Intermodal Logistics Park North Ltd

INTERMODAL LOGISTICS PARK NORTH (ILPN)

Intermodal Logistics Park North (ILPN) Strategic Rail Freight Interchange (SRFI)

Project reference TR510001

Preliminary Environmental Information Report (PEIR)

Appendix 9.5: Noise & vibration baseline survey data & results

October 2025

Planning Act 2008

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

This document forms a part of a Preliminary Environmental Information Report (PEIR) for the Intermodal Logistics Park North (ILPN) project.

A PEIR presents environmental information to assist consultees to form an informed view of the likely significant environmental effects of a proposed development and provide feedback.

This PEIR has been prepared by the project promoter, Intermodal Logistics Park North Ltd. The Proposed Development is described in Chapter 3 of the PEIR and is the subject of a public consultation.

Details of how to respond to the public consultation are provided at the end of Chapter 1 of the PEIR and on the project website:

https://www.tritaxbigbox.co.uk/our-spaces/intermodal-logistics-park-north/

This feedback will be taken into account by Intermodal Logistics Park North Ltd in the preparation of its application for a Development Consent Order for the project.

Appendix 9.5 ◆ Noise & vibration baseline survey data & results

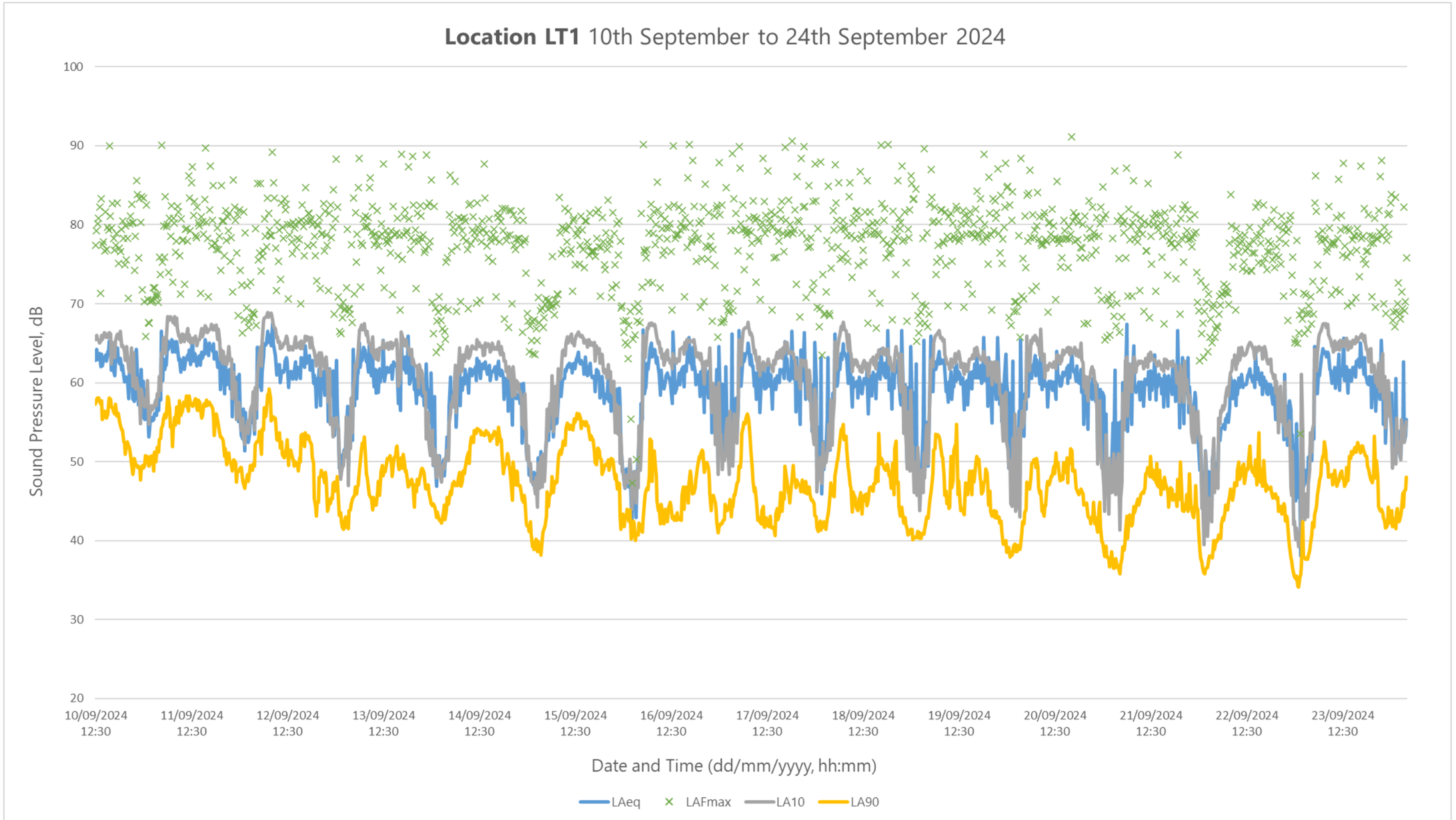
SURVEY LOCATION AND REPRESENTATIVE RECEPTOR NARRATIVE

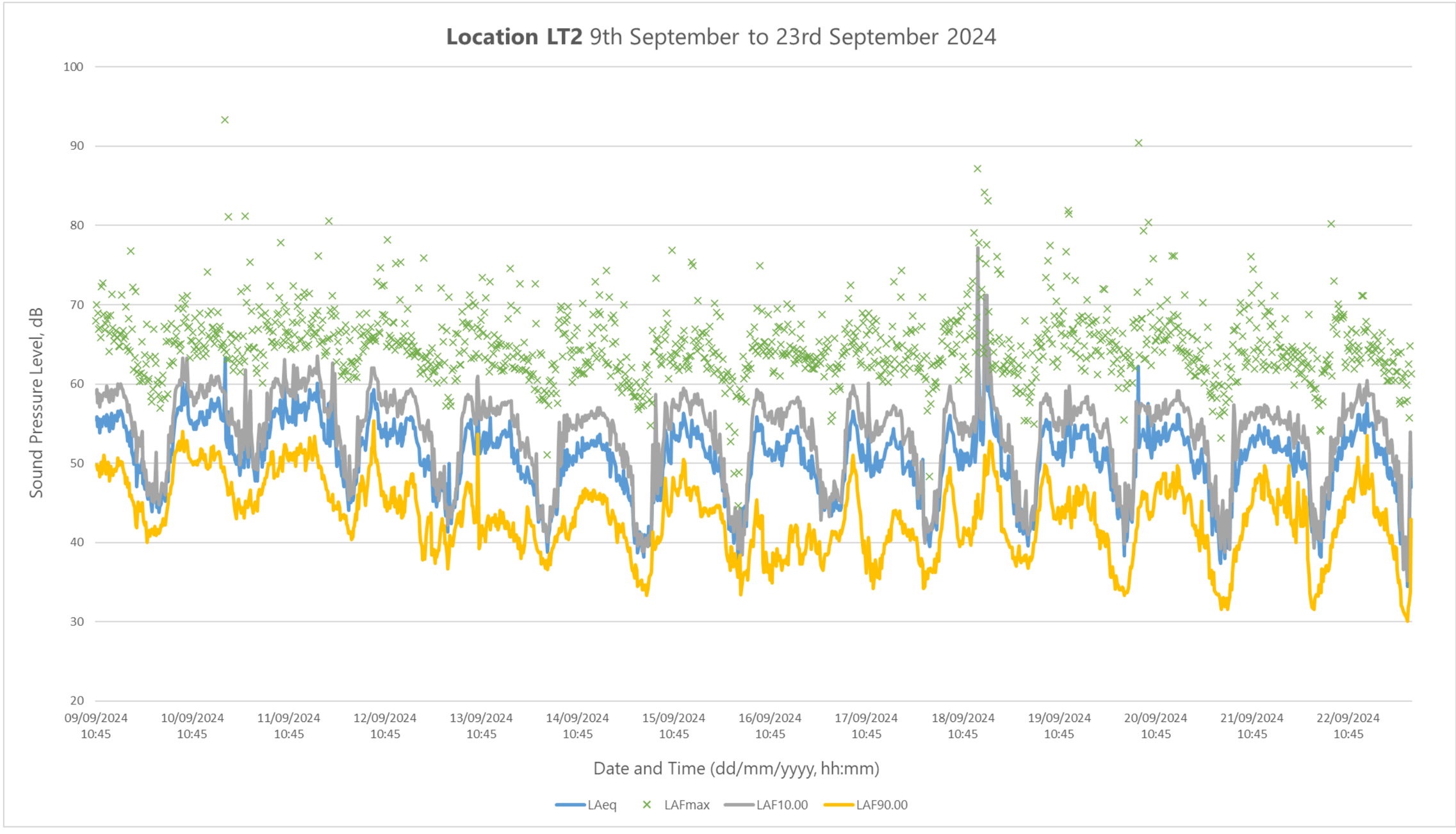
Table 9.1 Survey locations which receptors they represent

Survey Location	Representative of Receptor(s)	Notes
LT1	R03	Monitoring location is at receptor location.
LT2	R02	Receptor and survey location in close proximity, no correction required.
LT3	R01	Monitoring location considered representative of receptor location although receptor is further from the immediate road traffic noise, the background sound levels are likely to be representative.
LT4	R28	Monitoring location is at receptor location.
LT5	R20,R21,R22,R23,R24,R25,R26,R27	LT5 is closest monitoring location to R23 and R24. The rest of the receptor locations are closet to this long-term monitoring position. There are some additional short term measurements which may supplement this data and result in slightly different background values. This interaction is currently being analysed and will be determined in the ES. At this location the night distributions for both wind directions have a twin peak, so a lower value than the mode had been adopted as a conservative approach. The modal background at night was 50 dB under easterly winds and 51 dB under westerly winds. The lower quartile background value of 44 dB under easterly winds and 43 dB under westerly winds has been adopted.
LT6	R15, R16	LT6 is the closest monitoring position to these receptors and is considered representative.
LT7	R11, R12, R13 R14	At the same location as receptor R14. R11, R12, R13 are closer to the M6, than the monitoring location therefore selection of the monitoring but considered worst case.
LT8	R10	Receptor and monitoring locations similar. However, the night-time data set under or easterly winds is very limited. Therefore, to derive the background level at night for easterly wind direction, a 6 dB reduction was applied to the daytime background sound level. This correction was based on the difference between the day and night-time background sound levels at LT9 (the next closest location) under easterly winds.

Survey Location	Representative of Receptor(s)	Notes
LT9	R08, R09	Receptor R08 very close to monitoring location. R09 also close to this monitoring location
LT10	R07	Receptor R07 at monitoring location.
LT11	R05, R06	Monitoring location LT11 very close to R05. Also considered to be representative of R06 given the exposure to rail noise and the increased distance to the A49 compared to other long term monitoring locations
LT12	R04	LT12 considered most representative for this receptor location.
ST4	R17, R18, R19	ST4 considered most representative for R17, R18, R19. Adopted levels were supplemented with the long term measurements taken at LT5 to obtain the typical level.

LONG-TERM NOISE MEASUREMENT SUMMARY GRAPHS




Location LT2 9th September to 23rd September 2024
Sound Pressure Level, dB
100
90
80
70
60
50
40
30
20
09/09/2024 10:45
10/09/2024 10:45
11/09/2024 10:45
12/09/2024 10:45
13/09/2024 10:45
14/09/2024 10:45
15/09/2024 10:45
16/09/2024 10:45
17/09/2024 10:45
18/09/2024 10:45
19/09/2024 10:45
20/09/2024 10:45
21/09/2024 10:45
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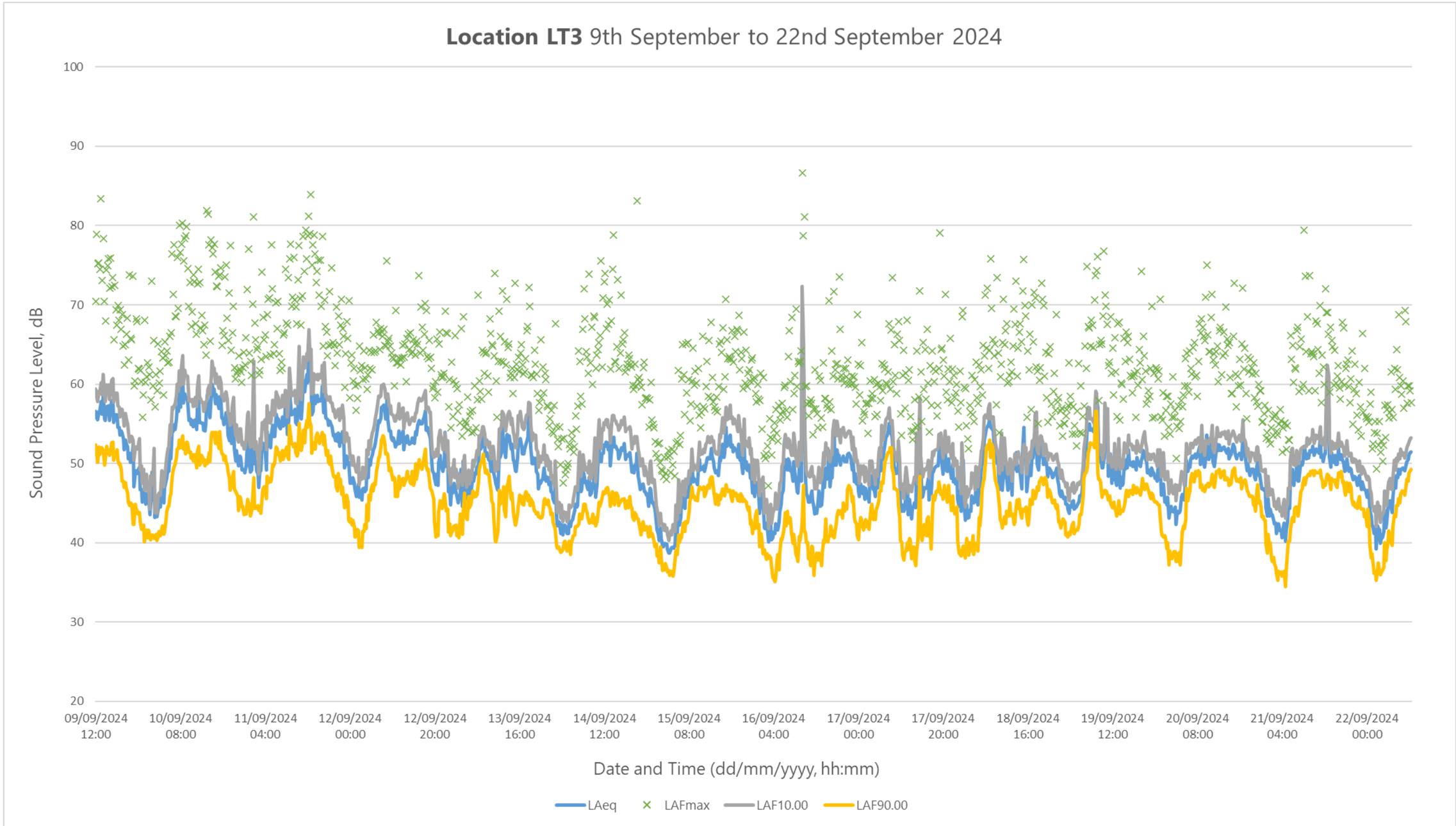
Date and Time (dd/mm/yyyy, hh:mm)
LAeq
LAFmax
LAF10.00
LAF90.00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Sound Pressure Level, dB
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90
80
70
60
50
40
30
20
09/09/2024 12:00
10/09/2024 08:00
11/09/2024 04:00
12/09/2024 00:00
12/09/2024 20:00
13/09/2024 16:00
14/09/2024 12:00
15/09/2024 08:00
16/09/2024 04:00
17/09/2024 00:00
17/09/2024 20:00
18/09/2024 16:00
19/09/2024 12:00
20/09/2024 08:00
21/09/2024 04:00
22/09/2024 00:00
Date and Time (dd/mm/yyyy, hh:mm)
LAeq
LAFmax
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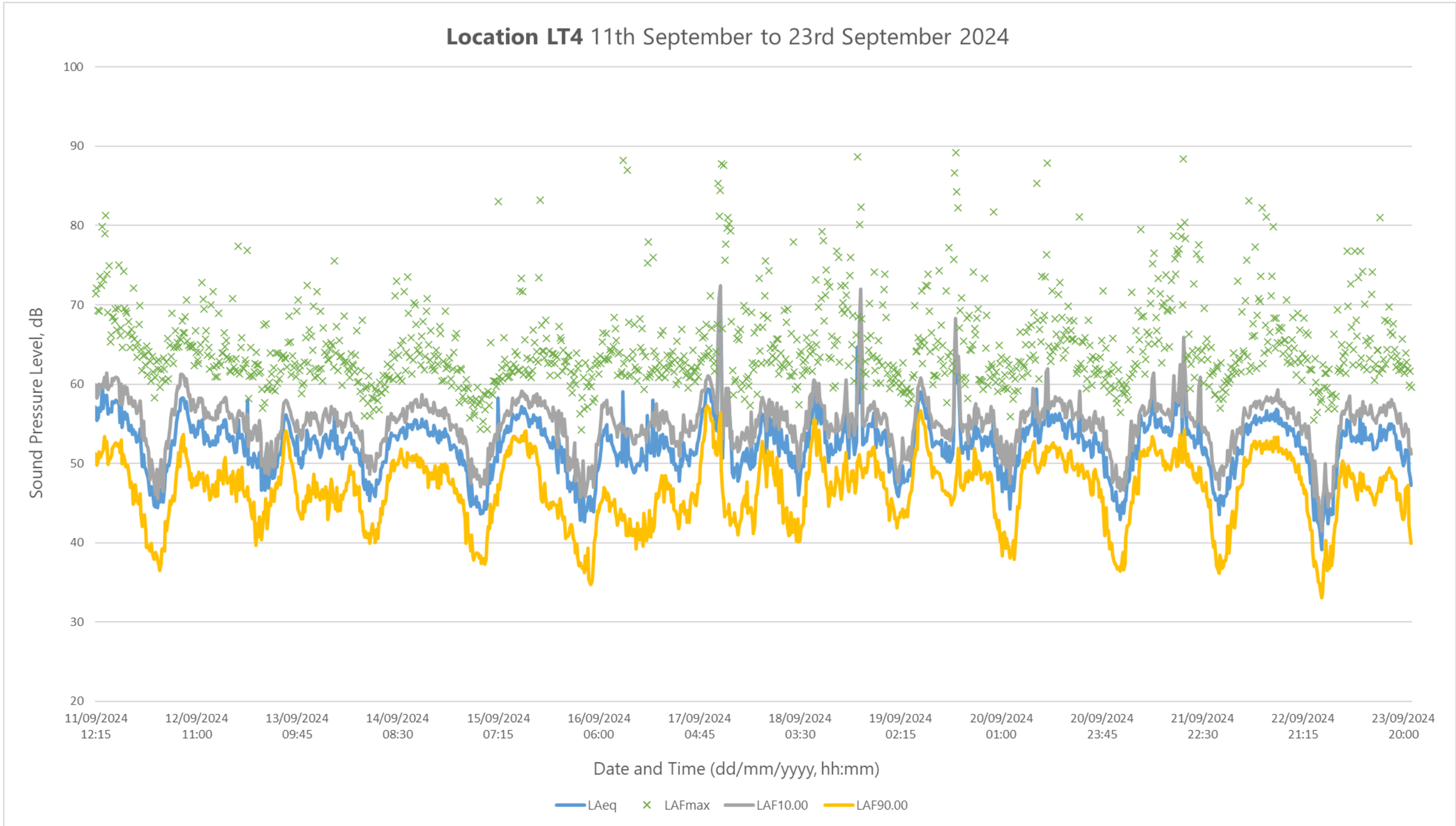
LAF90.00


Location LT4 11th September to 23rd September 2024
Sound Pressure Level, dB
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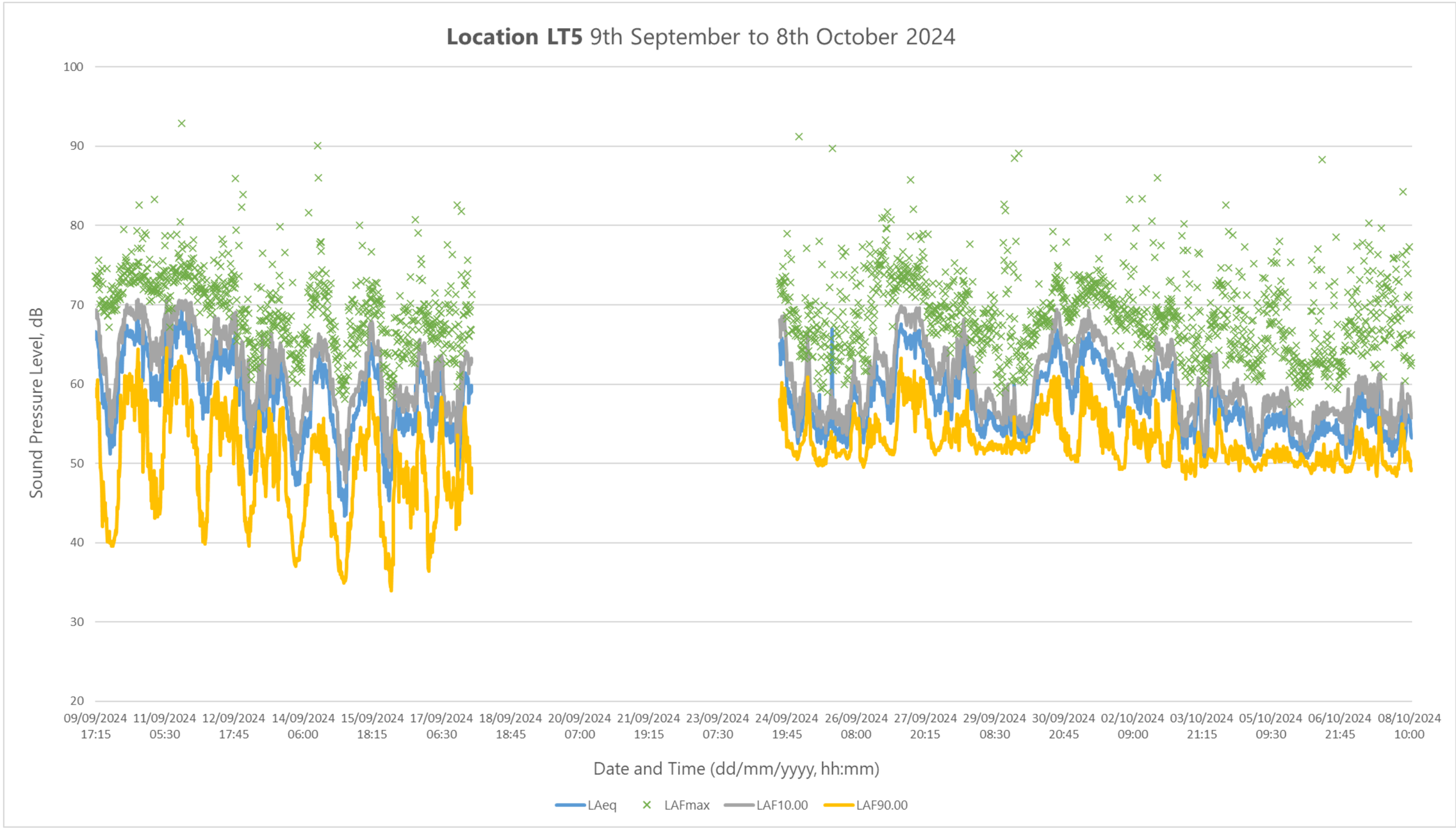
90
80
70
60
50
40
30
20
11/09/2024 12:15
12/09/2024 11:00
13/09/2024 09:45
14/09/2024 08:30
15/09/2024 07:15
16/09/2024 06:00
17/09/2024 04:45
18/09/2024 03:30
19/09/2024 02:15
20/09/2024 01:00
20/09/2024 23:45
21/09/2024 22:30
22/09/2024 21:15
23/09/2024 20:00
Date and Time (dd/mm/yyyy, hh:mm)
LAeq
LAFmax
LAF10.00
LAF90.00


Location LT5 9th September to 8th October 2024
Sound Pressure Level, dB
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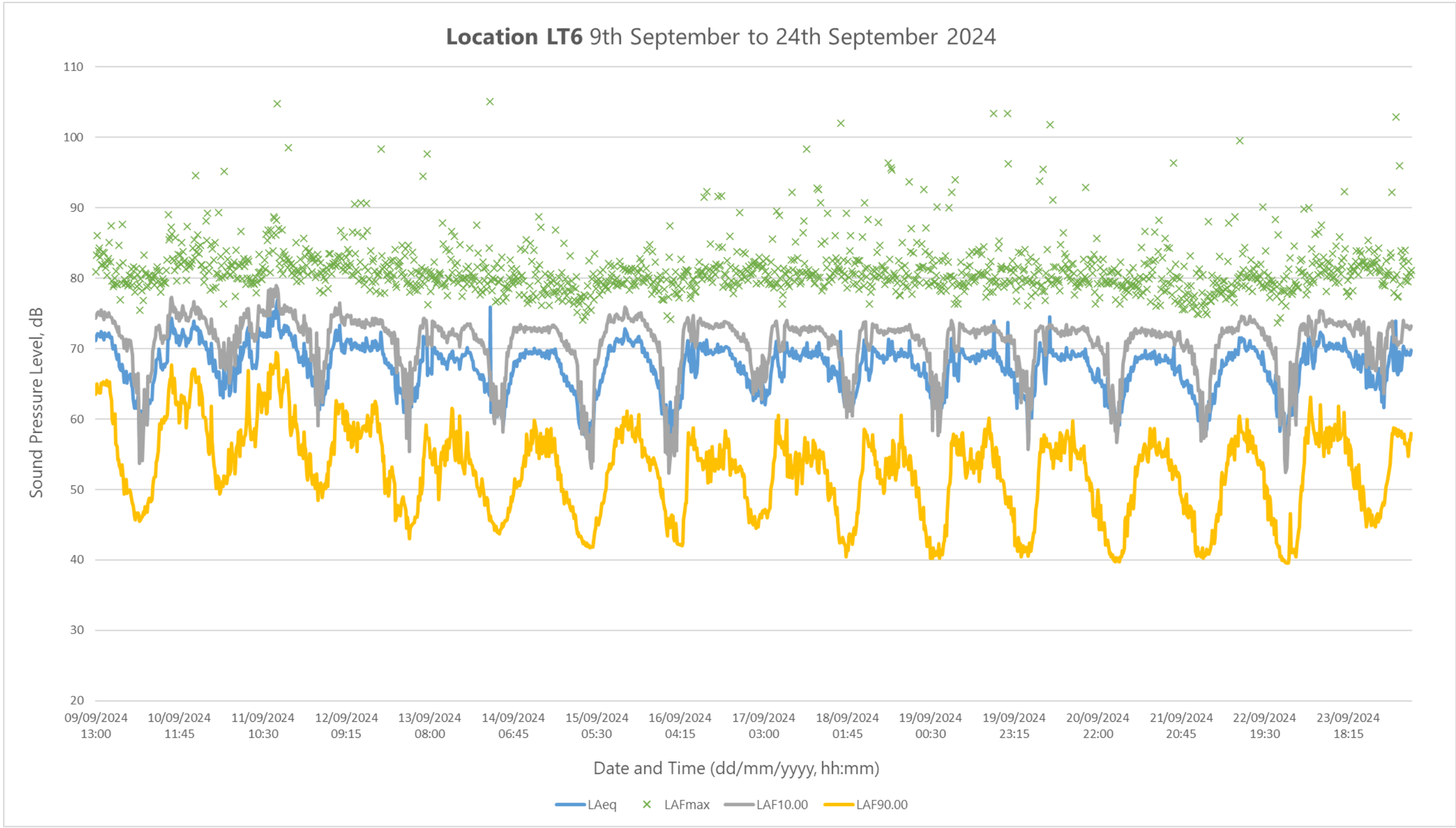
90
80
70
60
50
40
30
20
09/09/2024 17:15
11/09/2024 05:30
12/09/2024 17:45
14/09/2024 06:00
15/09/2024 18:15
17/09/2024 06:30
18/09/2024 18:45
20/09/2024 07:00
21/09/2024 19:15
23/09/2024 07:30
24/09/2024 19:45
26/09/2024 08:00
27/09/2024 20:15
29/09/2024 08:30
30/09/2024 20:45
02/10/2024 09:00
03/10/2024 21:15
05/10/2024 09:30
06/10/2024 21:45
08/10/2024 10:00
Date and Time (dd/mm/yyyy, hh:mm)
LAeq
LAFmax
LAF10.00
LAF90.00


Location LT6 9th September to 24th September 2024
Sound Pressure Level, dB
110
100
90
80
70
60
50
40
30
20
09/09/2024 13:00
10/09/2024 11:45
11/09/2024 10:30
12/09/2024 09:15
13/09/2024 08:00
14/09/2024 06:45
15/09/2024 05:30
16/09/2024 04:15
17/09/2024 03:00
18/09/2024 01:45
19/09/2024 00:30
19/09/2024 23:15
20/09/2024 22:00
21/09/2024 20:45
22/09/2024 19:30
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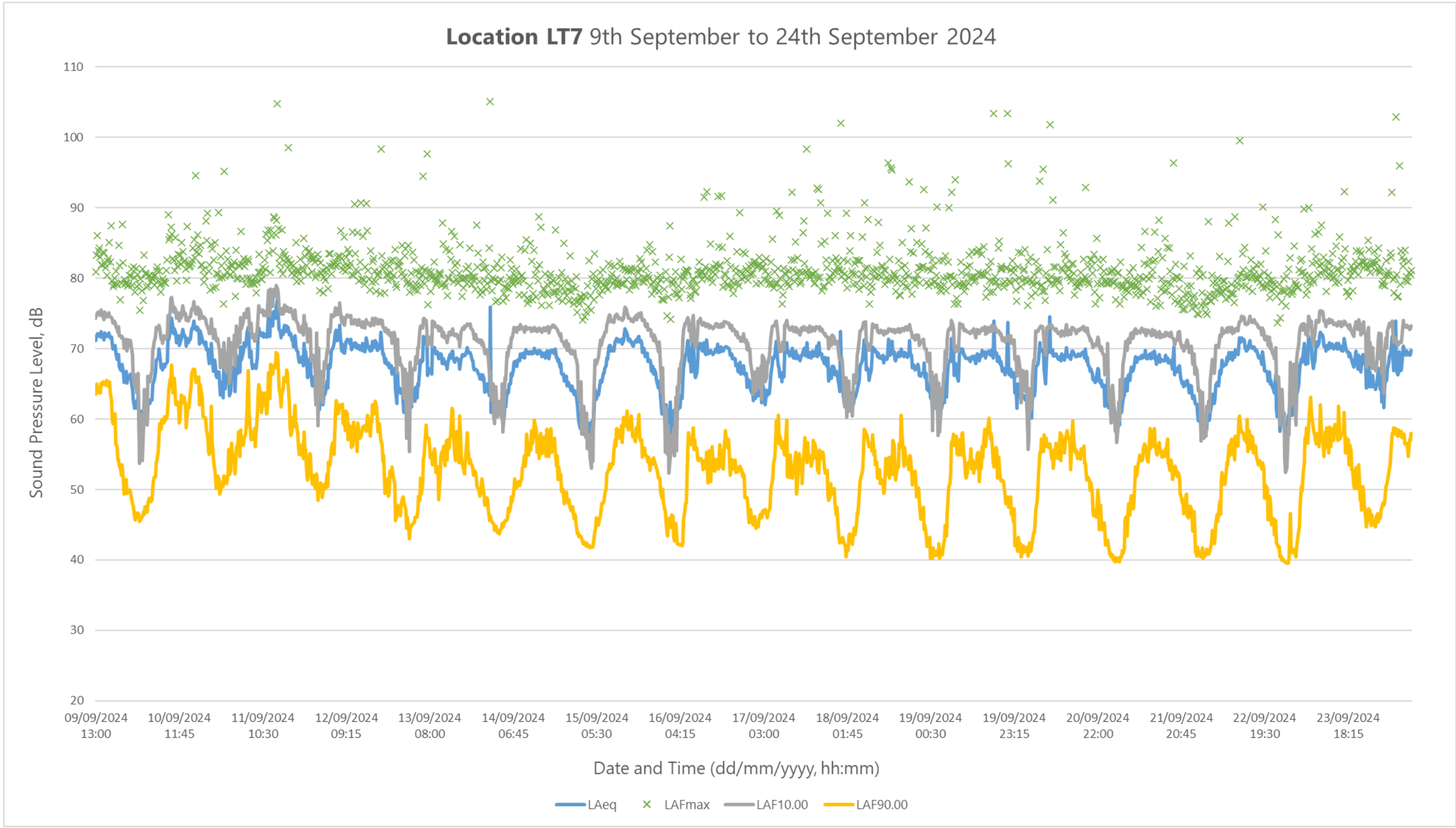
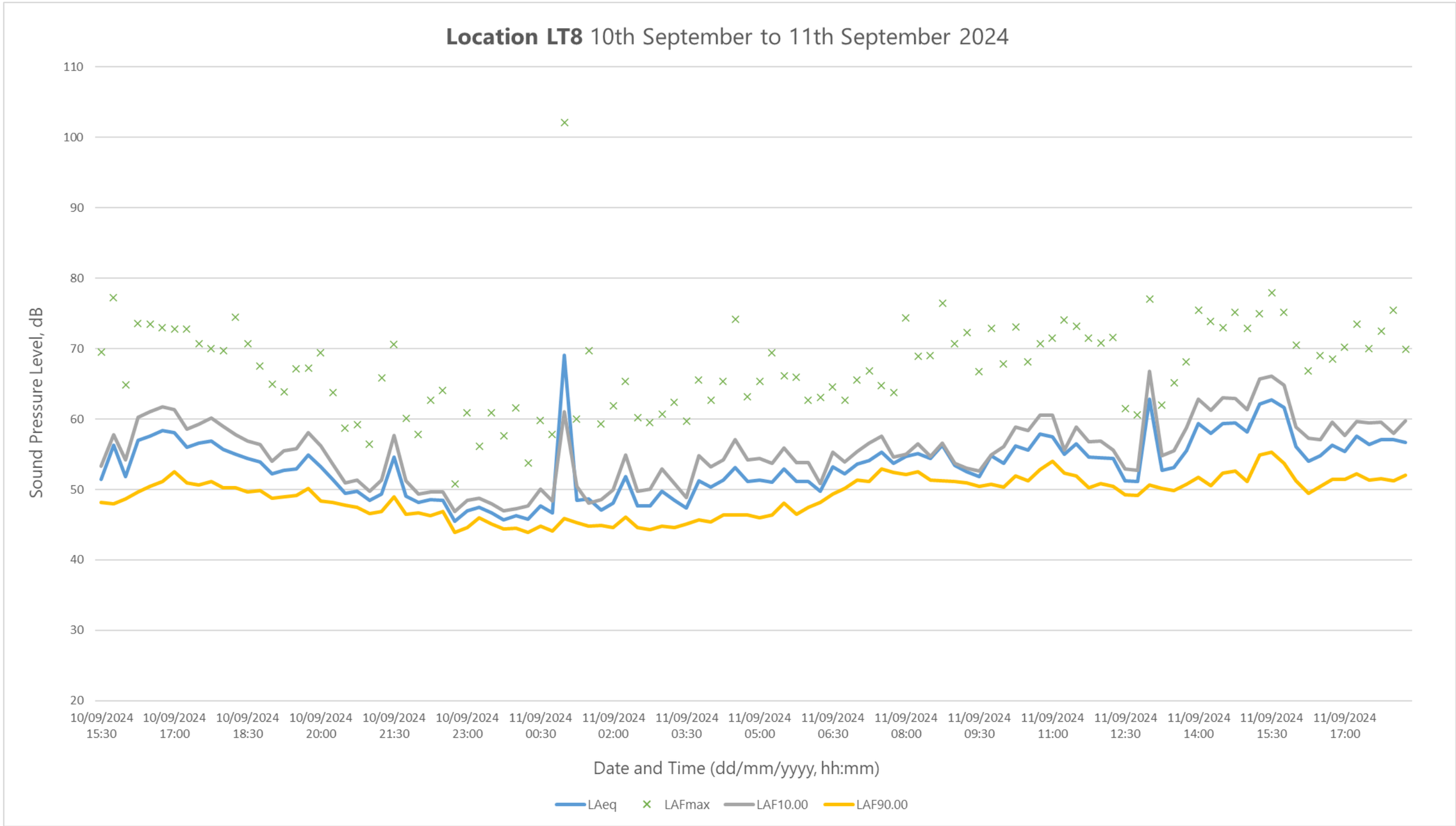
LAeq
LAFmax
LAF10.00
LAF90.00


Location LT7 9th September to 24th September 2024
Sound Pressure Level, dB
110
100
90
80
70
60
50
40
30
20
09/09/2024 13:00
10/09/2024 11:45
11/09/2024 10:30
12/09/2024 09:15
13/09/2024 08:00
14/09/2024 06:45
15/09/2024 05:30
16/09/2024 04:15
17/09/2024 03:00
18/09/2024 01:45
19/09/2024 00:30
19/09/2024 23:15
20/09/2024 22:00
21/09/2024 20:45
22/09/2024 19:30
23/09/2024 18:15
Date and Time (dd/mm/yyyy, hh:mm)
LAeq
LAFmax
LAF10.00
LAF90.00


Location LT8 10th September to 11th September 2024
Sound Pressure Level, dB
110
100
90
80
70
60
50
40
30
20
10/09/2024 15:30
10/09/2024 17:00
10/09/2024 18:30
10/09/2024 20:00
10/09/2024 21:30
10/09/2024 23:00
11/09/2024 00:30
11/09/2024 02:00
11/09/2024 03:30
11/09/2024 05:00
11/09/2024 06:30
11/09/2024 08:00
11/09/2024 09:30
11/09/2024 11:00
11/09/2024 12:30
11/09/2024 14:00
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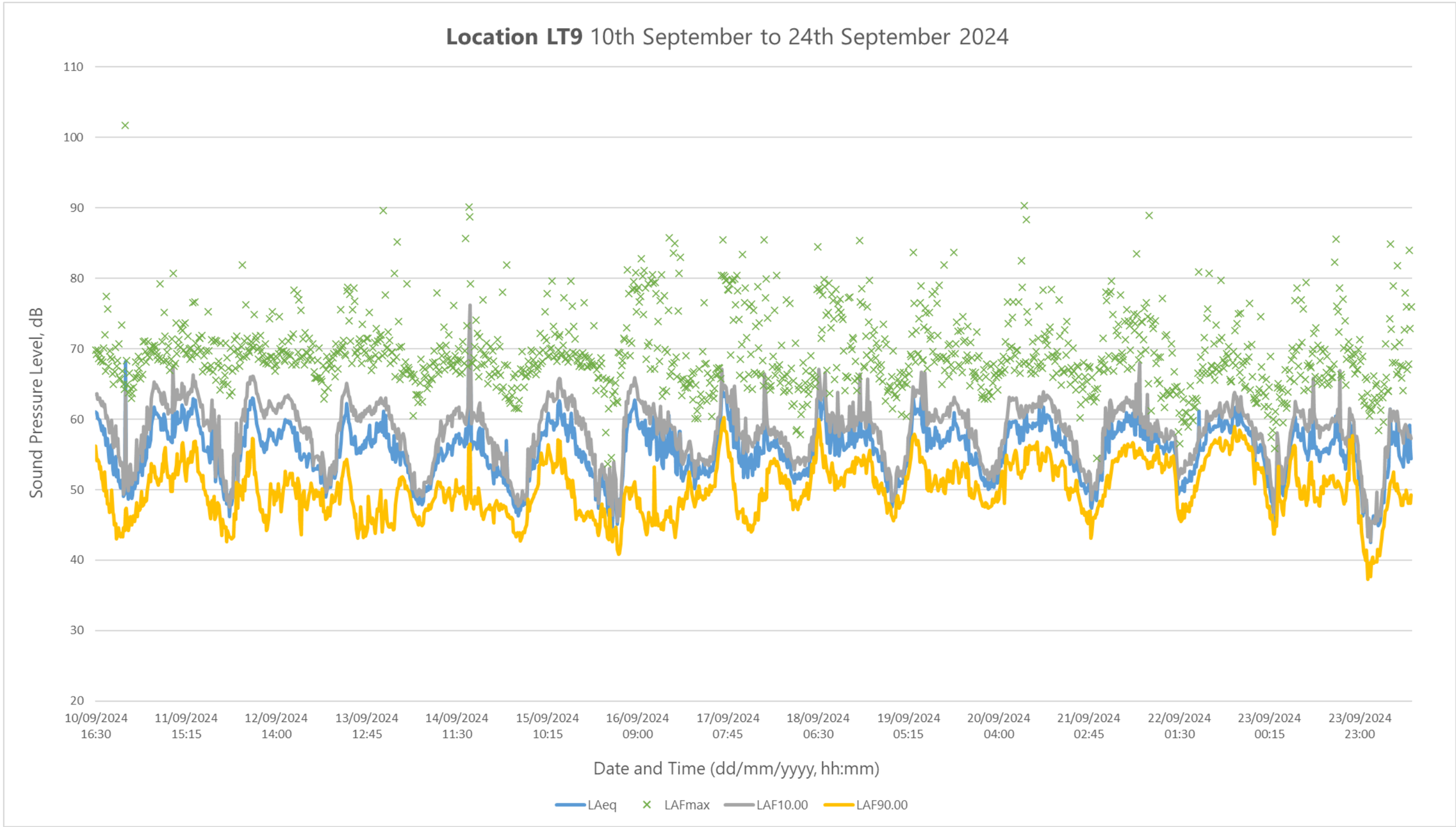
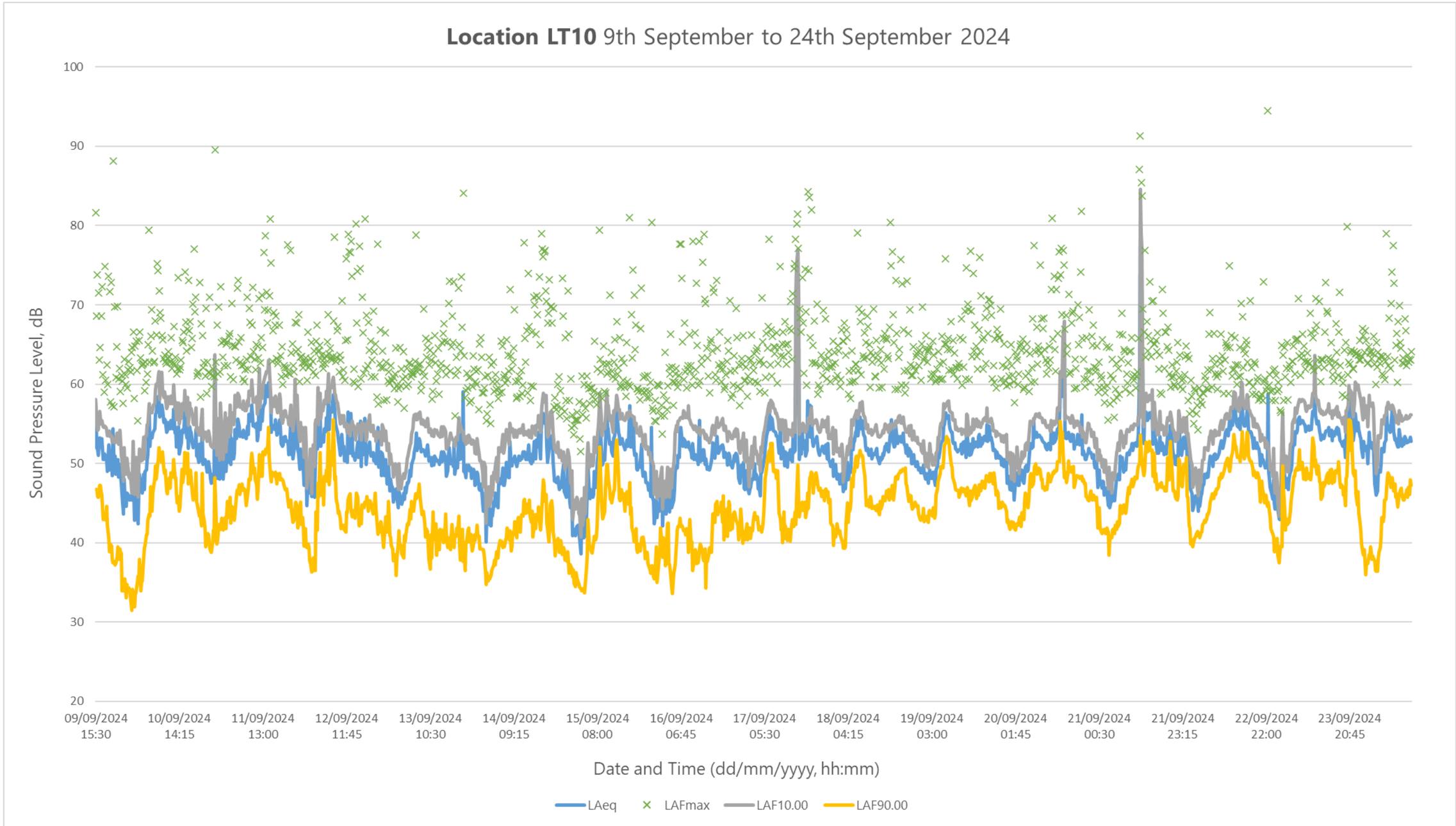
Date and Time (dd/mm/yyyy, hh:mm)
LAeq
LAFmax
LAF10.00
LAF90.00


Location LT9 10th September to 24th September 2024
Sound Pressure Level, dB
110
100
90
80
70
60
50
40
30
20
10/09/2024 16:30
11/09/2024 15:15
12/09/2024 14:00
13/09/2024 12:45
14/09/2024 11:30
15/09/2024 10:15
16/09/2024 09:00
17/09/2024 07:45
18/09/2024 06:30
19/09/2024 05:15
20/09/2024 04:00
21/09/2024 02:45
22/09/2024 01:30
23/09/2024 00:15
23/09/2024 23:00
Date and Time (dd/mm/yyyy, hh:mm)
LAeq
LAFmax
LAF10.00
LAF90.00


Location LT10 9th September to 24th September 2024
Sound Pressure Level, dB
100
90
80
70
60
50
40
30
20
09/09/2024 15:30
10/09/2024 14:15
11/09/2024 13:00
12/09/2024 11:45
13/09/2024 10:30
14/09/2024 09:15
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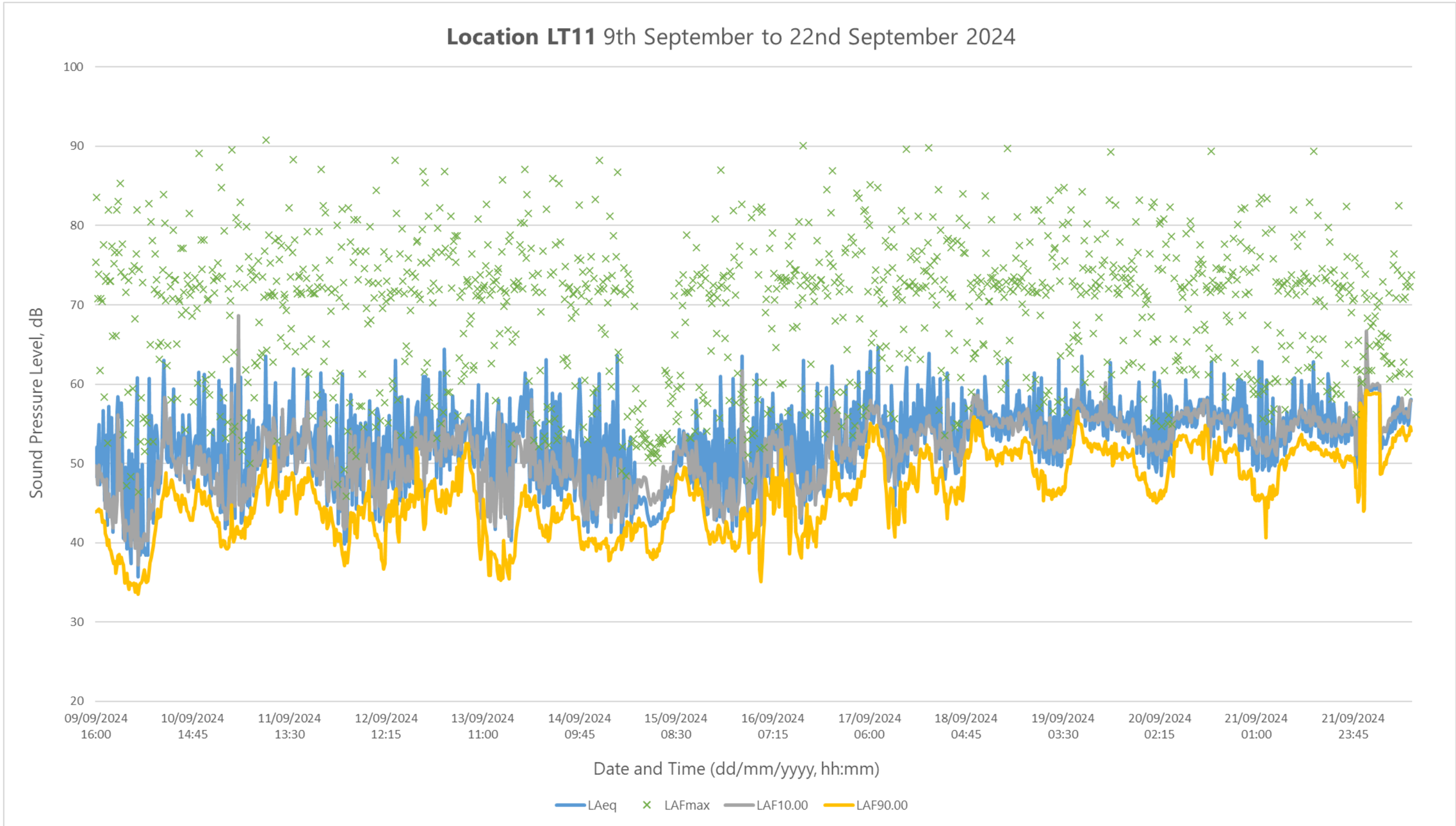
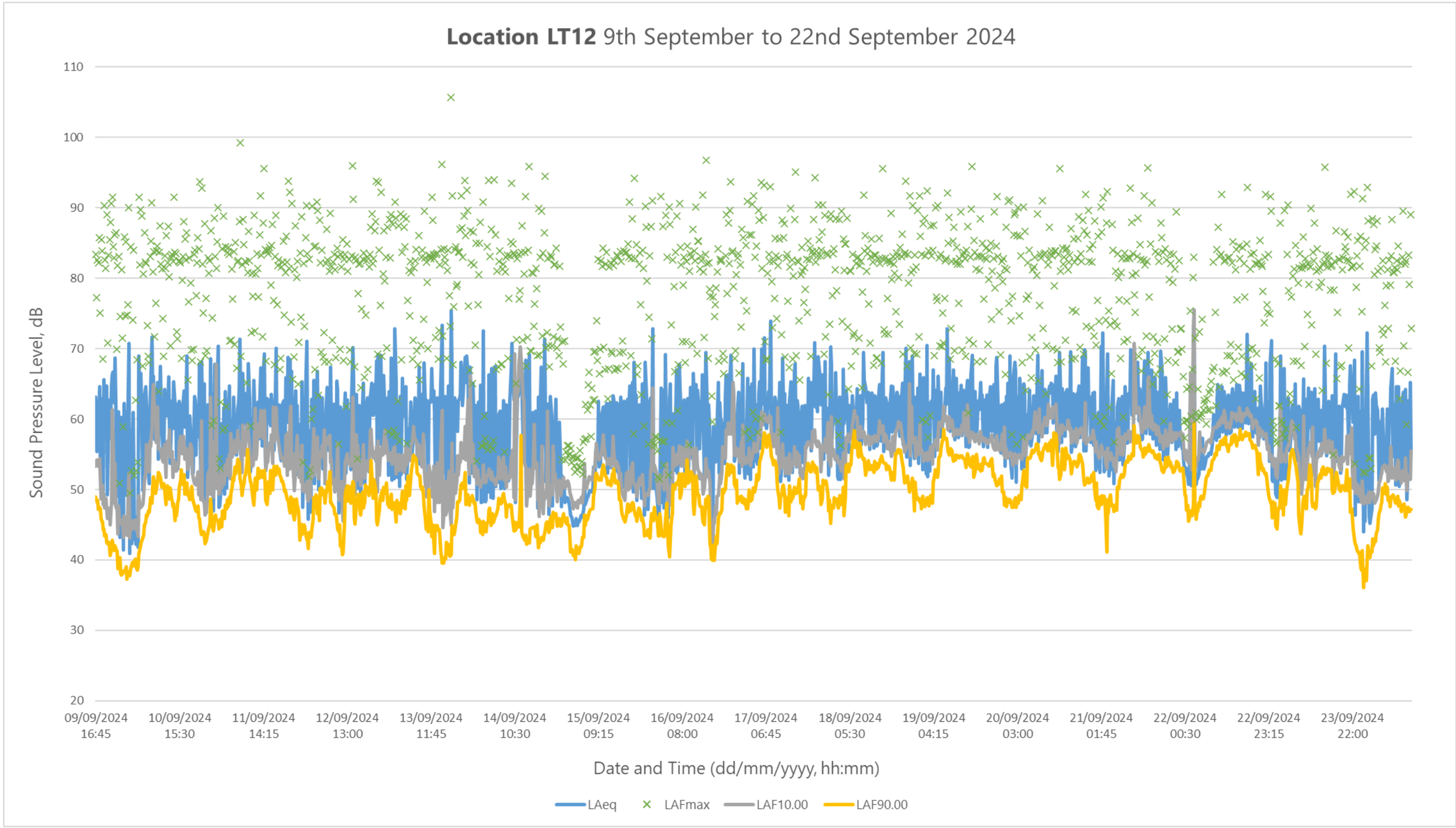
19/09/2024 03:00
20/09/2024 01:45
21/09/2024 00:30
21/09/2024 23:15
22/09/2024 22:00
23/09/2024 20:45
Date and Time (dd/mm/yyyy, hh:mm)
LAeq
LAFmax
LAF10.00
LAF90.00


Location LT11 9th September to 22nd September 2024
Sound Pressure Level, dB
100
90
80
70
60
50
40
30
20
09/09/2024 16:00
10/09/2024 14:45
11/09/2024 13:30
12/09/2024 12:15
13/09/2024 11:00
14/09/2024 09:45
15/09/2024 08:30
16/09/2024 07:15
17/09/2024 06:00
18/09/2024 04:45
19/09/2024 03:30
20/09/2024 02:15
21/09/2024 01:00
21/09/2024 23:45
Date and Time (dd/mm/yyyy, hh:mm)
LAeq
LAFmax
LAF10.00
LAF90.00


Location LT12 9th September to 22nd September 2024
Sound Pressure Level, dB
110
100
90
80
70
60
50
40
30
20
09/09/2024 16:45
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11/09/2024 14:15
12/09/2024 13:00
13/09/2024 11:45
14/09/2024 10:30
15/09/2024 09:15
16/09/2024 08:00
17/09/2024 06:45
18/09/2024 05:30
19/09/2024 04:15
20/09/2024 03:00
21/09/2024 01:45
22/09/2024 00:30
22/09/2024 23:15
23/09/2024 22:00
Date and Time (dd/mm/yyyy, hh:mm)
LAeq
LAFmax
LAF10.00
LAF90.00

MEASURED NOISE LEVELS AT SHORT TERM ATTENDED SURVEY LOCATIONS

Table 9.2 MEASURED NOISE LEVELS AT ATTENDED SURVEY LOCATIONS

Location	Date	Day	Start Time	dB $L_{Aeq,15min}$	dB $L_{A10,15min}$	dB $L_{A90,15min}$
ST1	16/09/2024	Monday	11:00	67	71	59
			11:15	67	71	60
			11:30	67	71	59
	18/09/2024	Wednesday	00:00	63	64	52
			00:15	60	62	49
			00:30	60	61	49
ST2	16/09/2024	Monday	12:00	70	76	47
			12:15	71	76	48
			12:30	71	76	47
	18/09/2024	Wednesday	01:00	58	49	43
			01:15	62	55	43
			01:30	62	57	44
ST3	16/09/2024	Monday	13:15	73	77	58
			13:30	74	77	55
			13:45	74	77	62
	18/09/2024	Wednesday	02:00	69	66	33
			02:15	70	64	35
			02:30	69	65	36
ST4	16/09/2024	Monday	14:15	60	64	41
			14:30	62	66	41
			14:45	60	65	40
	18/09/2024	Wednesday	03:00	43	45	41
			03:15	41	42	40

Location	Date	Day	Start Time	dB $L_{Aeq,15min}$	dB $L_{A10,15min}$	dB $L_{A90,15min}$
			03:30	51	44	41
ST5	16/09/2024	Monday	15:15	70	75	49
			15:30	70	75	43
			15:45	70	75	47
	19/09/2024	Thursday	00:00	54	50	41
			00:15	57	56	42
			00:30	57	55	43
ST6	16/09/2024	Monday	16:15	38	40	36
			16:30	42	40	36
			16:45	49	50	36
	19/09/2024	Thursday	01:00	45	46	43
			01:15	45	46	44
			01:30	45	46	44

MEASURED VIBRATION LEVELS AT SURVEY LOCATIONS

Table 9.3 Measured Vibration Levels at Survey Locations

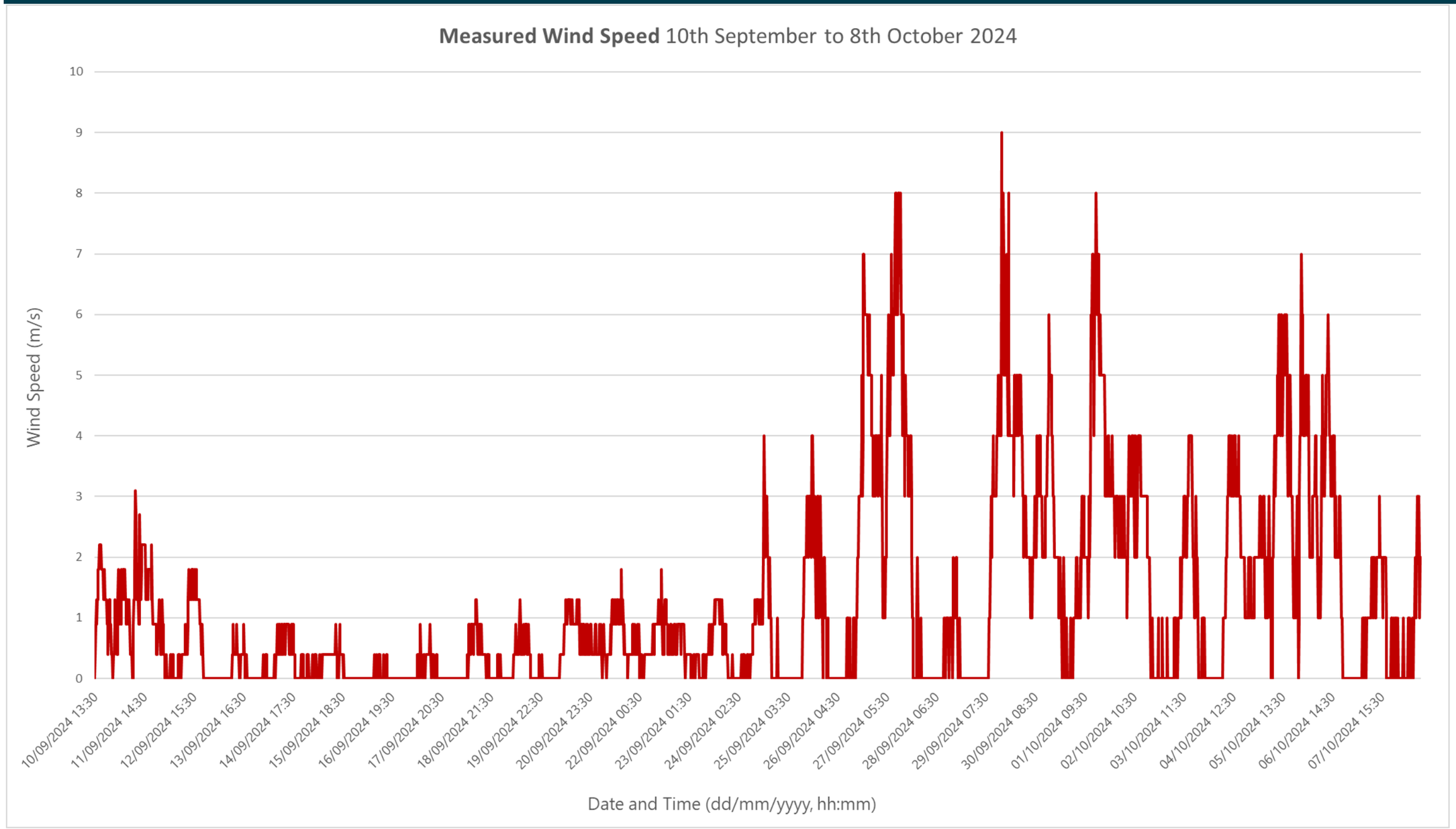
Location	Date	Time	Direction	Type	X-VDVb	Y-VDVb	Z-VDVb
V1	25/09/2024	16:09	Northbound	Passenger	0.00261	0.00282	0.00741
		19:10	Northbound	Passenger	0.00229	0.00256	0.00636
	26/09/2024	06:45	Southbound	Freight	0.00855	0.01176	0.03375
		06:45			0.01117	0.01543	0.03456
		06:46			0.00588	0.00777	0.01627
		06:46			0.00335	0.00468	0.01196
		06:47			0.00448	0.00506	0.01791
		07:20	Southbound	Freight	0.00438	0.00524	0.01301
		07:21			0.00416	0.00533	0.01407
		07:21			0.00278	0.0031	0.01026
		09:37	Southbound	Passenger	0.00163	0.0021	0.00908
V2	25/09/2024	12:24	Westbound	Passenger	0.00204	0.00224	0.01393
		12:31	Eastbound	Passenger	0.00238	0.00342	0.01305
		12:35	Westbound	Passenger	0.00374	0.00986	0.03416
		12:35	Eastbound	Passenger	0.00374	0.00986	0.03416
		13:03	Eastbound	Passenger	0.00188	0.00318	0.00998
		13:08	Westbound	Freight	0.00577	0.01006	0.02927
		13:10	Westbound	Passenger	0.00107	0.00142	0.00657
		13:11			0.00064	0.00088	0.00373
		19:14	Westbound	Freight	0.00847	0.01033	0.03713
		19:15			0.00442	0.0148	0.03884
		19:35	Westbound	Freight	0.00307	0.00716	0.0274
		19:36			0.00343	0.00779	0.03069
	26/09/2024	03:25	Eastbound	Freight	0.00849	0.0062	0.02706

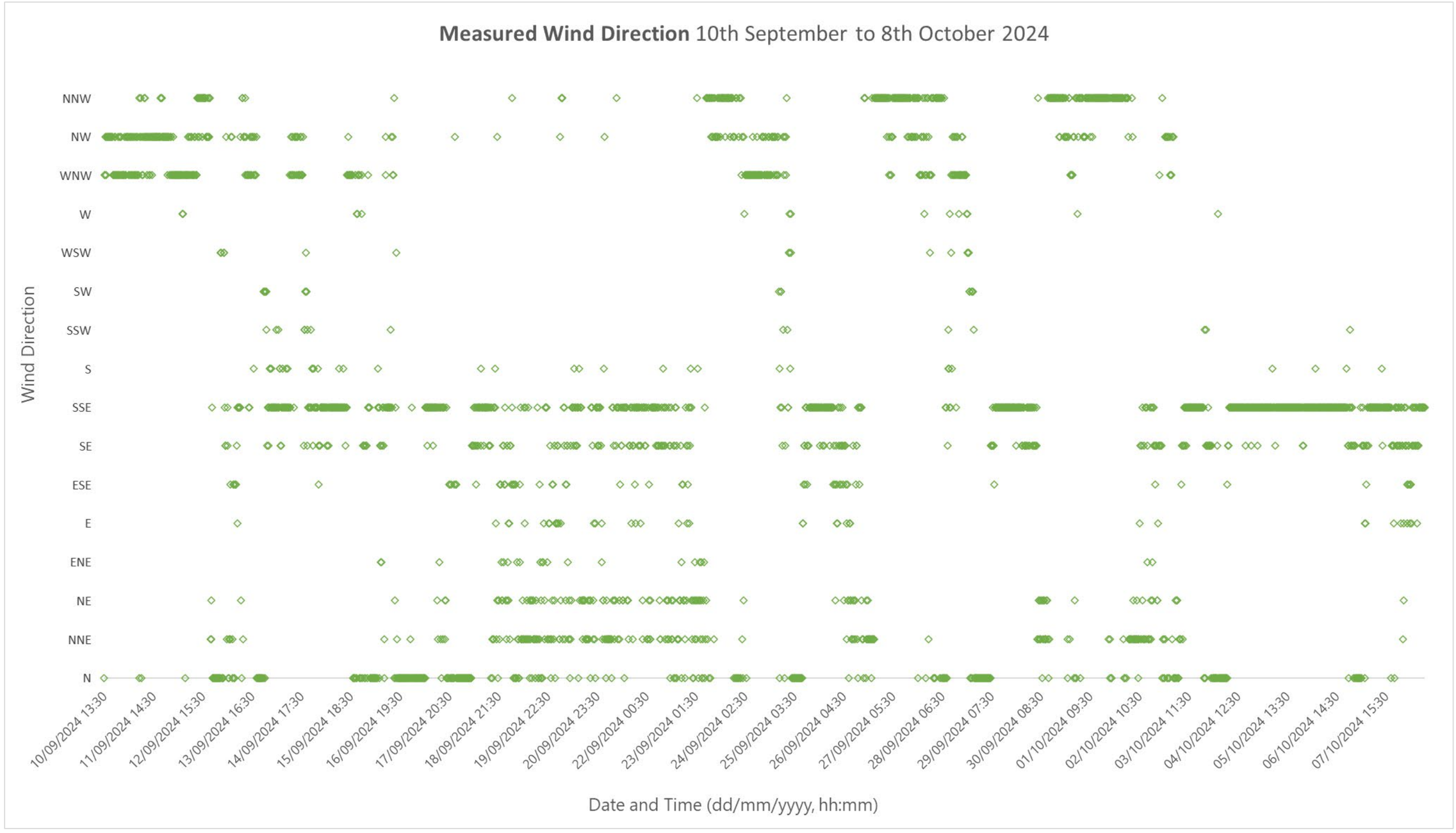
Location	Date	Time	Direction	Type	X-VDVb	Y-VDVb	Z-VDVb
V3	24/09/2024	17:33	Eastbound	Passenger	0.00503	0.00388	0.01851
		17:38	Eastbound	Passenger	0.0026	0.0037	0.02069
		17:40	Westbound	Passenger	0.00269	0.00497	0.02154
		17:49	Westbound	Passenger	0.00224	0.00315	0.01453
		18:03	Eastbound	Passenger	0.00419	0.00659	0.02775
		18:03	Westbound	Passenger	0.00139	0.0028	0.01417
		18:52	Westbound	Freight	0.01048	0.01583	0.07918
		22:17	Westbound	Freight	0.00953	0.0145	0.06592
	25/09/2024	03:58	Westbound	Freight	0.0095	0.01486	0.06107
		03:58			0.00659	0.01032	0.0407
		05:24	Westbound	Freight	0.00295	0.00412	0.02112
		05:24			0.00305	0.00338	0.02271
V4	23/09/2024	17:19	Southbound	Passenger	0.00398	0.00482	0.01546
		17:20			0.00412	0.00426	0.01408
		17:27	Northbound	Passenger	0.00633	0.01313	0.03078
		17:32	Southbound	Freight	0.00771	0.00495	0.01647
		17:33	Northbound	Passenger	0.0041	0.00949	0.02607
		17:37	Southbound	Passenger	0.00282	0.00335	0.01077
		17:37			0.0034	0.00431	0.01485
		18:20	Southbound	Passenger	0.00369	0.00217	0.00793
		18:22	Northbound	Passenger	0.00765	0.01361	0.0291
		19:58	Southbound	Freight	0.01003	0.00891	0.0227
		20:22	Southbound	Freight	0.00563	0.00384	0.01121
		21:16	Northbound	Freight	0.00586	0.00648	0.01121
		21:16			0.0059	0.00335	0.00857

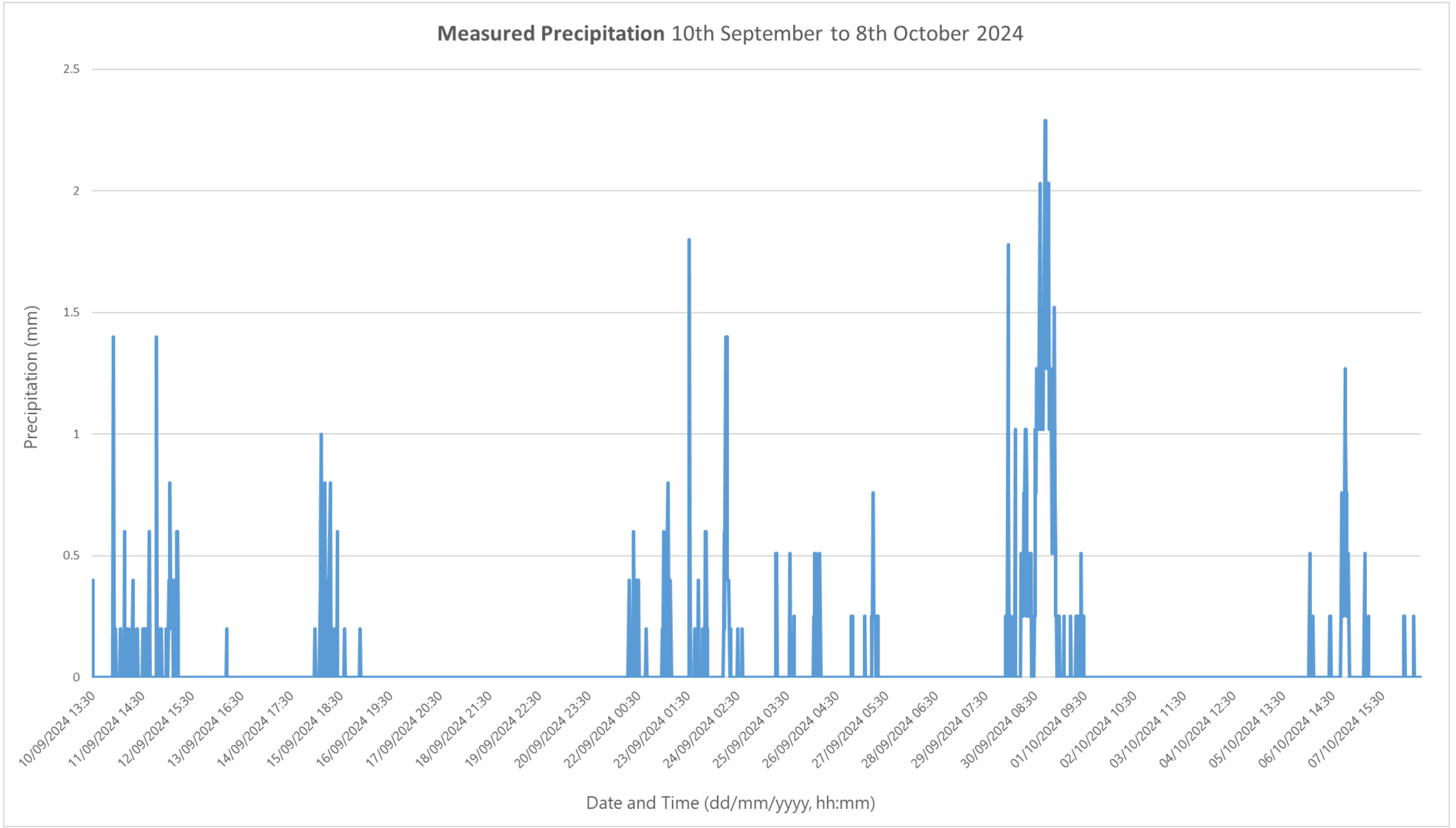
Location	Date	Time	Direction	Type	X-VDVb	Y-VDVb	Z-VDVb
		21:38	Northbound	Freight	0.00829	0.00539	0.01449
		21:38			0.00504	0.00239	0.00669
		21:59	Northbound	Freight	0.0072	0.0041	0.01069
		21:59			0.00466	0.00503	0.01113
V5	24/09/2024	19:10	Northbound	Passenger	0.00214	0.00252	0.00757
		20:09	Southbound	Passenger	0.00284	0.0029	0.00922
		20:09			0.00226	0.0022	0.00716
		21:48	Northbound	Passenger	0.00263	0.00328	0.01001
		21:48			0.00183	0.00208	0.00639
		22:45	Southbound	Passenger	0.00296	0.00387	0.0103
		23:38	Northbound	Passenger	0.00255	0.00289	0.00831
		23:55	Southbound	Passenger	0.00441	0.00427	0.01557
		23:56			0.00371	0.00338	0.01215
	25/09/2024	04:45	Northbound	Freight	0.00314	0.00331	0.00858
		04:46			0.00655	0.00594	0.02191
		04:46			0.00539	0.00473	0.01611
		06:39	Southbound	Freight	0.00824	0.00914	0.03413
		06:54	Northbound	Freight	0.00367	0.00325	0.01252
		06:54			0.00401	0.00362	0.01256
		06:55	Southbound	Freight	0.00478	0.00383	0.01454
		06:55			0.00284	0.00246	0.00875
		06:56			0.00378	0.00386	0.01271
V6	23/09/2024	17:20	Southbound	Passenger	0.00667	0.00501	0.01062
		17:27	Northbound	Passenger	0.0097	0.00817	0.0233
		17:32	Southbound	Freight	0.00336	0.00191	0.0239

Location	Date	Time	Direction	Type	X-VDVb	Y-VDVb	Z-VDVb
		17:33	Northbound	Passenger	0.00829	0.00572	0.01576
		17:37	Southbound	Passenger	0.0064	0.0047	0.00884
		18:21	Southbound	Passenger	0.00182	0.00133	0.00569
		18:22	Northbound	Passenger	0.00925	0.00884	0.02693
		19:59	Southbound	Freight	0.00523	0.005	0.02638
		20:20	Southbound	Freight	0.0083	0.00768	0.01767
		21:16	Northbound	Freight	0.00268	0.00295	0.01632
		21:38	Northbound	Freight	0.00422	0.00234	0.00879
		21:38			0.0014	0.00149	0.00562
		21:59	Northbound	Freight	0.00282	0.00238	0.01157
		21:59			0.00221	0.00249	0.00878

WEATHER DATA




Measured Wind Direction 10th September to 8th October 2024
Wind Direction
NNW
NW
WNW
W
WSW
SW
SSW
S
SSE
SE
ESE
E
ENE
NE
NNE
N
10/09/2024 13:30
11/09/2024 14:30
12/09/2024 15:30
13/09/2024 16:30
14/09/2024 17:30
15/09/2024 18:30
16/09/2024 19:30
17/09/2024 20:30
18/09/2024 21:30
19/09/2024 22:30
20/09/2024 23:30
22/09/2024 00:30
23/09/2024 01:30
24/09/2024 02:30
25/09/2024 03:30
26/09/2024 04:30
27/09/2024 05:30
28/09/2024 06:30
29/09/2024 07:30
30/09/2024 08:30
01/10/2024 09:30
02/10/2024 10:30
03/10/2024 11:30
04/10/2024 12:30
05/10/2024 13:30
06/10/2024 14:30
07/10/2024 15:30
Date and Time (dd/mm/yyyy, hh:mm)


Measured Precipitation 10th September to 8th October 2024
Precipitation (mm)
2.5
2
1.5
1
0.5
0
10/09/2024 13:30
11/09/2024 14:30
12/09/2024 15:30
13/09/2024 16:30
14/09/2024 17:30
15/09/2024 18:30
16/09/2024 19:30
17/09/2024 20:30
18/09/2024 21:30
19/09/2024 22:30
20/09/2024 23:30
22/09/2024 00:30
23/09/2024 01:30
24/09/2024 02:30
25/09/2024 03:30
26/09/2024 04:30
27/09/2024 05:30
28/09/2024 06:30
29/09/2024 07:30
30/09/2024 08:30
01/10/2024 09:30
02/10/2024 10:30
03/10/2024 11:30
04/10/2024 12:30
05/10/2024 13:30
06/10/2024 14:30
07/10/2024 15:30
Date and Time (dd/mm/yyyy, hh:mm)

EQUIPMENT AND INSTRUMENTATION DETAILS

Table 9.4 Unattended Noise Survey Equipment

Location	Date	Class 1 Sound Level Meter Details	Serial No.	Last Laboratory Calibration Date	Class 1 Field Calibrator Details and Serial No.	Calibrator Serial No.	Calibrator Last Lab Cal Date
LT1	09/09/2024 - 23/09/2024	Larson Davis LxT	7082	18/05/2024	Larson Davis CAL200	16907	10/02/2025
LT2	09/09/2024 - 22/09/2024	Larson Davis LxT	7083	19/05/2023	Larson Davis CAL200	16907	10/02/2025
LT3	11/09/2024 - 23/09/2024	Larson Davis LxT	5600	24/05/2024	Larson Davis CAL200	16907	10/02/2025
LT4	09/09/2024 - 17/09/2024	Larson Davis LxT	3316	10/02/2023	Larson Davis CAL200	16907	10/02/2025
LT5	24/09/2024 - 08/10/2024	Larson Davis 831 Larson Davis LxT	4097 3812	20/10/2024	Larson Davis CAL200	16907	10/02/2025
LT6	09/09/2024 - 24/09/2024	Larson Davis LxT	3813	10/02/2023	Larson Davis CAL200	16907	10/02/2025
LT7	10/09/2024 - 24/09/2024	Larson Davis LxT	3317	17/01/2023	Larson Davis CAL200	16907	10/02/2025
LT8	10/09/2024 - 11/09/2024	Larson Davis 831	4096	20/10/2024	Larson Davis CAL200	16907	10/02/2025
LT9	10/09/2024 - 24/09/2024	Larson Davis LxT	3815	24/05/2024	Larson Davis CAL200	16907	10/02/2025
LT10	09/09/2024 - 24/09/2024	Larson Davis LxT	3326	12/01/2023	Larson Davis CAL200	16907	10/02/2025
LT11	09/09/2024 - 22/09/2024	Larson Davis LxT	7080	18/05/2024	Larson Davis CAL200	16907	10/02/2025
LT12	09/09/2024 - 24/09/2024	Larson Davis LxT	3318	27/03/2023	Larson Davis CAL200	16907	10/02/2025

Table 9.5 Attended Noise Survey Locations

Location	Date	Class 1 Sound Level Meter Details	Serial No.	Last Laboratory Calibration Date	Class 1 Field Calibrator Details and Serial No.	Calibrator Serial No.	Calibrator Last Lab Cal Date
ST1	16/09/2024	Larson Davis LxT	7002	03/07/2024	Larson Davis CAL200	11143	07/08/2024
	18/09/2024		3816	07/03/2023			
ST2	16/09/2024	Larson Davis LxT	7002	03/07/2024	Larson Davis CAL200	11143	07/08/2024
	18/09/2024		3816	07/03/2023			
ST3	16/09/2024	Larson Davis LxT	7002	03/07/2024	Larson Davis CAL200	11143	07/08/2024
	18/09/2024		3816	07/03/2023			
ST4	16/09/2024	Larson Davis LxT	7002	03/07/2024	Larson Davis CAL200	11143	07/08/2024
	18/09/2024		3816	07/03/2023			
ST5	16/09/2024	Larson Davis LxT	7002	03/07/2024	Larson Davis CAL200	11143	07/08/2024
	19/09/2024		3816	07/03/2023			
ST6	16/09/2024	Larson Davis LxT	7002	03/07/2024	Larson Davis CAL200	11143	07/08/2024
	19/09/2024		3816	07/03/2023			