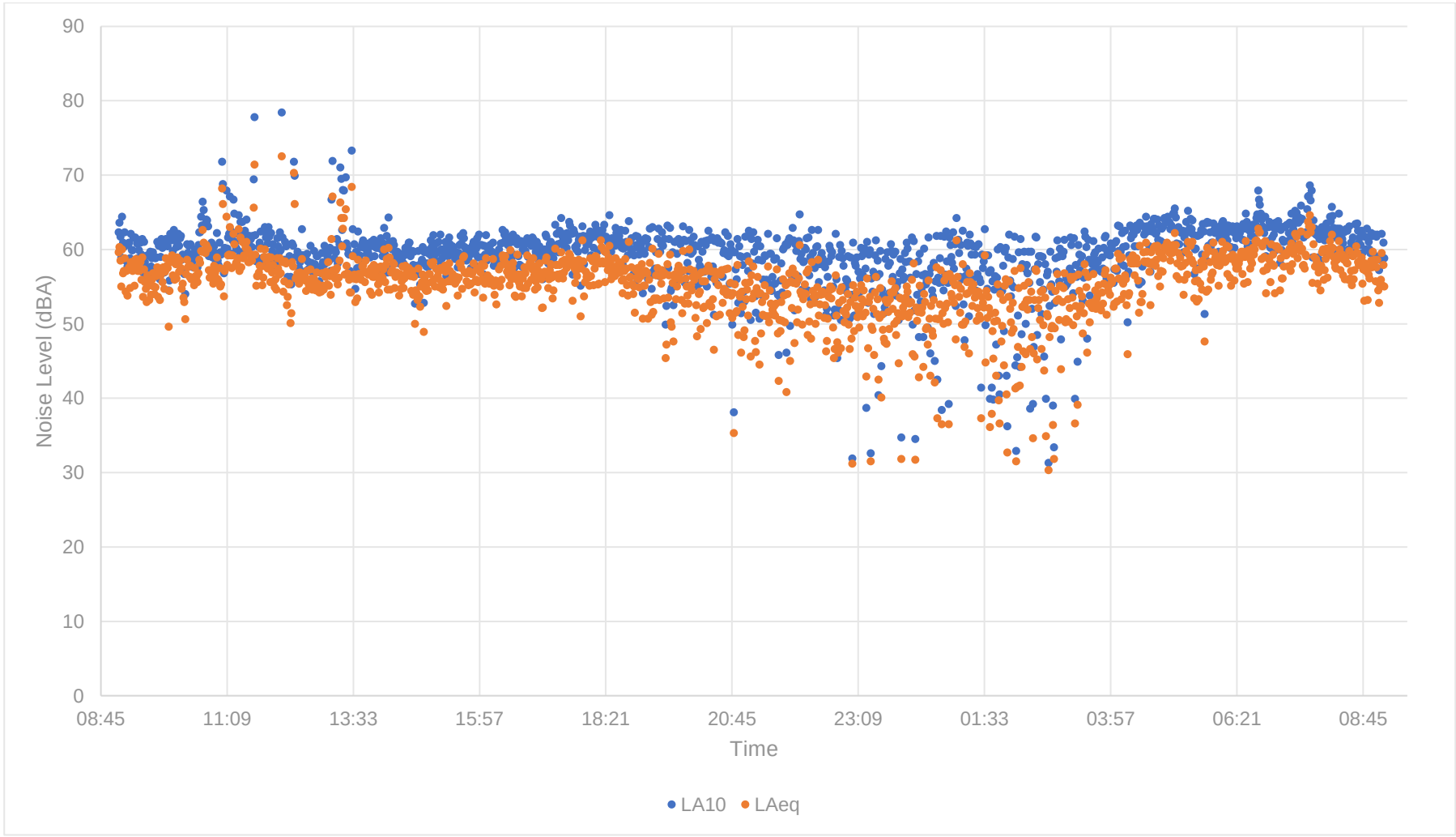
12.1.3.63 The monitoring equipment calibration was checked both before and after the measurement period using an acoustic calibrator, which has itself been calibrated against a reference set traceable to National and International Standards. There was no significant shift in the observed calibration level.

12.1.3.64 The main noise sources were noted to be road traffic noise from the A66. Birds were also noted during lulls in the traffic.

12.1.3.65 Throughout the survey, the weather remained suitable for noise monitoring as per BS 7445 - Description and measurement of environmental noise. The weather remained dry with average wind speeds below 5ms^{-1}.

12.1.3.66 Noise levels recorded throughout the monitoring period are shown in Plate 20: Measured noise levels at Walkmill.

Plate 20: Measured noise levels at Walkmill



Wheatsheaf Farm

12.1.3.67 Monitoring equipment was set up on 28th June 2021 and a 3-hour noise measurement was undertaken. The equipment was set up in a free field position as per Plate 21: Noise monitoring equipment at Wheatsheaf Farm.

Plate 21: Noise monitoring equipment at Wheatsheaf Farm

12.1.3.68 The monitoring equipment calibration was checked both before and after the measurement period using an acoustic calibrator, which has itself been calibrated against a reference set traceable to National and International Standards. There was no significant shift in the observed calibration level.

12.1.3.69 The main noise sources were noted to be road traffic noise from the A66 and local traffic. Birds were also noted during the lulls in the traffic.

12.1.3.70 Throughout the survey, the weather remained suitable for noise monitoring as per BS 7445 - Description and measurement of environmental noise. The weather remained dry with average wind speeds below $5ms^{-1}$.

12.1.3.71 Noise levels recorded throughout the monitoring period are provided in Table 8: Measured noise levels at Wheatsheaf Farm. The reported $L_{Aeq,T}$ is the logarithmically averaged noise level; the $L_{A10,T}$ is the arithmetical average.

Table 8: Measured noise levels at Wheatsheaf Farm

Start Time	Duration	L_{A10T}	L_{AeqT}
10:00	1 hour	80.2	76.8
11:00	1 hour	80.1	76.9
12:00	1 hour	79.8	76.7
Average		80.0	76.8

Near Croft off A66

12.1.3.72 Monitoring equipment was set up on 28th June 2021 and a 3-hour CRTN noise measurement was undertaken. The equipment was set up in a free field position as per Plate 22: Noise monitoring equipment at Near Croft off A66.

Plate 22: Noise monitoring equipment at Near Croft off A66

12.1.3.73 The monitoring equipment calibration was checked both before and after the measurement period using an acoustic calibrator, which has itself been calibrated against a reference set traceable to National and International Standards. There was no significant shift in the observed calibration level.

12.1.3.74 The main noise sources were noted to be road traffic noise from A66 and local traffic. Birds were also noted during lulls in the traffic.

12.1.3.75 Throughout the survey, the weather remained suitable for noise monitoring as per BS 7445 - Description and measurement of

environmental noise. The weather remained dry with average wind speeds below 5ms^{-1}.

12.1.3.76 Noise levels recorded throughout the monitoring period are provided in Table 9: Measured noise levels at Near Croft off A66. The reported $L_{Aeq,T}$ is the logarithmically averaged noise level; the $L_{A10,T}$ is the arithmetical average.

Table 9: Measured noise levels at Near Croft off A66

Start Time	Duration	L_{A10T}	L_{AeqT}
14:00	1 hour	76.1	72.0
15:00	1 hour	76.2	72.2
16:00	1 hour	75.7	71.8
Average		76.0	72.0

Bowes-By-pass

Kilmond View

12.1.3.77 Monitoring equipment was set up on 1st July 2021 and was left unattended for a period of 24 hours. The equipment was set up in a free field position as per Plate 23: Noise monitoring equipment at Kilmond View.

Plate 23: Noise monitoring equipment at Kilmond View

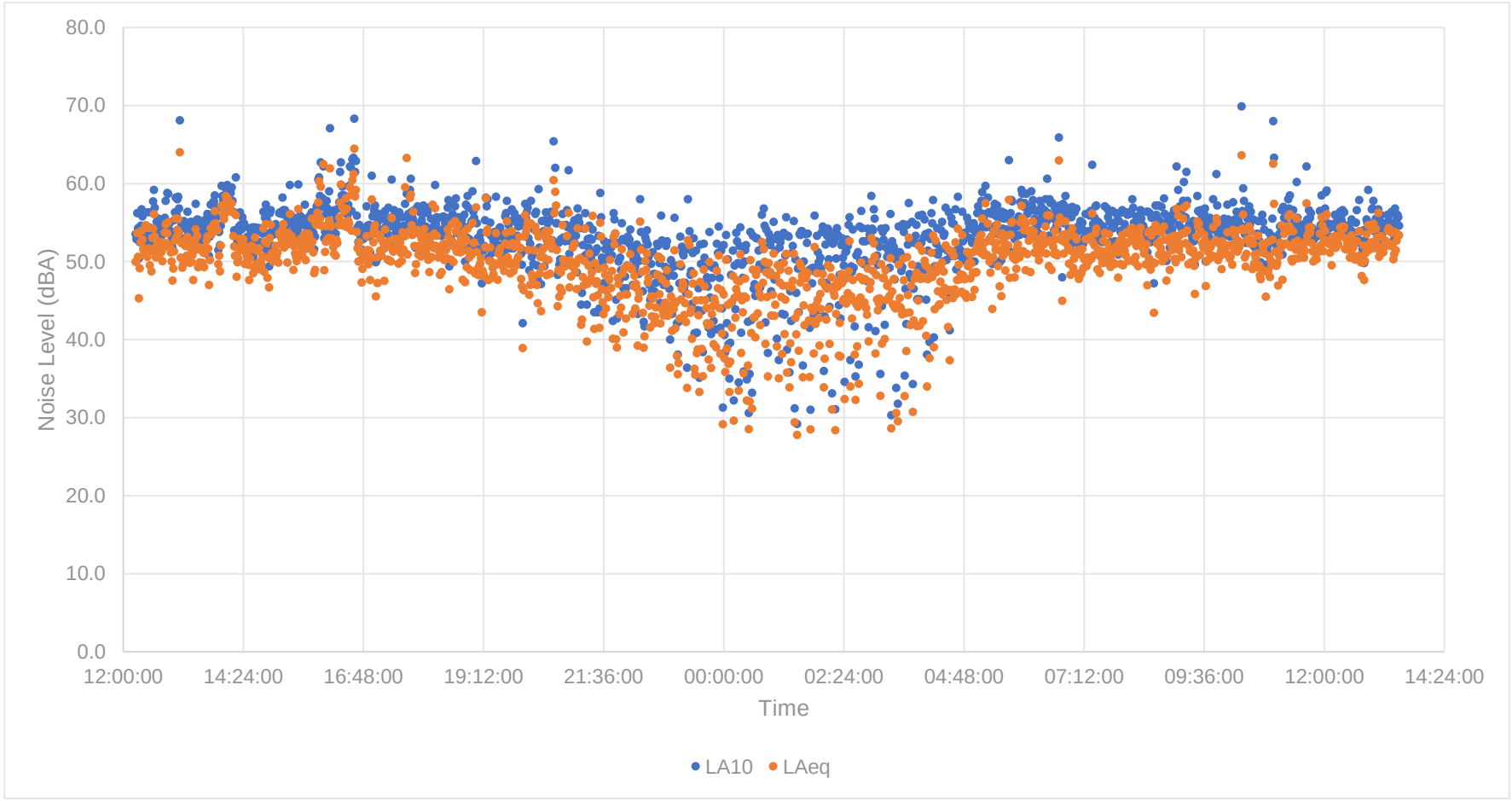
12.1.3.78 The monitoring equipment calibration was checked both before and after the measurement period using an acoustic calibrator, which has itself been calibrated against a reference set traceable to National and International Standards. There was no significant shift in the observed calibration level.

12.1.3.79 The main noise source included farm noises, including sheep in the nearby field and local road traffic.

12.1.3.80 Throughout the survey, the weather remained suitable for noise monitoring as per BS 7445 - Description and measurement of environmental noise. The weather remained dry with average wind speeds below $5ms^{-1}$.

12.1.3.81 Noise levels recorded throughout the monitoring period are shown in **Error! Reference source not found.**.

Plate 24: Measured noise levels at Kilmond View



Unicorn View

12.1.3.82 Monitoring equipment was set up on 28th June 2021 and a 3-hour noise measurement was undertaken. The equipment was set up in a free field position as per Plate 25: Noise monitoring equipment at Unicorn View.

Plate 25: Noise monitoring equipment at Unicorn View

12.1.3.83 The monitoring equipment calibration was checked both before and after the measurement period using an acoustic calibrator, which has itself been calibrated against a reference set traceable to National and International Standards. There was no significant shift in the observed calibration level.

12.1.3.84 The main noise sources were noted to be road traffic noise from A66 and local traffic. Birds were also noted during lulls in the traffic. Movement in the hotel car park could be heard throughout the survey as residents used the car park.

12.1.3.85 Throughout the survey, the weather remained suitable for noise monitoring as per BS 7445 - Description and measurement of environmental noise. The weather remained dry with average wind speeds below $5ms^{-1}$.

12.1.3.86 Noise levels recorded throughout the monitoring period are provided in Table 10: Measured noise levels at Unicorn View. The reported $L_{Aeq,T}$ is the logarithmically averaged noise level; the $L_{A10,T}$ is the arithmetical average.

Table 10: Measured noise levels at Unicorn View

Start Time	Duration	L_{A10T}	L_{AeqT}
10:00	1 hour	52.6	48.6
11:00	1 hour	52.9	48.8
12:00	1 hour	54.2	49.5
Average		53.2	49.0

Stephen Bank to Carkin Moor

The Laurels

12.1.3.87 Monitoring equipment was set up on 28th July 2021 and was left unattended for a period of 24 hours. The equipment was set up in a free field position as per Plate 26: Noise monitoring equipment at the Laurels.

Plate 26: Noise monitoring equipment at the Laurels

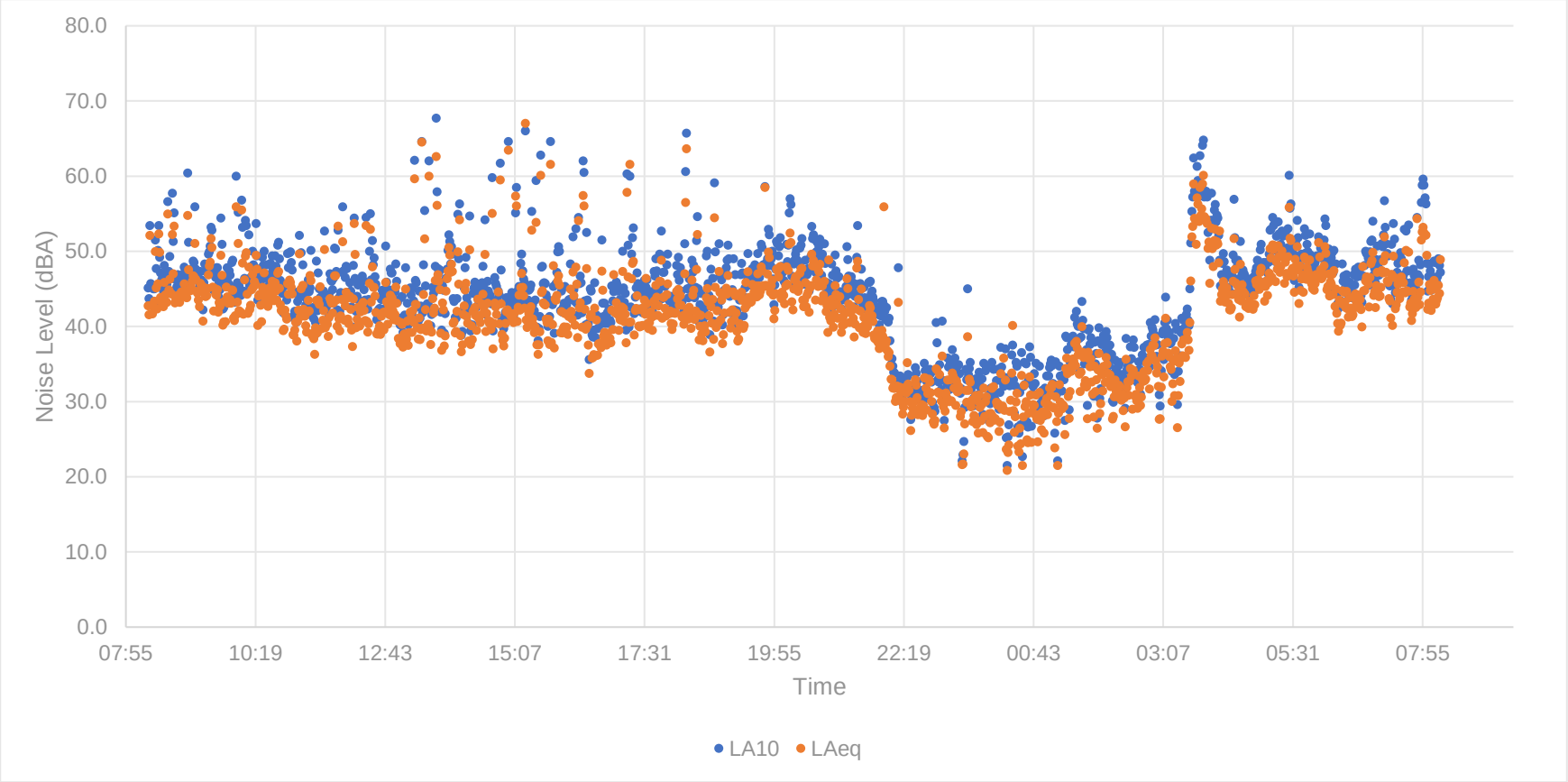
12.1.3.88 The monitoring equipment calibration was checked both before and after the measurement period using an acoustic calibrator, which has itself been calibrated against a reference set traceable to National and International Standards. There was no significant shift in the observed calibration level.

12.1.3.89 The main noise sources were noted to be road traffic noise from A66 and local traffic. Birds were also noted during lulls in the traffic.

12.1.3.90 Throughout the survey, the weather remained suitable for noise monitoring as per BS 7445 - Description and measurement of environmental noise. The weather remained dry with average wind speeds below $5ms^{-1}$.

12.1.3.91 Noise levels recorded throughout the monitoring period are shown in Plate 28: Measured noise levels at the Laurels.

Plate 27: Measured noise levels at the Laurels



Foxhall Inn

12.1.3.92 Monitoring equipment was set up on 28th June 2021 and a 3-hour noise measurement was undertaken. The equipment was set up in a free field position as per Plate 28: Noise monitoring equipment at Foxhall Inn.

Plate 28: Noise monitoring equipment at Foxhall Inn

12.1.3.93 The monitoring equipment calibration was checked both before and after the measurement period using an acoustic calibrator, which has itself been calibrated against a reference set traceable to National and International Standards. There was no significant shift in the observed calibration level.

12.1.3.94 The main noise sources were noted to be road traffic noise from A66 and local traffic. Noise associated with the hotel was also audible throughout the survey, where customers were entering and leaving the car park and the outdoor garden was being used.

12.1.3.95 Throughout the survey, the weather remained suitable for noise monitoring as per BS 7445 - Description and measurement of environmental noise. The weather remained dry with average wind speeds below $5ms^{-1}$.

12.1.3.96 Noise levels recorded throughout the monitoring period are provided in Table 11: Measured noise levels at Foxhall Inn. The reported $L_{Aeq,T}$ is the logarithmically averaged noise level; the $L_{A10,T}$ is the arithmetical average.

Table 11: Measured noise levels at Foxhall Inn

Start Time	Duration	L_{A10T}	L_{AeqT}
14:00	1 hour	76.3	73.1
15:00	1 hour	76.0	73.2
16:00	1 hour	76.7	73.2
Average		76.3	73.2

Foxhall Farm

12.1.3.97 Monitoring equipment was set up on 28th July 2021 and a 3-hour noise measurement was undertaken. The equipment was set up in a free field position as per Plate 29: Noise monitoring equipment at Foxhall Farm.

Plate 29: Noise monitoring equipment at Foxhall Farm

12.1.3.98 The monitoring equipment calibration was checked both before and after the measurement period using an acoustic calibrator, which has itself been calibrated against a reference set traceable to National and International Standards. There was no significant shift in the observed calibration level.

12.1.3.99 The main noise sources were noted to be road traffic noise from A66 and local traffic. Birds were also noted during lulls in the traffic.

12.1.3.100 Throughout the survey, the weather remained suitable for noise monitoring as per BS 7445 - Description and measurement of environmental noise. The weather remained dry with average wind speeds below $5ms^{-1}$.

12.1.3.101 Noise levels recorded throughout the monitoring period are provided in Table 12: Measured noise levels at Foxhall Farm. The reported $L_{Aeq,T}$ is the logarithmically averaged noise level; the $L_{A10,T}$ is the arithmetical average.

Table 12: Measured noise levels at Foxhall Farm

Start Time	Duration	L_{A10T}	L_{AeqT}
10:00	1 hour	69.6	66.3
11:00	1 hour	68.8	65.6
12:00	1 hour	68.8	65.7
Average		69.1	65.9