Luton Rising
Our airport.
Our community.
Our planet.

June 2023

London Luton Airport Expansion

Planning Inspectorate Scheme Ref: TR020001

Volume 5 Environmental Statement and Related Documents

5.11 Ambient noise monitoring data and survey sheets

Application Document Ref: TR020001/APP/5.11

APFP Regulation: 5(2)(a)

The Planning Act 2008

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

London Luton Airport Expansion Development Consent Order 202[ ]

5.11 Ambient noise monitoring data and survey sheets

Regulation number:	Regulation 5(2)(a)
Planning Inspectorate Scheme Reference:	TR020001
Document Reference:	TR020001/APP/5.11
Author:	Luton Rising

Version	Date	Status of Version
Issue 1	June 2023	Additional submission (submitted in response to Rule 9 letter)

Contents

Tables

Figures

1 INTRODUCTION

1.1.1 This document has been prepared in response to the following Rule 9 Request of 16 May 2023:

"To ensure clear understanding of the noise survey and data compilation approach, the ExA has made a procedural decision to request BS7445 survey datasheets/ monitoring reports (or equivalent) for each of the attended noise monitoring locations, showing full details of location and set up information. The information provided should include the meteorological data used to exclude adverse weather periods from the baseline datasets."

1.1.2 This document contains the following:

a. the purpose of noise monitoring (**Section 2**);
b. meteorological data (**Section 3**);
c. time-history plots with periods of adverse weather (**Section 4**)
d. noise monitoring set up information (**Section 5**);
e. ambient noise monitoring locations (**Section 6**); and
f. noise survey sheets (**Section 7**).

2 PURPOSE OF NOISE MONITORING

2.1.1 Two types of baseline noise monitoring have been undertaken to inform the noise assessment undertaken in **Chapter 16 of the ES [TR020001/APP/5.01]** as described in **Table 2.1.**

Table 2.1: Description and purpose of baseline noise monitoring

Noise monitoring	Description	Purpose
Aircraft noise monitoring	Measurement of individual aircraft noise events using LLAOL's permanent and temporary noise monitoring terminals.	Used to validate the aircraft noise model by comparing measured noise levels of individual aircraft types to those predicted by the aircraft noise model. See **Appendix 16.1 of the ES [TR020001/APP/5.02]** for full details of the aircraft noise model validation.
Ambient noise monitoring	Measurement of all sound sources (ambient noise) at community locations. Noise monitoring was undertaken at locations agreed with the Noise Working Group (see **Section 16.4 of Chapter 16 of the ES [TR020001/APP/5.01]**) and at additional locations identified through 2019 statutory consultation (see **Section 4 of Appendix 16.1 of the ES [TR020001/APP/5.02]**).	Used to spot-check and verify the baseline road traffic noise levels at key road links in the surface access study area[1]. Used to provide qualitative information about the character of the existing noise environment at an assessment location and hence provide context for the noise assessment.

2.1.2 **Section 16.5 of Chapter 16 of the ES [TR020001/APP/5.01]** sets out that the ambient noise monitoring data does not directly influence the identification of noise effects and instead has been used to either provide spot-checks for the calculated baselines or to provide qualitative information regarding the character of the existing noise environment.

2.1.3 The assessment of aircraft air noise, aircraft ground noise and surface access noise uses calculated (rather than measured) baselines. The baseline noise levels are calculated to firstly enable future baselines to be consistently established and also to ensure a consistent calculation of noise change between the Do-Minimum (future baseline) and Do-Something scenarios. As set out in **Chapter 16 of the ES [TR020001/APP/5.01]**, the assumptions used to calculate the baseline, future baseline and Do-Something scenarios have been chosen to provide a reasonable worst-case assessment of noise effects.

2.1.4 The assessment of construction noise effects uses evaluation criteria that assume low ambient noise levels at all receptors, even for receptors close to the airport or other existing noise sources such as main roads or the M1. The

[1] The calculated road traffic noise baseline has not needed to have been adjusted as a result of the spot checks.

construction noise assessment is therefore a worst case. For the small number of receptors that are predicted to exceed the construction noise Lowest Observable Adverse Effect Level (LOAEL), the ambient noise level data from one monitoring location has been used to provide additional information about the character of the existing noise environment and hence provide context for the assessment to assist in identifying noise effects.

2.1.5 **Table 2.1** provides a summary of which ambient noise monitoring locations have been used for which purpose as described above.

Table 2.1: Summary of baseline noise data use

Location	Assessment	Use	Informs the identification of noise effects?
ML15	Construction noise	Used to provide qualitative information about the character of the existing noise environment at an assessment location and hence provide context for the noise assessment to assist in identifying noise effects.	Indirectly
ML23, ML24, ML25, ML26, ML27, Ml28, ML29, ML41, ML42, ML43 and ML44	Surface access noise	Validation of baseline surface access noise model	No
ML1, ML2, ML3, ML4, ML5, ML7, ML7, ML8, ML9, ML9, ML10, ML11, ML12, ML13, ML14, ML15, ML16, ML17, ML18, ML19, ML20, ML21, ML22, ML30, ML31 and ML37	Air noise	Used to provide qualitative information about the character of the existing noise environment at an assessment location and hence provide context for the noise assessment only.	No

3 METEOROLOGICAL DATA

3.1.1 Meteorological conditions recorded by the London Luton Airport weather station have been used to identify periods of adverse weather conditions over the unattended monitoring periods i.e. periods of rain and windspeeds greater than 5 m/s. These periods have been removed from the monitoring results as

adverse weather conditions may result in measurements of increased noise levels that may not be representative of typical noise conditions. Removal of this measurement data is therefore a reasonable worst-case.

3.1.2 This is typical for unattended noise surveys over a long period of time[2] to cover weekly periodicity of noise (with reference to BS 7445, Ref 1) and is not considered to be a material limitation in the ambient sound survey methodology.

3.1.3 Weather conditions for the following periods are provided:

a. August to November 2018 (**Figure 7.1**);
b. April to May 2019 (**Figure 7.2**);
c. February to March 2020 (**Figure 7.3**); and
d. July 2021 (**Figure 7.4**).

4 TIME-HISTORY PLOTS WITH PERIODS OF ADVERSE WEATHER

4.1.1 Time-history plots showing periods of adverse weather conditions for all monitoring locations are presented in **Figure 7.45** to **Figure 7.78**.

4.1.2 As identified in **Table 2.1**, unattended noise monitoring data from ML15 is the only data that has been (indirectly) used to assist in identifying construction noise effects. Even after removal of periods of adverse weather conditions, the remaining data from ML15 represents more than 8 days' worth of daytime and night-time data. This amount of noise data covers weekly noise periodicity and provides representative data of typical ambient noise conditions.

5 NOISE MONITORING SET UP INFORMATION

5.1.1 The monitoring equipment met the Class 1 standard and conform to BS EN 61672-2: 2003 (Ref 2). Monitoring equipment was set up at a height of approximately 1.5 m and located at least 3.5 m away from any reflecting structure. All monitoring equipment were fitted with wind shields to protect the microphone diaphragm from gusts of air.

6 AMBIENT NOISE MONITORING LOCATIONS

6.1.1 Baseline noise monitoring measurement of all sound sources (ambient noise) was undertaken at community locations. Noise monitoring locations were agreed with the Noise Working Group (see **Section 16.4** of **Chapter 16** of the ES **[TR020001/APP/5.01]**) and at additional locations identified through 2019 statutory consultation (**Section 4** of **Appendix 16.1 [TR020001/APP/5.02]**). All ambient noise monitoring locations are presented in **Table 6.1** and illustrated in **Figure 16.3 of the ES [TR020001/APP/5.03]**.

[2] the average measurement duration was 21 days

Table 6.1: Baseline sound monitoring locations

Location	Details	Primary Sound Sources	Secondary Sound Sources	Measurement Format
ML1	Someries Castle, Central Beds	Aircraft	Road traffic	Unattended
ML2	Diamond End, North Herts	Aircraft	Road traffic, dog barking	Unattended
ML3	Langley, North Herts	Aircraft	Road traffic	Unattended
ML4	Breachwood Green, North Herts	Birdcall	Aircraft and road traffic	Unattended
ML5	Bendish, North Herts	Aircraft	Birdcall	Unattended
ML7	Luton Hoo, Central Beds	Road traffic and aircraft	None noted	Unattended
ML8	Dagnall, Aylesbury Vale	Aircraft	Road traffic, occasional gardening activities	Unattended
ML9	Markyate, Dacorum	Aircraft	None noted	Unattended
ML10	Caddington, Central Beds	Road traffic	Aircraft, birdsong	Unattended
ML11	Woodside, Central Beds	Birdsong	Conversation, aircraft, road traffic	Unattended
ML12	Front Street, Slip End, Luton	Road traffic	Aircraft, processing plant at McClaid Screening	Unattended
ML13	Strathmore Avenue, Luton	Aircraft	Road traffic	Unattended
ML14	Vauxhall Way, Luton	Road traffic	None noted	Unattended
ML15	Eaton Green Road, Luton	Road traffic	Aircraft	Unattended
ML16	Malthouse Green, Luton	Aircraft	Road traffic	Unattended
ML17	Kensworth, Central Beds	Road traffic	Aircraft	Unattended
ML18	Stevenage	Aircraft and road traffic	Occasional dog barking	Unattended

Location	Details	Primary Sound Sources	Secondary Sound Sources	Measurement Format
ML19	Flamstead, Dacorum	Aircraft	Road traffic, occasional gardening activities	Unattended
ML20	Jockey End, Dacorum	Aircraft	Occasional gardening activities	Unattended
ML21	Preston, North Herts	Road traffic	Aircraft	Unattended
ML22	Holywell, Central Beds	Aircraft	Occasional gardening activities	Unattended
ML23	A602 Stevenage Road, North Herts	Road traffic	Pedestrians	Attended
ML24	Hitchin Road, Luton	Road traffic	None	Attended
ML25	A505 Beech Hill, North Herts	Road traffic	Pedestrians	Attended
ML26	A1081 London Road, Central Beds	Road traffic	None	Attended
ML27	A505 Hatters Way, Luton	Road traffic	Pedestrians	Attended
ML28	A6 New Bedford Road, Luton	Road traffic	Birdcall	Attended
ML29	B653 Lower Harpenden Road, Central Beds	Road traffic	Occasional train passbys	Attended
ML30	Pitstone, Aylesbury Vale	Aircraft	Road traffic, occasional gardening activities	Unattended
ML31	St Pauls Walden, North Herts	Aircraft	Road traffic, occasional gardening activities	Unattended
ML37	Breachwood Green JMI School	Aircraft	Road traffic, birdsong, school activities	Unattended
ML41	Brick Kiln Lane, Luton	Road traffic	Road traffic, aircraft, birdsong	Unattended
ML42	Chalk Hill, Luton	Road traffic	Road traffic, aircraft, birdsong	Attended

Location	Details	Primary Sound Sources	Secondary Sound Sources	Measurement Format
ML43	Wandon End, Luton	Aircraft	Dog barking, road traffic, aircraft, birdsong	Attended
ML44	Stony Lane, Luton	Aircraft	Road traffic, aircraft, birdsong	Attended

6.1.2 Monitoring location numbering aligns with assessment locations (see **Table 16.22** of **Chapter 16** of the ES **[TR020001/APP/5.01]**). Consequently, there is no ML32, ML33, ML34, ML35, ML36, ML38, ML39 or ML40, which are schools that were considered important to assess individually in the air noise assessment. Noise monitoring was undertaken at Breachwood Green JMI School (ML37) following a specific request from the school.

6.1.3 There is no ML6 monitoring location as the location that was originally identified at Rush Green was found to be industrial during site visits. Consequently, ML6 was removed, and the original monitoring location numbering was retained.

7 NOISE SURVEY SHEETS

Noise survey sheets that were completed at the start and end of unattended monitoring and during attended monitoring are presented in **Figure 7.5** to **Figure 7.44**. At some locations, meters were returned for a second period of monitoring after analysis showed that data had not been measured for a sufficient period of time. Consequently, there are two survey sheets at these locations.

GLOSSARY AND ABBREVIATIONS

Term	Definition
ES	Environmental Statement
LLAOL	London Luton Airport Operations Limited
LOAEL	Lowest Observed Adverse Effect Level
SEL	Sound Exposure Level

Figure 7.1: Weather Data from 23rd August to 2nd November 2018

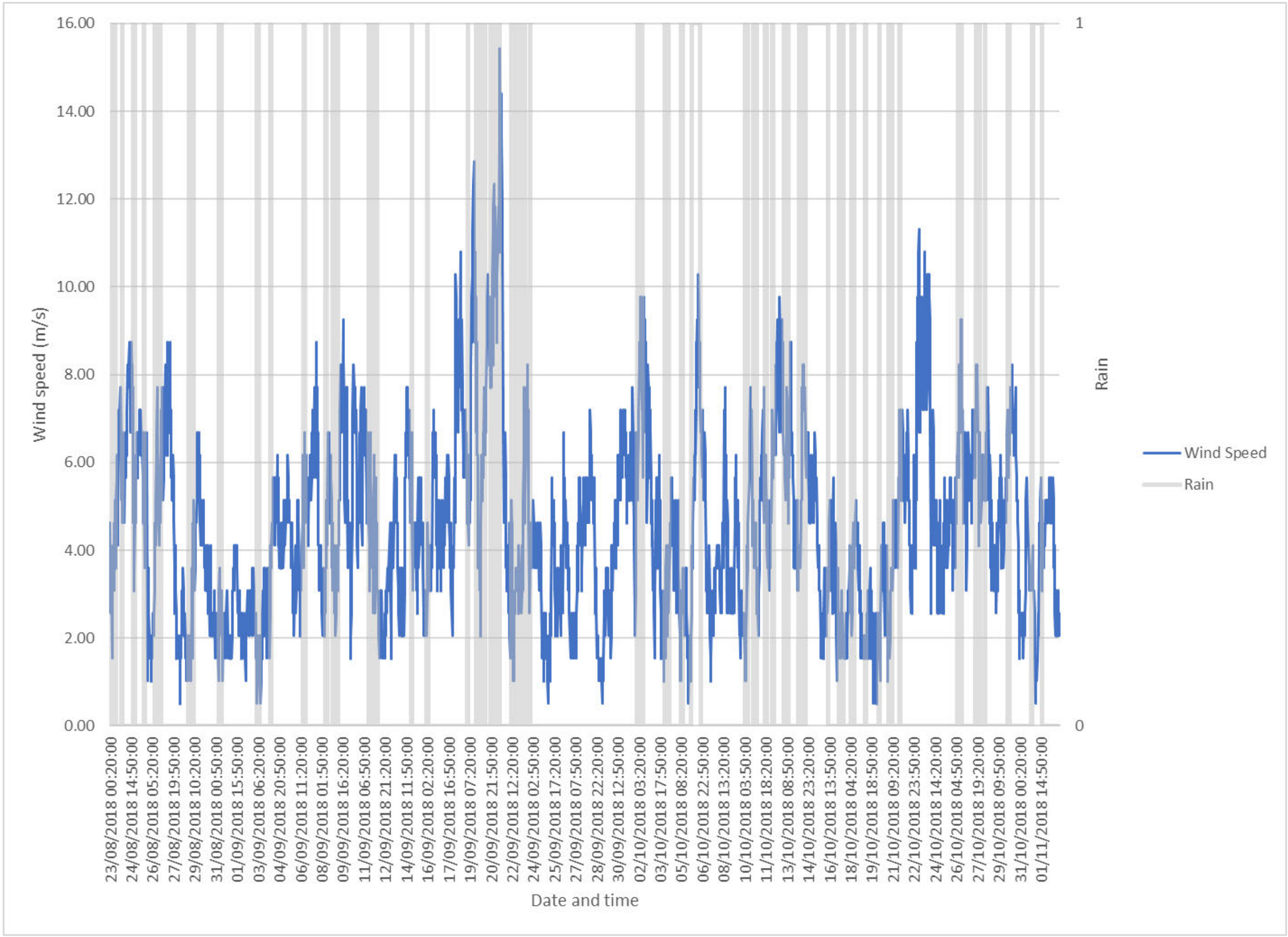


Figure 7.2: Weather Data from 16th April to 23rd May 2019

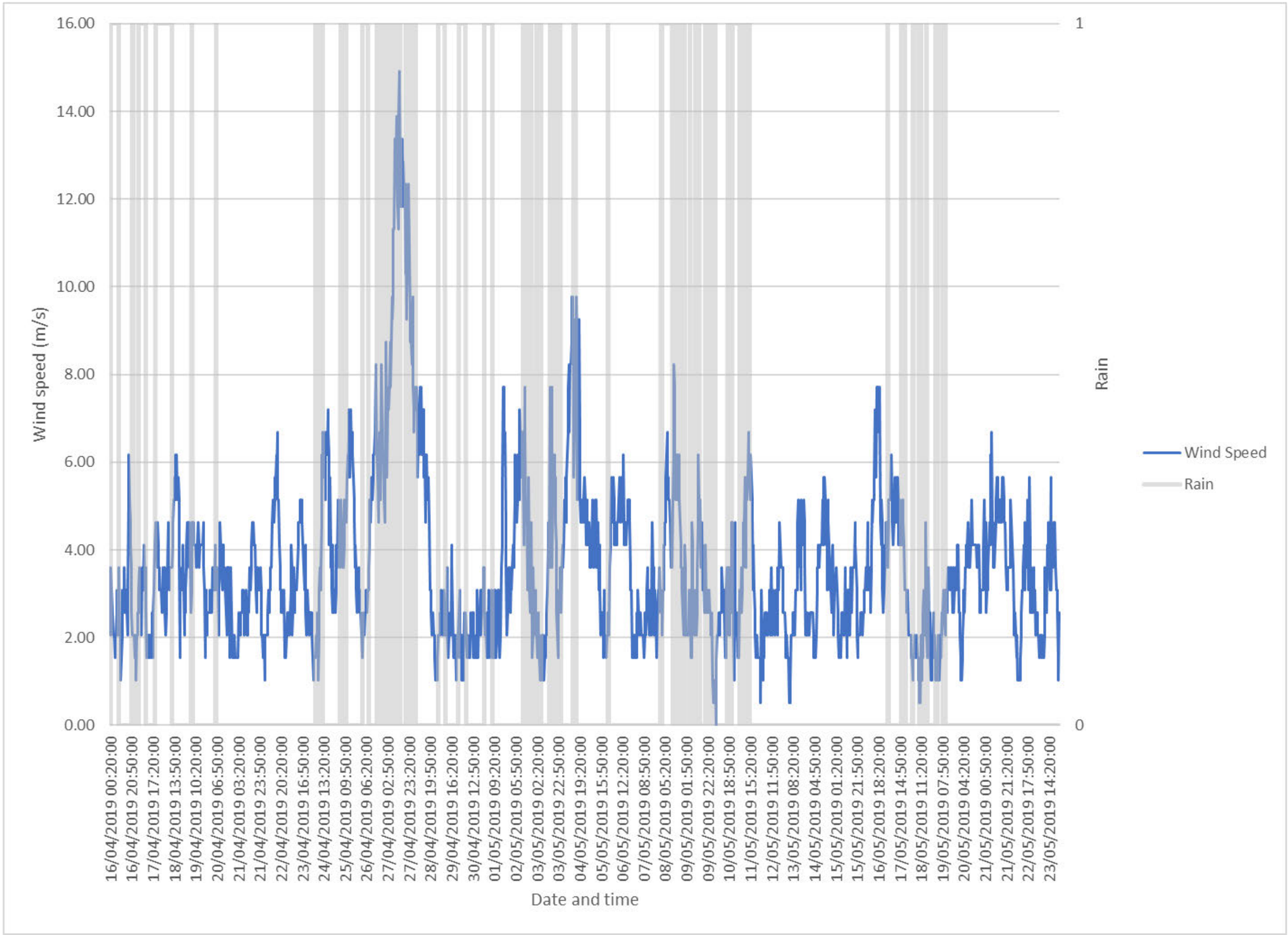


Figure 7.3: Weather Data from 1st February to 31st March 2020

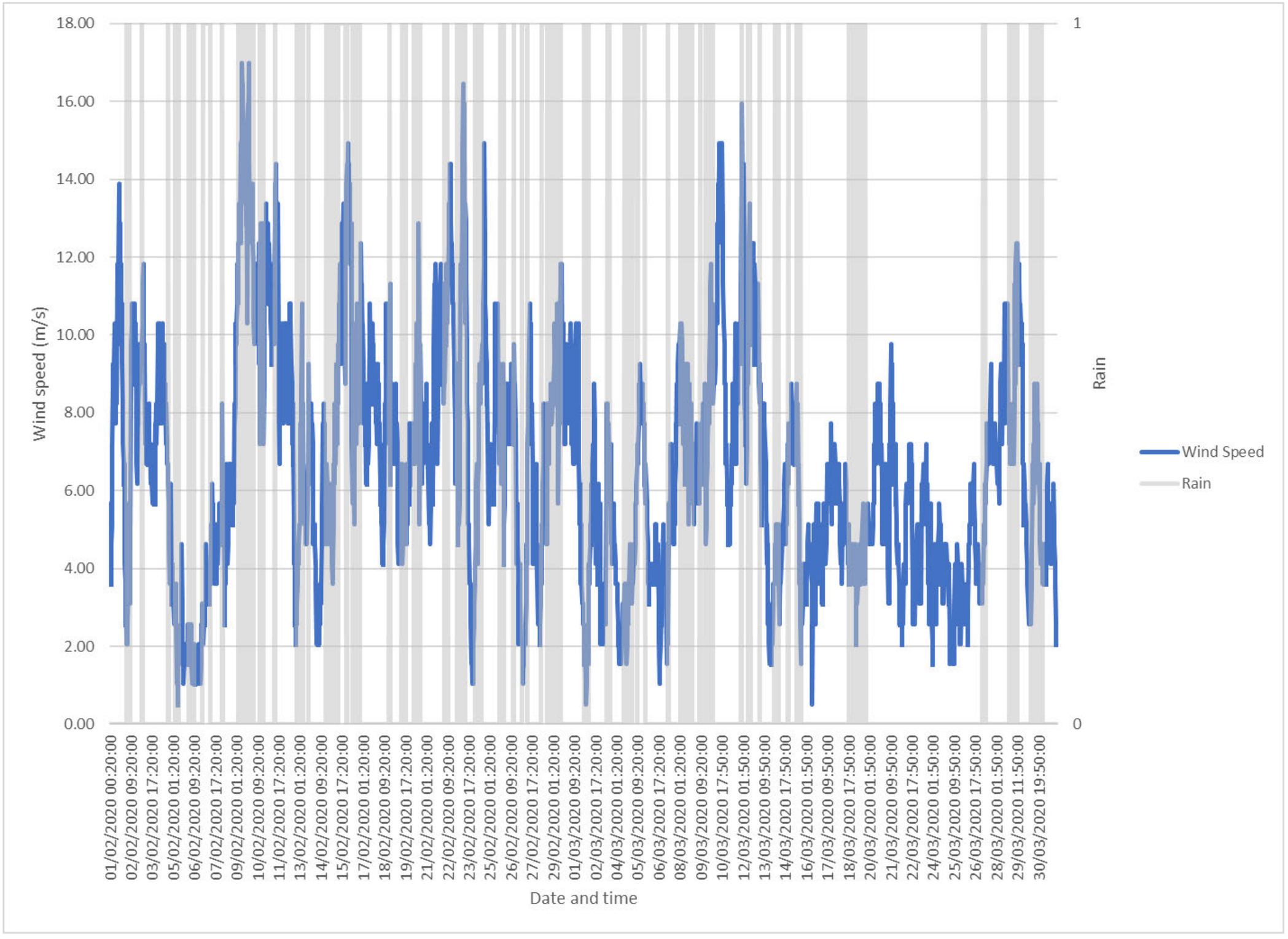


Figure 7.4: Weather Data from 13th July to 21st July 2021

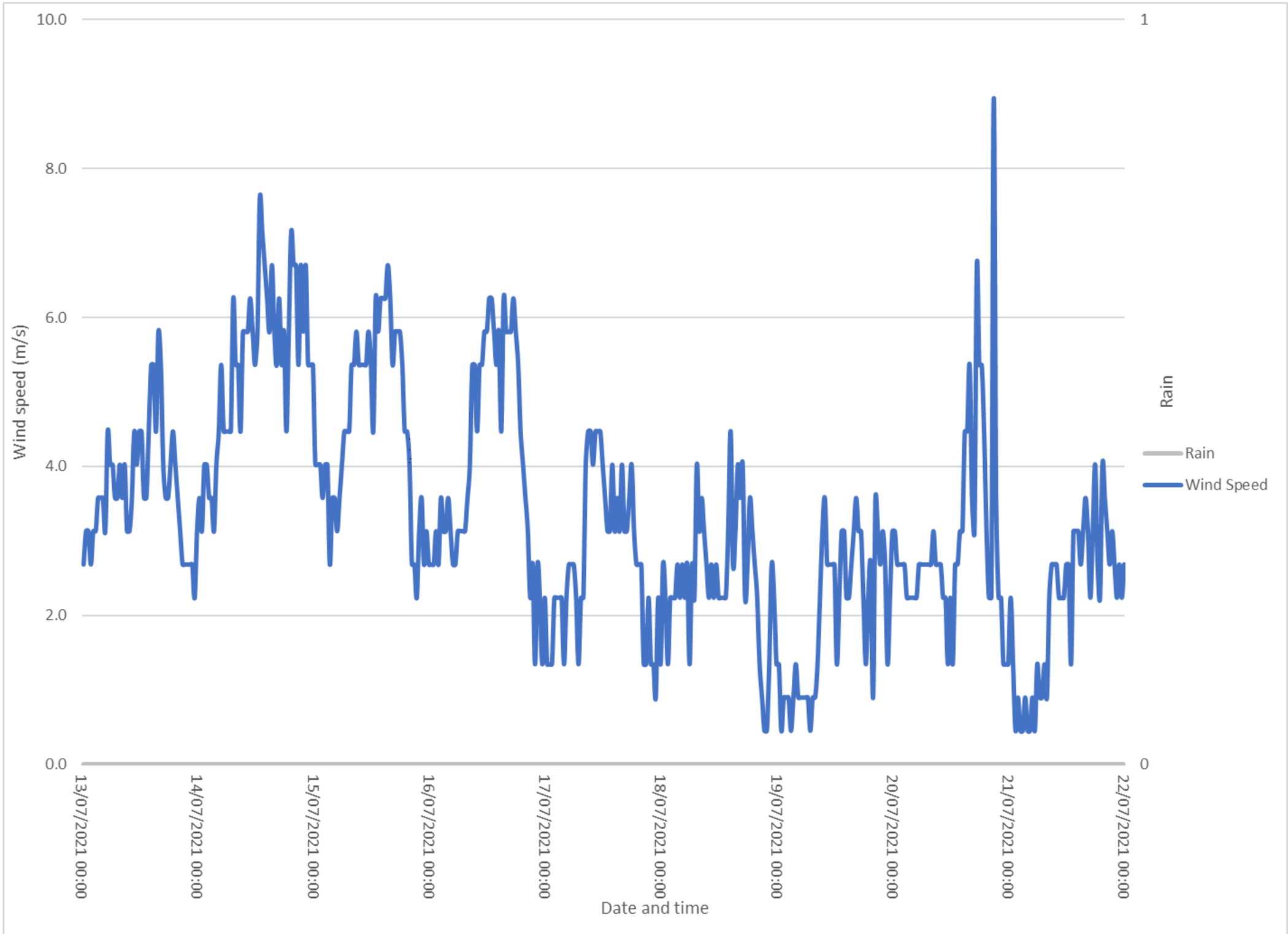
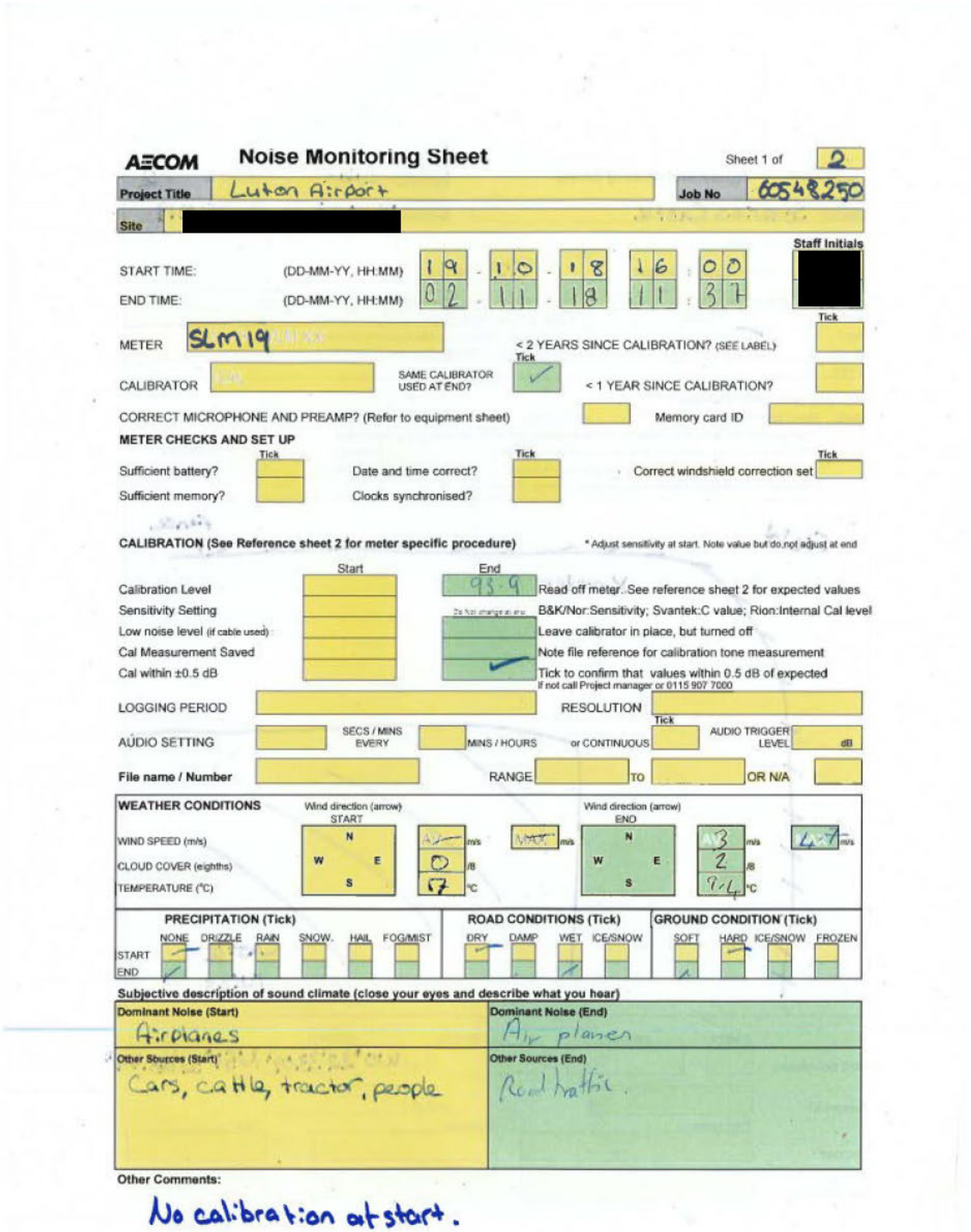


Figure 7.5: ML1 Monitoring Sheet (two sheets)



AECOM **Noise Monitoring Sheet** Sheet 1 of 2

Project Title: Luton Airport Job No: 60548250

Site: [redacted]

Staff Initials: [redacted]

START TIME: (DD-MM-YY, HH:MM) 19-10-18 16:00

END TIME: (DD-MM-YY, HH:MM) 02-11-18 11:37

METER: SLM19 [redacted] Tick: [ ]

CALIBRATOR: [redacted] SAME CALIBRATOR USED AT END? Tick: ✓ < 2 YEARS SINCE CALIBRATION? (SEE LABEL) Tick: [ ]

< 1 YEAR SINCE CALIBRATION? [ ]

CORRECT MICROPHONE AND PREAMP? (Refer to equipment sheet) [ ] Memory card ID [ ]

METER CHECKS AND SET UP

	Tick		Tick		Tick
Sufficient battery?	[ ]	Date and time correct?	[ ]	Correct windshield correction set	[ ]
Sufficient memory?	[ ]	Clocks synchronised?	[ ]		

CALIBRATION (See Reference sheet 2 for meter specific procedure) * Adjust sensitivity at start. Note value but do not adjust at end

	Start	End	
Calibration Level		93.9	Read off meter. See reference sheet 2 for expected values
Sensitivity Setting			B&K/Nor:Sensitivity; Svantek:C value; Rion:Internal Cal level
Low noise level (if cable used)			Leave calibrator in place, but turned off
Cal Measurement Saved			Note file reference for calibration tone measurement
Cal within ±0.5 dB		✓	Tick to confirm that values within 0.5 dB of expected

If not call Project manager or 0115 907 7000

LOGGING PERIOD [ ] RESOLUTION [ ]

AUDIO SETTING [ ] SECS / MINS EVERY [ ] MINS / HOURS or CONTINUOUS Tick: [ ] AUDIO TRIGGER LEVEL [ ] dB

File name / Number [ ] RANGE [ ] TO [ ] OR N/A [ ]

WEATHER CONDITIONS

	Wind direction (arrow) START		Wind direction (arrow) END	
WIND SPEED (m/s)	N W E S	AV m/s MAX m/s	N W E S	AV 3 m/s 4.7 m/s
CLOUD COVER (eighths)		0 /8		2 /8
TEMPERATURE (°C)		17 °C		9.4 °C

PRECIPITATION (Tick)							ROAD CONDITIONS (Tick)				GROUND CONDITION (Tick)			
	NONE	DRIZZLE	RAIN	SNOW	HAIL	FOG/MIST	DRY	DAMP	WET	ICE/SNOW	SOFT	HARD	ICE/SNOW	FROZEN
START	✓						✓							
END	✓								✓		✓			

Subjective description of sound climate (close your eyes and describe what you hear)

Dominant Noise (Start)	Dominant Noise (End)
Airplanes	Air planes
Other Sources (Start)	**Other Sources (End)**
Cars, cattle, tractor, people	Road traffic.

Other Comments:

No calibration at start.

AECOM **Noise Monitoring Sheet**

Project: Luton — Sheet 2 of 2

Site: [redacted] — Date: 19/10/18 — Meter: SLM19

EQUIPMENT LOCATION

MICROPHONE HEIGHT ABOVE GROUND: 1.2 METRES

MICROPHONE MOUNTED ON (TICK)				DISTANCE FROM VERTICAL SURFACE / FAÇADE (>3.5M OR =1M)	—
TRIPOD		A FRAME		LINE OF SIGHT FROM SOURCE TO RECEIVER? (Y/N)	
MAST	✓	FENCE		ACTUAL OR POTENTIAL NOISE SOURCES NEARBY? (EG AHU / HVAC / SUBSTATION / CAT SCARER ETC)	
OTHER					
OTHER					

Plan view sketch with distances.

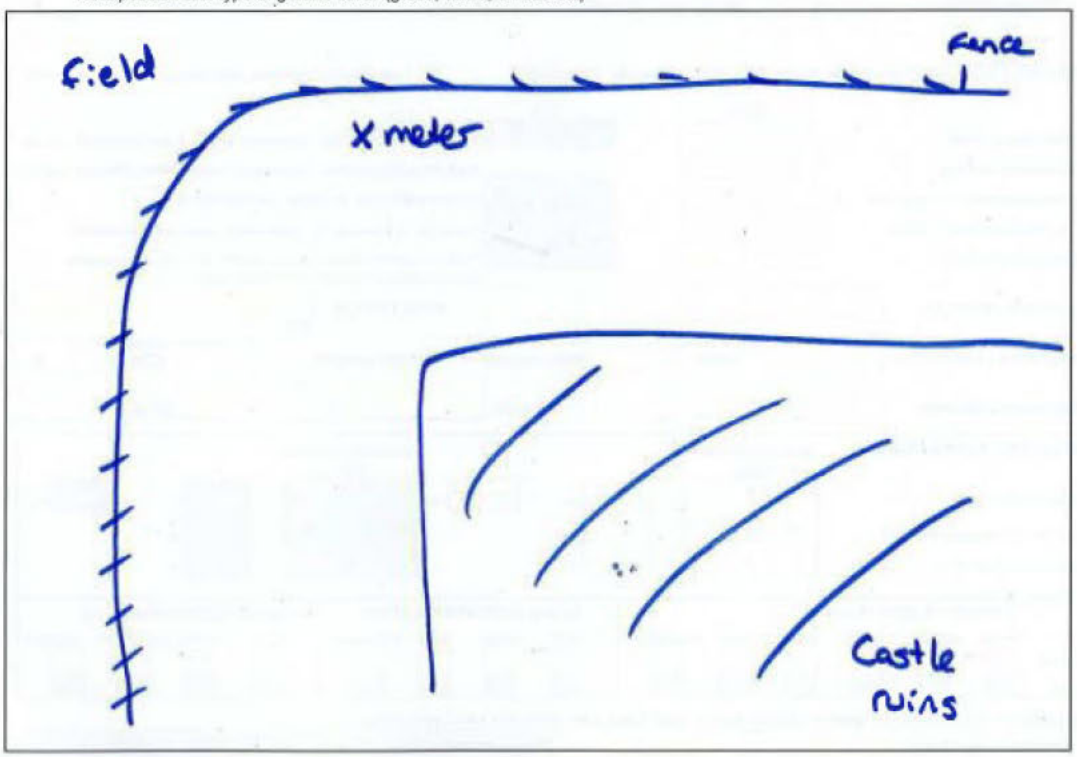
Mark: Meter location — North arrow — Main audible and potential noise souces

Photographic direction and positions (meter installed and all round view of surroundings)

Distance to nearest roads and other noise sources (identify) — estimate / measured

Note position, height and construction material of barriers. — estimate / measured

Note position and type of ground cover (grass, stone, shrubs etc)

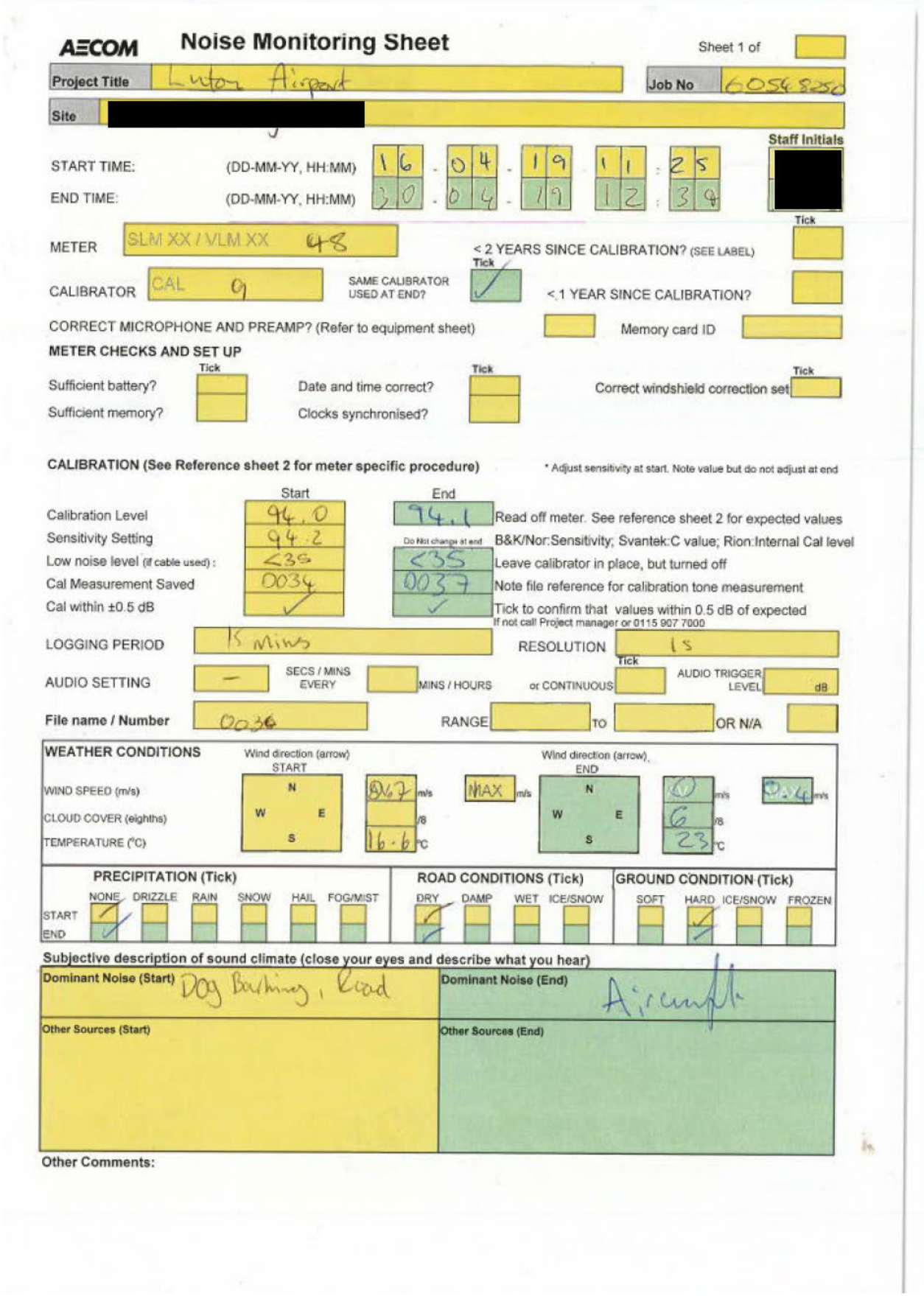


	2 letters	5 numbers	5 numbers		east/west	north/south
GPS Coordinates				or	W0°22'33.09"	N51°52'08.79"

Camera ID: — GPS ID

	Print name	Signature	Date
Site staff			
QA checked			

Figure 7.6: ML2 Monitoring Sheet (two sheets)



AECOM **Noise Monitoring Sheet** Sheet 1 of

Project Title: Luton Airport — Job No: 60548250

Site: [redacted]

Staff Initials: [redacted]

START TIME: (DD-MM-YY, HH:MM) 16 . 04 . 19 11 : 25

END TIME: (DD-MM-YY, HH:MM) 30 . 04 . 19 12 : 39

METER: SLM XX / VLM XX 48 — < 2 YEARS SINCE CALIBRATION? (SEE LABEL) — Tick

CALIBRATOR: CAL 09 — SAME CALIBRATOR USED AT END? Tick ✓ — <1 YEAR SINCE CALIBRATION? — Tick

CORRECT MICROPHONE AND PREAMP? (Refer to equipment sheet) — Memory card ID

METER CHECKS AND SET UP

	Tick		Tick		Tick
Sufficient battery?		Date and time correct?		Correct windshield correction set	
Sufficient memory?		Clocks synchronised?			

CALIBRATION (See Reference sheet 2 for meter specific procedure) * Adjust sensitivity at start. Note value but do not adjust at end

	Start	End	
Calibration Level	94.0	94.1	Read off meter. See reference sheet 2 for expected values
Sensitivity Setting	94.2	Do Not change at end	B&K/Nor:Sensitivity; Svantek:C value; Rion:Internal Cal level
Low noise level (if cable used) :	<35	<35	Leave calibrator in place, but turned off
Cal Measurement Saved	0034	0037	Note file reference for calibration tone measurement
Cal within ±0.5 dB	✓	✓	Tick to confirm that values within 0.5 dB of expected. If not call Project manager on 0115 907 7000

LOGGING PERIOD: 15 Mins — RESOLUTION: 1s

AUDIO SETTING: – — SECS / MINS EVERY — MINS / HOURS — or CONTINUOUS Tick — AUDIO TRIGGER LEVEL dB

File name / Number: 0036 — RANGE TO — OR N/A

WEATHER CONDITIONS

	Wind direction (arrow) START		Wind direction (arrow) END		
WIND SPEED (m/s)		8.7 m/s	MAX m/s	0 m/s	0.4 m/s
CLOUD COVER (eighths)		/8		6 /8	
TEMPERATURE (°C)		16.6 °C		23 °C	

PRECIPITATION (Tick)

	NONE	DRIZZLE	RAIN	SNOW	HAIL	FOG/MIST
START	✓					
END	✓					

ROAD CONDITIONS (Tick)

	DRY	DAMP	WET	ICE/SNOW
START	✓			
END	✓			

GROUND CONDITION (Tick)

	SOFT	HARD	ICE/SNOW	FROZEN
START		✓		
END		✓		

Subjective description of sound climate (close your eyes and describe what you hear)

Dominant Noise (Start)	Dominant Noise (End)
Dog Barking, Road	Aircraft
Other Sources (Start)	Other Sources (End)

Other Comments:

AECOM **Noise Monitoring Sheet**

Project		Sheet 2 of			
Site		Date		Meter	

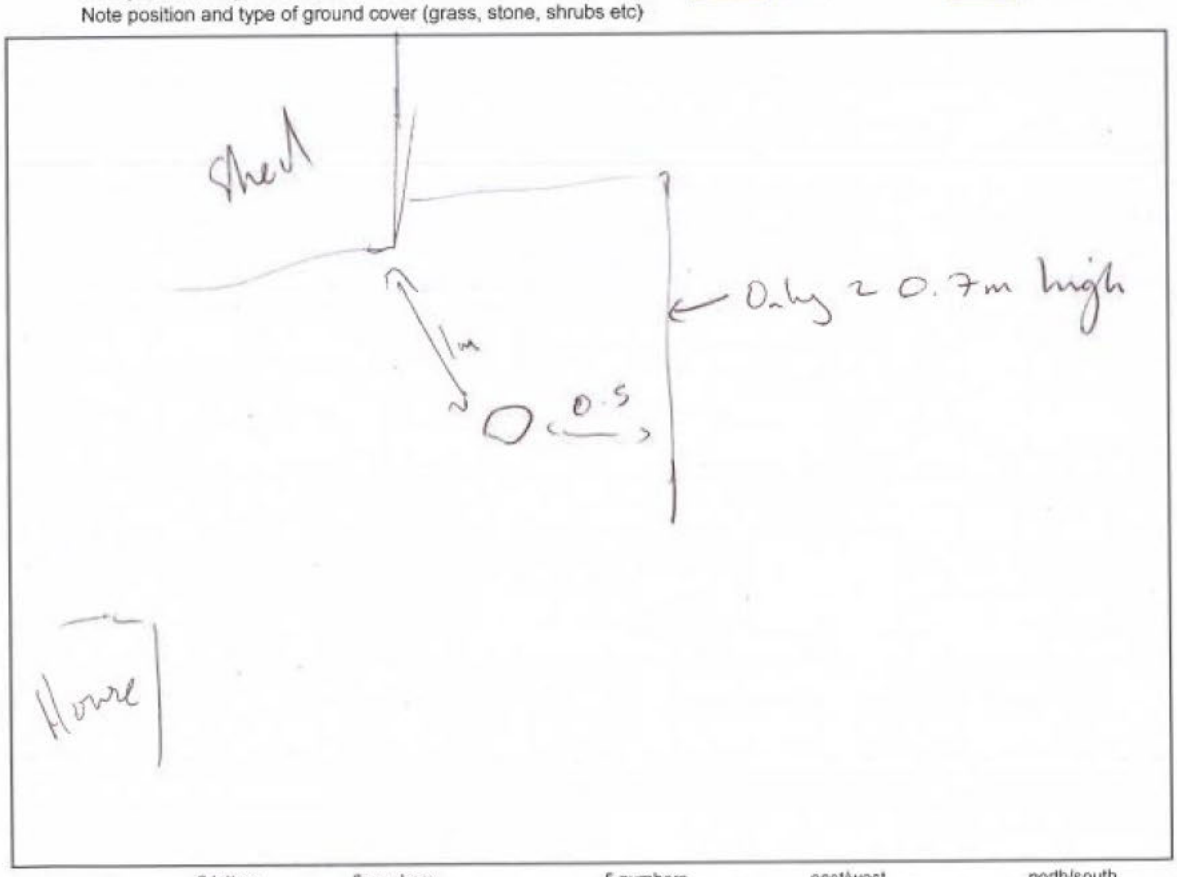
EQUIPMENT LOCATION

MICROPHONE HEIGHT ABOVE GROUND 1·5 METRES

MICROPHONE MOUNTED ON (TICK)				DISTANCE FROM VERTICAL SURFACE / FAÇADE (>3.5M OR =1M)	1m
TRIPOD	✓	A FRAME		LINE OF SIGHT FROM SOURCE TO RECEIVER? (Y/N)	
MAST		FENCE		ACTUAL OR POTENTIAL NOISE SOURCES NEARBY? (EG AHU / HVAC / SUBSTATION / CAT SCARER ETC)	
OTHER					
OTHER					

Plan view sketch with distances.

Mark: Meter location North arrow Main audible and potential noise souces
Photographic direction and positions (meter installed and all round view of surroundings)
Distance to nearest roads and other noise sources (identify) 3m estimate measured
Note position, height and construction material of barriers. estimate measured
Note position and type of ground cover (grass, stone, shrubs etc)

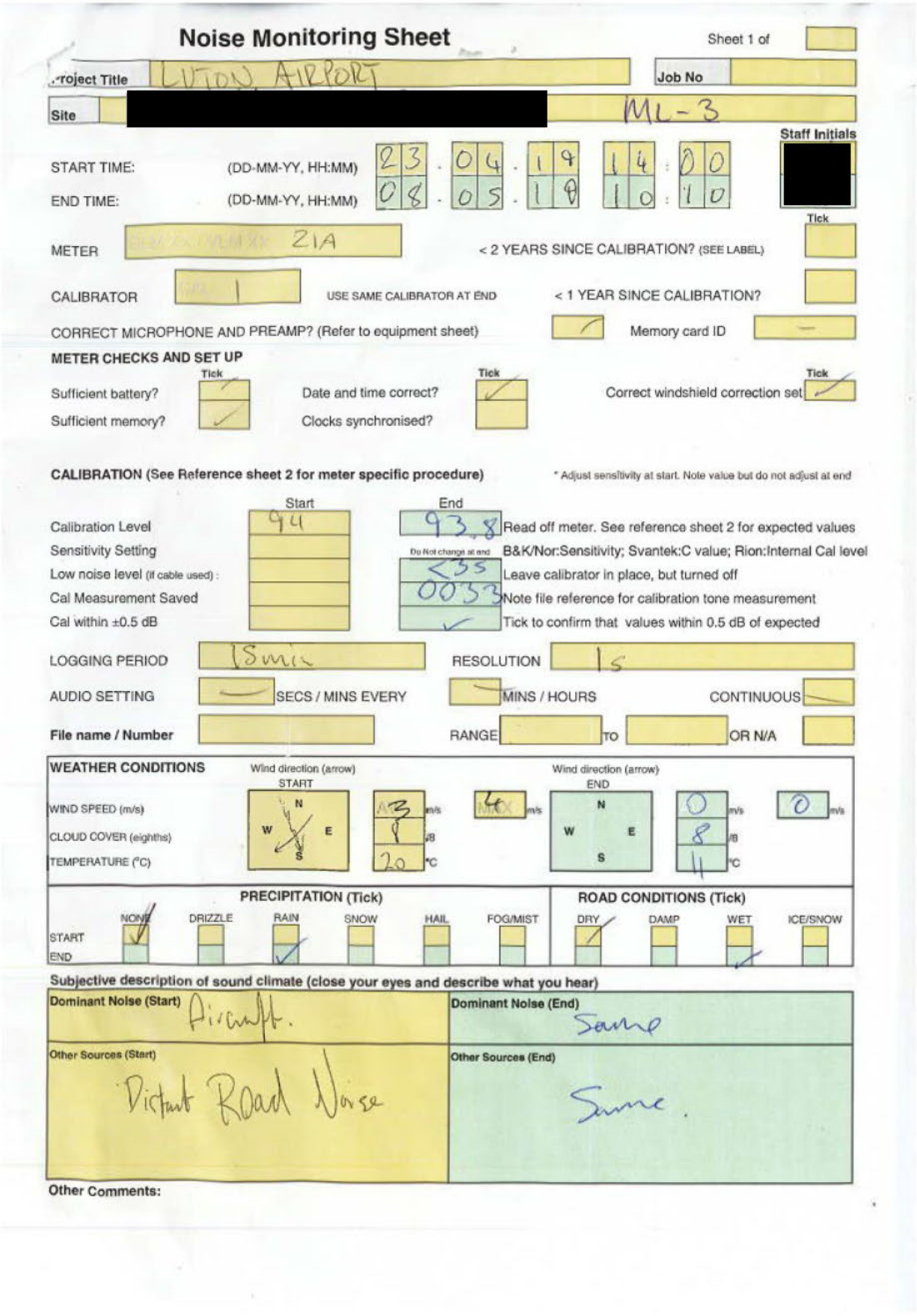


	2 letters	5 numbers	5 numbers	east/west	north/south
GPS Coordinates	TL	148281	21359	or	

Camera ID: GPS ID

	Print name	Signature	Date
Site staff	[redacted]	[redacted]	16/4/19
QA checked			

Figure 7.7: ML3 Monitoring Sheet (two sheets)



Noise Monitoring Sheet Sheet 1 of

Project Title: LUTON AIRPORT Job No:

Site: [redacted] ML-3

Staff Initials: [redacted]

START TIME: (DD-MM-YY, HH:MM) 23 . 04 . 19 14 : 00

END TIME: (DD-MM-YY, HH:MM) 08 . 05 . 19 10 : 10

METER [redacted] Z1A < 2 YEARS SINCE CALIBRATION? (SEE LABEL) Tick

CALIBRATOR [redacted] USE SAME CALIBRATOR AT END < 1 YEAR SINCE CALIBRATION?

CORRECT MICROPHONE AND PREAMP? (Refer to equipment sheet) ✓ Memory card ID —

METER CHECKS AND SET UP

	Tick		Tick		Tick
Sufficient battery?	✓	Date and time correct?	✓	Correct windshield correction set	✓
Sufficient memory?	✓	Clocks synchronised?			

CALIBRATION (See Reference sheet 2 for meter specific procedure) * Adjust sensitivity at start. Note value but do not adjust at end

	Start	End	
Calibration Level	94	93.8	Read off meter. See reference sheet 2 for expected values
Sensitivity Setting		Do Not change at end	B&K/Nor:Sensitivity; Svantek:C value; Rion:Internal Cal level
Low noise level (if cable used) :		35	Leave calibrator in place, but turned off
Cal Measurement Saved		0033	Note file reference for calibration tone measurement
Cal within ±0.5 dB		✓	Tick to confirm that values within 0.5 dB of expected

LOGGING PERIOD 15min RESOLUTION 1s

AUDIO SETTING — SECS / MINS EVERY — MINS / HOURS CONTINUOUS ✓

File name / Number RANGE TO OR N/A

WEATHER CONDITIONS

	Wind direction (arrow) START		Wind direction (arrow) END	
WIND SPEED (m/s)	N W E S	13 m/s	MAX m/s	0 m/s
CLOUD COVER (eighths)		8 /8		8 /8
TEMPERATURE (°C)		20 °C		11 °C

PRECIPITATION (Tick)	NONE	DRIZZLE	RAIN	SNOW	HAIL	FOG/MIST
START	✓					
END			✓			

ROAD CONDITIONS (Tick)	DRY	DAMP	WET	ICE/SNOW
START	✓			
END			✓	

Subjective description of sound climate (close your eyes and describe what you hear)

Dominant Noise (Start)	Dominant Noise (End)
Aircraft.	Same
Other Sources (Start)	**Other Sources (End)**
Distant Road Noise	Same.

Other Comments:

2

Noise Monitoring Sheet

Project

Sheet 2 of

Site

Date

Meter

EQUIPMENT LOCATION

MICROPHONE HEIGHT ABOVE GROUND 1.5 METRES

MICROPHONE MOUNTED ON (TICK)				DISTANCE FROM VERTICAL SURFACE / FAÇADE (>3.5M OR =1M)	>3.5
TRIPOD		A FRAME		LINE OF SIGHT FROM SOURCE TO RECEIVER? (Y/N)	Y
MAST	✓	FENCE		ACTUAL OR POTENTIAL NOISE SOURCES NEARBY? (EG AHU / HVAC / SUBSTATION / CAT SCARER ETC)	
OTHER					
OTHER					

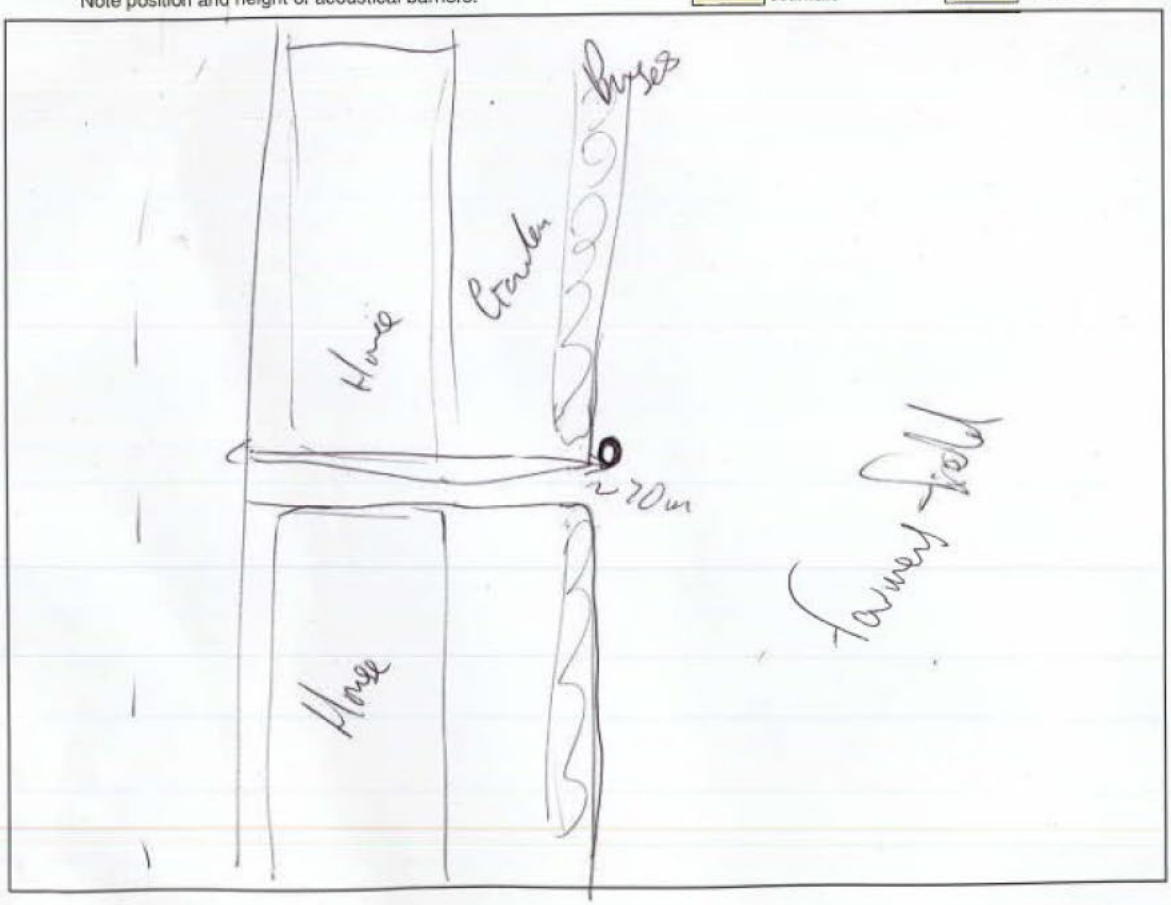
Plan view sketch with distances.

Mark: Meter location North arrow Main audible and potential noise souces

Photographic direction and positions (meter installed and all round view of surroundings)

Distance to nearest roads and other noise sources (identify) 20m estimate measured

Note position and height of acoustical barriers. estimate measured



	2 letters	5 numbers	5 numbers	east/west	north/south
GPS Coordinates	TL	21634	22577	or	

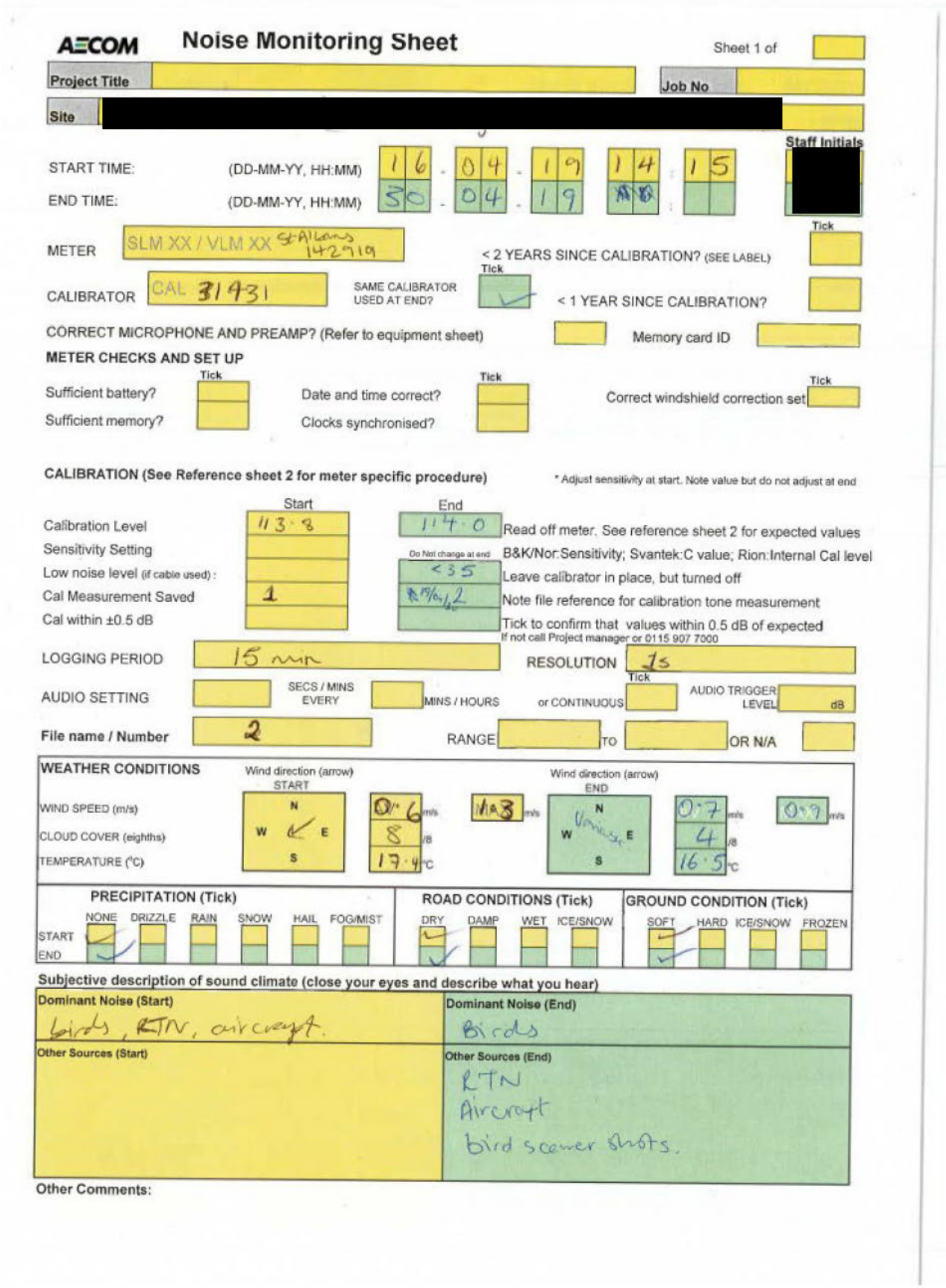
Camera ID: GPS ID

Signature Date

Site staff [redacted] 23/4/19

QA checked

Figure 7.8: ML4 Monitoring Sheet – Part 1 (two sheets)



AECOM **Noise Monitoring Sheet** Sheet 1 of

Project Title | Job No | Site [redacted]

Staff Initials [redacted]

START TIME: (DD-MM-YY, HH:MM) 16 - 04 - 19 14 : 15

END TIME: (DD-MM-YY, HH:MM) 30 - 04 - 19 [illegible] :

METER SLM XX / VLM XX Stalons 142919 — < 2 YEARS SINCE CALIBRATION? (SEE LABEL) Tick

CALIBRATOR CAL 31431 — SAME CALIBRATOR USED AT END? Tick ✓ — < 1 YEAR SINCE CALIBRATION? Tick

CORRECT MICROPHONE AND PREAMP? (Refer to equipment sheet) Tick — Memory card ID

METER CHECKS AND SET UP

	Tick		Tick		Tick
Sufficient battery?		Date and time correct?		Correct windshield correction set	
Sufficient memory?		Clocks synchronised?			

CALIBRATION (See Reference sheet 2 for meter specific procedure) * Adjust sensitivity at start. Note value but do not adjust at end

	Start	End	
Calibration Level	113.8	114.0	Read off meter. See reference sheet 2 for expected values
Sensitivity Setting		Do Not change at end	B&K/Nor:Sensitivity; Svantek:C value; Rion:Internal Cal level
Low noise level (if cable used) :		<35	Leave calibrator in place, but turned off
Cal Measurement Saved	1	[illegible]	Note file reference for calibration tone measurement
Cal within ±0.5 dB			Tick to confirm that values within 0.5 dB of expected

If not call Project manager or 0115 907 7000

LOGGING PERIOD 15 min — RESOLUTION 1s

AUDIO SETTING — SECS / MINS EVERY — MINS / HOURS — or CONTINUOUS Tick — AUDIO TRIGGER LEVEL dB

File name / Number 2 — RANGE TO — OR N/A Tick

WEATHER CONDITIONS

	Wind direction (arrow) START		Wind direction (arrow) END	
WIND SPEED (m/s)	N W E S	0.6 m/s	N/A m/s	0.7 m/s — 0.9 m/s
CLOUD COVER (eighths)		8 /8		4 /8
TEMPERATURE (°C)		17.4 °C		16.5 °C

PRECIPITATION (Tick)							ROAD CONDITIONS (Tick)				GROUND CONDITION (Tick)			
	NONE	DRIZZLE	RAIN	SNOW	HAIL	FOG/MIST	DRY	DAMP	WET	ICE/SNOW	SOFT	HARD	ICE/SNOW	FROZEN
START														
END	✓						✓				✓			

Subjective description of sound climate (close your eyes and describe what you hear)

Dominant Noise (Start)	Dominant Noise (End)
birds, RTN, aircraft.	Birds
Other Sources (Start)	**Other Sources (End)**
	RTN Aircraft bird scarer shots.

Other Comments:

AECOM **Noise Monitoring Sheet**

Project		Sheet 2 of			
Site		Date		Meter	

EQUIPMENT LOCATION

MICROPHONE HEIGHT ABOVE GROUND 1·5 METRES

MICROPHONE MOUNTED ON (TICK)				DISTANCE FROM VERTICAL SURFACE / FAÇADE (>3.5M OR =1M)	
TRIPOD		A FRAME		LINE OF SIGHT FROM SOURCE TO RECEIVER? (Y/N)	
MAST	✓	FENCE		ACTUAL OR POTENTIAL NOISE SOURCES NEARBY? (EG AHU / HVAC / SUBSTATION / CAT SCARER ETC)	
OTHER					
OTHER					

Plan view sketch with distances.

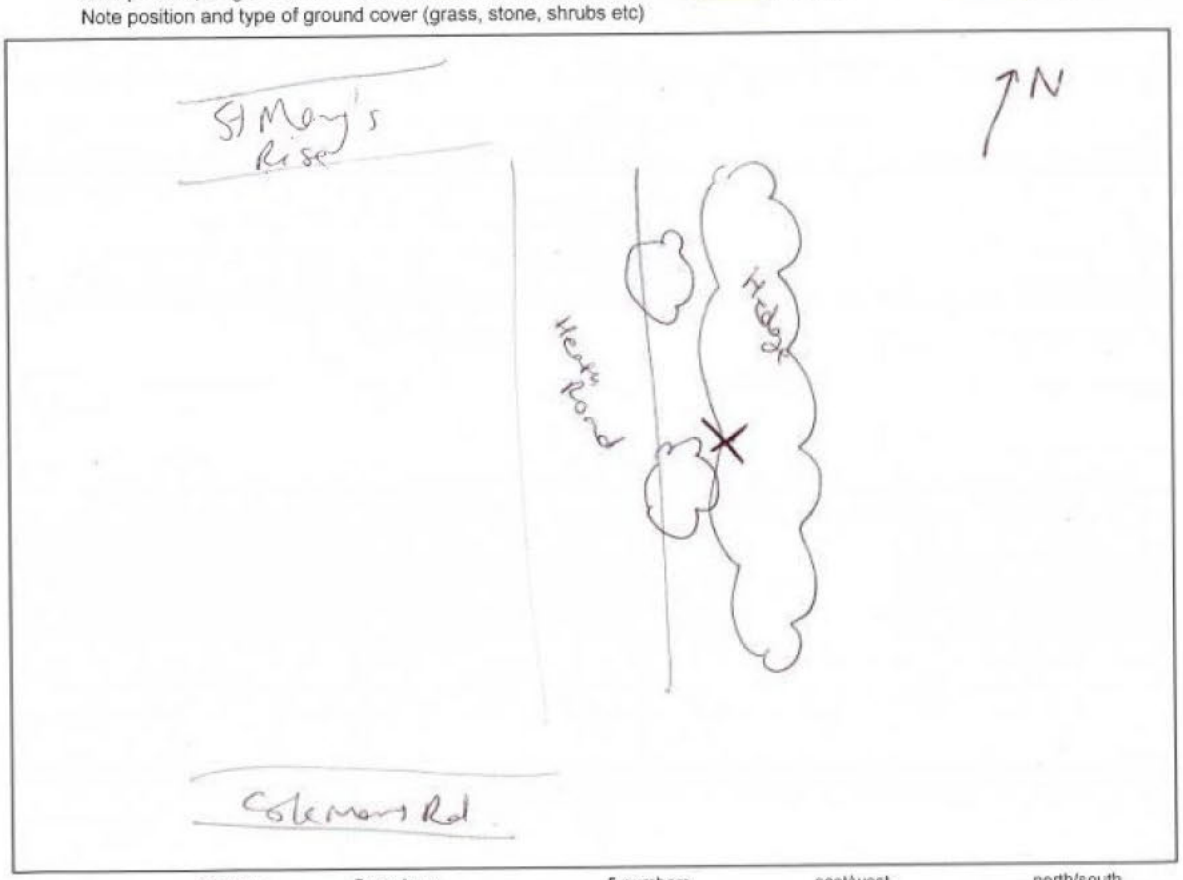
Mark: Meter location North arrow Main audible and potential noise souces

Photographic direction and positions (meter installed and all round view of surroundings)

Distance to nearest roads and other noise sources (identify) estimate measured

Note position, height and construction material of barriers. estimate measured

Note position and type of ground cover (grass, stone, shrubs etc)

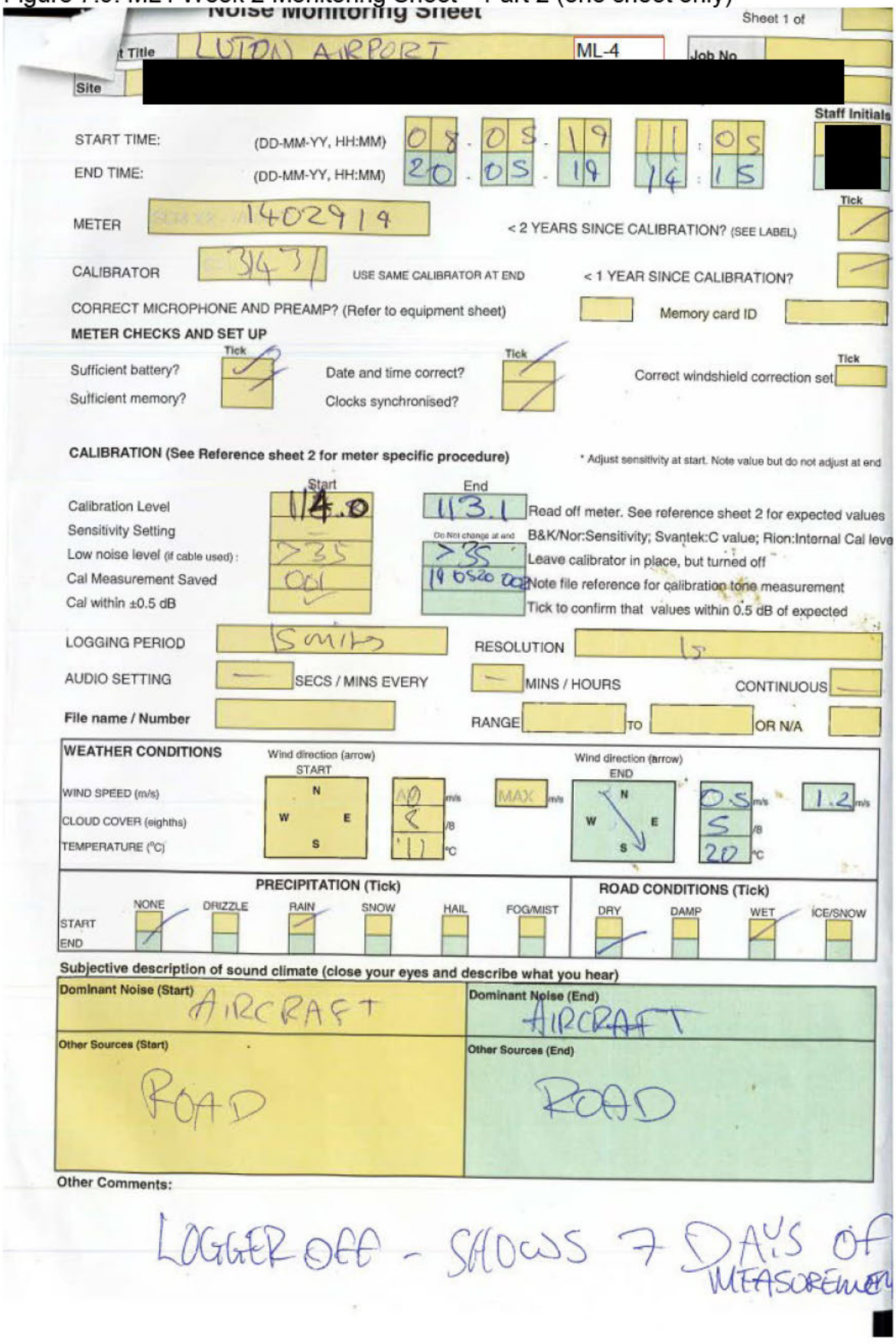


	2 letters	5 numbers	5 numbers	east/west	north/south
GPS Coordinates	TL	~~15~~ 14993	22230	or	

Camera ID: GPS ID

	Print name	Signature	Date
Site staff	[redacted]	[redacted]	16/4/18
QA checked	[redacted]		

Figure 7.9: ML4 Week 2 Monitoring Sheet – Part 2 (one sheet only)



Noise Monitoring Sheet — Sheet 1 of

t Title: LUTON AIRPORT — ML-4 — Job No

Site: [redacted]

Staff Initials: [redacted]

START TIME: (DD-MM-YY, HH:MM) 08.05.19 11:05

END TIME: (DD-MM-YY, HH:MM) 20.05.19 14:15

METER: 1402914 — < 2 YEARS SINCE CALIBRATION? (SEE LABEL) — Tick

CALIBRATOR: 3437 — USE SAME CALIBRATOR AT END — < 1 YEAR SINCE CALIBRATION?

CORRECT MICROPHONE AND PREAMP? (Refer to equipment sheet) — Memory card ID

METER CHECKS AND SET UP

Sufficient battery? — Tick
Sufficient memory?
Date and time correct? — Tick
Clocks synchronised?
Correct windshield correction set — Tick

CALIBRATION (See Reference sheet 2 for meter specific procedure) * Adjust sensitivity at start. Note value but do not adjust at end

	Start	End	
Calibration Level	114.0	113.1	Read off meter. See reference sheet 2 for expected values
Sensitivity Setting		Do Not change at end	B&K/Nor:Sensitivity; Svantek:C value; Rion:Internal Cal leve
Low noise level (if cable used) :	>35	>35	Leave calibrator in place, but turned off
Cal Measurement Saved	Ch1	19 0520 002	Note file reference for calibration tone measurement
Cal within ±0.5 dB	✓		Tick to confirm that values within 0.5 dB of expected

LOGGING PERIOD: 5 MINS — RESOLUTION: 1s

AUDIO SETTING: — SECS / MINS EVERY — MINS / HOURS — CONTINUOUS

File name / Number — RANGE TO OR N/A

WEATHER CONDITIONS

	Start	End
Wind direction (arrow)	N	N
WIND SPEED (m/s)	AV 2 m/s, MAX m/s	0.5 m/s, 1.2 m/s
CLOUD COVER (eighths)	8 /8	5 /8
TEMPERATURE (°C)	11 °C	20 °C

PRECIPITATION (Tick)

	NONE	DRIZZLE	RAIN	SNOW	HAIL	FOG/MIST
START	✓		✓			
END						

ROAD CONDITIONS (Tick)

	DRY	DAMP	WET	ICE/SNOW
	✓		✓	

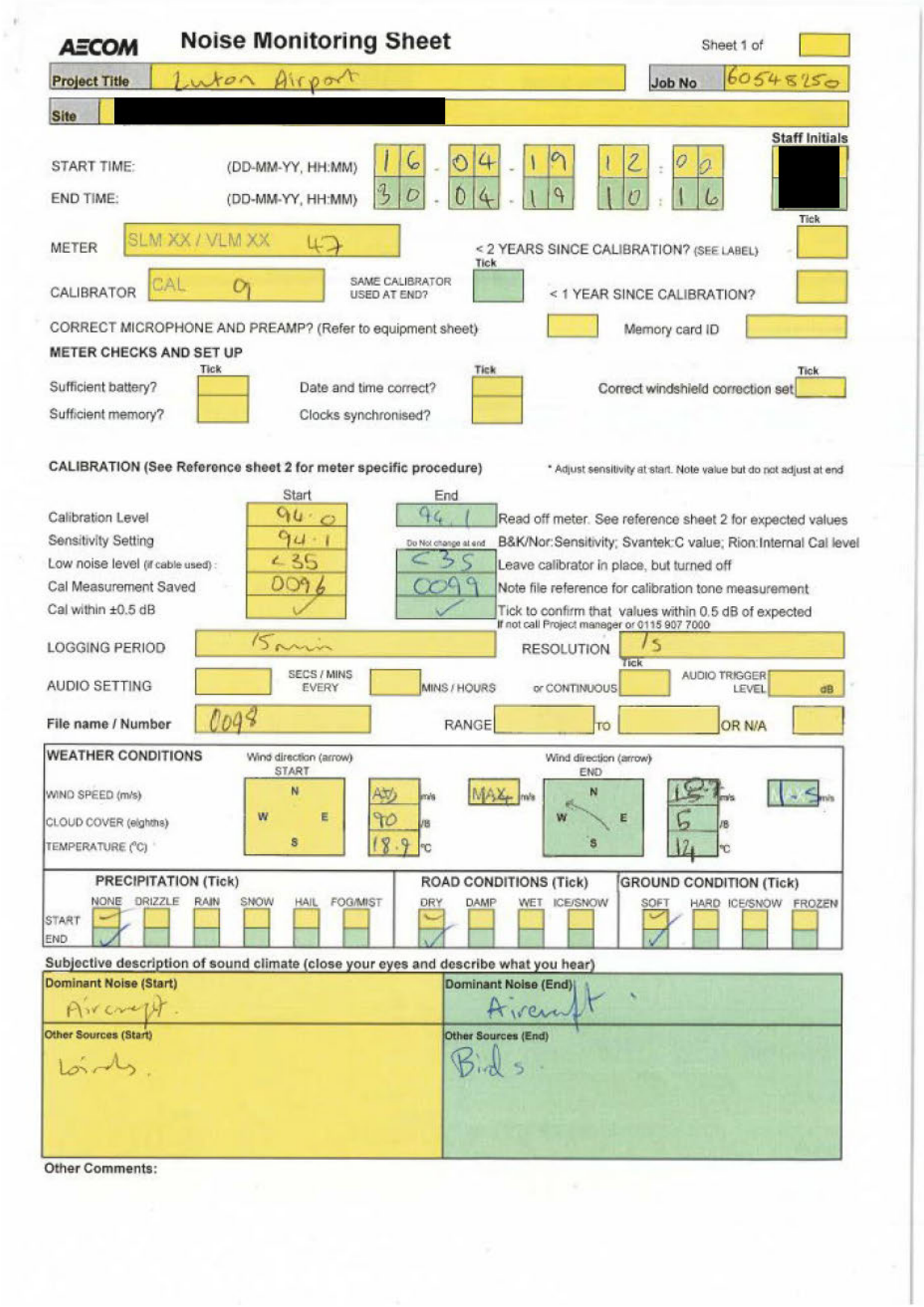
Subjective description of sound climate (close your eyes and describe what you hear)

Dominant Noise (Start)	Dominant Noise (End)
AIRCRAFT	AIRCRAFT
Other Sources (Start)	**Other Sources (End)**
ROAD	ROAD

Other Comments:

LOGGER OFF - SHOWS 7 DAYS OF MEASUREMENT

Figure 7.10: ML5 Monitoring Sheet (two sheets)



AECOM **Noise Monitoring Sheet** Sheet 1 of

Project Title: Luton Airport Job No: 60548250

Site: [redacted]

Staff Initials: [redacted]

START TIME: (DD-MM-YY, HH:MM) 16-04-19 12:00

END TIME: (DD-MM-YY, HH:MM) 30-04-19 10:16

METER: SLM XX / VLM XX 47 — < 2 YEARS SINCE CALIBRATION? (SEE LABEL) Tick

CALIBRATOR: CAL 09 — SAME CALIBRATOR USED AT END? Tick — < 1 YEAR SINCE CALIBRATION? Tick

CORRECT MICROPHONE AND PREAMP? (Refer to equipment sheet) Memory card ID

METER CHECKS AND SET UP

Sufficient battery? Tick — Date and time correct? Tick — Correct windshield correction set Tick

Sufficient memory? — Clocks synchronised?

CALIBRATION (See Reference sheet 2 for meter specific procedure) * Adjust sensitivity at start. Note value but do not adjust at end

	Start	End	
Calibration Level	94.0	94.1	Read off meter. See reference sheet 2 for expected values
Sensitivity Setting	94.1	Do Not change at end	B&K/Nor:Sensitivity; Svantek:C value; Rion:Internal Cal level
Low noise level (if cable used) :	<35	<35	Leave calibrator in place, but turned off
Cal Measurement Saved	0096	0099	Note file reference for calibration tone measurement
Cal within ±0.5 dB	✓	✓	Tick to confirm that values within 0.5 dB of expected

If not call Project manager or 0115 907 7000

LOGGING PERIOD: 15min RESOLUTION: 1s

AUDIO SETTING: SECS / MINS EVERY: MINS / HOURS: or CONTINUOUS Tick: AUDIO TRIGGER LEVEL: dB

File name / Number: 0098 RANGE: TO: OR N/A

WEATHER CONDITIONS

	Wind direction (arrow) START		Wind direction (arrow) END	
WIND SPEED (m/s)	AV 4 m/s	MAX 6 m/s	12.7 m/s	N.S m/s
CLOUD COVER (eighths)	90 /8		5 /8	
TEMPERATURE (°C)	18.9 °C		12 °C	

PRECIPITATION (Tick)							ROAD CONDITIONS (Tick)				GROUND CONDITION (Tick)			
	NONE	DRIZZLE	RAIN	SNOW	HAIL	FOG/MIST	DRY	DAMP	WET	ICE/SNOW	SOFT	HARD	ICE/SNOW	FROZEN
START	✓						✓				✓			
END	✓						✓				✓			

Subjective description of sound climate (close your eyes and describe what you hear)

Dominant Noise (Start)	Dominant Noise (End)
Aircraft.	Aircraft.
Other Sources (Start)	**Other Sources (End)**
Birds.	Birds.

Other Comments:

AECOM **Noise Monitoring Sheet**

Project		Sheet 2 of	
Site		**Date**		**Meter**	

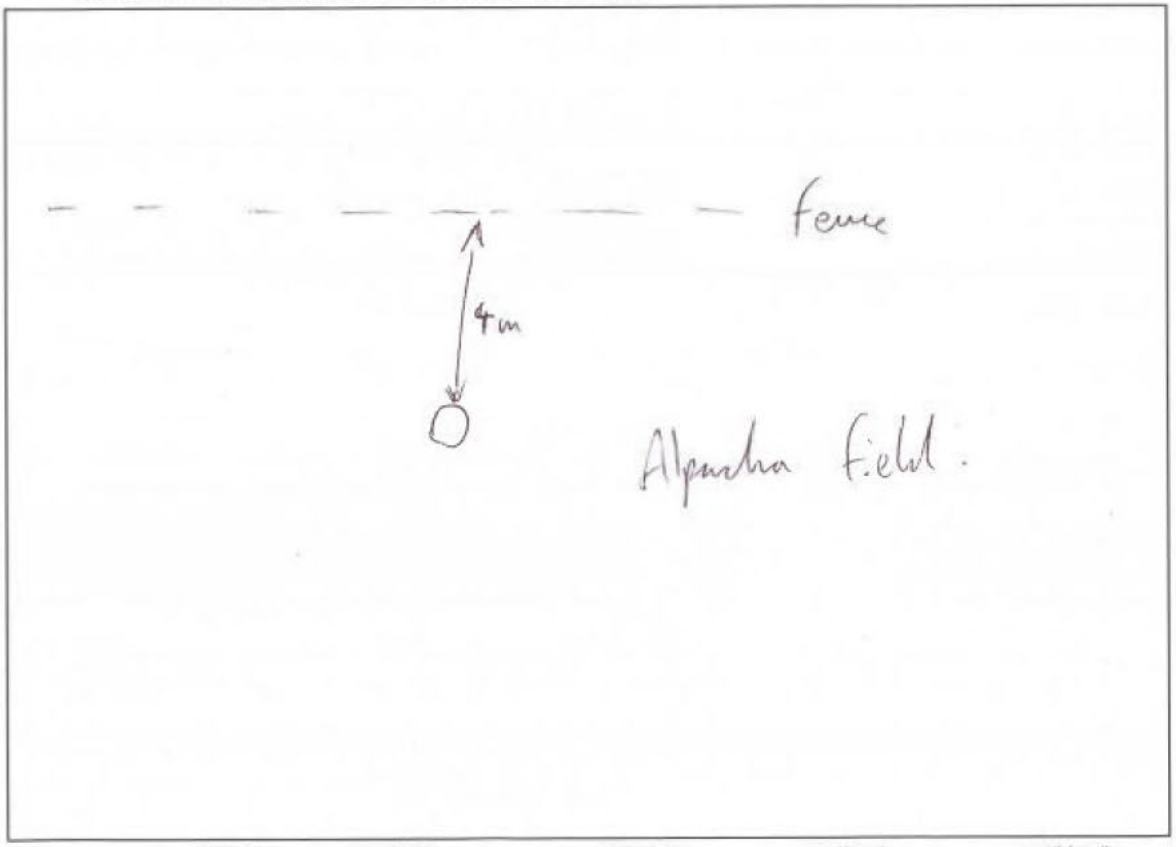
EQUIPMENT LOCATION

MICROPHONE HEIGHT ABOVE GROUND 1.5 METRES

MICROPHONE MOUNTED ON (TICK)				DISTANCE FROM VERTICAL SURFACE / FAÇADE (>3.5M OR =1M)	73.5m
TRIPOD	✓	A FRAME		LINE OF SIGHT FROM SOURCE TO RECEIVER? (Y/N)	Yes
MAST		FENCE		ACTUAL OR POTENTIAL NOISE SOURCES NEARBY?	
OTHER				(EG AHU / HVAC / SUBSTATION / CAT SCARER ETC)	
OTHER					

Plan view sketch with distances.

Mark: Meter location North arrow Main audible and potential noise souces
Photographic direction and positions (meter installed and all round view of surroundings)
Distance to nearest roads and other noise sources (identify) estimate measured
Note position, height and construction material of barriers. estimate measured
Note position and type of ground cover (grass, stone, shrubs etc)

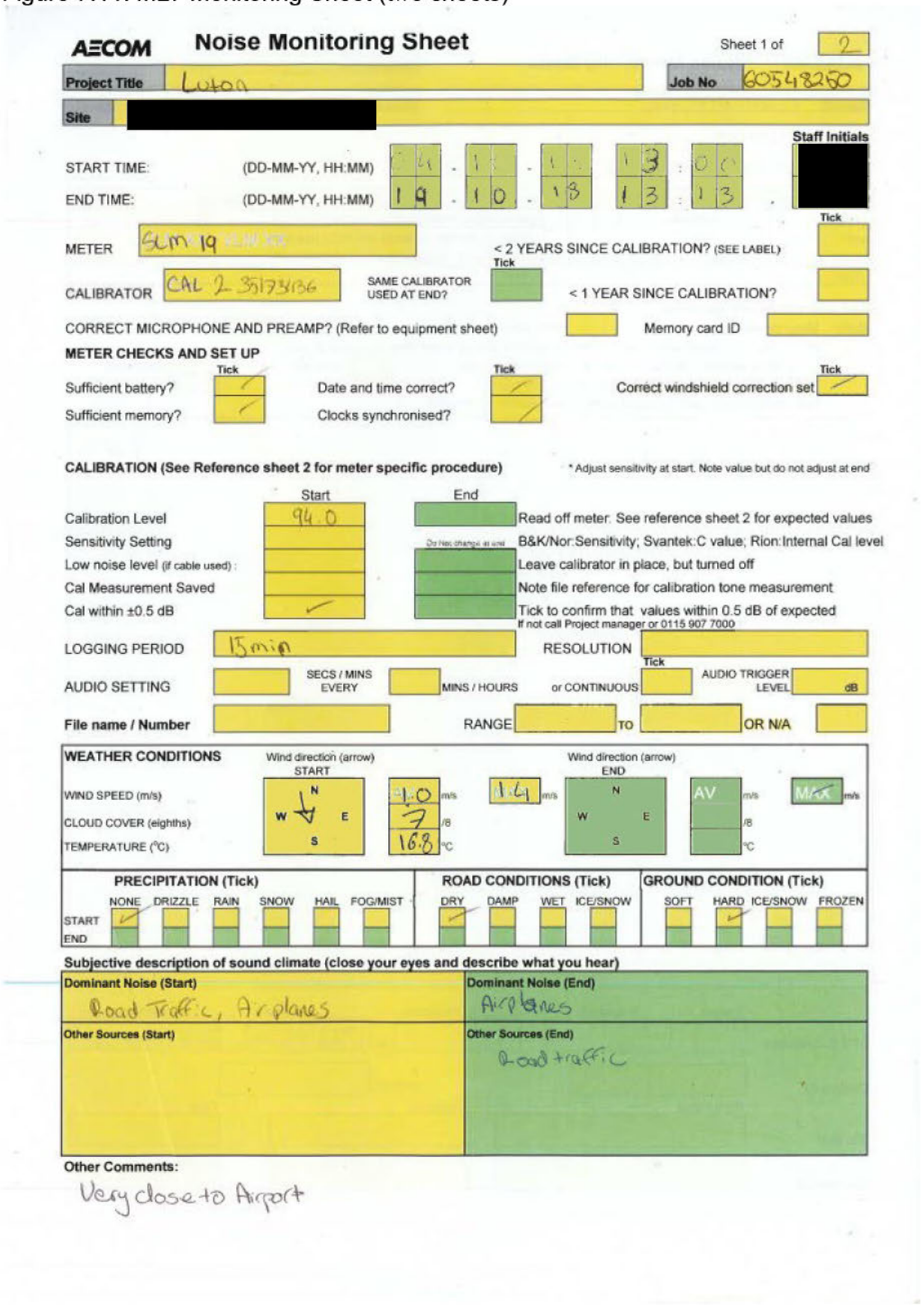


	2 letters	5 numbers	5 numbers	east/west	north/south
GPS Coordinates	TL	164	219	or	

Camera ID: GPS ID

	Print name	Signature	Date
Site staff	[redacted]	[redacted]	16/4/19
QA checked			

Figure 7.11: ML7 Monitoring Sheet (two sheets)



AECOM **Noise Monitoring Sheet** Sheet 1 of 2

Project Title: Luton — Job No: 60548250

Site: [redacted]

Staff Initials: [redacted]

START TIME: (DD-MM-YY, HH:MM) 14 - 10 - 13 13:00

END TIME: (DD-MM-YY, HH:MM) 19 - 10 - 13 13:13

METER: SLM 19 — < 2 YEARS SINCE CALIBRATION? (SEE LABEL) Tick

CALIBRATOR: CAL 2 35173136 — SAME CALIBRATOR USED AT END? Tick — < 1 YEAR SINCE CALIBRATION?

CORRECT MICROPHONE AND PREAMP? (Refer to equipment sheet) — Memory card ID

METER CHECKS AND SET UP

	Tick		Tick		Tick
Sufficient battery?	✓	Date and time correct?	✓	Correct windshield correction set	✓
Sufficient memory?	✓	Clocks synchronised?	✓		

CALIBRATION (See Reference sheet 2 for meter specific procedure) * Adjust sensitivity at start. Note value but do not adjust at end

	Start	End	
Calibration Level	94.0		Read off meter. See reference sheet 2 for expected values
Sensitivity Setting		Do Not change at end	B&K/Nor:Sensitivity; Svantek:C value; Rion:Internal Cal level
Low noise level (if cable used) :			Leave calibrator in place, but turned off
Cal Measurement Saved			Note file reference for calibration tone measurement
Cal within ±0.5 dB	✓		Tick to confirm that values within 0.5 dB of expected

If not call Project manager or 0115 907 7000

LOGGING PERIOD: 15 min — RESOLUTION

AUDIO SETTING — SECS / MINS EVERY — MINS / HOURS — or CONTINUOUS Tick — AUDIO TRIGGER LEVEL dB

File name / Number — RANGE TO — OR N/A

WEATHER CONDITIONS

	Wind direction (arrow) START		Wind direction (arrow) END		
WIND SPEED (m/s)	4.0 m/s	1.4 m/s		AV m/s	MAX m/s
CLOUD COVER (eighths)	7 /8			/8	
TEMPERATURE (°C)	16.8 °C			°C	

PRECIPITATION (Tick)							ROAD CONDITIONS (Tick)				GROUND CONDITION (Tick)			
	NONE	DRIZZLE	RAIN	SNOW	HAIL	FOG/MIST	DRY	DAMP	WET	ICE/SNOW	SOFT	HARD	ICE/SNOW	FROZEN
START	✓						✓					✓		
END														

Subjective description of sound climate (close your eyes and describe what you hear)

Dominant Noise (Start)	Dominant Noise (End)
Road Traffic, Airplanes	Airplanes
Other Sources (Start)	**Other Sources (End)**
	Road traffic

Other Comments:

Very close to Airport

AECOM **Noise Monitoring Sheet**

Project	Luton	Sheet 2 of	2		
Site	[redacted]	**Date**	04/10/18	**Meter**	SLM 19

EQUIPMENT LOCATION

MICROPHONE HEIGHT ABOVE GROUND 1.2 METRES

MICROPHONE MOUNTED ON (TICK)					DISTANCE FROM VERTICAL SURFACE / FAÇADE (>3.5M OR =1M)	✓
TRIPOD		A FRAME			LINE OF SIGHT FROM SOURCE TO RECEIVER? (Y/N)	
MAST	✓	FENCE			ACTUAL OR POTENTIAL NOISE SOURCES NEARBY?	
OTHER					(EG AHU / HVAC / SUBSTATION / CAT SCARER ETC)	
OTHER						

Plan view sketch with distances.

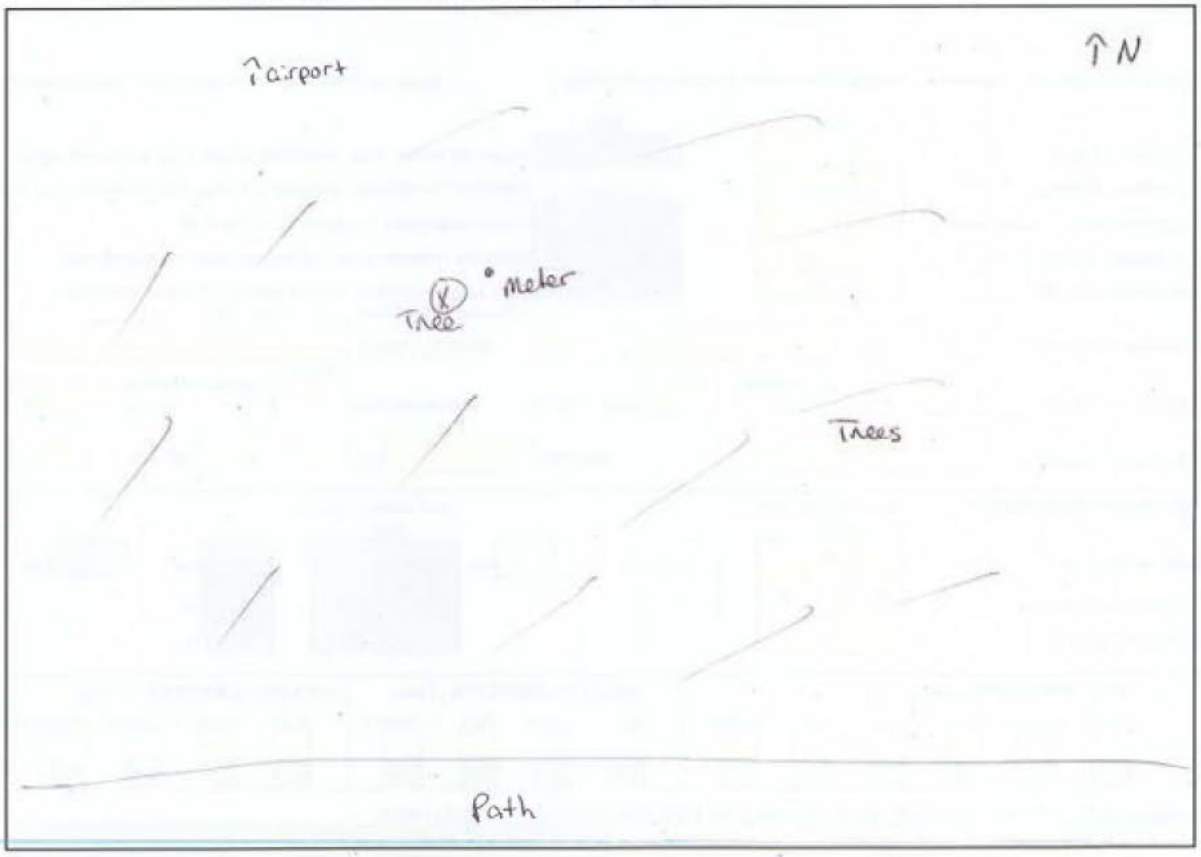
Mark: Meter location North arrow Main audible and potential noise souces

Photographic direction and positions (meter installed and all round view of surroundings)

Distance to nearest roads and other noise sources (identify) estimate measured

Note position, height and construction material of barriers. estimate measured

Note position and type of ground cover (grass, stone, shrubs etc)

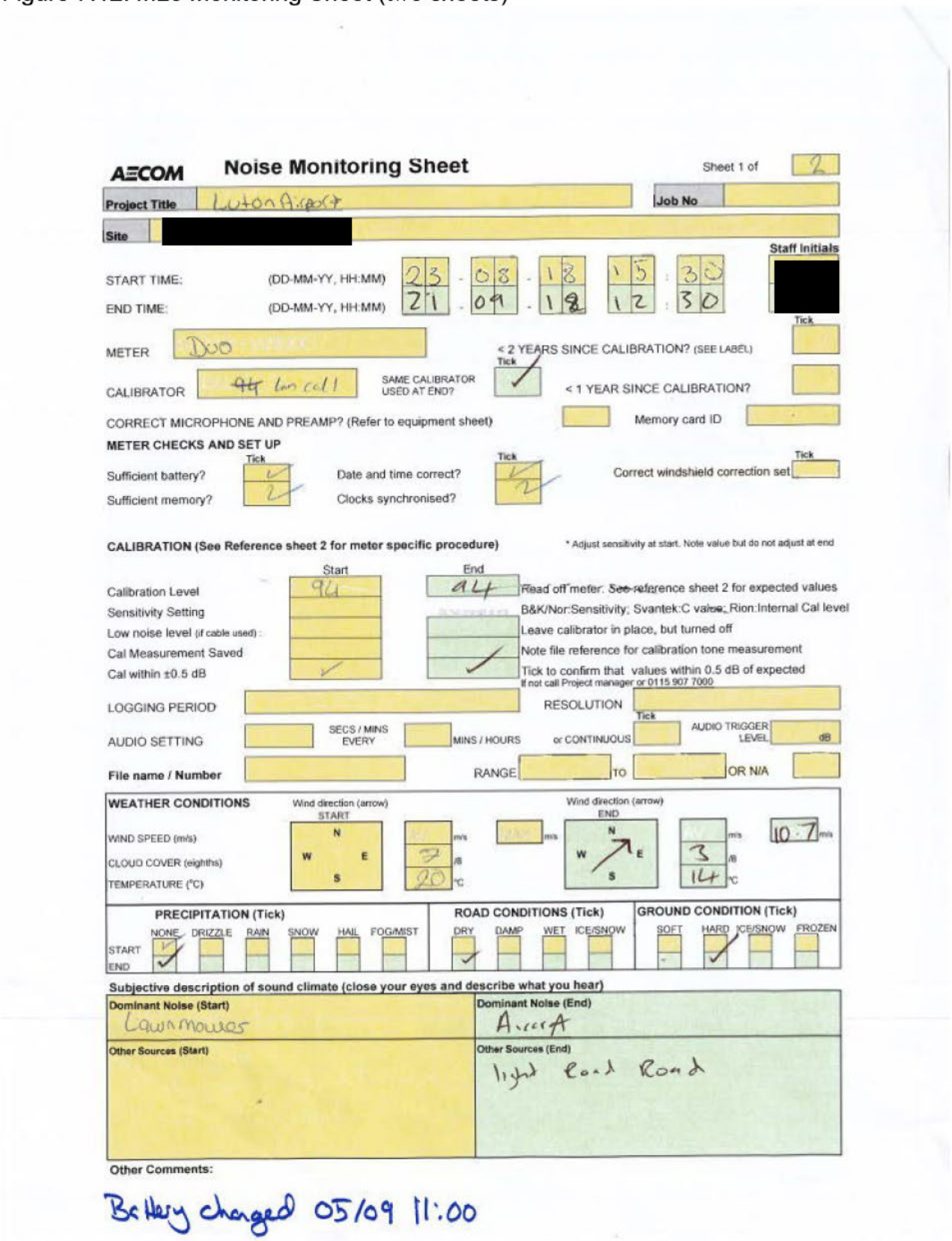


	2 letters	5 numbers	5 numbers		east/west	north/south
GPS Coordinates				or	0°23'28.55"W	51°52'06.27"N

Camera ID: GPS ID

	Print name	Signature	Date
Site staff			
QA checked			

Figure 7.12: ML8 Monitoring Sheet (two sheets)



AECOM **Noise Monitoring Sheet** Sheet 1 of 2

Project Title: Luton Airport — Job No:

Site: [redacted]

Staff Initials: [redacted]

START TIME: (DD-MM-YY, HH:MM) 23-08-18 15:30

END TIME: (DD-MM-YY, HH:MM) 24-09-18 12:30

METER: Duo

CALIBRATOR: 94 lwn cal1

SAME CALIBRATOR USED AT END? Tick ✓

< 2 YEARS SINCE CALIBRATION? (SEE LABEL) Tick

< 1 YEAR SINCE CALIBRATION? Tick

CORRECT MICROPHONE AND PREAMP? (Refer to equipment sheet)

Memory card ID

METER CHECKS AND SET UP

	Tick		Tick		Tick
Sufficient battery?	✓	Date and time correct?	✓	Correct windshield correction set	
Sufficient memory?	✓	Clocks synchronised?	✓		

CALIBRATION (See Reference sheet 2 for meter specific procedure) * Adjust sensitivity at start. Note value but do not adjust at end

	Start	End	
Calibration Level	94	94	Read off meter. See reference sheet 2 for expected values
Sensitivity Setting			B&K/Nor:Sensitivity; Svantek:C value; Rion:Internal Cal level
Low noise level (if cable used) :			Leave calibrator in place, but turned off
Cal Measurement Saved			Note file reference for calibration tone measurement
Cal within ±0.5 dB	✓	✓	Tick to confirm that values within 0.5 dB of expected

If not call Project manager or 0115 907 7000

LOGGING PERIOD — RESOLUTION

AUDIO SETTING — SECS / MINS EVERY — MINS / HOURS — or CONTINUOUS (Tick) — AUDIO TRIGGER LEVEL dB

File name / Number — RANGE TO — OR N/A

WEATHER CONDITIONS

	Wind direction (arrow) START		Wind direction (arrow) END	
WIND SPEED (m/s)	N	7 m/s	N	3 m/s
CLOUD COVER (eighths)	W E	8 /8	W E	8 /8
TEMPERATURE (°C)	S	20 °C	S	14 °C

10.7 m/s

PRECIPITATION (Tick)							ROAD CONDITIONS (Tick)				GROUND CONDITION (Tick)			
	NONE	DRIZZLE	RAIN	SNOW	HAIL	FOG/MIST	DRY	DAMP	WET	ICE/SNOW	SOFT	HARD	ICE/SNOW	FROZEN
START	✓						✓					✓		
END	✓													

Subjective description of sound climate (close your eyes and describe what you hear)

Dominant Noise (Start)	Dominant Noise (End)
Lawnmowers	Aircraft
Other Sources (Start)	**Other Sources (End)**
	light Road Road

Other Comments:

Battery changed 05/09 11:00

AECOM **Noise Monitoring Sheet** Project Sheet 2 of

Site [redacted] Date 23/08/18 Meter

EQUIPMENT LOCATION

MICROPHONE HEIGHT ABOVE GROUND METRES

MICROPHONE MOUNTED ON (TICK)				DISTANCE FROM VERTICAL SURFACE / FAÇADE (>3.5M OR =1M)	✓
TRIPOD		A FRAME		LINE OF SIGHT FROM SOURCE TO RECEIVER? (Y/N)	
MAST		FENCE	✓	ACTUAL OR POTENTIAL NOISE SOURCES NEARBY? (EG AHU / HVAC / SUBSTATION / CAT SCARER ETC)	
OTHER					
OTHER					

Plan view sketch with distances.

Mark: Meter location North arrow Main audible and potential noise souces

Photographic direction and positions (meter installed and all round view of surroundings)

Distance to nearest roads and other noise sources (identify) estimate measured

Note position, height and construction material of barriers. estimate measured

Note position and type of ground cover (grass, stone, shrubs etc)

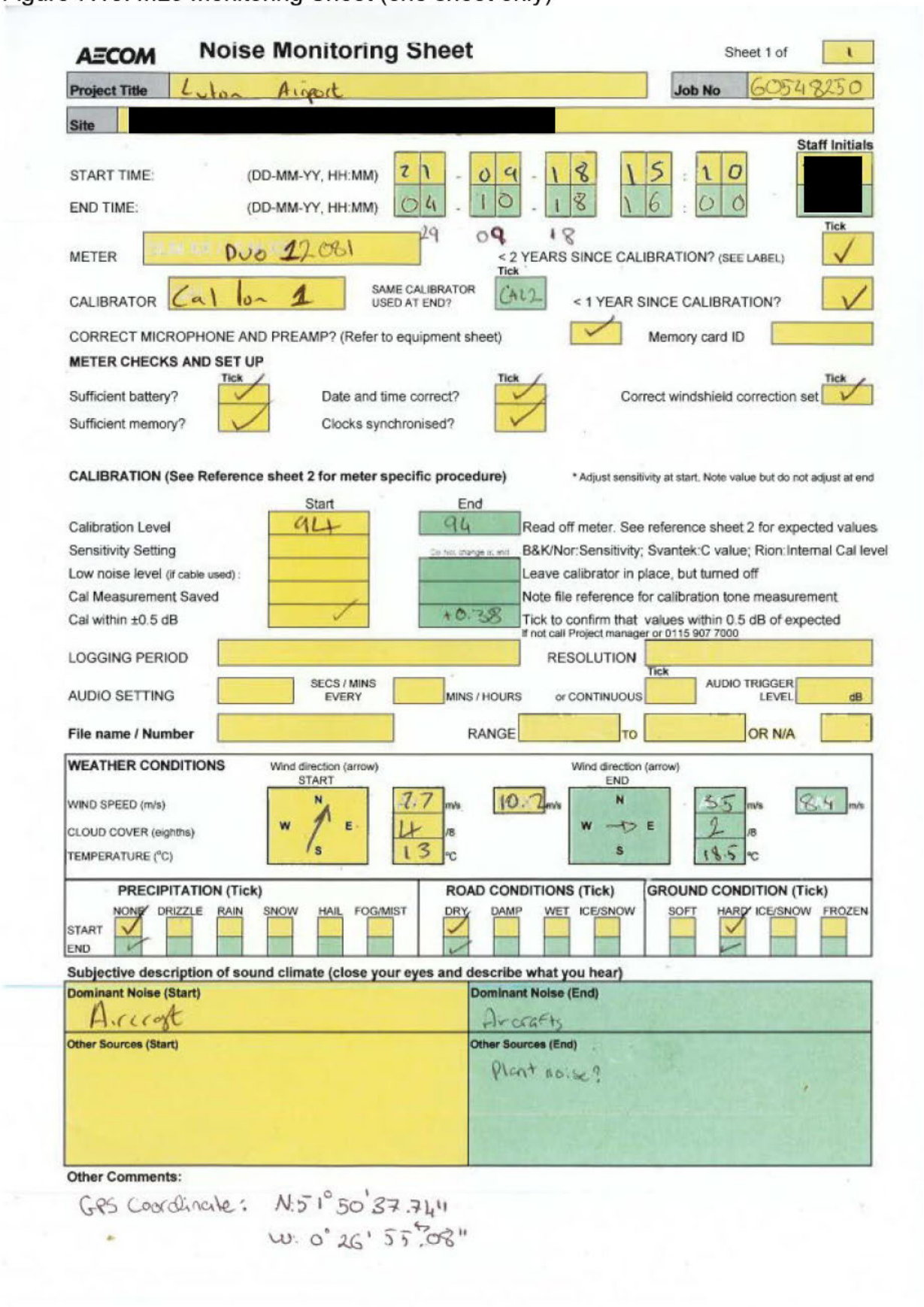
51.3362678,
-0.5594692

	2 letters	5 numbers	5 numbers		east/west	north/south
GPS Coordinates				or		

Camera ID: GPS ID

	Print name	Signature	Date
Site staff			
QA checked			

Figure 7.13: ML9 Monitoring Sheet (one sheet only)



AECOM **Noise Monitoring Sheet** Sheet 1 of 1

Project Title: Luton Airport | Job No: 60548250

Site: [redacted]

Staff Initials: [redacted]

START TIME: (DD-MM-YY, HH:MM) 21 - 09 - 18 15 : 10

END TIME: (DD-MM-YY, HH:MM) 04 - 10 - 18 16 : 00

METER: DUO 12081 (29 09 18) | Tick: ✓ < 2 YEARS SINCE CALIBRATION? (SEE LABEL)

CALIBRATOR: Cal Ion 1 | SAME CALIBRATOR USED AT END? Tick: CAL2 | ✓ < 1 YEAR SINCE CALIBRATION?

CORRECT MICROPHONE AND PREAMP? (Refer to equipment sheet) ✓ | Memory card ID:

METER CHECKS AND SET UP

	Tick		Tick		Tick
Sufficient battery?	✓	Date and time correct?	✓	Correct windshield correction set	✓
Sufficient memory?	✓	Clocks synchronised?	✓		

CALIBRATION (See Reference sheet 2 for meter specific procedure) * Adjust sensitivity at start. Note value but do not adjust at end

	Start	End	
Calibration Level	94	94	Read off meter. See reference sheet 2 for expected values
Sensitivity Setting		Do not change at end	B&K/Nor:Sensitivity; Svantek:C value; Rion:Internal Cal level
Low noise level (if cable used) :			Leave calibrator in place, but turned off
Cal Measurement Saved			Note file reference for calibration tone measurement
Cal within ±0.5 dB	✓	+0.38	Tick to confirm that values within 0.5 dB of expected

If not call Project manager or 0115 907 7000

LOGGING PERIOD: | RESOLUTION:

AUDIO SETTING: | SECS / MINS EVERY: | MINS / HOURS: | or CONTINUOUS Tick: | AUDIO TRIGGER LEVEL: dB

File name / Number: | RANGE: TO: OR N/A:

WEATHER CONDITIONS

	Wind direction (arrow) START		Wind direction (arrow) END	
WIND SPEED (m/s)	7.7 m/s	10.7 m/s	5.5 m/s	8.4 m/s
CLOUD COVER (eighths)	4 /8		2 /8	
TEMPERATURE (°C)	13 °C		18.5 °C	

PRECIPITATION (Tick)							ROAD CONDITIONS (Tick)				GROUND CONDITION (Tick)			
	NONE	DRIZZLE	RAIN	SNOW	HAIL	FOG/MIST	DRY	DAMP	WET	ICE/SNOW	SOFT	HARD	ICE/SNOW	FROZEN
START	✓						✓					✓		
END	✓						✓					✓		

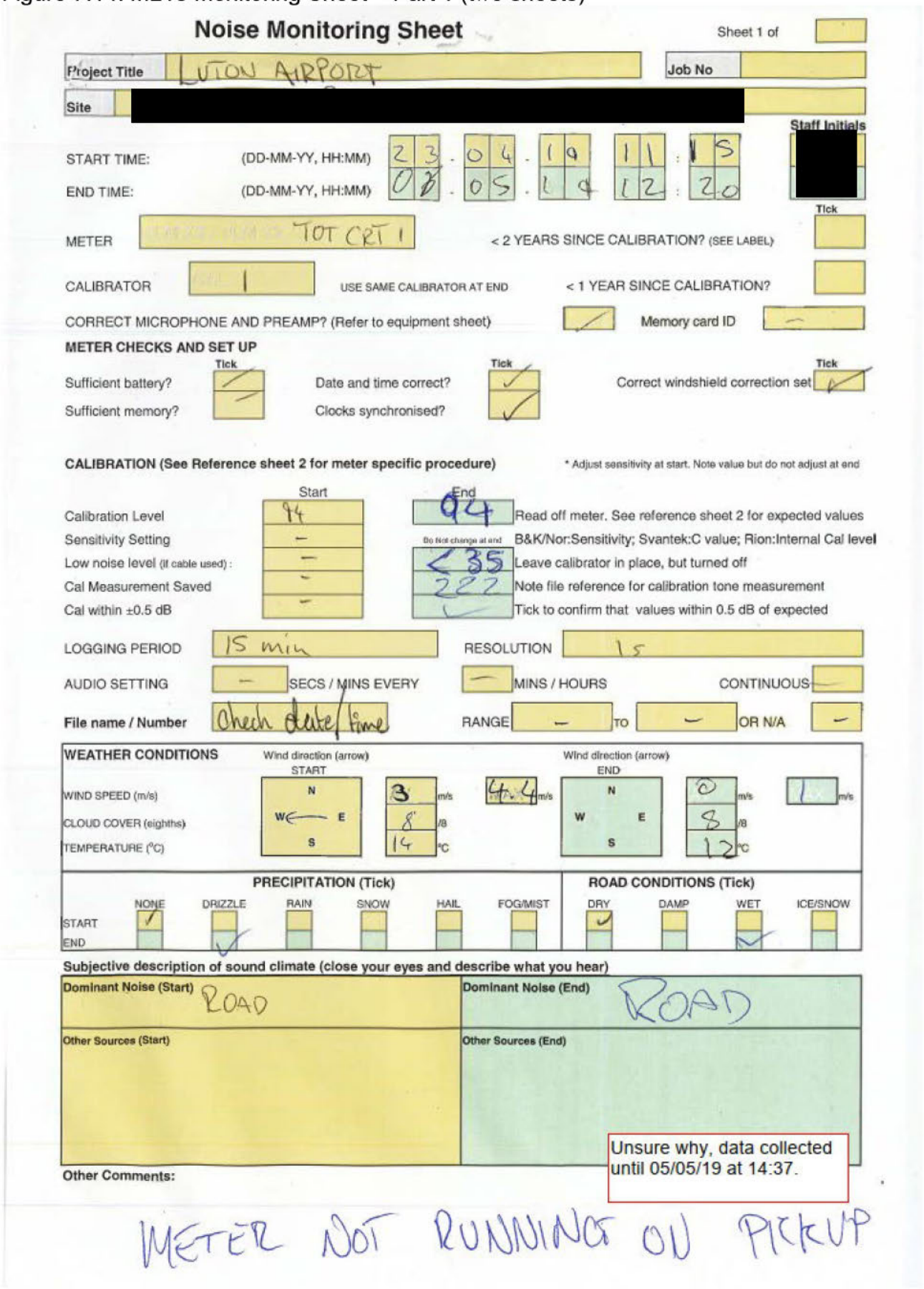
Subjective description of sound climate (close your eyes and describe what you hear)

Dominant Noise (Start)	Dominant Noise (End)
Aircraft	Aircrafts
Other Sources (Start)	**Other Sources (End)**
	Plant noise?

Other Comments:

GPS Coordinate: N: 51° 50' 37.74"
W: 0° 26' 55.08"

Figure 7.14: ML10 Monitoring Sheet – Part 1 (two sheets)



Noise Monitoring Sheet

Sheet 1 of

Project Title: LUTON AIRPORT

Job No:

Site: [redacted]

Staff Initials: [redacted]

START TIME: (DD-MM-YY, HH:MM) 23-04-19 11:15

END TIME: (DD-MM-YY, HH:MM) 03-05-19 12:20

METER: TOT CRT 1

< 2 YEARS SINCE CALIBRATION? (SEE LABEL) — Tick

CALIBRATOR: 1

USE SAME CALIBRATOR AT END

< 1 YEAR SINCE CALIBRATION?

CORRECT MICROPHONE AND PREAMP? (Refer to equipment sheet) ✓

Memory card ID: –

METER CHECKS AND SET UP

	Tick		Tick		Tick
Sufficient battery?	✓	Date and time correct?	✓	Correct windshield correction set	✓
Sufficient memory?		Clocks synchronised?	✓		

CALIBRATION (See Reference sheet 2 for meter specific procedure)

* Adjust sensitivity at start. Note value but do not adjust at end

	Start	End	
Calibration Level	94	94	Read off meter. See reference sheet 2 for expected values
Sensitivity Setting	–	Do Not change at end	B&K/Nor:Sensitivity; Svantek:C value; Rion:Internal Cal level
Low noise level (if cable used) :	–	35	Leave calibrator in place, but turned off
Cal Measurement Saved	–	222	Note file reference for calibration tone measurement
Cal within ±0.5 dB	–	✓	Tick to confirm that values within 0.5 dB of expected

LOGGING PERIOD: 15 min — RESOLUTION: 1s

AUDIO SETTING: – — SECS / MINS EVERY: – — MINS / HOURS: – — CONTINUOUS: –

File name / Number: Check date/time — RANGE: – TO – OR N/A: –

WEATHER CONDITIONS

	Wind direction (arrow) START		Wind direction (arrow) END	
WIND SPEED (m/s)	3 m/s	4.4 m/s	0 m/s	1 m/s
CLOUD COVER (eighths)	8 /8		8 /8	
TEMPERATURE (°C)	14 °C		12 °C	

PRECIPITATION (Tick)

	NONE	DRIZZLE	RAIN	SNOW	HAIL	FOG/MIST
START	✓					
END		✓				

ROAD CONDITIONS (Tick)

	DRY	DAMP	WET	ICE/SNOW
START	✓			
END			✓	

Subjective description of sound climate (close your eyes and describe what you hear)

Dominant Noise (Start)	Dominant Noise (End)
ROAD	ROAD
Other Sources (Start)	Other Sources (End)

Unsure why, data collected until 05/05/19 at 14:37.

Other Comments:

METER NOT RUNNING ON PICKUP

2

Noise Monitoring Sheet

		Project		Sheet 2 of	
Site		Date		Meter	

EQUIPMENT LOCATION

MICROPHONE HEIGHT ABOVE GROUND 1.5 METRES

MICROPHONE MOUNTED ON (TICK)				DISTANCE FROM VERTICAL SURFACE / FAÇADE (>3.5M OR =1M)	>3.5m
TRIPOD		A FRAME		LINE OF SIGHT FROM SOURCE TO RECEIVER? (Y/N)	
MAST	✓	FENCE	✓	ACTUAL OR POTENTIAL NOISE SOURCES NEARBY? (EG AHU / HVAC / SUBSTATION / CAT SCARER ETC)	
OTHER					
OTHER					

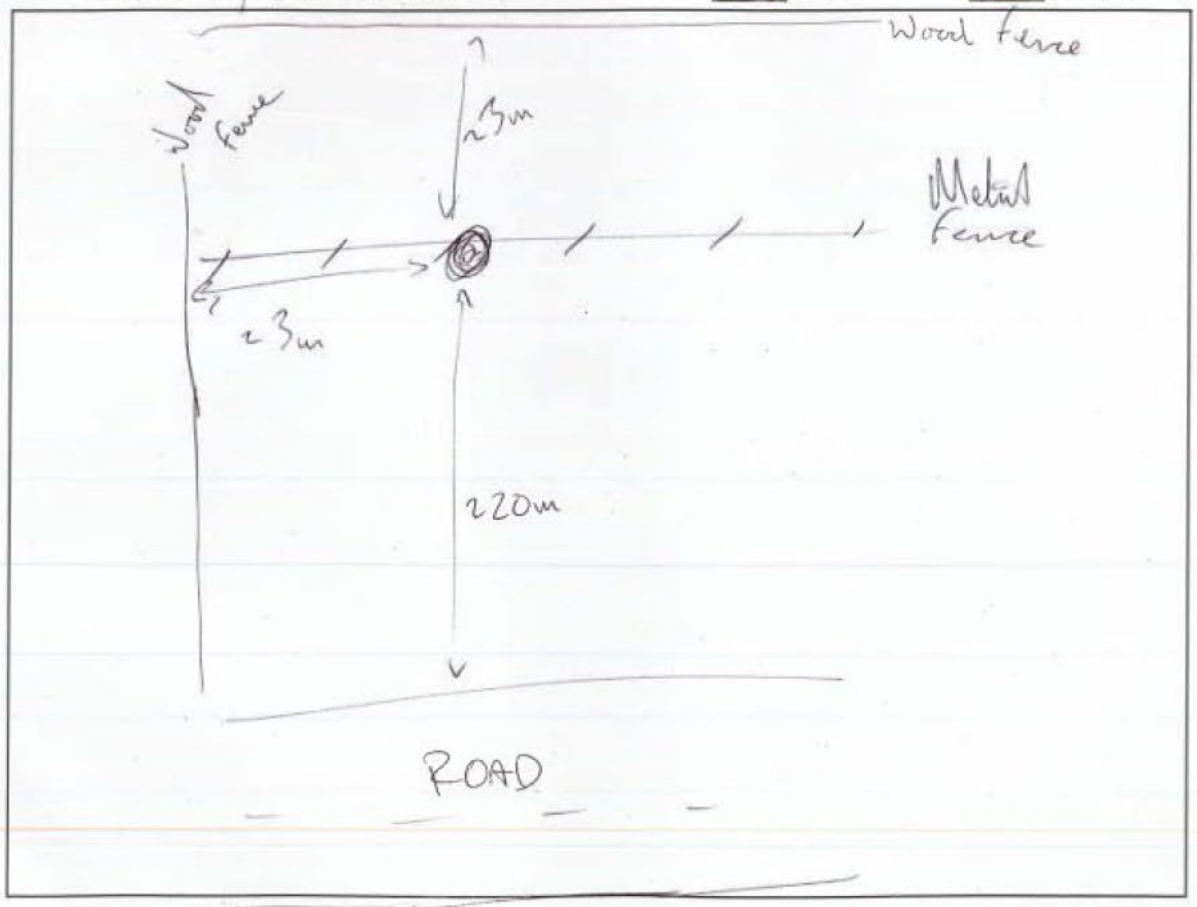
Plan view sketch with distances.

Mark: Meter location North arrow Main audible and potential noise souces

Photographic direction and positions (meter installed and all round view of surroundings)

Distance to nearest roads and other noise sources (identify) 20m estimate ____ measured

Note position and height of acoustical barriers. * estimate ____ measured



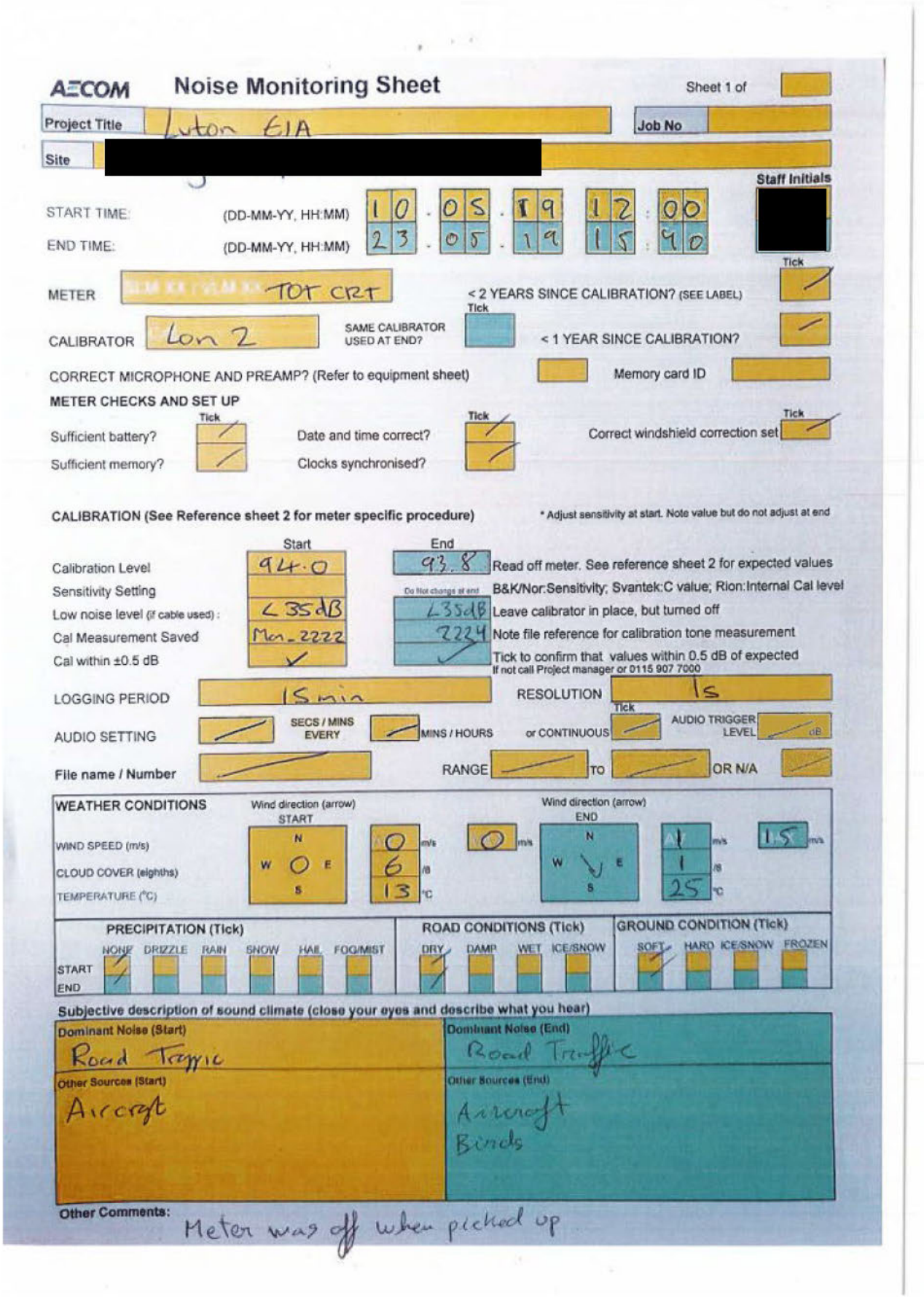
	2 letters	5 numbers	5 numbers		east/west	north/south
GPS Coordinates	TL	06520	19831	or		

Camera ID: GPS ID

Site staff Signature [redacted] Date 23/4/19

QA checked

Figure 7.15: ML10 Monitoring Sheet – Part 2 (one sheet only)



AECOM **Noise Monitoring Sheet** Sheet 1 of

Project Title: Luton EIA Job No:

Site: [redacted]

Staff Initials: [redacted]

START TIME: (DD-MM-YY, HH:MM) 10 . 05 . 19 12 : 00

END TIME: (DD-MM-YY, HH:MM) 23 . 05 . 19 15 : 90

METER: TOT CRT < 2 YEARS SINCE CALIBRATION? (SEE LABEL) Tick ✓

CALIBRATOR: Lon 2 SAME CALIBRATOR USED AT END? Tick < 1 YEAR SINCE CALIBRATION? ✓

CORRECT MICROPHONE AND PREAMP? (Refer to equipment sheet) Memory card ID

METER CHECKS AND SET UP

	Tick		Tick		Tick
Sufficient battery?	✓	Date and time correct?	✓	Correct windshield correction set	✓
Sufficient memory?	✓	Clocks synchronised?	✓		

CALIBRATION (See Reference sheet 2 for meter specific procedure) * Adjust sensitivity at start. Note value but do not adjust at end

	Start	End	
Calibration Level	94.0	93.8	Read off meter. See reference sheet 2 for expected values
Sensitivity Setting		Do Not change at end	B&K/Nor:Sensitivity; Svantek:C value; Rion:Internal Cal level
Low noise level (if cable used) :	< 35dB	< 35dB	Leave calibrator in place, but turned off
Cal Measurement Saved	Mar-2222	2224	Note file reference for calibration tone measurement
Cal within ±0.5 dB	✓	✓	Tick to confirm that values within 0.5 dB of expected

If not call Project manager or 0115 907 7000

LOGGING PERIOD: 15 min RESOLUTION: 1s

AUDIO SETTING: ✓ SECS / MINS EVERY ✓ MINS / HOURS or CONTINUOUS Tick ✓ AUDIO TRIGGER LEVEL ✓ dB

File name / Number: ✓ RANGE ✓ TO ✓ OR N/A ✓

WEATHER CONDITIONS

	START		END	
Wind direction (arrow)	N W O E S		N W E S	
WIND SPEED (m/s)	0 m/s	0 m/s	1 m/s	1.5 m/s
CLOUD COVER (eighths)	6 /8		1 /8	
TEMPERATURE (°C)	13 °C		25 °C	

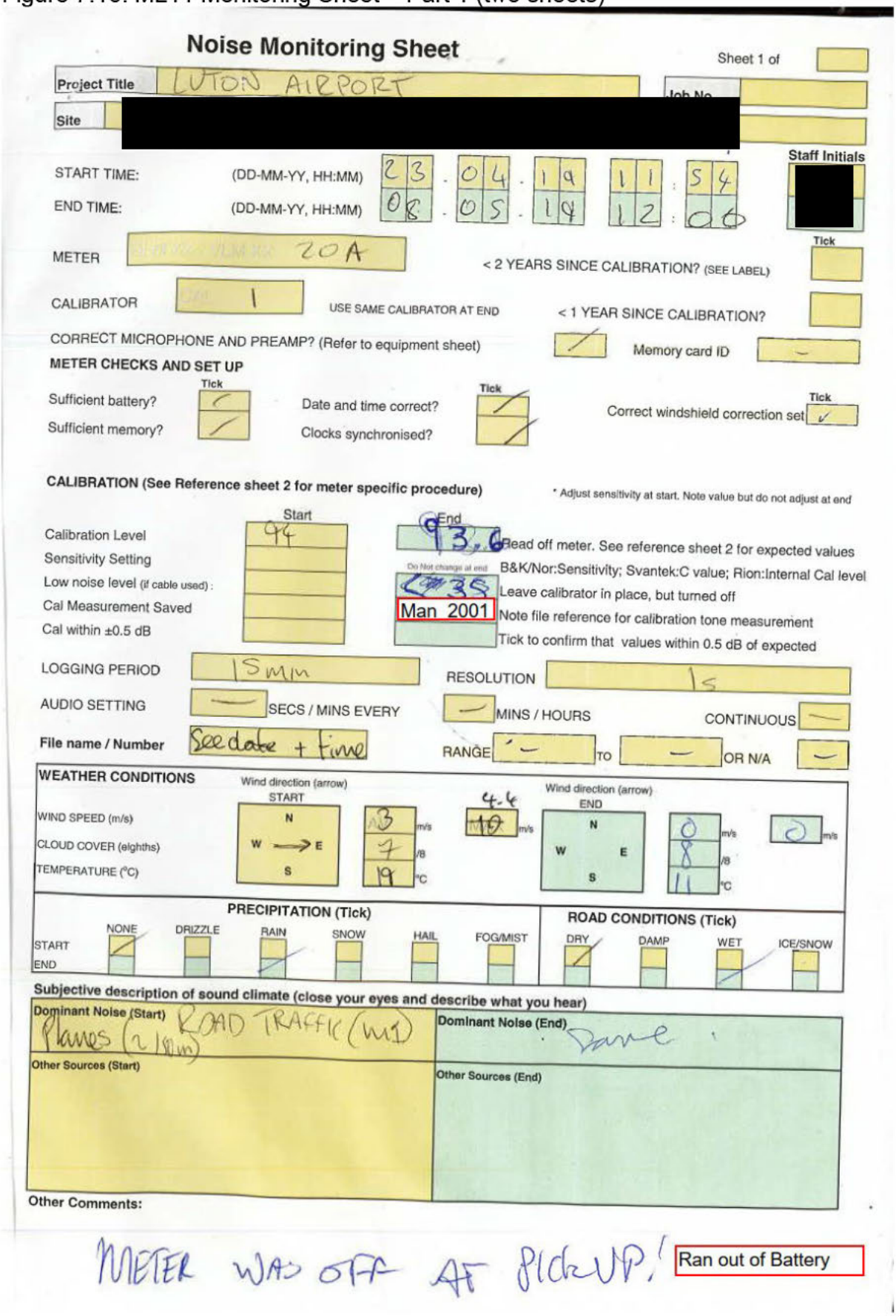
PRECIPITATION (Tick)							ROAD CONDITIONS (Tick)				GROUND CONDITION (Tick)			
	NONE	DRIZZLE	RAIN	SNOW	HAIL	FOG/MIST	DRY	DAMP	WET	ICE/SNOW	SOFT	HARD	ICE/SNOW	FROZEN
START	✓						✓				✓			
END														

Subjective description of sound climate (close your eyes and describe what you hear)

Dominant Noise (Start)	Dominant Noise (End)
Road Traffic	Road Traffic
Other Sources (Start)	**Other Sources (End)**
Aircraft	Aircraft Birds

Other Comments: Meter was off when picked up

Figure 7.16: ML11 Monitoring Sheet – Part 1 (two sheets)



Noise Monitoring Sheet

Sheet 1 of

Project Title: LUTON AIRPORT

Job No

Site: [redacted]

Staff Initials: [redacted]

START TIME: (DD-MM-YY, HH:MM) 23.04.19 11:54

END TIME: (DD-MM-YY, HH:MM) 08.05.19 12:06

METER: 20A

< 2 YEARS SINCE CALIBRATION? (SEE LABEL) Tick ✓

CALIBRATOR: 1

USE SAME CALIBRATOR AT END

< 1 YEAR SINCE CALIBRATION?

CORRECT MICROPHONE AND PREAMP? (Refer to equipment sheet) ✓

Memory card ID: –

METER CHECKS AND SET UP

	Tick		Tick		Tick
Sufficient battery?	✓	Date and time correct?	✓	Correct windshield correction set	✓
Sufficient memory?	✓	Clocks synchronised?	✓		

CALIBRATION (See Reference sheet 2 for meter specific procedure)

* Adjust sensitivity at start. Note value but do not adjust at end

	Start	End	
Calibration Level	94	93.6	Read off meter. See reference sheet 2 for expected values
Sensitivity Setting		Do Not change at end	B&K/Nor:Sensitivity; Svantek:C value; Rion:Internal Cal level
Low noise level (if cable used) :		35	Leave calibrator in place, but turned off
Cal Measurement Saved		Man 2001	Note file reference for calibration tone measurement
Cal within ±0.5 dB			Tick to confirm that values within 0.5 dB of expected

LOGGING PERIOD: 15 min RESOLUTION: 1s

AUDIO SETTING: – SECS / MINS EVERY – MINS / HOURS CONTINUOUS –

File name / Number: See date + Time RANGE – TO – OR N/A –

WEATHER CONDITIONS

	START	END
Wind direction (arrow)	N	N
WIND SPEED (m/s)	3 m/s	4.4 10 m/s
CLOUD COVER (eighths)	7 /8	8 /8
TEMPERATURE (°C)	19 °C	11 °C
		2 m/s

PRECIPITATION (Tick)

	NONE	DRIZZLE	RAIN	SNOW	HAIL	FOG/MIST
START	✓					
END						

ROAD CONDITIONS (Tick)

	DRY	DAMP	WET	ICE/SNOW
	✓		✓	

Subjective description of sound climate (close your eyes and describe what you hear)

Dominant Noise (Start)	Dominant Noise (End)
Planes (2 1/2 min) ROAD TRAFFIC (M1)	Same
Other Sources (Start)	**Other Sources (End)**

Other Comments:

METER WAS OFF AT PICK UP! Ran out of Battery

2

Noise Monitoring Sheet

Project

Sheet 2 of

Site

Date

Meter

EQUIPMENT LOCATION

MICROPHONE HEIGHT ABOVE GROUND ____ METRES

MICROPHONE MOUNTED ON (TICK)				DISTANCE FROM VERTICAL SURFACE / FAÇADE (>3.5M OR =1M)	>3.5
TRIPOD		A FRAME		LINE OF SIGHT FROM SOURCE TO RECEIVER? (Y/N)	✓
MAST	✓	FENCE		ACTUAL OR POTENTIAL NOISE SOURCES NEARBY? (EG AHU / HVAC / SUBSTATION / CAT SCARER ETC)	
OTHER					
OTHER					

Plan view sketch with distances.

Mark: Meter location

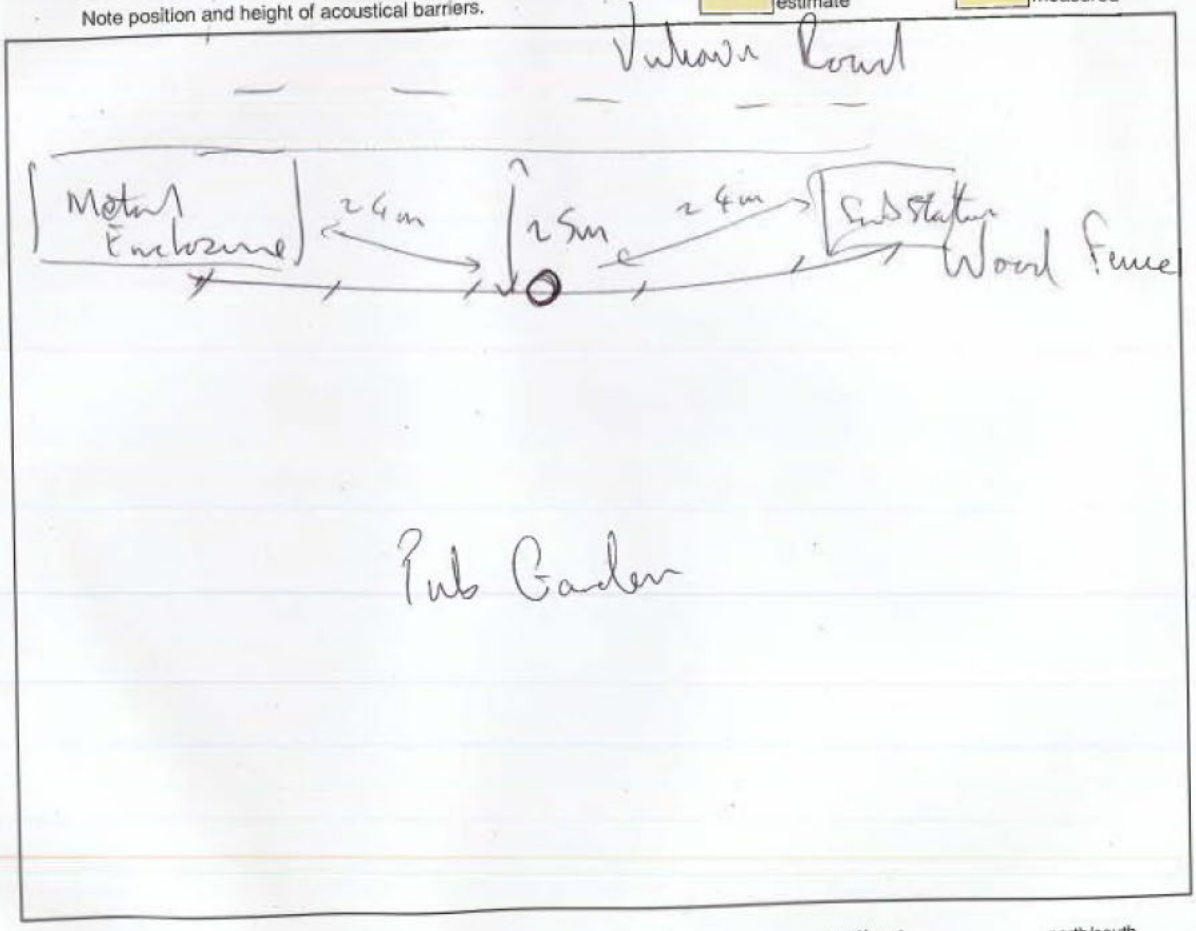
North arrow

Main audible and potential noise souces

Photographic direction and positions (meter installed and all round view of surroundings)

Distance to nearest roads and other noise sources (identify) 5m estimate ____ measured

Note position and height of acoustical barriers. ____ estimate ____ measured



GPS Coordinates: 2 letters TL | 5 numbers 07624 | 5 numbers 19079 | or east/west | north/south

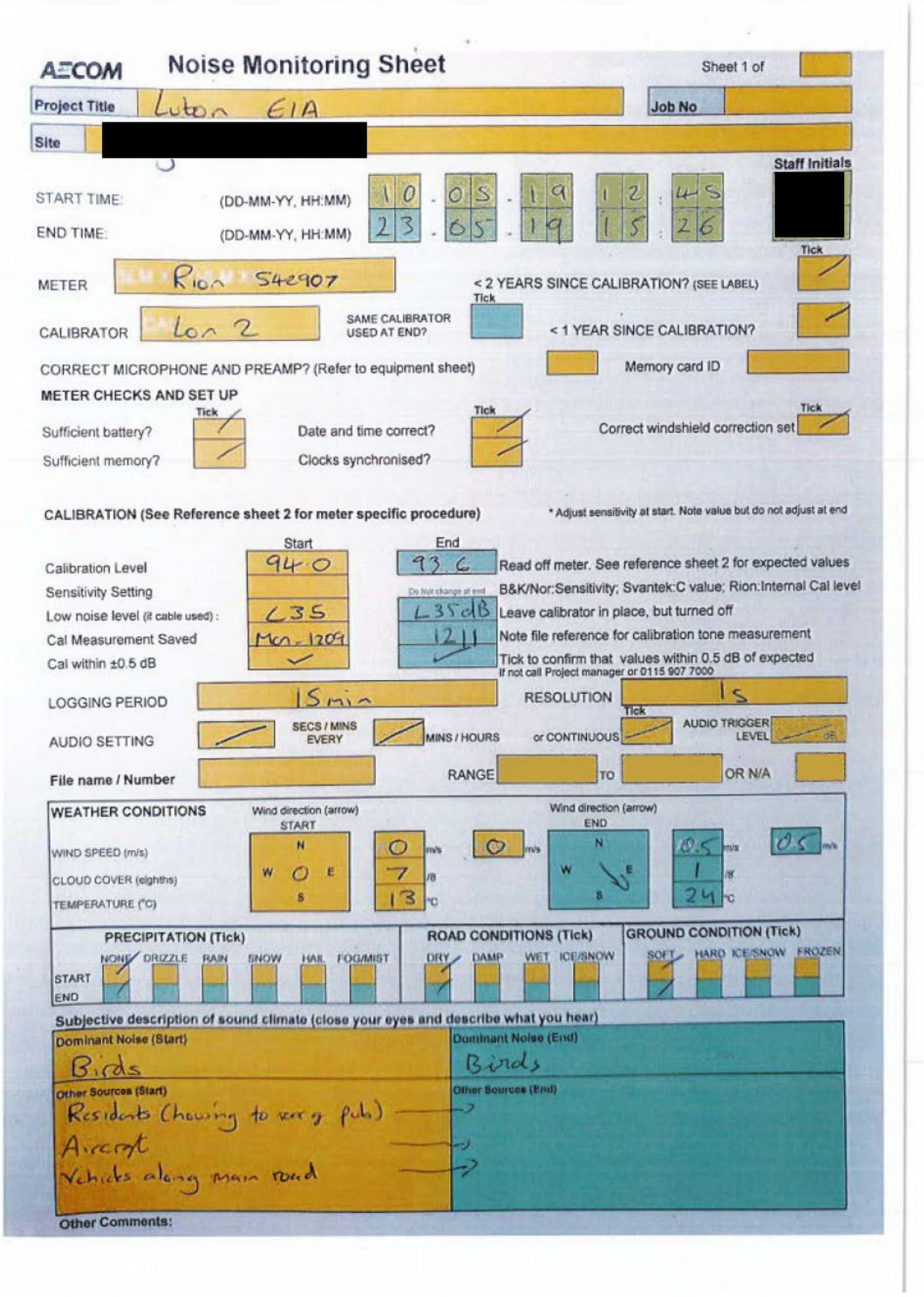
Camera ID:

GPS ID

Site staff: Signature [redacted] Date 23/4/19

QA checked

Figure 7.17: ML11 Monitoring Sheet – Part 2 (one sheet only)



AECOM **Noise Monitoring Sheet** Sheet 1 of

Project Title: Luton EIA | Job No:

Site: [redacted]

Staff Initials: [redacted]

START TIME: (DD-MM-YY, HH:MM) 10-05-19 12:45

END TIME: (DD-MM-YY, HH:MM) 23-05-19 15:26

METER: Rion SE907 | < 2 YEARS SINCE CALIBRATION? (SEE LABEL) Tick

CALIBRATOR: Lon 2 | SAME CALIBRATOR USED AT END? Tick | < 1 YEAR SINCE CALIBRATION?

CORRECT MICROPHONE AND PREAMP? (Refer to equipment sheet) | Memory card ID

METER CHECKS AND SET UP

	Tick		Tick		Tick
Sufficient battery?	✓	Date and time correct?	✓	Correct windshield correction set	✓
Sufficient memory?	✓	Clocks synchronised?	✓		

CALIBRATION (See Reference sheet 2 for meter specific procedure) * Adjust sensitivity at start. Note value but do not adjust at end

	Start	End	
Calibration Level	94.0	93.6	Read off meter. See reference sheet 2 for expected values
Sensitivity Setting		Do Not change at end	B&K/Nor:Sensitivity; Svantek:C value; Rion:Internal Cal level
Low noise level (if cable used) :	L35	L35dB	Leave calibrator in place, but turned off
Cal Measurement Saved	Mon-1209	1211	Note file reference for calibration tone measurement
Cal within ±0.5 dB	✓	✓	Tick to confirm that values within 0.5 dB of expected

If not call Project manager or 0115 907 7000

LOGGING PERIOD: 15 min | RESOLUTION: 1s

AUDIO SETTING: ✓ SECS / MINS EVERY ✓ MINS / HOURS or CONTINUOUS Tick ✓ | AUDIO TRIGGER LEVEL dB

File name / Number: | RANGE TO OR N/A

WEATHER CONDITIONS

	Wind direction (arrow) START		Wind direction (arrow) END	
WIND SPEED (m/s)	N W O E S	0 m/s	0 m/s	0.5 m/s
CLOUD COVER (eighths)		7 /8		1 /8
TEMPERATURE (°C)		13 °C		24 °C

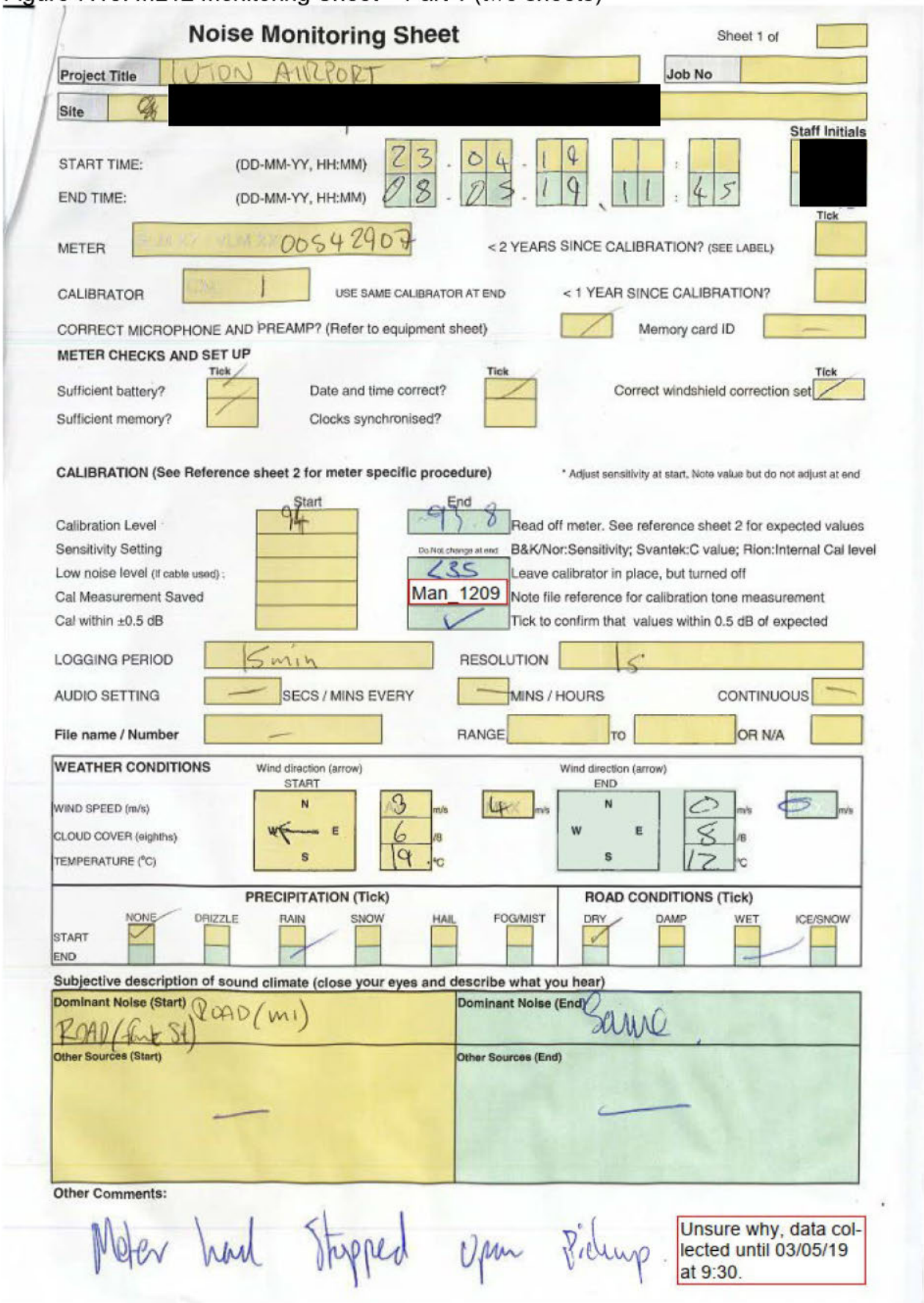
	PRECIPITATION (Tick)						ROAD CONDITIONS (Tick)				GROUND CONDITION (Tick)			
	NONE	DRIZZLE	RAIN	SNOW	HAIL	FOG/MIST	DRY	DAMP	WET	ICE/SNOW	SOFT	HARD	ICE/SNOW	FROZEN
START	✓						✓				✓			
END														

Subjective description of sound climate (close your eyes and describe what you hear)

Dominant Noise (Start)	Dominant Noise (End)
Birds	Birds
Other Sources (Start)	**Other Sources (End)**
Residents (leaving to go pub) →	
Aircraft →	
Vehicles along main road →	

Other Comments:

Figure 7.18: ML12 Monitoring Sheet – Part 1 (two sheets)



Noise Monitoring Sheet — Sheet 1 of

Project Title: LUTON AIRPORT — Job No:

Site: [redacted]

Staff Initials: [redacted]

START TIME: (DD-MM-YY, HH:MM) 23-04-19 :

END TIME: (DD-MM-YY, HH:MM) 08-05-19 11:45

METER 00542907 — <2 YEARS SINCE CALIBRATION? (SEE LABEL) — Tick

CALIBRATOR 1 — USE SAME CALIBRATOR AT END — <1 YEAR SINCE CALIBRATION?

CORRECT MICROPHONE AND PREAMP? (Refer to equipment sheet) — Memory card ID: —

METER CHECKS AND SET UP

	Tick		Tick		Tick
Sufficient battery?	✓	Date and time correct?	✓	Correct windshield correction set	✓
Sufficient memory?		Clocks synchronised?			

CALIBRATION (See Reference sheet 2 for meter specific procedure) * Adjust sensitivity at start. Note value but do not adjust at end

	Start	End	
Calibration Level	94	93.8	Read off meter. See reference sheet 2 for expected values
Sensitivity Setting		Do Not change at end	B&K/Nor:Sensitivity; Svantek:C value; Rion:Internal Cal level
Low noise level (if cable used) :		135	Leave calibrator in place, but turned off
Cal Measurement Saved		Man_1209	Note file reference for calibration tone measurement
Cal within ±0.5 dB		✓	Tick to confirm that values within 0.5 dB of expected

LOGGING PERIOD: 15min — RESOLUTION: 1s

AUDIO SETTING: — SECS / MINS EVERY: — MINS / HOURS: — CONTINUOUS: —

File name / Number: — RANGE: — TO: — OR N/A: —

WEATHER CONDITIONS

	Wind direction (arrow) START		Wind direction (arrow) END	
WIND SPEED (m/s)	N, W, E, S	3 m/s	N, W, E, S	0 m/s
CLOUD COVER (eighths)		6 /8		8 /8
TEMPERATURE (°C)		19 °C		12 °C

	PRECIPITATION (Tick)						ROAD CONDITIONS (Tick)			
	NONE	DRIZZLE	RAIN	SNOW	HAIL	FOG/MIST	DRY	DAMP	WET	ICE/SNOW
START	✓						✓			
END			✓						✓	

Subjective description of sound climate (close your eyes and describe what you hear)

Dominant Noise (Start)	Dominant Noise (End)
ROAD (East St) ROAD (M1)	Same
Other Sources (Start)	**Other Sources (End)**
—	—

Other Comments:

Meter had stopped upon pickup.

Unsure why, data collected until 03/05/19 at 9:30.

2 **Noise Monitoring Sheet**

Project | Sheet 2 of

Site | Date | Meter

EQUIPMENT LOCATION

MICROPHONE HEIGHT ABOVE GROUND ____ METRES

MICROPHONE MOUNTED ON (TICK)				DISTANCE FROM VERTICAL SURFACE / FAÇADE (>3.5M OR =1M)	23.5m
TRIPOD	✓	A FRAME		LINE OF SIGHT FROM SOURCE TO RECEIVER? (Y/N)	Y
MAST		FENCE		ACTUAL OR POTENTIAL NOISE SOURCES NEARBY? (EG AHU / HVAC / SUBSTATION / CAT SCARER ETC)	
OTHER					
OTHER					

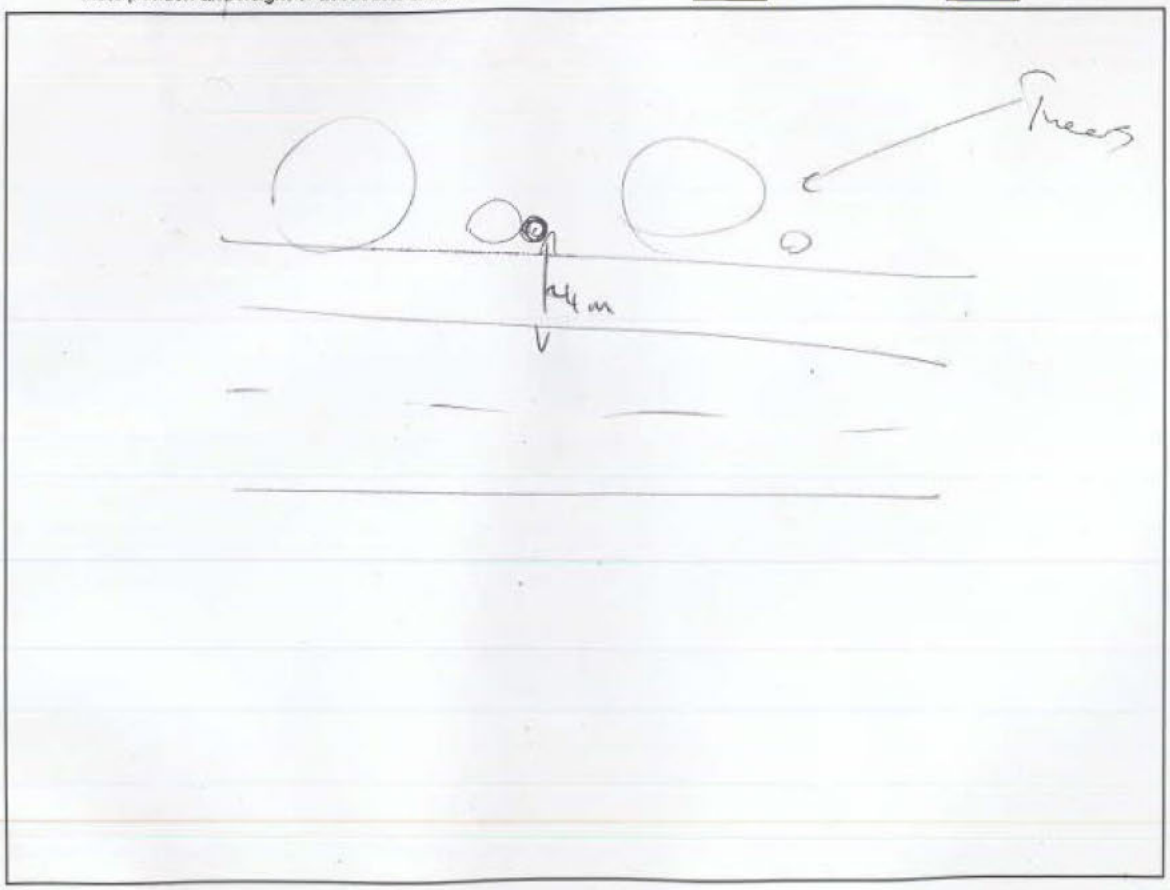
Plan view sketch with distances.

Mark: Meter location North arrow Main audible and potential noise souces

Photographic direction and positions (meter installed and all round view of surroundings)

Distance to nearest roads and other noise sources (identify) 4m estimate ____ measured

Note position and height of acoustical barriers. ____ estimate ____ measured



	2 letters	5 numbers	5 numbers	east/west	north/south
GPS Coordinates	TL	08388	18213	or	

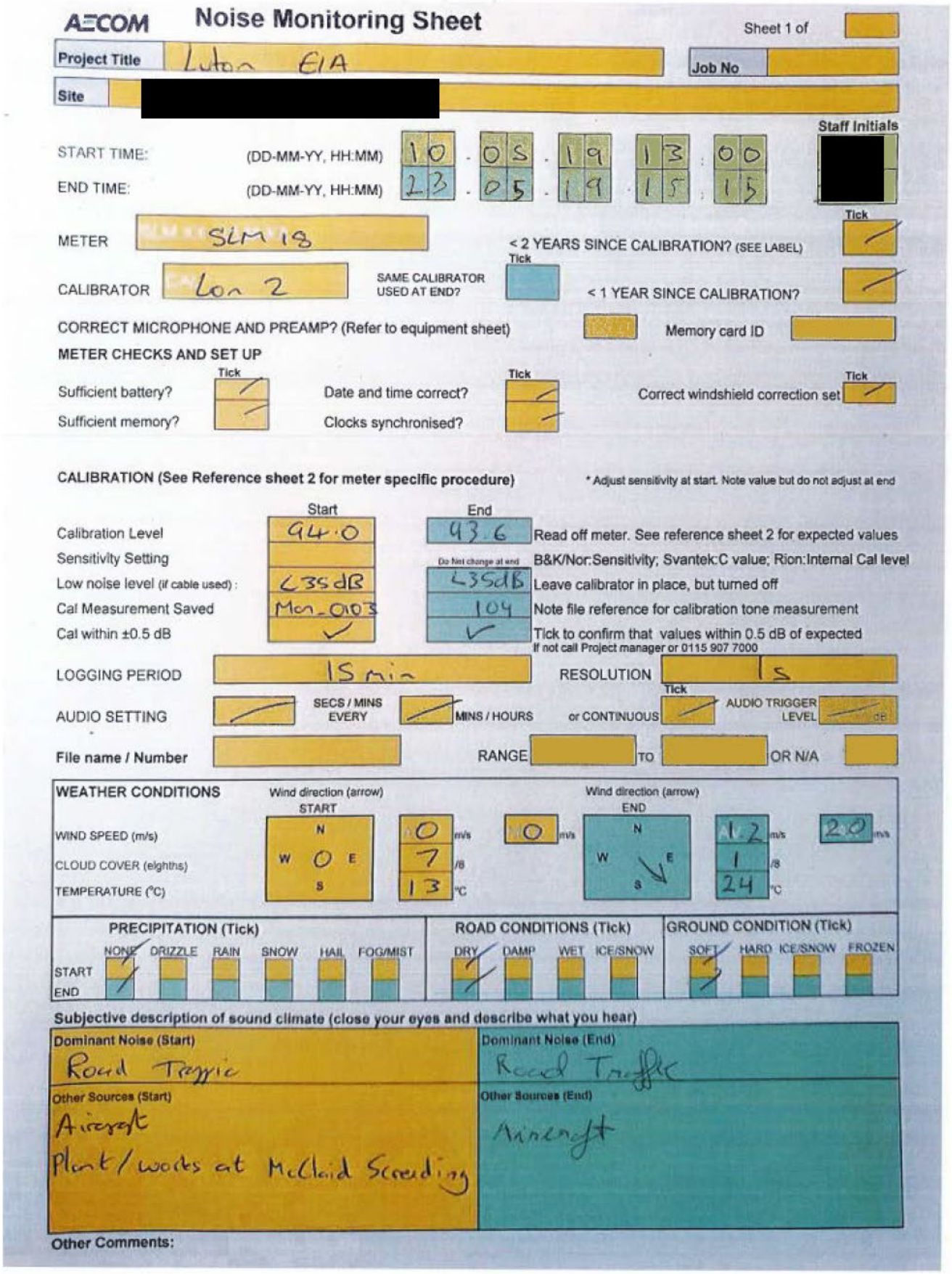
Camera ID: ____ GPS ID ____

Signature | Date

Site staff [redacted] 23/9/19

QA checked

Figure 7.19: ML12 Monitoring Sheet – Part 2 (one sheet only)



AECOM **Noise Monitoring Sheet** Sheet 1 of

Project Title: Luton EIA | Job No:

Site: [redacted]

Staff Initials: [redacted]

START TIME: (DD-MM-YY, HH:MM) 10 - 05 - 19 13 : 00

END TIME: (DD-MM-YY, HH:MM) 23 - 05 - 19 15 : 15

METER: SLM 18 — < 2 YEARS SINCE CALIBRATION? (SEE LABEL) Tick ✓

CALIBRATOR: Lon 2 — SAME CALIBRATOR USED AT END? Tick — < 1 YEAR SINCE CALIBRATION? ✓

CORRECT MICROPHONE AND PREAMP? (Refer to equipment sheet) — Memory card ID

METER CHECKS AND SET UP

	Tick		Tick		Tick
Sufficient battery?	✓	Date and time correct?	✓	Correct windshield correction set	✓
Sufficient memory?		Clocks synchronised?	✓		

CALIBRATION (See Reference sheet 2 for meter specific procedure) * Adjust sensitivity at start. Note value but do not adjust at end

	Start	End	
Calibration Level	94.0	93.6	Read off meter. See reference sheet 2 for expected values
Sensitivity Setting		Do Not change at end	B&K/Nor:Sensitivity; Svantek:C value; Rion:Internal Cal level
Low noise level (if cable used) :	35 dB	35dB	Leave calibrator in place, but turned off
Cal Measurement Saved	Mon_0103	104	Note file reference for calibration tone measurement
Cal within ±0.5 dB	✓	✓	Tick to confirm that values within 0.5 dB of expected. If not call Project manager or 0115 907 7000

LOGGING PERIOD: 15 min — RESOLUTION: 1s

AUDIO SETTING: ✓ SECS / MINS EVERY — ✓ MINS / HOURS — or CONTINUOUS Tick ✓ — AUDIO TRIGGER LEVEL ✓ dB

File name / Number: — RANGE: — TO: — OR N/A

WEATHER CONDITIONS

	Wind direction (arrow) START		Wind direction (arrow) END	
WIND SPEED (m/s)	N W O E S	0 m/s	0 m/s	N W E S	1.2 m/s	2.0 m/s
CLOUD COVER (eighths)		7 /8			1 /8	
TEMPERATURE (°C)		13 °C			24 °C	

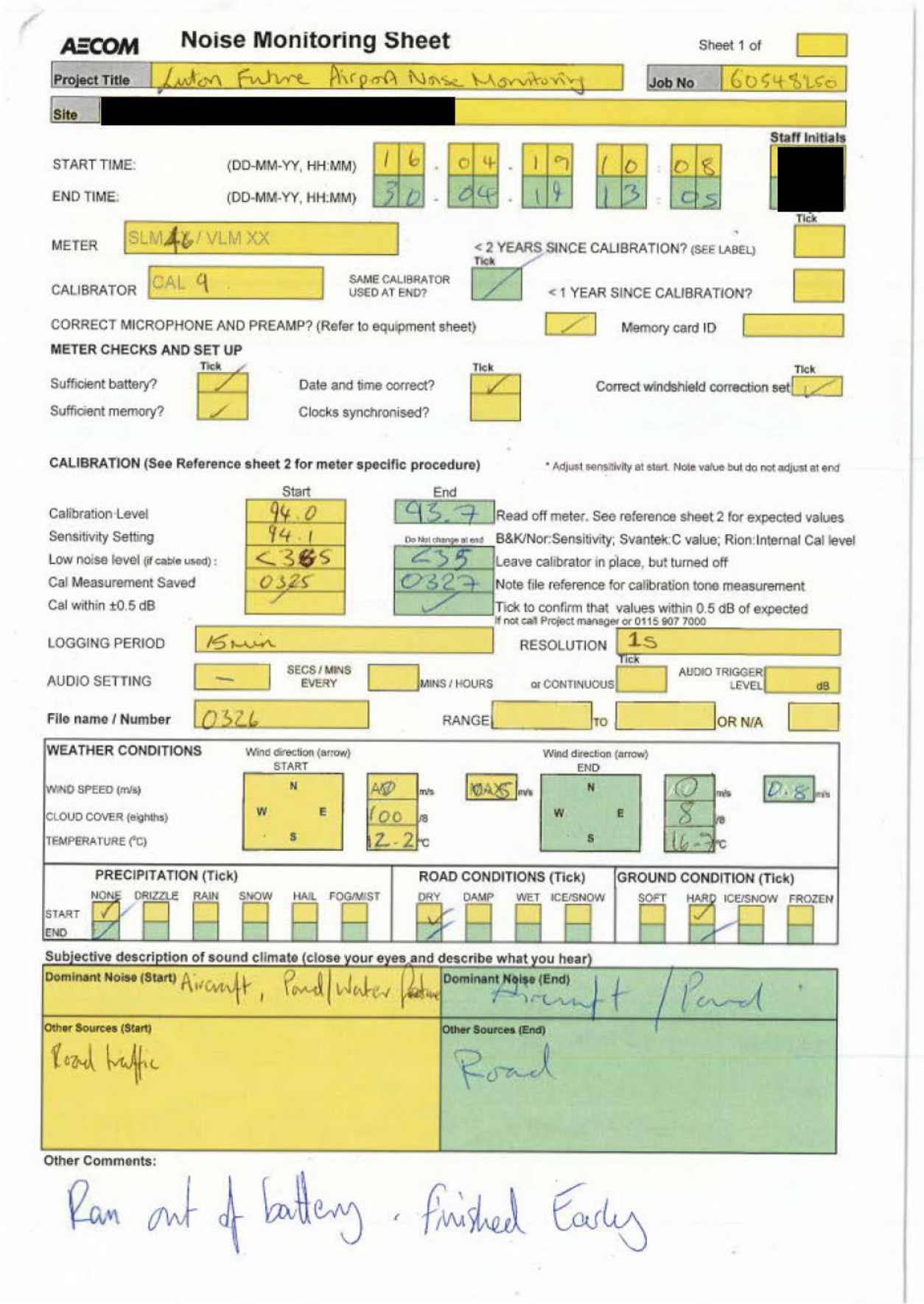
PRECIPITATION (Tick)							ROAD CONDITIONS (Tick)				GROUND CONDITION (Tick)			
	NONE	DRIZZLE	RAIN	SNOW	HAIL	FOG/MIST	DRY	DAMP	WET	ICE/SNOW	SOFT	HARD	ICE/SNOW	FROZEN
START	✓						✓				✓			
END														

Subjective description of sound climate (close your eyes and describe what you hear)

Dominant Noise (Start)	Dominant Noise (End)
Road Traffic	Road Traffic
Other Sources (Start)	**Other Sources (End)**
Aircraft Plant / works at McLaid Screading	Aircraft

Other Comments:

Figure 7.20: ML13 Monitoring Sheet (two sheets)



AECOM **Noise Monitoring Sheet** Sheet 1 of

Project Title: Luton Future Airport Noise Monitoring | Job No: 60548150

Site: [redacted]

Staff Initials: [redacted]

START TIME: (DD-MM-YY, HH:MM) 16 . 04 . 19 10 : 08

END TIME: (DD-MM-YY, HH:MM) 30 . 04 . 19 13 : 05

METER: SLM 46 / VLM XX

< 2 YEARS SINCE CALIBRATION? (SEE LABEL) Tick ✓

CALIBRATOR: CAL 9

SAME CALIBRATOR USED AT END? Tick ✓

< 1 YEAR SINCE CALIBRATION?

CORRECT MICROPHONE AND PREAMP? (Refer to equipment sheet) ✓

Memory card ID

METER CHECKS AND SET UP

	Tick		Tick		Tick
Sufficient battery?	✓	Date and time correct?	✓	Correct windshield correction set	✓
Sufficient memory?	✓	Clocks synchronised?			

CALIBRATION (See Reference sheet 2 for meter specific procedure) * Adjust sensitivity at start. Note value but do not adjust at end

	Start	End	
Calibration Level	94.0	93.7	Read off meter. See reference sheet 2 for expected values
Sensitivity Setting	94.1	Do Not change at end	B&K/Nor:Sensitivity; Svantek:C value; Rion:Internal Cal level
Low noise level (if cable used) :	<38S	235	Leave calibrator in place, but turned off
Cal Measurement Saved	0325	0327	Note file reference for calibration tone measurement
Cal within ±0.5 dB		✓	Tick to confirm that values within 0.5 dB of expected

If not call Project manager or 0115 907 7000

LOGGING PERIOD: 15min RESOLUTION: 1s

AUDIO SETTING: – SECS / MINS EVERY: MINS / HOURS: or CONTINUOUS Tick: AUDIO TRIGGER LEVEL: dB

File name / Number: 0326 RANGE: TO: OR N/A

WEATHER CONDITIONS

	Wind direction (arrow) START		Wind direction (arrow) END	
WIND SPEED (m/s)	AVG 1.00 m/s	MAX 1.5 m/s	1.0 m/s	0.8 m/s
CLOUD COVER (eighths)	100 /8		8 /8	
TEMPERATURE (°C)	12.2 °C		16.3 °C	

PRECIPITATION (Tick)							ROAD CONDITIONS (Tick)				GROUND CONDITION (Tick)			
	NONE	DRIZZLE	RAIN	SNOW	HAIL	FOG/MIST	DRY	DAMP	WET	ICE/SNOW	SOFT	HARD	ICE/SNOW	FROZEN
START	✓						✓					✓		
END	✓											✓		

Subjective description of sound climate (close your eyes and describe what you hear)

Dominant Noise (Start)	Dominant Noise (End)
Aircraft, Pond/Water feature	Aircraft / Pond
Other Sources (Start)	**Other Sources (End)**
Road traffic	Road

Other Comments:

Ran out of battery - finished Early

AECOM **Noise Monitoring Sheet**

Project		Sheet 2 of			
Site		Date		Meter	

EQUIPMENT LOCATION

MICROPHONE HEIGHT ABOVE GROUND 1.5 METRES

MICROPHONE MOUNTED ON (TICK)				DISTANCE FROM VERTICAL SURFACE / FAÇADE (>3.5M OR =1M)	23.5
TRIPOD	✓	A FRAME		LINE OF SIGHT FROM SOURCE TO RECEIVER? (Y/N)	✓
MAST		FENCE		ACTUAL OR POTENTIAL NOISE SOURCES NEARBY? (EG AHU / HVAC / SUBSTATION / CAT SCARER ETC)	Aircraft + Pond
OTHER					
OTHER					

Plan view sketch with distances.

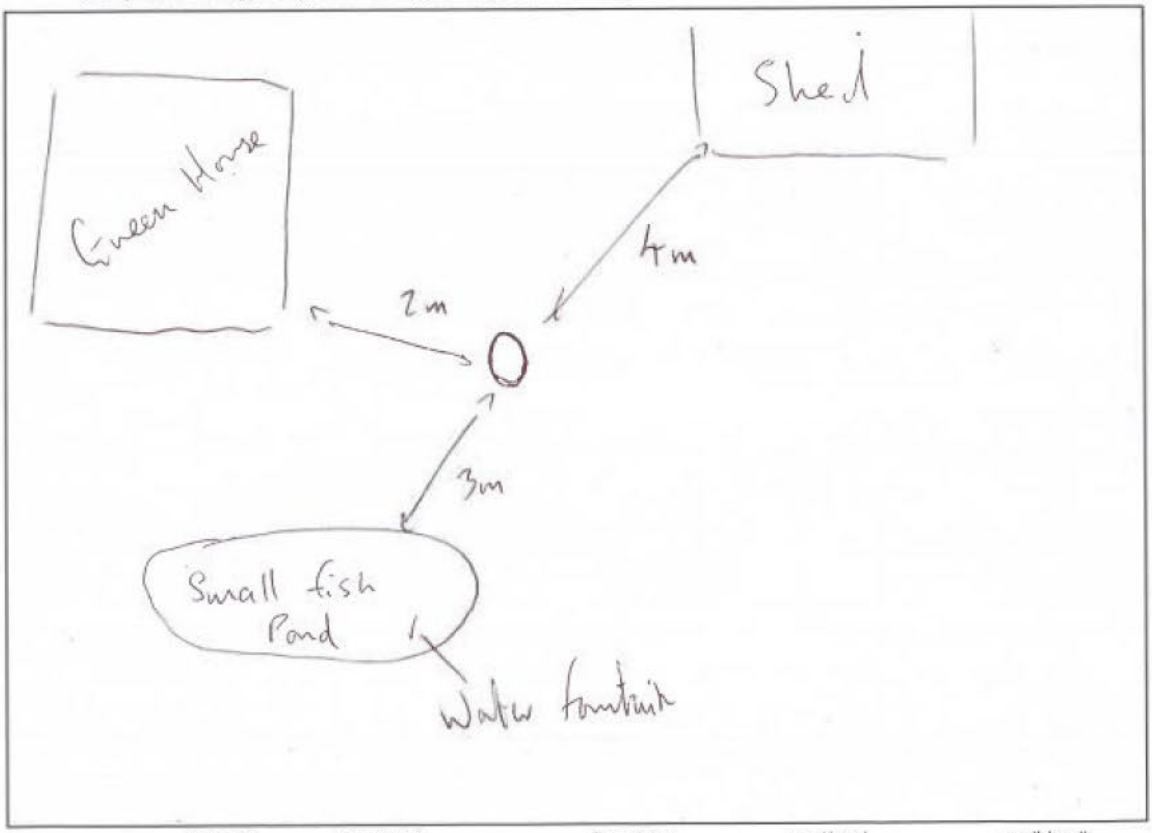
Mark: Meter location North arrow Main audible and potential noise souces

Photographic direction and positions (meter installed and all round view of surroundings)

Distance to nearest roads and other noise sources (identify) 50m estimate ____ measured

Note position, height and construction material of barriers. Glass estimate ____ measured

Note position and type of ground cover (grass, stone, shrubs etc)

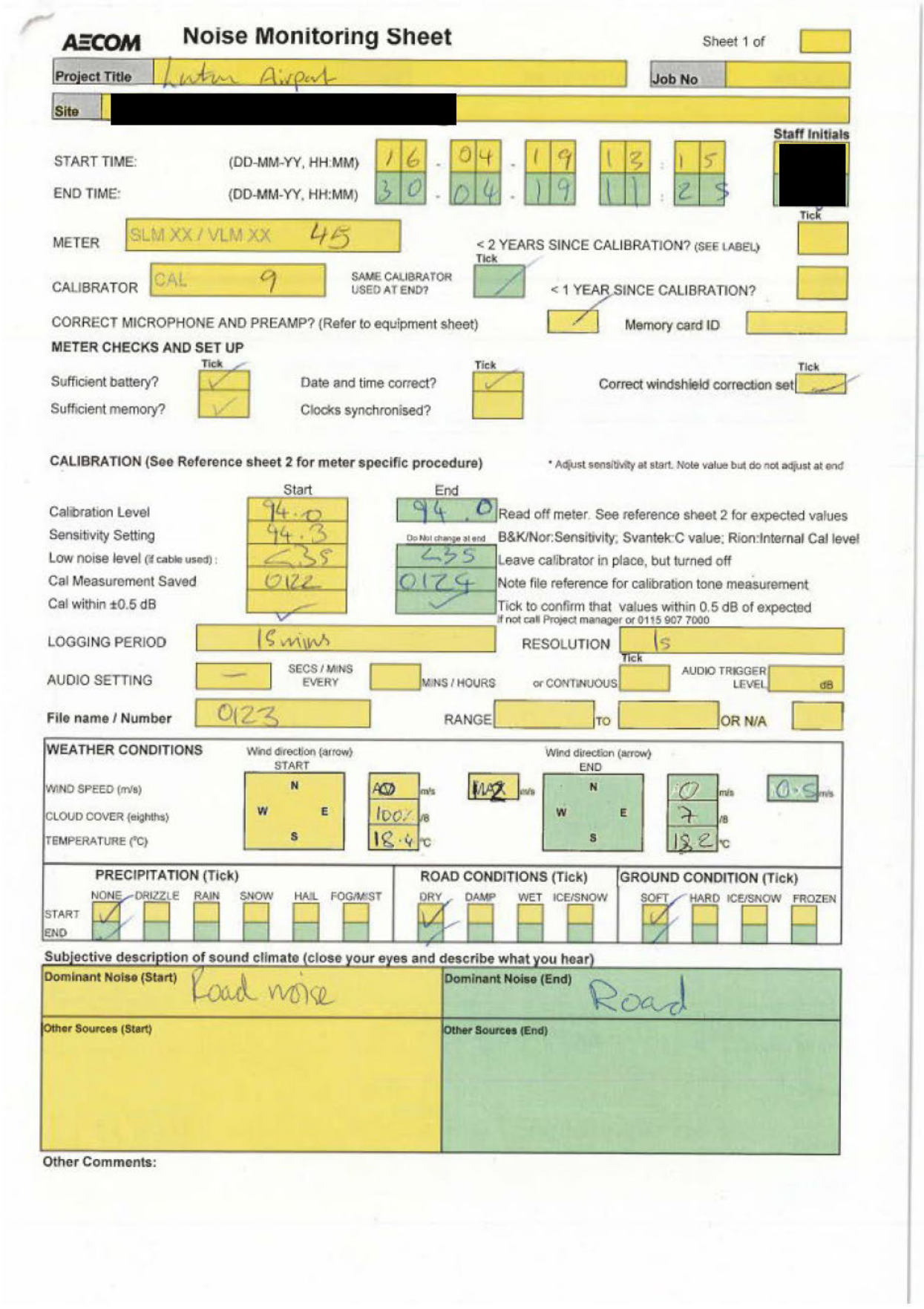


	2 letters	5 numbers	5 numbers	east/west	north/south
GPS Coordinates	TL	09481	20116	or	

Camera ID: GPS ID

	Print name	Signature	Date
Site staff	[redacted]	[redacted]	16/4/19
QA checked			

Figure 7.21: ML14 Monitoring Sheet (two sheets)



AECOM **Noise Monitoring Sheet** Sheet 1 of

Project Title: Luton Airport | Job No:

Site: [redacted]

Staff Initials: [redacted]

START TIME: (DD-MM-YY, HH:MM) 16-04-19 13:15

END TIME: (DD-MM-YY, HH:MM) 30-04-19 11:25

METER: SLM XX / VLM XX 45 — < 2 YEARS SINCE CALIBRATION? (SEE LABEL) Tick

CALIBRATOR: CAL 9 — SAME CALIBRATOR USED AT END? Tick — < 1 YEAR SINCE CALIBRATION?

CORRECT MICROPHONE AND PREAMP? (Refer to equipment sheet) — Memory card ID

METER CHECKS AND SET UP

	Tick		Tick		Tick
Sufficient battery?	✓	Date and time correct?	✓	Correct windshield correction set	✓
Sufficient memory?	✓	Clocks synchronised?			

CALIBRATION (See Reference sheet 2 for meter specific procedure) * Adjust sensitivity at start. Note value but do not adjust at end

	Start	End	
Calibration Level	94.0	94.0	Read off meter. See reference sheet 2 for expected values
Sensitivity Setting	94.3	Do Not change at end	B&K/Nor:Sensitivity; Svantek:C value; Rion:Internal Cal level
Low noise level (if cable used) :	2.35	2.35	Leave calibrator in place, but turned off
Cal Measurement Saved	0122	0124	Note file reference for calibration tone measurement
Cal within ±0.5 dB	✓	✓	Tick to confirm that values within 0.5 dB of expected. If not call Project manager or 0115 907 7000

LOGGING PERIOD: 15 mins — RESOLUTION: 1s

AUDIO SETTING: — — SECS / MINS EVERY — MINS / HOURS — or CONTINUOUS Tick — AUDIO TRIGGER LEVEL — dB

File name / Number: 0123 — RANGE — TO — OR N/A

WEATHER CONDITIONS

	Wind direction (arrow) START		Wind direction (arrow) END	
WIND SPEED (m/s)	N	AVG m/s MAX m/s	N	1.0 m/s 0.5 m/s
CLOUD COVER (eighths)	W E	100% /8	W E	7 /8
TEMPERATURE (°C)	S	18.4 °C	S	13.2 °C

PRECIPITATION (Tick)							ROAD CONDITIONS (Tick)				GROUND CONDITION (Tick)			
	NONE	DRIZZLE	RAIN	SNOW	HAIL	FOG/MIST	DRY	DAMP	WET	ICE/SNOW	SOFT	HARD	ICE/SNOW	FROZEN
START	✓						✓				✓			
END	✓						✓				✓			

Subjective description of sound climate (close your eyes and describe what you hear)

Dominant Noise (Start)	Dominant Noise (End)
Road noise	Road
Other Sources (Start)	Other Sources (End)

Other Comments:

AECOM **Noise Monitoring Sheet** | Project | Sheet 2 of

Site | Date | Meter

EQUIPMENT LOCATION

MICROPHONE HEIGHT ABOVE GROUND 1.5 METRES

MICROPHONE MOUNTED ON (TICK)				DISTANCE FROM VERTICAL SURFACE / FAÇADE (>3.5M OR =1M)	—
TRIPOD	✓	A FRAME		LINE OF SIGHT FROM SOURCE TO RECEIVER? (Y/N)	Y
MAST		FENCE		ACTUAL OR POTENTIAL NOISE SOURCES NEARBY? (EG AHU / HVAC / SUBSTATION / CAT SCARER ETC)	
OTHER					
OTHER					

Plan view sketch with distances.

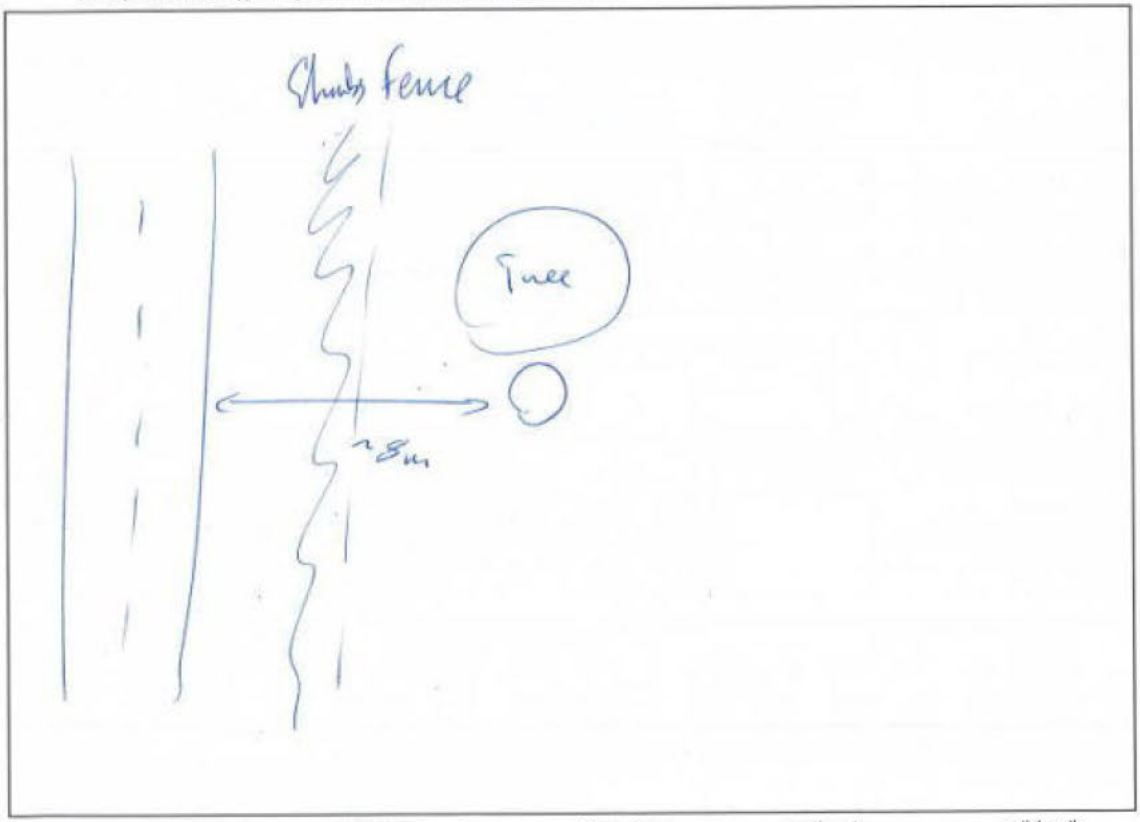
Mark: Meter location North arrow Main audible and potential noise souces

Photographic direction and positions (meter installed and all round view of surroundings)

Distance to nearest roads and other noise sources (identify) 9m estimate ____ measured

Note position, height and construction material of barriers. ____ estimate ____ measured

Note position and type of ground cover (grass, stone, shrubs etc)

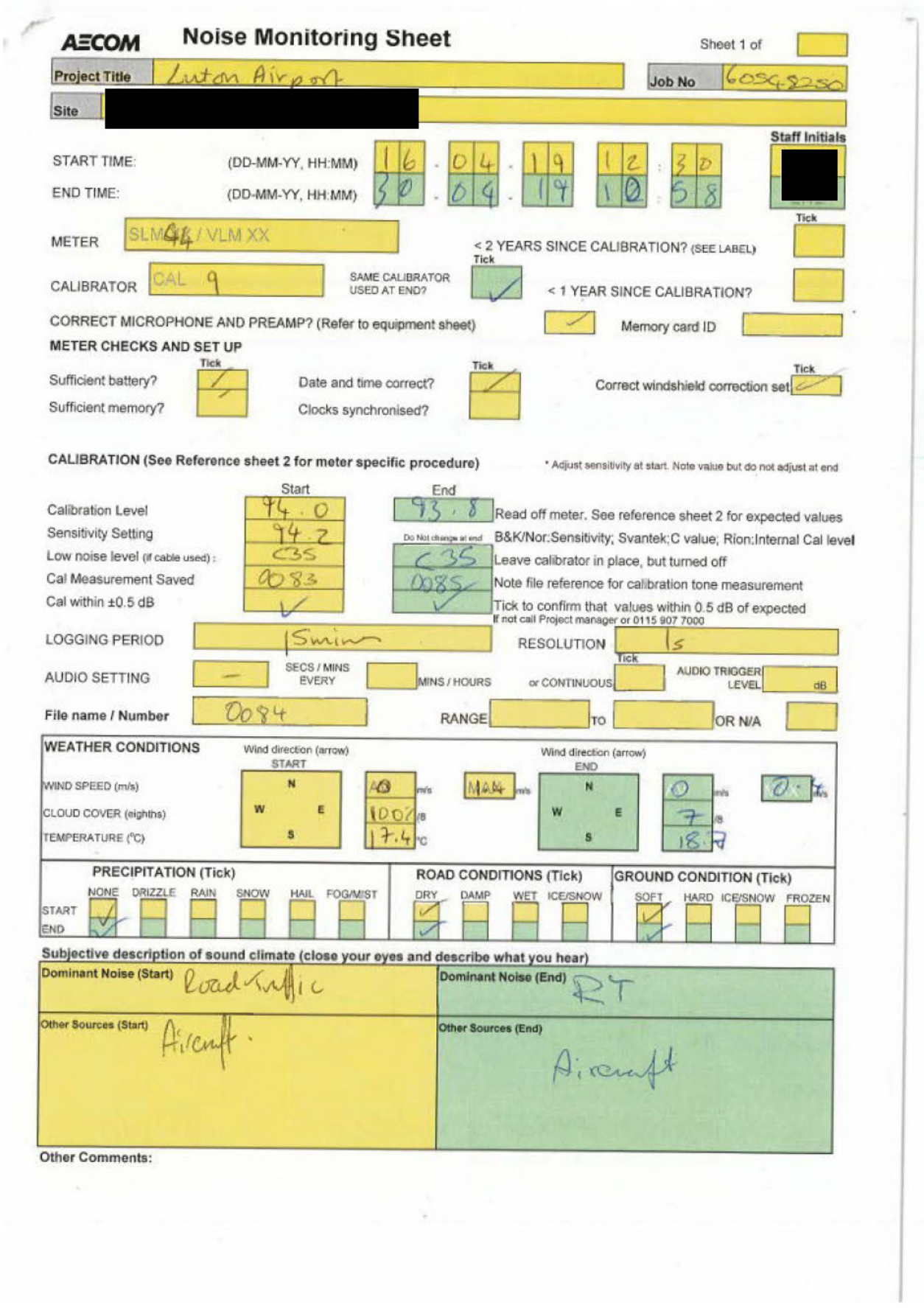


	2 letters	5 numbers	5 numbers		east/west	north/south
GPS Coordinates	TL	11019	21892	or		

Camera ID: GPS ID

	Print name	Signature	Date
Site staff	[redacted]	[redacted]	16/4/19
QA checked	[redacted]		

Figure 7.22: ML15 Monitoring Sheet (two sheets)



AECOM **Noise Monitoring Sheet** Sheet 1 of

Project Title: Luton Airport | Job No: 60547250

Site: [redacted]

Staff Initials: [redacted]

START TIME: (DD-MM-YY, HH:MM) 16-04-19 12:30

END TIME: (DD-MM-YY, HH:MM) 30-04-19 10:58

METER: SLM 44 / VLM XX — < 2 YEARS SINCE CALIBRATION? (SEE LABEL) Tick

CALIBRATOR: CAL 9 — SAME CALIBRATOR USED AT END? Tick ✓ — < 1 YEAR SINCE CALIBRATION?

CORRECT MICROPHONE AND PREAMP? (Refer to equipment sheet) ✓ — Memory card ID

METER CHECKS AND SET UP

	Tick		Tick		Tick
Sufficient battery?	✓	Date and time correct?	✓	Correct windshield correction set	✓
Sufficient memory?		Clocks synchronised?			

CALIBRATION (See Reference sheet 2 for meter specific procedure) * Adjust sensitivity at start. Note value but do not adjust at end

	Start	End	
Calibration Level	94.0	93.8	Read off meter. See reference sheet 2 for expected values
Sensitivity Setting	94.2	Do Not change at end	B&K/Nor:Sensitivity; Svantek:C value; Rion:Internal Cal level
Low noise level (if cable used) :	C35	C35	Leave calibrator in place, but turned off
Cal Measurement Saved	0083	0085	Note file reference for calibration tone measurement
Cal within ±0.5 dB	✓	✓	Tick to confirm that values within 0.5 dB of expected

If not call Project manager or 0115 907 7000

LOGGING PERIOD: 15min — RESOLUTION: 1s

AUDIO SETTING: — SECS / MINS EVERY: — MINS / HOURS — or CONTINUOUS Tick: — AUDIO TRIGGER LEVEL: — dB

File name / Number: 0084 — RANGE: — TO: — OR N/A: —

WEATHER CONDITIONS

	Wind direction (arrow) START		Wind direction (arrow) END	
WIND SPEED (m/s)		A0 m/s MAX m/s		0 m/s 0.7 m/s
CLOUD COVER (eighths)		100% /8		7 /8
TEMPERATURE (°C)		17.4 °C		18.7

	PRECIPITATION (Tick)						ROAD CONDITIONS (Tick)				GROUND CONDITION (Tick)			
	NONE	DRIZZLE	RAIN	SNOW	HAIL	FOG/MIST	DRY	DAMP	WET	ICE/SNOW	SOFT	HARD	ICE/SNOW	FROZEN
START	✓						✓				✓			
END	✓						✓				✓			

Subjective description of sound climate (close your eyes and describe what you hear)

Dominant Noise (Start)	Dominant Noise (End)
Road Traffic	RT
Other Sources (Start)	**Other Sources (End)**
Aircraft.	Aircraft

Other Comments:

AECOM **Noise Monitoring Sheet**

Project		Sheet 2 of			
Site		Date		Meter	

EQUIPMENT LOCATION

MICROPHONE HEIGHT ABOVE GROUND 1.5 METRES

MICROPHONE MOUNTED ON (TICK)				DISTANCE FROM VERTICAL SURFACE / FAÇADE (>3.5M OR =1M)	1m
TRIPOD	✓	A FRAME		LINE OF SIGHT FROM SOURCE TO RECEIVER? (Y/N)	N
MAST		FENCE		ACTUAL OR POTENTIAL NOISE SOURCES NEARBY? (EG AHU / HVAC / SUBSTATION / CAT SCARER ETC)	
OTHER					
OTHER					

Plan view sketch with distances.

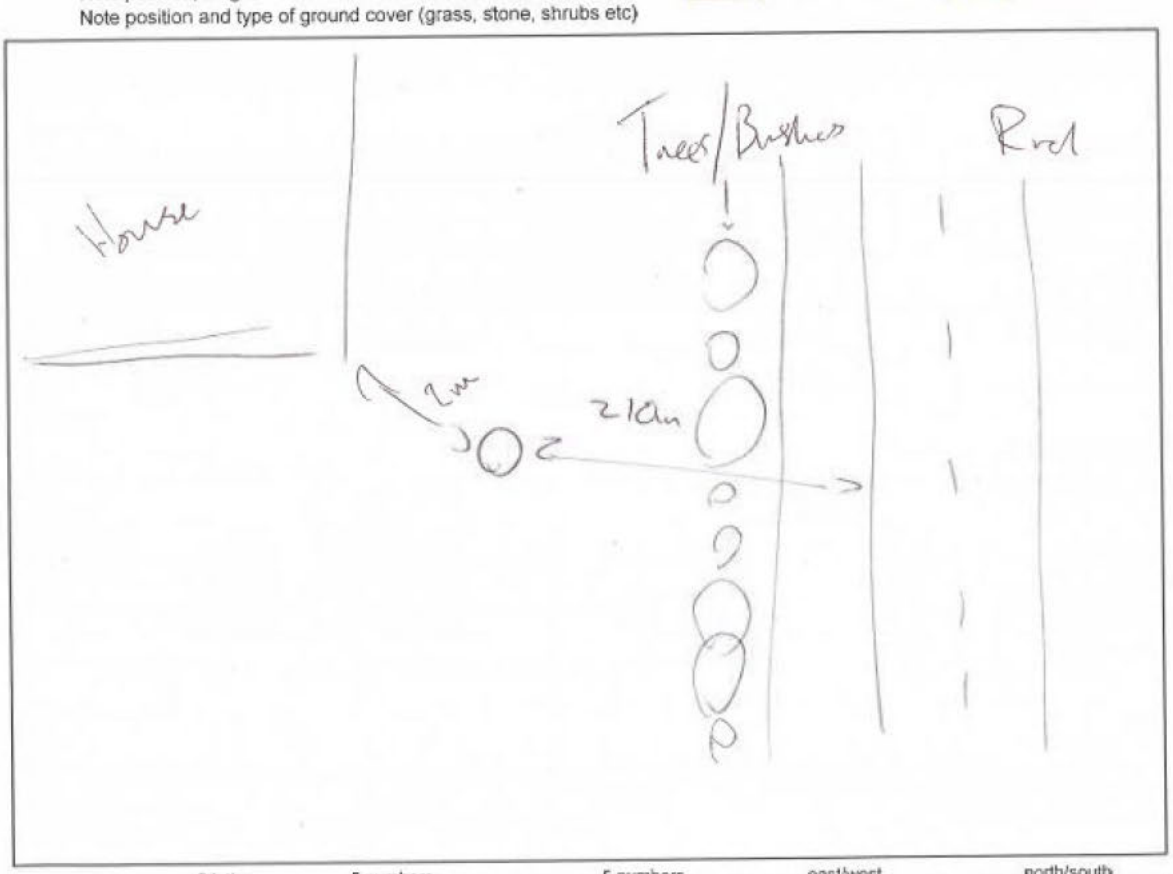
Mark: Meter location North arrow Main audible and potential noise souces

Photographic direction and positions (meter installed and all round view of surroundings)

Distance to nearest roads and other noise sources (identify) 10m estimate measured

Note position, height and construction material of barriers. estimate measured

Note position and type of ground cover (grass, stone, shrubs etc)

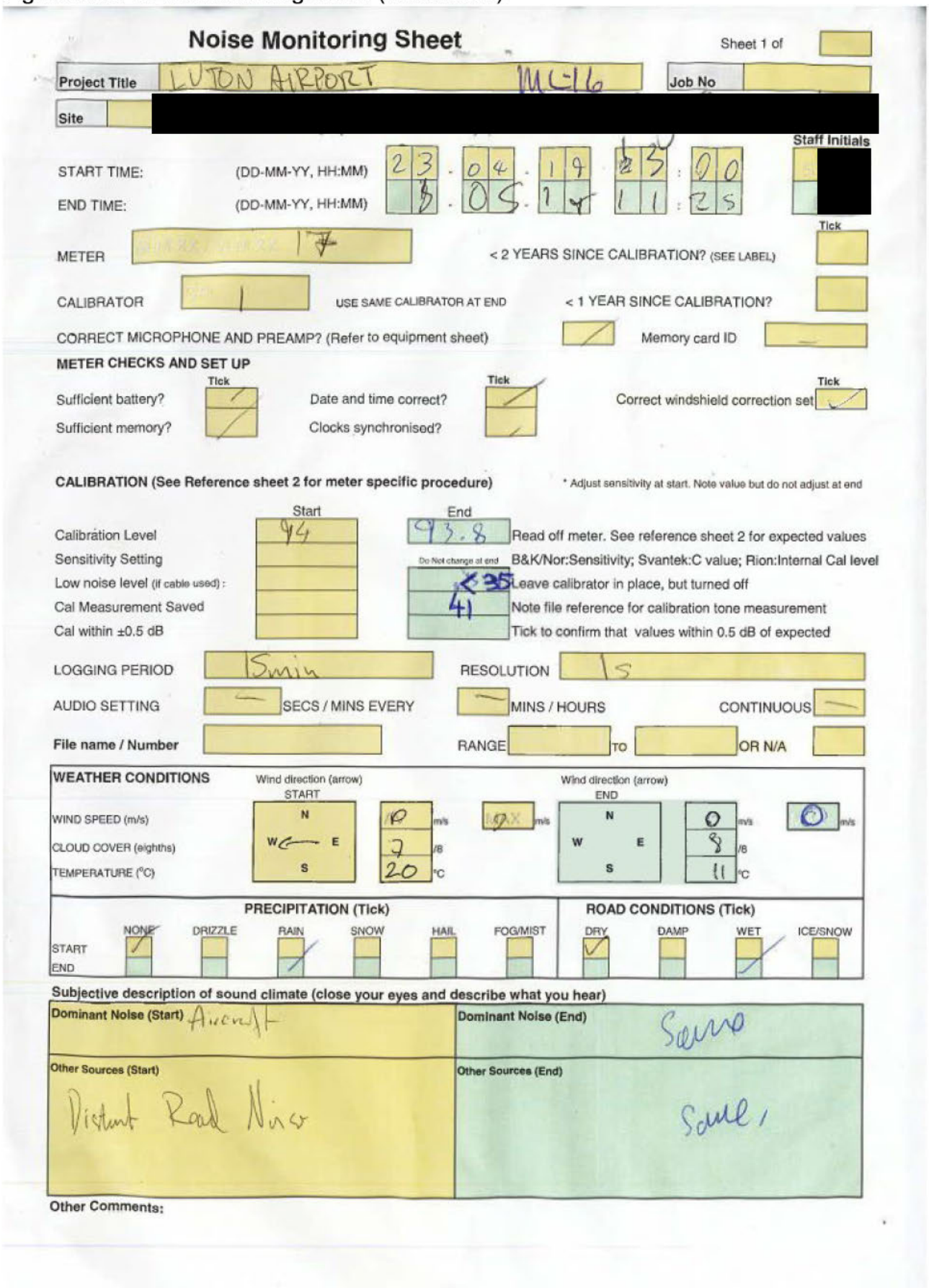


	2 letters	5 numbers	5 numbers	east/west	north/south
GPS Coordinates	TL	118	220	or	

Camera ID: GPS ID

	Print name	Signature	Date
Site staff	[redacted]	[redacted]	16/4/19
QA checked			

Figure 7.23: ML16 Monitoring Sheet (two sheets)



Noise Monitoring Sheet — Sheet 1 of

Project Title: LUTON AIRPORT ML16 — Job No:

Site: [redacted]

Staff Initials: [redacted]

START TIME:	(DD-MM-YY, HH:MM)	2	3	0	4	1	9	2	3	0	0
END TIME:	(DD-MM-YY, HH:MM)	2	3	0	5	1	9	1	1	2	5

METER: [redacted] — < 2 YEARS SINCE CALIBRATION? (SEE LABEL) — Tick: ✓

CALIBRATOR: [redacted] — USE SAME CALIBRATOR AT END — < 1 YEAR SINCE CALIBRATION?

CORRECT MICROPHONE AND PREAMP? (Refer to equipment sheet): ✓ — Memory card ID: —

METER CHECKS AND SET UP

	Tick		Tick		Tick
Sufficient battery?	✓	Date and time correct?	✓	Correct windshield correction set	✓
Sufficient memory?	✓	Clocks synchronised?	✓		

CALIBRATION (See Reference sheet 2 for meter specific procedure) * Adjust sensitivity at start. Note value but do not adjust at end

	Start	End	
Calibration Level	94	93.8	Read off meter. See reference sheet 2 for expected values
Sensitivity Setting		Do Not change at end	B&K/Nor:Sensitivity; Svantek:C value; Rion:Internal Cal level
Low noise level (if cable used) :		< 35	Leave calibrator in place, but turned off
Cal Measurement Saved		41	Note file reference for calibration tone measurement
Cal within ±0.5 dB			Tick to confirm that values within 0.5 dB of expected

LOGGING PERIOD: 5min — RESOLUTION: 1s

AUDIO SETTING: — SECS / MINS EVERY — MINS / HOURS — CONTINUOUS: —

File name / Number: — RANGE: — TO: — OR N/A: —

WEATHER CONDITIONS

	Wind direction (arrow) START		Wind direction (arrow) END	
WIND SPEED (m/s)	N W E S	10 m/s	9X m/s	0 m/s
CLOUD COVER (eighths)		7 /8		8 /8
TEMPERATURE (°C)		20 °C		11 °C

PRECIPITATION (Tick)	NONE	DRIZZLE	RAIN	SNOW	HAIL	FOG/MIST
START	✓					
END			✓			

ROAD CONDITIONS (Tick)	DRY	DAMP	WET	ICE/SNOW
START	✓			
END			✓	

Subjective description of sound climate (close your eyes and describe what you hear)

Dominant Noise (Start)	Dominant Noise (End)
Aircraft	Silence
Other Sources (Start)	**Other Sources (End)**
Distant Road Noise	Some

Other Comments:

2

Noise Monitoring Sheet

Project | Sheet 2 of

Site | Date | Meter

EQUIPMENT LOCATION

MICROPHONE HEIGHT ABOVE GROUND 1.5 METRES

MICROPHONE MOUNTED ON (TICK)				DISTANCE FROM VERTICAL SURFACE / FAÇADE (>3.5M OR =1M)	33.5m
TRIPOD		A FRAME		LINE OF SIGHT FROM SOURCE TO RECEIVER? (Y/N)	N
MAST	✓	FENCE		ACTUAL OR POTENTIAL NOISE SOURCES NEARBY? (EG AHU / HVAC / SUBSTATION / CAT SCARER ETC)	
OTHER					
OTHER					

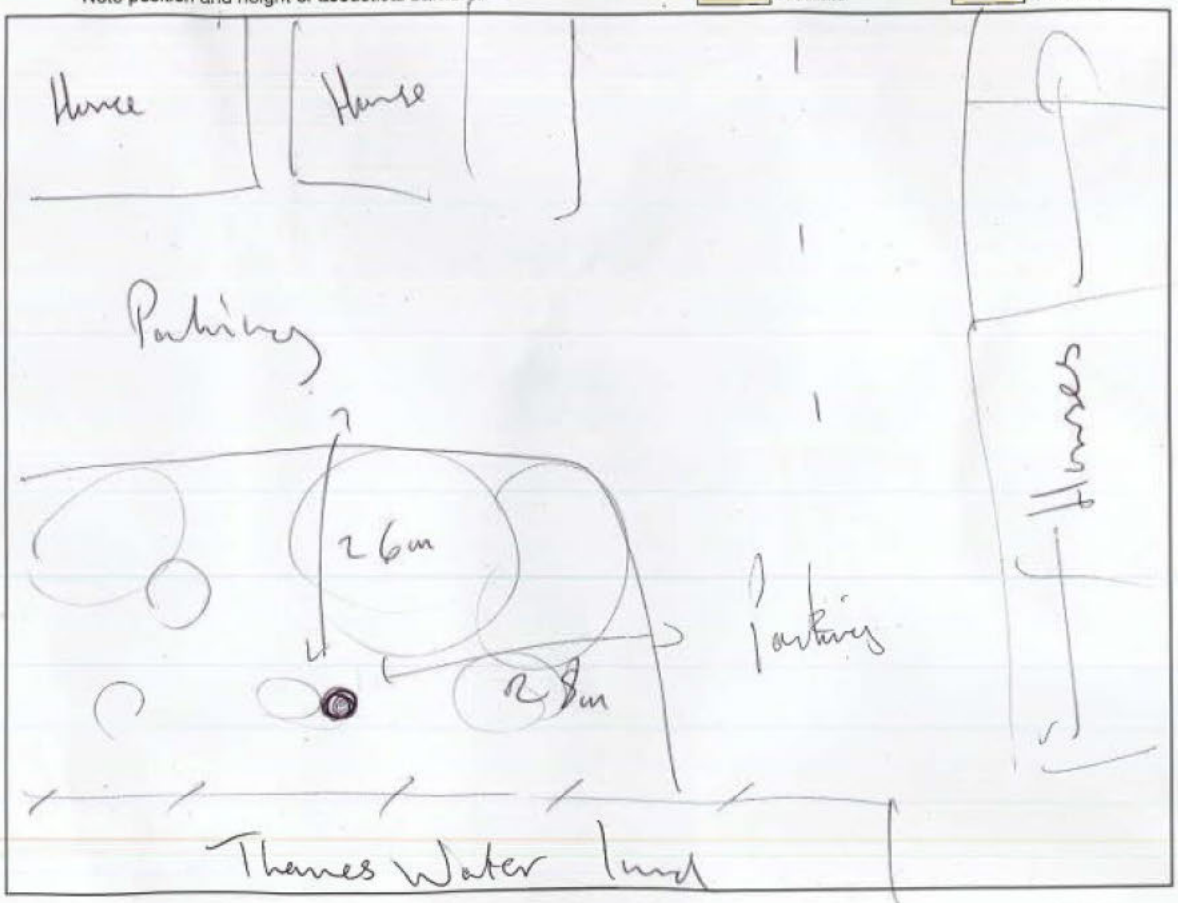
Plan view sketch with distances.

Mark: Meter location North arrow Main audible and potential noise souces

Photographic direction and positions (meter installed and all round view of surroundings)

Distance to nearest roads and other noise sources (identify) 8m estimate ___ measured

Note position and height of acoustical barriers. ___ estimate ___ measured



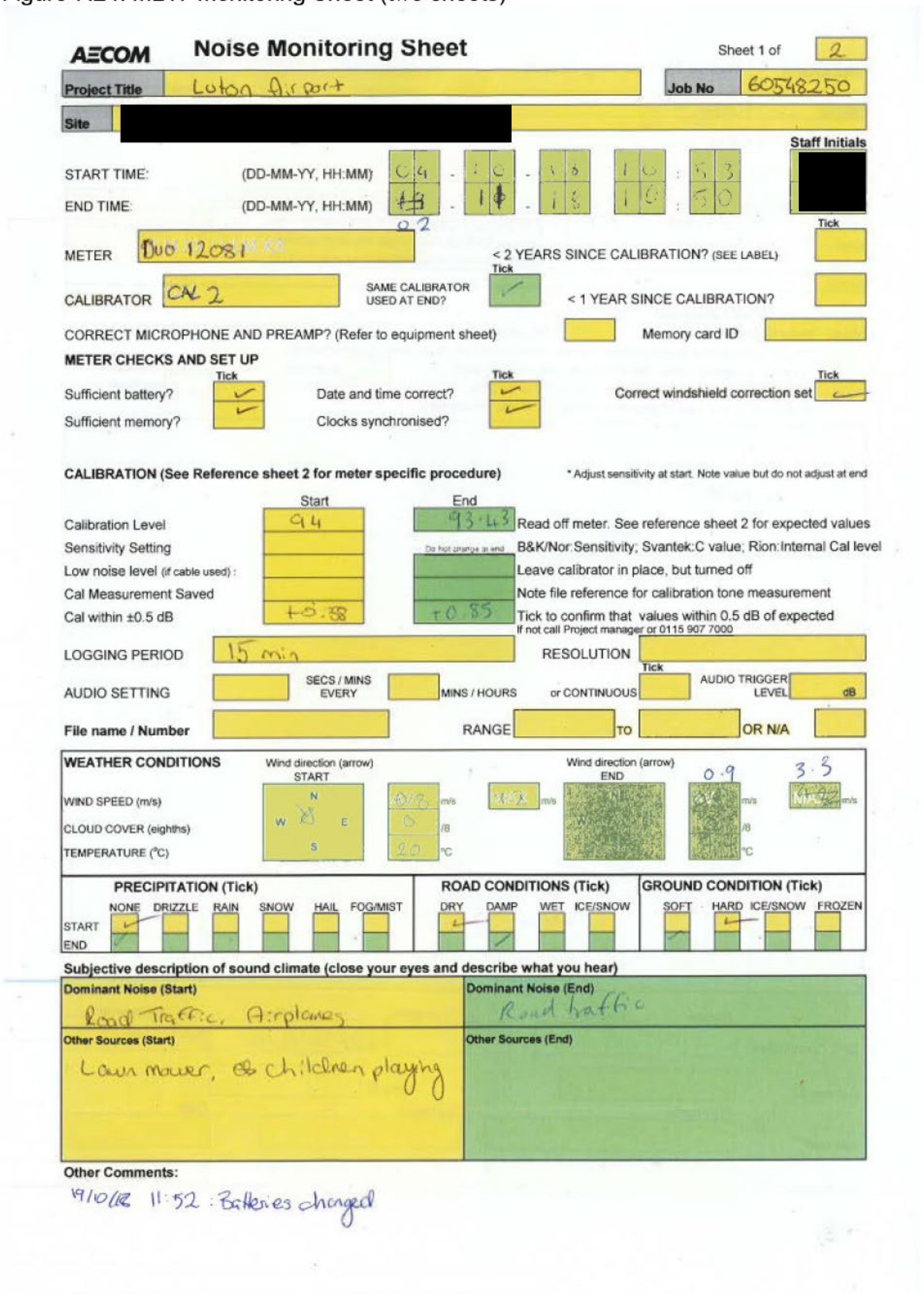
	2 letters	5 numbers	5 numbers	east/west	north/south
GPS Coordinates	TL	12952	22327	or	

Camera ID: GPS ID

Site staff Signature [redacted] Date 23/4/19

QA checked

Figure 7.24: ML17 Monitoring Sheet (two sheets)



AECOM **Noise Monitoring Sheet** Sheet 1 of 2

Project Title: Luton Airport Job No: 60548250

Site: [redacted] Staff Initials: [redacted]

START TIME: (DD-MM-YY, HH:MM) 04 - 10 - 18 10:53

END TIME: (DD-MM-YY, HH:MM) 04 - 10 - 18 16:50

METER: Duo 12081 < 2 YEARS SINCE CALIBRATION? (SEE LABEL) Tick

CALIBRATOR: CAL 2 SAME CALIBRATOR USED AT END? Tick ✓ < 1 YEAR SINCE CALIBRATION? Tick

CORRECT MICROPHONE AND PREAMP? (Refer to equipment sheet) Memory card ID

METER CHECKS AND SET UP

	Tick		Tick		Tick
Sufficient battery?	✓	Date and time correct?	✓	Correct windshield correction set	✓
Sufficient memory?	✓	Clocks synchronised?	✓		

CALIBRATION (See Reference sheet 2 for meter specific procedure) * Adjust sensitivity at start. Note value but do not adjust at end

	Start	End	
Calibration Level	94	93.43	Read off meter. See reference sheet 2 for expected values
Sensitivity Setting		Do not change at end	B&K/Nor:Sensitivity; Svantek:C value; Rion:Internal Cal level
Low noise level (if cable used) :			Leave calibrator in place, but turned off
Cal Measurement Saved			Note file reference for calibration tone measurement
Cal within ±0.5 dB	+0.38	+0.85	Tick to confirm that values within 0.5 dB of expected. If not call Project manager or 0115 907 7000

LOGGING PERIOD: 15 min RESOLUTION:

AUDIO SETTING: SECS / MINS EVERY: MINS / HOURS: or CONTINUOUS Tick: AUDIO TRIGGER LEVEL: dB

File name / Number: RANGE: TO: OR N/A

WEATHER CONDITIONS

	Wind direction (arrow) START		Wind direction (arrow) END	
WIND SPEED (m/s)	N W E S	0.9 m/s	MAX m/s	0.9 m/s / 3.3 MAX m/s
CLOUD COVER (eighths)		0 /8		/8
TEMPERATURE (°C)		20 °C		°C

PRECIPITATION (Tick)							ROAD CONDITIONS (Tick)				GROUND CONDITION (Tick)			
	NONE	DRIZZLE	RAIN	SNOW	HAIL	FOG/MIST	DRY	DAMP	WET	ICE/SNOW	SOFT	HARD	ICE/SNOW	FROZEN
START	✓						✓				✓			
END								✓				✓		

Subjective description of sound climate (close your eyes and describe what you hear)

Dominant Noise (Start)	Dominant Noise (End)
Road Traffic, Airplanes	Road traffic
Other Sources (Start)	**Other Sources (End)**
Lawn mower, & children playing	

Other Comments:

19/10/18 11:52 : Batteries changed

AECOM **Noise Monitoring Sheet**

Project | Sheet 2 of 2

Site [redacted] | Date 04/10/18 | Meter Du12051

EQUIPMENT LOCATION

MICROPHONE HEIGHT ABOVE GROUND 1.5 METRES

MICROPHONE MOUNTED ON (TICK)				DISTANCE FROM VERTICAL SURFACE / FAÇADE (>3.5M OR =1M)	
TRIPOD	✓	A FRAME		LINE OF SIGHT FROM SOURCE TO RECEIVER? (Y/N)	
MAST		FENCE		ACTUAL OR POTENTIAL NOISE SOURCES NEARBY? (EG AHU / HVAC / SUBSTATION / CAT SCARER ETC)	
OTHER					
OTHER					

Plan view sketch with distances.

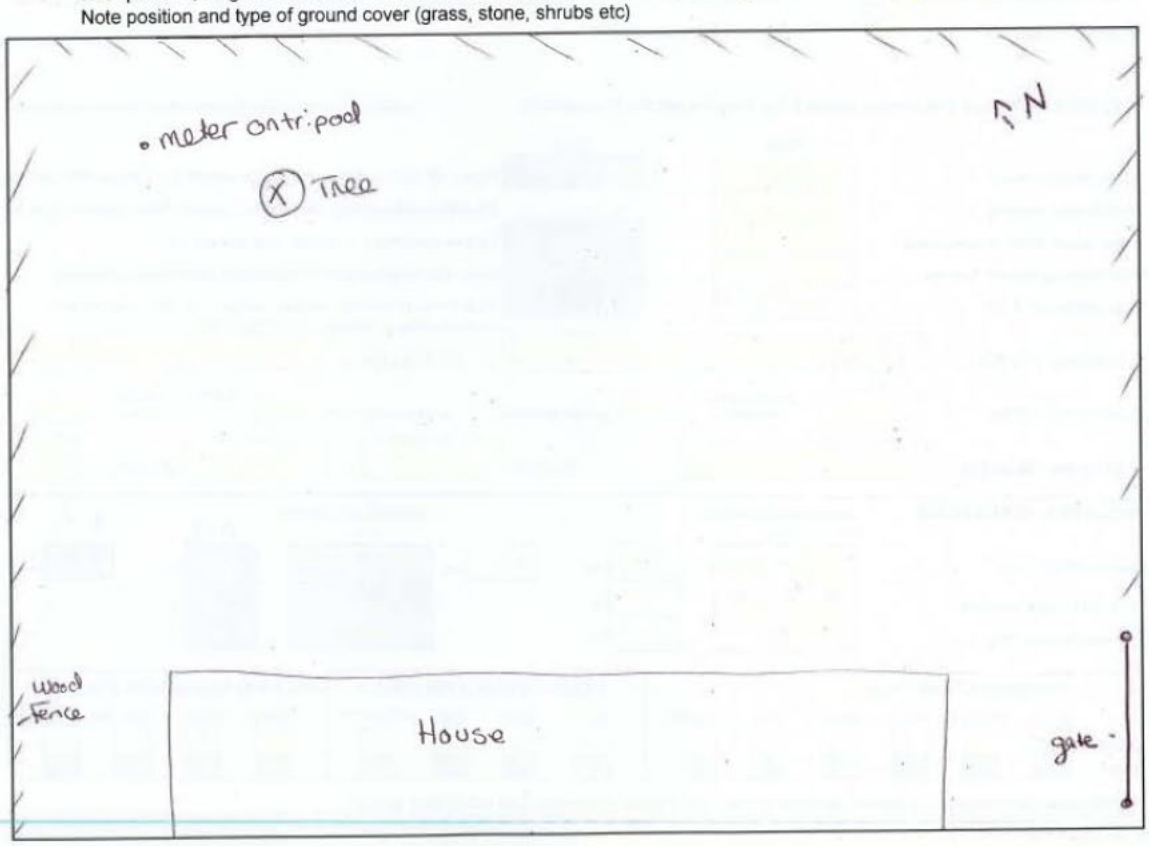
Mark: Meter location North arrow Main audible and potential noise souces

Photographic direction and positions (meter installed and all round view of surroundings)

Distance to nearest roads and other noise sources (identify) estimate measured

Note position, height and construction material of barriers. estimate measured

Note position and type of ground cover (grass, stone, shrubs etc)

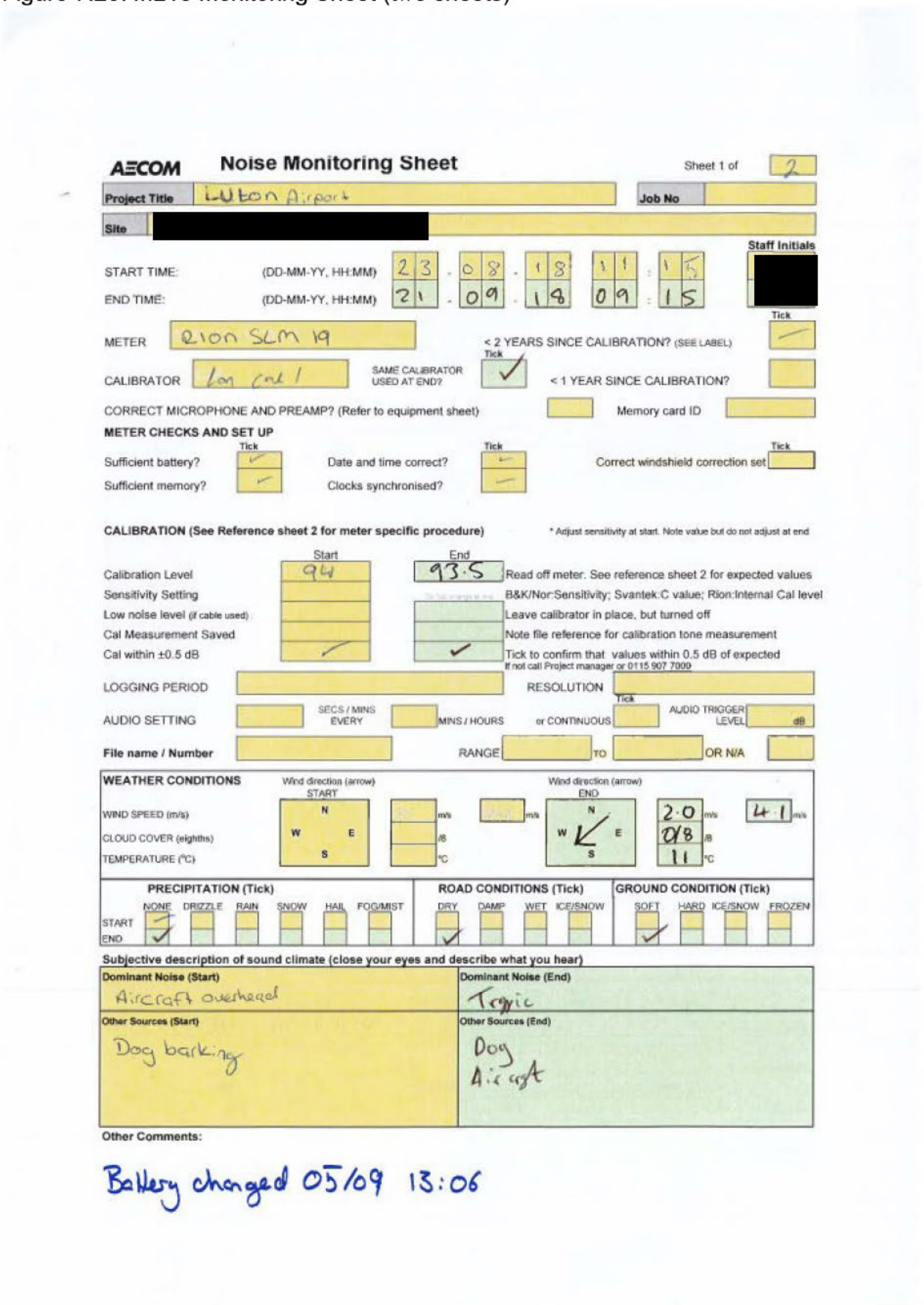


	2 letters	5 numbers	5 numbers		east/west	north/south
GPS Coordinates				or	0° 30'08.92"	51° 51'[illegible]1.48"

Camera ID: GPS ID

	Print name	Signature	Date
Site staff			
QA checked			

Figure 7.25: ML18 Monitoring Sheet (two sheets)



AECOM **Noise Monitoring Sheet** Sheet 1 of 2

Project Title: Luton Airport | Job No:

Site: [redacted]

Staff Initials: [redacted]

START TIME: (DD-MM-YY, HH:MM) 23 . 08 . 18 11 : 15

END TIME: (DD-MM-YY, HH:MM) 21 . 09 . 18 09 : 15

METER: Rion SLM 19 | < 2 YEARS SINCE CALIBRATION? (SEE LABEL) Tick ✓

CALIBRATOR: Lon cal 1 | SAME CALIBRATOR USED AT END? Tick ✓ | < 1 YEAR SINCE CALIBRATION?

CORRECT MICROPHONE AND PREAMP? (Refer to equipment sheet) | Memory card ID

METER CHECKS AND SET UP

	Tick		Tick		Tick
Sufficient battery?	✓	Date and time correct?	✓	Correct windshield correction set	
Sufficient memory?	✓	Clocks synchronised?	✓		

CALIBRATION (See Reference sheet 2 for meter specific procedure) * Adjust sensitivity at start. Note value but do not adjust at end

	Start	End	
Calibration Level	94	93.5	Read off meter. See reference sheet 2 for expected values
Sensitivity Setting			B&K/Nor:Sensitivity; Svantek:C value; Rion:Internal Cal level
Low noise level (if cable used)			Leave calibrator in place, but turned off
Cal Measurement Saved			Note file reference for calibration tone measurement
Cal within ±0.5 dB	✓	✓	Tick to confirm that values within 0.5 dB of expected. If not call Project manager on 0115 907 7000

LOGGING PERIOD | RESOLUTION

AUDIO SETTING | SECS / MINS EVERY | MINS / HOURS | or CONTINUOUS Tick | AUDIO TRIGGER LEVEL dB

File name / Number | RANGE TO | OR N/A

WEATHER CONDITIONS

	Wind direction (arrow) START		Wind direction (arrow) END	
WIND SPEED (m/s)		m/s		4·1 m/s
CLOUD COVER (eighths)		/8		2·0 m/s, 0/8 /8
TEMPERATURE (°C)		°C		11 °C

PRECIPITATION (Tick)							ROAD CONDITIONS (Tick)				GROUND CONDITION (Tick)			
	NONE	DRIZZLE	RAIN	SNOW	HAIL	FOG/MIST	DRY	DAMP	WET	ICE/SNOW	SOFT	HARD	ICE/SNOW	FROZEN
START	✓													
END	✓						✓				✓			

Subjective description of sound climate (close your eyes and describe what you hear)

Dominant Noise (Start)	Dominant Noise (End)
Aircraft overhead	Tropic
Other Sources (Start)	**Other Sources (End)**
Dog barking	Dog Aircraft

Other Comments:

Battery changed 05/09 13:06

AECOM **Noise Monitoring Sheet**

Project		Sheet 2 of	
Site	[redacted]	Date 23/08/18	Meter SLM19

EQUIPMENT LOCATION

MICROPHONE HEIGHT ABOVE GROUND _____ METRES

MICROPHONE MOUNTED ON (TICK)				DISTANCE FROM VERTICAL SURFACE / FAÇADE (>3.5M OR =1M)	1m
TRIPOD		A FRAME		LINE OF SIGHT FROM SOURCE TO RECEIVER? (Y/N)	
MAST	✓	FENCE		ACTUAL OR POTENTIAL NOISE SOURCES NEARBY? (EG AHU / HVAC / SUBSTATION / CAT SCARER ETC)	
OTHER					
OTHER					

Plan view sketch with distances.

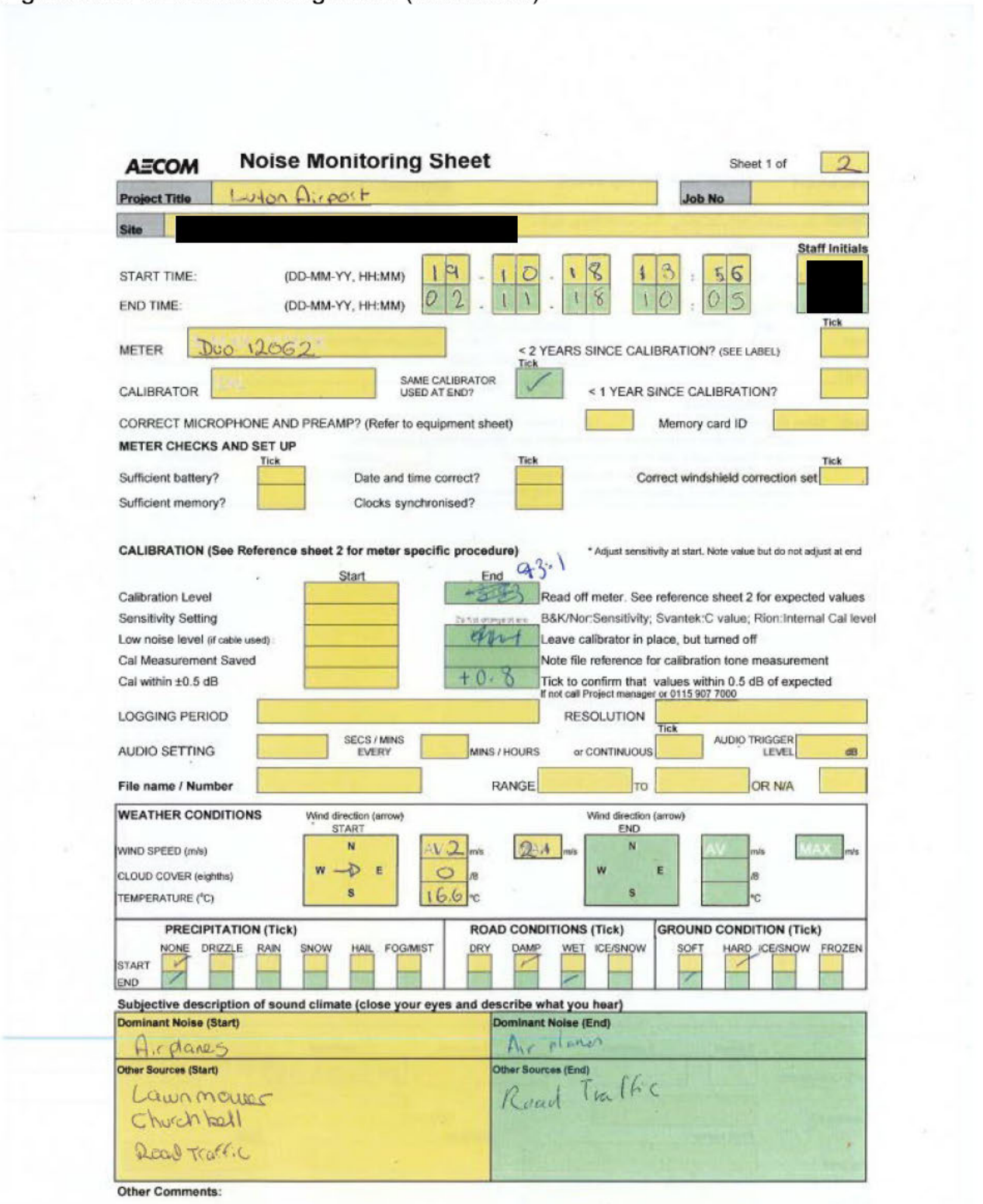
Mark: Meter location North arrow Main audible and potential noise souces
Photographic direction and positions (meter installed and all round view of surroundings)
Distance to nearest roads and other noise sources (identify) _____ estimate _____ measured
Note position, height and construction material of barriers. _____ estimate _____ measured
Note position and type of ground cover (grass, stone, shrubs etc)

	2 letters	5 numbers	5 numbers		east/west	north/south
GPS Coordinates				or	0° 11' 42.814"	W 51° 53' 39.86"

Camera ID: _____ GPS ID _____

	Print name	Signature	Date
Site staff			
QA checked			

Figure 7.26: ML19 Monitoring Sheet (two sheets)



AECOM **Noise Monitoring Sheet** Sheet 1 of 2

Project Title: Luton Airport | Job No:

Site: [redacted]

Staff Initials: [redacted]

START TIME: (DD-MM-YY, HH:MM) 19-10-18 13:56

END TIME: (DD-MM-YY, HH:MM) 02-11-18 10:05

METER: Duo 12062 | < 2 YEARS SINCE CALIBRATION? (SEE LABEL) Tick:

CALIBRATOR: [redacted] | SAME CALIBRATOR USED AT END? Tick: ✓ | < 1 YEAR SINCE CALIBRATION? Tick:

CORRECT MICROPHONE AND PREAMP? (Refer to equipment sheet) | Memory card ID

METER CHECKS AND SET UP

	Tick		Tick		Tick
Sufficient battery?		Date and time correct?		Correct windshield correction set	
Sufficient memory?		Clocks synchronised?			

CALIBRATION (See Reference sheet 2 for meter specific procedure) * Adjust sensitivity at start. Note value but do not adjust at end

	Start	End	
Calibration Level		93.1	Read off meter. See reference sheet 2 for expected values
Sensitivity Setting			B&K/Nor:Sensitivity; Svantek:C value; Rion:Internal Cal level
Low noise level (if cable used)			Leave calibrator in place, but turned off
Cal Measurement Saved			Note file reference for calibration tone measurement
Cal within ±0.5 dB		+0.8	Tick to confirm that values within 0.5 dB of expected

If not call Project manager on 0115 907 7000

LOGGING PERIOD | RESOLUTION

AUDIO SETTING | SECS / MINS EVERY | MINS / HOURS | or CONTINUOUS Tick: | AUDIO TRIGGER LEVEL dB

File name / Number | RANGE TO | OR N/A

WEATHER CONDITIONS

	Wind direction (arrow) START		Wind direction (arrow) END	
WIND SPEED (m/s)	N W E S	AV 2 m/s	2.4 m/s N W E S	AV m/s MAX m/s
CLOUD COVER (eighths)		0 /8		/8
TEMPERATURE (°C)		16.6 °C		°C

PRECIPITATION (Tick)							ROAD CONDITIONS (Tick)				GROUND CONDITION (Tick)			
	NONE	DRIZZLE	RAIN	SNOW	HAIL	FOG/MIST	DRY	DAMP	WET	ICE/SNOW	SOFT	HARD	ICE/SNOW	FROZEN
START	✓													
END	/								/		/			

Subjective description of sound climate (close your eyes and describe what you hear)

Dominant Noise (Start)	Dominant Noise (End)
Airplanes	Airplanes
Other Sources (Start)	**Other Sources (End)**
Lawnmower Church bell Road Traffic	Road Traffic

Other Comments:

AECOM **Noise Monitoring Sheet** Project Luton Sheet 2 of 2

Site [redacted] Date 19/10/18 Meter DU012062

EQUIPMENT LOCATION

MICROPHONE HEIGHT ABOVE GROUND ____ METRES

MICROPHONE MOUNTED ON (TICK)				DISTANCE FROM VERTICAL SURFACE / FACADE (>3.5M OR =1M)	
TRIPOD	✓	A FRAME		LINE OF SIGHT FROM SOURCE TO RECEIVER? (Y/N)	
MAST	✓	FENCE		ACTUAL OR POTENTIAL NOISE SOURCES NEARBY? (EG AHU / HVAC / SUBSTATION / CAT SCARER ETC)	
OTHER					
OTHER					

Plan view sketch with distances.

Mark: Meter location North arrow Main audible and potential noise souces

Photographic direction and positions (meter installed and all round view of surroundings)

Distance to nearest roads and other noise sources (identify) ____ estimate ____ measured

Note position, height and construction material of barriers. ____ estimate ____ measured

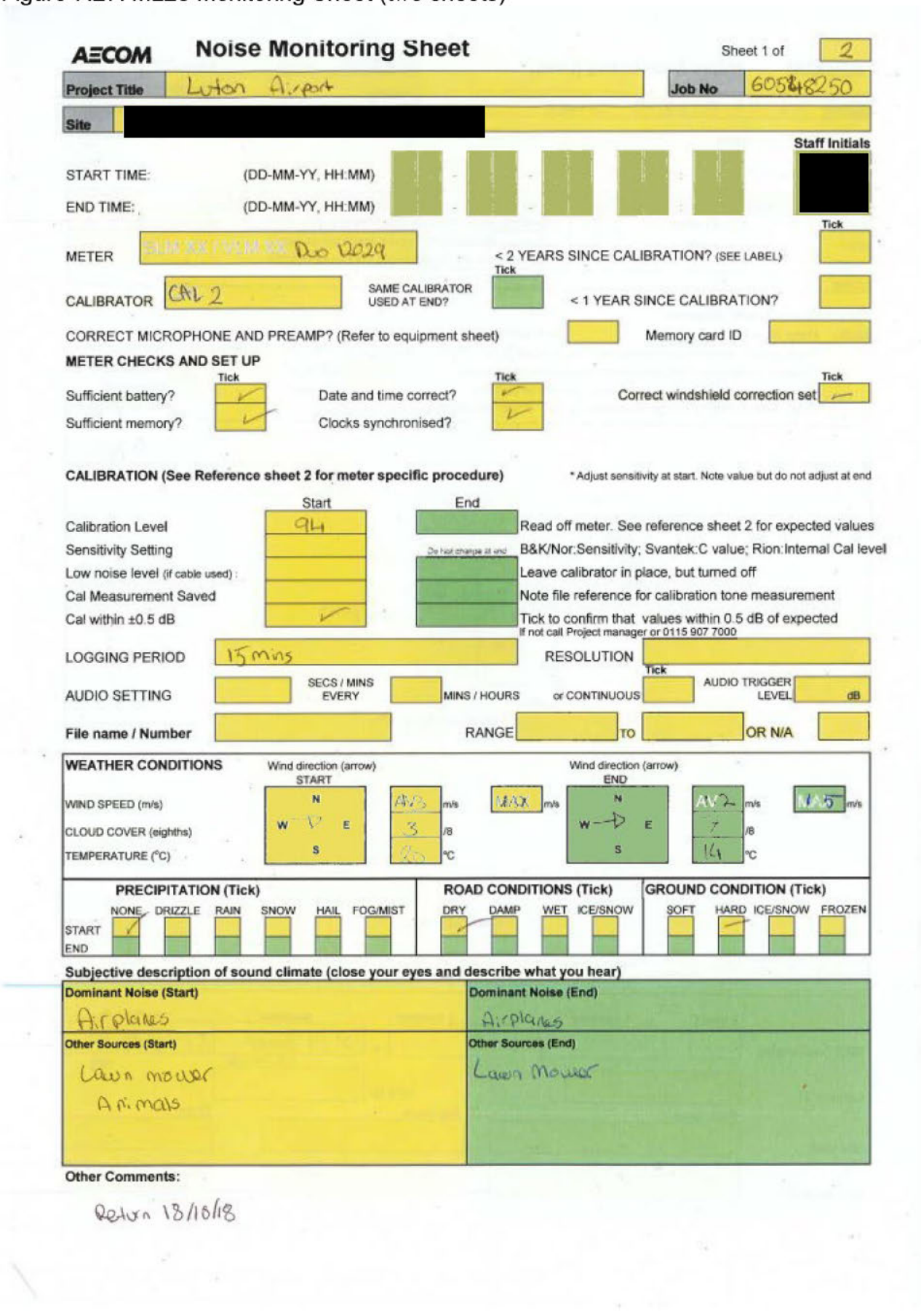
Note position and type of ground cover (grass, stone, shrubs etc)

	2 letters	5 numbers	5 numbers		east/west	north/south
GPS Coordinates				or	000°26'25.94"	51°49'09.38"

Camera ID: ____ GPS ID ____

	Print name	Signature	Date
Site staff			
QA checked			

Figure 7.27: ML20 Monitoring Sheet (two sheets)



AECOM **Noise Monitoring Sheet** Sheet 1 of 2

Project Title: Luton Airport | Job No: 60548250

Site: [redacted]

Staff Initials: [redacted]

START TIME: (DD-MM-YY, HH:MM)

END TIME: (DD-MM-YY, HH:MM)

METER: [illegible] Dec 2029 | < 2 YEARS SINCE CALIBRATION? (SEE LABEL) | Tick

CALIBRATOR: CAL 2 | SAME CALIBRATOR USED AT END? Tick | < 1 YEAR SINCE CALIBRATION?

CORRECT MICROPHONE AND PREAMP? (Refer to equipment sheet) | Memory card ID

METER CHECKS AND SET UP

	Tick		Tick		Tick
Sufficient battery?	✓	Date and time correct?	✓	Correct windshield correction set	✓
Sufficient memory?	✓	Clocks synchronised?	✓		

CALIBRATION (See Reference sheet 2 for meter specific procedure) * Adjust sensitivity at start. Note value but do not adjust at end

	Start	End	
Calibration Level	94		Read off meter. See reference sheet 2 for expected values
Sensitivity Setting		Do not change at end	B&K/Nor:Sensitivity; Svantek:C value; Rion:Internal Cal level
Low noise level (if cable used)			Leave calibrator in place, but turned off
Cal Measurement Saved			Note file reference for calibration tone measurement
Cal within ±0.5 dB	✓		Tick to confirm that values within 0.5 dB of expected

If not call Project manager or 0115 907 7000

LOGGING PERIOD: 15 mins | RESOLUTION

AUDIO SETTING | SECS / MINS EVERY | MINS / HOURS | or CONTINUOUS Tick | AUDIO TRIGGER LEVEL dB

File name / Number | RANGE TO | OR N/A

WEATHER CONDITIONS

	Wind direction (arrow) START		Wind direction (arrow) END	
WIND SPEED (m/s)	AV3 m/s	MAX m/s	AV2 m/s	MAX 5 m/s
CLOUD COVER (eighths)	3 /8		7 /8	
TEMPERATURE (°C)	20 °C		14 °C	

PRECIPITATION (Tick)							ROAD CONDITIONS (Tick)				GROUND CONDITION (Tick)			
	NONE	DRIZZLE	RAIN	SNOW	HAIL	FOG/MIST	DRY	DAMP	WET	ICE/SNOW	SOFT	HARD	ICE/SNOW	FROZEN
START	✓						✓					✓		
END														

Subjective description of sound climate (close your eyes and describe what you hear)

Dominant Noise (Start)	Dominant Noise (End)
Airplanes	Airplanes
Other Sources (Start)	**Other Sources (End)**
Lawn mower Animals	Lawn Mower

Other Comments:

Return 13/10/18

AECOM **Noise Monitoring Sheet**

Project: Luton | Sheet 2 of 2

Site: [redacted] | Date: 04/10/18 | Meter: Duo2029

EQUIPMENT LOCATION

MICROPHONE HEIGHT ABOVE GROUND: 1.9 METRES

MICROPHONE MOUNTED ON (TICK)				DISTANCE FROM VERTICAL SURFACE / FAÇADE (>3.5M OR =1M)	✓
TRIPOD		A FRAME	✓	LINE OF SIGHT FROM SOURCE TO RECEIVER? (Y/N)	
MAST		FENCE		ACTUAL OR POTENTIAL NOISE SOURCES NEARBY? (EG AHU / HVAC / SUBSTATION / CAT SCARER ETC)	
OTHER					
OTHER					

Plan view sketch with distances.

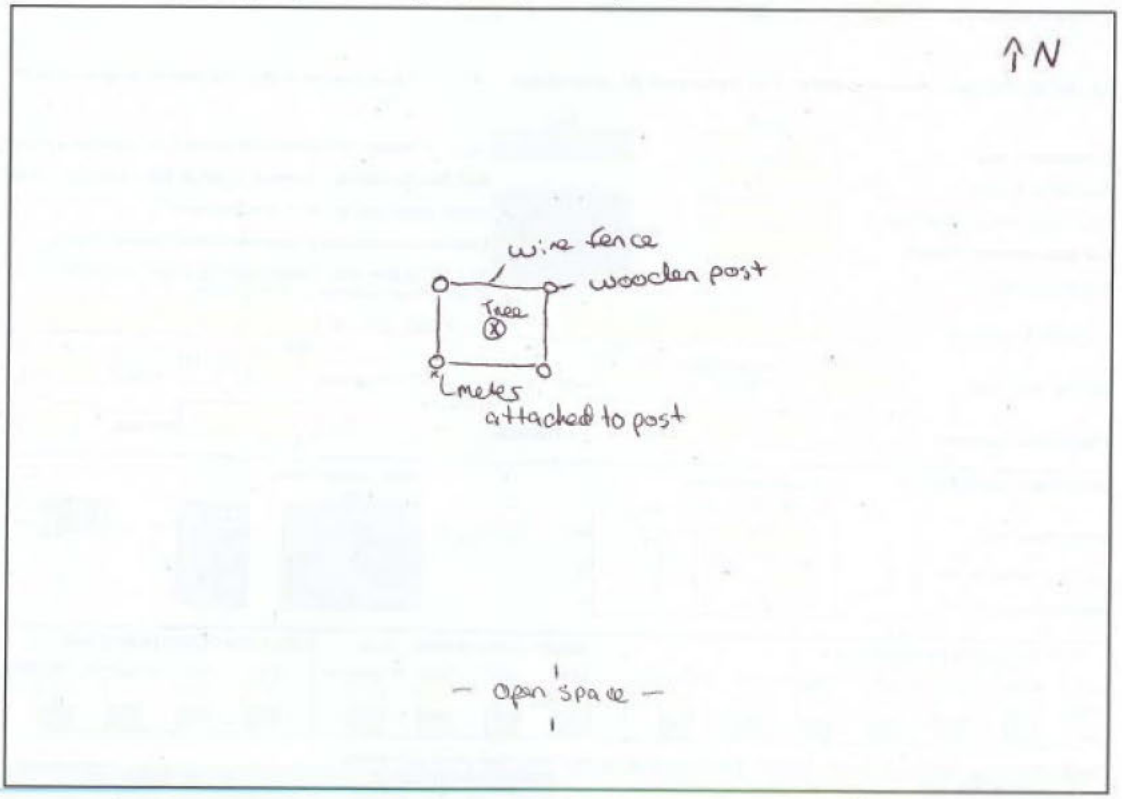
Mark: Meter location | North arrow | Main audible and potential noise souces

Photographic direction and positions (meter installed and all round view of surroundings)

Distance to nearest roads and other noise sources (identify) — estimate / measured

Note position, height and construction material of barriers. — estimate / measured

Note position and type of ground cover (grass, stone, shrubs etc)

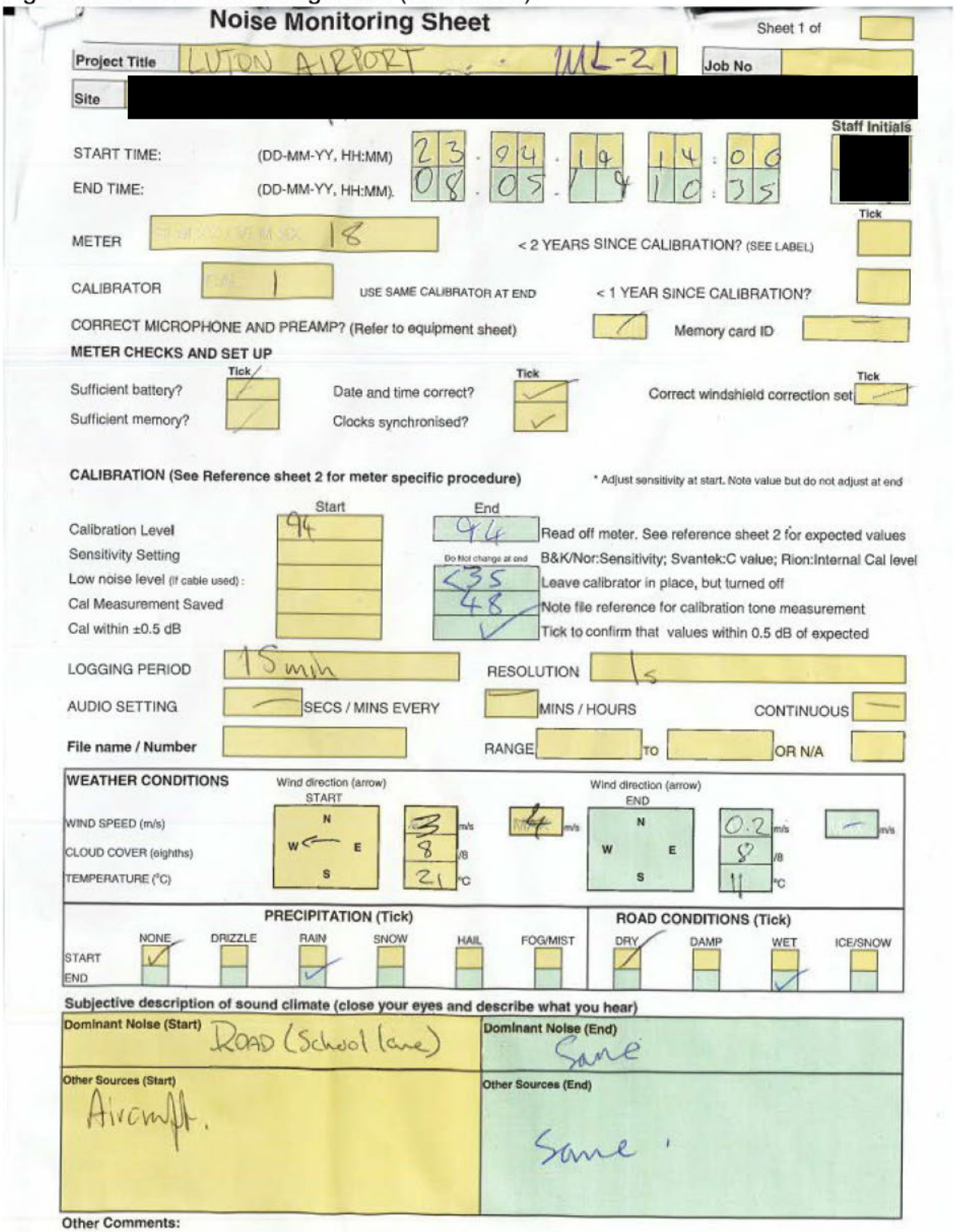


	2 letters	5 numbers	5 numbers	east/west	north/south
GPS Coordinates				or 0°29'~~30.6~~29.~~30~~86"	51°48'39.~~82~~90"

Camera ID: | GPS ID:

	Print name	Signature	Date
Site staff			
QA checked			

Figure 7.28: ML21 Monitoring Sheet (two sheets)



Noise Monitoring Sheet

Sheet 1 of

Project Title: LUTON AIRPORT ML-21

Job No:

Site: [redacted]

Staff Initials: [redacted]

START TIME: (DD-MM-YY, HH:MM) 23-04-19 14:06

END TIME: (DD-MM-YY, HH:MM) 08-05-19 10:35

METER: 18

< 2 YEARS SINCE CALIBRATION? (SEE LABEL) — Tick

CALIBRATOR: 1

USE SAME CALIBRATOR AT END

< 1 YEAR SINCE CALIBRATION?

CORRECT MICROPHONE AND PREAMP? (Refer to equipment sheet) ✓

Memory card ID:

METER CHECKS AND SET UP

	Tick		Tick		Tick
Sufficient battery?	✓	Date and time correct?	✓	Correct windshield correction set	✓
Sufficient memory?	✓	Clocks synchronised?	✓		

CALIBRATION (See Reference sheet 2 for meter specific procedure)

* Adjust sensitivity at start. Note value but do not adjust at end

	Start	End	
Calibration Level	94	94	Read off meter. See reference sheet 2 for expected values
Sensitivity Setting		Do Not change at end	B&K/Nor:Sensitivity; Svantek:C value; Rion:Internal Cal level
Low noise level (if cable used) :		<35	Leave calibrator in place, but turned off
Cal Measurement Saved		48	Note file reference for calibration tone measurement
Cal within ±0.5 dB		✓	Tick to confirm that values within 0.5 dB of expected

LOGGING PERIOD: 15 min — RESOLUTION: 1s

AUDIO SETTING: — SECS / MINS EVERY — MINS / HOURS — CONTINUOUS: —

File name / Number: — RANGE: — TO: — OR N/A: —

WEATHER CONDITIONS

	Wind direction (arrow) START		Wind direction (arrow) END	
WIND SPEED (m/s)	3 m/s	[illegible] m/s	0.2 m/s	— m/s
CLOUD COVER (eighths)	8 /8		8 /8	
TEMPERATURE (°C)	21 °C		11 °C	

PRECIPITATION (Tick)

	NONE	DRIZZLE	RAIN	SNOW	HAIL	FOG/MIST
START	✓					
END			✓			

ROAD CONDITIONS (Tick)

	DRY	DAMP	WET	ICE/SNOW
START	✓			
END			✓	

Subjective description of sound climate (close your eyes and describe what you hear)

Dominant Noise (Start)	Dominant Noise (End)
ROAD (School lane)	Same
Other Sources (Start)	**Other Sources (End)**
Aircraft.	Same.

Other Comments:

Noise Monitoring Sheet

Project | Sheet 2 of

Site | Date | Meter

EQUIPMENT LOCATION

MICROPHONE HEIGHT ABOVE GROUND 1.5 METRES

MICROPHONE MOUNTED ON (TICK)				DISTANCE FROM VERTICAL SURFACE / FAÇADE (>3.5M OR =1M)	>3.5
TRIPOD		A FRAME		LINE OF SIGHT FROM SOURCE TO RECEIVER? (Y/N)	Y
MAST	✓	FENCE		ACTUAL OR POTENTIAL NOISE SOURCES NEARBY? (EG AHU / HVAC / SUBSTATION / CAT SCARER ETC)	
OTHER					
OTHER					

Plan view sketch with distances.

Mark: Meter location North arrow Main audible and potential noise souces

Photographic direction and positions (meter installed and all round view of surroundings)

Distance to nearest roads and other noise sources (identify) 3m estimate measured

Note position and height of acoustical barriers. estimate measured

	2 letters	5 numbers	5 numbers		east/west	north/south
GPS Coordinates	TL	18054	24756	or		

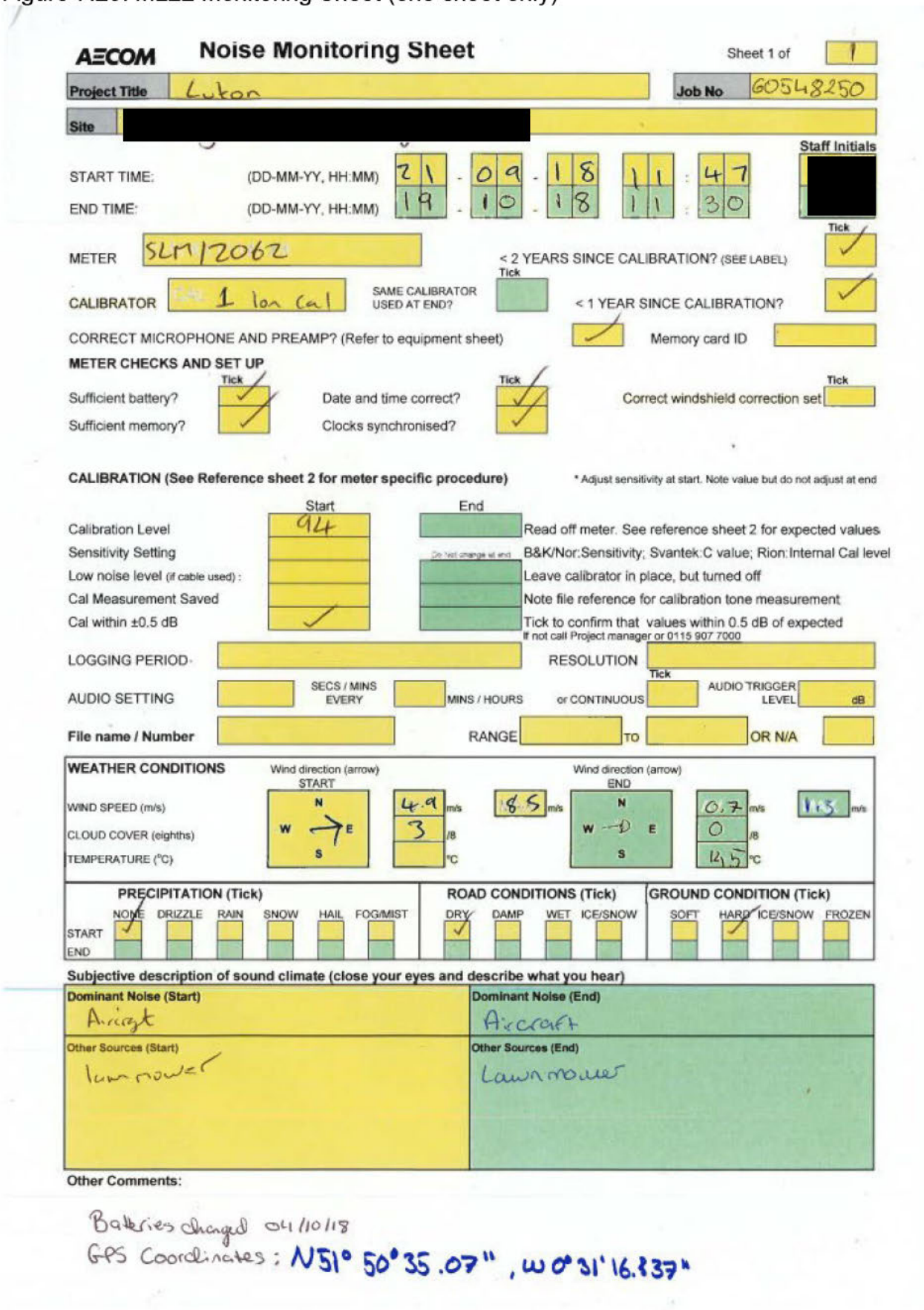
Camera ID: GPS ID

Signature Date

Site staff [redacted] 23/4/19

QA checked

Figure 7.29: ML22 Monitoring Sheet (one sheet only)



AECOM **Noise Monitoring Sheet** Sheet 1 of 1

Project Title: Luton | Job No: 60548250

Site: [redacted]

Staff Initials: [redacted]

START TIME: (DD-MM-YY, HH:MM) 21-09-18 11:47

END TIME: (DD-MM-YY, HH:MM) 19-10-18 11:30

METER: SLM12062 — < 2 YEARS SINCE CALIBRATION? (SEE LABEL) Tick ✓

CALIBRATOR: 1 lon Cal — SAME CALIBRATOR USED AT END? Tick — < 1 YEAR SINCE CALIBRATION? ✓

CORRECT MICROPHONE AND PREAMP? (Refer to equipment sheet) ✓ — Memory card ID

METER CHECKS AND SET UP

	Tick		Tick		Tick
Sufficient battery?	✓	Date and time correct?	✓	Correct windshield correction set	
Sufficient memory?	✓	Clocks synchronised?	✓		

CALIBRATION (See Reference sheet 2 for meter specific procedure) * Adjust sensitivity at start. Note value but do not adjust at end

	Start	End	
Calibration Level	94		Read off meter. See reference sheet 2 for expected values
Sensitivity Setting		Do not change at end	B&K/Nor:Sensitivity; Svantek:C value; Rion:Internal Cal level
Low noise level (if cable used) :			Leave calibrator in place, but turned off
Cal Measurement Saved			Note file reference for calibration tone measurement
Cal within ±0.5 dB	✓		Tick to confirm that values within 0.5 dB of expected

If not call Project manager or 0115 907 7000

LOGGING PERIOD: — RESOLUTION

AUDIO SETTING: — SECS / MINS EVERY — MINS / HOURS — or CONTINUOUS Tick — AUDIO TRIGGER LEVEL dB

File name / Number: — RANGE — TO — OR N/A

WEATHER CONDITIONS

	Wind direction (arrow) START		Wind direction (arrow) END	
WIND SPEED (m/s)	4.9 m/s	8.5 m/s	0.7 m/s	1.3 m/s
CLOUD COVER (eighths)	3 /8		0 /8	
TEMPERATURE (°C)			12.5 °C	

PRECIPITATION (Tick)	NONE	DRIZZLE	RAIN	SNOW	HAIL	FOG/MIST
START	✓					
END						

ROAD CONDITIONS (Tick)	DRY	DAMP	WET	ICE/SNOW
	✓			

GROUND CONDITION (Tick)	SOFT	HARD	ICE/SNOW	FROZEN
		✓		

Subjective description of sound climate (close your eyes and describe what you hear)

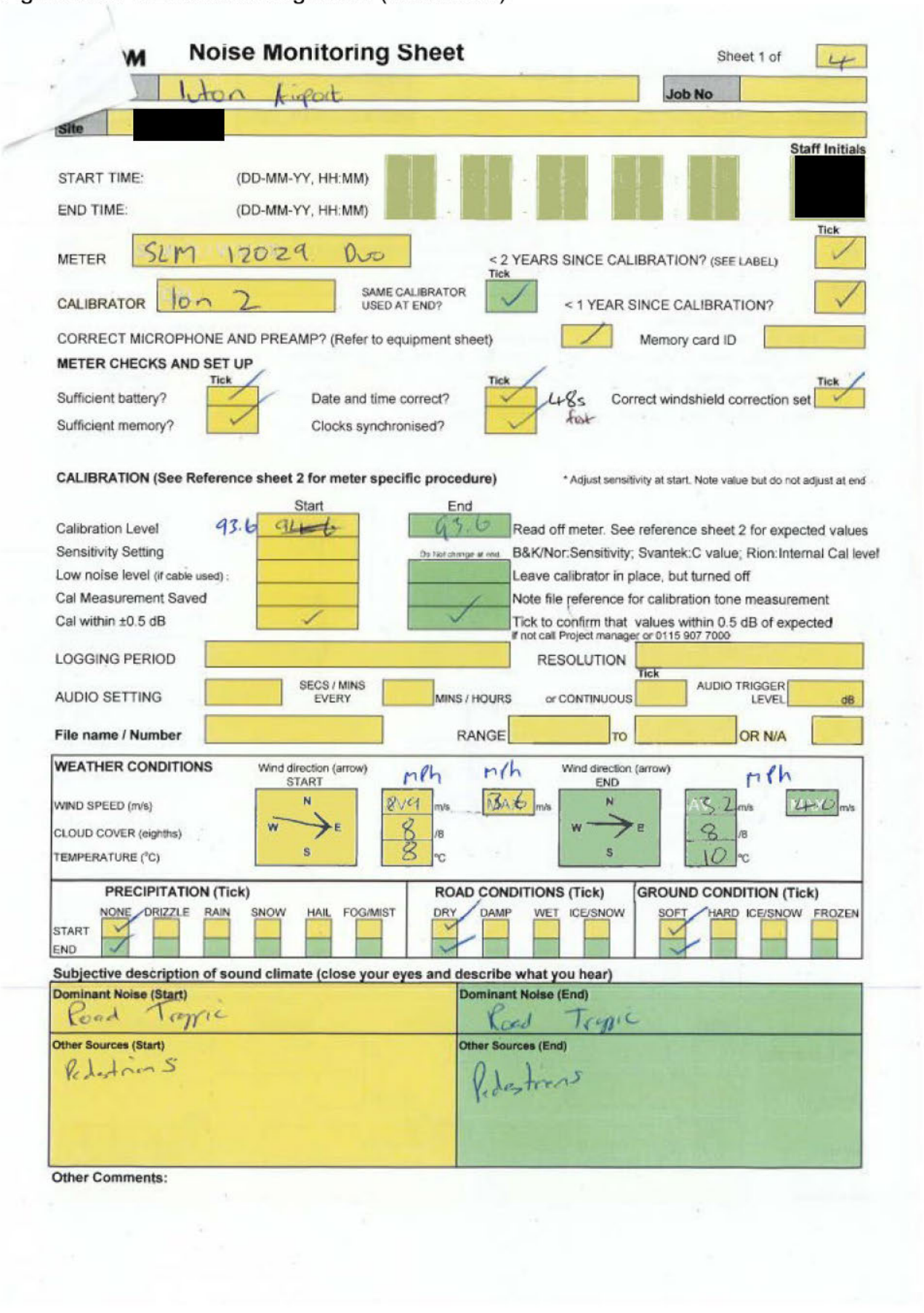
Dominant Noise (Start)	Dominant Noise (End)
Aircraft	Aircraft
Other Sources (Start)	**Other Sources (End)**
lawnmower	Lawnmower

Other Comments:

Batteries changed 04/10/18

GPS Coordinates: N51° 50' 35.07", W0° 31' 16.837"

Figure 7.30: ML23 Monitoring Sheet (two sheets)



Noise Monitoring Sheet

Sheet 1 of 4

Luton Airport

Job No

Site [redacted]

Staff Initials [redacted]

START TIME: (DD-MM-YY, HH:MM)

END TIME: (DD-MM-YY, HH:MM)

METER SLM 12029 Duo — < 2 YEARS SINCE CALIBRATION? (SEE LABEL) Tick ✓

CALIBRATOR 1on 2 — SAME CALIBRATOR USED AT END? Tick ✓ — < 1 YEAR SINCE CALIBRATION? ✓

CORRECT MICROPHONE AND PREAMP? (Refer to equipment sheet) ✓ — Memory card ID

METER CHECKS AND SET UP

Sufficient battery? Tick ✓ — Date and time correct? Tick ✓ 48s fast — Correct windshield correction set Tick ✓

Sufficient memory? ✓ — Clocks synchronised? ✓

CALIBRATION (See Reference sheet 2 for meter specific procedure) * Adjust sensitivity at start. Note value but do not adjust at end

	Start	End	
Calibration Level	93.6 ~~94.0~~	93.6	Read off meter. See reference sheet 2 for expected values
Sensitivity Setting		Do Not change at end	B&K/Nor:Sensitivity; Svantek:C value; Rion:Internal Cal level
Low noise level (if cable used) :			Leave calibrator in place, but turned off
Cal Measurement Saved		✓	Note file reference for calibration tone measurement
Cal within ±0.5 dB	✓		Tick to confirm that values within 0.5 dB of expected. If not call Project manager or 0115 907 7000

LOGGING PERIOD — RESOLUTION

AUDIO SETTING — SECS / MINS EVERY — MINS / HOURS — or CONTINUOUS Tick — AUDIO TRIGGER LEVEL dB

File name / Number — RANGE TO OR N/A

WEATHER CONDITIONS

	Wind direction (arrow) START		Wind direction (arrow) END	
WIND SPEED (m/s)	N	8V9 m/s	N	A3.2 m/s
		13.6 m/s		4.0 m/s
CLOUD COVER (eighths)	W E	8 /8	W E	8 /8
TEMPERATURE (°C)	S	8 °C	S	10 °C

PRECIPITATION (Tick)							ROAD CONDITIONS (Tick)				GROUND CONDITION (Tick)			
	NONE	DRIZZLE	RAIN	SNOW	HAIL	FOG/MIST	DRY	DAMP	WET	ICE/SNOW	SOFT	HARD	ICE/SNOW	FROZEN
START	✓						✓				✓			
END	✓						✓				✓			

Subjective description of sound climate (close your eyes and describe what you hear)

Dominant Noise (Start)	Dominant Noise (End)
Road Traffic	Road Traffic
Other Sources (Start)	**Other Sources (End)**
Pedestrians	Pedestrians

Other Comments:

AECOM **Noise Monitoring Sheet**

Site	[redacted]	**Project**		Sheet 2 of	4
		Date	02/10/18	**Meter**	12024

EQUIPMENT LOCATION

MICROPHONE HEIGHT ABOVE GROUND 1.4 METRES

MICROPHONE MOUNTED ON (TICK)					
TRIPOD	✓	A FRAME		DISTANCE FROM VERTICAL SURFACE / FAÇADE (>3.5M OR =1M)	>3.5m
MAST		FENCE		LINE OF SIGHT FROM SOURCE TO RECEIVER? (Y/N)	Y
OTHER				ACTUAL OR POTENTIAL NOISE SOURCES NEARBY? (EG AHU / HVAC / SUBSTATION / CAT SCARER ETC)	NO
OTHER					

Plan view sketch with distances.

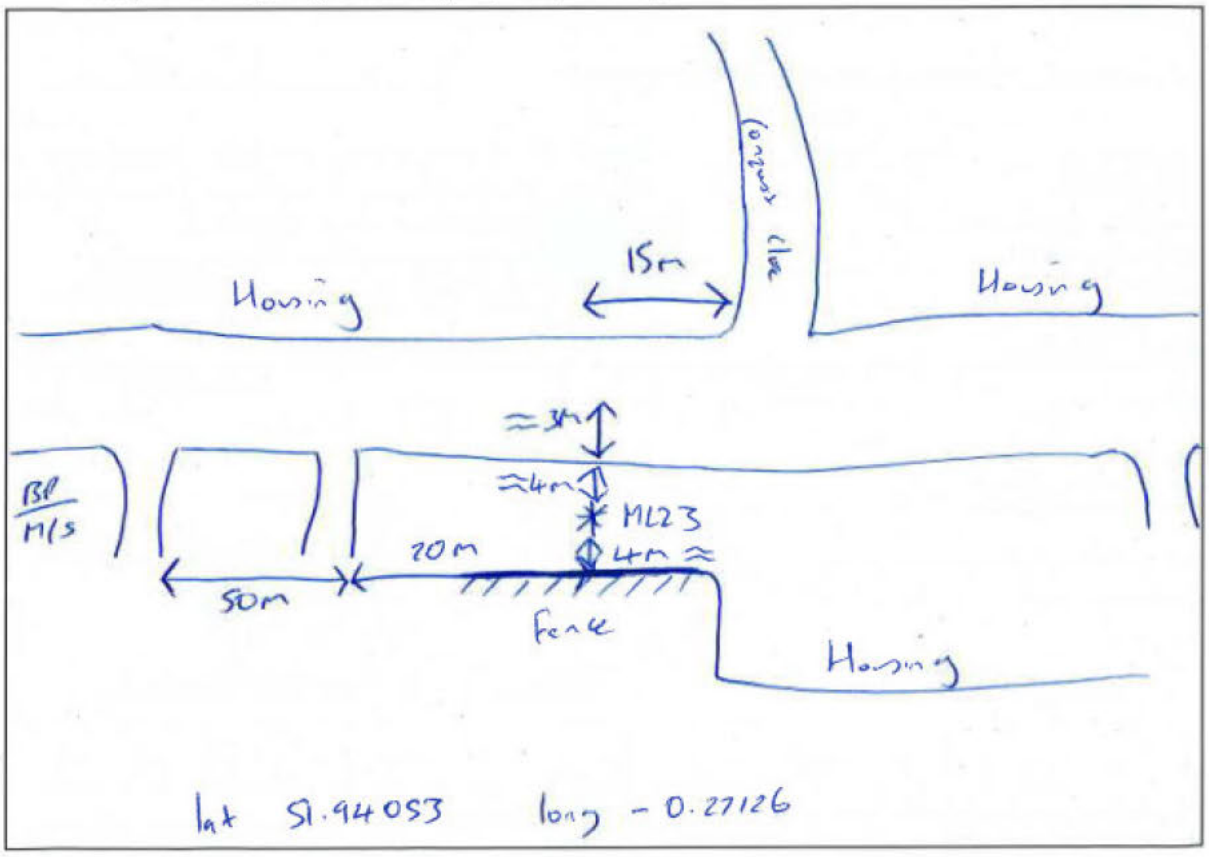
Mark: Meter location North arrow Main audible and potential noise souces

Photographic direction and positions (meter installed and all round view of surroundings)

Distance to nearest roads and other noise sources (identify) [ ] estimate [ ] measured

Note position, height and construction material of barriers. [ ] estimate [ ] measured

Note position and type of ground cover (grass, stone, shrubs etc)

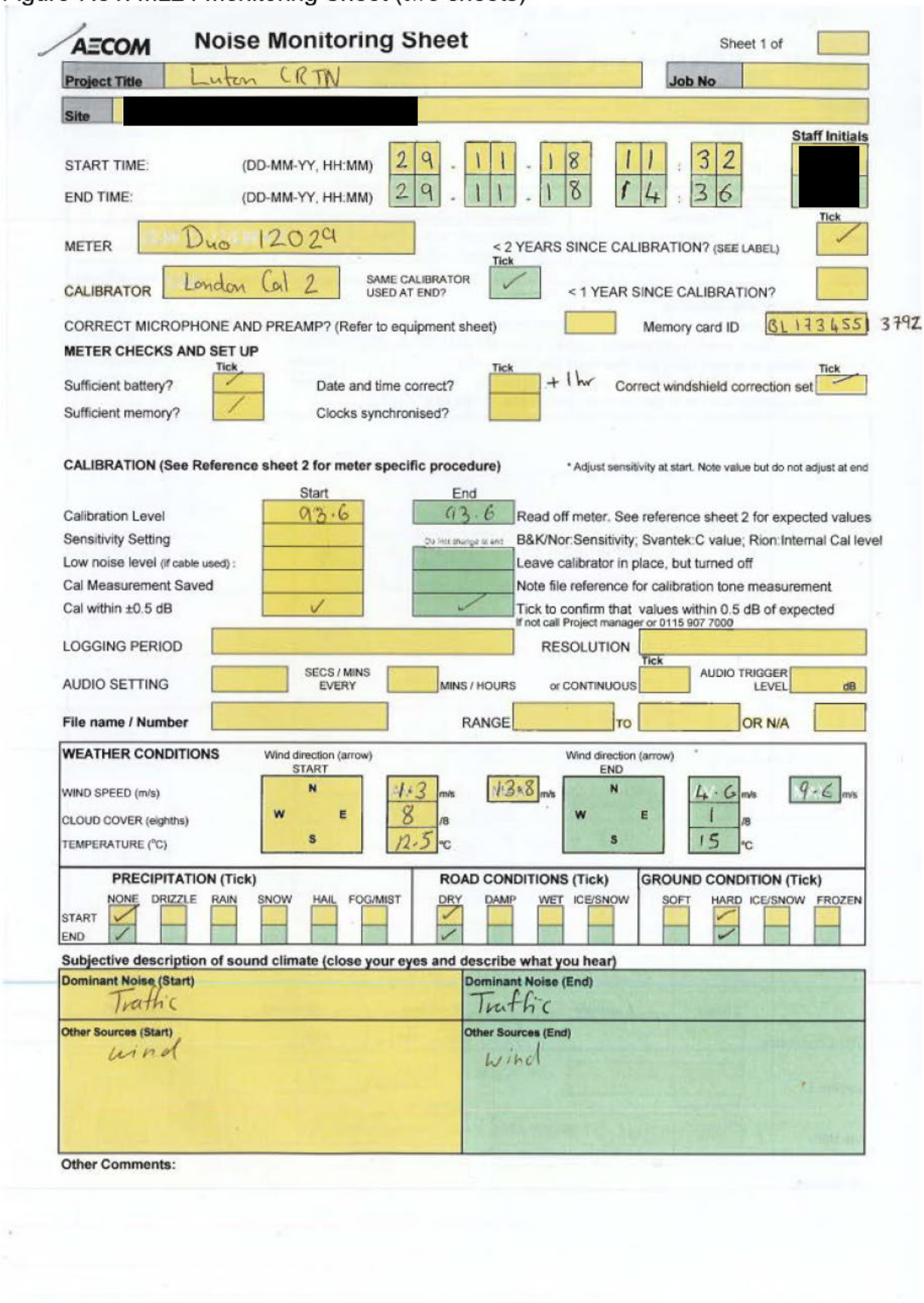


	2 letters	5 numbers	5 numbers	east/west	north/south
GPS Coordinates				or	

Camera ID: GPS ID

	Print name	Signature	Date
Site staff	[redacted]	[redacted]	02/11/18
QA checked			

Figure 7.31: ML24 Monitoring Sheet (two sheets)



AECOM **Noise Monitoring Sheet** Sheet 1 of

Project Title: Luton CRTN Job No:

Site: [redacted]

Staff Initials: [redacted]

START TIME: (DD-MM-YY, HH:MM) 29-11-18 11:32

END TIME: (DD-MM-YY, HH:MM) 29-11-18 14:36

METER: [redacted] Duo 12029 < 2 YEARS SINCE CALIBRATION? (SEE LABEL) Tick ✓

CALIBRATOR: London Cal 2 SAME CALIBRATOR USED AT END? Tick ✓ < 1 YEAR SINCE CALIBRATION?

CORRECT MICROPHONE AND PREAMP? (Refer to equipment sheet) Memory card ID BL1734551 3792

METER CHECKS AND SET UP

Sufficient battery? Tick ✓ Date and time correct? Tick + 1hr Correct windshield correction set Tick ✓

Sufficient memory? ✓ Clocks synchronised?

CALIBRATION (See Reference sheet 2 for meter specific procedure) * Adjust sensitivity at start. Note value but do not adjust at end

	Start	End	
Calibration Level	93.6	93.6	Read off meter. See reference sheet 2 for expected values
Sensitivity Setting		Do not change at end	B&K/Nor:Sensitivity; Svantek:C value; Rion:Internal Cal level
Low noise level (if cable used) :			Leave calibrator in place, but turned off
Cal Measurement Saved			Note file reference for calibration tone measurement
Cal within ±0.5 dB	✓	✓	Tick to confirm that values within 0.5 dB of expected

If not call Project manager or 0115 907 7000

LOGGING PERIOD RESOLUTION

AUDIO SETTING SECS / MINS EVERY MINS / HOURS or CONTINUOUS Tick AUDIO TRIGGER LEVEL dB

File name / Number RANGE TO OR N/A

WEATHER CONDITIONS

	Wind direction (arrow) START		Wind direction (arrow) END	
WIND SPEED (m/s)	1.3 m/s	13.8 m/s	4.6 m/s	9.6 m/s
CLOUD COVER (eighths)	8 /8		1 /8	
TEMPERATURE (°C)	12.5 °C		15 °C	

PRECIPITATION (Tick)							ROAD CONDITIONS (Tick)				GROUND CONDITION (Tick)			
	NONE	DRIZZLE	RAIN	SNOW	HAIL	FOG/MIST	DRY	DAMP	WET	ICE/SNOW	SOFT	HARD	ICE/SNOW	FROZEN
START	✓						✓					✓		
END	✓						✓					✓		

Subjective description of sound climate (close your eyes and describe what you hear)

Dominant Noise (Start)	Dominant Noise (End)
Traffic	Traffic
Other Sources (Start)	**Other Sources (End)**
wind	wind

Other Comments:

AECOM **Noise Monitoring Sheet** | Project | Sheet 2 of

Site | Date | Meter

EQUIPMENT LOCATION

MICROPHONE HEIGHT ABOVE GROUND METRES

MICROPHONE MOUNTED ON (TICK)				DISTANCE FROM VERTICAL SURFACE / FAÇADE (>3.5M OR =1M)	> 3.5m
TRIPOD	✓	A FRAME		LINE OF SIGHT FROM SOURCE TO RECEIVER? (Y/N)	Y
MAST		FENCE		ACTUAL OR POTENTIAL NOISE SOURCES NEARBY? (EG AHU / HVAC / SUBSTATION / CAT SCARER ETC)	No
OTHER					
OTHER					

Plan view sketch with distances.

Mark: Meter location North arrow Main audible and potential noise souces

Photographic direction and positions (meter installed and all round view of surroundings)

Distance to nearest roads and other noise sources (identify) estimate measured

Note position, height and construction material of barriers. estimate measured

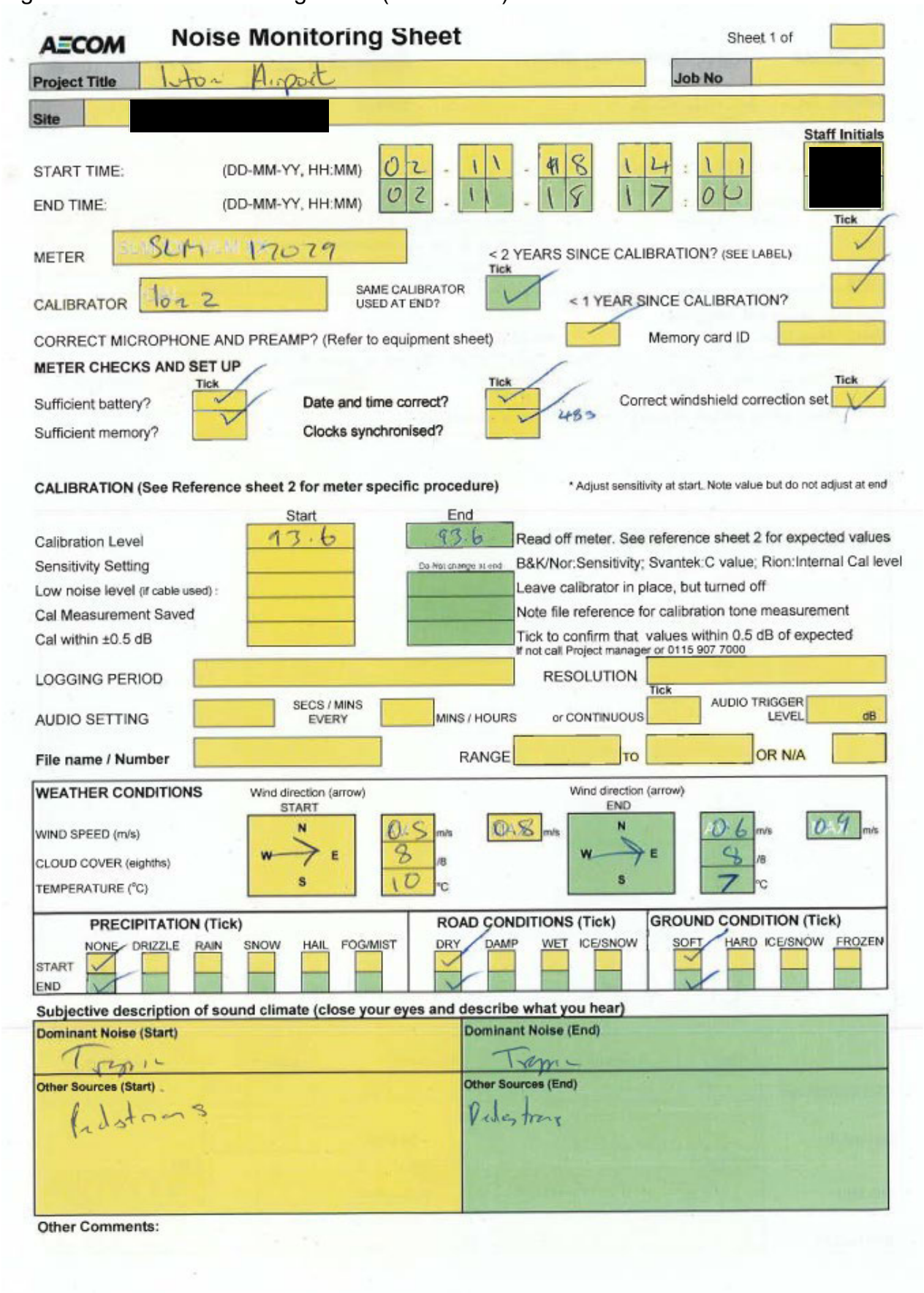
Note position and type of ground cover (grass, stone, shrubs etc)

	2 letters	5 numbers	5 numbers		east/west	north/south
GPS Coordinates				or		

Camera ID: GPS ID

	Print name	Signature	Date
Site staff	[redacted]	[redacted]	29/11/18
QA checked			

Figure 7.32: ML25 Monitoring Sheet (two sheets)



AECOM **Noise Monitoring Sheet** Sheet 1 of

Project Title: Luton Airport Job No:

Site: [redacted]

Staff Initials: [redacted]

START TIME: (DD-MM-YY, HH:MM) 02-11-18 14:11

END TIME: (DD-MM-YY, HH:MM) 02-11-18 17:00

METER SLM 17079 < 2 YEARS SINCE CALIBRATION? (SEE LABEL) Tick ✓

CALIBRATOR Nor 2 SAME CALIBRATOR USED AT END? Tick ✓ < 1 YEAR SINCE CALIBRATION? ✓

CORRECT MICROPHONE AND PREAMP? (Refer to equipment sheet) Memory card ID

METER CHECKS AND SET UP

Sufficient battery? Tick ✓ Date and time correct? Tick ✓ Correct windshield correction set Tick ✓

Sufficient memory? ✓ Clocks synchronised? ✓ 483

CALIBRATION (See Reference sheet 2 for meter specific procedure) * Adjust sensitivity at start. Note value but do not adjust at end

	Start	End	
Calibration Level	93.6	93.6	Read off meter. See reference sheet 2 for expected values
Sensitivity Setting		Do Not change at end	B&K/Nor:Sensitivity; Svantek:C value; Rion:Internal Cal level
Low noise level (if cable used) :			Leave calibrator in place, but turned off
Cal Measurement Saved			Note file reference for calibration tone measurement
Cal within ±0.5 dB			Tick to confirm that values within 0.5 dB of expected

If not call Project manager or 0115 907 7000

LOGGING PERIOD RESOLUTION

AUDIO SETTING SECS / MINS EVERY MINS / HOURS or CONTINUOUS Tick AUDIO TRIGGER LEVEL dB

File name / Number RANGE TO OR N/A

WEATHER CONDITIONS

	Wind direction (arrow) START		Wind direction (arrow) END	
WIND SPEED (m/s)	0.5 m/s	0.8 m/s	0.6 m/s	0.9 m/s
CLOUD COVER (eighths)	8 /8		8 /8	
TEMPERATURE (°C)	10 °C		7 °C	

PRECIPITATION (Tick)

	NONE	DRIZZLE	RAIN	SNOW	HAIL	FOG/MIST
START	✓					
END	✓					

ROAD CONDITIONS (Tick)

	DRY	DAMP	WET	ICE/SNOW
START	✓			
END	✓			

GROUND CONDITION (Tick)

	SOFT	HARD	ICE/SNOW	FROZEN
START	✓			
END	✓			

Subjective description of sound climate (close your eyes and describe what you hear)

Dominant Noise (Start)	Dominant Noise (End)
Traffic	Traffic
Other Sources (Start)	**Other Sources (End)**
Pedestrians	Pedestrians

Other Comments:

AECOM **Noise Monitoring Sheet** Project Luton Sheet 2 of

Site [redacted] Date Meter

EQUIPMENT LOCATION

MICROPHONE HEIGHT ABOVE GROUND METRES

MICROPHONE MOUNTED ON (TICK)				DISTANCE FROM VERTICAL SURFACE / FAÇADE (>3.5M OR =1M)	>3.5m
TRIPOD	✓	A FRAME		LINE OF SIGHT FROM SOURCE TO RECEIVER? (Y/N)	Y
MAST		FENCE		ACTUAL OR POTENTIAL NOISE SOURCES NEARBY? (EG AHU / HVAC / SUBSTATION / CAT SCARER ETC)	NO
OTHER					
OTHER					

Plan view sketch with distances.

Mark: Meter location North arrow Main audible and potential noise souces

Photographic direction and positions (meter installed and all round view of surroundings)

Distance to nearest roads and other noise sources (identify) 3m estimate measured

Note position, height and construction material of barriers. estimate measured

Note position and type of ground cover (grass, stone, shrubs etc)

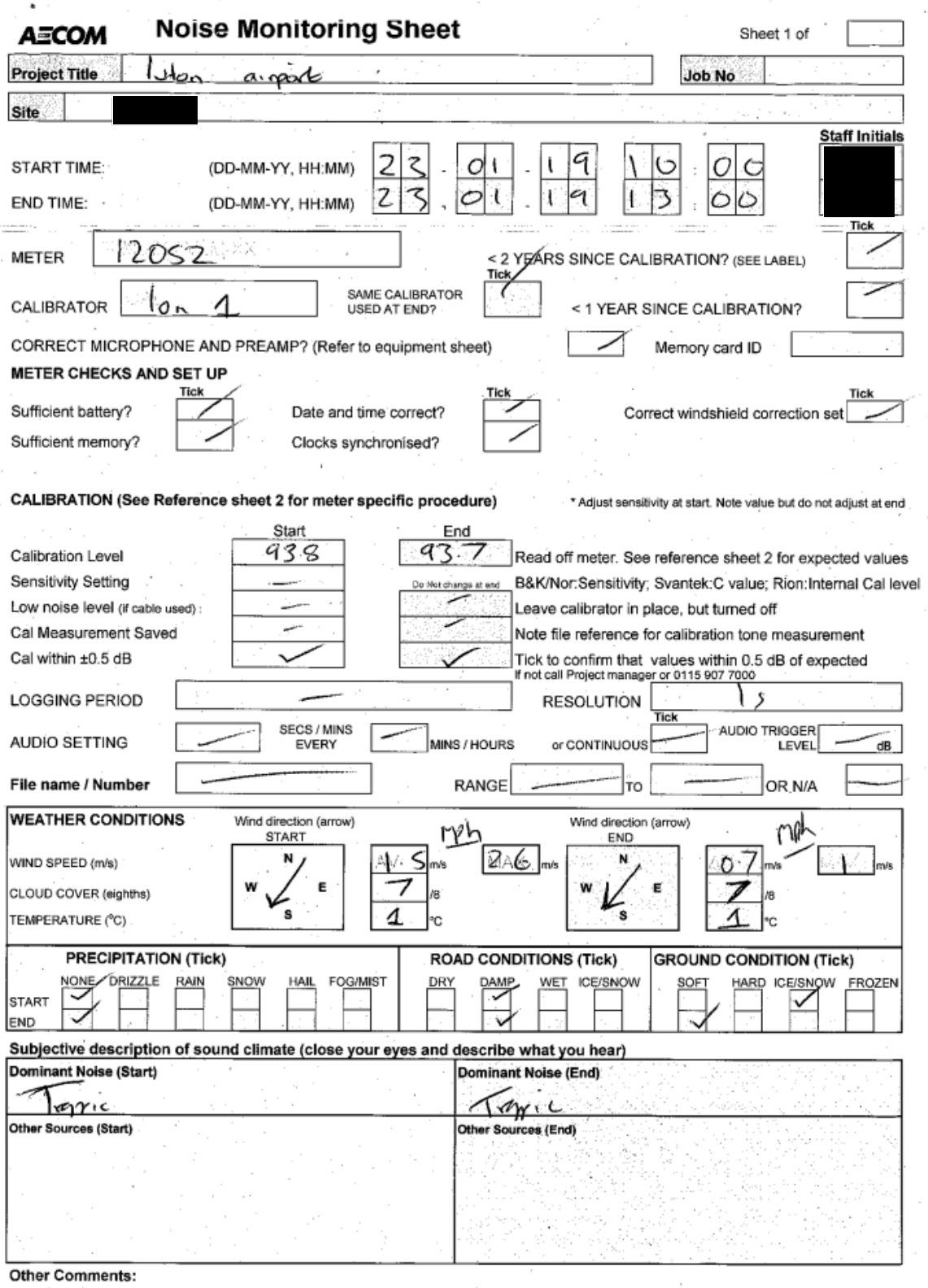
lat 51.9065 long -0.38864

	2 letters	5 numbers	5 numbers		east/west	north/south
GPS Coordinates				or		

Camera ID: GPS ID

	Print name	Signature	Date
Site staff	[redacted]	[redacted]	02/11/18
QA checked			

Figure 7.33: ML26 Monitoring Sheet (two sheets)



AECOM **Noise Monitoring Sheet** Sheet 1 of

Project Title: Luton airport | Job No:

Site: [redacted]

Staff Initials: [redacted]

START TIME: (DD-MM-YY, HH:MM) 23-01-19 16:00

END TIME: (DD-MM-YY, HH:MM) 23-01-19 13:00

METER: 12052 | < 2 YEARS SINCE CALIBRATION? (SEE LABEL) Tick

CALIBRATOR: Ion 1 | SAME CALIBRATOR USED AT END? Tick | < 1 YEAR SINCE CALIBRATION? Tick

CORRECT MICROPHONE AND PREAMP? (Refer to equipment sheet) Tick | Memory card ID

METER CHECKS AND SET UP

	Tick		Tick		Tick
Sufficient battery?	✓	Date and time correct?	✓	Correct windshield correction set	✓
Sufficient memory?	✓	Clocks synchronised?	✓		

CALIBRATION (See Reference sheet 2 for meter specific procedure) * Adjust sensitivity at start. Note value but do not adjust at end

	Start	End	
Calibration Level	93.8	93.7	Read off meter. See reference sheet 2 for expected values
Sensitivity Setting	—	Do Not change at end	B&K/Nor:Sensitivity; Svantek:C value; Rion:Internal Cal level
Low noise level (if cable used) :	—	✓	Leave calibrator in place, but turned off
Cal Measurement Saved	—	✓	Note file reference for calibration tone measurement
Cal within ±0.5 dB	✓	✓	Tick to confirm that values within 0.5 dB of expected. If not call Project manager or 0115 907 7000

LOGGING PERIOD: — | RESOLUTION: 1s

AUDIO SETTING: — | SECS / MINS EVERY: — MINS / HOURS | or CONTINUOUS Tick | AUDIO TRIGGER LEVEL: — dB

File name / Number: — | RANGE: — TO: — OR N/A: —

WEATHER CONDITIONS

	Wind direction (arrow) START		Wind direction (arrow) END	
WIND SPEED (m/s)	N W E S	AV. 5 m/s (mph) 2A6 m/s	N W E S	0.7 m/s (mph) 1 m/s
CLOUD COVER (eighths)		7 /8		7 /8
TEMPERATURE (°C)		1 °C		1 °C

PRECIPITATION (Tick)							ROAD CONDITIONS (Tick)				GROUND CONDITION (Tick)			
	NONE	DRIZZLE	RAIN	SNOW	HAIL	FOG/MIST	DRY	DAMP	WET	ICE/SNOW	SOFT	HARD	ICE/SNOW	FROZEN
START	✓													
END	✓							✓			✓		✓	

Subjective description of sound climate (close your eyes and describe what you hear)

Dominant Noise (Start)	Dominant Noise (End)
Traffic	Traffic
Other Sources (Start)	**Other Sources (End)**

Other Comments:

AECOM **Noise Monitoring Sheet**

Project: Luton | Sheet 2 of

Site: [redacted] | Date: 23/01/18 | Meter: 12051

EQUIPMENT LOCATION

MICROPHONE HEIGHT ABOVE GROUND: 1.5 METRES

MICROPHONE MOUNTED ON (TICK)				DISTANCE FROM VERTICAL SURFACE / FAÇADE (>3.5M OR =1M)	1m
TRIPOD	✓	A FRAME		LINE OF SIGHT FROM SOURCE TO RECEIVER? (Y/N)	Y
MAST		FENCE		ACTUAL OR POTENTIAL NOISE SOURCES NEARBY? (EG AHU / HVAC / SUBSTATION / CAT SCARER ETC)	NO
OTHER					
OTHER					

Plan view sketch with distances.

Mark: Meter location North arrow Main audible and potential noise souces

Photographic direction and positions (meter installed and all round view of surroundings)

Distance to nearest roads and other noise sources (identify) estimate | 4m measured

Note position, height and construction material of barriers. estimate | measured

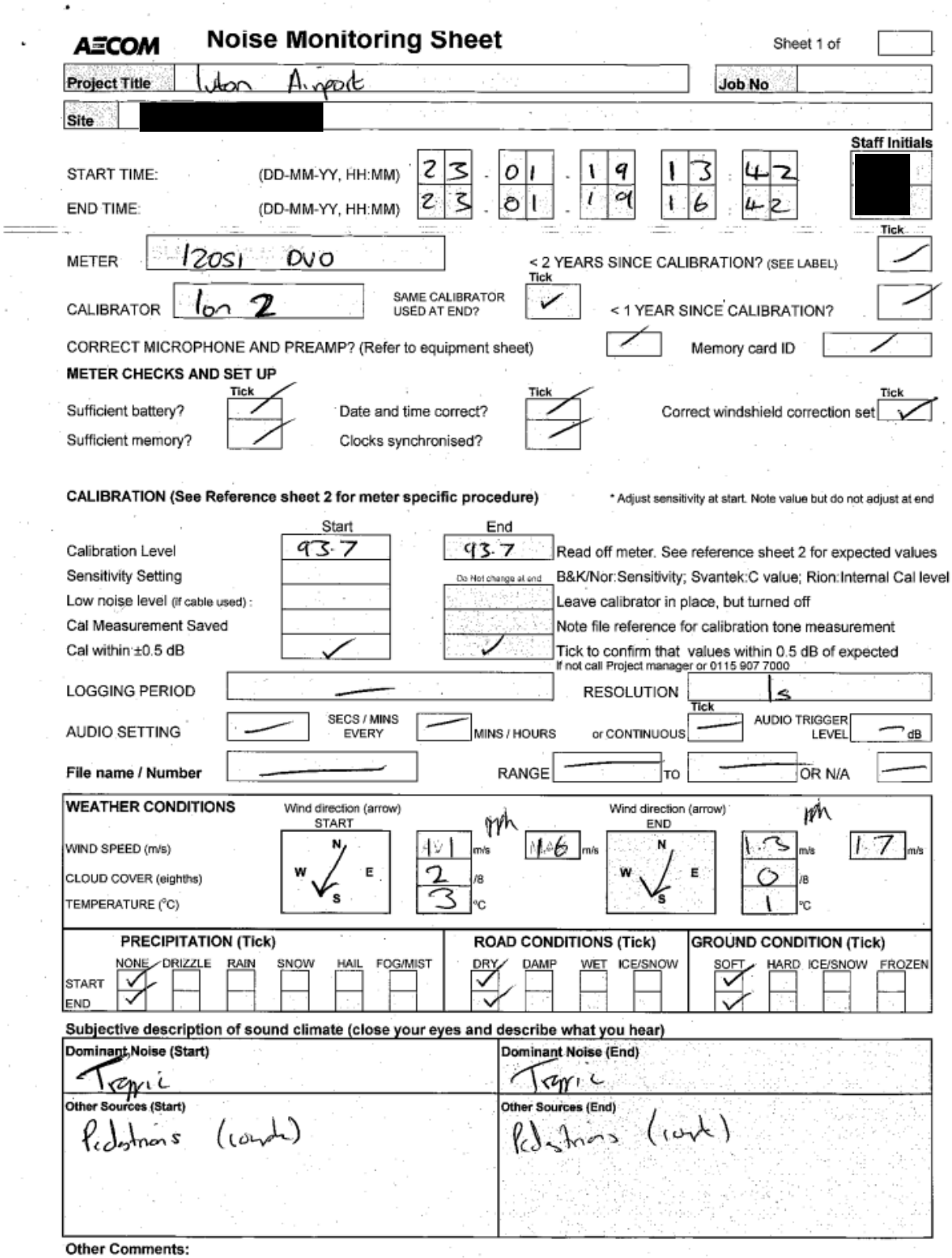
Note position and type of ground cover (grass, stone, shrubs etc)

	2 letters	5 numbers	5 numbers		east/west	north/south
GPS Coordinates				or		

Camera ID: GPS ID

	Print name	Signature	Date
Site staff	[redacted]	[redacted]	23/01/18
QA checked			

Figure 7.34: ML27 Monitoring Sheet (two sheets)



AECOM **Noise Monitoring Sheet** Sheet 1 of

Project Title: Luton Airport Job No:

Site: [redacted]

Staff Initials: [redacted]

START TIME: (DD-MM-YY, HH:MM) 23 - 01 - 19 13 : 42

END TIME: (DD-MM-YY, HH:MM) 23 - 01 - 19 16 : 42

METER 12051 DVO Tick: ✓

CALIBRATOR Ion 2 SAME CALIBRATOR USED AT END? Tick: ✓ < 2 YEARS SINCE CALIBRATION? (SEE LABEL) ✓ < 1 YEAR SINCE CALIBRATION? ✓

CORRECT MICROPHONE AND PREAMP? (Refer to equipment sheet) ✓ Memory card ID ✓

METER CHECKS AND SET UP

	Tick		Tick		Tick
Sufficient battery?	✓	Date and time correct?	✓	Correct windshield correction set	✓
Sufficient memory?	✓	Clocks synchronised?	✓		

CALIBRATION (See Reference sheet 2 for meter specific procedure) * Adjust sensitivity at start. Note value but do not adjust at end

	Start	End	
Calibration Level	93.7	93.7	Read off meter. See reference sheet 2 for expected values
Sensitivity Setting		Do Not change at end	B&K/Nor:Sensitivity; Svantek:C value; Rion:Internal Cal level
Low noise level (if cable used) :			Leave calibrator in place, but turned off
Cal Measurement Saved			Note file reference for calibration tone measurement
Cal within ±0.5 dB	✓	✓	Tick to confirm that values within 0.5 dB of expected

If not call Project manager or 0115 907 7000

LOGGING PERIOD — RESOLUTION 1s

AUDIO SETTING — SECS / MINS EVERY — MINS / HOURS — or CONTINUOUS Tick: ✓ AUDIO TRIGGER LEVEL — dB

File name / Number — RANGE — TO — OR N/A

WEATHER CONDITIONS

	Wind direction (arrow) START		Wind direction (arrow) END	
WIND SPEED (m/s)	4.1 m/s (mph)	10.6 m/s	1.3 m/s	1.7 m/s
CLOUD COVER (eighths)	2 /8		0 /8	
TEMPERATURE (°C)	3 °C		1 °C	

	PRECIPITATION (Tick)						ROAD CONDITIONS (Tick)				GROUND CONDITION (Tick)			
	NONE	DRIZZLE	RAIN	SNOW	HAIL	FOG/MIST	DRY	DAMP	WET	ICE/SNOW	SOFT	HARD	ICE/SNOW	FROZEN
START	✓						✓				✓			
END	✓						✓				✓			

Subjective description of sound climate (close your eyes and describe what you hear)

Dominant Noise (Start)	Dominant Noise (End)
Traffic	Traffic
Other Sources (Start)	**Other Sources (End)**
Pedestrians (route)	Pedestrians (route)

Other Comments:

AECOM **Noise Monitoring Sheet**

Project: Jon Airport | Sheet 2 of

Site: [redacted]

Date: 23/01/19 | Meter: 17051

EQUIPMENT LOCATION

MICROPHONE HEIGHT ABOVE GROUND: 1.5 METRES

MICROPHONE MOUNTED ON (TICK)				
TRIPOD	✓	A FRAME		
MAST		FENCE		
OTHER				
OTHER				

DISTANCE FROM VERTICAL SURFACE / FAÇADE (>3.5M OR =1M)	>3.5m
LINE OF SIGHT FROM SOURCE TO RECEIVER? (Y/N)	Y
ACTUAL OR POTENTIAL NOISE SOURCES NEARBY? (EG AHU / HVAC / SUBSTATION / CAT SCARER ETC)	NO

Plan view sketch with distances.

Mark: Meter location | North arrow | Main audible and potential noise souces

Photographic direction and positions (meter installed and all round view of surroundings)

Distance to nearest roads and other noise sources (identify) — estimate | 4m measured

Note position, height and construction material of barriers — estimate | NONE measured

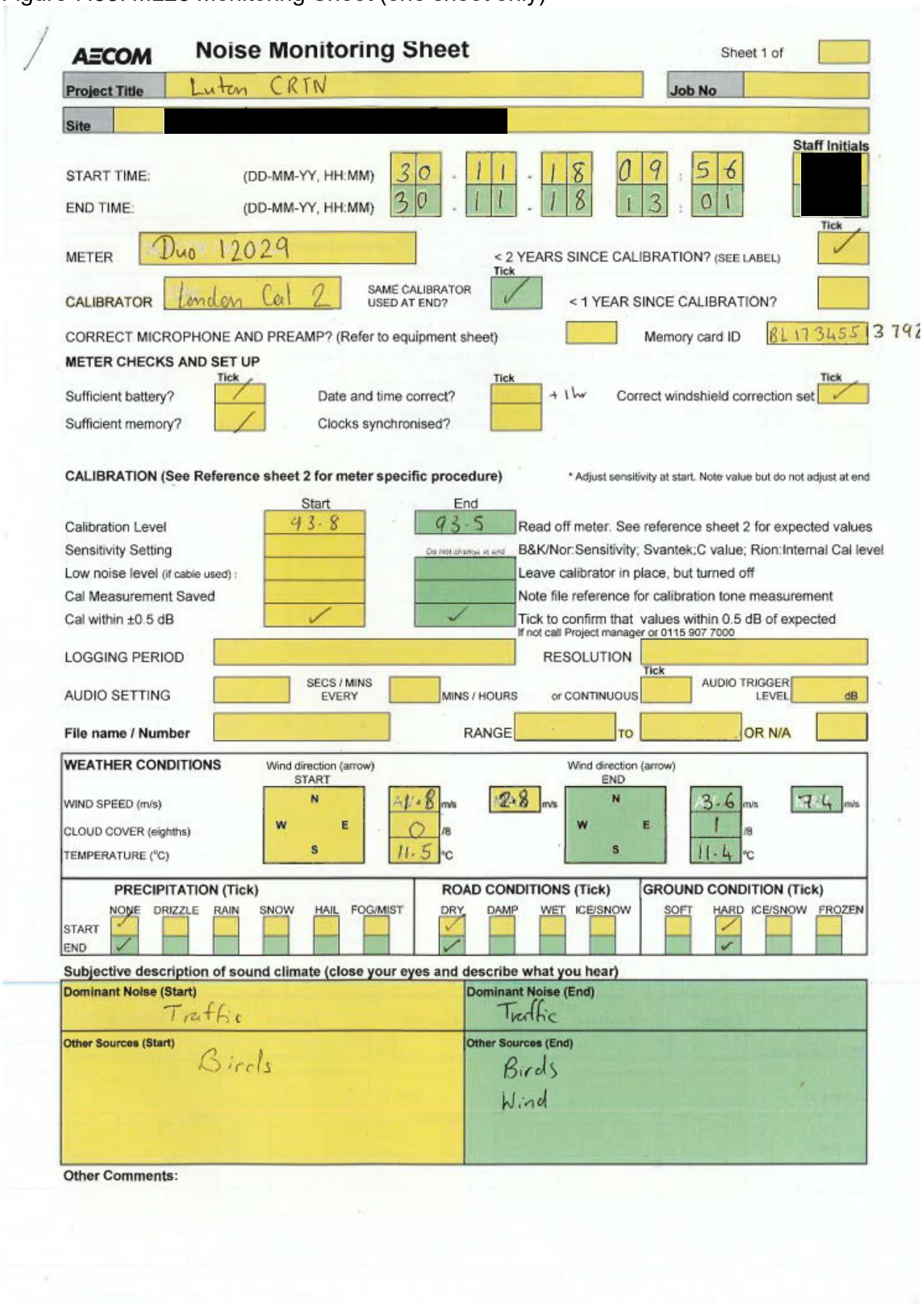
Note position and type of ground cover (grass, stone, shrubs etc)

	2 letters	5 numbers	5 numbers		east/west	north/south
GPS Coordinates				or		

Camera ID: | GPS ID

	Print name	Signature	Date
Site staff	[redacted]	[redacted]	23/01/19
QA checked			

Figure 7.35: ML28 Monitoring Sheet (one sheet only)



AECOM **Noise Monitoring Sheet** Sheet 1 of

Project Title: Luton CRTN Job No:

Site: [redacted]

Staff Initials: [redacted]

START TIME: (DD-MM-YY, HH:MM) 30-11-18 09:56

END TIME: (DD-MM-YY, HH:MM) 30-11-18 13:01

METER: Duo 12029 < 2 YEARS SINCE CALIBRATION? (SEE LABEL) Tick ✓

CALIBRATOR: London Cal 2 SAME CALIBRATOR USED AT END? Tick ✓ < 1 YEAR SINCE CALIBRATION?

CORRECT MICROPHONE AND PREAMP? (Refer to equipment sheet) Memory card ID BL1734553 792

METER CHECKS AND SET UP

Sufficient battery? Tick ✓ Date and time correct? Tick +1hr Correct windshield correction set Tick ✓

Sufficient memory? ✓ Clocks synchronised?

CALIBRATION (See Reference sheet 2 for meter specific procedure) * Adjust sensitivity at start. Note value but do not adjust at end

	Start	End	
Calibration Level	93.8	93.5	Read off meter. See reference sheet 2 for expected values
Sensitivity Setting		Do not change at end	B&K/Nor:Sensitivity; Svantek:C value; Rion:Internal Cal level
Low noise level (if cable used) :			Leave calibrator in place, but turned off
Cal Measurement Saved			Note file reference for calibration tone measurement
Cal within ±0.5 dB	✓	✓	Tick to confirm that values within 0.5 dB of expected. If not call Project manager on 0115 907 7000

LOGGING PERIOD RESOLUTION

AUDIO SETTING SECS / MINS EVERY MINS / HOURS or CONTINUOUS Tick AUDIO TRIGGER LEVEL dB

File name / Number RANGE TO OR N/A

WEATHER CONDITIONS

	Wind direction (arrow) START		Wind direction (arrow) END	
WIND SPEED (m/s)	N	4.8 m/s	2.8 m/s	N 3.6 m/s 7.4 m/s
CLOUD COVER (eighths)	W E	0 /8	W E	1 /8
TEMPERATURE (°C)	S	11.5 °C	S	11.4 °C

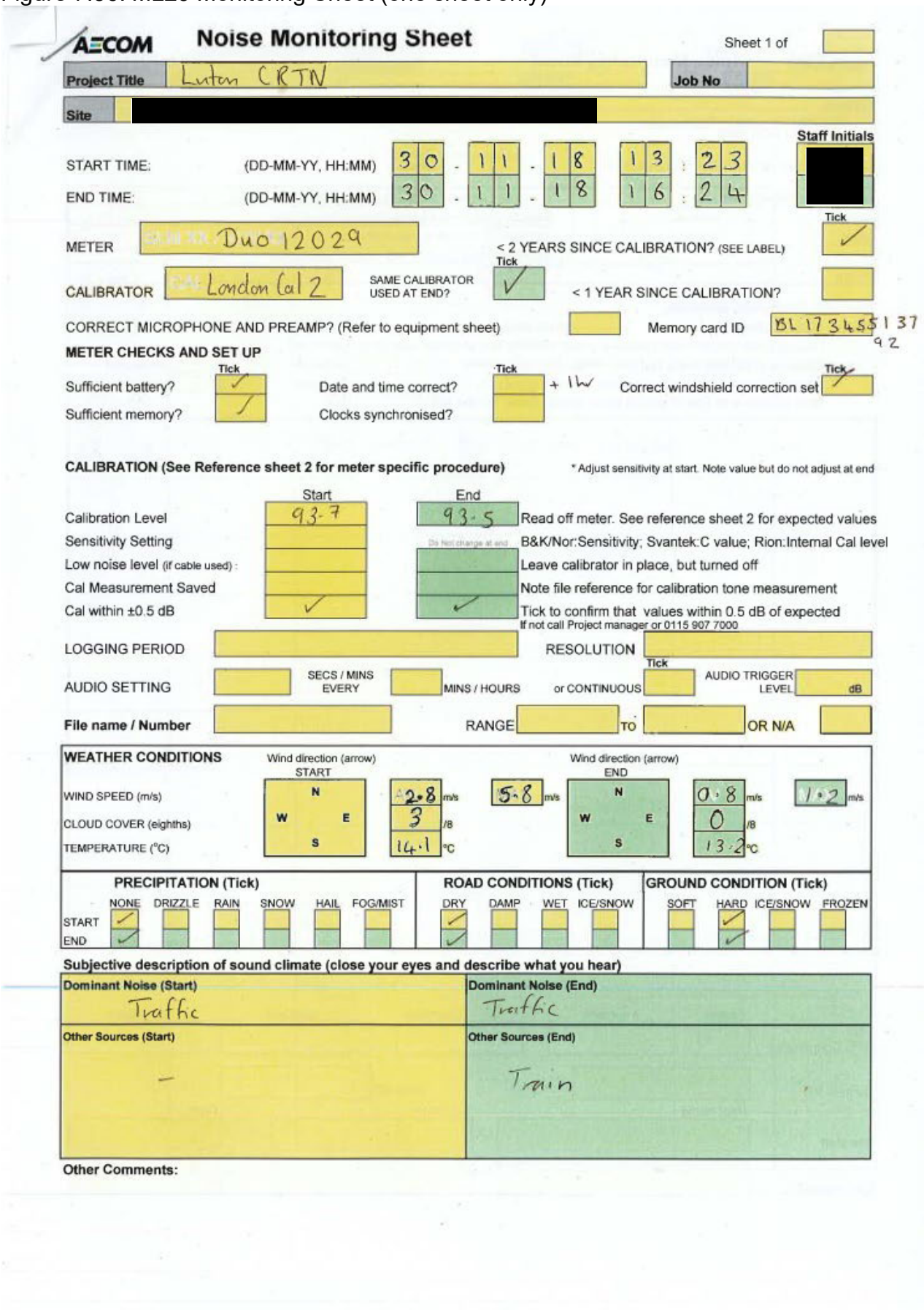
PRECIPITATION (Tick)							ROAD CONDITIONS (Tick)				GROUND CONDITION (Tick)			
	NONE	DRIZZLE	RAIN	SNOW	HAIL	FOG/MIST	DRY	DAMP	WET	ICE/SNOW	SOFT	HARD	ICE/SNOW	FROZEN
START	✓						✓					✓		
END	✓						✓					✓		

Subjective description of sound climate (close your eyes and describe what you hear)

Dominant Noise (Start)	Dominant Noise (End)
Traffic	Traffic
Other Sources (Start)	**Other Sources (End)**
Birds	Birds Wind

Other Comments:

Figure 7.36: ML29 Monitoring Sheet (one sheet only)



AECOM **Noise Monitoring Sheet** Sheet 1 of

Project Title: Luton CRTN Job No:

Site: [redacted]

Staff Initials: [redacted]

START TIME: (DD-MM-YY, HH:MM) 30 - 11 - 18 13 : 23

END TIME: (DD-MM-YY, HH:MM) 30 - 11 - 18 16 : 24

METER [redacted] Duo 12029 < 2 YEARS SINCE CALIBRATION? (SEE LABEL) Tick ✓

CALIBRATOR [redacted] London Cal 2 SAME CALIBRATOR USED AT END? Tick ✓ < 1 YEAR SINCE CALIBRATION?

CORRECT MICROPHONE AND PREAMP? (Refer to equipment sheet) Memory card ID BL1734551 37 92

METER CHECKS AND SET UP

Tick: Sufficient battery? ✓ Sufficient memory? ✓ Date and time correct? Clocks synchronised? + 1hr Correct windshield correction set ✓

CALIBRATION (See Reference sheet 2 for meter specific procedure) * Adjust sensitivity at start. Note value but do not adjust at end

	Start	End	
Calibration Level	93.7	93.5	Read off meter. See reference sheet 2 for expected values
Sensitivity Setting		Do not change at end	B&K/Nor:Sensitivity; Svantek:C value; Rion:Internal Cal level
Low noise level (if cable used) :			Leave calibrator in place, but turned off
Cal Measurement Saved			Note file reference for calibration tone measurement
Cal within ±0.5 dB	✓	✓	Tick to confirm that values within 0.5 dB of expected

If not call Project manager or 0115 907 7000

LOGGING PERIOD RESOLUTION

AUDIO SETTING SECS / MINS EVERY MINS / HOURS or CONTINUOUS Tick AUDIO TRIGGER LEVEL dB

File name / Number RANGE TO OR N/A

WEATHER CONDITIONS

	Wind direction (arrow) START		Wind direction (arrow) END	
WIND SPEED (m/s)	2.8 m/s	5.8 m/s	0.8 m/s	1.2 m/s
CLOUD COVER (eighths)	3 /8		0 /8	
TEMPERATURE (°C)	14.1 °C		13.2 °C	

PRECIPITATION (Tick)	NONE	DRIZZLE	RAIN	SNOW	HAIL	FOG/MIST
START	✓					
END	✓					

ROAD CONDITIONS (Tick)	DRY	DAMP	WET	ICE/SNOW
START				
END	✓			

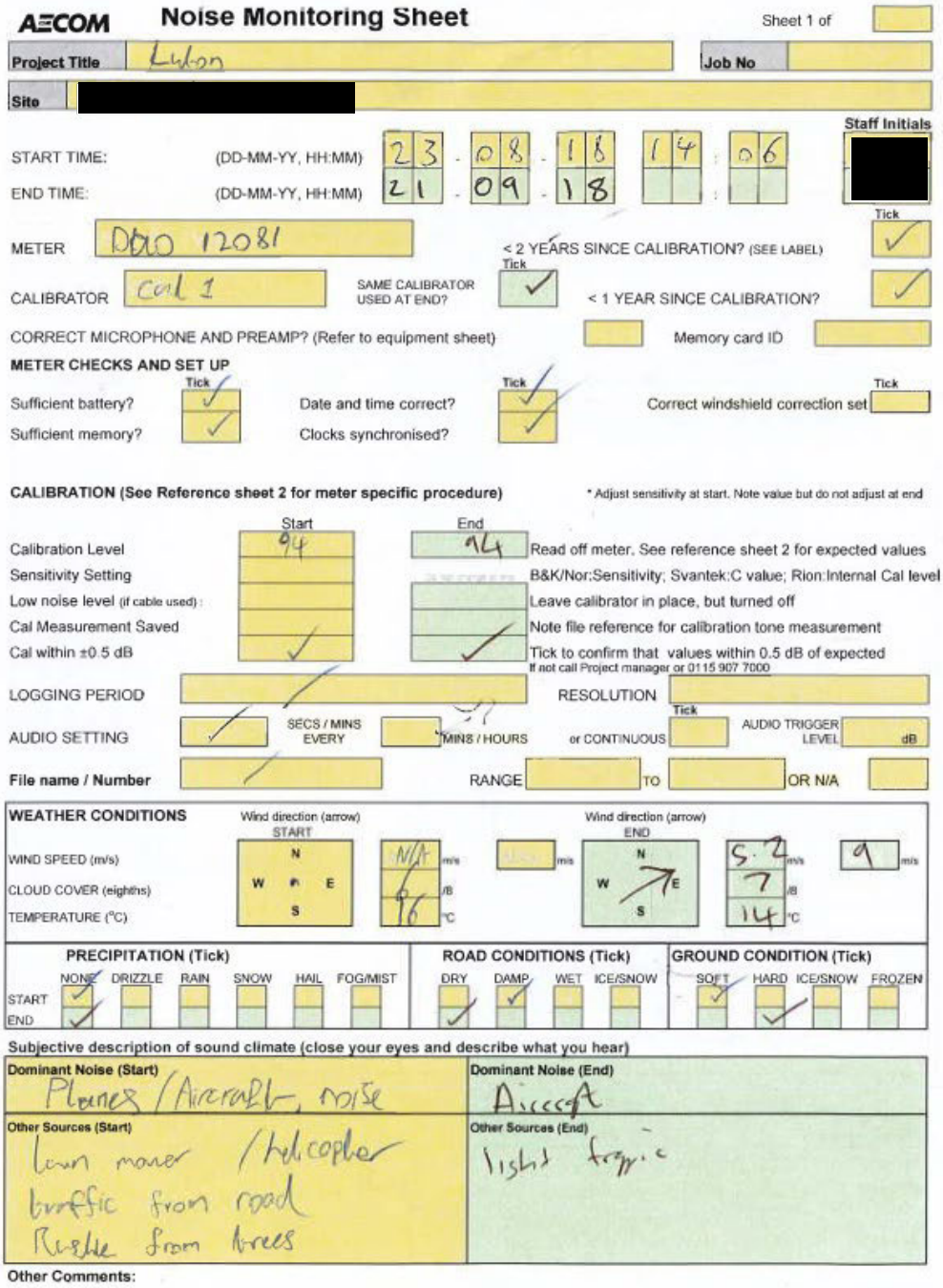
GROUND CONDITION (Tick)	SOFT	HARD	ICE/SNOW	FROZEN
START		✓		
END		✓		

Subjective description of sound climate (close your eyes and describe what you hear)

Dominant Noise (Start)	Dominant Noise (End)
Traffic	Traffic
Other Sources (Start)	**Other Sources (End)**
-	Train

Other Comments:

Figure 7.37: ML30 Monitoring Sheet (two sheets)



AECOM **Noise Monitoring Sheet** Sheet 1 of

Project Title: Luton Job No:

Site: [redacted]

Staff Initials: [redacted]

START TIME: (DD-MM-YY, HH:MM) 23-08-18 14:06

END TIME: (DD-MM-YY, HH:MM) 21-09-18

METER: Dflo 12081 — < 2 YEARS SINCE CALIBRATION? (SEE LABEL) Tick ✓

CALIBRATOR: Cal 1 — SAME CALIBRATOR USED AT END? Tick ✓ — < 1 YEAR SINCE CALIBRATION? ✓

CORRECT MICROPHONE AND PREAMP? (Refer to equipment sheet) — Memory card ID

METER CHECKS AND SET UP

	Tick		Tick		Tick
Sufficient battery?	✓	Date and time correct?	✓	Correct windshield correction set	
Sufficient memory?	✓	Clocks synchronised?	✓		

CALIBRATION (See Reference sheet 2 for meter specific procedure) * Adjust sensitivity at start. Note value but do not adjust at end

	Start	End	
Calibration Level	94	94	Read off meter. See reference sheet 2 for expected values
Sensitivity Setting			B&K/Nor:Sensitivity; Svantek:C value; Rion:Internal Cal level
Low noise level (if cable used) :			Leave calibrator in place, but turned off
Cal Measurement Saved			Note file reference for calibration tone measurement
Cal within ±0.5 dB	✓	✓	Tick to confirm that values within 0.5 dB of expected

If not call Project manager on 0115 907 7000

LOGGING PERIOD — RESOLUTION

AUDIO SETTING: ✓ SECS / MINS EVERY — MINS / HOURS — or CONTINUOUS Tick — AUDIO TRIGGER LEVEL dB

File name / Number: ✓ — RANGE TO OR N/A

WEATHER CONDITIONS

	Wind direction (arrow) START		Wind direction (arrow) END	
WIND SPEED (m/s)	N/A m/s	m/s	5.2 m/s	9 m/s
CLOUD COVER (eighths)	6 /8		7 /8	
TEMPERATURE (°C)	16 °C		14 °C	

PRECIPITATION (Tick)	NONE	DRIZZLE	RAIN	SNOW	HAIL	FOG/MIST
START	✓					
END	✓					

ROAD CONDITIONS (Tick)	DRY	DAMP	WET	ICE/SNOW
START		✓		
END	✓			

GROUND CONDITION (Tick)	SOFT	HARD	ICE/SNOW	FROZEN
START	✓			
END		✓		

Subjective description of sound climate (close your eyes and describe what you hear)

Dominant Noise (Start)	Dominant Noise (End)
Planes / Aircraft noise	Aircraft
Other Sources (Start)	**Other Sources (End)**
Lawn mower / Helicopter traffic from road Rustle from trees	light traffic

Other Comments:

AECOM **Noise Monitoring Sheet**

Project		Sheet 2 of			
Site		**Date**		**Meter**	12031

EQUIPMENT LOCATION

MICROPHONE HEIGHT ABOVE GROUND _____ METRES

MICROPHONE MOUNTED ON (TICK)				DISTANCE FROM VERTICAL SURFACE / FAÇADE (>3.5M OR =1M)	
TRIPOD	✓	A FRAME		LINE OF SIGHT FROM SOURCE TO RECEIVER? (Y/N)	Y
MAST		FENCE		ACTUAL OR POTENTIAL NOISE SOURCES NEARBY? (EG AHU / HVAC / SUBSTATION / CAT SCARER ETC)	
OTHER					
OTHER					

Plan view sketch with distances.

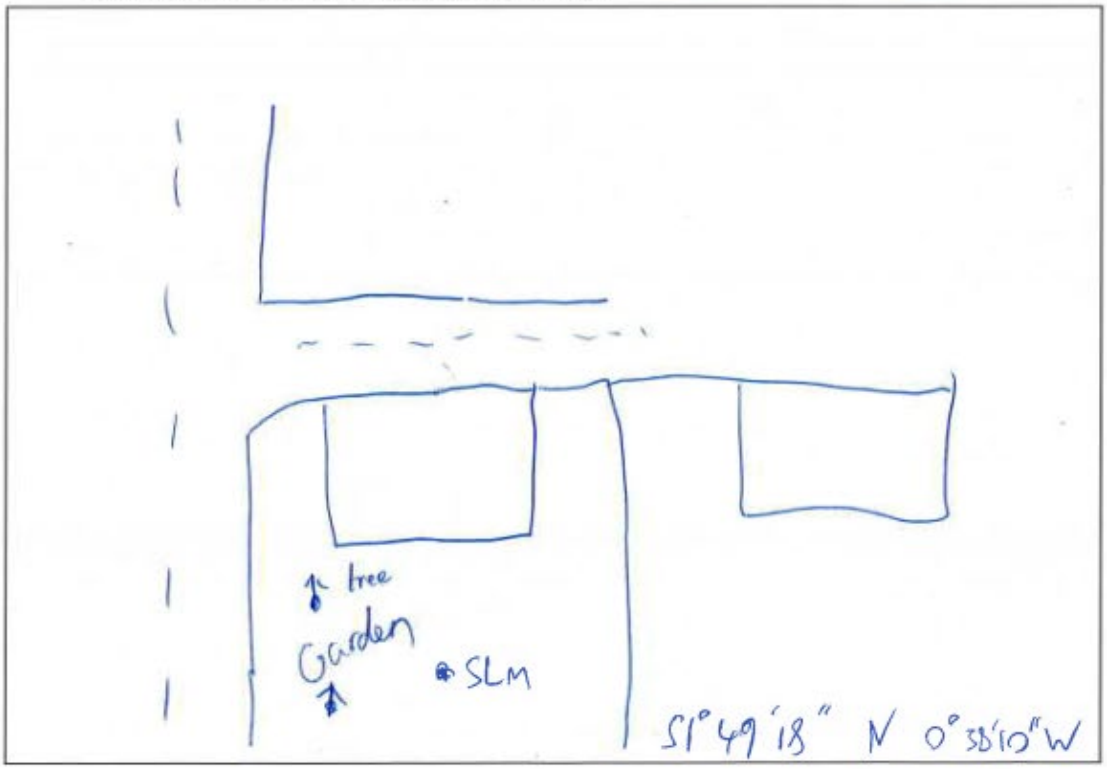
Mark: Meter location North arrow Main audible and potential noise souces

Photographic direction and positions (meter installed and all round view of surroundings)

Distance to nearest roads and other noise sources (identify) _____ estimate _____ measured

Note position, height and construction material of barriers. _____ estimate _____ measured

Note position and type of ground cover (grass, stone, shrubs etc)



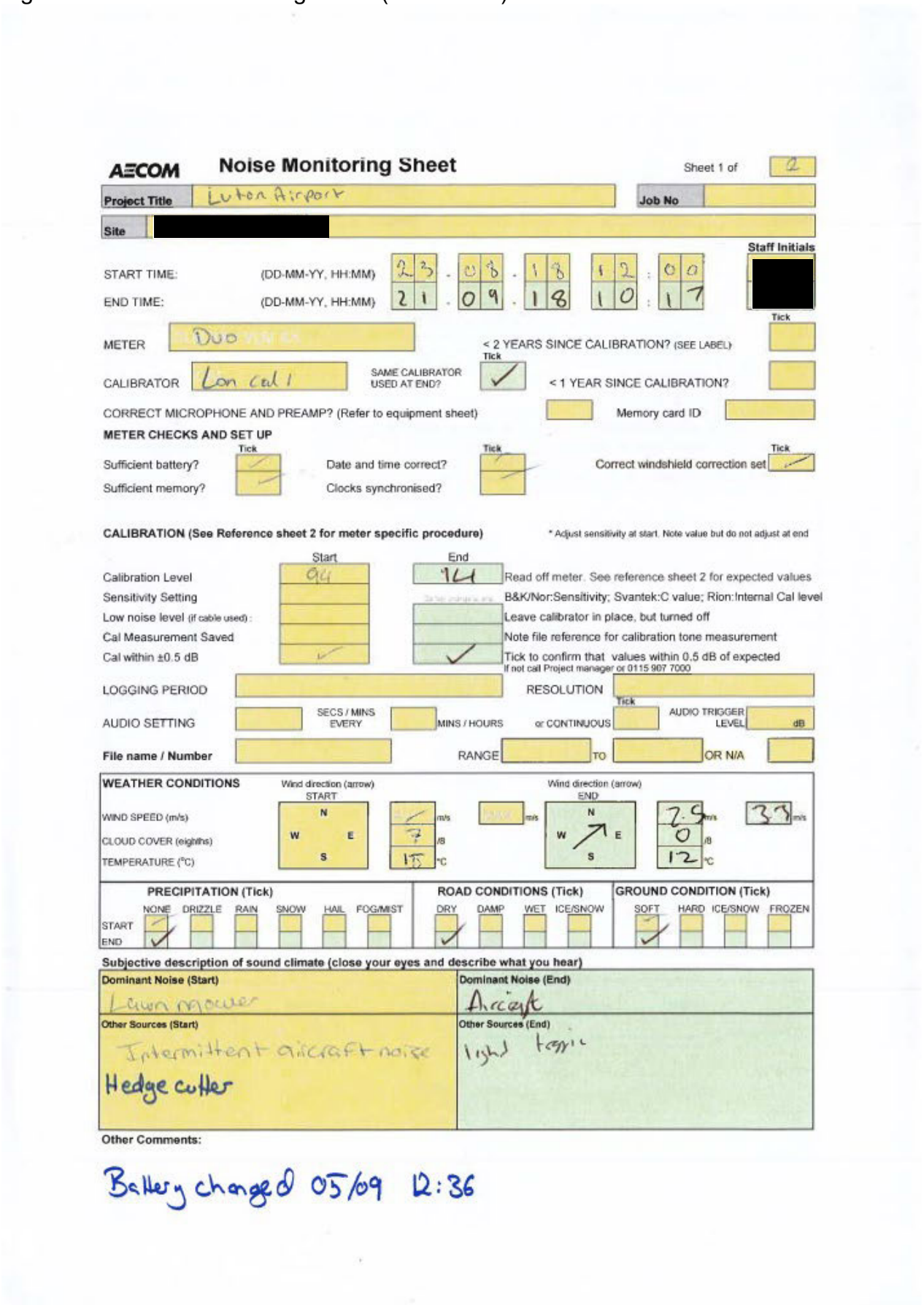
	2 letters	5 numbers	5 numbers		east/west	north/south
GPS Coordinates				or		

Camera ID: _____ GPS ID _____

	Print name	Signature	Date
Site staff			
QA checked			

Battery changed 05/09 11:30

Figure 7.38: ML31 Monitoring Sheet (two sheets)



AECOM **Noise Monitoring Sheet** Sheet 1 of 2

Project Title: Luton Airport | Job No:

Site: [redacted]

Staff Initials: [redacted]

START TIME: (DD-MM-YY, HH:MM) 23-08-18 12:00

END TIME: (DD-MM-YY, HH:MM) 21-09-18 10:17

METER: Duo | < 2 YEARS SINCE CALIBRATION? (SEE LABEL) Tick

CALIBRATOR: Lon cal 1 | SAME CALIBRATOR USED AT END? Tick ✓ | < 1 YEAR SINCE CALIBRATION? Tick

CORRECT MICROPHONE AND PREAMP? (Refer to equipment sheet) | Memory card ID

METER CHECKS AND SET UP

	Tick		Tick		Tick
Sufficient battery?	✓	Date and time correct?	✓	Correct windshield correction set	✓
Sufficient memory?	✓	Clocks synchronised?			

CALIBRATION (See Reference sheet 2 for meter specific procedure) * Adjust sensitivity at start. Note value but do not adjust at end

	Start	End	
Calibration Level	94	94	Read off meter. See reference sheet 2 for expected values
Sensitivity Setting			B&K/Nor:Sensitivity; Svantek:C value; Rion:Internal Cal level
Low noise level (if cable used) :			Leave calibrator in place, but turned off
Cal Measurement Saved			Note file reference for calibration tone measurement
Cal within ±0.5 dB	✓	✓	Tick to confirm that values within 0.5 dB of expected

If not call Project manager or 0115 907 7000

LOGGING PERIOD | RESOLUTION

AUDIO SETTING | SECS / MINS EVERY | MINS / HOURS | or CONTINUOUS Tick | AUDIO TRIGGER LEVEL dB

File name / Number | RANGE TO | OR N/A

WEATHER CONDITIONS

	Wind direction (arrow) START		Wind direction (arrow) END	
WIND SPEED (m/s)	N	[redacted] m/s	N	2.9 m/s
CLOUD COVER (eighths)	W E	7 /8	W E	0 /8
TEMPERATURE (°C)	S	15 °C	S	12 °C
				3.9 m/s

	PRECIPITATION (Tick)						ROAD CONDITIONS (Tick)				GROUND CONDITION (Tick)			
	NONE	DRIZZLE	RAIN	SNOW	HAIL	FOG/MIST	DRY	DAMP	WET	ICE/SNOW	SOFT	HARD	ICE/SNOW	FROZEN
START	✓						✓				✓			
END	✓													

Subjective description of sound climate (close your eyes and describe what you hear)

Dominant Noise (Start)	Dominant Noise (End)
Lawn mower	Aircraft
Other Sources (Start)	**Other Sources (End)**
Intermittent aircraft noise Hedge cutter	light traffic

Other Comments:

Battery changed 05/09 12:36

AECOM **Noise Monitoring Sheet** | Project | | Sheet 2 of | |

Site [redacted] | Date 23/08/18 | Meter |

EQUIPMENT LOCATION

MICROPHONE HEIGHT ABOVE GROUND ____ METRES

MICROPHONE MOUNTED ON (TICK)				DISTANCE FROM VERTICAL SURFACE / FAÇADE (>3.5M OR =1M)
TRIPOD		A FRAME		LINE OF SIGHT FROM SOURCE TO RECEIVER? (Y/N)
MAST		FENCE		ACTUAL OR POTENTIAL NOISE SOURCES NEARBY?
OTHER	/			(EG AHU / HVAC / SUBSTATION / CAT SCARER ETC)
OTHER	cable tied to pole			

Plan view sketch with distances.

Mark: Meter location North arrow Main audible and potential noise souces

Photographic direction and positions (meter installed and all round view of surroundings)

Distance to nearest roads and other noise sources (identify) ____ estimate ____ measured

Note position, height and construction material of barriers. ____ estimate ____ measured

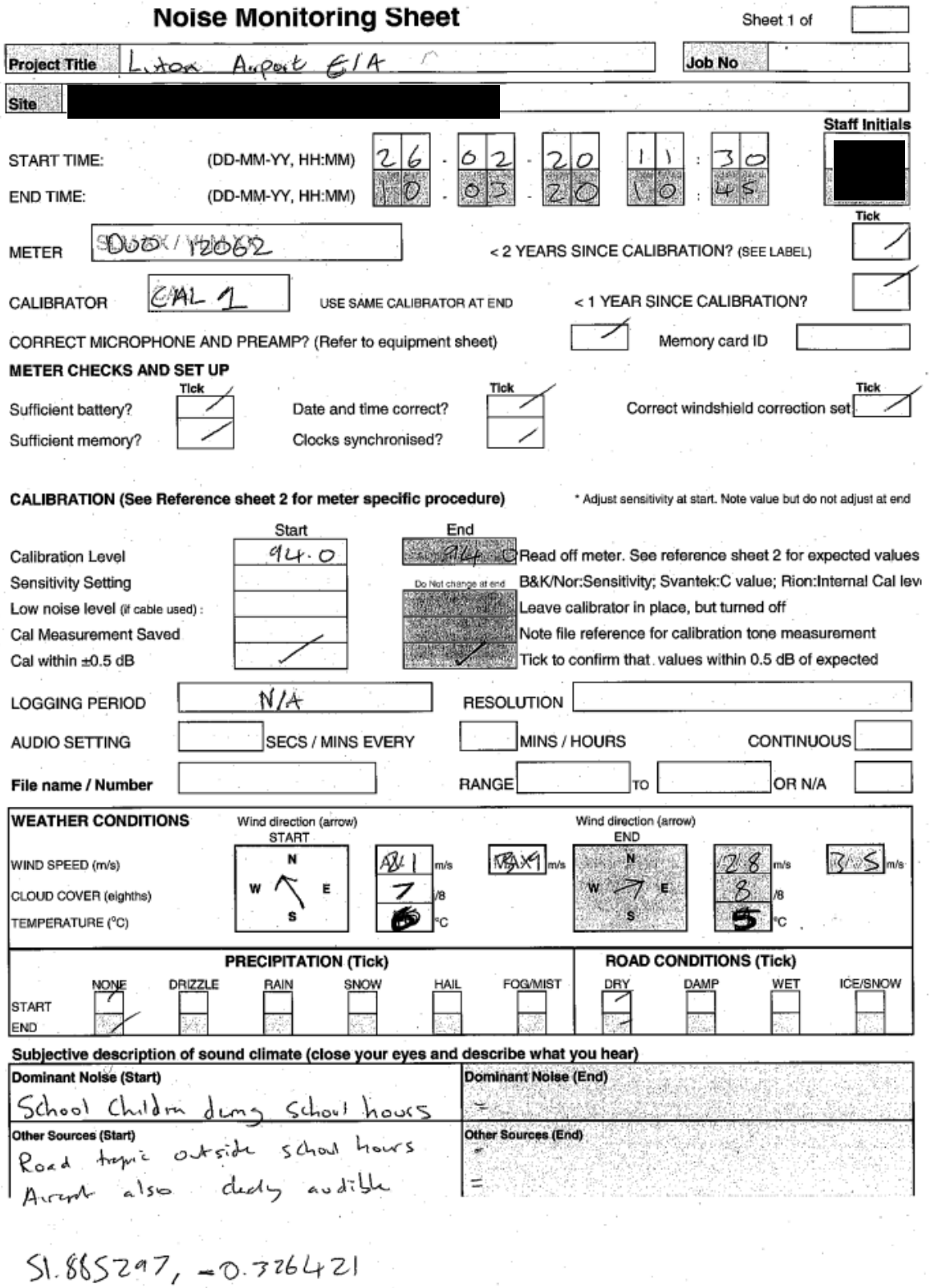
Note position and type of ground cover (grass, stone, shrubs etc)

	2 letters	5 numbers	5 numbers		east/west	north/south
GPS Coordinates				or	0°15'56.36"	51°53'11.03"

Camera ID: GPS ID

	Print name	Signature	Date
Site staff			
QA checked			

Figure 7.39: ML37 Monitoring Sheet – Part 1 (one sheet only)



Noise Monitoring Sheet

Sheet 1 of

Project Title: Luton Airport EIA | Job No:

Site: [redacted]

Staff Initials: [redacted]

START TIME: (DD-MM-YY, HH:MM) 26-02-20 11:30

END TIME: (DD-MM-YY, HH:MM) 27-02-20 10:45

METER: 1000 / 120682 — < 2 YEARS SINCE CALIBRATION? (SEE LABEL) — Tick ✓

CALIBRATOR: CAL 1 — USE SAME CALIBRATOR AT END — < 1 YEAR SINCE CALIBRATION? ✓

CORRECT MICROPHONE AND PREAMP? (Refer to equipment sheet) ✓ — Memory card ID:

METER CHECKS AND SET UP

	Tick		Tick		Tick
Sufficient battery?	✓	Date and time correct?	✓	Correct windshield correction set	✓
Sufficient memory?	✓	Clocks synchronised?	✓		

CALIBRATION (See Reference sheet 2 for meter specific procedure) * Adjust sensitivity at start. Note value but do not adjust at end

	Start	End	
Calibration Level	94.0	94.0	Read off meter. See reference sheet 2 for expected values
Sensitivity Setting		Do Not change at end	B&K/Nor:Sensitivity; Svantek:C value; Rion:Internal Cal lev
Low noise level (if cable used) :			Leave calibrator in place, but turned off
Cal Measurement Saved			Note file reference for calibration tone measurement
Cal within ±0.5 dB	✓	✓	Tick to confirm that values within 0.5 dB of expected

LOGGING PERIOD: N/A — RESOLUTION:

AUDIO SETTING: SECS / MINS EVERY — MINS / HOURS — CONTINUOUS

File name / Number: — RANGE: TO: OR N/A

WEATHER CONDITIONS

	Wind direction (arrow) START		Wind direction (arrow) END	
WIND SPEED (m/s)	ABL 1 m/s	MAX 1 m/s	2.8 m/s	3.5 m/s
CLOUD COVER (eighths)	7 /8		8 /8	
TEMPERATURE (°C)	6 °C		5 °C	

PRECIPITATION (Tick)

	NONE	DRIZZLE	RAIN	SNOW	HAIL	FOG/MIST
START	✓					
END	✓					

ROAD CONDITIONS (Tick)

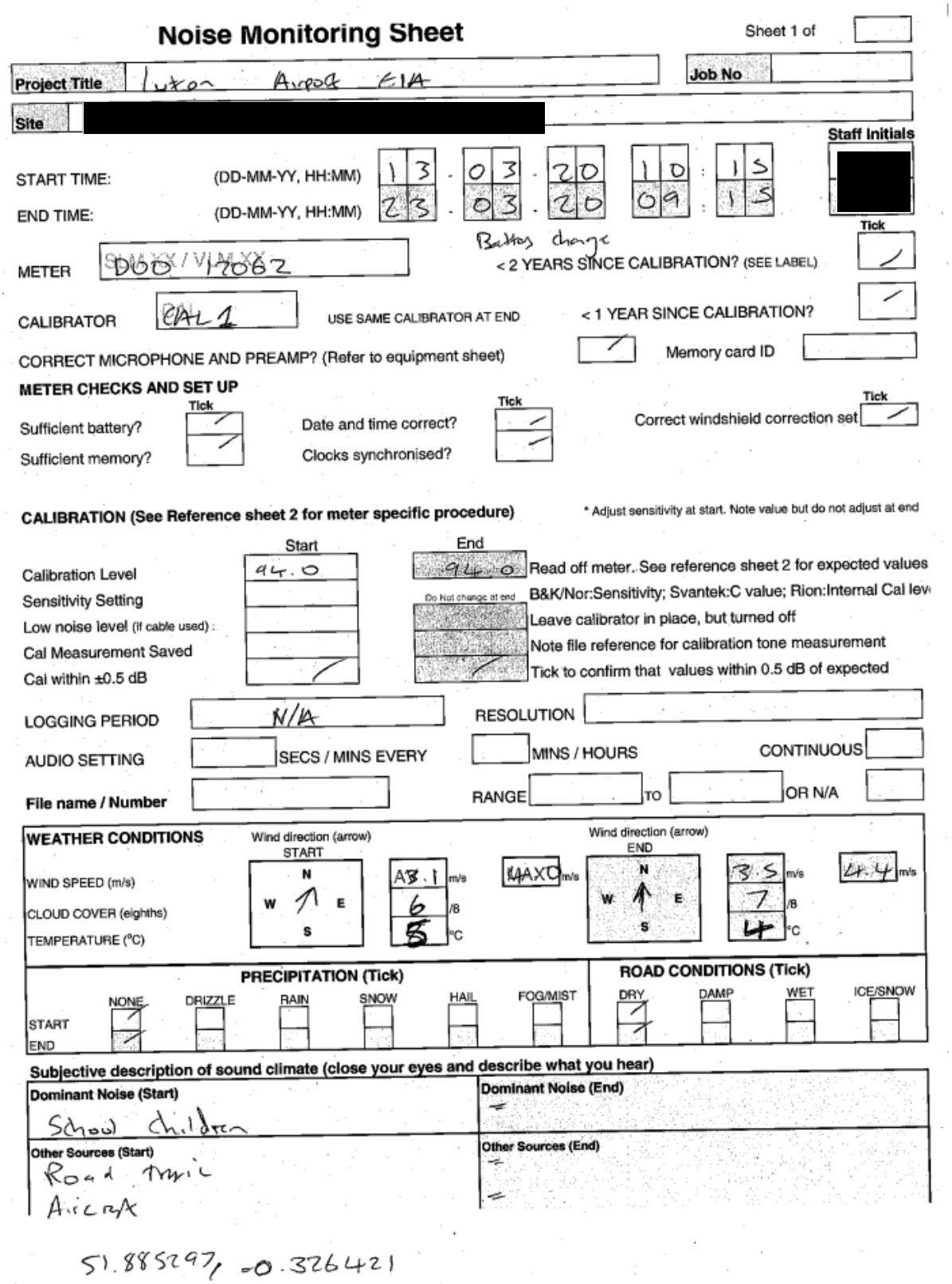
	DRY	DAMP	WET	ICE/SNOW
START	✓			
END	✓			

Subjective description of sound climate (close your eyes and describe what you hear)

Dominant Noise (Start)	Dominant Noise (End)
School Children during school hours	=
Other Sources (Start)	**Other Sources (End)**
Road traffic outside school hours Aircraft also clearly audible	=

51.885297, -0.376421

Figure 7.40: ML37 Monitoring Sheet – Part 2 (one sheet only)



Noise Monitoring Sheet

Sheet 1 of

Project Title: Luton Airport EIA

Job No:

Site: [redacted]

Staff Initials: [redacted]

START TIME: (DD-MM-YY, HH:MM) 13-03-20 10:15

END TIME: (DD-MM-YY, HH:MM) 23-03-20 09:15

Battery change

METER: D00 / 17062

< 2 YEARS SINCE CALIBRATION? (SEE LABEL) Tick ✓

CALIBRATOR: CAL 1

USE SAME CALIBRATOR AT END

< 1 YEAR SINCE CALIBRATION? ✓

CORRECT MICROPHONE AND PREAMP? (Refer to equipment sheet) ✓

Memory card ID:

METER CHECKS AND SET UP

	Tick		Tick		Tick
Sufficient battery?	✓	Date and time correct?	✓	Correct windshield correction set	✓
Sufficient memory?	✓	Clocks synchronised?	✓		

CALIBRATION (See Reference sheet 2 for meter specific procedure) * Adjust sensitivity at start. Note value but do not adjust at end

	Start	End	
Calibration Level	94.0	94.0	Read off meter. See reference sheet 2 for expected values
Sensitivity Setting		Do Not change at end	B&K/Nor:Sensitivity; Svantek:C value; Rion:Internal Cal lev
Low noise level (if cable used) :			Leave calibrator in place, but turned off
Cal Measurement Saved			Note file reference for calibration tone measurement
Cal within ±0.5 dB	✓	✓	Tick to confirm that values within 0.5 dB of expected

LOGGING PERIOD: N/A RESOLUTION:

AUDIO SETTING: SECS / MINS EVERY MINS / HOURS CONTINUOUS

File name / Number: RANGE TO OR N/A

WEATHER CONDITIONS

	Wind direction (arrow) START		Wind direction (arrow) END	
WIND SPEED (m/s)	N W E S	A3.1 m/s	MAX0 m/s	3.5 m/s 4.4 m/s
CLOUD COVER (eighths)		6 /8		7 /8
TEMPERATURE (°C)		5 °C		4 °C

PRECIPITATION (Tick)

	NONE	DRIZZLE	RAIN	SNOW	HAIL	FOG/MIST
START	✓					
END	✓					

ROAD CONDITIONS (Tick)

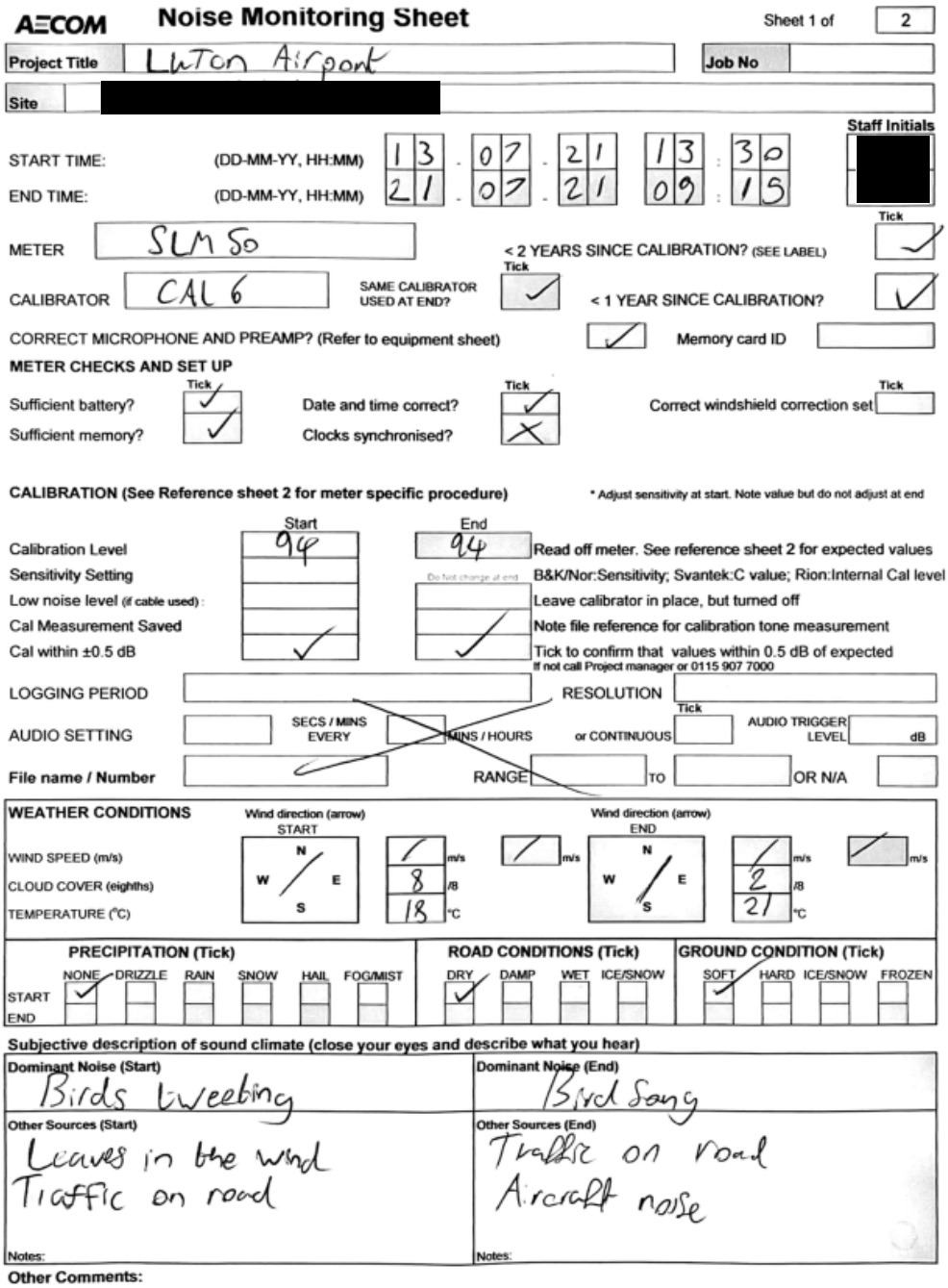
	DRY	DAMP	WET	ICE/SNOW
START	✓			
END	✓			

Subjective description of sound climate (close your eyes and describe what you hear)

Dominant Noise (Start)	Dominant Noise (End)
School children	=
Other Sources (Start)	**Other Sources (End)**
Road traffic	=
Aircraft	=

51.885297, -0.326421

Figure 7.41: ML41 Monitoring Sheet (two sheets)



AECOM **Noise Monitoring Sheet** Sheet 1 of 2

Project Title: Luton Airport | Job No:

Site: [redacted]

Staff Initials: [redacted]

START TIME:	(DD-MM-YY, HH:MM)	13.07.21	13:30
END TIME:	(DD-MM-YY, HH:MM)	21.07.21	09:15

METER: SLM 50 — < 2 YEARS SINCE CALIBRATION? (SEE LABEL) Tick ✓

CALIBRATOR: CAL 6 — SAME CALIBRATOR USED AT END? Tick ✓ — < 1 YEAR SINCE CALIBRATION? ✓

CORRECT MICROPHONE AND PREAMP? (Refer to equipment sheet) ✓ — Memory card ID:

METER CHECKS AND SET UP

	Tick		Tick		Tick
Sufficient battery?	✓	Date and time correct?	✓	Correct windshield correction set	
Sufficient memory?	✓	Clocks synchronised?	X		

CALIBRATION (See Reference sheet 2 for meter specific procedure) * Adjust sensitivity at start. Note value but do not adjust at end

	Start	End	
Calibration Level	94	94	Read off meter. See reference sheet 2 for expected values
Sensitivity Setting		Do Not change at end	B&K/Nor:Sensitivity; Svantek:C value; Rion:Internal Cal level
Low noise level (if cable used) :			Leave calibrator in place, but turned off
Cal Measurement Saved		✓	Note file reference for calibration tone measurement
Cal within ±0.5 dB	✓	✓	Tick to confirm that values within 0.5 dB of expected. If not call Project manager or 0115 907 7000

LOGGING PERIOD: | RESOLUTION: | Tick

AUDIO SETTING: | SECS / MINS EVERY: | MINS / HOURS: | or CONTINUOUS: | AUDIO TRIGGER LEVEL: dB

File name / Number: | RANGE: TO: | OR N/A:

WEATHER CONDITIONS

	Wind direction (arrow) START		Wind direction (arrow) END	
WIND SPEED (m/s)	✓ m/s	✓ m/s	✓ m/s	✓ m/s
CLOUD COVER (eighths)	8 /8		2 /8	
TEMPERATURE (°C)	18 °C		21 °C	

	PRECIPITATION (Tick)						ROAD CONDITIONS (Tick)				GROUND CONDITION (Tick)			
	NONE	DRIZZLE	RAIN	SNOW	HAIL	FOG/MIST	DRY	DAMP	WET	ICE/SNOW	SOFT	HARD	ICE/SNOW	FROZEN
START	✓						✓				✓			
END														

Subjective description of sound climate (close your eyes and describe what you hear)

Dominant Noise (Start)	Dominant Noise (End)
Birds tweeting	Bird Song
Other Sources (Start)	**Other Sources (End)**
Leaves in the wind Traffic on road	Traffic on road Aircraft noise
Notes:	Notes:

Other Comments:

AECOM **Noise Monitoring Sheet**

Project	0	Sheet 2 of	2		
Site	[redacted]	Date	13/07/21	Meter	0

EQUIPMENT LOCATION

MICROPHONE HEIGHT ABOVE GROUND 1·2 METRES

MICROPHONE MOUNTED ON (TICK)					
TRIPOD		A FRAME		DISTANCE FROM VERTICAL SURFACE / FAÇADE (>3.5M OR =1M)	2m
MAST		FENCE		LINE OF SIGHT FROM SOURCE TO RECEIVER? (Y/N)	
OTHER	✓			ACTUAL OR POTENTIAL NOISE SOURCES NEARBY? (EG AHU / HVAC / SUBSTATION / CAT SCARER ETC)	
OTHER	Pole				

Plan view sketch with distances.

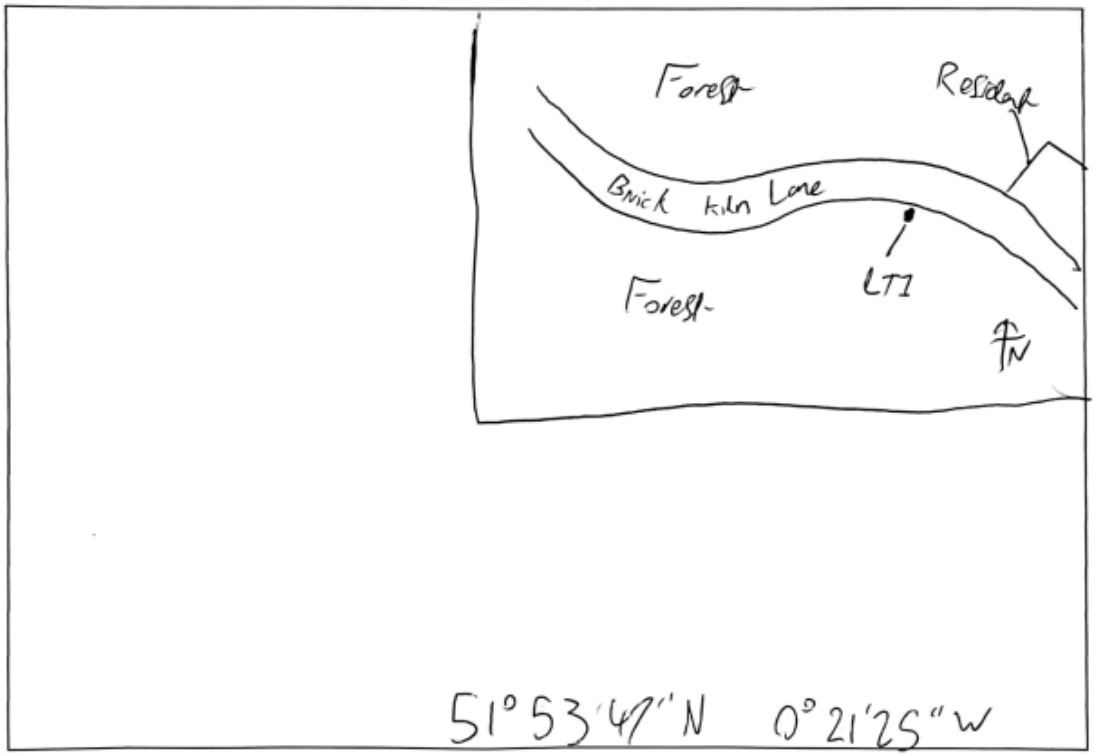
Mark: Meter location North arrow Main audible and potential noise souces

Photographic direction and positions (meter installed and all round view of surroundings)

Distance to nearest roads and other noise sources (identify) 3 estimate [ ] measured

Note position, height and construction material of barriers. [ ] estimate [ ] measured

Note position and type of ground cover (grass, stone, shrubs etc)



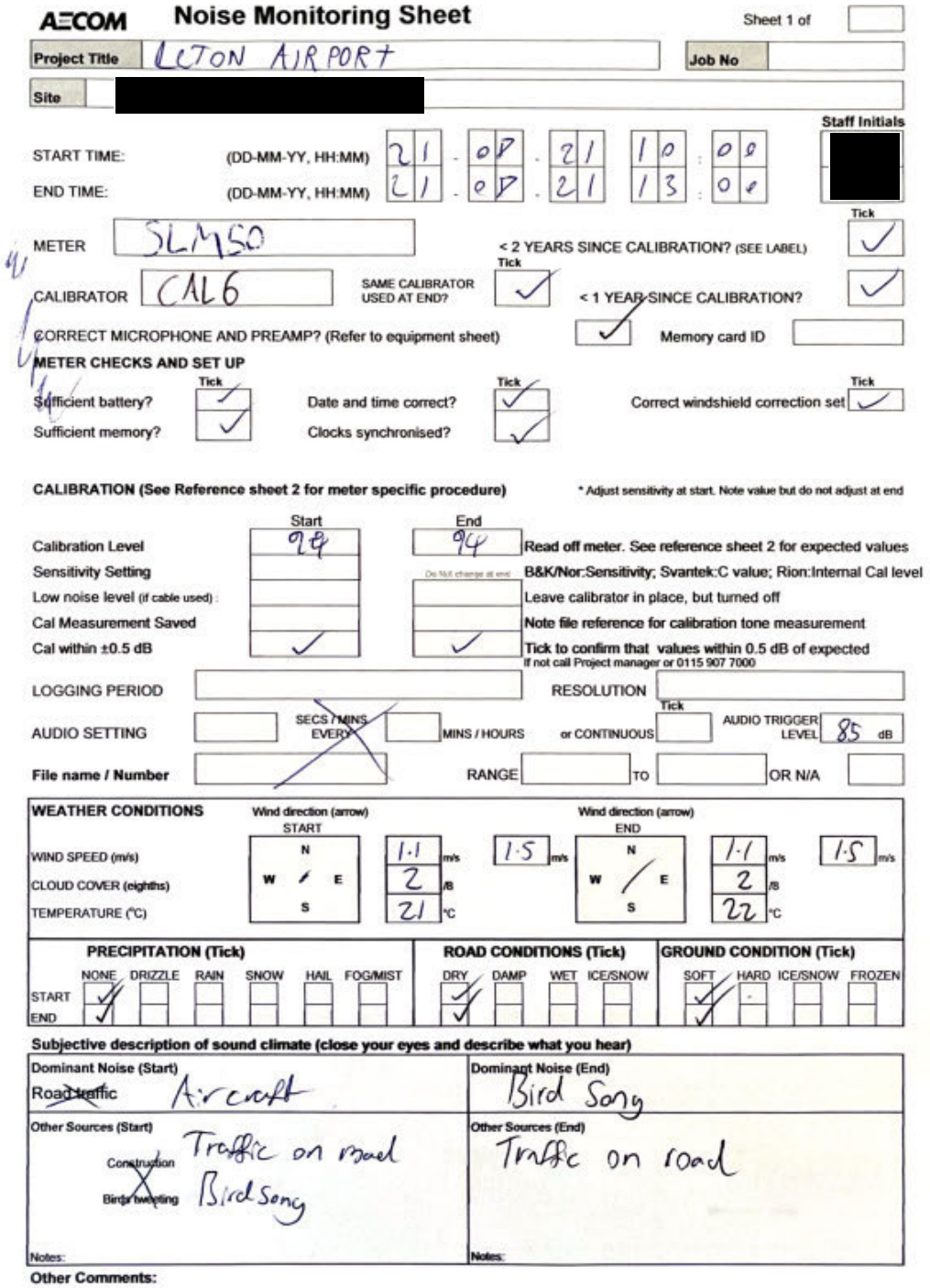
51°53'47"N 0°21'25"W

	2 letters	5 numbers	5 numbers	east/west	north/south
GPS Coordinates				or	

Camera ID: GPS ID

	Print name	Signature	Date
Site staff	[redacted]	[redacted]	21/07/21
QA checked			

Figure 7.42: ML42 Monitoring Sheet (two sheets)



AECOM **Noise Monitoring Sheet** Sheet 1 of

Project Title: LUTON AIRPORT Job No:

Site: [redacted]

Staff Initials: [redacted]

START TIME: (DD-MM-YY, HH:MM) 21 - 07 - 21 10 : 00

END TIME: (DD-MM-YY, HH:MM) 21 - 07 - 21 13 : 00

METER: SLM50 — < 2 YEARS SINCE CALIBRATION? (SEE LABEL) — Tick ✓

CALIBRATOR: CAL6 — SAME CALIBRATOR USED AT END? Tick ✓ — < 1 YEAR SINCE CALIBRATION? ✓

CORRECT MICROPHONE AND PREAMP? (Refer to equipment sheet) ✓ — Memory card ID:

METER CHECKS AND SET UP

	Tick		Tick		Tick
Sufficient battery?	✓	Date and time correct?	✓	Correct windshield correction set	✓
Sufficient memory?	✓	Clocks synchronised?	✓		

CALIBRATION (See Reference sheet 2 for meter specific procedure) * Adjust sensitivity at start. Note value but do not adjust at end

	Start	End	
Calibration Level	94	94	Read off meter. See reference sheet 2 for expected values
Sensitivity Setting		Do Not change at end	B&K/Nor:Sensitivity; Svantek:C value; Rion:Internal Cal level
Low noise level (if cable used) :			Leave calibrator in place, but turned off
Cal Measurement Saved			Note file reference for calibration tone measurement
Cal within ±0.5 dB	✓	✓	Tick to confirm that values within 0.5 dB of expected. If not call Project manager or 0115 907 7000

LOGGING PERIOD: RESOLUTION:

AUDIO SETTING: SECS / MINS EVERY: MINS / HOURS: or CONTINUOUS: Tick: AUDIO TRIGGER LEVEL: 85 dB

File name / Number: RANGE: TO: OR N/A:

WEATHER CONDITIONS

	Wind direction (arrow) START		Wind direction (arrow) END	
WIND SPEED (m/s)	1.1 m/s	1.5 m/s	1.1 m/s	1.5 m/s
CLOUD COVER (eighths)	2 /8		2 /8	
TEMPERATURE (°C)	21 °C		22 °C	

PRECIPITATION (Tick)							ROAD CONDITIONS (Tick)				GROUND CONDITION (Tick)			
	NONE	DRIZZLE	RAIN	SNOW	HAIL	FOG/MIST	DRY	DAMP	WET	ICE/SNOW	SOFT	HARD	ICE/SNOW	FROZEN
START	✓						✓				✓			
END	✓						✓				✓			

Subjective description of sound climate (close your eyes and describe what you hear)

Dominant Noise (Start)	Dominant Noise (End)
~~Road traffic~~ Aircraft	Bird Song
Other Sources (Start)	**Other Sources (End)**
Construction Traffic on road	Traffic on road
~~Birds tweeting~~ Bird Song	
Notes:	Notes:

Other Comments:

AECOM **Noise Monitoring Sheet**

Project		Sheet 2 of			
Site	[redacted]	Date	21/01/21	Meter	SLM 50

EQUIPMENT LOCATION

MICROPHONE HEIGHT ABOVE GROUND [ ] METRES

MICROPHONE MOUNTED ON (TICK)					
TRIPOD		A FRAME		DISTANCE FROM VERTICAL SURFACE / FAÇADE (>3.5M OR =1M)	>3.5
MAST		FENCE		LINE OF SIGHT FROM SOURCE TO RECEIVER? (Y/N)	Y
OTHER	✓			ACTUAL OR POTENTIAL NOISE SOURCES NEARBY? (EG AHU / HVAC / SUBSTATION / CAT SCARER ETC)	N
OTHER	Pole				

Plan view sketch with distances.

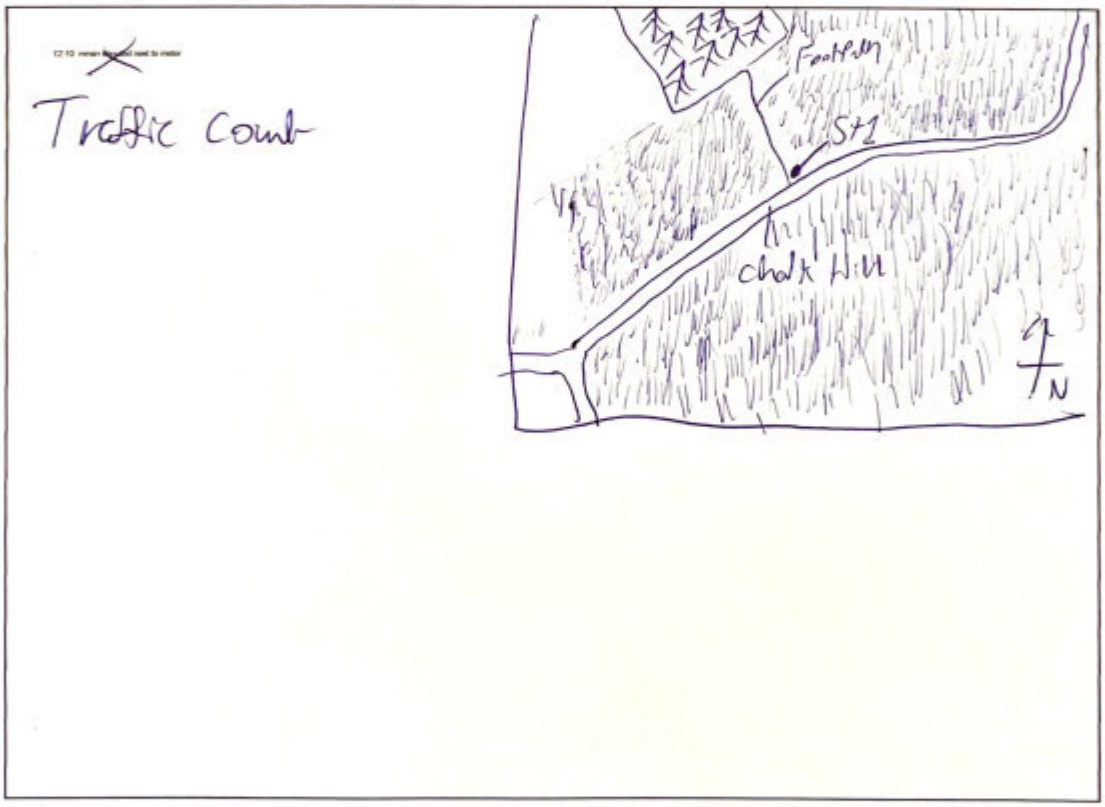
Mark: Meter location North arrow Main audible and potential noise souces

Photographic direction and positions (meter installed and all round view of surroundings)

Distance to nearest roads and other noise sources (identify) [6m] estimate [ ] measured

Note position, height and construction material of barriers. [ ] estimate [ ] measured

Note position and type of ground cover (grass, stone, shrubs etc)

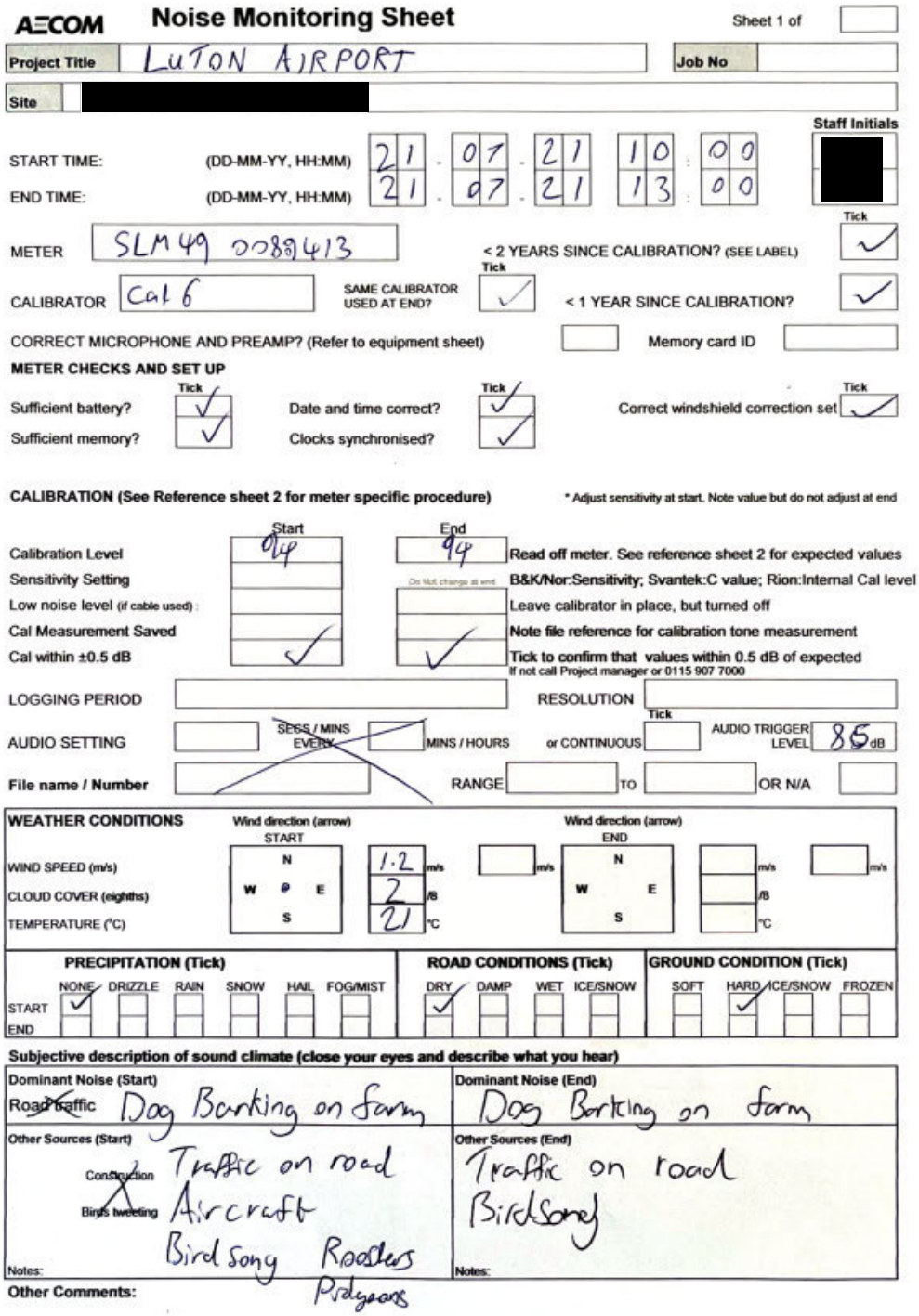


	2 letters	5 numbers	5 numbers		east/west	north/south
GPS Coordinates				or		

Camera ID: GPS ID

	Print name	Signature	Date
Site staff	[redacted]	[redacted]	21/01/21
QA checked			

Figure 7.43: ML43 Monitoring Sheet (two sheets)



AECOM **Noise Monitoring Sheet** Sheet 1 of

Project Title: LUTON AIRPORT Job No:

Site: [redacted]

Staff Initials: [redacted]

START TIME: (DD-MM-YY, HH:MM) 21 - 07 - 21 10 : 00

END TIME: (DD-MM-YY, HH:MM) 21 - 07 - 21 13 : 00

METER: SLM 49 00894 13 < 2 YEARS SINCE CALIBRATION? (SEE LABEL) Tick ✓

CALIBRATOR: Cal 6 SAME CALIBRATOR USED AT END? Tick ✓ < 1 YEAR SINCE CALIBRATION? ✓

CORRECT MICROPHONE AND PREAMP? (Refer to equipment sheet) Memory card ID

METER CHECKS AND SET UP

	Tick		Tick		Tick
Sufficient battery?	✓	Date and time correct?	✓	Correct windshield correction set	✓
Sufficient memory?	✓	Clocks synchronised?	✓		

CALIBRATION (See Reference sheet 2 for meter specific procedure) * Adjust sensitivity at start. Note value but do not adjust at end

	Start	End	
Calibration Level	94	94	Read off meter. See reference sheet 2 for expected values
Sensitivity Setting			B&K/Nor:Sensitivity; Svantek:C value; Rion:Internal Cal level
Low noise level (if cable used) :			Leave calibrator in place, but turned off
Cal Measurement Saved			Note file reference for calibration tone measurement
Cal within ±0.5 dB	✓	✓	Tick to confirm that values within 0.5 dB of expected. If not call Project manager or 0115 907 7000

LOGGING PERIOD RESOLUTION

AUDIO SETTING SECS / MINS EVERY MINS / HOURS or CONTINUOUS Tick AUDIO TRIGGER LEVEL 85 dB

File name / Number RANGE TO OR N/A

WEATHER CONDITIONS

	Wind direction (arrow) START		Wind direction (arrow) END	
WIND SPEED (m/s)	N W E S	1.2 m/s	N W E S	m/s
CLOUD COVER (eighths)		2 /8		/8
TEMPERATURE (°C)		21 °C		°C

	PRECIPITATION (Tick)						ROAD CONDITIONS (Tick)				GROUND CONDITION (Tick)			
	NONE	DRIZZLE	RAIN	SNOW	HAIL	FOG/MIST	DRY	DAMP	WET	ICE/SNOW	SOFT	HARD	ICE/SNOW	FROZEN
START	✓						✓					✓		
END														

Subjective description of sound climate (close your eyes and describe what you hear)

Dominant Noise (Start)	Dominant Noise (End)
~~Road traffic~~ Dog Barking on farm	Dog Barking on farm
Other Sources (Start)	**Other Sources (End)**
~~Construction~~ Traffic on road	Traffic on road
~~Birds tweeting~~ Aircraft	Birdsong
Birdsong Roosters Pidgeons	
Notes:	Notes:

Other Comments:

AECOM **Noise Monitoring Sheet**

Project		Sheet 2 of	
Site	[redacted]	Date	21/07/24
		Meter	SLM 69

EQUIPMENT LOCATION

MICROPHONE HEIGHT ABOVE GROUND 1.2 METRES

MICROPHONE MOUNTED ON (TICK)				DISTANCE FROM VERTICAL SURFACE / FAÇADE (>3.5M OR =1M)
TRIPOD		A FRAME		LINE OF SIGHT FROM SOURCE TO RECEIVER? (Y/N)
MAST		FENCE		ACTUAL OR POTENTIAL NOISE SOURCES NEARBY?
OTHER	✓			(EG AHU / HVAC / SUBSTATION / CAT SCARER ETC)
OTHER	Pole			

Plan view sketch with distances.

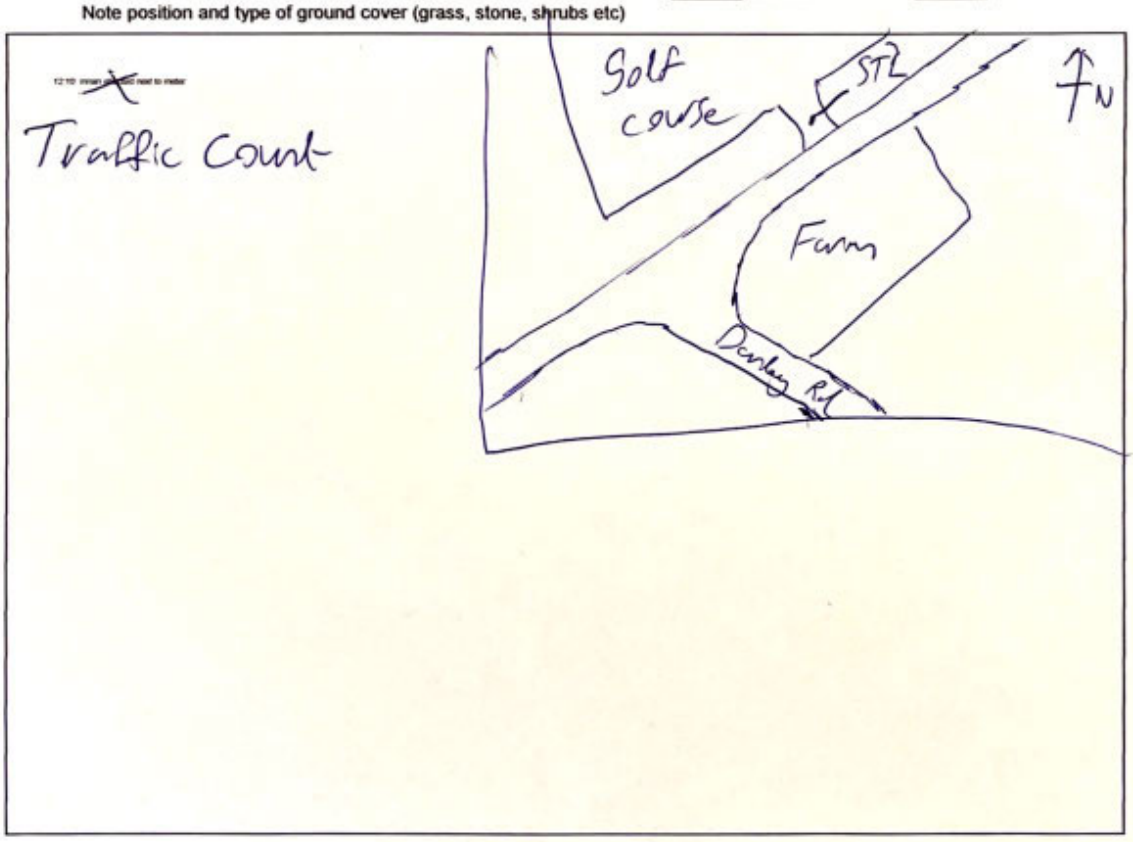
Mark: Meter location North arrow Main audible and potential noise souces

Photographic direction and positions (meter installed and all round view of surroundings)

Distance to nearest roads and other noise sources (identify) 7M estimate [ ] measured

Note position, height and construction material of barriers. [ ] estimate [ ] measured

Note position and type of ground cover (grass, stone, shrubs etc)

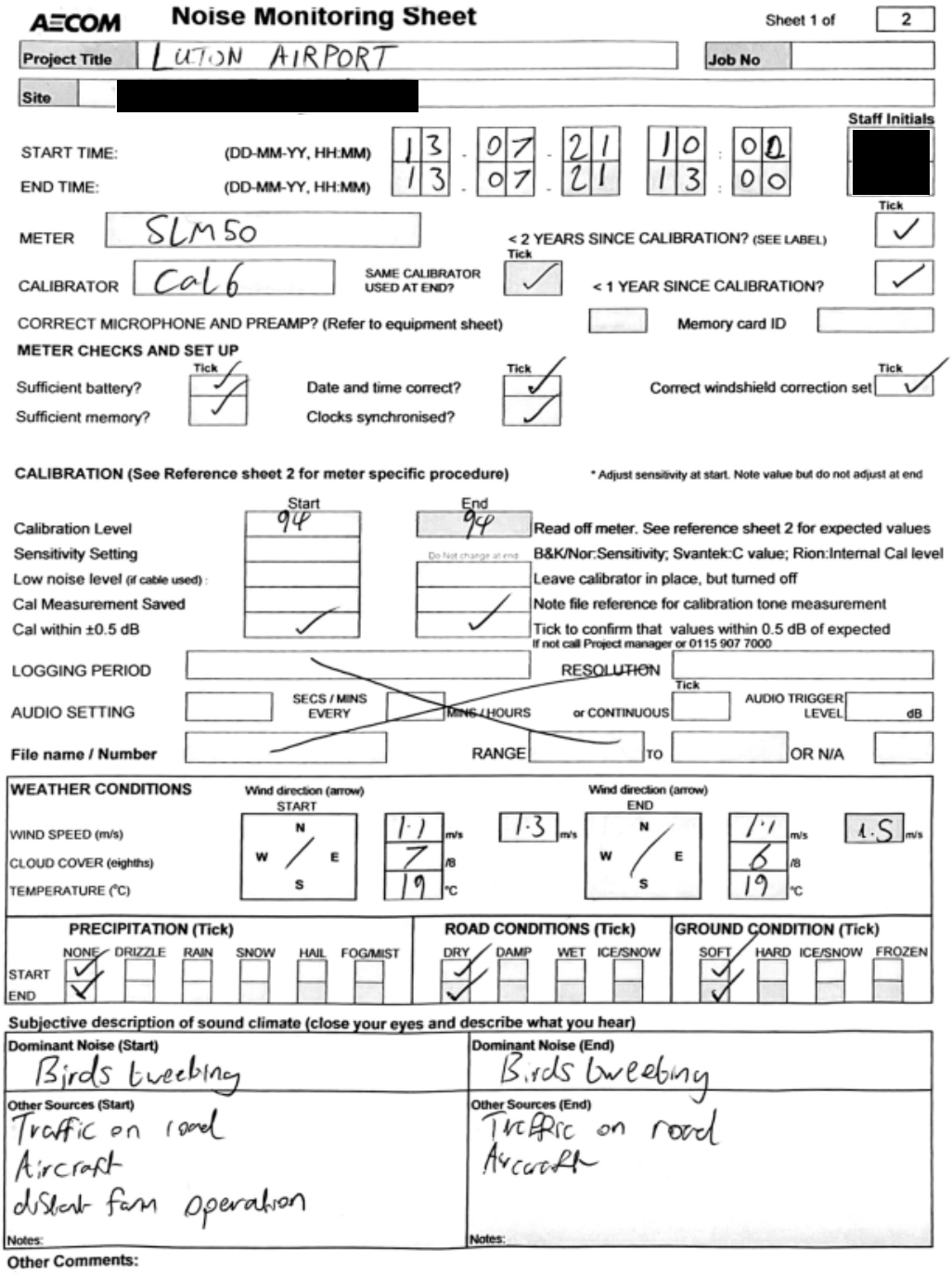


	2 letters	5 numbers	5 numbers	east/west	north/south
GPS Coordinates				or	

Camera ID: GPS ID

	Print name	Signature	Date
Site staff	[redacted]	[redacted]	21/07/24
QA checked			

Figure 7.44: ML43 Monitoring Sheet (two sheets)



AECOM **Noise Monitoring Sheet** Sheet 1 of 2

Project Title: LUTON AIRPORT Job No:

Site: [redacted]

Staff Initials: [redacted]

START TIME: (DD-MM-YY, HH:MM) 13-07-21 10:00

END TIME: (DD-MM-YY, HH:MM) 13-07-21 13:00

METER: SLM50 < 2 YEARS SINCE CALIBRATION? (SEE LABEL) Tick ✓

CALIBRATOR: Cal6 SAME CALIBRATOR USED AT END? Tick ✓ < 1 YEAR SINCE CALIBRATION? ✓

CORRECT MICROPHONE AND PREAMP? (Refer to equipment sheet) Memory card ID

METER CHECKS AND SET UP

	Tick		Tick		Tick
Sufficient battery?	✓	Date and time correct?	✓	Correct windshield correction set	✓
Sufficient memory?	✓	Clocks synchronised?	✓		

CALIBRATION (See Reference sheet 2 for meter specific procedure) * Adjust sensitivity at start. Note value but do not adjust at end

	Start	End	
Calibration Level	94	94	Read off meter. See reference sheet 2 for expected values
Sensitivity Setting		Do Not change at end	B&K/Nor:Sensitivity; Svantek:C value; Rion:Internal Cal level
Low noise level (if cable used) :			Leave calibrator in place, but turned off
Cal Measurement Saved			Note file reference for calibration tone measurement
Cal within ±0.5 dB	✓	✓	Tick to confirm that values within 0.5 dB of expected

If not call Project manager on 0115 907 7000

LOGGING PERIOD RESOLUTION

AUDIO SETTING SECS / MINS EVERY MINS / HOURS or CONTINUOUS Tick ✓ AUDIO TRIGGER LEVEL dB

File name / Number RANGE TO OR N/A

WEATHER CONDITIONS

	START	END
Wind direction (arrow)	N W E S	N W E S
WIND SPEED (m/s)	1·1 m/s	1·3 m/s / 1·1 m/s / 1·5 m/s
CLOUD COVER (eighths)	7 /8	6 /8
TEMPERATURE (°C)	19 °C	19 °C

PRECIPITATION (Tick)							ROAD CONDITIONS (Tick)				GROUND CONDITION (Tick)			
	NONE	DRIZZLE	RAIN	SNOW	HAIL	FOG/MIST	DRY	DAMP	WET	ICE/SNOW	SOFT	HARD	ICE/SNOW	FROZEN
START	✓						✓				✓			
END	✓						✓				✓			

Subjective description of sound climate (close your eyes and describe what you hear)

Dominant Noise (Start)	Dominant Noise (End)
Birds tweeting	Birds tweeting
Other Sources (Start)	**Other Sources (End)**
Traffic on road Aircraft distant farm operation	Traffic on road Aircraft
Notes:	Notes:

Other Comments:

AECOM **Noise Monitoring Sheet** | Project 0 | Sheet 2 of 2

Site [redacted] | Date 13/07/21 | Meter 0

EQUIPMENT LOCATION

MICROPHONE HEIGHT ABOVE GROUND 1.2 METRES

MICROPHONE MOUNTED ON (TICK)				DISTANCE FROM VERTICAL SURFACE / FAÇADE (>3.5M OR =1M)	735
TRIPOD		A FRAME		LINE OF SIGHT FROM SOURCE TO RECEIVER? (Y/N)	Y
MAST		FENCE		ACTUAL OR POTENTIAL NOISE SOURCES NEARBY?	X
OTHER	✓			(EG AHU / HVAC / SUBSTATION / CAT SCARER ETC)	
OTHER	Pole				

Plan view sketch with distances.

Mark: Meter location North arrow Main audible and potential noise souces

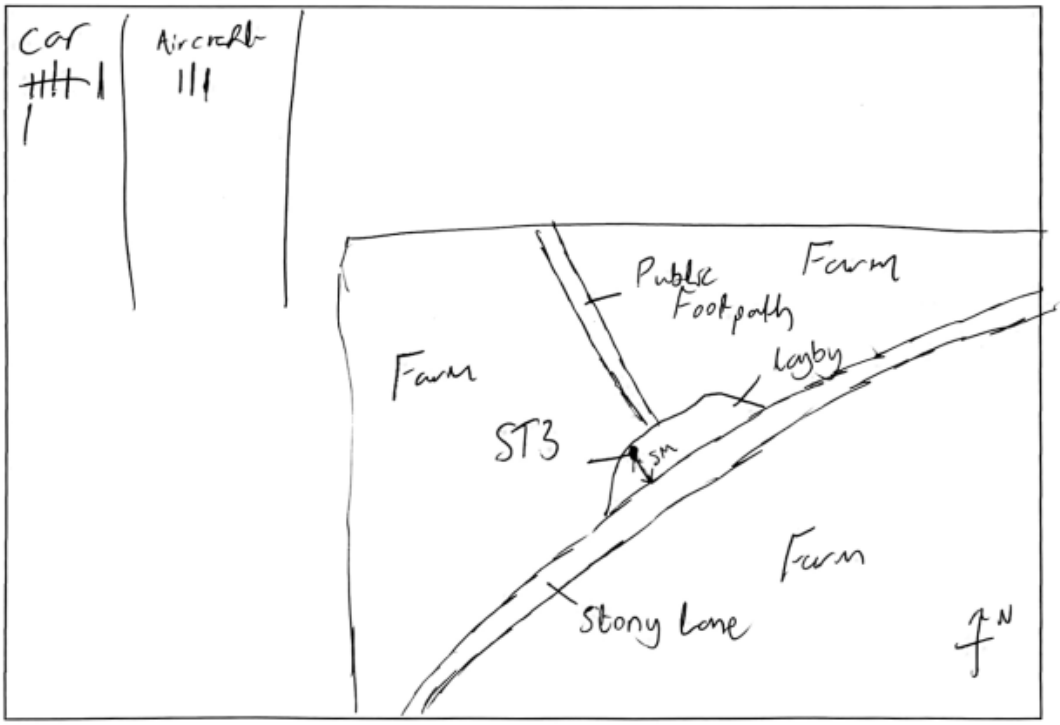
Photographic direction and positions (meter installed and all round view of surroundings)

Distance to nearest roads and other noise sources (identify) 5m estimate ☐ measured

Note position, height and construction material of barriers. ☐ estimate ☐ measured

Note position and type of ground cover (grass, stone, shrubs etc)

10:00



	2 letters	5 numbers	5 numbers	east/west	north/south
GPS Coordinates			or		

Camera ID: GPS ID

	Print name	Signature	Date
Site staff	[redacted]	[redacted]	13/7/21
QA checked			

Figure 7.45: Measured Baseline Sound Levels – ML1

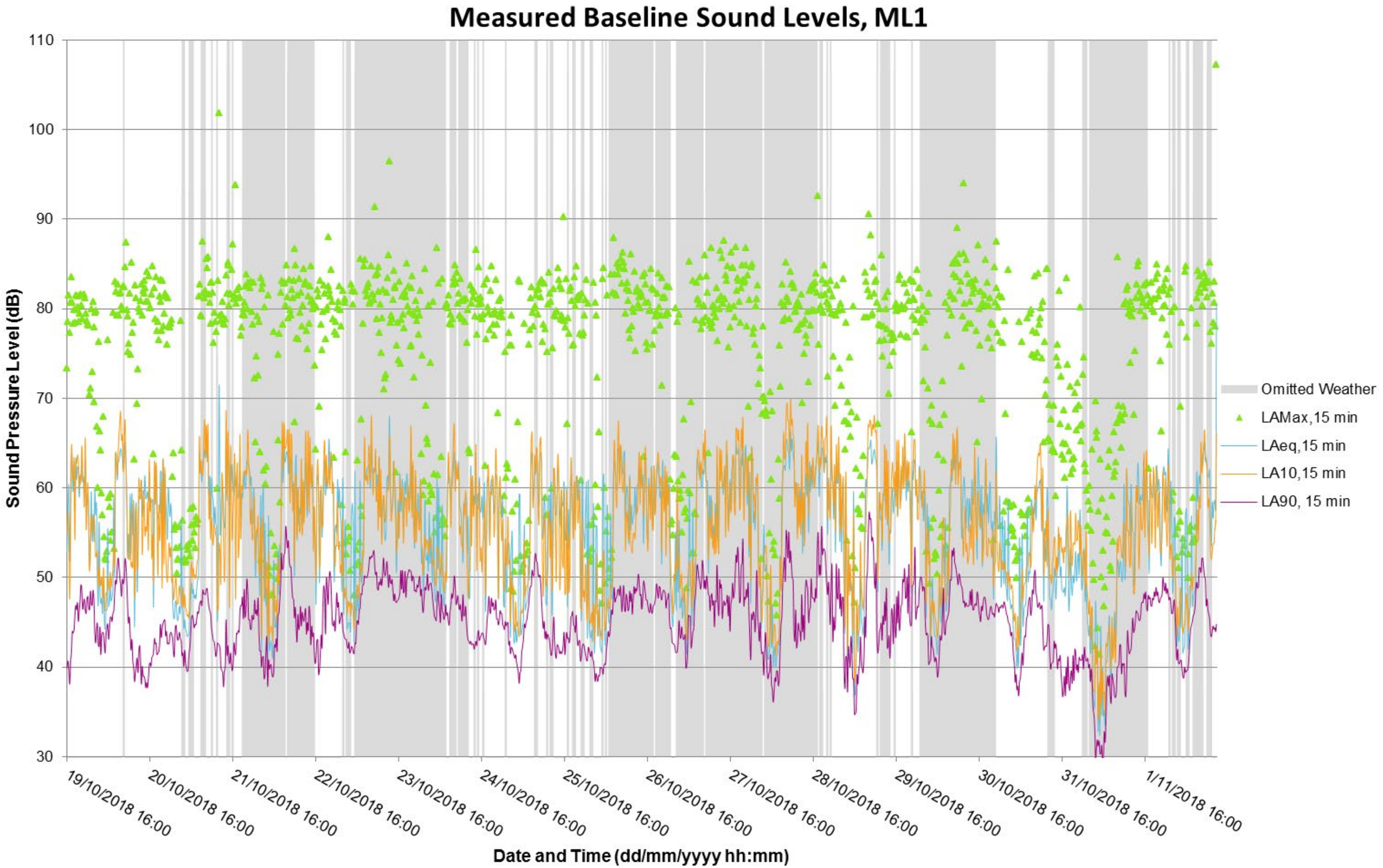


Figure 7.46: Measured Baseline Sound Levels – ML2

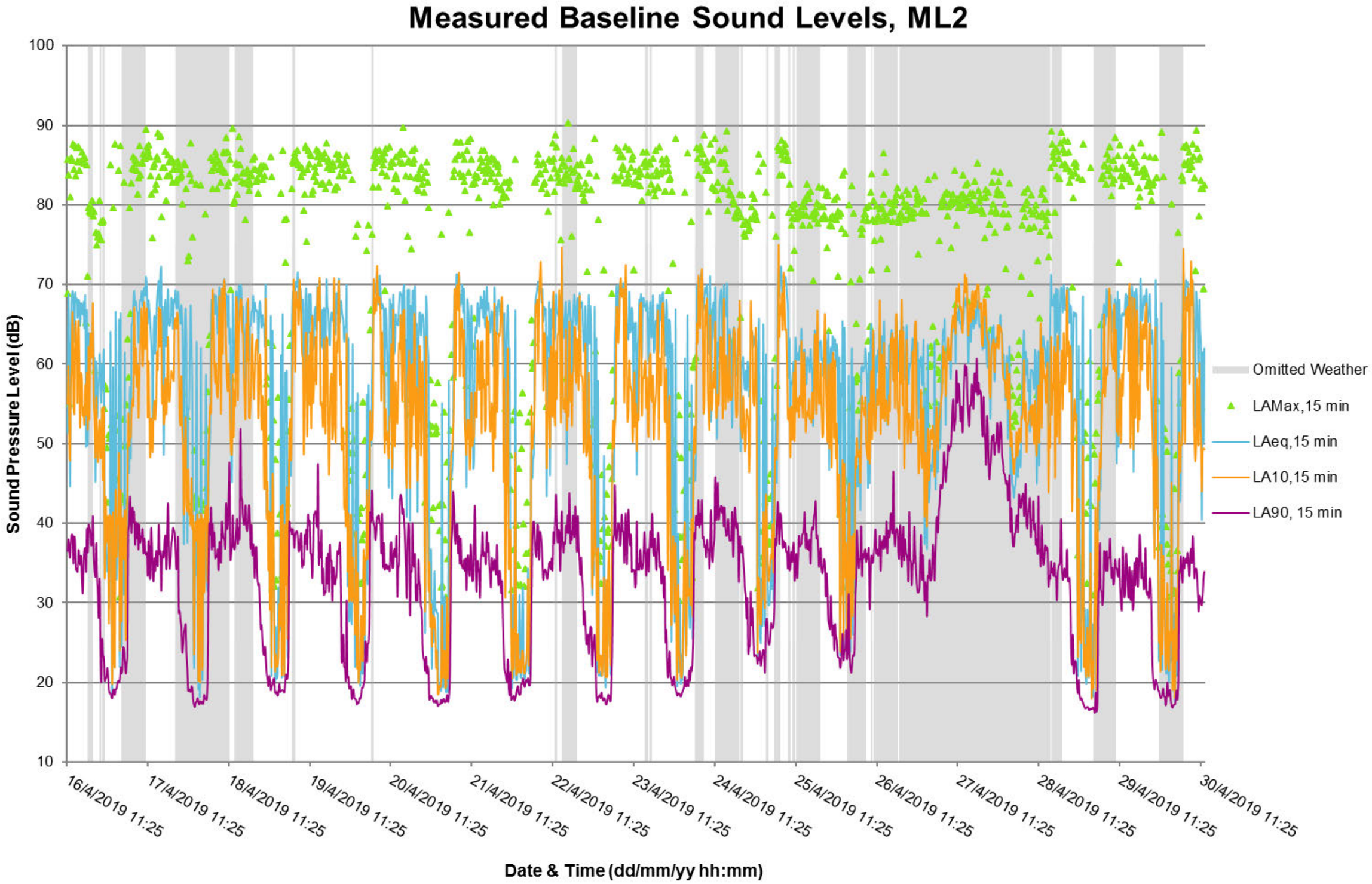


Figure 7.47: Measured Baseline Sound Levels – ML3

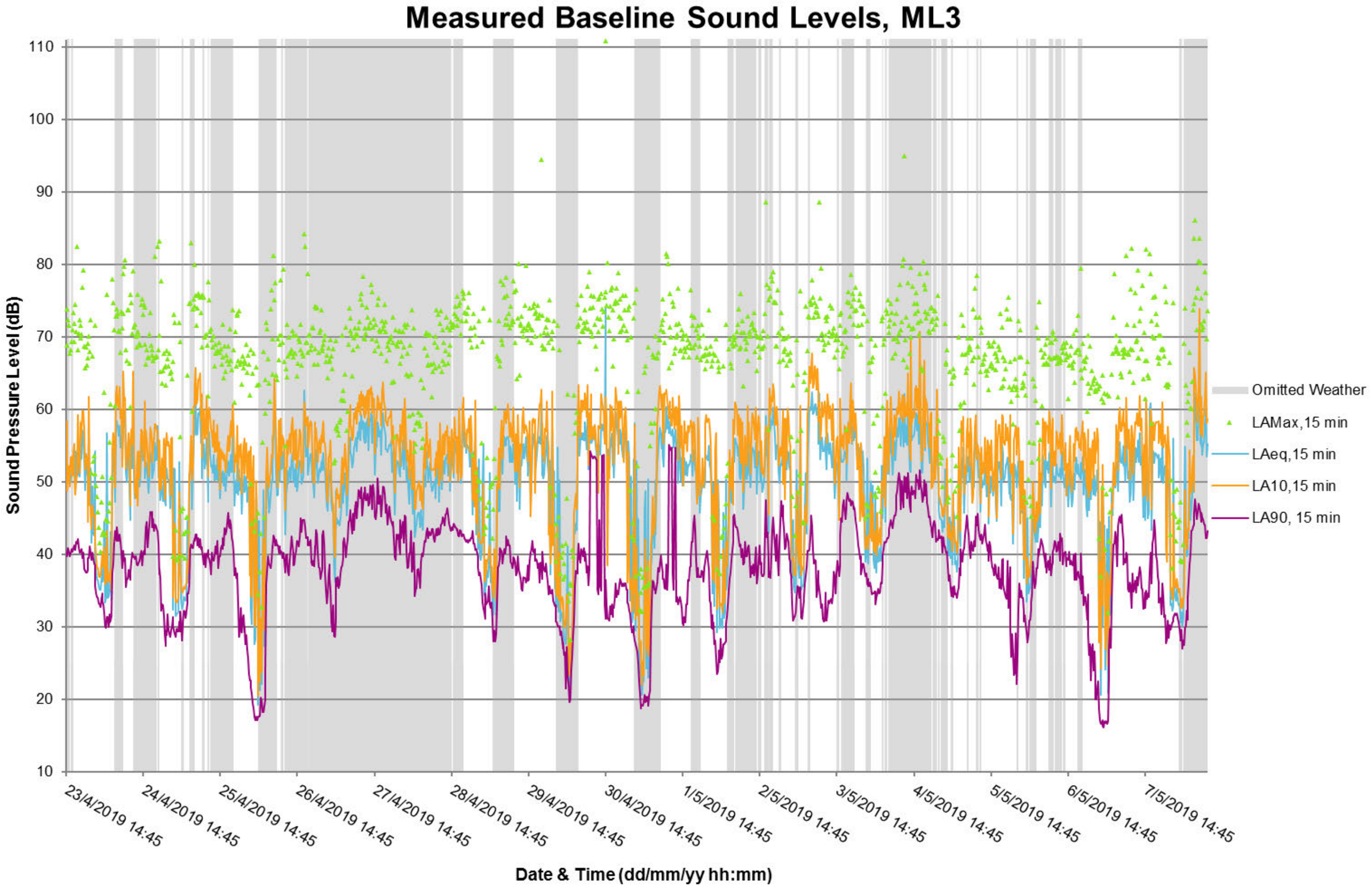


Figure 7.48: Measured Baseline Sound Levels – ML4

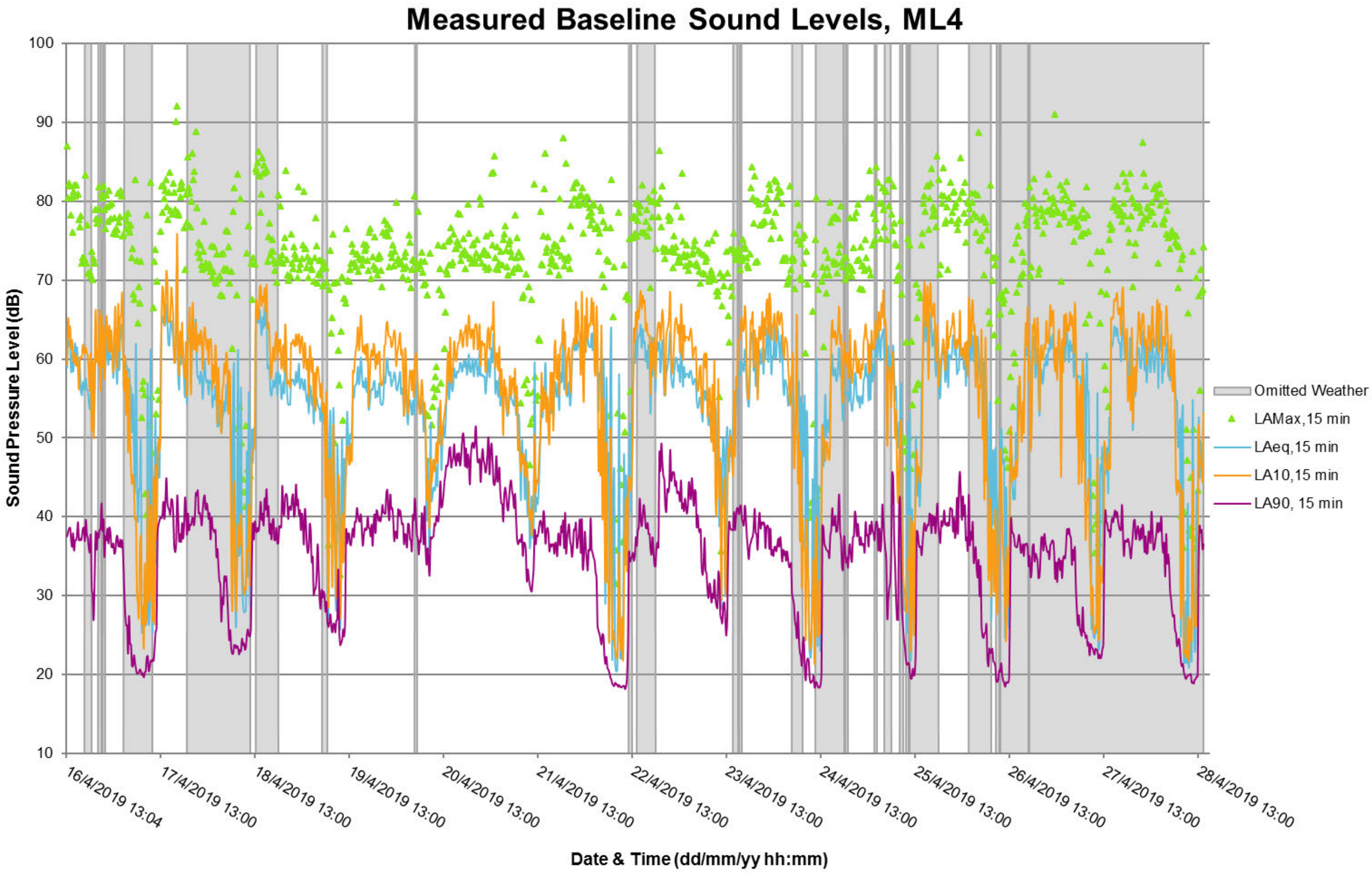


Figure 7.49: Measured Baseline Sound Levels – ML5

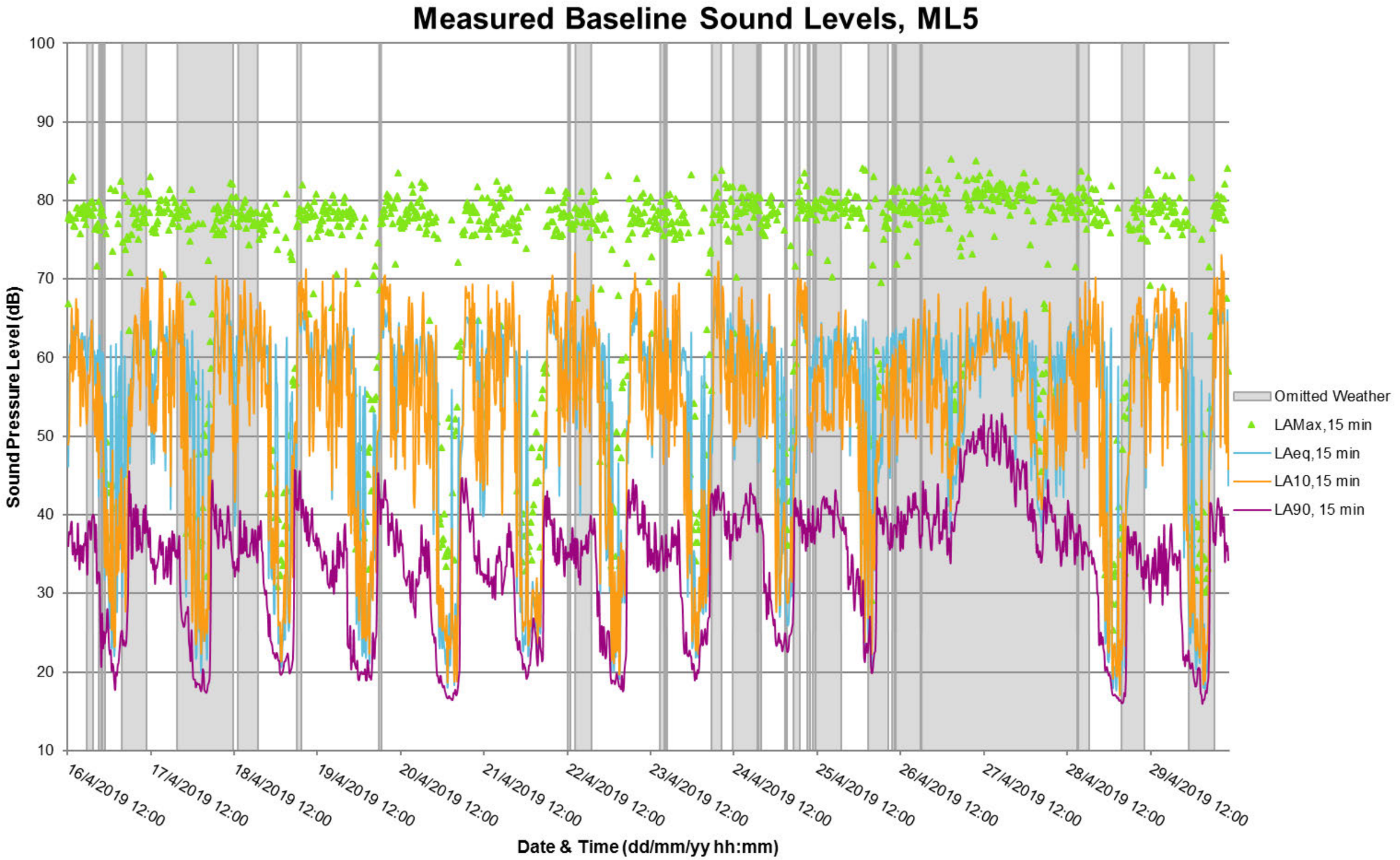


Figure 7.50: Measured Baseline Sound Levels – ML6

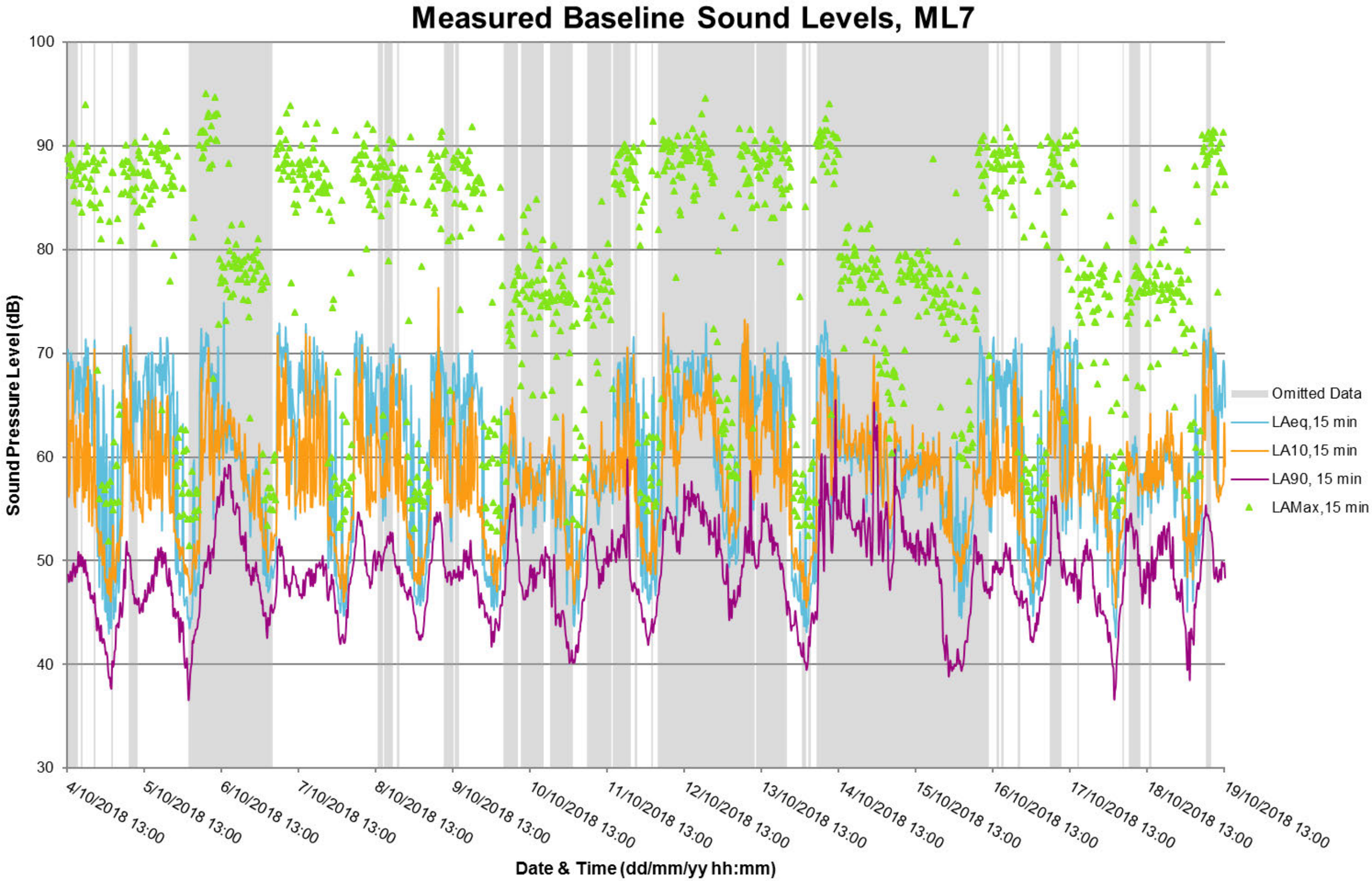


Figure 7.51: Measured Baseline Sound Levels – ML7

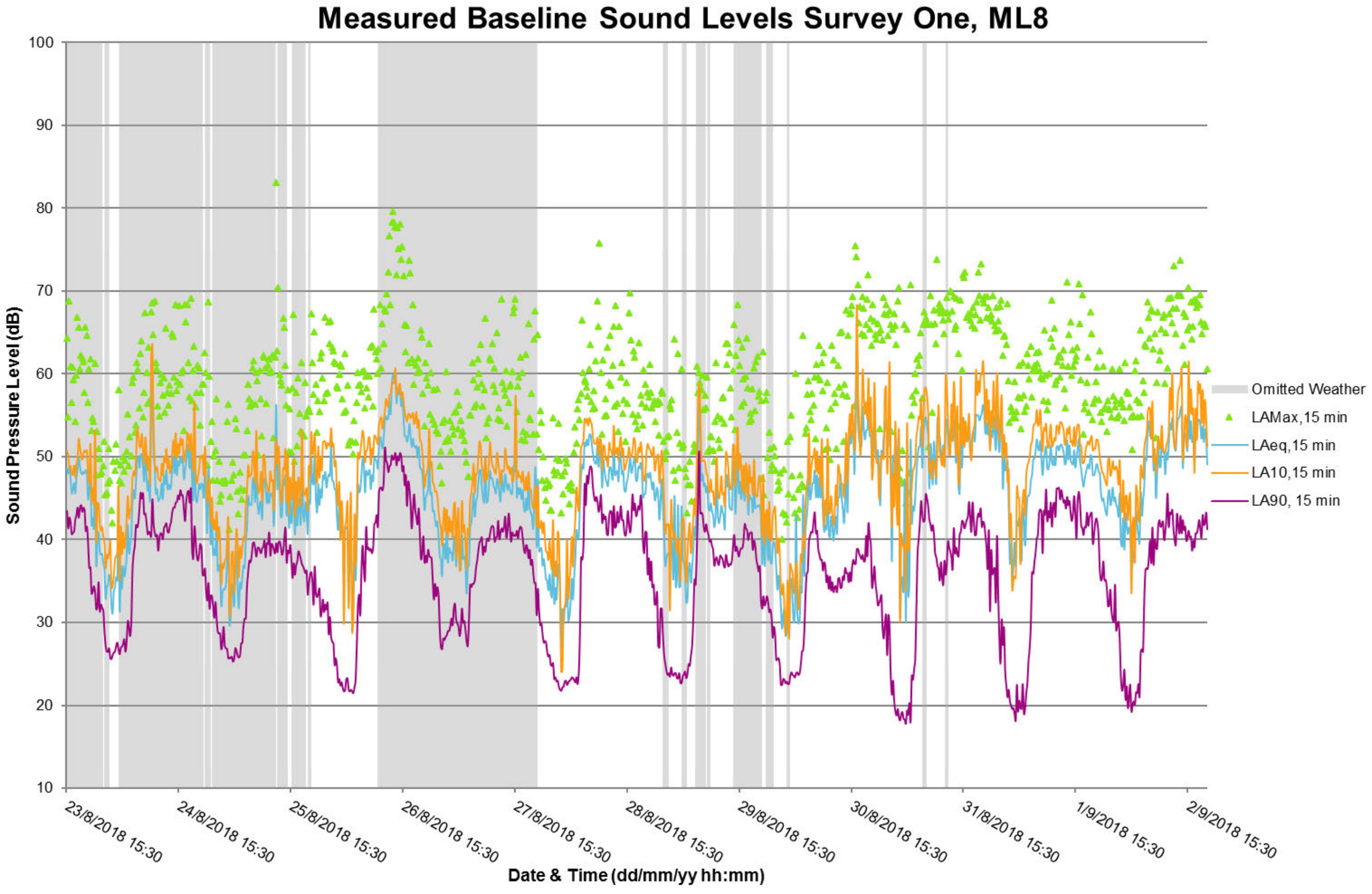


Figure 7.52: Measured Baseline Sound Levels – ML8

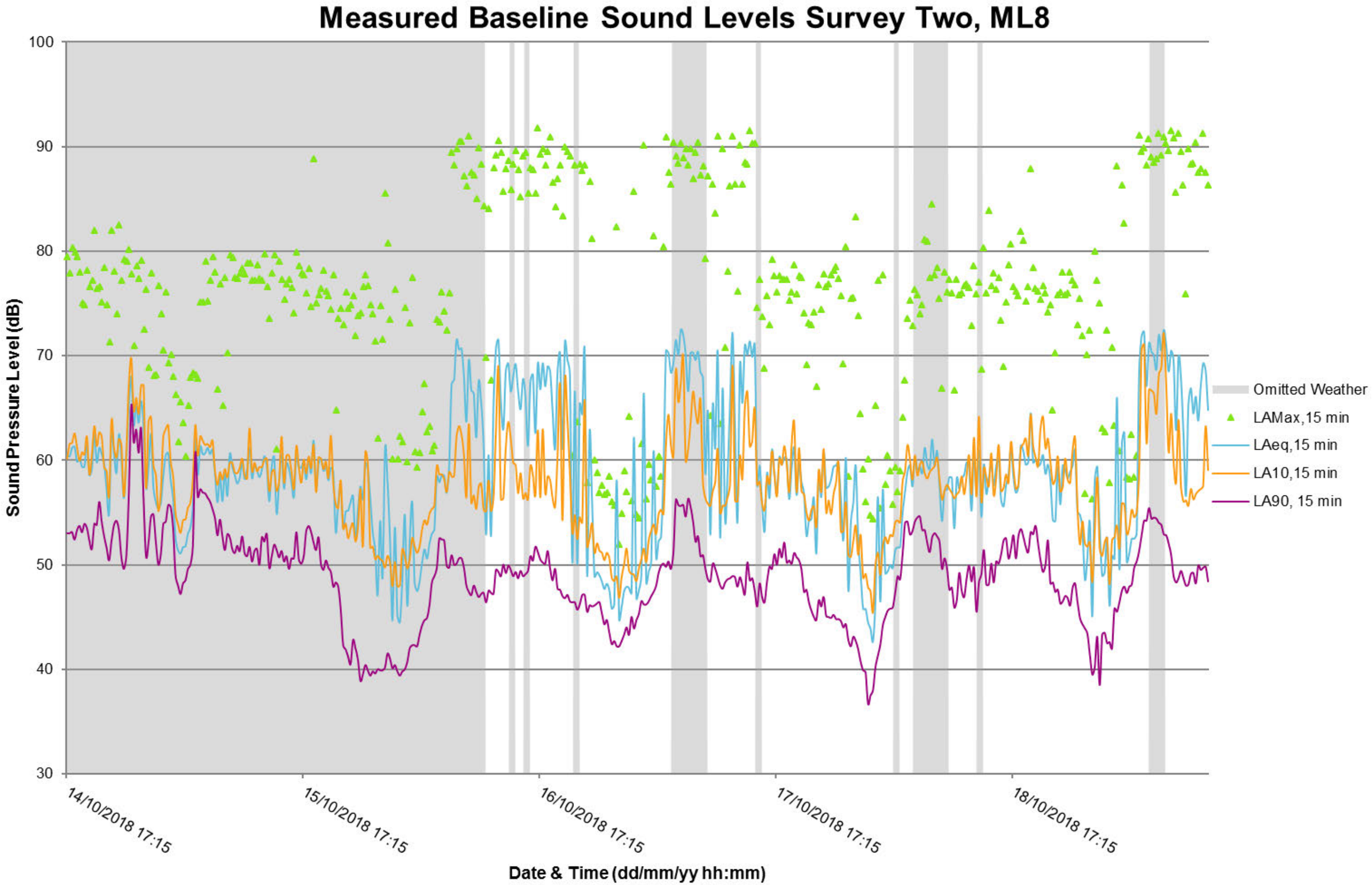


Figure 7.53: Measured Baseline Sound Levels – ML9

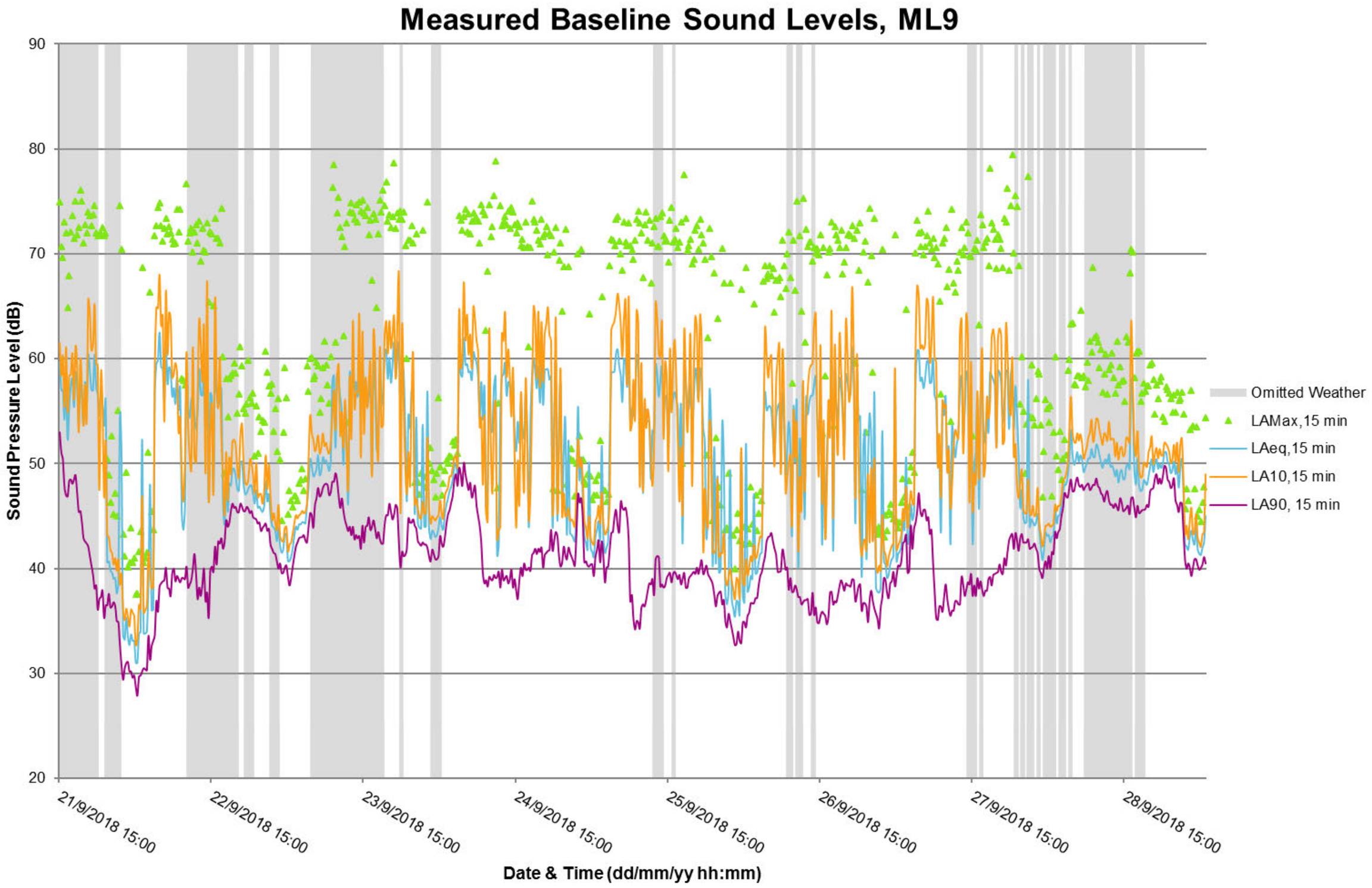


Figure 7.54: Measured Baseline Sound Levels – ML10 Survey 1

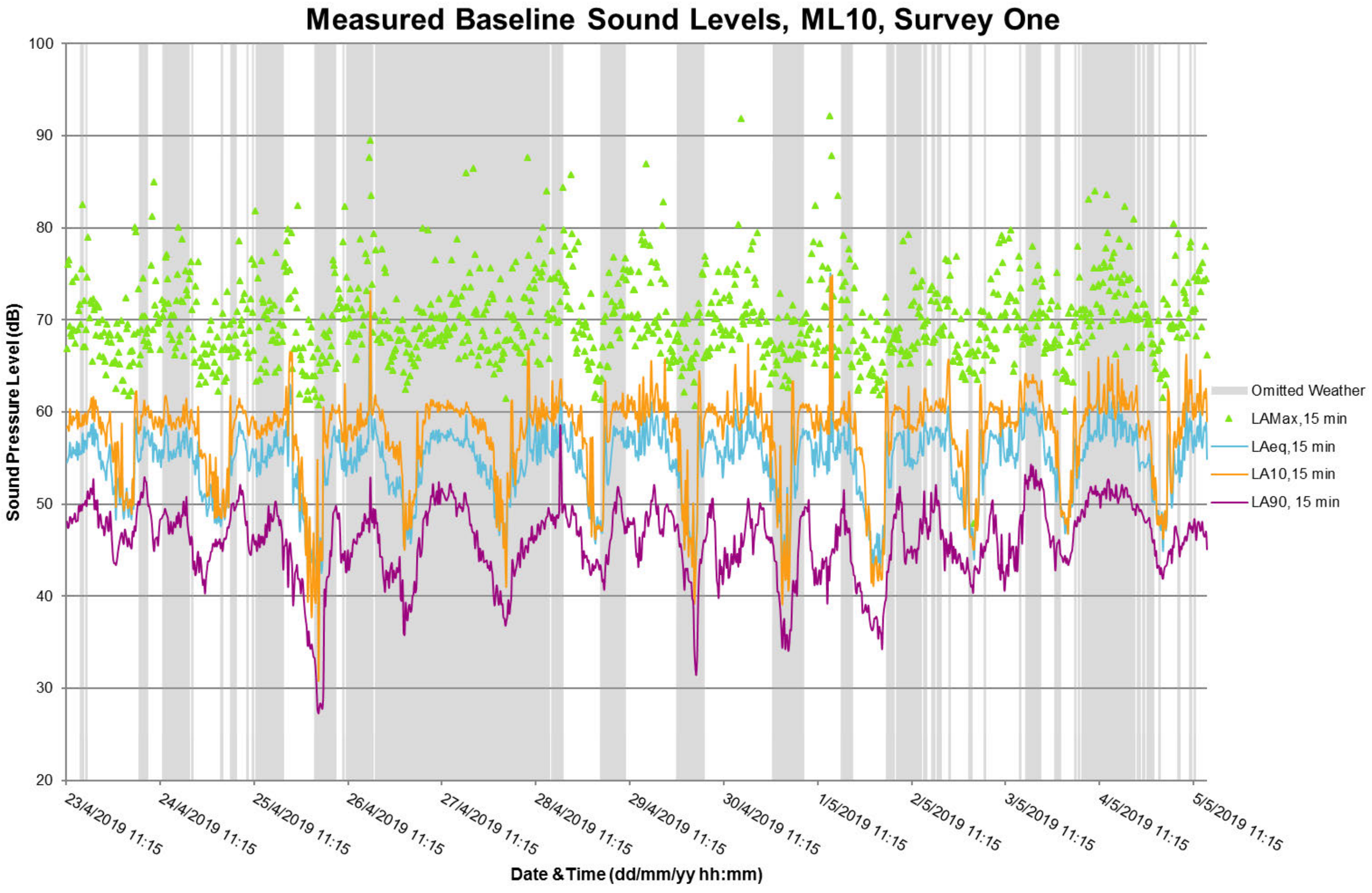


Figure 7.55: Measured Baseline Sound Levels – ML10 Survey 2

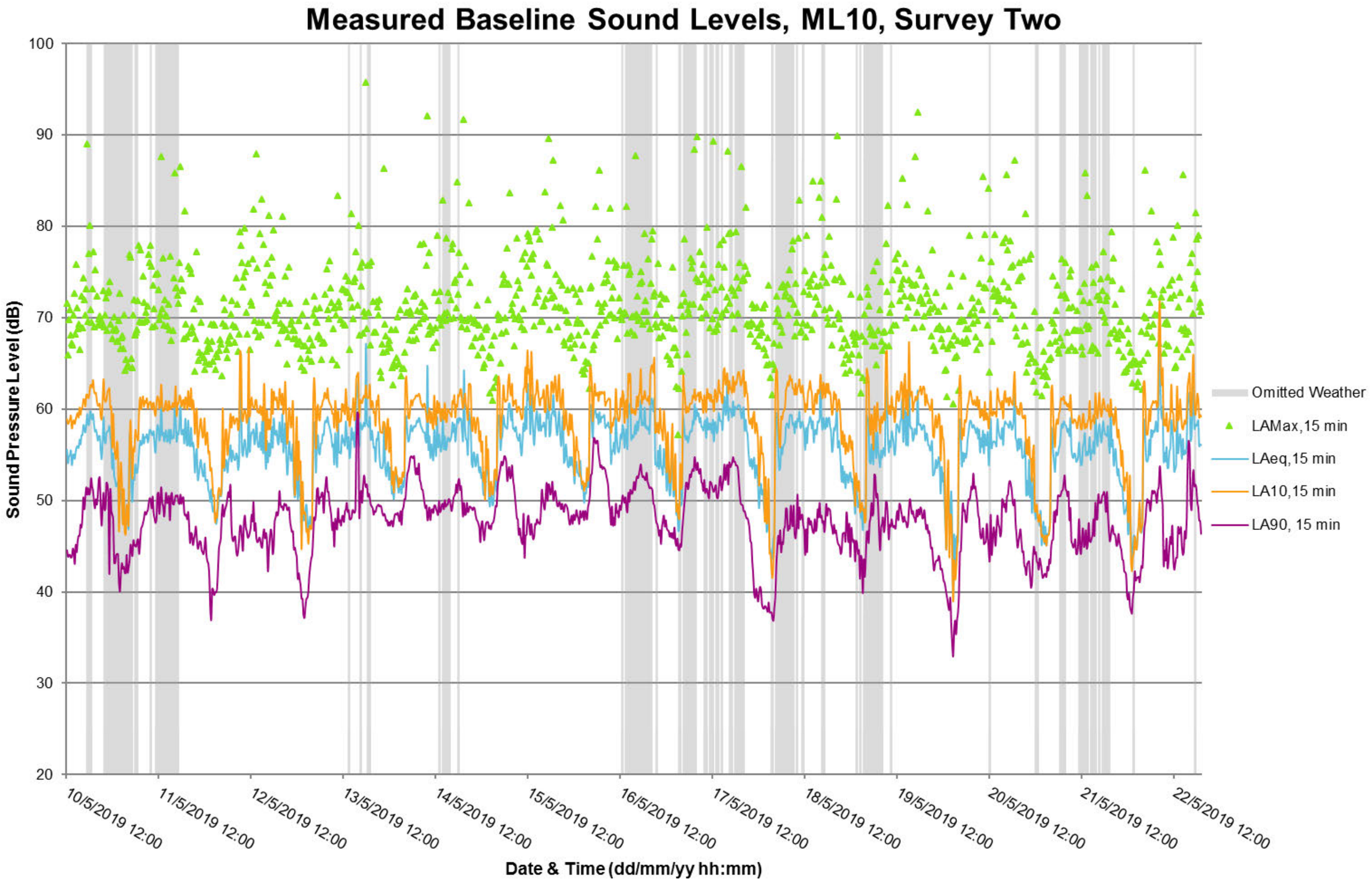


Figure 7.56: Measured Baseline Sound Levels – ML11 Survey 1

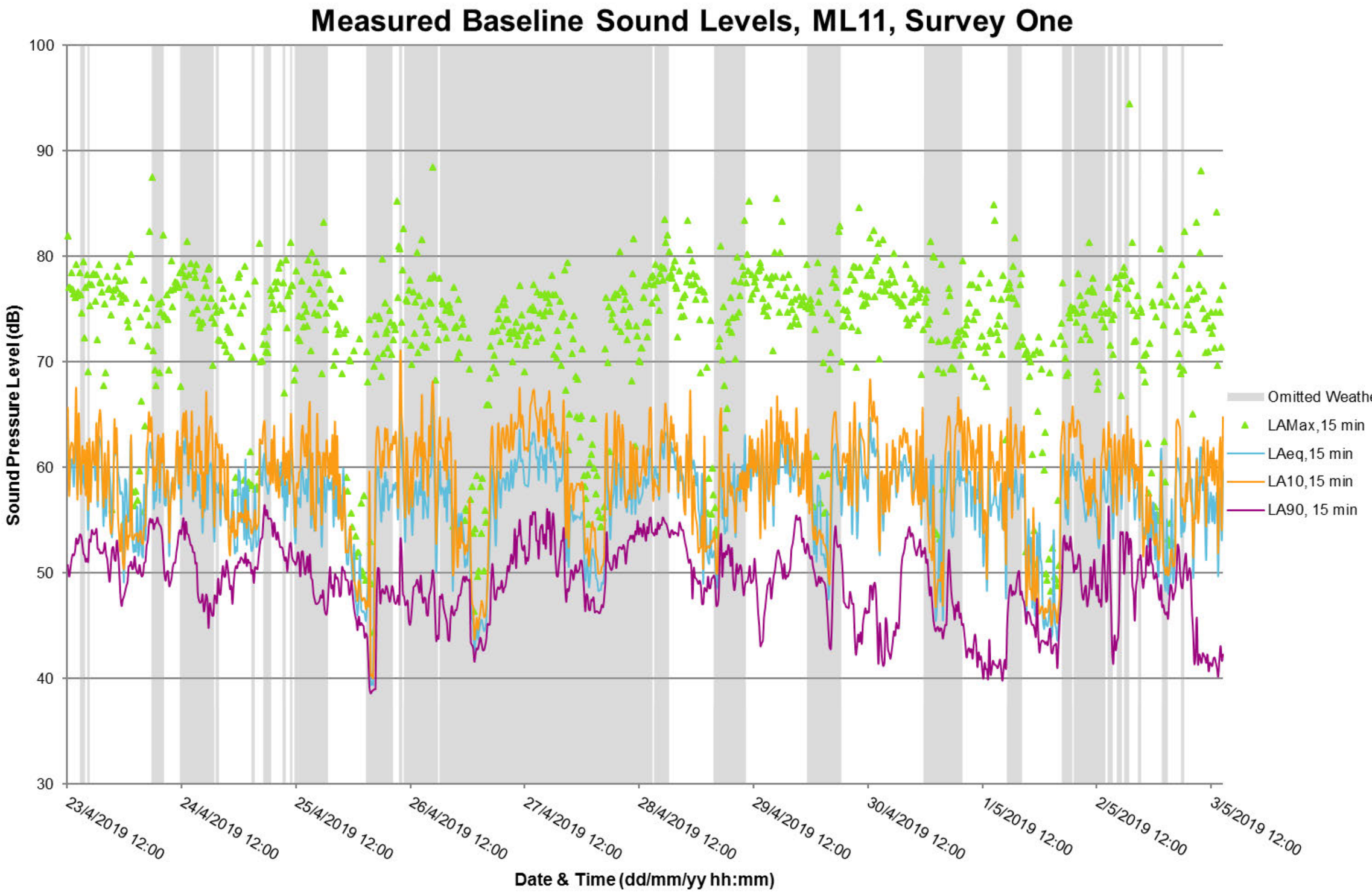


Figure 7.57: Measured Baseline Sound Levels – ML11 Survey 2

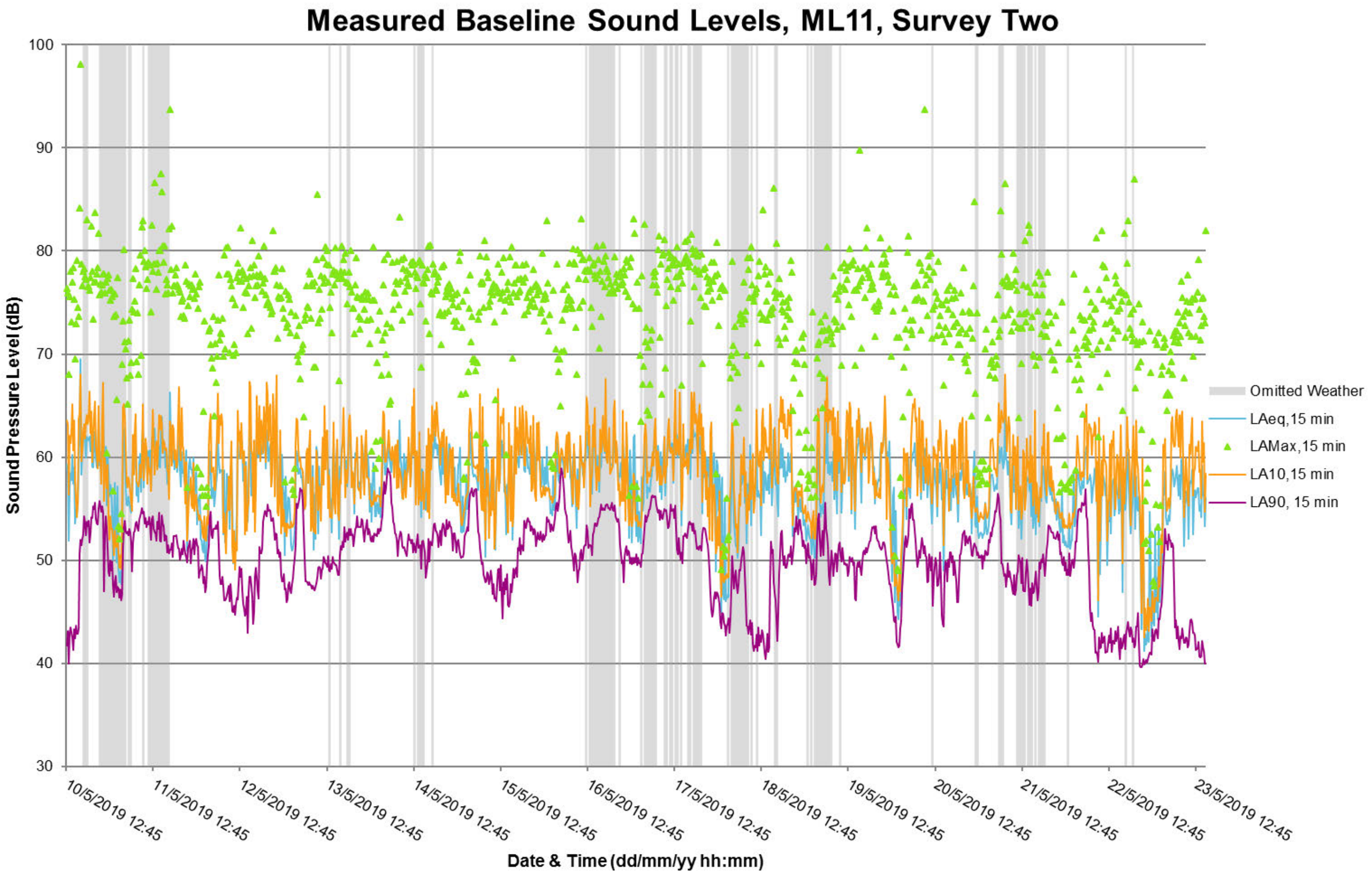


Figure 7.58: Measured Baseline Sound Levels – ML12 Survey 1

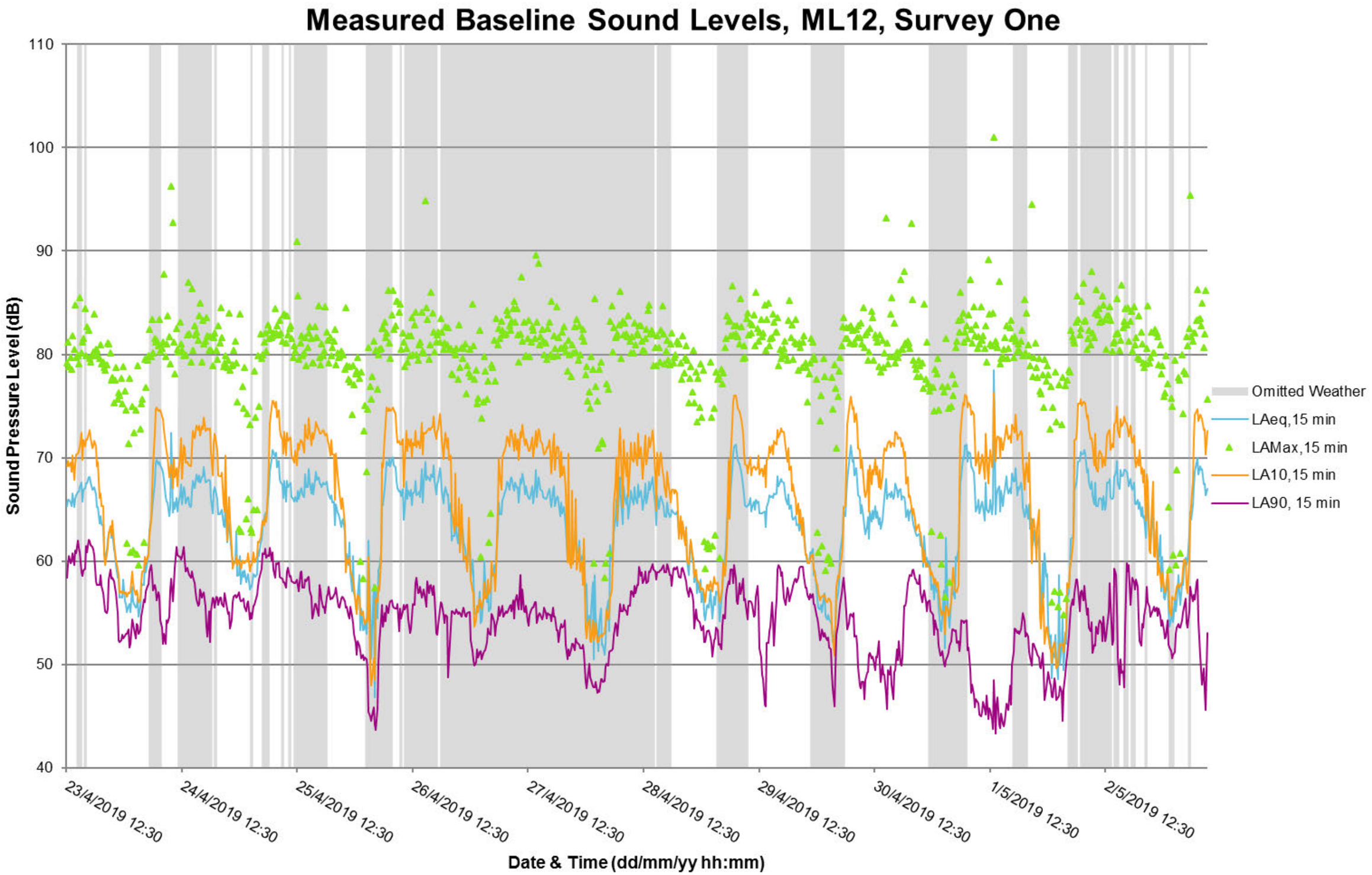


Figure 7.59: Measured Baseline Sound Levels – ML12 Survey 2

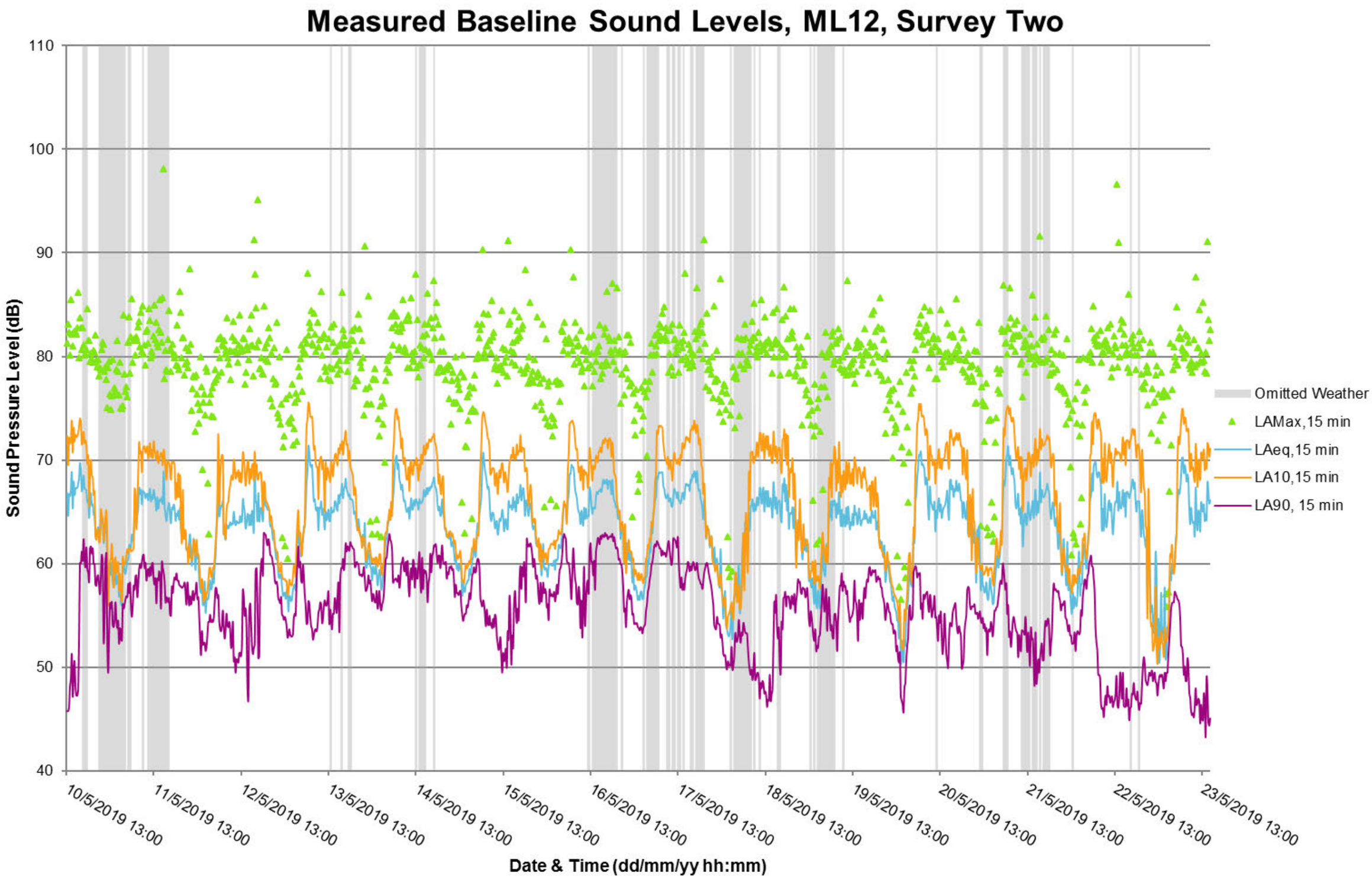


Figure 7.60: Measured Baseline Sound Levels – ML13

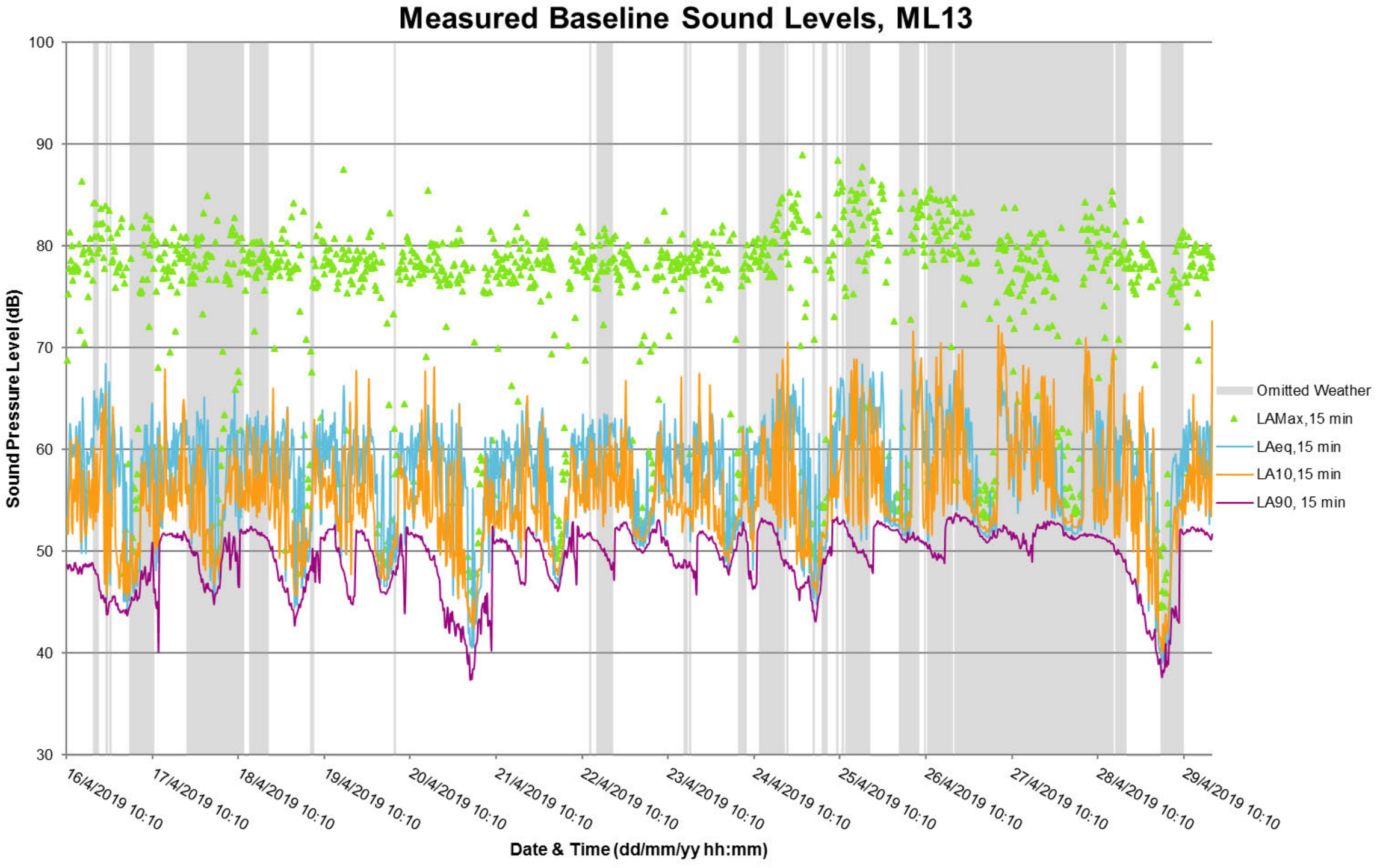


Figure 7.61: Measured Baseline Sound Levels – ML14

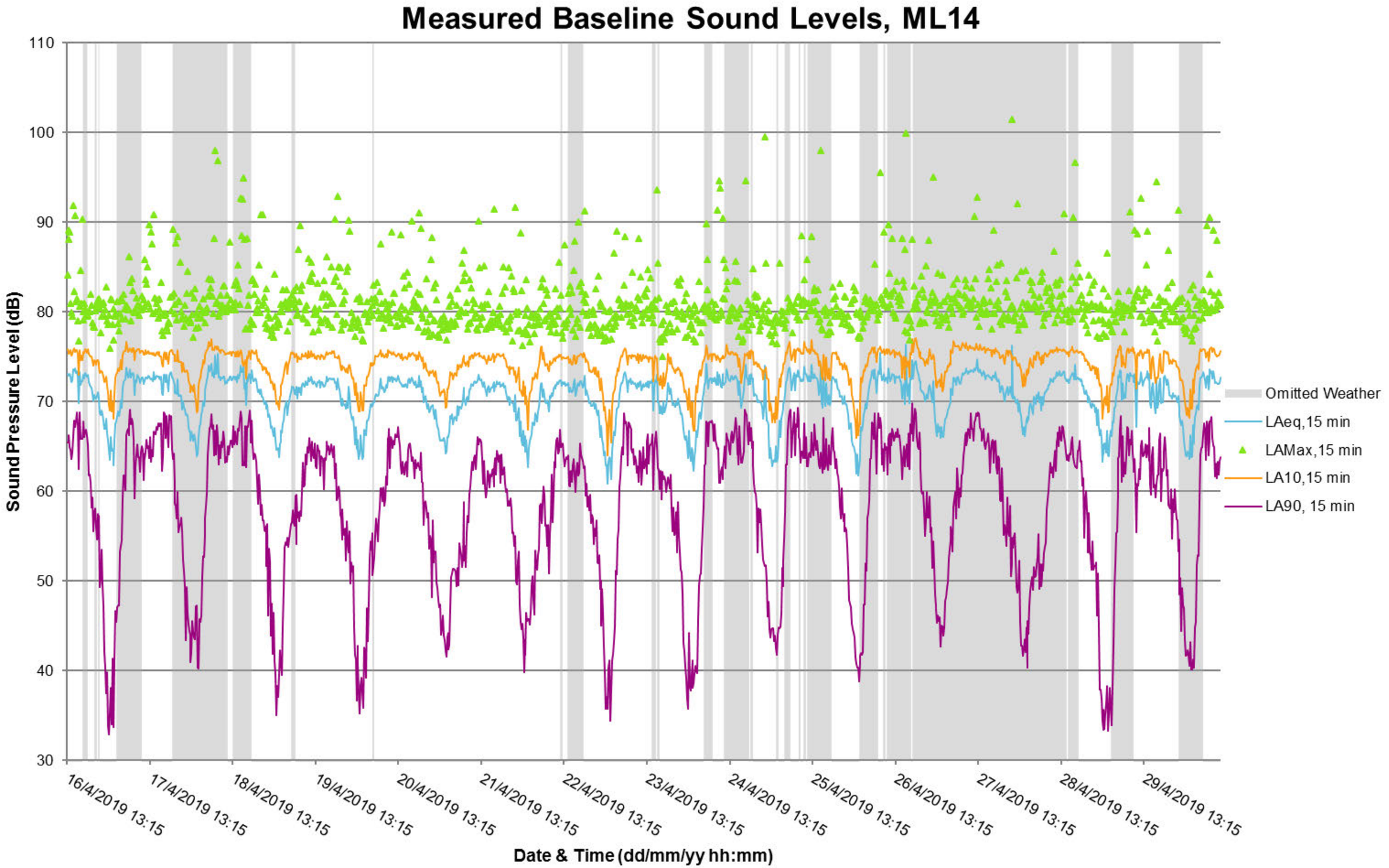


Figure 7.62: Measured Baseline Sound Levels – ML15

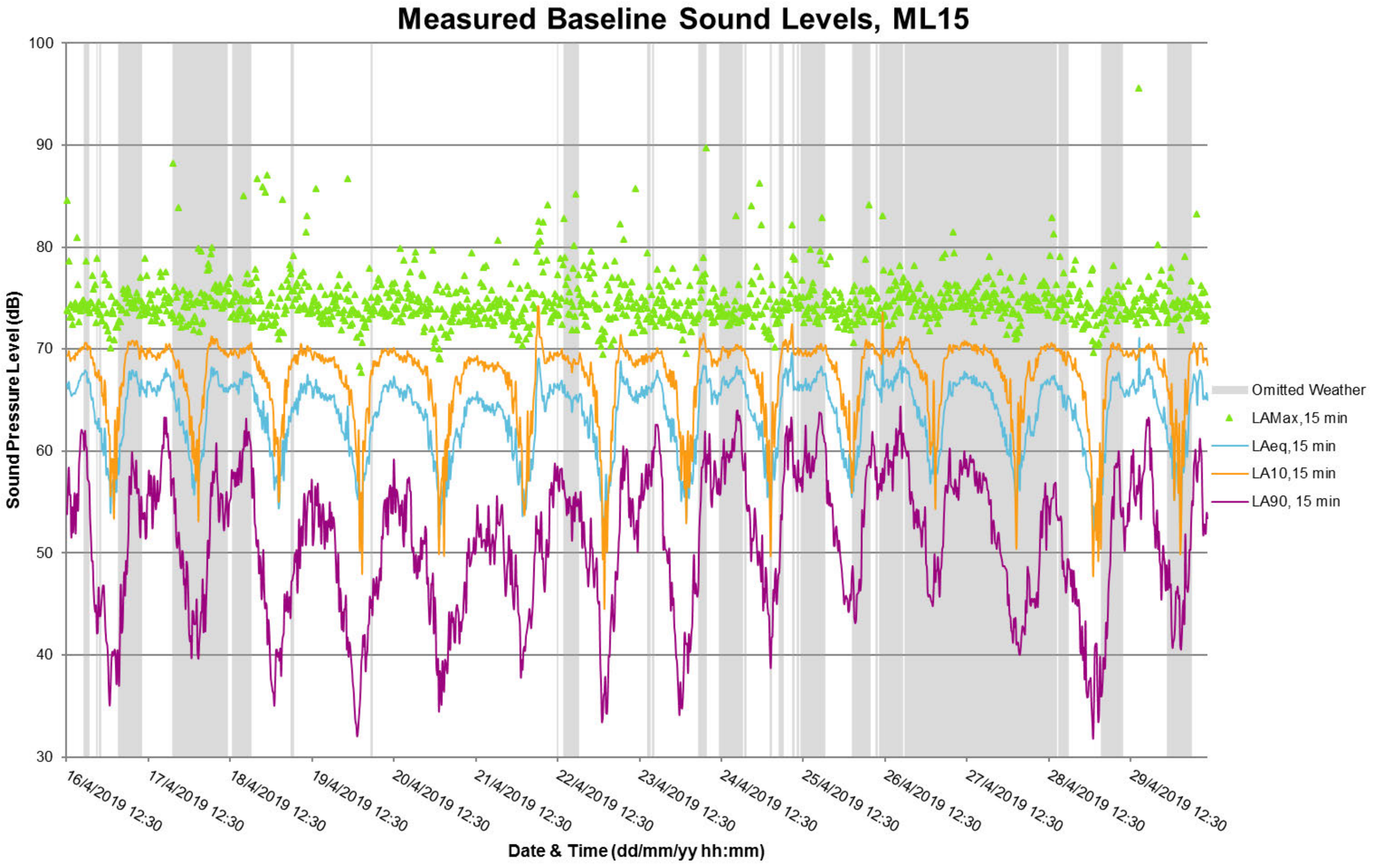


Figure 7.63: Measured Baseline Sound Levels – ML16

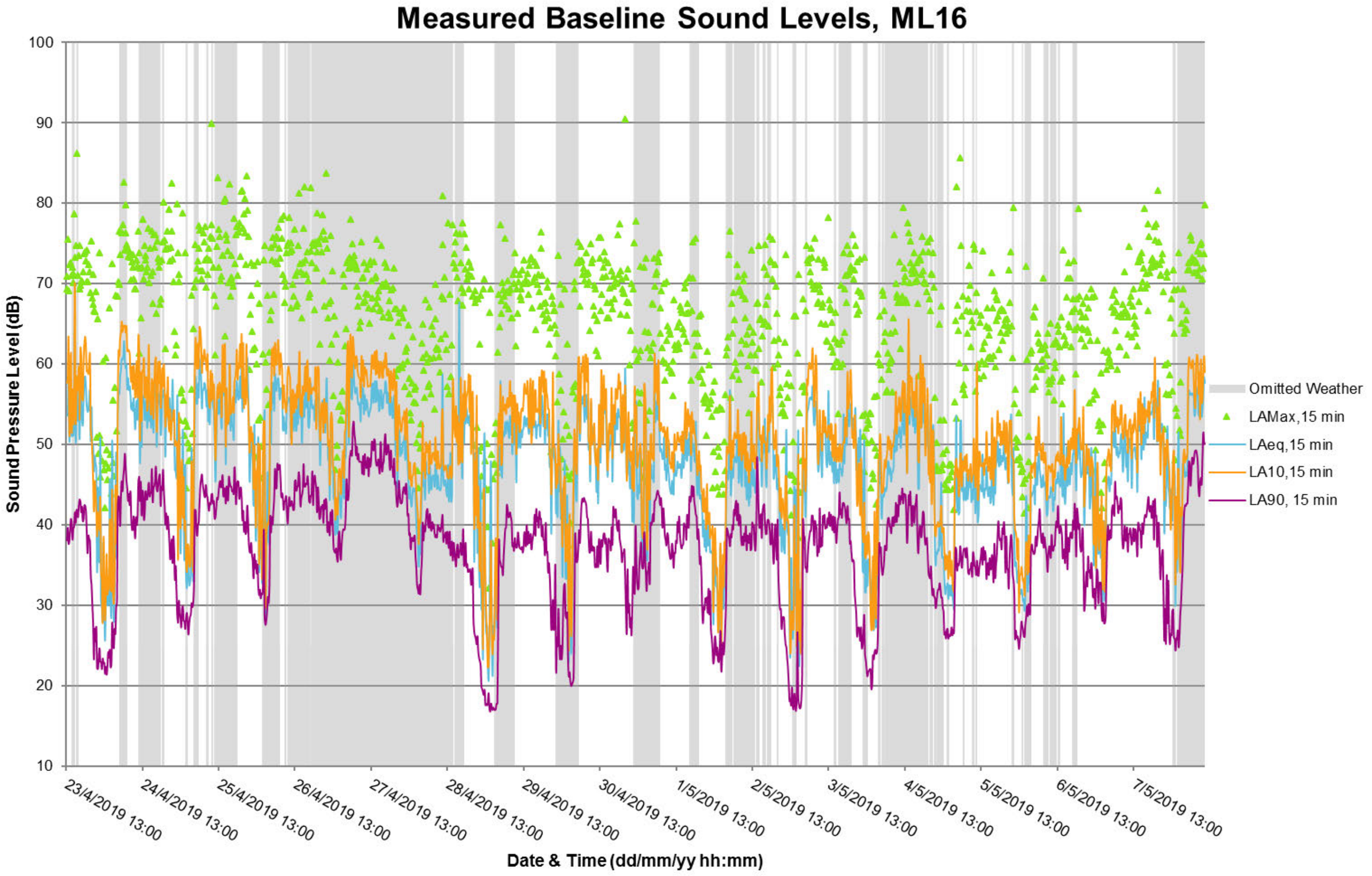


Figure 7.64: Measured Baseline Sound Levels – ML17 Survey 1

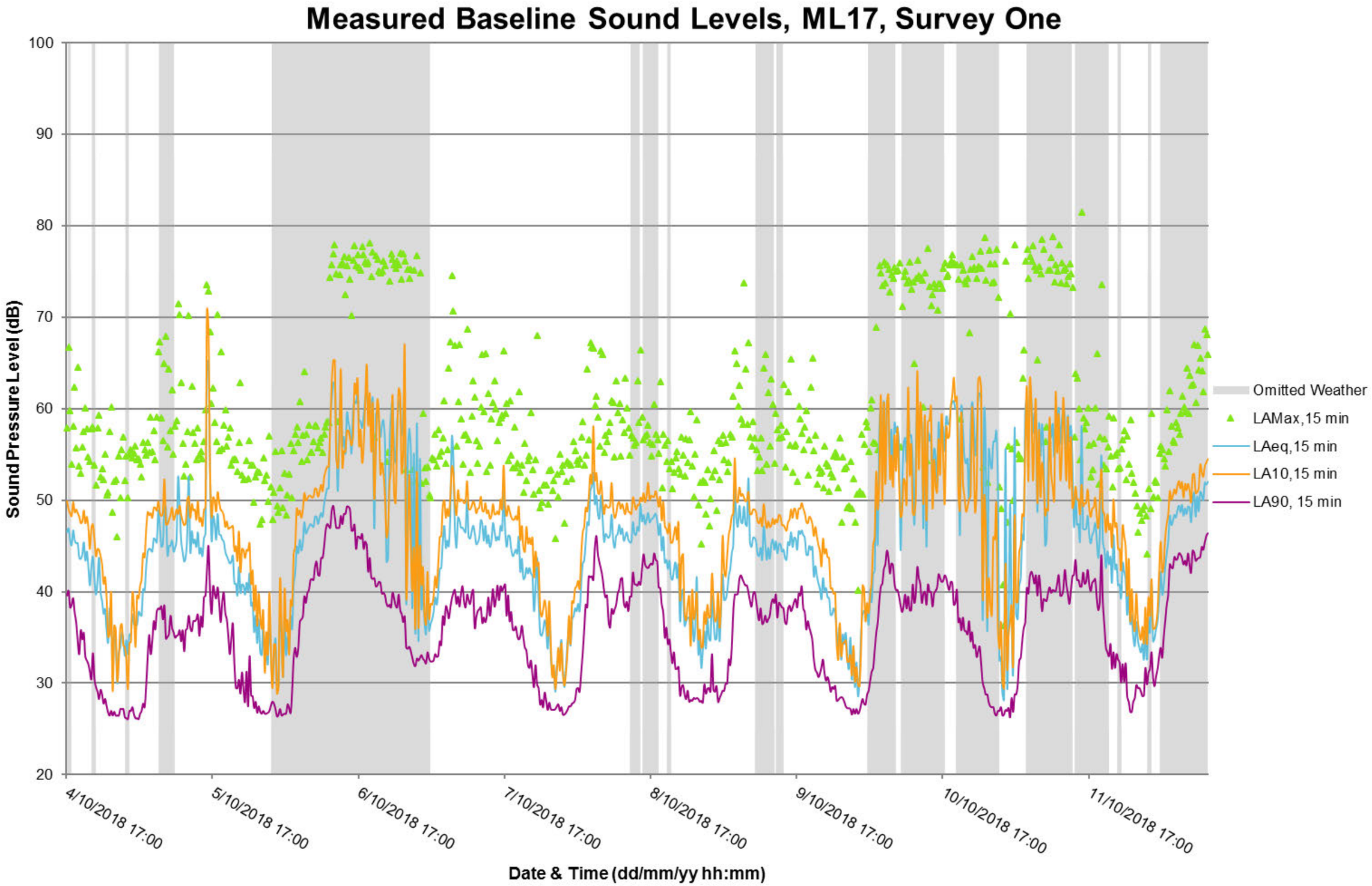


Figure 7.65: Measured Baseline Sound Levels – ML17 Survey 2

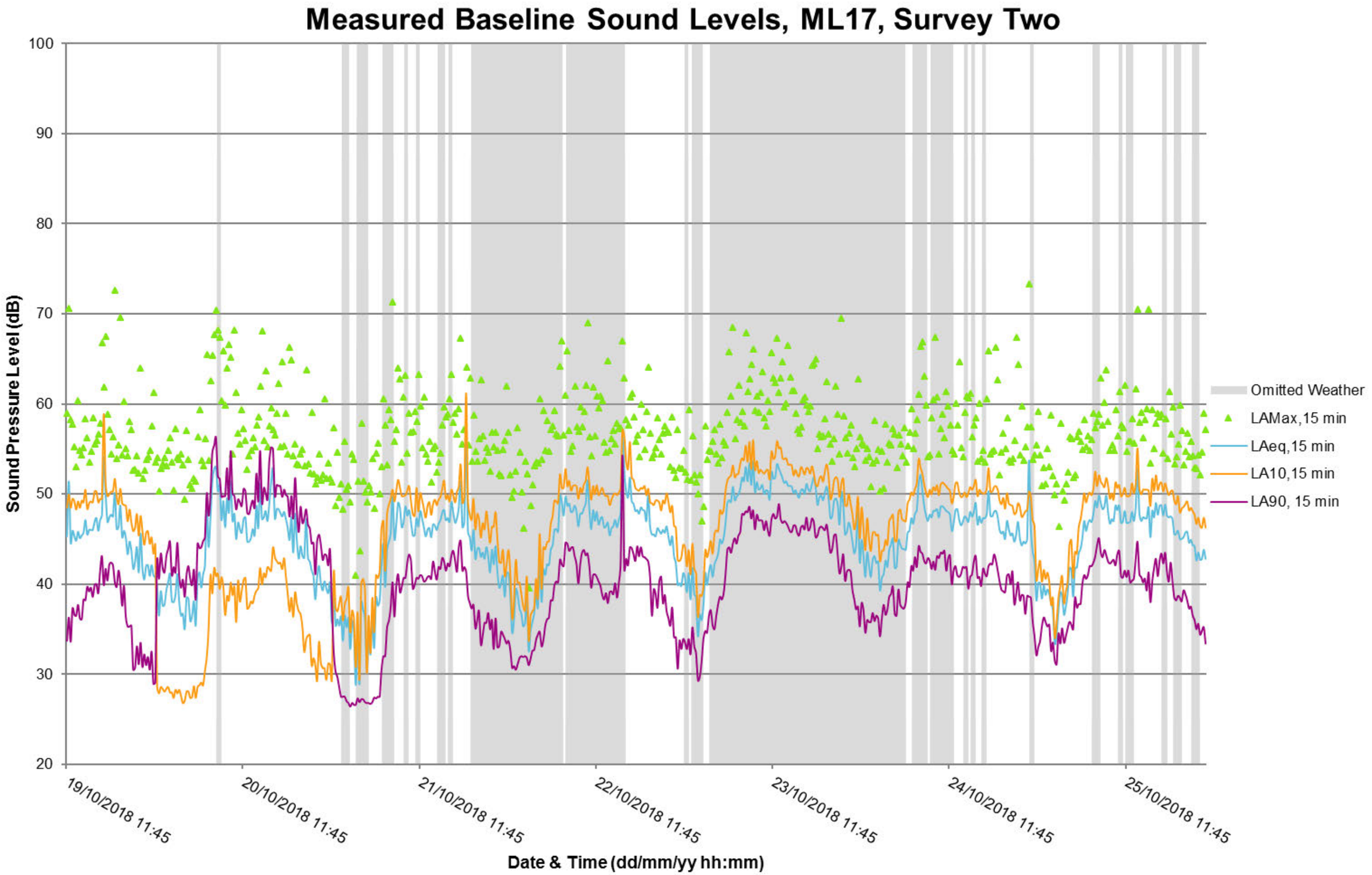


Figure 7.66: Measured Baseline Sound Levels – ML18

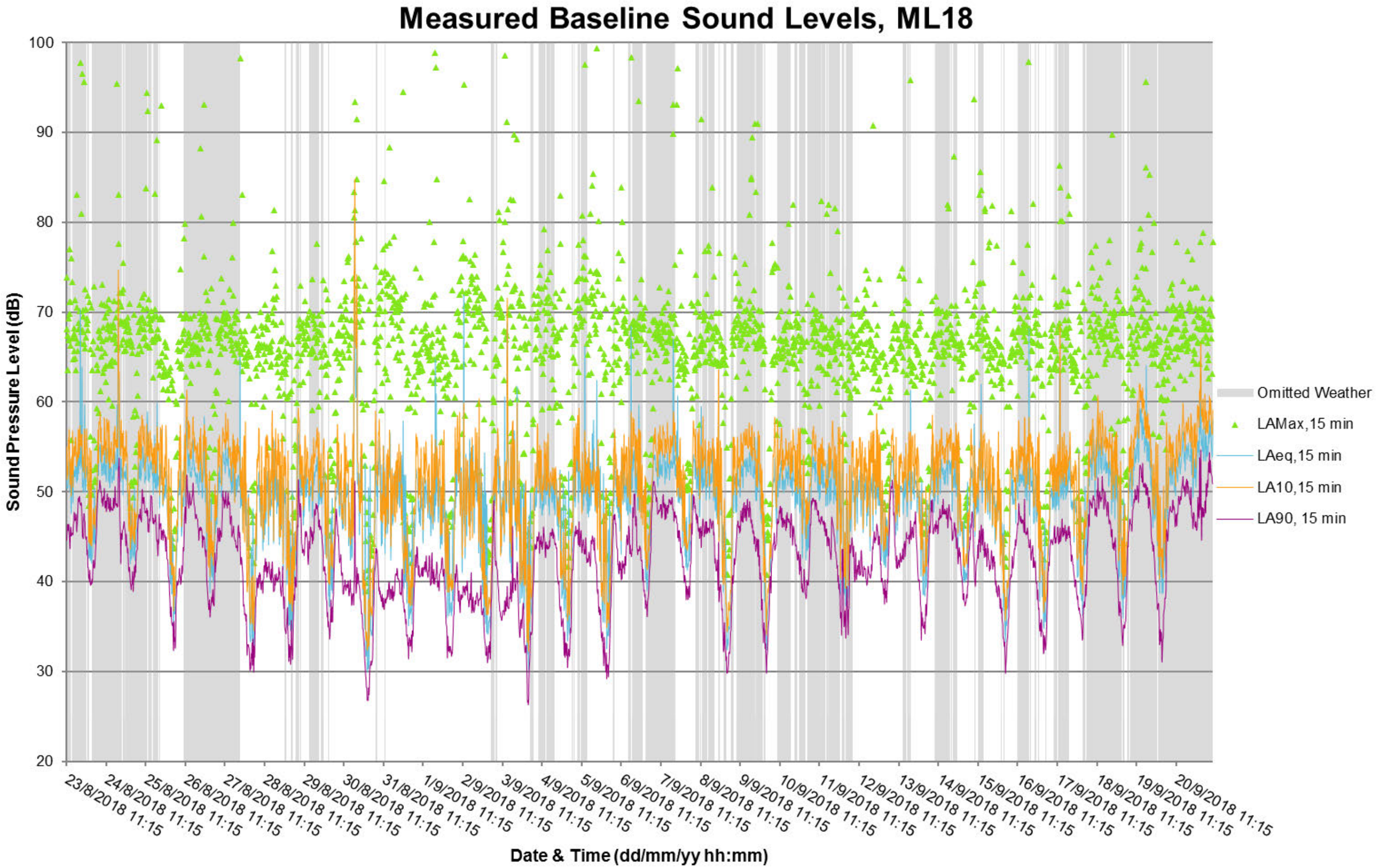


Figure 7.67: Measured Baseline Sound Levels – ML19

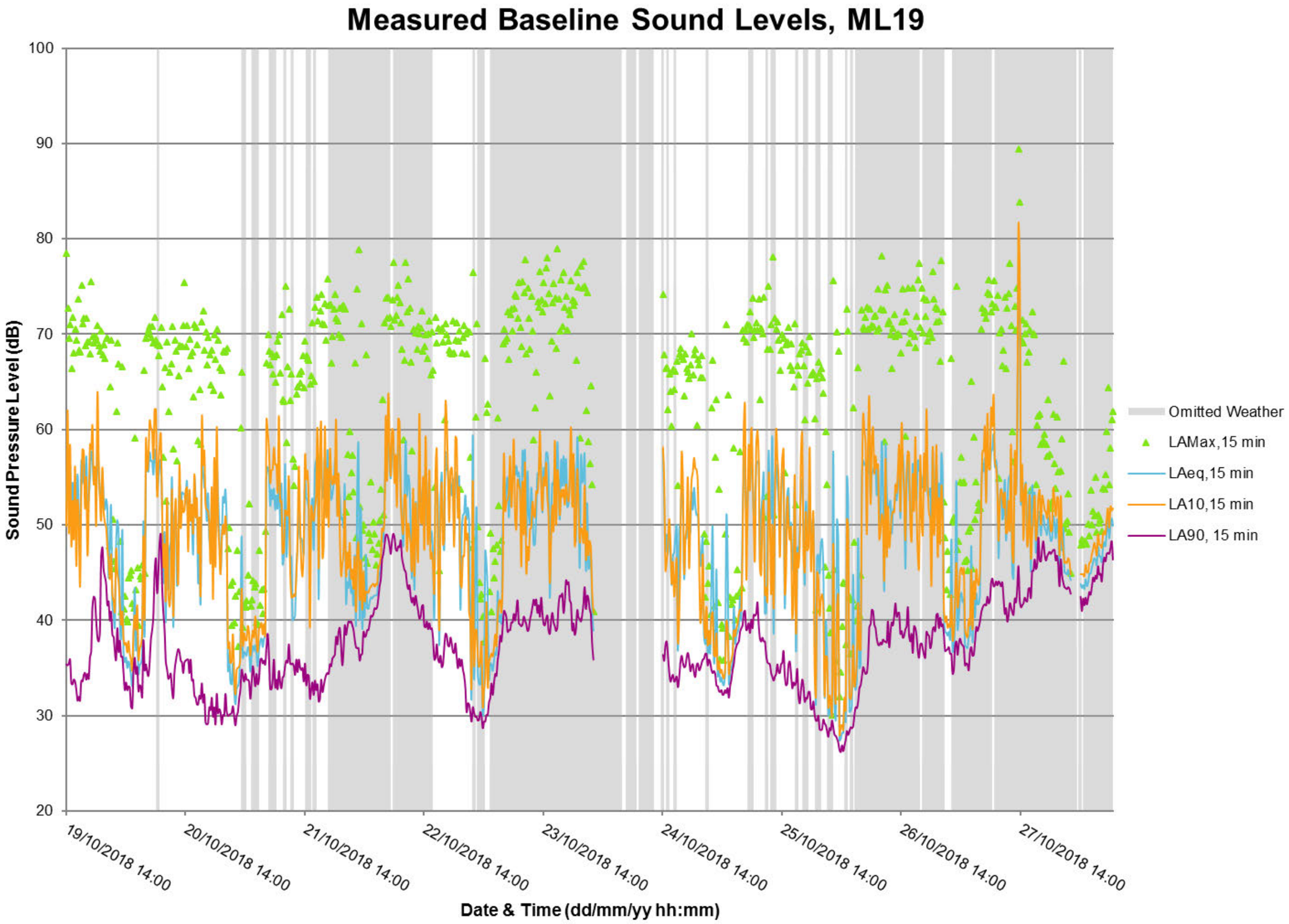


Figure 7.68: Measured Baseline Sound Levels – ML20 Survey 1

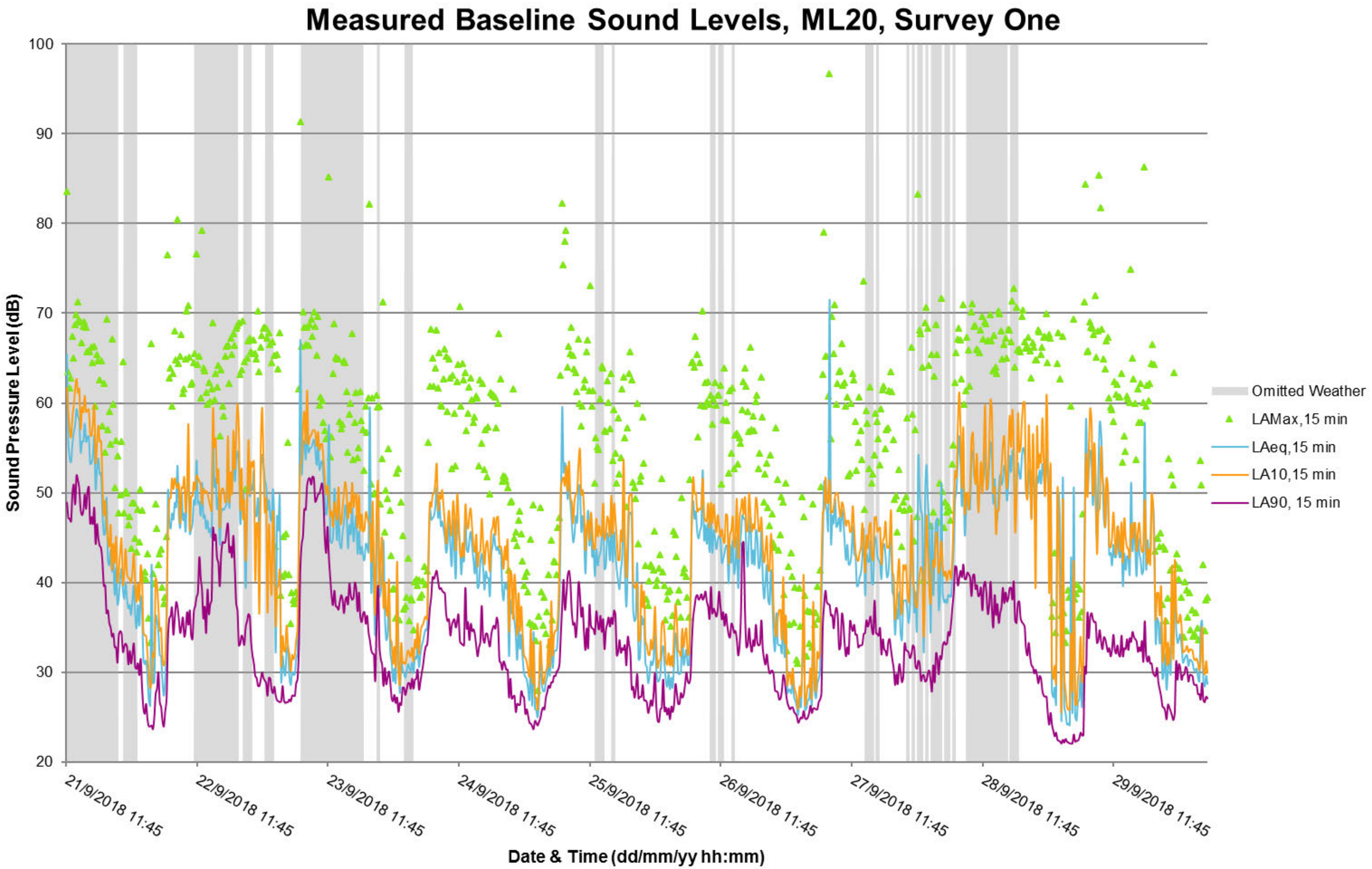


Figure 7.69: Measured Baseline Sound Levels – ML20 Survey 2

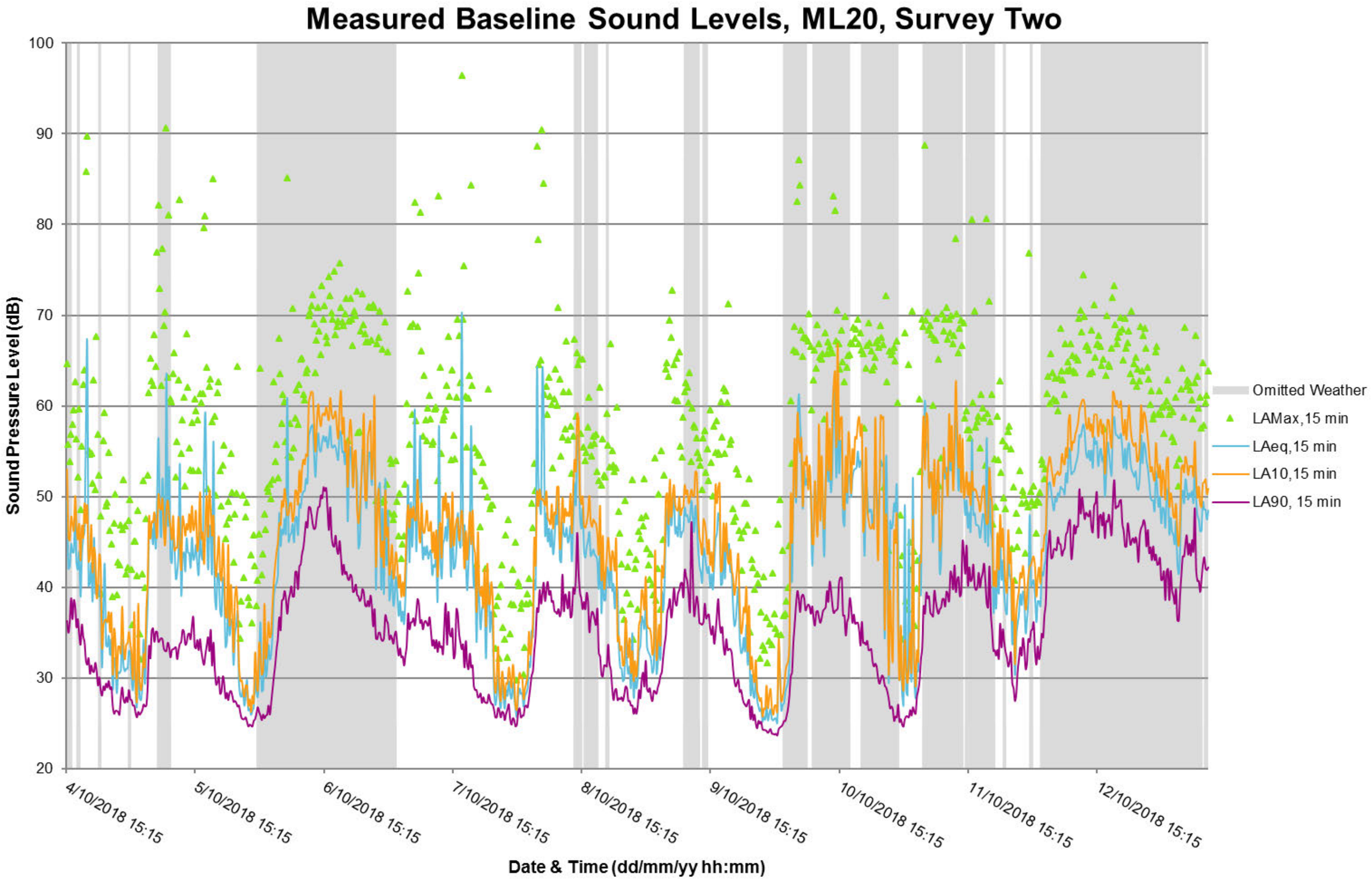


Figure 7.70: Measured Baseline Sound Levels – ML21

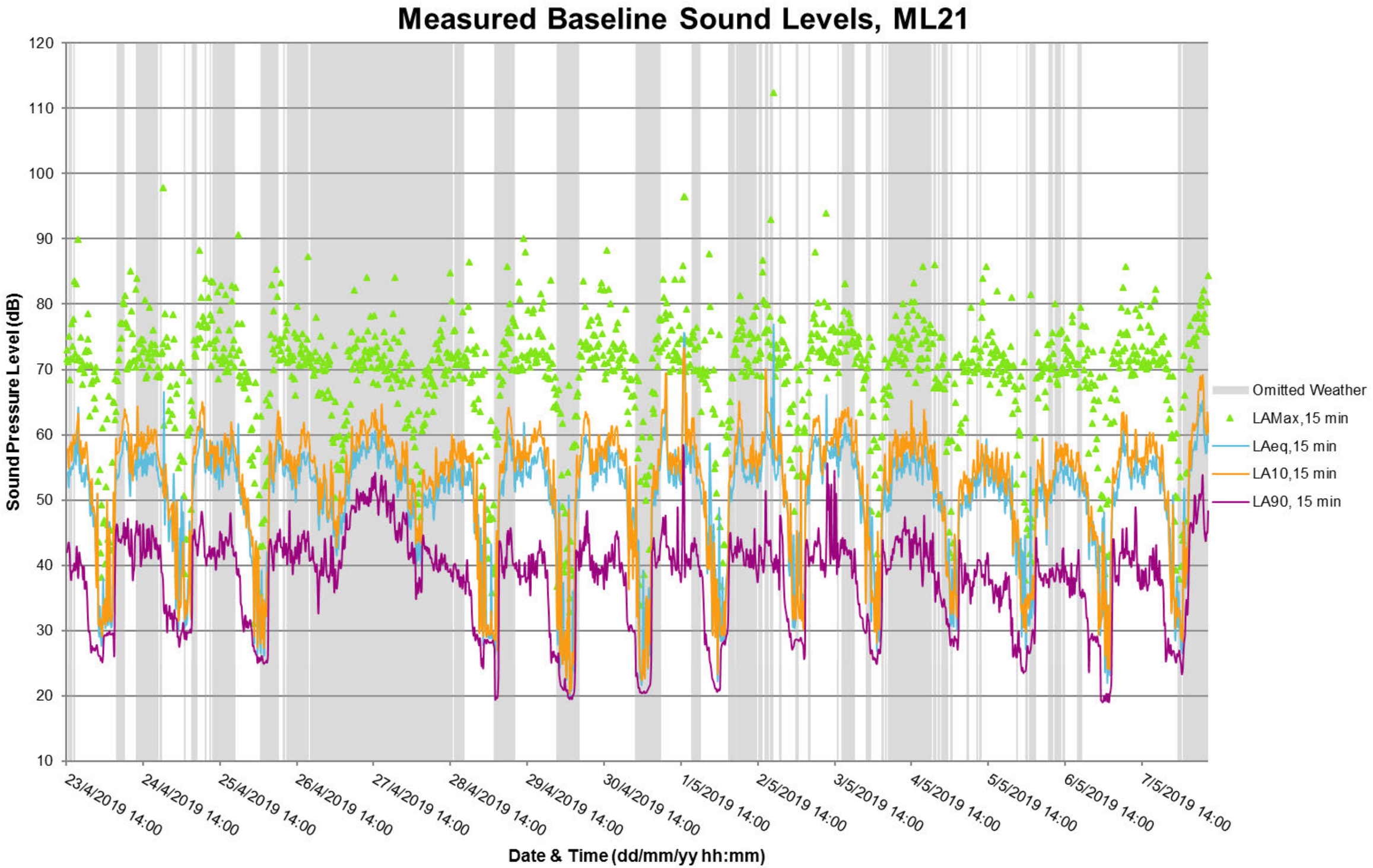


Figure 7.71: Measured Baseline Sound Levels – ML22 Survey 1

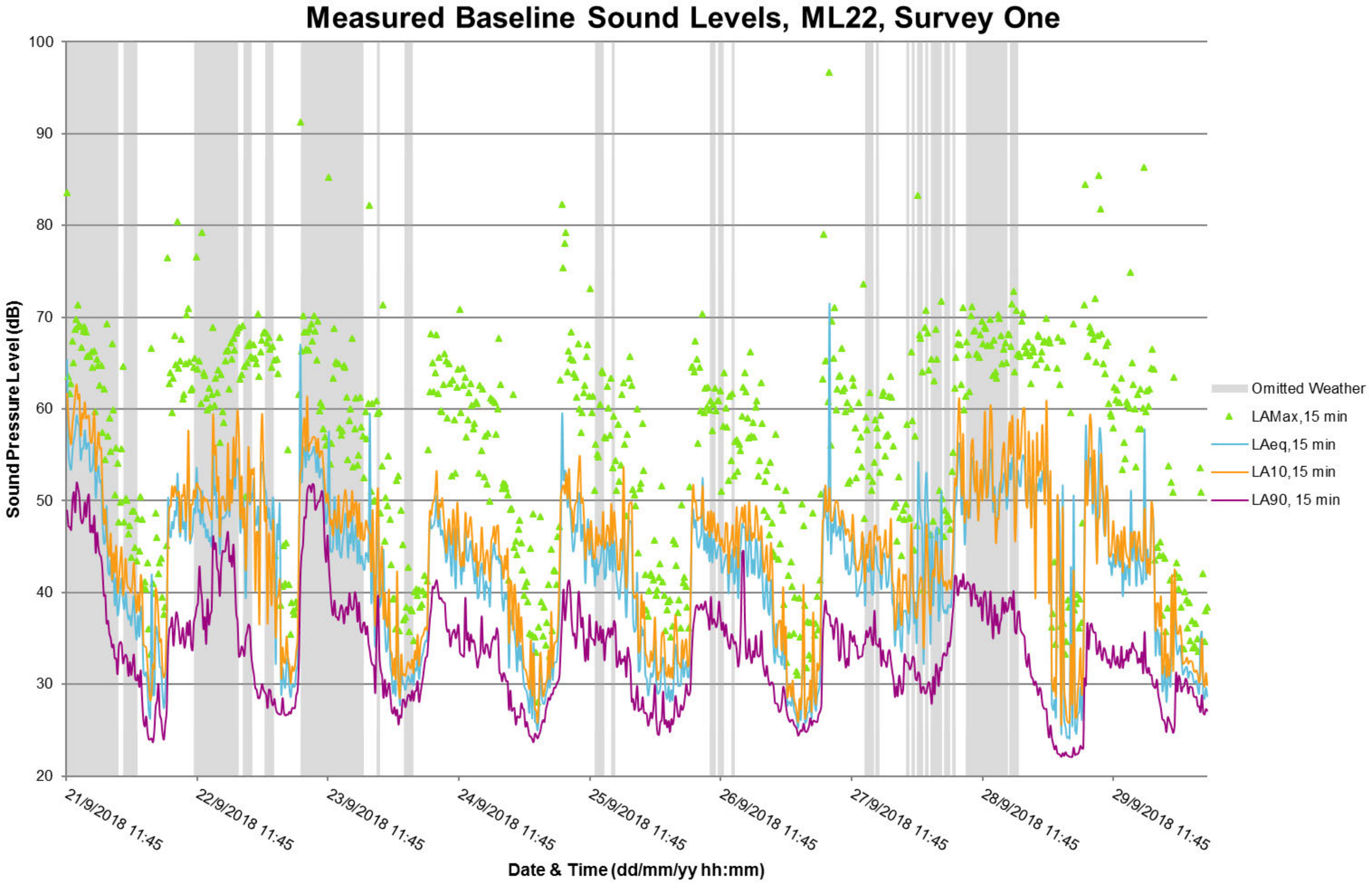


Figure 7.72: Measured Baseline Sound Levels – ML22 Survey 2

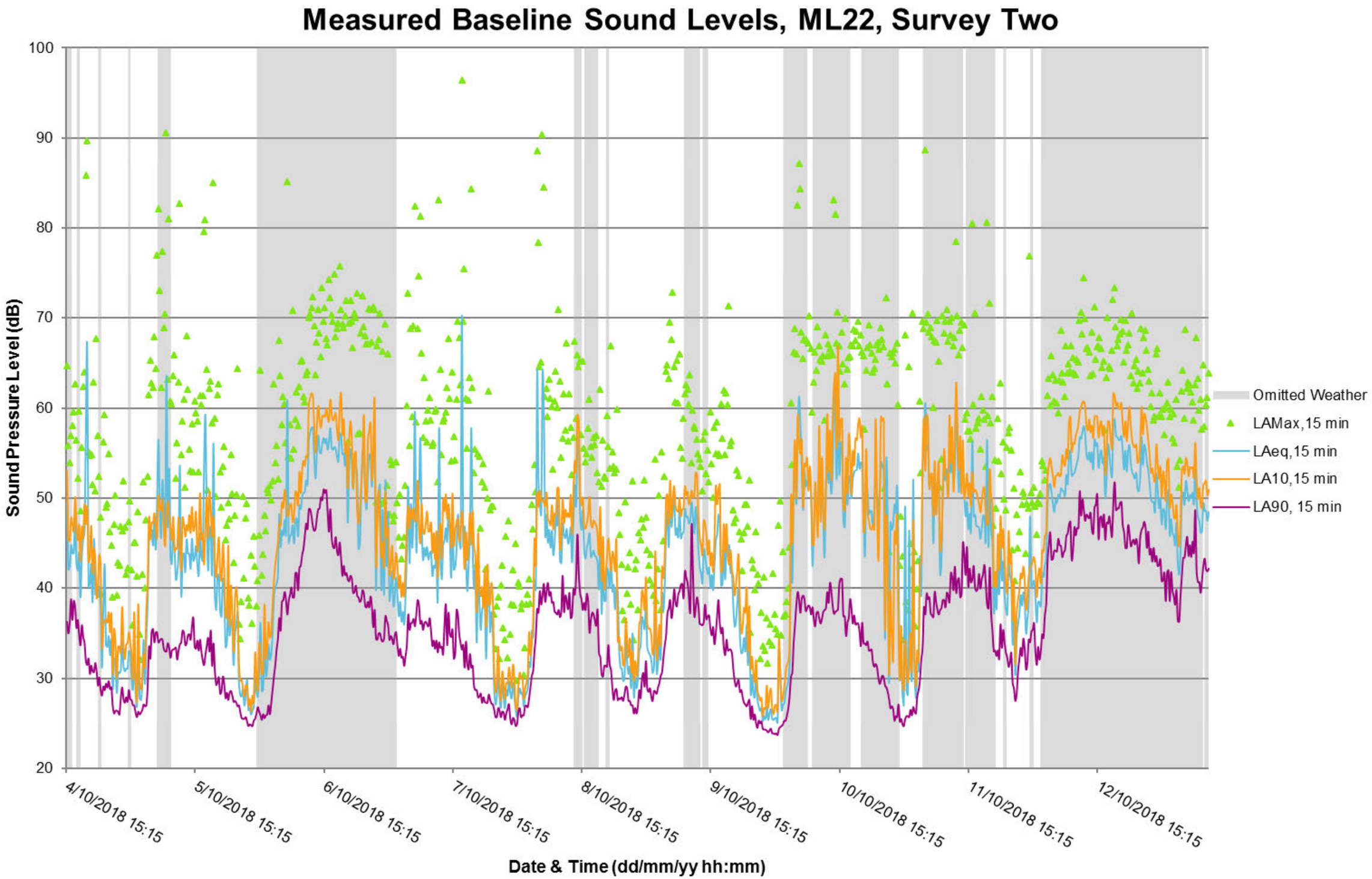


Figure 7.73: Measured Baseline Sound Levels – ML30 Survey 1

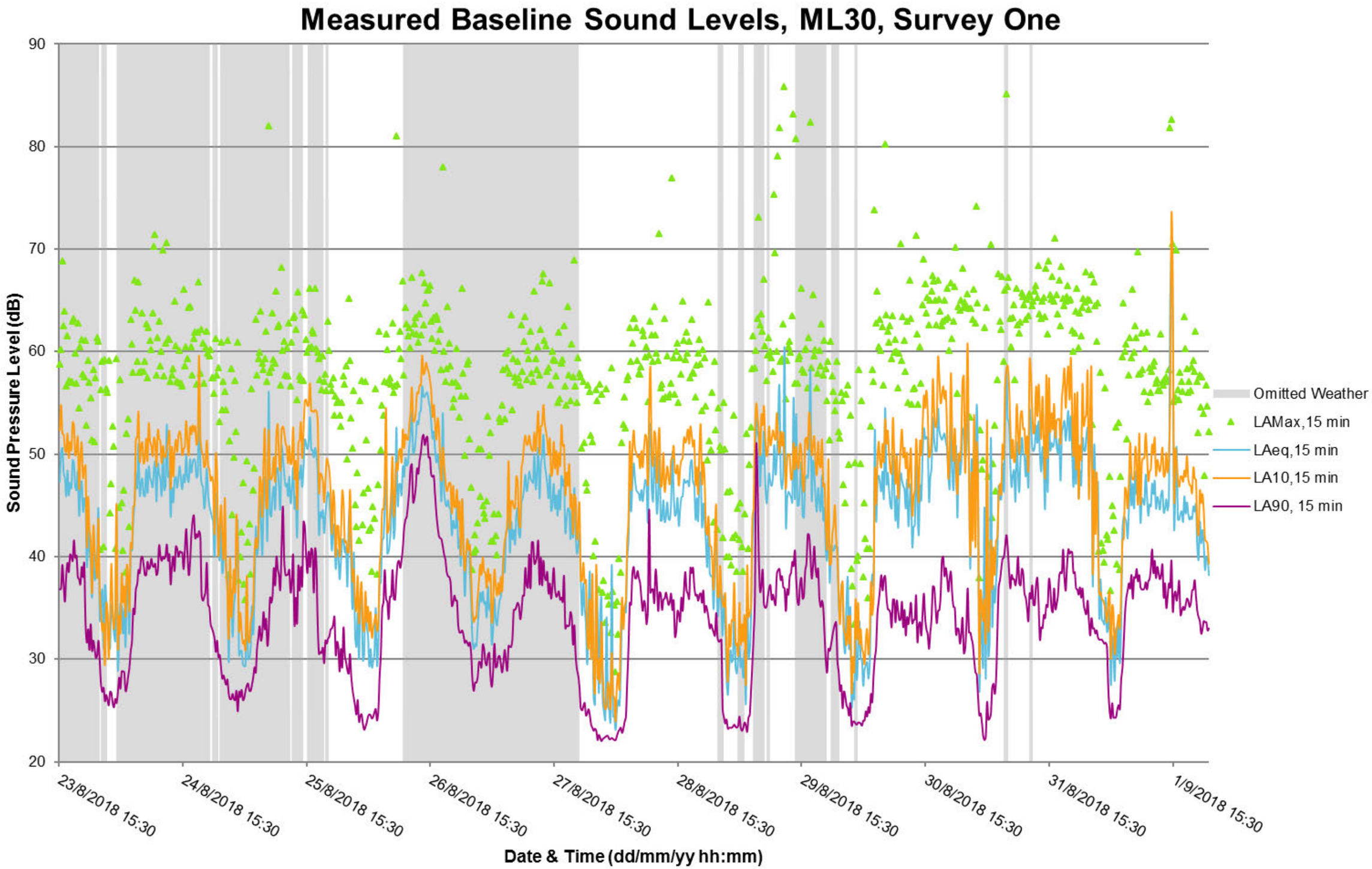


Figure 7.74: Measured Baseline Sound Levels – ML30 Survey 2

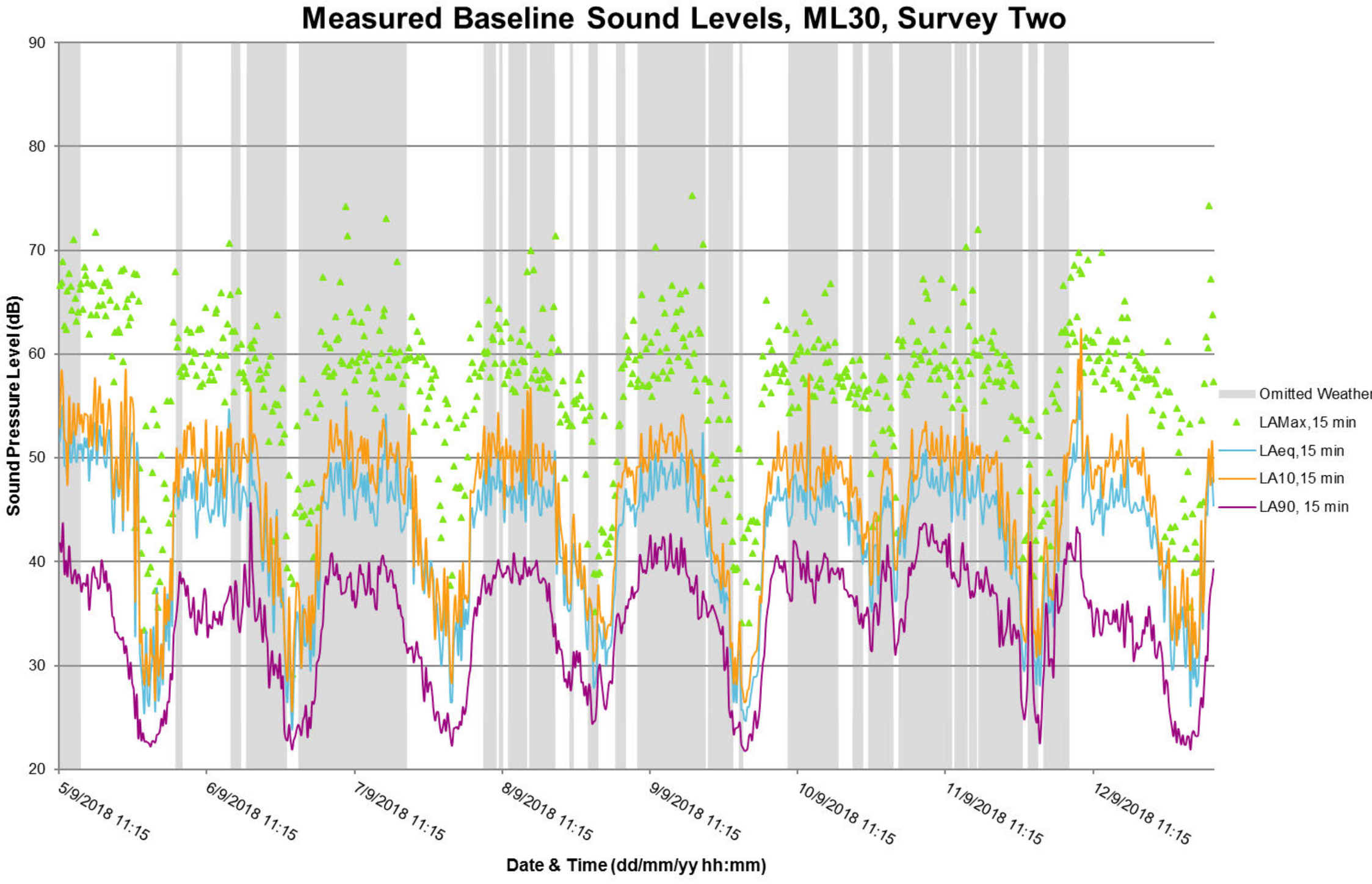


Figure 7.75: Measured Baseline Sound Levels – ML31 Survey 1

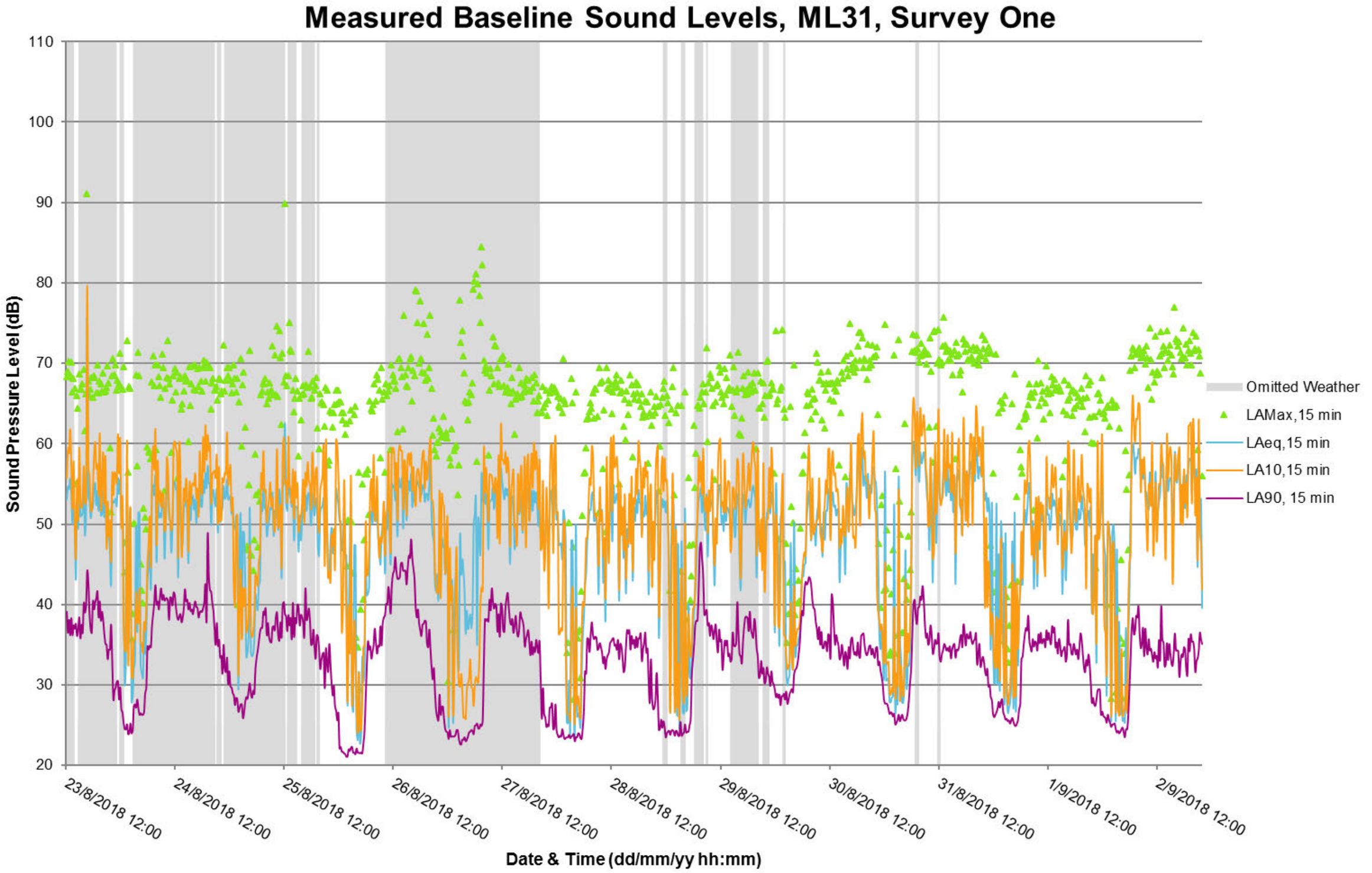


Figure 7.76: Measured Baseline Sound Levels – ML31 Survey 2

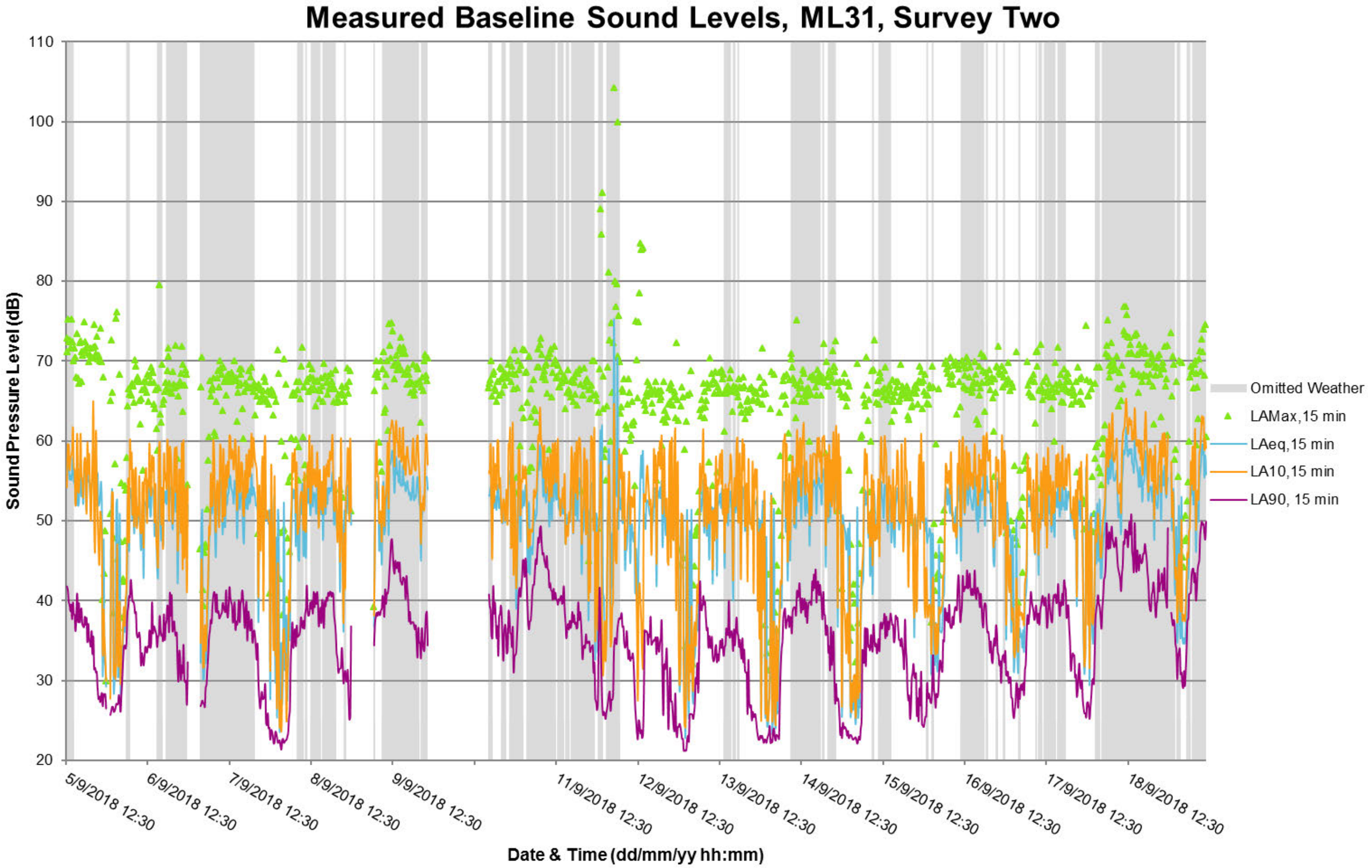


Figure 7.77: Measured Baseline Sound Levels – ML37

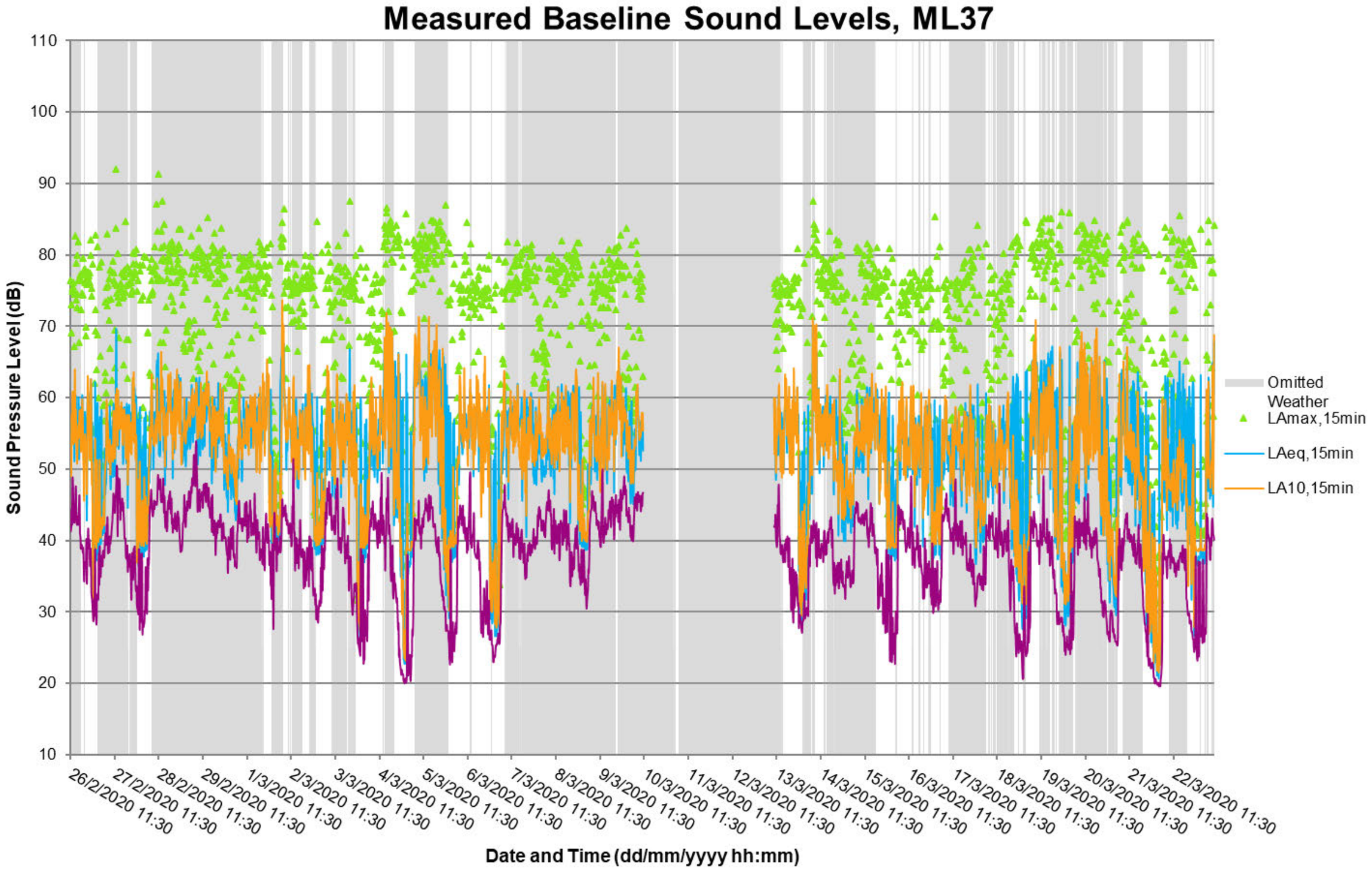
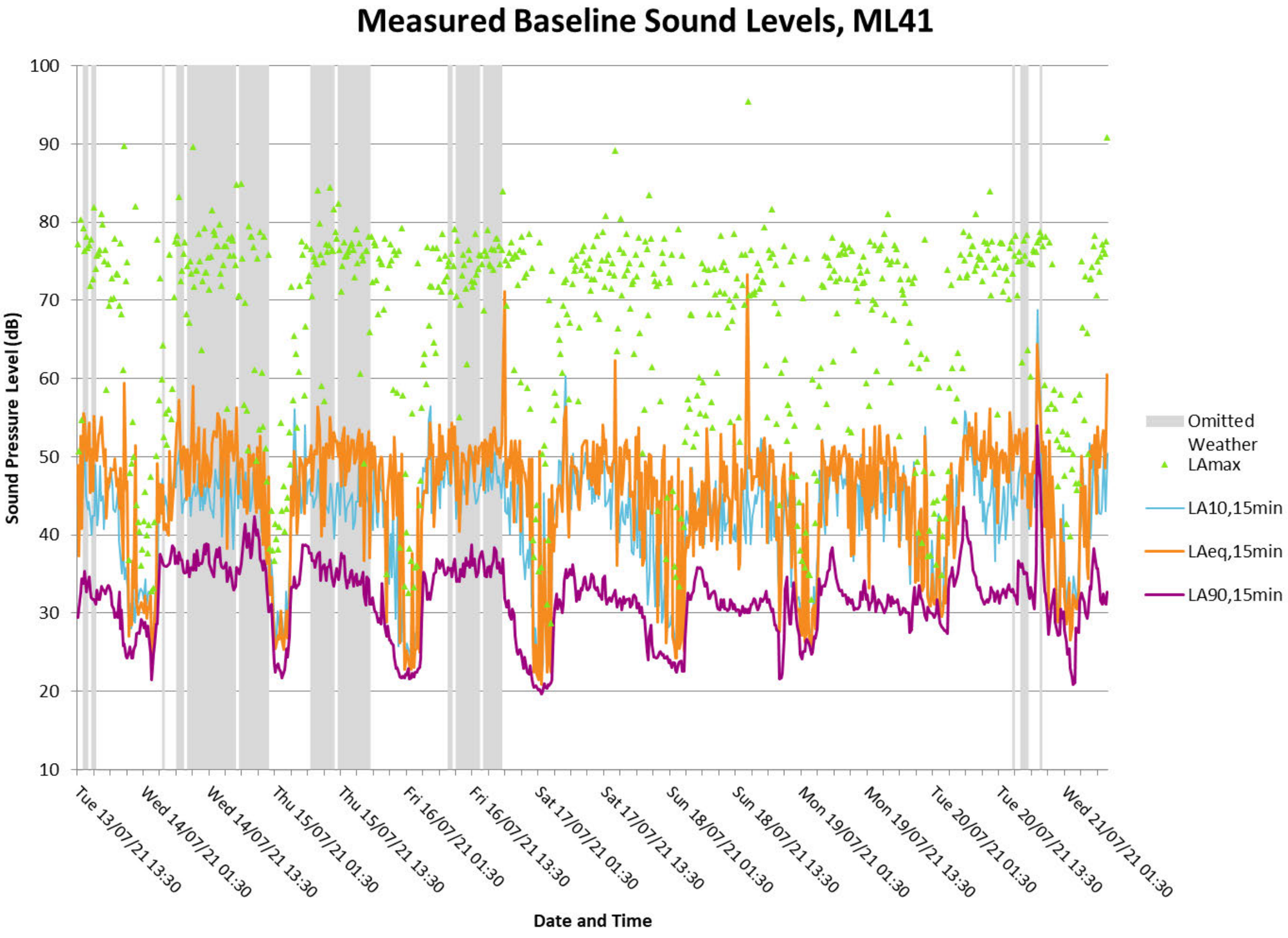


Figure 7.78: Measured Baseline Sound Levels – ML41



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