Development at West Kowloon Cultural District

Quarterly Environmental Monitoring and Audit (EM&A) Report (May-July 2021)

August 2021

This Quarterly EM&A Report has been reviewed and certified by the Environmental Team Leader (ETL) and verified by the Independent Environmental Checker (IEC).

Certified by:

CK Wu
Environmental Team Leader (ETL)
West Kowloon Cultural District Authority

Date 10 September 2021

Verified by:

Claudine Lee
Independent Environmental Checker (IEC)
Meinhardt Infrastructure & Environment Ltd

Date 14 September 2021

This Report Consists of :

Part-1: EM&A at Lyric Theatre Complex

and

Part-2: EM&A for Foundation, Excavation and Lateral Works for Integrated Basement and Underground Road in Zone 2A

Part-1: EM&A at Lyric Theatre Complex

MOTT MACDONALD

Lyric Theatre Complex

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Contents

Executive summary

This Quarterly EM&A Report presents the monitoring works at Lyric Theatre Complex conducted from 1 May 2021 to 31 July 2021.The construction works and EM&A programme for M+ Museum was commenced on 31 October 2015 and completed on 28 February 2021; while the construction works and EM&A programme for Lyric Theatre Complex (L1 and L2 Contracts) was commenced on 1 March 2016, and the EM&A programme for L1 Contract was completed on 30 June 2021.

The impact stage EM&A programme for the Project includes air quality, noise, water quality, waste, landscape and visual monitoring. The recommended environmental mitigation measures were implemented on site and regular inspections were carried out to ensure that the environmental conditions are acceptable.

The EM&A programme was carried out by the ET in accordance with the EM&A Manual requirements. It is concluded from the environmental monitoring and audit works that adequate environmental mitigation measures have been implemented by the contractors where appropriate in the reporting quarter.

Exceedance of Action and Limit Levels

There was no breach of Action and Limit levels for Air Quality (1-hour TSP and 24-hour TSP) and Noise in this reporting quarter.

Implementation of Mitigation Measures

Construction phase weekly site inspections were carried out to confirm the implementation measures undertaken by the Contractors in the reporting quarter. The status of implementation of mitigation measures during the reporting quarter is shown in **Appendix C**.

Landscape and visual impact inspections were conducted as part of the abovementioned weekly site inspections during the reporting quarter. No adverse comment on landscape and visual aspects were made during these inspections.

Record of Complaints

Five complaints were received during the reporting quarter.

Record of Notifications of Summons and Successful Prosecutions

No notifications of summons and successful prosecutions were recorded in the reporting quarter.

1 Introduction

1.1 Background

Mott MacDonald Hong Kong Limited (MMHK) was commissioned to undertake the Environmental Team (ET) services (including environmental monitoring and audit (EM&A)) for the construction of M+ Museum Main Works (Contract No.: CC/2015/3A/022) and Lyric Theatre Complex including the Foundation Works (Contract No.: CC/2015/3A/014), L1 Contract (Contract No. CC/2017/3A/030) and L2 Contract (Contract No. CC/2017/3A/031) at West Kowloon Cultural District (WKCD) (The Project) as part of the WKCD development. The Project Proponent is the West Kowloon Cultural District Authority (WKCDA). The construction works and EM&A programme for M+ Museum was commenced on 31 October 2015 and completed on 28 February 2021; while the construction works and EM&A programme for Lyric Theatre Complex (L1 and L2 Contracts) was commenced on 1 March 2016, and the EM&A programme for L1 Contract was completed on 30 June 2021.

The overall works for the WKCD fall under two separate categories of Designated Project (DP) of the Environmental Impact Assessment Ordinance (EIAO), namely an “engineering feasibility study of urban development projects with a study area covering more than 20 ha or involving a total population of more than 100 000” (Item 1 of Schedule 3) and “an underpass more than 100m in length under the built areas” (Item A.9, Part I, Schedule 2). An Environmental Permit No. EP-453/2013/B (EP) was issued with respect to the “Underpass Road and Austin Road Flyover Serving the West Kowloon Cultural District” which specifically includes the abovementioned category of DP under Item A.9, Part I, Schedule 2 of the EIAO. The captioned projects include part of the abovementioned underpass road located within the site boundary also falls under this same category.

The M+ museum development aims to provide an iconic presence for the M+ museum, semi-transparent vertical plane, housing education facilities, a public restaurant and museum offices. At ground and lower levels, generous access will be provided to the park and other West Kowloon Cultural District facilities, alongside a public resource centre, theatres, retail and dining, and back-of-house functions.

The 1,200-seat Lyric Theatre Complex will be Hong Kong’s first world-class facility for dance performances, including ballet, contemporary and Chinese dance forms. In the run up to the opening of further major performing arts venues in the WKCD, it will also be used for a wide variety of performing arts events including drama, opera and musical performances. The Lyric Theatre Complex will act as a platform for Hong Kong’s leading arts organisations and be a new major venue to show programmes from Asia and worldwide.

The Quarterly EM&A Report is prepared in accordance with the Clause 3.4 of the Environmental Permit No. EP-453/2013/B. This Quarterly EM&A Report presents the monitoring works conducted from 1 May 2021 to 31 July 2021. The purpose of this report is to summarise the findings in the EM&A of the project over the reporting period.

1.2 Project Organisation

The organisation chart and lines of communication with respect to the on-site environmental management structure together with the contact information of the key personnel are shown in **Appendix A**.

1.3 Status of Construction Works in the Reporting Period

During the reporting period, construction works at L1 undertaken include:

- Slab construction
- Box culvert construction
- AET protection – Construction of at-grade Slab
- Construction of dog house
- Column installation
- Austin Road West lay-by (PIW Works)

During the reporting period, construction works at L2 undertaken include:

- LTC construction

  Structure (Slab, wall, columns and beam)
  - Falsework and formwork erection
  - Reinforcement work
  - Concrete work

  ABWF & MEP work
- ASDA and Lyric Theatre Promenade
  - Structure and BS works
- DSC cofferdam (Cofferdam A)
  - Install DCS pipes/ valve/ fittings (DN500/ DN1400) outside chamber Construction of Valve Chamber
  - Install new connection puddle flange
  - Pipe leakage tests (pre-test)
  - Construction of valve chamber (middle portion)
- Modification to existing pump cell
  - ABWF works
- Extended basement
  - ABWF & MEP work
  - RC Duct work
- Underpass and Associated Area
  - RC Structure (Waffle Ceiling)
- M+ Day 2 Works
  - Hoarding Work
  - Modification Works at M+Day 2 PN2

The Construction Works Programme of the Project is provided in **Appendix B**. A layout plan of the Project is provided in **Figure 1**.

2 Summary of EM&A Requirements and Mitigation Measures

2.1 Monitoring Requirements

In accordance with the EM&A Manual, environmental parameters including air quality, noise, landscape and visual have been monitored. The specific parameters, monitoring frequency and the respective Action and Limit levels are given in **Table 2.1**. Locations of the monitoring stations are provided in **Figure 1**.

Table 2.1: Summary of Impact EM&A Requirements

Parameters	Descriptions	Locations	Frequencies	Action level	Limit level
Air Quality	24-Hour TSP	AM1 - International Commerce Centre	At least once every 6 days	143.6 μg/m^3	260 μg/m^3
	1-Hour TSP	AM1 - International Commerce Centre	At least 3 times every 6 days	273.7 μg/m^3	500 μg/m^3
	24-Hour TSP	AM2 - The Harbourside Tower 1	At least once every 6 days	151.1 μg/m^3	260 μg/m^3
	1-Hour TSP	AM2 - The Harbourside Tower 1	At least 3 times every 6 days	274.2 μg/m^3	500 μg/m^3
Noise	Leq, 30 minutes	NM1- The Harbourside Tower 1	Weekly	When one documented complaint is received from any one of the sensitive receivers	75 dB(A)
Landscape & Visual	Monitor implementation of proposed mitigation measures during the construction stage	As described in Table 9.1 and 9.2 of the EM&A Manual	Bi-weekly	N/A	N/A

In the context of the monitoring activities at M+ Museum and the Lyric Complex, three monitoring stations had been considered, including AM1 (International Commerce Centre), AM2 (The Harbourside Tower 1) for air monitoring, and NM1 (The Harbourside Tower 1) for noise monitoring. Other monitoring locations were so far away from M+ Museum and the Lyric Complex and could not be representative for impact monitoring.

The Harbourside management office formally rejected our proposal of setting up air quality and noise monitoring equipment on its premises at the podium level of Tower 1 (AM2/NM1) on 10 November 2015. Nevertheless, a suitable air quality monitoring location at AM2 was identified on the ground floor in front of The Harbourside Tower 1, which is at the same location as that of baseline monitoring for consistency. No management approval is required on the ground floor for conducting the air monitoring. However, the electricity supply at AM2 was suspended from 31 August 2016. In order to have a more secure electricity supply, an alternative air monitoring location (AM2A) was identified at Austin Road West opposite to The Harbourside Tower 1, which

is close to Lyric Theatre Complex site entrance. This alternative air monitoring location was approved by EPD on 28 September 2016. Due to the works programme, the air monitoring location AM2A has been relocated to the alternative monitoring location AM2B at the 1st floor of Gammon's site office, which was approved by EPD on 21 February 2019. In view of the upcoming construction works to be undertaken at the air monitoring station AM2B, AM2B was no longer available for conducting the impact air quality monitoring. Hence, an alternative air monitoring location was identified on the ground floor in front of The Harbourside Tower 1 (AM2) which is at the same location as the baseline monitoring and this previously approved monitoring location had also been used for the EM&A Programme from November 2015 to August 2016, the relocation was approved by EPD on 27 May 2021.

Alternative noise monitoring location was identified at The Arch (NM2); however, The Arch management office formally rejected our proposal of setting up noise monitoring equipment on its premises on 23 November 2015. On the other hand, noise monitoring at G/F of Harbourside could not be representative. However, approval from the management office of the International Commerce Centre has been granted on 29 February 2016 for conducting noise monitoring at the alternative noise monitoring location identified at the podium floor (NM1A) which is free from screening to the construction activities.

In short, 2 air quality monitoring stations and 1 noise impact monitoring station were confirmed for the impact monitoring.

2.2 Environmental Mitigation Measures

Environmental mitigation measures have been recommended in the EM&A Manual. Summary of implementation status of the environmental mitigation measures is provided in **Appendix C**.

3 Summary of EM&A Results

3.1 Monitoring Data

In accordance with the EM&A Manual, impact monitoring has been conducted in the reporting quarter. Meteorological data for the reporting quarter have been extracted from Hong Kong Observatory and presented in **Appendix D**. Monitoring data with graphical presentation for the reporting quarter are shown in **Appendix E**. A summary on the monitoring results is presented in **Table 3.1**.

Table 3.1: Summary of Monitoring Data

Parameter	Monitoring Location	Minimum	Maximum	Average
Air Quality				
1 hour TSP	AM1	17	70	37
	AM2B / AM2*	21	82	50
24 hour TSP	AM1	5	46	19
	AM2B / AM2*	8	120	44
Construction Noise				
Leq(30min)	NM1A	67	72	68

* The air monitoring station AM2B has been relocated to the alternative monitoring station AM2 on 1 June 2021, and portable direct reading dust meter was being used at AM2 for 24 hour TSP monitoring.

3.2 Monitoring Exceedances

Summary of the exceedances in the reporting quarter is tabulated in **Table 3.2**.

Table 3.2: Summary of Exceedances

Monitoring Station	Parameter	No. of Exceedance		Action Taken
		Action Level	Limit Level	
Air Quality				
AM1	1 hour TSP	0	0	N/A
	24 hour TSP	0	0	N/A
AM2B / AM2*	1 hour TSP	0	0	N/A
	24 hour TSP	0	0	N/A
Construction Noise				
NM1A	Leq(30min)	0	0	N/A

* The air monitoring station AM2B has been relocated to the alternative monitoring station AM2 on 1 June 2021, and portable direct reading dust meter was being used at AM2 for 24 hour TSP monitoring.

3.2.1 1-hour TSP Monitoring

All 1-hour TSP monitoring was conducted as scheduled in the reporting quarter. No Action/ Limit Level exceedance was recorded.

3.2.2 24-hour TSP Monitoring

All 24-hour TSP monitoring was conducted as scheduled in the reporting quarter. No Action/ Limit Level exceedance was recorded.

3.2.3 Construction Noise Monitoring

All construction noise monitoring was conducted as scheduled in the reporting quarter. No Action/ Limit Level exceedance was recorded.

3.2.4 Landscape and Visual Monitoring

All landscape and visual impact inspections were conducted as scheduled in the reporting quarter. No adverse comment on landscape and visual aspects were recorded.

4 Waste Management

4.1 Lyric Theatre Complex

As advised by the Contractor (L1 and L2 Contract), 1448.86 tonnes, 554.26 tonnes and 0.00 tonne of inert C&D material were disposed of as public fill to Tseung Kwan O Area 137, Tuen Mun Area 38, and Chai Wan Public Fill Barging Point respectively in the reporting quarter, while 1062.6 tonnes of general refuse were disposed of at SENT and WENT landfill. 471.5 tonnes of metals, 0.4 tonnes of paper/cardboard packaging, 0.1 tonnes of plastic and 0.0 tonne of timber were collected by recycling contractors in the reporting quarter. 0.0 tonne of inert C&D materials was reused on site. 0.0 tonne of fill materials was imported for use at site and 0.0 tonne of inert C&D materials was reused in other projects. 8.9 tonnes of inert C&D materials were disposed to sorting facility and 0.4 tonnes of chemical waste were collected by licensed contractors in the reporting quarter.

The actual amount of different types of waste generated by the activities of construction works at Lyric Theatre Complex in the reporting quarter are shown in **Appendix F**.

5 Environmental Non-conformance

There was no breach of Action or Limit levels for Air Quality (1-hour TSP and 24-hour TSP) and Noise in the reporting quarter.

Five complaints were received in the reporting quarter: 3 complaints in May, 1 complaint in June and 1 complaint in July. No notifications of summons and successful prosecutions were received in the reporting quarter.

On 11 May 2021, West Kowloon Cultural District Authority (WKCDA) has received a complaint from the office of Mr. Derek Hung (YTMDC member). The resident of Harbourside found that noise was generated from nearby construction site on Sunday 9 May 2021. Based on the investigation, no noisy works were undertaken on 9 May 2021 (Sunday) on Lyric Theatre Complex (L1 & L2 Contracts) construction sites. Therefore, the complaint could not be attributable to the Lyric Theatre Complex. The probable noise source might be the road works conducted by other adjacent project. Hence, it was concluded that the complaint was not related to Lyric Theatre Complex. However, noise mitigation measures will continue to be strictly implemented on site to reduce impacts to nearby residents.

On the same day (i.e. 11 May 2021), WKCDA has received another complaint from Environmental Protection Department (EPD). Referring to the pictures provided by the complainant, pollutant was spotted at the waterbody of Victoria Harbour near WKCD construction site between 7 May 2021 and 9 May 2021. Based on the site investigation, no large excavation work and earthwork were conducted on 7 and 8 May 2021. No construction works were undertaken on 9 May 2021. The daily self-checking on effluent quality showed that the wastewater treatment plants were well operated and the effluent was well treated. Also, from the complaint photo, the mud/ dirt was out of Lyric Theatre Complex site boundary. Thereby, the complaint could not be attributable to Lyric Theatre Complex (L1 & L2 Contracts). However, the contractors are reminded to strictly maintain good site practices to avoid muddy water flowing into the waterbody of Victoria Harbour.

On 12 May 2021, WKCDA has received a complaint from EPD. Referring to the picture provided by the complainant, pollutant was spotted at the waterbody of Victoria Harbour near WKCD construction site on 9 May 2021. Based on the site investigation, no muddy construction works were carried out on 9 May 2021 by the contractors. The daily self-checking on effluent quality showed that the wastewater treatment plants were well operated and the effluent was well treated. Also, from the complaint photo, the yellowish plume was observed out of Lyric Theatre Complex site. Thereby, the complaint could not be attributable to Lyric Theatre Complex (L1 & L2 Contracts). However, the contractors are reminded to strictly maintain good site practices to avoid muddy water flowing into the waterbody of Victoria Harbour.

On 7 June 2021, WKCDA has received a complaint from EPD. Referring to the picture provided by the nearby complainant, pollutant was spotted at the waterbody of Victoria Harbour near WKCD construction site on 5 June 2021. After the investigation, no muddy construction works were carried out on 5 June 2021 by the contractors, and no muddy water was discharged into the sea. The daily self-checking of the effluent quality showed that the wastewater treatment plants were well operated and the effluent was well treated. From the site observation, the M+ Museum cooling water main outfall adjacent to the Lyric Theatre Complex site boundary creates sometimes a white splash which might have certainly drawn the attention and observation of the complainant. In other words, the observed white plume in the water body of the Victoria Harbour on 5 June 2021 was the white splash created by the main outfall of the M+ Museum cooling water. Thereby

the complaint could not be attributable to Lyric Theatre Complex (L1 & L2 Contracts). However, the contractors are reminded to strictly maintain good site practices to avoid water pollution to the water body of Victoria Harbour.

On 7 July 2021, EPD has received a complaint from a staff of Standard Chartered Elements Priority Banking Centre regarding construction noise from WKCD construction site (Artist Square Bridge (ASB) construction site). On 5 July 2021, WKCD staff has informed the complainant that the construction works of ASB project were scheduled to be carried out until noon every day. However, noise nuisance caused by ASB works usually lasts till 14:00 to 15:00 for consecutive 3 days. As the work place of the complainant is in close proximity of ASB project, daily noise exposure has become excessive, affecting daily duty performance and well-being of the complainant. After the investigation, as the complainant specified that the noise was generated from the ASB which is not within the Lyric Theatre Complex site boundary. Besides, both L1 and L2 Contracts did not involve the bridge works. Noise measurement and monitoring were also carried out with no exceedance; hence the complaint could not be attributable to Lyric Theatre Complex. As a conclusion, the complaint was not related to Lyric Theatre Complex. However, noise mitigation measures will continue to be strictly implemented on site to reduce impacts to nearby residents.

The cumulative statistics on complaints, notifications of summons and successful prosecutions were provided in **Appendix G**.

6 Comments, Recommendations and Conclusion

6.1 Comments

Based on the observations made during site audits, landscape inspections, and construction dust and noise monitoring results, no non-compliances and exceedances of air quality and noise were recorded in the reporting quarter.

6.2 Recommendations

Reviewing the implementation of the recommended mitigation measures in the EM&A Manual, it was observed that they were effective and efficient in controlling the potential impacts due to construction of the project during the reporting period. Review of the effectiveness and efficiency of the EM&A programme will continue, and recommendations will be provided to remediate any potential impacts due to the project and to improve the EM&A programme if deficiencies of the existing EM&A programme are identified.

6.3 Conclusion

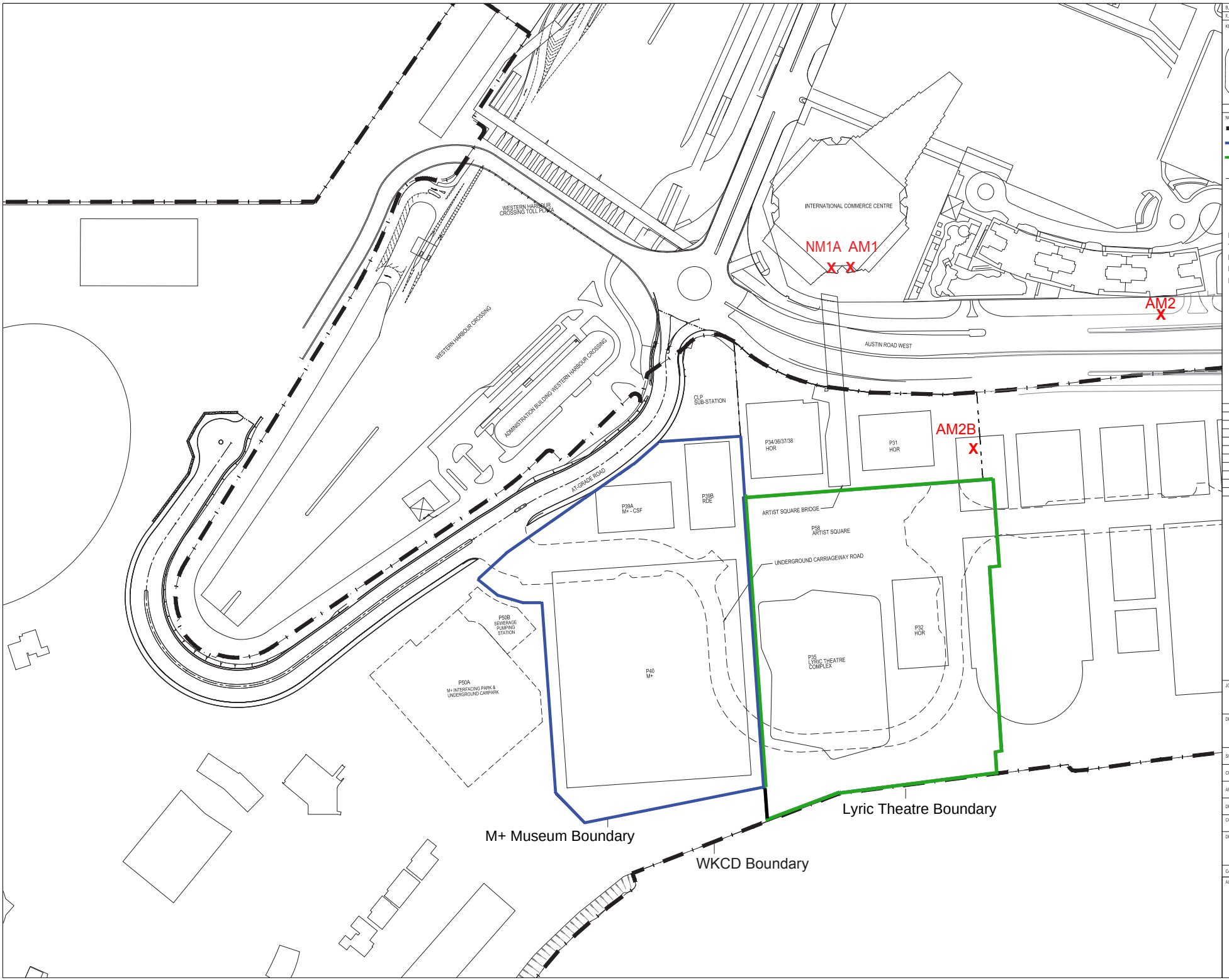
The EM&A programme as recommended in the EM&A Manual has been undertaken. The construction works and EM&A programme for M+ Museum was commenced on 31 October 2015 and completed on 28 February 2021; while the construction works and EM&A programme for Lyric Theatre Complex (L1 and L2 Contracts) was commenced on 1 March 2016, and the EM&A programme for L1 Contract was completed on 30 June 2021.

Monitoring of air quality and noise with respect to the Project is underway. In particular, the 1-hour TSP, 24-hour TSP and noise level (as Leq, 30 minutes) under monitoring have been checked against established Action and Limit levels. There was no breach of Action and Limit levels for Air Quality (1-hour TSP and 24-hour TSP) and Noise in this reporting quarter.

Five complaints were received in the reporting quarter. No notifications of summons and successful prosecutions were received during the reporting quarter.

Weekly construction phase site inspections and bi-weekly landscape and visual impact inspections were conducted during the reporting quarter as required. It was observed that the Contractor had implemented all possible and feasible mitigation measures to mitigate the potential environmental impacts during construction phase works.

Figure 1 Site Layout Plan and Monitoring Stations



B.D. REF:

F.S.D. REF:

KEY PLAN

KEY PLAN

NOTES:

WKCD BOUNDARY

M+ MUSEUM BOUNDARY

LYRIC THEATRE BOUNDARY

BOUNDARY OF UNDERPASS ROAD SERVING THE PLANNED WKCD

X CONSTRUCTION AIR/NOISE MONITORING STATIONS

REMARKS:

THE AIR MONITORING STATION AM2B HAS BEEN RELOCATED TO THE ALTERNATIVE MONITORING STATION AM2 AT THE G/F OF HARBOURSIDE ON 1 JUNE 2021

REV.	DATE	DESCRIPTION	INITIAL

JOB TITLE: **M+ MUSEUM FOR VISUAL CULTURE (MAIN CONTRACT WORKS) & LYRIC THEATRE COMPLEX**

DRAWING TITLE: **PROPOSED LOCATIONS OF CONSTRUCTION AIR/NOISE MONITORING STATIONS**

SCALE	1:100	PRINTED	A1
CHECKED		DATE	
APPROVED		DATE	
DRAWN		DATE	
CONTRACT NO.			

DRAWING NO.: **FIGURE 1** REV.: XA

CAD REF NAME: XXXXX-AUT-PMS-DWG-P00-L000-0000-XXX.dwg

AUTHORITY

westKowloon 西九文化區

A1 (841mm x 594mm) Sheet Size

Appendices

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B. Construction Programme
C. Environmental Mitigation Measures – Implementation Status
D. Meteorological Data Extracted from Hong Kong Observatory
E. Graphical Plots of the Monitoring Results
F. Waste Flow table
G. Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions

A. Project Organisation

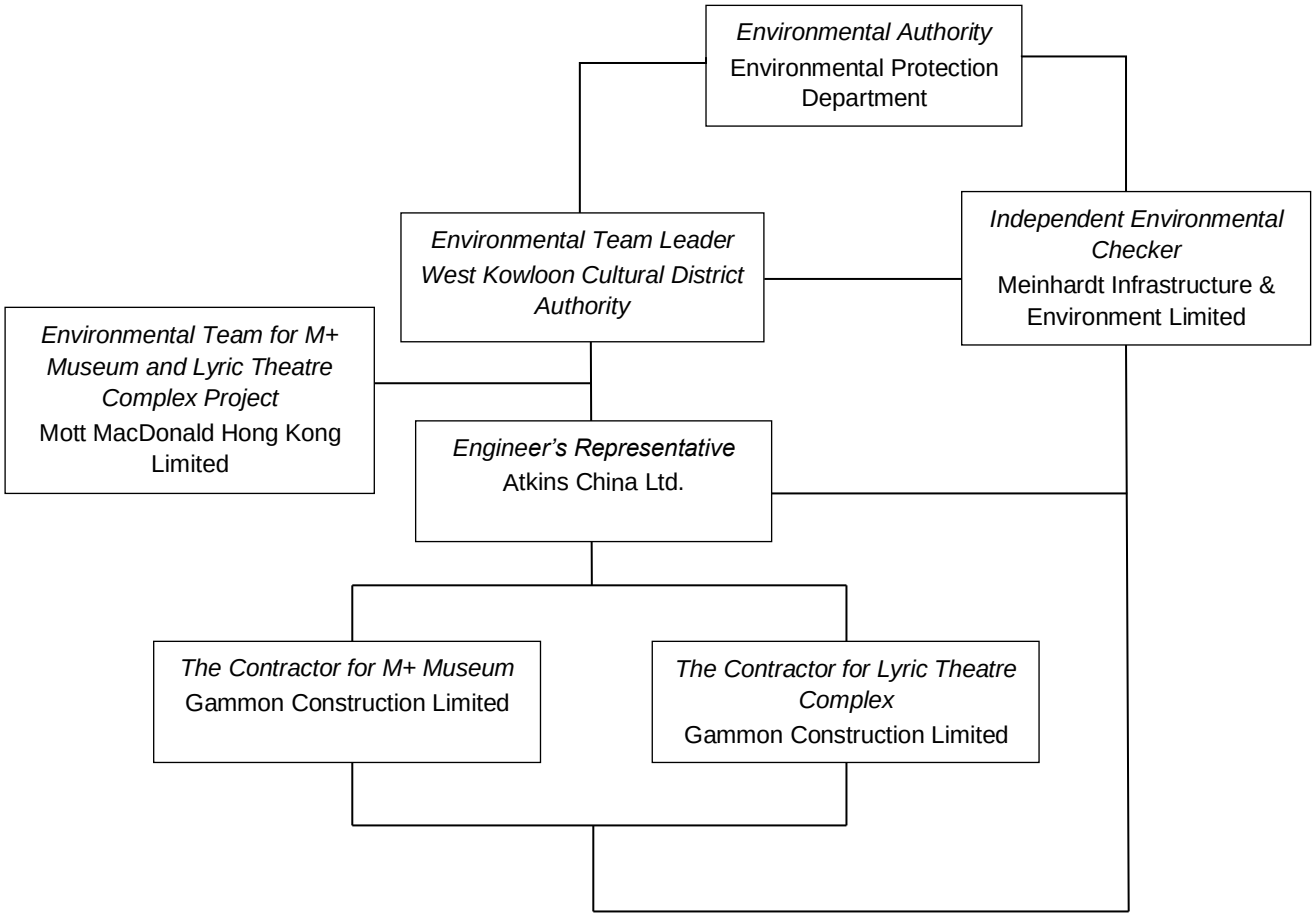
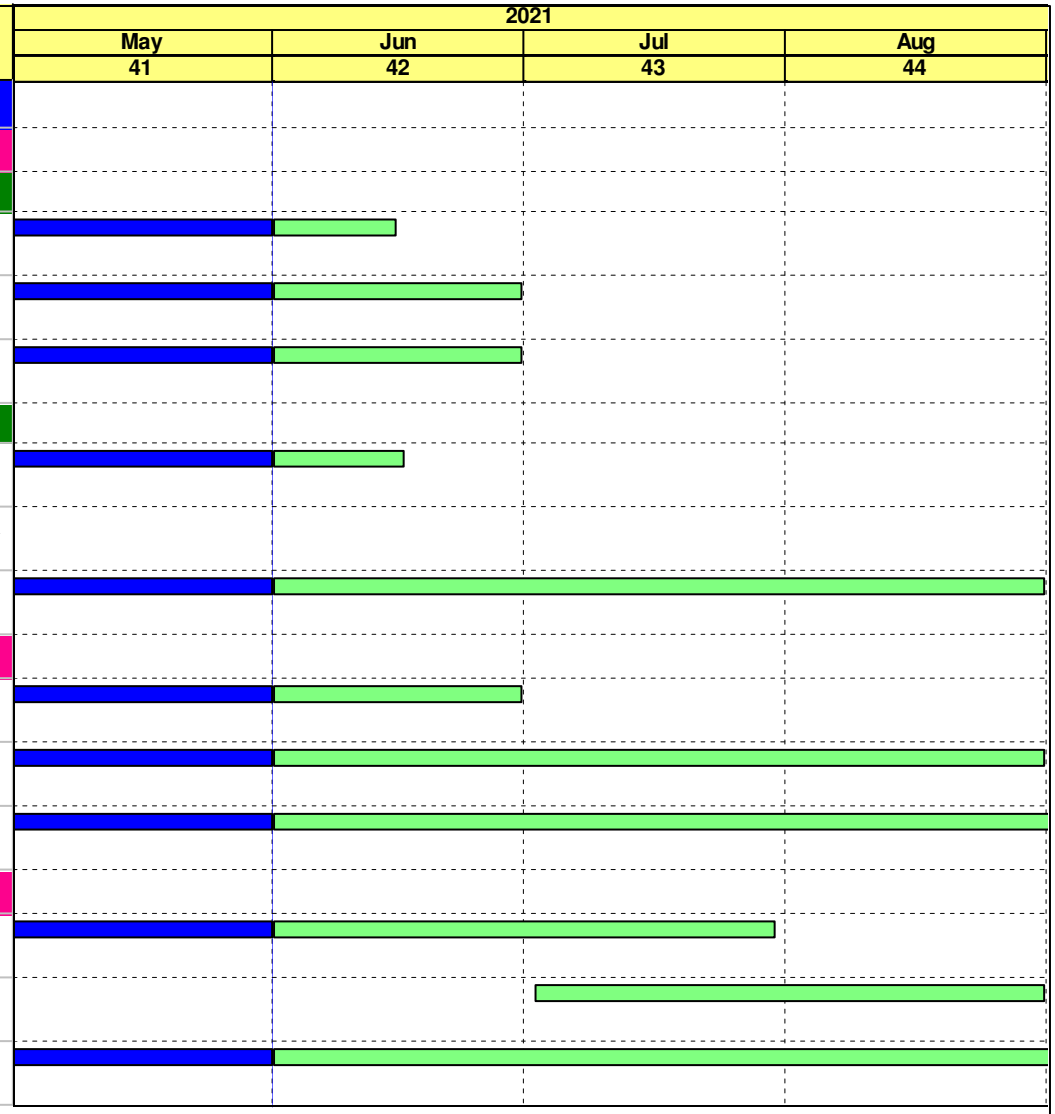


Table A-1: Contact information

Company Name	Role	Name	Telephone	Email
Atkins China Ltd.	Resident Engineer	Ms. Gloria Lui	5506 6361	gloria.lui@atkinsglobal.com
Meinhardt Infrastructure & Environment Limited	Independent Environmental Checker	Ms. Claudine Lee	2859 5409	claudinelee@meinhardt.com.hk
Gammon Construction Limited (M+ Museum)	Environmental Manager	Mr. Andy Leung	9489 0035	andy.leung@gammonconstruction.com
Gammon Construction Limited (L1)	Environmental Manager	Ms. Sammie Chan	9864 4296	sammie.chan@gammonconstruction.com
Gammon Construction Limited (L2)	Environmental Manager	Mr. Ivan Chiu	9416 1664	ivan.chiu@gammonconstruction.com
Mott MacDonald Hong Kong Ltd.	Contractor's Environmental Team Leader	Mr. Thomas Chan	2828 5757	thomas.chan@mottmac.com
West Kowloon Cultural District Authority	Senior Project Manager (Safety, Health and Environment)	Mr. C.K. Wu	5506 9178	ck.wu@wkcda.hk

B. Construction Programme

Activity ID	Activity Name	Start Date	Finish Date
L1 Contract for Lyric Theatre Complex (3MRP)			
Cost Centre C - Basement			
Cost Centre C1 - Essential Basement Structure (Excl. AET Protection & Box Culvert)			
SU12000	South Basement - East Area	27-Feb-20 A	15-Jun-21
SU12300	South Basement - Handover to L2	04-Feb-20 A	30-Jun-21
SU14300	North Basement - Handover to L2	04-Feb-20 A	30-Jun-21
Cost Centre C4 - Box Culvert			
SU30000	South Section	30-Dec-20 A	16-Jun-21
SU31000	North Section	22-Jun-20 A	23-Apr-21 A
SU32000	Austin Road	29-Jun-20 A	31-Aug-21
Cost Centre D - Public Infrastructure Works (PIW)			
SU40000	Utilities & Drainage Works	20-Mar-18 A	30-Jun-21
SU41000	Road Works	04-Oct-18 A	31-Aug-21
SU42000	Box Culvert Outfall	24-Nov-20 A	08-Sep-21
Cost Centre E - Miscellaneous Works			
SU50000	External Works - Drainage & Sewerage Works	19-Nov-19 A	30-Jul-21
SU51000	External Works - Watermain Works	02-Jul-21*	31-Aug-21
SU52000	DCS Outfall	24-Nov-20 A	08-Sep-21



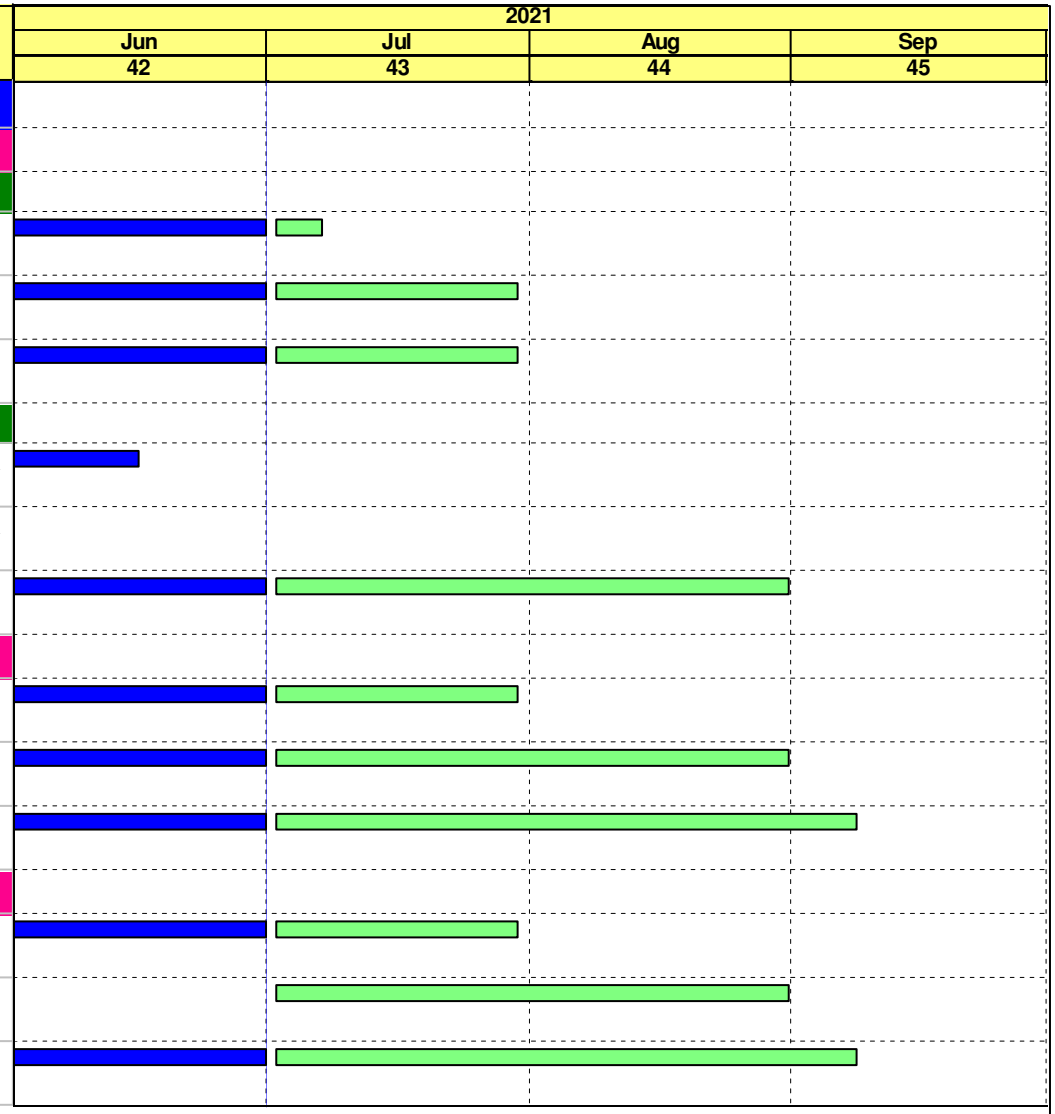
Remaining Work
Critical Remaining Work
Actual Work
Milestone

Project ID: L13MRP-20210531-ENV
Layout: L1-3MRP (Env)
Page: 1 of 1

West Kowloon Cultural District Authority
L1 Contract for Lyric Theatre Complex & Extended Basement
Three Month Rolling Programme (3MRP) - Status as of 31 May 2021

Gammon

Activity ID	Activity Name	Start Date	Finish Date
L1 Contract for Lyric Theatre Complex (3MRP)			
Cost Centre C - Basement			
Cost Centre C1 - Essential Basement Structure (Excl. AET Protection & Box Culvert)			
SU12000	South Basement - East Area	27-Feb-20 A	07-Jul-21
SU12300	South Basement - Handover to L2	04-Feb-20 A	30-Jul-21
SU14300	North Basement - Handover to L2	04-Feb-20 A	30-Jul-21
Cost Centre C4 - Box Culvert			
SU30000	South Section	30-Dec-20 A	16-Jun-21 A
SU31000	North Section	22-Jun-20 A	23-Apr-21 A
SU32000	Austin Road	29-Jun-20 A	31-Aug-21
Cost Centre D - Public Infrastructure Works (PIW)			
SU40000	Utilities & Drainage Works	20-Mar-18 A	30-Jul-21
SU41000	Road Works	04-Oct-18 A	31-Aug-21
SU42000	Box Culvert Outfall	24-Nov-20 A	08-Sep-21
Cost Centre E - Miscellaneous Works			
SU50000	External Works - Drainage & Sewerage Works	19-Nov-19 A	30-Jul-21
SU51000	External Works - Watermain Works	02-Jul-21*	31-Aug-21
SU52000	DCS Outfall	24-Nov-20 A	08-Sep-21



Remaining Work
Critical Remaining Work
Actual Work
Milestone

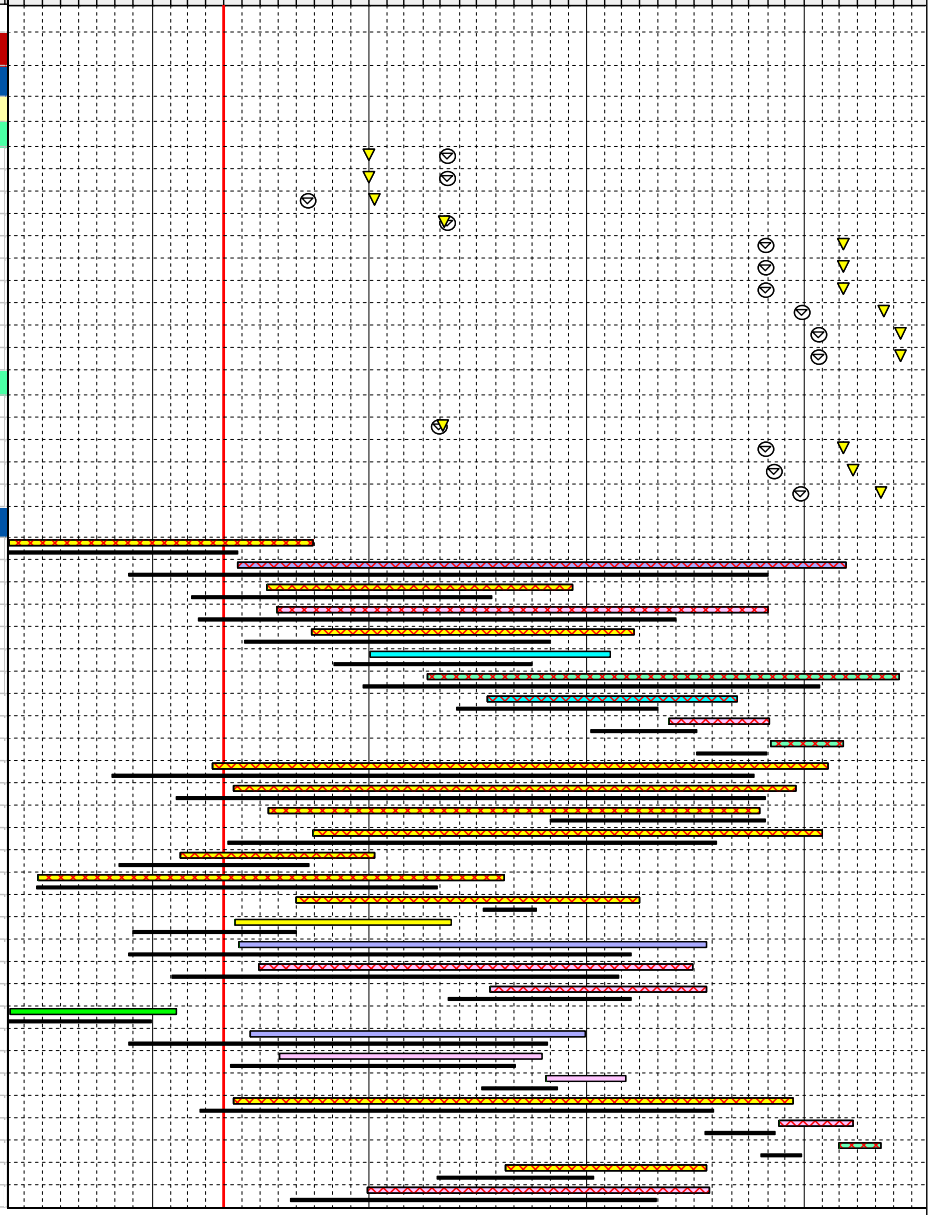
Project ID: L13MRP-20210630-ENV
Layout: L1-3MRP (Env)
Page: 1 of 1

West Kowloon Cultural District Authority
L1 Contract for Lyric Theatre Complex & Extended Basement
Three Month Rolling Programme (3MRP) - Status as of 30 Jun 2021

Gammon

TASK filter: L2 UPD: Level 1 Summary.

ID	Activity	RD	Start	Finish	BL VAR	LM VAR	TF
	L2 CMWP_R01_08 Approved 29Sep20 - 8th Update DD=30Apr21						
	GENERAL & PRELIMINARIES						
	Contract Significant Dates						
	Commencement & Completion Dates						
	Section Keydates						
KD05B	Complete Required Pedestrian Access Corridor & associated top slab at Avenue Level [if instructed]	0		31-Dec-21*	133	67	133
KD05C	PC for HO of Landscape Area at Avenue & Pedestrian level between P31 & P34 [if instructed]	0		31-Dec-21*	133	67	133
KD05	PC for HO of the Remaining Works for M+ Promenade South	0		10-Jan-22*	-111	-11	-110
KD05A	Complete Required Pedestrian Access Corridor and Floor Finishes at AURW	0		07-May-22*	6	-60	6
KD08	PC for HO Loc ICT/Risers Rms to APC for ICT Sys Instn Wrks	0		08-Mar-24*	-130	-7	-130
KD10	PC for HO of ASDA, Lyric Theatre Promenade South to Authority	0		08-Mar-24*	-130	-7	-130
KD09	PC for HO of RDE areas for Tenancy Fit-out Wrks	0		08-Mar-24*	-130	-7	-130
KD11	PC for HO of Extended Basement for HO to Authority & HO of Carriageway to Relevant Govt Authority	0		13-May-24*	-135	-7	-135
KD07	PRACTICAL COMPLETION for C'Way 3A (M+ Day 2 Works)	0		11-Jun-24*	-136	-8	-136
KD13	PRACTICAL COMPLETION for Lyric Theatre, Extended Basement & C'Way 3B	0		11-Jun-24*	-136	-8	-136
	Stage Keydates						
KD01	Compl Dsgn Coor/Subm and obtn NNO for L1 Contr Bsmt constn wrks	0		20-Jul-19 A	0	0	
KD06	PC for Fountain Related Plantroom(s)	0		04-May-22*	-4	-4	-4
KD03	OBTAIN OP for Lyric Theatre & Extended Basement	0		08-Mar-24*	-130	-7	-130
KD14	Complete U/G road and the associated plantrooms at Zone 3A&3B Integrated Basement	0		23-Mar-24*	-130	-7	-130
KD02	Obtain BA14 Acknowledge from BD for M+ Day2 A&A Works	0		09-May-24*	-134	-7	-134
	Summary Program - Level 1						
SUM10	[LoE] CC_B Lyric Theatre - Substructure RC Structural Concrete	106	06-May-20 A	27-Sep-21	-90	8	-9
SUM14	[LoE] CC_B Lyric Theatre - ABWF Work Including Theatres (Excl. Punch List Works)	824	24-May-21	11-Mar-24	-103	-6	-31
SUM11	[LoE] CC_B Lyric Theatre - Superstructure RC Structural Concrete	386	12-Jul-21	09-Dec-22	-104	-6	-59
SUM15	[LoE] CC_B Lyric Theatre - MEP 1st to Final Fix (Excl. TH SYS, TH Non-FSD in Walls, etc.)	666	29-Jul-21	01-Nov-23	-128	-6	-44
SUM41	[LoE] CC_B Lyric Theatre - Structural Steel by CSD	411	25-Sep-21	22-Mar-23	-112	-6	-70
SUM12	[LoE] CC_B Lyric Theatre - EWS Weather Tight Type	300	03-Jan-22	10-Feb-23	-101	-6	85
SUM17	[LoE] CC_B Lyric Theatre - Theatre Specialist Systems Incl. T&C, Precom. & Commissioning	636	08-Apr-22	08-Jun-24	-102	-5	-102
SUM13	[LoE] CC_B Lyric Theatre - EWS Non-Weather Tight Type 4.1 & 4.3	312	19-Jul-22	11-Sep-23	-96	-6	6
SUM16	[LoE] CC_B Lyric Theatre - T&C (Excluding Non-FSD ELV & Electrical)	139	20-May-23	04-Nov-23	-103	-6	-103
SUM18	[LoE] CC_B Lyric Theatre, EB, C'Way 3B - Stat. Insp. & Approval (from Form 314/501 to BD OP)	98	06-Nov-23	08-Mar-24	-103	-6	-103
SUM21	[LoE] CC_C - LT EVA1 & EVA2	757	12-Apr-21 A	09-Feb-24	-101	-6	-85
SUM23	[LoE] CC_C - Artist SQ. Bridge (ASB_1/2/3; ASB_3; P31_2; P34_2; AS_1/2; ASB-6/P31 EVA)	704	17-May-21	18-Dec-23	-44	-7	-42
SUM22	[LoE] CC_C - HoR Development (P32-1, P29-1, P31-EVA)	611	16-Jul-21	19-Oct-23	6	-7	8
SUM20	[LoE] CC_C - LT Promenade & Pocket Square Bridge	644	28-Sep-21	01-Feb-24	-138	0	-78
SUM24	[LoE] CC_D - Remaining Works for M+ Promenade South	188	18-Feb-21 A	10-Jan-22	-86	-8	-86
SUM25	[LoE] CC_E - DCS Cofferdam A Works & Obtain BA14	347	23-Jun-20 A	16-Aug-22	-80	-15	-52
SUM42	[LoE] CC_E - DCS Outside of Cofferdam A Works (Connect DIA1,600 & Remove Temp O'fall)	435	01-Sep-21	30-Mar-23	-138	0	-78
SUM26	[LoE] CC_F - Mods to Existing Pump Cell Civil & MEP Works (Excl. Options 2 Add. Pumps)	271	20-May-21	18-May-22	-196	0	82
SUM27	[LoE] CC_G Extended Basement - ABWF Works (Incl. Deferred Areas Under Deck)	633	26-May-21	20-Jul-23	-99	-7	123
SUM28	[LoE] CC_G Extended Basement - MEP 1st Fix to Final Fix (Incl. Deferred Areas Under Deck)	587	29-Jun-21	28-Jun-23	-99	-7	-50
SUM29	[LoE] CC_G Extended Basement - T&C	292	23-Jul-22	20-Jul-23	-99	-7	-50
SUM30	[LoE] CC_H - Vibration Isolation Spring System Remaining as of 30Apr2020 (AS=30Sep19)	0	09-May-20 A	10-Feb-21 A	-35	0	
SUM31	[LoE] CC_I Carriageway 3B - ABWF Works	456	16-Jun-21	28-Dec-22	-51	0	257
SUM32	[LoE] CC_I Carriageway 3B - MEP Works (1st Fix to Final Fix)	357	03-Aug-21	18-Oct-22	-37	0	115
SUM33	[LoE] CC_I Underpass 3B & Associated Area - T&C	108	24-Oct-22	08-Mar-23	-90	0	57
SUM35	[LoE] CC_J - M+ Day 2 Works (excl. connections to M+ and SZ_1 FS Changeover)	762	18-May-21	14-Dec-23	-111	-7	-83
SUM38	[LoE] CC_J - M+ Day 2 FS Changeover in 3A SZ_1, Connections to M+, Integrated T&C	99	20-Nov-23	23-Mar-24	-103	-6	-103
SUM34	[LoE] CC_J Carriageway 3A - Stat. Insp. & Approvals (from Form 314A to BA14)	56	29-Feb-24	09-May-24	-103	-6	-103
SUM39	[LoE] CC_K - Water Main at Promenade	253	17-Aug-22	21-Jul-23	-138	0	-78
SUM40	[LoE] CC_N Lifts & Escalators	458	29-Dec-21	25-Jul-23	-71	-7	-6



Gammon

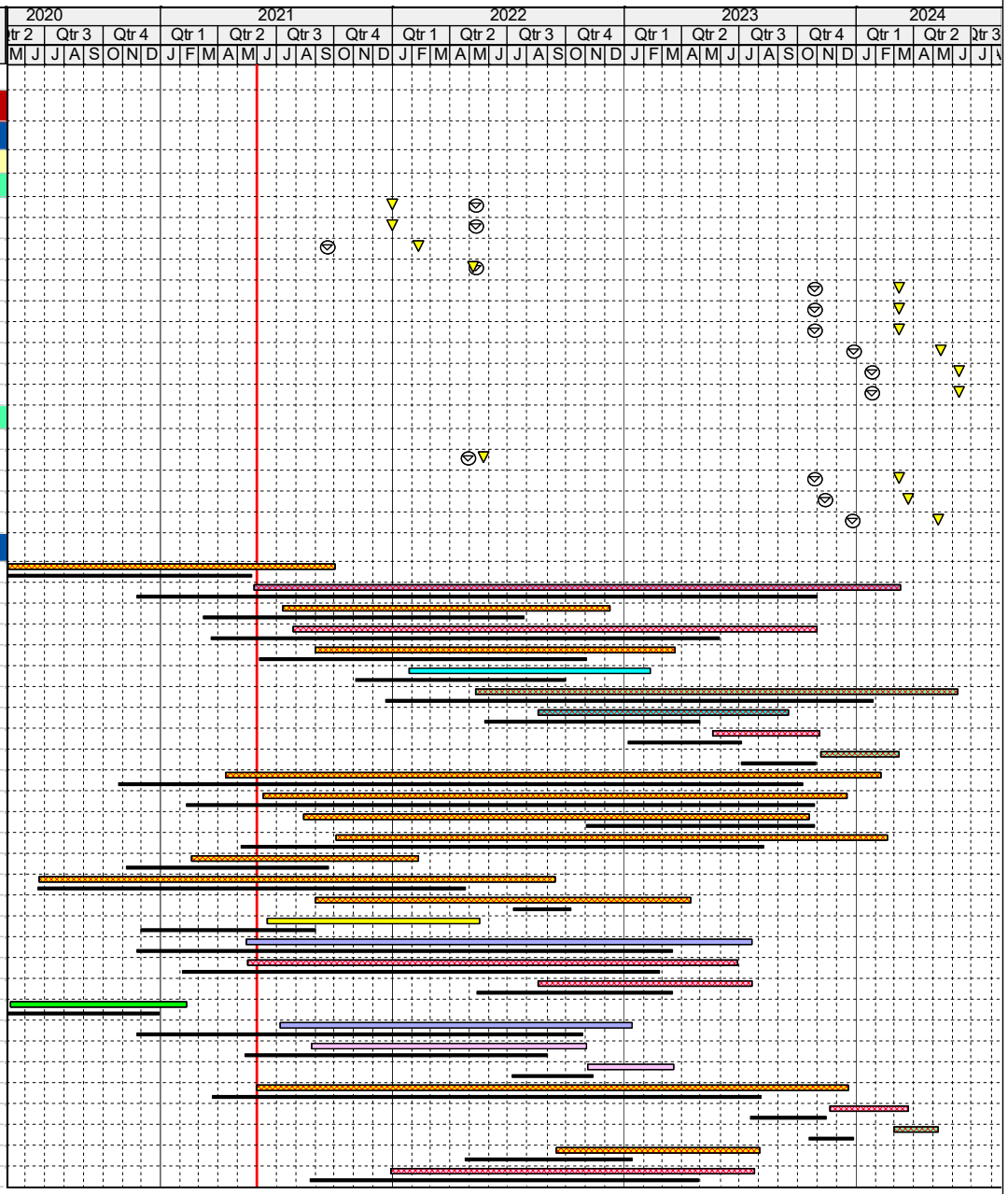
Base Line ACT
Base Line MS
Milestone
Current - Other Works
Current - Struct Works
Current - MEP Works
Current - ABWF Works
Current - Facade Works
Critical Works
Actual

L2 CMWP_R01_08 Approved 29Sep20 - 8th Update DD=30Apr21

Date	Revision	Checked	Approved
10-May-21	CMWP Rev_1_08 - 8th Update DD 30Apr21	NS	IH

TASK filter: L2 UPD: Level 1 Summary.

ID	Activity	RD	Start	Finish
	L2 CMWP_R01_09 Approved 29Sep20 - 9th Update DD=31May21			
	GENERAL & PRELIMINARIES			
	Contract Significant Dates			
	Commencement & Completion Dates			
	Section Keydates			
KD05B	Complete Required Pedestrian Access Corridor & associated top slab at Avenue Level [if instructed]	0		31-Dec-21*
KD05C	PC for HO of Landscape Area at Avenue & Pedestrian level between P31 & P34 [if instructed]	0		31-Dec-21*
KD05	PC for HO of the Remaining Works for M+ Promenade South	0		10-Feb-22*
KD05A	Complete Required Pedestrian Access Corridor and Floor Finishes at AURW	0		07-May-22*
KD08	PC for HO Loc ICT/Risers Rms to APC for ICT Sys Instn Wrks	0		08-Mar-24*
KD10	PC for HO of ASDA, Lyric Theatre Promenade South to Authority	0		08-Mar-24*
KD09	PC for HO of RDE areas for Tenancy Fit-out Wrks	0		08-Mar-24*
KD11	PC for HO of Extended Basement for HO to Authority & HO of Carriageway to Relevant Govt Authority	0		13-May-24*
KD07	PRACTICAL COMPLETION for C'Way 3A (M+ Day 2 Works)	0		11-Jun-24*
KD13	PRACTICAL COMPLETION for Lyric Theatre, Extended Basement & C'Way 3B	0		11-Jun-24*
	Stage Keydates			
KD01	Compl Dsgn Coor/Subm and obtn NNO for L1 Contr Bsmt constn wrks	0		20-Jul-19 A
KD06	PC for Fountain Related Plantroom(s)	0		24-May-22*
KD03	OBTAIN OP for Lyric Theatre & Extended Basement	0		08-Mar-24*
KD14	Complete U/G road and the associated plantrooms at Zone 3A&3B Integrated Basement	0		23-Mar-24*
KD02	Obtain BA14 Acknowledge from BD for M+ Day2 A&A Works	0		09-May-24*
	Summary Program - Level 1			
SUM10	[LoE] CC_B Lyric Theatre - Substructure RC Structural Concrete	88	06-May-20 A	02-Oct-21
SUM14	[LoE] CC_B Lyric Theatre - ABWF Work Including Theatres (Excl. Punch List Works)	817	28-May-21 A	11-Mar-24
SUM11	[LoE] CC_B Lyric Theatre - Superstructure RC Structural Concrete	386	12-Jul-21	09-Dec-22
SUM15	[LoE] CC_B Lyric Theatre - MEP 1st to Final Fix (Excl. TH SYS, TH Non-FSD in Walls, etc.)	666	29-Jul-21	01-Nov-23
SUM41	[LoE] CC_B Lyric Theatre - Structural Steel by CSD	427	02-Sep-21	22-Mar-23
SUM12	[LoE] CC_B Lyric Theatre - EWS Weather Tight Type	279	27-Jan-22	10-Feb-23
SUM17	[LoE] CC_B Lyric Theatre - Theatre Specialist Systems Incl. T&C, Precom. & Commissioning	613	11-May-22	08-Jun-24
SUM13	[LoE] CC_B Lyric Theatre - EWS Non-Weather Tight Type 4.1 & 4.3	294	18-Aug-22	16-Sep-23
SUM16	[LoE] CC_B Lyric Theatre - T&C (Excluding Non-FSD ELV & Electrical)	139	20-May-23	04-Nov-23
SUM18	[LoE] CC_B Lyric Theatre, EB, C'Way 3B - Stat. Insp. & Approval (from Form 314/501 to BD OP)	98	06-Nov-23	08-Mar-24
SUM21	[LoE] CC_C - LT EVA1 & EVA2	736	12-Apr-21 A	09-Feb-24
SUM23	[LoE] CC_C - Artist SQ. Bridge (ASB_1/2/3; ASB_3; P31_2; P34_2; AS_1/2; ASB-6/P31 EVA)	686	11-Jun-21	18-Dec-23
SUM22	[LoE] CC_C - HoR Development (P32-1, P29-1, P31-EVA)	590	14-Aug-21	19-Oct-23
SUM20	[LoE] CC_C - LT Promenade & Pocket Square Bridge	650	04-Oct-21	19-Feb-24
SUM24	[LoE] CC_D - Remaining Works for M+ Promenade South	188	18-Feb-21 A	10-Feb-22
SUM25	[LoE] CC_E - DCS Cofferdam A Works & Obtain BA14	348	23-Jun-20 A	14-Sep-22
SUM42	[LoE] CC_E - DCS Outside of Cofferdam A Works (Connect DIA1,600 & Remove Temp O'fall)	444	01-Sep-21	14-Apr-23
SUM26	[LoE] CC_F - Mods to Existing Pump Cell Civil & MEP Works (Excl. Options 2 Add. Pumps)	250	18-Jun-21	18-May-22
SUM27	[LoE] CC_G Extended Basement - ABWF Works (Incl. Deferred Areas Under Deck)	628	15-May-21 A	20-Jul-23
SUM28	[LoE] CC_G Extended Basement - MEP 1st Fix to Final Fix (Incl. Deferred Areas Under Deck)	610	17-May-21 A	28-Jun-23
SUM29	[LoE] CC_G Extended Basement - T&C	270	18-Aug-22	20-Jul-23
SUM30	[LoE] CC_H - Vibration Isolation Spring System Remaining as of 30Apr2020 (AS=30Sep19)	0	09-May-20 A	10-Feb-21 A
SUM31	[LoE] CC_I Carriageway 3B - ABWF Works	451	07-Jul-21	12-Jan-23
SUM32	[LoE] CC_I Carriageway 3B - MEP Works (1st Fix to Final Fix)	348	27-Aug-21	01-Nov-22
SUM33	[LoE] CC_I Underpass 3B & Associated Area - T&C	108	04-Nov-22	20-Mar-23
SUM35	[LoE] CC_J - M+ Day 2 Works (excl. connections to M+ and SZ_1 FS Changeover)	756	01-Jun-21	20-Dec-23
SUM38	[LoE] CC_J - M+ Day 2 FS Changeover in 3A SZ_1, Connections to M+, Integrated T&C	99	20-Nov-23	23-Mar-24
SUM34	[LoE] CC_J Carriageway 3A - Stat. Insp. & Approvals (from Form 314A to BA14)	56	29-Feb-24	09-May-24
SUM39	[LoE] CC_K - Water Main at Promenade	240	16-Sep-22	02-Aug-23
SUM40	[LoE] CC_N Lifts & Escalators	458	29-Dec-21	25-Jul-23



Gammon

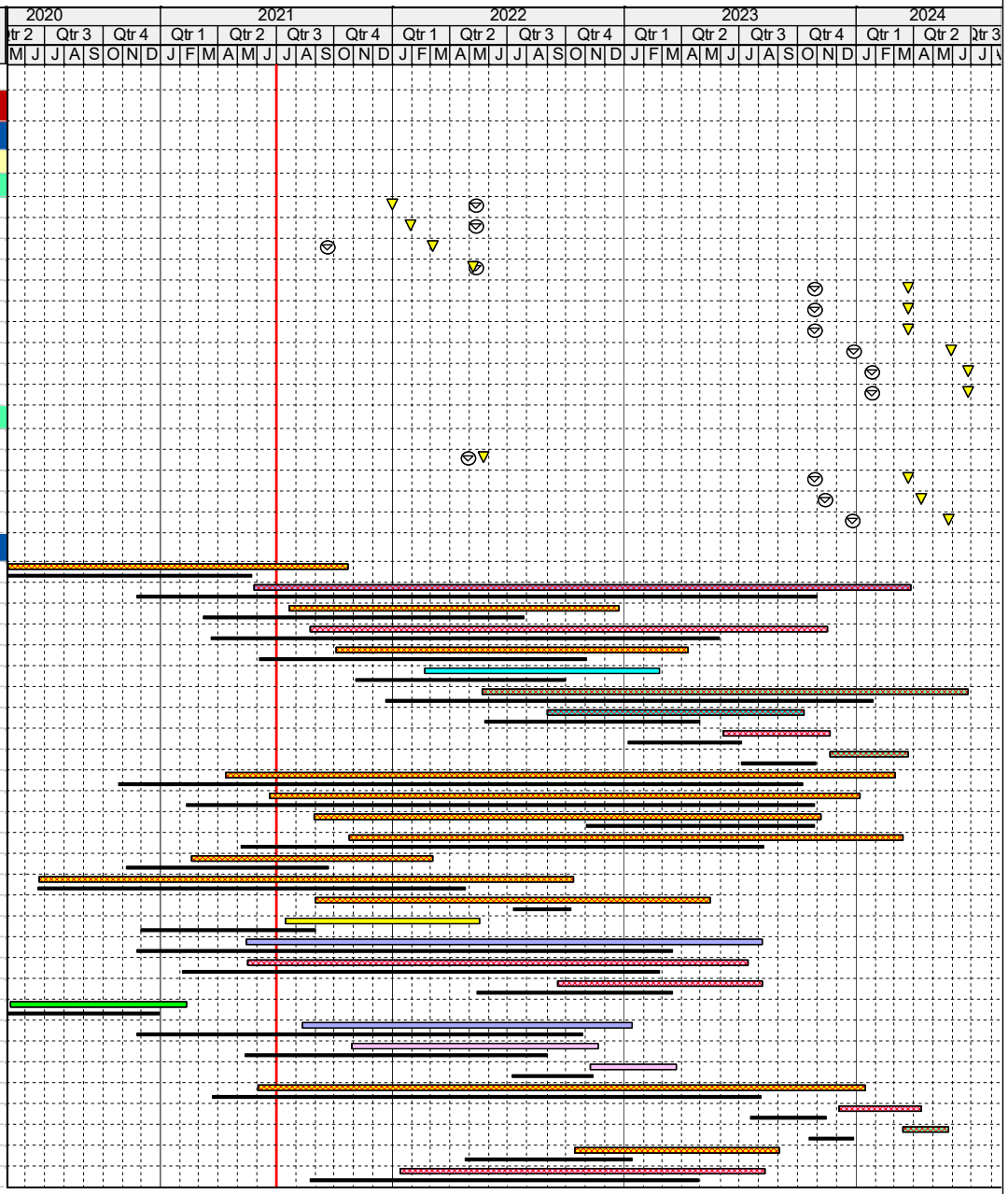
Base Line ACT
Base Line MS
Milestone
Current - Other Works
Current - Struct Works
Current - MEP Works
Current - ABWF Works
Current - Facade Works
Critical Works
Actual

L2 CMWP_R01_09 Approved 29Sep20 - 9th Update DD=31May21

Date	Revision	Checked	Approved
08-Jun-21	CMWP Rev_1_09 - 9th Update DD 31May21	NS	IH

TASK filter: L2 UPD: Level 1 Summary.

ID	Activity	RD	Start	Finish
	L2 CMWP_R01_10 Approved 29Sep20 - 10th Update DD=30Jun21			
	GENERAL & PRELIMINARIES			
	Contract Significant Dates			
	Commencement & Completion Dates			
	Section Keydates			
KD05C	PC for HO of Landscape Area at Avenue & Pedestrian level between P31 & P34 [if instructed]	0		31-Dec-21*
KD05B	Complete Required Pedestrian Access Corridor & associated top slab at Avenue Level [if instructed]	0		28-Jan-22*
KD05	PC for HO of the Remaining Works for M+ Promenade South	0		05-Mar-22*
KD05A	Complete Required Pedestrian Access Corridor and Floor Finishes at AURW	0		07-May-22*
KD08	PC for HO Loc ICT/Risers Rms to APC for ICT Sys Instn Wrks	0		23-Mar-24*
KD10	PC for HO of ASDA, Lyric Theatre Promenade South to Authority	0		23-Mar-24*
KD09	PC for HO of RDE areas for Tenancy Fit-out Wrks	0		23-Mar-24*
KD11	PC for HO of Extended Basement for HO to Authority & HO of Carriageway to Relevant Govt Authority	0		29-May-24*
KD07	PRACTICAL COMPLETION for C'Way 3A (M+ Day 2 Works)	0		26-Jun-24*
KD13	PRACTICAL COMPLETION for Lyric Theatre, Extended Basement & C'Way 3B	0		26-Jun-24*
	Stage Keydates			
KD01	Compl Dsgn Coor/Subm and obtn NNO for L1 Contr Bsmt constn wrks	0		20-Jul-19 A
KD06	PC for Fountain Related Plantroom(s)	0		24-May-22*
KD03	OBTAIN OP for Lyric Theatre & Extended Basement	0		23-Mar-24*
KD14	Complete U/G road and the associated plantrooms at Zone 3A&3B Integrated Basement	0		12-Apr-24*
KD02	Obtain BA14 Acknowledge from BD for M+ Day2 A&A Works	0		25-May-24*
	Summary Program - Level 1			
SUM10	[LoE] CC_B Lyric Theatre - Substructure RC Structural Concrete	81	06-May-20 A	23-Oct-21
SUM14	[LoE] CC_B Lyric Theatre - ABWF Work Including Theatres (Excl. Punch List Works)	805	28-May-21 A	26-Mar-24
SUM11	[LoE] CC_B Lyric Theatre - Superstructure RC Structural Concrete	391	23-Jul-21	24-Dec-22
SUM15	[LoE] CC_B Lyric Theatre - MEP 1st to Final Fix (Excl. TH SYS, TH Non-FSD in Walls, etc.)	656	25-Aug-21	16-Nov-23
SUM41	[LoE] CC_B Lyric Theatre - Structural Steel by CSD	419	04-Oct-21	11-Apr-23
SUM12	[LoE] CC_B Lyric Theatre - EWS Weather Tight Type	277	21-Feb-22	25-Feb-23
SUM17	[LoE] CC_B Lyric Theatre - Theatre Specialist Systems Incl. T&C, Precom. & Commissioning	617	21-May-22	25-Jun-24
SUM13	[LoE] CC_B Lyric Theatre - EWS Non-Weather Tight Type 4.1 & 4.3	300	01-Sep-22	11-Oct-23
SUM16	[LoE] CC_B Lyric Theatre - T&C (Excluding Non-FSD ELV & Electrical)	139	06-Jun-23	20-Nov-23
SUM18	[LoE] CC_B Lyric Theatre, EB, C'Way 3B - Stat. Insp. & Approval (from Form 314/501 to BD OP)	98	21-Nov-23	23-Mar-24
SUM21	[LoE] CC_C - LT EVA1 & EVA2	727	12-Apr-21 A	02-Mar-24
SUM23	[LoE] CC_C - Artist SQ. Bridge (ASB_1/2/3; ASB_3; P31_2; P34_2; AS_1/2; ASB-6/P31 EVA)	685	21-Jun-21 A	06-Jan-24
SUM22	[LoE] CC_C - HoR Development (P32-1, P29-1, P31-EVA)	592	31-Aug-21	06-Nov-23
SUM20	[LoE] CC_C - LT Promenade & Pocket Square Bridge	657	25-Oct-21	15-Mar-24
SUM24	[LoE] CC_D - Remaining Works for M+ Promenade South	186	18-Feb-21 A	05-Mar-22
SUM25	[LoE] CC_E - DCS Cofferdam A Works & Obtain BA14	344	23-Jun-20 A	12-Oct-22
SUM42	[LoE] CC_E - DCS Outside of Cofferdam A Works (Connect DIA1,600 & Remove Temp O'fall)	466	01-Sep-21	16-May-23
SUM26	[LoE] CC_F - Mods to Existing Pump Cell Civil & MEP Works (Excl. Options 2 Add. Pumps)	229	17-Jul-21	18-May-22
SUM27	[LoE] CC_G Extended Basement - ABWF Works (Incl. Deferred Areas Under Deck)	617	15-May-21 A	05-Aug-23
SUM28	[LoE] CC_G Extended Basement - MEP 1st Fix to Final Fix (Incl. Deferred Areas Under Deck)	599	17-May-21 A	15-Jul-23
SUM29	[LoE] CC_G Extended Basement - T&C	258	17-Sep-22	05-Aug-23
SUM30	[LoE] CC_H - Vibration Isolation Spring System Remaining as of 30Apr2020 (AS=30Sep19)	0	09-May-20 A	10-Feb-21 A
SUM31	[LoE] CC_I Carriageway 3B - ABWF Works	421	12-Aug-21	13-Jan-23
SUM32	[LoE] CC_I Carriageway 3B - MEP Works (1st Fix to Final Fix)	314	29-Oct-21	21-Nov-22
SUM33	[LoE] CC_I Underpass 3B & Associated Area - T&C	108	08-Nov-22	23-Mar-23
SUM35	[LoE] CC_J - M+ Day 2 Works (excl. connections to M+ and SZ_1 FS Changeover)	750	03-Jun-21 A	15-Jan-24
SUM38	[LoE] CC_J - M+ Day 2 FS Changeover in 3A SZ_1, Connections to M+, Integrated T&C	99	05-Dec-23	12-Apr-24
SUM34	[LoE] CC_J Carriageway 3A - Stat. Insp. & Approvals (from Form 314A to BA14)	56	15-Mar-24	25-May-24
SUM39	[LoE] CC_K - Water Main at Promenade	244	14-Oct-22	01-Sep-23
SUM40	[LoE] CC_N Lifts & Escalators	460	13-Jan-22	10-Aug-23



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Base Line ACT
Base Line MS
Milestone
Current - Other Works
Current - Struct Works
Current - MEP Works
Current - ABWF Works
Current - Facade Works
Critical Works
Actual

L2 CMWP_R01_10 Approved 29Sep20 - 10th Update DD=30Jun21

Date	Revision	Checked	Approved
12-Jul-21	CMWP Rev_1_10 - 10th Update DD 30Jun21	NS	IH

C. Environmental Mitigation Measures – Implementation Status

Table C-1: Environmental Mitigation Measures Implementation Status

EM&A Ref.	Recommendation Measures	Implementation Stage					
		L1			L2		
		May 2021	Jun 2021	Jul^ 2021	May 2021	Jun 2021	Jul 2021
Air Quality Impact (Construction)							
2.1 & 10.3.1	**General Dust Control Measures** Frequent water spraying for active construction areas (12 times a day or once every one hour), including Heavy construction activities such as construction of buildings or roads, drilling, ground excavation, cut and fill operations (i.e., earth moving)	✓	✓		✓	✓	Obs
2.1 & 10.3.1	**Best Practice For Dust Control** The relevant best practices for dust control as stipulated in the Air Pollution Control (construction Dust) Regulation should be adopted to further reduce the construction dust impacts from the Project. These best practices include:						
	Good Site Management						
	• Good site management is important to help reducing potential air quality impact down to an acceptable level. As a general guide, the Contractor should maintain high standard of housekeeping to prevent emission of fugitive dust. Loading, unloading, handling and storage of raw materials, wastes or by-products should be carried out in a manner so as to minimise the release of visible dust emission. Any piles of materials accumulated on or around the work areas should be cleaned up regularly. Cleaning, repair and maintenance of all plant facilities within the work areas should be carried out in a manner minimising generation of fugitive dust emissions. The material should be handled properly to prevent fugitive dust emission before cleaning.	Rem, Obs	Obs		Obs	Obs	Obs
	Disturbed Parts of the Roads						
	• Each and every main temporary access should be paved with concrete, bituminous hardcore materials or metal plates and kept clear of dusty materials; or	✓	✓		✓	✓	✓
	• Unpaved parts of the road should be sprayed with water or a dust suppression chemical so as to keep the entire road surface wet.	✓	✓		Obs	✓	✓
	Exposed Earth						
	• Exposed earth should be properly treated by compaction, hydroseeding, vegetation planting or seating with latex, vinyl, bitumen within six months after the last construction activity on the site or part of the site where the exposed earth lies.	N/A	N/A		N/A	N/A	N/A
	Loading, Unloading or Transfer of Dusty Materials						

EM&A Ref.	Recommendation Measures	Implementation Stage					
		L1			L2		
		May 2021	Jun 2021	Jul^ 2021	May 2021	Jun 2021	Jul 2021
	• All dusty materials should be sprayed with water immediately prior to any loading or transfer operation so as to keep the dusty material wet.	✓	✓		✓	✓	✓
	Debris Handling						
	• Any debris should be covered entirely by impervious sheeting or stored in a debris collection area sheltered on the top and the three sides.	Obs	✓		✓	✓	✓
	• Before debris is dumped into a chute, water should be sprayed so that it remains wet when it is dumped.	✓	✓		✓	✓	✓
	Transport of Dusty Materials						
	• Vehicle used for transporting dusty materials/spoils should be covered with tarpaulin or similar material. The cover should extend over the edges of the sides and tailboards.	✓	✓		✓	✓	✓
	Wheel washing						
	• Vehicle wheel washing facilities should be provided at each construction site exit. Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels.	✓	✓		✓	✓	✓
	Use of vehicles						
	• The speed of the trucks within the site should be controlled to about 10km/hour in order to reduce adverse dust impacts and secure the safe movement around the site.	✓	✓		✓	✓	✓
	• Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels.	✓	✓		✓	✓	✓
	• Where a vehicle leaving the construction site is carrying a load of dusty materials, the load should be covered entirely by clean impervious sheeting to ensure that the dusty materials do not leak from the vehicle.	✓	✓		✓	✓	✓
	Site hoarding						
	• Where a site boundary adjoins a road, street, service lane or other area accessible to the public, hoarding of not less than 2.4m high from ground level should be provided along the entire length of that portion of the site boundary except for a site entrance or exit.	✓	✓		✓	✓	✓
2.1 & 10.3.1	**Best Practicable Means for Cement Works (Concrete Batching Plant)** The relevant best practices for dust control as stipulated in the Guidance Note on the Best Practicable Means for Cement Works (Concrete Batching Plant) BPM 3/2(93) should be followed and implemented to further reduce the construction dust impacts of the Project. These best practices include: Exhaust from Dust Arrestment Plant						

EM&A Ref.	Recommendation Measures	Implementation Stage					
		L1			L2		
		May 2021	Jun 2021	Jul^ 2021	May 2021	Jun 2021	Jul 2021
	• Wherever possible the final discharge point from particulate matter arrestment plant, where is not necessary to achieve dispersion from residual pollutants, should be at low level to minimise the effect on the local community in the case of abnormal emissions and to facilitate maintenance and inspection	N/A	N/A		N/A	N/A	N/A
	Emission Limits						
	• All emissions to air, other than steam or water vapour, shall be colourless and free from persistent mist or smoke	N/A	N/A		N/A	N/A	N/A
	Engineering Design/Technical Requirements						
	• As a general guidance, the loading, unloading, handling and storage of fuel, raw materials, products, wastes or by-products should be carried out in a manner so as to prevent the release of visible dust and/or other noxious or offensive emissions	N/A	N/A		N/A	N/A	N/A
	Non-Road Mobile Machinery (NRMM):						
	All NRMMs operating on-site which are subject to emission control of Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation are approved/exempted (as the case may be) and affixed with the requisite approval/exemption labels.	Obs	✓		✓	✓	✓
Noise Impact (Construction)							
3.1 & 10.4.1	**Good Site Practice**						
	Good site practice and noise management can significantly reduce the impact of construction site activities on nearby NSRs. The following package of measures should be followed during each phase of construction:						
	• only well-maintained plant to be operated on-site and plant should be serviced regularly during the construction works;	✓	✓		✓	✓	✓
	• machines and plant that may be in intermittent use to be shut down between work periods or should be throttled down to a minimum	✓	✓		✓	✓	✓
	• plant known to emit noise strongly in one direction, should, where possible, be orientated to direct noise away from the NSRs;	✓	✓		✓	✓	✓
	• mobile plant should be sited as far away from NSRs as possible; and	✓	✓		✓	✓	✓
	• material stockpiles and other structures to be effectively utilised, where practicable, to screen noise from on-site construction activities.	✓	✓		✓	✓	✓
	Adoption of Quieter PME						

EM&A Ref.	Recommendation Measures	Implementation Stage					
		L1			L2		
		May 2021	Jun 2021	Jul^ 2021	May 2021	Jun 2021	Jul 2021
3.1 & 10.4.1	The recommended quieter PME adopted in the assessment were taken from the EPD's QPME Inventory and "*Sound Power Levels of Other Commonly Used PME*" are presented in **Table 4.26** in the EIA report. It should be noted that the silenced PME selected for assessment can be found in Hong Kong.	✓	✓		✓	✓	✓
3.1 & 10.4.1	**Use of Movable Noise Barriers** Movable noise barriers can be very effective in screening noise from particular items of plant when constructing the Project. Noise barriers located along the active works area close to the noise generating component of a PME could produce at least 10 dB(A) screening for stationary plant and 5 dB(A) for mobile plant provided the direct line of sight between the PME and the NSRs is blocked.	✓	✓		✓	✓	✓
3.1 & 10.4.1	**Use of Noise Enclosure/ Acoustic Shed** The use of noise enclosure or acoustic shed is to cover stationary PME such as air compressor and concrete pump. With the adoption of the noise enclosure, the PME could be completely screened, and noise reduction of 15 dB(A) can be achieved according to the EIAO Guidance Note No. 9/2010.	✓	✓		✓	✓	✓
3.1 & 10.4.1	**Use of Noise Insulating Fabric** Noise insulating fabric can also be adopted for certain PME (e.g. drill rig, pilling machine etc). The fabric should be lapped such that there are no openings or gaps on the joints. According to the approved Tsim Sha Tsui Station Northern Subway EIA report (AEIAR-127/2008), a noise reduction of 10 dB(A) can be achieved for the PME lapped with the noise insulating fabric.	Obs	✓		✓	✓	✓
3.1 & 10.4.1	**Scheduling of Construction Works outside School Examination Periods** During construction phase, the contractor should liaise with the educational institutions (including NSRs LCS and CRGPS) to obtain the examination schedule and avoid the noisy construction activities during school examination periods.	N/A	N/A		N/A	N/A	N/A
Water Quality Impact (Construction)							
4.1 & 10.5.1	**Construction site runoff and drainage** The site practices outlined in ProPECC Note PN 1/94 should be followed as far as practicable in order to minimise surface runoff and the chance of erosion. The following measures are recommended to protect water quality and sensitive uses of the coastal area, and when properly implemented should be sufficient to adequately control site discharges so as to avoid water quality impacts:						

EM&A Ref.	Recommendation Measures	Implementation Stage					
			L1			L2	
		May 2021	Jun 2021	Jul^ 2021	May 2021	Jun 2021	Jul 2021
	• At the start of site establishment, perimeter cut-off drains to direct off-site water around the site should be constructed with internal drainage works and erosion and sedimentation control facilities implemented. Channels, earth bunds or sand bag barriers should be provided on site to direct storm water to silt removal facilities. The design of the temporary on-site drainage system should be undertaken by the WKCDA's Contractor prior to the commencement of construction;	✓	✓		✓	✓	✓
	• Sand/silt removal facilities such as sand/silt traps and sediment basins should be provided to remove sand/silt particles from runoff to meet the requirements of the TM standards under the WPCO. The design of efficient silt removal facilities should be based on the guidelines in Appendix A1 of ProPECC Note PN 1/94. Sizes may vary depending upon the flow rate. The detailed design of the sand/silt traps should be undertaken by the WKCDA's Contractor prior to the commencement of construction.	Obs	✓		✓	✓	✓
	• All drainage facilities and erosion and sediment control structures should be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly during rainstorms. Deposited silt and grit should be regularly removed, at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times.	Rem	✓		Rem	Obs	✓
	• Measures should be taken to minimize the ingress of site drainage into excavations. If excavation of trenches in wet periods is necessary, they should be dug and backfilled in short sections wherever practicable. Water pumped out from foundation excavations should be discharged into storm drains via silt removal facilities.	✓	✓		✓	✓	✓
	• All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. An adequately designed and sited wheel washing facility should be provided at construction site exit where practicable. Wash-water should have sand and silt settled out and removed regularly to ensure the continued efficiency of the process. The section of access road leading to, and exiting from, the wheel-wash bay to the public road should be paved with sufficient backfall toward the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and drains.	✓	✓		✓	✓	✓
	• Open stockpiles of construction materials or construction wastes on-site should be covered with tarpaulin or similar fabric during rainstorms. Measures should be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system.	✓	✓		✓	✓	✓

EM&A Ref.	Recommendation Measures	Implementation Stage					
		L1			L2		
		May 2021	Jun 2021	Jul^ 2021	May 2021	Jun 2021	Jul 2021
	• Manholes (including newly constructed ones) should be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and stormwater runoff being directed into foul sewers.	✓	✓		✓	✓	✓
	• Precautions should be taken at any time of the year when rainstorms are likely. Actions should be taken when a rainstorm is imminent or forecasted and actions to be taken during or after rainstorms are summarized in Appendix A2 of ProPECC Note PN 1/94. Particular attention should be paid to the control of silty surface runoff during storm events, especially for areas located near steep slopes.	✓	✓		✓	✓	✓
	• Bentonite slurries used in piling or slurry walling should be reconditioned and reused wherever practicable. Temporary enclosed storage locations should be provided on-site for any unused bentonite that needs to be transported away after all the related construction activities are completed. The requirements in ProPECC Note PN 1/94 should be adhered to in the handling and disposal of bentonite slurries.	N/A	N/A		N/A	N/A	N/A
	Barging facilities and activities Recommendations for good site practices during operation of the proposed barging point include:						
	• All vessels should be sized so that adequate clearance is maintained between vessels and the seabed in all tide conditions, to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash;	N/A	N/A		N/A	N/A	N/A
	• Loading of barges and hoppers should be controlled to prevent splashing of material into the surrounding water. Barges or hoppers should not be filled to a level that will cause the overflow of materials or polluted water during loading or transportation;	N/A	N/A		N/A	N/A	N/A
	• All hopper barges should be fitted with tight fitting seals to their bottom openings to prevent leakage of material; and	N/A	N/A		N/A	N/A	N/A
	• Construction activities should not cause foam, oil, grease, scum, litter or other objectionable matter to be present on the water within the site.	N/A	N/A		N/A	N/A	N/A
4.1 & 10.5.1	**Sewage effluent from construction workforce** Temporary sanitary facilities, such as portable chemical toilets, should be employed on-site where necessary to handle sewage from the workforce. A licensed contractor should be employed to provide appropriate and adequate portable toilets and be responsible for appropriate disposal and maintenance.	✓	✓		✓	✓	✓
	General construction activities						

EM&A Ref.	Recommendation Measures	Implementation Stage					
		L1			L2		
		May 2021	Jun 2021	Jul^ 2021	May 2021	Jun 2021	Jul 2021
4.1 & 10.5.1	• Construction solid waste, debris and refuse generated on-site should be collected, handled and disposed of properly to avoid entering any nearby storm water drain. Stockpiles of cement and other construction materials should be kept covered when not being used.	✓	✓		✓	✓	✓
	• Oils and fuels should only be stored in designated areas which have pollution prevention facilities. To prevent spillage of fuels and solvents to any nearby storm water drain, all fuel tanks and storage areas should be provided with locks and be sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank. The bund should be drained of rainwater after a rain event.	✓	Obs		Obs	Obs	Obs
Waste Management Implications (Construction)							
6.1 & 10.7.1	**Good Site Practices** Recommendations for good site practices during the construction activities include:						
	• Nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site	✓	Obs		✓	Obs	Obs
	• Training of site personnel in proper waste management and chemical handling procedures	✓	✓		✓	✓	✓
	• Provision of sufficient waste disposal points and regular collection of waste	✓	✓		Obs	✓	✓
	• Appropriate measures to minimise windblown litter and dust/odour during transportation of waste by either covering trucks or by transporting wastes in enclosed containers	✓	✓		✓	✓	✓
	• Provision of wheel washing facilities before the trucks leaving the works area so as to minimise dust introduction to public roads	✓	✓		✓	✓	✓
	• Well planned delivery programme for offsite disposal such that adverse environmental impact from transporting the inert or non-inert C&D materials is not anticipated	✓	✓		✓	✓	✓
6.1 & 10.7.1	**Waste Reduction Measures** Recommendations to achieve waste reduction include:						
	• Sort inert C&D material to recover any recyclable portions such as metals	✓	✓		✓	✓	✓
	• Segregation and storage of different types of waste in different containers or skips to enhance reuse or recycling of materials and their proper disposal	Rem	Obs		✓	✓	✓
	• Encourage collection of recyclable waste such as waste paper and aluminium cans by providing separate labelled bins to enable such waste to be segregated from other general refuse generated by the work force	✓	✓		✓	✓	✓

EM&A Ref.	Recommendation Measures	Implementation Stage					
			L1			L2	
		May 2021	Jun 2021	Jul^ 2021	May 2021	Jun 2021	Jul 2021
	• Proper site practices to minimise the potential for damage or contamination of inert C&D materials	✓	✓		✓	✓	✓
	• Plan the use of construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of wastes	✓	✓		✓	✓	✓
6.1 & 10.7.1	**Inert and Non-inert C&D Materials** In order to minimise impacts resulting from collection and transportation of inert C&D material for off-site disposal, the excavated materials should be reused on-site as fill material as far as practicable. In addition, inert C&D material generated from excavation works could be reused as fill materials in local projects that require public fill for reclamation.	✓	✓		✓	✓	✓
	• The surplus inert C&D material will be disposed of at the Government's PFRFs for beneficial use by other projects in Hong Kong.	✓	✓		✓	✓	✓
	• Liaison with the CEDD Public Fill Committee (PFC) on the allocation of space for disposal of the inert C&D materials at PFRF is underway. No construction work is allowed to proceed until all issues on management of inert C&D materials have been resolved and all relevant arrangements have been endorsed by the relevant authorities including PFC and EPD.	✓	✓		✓	✓	✓
	• The C&D materials generated from general site clearance should be sorted on site to segregate any inert materials for reuse or disposal of at PFRFs whereas the non-inert materials will be disposed of at the designated landfill site.	✓	✓		✓	✓	✓
	• In order to monitor the disposal of inert and non-inert C&D materials at respectively PFRFs and the designated landfill site, and to control fly-tipping, it is recommended that the Contractor should follow the Technical Circular (Works) No. 6/2010 for Trip Ticket System for Disposal of Construction & Demolition Materials issued by Development Bureau. In addition, it is also recommended that the Contractor should prepare and implement a Waste Management Plan detailing their various waste arising and waste management practices in accordance with the relevant requirements of the Technical Circular (Works) No. 19/2005 Environmental Management on Construction Site.	✓	✓		✓	✓	✓

EM&A Ref.	Recommendation Measures	Implementation Stage					
			L1			L2	
		May 2021	Jun 2021	Jul^ 2021	May 2021	Jun 2021	Jul 2021
6.1 & 10.7.1	**Chemical Waste**						
	• If chemical wastes are produced at the construction site, the Contractor will be required to register with the EPD as a chemical waste producer and to follow the guidelines stated in the "Code of Practice on the Packaging Labelling and Storage of Chemical Wastes". Good quality containers compatible with the chemical wastes should be used, and incompatible chemicals should be stored separately. Appropriate labels should be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste, such as explosive, flammable, oxidizing, irritant, toxic, harmful, corrosive, etc. The Contractor should use a licensed collector to transport and dispose of the chemical wastes at the approved Chemical Waste Treatment Centre or other licensed recycling facilities, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.	✓	✓		✓	Obs	Obs
	• Potential environmental impacts arising from the handling activities (including storage, collection, transportation and disposal of chemical waste) are expected to be minimal with the implementation of appropriate mitigation measures as recommended.	✓	✓		✓	✓	✓
6.1 & 10.7.1	**General Refuse**						
	General refuse should be stored in enclosed bins or compaction units separated from inert C&D materials. A reputable waste collector should be employed by the Contractor to remove general refuse from the site, separately from inert C&D materials. Preferably an enclosed and covered area should be provided to reduce the occurrence of 'wind blown' light material.	✓	✓		✓	✓	✓
Land Contamination (Construction)							
7.1 & 10.8.1	The potential for land contamination issues at the TST Fire Station due to its future relocation will be confirmed by site investigation after land acquisition. Where necessary, mitigation measures for minimising potential exposure to contaminated materials (if any) or remediation measures will be identified. If contaminated land is identified (e.g., during decommissioning of fuel oil storage tanks) after the commencement of works, mitigation measures are proposed in order to minimise the potentially adverse effects on the health and safety of construction workers and impacts arising from the disposal of potentially contaminated materials. The following measures are proposed for excavation and transportation of contaminated material:						

EM&A Ref.	Recommendation Measures	Implementation Stage					
		L1			L2		
		May 2021	Jun 2021	Jul^ 2021	May 2021	Jun 2021	Jul 2021
	• To minimize the chance for construction workers to come into contact with any contaminated materials, bulk earth-moving excavation equipment should be employed;	N/A	N/A		N/A	N/A	N/A
	• Contact with contaminated materials can be minimised by wearing appropriate clothing and personal protective equipment such as gloves and masks (especially when interacting directly with contaminated material), provision of washing facilities and prohibition of smoking and eating on site;	N/A	N/A		N/A	N/A	N/A
	• Stockpiling of contaminated excavated materials on site should be avoided as far as possible;	N/A	N/A		N/A	N/A	N/A
	• The use of contaminated soil for landscaping purpose should be avoided unless pre-treatment was carried out;	N/A	N/A		N/A	N/A	N/A
	• Vehicles containing any contaminated excavated materials should be suitably covered to reduce dust emissions and/or release of contaminated wastewater;	N/A	N/A		N/A	N/A	N/A
	• Truck bodies and tailgates should be sealed to stop any discharge;	N/A	N/A		N/A	N/A	N/A
	• Only licensed waste haulers should be used to collect and transport contaminated material to treatment/disposal site and should be equipped with tracking system to avoid fly tipping;	N/A	N/A		N/A	N/A	N/A
	• Speed control for trucks carrying contaminated materials should be exercised;	N/A	N/A		N/A	N/A	N/A
	• Observe all relevant regulations in relation to waste handling, such as Waste Disposal Ordinance (Cap. 354), Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354) and obtain all necessary permits where required; and	N/A	N/A		N/A	N/A	N/A
	• Maintain records of waste generation and disposal quantities and disposal arrangements.	N/A	N/A		N/A	N/A	N/A
Ecological Impact (Construction)							
	No mitigation measure is required.						
Landscape and Visual Impact (Construction)							
Table 9.1 & 10.8 (CM1)	Trees should be retained in situ on site as far as possible. Should tree removal be unavoidable due to construction impacts, trees will be transplanted or felled with reference to the stated criteria in the Tree Removal Applications to be submitted to relevant government departments for approval in accordance to ETWB TCW No. 29/2004 and 3/2006.	✓	✓		✓	✓	✓

EM&A Ref.	Recommendation Measures	Implementation Stage					
		L1			L2		
		May 2021	Jun 2021	Jul^ 2021	May 2021	Jun 2021	Jul 2021
Table 9.1 & 10.8 (CM2)	Compensatory tree planting shall be incorporated to the proposed project and maximize the new tree, shrubs and other vegetation planting to compensate tree felled and vegetation removed. Also, implementation of compensatory planting should be of a ratio not less than 1:1 in terms of quality and quantity within the site.	N/A	N/A		N/A	N/A	N/A
Table 9.1 & 10.8 (CM3)	Buffer trees for screening purposes to soften the hard architectural and engineering structures and facilities.	N/A	N/A		N/A	N/A	N/A
Table 9.1 & 10.8 (CM4)	Softscape treatments such as vertical green wall panel /planting of climbing and/or weeping plants, etc, to maximize the green coverage and soften the hard architectural and engineering structures and facilities.	N/A	N/A		N/A	N/A	N/A
Table 9.1 & 10.8 (CM5)	Roof greening by means of intensive and extensive green roof to maximize the green coverage and improve aesthetic appeal and visual quality of the building/structure.	N/A	N/A		N/A	N/A	N/A
Table 9.1 & 10.8 (CM6)	Sensitive streetscape design should be incorporated along all new roads and streets.	N/A	N/A		N/A	N/A	N/A
Table 9.1 & 10.8 (CM7)	Structure, ornamental planting shall be provided along amenity strips to enhance the landscape quality.	N/A	N/A		N/A	N/A	N/A
Table 9.1 & 10.8 (CM8)	Landscape design shall be incorporated to architectural and engineering structures in order to provide aesthetically pleasing designs.	N/A	N/A		N/A	N/A	N/A
Table 9.1 (CM9)	Minimize the structure of marine facilities to be built on the seabed and foreshore in order to minimize the affected extent to the waterbody	N/A	N/A		N/A	N/A	N/A
Table 9.2 & 10.9 (MCP1)	Use of decorative screen hoarding/boards	✓	✓		✓	✓	✓
Table 9.2 & 10.9 (MCP2)	Early introduction of landscape treatments	N/A	N/A		N/A	N/A	N/A
Table 9.2 & 10.9 (MCP3)	Adoption of light colour for the temporary ventilation shafts for the basement during the transition period.	N/A	N/A		N/A	N/A	N/A
Table 9.2 & 10.9 (MCP4)	Control of night time lighting	✓	✓		✓	✓	✓

EM&A Ref.	Recommendation Measures	Implementation Stage					
		L1			L2		
		May 2021	Jun 2021	Jul^ 2021	May 2021	Jun 2021	Jul 2021
Table 9.2 & 10.9 (MCP5)	Use of greenery such as grass cover for the temporary open areas will help achieve the visual balance and soften the hard edges of the structures.	N/A	N/A		N/A	N/A	N/A

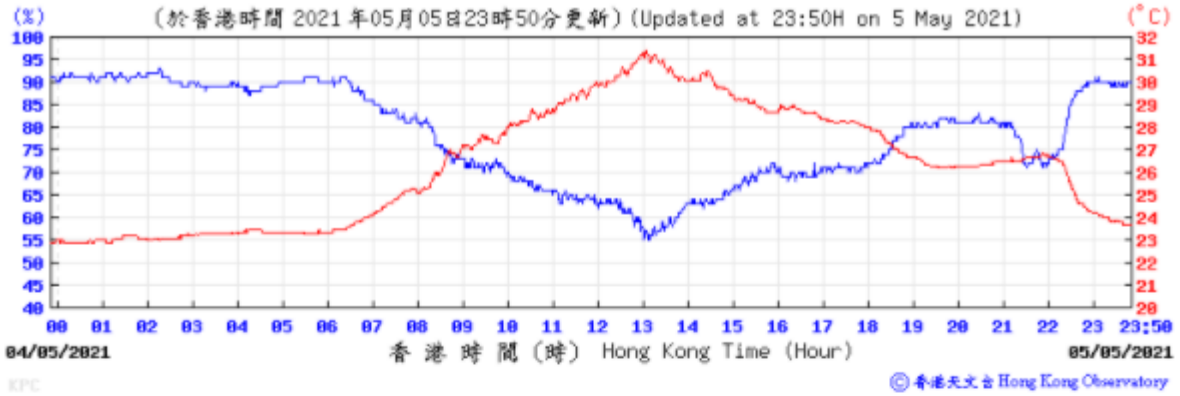
N/A	-	Not Applicable
✓	-	Implemented
Obs	-	Observed
Rem	-	Reminder

Remarks: ^ EM&A Programme of Lyric Theatre Complex (L1 Contract) ended on 30 June 2021

D. Meteorological Data Extracted from Hong Kong Observatory

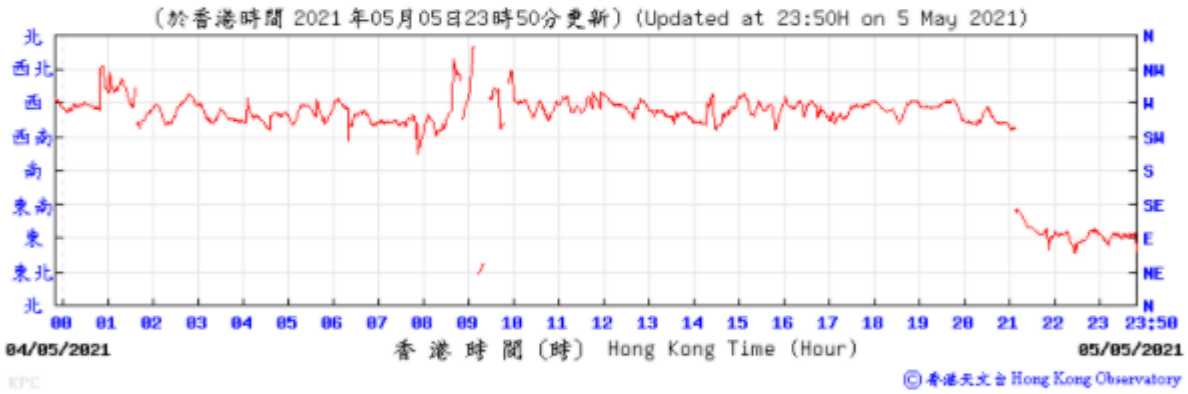
Table D-1: Extract of Meteorological Observations for King's Park Automatic Weather Station in the reporting quarter

Tempearture/Humidity:



Pressure:

Wind Direction:



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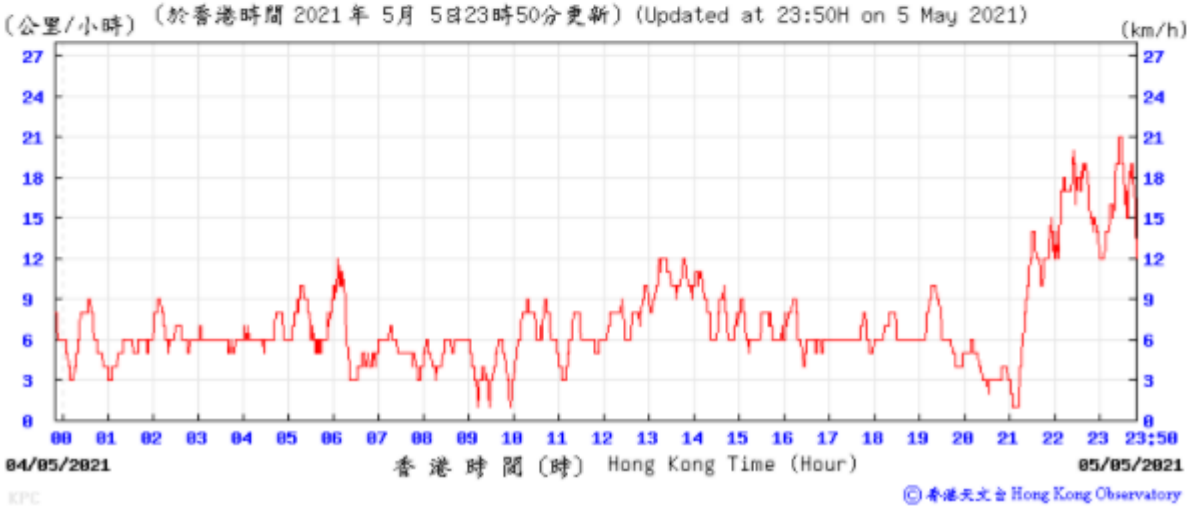

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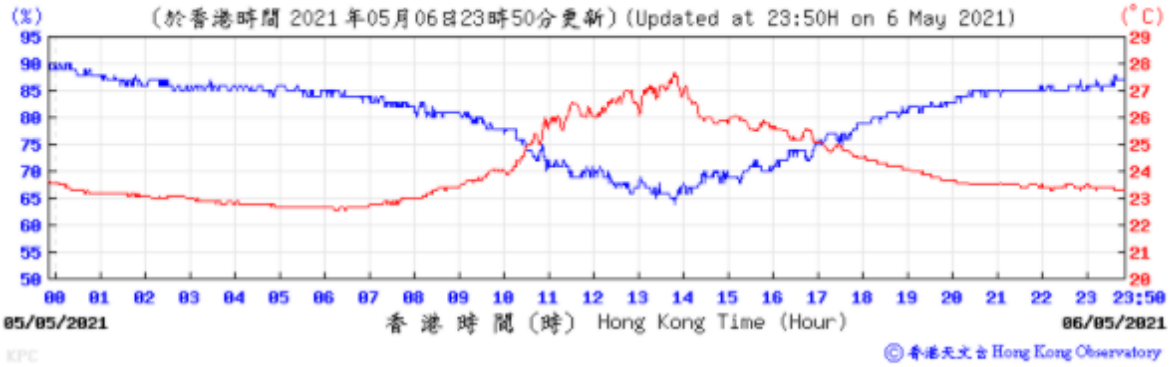
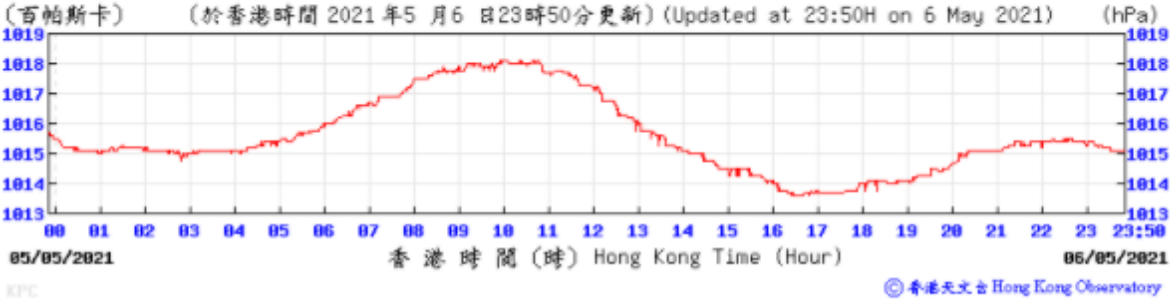
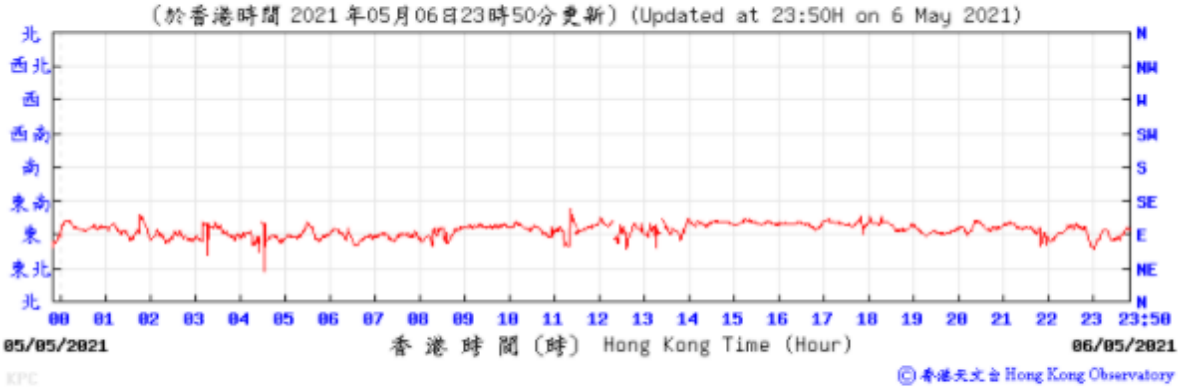


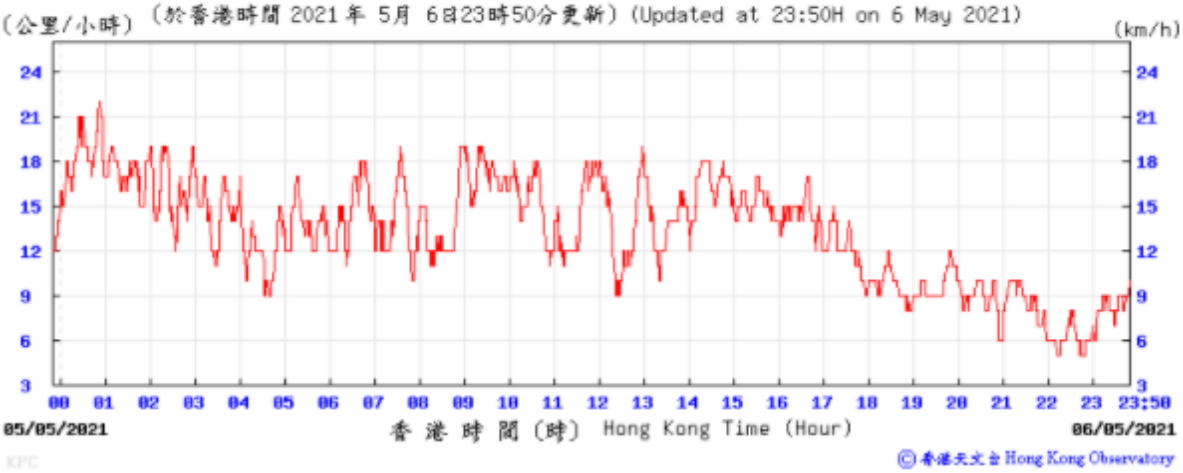
Pressure:



Wind Direction:



Wind Speed:



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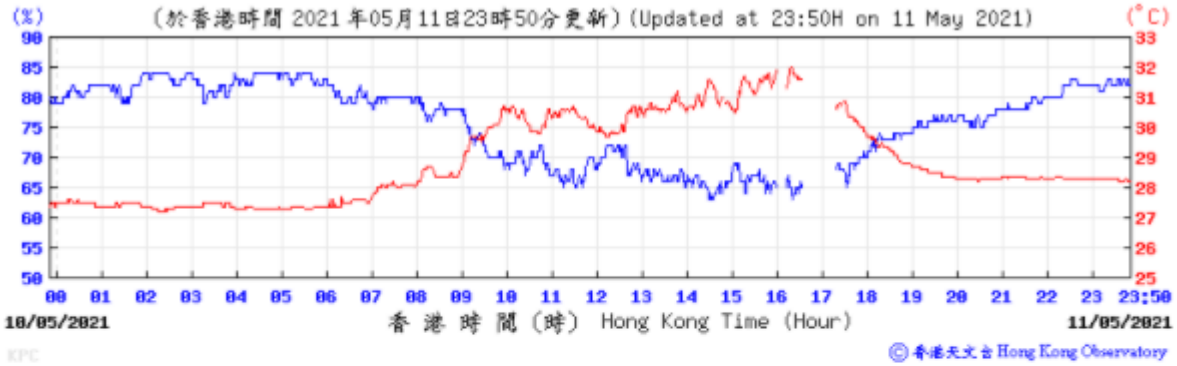
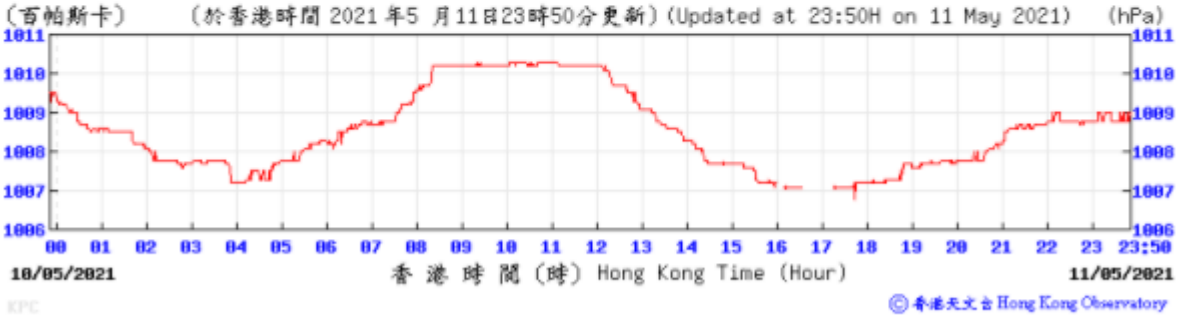
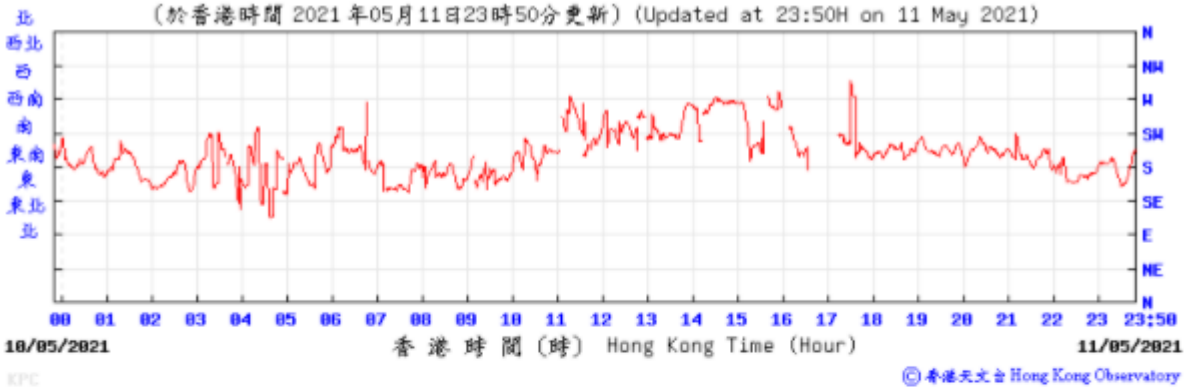


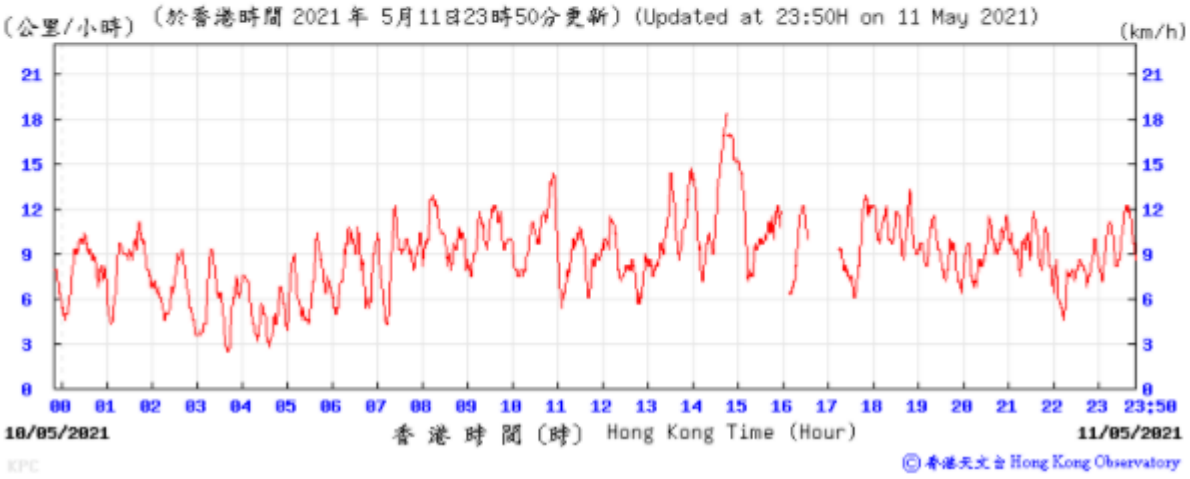
Pressure:



Wind Direction:



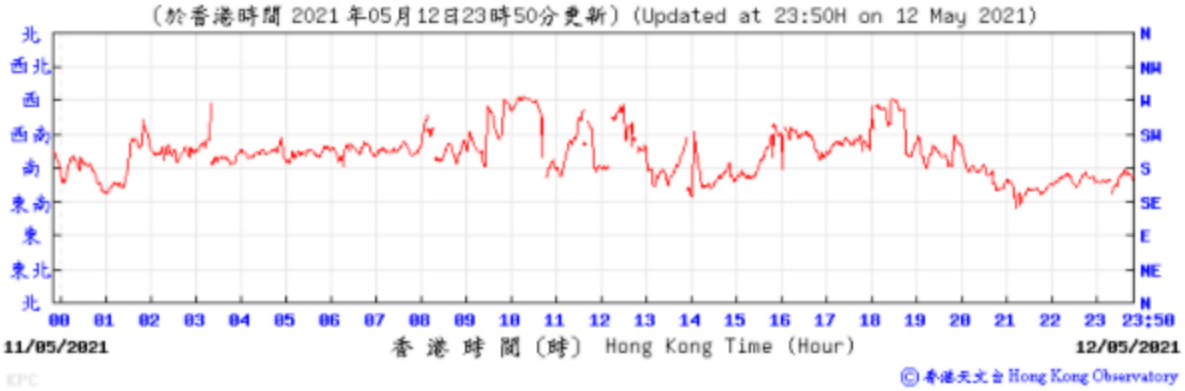
Wind Speed:



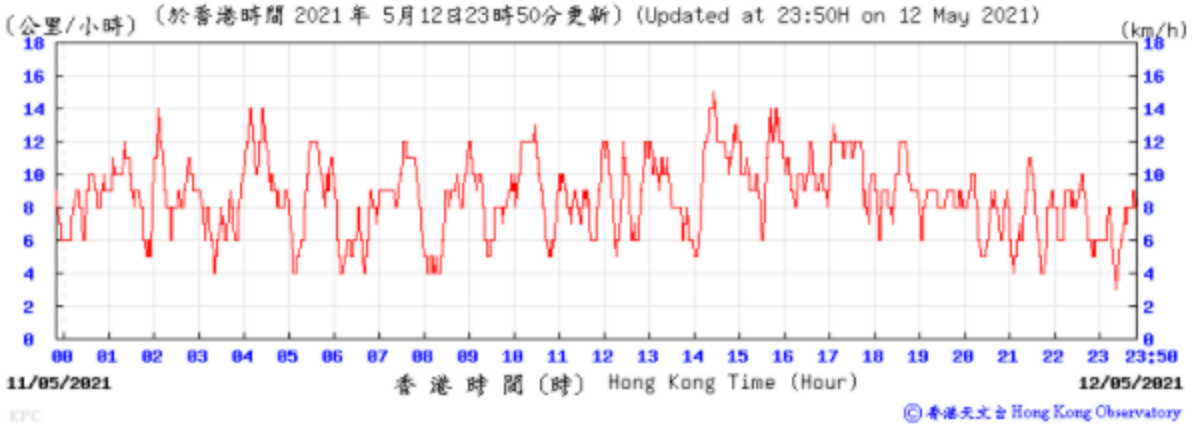
Tempearture/Humidity:

Pressure:

Wind Direction:

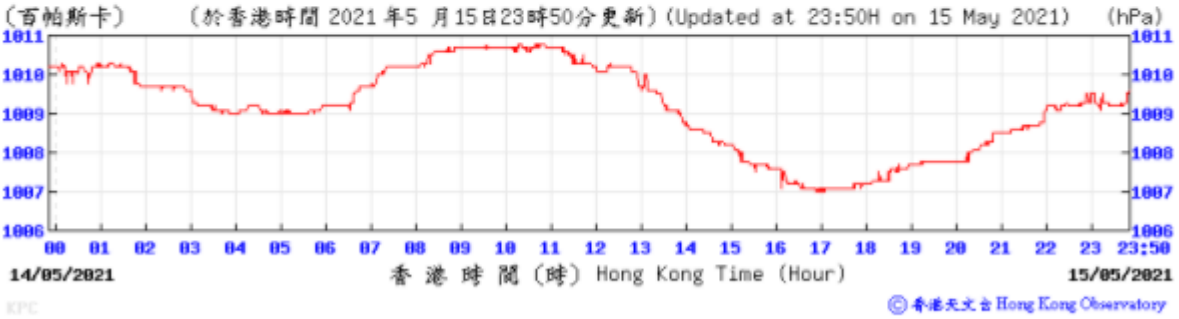


Wind Speed:

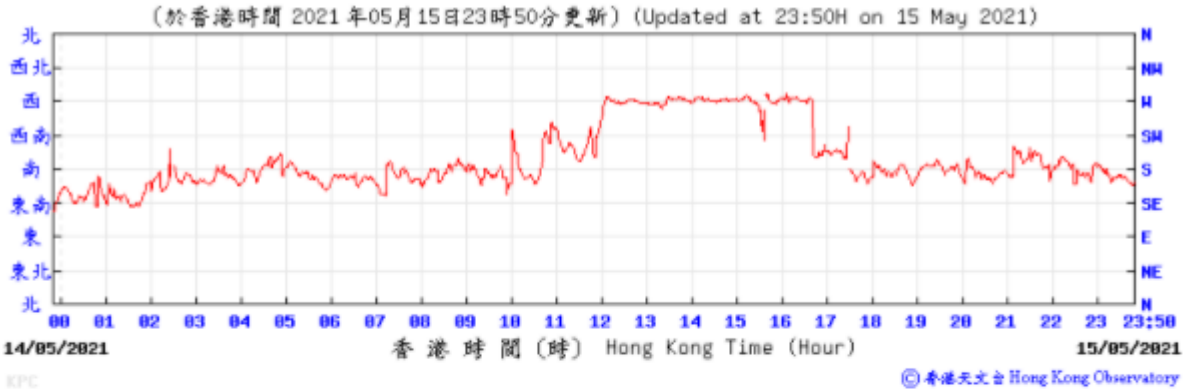


Tempearture/Humidity:

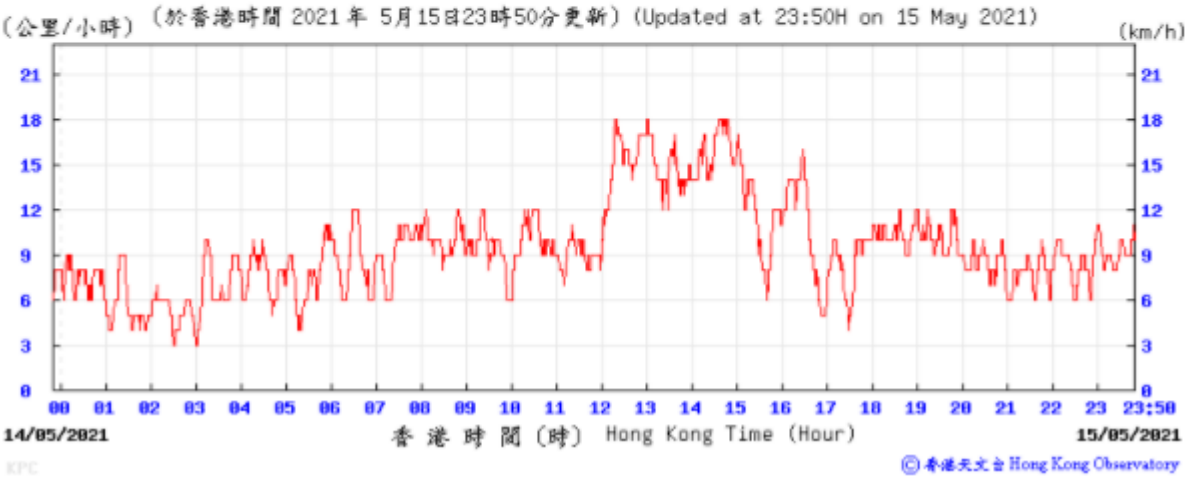
Pressure:



Wind Direction:

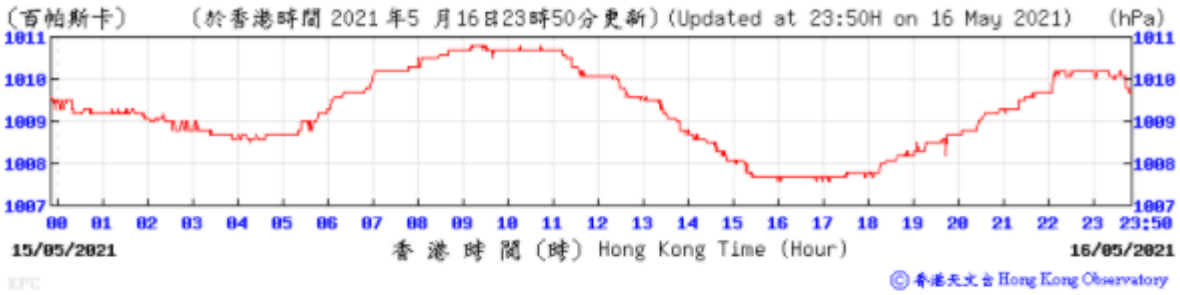


Wind Speed:

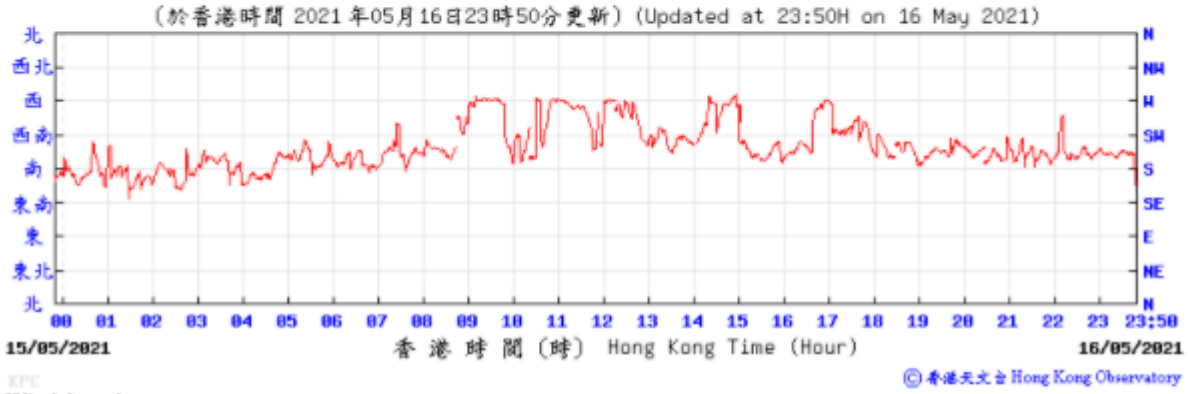


Tempearture/Humidity:

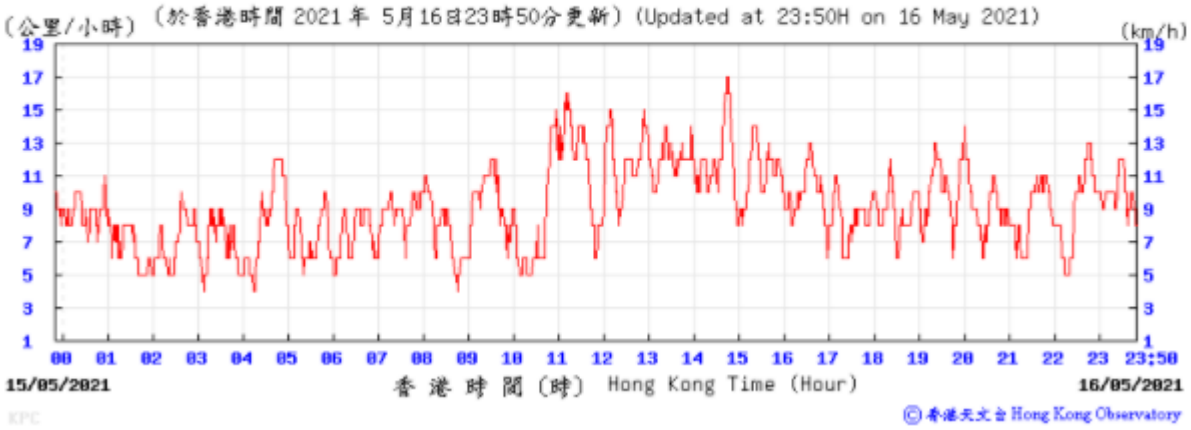
Pressure:



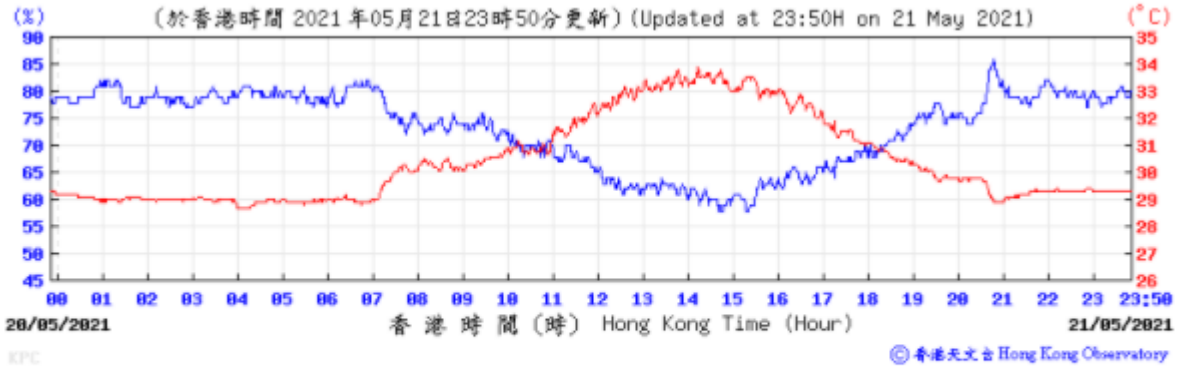
Wind Direction:



Wind Speed:



Tempearture/Humidity:



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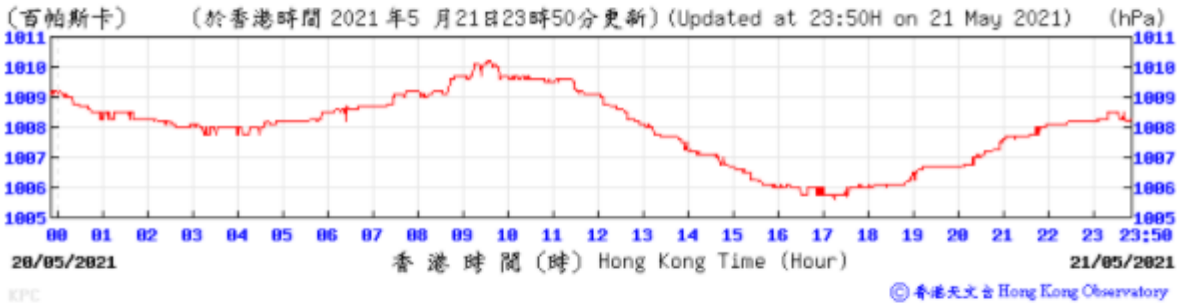

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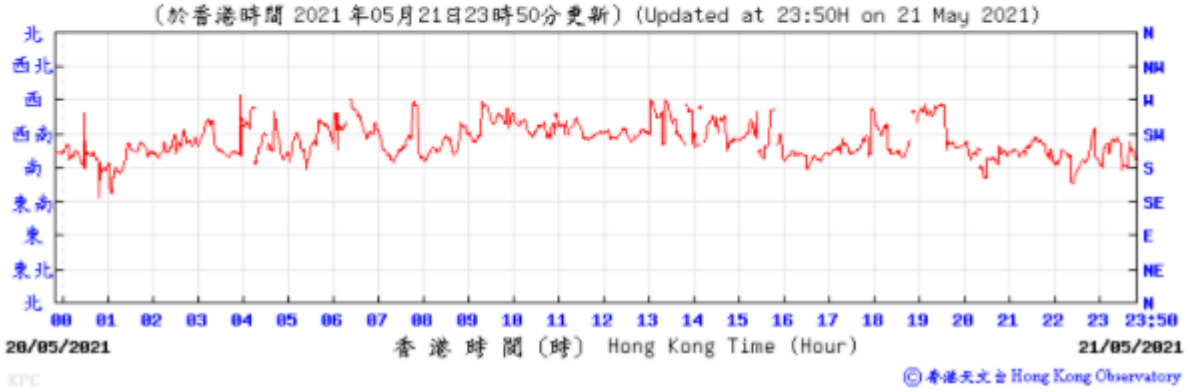

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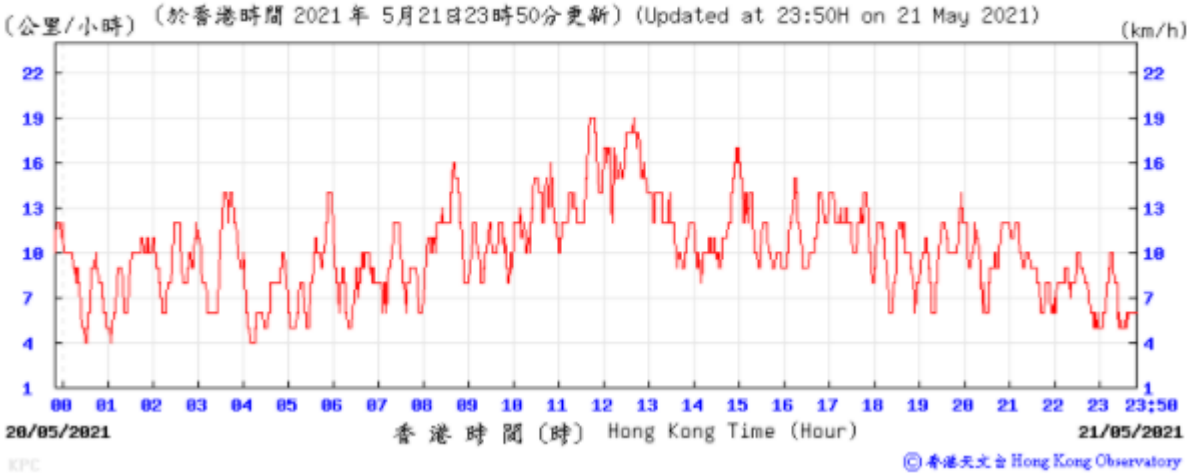

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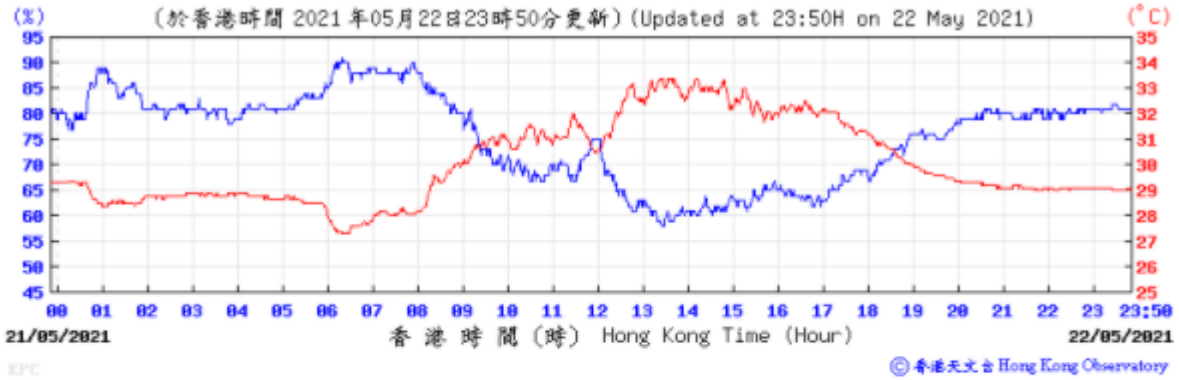

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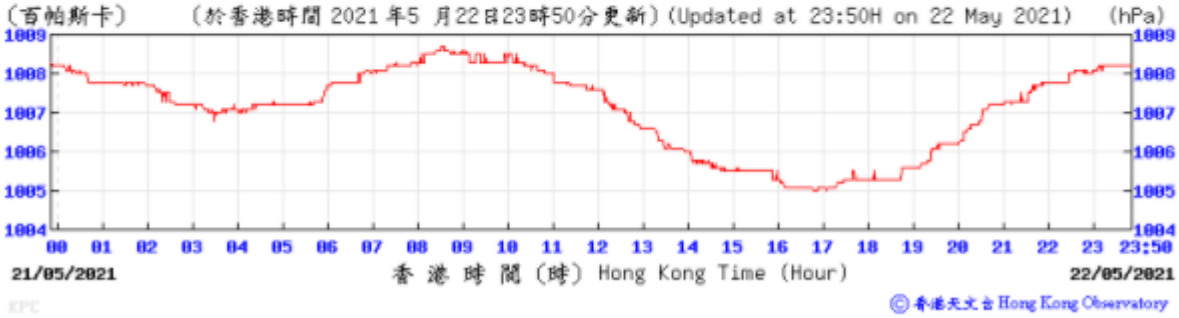

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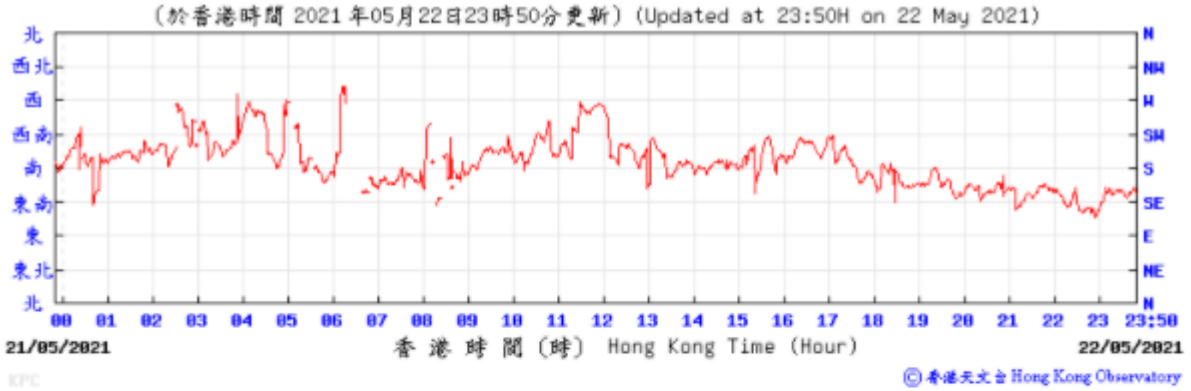

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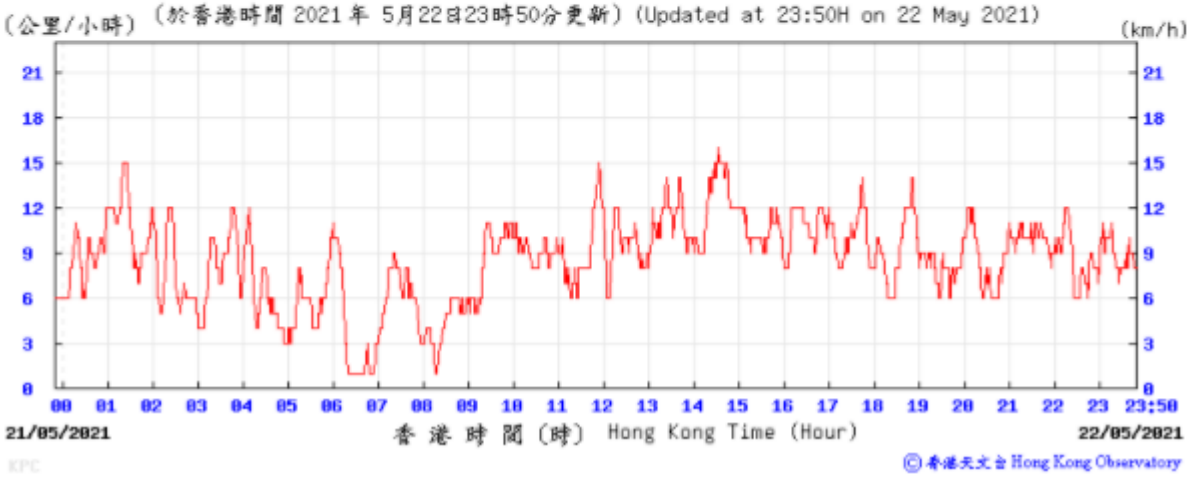

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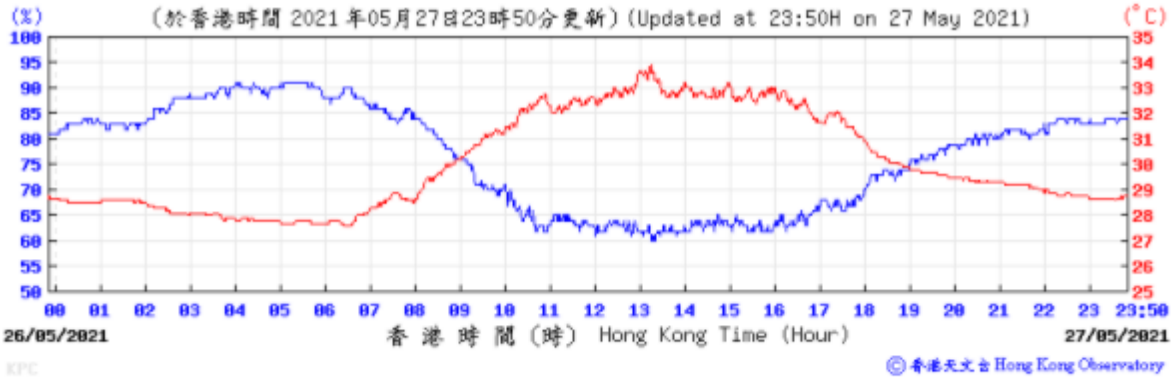

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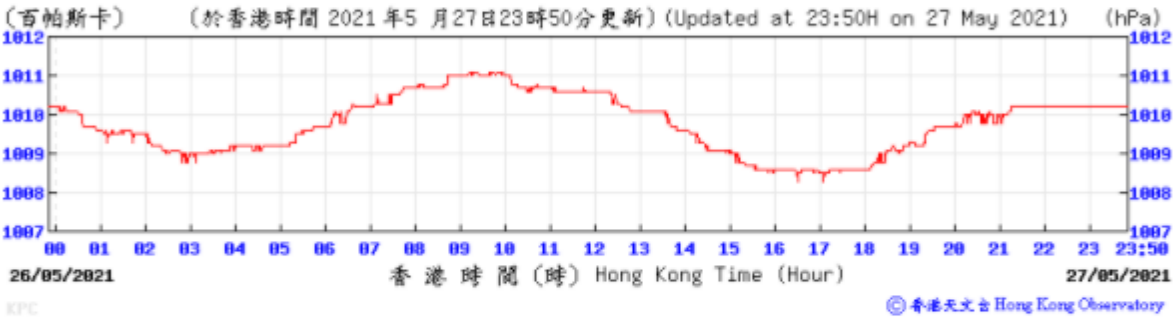

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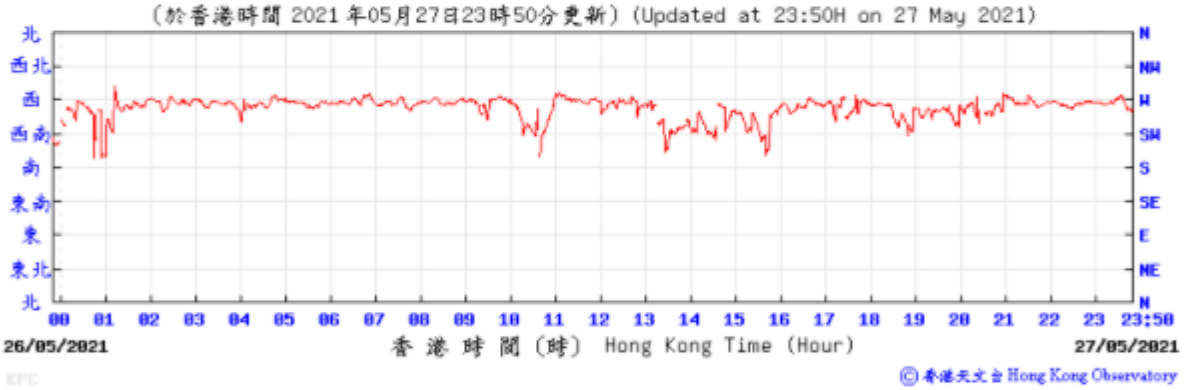

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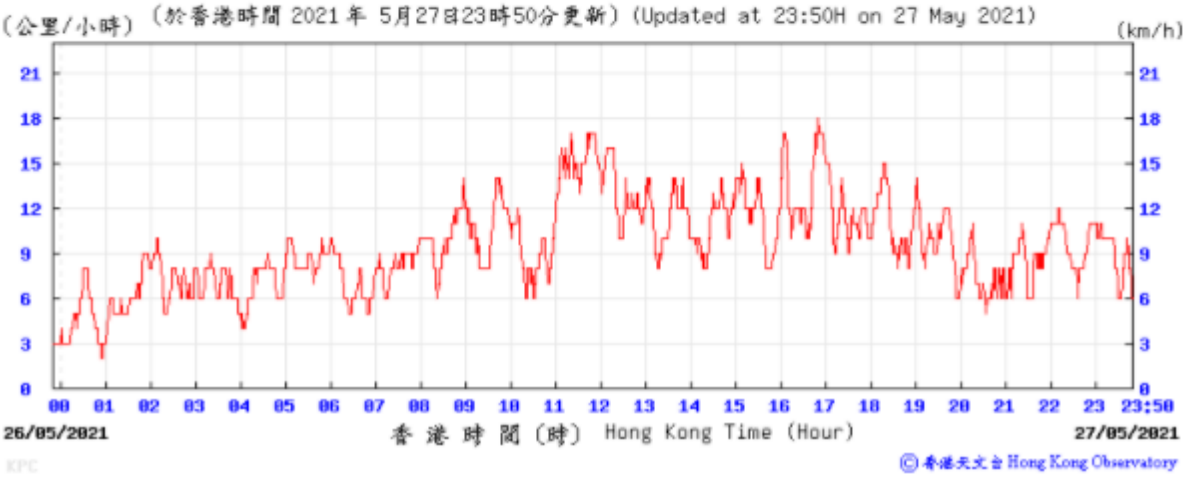

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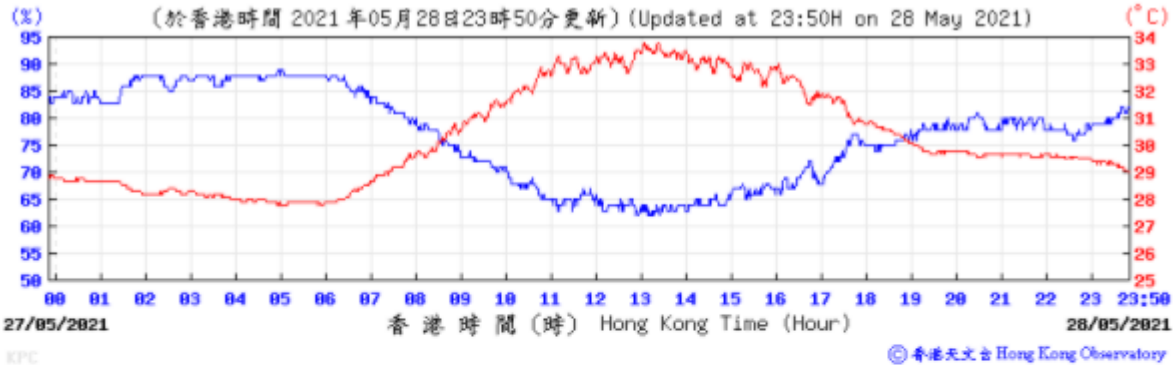

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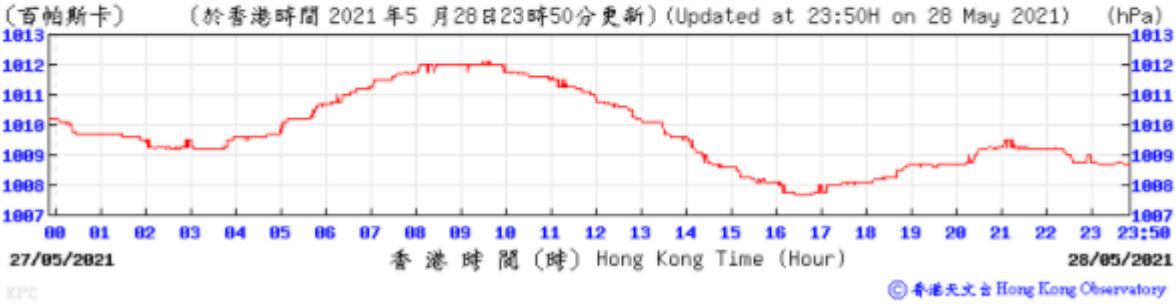

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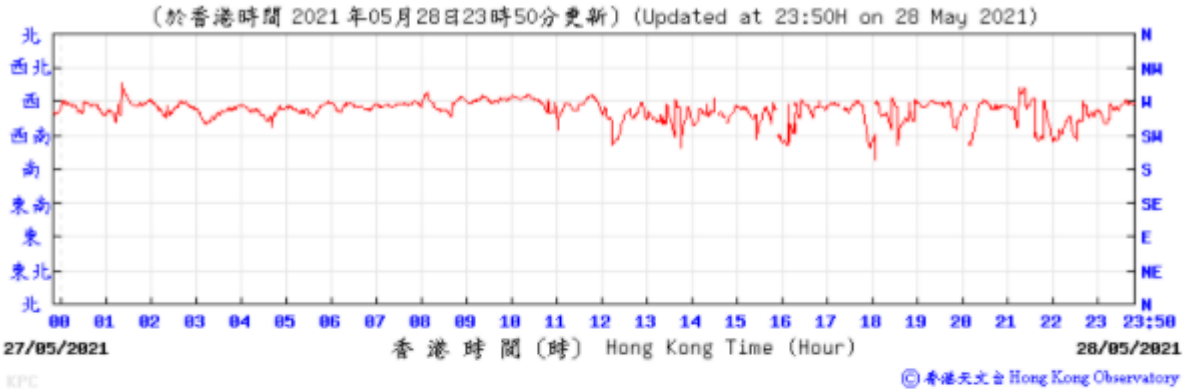

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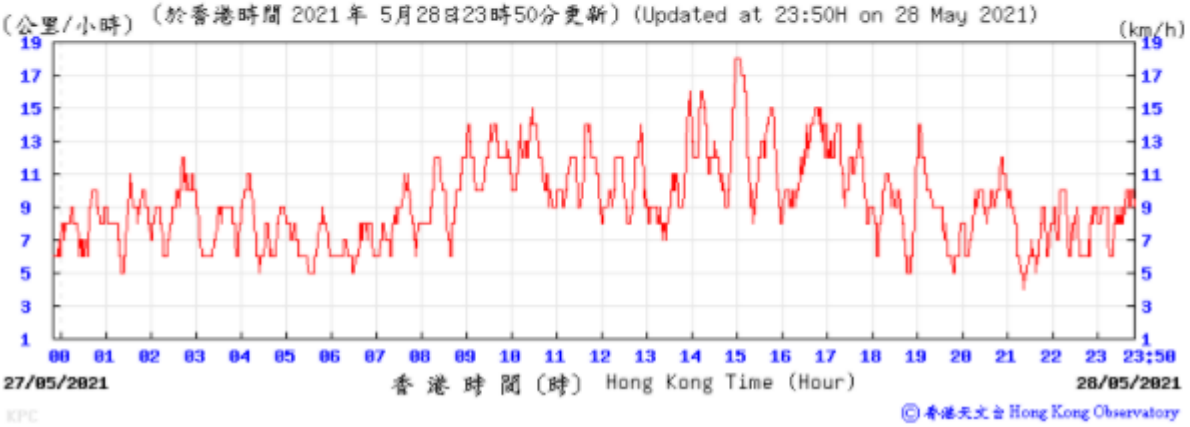

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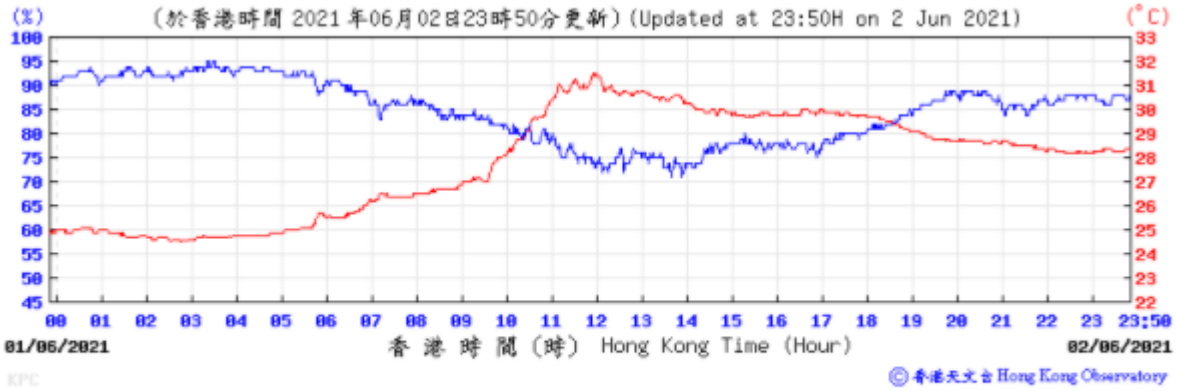

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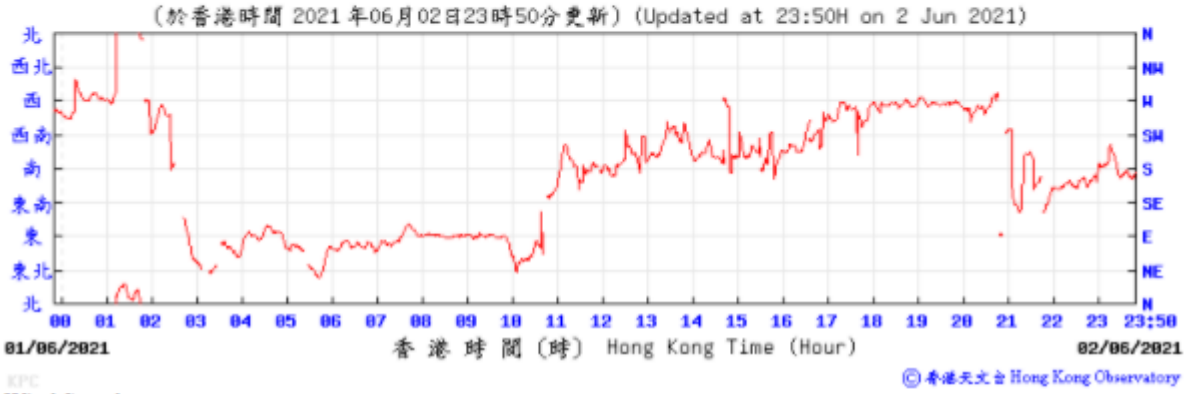

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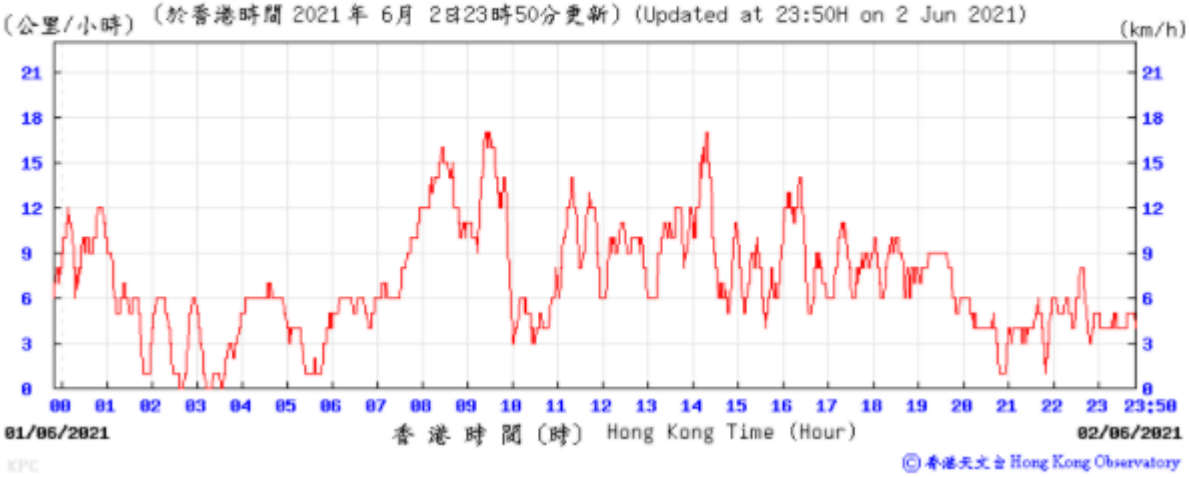

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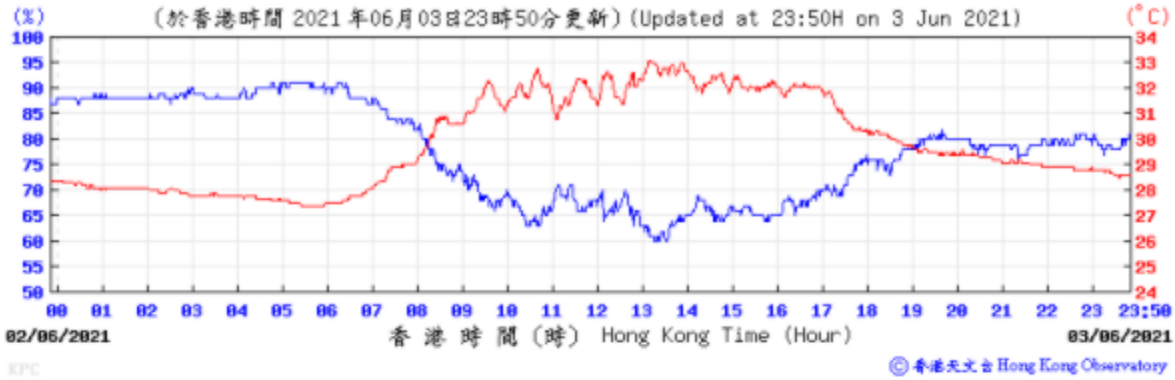

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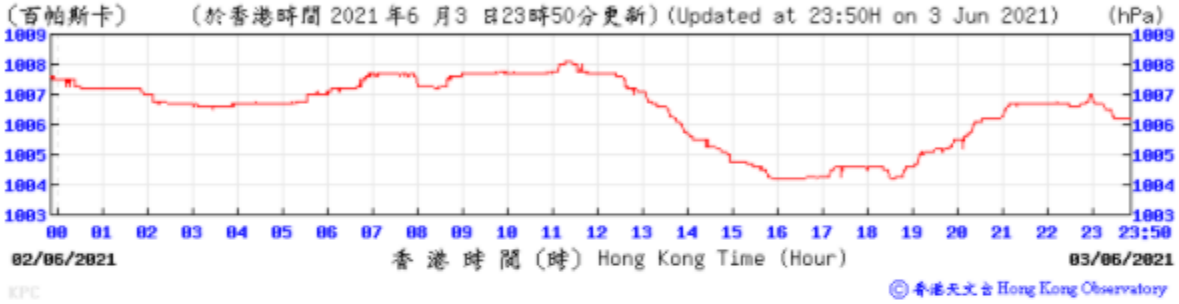

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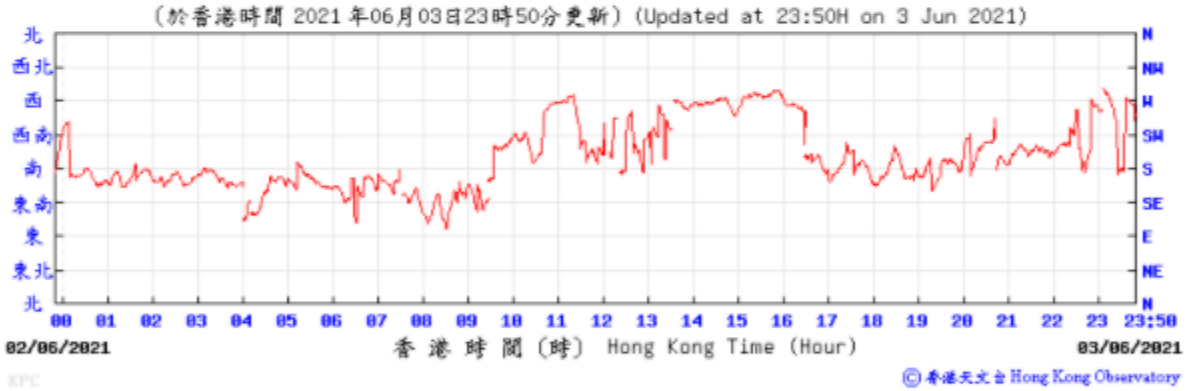

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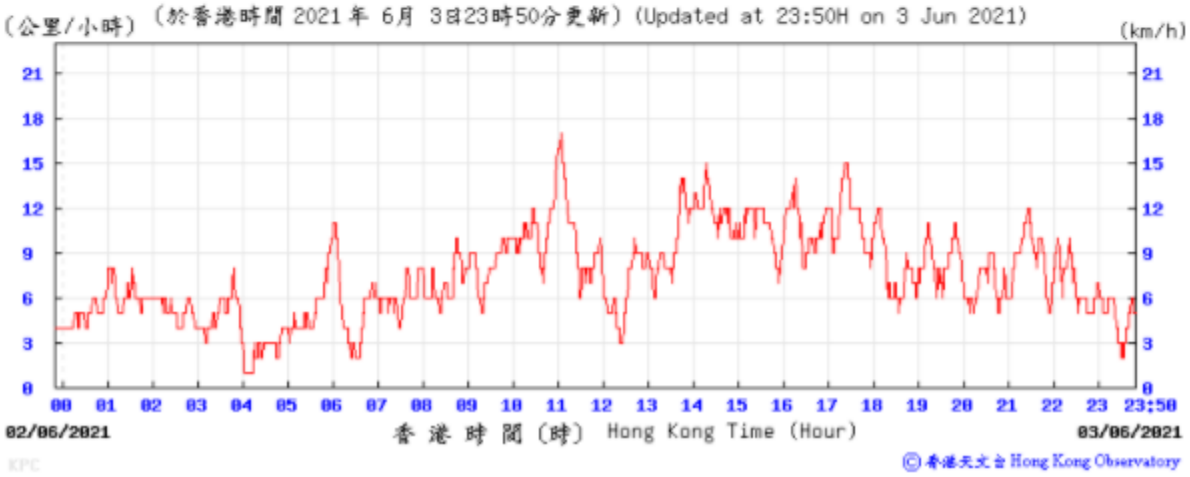

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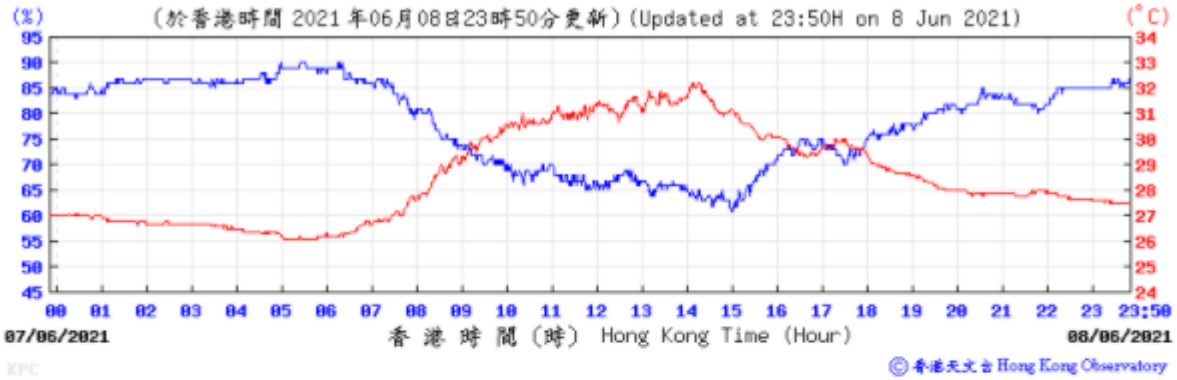

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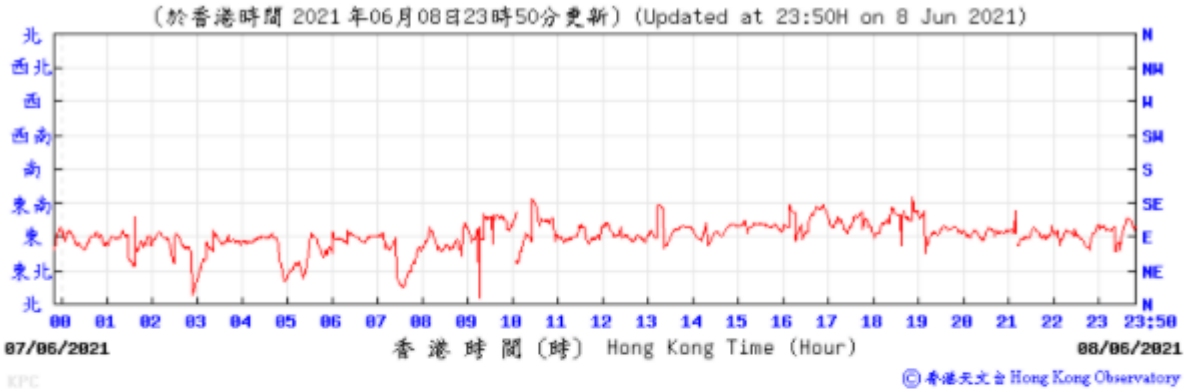

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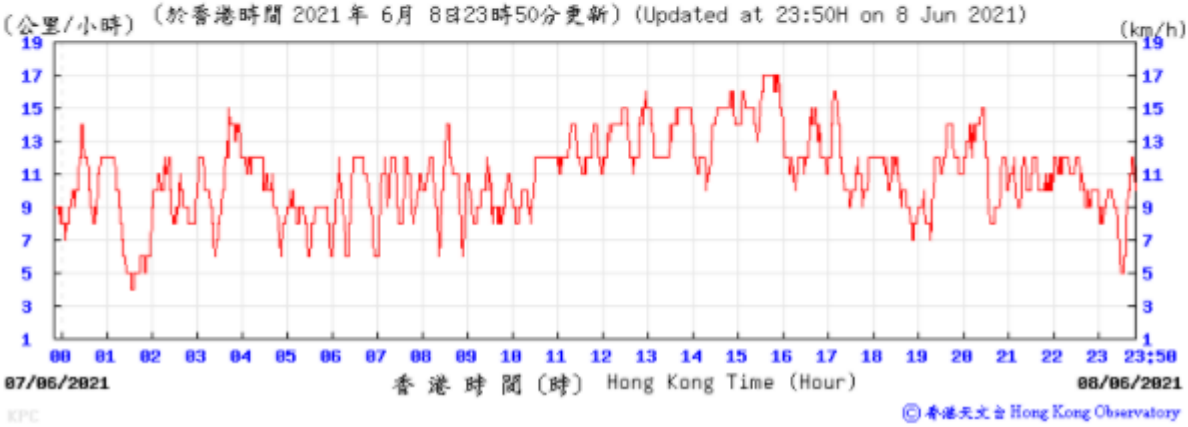

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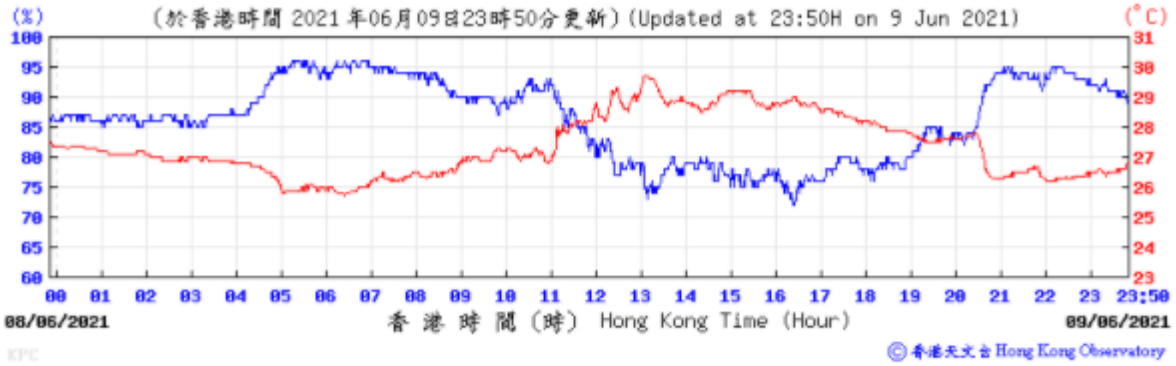

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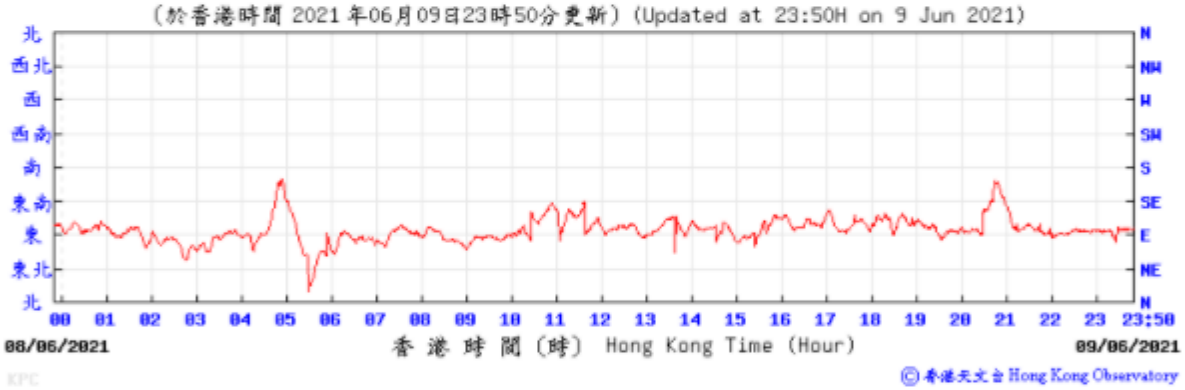

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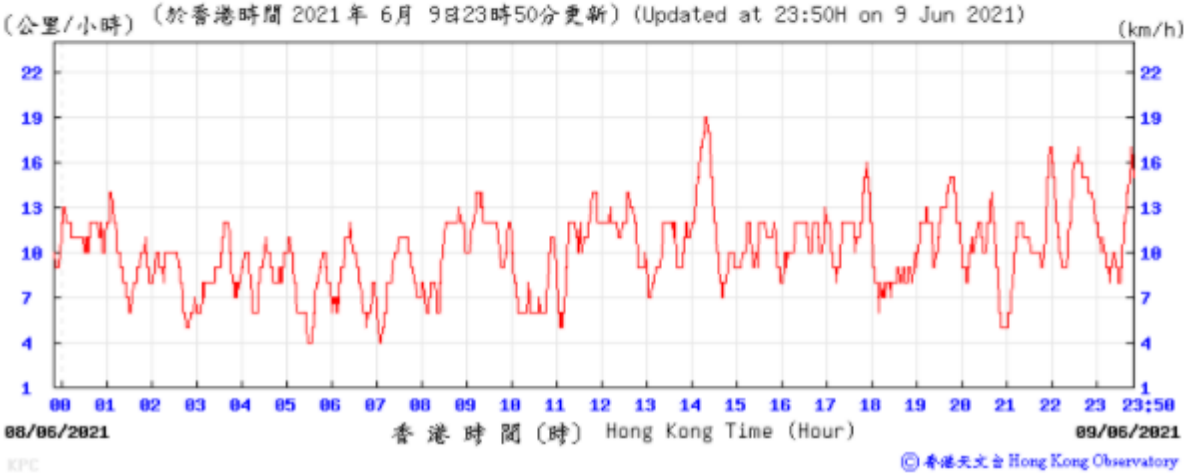

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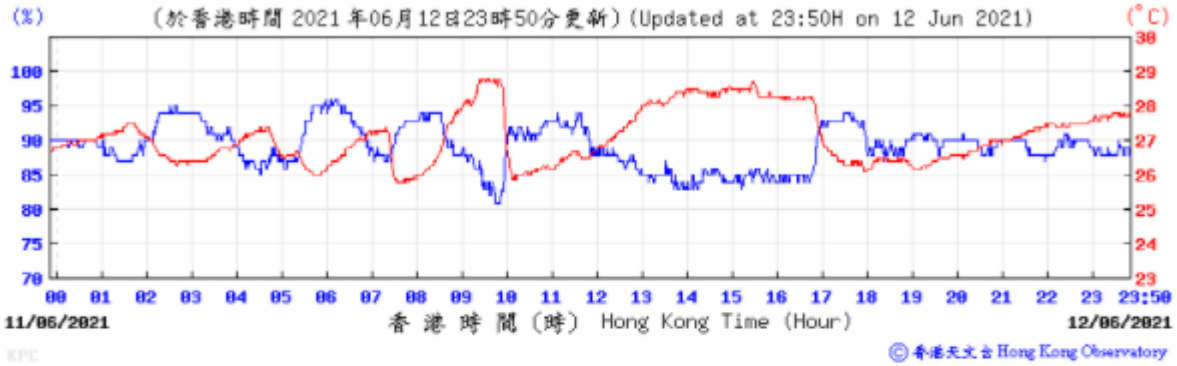

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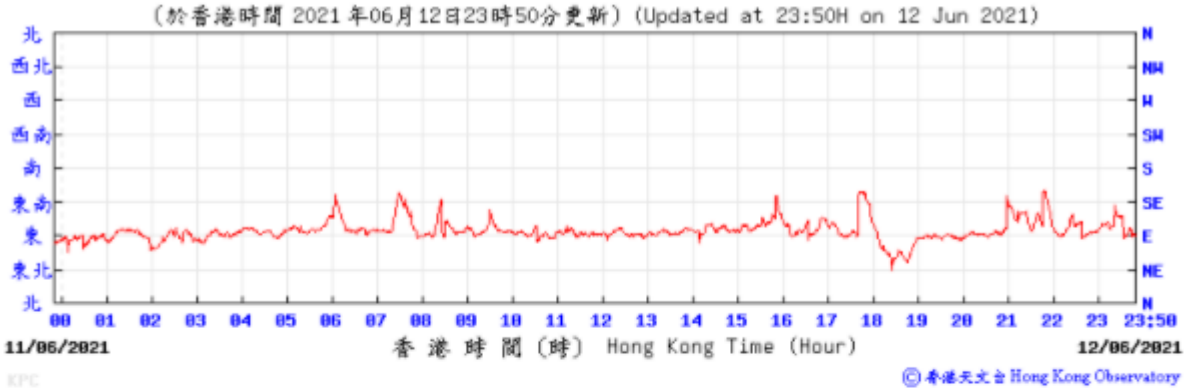

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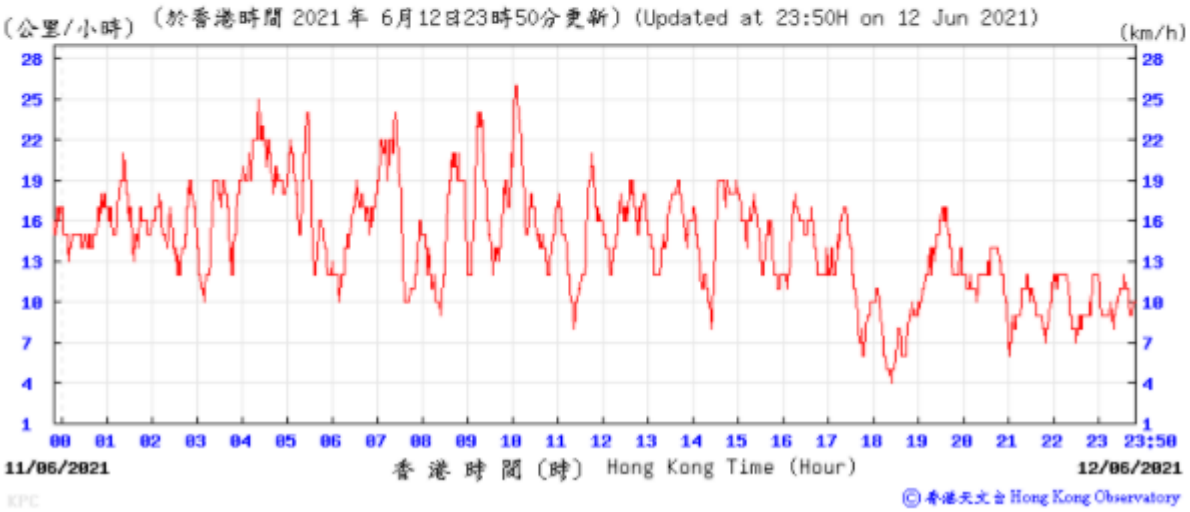

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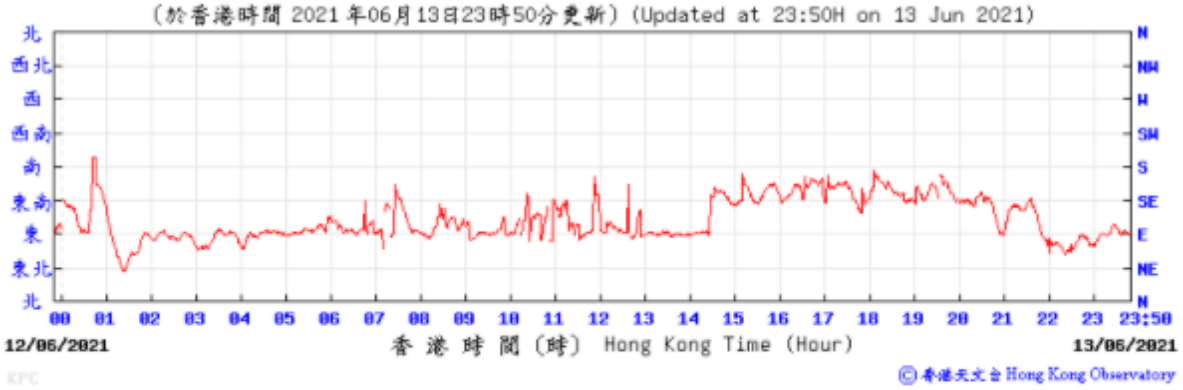

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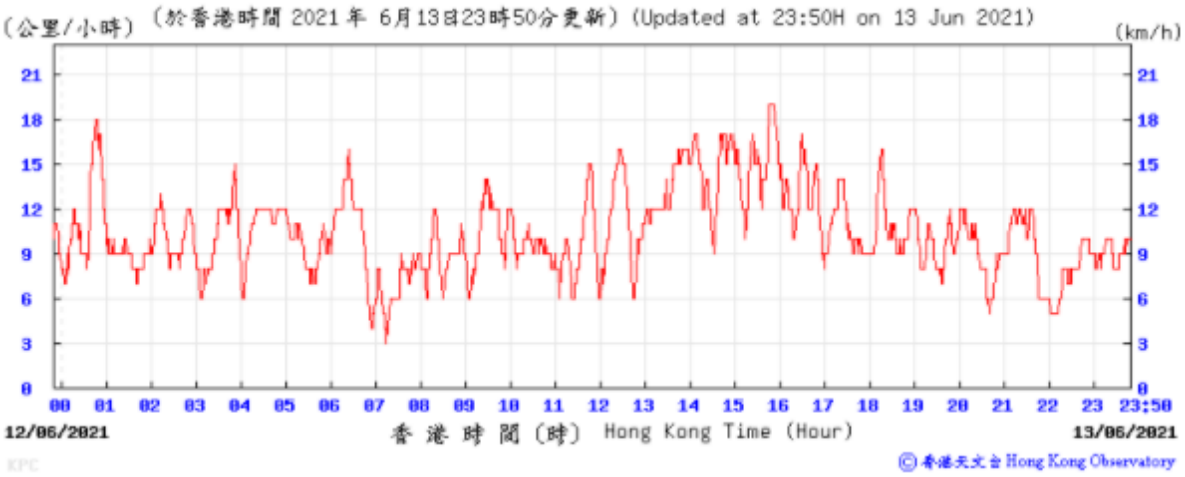

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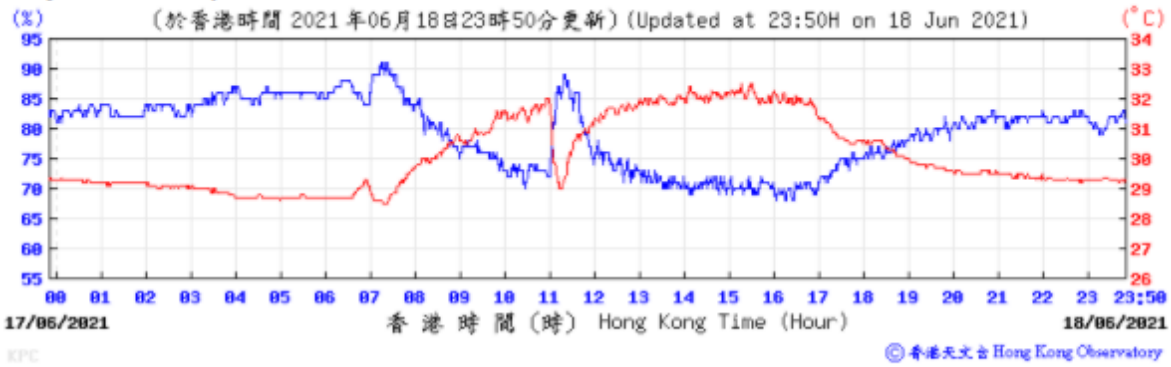

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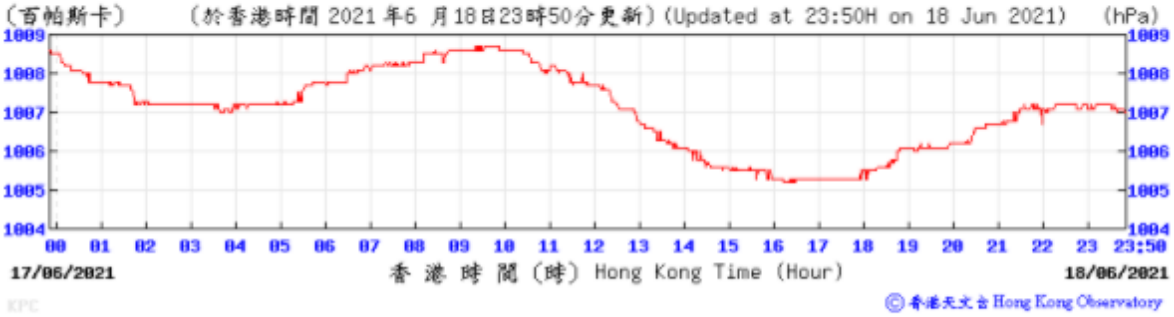

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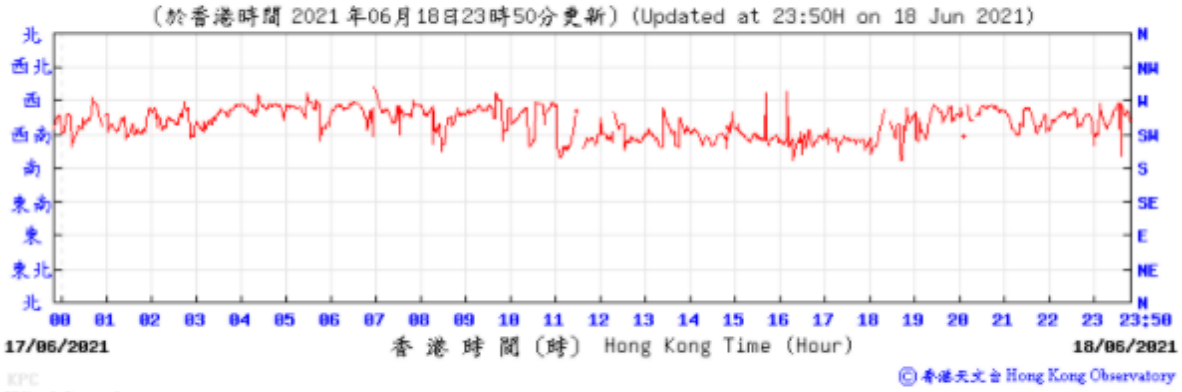

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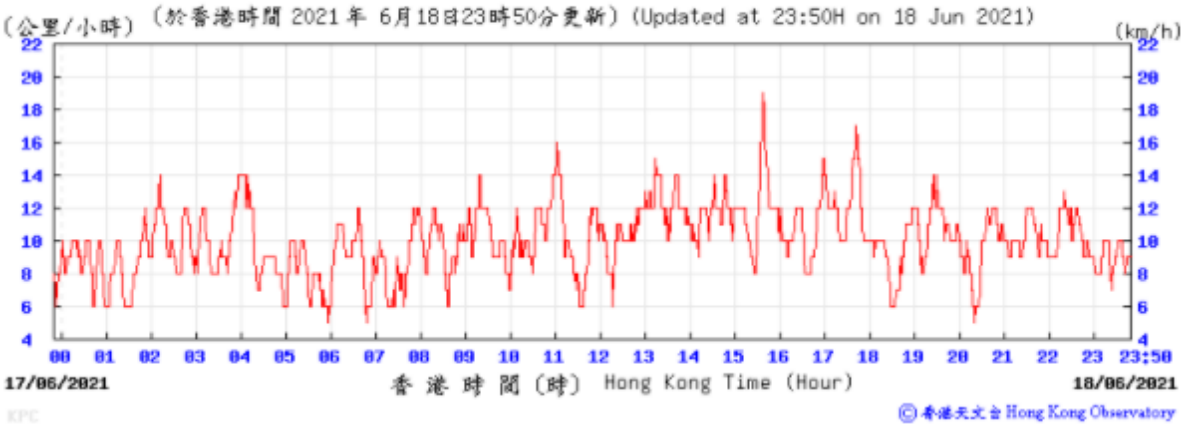

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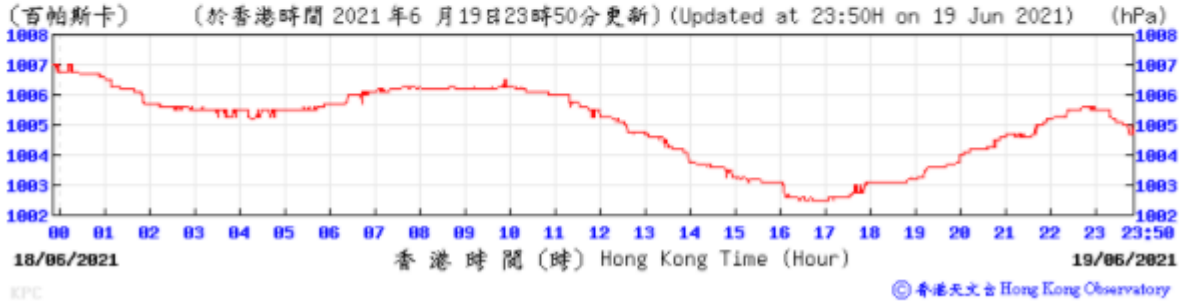

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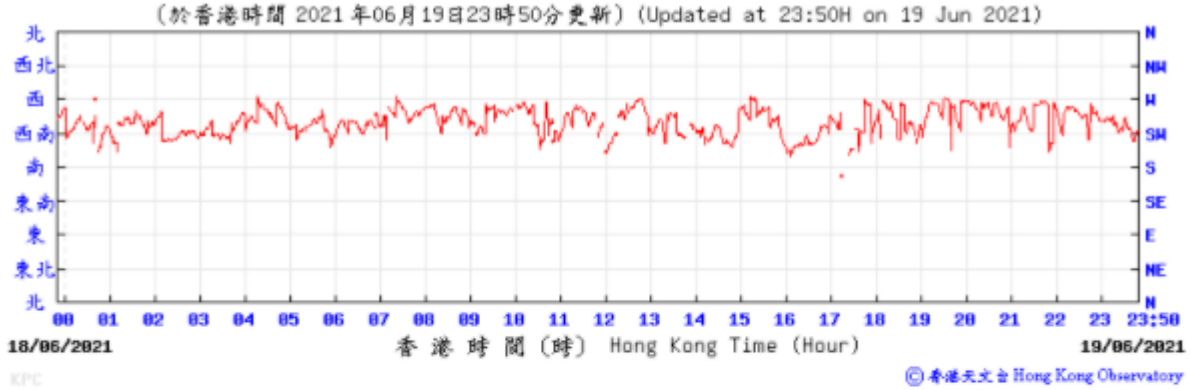

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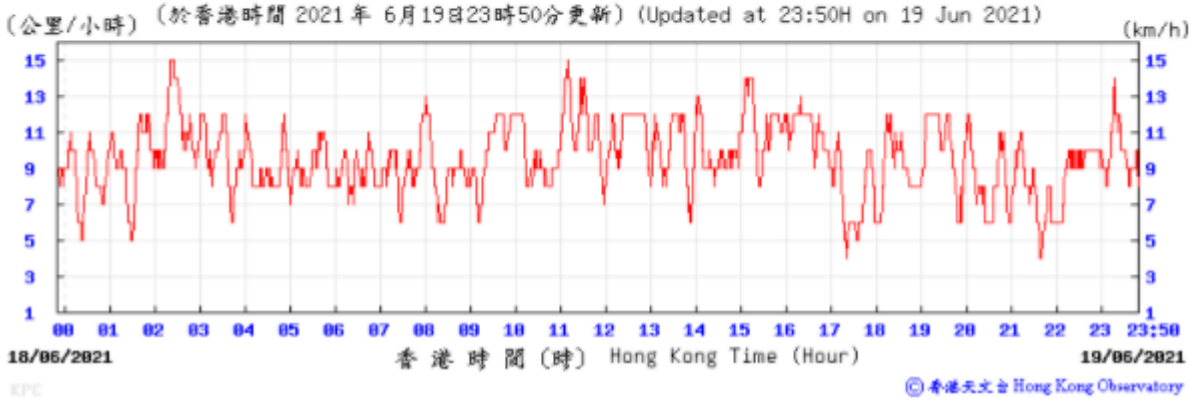

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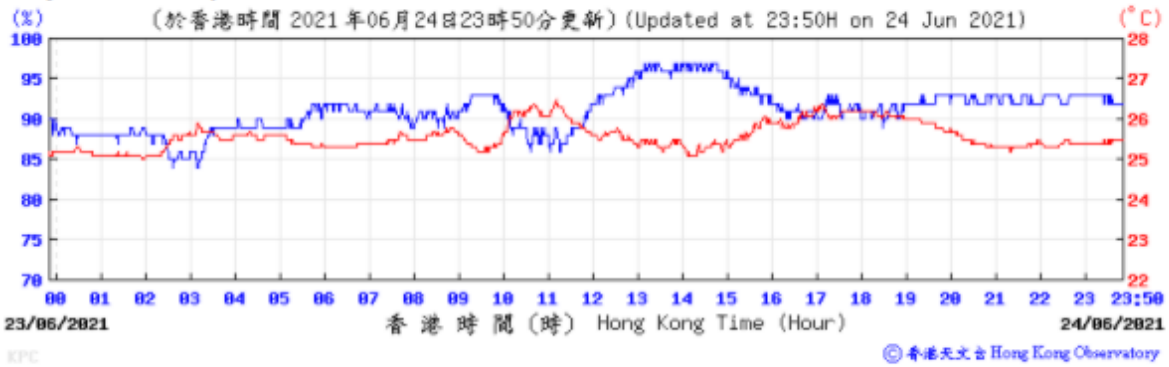

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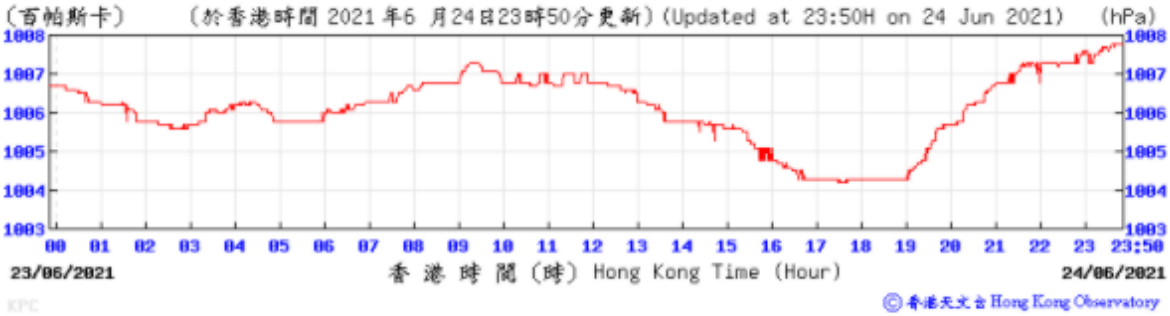

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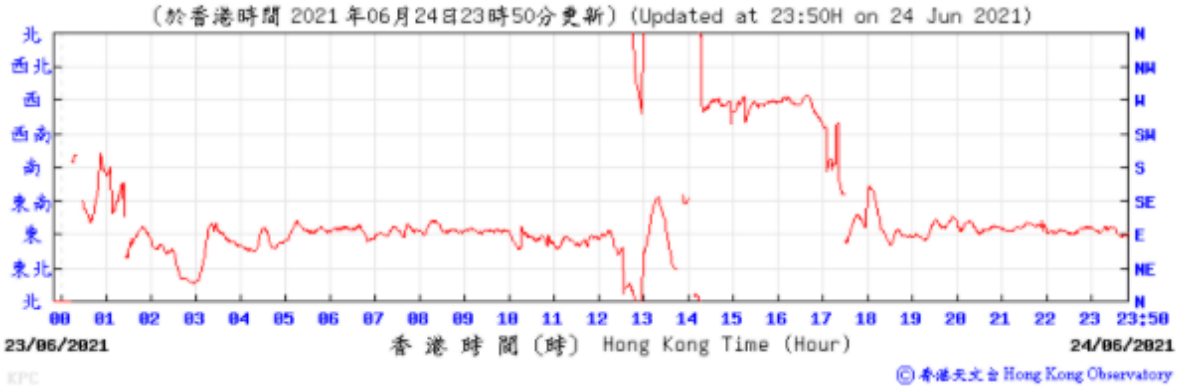

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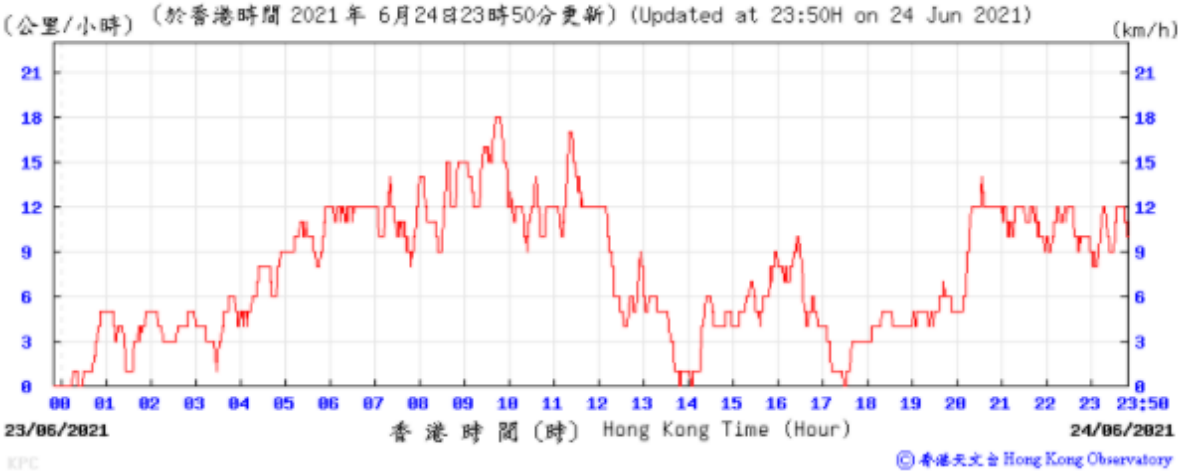

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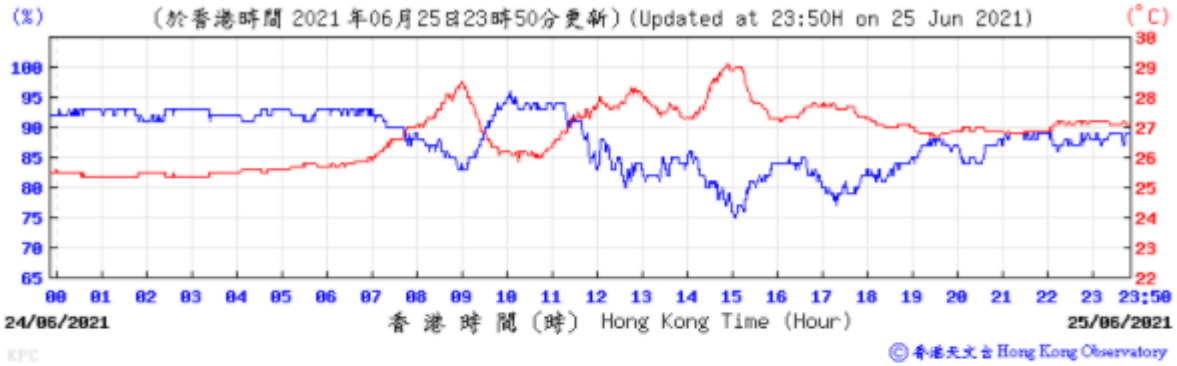

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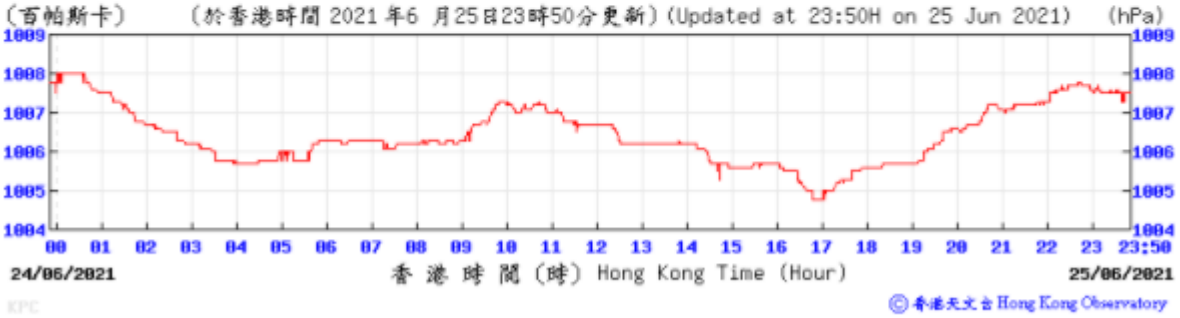

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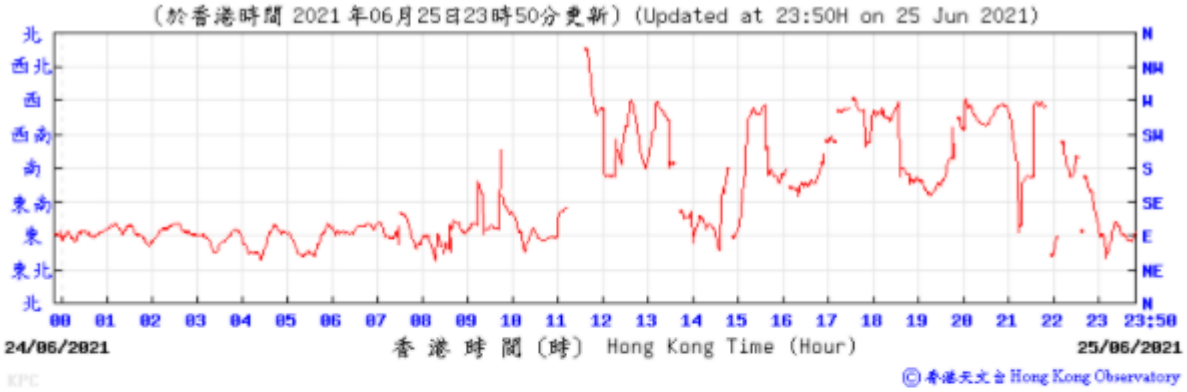

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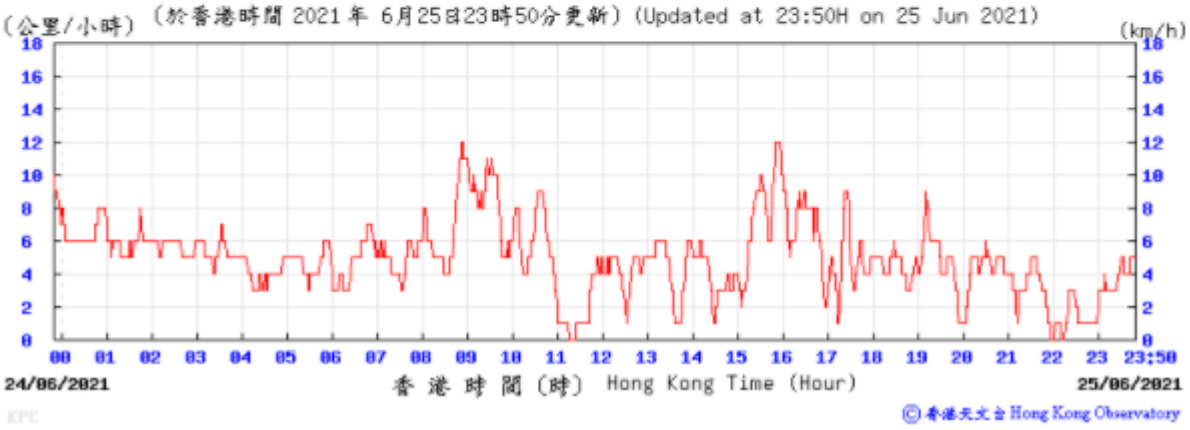

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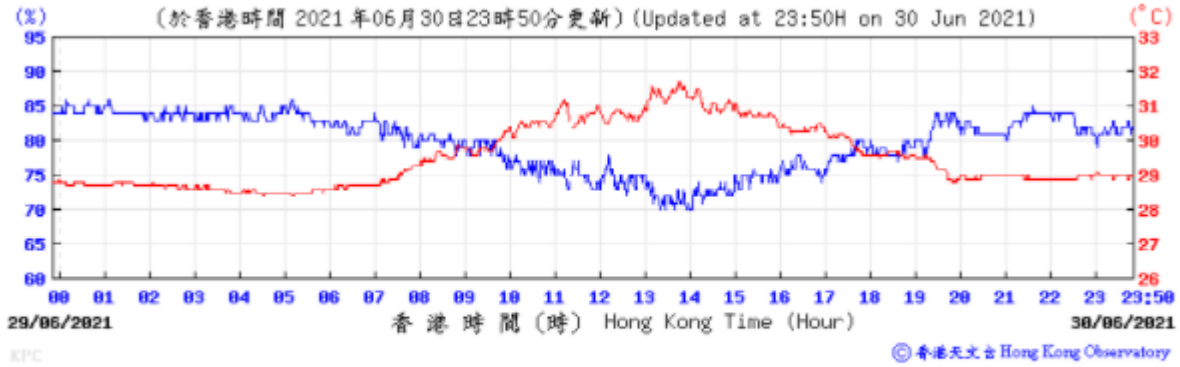

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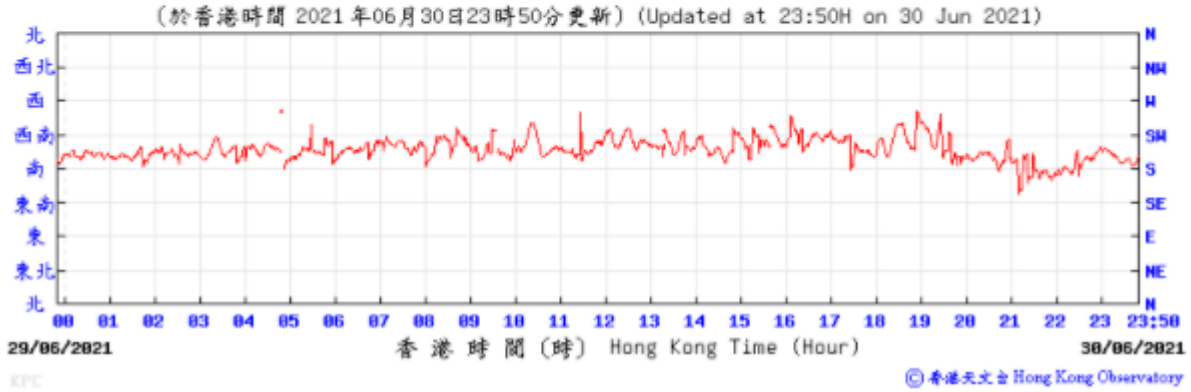

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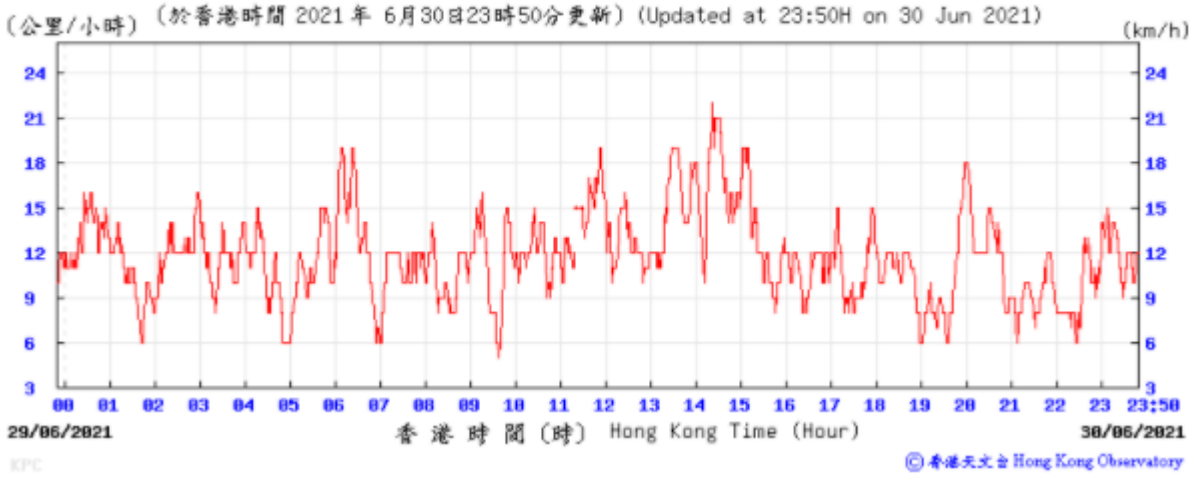

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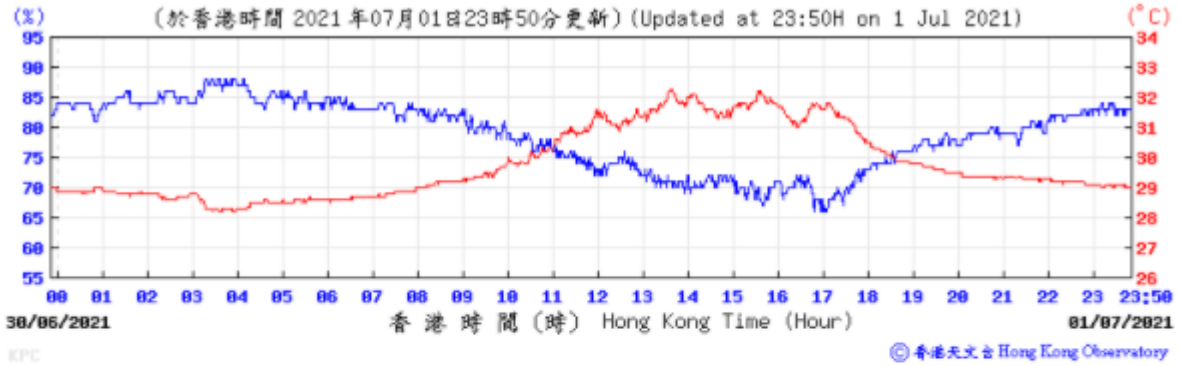

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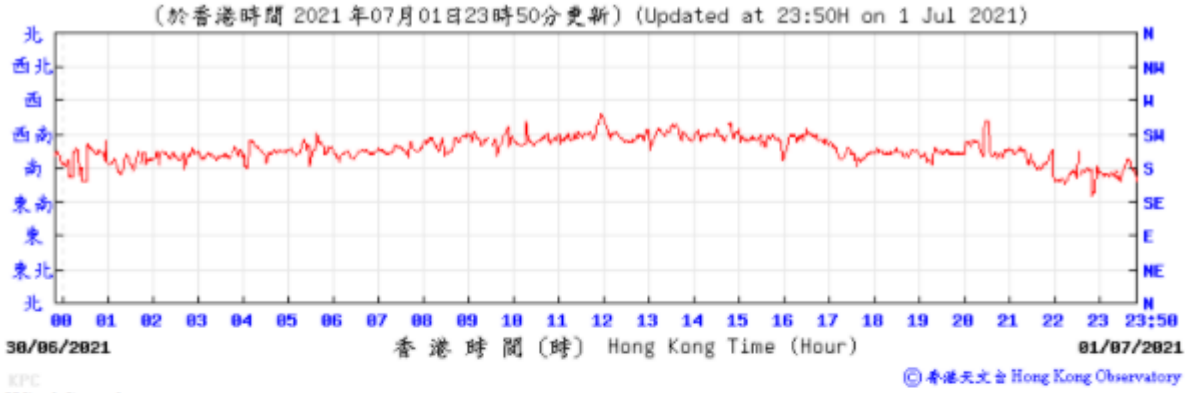

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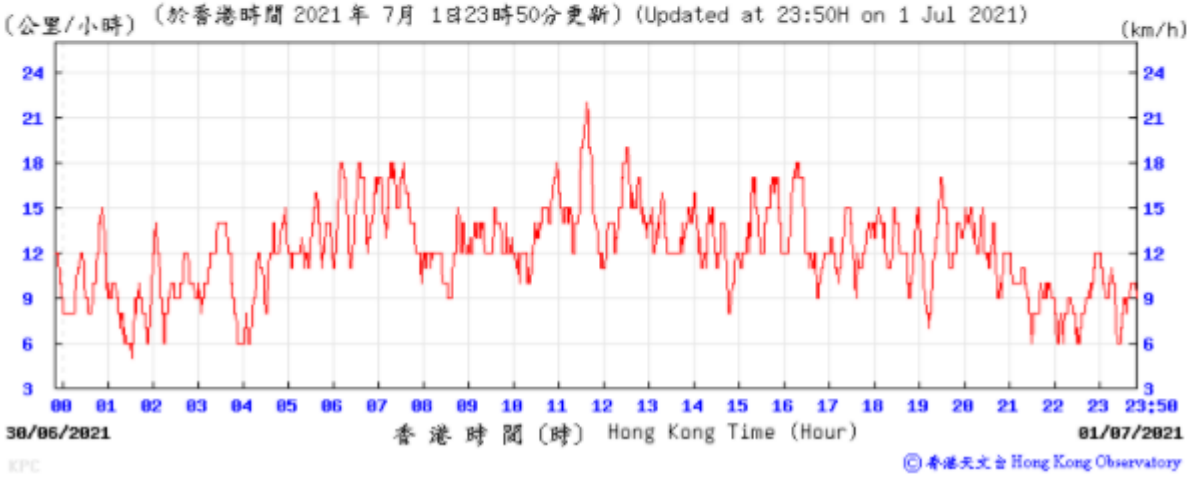

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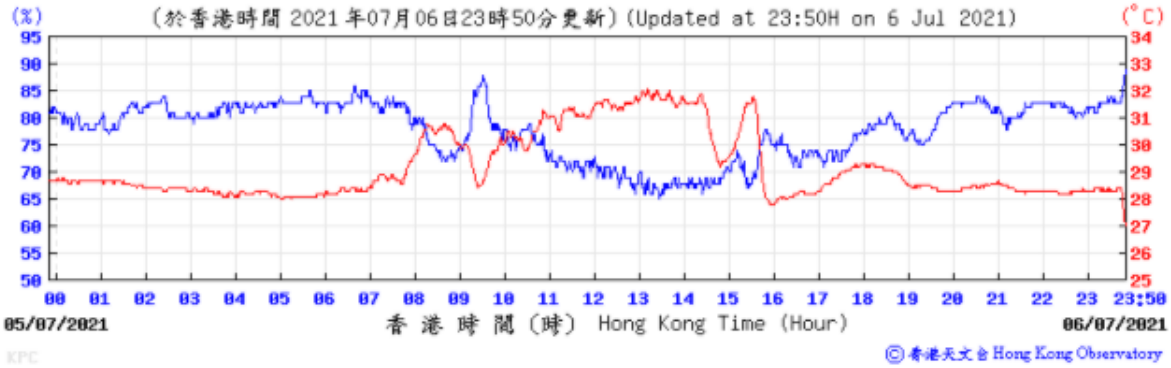

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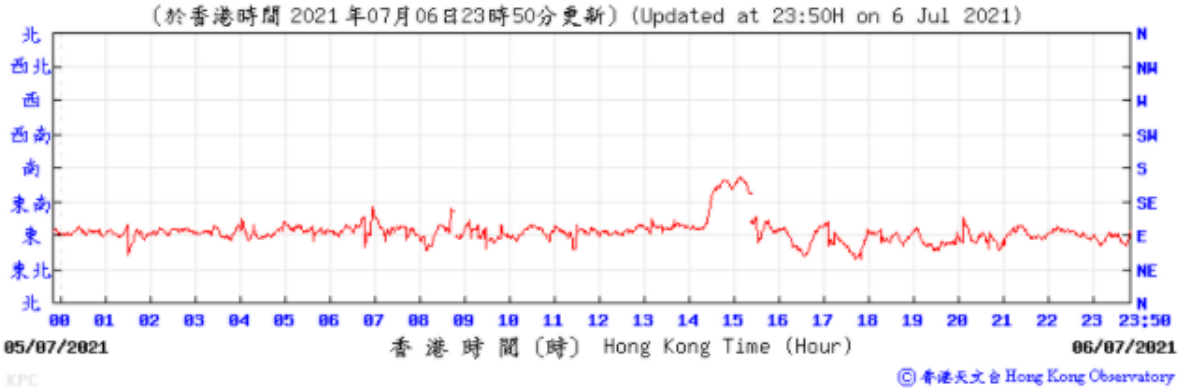

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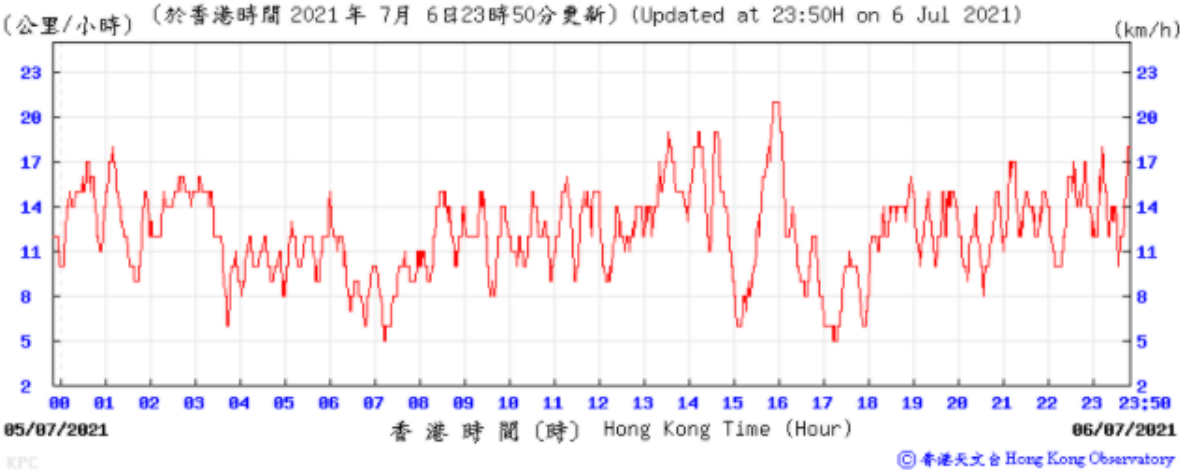

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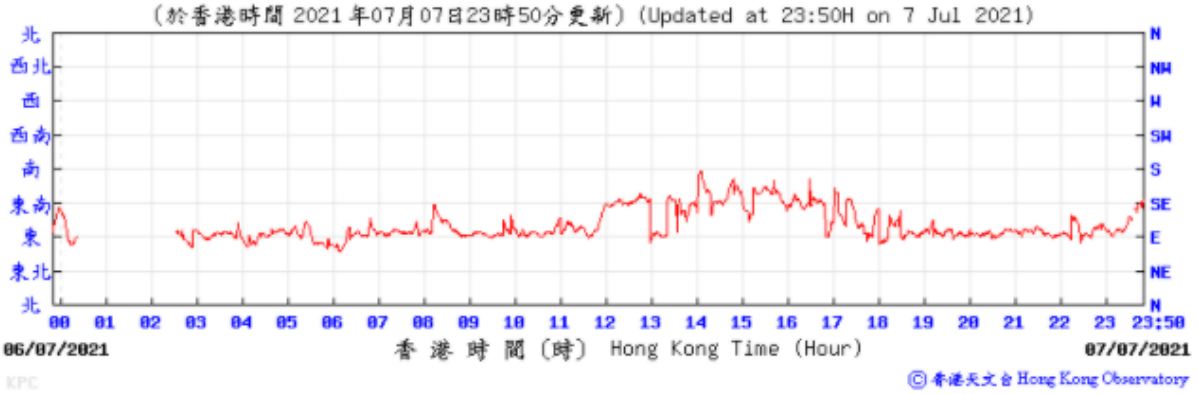

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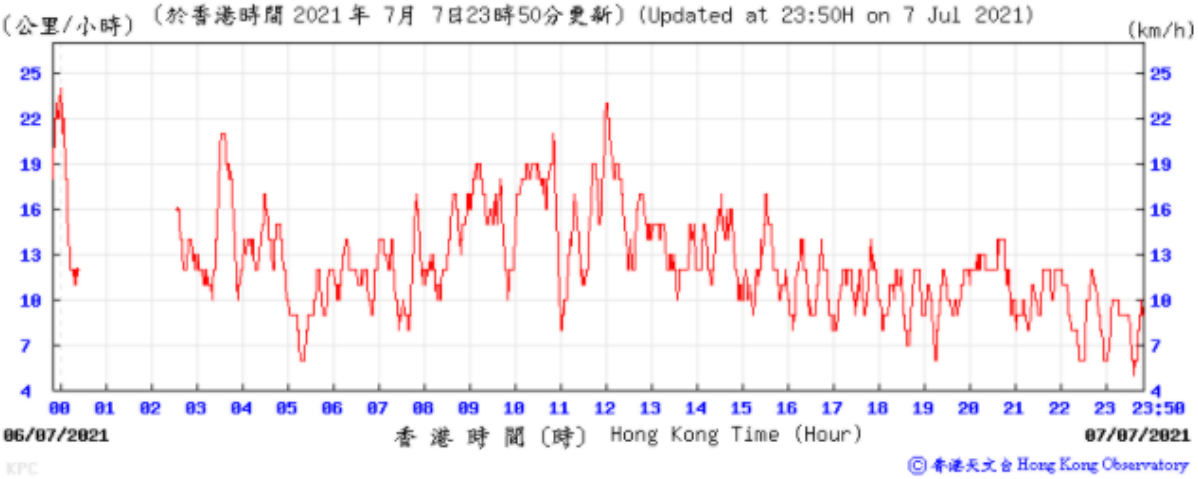

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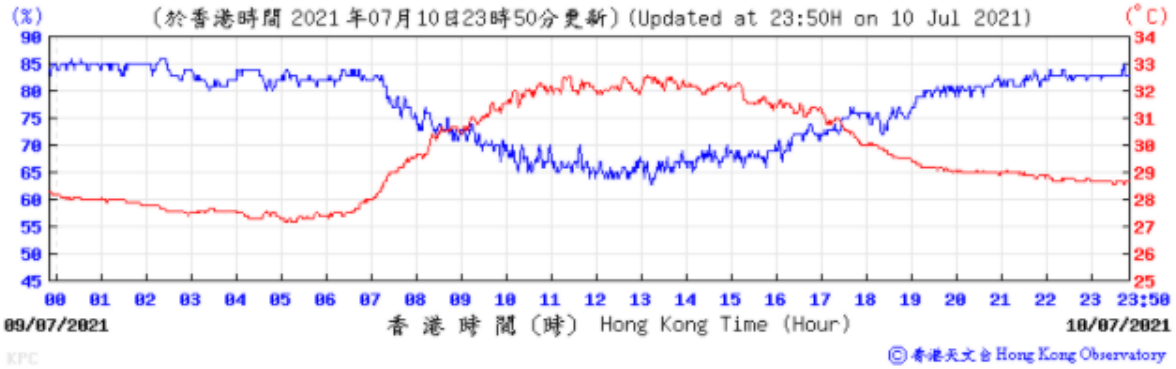
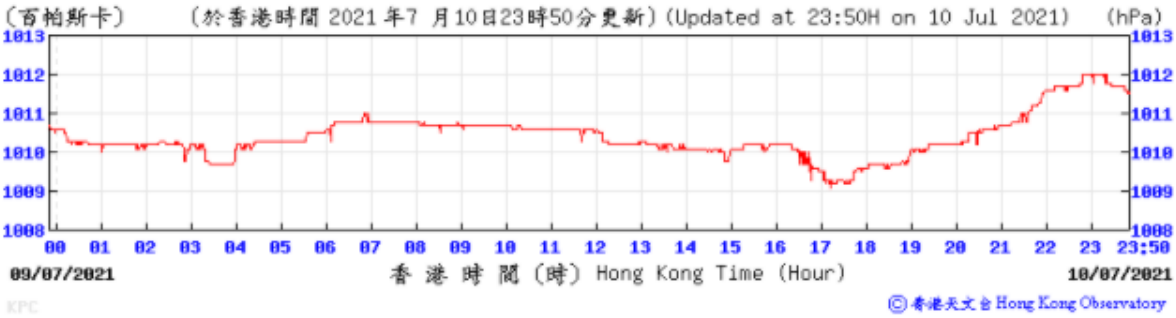
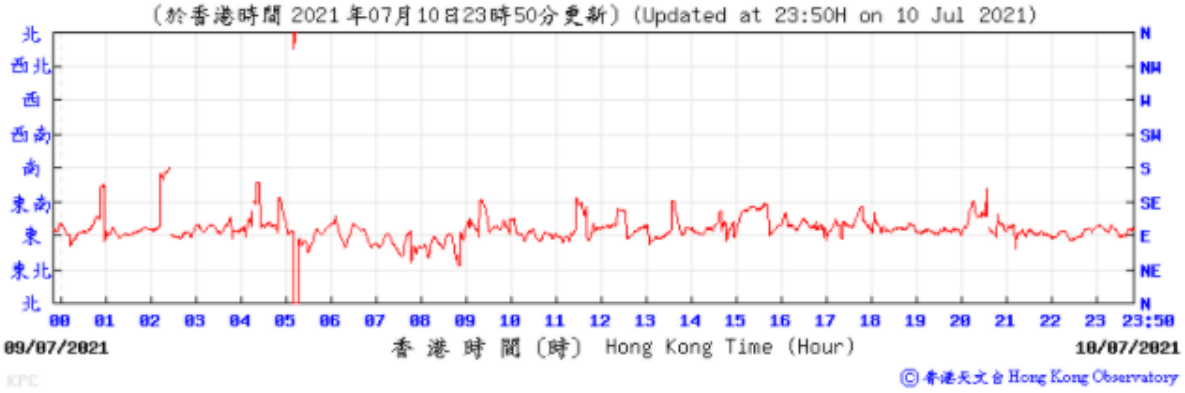


Pressure:



Wind Direction:



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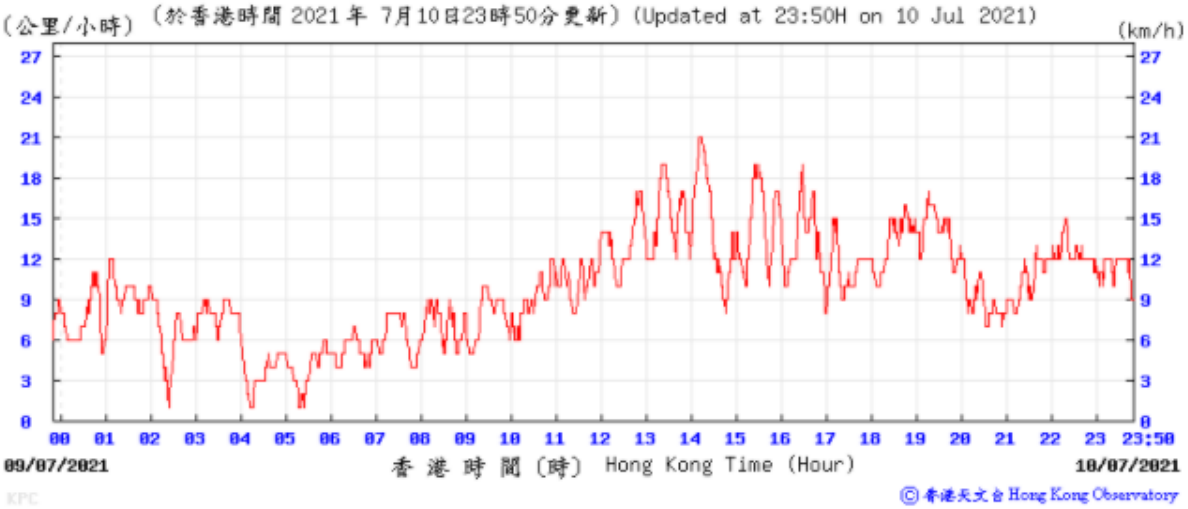
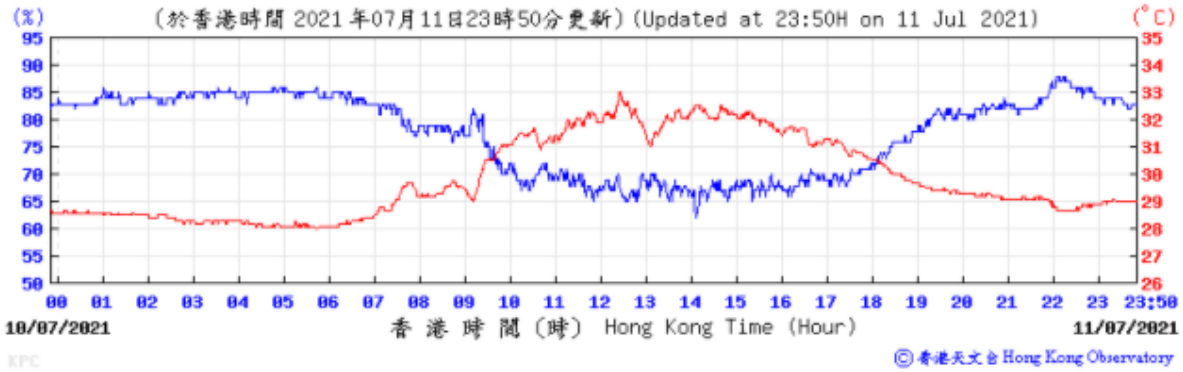
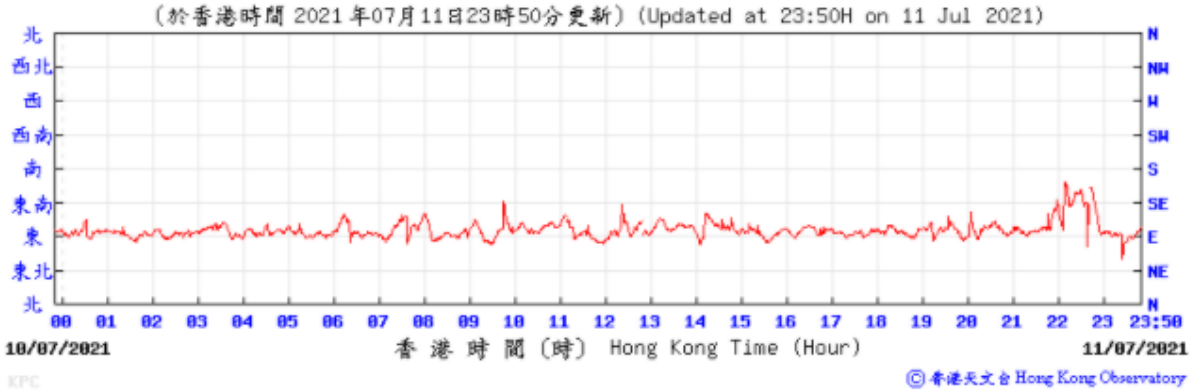


Tempearture/Humidity:

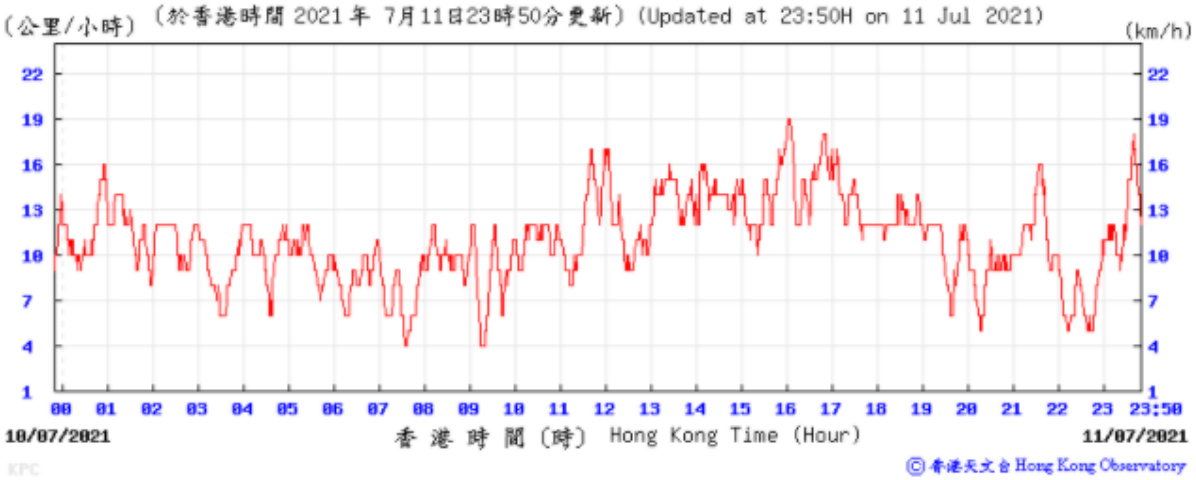


Pressure:

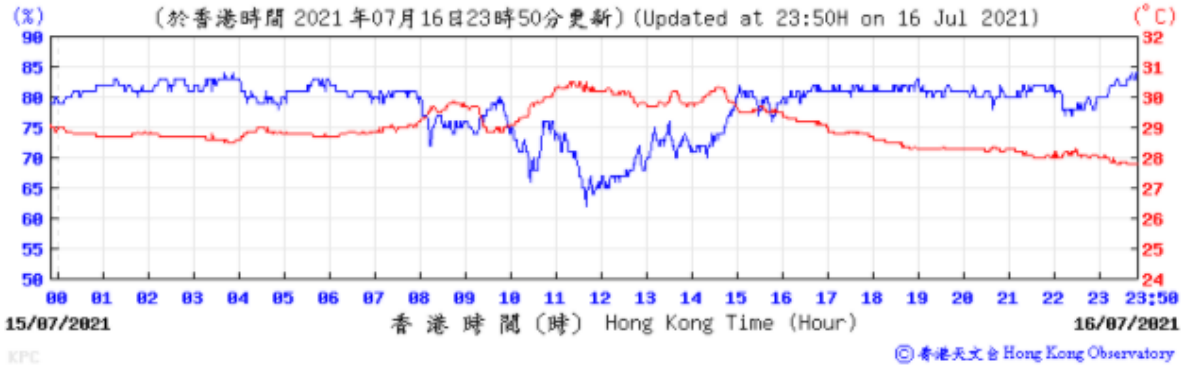
Wind Direction:



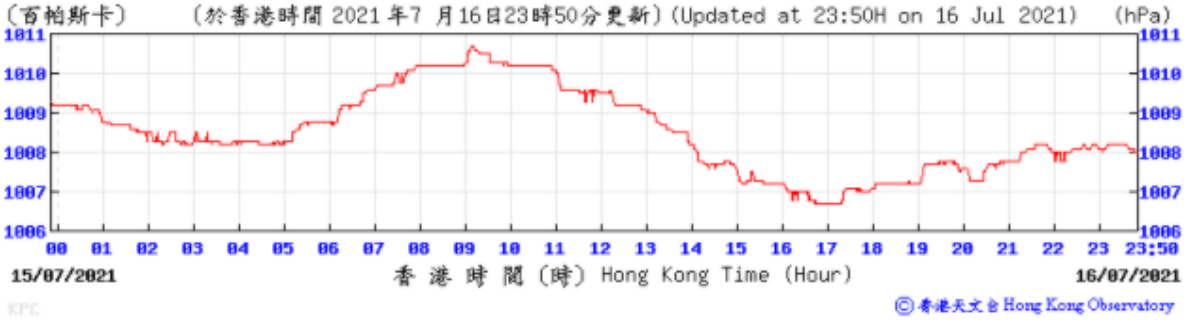
Wind Speed:



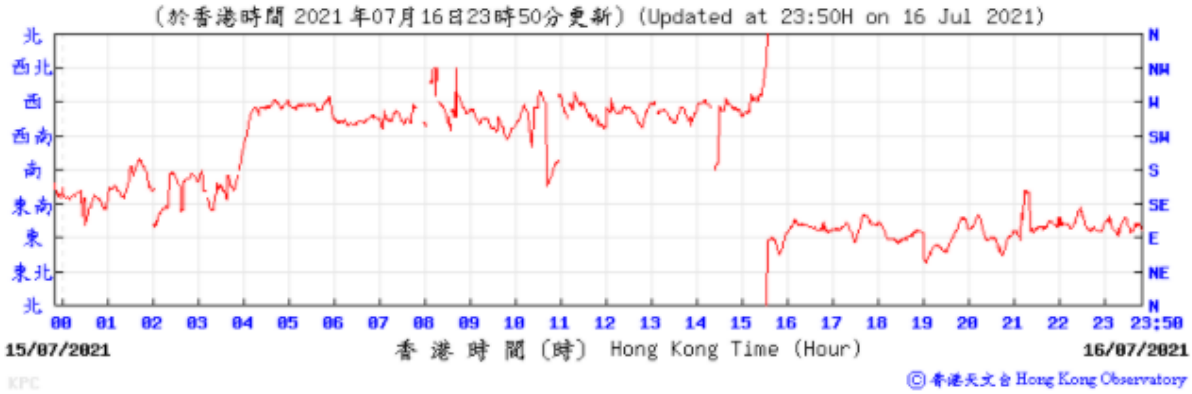
Tempearture/Humidity:



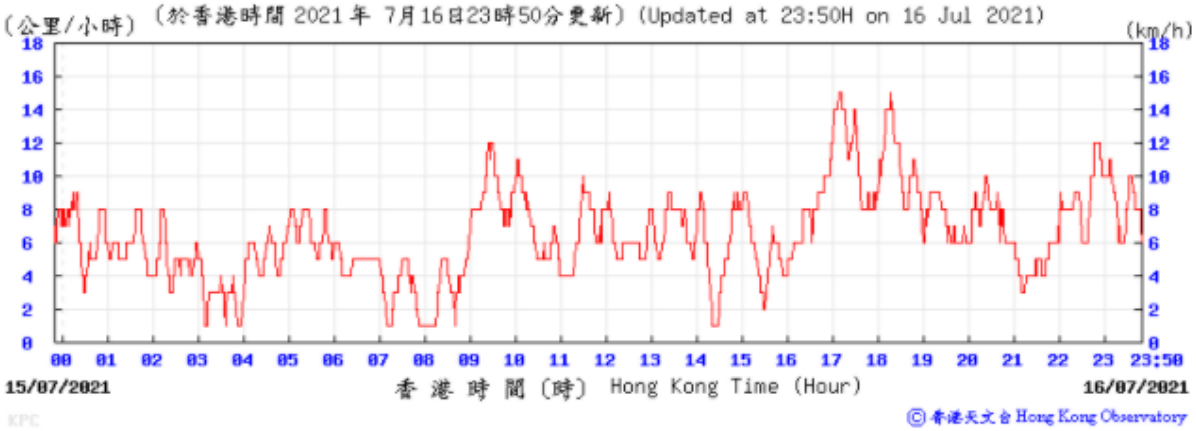
Pressure:



Wind Direction:



Wind Speed:



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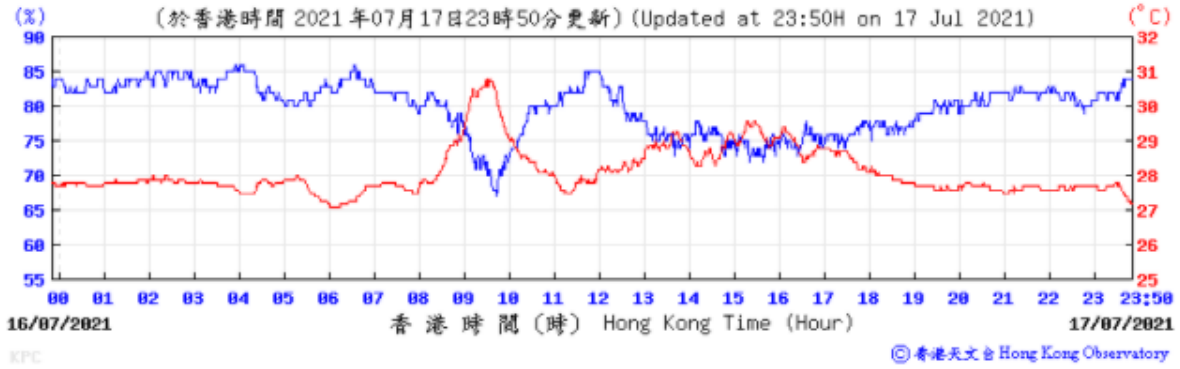
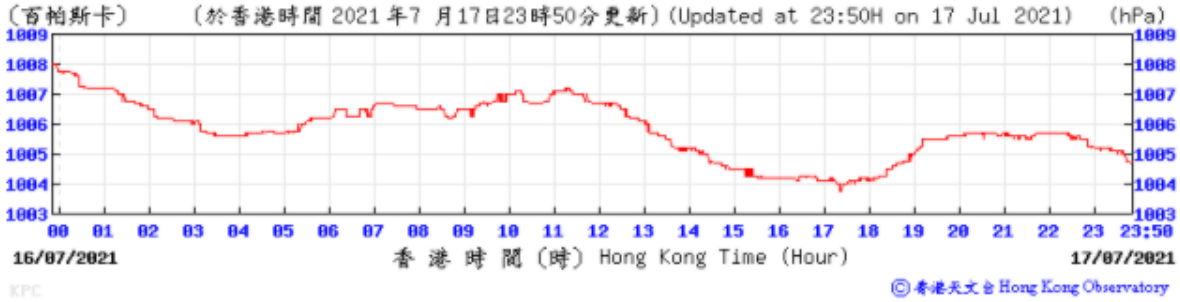
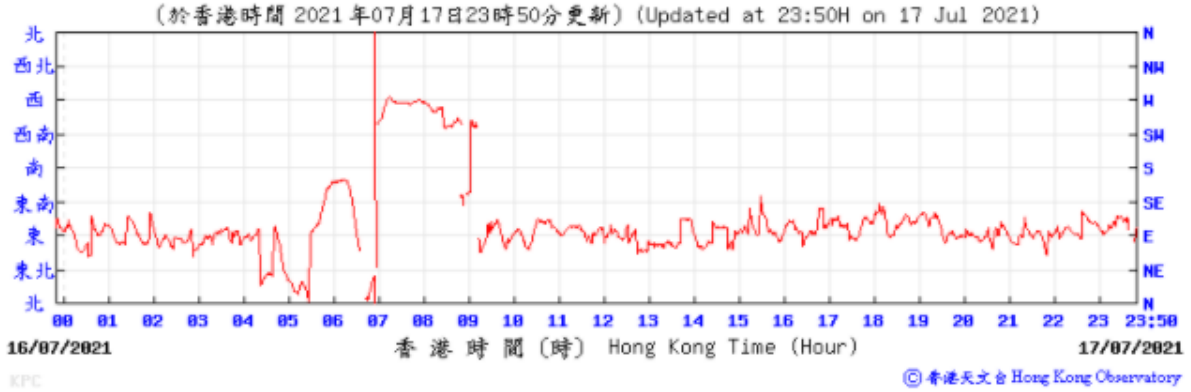


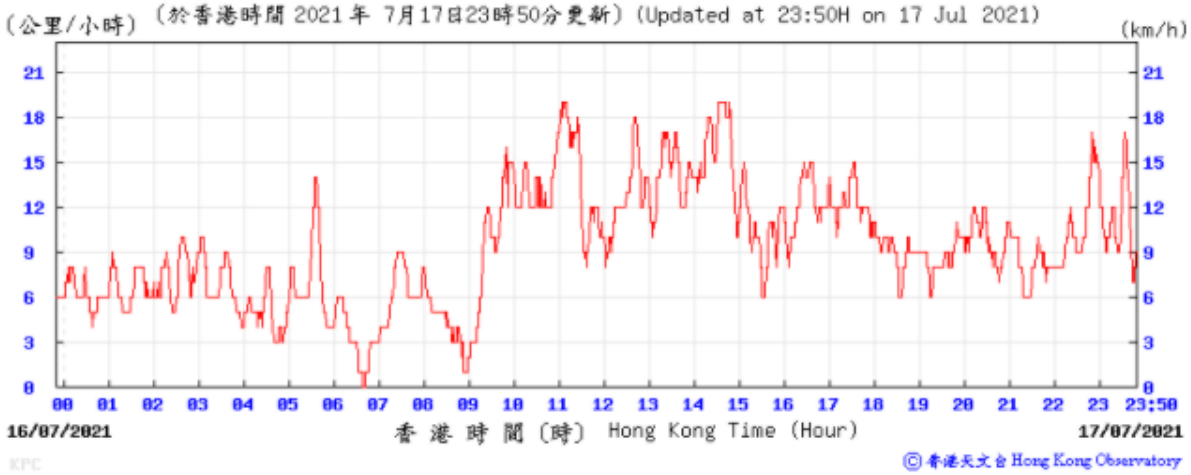
Pressure:



Wind Direction:

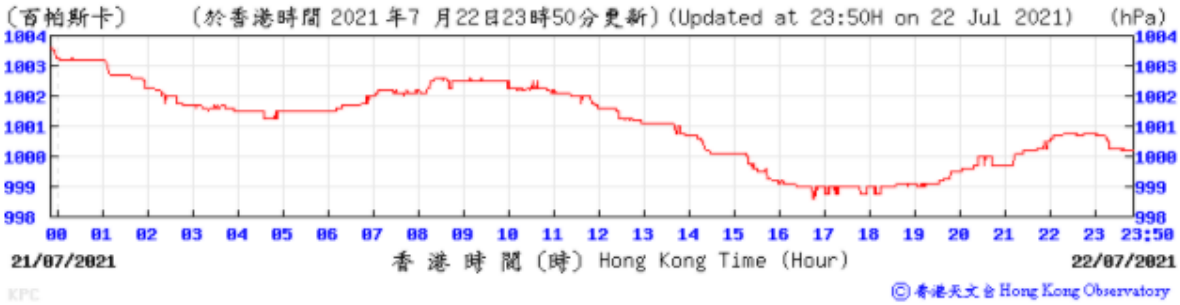


Wind Speed:

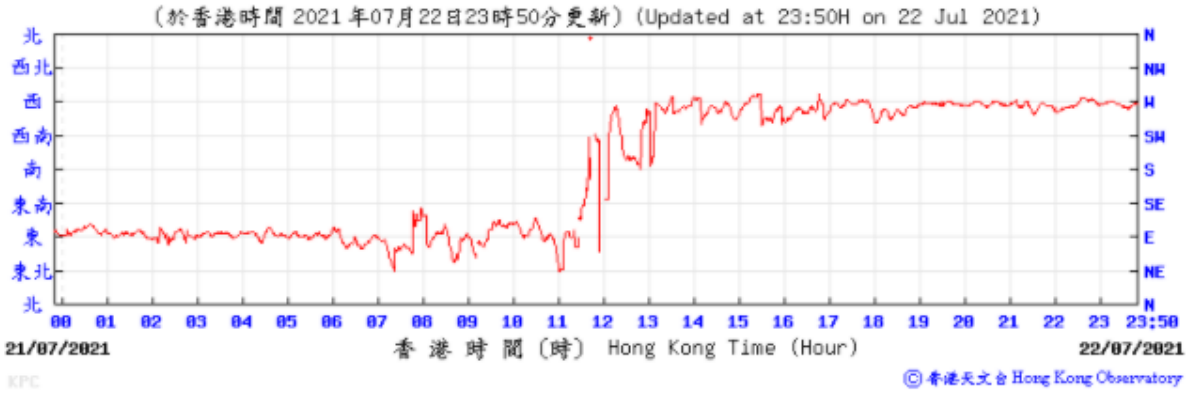


Tempearture/Humidity:

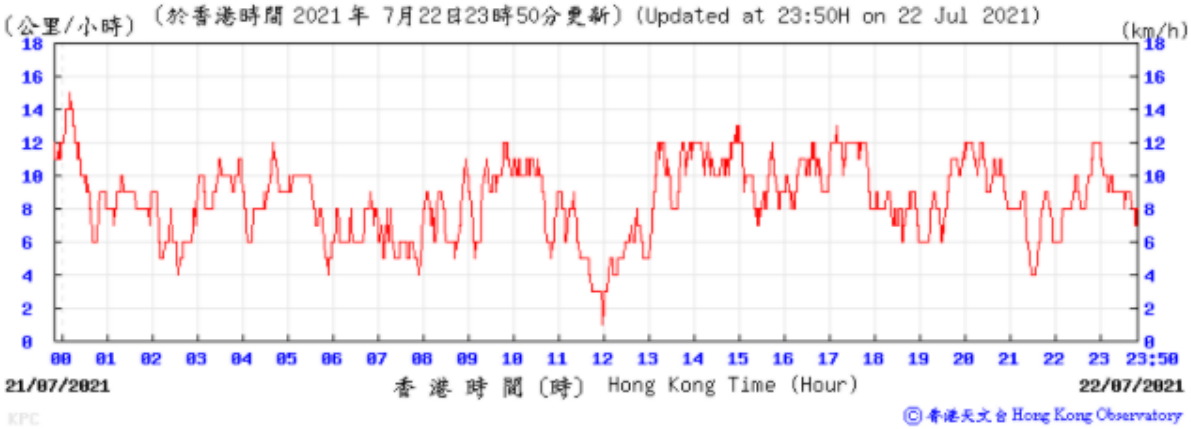
Pressure:



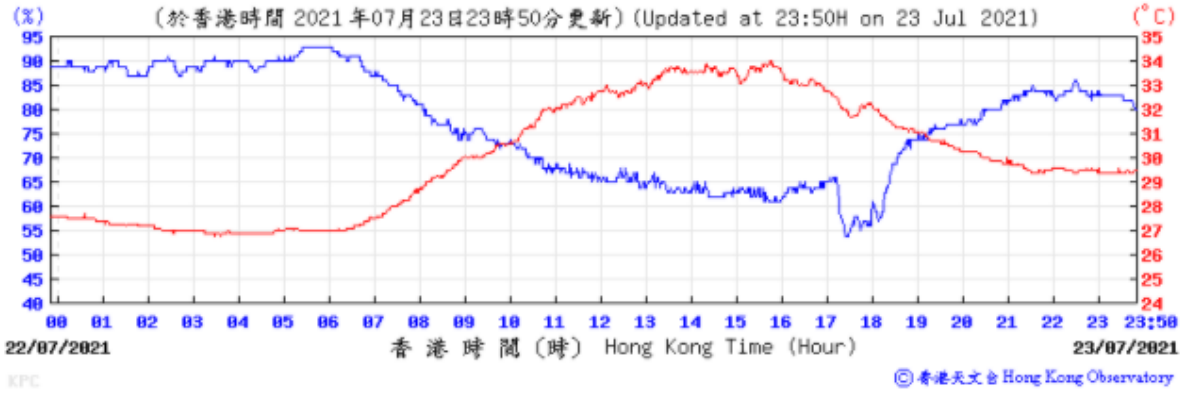
Wind Direction:



Wind Speed:



Tempearture/Humidity:



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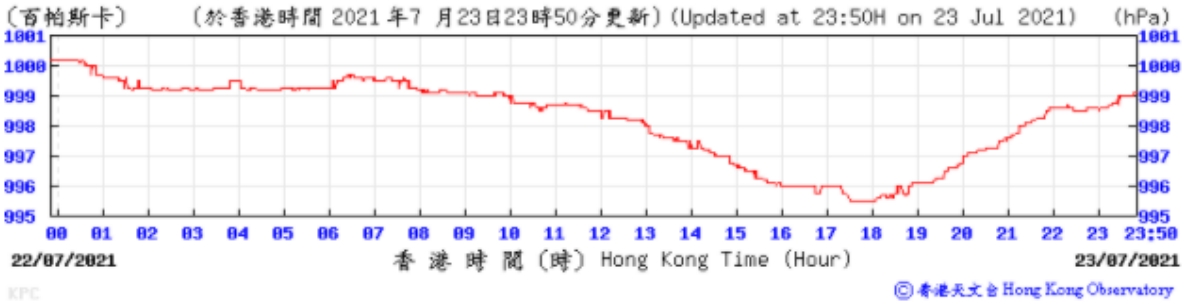
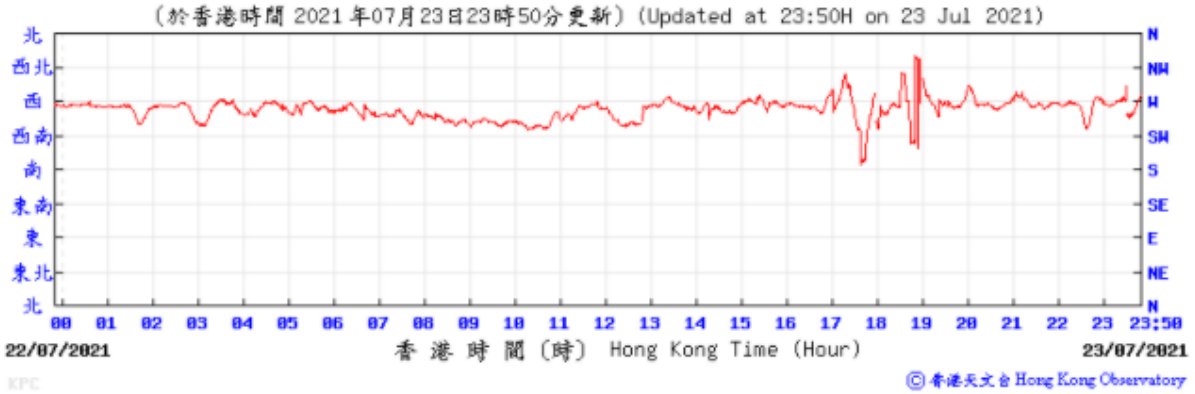
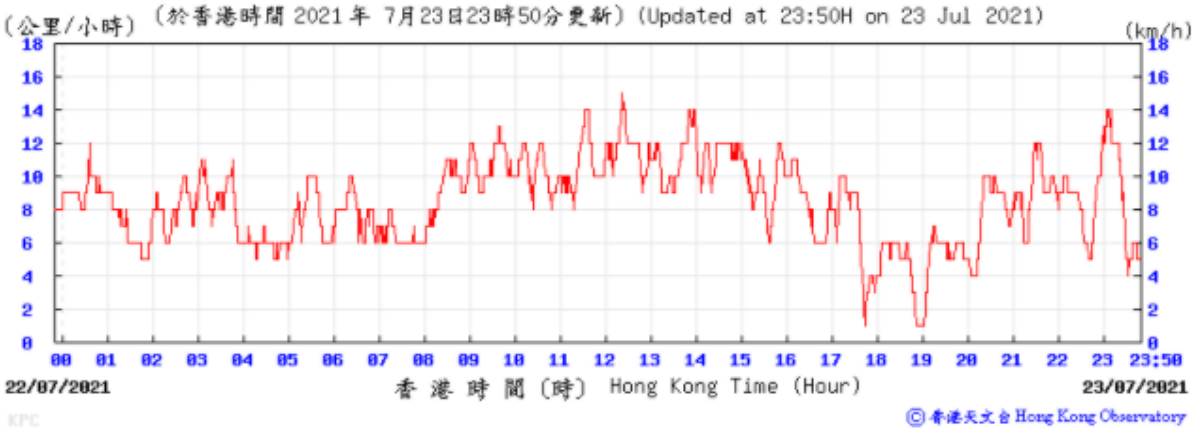


Wind Direction:



Wind Speed:



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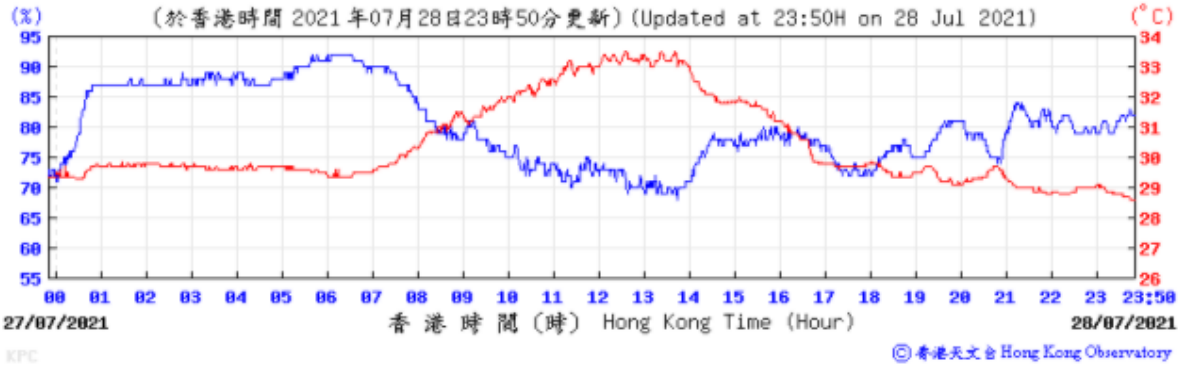
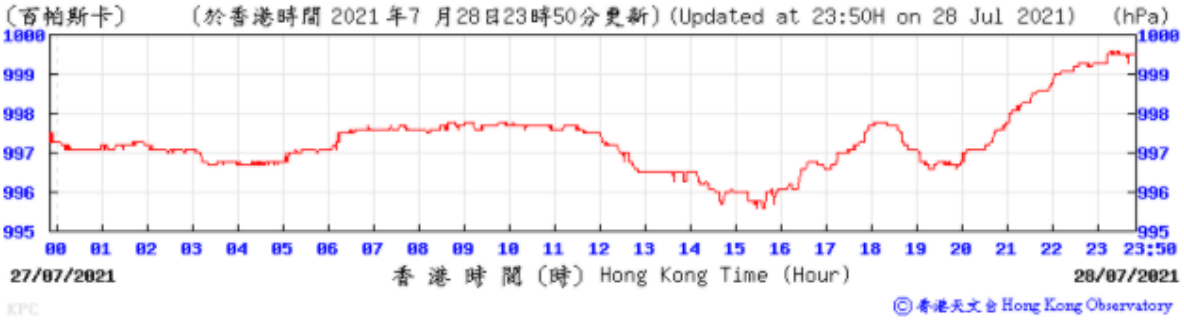
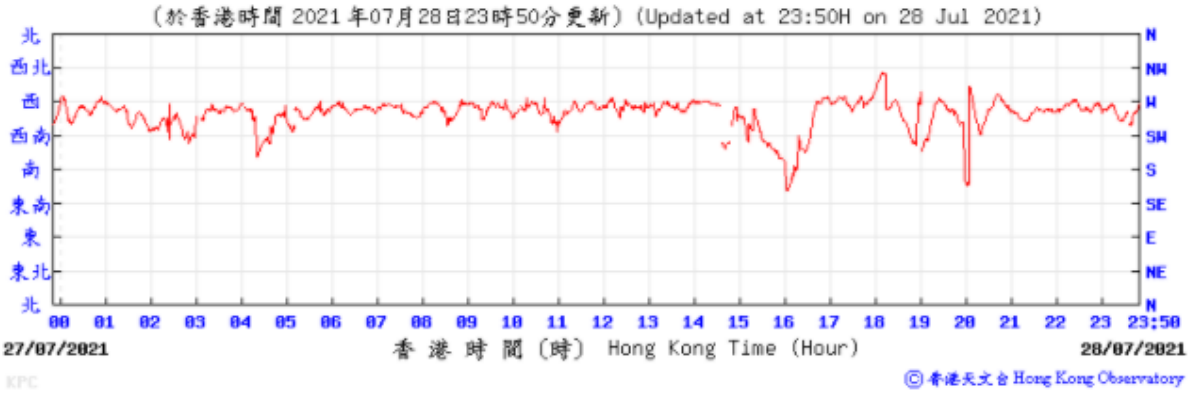


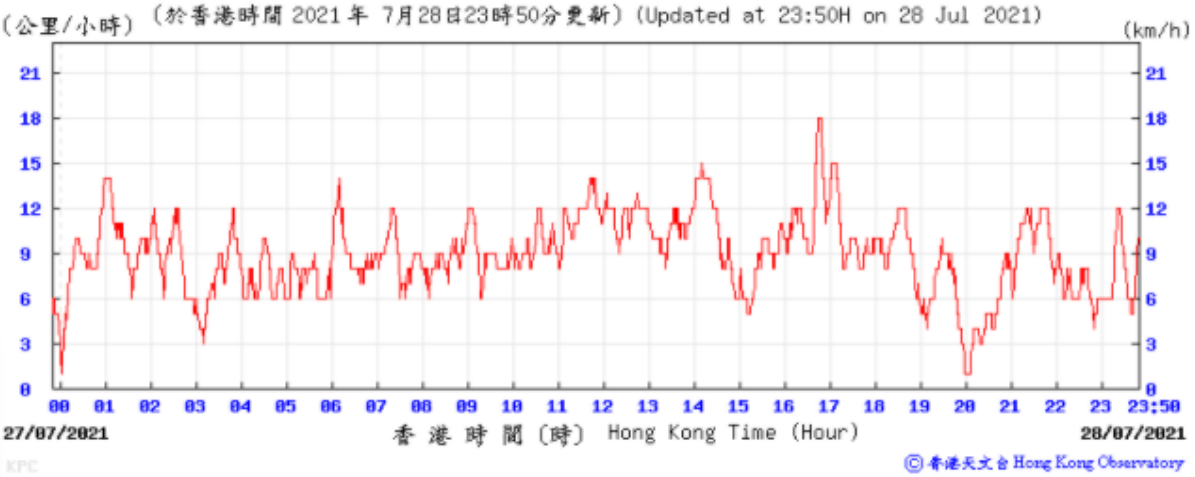
Pressure:



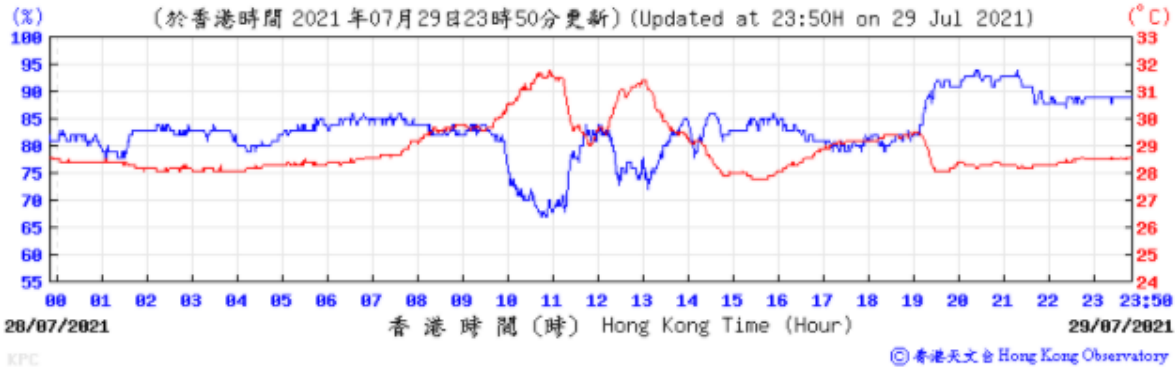
Wind Direction:



Wind Speed:

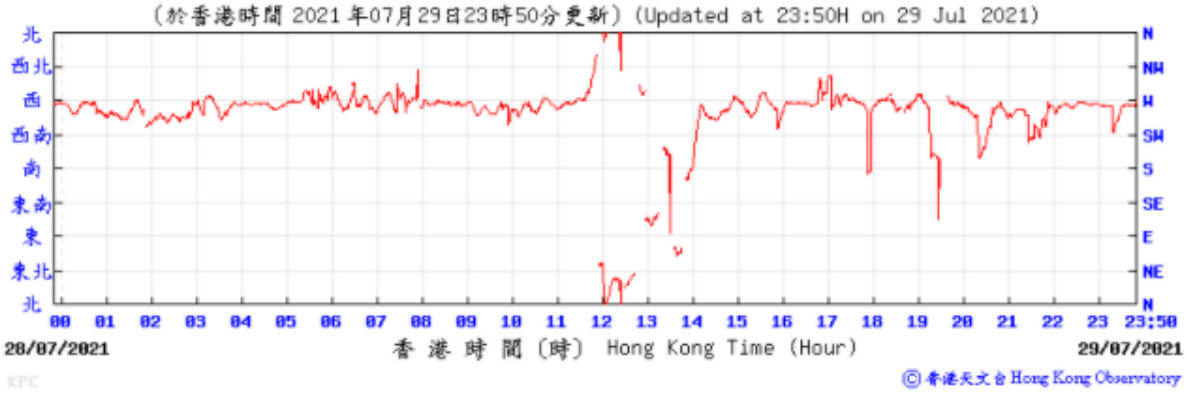


Tempearture/Humidity:

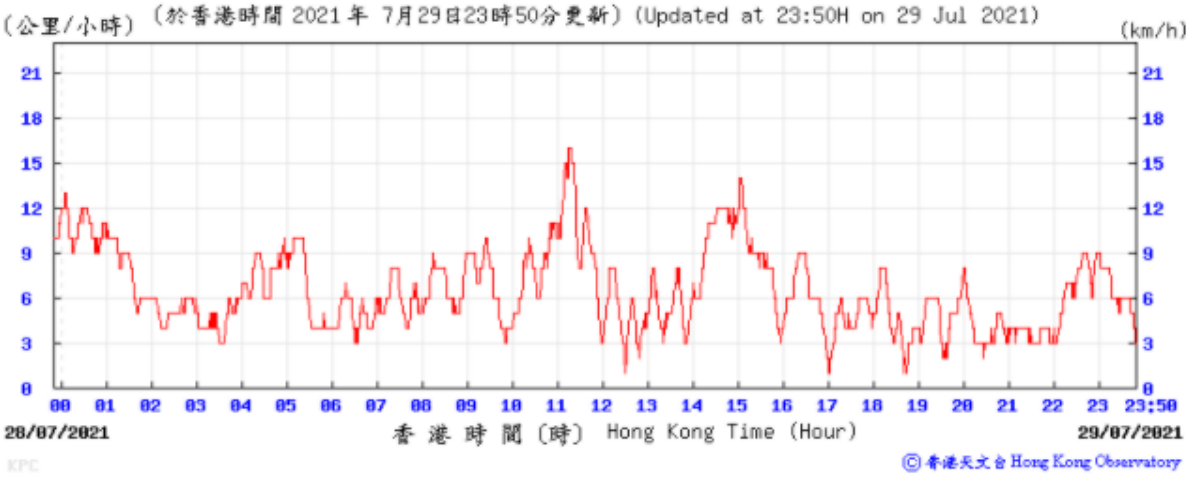


Pressure:

Wind Direction:



Wind Speed:

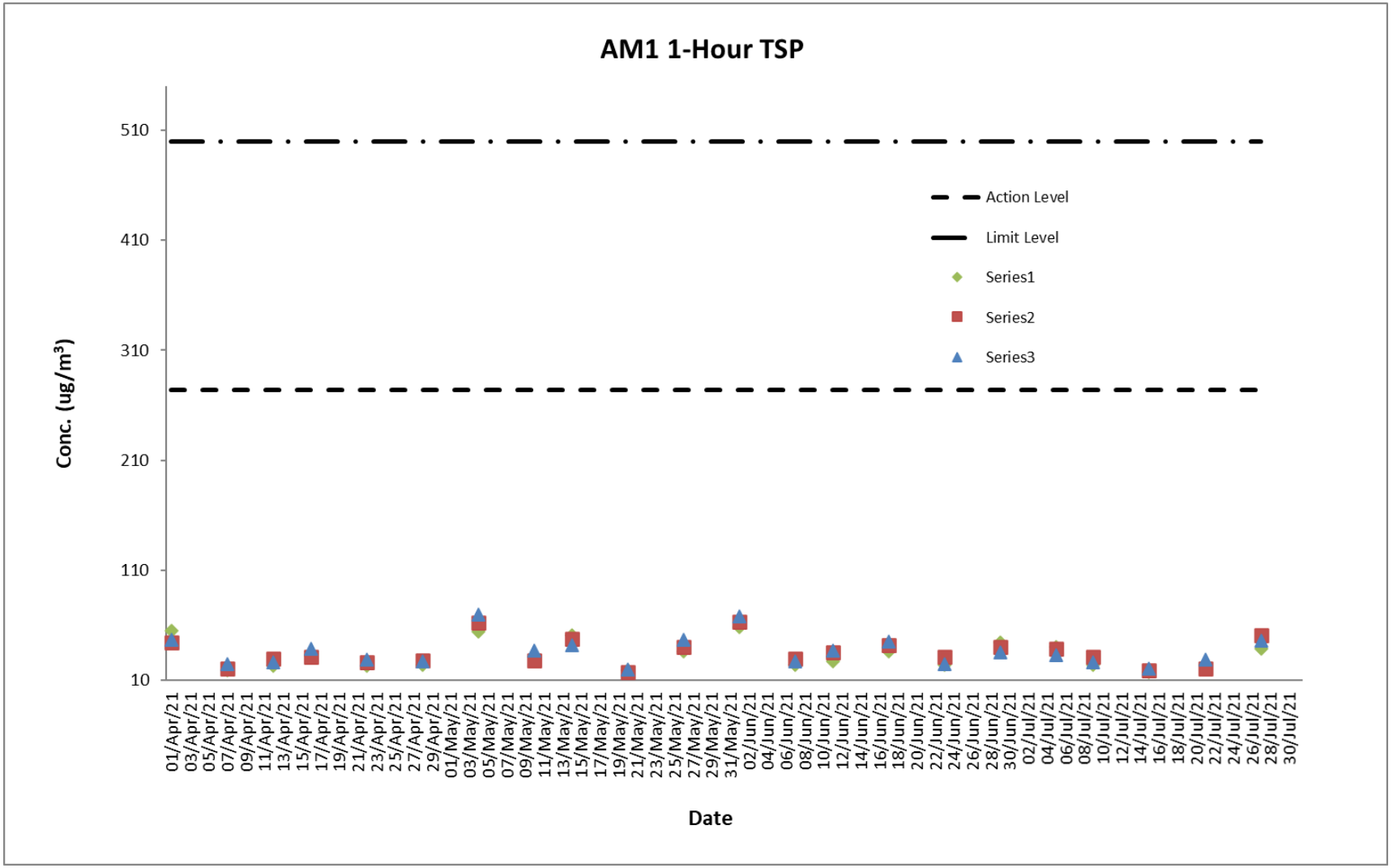


E. Graphical Plots of the Monitoring Results

Air Quality Monitoring Result at Station AM1 (1-hour TSP)

Date	Weather Condition	Time	Conc. (μg/m^3)			Action Level (μg/m3)	Limit Level (μg/m^3)
			1st Hour	2nd Hour	3rd Hour		
04-May-21	Cloudy	8:32 - 11:32	54	62	70	273.7	500
10-May-21	Fine	8:22 - 11:22	31	28	37	273.7	500
14-May-21	Cloudy	8:32 - 11:32	51	48	42	273.7	500
20-May-21	Cloudy	8:20 - 11:20	19	17	20	273.7	500
26-May-21	Fine	8:32 - 11:32	36	40	47	273.7	500
01-Jun-21	Cloudy	8:32 - 11:32	58	63	68	273.7	500
07-Jun-21	Cloudy	8:34 - 11:34	24	30	27	273.7	500
11-Jun-21	Fine	8:22 - 11:22	27	35	37	273.7	500
17-Jun-21	Fine	8:32 - 11:32	36	42	45	273.7	500
23-Jun-21	Cloudy	8:22 - 11:22	24	31	25	273.7	500
29-Jun-21	Cloudy	8:32 - 11:32	44	40	35	273.7	500
05-Jul-21	Cloudy	8:32 - 11:32	40	39	33	273.7	500
09-Jul-21	Sunny	8:32 - 11:32	24	31	26	273.7	500
15-Jul-21	Sunny	8:23 - 11:23	17	19	21	273.7	500
21-Jul-21	Cloudy	8:32 - 11:32	24	21	29	273.7	500
27-Jul-21	Sunny	8:27 - 11:27	39	51	46	273.7	500

Graphical Presentation of Air Quality Monitoring Result at Station AM1 (1-hour TSP)

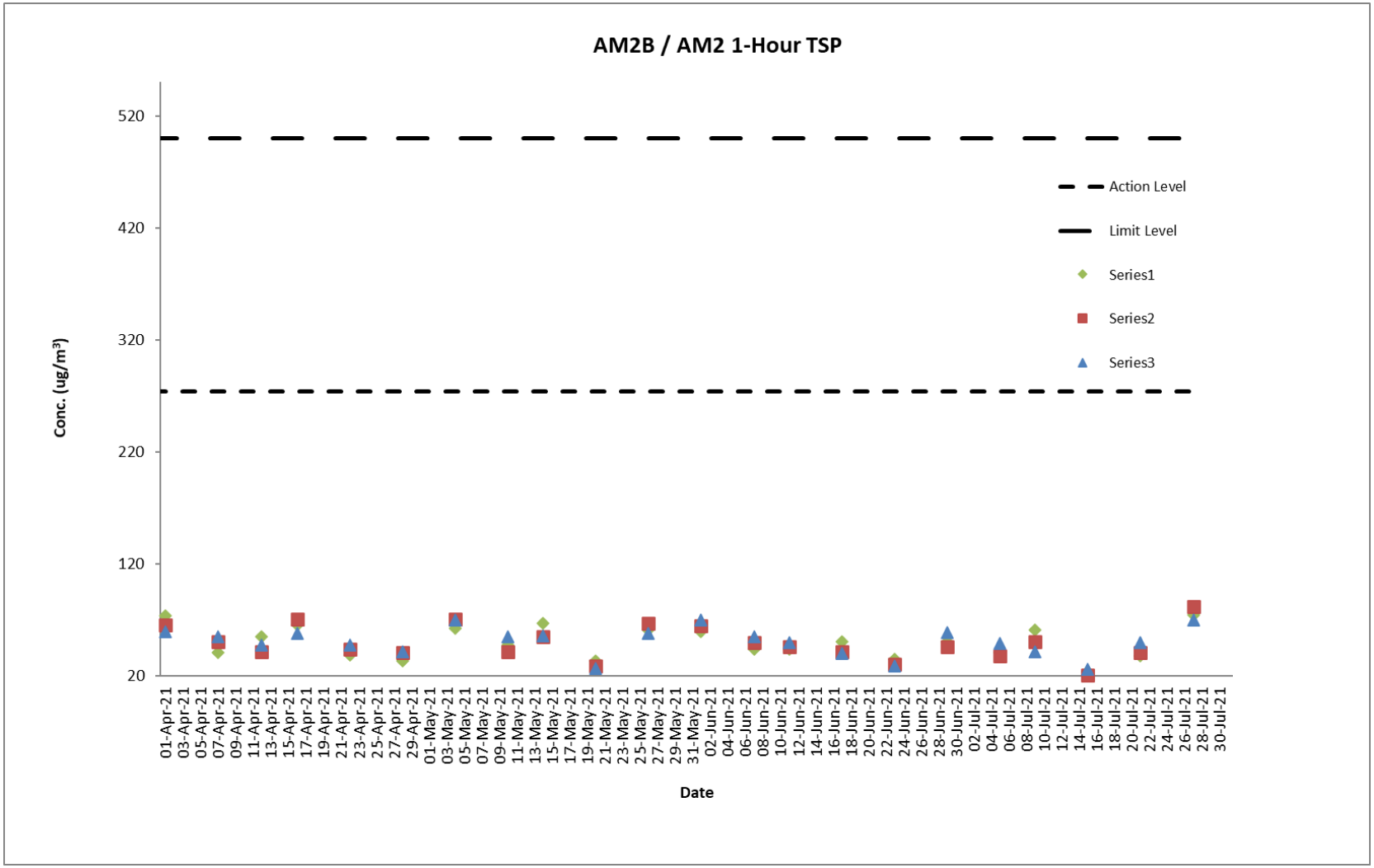


Air Quality Monitoring Result at Station AM2B / AM2 (1-hour TSP)

Date	Weather Condition	Time	Conc. (μg/m^3)			Action Level (μg/m3)	Limit Level (μg/m^3)
			1st Hour	2nd Hour	3rd Hour		
04-May-21	Cloudy	8:52 - 11:52	63	71	70	274.2	500
10-May-21	Fine	8:43 - 11:43	48	42	55	274.2	500
14-May-21	Cloudy	8:52 - 11:52	67	55	56	274.2	500
20-May-21	Cloudy	8:42 - 11:42	34	29	27	274.2	500
26-May-21	Fine	8:48 - 11:48	61	67	58	274.2	500
01-Jun-21	Cloudy	9:00 - 12:00	60	65	70	274.2	500
07-Jun-21	Cloudy	8:55 - 11:55	44	50	55	274.2	500
11-Jun-21	Fine	8:33 - 11:33	44	46	50	274.2	500
17-Jun-21	Fine	8:33 - 11:33	51	42	40	274.2	500
23-Jun-21	Cloudy	9:15 - 12:15	35	31	29	274.2	500
29-Jun-21	Cloudy	8:43 - 11:43	51	46	59	274.2	500
05-Jul-21	Cloudy	8:43 - 11:43	41	38	49	274.2	500
09-Jul-21	Sunny	8:43 - 11:43	61	51	42	274.2	500
15-Jul-21	Sunny	8:33 - 11:33	24	21	26	274.2	500
21-Jul-21	Cloudy	8:47 - 11:47	38	41	50	274.2	500
27-Jul-21	Sunny	8:37 - 11:37	75	82	70	274.2	500

*The air monitoring station AM2B has been relocated to the alternative monitoring station AM2 on 1 June 2021

Graphical Presentation of Air Quality Monitoring Result at Station AM2B / AM2 (1-hour TSP)

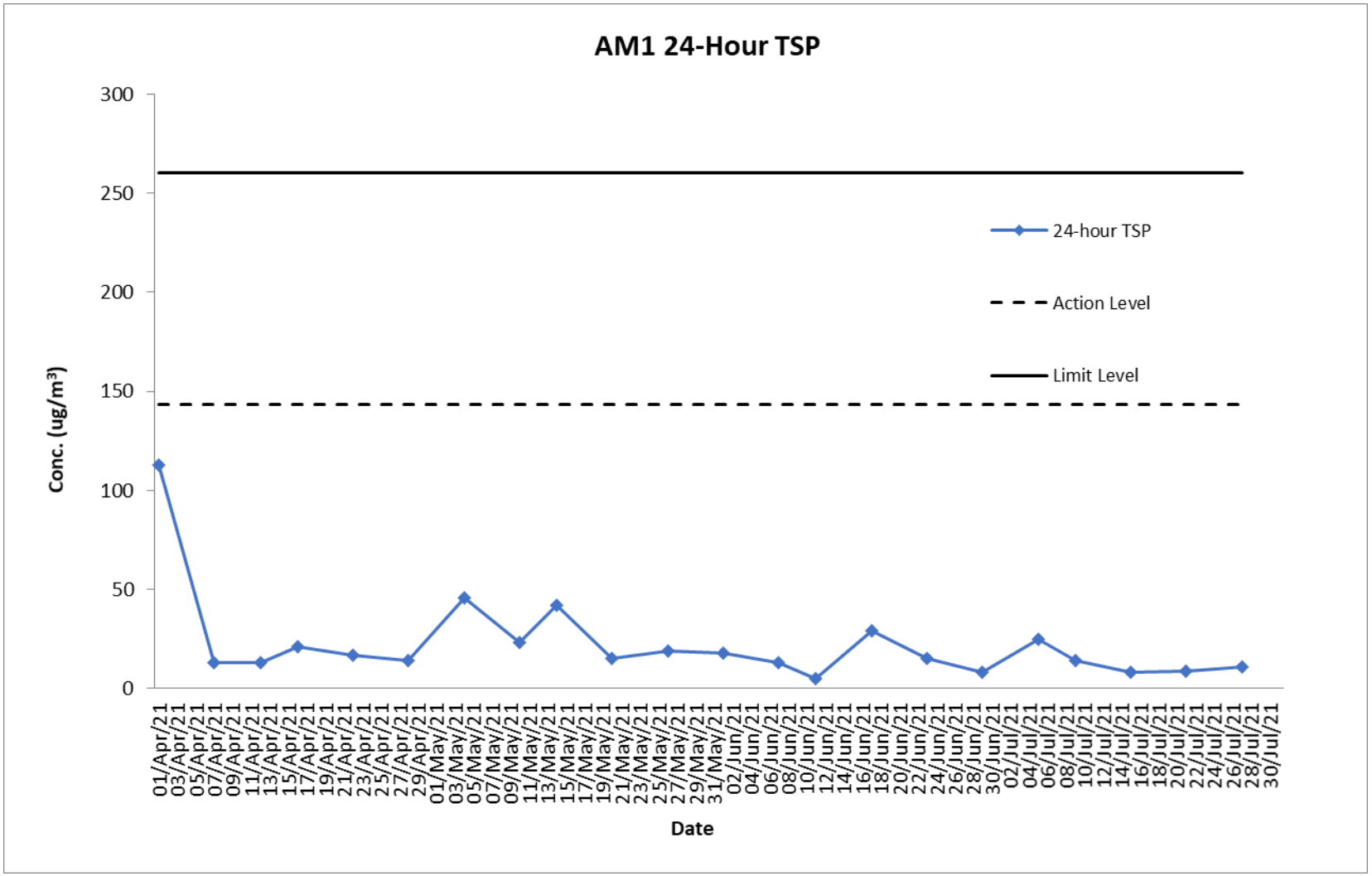


*The air monitoring station AM2B has been relocated to the alternative monitoring station AM2 on 1 June 2021

Air Quality Monitoring Result at Station AM1 (24-hour TSP)

Start		Finish		Filter Weight (g)		Reading		Sampling Time (hrs)	Flow Rate (m^3/min)			Conc. ($\mu g/m^3$)	Weather Condition	Action Level	Limit Level
Date	Time	Date	Time	Initial	Final	Initial	Final		Initial	Final	Average				
04-May-21	08:30	05-May-21	08:30	2.6531	2.7337	23312.38	23336.38	24	1.23	1.23	1.23	46	Cloudy	143.6	260
10-May-21	08:20	11-May-21	08:20	2.661	2.7025	23336.38	23360.38	24	1.23	1.23	1.23	23	Fine	143.6	260
14-May-21	08:30	15-May-21	08:30	2.6544	2.7293	23360.38	23384.38	24	1.23	1.23	1.23	42	Cloudy	143.6	260
20-May-21	08:18	21-May-21	08:18	2.6654	2.6906	23384.38	23408.38	24	1.17	1.17	1.17	15	Cloudy	143.6	260
26-May-21	08:30	27-May-21	08:30	2.6688	2.7006	23408.38	23432.38	24	1.17	1.17	1.17	19	Fine	143.6	260
01-Jun-21	08:30	02-Jun-21	08:30	2.6643	2.6944	23432.38	23456.38	24	1.17	1.17	1.17	18	Rainy	143.6	260
07-Jun-21	08:32	08-Jun-21	08:32	2.7363	2.7578	23456.38	23480.38	24	1.17	1.17	1.17	13	Cloudy	143.6	260
11-Jun-21	08:20	12-Jun-21	08:20	2.7484	2.7566	23480.38	23504.38	24	1.17	1.17	1.17	5	Fine	143.6	260
17-Jun-21	08:30	18-Jun-21	08:30	2.7487	2.7983	23504.38	23528.38	24	1.17	1.17	1.17	29	Fine	143.6	260
23-Jun-21	08:20	24-Jun-21	08:20	2.7345	2.7605	23528.38	23552.38	24	1.17	1.17	1.17	15	Cloudy	143.6	260
29-Jun-21	08:30	30-Jun-21	08:30	2.7297	2.7426	23552.38	23576.38	24	1.17	1.17	1.17	8	Cloudy	143.6	260
05-Jul-21	08:30	06-Jul-21	08:30	2.7443	2.786	23576.38	23600.38	24	1.17	1.17	1.17	25	Cloudy	143.6	260
09-Jul-21	08:30	10-Jul-21	08:30	2.75	2.7744	23600.38	23624.38	24	1.17	1.17	1.17	14	Sunny	143.6	260
15-Jul-21	08:21	16-Jul-21	08:21	2.7348	2.7483	23624.38	23648.38	24	1.17	1.17	1.17	8	Sunny	143.6	260
21-Jul-21	08:30	22-Jul-21	08:30	2.7469	2.7635	23648.38	23672.38	24	1.27	1.27	1.27	9	Cloudy	143.6	260
27-Jul-21	08:25	28-Jul-21	08:25	2.7526	2.7728	23672.38	23696.38	24	1.27	1.27	1.27	11	Sunny	143.6	260

Graphical Presentation of Air Quality Monitoring Result at Station AM1 (24-hour TSP)

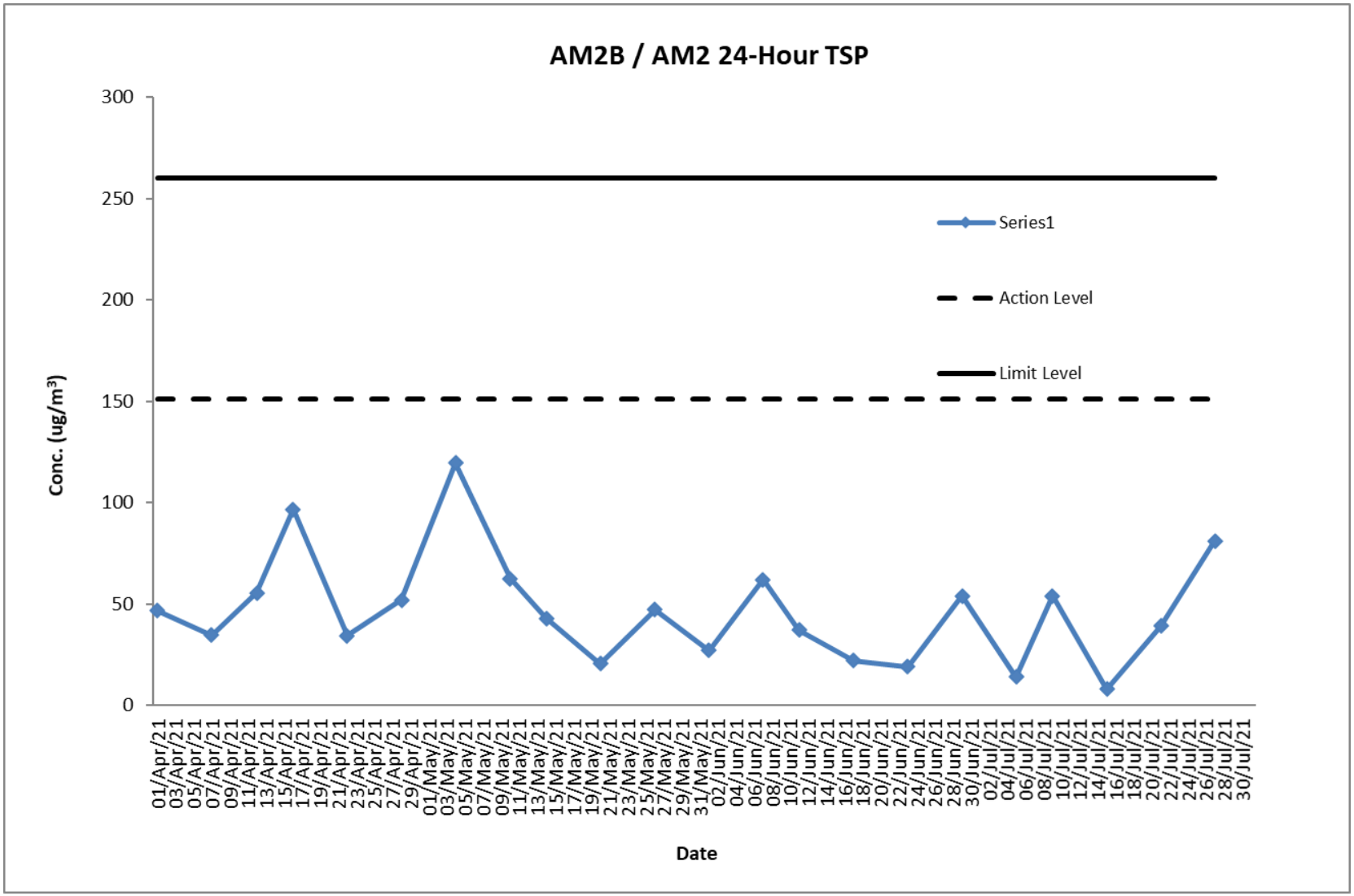


Air Quality Monitoring Result at Station AM2B / AM2 (24-hour TSP)

Start		Finish		Filter Weight (g)		Reading		Sampling	Flow Rate (m^3/min)			Conc.	Weather	Action	Limit
Date	Time	Date	Time	Initial	Final	Initial	Final	Time (hrs)	Initial	Final	Average	($\mu g/m^3$)	Condition	Level	Level
04-May-21	08:46	05-May-21	08:46	2.6528	2.8560	22867.05	22891.05	24	1.18	1.18	1.18	120	Cloudy	151.1	260
10-May-21	08:36	11-May-21	08:36	2.6531	2.7594	22891.05	22915.05	24	1.18	1.18	1.18	63	Fine	151.1	260
14-May-21	08:46	15-May-21	08:46	2.6662	2.7390	22915.05	22939.05	24	1.18	1.18	1.18	43	Cloudy	151.1	260
20-May-21	08:36	21-May-21	08:36	2.6648	2.7008	22939.05	22963.05	24	1.22	1.22	1.22	20	Cloudy	151.1	260
26-May-21	08:46	27-May-21	08:46	2.6637	2.7466	22963.05	22987.05	24	1.22	1.22	1.22	47	Fine	151.1	260
01-Jun-21	08:47	02-Jun-21	08:47	N/A	N/A	N/A	N/A	24	N/A	N/A	N/A	27	Rainy	151.1	260
07-Jun-21	08:56	08-Jun-21	08:56	N/A	N/A	N/A	N/A	24	N/A	N/A	N/A	62	Cloudy	151.1	260
11-Jun-21	08:40	12-Jun-21	08:40	N/A	N/A	N/A	N/A	24	N/A	N/A	N/A	37	Fine	151.1	260
17-Jun-21	08:40	18-Jun-21	08:40	N/A	N/A	N/A	N/A	24	N/A	N/A	N/A	22	Fine	151.1	260
23-Jun-21	09:53	24-Jun-21	09:53	N/A	N/A	N/A	N/A	24	N/A	N/A	N/A	19	Cloudy	151.1	260
29-Jun-21	08:36	30-Jun-21	08:36	N/A	N/A	N/A	N/A	24	N/A	N/A	N/A	54	Cloudy	151.1	260
05-Jul-21	08:52	06-Jul-21	08:52	N/A	N/A	N/A	N/A	24	N/A	N/A	N/A	14	Cloudy	151.1	260
09-Jul-21	08:47	10-Jul-21	08:47	N/A	N/A	N/A	N/A	24	N/A	N/A	N/A	54	Sunny	151.1	260
15-Jul-21	08:38	16-Jul-21	08:38	N/A	N/A	N/A	N/A	24	N/A	N/A	N/A	8	Sunny	151.1	260
21-Jul-21	08:44	22-Jul-21	08:44	N/A	N/A	N/A	N/A	24	N/A	N/A	N/A	39	Cloudy	151.1	260
27-Jul-21	08:44	28-Jul-21	08:44	N/A	N/A	N/A	N/A	24	N/A	N/A	N/A	81	Sunny	151.1	260

* The air monitoring station AM2B has been relocated to the alternative monitoring station AM2 on 1 June 2021, and portable direct reading dust meter was being used at AM2 for 24 hour TSP monitoring.

Graphical Presentation of Air Quality Monitoring Result at Station AM2B / AM2 (24-hour TSP)



*The air monitoring station AM2B has been relocated to the alternative monitoring station AM2 on 1 June 2021

Noise Monitoring Result at Station NM1A

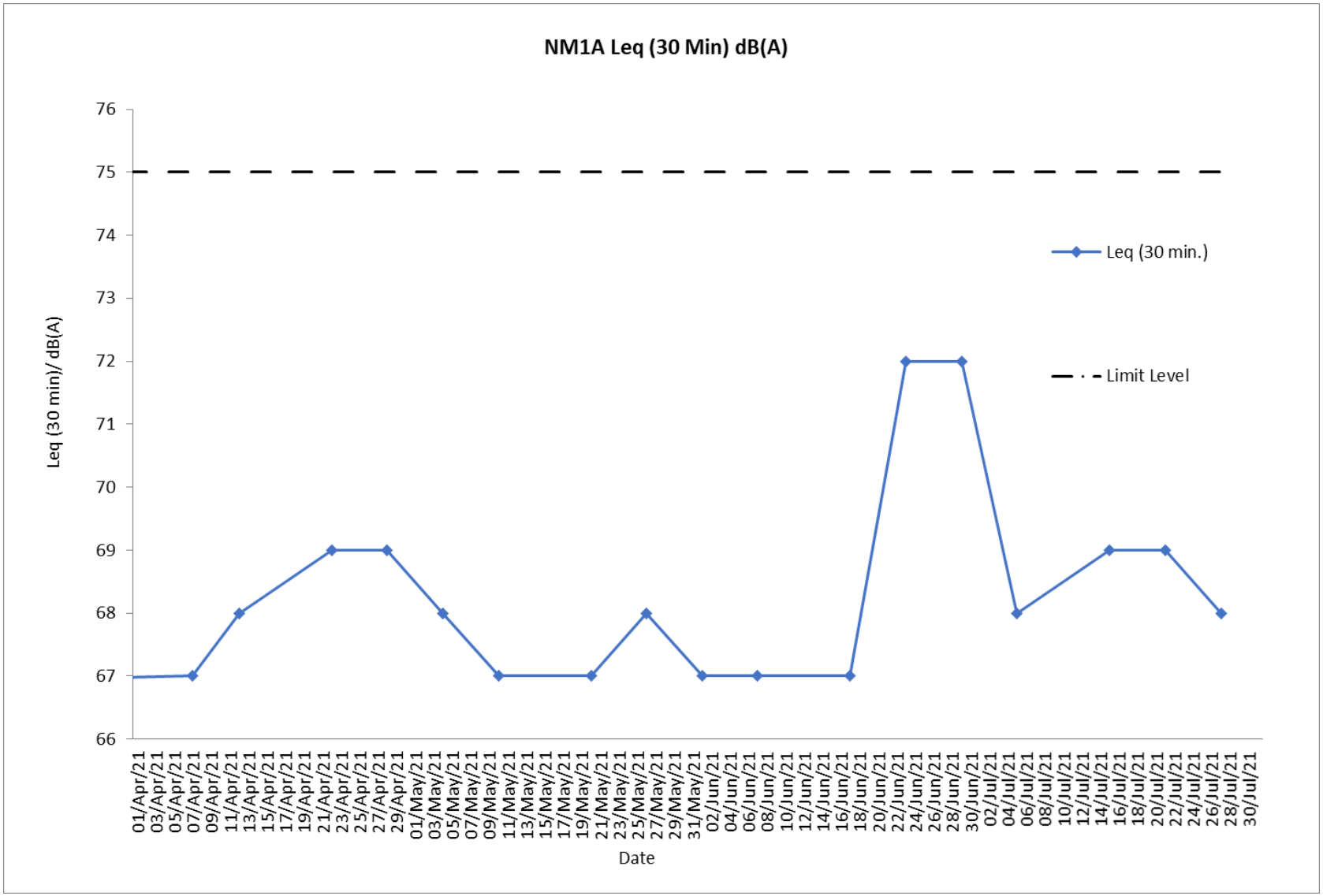
Date	Time	Measured L10 dB(A)	Measured L90 dB(A)	Leq (30 min.) dB(A)
04-May-21	09:35	65.4	61.5	68
04-May-21	09:40	66.2	62.6	
04-May-21	09:45	66.0	62.1	
04-May-21	09:50	67.7	63.5	
04-May-21	09:55	67.8	63.6	
04-May-21	10:00	68.7	64.6	
10-May-21	09:26	65.5	61.3	67
10-May-21	09:31	66.0	62.4	
10-May-21	09:36	66.7	62.7	
10-May-21	09:41	67.2	63.8	
10-May-21	09:46	65.9	61.1	
10-May-21	09:51	65.2	61.4	
20-May-21	09:25	65.0	61.4	67
20-May-21	09:30	66.6	62.8	
20-May-21	09:35	66.2	62.1	
20-May-21	09:40	65.4	61.2	
20-May-21	09:45	65.7	61.6	
20-May-21	09:50	64.3	60.9	
26-May-21	09:35	65.1	61.9	68
26-May-21	09:40	66.0	62.2	
26-May-21	09:45	67.2	63.8	
26-May-21	09:50	65.1	61.5	
26-May-21	09:55	66.5	62.7	
26-May-21	10:00	67.3	63.9	
01-Jun-21	10:30	65.2	61.9	67
01-Jun-21	10:35	66.0	62.1	
01-Jun-21	10:40	66.5	62.3	
01-Jun-21	10:45	65.4	61.6	
01-Jun-21	10:50	65.6	61.7	
01-Jun-21	10:55	66.6	62.7	
07-Jun-21	09:39	66.6	62.9	67
07-Jun-21	09:44	65.1	61.8	
07-Jun-21	09:49	65.5	61.7	
07-Jun-21	09:54	66.3	62.5	
07-Jun-21	09:59	65.6	61.5	
07-Jun-21	10:04	65.6	61.7	
17-Jun-21	09:27	65.4	61.5	67
17-Jun-21	09:32	66.3	62.2	
17-Jun-21	09:37	65.1	61.2	
17-Jun-21	09:42	65.5	61.8	
17-Jun-21	09:47	66.0	62.9	
17-Jun-21	09:52	65.6	61.8	
23-Jun-21	08:30	70.6	67.3	72
23-Jun-21	08:35	70.9	67.6	
23-Jun-21	08:40	70.2	66.4	
23-Jun-21	08:45	71.7	67.1	
23-Jun-21	08:50	69.4	65.9	
23-Jun-21	08:55	70.6	66.3	
29-Jun-21	09:26	70.2	66.4	72
29-Jun-21	09:31	71.5	67.4	
29-Jun-21	09:36	69.2	65.9	
29-Jun-21	09:41	71.2	67.3	
29-Jun-21	09:46	71.7	67.0	
29-Jun-21	09:51	71.5	67.4	

05-Jul-21	09:35	65.7	61.9	68
05-Jul-21	09:40	66.1	62.8	
05-Jul-21	09:45	66.3	62.4	
05-Jul-21	09:50	67.4	63.5	
05-Jul-21	09:55	67.6	63.4	
05-Jul-21	10:00	68.2	64.4	
15-Jul-21	09:16	66.0	62.8	69
15-Jul-21	09:21	67.2	63.3	
15-Jul-21	09:26	68.3	64.1	
15-Jul-21	09:31	66.6	62.7	
15-Jul-21	09:36	67.5	63.8	
15-Jul-21	09:41	68.7	64.6	
21-Jul-21	09:30	68.0	64.6	69
21-Jul-21	09:35	66.2	62.3	
21-Jul-21	09:40	67.3	63.2	
21-Jul-21	09:45	67.5	63.4	
21-Jul-21	09:50	68.9	64.8	
21-Jul-21	09:55	68.7	64.9	
27-Jul-21	09:20	66.3	62.3	68
27-Jul-21	09:25	67.2	63.4	
27-Jul-21	09:30	66.0	62.5	
27-Jul-21	09:35	65.6	61.0	
27-Jul-21	09:40	66.8	62.6	
27-Jul-21	09:45	66.9	62.4	

Remarks:
+3dB (A) correction was applied to free-field measurement.

The station set-up of a free-field measurement at Station NM1A.

Graphical Presentation Noise Monitoring Result at Station NM1A



F. Waste Flow table

Table F-1: Monthly Waste Flow Table for Lyric Theatre Complex

Month	Actual Quantities of Inert C&D Materials Generated Monthly							Actual Quantities of C&D Wastes Generated Monthly					
	Total Quantity Generated	Hard Rocks and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Disposed to Sorting Facilty	Imported Fill	Metals	Paper/ Cardboard Packaging	Plastics	Wood/ Timber	Chemical Waste	Others, e.g. General Refuse
	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)
2016													
Mar	2702.1	0.0	0.0	0.0	2702.1	0.0	0.0	4.5	0.1	0.0	0.0	0.0	30.6
Apr	8631.5	0.0	0.0	0.0	8631.5	0.0	0.0	16.0	0.0	0.0	0.0	0.0	19.2
May	12487.8	0.0	0.0	0.0	12487.8	0.0	0.0	34.0	0.0	0.0	0.0	0.7	60.5
Jun	8600.8	0.0	0.0	0.0	8600.8	0.0	0.0	31.4	0.2	0.0	0.0	0.5	13.5
Jul	12624.2	0.0	0.0	0.0	12624.2	0.0	0.0	19.6	0.0	0.0	0.0	2.0	9.9
Aug	14419.9	0.0	0.0	0.0	14419.9	0.0	0.0	43.9	0.0	0.0	0.0	0.0	11.1
Sep	13671.3	0.0	0.0	0.0	13671.3	0.0	0.0	59.8	0.0	0.0	0.0	1.6	12.4
Oct	13088.9	0.0	0.0	0.0	13088.9	0.0	0.0	36.9	0.2	1.5	0.0	0.0	15.2
Nov	12424.7	0.0	0.0	0.0	12424.7	0.0	0.0	74.7	0.0	0.0	0.0	1.4	10.2
Dec	12487.6	0.0	0.0	0.0	12487.6	0.0	0.0	13.9	0.0	0.0	0.0	1.3	9.0
Sub-total (2016)	111138.8	0.0	0.0	0.0	111138.8	0.0	0.0	334.5	0.4	1.5	0.0	7.6	191.6
2017													
Jan	9607.8	0.0	0.0	0.0	9607.8	0.0	0.0	29.5	0.0	0.0	0.0	0.0	7.3
Feb	9108.2	0.0	0.0	0.0	9108.2	0.0	0.0	50.2	0.2	0.0	0.0	0.7	9.8
Mar	11361.7	0.0	0.0	0.0	11361.7	0.0	0.0	16.1	0.0	0.0	0.0	1.4	8.5
Apr	2591.5	0.0	0.0	0.0	2591.5	0.0	0.0	35.7	0.0	0.0	0.0	0.0	4.7
May	2579.3	0.0	0.0	99.0	2480.3	0.0	0.0	20.9	0.1	0.0	0.0	0.5	10.0
Jun	476.0	0.0	0.0	341.0	129.7	5.3	0.0	0.0	0.0	0.0	0.0	0.0	7.6
Jul	3419.0	0.0	0.0	804.0	2615.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.8
Aug	3730.9	0.0	0.0	1377.5	2353.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4
Sep	2108.2	0.0	0.0	1133.5	974.7	0.0	0.0	34.6	0.2	0.0	0.0	0.0	10.8
Oct	9159.0	0.0	0.0	7868.0	1291.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	9.3
Nov	5095.4	0.0	0.0	4352.0	725.2	18.1	0.0	0.0	0.0	0.0	0.0	0.0	38.8
Dec	3856.2	0.0	0.0	3076.0	780.2	0.0	0.0	0.0	0.2	0.0	0.0	0.4	8.4
Sub-total (2017)	63093.1	0.0	0.0	19051.0	44018.7	23.4	0.0	187.1	0.7	0.0	0.0	3.8	137.3

2018													
Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
Mar	6120.2	0.0	0.0	5782.0	338.2	0.0	0.0	0.0	0.0	1.0	0.0	0.5	17.6
Apr	14460.3	0.0	0.0	12484.1	1976.3	0.0	0.0	0.0	0.0	0.2	0.0	0.0	7.6
May	59783.7	0.0	0.0	46989.0	12794.7	0.0	0.0	59.6	0.0	0.0	0.0	0.0	9.4
Jun	53117.5	0.0	0.0	37642.8	15474.7	0.0	0.0	51.5	0.2	0.0	0.0	0.0	12.8
Jul	89901.5	0.0	0.0	85317.1	4584.4	0.0	165.1	114.6	0.0	0.0	0.0	0.0	41.3
Aug	35137.3	0.0	0.0	33731.6	1405.7	0.0	214.3	148.1	0.0	0.0	0.0	0.0	48.5
Sep	4924.3	0.0	0.0	4641.2	196.1	87.0	174.6	40.0	0.0	0.0	0.0	0.0	179.2
Oct	19099.9	0.0	0.0	11301.0	7642.8	156.1	0.0	106.3	0.4	0.0	0.0	0.0	528.5
Nov	104168.0	0.0	0.0	79811.6	24351.0	5.3	0.0	54.5	0.0	0.6	0.0	0.0	31.5
Dec	62989.9	0.0	0.0	51284.4	11699.9	5.6	0.0	95.1	0.0	0.6	0.0	0.0	65.9
Sub-total (2018)	449702.6	0.0	0.0	368984.8	80463.7	254.0	553.9	669.7	0.5	2.4	0.0	0.5	943.7
2019													
Jan	74479.1	0.0	0.0	69249.5	5229.7	0.0	318.0	326.7	0.2	0.0	0.0	0.0	76.3
Feb	21969.9	0.0	0.0	17723.9	4246.0	0.0	16.5	55.2	0.0	0.0	0.0	0.0	26.7
Mar	19311.9	0.0	0.0	8569.9	10742.0	0.0	337.8	61.5	0.0	0.0	0.0	0.0	36.3
Apr	28559.9	0.0	0.0	21280.3	7279.6	0.0	0.0	32.6	0.0	0.8	0.0	0.0	24.9
May	45418.0	0.0	0.0	11200.6	34217.4	0.0	0.0	27.4	0.2	0.5	0.0	0.0	33.7
Jun	66633.4	0.0	0.0	23874.5	42748.0	10.9	59.2	11.9	0.0	0.9	0.0	0.0	35.3
Jul	36619.6	0.0	0.0	1632.7	34960.9	26.0	64.4	120.7	0.0	0.0	0.0	0.0	57.9
Aug	2526.8	0.0	0.0	0.0	2499.0	27.8	31.9	40.2	0.0	0.8	0.0	0.0	66.3
Sep	4117.6	0.0	0.0	0.0	4088.7	28.9	95.2	19.0	0.0	0.6	0.0	0.0	127.4
Oct	6974.2	0.0	0.0	0.0	6948.1	26.1	15.9	11.4	0.2	1.0	0.0	0.6	223.6
Nov	5334.4	0.0	0.0	0.0	5304.1	30.3	0.0	8.9	0.0	0.0	0.0	0.0	151.6
Dec	6236.8	0.0	0.0	0.0	6236.8	0.0	0.0	70.6	0.0	0.0	0.0	0.0	98.9
Sub-total (2019)	318181.6	0.0	0.0	153531.3	164500.1	150.1	938.9	785.8	0.6	4.6	0.0	0.6	959.0

2020													
Jan	7089.9	0.0	0.0	0.0	7089.9	0.0	0.0	10.6	0.2	0.0	0.0	0.0	65.7
Feb	16822.3	0.0	0.0	0.0	16822.3	0.0	0.0	232.2	0.1	0.0	0.0	0.0	66.3
Mar	6559.0	0.0	0.0	0.0	6559.0	0.0	110.4	63.1	0.0	0.9	0.0	0.0	138.3
Apr	4997.9	0.0	0.0	1615.7	3382.2	0.0	159.2	1123.9	1.9	0.0	0.0	0.0	113.2
May	2236.0	0.0	0.0	452.3	1783.6	0.0	0.0	406.5	0.0	0.0	0.0	0.0	188.8
Jun	1134.3	0.0	0.0	0.0	1134.3	0.0	31.5	262.6	0.2	0.6	0.0	0.0	210.6
Jul	148.8	0.0	0.0	0.0	148.8	0.0	31.5	458.5	0.5	0.0	0.0	0.0	220.0
Aug	540.7	0.0	0.0	0.0	540.7	0.0	0.0	340.8	0.0	0.0	0.0	0.0	238.3
Sep	1432.3	0.0	0.0	0.0	1432.3	0.0	0.0	750.7	0.2	0.0	0.0	0.0	291.9
Oct	1381.5	0.0	0.0	0.0	1381.5	0.0	0.0	717.9	0.2	0.0	0.0	0.0	400.2
Nov	1444.1	0.0	0.0	0.0	1437.4	6.7	475.8	473.6	0.2	0.5	0.0	0.0	377.8
Dec	793.8	0.0	0.0	0.0	793.8	0.0	0.0	478.3	0.2	0.0	0.0	0.0	435.8
Sub-total (2020)	44580.6	0.0	0.0	2068.1	42505.8	6.7	808.3	5318.7	3.7	2.0	0.0	0.0	2746.8
2021													
Jan	881.4	0.0	0.0	0.0	881.4	0.0	0.0	835.1	0.4	0.0	0.0	0.0	497.0
Feb	544.7	0.0	0.0	0.0	544.7	0.0	0.0	100.5	0.3	0.0	0.0	0.0	504.7
Mar	406.1	0.0	0.0	0.0	406.1	0.0	0.0	455.8	0.3	0.0	0.0	0.0	881.8
Apr	633.0	0.0	0.0	0.0	633.0	0.0	0.0	429.9	0.7	0.0	0.0	0.0	613.0
May	1125.8	0.0	0.0	0.0	1125.8	0.0	0.0	355.1	0.2	0.1	0.0	0.0	355.3
Jun	877.3	0.0	0.0	0.0	877.3	0.0	0.0	98.4	0.2	0.0	0.0	0.4	420.3
Jul	8.9	0.0	0.0	0.0	0.0	8.9	0.0	18.1	0.0	0.0	0.0	0.0	287.1
Aug	0.0												
Sep	0.0												
Oct	0.0												
Nov	0.0												
Dec	0.0												
Sub-total (2021)	4477.1	0.0	0.0	0.0	4468.2	8.9	0.0	2292.8	2.0	0.1	0.0	0.4	3559.1
Total	**991173.7**	**0.0**	**0.0**	**543635.2**	**447095.3**	**443.2**	**2301.1**	**9588.4**	**7.9**	**10.5**	**0.0**	**12.9**	**8537.4**

Note:

- 1033.29, 550.44 and 0.00 tonnes of inert C&D material were disposed of as public fill to Tseung Kwan O Area 137, Tuen Mun Area 38, and Chai Wan Public Fill Barging Point respectively in the reporting quarter.

G. Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions

Cumulative statistics for complaints, notifications of summons and successful prosecutions for the Project account for period starting from the date of commencement of construction works to the end of the reporting quarter are summarized in **Table G-1** below.

Table G-1: Statistics for complaints, notifications of summons and successful prosecutions for Lyric Theatre Complex

Reporting Period	Cumulative Statistics		
	Complaints	**Notifications of summons**	**Successful prosecutions**
This reporting quarter (May 21 – Jul 21)	5	0	0
From 1 March 2016 to end of the reporting quarter	24	0	0

END OF PART-1

Part-2: EM&A for Foundation, Excavation and Lateral Works for Integrated Basement and Underground Road in Zone 2A

Foundation, Excavation and Lateral Works for Integrated Basement and Underground Road in Zone 2A

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Contents

Executive summary

This Quarterly EM&A Report presents the monitoring works at Zone 2A conducted from 1 May 2021 to 31 July 2021.

The impact stage EM&A programme for the Project includes air quality, noise, water quality, waste, landscape and visual monitoring. The recommended environmental mitigation measures were implemented on site and regular inspections were carried out to ensure that the environmental conditions are acceptable.

The EM&A programme was carried out by the ET in accordance with the EM&A Manual requirements. It is concluded from the environmental monitoring and audit works that adequate environmental mitigation measures have been implemented by the contractors where appropriate in the reporting quarter.

Exceedance of Action and Limit Levels

There was no breach of Action or Limit levels for Air Quality (1-hour TSP and 24-hour TSP) and Construction Noise monitoring in the reporting quarter.

Implementation of Mitigation Measures

Construction phase weekly site inspections were carried out to confirm the implementation measures undertaken by the Contractors in the reporting quarter. The status of implementation of mitigation measures during the reporting quarter is shown in **Appendix C**.

Landscape and visual impact inspections were conducted as part of the above-mentioned weekly site inspections during the reporting quarter. No adverse comment on landscape and visual aspects were made during these inspections.

Record of Complaints

Five environmental complaints were received during the reporting quarter.

Record of Notifications of Summons and Successful Prosecutions

No notifications of summons and successful prosecutions were recorded in the reporting quarter.

1 Introduction

1.1 Background

Apex Testing & Certification Limited (Apex) was commissioned to undertake the Environmental Team (ET) services (including environmental monitoring and audit (EM&A)) for the construction activities in Zone 2A at WKCD, consisting of Foundation, Excavation and Lateral Support Works for Integrated Basement and Underground Road (Contract No.: GW/2020/05/073). The construction works and EM&A programme for Zone 2A commenced on 3 October 2020.

The overall works for the WKCD fall under two separate categories of Designated Project (DP) of the Environmental Impact Assessment Ordinance (EIAO), namely an "engineering feasibility study of urban development projects with a study area covering more than 20 ha or involving a total population of more than 100 000" (Item 1 of Schedule 3) and "an underpass more than 100m in length under the built areas" (Item A.9, Part I, Schedule 2). An Environmental Permit No. EP-453/2013/B (EP) was issued with respect to the "Underpass Road and Austin Road Flyover Serving the West Kowloon Cultural District" which specifically includes the abovementioned category of DP under Item A.9, Part I, Schedule 2 of the EIAO. The captioned projects include part of the abovementioned underpass road located within the site boundary falls under this same category.

The purpose of the development in Zone 2A is to reserve for Integrated Basement (IB) and Underground Road (UR). The Zone 2A construction activities involve the foundation, excavation and lateral support (ELS) works, road works, drainage diversion works, and temporary car parking.

The Quarterly EM&A Report is prepared in accordance with the Clause 3.4 of the Environmental Permit No. EP-453/2013/B. This Quarterly EM&A Report presents the monitoring works at Zone 2A from 1 May 2021 to 31 July 2021. The purpose of this report is to summarise the findings in the EM&A of the project over the reporting period.

1.2 Project Organisation

The organisation chart and lines of communication with respect to the on-site environmental management structure together with the contact information of the key personnel are shown in **Appendix A**.

1.3 Environmental Status in the Reporting Period

During the reporting period, construction works at Zone 2A undertaken include:

Zone 2A-1

- Grouting Works (Trial 1)
  - Post Drilling
  - Install Pump Wells
  - Pumping Test
- Grouting Works (Trial 2)
  - Pumping Test
- ELS (Stage 1) – Grouting / Pipe Pile Works

  - King Post & Erection of Steel Column for Working Platform
- Socketed H-Pile Works
  - Remaining Socketed H-Pile Works
- Bored Pile Works
  - Bored Pile Construction

Zone 2A-2

- Bored Pile Works
  - Additional Bored Pile Construction
- ELS (Stage 1) – Grouting / Pipe Pile Works
  - Stage 1a & 1b Grouting
  - Pipe Pile Construction

The Construction Works Programme of the Project is provided in **Appendix B**. A layout plan of the Project is provided in **Figure 1**.

2 Summary of EM&A Requirements and Mitigation Measures

2.1 Monitoring Requirements

In accordance with the EM&A Manual, environmental parameters including air quality, noise, landscape and visual have been monitored. The specific parameters, monitoring frequency and the respective Action and Limit levels are given in **Table 2.1**. Locations of the monitoring stations are provided in **Figure 1**.

Table 2.1: Summary of Impact EM&A Requirements

Parameters	Descriptions	Locations	Frequencies	Action level	Limit level
Air Quality	24-Hour TSP	AM3 - The Victoria Towers Tower 1	At least once every 6 days	152.4 μg/m^3	260 μg/m^3
	1-Hour TSP	AM3 - The Victoria Towers Tower 1	At least 3 times every 6 days	280.4 μg/m^3	500 μg/m^3
	24-Hour TSP	AM4 - Canton Road Government Primary School	At least once every 6 days	152.6 μg/m^3	260 μg/m^3
	1-Hour TSP	AM4 - Canton Road Government Primary School	At least 3 times every 6 days	278.5 μg/m^3	500 μg/m^3
	24-Hour TSP	AM5 - Topside Developments at West Kowloon Terminus Site	At least once every 6 days	141.1 μg/m^3	260 μg/m^3
	1-Hour TSP	AM5 - Topside Developments at West Kowloon Terminus Site	At least 3 times every 6 days	275.4 μg/m^3	500 μg/m^3
Noise	Leq, 30 minutes	NM2 - The Arch, Sun Tower	Weekly	When one documented complaint is received from any one of the sensitive receivers	75 dB(A)
	Leq, 30 minutes	NM3 - The Victoria Towers Tower 1	Weekly	When one documented complaint is received from any one of the sensitive receivers	75 dB(A)
	Leq, 30 minutes	NM4 - Canton Road Government Primary School	Weekly	When one documented complaint is received from any one of the sensitive receivers	70/65 dB(A)^
	Leq, 30 minutes	NM5 -Development next to Austin Station	Weekly	When one documented complaint is received from any one of the sensitive receivers	75 dB(A)
Landscape & Visual	Monitor implementation of proposed mitigation measures during the construction stage	As described in Table 9.1 and 9.2 of the EM&A Manual	Bi-weekly	N/A	N/A

Note:
^70 dB(A) for schools and 65 dB(A) during school examination periods.

The EM&A programme for the Project require 5 air monitoring stations and 5 noise quality monitoring stations located closest to the Project area. With regard to the monitoring activities at M+ Museum and the Lyric Complex, three monitoring stations had been considered, including AM1, AM2 for air monitoring, and NM1 for noise monitoring. In the context of the construction activities in Zone 2A, all other monitoring locations including AM3, AM4, and AM5 for air monitoring; and NM2, NM3, NM4 and NM5 for noise monitoring, have been taken into account. However, access to all these originally designated monitoring stations was declined. Therefore, alternative monitoring stations was identified and proposed.

With regard to air monitoring, alternative monitoring locations (AM3A, AM4A, and AM5A) were identified at ground floor at the Northeast corner of West Kowloon Station's station box, at ground floor at the Southeast corner of West Kowloon Station's station box, and at ground floor at the North of West Kowloon Station's station box respectively. AM3A, AM4A, and AM5A were set in same direction to the area of major construction site activities in Zone 2A. These alternative air monitoring locations (AM3A, AM4A, and AM5A) were approved by EPD on 29 September 2020.

For noise monitoring, alternative noise monitoring location (NM2A) was identified at the ground floor in front of The Arch - Sun Tower, which is at the same location as stated in the EM&A Manual for consistency. This alternative noise monitoring location was approved by EPD on 29 September 2020. Other alternative noise monitoring locations (NM3A, NM4A, and NM5A) were identified at the ground floor in front of the Xiqu Centre, at the ground floor next to Tsim Sha Tsui Fire Station, and at the Pedestrian road (ground floor) outside West Kowloon Station respectively. NM3A, NM4A and NM5A were set closer to the construction site boundary with more direct line sight to the major site activities and higher exposure to the construction noise with no disturbance to the premises' occupants during noise monitoring activities. These alternative noise monitoring locations (NM3A, NM4A, and NM5A) were approved by EPD on 29 September 2020.

Therefore, 3 air quality monitoring stations and 4 noise impact monitoring station were confirmed for the impact monitoring for construction activities in Zone 2A.

2.2 Environmental Mitigation Measures

Environmental mitigation measures have been recommended in the EM&A Manual. Summary of implementation status of the environmental mitigation measures is provided in **Appendix C**.

3 Summary of EM&A Results

3.1 Monitoring Data

In accordance with the EM&A Manual, impact monitoring has been conducted in the reporting quarter. Meteorological data for the reporting quarter have been extracted from Hong Kong Observatory and presented in **Appendix D**. Monitoring data with graphical presentation for the reporting quarter are shown in **Appendix E**. A summary on the monitoring results are presented in **Table 3.1**.

Table 3.1: Summary of Monitoring Data

Parameter	Monitoring Location	Minimum	Maximum	Average
Air Quality				
1 hour TSP	AM3A	31	57	41
1 hour TSP	AM4A	31	59	42
1 hour TSP	AM5A	31	58	42
24 hour TSP	AM3A	30	53	38
24 hour TSP	AM4A	29	58	39
24 hour TSP	AM5A	31	52	39
Construction Noise				
Leq(30min)	NM2A	58	60	59
Leq(30min)	NM3A	69	70	70
Leq(30min)	NM4A	63	69	68
Leq(30min)	NM5A	65	67	66

3.2 Monitoring Exceedances

Summary of the exceedances in the reporting quarter is tabulated in **Table 3.2**.

Table 3.2: Summary of Exceedances

Monitoring Station	Parameter	No. of Exceedance		Action Taken
		Action Level	Limit Level	
Air Quality				
AM3A	1 hour TSP	0	0	N/A
	24 hour TSP	0	0	N/A
AM4A	1 hour TSP	0	0	N/A
	24 hour TSP	0	0	N/A
AM5A	1 hour TSP	0	0	N/A
	24 hour TSP	0	0	N/A
Construction Noise				
NM2A	Leq(30min)	0	0	N/A
NM3A	Leq(30min)	0	0	N/A
NM4A	Leq(30min)	0	0	N/A
NM5A	Leq(30min)	0	0	N/A

3.2.1 1-hour TSP Monitoring

All 1-hour TSP monitoring was conducted as scheduled in the reporting quarter. No Action/ Limit Level exceedance of 1-hour TSP for Air Quality was recorded.

3.2.2 24-hour TSP Monitoring

All 24-hour TSP monitoring was conducted as scheduled in the reporting quarter. No Action/ Limit Level exceedance of 24-hour TSP for Air Quality was recorded.

3.2.3 Construction Noise Monitoring

All construction noise monitoring was conducted as scheduled in the reporting quarter. No Action/ Limit Level exceedance of Construction Noise was recorded.

3.2.4 Landscape and Visual Monitoring

All landscape and visual impact inspections were conducted as scheduled in the reporting quarter. No adverse comment on landscape and visual aspects were recorded.

4 Waste Management

As advised by the Contractor, 240.72 tonnes, 1767.24 tonnes, 16644.89 tonnes of inert C&D material were disposed of as public fill to Chai Wan Public Fill Barging Point, Tseung Kwan O Area 137 Public Fill, and Tuen Mun Area 38 respectively in the reporting quarter, while 185.03 tonnes of general refuse were disposed of at NENT and SENT landfill. 134.13 tonnes of metals, 0.00 tonne of paper/cardboard packaging, 0.00 tonne of plastic and 0.00 tonne of timber were collected by recycling contractors in the reporting quarter. 0.00 tonne of inert C&D materials were reused on site. 0.00 tonne of fill materials were imported for use at site and 5132.00 tonnes of inert C&D materials was reused in other projects. 0.00 tonne of inert C&D materials was disposed to sorting facility and 0.40 tonnes of chemical wastes was collected by licensed contractors in the reporting quarter.

The actual amounts of different types of waste generated by the activities of construction works at Zone 2A in the reporting quarter are shown in **Appendix F**.

5 Environmental Non-conformance

There was no breach of Action or Limit levels for Air Quality (1-hour TSP and 24-hour TSP) and Construction Noise in the reporting quarter.

Five complaints (not related to Zone 2A) were received in the reporting quarter. No notifications of summons and successful prosecutions were received in the reporting quarter.

The first complaint was received on 11 May 2021. WKCDA has received a complaint from the office of Mr. Derek Hung (YTMDC member) about the noise from WKCD site. The resident of Harbourside found that noise was generated from nearby construction site on Sunday 9 May 2021. After carrying out the investigation with the contractors, no construction works were undertaken on 9 May 2021 (Sunday) on WKCD Zone 2A site. Thereby, the complaint might not be attributable to the Zone 2A site. However, the contractor is recommended to strictly maintain the noise mitigation measures on site to reduce impacts to nearby residents.

The second complaint was referred by EPD on 11 May 2021. Referring to the pictures provided by the complainant (a nearby resident), pollutant was spotted at the waterbody of Victoria Harbour near WKCD construction site between 7 May 2021 and 9 May 2021. After carrying out the investigation with the contractors, no abnormalities were found at the seafront of Victoria Harbour on 7 and 8 May 2021, and no construction works were undertaken by WKCD Zone 2A site on 9 May 2021. Thereby, the complaint could not be attributable to Zone 2A site. However, the contractor is recommended to strictly maintain good site practices to avoid muddy water flowing into to the waterbody of Victoria Harbour.

The third complaint was referred by EPD on 12 May 2021. Referring to the picture provided by the complainant (a resident of Harbourside), pollutant was spotted at the waterbody of Victoria Harbour near WKCD construction site on 9 May 2021. After carrying out the investigation with the contractors, no construction works were undertaken by WKCD Zone 2A site on 9 May 2021. Thereby, the complaint might not be attributable to the Zone 2A site. However, the contractor is recommended to strictly maintain good site practices to avoid muddy water flowing into to the waterbody of Victoria Harbour.

The fourth complaint was referred by EPD on 7 June 2021. Referring to the email sent by EPD and the picture provided by the nearby complainant, pollutant was spotted in the water body of Victoria Harbour near WKCD construction site on 5 June 2021. After carrying out the investigation with the contractors, no abnormalities were found at the Zone 2A site seafront of Victoria Harbour on 5 June 2021. Moreover, the white splash/plume observed by the complainant was not generated from WKCD Zone 2A site boundary. Thereby, the complaint could not be attributable to Zone 2A site. However, the contractor is recommended to strictly maintain good site practices to avoid muddy water flowing into to the water body of Victoria Harbour.

The fifth complaint was referred by EPD on 7 July 2021. EPD has received a complaint from a staff of Standard Chartered Elements Priority Banking Centre regarding construction noise from WKCD construction site (Artist Square Bridge (ASB) construction site). On 5 July 2021, WKCD staff has informed the complainant that the construction works of ASB project were scheduled to be carried out until noon every day. However, noise nuisance caused by ASB works usually lasts till 14:00 to 15:00 for consecutive 3 days. As the work place of the complainant is in close proximity

of ASB project, daily noise exposure has become excessive, affecting daily duty performance and well-being of the complainant. Based on the description provided by the complainant, the noise source was not from WKCD Zone 2A site. Also, noise mitigation measures for construction works have been implemented and maintained on site. In addition, noise measurement and monitoring were carried out with no exceedance. Thereby, the complaint might not be attributable to the Zone 2A site. However, the Contractor is recommended to maintain good practice on site, and strengthen the implementation of noise mitigation measures to reduce impacts to the nearby neighbours.

The cumulative statistics on complaints, notifications of summons and successful prosecutions were provided in **Appendix G**.

6 Comments, Recommendations and Conclusion

6.1 Comments

Based on the observations made during site audits and landscape inspections, and construction dust and noise monitoring results, no non-compliances and exceedances of air quality and construction were recorded in the reporting quarter.

6.2 Recommendations

Reviewing the implementation of the recommended mitigation measures in the EM&A Manual, it was observed that they were effective and efficient in controlling the potential impacts due to construction of the project during the reporting period. Review of the effectiveness and efficiency of the EM&A programme will continue, and recommendations will be provided to remediate any potential impacts due to the project and to improve the EM&A programme if deficiencies of the existing EM&A programme are identified.

6.3 Conclusion

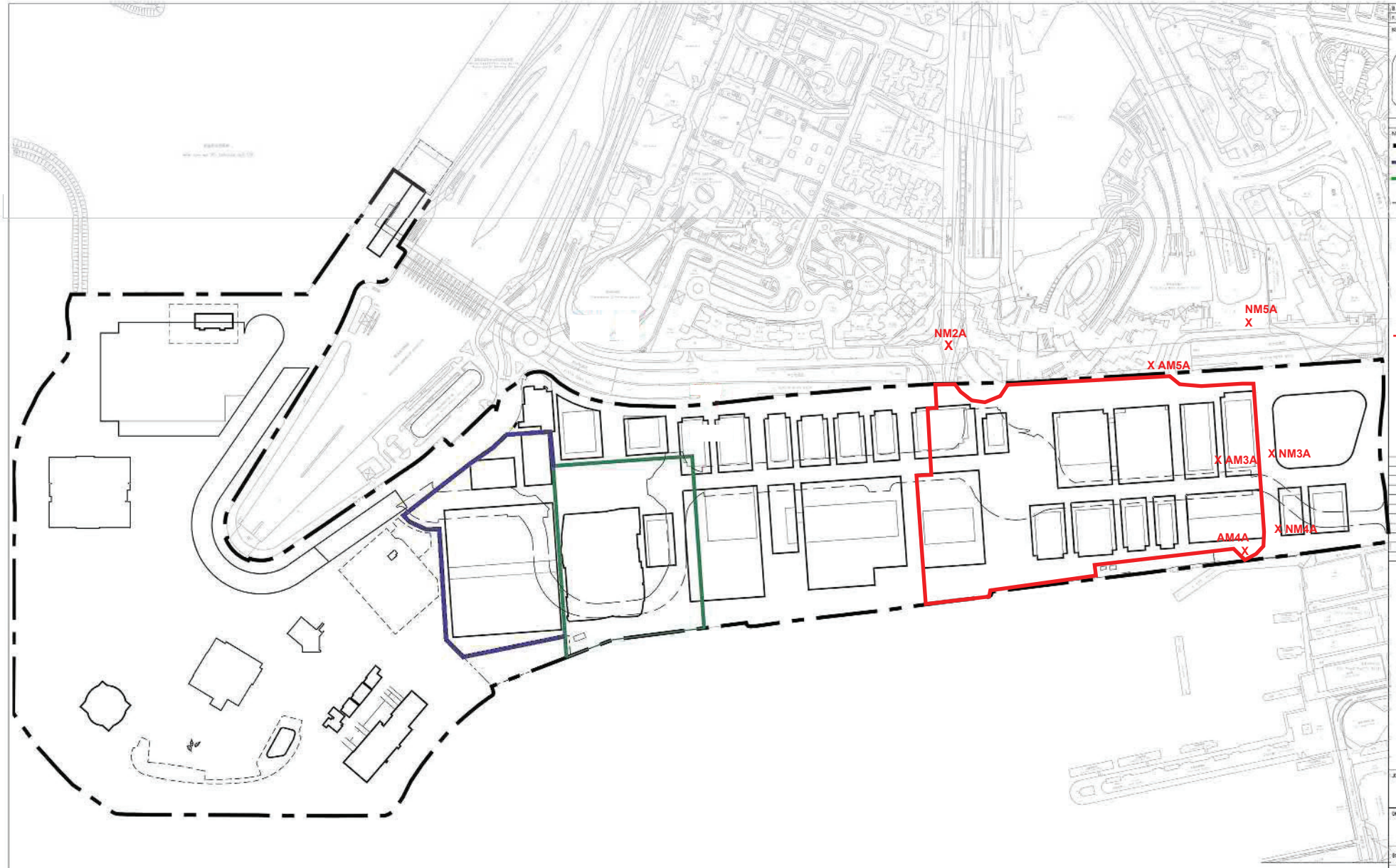
The EM&A programme as recommended in the EM&A Manual has been undertaken since the construction works of Zone 2A commenced on 3 October 2020.

Monitoring of air quality and noise with respect to the Project is underway. In particular, the 1-hour TSP, 24-hour TSP, noise level (as Leq, 30 minutes) under monitoring have been checked against established Action and Limit levels. There was no breach of Action or Limit levels for Air Quality (1-hour TSP and 24-hour TSP) and Construction Noise in this reporting quarter.

Five complaints were received in the reporting quarter. No notifications of summons and successful prosecutions were received during the reporting quarter.

Weekly construction phase site inspections and bi-weekly landscape and visual impact inspections were conducted during the reporting quarter as required. It was observed that the Contractor had implemented all possible and feasible mitigation measures to mitigate the potential environmental impacts during construction phase works.

Figure 1 Site Layout Plan and Monitoring Stations



B.D. REF:

H.S.D. REF:

KEY PLAN

KEY PLAN

NOTES:

WKCD BOUNDARY

M+ MUSEUM BOUNDARY

LYRIC THEATRE BOUNDARY

BOUNDARY OF UNDERPASS ROAD SERVING THE PLANNED WKCD

X CONSTRUCTION AIR/NOISE MONITORING STATION

REMARKS:
THE AIR MONITORING STATION AM2A HAS BEEN RELOCATED TO THE ALTERNATIVE MONITORING STATION AM2B AT 1ST FLOOR OF GAMMON'S SITE OFFICE ON 26 FEBRUARY 2019.

Zone 2A Boundary

REV.	DATE	DESCRIPTION	INITIAL

JOB TITLE: **DEVELOPMENT AT WEST KOWLOON CULTURAL DISTRICT**

DRAWING TITLE: **SITE LAYOUT PLAN AND MONITORING STATIONS**

SCALE:	1:100	PRINTED:	A1
CHECKED:		DATE:	
APPROVED:		DATE:	
DRAWN:	TY	DATE:	05-10-2018

CONTRACT NO.: -

DRAWING NO.: **FIGURE 1** REV.: XA

CAD REF NAME: XXXXX-AUT-PMS DWG-P60-L080-0080-XXX.dwg

AUTHORITY:

westKowloon
西九文化區

A1 (841mm x 594mm) Sheet Size

Appendices

A. Project Organisation
B. Construction Programme
C. Environmental Mitigation Measures – Implementation Status
D. Meteorological Data Extracted from Hong Kong Observatory
E. Graphical Plots of the Monitoring Results
F. Waste Flow table
G. Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions

A. Project Organisation

Project Organization

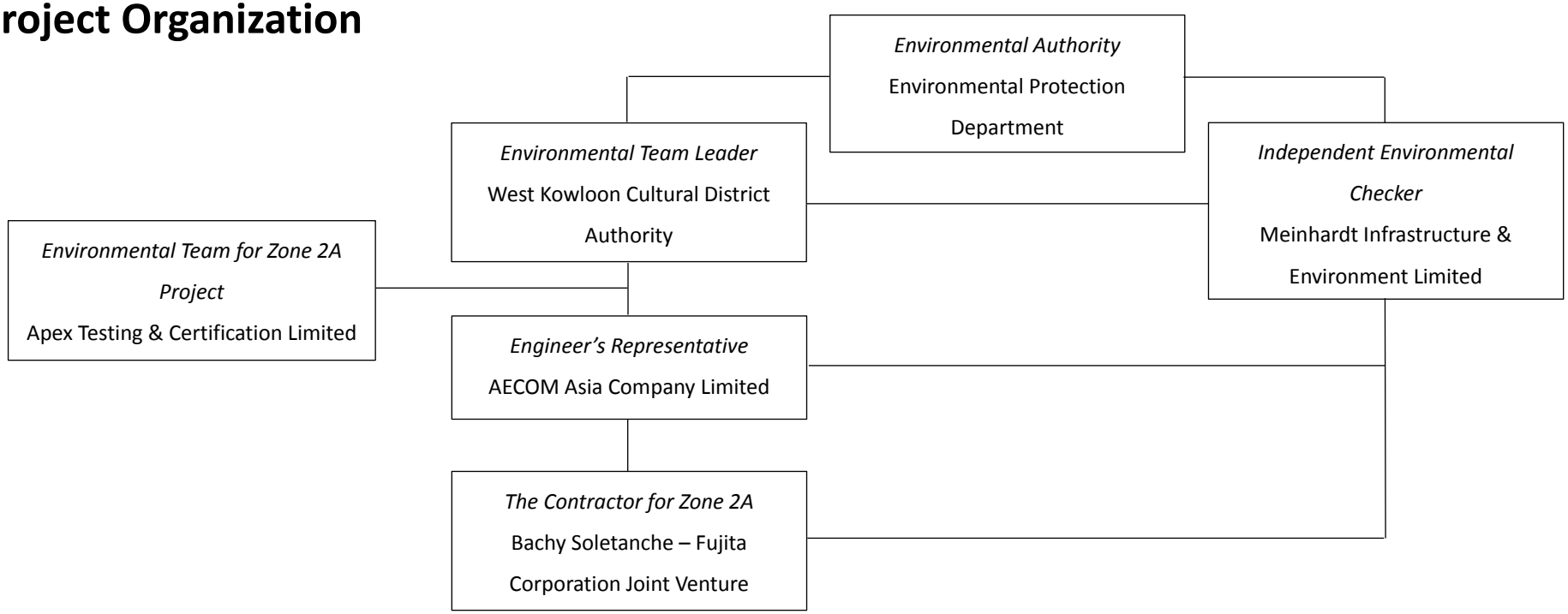


Table A-1: Contract Information

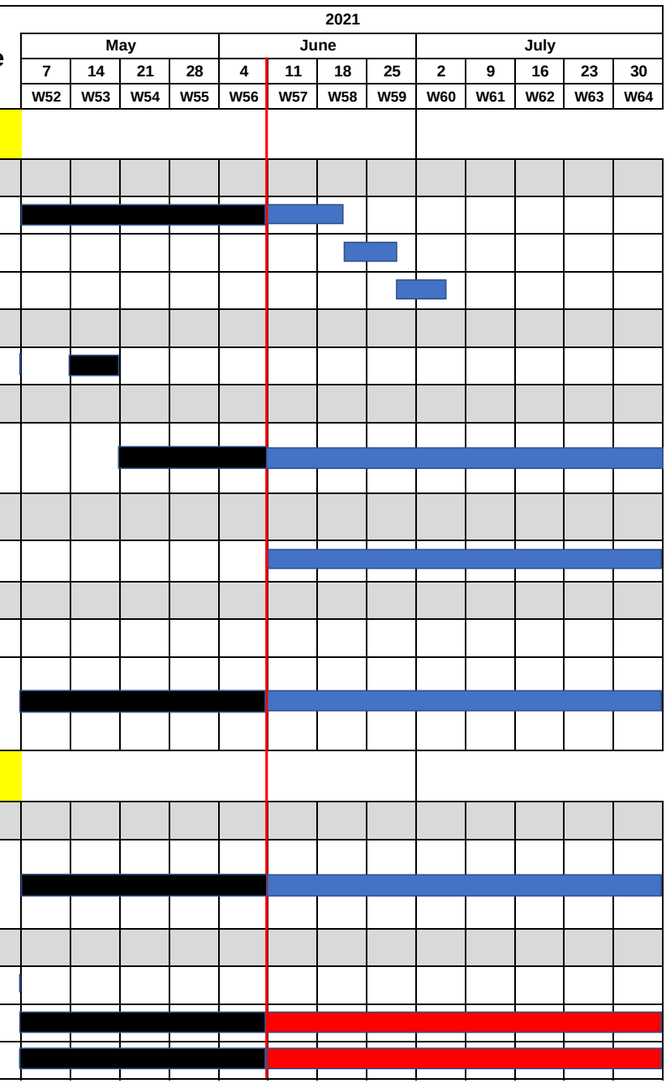
Company Name	Role	Name	Telephone	Email
West Kowloon Cultural District Authority	WKCDA Representative & Project ETL	Mr. C.K. WU	5506 9178	ck.wu@wkcda.hk
Meinhardt Infrastructure & Environment Limited	Independent Environmental Checker	Ms. Claudine LEE	2859 5409	caludinelee@meinhardt.com.hk
AECOM Asia Company Limited	Resident Engineer	Mr. Alex GBAGUIDI	3619 6287	alex.gbaguidi@aecom.com
Bachy Soletanche – Fujita Corporation Joint Venture	Quality, Safety, Health & Environmental Manager	Mr. Vincent CHAN	9733 7310	Chuen.Kwok.CHAN@soletanche-bachy.com
Bachy Soletanche – Fujita Corporation Joint Venture	Environmental Engineer	Mr. William CHAN	54083045	william-hou.chan@soletanche-bachy.com
Apex Testing & Certification Limited	Contractor's Environmental Team Leader	Mr. Calvin LUI	9629 9718	calvinlui@apextestcert.com

B. Construction Programme

Project Name: Foundation and ELS Works for Integrated Basement and Underground Road in Zone 2A of the West Kowloon Cultural District

3-Month Rolling Programme

Activity Description	Duration (Cal. Day)	Start Date	Finish Date
Zone 2A-1 Foundation, ELS Works and Blinding to Formation (KD01)			
Grouting Works (Trial 1)			
Post Drilling	55	22-Apr-21	15-Jun-21
Install Pump Wells	8	16-Jun-21	23-Jun-21
Pumping Test	7	24-Jun-21	30-Jun-21
Grouting Works (Trial 2)			
Pumping Test	8	14-May-21	21-May-21
ELS (Stage 1) - Grouting / Pipe Pile Works			
King Post (3/65 Nos Completed) & Erection of Steel Column for Working Platform (0/41 Nos completed)	145	15-May-21	6-Oct-21
Socketed H-Pile Works			
Remaining Socketed H-Pile Works (0/53 Nos completed)	111	5-Jun-21	23-Sep-21
Bored Pile Works			
Bored Pile Construction (Total 32 Nos. 2~4 Workfront)			
BP31L, BP33L, BP34I1, BP34G, BP31P, BP36F1, BP31R, BP33G, BP31M, BP36E1, BP31Q, BP33J, BP33M, BP32P, BP34F, BP35F1, BP33P, BP34K, BP34P, BP33F, BP35I1, BP34D, BP32D, BP36J1) (20 Nos. Cast; 1 Nos. completed RCD; 2 Nos. RCD in progress)	260	9-Nov-20	26-Jul-21
Zone 2A-2 Foundation, ELS Works and Blinding to Formation (KD02)			
Bored Pile Works			
Additional Bored Pile Construction (Total 16 Nos.) BP15Y, BP16TA, BP13U, BP14Y, BP12M, BP12T, BP20XA, BP12Y, BP13Y, BP16WA (3 Nos. Cast; 1 Nos. completed RCD; 5 Nos. RCD in progress)	182	23-Mar-21	20-Sep-21
ELS (Stage 1) - Grouting / Pipe Pile Works			
King Post (0/86 Nos Completed)	104	20-Oct-21	31-Jan-22
Stage 1a & 1b grouting (715/1058 Nos Completed)	385	22-Oct-20	10-Nov-21
Pipe Pile Construction (155/523 Nos Completed)	385	17-Nov-20	6-Dec-21

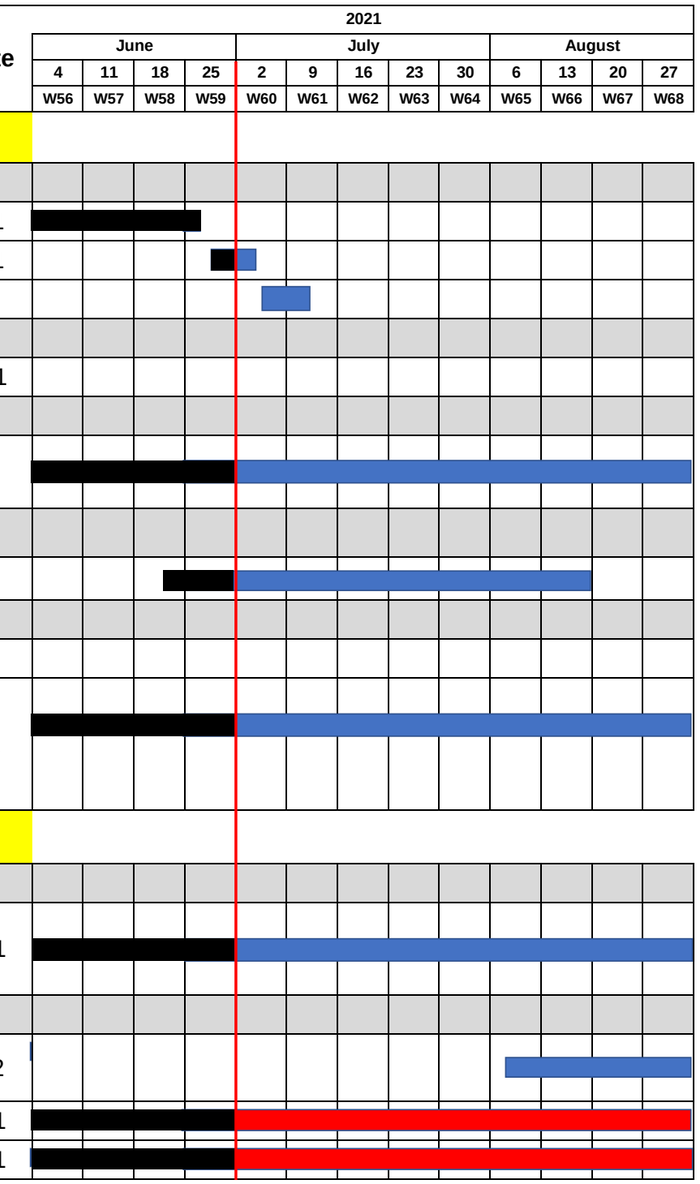


- Actual
- Remaining Works
- Critical Remaining Works

Project Name: Foundation and ELS Works for Integrated Basement and Underground Road in Zone 2A of the West Kowloon Cultural District

3-Month Rolling Programme

Activity Description	Duration (Cal. Day)	Start Date	Finish Date
Zone 2A-1 Foundation, ELS Works and Blinding to Formation (KD01)			
Grouting Works (Trial 1)			
Post Drilling	61	22-Apr-21	21-Jun-21
Install Pump Wells	8	22-Jun-21	29-Jun-21
Pumping Test	7	30-Jun-21	6-Jul-21
Grouting Works (Trial 2)			
Pumping Test	8	14-May-21	21-May-21
ELS (Stage 1) - Grouting / Pipe Pile Works			
King Post (7/65 Nos Completed) & Erection of Steel Column for Working Platform (6/41 Nos completed)	146	15-May-21	7-Oct-21
Socketed H-Pile Works			
Remaining Socketed H-Pile Works (0/53 Nos completed, 1/53 Nos in progress)	114	16-Jun-21	7-Oct-21
Bored Pile Works			
Bored Pile Construction (Total 32 Nos. 2~4 Workfront)			
BP31L, BP33L, BP34I1, BP34G, BP31P, BP36F1, BP31R, BP33G, BP31M, BP36E1, BP31Q, BP33J, BP33M, BP32P, BP34F, BP35F1, BP33P, BP34K, BP34P, BP33F, BP35I1, BP34D, BP32D, BP36J1, BP35E1 (22 Nos. Cast; 0 Nos. completed RCD; 2 Nos. RCD in progress)	272	9-Nov-20	7-Aug-21
Zone 2A-2 Foundation, ELS Works and Blinding to Formation (KD02)			
Bored Pile Works			
Additional Bored Pile Construction (Total 16 Nos.) BP15Y, BP16TA, BP13U, BP14Y, BP12M, BP12T, BP20XA, BP12Y, BP13Y, BP16WA. BP12K (7 Nos. Cast; 1 Nos. completed RCD; 2 Nos. RCD in progress)	178	23-Mar-21	16-Sep-21
ELS (Stage 1) - Grouting / Pipe Pile Works			
King Post (0/86 Nos Completed) & Erection of Steel Column for Working Platform (0/65 Nos Completed)	183	2-Aug-21	31-Jan-22
Stage 1a & 1b grouting (810/1058 Nos Completed)	398	22-Oct-20	23-Nov-21
Pipe Pile Construction (175/523 Nos Completed)	392	17-Nov-20	13-Dec-21

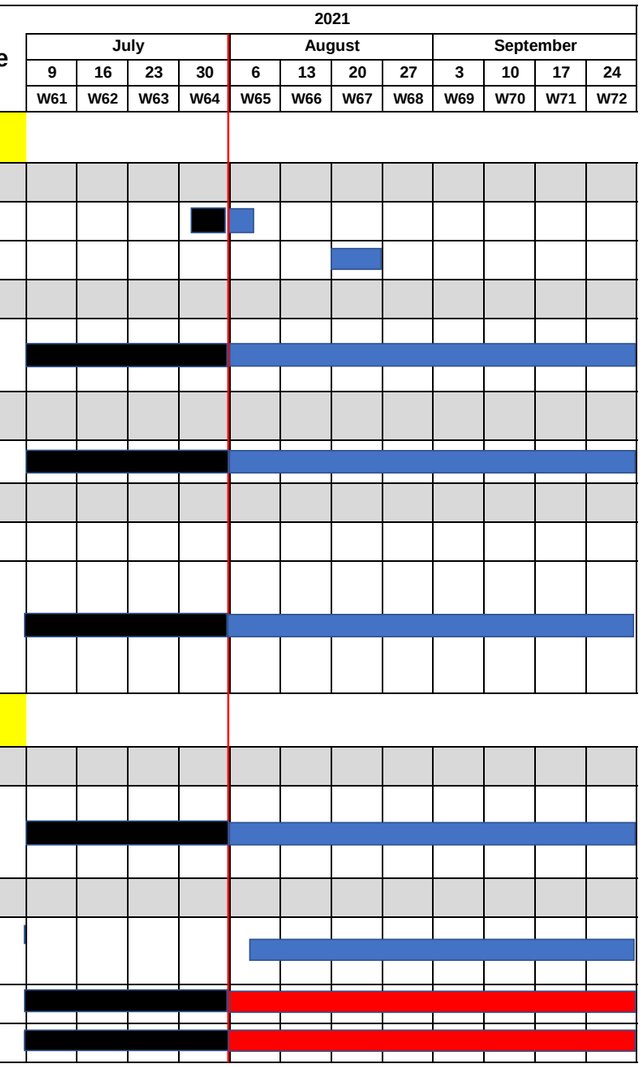


- Actual
- Remaining Works
- Critical Remaining Works

Project Name: Foundation and ELS Works for Integrated Basement and Underground Road in Zone 2A of the West Kowloon Cultural District

3-Month Rolling Programme

Activity Description	Duration (Cal. Day)	Start Date	Finish Date
Zone 2A-1 Foundation, ELS Works and Blinding to Formation (KD01)			
Grouting Works (Trial 1)			
Install Pump Wells	8	26-Jun-21	2-Aug-21
Pumping Test	7	14-Aug-21	20-Aug-21
ELS (Stage 1) - Grouting / Pipe Pile Works			
King Post (7/64 Nos Completed) & Erection of Steel Column for Working Platform (8/41 Nos completed)	186	15-May-21	16-Nov-21
Socketed H-Pile Works			
Remaining Socketed H-Pile Works (0/53 Nos completed, 1/53 Nos in progress)	150	16-Jun-21	12-Nov-21
Bored Pile Works			
Bored Pile Construction (Total 32 Nos. 2~4 Workfront)			
BP31L, BP33L, BP34I1, BP34G, BP31P, BP36F1, BP31R, BP33G, BP31M, BP36E1, BP31Q, BP33J, BP33M, BP32P, BP34F, BP35F1, BP33P, BP34K, BP34P, BP33F, BP35I1, BP34D, BP32D, BP36J1, BP35E1, BP35J1, BP35K1, BP33D, BP32E, BP34E (25 Nos. Cast; 1 Nos. completed RCD; 2 Nos. RCD in progress)	313	9-Nov-20	17-Sep-21
Zone 2A-2 Foundation, ELS Works and Blinding to Formation (KD02)			
Bored Pile Works			
Additional Bored Pile Construction (Total 16 Nos.) BP15Y, BP16TA, BP13U, BP14Y, BP12M, BP12T, BP20XA, BP12Y, BP13Y, BP16WA. BP12K, BP13W, BP12P (11 Nos. Cast; 0 Nos. completed RCD; 1 Nos. RCD in progress)	208	23-Mar-21	16-Oct-21
ELS (Stage 1) - Grouting / Pipe Pile Works			
King Post (0/86 Nos Completed) & Erection of Steel Column for Working Platform (0/65 Nos Completed)	183	2-Aug-21	31-Jan-22
Stage 1a & 1b grouting (812/1058 Nos Completed)	442	22-Oct-20	6-Jan-22
Pipe Pile Construction (239/523 Nos Completed)	427	17-Nov-20	17-Jan-22



- Actual
- Remaining Works
- Critical Remaining Works

C. Environmental Mitigation Measures – Implementation Status

Table C-1: Environmental Mitigation Measures Implementation Status

EM&A Ref.	Recommendation Measures	Implementation Stage		
		May 2021	Jun 2021	Jul 2021
Air Quality Impact (Construction)				
2.1	**General Dust Control Measures** Frequent water spraying for active construction areas (12 times a day or once every one hour), including Heavy construction activities such as construction of buildings or roads, drilling, ground excavation, cut and fill operations (i.e., earth moving)	✓	✓	✓
2.1	**Best Practice For Dust Control** The relevant best practices for dust control as stipulated in the Air Pollution Control (construction Dust) Regulation should be adopted to further reduce the construction dust impacts from the Project. These best practices include:			
	Good Site Management	Obs, Rem	Obs	✓
	• Good site management is important to help reducing potential air quality impact down to an acceptable level. As a general guide, the Contractor should maintain high standard of housekeeping to prevent emission of fugitive dust. Loading, unloading, handling and storage of raw materials, wastes or by-products should be carried out in a manner so as to minimise the release of visible dust emission. Any piles of materials accumulated on or around the work areas should be cleaned up regularly. Cleaning, repair and maintenance of all plant facilities within the work areas should be carried out in a manner minimising generation of fugitive dust emissions. The material should be handled properly to prevent fugitive dust emission before cleaning.			
	Disturbed Parts of the Roads	✓	✓	✓
	• Each and every main temporary access should be paved with concrete, bituminous hardcore materials or metal plates and kept clear of dusty materials; or			
	• Unpaved parts of the road should be sprayed with water or a dust suppression chemical so as to keep the entire road surface wet.	Obs	✓	✓

EM&A Ref.	Recommendation Measures	Implementation Stage		
		May 2021	Jun 2021	Jul 2021
	Exposed Earth • Exposed earth should be properly treated by compaction, hydroseeding, vegetation planting or seating with latex, vinyl, bitumen within six months after the last construction activity on the site or part of the site where the exposed earth lies.	N/A	N/A	N/A
	Loading, Unloading or Transfer of Dusty Materials • All dusty materials should be sprayed with water immediately prior to any loading or transfer operation so as to keep the dusty material wet.	✓	✓	✓
	Debris Handling • Any debris should be covered entirely by impervious sheeting or stored in a debris collection area sheltered on the top and the three sides.	✓	✓	Obs
	• Before debris is dumped into a chute, water should be sprayed so that it remains wet when it is dumped.	N/A	N/A	N/A
	Transport of Dusty Materials • Vehicle used for transporting dusty materials/spoils should be covered with tarpaulin or similar material. The cover should extend over the edges of the sides and tailboards.	✓	✓	✓
	Wheel washing • Vehicle wheel washing facilities should be provided at each construction site exit. Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels.	✓	✓	✓
	Use of vehicles • The speed of the trucks within the site should be controlled to about 10km/hour in order to reduce adverse dust impacts and secure the safe movement around the site.	✓	✓	✓
	• Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels.	✓	✓	✓
	• Where a vehicle leaving the construction site is carrying a load of dusty materials, the load should be covered entirely by clean impervious sheeting to ensure that the dusty materials do not leak from the vehicle.	✓	✓	✓

EM&A Ref.	Recommendation Measures	Implementation Stage		
		May 2021	Jun 2021	Jul 2021
	Site hoarding • Where a site boundary adjoins a road, street, service lane or other area accessible to the public, hoarding of not less than 2.4m high from ground level should be provided along the entire length of that portion of the site boundary except for a site entrance or exit.	✓	✓	✓
2.1	**Best Practicable Means for Cement Works (Concrete Batching Plant)** The relevant best practices for dust control as stipulated in the Guidance Note on the Best Practicable Means for Cement Works (Concrete Batching Plant) BPM 3/2(93) should be followed and implemented to further reduce the construction dust impacts of the Project. These best practices include:			
	Exhaust from Dust Arrestment Plant	N/A	N/A	N/A
	• Wherever possible the final discharge point from particulate matter arrestment plant, where is not necessary to achieve dispersion from residual pollutants, should be at low level to minimise the effect on the local community in the case of abnormal emissions and to facilitate maintenance and inspection			
	Emission Limits	N/A	N/A	N/A
	• All emissions to air, other than steam or water vapour, shall be colourless and free from persistent mist or smoke			
	Engineering Design/Technical Requirements	N/A	N/A	N/A
	• As a general guidance, the loading, unloading, handling and storage of fuel, raw materials, products, wastes or by-products should be carried out in a manner so as to prevent the release of visible dust and/or other noxious or offensive emissions			
	Non-Road Mobile Machinery (NRMM): All NRMMs operating on-site which are subject to emission control of Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation are approved/exempted (as the case may be) and affixed with the requisite approval/exemption labels.	✓	✓	✓
Noise Impact (Construction)				

EM&A Ref.	Recommendation Measures	Implementation Stage		
		May 2021	Jun 2021	Jul 2021
3.1	**Good Site Practice** Good site practice and noise management can significantly reduce the impact of construction site activities on nearby NSRs. The following package of measures should be followed during each phase of construction:			
	• only well-maintained plant to be operated on-site and plant should be serviced regularly during the construction works;	✓	✓	✓
	• machines and plant that may be in intermittent use to be shut down between work periods or should be throttled down to a minimum	✓	✓	✓
	• plant known to emit noise strongly in one direction, should, where possible, be orientated to direct noise away from the NSRs;	✓	✓	✓
	• mobile plant should be sited as far away from NSRs as possible; and	✓	✓	✓
	• material stockpiles and other structures to be effectively utilised, where practicable, to screen noise from on-site construction activities.	✓	✓	✓
3.1	**Adoption of Quieter PME** The recommended quieter PME adopted in the assessment were taken from the EPD's QPME Inventory and "*Sound Power Levels of Other Commonly Used PME*" are presented in **Table 4.26** in the EIA report. It should be noted that the silenced PME selected for assessment can be found in Hong Kong.	✓	✓	✓
3.1	**Use of Movable Noise Barriers** Movable noise barriers can be very effective in screening noise from particular items of plant when constructing the Project. Noise barriers located along the active works area close to the noise generating component of a PME could produce at least 10 dB(A) screening for stationary plant and 5 dB(A) for mobile plant provided the direct line of sight between the PME and the NSRs is blocked.	Rem	Rem, Obs	Rem
3.1	**Use of Noise Enclosure/ Acoustic Shed** The use of noise enclosure or acoustic shed is to cover stationary PME such as air compressor and concrete pump. With the adoption of the noise enclosure, the PME could be completely screened, and noise reduction of 15 dB(A) can be achieved according to the EIAO Guidance Note No. 9/2010.	✓	✓	✓

EM&A Ref.	Recommendation Measures	Implementation Stage		
		May 2021	Jun 2021	Jul 2021
3.1	**Use of Noise Insulating Fabric** Noise insulating fabric can also be adopted for certain PME (e.g. drill rig, pilling machine etc). The fabric should be lapped such that there are no openings or gaps on the joints. According to the approved Tsim Sha Tsui Station Northern Subway EIA report (AEIAR-127/2008), a noise reduction of 10 dB(A) can be achieved for the PME lapped with the noise insulating fabric.	✓	✓	✓
3.1	**Scheduling of Construction Works outside School Examination Periods** During construction phase, the contractor should liaise with the educational institutions (including NSRs LCS and CRGPS) to obtain the examination schedule and avoid the noisy construction activities during school examination periods.	✓	✓	✓
Water Quality Impact (Construction)				
4.1	**Construction site runoff and drainage** The site practices outlined in ProPECC Note PN 1/94 should be followed as far as practicable in order to minimise surface runoff and the chance of erosion. The following measures are recommended to protect water quality and sensitive uses of the coastal area, and when properly implemented should be sufficient to adequately control site discharges so as to avoid water quality impacts:			
	• At the start of site establishment, perimeter cut-off drains to direct off-site water around the site should be constructed with internal drainage works and erosion and sedimentation control facilities implemented. Channels, earth bunds or sand bag barriers should be provided on site to direct storm water to silt removal facilities. The design of the temporary on-site drainage system should be undertaken by the WKCDA's Contractor prior to the commencement of construction;	✓	✓	✓
	• Sand/silt removal facilities such as sand/silt traps and sediment basins should be provided to remove sand/silt particles from runoff to meet the requirements of the TM standards under the WPCO. The design of efficient silt removal facilities should be based on the guidelines in Appendix A1 of ProPECC Note PN 1/94. Sizes may vary depending upon the flow rate. The detailed design of the sand/silt traps should be undertaken by the WKCDA's Contractor prior to the commencement of construction.	✓	✓	Obs

EM&A Ref.	Recommendation Measures	Implementation Stage		
		May 2021	Jun 2021	Jul 2021
	• All drainage facilities and erosion and sediment control structures should be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly during rainstorms. Deposited silt and grit should be regularly removed, at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times.	Obs	Obs	Obs
	• Measures should be taken to minimize the ingress of site drainage into excavations. If excavation of trenches in wet periods is necessary, they should be dug and backfilled in short sections wherever practicable. Water pumped out from foundation excavations should be discharged into storm drains via silt removal facilities.	✓	✓	✓
	• All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. An adequately designed and sited wheel washing facility should be provided at construction site exit where practicable. Wash-water should have sand and silt settled out and removed regularly to ensure the continued efficiency of the process. The section of access road leading to, and exiting from, the wheel-wash bay to the public road should be paved with sufficient backfall toward the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and drains.	✓	✓	✓
	• Open stockpiles of construction materials or construction wastes onsite should be covered with tarpaulin or similar fabric during rainstorms. Measures should be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system.	Rem	✓	✓
	• Manholes (including newly constructed ones) should be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and stormwater runoff being directed into foul sewers.	✓	✓	✓
	• Precautions should be taken at any time of the year when rainstorms are likely. Actions should be taken when a rainstorm is imminent or forecasted and actions to be taken during or after rainstorms are summarized in Appendix A2 of ProPECC Note PN 1/94. Particular attention should be paid to the control of silty surface runoff during storm events, especially for areas located near steep slopes.	Obs	Obs, Rem	Obs

EM&A Ref.	Recommendation Measures	Implementation Stage		
		May 2021	Jun 2021	Jul 2021
	• Bentonite slurries used in piling or slurry walling should be reconditioned and reused wherever practicable. Temporary enclosed storage locations should be provided on-site for any unused bentonite that needs to be transported away after all the related construction activities are completed. The requirements in ProPECC Note PN 1/94 should be adhered to in the handling and disposal of bentonite slurries.	N/A	N/A	N/A
4.1	**Barging facilities and activities** Recommendations for good site practices during operation of the proposed barging point include:			
	• All vessels should be sized so that adequate clearance is maintained between vessels and the seabed in all tide conditions, to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash;	N/A	N/A	N/A
	• Loading of barges and hoppers should be controlled to prevent splashing of material into the surrounding water. Barges or hoppers should not be filled to a level that will cause the overflow of materials or polluted water during loading or transportation;	N/A	N/A	N/A
	• All hopper barges should be fitted with tight fitting seals to their bottom openings to prevent leakage of material; and	N/A	N/A	N/A
	• Construction activities should not cause foam, oil, grease, scum, litter or other objectionable matter to be present on the water within the site.	N/A	N/A	N/A
4.1	**Sewage effluent from construction workforce** Temporary sanitary facilities, such as portable chemical toilets, should be employed on-site where necessary to handle sewage from the workforce. A licensed contractor should be employed to provide appropriate and adequate portable toilets and be responsible for appropriate disposal and maintenance.	✓	✓	✓
4.1	**General construction activities**			
	• Construction solid waste, debris and refuse generated on-site should be collected, handled and disposed of properly to avoid entering any nearby storm water drain. Stockpiles of cement and other construction materials should be kept covered when not being used.	Obs, Rem	Obs	✓

EM&A Ref.	Recommendation Measures	Implementation Stage		
		May 2021	Jun 2021	Jul 2021
	• Oils and fuels should only be stored in designated areas which have pollution prevention facilities. To prevent spillage of fuels and solvents to any nearby storm water drain, all fuel tanks and storage areas should be provided with locks and be sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank. The bund should be drained of rainwater after a rain event.	✓	✓	✓
Waste Management Implications (Construction)				
6.1	**Good Site Practices** Recommendations for good site practices during the construction activities include:			
	• Nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site	✓	✓	✓
	• Training of site personnel in proper waste management and chemical handling procedures	✓	✓	✓
	• Provision of sufficient waste disposal points and regular collection of waste	✓	✓	✓
	• Appropriate measures to minimise windblown litter and dust/odour during transportation of waste by either covering trucks or by transporting wastes in enclosed containers	✓	✓	✓
	• Provision of wheel washing facilities before the trucks leaving the works area so as to minimise dust introduction to public roads	✓	✓	✓
	• Well planned delivery programme for offsite disposal such that adverse environmental impact from transporting the inert or non-inert C&D materials is not anticipated	✓	✓	✓
6.1	**Waste Reduction Measures** Recommendations to achieve waste reduction include:			
	• Sort inert C&D material to recover any recyclable portions such as metals	✓	✓	✓
	• Segregation and storage of different types of waste in different containers or skips to enhance reuse or recycling of materials and their proper disposal	✓	✓	✓
	• Encourage collection of recyclable waste such as waste paper and aluminium cans by providing separate labelled bins to enable such waste to be segregated from other general refuse generated by the work force	✓	✓	✓

EM&A Ref.	Recommendation Measures	Implementation Stage		
		May 2021	Jun 2021	Jul 2021
	• Proper site practices to minimise the potential for damage or contamination of inert C&D materials	✓	✓	✓
	• Plan the use of construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of wastes	✓	✓	✓
6.1	**Inert and Non-inert C&D Materials** In order to minimise impacts resulting from collection and transportation of inert C&D material for off-site disposal, the excavated materials should be reused on-site as fill material as far as practicable. In addition, inert C&D material generated from excavation works could be reused as fill materials in local projects that require public fill for reclamation.			
	• The surplus inert C&D material will be disposed of at the Government's PFRFs for beneficial use by other projects in Hong Kong.	✓	✓	✓
	• Liaison with the CEDD Public Fill Committee (PFC) on the allocation of space for disposal of the inert C&D materials at PFRF is underway. No construction work is allowed to proceed until all issues on management of inert C&D materials have been resolved and all relevant arrangements have been endorsed by the relevant authorities including PFC and EPD.	✓	✓	✓
	• The C&D materials generated from general site clearance should be sorted on site to segregate any inert materials for reuse or disposal of at PFRFs whereas the non-inert materials will be disposed of at the designated landfill site.	✓	✓	✓
	• In order to monitor the disposal of inert and non-inert C&D materials at respectively PFRFs and the designated landfill site, and to control fly-tipping, it is recommended that the Contractor should follow the Technical Circular (Works) No. 6/2010 for Trip Ticket System for Disposal of Construction & Demolition Materials issued by Development Bureau. In addition, it is also recommended that the Contractor should prepare and implement a Waste Management Plan detailing their various waste arising and waste management practices in accordance with the relevant requirements of the Technical Circular (Works) No. 19/2005 Environmental Management on Construction Site.	✓	✓	✓
6.1	**Chemical Waste**			

EM&A Ref.	Recommendation Measures	Implementation Stage		
		May 2021	Jun 2021	Jul 2021
	• If chemical wastes are produced at the construction site, the Contractor will be required to register with the EPD as a chemical waste producer and to follow the guidelines stated in the "Code of Practice on the Packaging Labelling and Storage of Chemical Wastes". Good quality containers compatible with the chemical wastes should be used, and incompatible chemicals should be stored separately. Appropriate labels should be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste, such as explosive, flammable, oxidizing, irritant, toxic, harmful, corrosive, etc. The Contractor should use a licensed collector to transport and dispose of the chemical wastes at the approved Chemical Waste Treatment Centre or other licensed recycling facilities, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.	✓	✓	✓
	• Potential environmental impacts arising from the handling activities (including storage, collection, transportation and disposal of chemical waste) are expected to be minimal with the implementation of appropriate mitigation measures as recommended.	✓	✓	✓
6.1	**General Refuse** General refuse should be stored in enclosed bins or compaction units separated from inert C&D materials. A reputable waste collector should be employed by the Contractor to remove general refuse from the site, separately from inert C&D materials. Preferably an enclosed and covered area should be provided to reduce the occurrence of 'wind blown' light material.	✓	✓	✓
Land Contamination (Construction)				
7.1	The potential for land contamination issues at the TST Fire Station due to its future relocation will be confirmed by site investigation after land acquisition. Where necessary, mitigation measures for minimising potential exposure to contaminated materials (if any) or remediation measures will be identified. If contaminated land is identified (e.g., during decommissioning of fuel oil storage tanks) after the commencement of works, mitigation measures are proposed in order to minimise the potentially adverse effects on the health and safety of construction workers and impacts arising from the disposal of potentially contaminated materials. The following measures are proposed for excavation and transportation of contaminated material:			

EM&A Ref.	Recommendation Measures	Implementation Stage		
		May 2021	Jun 2021	Jul 2021
	• To minimize the chance for construction workers to come into contact with any contaminated materials, bulk earth-moving excavation equipment should be employed;	N/A	N/A	N/A
	• Contact with contaminated materials can be minimised by wearing appropriate clothing and personal protective equipment such as gloves and masks (especially when interacting directly with contaminated material), provision of washing facilities and prohibition of smoking and eating on site;	N/A	N/A	N/A
	• Stockpiling of contaminated excavated materials on site should be avoided as far as possible;	N/A	N/A	N/A
	• The use of contaminated soil for landscaping purpose should be avoided unless pre-treatment was carried out;	N/A	N/A	N/A
	• Vehicles containing any contaminated excavated materials should be suitably covered to reduce dust emissions and/or release of contaminated wastewater;	N/A	N/A	N/A
	• Truck bodies and tailgates should be sealed to stop any discharge;	N/A	N/A	N/A
	• Only licensed waste haulers should be used to collect and transport contaminated material to treatment/disposal site and should be equipped with tracking system to avoid fly tipping;		N/A	N/A
	• Speed control for trucks carrying contaminated materials should be exercised;	N/A	N/A	N/A
	• Observe all relevant regulations in relation to waste handling, such as Waste Disposal Ordinance (Cap. 354), Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354) and obtain all necessary permits where required; and	N/A	N/A	N/A
	• Maintain records of waste generation and disposal quantities and disposal arrangements.	N/A	N/A	N/A
Ecological Impact (Construction)				
	No mitigation measure is required.			
Landscape and Visual Impact (Construction)				
Table 9.1 (CM1)	Trees should be retained in situ on site as far as possible. Should tree removal be unavoidable due to construction impacts, trees will be transplanted or felled with reference to the stated criteria in the Tree Removal Applications to be submitted to relevant government departments for approval in accordance to ETWB TCW No. 29/2004 and 3/2006.	✓	✓	✓

EM&A Ref.	Recommendation Measures	Implementation Stage		
		May 2021	Jun 2021	Jul 2021
Table 9.1 (CM2)	Compensatory tree planting shall be incorporated to the proposed project and maximize the new tree, shrubs and other vegetation planting to compensate tree felled and vegetation removed. Also, implementation of compensatory planting should be of a ratio not less than 1:1 in terms of quality and quantity within the site.	N/A	N/A	N/A
Table 9.1 (CM3)	Buffer trees for screening purposes to soften the hard architectural and engineering structures and facilities.	N/A	N/A	N/A
Table 9.1 (CM4)	Softscape treatments such as vertical green wall panel /planting of climbing and/or weeping plants, etc, to maximize the green coverage and soften the hard architectural and engineering structures and facilities.	N/A	N/A	N/A
Table 9.1 (CM5)	Roof greening by means of intensive and extensive green roof to maximize the green coverage and improve aesthetic appeal and visual quality of the building/structure.	N/A	N/A	N/A
Table 9.1 (CM6)	Sensitive streetscape design should be incorporated along all new roads and streets.	N/A	N/A	N/A
Table 9.1 (CM7)	Structure, ornamental planting shall be provided along amenity strips to enhance the landscape quality.	N/A	N/A	N/A
Table 9.1 (CM8)	Landscape design shall be incorporated to architectural and engineering structures in order to provide aesthetically pleasing designs.	N/A	N/A	N/A
Table 9.1 (CM9)	Minimize the structure of marine facilities to be built on the seabed and foreshore in order to minimize the affected extent to the waterbody	N/A	N/A	N/A
Table 9.2 (MCP1)	Use of decorative screen hoarding/boards	✓	✓	✓
Table 9.2 (MCP2)	Early introduction of landscape treatments	N/A	N/A	N/A
Table 9.2 (MCP3)	Adoption of light colour for the temporary ventilation shafts for the basement during the transition period.	N/A	N/A	N/A
Table 9.2 (MCP4)	Control of night time lighting	✓	✓	✓

EM&A Ref.	Recommendation Measures	Implementation Stage		
		May 2021	Jun 2021	Jul 2021
Table 9.2 (MCP5)	Use of greenery such as grass cover for the temporary open areas will help achieve the visual balance and soften the hard edges of the structures.	N/A	N/A	N/A

N/A - Not Applicable

✓ - Implemented

Obs - Observed

Rem - Reminder

D. Meteorological Data Extracted from Hong Kong Observatory

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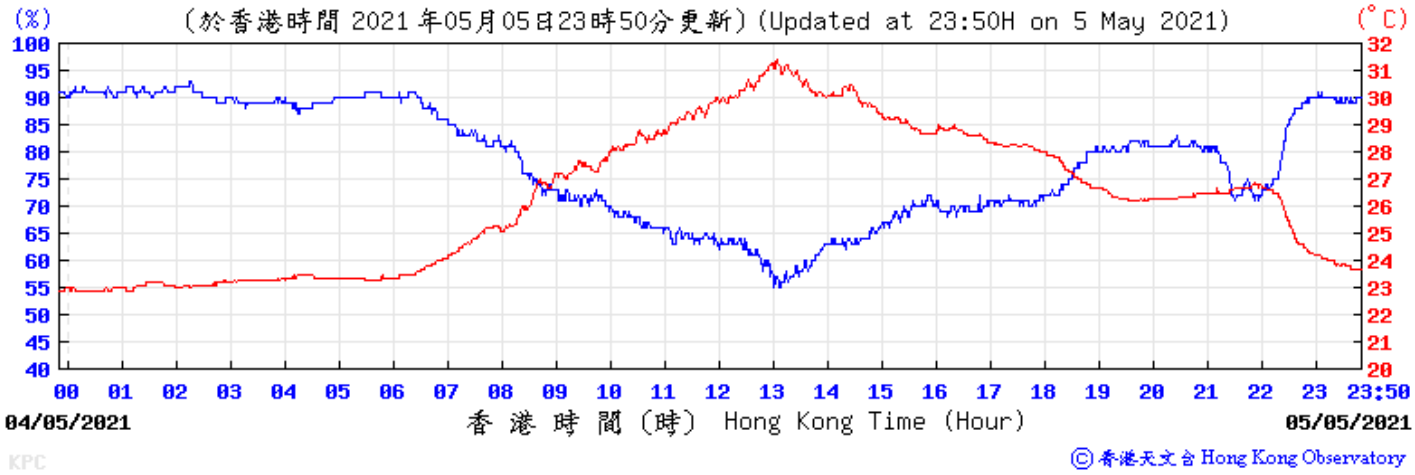

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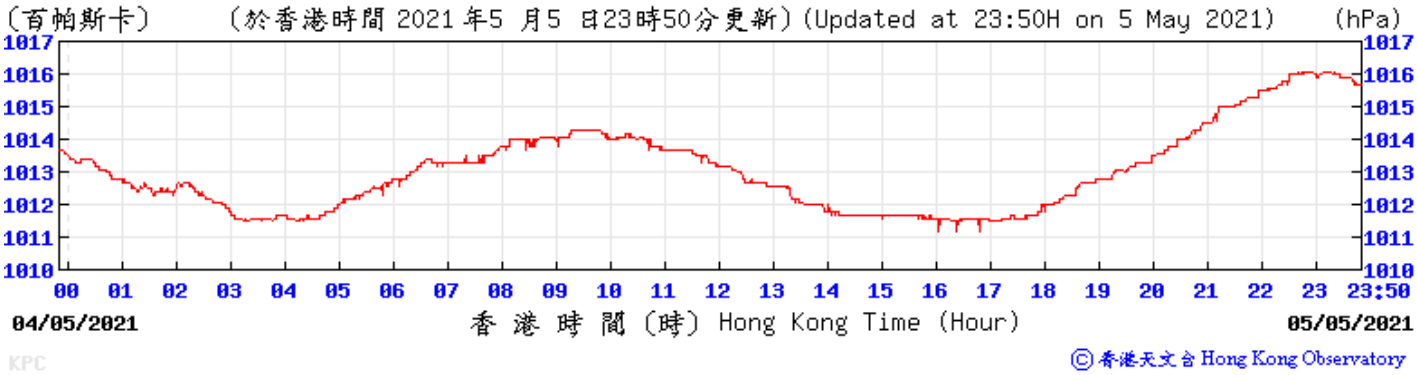

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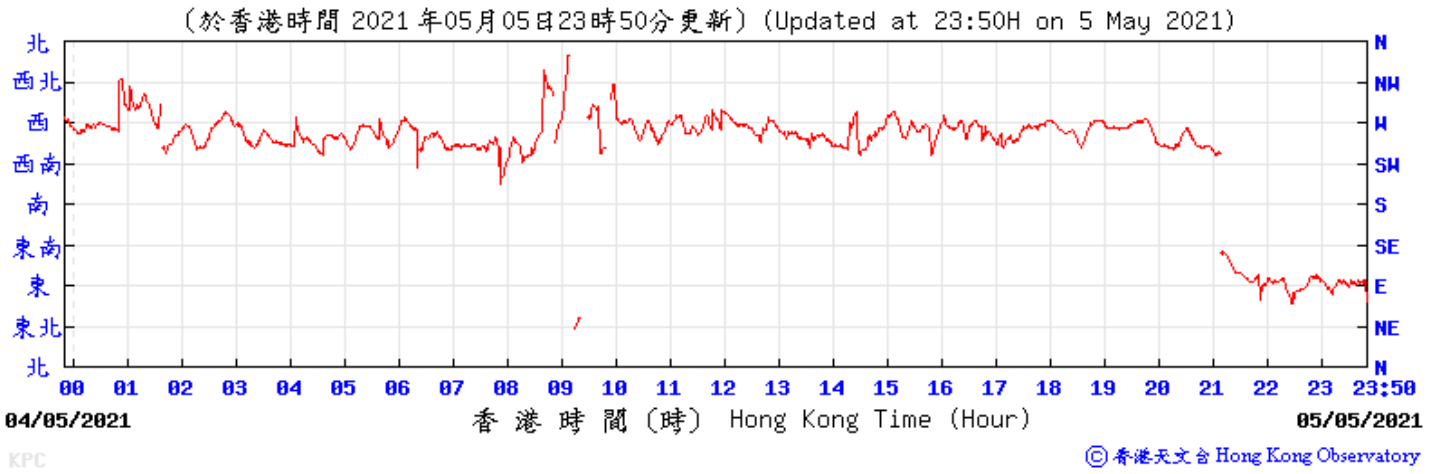

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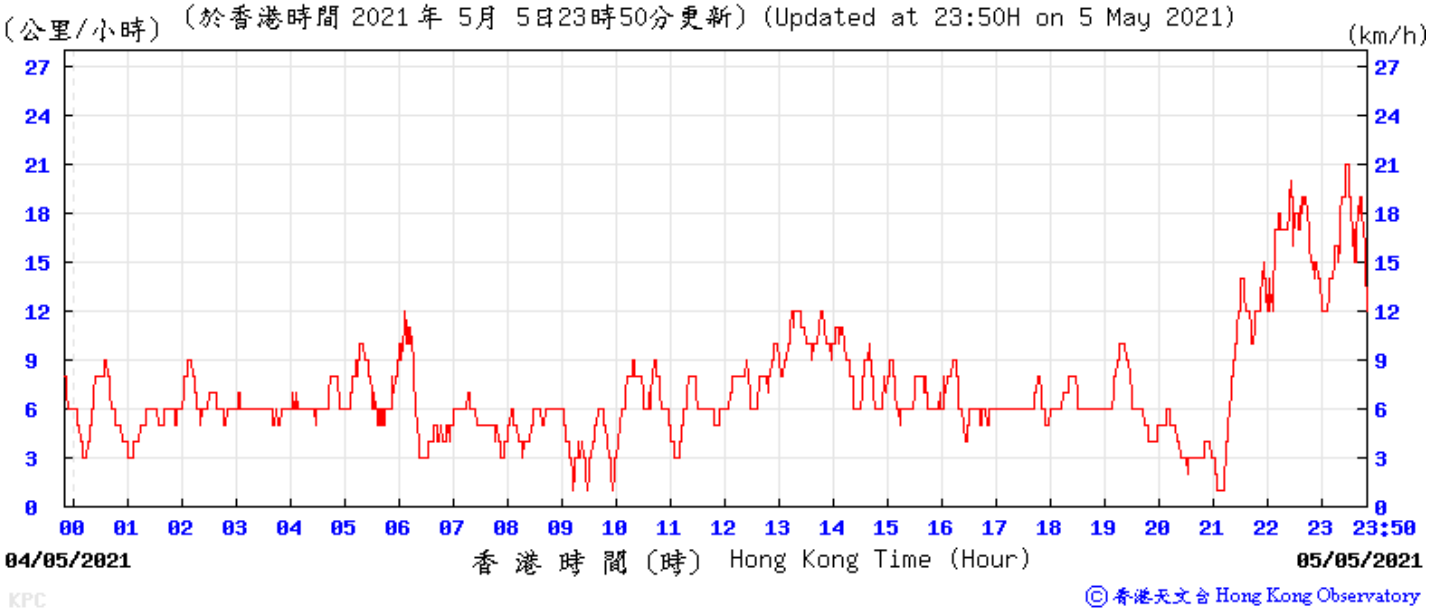

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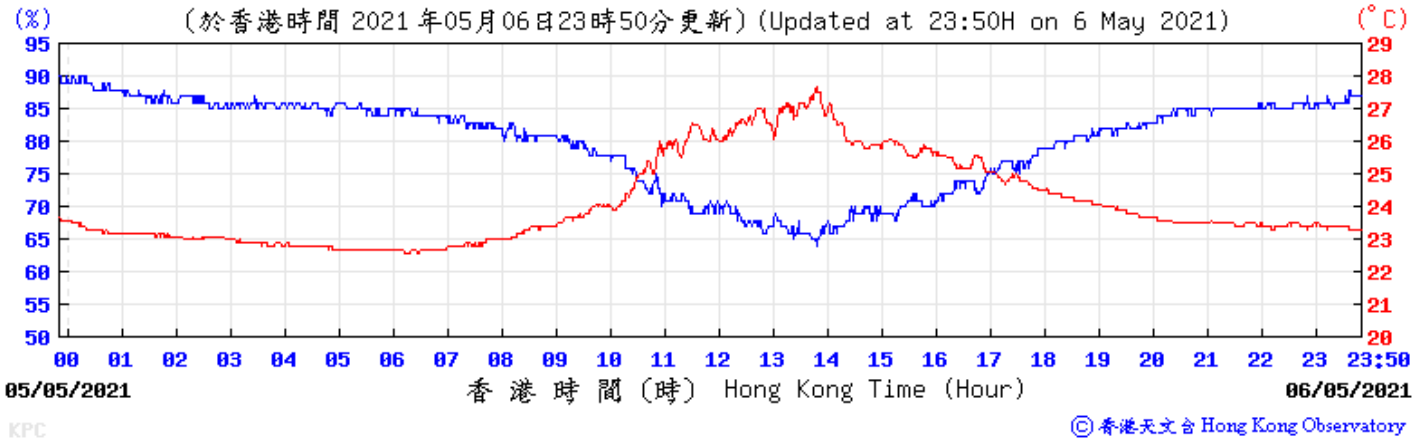

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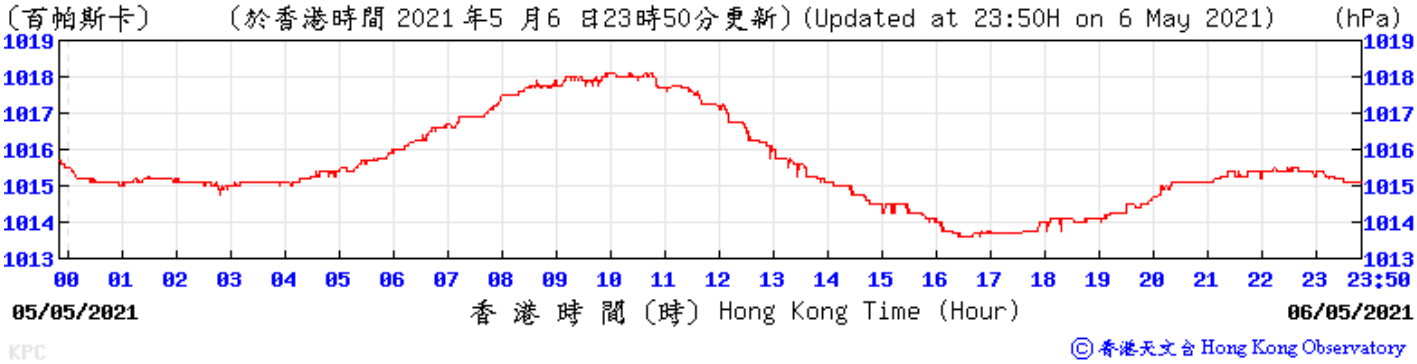

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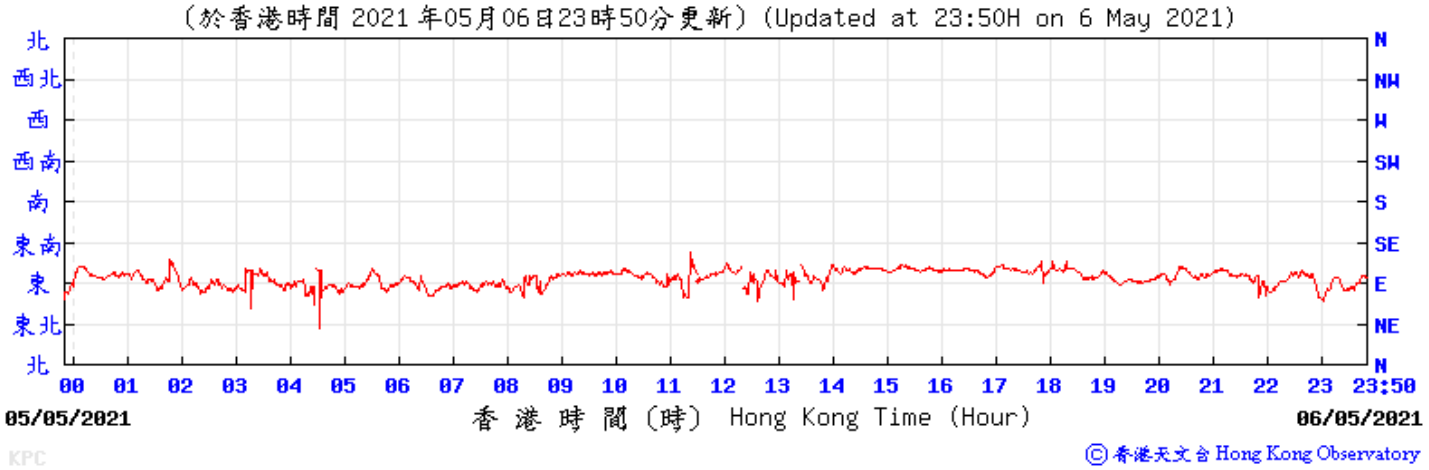

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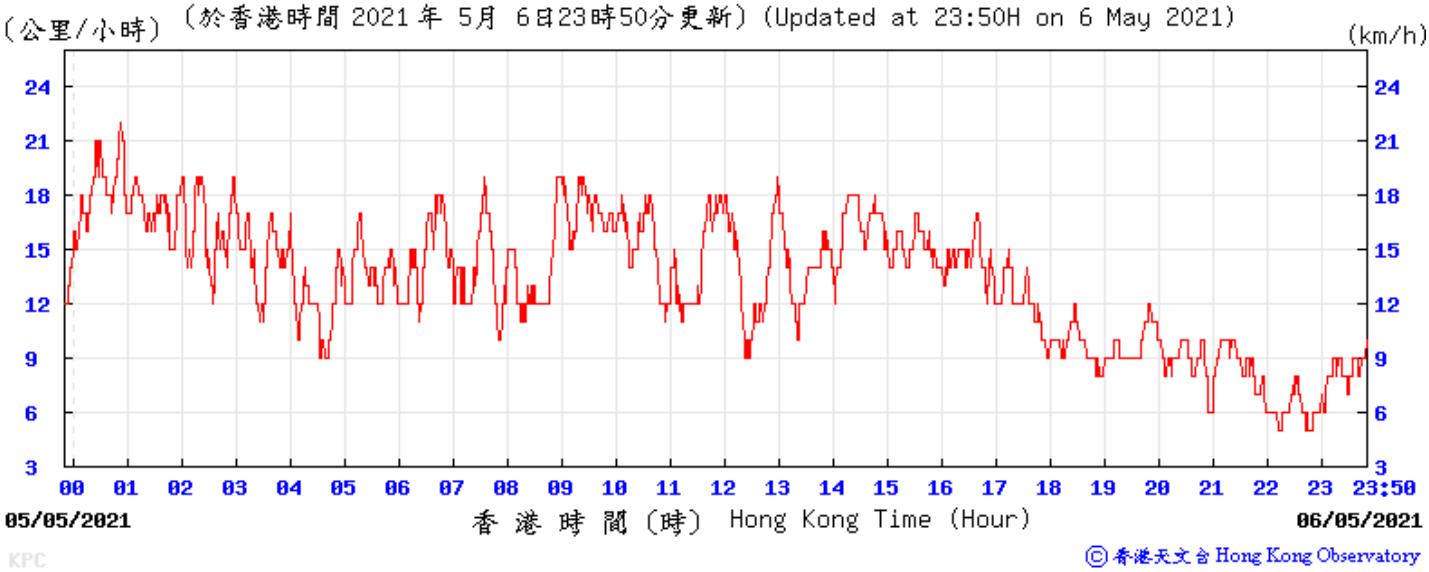

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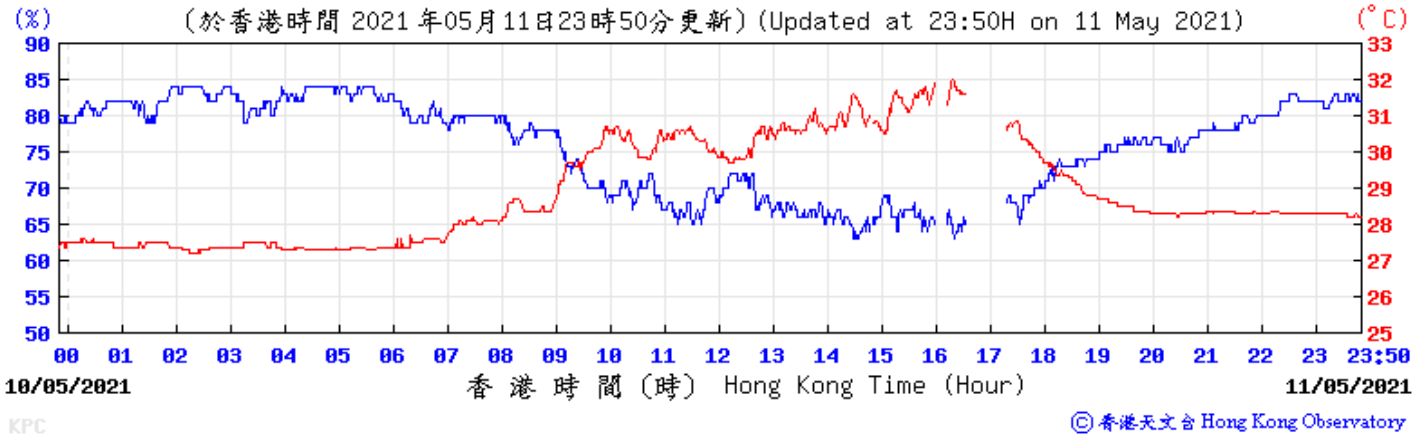

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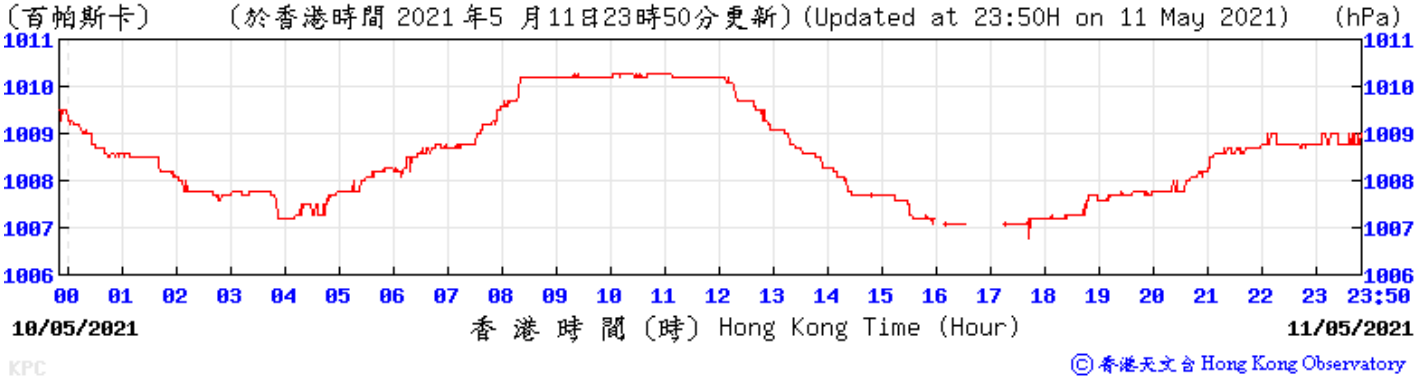

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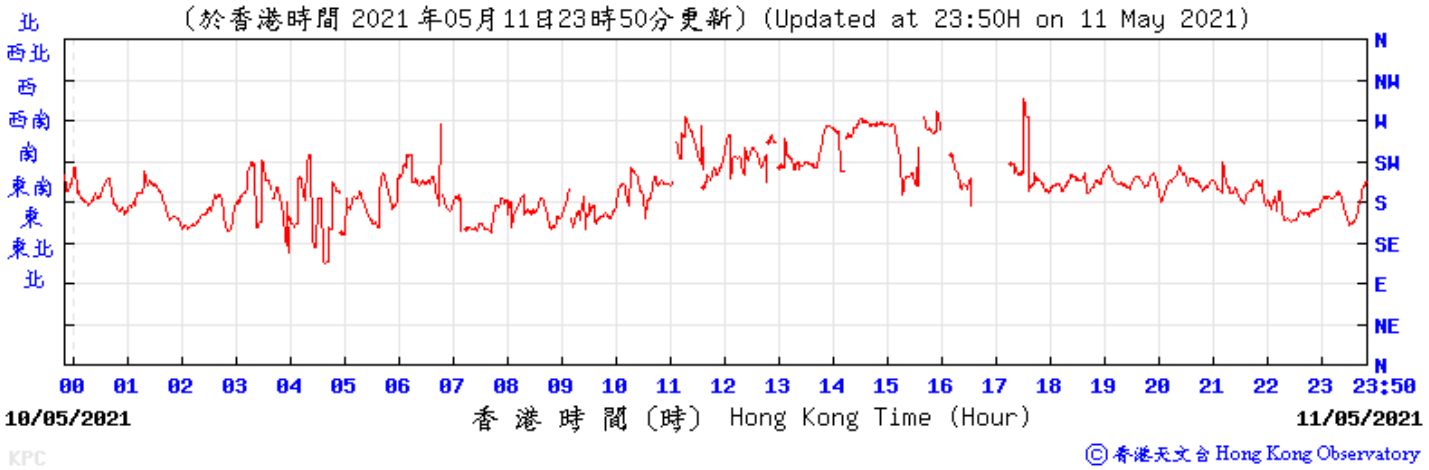

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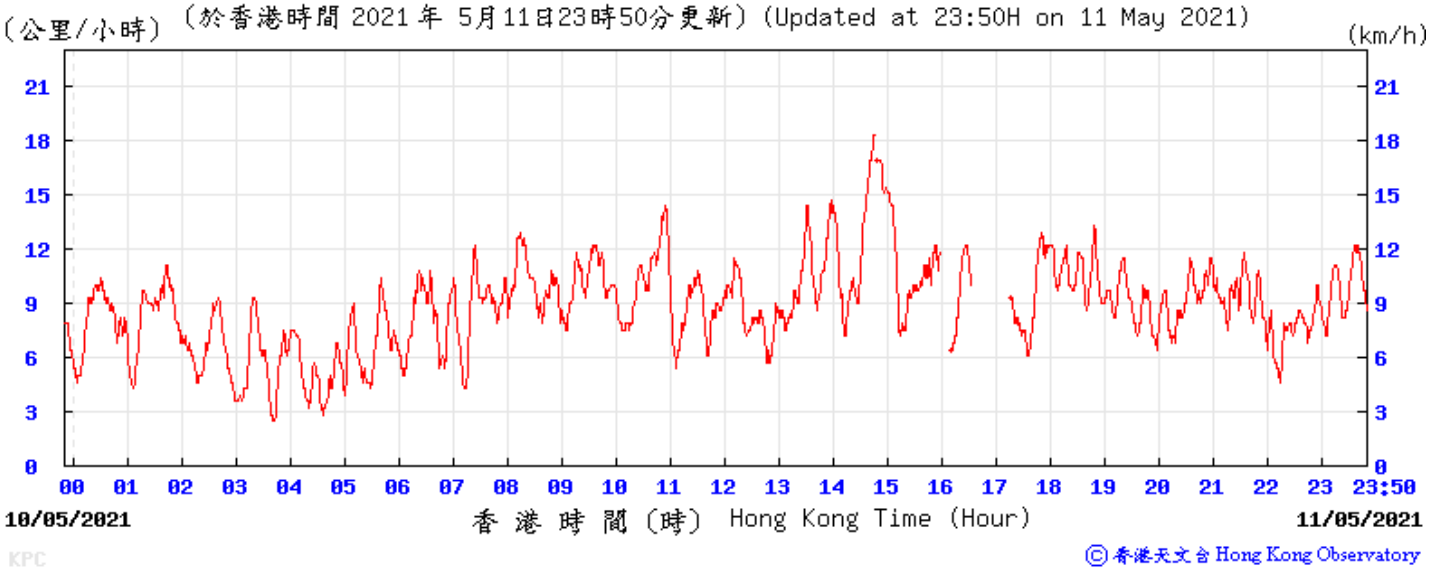

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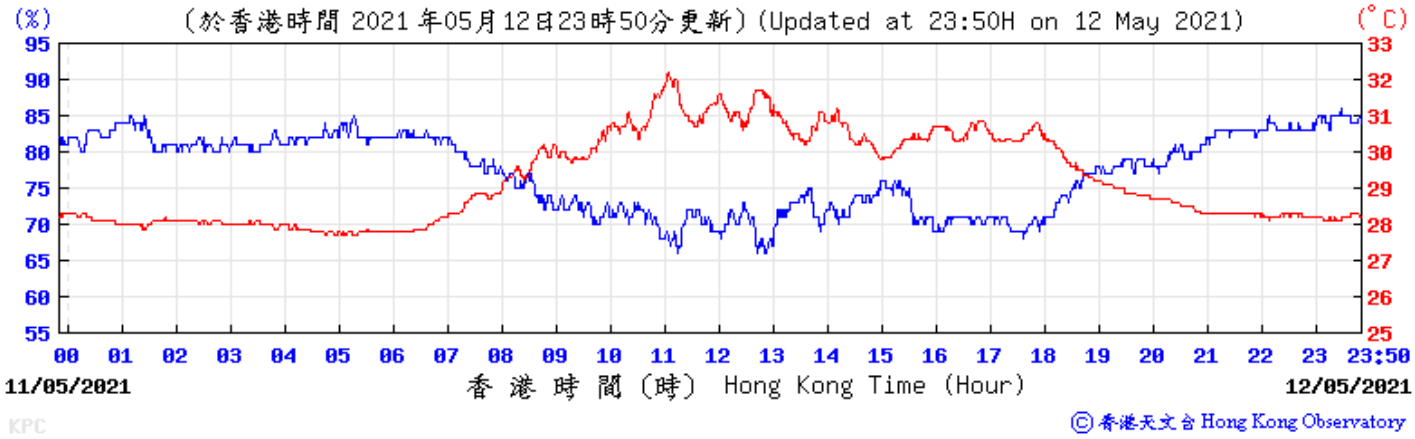

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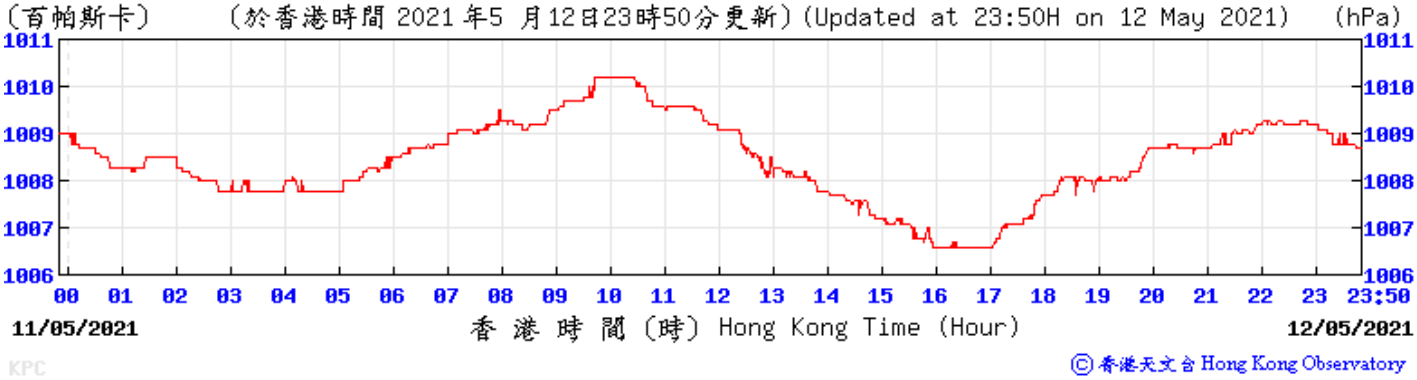

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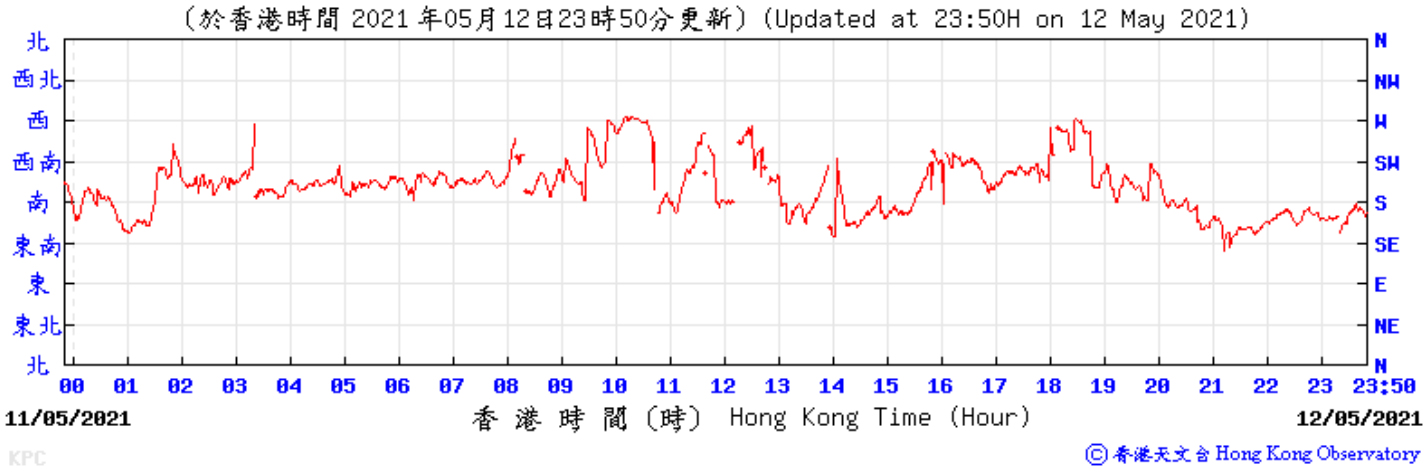

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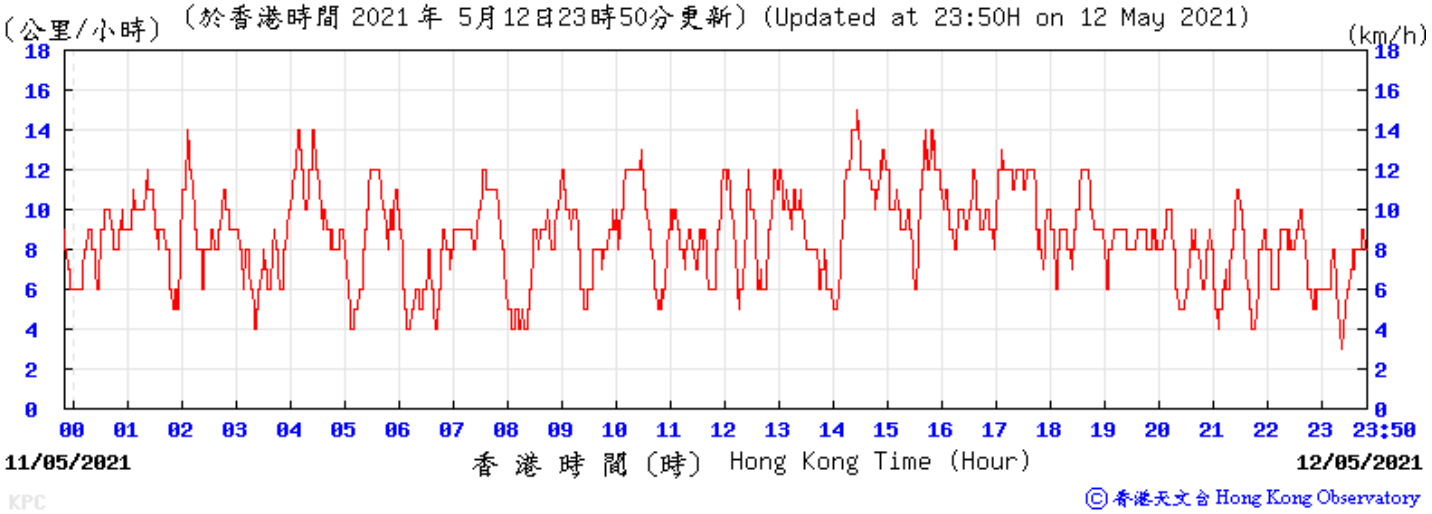

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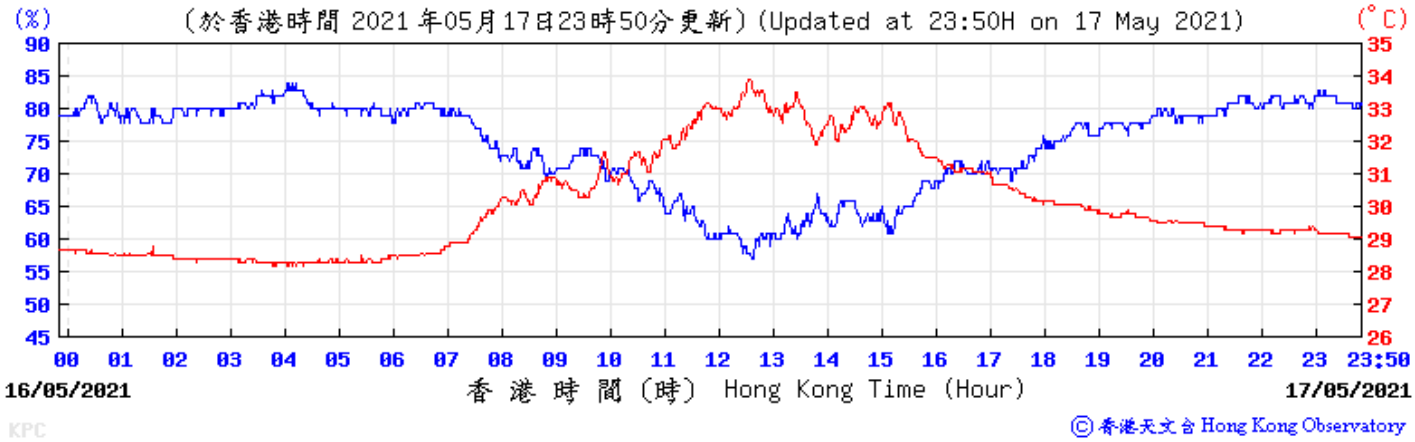

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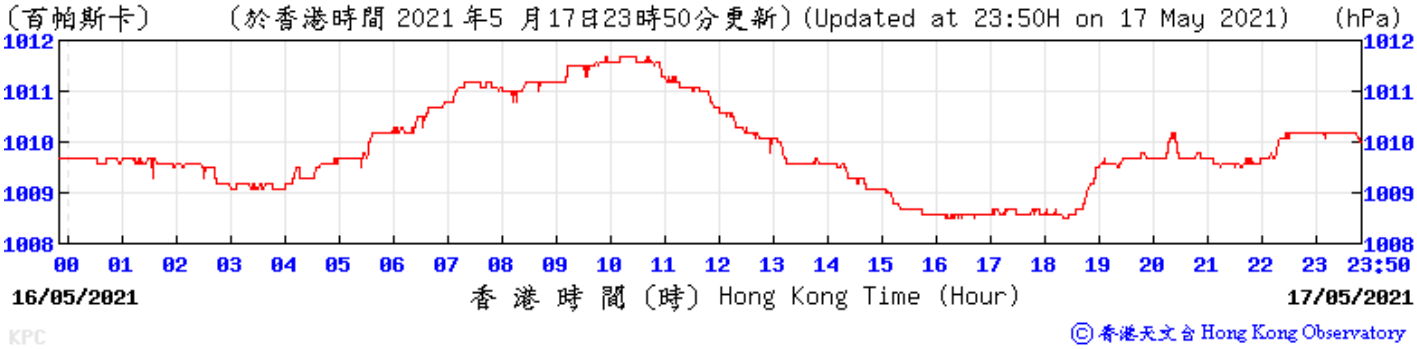

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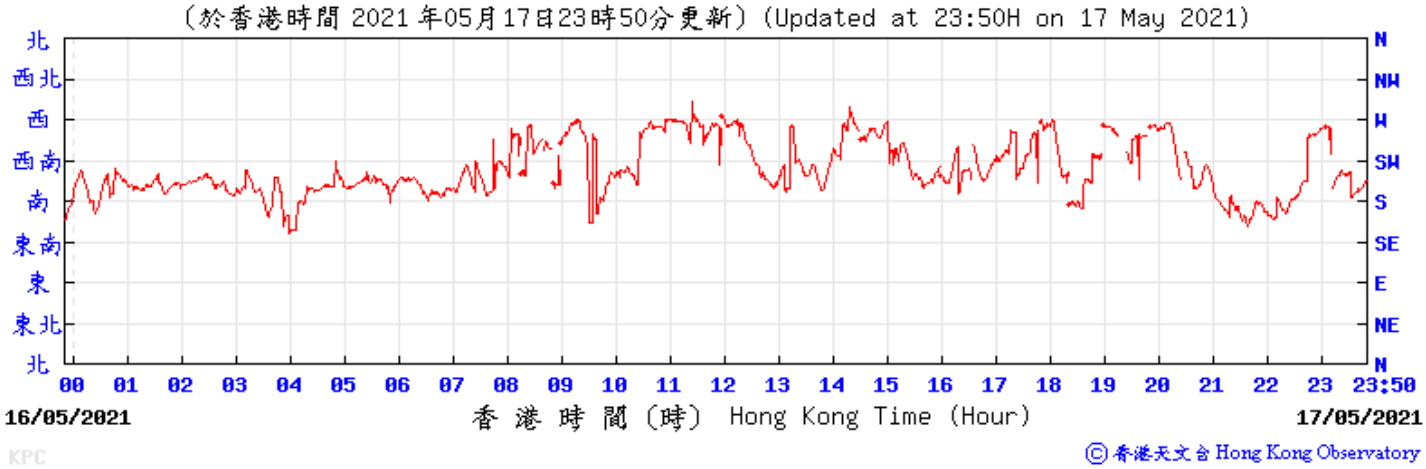

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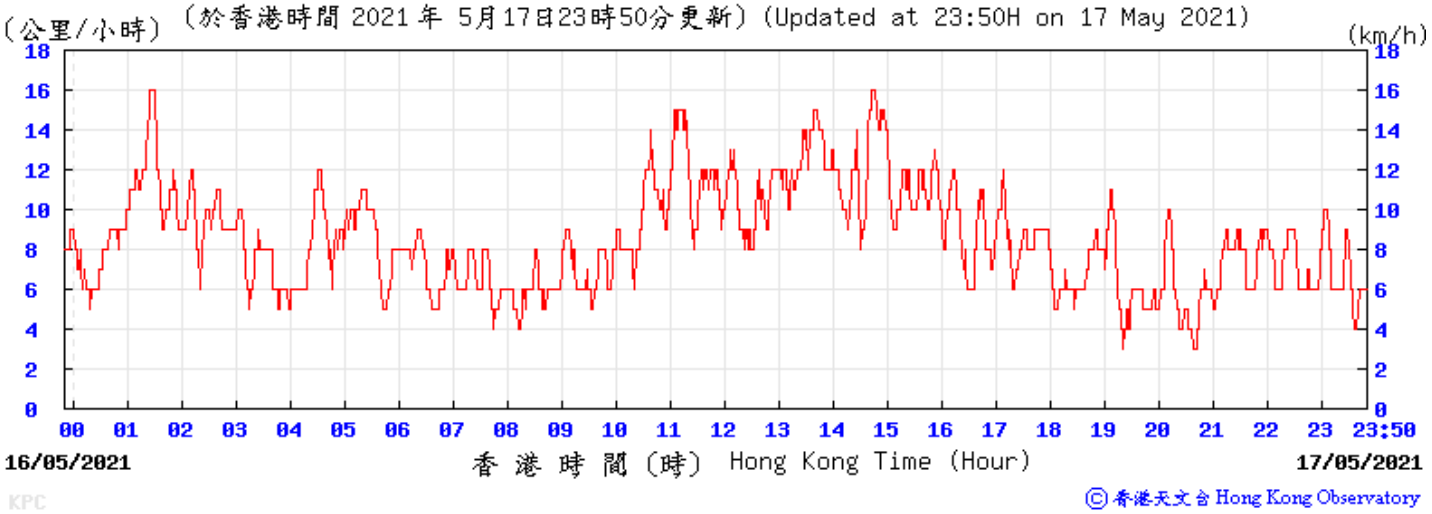

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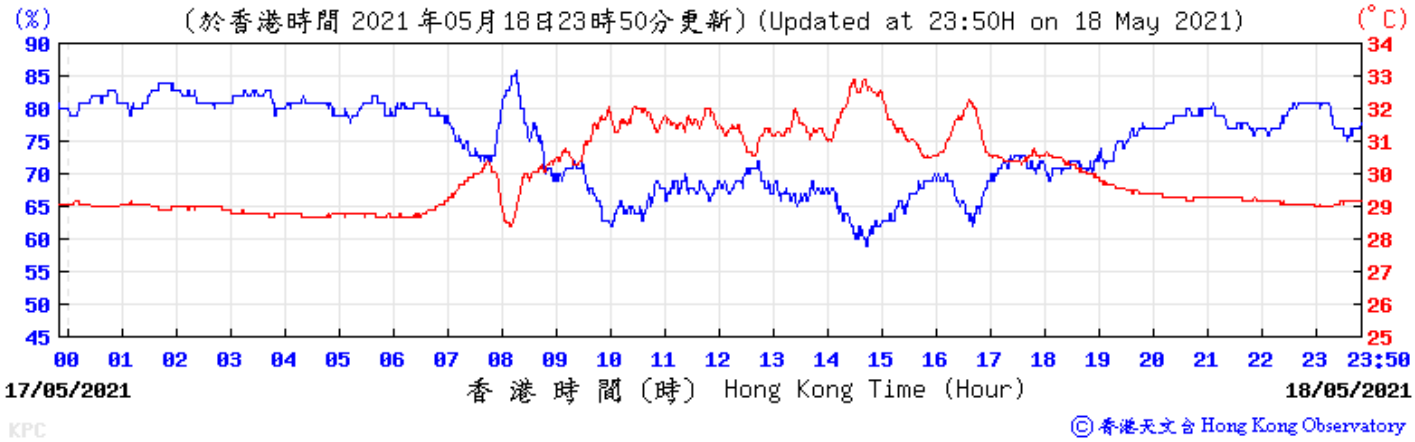

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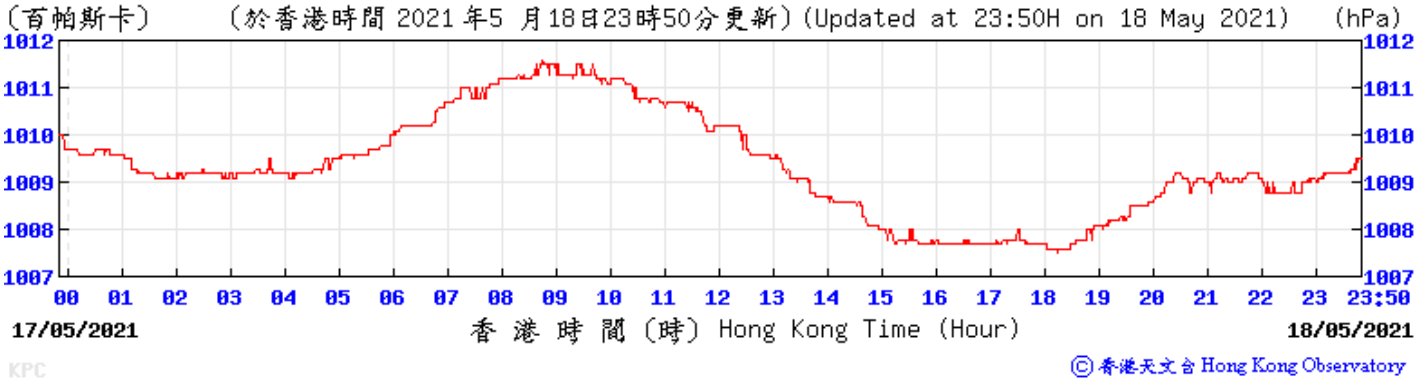

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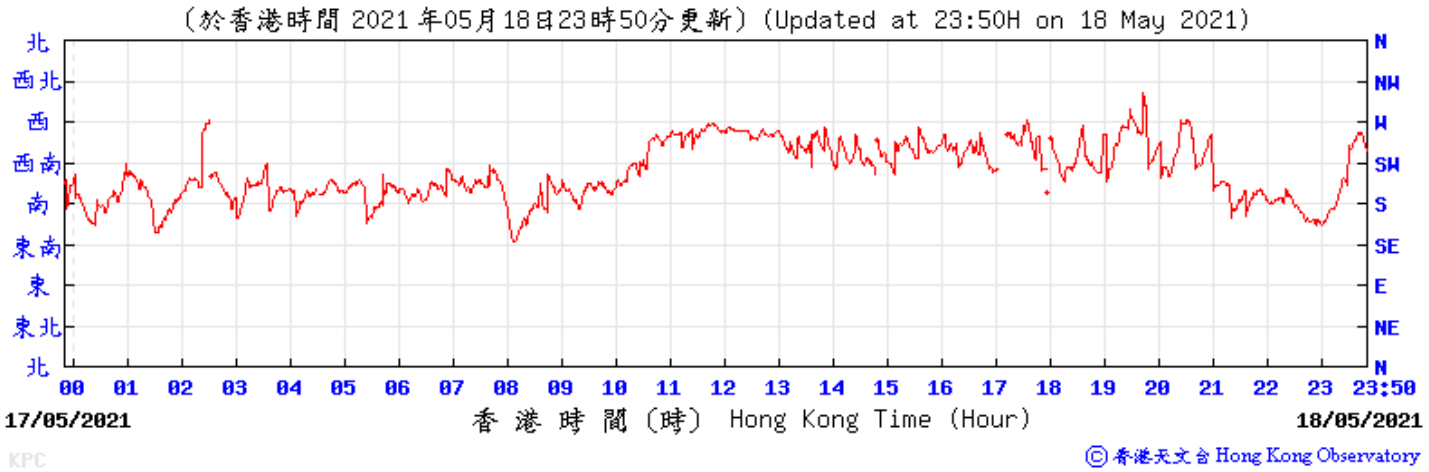

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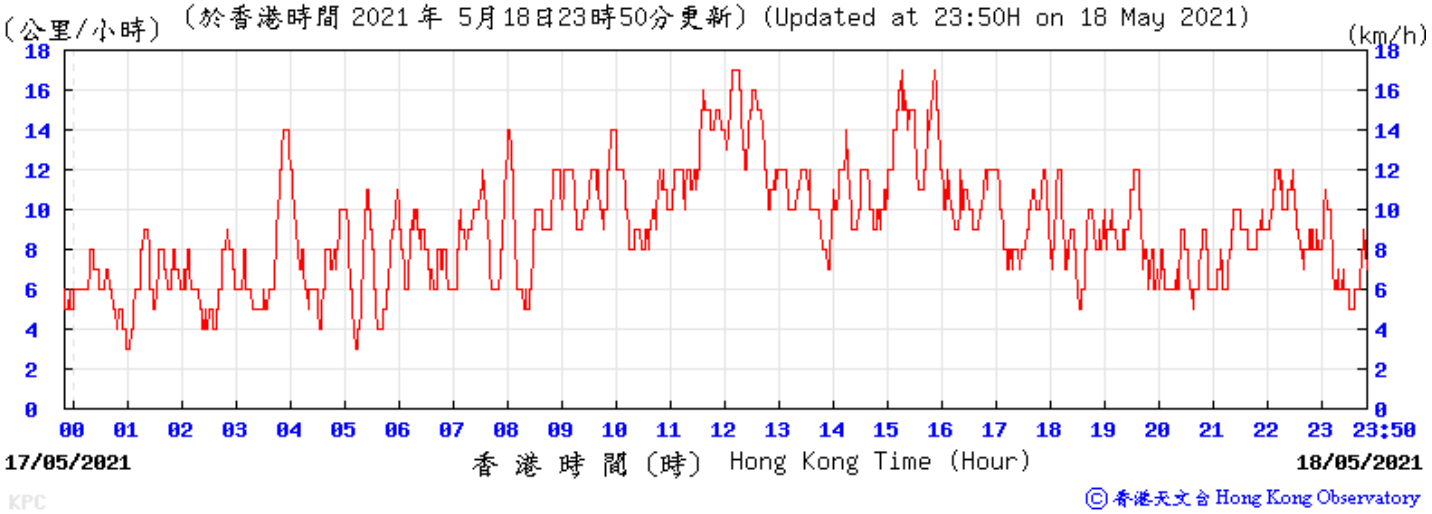

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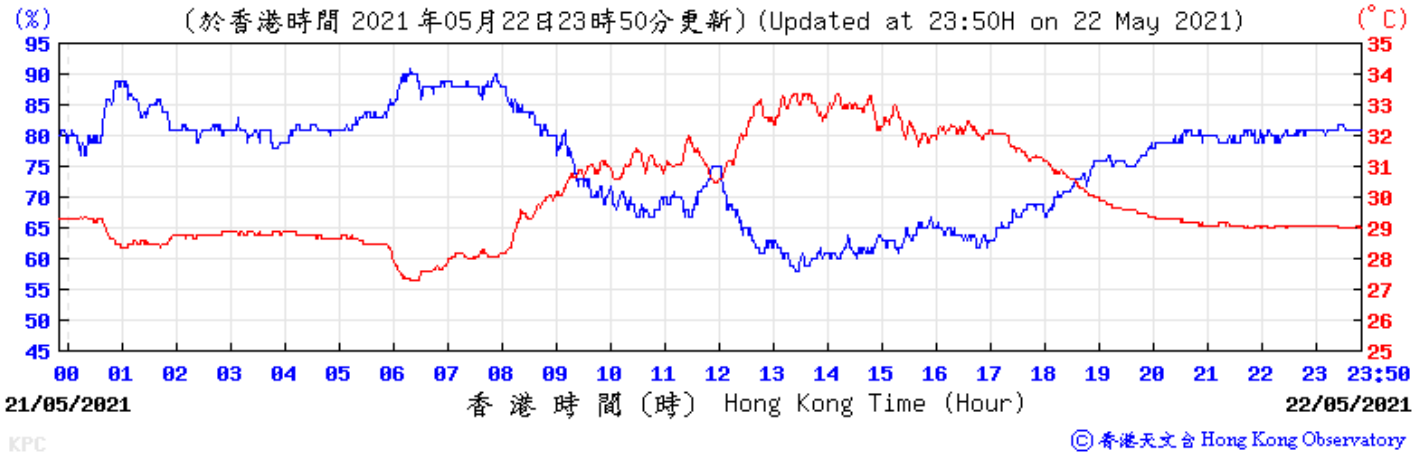

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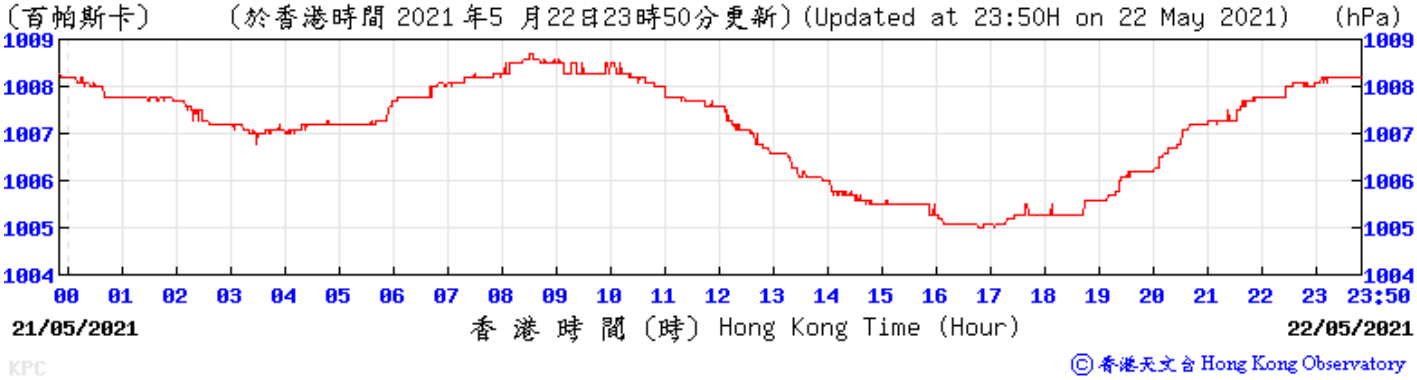

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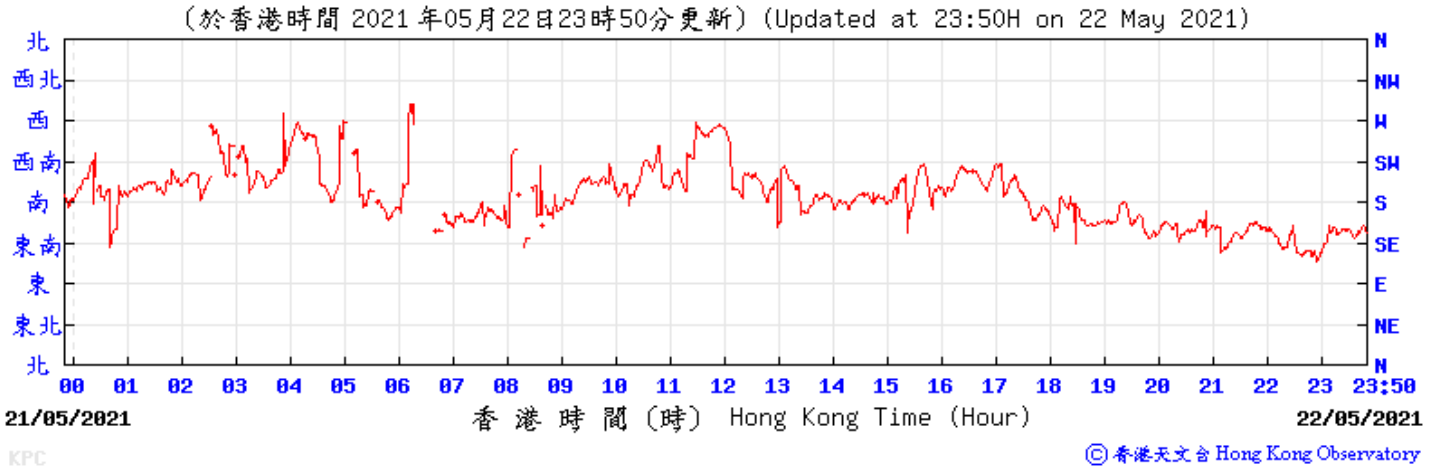

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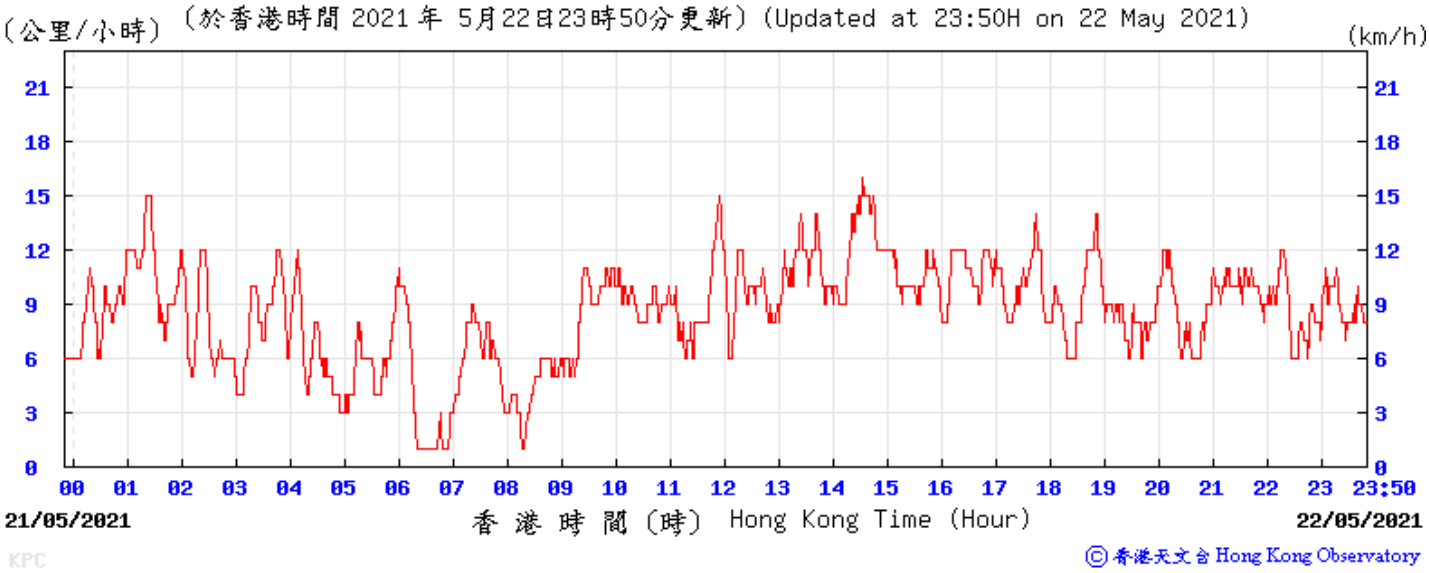

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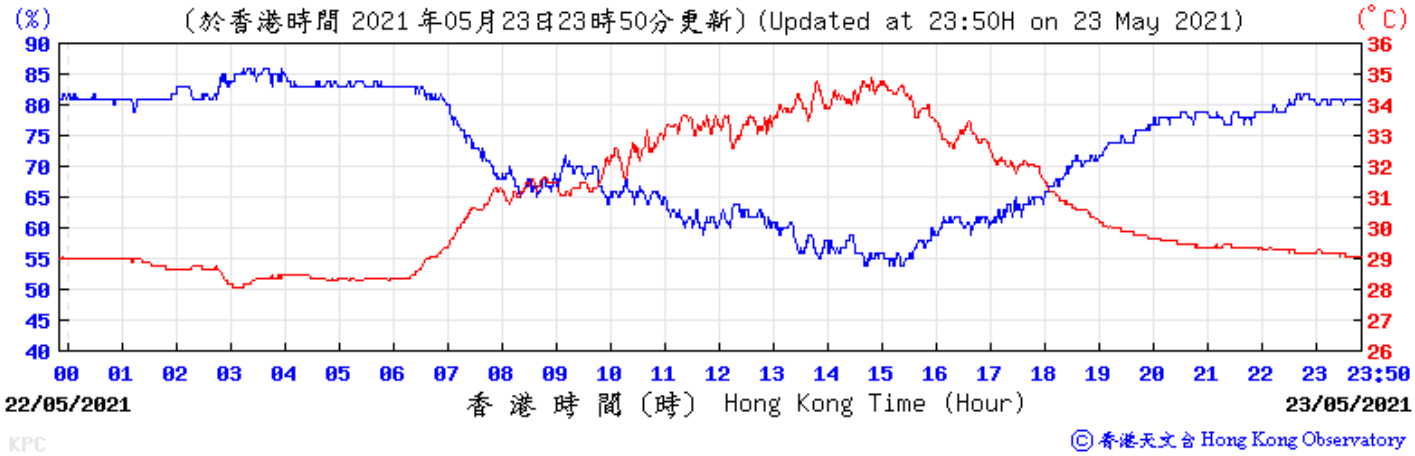

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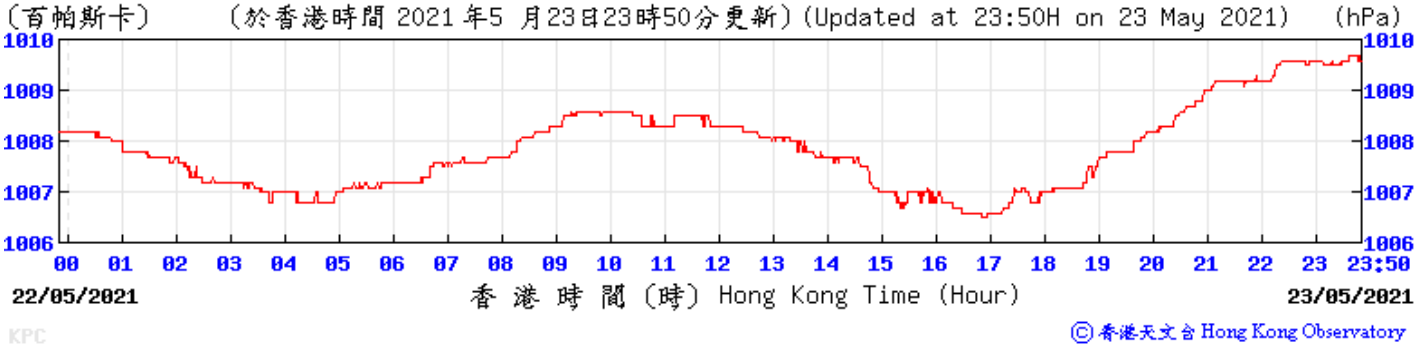

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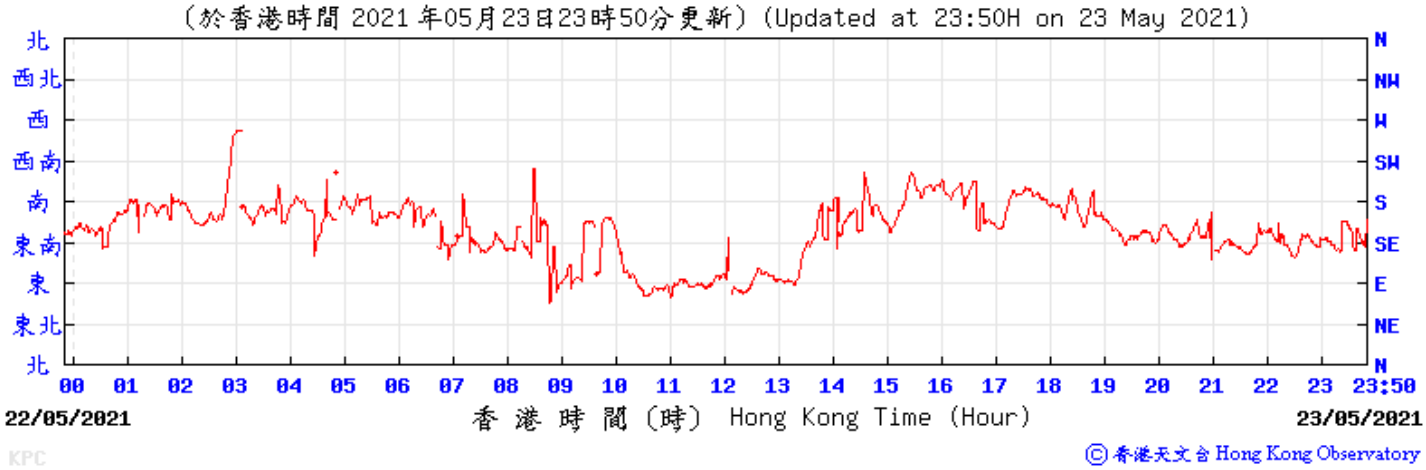

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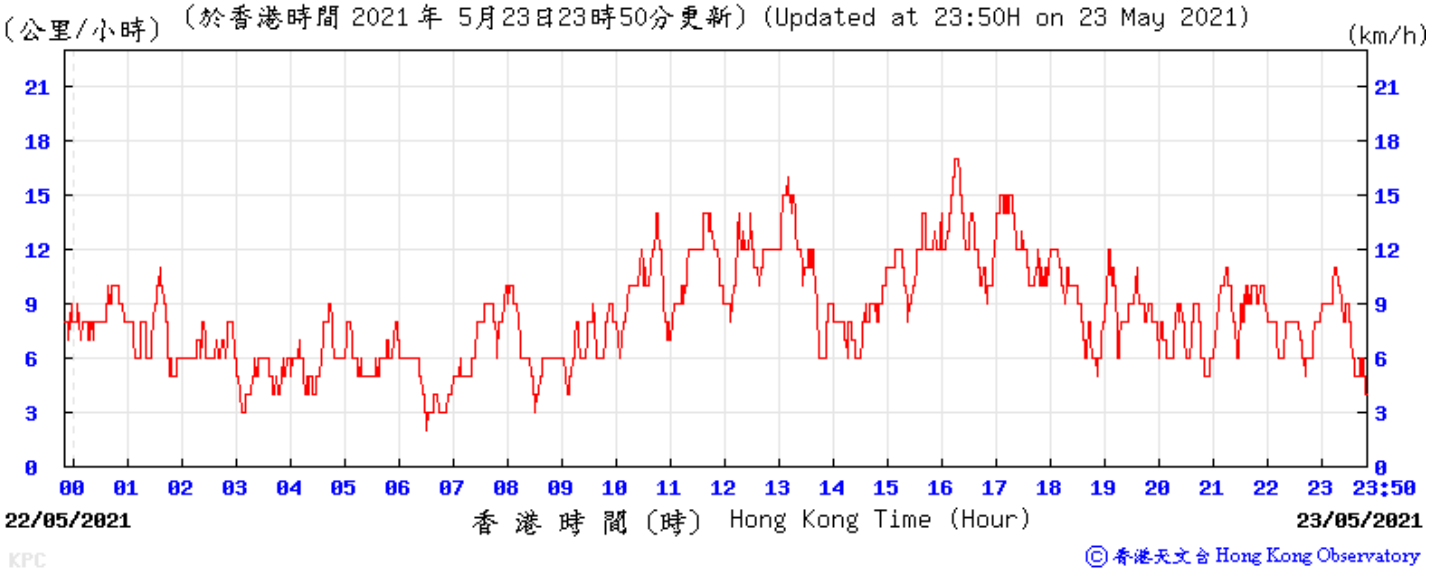

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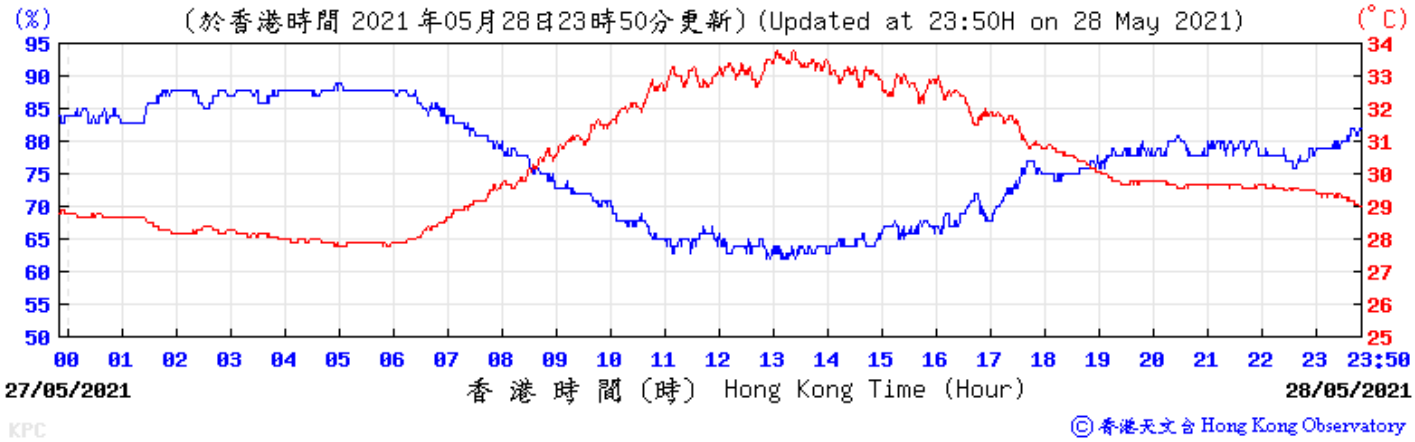

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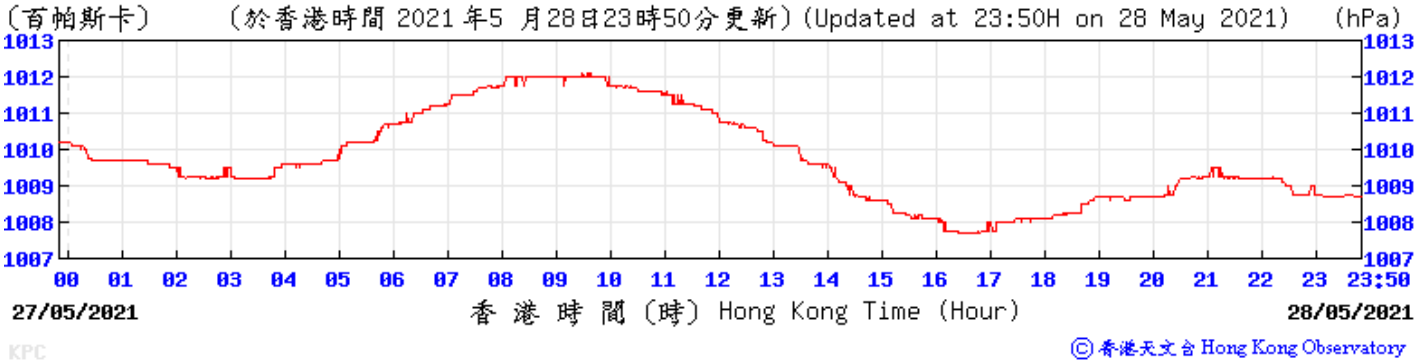

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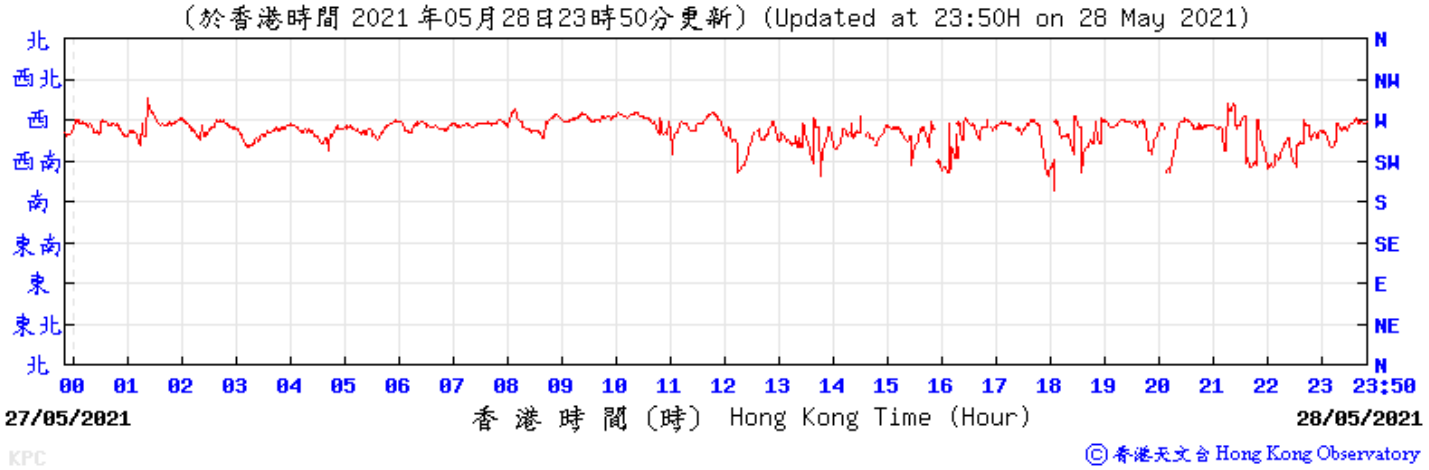

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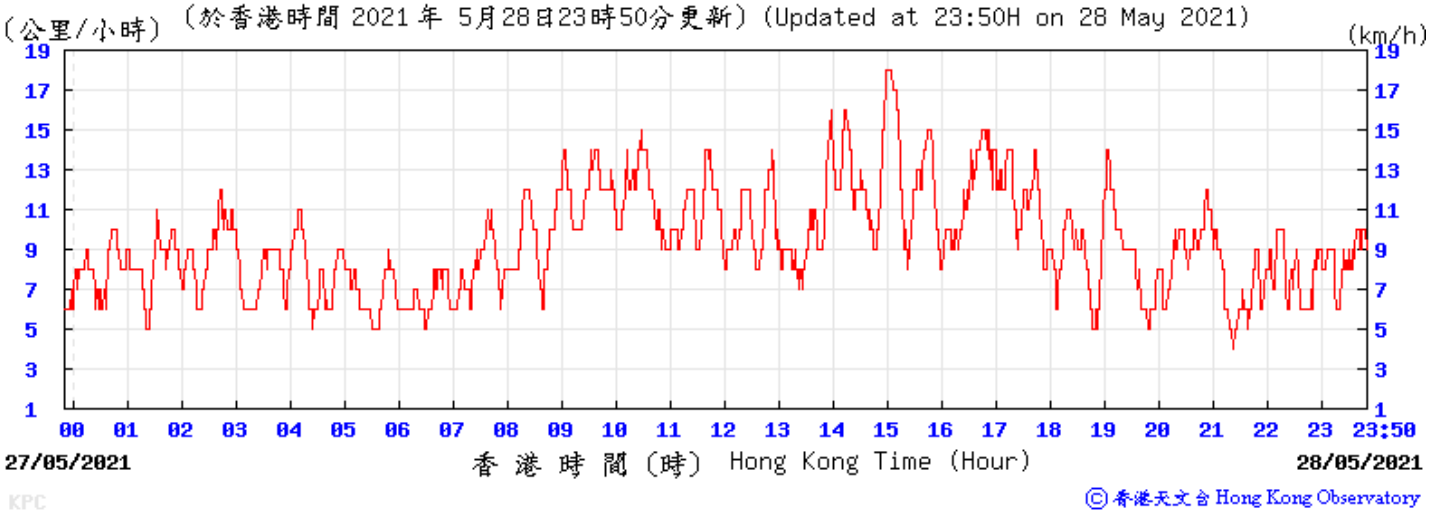

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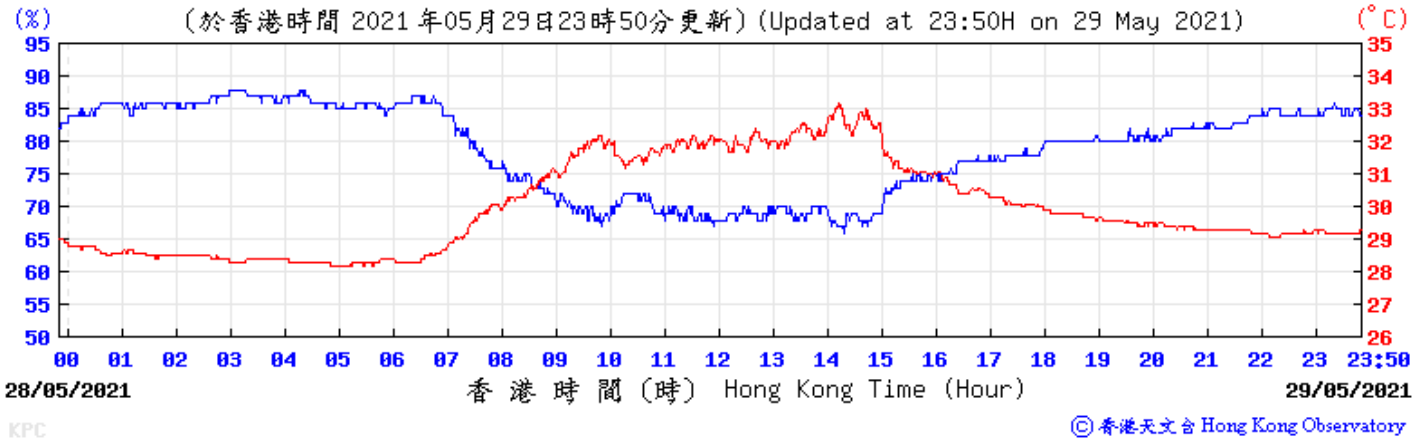

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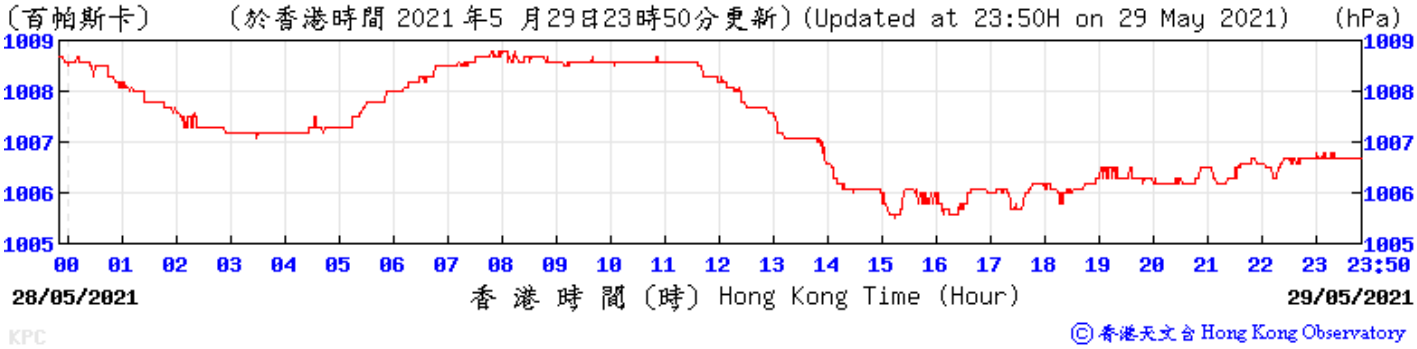

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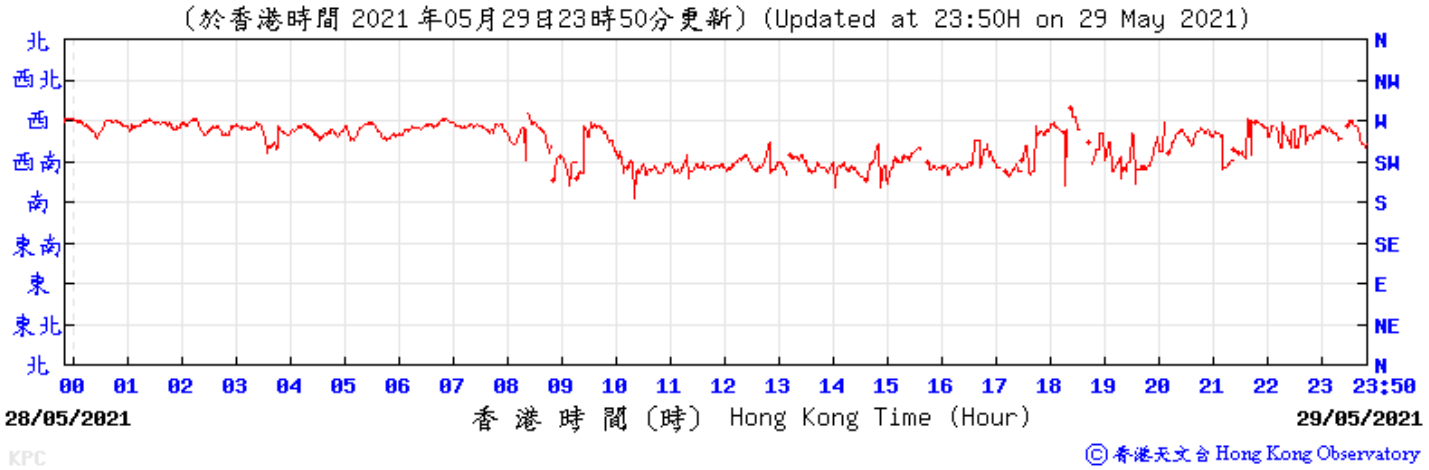

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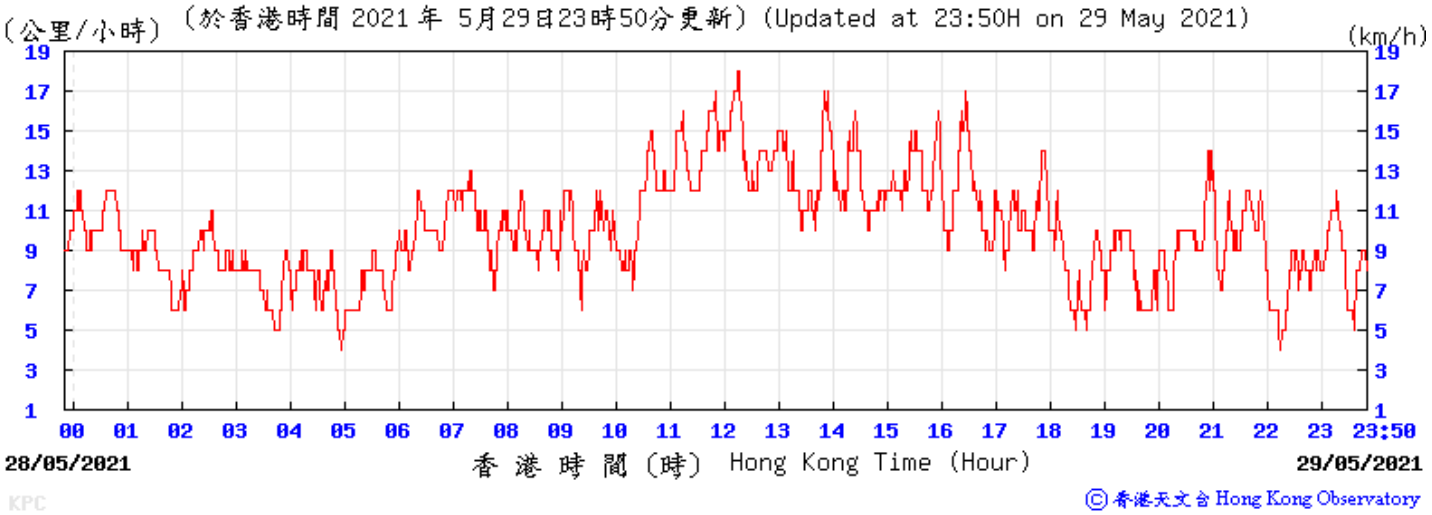

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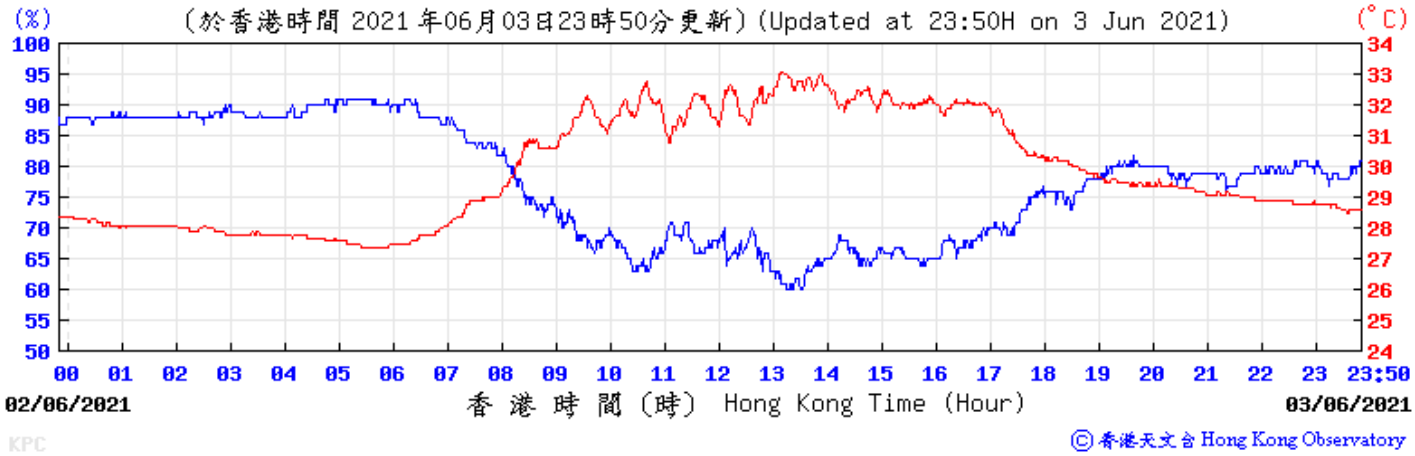

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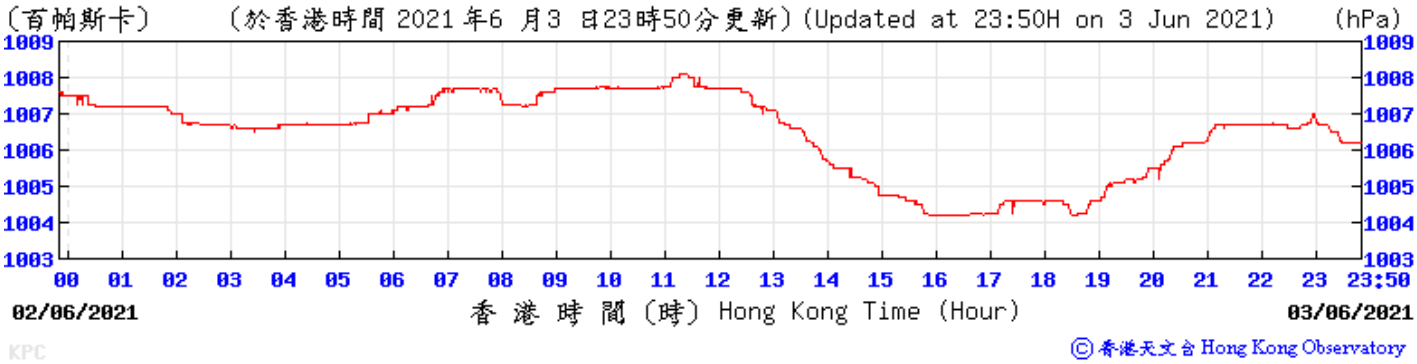

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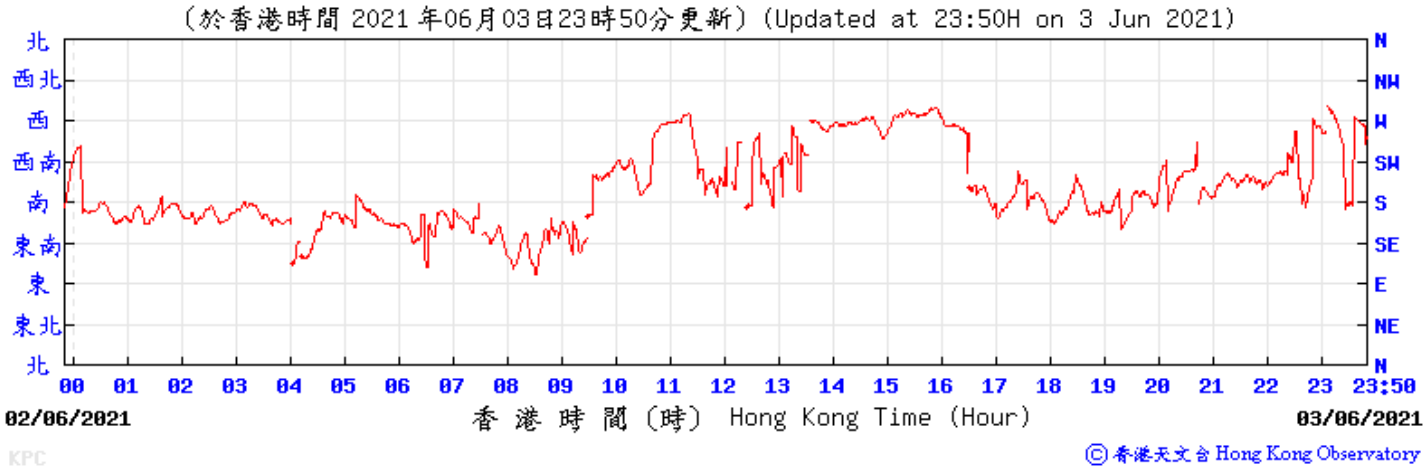

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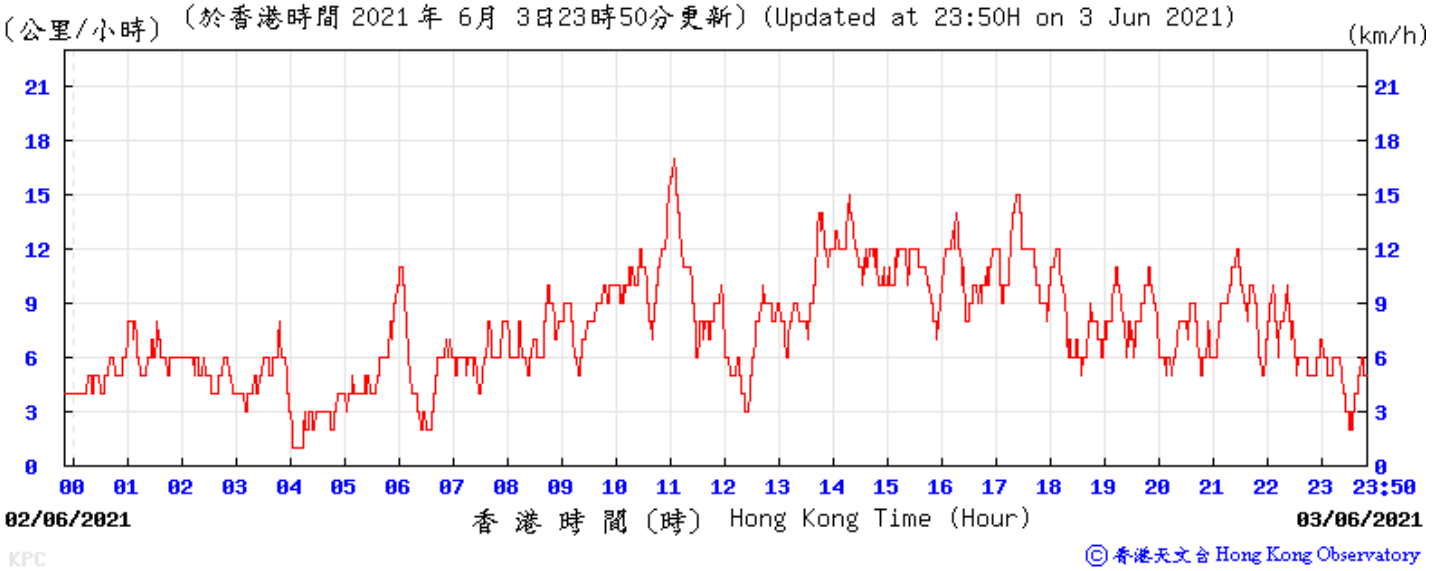

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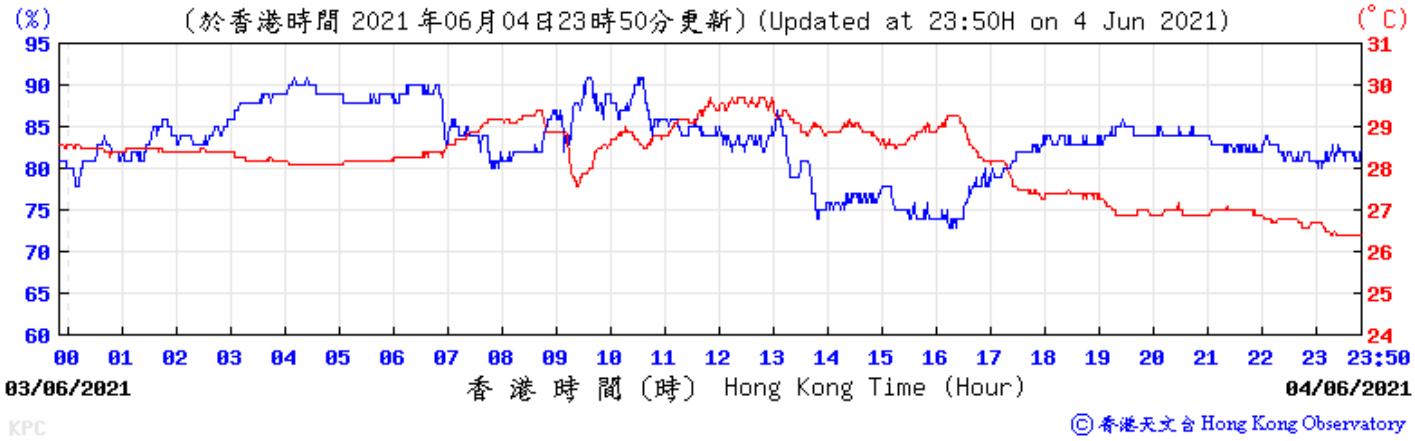

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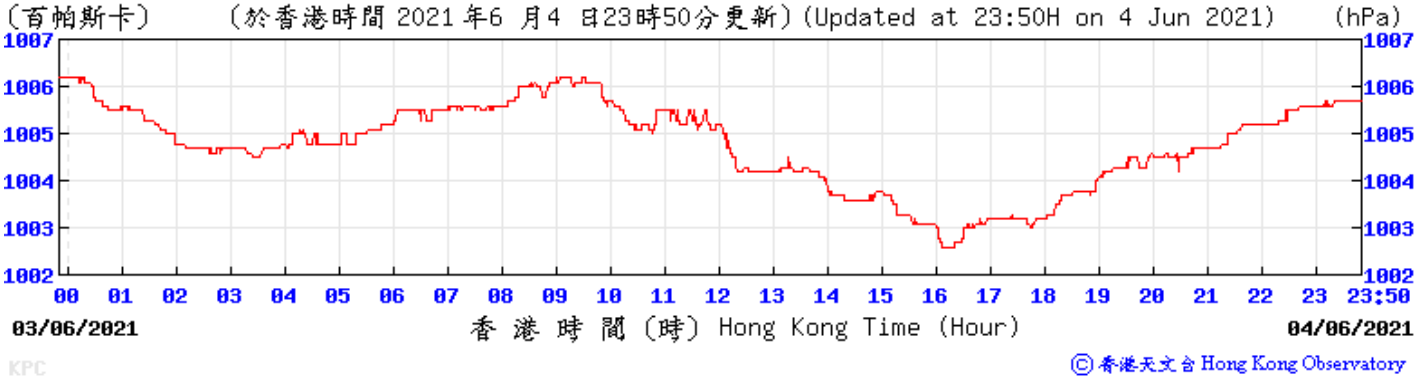

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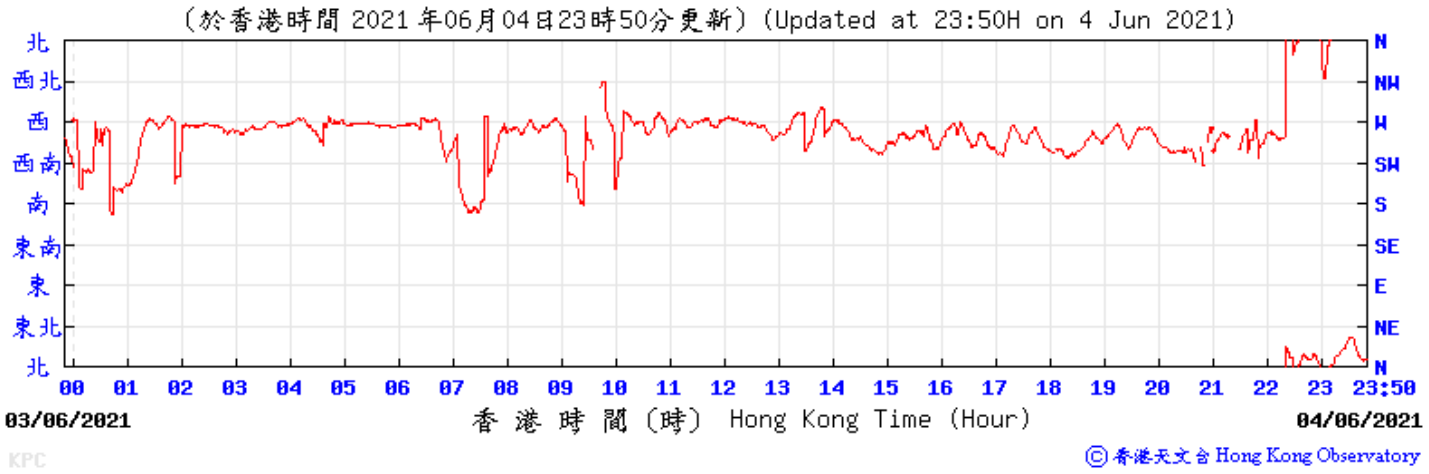

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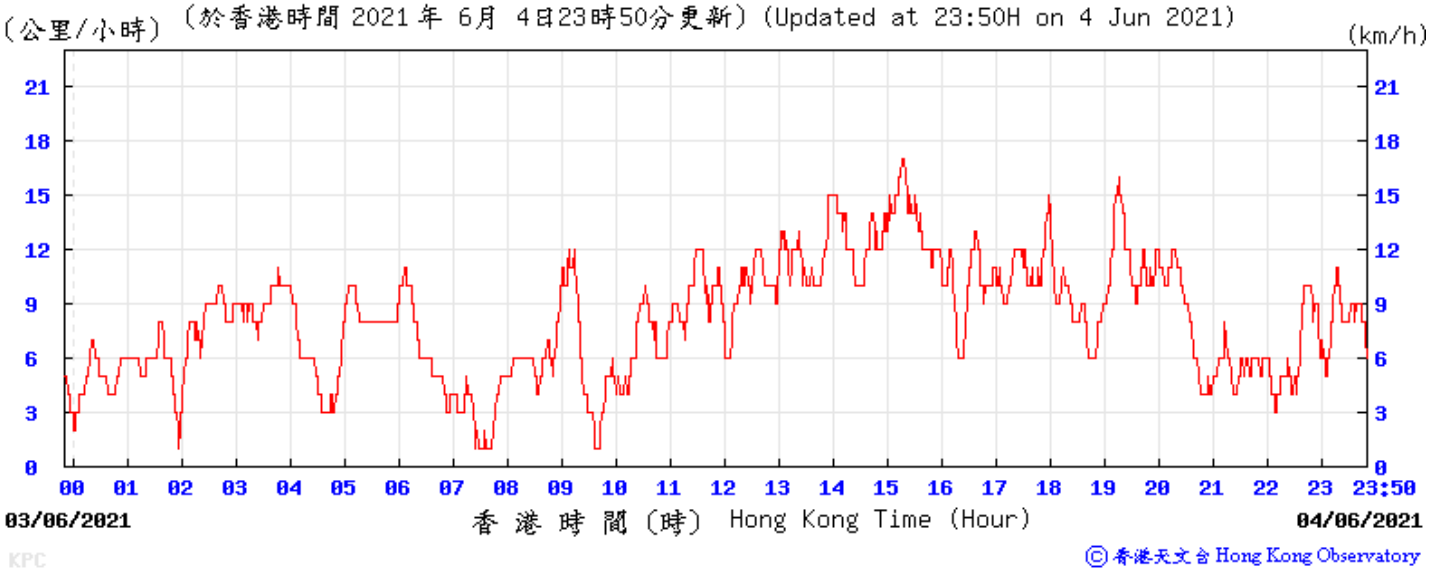

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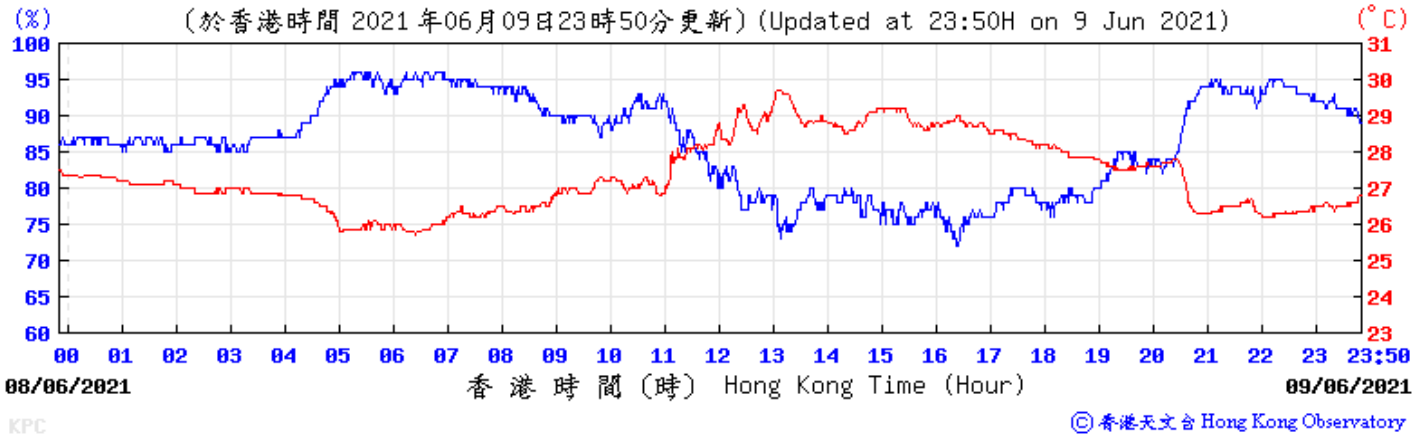

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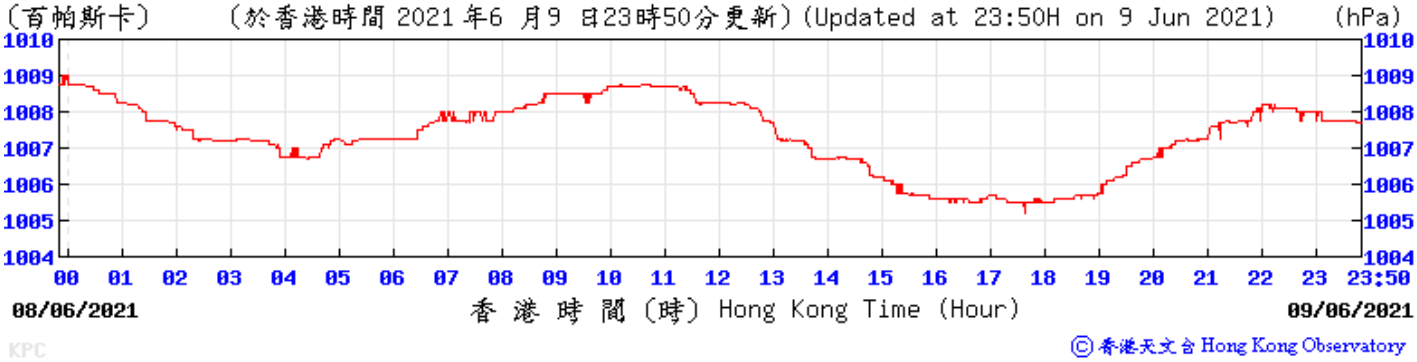

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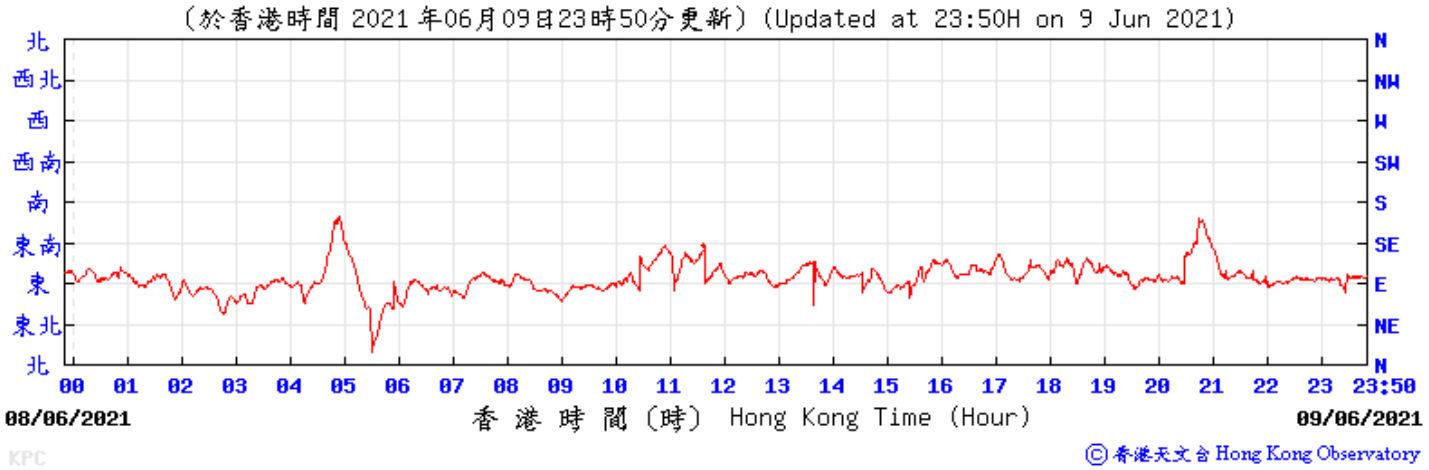

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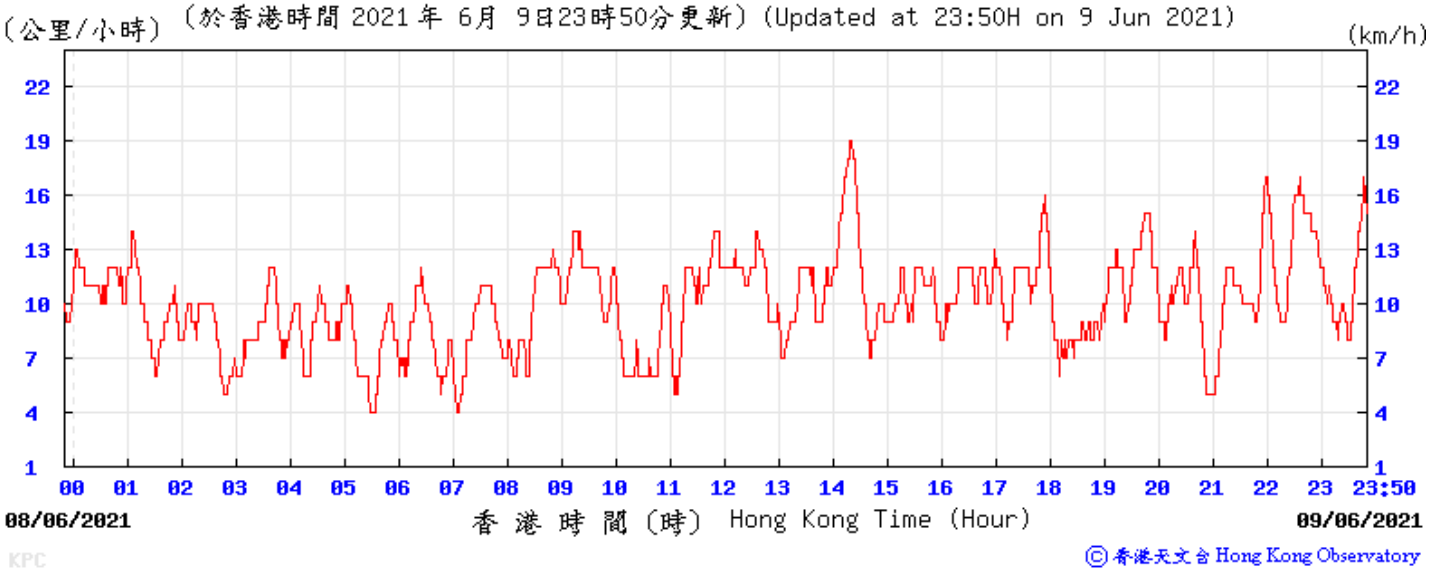

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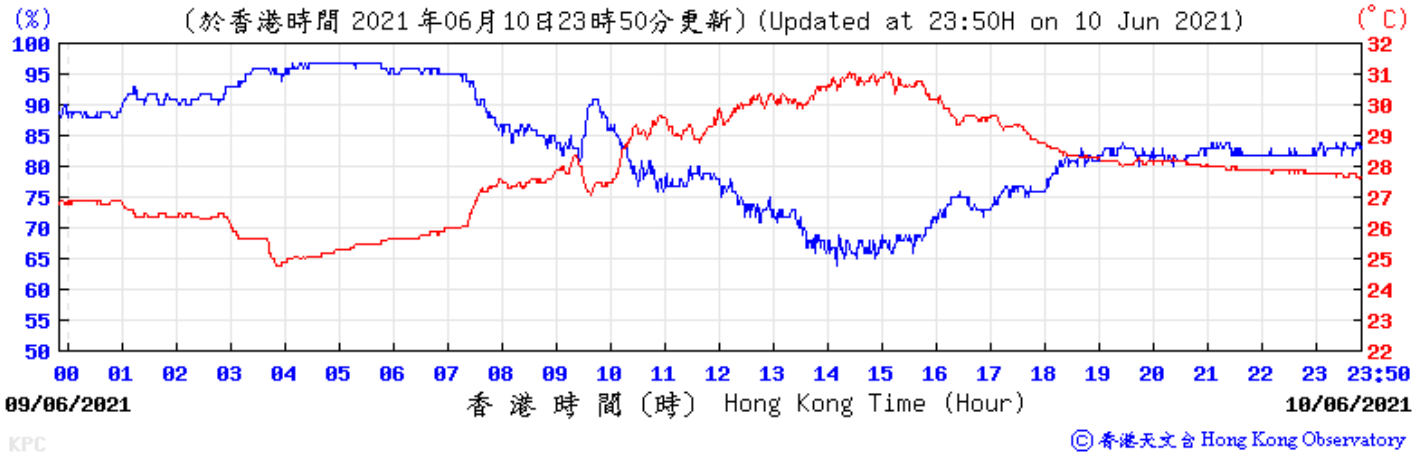

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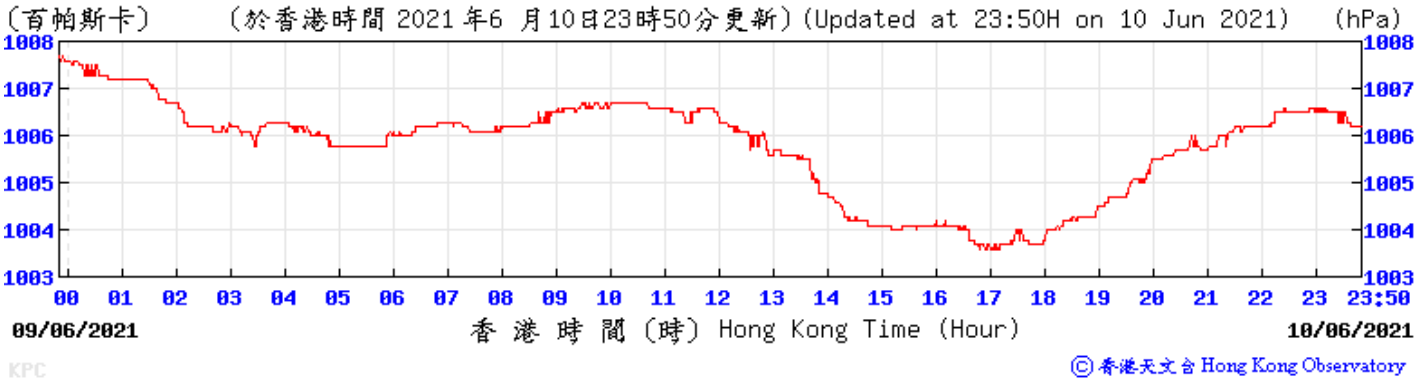

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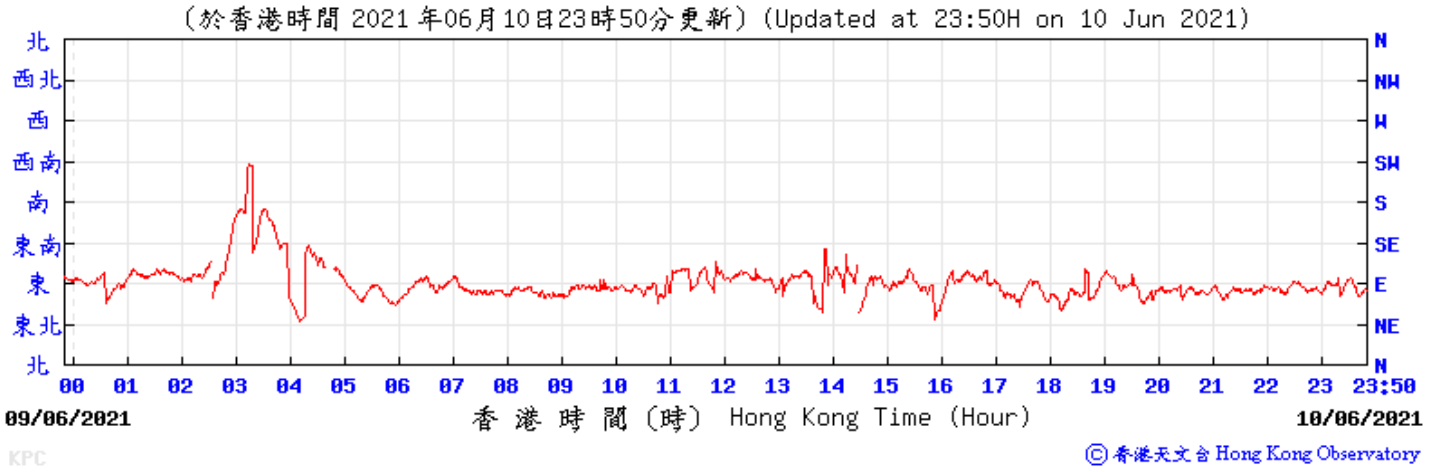

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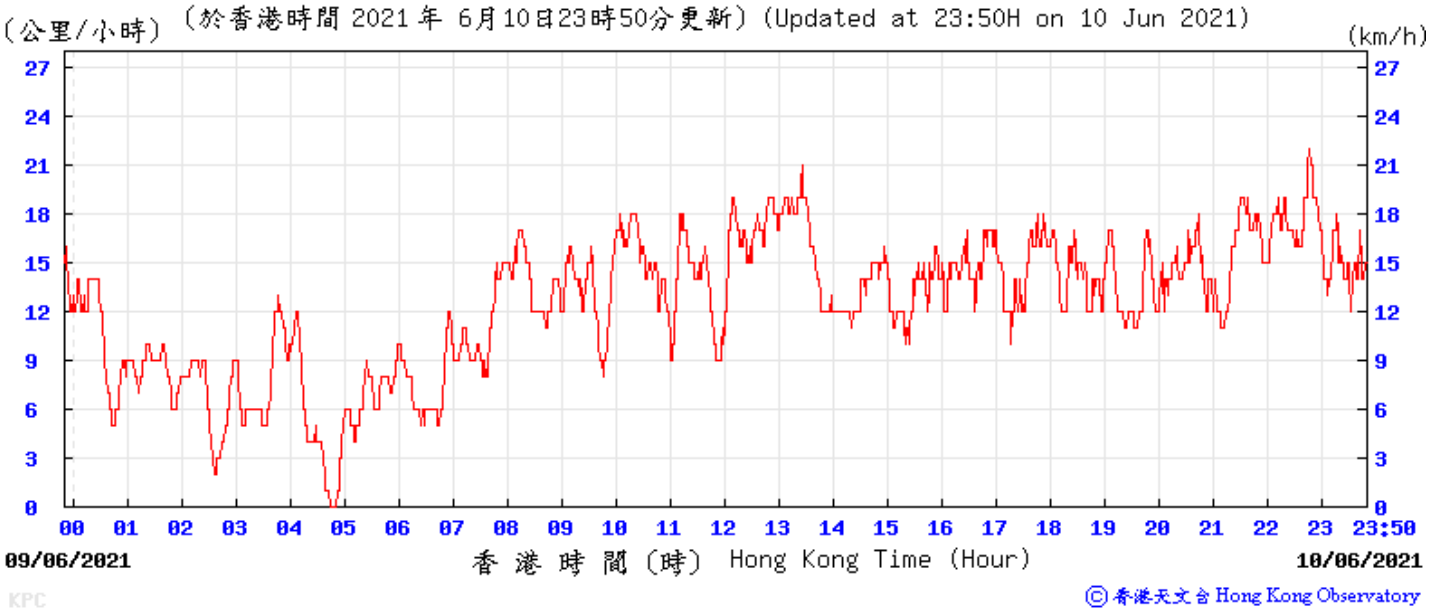

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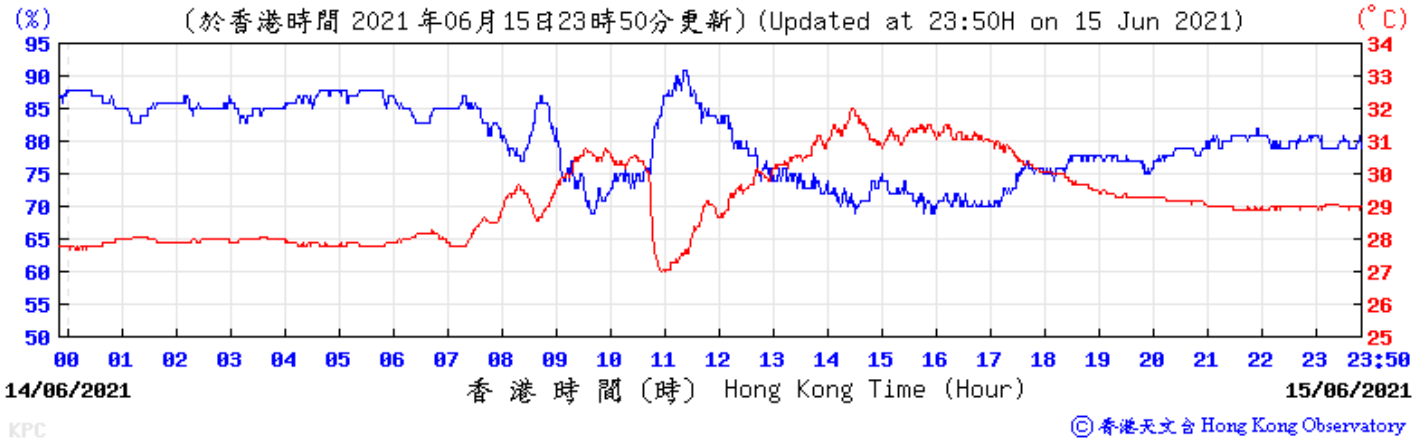

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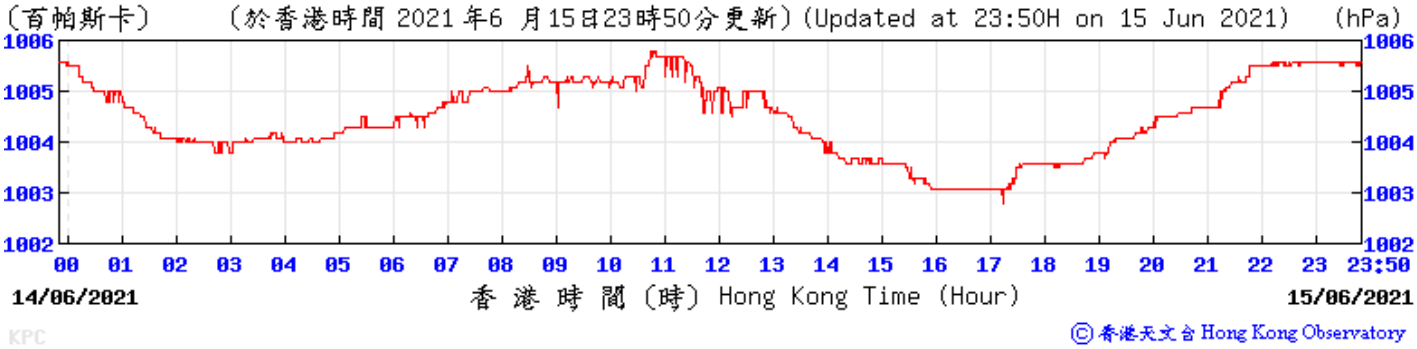

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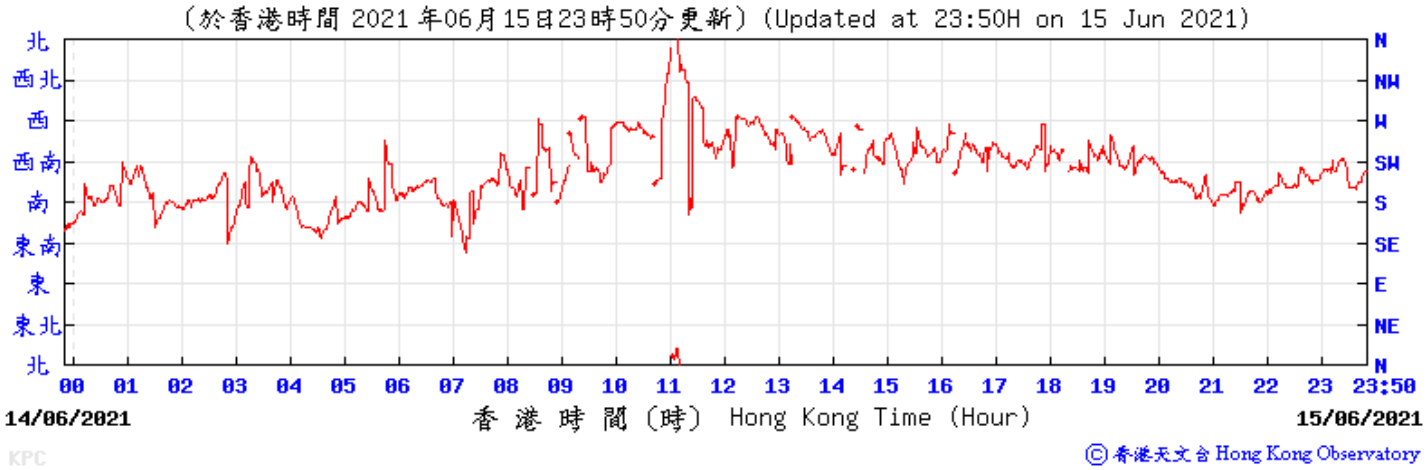

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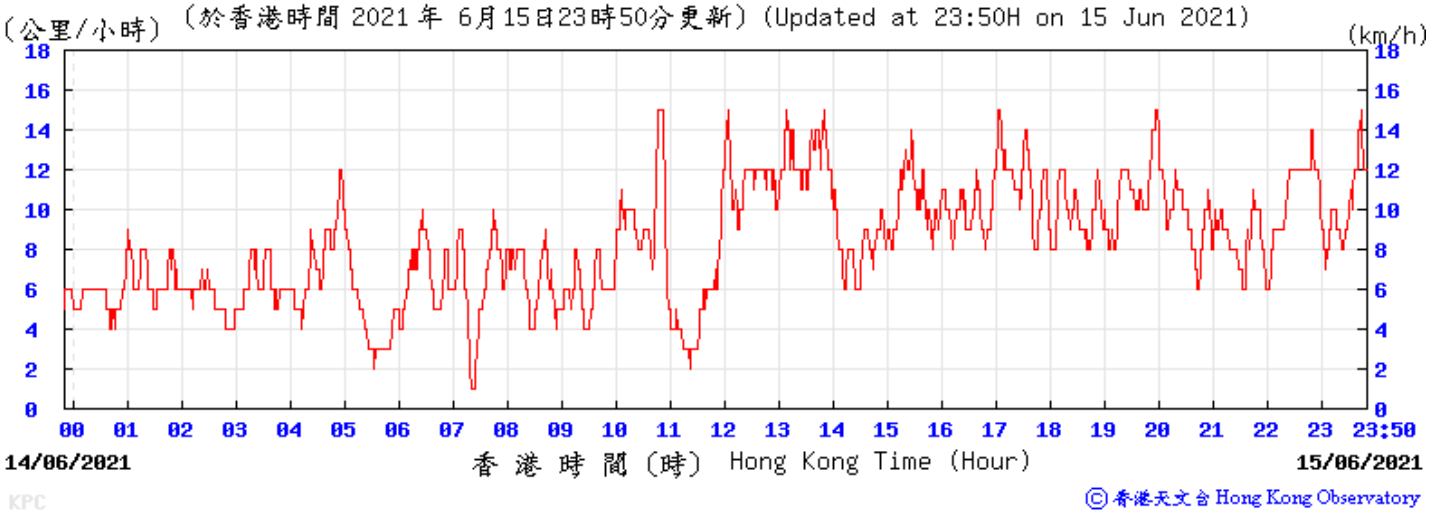

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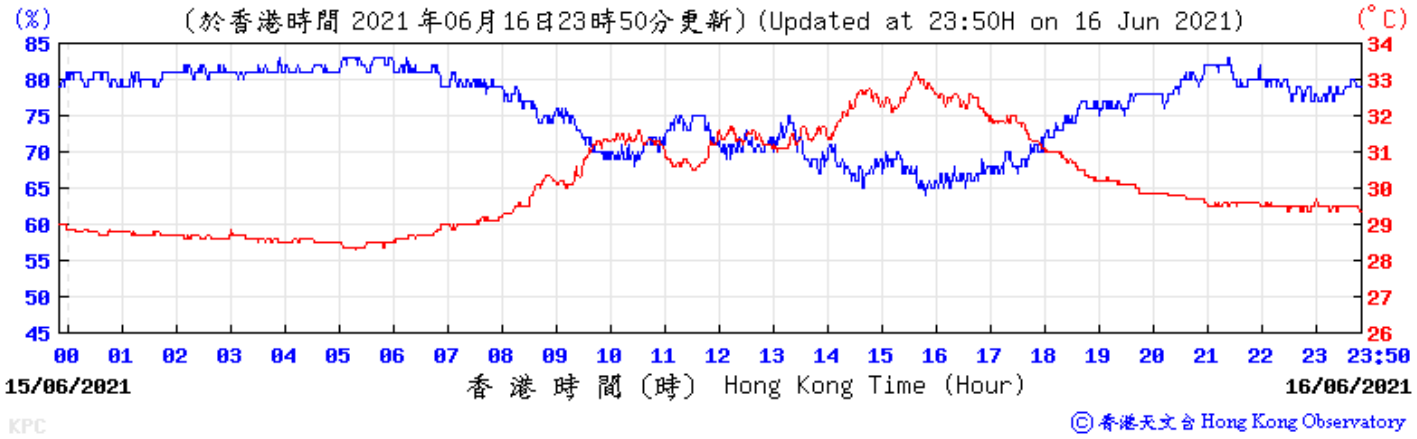

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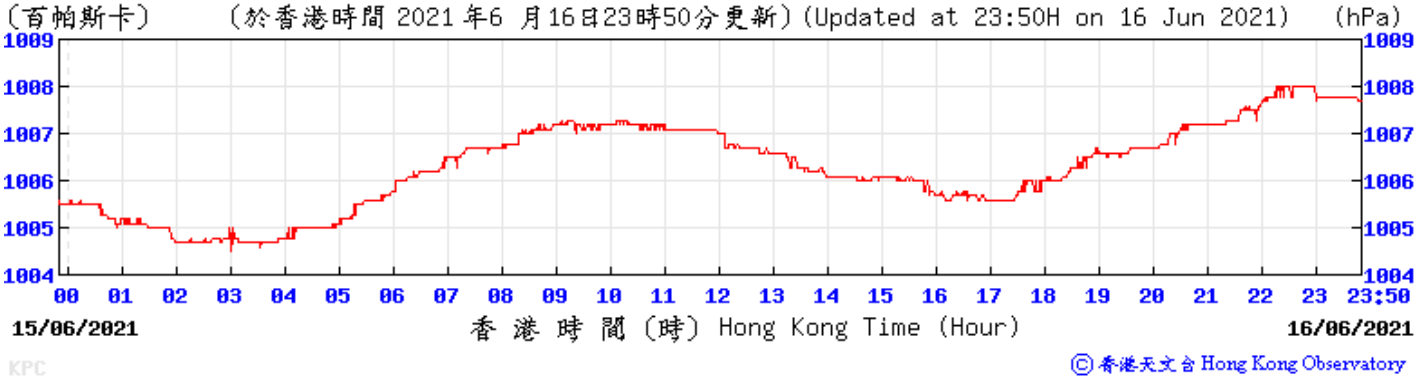

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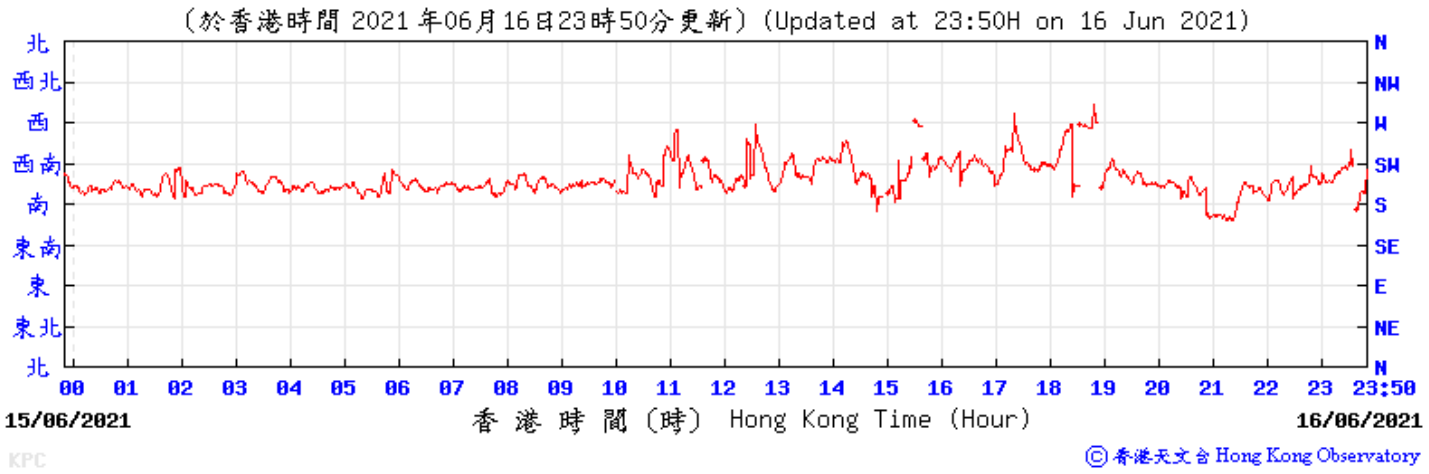

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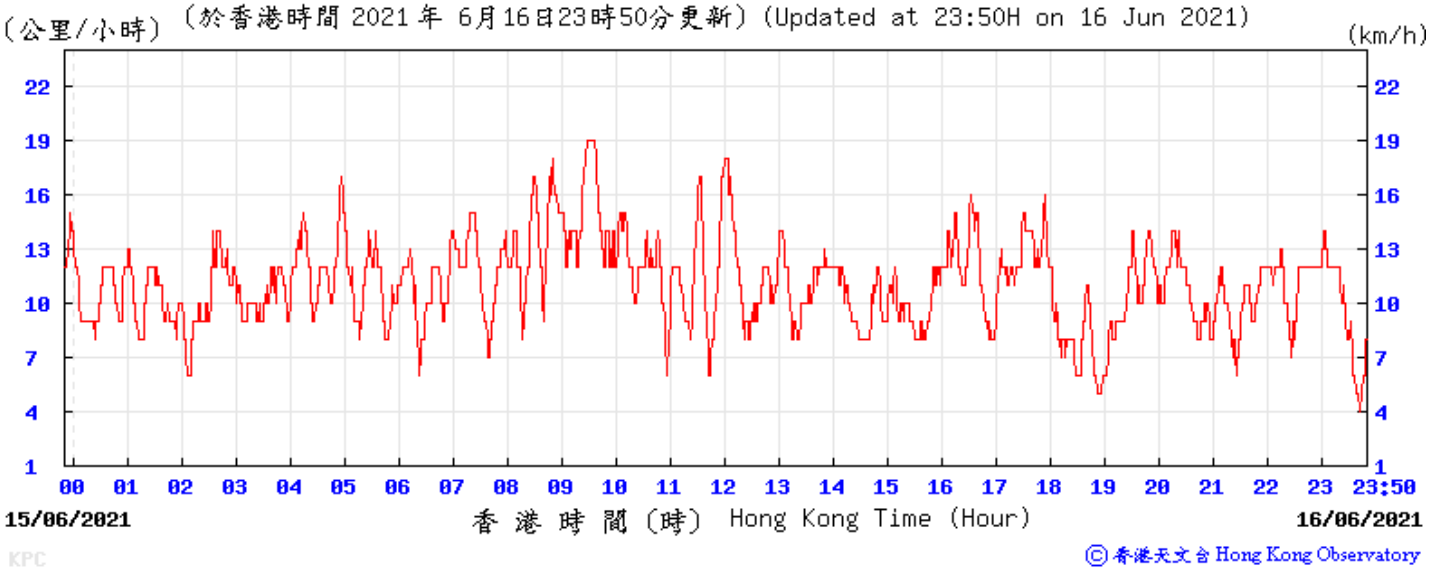

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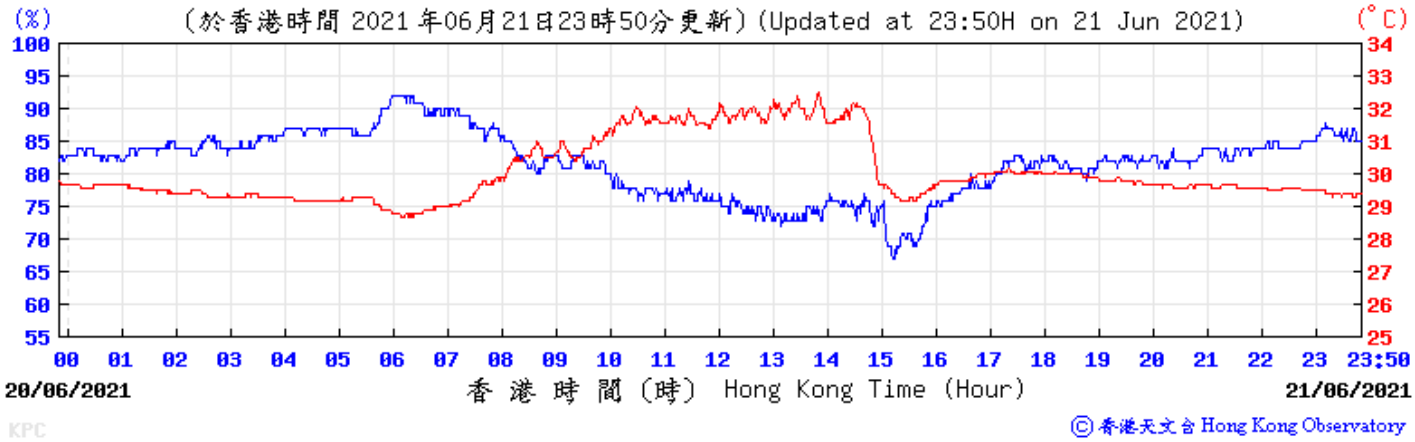

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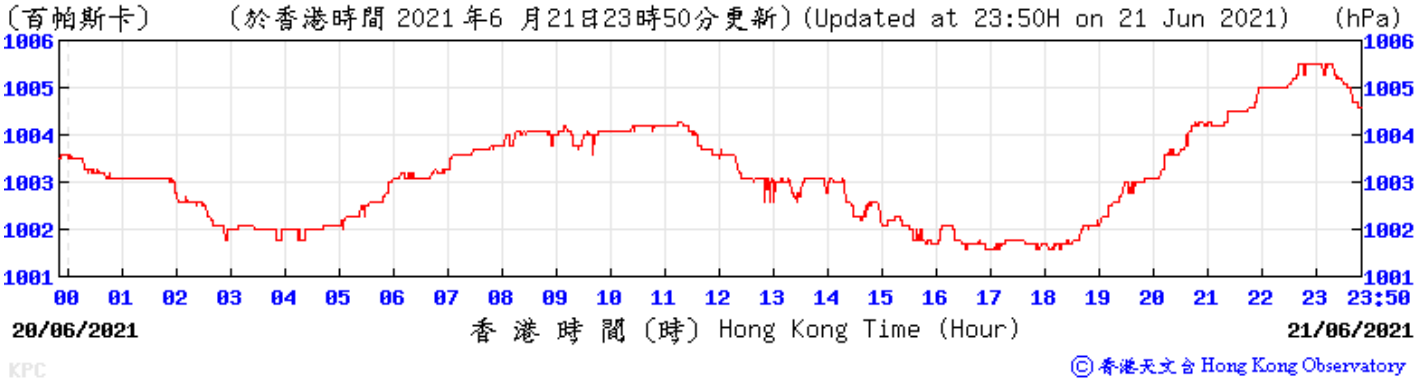

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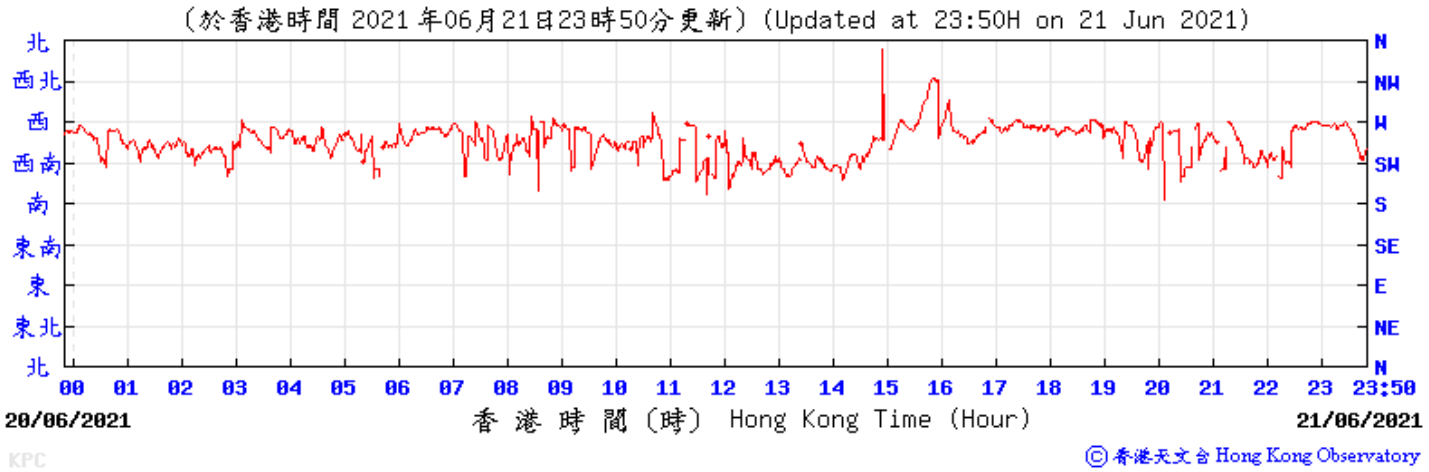

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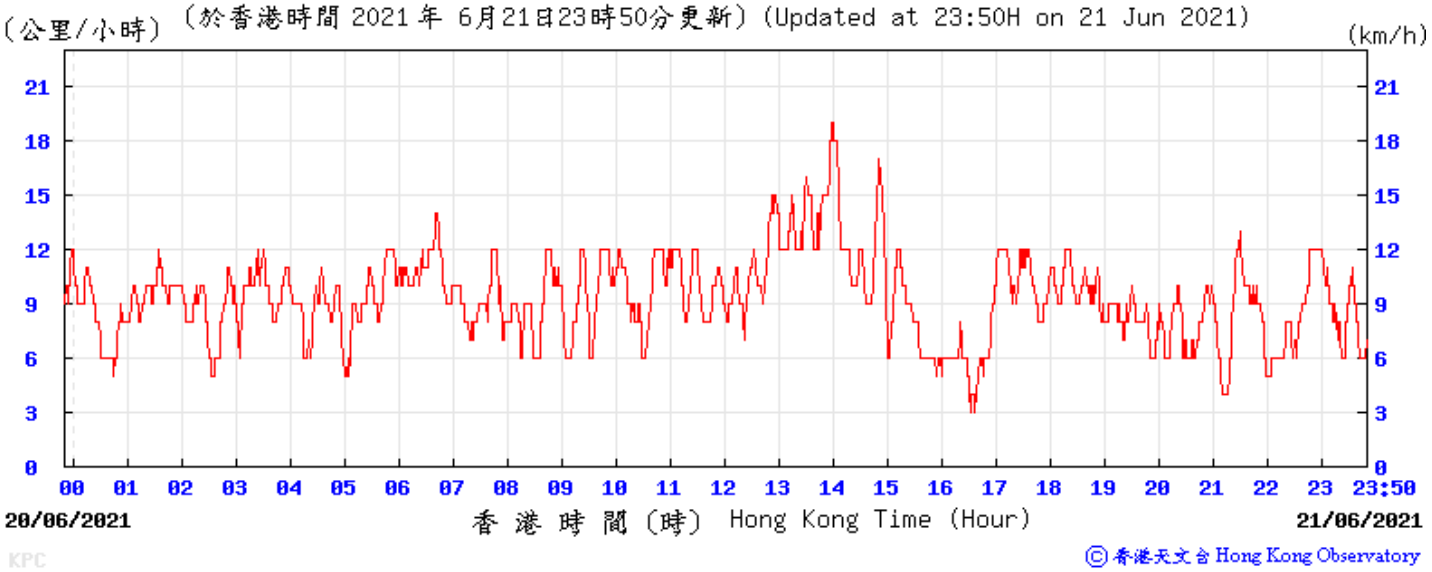

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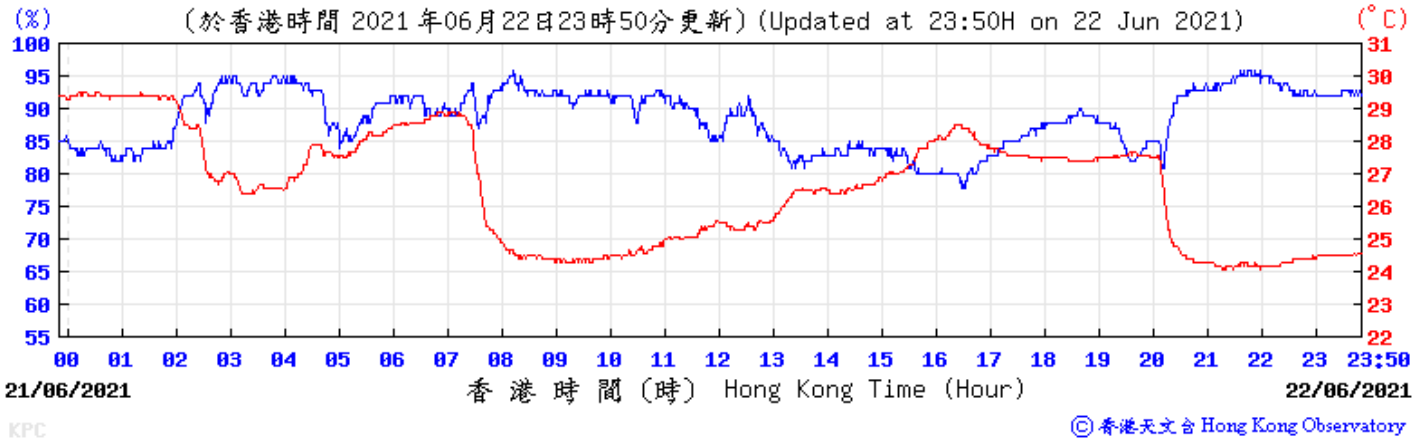

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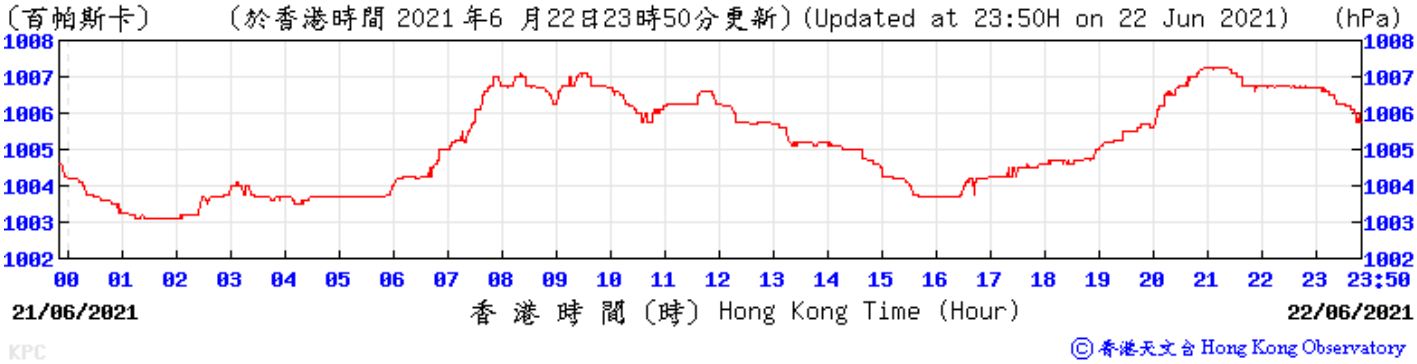

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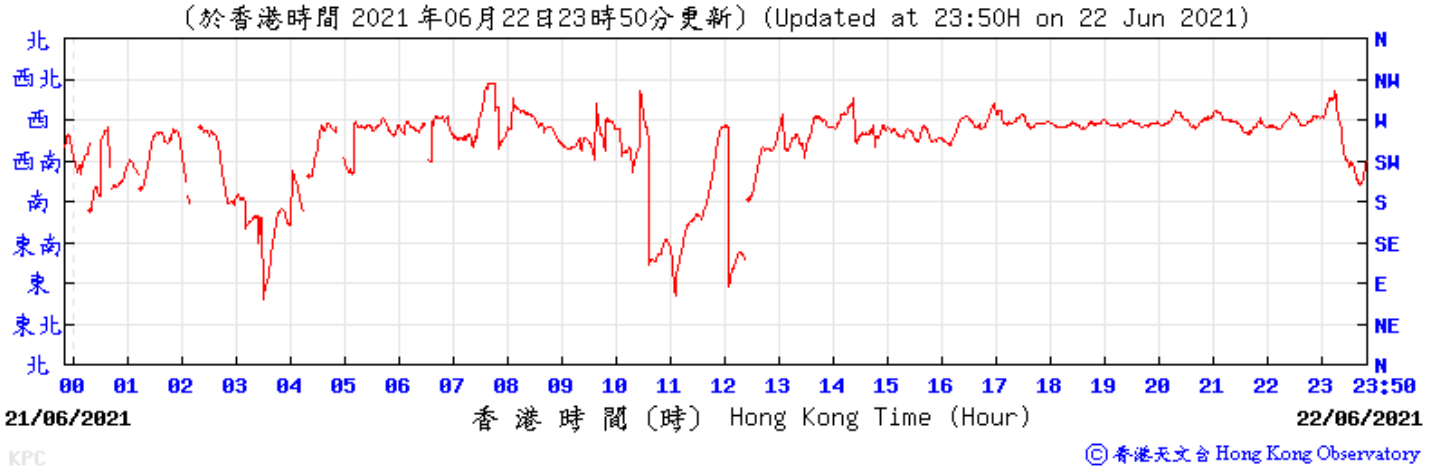

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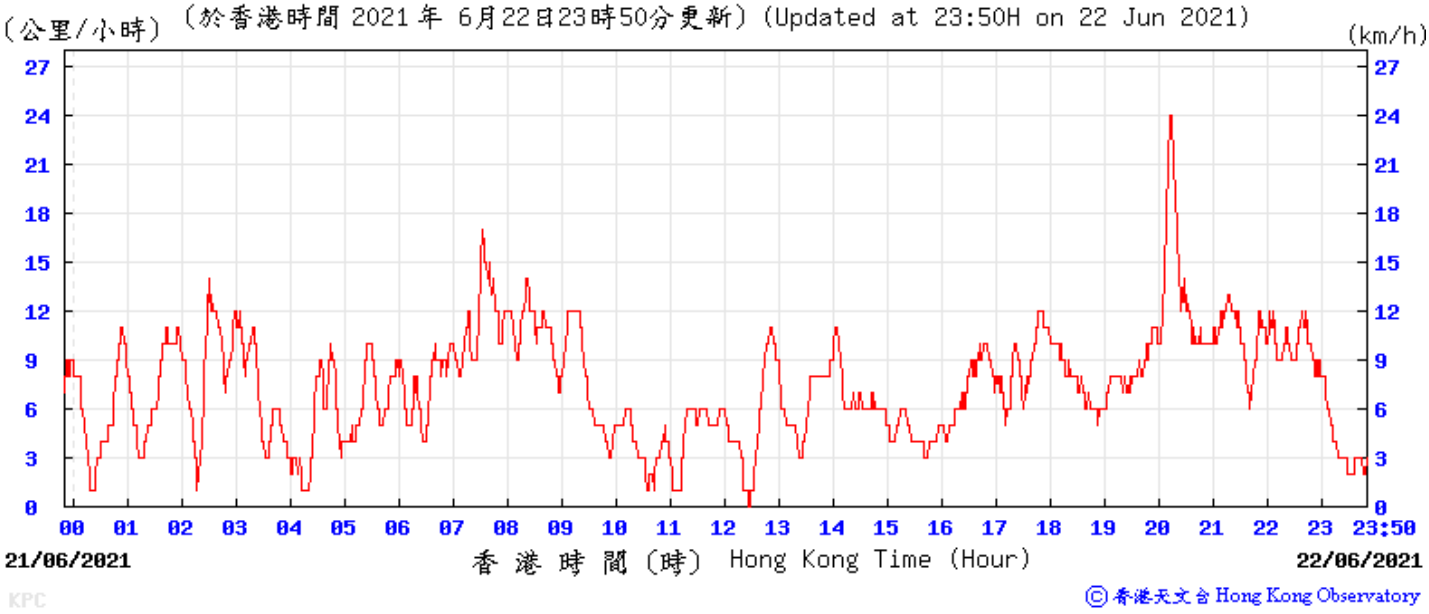

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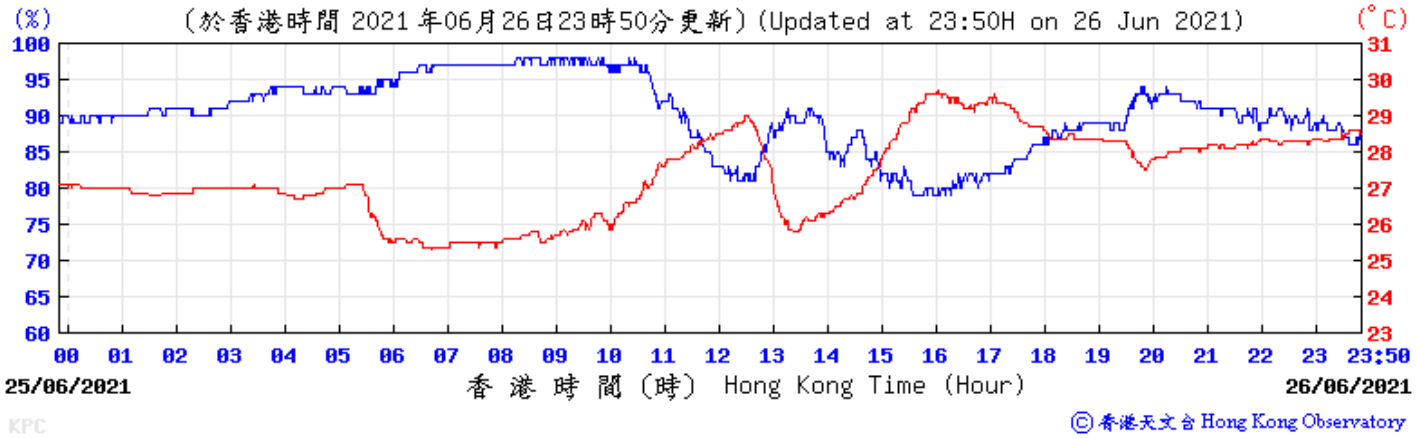

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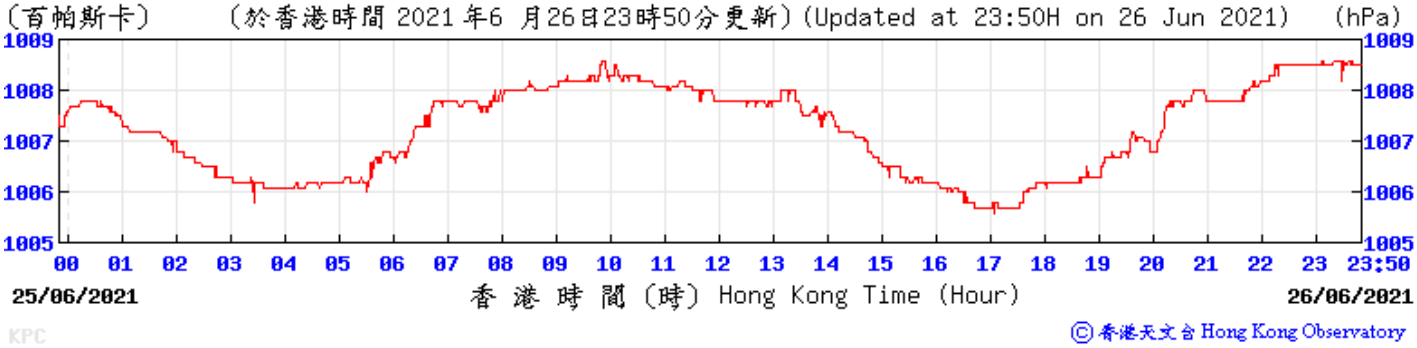

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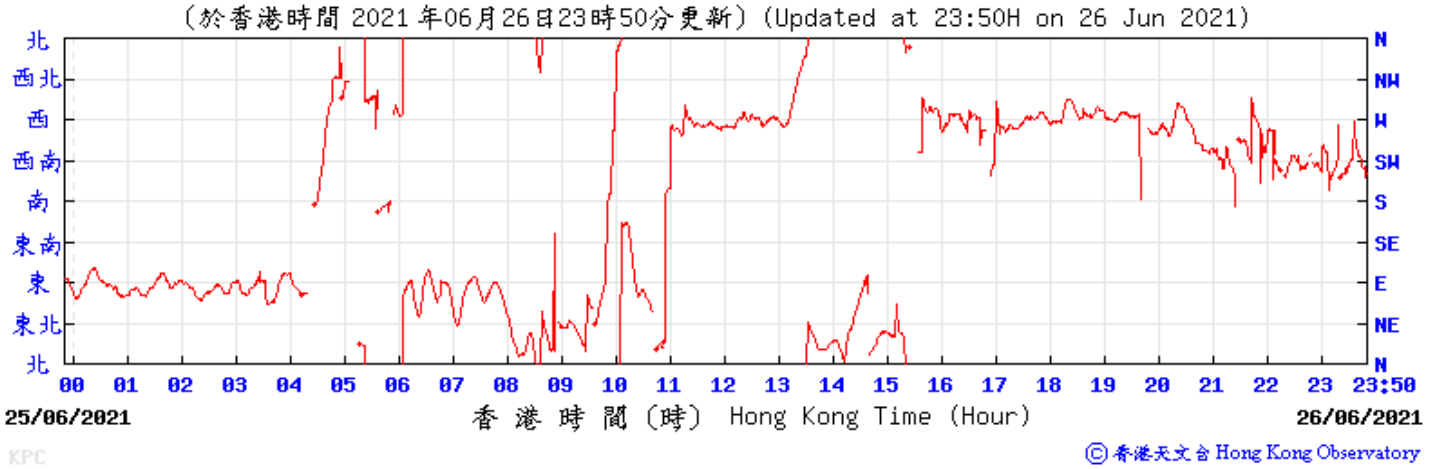

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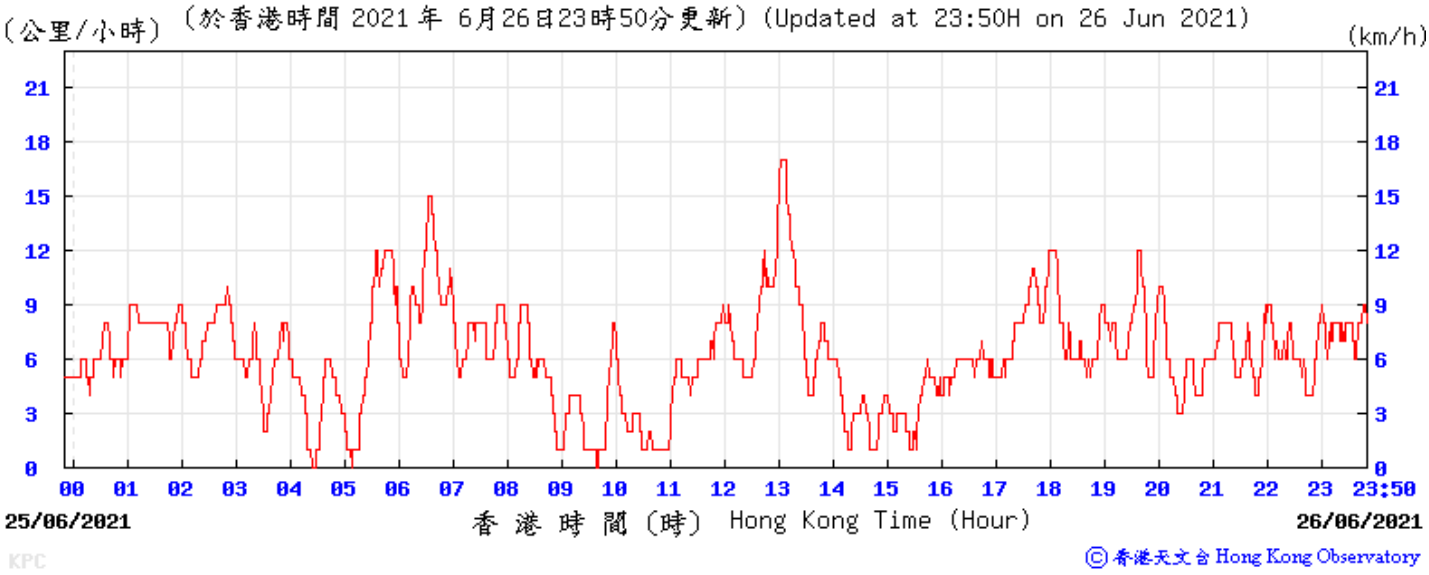

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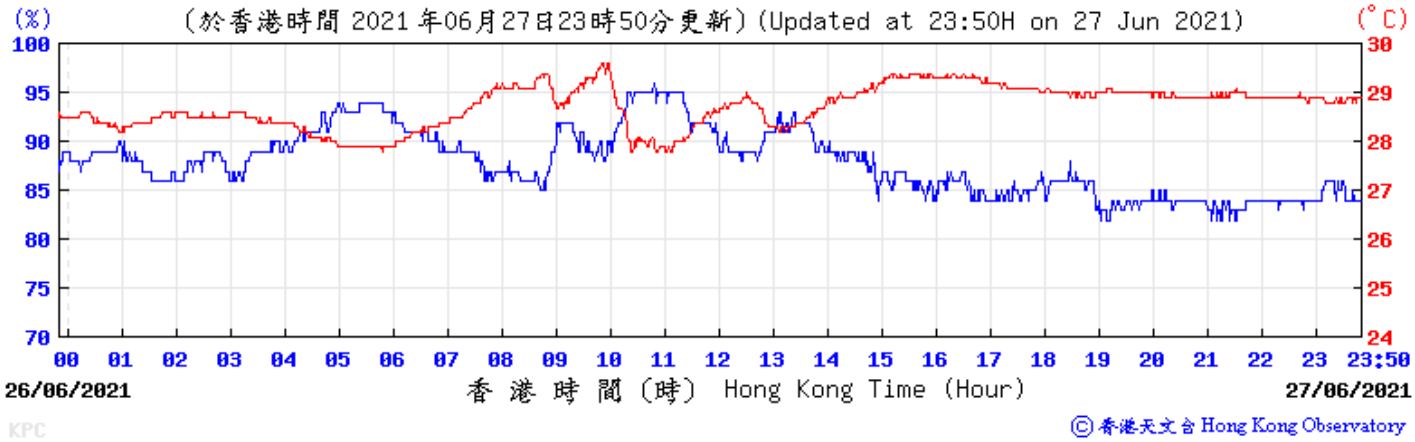

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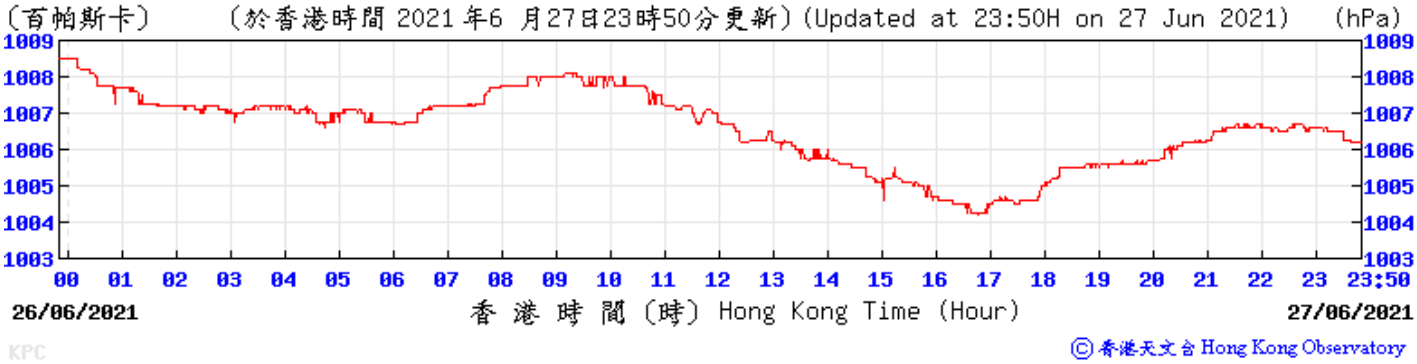

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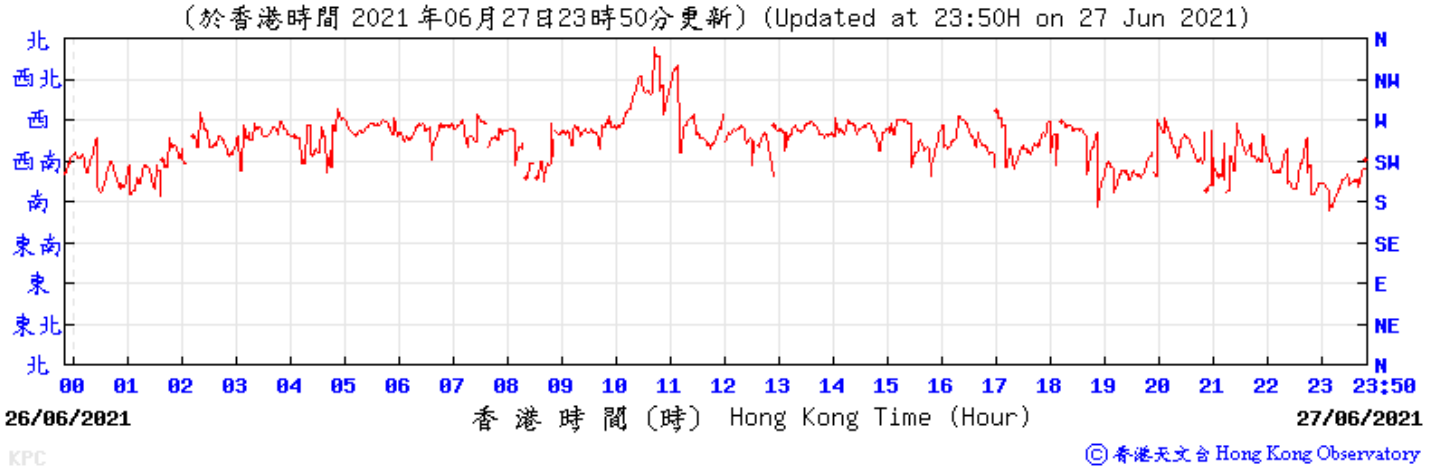

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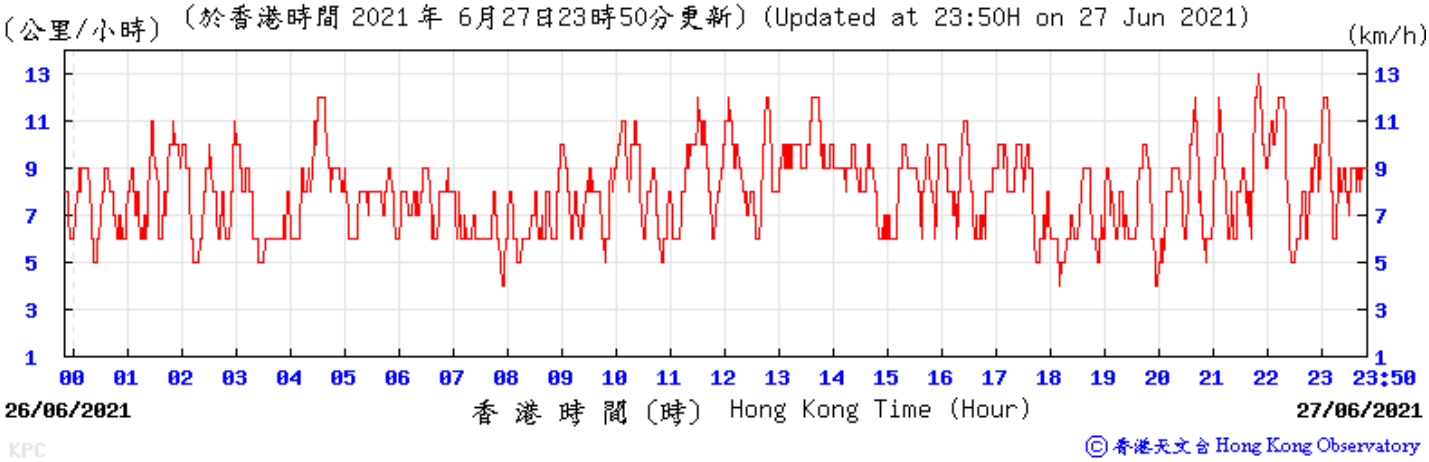

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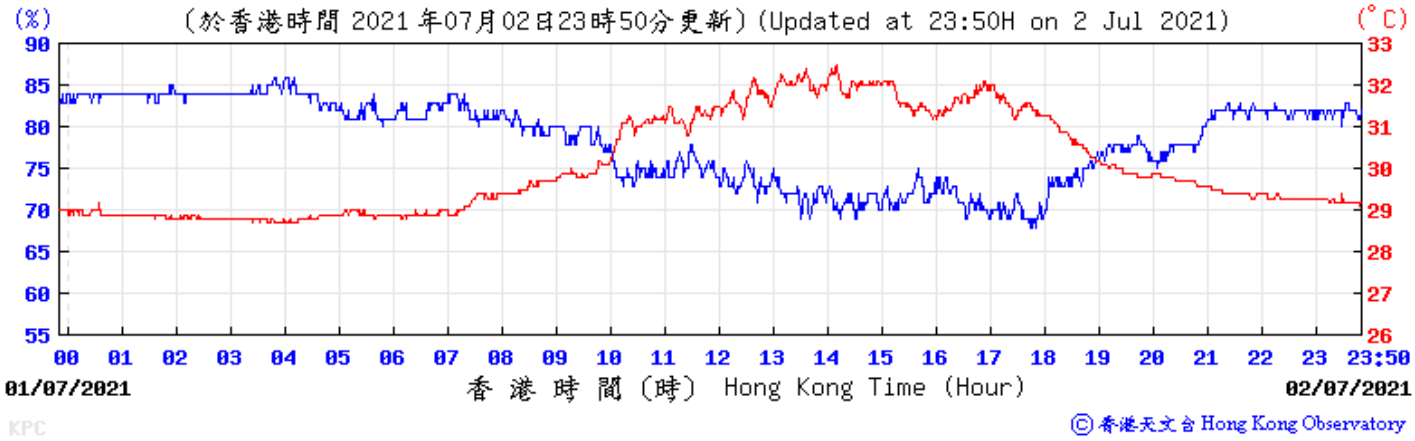

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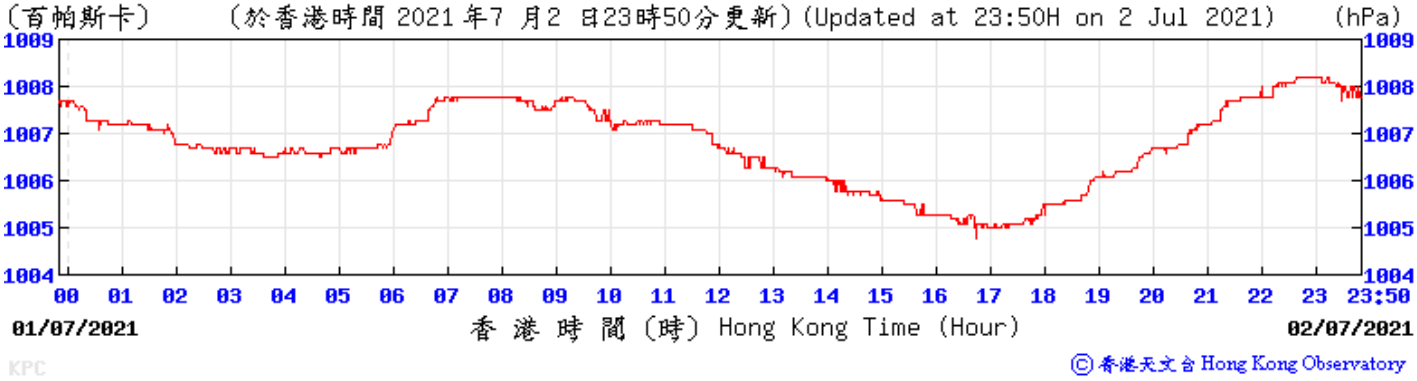

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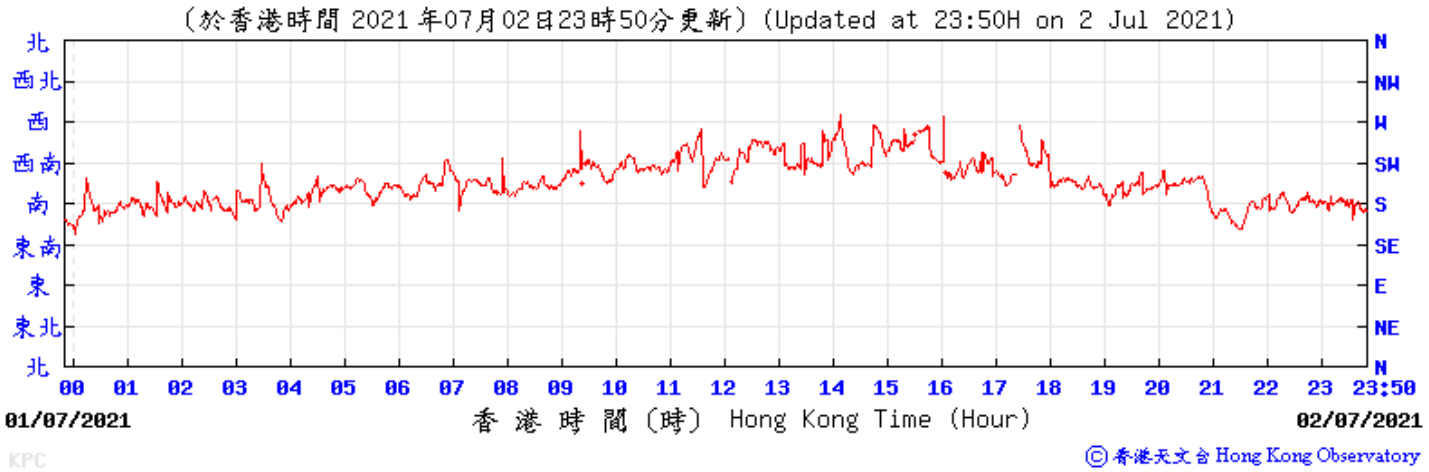

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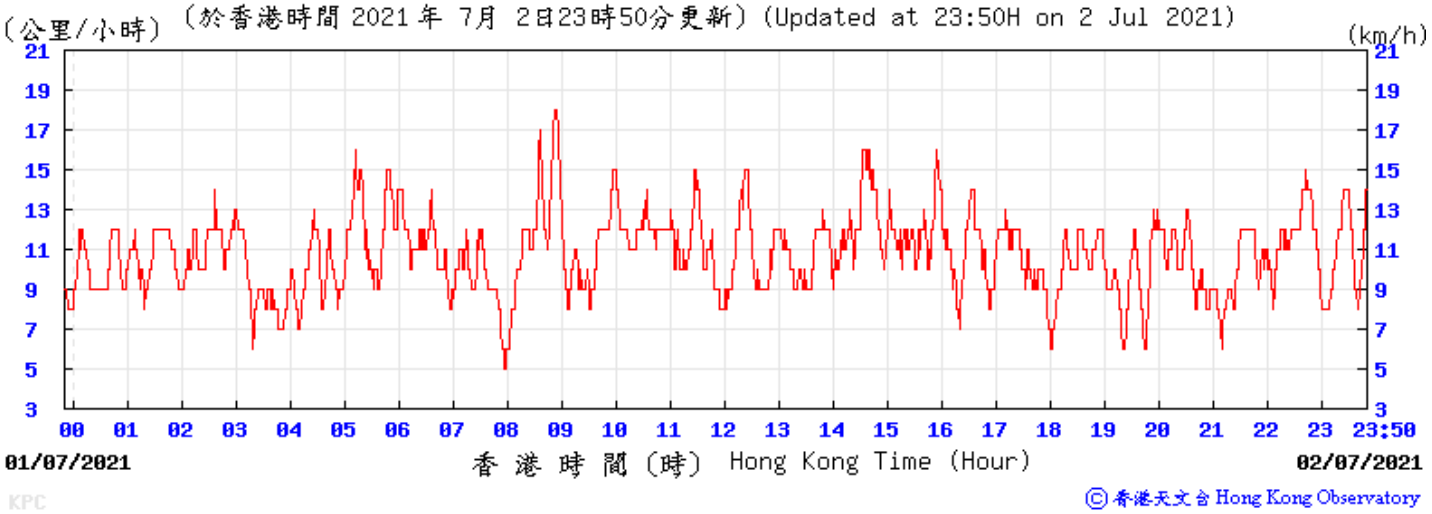

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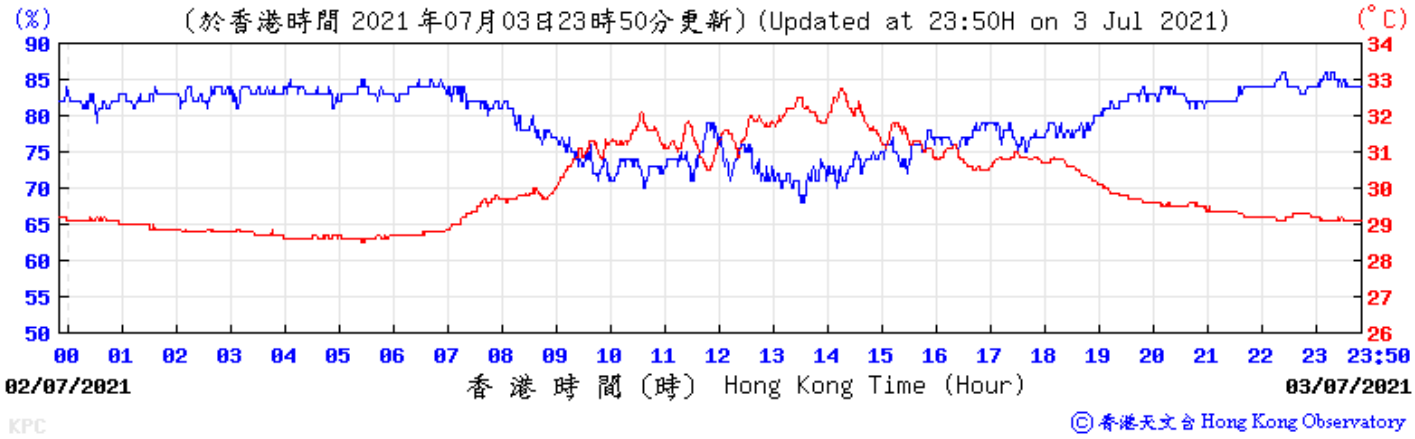

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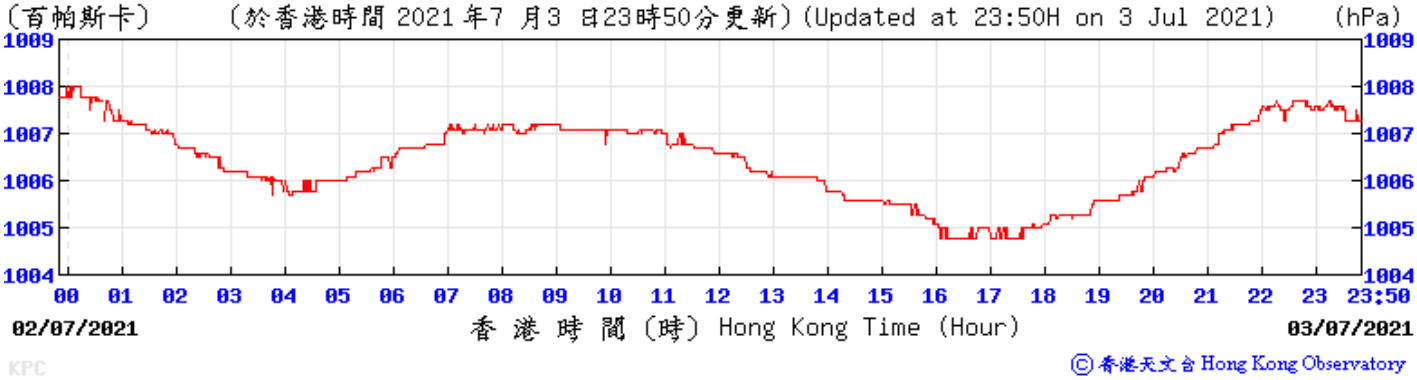

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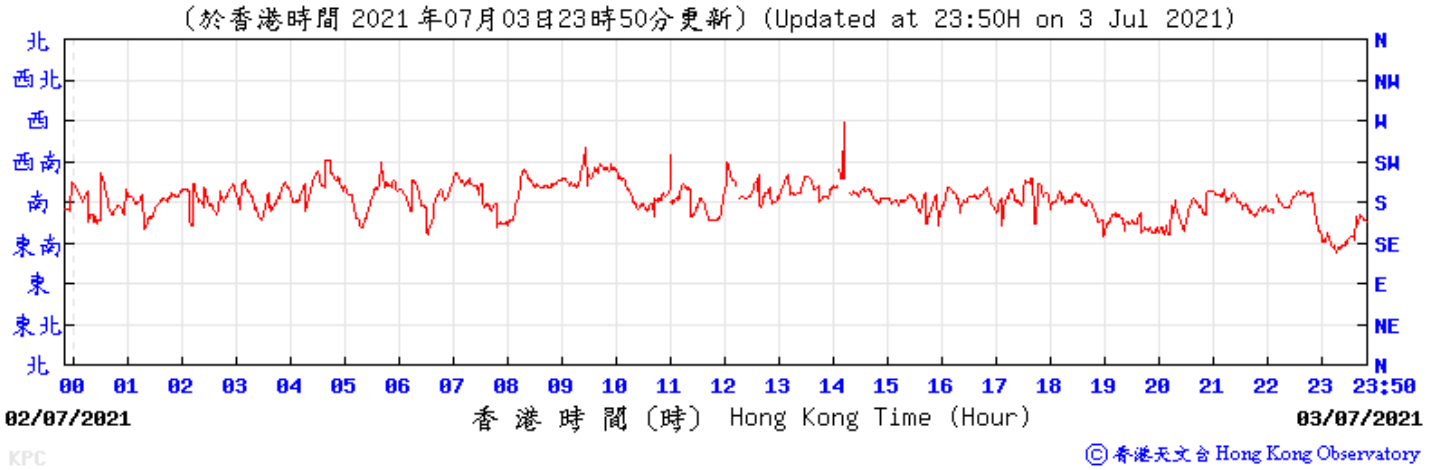

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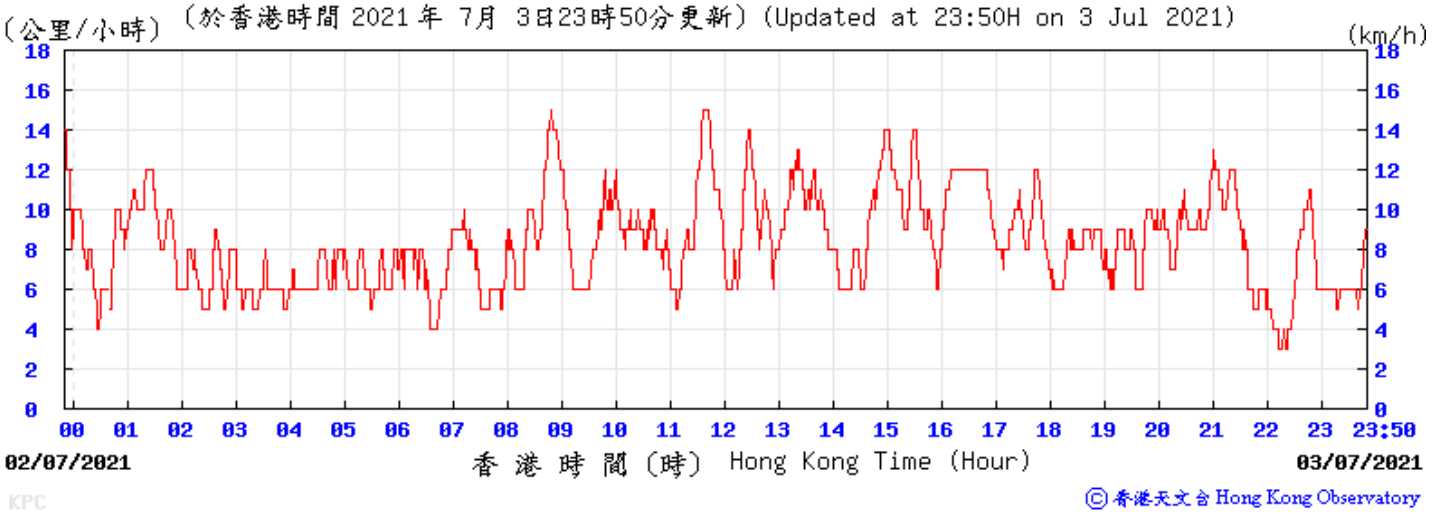

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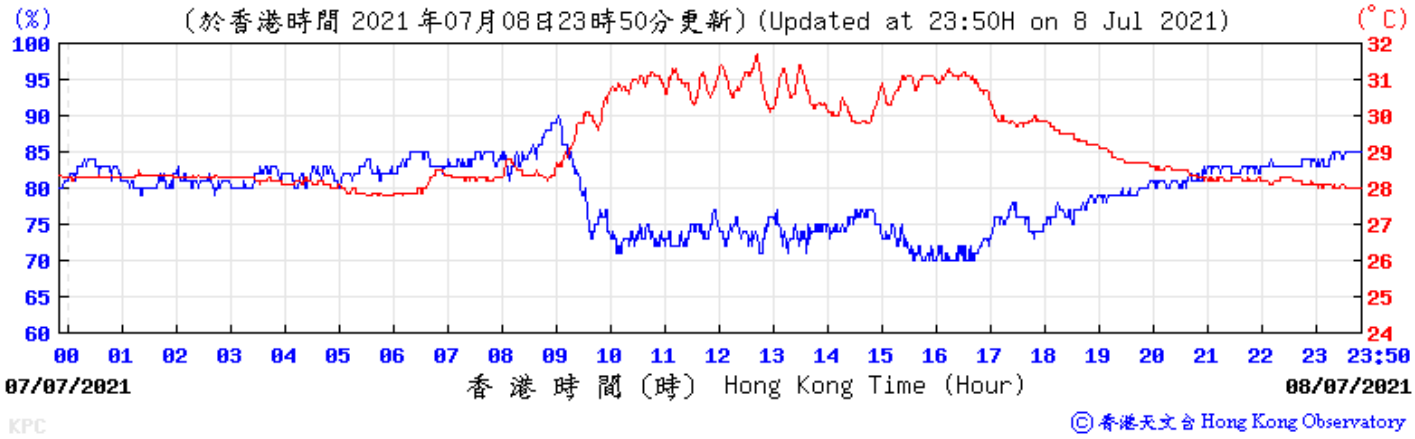

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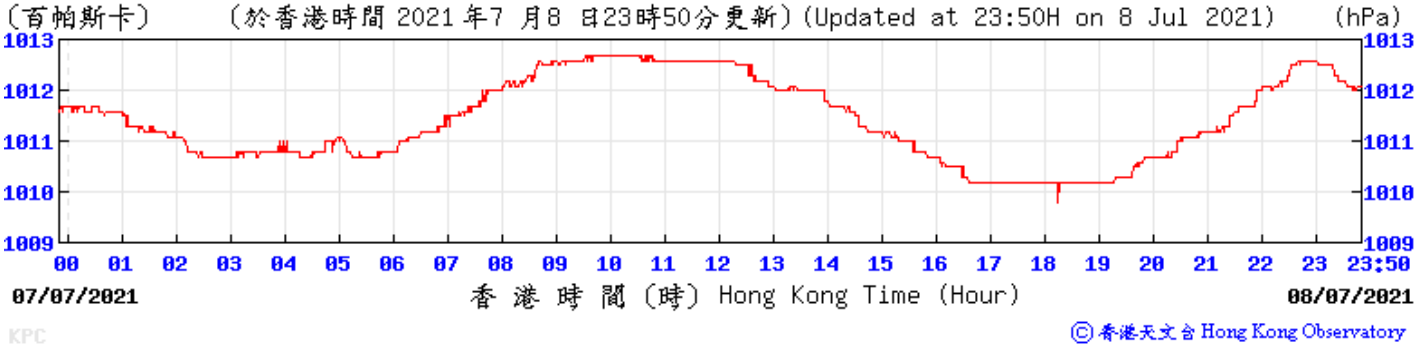

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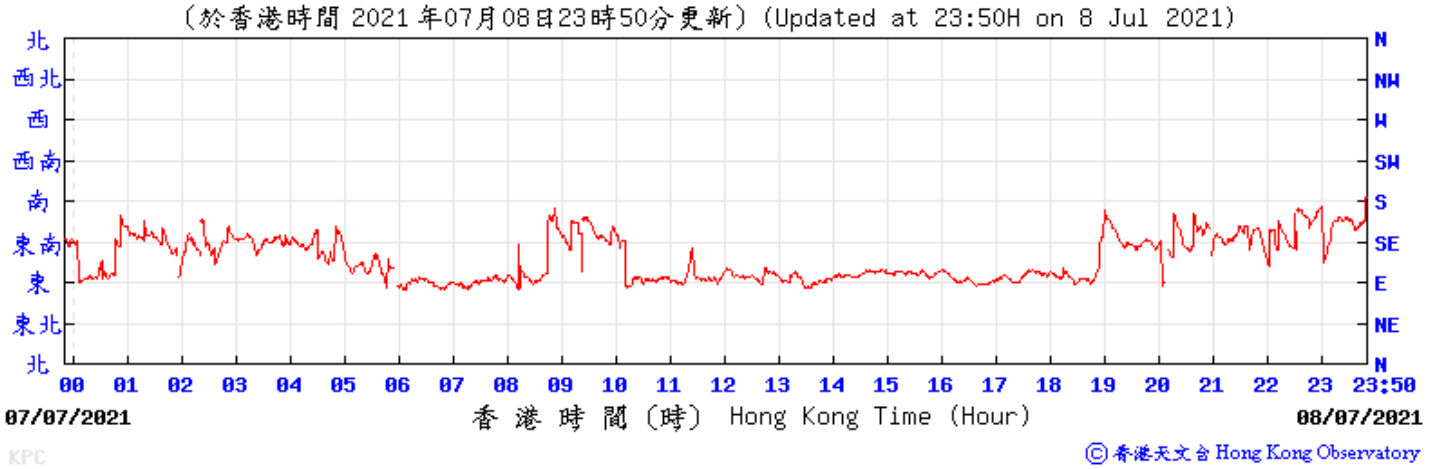

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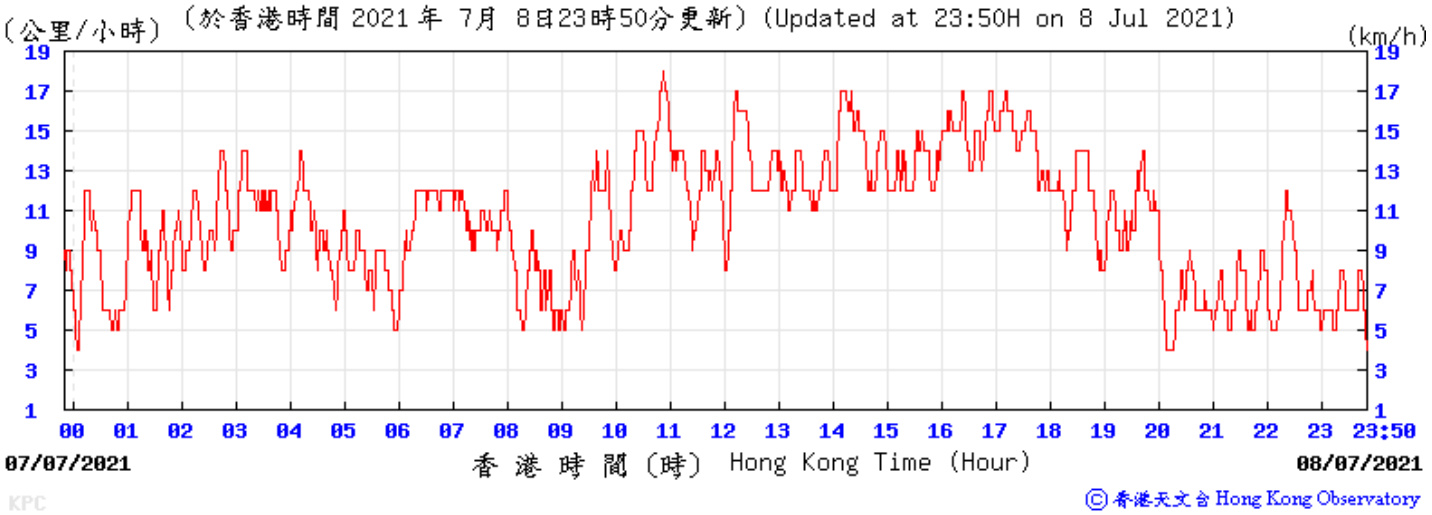

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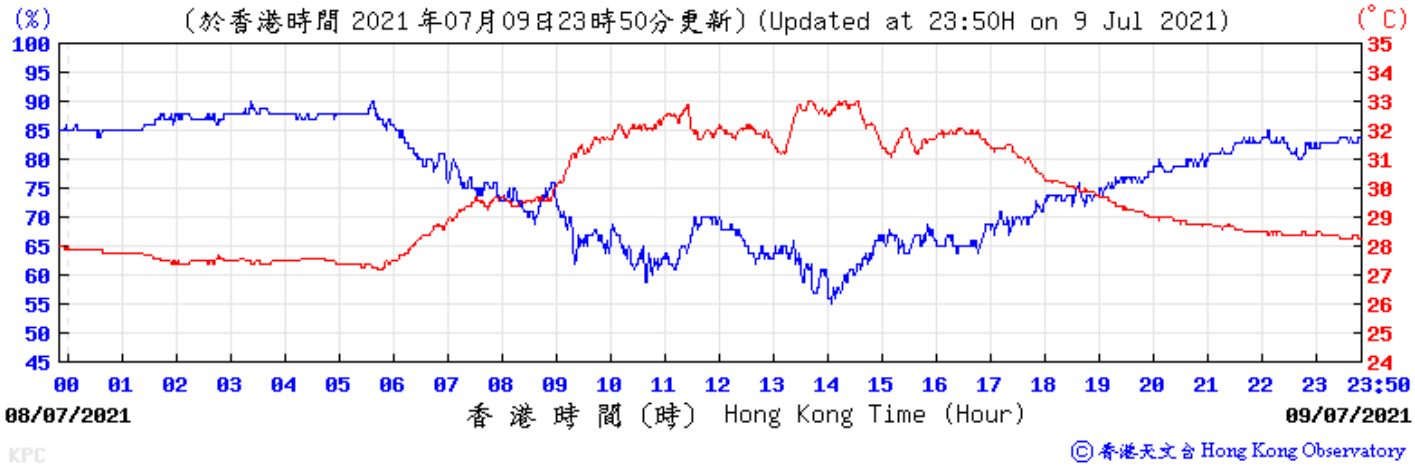

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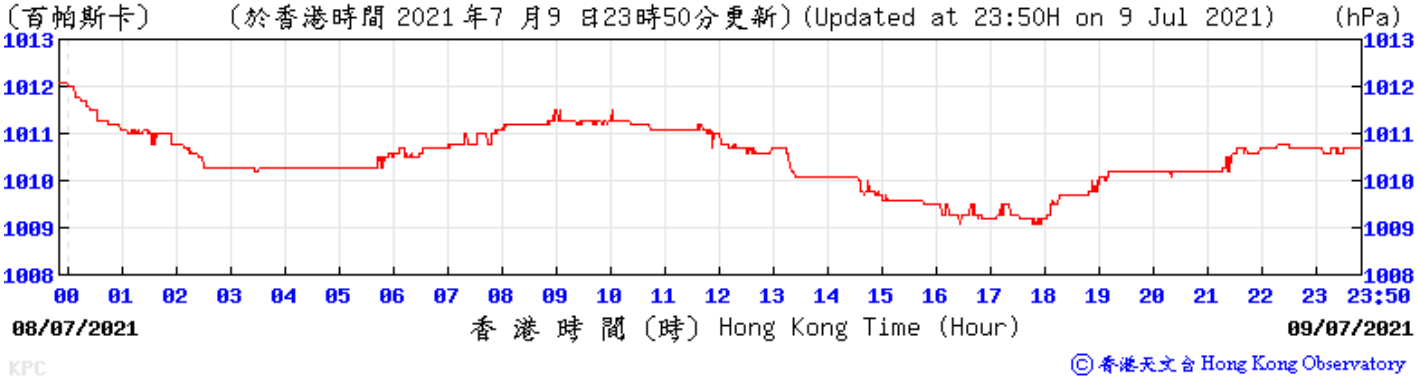

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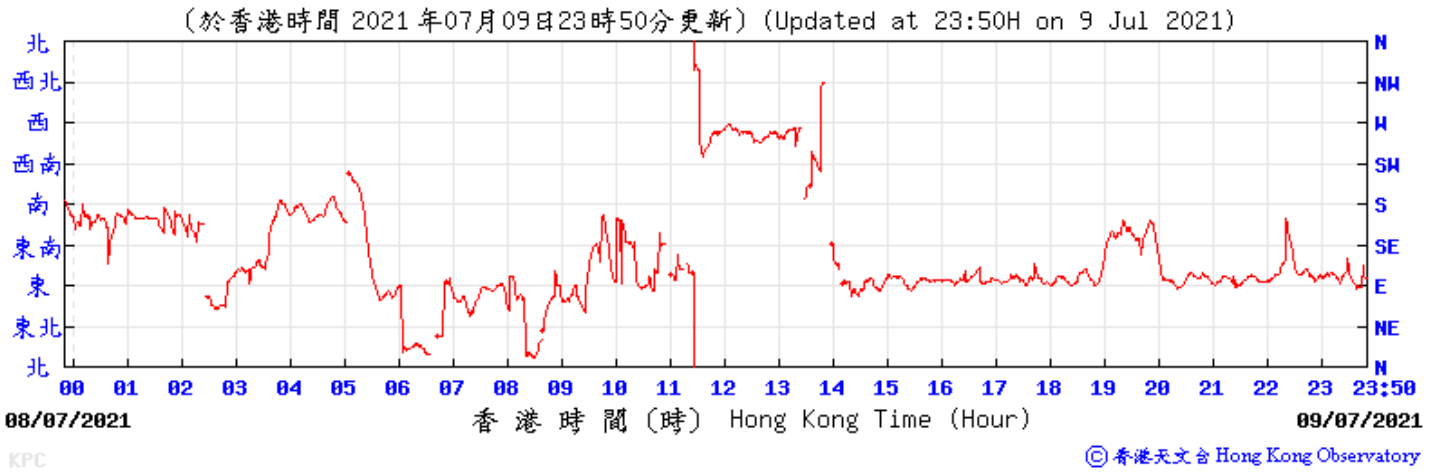
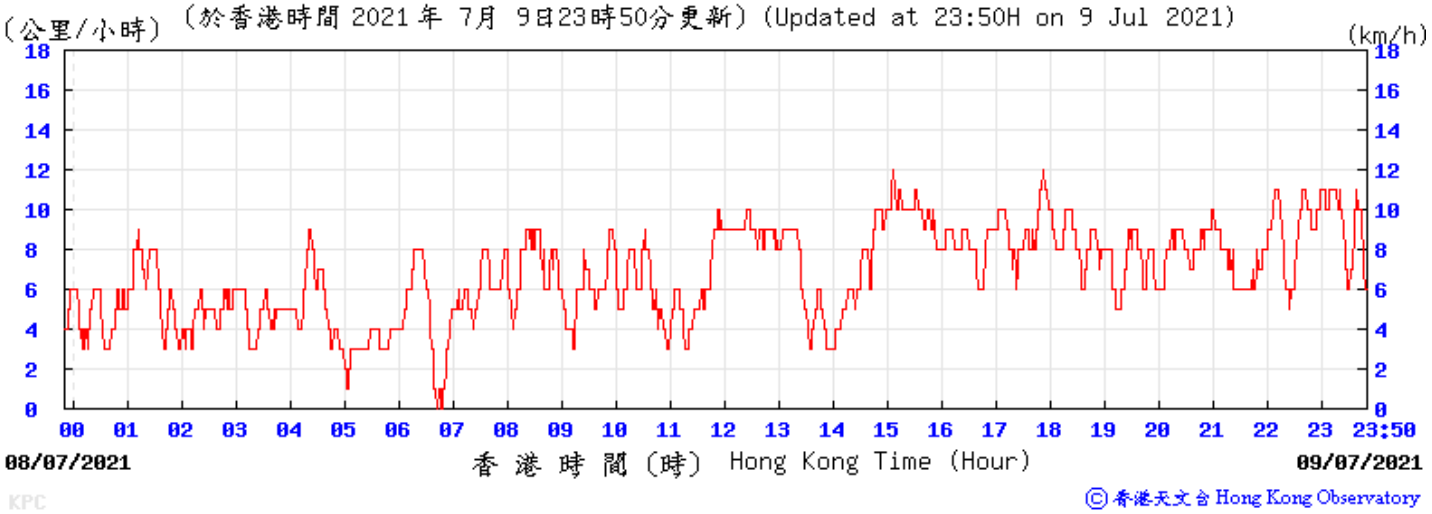


Wind Speed:



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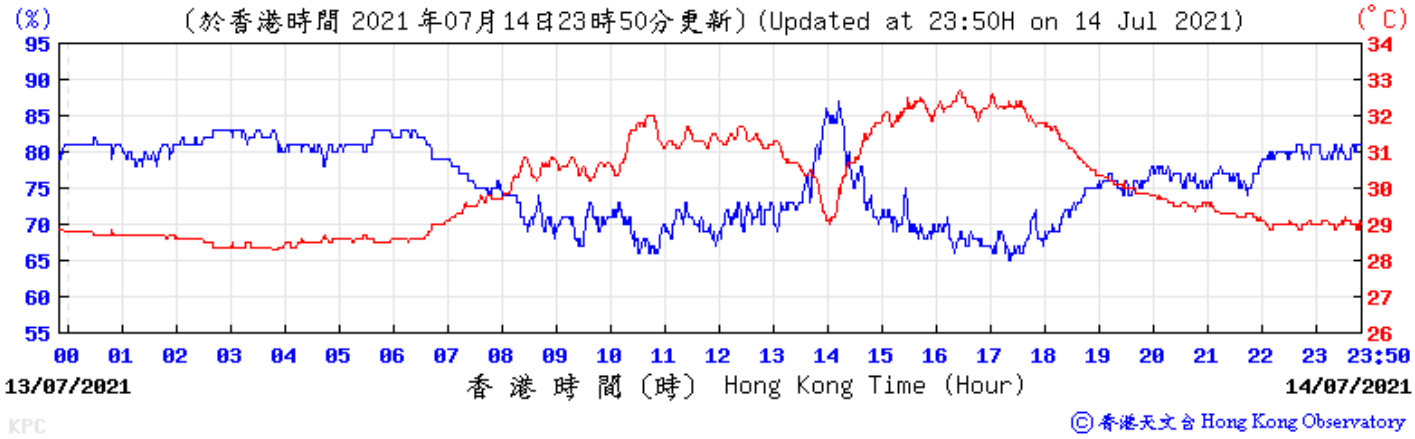

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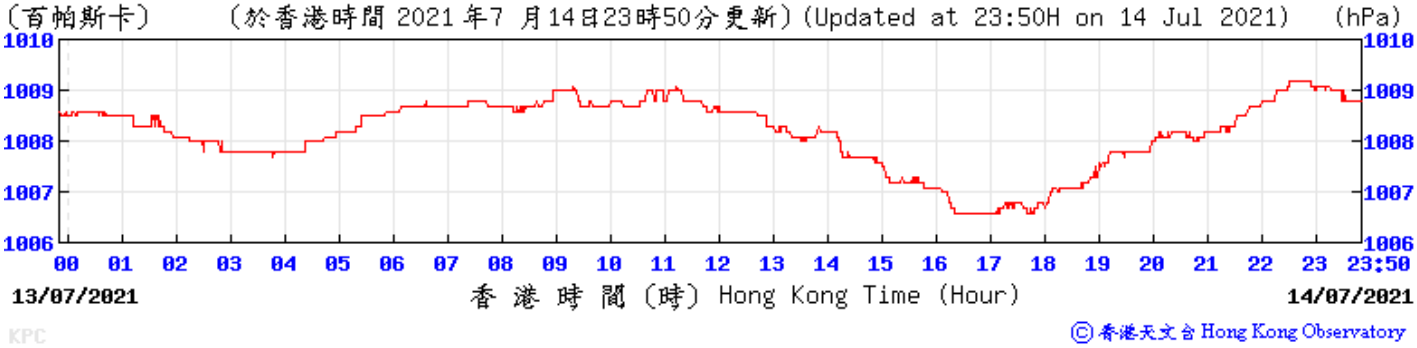

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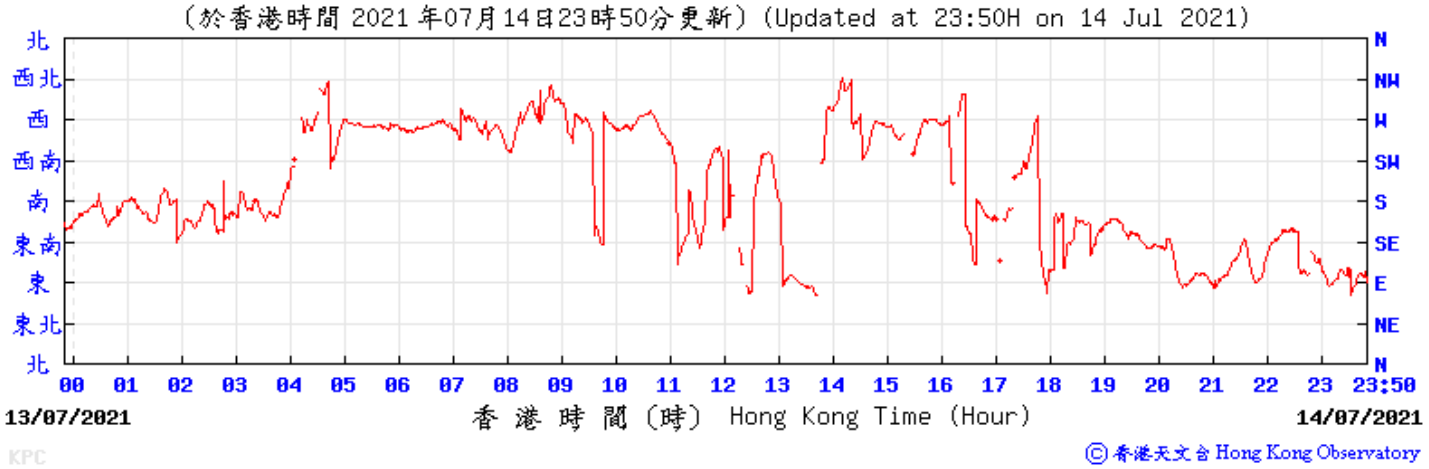

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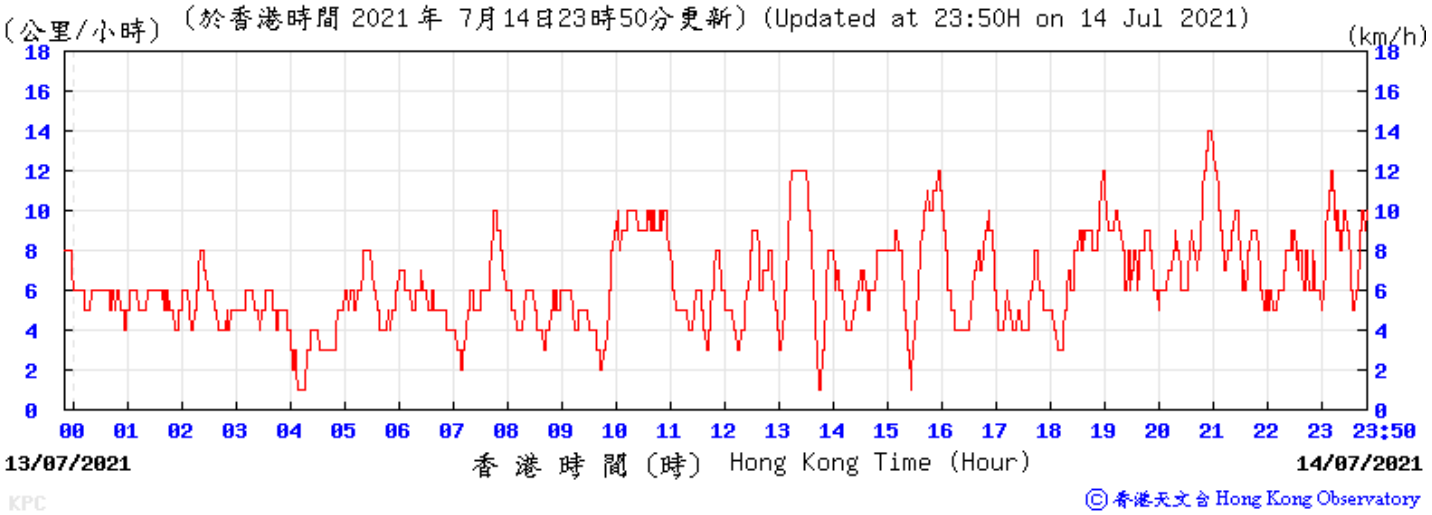

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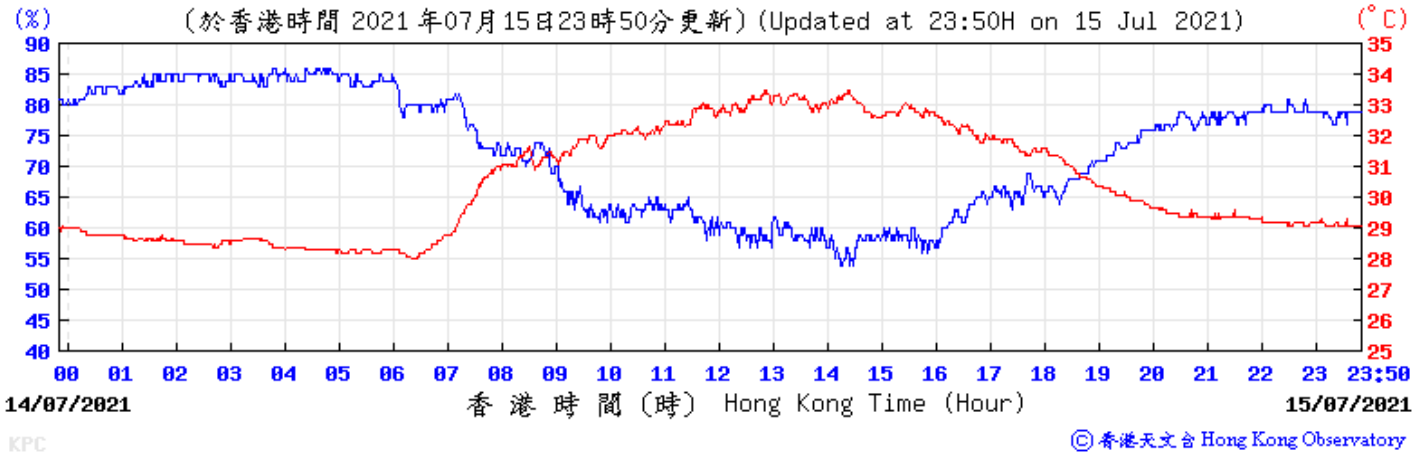

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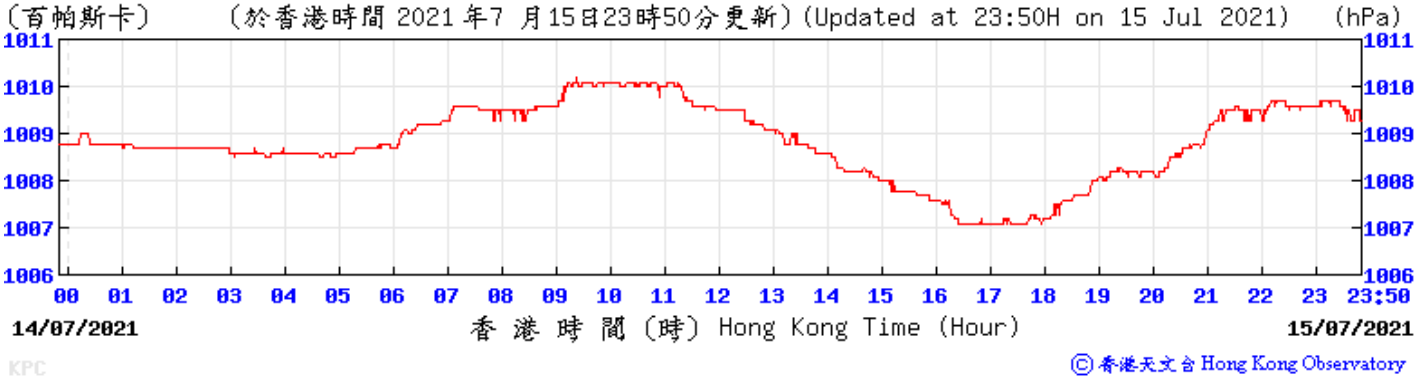

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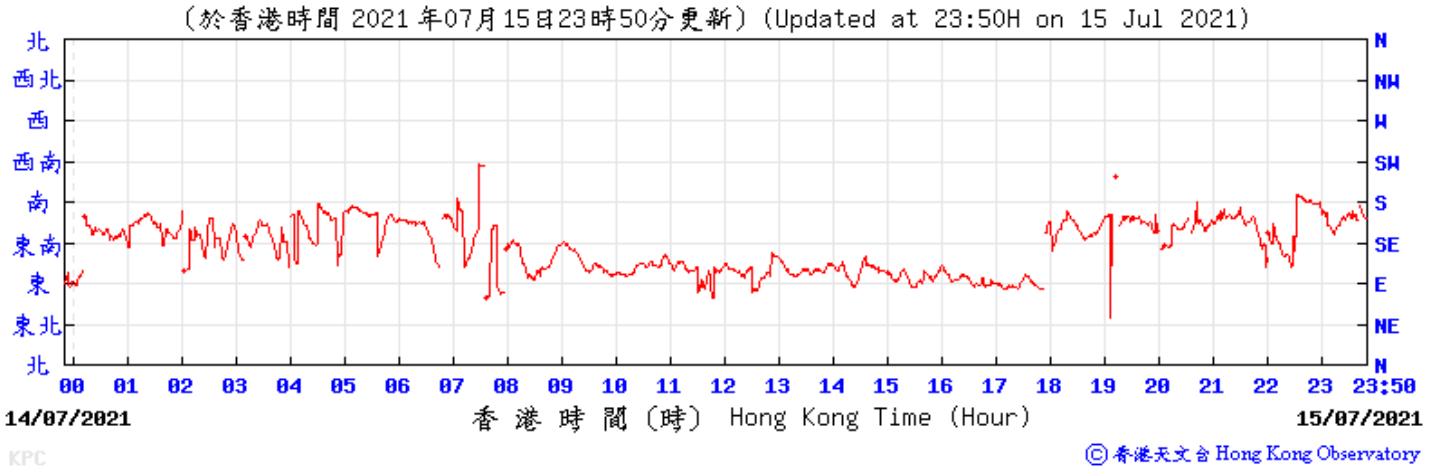

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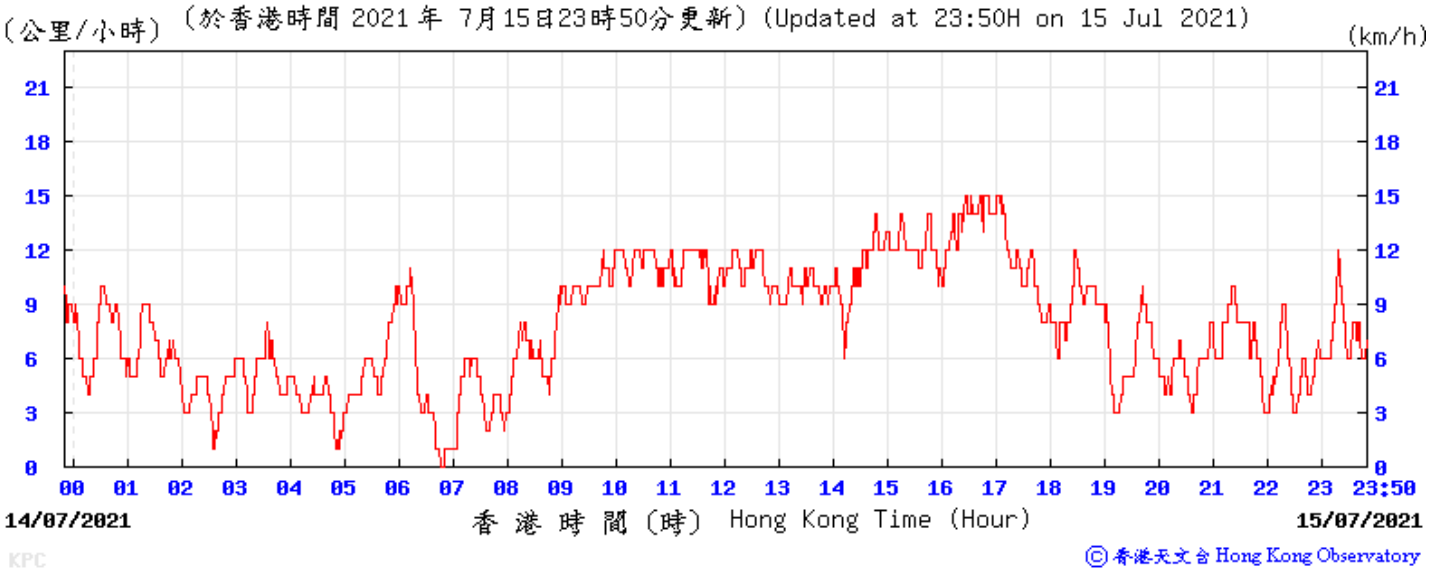

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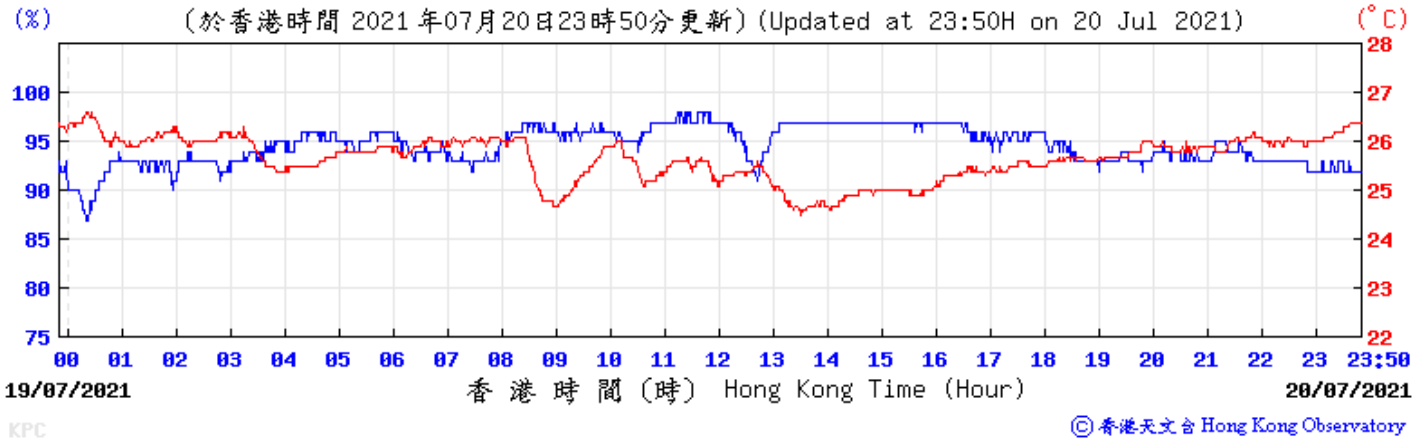

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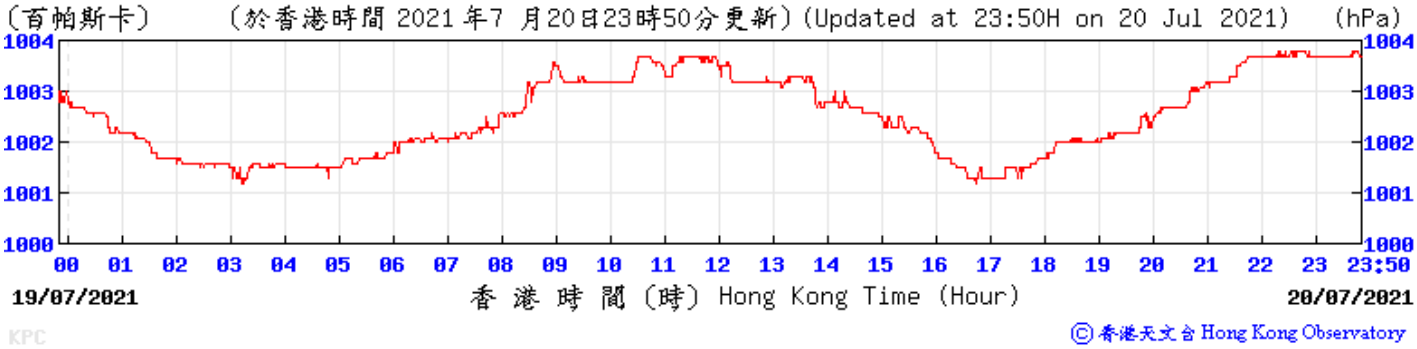

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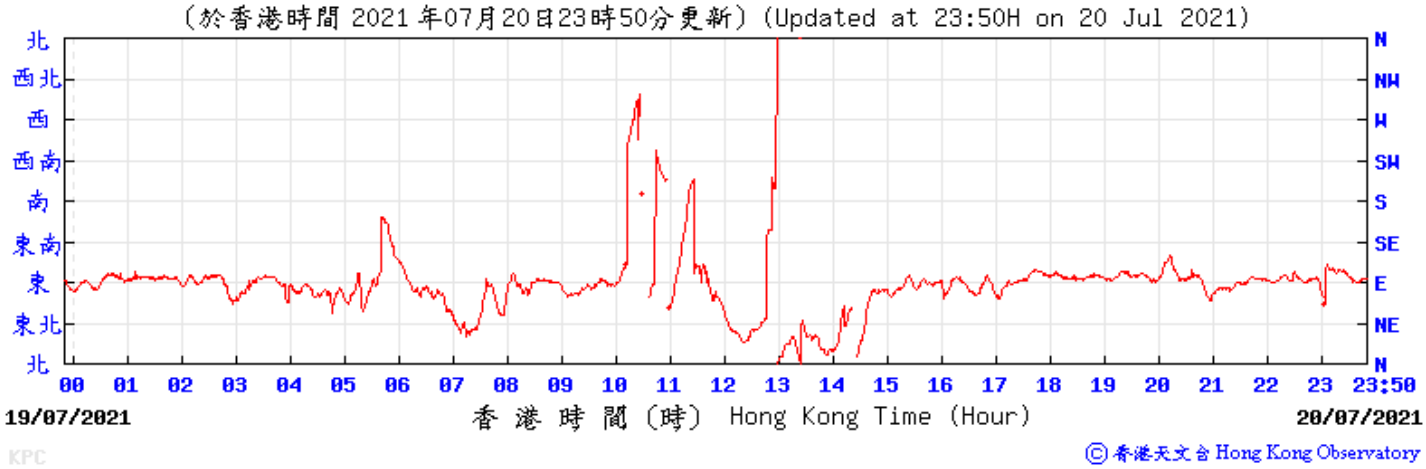

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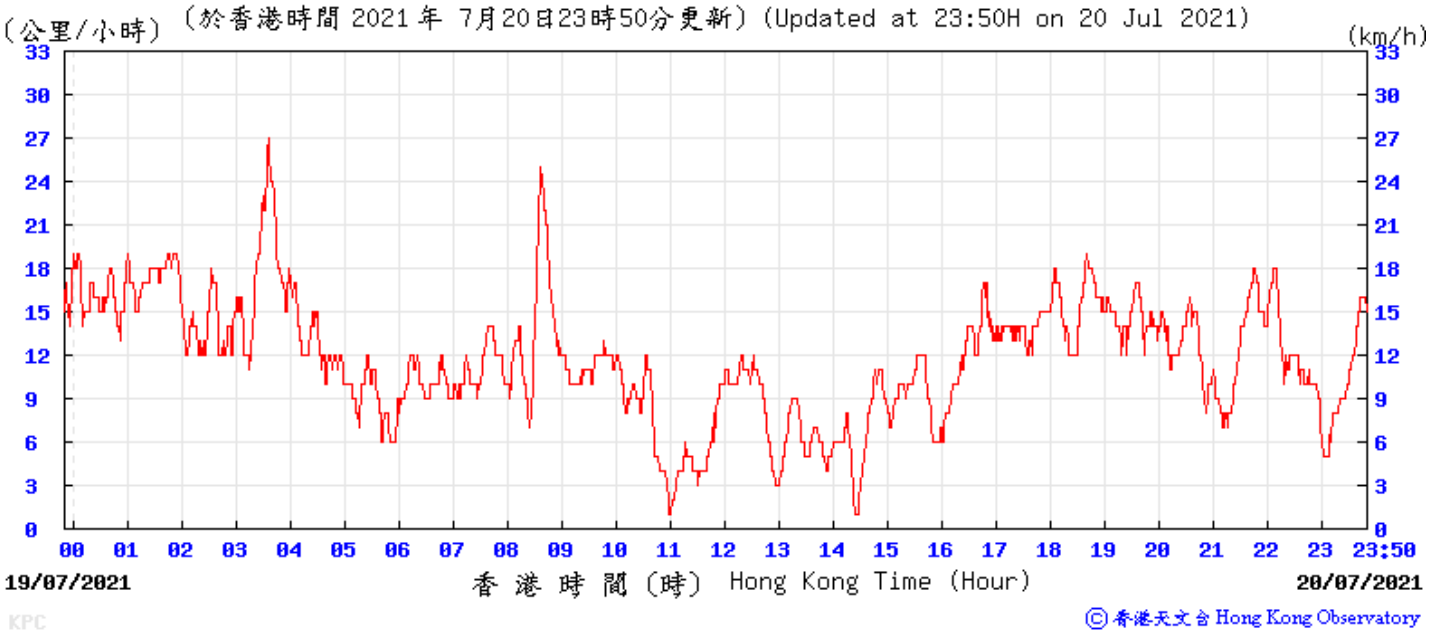

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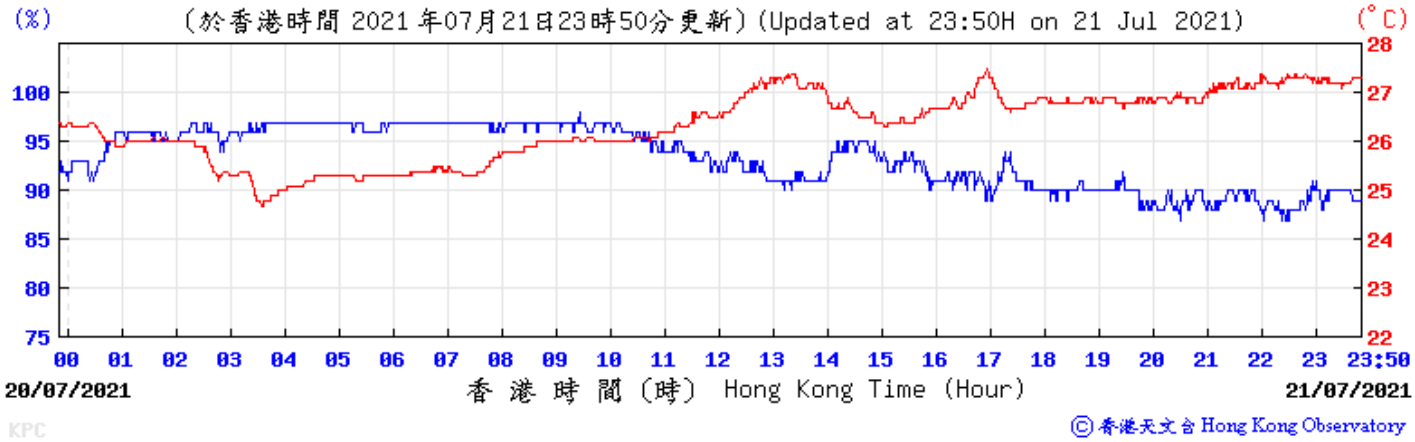

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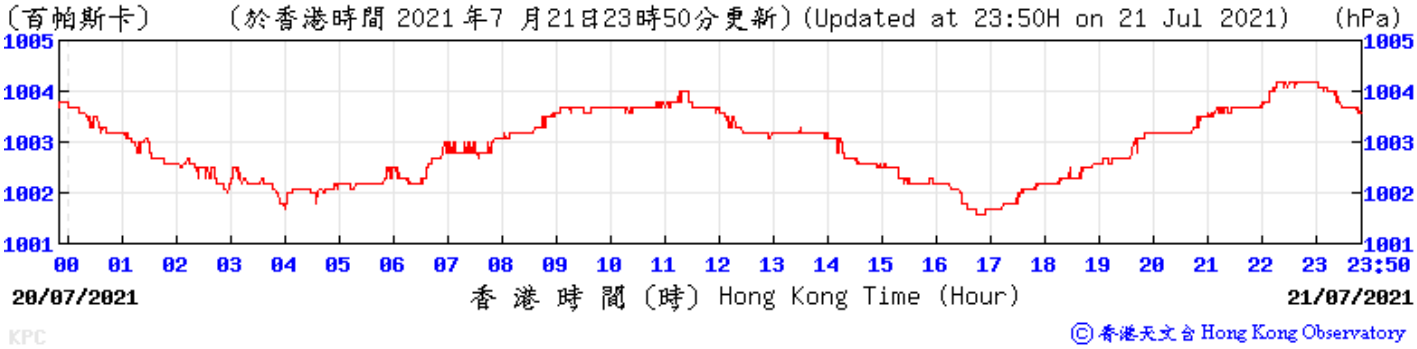

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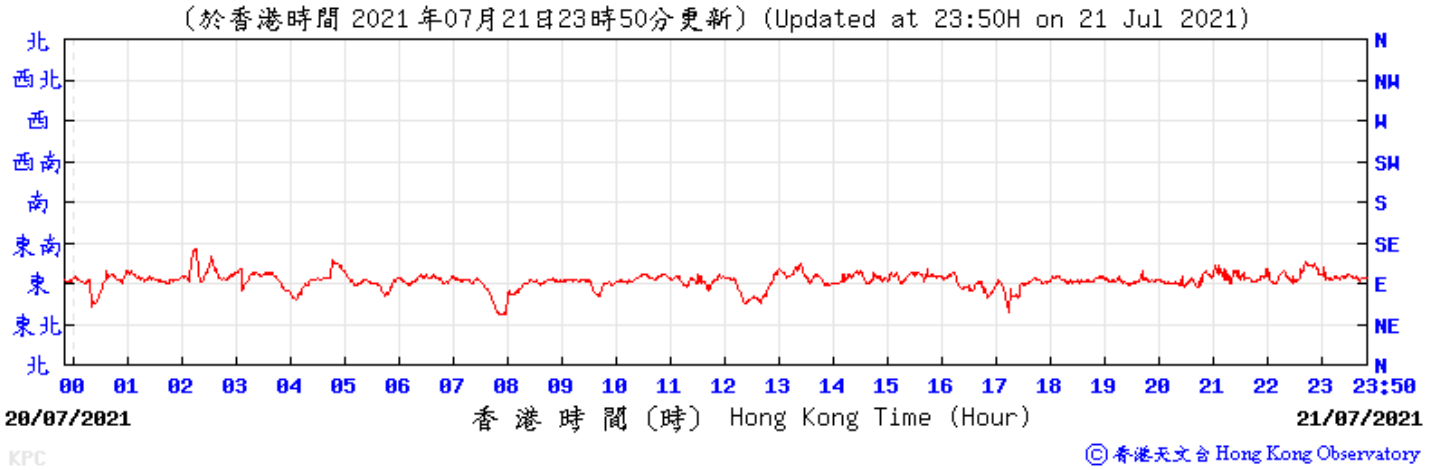

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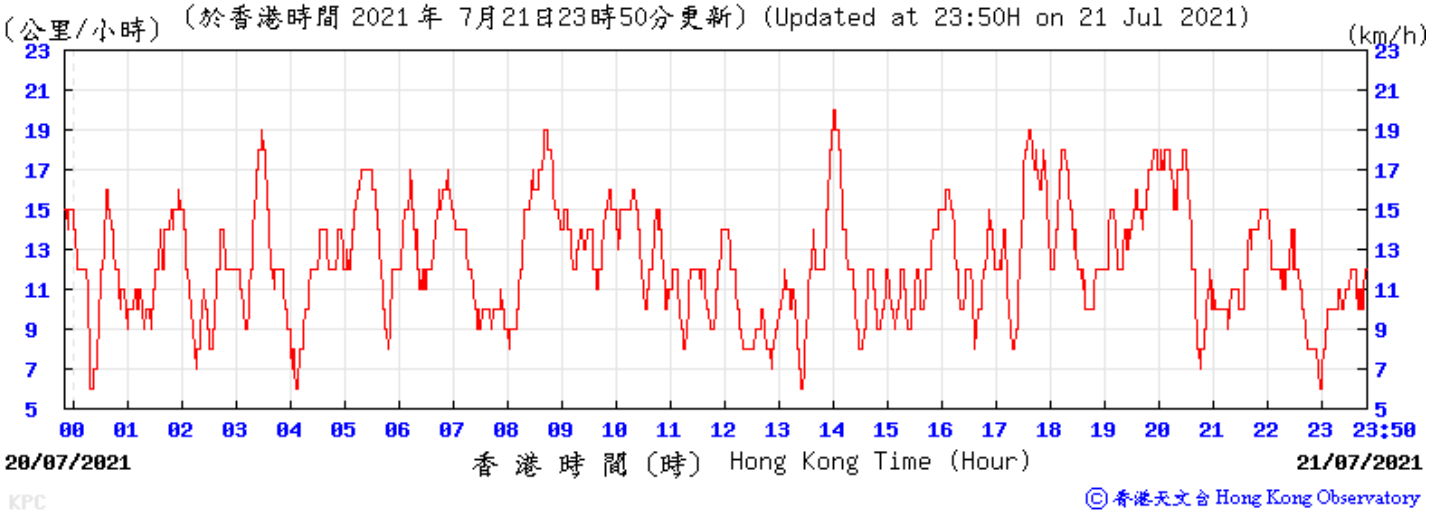

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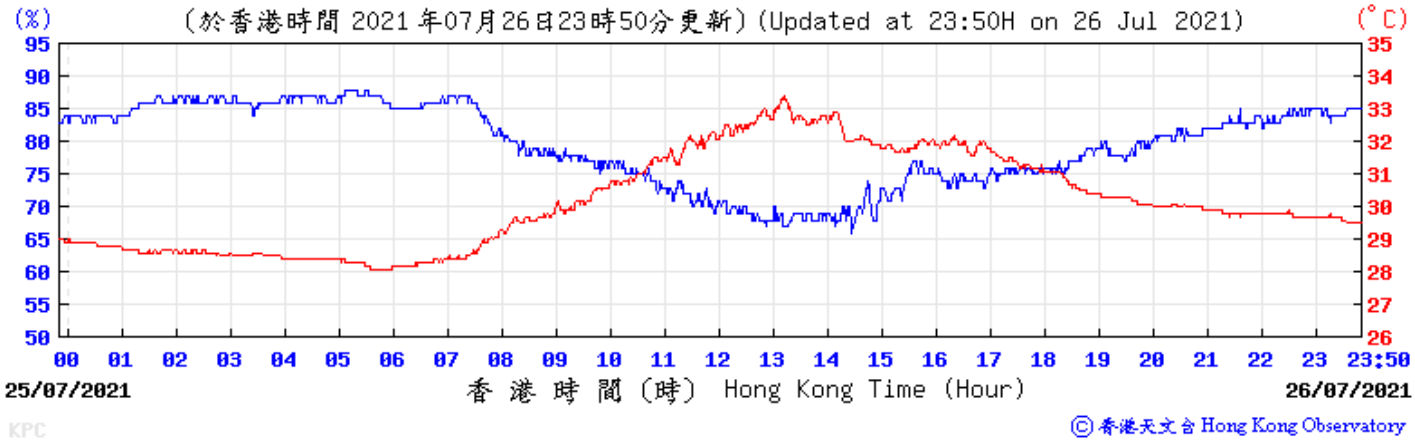

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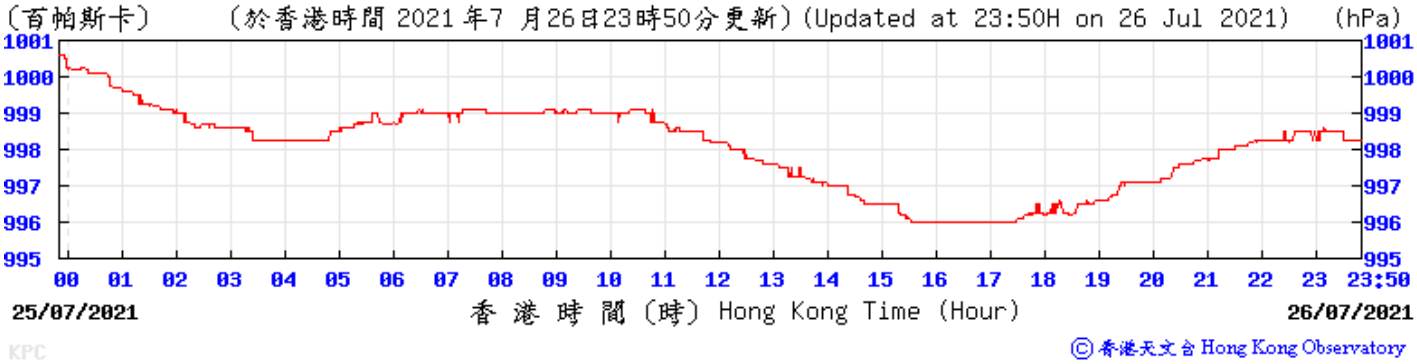

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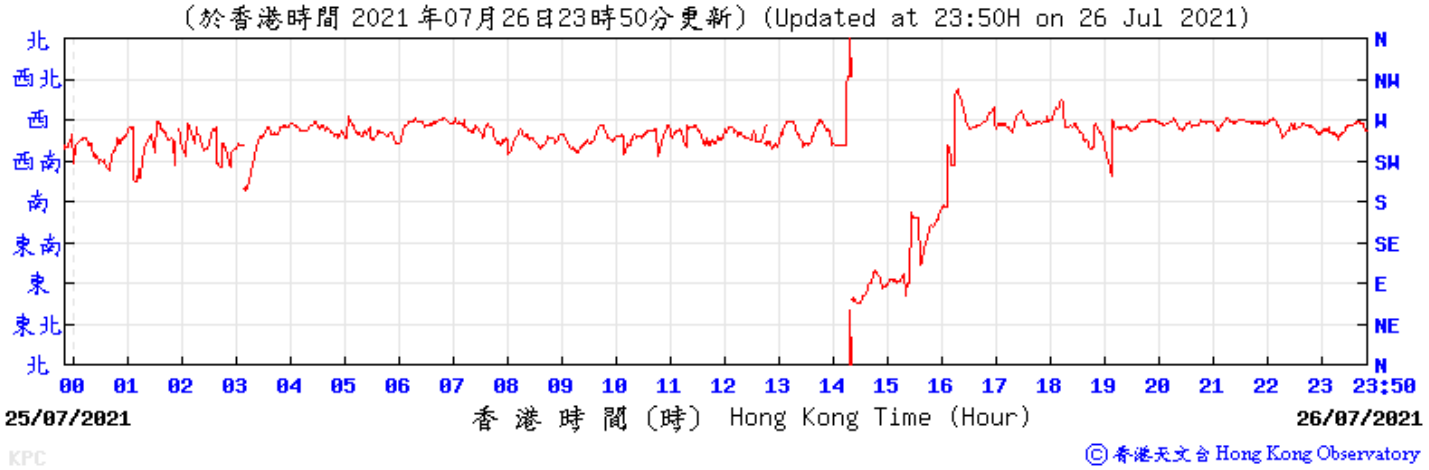

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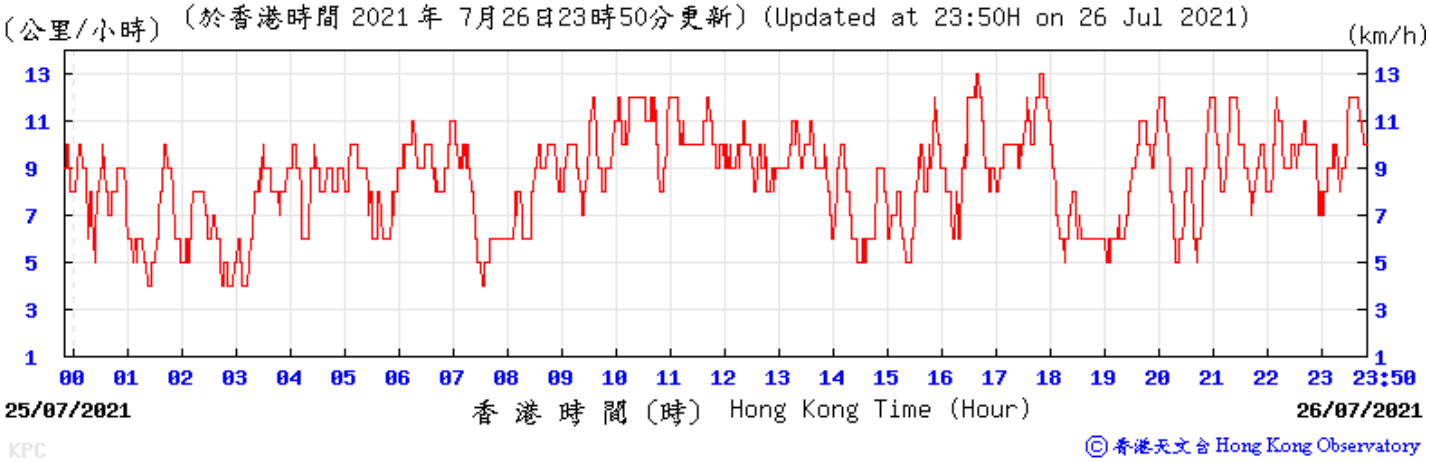

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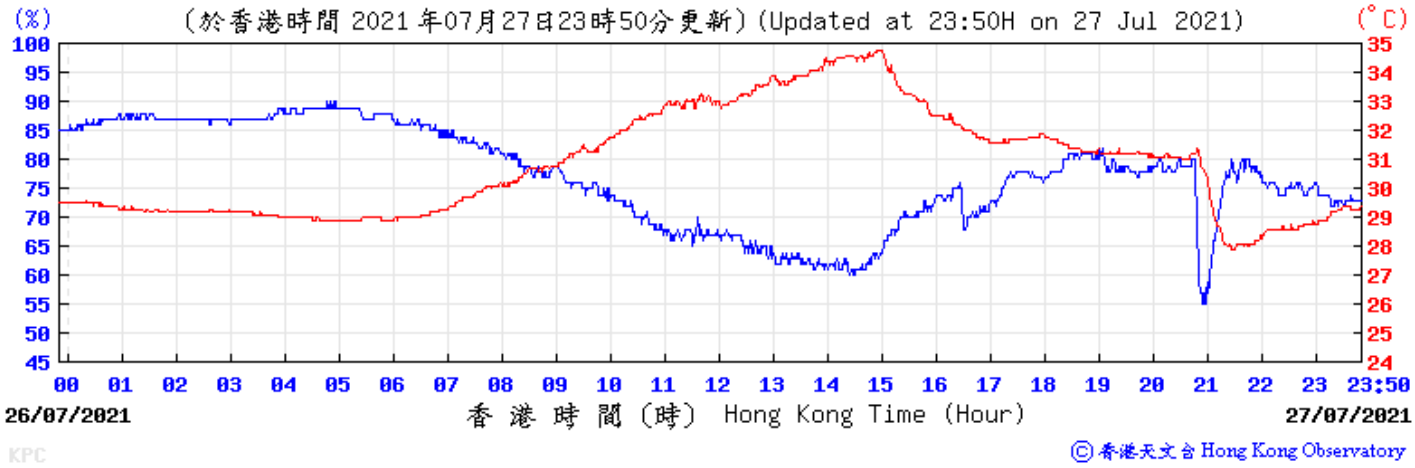

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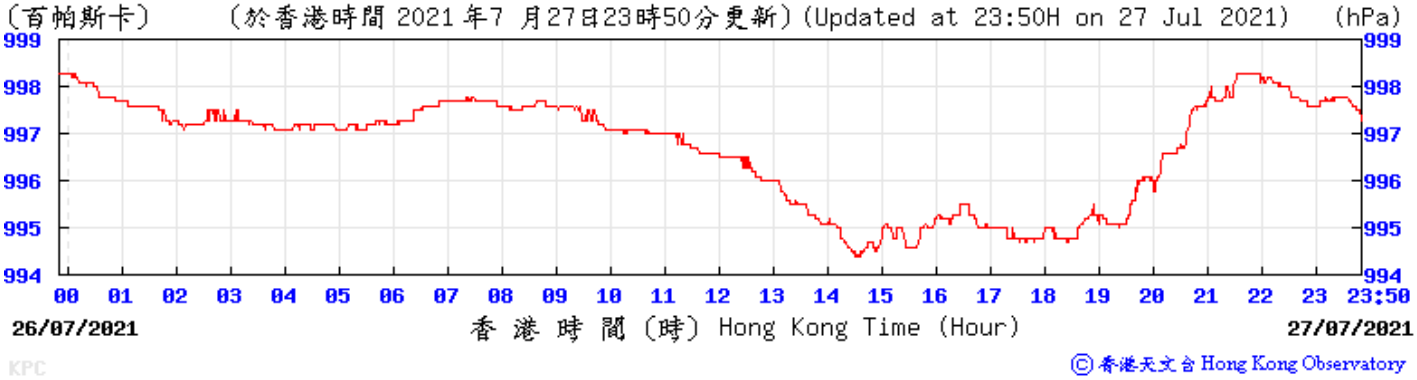

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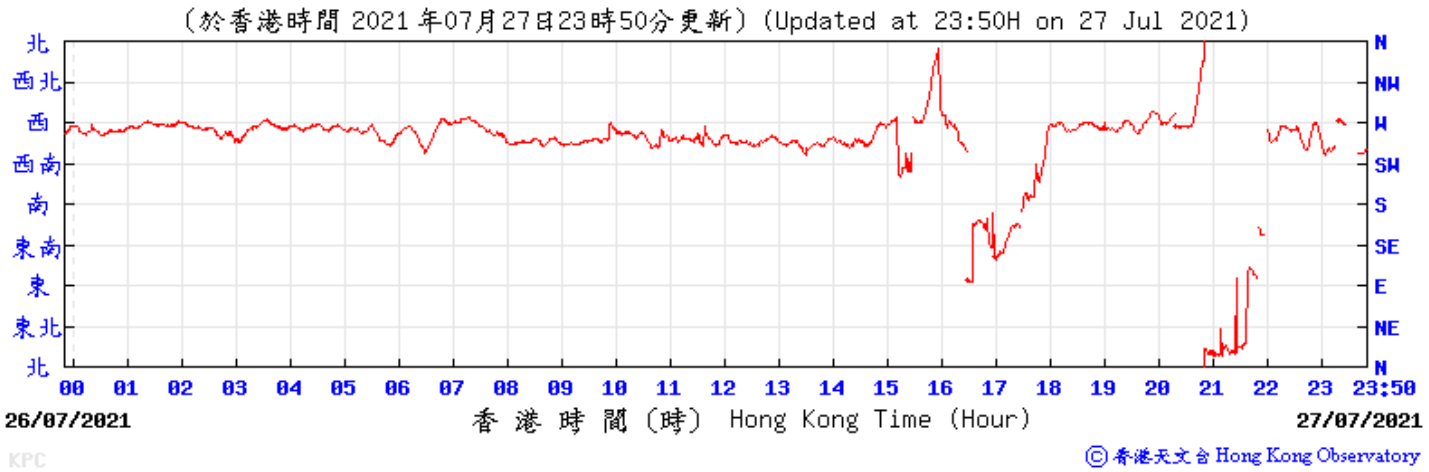

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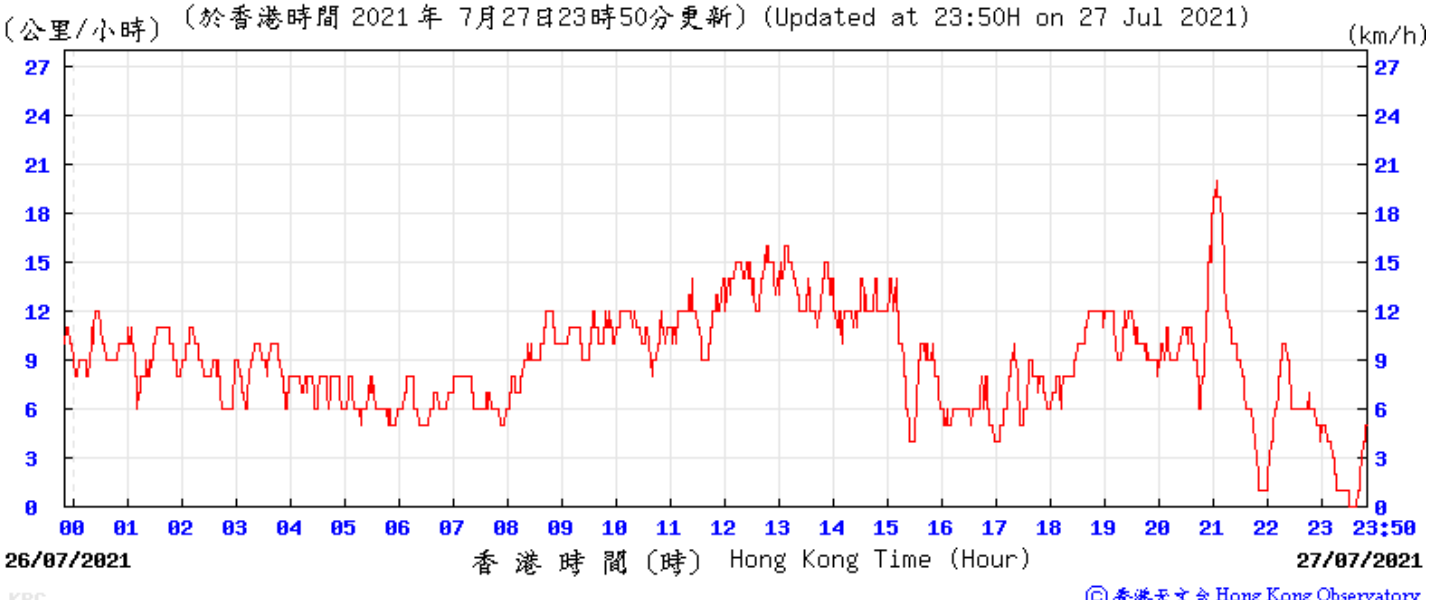

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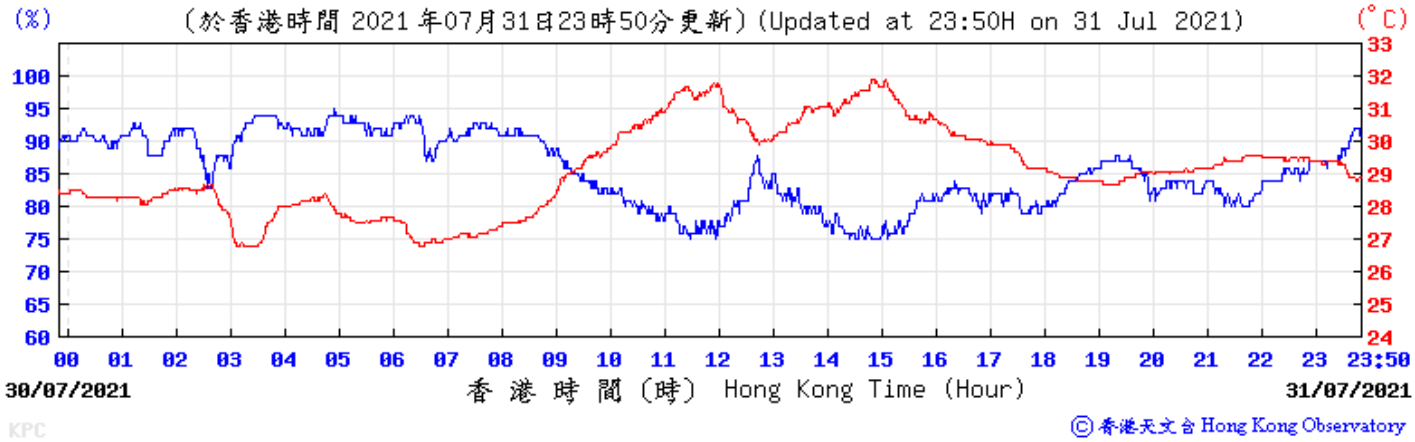

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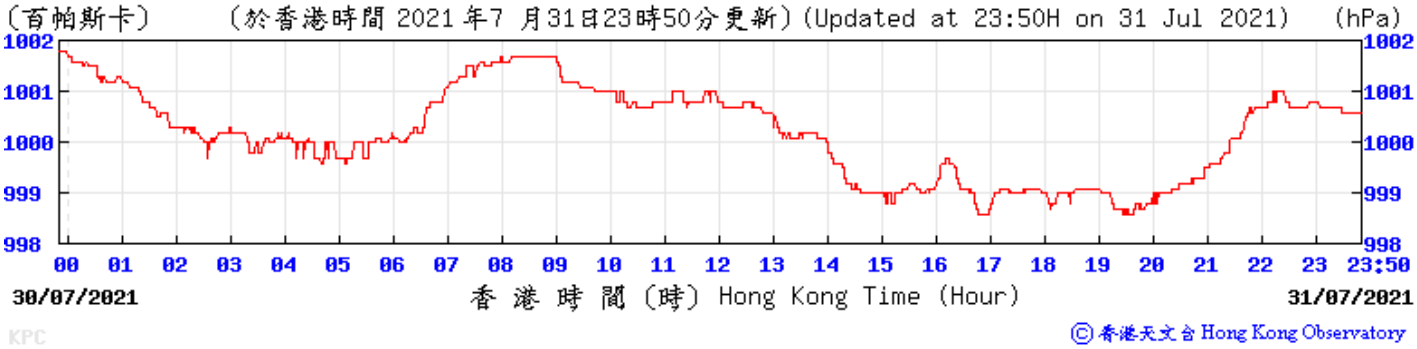

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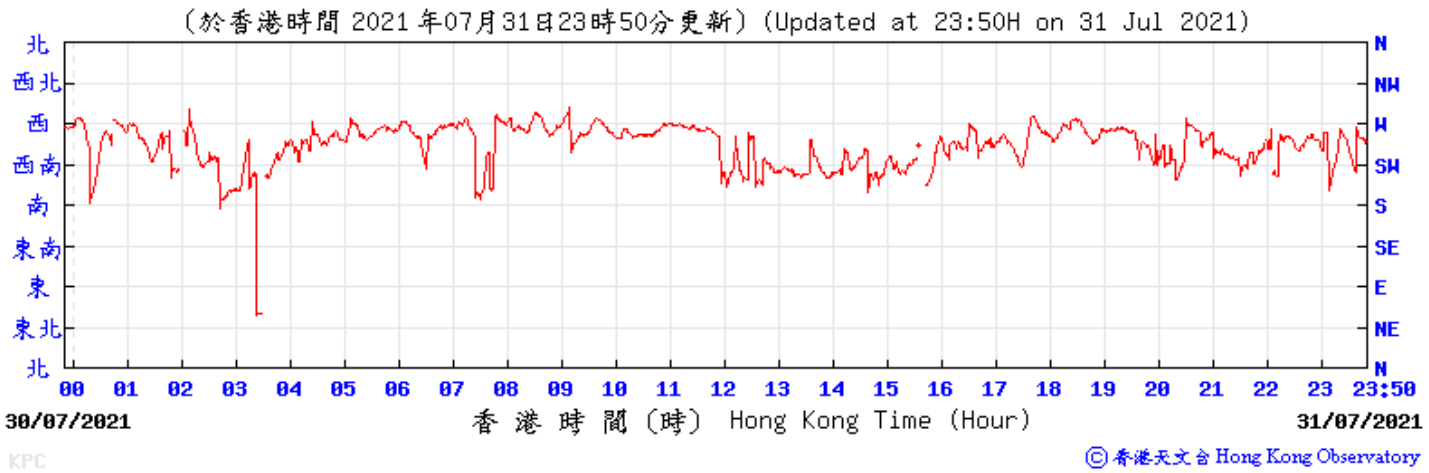

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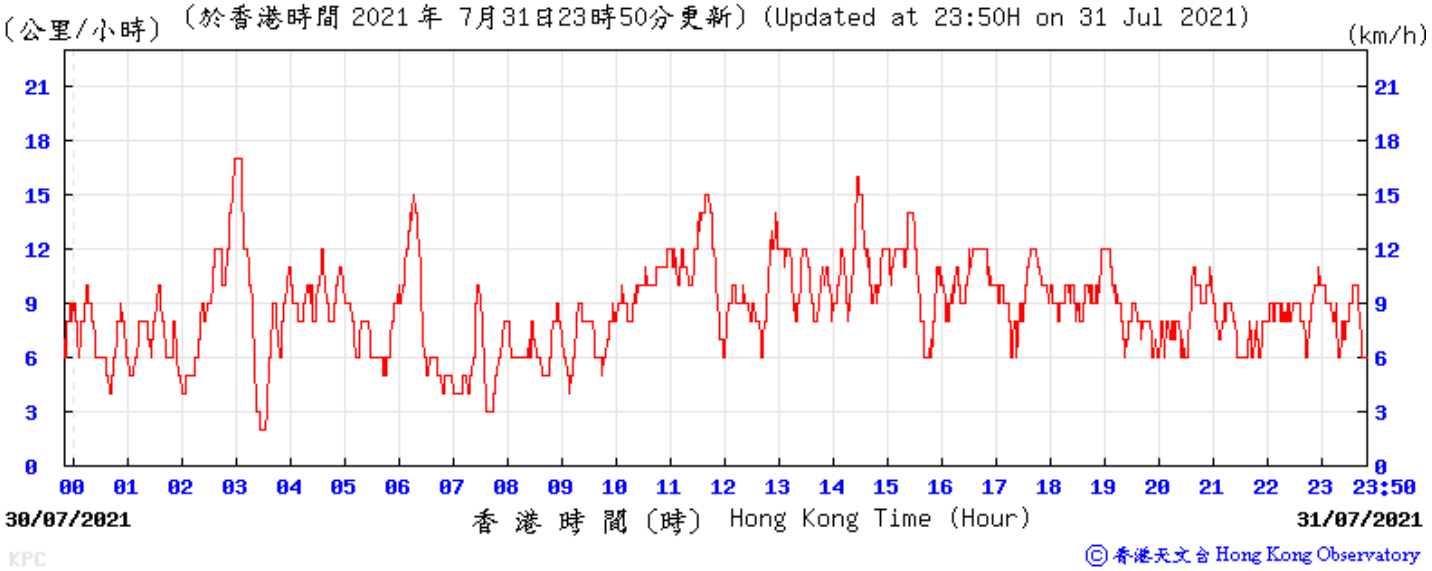

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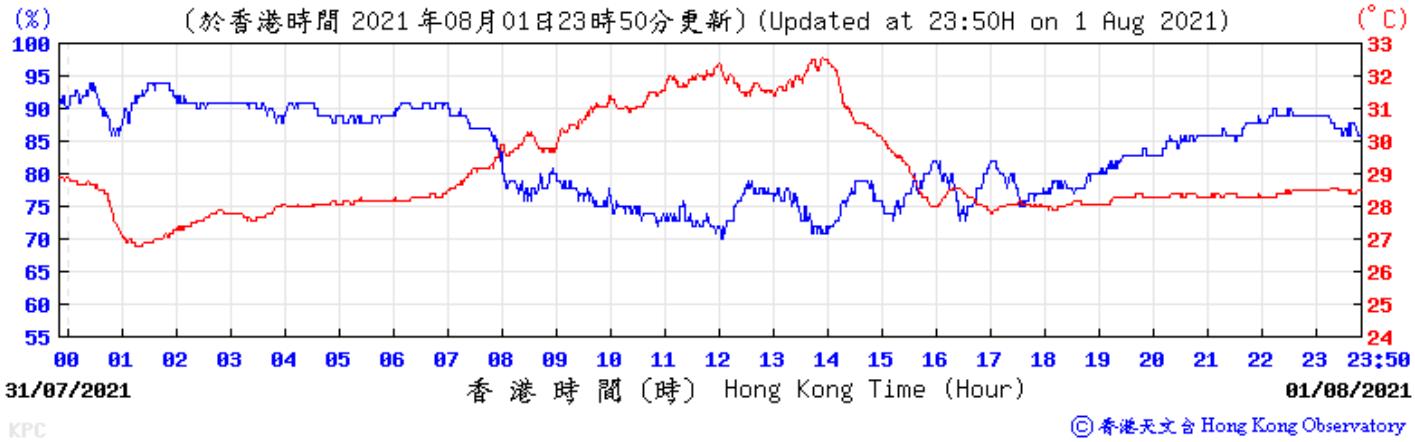

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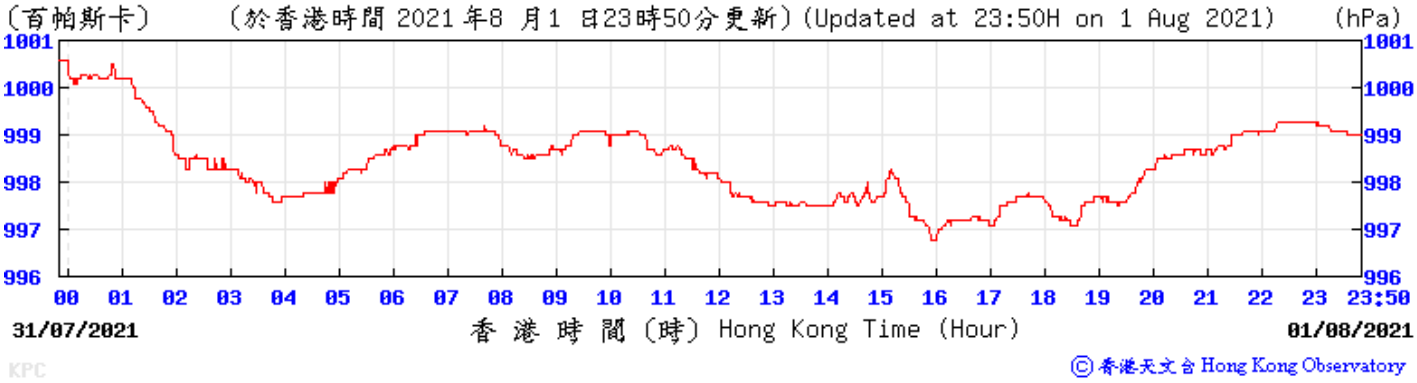

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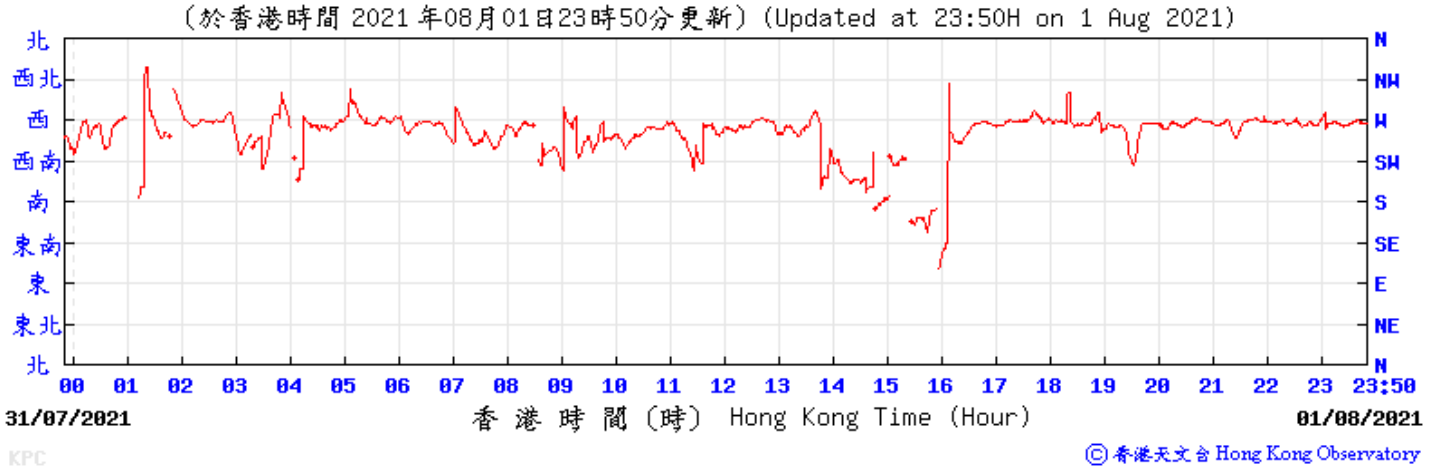
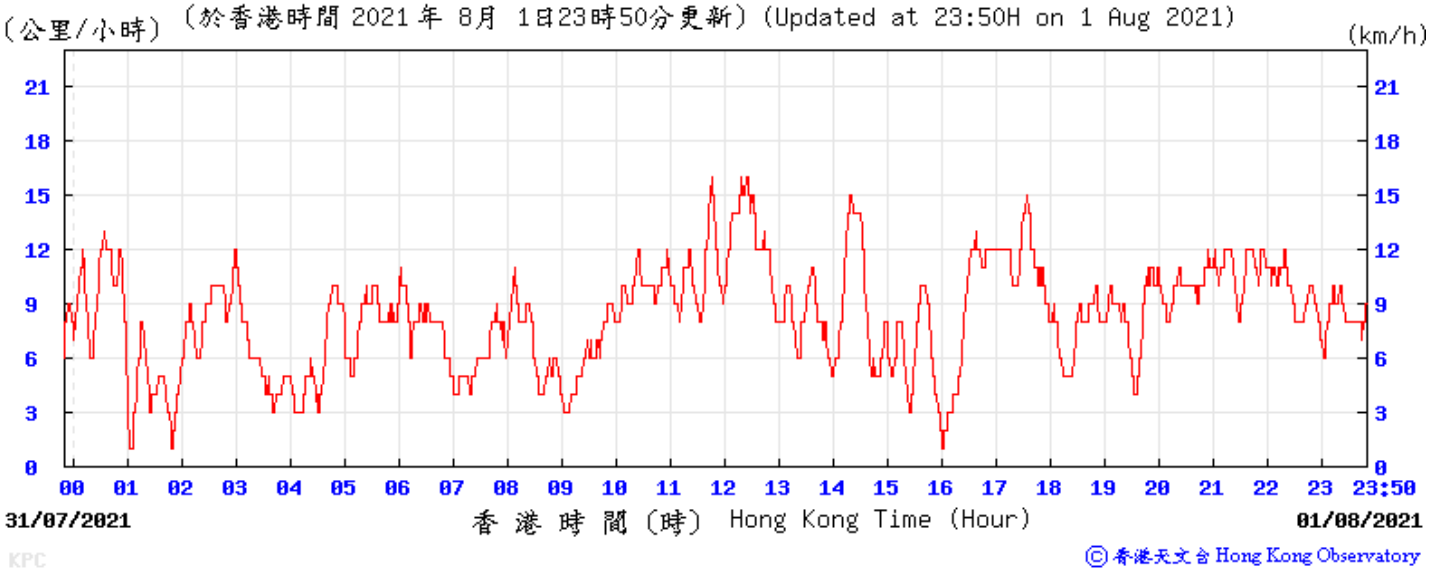


Wind Speed:

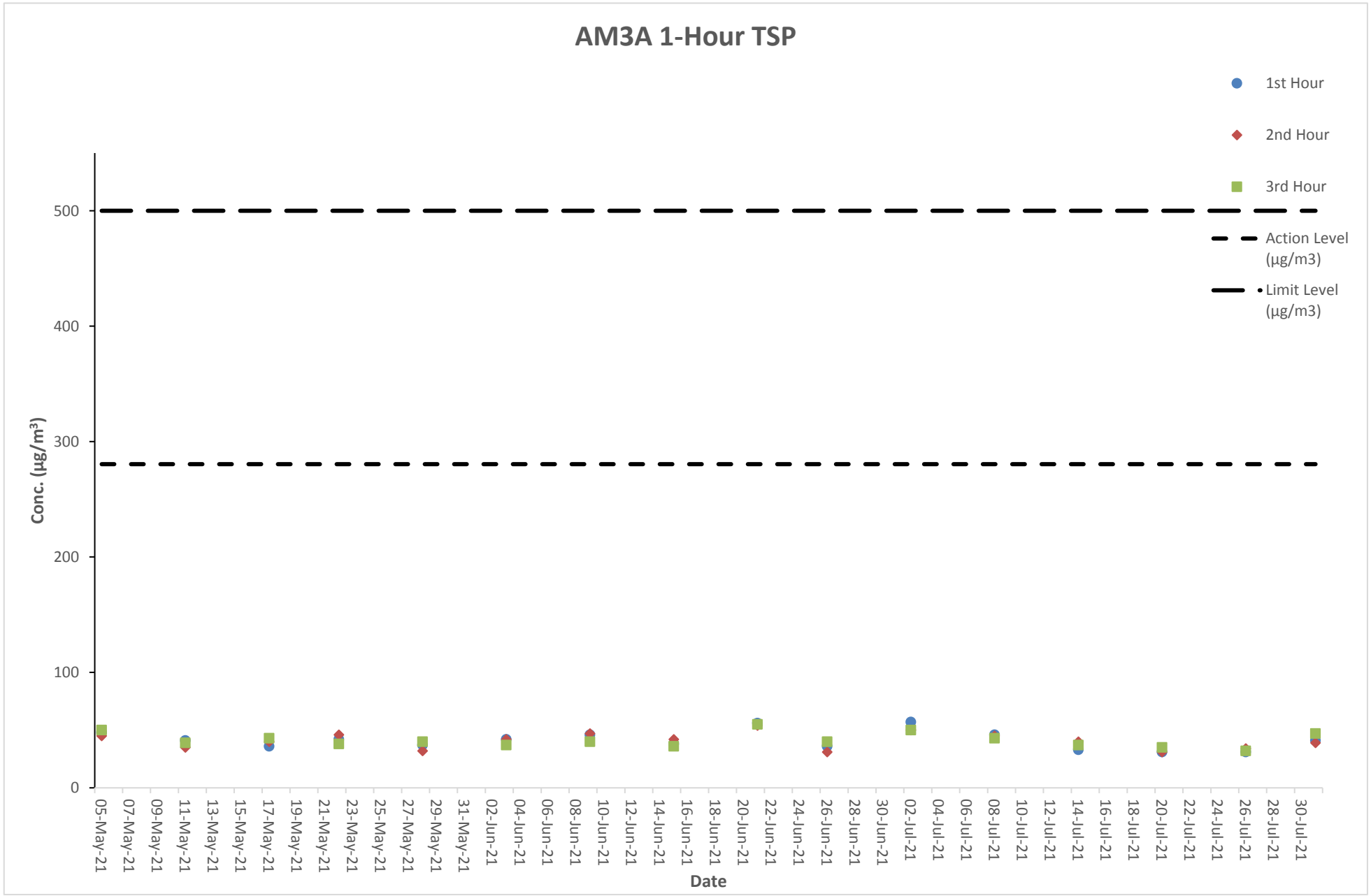


E. Graphical Plots of the Monitoring Results

Air Quality Monitoring Result at Station AM3A (1-hour TSP)

Date	Weather Condition	Time	Conc. (μg/m^3)			Action Level (μg/m^3)	Limit Level (μg/m^3)
			1st Hour	2nd Hour	3rd Hour		
05-May-21	Cloudy	8:01 - 11:01	48	45	50	280.4	500
11-May-21	Cloudy	14:03 - 17:03	41	35	39	280.4	500
17-May-21	Fine	8:02 - 11:02	36	40	43	280.4	500
22-May-21	Cloudy	14:05 - 17:05	42	46	38	280.4	500
28-May-21	Fine	8:10 - 11:10	37	32	40	280.4	500
03-Jun-21	Fine	14:02 - 17:02	42	42	37	280.4	500
09-Jun-21	Cloudy	8:01 - 11:01	46	47	40	280.4	500
15-Jun-21	Cloudy	14:01 - 17:01	38	42	36	280.4	500
21-Jun-21	Cloudy	8:03 - 11:03	56	54	55	280.4	500
26-Jun-21	Cloudy	14:00 - 17:00	36	31	40	280.4	500
02-Jul-21	Fine	8:02 - 11:02	57	50	50	280.4	500
08-Jul-21	Cloudy	14:07 - 17:07	46	45	43	280.4	500
14-Jul-21	Cloudy	8:10 - 11:10	33	40	37	280.4	500
20-Jul-21	Cloudy	14:15 - 17:15	31	31	35	280.4	500
26-Jul-21	Fine	8:12 - 11:12	31	34	32	280.4	500
31-Jul-21	Cloudy	14:09 - 17:09	41	39	47	280.4	500

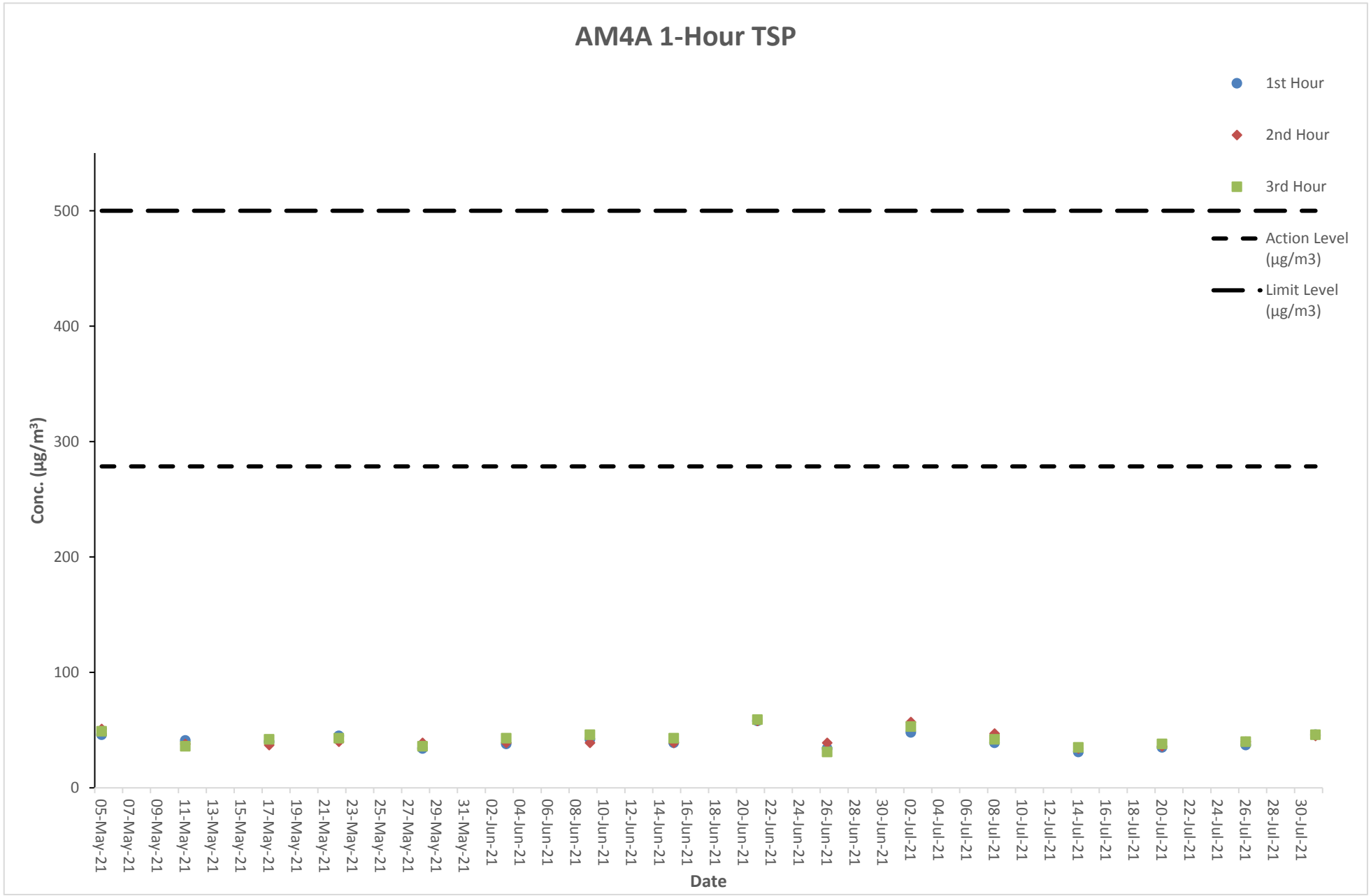
Graphical Presentation of Air Quality Monitoring Result at Station AM3A (1-hour TSP)



Air Quality Monitoring Result at Station AM4A (1-hour TSP)

Date	Weather Condition	Time	Conc. (μg/m^3)			Action Level (μg/m^3)	Limit Level (μg/m^3)
			1st Hour	2nd Hour	3rd Hour		
05-May-21	Cloudy	8:09 - 11:09	46	51	49	278.5	500
11-May-21	Cloudy	14:11 - 17:11	41	38	36	278.5	500
17-May-21	Fine	8:10 - 11:10	40	37	42	278.5	500
22-May-21	Cloudy	14:13 - 17:13	45	40	43	278.5	500
28-May-21	Fine	8:18 - 11:18	34	39	36	278.5	500
03-Jun-21	Fine	14:10 - 17:10	38	39	43	278.5	500
09-Jun-21	Cloudy	8:09 - 11:09	42	39	46	278.5	500
15-Jun-21	Cloudy	14:09 - 17:09	39	39	43	278.5	500
21-Jun-21	Cloudy	8:11 - 11:11	58	58	59	278.5	500
26-Jun-21	Cloudy	14:08 - 17:08	34	39	31	278.5	500
02-Jul-21	Fine	8:10 - 11:10	48	57	53	278.5	500
08-Jul-21	Cloudy	14:15 - 17:15	39	47	42	278.5	500
14-Jul-21	Cloudy	8:18 - 11:18	31	34	35	278.5	500
20-Jul-21	Cloudy	14:23 - 17:23	35	36	38	278.5	500
26-Jul-21	Fine	8:20 - 11:20	37	40	40	278.5	500
31-Jul-21	Cloudy	14:17 - 17:17	46	45	46	278.5	500

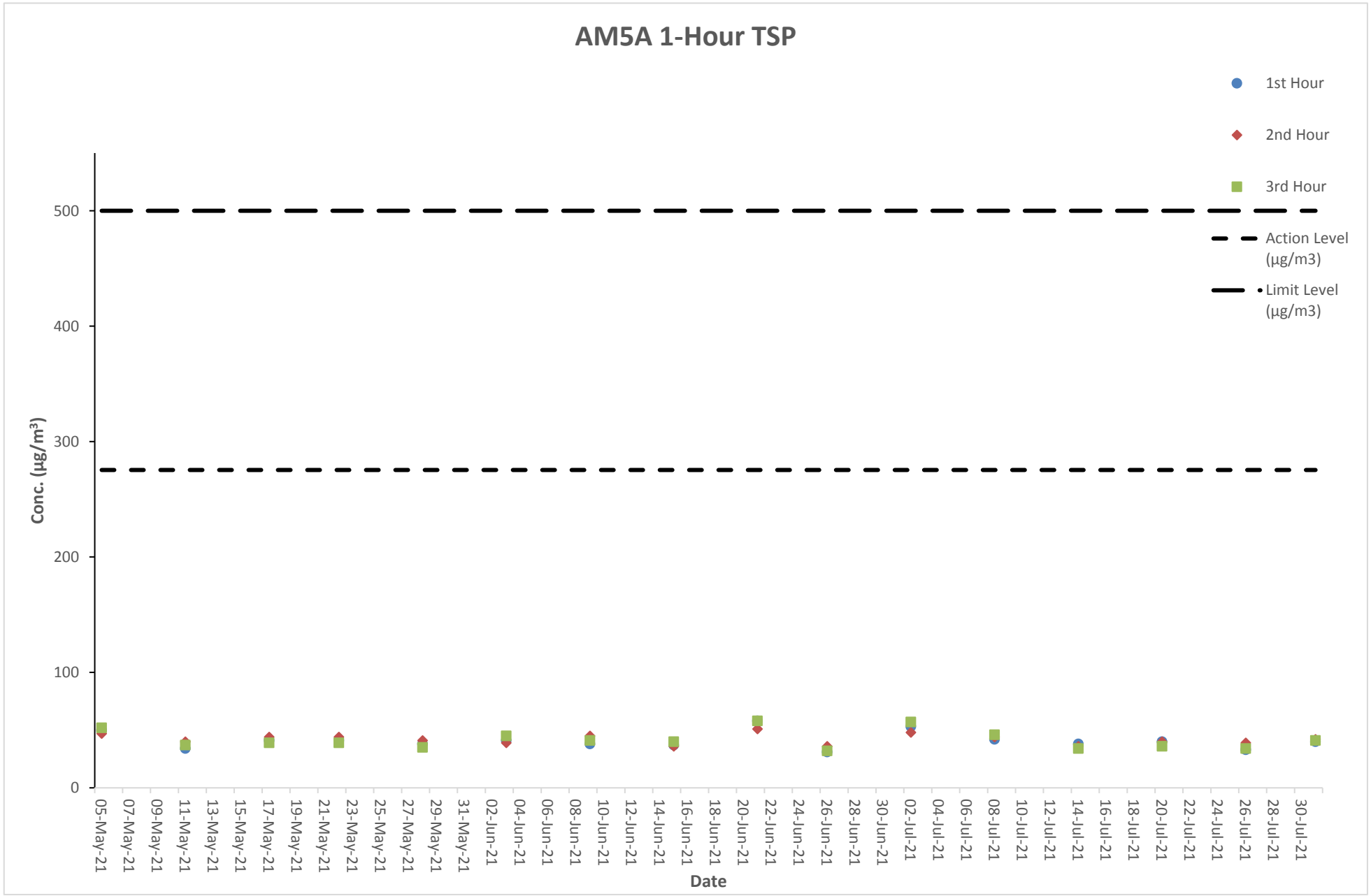
Graphical Presentation of Air Quality Monitoring Result at Station AM4A (1-hour TSP)



Air Quality Monitoring Result at Station AM5A (1-hour TSP)

Date	Weather Condition	Time	Conc. (μg/m^3)			Action Level (μg/m^3)	Limit Level (μg/m^3)
			1st Hour	2nd Hour	3rd Hour		
05-May-21	Cloudy	8:24 - 11:24	50	47	52	275.4	500
11-May-21	Cloudy	14:28 - 17:28	34	40	37	275.4	500
17-May-21	Fine	8:25 - 11:25	41	44	39	275.4	500
22-May-21	Cloudy	14:30 - 17:30	41	44	39	275.4	500
28-May-21	Fine	8:33 - 11:33	38	41	35	275.4	500
03-Jun-21	Fine	14:25 - 17:25	41	39	45	275.4	500
09-Jun-21	Cloudy	8:26 - 11:26	38	45	41	275.4	500
15-Jun-21	Cloudy	14:24 - 17:24	37	36	40	275.4	500
21-Jun-21	Cloudy	8:28 - 11:28	58	51	58	275.4	500
26-Jun-21	Cloudy	14:23 - 17:23	31	36	32	275.4	500
02-Jul-21	Fine	8:25 - 11:25	53	48	57	275.4	500
08-Jul-21	Cloudy	14:32 - 17:32	42	44	46	275.4	500
14-Jul-21	Cloudy	8:33 - 11:33	38	36	34	275.4	500
20-Jul-21	Cloudy	14:40 - 17:40	40	40	36	275.4	500
26-Jul-21	Fine	8:35 - 11:35	33	39	34	275.4	500
31-Jul-21	Cloudy	14:25 - 17:25	40	42	41	275.4	500

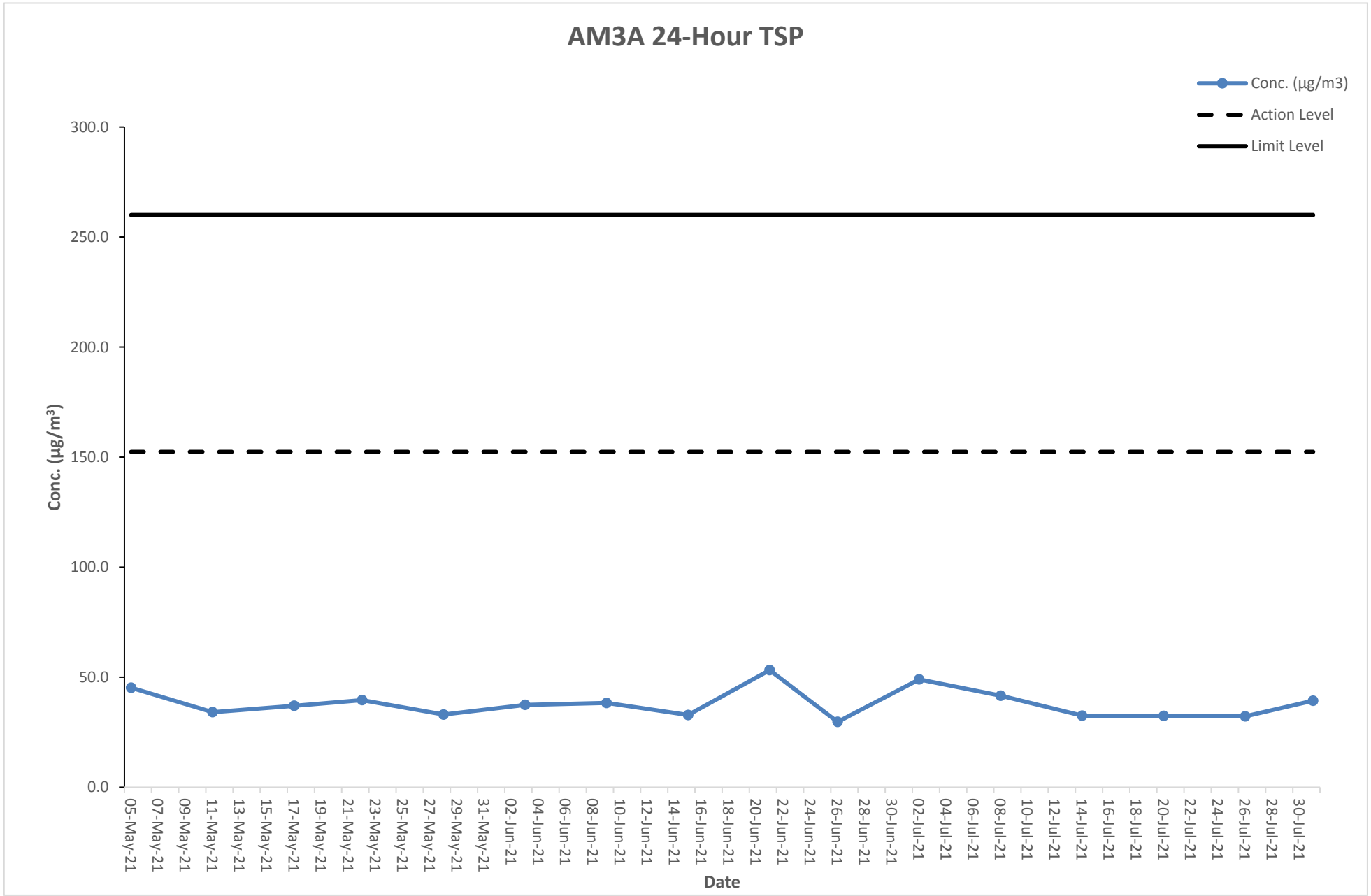
Graphical Presentation of Air Quality Monitoring Result at Station AM5A (1-hour TSP)



Air Quality Monitoring Result at Station AM3A (24-hour TSP)

Start		Finish		Filter Weight (g)		Elapsed Time Reading		Sampling Time (hrs)	Flow Rate (m^3/min)			Conc. ($\mu g/m^3$)	Weather Condition	Action Level	Limit Level
Date	Time	Date	Time	Initial	Final	Initial	Final		Initial	Final	Average				
05-May-21	10:00	06-May-21	10:00	2.8061	2.8789	1940.8	1964.8	24	1.12	1.12	1.12	45.2	Cloudy	152.4	260
11-May-21	10:00	12-May-21	10:00	2.8019	2.8567	1964.8	1988.8	24	1.12	1.12	1.12	34.1	Fine	152.4	260
17-May-21	10:00	18-May-21	10:00	2.8041	2.8636	1988.8	2012.8	24	1.12	1.12	1.12	37.0	Sunny	152.4	260
22-May-21	10:00	23-May-21	10:00	2.8029	2.8667	2012.8	2036.8	24	1.12	1.12	1.12	39.6	Cloudy	152.4	260
28-May-21	10:00	29-May-21	10:00	2.8077	2.8608	2036.8	2060.8	24	1.12	1.12	1.12	33.0	Sunny	152.4	260
03-Jun-21	10:00	04-Jun-21	10:00	2.8077	2.8679	2060.8	2084.8	24	1.12	1.12	1.12	37.4	Sunny	152.4	260
09-Jun-21	10:00	10-Jun-21	10:00	2.8075	2.8691	2084.8	2108.8	24	1.12	1.12	1.12	38.3	Rainy	152.4	260
15-Jun-21	10:00	16-Jun-21	10:00	2.8090	2.8617	2108.8	2132.8	24	1.12	1.12	1.12	32.8	Rainy	152.4	260
21-Jun-21	10:00	22-Jun-21	10:00	2.8069	2.8926	2132.8	2156.8	24	1.12	1.12	1.12	53.2	Cloudy	152.4	260
26-Jun-21	10:00	27-Jun-21	10:00	2.8051	2.8528	2156.8	2180.8	24	1.12	1.12	1.12	29.7	Rainy	152.4	260
02-Jul-21	10:00	03-Jul-21	10:00	2.8056	2.8845	2180.8	2204.8	24	1.12	1.12	1.12	49.0	Sunny	152.4	260
08-Jul-21	10:00	09-Jul-21	10:00	2.8042	2.8712	2204.8	2228.8	24	1.12	1.12	1.12	41.6	Cloudy	152.4	260
14-Jul-21	10:00	15-Jul-21	10:00	2.8023	2.8546	2228.8	2252.8	24	1.12	1.12	1.12	32.5	Cloudy	152.4	260
20-Jul-21	10:00	21-Jul-21	10:00	2.8061	2.8583	2252.8	2276.8	24	1.12	1.12	1.12	32.4	Rainy	152.4	260
26-Jul-21	10:00	27-Jul-21	10:00	2.8048	2.8566	2276.8	2300.8	24	1.12	1.12	1.12	32.2	Fine	152.4	260
31-Jul-21	10:00	01-Aug-21	10:00	2.8065	2.8698	2300.8	2324.8	24	1.12	1.12	1.12	39.3	Rainy	152.4	260

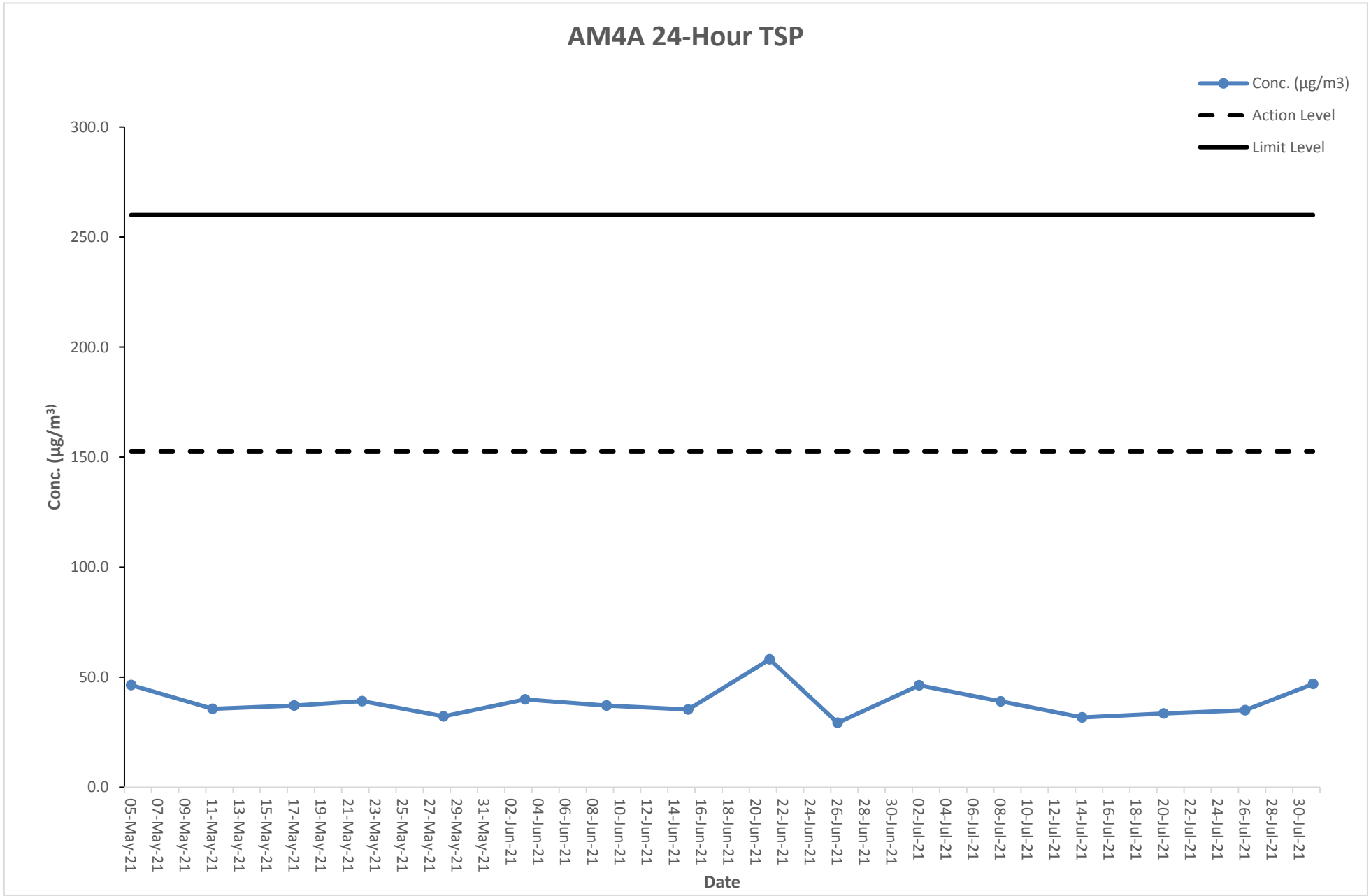
Graphical Presentation of Air Quality Monitoring Result at Station AM3A (24-hour TSP)



Air Quality Monitoring Result at Station AM4A (24-hour TSP)

Start		Finish		Filter Weight (g)		Elapsed Time Reading		Sampling Time (hrs)	Flow Rate (m^3/min)			Conc. ($\mu g/m^3$)	Weather Condition	Action Level	Limit Level
Date	Time	Date	Time	Initial	Final	Initial	Final		Initial	Final	Average				
05-May-21	10:00	06-May-21	10:00	2.8065	2.8813	2360.4	2384.4	24	1.12	1.12	1.12	46.4	Cloudy	152.6	260
11-May-21	10:00	12-May-21	10:00	2.8040	2.8613	2384.4	2408.4	24	1.12	1.12	1.12	35.6	Fine	152.6	260
17-May-21	10:00	18-May-21	10:00	2.8082	2.8680	2408.4	2432.4	24	1.12	1.12	1.12	37.1	Sunny	152.6	260
22-May-21	10:00	23-May-21	10:00	2.8038	2.8667	2432.4	2456.4	24	1.12	1.12	1.12	39.1	Cloudy	152.6	260
28-May-21	10:00	29-May-21	10:00	2.8060	2.8578	2456.4	2480.4	24	1.12	1.12	1.12	32.2	Sunny	152.6	260
03-Jun-21	10:00	04-Jun-21	10:00	2.8054	2.8696	2480.4	2504.4	24	1.12	1.12	1.12	39.9	Sunny	152.6	260
09-Jun-21	10:00	10-Jun-21	10:00	2.8038	2.8636	2504.4	2528.4	24	1.12	1.12	1.12	37.1	Rainy	152.6	260
15-Jun-21	10:00	16-Jun-21	10:00	2.8016	2.8584	2528.4	2552.4	24	1.12	1.12	1.12	35.3	Rainy	152.6	260
21-Jun-21	10:00	22-Jun-21	10:00	2.8040	2.8975	2552.4	2576.4	24	1.12	1.12	1.12	58.1	Cloudy	152.6	260
26-Jun-21	10:00	27-Jun-21	10:00	2.8037	2.8508	2576.4	2600.4	24	1.12	1.12	1.12	29.3	Rainy	152.6	260
02-Jul-21	10:00	03-Jul-21	10:00	2.8050	2.8794	2600.4	2624.4	24	1.12	1.12	1.12	46.3	Sunny	152.6	260
08-Jul-21	10:00	09-Jul-21	10:00	2.8071	2.8699	2624.4	2648.4	24	1.12	1.12	1.12	39.0	Cloudy	152.6	260
14-Jul-21	10:00	15-Jul-21	10:00	2.8058	2.8568	2648.4	2672.4	24	1.12	1.12	1.12	31.7	Cloudy	152.6	260
20-Jul-21	10:00	21-Jul-21	10:00	2.8065	2.8605	2672.4	2696.4	24	1.12	1.12	1.12	33.5	Rainy	152.6	260
26-Jul-21	10:00	27-Jul-21	10:00	2.8040	2.8603	2696.4	2720.4	24	1.12	1.12	1.12	35.0	Fine	152.6	260
31-Jul-21	10:00	01-Aug-21	10:00	2.8068	2.8823	2720.4	2744.4	24	1.12	1.12	1.12	46.9	Rainy	152.6	260

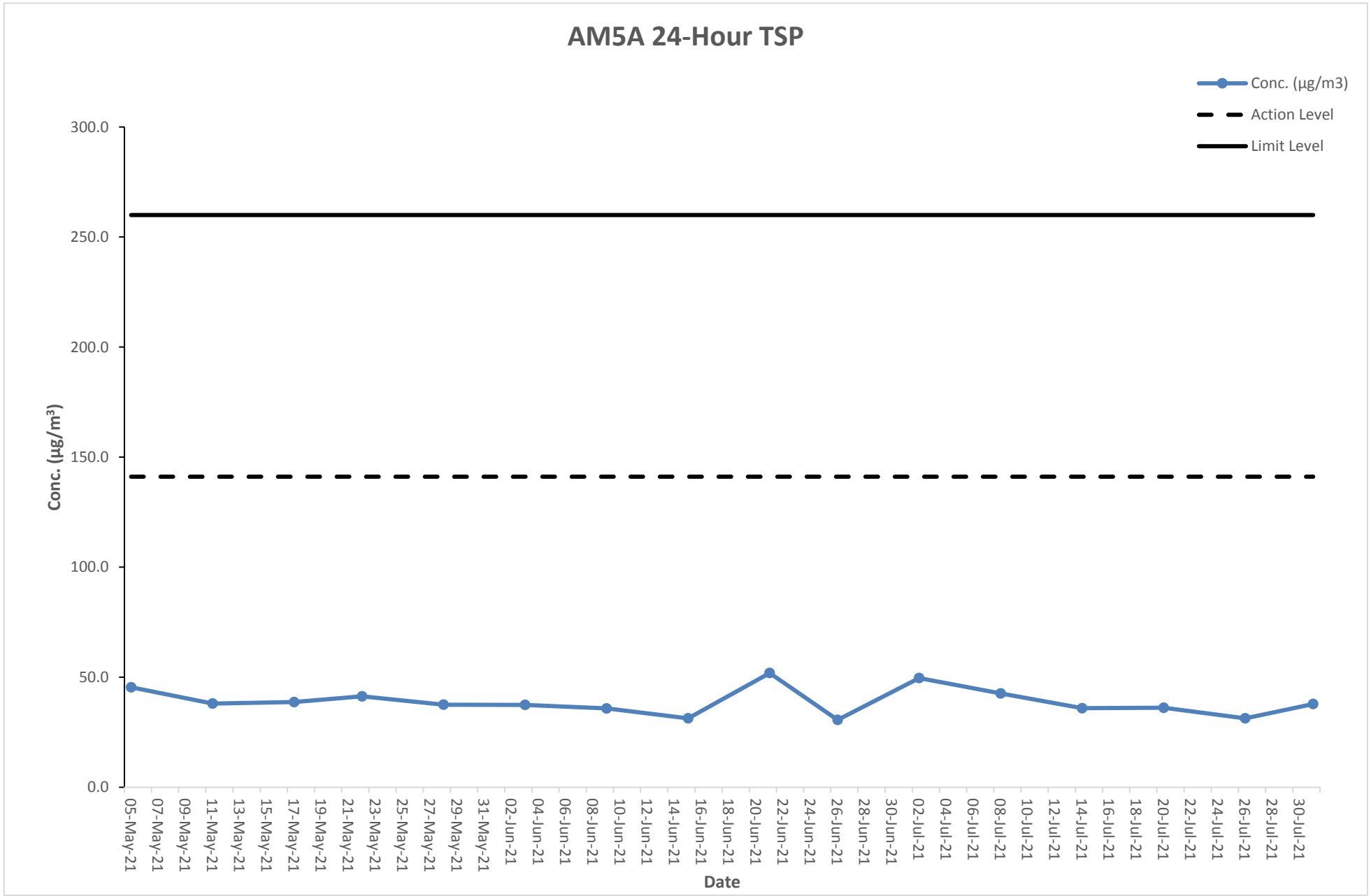
Graphical Presentation of Air Quality Monitoring Result at Station AM4A (24-hour TSP)



Air Quality Monitoring Result at Station AM5A (24-hour TSP)

Start		Finish		Filter Weight (g)		Elapsed Time Reading		Sampling Time (hrs)	Flow Rate (m^3/min)			Conc. ($\mu g/m^3$)	Weather Condition	Action Level	Limit Level
Date	Time	Date	Time	Initial	Final	Initial	Final		Initial	Final	Average				
05-May-21	10:00	06-May-21	10:00	2.8014	2.8745	2500.6	2524.6	24	1.12	1.12	1.12	45.4	Cloudy	141.1	260
11-May-21	10:00	12-May-21	10:00	2.8071	2.8683	2524.6	2548.6	24	1.12	1.12	1.12	38.0	Fine	141.1	260
17-May-21	10:00	18-May-21	10:00	2.8031	2.8654	2548.6	2572.6	24	1.12	1.12	1.12	38.7	Sunny	141.1	260
22-May-21	10:00	23-May-21	10:00	2.8085	2.8749	2572.6	2596.6	24	1.12	1.12	1.12	41.3	Cloudy	141.1	260
28-May-21	10:00	29-May-21	10:00	2.8031	2.8635	2596.6	2620.6	24	1.12	1.12	1.12	37.5	Sunny	141.1	260
03-Jun-21	10:00	04-Jun-21	10:00	2.8074	2.8676	2620.6	2644.6	24	1.12	1.12	1.12	37.4	Sunny	141.1	260
09-Jun-21	10:00	10-Jun-21	10:00	2.8052	2.8628	2644.6	2668.6	24	1.12	1.12	1.12	35.8	Rainy	141.1	260
15-Jun-21	10:00	16-Jun-21	10:00	2.8042	2.8545	2668.6	2692.6	24	1.12	1.12	1.12	31.3	Rainy	141.1	260
21-Jun-21	10:00	22-Jun-21	10:00	2.8028	2.8863	2692.6	2716.6	24	1.12	1.12	1.12	51.9	Cloudy	141.1	260
26-Jun-21	10:00	27-Jun-21	10:00	2.8013	2.8506	2716.6	2740.6	24	1.12	1.12	1.12	30.6	Rainy	141.1	260
02-Jul-21	10:00	03-Jul-21	10:00	2.8049	2.8847	2740.6	2764.6	24	1.12	1.12	1.12	49.6	Sunny	141.1	260
08-Jul-21	10:00	09-Jul-21	10:00	2.8014	2.8699	2764.6	2788.6	24	1.12	1.12	1.12	42.6	Cloudy	141.1	260
14-Jul-21	10:00	15-Jul-21	10:00	2.8041	2.8619	2788.6	2812.6	24	1.12	1.12	1.12	35.9	Cloudy	141.1	260
20-Jul-21	10:00	21-Jul-21	10:00	2.8040	2.8621	2812.6	2836.6	24	1.12	1.12	1.12	36.1	Rainy	141.1	260
26-Jul-21	10:00	27-Jul-21	10:00	2.8013	2.8516	2836.6	2860.6	24	1.12	1.12	1.12	31.3	Fine	141.1	260
31-Jul-21	10:00	01-Aug-21	10:00	2.8021	2.8630	2860.6	2884.6	24	1.12	1.12	1.12	37.8	Rainy	141.1	260

Graphical Presentation of Air Quality Monitoring Result at Station AM5A (24-hour TSP)



Noise Monitoring Result at Station NM2A

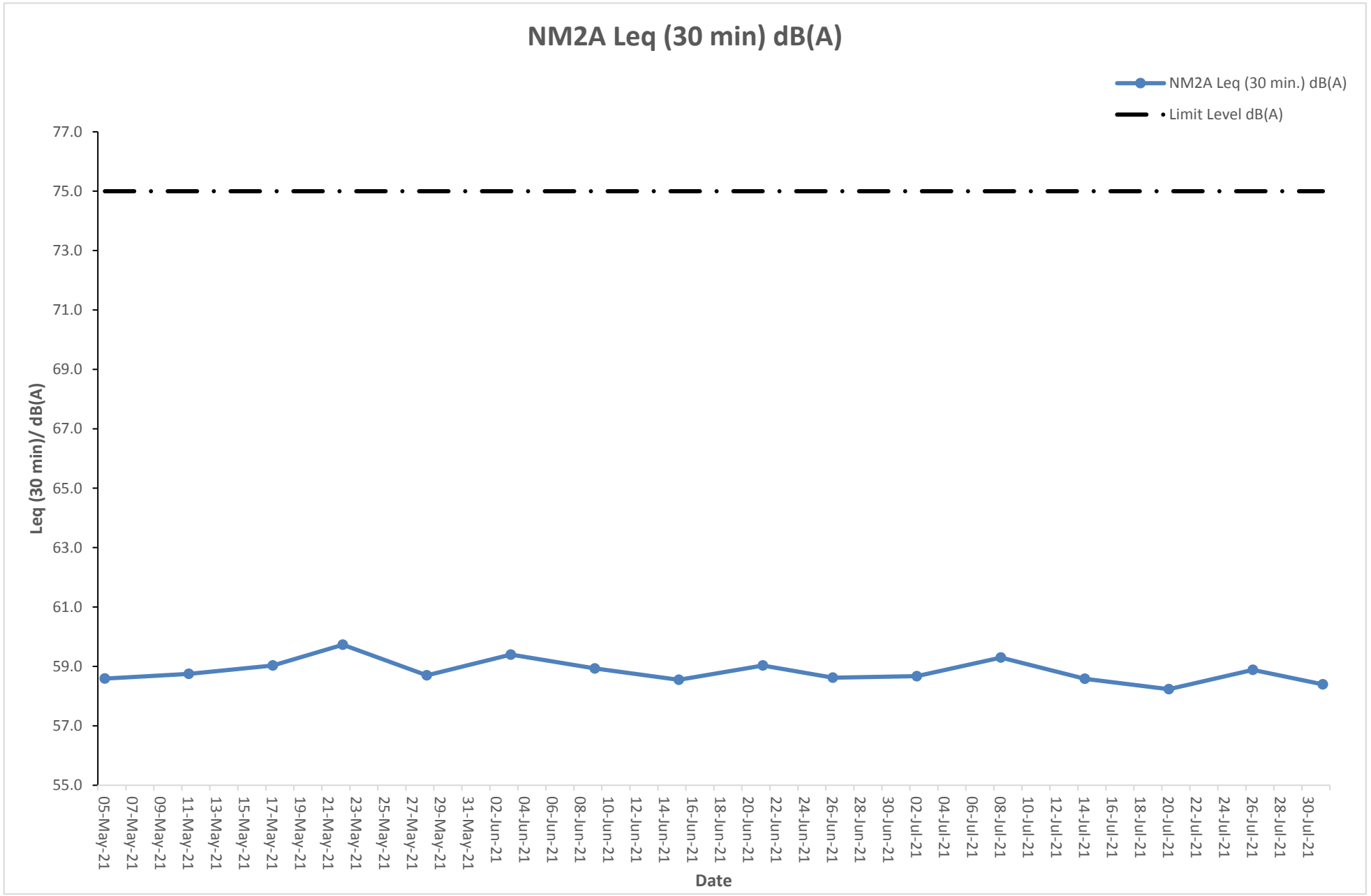
Date	Time	Measured L10 dB(A)	Measured L90 dB(A)	Leq (30 min.) dB(A)
05-May-21	8:31	64.1	55.9	58.6
05-May-21	8:36	62.4	57.5	
05-May-21	8:41	65.2	57.1	
05-May-21	8:46	63.8	57.0	
05-May-21	8:51	63.2	56.6	
05-May-21	8:56	63.1	57.6	
11-May-21	14:33	63.6	55.5	58.8
11-May-21	14:38	63.7	55.6	
11-May-21	14:43	63.1	55.5	
11-May-21	14:48	63.3	56.5	
11-May-21	14:53	64.7	57.3	
11-May-21	14:58	64.0	55.1	
17-May-21	8:32	62.4	58.0	59.0
17-May-21	8:37	63.2	55.5	
17-May-21	8:42	63.7	56.9	
17-May-21	8:47	62.5	55.8	
17-May-21	8:52	62.9	55.6	
17-May-21	8:57	64.2	55.7	
22-May-21	14:35	65.1	56.3	59.7
22-May-21	14:40	64.8	56.9	
22-May-21	14:45	62.9	55.1	
22-May-21	14:50	62.6	57.1	
22-May-21	14:55	63.6	58.0	
22-May-21	15:00	62.6	57.7	
28-May-21	8:40	62.6	57.8	58.7
28-May-21	8:45	63.7	55.5	
28-May-21	8:50	62.5	55.7	
28-May-21	8:55	63.3	57.0	
28-May-21	9:00	62.4	56.1	
28-May-21	9:05	62.7	55.5	
03-Jun-21	14:32	62.3	56.5	59.4
03-Jun-21	14:37	64.4	55.9	
03-Jun-21	14:42	64.0	55.3	
03-Jun-21	14:47	64.1	55.0	
03-Jun-21	14:52	62.6	54.1	
03-Jun-21	14:57	64.2	54.6	
09-Jun-21	8:31	63.4	54.2	58.9
09-Jun-21	8:36	64.3	55.4	
09-Jun-21	8:41	62.4	56.1	
09-Jun-21	8:46	64.5	56.3	
09-Jun-21	8:51	62.5	55.9	
09-Jun-21	8:56	62.9	54.5	
15-Jun-21	14:31	63.7	55.7	58.6
15-Jun-21	14:36	64.4	56.0	
15-Jun-21	14:41	64.0	56.8	
15-Jun-21	14:46	64.0	56.8	
15-Jun-21	14:51	64.3	54.5	
15-Jun-21	14:56	62.6	55.3	
21-Jun-21	8:33	62.1	54.1	59.0
21-Jun-21	8:38	62.6	54.6	
21-Jun-21	8:43	62.7	55.4	
21-Jun-21	8:48	64.1	54.8	
21-Jun-21	8:53	63.4	56.0	
21-Jun-21	8:58	63.0	54.7	
26-Jun-21	14:30	63.1	55.3	58.6
26-Jun-21	14:35	63.8	56.1	
26-Jun-21	14:40	63.9	55.9	
26-Jun-21	14:45	64.5	56.6	
26-Jun-21	14:50	62.7	56.7	
26-Jun-21	14:55	64.0	54.3	

Noise Monitoring Result at Station NM2A

Date	Time	Measured L10 dB(A)	Measured L90 dB(A)	Leq (30 min.) dB(A)
02-Jul-21	8:32	62.3	54.7	58.7
02-Jul-21	8:37	64.8	55.0	
02-Jul-21	8:42	63.1	56.7	
02-Jul-21	8:47	62.8	54.5	
02-Jul-21	8:52	62.6	54.1	
02-Jul-21	8:57	63.4	56.7	
08-Jul-21	14:37	63.3	54.4	59.3
08-Jul-21	14:42	63.8	55.6	
08-Jul-21	14:47	64.8	54.3	
08-Jul-21	14:52	62.6	56.6	
08-Jul-21	14:57	62.2	55.6	
08-Jul-21	15:02	62.1	54.8	
14-Jul-21	8:40	64.9	54.9	58.6
14-Jul-21	8:45	62.9	54.7	
14-Jul-21	8:50	63.1	56.5	
14-Jul-21	8:55	64.7	55.1	
14-Jul-21	9:00	64.2	55.6	
14-Jul-21	9:05	63.6	55.8	
20-Jul-21	14:45	63.9	55.7	58.2
20-Jul-21	14:50	64.6	55.6	
20-Jul-21	14:55	63.0	56.8	
20-Jul-21	15:00	64.5	55.0	
20-Jul-21	15:05	63.0	56.1	
20-Jul-21	15:10	62.5	54.4	
26-Jul-21	8:42	64.8	55.0	58.9
26-Jul-21	8:47	62.1	54.1	
26-Jul-21	8:52	63.5	56.5	
26-Jul-21	8:57	64.1	54.9	
26-Jul-21	9:02	62.9	55.4	
26-Jul-21	9:07	64.3	55.4	
31-Jul-21	14:09	63.6	55.8	58.4
31-Jul-21	14:14	62.2	56.6	
31-Jul-21	14:19	63.3	55.4	
31-Jul-21	14:24	62.8	56.5	
31-Jul-21	14:29	63.3	54.9	
31-Jul-21	14:34	64.9	54.3	

The station set-up of a façade measurement at station NM2A.

Graphical Presentation of Noise Monitoring Result at Station NM2A

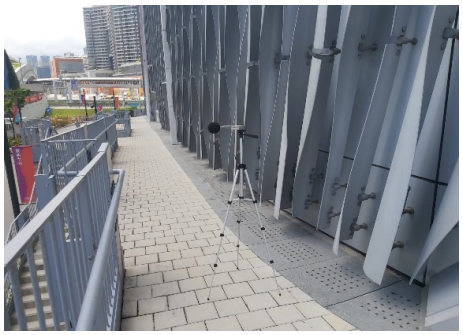


Noise Monitoring Result at Station NM3A

Date	Time	Measured L10 dB(A)	Measured L90 dB(A)	Leq (30 min.) dB(A)
05-May-21	10:01	73.9	67.1	69.9
05-May-21	10:06	73.7	69.3	
05-May-21	10:11	72.1	69.9	
05-May-21	10:16	74.4	68.3	
05-May-21	10:21	72.5	67.3	
05-May-21	10:26	72.1	67.2	
11-May-21	16:06	74.3	69.2	70.0
11-May-21	16:11	73.7	69.6	
11-May-21	16:16	72.3	68.0	
11-May-21	16:21	74.7	68.7	
11-May-21	16:26	72.4	67.4	
11-May-21	16:31	74.6	67.4	
17-May-21	10:02	74.7	67.5	68.8
17-May-21	10:07	72.6	68.2	
17-May-21	10:12	72.2	67.5	
17-May-21	10:17	72.1	67.5	
17-May-21	10:22	74.4	68.1	
17-May-21	10:27	73.4	68.9	
22-May-21	16:08	74.3	67.4	69.9
22-May-21	16:13	73.6	68.4	
22-May-21	16:18	73.6	69.1	
22-May-21	16:23	74.1	67.3	
22-May-21	16:28	74.4	68.2	
22-May-21	16:33	72.7	67.7	
28-May-21	10:10	74.0	70.0	70.2
28-May-21	10:15	74.3	68.4	
28-May-21	10:20	74.7	67.2	
28-May-21	10:25	72.1	69.2	
28-May-21	10:30	73.9	69.1	
28-May-21	10:35	72.8	68.0	
03-Jun-21	16:02	73.0	66.7	69.4
03-Jun-21	16:07	73.1	67.3	
03-Jun-21	16:12	74.1	66.6	
03-Jun-21	16:17	73.2	67.4	
03-Jun-21	16:22	73.5	66.5	
03-Jun-21	16:27	72.7	66.7	
09-Jun-21	10:04	72.2	65.2	70.1
09-Jun-21	10:09	73.5	66.9	
09-Jun-21	10:14	72.0	66.6	
09-Jun-21	10:19	72.4	66.6	
09-Jun-21	10:24	72.0	67.9	
09-Jun-21	10:29	72.1	65.0	
15-Jun-21	16:01	72.6	65.5	68.9
15-Jun-21	16:06	72.8	67.7	
15-Jun-21	16:11	71.7	65.1	
15-Jun-21	16:16	71.4	65.5	
15-Jun-21	16:21	73.1	66.3	
15-Jun-21	16:26	73.2	66.5	
21-Jun-21	10:06	71.6	65.0	69.2
21-Jun-21	10:11	73.3	66.8	
21-Jun-21	10:16	74.0	65.0	
21-Jun-21	10:21	73.6	65.0	
21-Jun-21	10:26	72.2	66.4	
21-Jun-21	10:31	71.6	66.9	
26-Jun-21	16:00	72.8	66.5	68.8
26-Jun-21	16:05	73.5	65.0	
26-Jun-21	16:10	73.4	65.9	
26-Jun-21	16:15	73.5	67.7	
26-Jun-21	16:20	73.4	67.9	
26-Jun-21	16:25	72.0	65.3	

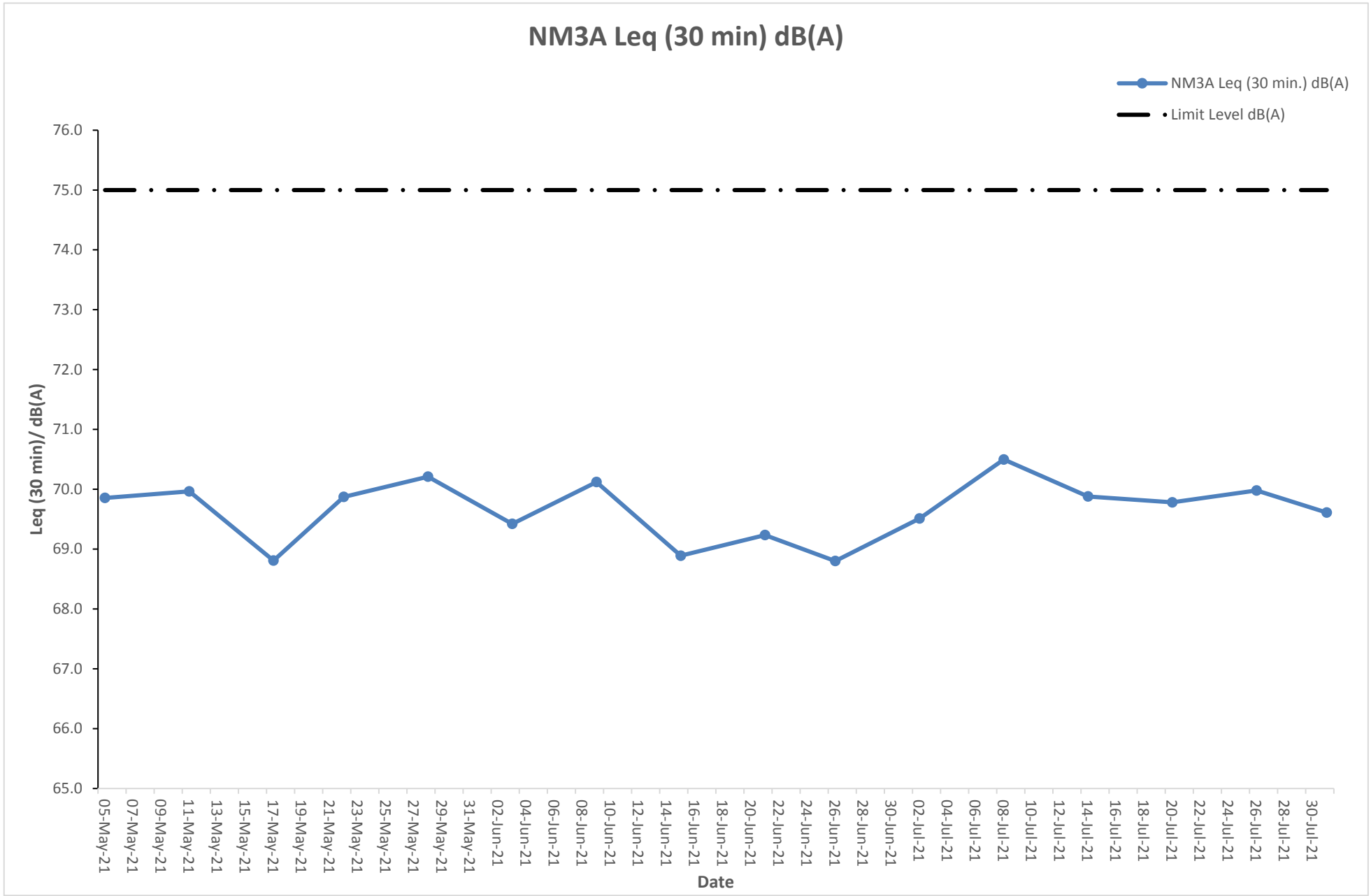
Noise Monitoring Result at Station NM3A

Date	Time	Measured L10 dB(A)	Measured L90 dB(A)	Leq (30 min.) dB(A)
02-Jul-21	10:02	72.1	66.0	69.5
02-Jul-21	10:07	72.2	66.9	
02-Jul-21	10:12	75.0	67.8	
02-Jul-21	10:17	74.2	65.5	
02-Jul-21	10:22	74.0	66.5	
02-Jul-21	10:27	73.7	66.1	
08-Jul-21	16:10	72.3	67.4	70.5
08-Jul-21	16:15	74.7	66.3	
08-Jul-21	16:20	74.6	66.3	
08-Jul-21	16:25	74.0	65.2	
08-Jul-21	16:30	74.1	67.5	
08-Jul-21	16:35	72.5	67.9	
14-Jul-21	10:10	72.2	67.1	69.9
14-Jul-21	10:15	72.9	65.8	
14-Jul-21	10:20	73.7	65.7	
14-Jul-21	10:25	73.8	67.2	
14-Jul-21	10:30	73.9	67.2	
14-Jul-21	10:35	74.0	67.1	
20-Jul-21	16:18	73.2	68.0	69.8
20-Jul-21	16:23	74.7	67.3	
20-Jul-21	16:28	74.3	68.0	
20-Jul-21	16:33	73.6	65.1	
20-Jul-21	16:38	74.0	66.9	
20-Jul-21	16:43	73.9	67.9	
26-Jul-21	10:12	74.8	66.7	70.0
26-Jul-21	10:17	74.5	65.6	
26-Jul-21	10:22	72.4	67.6	
26-Jul-21	10:27	72.8	67.2	
26-Jul-21	10:32	73.1	66.9	
26-Jul-21	10:37	73.0	66.1	
31-Jul-21	15:51	72.6	65.8	69.6
31-Jul-21	15:56	73.4	65.5	
31-Jul-21	16:01	72.7	67.9	
31-Jul-21	16:06	73.3	65.6	
31-Jul-21	16:11	72.7	67.0	
31-Jul-21	16:16	74.7	67.5	



The station set-up of a façade measurement at station NM3A.

Graphical Presentation of Noise Monitoring Result at Station NM3A



Noise Monitoring Result at Station NM4A

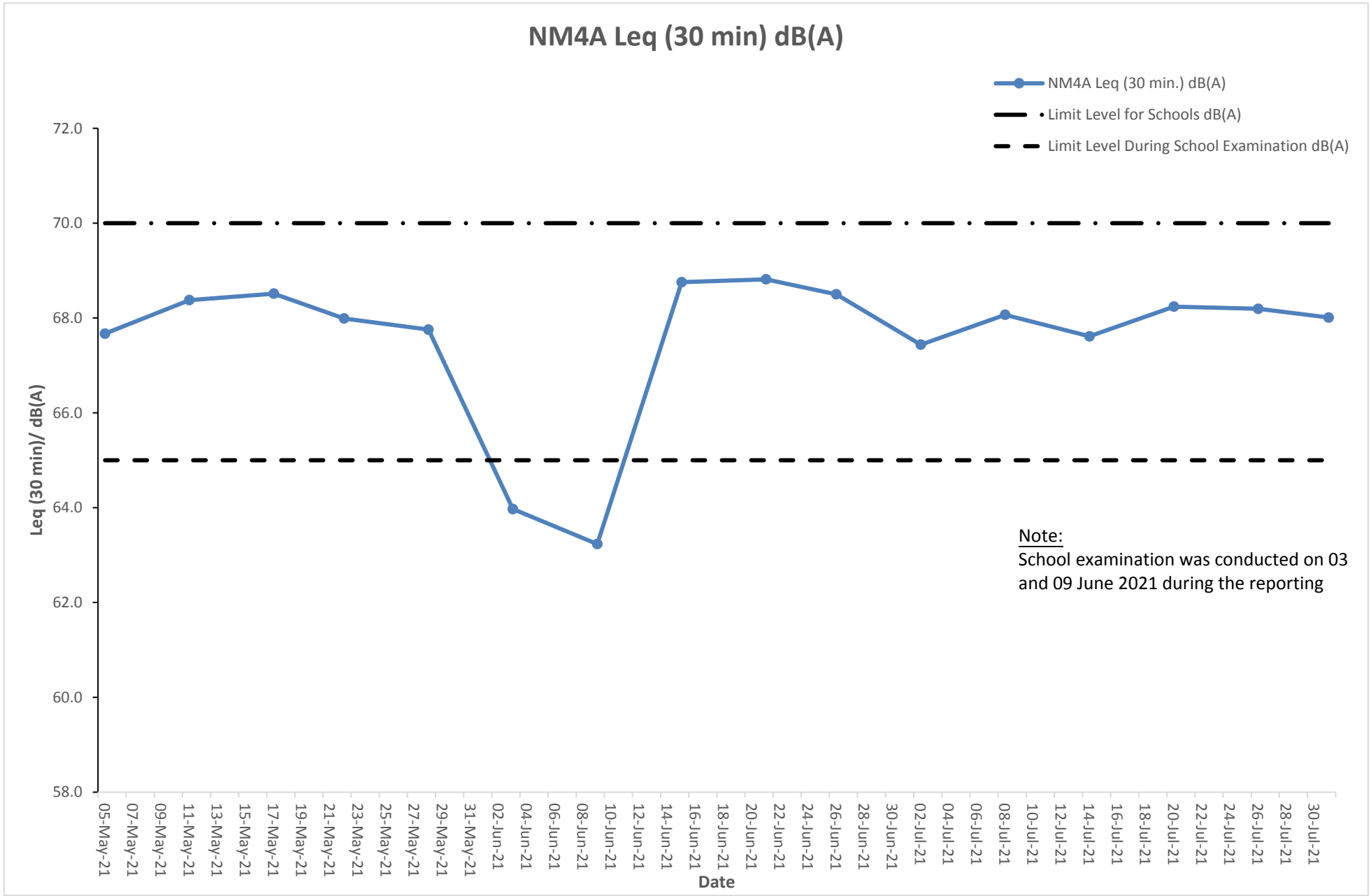
Date	Time	Measured L10 dB(A)	Measured L90 dB(A)	Leq (30 min.) dB(A)
05-May-21	10:36	69.6	66.5	67.7
05-May-21	10:41	69.4	65.6	
05-May-21	10:46	68.5	66.4	
05-May-21	10:51	67.9	65.0	
05-May-21	10:56	69.3	64.1	
05-May-21	11:01	67.2	65.0	
11-May-21	16:41	69.9	65.1	68.4
11-May-21	16:46	68.7	66.2	
11-May-21	16:51	68.3	65.3	
11-May-21	16:56	69.0	65.7	
11-May-21	17:01	69.3	66.7	
11-May-21	17:06	69.8	64.6	
17-May-21	10:37	69.5	66.5	68.5
17-May-21	10:42	69.7	66.5	
17-May-21	10:47	67.5	64.6	
17-May-21	10:52	69.6	64.9	
17-May-21	10:57	69.5	66.2	
17-May-21	11:02	68.1	66.7	
22-May-21	16:43	69.0	66.0	68.0
22-May-21	16:48	69.2	64.3	
22-May-21	16:53	69.8	65.9	
22-May-21	16:58	67.1	64.2	
22-May-21	17:03	68.4	65.7	
22-May-21	17:08	69.3	66.5	
28-May-21	10:45	69.4	66.7	67.8
28-May-21	10:50	67.8	66.2	
28-May-21	10:55	68.5	64.6	
28-May-21	11:00	69.4	65.3	
28-May-21	11:05	69.5	65.5	
28-May-21	11:10	68.4	64.7	
03-Jun-21	16:37	70.3	61.5	64.0
03-Jun-21	16:42	69.8	62.7	
03-Jun-21	16:47	70.5	61.2	
03-Jun-21	16:52	69.3	61.4	
03-Jun-21	16:57	71.8	62.4	
03-Jun-21	17:02	71.1	63.9	
09-Jun-21	10:39	69.9	63.0	63.2
09-Jun-21	10:44	69.9	61.9	
09-Jun-21	10:49	70.1	60.4	
09-Jun-21	10:54	69.4	62.5	
09-Jun-21	10:59	69.5	63.2	
09-Jun-21	11:04	70.9	63.7	
15-Jun-21	16:36	69.9	64.1	68.8
15-Jun-21	16:41	71.3	66.3	
15-Jun-21	16:46	70.5	65.8	
15-Jun-21	16:51	70.2	64.7	
15-Jun-21	16:56	70.5	65.0	
15-Jun-21	17:01	71.2	66.6	
21-Jun-21	10:41	70.0	66.1	68.8
21-Jun-21	10:46	69.8	64.4	
21-Jun-21	10:51	71.5	65.8	
21-Jun-21	10:56	71.2	64.6	
21-Jun-21	11:01	69.3	64.2	
21-Jun-21	11:06	71.6	64.5	
26-Jun-21	16:35	71.0	66.4	68.5
26-Jun-21	16:40	71.7	64.4	
26-Jun-21	16:45	70.3	65.0	
26-Jun-21	16:50	69.2	65.5	
26-Jun-21	16:55	69.6	66.5	
26-Jun-21	17:00	71.3	65.5	

Noise Monitoring Result at Station NM4A

Date	Time	Measured L10 dB(A)	Measured L90 dB(A)	Leq (30 min.) dB(A)
02-Jul-21	10:37	71.4	65.8	67.4
02-Jul-21	10:42	69.4	65.4	
02-Jul-21	10:47	70.2	66.4	
02-Jul-21	10:52	70.8	65.2	
02-Jul-21	10:57	71.8	64.8	
02-Jul-21	11:02	70.9	66.2	
08-Jul-21	16:45	71.8	66.1	68.1
08-Jul-21	16:50	70.3	66.8	
08-Jul-21	16:55	69.2	65.9	
08-Jul-21	17:00	71.1	64.5	
08-Jul-21	17:05	70.3	66.8	
08-Jul-21	17:10	70.4	64.9	
14-Jul-21	10:45	70.2	64.8	67.6
14-Jul-21	10:50	72.0	65.9	
14-Jul-21	10:55	69.6	64.5	
14-Jul-21	11:00	71.9	65.1	
14-Jul-21	11:05	70.7	63.4	
14-Jul-21	11:10	70.6	65.2	
20-Jul-21	16:53	71.8	63.7	68.2
20-Jul-21	16:58	69.9	63.7	
20-Jul-21	17:03	70.6	65.3	
20-Jul-21	17:08	70.5	64.6	
20-Jul-21	17:13	72.0	64.4	
20-Jul-21	17:18	70.5	64.9	
26-Jul-21	10:47	69.4	64.8	68.2
26-Jul-21	10:52	70.0	65.9	
26-Jul-21	10:57	69.5	63.5	
26-Jul-21	11:02	72.1	65.4	
26-Jul-21	11:07	71.5	65.1	
26-Jul-21	11:12	70.3	65.5	
31-Jul-21	16:26	70.3	65.4	68.0
31-Jul-21	16:31	71.2	65.4	
31-Jul-21	16:36	69.9	65.0	
31-Jul-21	16:41	69.5	65.0	
31-Jul-21	16:46	69.6	63.4	
31-Jul-21	16:51	70.6	65.1	

The station set-up of a façade measurement at station NM4A.

Graphical Presentation of Noise Monitoring Result at Station NM4A



Noise Monitoring Result at Station NM5A

Date	Time	Measured L10 dB(A)	Measured L90 dB(A)	Leq (30 min.) dB(A)	Leq (30 min.) +3 dB(A)
05-May-21	9:21	66.9	61.1	63.2	66.2
05-May-21	9:26	64.8	59.9		
05-May-21	9:31	64.6	61.2		
05-May-21	9:36	65.2	60.8		
05-May-21	9:41	65.7	59.5		
05-May-21	9:46	64.1	59.9		
11-May-21	15:25	64.1	60.1	62.7	65.7
11-May-21	15:30	66.4	59.4		
11-May-21	15:35	64.6	59.1		
11-May-21	15:40	66.1	60.2		
11-May-21	15:45	64.7	61.1		
11-May-21	15:50	64.3	60.0		
17-May-21	9:22	64.9	59.5	62.6	65.6
17-May-21	9:27	65.5	60.6		
17-May-21	9:32	65.5	62.0		
17-May-21	9:37	64.2	61.0		
17-May-21	9:42	65.5	61.5		
17-May-21	9:47	66.2	60.9		
22-May-21	15:27	65.1	61.9	64.0	67.0
22-May-21	15:32	65.6	60.1		
22-May-21	15:37	66.3	59.1		
22-May-21	15:42	65.9	59.2		
22-May-21	15:47	66.2	59.6		
22-May-21	15:52	64.8	61.9		
28-May-21	9:30	65.8	61.6	63.1	66.1
28-May-21	9:35	65.0	60.8		
28-May-21	9:40	66.8	59.3		
28-May-21	9:45	64.7	61.7		
28-May-21	9:50	64.4	60.1		
28-May-21	9:55	65.0	60.7		
03-Jun-21	15:22	66.1	59.9	63.1	66.1
03-Jun-21	15:27	64.5	59.7		
03-Jun-21	15:32	66.4	60.1		
03-Jun-21	15:37	66.6	60.4		
03-Jun-21	15:42	64.4	59.8		
03-Jun-21	15:47	64.9	59.4		
09-Jun-21	9:23	66.8	59.7	62.6	65.6
09-Jun-21	9:28	67.0	60.4		
09-Jun-21	9:33	64.5	58.6		
09-Jun-21	9:38	65.9	58.3		
09-Jun-21	9:43	66.8	58.9		
09-Jun-21	9:48	65.6	60.1		
15-Jun-21	15:21	64.2	60.8	62.5	65.5
15-Jun-21	15:26	65.9	58.0		
15-Jun-21	15:31	64.5	59.4		
15-Jun-21	15:36	66.7	59.8		
15-Jun-21	15:41	65.2	59.1		
15-Jun-21	15:46	66.2	58.0		
21-Jun-21	9:25	67.0	60.8	63.0	66.0
21-Jun-21	9:30	65.5	59.3		
21-Jun-21	9:35	67.1	59.4		
21-Jun-21	9:40	64.3	58.2		
21-Jun-21	9:45	66.7	59.1		
21-Jun-21	9:50	66.7	59.8		
26-Jun-21	15:20	65.8	59.7	62.5	65.5
26-Jun-21	15:25	64.5	60.9		
26-Jun-21	15:30	65.5	59.2		
26-Jun-21	15:35	66.4	59.3		
26-Jun-21	15:40	65.5	58.8		
26-Jun-21	15:45	65.5	60.2		

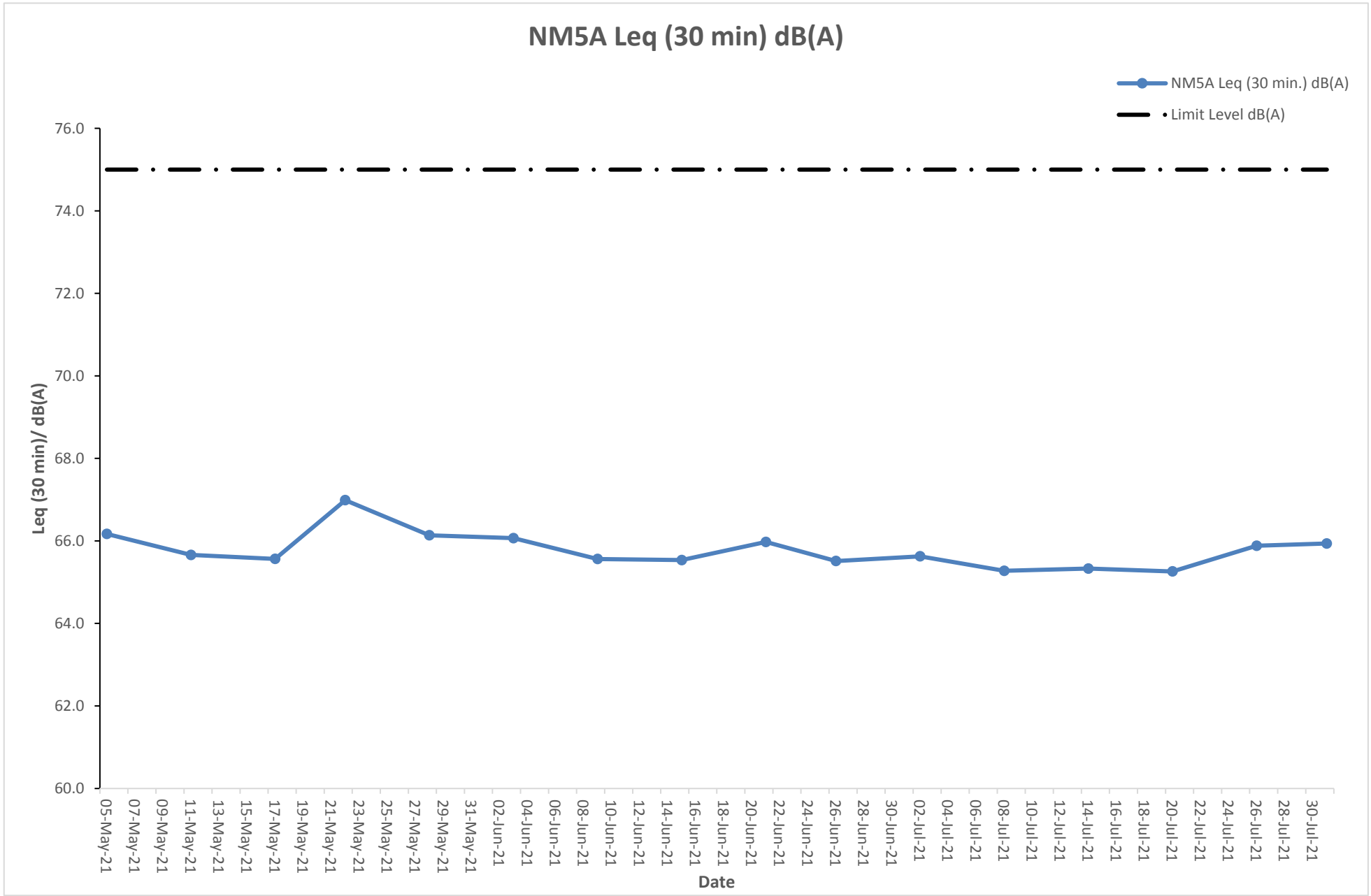
Noise Monitoring Result at Station NM5A

Date	Time	Measured L10 dB(A)	Measured L90 dB(A)	Leq (30 min.) dB(A)	Leq (30 min.) +3 dB(A)
02-Jul-21	9:22	64.5	60.8	62.6	65.6
02-Jul-21	9:27	65.8	59.1		
02-Jul-21	9:32	65.7	59.1		
02-Jul-21	9:37	64.1	60.8		
02-Jul-21	9:42	65.7	60.9		
02-Jul-21	9:47	64.7	58.7		
08-Jul-21	15:29	66.4	60.3	62.3	65.3
08-Jul-21	15:34	64.9	59.4		
08-Jul-21	15:39	64.4	60.9		
08-Jul-21	15:44	64.2	58.3		
08-Jul-21	15:49	66.5	58.4		
08-Jul-21	15:54	64.2	60.0		
14-Jul-21	9:30	66.0	59.3	62.3	65.3
14-Jul-21	9:35	65.6	59.7		
14-Jul-21	9:40	65.9	59.0		
14-Jul-21	9:45	66.3	59.1		
14-Jul-21	9:50	64.5	58.8		
14-Jul-21	9:55	66.5	60.5		
20-Jul-21	15:37	65.7	60.6	62.3	65.3
20-Jul-21	15:42	66.8	58.3		
20-Jul-21	15:47	66.8	59.7		
20-Jul-21	15:52	65.9	60.3		
20-Jul-21	15:57	66.2	59.0		
20-Jul-21	16:02	67.1	58.3		
26-Jul-21	9:32	66.7	60.1	62.9	65.9
26-Jul-21	9:37	66.8	58.1		
26-Jul-21	9:42	67.1	58.5		
26-Jul-21	9:47	66.5	60.7		
26-Jul-21	9:52	65.3	58.2		
26-Jul-21	9:57	66.5	58.5		
31-Jul-21	15:10	65.2	59.9	62.9	65.9
31-Jul-21	15:15	65.5	60.0		
31-Jul-21	15:20	65.0	58.5		
31-Jul-21	15:25	64.8	59.7		
31-Jul-21	15:30	66.9	59.6		
31-Jul-21	15:35	66.7	59.1		

Remarks:
+3dB(A) correction was applied to free-field measurement.

The station set-up of a free-field measurement at station NM5A.

Graphical Presentation of Noise Monitoring Result at Station NM5A



F. Waste Flow table

Table F-1: Monthly Waste Flow Table for Zone 2A

Month	Actual Quantities of Inert C&D Materials Generated Monthly							Actual Quantities of C&D Materials Generated Monthly					
	Total Quantity Generated	Hard Rocks and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Disposed to Sroting Facility	Imported Fill	Metals	Paper/ Cardboard Packaging	Plastics	Wood/ Timber	Chemical Waste	Others, e.g. General Refuse
	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)
2020													
Oct	2623.48	0.00	0.00	0.00	2623.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.94
Nov	8838.69	0.00	685.23	1198.56	6954.90	0.00	1194.93	0.00	0.00	0.00	0.00	0.00	17.49
Dec	8890.70	0.00	510.59	1675.21	6704.90	0.00	51.51	0.00	0.00	0.00	0.00	0.00	11.75
Sub-total (2020)	20352.87	0.00	1195.82	2873.77	16283.28	0.00	1246.44	0.00	0.00	0.00	0.00	0.00	51.18
2021													
Jan	6849.66	0.00	52.90	0.00	6796.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.94
Feb	4591.95	0.00	0.00	0.00	4591.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.11
Mar	7318.44	0.00	0.00	339.94	6978.50	0.00	0.00	75.57	0.00	0.00	0.00	0.20	15.79
Apr	7208.22	0.00	0.00	1109.51	6098.71	0.00	0.00	0.00	0.00	0.00	0.00	0.40	19.29
May	7976.23	0.00	0.00	1853.51	6122.72	0.00	0.00	125.49	0.00	0.00	0.00	0.20	18.43
Jun	7741.45	0.00	0.00	1989.41	5752.04	0.00	0.00	4.53	0.00	0.00	0.00	0.00	18.65
Jul	8067.17	0.00	0.00	1289.08	6778.09	0.00	0.00	4.11	0.00	0.00	0.00	0.20	147.95
Aug	0.00												
Sep	0.00												
Oct	0.00												
Nov	0.00												
Dec	0.00												
Sub-total (2021)	49753.12	0.00	52.90	6581.45	43118.77	0.00	0.00	209.70	0.00	0.00	0.00	1.00	256.16
Total	**71352.43**	**0.00**	**1248.72**	**9455.22**	**59402.05**	**0.00**	**1246.44**	**209.70**	**0.00**	**0.00**	**0.00**	**1.00**	**307.34**

Note:

- 240.72 tonnes, 1767.24 tonnes, 16644.89 tonnes of inert C&D material were disposed of as public fill to Chai Wan Public Fill Barging Point, Tseung Kwan O Area 137 Public Fill, and Tuen Mun Area 38 respectively in the reporting quarter.

- For inert C&D materials reused in other projects, the projects refer to (1) EcoPark at Tuen Mun, (2) Green Valley and (3) DD41 at Sha Tau Kok.

G. Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions

Cumulative statistics for complaints, notifications of summons and successful prosecutions for the Project account for period starting from the date of commencement of construction works (i.e. 3 October 2020 for Zone 2A Foundation, Excavation and Lateral Support Works) to the end of the reporting quarter and are summarized in the **Table G-1** below respectively.

Table G-1: Statistics for complaints, notifications of summons and successful prosecutions for Zone 2A Foundation, Excavation and Lateral Support Works

Reporting Period	Cumulative Statistics		
	Complaints	**Notifications of summons**	**Successful prosecutions**
This reporting quarter (May 21 – Jul 21)	5	0	0
From 03 October 2020 to end of the reporting quarter	11	0	0

END OF THE REPORT