Development at West Kowloon Cultural District

Quarterly Environmental Monitoring and Audit (EM&A) Report (August 2021 – October 2021)

November 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 26 November 2021

Verified by:

Claudine LEE

Independent Environmental Checker (IEC)

Meinhardt Infrastructure and Environment Ltd

Date 30 Nov 2021

This Report Consists of:

Part-1: EM&A at Lyric Theatre Complex

and

Part-2: EM&A for Foundation Works in Zones 2A, 2B & 2C

Part-1: EM&A at Lyric Theatre Complex

MOTT MACDONALD

Lyric Theatre Complex

Mott MacDonald
3/F International Trade Tower
348 Kwun Tong Road
Kwun Tong
Kowloon
Hong Kong

T +852 2828 5757
mottmac.hk

Contents

Executive summary

This Quarterly EM&A Report presents the monitoring works at Lyric Theatre Complex conducted from 1 August 2021 to 31 October 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

Six 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 August 2021 to 31 October 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 L2 undertaken include:

- LTC construction

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

  ABWF & MEP work

  LT temporary deck
- 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
  - Construction of valve chamber (upper and middle portion)
  - DCS related works
- Modification to existing pump cell
  - ABWF works
- Extended basement
  - ABWF & MEP work
  - RC Water Tank
  - RC Duct Slab (Forms/Rebar/Concrete)
  - Carpark area plaster and paint
- Underpass and Associated Area
  - RC Structure (Waffle Ceiling)
  - ABWF & MEP work
- M+ Day 2 Works
  - Hoarding Work
  - Open excavation
- P32 Interim Development
  - Structure works (Scaffold/forms/rebar concrete)

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	19	74	39
	AM2	25	94	51
24 hour TSP	AM1	7	64	24
	AM2	8	113	36
Construction Noise				
Leq(30min)	NM1A	67	68	68

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
AM2	1 hour TSP	0	0	N/A
	24 hour TSP	0	0	N/A
Construction Noise				
NM1A	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 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 (L2 Contract), 768.14 tonnes, 1233.35 tonnes and 96.63 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, while 1565.5 tonnes of general refuse were disposed of at SENT and WENT landfill. 186.6 tonnes of metals, 0.0 tonne of paper/cardboard packaging, 0.0 tonne 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. 549.6 tonnes of inert C&D materials were disposed to sorting facility and 0.0 tonne 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.

Six complaints were received in the reporting quarter: 4 complaints in August and 2 complaints in October. No notifications of summons and successful prosecutions were received in the reporting quarter.

On 2 August 2021, WKCDA received a complaint from the office of Mr. Derek Hung (Yau Tsim Mong District Council (YTMDC) member) regarding noise generated from WKCD construction site. The complainant has expressed concern about the construction noise between 19 and 31 July 2021, especially before 9am on 21 and 31 July 2021. The complainant understands that the working hours permitted by the government is 7am-7pm, except public holidays. However, he/she and Derek Hung would like to seek if the noise disturbance could be reduced before 9am. Video shot was also taken by the complainant at 8:50 am on 31 July 2021 to show the evidence of noise generated from WKCD construction site. After the investigation, it was preliminarily believed that the construction noise on 21 July 2021 could be attributable to Lyric Theatre Complex (L2 Contract), which involved breaking works at around 8:45am on 21 July 2021 for residue concrete removal at G/F of LTC area. As the breaker noise was similar to the noise in the video provided by the complainant, it is believed that the breaker was the plausible source of the complaint noise. However, by considering that the permitted working hours for construction works are 7am to 7pm (except for public holidays), the works carried out in Lyric Theatre Complex (L2 Contract) were still within compliance to the local regulations and construction noise permit (CNP) conditions. Nonetheless, the Contractor is recommended to enhance specific noise mitigation measures and avoid noisy works before 9am to minimize disturbance to nearby residents.

On 18 August 2021, the Environmental Protection Department (EPD) has received a complaint regarding dust emission generated from WKCD Zone 2A site and the complaint was referred by EPD on 20 August 2021. The complainant has expressed concern of construction dust generated by rock breaking work at B1/F of Zone 2A site without proper dust mitigation measures. As the complainant specified that the dust impact was from the construction B1/F site of Zone 2A, that is not within the Lyric Theatre Complex site boundary, hence the complaint was not attributable to Lyric Theatre Complex. However, dust control measures will continue to be strictly implemented on site to reduce impacts to nearby residents.

On 19 August 2021, WKCDA has received a complaint from the Office of Mr. Derek Hung (YTMDC member) regarding noise generated from WKCD construction site. The complainant has expressed concern about the construction noise before 9am on 18 and 19 August 2021. The complainant understands that the working hours permitted by the government is 7am-7pm, except public holidays. However, he/she and Mr. Derek Hung would like to seek if the noise disturbance could be reduced before 9am. Video shot was also taken by the complainant at 8:30am on 18 and 19 August 2021 to show the evidence of noise generated from WKCD construction site. After investigation, it was found that no noisy works were undertaken before 9am on 18 and 19 August 2021 for Lyric Theatre Complex (L1 and L2 Contracts). Also, since the major construction works for Lyric Theatre Complex (L1 Contract) were completed by June 2021, no noisy works were undertaken in L1 Contract. In sum, the complaint could not be attributable to Lyric Theatre Complex (L1 and L2 Contract). However, noise mitigation measures will continue to be strictly implemented on site. The contractors are reminded to strengthen the implementation of the recommendations for noise mitigation measures to reduce impacts on nearby residents.

On 27 August 2021, WKCDA received a complaint from the same resident living in The Harbourside through WKCDA Enquiry Hotline and referral by YTMDC Member. The complainant concerned the pile driving carried out in the construction site next to the Lyric Theatre Complex, and claiming that the noise persisted from 8 am to 6 pm. The complainant also enquired about the tentative completion date of the pile driving works. As the complainant specified that the noise was generated from pile driving activities next to the Lyric Theatre Complex, and no pile driving works were involved in Lyric Theatre Complex, hence the complaint was considered to be not attributable to Lyric Theatre Complex. However, noise control measures will continue to be strictly implemented on site to reduce impacts to nearby residents.

On 8 October 2021, EPD received a complaint regarding muddy water discharge near WKCD and referred to WKCDA on 12 October 2021. Two photos were provided by the complainant. As from the photos provided by the complainant, the concerned area was not within Lyric Theatre Complex's site boundary, hence it could not directly imply the complaint was attributable to Lyric Theatre Complex. However, the contractors are reminded to strictly implement and maintain good site practices to avoid water pollution to the water body of Victoria Harbour.

On 27 October 2021, WKCDA has received a complaint from EPD. The complainant has expressed concern about the construction noise generated from 9am to 9pm even on Sunday. A video and photos were provided by the complainant showing the situation on 25 October 2021. As from the photos and video provided by the complainant, the concerned area was not within Lyric Theatre Complex's site boundary, hence it could not directly imply the complaint was attributable to Lyric Theatre Complex. However, noise control 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

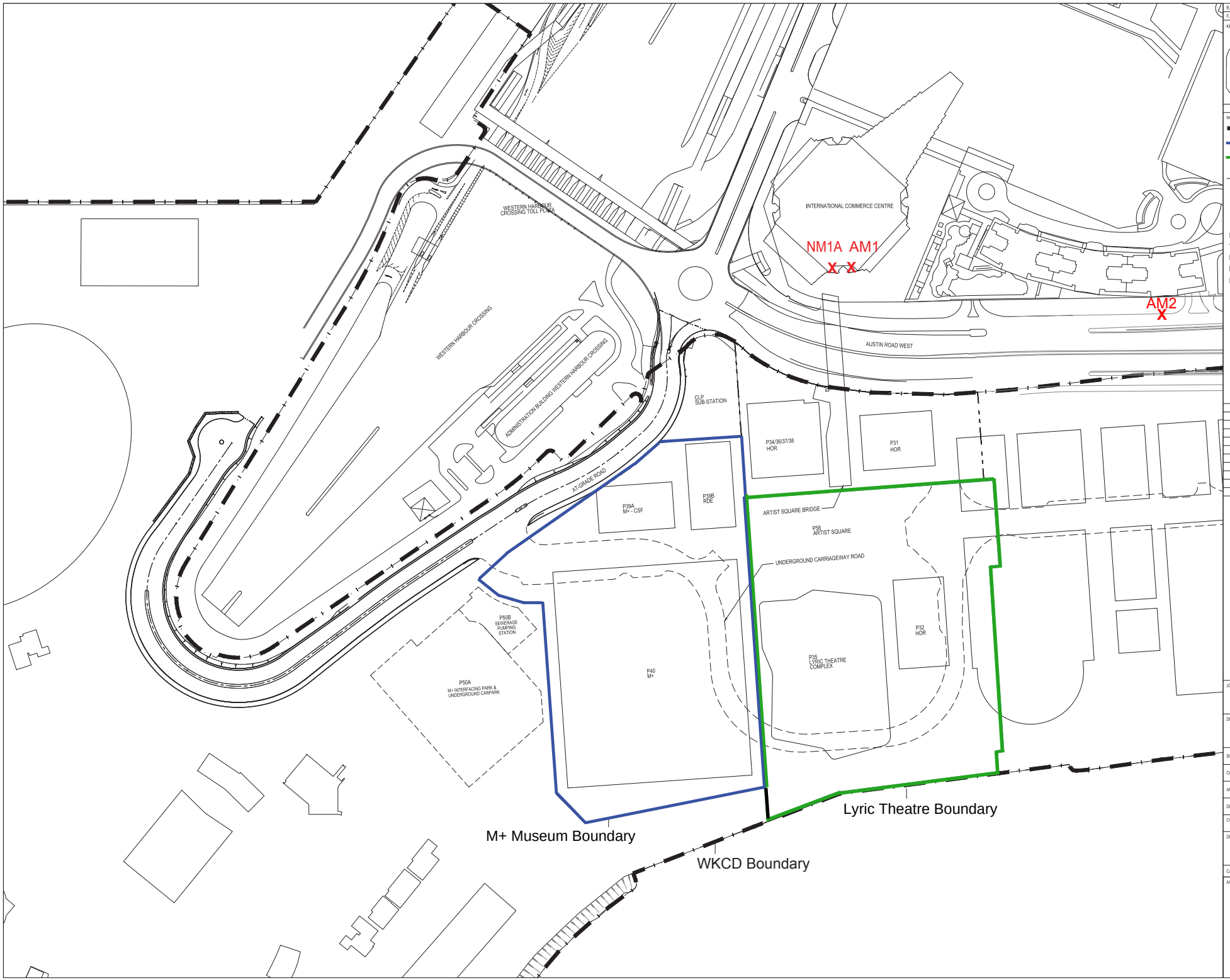
The EM&A programme as recommended in the EM&A Manual has been undertaken. The construction works and EM&A programme for M+ Museum was commenced on 31 October 2015 and completed on 28 February 2021; while the construction works and EM&A programme for Lyric Theatre Complex (L1 and L2 Contracts) was commenced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

Six 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.

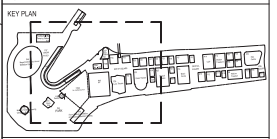
Figure 1 Site Layout Plan and Monitoring Stations



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

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

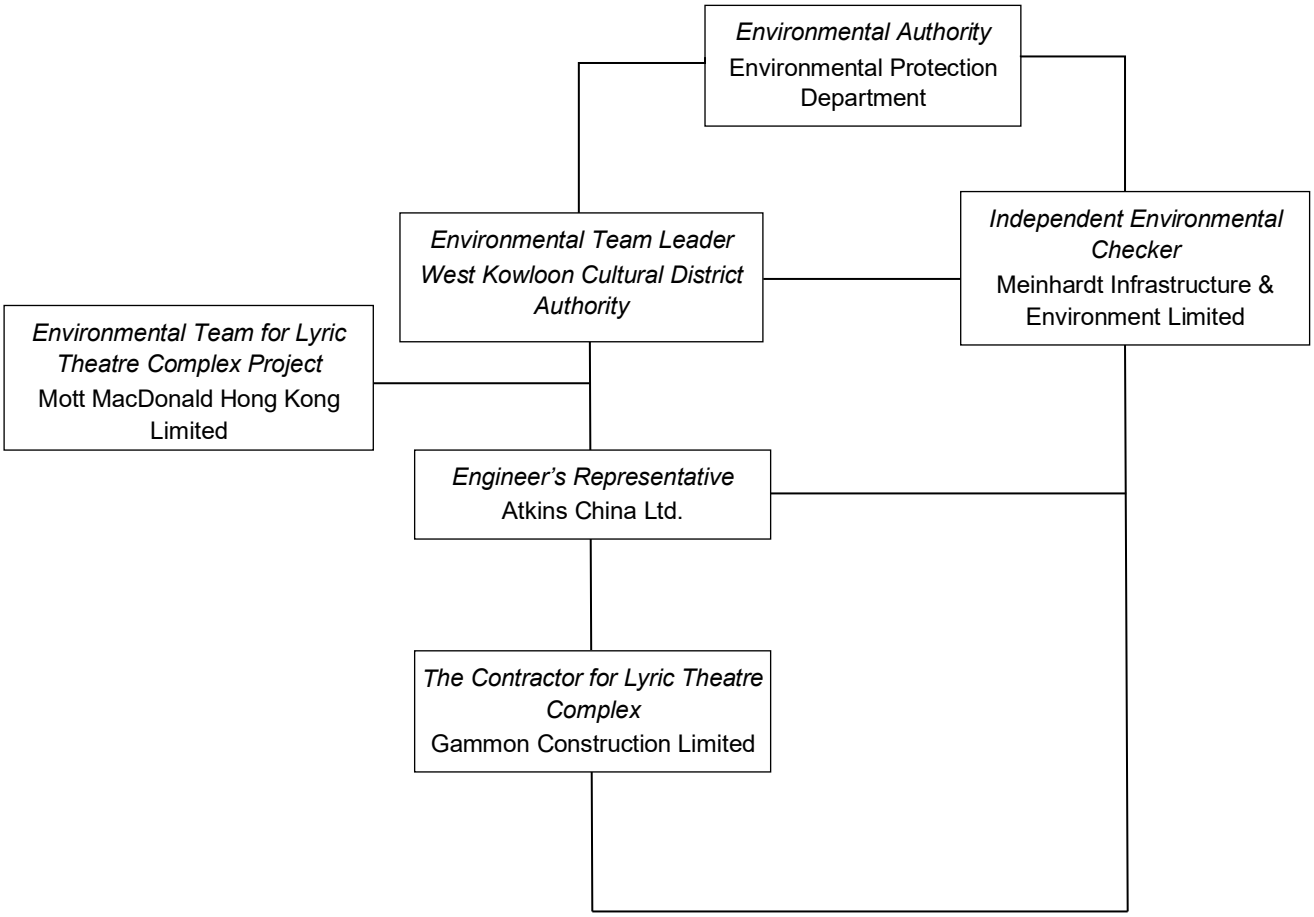


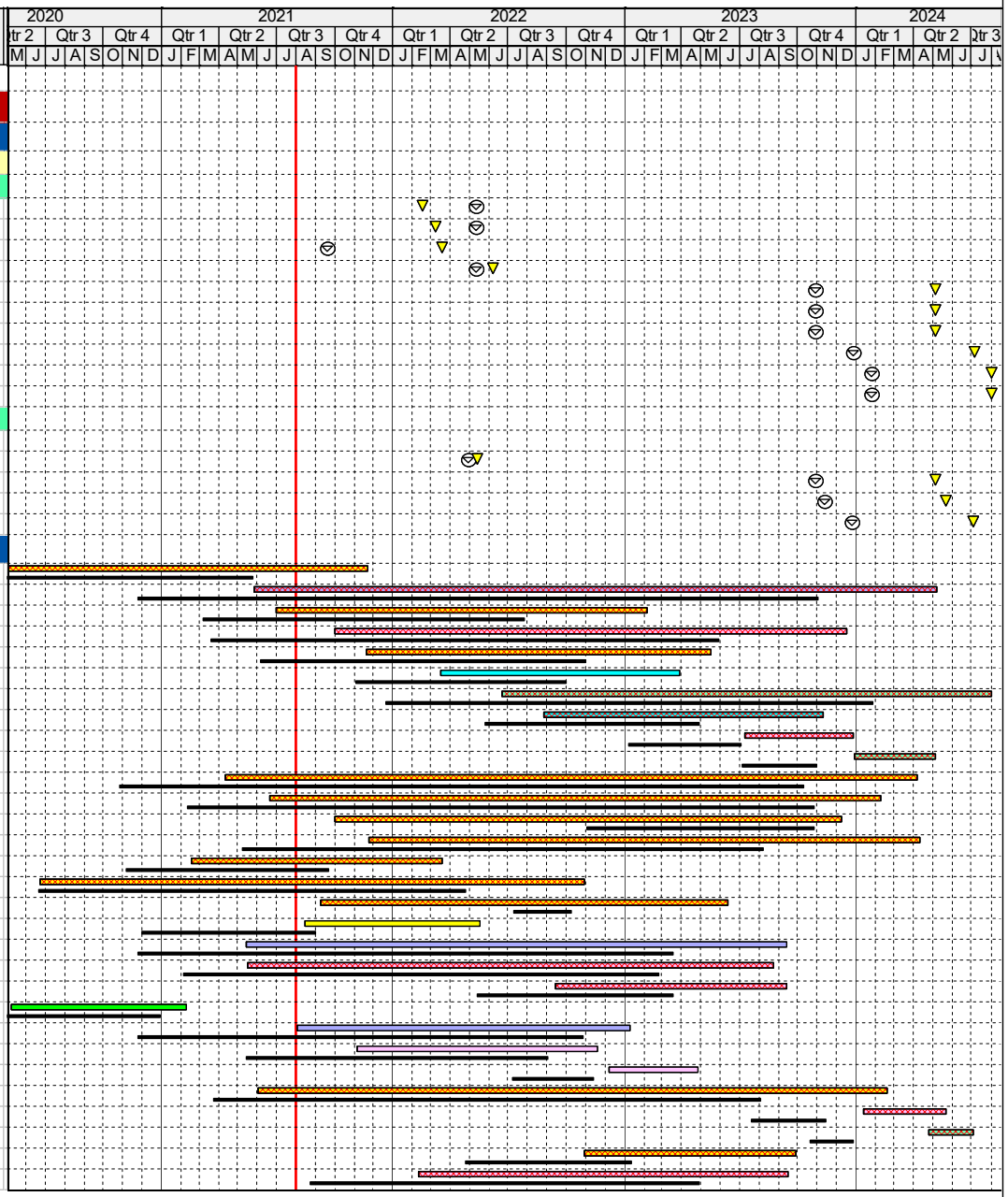
Table A-1: Contact information

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 (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

TASK filter: L2 UPD: L_1 Summary (before compression).

ID	Activity	RD	Start	Finish
	L2 CMWP_R01_11 Approved 29Sep20 - 11th Update DD=31Jul21			
	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		16-Feb-22*
KD05B	Complete Required Pedestrian Access Corridor & associated top slab at Avenue Level [if instructed]	0		08-Mar-22*
KD05	PC for HO of the Remaining Works for M+ Promenade South	0		18-Mar-22*
KD05A	Complete Required Pedestrian Access Corridor and Floor Finishes at AURW	0		06-Jun-22*
KD08	PC for HO Loc ICT/Risers Rms to APC for ICT Sys Instn Wrks	0		04-May-24*
KD10	PC for HO of ASDA, Lyric Theatre Promenade South to Authority	0		04-May-24*
KD09	PC for HO of RDE areas for Tenancy Fit-out Wrks	0		04-May-24*
KD11	PC for HO of Extended Basement for HO to Authority & HO of Carriageway to Relevant Govt Authority	0		06-Jul-24*
KD07	PRACTICAL COMPLETION for C'Way 3A (M+ Day 2 Works)	0		02-Aug-24*
KD13	PRACTICAL COMPLETION for Lyric Theatre, Extended Basement & C'Way 3B	0		02-Aug-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		14-May-22*
KD03	OBTAIN OP for Lyric Theatre & Extended Basement	0		04-May-24*
KD14	Complete U/G road and the associated plantrooms at Zone 3A&3B Integrated Basement	0		21-May-24*
KD02	Obtain BA14 Acknowledge from BD for M+ Day2 A&A Works	0		03-Jul-24*
	Summary Program - Level 1			
SUM10	[LoE] CC_B Lyric Theatre - Substructure RC Structural Concrete	84	06-May-20 A	22-Nov-21
SUM14	[LoE] CC_B Lyric Theatre - ABWF Work Including Theatres (Excl. Punch List Works)	810	28-May-21 A	07-May-24
SUM11	[LoE] CC_B Lyric Theatre - Superstructure RC Structural Concrete	411	02-Jul-21 A	04-Feb-23
SUM15	[LoE] CC_B Lyric Theatre - MEP 1st to Final Fix (Excl. TH SYS, TH Non-FSD in Walls, etc.)	651	02-Oct-21	16-Dec-23
SUM41	[LoE] CC_B Lyric Theatre - Structural Steel by CSD	407	19-Nov-21	16-May-23
SUM12	[LoE] CC_B Lyric Theatre - EWS Weather Tight Type	282	18-Mar-22	29-Mar-23
SUM17	[LoE] CC_B Lyric Theatre - Theatre Specialist Systems Incl. T&C, Precom. & Commissioning	622	22-Jun-22	01-Aug-24
SUM13	[LoE] CC_B Lyric Theatre - EWS Non-Weather Tight Type 4.1 & 4.3	328	26-Aug-22	09-Nov-23
SUM16	[LoE] CC_B Lyric Theatre - T&C (Excluding Non-FSD ELV & Electrical)	143	10-Jul-23	28-Dec-23
SUM18	[LoE] CC_B Lyric Theatre, EB, C'Way 3B - Stat. Insp. & Approval (from Form 314/501 to BD OP)	98	29-Dec-23	04-May-24
SUM21	[LoE] CC_C - LT EVA1 & EVA2	731	12-Apr-21 A	06-Apr-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)	692	21-Jun-21 A	09-Feb-24
SUM22	[LoE] CC_C - HoR Development (P32-1, P29-1, P31-EVA)	599	02-Oct-21	09-Dec-23
SUM20	[LoE] CC_C - LT Promenade & Pocket Square Bridge	651	23-Nov-21	11-Apr-24
SUM24	[LoE] CC_D - Remaining Works for M+ Promenade South	175	18-Feb-21 A	18-Mar-22
SUM25	[LoE] CC_E - DCS Cofferdam A Works & Obtain BA14	335	23-Jun-20 A	28-Oct-22
SUM42	[LoE] CC_E - DCS Outside of Cofferdam A Works (Connect DIA1,600 & Remove Temp O'fall)	480	09-Sep-21	12-Jun-23
SUM26	[LoE] CC_F - Mods to Existing Pump Cell Civil & MEP Works (Excl. Options 2 Add. Pumps)	208	16-Aug-21	18-May-22
SUM27	[LoE] CC_G Extended Basement - ABWF Works (Incl. Deferred Areas Under Deck)	625	15-May-21 A	14-Sep-23
SUM28	[LoE] CC_G Extended Basement - MEP 1st Fix to Final Fix (Incl. Deferred Areas Under Deck)	607	17-May-21 A	24-Aug-23
SUM29	[LoE] CC_G Extended Basement - T&C	294	15-Sep-22	14-Sep-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	427	02-Aug-21	10-Jan-23
SUM32	[LoE] CC_I Carriageway 3B - MEP Works (1st Fix to Final Fix)	306	06-Nov-21	19-Nov-22
SUM33	[LoE] CC_I Underpass 3B & Associated Area - T&C	108	08-Dec-22	27-Apr-23
SUM35	[LoE] CC_J - M+ Day 2 Works (excl. connections to M+ and SZ_1 FS Changeover)	748	03-Jun-21 A	19-Feb-24
SUM38	[LoE] CC_J - M+ Day 2 FS Changeover in 3A SZ_1, Connections to M+, Integrated T&C	99	13-Jan-24	21-May-24
SUM34	[LoE] CC_J Carriageway 3A - Stat. Insp. & Approvals (from Form 314A to BA14)	56	25-Apr-24	03-Jul-24
SUM39	[LoE] CC_K - Water Main at Promenade	250	29-Oct-22	28-Sep-23
SUM40	[LoE] CC_N Lifts & Escalators	472	11-Feb-22	15-Sep-23



Gammon

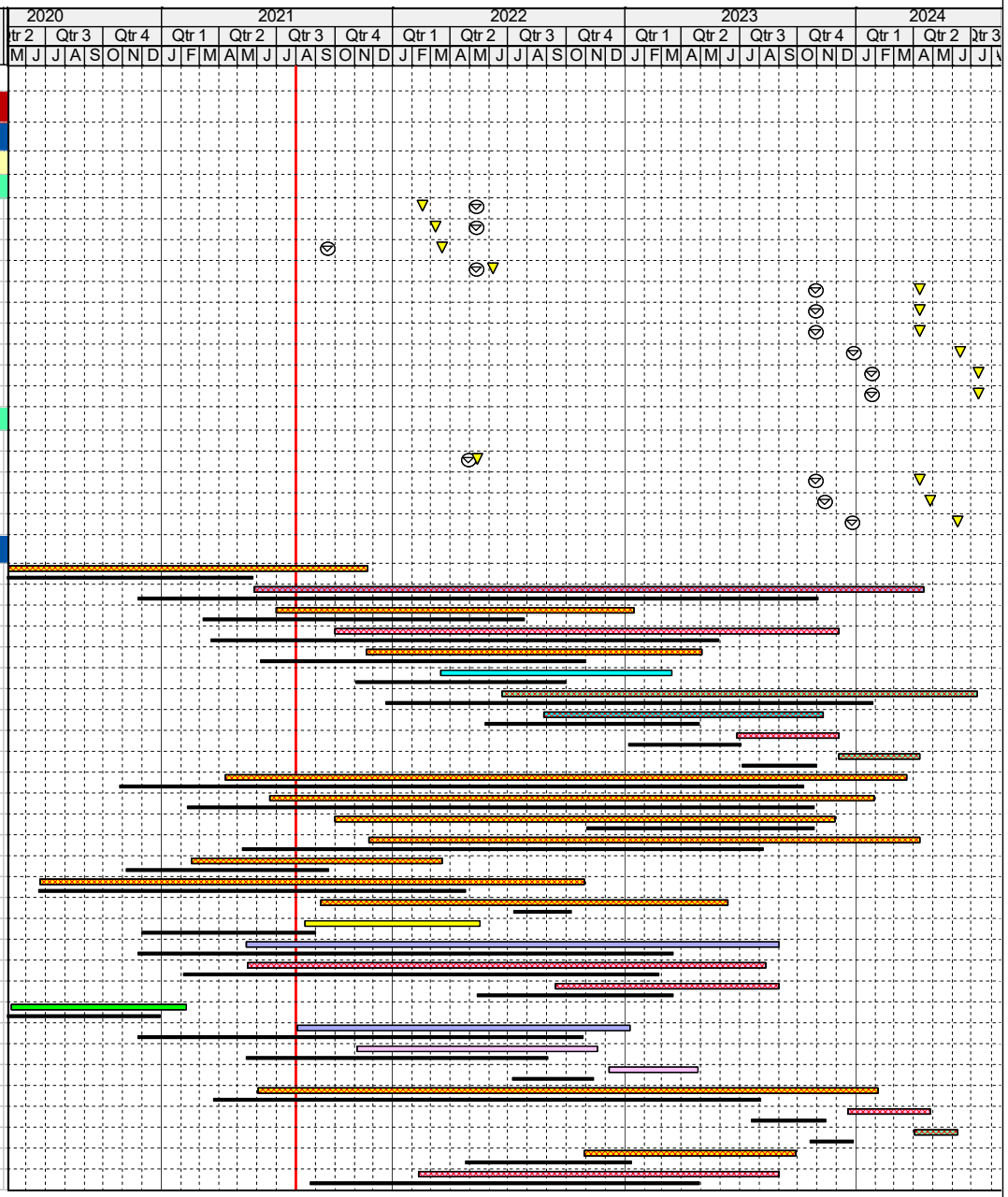
Base Line ACT
Base Line MS
Milestone
Current - Other Works
Current - Struct Works
Current - MEP Works
Current - ABWF Works
Current - Facade Works
Critical Works
Actual

L2 CMWP_R01_11 Approved 29Sep20 - 11th Update DD=31Jul21

Date	Revision	Checked	Approved
06-Aug-21	CMWP Rev_1_11 - 11th Update DD 31Jul21	NS	IH

TASK filter: L2 UPD: L_1 Summary (after compression).

ID	Activity	RD	Start	Finish
	L2 CMWP_R01_11 Approved 29Sep20 - 11th Update DD=31Jul21			
	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		16-Feb-22*
KD05B	Complete Required Pedestrian Access Corridor & associated top slab at Avenue Level [if instructed]	0		08-Mar-22*
KD05	PC for HO of the Remaining Works for M+ Promenade South	0		18-Mar-22*
KD05A	Complete Required Pedestrian Access Corridor and Floor Finishes at AURW	0		06-Jun-22*
KD08	PC for HO Loc ICT/Risers Rms to APC for ICT Sys Instn Wrks	0		11-Apr-24*
KD10	PC for HO of ASDA, Lyric Theatre Promenade South to Authority	0		11-Apr-24*
KD09	PC for HO of RDE areas for Tenancy Fit-out Wrks	0		11-Apr-24*
KD11	PC for HO of Extended Basement for HO to Authority & HO of Carriageway to Relevant Govt Authority	0		13-Jun-24*
KD07	PRACTICAL COMPLETION for C'Way 3A (M+ Day 2 Works)	0		11-Jul-24*
KD13	PRACTICAL COMPLETION for Lyric Theatre, Extended Basement & C'Way 3B	0		11-Jul-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		14-May-22*
KD03	OBTAIN OP for Lyric Theatre & Extended Basement	0		11-Apr-24*
KD14	Complete U/G road and the associated plantrooms at Zone 3A&3B Integrated Basement	0		26-Apr-24*
KD02	Obtain BA14 Acknowledge from BD for M+ Day2 A&A Works	0		08-Jun-24*
	Summary Program - Level 1			
SUM10	[LoE] CC_B Lyric Theatre - Substructure RC Structural Concrete	84	06-May-20 A	22-Nov-21
SUM14	[LoE] CC_B Lyric Theatre - ABWF Work Including Theatres (Excl. Punch List Works)	794	28-May-21 A	17-Apr-24
SUM11	[LoE] CC_B Lyric Theatre - Superstructure RC Structural Concrete	400	02-Jul-21 A	16-Jan-23
SUM15	[LoE] CC_B Lyric Theatre - MEP 1st to Final Fix (Excl. TH SYS, TH Non-FSD in Walls, etc.)	641	02-Oct-21	05-Dec-23
SUM41	[LoE] CC_B Lyric Theatre - Structural Steel by CSD	397	19-Nov-21	02-May-23
SUM12	[LoE] CC_B Lyric Theatre - EWS Weather Tight Type	271	18-Mar-22	16-Mar-23
SUM17	[LoE] CC_B Lyric Theatre - Theatre Specialist Systems Incl. T&C, Precom. & Commissioning	603	22-Jun-22	10-Jul-24
SUM13	[LoE] CC_B Lyric Theatre - EWS Non-Weather Tight Type 4.1 & 4.3	328	26-Aug-22	09-Nov-23
SUM16	[LoE] CC_B Lyric Theatre - T&C (Excluding Non-FSD ELV & Electrical)	134	27-Jun-23	04-Dec-23
SUM18	[LoE] CC_B Lyric Theatre, EB, C'Way 3B - Stat. Insp. & Approval (from Form 314/501 to BD OP)	98	05-Dec-23	11-Apr-24
SUM21	[LoE] CC_C - LT EVA1 & EVA2	721	12-Apr-21 A	21-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)	682	21-Jun-21 A	29-Jan-24
SUM22	[LoE] CC_C - HoR Development (P32-1, P29-1, P31-EVA)	589	02-Oct-21	28-Nov-23
SUM20	[LoE] CC_C - LT Promenade & Pocket Square Bridge	651	23-Nov-21	11-Apr-24
SUM24	[LoE] CC_D - Remaining Works for M+ Promenade South	175	18-Feb-21 A	18-Mar-22
SUM25	[LoE] CC_E - DCS Cofferdam A Works & Obtain BA14	335	23-Jun-20 A	28-Oct-22
SUM42	[LoE] CC_E - DCS Outside of Cofferdam A Works (Connect DIA1,600 & Remove Temp O'fall)	480	09-Sep-21	12-Jun-23
SUM26	[LoE] CC_F - Mods to Existing Pump Cell Civil & MEP Works (Excl. Options 2 Add. Pumps)	208	16-Aug-21	18-May-22
SUM27	[LoE] CC_G Extended Basement - ABWF Works (Incl. Deferred Areas Under Deck)	614	15-May-21 A	01-Sep-23
SUM28	[LoE] CC_G Extended Basement - MEP 1st Fix to Final Fix (Incl. Deferred Areas Under Deck)	596	17-May-21 A	11-Aug-23
SUM29	[LoE] CC_G Extended Basement - T&C	283	15-Sep-22	01-Sep-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	427	02-Aug-21	10-Jan-23
SUM32	[LoE] CC_I Carriageway 3B - MEP Works (1st Fix to Final Fix)	306	06-Nov-21	19-Nov-22
SUM33	[LoE] CC_I Underpass 3B & Associated Area - T&C	108	08-Dec-22	27-Apr-23
SUM35	[LoE] CC_J - M+ Day 2 Works (excl. connections to M+ and SZ_1 FS Changeover)	742	03-Jun-21 A	05-Feb-24
SUM38	[LoE] CC_J - M+ Day 2 FS Changeover in 3A SZ_1, Connections to M+, Integrated T&C	99	19-Dec-23	26-Apr-24
SUM34	[LoE] CC_J Carriageway 3A - Stat. Insp. & Approvals (from Form 314A to BA14)	56	02-Apr-24	08-Jun-24
SUM39	[LoE] CC_K - Water Main at Promenade	250	29-Oct-22	28-Sep-23
SUM40	[LoE] CC_N Lifts & Escalators	460	11-Feb-22	01-Sep-23



Gammon

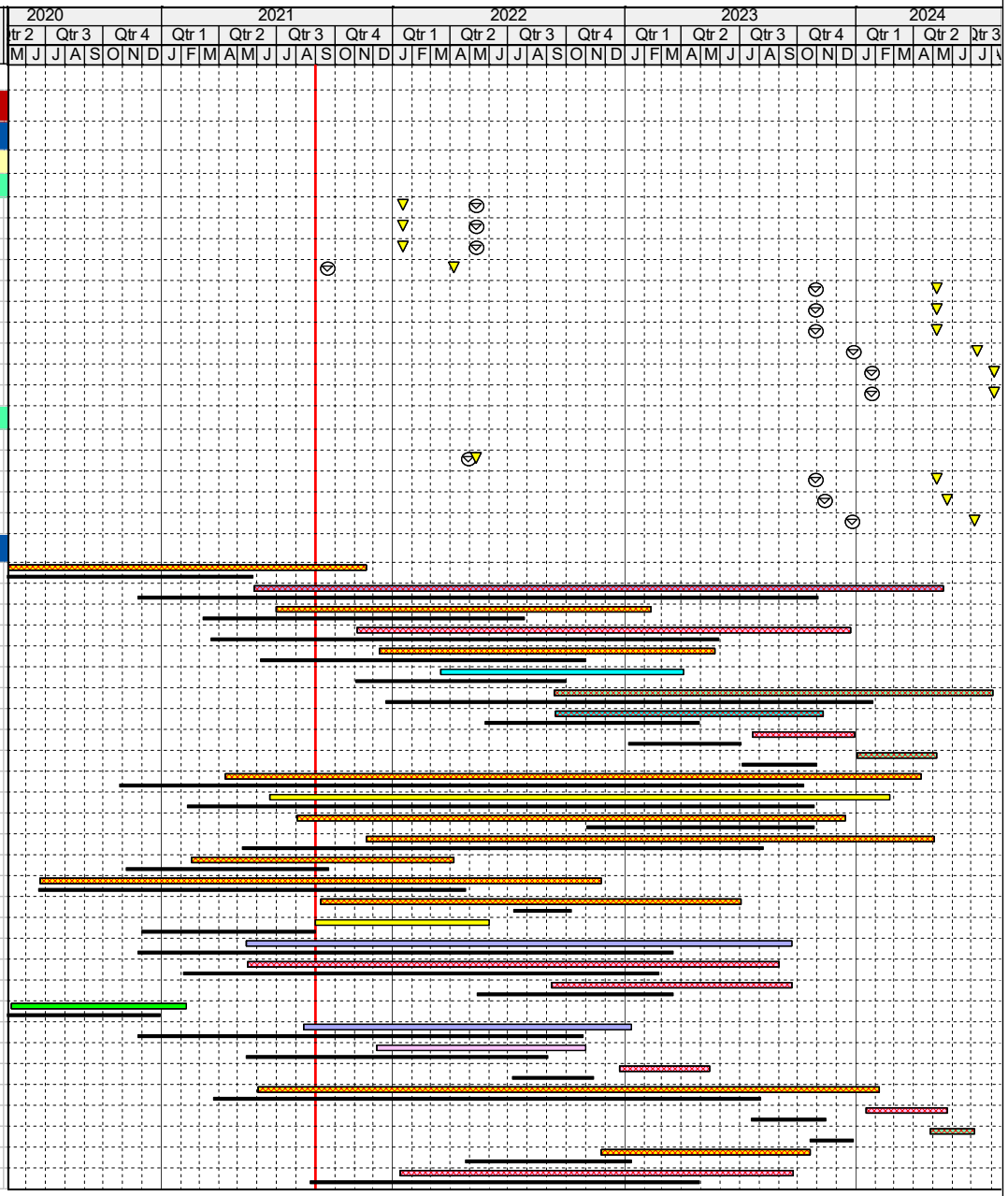
Base Line ACT
Base Line MS
Milestone
Current - Other Works
Current - Struct Works
Current - MEP Works
Current - ABWF Works
Current - Facade Works
Critical Works
Actual

L2 CMWP_R01_11 Approved 29Sep20 - 11th Update DD=31Jul21

Date	Revision	Checked	Approved
06-Aug-21	CMWP Rev_1_11 - 11th Update DD 31Jul21	NS	IH

TASK filter: L2 UPD: Level 1 Summary .

ID	Activity	RD	Start	Finish
	L2 CMWP_R01_12 Approved 29Sep20 - 12th Update DD=31Aug21			
	GENERAL & PRELIMINARIES			
	Contract Significant Dates			
	Commencement & Completion Dates			
	Section Keydates			
KD05A	Complete Required Pedestrian Access Corridor and Floor Finishes at AURW	0		15-Jan-22*
KD05B	Complete Required Pedestrian Access Corridor & associated top slab at Avenue Level [if instructed]	0		15-Jan-22*
KD05C	PC for HO of Landscape Area at Avenue & Pedestrian level between P31 & P34 [if instructed]	0		15-Jan-22*
KD05	PC for HO of the Remaining Works for M+ Promenade South	0		06-Apr-22*
KD08	PC for HO Loc ICT/Risers Rms to APC for ICT Sys Instn Wrks	0		07-May-24*
KD10	PC for HO of ASDA, Lyric Theatre Promenade South to Authority	0		07-May-24*
KD09	PC for HO of RDE areas for Tenancy Fit-out Wrks	0		07-May-24*
KD11	PC for HO of Extended Basement for HO to Authority & HO of Carriageway to Relevant Govt Authority	0		09-Jul-24*
KD07	PRACTICAL COMPLETION for C'Way 3A (M+ Day 2 Works)	0		05-Aug-24*
KD13	PRACTICAL COMPLETION for Lyric Theatre, Extended Basement & C'Way 3B	0		05-Aug-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		11-May-22*
KD03	OBTAIN OP for Lyric Theatre & Extended Basement	0		07-May-24*
KD14	Complete U/G road and the associated plantrooms at Zone 3A&3B Integrated Basement	0		23-May-24*
KD02	Obtain BA14 Acknowledge from BD for M+ Day2 A&A Works	0		05-Jul-24*
	Summary Program - Level 1			
SUM10	[LoE] CC_B Lyric Theatre - Substructure RC Structural Concrete	60	06-May-20 A	19-Nov-21
SUM14	[LoE] CC_B Lyric Theatre - ABWF Work Including Theatres (Excl. Punch List Works)	792	28-May-21 A	17-May-24
SUM11	[LoE] CC_B Lyric Theatre - Superstructure RC Structural Concrete	394	02-Jul-21 A	10-Feb-23
SUM15	[LoE] CC_B Lyric Theatre - MEP 1st to Final Fix (Excl. TH SYS, TH Non-FSD in Walls, etc.)	627	06-Nov-21	22-Dec-23
SUM41	[LoE] CC_B Lyric Theatre - Structural Steel by CSD	394	10-Dec-21	23-May-23
SUM12	[LoE] CC_B Lyric Theatre - EWS Weather Tight Type	287	18-Mar-22	04-Apr-23
SUM17	[LoE] CC_B Lyric Theatre - Theatre Specialist Systems Incl. T&C, Precom. & Commissioning	555	12-Sep-22	03-Aug-24
SUM13	[LoE] CC_B Lyric Theatre - EWS Non-Weather Tight Type 4.1 & 4.3	314	14-Sep-22	10-Nov-23
SUM16	[LoE] CC_B Lyric Theatre - T&C (Excluding Non-FSD ELV & Electrical)	134	22-Jul-23	30-Dec-23
SUM18	[LoE] CC_B Lyric Theatre, EB, C'Way 3B - Stat. Insp. & Approval (from Form 314/501 to BD OP)	98	02-Jan-24	07-May-24
SUM21	[LoE] CC_C - LT EVA1 & EVA2	714	12-Apr-21 A	12-Apr-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)	675	21-Jun-21 A	22-Feb-24
SUM22	[LoE] CC_C - HoR Development (P32-1, P29-1, P31-EVA)	625	03-Aug-21 A	15-Dec-23
SUM20	[LoE] CC_C - LT Promenade & Pocket Square Bridge	669	20-Nov-21	03-May-24
SUM24	[LoE] CC_D - Remaining Works for M+ Promenade South	168	18-Feb-21 A	06-Apr-22
SUM25	[LoE] CC_E - DCS Cofferdam A Works & Obtain BA14	336	23-Jun-20 A	24-Nov-22
SUM42	[LoE] CC_E - DCS Outside of Cofferdam A Works (Connect DIA1,600 & Remove Temp O'fall)	496	09-Sep-21	04-Jul-23
SUM26	[LoE] CC_F - Mods to Existing Pump Cell Civil & MEP Works (Excl. Options 2 Add. Pumps)	206	01-Sep-21	01-Jun-22
SUM27	[LoE] CC_G Extended Basement - ABWF Works (Incl. Deferred Areas Under Deck)	605	15-May-21 A	21-Sep-23
SUM28	[LoE] CC_G Extended Basement - MEP 1st Fix to Final Fix (Incl. Deferred Areas Under Deck)	587	17-May-21 A	31-Aug-23
SUM29	[LoE] CC_G Extended Basement - T&C	307	07-Sep-22	21-Sep-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	403	12-Aug-21 A	12-Jan-23
SUM32	[LoE] CC_I Carriageway 3B - MEP Works (1st Fix to Final Fix)	264	07-Dec-21	01-Nov-22
SUM33	[LoE] CC_I Underpass 3B & Associated Area - T&C	108	24-Dec-22	15-May-23
SUM35	[LoE] CC_J - M+ Day 2 Works (excl. connections to M+ and SZ_1 FS Changeover)	717	03-Jun-21 A	06-Feb-24
SUM38	[LoE] CC_J - M+ Day 2 FS Changeover in 3A SZ_1, Connections to M+, Integrated T&C	99	16-Jan-24	23-May-24
SUM34	[LoE] CC_J Carriageway 3A - Stat. Insp. & Approvals (from Form 314A to BA14)	56	27-Apr-24	05-Jul-24
SUM39	[LoE] CC_K - Water Main at Promenade	243	25-Nov-22	21-Oct-23
SUM40	[LoE] CC_N Lifts & Escalators	498	13-Jan-22	23-Sep-23



Gammon

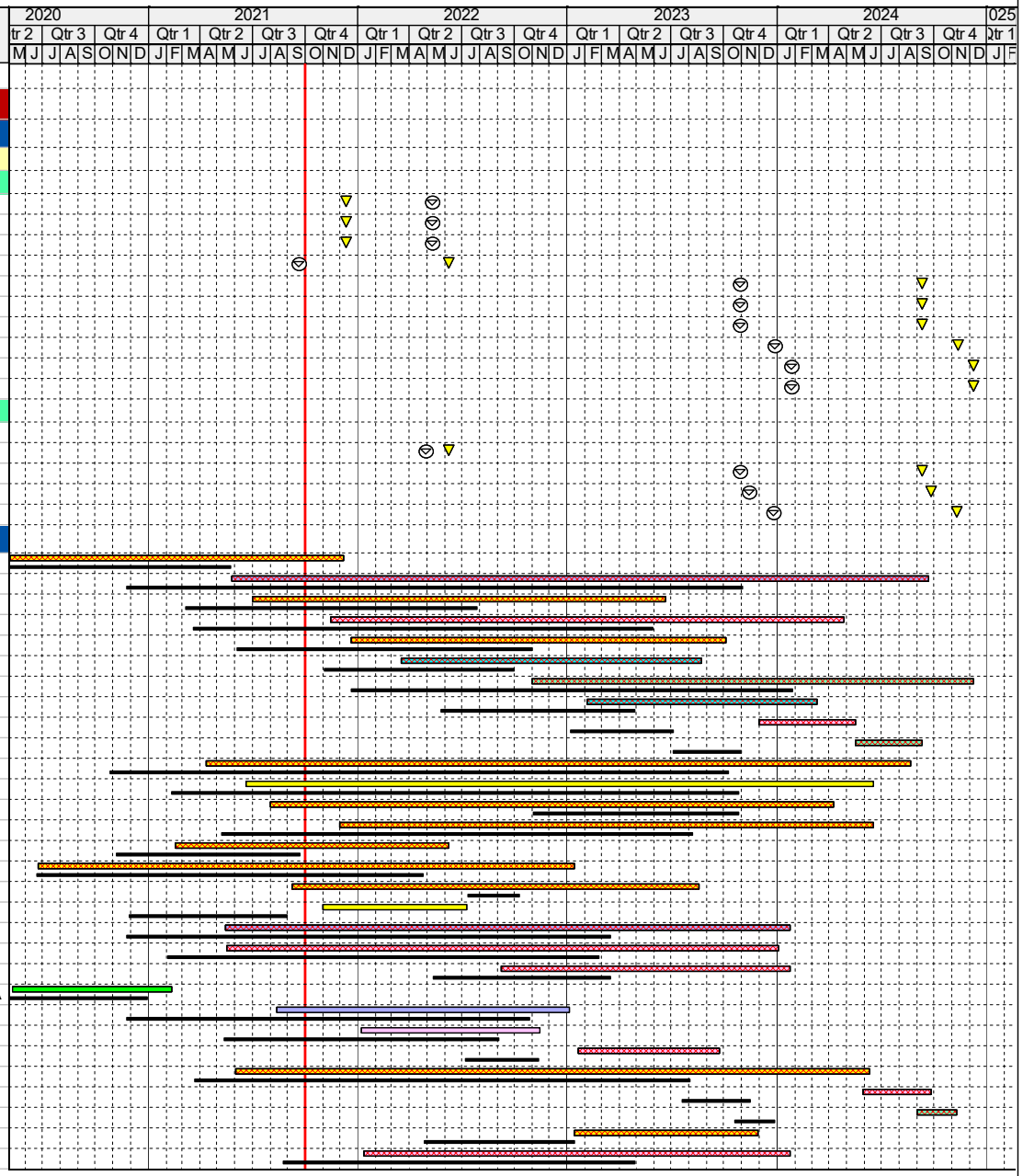
Base Line ACT
Base Line MS
Milestone
Current - Other Works
Current - Struct Works
Current - MEP Works
Current - ABWF Works
Current - Facade Works
Critical Works
Actual

L2 CMWP_R01_12 Approved 29Sep20 - 12th Update DD=31Aug21

Date	Revision	Checked	Approved
09-Sep-21	CMWP Rev_1_12 - 12th Update DD 31Aug21	NS	IH

TASK filter: L2 UPD: Level 1 Summary.

ID	Activity	RD	Start	Finish
	L2 CMWP_R01_13 Approved 29Sep20 - 13th Update DD=30 Sep 2021			
	GENERAL & PRELIMINARIES			
	Contract Significant Dates			
	Commencement & Completion Dates			
	Section Keydates			
KD05A	Complete Required Pedestrian Access Corridor and Floor Finishes at AURW	0		12-Dec-21*
KD05B	Complete Required Pedestrian Access Corridor & associated top slab at Avenue Level [if instructed]	0		12-Dec-21*
KD05C	PC for HO of Landscape Area at Avenue & Pedestrian level between P31 & P34 [if instructed]	0		12-Dec-21*
KD05	PC for HO of the Remaining Works for M+ Promenade South	0		07-Jun-22*
KD08	PC for HO Loc ICT/Risers Rms to APC for ICT Sys Instn Wrks	0		10-Sep-24*
KD10	PC for HO of ASDA, Lyric Theatre Promenade South to Authority	0		10-Sep-24*
KD09	PC for HO of RDE areas for Tenancy Fit-out Wrks	0		10-Sep-24*
KD11	PC for HO of Extended Basement for HO to Authority & HO of Carriageway to Relevant Govt Authority	0		12-Nov-24*
KD07	PRACTICAL COMPLETION for C'Way 3A (M+ Day 2 Works)	0		09-Dec-24*
KD13	PRACTICAL COMPLETION for Lyric Theatre, Extended Basement & C'Way 3B	0		09-Dec-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		09-Jun-22*
KD03	OBTAIN OP for Lyric Theatre & Extended Basement	0		10-Sep-24*
KD14	Complete U/G road and the associated plantrooms at Zone 3A&3B Integrated Basement	0		26-Sep-24*
KD02	Obtain BA14 Acknowledge from BD for M+ Day2 A&A Works	0		08-Nov-24*
	Summary Program - Level 1			
SUM10	[LoE] CC_B Lyric Theatre - Substructure RC Structural Concrete	54	06-May-20 A	07-Dec-21
SUM14	[LoE] CC_B Lyric Theatre - ABWF Work Including Theatres (Excl. Punch List Works)	872	28-May-21 A	20-Sep-24
SUM11	[LoE] CC_B Lyric Theatre - Superstructure RC Structural Concrete	471	02-Jul-21 A	21-Jun-23
SUM15	[LoE] CC_B Lyric Theatre - MEP 1st to Final Fix (Excl. TH SYS, TH Non-FSD in Walls, etc.)	716	15-Nov-21	27-Apr-24
SUM41	[LoE] CC_B Lyric Theatre - Structural Steel by CSD	480	20-Dec-21	03-Oct-23
SUM12	[LoE] CC_B Lyric Theatre - EWS Weather Tight Type	385	18-Mar-22	23-Aug-23
SUM17	[LoE] CC_B Lyric Theatre - Theatre Specialist Systems Incl. T&C, Precom. & Commissioning	619	01-Nov-22	07-Dec-24
SUM13	[LoE] CC_B Lyric Theatre - EWS Non-Weather Tight Type 4.1 & 4.3	302	04-Feb-23	11-Mar-24
SUM16	[LoE] CC_B Lyric Theatre - T&C (Excluding Non-FSD ELV & Electrical)	128	02-Dec-23	16-May-24
SUM18	[LoE] CC_B Lyric Theatre, EB, C'Way 3B - Stat. Insp. & Approval (from Form 314/501 to BD OP)	98	17-May-24	10-Sep-24
SUM21	[LoE] CC_C - LT EVA1 & EVA2	787	12-Apr-21 A	21-Aug-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)	740	21-Jun-21 A	17-Jun-24
SUM22	[LoE] CC_C - HoR Development (P32-1, P29-1, P31-EVA)	690	03-Aug-21 A	09-Apr-24
SUM20	[LoE] CC_C - LT Promenade & Pocket Square Bridge	692	01-Dec-21	17-Jun-24
SUM24	[LoE] CC_D - Remaining Works for M+ Promenade South	189	18-Feb-21 A	07-Jun-22
SUM25	[LoE] CC_E - DCS Cofferdam A Works & Obtain BA14	354	23-Jun-20 A	12-Jan-23
SUM42	[LoE] CC_E - DCS Outside of Cofferdam A Works (Connect DIA1,600 & Remove Temp O'fall)	512	08-Sep-21 A	18-Aug-23
SUM26	[LoE] CC_F - Mods to Existing Pump Cell Civil & MEP Works (Excl. Options 2 Add. Pumps)	190	01-Nov-21	09-Jul-22
SUM27	[LoE] CC_G Extended Basement - ABWF Works (Incl. Deferred Areas Under Deck)	681	15-May-21 A	24-Jan-24
SUM28	[LoE] CC_G Extended Basement - MEP 1st Fix to Final Fix (Incl. Deferred Areas Under Deck)	663	17-May-21 A	03-Jan-24
SUM29	[LoE] CC_G Extended Basement - T&C	406	09-Sep-22	24-Jan-24
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	371	12-Aug-21 A	04-Jan-23
SUM32	[LoE] CC_I Carriageway 3B - MEP Works (1st Fix to Final Fix)	251	07-Jan-22	14-Nov-22
SUM33	[LoE] CC_I Underpass 3B & Associated Area - T&C	199	19-Jan-23	23-Sep-23
SUM35	[LoE] CC_J - M+ Day 2 Works (excl. connections to M+ and SZ_1 FS Changeover)	787	03-Jun-21 A	11-Jun-24
SUM38	[LoE] CC_J - M+ Day 2 FS Changeover in 3A SZ_1, Connections to M+, Integrated T&C	99	31-May-24	26-Sep-24
SUM34	[LoE] CC_J Carriageway 3A - Stat. Insp. & Approvals (from Form 314A to BA14)	56	02-Sep-24	08-Nov-24
SUM39	[LoE] CC_K - Water Main at Promenade	236	13-Jan-23	29-Nov-23
SUM40	[LoE] CC_N Lifts & Escalators	597	13-Jan-22	24-Jan-24



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_13 Approved 29Sep20 - 13th Update DD=30 Sep 2021

Date	Revision	Checked	Approved
12-Oct-21	CMWP Rev_1_13 - 13th Update DD 30Sep21	NS	IH

C. Environmental Mitigation Measures – Implementation Status

Table C-1: Environmental Mitigation Measures Implementation Status

EM&A Ref.	Recommendation Measures	Implementation Stage L2 Aug 2021	Sep 2021	Oct 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	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.	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.	✓	✓	✓
	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			

EM&A Ref.	Recommendation Measures	Implementation Stage L2 Aug 2021	Sep 2021	Oct 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.	✓	✓	✓
	• 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 L2 Aug 2021	Sep 2021	Oct 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
	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
	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
	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.	Rem	✓	✓
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 L2 Aug 2021	Sep 2021	Oct 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	✓	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
Water Quality Impact (Construction)				
	Construction site runoff and drainage			

EM&A Ref.	Recommendation Measures	Implementation Stage L2 Aug 2021	Sep 2021	Oct 2021
4.1 & 10.5.1	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.	✓	✓	✓
	• 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, 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.	✓	✓	✓

EM&A Ref.	Recommendation Measures	Implementation Stage L2 Aug 2021	Sep 2021	Oct 2021
	• 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.	✓	✓	✓
	• 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
	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

EM&A Ref.	Recommendation Measures	Implementation Stage L2 Aug 2021	Sep 2021	Oct 2021
	• 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 & 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.	✓	✓	✓
4.1 & 10.5.1	**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.	✓	✓	✓
	• 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
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	✓	✓	✓
	• Training of site personnel in proper waste management and chemical handling procedures	✓	✓	✓

EM&A Ref.	Recommendation Measures	Implementation Stage L2 Aug 2021	Sep 2021	Oct 2021
	• Provision of sufficient waste disposal points and regular collection of waste	Obs	Obs	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	✓	✓	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	✓	✓	✓
	• 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.	✓	✓	✓

EM&A Ref.	Recommendation Measures	Implementation Stage L2 Aug 2021	Sep 2021	Oct 2021
	• 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 & 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.	✓	✓	✓
	• 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.	✓	✓	✓

EM&A Ref.	Recommendation Measures	Implementation Stage L2 Aug 2021	Sep 2021	Oct 2021
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:			
	• 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	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

EM&A Ref.	Recommendation Measures	Implementation Stage L2 Aug 2021	Sep 2021	Oct 2021
	• 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 & 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.	✓	✓	✓
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
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
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
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
Table 9.1 & 10.8 (CM6)	Sensitive streetscape design should be incorporated along all new roads and streets.	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
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
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

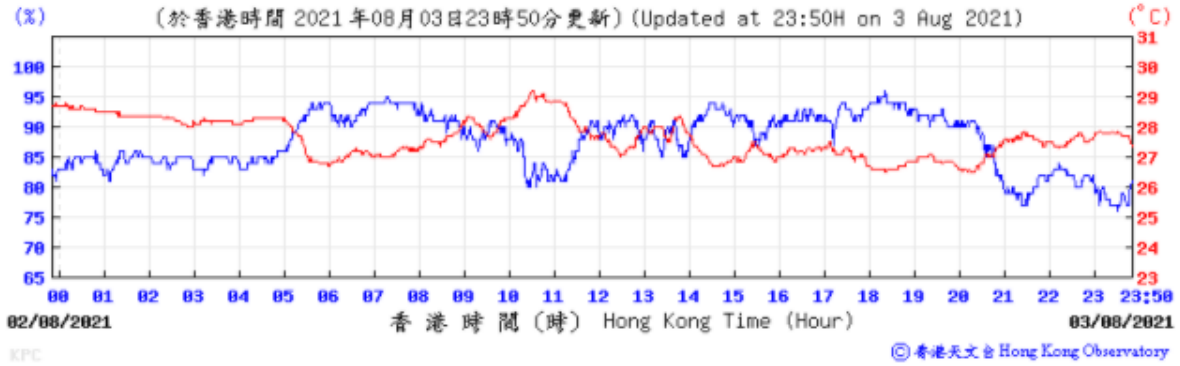
EM&A Ref.	Recommendation Measures	Implementation Stage L2 Aug 2021	Sep 2021	Oct 2021
Table 9.2 & 10.9 (MCP1)	Use of decorative screen hoarding/boards	✓	✓	✓
Table 9.2 & 10.9 (MCP2)	Early introduction of landscape treatments	N/A	N/A	N/A
Table 9.2 & 10.9 (MCP3)	Adoption of light colour for the temporary ventilation shafts for the basement during the transition period.	N/A	N/A	N/A
Table 9.2 & 10.9 (MCP4)	Control of night time lighting	✓	✓	✓
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	-	Not Applicable
✓	-	Implemented
Obs	-	Observed
Rem	-	Reminder

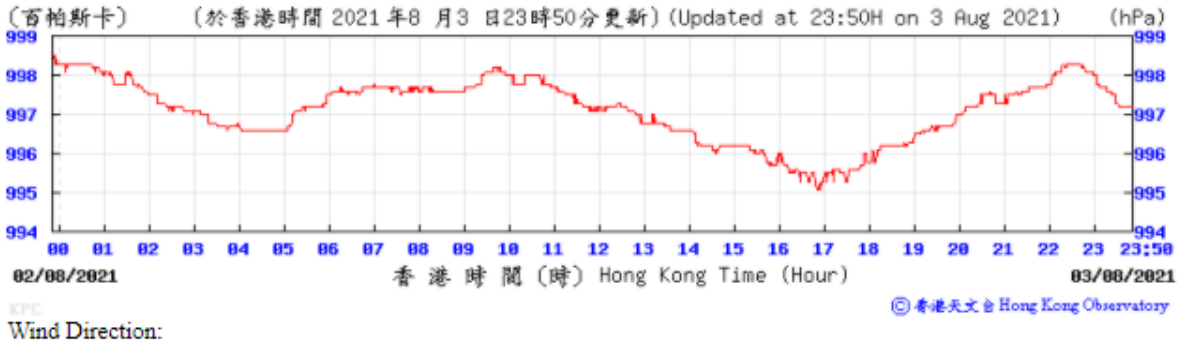
D. Meteorological Data Extracted from Hong Kong Observatory

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

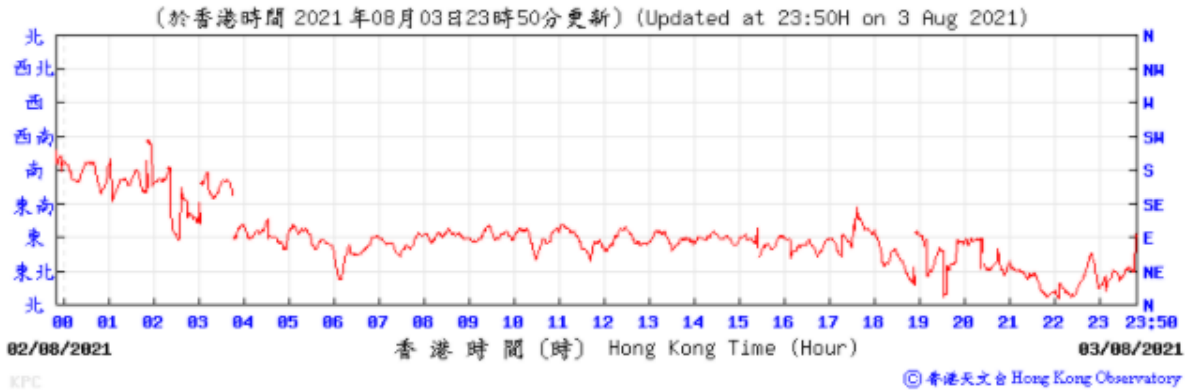
Tempearture/Humidity:



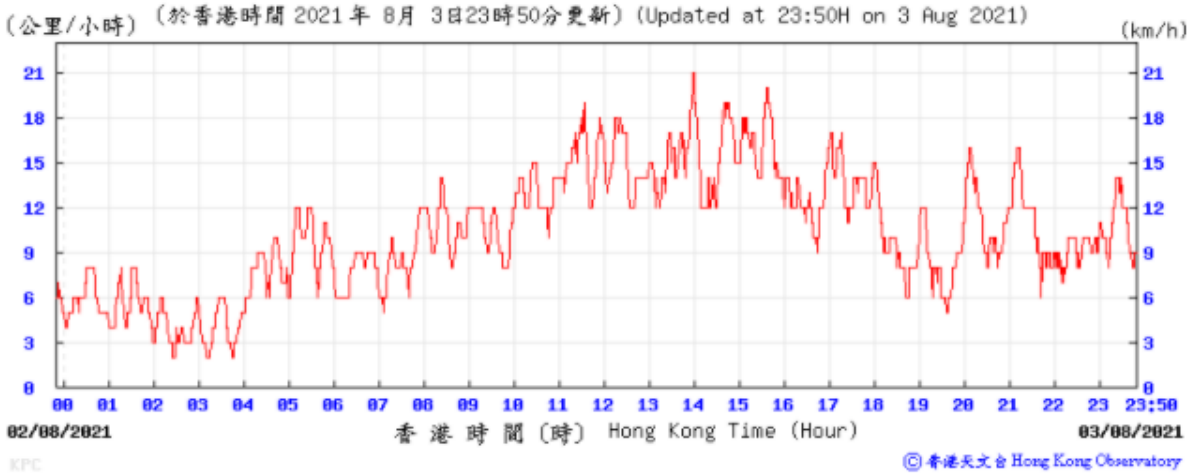
Pressure:



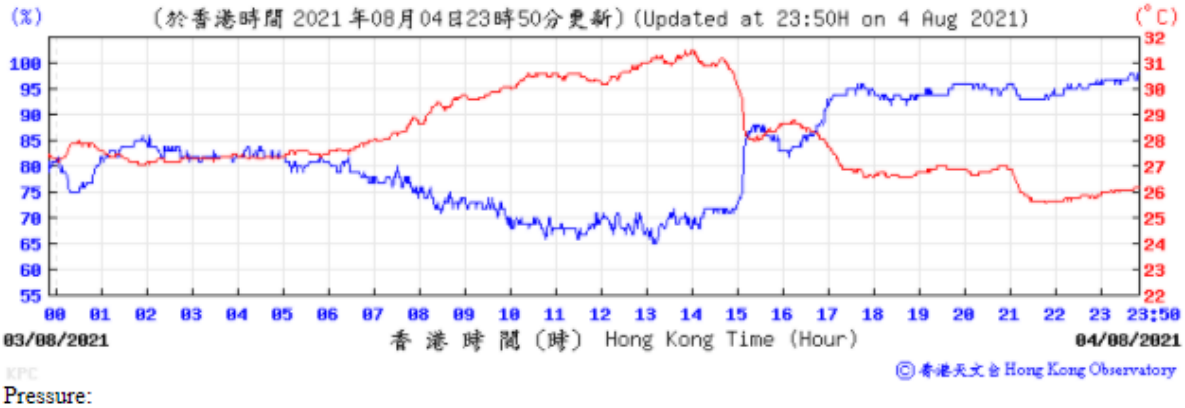
Wind Direction:



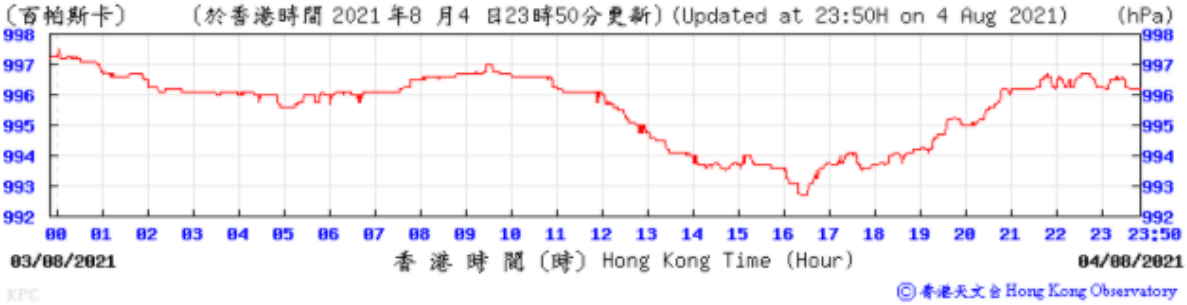
Wind Speed:



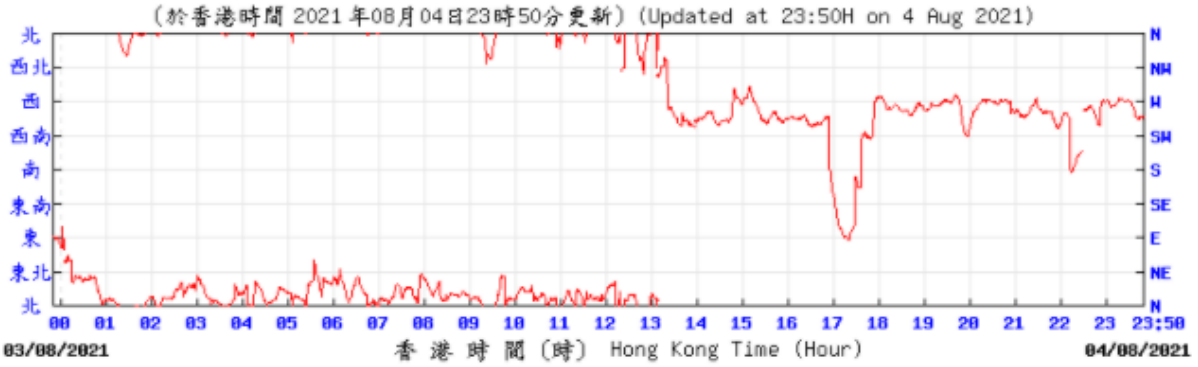
Tempearture/Humidity:



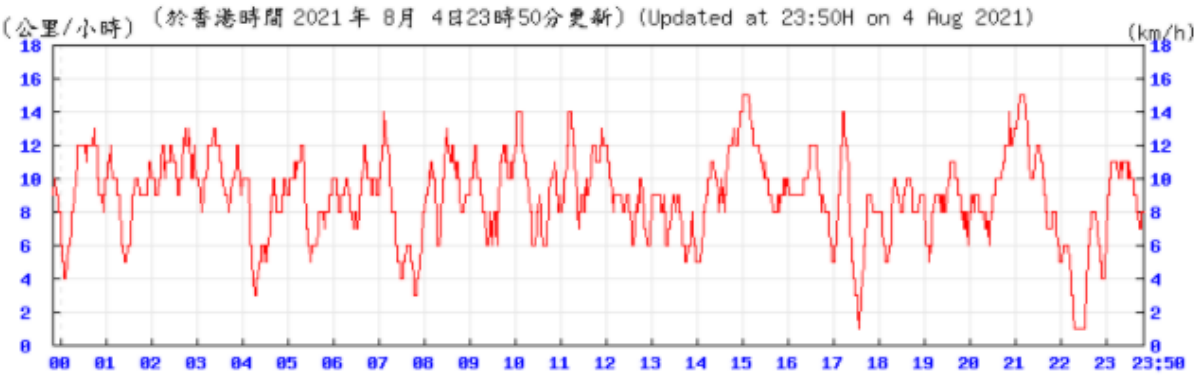
Pressure:



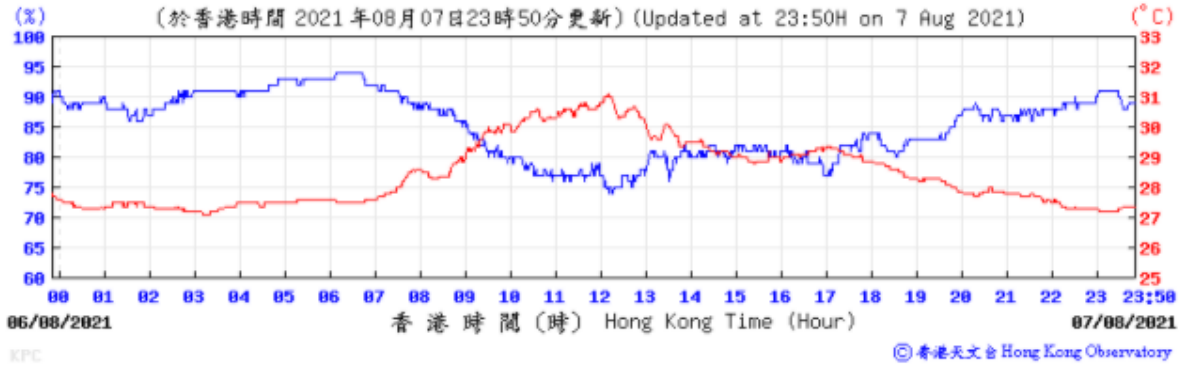
Wind Direction:



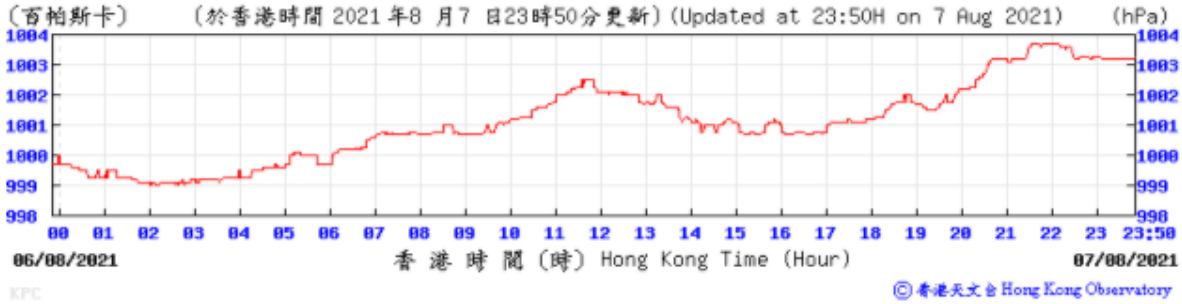
Wind Speed:



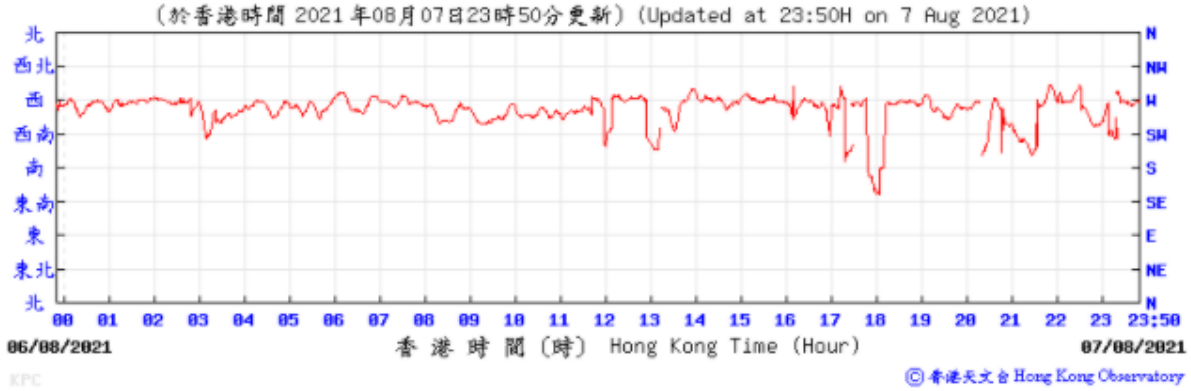
Tempearture/Humidity:



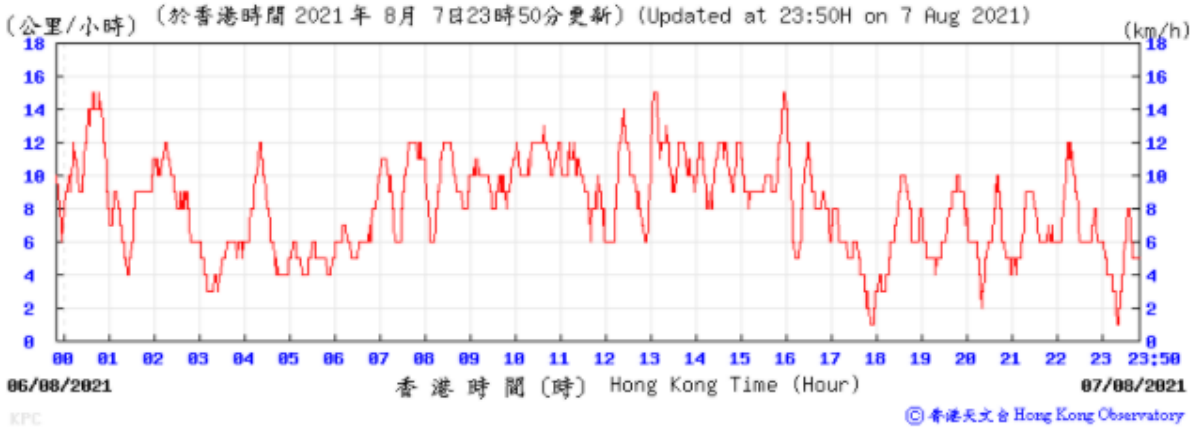
Pressure:



Wind Direction:



Wind Speed:



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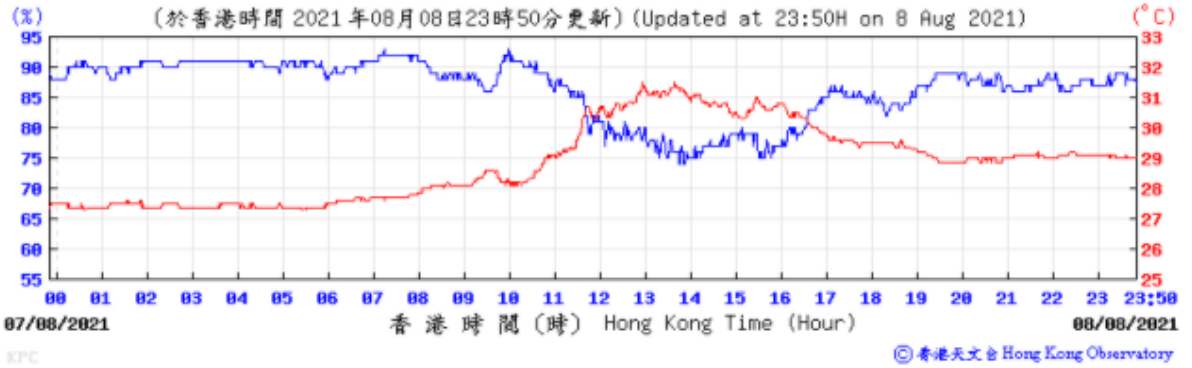
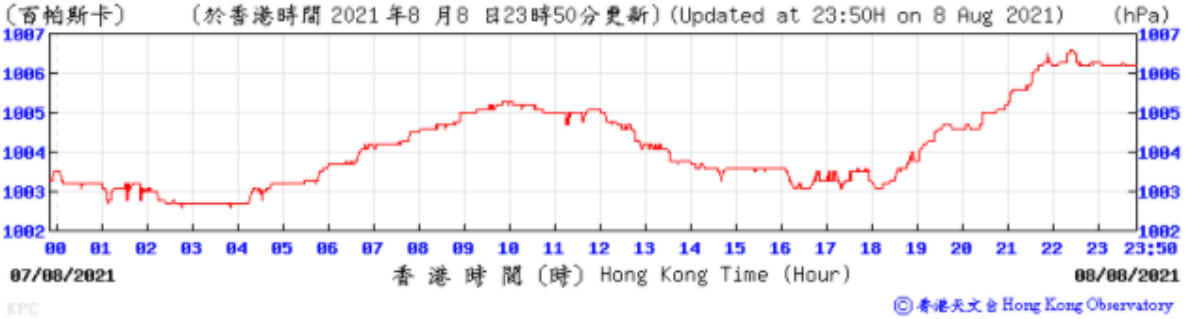
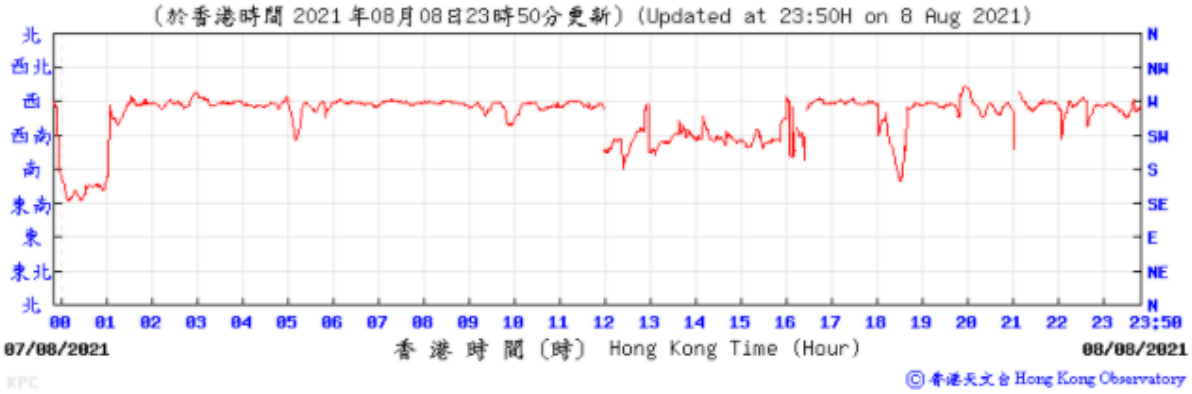


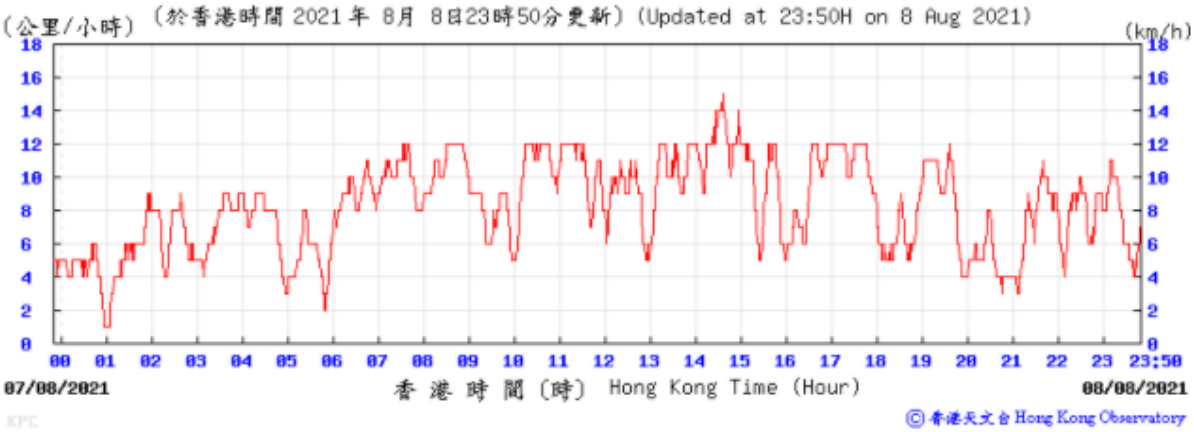
Pressure:



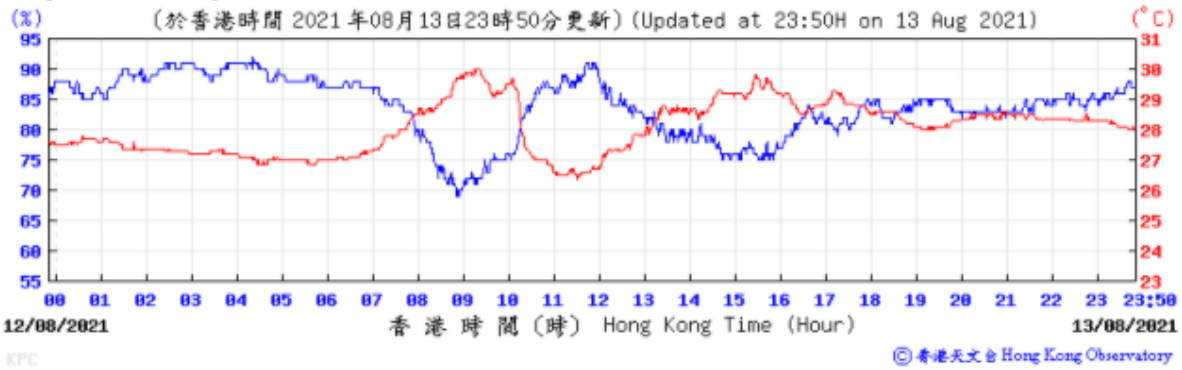
Wind Direction:



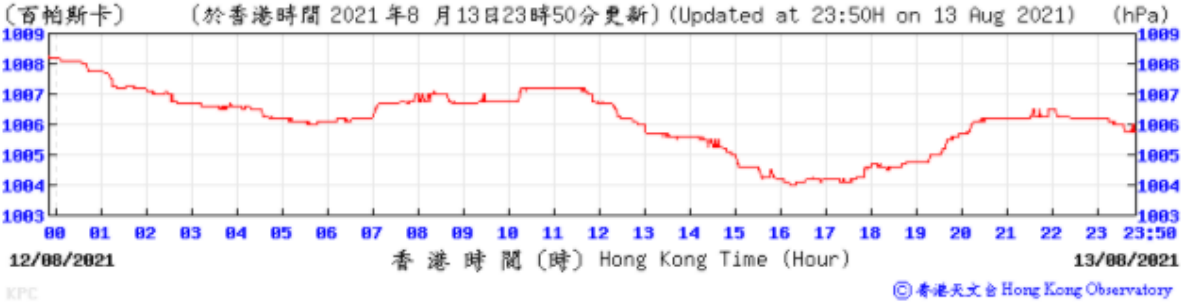
Wind Speed:



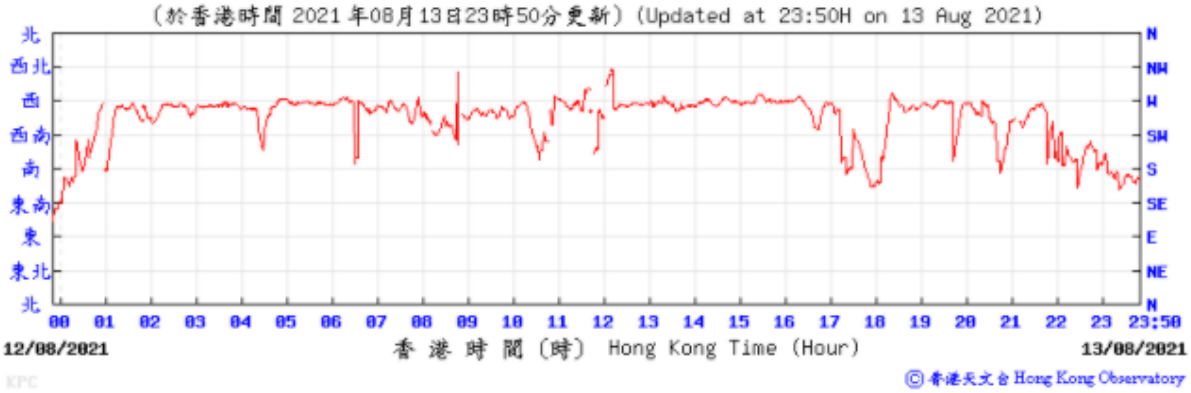
Tempearture/Humidity:



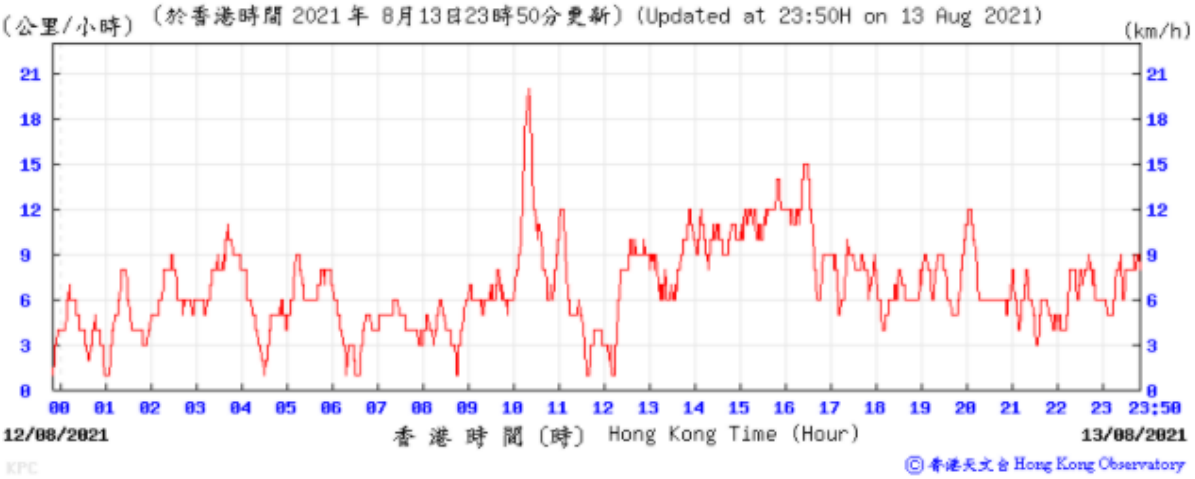
Pressure:



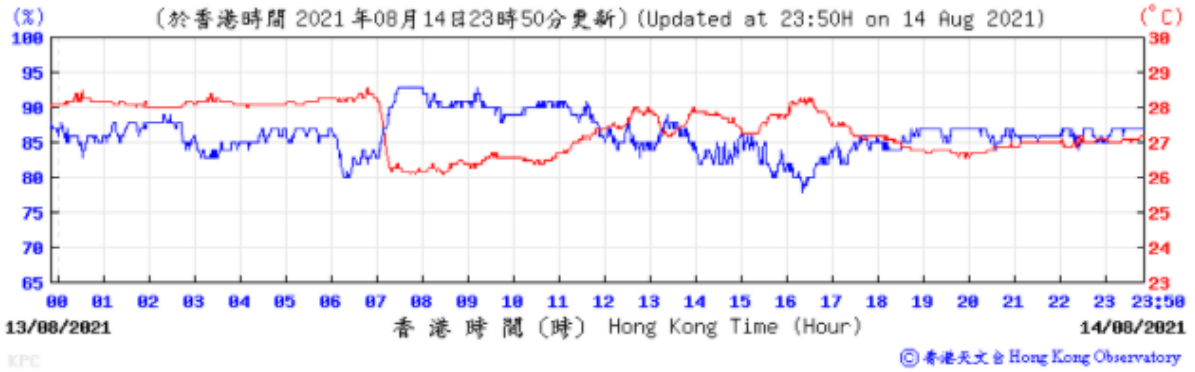
Wind Direction:



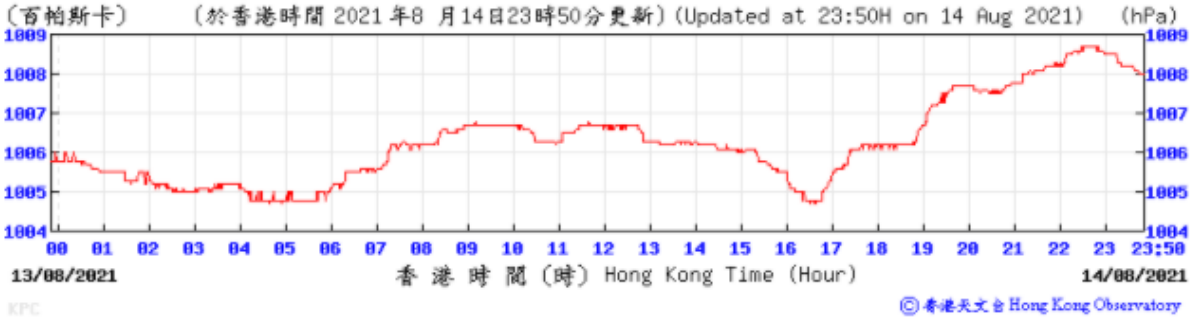
Wind Speed:



Tempearture/Humidity:



Pressure:



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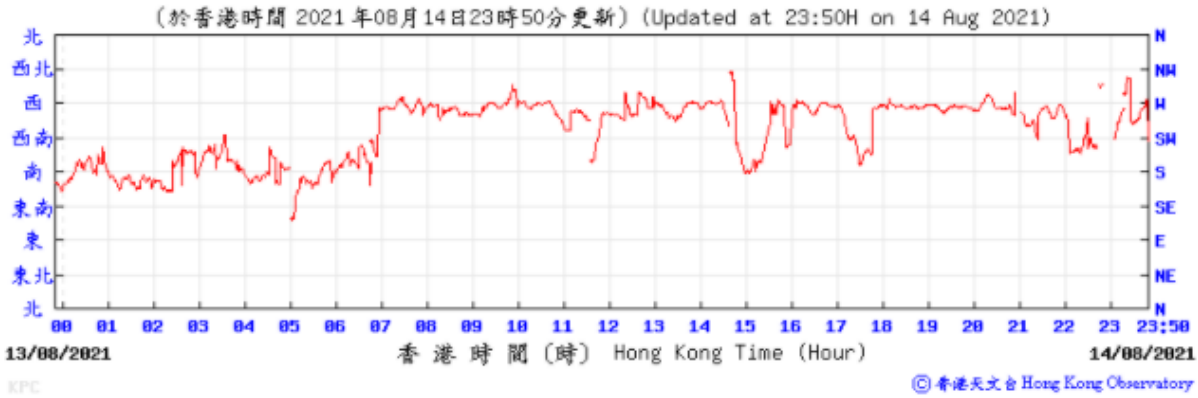

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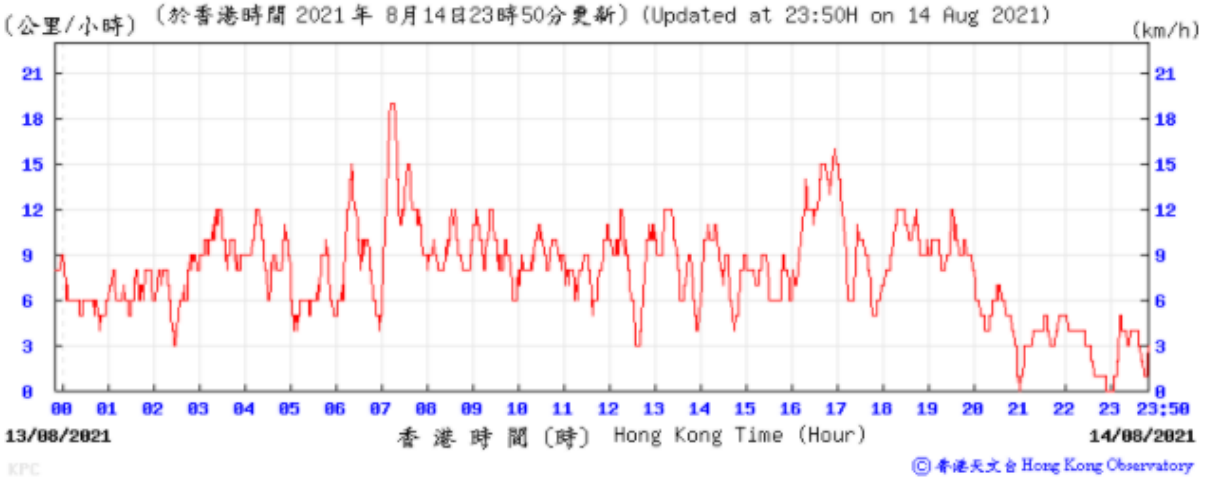

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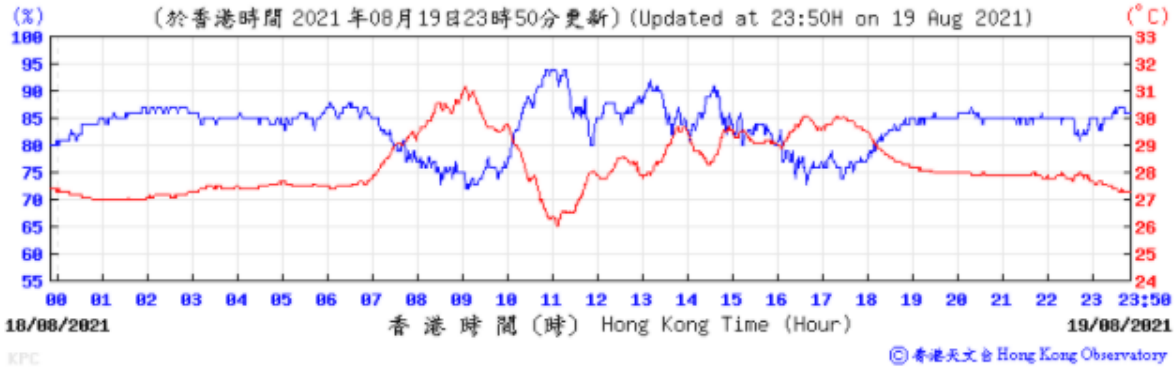

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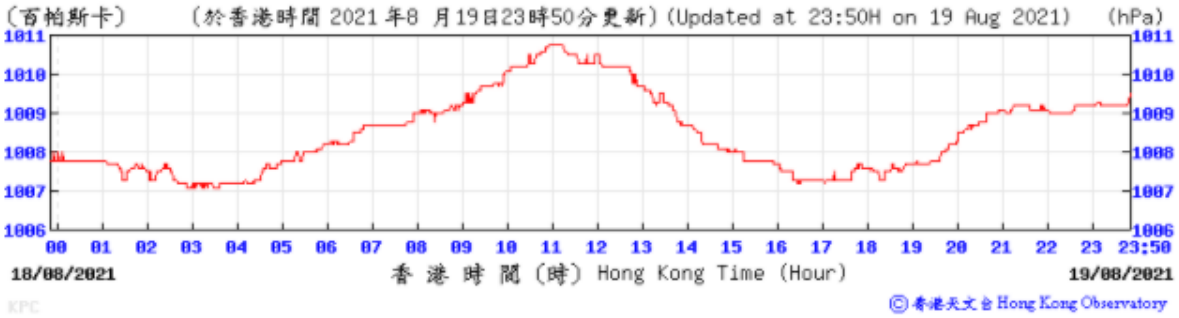

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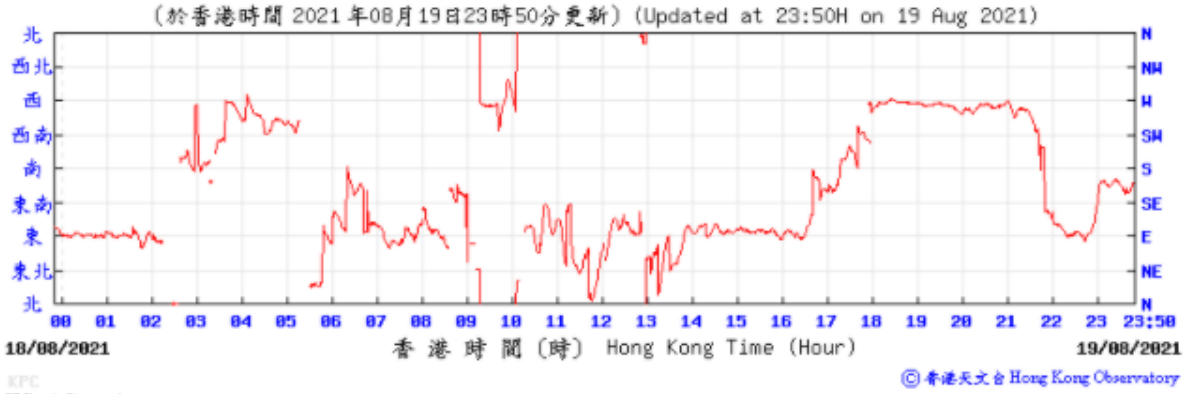

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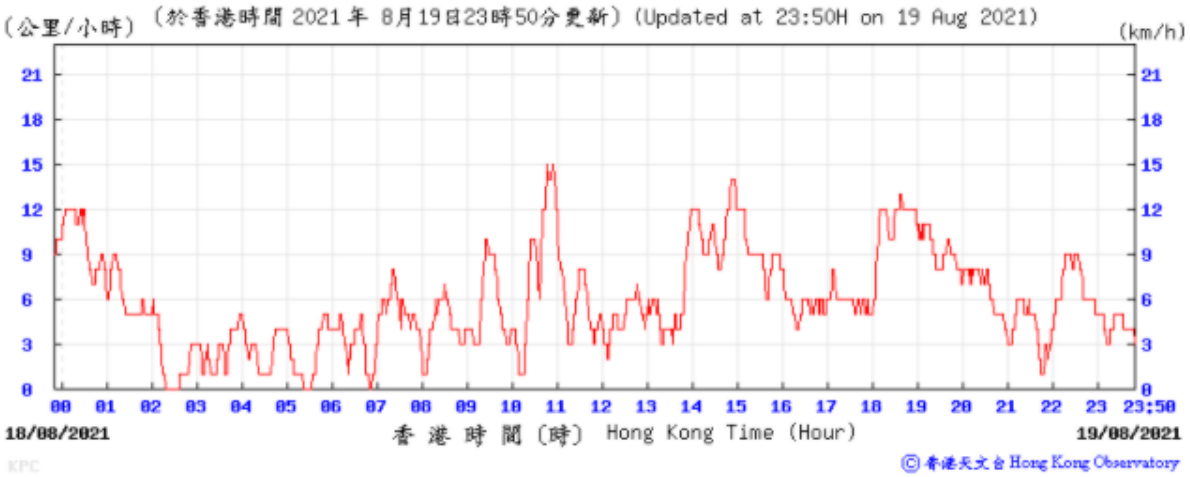

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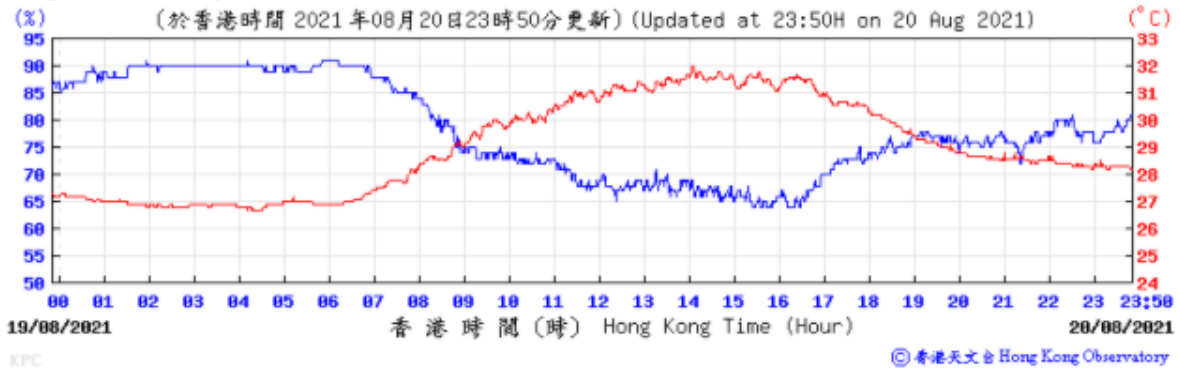

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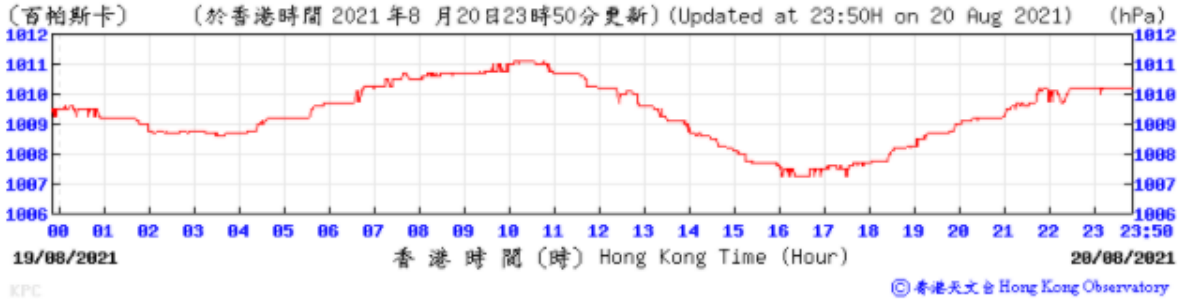

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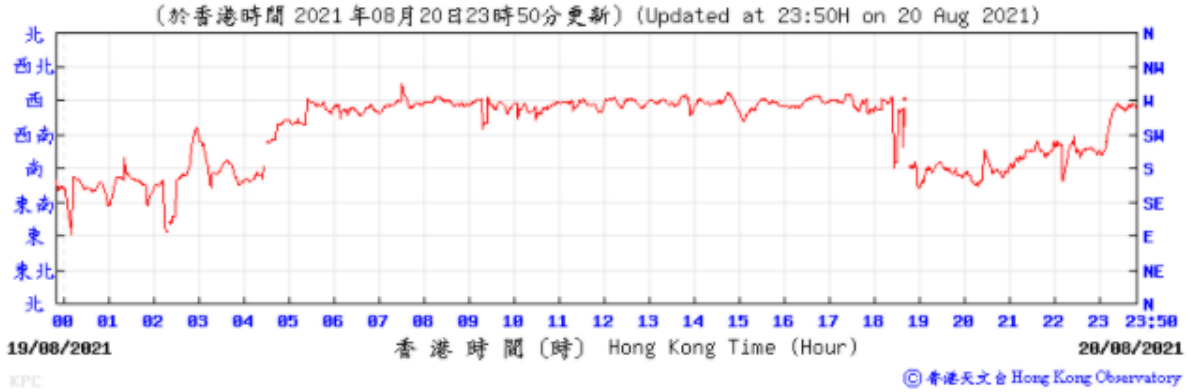

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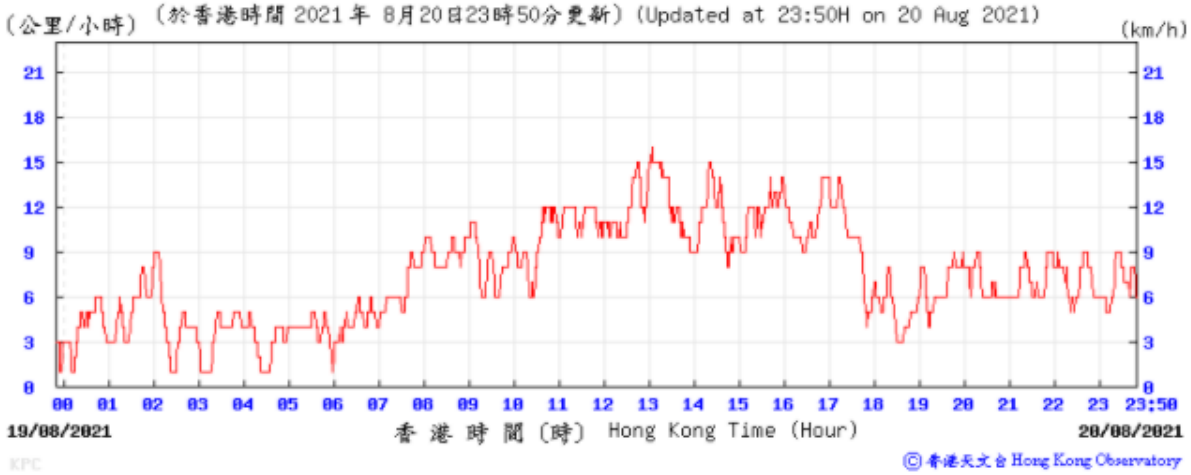

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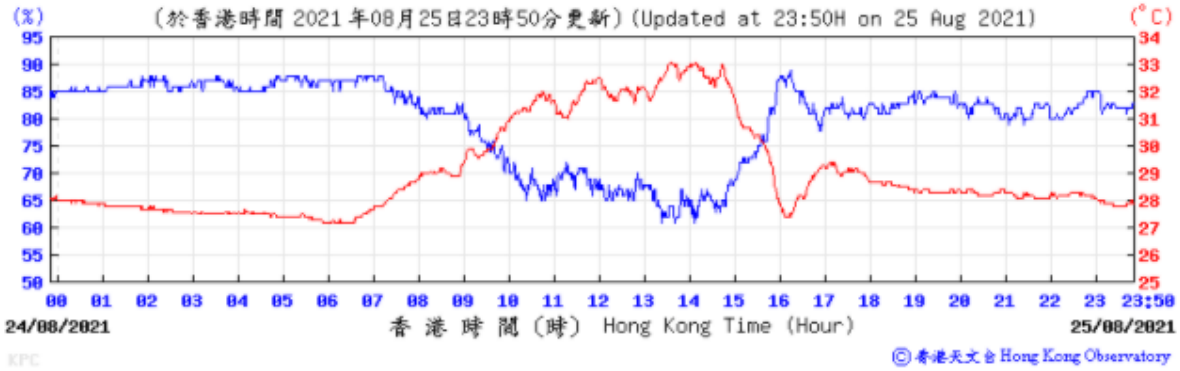

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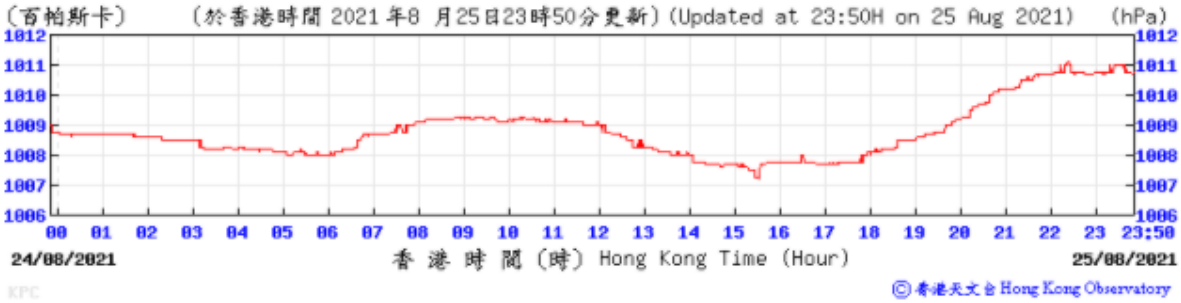

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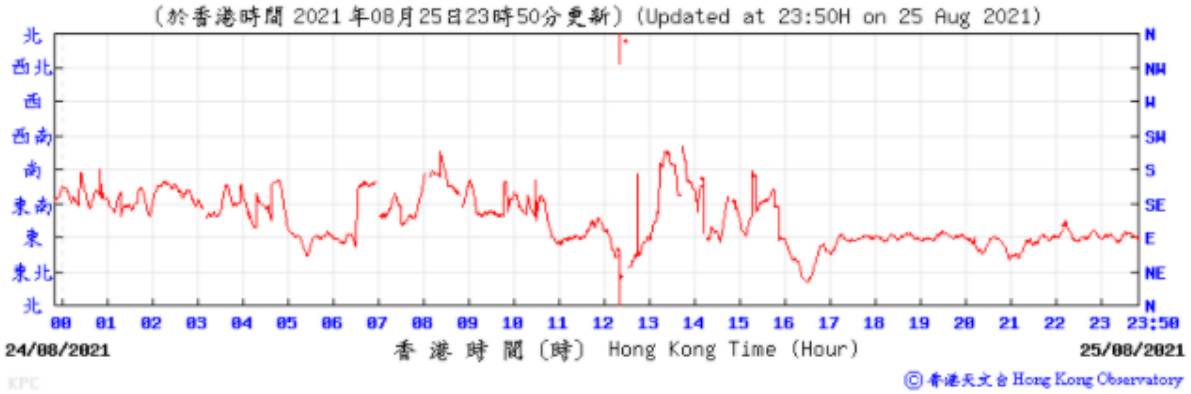

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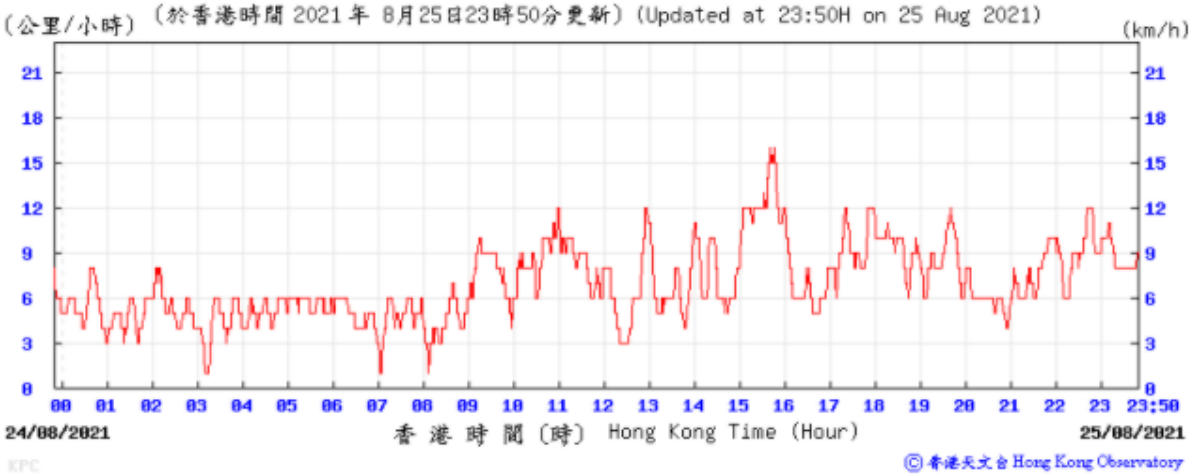

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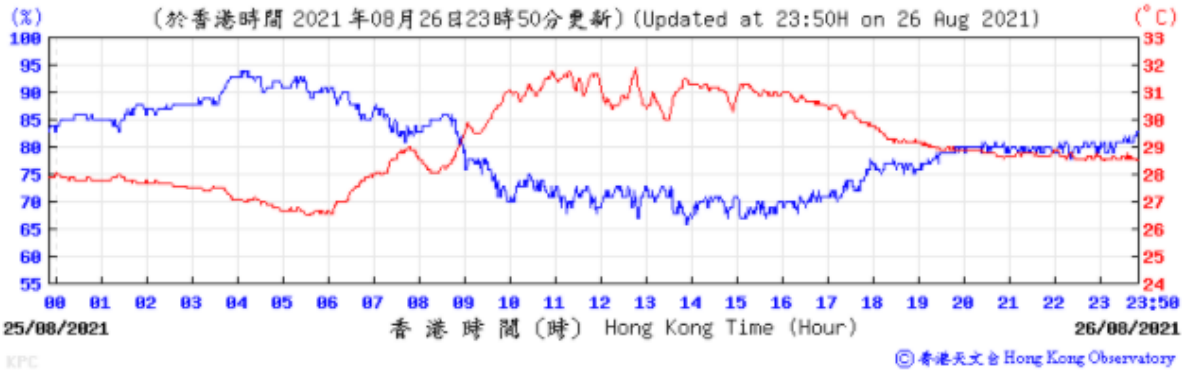

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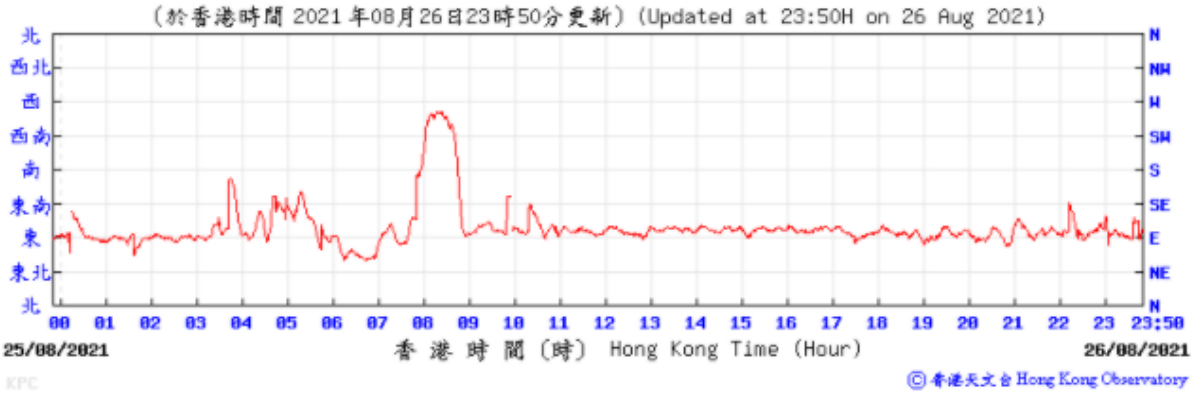

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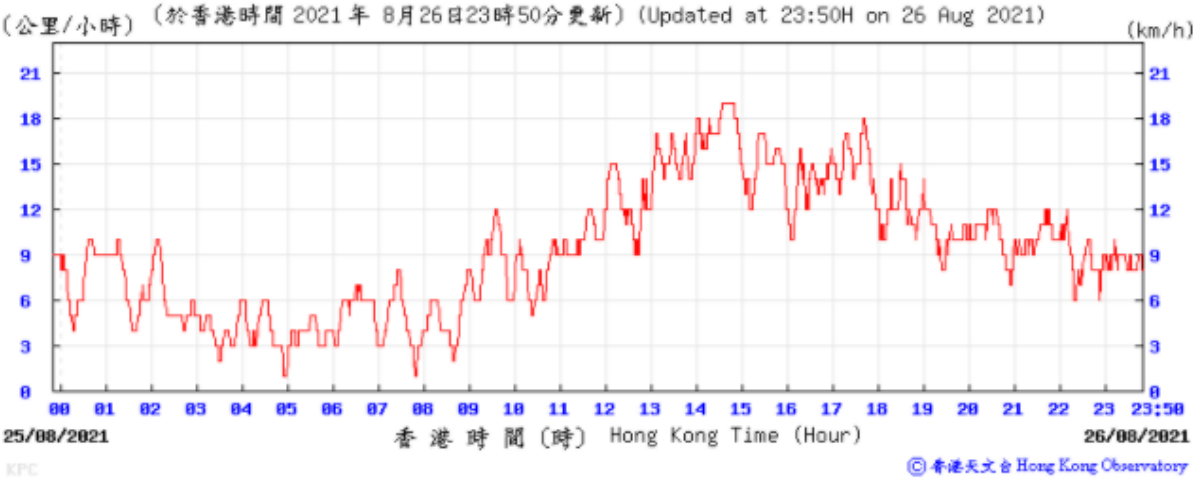

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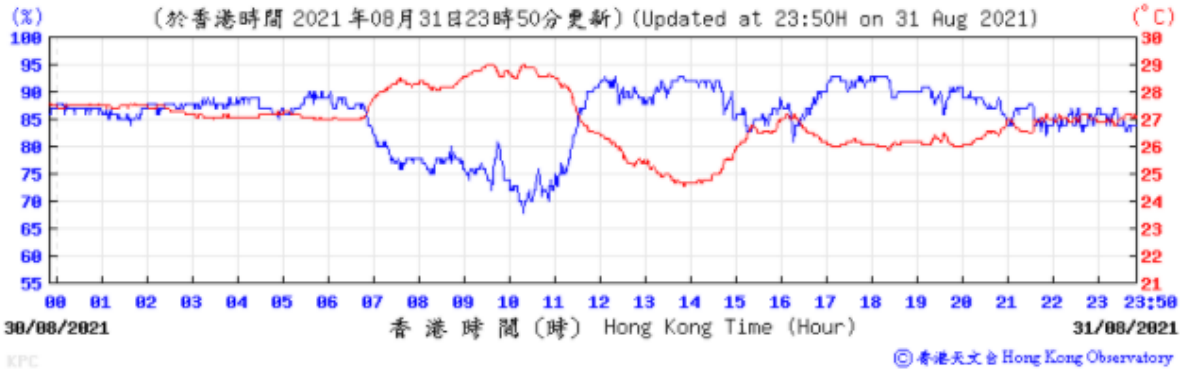

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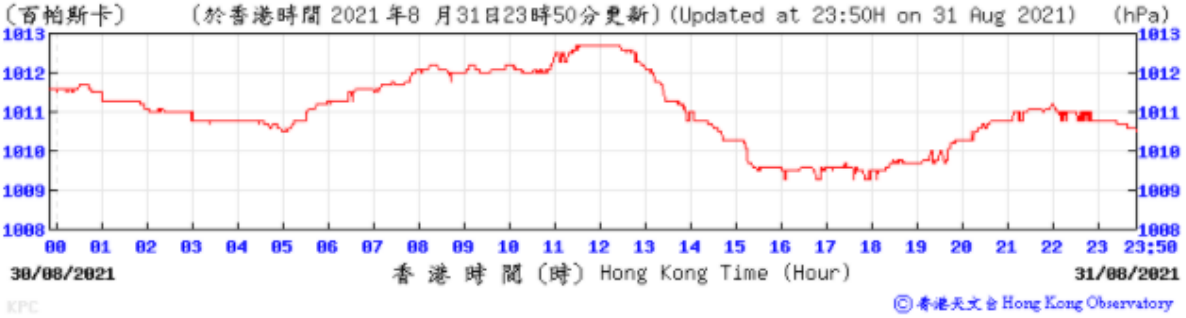

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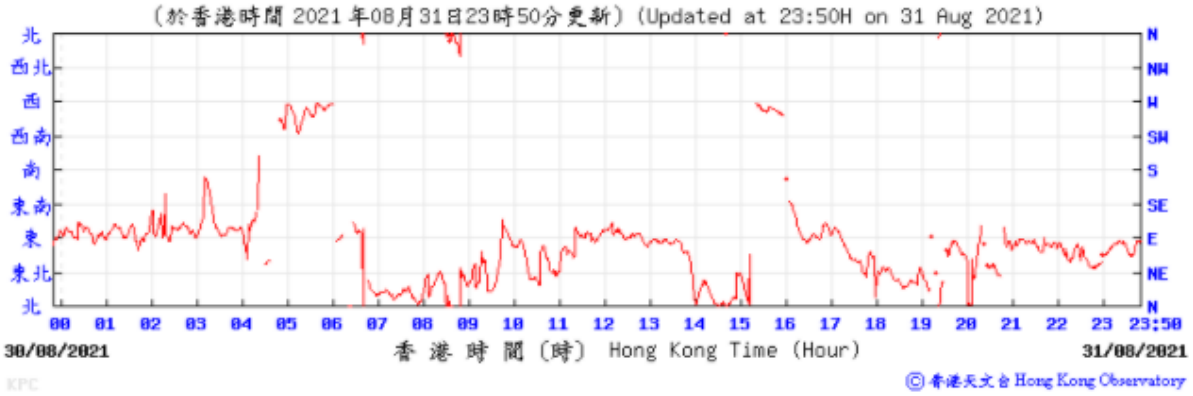

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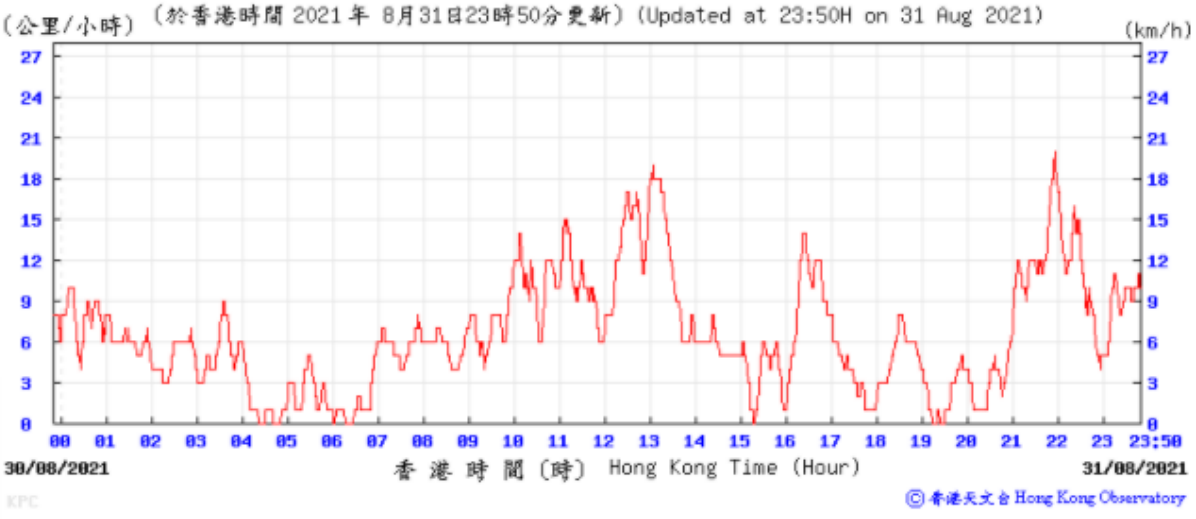

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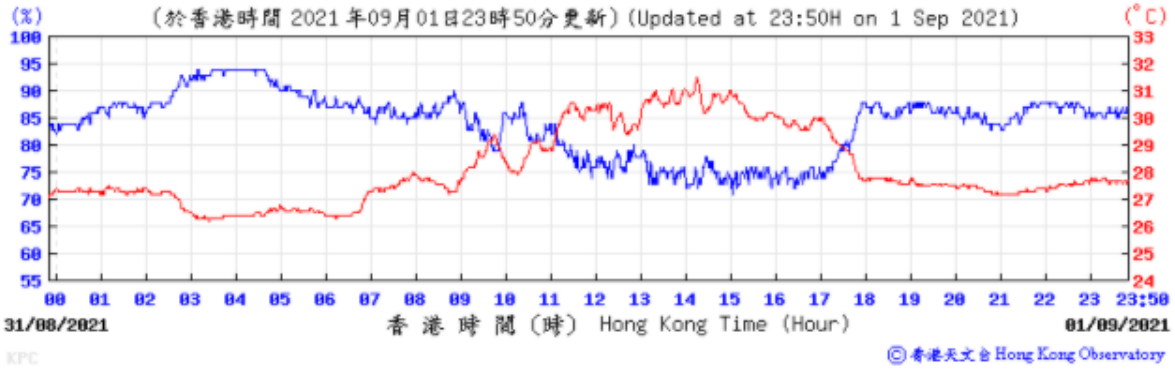

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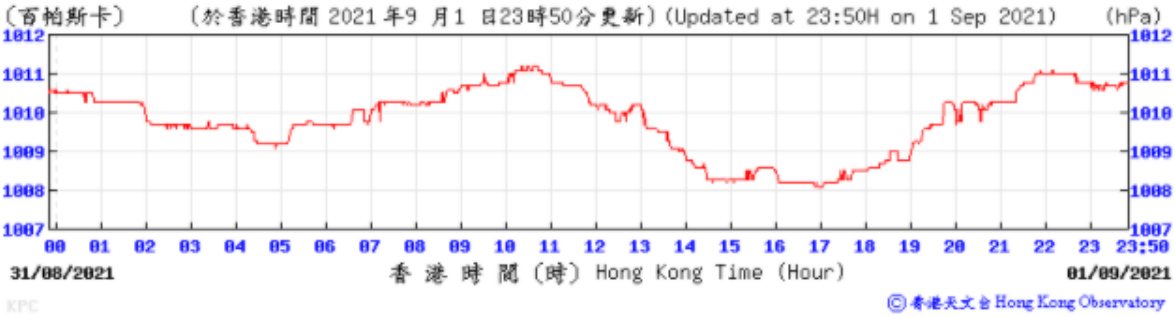

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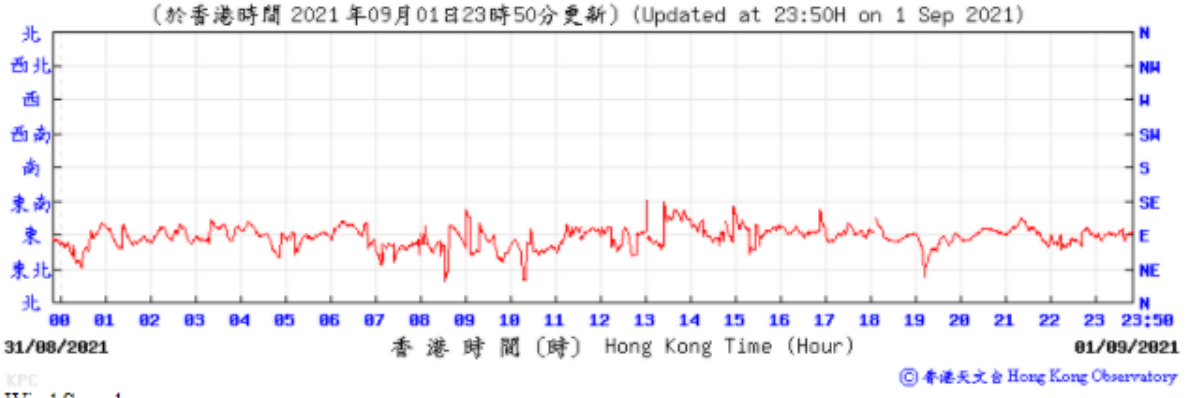

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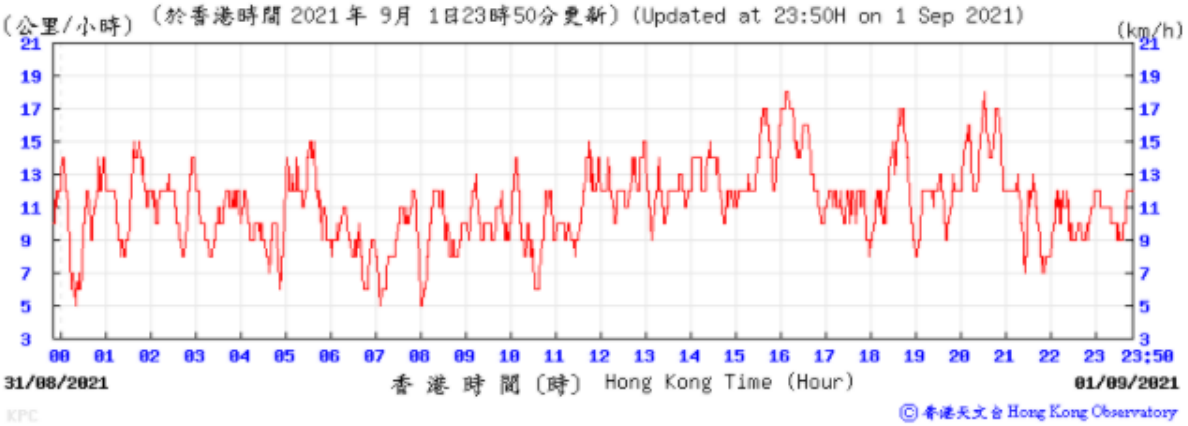

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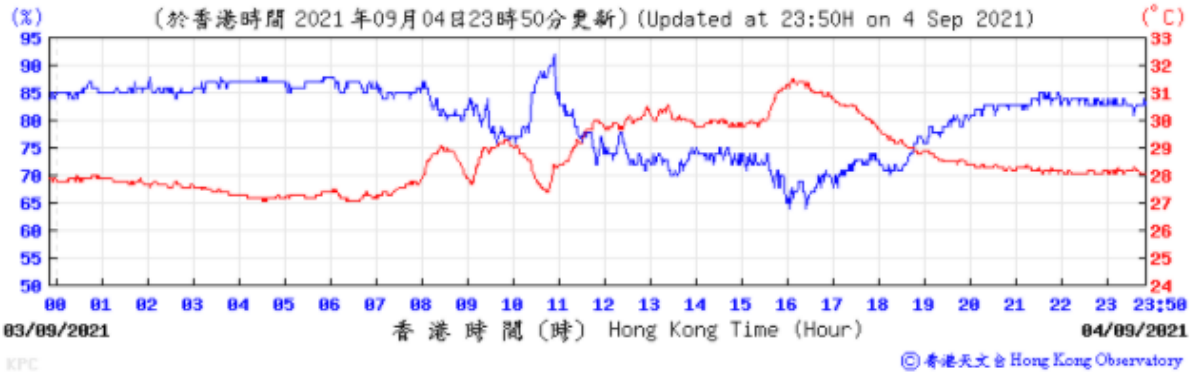

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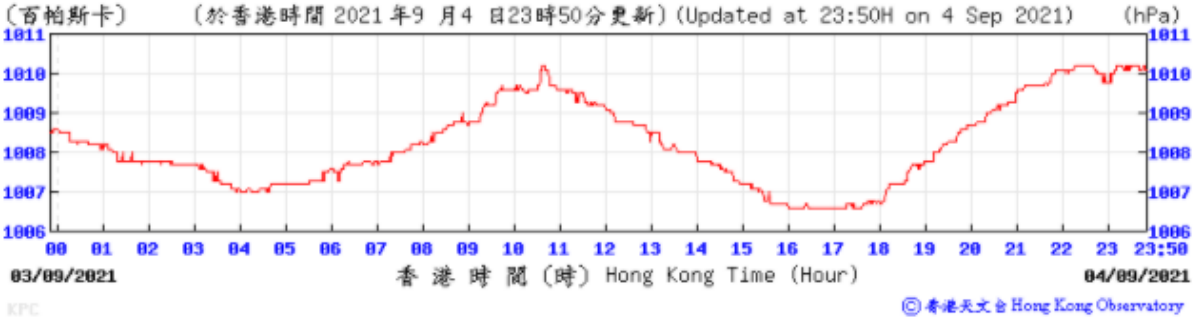

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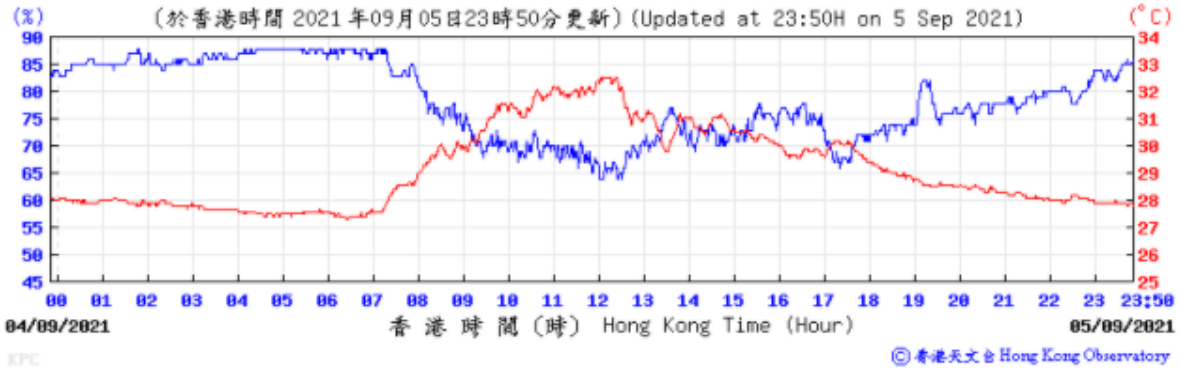
Wind Speed:

Tempearture/Humidity:



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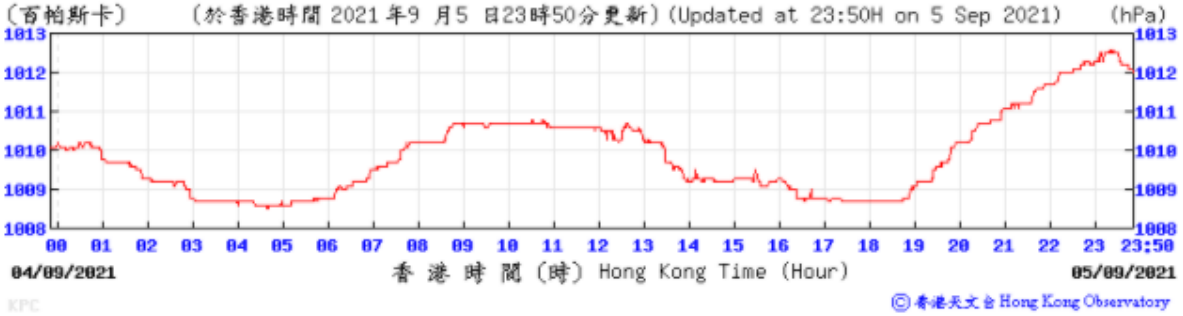

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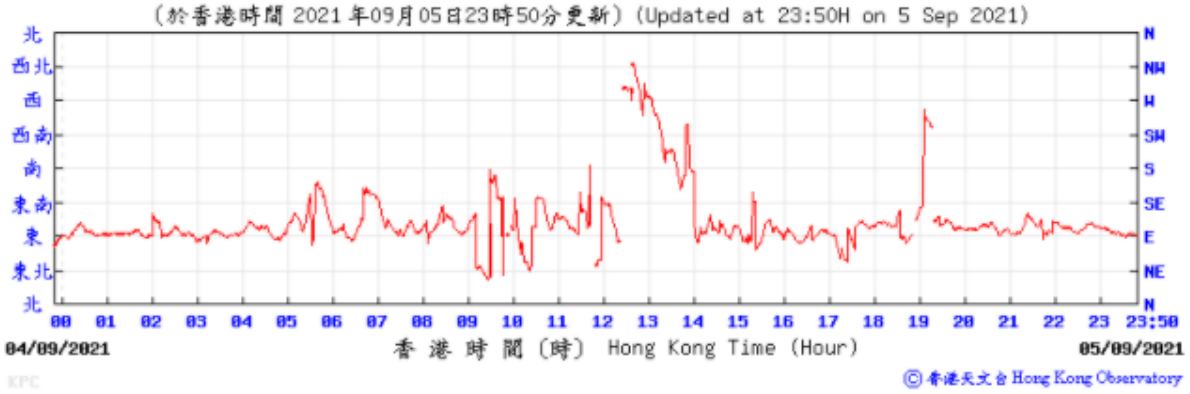

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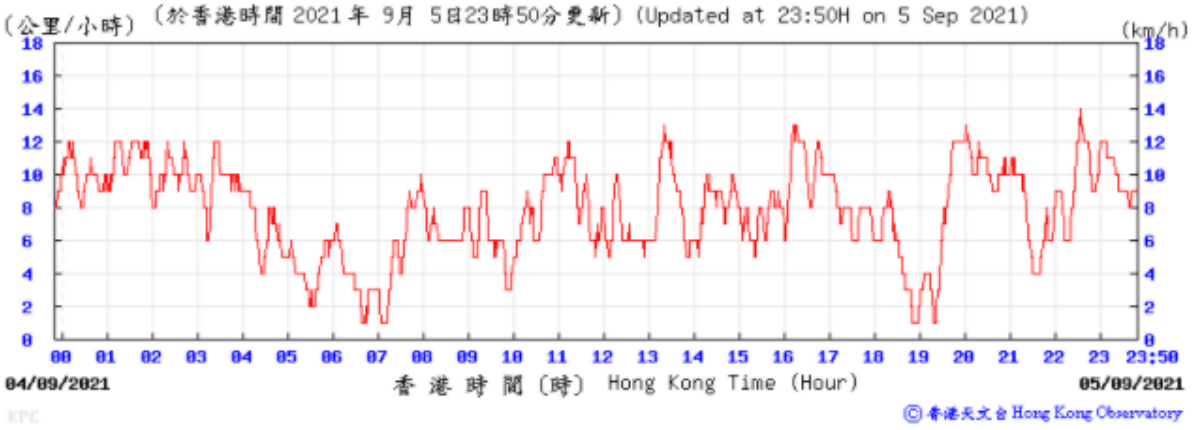

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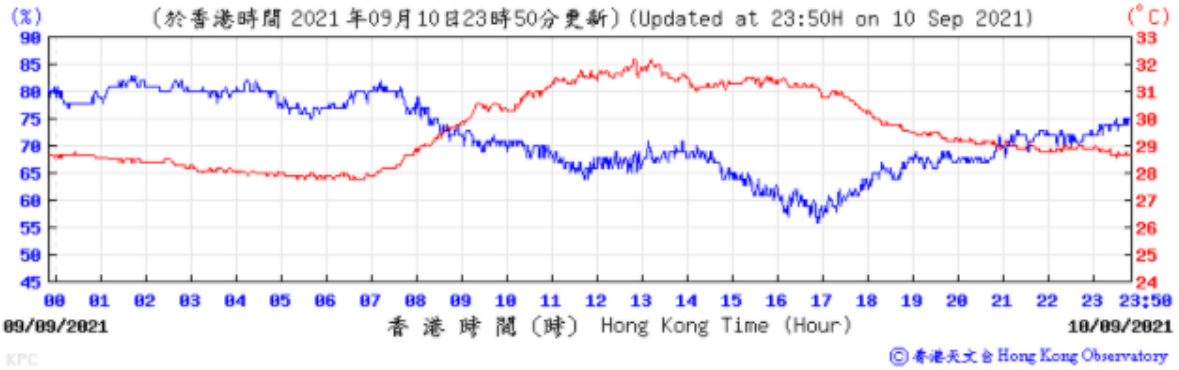

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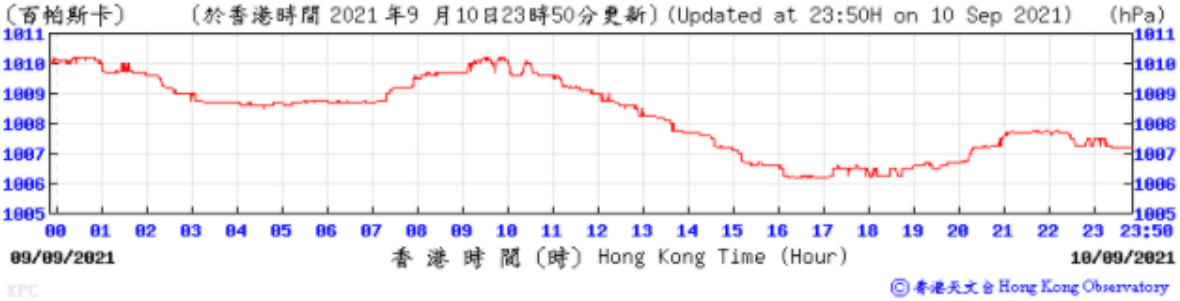

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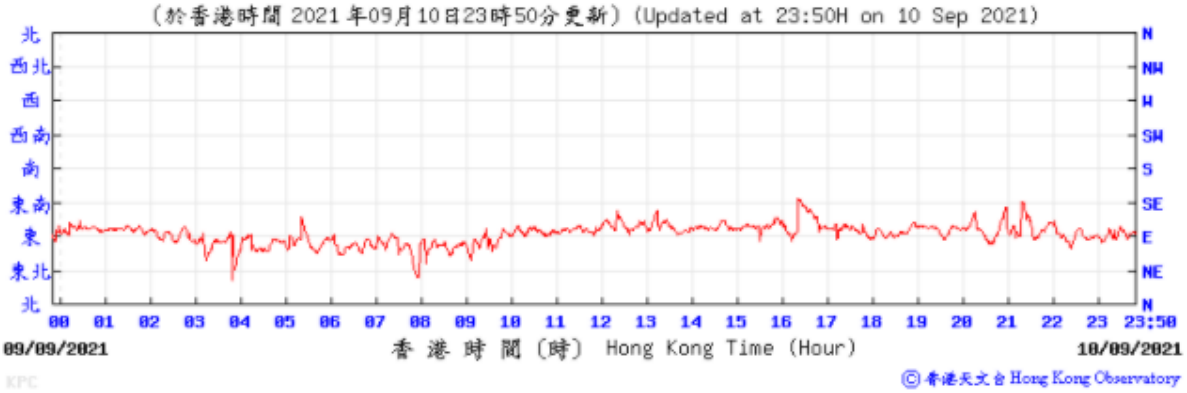

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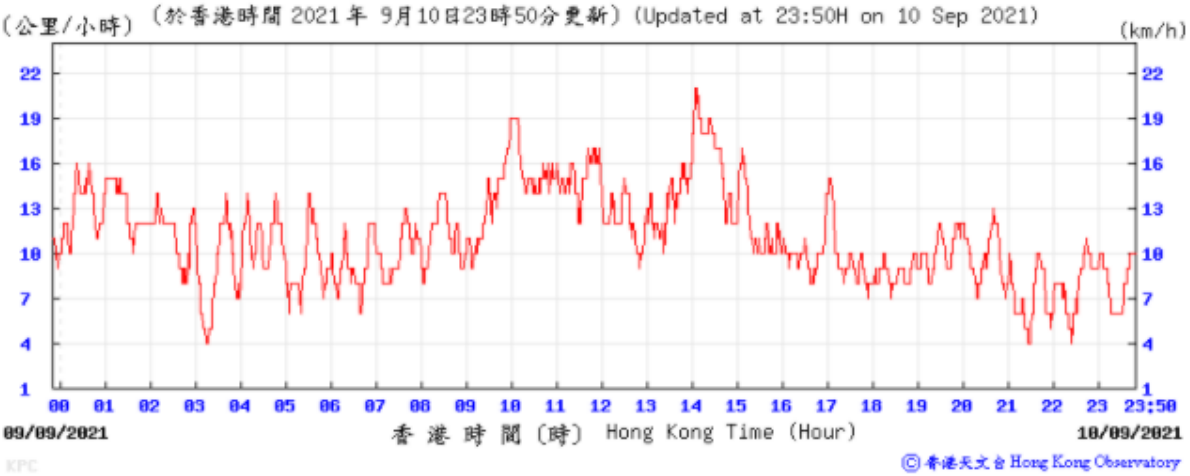

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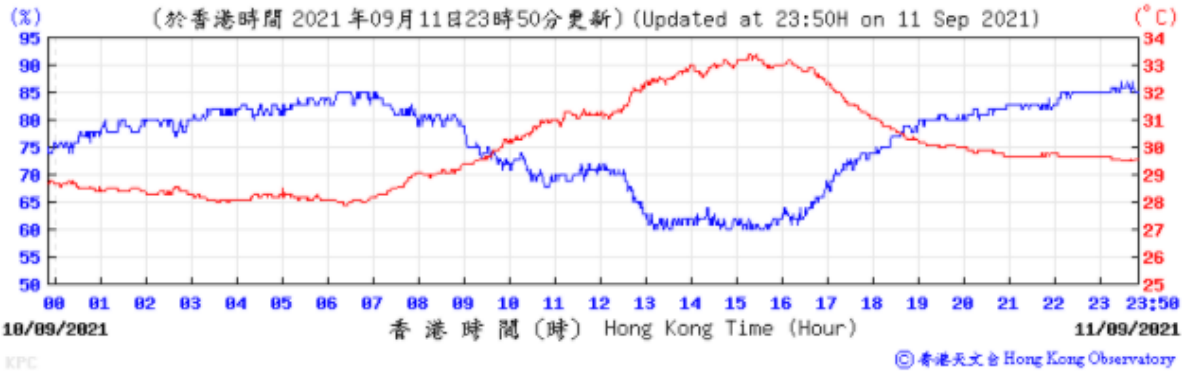

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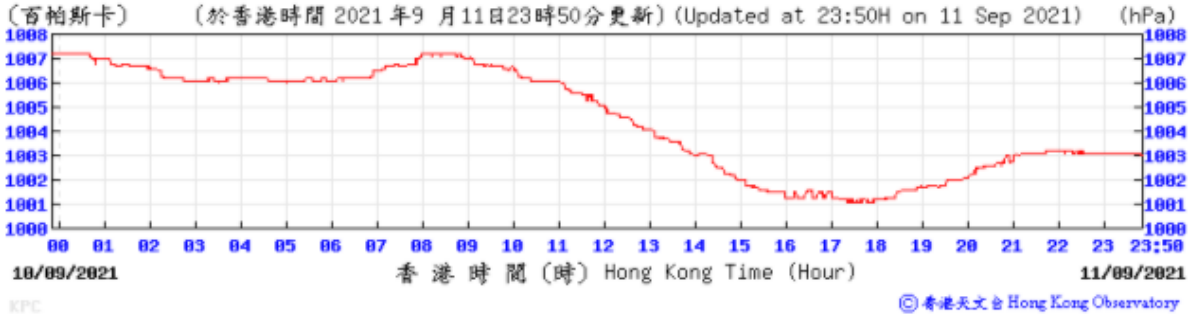

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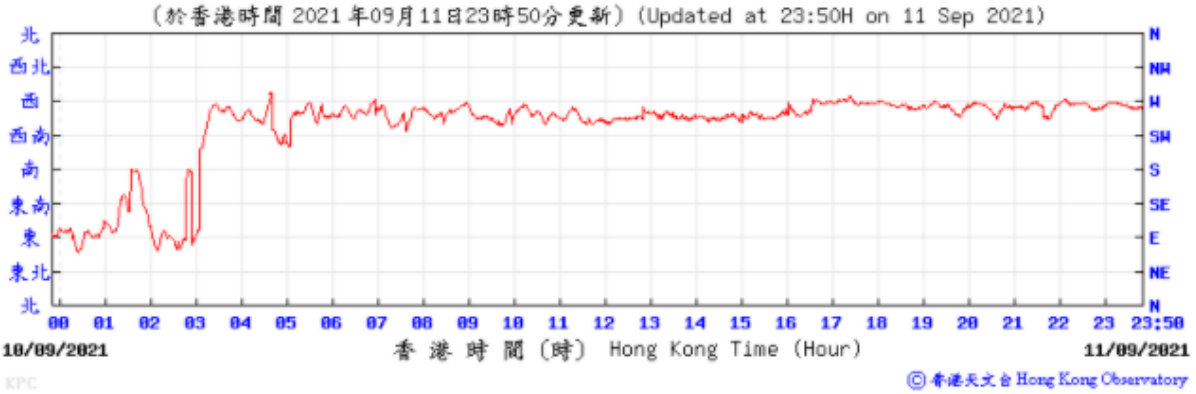

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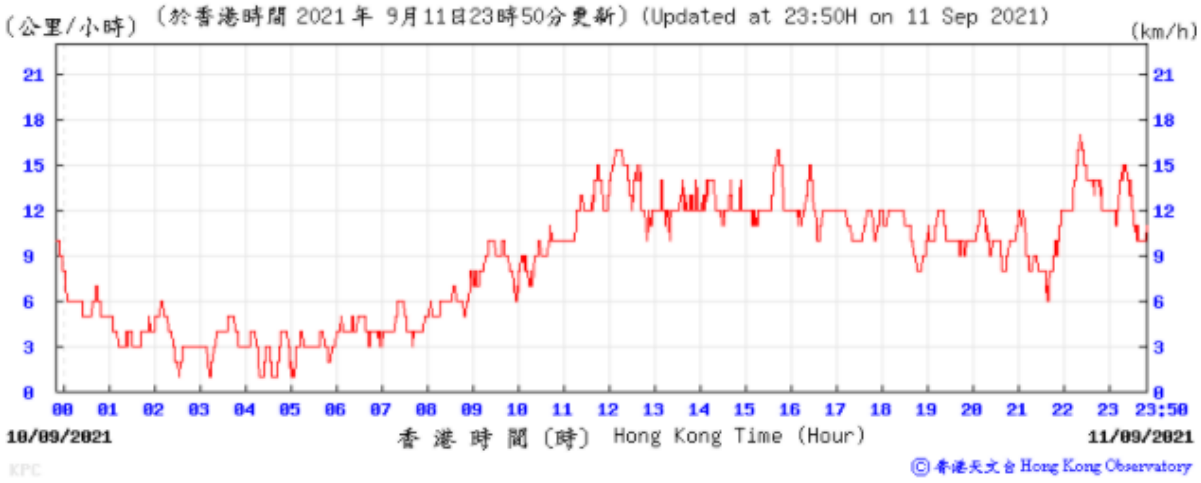

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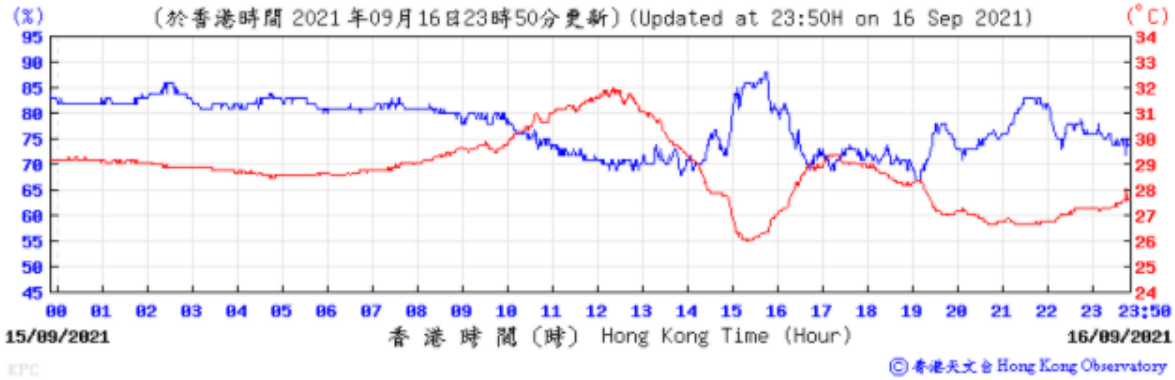

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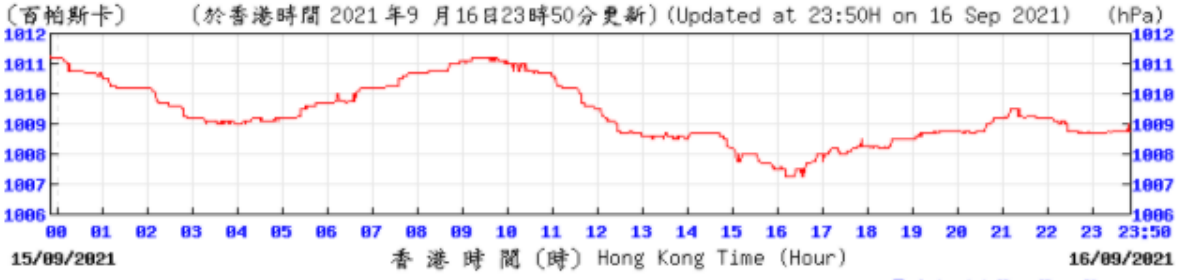

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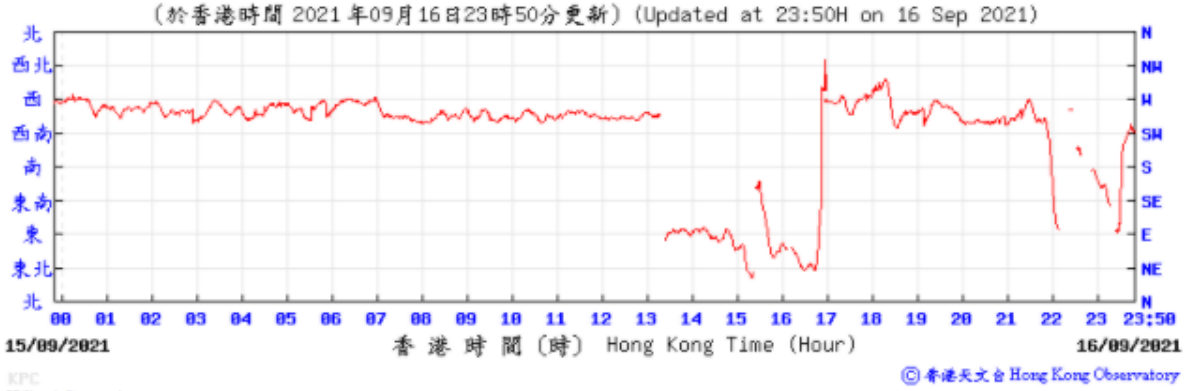

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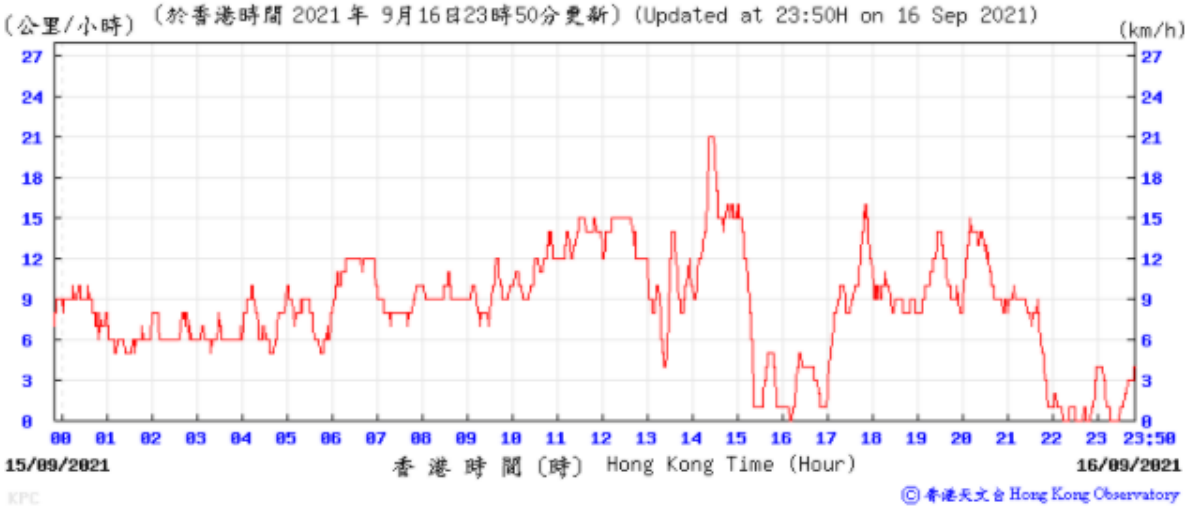

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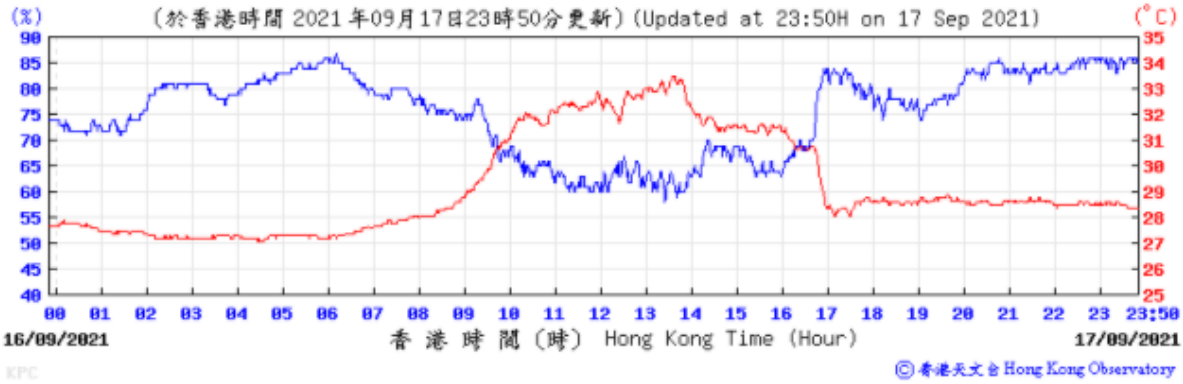

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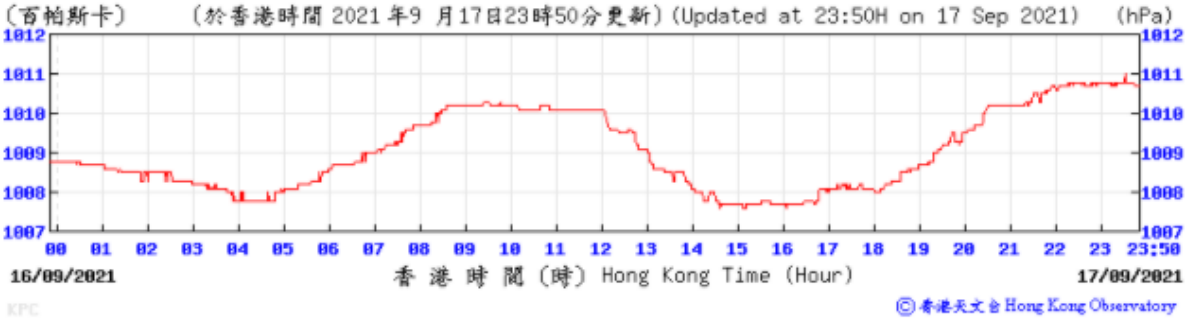

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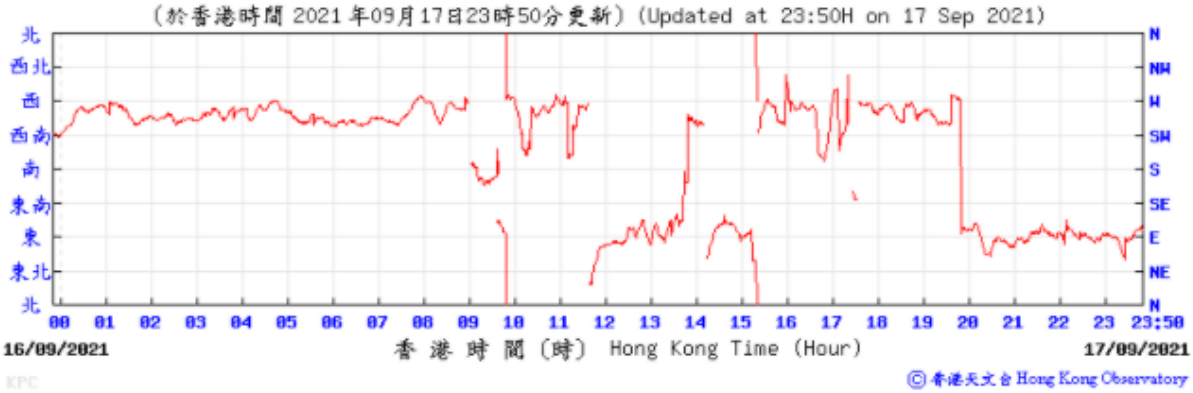

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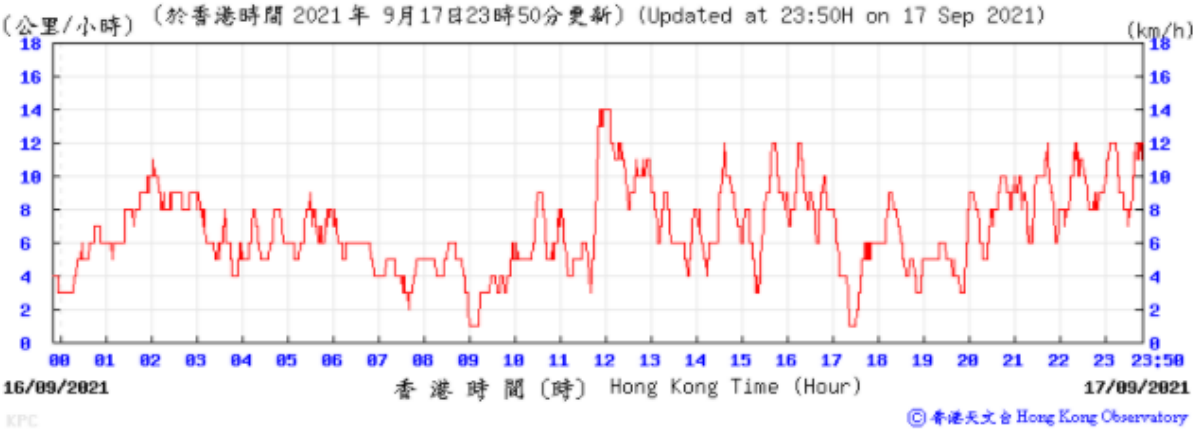

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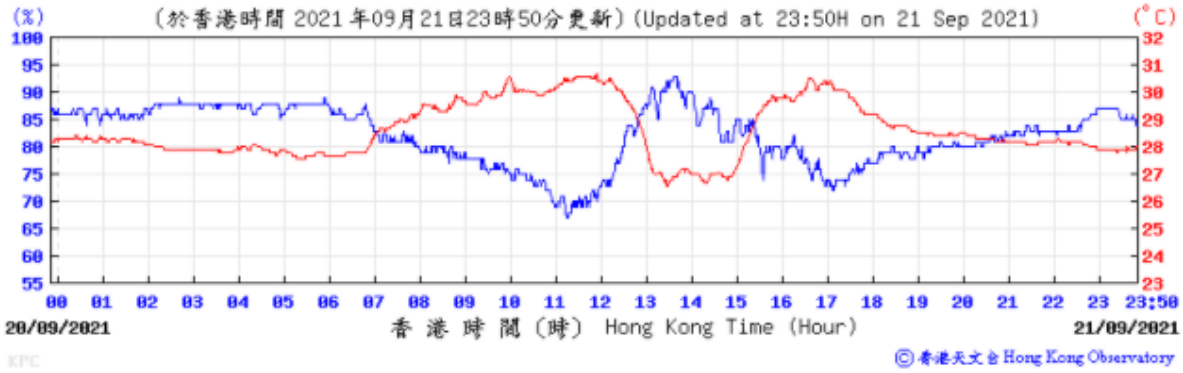

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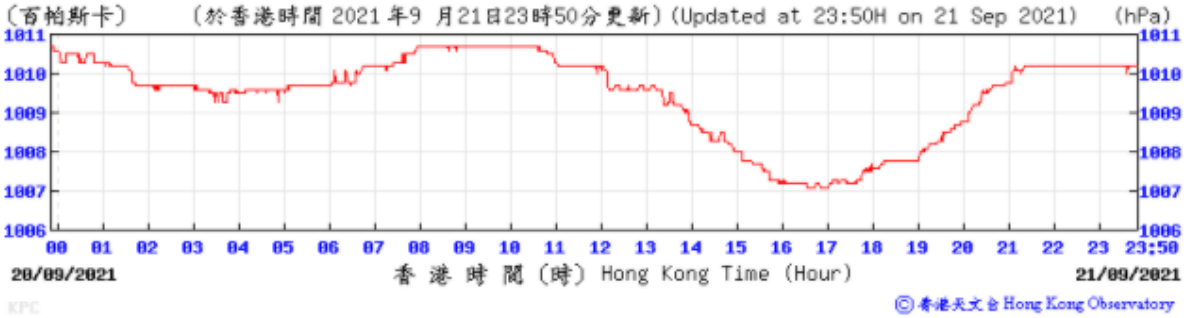

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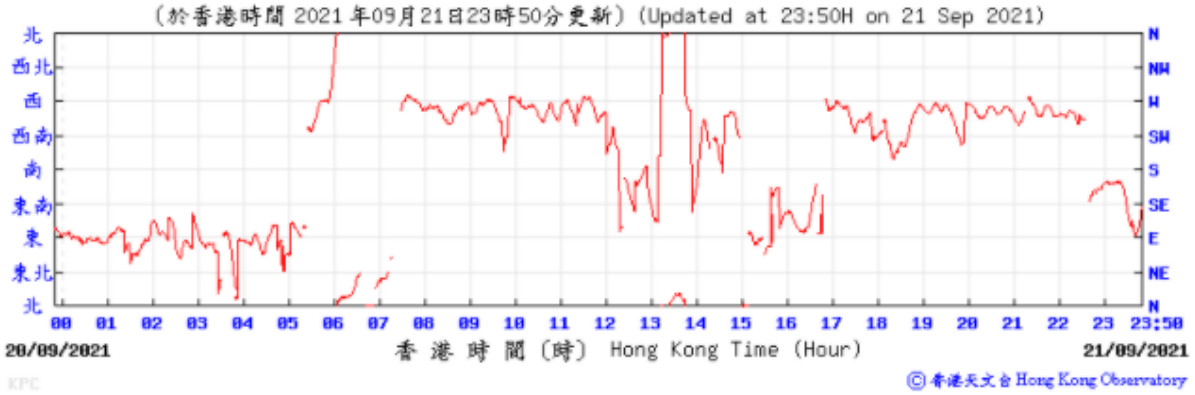

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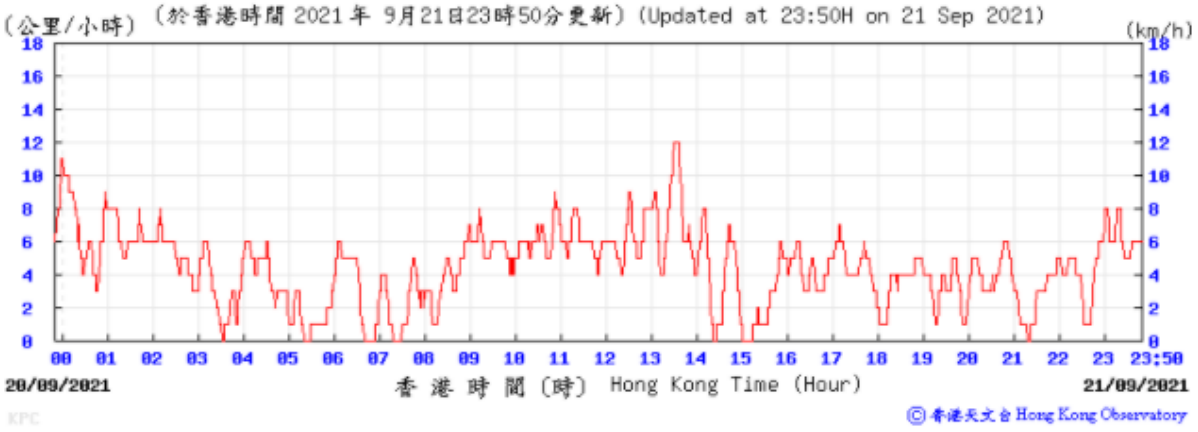

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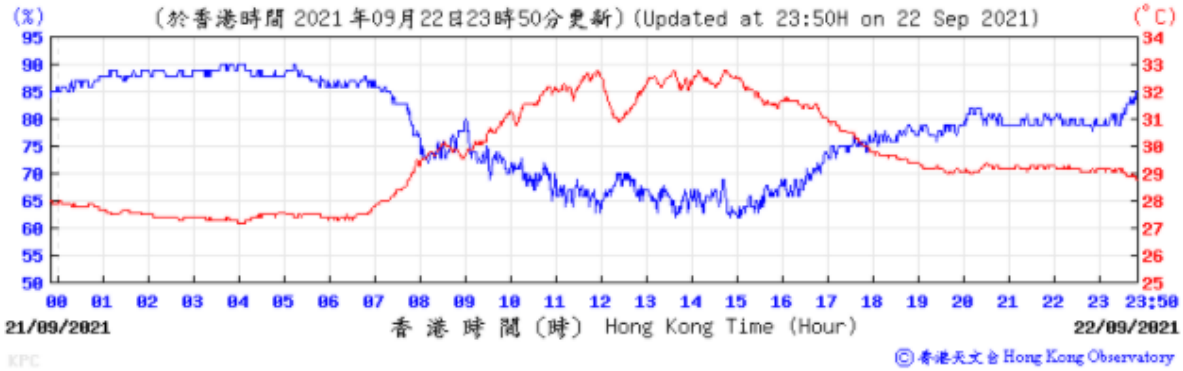

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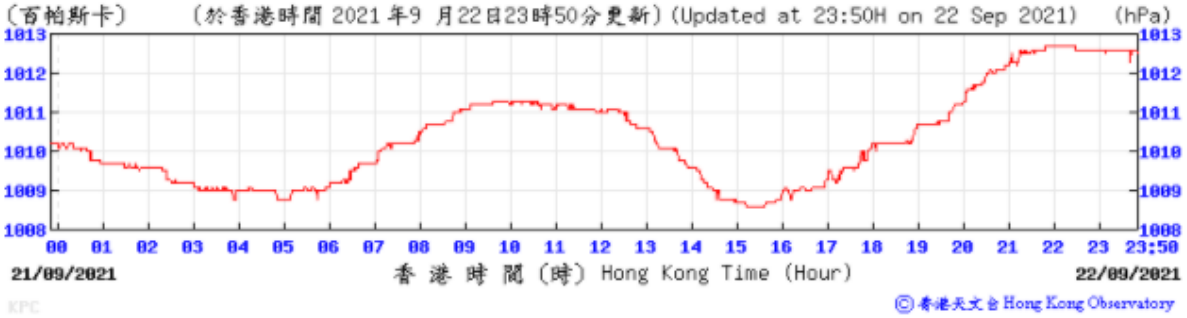

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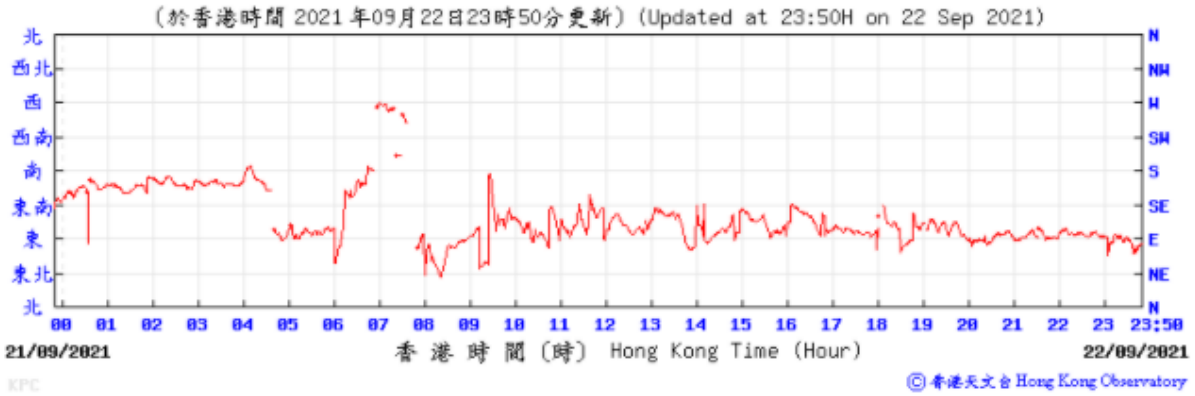

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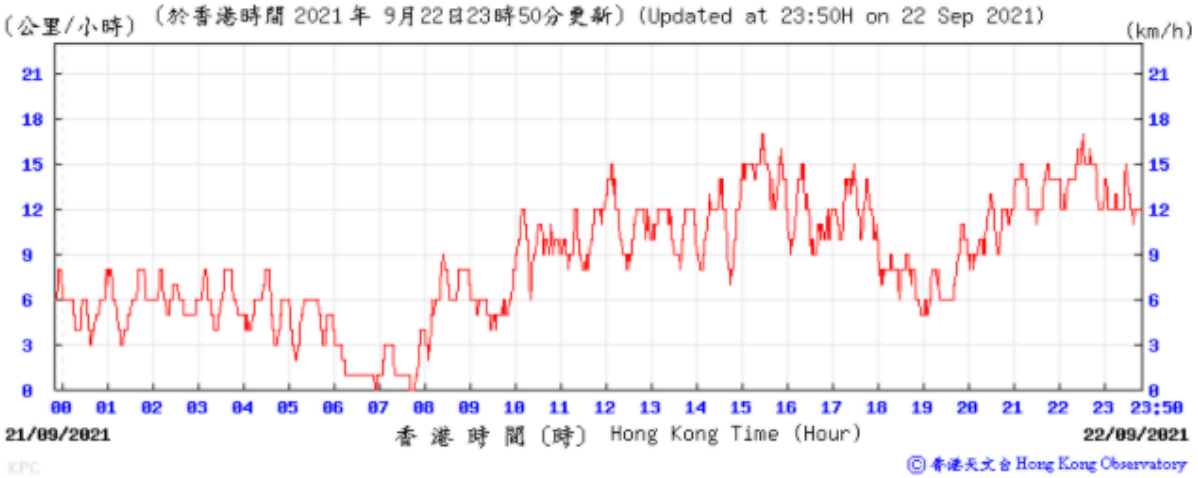

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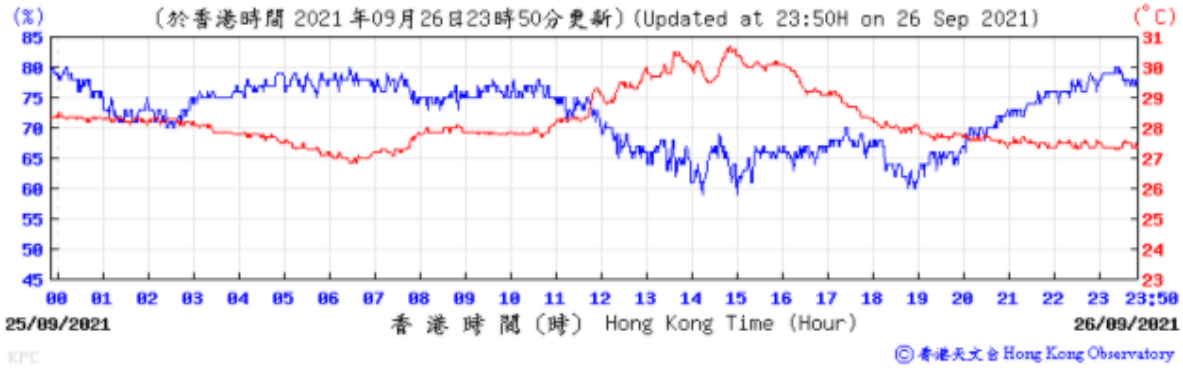

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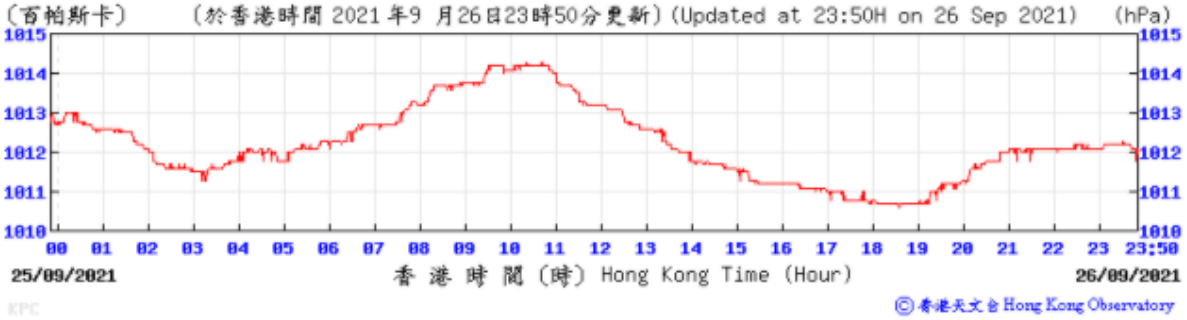

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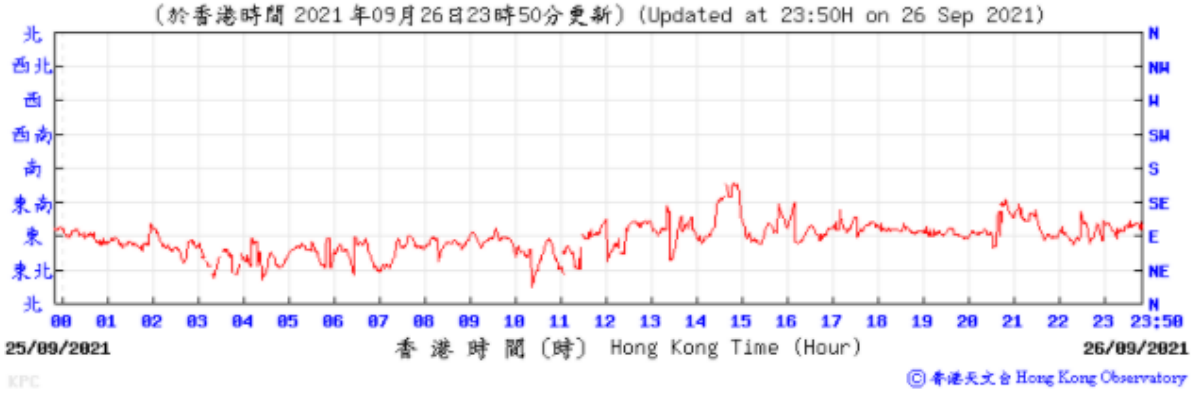

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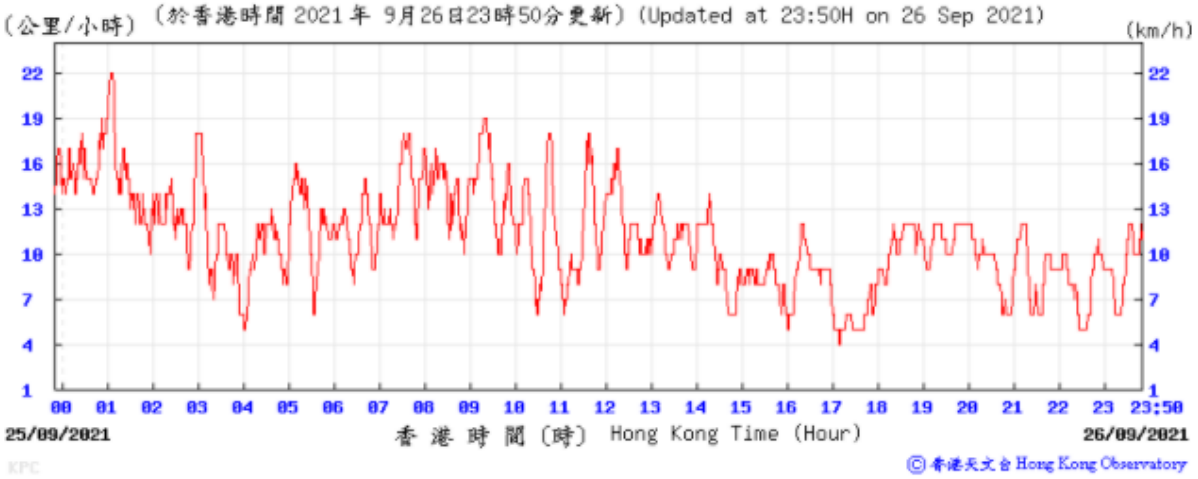

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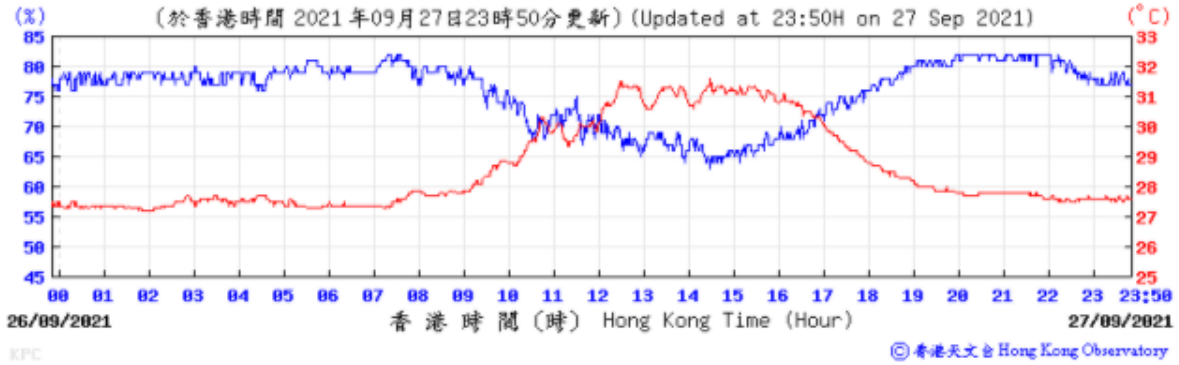

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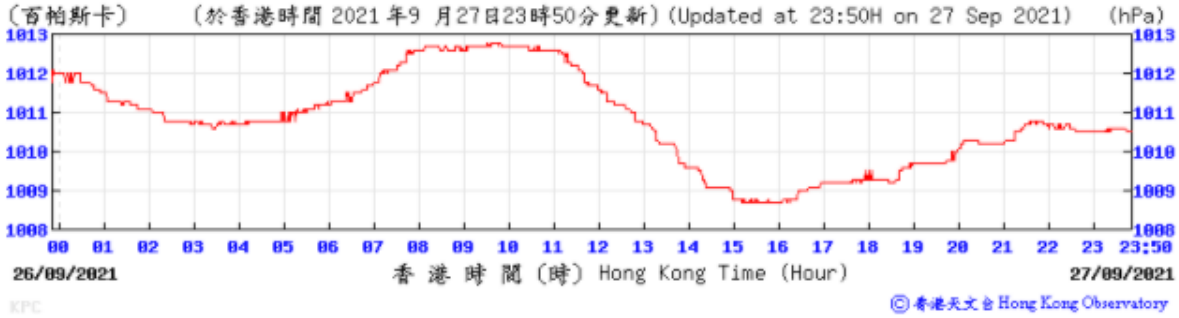

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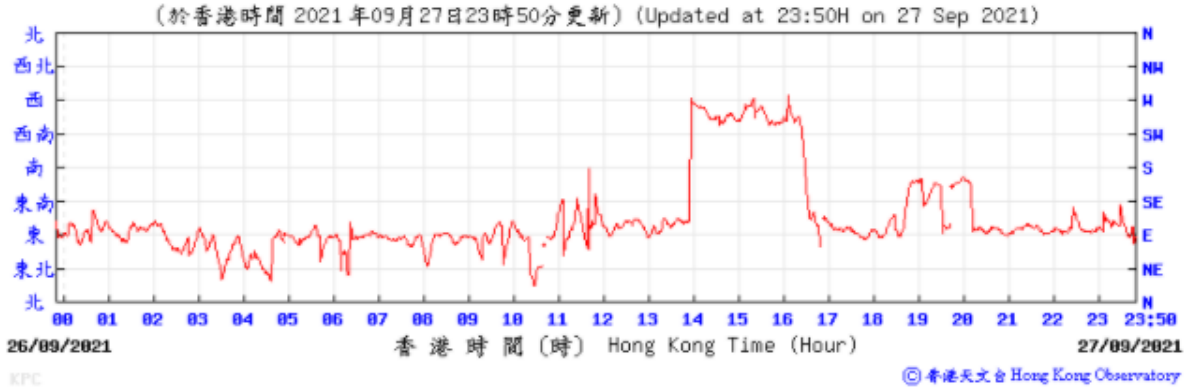

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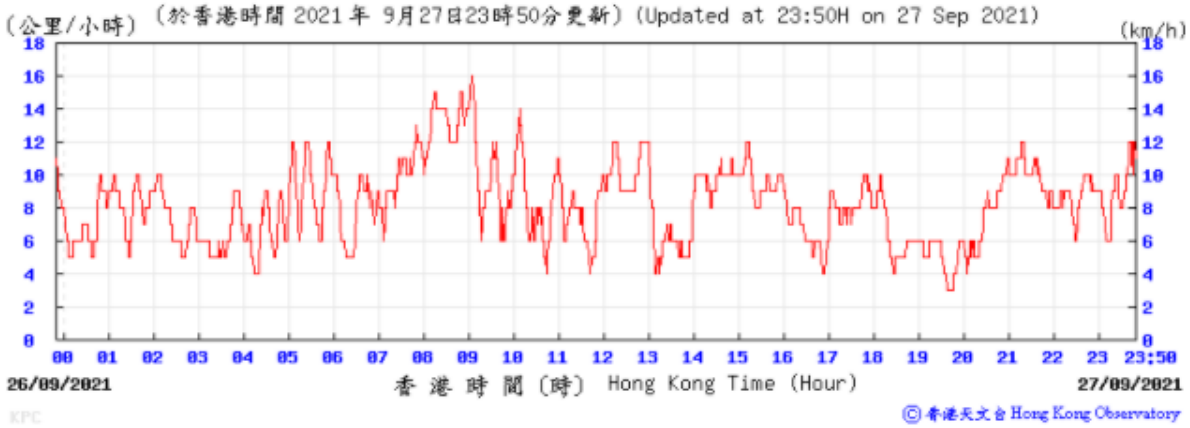

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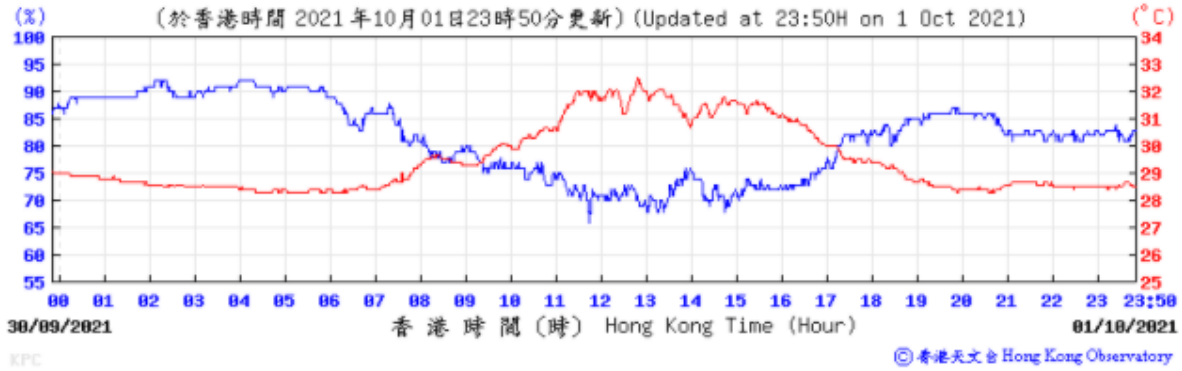

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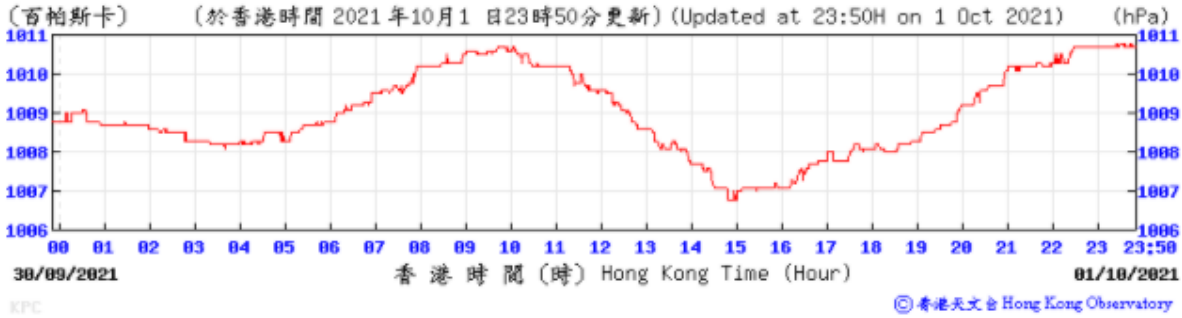

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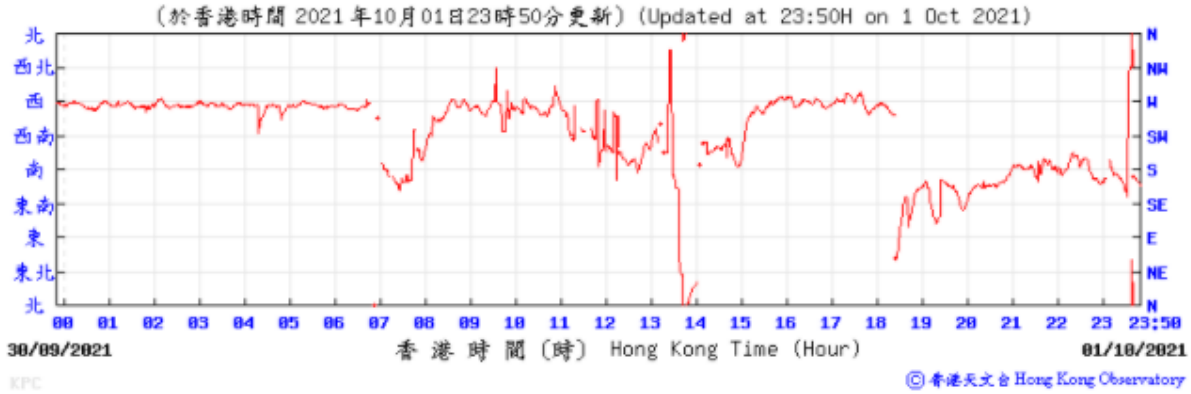

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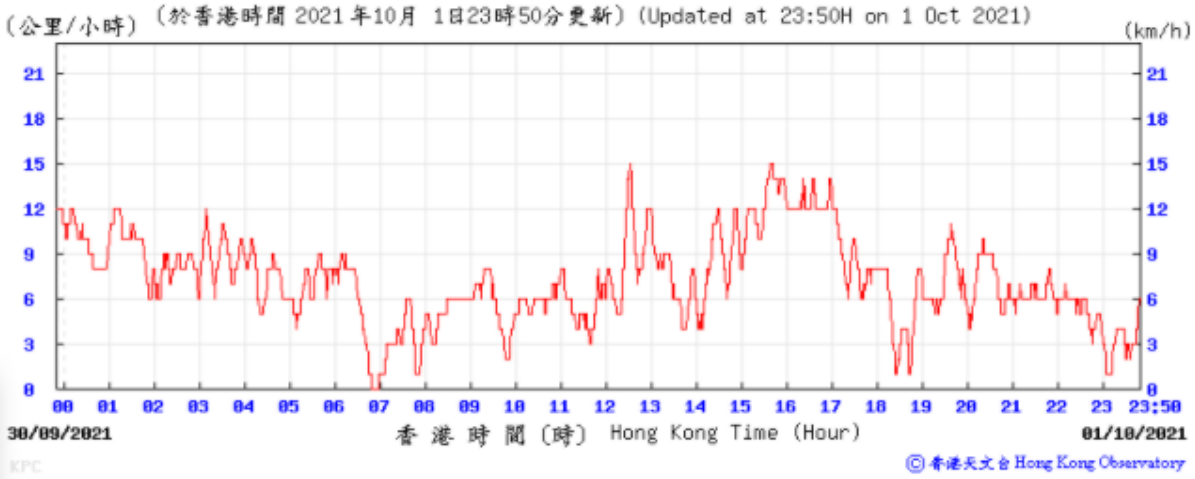

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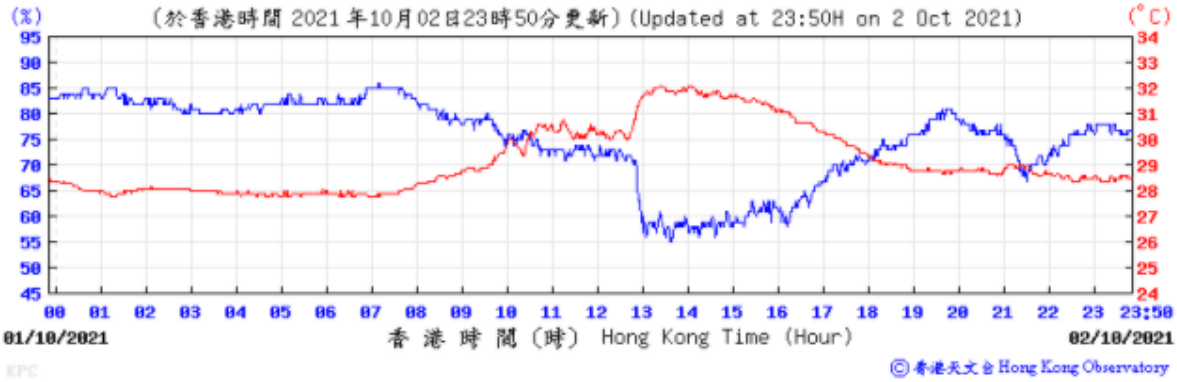

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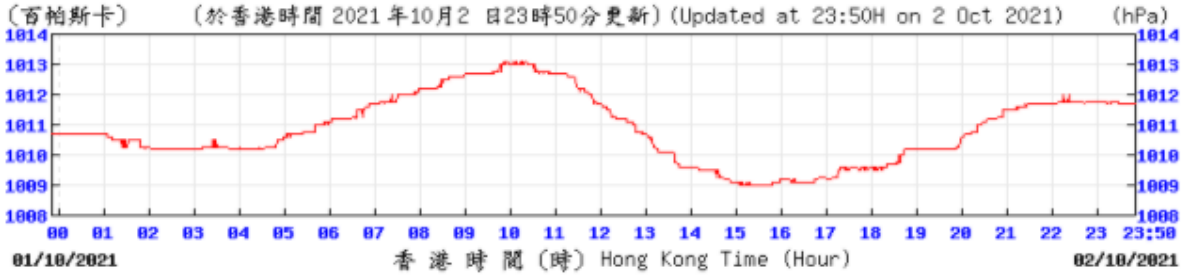
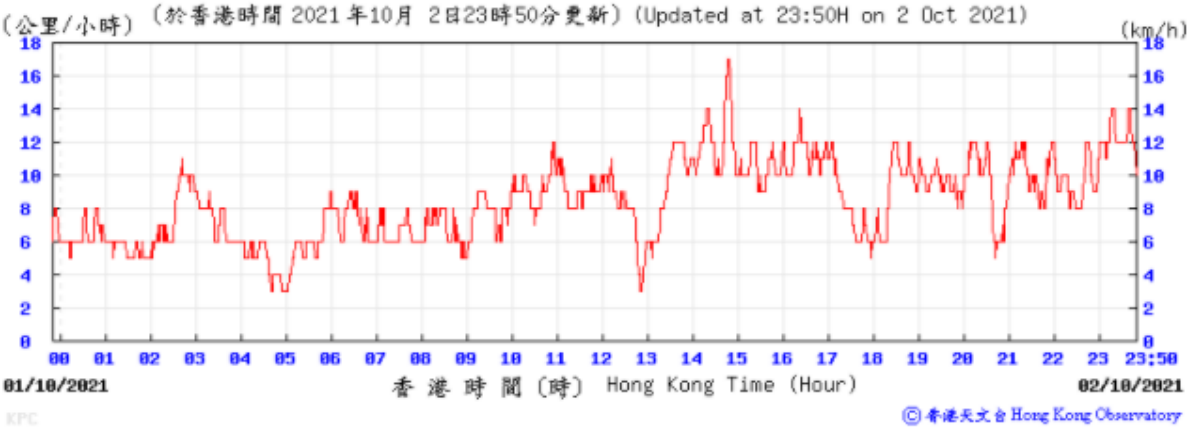


Wind Direction:

Wind Speed:



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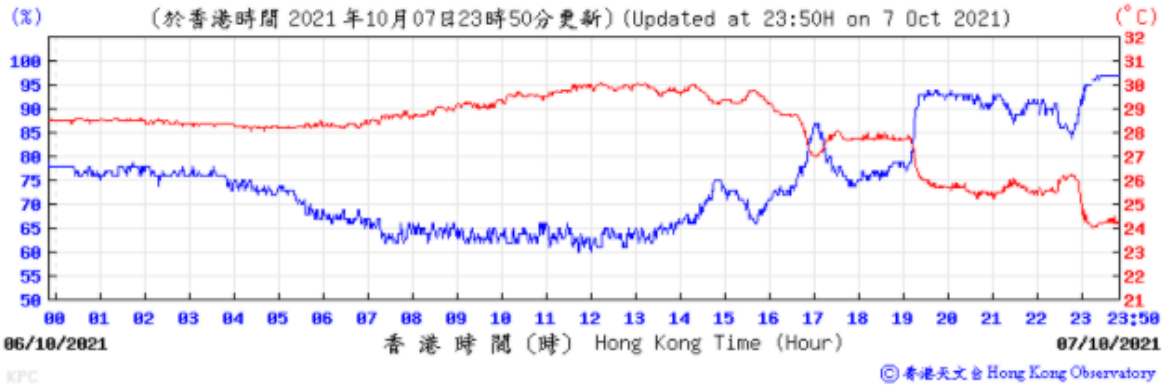

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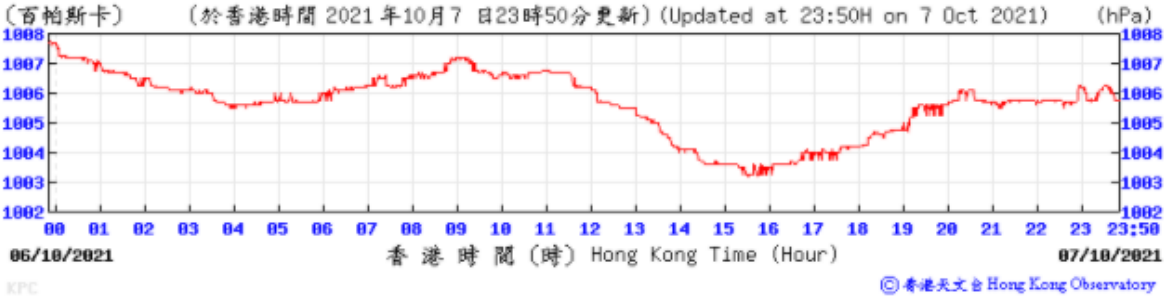

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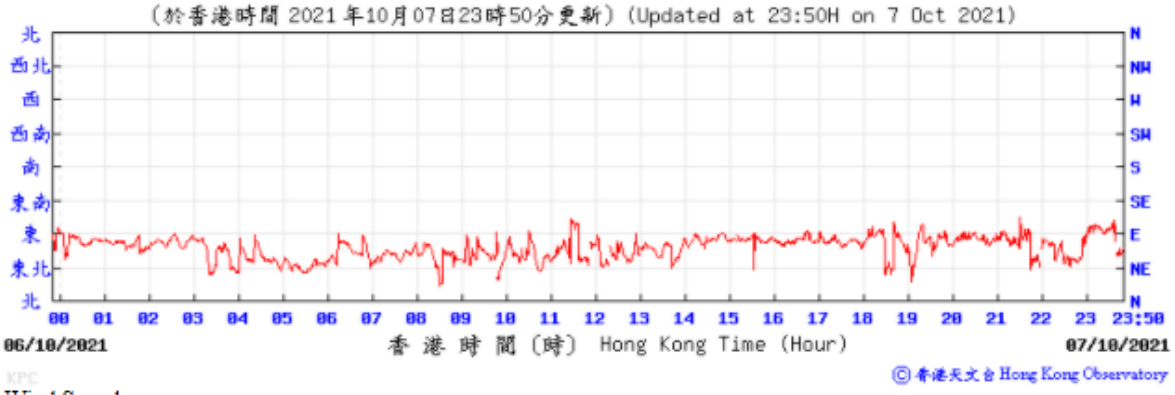

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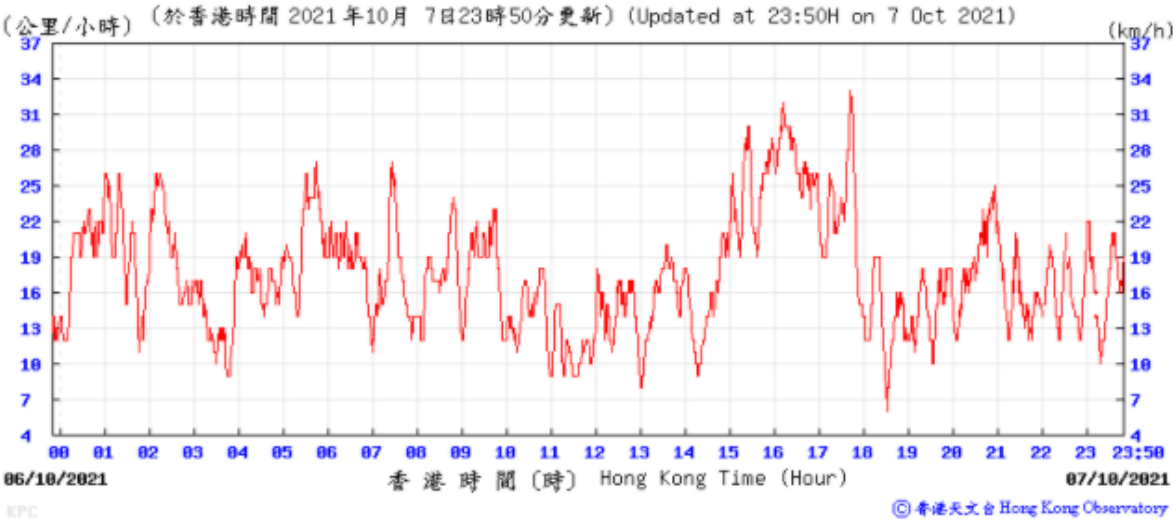

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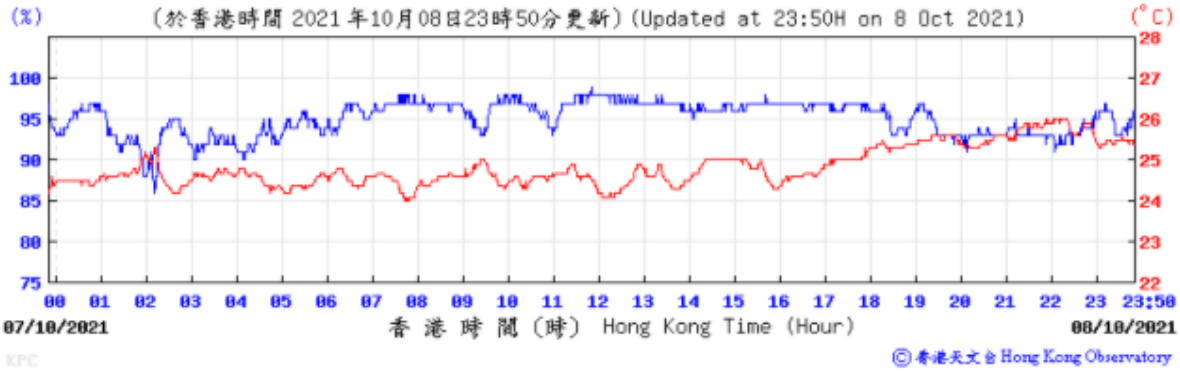
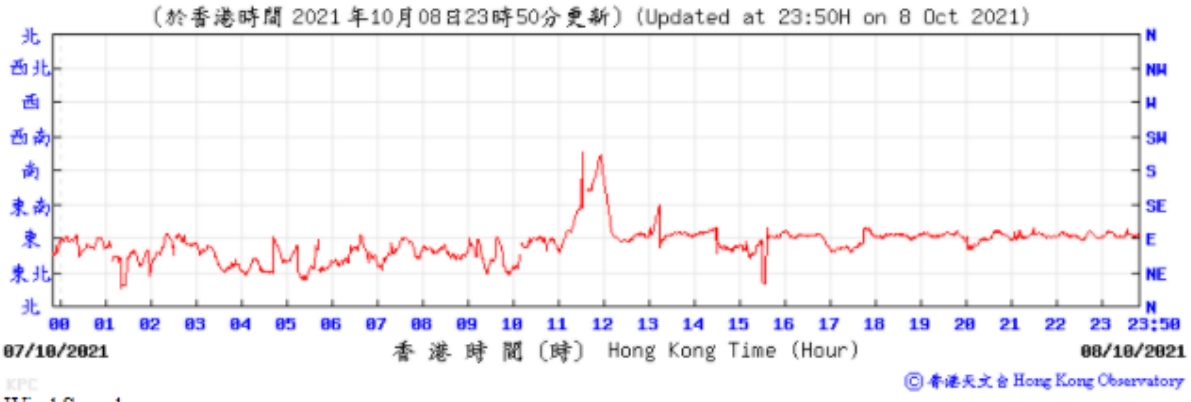


Pressure:

Wind Direction:



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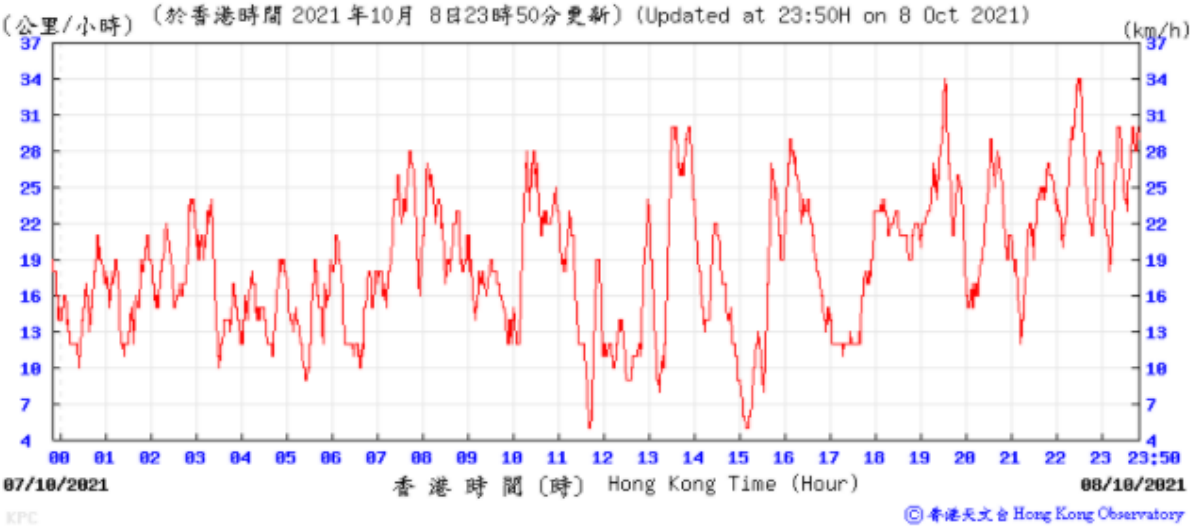

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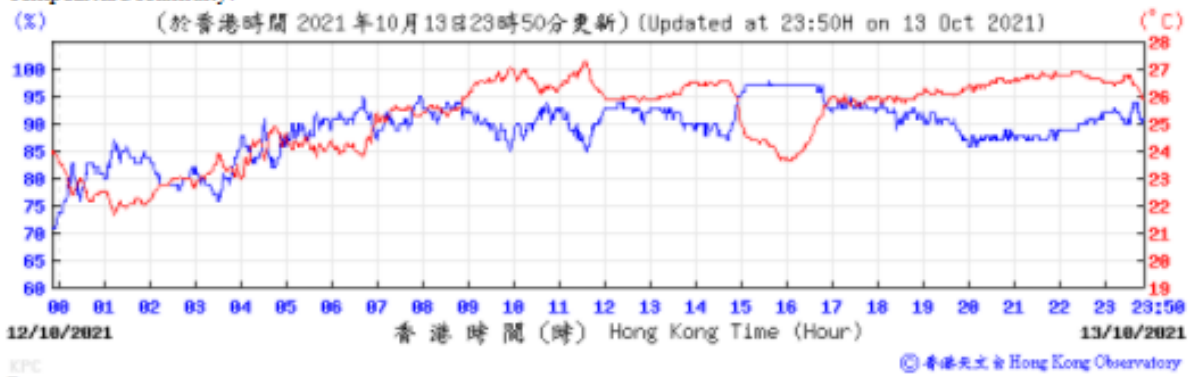

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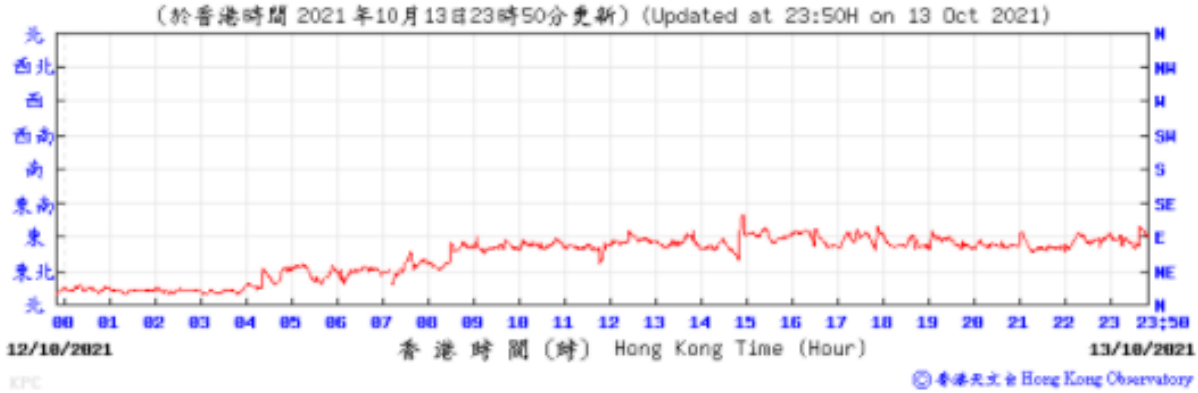

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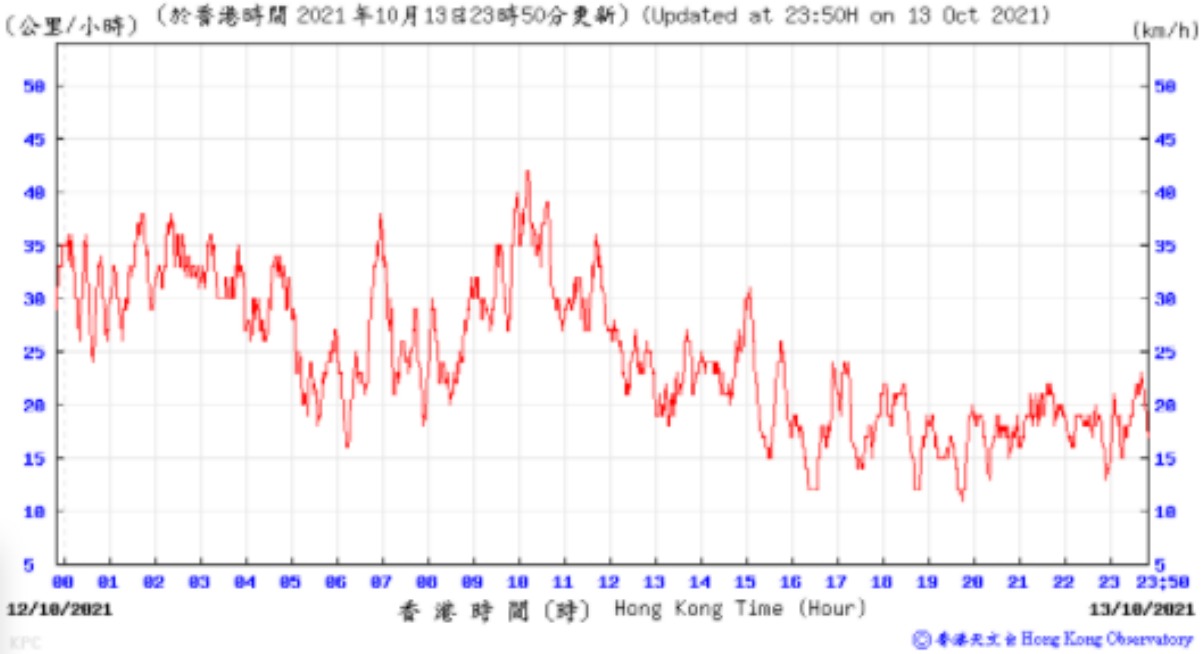

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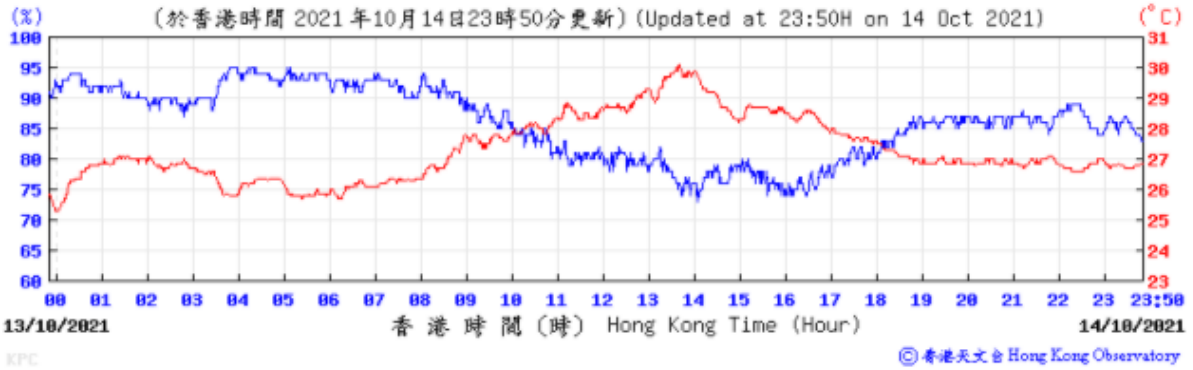

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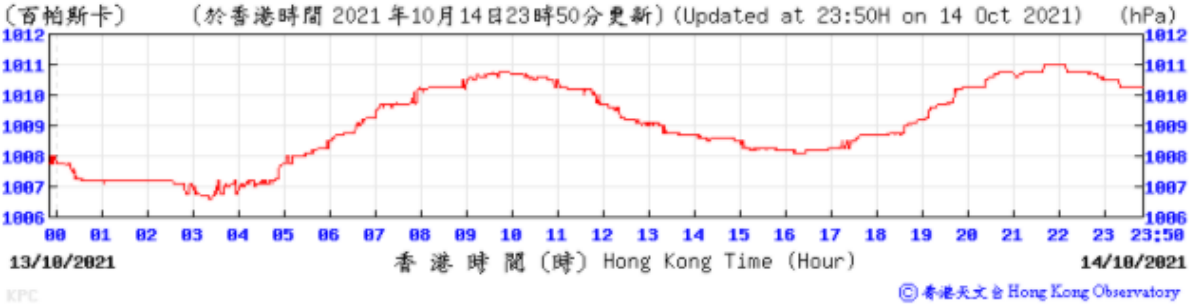

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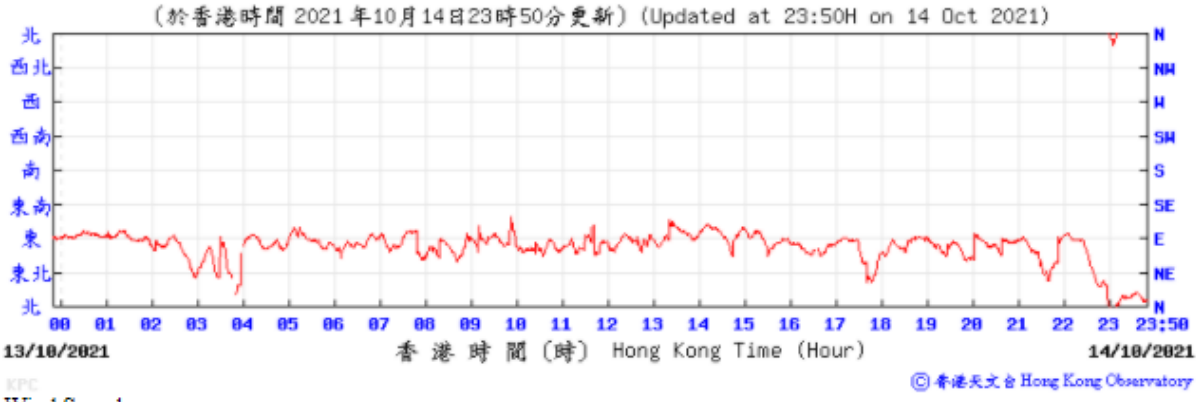

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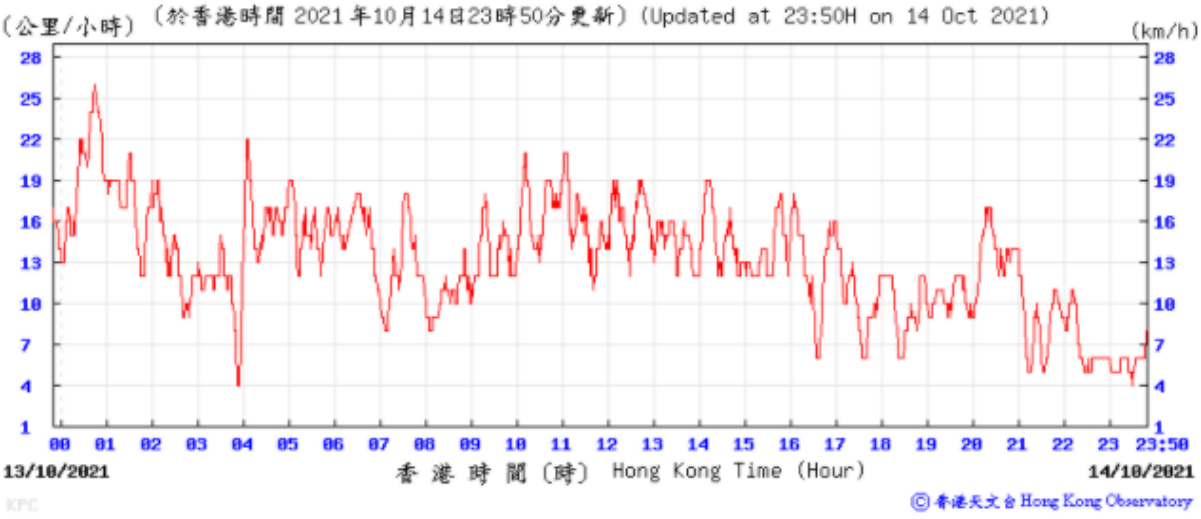

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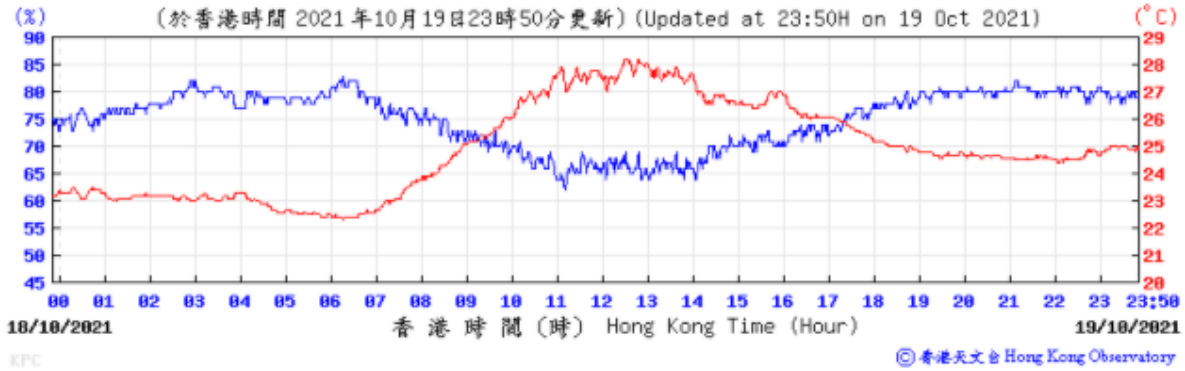

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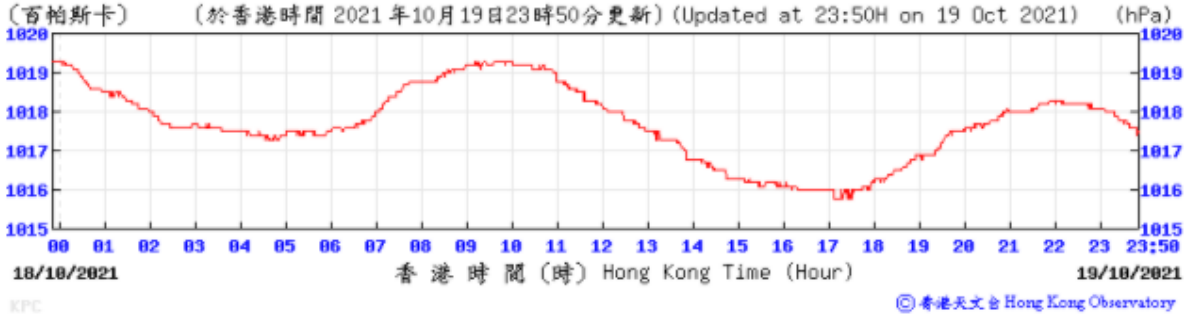

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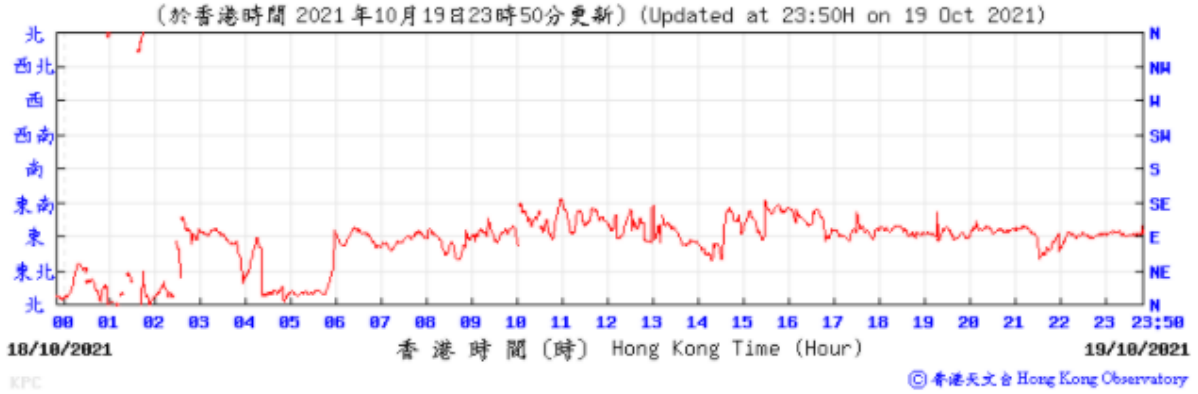

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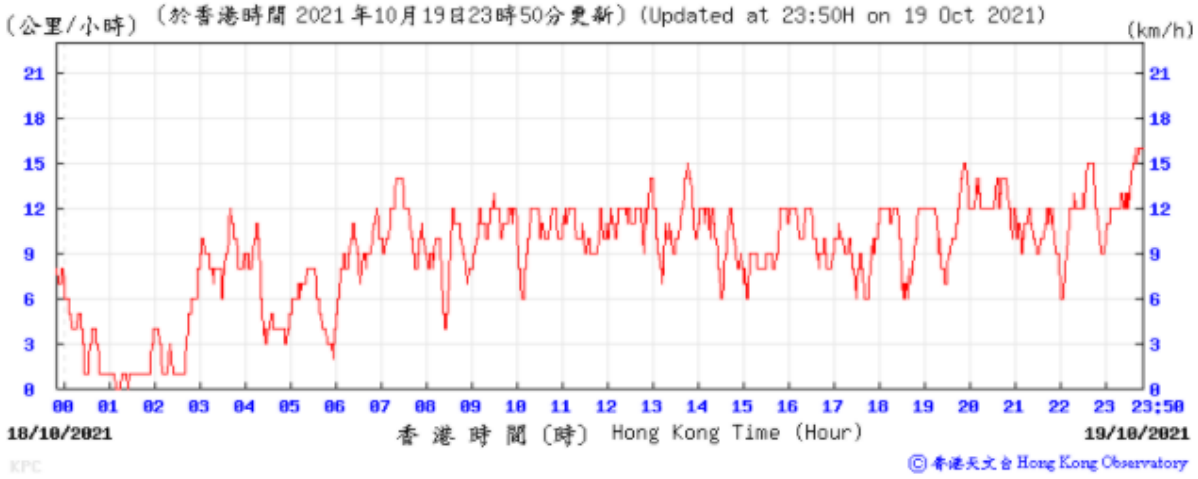

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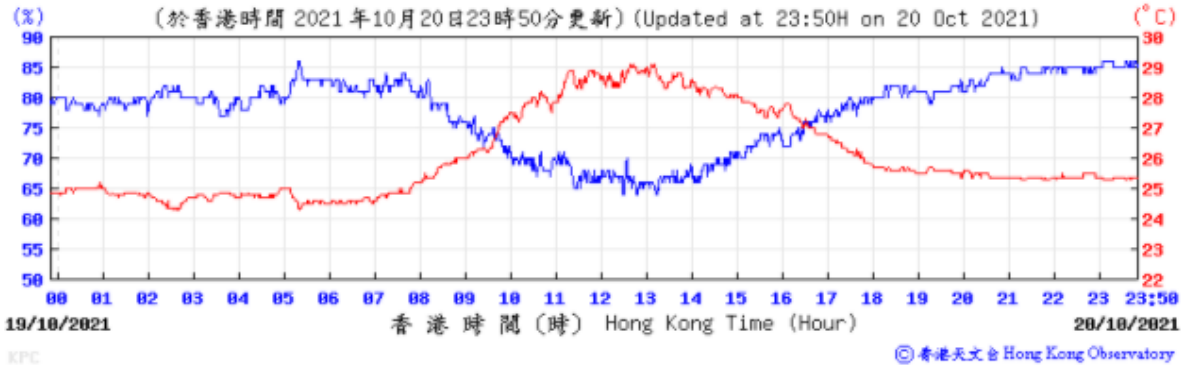

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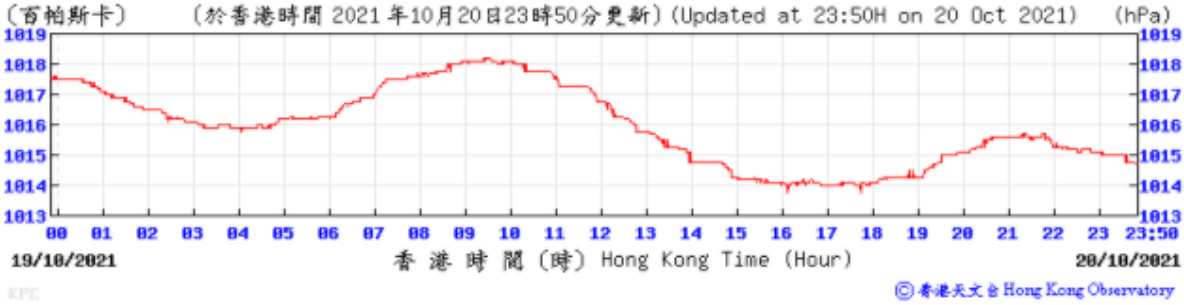

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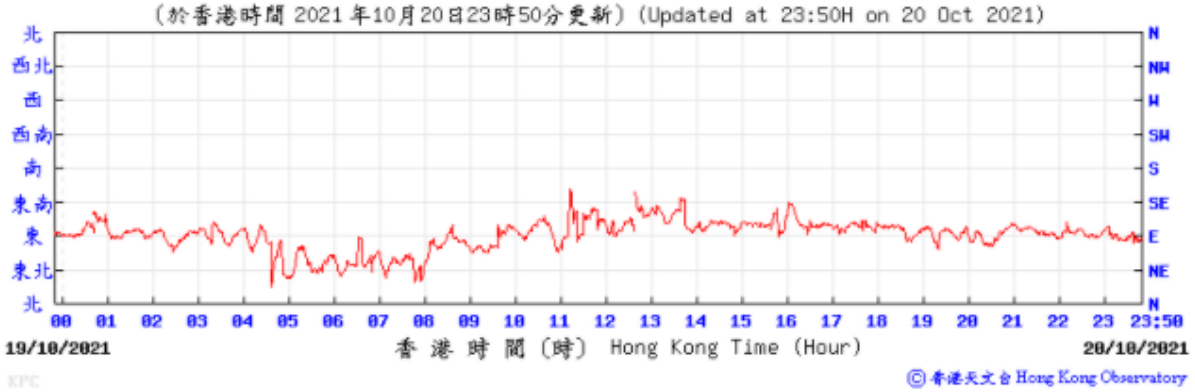

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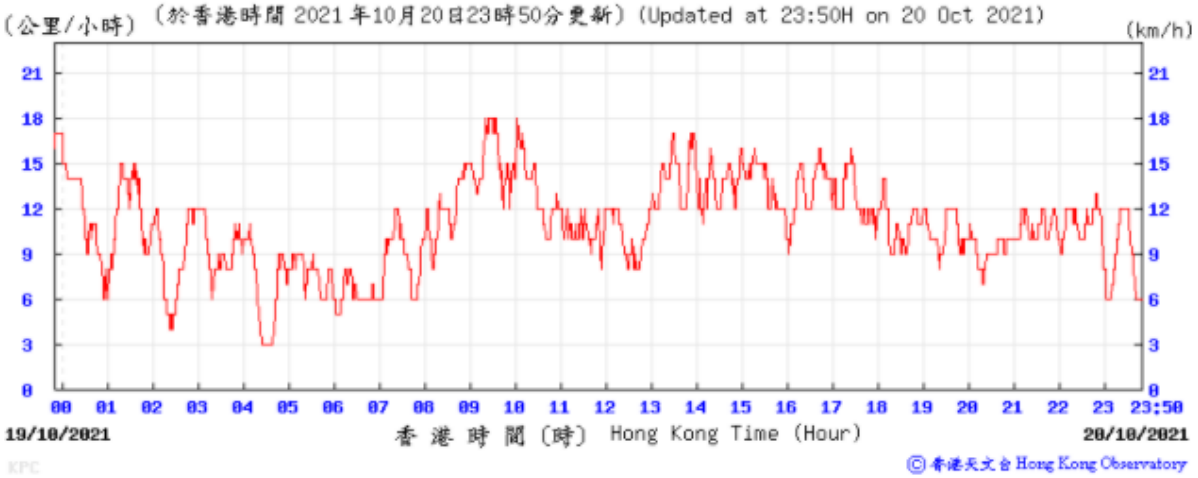

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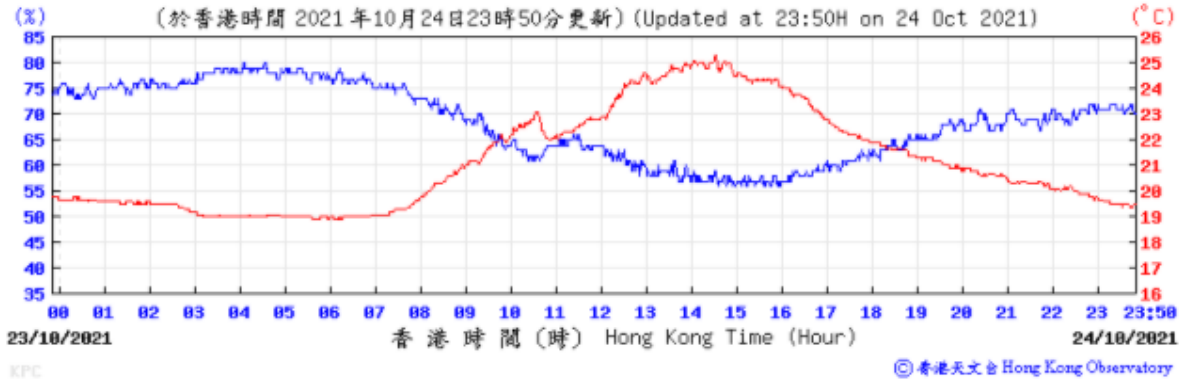

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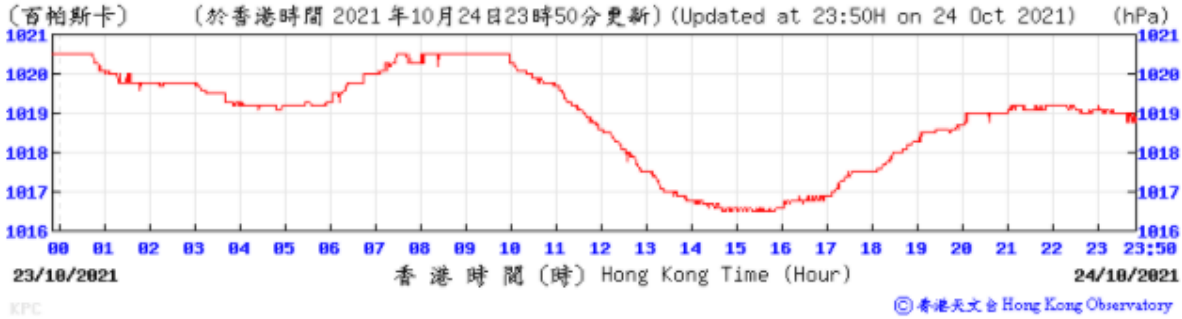

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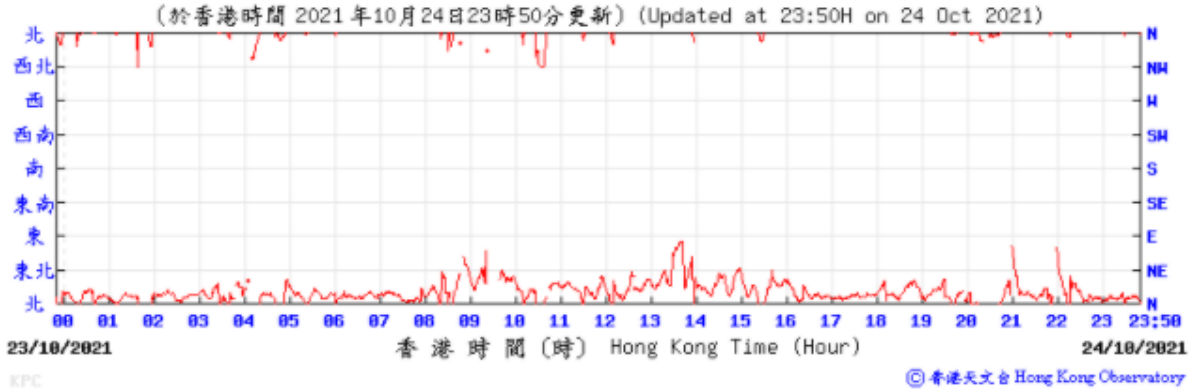

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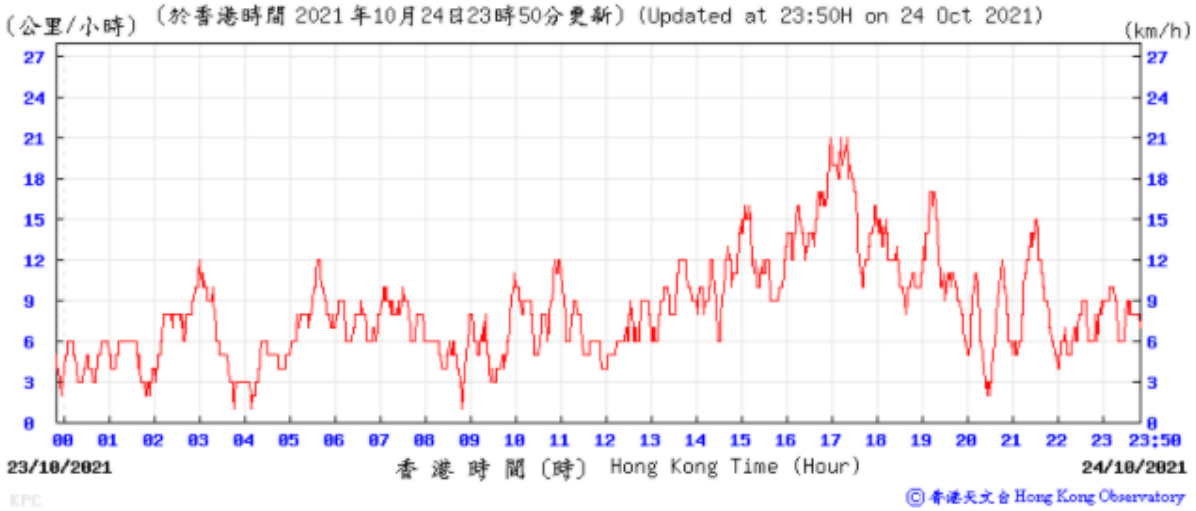

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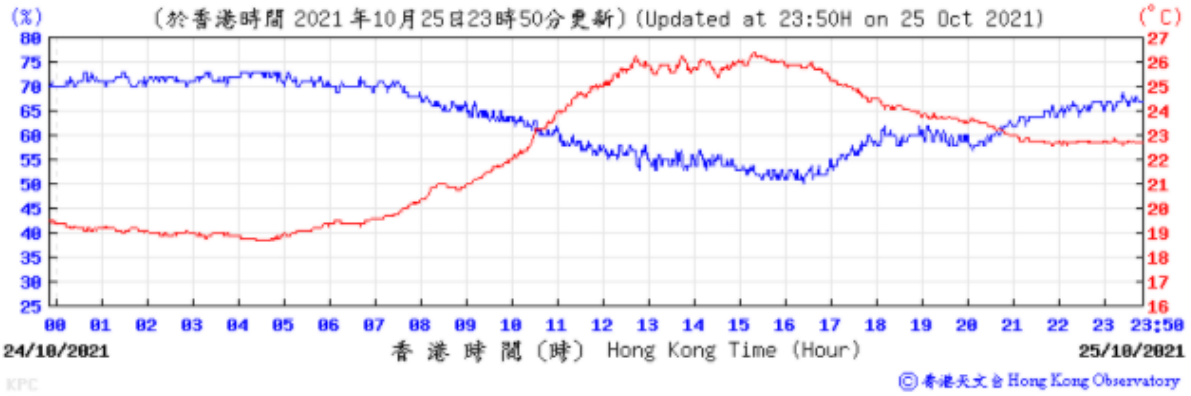

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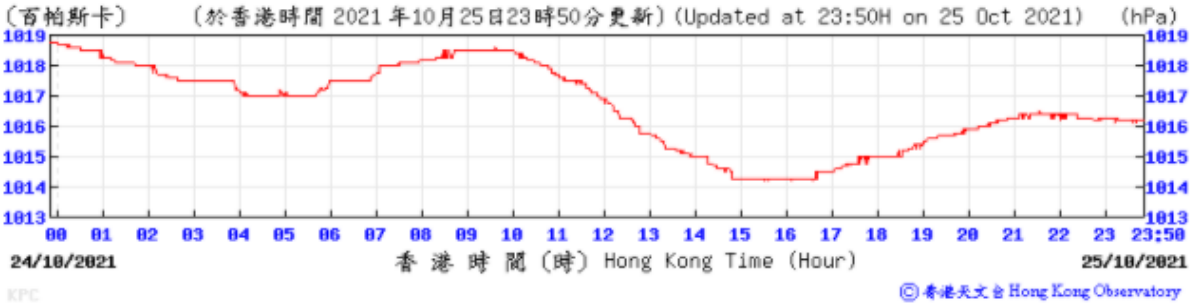

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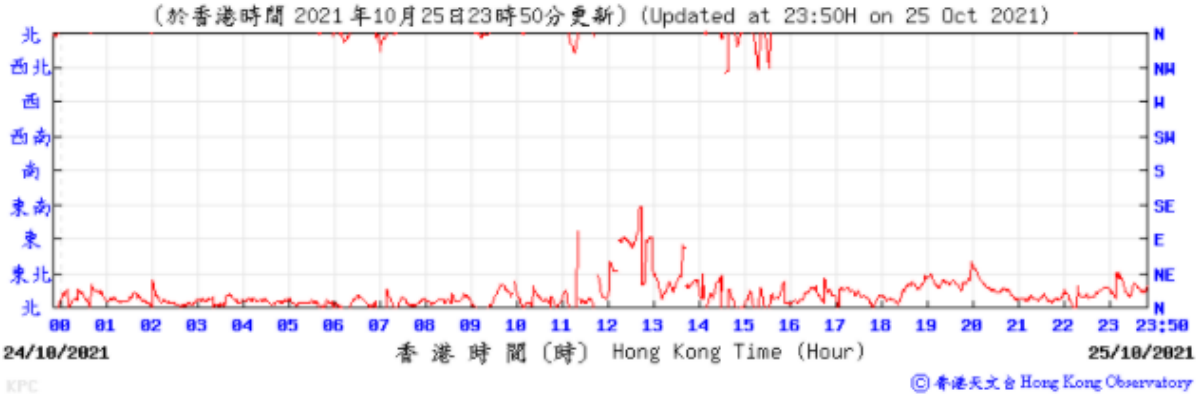

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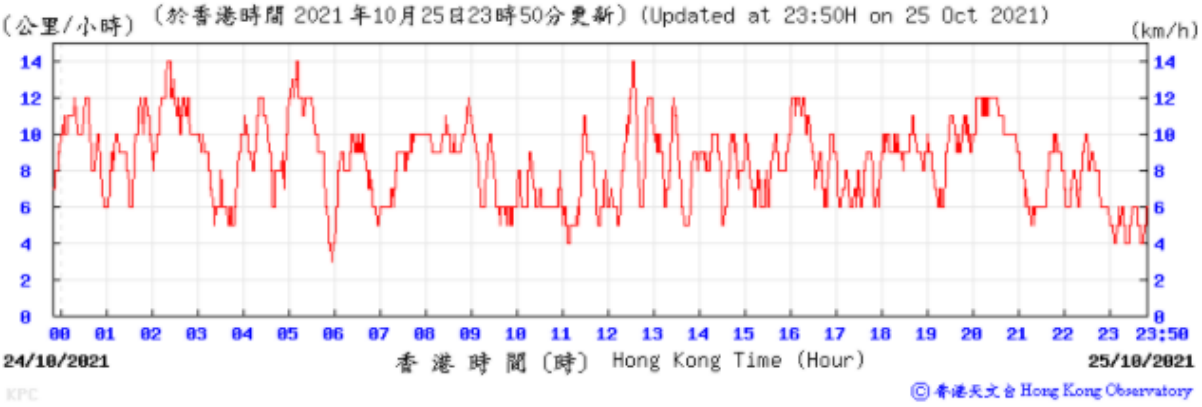

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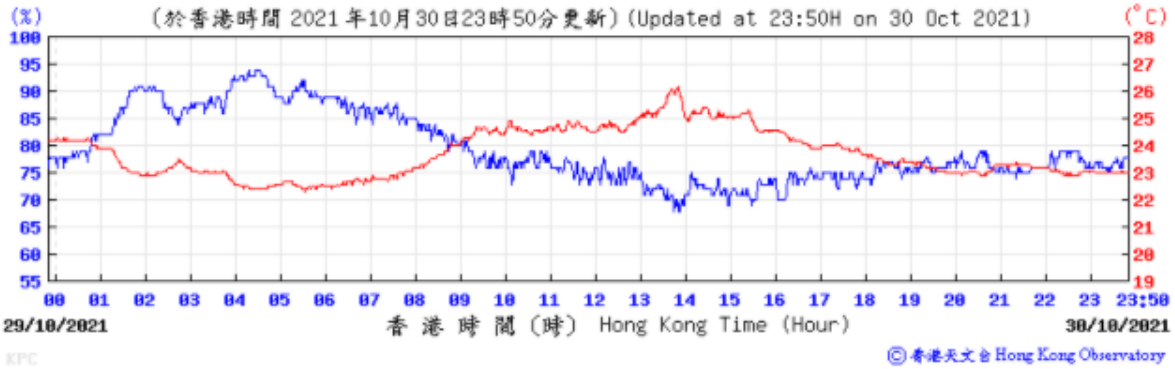

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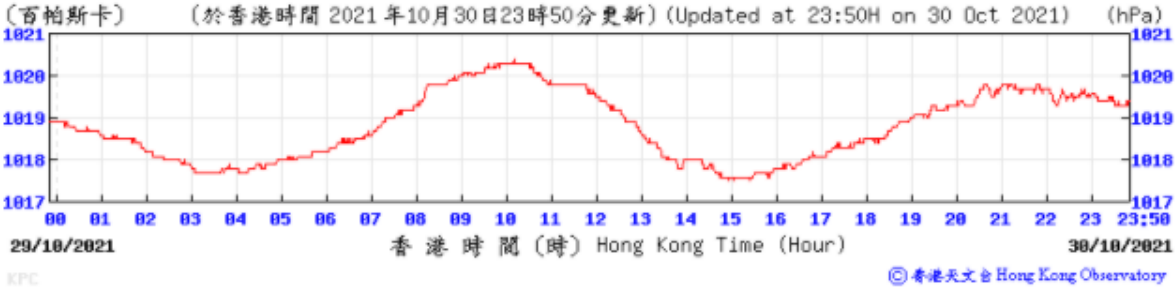

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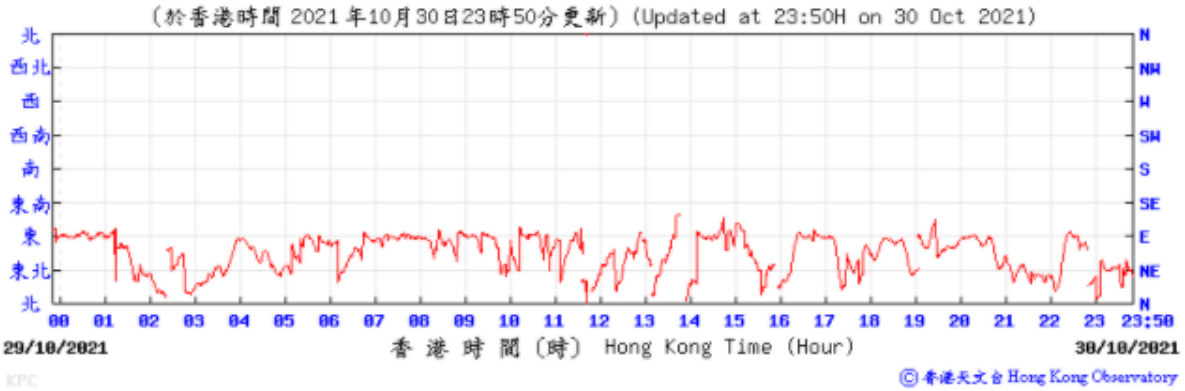

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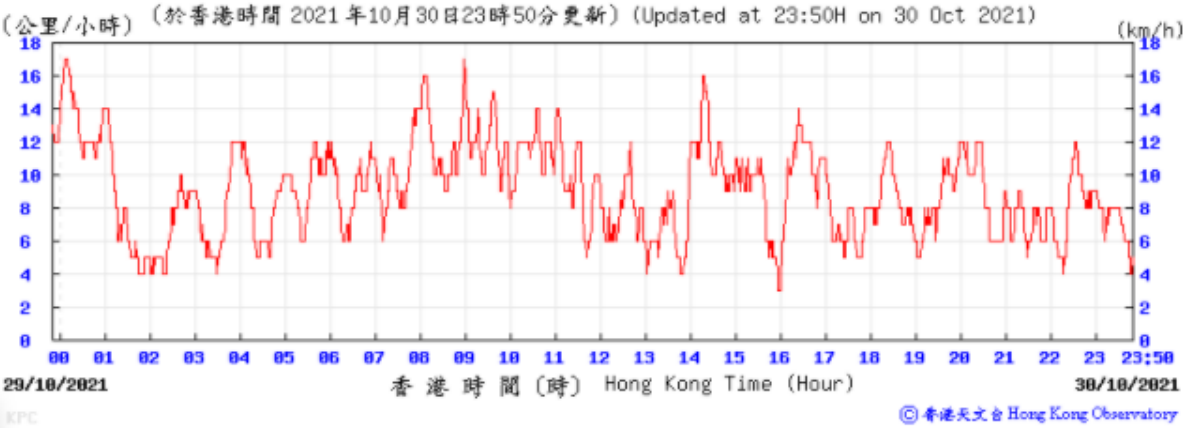

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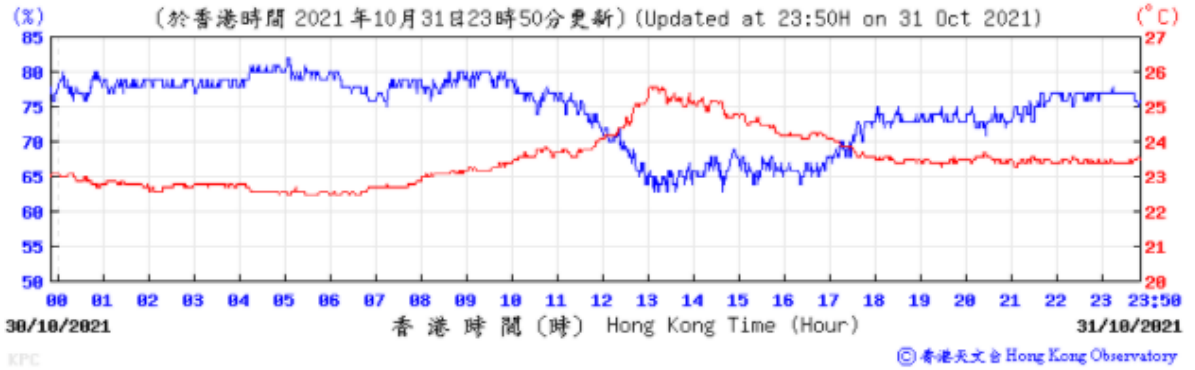

Pressure:

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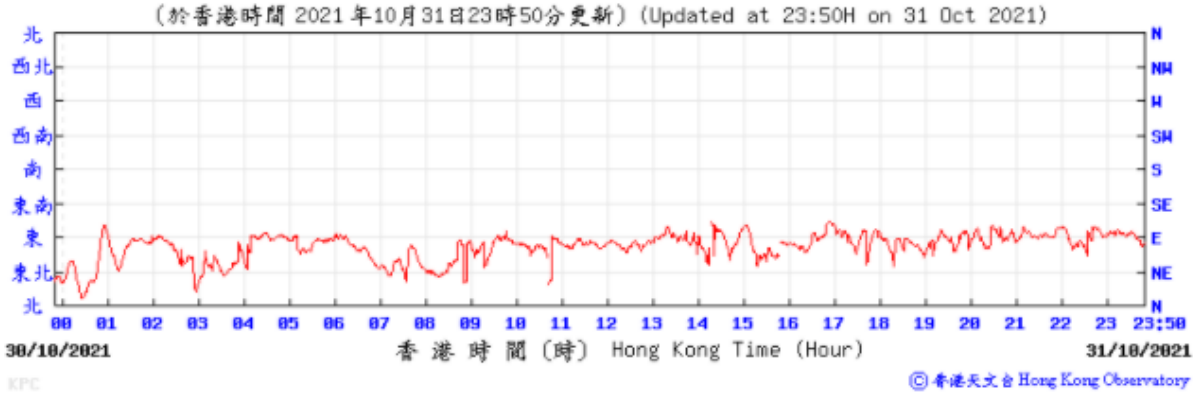

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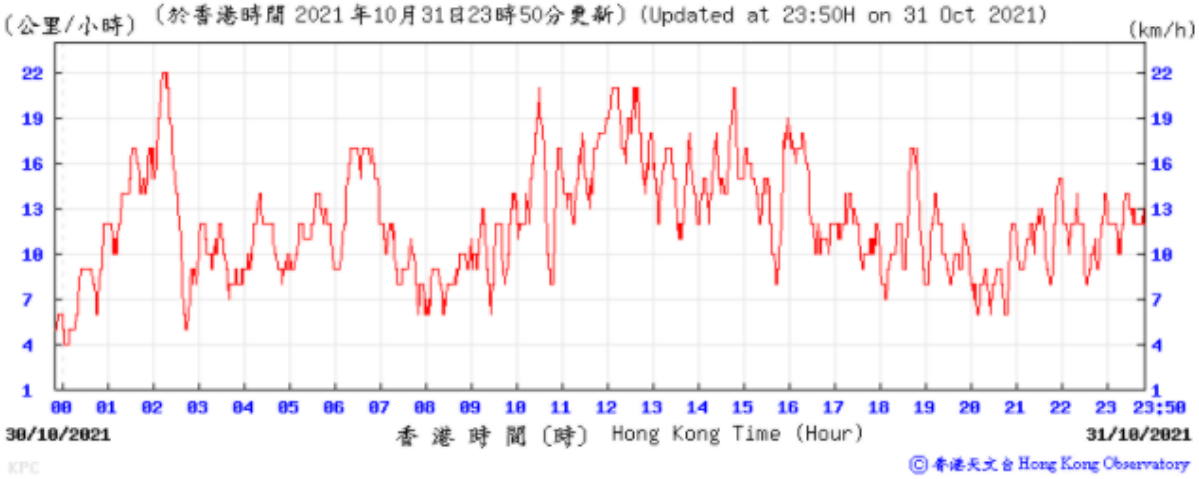
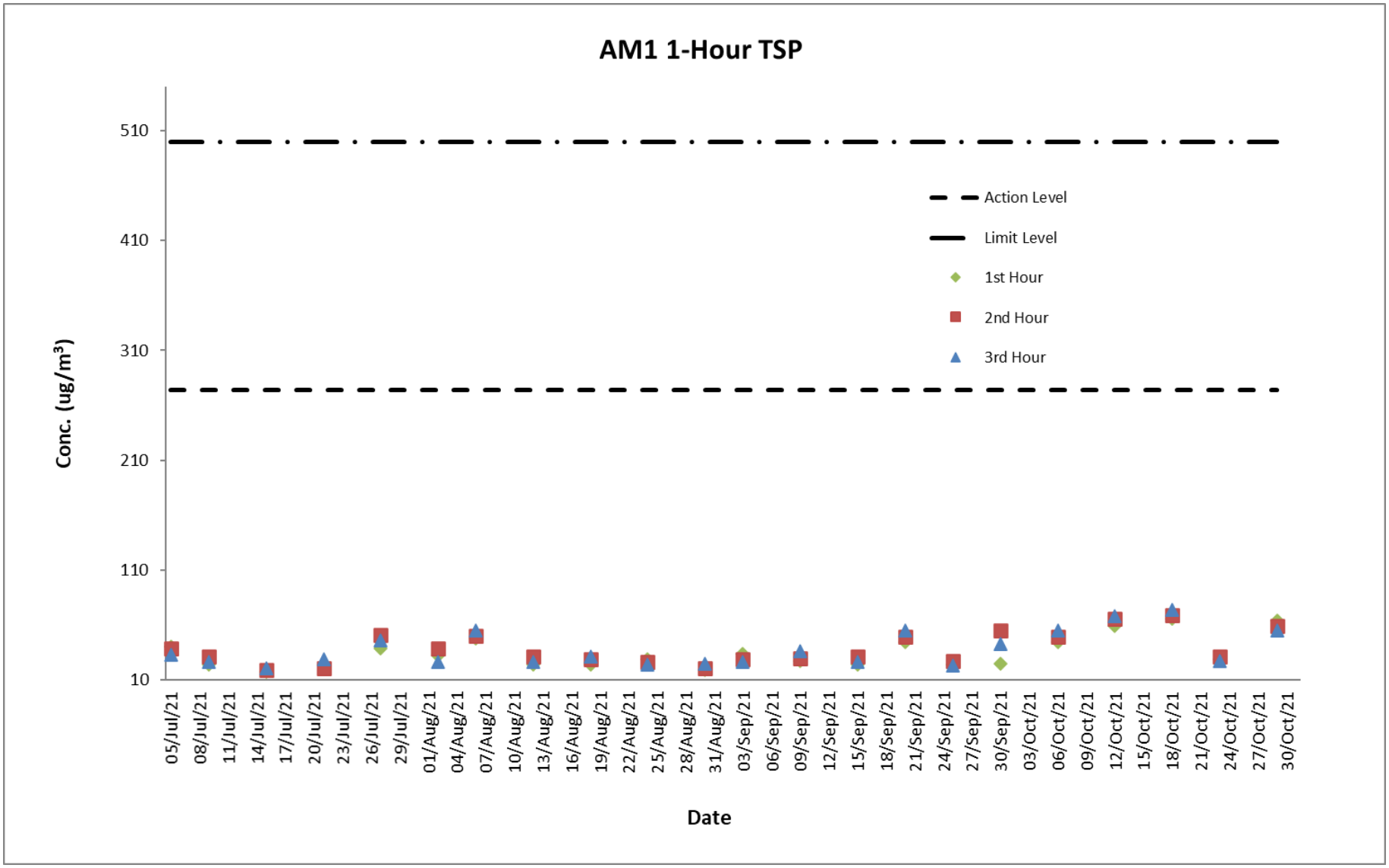


E. Graphical Plots of the Monitoring Results

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		
02-Aug-21	Fine	8:32 - 11:32	32	39	26	273.7	500
06-Aug-21	Cloudy	8:28 - 11:28	48	50	55	273.7	500
12-Aug-21	Fine	8:37 - 11:37	24	31	26	273.7	500
18-Aug-21	Fine	8:31 - 11:31	24	29	31	273.7	500
24-Aug-21	Fine	8:23 - 11:23	29	26	24	273.7	500
30-Aug-21	Fine	8:22 - 11:22	19	21	25	273.7	500
03-Sep-21	Fine	8:32 - 11:32	34	29	26	273.7	500
09-Sep-21	Sunny	8:31 - 11:31	27	30	36	273.7	500
15-Sep-21	Sunny	8:22 - 11:22	24	31	26	273.7	500
20-Sep-21	Fine	8:29 - 11:29	44	49	55	273.7	500
25-Sep-21	Sunny	8:23 - 11:23	24	27	23	273.7	500
30-Sep-21	Sunny	8:24 - 11:24	25	55	43	273.7	500
06-Oct-21	Sunny	8:22 - 11:22	44	49	55	273.7	500
12-Oct-21	Fine	8:31 - 11:31	59	66	68	273.7	500
18-Oct-21	Cloudy	8:24 - 11:24	66	69	74	273.7	500
23-Oct-21	Cloudy	8:23 - 11:23	29	31	27	273.7	500
29-Oct-21	Cloudy	8:18 - 11:18	64	59	55	273.7	500

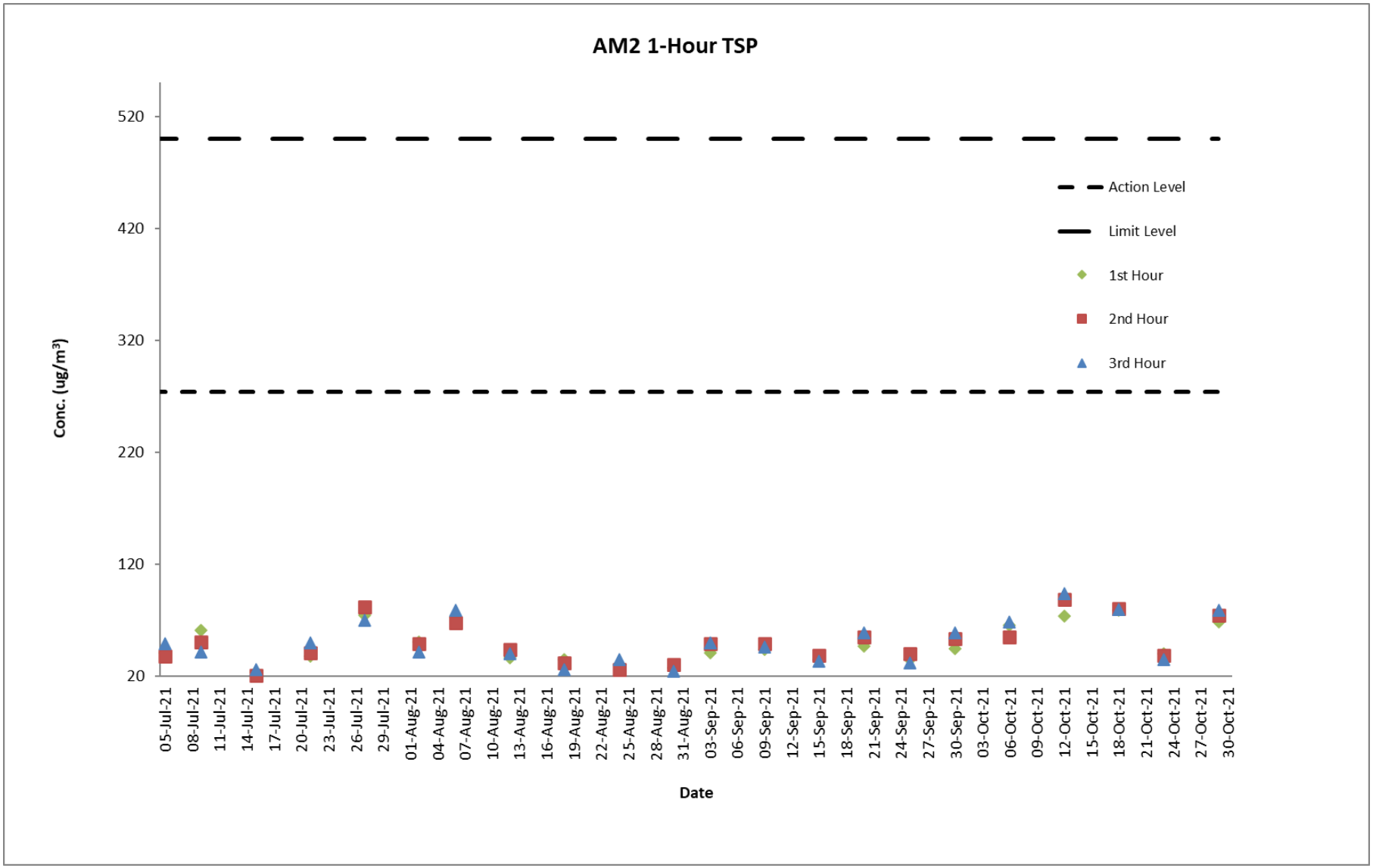
Graphical Presentation of Air Quality Monitoring Result at Station AM1 (1-hour TSP)



Air Quality Monitoring Result at Station 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		
02-Aug-21	Fine	8:44 - 11:44	51	49	42	274.2	500
06-Aug-21	Cloudy	8:38 - 11:38	73	68	79	274.2	500
12-Aug-21	Fine	8:51 - 11:51	37	44	40	274.2	500
18-Aug-21	Fine	8:45 - 11:45	35	32	26	274.2	500
24-Aug-21	Fine	8:37 - 11:37	31	26	35	274.2	500
30-Aug-21	Fine	8:36 - 11:36	28	31	25	274.2	500
03-Sep-21	Fine	8:46 - 11:46	41	49	50	274.2	500
09-Sep-21	Sunny	8:44 - 11:44	44	49	46	274.2	500
15-Sep-21	Sunny	8:36 - 11:36	35	39	34	274.2	500
20-Sep-21	Fine	8:43 - 11:43	47	55	59	274.2	500
25-Sep-21	Sunny	8:37 - 11:37	35	40	32	274.2	500
30-Sep-21	Sunny	8:38 - 11:38	45	54	59	274.2	500
06-Oct-21	Sunny	8:37 - 11:37	66	55	69	274.2	500
12-Oct-21	Fine	8:48 - 11:48	74	89	94	274.2	500
18-Oct-21	Cloudy	8:39 - 11:39	79	81	80	274.2	500
23-Oct-21	Cloudy	8:38 - 11:38	40	39	35	274.2	500
29-Oct-21	Cloudy	8:33 - 11:33	69	75	79	274.2	500

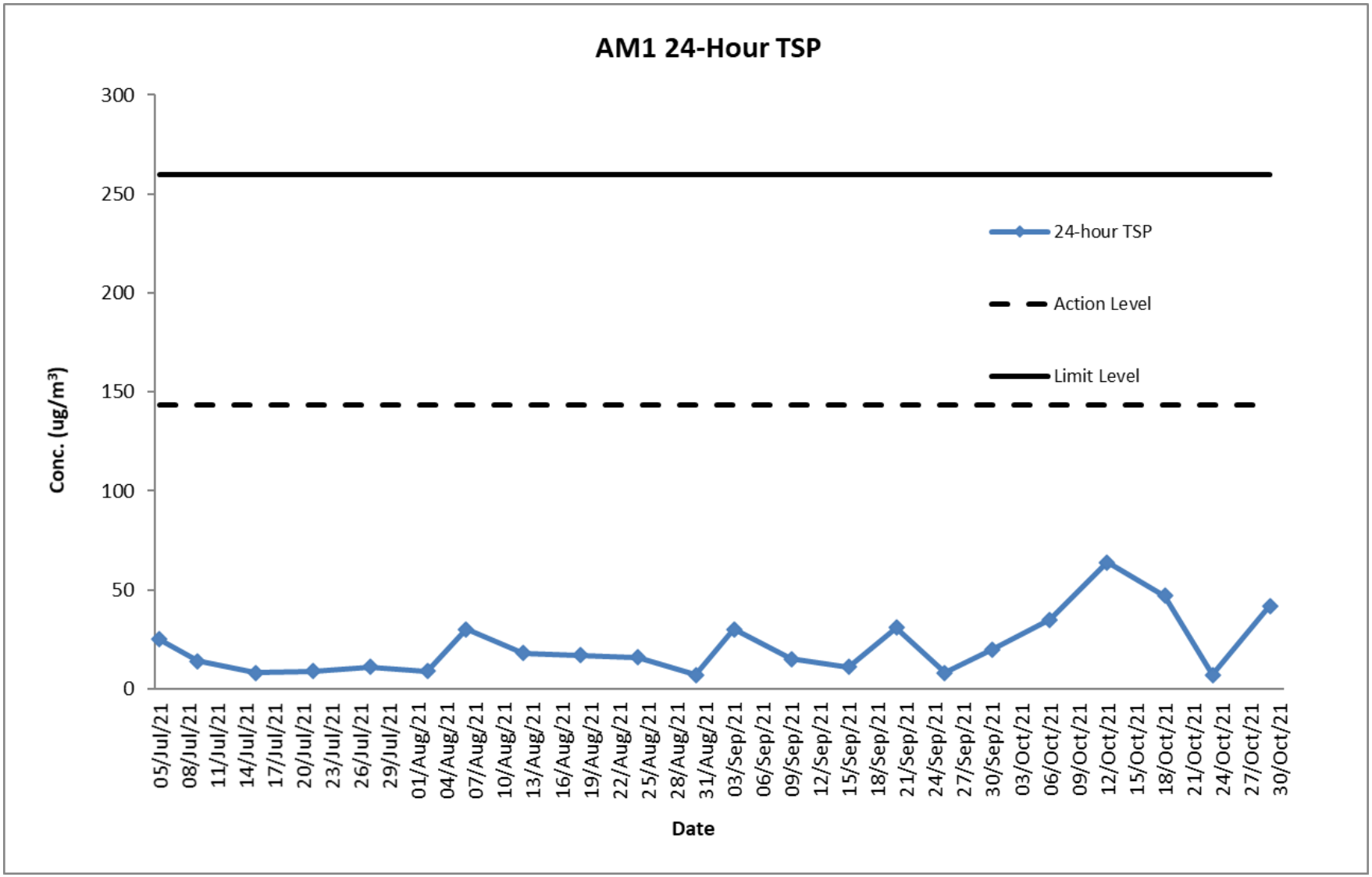
Graphical Presentation of Air Quality Monitoring Result at Station AM2 (1-hour TSP)



Air Quality Monitoring Result at Station AM1 (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	(µg/m^3)	Condition	Level	Level
02-Aug-21	08:30	03-Aug-21	08:30	2.7473	2.7635	23696.38	23720.38	24	1.27	1.27	1.27	9	Fine	143.6	260
06-Aug-21	08:25	07-Aug-21	08:25	2.7303	2.786	23720.38	23744.38	24	1.27	1.27	1.27	30	Cloudy	143.6	260
12-Aug-21	08:35	13-Aug-21	08:35	2.7305	2.7638	23744.38	23768.38	24	1.27	1.27	1.27	18	Fine	143.6	260
18-Aug-21	08:28	19-Aug-21	08:28	2.738	2.7685	23768.38	23792.38	24	1.27	1.27	1.27	17	Fine	143.6	260
24-Aug-21	08:21	25-Aug-21	08:21	2.7282	2.757	23792.38	23816.38	24	1.27	1.27	1.27	16	Fine	143.6	260
30-Aug-21	08:20	31-Aug-21	08:20	2.7570	2.7690	23816.38	23840.38	24	1.26	1.26	1.26	7	Fine	143.6	260
03-Sep-21	08:30	04-Sep-21	08:30	2.7623	2.8175	23840.38	23864.38	24	1.27	1.27	1.27	30	Fine	143.6	260
09-Sep-21	08:29	10-Sep-21	08:29	2.7825	2.8098	23864.38	23888.38	24	1.27	1.27	1.27	15	Sunny	143.6	260
15-Sep-21	08:20	16-Sep-21	08:20	2.7883	2.8078	23888.38	23912.38	24	1.27	1.27	1.27	11	Sunny	143.6	260
20-Sep-21	08:26	21-Sep-21	08:26	2.7923	2.8463	23912.38	23936.38	24	1.22	1.22	1.22	31	Fine	143.6	260
25-Sep-21	08:20	26-Sep-21	08:20	2.7980	2.8122	23936.38	23960.38	24	1.22	1.22	1.22	8	Sunny	143.6	260
30-Sep-21	08:22	01-Oct-21	08:22	2.7855	2.82	23960.38	23984.38	24	1.22	1.22	1.22	20	Sunny	143.6	260
06-Oct-21	08:20	07-Oct-21	08:20	2.7737	2.8357	23984.38	24008.38	24	1.22	1.22	1.22	35	Sunny	143.6	260
12-Oct-21	08:29	13-Oct-21	08:29	2.7770	2.8890	24008.38	24032.38	24	1.22	1.22	1.22	64	Fine	143.6	260
18-Oct-21	08:22	19-Oct-21	08:22	2.7767	2.8590	24032.38	24056.38	24	1.22	1.22	1.22	47	Cloudy	143.6	260
23-Oct-21	08:20	24-Oct-21	08:20	2.7620	2.7736	24056.38	24080.38	24	1.22	1.22	1.22	7	Cloudy	143.6	260
29-Oct-21	08:15	30-Oct-21	08:15	2.7480	2.8217	24080.38	24104.38	24	1.22	1.22	1.22	42	Cloudy	143.6	260

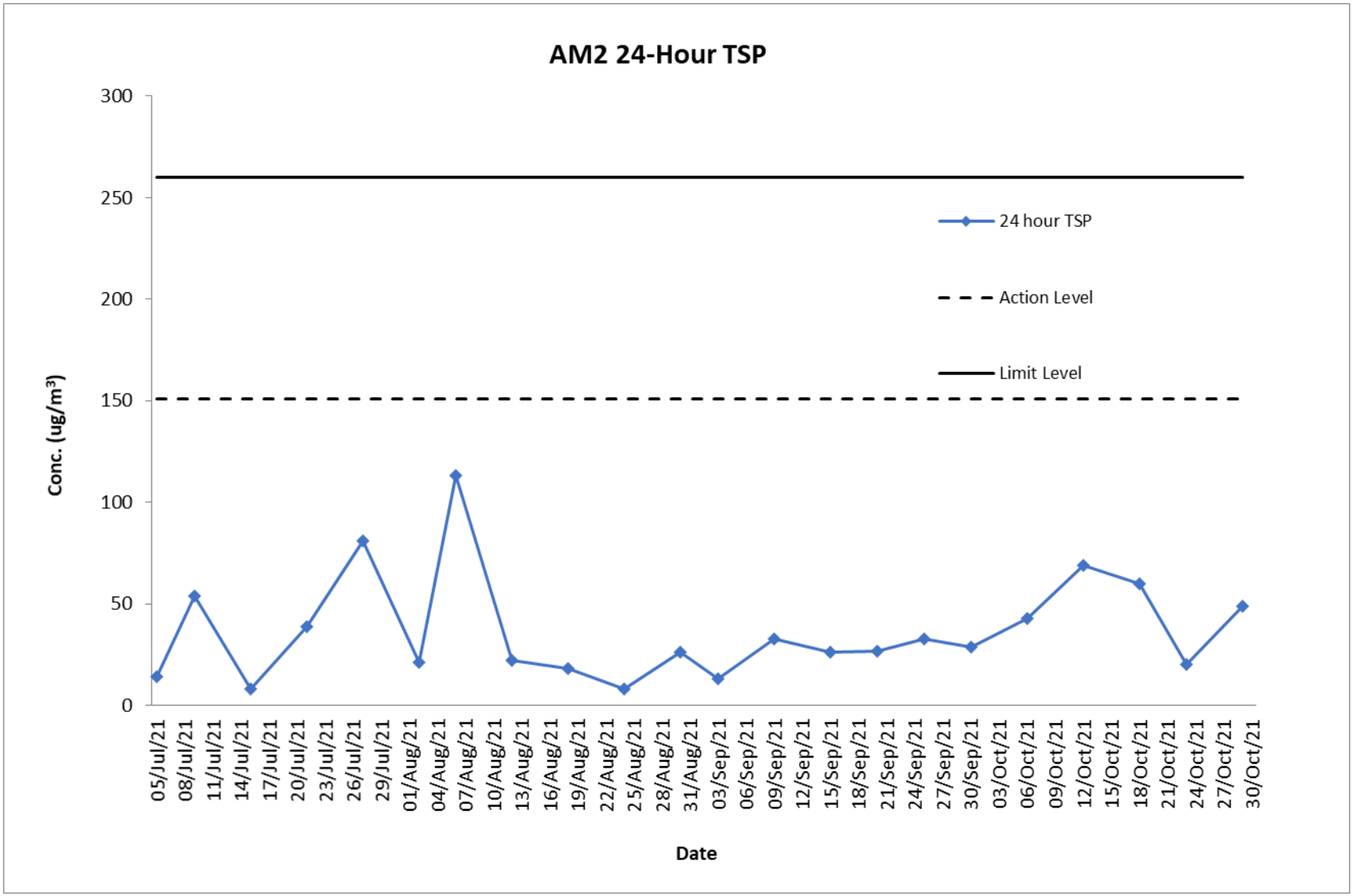
Graphical Presentation of Air Quality Monitoring Result at Station AM1 (24-hour TSP)



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

Start		Finish		Sampling Time (hrs)	Conc. (μg/m^3)	Weather Condition	Action Level	Limit Level
Date	Time	Date	Time					
02-Aug-21	08:42	03-Aug-21	08:42	24	21	Fine	151.1	260
06-Aug-21	08:41	07-Aug-21	08:41	24	113	Cloudy	151.1	260
12-Aug-21	08:48	13-Aug-21	08:48	24	22	Fine	151.1	260
18-Aug-21	08:42	19-Aug-21	08:42	24	18	Fine	151.1	260
24-Aug-21	08:34	25-Aug-21	08:34	24	8	Fine	151.1	260
30-Aug-21	08:33	31-Aug-21	08:33	24	26	Fine	151.1	260
03-Sep-21	08:43	04-Sep-21	08:43	24	13	Fine	151.1	260
09-Sep-21	08:41	10-Sep-21	08:41	24	33	Sunny	151.1	260
15-Sep-21	08:33	16-Sep-21	08:33	24	26	Sunny	151.1	260
20-Sep-21	08:40	21-Sep-21	08:40	24	27	Fine	151.1	260
25-Sep-21	08:34	26-Sep-21	08:34	24	33	Sunny	151.1	260
30-Sep-21	08:35	01-Oct-21	08:35	24	29	Sunny	151.1	260
06-Oct-21	08:34	07-Oct-21	08:34	24	43	Sunny	151.1	260
12-Oct-21	08:44	13-Oct-21	08:44	24	69	Fine	151.1	260
18-Oct-21	08:36	19-Oct-21	08:36	24	60	Cloudy	151.1	260
23-Oct-21	08:35	24-Oct-21	08:35	24	20	Cloudy	151.1	260
29-Oct-21	08:29	30-Oct-21	08:29	24	49	Cloudy	151.1	260

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



Noise Monitoring Result at Station NM1A

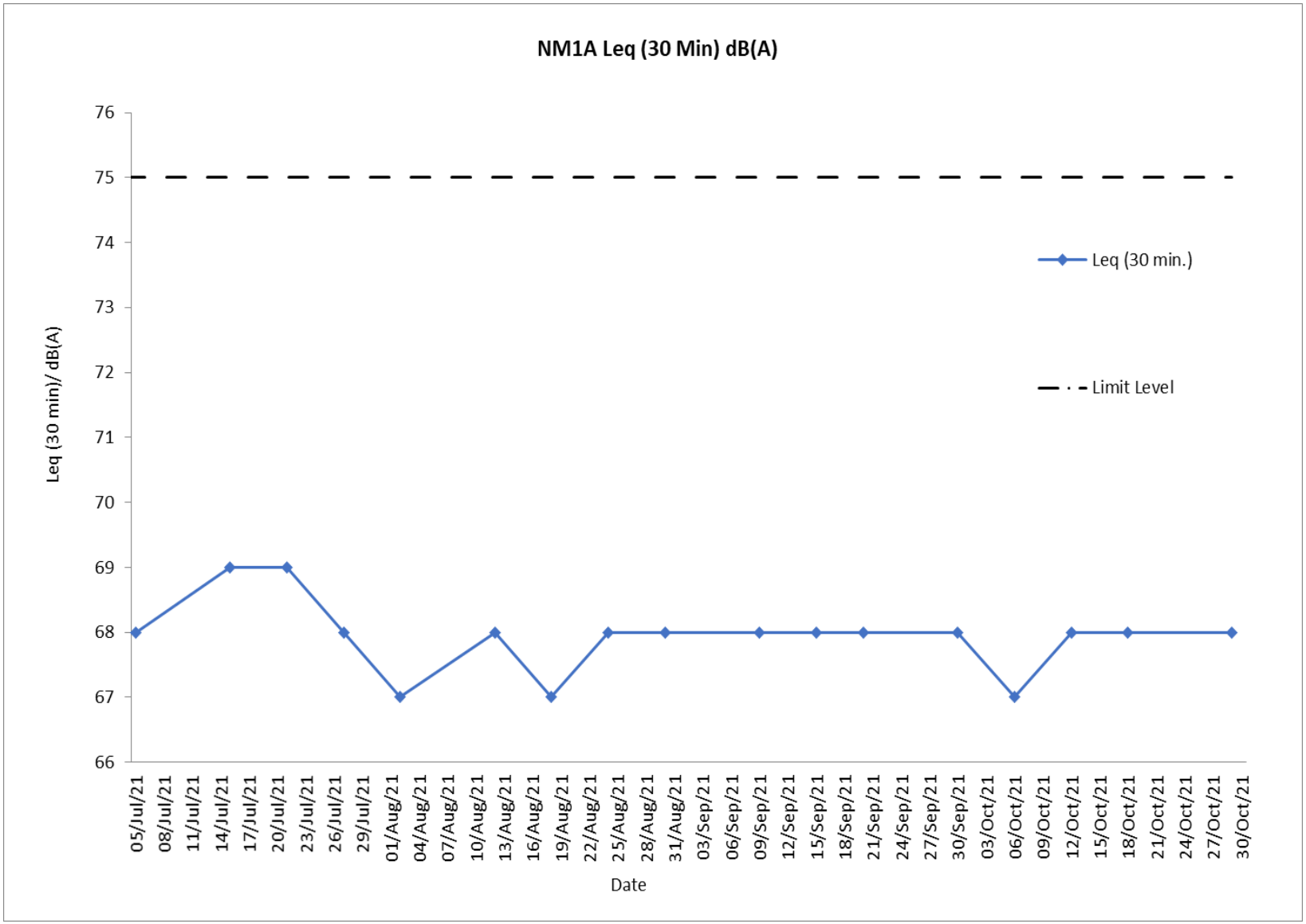
Date	Time	Measured L10 dB(A)	Measured L90 dB(A)	Leq (30 min.) dB(A)
02-Aug-21	09:28	66.3	62.5	67
02-Aug-21	09:33	67.4	63.2	
02-Aug-21	09:38	66.0	62.7	
02-Aug-21	09:43	65.8	61.7	
02-Aug-21	09:48	66.2	62.9	
02-Aug-21	09:53	66.4	62.2	
12-Aug-21	09:35	66.6	62.4	68
12-Aug-21	09:40	67.3	63.1	
12-Aug-21	09:45	66.4	62.6	
12-Aug-21	09:50	66.2	62.7	
12-Aug-21	09:55	67.0	63.2	
12-Aug-21	10:00	66.7	62.9	
18-Aug-21	09:28	66.2	62.1	67
18-Aug-21	09:33	65.0	61.3	
18-Aug-21	09:38	66.7	62.4	
18-Aug-21	09:43	66.5	62.1	
18-Aug-21	09:48	65.4	61.2	
18-Aug-21	09:53	65.9	61.6	
24-Aug-21	09:21	65.6	61.3	68
24-Aug-21	09:26	66.2	62.4	
24-Aug-21	09:31	66.7	62.5	
24-Aug-21	09:36	68.6	64.1	
24-Aug-21	09:41	67.5	63.8	
24-Aug-21	09:46	65.9	61.6	
30-Aug-21	09:20	66.7	62.9	68
30-Aug-21	09:25	67.1	63.7	
30-Aug-21	09:30	67.8	63.4	
30-Aug-21	09:35	66.3	62.6	
30-Aug-21	09:40	66.5	62.6	
30-Aug-21	09:45	67.2	63.6	
09-Sep-21	09:28	66.0	62.6	68
09-Sep-21	09:33	67.2	63.3	
09-Sep-21	09:38	67.2	63.4	
09-Sep-21	09:43	66.5	62.7	
09-Sep-21	09:48	68.9	64.7	
09-Sep-21	09:53	66.4	62.1	
15-Sep-21	09:20	66.0	62.8	68
15-Sep-21	09:25	67.9	63.6	
15-Sep-21	09:30	66.2	62.5	
15-Sep-21	09:35	66.4	62.5	
15-Sep-21	09:40	67.4	63.6	
15-Sep-21	09:45	66.7	62.9	
20-Sep-21	09:27	66.9	62.7	68
20-Sep-21	09:32	67.2	63.8	
20-Sep-21	09:37	66.2	62.3	
20-Sep-21	09:42	66.4	62.5	
20-Sep-21	09:47	67.4	63.5	
20-Sep-21	09:52	66.6	62.8	
30-Sep-21	09:22	66.0	62.1	68
30-Sep-21	09:27	67.1	63.5	
30-Sep-21	09:32	67.4	63.6	
30-Sep-21	09:37	66.3	62.8	
30-Sep-21	09:42	67.1	63.7	
30-Sep-21	09:47	67.8	63.7	

06-Oct-21	09:22	65.0	61.9	67
06-Oct-21	09:27	66.4	62.8	
06-Oct-21	09:32	65.2	61.5	
06-Oct-21	09:37	66.3	62.7	
06-Oct-21	09:42	66.6	62.8	
06-Oct-21	09:47	65.5	61.3	
12-Oct-21	09:32	66.0	62.9	68
12-Oct-21	09:37	67.2	63.8	
12-Oct-21	09:42	68.3	64.7	
12-Oct-21	09:47	67.2	63.6	
12-Oct-21	09:52	66.5	62.1	
12-Oct-21	09:57	66.8	62.6	
18-Oct-21	09:22	67.6	63.5	68
18-Oct-21	09:27	68.6	64.5	
18-Oct-21	09:32	66.4	62.8	
18-Oct-21	09:37	66.9	62.6	
18-Oct-21	09:42	66.0	62.1	
18-Oct-21	09:47	67.2	63.1	
29-Oct-21	09:17	66.0	62.5	68
29-Oct-21	09:22	65.2	61.4	
29-Oct-21	09:27	65.6	61.7	
29-Oct-21	09:32	67.4	63.1	
29-Oct-21	09:37	67.8	63.6	
29-Oct-21	09:42	66.7	62.6	

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

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)
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

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)
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	43.9	2.0	0.0	0.0	0.0	278.2
Aug	1296.2	0.0	0.0	0.0	1296.2	0.0	0.0	161.5	0.0	0.0	0.0	0.0	459.1
Sep	1040.5	0.0	0.0	0.0	490.9	549.6	0.0	13.6	0.0	0.0	0.0	0.0	620.8
Oct	311.0	0.0	0.0	0.0	311.0	0.0	0.0	11.5	0.0	0.0	0.0	0.0	485.6
Nov	0.0												
Dec	0.0												
Sub-total (2021)	7124.8	0.0	0.0	0.0	6566.4	558.5	0.0	2505.2	4.0	0.1	0.0	0.4	5115.7
Total	**993821.4**	**0.0**	**0.0**	**543635.2**	**449193.4**	**992.7**	**2301.1**	**9800.8**	**9.9**	**10.5**	**0.0**	**12.9**	**10094.0**

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)

Note:

- 768.14, 1233.35 and 96.63 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 (Aug 21 – Oct 21)	6	0	0
From 1 March 2016 to end of the reporting quarter	30	0	0

END OF PART-1

Part-2: EM&A for Foundation Works in Zones 2A, 2B & 2C

Foundation Works in Zones 2A, 2B & 2C

APEX TESTING & CERTIFICATION LIMITED
Unit D6A, 10/F, TML Plaza, 3 Hoi Shing Road, Tsuen Wan, N.T.
Hong Kong
Tel: (852) 39733585 Fax: (852) 30079385
Email: info@apextestcert.com

Contents

Executive summary

This Quarterly EM&A Report presents the monitoring works conducted at Zone 2A from 1 August 2021 to 31 October 2021 and at Zone 2B & 2C from 30 September 2021 to 31 October 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) in the reporting quarter.

One Action Level exceedance due to one complaint with no Limit Level exceedance of Construction Noise was recorded 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

Six 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, consisting of Foundation, Excavation and Lateral Support Works for Integrated Basement and Underground Road (Contract No.: GW/2020/05/073) ; and Zone 2B & 2C consisting of Piling Works for Integrated Basement and Underground Road (Contract No.: CC/2020/2B/088) at WKCD. The major construction works and EM&A programme for Zone 2A and Zone 2B & 2C commenced on 3 October 2020 and 30 September 2021 respectively.

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 and Zone 2B & 2C 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 Zone 2B & 2C construction activities involve the piling works.

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 August 2021 to 31 October 2021and at Zone 2B & 2C from 30 September 2021 to 31 October 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)
  - Install Pump Wells
  - 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
  - King Post
  - Stage 1a & 1b Grouting
  - Pipe Pile Construction

During the reporting period, construction works at Zone 2B & 2C undertaken include:

Stage (4-1)

- Bored Pile Works
  - Predrilling

Section 1, Section 2, Section 3, Section 4, Section 5

- Bored Pile Works
  - Predrilling

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 and Zone 2B & 2C, 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 2A0. 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 and Zone 2B & 2C.

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	32	83	51
1 hour TSP	AM4A	32	81	52
1 hour TSP	AM5A	32	83	53
24 hour TSP	AM3A	31	76	48
24 hour TSP	AM4A	31	79	49
24 hour TSP	AM5A	31	78	49
Construction Noise				
Leq(30min)	NM2A	58	58	58
Leq(30min)	NM3A	69	71	70
Leq(30min)	NM4A	68	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)	1 exceedance due to one complaint	0	Strengthen the implementation of noise mitigation measures
NM3A	Leq(30min)		0	
NM4A	Leq(30min)		0	
NM5A	Leq(30min)		0	

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. One Action Level exceedances (due to one noise complaint related to Zone 2A) with no Limit Level exceedance of Noise was recorded in the reporting quarter.

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 Zone 2A

As advised by the Contractor, 35.81 tonnes, 1538.68 tonnes, 9483.62 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 48.96 tonnes of general refuse were disposed of at SENT landfill. 10.70 tonnes of metals, 0.0 tonne of paper/cardboard packaging, 0.0 tonne 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 were reused on site. 0.0 tonne of fill materials were imported for use at site and 1275.76 tonnes of inert C&D materials was reused in other projects. 0.0 tonne of inert C&D materials was disposed to sorting facility and 1.00 tonnes of chemical wastes was collected by licensed contractors in the reporting quarter.

4.2 Zone 2B & 2C

As advised by the Zone 2B & 2C Contractor, 22.58 tonnes of inert C&D material were disposed of at Tuen Mun Area 38 in the reporting quarter, while 13.19 tonnes of general refuse were disposed of at SENT landfill. 0.0 tonne of metals, 0.0 tonne of paper/cardboard packaging, 0.0 tonne of plastics and 0.0 tonne of timber was collected by recycling contractors in the reporting quarter. 37.75 tonnes of inert C&D material were reused on site. 0.0 tonne of inert C&D material was imported for reuse at site and 0.0 tonne of inert C&D material were reused in other projects. 0.0 tonne of inert C&D material was disposed to sorting facility and 0.0 tonne of chemical waste 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 and Zone 2B & 2C 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) in the reporting quarter.

One Action Level exceedance due to one complaint with no Limit Level exceedance of Construction Noise was recorded in the reporting quarter.

Six complaints 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 2 August 2021. WKCDA received a complaint from the office of Mr. Derek hung (YTMDC member) regarding noise generated from WKCD construction site. The complainant has expressed concern about the construction noise between 19 and 31 July 2021, especially before 9am on 21 & 31 July 2021 (Wed & Sat). The complainant understands that the working hours permitted by the government is 7am - 7pm, except public holidays. However, he/she and Derek Hung would like to seek if the noise disturbance could be reduced before 9am. Video shot was taken by the complainant on 31 July 2021 to show the evidence of noise generated from WKCD construction site. Investigation result revealed that the identified major noise source by the complainant over 19-31 July 2021, was not from WKCD Zone 2A site (Zone 2B & 2C project was not commenced at that time). 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 neighbors.

The second complaint was received on 19 August 2021. WKCDA has received a complaint from the Office of Mr. Derek Hung (YTMDC member) regarding noise generated from WKCD construction site. The complainant has expressed concern about the construction noise before 9am on 18 & 19 August 2021. The complainant understands that the working hours permitted by the government is 7am - 7pm, except public holidays. However, he/she and Mr. Derek Hung would like to seek if the noise disturbance could be reduced before 9am. Video shot was taken by the complainant on 18 & 19 August 2021 to show the evidence of noise generated from WKCD construction site. After carrying out the investigation with the contractors, the noise source before 9am on 18 & 19 August 2021 might be from the site clearance and preparation activities carried out on Zone 2B & 2C site for safe logistic operations on the main haul road. As such, the complaint might be attributable to Zone 2B & 2C site. In response, the Contractor has promptly implemented noise mitigation measures on site to minimize the noise impact on neighbors. On the other hand, although the site clearance and preparation activities on Zone 2B & 2C site in this time interval (before 9am) is in compliance with the local regulation, the Contractor has been recommended to avoid noisy works before 9am as practicable as possible (as expected by the complainant) to prevent disturbance to nearby residents.

The third complaint was referred by EPD on 20 August 2021. EPD has received a complaint regarding dust emission generated from WKCD Zone 2A site. The complainant has expressed concern of construction dust generated by rock breaking work at B1/F of Zone 2A site without proper dust mitigation measures. As a response, dust control measures on B1/F of Zone 2A site have been improved and properly maintained on site. Moreover, existing dust control measures have been properly maintained and will continue to be strictly implemented on site (through trainings to frontline staff, apply water spray on rock breaking works, water spraying at working area to suppress dust, dust monitoring with no exceedance). Nonetheless, the Contractor is recommended to maintain good practice on site, and strengthen the implementation of dust mitigation measures to reduce impacts to the nearby neighbors.

The fourth complaint was received on 27 August 2021. WKCDA has received a complaint from the Office of Mr. Derek Hung (YTMDC member) and WKCDA Enquiry Hotline regarding noise generated from WKCD construction site. The complainant has expressed concern about the pile driving noise on 27 August 2021 at the construction site next to the Lyric Theatre. The complainant claimed that she could hear the noise from 08:00 to 18:00 even when the windows are closed. The complainant would like to enquire when the pile driving works will be completed. After carrying out the investigation with the contractors, the most plausible noise source might be the demolition of ex-MTR storage shed and concrete footing removal for site clearance and preparation on WKCD Zone 2B & 2C site (which is located nearby and close to Lyric Complex site as specified by the complainant). The complaint might be therefore attributable to Zone 2B & 2C site. In response, prompt action has been taken to erect noise barrier on site for these clearance and preparation works. Noise measurement and monitoring were carried out nearby the Harbourside with no exceedance. The Contractors has been recommended to avoid noisy activities before 9am, maintain good practice on site, and strengthen the implementation of noise mitigation measures to reduce impacts to the nearby neighbors.

The fifth complaint was referred by EPD on 12 October 2021. Refer to photos provided by the complainant, water discharge was spotted at the waterbody of Victoria Harbour near WKCD construction site on 8 October 2021. Reminder was given by EPD to the main contractors of the WKCD construction sites to take all necessary measures to prevent water discharging from the construction sites into the nearby marine water. After carrying out the investigation with the contractors, on 8 October 2021, existing mitigation measures were properly maintained on both Zone 2A and Zone 2B & 2C sites. However, due to the extreme weather condition on 08 October 2021, it might be possible that rainwater from upper stream of adjacent sites has breached through the sandbags system next to the seafront. The other possible source is the upper stream water from the stormwater outlet near the pier of Tsim Sha Tsui Fire Station at the Victoria Harbor. Thereby, the complaint might be possibly attributable to Zone 2 sites. Subsequently, prompt actions have been taken to improve the seafront site boundary, and avoid surface water leakage from the site during the following typhoon – Kompasu. Nonetheless, the Contractors are recommended to strictly maintain good site practices to avoid surface water flowing into to the waterbody of Victoria Harbour.

The sixth complaint was referred by EPD on 27 October 2021. As shown in the video and photos taken by the complainant around 9pm on 25 October 2021, construction activity was found at WKCD Zone 2A site. The complainant has also expressed concern about the construction noise generated from 9am to 9pm even on Sunday. Investigation result reveal that the noise source might be possibly from the mobile crane and generator operation for pile extraction works in WKCD Zone 2A site. However, the mobile crane and generator have been labelled as QPME by EPD. During the construction works in nighttime (i.e. 19:00 to 21:00) on 25 October 2021, only one single group of PME was used and the work process fully complied with permitted time. In addition, noise mitigation measures have already been implemented and properly maintained on site. No construction work was conducted after permitted time (i.e. 23:00) on 25 October 2021 in WKCD Zone 2A site. On the other hand, no construction work was carried out in nighttime in Zone 2B & 2C site and Sundays in Zone 2A, 2B & 2C site in October 2021. Moreover, noise measurement and monitoring were carried out with no exceedance. Nonetheless, the Contractors are recommended to maintain good practice on site, and strengthen the implementation of noise mitigation measures to reduce impacts to the neighbors.

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

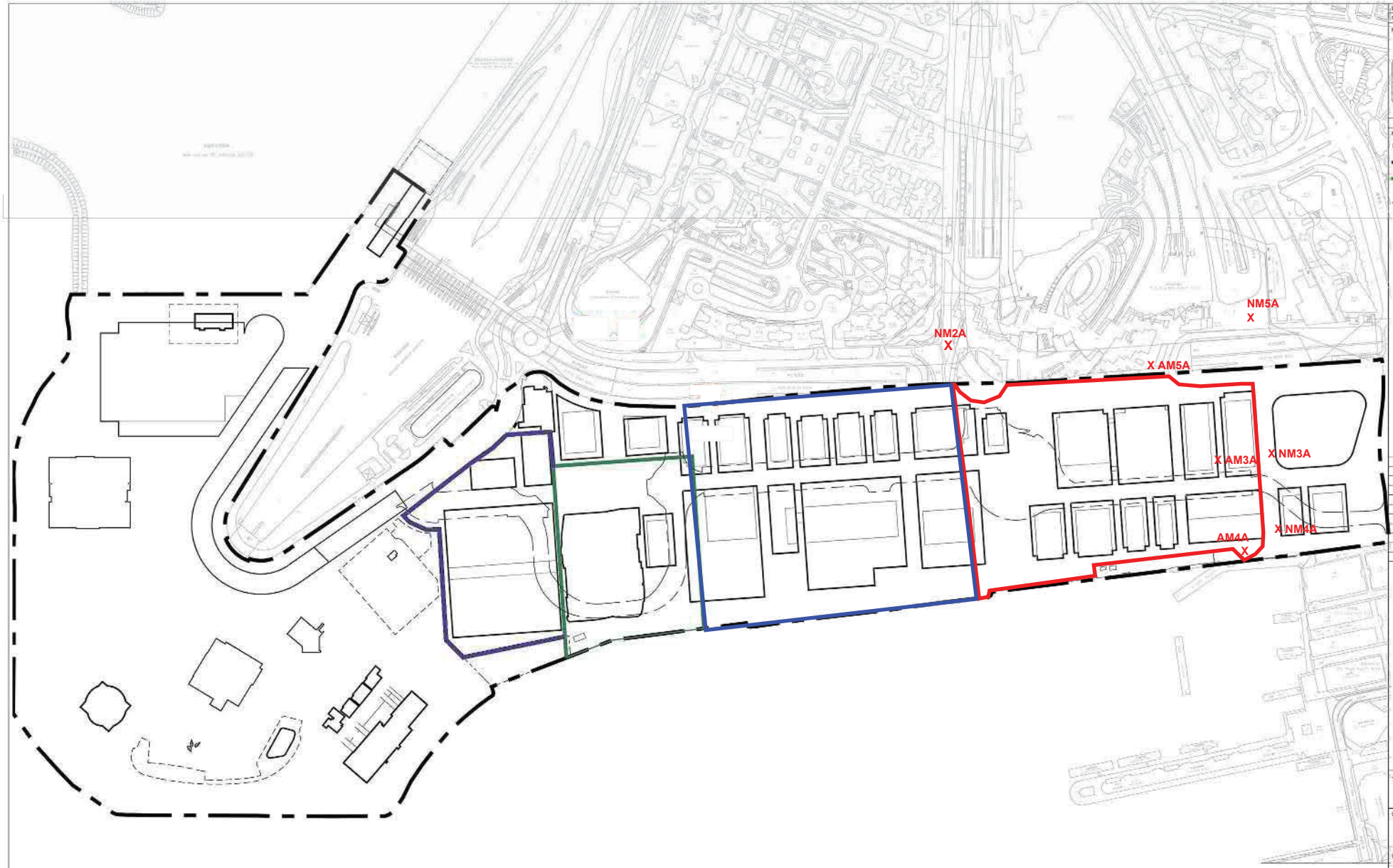
The EM&A programme as recommended in the EM&A Manual has been undertaken since the construction works of Zone 2A and 2B & 2C commenced on 3 October 2020 and 30 September 2021 respectively.

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) in the reporting quarter. One Action Level exceedance due to one complaint with no Limit Level exceedance of Construction Noise was recorded in the reporting quarter.

Six 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

Zone 2B & 2C 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:	16-05-2019

CONTRACT NO.: -

DRAWING NO.: **FIGURE 1**

REV.: XX

CAD REF NAME: XXXXX-AUT-PHS 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

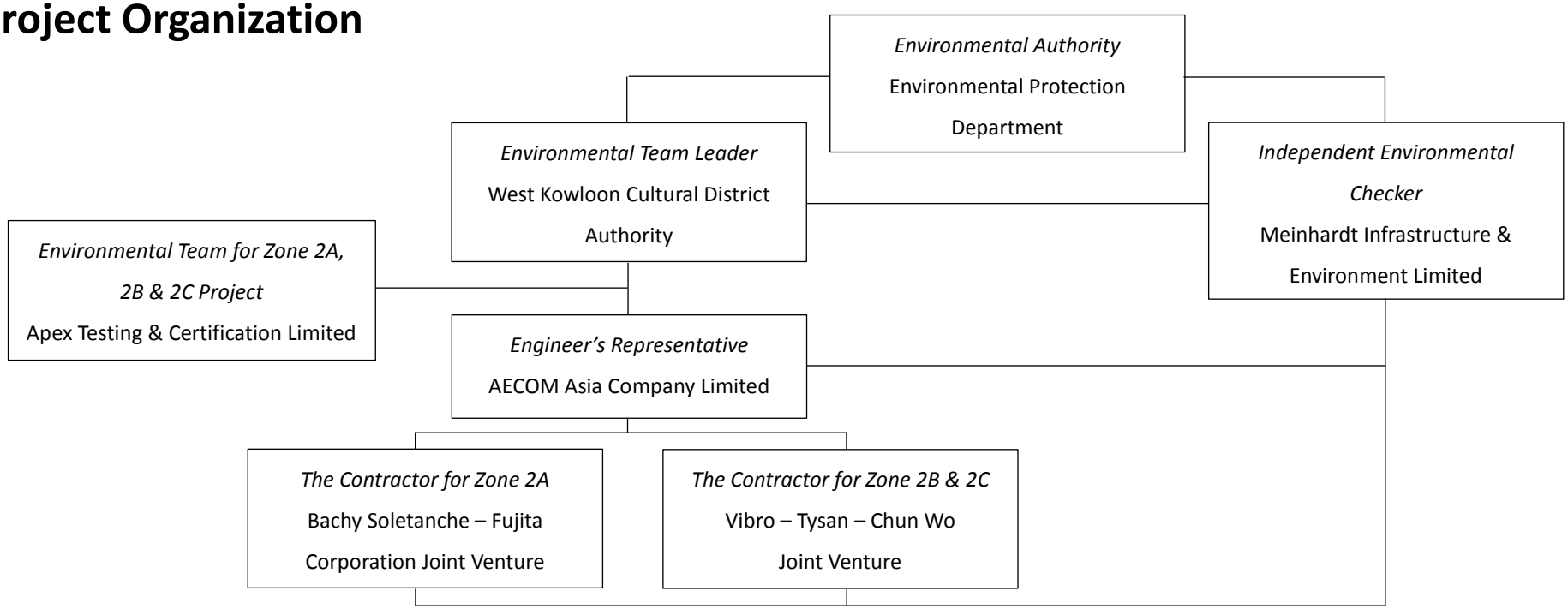


Table A-1: Contract Information

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	Interface & Environmental Manager	Mr. Philip CHAN	9668 8403	philip.chan@soletanche-bachy.com
Bachy Soletanche – Fujita Corporation Joint Venture	Environmental Engineer	Mr. William CHAN	54083045	william-hou.chan@soletanche-bachy.com
Vibro – Tysan – Chun Wo Joint Venture	Environmental Sustainability Manager	Mr. Tony YAM	2137 5586	tony_yam@vibro.com.hk
Apex Testing & Certification Limited	Contractor's Environmental Team Leader	Mr. Calvin LUI	9629 9718	calvinlui@apextestcert.com

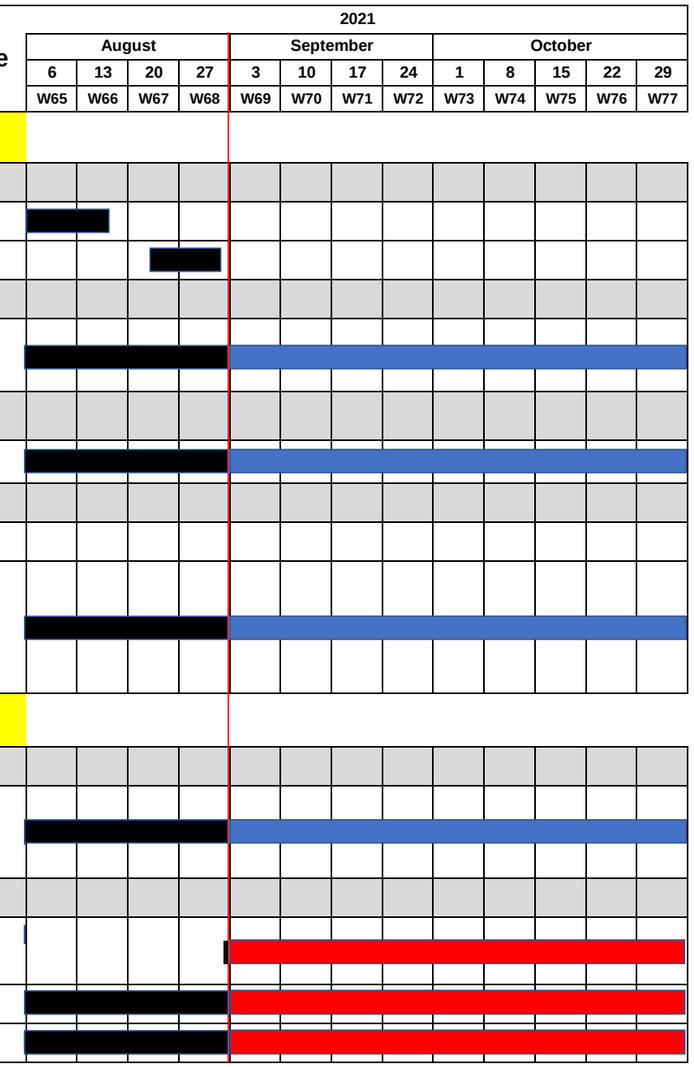
B. Construction Programme

Zone 2A

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	15	26-Jul-21	9-Aug-21
Pumping Test	10	17-Aug-21	26-Aug-21
ELS (Stage 1) - Grouting / Pipe Pile Works			
King Post (8/64 Nos Completed) & Erection of Steel Column for Working Platform (11/41 Nos completed)	209	15-May-21	9-Dec-21
Socketed H-Pile Works			
Remaining Socketed H-Pile Works (22/53 Nos completed)	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 (27 Nos. Cast; 2 Nos. completed RCD; 0 Nos. RCD in progress)	345	9-Nov-20	19-Oct-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; 1 Nos. completed RCD; 1 Nos. RCD in progress)	236	23-Mar-21	13-Nov-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)	190	28-Aug-21	5-Mar-22
Stage 1a & 1b grouting (812/1058 Nos Completed)	477	22-Oct-20	10-Feb-22
Pipe Pile Construction (279/523 Nos Completed)	462	17-Nov-20	21-Feb-22

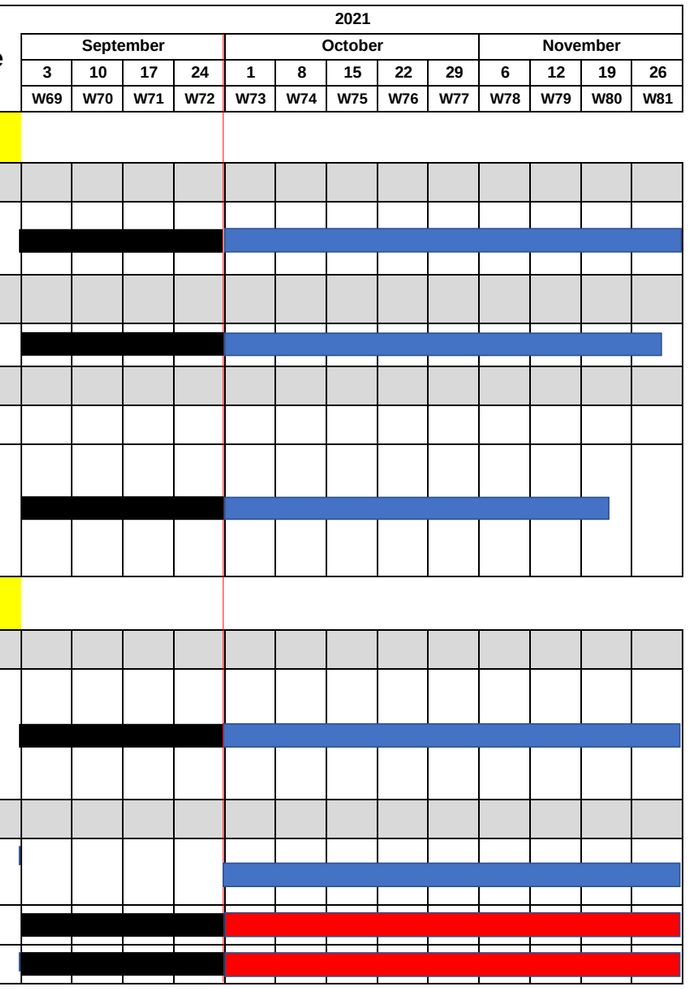


- Actual
- Remaining Works
- Critical Remaining Works

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)			
ELS (Stage 1) - Grouting / Pipe Pile Works			
King Post (8/64 Nos Completed) & Erection of Steel Column for Working Platform (11/41 Nos completed)	239	15-May-21	8-Jan-22
Socketed H-Pile Works			
Remaining Socketed H-Pile Works (25/53 Nos completed)	161	16-Jun-21	23-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, BP33E (30 Nos. Cast; 0 Nos. completed RCD; 0 Nos. RCD in progress)	372	9-Nov-20	15-Nov-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, BP12JA (13 Nos. Cast; 0 Nos. completed RCD; 1 Nos. RCD in progress)	236	23-Mar-21	10-Dec-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)	189	25-Sep-21	1-Apr-22
Stage 1a & 1b grouting (812/1058 Nos Completed)	504	22-Oct-20	9-Mar-22
Pipe Pile Construction (313/523 Nos Completed)	488	17-Nov-20	19-Mar-22

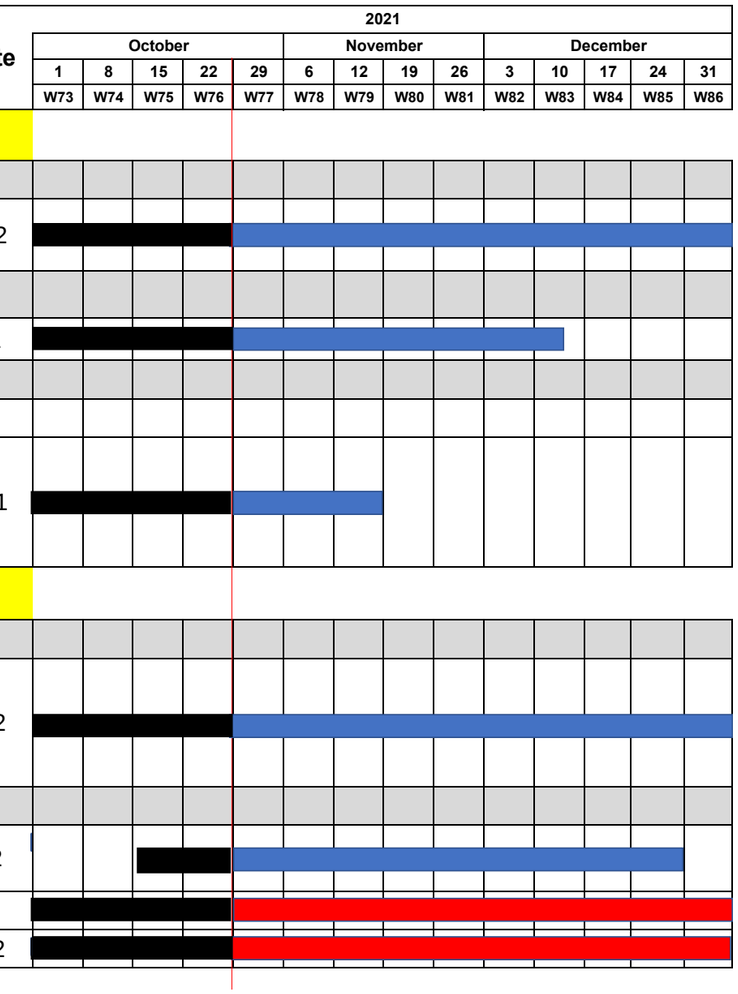


- Actual
- Remaining Works
- Critical Remaining Works

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

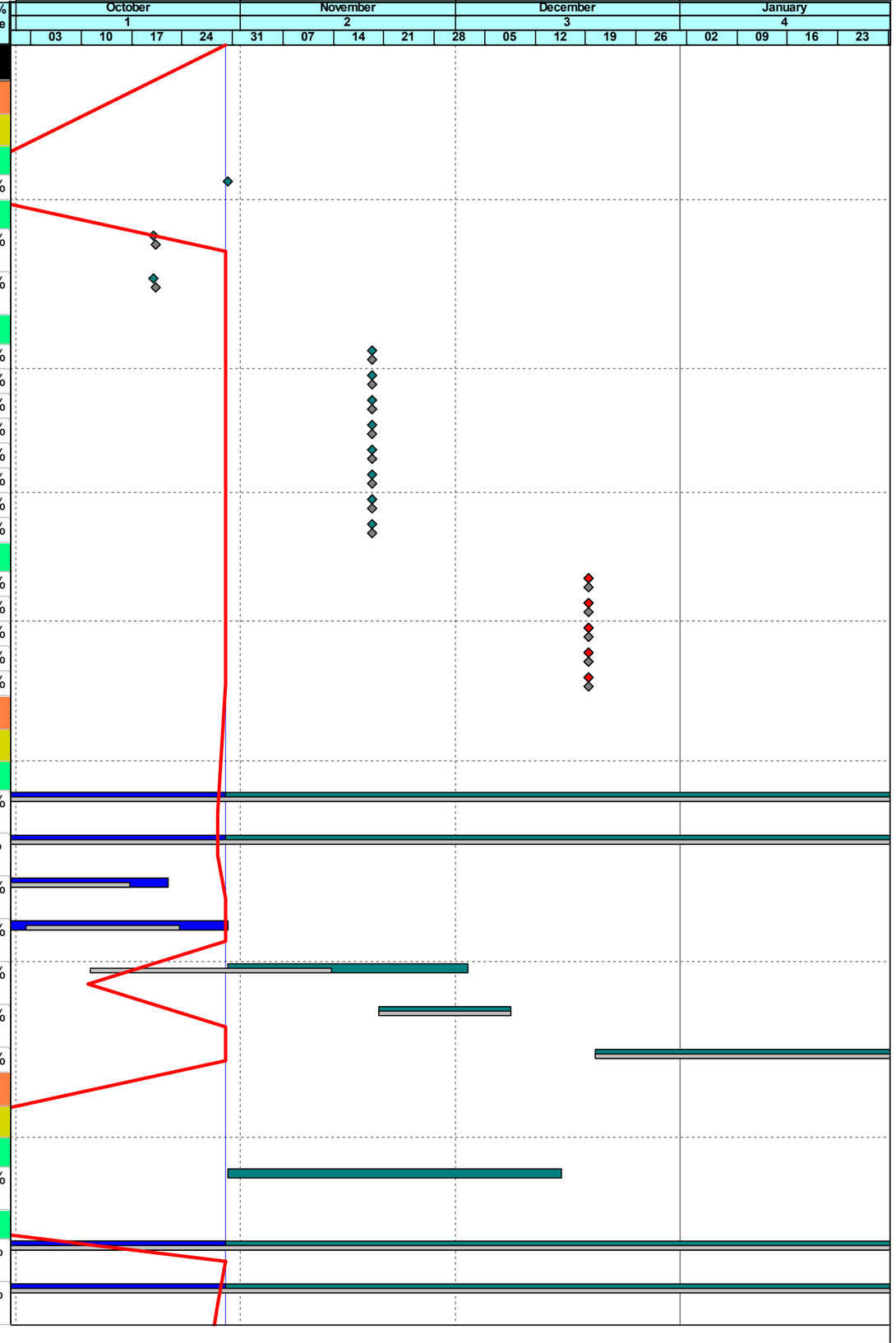
Activity Description	Duration (Cal. Day)	Start Date	Finish Date
Zone 2A-1 Foundation, ELS Works and Blinding to Formation (KD01)			
ELS (Stage 1) - Grouting / Pipe Pile Works			
King Post (8/64 Nos Completed) & Erection of Steel Column for Working Platform (11/41 Nos completed)	272	15-May-21	10-Feb-22
Socketed H-Pile Works			
Remaining Socketed H-Pile Works (27/53 Nos completed)	174	16-Jun-21	6-Dec-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, BP33E, BP35C1 (30 Nos. Cast; 1 Nos. completed RCD; 1 Nos. RCD in progress)	369	9-Nov-20	12-Nov-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, BP12JA (14 Nos. Cast; 0 Nos. completed RCD; 0 Nos. RCD in progress)	292	23-Mar-21	18-Jan-22
ELS (Stage 1) - Grouting / Pipe Pile Works			
King Post (0/86 Nos Completed) & Erection of Steel Column for Working Platform (0/65 Nos Completed)	207	9-Oct-21	3-May-22
Stage 1a & 1b grouting (812/1058 Nos Completed)	531	22-Oct-20	5-Apr-22
Pipe Pile Construction (313/523 Nos Completed)	519	17-Nov-20	19-Apr-22



- Actual
- Remaining Works
- Critical Remaining Works

Zone 2B & 2C

Activity ID	Activity Name	CMWP 3rd Draft Start	CMWP 3rd Draft Finish	Dur	Start	Finish	Total Float	Activity % Complete
Piling for Integrated Basement and U/G Road in Zone 2B & 2C								
Contract Dates								
Access Dates of Site Portion								
60 days after Commencement								
ACB36	Access to Site Portion B36	20-Sep-21		0d	30-Oct-21		12d	0%
90 days after Commencement								
ACB22	Access to Site Portion B22	20-Oct-21		0d	20-Oct-21 A			100%
ACB23	Access to Site Portion B23	20-Oct-21		0d	20-Oct-21 A			100%
120 days after Commencement								
ACB02	Access to Site Portion B02	19-Nov-21		0d	19-Nov-21		28d	0%
ACB03	Access to Site Portion B03	19-Nov-21		0d	19-Nov-21		28d	0%
ACB08	Access to Site Portion B08	19-Nov-21		0d	19-Nov-21		28d	0%
ACB09	Access to Site Portion B09	19-Nov-21		0d	19-Nov-21		28d	0%
ACB10	Access to Site Portion B10	19-Nov-21		0d	19-Nov-21		28d	0%
ACB17	Access to Site Portion B17	19-Nov-21		0d	19-Nov-21		28d	0%
ACB33	Access to Site Portion B33	19-Nov-21		0d	19-Nov-21		28d	0%
ACB37	Access to Site Portion B37	19-Nov-21		0d	19-Nov-21		28d	0%
150 days after Commencement								
ACB01	Access to Site Portion B01	19-Dec-21		0d	19-Dec-21		1d	0%
ACB24	Access to Site Portion B24	19-Dec-21		0d	19-Dec-21		1d	0%
ACB25	Access to Site Portion B25	19-Dec-21		0d	19-Dec-21		1d	0%
ACB26	Access to Site Portion B26	19-Dec-21		0d	19-Dec-21		1d	0%
ACB34	Access to Site Portion B34	19-Dec-21		0d	19-Dec-21		1d	0%
Mobilization Stage								
Site Mobilization Works								
Pre-Construction Works before Piling Commencement								
MOBP.10.1300	Trial Pit for Drillholes & Removal of Existing Substructures / Ground Slab [491 nos]	19-Aug-21	30-Apr-22	256d	19-Aug-21 A	01-May-22	570d	49.29%
MOBP.10.1320	GI Works	30-Sep-21	30-Apr-22	218d	14-Sep-21 A	01-May-22	558d	16.6%
MOBP.10.1180	Installation of Monitoring Check Points (Stage 1) [35 nos.]	27-Sep-21	16-Oct-21	25d	27-Sep-21 A	22-Oct-21 A		100%
MOBP.10.1240	Erection of Hoardings (Stage 1)	02-Oct-21	23-Oct-21	33d	27-Sep-21 A	30-Oct-21 A		100%
MOBP.10.1220	Installation of Monitoring Check Points (Extensometer)	11-Oct-21	13-Nov-21	34d	30-Oct-21	02-Dec-21	720d	0%
MOBP.10.1200	Installation of Monitoring Check Points (Stage 2) [33 nos.]	20-Nov-21	08-Dec-21	19d	20-Nov-21	08-Dec-21	714d	0%
MOBP.10.1260	Erection of Hoardings (Stage 2)	20-Dec-21	31-Jan-22	43d	20-Dec-21	31-Jan-22	660d	0%
Construction Stage								
Pile Construction								
Initial Mobilization								
MO.1000	Initial Mobilization for Predrilling of SSHP (CCC)	23-Jul-21	07-Sep-21	40d	30-Oct-21	15-Dec-21	13d	0%
Predrilling								
PD.1160	Predrilling for KD09 [22 / 134 nos.]	30-Sep-21	30-Mar-22	149d	30-Sep-21 A	30-Mar-22	341d	16%
PD.1080	Pre-drilling for KD05 [21 / 70 nos.]	30-Sep-21	30-Mar-22	149d	30-Sep-21 A	31-Mar-22	212d	30%



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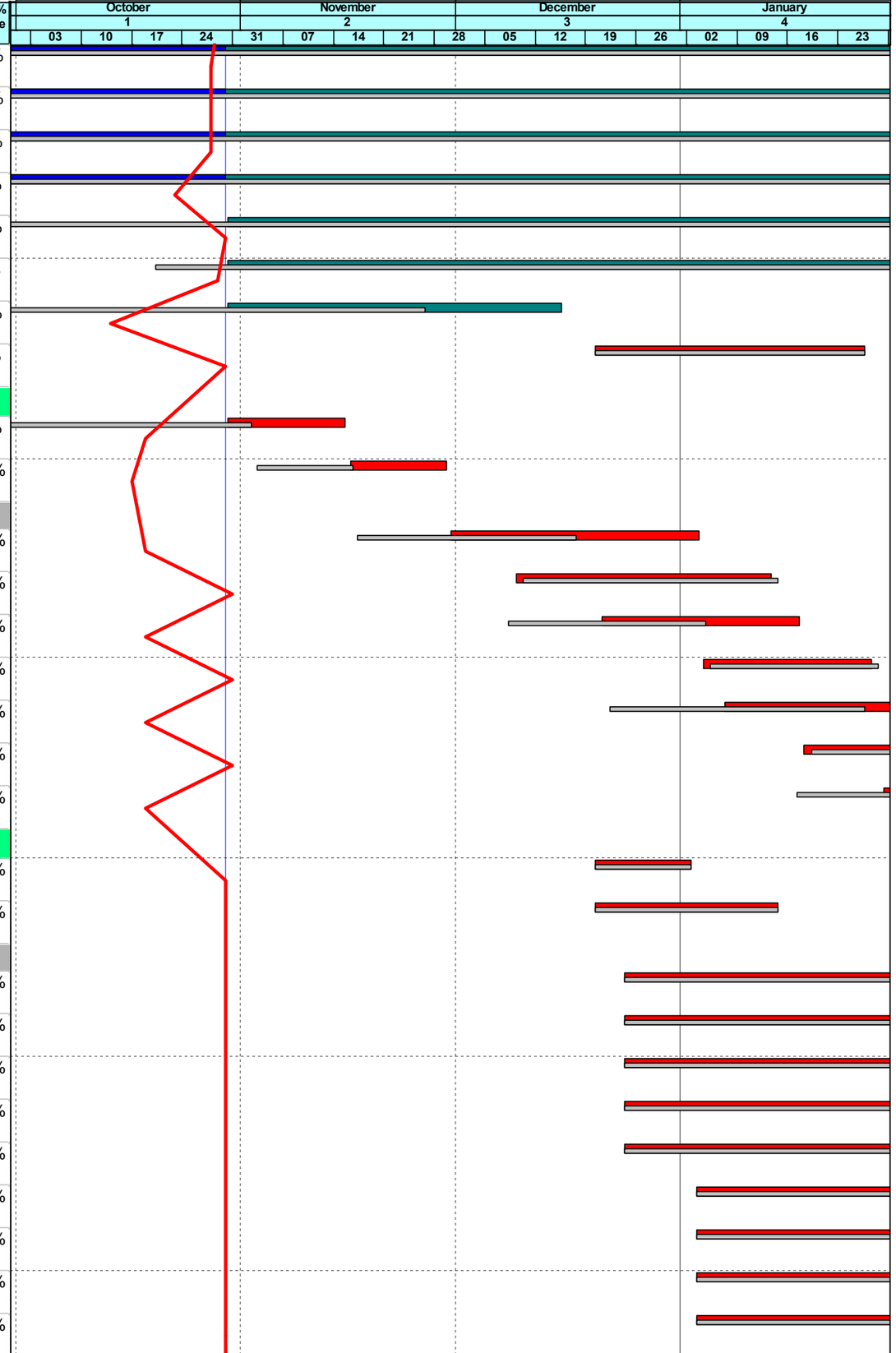
29-Sep-21	2nd Draft	KL	N
25-Oct-21	3rd Draft	KL	

Activity ID	Activity Name	CMWP 3rd Draft Start	CMWP 3rd Draft Finish	Dur	Start	Finish	Total Float	Activity % Complete
PD.1100	Predrilling for KD06 [19 / 94 nos.]	30-Sep-21	23-May-22	189d	30-Sep-21 A	25-May-22	299d	20.2%
PD.1120	Predrilling for KD07 [11 / 82 nos.]	30-Sep-21	23-May-22	189d	30-Sep-21 A	25-May-22	391d	13.4%
PD.1140	Predrilling for KD08 [8 / 58 nos.]	30-Sep-21	30-Mar-22	149d	30-Sep-21 A	01-Apr-22	323d	13.8%
PD.1060	Pre-drilling for KD04 [5 / 20 nos.]	30-Sep-21	30-Mar-22	149d	30-Sep-21 A	08-Apr-22	101d	25%
PD.1000	Pre-drilling for KD01 [14 nos.]	30-Sep-21	30-Mar-22	112d	30-Oct-21	30-Mar-22	36d	0%
PD.1040	Pre-drilling for KD03 [13 nos.]	20-Oct-21	06-May-22	152d	30-Oct-21	07-May-22	92d	0%
PD.1170	Predrilling for SSHP [12 nos.]	30-Sep-21	26-Nov-21	28d	30-Oct-21	15-Dec-21	13d	0%
PD.1020	Pre-drilling for KD02 [19 nos.]	20-Dec-21	26-Jan-22	30d	20-Dec-21	26-Jan-22	7d	0%
KD01 (Stage 1-1)								
KD01.BP.0000	G.I. / Predirlling Works for 1st Bored Pile	30-Sep-21	02-Nov-21	14d	30-Oct-21	15-Nov-21	0d	0%
KD01.BP.0020	Review and Confirmation of Rockhead and Founding Level of Pile by CA	03-Nov-21	16-Nov-21	14d	16-Nov-21	29-Nov-21	0d	0%
Bored Piles								
CBA-BP04	Bored Piling (Not Optional Item no.3) To be corrected	17-Nov-21	17-Dec-21	27d	30-Nov-21	03-Jan-22	0d	0%
P18-BP12	Bored Piling (Optional Item no.3)	10-Dec-21	14-Jan-22	28d	09-Dec-21	13-Jan-22	1d	0%
CBA-BPC38K	Bored Piling	08-Dec-21	04-Jan-22	21d	21-Dec-21	17-Jan-22	0d	0%
CBA-BPC36Jb	Bored Piling (Optional Item no.3)	05-Jan-22	28-Jan-22	21d	04-Jan-22	27-Jan-22	1d	0%
P17-BP04	Bored Piling (Optional Item no.3)	22-Dec-21	26-Jan-22	28d	07-Jan-22	11-Feb-22	0d	0%
CBA-BPC36Ka	Bored Piling (Optional Item no.3)	19-Jan-22	15-Feb-22	21d	18-Jan-22	14-Feb-22	1d	0%
P18-BP04	Bored Piling (Optional Item no.3)	17-Jan-22	21-Feb-22	28d	29-Jan-22	05-Mar-22	0d	0%
KD02 (Stage 5-1)								
KD02.BP.0040	Review and Confirmation of Rockhead and Founding Level of Pile by CA	20-Dec-21	02-Jan-22	14d	20-Dec-21	02-Jan-22	0d	0%
KD02.BP.0020	G.I. / Predirlling Works for 1st Bored Pile	20-Dec-21	14-Jan-22	20d	20-Dec-21	14-Jan-22	0d	0%
Bored Piles								
P18-BP53	Bored Piling	24-Dec-21	07-Feb-22	33d	24-Dec-21	07-Feb-22	0d	0%
P18-BP54	Bored Piling	24-Dec-21	07-Feb-22	33d	24-Dec-21	07-Feb-22	0d	0%
P18-BP59	Bored Piling	24-Dec-21	07-Feb-22	33d	24-Dec-21	07-Feb-22	0d	0%
P18-BP60	Bored Piling	24-Dec-21	07-Feb-22	33d	24-Dec-21	07-Feb-22	0d	0%
P18-BP64	Bored Piling	24-Dec-21	07-Feb-22	33d	24-Dec-21	07-Feb-22	0d	0%
P18-BP15	Bored Piling	03-Jan-22	07-Feb-22	28d	03-Jan-22	07-Feb-22	0d	0%
P18-BP16	Bored Piling	03-Jan-22	07-Feb-22	28d	03-Jan-22	07-Feb-22	0d	0%
P18-BP17	Bored Piling (Optional Item no.3)	03-Jan-22	07-Feb-22	28d	03-Jan-22	07-Feb-22	0d	0%
P18-BP18	Bored Piling (Optional Item no.3)	03-Jan-22	07-Feb-22	28d	03-Jan-22	07-Feb-22	0d	0%



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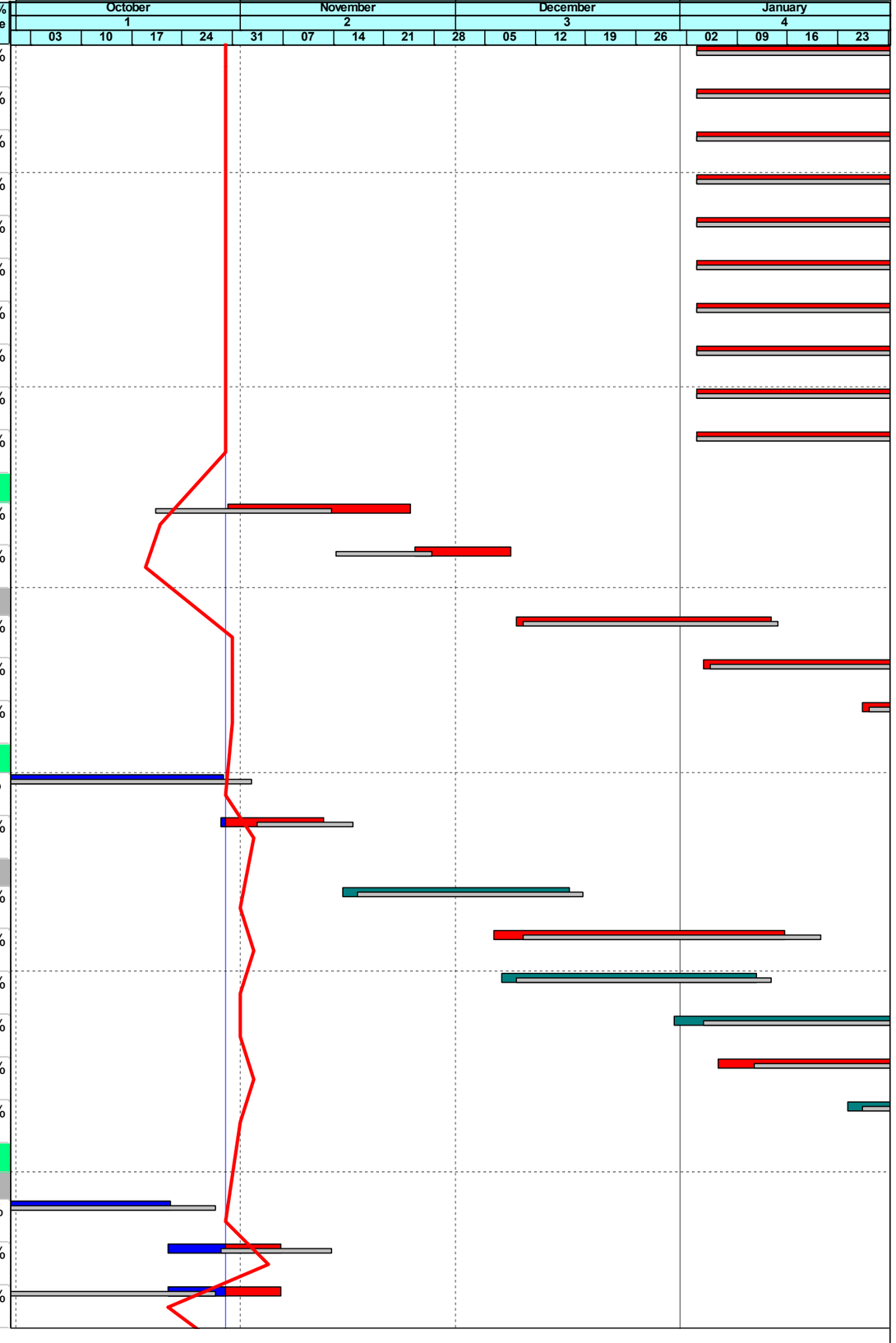
P18-BP23	Bored Piling	03-Jan-22	07-Feb-22	28d	03-Jan-22	07-Feb-22	0d	0%
P18-BP24	Bored Piling (Optional Item no.3)	03-Jan-22	07-Feb-22	28d	03-Jan-22	07-Feb-22	0d	0%
P18-BP29	Bored Piling	03-Jan-22	07-Feb-22	28d	03-Jan-22	07-Feb-22	0d	0%
P18-BP30	Bored Piling (Optional Item no.3)	03-Jan-22	07-Feb-22	28d	03-Jan-22	07-Feb-22	0d	0%
P18-BP35	Bored Piling	03-Jan-22	07-Feb-22	28d	03-Jan-22	07-Feb-22	0d	0%
P18-BP36	Bored Piling	03-Jan-22	07-Feb-22	28d	03-Jan-22	07-Feb-22	0d	0%
P18-BP41	Bored Piling	03-Jan-22	07-Feb-22	28d	03-Jan-22	07-Feb-22	0d	0%
P18-BP42	Bored Piling	03-Jan-22	07-Feb-22	28d	03-Jan-22	07-Feb-22	0d	0%
P18-BP47	Bored Piling	03-Jan-22	07-Feb-22	28d	03-Jan-22	07-Feb-22	0d	0%
P18-BP48	Bored Piling	03-Jan-22	07-Feb-22	28d	03-Jan-22	07-Feb-22	0d	0%
KD03 (Stage 3-1)								
KD03.BP.0020	G.I. / Predirlling Works for 1st Bored Pile	20-Oct-21	13-Nov-21	22d	30-Oct-21	24-Nov-21	1d	0%
KD03.BP.0040	Review and Confirmation of Rockhead and Founding Level of Pile by CA	14-Nov-21	27-Nov-21	14d	25-Nov-21	08-Dec-21	1d	0%
Bored Piles								
P28&P29-BP01	Bored Piling	10-Dec-21	14-Jan-22	28d	09-Dec-21	13-Jan-22	1d	0%
P28&P29-BP06	Bored Piling	05-Jan-22	09-Feb-22	28d	04-Jan-22	08-Feb-22	1d	0%
P28&P29-BP09	Bored Piling	27-Jan-22	09-Mar-22	33d	26-Jan-22	08-Mar-22	1d	0%
KD04 (Stage 4-1)								
KD04.BP.0020	G.I. / Predirlling Works for 1st Bored Pile	30-Sep-21	02-Nov-21	24d	30-Sep-21 A	29-Oct-21 A		100%
KD04.BP.0040	Review and Confirmation of Rockhead and Founding Level of Pile by CA	03-Nov-21	16-Nov-21	15d	29-Oct-21 A	12-Nov-21	4d	0%
Bored Piles								
P30-BP01	Bored Piling	17-Nov-21	18-Dec-21	28d	15-Nov-21	16-Dec-21	27d	0%
P30-BP58	Bored Piling	10-Dec-21	20-Jan-22	33d	06-Dec-21	15-Jan-22	4d	0%
P30-BP07	Bored Piling	09-Dec-21	13-Jan-22	28d	07-Dec-21	11-Jan-22	27d	0%
P30-BP08	Bored Piling	04-Jan-22	08-Feb-22	28d	31-Dec-21	05-Feb-22	27d	0%
P30-BP60	Bored Piling	11-Jan-22	21-Feb-22	33d	06-Jan-22	16-Feb-22	4d	0%
P30-BP13	Bored Piling	26-Jan-22	02-Mar-22	28d	24-Jan-22	28-Feb-22	27d	0%
KD05 (Section 1)								
Trial Pile (P23-BP11 (Regular Pile))								
KD04.BP.0010	G.I. / Predirlling Works for 1st Bored Pile	30-Sep-21	28-Oct-21	17d	30-Sep-21 A	22-Oct-21 A		100%
KD05.BP.0020	Review and Confirmation of Rockhead and Founding Level of Pile by CA	29-Oct-21	13-Nov-21	14d	22-Oct-21 A	06-Nov-21	6d	0%
MO.1060	Initial Mobilization for BP (CCD / KD05 / KD01)	15-Sep-21	28-Oct-21	14d	22-Oct-21 A	06-Nov-21	6d	25%



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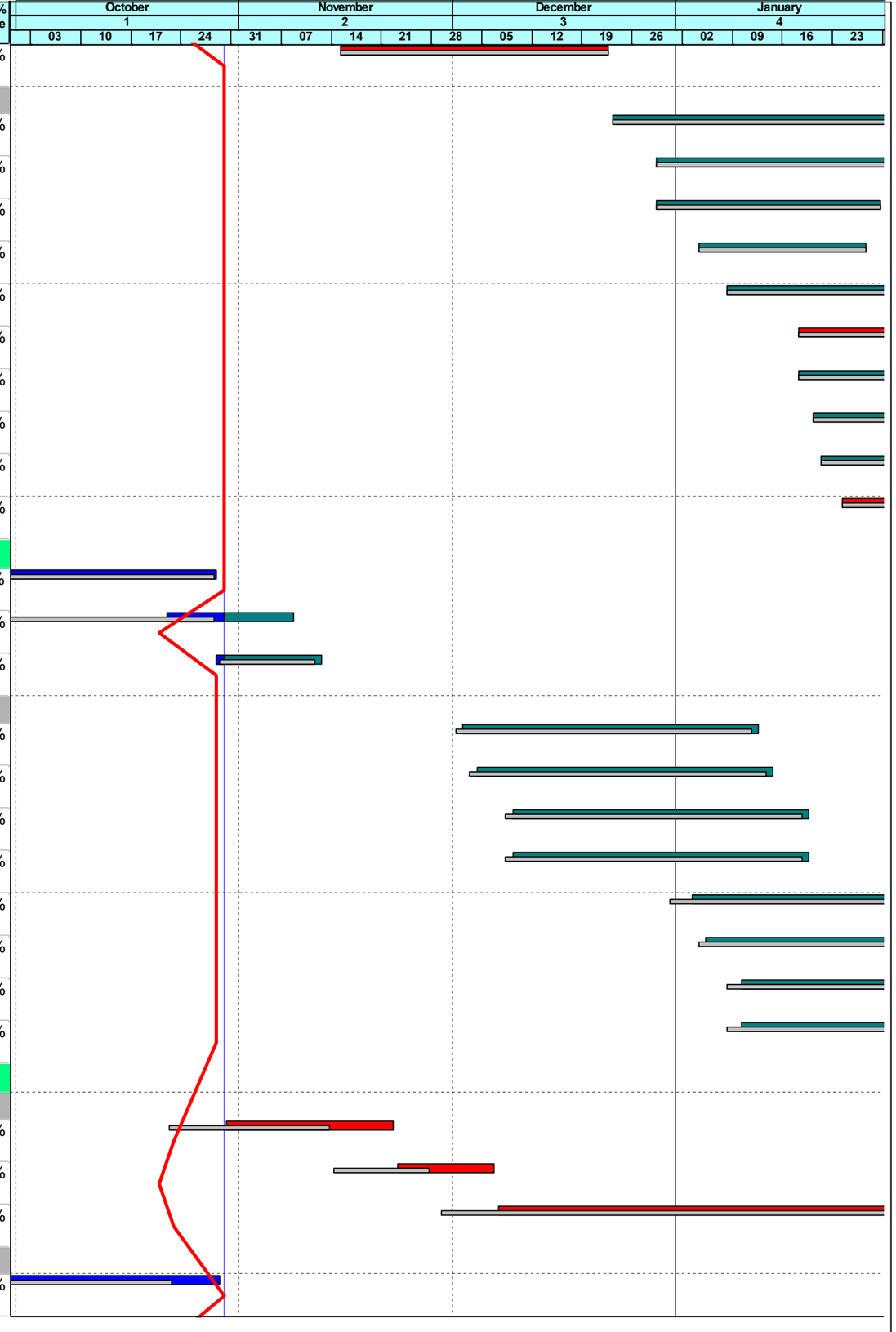
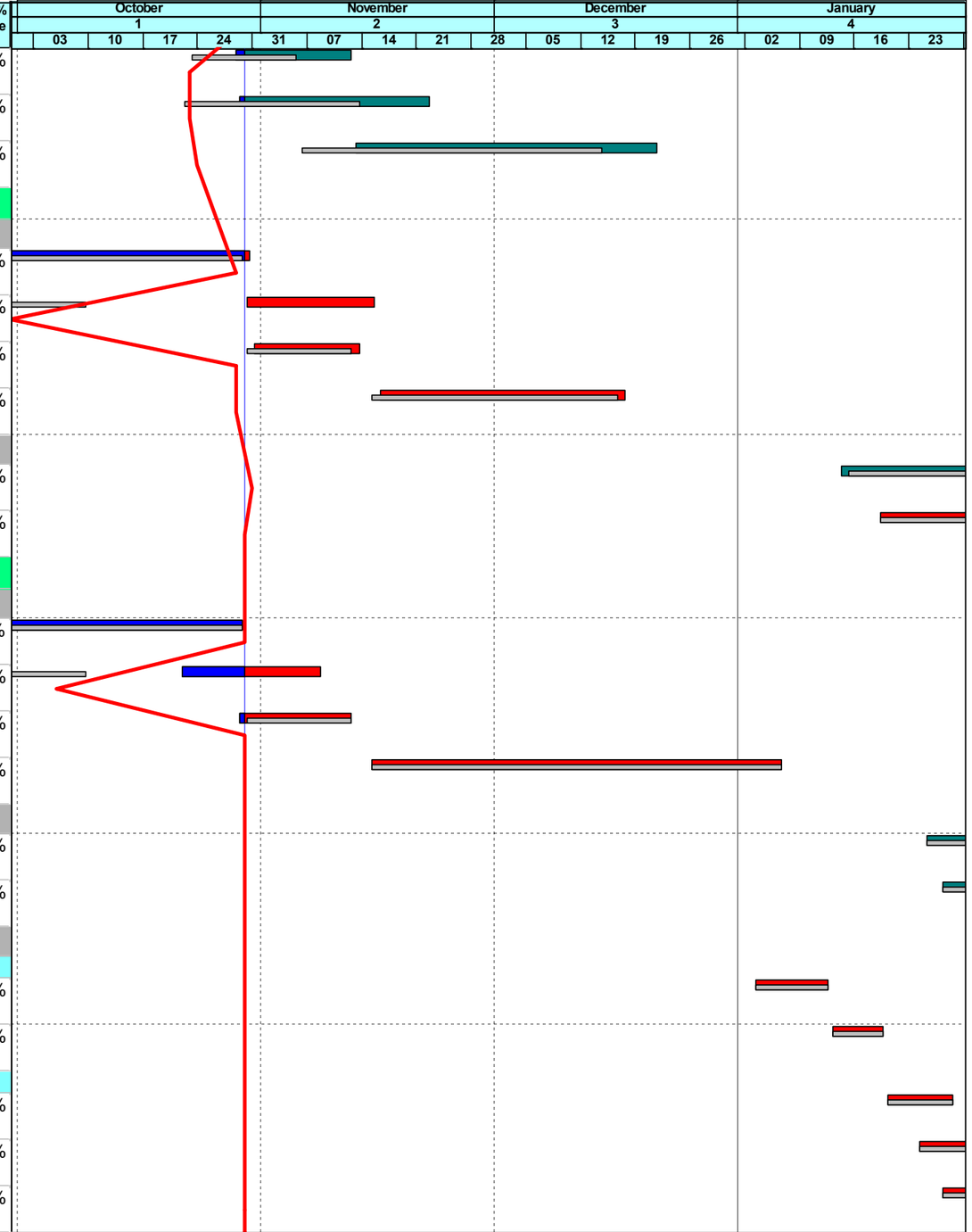
P23-BP11	Bored Piling	15-Nov-21	22-Dec-21	33d	15-Nov-21	22-Dec-21	0d	0%
Bored Piles								
P23-BP22	Bored Piling	23-Dec-21	05-Feb-22	33d	23-Dec-21	05-Feb-22	11d	0%
P17-BP15	Bored Piling	29-Dec-21	31-Jan-22	28d	29-Dec-21	31-Jan-22	9d	0%
CBA-BPC44K	Bored Piling	29-Dec-21	29-Jan-22	27d	29-Dec-21	29-Jan-22	12d	0%
CBA-BPC40M	Bored Piling	04-Jan-22	27-Jan-22	21d	04-Jan-22	27-Jan-22	8d	0%
P22&P19-BP10	Bored Piling	08-Jan-22	18-Feb-22	33d	08-Jan-22	18-Feb-22	10d	0%
P22&P19-BP26	Bored Piling	18-Jan-22	11-Mar-22	43d	18-Jan-22	11-Mar-22	0d	0%
CBA-BPC40Na	Bored Piling	18-Jan-22	14-Feb-22	21d	18-Jan-22	14-Feb-22	8d	0%
P18-BP01	Bored Piling	20-Jan-22	02-Mar-22	33d	20-Jan-22	02-Mar-22	12d	0%
P17-BP17	Bored Piling	21-Jan-22	25-Feb-22	28d	21-Jan-22	25-Feb-22	9d	0%
P17-BP03	Bored Piling	24-Jan-22	28-Feb-22	28d	24-Jan-22	28-Feb-22	7d	0%
KD06 (Section 2)								
KD06.BP.0020	G.I. / Predirlling Works for 1st Bored Pile [8 nos.]	30-Sep-21	28-Oct-21	22d	30-Sep-21 A	29-Oct-21 A		100%
MO.1070	Initial Mobilization for BP (CCE / KD06)	15-Sep-21	28-Oct-21	15d	22-Oct-21 A	08-Nov-21	37d	25%
KD06.BP.0060	Review and Confirmation of Rockhead and Founding Level of Pile by CA	29-Oct-21	11-Nov-21	15d	29-Oct-21 A	12-Nov-21	13d	0%
Bored Piles								
P22&P19-BP18	Bored Piling	01-Dec-21	11-Jan-22	33d	02-Dec-21	12-Jan-22	13d	0%
P23-BP02	Bored Piling	03-Dec-21	13-Jan-22	33d	04-Dec-21	14-Jan-22	12d	0%
P22&P19-BP02	Bored Piling	08-Dec-21	18-Jan-22	33d	09-Dec-21	19-Jan-22	11d	0%
P23-BP25	Bored Piling	08-Dec-21	18-Jan-22	33d	09-Dec-21	19-Jan-22	12d	0%
P22&P19-BP19	Bored Piling	31-Dec-21	11-Feb-22	33d	03-Jan-22	12-Feb-22	13d	0%
P23-BP07	Bored Piling	04-Jan-22	14-Feb-22	33d	05-Jan-22	15-Feb-22	12d	0%
P22&P19-BP14	Bored Piling	08-Jan-22	18-Feb-22	33d	10-Jan-22	19-Feb-22	11d	0%
P23-BP26	Bored Piling	08-Jan-22	02-Mar-22	43d	10-Jan-22	03-Mar-22	12d	0%
KD07 (Section 3)								
Trial Pile (P30-BP76)								
KD07.BP.0000	G.I. / Predirlling Works for 1st Bored Pile (with E1) [9 nos.]	22-Oct-21	13-Nov-21	20d	30-Oct-21	22-Nov-21	0d	0%
KD07.BP.0020	Review and Confirmation of Rockhead and Founding Level of Pile by CA	14-Nov-21	27-Nov-21	14d	23-Nov-21	06-Dec-21	0d	0%
P30-BP76	Bored Piling (Trial Pile for Schedule 1)	29-Nov-21	11-Feb-22	59d	07-Dec-21	19-Feb-22	0d	0%
Trial Pile (P24&P27-BP34)								
KD07.BP.0040	G.I. / Predirlling Works for 1st Bored Pile (with E2) [6 nos.]	30-Sep-21	22-Oct-21	23d	16-Sep-21 A	29-Oct-21 A		100%



Activity ID	Activity Name	CMWP 3rd Draft Start	CMWP 3rd Draft Finish	Dur	Start	Finish	Total Float	Activity % Complete
KD07.BP.0060	Review and Confirmation of Rockhead and Founding Level of Pile by CA	23-Oct-21	05-Nov-21	15d	29-Oct-21 A	12-Nov-21	75d	0%
MO.1080	Initial Mobilization for BP (CCF / KD07 / KD03)	22-Oct-21	13-Nov-21	21d	29-Oct-21 A	22-Nov-21	12d	25%
P24&P27-BP34	Bored Piling (Trial Pile for Schedule 2)	06-Nov-21	14-Dec-21	33d	13-Nov-21	21-Dec-21	61d	0%
KD08 (Section 4)								
Trial Pile (P30-BP15)								
KD08.BP.60	G.I. / Predirlling Works for 1st Bored Pile (with E3) [6 / 9 nos.]	30-Sep-21	29-Oct-21	24d	30-Sep-21 A	30-Oct-21	0d	66%
MO.1090	Initial Mobilization for BP (CCG / KD08 / KD04)	15-Sep-21	09-Oct-21	14d	30-Oct-21	15-Nov-21	0d	0%
KD08.BP.70	Review and Confirmation of Rockhead and Founding Level of Pile by CA	30-Oct-21	12-Nov-21	14d	31-Oct-21	13-Nov-21	2d	0%
P30-BP15	Bored Piling (Trial Pile for Schedule 3)	15-Nov-21	16-Dec-21	28d	16-Nov-21	17-Dec-21	0d	0%
Bored Piles								
P30-BP11	Bored Piling	15-Jan-22	25-Feb-22	33d	14-Jan-22	24-Feb-22	14d	0%
P30-BP19	Bored Piling	19-Jan-22	12-Mar-22	43d	19-Jan-22	12-Mar-22	5d	0%
KD09 (Section 5)								
Trial Piles (P23-BP68)								
KD08.BP.80	G.I. / Predirlling Works for 1st Bored Pile (with E4) [8 nos.]	30-Sep-21	29-Oct-21	24d	30-Sep-21 A	29-Oct-21 A		100%
MO.1100	Initial Mobilization for BP (CCH / KD09 / KD02)	15-Sep-21	09-Oct-21	15d	22-Oct-21 A	08-Nov-21	5d	25%
KD08.BP.90	Review and Confirmation of Rockhead and Founding Level of Pile by CA	30-Oct-21	12-Nov-21	15d	29-Oct-21 A	12-Nov-21	2d	0%
P23-BP68	Bored Piling (Trial Pile for Schedule 4)	15-Nov-21	06-Jan-22	43d	15-Nov-21	06-Jan-22	0d	0%
Bored Piles								
P23-BP60	Bored Piling	25-Jan-22	18-Mar-22	43d	25-Jan-22	18-Mar-22	12d	0%
P23-BP82	Bored Piling	27-Jan-22	21-Mar-22	43d	27-Jan-22	21-Mar-22	8d	0%
Socketed Steel H- Piles								
Trial Pile								
KD09.SSHP.0000	Test Installation of Pile (SHP-C52Xa-P6)	03-Jan-22	12-Jan-22	9d	03-Jan-22	12-Jan-22	1d	0%
KD09.SSHP.0020	Submission and Approval of Installation Report by BD	13-Jan-22	19-Jan-22	7d	13-Jan-22	19-Jan-22	1d	0%
Socketed Steel H- Pile Construction								
SHP-BW-52Y1b-P1	Socketed Steel H-Piling	20-Jan-22	28-Jan-22	8d	20-Jan-22	28-Jan-22	1d	0%
SHP-BW-52Y1b-P2	Socketed Steel H-Piling	24-Jan-22	04-Feb-22	8d	24-Jan-22	04-Feb-22	1d	0%
SHP-C52W-P1	Socketed Steel H-Piling	27-Jan-22	08-Feb-22	8d	27-Jan-22	08-Feb-22	1d	0%



Planned Bar · Critical Bar · Milestone · Critical MS · Actual Work Completed · Baseline MS

West Kowloon Cultural District Authority
Piling for Integrated Basement and U/G Road in Zone 2B 2C
3 Month Rolling Programme as of 30-Oct-21
Based on CMWP 3rd Draft

Date	Revision	Checked	Approved
06-Aug-21	1st Draft	KL	N
29-Sep-21	2nd Draft	KL	N
25-Oct-21	3rd Draft	KL	

C. Environmental Mitigation Measures – Implementation Status

Table C-1: Environmental Mitigation Measures Implementation Status

		Implementation Stage					
		Zone 2A			Zone 2B & 2C		
EM&A Ref.	Recommendation Measures	Aug 2021	Sep 2021	Oct 2021	Aug 2021	Sep 2021	Oct 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)	✓	✓	✓	N/A	✓	✓
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* • 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.	Obs	Obs	Obs	N/A	✓	✓

EM&A Ref.	Recommendation Measures	Implementation Stage					
		Zone 2A			Zone 2B & 2C		
		Aug 2021	Sep 2021	Oct 2021	Aug 2021	Sep 2021	Oct 2021
	Disturbed Parts of the Roads	✓	✓	✓	N/A	✓	✓
	• 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	N/A	✓	✓
	Exposed Earth	N/A	N/A	N/A	N/A	N/A	N/A
	• 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.						
	Loading, Unloading or Transfer of Dusty Materials	✓	✓	✓	N/A	✓	✓
	• 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	✓	✓	✓	N/A	✓	✓
	• Any debris should be covered entirely by impervious sheeting or stored in a debris collection area sheltered on the top and the three sides.						
	• 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	N/A	N/A	N/A
	Transport of Dusty Materials	✓	✓	✓	N/A	✓	✓
	• 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.						

EM&A Ref.	Recommendation Measures	Implementation Stage					
		Zone 2A			Zone 2B & 2C		
		Aug 2021	Sep 2021	Oct 2021	Aug 2021	Sep 2021	Oct 2021
	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.	✓	✓	✓	N/A	✓	✓
	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.	✓	✓	✓	N/A	✓	✓
	• Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels.	✓	✓	✓	N/A	✓	✓
	• 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.	✓	✓	✓	N/A	✓	✓
	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.	✓	✓	✓	N/A	✓	✓
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:						

EM&A Ref.	Recommendation Measures	Implementation Stage					
		Zone 2A			Zone 2B & 2C		
		Aug 2021	Sep 2021	Oct 2021	Aug 2021	Sep 2021	Oct 2021
	Exhaust from Dust Arrestment Plant • 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	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	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	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.	✓	✓	✓	N/A	✓	✓
Noise Impact (Construction)							
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;	✓	✓	✓	N/A	✓	✓

EM&A Ref.	Recommendation Measures	Implementation Stage					
		Zone 2A			Zone 2B & 2C		
		Aug 2021	Sep 2021	Oct 2021	Aug 2021	Sep 2021	Oct 2021
	• machines and plant that may be in intermittent use to be shut down between work periods or should be throttled down to a minimum	Rem	✓	✓	N/A	✓	✓
	• plant known to emit noise strongly in one direction, should, where possible, be orientated to direct noise away from the NSRs;	✓	✓	✓	N/A	✓	✓
	• mobile plant should be sited as far away from NSRs as possible; and	✓	✓	✓	N/A	✓	✓
	• material stockpiles and other structures to be effectively utilised, where practicable, to screen noise from on-site construction activities.	✓	✓	✓	N/A	✓	✓
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.	✓	✓	✓	N/A	✓	✓
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	✓	✓	N/A	✓	✓
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.	✓	✓	✓	N/A	✓	Rem

		Implementation Stage					
		Zone 2A			Zone 2B & 2C		
EM&A Ref.	Recommendation Measures	Aug 2021	Sep 2021	Oct 2021	Aug 2021	Sep 2021	Oct 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.	✓	✓	✓	N/A	✓	✓
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.	✓	✓	✓	N/A	✓	✓
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;	Obs	✓	✓	N/A	✓	✓

EM&A Ref.	Recommendation Measures	Implementation Stage					
		Zone 2A			Zone 2B & 2C		
		Aug 2021	Sep 2021	Oct 2021	Aug 2021	Sep 2021	Oct 2021
	• 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.	✓	✓	✓	N/A	✓	✓
	• 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	Rem	Obs	N/A	✓	✓
	• 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.	✓	✓	✓	N/A	✓	✓
	• 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.	✓	✓	Obs	N/A	✓	✓

EM&A Ref.	Recommendation Measures	Implementation Stage					
		Zone 2A			Zone 2B & 2C		
		Aug 2021	Sep 2021	Oct 2021	Aug 2021	Sep 2021	Oct 2021
	• 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.	Obs	Obs	Obs	N/A	✓	✓
	• 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.	✓	✓	✓	N/A	✓	✓
	• 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	Obs	N/A	✓	Rem
	• 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	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	N/A	N/A	N/A

EM&A Ref.	Recommendation Measures	Implementation Stage					
		Zone 2A			Zone 2B & 2C		
		Aug 2021	Sep 2021	Oct 2021	Aug 2021	Sep 2021	Oct 2021
	• 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	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	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	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.	✓	✓	✓	N/A	✓	✓
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	Obs	Obs	N/A	✓	✓
	• 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	N/A	✓	✓
Waste Management Implications (Construction)							

		Implementation Stage					
		Zone 2A			Zone 2B & 2C		
EM&A Ref.	Recommendation Measures	Aug 2021	Sep 2021	Oct 2021	Aug 2021	Sep 2021	Oct 2021
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	✓	✓	✓	N/A	✓	✓
	• Training of site personnel in proper waste management and chemical handling procedures	✓	✓	✓	N/A	✓	✓
	• Provision of sufficient waste disposal points and regular collection of waste	✓	✓	✓	N/A	✓	✓
	• Appropriate measures to minimise windblown litter and dust/odour during transportation of waste by either covering trucks or by transporting wastes in enclosed containers	✓	✓	✓	N/A	✓	✓
	• Provision of wheel washing facilities before the trucks leaving the works area so as to minimise dust introduction to public roads	✓	✓	✓	N/A	✓	✓
	• 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	✓	✓	✓	N/A	✓	✓
6.1	**Waste Reduction Measures**						
	Recommendations to achieve waste reduction include:						
	• Sort inert C&D material to recover any recyclable portions such as metals	✓	✓	✓	N/A	✓	✓
	• Segregation and storage of different types of waste in different containers or skips to enhance reuse or recycling of materials and their proper disposal	✓	✓	✓	N/A	✓	✓
	• 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	✓	✓	✓	N/A	✓	✓

EM&A Ref.	Recommendation Measures	Implementation Stage					
		Zone 2A			Zone 2B & 2C		
		Aug 2021	Sep 2021	Oct 2021	Aug 2021	Sep 2021	Oct 2021
	• Proper site practices to minimise the potential for damage or contamination of inert C&D materials	✓	✓	✓	N/A	✓	✓
	• Plan the use of construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of wastes	✓	✓	✓	N/A	✓	✓
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.	✓	✓	✓	N/A	✓	✓
	• 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.	✓	✓	✓	N/A	✓	✓
	• 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.	✓	✓	✓	N/A	✓	✓

EM&A Ref.	Recommendation Measures	Implementation Stage					
		Zone 2A			Zone 2B & 2C		
		Aug 2021	Sep 2021	Oct 2021	Aug 2021	Sep 2021	Oct 2021
	• 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.	✓	✓	✓	N/A	✓	✓
6.1	**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.	✓	✓	✓	N/A	N/A	✓

EM&A Ref.	Recommendation Measures	Implementation Stage					
		Zone 2A			Zone 2B & 2C		
		Aug 2021	Sep 2021	Oct 2021	Aug 2021	Sep 2021	Oct 2021
	• 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.	✓	✓	✓	N/A	N/A	✓
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.	✓	✓	✓	N/A	✓	✓
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:						
	• 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	N/A

EM&A Ref.	Recommendation Measures	Implementation Stage					
		Zone 2A			Zone 2B & 2C		
		Aug 2021	Sep 2021	Oct 2021	Aug 2021	Sep 2021	Oct 2021
	• 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	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	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	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	N/A
	• Truck bodies and tailgates should be sealed to stop any discharge;	N/A	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	N/A
	• Speed control for trucks carrying contaminated materials should be exercised;	N/A	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	N/A
	• Maintain records of waste generation and disposal quantities and disposal arrangements.	N/A	N/A	N/A	N/A	N/A	N/A
Ecological Impact (Construction)							
	No mitigation measure is required.						
Landscape and Visual Impact (Construction)							

		Implementation Stage					
		Zone 2A			Zone 2B & 2C		
EM&A Ref.	Recommendation Measures	Aug 2021	Sep 2021	Oct 2021	Aug 2021	Sep 2021	Oct 2021
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.	✓	✓	✓	N/A	✓	✓
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	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	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	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	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	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	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	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	N/A

		Implementation Stage					
		Zone 2A			Zone 2B & 2C		
EM&A Ref.	Recommendation Measures	Aug 2021	Sep 2021	Oct 2021	Aug 2021	Sep 2021	Oct 2021
Table 9.2 (MCP1)	Use of decorative screen hoarding/boards	✓	✓	✓	N/A	✓	✓
Table 9.2 (MCP2)	Early introduction of landscape treatments	N/A	N/A	N/A	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	N/A	N/A	N/A
Table 9.2 (MCP4)	Control of night time lighting	✓	✓	✓	N/A	✓	✓
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	N/A	N/A

N/A - Not Applicable

✓ - Implemented

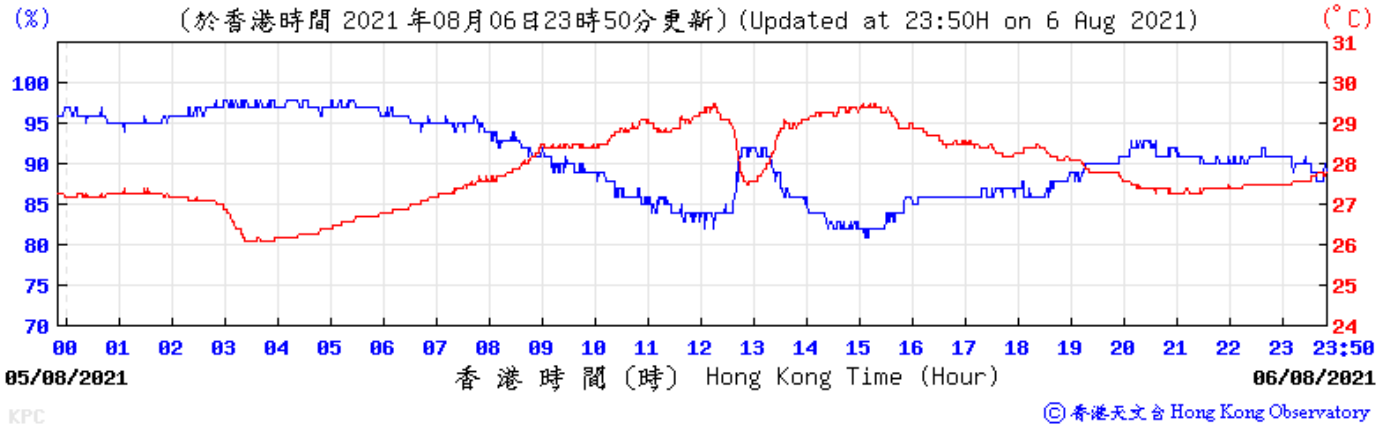
Obs - Observed

Rem - Reminder

D. Meteorological Data Extracted from Hong Kong Observatory

Extract of Meteorological Observations for King's Park Automatic Weather Station, August 2021

Tempearture/Humidity:



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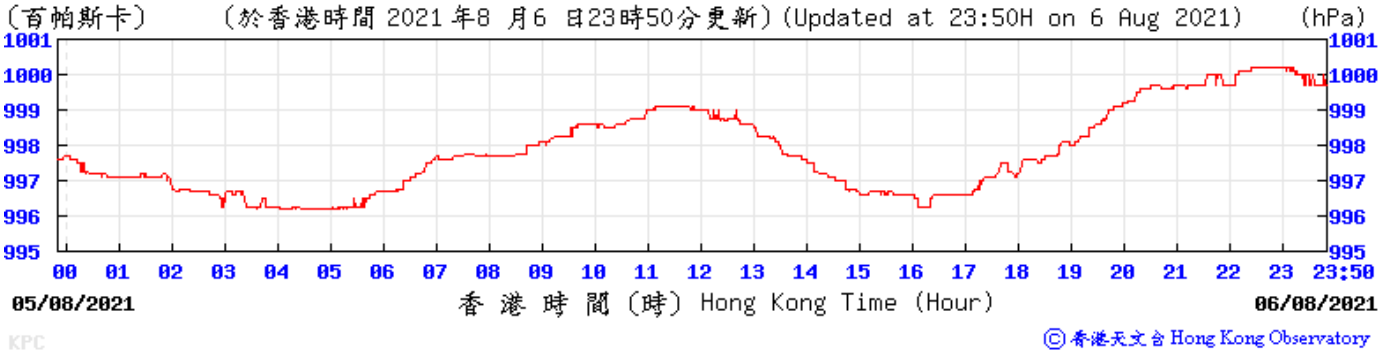

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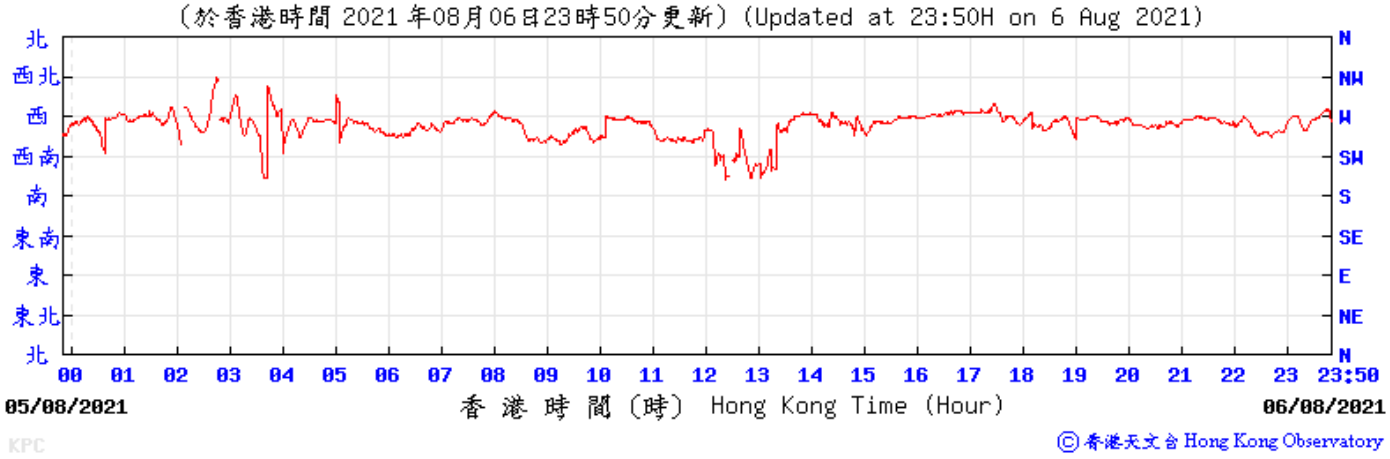

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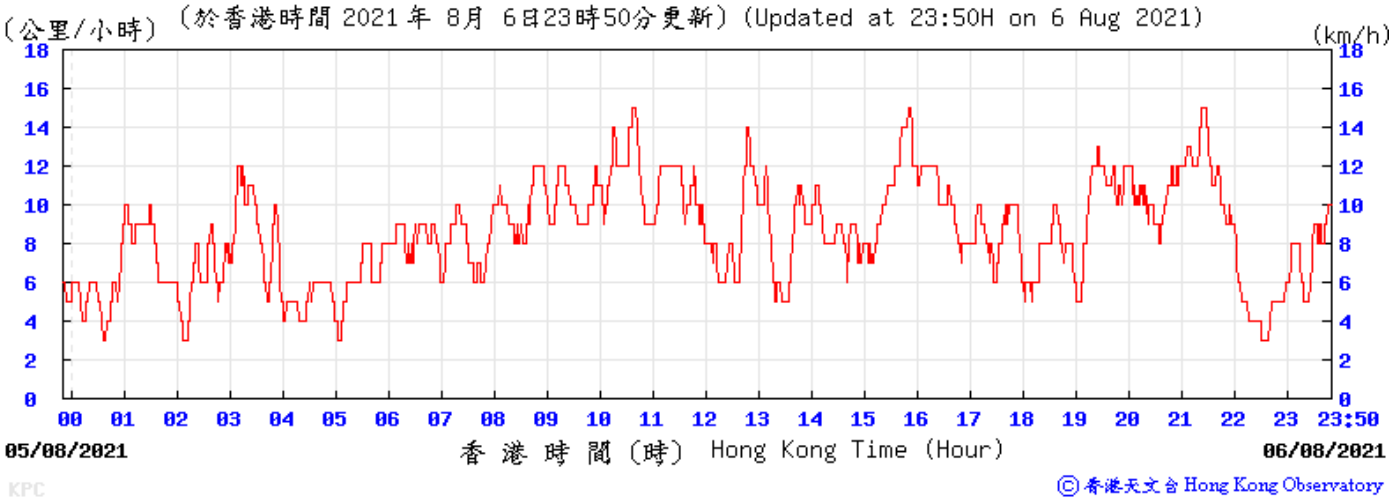

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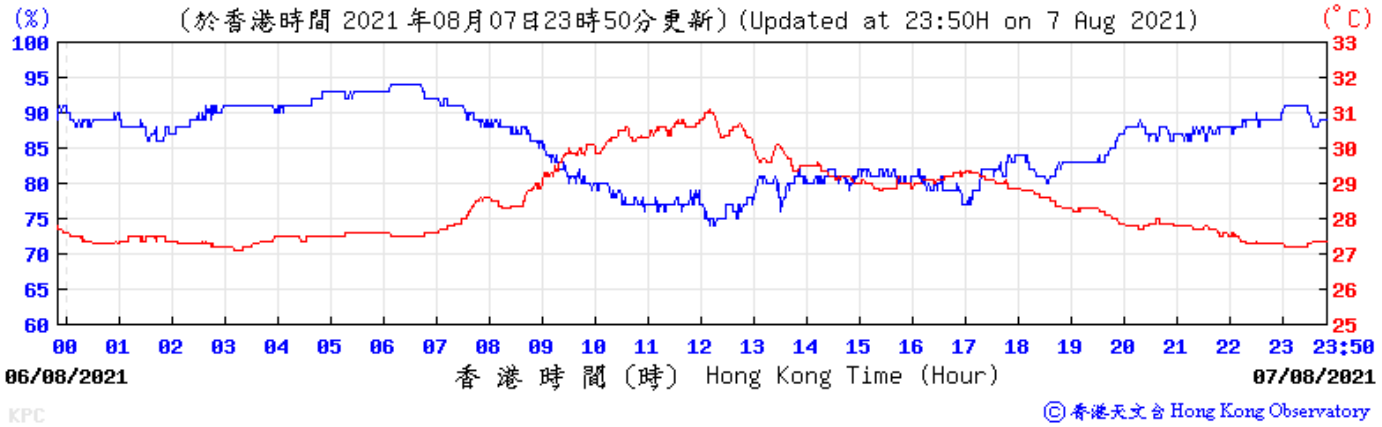

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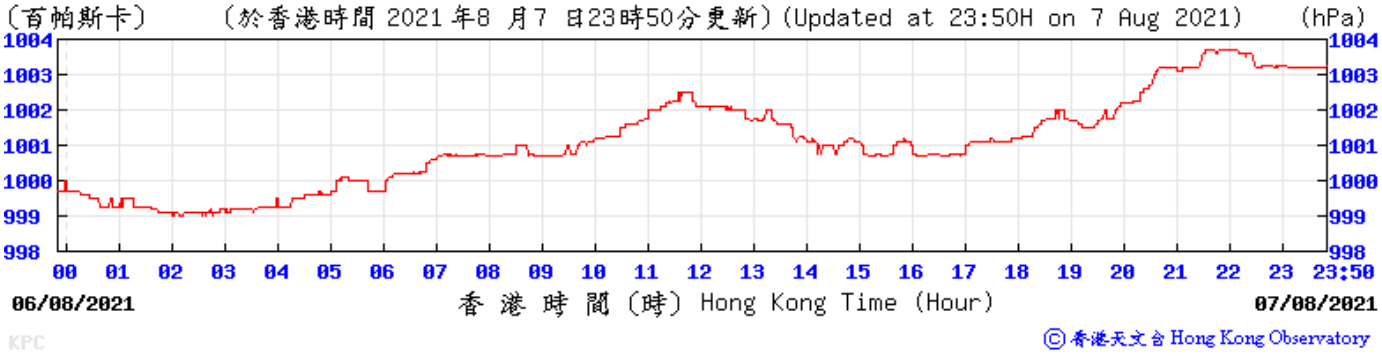

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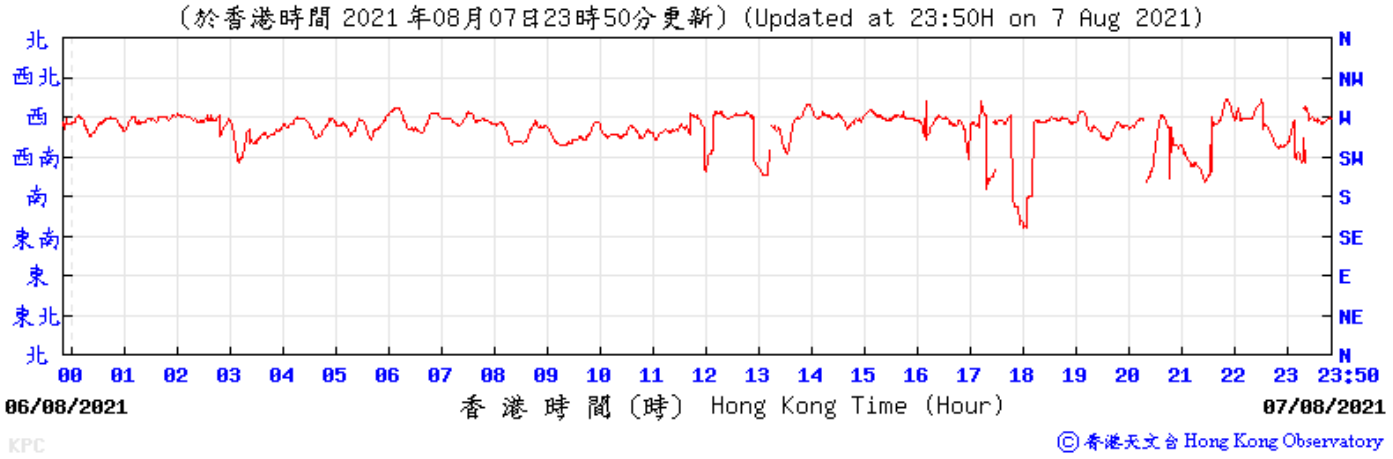

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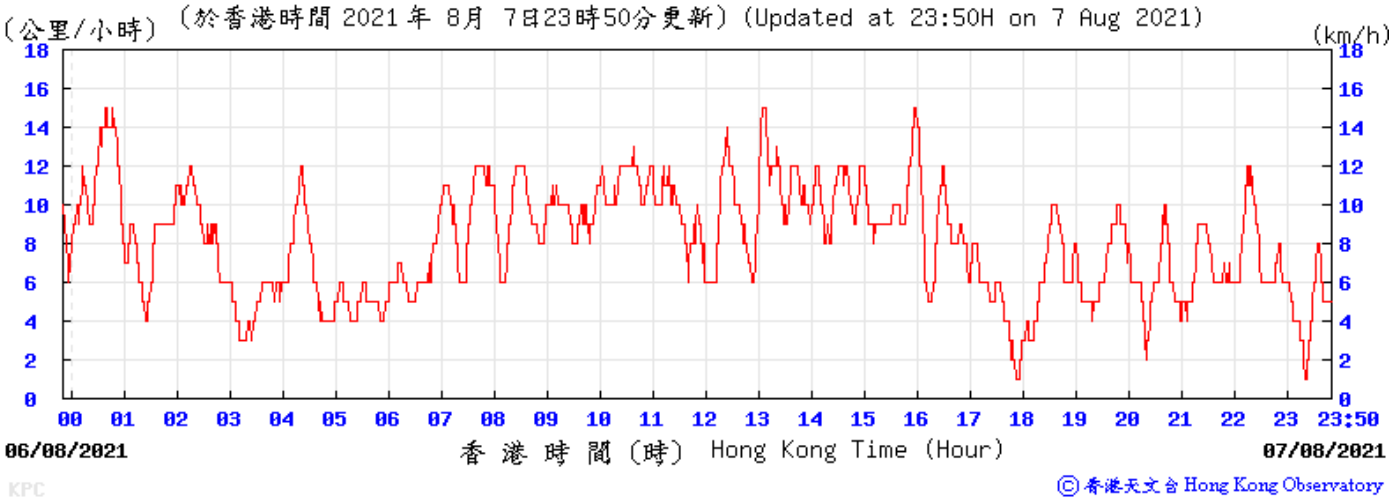

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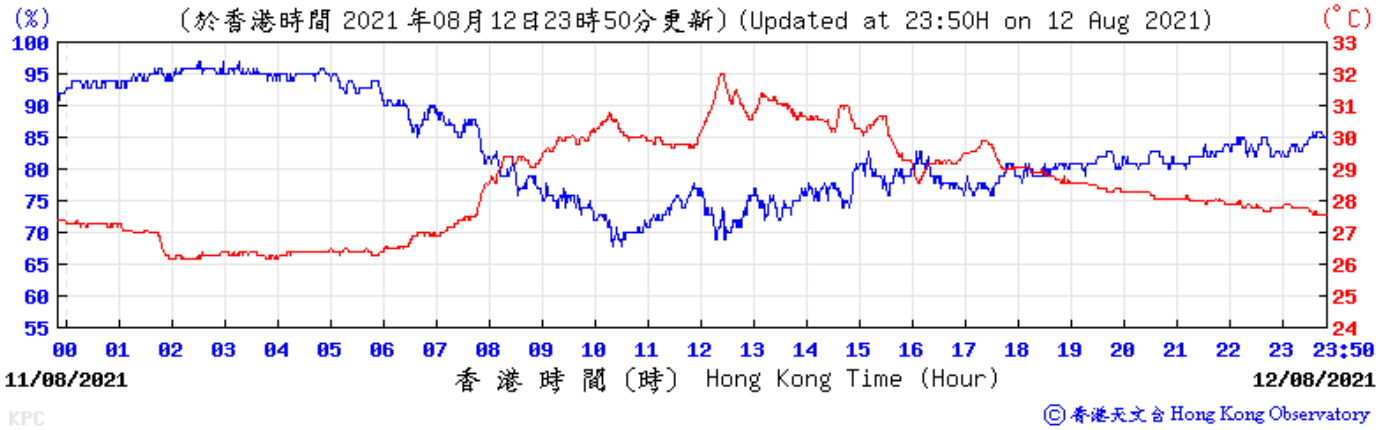

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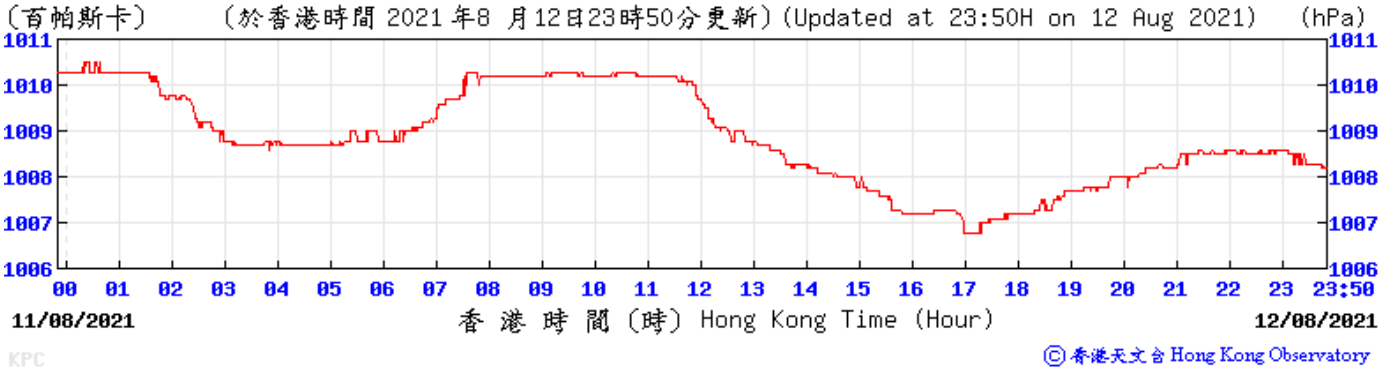

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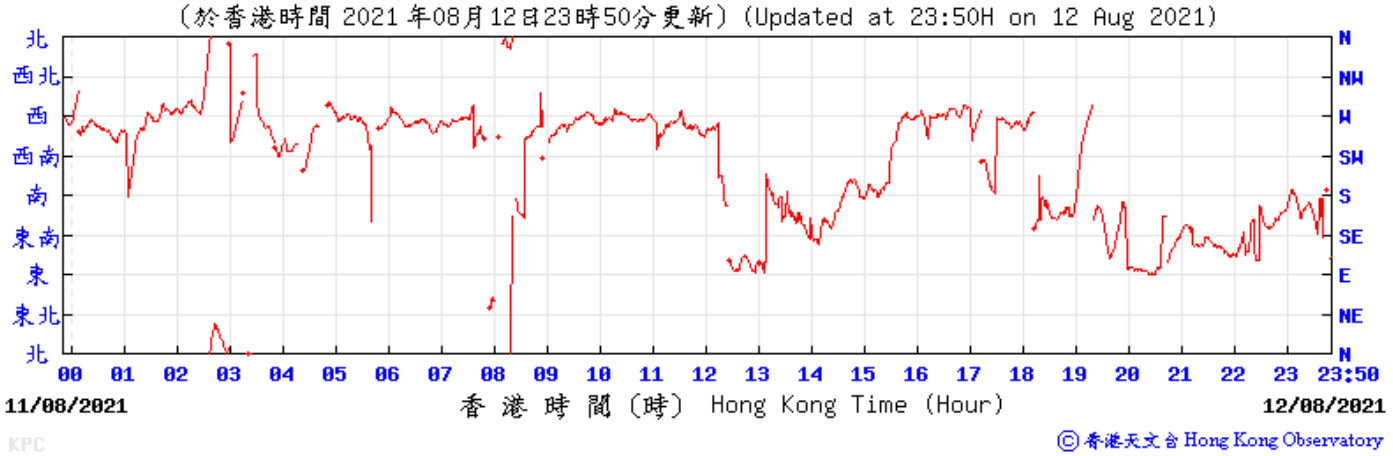

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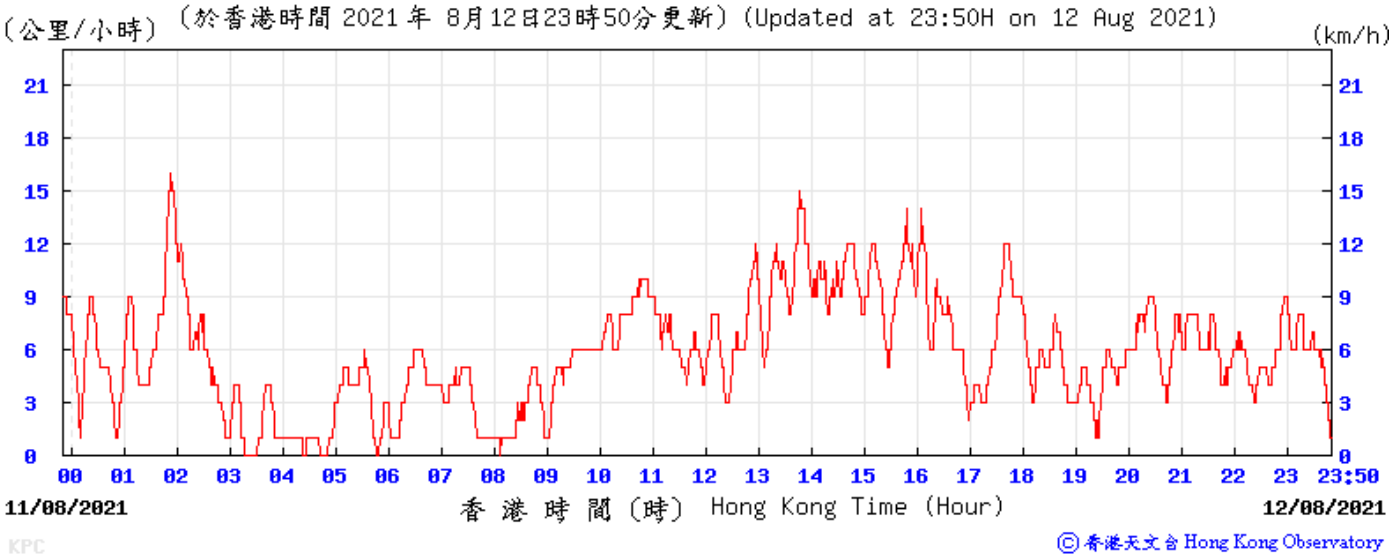

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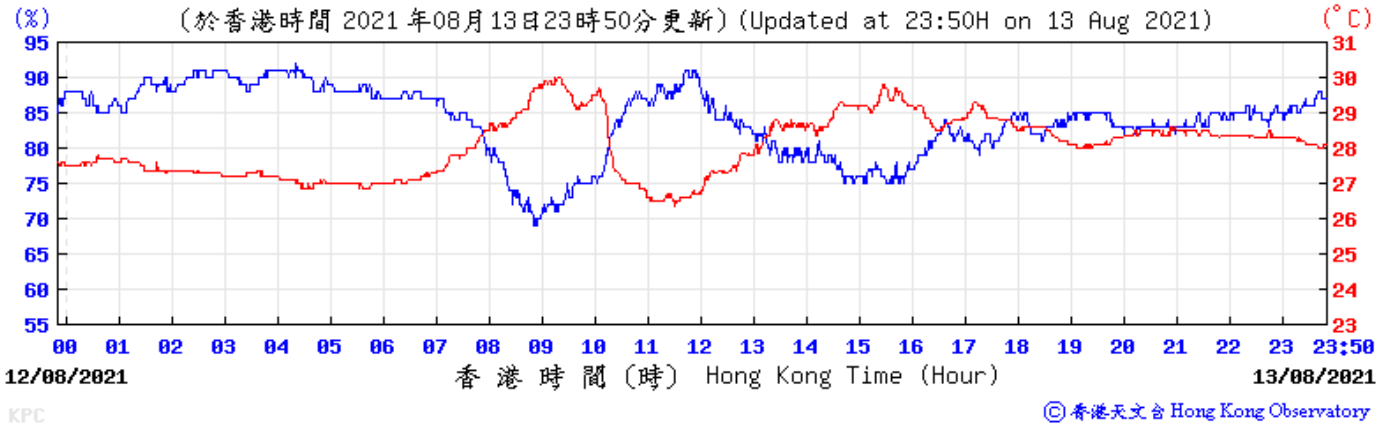

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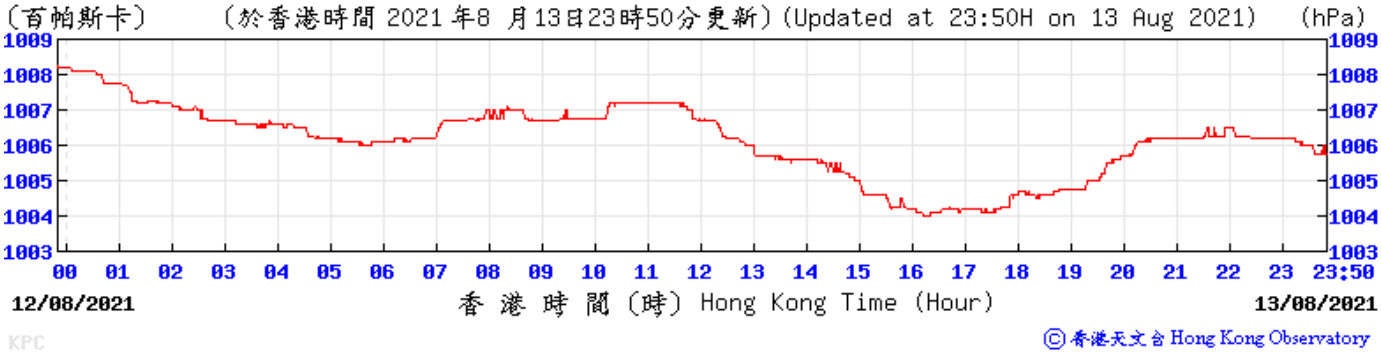

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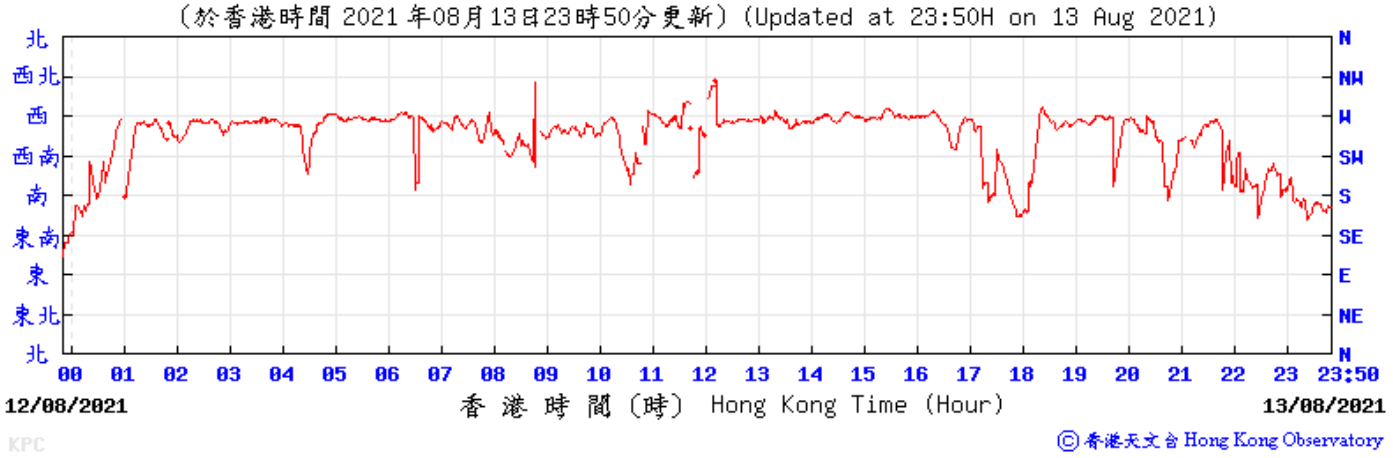

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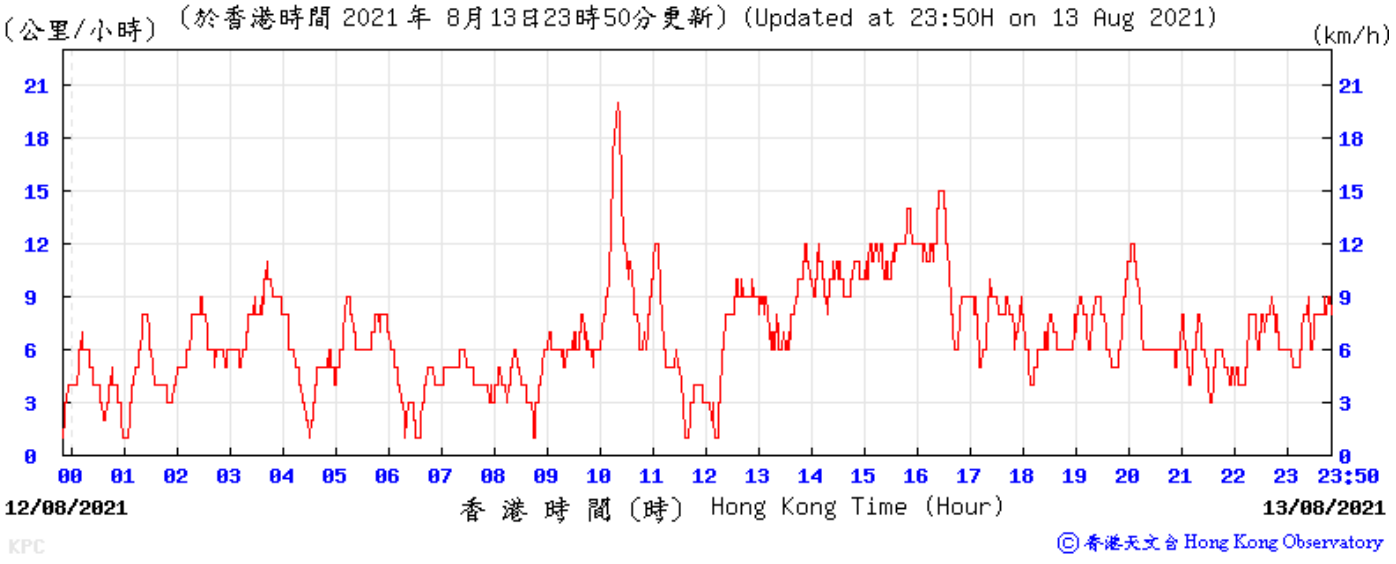

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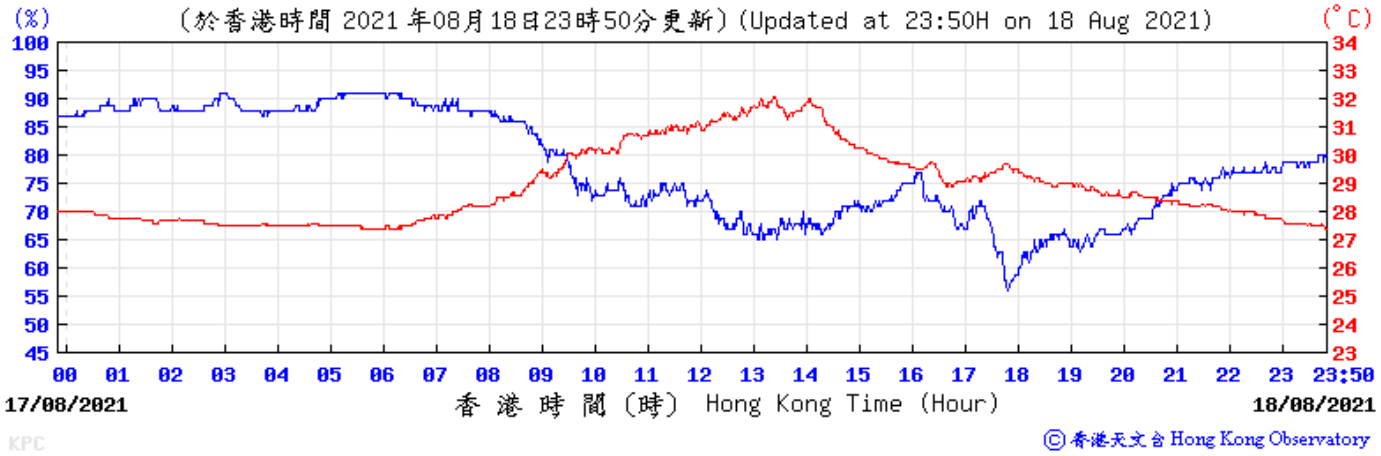

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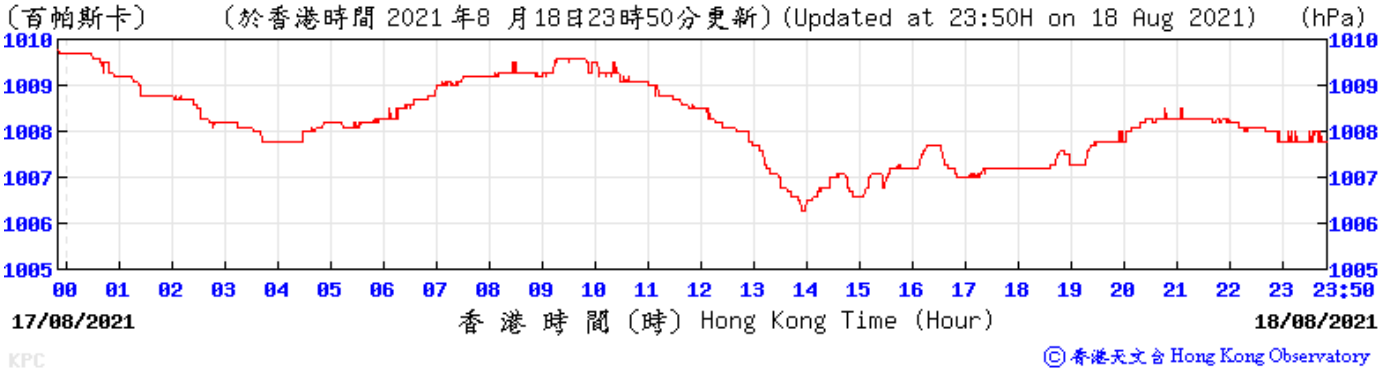

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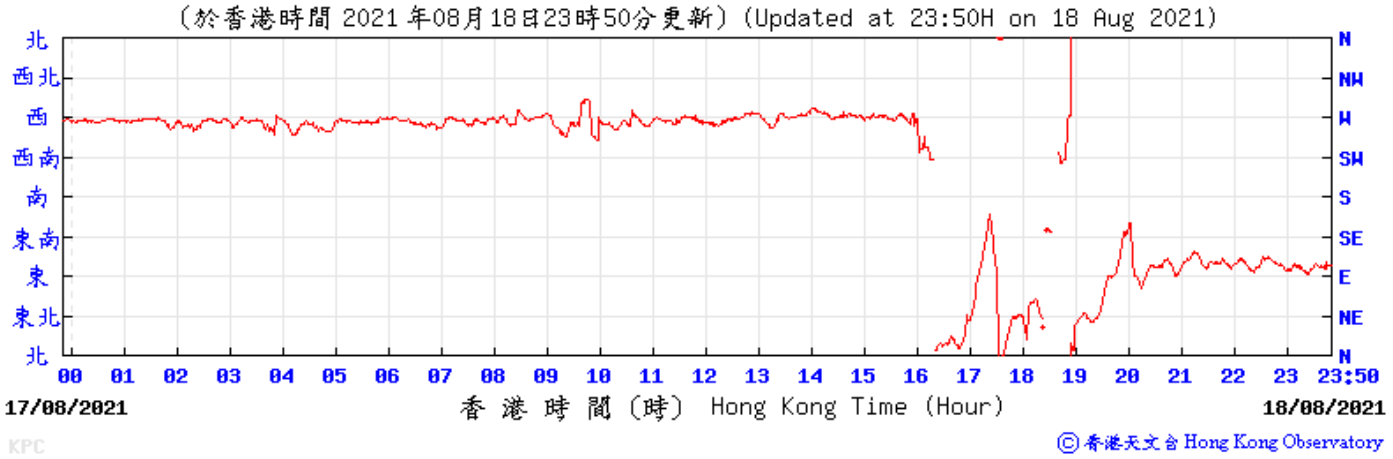
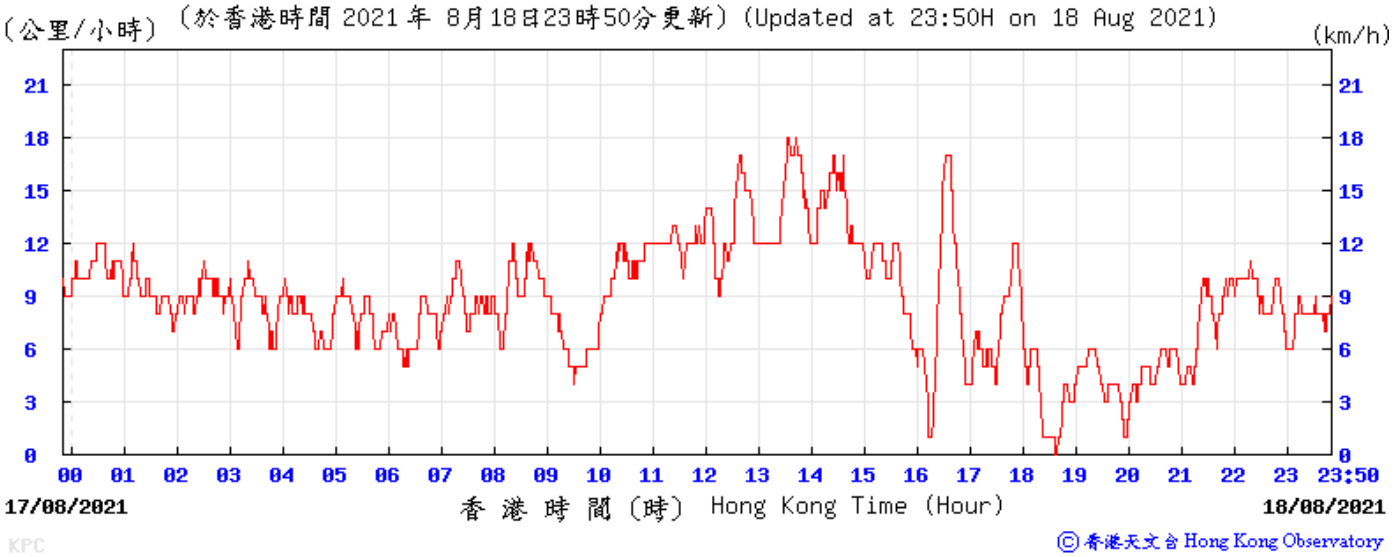


Wind Speed:



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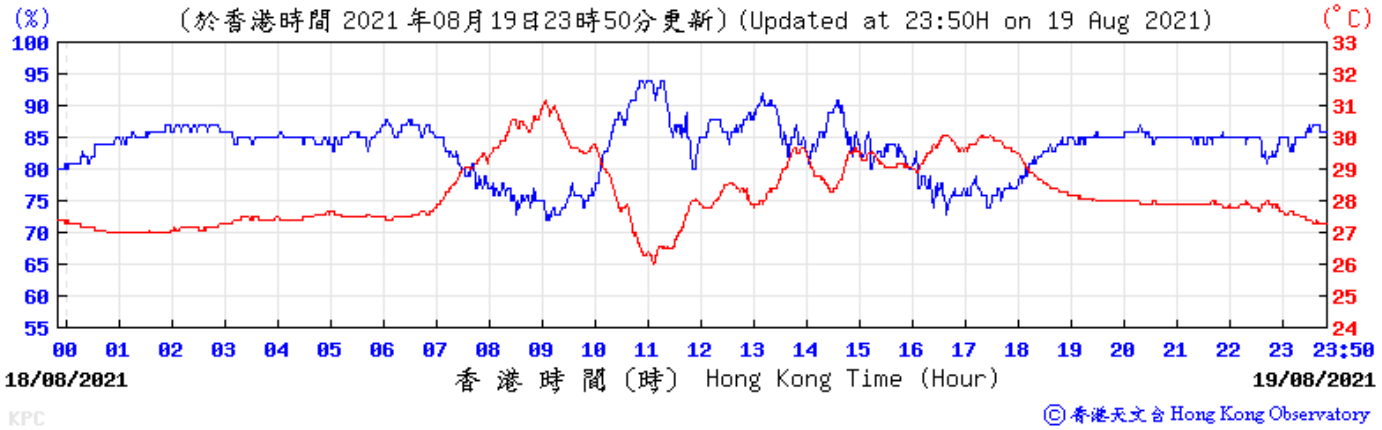

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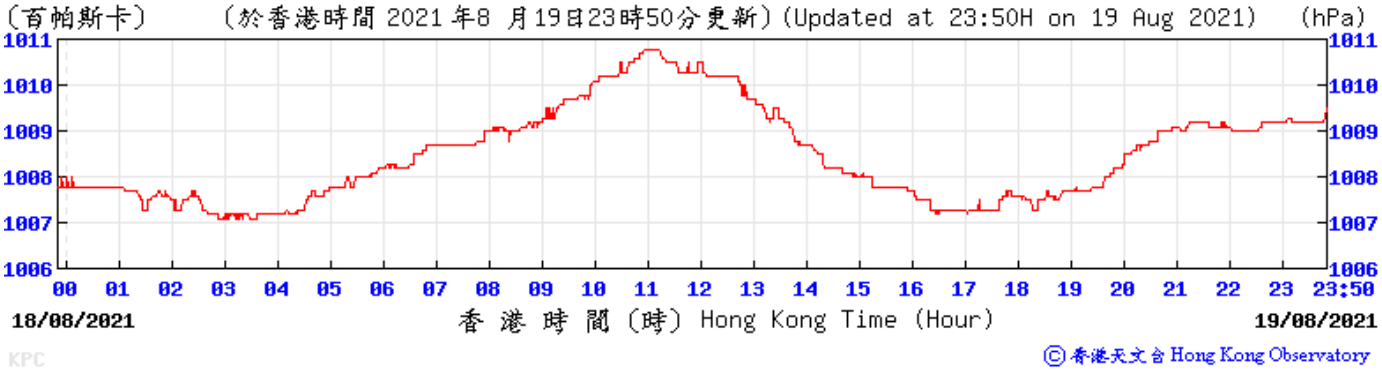

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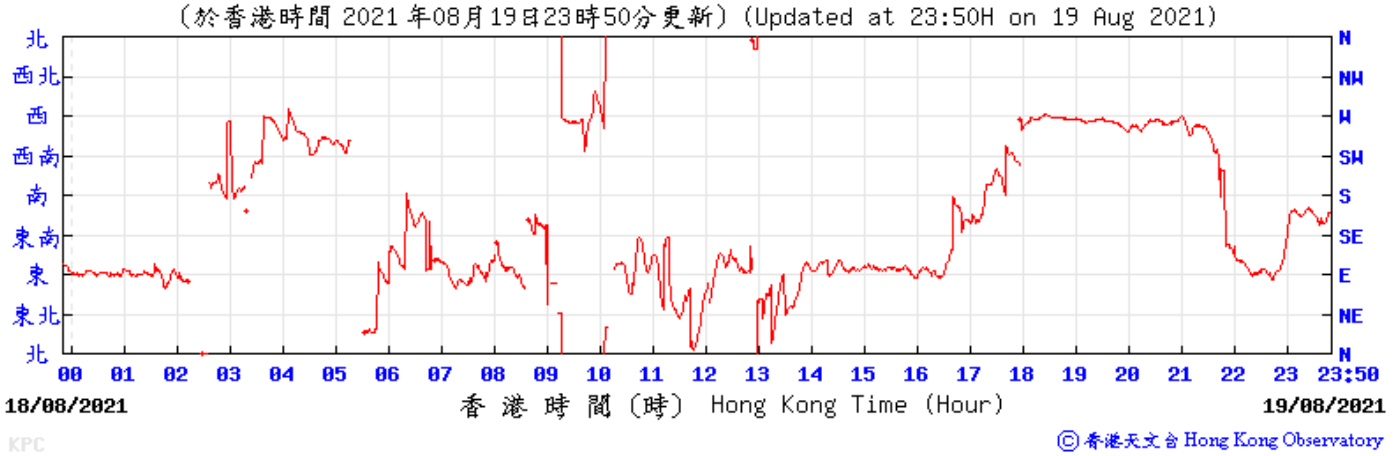
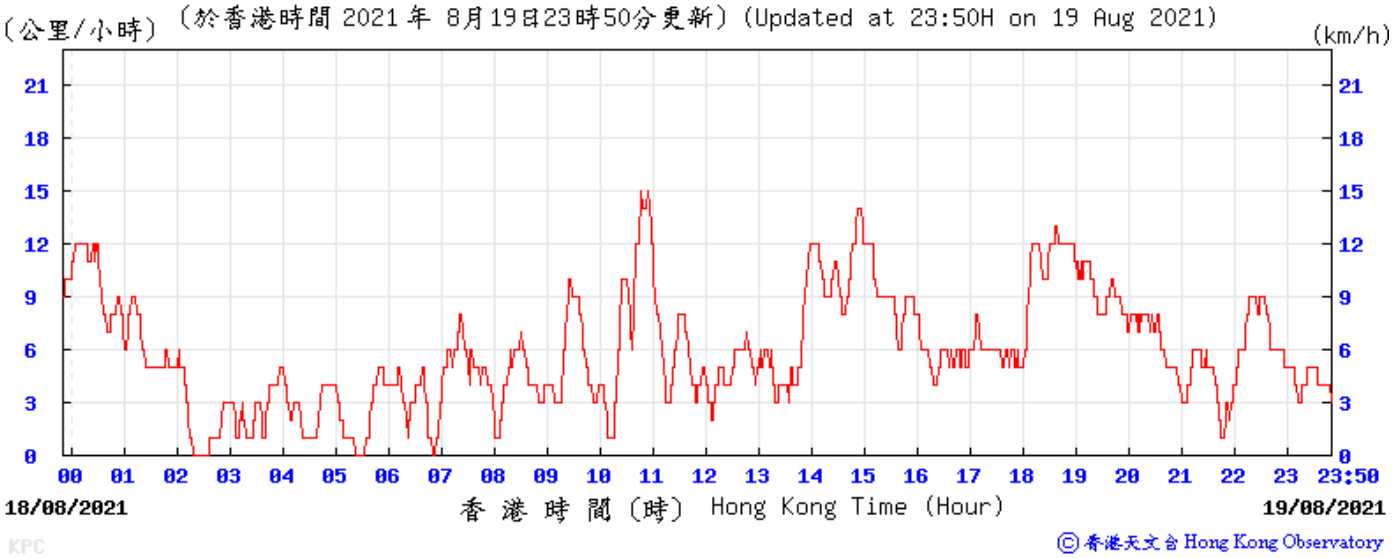


Wind Speed:



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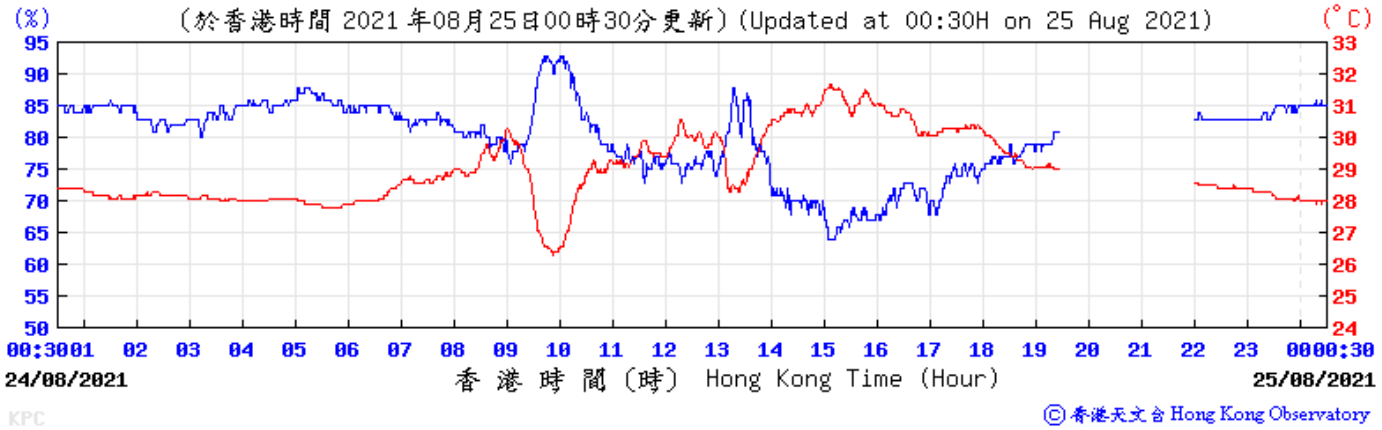

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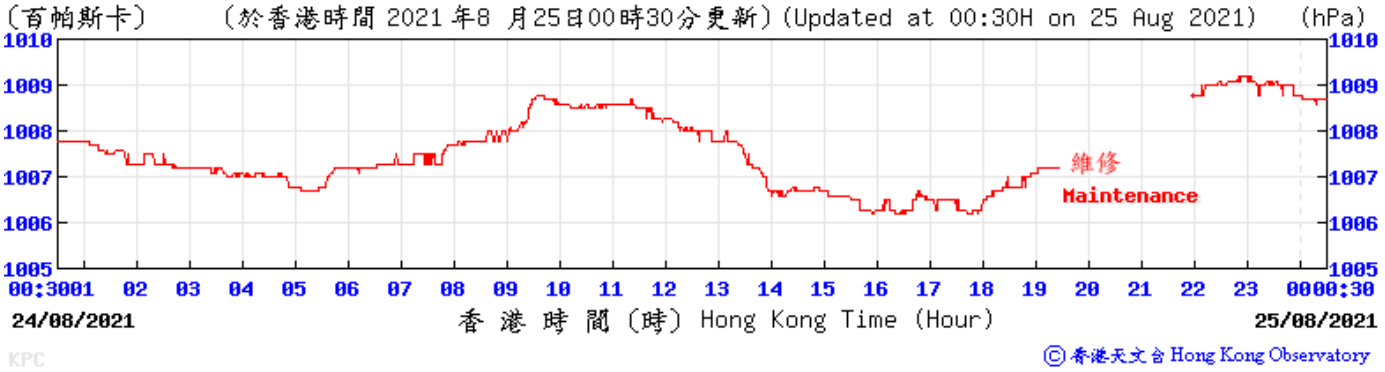
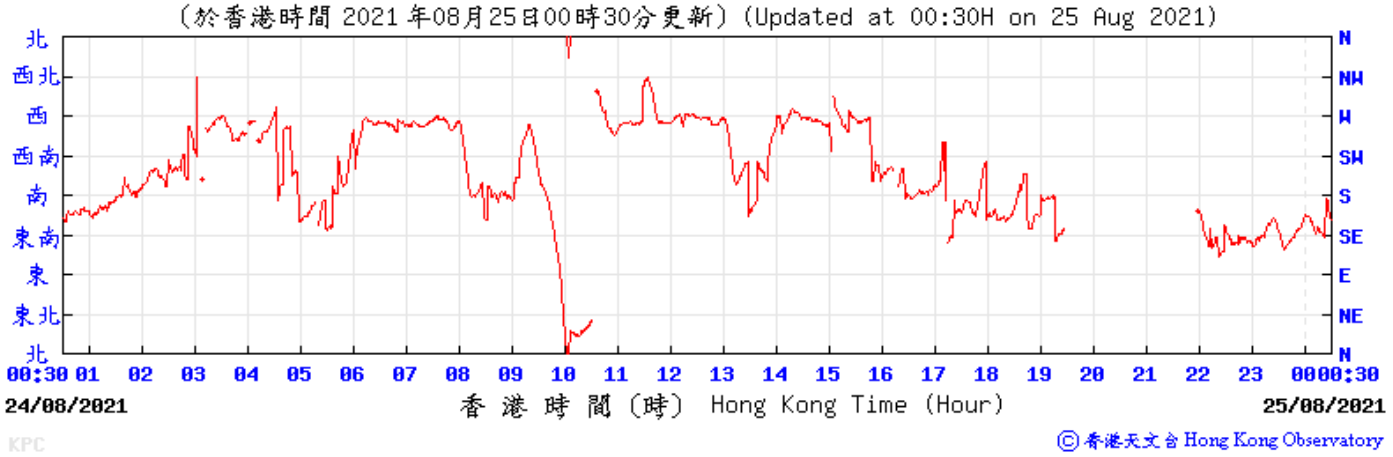
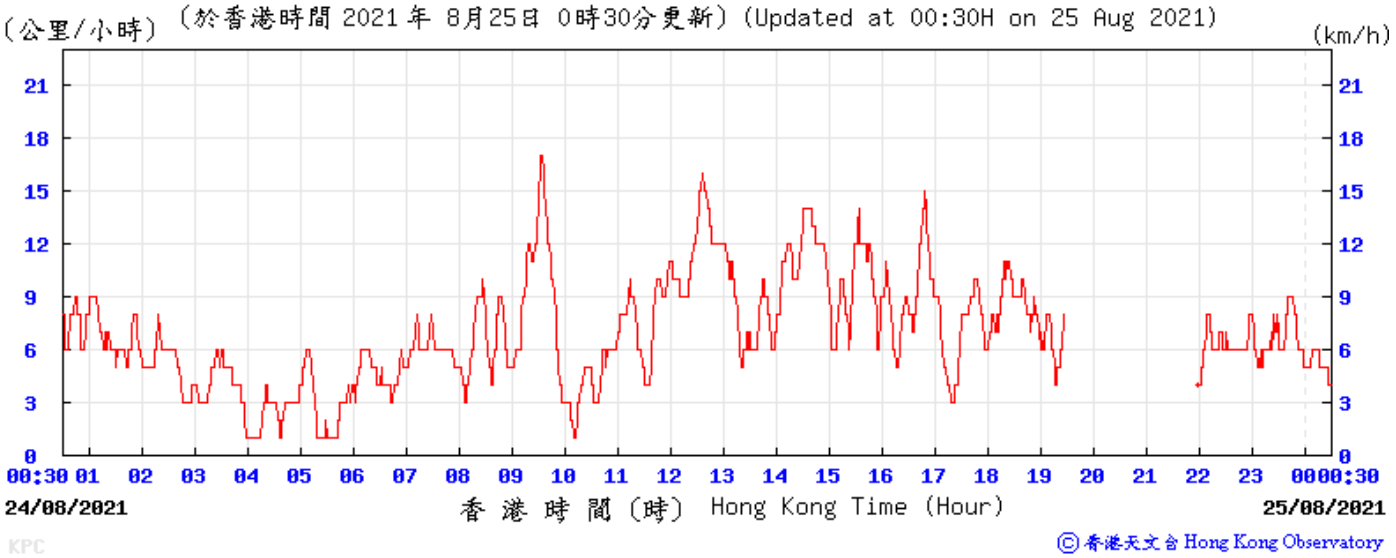


Wind Direction:



Wind Speed:



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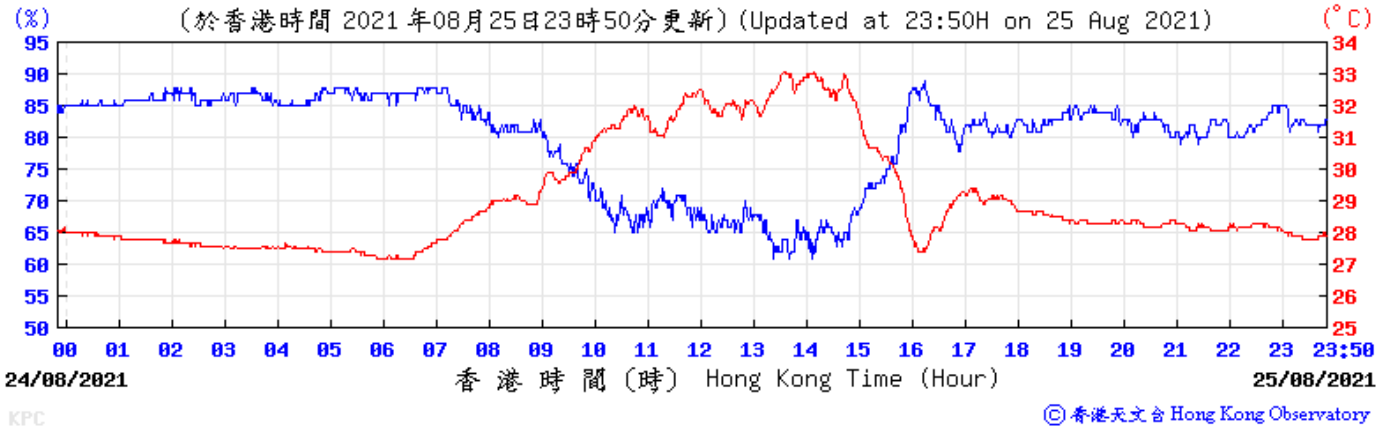

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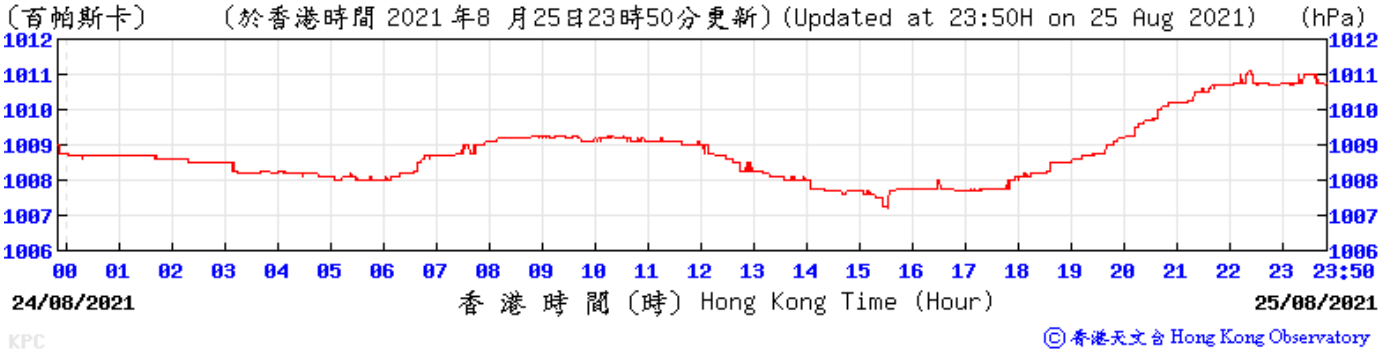

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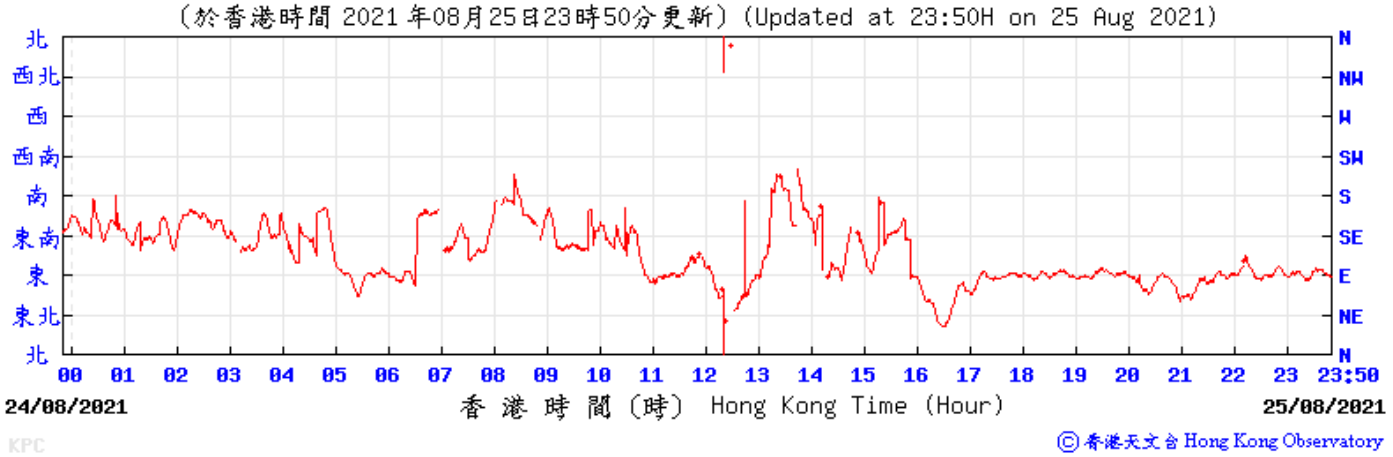

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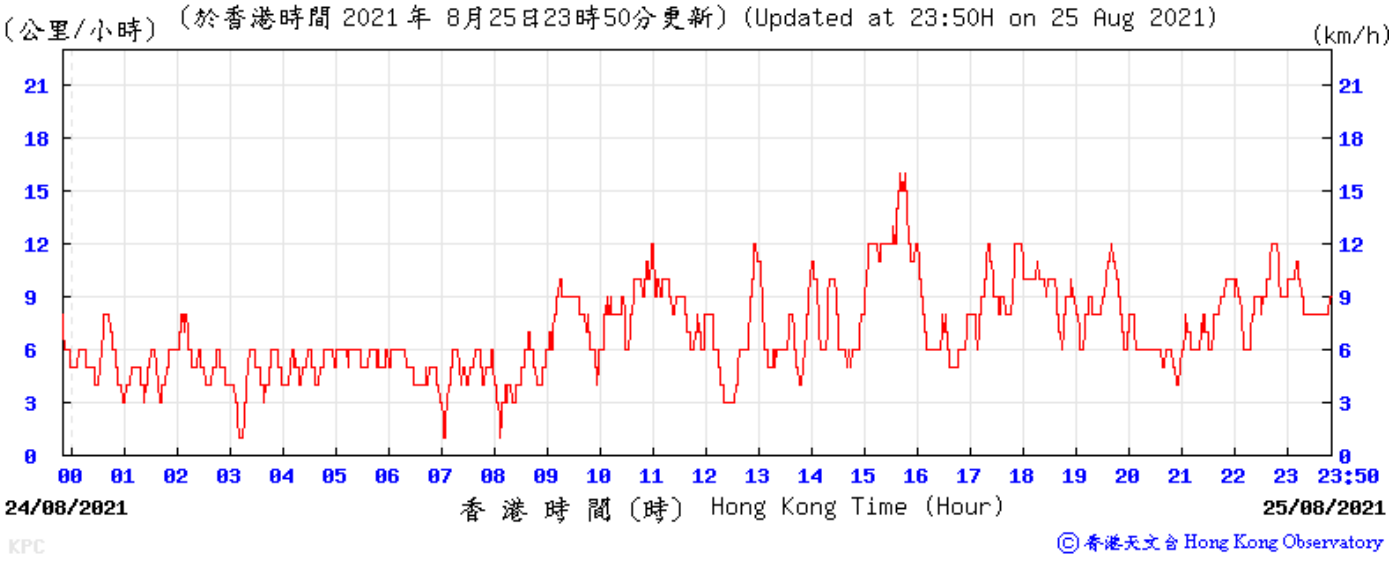

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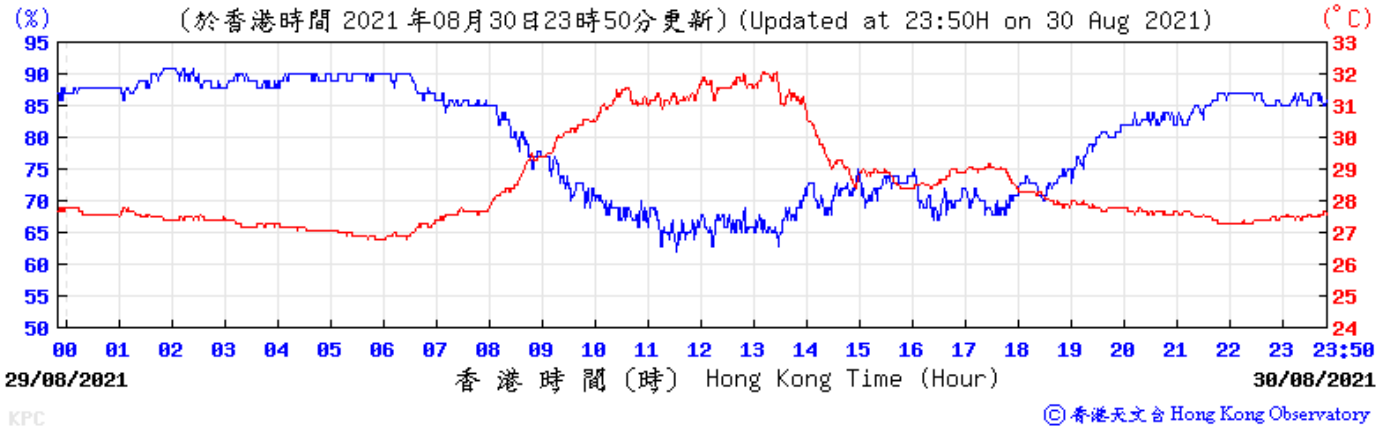

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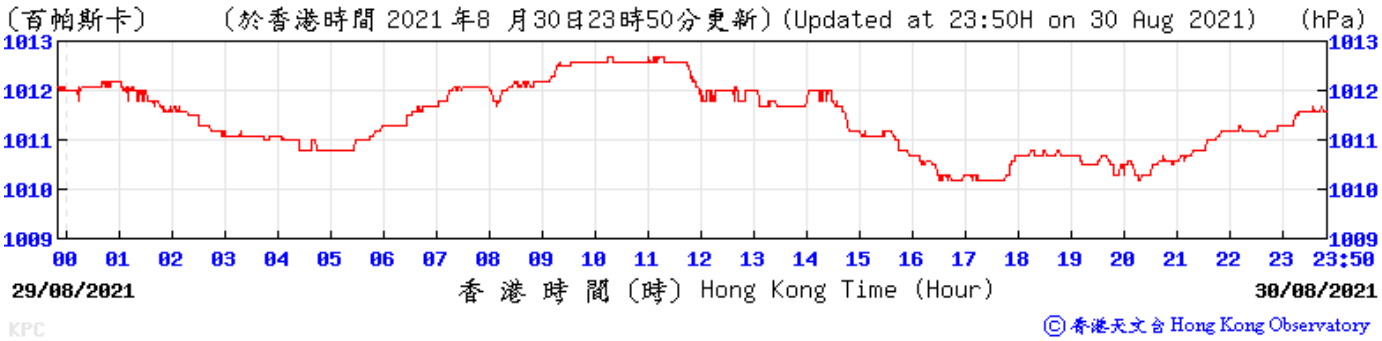
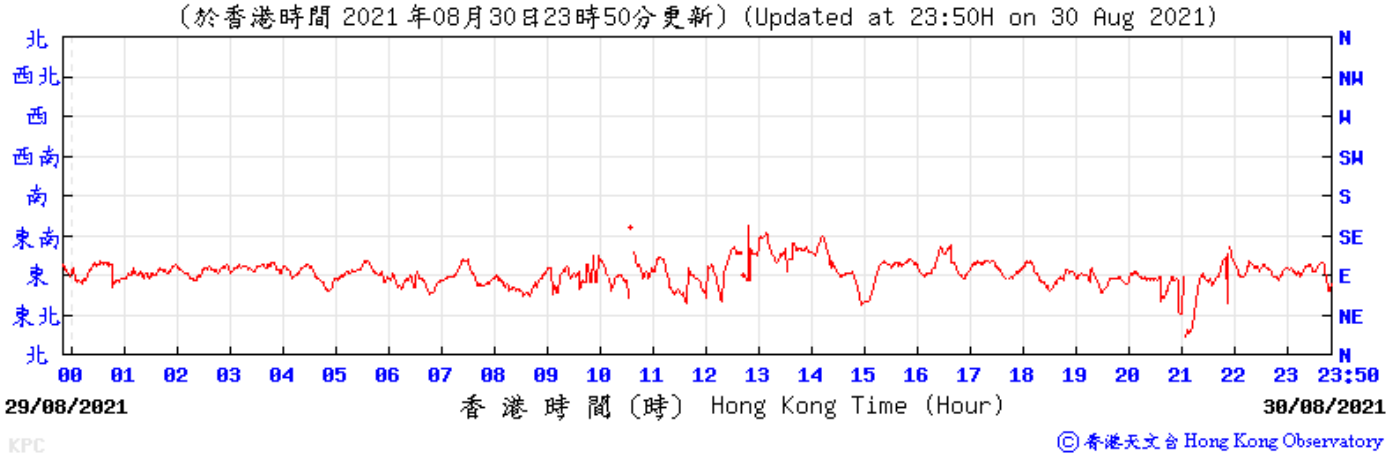


Wind Direction:



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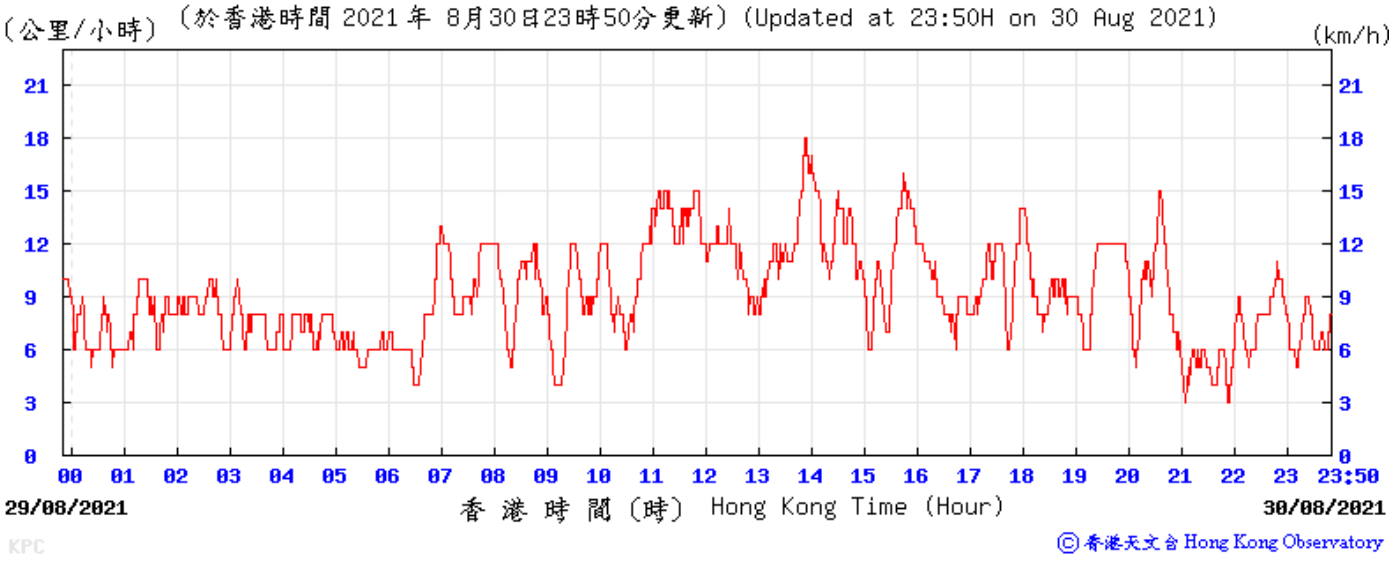

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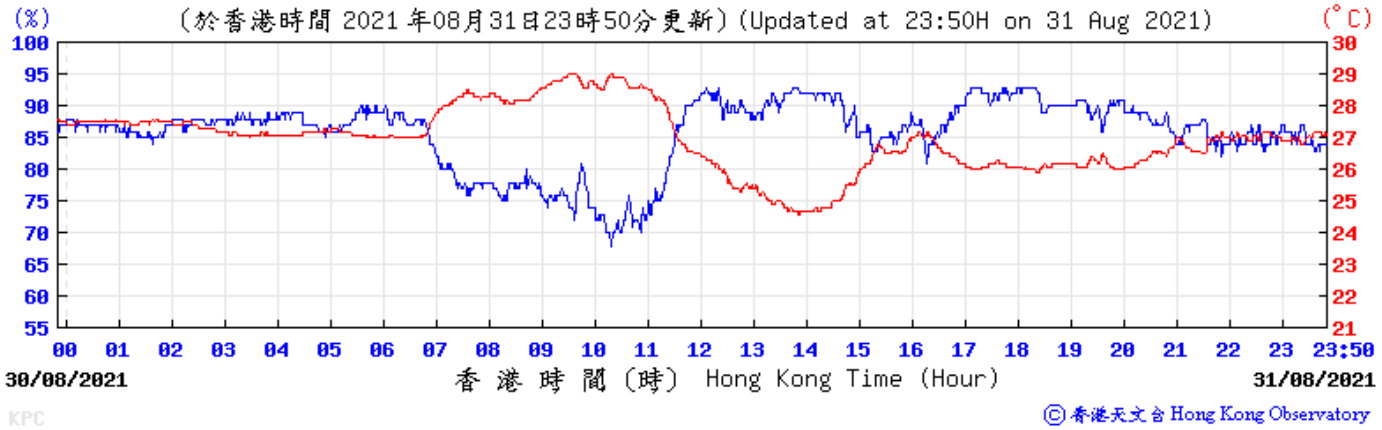

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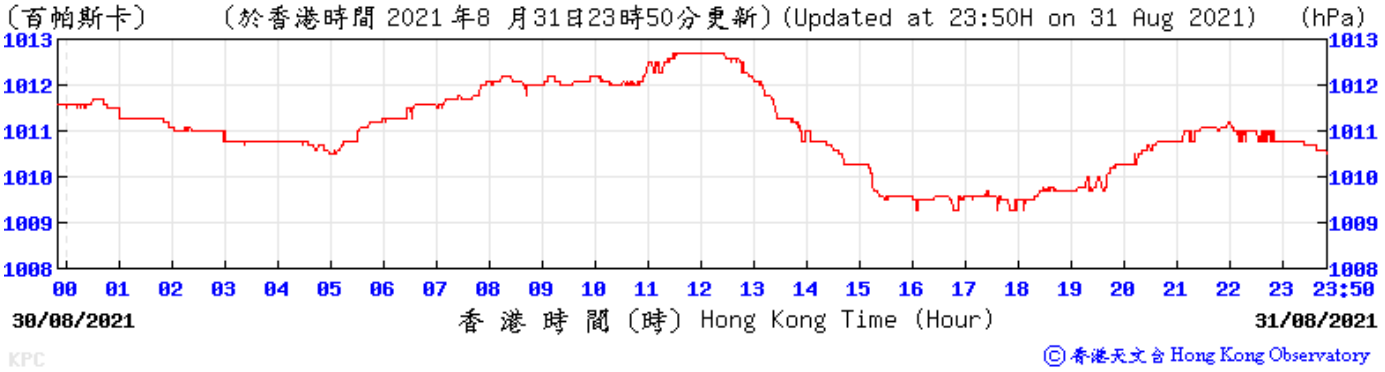

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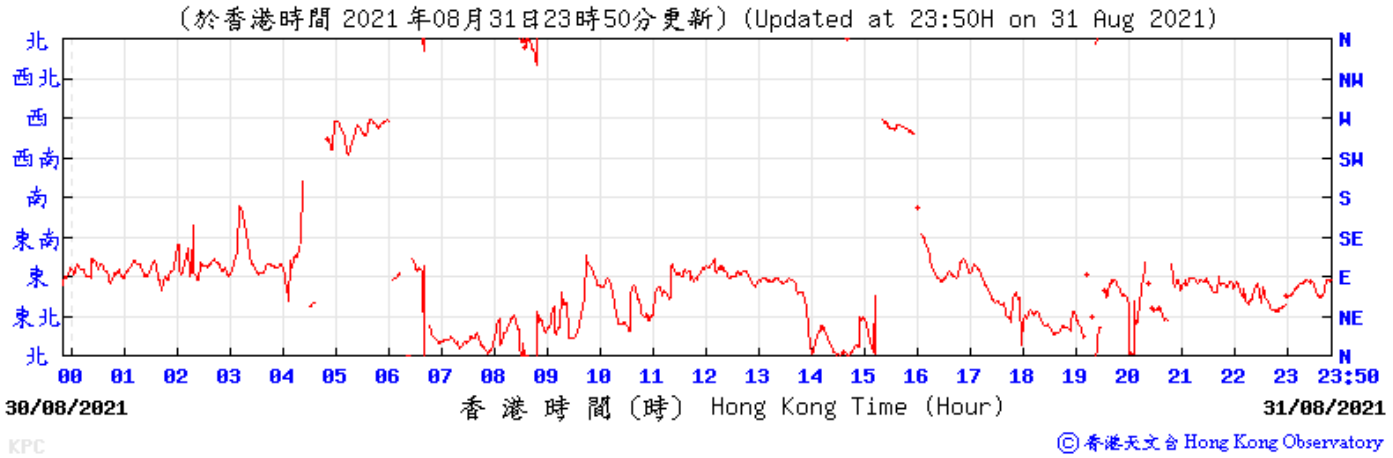

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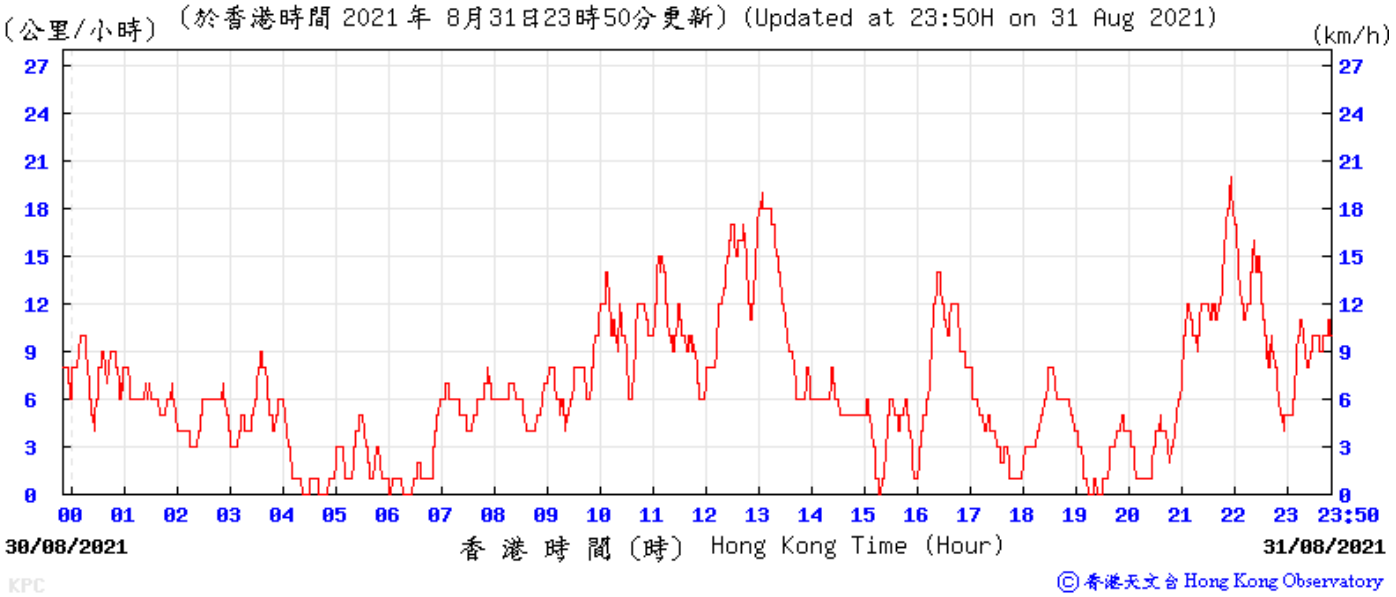
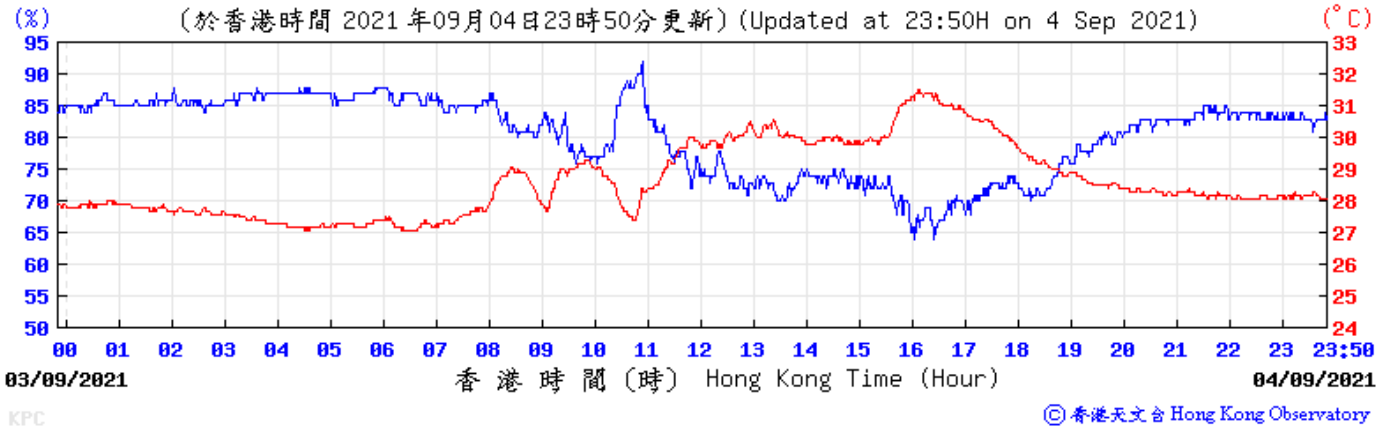


Extract of Meteorological Observations for King's Park Automatic Weather Station, September 2021

Tempearture/Humidity:



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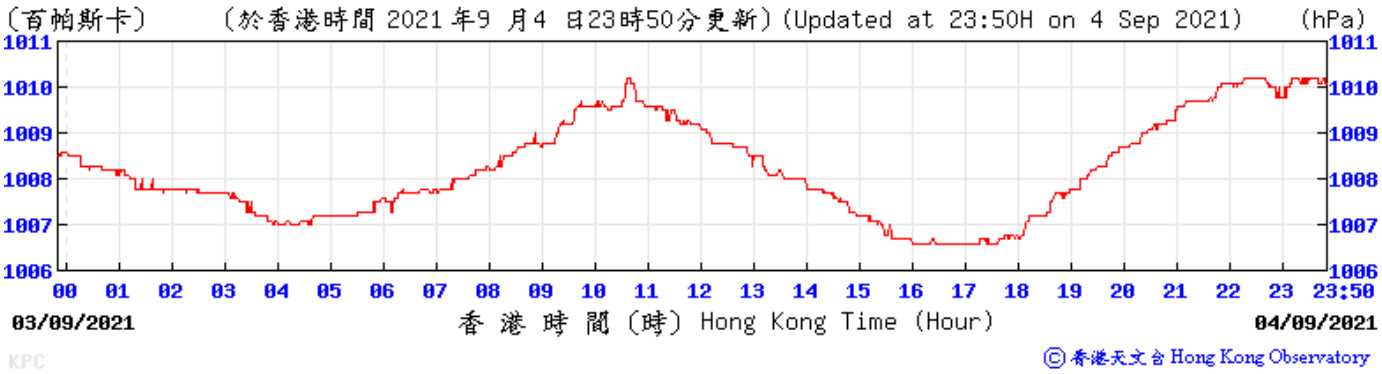

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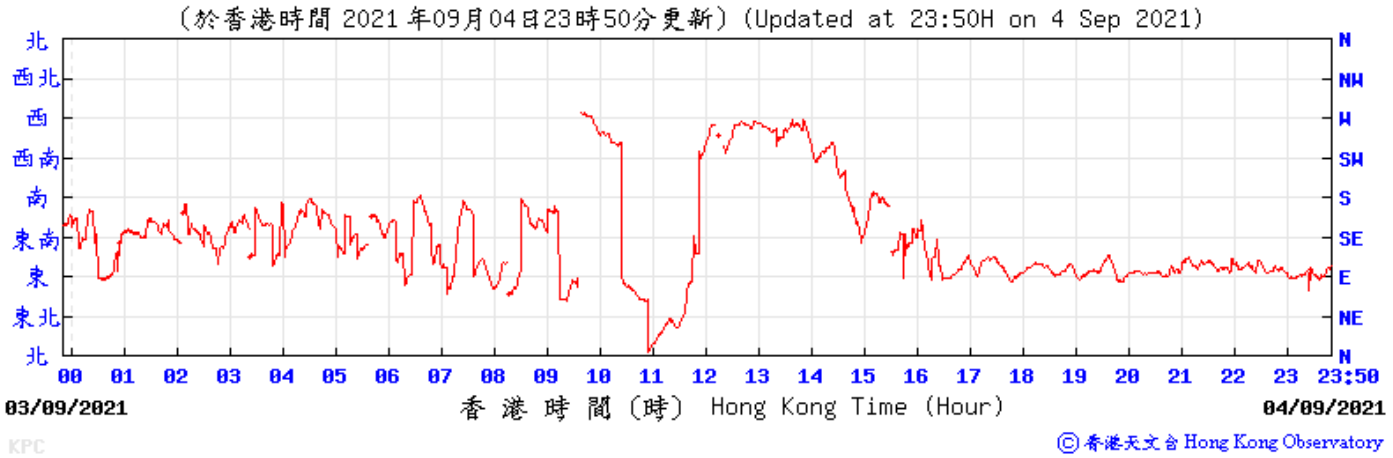
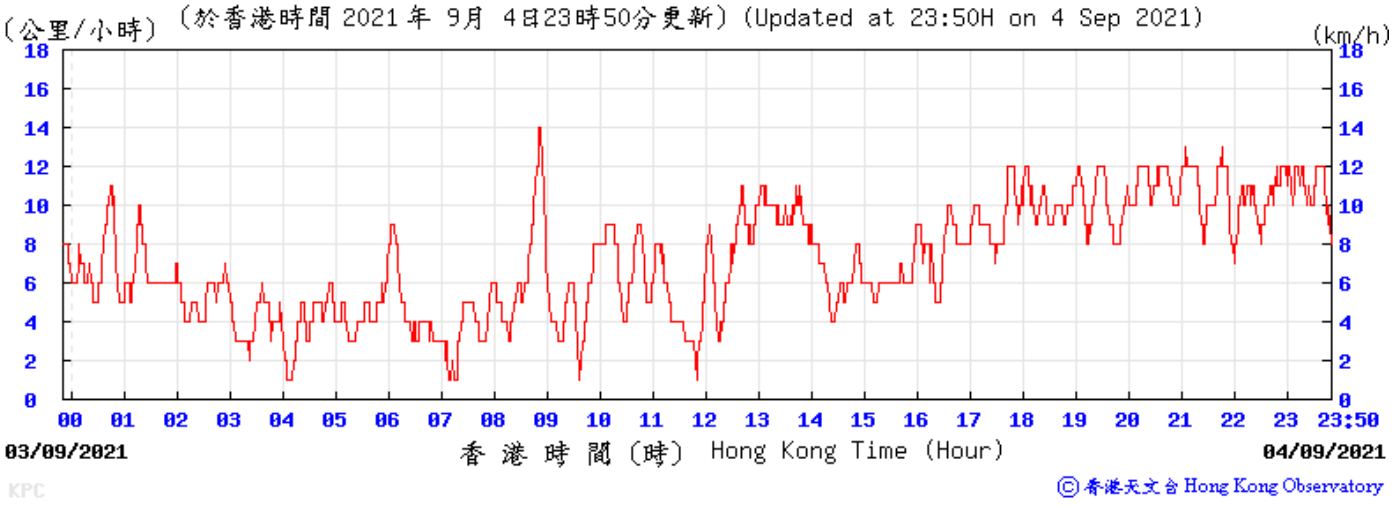


Wind Speed:



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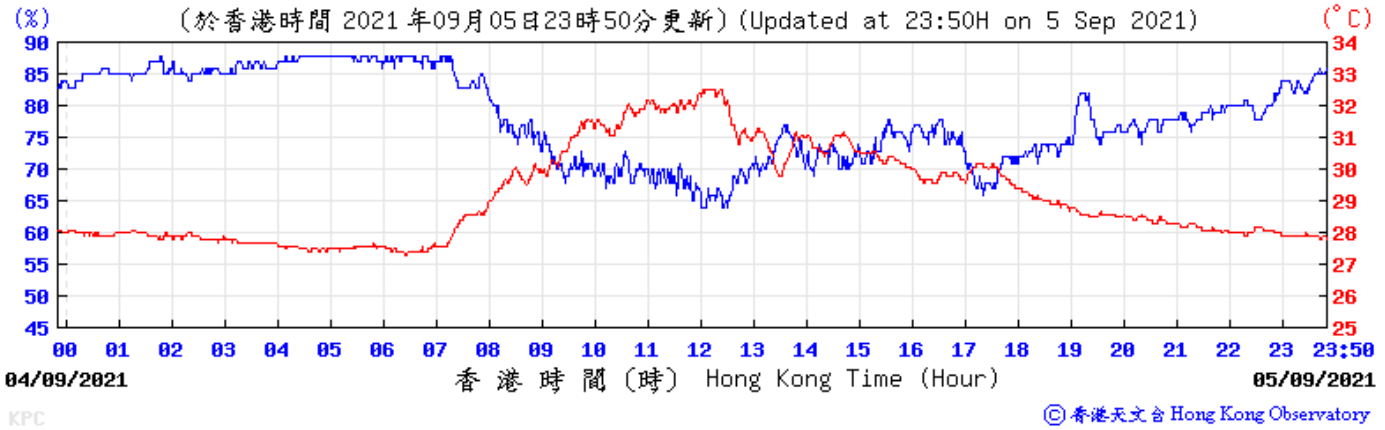

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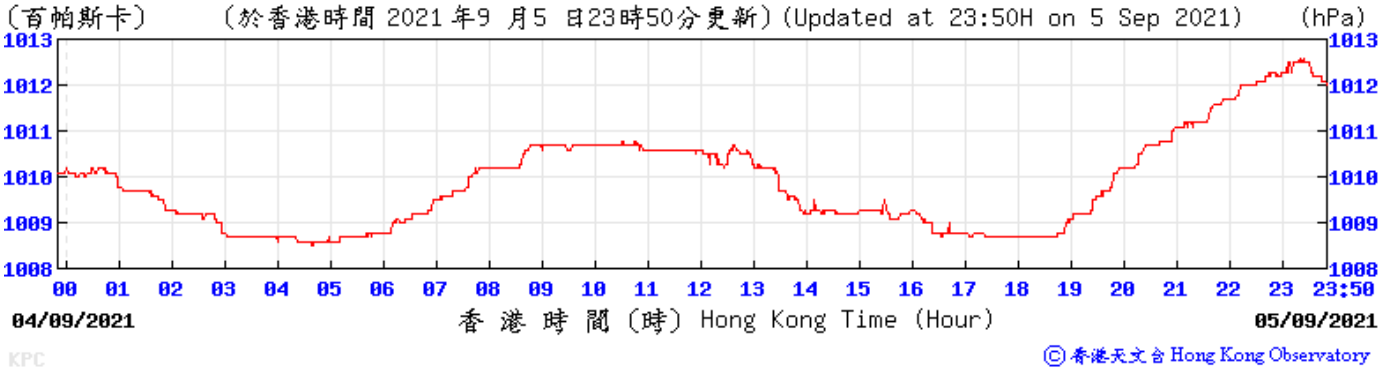

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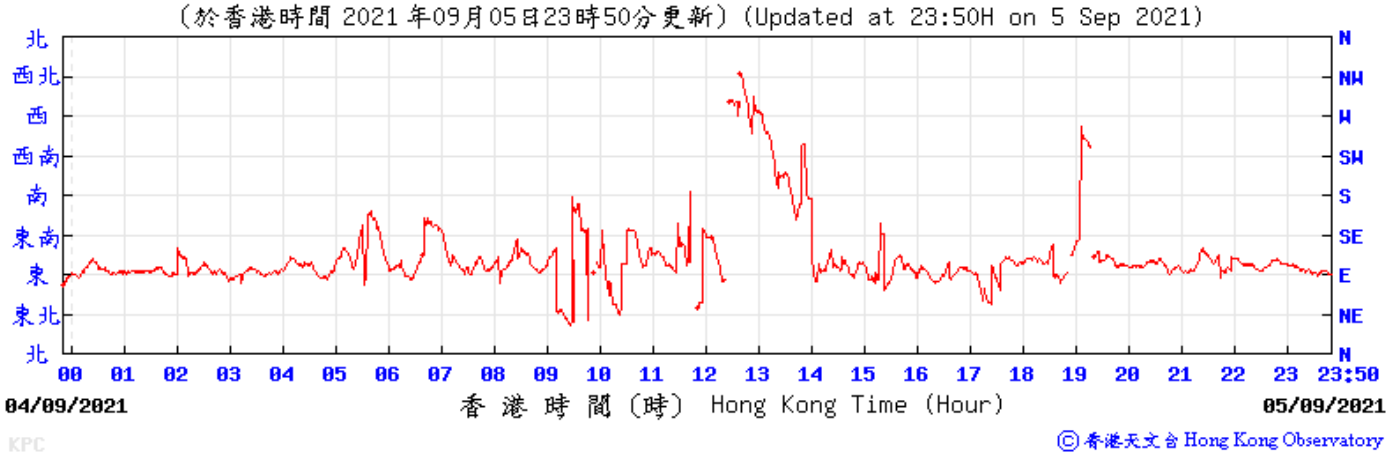

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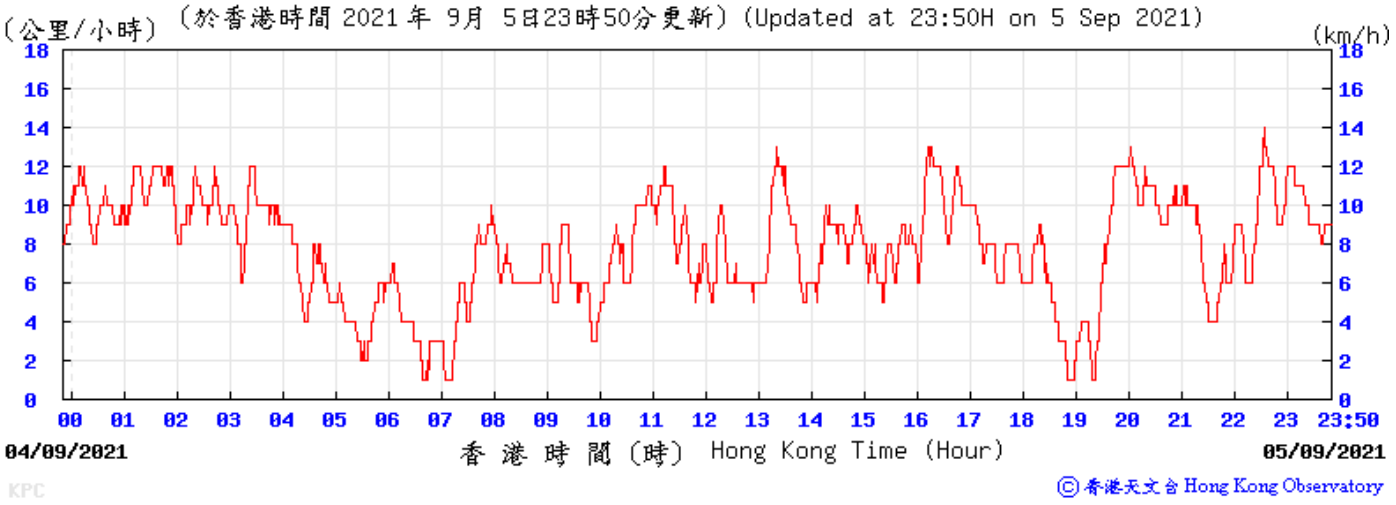

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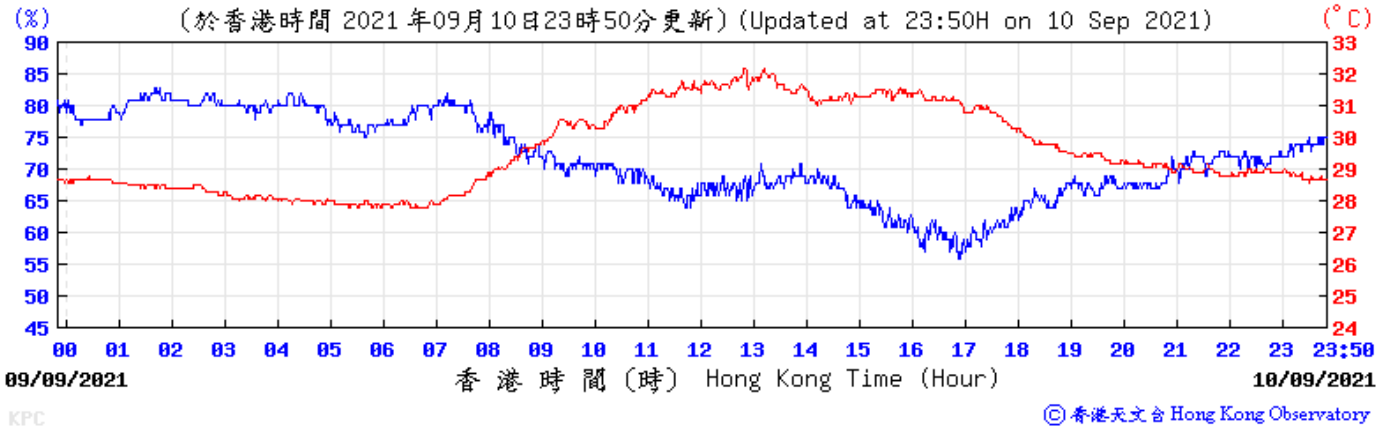

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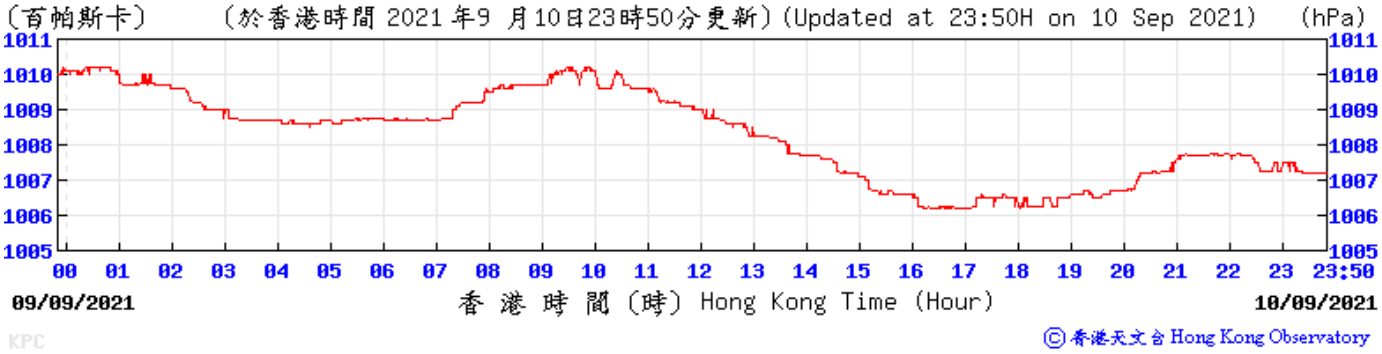

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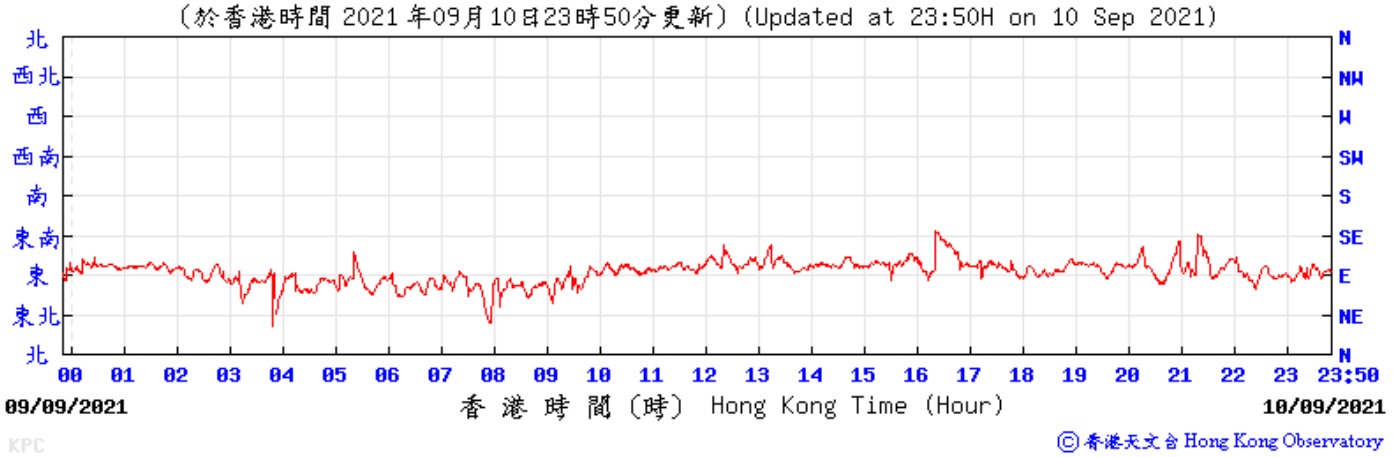

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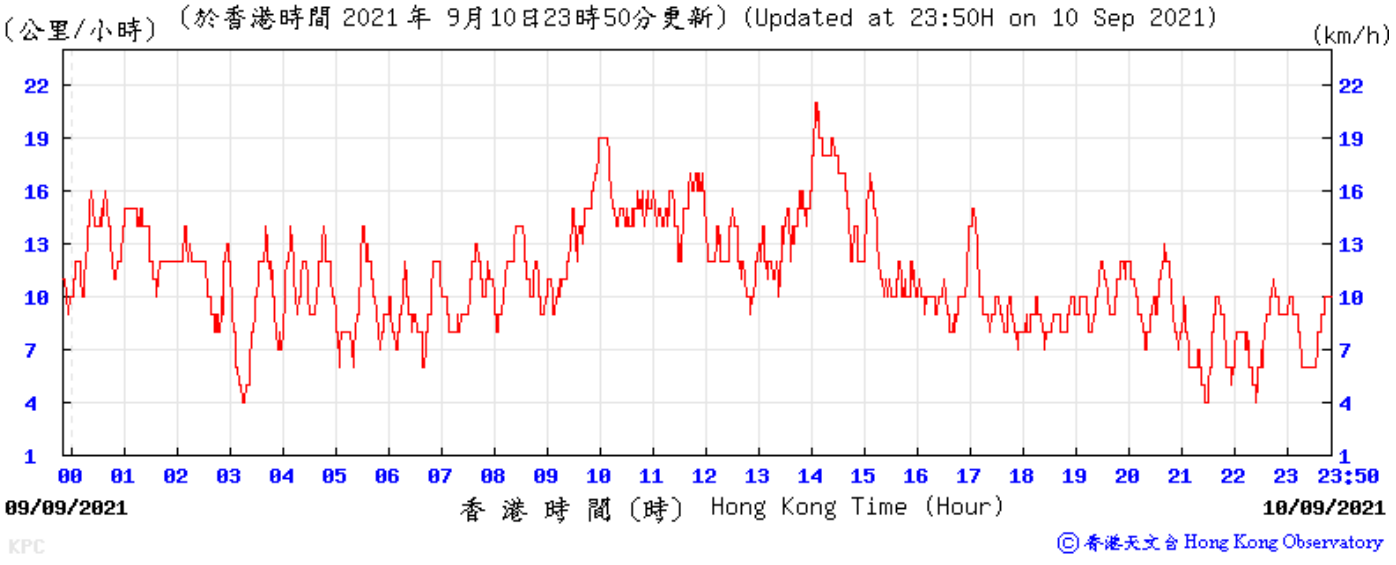

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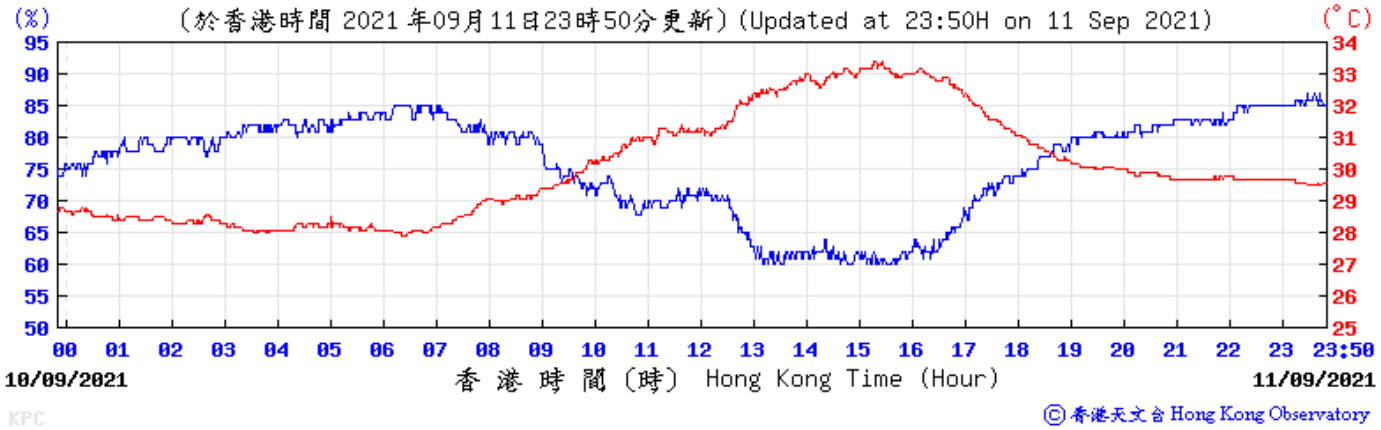

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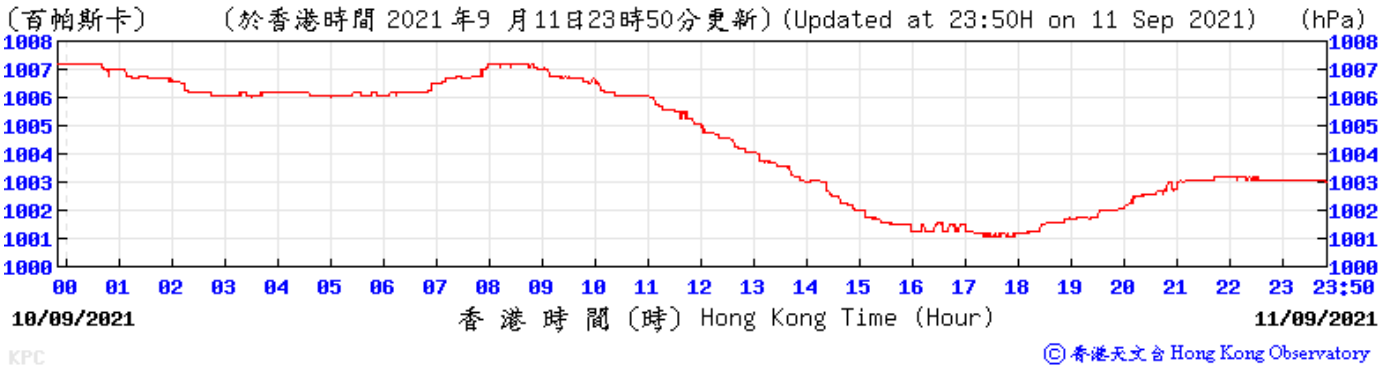

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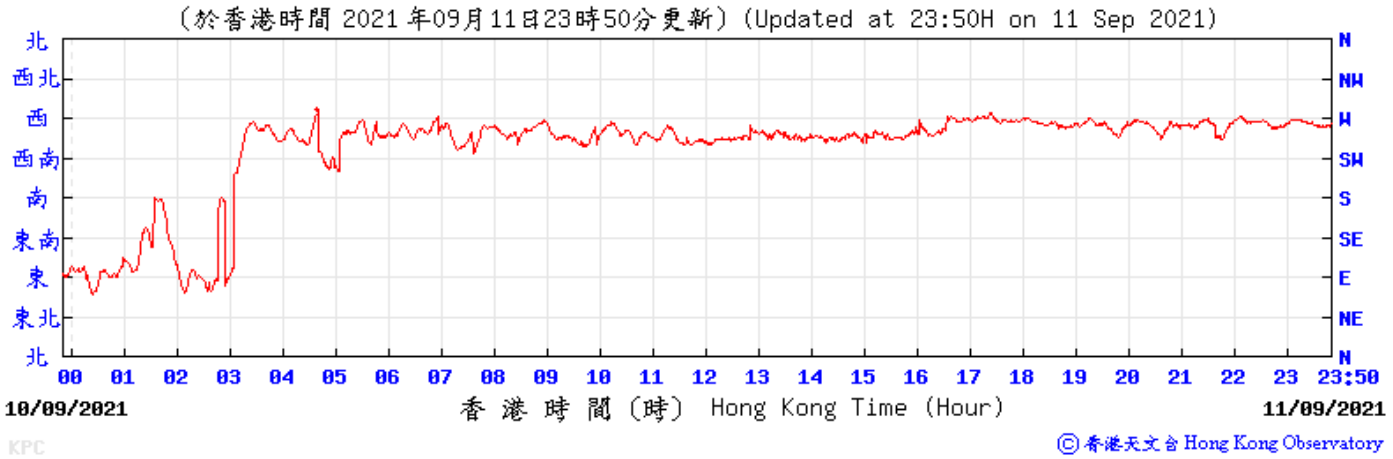

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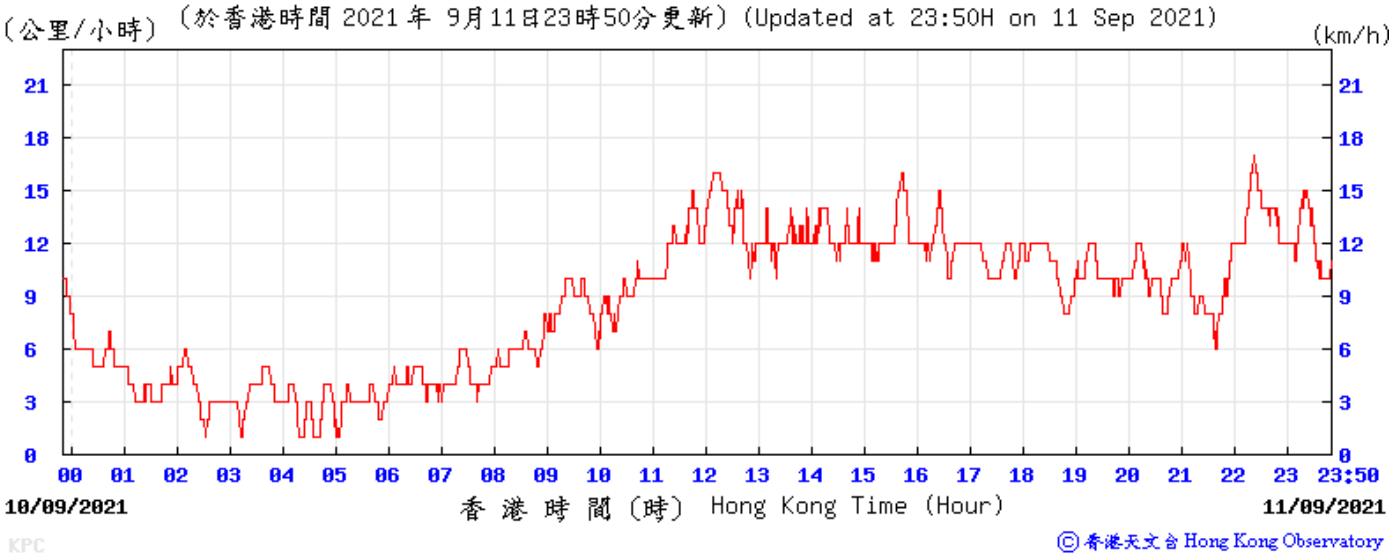

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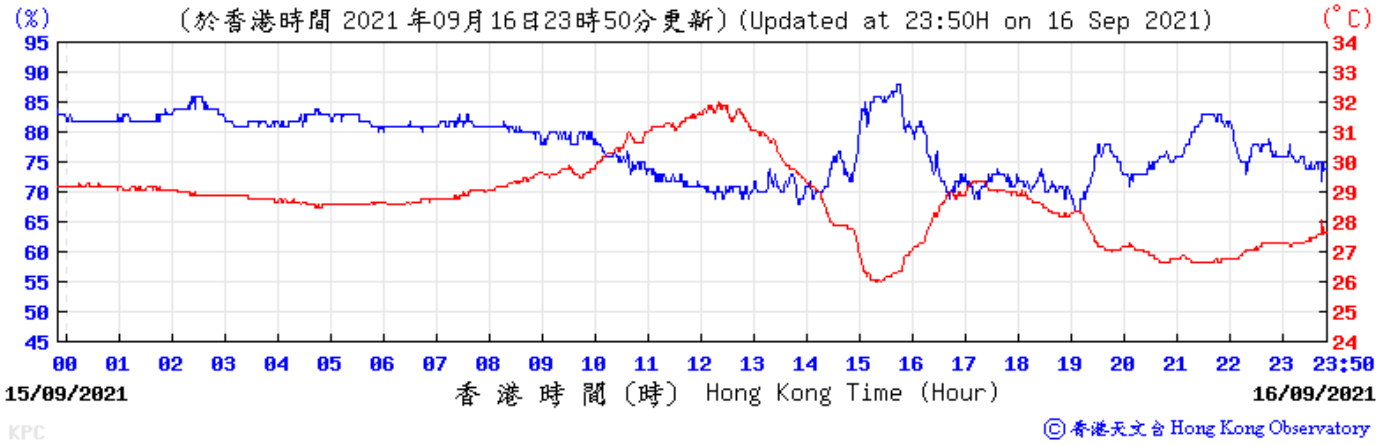

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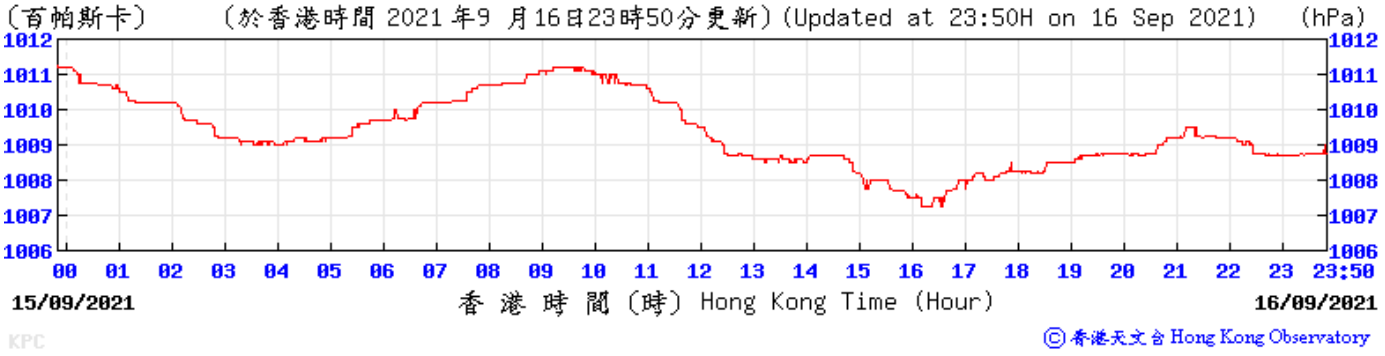

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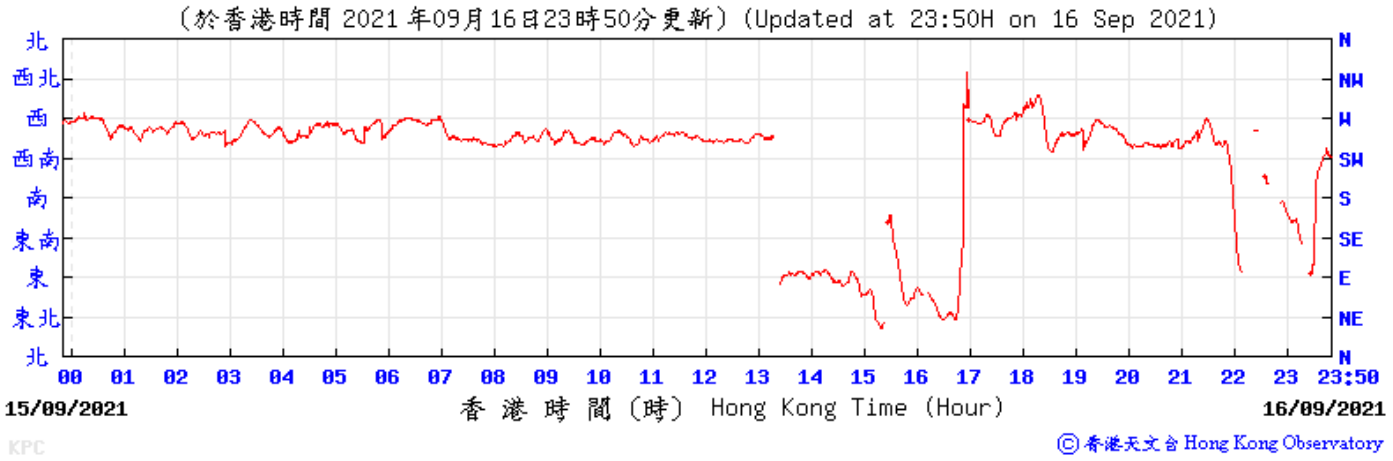

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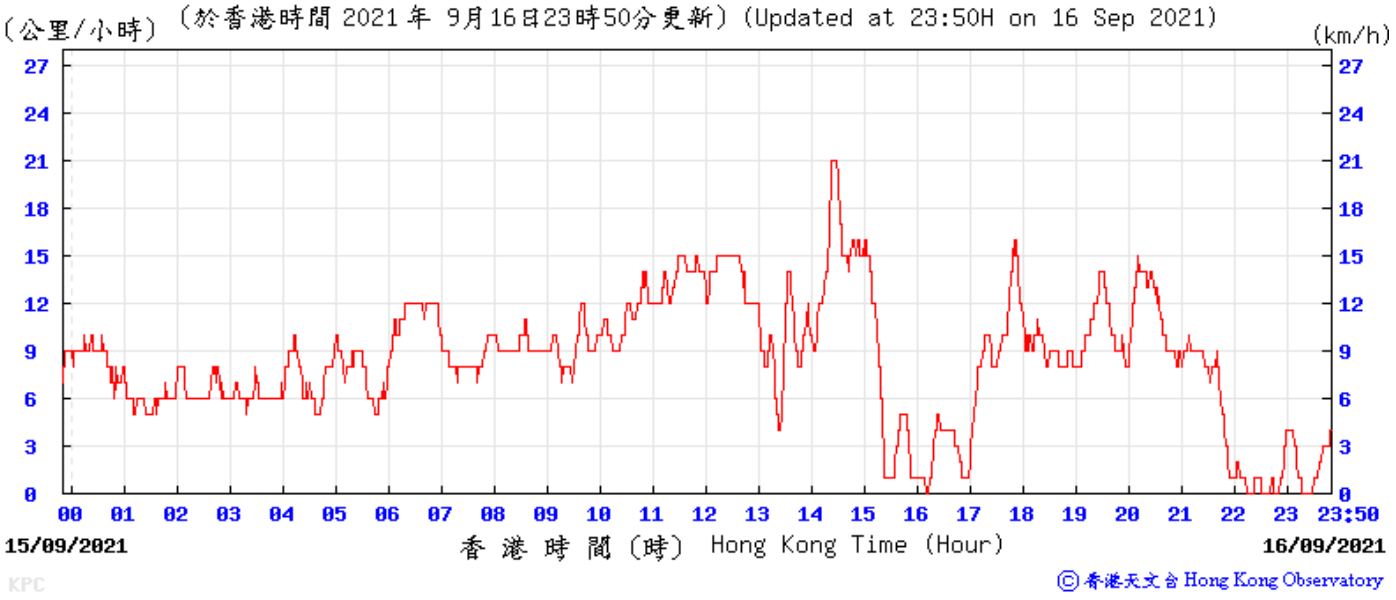

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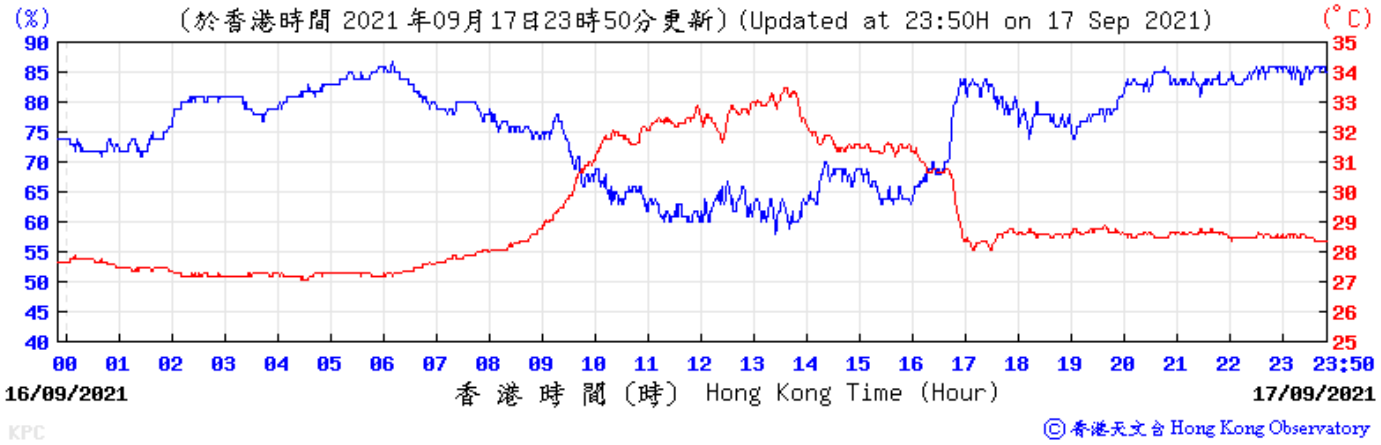

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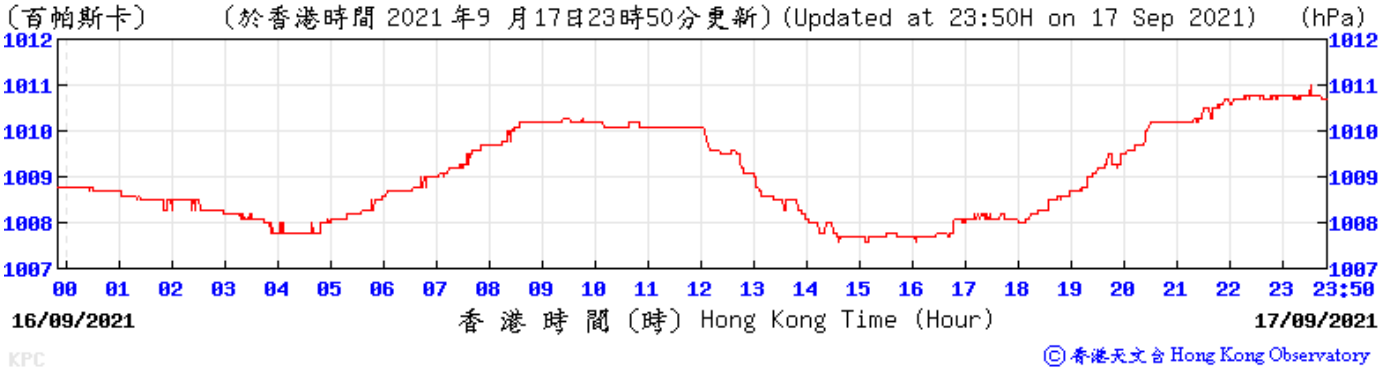

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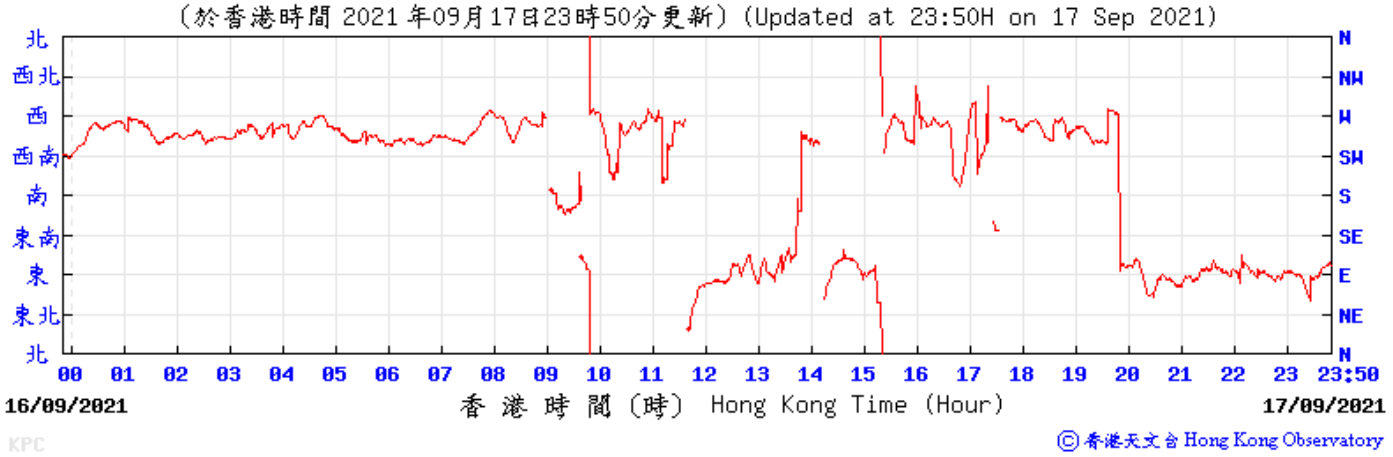

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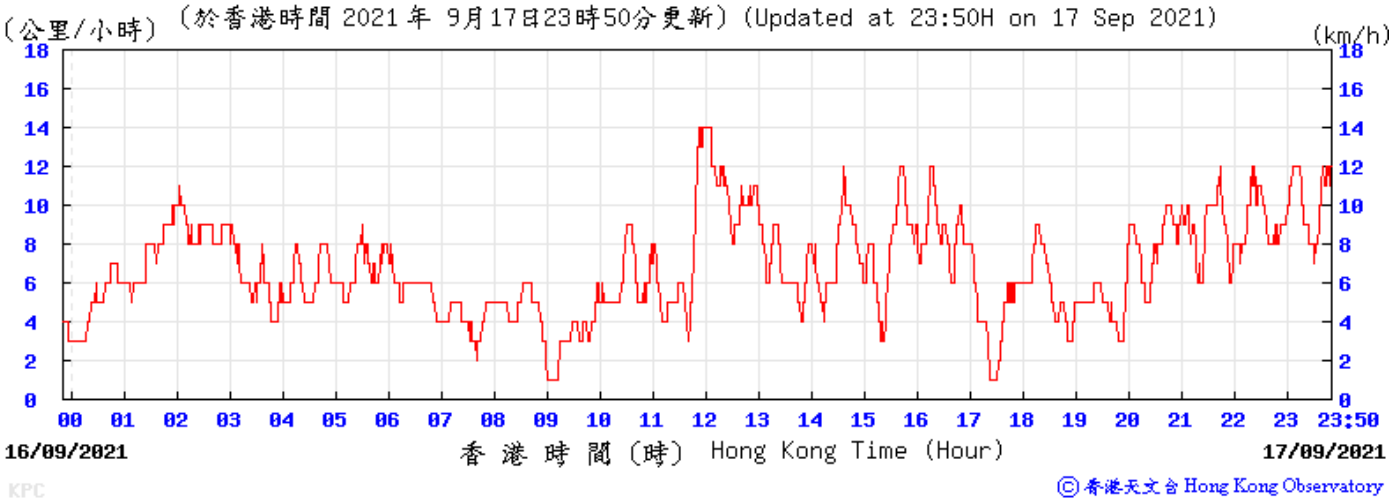

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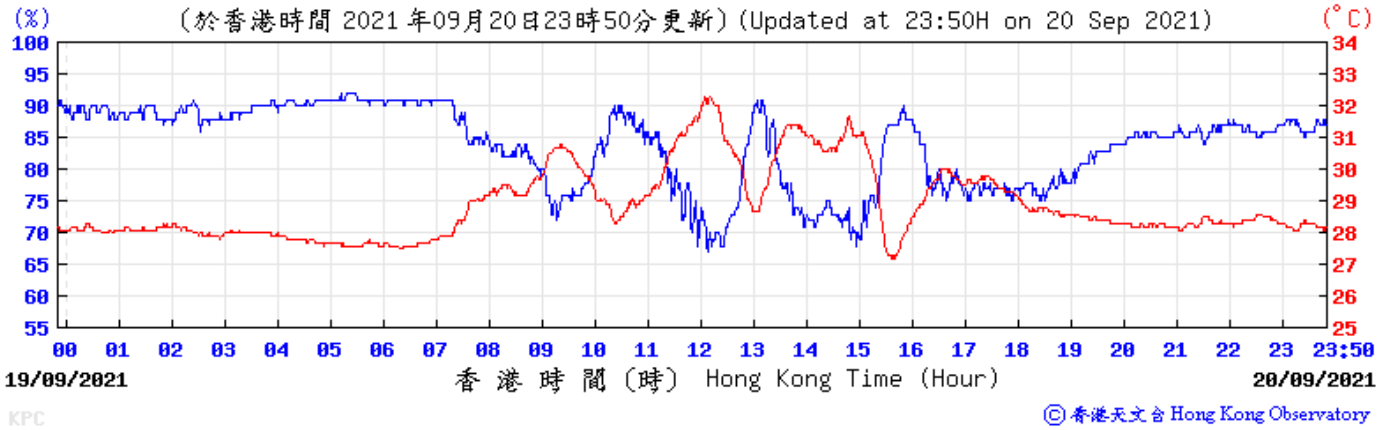

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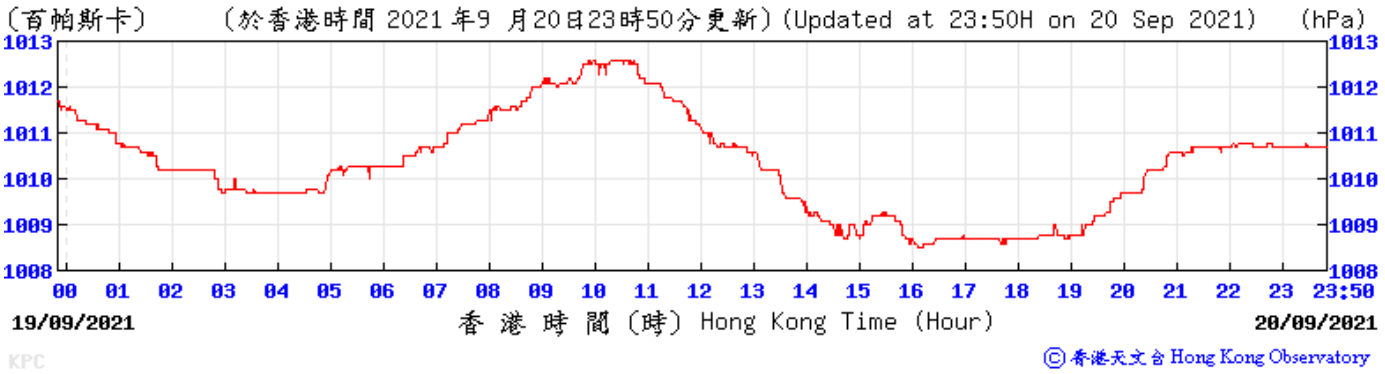

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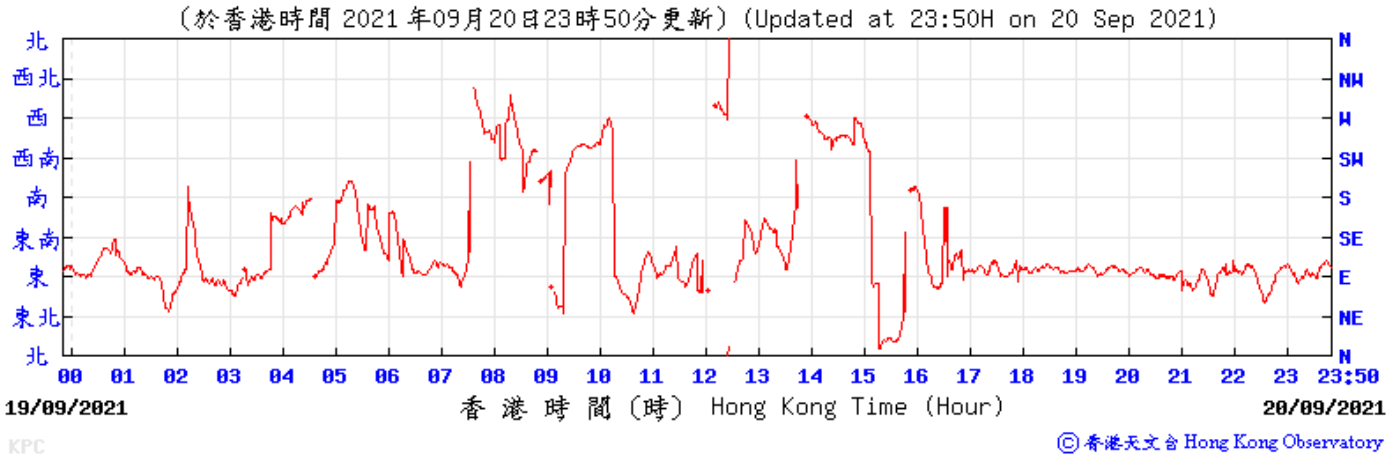

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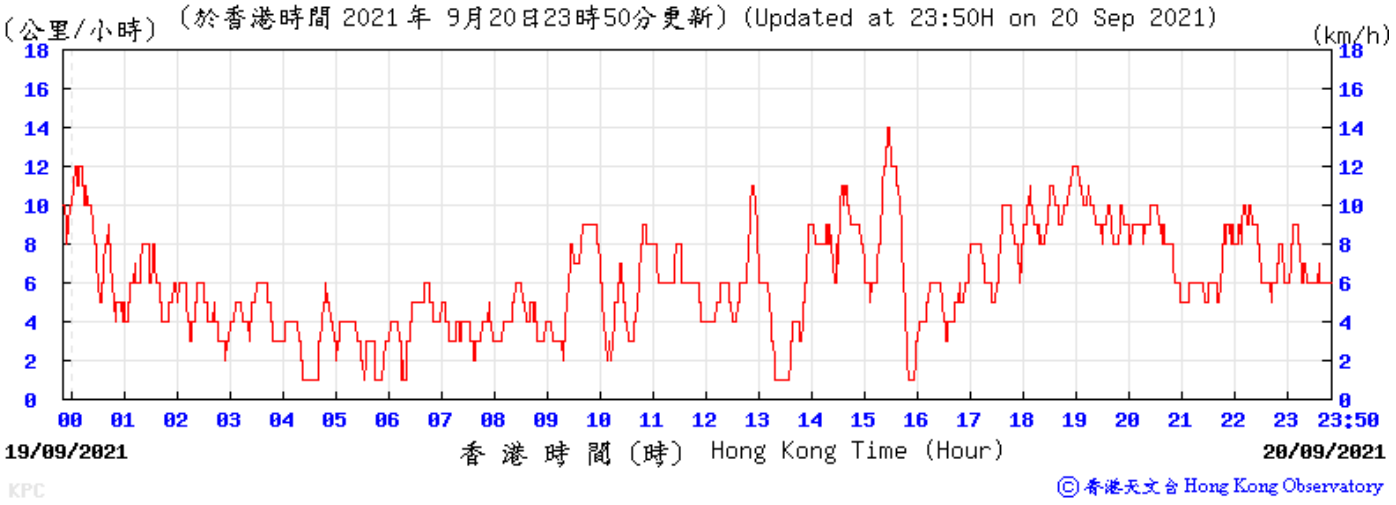

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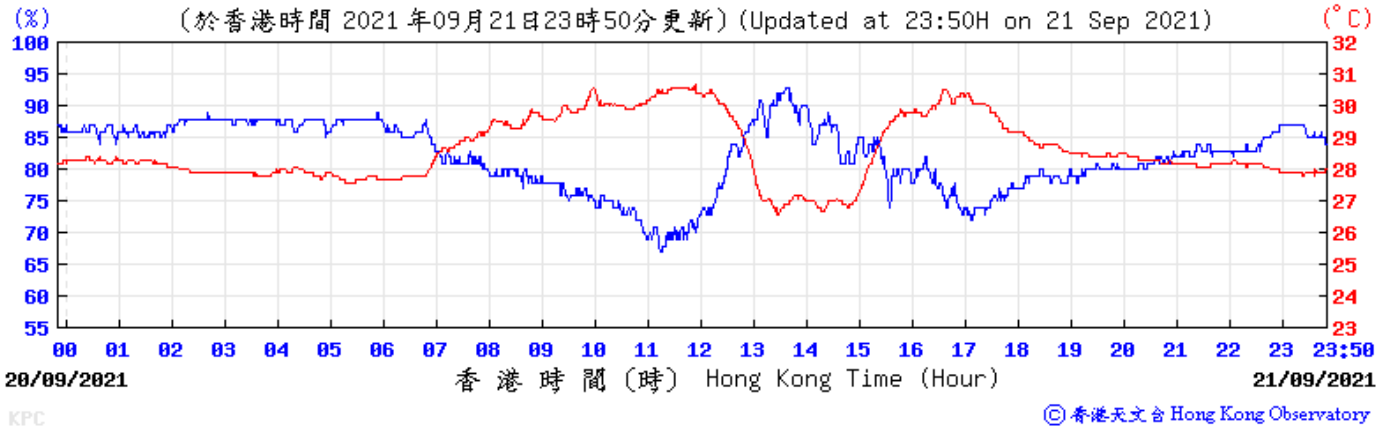

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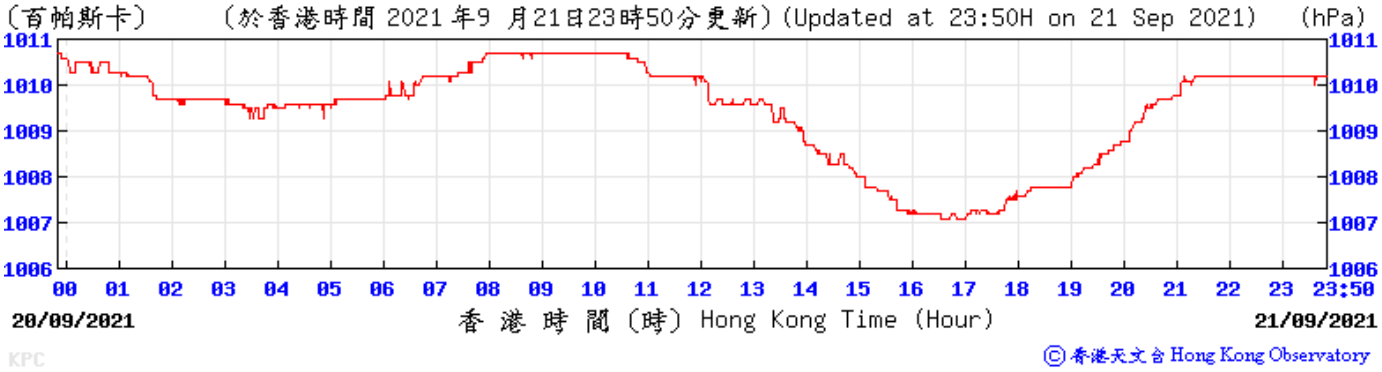

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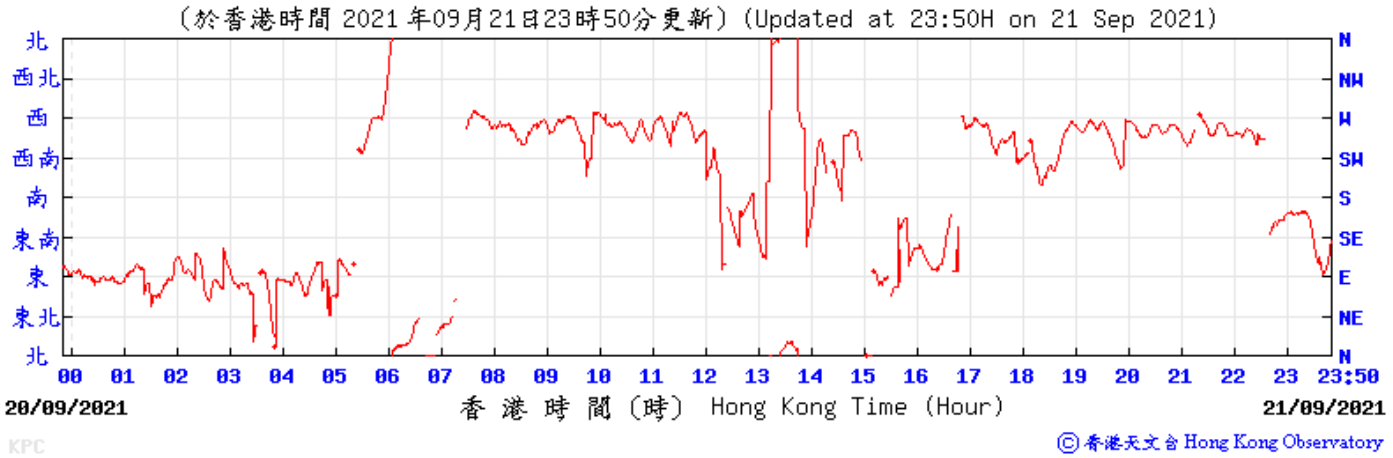

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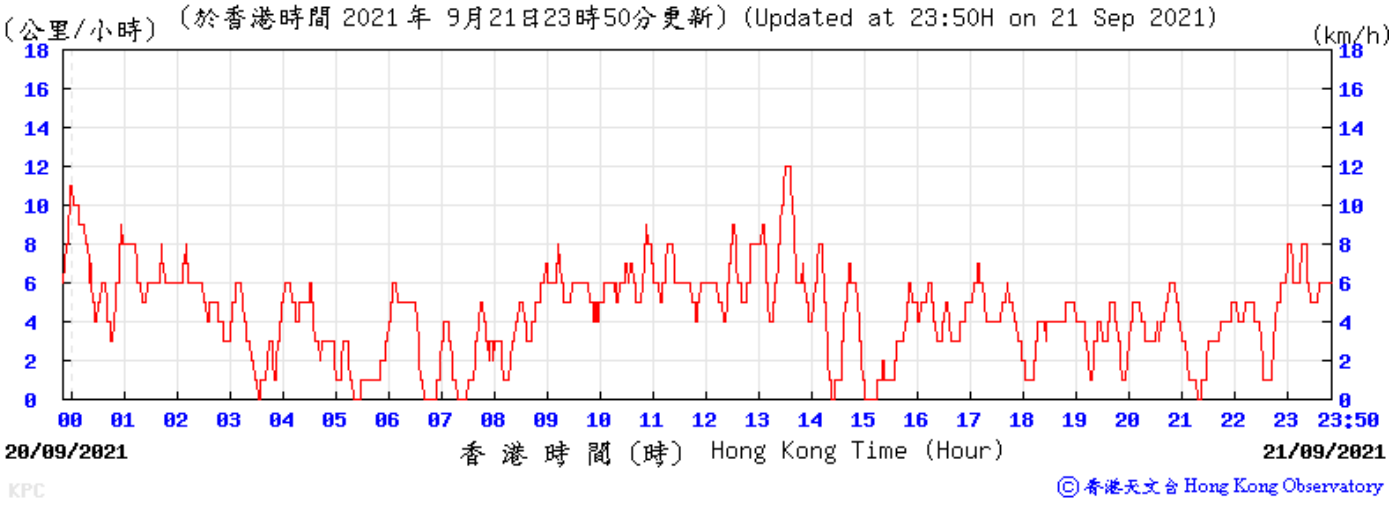

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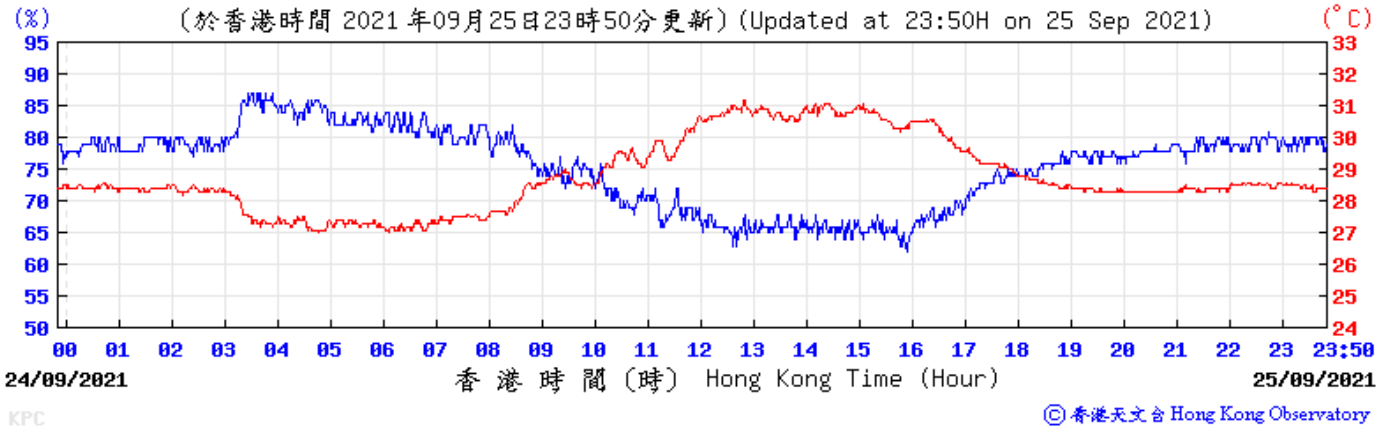

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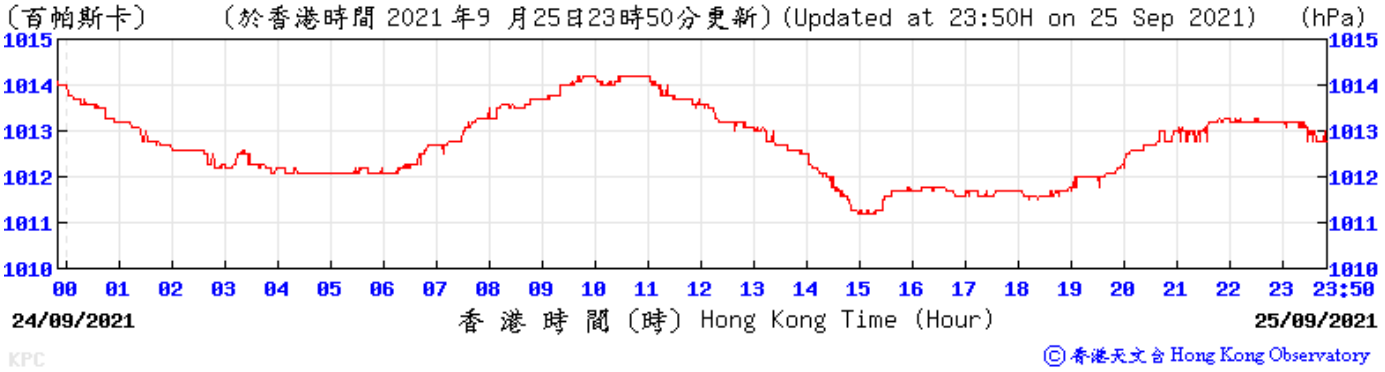

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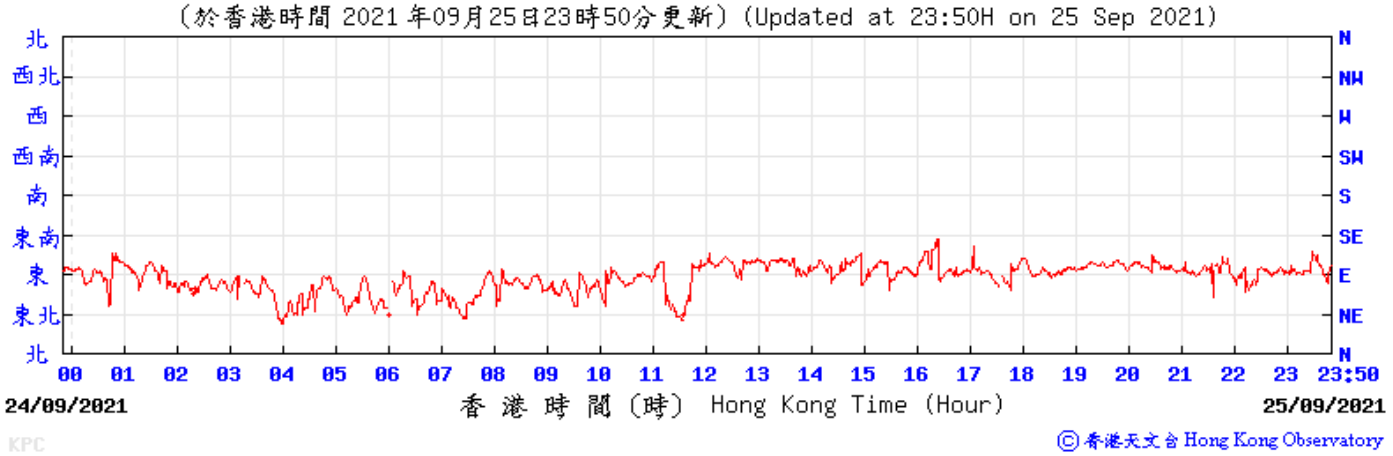

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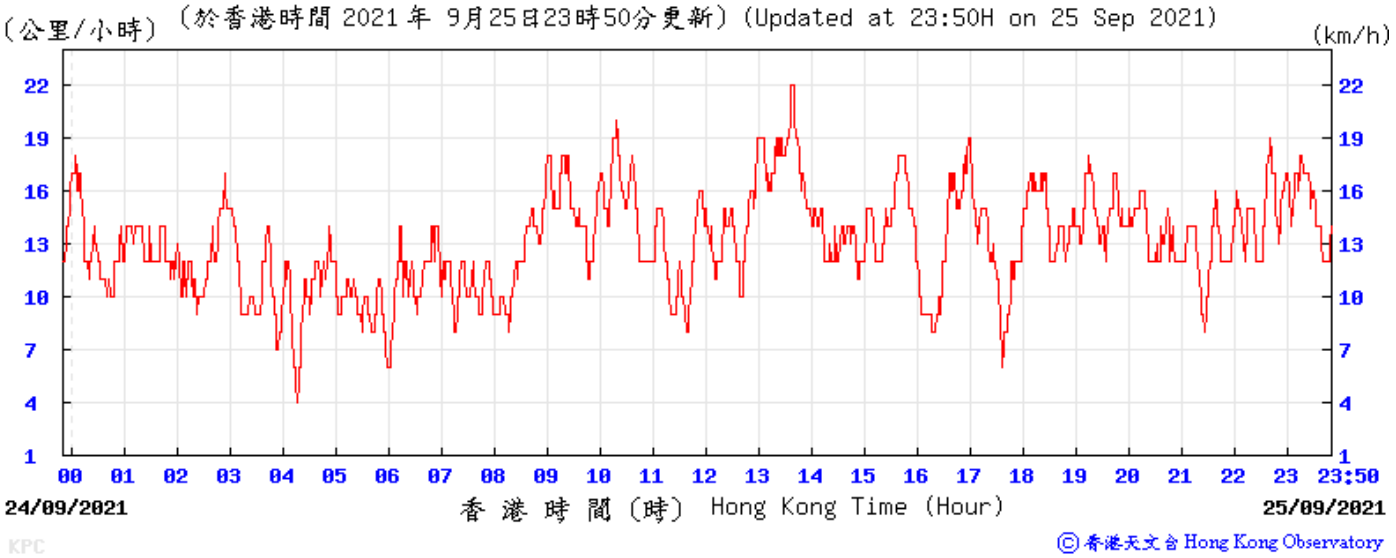

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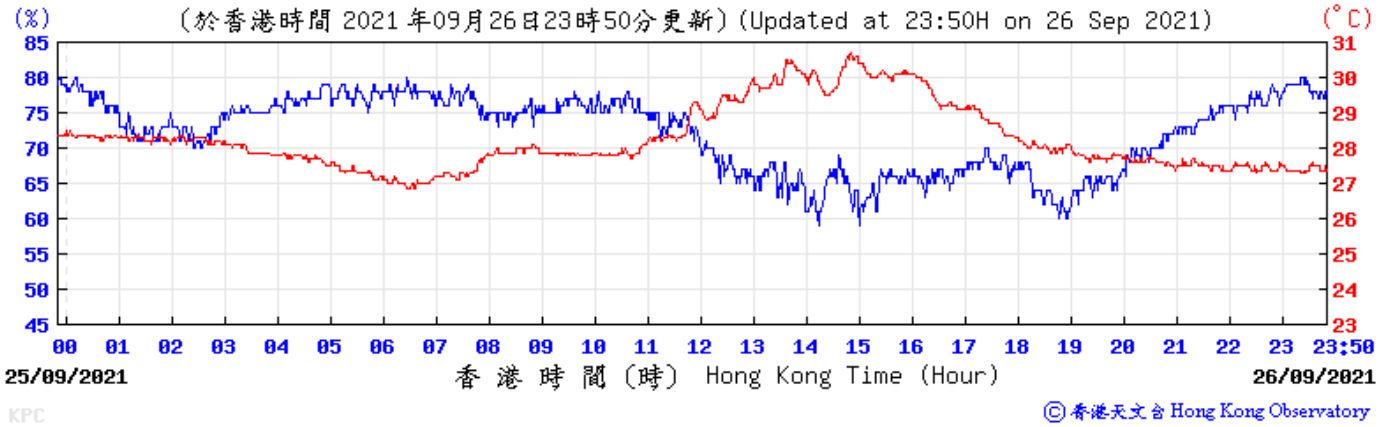

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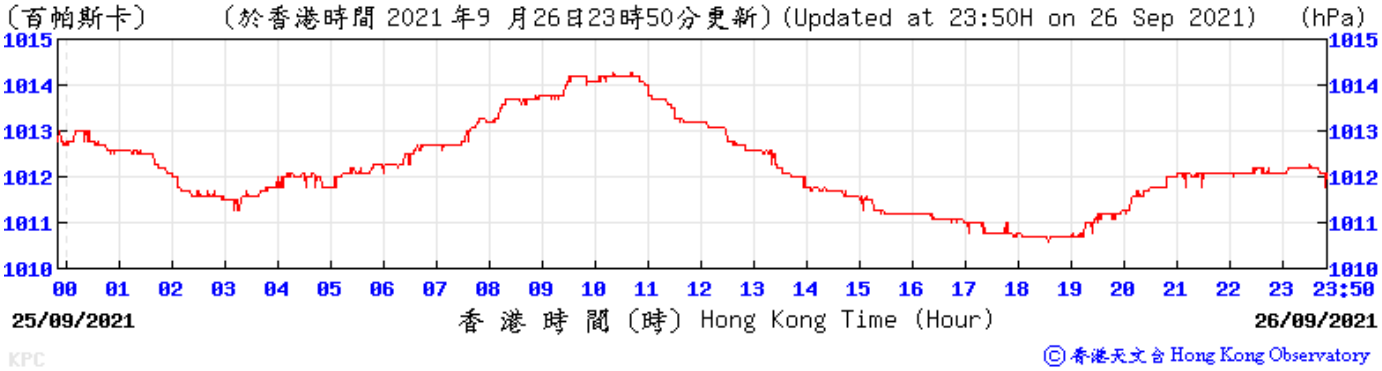

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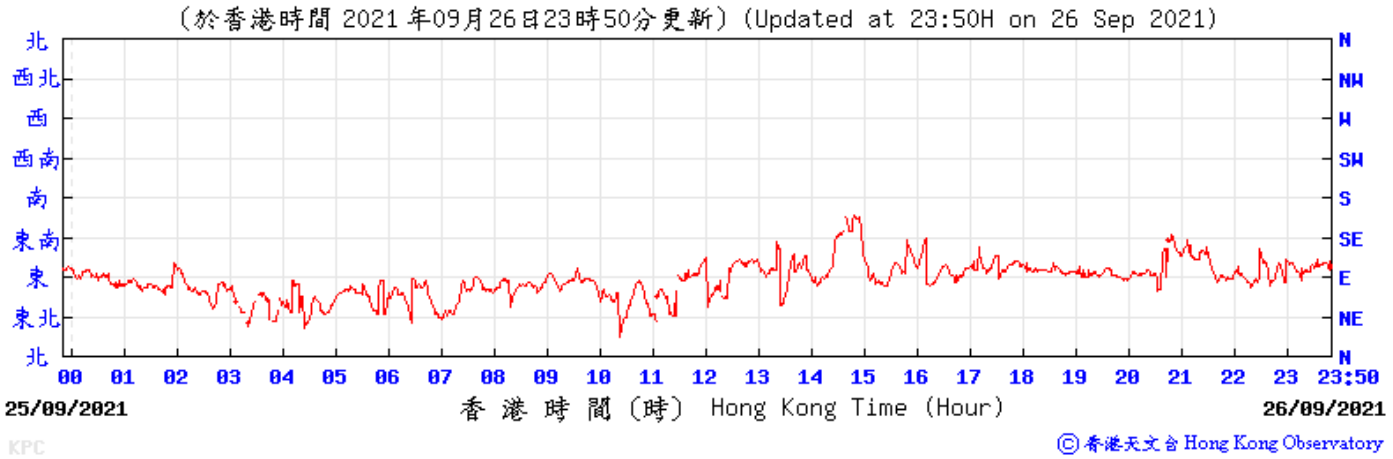

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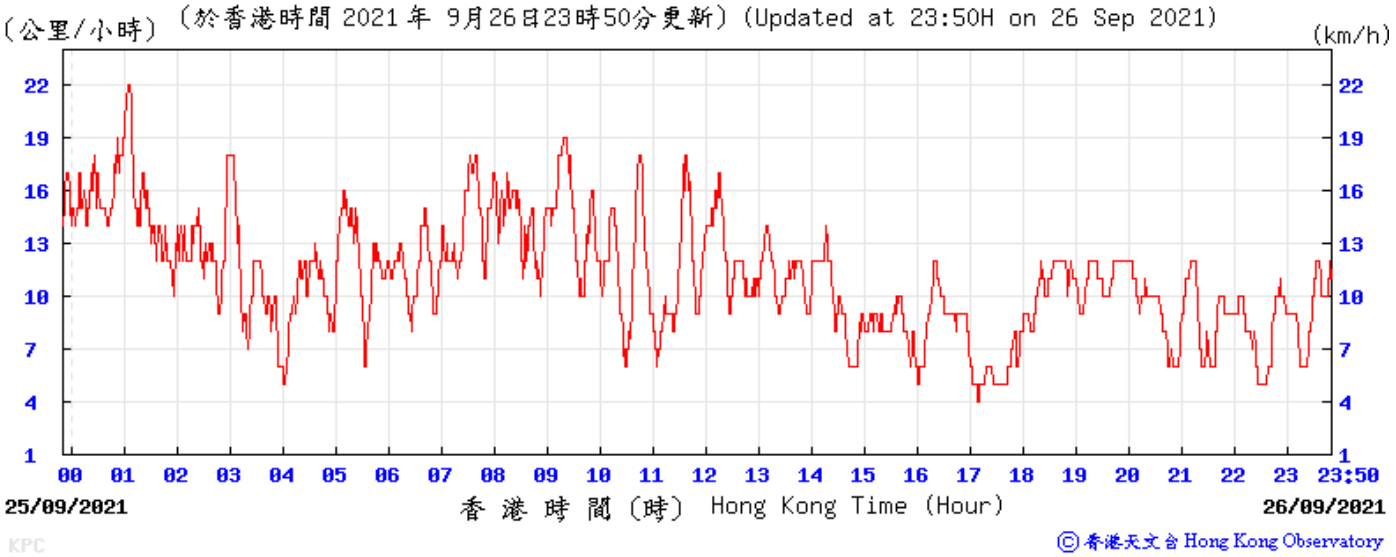

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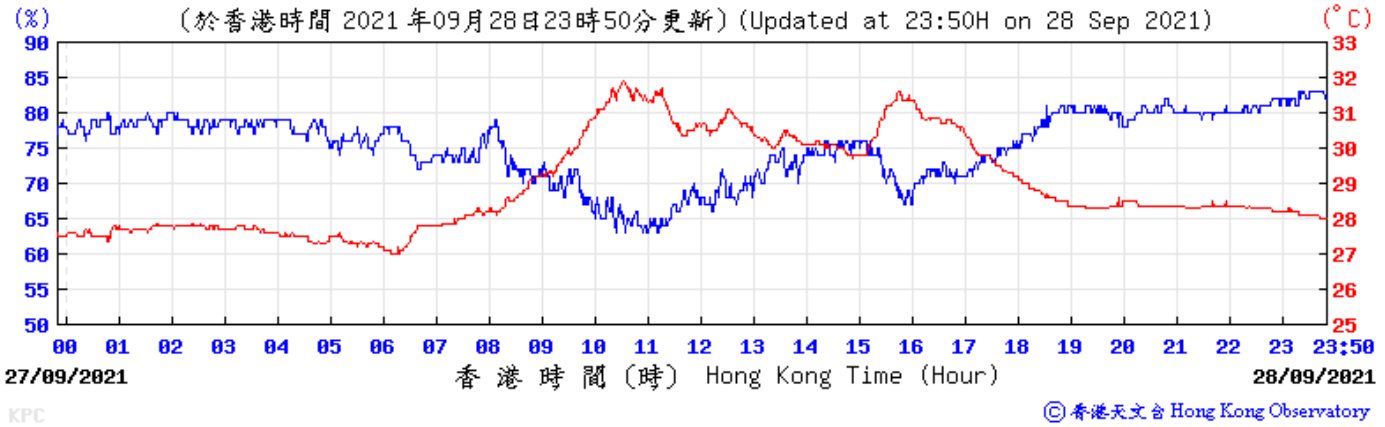

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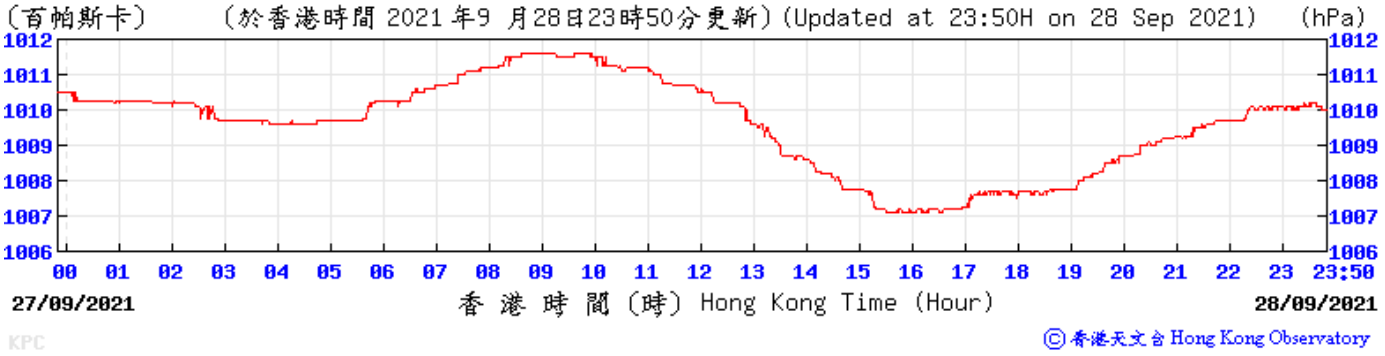

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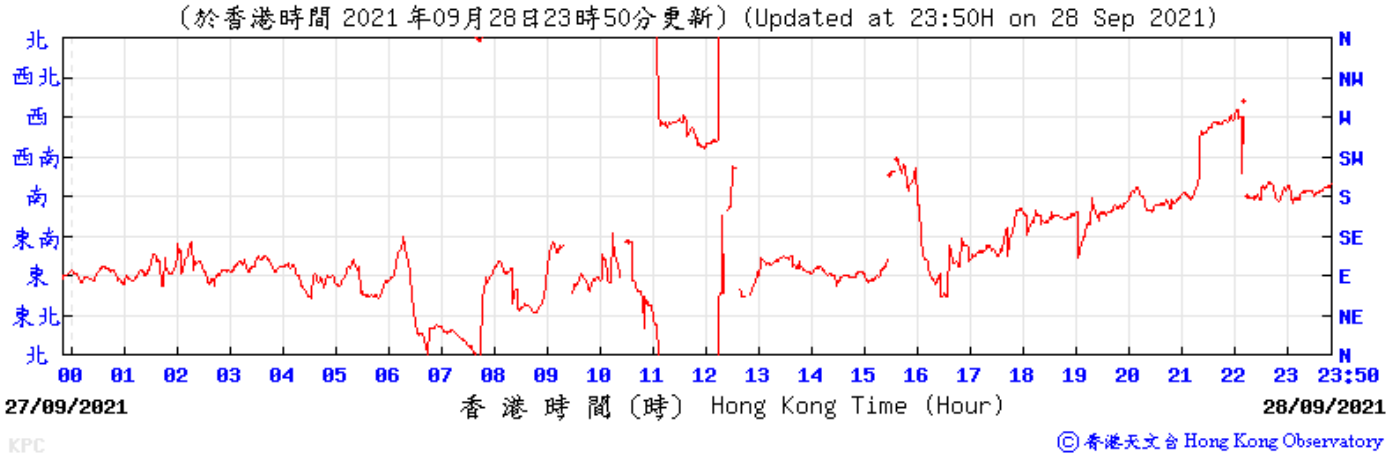

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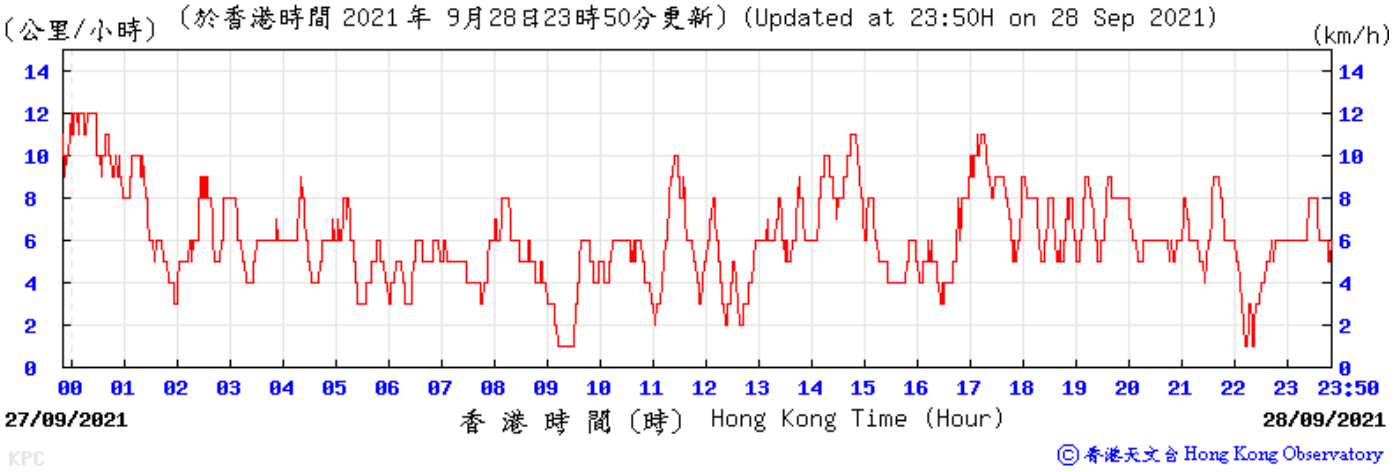

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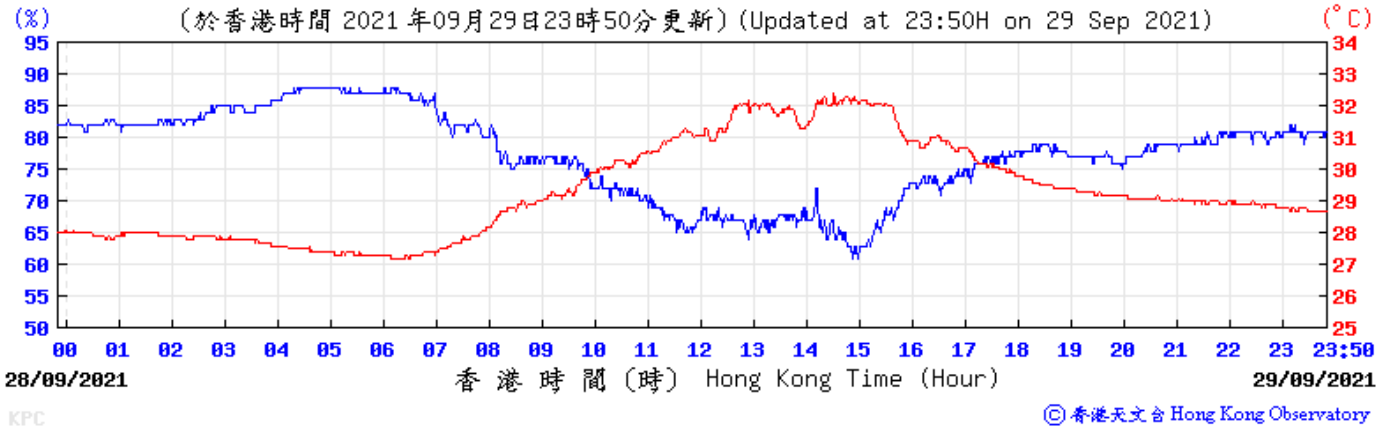

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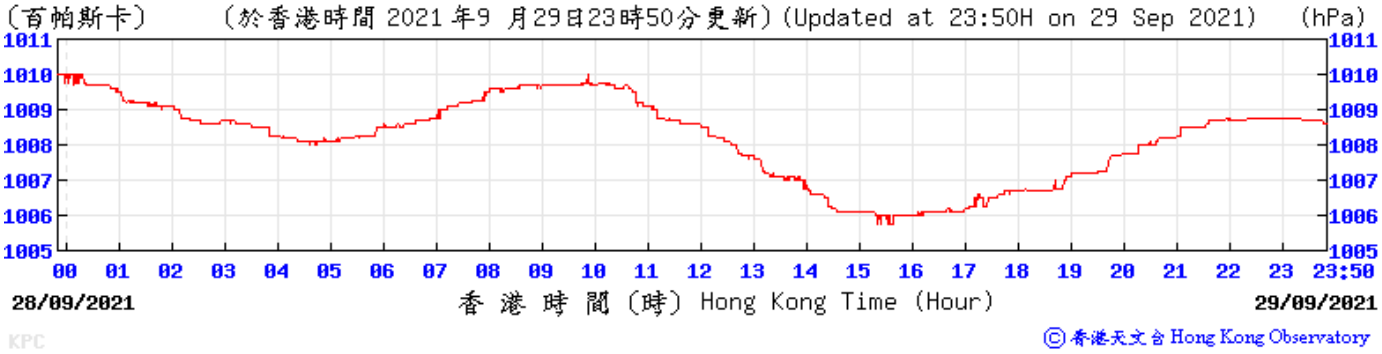

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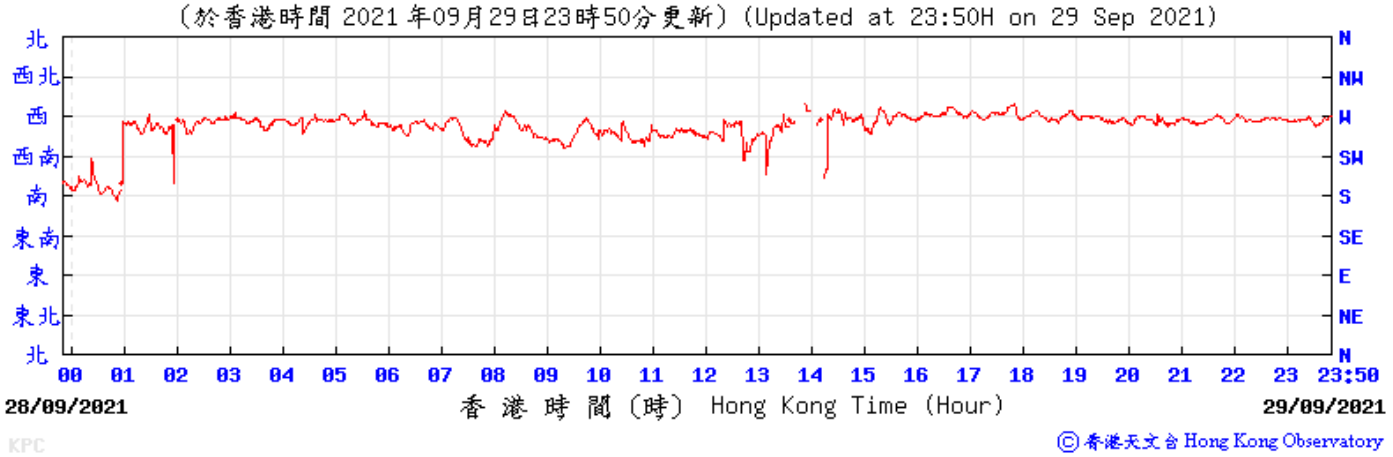

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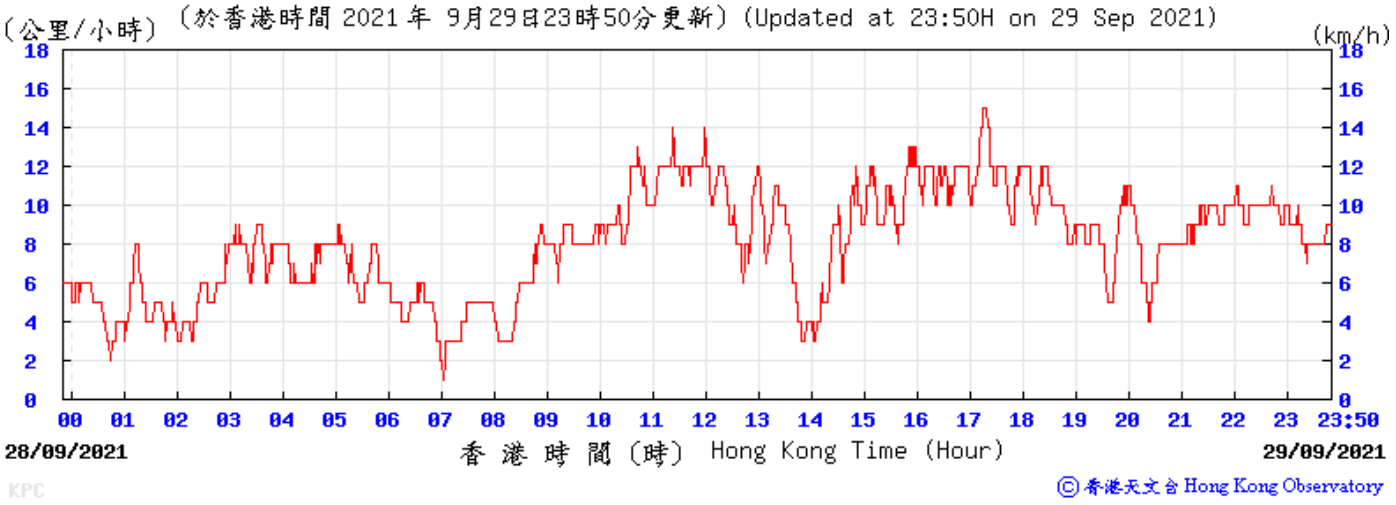
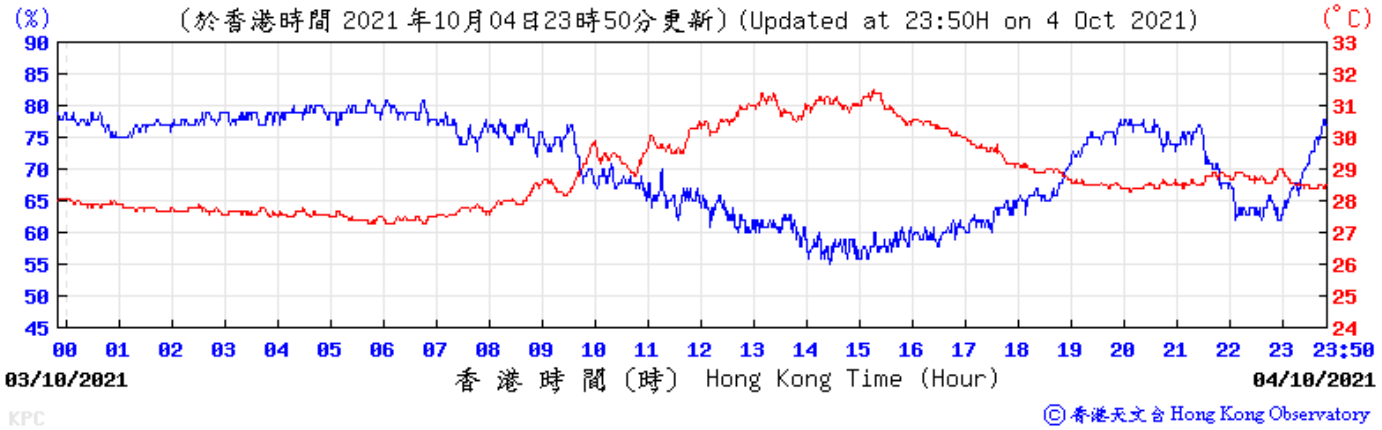


Extract of Meteorological Observations for King's Park Automatic Weather Station, October 2021

Tempearture/Humidity:



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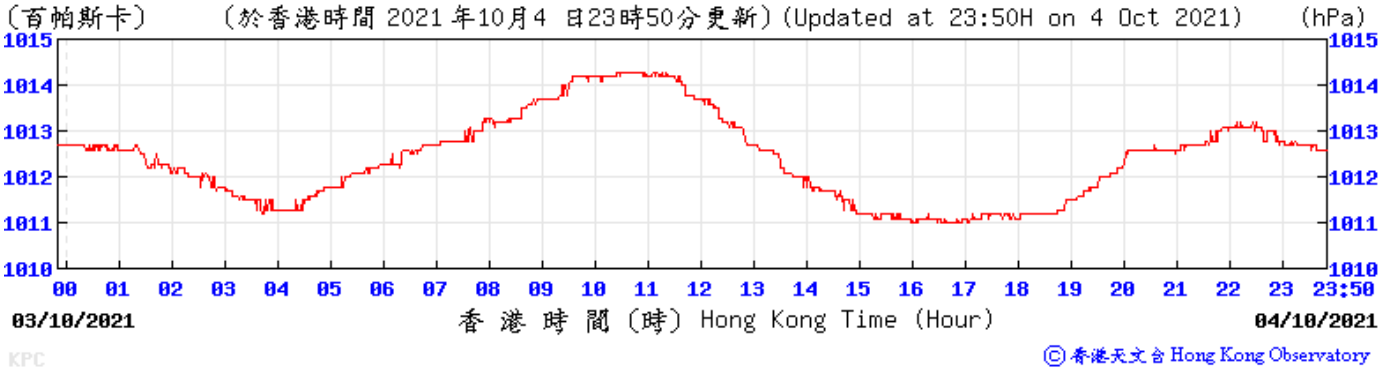

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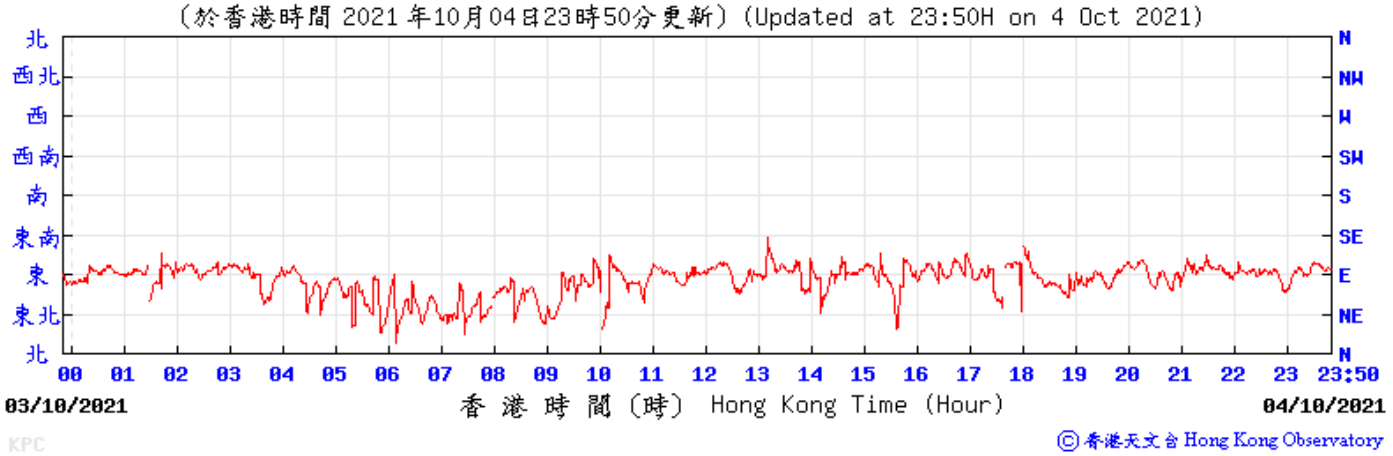

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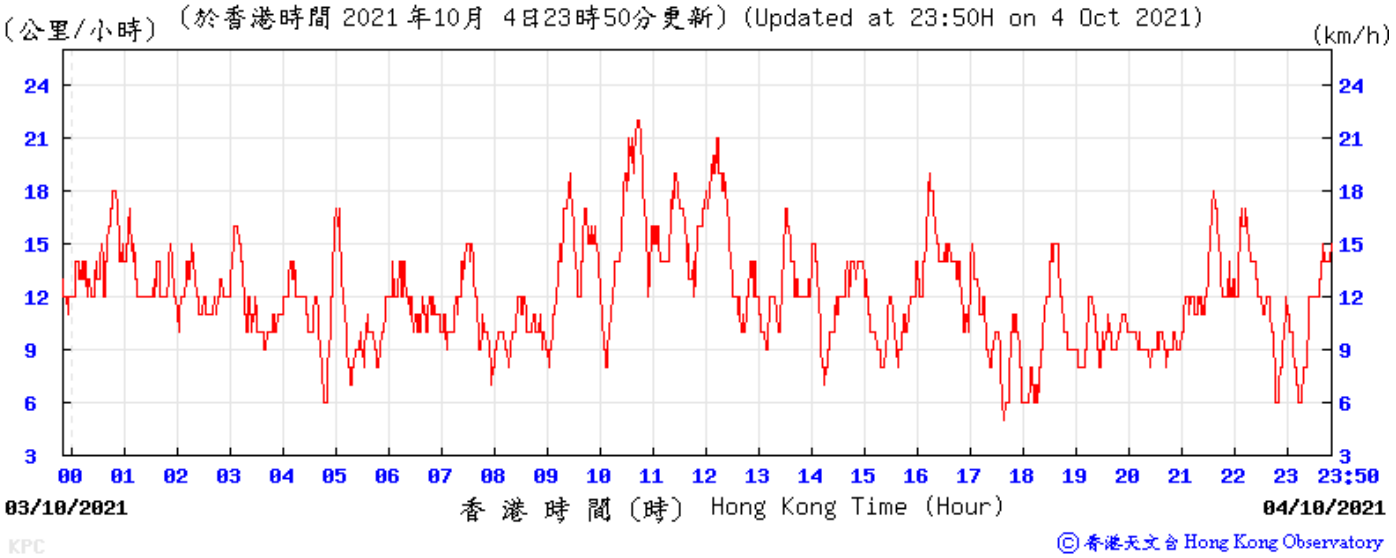

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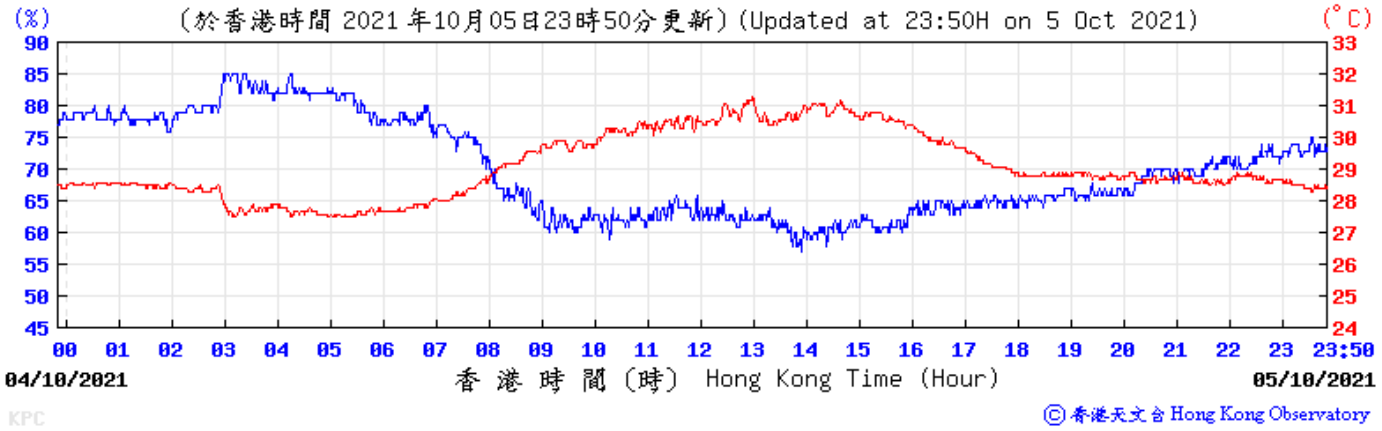

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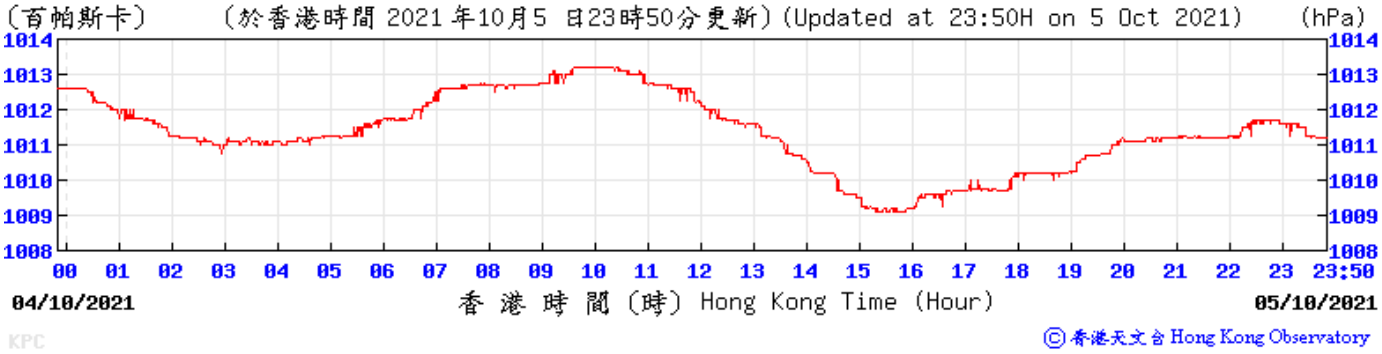

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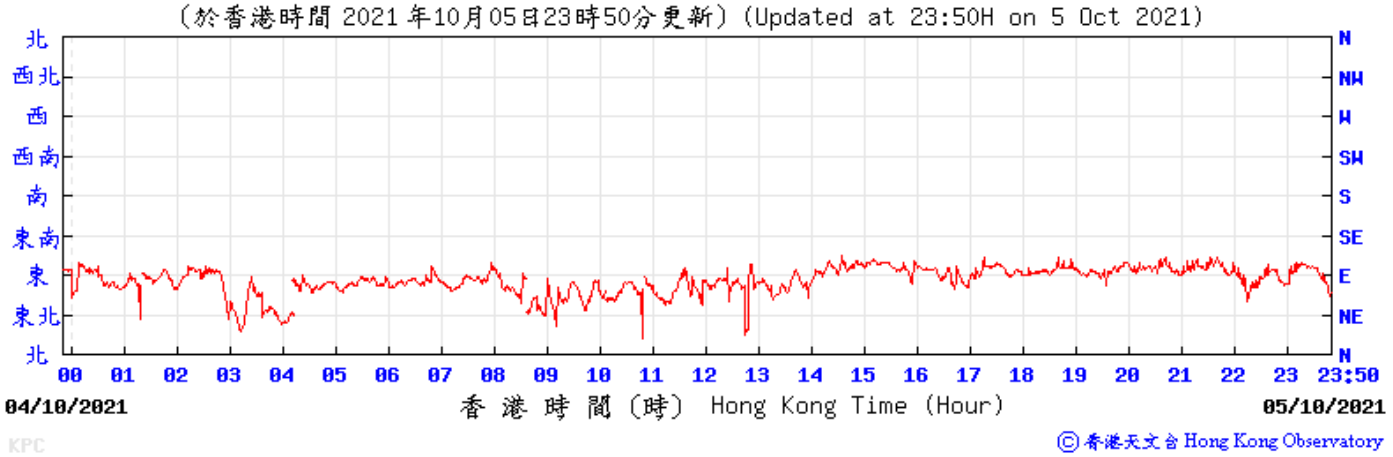

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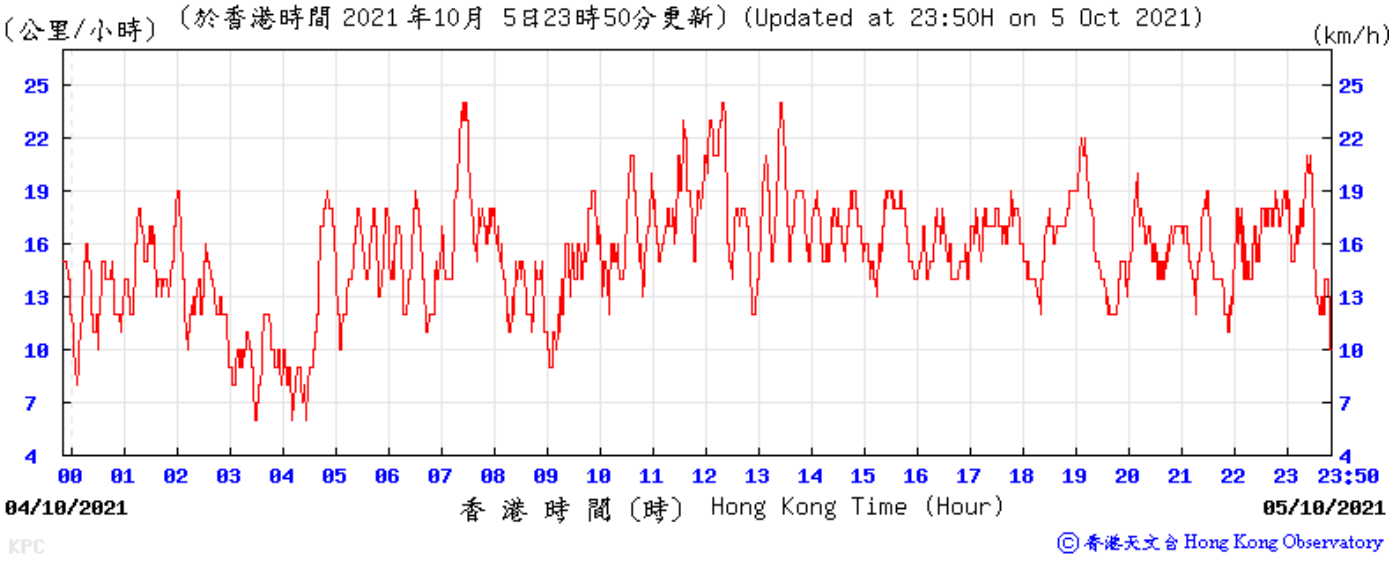

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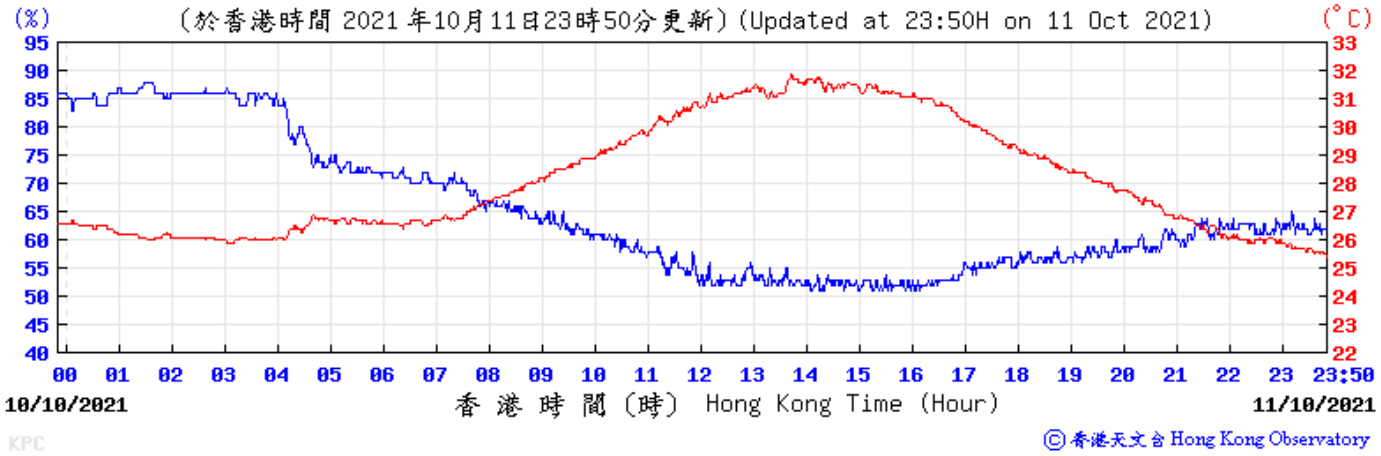

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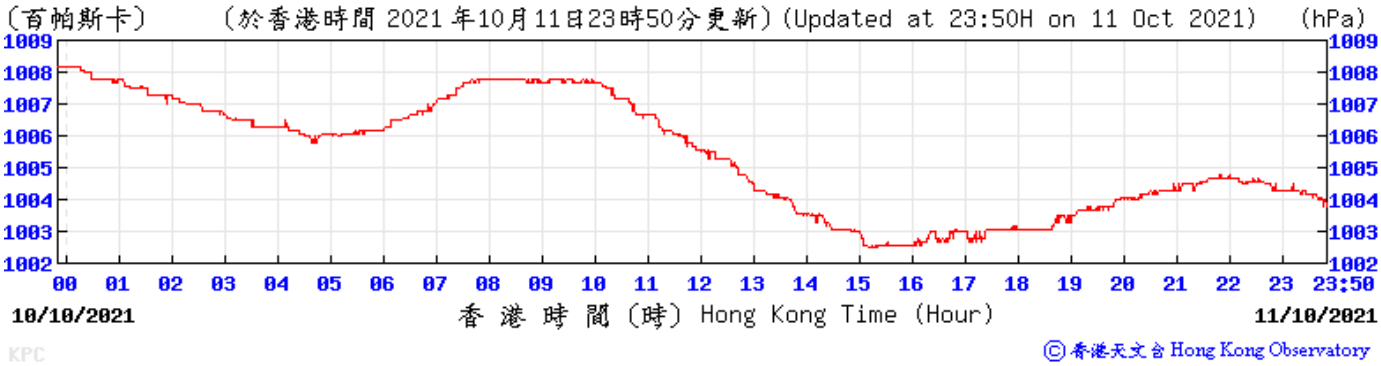

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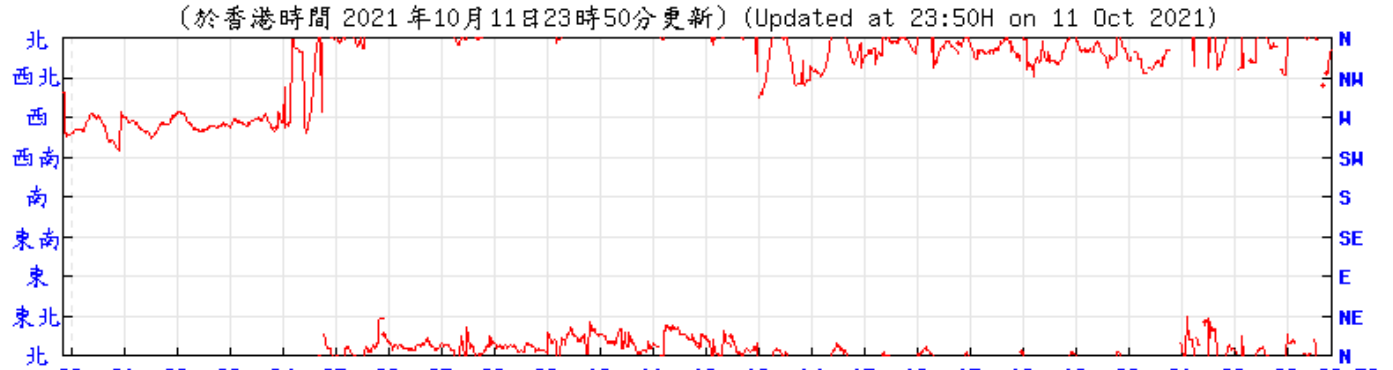

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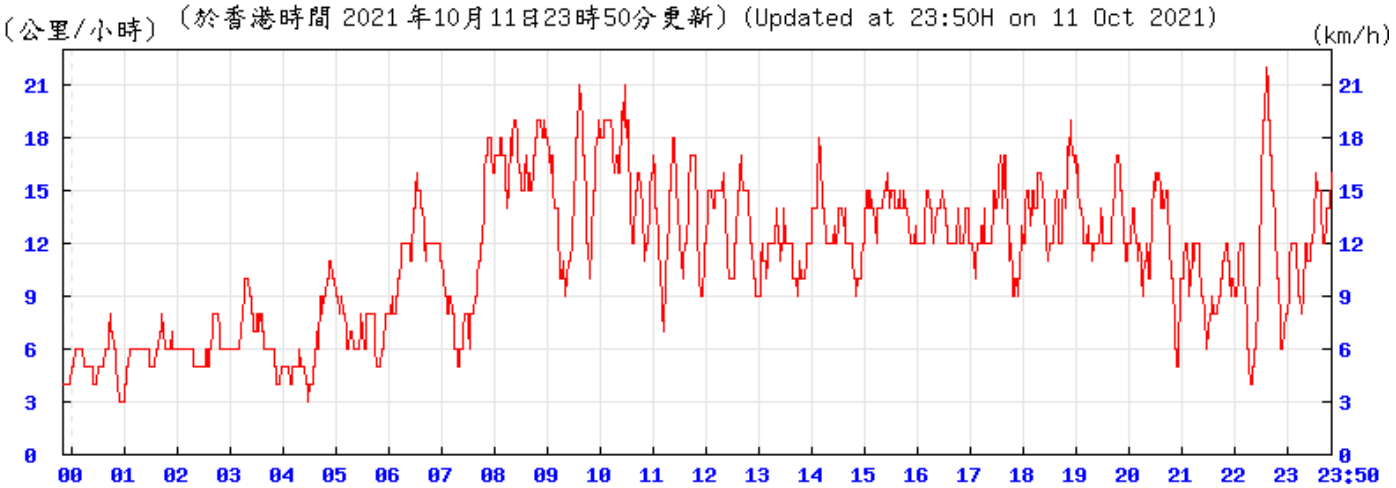

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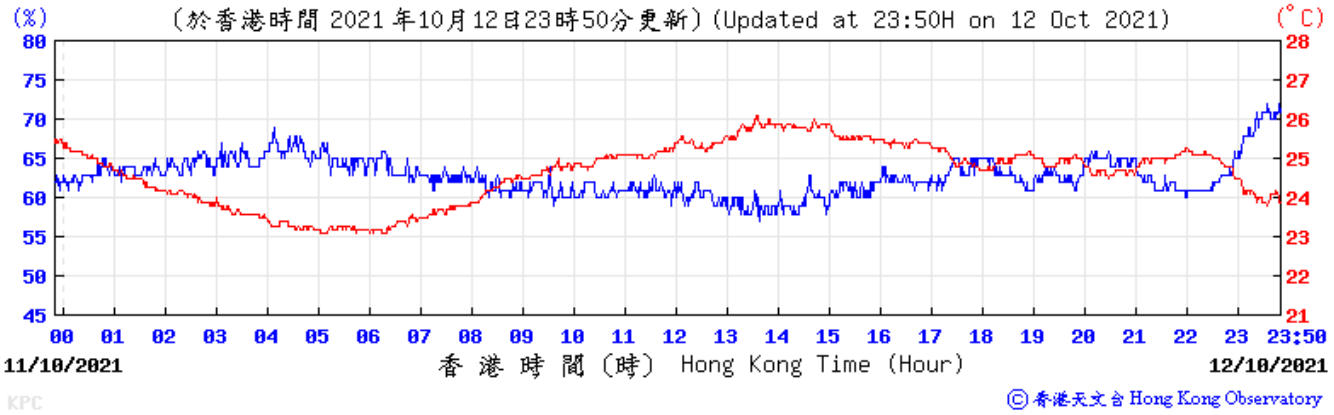

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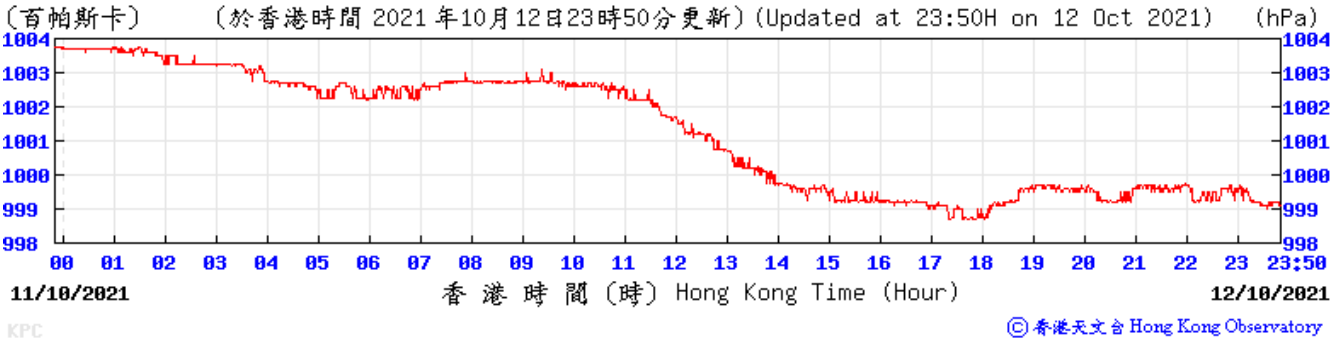
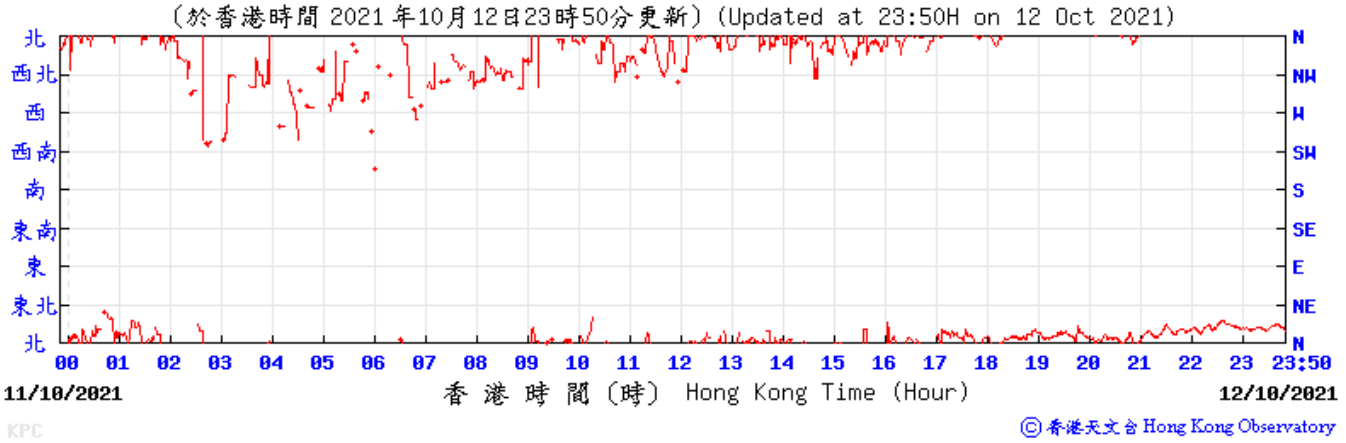


Wind Direction:



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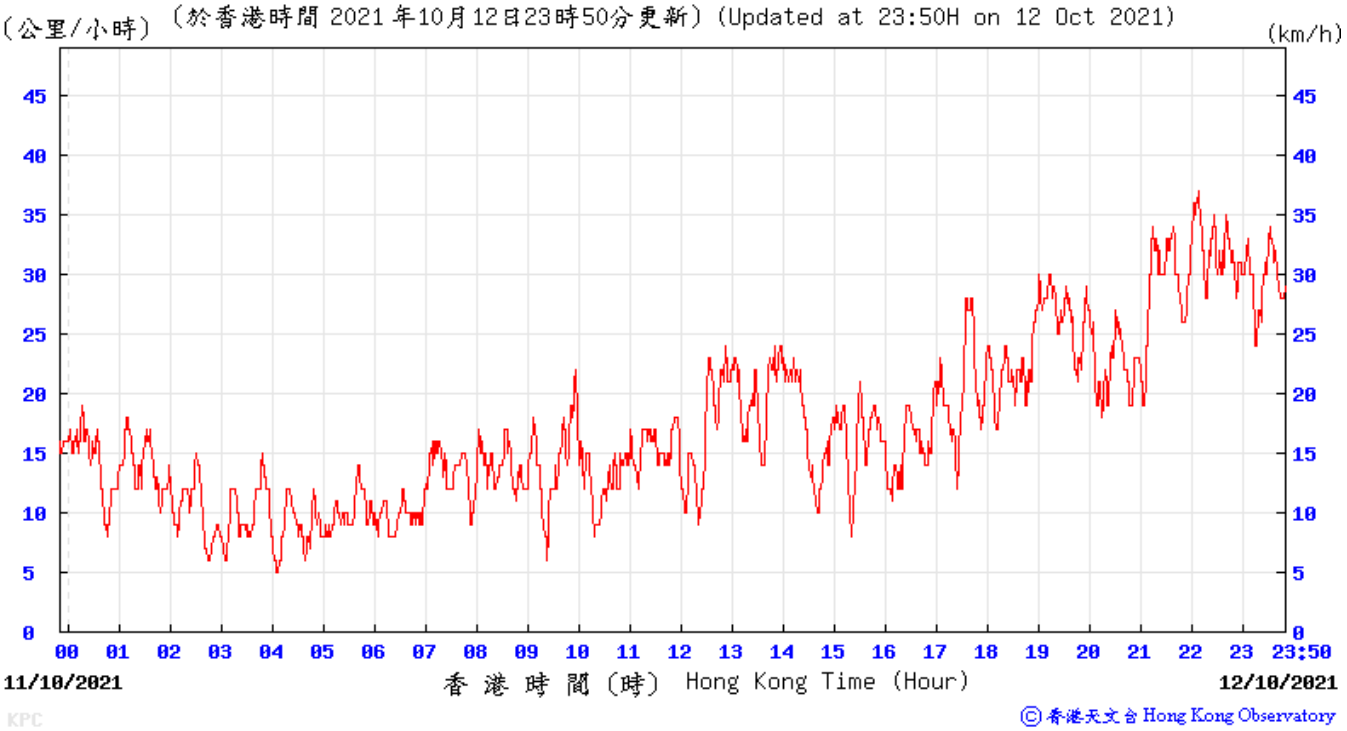
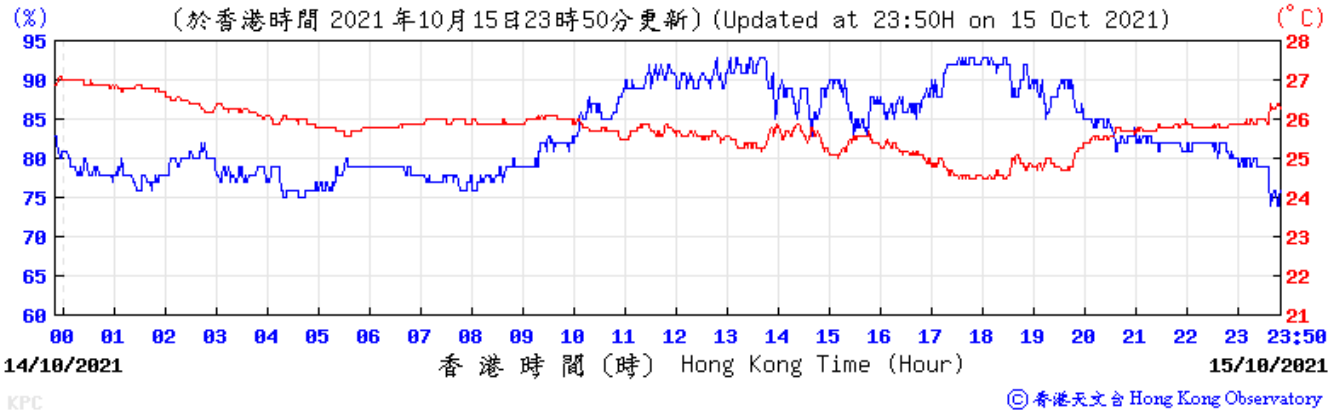
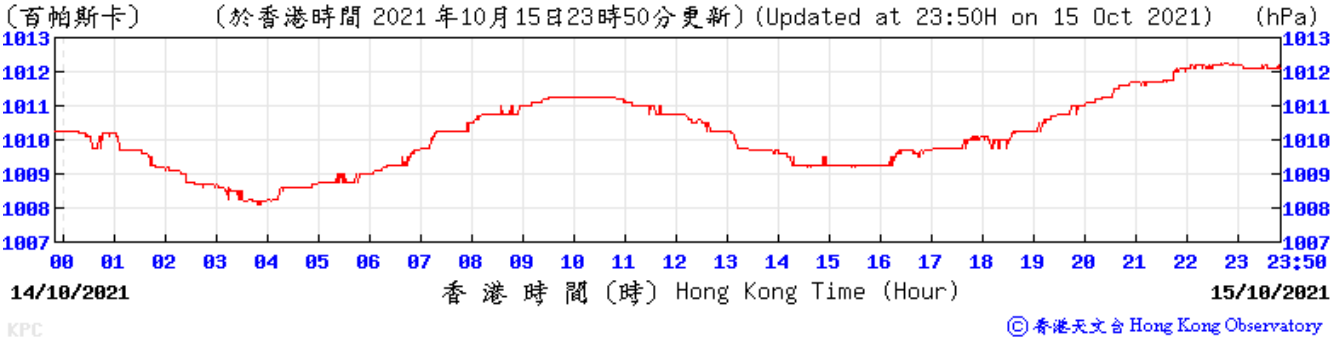


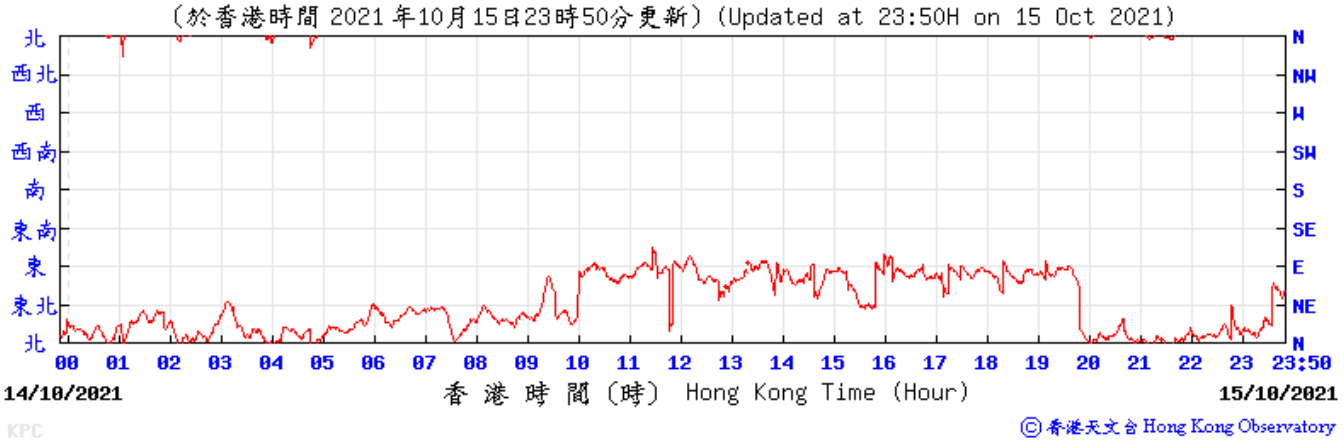
Tempearture/Humidity:



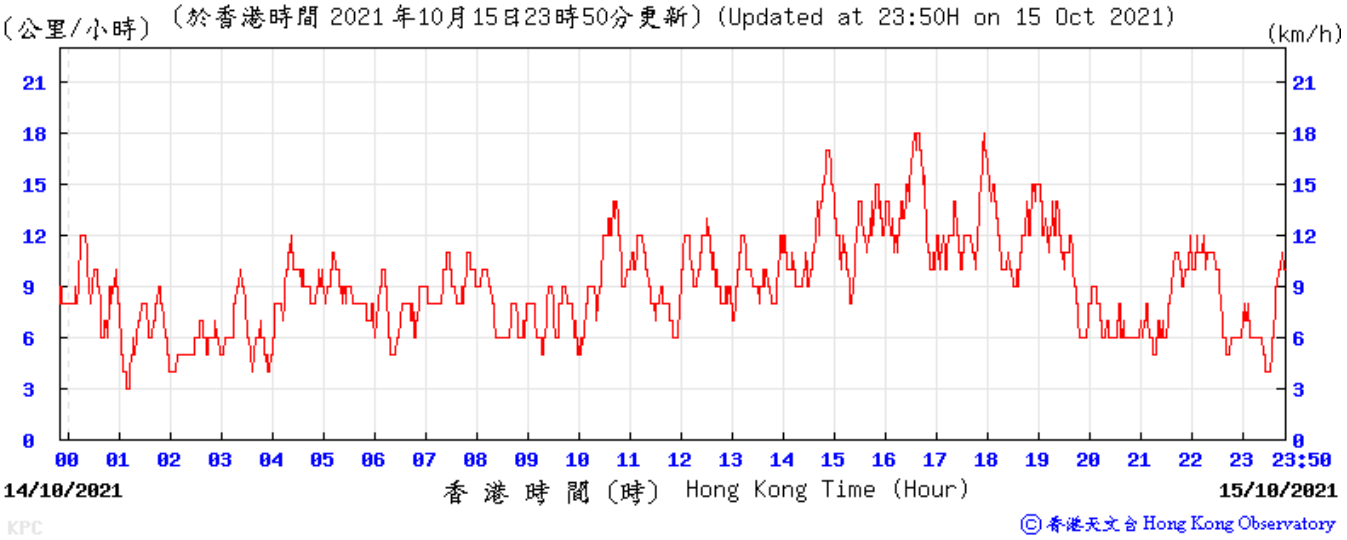
Pressure:



Wind Direction:



Wind Speed:



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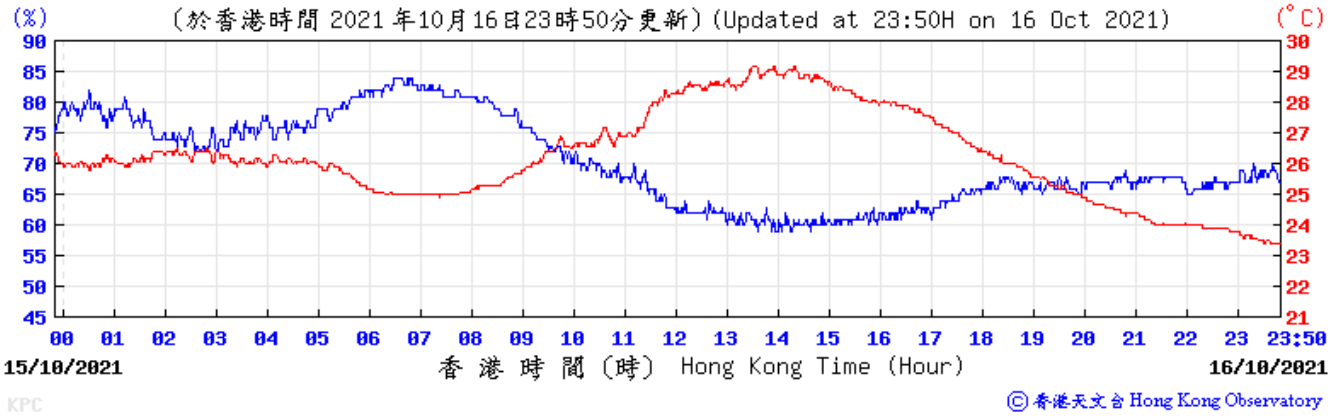

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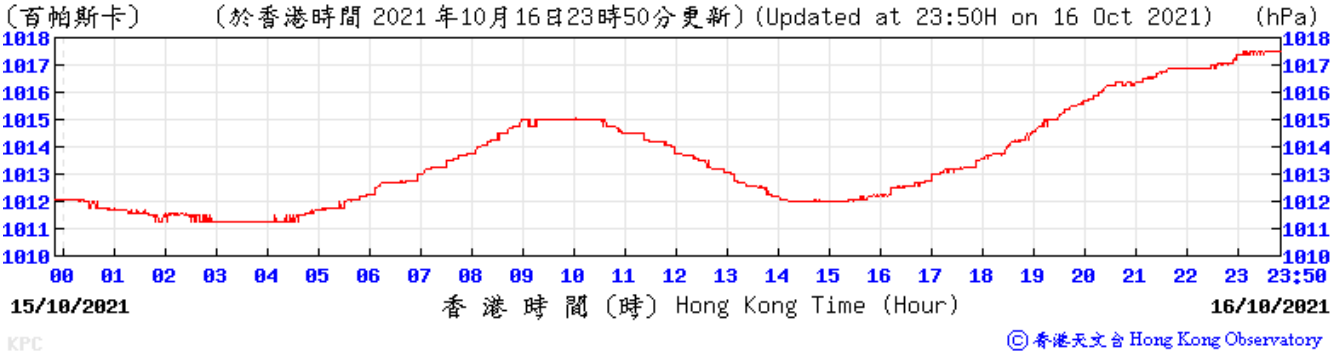
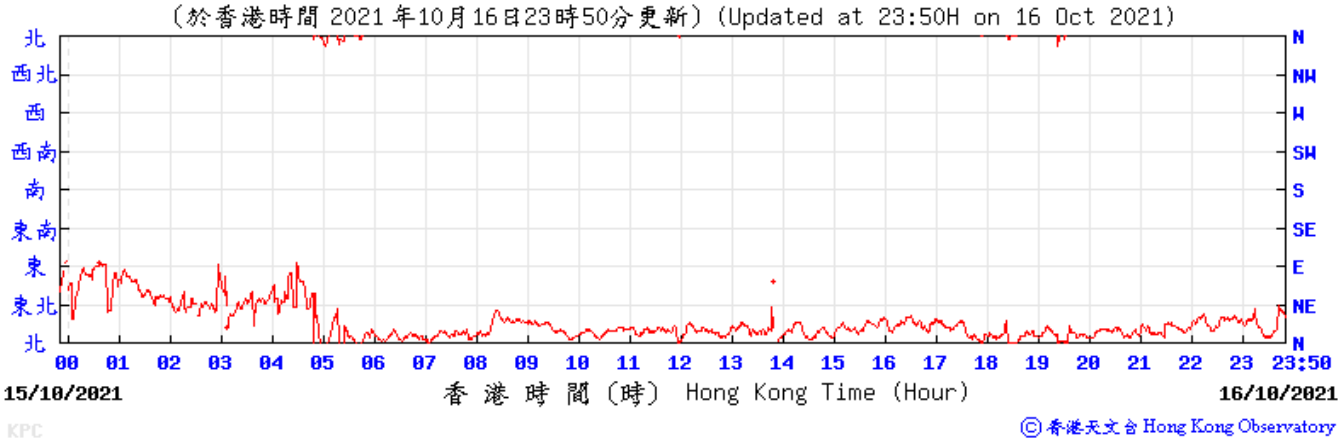
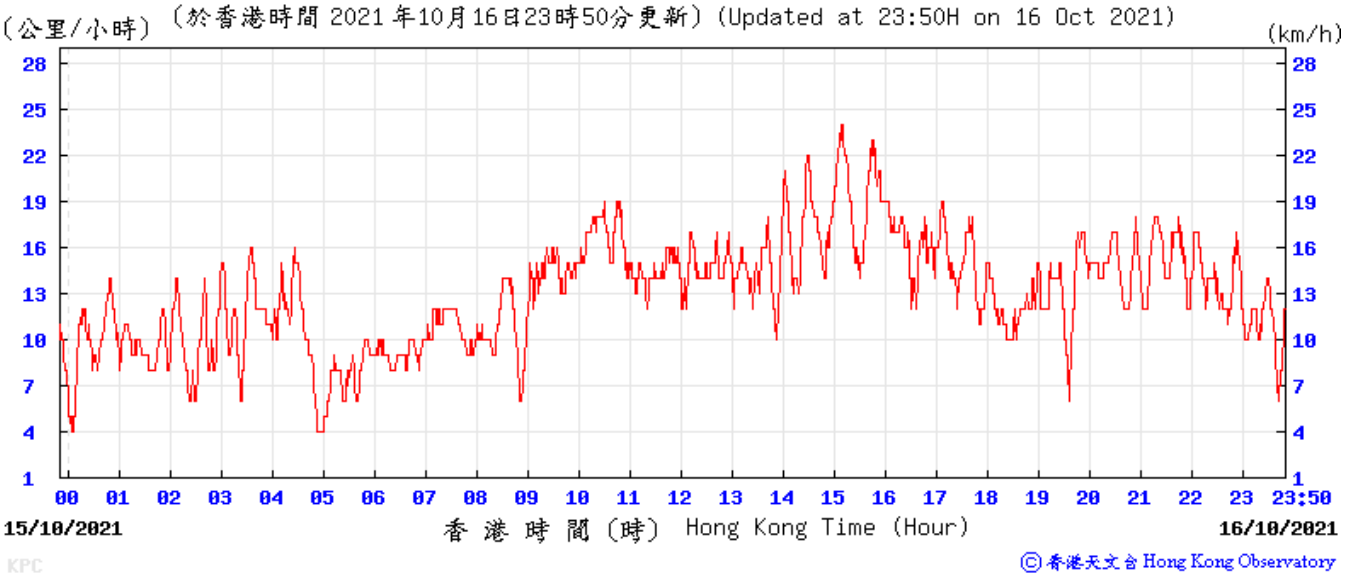


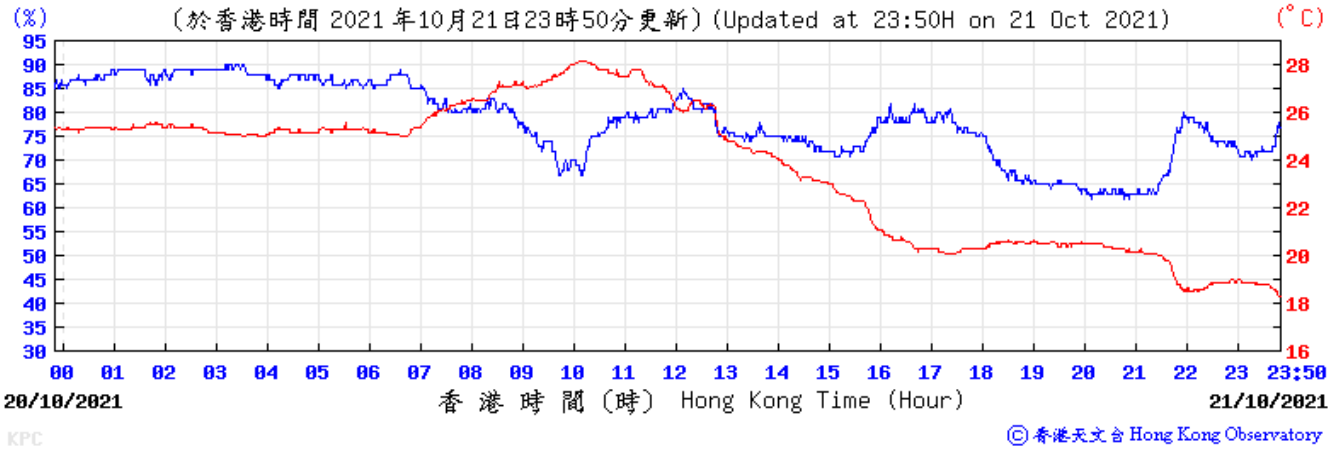
Wind Direction:



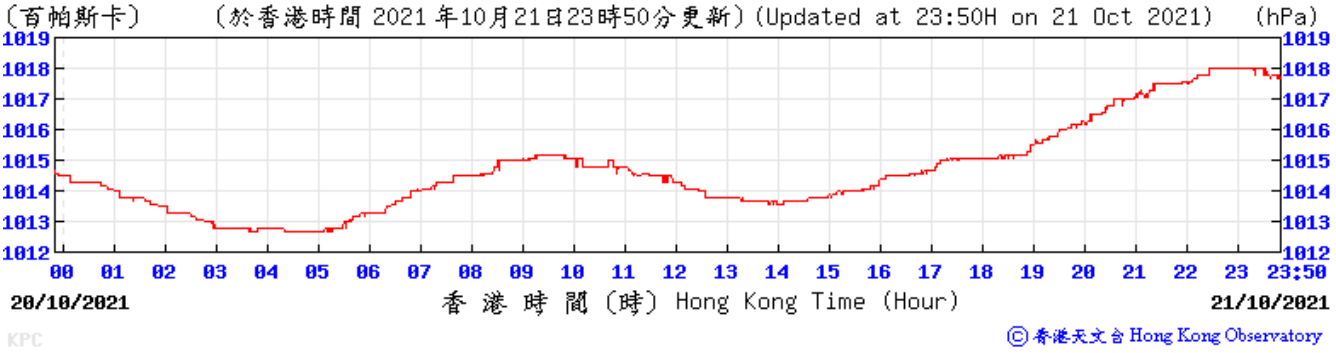
Wind Speed:



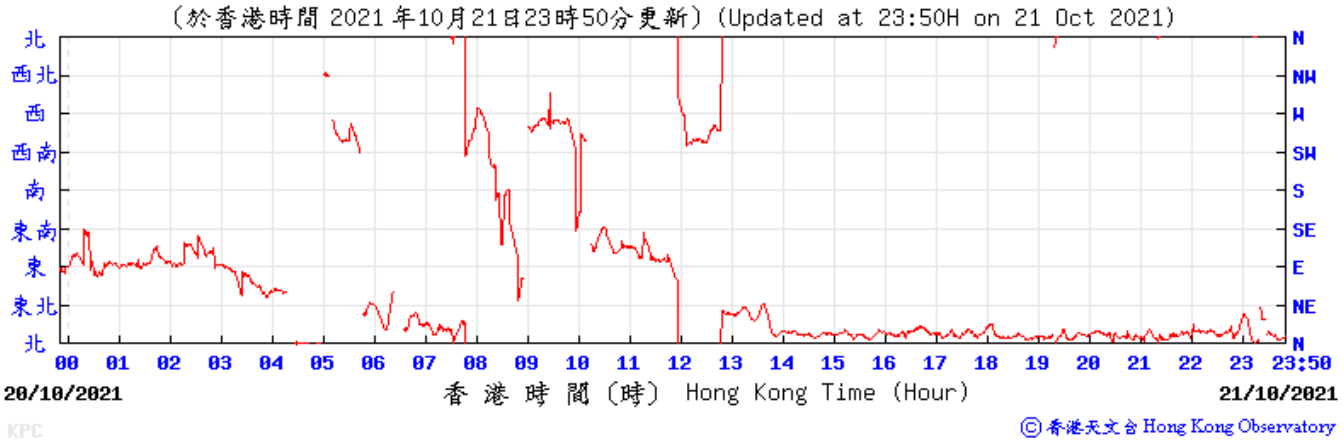
Tempearture/Humidity:



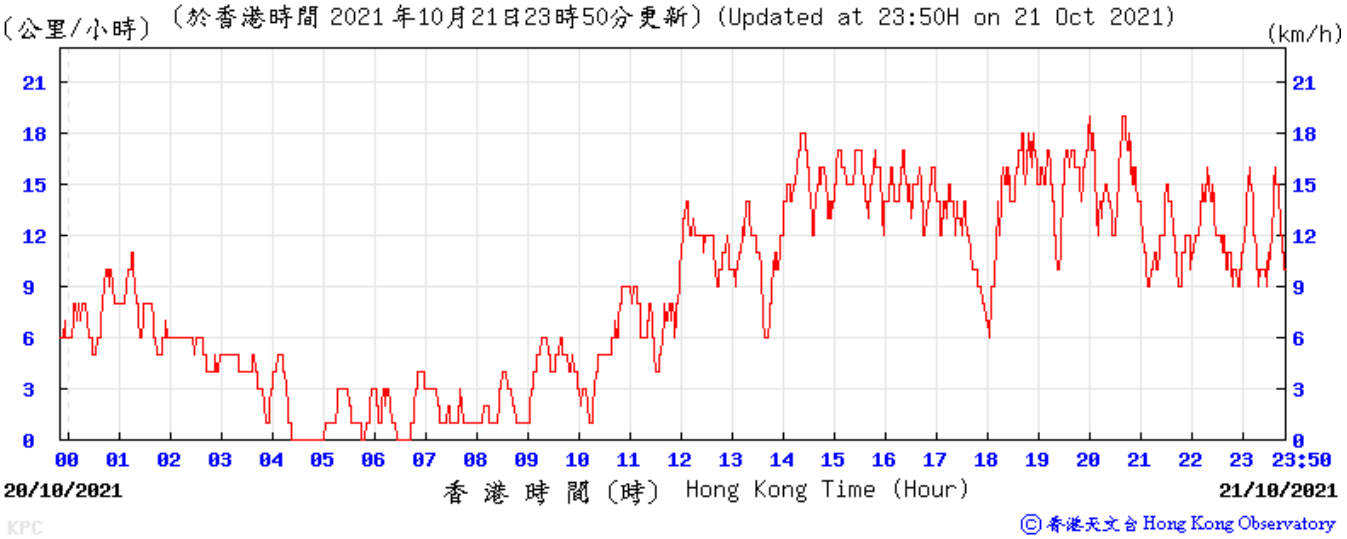
Pressure:



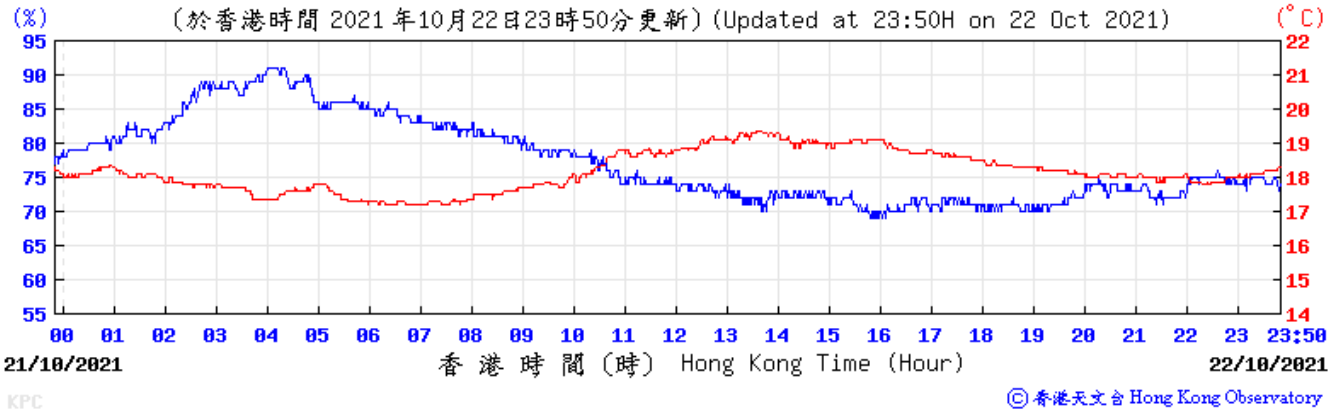
Wind Direction:



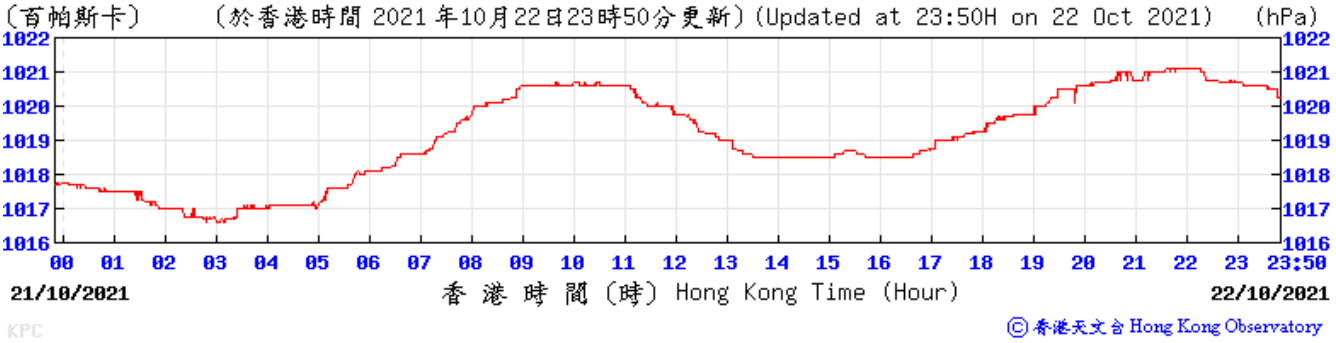
Wind Speed:



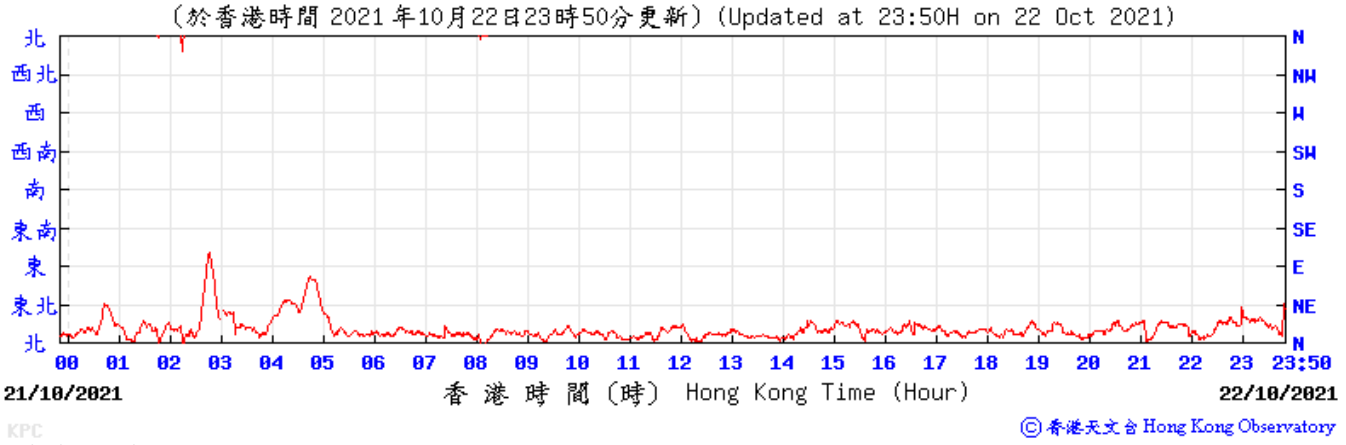
Tempearture/Humidity:



Pressure:



Wind Direction:



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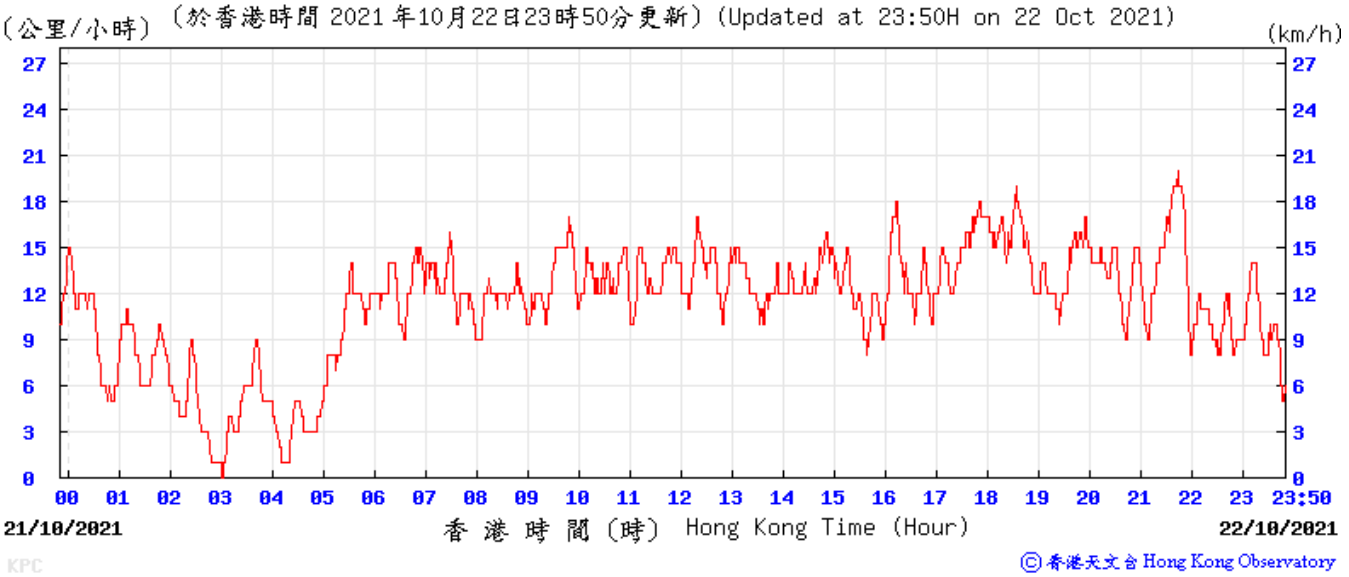
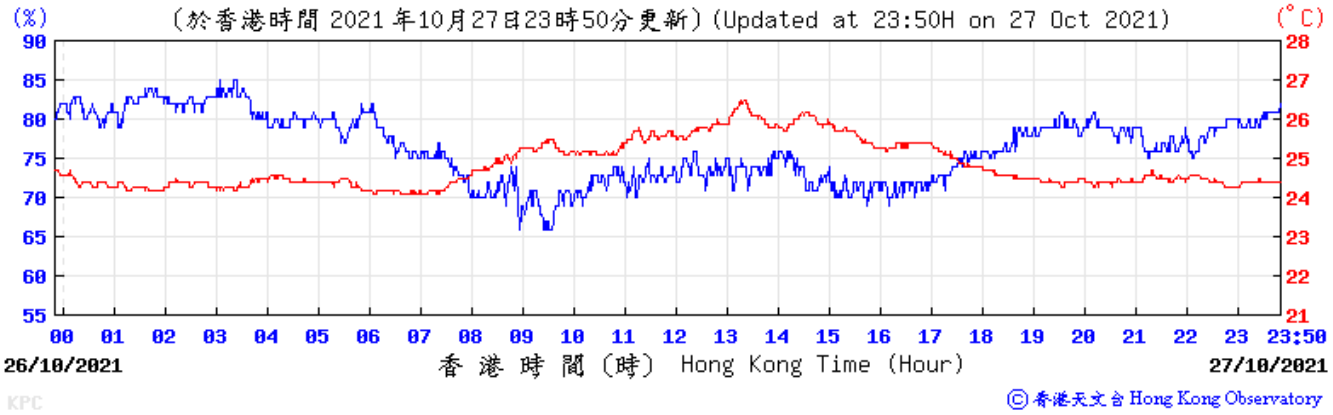
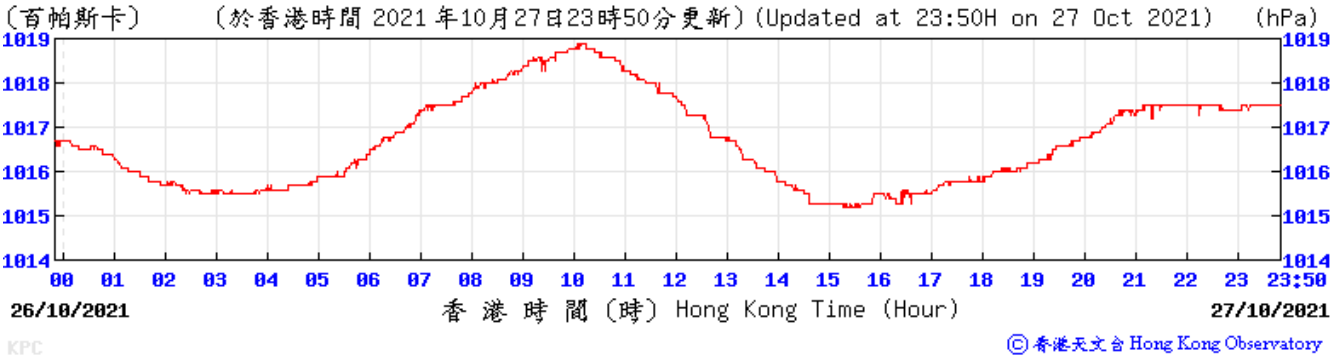


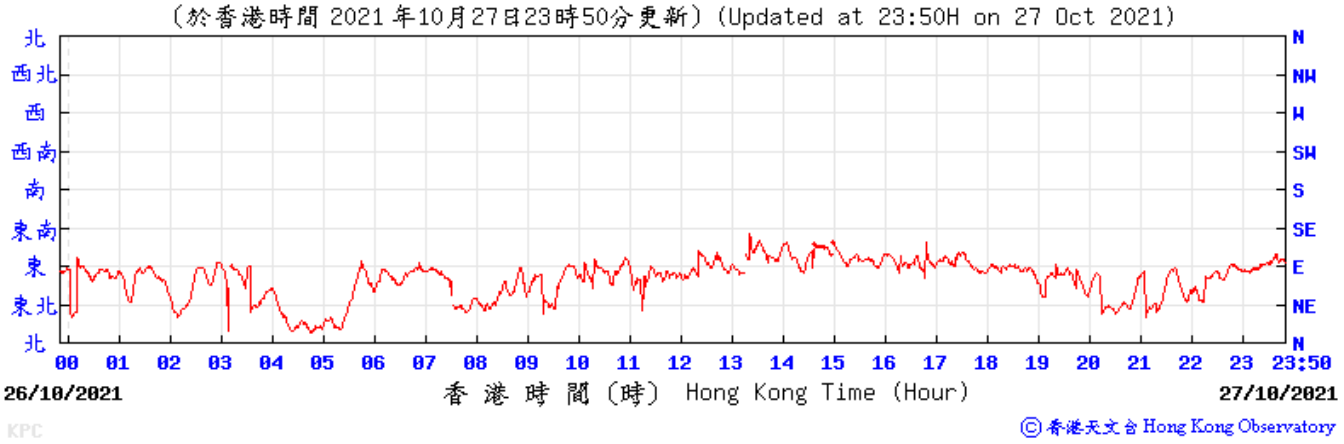
Tempearture/Humidity:



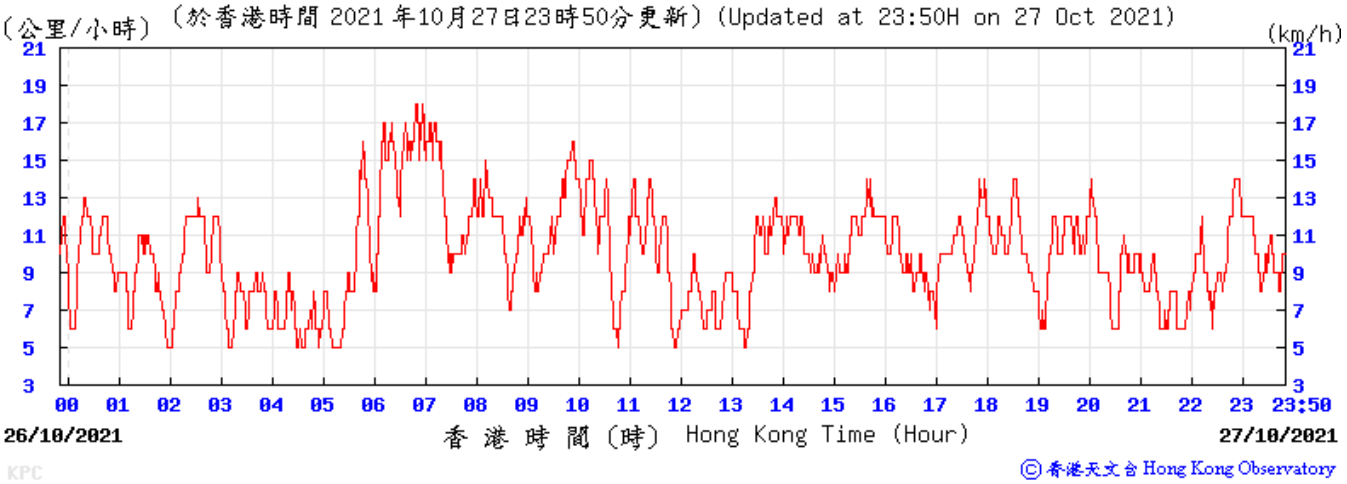
Pressure:



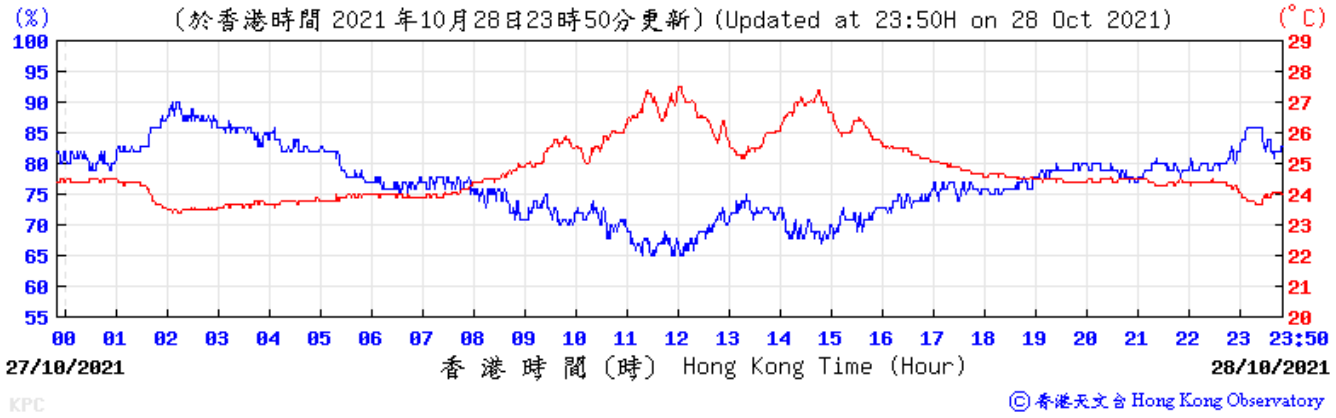
Wind Direction:



Wind Speed:



Tempearture/Humidity:



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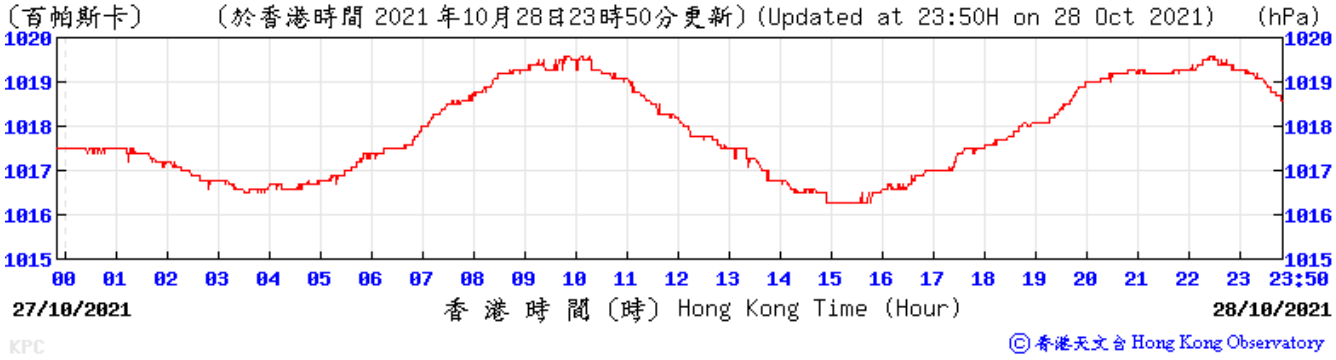
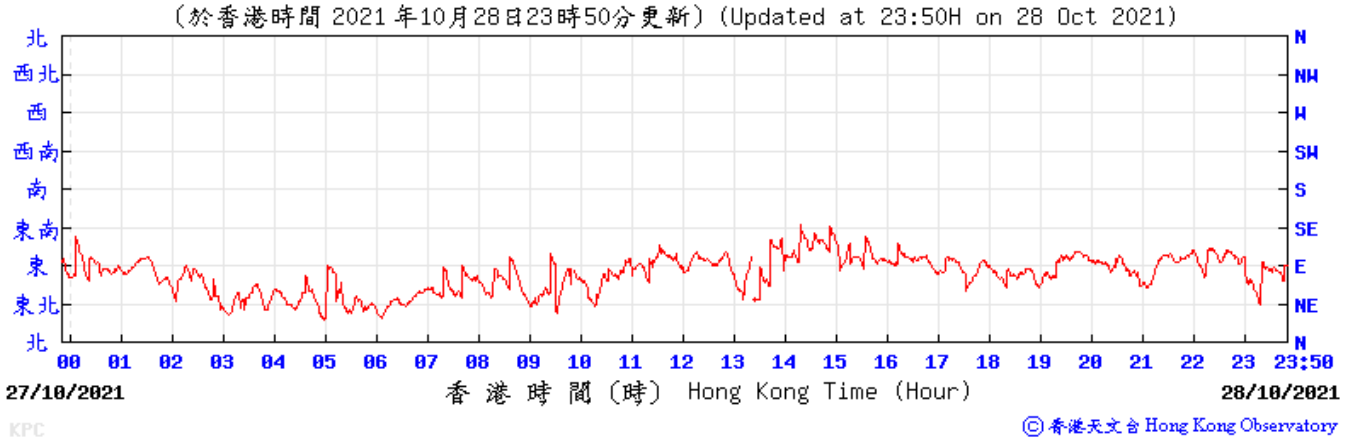
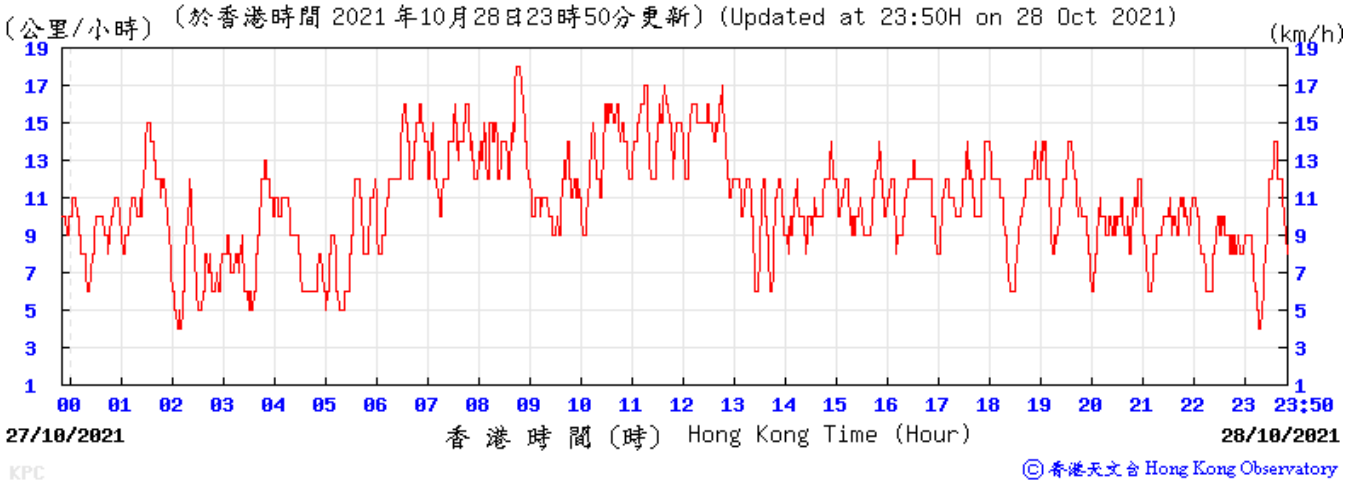


Wind Direction:



Wind Speed:



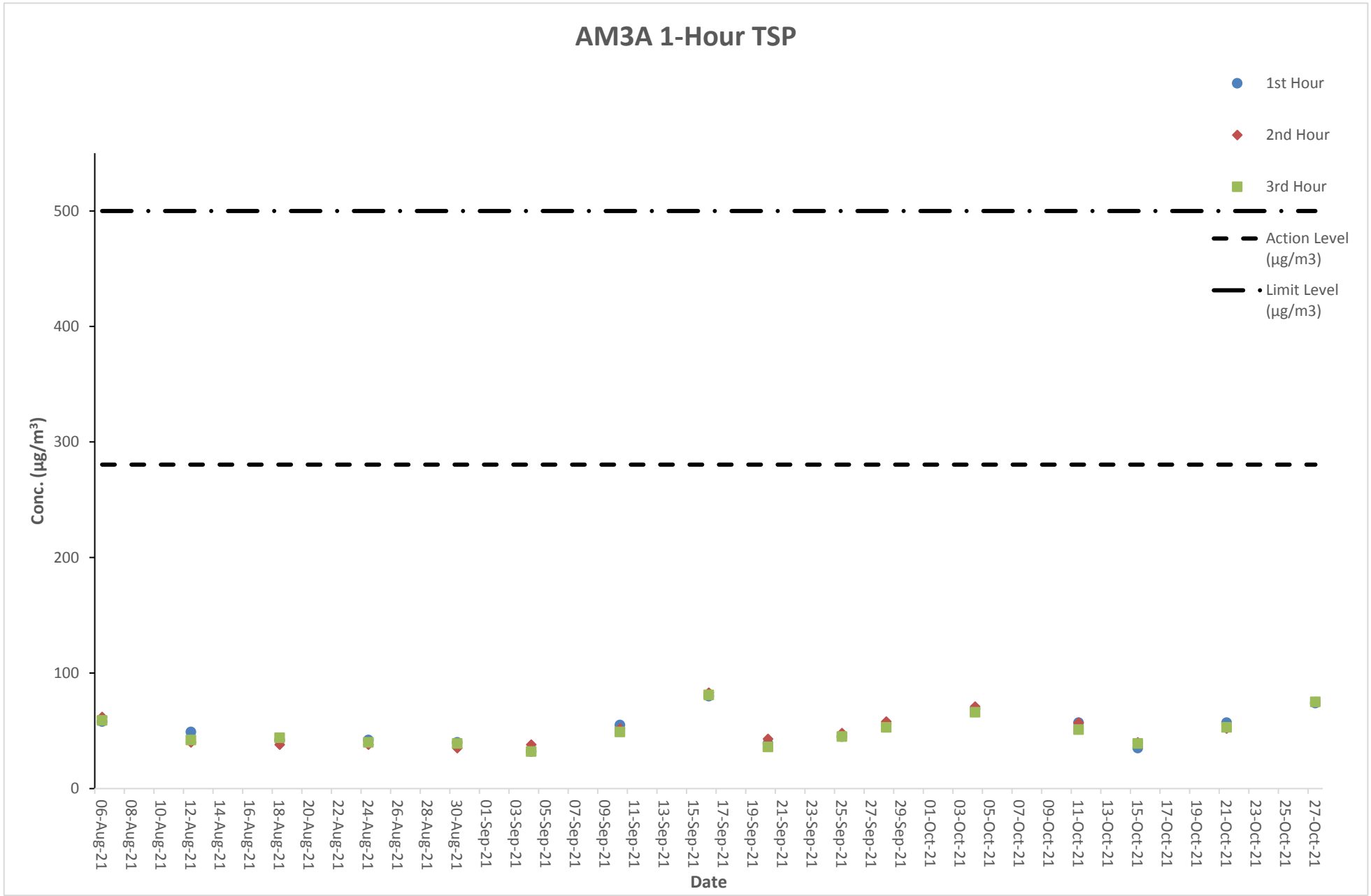
E. Graphical Plots of the Monitoring Results

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		
06-Aug-21	Cloudy	8:07 - 11:07	58	62	59	280.4	500
12-Aug-21	Cloudy	14:11 - 17:11	49	40	42	280.4	500
18-Aug-21	Fine	8:03 - 11:03	42	38	44	280.4	500
24-Aug-21	Cloudy	13:59 - 16:59	42	38	40	280.4	500
30-Aug-21	Fine	8:11 - 11:11	40	35	39	280.4	500
04-Sep-21	Cloudy	8:03 - 11:03	32	38	32	280.4	500
10-Sep-21	Fine	14:05 - 17:05	55	52	49	280.4	500
16-Sep-21	Cloudy	8:07 - 11:07	80	83	81	280.4	500
20-Sep-21	Cloudy	14:01 - 17:01	39	43	36	280.4	500
25-Sep-21	Fine	8:00 - 11:00	45	48	45	280.4	500
28-Sep-21	Cloudy	14:06 - 17:06	56	58	53	280.4	500
04-Oct-21	Fine	8:01 - 11:01	69	71	66	280.4	500
11-Oct-21	Fine	14:02 - 17:02	57	57	51	280.4	500
15-Oct-21	Cloudy	8:03 - 11:03	35	40	39	280.4	500
21-Oct-21	Cloudy	14:05 - 17:05	57	52	53	280.4	500
27-Oct-21	Fine	8:04 - 11:04	74	75	75	280.4	500

Note: Impact monitoring on 9 Oct has rescheduled to 11 Oct due to Tropical Cyclone Warning Signal No.8

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

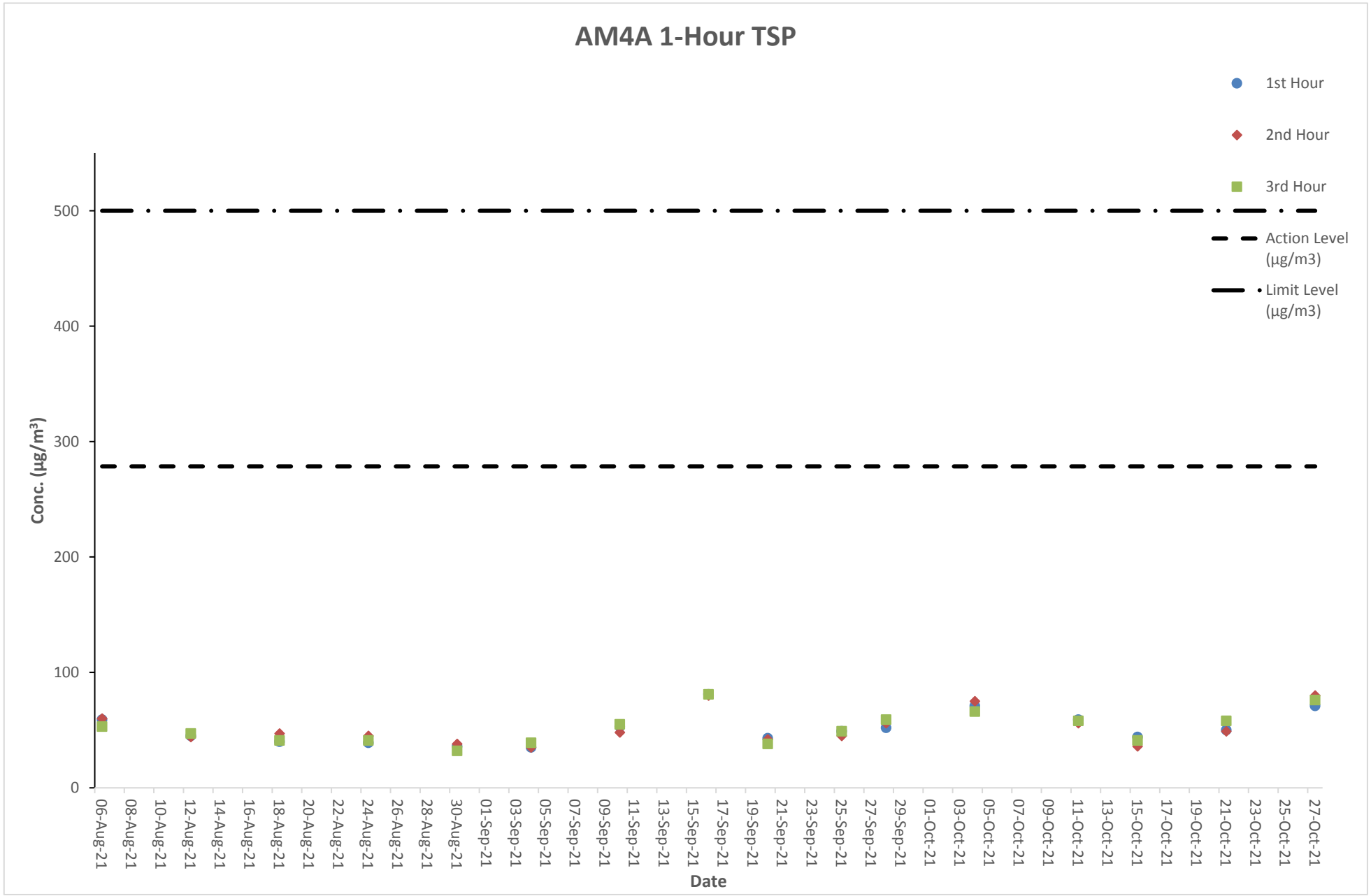


Air Quality Monitoring Result at Station AM4A (1-hour TSP)

Date	Weather Condition	Time	Conc. (μg/m^3)			Action Level (μg/m^3)	Limit Level (μg/m^3)
			1st Hour	2nd Hour	3rd Hour		
06-Aug-21	Cloudy	8:15 - 11:15	59	60	53	278.5	500
12-Aug-21	Cloudy	14:19 - 17:19	45	44	47	278.5	500
18-Aug-21	Fine	8:11 - 11:11	40	47	41	278.5	500
24-Aug-21	Cloudy	14:07 - 17:07	39	45	41	278.5	500
30-Aug-21	Fine	8:19 - 11:19	36	38	32	278.5	500
04-Sep-21	Cloudy	8:11 - 11:11	35	35	39	278.5	500
10-Sep-21	Fine	14:13 - 17:13	53	48	55	278.5	500
16-Sep-21	Cloudy	8:15 - 11:15	81	80	81	278.5	500
20-Sep-21	Cloudy	14:09 - 17:09	43	42	38	278.5	500
25-Sep-21	Fine	8:08 - 11:08	49	45	49	278.5	500
28-Sep-21	Cloudy	14:14 - 17:14	52	56	59	278.5	500
04-Oct-21	Fine	8:09 - 11:09	71	75	66	278.5	500
11-Oct-21	Fine	14:10 - 17:10	59	56	58	278.5	500
15-Oct-21	Cloudy	8:11 - 11:11	44	36	41	278.5	500
21-Oct-21	Cloudy	14:13 - 17:13	50	49	58	278.5	500
27-Oct-21	Fine	8:12 - 11:12	71	80	76	278.5	500

Note: Impact monitoring on 9 Oct has rescheduled to 11 Oct due to Tropical Cyclone Warning Signal No.8

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

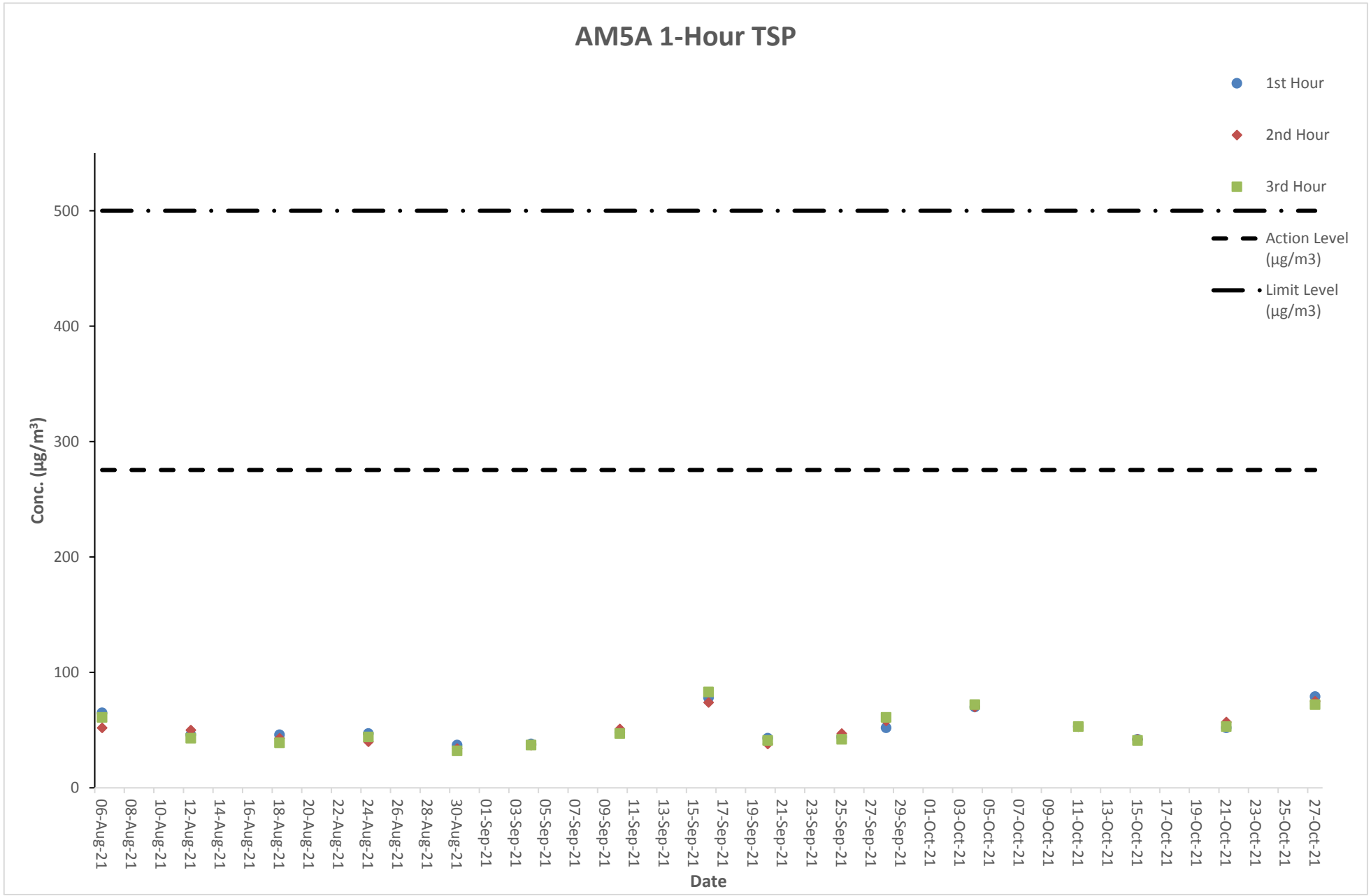


Air Quality Monitoring Result at Station AM5A (1-hour TSP)

Date	Weather Condition	Time	Conc. (μg/m^3)			Action Level (μg/m^3)	Limit Level (μg/m^3)
			1st Hour	2nd Hour	3rd Hour		
06-Aug-21	Cloudy	8:30 - 11:30	65	52	61	275.4	500
12-Aug-21	Cloudy	14:36 - 17:36	46	50	43	275.4	500
18-Aug-21	Fine	8:26 - 11:26	46	43	39	275.4	500
24-Aug-21	Cloudy	14:24 - 17:24	47	40	44	275.4	500
30-Aug-21	Fine	8:34 - 11:34	37	34	32	275.4	500
04-Sep-21	Cloudy	8:26 - 11:26	38	37	37	275.4	500
10-Sep-21	Fine	14:30 - 17:30	48	51	47	275.4	500
16-Sep-21	Cloudy	8:30 - 11:30	78	74	83	275.4	500
20-Sep-21	Cloudy	14:26 - 17:26	43	38	41	275.4	500
25-Sep-21	Fine	8:23 - 11:23	44	47	42	275.4	500
28-Sep-21	Cloudy	14:22 - 17:22	52	58	61	275.4	500
04-Oct-21	Fine	8:24 - 11:24	70	70	72	275.4	500
11-Oct-21	Fine	14:27 - 17:27	53	53	53	275.4	500
15-Oct-21	Cloudy	8:26 - 11:26	42	42	41	275.4	500
21-Oct-21	Cloudy	14:30 - 17:30	52	57	53	275.4	500
27-Oct-21	Fine	8:27 - 11:27	79	75	72	275.4	500

Note: Impact monitoring on 9 Oct has rescheduled to 11 Oct due to Tropical Cyclone Warning Signal No.8

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

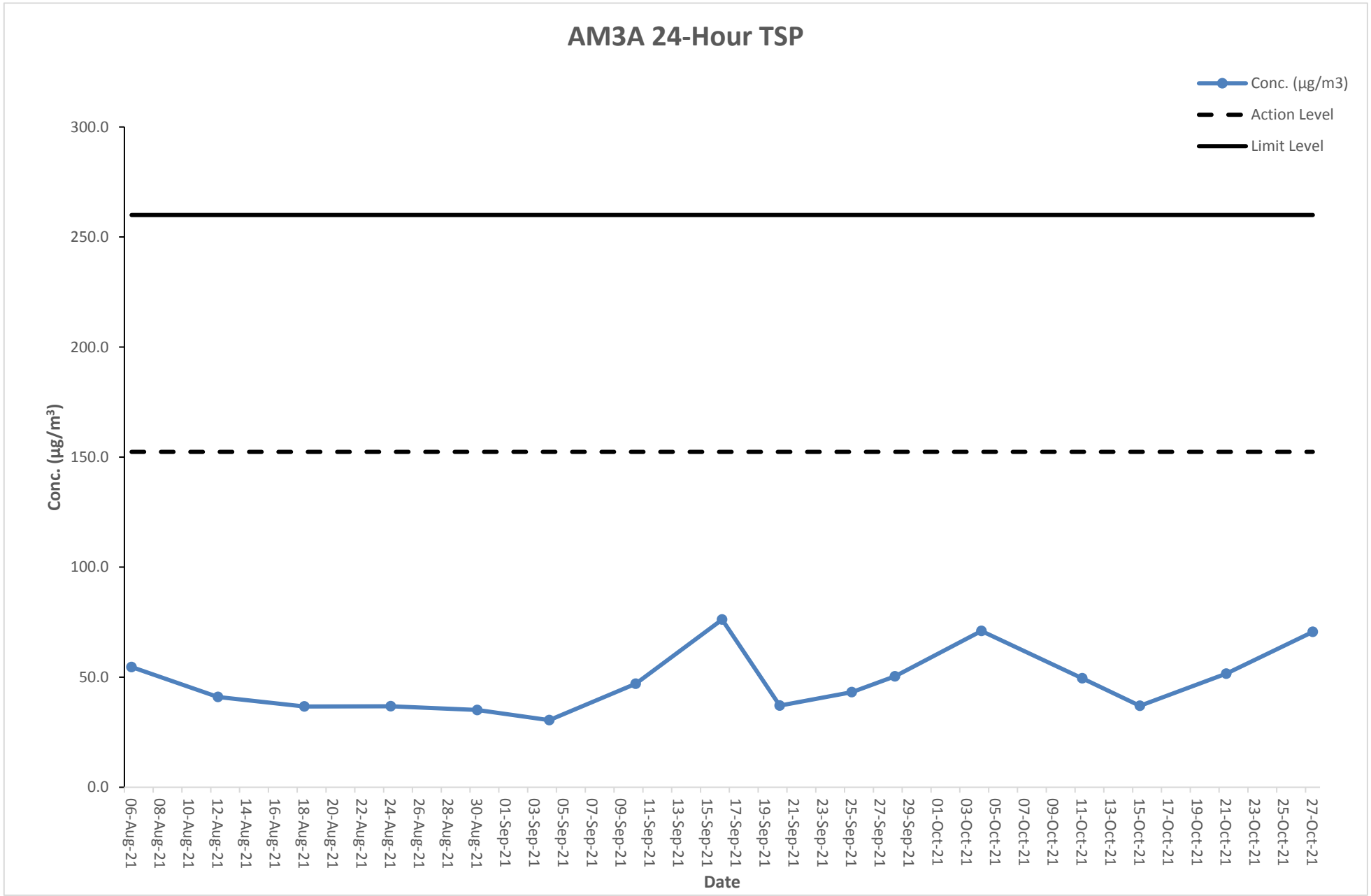


Air Quality Monitoring Result at Station AM3A (24-hour TSP)

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				
06-Aug-21	10:00	07-Aug-21	10:00	2.8036	2.8915	2324.8	2348.8	24	1.12	1.12	1.12	54.6	Rainy	152.4	260
12-Aug-21	10:00	13-Aug-21	10:00	2.8034	2.8693	2348.8	2372.8	24	1.12	1.12	1.12	41.0	Cloudy	152.4	260
18-Aug-21	10:00	19-Aug-21	10:00	2.8052	2.8643	2372.8	2396.8	24	1.12	1.12	1.12	36.7	Fine	152.4	260
24-Aug-21	10:00	25-Aug-21	10:00	2.8089	2.8682	2396.8	2420.8	24	1.12	1.12	1.12	36.8	Rainy	152.4	260
30-Aug-21	10:00	31-Aug-21	10:00	2.8076	2.8641	2420.8	2444.8	24	1.12	1.12	1.12	35.1	Fine	152.4	260
04-Sep-21	10:00	05-Sep-21	10:00	2.8067	2.8558	2445.8	2469.8	24	1.12	1.12	1.12	30.5	Cloudy	152.4	260
10-Sep-21	10:00	11-Sep-21	10:00	2.8062	2.8818	2469.8	2493.8	24	1.12	1.12	1.12	47.0	Sunny	152.4	260
16-Sep-21	10:00	17-Sep-21	10:00	2.8052	2.9278	2493.8	2517.8	24	1.12	1.12	1.12	76.2	Cloudy	152.4	260
20-Sep-21	10:00	21-Sep-21	10:00	2.8088	2.8685	2517.8	2541.8	24	1.12	1.12	1.12	37.1	Rainy	152.4	260
25-Sep-21	10:00	26-Sep-21	10:00	2.8084	2.8779	2541.8	2565.8	24	1.12	1.12	1.12	43.2	Fine	152.4	260
28-Sep-21	10:00	29-Sep-21	10:00	2.8027	2.8838	2565.8	2589.8	24	1.12	1.12	1.12	50.4	Sunny	152.4	260
04-Oct-21	10:00	05-Oct-21	10:00	2.8051	2.9194	2590.8	2614.8	24	1.12	1.12	1.12	71.0	Sunny	152.4	260
11-Oct-21	10:00	12-Oct-21	10:00	2.8046	2.8843	2614.8	2638.8	24	1.12	1.12	1.12	49.5	Sunny	152.4	260
15-Oct-21	10:00	16-Oct-21	10:00	2.8080	2.8675	2638.8	2662.8	24	1.12	1.12	1.12	37.0	Rainy	152.4	260
21-Oct-21	10:00	22-Oct-21	10:00	2.8083	2.8914	2662.8	2686.8	24	1.12	1.12	1.12	51.6	Cloudy	152.4	260
27-Oct-21	10:00	28-Oct-21	10:00	2.8017	2.9152	2686.8	2710.8	24	1.12	1.12	1.12	70.6	Sunny	152.4	260

Note: Impact monitoring on 9 Oct has rescheduled to 11 Oct due to Tropical Cyclone Warning Signal No.8

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

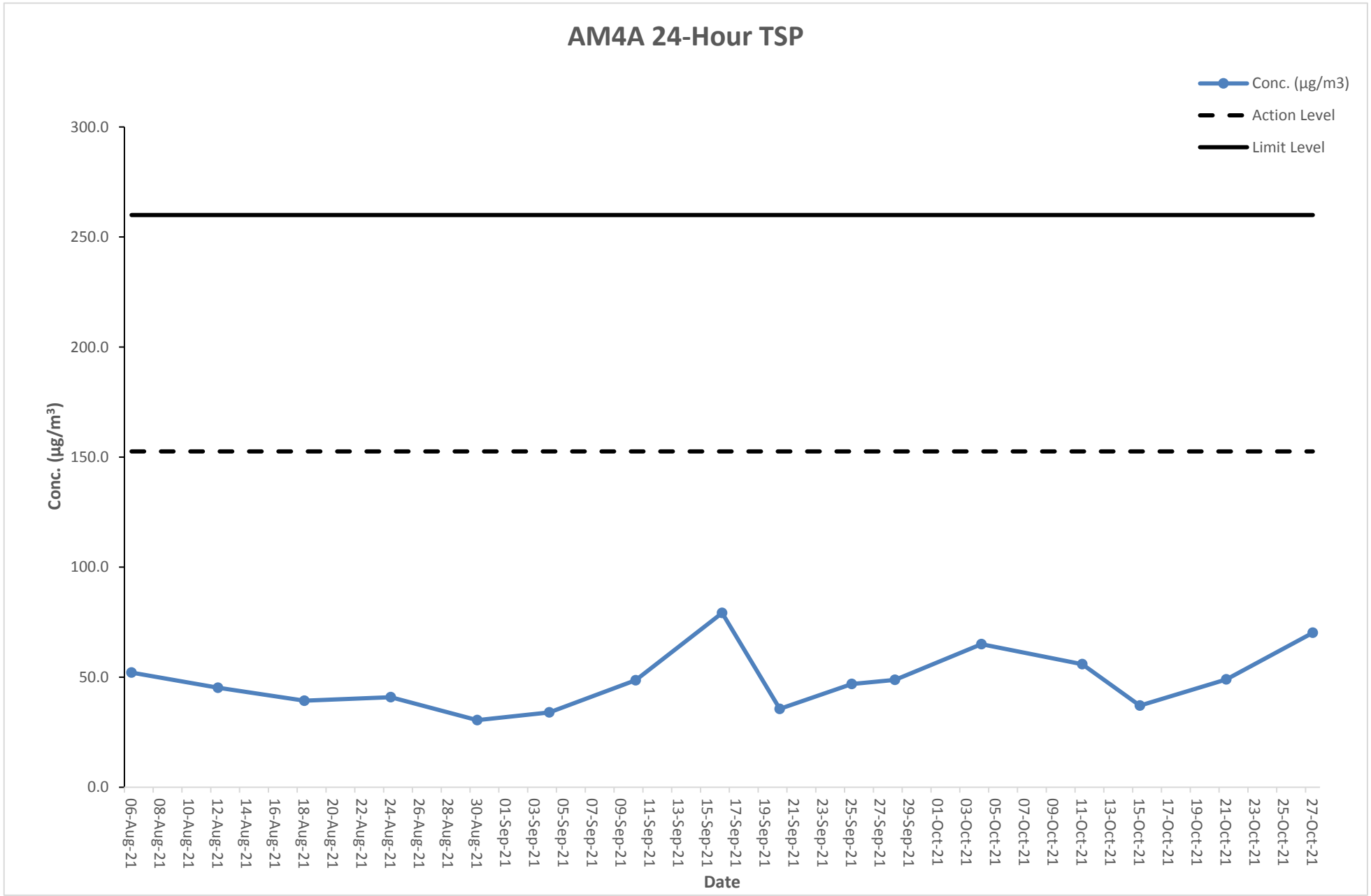


Air Quality Monitoring Result at Station AM4A (24-hour TSP)

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				
06-Aug-21	10:00	07-Aug-21	10:00	2.8062	2.8900	2744.4	2768.4	24	1.12	1.12	1.12	52.1	Rainy	152.6	260
12-Aug-21	10:00	13-Aug-21	10:00	2.8056	2.8783	2768.4	2792.4	24	1.12	1.12	1.12	45.2	Cloudy	152.6	260
18-Aug-21	10:00	19-Aug-21	10:00	2.8067	2.8700	2792.4	2816.4	24	1.12	1.12	1.12	39.3	Fine	152.6	260
24-Aug-21	10:00	25-Aug-21	10:00	2.8068	2.8727	2816.4	2840.4	24	1.12	1.12	1.12	40.9	Rainy	152.6	260
30-Aug-21	10:00	31-Aug-21	10:00	2.8028	2.8519	2840.4	2864.4	24	1.12	1.12	1.12	30.5	Fine	152.6	260
04-Sep-21	10:00	05-Sep-21	10:00	2.8024	2.8571	2865.4	2889.4	24	1.12	1.12	1.12	34.0	Cloudy	152.6	260
10-Sep-21	10:00	11-Sep-21	10:00	2.8019	2.8801	2889.4	2913.4	24	1.12	1.12	1.12	48.6	Sunny	152.6	260
16-Sep-21	10:00	17-Sep-21	10:00	2.8011	2.9286	2913.4	2937.4	24	1.12	1.12	1.12	79.2	Cloudy	152.6	260
20-Sep-21	10:00	21-Sep-21	10:00	2.8062	2.8635	2937.4	2961.4	24	1.12	1.12	1.12	35.6	Rainy	152.6	260
25-Sep-21	10:00	26-Sep-21	10:00	2.8061	2.8816	2961.4	2985.4	24	1.12	1.12	1.12	46.9	Fine	152.6	260
28-Sep-21	10:00	29-Sep-21	10:00	2.8053	2.8838	2985.4	3009.4	24	1.12	1.12	1.12	48.8	Sunny	152.6	260
04-Oct-21	10:00	05-Oct-21	10:00	2.8070	2.9116	3010.4	3034.4	24	1.12	1.12	1.12	65.0	Sunny	152.6	260
11-Oct-21	10:00	12-Oct-21	10:00	2.8030	2.8930	3034.4	3058.4	24	1.12	1.12	1.12	55.9	Sunny	152.6	260
15-Oct-21	10:00	16-Oct-21	10:00	2.8022	2.8619	3058.4	3082.4	24	1.12	1.12	1.12	37.1	Rainy	152.6	260
21-Oct-21	10:00	22-Oct-21	10:00	2.8035	2.8824	3082.4	3106.4	24	1.12	1.12	1.12	49.0	Cloudy	152.6	260
27-Oct-21	10:00	28-Oct-21	10:00	2.8072	2.9202	3106.4	3130.4	24	1.12	1.12	1.12	70.2	Sunny	152.6	260

Note: Impact monitoring on 9 Oct has rescheduled to 11 Oct due to Tropical Cyclone Warning Signal No.8

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

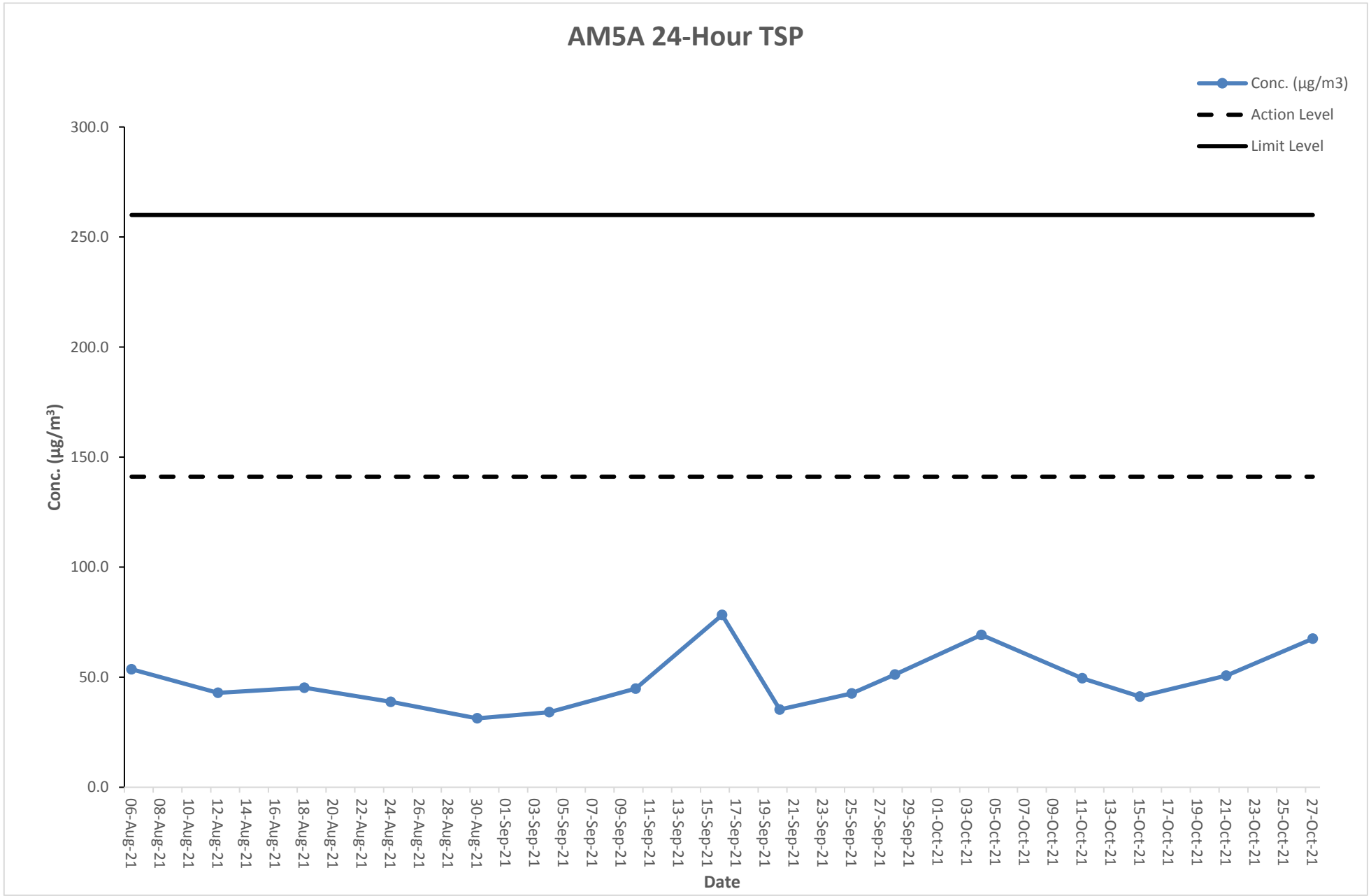


Air Quality Monitoring Result at Station AM5A (24-hour TSP)

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				
06-Aug-21	10:00	07-Aug-21	10:00	2.8089	2.8951	2884.6	2908.6	24	1.12	1.12	1.12	53.6	Rainy	141.1	260
12-Aug-21	10:00	13-Aug-21	10:00	2.8042	2.8733	2908.6	2932.6	24	1.12	1.12	1.12	42.9	Cloudy	141.1	260
18-Aug-21	10:00	19-Aug-21	10:00	2.8040	2.8768	2932.6	2956.6	24	1.12	1.12	1.12	45.2	Fine	141.1	260
24-Aug-21	10:00	25-Aug-21	10:00	2.8018	2.8642	2956.6	2980.6	24	1.12	1.12	1.12	38.8	Rainy	141.1	260
30-Aug-21	10:00	31-Aug-21	10:00	2.8072	2.8575	2980.6	3004.6	24	1.12	1.12	1.12	31.3	Fine	141.1	260
04-Sep-21	10:00	05-Sep-21	10:00	2.8076	2.8625	3005.6	3029.6	24	1.12	1.12	1.12	34.1	Cloudy	141.1	260
10-Sep-21	10:00	11-Sep-21	10:00	2.8076	2.8797	3029.6	3053.6	24	1.12	1.12	1.12	44.8	Sunny	141.1	260
16-Sep-21	10:00	17-Sep-21	10:00	2.8088	2.9349	3053.6	3077.6	24	1.12	1.12	1.12	78.3	Cloudy	141.1	260
20-Sep-21	10:00	21-Sep-21	10:00	2.8026	2.8594	3077.6	3101.6	24	1.12	1.12	1.12	35.3	Rainy	141.1	260
25-Sep-21	10:00	26-Sep-21	10:00	2.8061	2.8746	3101.6	3125.6	24	1.12	1.12	1.12	42.6	Fine	141.1	260
28-Sep-21	10:00	29-Sep-21	10:00	2.8037	2.8862	3125.6	3149.6	24	1.12	1.12	1.12	51.2	Sunny	141.1	260
04-Oct-21	10:00	05-Oct-21	10:00	2.8030	2.9144	3150.6	3174.6	24	1.12	1.12	1.12	69.2	Sunny	141.1	260
11-Oct-21	10:00	12-Oct-21	10:00	2.8016	2.8813	3174.6	3198.6	24	1.12	1.12	1.12	49.5	Sunny	141.1	260
15-Oct-21	10:00	16-Oct-21	10:00	2.8068	2.8732	3198.6	3222.6	24	1.12	1.12	1.12	41.2	Rainy	141.1	260
21-Oct-21	10:00	22-Oct-21	10:00	2.8089	2.8905	3222.6	3246.6	24	1.12	1.12	1.12	50.7	Cloudy	141.1	260
27-Oct-21	10:00	28-Oct-21	10:00	2.8012	2.9099	3246.6	3270.6	24	1.12	1.12	1.12	67.5	Sunny	141.1	260

Note: Impact monitoring on 9 Oct has rescheduled to 11 Oct due to Tropical Cyclone Warning Signal No.8

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)
06-Aug-21	8:37	64.7	55.8	58.2
06-Aug-21	8:42	64.6	55.6	
06-Aug-21	8:47	65.2	56.1	
06-Aug-21	8:52	64.5	55.0	
06-Aug-21	8:57	63.9	56.1	
06-Aug-21	9:02	63.1	54.4	
12-Aug-21	14:41	64.7	55.1	58.5
12-Aug-21	14:46	65.1	54.5	
12-Aug-21	14:51	63.6	55.8	
12-Aug-21	14:56	65.7	55.7	
12-Aug-21	15:01	64.2	55.6	
12-Aug-21	15:06	63.0	56.1	
18-Aug-21	8:33	64.9	54.9	58.4
18-Aug-21	8:38	64.8	55.7	
18-Aug-21	8:43	63.2	54.5	
18-Aug-21	8:48	64.8	55.1	
18-Aug-21	8:53	66.2	54.6	
18-Aug-21	8:58	64.6	55.8	
24-Aug-21	14:29	67.8	55.0	58.1
24-Aug-21	14:34	65.5	55.9	
24-Aug-21	14:39	63.0	53.6	
24-Aug-21	14:44	64.8]	55.1	
24-Aug-21	14:49	65.1	55.1	
24-Aug-21	14:54	63.2	55.8	
30-Aug-21	8:41	65.2	54.9	58.2
30-Aug-21	8:46	64.4	55.6	
30-Aug-21	8:51	63.9	56.1	
30-Aug-21	8:56	64.6	55.5	
30-Aug-21	9:01	65.3	54.7	
30-Aug-21	9:06	64.2	55.8	
04-Sep-21	14:06	64.8	56.3	58.5
04-Sep-21	14:11	64.8	56.7	
04-Sep-21	14:16	63.3	56.5	
04-Sep-21	14:21	63.5	54.8	
04-Sep-21	14:26	65.6	55.4	
04-Sep-21	14:31	63.2	54.5	
10-Sep-21	14:35	64.3	56.8	57.6
10-Sep-21	14:40	63.6	54.7	
10-Sep-21	14:45	63.4	56.4	
10-Sep-21	14:50	65.1	55.9	
10-Sep-21	14:55	64.3	54.8	
10-Sep-21	15:00	65.3	56.6	
16-Sep-21	8:37	63.3	54.8	58.0
16-Sep-21	8:42	65.0	54.8	
16-Sep-21	8:47	63.1	54.8	
16-Sep-21	8:52	63.9	56.6	
16-Sep-21	8:57	63.8	57.0	
16-Sep-21	9:02	64.9	54.1	
20-Sep-21	14:31	63.6	55.0	58.4
20-Sep-21	14:36	65.2	55.1	
20-Sep-21	14:41	65.7	54.9	
20-Sep-21	14:46	63.9	56.6	
20-Sep-21	14:51	64.1	54.6	
20-Sep-21	14:56	65.3	55.3	
25-Sep-21	8:30	65.7	56.0	58.3
25-Sep-21	8:35	65.4	55.8	
25-Sep-21	8:40	64.4	54.3	
25-Sep-21	8:45	63.5	55.7	
25-Sep-21	8:50	63.1	56.1	
25-Sep-21	8:55	63.4	54.1	

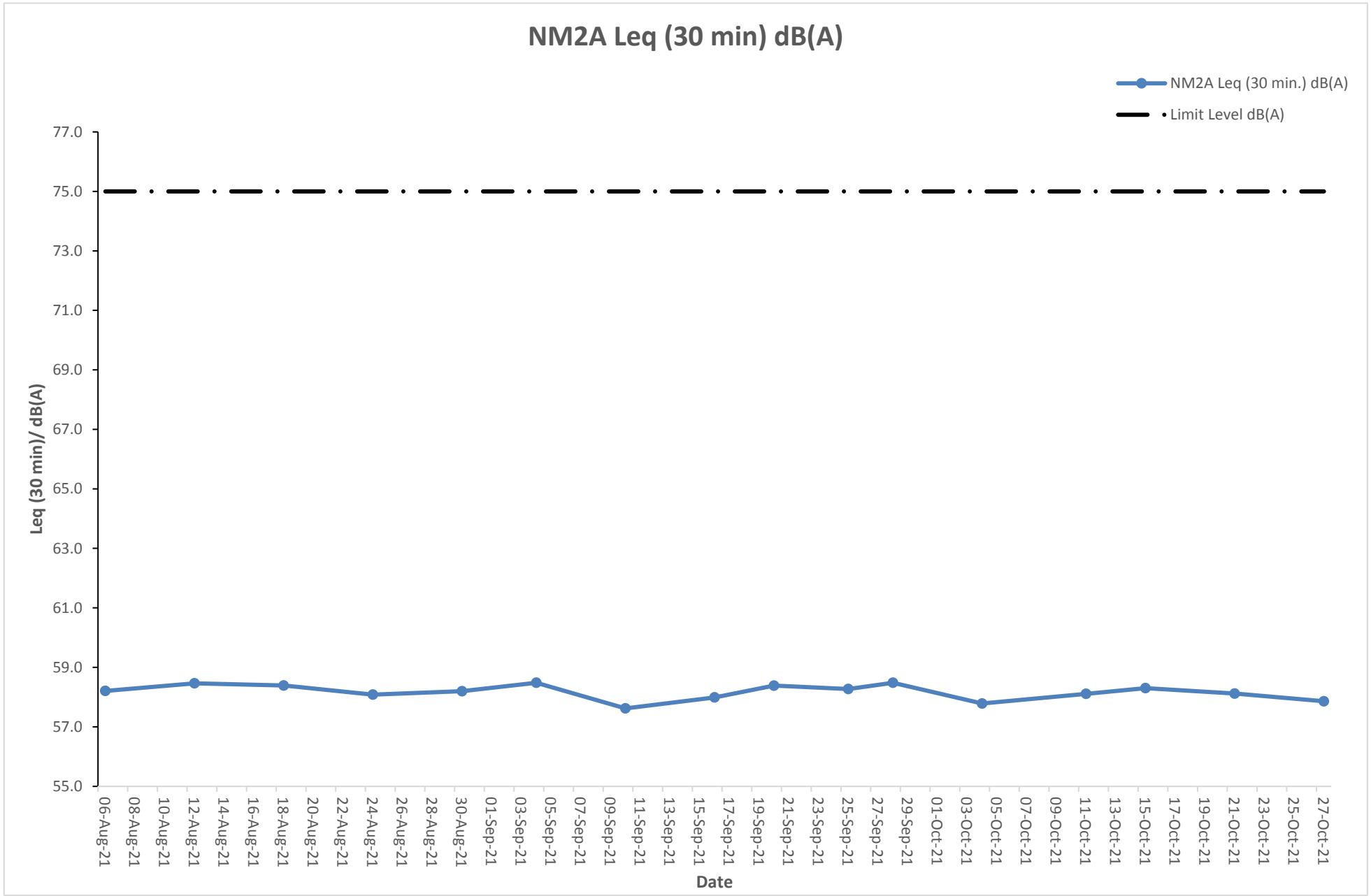
Noise Monitoring Result at Station NM2A

Date	Time	Measured L10 dB(A)	Measured L90 dB(A)	Leq (30 min.) dB(A)
28-Sep-21	14:06	64.8	56.3	58.5
28-Sep-21	14:11	64.8	56.7	
28-Sep-21	14:16	63.3	56.5	
28-Sep-21	14:21	63.5	54.8	
28-Sep-21	14:26	65.6	55.4	
28-Sep-21	14:31	63.2	54.5	
04-Oct-21	8:31	65.9	54.9	57.8
04-Oct-21	8:36	66.0	55.6	
04-Oct-21	8:41	64.1	55.8	
04-Oct-21	8:46	64.3	55.0	
04-Oct-21	8:51	65.7	54.7	
04-Oct-21	8:56	63.9	55.5	
11-Oct-21	14:32	64.0	55.9	58.1
11-Oct-21	14:37	64.9	54.3	
11-Oct-21	14:42	64.9	55.9	
11-Oct-21	14:47	63.1	54.4	
11-Oct-21	14:52	63.2	55.9	
11-Oct-21	14:57	64.2	54.9	
15-Oct-21	8:33	63.5	55.0	58.3
15-Oct-21	8:38	64.5	54.9	
15-Oct-21	8:43	64.8	55.7	
15-Oct-21	8:48	63.7	55.7	
15-Oct-21	8:53	64.4	54.6	
15-Oct-21	8:58	65.9	54.3	
21-Oct-21	14:35	64.3	55.9	58.1
21-Oct-21	14:40	63.3	55.9	
21-Oct-21	14:45	63.3	55.0	
21-Oct-21	14:50	66.0	55.1	
21-Oct-21	14:55	65.4	55.5	
21-Oct-21	15:00	63.9	55.8	
27-Oct-21	8:34	64.5	55.9	57.9
27-Oct-21	8:39	63.5	55.5	
27-Oct-21	8:44	64.4	54.5	
27-Oct-21	8:49	63.8	54.8	
27-Oct-21	8:54	65.5	56.0	
27-Oct-21	8:59	64.8	55.3	

Note: Impact monitoring on 9 Oct has rescheduled to 11 Oct due to Tropical Cyclone Warning Signal No.8

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)
06-Aug-21	10:07	74.3	64.5	69.5
06-Aug-21	10:12	74.1	65.8	
06-Aug-21	10:17	72.9	67.4	
06-Aug-21	10:22	74.7	66.3	
06-Aug-21	10:27	73.6	65.3	
06-Aug-21	10:32	74.0	65.2	
12-Aug-21	16:14	74.5	65.4	69.2
12-Aug-21	16:19	74.7	68.2	
12-Aug-21	16:24	73.2	68.0	
12-Aug-21	16:29	73.7	66.8	
12-Aug-21	16:34	74.0	66.9	
12-Aug-21	16:39	73.9	67.9	
18-Aug-21	10:03	74.2	65.4	69.7
18-Aug-21	10:08	72.8	64.8	
18-Aug-21	10:13	73.5	66.9	
18-Aug-21	10:18	73.8	67.2	
18-Aug-21	10:23	73.6	68.2	
18-Aug-21	10:28	74.2	66.7	
24-Aug-21	16:02	75.4	67.7	69.6
24-Aug-21	16:07	73.9	66.8	
24-Aug-21	16:12	74.8	68.1	
24-Aug-21	16:17	72.8	65.1	
24-Aug-21	16:22	73.2	66.4	
24-Aug-21	16:27	73.8	64.8	
30-Aug-21	10:11	74.3	67.2	69.5
30-Aug-21	10:16	73.2	66.1	
30-Aug-21	10:21	74.9	65.9	
30-Aug-21	10:26	74.5	65.1	
30-Aug-21	10:31	73.2	66.5	
30-Aug-21	10:36	73.1	66.8	
04-Sep-21	10:03	73.4	65.4	69.4
04-Sep-21	10:08	74.3	64.2	
04-Sep-21	10:13	72.9	66.6	
04-Sep-21	10:18	73.6	64.7	
04-Sep-21	10:23	74.3	64.9	
04-Sep-21	10:28	73.8	64.5	
10-Sep-21	16:08	73.1	65.6	70.0
10-Sep-21	16:13	73.3	66.9	
10-Sep-21	16:18	74.4	64.3	
10-Sep-21	16:23	74.1	64.5	
10-Sep-21	16:28	73.4	65.5	
10-Sep-21	16:33	74.1	64.3	
16-Sep-21	10:07	73.2	64.1	70.9
16-Sep-21	10:12	73.4	66.6	
16-Sep-21	10:17	72.8	66.7	
16-Sep-21	10:22	73.9	66.3	
16-Sep-21	10:27	73.7	65.1	
16-Sep-21	10:32	73.5	64.8	
20-Sep-21	16:04	73.2	65.1	69.8
20-Sep-21	16:09	74.5	64.2	
20-Sep-21	16:14	74.3	65.7	
20-Sep-21	16:19	73.2	64.4	
20-Sep-21	16:24	72.9	66.0	
20-Sep-21	16:29	72.9	66.2	
25-Sep-21	10:00	73.0	64.8	69.0
25-Sep-21	10:05	74.2	66.4	
25-Sep-21	10:10	73.4	66.2	
25-Sep-21	10:15	73.7	65.2	
25-Sep-21	10:20	74.0	65.0	
25-Sep-21	10:25	73.0	65.5	

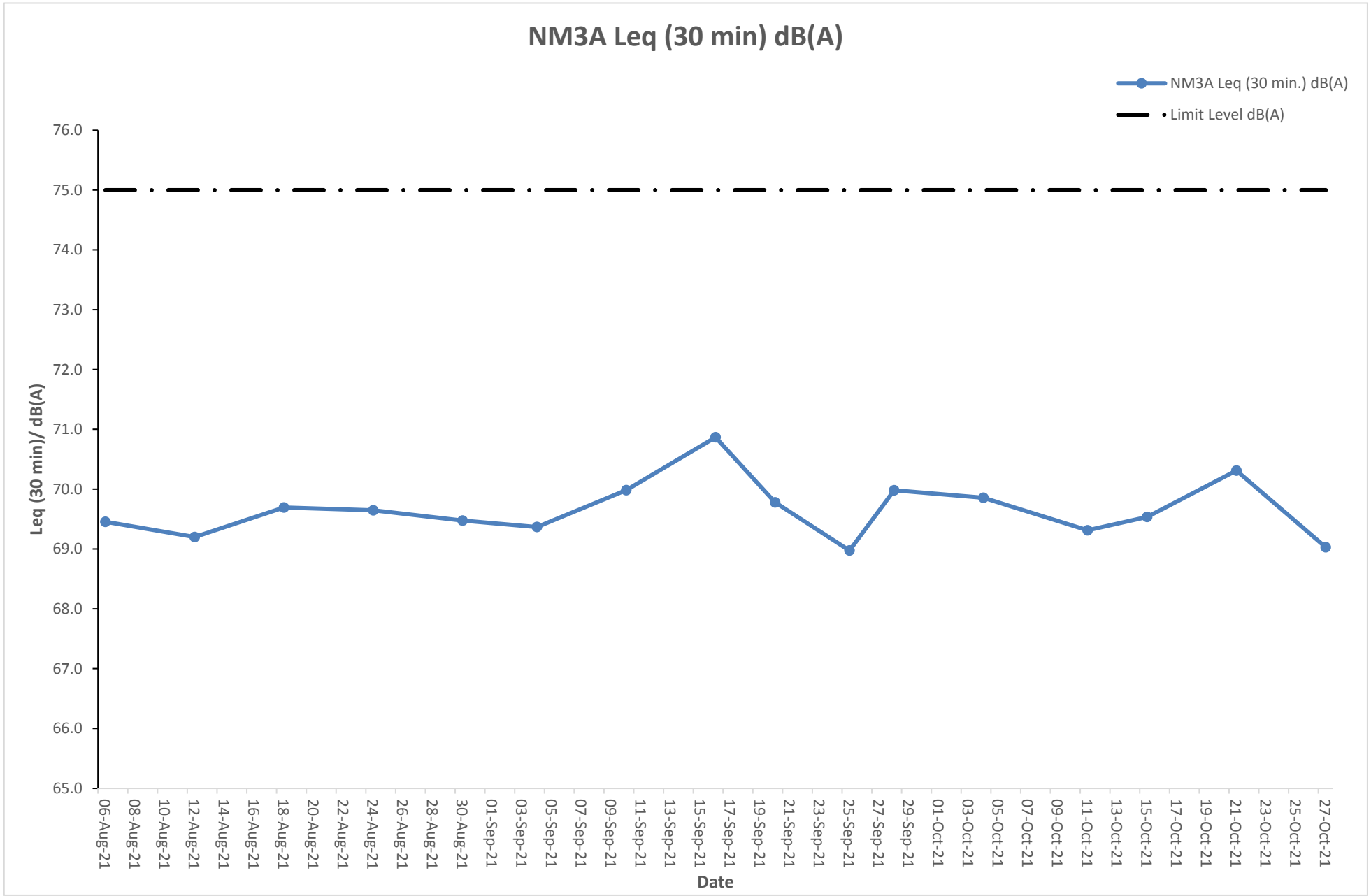
Noise Monitoring Result at Station NM3A

Date	Time	Measured L10 dB(A)	Measured L90 dB(A)	Leq (30 min.) dB(A)
28-Sep-21	15:48	72.7	65.0	70.0
28-Sep-21	15:53	73.4	64.5	
28-Sep-21	15:58	72.9	66.9	
28-Sep-21	16:03	73.3	65.8	
28-Sep-21	16:08	73.9	65.2	
28-Sep-21	16:13	73.0	64.6	
04-Oct-21	10:01	74.0	66.2	69.9
04-Oct-21	10:06	73.5	66.7	
04-Oct-21	10:11	73.9	66.8	
04-Oct-21	10:16	72.8	64.5	
04-Oct-21	10:21	73.7	66.3	
04-Oct-21	10:26	73.3	64.4	
11-Oct-21	16:05	73.2	64.3	69.3
11-Oct-21	16:10	73.5	64.3	
11-Oct-21	16:15	73.0	65.1	
11-Oct-21	16:20	74.5	65.5	
11-Oct-21	16:25	72.8	65.8	
11-Oct-21	16:30	73.7	65.2	
15-Oct-21	10:03	73.1	64.7	69.5
15-Oct-21	10:08	74.5	66.7	
15-Oct-21	10:13	74.2	64.4	
15-Oct-21	10:18	73.3	66.3	
15-Oct-21	10:23	73.4	66.4	
15-Oct-21	10:28	74.1	64.2	
21-Oct-21	16:08	73.5	65.4	70.3
21-Oct-21	16:13	73.7	64.3	
21-Oct-21	16:18	73.9	66.2	
21-Oct-21	16:23	74.4	64.3	
21-Oct-21	16:28	73.8	64.8	
21-Oct-21	16:33	74.5	64.6	
27-Oct-21	10:04	73.6	65.7	69.0
27-Oct-21	10:09	72.8	66.6	
27-Oct-21	10:14	73.6	66.4	
27-Oct-21	10:19	73.2	65.2	
27-Oct-21	10:24	74.2	65.5	
27-Oct-21	10:29	74.3	66.1	

Note: Impact monitoring on 9 Oct has rescheduled to 11 Oct due to Tropical Cyclone Warning Signal No.8

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)
06-Aug-21	10:42	70.2	64.3	68.4
06-Aug-21	10:47	71.4	63.2	
06-Aug-21	10:52	70.5	66.8	
06-Aug-21	10:57	69.9	65.2	
06-Aug-21	11:02	70.2	64.8	
06-Aug-21	11:07	70.5	65.2	
12-Aug-21	16:49	71.2	64.6	68.2
12-Aug-21	16:54	71.9	64.8	
12-Aug-21	16:59	70.9	65.2	
12-Aug-21	17:04	69.1	64.8	
12-Aug-21	17:09	69.5	63.4	
12-Aug-21	17:14	69.9	63.5	
18-Aug-21	10:38	70.7	64.5	69.0
18-Aug-21	10:43	70.1	65.2	
18-Aug-21	10:48	71.8	64.8	
18-Aug-21	10:53	72.5	65.1	
18-Aug-21	10:58	71.7	65.8	
18-Aug-21	11:03	70.5	64.6	
24-Aug-21	16:37	70.8	64.1	68.9
24-Aug-21	16:42	69.5	65.2	
24-Aug-21	16:47	70.4	64.6	
24-Aug-21	16:52	70.7	63.8	
24-Aug-21	16:57	71.1	64.2	
24-Aug-21	17:02	71.8	64.8	
30-Aug-21	10:46	71.2	66.4	68.7
30-Aug-21	10:51	70.9	65.2	
30-Aug-21	10:56	70.2	63.8	
30-Aug-21	11:01	69.5	63.1	
30-Aug-21	11:06	71.2	64.2	
30-Aug-21	11:11	71.6	65.2	
04-Sep-21	10:38	69.3	63.3	67.9
04-Sep-21	10:43	70.3	65.8	
04-Sep-21	10:48	72.0	65.2	
04-Sep-21	10:53	69.3	65.5	
04-Sep-21	10:58	71.4	63.9	
04-Sep-21	11:03	70.3	64.7	
10-Sep-21	16:43	70.3	64.8	68.2
10-Sep-21	16:48	69.4	64.0	
10-Sep-21	16:53	70.8	65.0	
10-Sep-21	16:58	69.3	63.6	
10-Sep-21	17:03	70.9	65.4	
10-Sep-21	17:08	69.7	65.9	
16-Sep-21	10:42	70.9	64.1	68.1
16-Sep-21	10:47	70.4	64.4	
16-Sep-21	10:52	71.7	64.8	
16-Sep-21	10:57	70.5	64.3	
16-Sep-21	11:02	71.6	63.7	
16-Sep-21	11:07	71.1	63.1	
20-Sep-21	16:39	69.1	63.9	67.8
20-Sep-21	16:44	70.5	63.1	
20-Sep-21	16:49	69.2	65.1	
20-Sep-21	16:54	69.8	64.9	
20-Sep-21	16:59	69.5	64.8	
20-Sep-21	17:04	71.3	65.8	
25-Sep-21	10:35	70.7	65.3	68.0
25-Sep-21	10:40	69.9	63.6	
25-Sep-21	10:45	69.8	64.6	
25-Sep-21	10:50	70.5	64.0	
25-Sep-21	10:55	71.0	65.4	
25-Sep-21	11:00	69.4	63.2	

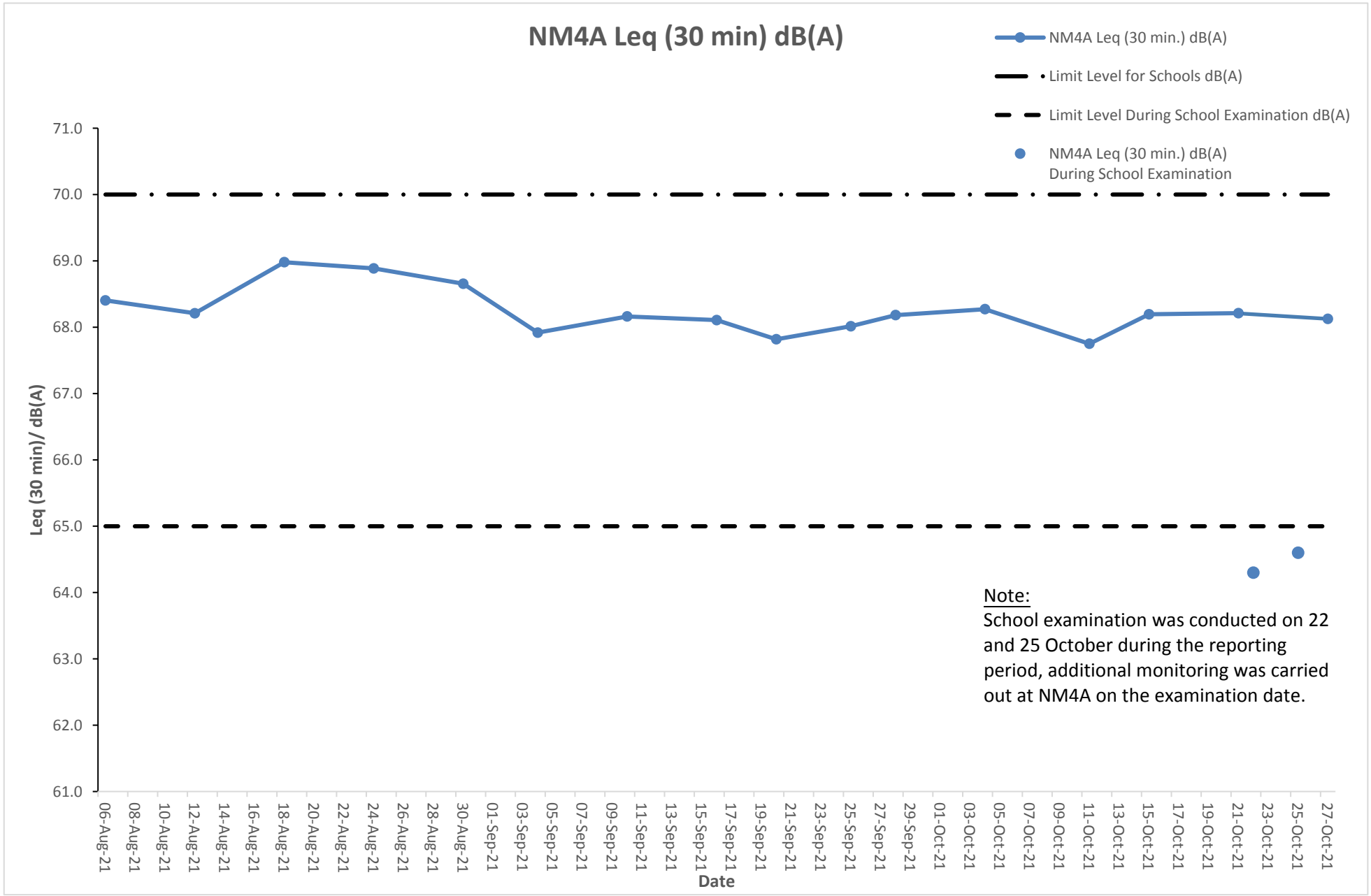
Noise Monitoring Result at Station NM4A

Date	Time	Measured L10 dB(A)	Measured L90 dB(A)	Leq (30 min.) dB(A)
28-Sep-21	16:23	69.4	64.0	68.2
28-Sep-21	16:28	71.7	63.5	
28-Sep-21	16:33	69.4	64.2	
28-Sep-21	16:38	70.9	64.2	
28-Sep-21	16:43	69.6	63.1	
28-Sep-21	16:48	71.0	65.0	
04-Oct-21	10:36	70.2	65.2	68.3
04-Oct-21	10:41	69.7	65.5	
04-Oct-21	10:46	69.8	63.4	
04-Oct-21	10:51	72.0	63.7	
04-Oct-21	10:56	69.7	64.9	
04-Oct-21	11:01	69.7	66.0	
11-Oct-21	16:40	69.2	63.5	67.8
11-Oct-21	16:45	69.2	65.4	
11-Oct-21	16:50	70.6	63.9	
11-Oct-21	16:55	70.6	65.6	
11-Oct-21	17:00	69.4	63.3	
11-Oct-21	17:05	70.5	64.5	
15-Oct-21	10:38	69.5	63.8	68.2
15-Oct-21	10:43	69.3	64.8	
15-Oct-21	10:48	71.0	64.5	
15-Oct-21	10:53	70.9	64.6	
15-Oct-21	10:58	69.2	63.1	
15-Oct-21	11:03	71.1	63.2	
21-Oct-21	16:43	71.2	65.4	68.2
21-Oct-21	16:48	72.0	65.3	
21-Oct-21	16:53	70.4	65.5	
21-Oct-21	16:58	69.3	63.2	
21-Oct-21	17:03	69.4	64.1	
21-Oct-21	17:08	71.4	65.1	
27-Oct-21	10:39	71.6	64.2	68.1
27-Oct-21	10:44	71.9	64.8	
27-Oct-21	10:49	71.2	65.8	
27-Oct-21	10:54	71.1	65.6	
27-Oct-21	10:59	70.8	64.2	
27-Oct-21	11:04	71.6	64.4	

Note: Impact monitoring on 9 Oct has rescheduled to 11 Oct due to Tropical Cyclone Warning Signal No.8

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)
06-Aug-21	9:27	64.5	57.6	62.7	65.7
06-Aug-21	9:32	65.9	60.5		
06-Aug-21	9:37	66.1	59.2		
06-Aug-21	9:42	67.6	58.3		
06-Aug-21	9:47	66.8	58.1		
06-Aug-21	9:52	65.9	60.3		
12-Aug-21	15:33	67.1	58.3	63.0	66.0
12-Aug-21	15:38	67.4	58.4		
12-Aug-21	15:43	66.8	58.1		
12-Aug-21	15:48	68.2	60.1		
12-Aug-21	15:53	67.9	58.5		
12-Aug-21	15:58	64.2	60.0		
18-Aug-21	9:23	66.5	60.7	63.2	66.2
18-Aug-21	9:28	65.9	57.9		
18-Aug-21	9:33	67.1	58.5		
18-Aug-21	9:38	66.1	58.1		
18-Aug-21	9:43	66.8	59.7		
18-Aug-21	9:48	65.9	60.8		
24-Aug-21	15:21	69.5	57.9	63.6	66.6
24-Aug-21	15:26	68.2	60.3		
24-Aug-21	15:31	66.9	56.4		
24-Aug-21	15:36	65.2	58.4		
24-Aug-21	15:41	66.5	59.2		
24-Aug-21	15:46	65.9	60.1		
30-Aug-21	9:31	67.9	60.9	63.0	66.0
30-Aug-21	9:36	66.4	61.2		
30-Aug-21	9:41	69.1	59.3		
30-Aug-21	9:46	68.4	58.5		
30-Aug-21	9:51	67.2	58.4		
30-Aug-21	9:56	68.5	59.2		
04-Sep-21	9:23	65.9	56.7	63.5	66.5
04-Sep-21	9:28	64.5	57.5		
04-Sep-21	9:33	67.0	58.9		
04-Sep-21	9:38	65.5	57.5		
04-Sep-21	9:43	64.2	57.5		
04-Sep-21	9:48	66.0	58.0		
10-Sep-21	15:27	66.1	56.2	63.6	66.6
10-Sep-21	15:32	66.4	56.2		
10-Sep-21	15:37	64.2	56.9		
10-Sep-21	15:42	66.5	57.6		
10-Sep-21	15:47	66.5	57.5		
10-Sep-21	15:52	66.0	58.5		
16-Sep-21	9:27	65.9	58.8	63.7	66.7
16-Sep-21	9:32	66.9	57.2		
16-Sep-21	9:37	66.7	58.1		
16-Sep-21	9:42	66.3	56.3		
16-Sep-21	9:47	64.4	56.9		
16-Sep-21	9:52	64.3	57.1		
20-Sep-21	15:23	65.2	58.5	63.7	66.7
20-Sep-21	15:28	65.1	56.5		
20-Sep-21	15:33	66.6	59.0		
20-Sep-21	15:38	64.4	57.9		
20-Sep-21	15:43	65.7	56.2		
20-Sep-21	15:48	65.6	58.4		
25-Sep-21	9:20	65.3	56.9	62.7	65.7
25-Sep-21	9:25	66.0	56.2		
25-Sep-21	9:30	65.9	58.0		
25-Sep-21	9:35	64.7	58.1		
25-Sep-21	9:40	65.5	57.5		
25-Sep-21	9:45	65.5	58.9		

Noise Monitoring Result at Station NM5A

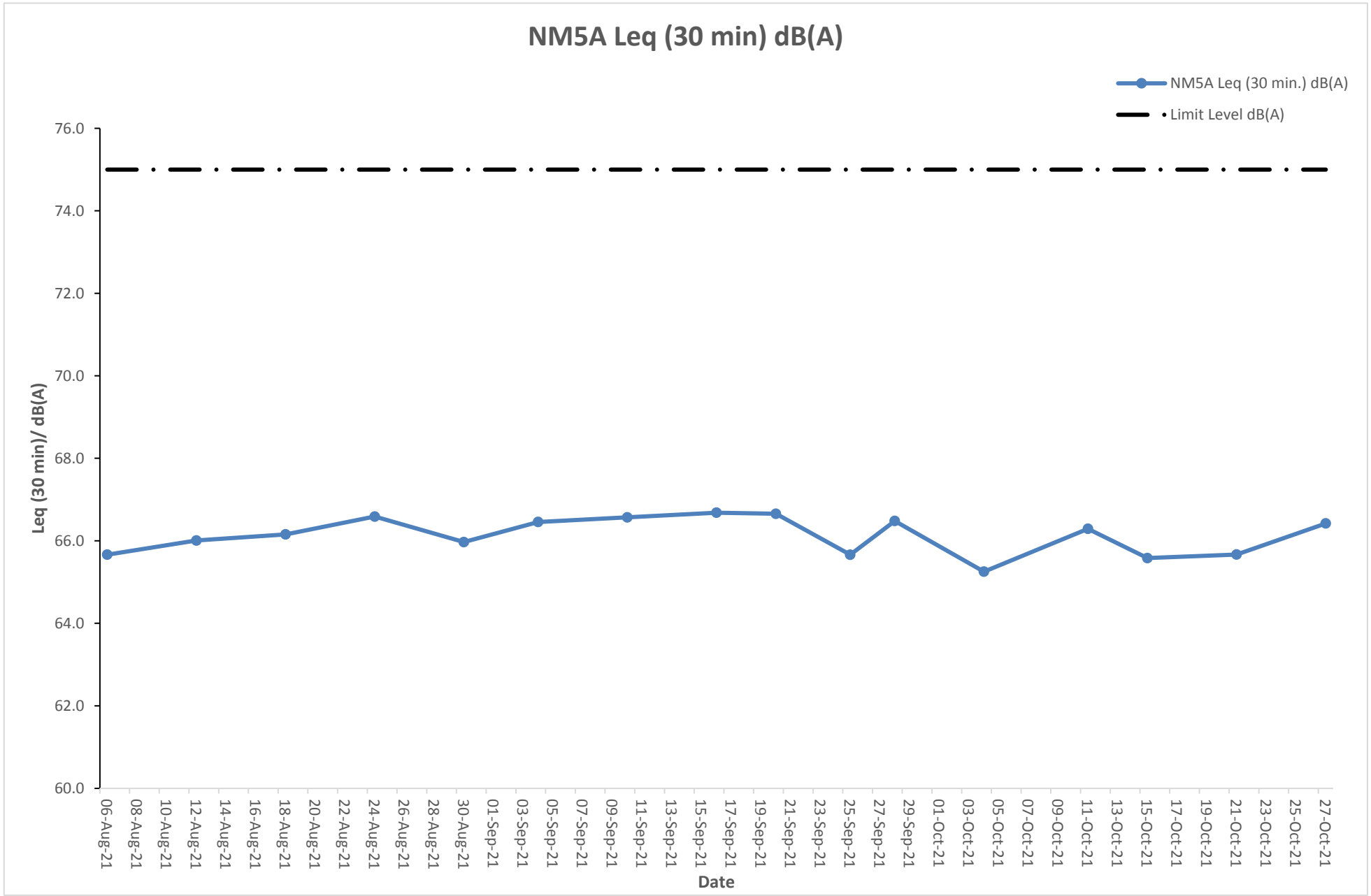
Date	Time	Measured L10 dB(A)	Measured L90 dB(A)	Leq (30 min.) dB(A)	Leq (30 min.) +3 dB(A)
28-Sep-21	15:07	66.6	57.4	63.5	66.5
28-Sep-21	15:12	65.9	58.5		
28-Sep-21	15:17	66.7	56.2		
28-Sep-21	15:22	64.3	58.6		
28-Sep-21	15:27	64.5	56.9		
28-Sep-21	15:32	66.0	57.7		
04-Oct-21	9:21	64.5	57.1	62.3	65.3
04-Oct-21	9:26	66.7	57.6		
04-Oct-21	9:31	65.3	57.7		
04-Oct-21	9:36	65.5	58.8		
04-Oct-21	9:41	65.8	57.0		
04-Oct-21	9:46	65.4	56.2		
11-Oct-21	15:24	66.1	56.4	63.3	66.3
11-Oct-21	15:29	64.9	58.9		
11-Oct-21	15:34	64.3	58.1		
11-Oct-21	15:39	66.4	57.2		
11-Oct-21	15:44	64.3	58.2		
11-Oct-21	15:49	66.5	59.0		
15-Oct-21	9:23	64.9	56.6	62.6	65.6
15-Oct-21	9:28	66.6	57.0		
15-Oct-21	9:33	67.1	58.4		
15-Oct-21	9:38	65.6	57.9		
15-Oct-21	9:43	66.8	58.6		
15-Oct-21	9:48	66.9	56.4		
21-Oct-21	15:27	67.0	58.2	62.7	65.7
21-Oct-21	15:32	66.9	56.4		
21-Oct-21	15:37	64.3	57.9		
21-Oct-21	15:42	64.2	58.0		
21-Oct-21	15:47	66.5	56.2		
21-Oct-21	15:52	64.9	57.4		
27-Oct-21	9:24	65.9	58.0	63.4	66.4
27-Oct-21	9:29	66.5	58.9		
27-Oct-21	9:34	67.1	57.1		
27-Oct-21	9:39	66.4	56.3		
27-Oct-21	9:44	66.2	58.4		
27-Oct-21	9:49	65.7	56.7		

Note: Impact monitoring on 9 Oct has rescheduled to 11 Oct due to Tropical Cyclone Warning Signal No.8

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

Zone 2A

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	6530.27	0.00	0.00	1082.63	5447.64	0.00	0.00	10.70	0.00	0.00	0.00	0.40	18.85
Sep	3645.12	0.00	0.00	192.81	3452.31	0.00	0.00	0.00	0.00	0.00	0.00	0.40	16.81
Oct	2158.48	0.00	0.00	0.32	2158.16	0.00	0.00	0.00	0.00	0.00	0.00	0.20	13.30
Nov	0.00												
Dec	0.00												
Sub-total (2021)	62086.99	0.00	52.90	7857.21	54176.88	0.00	0.00	220.40	0.00	0.00	0.00	2.00	305.12
Total	**83686.30**	**0.00**	**1248.72**	**10730.98**	**70460.16**	**0.00**	**1246.44**	**220.40**	**0.00**	**0.00**	**0.00**	**2.00**	**356.30**

Note:

- 35.81 tonnes, 1538.68 tonnes, 9483.62 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.

Zone 2B & 2C

Table I-2: Monthly Waste Flow Table for Zone 2B & 2C

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)
2021													
Sep	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oct	60.33	0.00	37.75	0.00	22.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.19
Nov													
Dec													
Total	**60.33**	**0.00**	**37.75**	**0.00**	**22.58**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**13.19**

Note:

- 22.58 tonnes of inert C&D material were disposed of as public fill to Tuen Mun Area 38 in the reporting quater.

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; 30 September 2021 for Zone 2B & 2C Piling Works) to the end of the reporting quarter and are summarized in the **Table G-1** and **Table G-2** 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 (Aug 21 – Oct 21)	6	0	0
From 03 October 2020 to end of the reporting quarter	17	0	0

Table G-2: Statistics for complaints, notifications of summons and successful prosecutions for Zone 2B & 2C Piling Works

Reporting Period	Cumulative Statistics		
	Complaints	**Notifications of summons**	**Successful prosecutions**
This reporting quarter (Aug 21 – Oct 21)	2	0	0
From 30 September 2021 to end of the reporting month	2	0	0

END OF THE REPORT