



**Independent Acoustic
Consultancy Practice**

Baseline Noise Survey

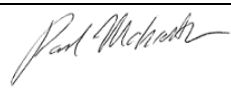
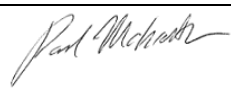
**Project Dragon
Port Talbot**

6387/ENS1_Rev1

Baseline Noise Survey

Project:	Project Dragon
Site Address:	Phoenix Wharf Port Talbot SA13 1RB
HA Reference:	6387/ENS1_Rev1
Date:	15/05/2023
Client:	LanzaTech c/o Turley 18 Windsor Place Cardiff CF10 3BY
Contact:	ffion.middleton@turley.co.uk

ISSUE / REVISION

Rev	Date			
-	26 September 2022	Filename	22.6387_ENS1_Draft.docx	
		Description	Draft for comment	
			Prepared by:	Checked by:
		Name	Meirion Townsend BSc(Hons) MIOA	Paul McGrath BSc(Hons) MIOA
		Signature		
0	10 January 2023	Filename	23.6387_ENS1	
		Description	Rev0	
			Prepared by:	Checked by:
		Name	Meirion Townsend BSc(Hons) MIOA	Paul McGrath BSc(Hons) MIOA
		Signature		
1	15 May 2023	Filename	23.6387_ENS1_Rev1	
		Description	Rev1 – updated boundary	
			Prepared by:	Checked by:
		Name	Meirion Townsend BSc(Hons) MIOA	Paul McGrath BSc(Hons) MIOA
		Signature		

DOCUMENT CONTROL

Hunter Acoustics has prepared this report for LanzaTech ("the Client"), under the agreed terms of appointment for acoustic consultancy services. This report is for the sole and specific use of the Client, and Hunter Acoustics shall not be responsible for any use of this report or its contents for any purpose other than that for which it was prepared and provided.

Should the Client wish to distribute copies of this report to other parties for information, the whole report should be copied, however no professional liability or warranty shall be extended to other parties by Hunter Acoustics in this connection without the explicit written agreement thereto by Hunter Acoustics.

ACCESSIBILITY HELP

- Zoom in or out by holding down CTRL and turning the mouse wheel.
- CTRL and click on the table of contents or references to tables/figures/sections to navigate.
- Press CTRL and Home key to return to the top of the document.
- Press Alt-left arrow to return to your previous location.

TABLE OF CONTENTS

1. INTRODUCTION	5
2. SOUND SENSITIVE RECEPTORS	6
3. ENVIRONMENTAL NOISE SURVEY	7
3.1 Procedures.....	7
3.2 Meteorological Conditions	9
3.3 Measurement Equipment	10
4. RESULTS.....	11
4.1 Continuous Monitoring.....	11
4.2 Sample Measurements.....	14
5. CONCLUSION.....	16
 APPENDIX A - ACOUSTIC TERMINOLOGY	 17
APPENDIX B - DIAGRAMS, GRAPHS AND TABLES.....	18
APPENDIX C - DRAWING LISTS.....	45

1. INTRODUCTION

A new facility for the production of sustainable jet fuel known as Project Dragon is proposed at Phoenix Wharf in Port Talbot, SA13 1RB.

This report has been commissioned to establish existing ambient and background sound levels at the nearest identified sound sensitive receptors to the proposed facility.

The survey has been carried out utilising a combination of long-term unattended monitoring locations and manned daytime and night-time sample measurements at locations agreed prior with Neath Port Talbot County Borough Council (NPT CBC) Pollution Control and their acoustical consultant, Red Twin Limited.

The baseline survey has been conducted in line with British Standard 7445-1:2003 'Description and measurement of environmental noise' and British Standard 4142:2014+A1:2019 'Methods for rating and assessing industrial and commercial sound'.

Acoustic terminology used in this report is explained in Appendix A.

2. SOUND SENSITIVE RECEPTORS

The site plan in Figure B.1 of Appendix B shows the proposed site and surrounding area.

The following sound sensitive receptors (SSRs) have been identified at this stage within a 1.3km radius from the site (which picks up the closest residential receptors in each direction):

Table 2.1 – Sound Sensitive Receptor Locations

ID No.	Description	Approx. Distance to Nearest Site Boundary (m)
SSR1	Dwellings at Mariners Point	890
SSR2	Dwellings at Darwin Rd / Newbridge Rd	900
SSR3	Dwellings on Isaac's Place / Borough St	1090
SSR4	Dwellings on Green Park St	1050
SSR5	Dwellings on Water St / Blanco's Hotel	1150
SSR6	Flats above shops on Station Rd	990
SSR7	Dwellings on Talbot Rd	745
SSR8	Dwellings on Lower West End	575
SSR9	Dwellings on St Alban's Terrace	810
SSR10	Dwellings on Duke St	1000
SSR11	Port Talbot Magistrates' Court	790

In addition to the above, NPT CBC / Red Twin Limited also highlighted the following quiet areas defined in the Neath Port Talbot LDP Policy EN10 as Vivian Park (north-west of the site) and Talbot Memorial park (north-east of the site).

3. ENVIRONMENTAL NOISE SURVEY

3.1 Procedures

3.1.1 Continuous Monitoring

Continuous noise monitoring was carried out from 1200hrs on Wednesday, 31 August 2022 to 1600hrs on Tuesday, 06 September 2022 at positions A-C.

Data including L_{Amax} , L_{Aeq} and background L_{A90} was logged at 1 minute intervals over the monitoring period, along with continuous audio and 100ms data to allow source identification and further detailed analysis of results as required ($L_{Aeq,1hr}$ and $L_{A90,1hr}$ as well as $L_{A90,15min}$ can be determined from data).

The site plan in Figure B.1 of Appendix B shows the development site and continuous monitoring positions used, namely:

Table 3.1 – Continuous Monitoring Location Details

Position	Description
A	On fence outside 27 Mariners Point, 2.5m above ground level. Representative of sound climate at residential receptors on Mariners Point.
B	On top of wall section in council car park adjacent to Blanco's Hotel, approx. 4.5m above ground level. Representative of sound climate at Blanco's Hotel and residential receptors on Water Street / Green Park Street.
C	Along TATA Steel's north-eastern boundary, approx. 36m away from Harbour Way, 1.5m above ground level. Representative of residential receptors on Lower West End.

3.1.2 Sample Measurements

Additional daytime and night-time manned sample measurements were taken on Thursday, 01 September 2022 and on Friday, 02 September 2022.

Parameters recorded include $L_{Amax,F}$, L_{Aeq} and L_{A90} levels including 1/3 octave band spectra.

The site plan in Figure B.1 of Appendix B shows the sample measurement positions used, namely:

Table 3.2 – Sample Measurement Location Details

Position	Description
1	Adjacent to residential dwellings along Newbridge Road
2	In front of residential dwellings along Water Street
3	At the rear of Port Talbot Parkway station car park, approx. 14m from dwellings along Talbot Road
4	At eastern exit of Harbour Way roundabout, approx. 120m from residential dwellings along Prince Street
5	On Harbourside Road, adjacent to HMCTS Port Talbot Justice Centre
6	At northern boundary of proposed site & access road for TATA Steel
7	At southern area of proposed site
8	On Moorland Road, adjacent to entrance to Vivian Park
9	Along Park View, adjacent to rear of Talbot Memorial Park

Note: All microphone positions approximately 1.5m above local ground level.

3.2 Meteorological Conditions

Weather conditions including temperature, wind speed and direction were measured at Position C for the duration of the survey and logged at 5minute intervals using a Davis Vantage Pro2 weather station.

Results are shown in weather history graphs in Figure B.2.

Note: The rainfall sensor had a blockage (debris landed in water tipper) and therefore did not register rain fall during the survey. Periods of rainfall have therefore been taken from an online resource for a weather station located in Port Talbot. This is included in Table B.1 of Appendix B.

To summarise:

- Wind direction was typically northerly from 31/08/2022 to 02/09/2022 and easterly from 03/09/2022 to 06/09/2022.
- Average wind speeds were generally in the region of $1\text{-}4\text{m.s}^{-1}$ across the survey period, falling below the 5m.s^{-1} quoted in BS 4142 however regular gusts were measured in the range $5\text{-}8\text{m.s}^{-1}$ during the period 03/09/2022-06/09/2022.
- Temperature was typically in the range $15\text{-}25^{\circ}\text{C}$.
- The monitoring period was predominantly dry with exception of the following periods of rainfall:
 - 03/09/2022 1615hrs – 04/09/2022 0100hrs
 - 04/09/2022 2000hrs – 05/09/2022 0015hrs
 - 06/09/2022 1230hrs – 1500hrs

Weather conditions were calm and dry during sample measurements.

3.3 Measurement Equipment

The following measurement equipment was used during the surveys:

Table 3.3 – Noise Monitoring Equipment List

Make	Description	Model	Serial Number	Last Calibrated	Certificate No.
Norsonic AS	Calibrator (113.97dB @ 999.14Hz)	1251	24202	25 August 2022	U41783
NTi	Type 1 - Sound Level Meter	XL2-TA	A2A-08723-E0	29 October 2021	TCRT21/1759
	Preamplifier	MA220	1820	29 October 2021	TCRT21/1759
	Filters	XL2-TA	A2A-08723-E0	01 November 2021	TCRT21/1763
	Microphone Capsule	MC230	9381	29 October 2021	TCRT21/1759
NTi	Type 1 - Sound Level Meter	XL2-TA	A2A-10021-E0	17 August 2021	TCRT21/1568
	Preamplifier	MA220	5435	17 August 2021	TCRT21/1568
	Microphone Capsule	MC230	8547	17 August 2021	TCRT21/1568
NTi	Type 1 - Sound Level Meter	XL2-TA	A2A-13022-E0	18 August 2021	TCRT21/1571
	Preamplifier	MA220	6853	18 August 2021	TCRT21/1571
	Microphone Capsule	MC230	A14127	18 August 2021	TCRT21/1571
NTi	Type 1 - Sound Level Meter	XL2-TA	A2A-14577-E0	23 June 2022	TCRT20/1313
	Preamplifier	MA220	7485	23 June 2022	TCRT20/1313
	Microphone Capsule	MC230	A15594	23 June 2022	TCRT20/1313
NTi	Type 1 - Sound Level Meter	XL2-TA	A2A-19813-E0	04 November 2021	UK-21-096
	Preamplifier	MA220	10302	04 November 2021	UK-21-096
	Microphone Capsule	MC230A	A21824	04 November 2021	UK-21-096
Larson Davis	Calibrator (94.00dB / 114.03dB @ 1kHz)	CAL200	19047	15 August 2022	44788-19047-CAL200

Measurement systems were calibrated before and after the surveys and no variation occurred.

Note: Copies of traceable calibration certificates for all equipment are available upon request.

4. RESULTS

4.1 Continuous Monitoring

Time history graphs in Figure B.3, Figure B.4 and Figure B.5 of Appendix B show L_{Amax} , L_{Aeq} and L_{A90} sound pressure levels measured at positions A, B and C respectively.

Full $L_{Aeq,1hr}$ and $L_{A90,1hr}$ data for each position is included in Appendix B (Table B.2 to Table B.7) as well night-time $L_{A90,15mins}$.

Ambient L_{Aeq} 16-hr daytime and 8-hr night-time values are summarised below for Positions A – C.

4.1.1 Position A (Mariners Point, West of Site)

The following $L_{Aeq,16hr}$ daytime (0700-2300hrs) and $L_{Aeq,8hr}$ night-time (2300-0700hrs) noise levels were measured at Position A;

Table 4.1 – Position A Summary of Daytime $L_{Aeq,16hr}$ and Night-time $L_{Aeq,8hr}$ Results

Position A (Mariners Point, West of Site)					
Wednesday 11:45 31/08/2022 - Thursday 07:00 01/09/2022	Daytime	$L_{Aeq,11hr}$	=	50	dB
	Night-time	$L_{Aeq,8hr}$	=	49	dB
Thursday 07:00 01/09/2022 - Friday 07:00 02/09/2022	Daytime	$L_{Aeq,16hr}$	=	51	dB
	Night-time	$L_{Aeq,8hr}$	=	51	dB
Friday 07:00 02/09/2022 - Saturday 07:00 03/09/2022	Daytime	$L_{Aeq,16hr}$	=	50	dB
	Night-time	$L_{Aeq,8hr}$	=	48	dB
Saturday 07:00 03/09/2022 - Sunday 07:00 04/09/2022	Daytime	$L_{Aeq,16hr}$	=	53	dB
	Night-time	$L_{Aeq,8hr}$	=	55	dB
Sunday 07:00 – 09:00 04/09/2022 *	Daytime	$L_{Aeq,2hr}$	=	47	dB

At position A, the daytime sound climate was controlled by pedestrians along the nearby footpath, helicopters, sirens from the docks, occasional road traffic noise from the cul-de-sac, continuous faint industrial noise from steelworks and port activity.

The night-time sound climate was controlled by continuous industrial noise from the steelworks and sirens from the port area. A light breeze noise in trees was also audible during the night.

** Note: There was a power failure at Position A on Sunday morning around 0850hrs on 04 September. Wind speeds picked up during the second half of the week-long survey and therefore data from Saturday night onwards is not considered suitable for use in setting limits in any case.*

4.1.2 Position B (Blanco's Hotel, North of Site)

The following $L_{Aeq,16hr}$ daytime (0700-2300hrs) and $L_{Aeq,8hr}$ night-time (2300-0700hrs) noise levels were measured at Position B:

Table 4.2 – Position B Summary of Daytime $L_{Aeq,16hr}$ and Night-time $L_{Aeq,8hr}$ Results

Position B (Blanco's Hotel, North of Site)					
Wednesday 12:00 31/08/2022 - Thursday 07:00 01/09/2022	Daytime	$L_{Aeq,11hr}$	=	53	dB
	Night-time	$L_{Aeq,8hr}$	=	49	dB
Thursday 07:00 01/09/2022 - Friday 07:00 02/09/2022	Daytime	$L_{Aeq,16hr}$	=	55	dB
	Night-time	$L_{Aeq,8hr}$	=	50	dB
Friday 07:00 02/09/2022 - Saturday 07:00 03/09/2022	Daytime	$L_{Aeq,16hr}$	=	54	dB
	Night-time	$L_{Aeq,8hr}$	=	47	dB
Saturday 07:00 03/09/2022 - Sunday 07:00 04/09/2022	Daytime	$L_{Aeq,16hr}$	=	55	dB
	Night-time	$L_{Aeq,8hr}$	=	53	dB
Sunday 07:00 04/09/2022 - Monday 07:00 05/09/2022	Daytime	$L_{Aeq,16hr}$	=	55	dB
	Night-time	$L_{Aeq,8hr}$	=	52	dB
Monday 07:00 05/09/2022 - Tuesday 07:00 06/09/2022	Daytime	$L_{Aeq,16hr}$	=	56	dB
	Night-time	$L_{Aeq,8hr}$	=	51	dB
Tuesday 07:00 – 17:00 06/09/2022	Daytime	$L_{Aeq,10hr}$	=	56	dB

At position B, the daytime sound climate was controlled by industrial noise from works along Dock Road, helicopters, birds and road traffic along Green Park Street and the A4241.

At position B, the night-time sound climate was controlled by distant industrial noise and road traffic along Green Park Street and A4241.

Note: Wind and rain affected results for the latter part of the survey (night-time of Saturday 03/09/2022 until survey end).

4.1.3 Position C (Port Land towards Lower West End, North-east of Site)

The following $L_{Aeq,16hr}$ daytime (0700-2300hrs) and $L_{Aeq,8hr}$ night-time (2300-0700hrs) noise levels were measured at Position C:

Position C (Towards Lower West End, North-east of Site)					
Wednesday 10:45 31/08/2022 - Thursday 07:00 01/09/2022	Daytime	$L_{Aeq,11hr}$	=	58	dB
	Night-time	$L_{Aeq,8hr}$	=	56	dB
Thursday 07:00 01/09/2022 - Friday 07:00 02/09/2022	Daytime	$L_{Aeq,16hr}$	=	59	dB
	Night-time	$L_{Aeq,8hr}$	=	56	dB
Friday 07:00 02/09/2022 - Saturday 07:00 03/09/2022	Daytime	$L_{Aeq,16hr}$	=	59	dB
	Night-time	$L_{Aeq,8hr}$	=	56	dB
Saturday 07:00 03/09/2022 - Sunday 07:00 04/09/2022	Daytime	$L_{Aeq,16hr}$	=	59	dB
	Night-time	$L_{Aeq,8hr}$	=	58	dB
Sunday 07:00 04/09/2022 - Monday 07:00 05/09/2022	Daytime	$L_{Aeq,16hr}$	=	59	dB
	Night-time	$L_{Aeq,8hr}$	=	60	dB
Monday 07:00 05/09/2022 - Tuesday 07:00 06/09/2022	Daytime	$L_{Aeq,16hr}$	=	61	dB
	Night-time	$L_{Aeq,8hr}$	=	59	dB
Tuesday 07:00 – 15:00 06/09/2022	Daytime	$L_{Aeq,8hr}$	=	61	dB

At position C, the daytime and night-time sound climate was controlled by, road traffic noise along Harbour Way and continuous industrial noise from the steelworks.

Note: Wind and rain affected results for the latter part of the survey (night-time of Saturday 03/09/2022 until survey end).

4.1.4 Background Sound Level Summary

Graphs in Figure B.6 to Figure B.21 of Appendix B show statistical analysis of background sound levels measured at positions A, B and C respectively.

The following minimum consistent daytime and night-time background L_{A90} sound levels have been determined (the following exclude bad weather periods from the night of Saturday 02/09/2022 onwards):

Table 4.3 – Minimum Consistent Daytime and Night-time Background L_{A90} Results

Period	Position		
	A	B	C
Daytime (0700-2300hrs) $L_{A90,1hr}$ (dB)	45	49	54
Night-time (2300-0700hrs) $L_{A90,15min}$ (dB)	45	40	52

4.2 Sample Measurements

Sample measurements were undertaken at positions 1 to 9, as shown on site plan in Figure B.1 of Appendix B. Two 15-minute sample measurements were undertaken at each location during both the daytime and night-time periods.

Results of sample measurements are shown in Table 4.4 below.

Table 4.4 – Sample Measurement Results

Position	Date	Start Time (hh:mm)	Duration (mins)	L_{Aeq} (dB)	L_{Amax} (dB)	L_{A90} (dB)
1	01/09/2022	10:24	15	55	82	46
1	01/09/2022	11:23	15	54	67	46
1	02/09/2022	00:04	15	49	61	47
1	02/09/2022	00:16	15	48	55	46
2	01/09/2022	11:04	15	64	86	49
2	01/09/2022	12:04	15	66	89	53
2	02/09/2022	00:27	15	53	77	42
2	02/09/2022	01:39	15	50	73	42
3	01/09/2022	15:26	15	57	75	49
3	01/09/2022	17:11	15	53	70	49
3	02/09/2022	01:19	15	45	58	42
3	02/09/2022	02:03	15	44	53	42
4	01/09/2022	14:44	15	59	76	53
4	01/09/2022	16:12	15	60	72	55
4	02/09/2022	00:56	15	59	78	46

4	02/09/2022	01:41	15	51	69	46
5	01/09/2022	15:05	15	54	69	51
5	01/09/2022	16:33	15	53	68	51
5	02/09/2022	00:53	15	52	67	44
5	02/09/2022	02:01	15	45	53	44
6	01/09/2022	13:18	15	63	81	51
6	01/09/2022	13:56	15	64	79	52
6	01/09/2022	23:56	15	57	74	51
6	02/09/2022	00:32	15	55	76	51
7	01/09/2022	13:37	15	51	60	49
7	01/09/2022	14:14	15	53	62	51
7	01/09/2022	23:37	15	53	62	51
7	02/09/2022	00:14	15	53	62	51
8	02/09/2022	10:44	15	55	78	41
8	02/09/2022	11:44	15	56	75	42
9	01/09/2022	15:48	15	56	67	54
9	01/09/2022	17:33	15	59	79	53

The observed sound climate at each position were as follows

Table 4.5 – Observations of Soundscape at Sample Measurement Locations

Position	Daytime Soundscape	Night-time Soundscape
1	Road traffic, harbour activity from steelworks, birdsong	Steelwork noise, alarms from steelworks, road traffic, train, trees, helicopter
2	Road traffic controlled	Steelwork noise, road traffic, light breeze
3	Road traffic, steelworks, train	Road traffic and train, trees, low frequency at steelworks
4	Train, road traffic, steelworks plant, wind turbine or substation low frequency	Road traffic and train, trees, low frequency at steelworks
5	Road traffic, steelworks, train	Industrial noise, distant road traffic, wind, bushes, trees, train
6	Controlled by a nearby stack to the east and HGV pass-bys	Breeze in trees, HGV pass-bys and industrial fan
7	Controlled by a nearby industrial fan/stack to the east	Controlled by a nearby industrial fan/stack to the east
8	Pedestrians in park, dogwalkers, plane traffic, trees	-
9	Children playing on field, road traffic	-

5. CONCLUSION

A baseline environmental noise survey has been carried out for a proposed new facility for the production of sustainable fuel known as Project Dragon at Phoenix Wharf, Port Talbot, SA13 1RB.

Surrounding sound sensitive receptors (SSRs) are identified on site plan in Figure B.1 of Appendix B.

The survey has been carried out utilising a combination of long-term unattended monitoring locations and manned daytime and night-time sample measurements at locations agreed prior with Neath Port Talbot Pollution Control and their consultant, Red Twin Limited.

Results from this baseline survey are to be used in any forthcoming noise impact assessments for the proposed development.

APPENDIX A - ACOUSTIC TERMINOLOGY

Human response to noise depends on a number of factors including loudness, frequency content and variations in level with time. Various frequency weightings and statistical indices have been developed in order to objectively quantify 'annoyance'.

The following units have been used in this report:

dB(A)	The sound pressure level A-weighted to correspond with the frequency response of the human ear and therefore a persons' subjective response to frequency content.
L_{eq}	The equivalent continuous sound level is a notional steady state level which over a quoted time period would have the same acoustic energy content as the actual fluctuating noise measured over that period.
L_{max}	The highest instantaneous sound level recorded during the measurement period.
L_{10}	The sound level which is exceeded for 10% of the measurement period. i.e. The level exceeded for 6 minutes of a 1 hour measurement - used as a measure of background noise.
L_{90}	The sound level which is exceeded for 90% of the measurement period. i.e. The level exceeded for 54 minutes of a 1 hour measurement - used as a measure of background noise.
$L_{Ar,Tr}$	The 'rating' level, as described in BS 4142:2014 – the specific noise plus any adjustment for the characteristic features of the noise.
SSR	Sound sensitive receptor

APPENDIX B - DIAGRAMS, GRAPHS AND TABLES

Figure B.1 – Site Plan Showing Monitoring Locations

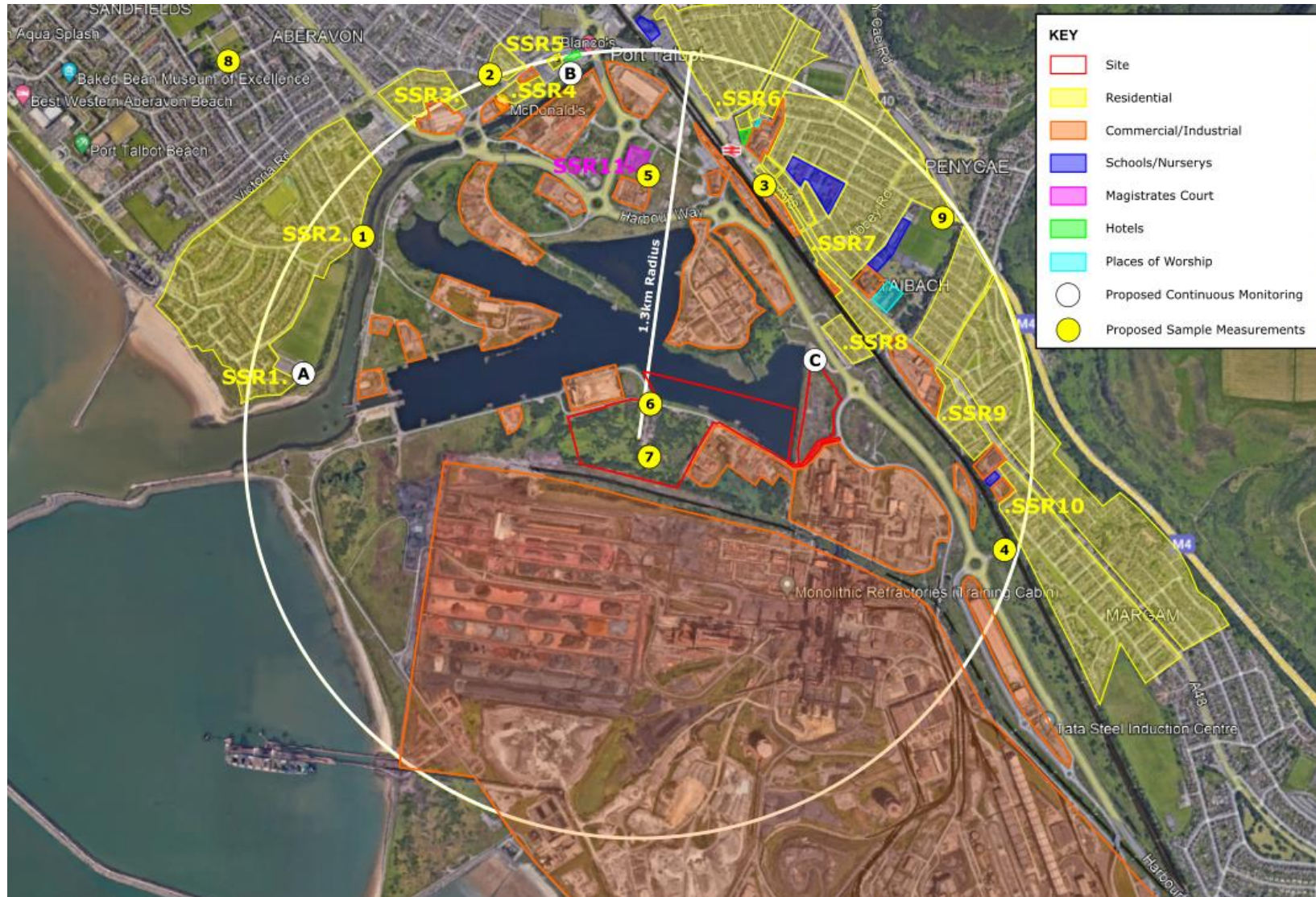


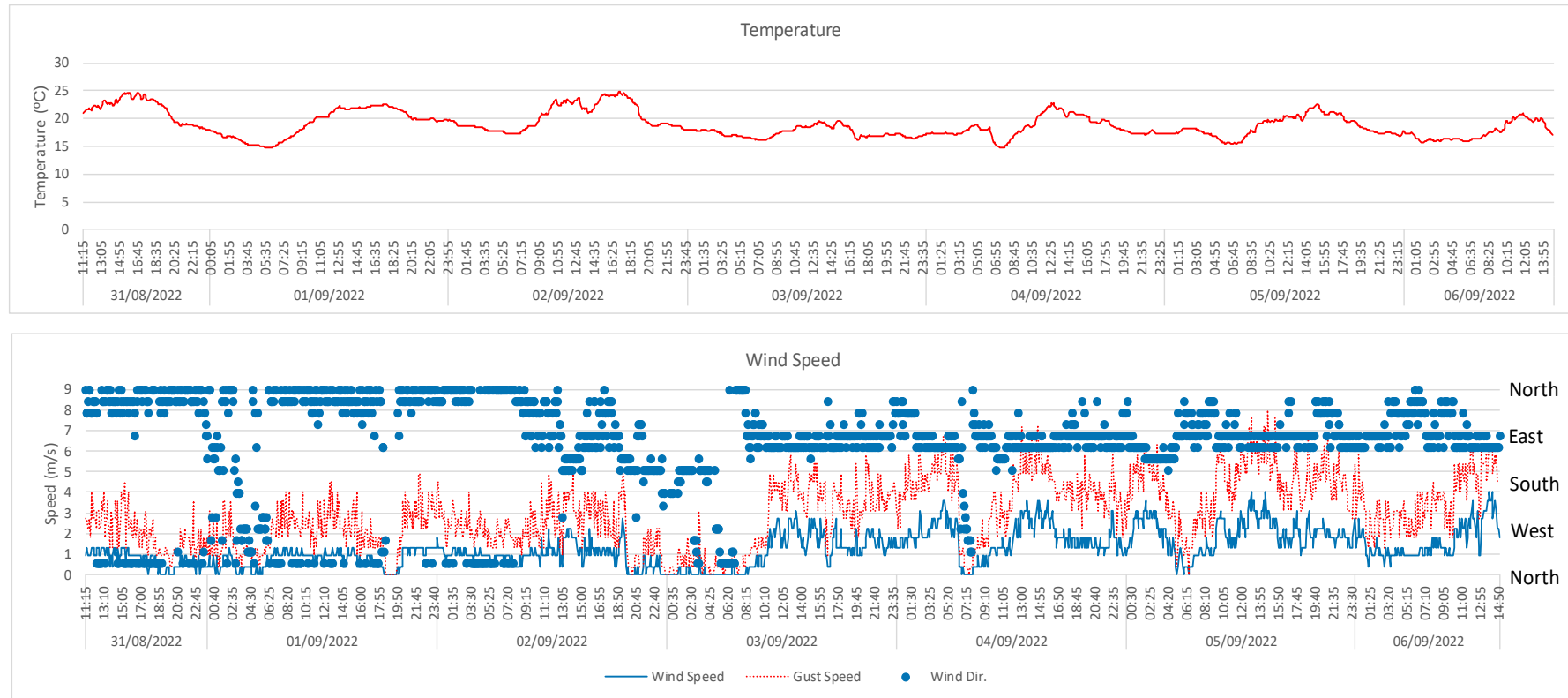
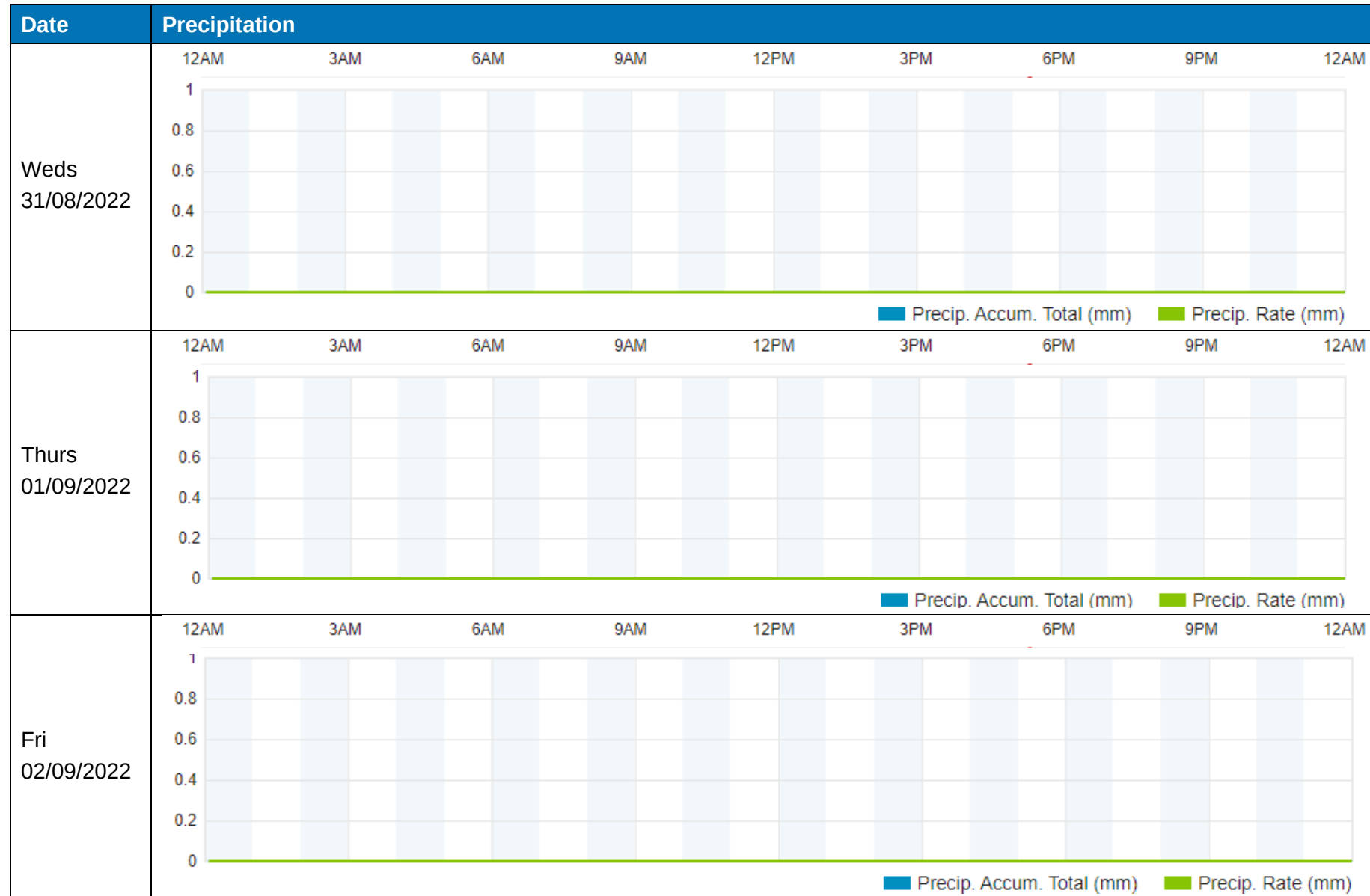
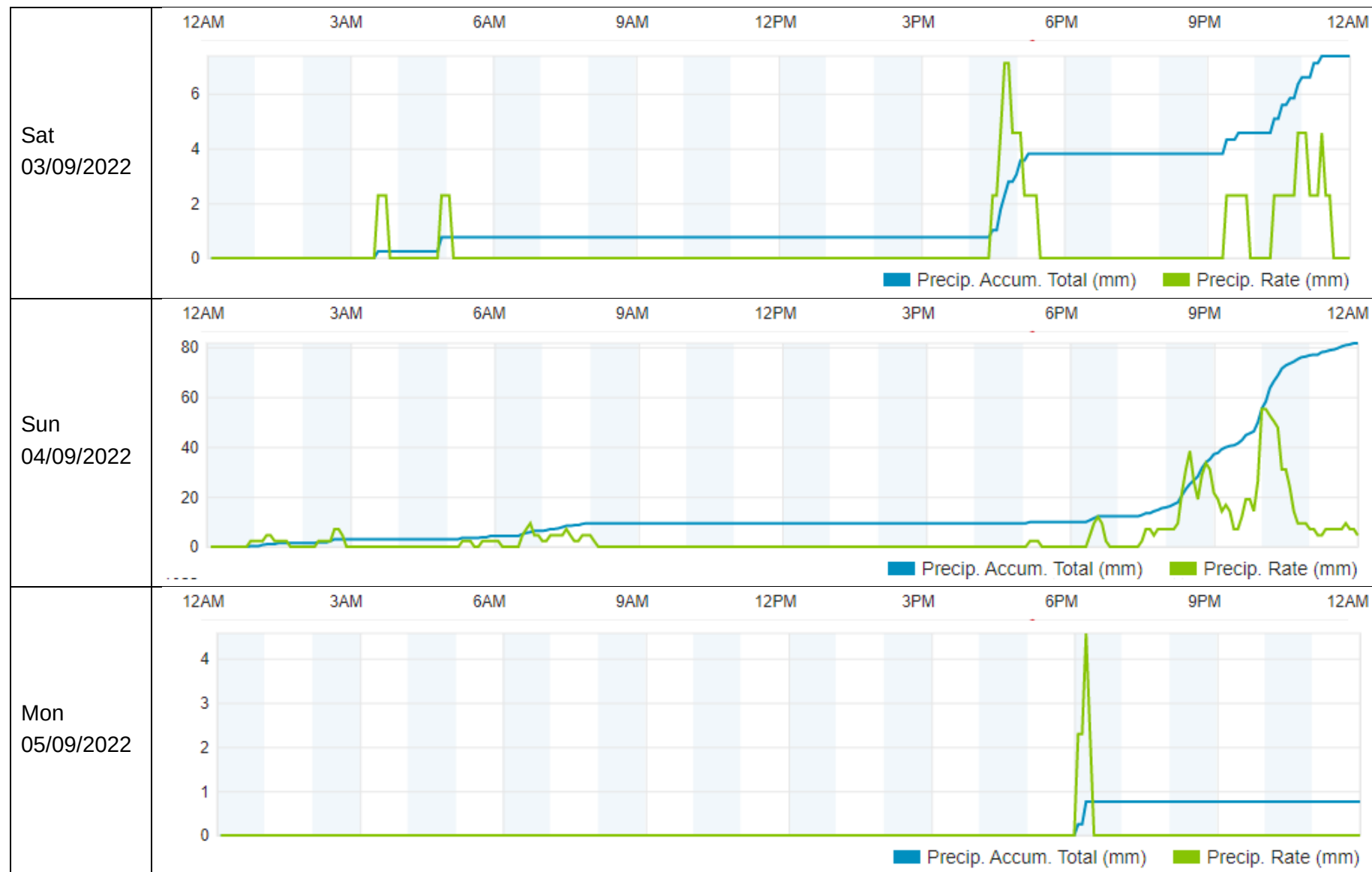
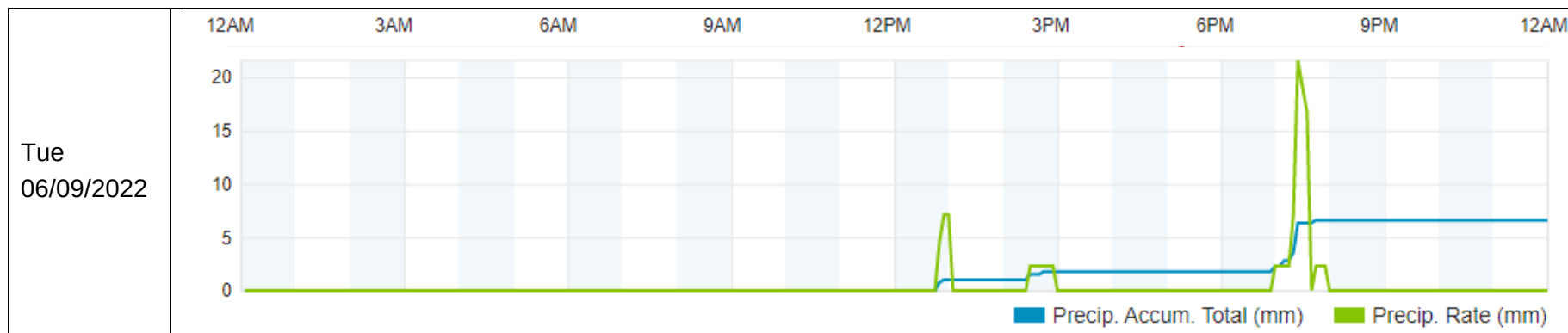
Figure B.2 – Temperature and Wind History for Wednesday 31st July 2022 to Tuesday 6th September 2022

Table B.1 – Approximate Precipitation History for Wednesday 31st July 2022 to Tuesday 6th September 2022







Note: Taken from www.wunderground.com - weather station IPORTT9 located in Ynysygwas [Elev 29 m, 51.61 °N, 3.76 °W]

Figure B.3 – Time History at Position A (Wednesday, 31 August 2022 to Tuesday, 06 September 2022)

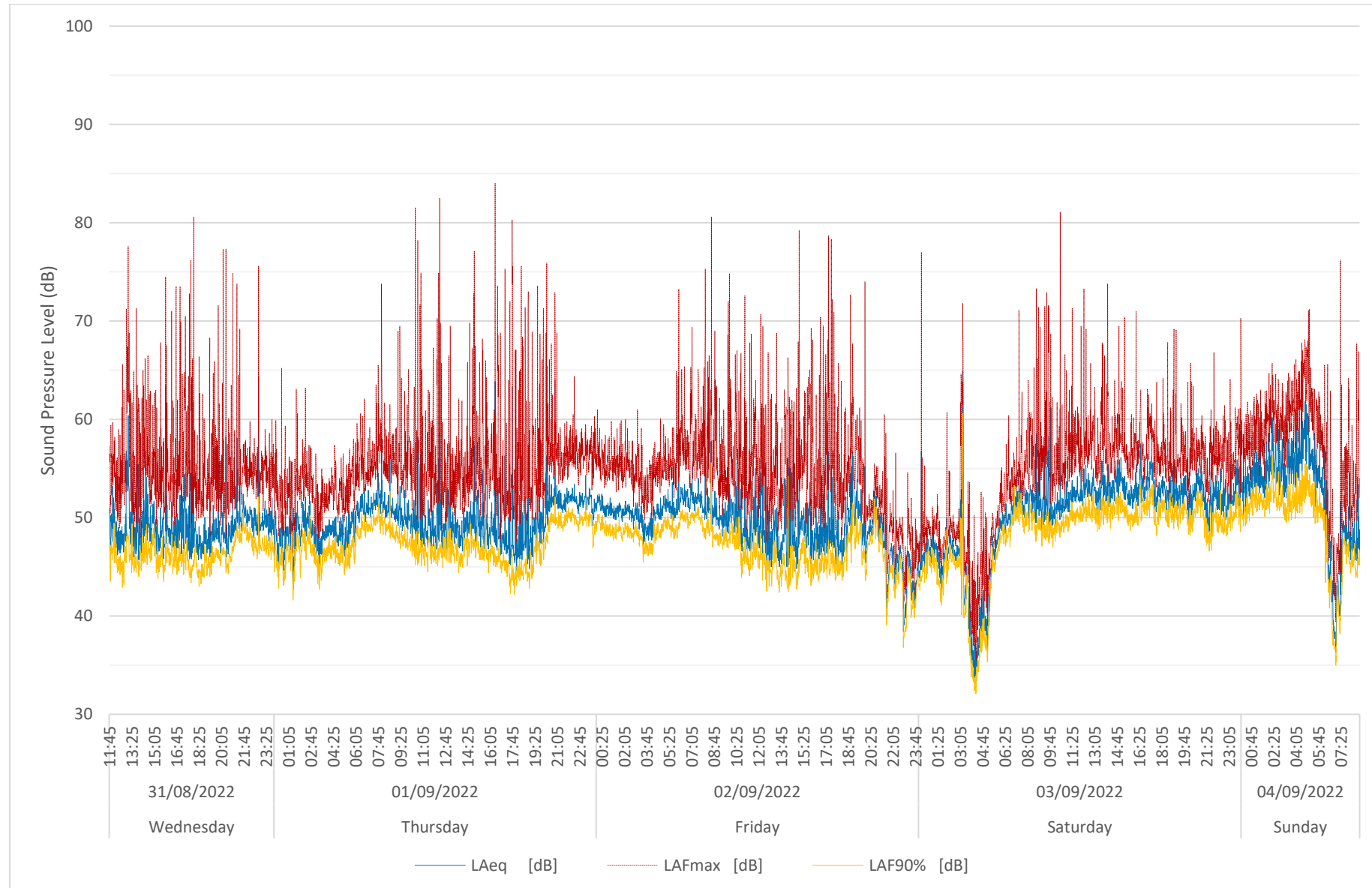


Figure B.4 – Time History at Position B (Wednesday, 31 August 2022 to Tuesday, 06 September 2022)

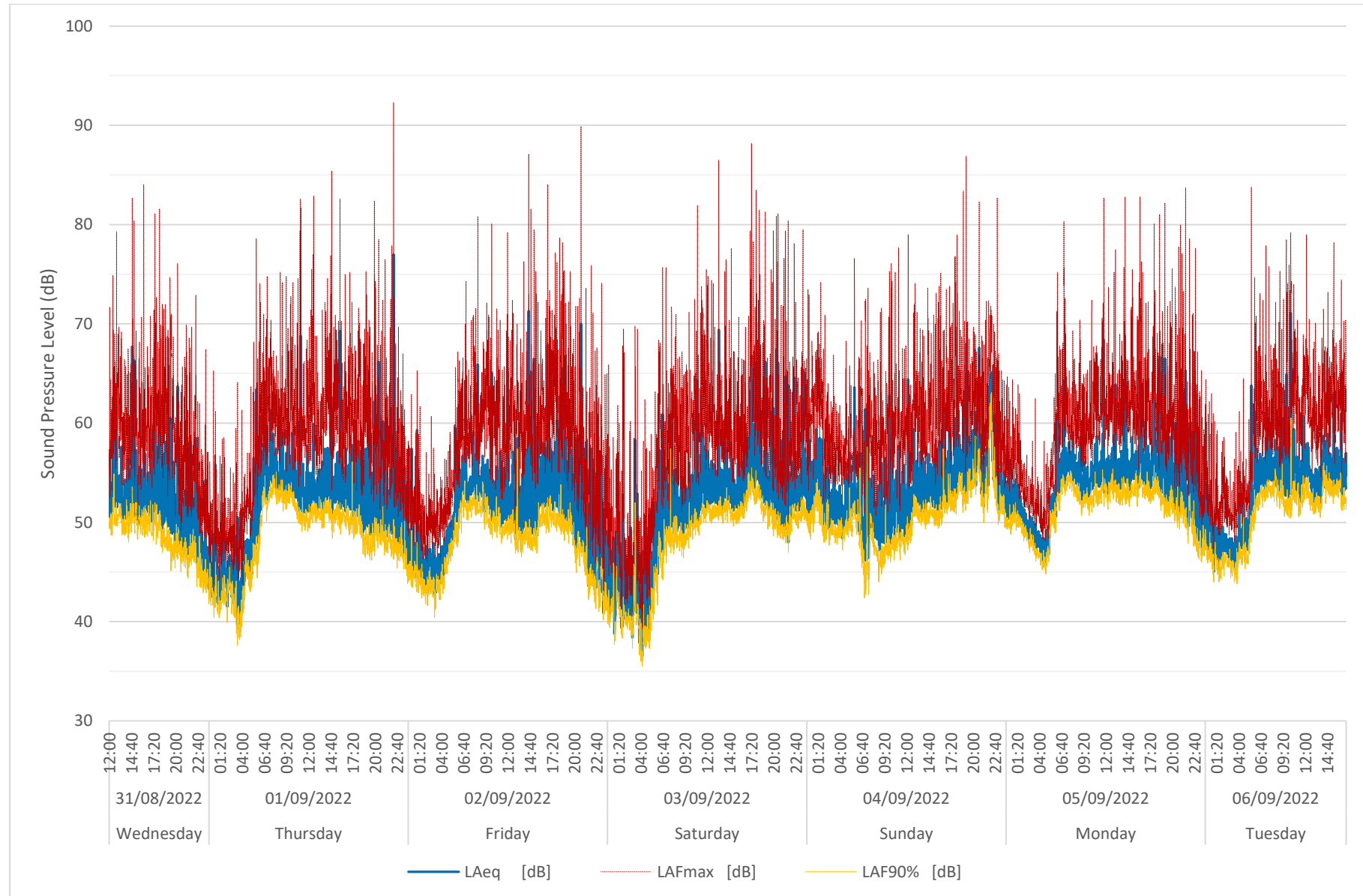


Figure B.5 – Time History at Position C (Wednesday, 31 August 2022 to Tuesday, 06 September 2022)

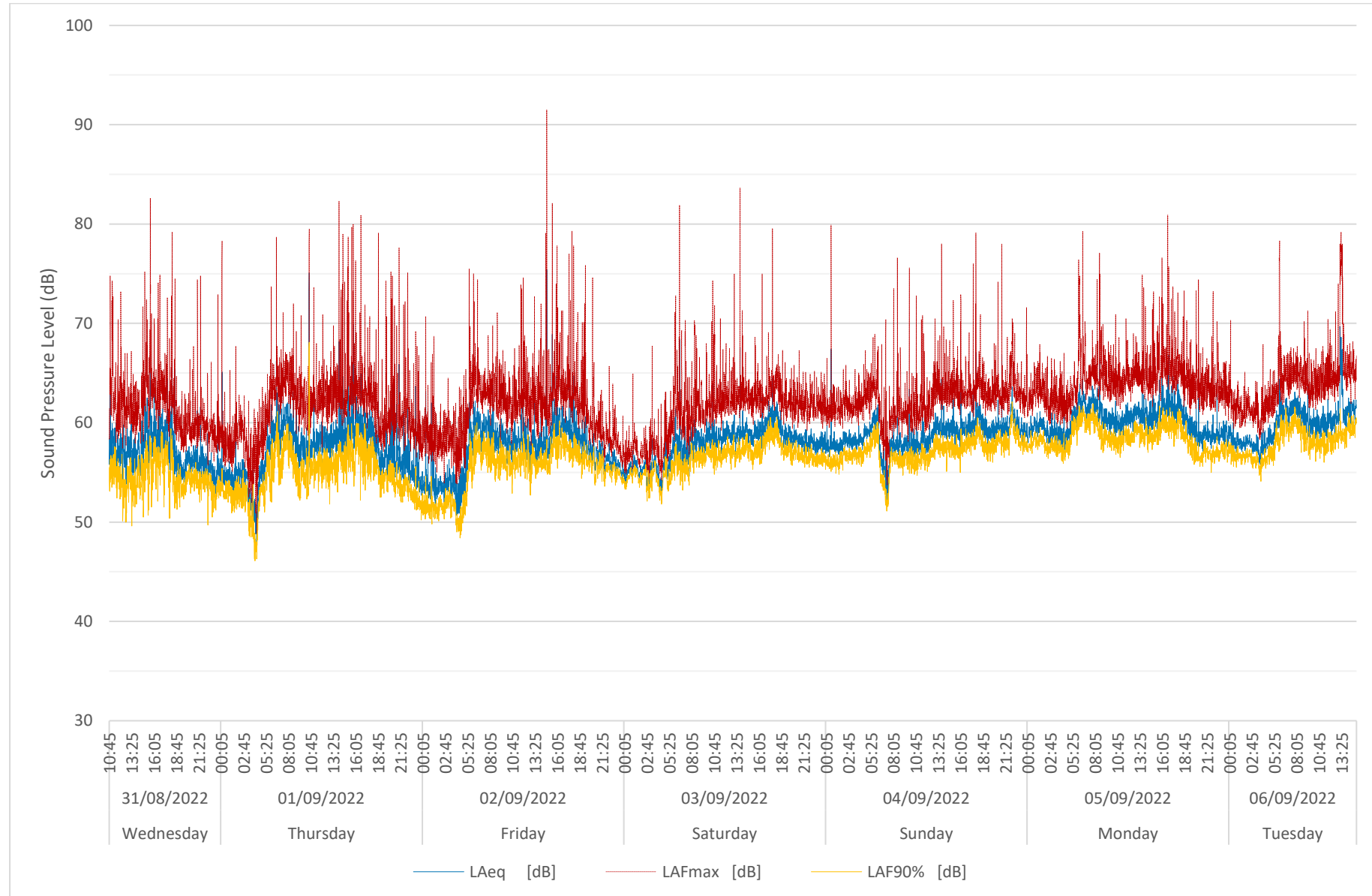


Table B.2 – Position A, Hourly Log

Start	Duration	$L_{Amax,F}$ (dB)	L_{Aeq} (dB)	L_{A90} (dB)
31/08/2022 12:00	1:00:00	65.6	48.6	45.5
31/08/2022 13:00	1:00:00	77.6	51.9	45.7
31/08/2022 14:00	1:00:00	66.5	49.8	46.4
31/08/2022 15:00	1:00:00	74.5	50.4	45.6
31/08/2022 16:00	1:00:00	73.5	48.9	45.9
31/08/2022 17:00	1:00:00	76.2	49.8	45.3
31/08/2022 18:00	1:00:00	80.6	49.2	45.0
31/08/2022 19:00	1:00:00	71.6	48.7	45.8
31/08/2022 20:00	1:00:00	77.3	49.4	45.9
31/08/2022 21:00	1:00:00	73.8	50.5	48.2
31/08/2022 22:00	1:00:00	75.6	51.4	47.4
31/08/2022 23:00	1:00:00	60.0	49.6	47.2
01/09/2022 00:00	1:00:00	65.2	48.0	44.9
01/09/2022 01:00	1:00:00	63.1	48.4	45.0
01/09/2022 02:00	1:00:00	63.2	49.6	47.2
01/09/2022 03:00	1:00:00	56.5	47.8	45.3
01/09/2022 04:00	1:00:00	57.4	48.7	46.7
01/09/2022 05:00	1:00:00	58.0	48.8	46.1
01/09/2022 06:00	1:00:00	62.1	50.9	48.6
01/09/2022 07:00	1:00:00	65.5	51.6	49.6
01/09/2022 08:00	1:00:00	73.8	51.6	49.1
01/09/2022 09:00	1:00:00	69.5	50.4	48.0
01/09/2022 10:00	1:00:00	81.5	51.0	46.7
01/09/2022 11:00	1:00:00	67.3	49.3	46.4
01/09/2022 12:00	1:00:00	82.5	50.1	46.5
01/09/2022 13:00	1:00:00	69.5	49.3	46.4
01/09/2022 14:00	1:00:00	77.1	49.9	47.1
01/09/2022 15:00	1:00:00	68.2	50.0	46.6
01/09/2022 16:00	1:00:00	84.0	50.7	46.0
01/09/2022 17:00	1:00:00	80.3	50.3	44.5
01/09/2022 18:00	1:00:00	75.6	48.9	44.6
01/09/2022 19:00	1:00:00	73.6	49.0	45.5
01/09/2022 20:00	1:00:00	75.9	52.8	48.1
01/09/2022 21:00	1:00:00	68.8	51.7	49.9
01/09/2022 22:00	1:00:00	64.4	51.9	50.0
01/09/2022 23:00	1:00:00	60.3	51.6	49.5
02/09/2022 00:00	1:00:00	61.0	51.2	49.3
02/09/2022 01:00	1:00:00	59.9	50.6	48.8
02/09/2022 02:00	1:00:00	60.0	50.6	48.8
02/09/2022 03:00	1:00:00	61.0	49.4	47.3
02/09/2022 04:00	1:00:00	60.1	50.2	48.0
02/09/2022 05:00	1:00:00	64.9	51.1	49.2
02/09/2022 06:00	1:00:00	73.2	52.1	49.7
02/09/2022 07:00	1:00:00	69.4	52.0	50.1
02/09/2022 08:00	1:00:00	80.6	52.0	48.6
02/09/2022 09:00	1:00:00	74.8	50.1	48.0
02/09/2022 10:00	1:00:00	67.0	50.6	46.9
02/09/2022 11:00	1:00:00	72.6	49.5	46.0

02/09/2022 12:00	1:00:00	70.7	49.2	45.2
02/09/2022 13:00	1:00:00	68.8	47.8	44.5
02/09/2022 14:00	1:00:00	66.3	51.1	44.2
02/09/2022 15:00	1:00:00	79.2	49.9	45.5
02/09/2022 16:00	1:00:00	70.4	48.4	45.1
02/09/2022 17:00	1:00:00	78.7	49.4	45.2
02/09/2022 18:00	1:00:00	72.7	48.9	45.3
02/09/2022 19:00	1:00:00	67.7	51.5	47.3
02/09/2022 20:00	1:00:00	74.0	49.7	46.8
02/09/2022 21:00	1:00:00	60.5	47.4	42.1
02/09/2022 22:00	1:00:00	56.6	45.3	39.8
02/09/2022 23:00	1:00:00	54.6	43.8	40.7
03/09/2022 00:00	1:00:00	77.0	46.8	44.0
03/09/2022 01:00	1:00:00	52.4	46.1	43.5
03/09/2022 02:00	1:00:00	60.7	46.9	45.5
03/09/2022 03:00	1:00:00	71.8	51.6	37.0
03/09/2022 04:00	1:00:00	52.6	38.3	34.1
03/09/2022 05:00	1:00:00	51.3	45.5	38.2
03/09/2022 06:00	1:00:00	60.4	49.8	48.2
03/09/2022 07:00	1:00:00	71.1	52.1	50.1
03/09/2022 08:00	1:00:00	73.3	52.1	49.5
03/09/2022 09:00	1:00:00	72.9	52.5	48.6
03/09/2022 10:00	1:00:00	81.1	51.6	49.2
03/09/2022 11:00	1:00:00	71.3	52.3	50.2
03/09/2022 12:00	1:00:00	73.3	53.0	50.7
03/09/2022 13:00	1:00:00	67.8	53.0	50.4
03/09/2022 14:00	1:00:00	73.8	53.5	50.9
03/09/2022 15:00	1:00:00	70.4	52.9	50.5
03/09/2022 16:00	1:00:00	71.0	53.2	50.7
03/09/2022 17:00	1:00:00	63.8	53.5	50.5
03/09/2022 18:00	1:00:00	67.8	52.7	50.5
03/09/2022 19:00	1:00:00	69.2	52.7	50.6
03/09/2022 20:00	1:00:00	65.7	52.6	50.1
03/09/2022 21:00	1:00:00	66.8	52.1	48.7
03/09/2022 22:00	1:00:00	61.4	52.1	49.5
03/09/2022 23:00	1:00:00	70.3	53.1	50.1
04/09/2022 00:00	1:00:00	64.9	53.6	50.7
04/09/2022 01:00	1:00:00	63.0	54.5	51.8
04/09/2022 02:00	1:00:00	65.7	56.0	52.1
04/09/2022 03:00	1:00:00	65.6	55.3	51.4
04/09/2022 04:00	1:00:00	68.1	57.8	52.6
04/09/2022 05:00	1:00:00	71.2	55.4	51.3
04/09/2022 06:00	1:00:00	65.6	50.0	38.4
04/09/2022 07:00	1:00:00	76.2	46.6	38.0
04/09/2022 08:00	0:49:55.8	67.7	48.1	45.3

Note: Power pack failed at 08:49:55 on Sunday 04/09/2022 however weather conditions were not conducive to noise monitoring after this time in any case.

Table B.3 – Position A, Night-time $L_{A90,15min}$ Log

Time	Weds 31/08/22	Thurs 01/09/22	Fri 02/09/22	Sat 03/09/22	Sun 04/09/22	Mon 05/09/22
(hh:mm)	$L_{A90,15mins}$ (dB)	$L_{A90,15mins}$ (dB)	$L_{A90,15mins}$ (dB)	$L_{A90,15mins}$ (dB)	$L_{A90,15mins}$ (dB)	$L_{A90,15mins}$ (dB)
23:00	47.5	50.2	39.5	49.6	-	-
23:15	47.2	50.1	41.5	50.2	-	-
23:30	47.1	49.5	40.8	51.0	-	-
23:45	47.0	48.5	42.1	50.4	-	-
00:00	46.1	49.9	43.4	50.4	-	-
00:15	44.7	49.5	44.6	50.3	-	-
00:30	44.4	49.1	45.4	51.2	-	-
00:45	44.9	49.0	45.3	51.5	-	-
01:00	46.3	48.9	45.8	52.1	-	-
01:15	43.0	48.6	44.7	51.9	-	-
01:30	45.2	49.1	42.5	51.7	-	-
01:45	46.5	48.6	43.5	51.5	-	-
02:00	47.4	49.1	44.8	52.2	-	-
02:15	47.5	48.9	46.2	53.1	-	-
02:30	47.8	48.6	45.6	52.0	-	-
02:45	46.7	48.7	45.4	51.6	-	-
03:00	45.8	48.2	42.7	51.5	-	-
03:15	43.9	47.8	40.7	50.8	-	-
03:30	45.4	46.9	38.4	51.9	-	-
03:45	46.6	47.0	35.3	52.0	-	-
04:00	47.1	47.1	33.5	51.8	-	-
04:15	46.9	48.5	33.5	52.5	-	-
04:30	46.6	48.8	36.8	53.4	-	-
04:45	46.3	48.8	37.8	53.7	-	-
05:00	46.0	49.7	36.6	52.8	-	-
05:15	45.6	49.5	40.9	51.9	-	-
05:30	46.1	49.0	45.3	50.5	-	-
05:45	47.1	48.8	46.6	51.3	-	-
06:00	47.6	49.0	48.0	50.3	-	-
06:15	48.5	50.4	48.1	44.7	-	-
06:30	49.5	50.2	48.5	41.5	-	-
06:45	49.0	49.8	48.6	37.4	-	-

Table B.4 – Position B, Hourly Log

Start	Duration	$L_{Amax,F}$ (dB)	L_{Aeq} (dB)	L_{A90} (dB)
31/08/2022 12:00	1:00:00	79.3	54.2	50.2
31/08/2022 13:00	1:00:00	69.7	52.7	49.9
31/08/2022 14:00	1:00:00	82.7	55.8	49.9
31/08/2022 15:00	1:00:00	70.7	52.7	49.7
31/08/2022 16:00	1:00:00	84.0	53.3	50.0
31/08/2022 17:00	1:00:00	81.1	55.0	49.2
31/08/2022 18:00	1:00:00	81.6	53.5	48.3
31/08/2022 19:00	1:00:00	74.7	52.9	47.0
31/08/2022 20:00	1:00:00	76.1	51.7	47.0
31/08/2022 21:00	1:00:00	69.9	50.6	46.2
31/08/2022 22:00	1:00:00	72.9	49.9	45.2
31/08/2022 23:00	1:00:00	67.4	46.9	43.9
01/09/2022 00:00	1:00:00	65.3	45.9	42.2
01/09/2022 01:00	1:00:00	58.6	44.5	41.7
01/09/2022 02:00	1:00:00	55.5	44.6	42.3
01/09/2022 03:00	1:00:00	64.1	43.5	39.4
01/09/2022 04:00	1:00:00	57.0	46.3	43.0
01/09/2022 05:00	1:00:00	78.6	50.9	45.6
01/09/2022 06:00	1:00:00	74.1	54.4	50.1
01/09/2022 07:00	1:00:00	74.8	55.5	52.7
01/09/2022 08:00	1:00:00	75.2	55.1	52.6
01/09/2022 09:00	1:00:00	74.8	54.9	52.4
01/09/2022 10:00	1:00:00	79.4	54.3	51.1
01/09/2022 11:00	1:00:00	82.6	55.9	50.1
01/09/2022 12:00	1:00:00	82.9	53.7	50.7
01/09/2022 13:00	1:00:00	72.2	53.4	50.6
01/09/2022 14:00	1:00:00	85.4	54.5	50.7
01/09/2022 15:00	1:00:00	82.6	55.9	50.4
01/09/2022 16:00	1:00:00	75.2	53.5	50.3
01/09/2022 17:00	1:00:00	72.2	53.5	49.6
01/09/2022 18:00	1:00:00	75.3	53.2	48.3
01/09/2022 19:00	1:00:00	82.4	53.3	47.6
01/09/2022 20:00	1:00:00	78.5	54.7	48.7
01/09/2022 21:00	1:00:00	76.5	51.9	47.9
01/09/2022 22:00	1:00:00	92.3	60.0	47.2
01/09/2022 23:00	1:00:00	67.0	49.7	46.0
02/09/2022 00:00	1:00:00	62.9	47.7	44.4
02/09/2022 01:00	1:00:00	65.3	47.3	43.7
02/09/2022 02:00	1:00:00	60.7	45.3	43.1
02/09/2022 03:00	1:00:00	57.5	45.3	43.0
02/09/2022 04:00	1:00:00	57.2	47.4	44.4
02/09/2022 05:00	1:00:00	67.2	51.0	47.6
02/09/2022 06:00	1:00:00	74.3	54.0	51.0
02/09/2022 07:00	1:00:00	70.9	54.1	51.5
02/09/2022 08:00	1:00:00	80.8	55.1	51.5
02/09/2022 09:00	1:00:00	72.1	54.0	50.3
02/09/2022 10:00	1:00:00	80.1	53.9	49.8
02/09/2022 11:00	1:00:00	79.2	53.4	49.1

02/09/2022 12:00	1:00:00	72.4	52.4	48.7
02/09/2022 13:00	1:00:00	76.3	52.7	48.1
02/09/2022 14:00	1:00:00	87.1	56.4	48.1
02/09/2022 15:00	1:00:00	79.5	54.5	48.5
02/09/2022 16:00	1:00:00	84.0	55.2	50.2
02/09/2022 17:00	1:00:00	77.2	54.4	50.5
02/09/2022 18:00	1:00:00	78.7	55.8	49.7
02/09/2022 19:00	1:00:00	75.3	53.1	48.9
02/09/2022 20:00	1:00:00	89.9	54.7	46.9
02/09/2022 21:00	1:00:00	73.6	48.9	44.4
02/09/2022 22:00	1:00:00	75.9	49.1	43.4
02/09/2022 23:00	1:00:00	74.1	47.6	41.9
03/09/2022 00:00	1:00:00	65.9	44.1	39.9
03/09/2022 01:00	1:00:00	69.5	45.5	40.1
03/09/2022 02:00	1:00:00	67.1	42.6	39.6
03/09/2022 03:00	1:00:00	69.8	46.2	38.7
03/09/2022 04:00	1:00:00	62.4	42.4	37.3
03/09/2022 05:00	1:00:00	63.2	46.2	40.4
03/09/2022 06:00	1:00:00	75.7	51.6	46.1
03/09/2022 07:00	1:00:00	75.7	52.9	48.0
03/09/2022 08:00	1:00:00	71.0	51.5	48.2
03/09/2022 09:00	1:00:00	71.2	51.4	48.3
03/09/2022 10:00	1:00:00	81.9	53.8	49.6
03/09/2022 11:00	1:00:00	75.5	54.8	50.6
03/09/2022 12:00	1:00:00	74.8	54.0	51.0
03/09/2022 13:00	1:00:00	86.5	55.5	50.9
03/09/2022 14:00	1:00:00	77.6	54.0	51.2
03/09/2022 15:00	1:00:00	70.7	52.7	50.6
03/09/2022 16:00	1:00:00	70.8	54.1	51.3
03/09/2022 17:00	1:00:00	88.2	58.0	53.0
03/09/2022 18:00	1:00:00	81.5	55.6	51.8
03/09/2022 19:00	1:00:00	81.3	55.4	50.5
03/09/2022 20:00	1:00:00	81.1	55.2	49.5
03/09/2022 21:00	1:00:00	80.4	54.2	48.8
03/09/2022 22:00	1:00:00	78.1	53.8	50.3
03/09/2022 23:00	1:00:00	79.5	54.9	50.7
04/09/2022 00:00	1:00:00	73.5	54.1	49.9
04/09/2022 01:00	1:00:00	74.2	55.7	50.6
04/09/2022 02:00	1:00:00	70.9	51.9	49.0
04/09/2022 03:00	1:00:00	66.9	51.6	49.0
04/09/2022 04:00	1:00:00	68.3	51.4	48.8
04/09/2022 05:00	1:00:00	76.6	53.6	49.9
04/09/2022 06:00	1:00:00	70.3	51.9	46.3
04/09/2022 07:00	1:00:00	73.6	53.1	45.5
04/09/2022 08:00	1:00:00	71.2	50.5	46.5
04/09/2022 09:00	1:00:00	75.3	52.7	46.7
04/09/2022 10:00	1:00:00	76.1	52.3	47.5
04/09/2022 11:00	1:00:00	77.7	51.6	47.9
04/09/2022 12:00	1:00:00	79.0	53.7	48.9
04/09/2022 13:00	1:00:00	74.1	53.9	50.9
04/09/2022 14:00	1:00:00	73.6	53.7	50.6

04/09/2022 15:00	1:00:00	73.8	53.6	50.5
04/09/2022 16:00	1:00:00	75.1	54.8	51.1
04/09/2022 17:00	1:00:00	76.8	55.8	51.8
04/09/2022 18:00	1:00:00	83.4	56.0	52.9
04/09/2022 19:00	1:00:00	86.9	56.8	52.9
04/09/2022 20:00	1:00:00	82.3	57.9	54.3
04/09/2022 21:00	1:00:00	72.3	55.8	52.0
04/09/2022 22:00	1:00:00	82.7	59.8	52.9
04/09/2022 23:00	1:00:00	67.0	53.2	50.9
05/09/2022 00:00	1:00:00	64.7	52.2	49.9
05/09/2022 01:00	1:00:00	63.9	51.8	49.9
05/09/2022 02:00	1:00:00	56.8	49.8	48.3
05/09/2022 03:00	1:00:00	62.5	48.7	47.0
05/09/2022 04:00	1:00:00	58.2	47.5	45.8
05/09/2022 05:00	1:00:00	65.0	51.2	47.7
05/09/2022 06:00	1:00:00	80.3	56.2	52.3
05/09/2022 07:00	1:00:00	72.6	55.8	53.8
05/09/2022 08:00	1:00:00	70.4	55.2	52.8
05/09/2022 09:00	1:00:00	65.4	53.8	51.9
05/09/2022 10:00	1:00:00	72.4	54.8	52.2
05/09/2022 11:00	1:00:00	82.7	56.5	52.8
05/09/2022 12:00	1:00:00	73.7	55.4	53.0
05/09/2022 13:00	1:00:00	77.5	55.6	52.7
05/09/2022 14:00	1:00:00	82.8	56.0	52.7
05/09/2022 15:00	1:00:00	75.5	55.6	53.1
05/09/2022 16:00	1:00:00	82.8	56.8	53.3
05/09/2022 17:00	1:00:00	80.1	56.3	52.9
05/09/2022 18:00	1:00:00	81.0	56.5	52.6
05/09/2022 19:00	1:00:00	82.2	55.5	51.5
05/09/2022 20:00	1:00:00	77.8	54.3	50.8
05/09/2022 21:00	1:00:00	83.7	55.2	50.1
05/09/2022 22:00	1:00:00	78.6	53.8	48.6
05/09/2022 23:00	1:00:00	67.2	50.3	47.1
06/09/2022 00:00	1:00:00	64.4	49.2	46.4
06/09/2022 01:00	1:00:00	60.2	47.5	45.2
06/09/2022 02:00	1:00:00	58.6	47.8	46.0
06/09/2022 03:00	1:00:00	59.1	47.2	45.2
06/09/2022 04:00	1:00:00	64.5	48.8	46.5
06/09/2022 05:00	1:00:00	83.8	53.2	47.5
06/09/2022 06:00	1:00:00	73.1	54.6	52.1
06/09/2022 07:00	1:00:00	77.9	55.2	53.1
06/09/2022 08:00	1:00:00	75.3	55.4	53.0
06/09/2022 09:00	1:00:00	78.5	56.0	51.8
06/09/2022 10:00	1:00:00	79.2	58.5	52.0
06/09/2022 11:00	1:00:00	70.4	55.2	52.0
06/09/2022 12:00	1:00:00	79.0	55.5	52.5
06/09/2022 13:00	1:00:00	70.1	53.7	51.6
06/09/2022 14:00	1:00:00	73.2	56.0	53.3

Table B.5 – Position B, Night-time $L_{A90,15min}$ Log

Time	Weds 31/08/22	Thurs 01/09/22	Fri 02/09/22	Sat 03/09/22	Sun 04/09/22	Mon 05/09/22
(hh:mm)	$L_{A90,15mins}$ (dB)	$L_{A90,15mins}$ (dB)	$L_{A90,15mins}$ (dB)	$L_{A90,15mins}$ (dB)	$L_{A90,15mins}$ (dB)	$L_{A90,15mins}$ (dB)
23:00	44.5	47.2	42.2	50.4	50.8	47.0
23:15	44.1	46.3	42.9	50.7	51.5	47.5
23:30	43.8	46.4	41.2	51.3	51.4	46.8
23:45	43.5	45.1	42.0	50.9	50.1	47.6
00:00	42.5	44.8	40.6	49.9	49.9	47.4
00:15	42.5	44.3	40.3	49.3	49.8	46.6
00:30	41.5	44.2	41.1	50.6	49.6	46.5
00:45	42.2	44.4	38.6	50.2	50.5	45.7
01:00	41.2	43.9	41.5	52.1	50.4	45.3
01:15	41.5	44.2	41.2	51.6	50.1	45.7
01:30	42.3	43.7	39.6	50.4	49.9	44.9
01:45	42.8	43.2	39.4	49.6	49.5	45.0
02:00	42.0	42.9	40.2	48.8	48.9	46.0
02:15	43.1	42.8	39.8	49.0	48.7	46.1
02:30	43.1	43.5	39.6	49.0	48.2	46.0
02:45	41.7	43.3	39.0	49.2	47.8	45.8
03:00	41.1	42.4	39.3	49.2	47.8	45.2
03:15	39.2	42.9	40.8	48.7	47.3	45.4
03:30	39.0	43.6	40.4	48.8	46.7	44.9
03:45	39.5	43.1	37.3	49.2	46.8	45.6
04:00	41.7	43.6	36.4	49.0	46.4	46.8
04:15	43.7	44.2	37.9	47.9	45.7	46.5
04:30	44.8	45.5	38.6	49.1	45.8	46.9
04:45	43.9	46.5	38.4	49.3	45.6	46.1
05:00	44.2	46.9	38.8	49.5	46.7	46.4
05:15	46.3	47.4	41.1	49.5	49.4	48.1
05:30	46.8	48.9	42.2	51.3	50.4	50.1
05:45	46.5	48.5	44.1	50.3	49.8	50.3
06:00	48.3	49.9	45.0	50.3	51.2	51.5
06:15	50.3	51.4	46.6	48.8	52.1	52.1
06:30	52.4	51.7	45.4	46.9	53.2	52.7
06:45	51.5	51.8	47.5	44.5	53.9	52.7

Table B.6 – Position C, Hourly Log

Start	Duration	$L_{Amax,F}$ (dB)	L_{Aeq} (dB)	L_{A90} (dB)
31/08/2022 11:00	1:00:00	74.3	57.9	54.8
31/08/2022 12:00	1:00:00	73.2	57.1	53.1
31/08/2022 13:00	1:00:00	67.2	56.9	53.2
31/08/2022 14:00	1:00:00	75.2	57.7	54.1
31/08/2022 15:00	1:00:00	82.6	59.3	54.9
31/08/2022 16:00	1:00:00	74.9	59.4	56.0
31/08/2022 17:00	1:00:00	72.6	58.9	55.3
31/08/2022 18:00	1:00:00	79.2	58.4	53.6
31/08/2022 19:00	1:00:00	63.2	55.6	53.3
31/08/2022 20:00	1:00:00	67.7	56.3	54.3
31/08/2022 21:00	1:00:00	74.8	56.5	53.8
31/08/2022 22:00	1:00:00	66.1	55.8	53.5
31/08/2022 23:00	1:00:00	72.9	55.1	52.7
01/09/2022 00:00	1:00:00	78.3	55.6	53.1
01/09/2022 01:00	1:00:00	67.7	54.6	52.4
01/09/2022 02:00	1:00:00	62.8	54.9	52.6
01/09/2022 03:00	1:00:00	62.2	52.8	49.7
01/09/2022 04:00	1:00:00	63.6	53.3	48.3
01/09/2022 05:00	1:00:00	66.4	56.9	53.6
01/09/2022 06:00	1:00:00	78.7	59.9	56.0
01/09/2022 07:00	1:00:00	71.1	60.0	56.6
01/09/2022 08:00	1:00:00	72.0	59.4	56.2
01/09/2022 09:00	1:00:00	70.8	57.6	54.1
01/09/2022 10:00	1:00:00	79.5	61.7	54.5
01/09/2022 11:00	1:00:00	73.6	58.2	55.4
01/09/2022 12:00	1:00:00	70.9	58.1	54.9
01/09/2022 13:00	1:00:00	69.8	58.4	55.3
01/09/2022 14:00	1:00:00	82.3	59.7	56.1
01/09/2022 15:00	1:00:00	80.0	60.9	56.6
01/09/2022 16:00	1:00:00	80.9	60.1	57.0
01/09/2022 17:00	1:00:00	71.9	59.3	56.3
01/09/2022 18:00	1:00:00	79.1	58.2	55.1
01/09/2022 19:00	1:00:00	74.3	56.4	54.0
01/09/2022 20:00	1:00:00	75.2	57.6	54.0
01/09/2022 21:00	1:00:00	77.6	56.8	53.5
01/09/2022 22:00	1:00:00	75.1	55.9	53.0
01/09/2022 23:00	1:00:00	69.2	54.9	51.8
02/09/2022 00:00	1:00:00	70.7	54.3	51.4
02/09/2022 01:00	1:00:00	68.7	54.1	51.2
02/09/2022 02:00	1:00:00	61.9	53.7	51.6
02/09/2022 03:00	1:00:00	64.5	53.9	51.7
02/09/2022 04:00	1:00:00	64.8	53.1	49.8
02/09/2022 05:00	1:00:00	75.5	57.7	52.7
02/09/2022 06:00	1:00:00	75.0	59.9	57.0
02/09/2022 07:00	1:00:00	68.8	59.5	56.8
02/09/2022 08:00	1:00:00	71.1	58.9	56.1
02/09/2022 09:00	1:00:00	67.3	58.6	56.0
02/09/2022 10:00	1:00:00	67.5	57.8	55.3

02/09/2022 11:00	1:00:00	73.9	58.3	56.0
02/09/2022 12:00	1:00:00	74.6	58.3	55.2
02/09/2022 13:00	1:00:00	72.7	57.9	55.6
02/09/2022 14:00	1:00:00	91.5	61.2	55.9
02/09/2022 15:00	1:00:00	82.1	59.9	56.4
02/09/2022 16:00	1:00:00	77.8	60.0	57.5
02/09/2022 17:00	1:00:00	79.3	59.8	57.0
02/09/2022 18:00	1:00:00	77.8	59.2	56.5
02/09/2022 19:00	1:00:00	75.8	58.0	56.0
02/09/2022 20:00	1:00:00	74.6	56.9	55.1
02/09/2022 21:00	1:00:00	63.3	56.6	55.0
02/09/2022 22:00	1:00:00	65.7	56.2	55.1
02/09/2022 23:00	1:00:00	60.7	55.5	54.4
03/09/2022 00:00	1:00:00	59.7	55.0	54.0
03/09/2022 01:00	1:00:00	64.9	55.6	54.5
03/09/2022 02:00	1:00:00	59.7	55.1	53.6
03/09/2022 03:00	1:00:00	67.7	55.7	54.0
03/09/2022 04:00	1:00:00	63.1	54.9	53.1
03/09/2022 05:00	1:00:00	64.7	56.5	54.3
03/09/2022 06:00	1:00:00	81.9	58.7	55.3
03/09/2022 07:00	1:00:00	70.3	57.1	55.1
03/09/2022 08:00	1:00:00	70.3	58.1	56.3
03/09/2022 09:00	1:00:00	68.0	58.2	56.5
03/09/2022 10:00	1:00:00	74.3	58.7	56.6
03/09/2022 11:00	1:00:00	70.5	58.4	56.5
03/09/2022 12:00	1:00:00	68.0	58.9	57.0
03/09/2022 13:00	1:00:00	83.6	59.3	56.9
03/09/2022 14:00	1:00:00	71.3	59.2	57.3
03/09/2022 15:00	1:00:00	68.6	58.8	56.9
03/09/2022 16:00	1:00:00	75.0	59.4	57.4
03/09/2022 17:00	1:00:00	79.5	60.5	58.6
03/09/2022 18:00	1:00:00	67.3	60.1	57.9
03/09/2022 19:00	1:00:00	66.1	58.8	57.0
03/09/2022 20:00	1:00:00	67.3	58.3	56.7
03/09/2022 21:00	1:00:00	65.1	58.1	56.4
03/09/2022 22:00	1:00:00	65.2	58.0	56.3
03/09/2022 23:00	1:00:00	65.1	57.9	56.2
04/09/2022 00:00	1:00:00	79.9	58.2	55.9
04/09/2022 01:00	1:00:00	63.6	57.6	56.0
04/09/2022 02:00	1:00:00	65.8	58.3	56.7
04/09/2022 03:00	1:00:00	65.4	58.1	56.6
04/09/2022 04:00	1:00:00	67.3	58.6	56.8
04/09/2022 05:00	1:00:00	68.9	59.7	57.7
04/09/2022 06:00	1:00:00	67.9	58.3	54.5
04/09/2022 07:00	1:00:00	70.4	56.0	52.5
04/09/2022 08:00	1:00:00	76.6	58.1	56.2
04/09/2022 09:00	1:00:00	75.6	57.9	55.9
04/09/2022 10:00	1:00:00	72.8	57.7	55.8
04/09/2022 11:00	1:00:00	70.8	58.1	56.2
04/09/2022 12:00	1:00:00	66.2	58.5	56.5
04/09/2022 13:00	1:00:00	78.0	59.7	57.5

04/09/2022 14:00	1:00:00	69.7	59.4	57.3
04/09/2022 15:00	1:00:00	72.3	59.3	57.2
04/09/2022 16:00	1:00:00	72.9	59.6	57.4
04/09/2022 17:00	1:00:00	79.1	60.2	58.0
04/09/2022 18:00	1:00:00	70.9	60.4	58.0
04/09/2022 19:00	1:00:00	65.4	59.1	57.3
04/09/2022 20:00	1:00:00	78.0	59.9	57.9
04/09/2022 21:00	1:00:00	68.6	59.5	57.8
04/09/2022 22:00	1:00:00	70.5	60.9	59.0
04/09/2022 23:00	1:00:00	71.6	59.2	57.7
05/09/2022 00:00	1:00:00	66.1	59.3	57.7
05/09/2022 01:00	1:00:00	67.9	59.8	58.2
05/09/2022 02:00	1:00:00	66.7	59.0	57.4
05/09/2022 03:00	1:00:00	66.4	58.9	57.3
05/09/2022 04:00	1:00:00	67.0	58.8	57.0
05/09/2022 05:00	1:00:00	66.2	60.4	58.4
05/09/2022 06:00	1:00:00	79.3	62.2	60.3
05/09/2022 07:00	1:00:00	69.3	61.8	60.0
05/09/2022 08:00	1:00:00	77.1	61.6	59.1
05/09/2022 09:00	1:00:00	69.9	60.3	58.2
05/09/2022 10:00	1:00:00	70.9	60.1	58.0
05/09/2022 11:00	1:00:00	70.5	60.2	58.1
05/09/2022 12:00	1:00:00	69.0	60.7	58.6
05/09/2022 13:00	1:00:00	74.9	60.9	58.8
05/09/2022 14:00	1:00:00	72.0	60.6	58.4
05/09/2022 15:00	1:00:00	73.2	61.2	58.8
05/09/2022 16:00	1:00:00	80.9	62.1	59.7
05/09/2022 17:00	1:00:00	73.7	61.7	59.3
05/09/2022 18:00	1:00:00	73.3	61.3	58.9
05/09/2022 19:00	1:00:00	70.3	59.6	57.4
05/09/2022 20:00	1:00:00	74.4	58.8	56.4
05/09/2022 21:00	1:00:00	68.7	58.8	56.9
05/09/2022 22:00	1:00:00	73.2	58.9	56.8
05/09/2022 23:00	1:00:00	66.2	58.9	57.0
06/09/2022 00:00	1:00:00	70.3	58.4	56.6
06/09/2022 01:00	1:00:00	65.1	58.0	56.5
06/09/2022 02:00	1:00:00	63.6	57.9	56.4
06/09/2022 03:00	1:00:00	64.2	57.4	55.7
06/09/2022 04:00	1:00:00	67.9	58.0	56.3
06/09/2022 05:00	1:00:00	68.8	59.4	57.2
06/09/2022 06:00	1:00:00	78.3	61.4	59.1
06/09/2022 07:00	1:00:00	67.6	61.4	59.5
06/09/2022 08:00	1:00:00	70.2	61.2	59.1
06/09/2022 09:00	1:00:00	71.3	60.2	57.9
06/09/2022 10:00	1:00:00	67.5	59.8	57.7
06/09/2022 11:00	1:00:00	70.4	60.0	57.8
06/09/2022 12:00	1:00:00	71.2	60.2	58.0
06/09/2022 13:00	1:00:00	79.2	63.5	58.6
06/09/2022 14:00	1:00:00	68.2	61.3	59.3

Table B.7 – Position C, Night-time $L_{A90,15min}$ Log

Time (hh:mm)	Weds 31/08/22 $L_{A90,15mins}$ (dB)	Thurs 01/09/22 $L_{A90,15mins}$ (dB)	Fri 02/09/22 $L_{A90,15mins}$ (dB)	Sat 03/09/22 $L_{A90,15mins}$ (dB)	Sun 04/09/22 $L_{A90,15mins}$ (dB)	Mon 05/09/22 $L_{A90,15mins}$ (dB)
23:00	52.4	52.3	54.6	56.0	57.8	57.3
23:15	52.1	51.7	55.0	56.1	57.6	56.9
23:30	53.2	52.0	54.4	56.3	57.7	57.0
23:45	53.1	51.4	54.2	56.3	57.6	56.8
00:00	53.4	51.6	53.7	56.0	57.4	57.3
00:15	52.8	51.7	53.8	55.8	57.6	56.7
00:30	52.9	51.4	54.6	56.1	57.8	56.5
00:45	53.2	51.2	54.8	55.9	58.4	56.3
01:00	53.1	51.3	54.6	56.0	58.0	56.6
01:15	51.9	51.1	55.0	56.0	57.8	56.6
01:30	52.2	51.3	54.6	55.7	58.6	56.4
01:45	52.8	51.1	54.1	56.2	58.3	56.4
02:00	52.7	51.8	54.4	56.7	57.7	56.8
02:15	52.4	51.6	54.9	56.8	57.4	56.7
02:30	52.9	51.5	53.6	56.6	57.1	56.6
02:45	52.5	51.7	53.0	56.6	57.5	56.0
03:00	52.4	52.0	53.2	56.4	57.6	56.1
03:15	50.0	51.7	54.1	56.8	57.4	56.1
03:30	49.8	51.8	55.2	56.7	57.1	55.3
03:45	48.8	51.4	54.5	56.5	57.3	55.4
04:00	47.6	49.6	53.5	56.8	56.9	56.0
04:15	47.7	49.6	52.6	56.3	57.0	56.1
04:30	52.0	49.7	53.2	57.1	57.0	56.5
04:45	53.2	50.9	54.9	57.2	57.4	56.6
05:00	52.6	51.4	54.0	57.4	57.5	56.6
05:15	53.7	53.2	54.0	57.3	58.8	57.1
05:30	55.7	55.8	54.4	58.5	59.5	58.5
05:45	54.4	55.1	55.5	58.3	59.1	58.1
06:00	54.5	55.9	55.8	58.9	60.2	58.6
06:15	56.2	57.3	55.4	56.5	60.0	59.1
06:30	57.8	57.8	55.3	54.4	60.6	59.3
06:45	56.3	57.0	55.1	53.8	60.4	59.7

Figure B.6 – Statistical Analysis of Background Sound Levels Measured at Position A (Wednesday, 31 August 2022 to Thursday, 01 September 2022)

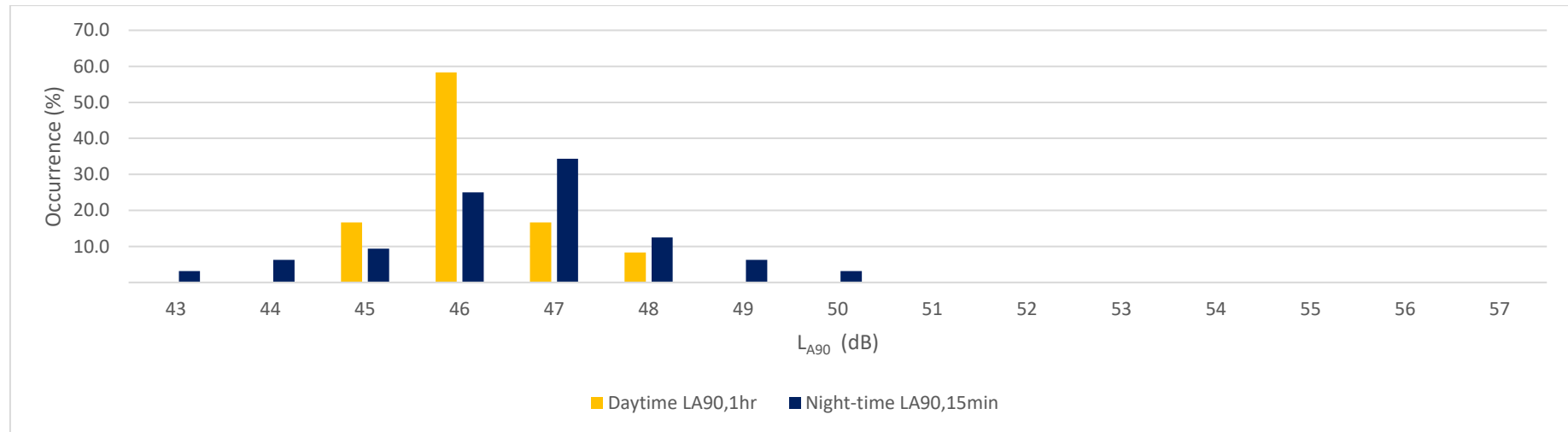


Figure B.7 – Statistical Analysis of Background Sound Levels Measured at Position A (Thursday, 01 September 2022 to Friday, 02 September 2022)

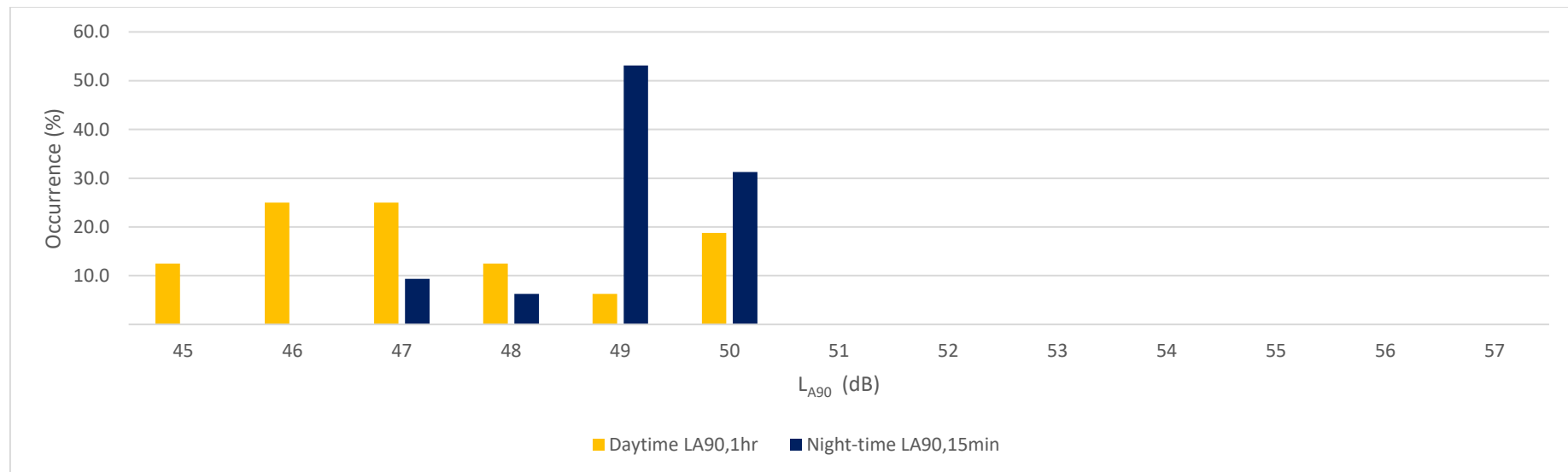


Figure B.8 – Statistical Analysis of Background Sound Levels Measured at Position A (Friday, 02 September 2022 to Saturday, 03 September 2022)

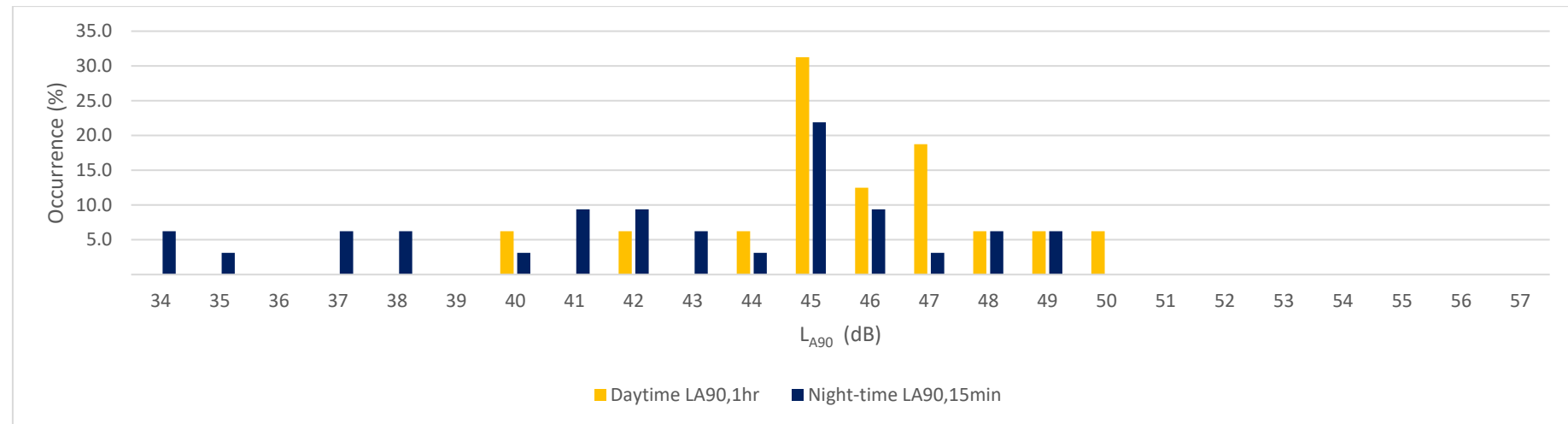


Figure B.9 – Statistical Analysis of Background Sound Levels Measured at Position A (Saturday, 03 September 2022 to Sunday, 04 September 2022)

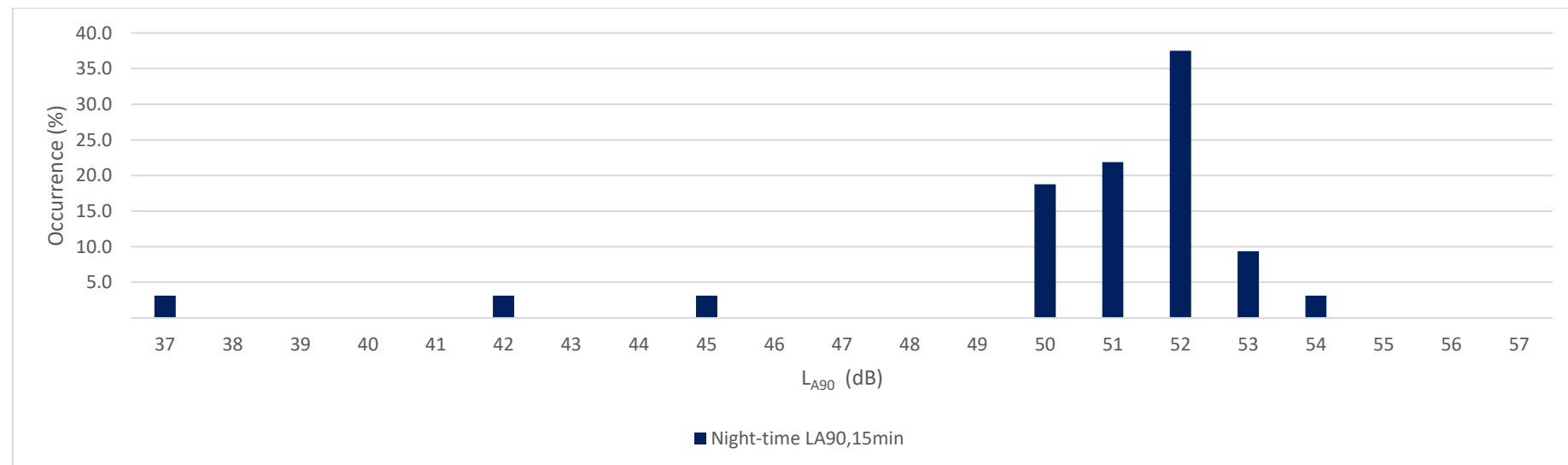


Figure B.10 – Statistical Analysis of Background Sound Levels Measured at Position B (Wednesday, 31 August 2022 to Thursday, 01 September 2022)

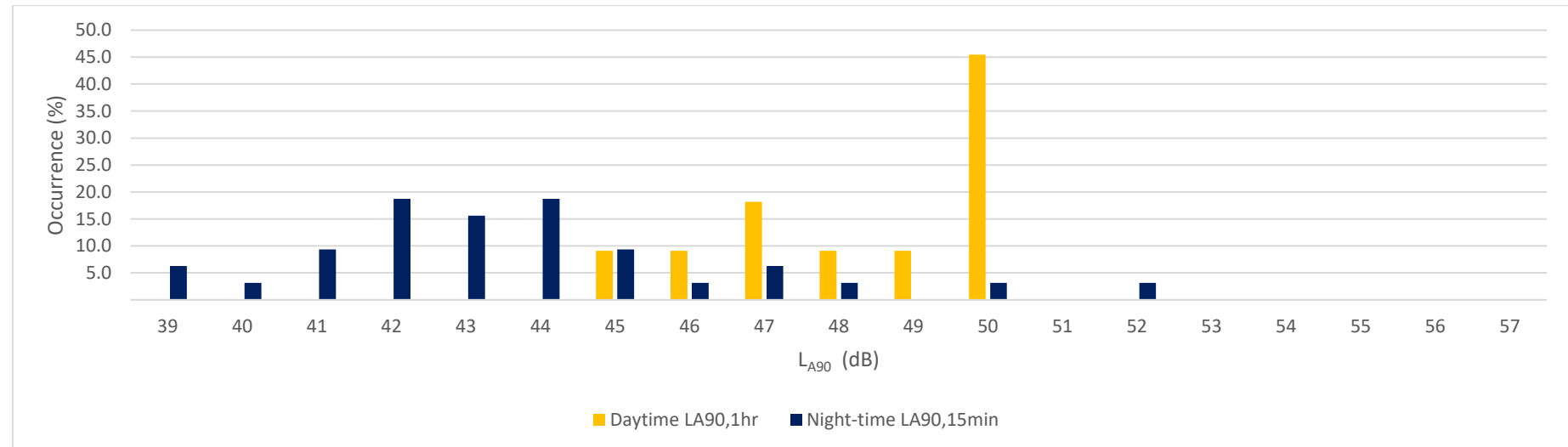


Figure B.11 – Statistical Analysis of Background Sound Levels Measured at Position B (Thursday, 01 September 2022 to Friday, 02 September 2022)

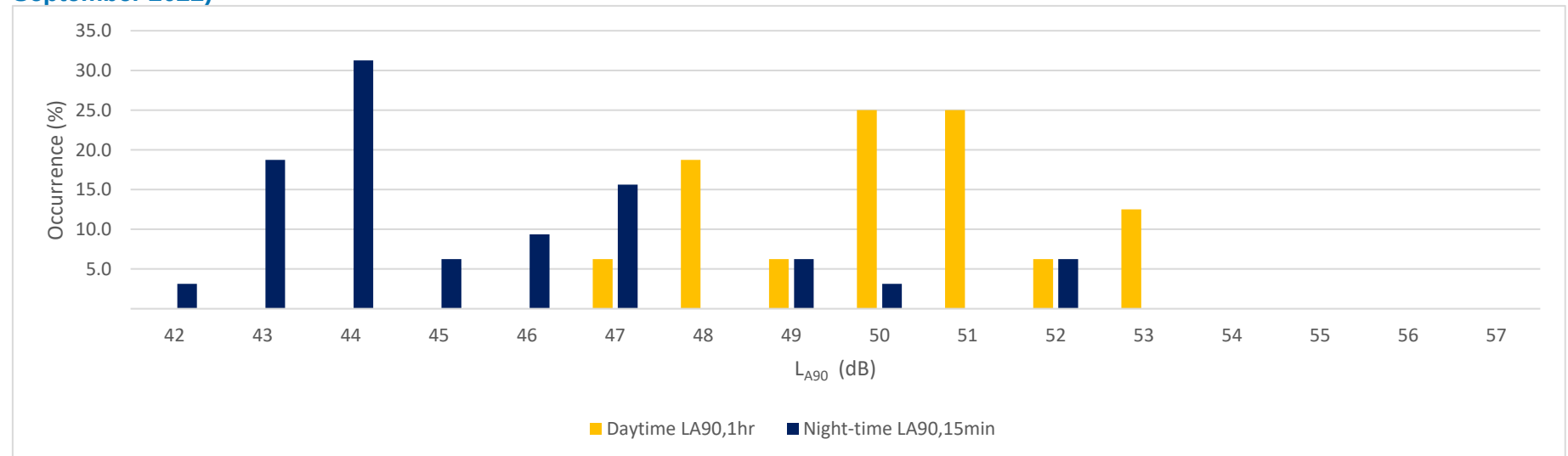


Figure B.12 – Statistical Analysis of Background Sound Levels Measured at Position B (Friday, 02 September 2022 to Saturday, 03 September 2022)

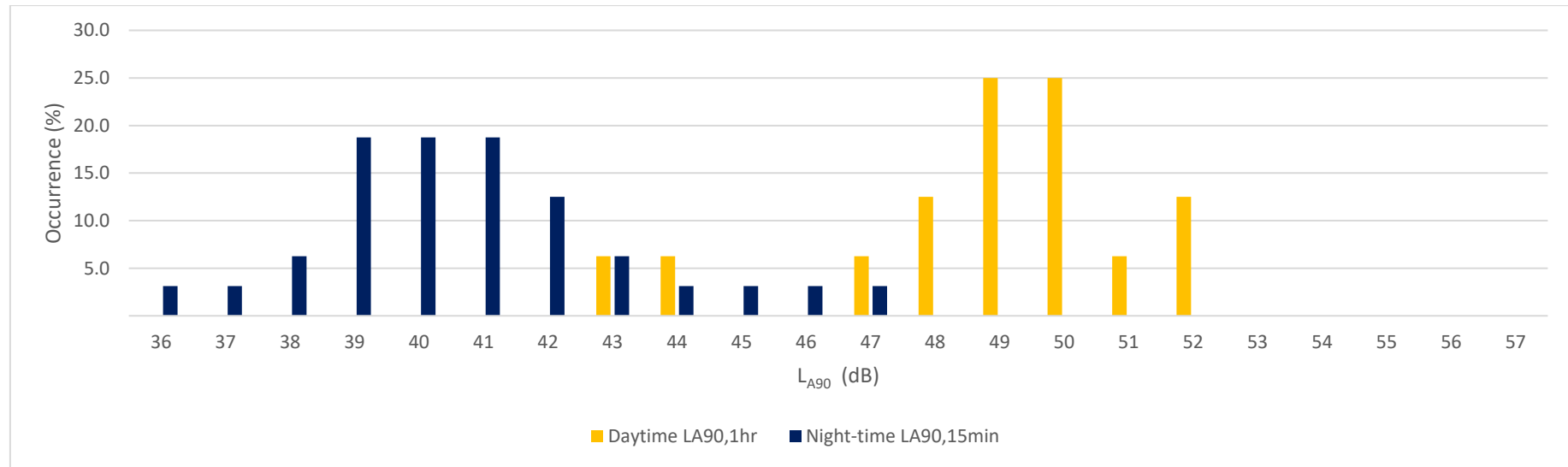


Figure B.13 – Statistical Analysis of Background Sound Levels Measured at Position B (Saturday, 03 September 2022 to Saturday, 03 September 2022)

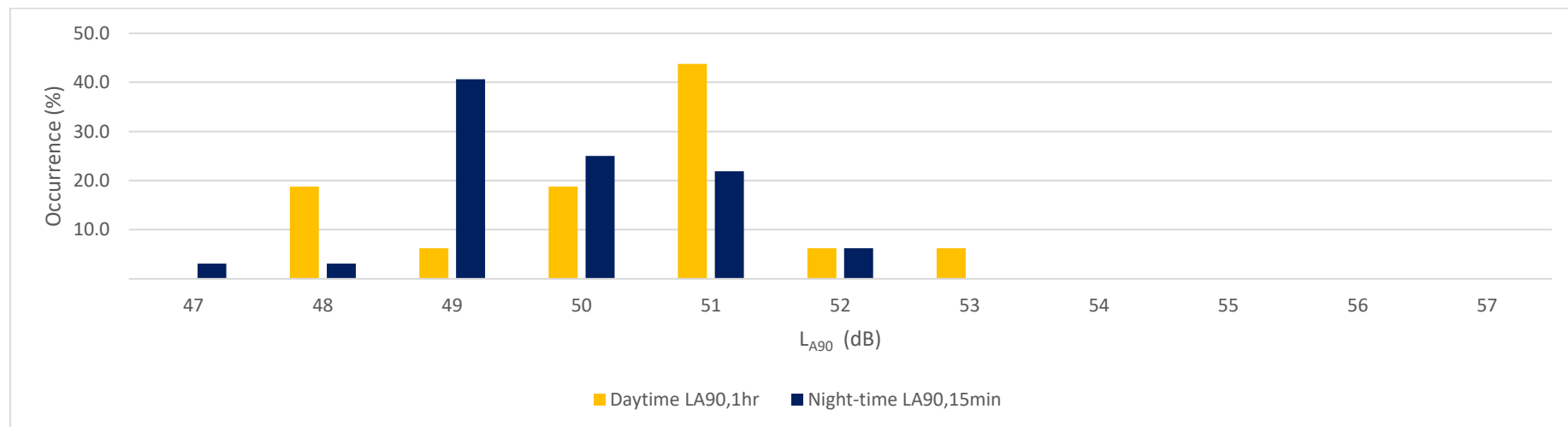


Figure B.14 – Statistical Analysis of Background Sound Levels Measured at Position B (Sunday, 04 September 2022 to Monday, 05 September 2022)

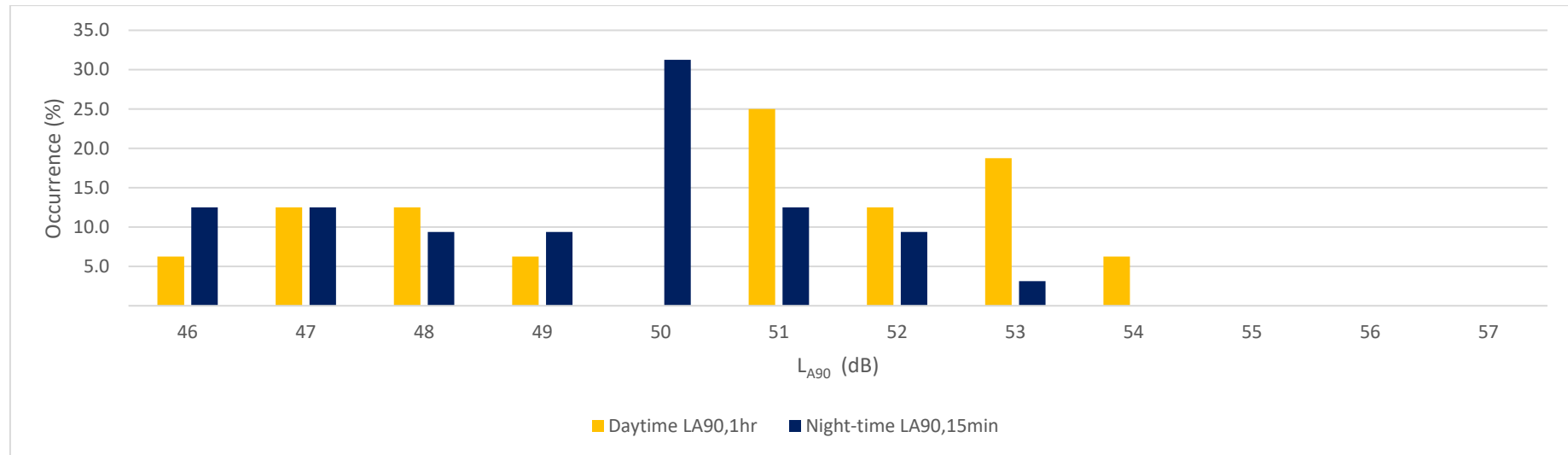


Figure B.15 – Statistical Analysis of Background Sound Levels Measured at Position B (Monday, 05 September 2022 to Tuesday, 06 September 2022)

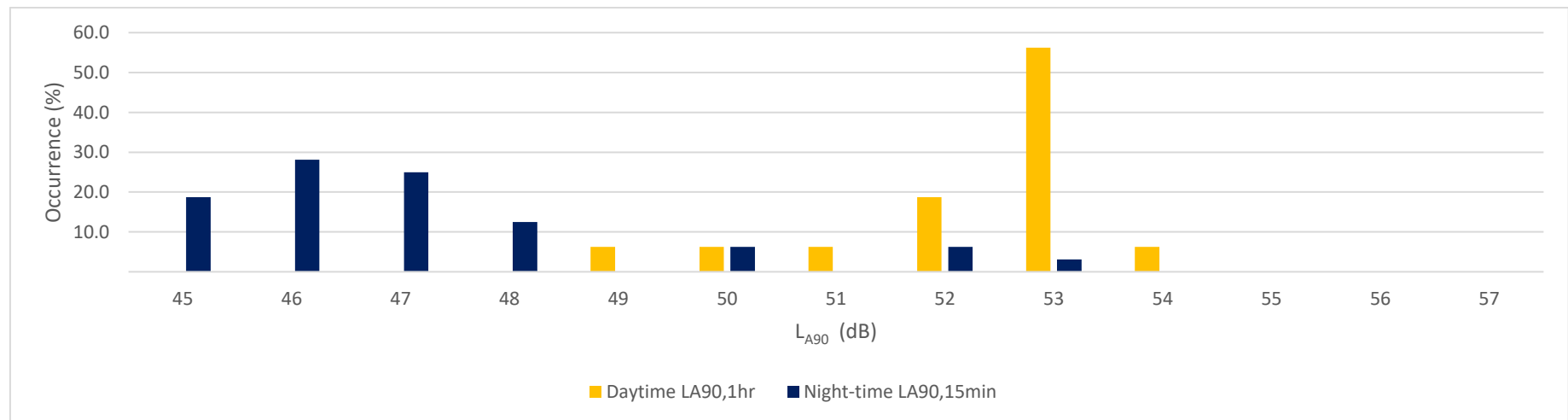


Figure B.16 – Statistical Analysis of Background Sound Levels Measured at Position C (Wednesday, 31 August 2022 to Thursday, 01 September 2022)

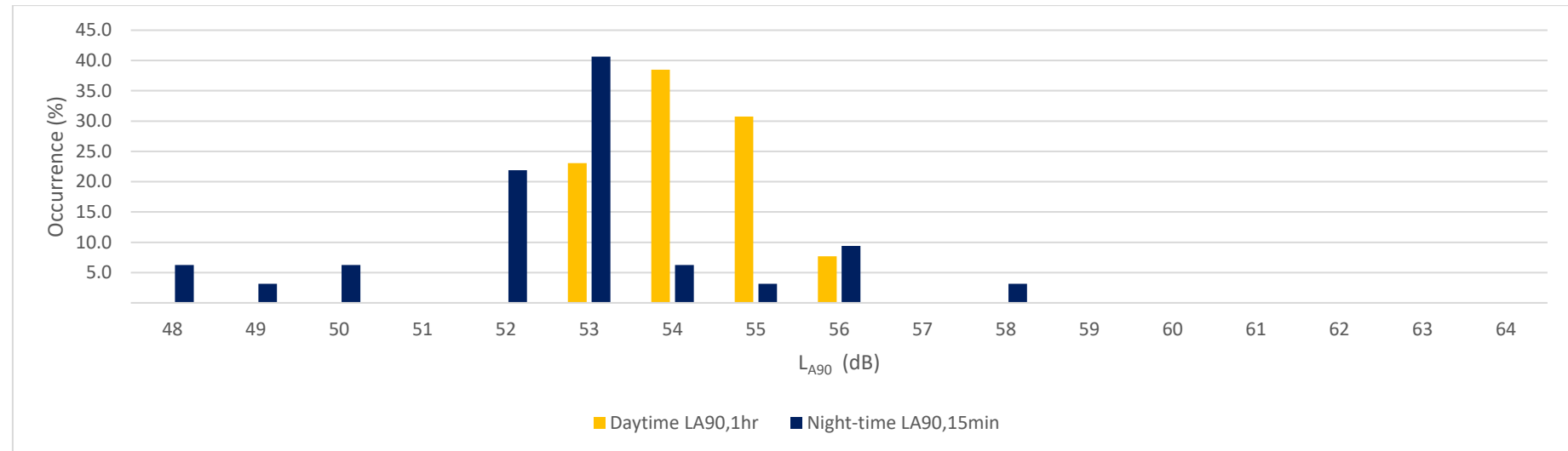


Figure B.17 – Statistical Analysis of Background Sound Levels Measured at Position C (Thursday, 01 September 2022 to Friday, 02 September 2022)

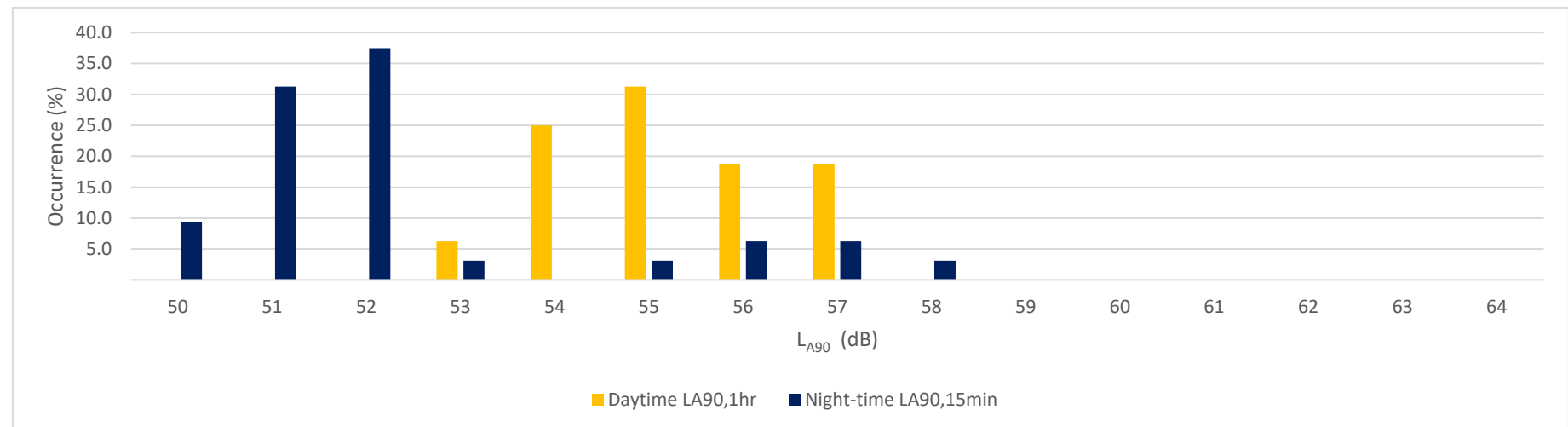


Figure B.18 – Statistical Analysis of Background Sound Levels Measured at Position C (Friday, 02 September 2022 to Saturday, 03 September 2022)

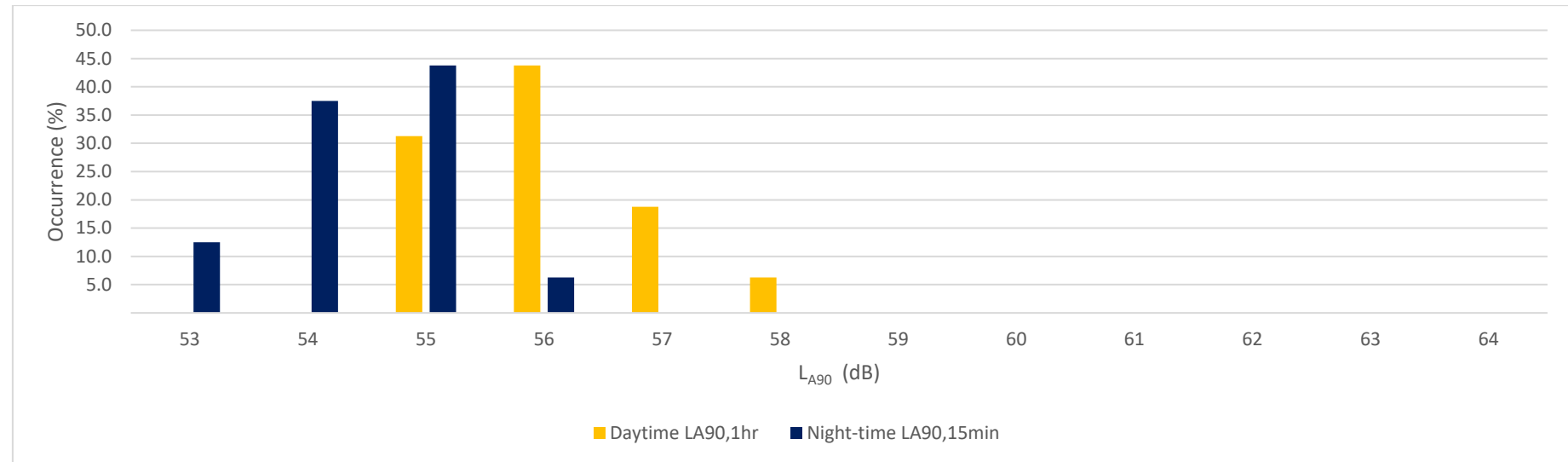


Figure B.19 – Statistical Analysis of Background Sound Levels Measured at Position C (Saturday, 03 September 2022 to Saturday, 03 September 2022)

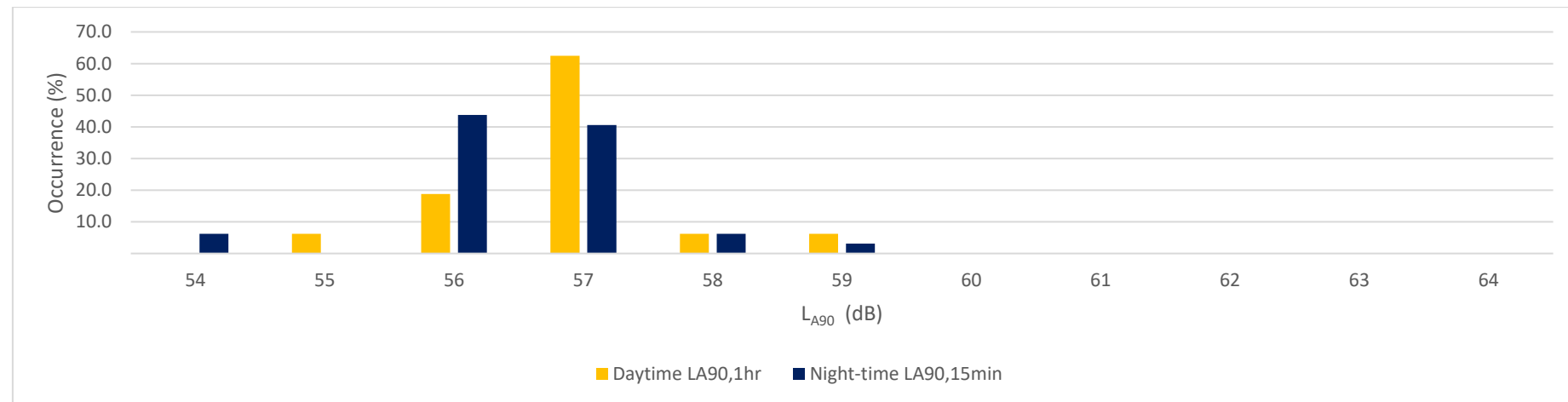


Figure B.20 – Statistical Analysis of Background Sound Levels Measured at Position C (Sunday, 04 September 2022 to Monday, 05 September 2022)

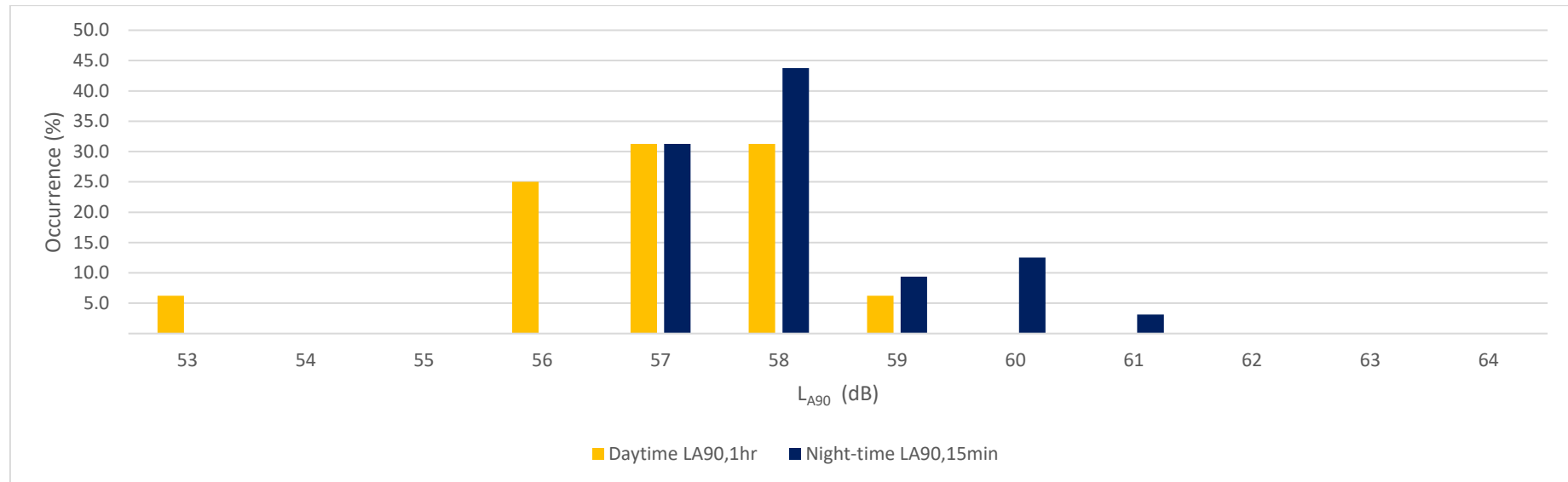
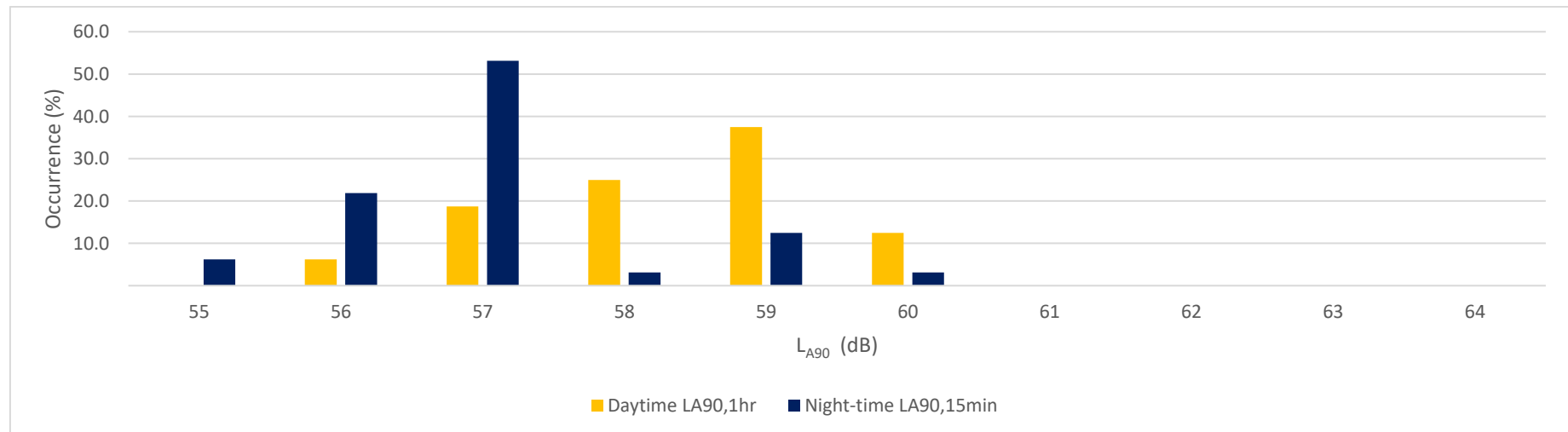


Figure B.21 – Statistical Analysis of Background Sound Levels Measured at Position C (Monday, 05 September 2022 to Tuesday, 06 September 2022)



APPENDIX C - DRAWING LISTS

The following ABP Port drawings have been used in our assessment;

Table C.1 – Drawing List

Drawing Title	Drawing Number	Rev	Date
Phoenix Wharf - Port Talbot	PT_Phoenix_Wharf	-	05/10/2021