



Tweed Valley Hospital Carpark

April Report

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1 INTRODUCTION

Acoustic Logic has been engaged to carry out noise, dust and vibration monitoring for the impacts associated with the earthworks, excavation, and construction components of the Tweed Valley Hospital Carpark.

- Vibration Monitoring: 1st of April to 30th of April 2022;
- Noise Monitoring: 1st of April to 30th of April 2022; and
- Dust Monitoring: 1st of April to 30th of April 2022.

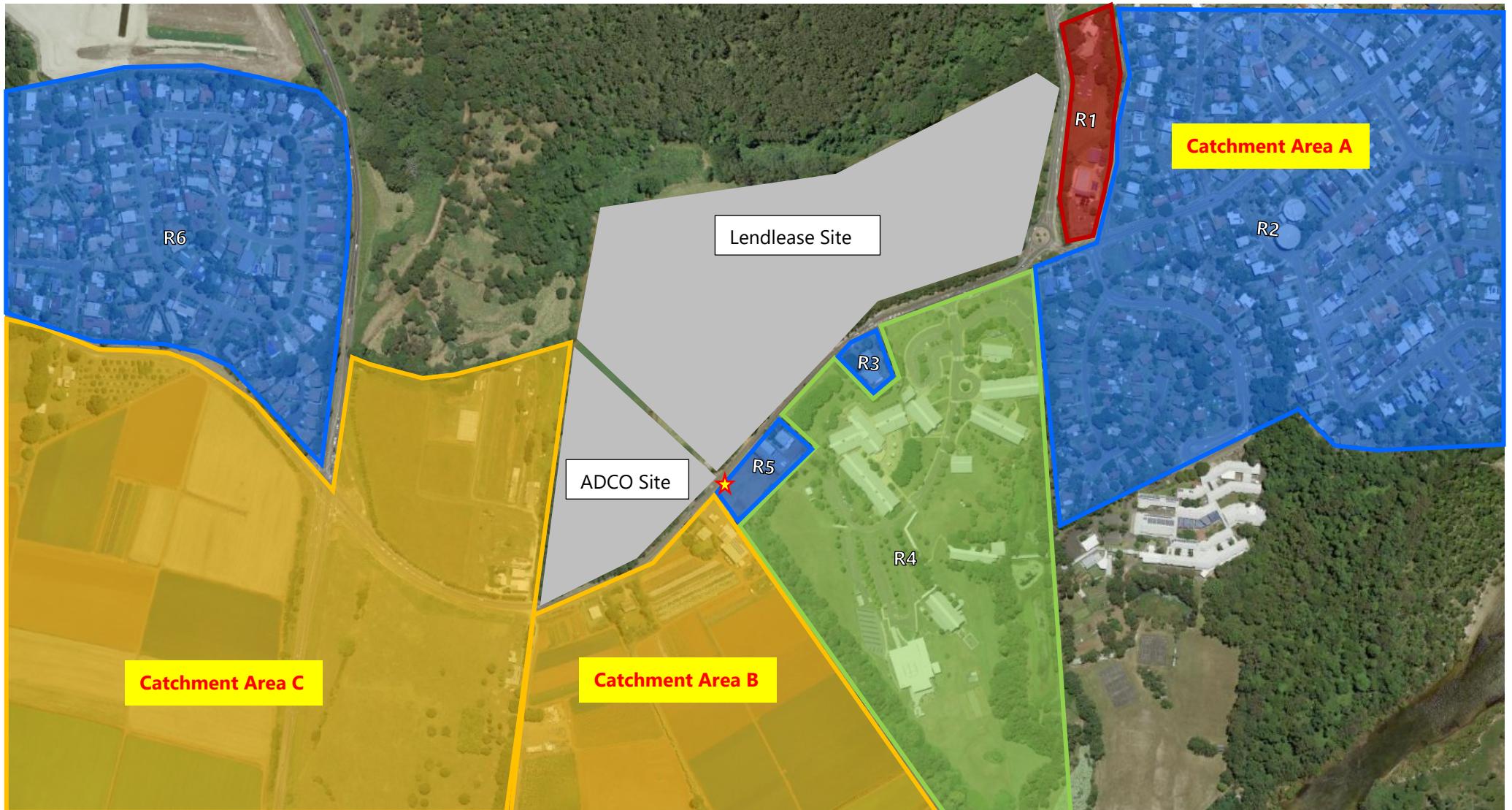
The location of the site is shown in [Figure 2-1](#) below. The location of the on-site monitors relative to the site has also been shown in [Figure 2-1](#).

The following Noise, Dust and Vibration Management levels have been derived from the Construction Noise, Dust and Vibration Management Plan, document reference 20211491.1/2911A/R2/OB.

2 SITE DESCRIPTION AND SENSITIVE RECEIVERS

The subject site is located on Cudgen Rd, Kingscliff as indicated in [Figure 2-1](#). The land uses surrounding the proposed multi-storey carpark site are existing commercial, residential and educational receivers. The nearest potentially most affected receivers are:

- **Receiver 1:** Tweed Regional Aquatic Centre – Kingscliff (east)
- **Receiver 2:** Residential dwellings located on 32-58 Cudgen Road (east)
- **Receiver 3:** Residential dwelling located at 792 Cudgen Road (south)
- **Receiver 4:** TAFE NSW – Kingscliff (south)
- **Receiver 5:** Residential dwelling located at 764 Cudgen Road (south)
- **Receiver 6:** Residential receivers at 6-30 John Robb Way (west)



 Industrial/Agricultural
 Commercial Receiver
★ Monitoring Location

Figure 2-1 –Site and Sensitive Receiver Locations

 Site
 Residential Receiver
 Educational/Tafe

3 VIBRATION MONITORING

3.1 VIBRATION CRITERIA

The following vibration monitoring criteria has been derived from the Construction Noise, Dust and Vibration Management Plan, document reference 20211491.1/2911A/R2/OB.

CONSTRUCTION VIBRATION CRITERIA

Vibration criteria for the nearest receivers will be based on the following documents:

- DIN 4150, *'Vibration in Buildings (2016-12)'*;
- EPA *"Assessing Vibration: A technical guideline"*; and
- ASHRAE Handbook 2007.

Summarised Recommended Vibration Limits

The summarised vibration criteria are presented in the table below.

Table 9 – Recommended Vibration Limit

Vibration Receiver	Recommended Vibration Limits PPV (mm/s)
Residential Buildings	5
Commercial/Other Buildings	20

3.2 MEASUREMENT EQUIPMENT

Vibration monitoring was conducted using one Texcel ETM vibration monitor with an external tri-axial geophone. The monitor is programmed to store statistical vibration data over every 5-minute period, along with any 'triggered' events that occur throughout the monitoring period. The following Section presents the results of vibration monitoring for the period between the 1st of April to the 30th of April 2022.

3.3 MEASURMENT RESULTS

Table 1 – Vibration Monitoring Results

Vibration Geophone Location	Date of highest recorded value	Maximum Measured Vibration Level mm/s	Criteria Vibration Level	Complies
Monitoring Location	1/04/2022	0.92	5mm/s PPV	Yes
	2/04/2022	0.81		Yes
	3/04/2022	0.71		Yes
	4/04/2022	0.86		Yes
	5/04/2022	1.21		Yes
	6/04/2022	1.24		Yes
	7/04/2022	1.13		Yes
	8/04/2022	1.08		Yes
	9/04/2022	0.79		Yes
	10/04/2022	2.33		Yes
	11/04/2022	0.9		Yes
	12/04/2022	1.03		Yes
	13/04/2022	1.77		Yes
	14/04/2022	1.19		Yes
	15/04/2022	0.57		Yes
	16/04/2022	0.72		Yes
	17/04/2022	0.88		Yes
	18/04/2022	0.65		Yes
	19/04/2022	0.98		Yes
	20/04/2022	0.99		Yes
	21/04/2022	0.76		Yes
	22/04/2022	1.1		Yes
	23/04/2022	0.77		Yes
	24/04/2022	0.72		Yes
	25/04/2022	0.64		Yes
	26/04/2022	0.84		Yes
	27/04/2022	0.9		Yes
	28/04/2022	1.06		Yes
	29/04/2022	0.77		Yes

4 NOISE MONITORING

4.1 DEFINITION OF TERMS

Environmental noise is complex in nature. The noise level fluctuates from moment to moment and the noise characteristic can vary depending on the particular noise source in the vicinity (for example road, railway, and factory).

For this reason, various terms and descriptors have been developed to quantify the noise environment in a way that reflects human perception. The terms used in this noise assessment are described below:

dB(A)

Unit of loudness. The higher the number, the louder the noise. A change in noise level of up to 3 dB(A) is barely perceptible. A 5 dB(A) change is noticeable. A 10 dB(A) change is subjectively a doubling of noise.

Noise Descriptors

For time varying noise sources (such as traffic noise and general environmental noise) it is not possible to assess noise impacts based on a single instantaneous measurement. It is necessary to measure noise over a discrete period until a representative sample of noise has been obtained.

The descriptors used in this assessment are defined below.

L₁

The sound pressure level that is exceeded for 1 percent of the time for which the given sound is measured.

L₁₀

The sound pressure level that is exceeded for 10 percent of the time for which the given sound is measured.

L₉₀

The sound pressure level that is exceeded for 90 percent of the time for which the given sound is measured.

L_{Aeq}

Equivalent sound pressure level – steady sound level that, over a specified period, would produce the same energy equivalence as the fluctuating sound level actually occurring.

4.2 NOISE MANAGEMENT CRITERIA

NOISE MANAGEMENT LEVEL

Establishment of criteria for construction noise requirements will be in accordance with the following documents.

- NSW Environmental Protection Authority, '*Interim Construction Noise Guideline*';
- Australian Standard AS2107:2016; and
- Australian Standards AS2436:2010 Guide to Noise Control on Construction, Maintenance and Demolition Sites.

Location	Management level, dB(A) L _{eq} (15 min)
Residential Receivers	Recommended Standard Hours "Noise Affected" Level – 55 "Highly Noise Affected" Level - 75
Commercial Receivers	70
Educational Receivers	45 (Internal)
Office Areas	45 (Internal)
X-Ray Areas	50(Internal)

4.3 EQUIPMENT USED

Unattended noise monitoring was conducted using a *SiteHive Hexanode 134* noise and dust monitor. The monitor was programmed to store 15-minute statistical noise levels throughout the monitoring period. Measurements were taken on A-frequency weighting and fast time weighting.

4.4 MEASURED NOISE LEVELS

The available measured noise levels have been analysed by this office and the graphed noise data presented in Appendix 1.

Please note that the presented data represents the available monitoring data for the period described in Table 2. Summarised results are also in Table 2 below.

Table 2 – Noise Monitoring Results

Date	Measured typical worst noise level dB(A) L _{eq} 15min	Noise Management Level dB(A)L _{eq} 15min <i>"Highly Affected Noise"</i>	Exceedance
1/4/2022	68		
2/4/2022	64		
3/4/2022	65		
4/4/2022	71		
5/4/2022	40		
13/4/2022	68		
14/4/2022	67		
15/4/2022	65		
16/4/2022	66		
17/4/2022	64		
18/4/2022	64		
19/4/2022	66		
20/4/2022	67		
21/4/2022	67		
22/4/2022	69		
23/4/2022	65		
24/4/2022	65		
25/4/2022	67		
26/4/2022	69		
27/4/2022	71		
28/4/2022	69		
29/4/2022	59		

Note 1: Adverse weather impacted measurements, causing technical failures, and limiting maintenance works from 5th April to 13th April.

5 DUST MONITORING

5.1 ASSESSMENT CRITERIA

Dust monitoring has been conducted to measure mechanically generated respirable PM_{2.5} dust particles (< 2.5µm) and PM₁₀ dust particles (< 10µm), which are generally understood to be the main health concern in airborne dust. The air quality limits are based on the standards outlined in Department of the Environment's *National Environment Protection (Ambient Air Quality) Measure* and NSW EPA's air quality categories.

It should be noted that the dust monitoring results can be influenced by events such as fires and dust storms, thus the PM₁₀ limit has an allowance of 5 days per year to account for the effects of such events.

The PM_{2.5} and PM₁₀ goals are summarised below.

Table 3 – PM_{2.5} and PM₁₀ Goals (24-Hour Average)

Pollutant	Averaging Time	Maximum Concentration
PM _{2.5}	24 hours	25 µg/m ³
PM ₁₀	24 hours	50 µg/m ³

The EPA has air quality categories based on particle concentration over a one hour average. As per the Construction Noise, Dust and Vibration management Plan, this project has targeted the 'Poor' category as a reference, **however, the assessment level is the 24-hour average.**

Table 4 – PM_{2.5} and PM₁₀ Goals (1-Hour Average)

Pollutant	Air Quality Category	Maximum Concentration
PM _{2.5}	Poor	62-97 µg/m ³
PM ₁₀		80-120 µg/m ³

5.2 MEASUREMENT DETAILS

5.2.1 Equipment

The dust monitoring was conducted using a *SiteHive Hexanode 134* noise and dust monitor.

5.2.2 Period

Dust monitoring was conducted from 01/04/2022 to 30/04/2022.

5.3 MEASUREMENT RESULTS

The **daily average** PM_{2.5} and PM₁₀ concentration levels are presented below.

Table 5 – 24hr Average PM_{2.5} and PM₁₀ Concentration

Date	24hr Average PM _{2.5} and PM ₁₀ Concentration					
	PM _{2.5} Level (µg/m ³)	PM _{2.5} Limit (µg/m ³)	Complies	PM ₁₀ Level (µg/m ³)	PM ₁₀ Limit (µg/m ³)	Complies
1/4/2022	7	25	Yes	20	50	Yes
2/4/2022	7		Yes	23		Yes
3/4/2022	7		Yes	20		Yes
4/4/2022	5		Yes	19		Yes
5/4/2022	6		Yes	23		Yes
13/4/2022	6		Yes	22		Yes
14/4/2022	6		Yes	19		Yes
15/4/2022	8		Yes	25		Yes
16/4/2022	5		Yes	20		Yes
17/4/2022	5		Yes	21		Yes
18/4/2022	5		Yes	23		Yes
19/4/2022	4		Yes	15		Yes
20/4/2022	5		Yes	28		Yes
21/4/2022	7		Yes	39		Yes
22/4/2022	8		Yes	28		Yes
23/4/2022	10		Yes	31		Yes
24/4/2022	10		Yes	30		Yes
25/4/2022	8		Yes	27		Yes
26/4/2022	4		Yes	17		Yes
27/4/2022	4		Yes	15		Yes
28/4/2022	7		Yes	24		Yes
29/4/2022	6		Yes	22		Yes

Note 1: Adverse weather impacted measurements, causing technical failures, and limiting maintenance works from 5th April to 13th April.

The **daily maximum 1hour** PM_{2.5} and PM₁₀ concentration levels are presented below.

Table 6 – 1Hr Maximum PM_{2.5} and PM₁₀ Concentration

Date	Maximum 1hr Average PM_{2.5} and PM₁₀ Concentration					
	PM_{2.5} Level (µg/m³)	PM_{2.5} Limit (µg/m³)	Complies	PM₁₀ Level (µg/m³)	PM₁₀ Limit (µg/m³)	Complies
1/4/2022	15	62-97	Yes	31	80-120	Yes
2/4/2022	15		Yes	64		Yes
3/4/2022	10		Yes	39		Yes
4/4/2022	7		Yes	37		Yes
5/4/2022	6		Yes	26		Yes
13/4/2022	10		Yes	35		Yes
14/4/2022	11		Yes	35		Yes
15/4/2022	12		Yes	37		Yes
16/4/2022	11		Yes	39		Yes
17/4/2022	8		Yes	35		Yes
18/4/2022	7		Yes	42		Yes
19/4/2022	5		Yes	26		Yes
20/4/2022	13		Yes	111		Yes
21/4/2022	16		Yes	217		No - Note 1
22/4/2022	12		Yes	52		Yes
23/4/2022	14		Yes	39		Yes
24/4/2022	13		Yes	42		Yes
25/4/2022	11		Yes	33		Yes
26/4/2022	6		Yes	26		Yes
27/4/2022	5		Yes	20		Yes
28/4/2022	14		Yes	54		Yes
29/4/2022	7		Yes	26		Yes

Note 1: PM₁₀ dust level exceedance caused by a significant sudden peak. The values measured at times either side of the peak were noticeably lower than the peak and without the peak, the 1hr average values were compliant with the criteria limit. As such, this is not anticipated to be associated with ADCO works.

Note 2: Adverse weather impacted measurements, causing technical failures, and limiting maintenance works from 5th April to 13th April.

6 CONCLUSION

Acoustic Logic Consultancy has carried out noise, dust and vibration monitoring for the month of April at the Tweed Valley Hospital Carpark. Earthworks and excavation are noted as the major activities undertaken during this monitoring period.

This monitoring report presents the noise and vibration monitoring for the periods as follows:

- Vibration Monitoring: 1st of April to 30th of April;
- Noise Monitoring: 1st of April to 30th of April 2022; and
- Dust Monitoring: 1st of April to 30th of April 2022.

We note that adverse weather impacted noise and dust monitoring, causing technical failures, and limiting maintenance works from 5th April to 13th April.

A technical fault also partially disrupted the vibration monitoring on the 5th of April.

Dust exceedances were measured on the 21st of April, for which we note the following:

- PM10 dust level exceedance caused by a significant sudden peak. The values measured at times either side of the peak were noticeably lower than the peak and without the peak, the 1hr average values were compliant with the criteria limit. As such, this is not anticipated to be associated with ADCO works.

We trust this information is satisfactory. Please contact us should you have any further queries.

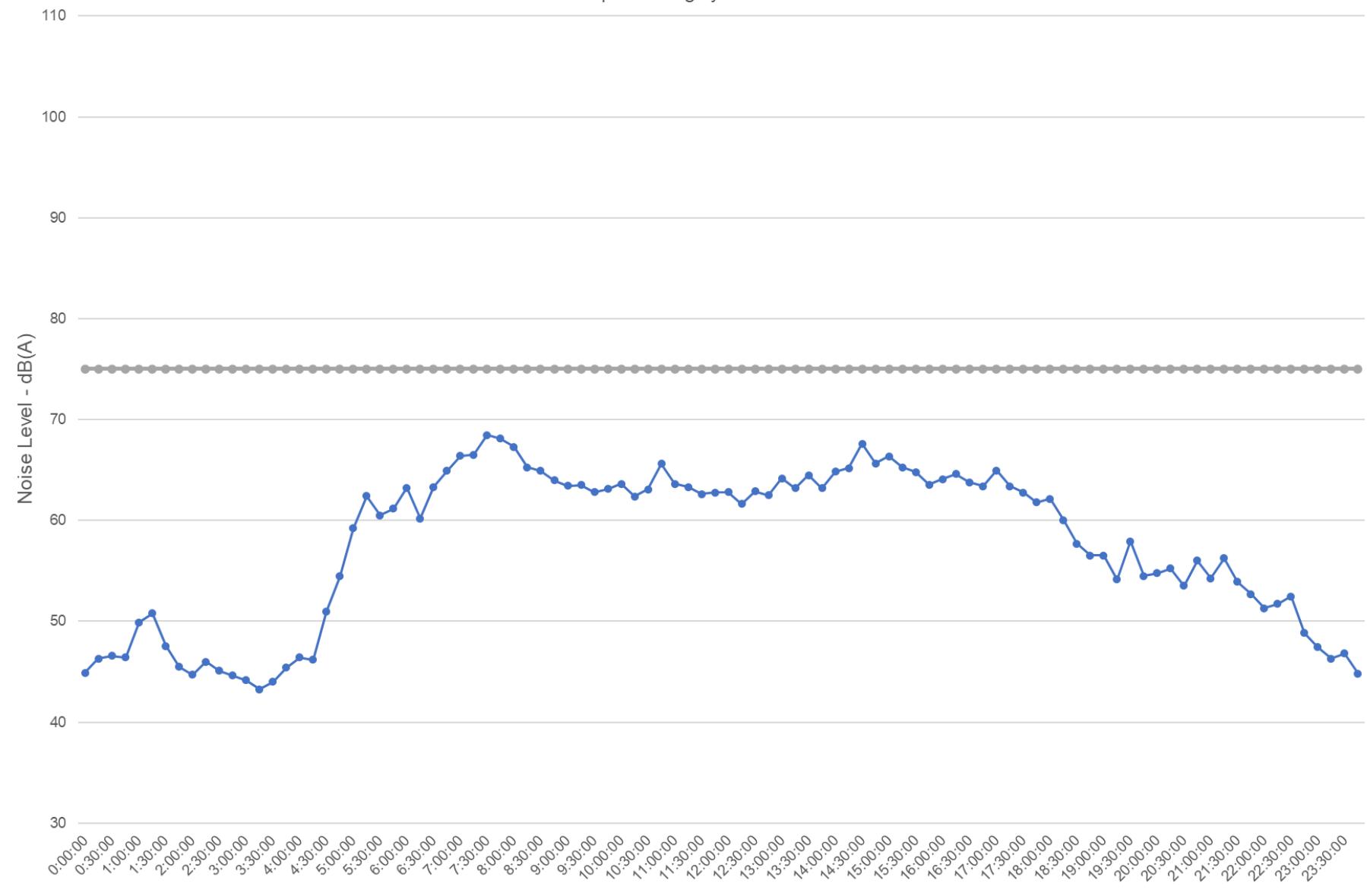
Yours faithfully,

A black rectangular redaction box covering a handwritten signature.

Acoustic Logic Pty Ltd
[Redacted]

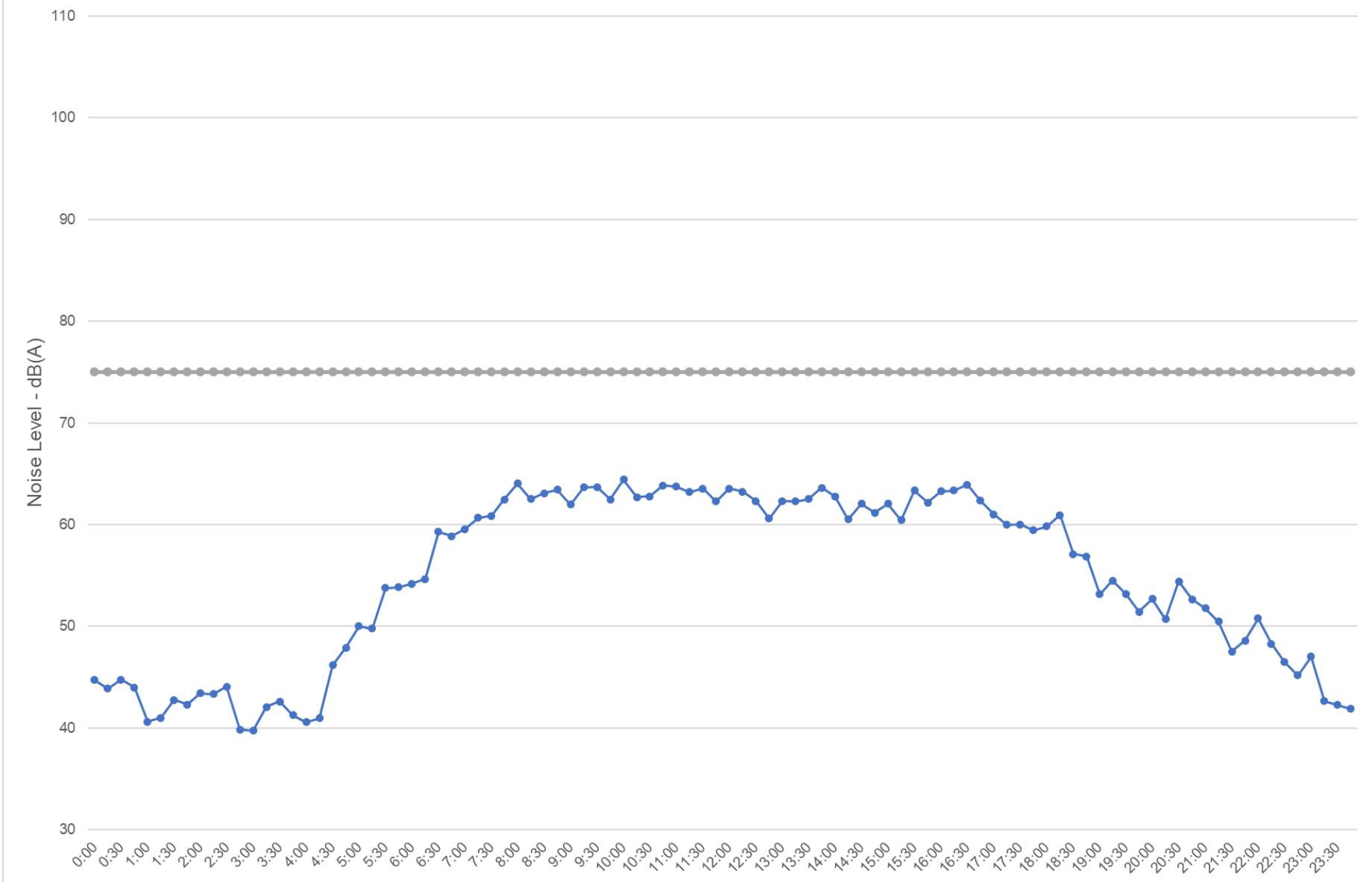
APPENDIX 1 – NOISE MONITORING RESULTS

Noise Monitoring: 01/04/2022

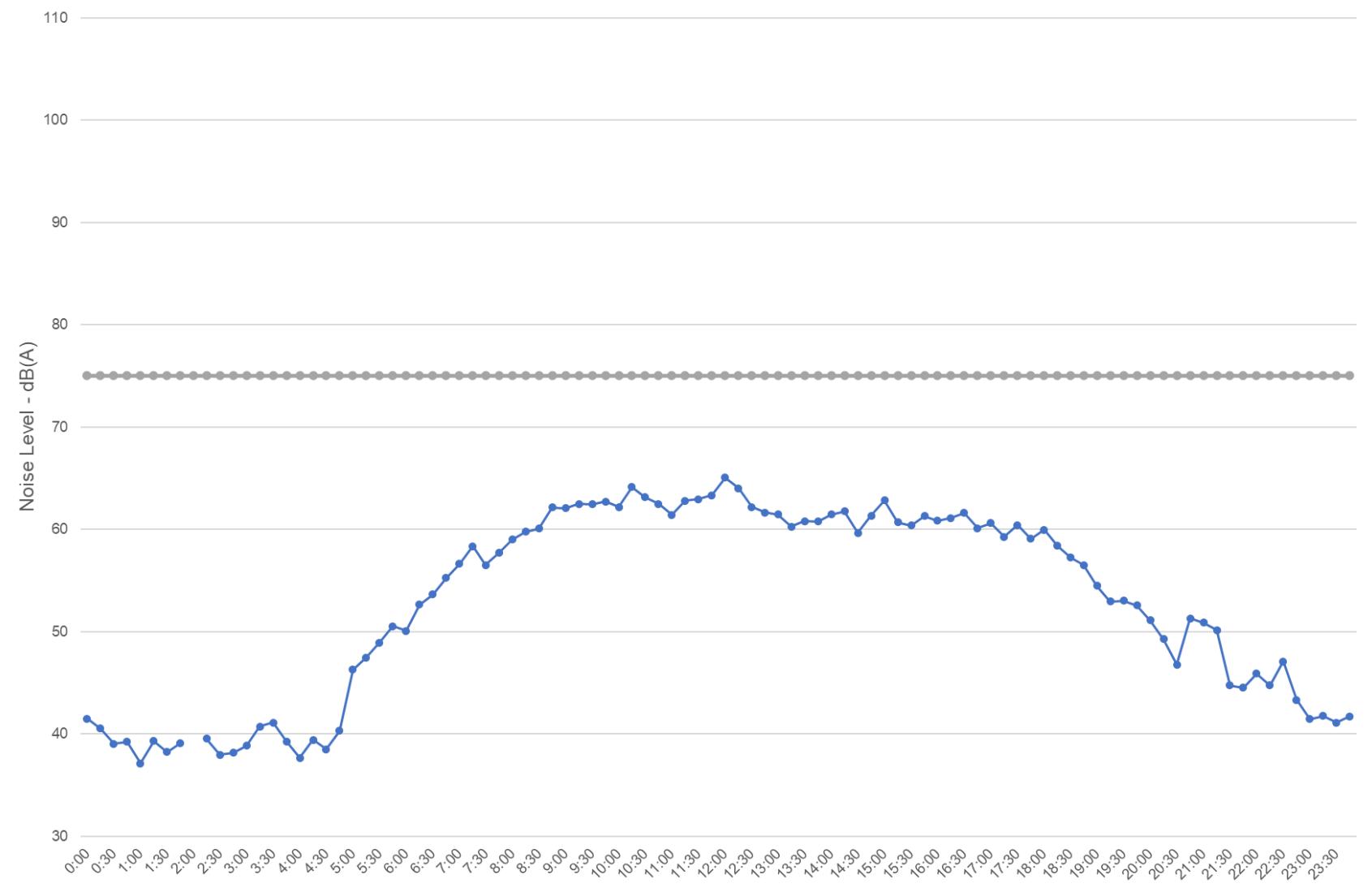
● laeq ● Highly Noise Effected


Noise Monitoring: 02/04/2022

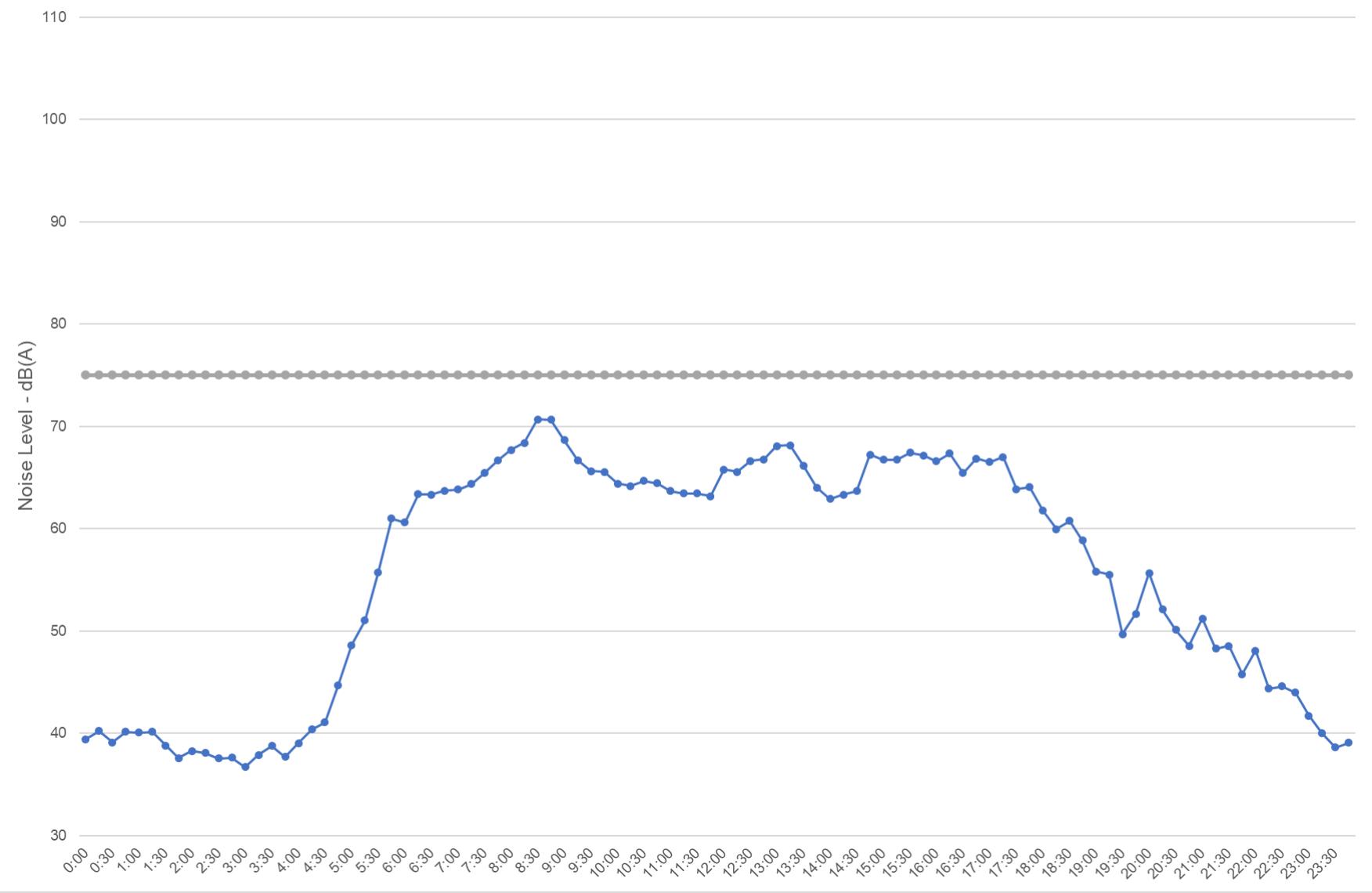
—●— Leq —●— Highly Noise Effected



Noise Monitoring: 03/04/2022

● Leq ● Highly Noise Effected


Noise Monitoring: 04/04/2022

● Leq ● Highly Noise Effected


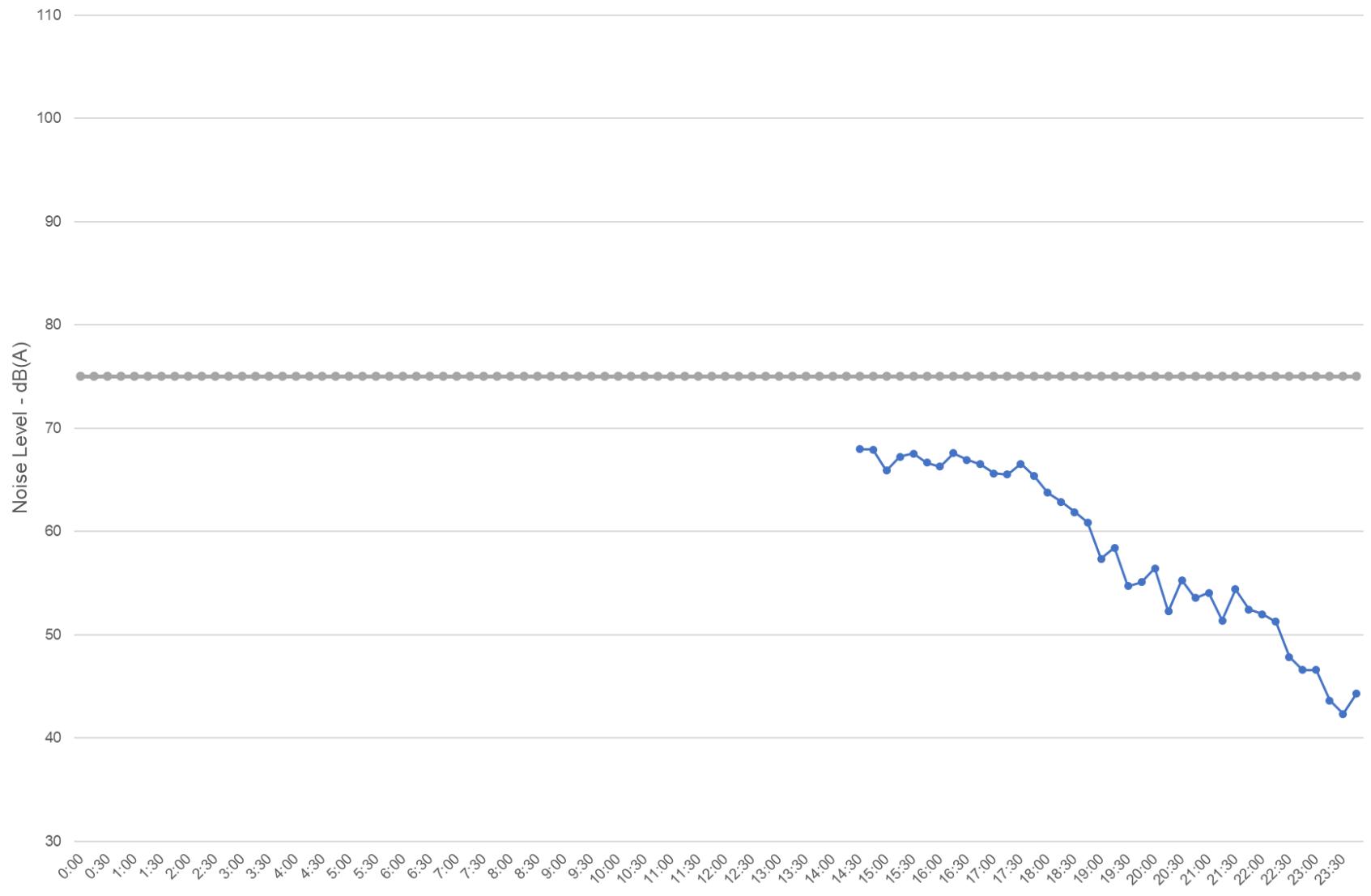
Noise Monitoring: 05/04/2022

—●— Leq —●— Highly Noise Effected

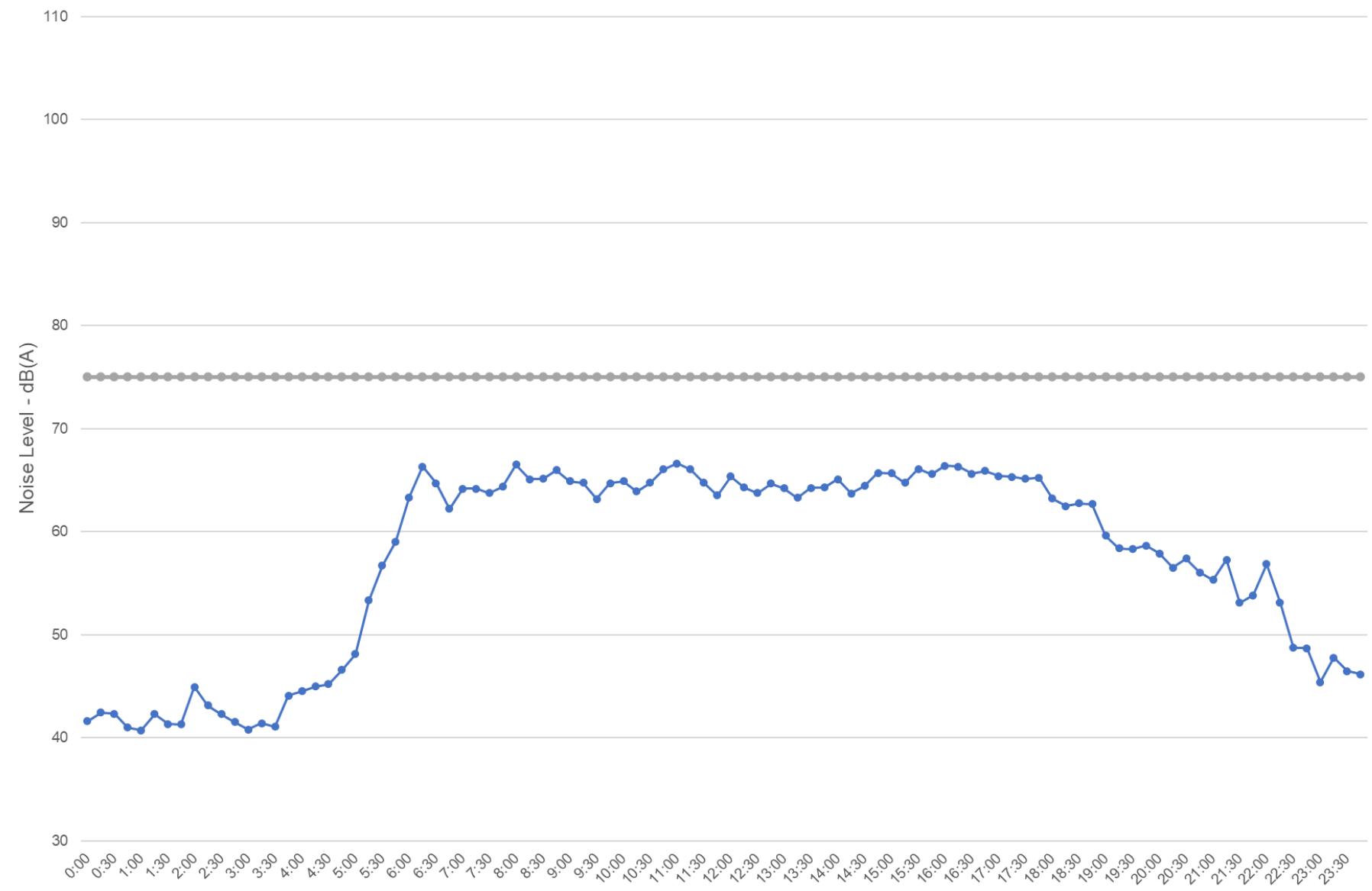


Noise Monitoring: 13/04/2022

—●— Leq —●— Highly Noise Effected

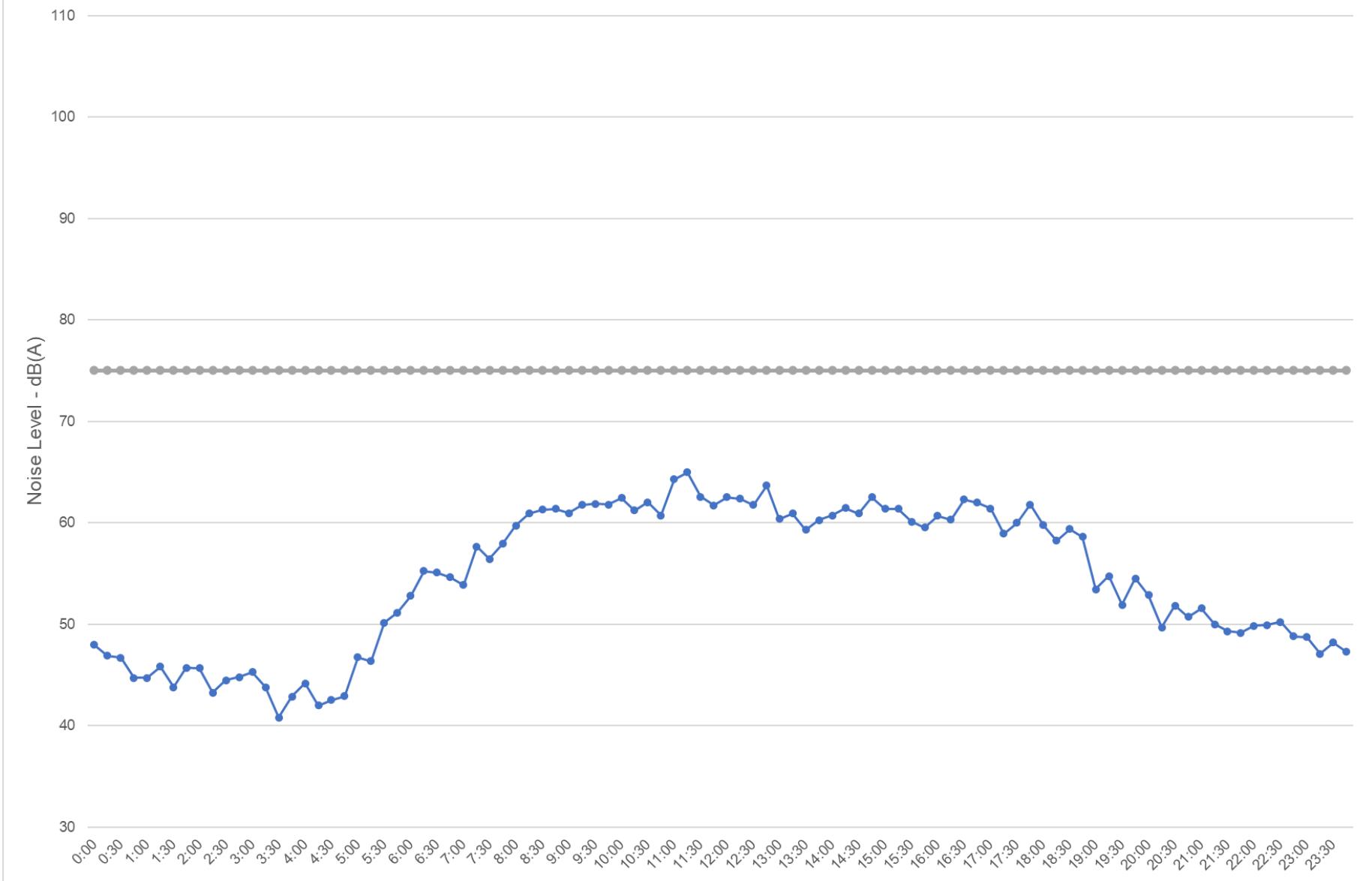


Noise Monitoring: 14/04/2022

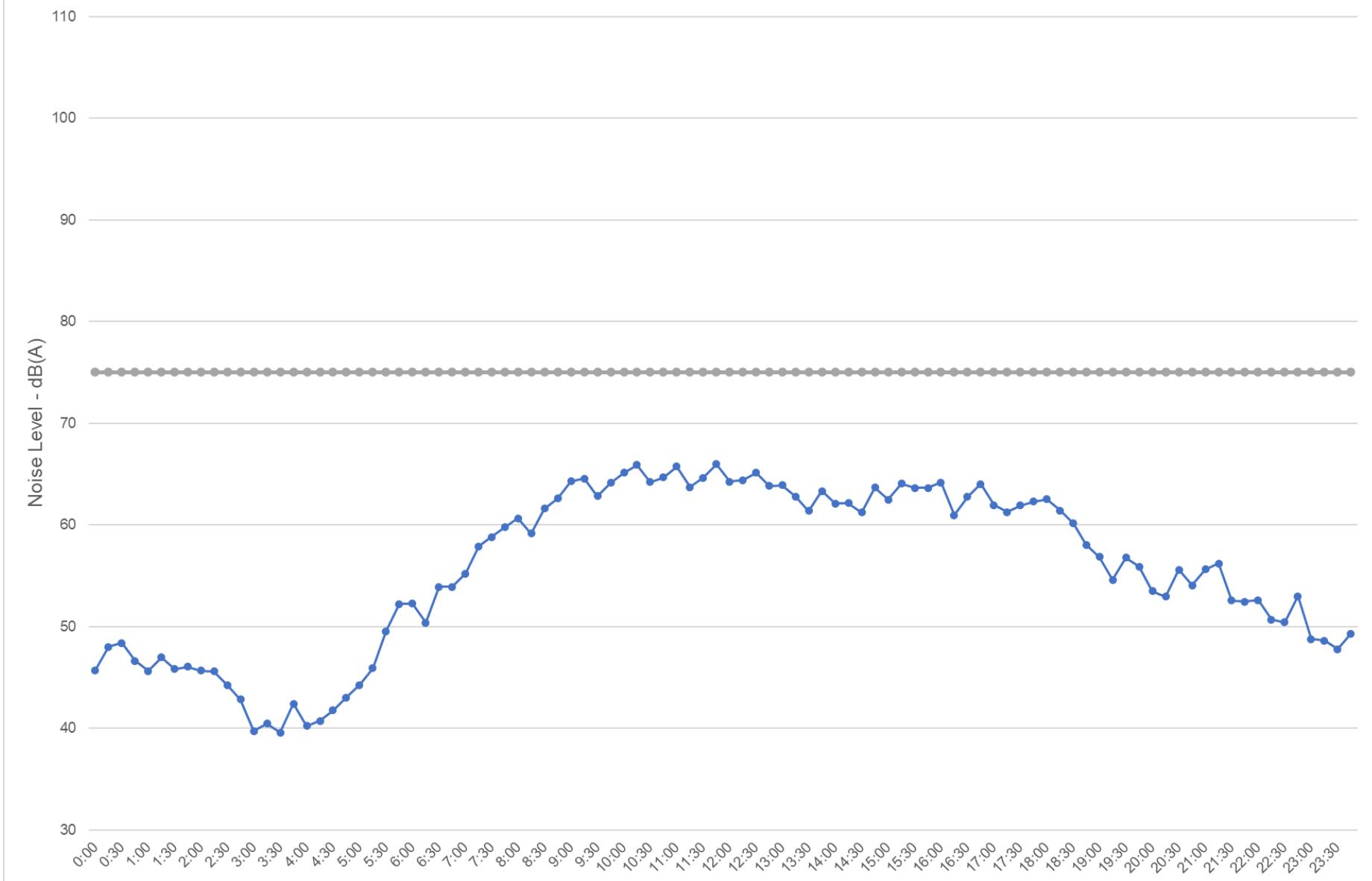
● Leq ● Highly Noise Effected


Noise Monitoring: 15/04/2022

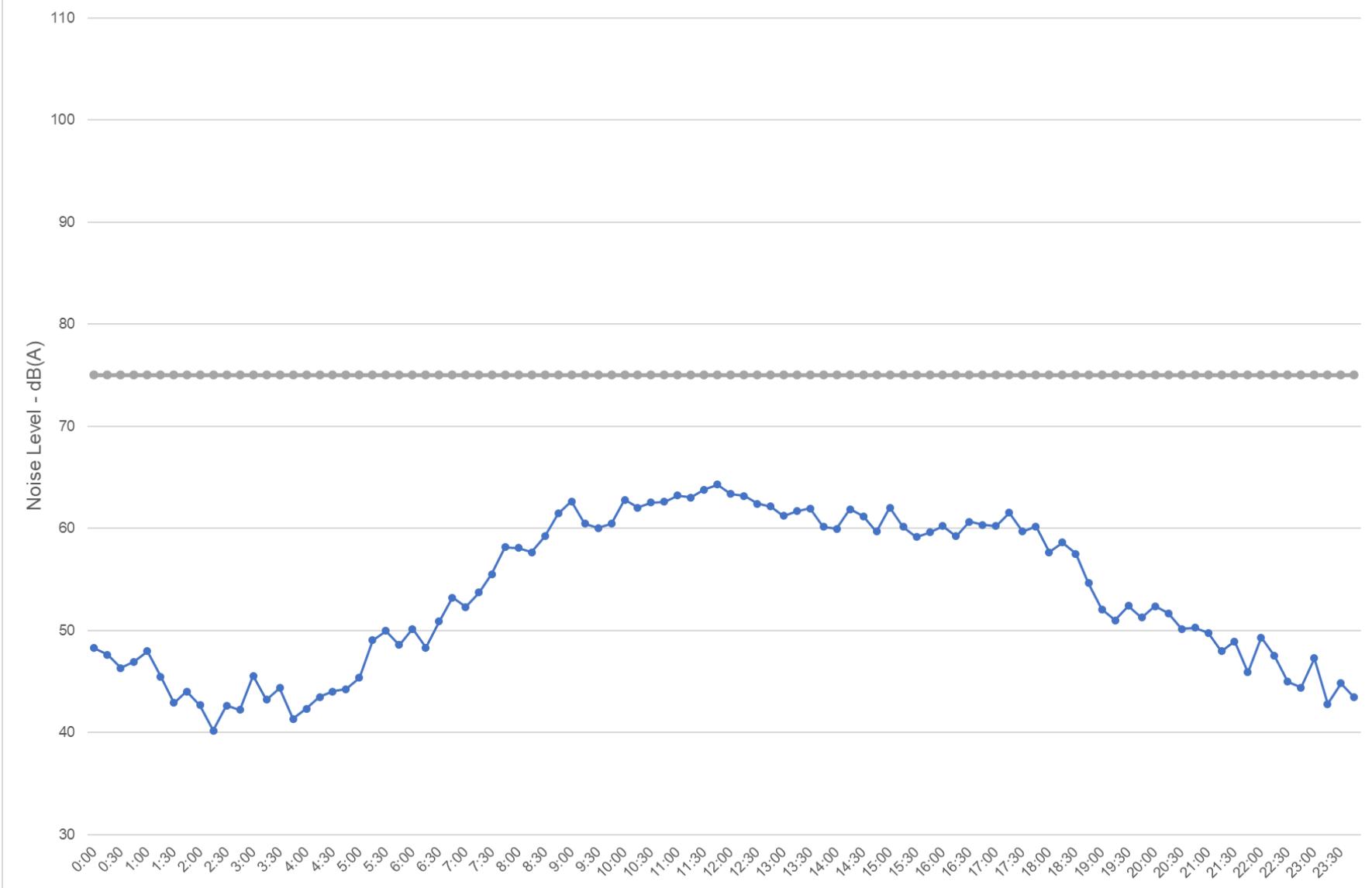
—●— Leq —●— Highly Noise Effected



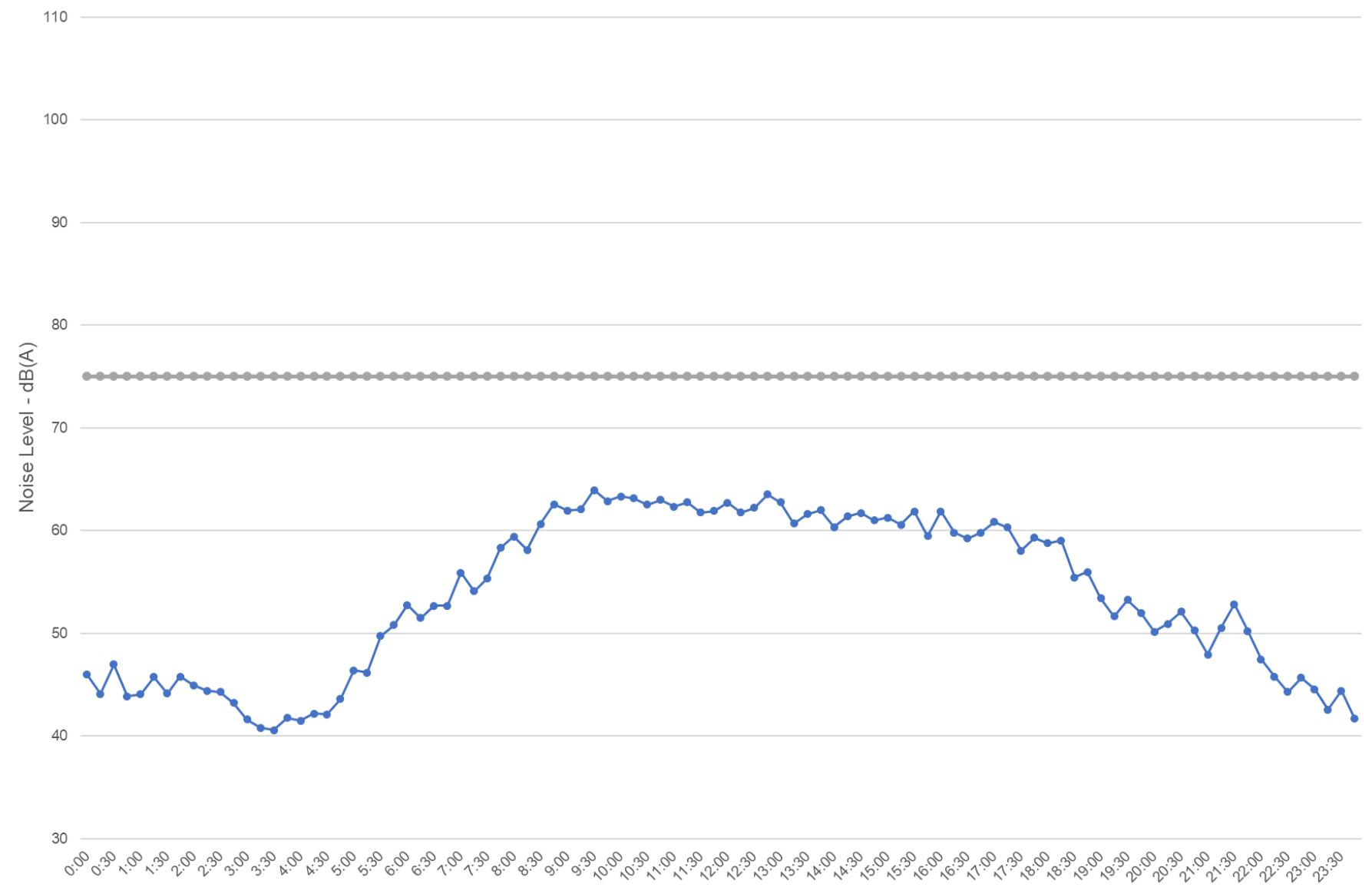
Noise Monitoring: 16/04/2022

● Leq ● Highly Noise Effected


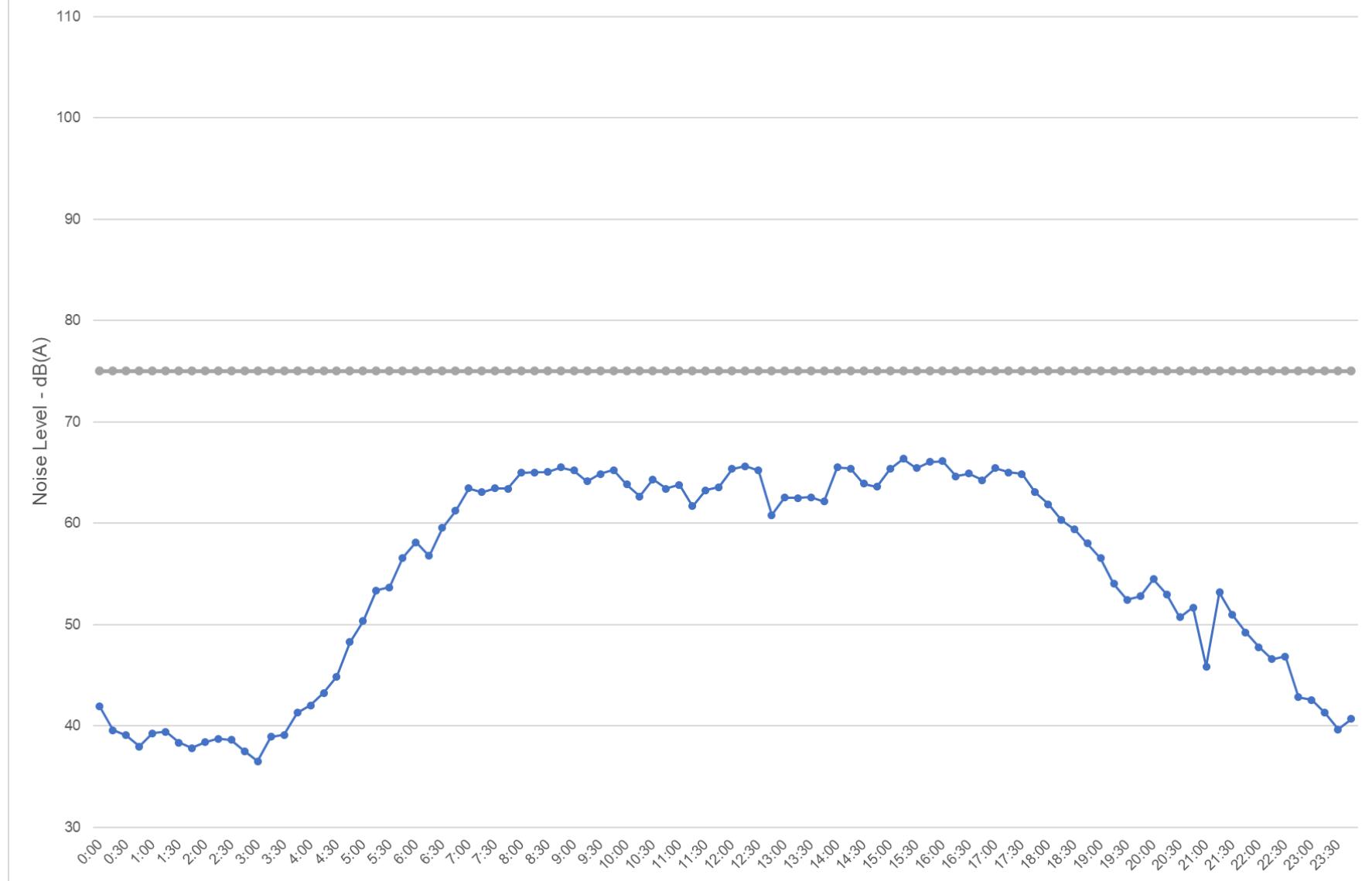
Noise Monitoring: 17/04/2022

● Leq ● Highly Noise Effected


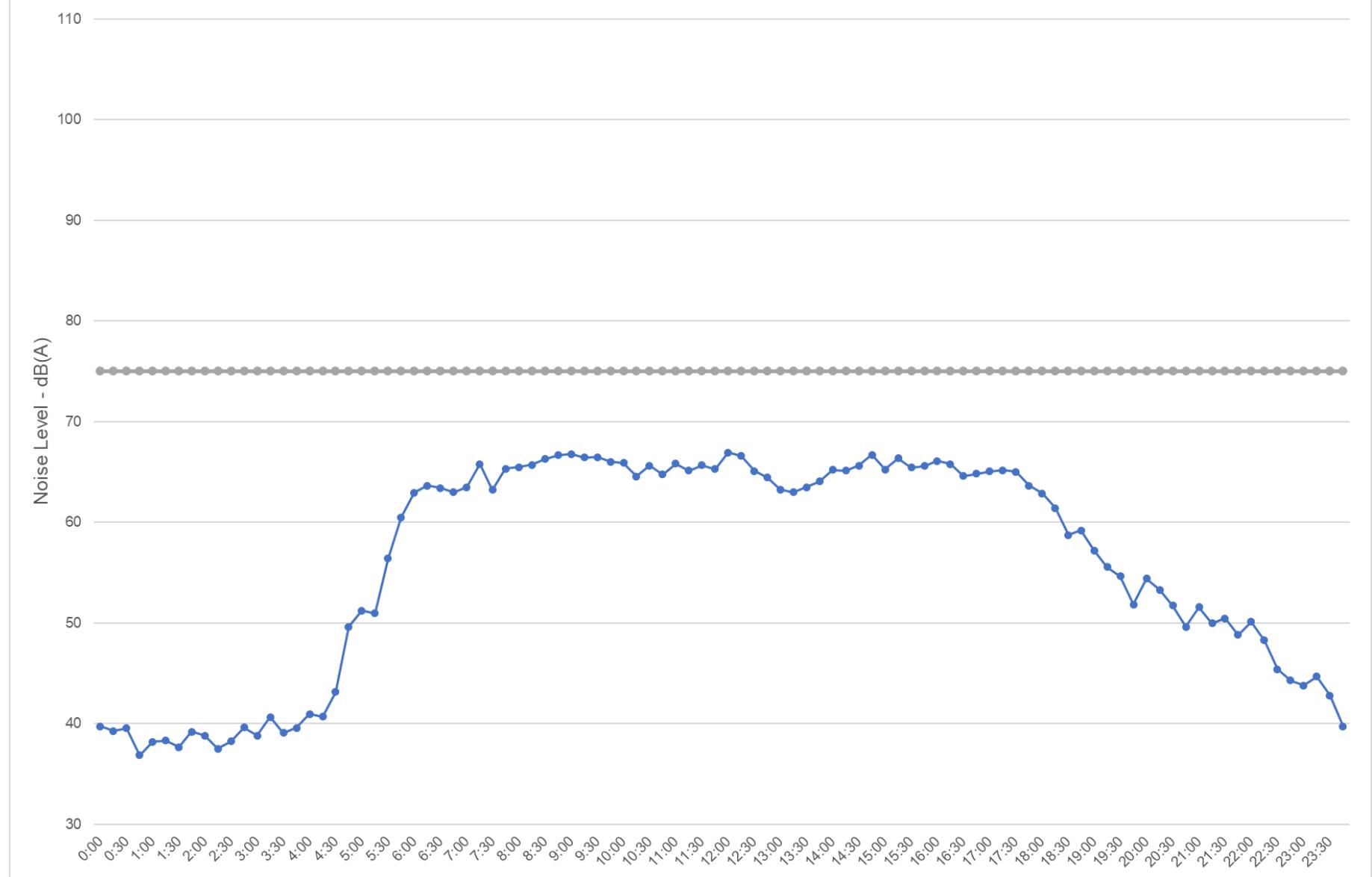
Noise Monitoring: 18/04/2022

● Leq ● Highly Noise Effected


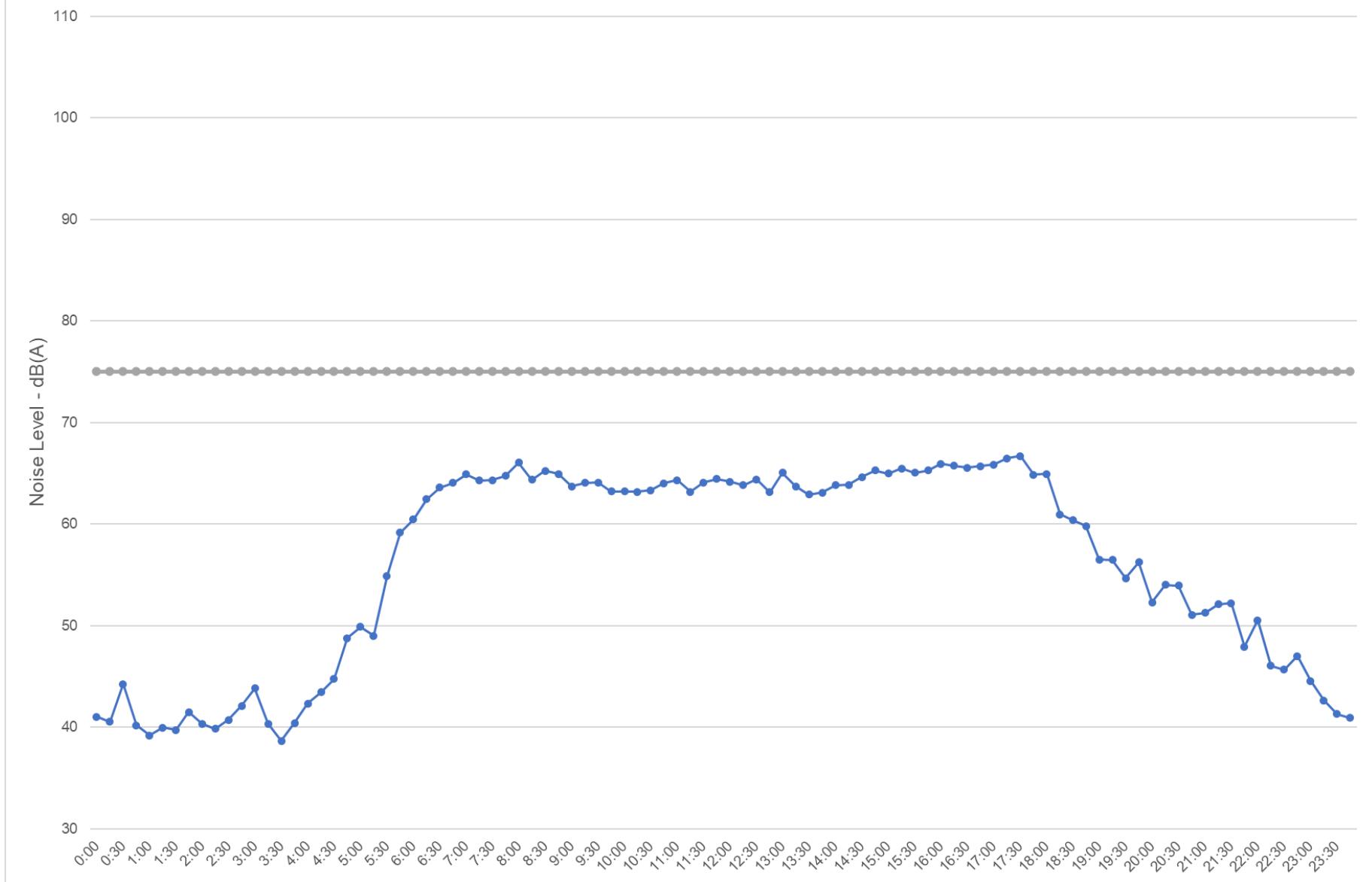
Noise Monitoring: 19/04/2022

● Leq ● Highly Noise Effected


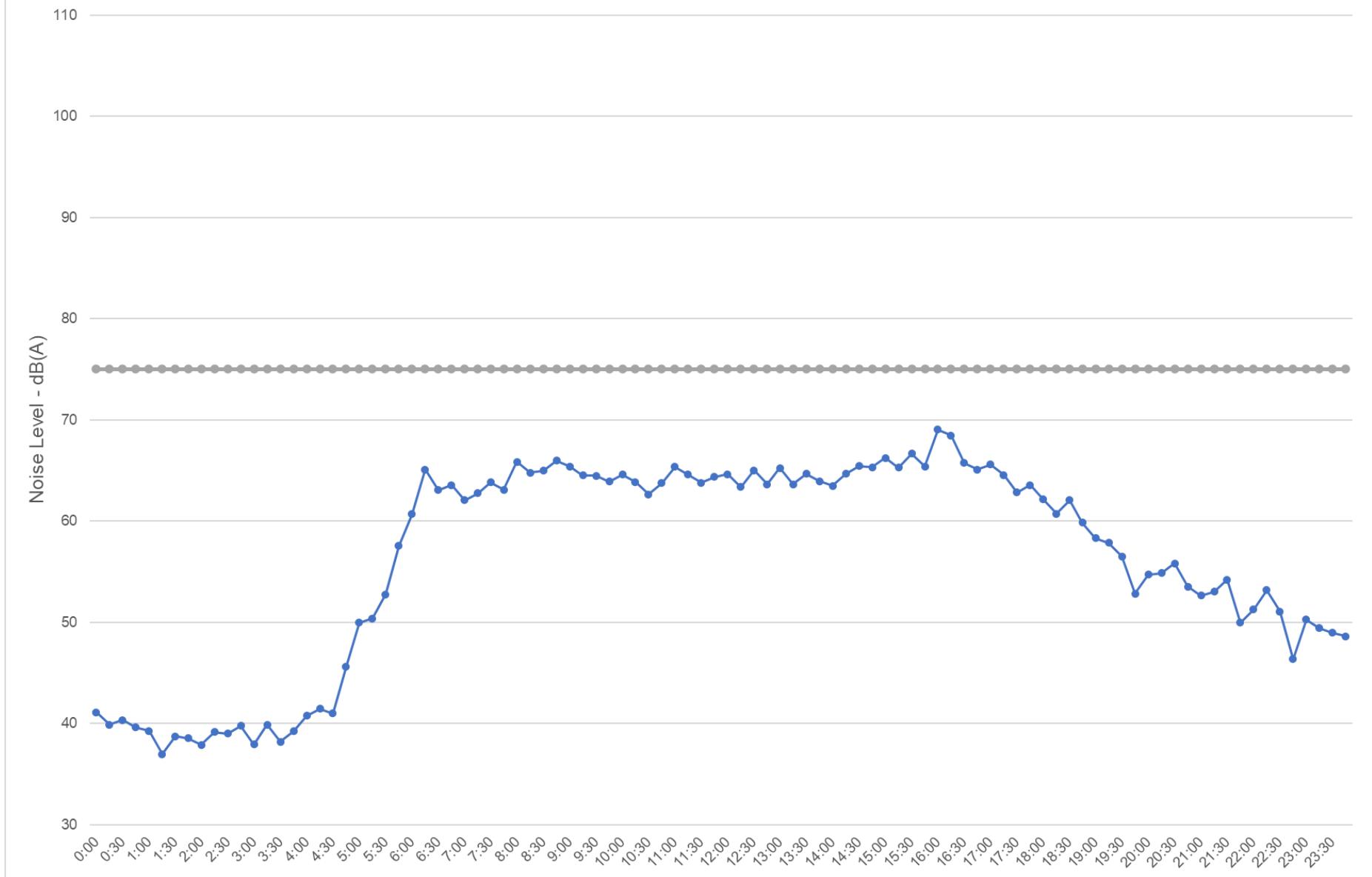
Noise Monitoring: 20/04/2022

● Leq ● Highly Noise Effected


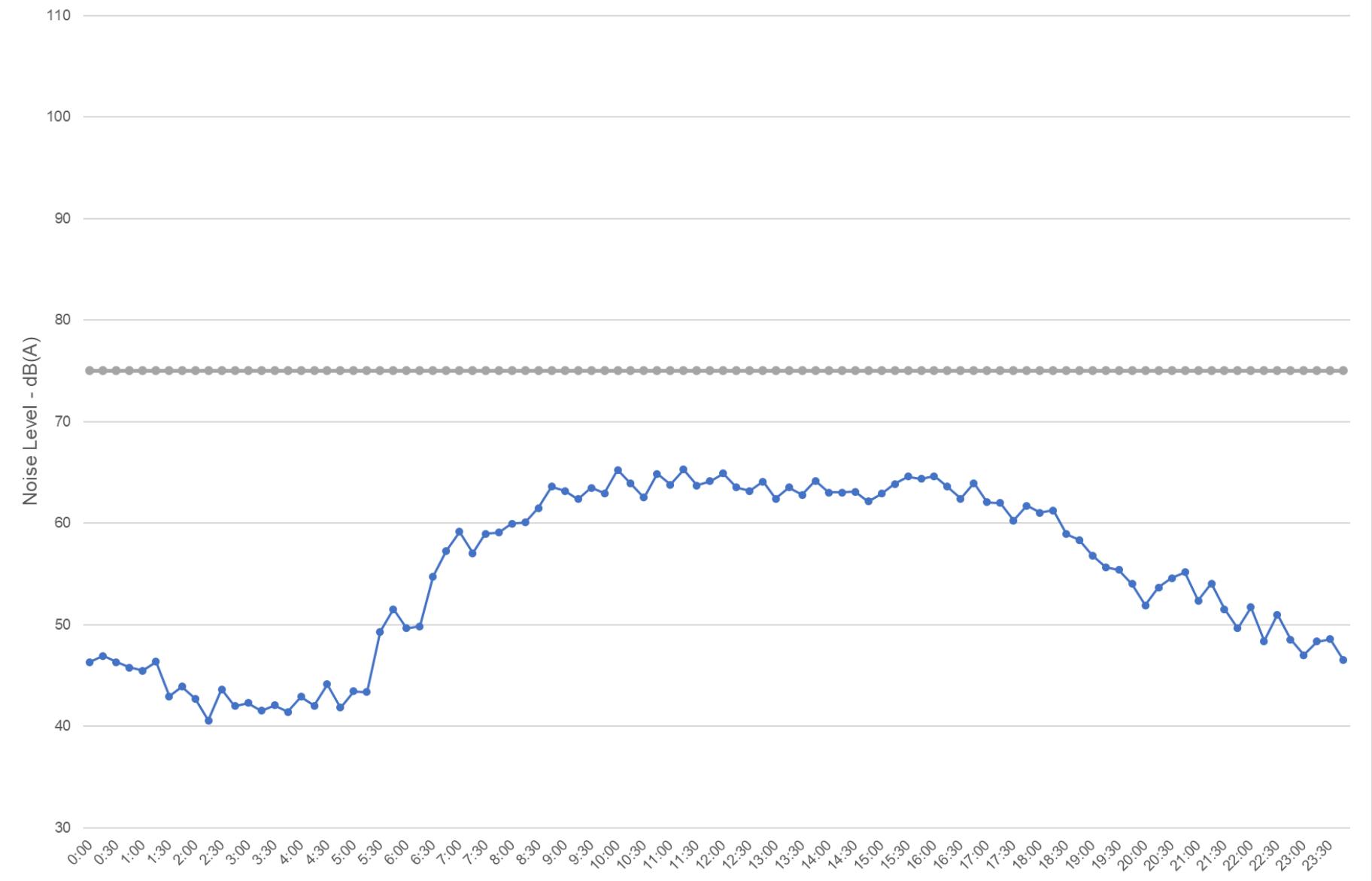
Noise Monitoring: 21/04/2022

● Leq ● Highly Noise Effected


Noise Monitoring: 22/04/2022

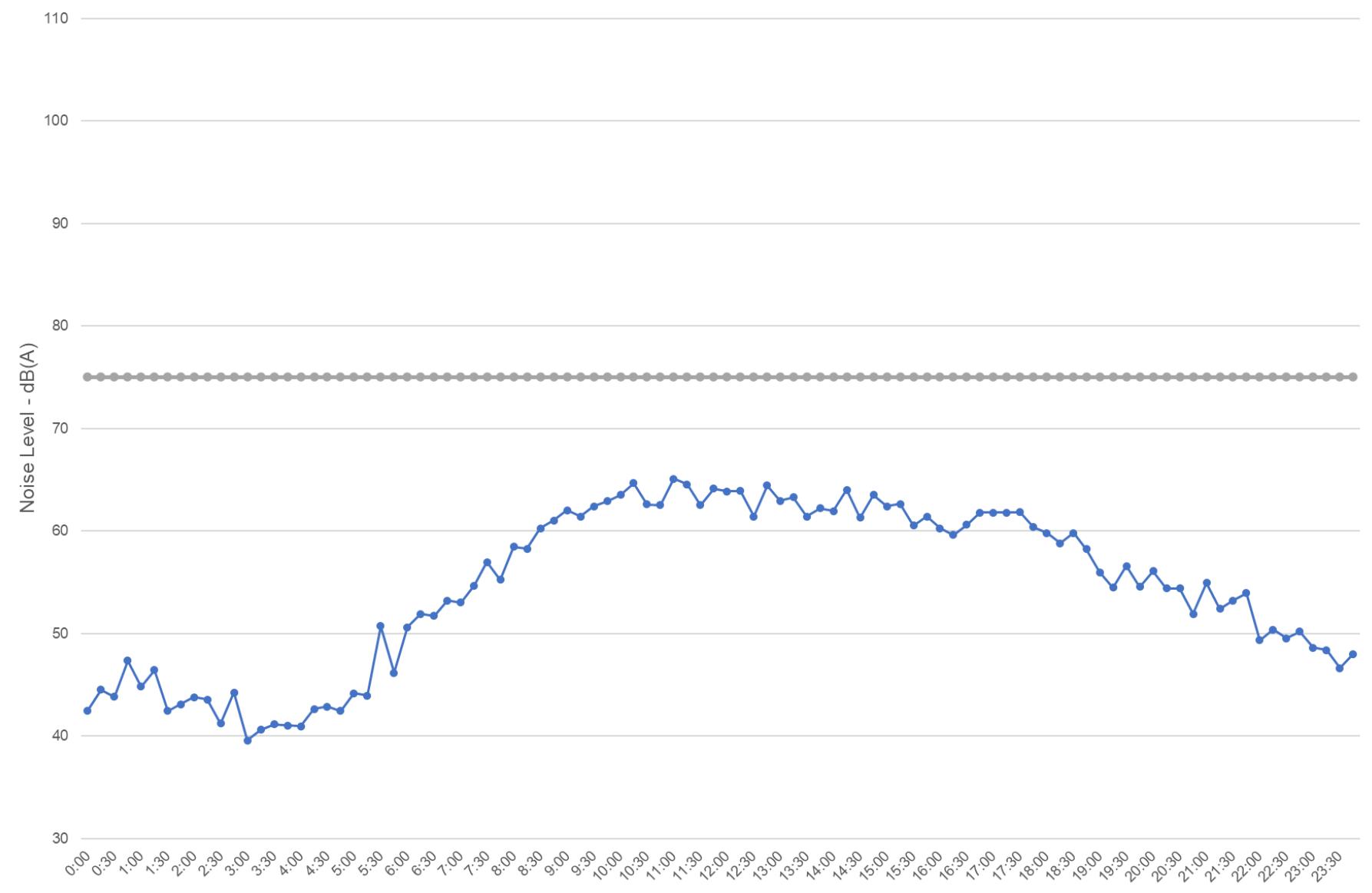
● Leq ● Highly Noise Effected


Noise Monitoring: 23/04/2022

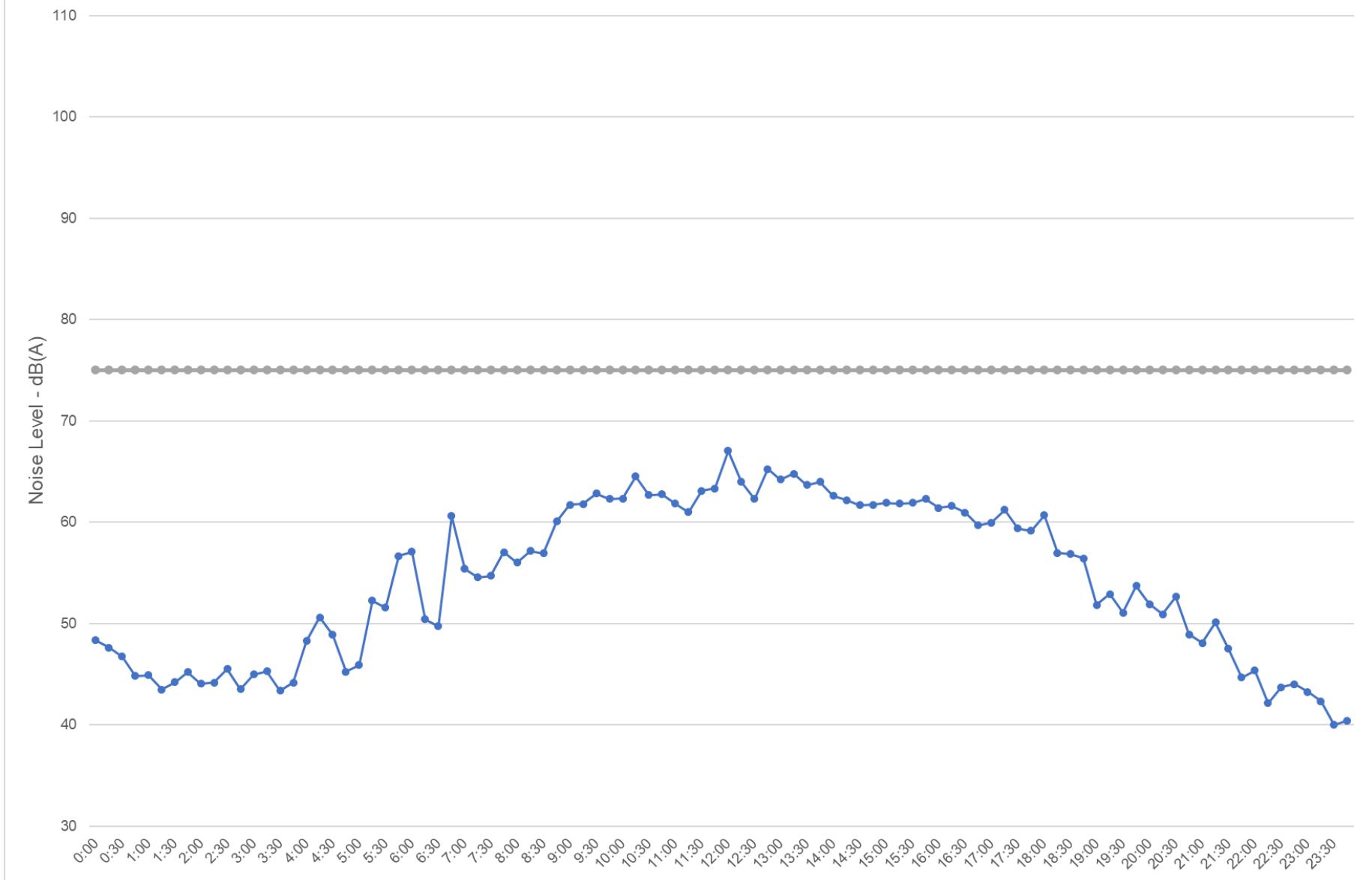
● Leq ● Highly Noise Effected


Noise Monitoring: 24/04/2022

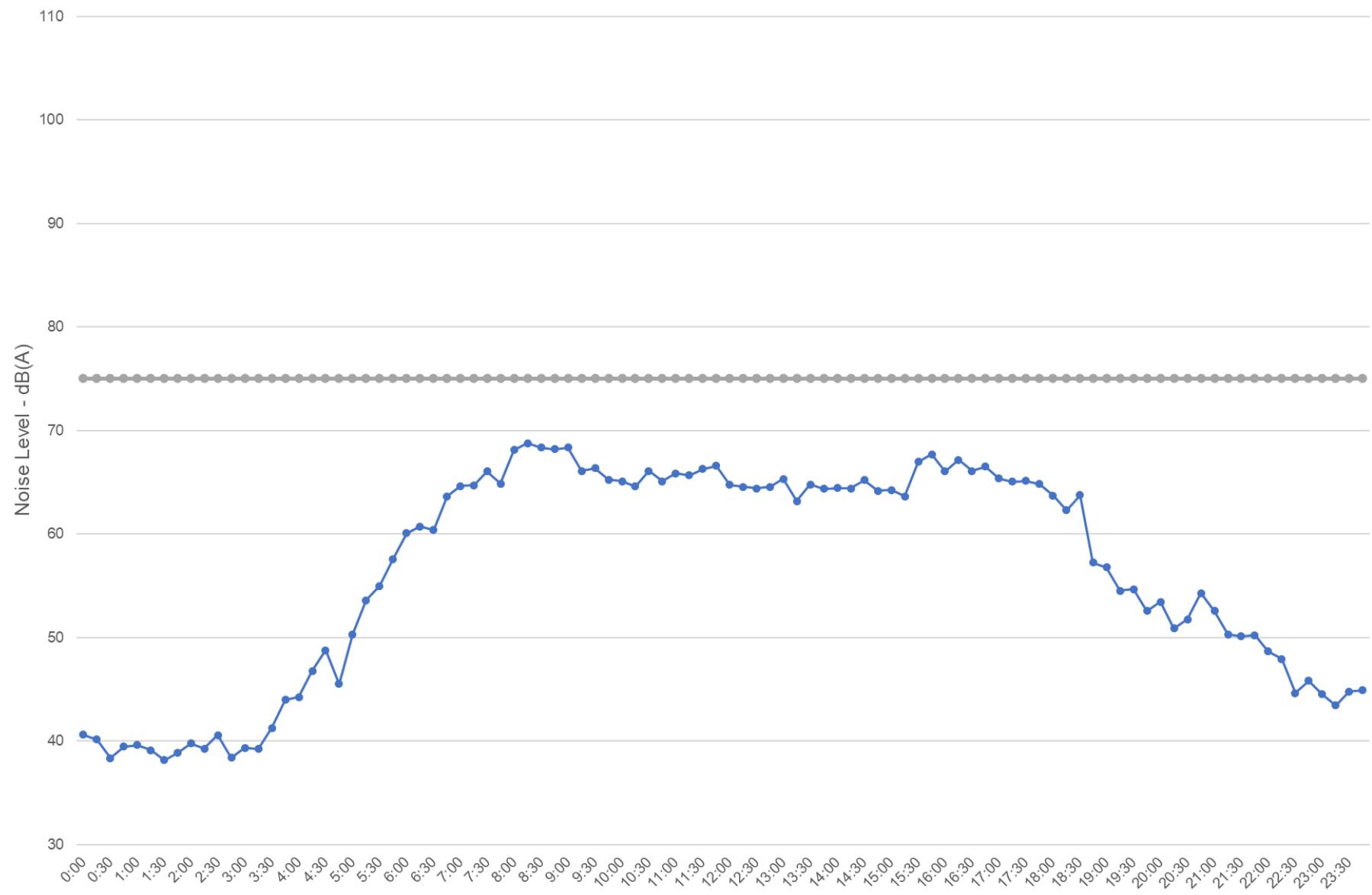
—●— Leq —●— Highly Noise Effected



Noise Monitoring: 25/04/2022

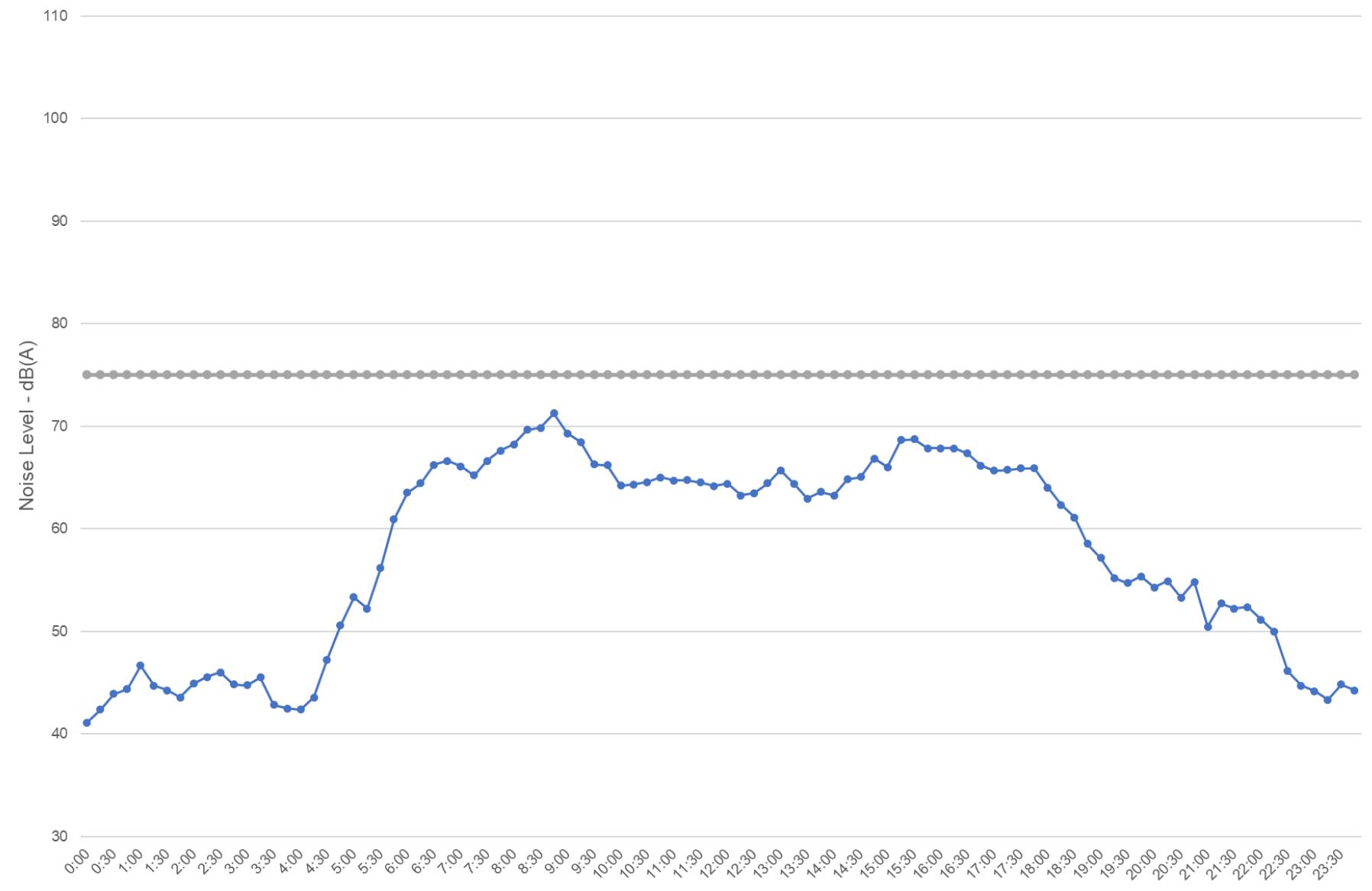
● Leq ● Highly Noise Effected


Noise Monitoring: 26/04/2022

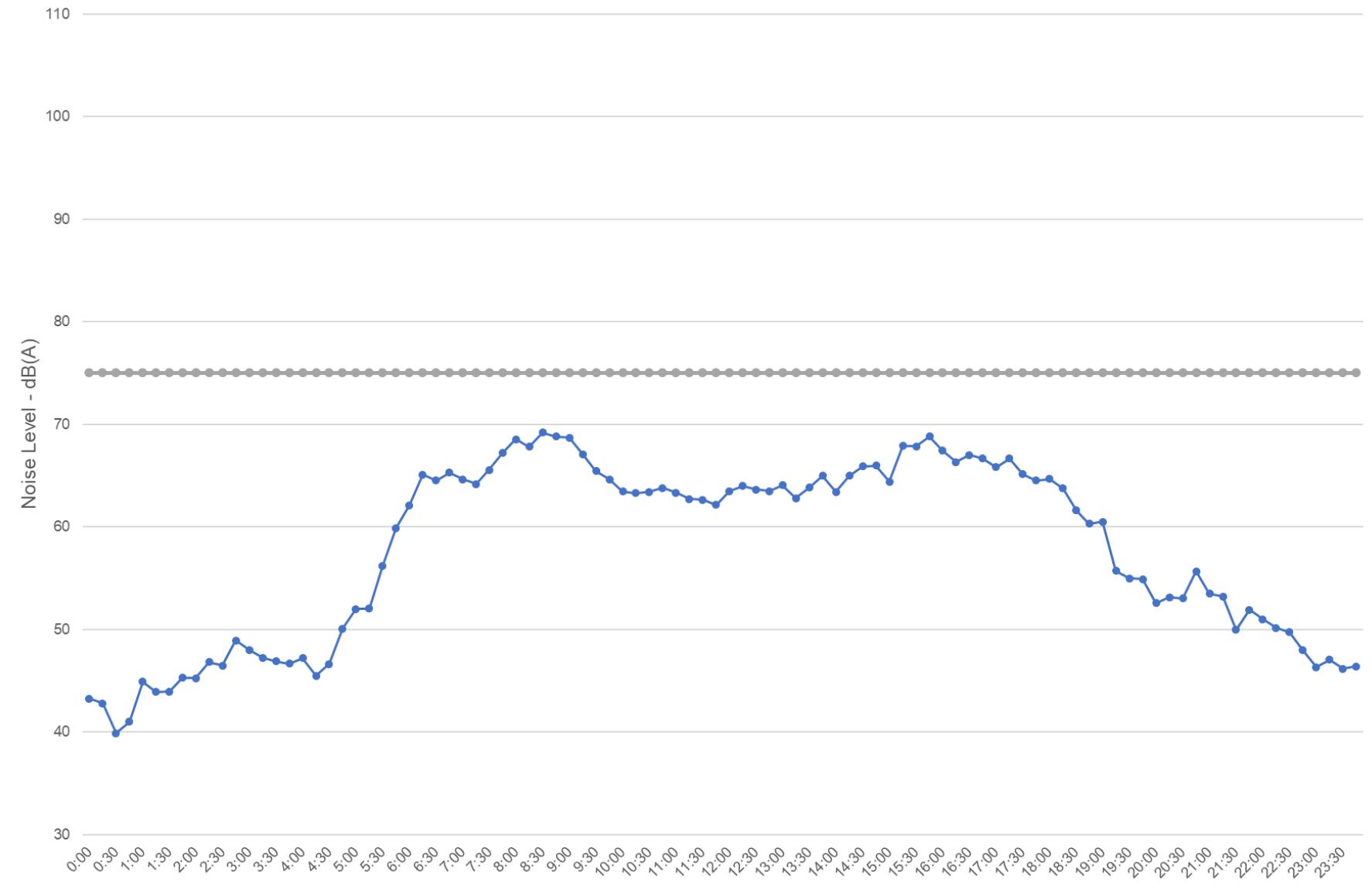
● Leq ● Highly Noise Effected


Noise Monitoring: 27/04/2022

—●— Leq —●— Highly Noise Effected

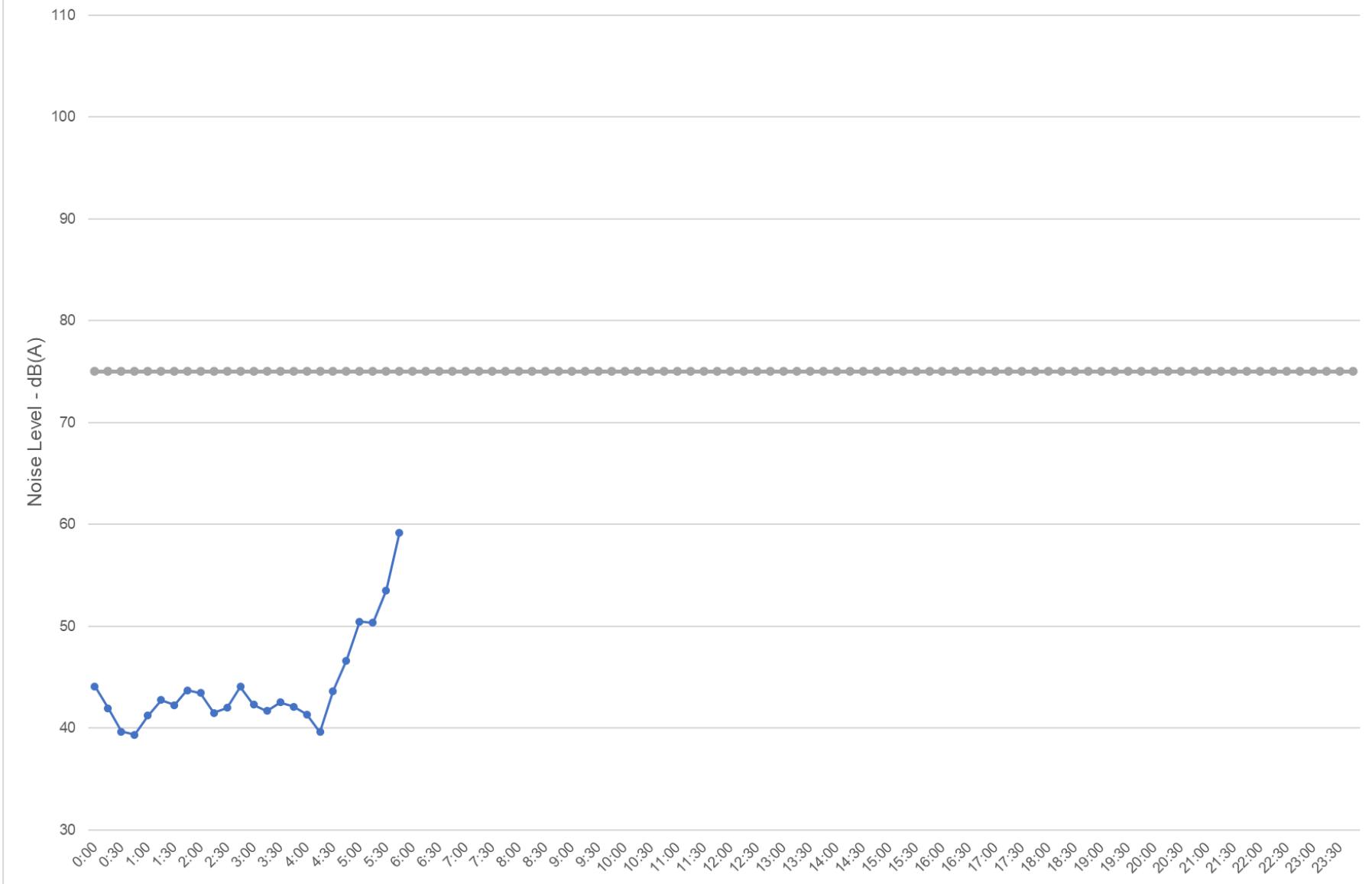


Noise Monitoring: 28/04/2022

● Leq ● Highly Noise Effected


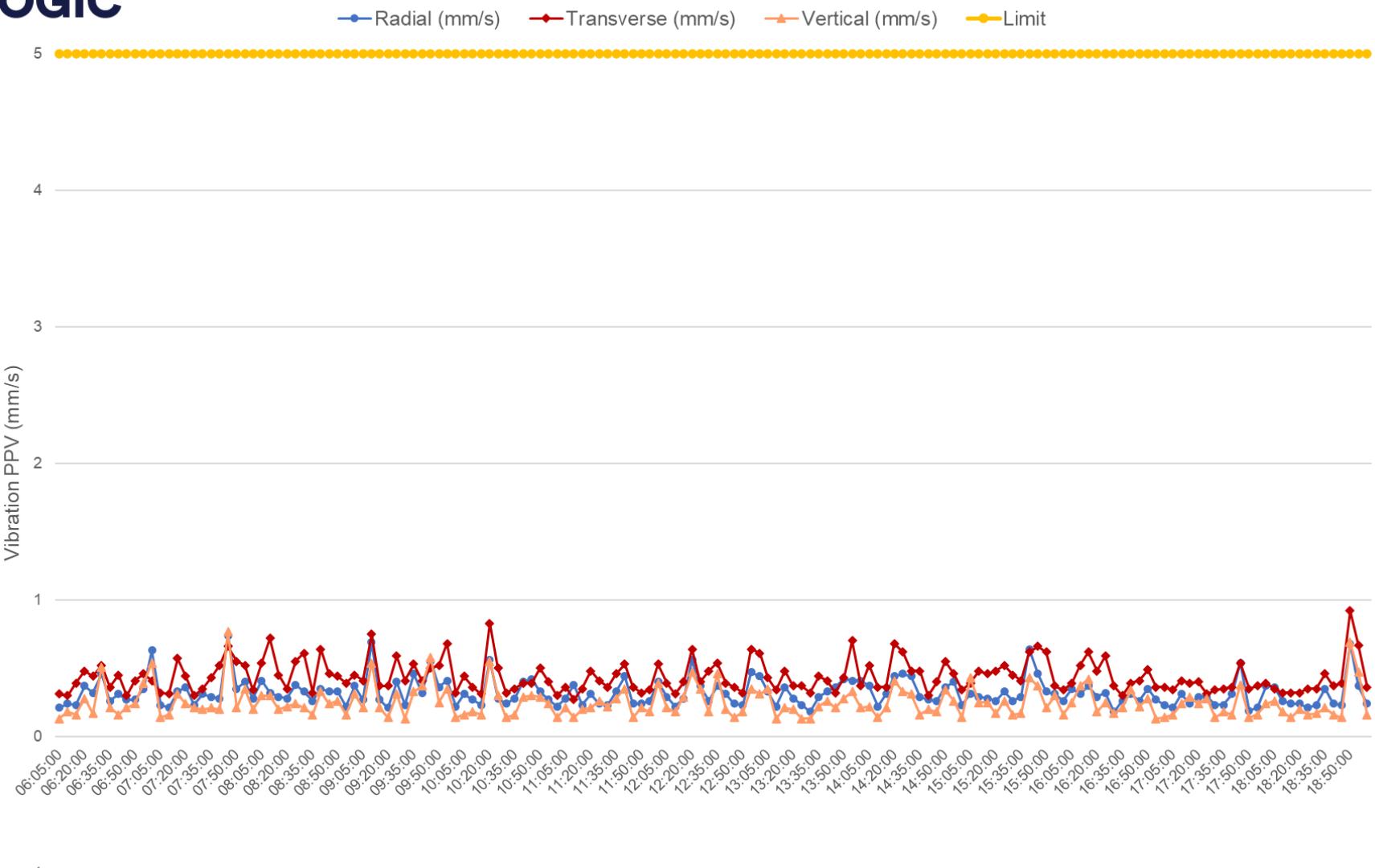
Noise Monitoring: 29/04/2022

—●— Leq —●— Highly Noise Effected

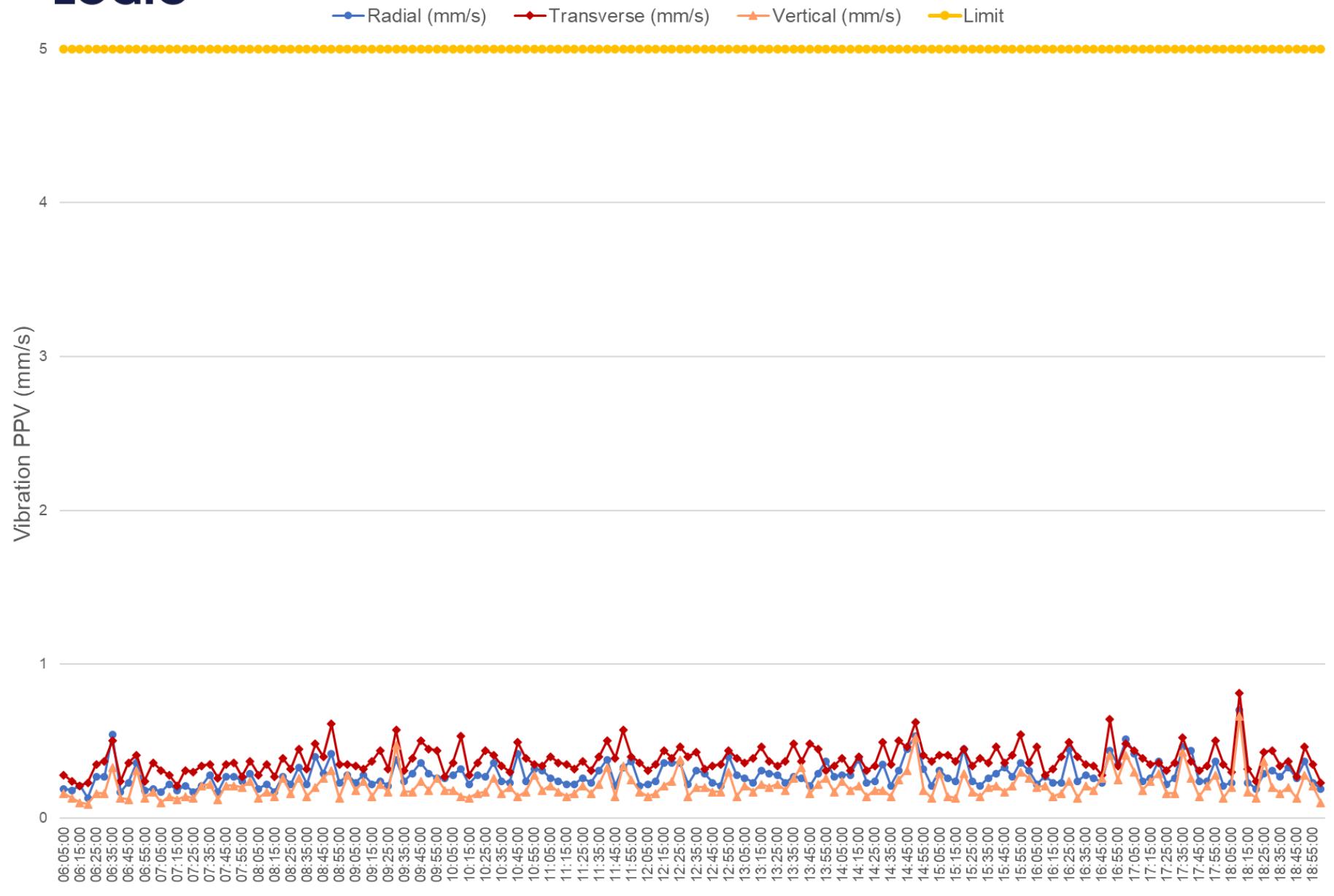


APPENDIX 2 – VIBRATION MONITORING RESULTS

Vibration Monitoring: 01/04/2022



Vibration Monitoring: 02/04/2022

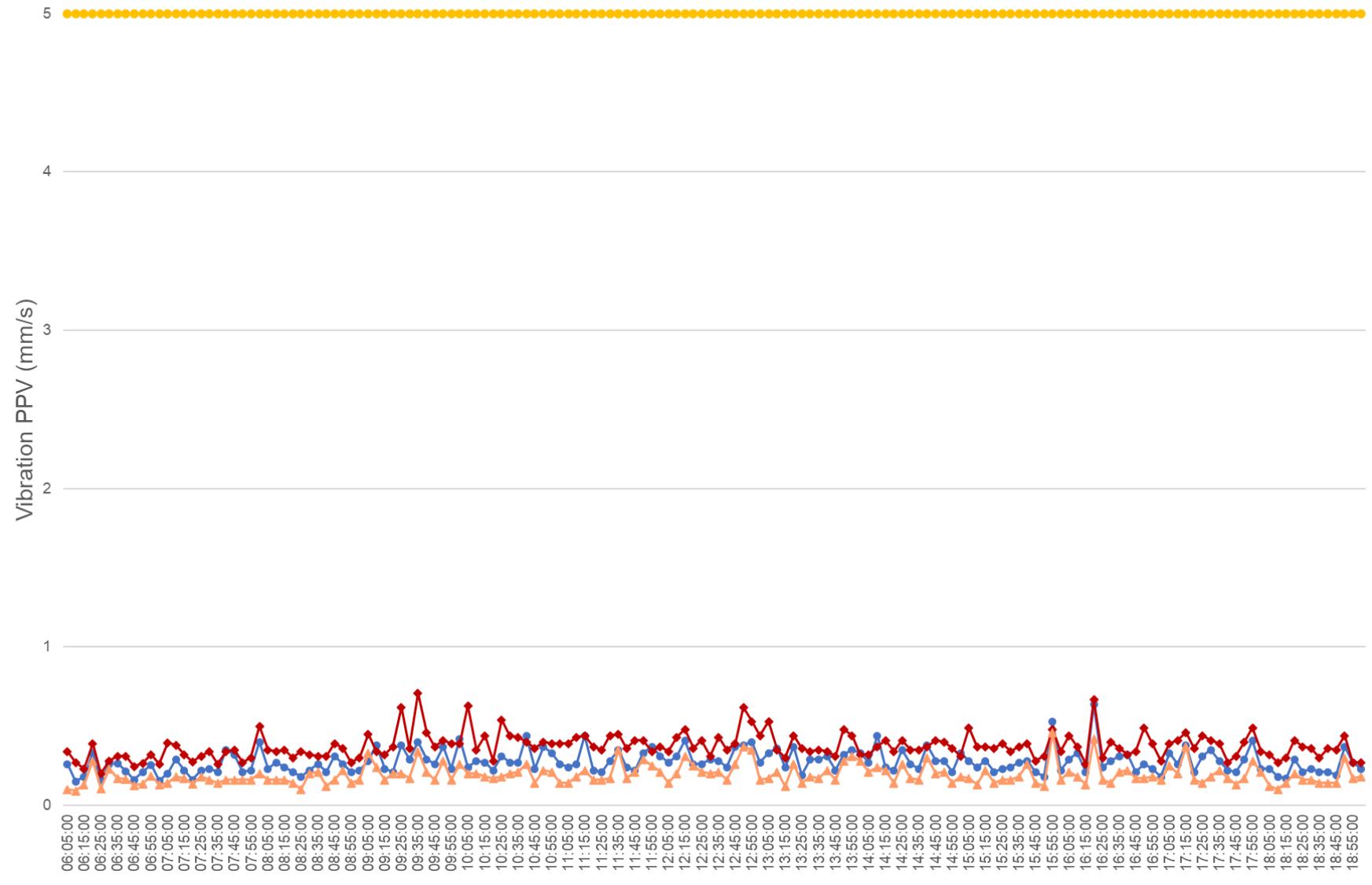




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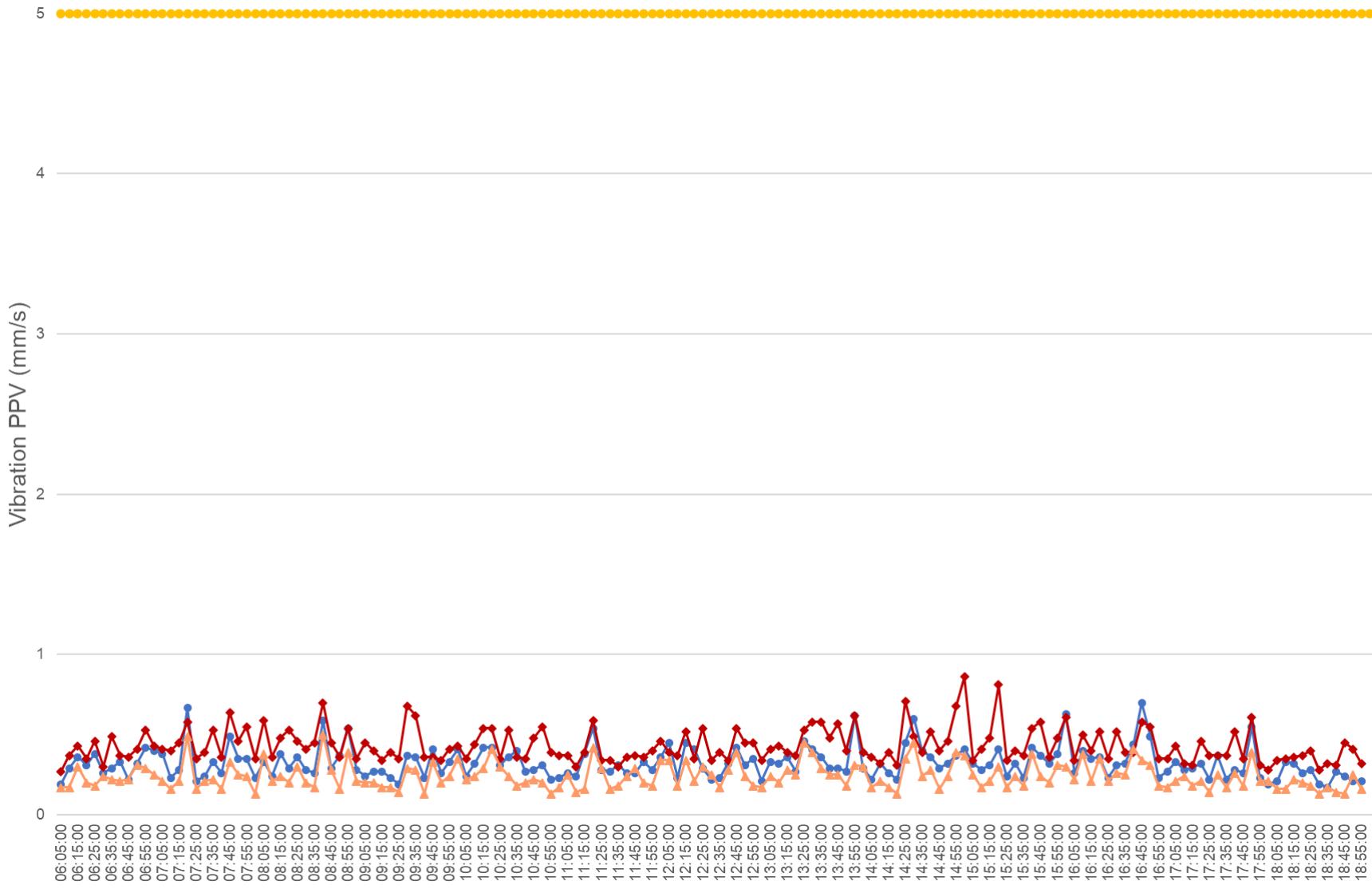
Vibration Monitoring: 03/04/2022

—●— Radial (mm/s) —●— Transverse (mm/s) —●— Vertical (mm/s) —●— Limit



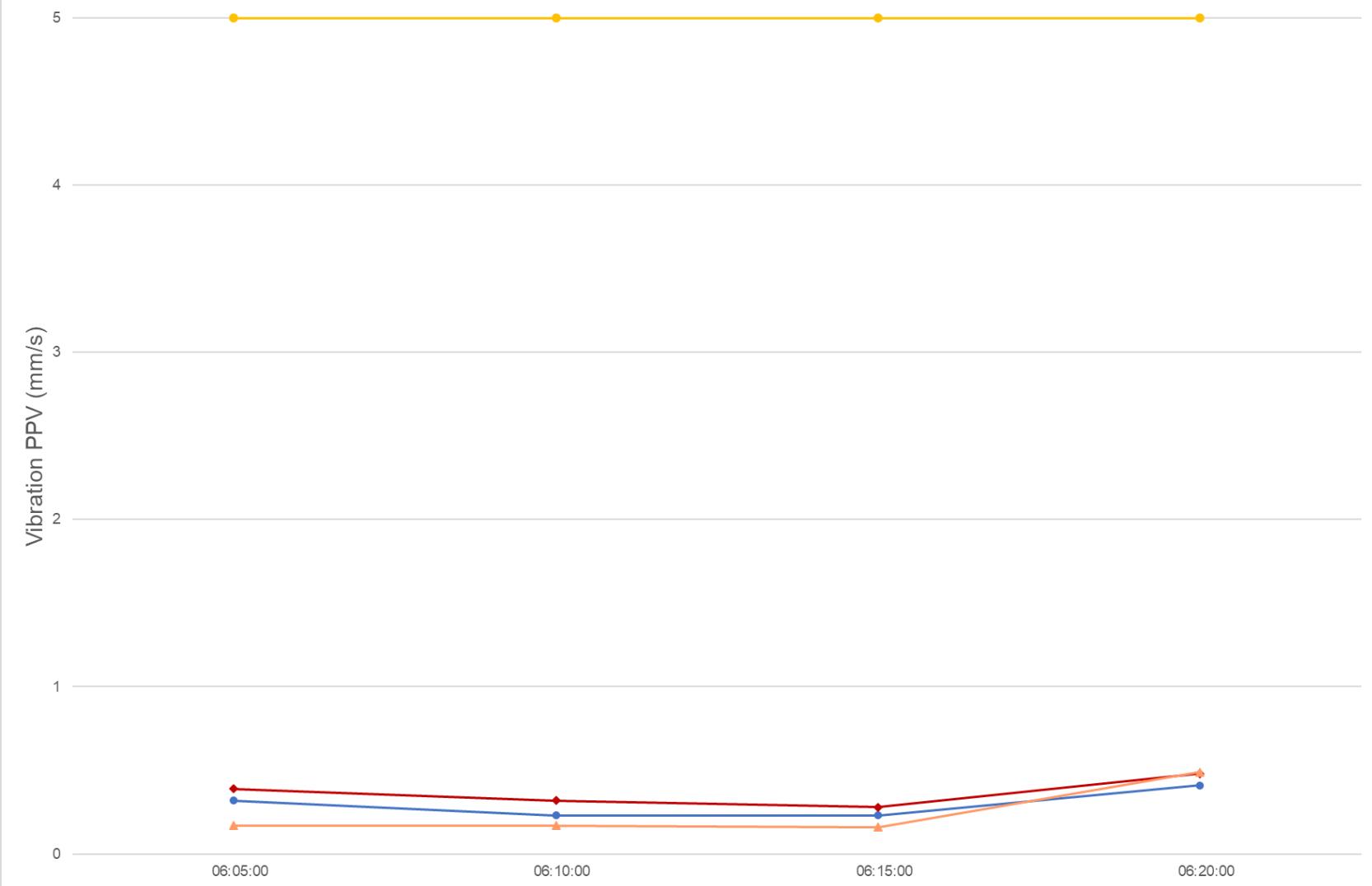
Vibration Monitoring: 04/04/2022

—●— Radial (mm/s) —●— Transverse (mm/s) —●— Vertical (mm/s) —●— Limit



Vibration Monitoring: 05/04/2022

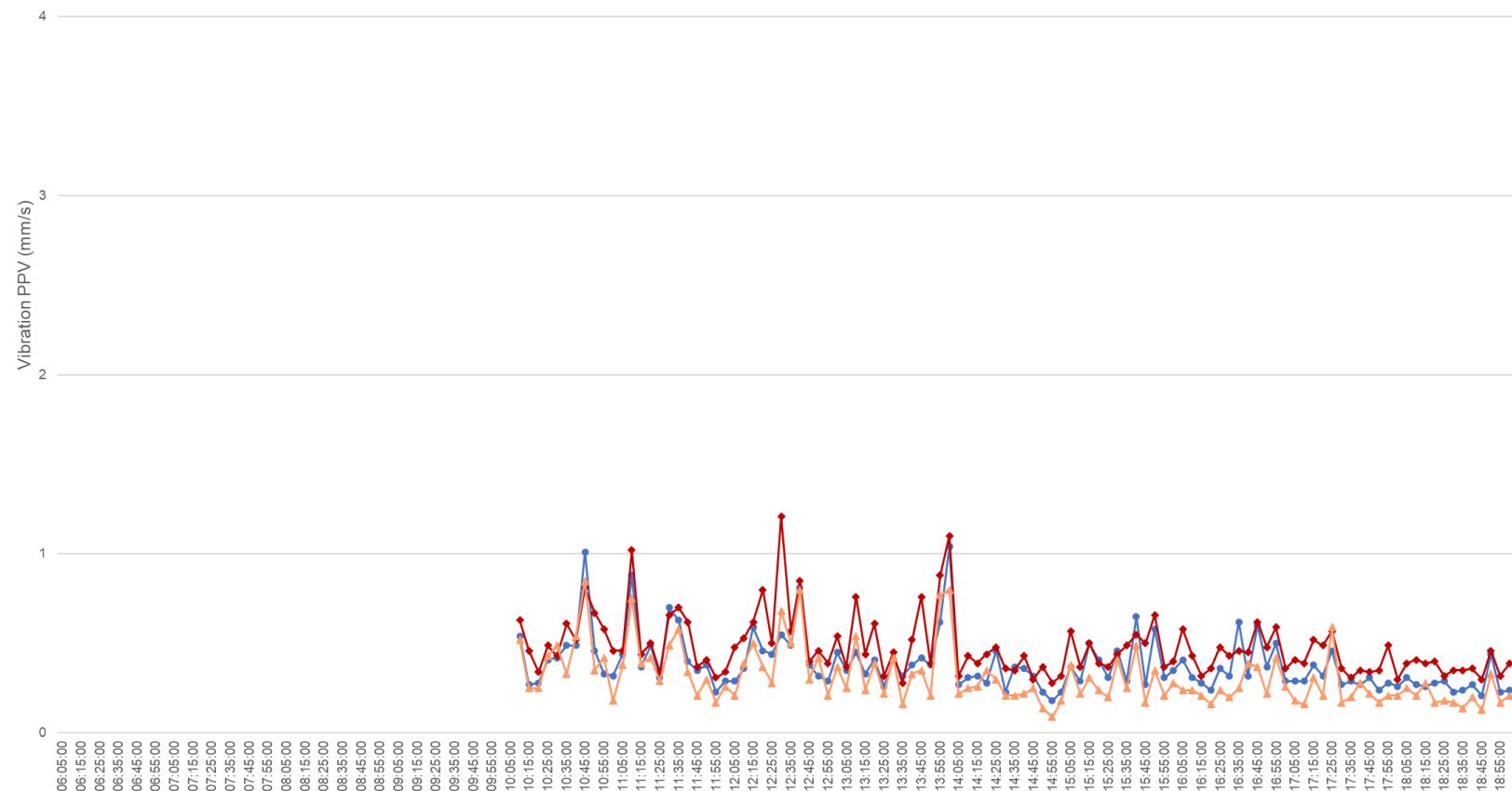
—●— Radial (mm/s) —◆— Transverse (mm/s) —▲— Vertical (mm/s) —○— Limit





Vibration Monitoring: 05/04/2022

—●— Radial (mm/s) —●— Transverse (mm/s) —●— Vertical (mm/s) —●— Limit

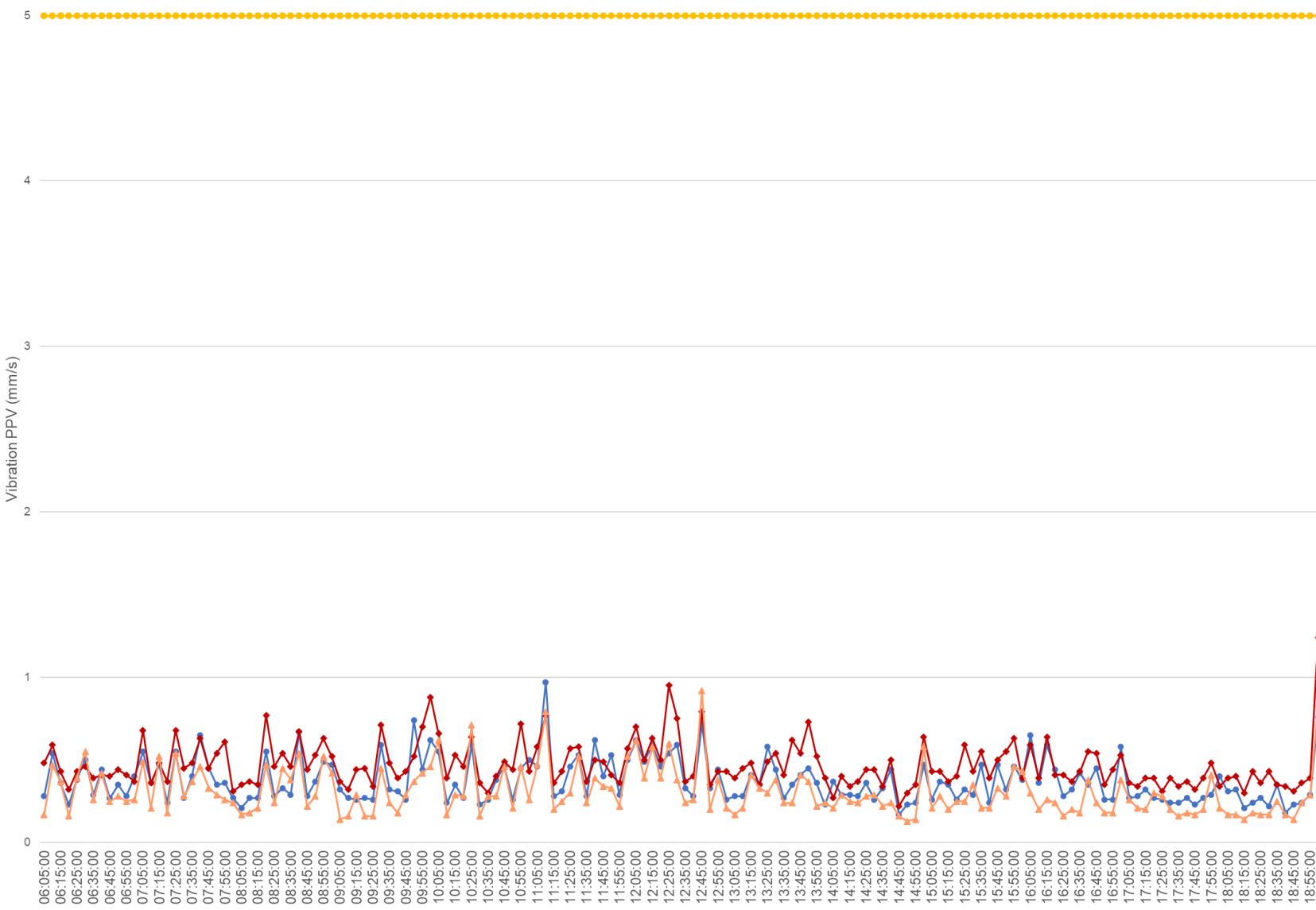




**ACOUSTIC
LOGIC**

Vibration Monitoring: 06/04/2022

—●— Radial (mm/s) —◆— Transverse (mm/s) —▲— Vertical (mm/s) —○— Limit

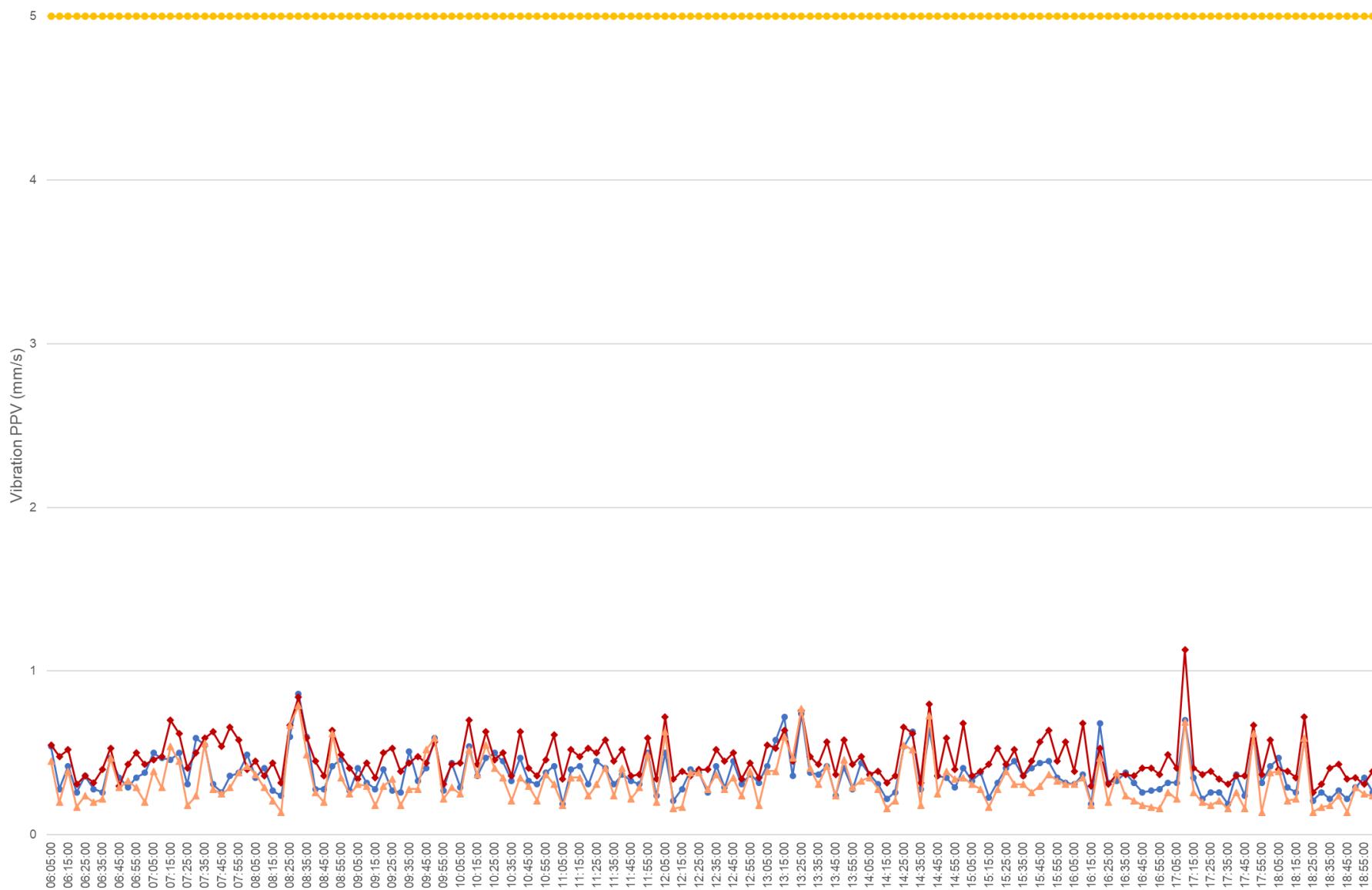




**ACOUSTIC
LOGIC**

Vibration Monitoring: 07/04/2022

—●— Radial (mm/s) —◆— Transverse (mm/s) —▲— Vertical (mm/s) —○— Limit

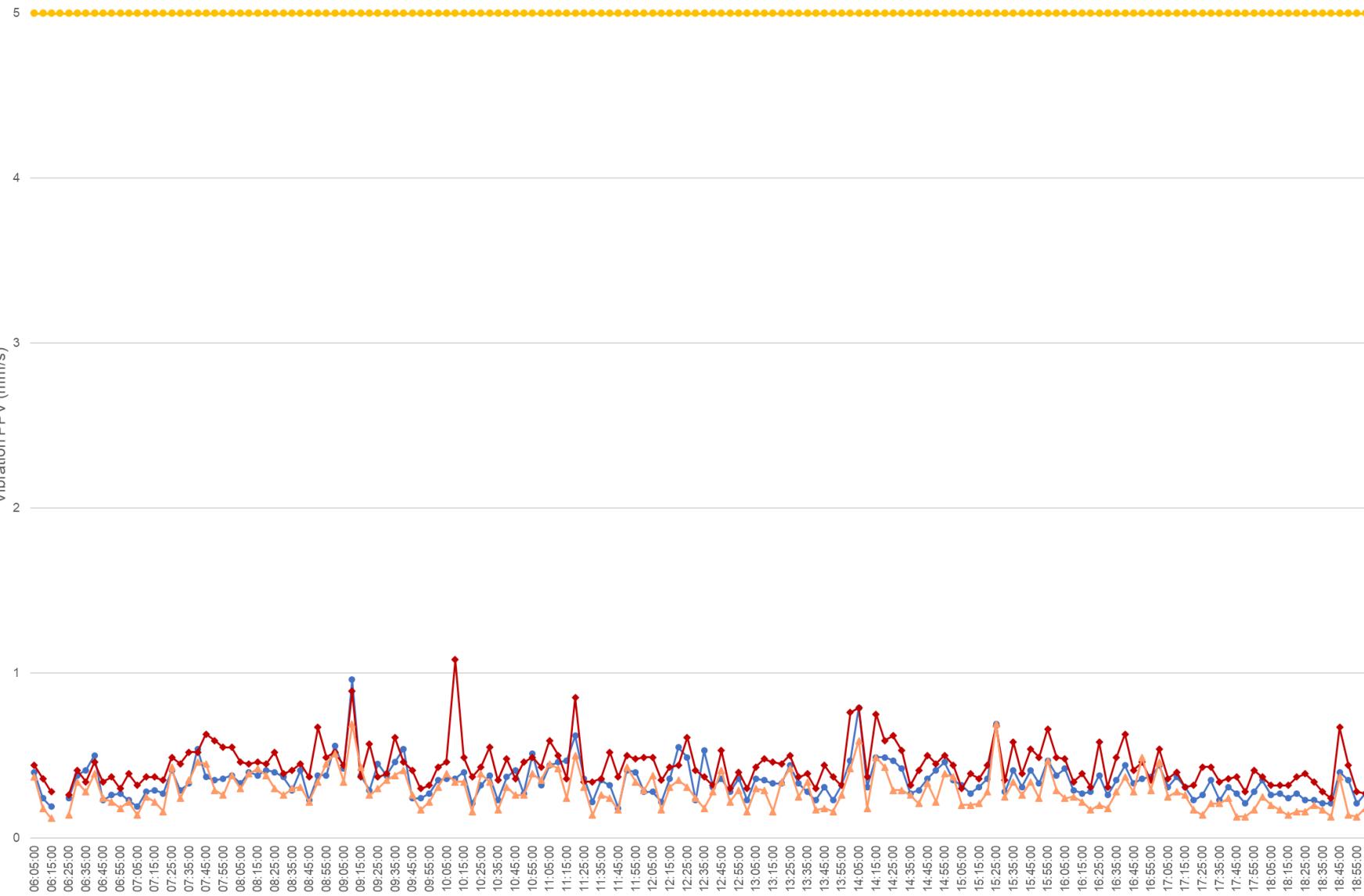




ACOUSTIC LOGIC

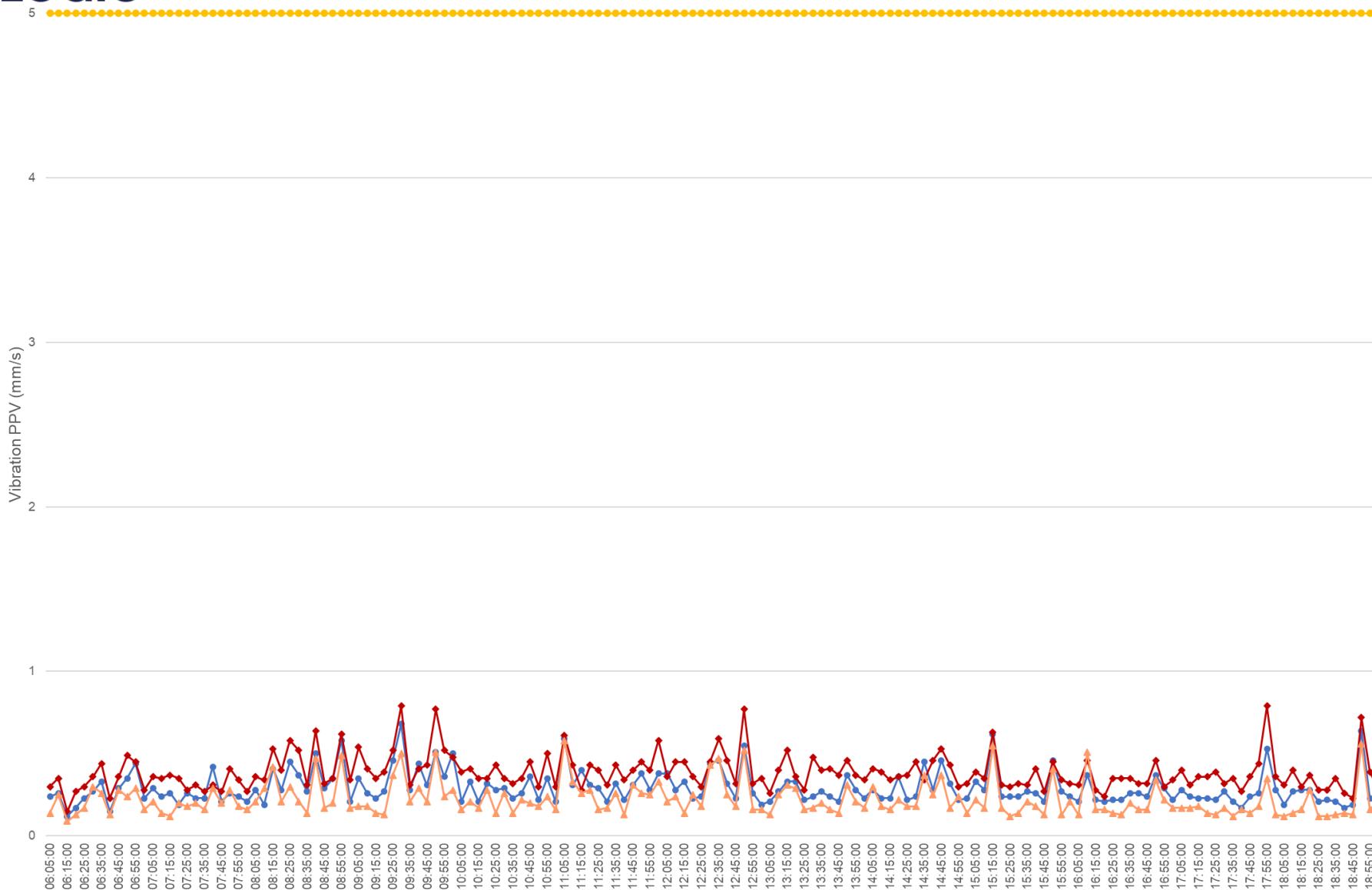
Vibration Monitoring: 08/04/2022

— Radial (mm/s) — Transverse (mm/s) — Vertical (mm/s) — Limit



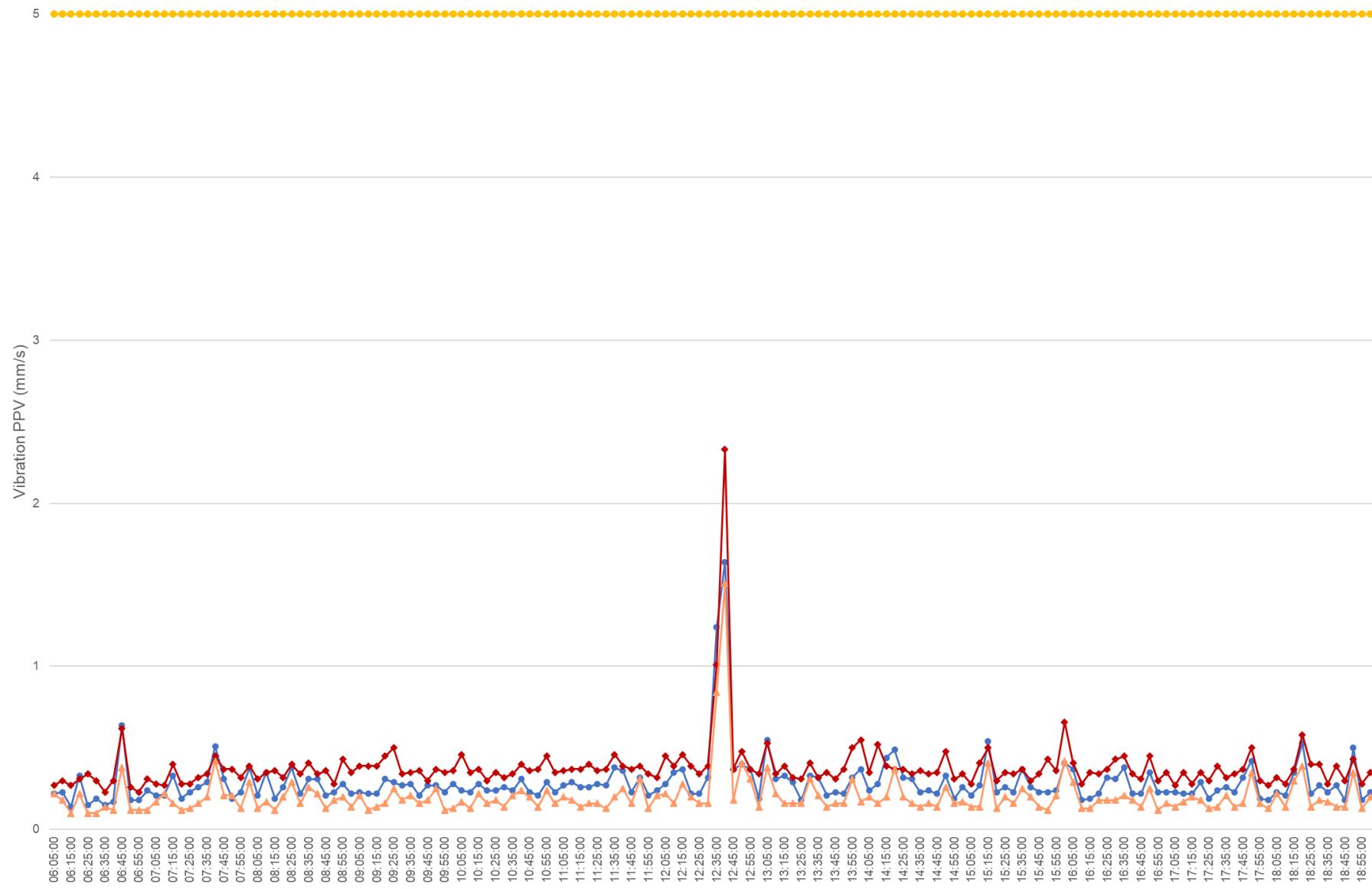
Vibration Monitoring: 09/04/2022

—●— Radial (mm/s) —●— Transverse (mm/s) —●— Vertical (mm/s) —●— Limit



Vibration Monitoring: 10/04/2022

● Radial (mm/s) ● Transverse (mm/s) ● Vertical (mm/s) ● Limit

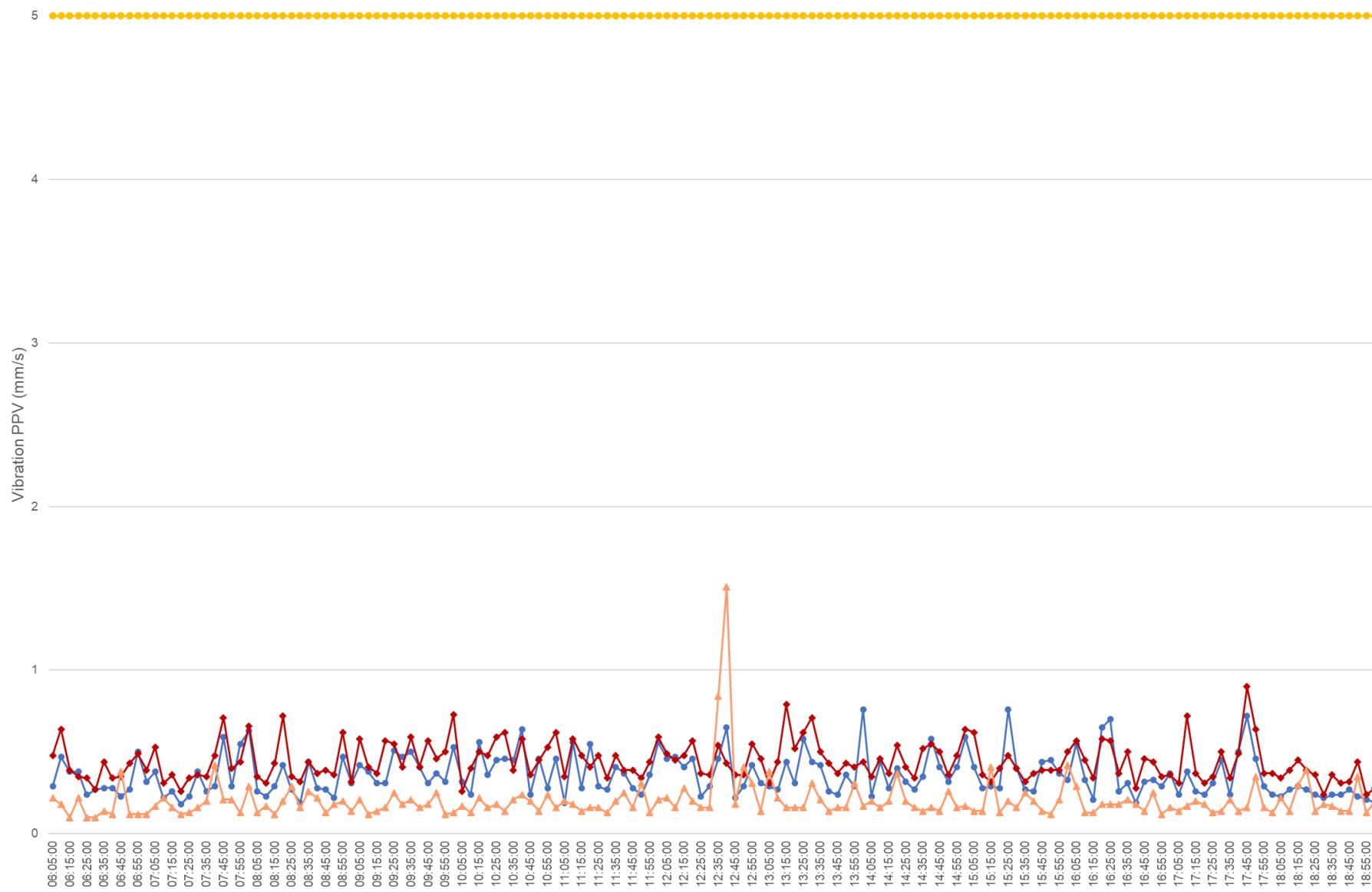




ACOUSTIC
LOGIC

Vibration Monitoring: 11/04/2022

—●— Radial (mm/s) —●— Transverse (mm/s) —▲— Vertical (mm/s) —○— Limit

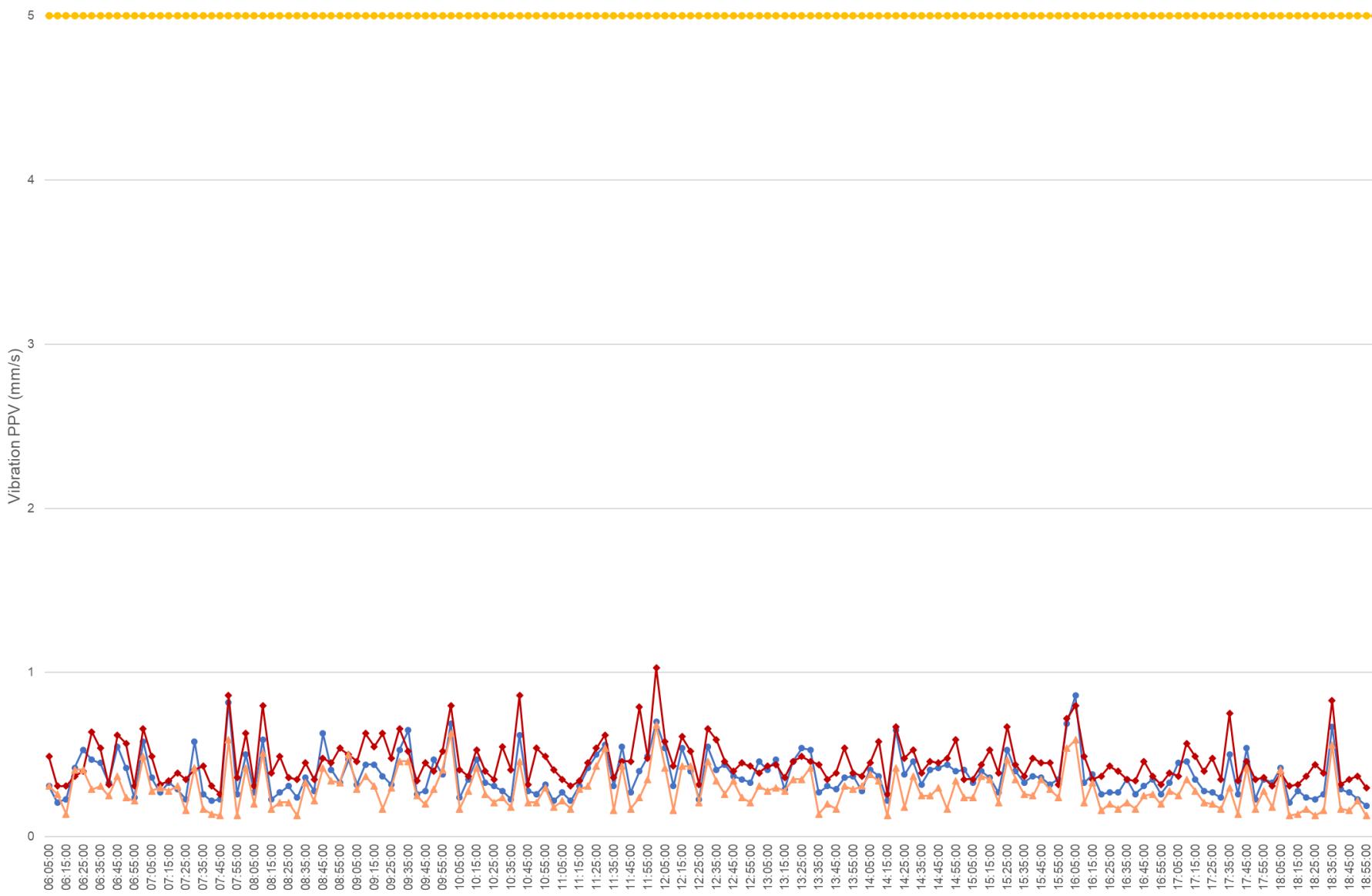




ACOUSTIC
LOGIC

Vibration Monitoring: 12/04/2022

● Radial (mm/s) ● Transverse (mm/s) ● Vertical (mm/s) ● Limit

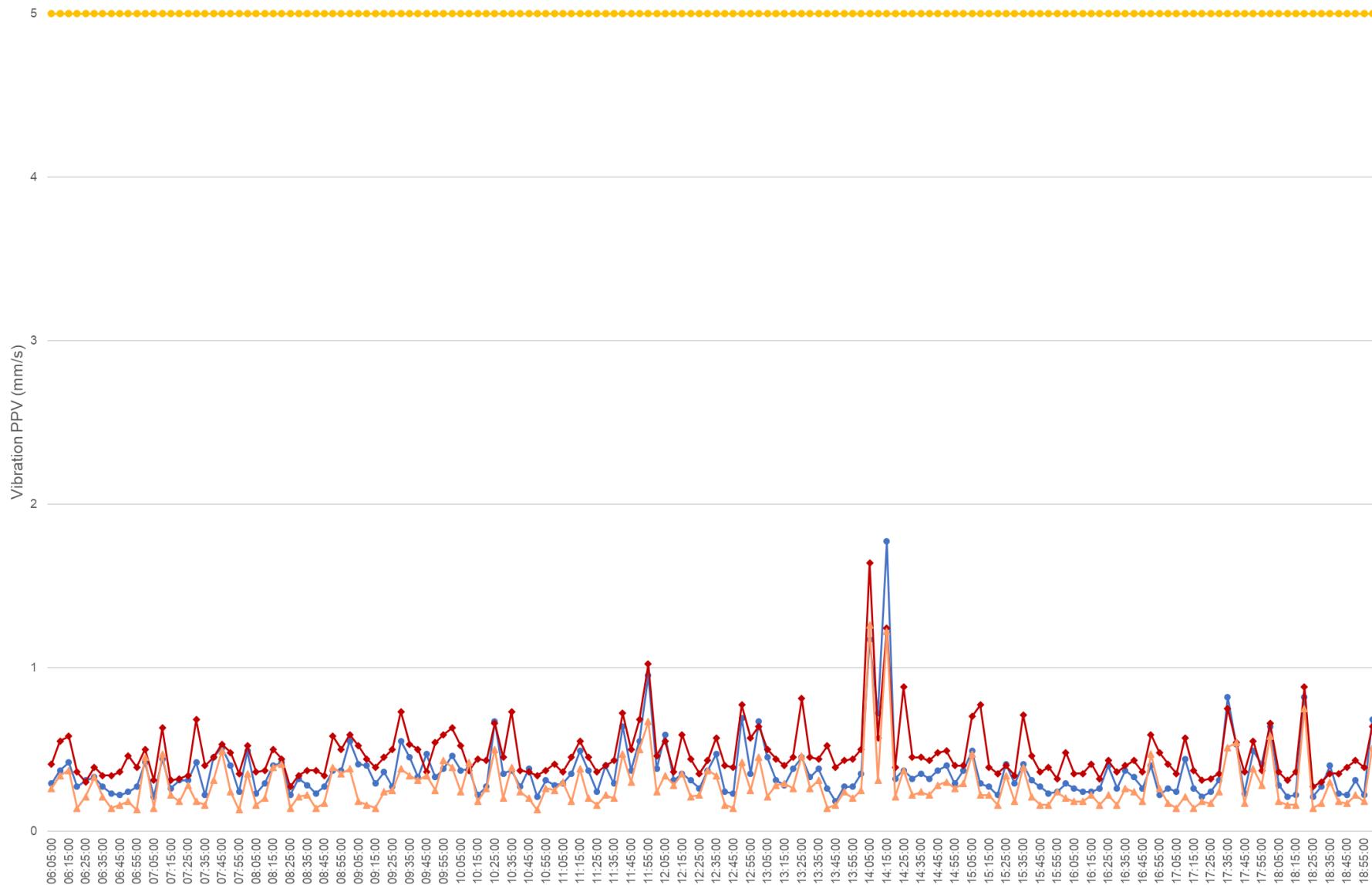




**ACOUSTIC
LOGIC**

Vibration Monitoring: 13/04/2022

—●— Radial (mm/s) —●— Transverse (mm/s) —●— Vertical (mm/s) —●— Limit

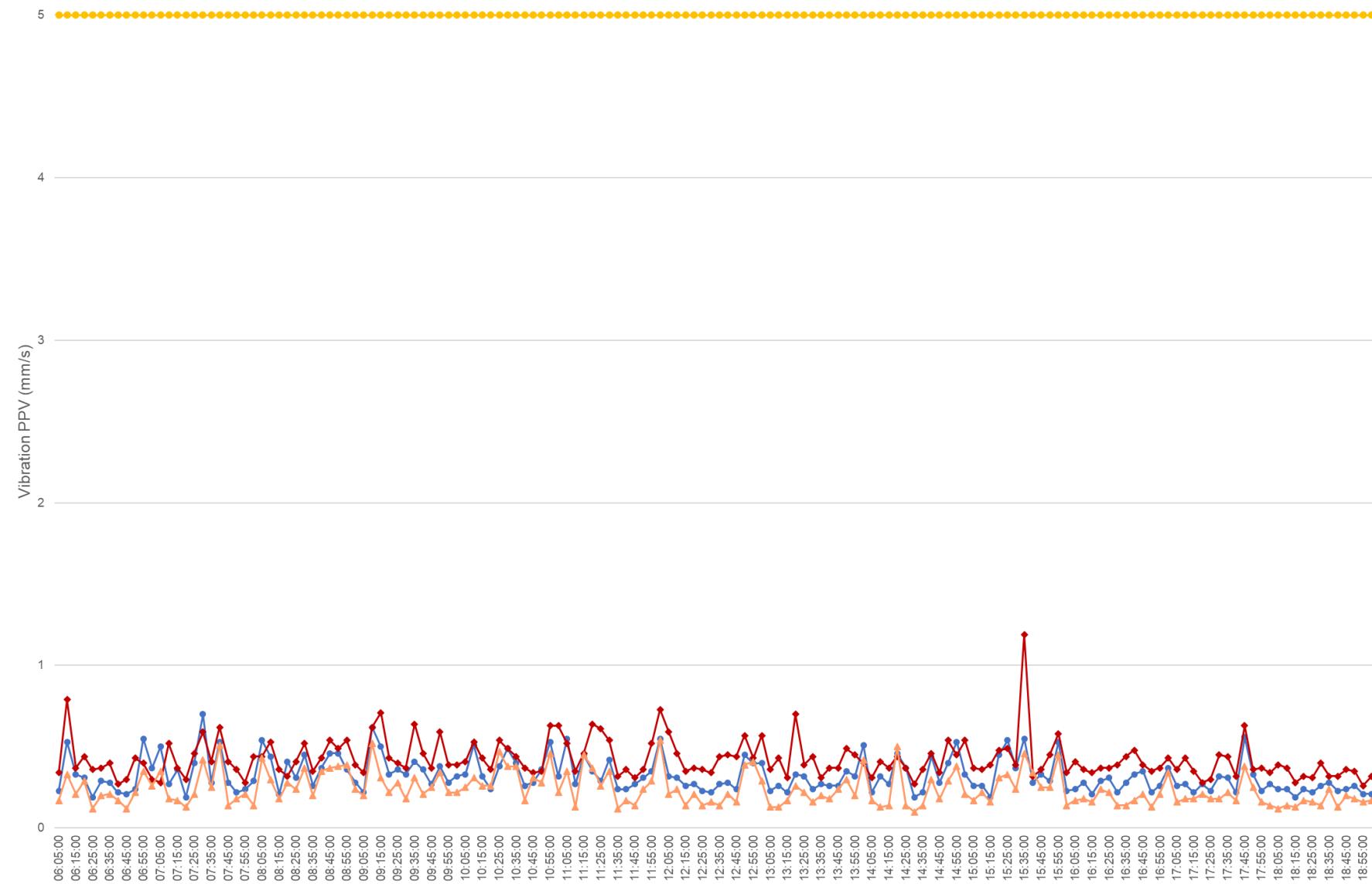




ACOUSTIC
LOGIC

Vibration Monitoring: 14/04/2022

—●— Radial (mm/s) —◆— Transverse (mm/s) —▲— Vertical (mm/s) —○— Limit

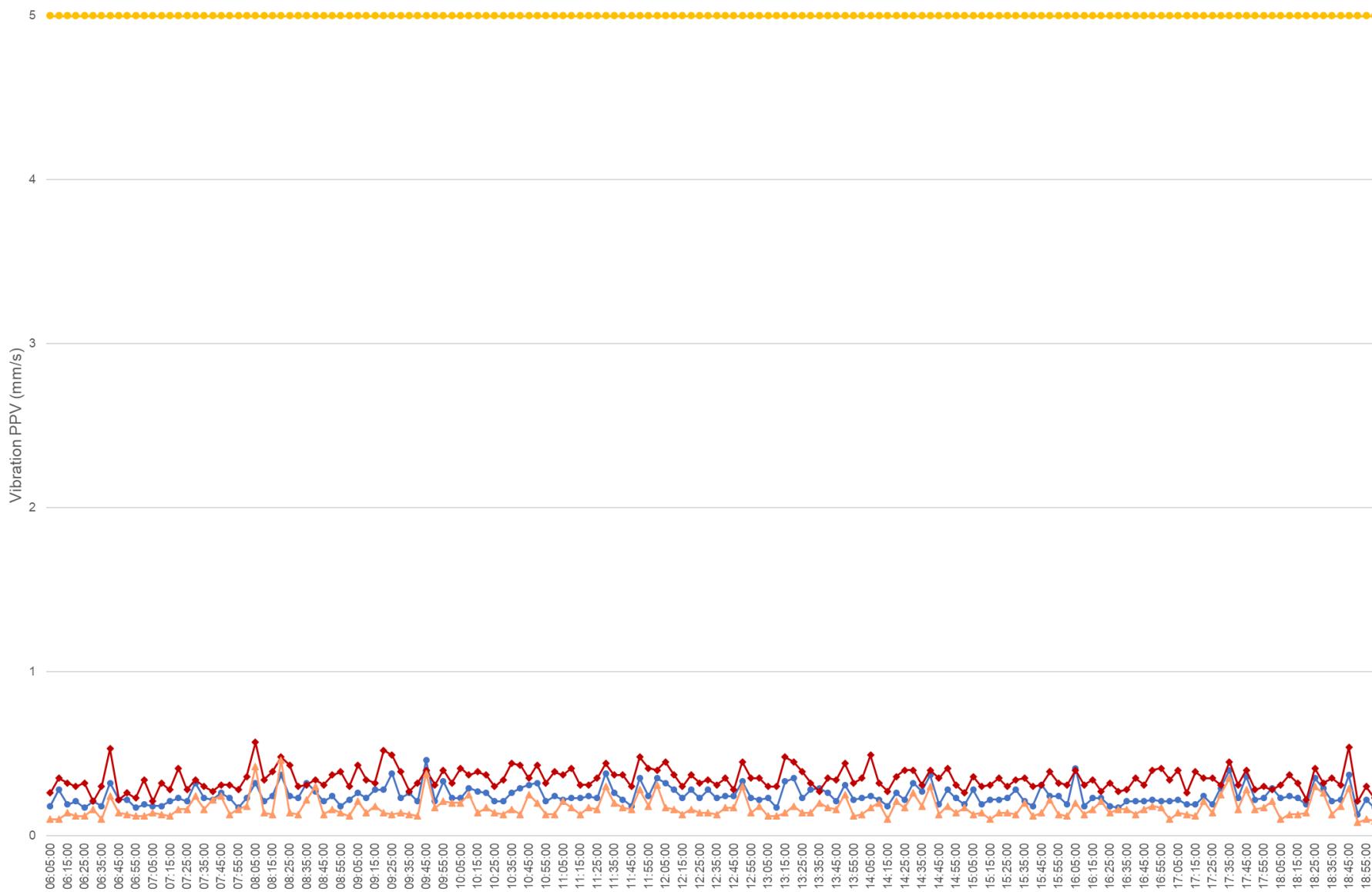




**ACOUSTIC
LOGIC**

Vibration Monitoring: 15/04/2022

—●— Radial (mm/s) —◆— Transverse (mm/s) —▲— Vertical (mm/s) —○— Limit

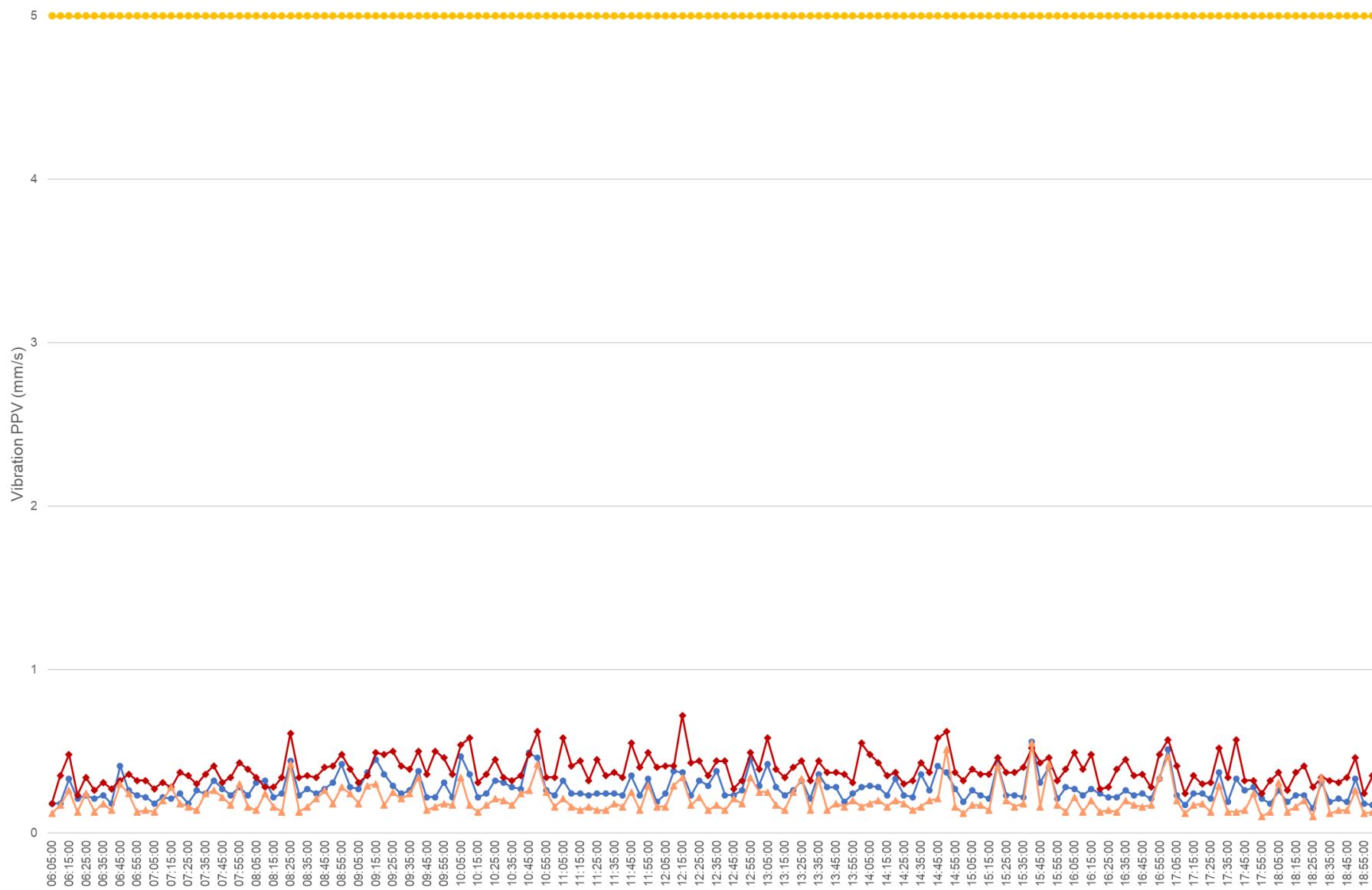




**ACOUSTIC
LOGIC**

Vibration Monitoring: 16/04/2022

—●— Radial (mm/s) —◆— Transverse (mm/s) —▲— Vertical (mm/s) —○— Limit

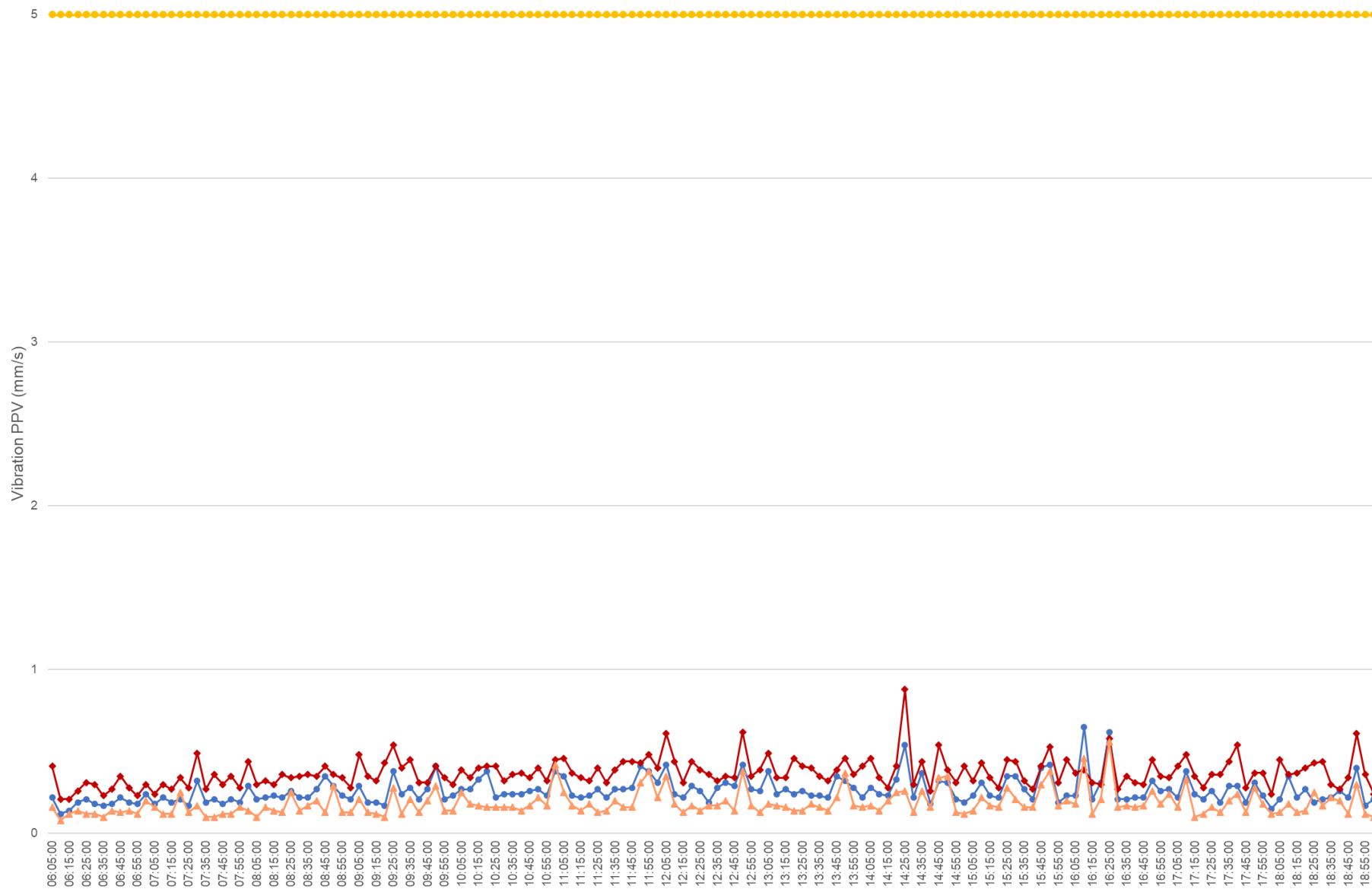




ACOUSTIC
LOGIC

Vibration Monitoring: 17/04/2022

—●— Radial (mm/s) —●— Transverse (mm/s) —●— Vertical (mm/s) —●— Limit

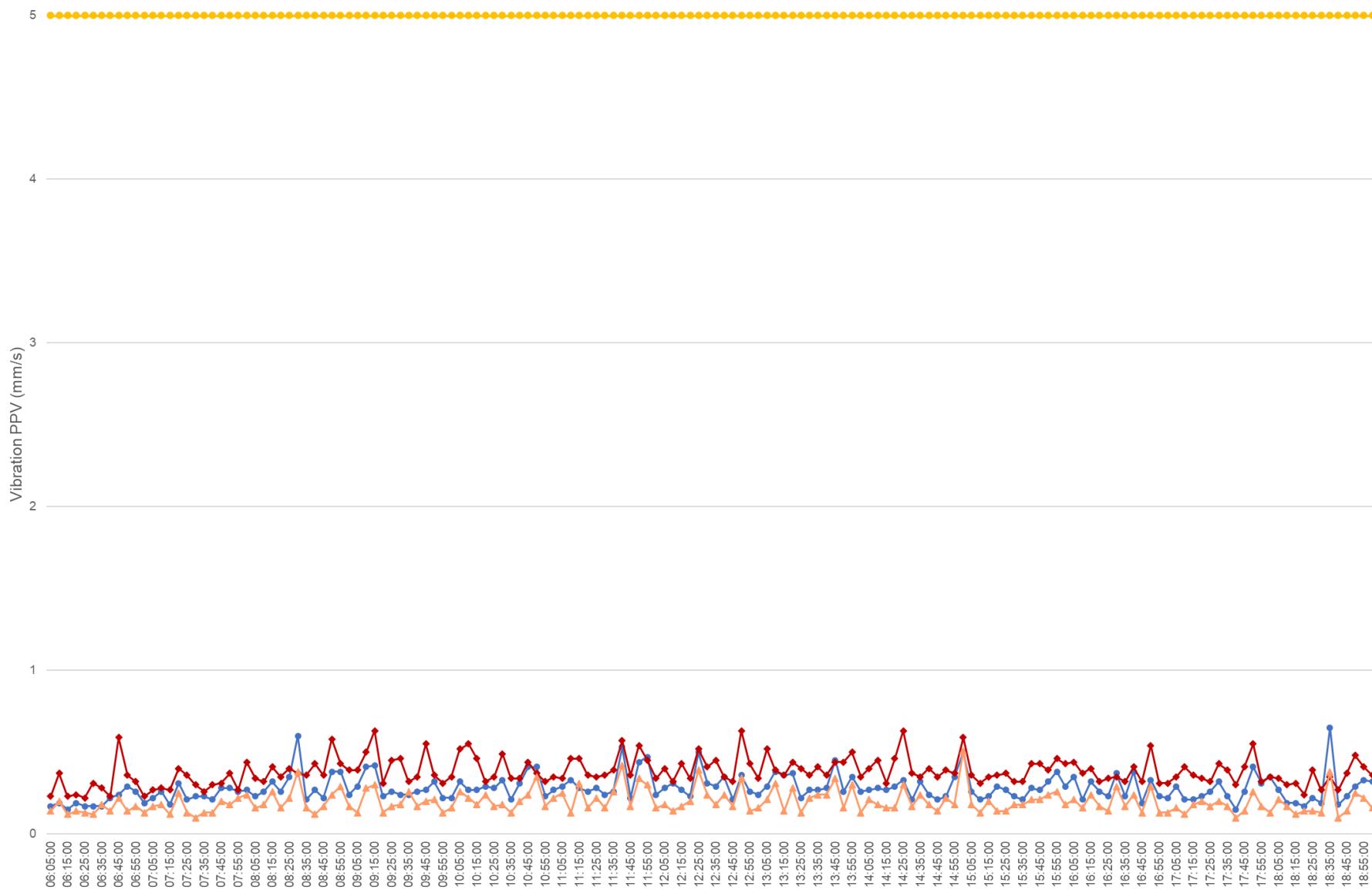




**ACOUSTIC
LOGIC**

Vibration Monitoring: 18/04/2022

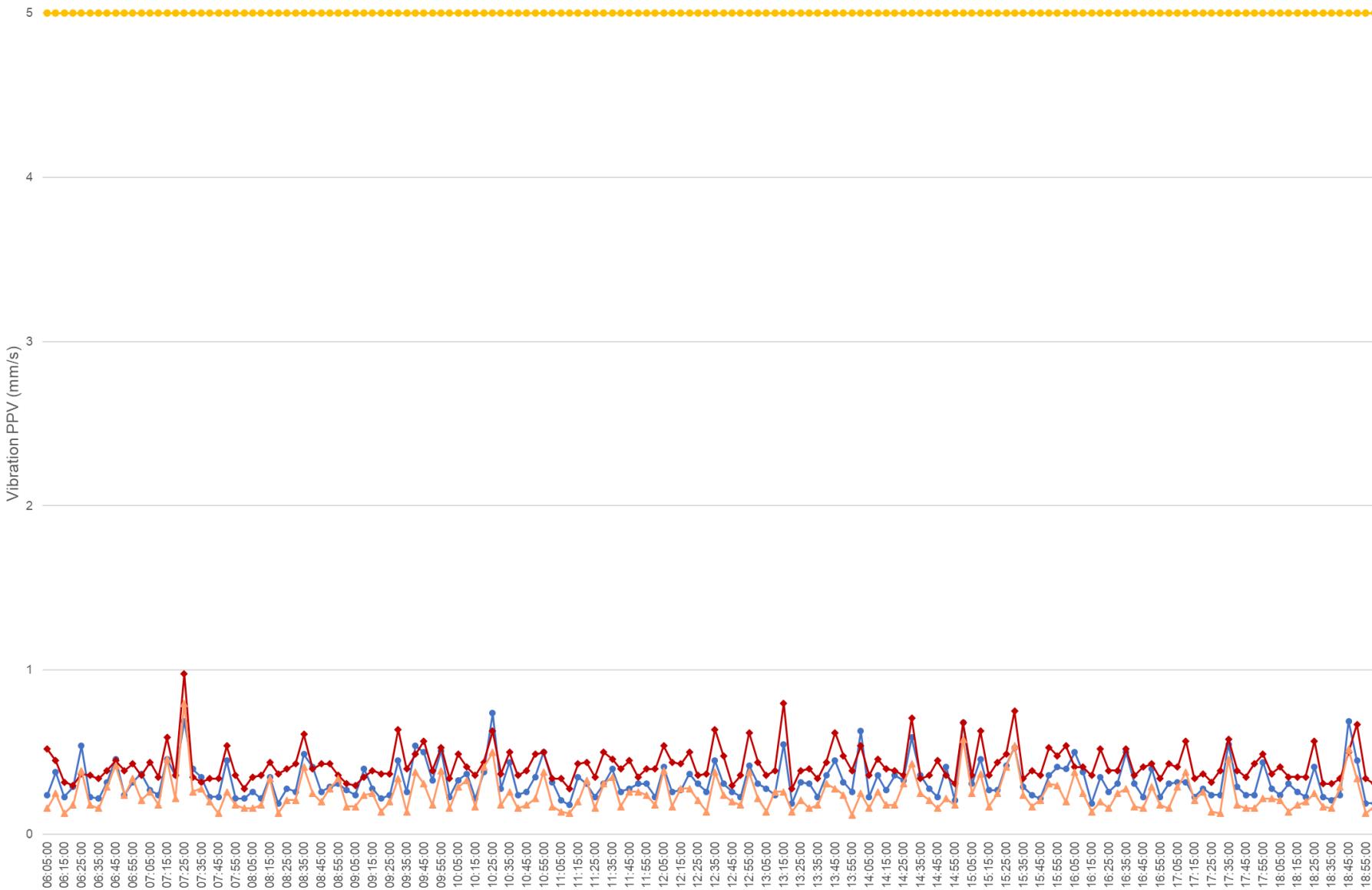
—●— Radial (mm/s) —◆— Transverse (mm/s) —▲— Vertical (mm/s) —○— Limit





Vibration Monitoring: 19/04/2022

—●— Radial (mm/s) —●— Transverse (mm/s) —●— Vertical (mm/s) —●— Limit

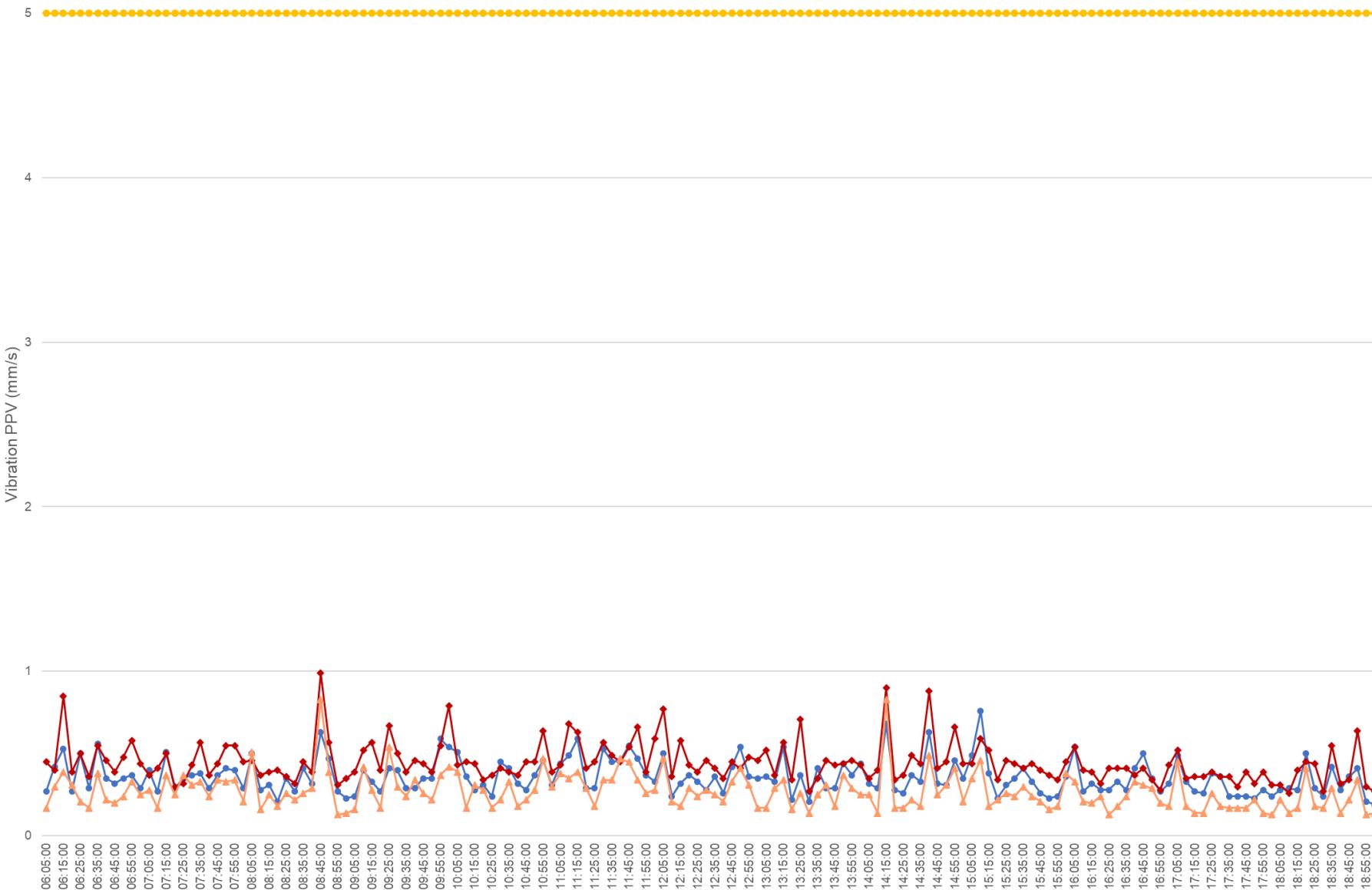




ACOUSTIC
LOGIC

Vibration Monitoring: 20/04/2022

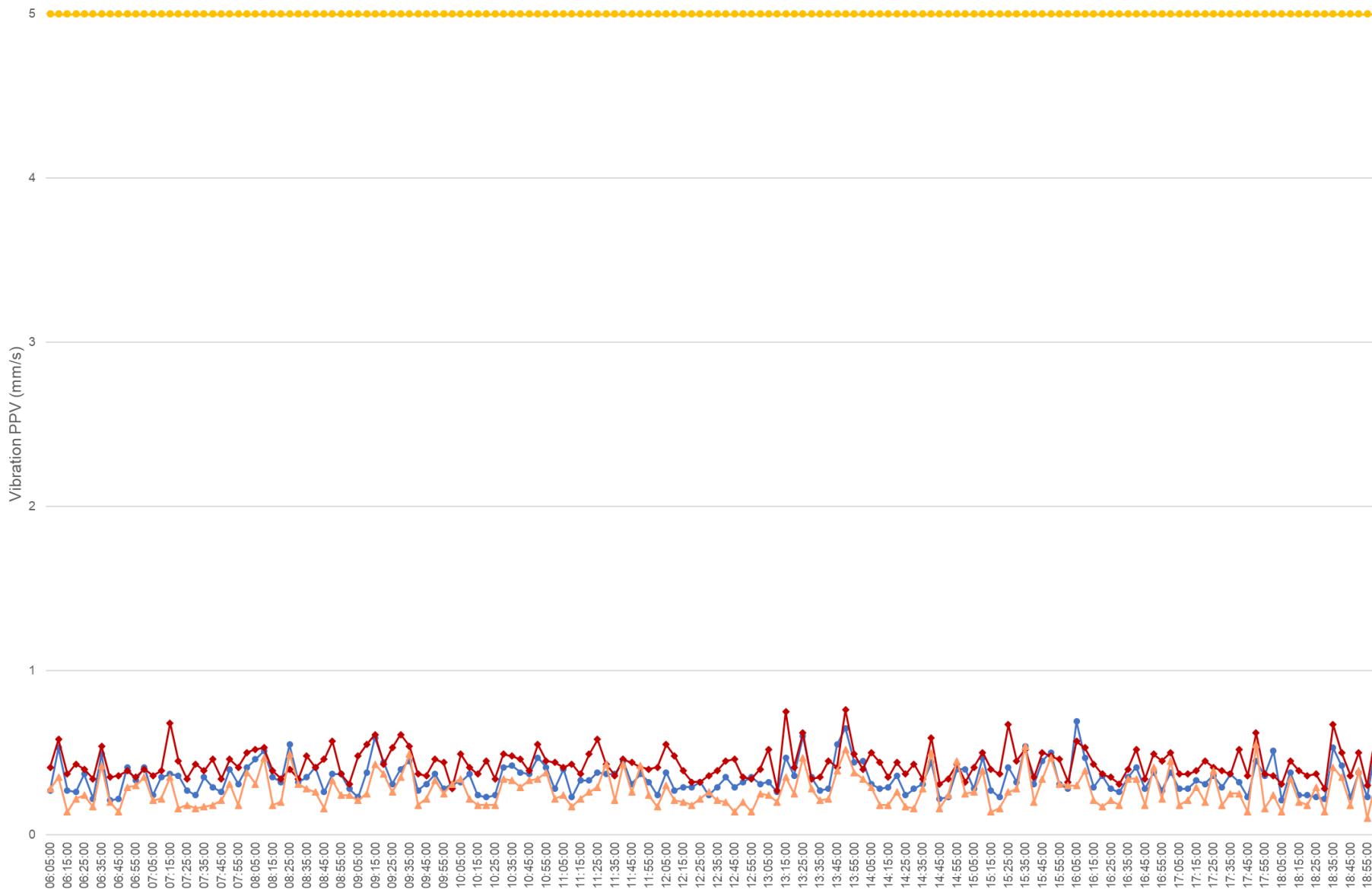
● Radial (mm/s) ● Transverse (mm/s) ● Vertical (mm/s) ● Limit





Vibration Monitoring: 21/04/2022

● Radial (mm/s) ● Transverse (mm/s) ● Vertical (mm/s) ● Limit

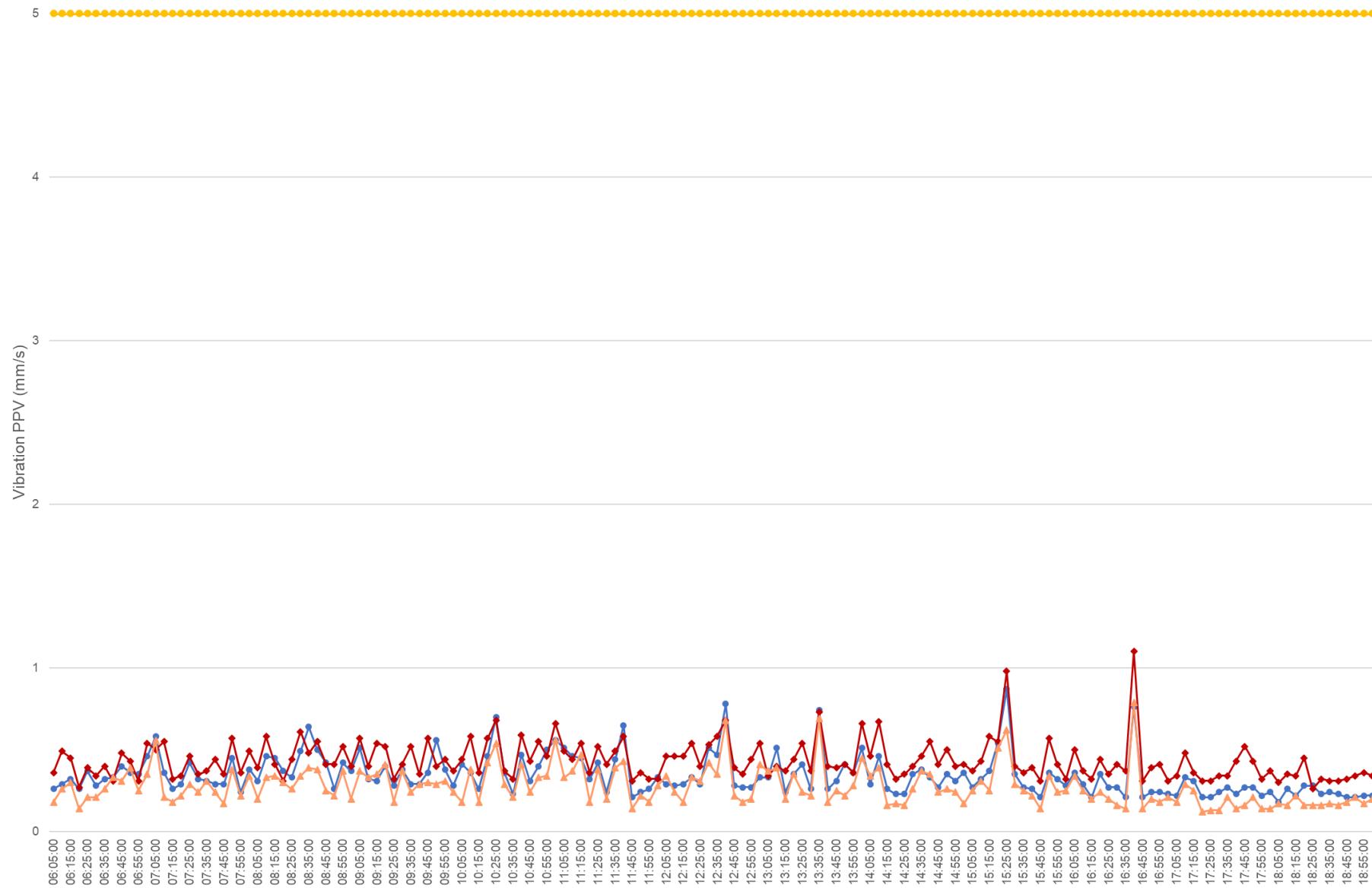




ACOUSTIC
LOGIC

Vibration Monitoring: 22/04/2022

—●— Radial (mm/s) —●— Transverse (mm/s) —●— Vertical (mm/s) —●— Limit

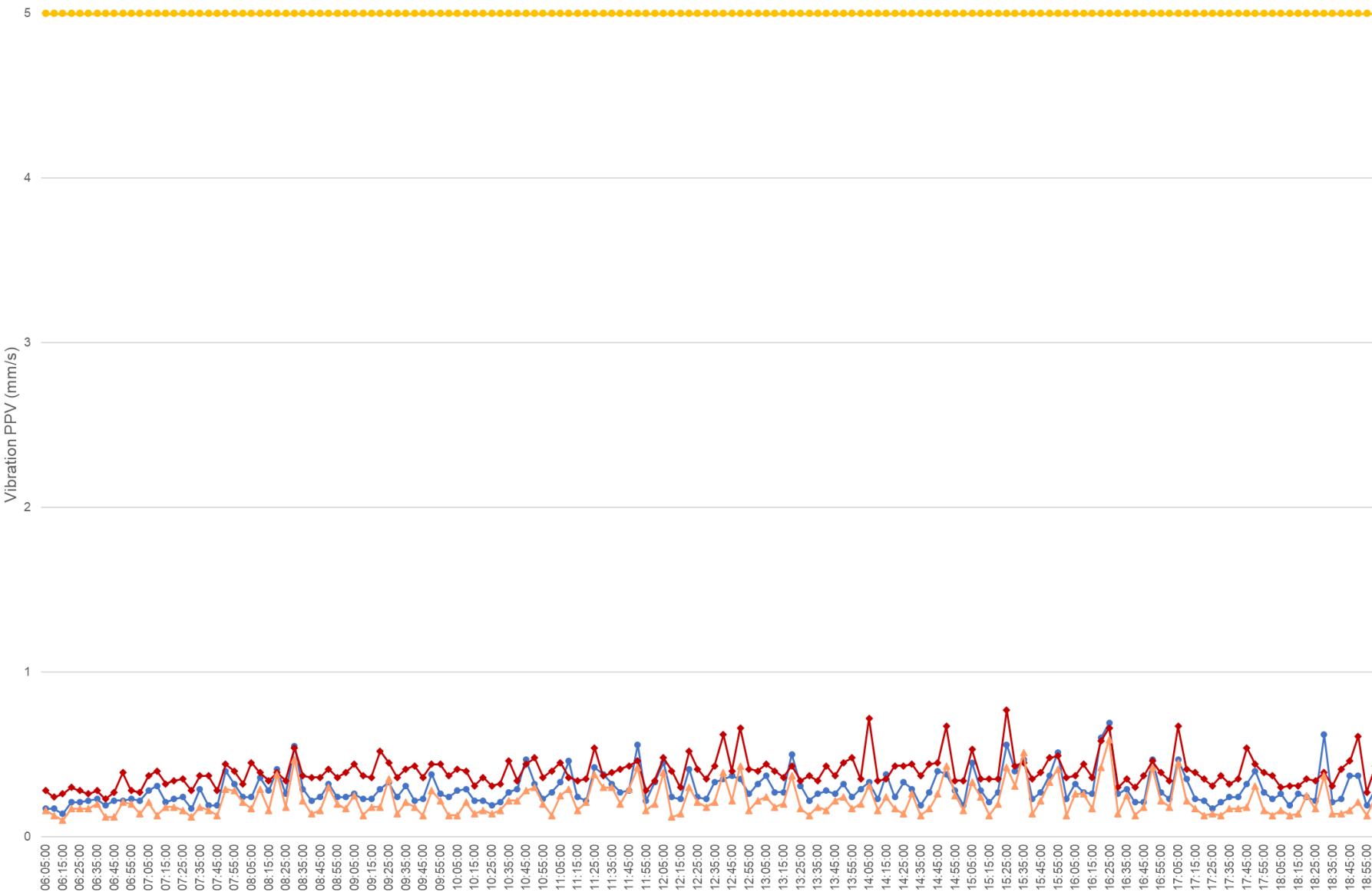




ACOUSTIC
LOGIC

Vibration Monitoring: 23/04/2022

—●— Radial (mm/s) —●— Transverse (mm/s) —●— Vertical (mm/s) —●— Limit

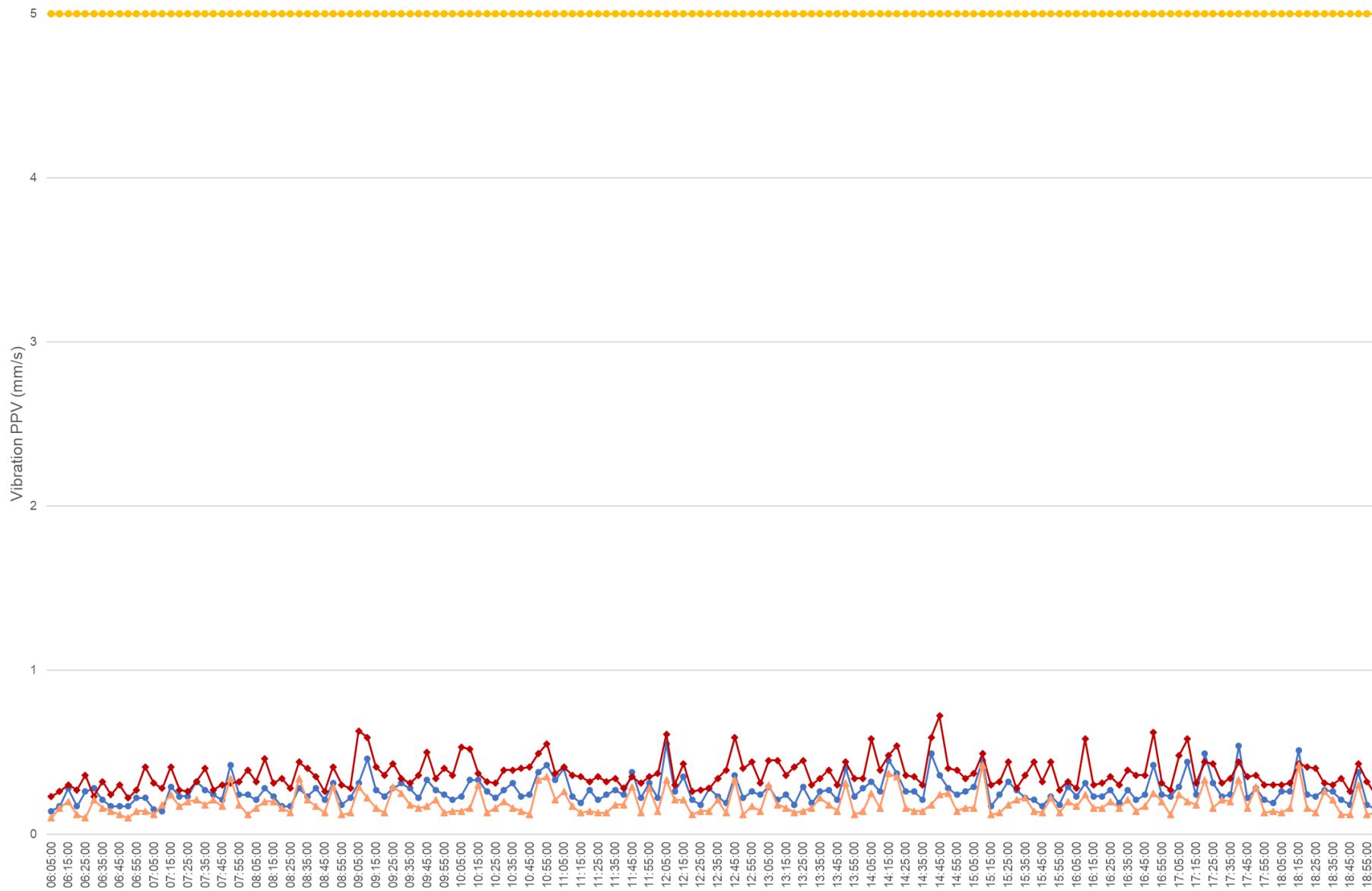




**ACOUSTIC
LOGIC**

Vibration Monitoring: 24/04/2022

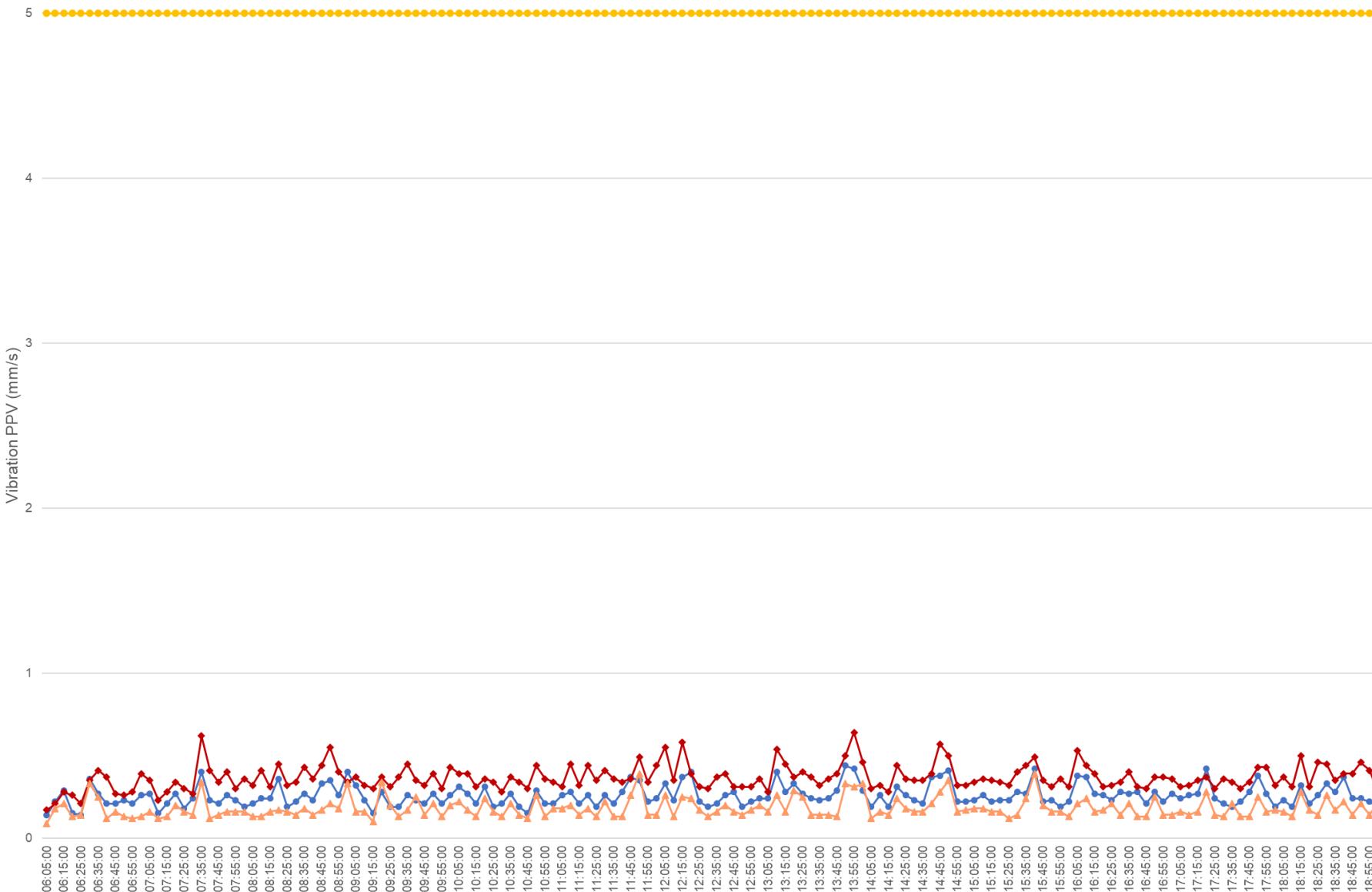
—●— Radial (mm/s) —●— Transverse (mm/s) —●— Vertical (mm/s) —●— Limit





Vibration Monitoring: 25/04/2022

—●— Radial (mm/s) —●— Transverse (mm/s) —●— Vertical (mm/s) —●— Limit

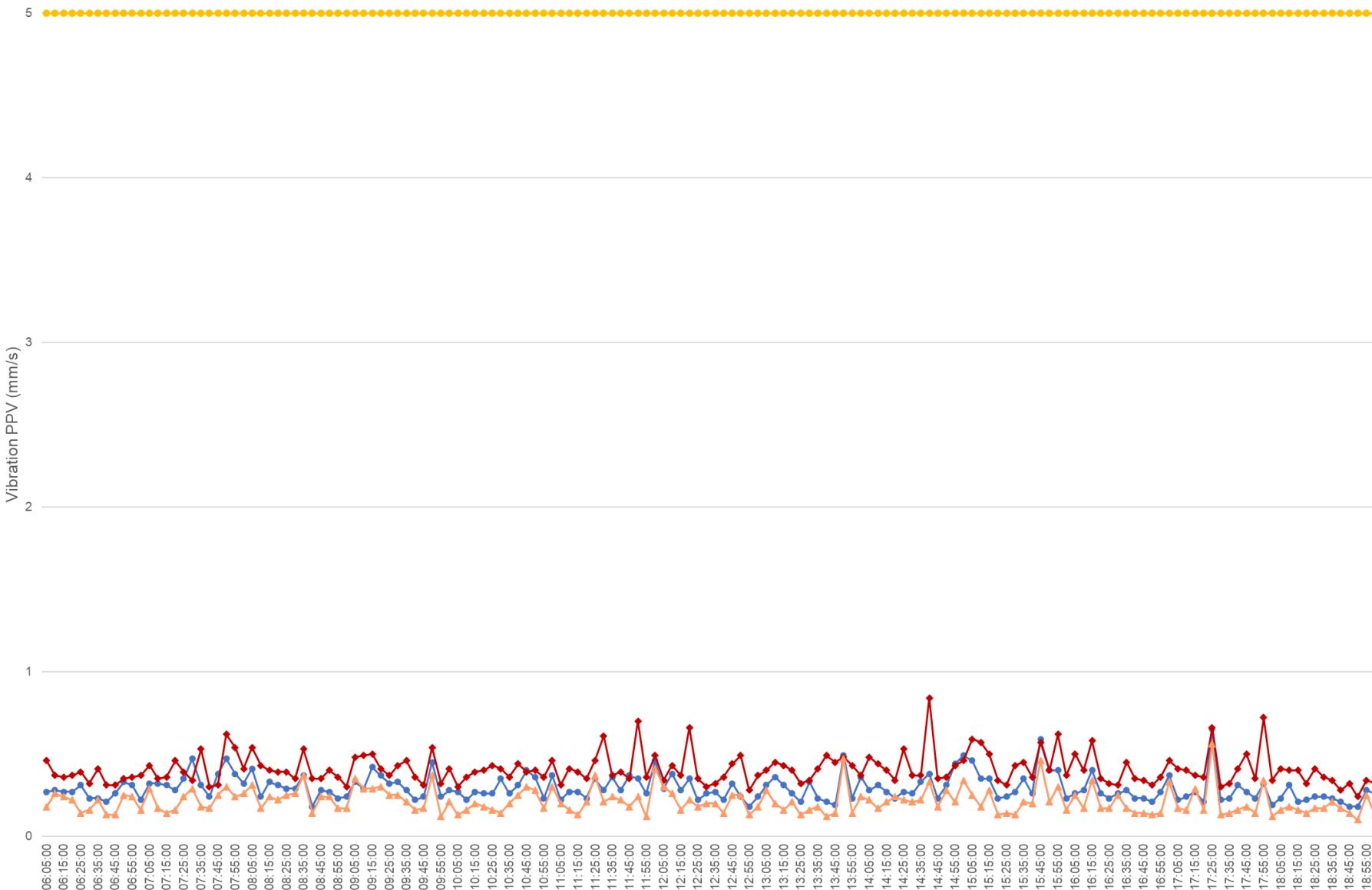




ACOUSTIC
LOGIC

Vibration Monitoring: 26/04/2022

—●— Radial (mm/s) —●— Transverse (mm/s) —●— Vertical (mm/s) —●— Limit

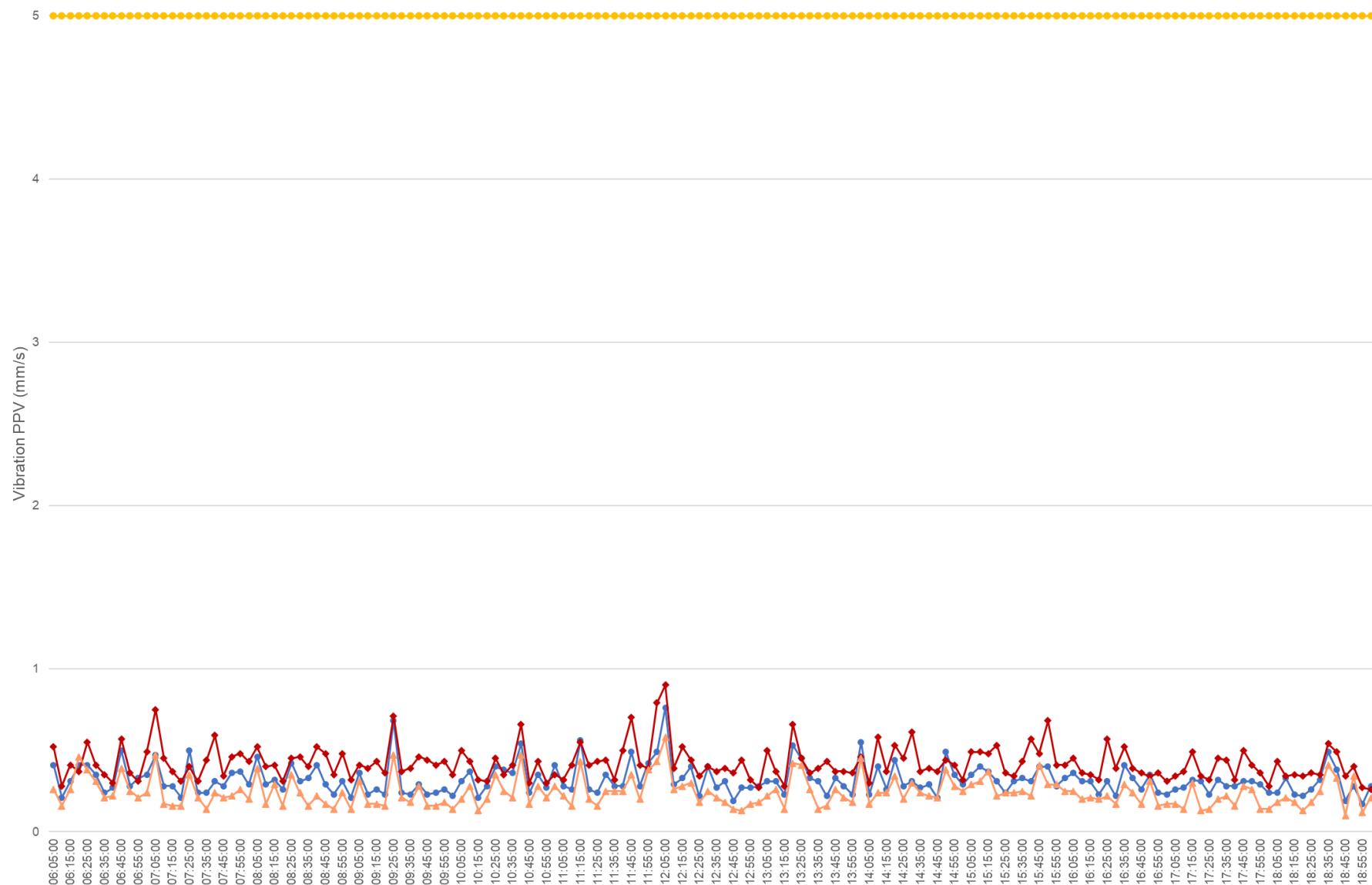




ACOUSTIC
LOGIC

Vibration Monitoring: 27/04/2022

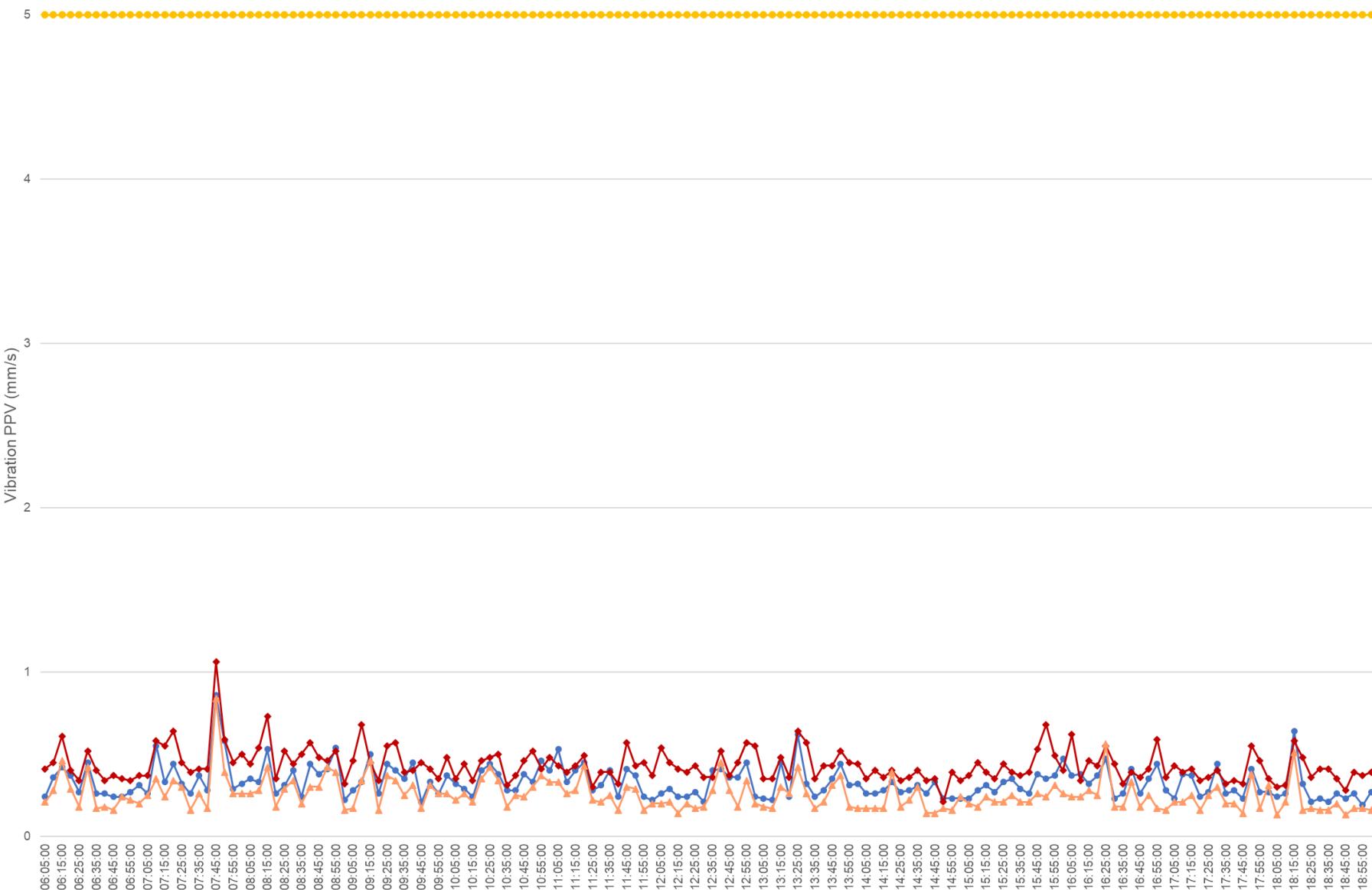
— Radial (mm/s) — Transverse (mm/s) — Vertical (mm/s) — Limit





Vibration Monitoring: 28/04/2022

—●— Radial (mm/s) —●— Transverse (mm/s) —●— Vertical (mm/s) —●— Limit

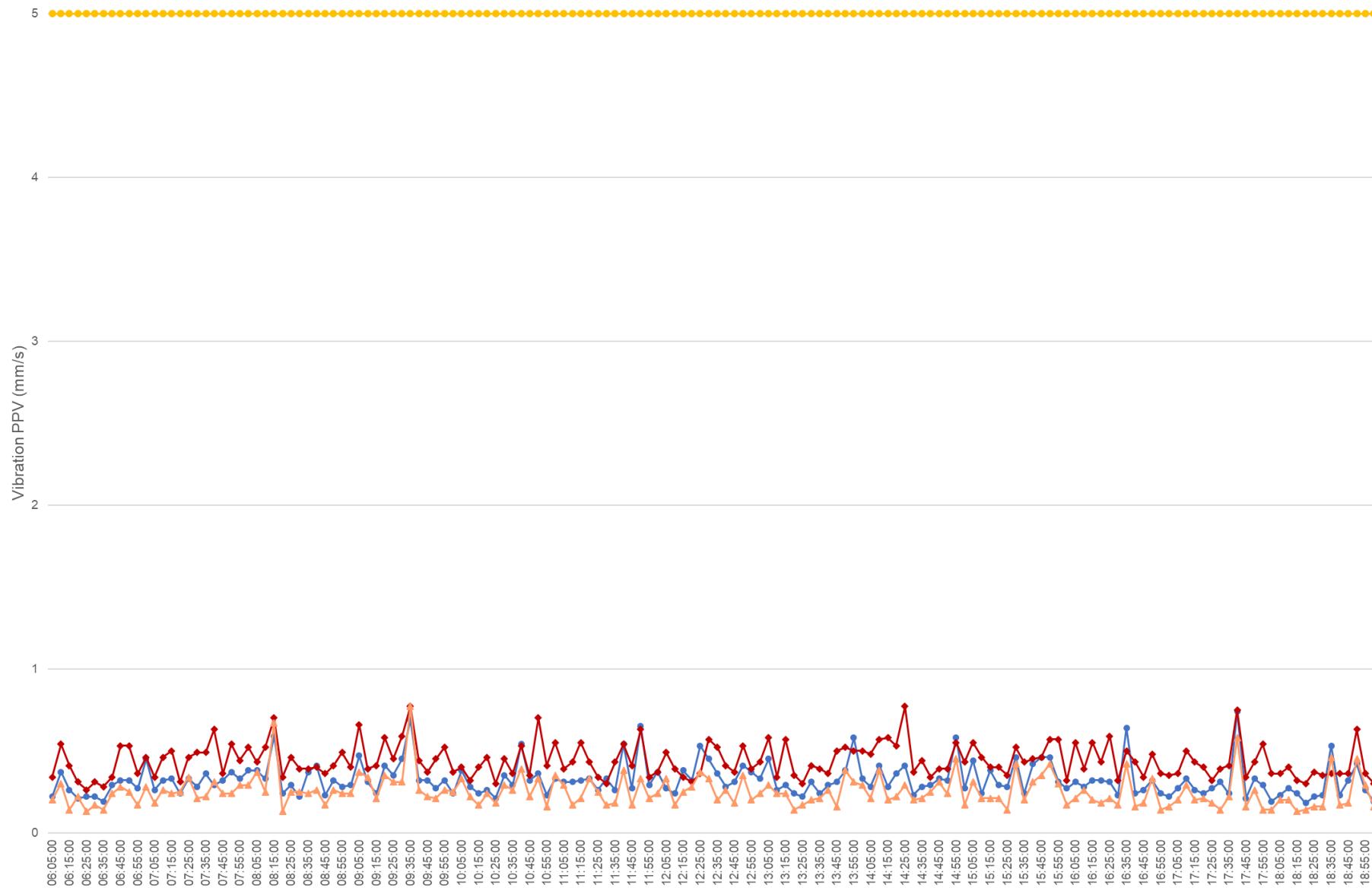




ACOUSTIC
LOGIC

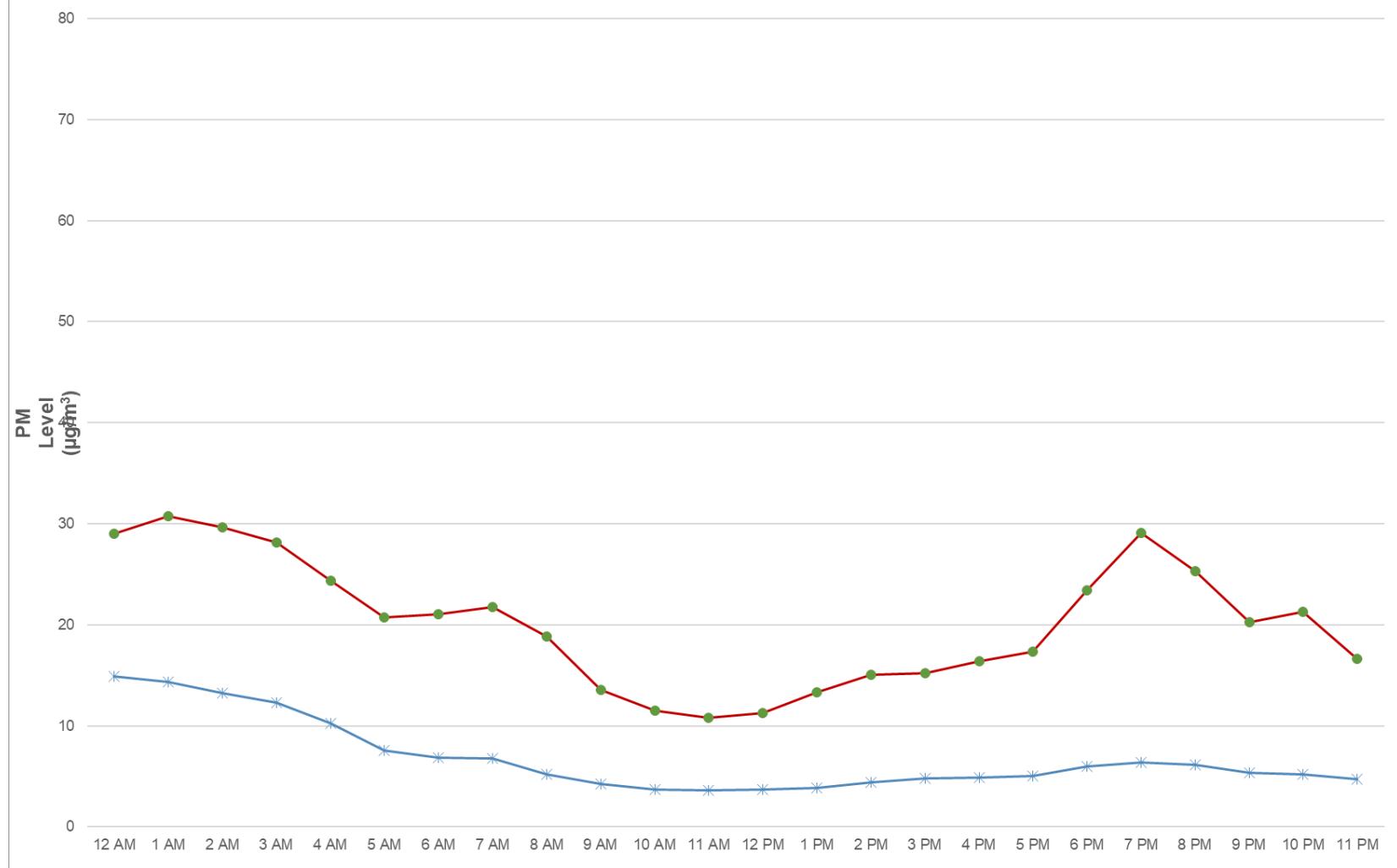
Vibration Monitoring: 29/04/2022

● Radial (mm/s) ● Transverse (mm/s) ● Vertical (mm/s) ● Limit

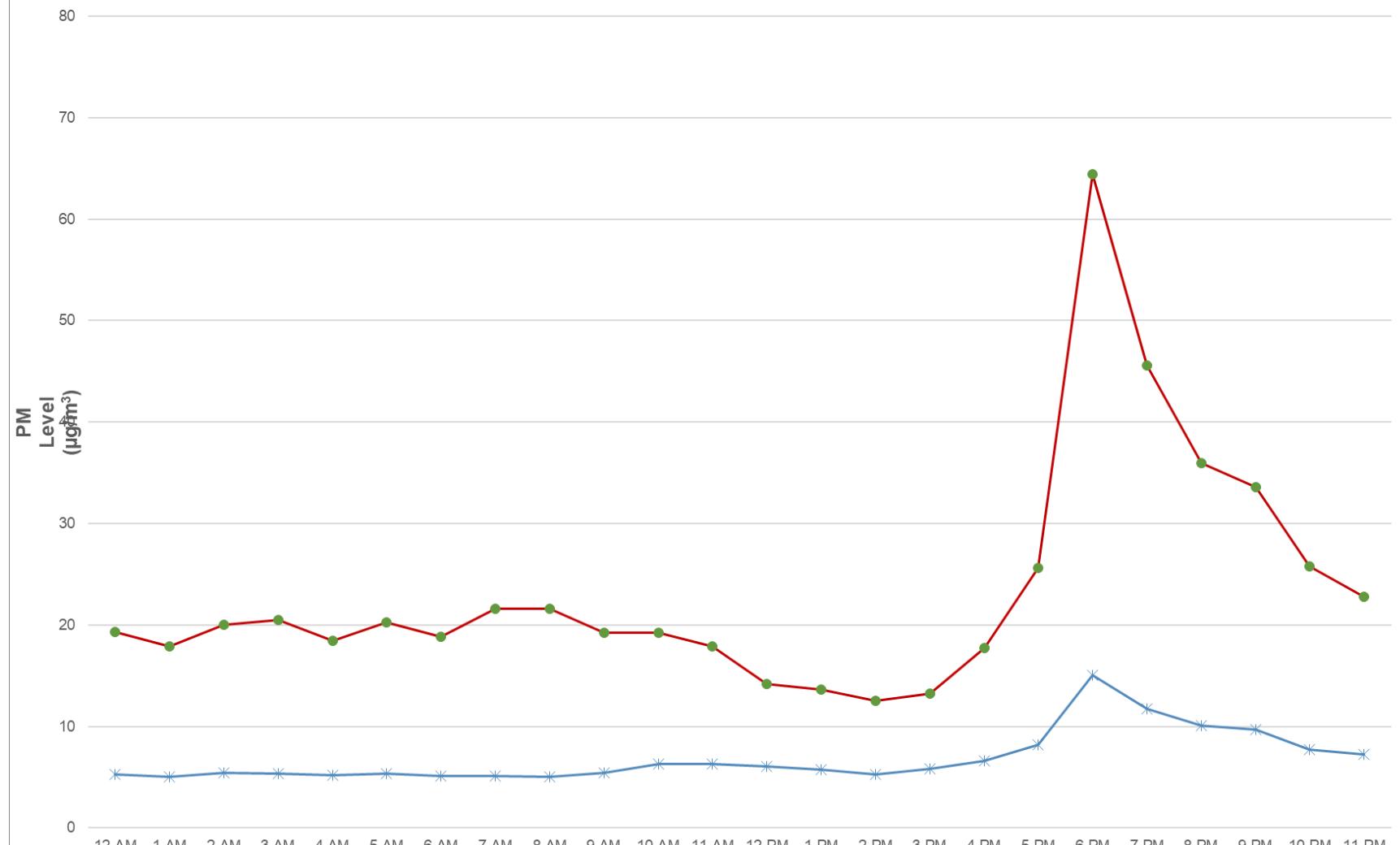


APPENDIX 3 – DUST MONITORING RESULTS

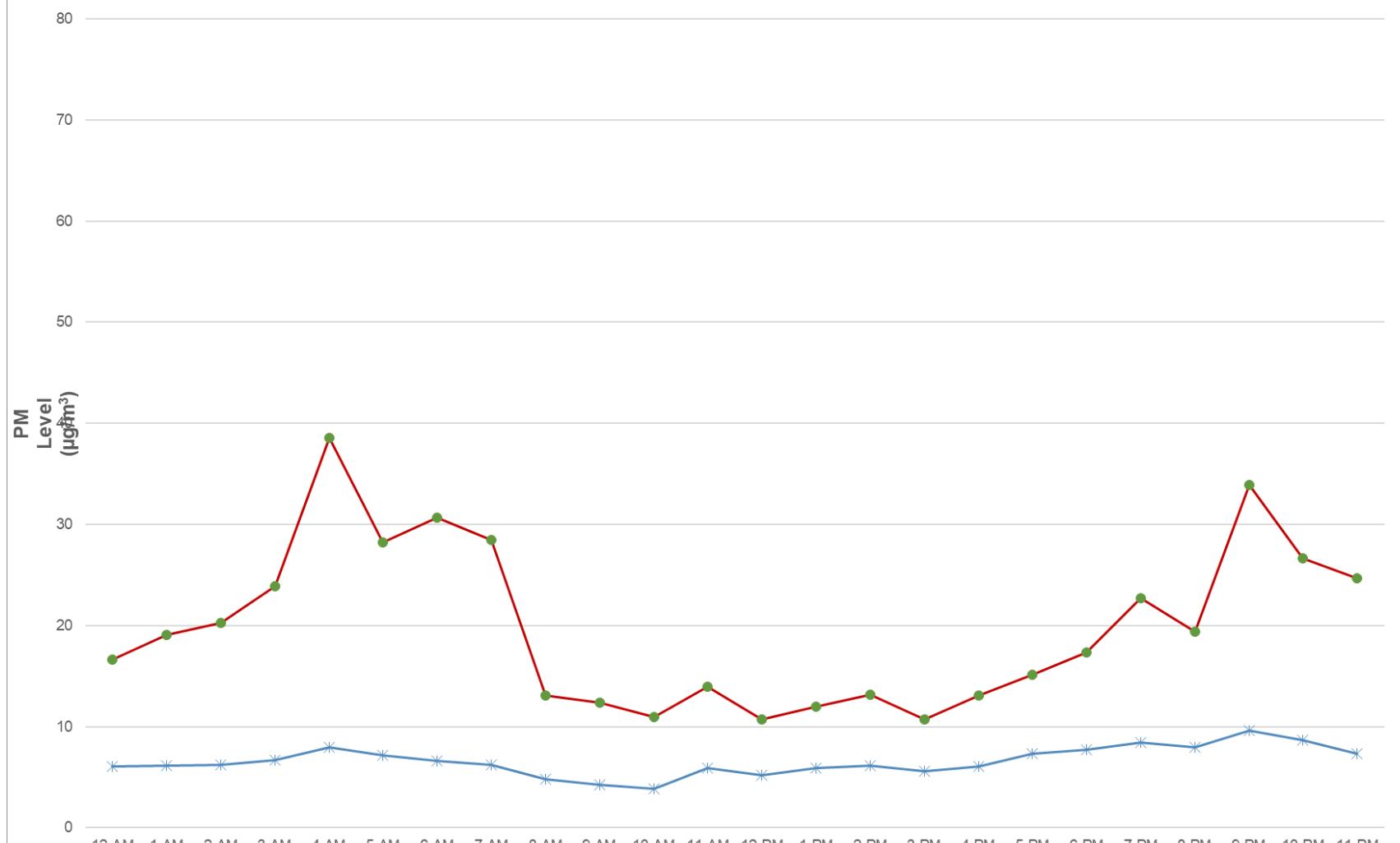
Dust Monitoring: 01/04/2022

—*— Average of pm2_5mc —●—— Average of pm10mc


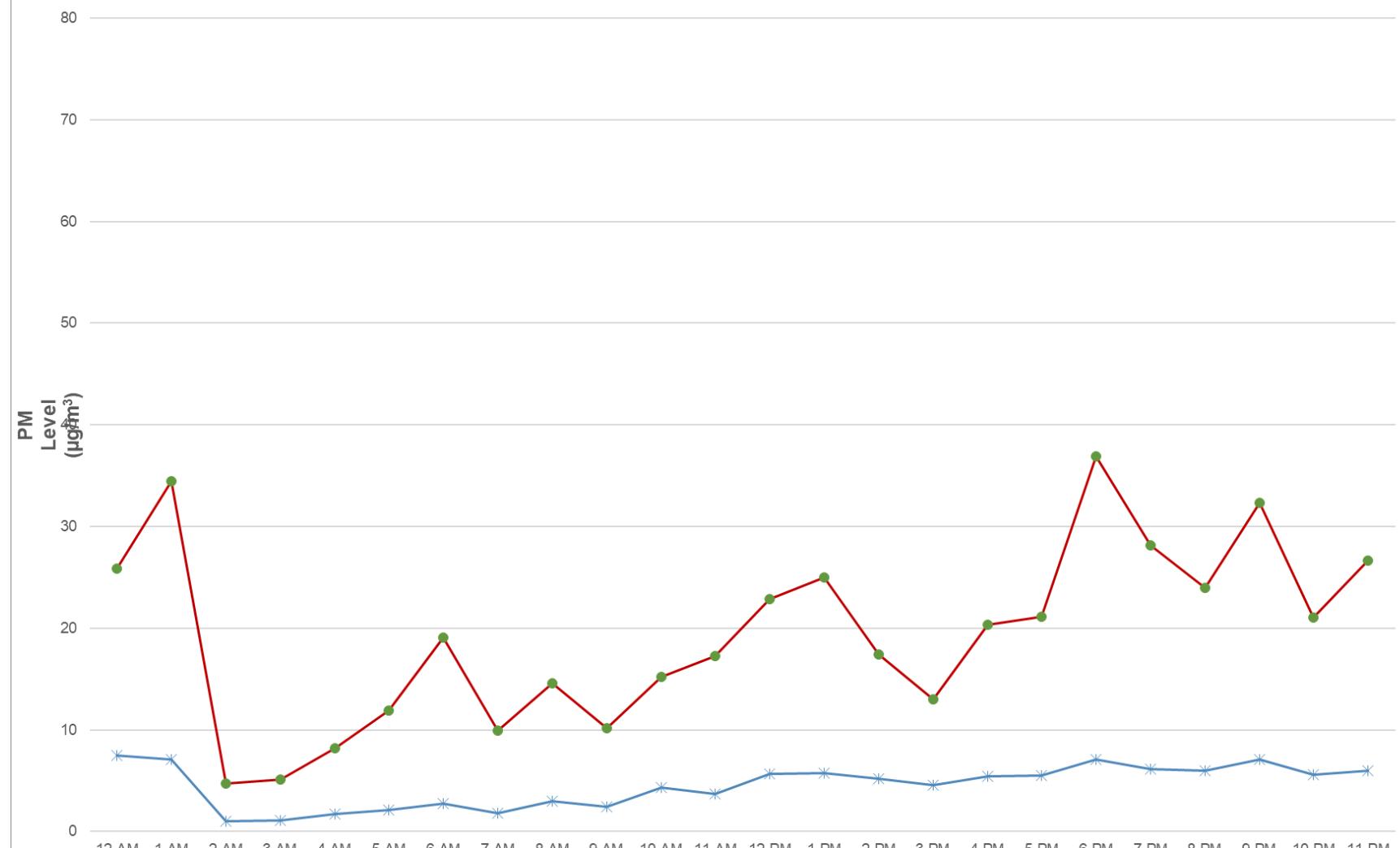
Dust Monitoring: 02/04/2022

—* Average of pm2_5mc —●— Average of pm10mc


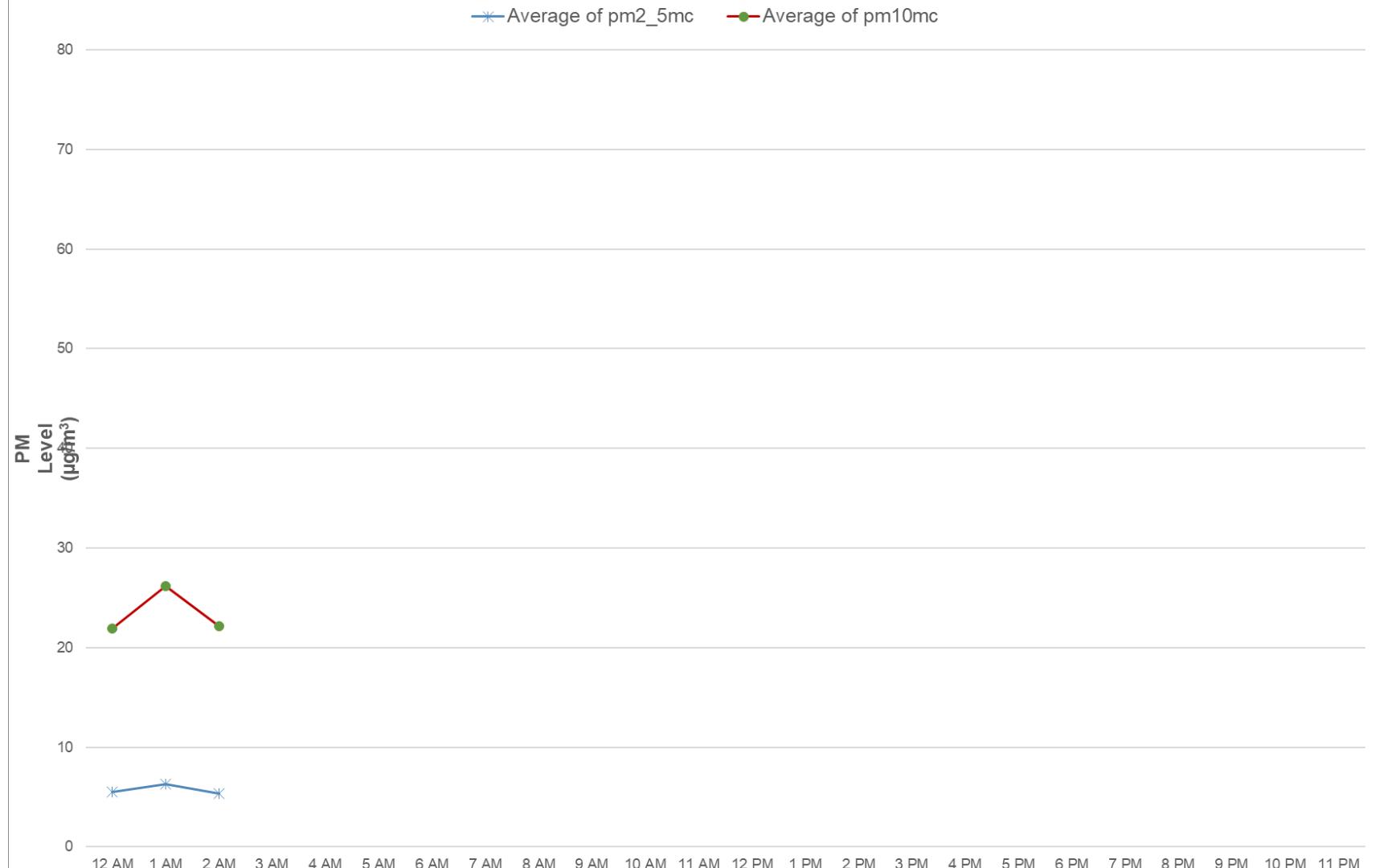
Dust Monitoring: 03/04/2022

—* Average of pm2_5mc —● Average of pm10mc


Dust Monitoring: 04/04/2022

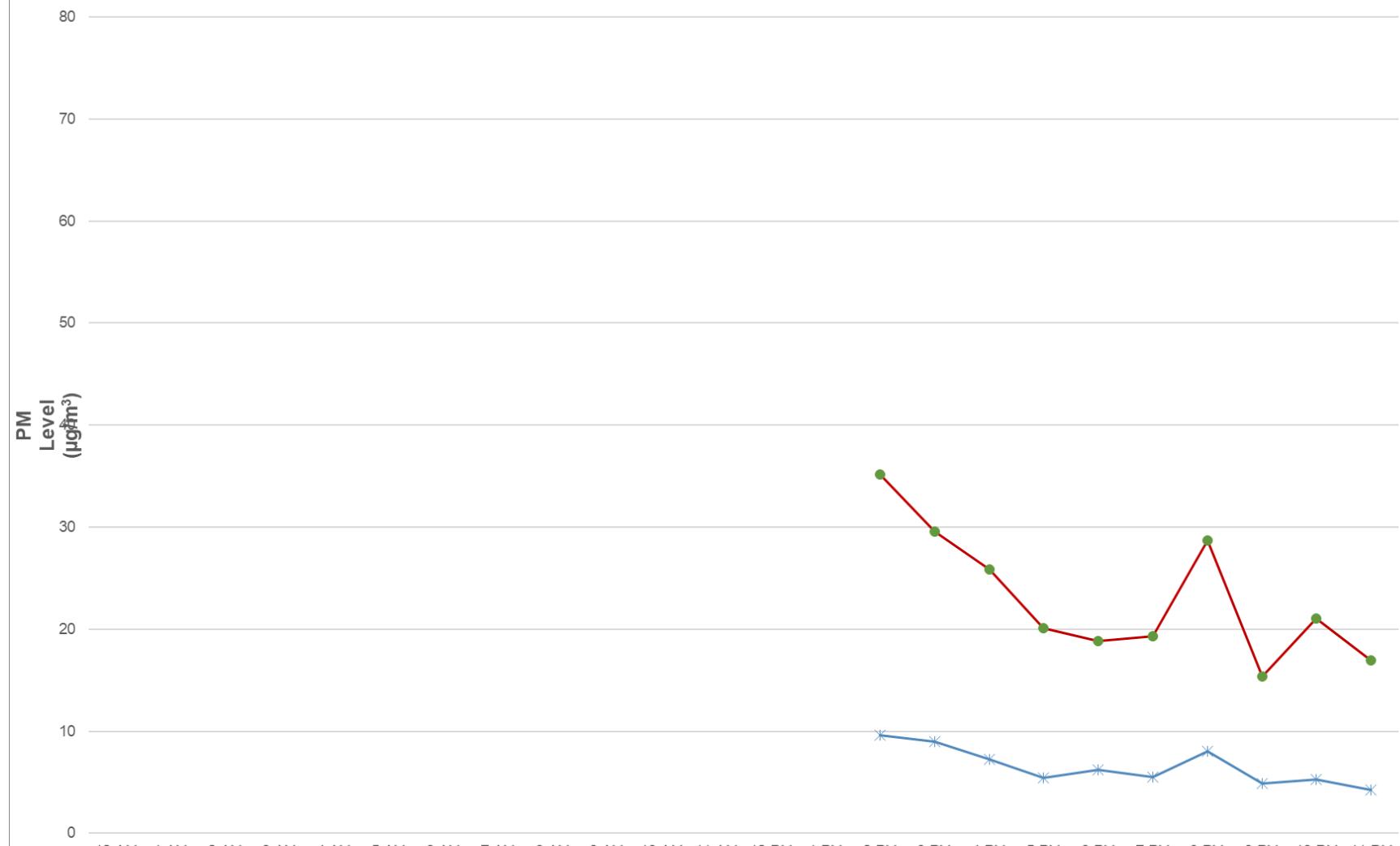
*— Average of pm2_5mc ●— Average of pm10mc


Dust Monitoring: 05/04/2022



Dust Monitoring: 13/04/2022

—*— Average of pm2_5mc —●— Average of pm10mc

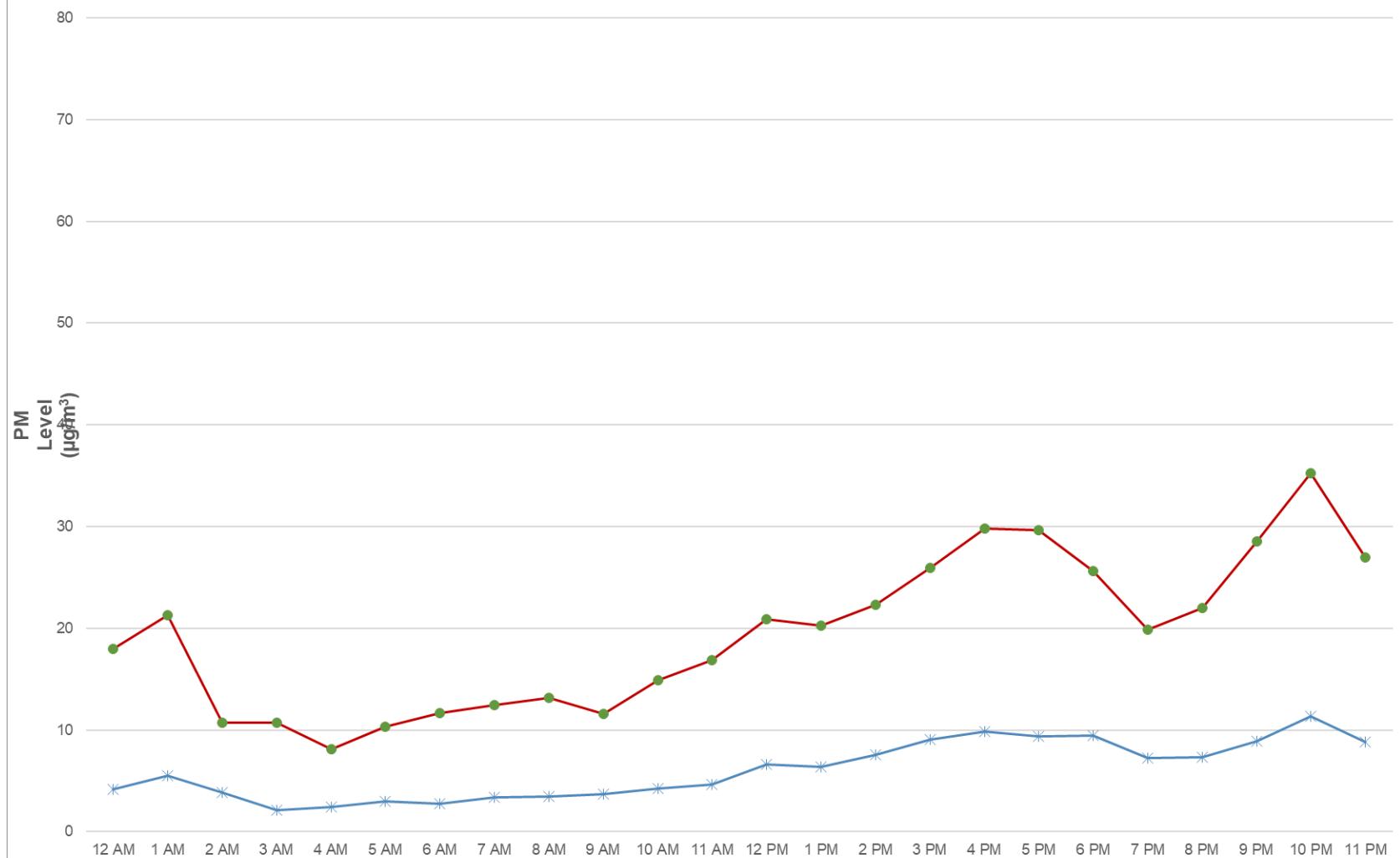




ACOUSTIC LOGIC

Dust Monitoring: 14/04/2022

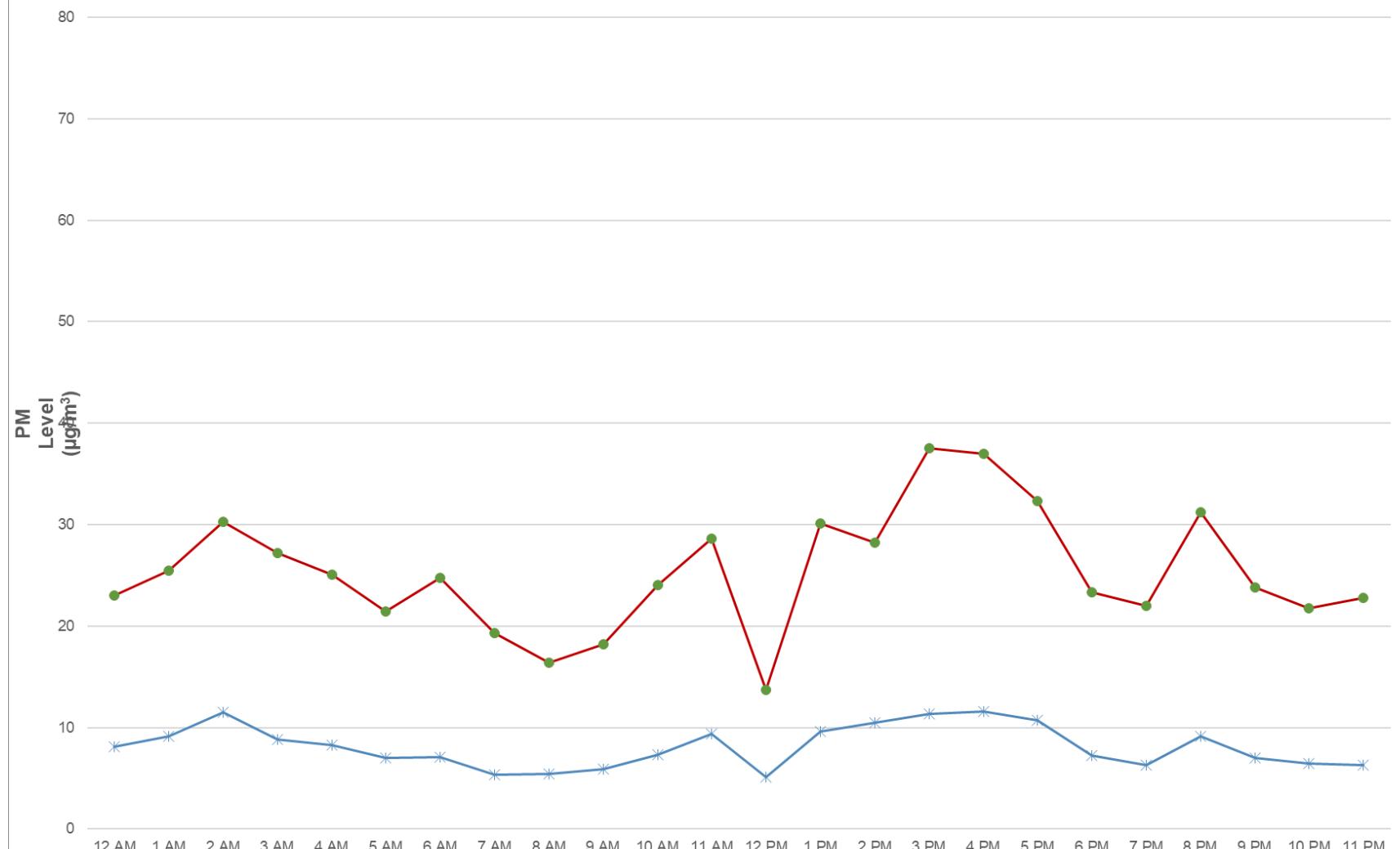
—*— Average of pm2_5mc —●— Average of pm10mc



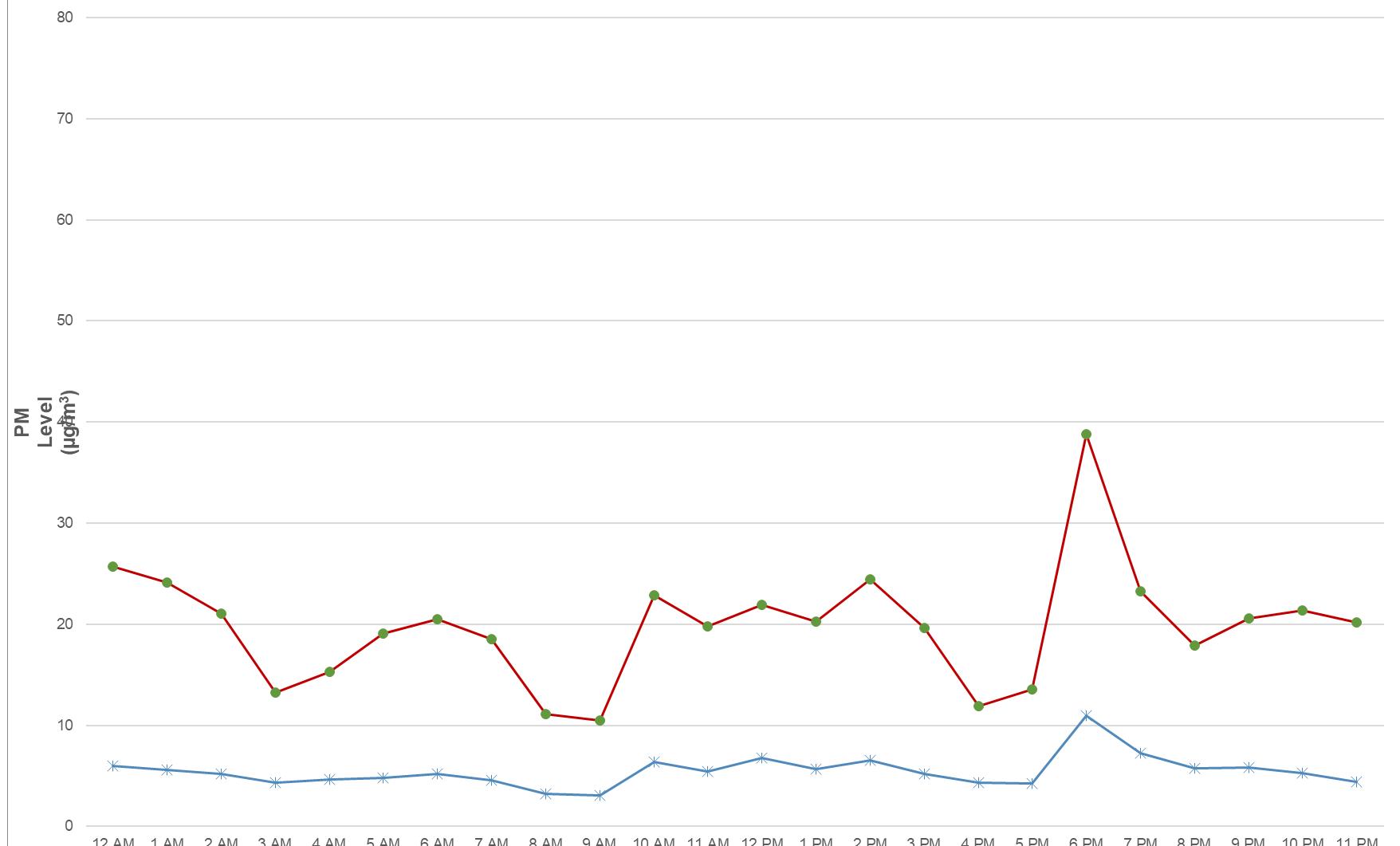


Dust Monitoring: 15/04/2022

—*— Average of pm2_5mc —●— Average of pm10mc



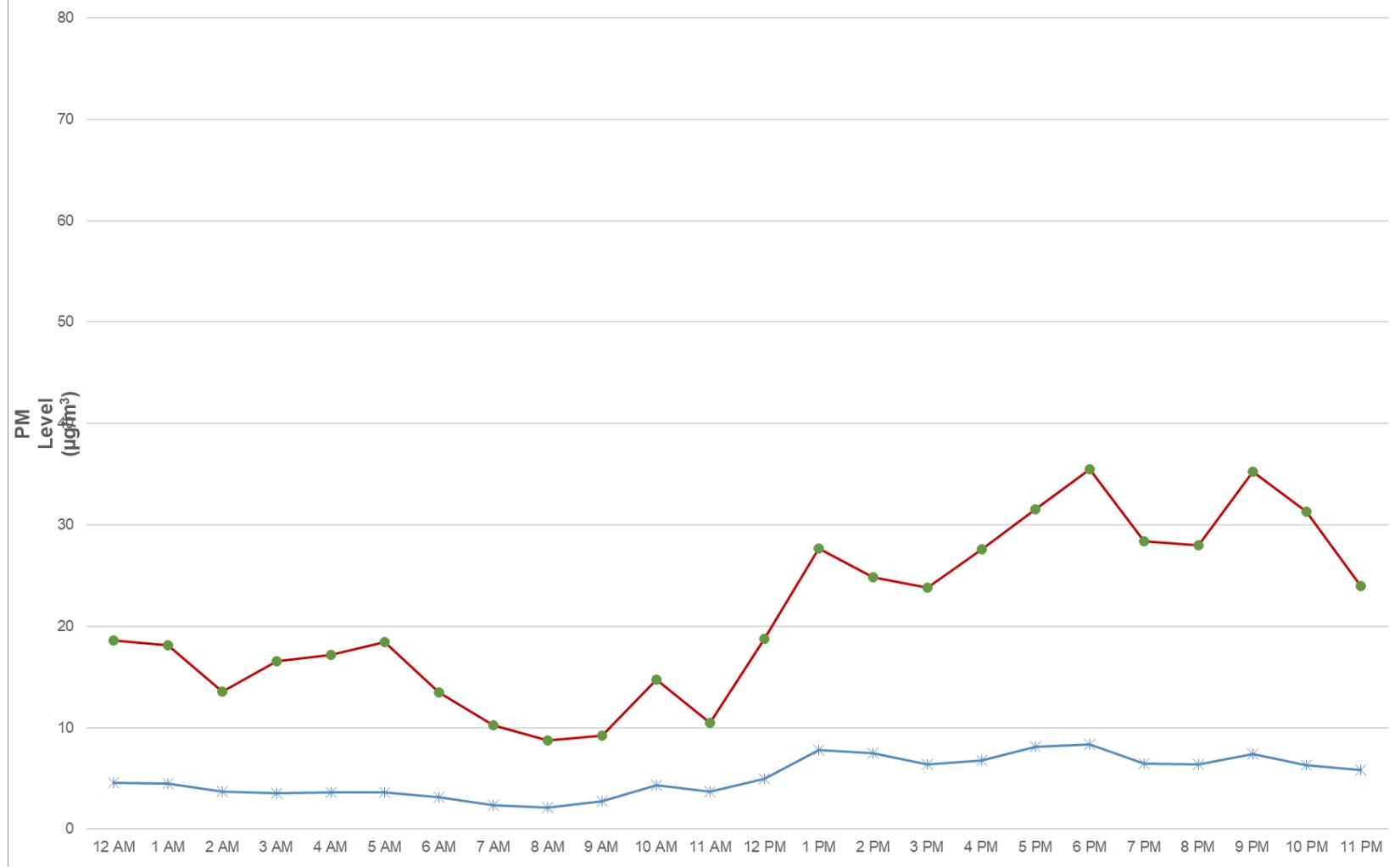
Dust Monitoring: 16/04/2022

—*— Average of pm2_5mc —●— Average of pm10mc


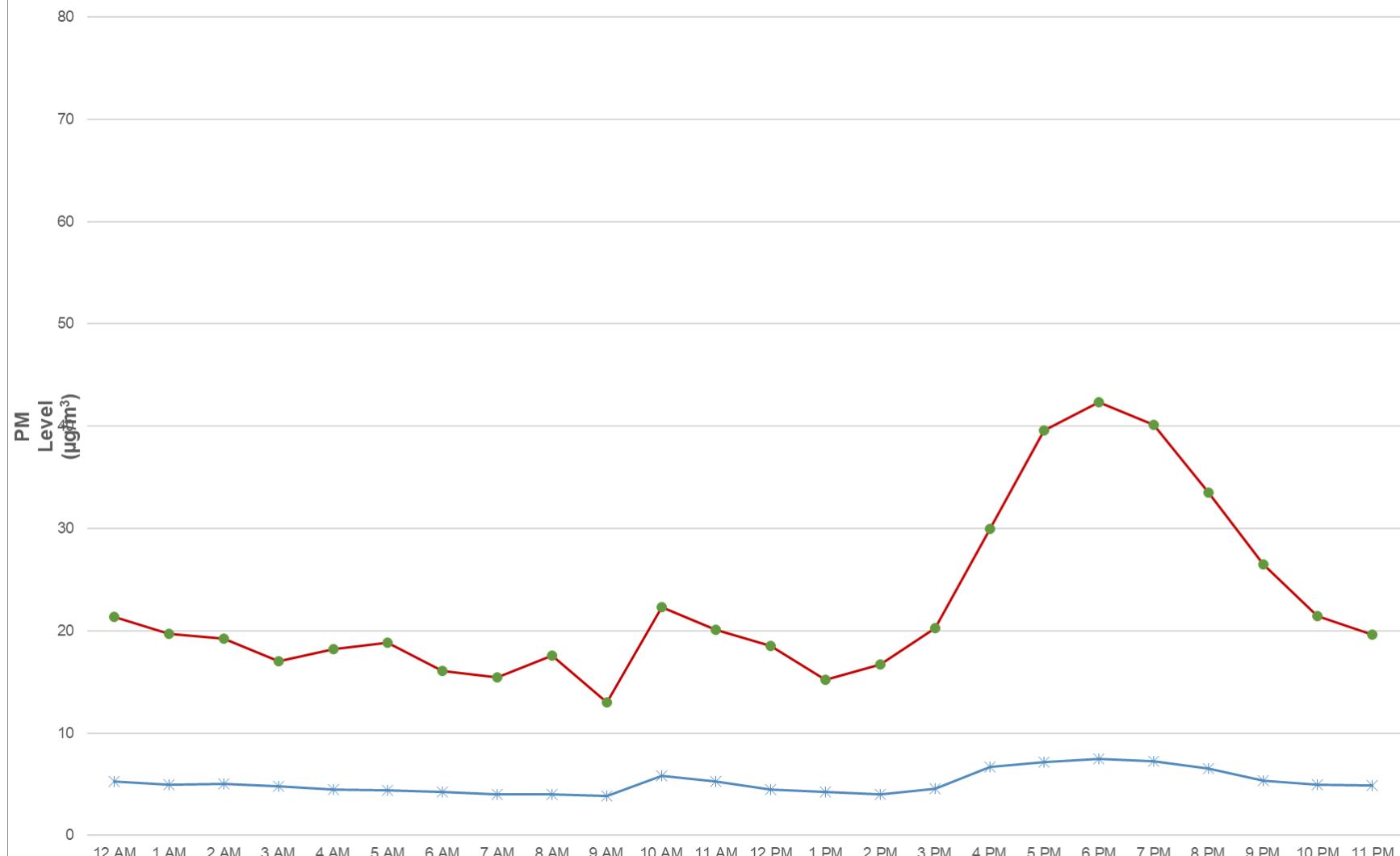


Dust Monitoring: 17/04/2022

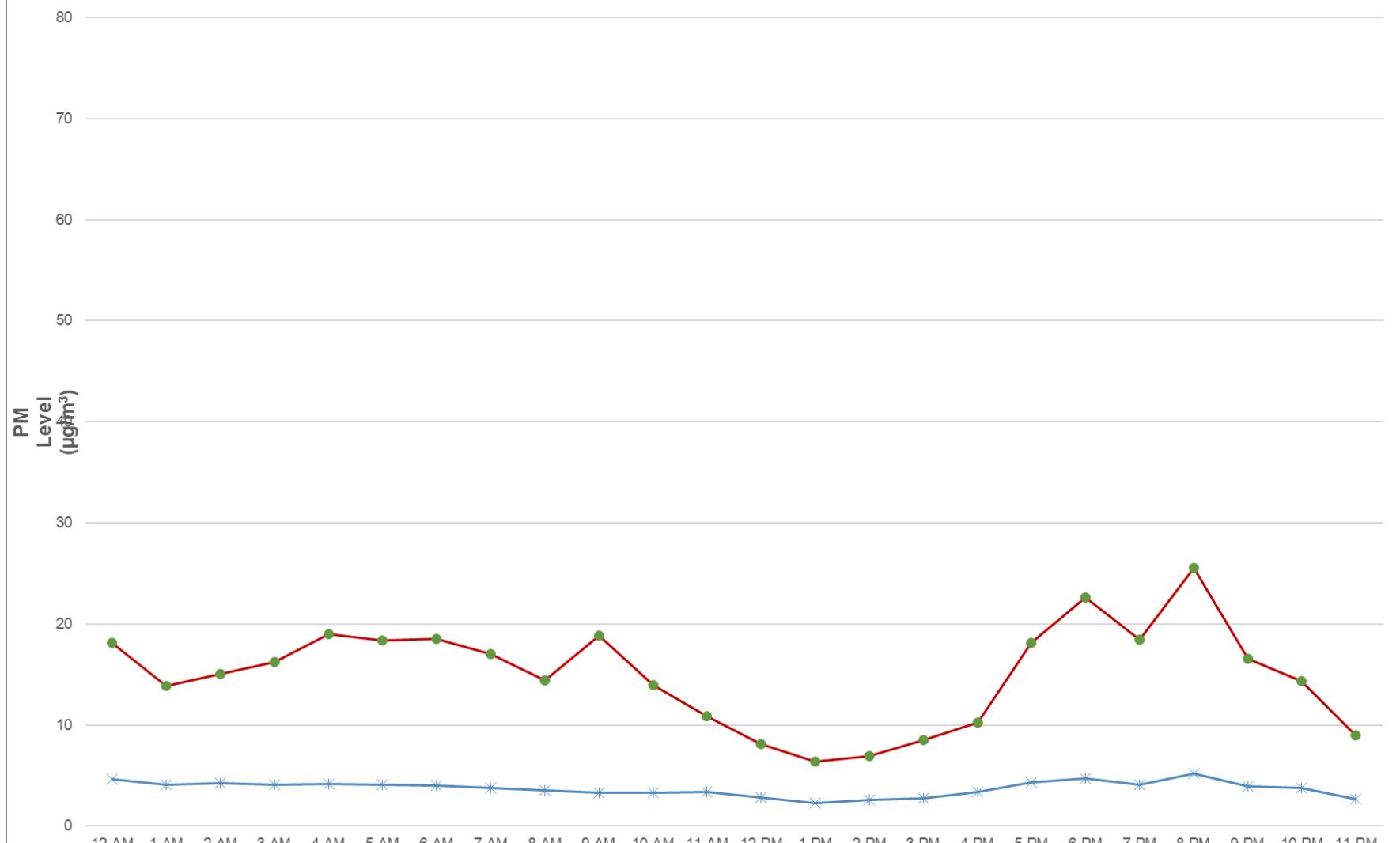
—*— Average of pm2_5mc —●— Average of pm10mc



Dust Monitoring: 18/04/2022

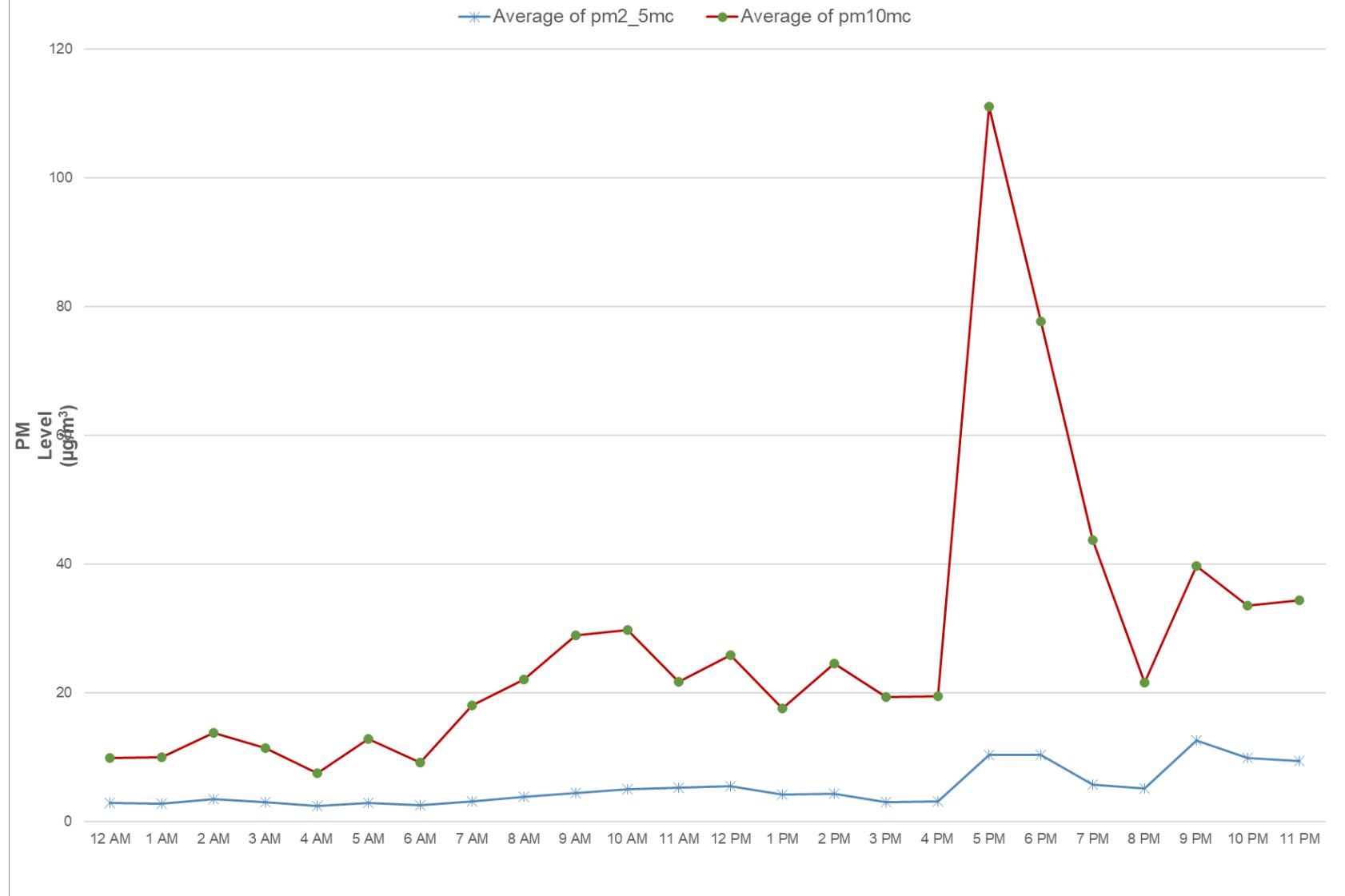
—*— Average of pm2_5mc —●— Average of pm10mc


Dust Monitoring: 19/04/2022

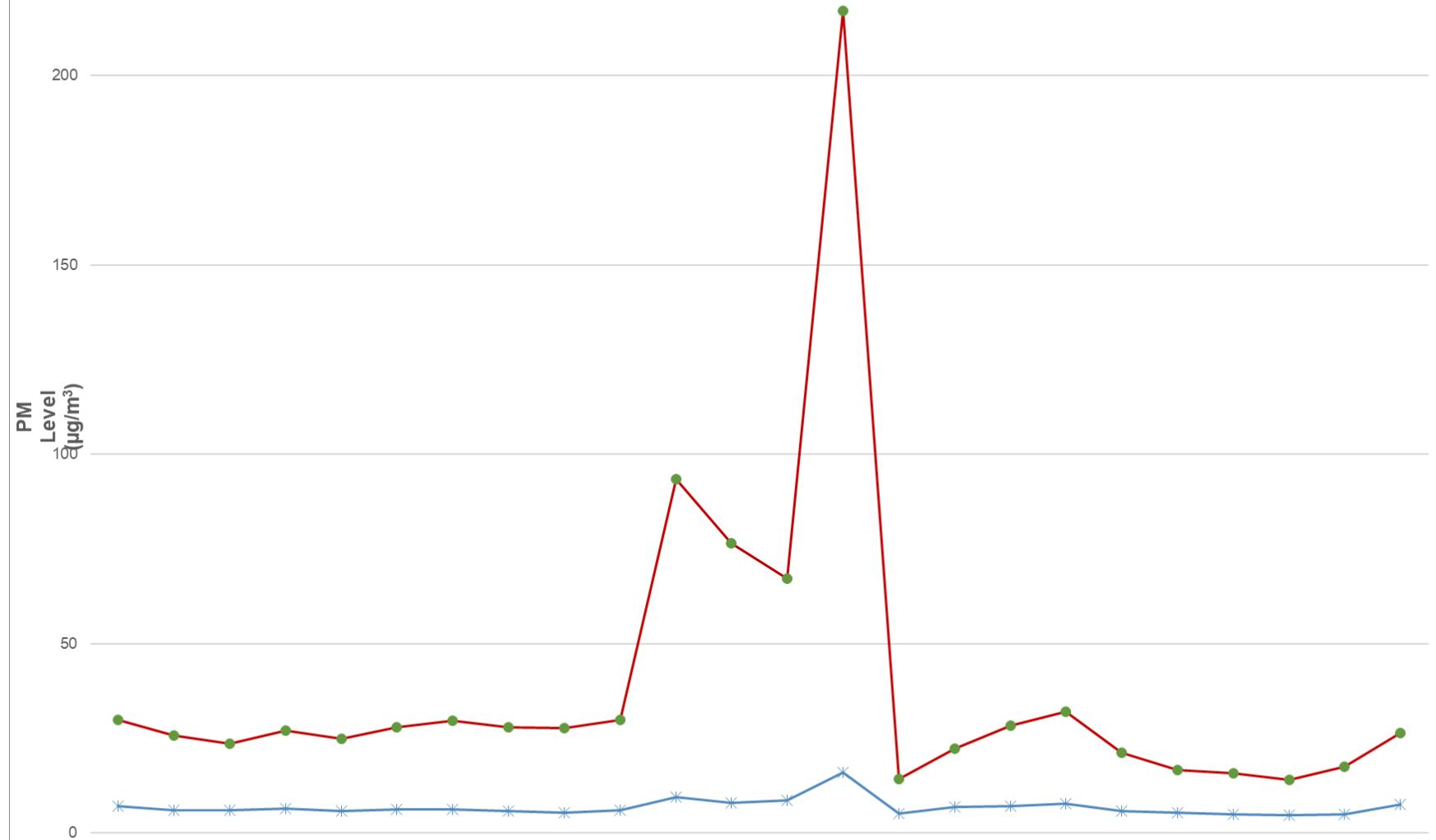
—* Average of pm2_5mc —● Average of pm10mc




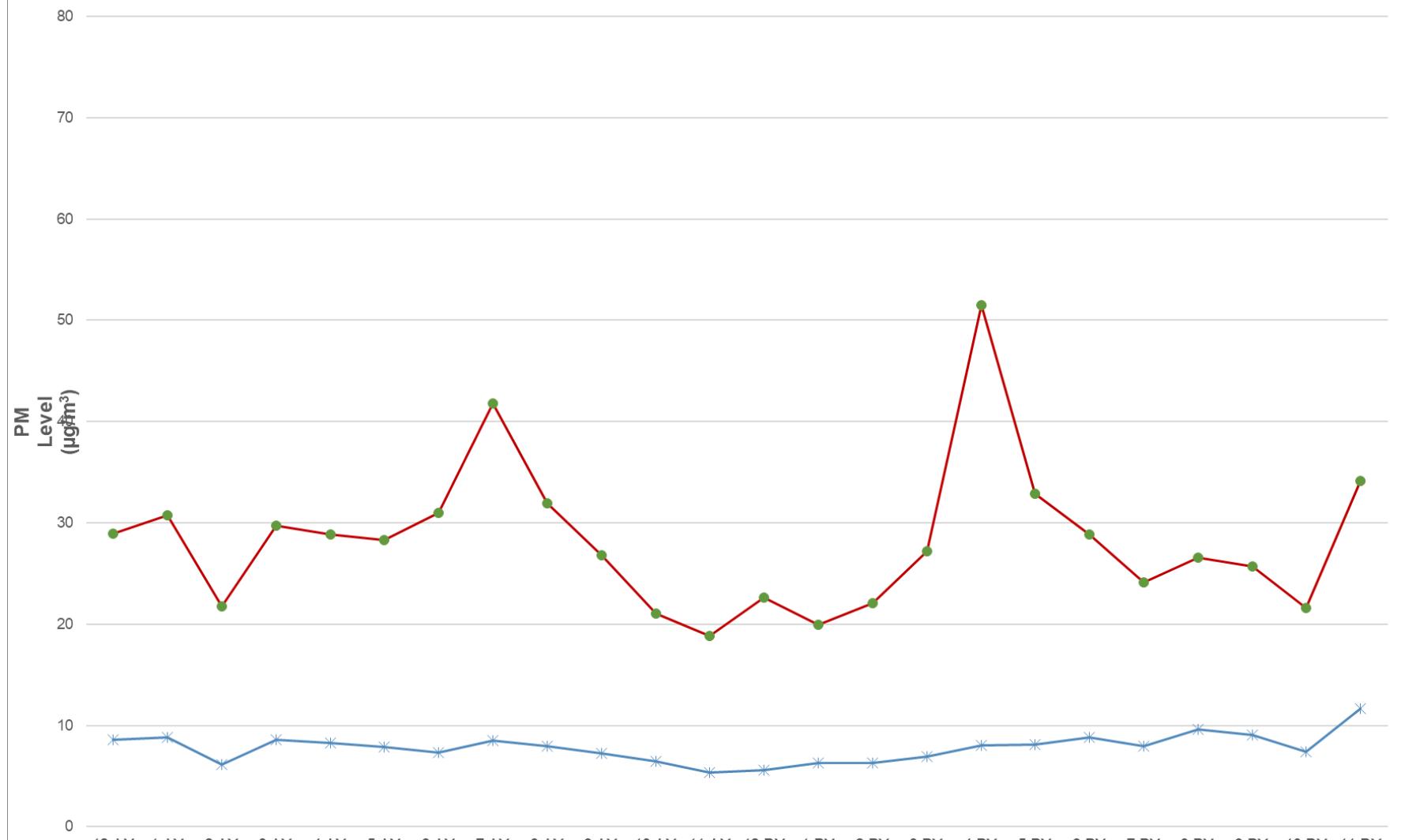
Dust Monitoring: 20/04/2022



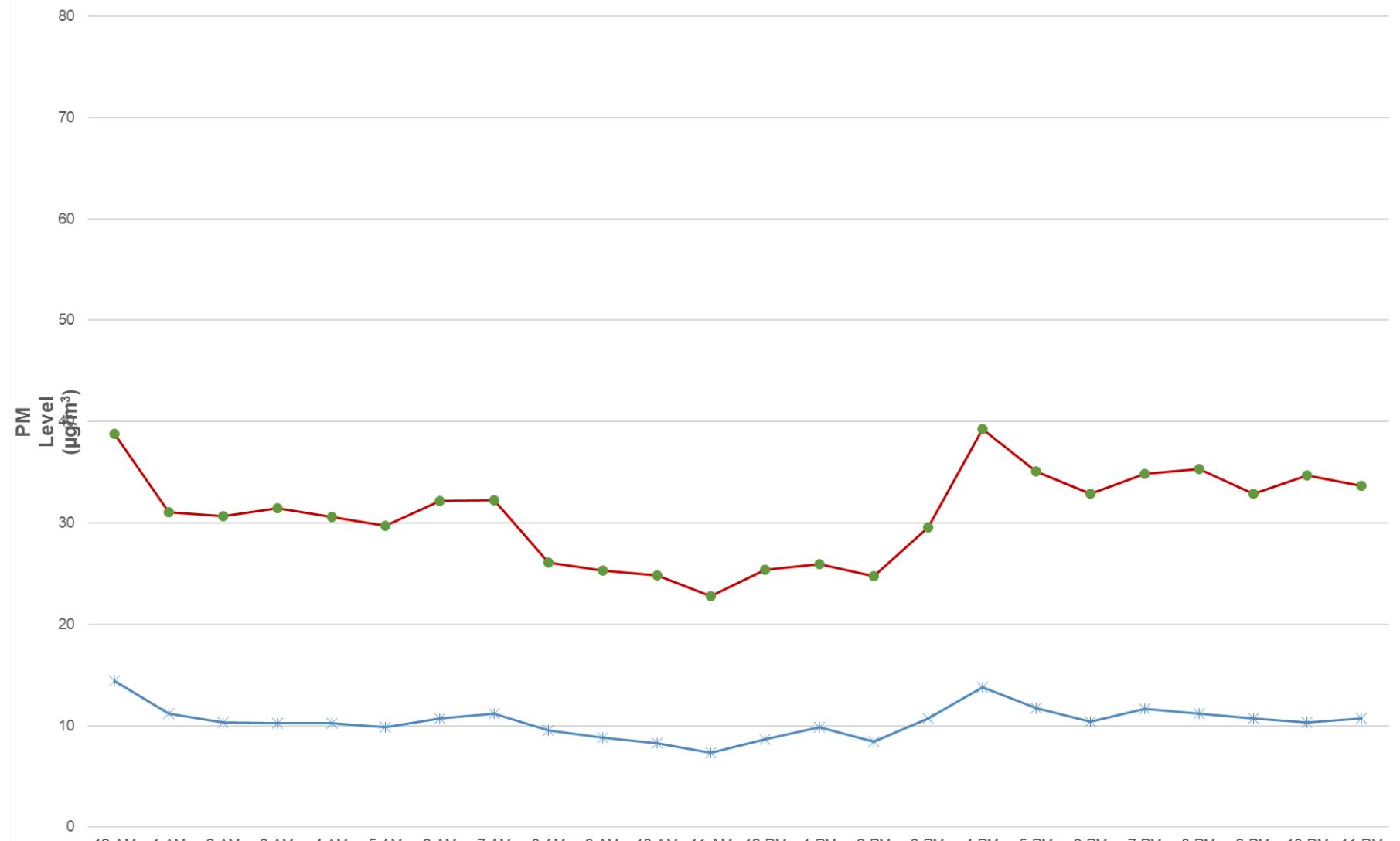
Dust Monitoring: 21/04/2022

—* Average of pm2_5mc —●— Average of pm10mc


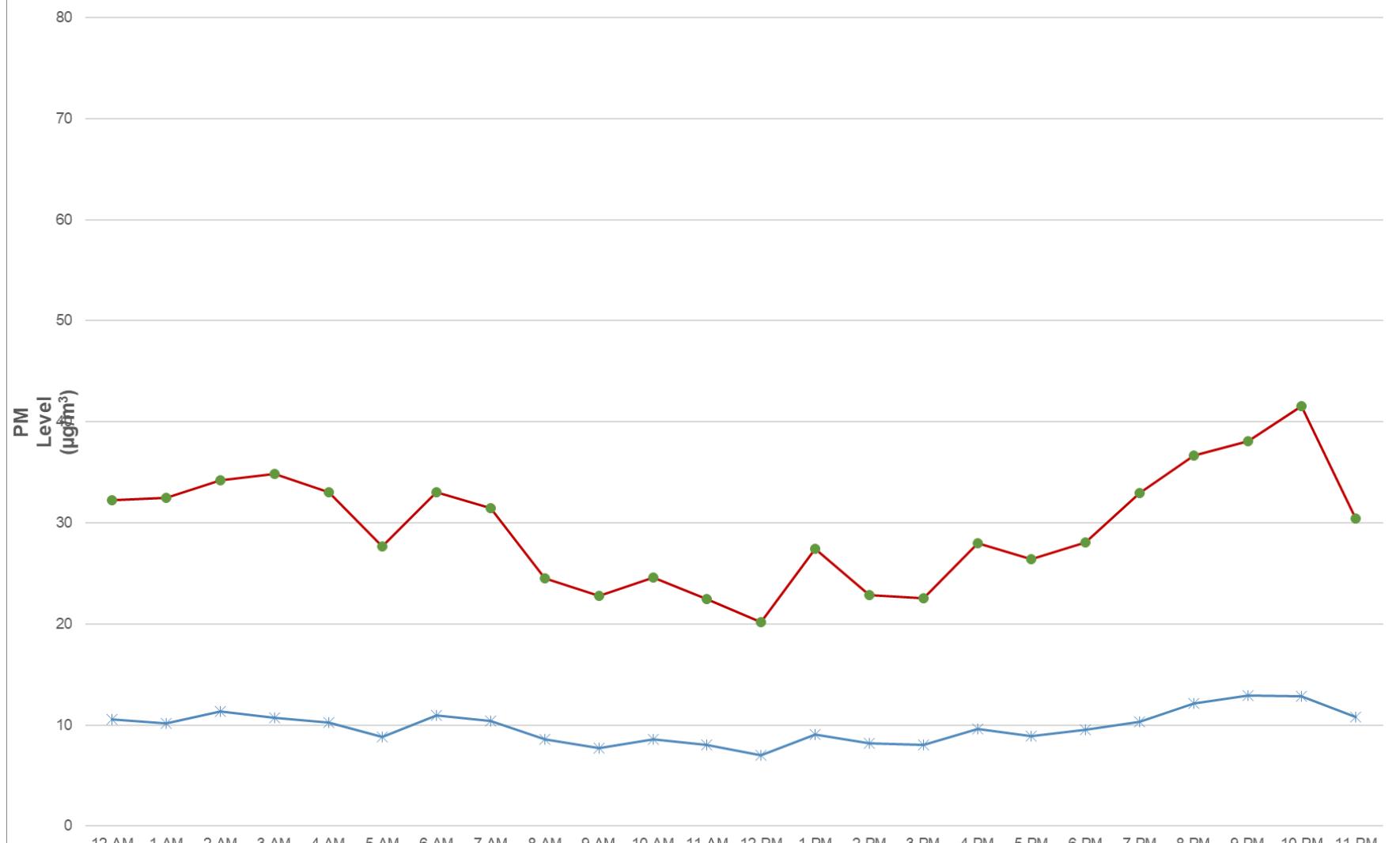
Dust Monitoring: 22/04/2022

—* Average of pm2_5mc —● Average of pm10mc


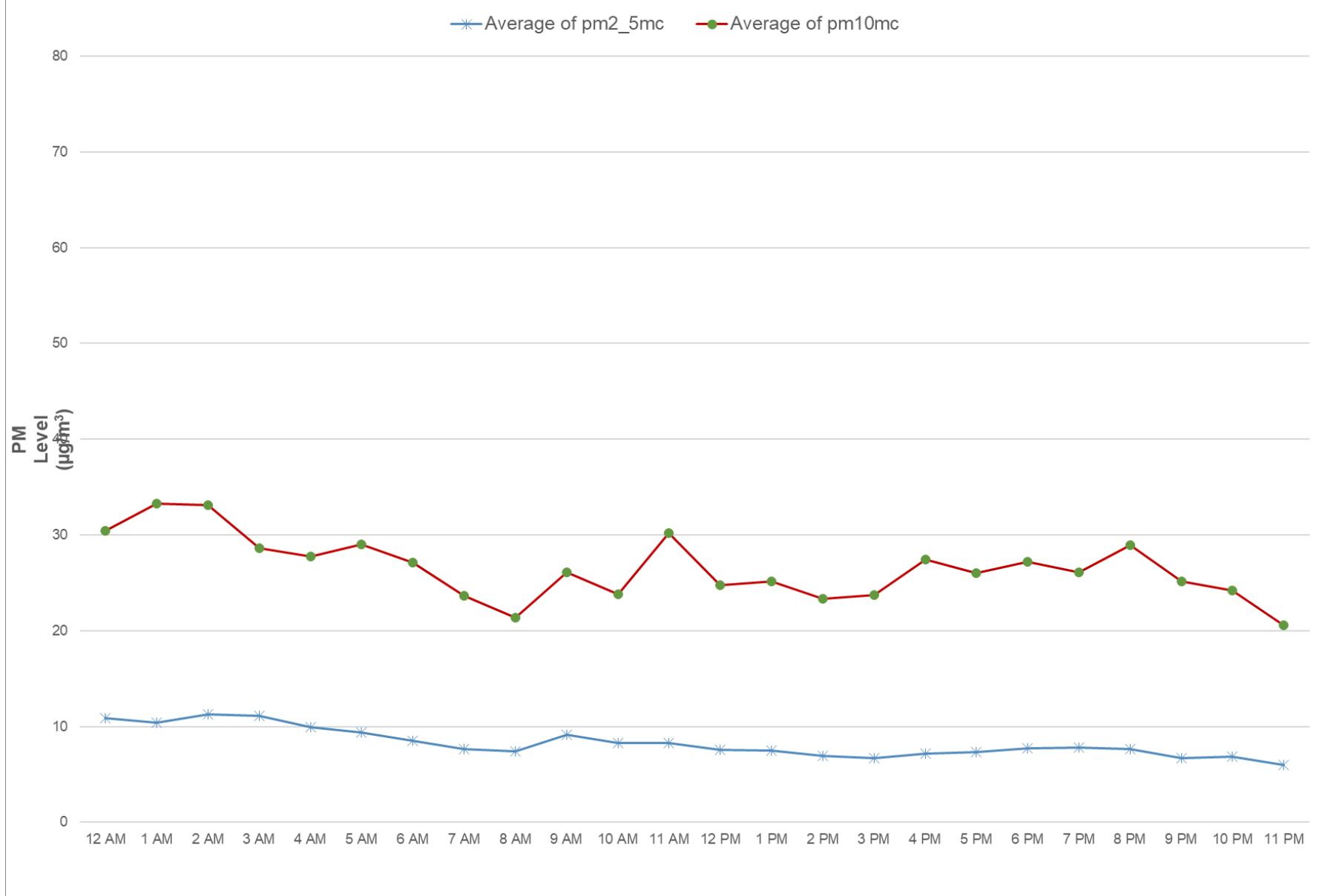
Dust Monitoring: 23/04/2022

*— Average of pm2_5mc ●— Average of pm10mc


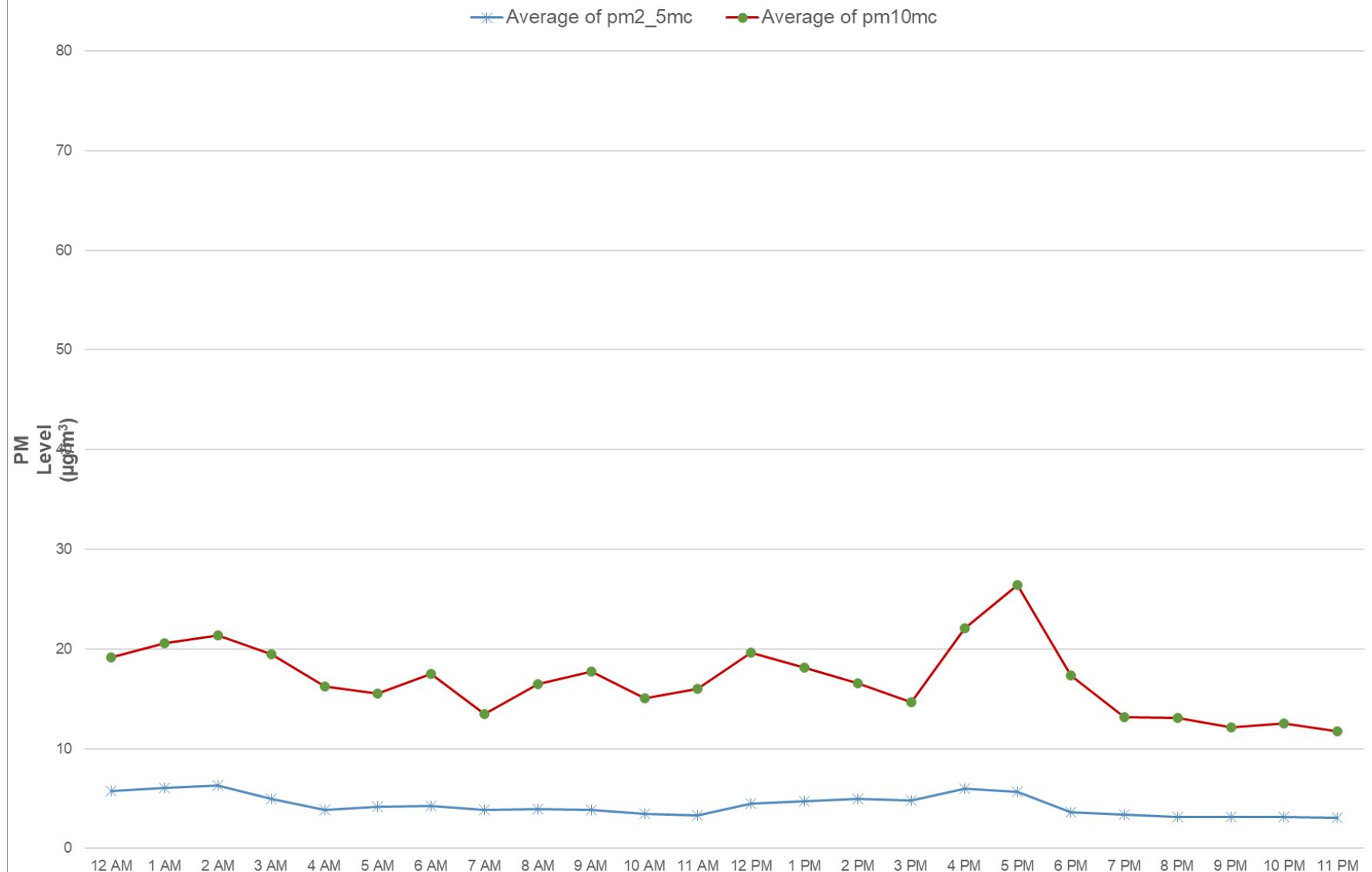
Dust Monitoring: 24/04/2022

—* Average of pm2_5mc —● Average of pm10mc


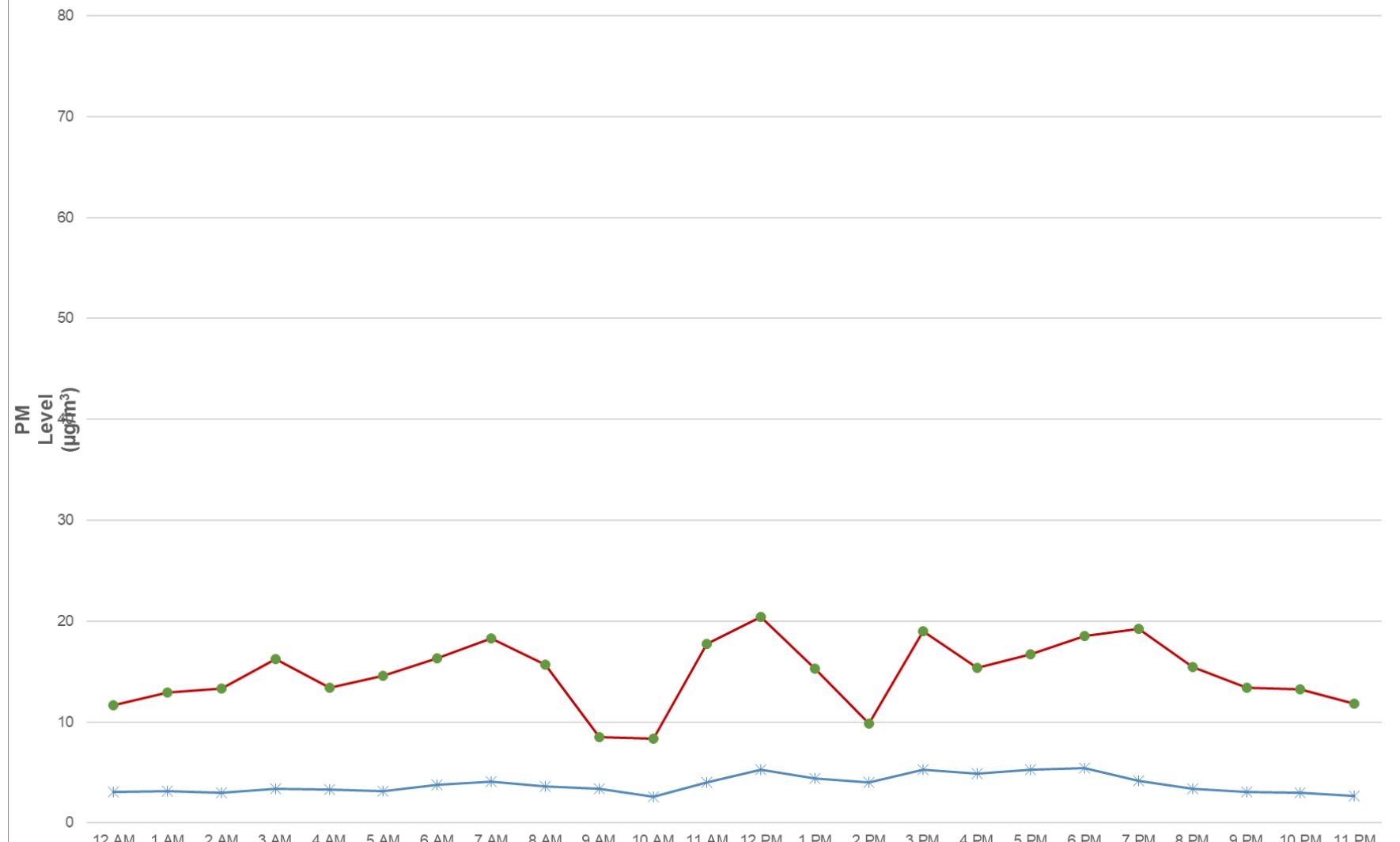
Dust Monitoring: 25/04/2022



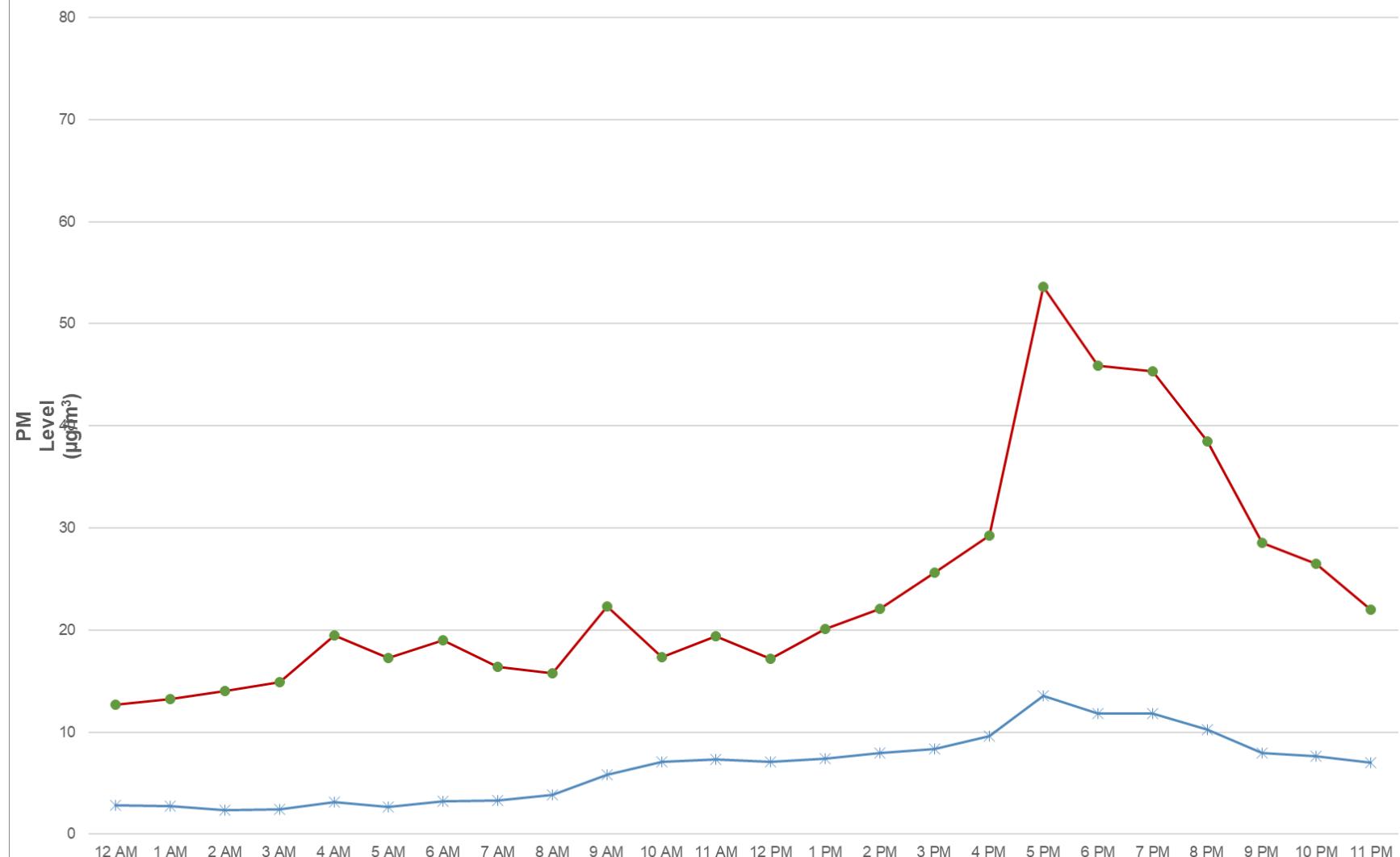
Dust Monitoring: 26/04/2022



Dust Monitoring: 27/04/2022

—* Average of pm2_5mc —●— Average of pm10mc


Dust Monitoring: 28/04/2022

—*— Average of pm2_5mc —●— Average of pm10mc


Dust Monitoring: 29/04/2022

—*— Average of pm2_5mc —●— Average of pm10mc



APPENDIX 4 – SITE PHOTO OF MONITORING LOCATION

