

**Contract No. HY/2011/03**

**Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road  
Section between Scenic Hill and Hong Kong Boundary Crossing  
Facilities**

**Monthly EM&A Report No.57 (June 2017)**

9 August 2017

Revision 2

**Main Contractor**



**Designer**

**ATKINS**

## Contents

### Executive Summary

<b>1</b>	<b>Introduction .....</b>	<b>1</b>
1.1	Basic Project Information.....	1
1.2	Project Organisation.....	2
1.3	Construction Programme.....	2
1.4	Construction Works Undertaken During the Reporting Month.....	2
<b>2</b>	<b>Air Quality Monitoring.....</b>	<b>4</b>
2.1	Monitoring Requirements .....	4
2.2	Monitoring Equipment.....	4
2.3	Monitoring Locations.....	4
2.4	Monitoring Parameters, Frequency and Duration.....	5
2.5	Monitoring Methodology.....	5
2.6	Monitoring Schedule for the Reporting Month .....	7
2.7	Monitoring Results .....	7
<b>3</b>	<b>Noise Monitoring.....</b>	<b>9</b>
3.1	Monitoring Requirements .....	9
3.2	Monitoring Equipment.....	9
3.3	Monitoring Locations.....	9
3.4	Monitoring Parameters, Frequency and Duration.....	9
3.5	Monitoring Methodology.....	10
3.6	Monitoring Schedule for the Reporting Month .....	10
3.7	Monitoring Results .....	11
<b>4</b>	<b>Water Quality Monitoring.....</b>	<b>12</b>
4.1	Monitoring Requirements .....	12
4.2	Monitoring Equipment.....	13
4.3	Monitoring Parameters, Frequency and Duration.....	13
4.4	Monitoring Locations.....	13
4.5	Monitoring Methodology.....	14
4.6	Monitoring Schedule for the Reporting Month .....	14
4.7	Monitoring Results .....	14
<b>5</b>	<b>Dolphin Monitoring .....</b>	<b>16</b>
5.1	Monitoring Requirements .....	16
5.2	Monitoring Methodology.....	16
5.3	Monitoring Results .....	18
5.4	Reference .....	20

<b>6</b>	<b>Mudflat Monitoring .....</b>	<b>21</b>
6.1	Sedimentation Rate Monitoring .....	21
6.2	Water Quality Monitoring .....	22
6.3	Mudflat Ecology Monitoring Methodology .....	23
6.4	Event and Action Plan for Mudflat Monitoring.....	24
6.5	Mudflat Ecology Monitoring Results and Conclusion .....	25
6.6	Reference .....	33
<b>7</b>	<b>Environmental Site Inspection and Audit .....</b>	<b>35</b>
7.1	Site Inspection.....	35
7.2	Advice on the Solid and Liquid Waste Management Status.....	36
7.3	Environmental Licenses and Permits .....	36
7.4	Implementation Status of Environmental Mitigation Measures.....	37
7.5	Summary of Exceedances of the Environmental Quality Performance Limit... 37	
7.6	Summary of Complaints, Notification of Summons and Successful Prosecution .....	37
<b>8</b>	<b>Future Key Issues .....</b>	<b>39</b>
8.1	Construction Programme for the Coming Months .....	39
8.2	Environmental Monitoring Schedule for the Coming Month .....	39
<b>9</b>	<b>Conclusions.....</b>	<b>40</b>
9.1	Conclusions .....	40

## **Figures**

Figure 1.1	Location of the Site
Figure 2.1	Environmental Monitoring Stations
Figure 6.1	Mudflat Survey Area

## **Appendices**

Appendix A	Environmental Management Structure
Appendix B	Construction Programme
Appendix C	Calibration Certificates
Appendix D	Monitoring Schedule
Appendix E	Monitoring Data and Graphical Plots
Appendix F	Event and Action Plan
Appendix G	Wind Data
Appendix H	Dolphin Monitoring Results
Appendix I	Mudflat Monitoring Results
Appendix J	Waste Flow Table
Appendix K	Cumulative Statistics on Complaints
Appendix L	Environmental Licenses and Permits
Appendix M	Implementation Schedule of Environmental Mitigation Measures
Appendix N	Record of “Notification of Summons and Prosecutions”
Appendix O	Location of Works Areas

## Executive Summary

The Hong Kong-Zhuhai-Macao Bridge (HZMB) Hong Kong Link Road (HKLR) serves to connect the HZMB Main Bridge at the Hong Kong Special Administrative Region (HKSAR) Boundary and the HZMB Hong Kong Boundary Crossing Facilities (HKBCF) located at the north eastern waters of the Hong Kong International Airport (HKIA).

The HKLR project has been separated into two contracts. They are Contract No. HY/2011/03 Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road-Section between Scenic Hill and Hong Kong Boundary Crossing Facilities (hereafter referred to as the Contract) and Contract No. HY/2011/09 Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road-Section between HKSAR Boundary and Scenic Hill.

China State Construction Engineering (Hong Kong) Ltd. was awarded by Highways Department as the Contractor to undertake the construction works of Contract No. HY/2011/03. The main works of the Contract include land tunnel at Scenic Hill, tunnel underneath Airport Road and Airport Express Line, reclamation and tunnel to the east coast of the Airport Island, at-grade road connecting to the HKBCF and highway works of the HKBCF within the Airport Island and in the vicinity of the HKLR reclamation. The Contract is part of the HKLR Project and HKBCF Project, these projects are considered to be "Designated Projects", under Schedule 2 of the Environmental Impact Assessment (EIA) Ordinance (Cap 499) and Environmental Impact Assessment (EIA) Reports (Register No. AEIAR-144/2009 and AEIAR-145/2009) were prepared for the Project. The current Environmental Permit (EP) EP-352/2009/D for HKLR and EP-353/2009/K for HKBCF were issued on 22 December 2014 and 11 April 2016, respectively. These documents are available through the EIA Ordinance Register. The construction phase of Contract was commenced on 17 October 2012.

BMT Asia Pacific Limited has been appointed by the Contractor to implement the Environmental Monitoring & Audit (EM&A) programme for the Contract in accordance with the Updated EM&A Manual for HKLR (Version 1.0) and will be providing environmental team services to the Contract.

This is the fifty-seventh Monthly EM&A report for the Contract which summarizes the monitoring results and audit findings of the EM&A programme during the reporting period from 1 to 30 June 2017.

## Environmental Monitoring and Audit Progress

The monthly EM&A programme was undertaken in accordance with the Updated EM&A Manual for HKLR (Version 1.0). A summary of the monitoring activities during this reporting month is listed below:

1-hr TSP Monitoring	1, 7, 13, 19, 23 and 29 June 2017
24-hr TSP Monitoring	6, 12, 17, 22, 28 and 29 June 2017
Noise Monitoring	1, 7, 15, 19 and 29 June 2017
Mudflat Monitoring (Mudflat)	2, 3, 9, 10 and 11 June 2017
Mudflat Monitoring (Sedimentation Rate)	8 June 2017
Chinese White Dolphin Monitoring	14, 15, 20 and 26 June 2017
Site Inspection	1, 7, 14, 21 and 30 June 2017

Due to power supply failure, the 24-hour TSP monitoring at AMS5 was rescheduled from 28 June 2017 to 29 June 2017.

Due to weather condition, the noise monitoring schedule was rescheduled from 13 June 2017 to 15 June 2017.

The monitoring schedule of water quality monitoring for all stations except station CS2 were adopted from the published Monthly Environmental Monitoring and Audit (EM&A) Report for June 2017 prepared for Contract No. HY/2010/02 Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities – Reclamation Works. The monitoring schedule of water quality monitoring for station CS2 was adopted from the published Monthly EM&A Report for June 2017 prepared by Contract No. HY/2011/09 Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road – Section between HKSAR Boundary and Scenic Hill.



Due to suitable weather and ambient temperature, the mudflat monitoring was rescheduled from 12 June 2017 to 2 and 3 June 2017.

Due to weather condition, the dolphin monitoring schedule was rescheduled from 19 June 2017 to 20 June 2017.

### Breaches of Action and Limit Levels

A summary of environmental exceedances for this reporting month is as follows:

Environmental Monitoring	Parameters	Action Level (AL)	Limit Level (LL)
Air Quality	1-hr TSP	0	0
	24-hr TSP	0	0
Noise	Leq (30 min)	0	0
Water Quality	Suspended solids level (SS)	0	0
	Turbidity level	0	0
	Dissolved oxygen level (DO)	0	0

### Complaint Log

For Environmental Complaint No. COM-2017-095(3) mentioned in previously Monthly EM&A Report for May 2017, it was considered that the complaint was likely related to Contract No. HY/2011/03. The Contractor has implemented the following measures to minimize the potential noise impact:

- Additional noise barriers have been erected in the active working area to further mitigate the associated noise emissions as far as practicable;
- Cover the breaker tip with acoustic material;
- Noise barriers have been located as close as possible to the noise source. Also, gaps and openings at joints in the barriers material have been minimized;
- Speed up of construction works in order to shorten the duration noise impact/nuisance to the surrounding;
- Minimize the quantities of noisy plant as far as practicable; and
- Regular review of working duration and switch off all unnecessary machinery and plant.

There was no complaint received in relation to the environmental impacts during the reporting period.

### Notifications of Summons and Prosecutions

There were no notifications of summons or prosecutions received during this reporting month.

### Reporting Changes

This report has been developed in compliance with the reporting requirements for the subsequent EM&A reports as required by the Updated EM&A Manual for HKLR (Version 1.0).

The proposal for the change of Action Level and Limit Level for suspended solid and turbidity was approved by EPD on 25 March 2013.

The revised Event and Action Plan for dolphin monitoring was approved by EPD on 6 May 2013.

The original monitoring station at IS(Mf)9 (Coordinate: 813273E, 818850N) was observed inside the perimeter silt curtain of Contract HY/2010/02 on 1 July 2013, as such the original impact water quality monitoring location at IS(Mf)9 was temporarily shifted outside the silt curtain. As advised by the Contractor of HY/2010/02 in August 2013, the perimeter silt curtain was shifted to facilitate safe anchorage zone of construction barges/vessels until end of 2013 subject to construction progress.

Therefore, water quality monitoring station IS(Mf)9 was shifted to 813226E and 818708N since 1 July 2013. According to the water quality monitoring team's observation on 24 March 2014, the original monitoring location of IS(Mf)9 was no longer enclosed by the perimeter silt curtain of Contract HY/2010/02. Thus, the impact water quality monitoring works at the original monitoring location of IS(Mf)9 has been resumed since 24 March 2014.

Transect lines 1, 2, 7, 8, 9 and 11 for dolphin monitoring have been revised due to the obstruction of the permanent structures associated with the construction works of HKLR and the southern viaduct of TM-CLKL, as well as provision of adequate buffer distance from the Airport Restricted Areas. The EPD issued a memo and confirmed that they had no objection on the revised transect lines on 19 August 2015.

Technical issues were observed from impact monitoring of the Contract and thus published information from Monthly EM&A Report for June 2017 prepared for Contract No. HY/2010/02 and Contract No. HY/2011/09 were adopted for the Contract.

### Future Key Issues

The future key issues include potential noise, air quality, water quality and ecological impacts and waste management arising from the following construction activities to be undertaken in the upcoming month:

- Stockpiling at WA7;
- Removal of toe loading at Portion X;
- Dismantling/trimming of Temporary 40mm Stone Platform for Construction of Seawall at Portion X;
- Construction of Seawall at Portion X;
- Loading and Unloading Filling Materials at Portion X;
- Backfilling at Scenic Hill Tunnel (Cut & Cover Tunnel) at Portion X;
- Excavation for HKBCF to Airport Tunnel & Construction of Tunnel Box Structure at Portion X;
- Excavation for Diversion of Culvert PR14 at Portion X;
- Works for Diversion of Airport Road;
- Utilities Detection at Airport Road / Airport Express Line/ East Coast Road;
- Establishment of Site Access at Airport Road / Airport Express Line/East Coast Road;
- Construction of Tunnel Box Structure at Shaft 3 Extension North Shaft;
- Excavation and Lateral Support Works & Construction of Tunnel Box Structure for HKBCF to Airport Tunnel West (Cut & Cover Tunnel) at Airport Road;
- Excavation and Lateral Support Works & Construction of Tunnel Box Structure for HKBCF to Airport Tunnel East (Cut & Cover Tunnel) at Portion X;
- Sub-structure & Superstructure Works for Highway Operation and Maintenance Area Building at Portion X; and
- Superstructure Works for Scenic Hill Tunnel West Portal Ventilation building at West Portal.

## 1 Introduction

### 1.1 Basic Project Information

- 1.1.1 The Hong Kong-Zhuhai-Macao Bridge (HZMB) Hong Kong Link Road (HKLR) serves to connect the HZMB Main Bridge at the Hong Kong Special Administrative Region (HKSAR) Boundary and the HZMB Hong Kong Boundary Crossing Facilities (HKBCF) located at the north eastern waters of the Hong Kong International Airport (HKIA).
- 1.1.2 The HKLR project has been separated into two contracts. They are Contract No. HY/2011/03 Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road-Section between Scenic Hill and Hong Kong Boundary Crossing Facilities (hereafter referred to as the Contract) and Contract No. HY/2011/09 Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road-Section between HKSAR Boundary and Scenic Hill.
- 1.1.3 China State Construction Engineering (Hong Kong) Ltd. was awarded by Highways Department (HyD) as the Contractor to undertake the construction works of Contract No. HY/2011/03. The Contract is part of the HKLR Project and HKBCF Project, these projects are considered to be “Designated Projects”, under Schedule 2 of the Environmental Impact Assessment (EIA) Ordinance (Cap 499) and Environmental Impact Assessment (EIA) Reports (Register No. AEIAR-144/2009 and AEIAR-145/2009) were prepared for the Project. The current Environmental Permit (EP) EP-352/2009/D for HKLR and EP-353/2009/K for HKBCF were issued on 22 December 2014 and 11 April 2016, respectively. These documents are available through the EIA Ordinance Register. The construction phase of Contract was commenced on 17 October 2012. **Figure 1.1** shows the project site boundary. The works areas are shown in **Appendix O**.
- 1.1.4 The Contract includes the following key aspects:
- New reclamation along the east coast of the approximately 23 hectares.
  - Tunnel of Scenic Hill (Tunnel SHT) from Scenic Hill to the new reclamation, of approximately 1km in length with three (3) lanes for the east bound carriageway heading to the HKBCF and four (4) lanes for the westbound carriageway heading to the HZMB Main Bridge.
  - An abutment of the viaduct portion of the HKLR at the west portal of Tunnel SHT and associated road works at the west portal of Tunnel SHT.
  - An at grade road on the new reclamation along the east coast of the HKIA to connect with the HKBCF, of approximately 1.6 km along dual 3-lane carriageway with hard shoulder for each bound.
  - Road links between the HKBCF and the HKIA including new roads and the modification of existing roads at the HKIA, involving viaducts, at grade roads and a Tunnel HAT.
  - A highway operation and maintenance area (HMA) located on the new reclamation, south of the Dragonair Headquarters Building, including the construction of buildings, connection roads and other associated facilities.
  - Associated civil, structural, building, geotechnical, marine, environmental protection, landscaping, drainage and sewerage, tunnel and highway electrical and mechanical works, together with the installation of street lightings, traffic aids and sign gantries, water mains and fire hydrants, provision of facilities for installation of traffic control and surveillance system (TCSS), reprovisioning works of affected existing facilities, implementation of transplanting, compensatory planting and protection of existing trees, and implementation of an environmental monitoring and audit (EM&A) program.
- 1.1.5 This is the fifty-seventh Monthly EM&A report for the Contract which summarizes the monitoring results and audit findings of the EM&A programme during the reporting period from 1 to 30 June 2017.
- 1.1.6 BMT Asia Pacific Limited has been appointed by the Contractor to implement the EM&A programme for the Contract in accordance with the Updated EM&A Manual for HKLR (Version

1.0) for HKLR and will be providing environmental team services to the Contract. Ramboll Environ Hong Kong Ltd. was employed by HyD as the Independent Environmental Checker (IEC) and Environmental Project Office (ENPO) for the Project. The project organization with regard to the environmental works is as follows.

## 1.2 Project Organisation

1.2.1 The project organization structure and lines of communication with respect to the on-site environmental management structure is shown in **Appendix A**. The key personnel contact names and numbers are summarized in **Table 1.1**.

**Table 1.1 Contact Information of Key Personnel**

Party	Position	Name	Telephone	Fax
Supervising Officer's Representative (Ove Arup & Partners Hong Kong Limited)	(Chief Resident Engineer, CRE)	Robert Antony Evans	3968 0801	2109 1882
Environmental Project Office / Independent Environmental Checker (Ramboll Environ Hong Kong Limited)	Environmental Project Office Leader	Y. H. Hui	3465 2888	3465 2899
	Independent Environmental Checker	Antony Wong	3465 2888	3465 2899
Contractor (China State Construction Engineering (Hong Kong) Ltd)	Project Manager	S. Y. Tse	3968 7002	2109 2588
	Environmental Officer	Federick Wong	3968 7117	2109 2588
Environmental Team (BMT Asia Pacific)	Environmental Team Leader	Claudine Lee	2241 9847	2815 3377
24 hours complaint hotline	---	---	5699 5730	---

## 1.3 Construction Programme

1.3.1 A copy of the Contractor's construction programme is provided in **Appendix B**.

## 1.4 Construction Works Undertaken During the Reporting Month

1.4.1 A summary of the construction activities undertaken during this reporting month is shown in **Table 1.2**.

**Table 1.2 Construction Activities During Reporting Month**

Description of Activities	Site Area
Stockpiling	WA7
Dismantling/trimming of temporary 40mm stone platform for construction of seawall	Portion X
Construction of seawall	Portion X
Loading and unloading of filling materials	Portion X
Backfilling at Scenic Hill Tunnel (Cut & Cover Tunnel)	Portion X
Excavation for HKBCF to Airport Tunnel & construction of tunnel box structure	Portion X
Excavation for diversion of culvert PR14	Portion X
Works for diversion	Airport Road
Utilities detection	Airport Road/ Airport Express Line/ East Coast Road
Establishment of site access	Airport Road/ Airport Express Line/ East Coast Road
Mined tunnel excavation/ box jacking underneath Airport Road and Airport Express Line	Airport Road and Airport Express Line
Construction of Tunnel box structure at Package T1.12.1	Near Kwo Lo Wan Road
Construction of Tunnel box structure	Shaft 3 Extension South & North Shaft
Excavation and lateral support works & Construction of Tunnel Box Structure for HKBCF to Airport Tunnel West (Cut & Cover Tunnel)	Airport Road
Excavation and lateral support works & construction of tunnel box structure for HKBCF to Airport Tunnel East (Cut & Cover Tunnel)	Portion X
Sub-structure & superstructure works for Highway Operation and Maintenance Area Building	Portion X
Superstructure works for Scenic Hill Tunnel West Portal Ventilation building	West Portal

## 2 Air Quality Monitoring

### 2.1 Monitoring Requirements

- 2.1.1 In accordance with the Contract Specific EM&A Manual, baseline 1-hour and 24-hour TSP levels at two air quality monitoring stations were established. Impact 1-hour TSP monitoring was conducted for at least three times every 6 days, while impact 24-hour TSP monitoring was carried out for at least once every 6 days. The Action and Limit Level for 1-hr TSP and 24-hr TSP are provided in **Table 2.1** and **Table 2.2**, respectively.

**Table 2.1 Action and Limit Levels for 1-hour TSP**

Monitoring Station	Action Level, $\mu\text{g}/\text{m}^3$	Limit Level, $\mu\text{g}/\text{m}^3$
AMS 5 – Ma Wan Chung Village (Tung Chung)	352	500
AMS 6 – Dragonair / CNAC (Group) Building (HKIA)	360	

**Table 2.2 Action and Limit Levels for 24-hour TSP**

Monitoring Station	Action Level, $\mu\text{g}/\text{m}^3$	Limit Level, $\mu\text{g}/\text{m}^3$
AMS 5 – Ma Wan Chung Village (Tung Chung)	164	260
AMS 6 – Dragonair / CNAC (Group) Building (HKIA)	173	260

### 2.2 Monitoring Equipment

- 2.2.1 24-hour TSP air quality monitoring was performed using High Volume Sampler (HVS) located at each designated monitoring station. The HVS meets all the requirements of the Contract Specific EM&A Manual. Portable direct reading dust meters were used to carry out the 1-hour TSP monitoring. Brand and model of the equipment is given in **Table 2.3**.

**Table 2.3 Air Quality Monitoring Equipment**

Equipment	Brand and Model
Portable direct reading dust meter (1-hour TSP)	Sibata Digital Dust Monitor (Model No. LD-3B)
High Volume Sampler (24-hour TSP)	Tisch Environmental Mass Flow Controlled Total Suspended Particulate (TSP) High Volume Air Sampler (Model No. TE-5170)

### 2.3 Monitoring Locations

- 2.3.1 Monitoring locations AMS5 and AMS6 were set up at the proposed locations in accordance with Contract Specific EM&A Manual.
- 2.3.2 **Figure 2.1** shows the locations of monitoring stations. **Table 2.4** describes the details of the monitoring stations.



**Table 2.4 Locations of Impact Air Quality Monitoring Stations**

Monitoring Station	Location
AMS5	Ma Wan Chung Village (Tung Chung)
AMS6	Dragonair / CNAC (Group) Building (HKIA)

## 2.4 Monitoring Parameters, Frequency and Duration

2.4.1 **Table 2.5** summarizes the monitoring parameters, frequency and duration of impact TSP monitoring.

**Table 2.5 Air Quality Monitoring Parameters, Frequency and Duration**

Parameter	Frequency and Duration
1-hour TSP	Three times every 6 days while the highest dust impact was expected
24-hour TSP	Once every 6 days

## 2.5 Monitoring Methodology

2.5.1 24-hour TSP Monitoring.

- (a) The HVS was installed in the vicinity of the air sensitive receivers. The following criteria were considered in the installation of the HVS.
- (i) A horizontal platform with appropriate support to secure the sampler against gusty wind was provided.
  - (ii) The distance between the HVS and any obstacles, such as buildings, was at least twice the height that the obstacle protrudes above the HVS.
  - (iii) A minimum of 2 meters separation from walls, parapets and penthouse for rooftop sampler was provided.
  - (iv) No furnace or incinerator flues are nearby.
  - (v) Airflow around the sampler was unrestricted.
  - (vi) Permission was obtained to set up the samplers and access to the monitoring stations.
  - (vii) A secured supply of electricity was obtained to operate the samplers.
  - (viii) The sampler was located more than 20 meters from any dripline.
  - (ix) Any wire fence and gate, required to protect the sampler, did not obstruct the monitoring process.
  - (x) Flow control accuracy was kept within  $\pm 2.5\%$  deviation over 24-hour sampling period.
- (b) Preparation of Filter Papers
- (i) Glass fibre filters, G810 were labelled and sufficient filters that were clean and without pinholes were selected.
  - (ii) All filters were equilibrated in the conditioning environment for 24 hours before weighing. The conditioning environment temperature was around 25 °C and



not variable by more than  $\pm 3$  °C; the relative humidity (RH) was < 50% and not variable by more than  $\pm 5$ %. A convenient working RH was 40%.

- (iii) All filter papers were prepared and analysed by ALS Technichem (HK) Pty Ltd., which is a HOKLAS accredited laboratory and has comprehensive quality assurance and quality control programmes.

(c) Field Monitoring

- (i) The power supply was checked to ensure the HVS works properly.
- (ii) The filter holder and the area surrounding the filter were cleaned.
- (iii) The filter holder was removed by loosening the four bolts and a new filter, with stamped number upward, on a supporting screen was aligned carefully.
- (iv) The filter was properly aligned on the screen so that the gasket formed an airtight seal on the outer edges of the filter.
- (v) The swing bolts were fastened to hold the filter holder down to the frame. The pressure applied was sufficient to avoid air leakage at the edges.
- (vi) Then the shelter lid was closed and was secured with the aluminium strip.
- (vii) The HVS was warmed-up for about 5 minutes to establish run-temperature conditions.
- (viii) A new flow rate record sheet was set into the flow recorder.
- (ix) On site temperature and atmospheric pressure readings were taken and the flow rate of the HVS was checked and adjusted at around 1.1 m<sup>3</sup>/min, and complied with the range specified in the Updated EM&A Manual for HKLR (Version 1.0) (i.e. 0.6-1.7 m<sup>3</sup>/min).
- (x) The programmable digital timer was set for a sampling period of 24 hours, and the starting time, weather condition and the filter number were recorded.
- (xi) The initial elapsed time was recorded.
- (xii) At the end of sampling, on site temperature and atmospheric pressure readings were taken and the final flow rate of the HVS was checked and recorded.
- (xiii) The final elapsed time was recorded.
- (xiv) The sampled filter was removed carefully and folded in half length so that only surfaces with collected particulate matter were in contact.
- (xv) It was then placed in a clean plastic envelope and sealed.
- (xvi) All monitoring information was recorded on a standard data sheet.
- (xvii) Filters were then sent to ALS Technichem (HK) Pty Ltd. for analysis.

(d) Maintenance and Calibration

- (i) The HVS and its accessories were maintained in good working condition, such as replacing motor brushes routinely and checking electrical wiring to ensure a continuous power supply.
- (ii) 5-point calibration of the HVS was conducted using TE-5025A Calibration Kit prior to the commencement of baseline monitoring. Bi-monthly 5-point calibration of the HVS will be carried out during impact monitoring.
- (iii) Calibration certificate of the HVSs are provided in **Appendix C**.

2.5.2 1-hour TSP Monitoring

(a) Measuring Procedures

The measuring procedures of the 1-hour dust meter were in accordance with the Manufacturer's Instruction Manual as follows:-

- (i) Turn the power on.
  - (ii) Close the air collecting opening cover.
  - (iii) Push the "TIME SETTING" switch to [BG].
  - (iv) Push "START/STOP" switch to perform background measurement for 6 seconds.
  - (v) Turn the knob at SENSI ADJ position to insert the light scattering plate.
  - (vi) Leave the equipment for 1 minute upon "SPAN CHECK" is indicated in the display.
  - (vii) Push "START/STOP" switch to perform automatic sensitivity adjustment. This measurement takes 1 minute.
  - (viii) Pull out the knob and return it to MEASURE position.
  - (ix) Push the "TIME SETTING" switch the time set in the display to 3 hours.
  - (x) Lower down the air collection opening cover.
  - (xi) Push "START/STOP" switch to start measurement.
- (b) Maintenance and Calibration
- (i) The 1-hour TSP meter was calibrated at 1-year intervals against a Tisch Environmental Mass Flow Controlled Total Suspended Particulate (TSP) High Volume Air Sampler. Calibration certificates of the Laser Dust Monitors are provided in **Appendix C**.

## 2.6 Monitoring Schedule for the Reporting Month

2.6.1 The schedule for air quality monitoring in June 2017 is provided in **Appendix D**.

## 2.7 Monitoring Results

2.7.1 The monitoring results for 1-hour TSP and 24-hour TSP are summarized in **Tables 2.6** and **2.7** respectively. Detailed impact air quality monitoring results and relevant graphical plots are presented in **Appendix E**.

**Table 2.6 Summary of 1-hour TSP Monitoring Results During the Reporting Month**

Monitoring Station	Average ( $\mu\text{g}/\text{m}^3$ )	Range ( $\mu\text{g}/\text{m}^3$ )	Action Level ( $\mu\text{g}/\text{m}^3$ )	Limit Level ( $\mu\text{g}/\text{m}^3$ )
AMS5	16	8 – 36	352	500
AMS6	13	4 – 28	360	500

**Table 2.7 Summary of 24-hour TSP Monitoring Results During the Reporting Month**

Monitoring Station	Average ( $\mu\text{g}/\text{m}^3$ )	Range ( $\mu\text{g}/\text{m}^3$ )	Action Level ( $\mu\text{g}/\text{m}^3$ )	Limit Level ( $\mu\text{g}/\text{m}^3$ )
AMS5	34	30 – 39	164	260
AMS6	48	23 – 95	173	260

- 2.7.2 No Action and Limit Level exceedances of 1-hr TSP and 24-hr TSP were recorded at AMS5 and AMS6 during the reporting month.
- 2.7.3 The event action plan is annexed in **Appendix F**.
- 2.7.4 The wind data obtained from the on-site weather station during the reporting month is shown in **Appendix G**.

### 3 Noise Monitoring

#### 3.1 Monitoring Requirements

3.1.1 In accordance with the Contract Specific EM&A Manual, impact noise monitoring was conducted for at least once per week during the construction phase of the Project. The Action and Limit level of the noise monitoring is provided in **Table 3.1**.

**Table 3.1 Action and Limit Levels for Noise during Construction Period**

Monitoring Station	Time Period	Action Level	Limit Level
NMS5 – Ma Wan Chung Village (Ma Wan Chung Resident Association) (Tung Chung)	0700-1900 hours on normal weekdays	When one documented complaint is received	75 dB(A)

#### 3.2 Monitoring Equipment

3.2.1 Noise monitoring was performed using sound level meters at each designated monitoring station. The sound level meters deployed comply with the International Electrotechnical Commission Publications (IEC) 651:1979 (Type 1) and 804:1985 (Type 1) specifications. Acoustic calibrator was deployed to check the sound level meters at a known sound pressure level. Brand and model of the equipment are given in **Table 3.2**.

**Table 3.2 Noise Monitoring Equipment**

Equipment	Brand and Model
Integrated Sound Level Meter	B&K 2238
Acoustic Calibrator	B&K 4231

#### 3.3 Monitoring Locations

3.3.1 Monitoring location NMS5 was set up at the proposed locations in accordance with Contract Specific EM&A Manual.

3.3.2 **Figure 2.1** shows the locations of monitoring stations. **Table 3.3** describes the details of the monitoring stations.

**Table 3.3 Locations of Impact Noise Monitoring Stations**

Monitoring Station	Location
NMS5	Ma Wan Chung Village (Ma Wan Chung Resident Association) (Tung Chung)

#### 3.4 Monitoring Parameters, Frequency and Duration

3.4.1 **Table 3.4** summarizes the monitoring parameters, frequency and duration of impact noise monitoring.

**Table 3.4 Noise Monitoring Parameters, Frequency and Duration**

Parameter	Frequency and Duration
30-mins measurement at each monitoring station between 0700 and 1900 on normal weekdays (Monday to Saturday). $L_{eq}$ , $L_{10}$ and $L_{90}$ would be recorded.	At least once per week

### 3.5 Monitoring Methodology

#### 3.5.1 Monitoring Procedure

- (a) The sound level meter was set on a tripod at a height of 1.2 m above the podium for free-field measurements at NMS5. A correction of +3 dB(A) shall be made to the free field measurements.
- (b) The battery condition was checked to ensure the correct functioning of the meter.
- (c) Parameters such as frequency weighting, the time weighting and the measurement time were set as follows:-
  - (i) frequency weighting: A
  - (ii) time weighting: Fast
  - (iii) time measurement:  $L_{eq(30\text{-minutes})}$  during non-restricted hours i.e. 07:00 – 1900 on normal weekdays
- (d) Prior to and after each noise measurement, the meter was calibrated using the acoustic calibrator for 94.0 dB(A) at 1000 Hz. If the difference in the calibration level before and after measurement was more than 1.0 dB(A), the measurement would be considered invalid and repeat of noise measurement would be required after re-calibration or repair of the equipment.
- (e) During the monitoring period, the  $L_{eq}$ ,  $L_{10}$  and  $L_{90}$  were recorded. In addition, site conditions and noise sources were recorded on a standard record sheet.
- (f) Noise measurement was paused during periods of high intrusive noise (e.g. dog barking, helicopter noise) if possible. Observations were recorded when intrusive noise was unavoidable.
- (g) Noise monitoring was cancelled in the presence of fog, rain, wind with a steady speed exceeding 5m/s, or wind with gusts exceeding 10m/s. The wind speed shall be checked with a portable wind speed meter capable of measuring the wind speed in m/s.

#### 3.5.2 Maintenance and Calibration

- (a) The microphone head of the sound level meter was cleaned with soft cloth at regular intervals.
- (b) The meter and calibrator were sent to the supplier or HOKLAS laboratory to check and calibrate at yearly intervals.
- (c) Calibration certificates of the sound level meters and acoustic calibrators are provided in **Appendix C**.

### 3.6 Monitoring Schedule for the Reporting Month

- 3.6.1 The schedule for construction noise monitoring in June 2017 is provided in **Appendix D**.

### 3.7 Monitoring Results

- 3.7.1 The monitoring results for construction noise are summarized in **Table 3.5** and the monitoring results and relevant graphical plots are provided in **Appendix E**.

**Table 3.5 Summary of Construction Noise Monitoring Results During the Reporting Month**

Monitoring Station	Average $L_{eq}$ (30 mins), dB(A)	Range of $L_{eq}$ (30 mins), dB(A)	Limit Level $L_{eq}$ (30 mins), dB(A)
NMS5	66	60 – 70	75

\*A correction factor of +3dB(A) from free field to facade measurement was included.

- 3.7.2 There were no Action and Limit Level exceedances for noise during daytime on normal weekdays of the reporting month.
- 3.7.3 Major noise sources during the noise monitoring included construction activities of the Contract and nearby traffic.
- 3.7.4 The event action plan is annexed in **Appendix F**.

## 4 Water Quality Monitoring

### 4.1 Monitoring Requirements

4.1.1 Impact water quality monitoring was carried out to ensure that any deterioration of water quality is detected, and that timely action is taken to rectify the situation. For impact water quality monitoring, measurements were taken in accordance with the Contract Specific EM&A Manual. **Table 4.1** shows the established Action/Limit Levels for the environmental monitoring works. The ET proposed to amend the Action Level and Limit Level for turbidity and suspended solid and EPD approved ET's proposal on 25 March 2013. Therefore, Action Level and Limit Level for the Contract have been changed since 25 March 2013.

4.1.2 The original and revised Action Level and Limit Level for turbidity and suspended solid are shown in **Table 4.1**.

**Table 4.1 Action and Limit Levels for Water Quality**

Parameter (unit)	Water Depth	Action Level	Limit Level
Dissolved Oxygen (mg/L) (surface, middle and bottom)	Surface and Middle	5.0	4.2 except 5 for Fish Culture Zone
	Bottom	4.7	3.6
Turbidity (NTU)	Depth average	27.5 or 120% of upstream control station's turbidity at the same tide of the same day;  The action level has been amended to "27.5 <b>and</b> 120% of upstream control station's turbidity at the same tide of the same day" since 25 March 2013.	47.0 or 130% of turbidity at the upstream control station at the same tide of same day;  The limit level has been amended to "47.0 <b>and</b> 130% of turbidity at the upstream control station at the same tide of same day" since 25 March 2013.
Suspended Solid (SS) (mg/L)	Depth average	23.5 or 120% of upstream control station's SS at the same tide of the same day;  The action level has been amended to "23.5 <b>and</b> 120% of upstream control station's SS at the same tide of the same day" since 25 March 2013.	34.4 or 130% of SS at the upstream control station at the same tide of same day and 10mg/L for Water Services Department Seawater Intakes;  The limit level has been amended to "34.4 <b>and</b> 130% of SS at the upstream control station at the same tide of same day and 10mg/L for Water Services Department Seawater Intakes" since 25 March 2013

Notes:

- (1) Depth-averaged is calculated by taking the arithmetic means of reading of all three depths.
- (2) For DO, non-compliance of the water quality limit occurs when monitoring result is lower than the limit.
- (3) For SS & turbidity non-compliance of the water quality limits occur when monitoring result is higher than the limits.
- (4) The change to the Action and limit Levels for Water Quality Monitoring for the EM&A works was approved by EPD on 25 March 2013.



## 4.2 Monitoring Equipment

- 4.2.1 The monitoring equipment used in the impact water quality monitoring programme are detailed in the Monthly EM&A Report for June 2017 prepared for Contract No. HY/2010/02 and Contract No. HY/2011/09.

## 4.3 Monitoring Parameters, Frequency and Duration

- 4.3.1 **Table 4.3** summarizes the monitoring parameters, frequency and monitoring depths of impact water quality monitoring as required in the Contract Specific EM&A Manual.

**Table 4.3 Impact Water Quality Monitoring Parameters and Frequency**

Monitoring Stations	Parameter, unit	Frequency	No. of depth
Impact Stations: IS5, IS(Mf)6, IS7, IS8, IS(Mf)9 & IS10,  Control/Far Field Stations: CS2 & CS(Mf)5,  Sensitive Receiver Stations: SR3, SR4, SR5, SR10A & SR10B	<ul style="list-style-type: none"> <li>• Depth, m</li> <li>• Temperature, °C</li> <li>• Salinity, ppt</li> <li>• Dissolved Oxygen (DO), mg/L</li> <li>• DO Saturation, %</li> <li>• Turbidity, NTU</li> <li>• pH</li> <li>• Suspended Solids (SS), mg/L</li> </ul>	Three times per week during mid-ebb and mid-flood tides (within $\pm 1.75$ hour of the predicted time)	3 (1 m below water surface, mid-depth and 1 m above sea bed, except where the water depth is less than 6 m, in which case the mid-depth station may be omitted. Should the water depth be less than 3 m, only the mid-depth station will be monitored).

## 4.4 Monitoring Locations

- 4.4.1 In accordance with the Contract Specific EM&A Manual, thirteen stations (6 Impact Stations, 5 Sensitive Receiver Stations and 2 Control Stations) were designated for impact water quality monitoring. The six Impact Stations (IS) were chosen on the basis of their proximity to the reclamation and thus the greatest potential for water quality impacts, the five Sensitive Receiver Stations (SR) were chosen as they are close to the key sensitive receives and the two Control Stations (CS) were chosen to facilitate comparison of the water quality of the IS stations with less influence by the Project/ ambient water quality conditions.
- 4.4.2 Technical issues were observed from impact monitoring of the Contract and thus published information from Monthly EM&A Report for June 2017 prepared for Contract No. HY/2010/02 and Contract No. HY/2011/09 were adopted for the Contract.
- 4.4.3 The topographical condition of two monitoring stations (SR4 and SR10B) cannot be accessed safely for undertaking water quality monitoring. Water quality monitoring was temporarily conducted at alternative stations, namely SR4(N) (Coordinate: 814705E, 817859N) and SR10B(N) (Coordinate: 823683E, 823187N) for Contract No. HY/2010/02.
- 4.4.4 Due to marine work of the Expansion of Hong Kong International Airport into a Three-Runway System (3RS Project), original locations of water quality monitoring stations SR5 and IS10 are enclosed by works boundary of 3RS Project. Alternative impact water quality monitoring stations, naming as SR5(N) (Coordinate: 812569E, 821475N) and IS10(N) (Coordinate: 812942E, 820881N) was approved in 12 May 2017 and were adopted starting from 15 May 2017 to replace the original locations of water quality monitoring for Contract No. HY/2010/02.
- 4.4.5 The locations of these monitoring stations are summarized in **Table 4.4** and shown in **Figure 2.1**.

**Table 4.4 Impact Water Quality Monitoring Stations**

Monitoring Stations	Description	Coordinates	
		Easting	Northing
IS5	Impact Station (Close to HKLR construction site)	811579	817106
IS(Mf)6	Impact Station (Close to HKLR construction site)	812101	817873
IS7	Impact Station (Close to HKBCF construction site)	812244	818777
IS8	Impact Station (Close to HKBCF construction site)	814251	818412
IS(Mf)9	Impact Station (Close to HKBCF construction site)	813273	818850
IS10	Impact Station (Close to HKBCF construction site)	812577	820670
SR3	Sensitive Receivers (San Tau SSSI)	810525	816456
SR4	Sensitive Receivers (Tai Ho Inlet)	814760	817867
SR5	Sensitive Receivers (Artificial Reef in NE Airport)	811489	820455
SR10A	Sensitive Receivers (Ma Wan Fish Culture Zone)	823741	823495
SR10B	Sensitive Receivers (Ma Wan Fish Culture Zone)	823686	823213
CS2	Control Station (Mid-Ebb)	805849	818780
CS(Mf)5	Control Station (Mid-Flood)	817990	821129

Remarks:

- 1) Technical issues were observed from impact monitoring of the Contract and thus published information from Monthly EM&A Report for June 2017 prepared for Contract No. HY/2010/02 and Contract No. HY/2011/09 were adopted for the Contract.
- 2) The topographical condition of two monitoring stations (SR4 and SR10B) cannot be accessed safely for undertaking water quality monitoring. Water quality monitoring was temporarily conducted at alternative stations, namely SR4(N) (Coordinate: 814705E, 817859N) and SR10B(N) (Coordinate: 823683E, 823187N) for Contract No. HY/2010/02.
- 3) Due to marine work of the Expansion of Hong Kong International Airport into a Three-Runway System (3RS Project), original locations of water quality monitoring stations SR5 and IS10 are enclosed by works boundary of 3RS Project. Alternative impact water quality monitoring stations, naming as SR5(N) (Coordinate: 812569E, 821475N) and IS10(N) (Coordinate: 812942E, 820881N) was approved in 12 May 2017 and were adopted starting from 15 May 2017 to replace the original locations of water quality monitoring for Contract No. HY/2010/02.

## 4.5 Monitoring Methodology

- 4.5.1 The monitoring methodology is detailed in the Monthly EM&A Report for June 2017 prepared for Contract No. HY/2010/02 and Contract No. HY/2011/09.

## 4.6 Monitoring Schedule for the Reporting Month

- 4.6.1 The monitoring schedule for impact water quality monitoring in June 2017 is detailed in the Monthly EM&A Report prepared for Contract No. HY/2010/02 and Contract No. HY/2011/09.

## 4.7 Monitoring Results

- 4.7.1 The monitoring results of water quality monitoring for all stations except station CS2 were adopted from the published Monthly EM&A Report for Contract No. HY/2010/02.
- 4.7.2 The monitoring results of water quality monitoring for station CS2 was adopted from the published Monthly EM&A Report Contract No. HY/2011/09.
- 4.7.3 For marine water quality monitoring, no Action Level and Limit Level exceedances of dissolved oxygen, turbidity and suspended solid levels were recorded by the ET of Contract No. HY/2010/02 and Contract No. HY/2011/09 during the reporting month.
- 4.7.4 The event action plan is annexed in **Appendix F**.

## 5 Dolphin Monitoring

### 5.1 Monitoring Requirements

- 5.1.1 Impact dolphin monitoring is required to be conducted by a qualified dolphin specialist team to evaluate whether there have been any effects on the dolphins.
- 5.1.2 The Action Level and Limit Level for dolphin monitoring are shown in **Table 5.1**.

**Table 5.1 Action and Limit Levels for Dolphin Monitoring**

	North Lantau Social Cluster	
	NEL	NWL
Action Level	STG < 4.2 & ANI < 15.5	STG < 6.9 & ANI < 31.3
Limit Level	(STG < 2.4 & ANI < 8.9) and (STG < 3.9 & ANI < 17.9)	

Remarks:

1. STG means quarterly encounter rate of number of dolphin sightings.
2. ANI means quarterly encounter rate of total number of dolphins.
3. For North Lantau Social Cluster, AL will be trigger if either NEL **or** NWL fall below the criteria; LL will be triggered if both NEL **and** NWL fall below the criteria.

- 5.1.3 The revised Event and Action Plan for dolphin Monitoring was approved by EPD in 6 May 2013. The revised Event and Action Plan is annexed in **Appendix F**.

### 5.2 Monitoring Methodology

#### Vessel-based Line-transect Survey

- 5.2.1 According to the requirements of the Updated EM&A Manual for HKLR (Version 1.0), dolphin monitoring programme should cover all transect lines in NEL and NWL survey areas (see **Figure 1 of Appendix H**) twice per month. The co-ordinates of all transect lines are shown in **Table 5.2**. The coordinates of several starting points have been revised due to the obstruction of the permanent structures associated with the construction works of HKLR and the southern viaduct of TM-CLKL, as well as provision of adequate buffer distance from the Airport Restricted Areas. The EPD issued a memo and confirmed that they had no objection on the revised transect lines on 19 August 2015, and the revised coordinates are in red and marked with an asterisk in **Table 5.2**.

**Table 5.2 Co-ordinates of Transect Lines**

Line No.	Easting	Northing	Line No.	Easting	Northing		
1	Start Point	804671	815456*	13	Start Point	816506	819480
1	End Point	804671	831404	13	End Point	816506	824859
2	Start Point	805475	815913*	14	Start Point	817537	820220
2	End Point	805477	826654	14	End Point	817537	824613
3	Start Point	806464	819435	15	Start Point	818568	820735
3	End Point	806464	822911	15	End Point	818568	824433
4	Start Point	807518	819771	16	Start Point	819532	821420
4	End Point	807518	829230	16	End Point	819532	824209
5	Start Point	808504	820220	17	Start Point	820451	822125
5	End Point	808504	828602	17	End Point	820451	823671

Line No.	Easting	Northing	Line No.	Easting	Northing		
6	Start Point	809490	820466	18	Start Point	821504	822371
6	End Point	809490	825352	18	End Point	821504	823761
7	Start Point	810499	820880*	19	Start Point	822513	823268
7	End Point	810499	824613	19	End Point	822513	824321
8	Start Point	811508	821123*	20	Start Point	823477	823402
8	End Point	811508	824254	20	End Point	823477	824613
9	Start Point	812516	821303*	21	Start Point	805476	827081
9	End Point	812516	824254	21	End Point	805476	830562
10	Start Point	813525	820872	22	Start Point	806464	824033
10	End Point	813525	824657	22	End Point	806464	829598
11	Start Point	814556	818853*	23	Start Point	814559	821739
11	End Point	814556	820992	23	End Point	814559	824768
12	Start Point	815542	818807				
12	End Point	815542	824882				

Note:

Co-ordinates in red and marked with asterisk are revised co-ordinates of transect line.

- 5.2.2 The survey team used standard line-transect methods (Buckland et al. 2001) to conduct the systematic vessel surveys, and followed the same technique of data collection that has been adopted over the last 18 years of marine mammal monitoring surveys in Hong Kong developed by HKCRP (see Hung 2015). For each monitoring vessel survey, a 15-m inboard vessel with an open upper deck (about 4.5 m above water surface) was used to make observations from the flying bridge area.
- 5.2.3 Two experienced observers (a data recorder and a primary observer) made up the on-effort survey team, and the survey vessel transited different transect lines at a constant speed of 13-15 km per hour. The data recorder searched with unaided eyes and filled out the datasheets, while the primary observer searched for dolphins and porpoises continuously through 7 x 50 Fujinon marine binoculars. Both observers searched the sea ahead of the vessel, between 270° and 90° (in relation to the bow, which is defined as 0°). One to two additional experienced observers were available on the boat to work in shift (i.e. rotate every 30 minutes) in order to minimize fatigue of the survey team members. All observers were experienced in small cetacean survey techniques and identifying local cetacean species.
- 5.2.4 During on-effort survey periods, the survey team recorded effort data including time, position (latitude and longitude), weather conditions (Beaufort sea state and visibility), and distance traveled in each series (a continuous period of search effort) with the assistance of a handheld GPS (*Garmin eTrex Legend*).
- 5.2.5 Data including time, position and vessel speed were also automatically and continuously logged by handheld GPS throughout the entire survey for subsequent review.
- 5.2.6 When dolphins were sighted, the survey team would end the survey effort, and immediately record the initial sighting distance and angle of the dolphin group from the survey vessel, as well as the sighting time and position. Then the research vessel was diverted from its course to approach the animals for species identification, group size estimation, assessment of group composition, and behavioural observations. The perpendicular distance (PSD) of the dolphin group to the transect line was later calculated from the initial sighting distance and angle.
- 5.2.7 Survey effort being conducted along the parallel transect lines that were perpendicular to the coastlines (as indicated in **Figure 1 of Appendix H**) was labeled as “primary” survey effort, while the survey effort conducted along the connecting lines between parallel lines was labeled

as “secondary” survey effort. According to HKCRP long-term dolphin monitoring data, encounter rates of Chinese white dolphins deduced from effort and sighting data collected along primary and secondary lines were similar in NEL and NWL survey areas. Therefore, both primary and secondary survey effort were presented as on-effort survey effort in this report.

- 5.2.8 Encounter rates of Chinese white dolphins (number of on-effort sightings per 100 km of survey effort and number of dolphins from all on-effort sightings per 100 km of survey effort) were calculated in NEL and NWL survey areas in relation to the amount of survey effort conducted during each month of monitoring survey. Only data collected under Beaufort 3 or below condition would be used for encounter rate analysis. Dolphin encounter rates were calculated using primary survey effort alone, as well as the combined survey effort from both primary and secondary lines.

#### Photo-identification Work

- 5.2.9 When a group of Chinese White Dolphins were sighted during the line-transect survey, the survey team would end effort and approach the group slowly from the side and behind to take photographs of them. Every attempt was made to photograph every dolphin in the group, and even photograph both sides of the dolphins, since the colouration and markings on both sides may not be symmetrical.
- 5.2.10 A professional digital camera (*Canon* EOS 7D or 60D model), equipped with long telephoto lenses (100–400 mm zoom), were available on board for researchers to take sharp, close-up photographs of dolphins as they surfaced. The images were shot at the highest available resolution and stored on Compact Flash memory cards for downloading onto a computer.
- 5.2.11 All digital images taken in the field were first examined, and those containing potentially identifiable individuals were sorted out. These photographs would then be examined in greater detail, and were carefully compared to the existing Chinese White Dolphin photo-identification catalogue maintained by HKCRP since 1995.
- 5.2.12 Chinese White Dolphins can be identified by their natural markings, such as nicks, cuts, scars and deformities on their dorsal fin and body, and their unique spotting patterns were also used as secondary identifying features (Jefferson 2000).
- 5.2.13 All photographs of each individual were then compiled and arranged in chronological order, with data including the date and location first identified (initial sighting), re-sightings, associated dolphins, distinctive features, and age classes entered into a computer database. Detailed information on all identified individuals will be further presented as an appendix in quarterly EM&A reports.

## 5.3 Monitoring Results

### Vessel-based Line-transect Survey

- 5.3.1 During the month of June 2017, two sets of systematic line-transect vessel surveys were conducted on the 14<sup>th</sup>, 15<sup>th</sup>, 20<sup>th</sup> and 26<sup>th</sup> to cover all transect lines in NWL and NEL survey areas twice. The survey routes of each survey day are presented in **Figures 2 to 5 of Appendix H**.
- 5.3.2 From these surveys, a total of 258.04 km of survey effort was collected, with 93.8% of the total survey effort being conducted under favourable weather conditions (i.e. Beaufort Sea State 3 or below with good visibility) (**Annex I of Appendix H**). Among the two areas, 90.70 km and 167.34 km of survey effort were collected from NEL and NWL survey areas respectively. Moreover, the total survey effort conducted on primary lines was 189.45 km, while the effort on secondary lines was 68.59 km.
- 5.3.3 During the two sets of monitoring surveys in June 2017, only two groups of five Chinese White Dolphins were sighted (see **Annex II of Appendix H**). Both dolphin sightings were made in NWL, while none was sighted in NEL.



- 5.3.4 For the surveys conducted in June 2017, both dolphin groups were sighted during on-effort search on secondary lines (**Annex II of Appendix H**). The sightings were not associated with any operating fishing vessel.
- 5.3.5 Distribution of the dolphin sightings made in June 2017 is shown in **Figure 6 of Appendix H**. One of the dolphin groups was sighted near Black Point at the mouth of Deep Bay, and another dolphin group was sighted near Castle Peak Power Station (**Figure 6 of Appendix H**). As in previous monitoring months, both sightings were made far away from the HKLR03/HKBCF reclamation sites as well as the HKLR09/TMCLKL alignments (**Figure 6 of Appendix H**).
- 5.3.6 During the June's surveys, encounter rates of Chinese White Dolphins deduced from the survey effort and on-effort sighting data made under favourable conditions (Beaufort 3 or below) are shown in **Tables 5.3 and 5.4**.

**Table 5.3 Individual Survey Event Encounter Rates**

		Encounter rate (STG) (no. of on-effort dolphin sightings per 100 km of survey effort)	Encounter rate (ANI) (no. of dolphins from all on-effort sightings per 100 km of survey effort)
		Primary Lines Only	Primary Lines Only
NEL	Set 1: June 14 <sup>th</sup> / 15 <sup>th</sup>	0.0	0.0
	Set 2: June 20 <sup>th</sup> / 26 <sup>th</sup>	0.0	0.0
NWL	Set 1: June 14 <sup>th</sup> / 15 <sup>th</sup>	0.0	0.0
	Set 2: June 20 <sup>th</sup> / 26 <sup>th</sup>	0.0	0.0

Remarks:

- Dolphin Encounter Rates Deduced from the Two Sets of Surveys (Two Surveys in Each Set) in June 2017 in Northeast Lantau (NEL) and Northwest Lantau (NWL).

**Table 5.4 Monthly Average Encounter Rates**

	Encounter rate (STG) (no. of on-effort dolphin sightings per 100 km of survey effort)		Encounter rate (ANI) (no. of dolphins from all on-effort sightings per 100 km of survey effort)	
	Primary Lines Only	Both Primary and Secondary Lines	Primary Lines Only	Both Primary and Secondary Lines
Northeast Lantau	0.0	0.0	0.0	0.0
Northwest Lantau	0.0	0.7	0.0	0.7

Remarks:

- Monthly Average Dolphin Encounter Rates (Sightings Per 100 km of Survey Effort) from All Four Surveys Conducted in June 2017 on Primary Lines only as well as Both Primary Lines and Secondary Lines in Northeast Lantau (NEL) and Northwest Lantau (NWL).

- 5.3.7 The average dolphin group size in June 2017 was 2.5 individuals per group, which was lower than the ones in previous months of monitoring surveys despite the very small sample size (with only two groups).

#### Photo-identification Work

- 5.3.8 Five known individual dolphins were sighted five times during June's surveys (**Annexes III and IV of Appendix H**). All individuals were re-sighted only once during the monthly surveys in June.
- 5.3.9 Notably, two of these individuals (i.e. NL33 and NL322) were mother-calf pair during their re-sightings in June 2017.



## Conclusion

- 5.3.10 During this month of dolphin monitoring, no adverse impact from the activities of this construction project on Chinese White Dolphins was noticeable from general observations.
- 5.3.11 Due to monthly variation in dolphin occurrence within the study area, it would be more appropriate to draw conclusion on whether any impacts on dolphins have been detected related to the construction activities of this project in the quarterly EM&A report, where comparison on distribution, group size and encounter rates of dolphins between the quarterly impact monitoring period (June – August 2017) and baseline monitoring period (3-month period) will be made.

## 5.4 Reference

- 5.4.1 Buckland, S. T., Anderson, D. R., Burnham, K. P., Laake, J. L., Borchers, D. L., and Thomas, L. 2001. Introduction to distance sampling: estimating abundance of biological populations. Oxford University Press, London.
- 5.4.2 Hung, S. K. 2015. Monitoring of Marine Mammals in Hong Kong waters: final report (2014-15). An unpublished report submitted to the Agriculture, Fisheries and Conservation Department, 198 pp.
- 5.4.3 Jefferson, T. A. 2000. Population biology of the Indo-Pacific hump-backed dolphin in Hong Kong waters. Wildlife Monographs 144:1-65.

## 6 Mudflat Monitoring

### 6.1 Sedimentation Rate Monitoring

#### Methodology

- 6.1.1 To avoid disturbance to the mudflat and nuisance to navigation, no fixed marker/monitoring rod was installed at the monitoring stations. A high precision Global Navigation Satellite System (GNSS) real time location fixing system (or equivalent technology) was used to locate the station in the precision of 1mm, which is reasonable under flat mudflat topography with uneven mudflat surface only at micro level. This method has been used on Agricultural Fisheries and Conservation Department's (AFCD) project, namely Baseline Ecological Monitoring Programme for the Mai Po Inner Deep Bay Ramsar Site for measurement of seabed levels.
- 6.1.2 Measurements were taken directly on the mudflat surface. The Real Time Kinematic GNSS (RTK GNSS) surveying technology was used to measure mudflat surface levels and 3D coordinates of a survey point. The RTK GNSS survey was calibrated against a reference station in the field before and after each survey. The reference station is a survey control point established by the Lands Department of the HKSAR Government or traditional land surveying methods using professional surveying instruments such as total station, level and/or geodetic GNSS. The coordinates system was in HK1980 GRID system. For this contract, the reference control station was surveyed and established by traditional land surveying methods using professional surveying instruments such as total station, level and RTK GNSS. The accuracy was down to mm level so that the reference control station has relatively higher accuracy. As the reference control station has higher accuracy, it was set as true evaluation relative to the RTK GNSS measurement. All position and height correction were adjusted and corrected to the reference control station. Reference station survey result and professional land surveying calibration is shown as **Table 6.1**:

**Table 6.1 Reference Station Survey result and GNSS RTK calibration result of Round 1**

Reference Station	Easting (m)	Northing (m)	Baseline reference elevation (mPD) (A)	Round 1 Survey (mPD) (B)	Calibration Adjustment (B-A)
T1	811248.660mE	816393.173mN	3.840	3.817	-0.023
T2	810806.297mE	815691.822mN	4.625	4.653	+0.028
T3	810778.098mE	815689.918mN	4.651	4.660	+0.009
T4	810274.783mE	816689.068mN	2.637	2.709	+0.072

- 6.1.3 The precision of the measured mudflat surface level reading (vertical precision setting) was within 10 mm (standard deviation) after averaging the valid survey records of the XYZ HK1980 GRID coordinates. Each survey record at each station was computed by averaging at least three measurements that are within the above specified precision setting. Both digital data logging and written records were collected in the field. Field data on station fixing and mudflat surface measurement were recorded.

#### Monitoring Locations

- 6.1.4 Four monitoring stations were established based on the site conditions for the sedimentation monitoring and are shown in **Figure 6.1**.

#### Monitoring Results

- 6.1.5 The baseline sedimentation rate monitoring was in September 2012 and impact sedimentation rate monitoring was undertaken on 8 June 2017. The mudflat surface levels at the four established monitoring stations and the corresponding XYZ HK1980 GRID coordinates are presented in **Table 6.2** and **Table 6.3**.

**Table 6.2 Measured Mudflat Surface Level Results**

Monitoring Station	Baseline Monitoring (September 2012)			Impact Monitoring (June 2017)		
	Easting (m)	Northing (m)	Surface Level (mPD)	Easting (m)	Northing (m)	Surface Level (mPD)
S1	810291.160	816678.727	0.950	810291.155	816678.715	1.078
S2	810958.272	815831.531	0.864	810958.328	815831.484	0.990
S3	810716.585	815953.308	1.341	810716.604	815953.296	1.447
S4	811221.433	816151.381	0.931	811221.440	816151.355	1.116

**Table 6.3 Comparison of measurement**

Monitoring Station	Comparison of measurement			Remarks and Recommendation
	Easting (m)	Northing (m)	Surface Level (mPD)	
S1	-0.005	-0.012	0.128	Level continuously increased
S2	0.056	-0.047	0.126	Level continuously increased
S3	0.019	-0.012	0.106	Level continuously increased
S4	0.007	-0.026	0.185	Level continuously increased

6.1.6 This measurement result was generally and relatively higher than the baseline measurement at S1, S2, S3 and S4. The mudflat level is continuously increased.

## 6.2 Water Quality Monitoring

- 6.2.1 The mudflat monitoring covered water quality monitoring data. Reference was made to the water quality monitoring data of the representative water quality monitoring station (i.e. SR3) as in the EM&A Manual. The water quality monitoring location (SR3) is shown in **Figure 2.1**.
- 6.2.2 Impact water quality monitoring in San Tau (monitoring station SR3) was conducted in June 2017. The monitoring parameters included dissolved oxygen (DO), turbidity and suspended solids (SS).
- 6.2.3 The impact water quality monitoring results for SR3 in June 2017 were adopted from the published Monthly EM&A Report for Contract No. HY/2010/02.

## 6.3 Mudflat Ecology Monitoring Methodology

### Sampling Zone

- 6.3.1 In order to collect baseline information of mudflats in the study site, the study site was divided into three sampling zones (labeled as TC1, TC2, TC3) in Tung Chung Bay and one zone in San Tau (labeled as ST) (**Figure 2.1 of Appendix I**). The horizontal shoreline of sampling zones TC1, TC2, TC3 and ST were about 250 m, 300 m, 300 m and 250 m respectively (**Figure 2.2 of Appendix I**). Survey of horseshoe crabs, seagrass beds and intertidal communities were conducted in every sampling zone. The present survey was conducted in June 2017 (totally 5 sampling days between 2<sup>nd</sup> and 11<sup>th</sup> June 2017).
- 6.3.2 Since the field survey of Jun. 2016, increasing number of trashes and even big trashes (**Figure 2.3 of Appendix I**) were found in every sampling zone. It raised a concern about the solid waste dumping and current-driven waste issues in Tung Chung Wan. Respective measures (e.g. manual clean-up) should be implemented by responsible units.

### Horseshoe Crabs

- 6.3.3 Active search method was conducted for horseshoe crab monitoring by two experienced surveyors in every sampling zone. During the search period, any accessible and potential area would be investigated for any horseshoe crab individuals within 2-3 hours of low tide period (tidal level below 1.2 m above Chart Datum (C.D.)). Once a horseshoe crab individual was found, the species was identified referencing to Li (2008). The prosomal width, inhabiting substratum and respective GPS coordinate were recorded. A photographic record was taken for future investigation. Any grouping behavior of individuals, if found, was recorded. The horseshoe crab surveys were conducted on 2<sup>nd</sup> (for TC1), 3<sup>rd</sup> (for TC2) and 9<sup>th</sup> (for TC3 and ST) June 2017. The weather was generally hot on all field days without rainfall.
- 6.3.4 In present survey (Jun. 2017), a big horseshoe crab was tangled by a trash gill net in ST mudflat (**Figure 2.3 of Appendix I**). It was released to sea once after photo recording. The horseshoe crab of such size should be inhabiting sub-tidal environment while it forages on intertidal shore occasionally during high tide period. If it is tangled by the trash net for few days, it may die due to starvation or overheat during low tide period. These trash gill nets are definitely 'fatal trap' for the horseshoe crabs and other marine life. Manual clean-up should be implemented as soon as possible by responsible units.

### Seagrass Beds

- 6.3.5 Active search method was conducted for seagrass bed monitoring by two experienced surveyors in every sampling zone. During the search period, any accessible and potential area would be investigated for any seagrass beds within 2-3 hours of low tide period. Once seagrass bed was found, the species, estimated area, estimated coverage percentage and respective GPS coordinates were recorded. The seagrass beds surveys were conducted on 2<sup>nd</sup> (for TC1), 3<sup>rd</sup> (for TC2) and 9<sup>th</sup> (for TC3 and ST) June 2017. The weather was generally hot on all field days without rainfall.

### Intertidal Soft Shore Communities

- 6.3.6 The intertidal soft shore community surveys were conducted in low tide period on 2<sup>nd</sup> (for TC1), 3<sup>rd</sup> (for TC2), 10<sup>th</sup> (for TC3) and 11<sup>th</sup> (for ST) June 2017. In every sampling zone, three 100m horizontal transect lines were laid at high tidal level (H: 2.0 m above C.D.), mid tidal level (M: 1.5 m above C.D.) and low tidal level (L: 1.0 m above C.D.). Along every horizontal transect line, ten random quadrats (0.5 m x 0.5 m) were placed.
- 6.3.7 Inside a quadrat, any visible epifauna were collected and were *in-situ* identified to the lowest practical taxonomical resolution. Whenever possible a hand core sample (10 cm internal diameter 20 cm depth) of sediments was collected in the quadrat. The core sample was gently washed through a sieve of mesh size 2.0 mm *in-situ*. Any visible infauna were collected and identified. Finally the top 5 cm surface sediments was dug for visible infauna in the quadrat regardless of hand core sample was taken.

- 6.3.8 All collected fauna were released after recording except some tiny individuals that are too small to be identified on site. These tiny individuals were taken to laboratory for identification under dissecting microscope.
- 6.3.9 The taxonomic classification was conducted in accordance to the following references: Polychaetes: Fauchald (1977), Yang and Sun (1988); Arthropods: Dai and Yang (1991), Dong (1991); Mollusks: Chan and Caley (2003), Qi (2004).

#### Data Analysis

- 6.3.10 Data collected from direct search and core sampling was pooled in every quadrat for data analysis. Shannon-Weaver Diversity Index ( $H'$ ) and Pielou's Species Evenness ( $J$ ) were calculated for every quadrat using the formulae below,

$$H' = -\sum (N_i / N) \ln (N_i / N) \text{ (Shannon and Weaver, 1963)}$$

$$J = H' / \ln S \text{ (Pielou, 1966)}$$

where S is the total number of species in the sample, N is the total number of individuals, and  $N_i$  is the number of individuals of the  $i^{\text{th}}$  species.

## 6.4 Event and Action Plan for Mudflat Monitoring

- 6.4.1 In the event of the impact monitoring results indicating that the density or the distribution pattern of intertidal fauna and seagrass is found to be significant different to the baseline condition (taking into account natural fluctuation in the occurrence and distribution pattern such as due to seasonal change), appropriate actions should be taken and additional mitigation measures should be implemented as necessary. Data should then be re-assessed and the need for any further monitoring should be established. The action plan, as given in **Table 6.5** should be undertaken within a period of 1 month after a significant difference has been determined.

**Table 6.5 Event and Action Plan for Mudflat Monitoring**

Event	ET Leader	IEC	SO	Contractor
Density or the distribution pattern of horseshoe crab, seagrass or intertidal soft shore communities recorded in the impact or post-construction monitoring are significantly lower than or different from those recorded in the baseline monitoring.	Review historical data to ensure differences are as a result of natural variation or previously observed seasonal differences; Identify source(s) of impact; Inform the IEC, SO and Contractor; Check monitoring data; Discuss additional monitoring and any other measures, with the IEC and Contractor.	Discuss monitoring with the ET and the Contractor; Review proposals for additional monitoring and any other measures submitted by the Contractor and advise the SO accordingly.	Discuss with the IEC additional monitoring requirements and any other measures proposed by the ET; Make agreement on the measures to be implemented.	Inform the SO and in writing; Discuss with the ET and the IEC and propose measures to the IEC and the ER; Implement the agreed measures.

Notes:

ET – Environmental Team

IEC – Independent Environmental Checker

SO – Supervising Officer



## 6.5 Mudflat Ecology Monitoring Results and Conclusion

### Horseshoe Crabs

- 6.5.1 In the present survey, two species of horseshoe crab *Carcinoscorpius rotundicauda* (total 133 ind.) and *Tachypleus tridentatus* (total 125 ind.) were recorded. For one sight record, grouping of 2-20 individuals was observed at same locations with similar substratum (fine sand or soft mud, slightly submerged). Photo records were shown in **Figure 3.1 of Appendix I** while the complete survey records were listed in **Annex II of Appendix I**. Besides, one tiny individual (prosomal width ~8 mm) was found in TC3 but identification to species was not possible. Hence this record was excluded from the data analysis.
- 6.5.2 **Table 3.1 of Appendix I** summarizes the survey results of horseshoe crab in the present survey. For *Carcinoscorpius rotundicauda*, moderate number of individuals (22 ind.) were found in TC1 that search record was at low-moderate level (5.5 ind. hr<sup>-1</sup> person<sup>-1</sup>). The average body size was 46.69 mm (prosomal width ranged 15.72-72.49 mm) in TC1. More individuals were found in TC3 (57 ind.) and ST (54 ind.) resulting in relatively higher search records (9.0-9.5 ind. hr<sup>-1</sup> person<sup>-1</sup>). Smaller individuals were found in TC3 that the average body size was 38.95 mm (prosomal width ranged 14.29-86.73 mm). The average body size was 53.94 mm (prosomal width ranged 38.83-83.33 mm) in ST. No individual was found in TC2 regardless of a mating pair (to be discussed below).
- 6.5.3 For *Tachypleus tridentatus*, there were only 1-2 individuals in TC1 and TC2 (prosomal width ranged 36.33-67.42 mm). The search record was very low (0.3-0.5 ind. hr<sup>-1</sup> person<sup>-1</sup>). Similarly, more individuals were found in TC3 (70 ind.) and ST (52 ind.) respectively. In TC3, the search record was relatively higher (11.7 ind. hr<sup>-1</sup> person<sup>-1</sup>) while the average body size was 54.24 mm (prosomal width ranged 27.57-93.44 mm). In ST, the search record was 8.7 ind. hr<sup>-1</sup> person<sup>-1</sup> while the average body size was 53.74 mm (prosomal width ranged 40.41-76.37 mm).
- 6.5.4 In the previous survey of Mar. 2015, there was one important finding that a mating pair of *Carcinoscorpius rotundicauda* was found in ST (prosomal width: male 155.1 mm, female 138.2 mm) (**Figure 3.2 of Appendix I**). It indicated the importance of ST as a breeding ground of horseshoe crab. In the present survey (Jun. 2017), mating pairs of *Carcinoscorpius rotundicauda* were also found in TC2 (prosomal width: male 175.27 mm, female 143.51 mm) and TC3 (prosomal width: male 182.08 mm, female 145.63 mm) (**Figure 3.2 of Appendix I**). It indicated that breeding of horseshoe crab could occur along the coast of Tung Chung Wan rather than ST only, as long as suitable substratum was available. The mating pairs were found nearly burrowing in soft mud at low tidal level (0.5-1.0 m above C.D.). The smaller male was holding the opisthosoma (abdomen carapace) of larger female from behind.
- 6.5.5 In the present survey (Jun. 2017), one large individual of *Carcinoscorpius rotundicauda* (prosomal width 178.67 mm) was tangled by a trash gill net in ST (**Figure 3.3 of Appendix I**). Based on the sizes of these mating pairs and tangled individuals, it indicated that individuals of prosomal width larger than 100 mm would progress its nursery stage from intertidal habitat to sub-tidal habitat of Tung Chung Wan. These large individuals might move onto intertidal shore occasionally during high tide for foraging and breeding.
- 6.5.6 Because the large individuals (prosomal width > 100 mm) should be inhabiting sub-tidal habitat in most of the time. The records of mating pair and large, tangled individuals were excluded from the data analysis to avoid mixing up with juvenile population living on intertidal habitat. In the previous survey of Jun. 2016, the records of two large individuals of *Carcinoscorpius rotundicauda* (prosomal width 117.37 mm and 178.17 mm) in TC1 were excluded from data analysis according to the same principle.
- 6.5.7 No marked individual of horseshoe crab was recorded in the present survey. Some marked individuals were found in the previous surveys of Sep. 2013, Mar. 2014 and Sep. 2014. All of them were released through a conservation programme conducted by Prof. Paul Shin (Department of Biology and Chemistry, The City University of Hong Kong (CityU)). It was a re-introduction trial of artificial bred horseshoe crab juvenile at selected sites. So, that the



horseshoe crabs population might be restored in the natural habitat. Through a personal conversation with Prof. Shin, about 100 individuals were released in the sampling zone ST on 20 June 2013. All of them were marked with color tape and internal chip detected by specific chip sensor. There should be second round of release between June and September 2014 since new marked individuals were found in the survey of Sep. 2014.

- 6.5.8 The artificial bred individuals, if found, would be excluded from the results of present monitoring programme in order to reflect the changes of natural population. However, the mark on their prosoma might have been detached during moulting after a certain period of release. The artificially released individuals were no longer distinguishable from the natural population without the specific chip sensor. The survey data collected would possibly cover both natural population and artificially bred individuals.

#### Population difference among the sampling zones

- 6.5.9 **Figures 3.4 and 3.5 of Appendix I** show the changes of number of individuals, mean prosomal width and search record of horseshoe crabs *Carcinoscorpius rotundicauda* and *Tachypleus tridentatus* respectively in every sampling zone throughout the monitoring period.
- 6.5.10 For TC3 and ST, medium to high search records (i.e. number of individuals) of both species were always found in wet season (Jun. and Sep.). The search record of ST was higher from Sep. 2012 to Jun. 2014 while it was replaced by TC3 from Sep. 2014 to Jun. 2015. The search records were similar between two sampling zones from Sep. 2015 to Jun. 2016. In Sep. 2016, the search record of *Carcinoscorpius rotundicauda* in ST was much higher than TC3. From Mar. to Jun. 2017 (present survey), the search records of both species were similar again between two sampling zones and increased with warmer climate. It showed a natural variation of horseshoe crab population in these two zones due to weather condition and tidal effect during the survey. No obvious difference of horseshoe crab population was noted between TC3 and ST.
- 6.5.11 For TC1, the search record was at low to medium level throughout the monitoring period. The change of *Carcinoscorpius rotundicauda* was relatively more variable than that of *Tachypleus tridentatus*. Relatively, the search record was very low in TC2 (2 ind. in Sep. 2013; 1 ind. in Mar., Jun., Sep. 2014, Mar. and Jun. 2015; 4 ind. in Sep. 2015; 6 ind. in Jun. 2016; 1 ind. in Sep. 2016, Mar. and Jun. 2017).
- 6.5.12 About the body size, larger individuals of *Carcinoscorpius rotundicauda* were usually found in ST and TC1 relative to those in TC3. For *Tachypleus tridentatus*, larger individuals were usually found in ST followed by TC3 and TC1.
- 6.5.13 Throughout the monitoring period, it was obvious that TC3 and ST (western shore of Tung Chung Wan) was an important nursery ground for horseshoe crab especially newly hatched individuals due to larger area of suitable substratum (fine sand or soft mud) and less human disturbance (far from urban district). Relatively, other sampling zones were not a suitable nursery ground especially TC2. Possible factors were less area of suitable substratum (especially TC1) and higher human disturbance (TC1 and TC2: close to urban district and easily accessible). In TC2, large daily salinity fluctuation was a possible factor either since it was flushed by two rivers under tidal inundation. The individuals inhabiting TC1 and TC2 were confined in small foraging area due to limited area of suitable substrata. Although a mating pair of *Carcinoscorpius rotundicauda* was found in TC2, the hatching rate and survival rate of newly hatched individuals were believed very low.

#### Seasonal variation of horseshoe crab population

- 6.5.14 Throughout the monitoring period, the search record of horseshoe crab declined obviously during dry season especially December (**Figures 3.3 and 3.4 of Appendix I**). In Dec. 2012, 4 individuals of *Carcinoscorpius rotundicauda* and 12 individuals of *Tachypleus tridentatus* were found only. In Dec. 2013, no individual of horseshoe crab was found. In Dec. 2014, 2 individuals of *Carcinoscorpius rotundicauda* and 8 individuals of *Tachypleus tridentatus* were found only. In Dec. 2015, 2 individuals of *Carcinoscorpius rotundicauda*, 6 individuals of *Tachypleus tridentatus* and one newly hatched, unidentified individual were found only. The horseshoe crabs were inactive and burrowed in the sediments during cold weather (<15 °C). Similar results

of low search record in dry season were reported in a previous territory-wide survey of horseshoe crab. For example, the search records in Tung Chung Wan were 0.17 ind. hr<sup>-1</sup> person<sup>-1</sup> and 0.00 ind. hr<sup>-1</sup> person<sup>-1</sup> in wet season and dry season respectively (details see Li, 2008). Relatively the search records were much higher in Dec. 2016. There were totally 70 individuals of *Carcinoscorpius rotundicauda* and 24 individuals of *Tachypleus tridentatus* in TC3 and ST. Because the survey was arranged in early December while the weather was warm with sunlight (~22 °C during dawn according to Hong Kong Observatory database, Chek Lap Kok station on 5 Dec). In contrast, there was no search record in TC1 and TC2 because the survey was conducted in mid-December with colder and cloudy weather (~20 °C during dawn on 19 Dec). The horseshoe crab activity would decrease gradually with the colder climate.

- 6.5.15 From Sep. 2012 to Dec. 2013, *Carcinoscorpius rotundicauda* was a less common species relative to *Tachypleus tridentatus*. Only 4 individuals were ever recorded in ST in Dec. 2012. This species had ever been believed of very low density in ST hence the encounter rate was very low. Since Mar. 2014, it was found in all sampling zones with higher abundance in ST. Based on its average size (mean prosomal width 39.28-49.81 mm), it indicated that breeding and spawning of this species had occurred about 3 years ago, along the coastline of Tung Chun Wan. However, these individuals were still small while their walking trails were inconspicuous. Hence there was no search record in previous sampling months. Since Mar. 2014, more individuals were recorded due to larger size and higher activity (i.e. more conspicuous walking trail).
- 6.5.16 For *Tachypleus tridentatus*, sharp increase of number of individuals was recorded in ST during the wet season of 2013 (from Mar. to Sep.). According to a personal conversation with Prof. Shin (CityU), his monitoring team had recorded similar increase of horseshoe crab population during wet season. It was believed that the suitable ambient temperature increased its conspicuousness. However similar pattern was not recorded in the following wet seasons. The number of individuals increased in Mar. and Jun. 2014 followed by a rapid decline in Sep. 2014. Then the number of individuals fluctuated slightly in TC3 and ST until Mar. 2017. Apart from natural mortality, migration from nursery soft shore to subtidal habitat was another possible cause. Since the mean prosomal width of *Tachypleus tridentatus* continued to grow and reached about 50 mm since Mar. 2014. Then it varied slightly between 35-65 mm from Sep. 2014 to Mar. 2017. Most of the individuals might have reached a suitable size (e.g. prosomal width 50-60 mm) strong enough to forage in sub-tidal habitat. In the present survey (Jun. 2017), the number of individuals increased sharply again in TC3 and ST. Although mating pair of *Tachypleus tridentatus* was not found in previous surveys, there should be new round of spawning in the wet season of 2016. The individuals might have grown to a more conspicuous size in 2017 accounting for higher search record.
- 6.5.17 Recently, *Carcinoscorpius rotundicauda* was a more common horseshoe crab species in Tung Chung Wan. It was recorded in the four sampling zones while the majority located in TC3 and ST. Due to potential breeding last year, *Tachypleus tridentatus* became common again and distributed in TC3 and ST only. Since TC3 and ST were regarded as important nursery ground for both horseshoe crab species, box plots of prosomal width of two horseshoe crab species were constructed to investigate the changes of population in details.

#### Box plot of horseshoe crab populations in TC3

- 6.5.18 **Figure 3.6 of Appendix I** shows the changes of prosomal width of *Carcinoscorpius rotundicauda* and *Tachypleus tridentatus* in TC3. As mentioned above, *Carcinoscorpius rotundicauda* was rarely found between Sep. 2012 and Dec. 2013 hence the data were lacking. In Mar 2014, the major size (50% of individual records between upper (top of box) and lower quartile (bottom of box)) ranged 40-60 mm while only few individuals were found. From Mar. 2014 to Mar. 2017, the median prosomal width (middle line of box) and major size (box) decreased after Mar. of every year. It was due to more small individuals found. It indicated new rounds of spawning. Also, there were slight increasing trends of body size from Jun. to Mar. of next year since 2015. It indicated a stable growth of individuals. Focused on larger juveniles (circle dots above the box), the size range was quite variable (prosomal width 60-90 mm) along the sampling months. Juveniles reaching this size might gradually migrate to sub-tidal habitats.

6.5.19 For *Tachypleus tridentatus*, the major size ranged 20-50 mm while the number of individuals fluctuated from Sep. 2012 to Jun. 2014. Then a slight but consistent growing trend was observed from Sep. 2014 to Jun. 2015. The prosomal width increased from 25-35 mm to 35-65 mm. As mentioned, the large individuals might have reached a suitable size for migrating from the nursery soft shore to subtidal habitat. It accounted for the declined population in TC3. From Mar. to Sep. 2016, slight increasing trend of major size was noticed again. From Dec. 2016 to Jun. 2017 (present survey), similar increasing trend of major size was noted with much higher number of individuals. It reflected new round of spawning. Across the whole monitoring period, the larger juveniles (circle dots above the box) reached 60-80 mm in prosomal width while it could reach 90 mm in present survey. Juveniles reaching this size might gradually migrate to sub-tidal habitats.

#### Box plot of horseshoe crab populations in ST

6.5.20 **Figure 3.7 of Appendix I** shows the changes of prosomal width of *Carcinoscorpius rotundicauda* and *Tachypleus tridentatus* in ST. As mentioned above, *Carcinoscorpius rotundicauda* was rarely found between Sep. 2012 and Dec. 2013 hence the data were lacking. From Mar. 2014 to Sep. 2016, the size of major population decreased and more small individuals (i.e. circle dots below the box) were recorded after Jun. of every year. It indicated new round of spawning. Also, there were similar increasing trends of body size from Sep. to Jun. of next year between 2014 and 2017. It indicated a stable growth of individuals. Across the whole monitoring period, the larger juveniles (i.e. circle dots above the box) usually ranged 70-80 mm in prosomal width except one individual (prosomal width 107.04 mm) found in Mar. 2017. It reflected juveniles reaching this size would gradually migrate to sub-tidal habitats.

6.5.21 For *Tachypleus tridentatus*, a consistent growing trend was observed for the major population from Dec. 2012 to Dec. 2014 regardless of change of search record. The prosomal width increased from 15-30 mm to 55-70 mm. As mentioned, the large juveniles might have reached a suitable size for migrating from the nursery soft shore to subtidal habitat. From Mar. to Sep. 2015, the size of major population decreased slightly to a prosomal width 40-60 mm. At the same time, the number of individuals decreased gradually. It further indicated some of large juveniles might have migrated to sub-tidal habitat, leaving the smaller individuals on shore. There was an overall growth trend. In Dec. 2015, two big individuals (prosomal width 89.27 mm and 98.89 mm) were recorded only while it could not represent the major population. From Dec. 2015 to Mar. 2016, the number of individual was very few in ST that no boxplot could be produced. In Jun. 2016, the prosomal width of major population ranged 50-70 mm. But it dropped clearly to 30-40 mm in Sep. 2016 followed by an increase to 40-50 mm in Dec. 2016, 40-70 mm in Mar. 2017 and 50-60mm in Jun. 2017 (present survey). Based on overall higher number of small individuals from Jun. 2016 to Jun. 2017, it indicated new round of spawning. Throughout the monitoring period, the larger juveniles ranged 60-80 mm in prosomal width. Juveniles reaching this size would gradually migrate to sub-tidal habitats.

6.5.22 As a summary for horseshoe crab populations in TC3 and ST, there were spawning of *Carcinoscorpius rotundicauda* from 2014 to 2016 while the spawning time should be in spring. There were consistent, increasing trends of population size in these two sampling zones. For *Tachypleus tridentatus*, small individuals were rarely found in both zones from 2014 to 2015. It was believed no occurrence of successful spawning. The existing individuals (that recorded since 2012) grew to a mature size and migrated to sub-tidal habitat. Hence the number of individuals decreased gradually. In 2016, new round of spawning was recorded in ST while increasing number of individuals and body size was noticed.

#### Impact of the HKLR project

6.5.23 It was the 19<sup>th</sup> survey of the EM&A programme during the construction period. Based on the results, impact of the HKLR project could not be detected on horseshoe crabs. The population change was mainly determined by seasonal variation while new rounds of spawning were observed for both species. In case, abnormal phenomenon (e.g. very few numbers of horseshoe crab individuals in wet season, large number of dead individuals on the shore) is found, it would be reported as soon as possible.

#### Seagrass Beds



- 6.5.24 In the present survey, seagrass species *Halophila ovalis* and *Zostera japonica* were recorded in TC3 and ST. Photo records were shown in **Figure 3.8 of Appendix I** while the complete records of seagrass beds survey were shown in **Annex III of Appendix I**.
- 6.5.25 **Table 3.2 of Appendix I** summarizes the results of seagrass beds survey. In TC3, two small patches of *Halophila ovalis* was found in soft mud area at 0.5-1.0 m above C.D. while the total seagrass bed area and vegetation coverage were about 140.4 m<sup>2</sup> (average seagrass bed area 70.2 m<sup>2</sup>) and 100% respectively.
- 6.5.26 In ST, two large patches of *Halophila ovalis* were found while the total seagrass bed area was about 17046.5 m<sup>2</sup>. The largest patch was an extensive, horizontal strand with area ~12334.4 m<sup>2</sup> and vegetation coverage 80-100%, located in the soft mud area at 0.5-2.0 m above C.D.. It had covered significant portion of the mud flat area southward from TC3 boundary to ST (i.e. western shore of Tung Chung Wan). At vicinity, there was another large patch (4712.1 m<sup>2</sup>, coverage 80-100%), located in the sandy area at 1.0-2.0 m above C.D..
- 6.5.27 For *Zostera japonica*, there was one, small horizontal strand in the sandy area nearby the seaward mangrove. The seagrass bed area and vegetation coverage were 105.4 m<sup>2</sup> and 100% respectively.
- 6.5.28 Since majority of seagrass bed was confined in ST, the temporal change of both seagrass species was investigated in details.

#### Temporal variation of seagrass beds

- 6.5.29 **Figure 3.9 of Appendix I** shows the changes of estimated total area of seagrass beds in ST along the sampling months. For *Zostera japonica*, it was not recorded in the 1<sup>st</sup> and 2<sup>nd</sup> surveys of monitoring programme. Seasonal recruitment of few, small patches (total seagrass area: 10 m<sup>2</sup>) was found in Mar. 2013 that grew within the large patch of seagrass *Halophila ovalis*. Then the patch size increased and merged gradually with the warmer climate from Mar. to Jun. 2013 (15 m<sup>2</sup>). However, the patch size decreased and remained similar from Sep. 2013 (4 m<sup>2</sup>) to Mar. 2014 (3 m<sup>2</sup>). In Jun. 2014, the patch size increased obviously again (41 m<sup>2</sup>) with warmer climate followed by a decrease between Sep. 2014 (2 m<sup>2</sup>) and Dec. 2014 (5 m<sup>2</sup>). From Mar. to Jun. 2015, the patch size increased sharply again (90 m<sup>2</sup>). It might be due to the disappearance of the originally dominant seagrass *Halophila ovalis* resulting in less competition for substratum and nutrients. From Sep.2015 to Jun.2016, it was found coexisting with seagrass *Halophila ovalis* with steady increasing patch size (from 44 m<sup>2</sup> to 115 m<sup>2</sup>) and variable coverage. In Sep. 2016, the patch size decreased again to (38 m<sup>2</sup>) followed by an increase to a horizontal strand (105.4 m<sup>2</sup>) in Jun. 2017 (present survey). And it was no longer co-existing with *Halophila ovalis*. Between Sep. 2014 and Jun. 2017, an increasing trend was noticed from Sep. to Jun. of next year followed by a rapid decline in Sep. of next year. It was possibly the causes of heat stress, typhoon and stronger grazing pressure during wet season.
- 6.5.30 For *Halophila ovalis*, it was recorded as 3-4 medium to large patches (area 18.9-251.7 m<sup>2</sup>; vegetation coverage 50-80%) beside the mangrove vegetation at tidal level 2 m above C.D. in Sep. 2012 (first survey). The total seagrass bed area grew steadily from 332.3 m<sup>2</sup> in Sep. 2012 to 727.4 m<sup>2</sup> in Dec. 2013. Flowers were observed in the largest patch during its flowering period. In Mar. 2014, 31 small to medium patches were newly recorded (variable area 1-72 m<sup>2</sup> per patch, vegetation coverage 40-80% per patch) in lower tidal zone between 1.0 and 1.5 m above C.D. The total seagrass area increased further to 1350 m<sup>2</sup>. In Jun. 2014, these small and medium patches grew and extended to each other. These patches were no longer distinguishable and were covering a significant mudflat area of ST. It was generally grouped into 4 large patches (1116 – 2443 m<sup>2</sup>) of seagrass beds characterized of patchy distribution, variable vegetable coverage (40-80%) and smaller leaves. The total seagrass bed area increased sharply to 7629 m<sup>2</sup>. In Sep. 2014, the total seagrass area declined sharply to 1111 m<sup>2</sup>. There were only 3-4 small to large patches (6-253 m<sup>2</sup>) at high tidal level and 1 patch at low tidal level (786 m<sup>2</sup>). Typhoon or strong water current was a possible cause (Fong, 1998). In Sep. 2014, there were two tropical cyclone records in Hong Kong (7<sup>th</sup>-8<sup>th</sup> Sep.: no cyclone name, maximum signal number 1; 14<sup>th</sup>-17<sup>th</sup> Sep.: Kalmaegi, maximum signal number 8SE) before the seagrass survey dated 21st Sep. 2014. The strong water current caused by the cyclone, Kalmaegi especially, might have given damage to the seagrass beds. In addition, natural heat

stress and grazing force were other possible causes reducing seagrass beds area. Besides, very small patches of *Halophila ovalis* could be found in other mud flat area in addition to the recorded patches. But it was hardly distinguished due to very low coverage (10-20%) and small leaves.

- 6.5.31 In Dec. 2014, all the seagrass patches of *Halophila ovalis* disappeared in ST. **Figure 3.10 of Appendix I** shows the difference of the original seagrass beds area nearby the mangrove vegetation at high tidal level between Jun. 2014 and Dec. 2014. Such rapid loss would not be seasonal phenomenon because the seagrass beds at higher tidal level (2.0 m above C.D.) were present and normal in December 2012 and 2013. According to Fong (1998), similar incident had occurred in ST in the past. The original seagrass area had declined significantly during the commencement of the construction and reclamation works for the international airport at Chek Lap Kok in 1992. The seagrass almost disappeared in 1995 and recovered gradually after the completion of reclamation works. Moreover, incident of rapid loss of seagrass area was also recorded in another intertidal mudflat in Lai Chi Wo in 1998 with unknown reason. Hence *Halophila ovalis* was regarded as a short-lived and r-strategy seagrass that could colonize areas in short period but disappears quickly under unfavorable conditions (Fong, 1998).

Unfavourable conditions to seagrass *Halophila ovalis*

- 6.5.32 Typhoon or strong water current was suggested as one unfavourable condition to *Halophila ovalis* (Fong, 1998). As mentioned above, there were two tropical cyclone records in Hong Kong in Sep. 2014. The strong water current caused by the cyclones might have given damage to the seagrass beds.
- 6.5.33 Prolonged light deprivation due to turbid water would be another unfavorable condition. Previous studies reported that *Halophila ovalis* had little tolerance to light deprivation. During experimental darkness, seagrass biomass declined rapidly after 3-6 days and seagrass died completely after 30 days. The rapid death might be due to shortage of available carbohydrate under limited photosynthesis or accumulation of phytotoxic end products of anaerobic respiration (details see Longstaff *et al.*, 1999). Hence the seagrass bed of this species was susceptible to temporary light deprivation events such as flooding river runoff (Longstaff and Dennison, 1999).
- 6.5.34 In order to investigate any deterioration of water quality (e.g. more turbid) in ST, the water quality measurement results at two closest monitoring stations SR3 and IS5 of the EM&A programme were obtained from the water quality monitoring team. Based on the results from June to December 2014, the overall water quality was in normal fluctuation except there was one exceedance of suspended solids (SS) at both stations in September. On 10<sup>th</sup> Sep., 2014, the SS concentrations measured during mid-ebb tide at stations SR3 (27.5 mg/L) and IS5 (34.5 mg/L) exceeded the Action Level ( $\leq 23.5$  mg/L and 120% of upstream control station's reading) and Limit Level ( $\leq 34.4$  mg/L and 130% of upstream control station's reading) respectively. The turbidity readings at SR3 and IS5 reached 24.8-25.3 NTU and 22.3-22.5 NTU respectively. The temporary turbid water should not be caused by the runoff from upstream rivers. Because there was no rain or slight rain from 1st to 10th Sep. 2014 (daily total rainfall at the Hong Kong International Airport: 0-2.1 mm; extracted from the climatological data of Hong Kong Observatory). The effect of upstream runoff on water quality should be neglectable in that period. Moreover, the exceedance of water quality was considered unlikely to be related to the contract works of HKLR according to the 'Notifications of Environmental Quality Limits Exceedances' provided by the respective environmental team. The respective construction of seawall and stone column works, which possibly caused turbid water, were carried out within silt curtain as recommended in the EIA report. Moreover, there was no leakage of turbid water, abnormality or malpractice recorded during water sampling. In general, the exceedance of suspended solids concentration was considered to be attributed to other external factors, rather than the contract works.
- 6.5.35 Based on the weather condition and water quality results in ST, the co-occurrence of cyclone hit and turbid waters in Sep. 2014 might have combined the adverse effects on *Halophila ovalis* that led to disappearance of this short-lived and r-strategy seagrass species. Fortunately, *Halophila ovalis* was a fast-growing species (Vermaat *et al.*, 1995). Previous studies showed

that the seagrass bed could be recovered to the original sizes in 2 months through vegetative propagation after experimental clearance (Supanwanid, 1996). Moreover, it was reported to recover rapidly in less than 20 days after dugong herbivory (Nakaoka and Aioi, 1999). As mentioned, the disappeared seagrass in ST in 1995 could recover gradually after the completion of reclamation works for international airport (Fong, 1998). The seagrass beds of *Halophila ovalis* might recolonize the mudflat of ST through seed reproduction as long as there was no unfavorable condition in the coming months.

#### Recolonization of seagrass beds

6.5.36 **Figure 3.10 of Appendix I** shows the recolonization of seagrass bed area in ST from Dec. 2014 to Jun. 2017. From Mar. to Jun. 2015, 2-3 small patches of *Halophila ovalis* were newly found coinhabiting with another seagrass species *Zostera japonica*. But its total patch area was still very low relative to the previous records. The recolonization rate was low while cold weather and insufficient sunlight were possible factors between Dec. 2014 and Mar. 2015. Moreover, it would need to compete with seagrass *Zostera japonica* for substratum and nutrient. Since *Zostera japonica* had extended and had covered the original seagrass bed of *Halophila ovalis* at certain degree. From Jun. 2015 to Mar. 2016, the total seagrass area of *Halophila ovalis* had increased rapidly from 6.8 m<sup>2</sup> to 230.63 m<sup>2</sup>. It had recolonized its original patch locations and covered *Zostera japonica*. In Jun. 2016, the total seagrass area increased sharply to 4707.3 m<sup>2</sup>. Similar to the previous records of Mar to Jun. 2014, the original patch area increased further to a horizontally long strand. Another large seagrass beds colonized the lower tidal zone (1.0-1.5 m above C.D.). In Sep. 2016, this patch extended much and covered significant soft mud area of ST, resulting in sharp increase of total area (24245 m<sup>2</sup>). It indicated the second extensive colonization of this *r*-strategy seagrass. In Dec. 2016, this extensive seagrass patch decreased in size and had separated into few, undistinguishable patches. Moreover, the horizontal strand nearby the mangrove vegetation decreased in size (**Figure 3.10 of Appendix I**). The total seagrass bed decreased to 12550 m<sup>2</sup>. In Mar. 2017, the seagrass bed area remained stable (12438 m<sup>2</sup>) while the vegetation coverage decreased clearly (20-50%). It was once predicted that the seagrass bed area would continue to decrease, similar to the record in Sep-Dec. 2014. However, it increased in both area (17046.5 m<sup>2</sup>) and vegetation coverage (80-100%) in Jun. 2017 (present survey).

#### Impact of the HKLR project

6.5.37 It was the 19<sup>th</sup> survey of the EM&A programme during the construction period. According to the results of present survey, there was clear recolonization of both seagrass species *Halophila ovalis* and *Zostera japonica* in ST. Hence the negative impact of HKLR project on the seagrass was not significant. In case unfavorable phenomenon (e.g. reduction of seagrass patch size, abnormal change of leave color) is found persistent, it would be reported as soon as possible.

#### Intertidal Soft Shore Communities

6.5.38 **Table 3.3 and Figure 3.11 of Appendix I** show the types of substratum along the horizontal transect at every tidal level in all sampling zones. The relative distribution of different substrata was estimated by categorizing the substratum types (Gravels & Boulders / Sands / Soft mud) of the ten random quadrats along the horizontal transect. The distribution of substratum types varied among tidal levels and sampling zones:

- In TC1, high percentages of 'Gravels and Boulders' (70-80%) were recorded at all tidal levels. The minor substratum types were 'Sands' (20% at high and low tidal levels) and 'Soft mud' (10-20% at low and mid tidal levels).
- In TC2, the major substratum type was 'Sands' (60%) at high tidal level followed by 'Gravels and Boulders' (30%). The substratum types were recorded evenly at mid tidal level ('Soft mud' 40%, 'Sands' 30%, 'Gravels and Boulders' 30%). At low tidal level, the major substratum type was 'Soft mud' (70%) followed by 'Gravels and Boulders' (20%)
- In TC3, high percentages of 'Sands' (90-100%) were recorded at high and mid tidal levels. At low tidal level, the major substratum type was 'Gravels and Boulders' (90%).



- In ST, high percentages of 'Gravels and Boulders' (80-100%) were recorded at high and mid tidal levels. At low tidal level, the substratum types were recorded evenly ('Sands' 40%, 'Soft mud' 30%, 'Gravels and Boulders' 30%).
- 6.5.39 There was neither consistent vertical nor horizontal zonation pattern of substratum type in all sampling zones. Such heterogeneous variation should be caused by different hydrology (e.g. wave in different direction and intensity) received by the four sampling zones.
- 6.5.40 **Table 3.4 of Appendix I** lists the total abundance, density and number of taxon of every phylum in this survey. A total of 16420 individuals were recorded. Mollusca was clearly the most abundant phylum (total abundance 15648 ind., density 522 ind. m<sup>-2</sup>, relative abundance 95.3%). The second and third abundant phyla were Arthropoda (578 ind., 19 ind. m<sup>-2</sup>, 3.5%) and Annelida (91 ind., 3 ind. m<sup>-2</sup>, 0.6%) respectively. Relatively other phyla were very low in abundances (density ≤1 ind. m<sup>-2</sup>, relative abundance ≤0.2%). Moreover, the most diverse phylum was Mollusca (40 taxa) followed by Arthropoda (14 taxa) and Annelida (11 taxa). There were 1-3 taxa recorded only for other phyla. The taxonomic resolution and complete list of collected specimens are shown in Appendix IV and V respectively.
- 6.5.41 **Table 3.5 of Appendix I** shows the number of individual, relative abundance and density of each phylum in every sampling zone. The total abundance (2830-5517 ind.) varied among the four sampling zones while the phyla distributions were similar. In general, Mollusca was the most dominant phylum (no. of individuals: 2589-5336 ind.; relative abundance 91.5-97.0%; density 345-711 ind. m<sup>-2</sup>). Other phyla were much lower in number of individuals. Arthropoda was the second abundant phylum (119-172 ind.; 2.2-5.8%; 16-23 ind. m<sup>-2</sup>). Annelida was the third abundant phylum in TC2 and TC3 (33-40 ind.; 0.6-1.4%; 4-5 ind. m<sup>-2</sup>). Nemertea was relatively common in TC2 (17 ind.; 0.6%; 2 ind. m<sup>-2</sup>). Relatively other phyla were low in abundance in all sampling zones (≤ 0.5%).

#### Dominant species in every sampling zone

- 6.5.42 **Table 3.6 of Appendix I** lists the abundant species (relative abundance >10%) in every sampling zone. In the present survey, most of the listed abundant species were of low to moderate densities (50-250 ind. m<sup>-2</sup>). Few listed species of high or very high density (> 250 ind. m<sup>-2</sup>) were regarded as dominant species. Other listed species of lower density (< 50 ind. m<sup>-2</sup>) were regarded as common species.
- 6.5.43 In TC1, the major substratum was 'Gravels and Boulders' at all tidal levels. The most abundant gastropod was *Batillaria multiformis* at moderate-high densities (248-291 ind. m<sup>-2</sup>, relative abundance 35-50%) at high and mid tidal levels. Another abundant gastropod *Cerithidea djadjariensis* was at moderate densities (84-155 ind. m<sup>-2</sup>, 12-26%) at all tidal levels. Gastropod *Monodonta labio* (138-209 ind. m<sup>-2</sup>, 24-29%) and rock oyster *Saccostrea cucullata* (78-104 ind. m<sup>-2</sup>, 11-18%, attached on boulders) were at moderate densities at mid and low tidal levels.
- 6.5.44 In TC2, gastropod *Cerithidea djadjariensis* (297 ind. m<sup>-2</sup>, 60 %) was abundant at moderate-high density at high tidal level (major substratum: 'Sands') followed by common gastropod *Batillaria multiformis* (50 ind. m<sup>-2</sup>, 10 %). Moreover, gastropod *Cerithidea djadjariensis* was also abundant at moderate density (164 ind. m<sup>-2</sup>, 42 %) at mid tidal level (major substrata: 'Sands' and 'Soft mud') with common gastropod *Batillaria zonalis* (64 ind. m<sup>-2</sup>, 16 %) and rock oyster *Saccostrea cucullata* (44 ind. m<sup>-2</sup>, 11 %). There was no clearly abundant species at low tidal level (major substratum: 'Soft mud'). There were few common taxa at low-moderate densities such as gastropods *Cerithidea djadjariensis* (62 ind. m<sup>-2</sup>, 25 %), *Batillaria zonalis* (39 ind. m<sup>-2</sup>, 16 %), rock oyster *Saccostrea cucullata* (49 ind. m<sup>-2</sup>, 20 %) and barnacle *Balanus amphitrite* (38 ind. m<sup>-2</sup>, 15 %, attached on boulders).
- 6.5.45 In TC3, the major substratum was 'Sands' at both high and mid tidal levels. Gastropod *Cerithidea djadjariensis* was dominant species of high densities (412-444 ind. m<sup>-2</sup>, 53-57 %) followed by two abundant gastropods *Batillaria multiformis* (142-185 ind. m<sup>-2</sup>, 18-24 %) and *Cerithidea cingulata* (98-130 ind. m<sup>-2</sup>, 13-17 %). At low tidal level (major substratum: 'Gravels and Boulders'), rock oyster *Saccostrea cucullata* (265 ind. m<sup>-2</sup>, 40%) and gastropod *Monodonta labio* (194 ind. m<sup>-2</sup>, 30%) were abundant at moderate densities.

- 6.5.46 In ST, gastropod *Batillaria multiformis* was abundant at moderate density (207 ind. m<sup>-2</sup>, 35 %) followed by *Monodonta labio* (143 ind. m<sup>-2</sup>, 24 %) and limpet *Cellana toreuma* (97 ind. m<sup>-2</sup>, 16 %) at high tidal level (major substratum: 'Gravels and Boulders'). At mid tidal level (major substratum: 'Gravels and Boulders'), there were gastropods *Monodonta labio* (90 ind. m<sup>-2</sup>, 18 %), *Cerithidea djadjariensis* (82 ind. m<sup>-2</sup>, 16 %) and rock oyster *Saccostrea cucullata* (88 ind. m<sup>-2</sup>, 18%) at low-moderate densities. No single species was clearly abundant at low tidal level (major substrata: 'Sands' and 'Soft mud'). The gastropod *Cerithidea djadjariensis* was at low-moderate density (75 ind. m<sup>-2</sup>, 28 %) followed by common gastropod *Lunella coronata* (42 ind. m<sup>-2</sup>, 16%) and rock oyster *Saccostrea cucullata* (37 ind. m<sup>-2</sup>, 14%).
- 6.5.47 In general, there was no consistent zonation pattern of species distribution across all sampling zones and tidal levels. The species distribution should be determined by the type of substratum primarily. In general, gastropods *Cerithidea djadjariensis* (total number of individuals: 4746 ind., relative abundance 28.9%), *Batillaria multiformis* (3076 ind., 18.7%), *Cerithidea cingulata* (1015 ind., 6.2%) and *Batillaria zonalis* (519 ind., 3.2%) were the most commonly occurring species on sandy and soft mud substrata. Rock oyster *Saccostrea cucullata* (1887 ind., 11.5%), gastropods *Monodonta labio* (2181 ind., 13.3%) and *Lunella coronata* (473 ind., 2.9%) were commonly occurring species inhabiting gravel and boulders substratum.

#### Biodiversity and abundance of soft shore communities

- 6.5.48 **Table 3.7 of Appendix I** shows the mean values of species number, density, biodiversity index  $H'$  and species evenness  $J$  of soft shore communities at every tidal level and in every sampling zone. As mentioned above, the differences among sampling zones and tidal levels were determined by the major type of substratum primarily.
- 6.5.49 Among the sampling zones, the mean species numbers (10-12 spp. 0.25 m<sup>-2</sup>) and  $J$  (0.6-0.7) were similar. The mean densities of TC1 and TC3 (625-736 ind. m<sup>-2</sup>) were higher than TC2 and ST (377-451 ind. m<sup>-2</sup>). Due to different density, the mean  $H'$  of ST (1.7) was higher than that of TC1, TC2 (1.5) and TC3 (1.2).
- 6.5.50 Across the tidal levels, there was no consistent difference of the mean species number and  $H'$  in all sampling zones. For the mean density, there were generally decreasing trends in TC2, TC3 and ST from high to low tidal level. For the mean  $J$ , there was a slightly increasing trend from high to low tidal level in all sampling zones.
- 6.5.51 **Figures 3.12-3.15 of Appendix I** show the temporal changes of mean species number, mean density,  $H'$  and  $J$  at every tidal level and in every sampling zone along the sampling months. In general, all the biological parameters fluctuated seasonally throughout the monitoring period. Lower mean species number and density were recorded in dry season (Dec.) but the mean  $H'$  and  $J$  fluctuated within a stable range.
- 6.5.52 Focusing on the changes of mean density in ST, there were steady decreasing trends regardless of tidal levels since the beginning of monitoring period. It might be an unfavourable change that reflected environmental stresses. However, the mean densities increased again from Dec. 2016 to Jun. 2017 (present survey). The faunal populations were believed in recovery.

#### Impact of the HKLR project

- 6.5.53 It was the 19<sup>th</sup> survey of the EM&A programme during the construction period. Based on the results, impacts of the HKLR project were not detected on intertidal soft shore community. In case of other abnormal phenomena (e.g. rapid or consistent decline of fauna densities and species number) are observed, it would be reported as soon as possible.

## 6.6 Reference

- 6.6.1 Chan, K.K., Caley, K.J., 2003. Sandy Shores, Hong Kong Field Guides 4. The Department of Ecology & Biodiversity, The University of Hong Kong. pp 117.
- 6.6.2 Dai, A.Y., Yang, S.L., 1991. Crabs of the China Seas. China Ocean Press. Beijing.

- 6.6.3 Dong, Y.M., 1991. Fauna of ZheJiang Crustacea. Zhejiang Science and Technology Publishing House. ZheJiang.
- 6.6.4 EPD, 1997. Technical Memorandum on Environmental Impact Assessment Process (1<sup>st</sup> edition). Environmental Protection Department, HKSAR Government.
- 6.6.5 Fauchald, K., 1977. The polychaete worms. Definitions and keys to the orders, families and genera. Natural History Museum of Los Angeles County, Science Series 28. Los Angeles, U.S.A..
- 6.6.6 Fong, C.W., 1998. Distribution of Hong Kong seagrasses. In: *Porcupine!* No. 18. The School of Biological Sciences, The University of Hong Kong, in collaboration with Kadoorie Farm & Botanic Garden Fauna Conservation Department, p10-12.
- 6.6.7 Li, H.Y., 2008. The Conservation of Horseshoe Crabs in Hong Kong. MPhil Thesis, City University of Hong Kong, pp 277.
- 6.6.8 Longstaff, B.J., Dennison, W.C., 1999. Seagrass survival during pulsed turbidity events: the effects of light deprivation on the seagrasses *Halodule pinifolia* and *Halophila ovalis*. *Aquatic Botany* 65 (1-4), 105-121.
- 6.6.9 Longstaff, B.J., Loneragan, N.R., O'Donohue, M.J., Dennison, W.C., 1999. Effects of light deprivation on the survival and recovery of the seagrass *Halophila ovalis* (R. Br.) Hook. *Journal of Experimental Marine Biology and Ecology* 234 (1), 1-27.
- 6.6.10 Nakaoka, M., Aioi, K., 1999. Growth of seagrass *Halophila ovalis* at dugong trails compared to existing within-patch variation in a Thailand intertidal flat. *Marine Ecology Progress Series* 184, 97-103.
- 6.6.11 Pielou, E.C., 1966. Shannon's formula as a measure of species diversity: its use and misuse. *American Naturalist* 100, 463-465.
- 6.6.12 Qi, Z.Y., 2004. *Seashells of China*. China Ocean Press. Beijing, China.
- 6.6.13 Qin, H., Chiu, H., Morton, B., 1998. Nursery beaches for Horseshoe Crabs in Hong Kong. In: *Porcupine!* No. 18. The School of Biological Sciences, The University of Hong Kong, in collaboration with Kadoorie Farm & Botanic Garden Fauna Conservation Department, p9-10.
- 6.6.14 Shannon, C.E., Weaver, W., 1963. *The Mathematical Theory of Communication*. Urbana: University of Illinois Press, USA.
- 6.6.15 Shin, P.K.S., Li, H.Y., Cheung, S.G., 2009. Horseshoe Crabs in Hong Kong: Current Population Status and Human Exploitation. *Biology and Conservation of Horseshoe Crabs (part 2)*, 347-360.
- 6.6.16 Supanwanid, C., 1996. Recovery of the seagrass *Halophila ovalis* after grazing by dugong. In: Kuo, J., Philips, R.C., Walker, D.I., Kirkman, H. (eds), *Seagrass biology: Proc Int workshop, Rottenest Island, Western Australia*. Faculty of Science, The University of Western Australia, Nedlands, 315-318.
- 6.6.17 Vermaat, J.E., Agawin, N.S.R., Duarte, C.M., Fortes, M.D., Marba, N., Uri, J.S., 1995. Meadow maintenance, growth and productivity of a mixed Philippine seagrass bed. *Marine Ecology Progress Series* 124, 215-225.
- 6.6.18 Yang, D.J., Sun, R.P., 1988. Polychaetous annelids commonly seen from the Chinese waters (Chinese version). China Agriculture Press, China.

## 7 Environmental Site Inspection and Audit

### 7.1 Site Inspection

7.1.1 Site Inspections were carried out on a weekly basis to monitor the implementation of proper environmental pollution control and mitigation measures for the Project. During the reporting month, five site inspections were carried out on 1, 7, 14, 21 and 30 June 2017.

7.1.2 A summary of observations found during the site inspections and the follow up actions taken by the Contractor are described in **Table 7.1**.

**Table 7.1 Summary of Environmental Site Inspections**

Date of Audit	Observations	Actions Taken by Contractor / Recommendation	Date of Observations Closed
26 May 2017	<ol style="list-style-type: none"> <li>1. Waste was observed at S25.</li> <li>2. Oil stain was observed on the ground of S25.</li> <li>3. Stagnant water was observed at S25.</li> <li>4. Waste accumulated was observed at S25.</li> <li>5. Silt curtain with gap was observed at Portion X.</li> </ol>	<ol style="list-style-type: none"> <li>1. The waste was removed from S25.</li> <li>2. The oil stain was removed from the ground of S25.</li> <li>3. The stagnant water was removed from S25.</li> <li>4. The accumulated waste was removed at S25.</li> <li>5. The silt curtain was properly maintained at Portion X.</li> </ol>	1 Jun 2017
1 Jun 2017	<ol style="list-style-type: none"> <li>1. Waste was observed at HMA.</li> <li>2. Waste was scattered on the ground at N26.</li> <li>3. Gaps of silt curtain were observed at Portion X.</li> <li>4. Concrete waste was observed on the ground at S15.</li> <li>5. A skip was overloaded with waste at S15.</li> </ol>	<ol style="list-style-type: none"> <li>1. The waste was removed from HMA.</li> <li>2. The waste was removed from N26.</li> <li>3. The gaps of silt curtain were closed at Portion X.</li> <li>4. The concrete waste was removed from S15.</li> <li>5. The waste was removed from S15.</li> </ol>	7 Jun 2017
7 Jun 2017	<ol style="list-style-type: none"> <li>1. Concrete waste was observed at S15.</li> <li>2. Gaps of silt curtain were observed at Portion X.</li> <li>3. A skip was overloaded with waste at S15.</li> <li>4. Dust emission was observed during vehicle movement at S25.</li> <li>5. Waste was observed at N1.</li> </ol>	<ol style="list-style-type: none"> <li>1. The concrete waste was removed from S15.</li> <li>2. The gaps of silt curtain were closed at Portion X.</li> <li>3. The waste was removed from the overloaded skip at S15.</li> <li>4. Water spraying was provided to suppress dust emission caused by vehicle movement S25.</li> <li>5. The waste was removed from N1.</li> </ol>	14 Jun 2017
14 Jun 2017	<ol style="list-style-type: none"> <li>1. Exposed soil surface was observed at N1.</li> <li>2. Gaps of silt curtain were observed at Portion X.</li> <li>3. Wheels of dump truck was not washed sufficiently and muddy</li> </ol>	<ol style="list-style-type: none"> <li>1. The exposed soil surface was hard-paved at N1.</li> <li>2. The gaps of silt curtain were closed at Portion X.</li> <li>3. Sufficient wheel washing was provided for dump trucks before leaving the site at S8.</li> </ol>	21 Jun 2017



Date of Audit	Observations	Actions Taken by Contractor / Recommendation	Date of Observations Closed
	<p>tracks were observed at the entrance / exit of S8.</p> <p>4. Waste was accumulated in Ventilation Building.</p> <p>5. Stockpile of dusty material was not covered properly at N1.</p>	<p>No muddy track was observed at the entrance / exit of S8.</p> <p>4. The accumulated waste was removed from Ventilation Building.</p> <p>5. The stockpile of dusty material was cover properly at N1.</p>	
21 Jun 2017	<p>1. Waste was observed at N1.</p> <p>2. Stagnant water was observed at HMA.</p> <p>3. More than 20 bags of cement were observed without properly cover at HMA.</p> <p>4. Gaps of silt curtain were observed at Portion X.</p>	<p>1. The waste was removed from N1.</p> <p>2. The stagnant water was removed from HMA.</p> <p>3. The cement bags were removed from HMA.</p> <p>4. The gaps of silt curtain were closed at Portion X.</p>	30 Jun 2017
30 Jun 2017	<p>1. Silt curtain with gap was observed at Portion X.</p> <p>2. Oil drum was observed without drip tray at N26.</p> <p>3. Concrete waste was observed at N26.</p> <p>4. Wastewater treatment facility was not connected properly at N26.</p> <p>5. Waste was not properly collected by using waste separation facilities at N26.</p> <p>6. Stagnant water was observed at N26.</p> <p>7. Inadequate wheel washing facility was observed at N26.</p>	<p><u>The Contractor was recommended to:</u></p> <p>1. Maintain the silt curtain properly at Portion X.</p> <p>2. Provide drip tray for the oil drum or remove it immediately from N26.</p> <p>3. Remove the concrete waste from N26.</p> <p>4. Connect the wastewater treatment facility properly at N26.</p> <p>5. Provide waste separation facilities at N26.</p> <p>6. Remove the stagnant water at N26.</p> <p>7. Provide adequate wheel washing facility at N26.</p>	Follow-up actions for the observations issued for the last weekly site inspection of the reporting month will be inspected during the next site inspections

7.1.3 The Contractor has rectified most of the observations as identified during environmental site inspections within the reporting month. Follow-up actions for outstanding observations will be inspected during the next site inspections.

## 7.2 Advice on the Solid and Liquid Waste Management Status

7.2.1 The Contractor registered as a chemical waste producer for the Project. Sufficient numbers of receptacles were available for general refuse collection and sorting.

7.2.2 Monthly summary of waste flow table is detailed in **Appendix J**.

7.2.3 The Contractor was reminded that chemical waste containers should be properly treated and stored temporarily in designated chemical waste storage area on site in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes.

## 7.3 Environmental Licenses and Permits



- 7.3.1 The valid environmental licenses and permits during the reporting month are summarized in **Appendix L**.

#### 7.4 Implementation Status of Environmental Mitigation Measures

- 7.4.1 In response to the site audit findings, the Contractors have rectified most of the observations as identified during environmental site inspections during the reporting month. Follow-up actions for outstanding observations will be inspected during the next site inspections.
- 7.4.2 A summary of the Implementation Schedule of Environmental Mitigation Measures (EMIS) is presented in **Appendix M**. Most of the necessary mitigation measures were implemented properly.
- 7.4.3 Regular marine travel route for marine vessels were implemented properly in accordance to the submitted plan and relevant records were kept properly.
- 7.4.4 Dolphin Watching Plan was implemented during the reporting month. No dolphins inside the silt curtain were observed. The relevant records were kept properly.

#### 7.5 Summary of Exceedances of the Environmental Quality Performance Limit

- 7.5.1 No Action and Limit Level exceedances of 1-hr TSP and 24-hr TSP were recorded at AMS5 and AMS6 during the reporting month.
- 7.5.2 For construction noise, no Action and Limit Level exceedances were recorded at the monitoring station during the reporting month.
- 7.5.1 For marine water quality monitoring, no Action Level and Limit Level exceedances of dissolved oxygen, turbidity and suspended solid levels were recorded by the ET of Contract No. HY/2010/02 and Contract No. HY/2011/09 during the reporting month.

#### 7.6 Summary of Complaints, Notification of Summons and Successful Prosecution

- 7.6.1 For Environmental Complaint No. COM-2017-095(3) mentioned in previously Monthly EM&A Report for May 2017, it was considered that the complaint was likely related to Contract No. HY/2011/03. The Contractor has implemented the following measures to minimize the potential noise impact:
- Additional noise barriers have been erected in the active working area to further mitigate the associated noise emissions as far as practicable;
  - Cover the breaker tip with acoustic material;
  - Noise barriers have been located as close as possible to the noise source. Also, gaps and openings at joints in the barriers material have been minimized;
  - Speed up of construction works in order to shorten the duration noise impact/nuisance to the surrounding;
  - Minimize the quantities of noisy plant as far as practicable; and
  - Regular review of working duration and switch off all unnecessary machinery and plant.
- 7.6.2 There was no complaint received in relation to the environmental impacts during the reporting period.
- 7.6.3 There was no complaints received in relation to the environmental impacts during the reporting month. The details of cumulative statistics of Environmental Complaints are provided in **Appendix K**.

7.6.4 No notification of summons and prosecution was received during the reporting period. Statistics on notifications of summons and successful prosecutions are summarized in **Appendix N**.

## 8 Future Key Issues

### 8.1 Construction Programme for the Coming Months

8.1.1 As informed by the Contractor, the major construction activities for July 2017 are summarized in **Table 8.1**.

**Table 8.1 Construction Activities for July 2017**

Site Area	Description of Activities
WA7	Stockpiling
Portion X	Removal of toe loading
Portion X	Dismantling/Trimming of Temporary 40mm Stone Platform for Construction of Seawall
Portion X	Construction of Seawall
Portion X	Loading and Unloading of Filling Materials
Portion X	Backfilling at Scenic Hill Tunnel (Cut & Cover Tunnel)
Portion X	Excavation for HKBCF to Airport Tunnel & Construction of Tunnel Box structure
Portion X	Excavation for Diversion of Culvert PR14
Airport Road	Works for Diversion of Airport Road
Airport Road / Airport Express Line / East Coast Road	Utilities Detection
Airport Road / Airport Express Line/ East Coast Road	Establishment of Site Access
Shaft 3 Extension North Shaft	Construction of Tunnel Box Structure
Airport Road	Excavation and Lateral Support Works & Construction of Tunnel Box Structure for HKBCF to Airport Tunnel West (Cut & Cover Tunnel)
Portion X	Excavation and Lateral Support Works & Construction of Tunnel Box Structure for HKBCF to Airport Tunnel East (Cut & Cover Tunnel)
Portion X	Sub-structure & Superstructure Works for Highway Operation and Maintenance Area Building
West Portal	Superstructure Works for Scenic Hill Tunnel West Portal Ventilation building

### 8.2 Environmental Monitoring Schedule for the Coming Month

8.2.1 The tentative schedule for environmental monitoring in July 2017 is provided in **Appendix D**.

## 9 Conclusions

### 9.1 Conclusions

9.1.1 The construction phase and EM&A programme of the Contract commenced on 17 October 2012. This is the fifty-seventh Monthly EM&A report for the Contract which summarizes the monitoring results and audit findings of the EM&A programme during the reporting period from 1 to 30 June 2017.

#### **Air Quality**

9.1.2 No Action and Limit Level exceedances of 1-hr TSP and 24-hr TSP were recorded at AMS5 and AMS6 during the reporting month.

#### **Noise**

9.1.3 For construction noise, no Action and Limit Level exceedances were recorded at the monitoring station during the reporting month.

#### **Water Quality**

9.1.4 For marine water quality monitoring, no Action Level and Limit Level exceedances of dissolved oxygen, turbidity and suspended solid levels were recorded by the ET of Contract No. HY/2010/02 and Contract No. HY/2011/09 during the reporting month.

#### **Dolphin**

9.1.5 During the June's surveys of the Chinese White Dolphin, no adverse impact from the activities of this construction project on Chinese White Dolphins was noticeable from general observations.

9.1.6 Due to monthly variation in dolphin occurrence within the study area, it would be more appropriate to draw conclusion on whether any impacts on dolphins have been detected related to the construction activities of this project in the quarterly EM&A report, where comparison on distribution, group size and encounter rates of dolphins between the quarterly impact monitoring period (June 2017 – August 2017) and baseline monitoring period (3-month period) will be made.

#### **Mudflat**

9.1.7 This measurement result was generally and relatively higher than the baseline measurement at S1, S2, S3 and S4. The mudflat level is continuously increased.

9.1.8 The June 2017 survey results indicate that the impacts of the HKLR project could not be detected on horseshoe crabs and intertidal soft shore community. There was clear recolonization of both seagrass species *Halophila ovalis* and *Zostera japonica* in ST. Hence, the negative impact of HKLR project on the seagrass was not significant.

#### **Environmental Site Inspection and Audit**

9.1.9 Environmental site inspections were carried out on 1, 7, 14, 21 and 30 June 2017. Recommendations on remedial actions were given to the Contractors for the deficiencies identified during the site inspections.

9.1.10 For Environmental Complaint No. COM-2017-095(3) mentioned in previously Monthly EM&A Report for May 2017, it was considered that the complaint was likely related to Contract No. HY/2011/03.

9.1.11 There was no received in relation to the environmental impact during the reporting period.

9.1.12 No notification of summons and prosecution was received during the reporting period.




## FIGURES

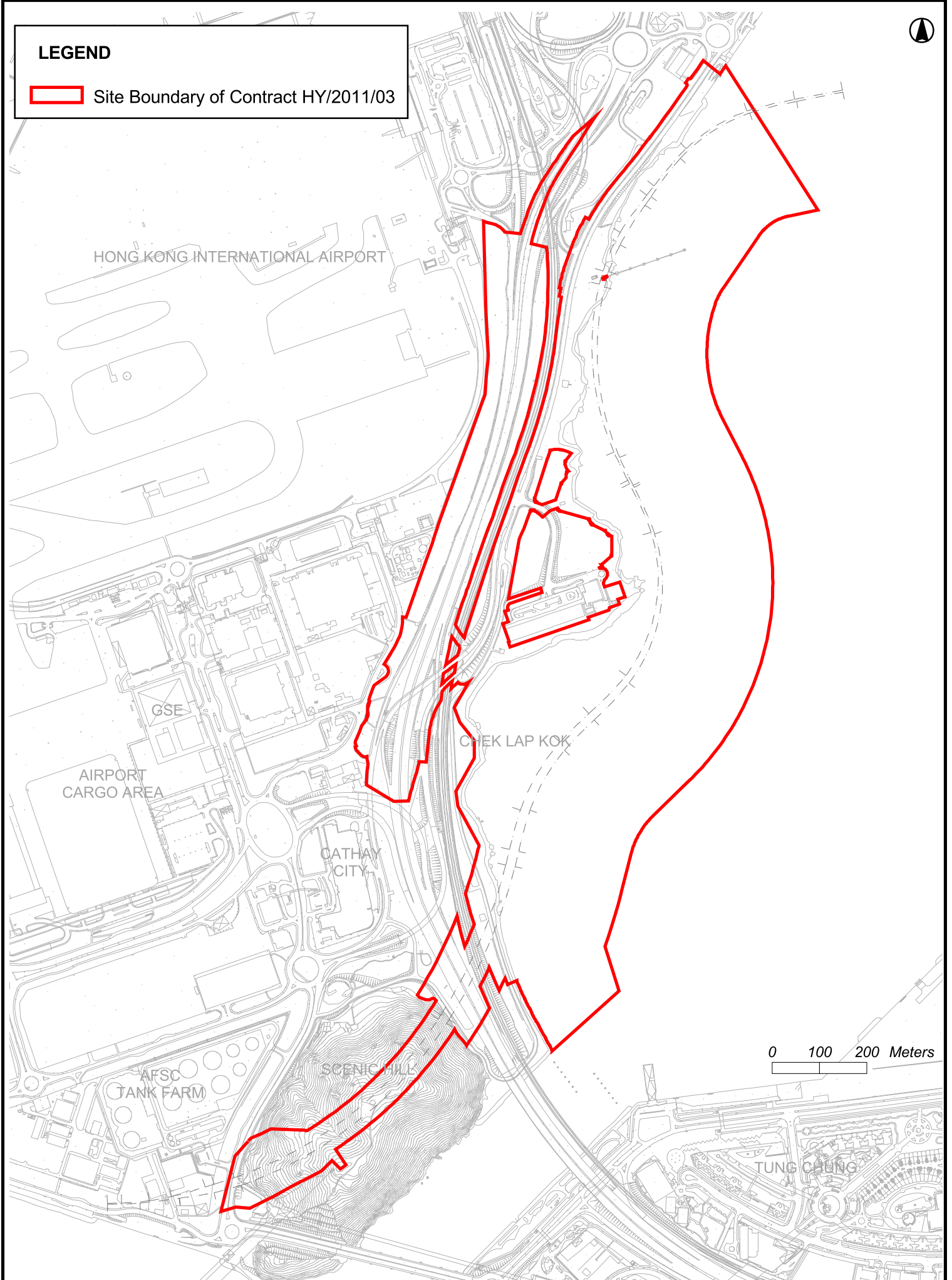
---



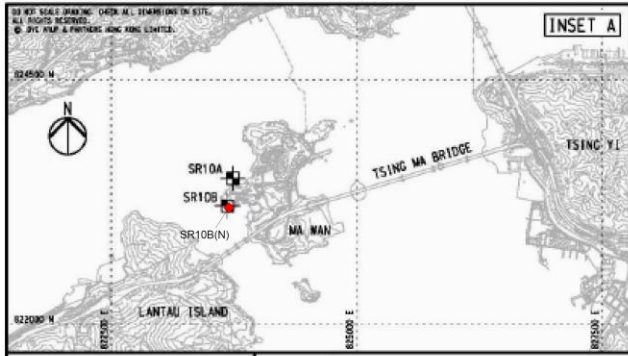


**LEGEND**

 Site Boundary of Contract HY/2011/03



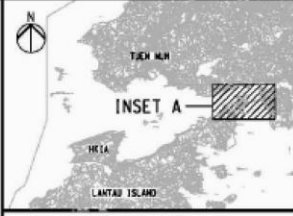
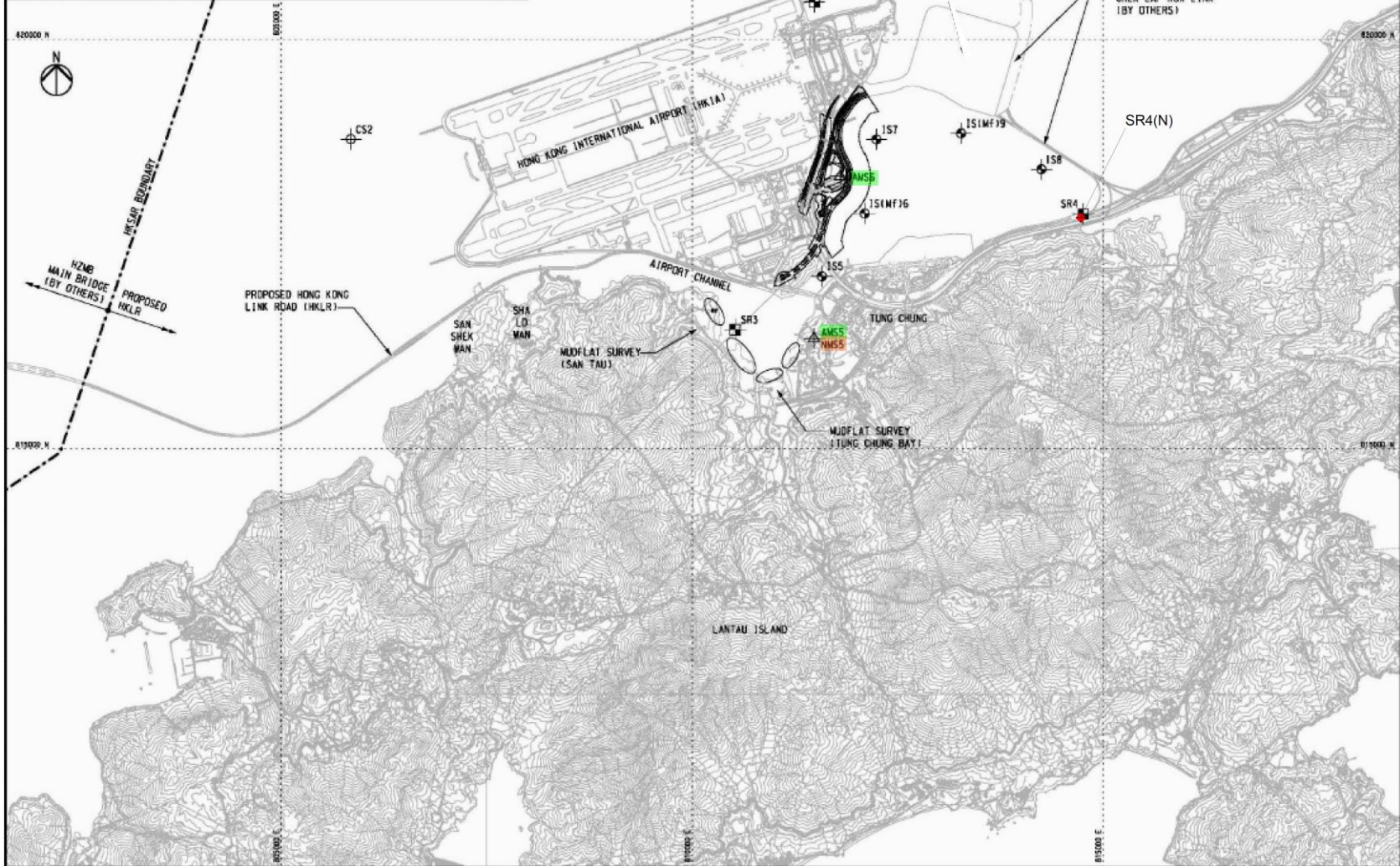
**Figure 1.1 Location of the Site**



Water Monitoring Station

Monitoring Stations	Coordinates	
	Easting	Northing
IS5	811579	817106
IS(M)6	812101	817873
IS7	812244	818777
IS8	814251	818412
IS(M)9	813273	818850
IS10	812577	820670
SR3	810525	816456
SR4	814760	817867
SR5	811489	820455
SR10A	823741	823495
SR10B	823686	823213
CS2	805849	818780
CS(M)5	817900	821129

Monitoring Stations	Easting	Northing
IS10(N)	812942	820881
SR4(N)	814705	817859
SR5(N)	812569	821475
SR10B(N)	823683	823187



**KEY PLAN**

- NOTES**
1. EXACT LOCATIONS OF MONITORING STATIONS ARE TO BE DETERMINED ON SITE. THE CONTRACTOR AND ENVIRONMENTAL TEAM (ET) SHALL AGREE WITH THE INDEPENDENT ENVIRONMENTAL CHECKER (IEC) AND ENVIRONMENTAL PROJECT OFFICER (EMPO) AND APPROVED BY THE SUPERVISING OFFICER FOR THE PROPOSED LOCATION OF THE MONITORING STATIONS.
  2. THE LOCATION AND EXTENT OF MUDFLAT SURVEY SHOWN ON THIS DRAWING ARE APPROXIMATE ONLY. THE CONTRACTOR AND ET SHALL DETERMINE AND AGREE WITH THE IEC, EMPO AND SUPERVISING OFFICER THE DETAILS OF THE MUDFLAT SURVEY IN ACCORDANCE WITH THE REQUIREMENTS STIPULATED IN THE EIA REPORTS AND EMMA MANUALS.
  3. THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS STIPULATED IN THE EMMA MANUALS TO CONDUCT THE ENVIRONMENTAL MONITORING AND AUDIT WORKS.

- LEGEND**
- BOUNDARY OF CONTRACT HY2011/03
  - IS IMPACT STATIONS (WATER QUALITY)
  - CS CONTROL/FIELD STATIONS (WATER QUALITY)
  - SR SENSITIVE RECEIVERS STATIONS (WATER QUALITY)
  - ST STATION FOR SENSITIVITY TEST RESULT (WATER QUALITY)
  - AMS MONITORING STATIONS (AIR QUALITY)
  - NMS MONITORING STATIONS (NOISE)
  - MUDFLAT ECOLOGICAL SAMPLING LOCATION

Rev	Description	By	Date
A	TENDER ADDENDUM ISSUE	AW	11/11

Consultant  
**ARUP** 奧雅納工程顧問  
 One Aup & Partners Hong Kong Limited

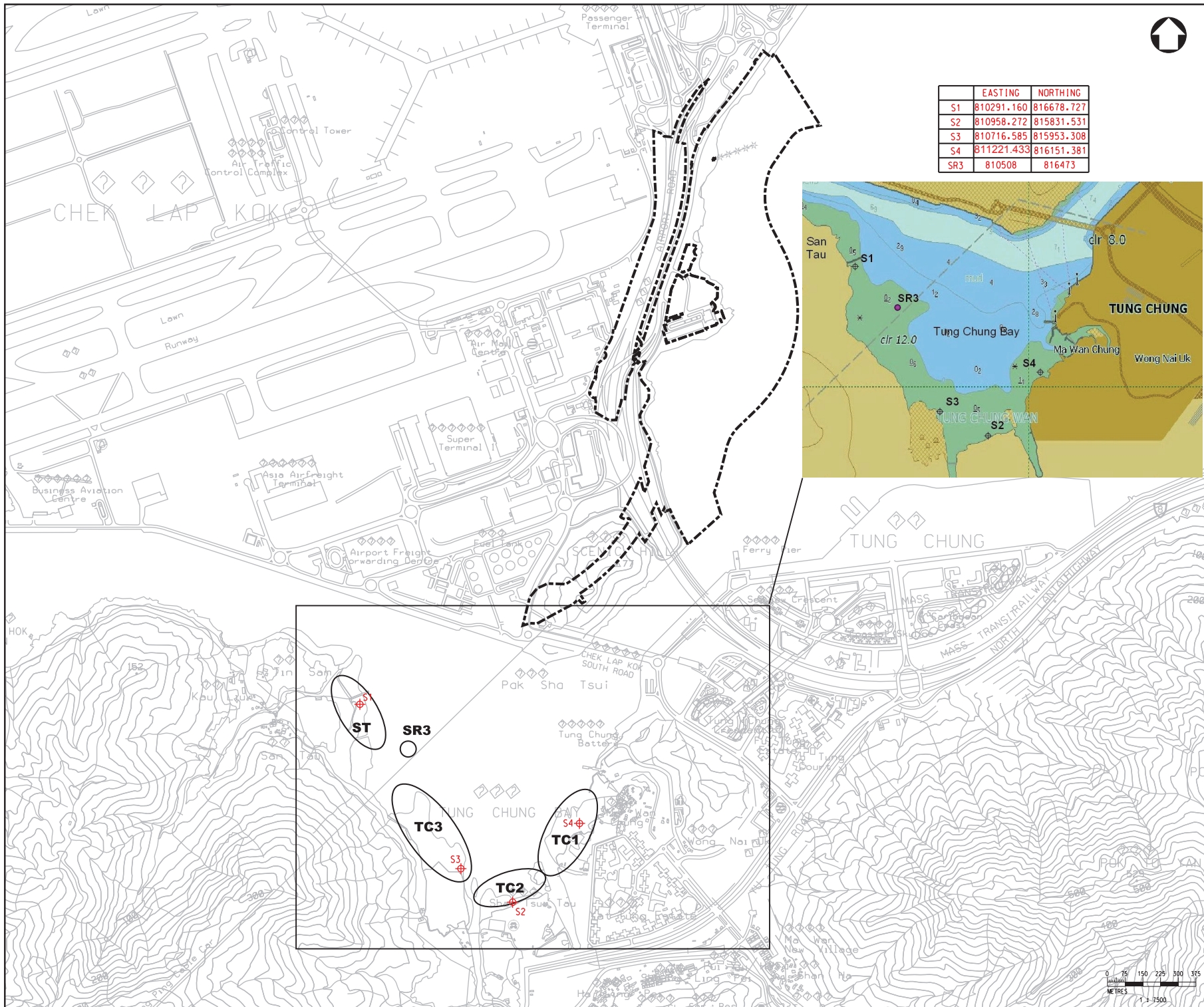
Contract No. and Title  
 Contract No. HY/2011/03  
 Hong Kong-Zhuhai-Macao Bridge  
 Hong Kong Link Road -  
 Section Between Scenic Hill and  
 Hong Kong Boundary Crossing Facilities

**ENVIRONMENTAL MONITORING STATIONS**

Drawing	Figure 2.1	Rev.	A
Drawn BY	Date	Checked BY	Approved BY
	11/11	AW	SA
Scale	As shown	Scale	







	EASTING	NORTHING
S1	810291.160	816678.727
S2	810958.272	815831.531
S3	810716.585	815953.308
S4	811221.433	816151.381
SR3	810508	816473

**LEGEND:**

- WORKS BOUNDARY
- SR3**  
WATER QUALITY MONITORING STATION
- SAMPLING ZONE
- MEASUREMENT POINT  
SEDIMENTATION RATE

Rev	Description	By	Date

Supervising Officer  
**ARUP** 奧雅納工程顧問  
 Ove Arup & Partners Hong Kong Limited

Contractor  
**中國建築工程(香港)有限公司**  
 CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

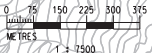
Contractor's Designer  
**ATKINS 阿特金斯**

Contract No. and Titles  
 Contract No. HY/2011/03  
 Hong Kong-Zhuhai-Macao Bridge  
 Hong Kong Link Road -  
 Section Between Scenic Hill and  
 Hong Kong Boundary Crossing Facilities

Drawing title  
**MUDFLAT SURVEY AREAS**

Drawing no.	<b>FIGURE 6.1</b>	Rev.	-
Drawn	ACL	Date	26 SEP 2012
Checked	-	Approved	-
Scale	1 : 7500	Status	-

COPYRIGHT RESERVED  
**路政署 HIGHWAYS DEPARTMENT**  
 港珠澳大橋香港工程管理處  
 Hong Kong - Zhuhai - Macao Bridge  
 Hong Kong Project Management Office





## APPENDIX A

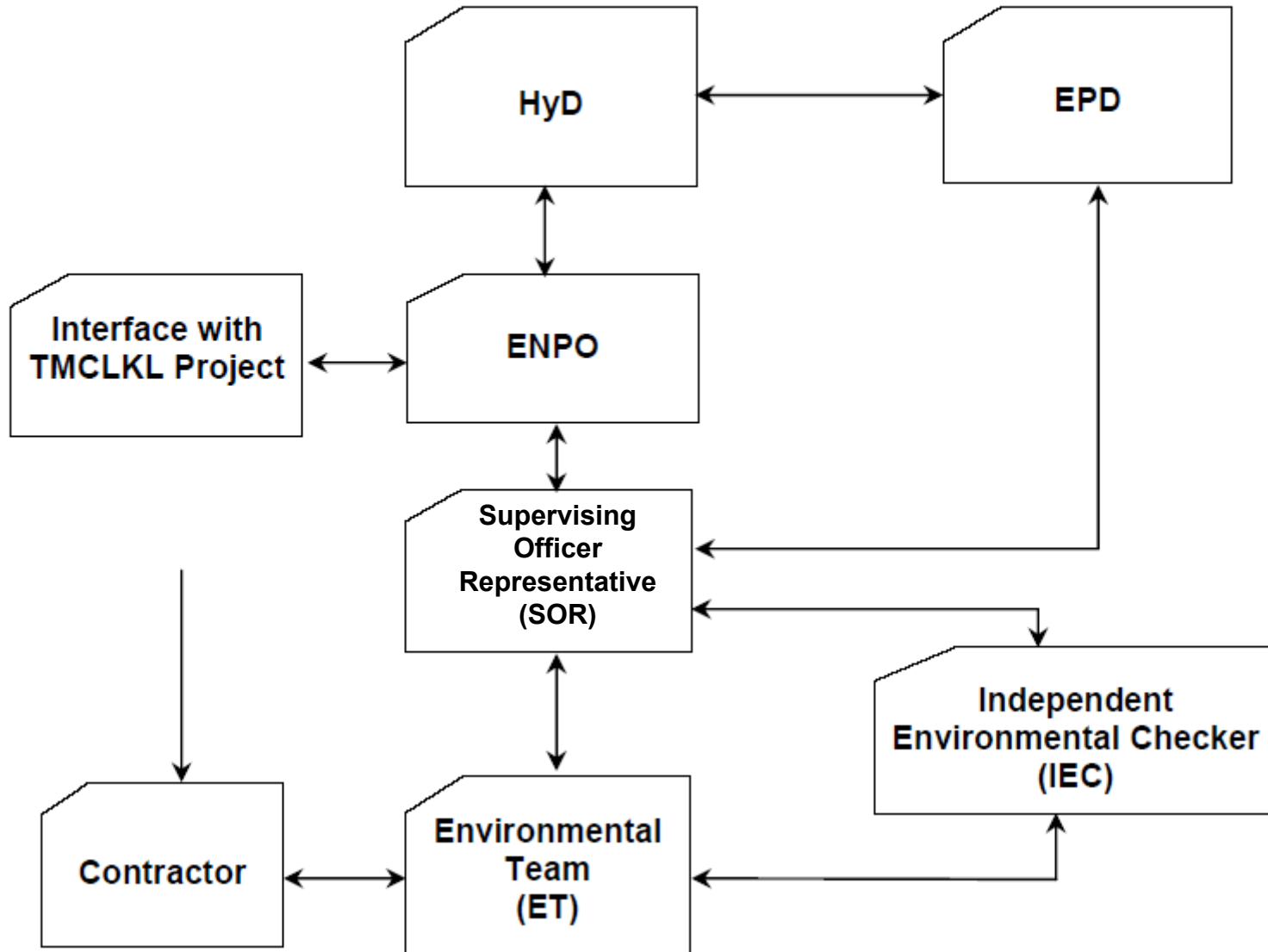
---

### Environmental Management Structure



# Project Organization for Environmental Works

↔ Line of communication





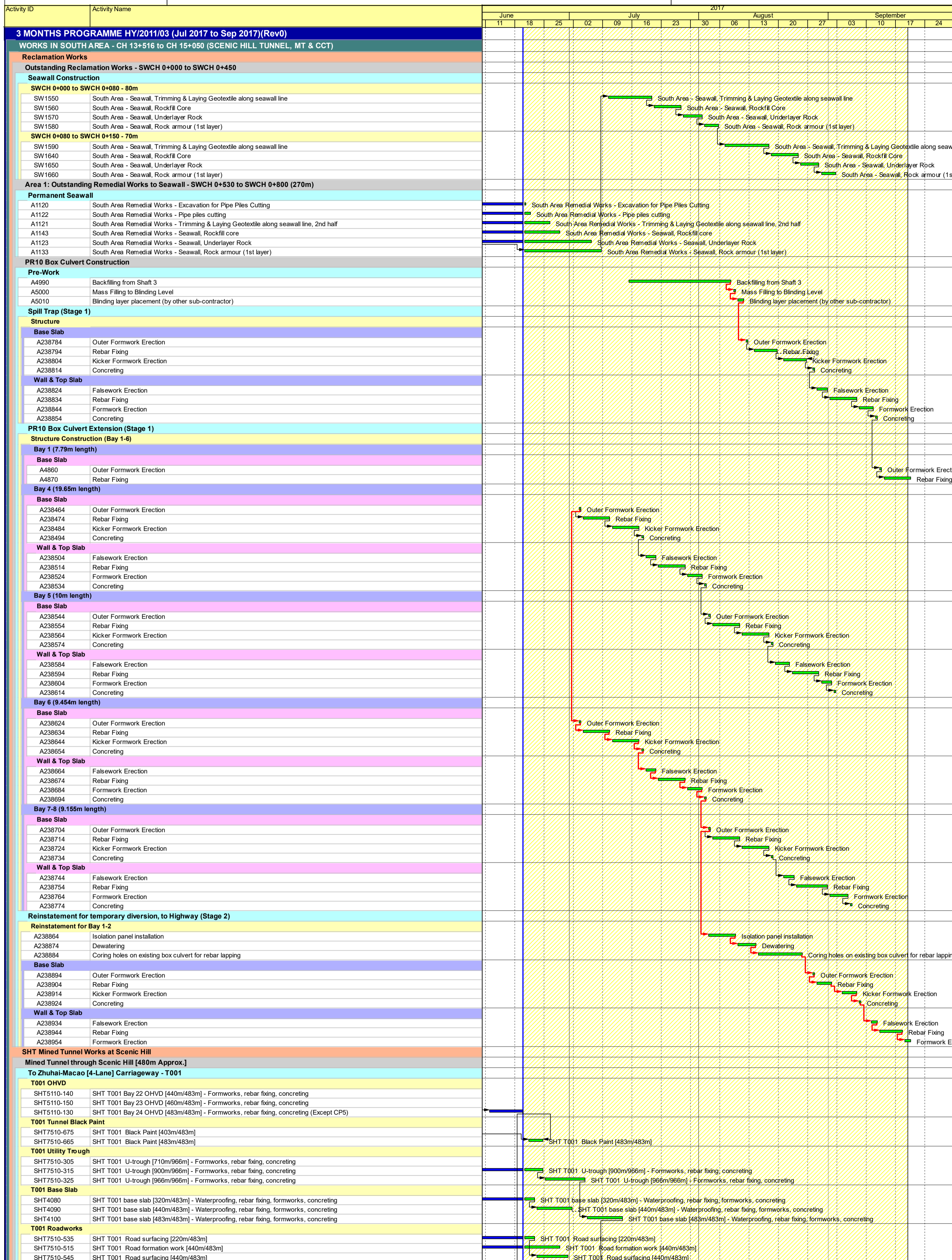
## APPENDIX B

---

### Construction Programme







- Works Programme
- Works Programme
- Works Programme
- Milestone
- Milestone
- Works Programme

**China State Construction Engineering (Hong Kong) Ltd -**

**Contract No. HY/2011/03 - HZMB, Hong Kong Link Road**

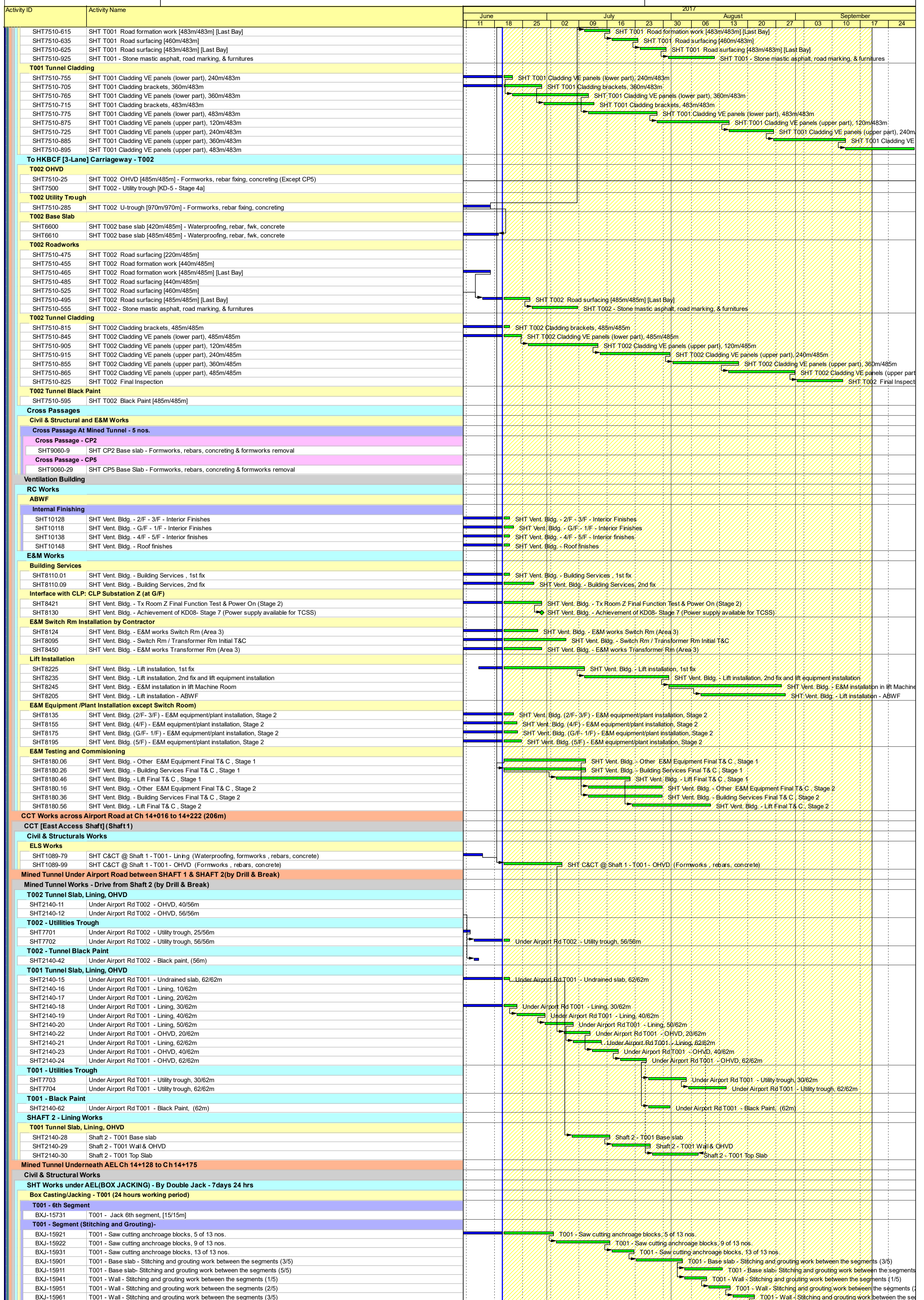
**, Section between Scenic Hill and HKBCF**

Prepared by MM			
Date	Revision	Checked	Approved
08-Jul-17		WC	SYT

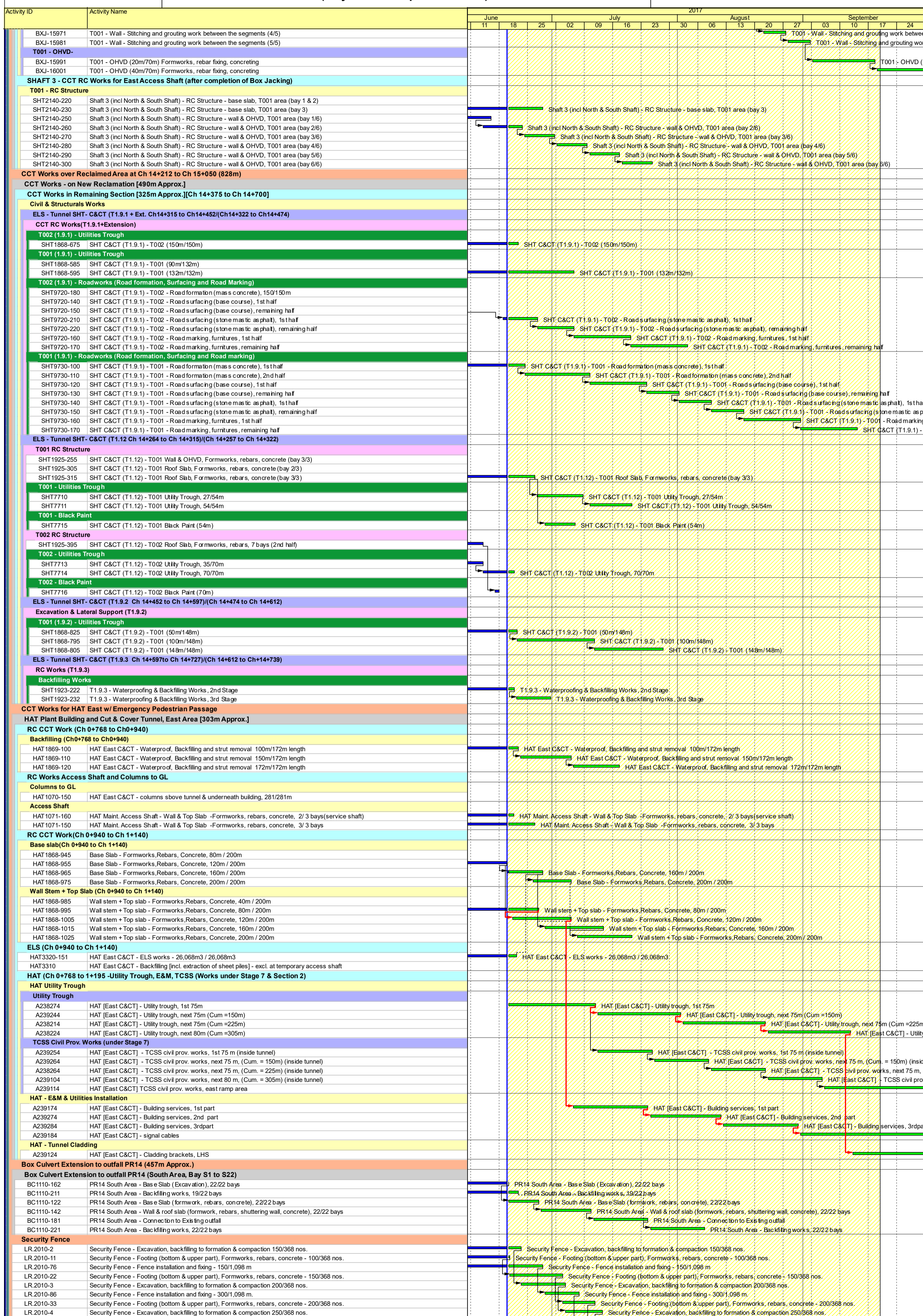
**中國建築工程(香港)有限公司**

**CHINA STATE CONSTRUCTION ENGRG. (HONG KONG) LTD.**







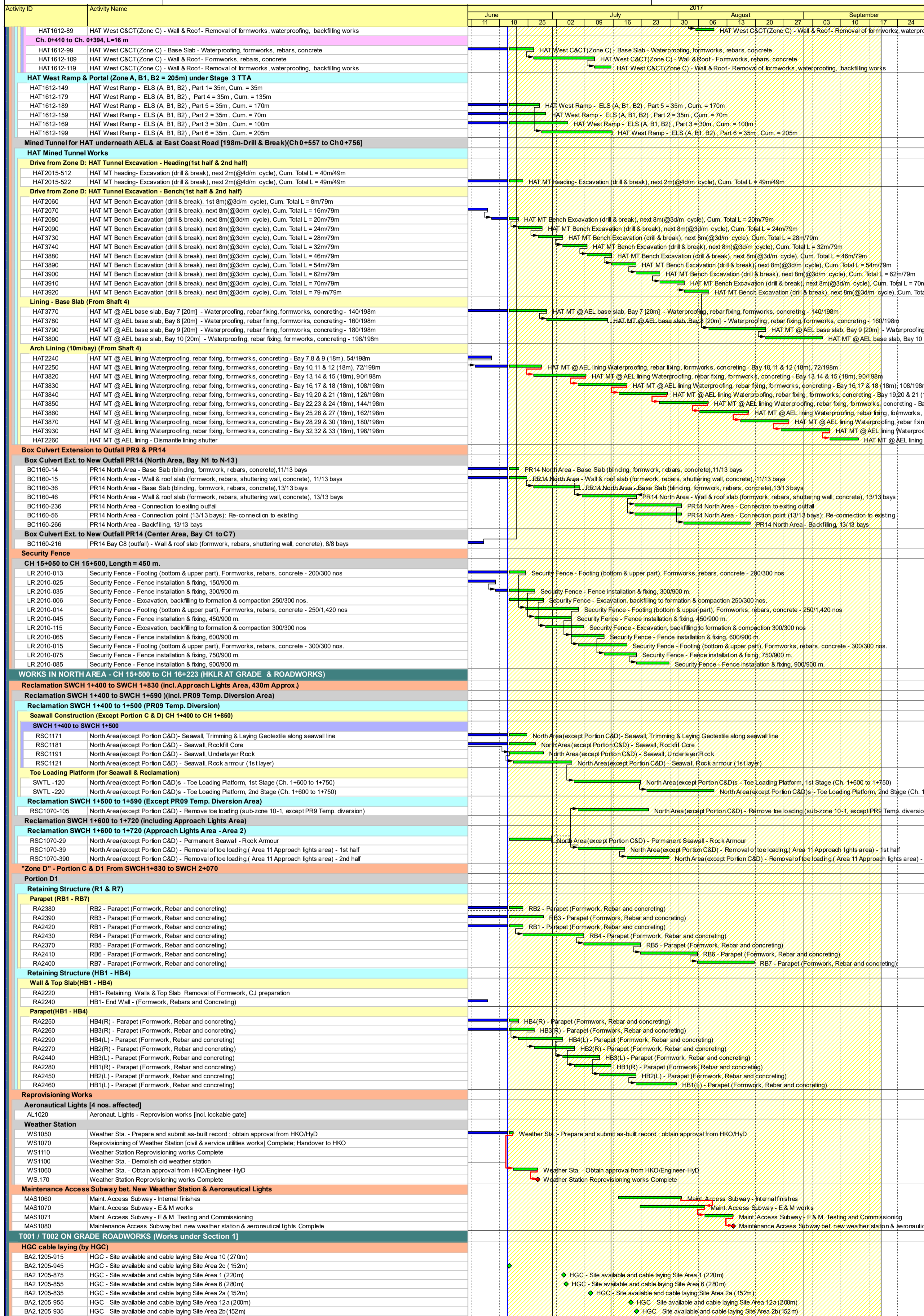








(July 2017 to September 2017)





Activity ID	Activity Name	2017															
		June			July			August			September						
		11	18	25	02	09	16	23	30	06	13	20	27	03	10	17	24
BA2.1205-825	HGC - Site available and cable laying Site Area 5 (112m)																
BA2.1205-905	HGC - Site available and cable laying Site Area 9 (165m)																
BA2.1205-965	HGC - Site available and cable laying Site Area 12b (237m)																
BA2.1205-975	HGC - Site available and cable laying Site Area 12c (240m)																
BA2.1205-925	HGC - Site available and cable laying Site Area 11 (142m)																
BA2.1205-885	HGC - Site available and cable laying Site Area 7 (110m)																
BA2.1205-895	HGC - Site available and cable laying Site Area 8 (110m)																
BA2.1205-845	HGC - Site available and cable laying Site Area 3 (80m)																
<b>Roadworks</b>																	
<b>CH 15+500 to CH 16+045</b>																	
LR.1205-956	LR SHT - HKBCF (CH 15+500 to CH 16+045) - Roadbase, base course, 1st half																
LR.1205-946	LR SHT - HKBCF (CH 15+500 to CH 16+045) - Subbase course, remaining half																
LR.1205-966	LR SHT - HKBCF (CH 15+500 to CH 16+045) - Roadbase, base course, remaining half																
LR.1205-976	LR SHT - HKBCF (CH 15+500 to CH 16+045) - Road surfacing, 1st half																
LR.1205-1016	LR SHT - HKBCF (CH 15+500 to CH 16+045) - Road surfacing, remaining half																
<b>CH 16+045 to CH 16+223</b>																	
LR.1205-996	LR SHT - HKBCF (CH 16+045 to CH 16+223) - Roadbase, base course																
LR.1205-1006	LR SHT - HKBCF (CH 16+045 to CH 16+223) - Road surfacing																
<b>Security Fence - HKLR</b>																	
<b>CH 15+500 to CH 16+150, Length = 650 m</b>																	
LR.2000-011	Security Fence - Footing (bottom part), Formworks, rebar, concrete - 100/434 nos.																
LR.2000-003	Security Fence - Excavation, backfilling to formation and compaction 200/434 nos.																
LR.2000-034	Security Fence - Fence installation and fixing, 150/1,296 m																
LR.2000-020	Security Fence - Footing (upper part) + beam, Formworks, rebar, concrete - 50/434 nos.																
LR.2000-012	Security Fence - Footing (bottom part), Formworks, rebar, concrete - 200/434 nos.																
LR.2000-044	Security Fence - Fence installation and fixing, 300/1,296 m																
LR.2000-004	Security Fence - Excavation, backfilling to formation and compaction 300/434 nos.																
LR.2000-014	Security Fence - Footing (bottom part), Formworks, rebar, concrete - 300/434 nos.																
LR.2000-054	Security Fence - Fence installation and fixing, 450/1,296 m																
LR.2000-021	Security Fence - Footing (upper part) + beam, Formworks, rebar, concrete - 100/434 nos.																
LR.2000-005	Security Fence - Excavation, backfilling to formation and compaction 434/434 nos.																
LR.2000-064	Security Fence - Fence installation and fixing, 600/1,296 m																
LR.2000-015	Security Fence - Footing (bottom part), Formworks, rebar, concrete - 434/434 nos.																
LR.2000-074	Security Fence - Fence installation and fixing, 750/1,296 m																
LR.2000-022	Security Fence - Footing (upper part) + beam, Formworks, rebar, concrete - 200/434 nos.																
LR.2000-084	Security Fence - Fence installation and fixing, 900/1,296 m																
LR.2000-094	Security Fence - Fence installation and fixing, 1,050/1,296 m																
LR.2000-023	Security Fence - Footing (upper part) + beam, Formworks, rebar, concrete - 300/434 nos.																
LR.2000-104	Security Fence - Fence installation and fixing, 1,296/1,296 m																
LR.2000-024	Security Fence - Footing (upper part) + beam, Formworks, rebar, concrete - 434/434 nos.																
<b>Interface w/ HY/2010/02-16+045 to 16+223.24</b>																	
A237404	LR SH-HKBCF [north area-Portion C] - RC Works for Pump Sump P/S SPS7 (Base and Wall)																
A238294	LR SH-HKBCF [north area-Portion C] - RC Works for Pump Sump P/S SPS7 (Wall & Top Slab)																
A238284	LR SH-HKBCF [north area-Portion C] - Installation of E&M equipment for Pump Sump P/S SPS7																
LR2540	LR SH-HKBCF [north area-Portion C] - Backfilling and Site formation																
LR2550	LR SH-HKBCF [north area-Portion C] - Road alignment formation, 1st half																
<b>NB AIRPORT ROAD WORKS (INCL. BA2) - under Section 2 (Middle to North Area)</b>																	
<b>Works in Bridge A2, under Stage 2 TTA, Diversion of SB Airport Rd (Works under Section 2)</b>																	
<b>BA2 - South Abutment and Ramp</b>																	
BA2.1205-415	Bridge A2 South Abut - Retaining Wall Panel 1 - Wall Stem																
BA2.1205-445	Bridge A2 South Abut - Retaining Wall Panel 2 - Wall Stem																
BA2.1205-465	Bridge A2 South Abut - Retaining Wall Panel 3 - Wall Stem																
BA2.1205-495	Bridge A2 South Abut - Retaining Wall Panel 4 - Wall Stem																
BA2.1205-395	Bridge A2 South Abut - Backfilling - 1st half																
BA2.1205-485	Bridge A2 South Abut - Backfilling - 2nd half																
<b>BA2 - North Abutment and Ramp</b>																	
<b>BA2 - North Abutment and Ramp - Waterproofing and Backfilling</b>																	
BA2.1205-1005	Bridge A2 Ramp - North Abut. Parapet, 40nos/80 nos.																
BA2.1205-1015	Bridge A2 Ramp - North Abut. Parapet, 60nos/80 nos.																
BA2.1205-805	Bridge A2 Ramp - Backfilling (Remaining)																
BA2.1205-1025	Bridge A2 Ramp - North Abut. Parapet, 80nos/80 nos.																
BA2.1205-1035	Bridge A2 Ramp - North Abut. Road lighting, 1st half																
BA2.1205-1045	Bridge A2 Ramp - North Abut. Road lighting, remaining half																
<b>Utility Culverts 1, 2 &amp; 3 (Works under Section 2)</b>																	
<b>Utility Culvert No. 1 Ext. across the road leading to Cheong Hong Road [48m Approx.] -1</b>																	
<b>Permanent Utility Diversion inside UC 1</b>																	
UC1.1114	Permanent Utility diversion - telecom cable (by others), Stage 1																
UC1.1115	Permanent Utility diversion - cutting/jointing/switching ATC/CAD cables (by others)																
UC1.1116	Permanent Utility diversion - cutting/jointing/switching ATC/CAD cables complete																
UC1.1163	Permanent Utility diversion - telecom cable (by others), Stage 2																
UC1.1173	Permanent Utility diversion - telecom cable (by others), Stage 3																
<b>Utility Culvert No. 2 Ext. near Bridge A2 [15m Approx.] (Works under Section 2)</b>																	
<b>Permanent Utility Diversion inside UC2</b>																	
UC2.1059	Permanent Utility Diversion - CAD/ATC cables (by others), Stage 1																
UC2.1058	Permanent Utility Diversion - TCSS (by others), Stage 1																
UC2.10591	Permanent Utility Diversion - CAD/ATC cables (by others), Stage 2																
UC2.10581	Permanent Utility Diversion - TCSS (by others), Stage 2																
UC2.10592	Permanent Utility Diversion - CAD/ATC cables (by others), Stage 2																
UC2.1061	Complete permanent utility diversion of CAD/ATC cables (by others) -30 Nov 2013																
UC2.10582	Permanent Utility Diversion - TCSS (by others), Stage 3																
UC2.105241	Permanent Utility Diversion - TCSS (by others), Stage 4																
<b>Roadworks to be constructed under Stage 2 TTA</b>																	
<b>M003 Ch 0+400 to 0+800 (Permanent), L=400m</b>																	
A2860-24	200mm dia Watermain utilities [250m] + connection																
A2870	Road formation, subbase, road base and precast kerbs, road lighting poles - 1st half																
A237824	Road formation, subbase, road base and precast kerbs, road lighting poles - 2nd half																
A2880	Final wearing course and road marking and traffic signs, road lighting lamps & T&C																
<b>M004 (from BA2) Ch 0+600 to 0+730 (Permanent), L=130m</b>																	
A3370	Drainage works +Underground utilities (watermain, TCSS, telecoms etc.), Stage 2																
A3460	Drainage works +Underground utilities (watermain, TCSS, telecoms etc.), Stage 3																
A2920	Drainage works +Underground utilities (watermain, TCSS, telecoms etc.), Stage 4																
<b>Roadworks to be constructed under Stage 3 TTA</b>																	
<b>M003 Ch 0+800 to 1+200</b>																	
A3050	Drainage works +Underground utilities (watermain, TCSS, telecoms etc.), 100/400m																
A3340	Road formation, subbase, road base and precast kerbs, road lighting poles, Stage 1																
A3051	Drainage works +Underground utilities (watermain, TCSS, telecoms etc.), 200/400m																
A3350	Road formation, subbase, road base and precast kerbs, road lighting poles, Stage 2																
A3052	Drainage works +Underground utilities (watermain, TCSS, telecoms etc.), 300/400m																
A3060	Road formation, subbase, road base and precast kerbs, road lighting poles, Stage 3																
A3053	Drainage works +Underground utilities (watermain, TCSS, telecoms etc.), 400/400m																
A3470	Final wearing course and road marking and traffic signs, road lighting lamps & T&C, 1st half																
<b>M005 Ch 0+000 to 0+200, (Permanent) L= 200m (after HAT Ramp)</b>																	
A2950	Drainage works +Underground utilities (watermain, TCSS, telecoms etc.), 50/200m																
A2960	Road formation, subbase, road base and precast kerbs, road lighting poles																
A2951	Drainage works +Underground utilities (watermain, TCSS, telecoms etc.), 50/200m																
A2952	Drainage works +Underground utilities (watermain, TCSS, telecoms etc.), 50/200m																
A2953	Drainage works +Underground utilities (watermain, TCSS, telecoms etc.), 50/200m																
<b>M011 Ch 0+350 to 0+546, (Permanent) L= 196m</b>																	
A2980	Drainage works +Underground utilities (watermain, TCSS, telecoms etc.), 50/196m																
A2990	Road formation, subbase, road base and precast kerbs, road lighting poles																
A2981	Drainage works +Underground utilities (watermain, TCSS, telecoms etc.), 50/196m																
<b>Permanent Slip Road (going NB Airport Rd to T1 &amp; T2)</b>																	
A3010	Drainage works																
A3020	Underground utilities (watermain, TCSS, telecoms etc.)																
A3030	Road formation, subbase, road base and precast kerbs, road lighting poles																
A3040	Final wearing course and road marking and traffic signs, road lighting lamps & T&C																
<b>Remaining Permanent Roadworks under diff. TTA Schemes</b>																	
<b>M002 connection to existing road</b>																	
A3080	Implement TTA (exact alignment TBC)																
A3090	Drainage works +Underground utilities (watermain, TCSS, telecoms etc.), 1st half																
A3091	Drainage works +Underground utilities (watermain, TCSS, telecoms etc.), remaining half																
A3100	Road formation, subbase, road base and precast kerbs, road lighting poles																







## APPENDIX C

---

### Calibration Certificates



# Certificate of Calibration

## 校正證書

Certificate No. : C165055  
證書編號

**ITEM TESTED / 送檢項目** ( Job No. / 序引編號 : IC16-1996 )      Date of Receipt / 收件日期 : 30 August 2016

Description / 儀器名稱 : Integrating Sound Level Meter  
Manufacturer / 製造商 : Brüel & Kjær  
Model No. / 型號 : 2238  
Serial No. / 編號 : 2381580  
Supplied By / 委託者 : Atkins China Limited  
13/F., Wharf T&T Centre, Harbour City,  
Tsim Sha Tsui, Kowloon, Hong Kong

### TEST CONDITIONS / 測試條件

Temperature / 溫度 : (23 ± 2)°C      Relative Humidity / 相對濕度 : (55 ± 20)%  
Line Voltage / 電壓 : ---

### TEST SPECIFICATIONS / 測試規範

Calibration check

**DATE OF TEST / 測試日期** : 8 September 2016

### TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.  
The results do not exceed manufacturer's specification.  
The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- Agilent Technologies / Keysight Technologies
- Rohde & Schwarz Laboratory, Germany
- Fluke Everett Service Center, USA

Tested By :   
測試 : H T Wong  
Technical Officer

Certified By :   
核證 : K C Lee  
Project Engineer

Date of Issue : 9 September 2016  
簽發日期

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗所書面批准。



# Certificate of Calibration

## 校正證書

Certificate No. : C165055  
證書編號

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours, and switched on to warm up for over 10 minutes before the commencement of the test.
- Self-calibration using laboratory acoustic calibrator was performed before the test from 6.1.1.2 to 6.3.2.
- The results presented are the mean of 3 measurements at each calibration point.
- Test equipment :

Equipment ID	Description	Certificate No.
CL280	40 MHz Arbitrary Waveform Generator	C160077
CL281	Multifunction Acoustic Calibrator	PA160023

- Test procedure : MA101N.

- Results :

- 6.1 Sound Pressure Level :

- 6.1.1 Reference Sound Pressure Level

- 6.1.1.1 Before Self-calibration

UUT Setting				Applied Value		UUT Reading (dB)
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	
50 - 130	L <sub>AFF</sub>	A	F	94.00	1	94.1

- 6.1.1.2 After Self-calibration

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
50 - 130	L <sub>AFF</sub>	A	F	94.00	1	94.0	± 1.1

- 6.1.2 Linearity

UUT Setting				Applied Value		UUT Reading (dB)
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	
50 - 130	L <sub>AFF</sub>	A	F	94.00	1	94.0 (Ref.)
				104.00		104.0
				114.00		113.9

IEC 61672 Class 1 Spec. : ± 0.6 dB per 10 dB step and ± 1.1 dB for overall different.

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗室書面批准。

# Certificate of Calibration

## 校正證書

Certificate No. : C165055  
證書編號

### 6.2 Time Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
50 - 130	L <sub>AFP</sub>	A	F	94.00	1	94.0	Ref.
	L <sub>ASP</sub>		S			94.0	± 0.3

### 6.3 Frequency Weighting

#### 6.3.1 A-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
50 - 130	L <sub>AFP</sub>	A	F	94.00	63 Hz	67.9	-26.2 ± 1.5
					125 Hz	77.8	-16.1 ± 1.5
					250 Hz	85.3	-8.6 ± 1.4
					500 Hz	90.8	-3.2 ± 1.4
					1 kHz	94.0	Ref.
					2 kHz	95.2	+1.2 ± 1.6
					4 kHz	95.0	+1.0 ± 1.6
					8 kHz	92.9	-1.1 (+2.1 ; -3.1)
					12.5 kHz	89.8	-4.3 (+3.0 ; -6.0)

#### 6.3.2 C-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
50 - 130	L <sub>CFP</sub>	C	F	94.00	63 Hz	93.3	-0.8 ± 1.5
					125 Hz	93.9	-0.2 ± 1.5
					250 Hz	94.0	0.0 ± 1.4
					500 Hz	94.0	0.0 ± 1.4
					1 kHz	94.0	Ref.
					2 kHz	93.9	-0.2 ± 1.6
					4 kHz	93.2	-0.8 ± 1.6
					8 kHz	91.0	-3.0 (+2.1 ; -3.1)
					12.5 kHz	87.9	-6.2 (+3.0 ; -6.0)

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗室書面批准。

# Certificate of Calibration

## 校正證書

Certificate No. : C165055  
證書編號

Remarks : - UUT Microphone Model No. : 4188 & S/N : 2379759

- Mfr's Spec. : IEC 61672 Class 1

- Uncertainties of Applied Value : 94 dB	: 63 Hz - 125 Hz	: ± 0.35 dB
	250 Hz - 500 Hz	: ± 0.30 dB
	1 kHz	: ± 0.20 dB
	2 kHz - 4 kHz	: ± 0.35 dB
	8 kHz	: ± 0.45 dB
	12.5 kHz	: ± 0.70 dB
104 dB	: 1 kHz	: ± 0.10 dB (Ref. 94 dB)
114 dB	: 1 kHz	: ± 0.10 dB (Ref. 94 dB)

- The uncertainties are for a confidence probability of not less than 95 %.

### Note :

The values given in this Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Sun Creation Engineering Limited shall not be liable for any loss or damage resulting from the use of the equipment.

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗所書面批准。

Sun Creation Engineering Limited – Calibration & Testing Laboratory

c/o 4/F, Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong

輝創工程有限公司 – 校正及檢測實驗室

c/o 香港新界屯門興安里一號青山灣機樓四樓

Tel/電話: 2927 2606

Fax/傳真: 2744 8986

E-mail/電郵: callab@suncreation.com

Website/網址: www.suncreation.com





# Certificate of Calibration 校正證書

Certificate No. : C163909  
證書編號

ITEM TESTED / 送檢項目 ( Job No. / 序引編號 : IC16-1579 )

Date of Receipt / 收件日期 : 13 July 2016

Description / 儀器名稱 : Acoustical Calibrator  
Manufacturer / 製造商 : Brüel & Kjær  
Model No. / 型號 : 4231  
Serial No. / 編號 : 3004068  
Supplied By / 委託者 : Atkins China Limited  
13/F., Wharf T&T Centre, Harbour City,  
Tsim Sha Tsui, Kowloon, Hong Kong

## TEST CONDITIONS / 測試條件

Temperature / 溫度 :  $(23 \pm 2)^{\circ}\text{C}$   
Line Voltage / 電壓 : ---

Relative Humidity / 相對濕度 :  $(55 \pm 20)\%$

## TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 19 July 2016

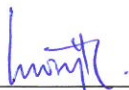
## TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.  
The results do not exceed manufacturer's specification.  
The results are detailed in the subsequent page(s).

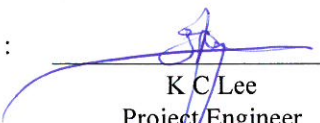
The test equipment used for calibration are traceable to National Standards via :

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- Agilent Technologies / Keysight Technologies
- Rohde & Schwarz Laboratory, Germany
- Fluke Everett Service Center, USA

Tested By  
測試

  
H T Wong  
Technical Officer

Certified By  
核證

  
K C Lee  
Project Engineer

Date of Issue  
簽發日期

19 July 2016

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗所書面批准。

# Certificate of Calibration

## 校正證書

Certificate No. : C163909

證書編號

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours before the commencement of the test.
- The results presented are the mean of 3 measurements at each calibration point.
- Test equipment :

<u>Equipment ID</u>	<u>Description</u>	<u>Certificate No.</u>
CL130	Universal Counter	C163709
CL281	Multifunction Acoustic Calibrator	PA160023
TST150A	Measuring Amplifier	C161175

- Test procedure : MA100N.

- Results :

### 5.1 Sound Level Accuracy

UUT Nominal Value	Measured Value (dB)	Mfr's Spec. (dB)	Uncertainty of Measured Value (dB)
94 dB, 1 kHz	94.0	± 0.2	± 0.2
114 dB, 1 kHz	114.0		

### 5.2 Frequency Accuracy

UUT Nominal Value (kHz)	Measured Value (kHz)	Mfr's Spec.	Uncertainty of Measured Value (Hz)
1	1.000 0	1 kHz ± 0.1 %	± 0.1

Remark : The uncertainties are for a confidence probability of not less than 95 %.

#### Note :

The values given in this Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Sun Creation Engineering Limited shall not be liable for any loss or damage resulting from the use of the equipment.



# Certificate of Calibration

## 校正證書

Certificate No. : C172617  
證書編號

ITEM TESTED / 送檢項目 ( Job No. / 序引編號 : IC17-1041 )

Date of Receipt / 收件日期 : 9 May 2017

Description / 儀器名稱 : Acoustical Calibrator  
Manufacturer / 製造商 : Brüel & Kjær  
Model No. / 型號 : 4231  
Serial No. / 編號 : 3003246  
Supplied By / 委託者 : Atkins China Limited  
13/F., Wharf T&T Centre, Harbour City,  
Tsim Sha Tsui, Kowloon, Hong Kong

### TEST CONDITIONS / 測試條件

Temperature / 溫度 :  $(23 \pm 2)^{\circ}\text{C}$   
Line Voltage / 電壓 : ---

Relative Humidity / 相對濕度 :  $(55 \pm 20)\%$

### TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 16 May 2017


### TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.  
The results do not exceed manufacturer's specification.  
The results are detailed in the subsequent page(s).

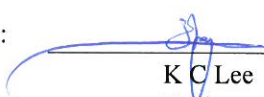
The test equipment used for calibration are traceable to National Standards via :

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- Agilent Technologies / Keysight Technologies
- Rohde & Schwarz Laboratory, Germany
- Fluke Everett Service Center, USA

Tested By  
測試

  
\_\_\_\_\_  
H T Wong  
Technical Officer

Certified By  
核證

  
\_\_\_\_\_  
K C Lee  
Engineer

Date of Issue  
簽發日期

16 May 2017

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗室所書面批准。



# Certificate of Calibration

## 校正證書

Certificate No. : C172617  
證書編號

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours before the commencement of the test.
- The results presented are the mean of 3 measurements at each calibration point.
- Test equipment :

<u>Equipment ID</u>	<u>Description</u>	<u>Certificate No.</u>
CL130	Universal Counter	C163709
CL281	Multifunction Acoustic Calibrator	PA160023
TST150A	Measuring Amplifier	C161175

- Test procedure : MA100N.

- Results :

### 5.1 Sound Level Accuracy

UUT Nominal Value	Measured Value (dB)	Mfr's Spec. (dB)	Uncertainty of Measured Value (dB)
94 dB, 1 kHz	94.0	± 0.2	± 0.2
114 dB, 1 kHz	114.0		

### 5.2 Frequency Accuracy

UUT Nominal Value (kHz)	Measured Value (kHz)	Mfr's Spec.	Uncertainty of Measured Value (Hz)
1	1.000 0	1 kHz ± 0.1 %	± 0.1

Remark : The uncertainties are for a confidence probability of not less than 95 %.

#### Note :

Only the original copy or the laboratory's certified true copy is valid.

The values given in this Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Sun Creation Engineering Limited shall not be liable for any loss or damage resulting from the use of the equipment.

ENVIROTECH SERVICES CO.

**High-Volume TSP Sampler**  
**5-Point Calibration Record**

Location : AMS5 (Ma Wan Chung Village)  
Calibrated by : K.F.Ho  
Date : 06/05/2017

**Sampler**

Model : TE-5170  
Serial Number : S/N3640

**Calibration Orifice and Standard Calibration Relationship**

Serial Number : 2454  
Service Date : 20 March 2017  
Slope (m) : 2.08464  
Intercept (b) : -0.036840  
Correlation Coefficient(r) : 0.99994

**Standard Condition**

Pstd (hpa) : 1013  
Tstd (K) : 298.18

**Calibration Condition**

Pa (hpa) : 1014  
Ta(K) : 301

Resistance Plate	dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC	Y
1   18 holes	11.0	3.302	1.601	58	57.74
2   13 holes	8.4	2.885	1.402	52	51.77
3   10 holes	6.4	2.518	1.226	47	46.79
4   7 holes	4.2	2.040	0.996	40	39.82
5   5 holes	2.4	1.542	0.757	34	33.85

Notes:  $Z = \sqrt{dH(Pa/Pstd)(Tstd/Ta)}$ ,  $X = Z/m - b$ ,  $Y(\text{Corrected Flow}) = IC * \{\sqrt{Pa/Pstd}(Tstd/Ta)\}$

**Sampler Calibration Relationship**

Slope(m): 28.497      Intercept(b): 11.893      Correlation Coefficient(r):  
0.9994

Checked by: Magnum Fan

Date: 08/05/2017

ENVIROTECH SERVICES CO.

**High-Volume TSP Sampler**  
**5-Point Calibration Record**

Location : AMS5(Ma Wan Chung Village)  
Calibrated by : K.F.Ho  
Date : 27/06/2017

**Sampler**

Model : TE-5170  
Serial Number : S/N3640

**Calibration Office and Standard Calibration Relationship**

Serial Number : 2454  
Service Date : 20 March 2017  
Slope (m) : 2.08464  
Intercept (b) : -0.036840  
Correlation Coefficient(r) : 0.99994

**Standard Condition**

Pstd (hpa) : 1013  
Tstd (K) : 298.18

**Calibration Condition**

Pa (hpa) : 1008  
Ta(K) : 304

Resistance Plate	dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC	Y
1   18 holes	11.4	3.335	1.617	56	55.31
2   13 holes	9.2	2.996	1.455	50	49.38
3   10 holes	6.4	2.499	1.216	43	42.47
4   7 holes	4.2	2.024	0.989	36	35.55
5   5 holes	2.6	1.593	0.782	29	28.64

Notes:  $Z = \sqrt{dH(Pa/Pstd)(Tstd/Ta)}$ ,  $X = Z/m - b$ ,  $Y(\text{Corrected Flow}) = IC * \{\sqrt{Pa/Pstd}(Tstd/Ta)\}$

**Sampler Calibration Relationship**

Slope(m): 31.368      Intercept(b): 4.263      Correlation Coefficient(r): 0.9995

Checked by: Magnum Fan

Date: 27/06/2017



ENVIROTECH SERVICES CO.

**High-Volume TSP Sampler**  
**5-Point Calibration Record**

Location : AMS6 (Dragonair Building)  
Calibrated by : P.F.Yeung  
Date : 06/05/2017

**Sampler**

Model : TE-5170  
Serial Number : S/N3639

**Calibration Orifice and Standard Calibration Relationship**

Serial Number : 2454  
Service Date : 20 March 2017  
Slope (m) : 2.08464  
Intercept (b) : -0.036840  
Correlation Coefficient(r) : 0.99994

**Standard Condition**

Pstd (hpa) : 1013  
Tstd (K) : 298.18

**Calibration Condition**

Pa (hpa) : 1014  
Ta(K) : 301

Resistance Plate	dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC	Y
1   18 holes	11.6	3.391	1.644	56	55.75
2   13 holes	9.5	3.068	1.490	51	50.77
3   10 holes	6.4	2.518	1.226	42	41.81
4   7 holes	4.2	2.040	0.996	36	35.84
5   5 holes	2.6	1.605	0.788	29	28.87

Notes:  $Z = \text{SQRT} \{ dH(Pa/Pstd)(Tstd/Ta) \}$ ,  $X = Z/m - b$ ,  $Y(\text{Corrected Flow}) = IC * \{ \text{SQRT}(Pa/Pstd)(Tstd/Ta) \}$

**Sampler Calibration Relationship**

Slope(m): 31.122      Intercept(b): 4.368      Correlation Coefficient(r):  
0.9992

Checked by: Magnum Fan

Date: 08/05/2017

ENVIROTECH SERVICES CO.

**High-Volume TSP Sampler**  
**5-Point Calibration Record**

Location : AMS6(Dragonair Building)  
Calibrated by : P.F.Yeung  
Date : 26/06/2017

**Sampler**

Model : TE-5170  
Serial Number : S/N3639

**Calibration Orifice and Standard Calibration Relationship**

Serial Number : 2454  
Service Date : 20 March 2017  
Slope (m) : 2.08464  
Intercept (b) : -0.036840  
Correlation Coefficient(r) : 0.99994

**Standard Condition**

Pstd (hpa) : 1013  
Tstd (K) : 298.18

**Calibration Condition**

Pa (hpa) : 1008  
Ta(K) : 304

Resistance Plate	dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC	Y
1   18 holes	11.0	3.276	1.589	58	57.28
2   13 holes	8.4	2.862	1.391	52	51.36
3   10 holes	6.6	2.537	1.235	47	46.42
4   7 holes	4.2	2.024	0.989	40	39.51
5   5 holes	2.5	1.562	0.767	34	33.58

Notes:  $Z = \sqrt{dH(Pa/Pstd)(Tstd/Ta)}$ ,  $X = Z/m - b$ ,  $Y(\text{Corrected Flow}) = IC * \{\sqrt{Pa/Pstd}(Tstd/Ta)\}$

**Sampler Calibration Relationship**

Slope(m): 28.895      Intercept(b): 11.128      Correlation Coefficient(r): 0.9995

Checked by: Magnum Fan

Date: 27/06/2017



TISCH ENVIRONMENTAL, INC.  
 145 SOUTH MIAMI AVE  
 VILLAGE OF CLEVELS, OH  
 45002  
 513.467.9000  
 877.263.7610 TOLL FREE  
 513.467.9009 FAX

ORIFICE TRANSFER STANDARD CERTIFICATION WORKSHEET TE-5025A

Date - Mar 20, 2017 Rootsmeter S/N 0438320 Ta (K) - 293  
 Operator Tisch Orifice I.D. - 2454 Pa (mm) - 759.46

PLATE OR Run #	VOLUME START (m3)	VOLUME STOP (m3)	DIFF VOLUME (m3)	DIFF TIME (min)	METER	ORFICE
					DIFF Hg (mm)	DIFF H2O (in.)
1	NA	NA	1.00	1.4390	3.2	2.00
2	NA	NA	1.00	1.0240	6.4	4.00
3	NA	NA	1.00	0.9170	7.9	5.00
4	NA	NA	1.00	0.8730	8.8	5.50
5	NA	NA	1.00	0.7200	12.8	8.00

DATA TABULATION

Vstd	(x axis) Qstd	(y axis)	Va	(x axis) Qa	(y axis)
1.0120	0.7033	1.4257	0.9958	0.6920	0.8784
1.0078	0.9842	2.0163	0.9916	0.9683	1.2423
1.0057	1.0967	2.2543	0.9895	1.0791	1.3889
1.0045	1.1507	2.3643	0.9884	1.1322	1.4567
0.9992	1.3878	2.8514	0.9831	1.3654	1.7568
Qstd slope (m) = 2.08464			Qa slope (m) = 1.30537		
intercept (b) = -0.03684			intercept (b) = -0.02270		
coefficient (r) = 0.99994			coefficient (r) = 0.99994		
y axis = SQRT[H2O(Pa/760) (298/Ta)]			y axis = SQRT[H2O(Ta/Pa)]		

CALCULATIONS

Vstd = Diff. Vol [(Pa-Diff. Hg)/760] (298/Ta)  
 Qstd = Vstd/Time

Va = Diff Vol [(Pa-Diff Hg)/Pa]  
 Qa = Va/Time

For subsequent flow rate calculations:

Qstd = 1/m{ [SQRT(H2O(Pa/760) (298/Ta))] - b}  
 Qa = 1/m{ [SQRT H2O(Ta/Pa)] - b}

## EQUIPMENT CALIBRATION RECORD

Type : Laser Dust Monitor  
 Manufacturer / Brand : SIBATA  
 Model No.: LD-3B  
 Equipment No.: LD-3B-003  
 Serial No.: 276018  
 Sensitivity Adjustment Scale Setting : 799 CPM

### Standard Equipment

Equipment : MFC High Volume Air Sampler  
 Venue : Tung Chung Pier  
 Model No.: TE-5170 Total Suspended Particulate  
 Serial No.: S/N3641

Previous Calibration Date 29/09/2016

### Calibration Result

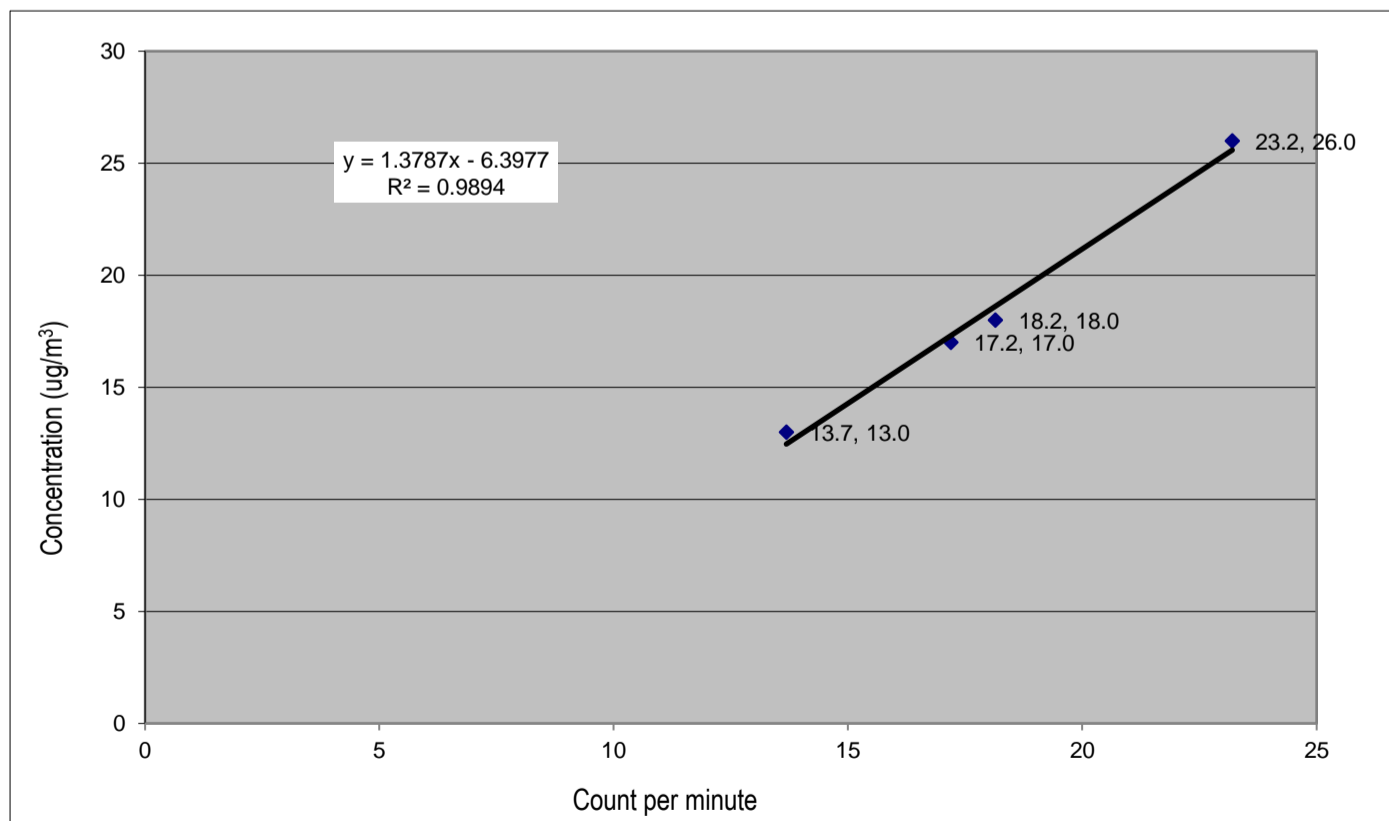
Sensitivity Adjustment Scale Setting (Before Calibration) : 799 CPM  
 Sensitivity Adjustment Scale Setting (After Calibration) : 799 CPM

Hour	Date (dd-mmm-yy)	Time		Ambient Condition		Concentration (ug/m <sup>3</sup> ) Y-axis	Total Count	Count/Minute X-axis
				Temp (°C)	R.H. (%)			
1	26/10/2016	13:59	14:59	30.7	64%	18	1089	18.15
2	26/10/2016	15:12	16:12	30.9	59%	13	821	13.68
3	26/10/2016	16:21	17:21	30.9	61%	17	1032	17.20
4	26/10/2016	17:30	18:30	30.9	61%	26	1392	23.20

Be Linear Regression of Y or X

Slope (K-factor): 1.3787 Intercept,b: -6.398  
 Correlation coefficient : 0.9947

Remark: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



Recorded by: Ray Cheng

Signature: 

Date: 25/11/2016

Checked by: Ketih Chau

Signature: 

Date: 25/11/2016



## **APPENDIX D**

---

### Monitoring Schedule





**June 2017**

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
<b>Date</b>				1-Jun	2-Jun	3-Jun	4-Jun
				AMS5-1hr, NMS5 AMS6-1hr	Mudflat monitoring (See Remark 1)	Mudflat monitoring (See Remark 1)	
<b>Date</b>	5-Jun	6-Jun	7-Jun	8-Jun	9-Jun	10-Jun	11-Jun
		AMS6/AMS5 - 24hr Dust	AMS5-1hr, NMS5 AMS6-1hr	Sedimentation Rate - Mudflat Monitoring	Mudflat monitoring	Mudflat monitoring	Mudflat monitoring
<b>Date</b>	12-Jun	13-Jun	14-Jun	15-Jun	16-Jun	17-Jun	18-Jun
	AMS6/AMS5 - 24hr Dust	AMS5-1hr, AMS6-1hr	1 <sup>st</sup> Dolphin Monitoring	NMS5 (See Remark 2) 1 <sup>st</sup> Dolphin Monitoring		AMS6/AMS5 - 24hr Dust	
<b>Date</b>	19-Jun	20-Jun	21-Jun	22-Jun	23-Jun	24-Jun	25-Jun
	AMS5-1hr, NMS5 AMS6-1hr	2 <sup>nd</sup> Dolphin Monitoring (See Remark 3)		AMS6/AMS5 - 24hr Dust	AMS5-1hr AMS6-1hr		
<b>Date</b>	26-Jun	27-Jun	28-Jun	29-Jun	30-Jun		
	2 <sup>nd</sup> Dolphin Monitoring		AMS6 - 24hr Dust	AMS5-1hr, NMS5 AMS6-1hr AMS5 - 24hr Dust (See Remark 4)			

Remarks:

- 1) Due to suitable weather and ambient temperature, the mudflat monitoring was rescheduled from 12 June 2017 to 2 and 3 June 2017.
- 2) Due to weather condition, the noise monitoring schedule was rescheduled from 13 June 2017 to 15 June 2017.
- 3) Due to weather condition, the dolphin monitoring schedule was rescheduled from 19 June 2017 to 20 June 2017.
- 4) Due to power supply failure, the 24-hour TSP monitoring was rescheduled from 28 June 2017 to 29 June 2017.

**July 2017**

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
<b>Date</b>						1-Jul	2-Jul
						Holiday	
<b>Date</b>	3-Jul	4-Jul	5-Jul	6-Jul	7-Jul	8-Jul	9-Jul
	AMS5-1hr, NMS5, AMS6-1hr	AMS5/AMS6 - 24hr Dust		AMS5/AMS6 - 24hr Dust	AMS5-1hr, AMS6-1hr		
<b>Date</b>	10-Jul	11-Jul	12-Jul	13-Jul	14-Jul	15-Jul	16-Jul
			AMS5/AMS6 - 24hr Dust	AMS5-1hr, NMS5, AMS6-1hr			
<b>Date</b>	17-Jul	18-Jul	19-Jul	20-Jul	21-Jul	22-Jul	23-Jul
		AMS5/AMS6 - 24hr Dust	AMS5-1hr, NMS5, AMS6-1hr		1 <sup>st</sup> Dolphin Monitoring		
<b>Date</b>	24-Jul	25-Jul	26-Jul	27-Jul	28-Jul	29-Jul	30-Jul
	AMS5/AMS6 - 24hr Dust 1 <sup>st</sup> Dolphin Monitoring	AMS5-1hr, NMS5 AMS6-1hr	2 <sup>nd</sup> Dolphin Monitoring		AMS5/AMS6 - 24hr Dust 2 <sup>nd</sup> Dolphin Monitoring		
<b>Date</b>	31-Jul						
	AMS5-1hr, NMS5, AMS6-1hr						



# APPENDIX E

---

## Monitoring Data and Graphical Plots



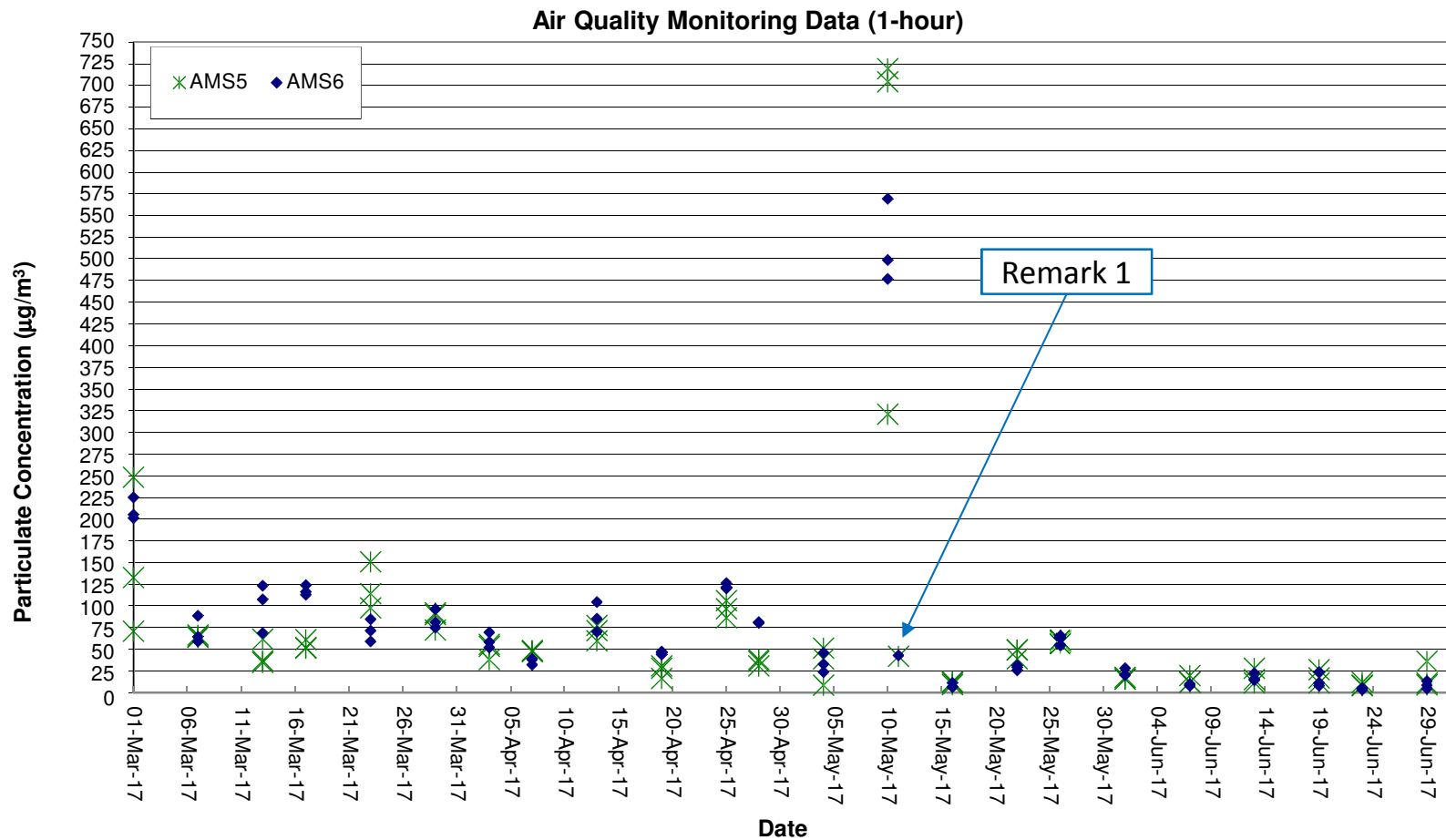
## Air Quality Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Station	Time	Parameter	Results	Unit
HKLR	HY/2011/03	2017-06-01	AMS5	08:14	1-hr TSP	18	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-01	AMS5	09:14	1-hr TSP	16	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-01	AMS5	10:14	1-hr TSP	16	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-07	AMS5	08:10	1-hr TSP	12	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-07	AMS5	09:10	1-hr TSP	20	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-07	AMS5	10:10	1-hr TSP	12	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-13	AMS5	09:01	1-hr TSP	15	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-13	AMS5	10:01	1-hr TSP	28	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-13	AMS5	11:01	1-hr TSP	12	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-19	AMS5	09:05	1-hr TSP	27	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-19	AMS5	10:05	1-hr TSP	17	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-19	AMS5	11:05	1-hr TSP	12	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-23	AMS5	13:00	1-hr TSP	12	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-23	AMS5	14:00	1-hr TSP	9	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-23	AMS5	15:00	1-hr TSP	8	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-29	AMS5	09:00	1-hr TSP	36	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-29	AMS5	10:00	1-hr TSP	9	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-29	AMS5	11:00	1-hr TSP	11	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-06	AMS5	08:00	24-hr TSP	33	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-12	AMS5	08:00	24-hr TSP	33	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-17	AMS5	08:00	24-hr TSP	37	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-22	AMS5	08:00	24-hr TSP	39	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-29 (See Remark 1)	AMS5	09:40	24-hr TSP	30	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-01	AMS6	13:00	1-hr TSP	20	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-01	AMS6	14:00	1-hr TSP	20	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-01	AMS6	15:00	1-hr TSP	28	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-07	AMS6	13:05	1-hr TSP	9	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-07	AMS6	14:05	1-hr TSP	8	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-07	AMS6	15:05	1-hr TSP	10	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-13	AMS6	13:00	1-hr TSP	23	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-13	AMS6	14:00	1-hr TSP	16	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-13	AMS6	15:00	1-hr TSP	14	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-19	AMS6	13:01	1-hr TSP	8	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-19	AMS6	14:01	1-hr TSP	12	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-19	AMS6	15:01	1-hr TSP	24	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-23	AMS6	09:00	1-hr TSP	5	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-23	AMS6	10:00	1-hr TSP	5	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-23	AMS6	11:00	1-hr TSP	4	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-29	AMS6	13:20	1-hr TSP	14	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-29	AMS6	14:20	1-hr TSP	9	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-29	AMS6	15:20	1-hr TSP	5	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-06	AMS6	08:00	24-hr TSP	60	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-12	AMS6	08:00	24-hr TSP	95	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-17	AMS6	08:00	24-hr TSP	23	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-22	AMS6	08:00	24-hr TSP	26	ug/m <sup>3</sup>
HKLR	HY/2011/03	2017-06-28	AMS6	08:00	24-hr TSP	35	ug/m <sup>3</sup>

## Remark:

1) Due to power supply failure, the 24-hour TSP monitoring at AMS5 was rescheduled from 28 June 2017 to 29 June 2017.

Graphical Plot of 1-hour TSP at AMS5 and AMS6



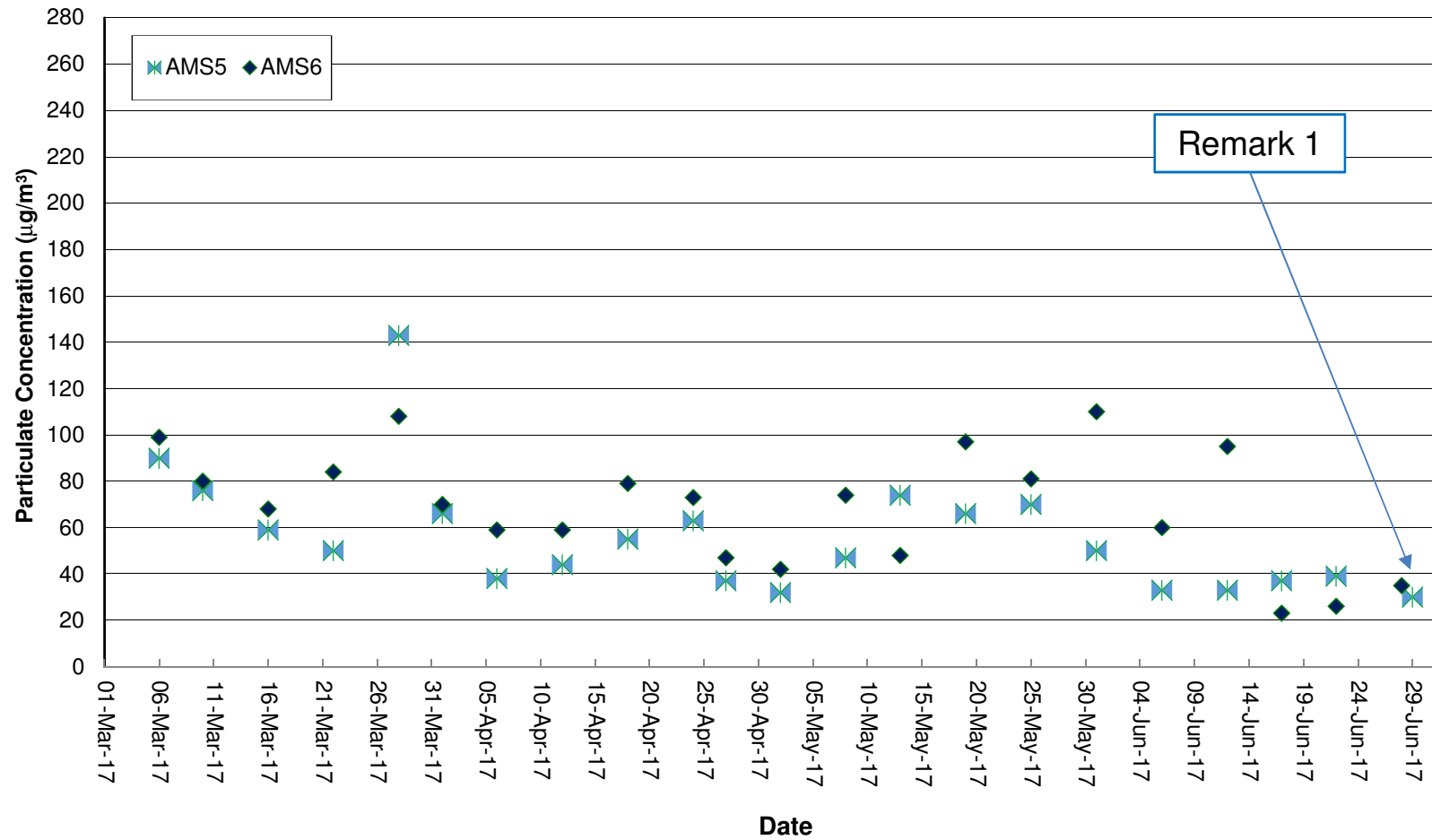
Remark:

1) Due to the Action/Limit level exceedances of 1-hr TSP were recorded at AMS5 and AMS6 on 10 May 2017, an additional 1-hr TSP monitoring was conducted on 11 May 2017 at AMS5 and AMS6 respectively.



Graphical Plot of 24-hour TSP at AMS5 and AMS6

### Air Quality Monitoring Data (24-hour)



Remark:

- 1) Due to power supply failure, the 24-hour TSP monitoring at AMS5 was rescheduled from 28 June 2017 to 29 June 2017.

Noise Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Station	Start Time	Wind Speed, m/s	1st set 5mins		2nd set 5mins		3rd set 5mins		4th set 5mins		5th set 5mins		6th set 5mins		Overall (30mins) *		Unit
						Leq:	L10:	L90:	Leq:	L10:	L90:	Leq:	L10:	L90:	Leq:	L10:	L90:	Leq:	L10:	
HKLR	HY/2011/03	2017-06-01	NMS5	14:04	<5	Leq:	56.7	Leq:	57.4	Leq:	58.1	Leq:	55.5	Leq:	56.7	Leq:	62.2	Leq:	61.4	dB(A)
						L10:	59.5	L10:	60.5	L10:	61.5	L10:	58.5	L10:	59.5	L10:	65.0	L10:	64.3	
						L90:	51.5	L90:	51.5	L90:	52.5	L90:	50.0	L90:	51.0	L90:	55.5	L90:	55.4	
HKLR	HY/2011/03	2017-06-07	NMS5	14:06	<5	Leq:	66.4	Leq:	66.1	Leq:	66.3	Leq:	66.7	Leq:	66.9	Leq:	67.1	Leq:	69.6	dB(A)
						L10:	68.5	L10:	68.0	L10:	68.0	L10:	69.0	L10:	69.0	L10:	69.0	L10:	71.6	
						L90:	61.0	L90:	61.0	L90:	61.0	L90:	61.0	L90:	61.5	L90:	62.0	L90:	64.3	
HKLR	HY/2011/03	2017-06-15 #	NMS5	15:26	<5	Leq:	64.4	Leq:	65.6	Leq:	67.4	Leq:	67.5	Leq:	66.8	Leq:	67.1	Leq:	69.6	dB(A)
						L10:	67.0	L10:	68.0	L10:	70.0	L10:	70.0	L10:	68.5	L10:	69.5	L10:	72.0	
						L90:	58.5	L90:	59.5	L90:	61.0	L90:	62.0	L90:	62.5	L90:	62.5	L90:	64.2	
HKLR	HY/2011/03	2017-06-19	NMS5	09:20	<5	Leq:	65.2	Leq:	63.0	Leq:	64.1	Leq:	64.6	Leq:	66.3	Leq:	66.1	Leq:	68.0	dB(A)
						L10:	67.0	L10:	65.5	L10:	66.5	L10:	67.0	L10:	68.5	L10:	68.5	L10:	70.3	
						L90:	57.5	L90:	58.0	L90:	59.5	L90:	61.0	L90:	62.5	L90:	61.0	L90:	63.3	
HKLR	HY/2011/03	2017-06-29	NMS5	09:44	<5	Leq:	54.8	Leq:	57.2	Leq:	51.6	Leq:	55.7	Leq:	58.6	Leq:	59.5	Leq:	59.9	dB(A)
						L10:	56.0	L10:	55.5	L10:	53.5	L10:	59.5	L10:	60.0	L10:	61.0	L10:	61.4	
						L90:	52.0	L90:	49.0	L90:	48.5	L90:	50.0	L90:	55.0	L90:	56.5	L90:	55.9	

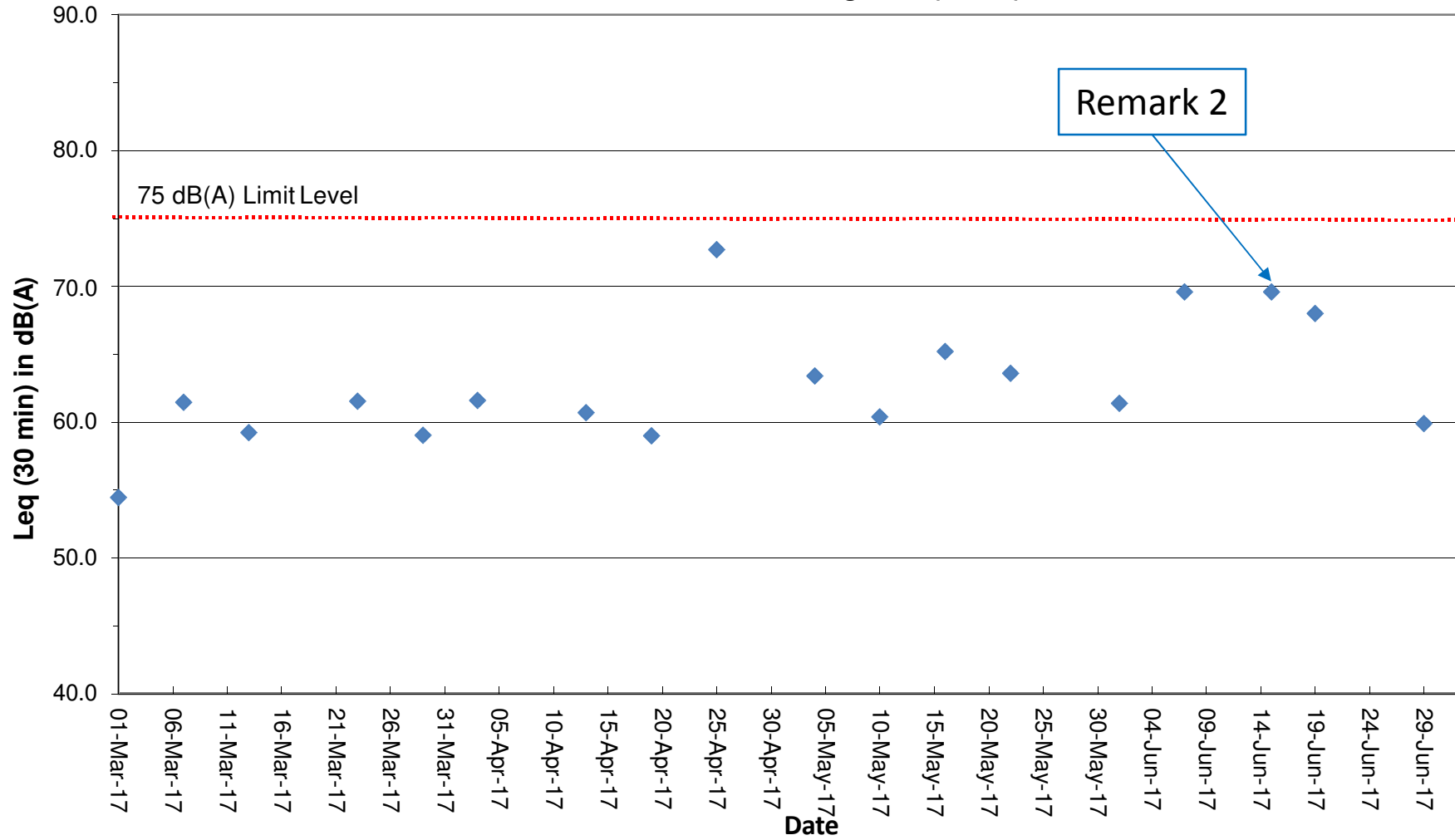
Remarks:

(1) \* - A facade correction of +3 dB(A) was applied to the measured noise level.

(2) # - Due to weather condition, the noise monitoring schedule was rescheduled from 13 June 2017 to 15 June 2017.

## Graphical Plot of Noise Levels at NMS5

### Continuous Noise Monitoring Data (NMS5)



#### Remarks:

- (1) A facade correction of +3 dB(A) was applied to the measured noise level.
- (2) Due to weather condition, the noise monitoring schedule was rescheduled from 13 June 2017 to 15 June 2017.



# APPENDIX F

---

## Event and Action Plan



### Event and Action Plan for Air Quality

Event	Action			
	ET	IEC	SO	Contractor
Exceedance of Action Level for one sample	<ol style="list-style-type: none"> <li>1. Identify source, investigate the causes of exceedance and propose remedial measures;</li> <li>2. Inform IEC and SO;</li> <li>3. Repeat measurement to confirm finding;</li> <li>4. Increase monitoring frequency to daily.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by ET;</li> <li>2. Check Contractor's working method.</li> </ol>	<ol style="list-style-type: none"> <li>1. Notify Contractor.</li> </ol>	<ol style="list-style-type: none"> <li>1. Rectify any unacceptable practice;</li> <li>2. Amend working methods if appropriate.</li> </ol>
Exceedance of Action Level for two or more consecutive samples	<ol style="list-style-type: none"> <li>1. Identify source;</li> <li>2. Inform IEC and SO;</li> <li>3. Advise the SO on the effectiveness of the proposed remedial measures;</li> <li>4. Repeat measurements to confirm findings;</li> <li>5. Increase monitoring frequency to daily;</li> <li>6. Discuss with IEC and Contractor on remedial actions required;</li> <li>7. If exceedance continues, arrange meeting with IEC and SO;</li> <li>8. If exceedance stops, cease additional monitoring.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by ET;</li> <li>2. Check Contractor's working method;</li> <li>3. Discuss with ET and Contractor on possible remedial measures;</li> <li>4. Advise the ET on the effectiveness of the proposed remedial measures;</li> <li>5. Supervise Implementation of remedial measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of failure in writing;</li> <li>2. Notify Contractor;</li> </ol>	<ol style="list-style-type: none"> <li>1. Submit proposals for remedial to SO within 3 working days of notification;</li> <li>2. Implement the agreed proposals;</li> <li>3. Amend proposal if appropriate.</li> </ol>



Event	Action			
	ET	IEC	SO	Contractor
Exceedance of Limit Level for one sample	<ol style="list-style-type: none"> <li>1. Identify source, investigate the causes of exceedance and propose remedial measures;</li> <li>2. Inform SO, Contractor and EPD;</li> <li>3. Repeat measurement to confirm finding;</li> <li>4. Increase monitoring frequency to daily;</li> <li>5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and SO informed of the results.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by ET;</li> <li>2. Check Contractor's working method;</li> <li>3. Discuss with ET and Contractor on possible remedial measures;</li> <li>4. Advise the SO on the effectiveness of the proposed remedial measures;</li> <li>5. Supervise implementation of remedial measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of failure in writing;</li> <li>2. Notify Contractor;</li> <li>3. Ensure remedial measures properly implemented.</li> </ol>	<ol style="list-style-type: none"> <li>1. Take immediate action to avoid further exceedance;</li> <li>2. Submit proposals for remedial actions to IEC within 3 working days of notification;</li> <li>3. Implement the agreed proposals;</li> <li>4. Amend proposal if appropriate.</li> </ol>
Exceedance of Limit Level for two or more consecutive samples	<ol style="list-style-type: none"> <li>1. Notify IEC, SO, Contractor and EPD;</li> <li>2. Identify source;</li> <li>3. Repeat measurement to confirm findings;</li> <li>4. Increase monitoring frequency to daily;</li> <li>5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented;</li> <li>6. Arrange meeting with IEC and SO to discuss the remedial actions to be taken;</li> <li>7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and SO informed of the results;</li> <li>8. If exceedance stops, cease additional monitoring.</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss amongst SO, ET, and Contractor on the potential remedial actions;</li> <li>2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the SO accordingly;</li> <li>3. Supervise the implementation of remedial measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of failure in writing;</li> <li>2. Notify Contractor;</li> <li>3. In consultation with the IEC, agree with the Contractor on the remedial measures to be implemented;</li> <li>4. Ensure remedial measures properly implemented;</li> <li>5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.</li> </ol>	<ol style="list-style-type: none"> <li>1. Take immediate action to avoid further exceedance;</li> <li>2. Submit proposals for remedial actions to IEC within 3 working days of notification;</li> <li>3. Implement the agreed proposals;</li> <li>4. Resubmit proposals if problem still not under control;</li> <li>5. Stop the relevant portion of works as determined by the SO until the exceedance is abated.</li> </ol>

## Event and Action Plan for Noise

Event	Action			
	ET	IEC	SO	Contractor
Exceedance of Action Level	<ol style="list-style-type: none"> <li>1. Identify source, investigate the causes of exceedance and propose remedial measures;</li> <li>2. Notify IEC and Contractor;</li> <li>3. Report the results of investigation to the IEC, SO and Contractor;</li> <li>4. Discuss with the Contractor and formulate remedial measures;</li> <li>5. Increase monitoring frequency to check mitigation effectiveness.</li> </ol>	<ol style="list-style-type: none"> <li>1. Review the analysed results submitted by the ET;</li> <li>2. Review the proposed remedial measures by the Contractor and advise the SO accordingly;</li> <li>3. Supervise the implementation of remedial measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of failure in writing;</li> <li>2. Notify Contractor;</li> <li>3. Require Contractor to propose remedial measures for the analysed noise problem;</li> <li>4. Ensure remedial measures are properly implemented</li> </ol>	<ol style="list-style-type: none"> <li>1. Submit noise mitigation proposals to IEC;</li> <li>2. Implement noise mitigation proposals.</li> </ol>
Exceedance of Limit Level	<ol style="list-style-type: none"> <li>1. Identify source;</li> <li>2. Inform IEC, SO, EPD and Contractor;</li> <li>3. Repeat measurements to confirm findings;</li> <li>4. Increase monitoring frequency;</li> <li>5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented;</li> <li>6. Inform IEC, SO and EPD the causes and actions taken for the exceedances;</li> <li>7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and SO informed of the results;</li> <li>8. If exceedance stops, cease additional monitoring.</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss amongst SO, ET, and Contractor on the potential remedial actions;</li> <li>2. Review Contractors remedial actions whenever necessary to assure their effectiveness and advise the SO accordingly;</li> <li>3. Supervise the implementation of remedial measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of failure in writing;</li> <li>2. Notify Contractor;</li> <li>3. Require Contractor to propose remedial measures for the analysed noise problem;</li> <li>4. Ensure remedial measures properly implemented;</li> <li>5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.</li> </ol>	<ol style="list-style-type: none"> <li>1. Take immediate action to avoid further exceedance;</li> <li>2. Submit proposals for remedial actions to IEC within 3 working days of notification;</li> <li>3. Implement the agreed proposals;</li> <li>4. Resubmit proposals if problem still not under control;</li> <li>5. Stop the relevant portion of works as determined by the SO until the exceedance is abated.</li> </ol>

## Event and Action Plan for Water Quality

Event	Action			
	ET Leader	IEC	SO	Contractor
Action level being exceeded by one sampling day	<ol style="list-style-type: none"> <li>1. Repeat in situ measurement on next day of exceedance to confirm findings;</li> <li>2. Identify source(s) of impact;</li> <li>3. Inform IEC, contractor and SO;</li> <li>4. Check monitoring data, all plant, equipment and Contractor's working methods.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by ET and Contractor's working methods.</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of non-compliance in writing;</li> <li>2. Notify Contractor.</li> </ol>	<ol style="list-style-type: none"> <li>1. Inform the SO and confirm notification of the non-compliance in writing;</li> <li>2. Rectify unacceptable practice;</li> <li>3. Amend working methods if appropriate.</li> </ol>
Action level being exceeded by two or more consecutive sampling days	<ol style="list-style-type: none"> <li>1. Repeat measurement on next day of exceedance to confirm findings;</li> <li>2. Identify source(s) of impact;</li> <li>3. Inform IEC, contractor, SO and EPD;</li> <li>4. Check monitoring data, all plant, equipment and Contractor's working methods;</li> <li>5. Ensure mitigation measures are implemented;</li> <li>6. Increase the monitoring frequency to daily until no exceedance of Action level.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by ET and Contractor's working method;</li> <li>2. Discuss with ET and Contractor on possible remedial actions;</li> <li>3. Review the proposed mitigation measures submitted by Contractor and advise the SO accordingly;</li> <li>4. Supervise the implementation of mitigation measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss with IEC on the proposed mitigation measures;</li> <li>2. Ensure mitigation measures are properly implemented;</li> <li>3. Assess the effectiveness of the implemented mitigation measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Inform the Engineer and confirm notification of the non-compliance in writing;</li> <li>2. Rectify unacceptable practice;</li> <li>3. Check all plant and equipment and consider changes of working methods;</li> <li>4. Submit proposal of additional mitigation measures to SO within 3 working days of notification and discuss with ET, IEC and SO;</li> <li>5. Implement the agreed mitigation measures.</li> </ol>
Limit level being exceeded by one sampling day	<ol style="list-style-type: none"> <li>1. Repeat measurement on next day of exceedance to confirm findings;</li> <li>2. Identify source(s) of impact;</li> <li>3. Inform IEC, contractor, SO and EPD;</li> <li>4. Check monitoring data, all plant, equipment and Contractor's working methods;</li> <li>5. Discuss mitigation measures with IEC, SO and Contractor;</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by ET and Contractor's working method;</li> <li>2. Discuss with ET and Contractor on possible remedial actions;</li> <li>3. Review the proposed mitigation measures submitted by Contractor and advise the SO accordingly.</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of failure in writing;</li> <li>2. Discuss with IEC, ET and Contractor on the proposed mitigation measures;</li> <li>3. Request Contractor to review the working methods.</li> </ol>	<ol style="list-style-type: none"> <li>1. Inform the SO and confirm notification of the non-compliance in writing;</li> <li>2. Rectify unacceptable practice;</li> <li>3. Check all plant and equipment and consider changes of working methods;</li> <li>4. Submit proposal of mitigation measures to SO within 3 working days of notification and discuss with ET, IEC and SO.</li> </ol>

Event	Action			
	ET Leader	IEC	SO	Contractor
Limit level being exceeded by two or more consecutive sampling days	<ol style="list-style-type: none"> <li>1. Repeat measurement on next day of exceedance to confirm findings;</li> <li>2. Identify source(s) of impact;</li> <li>3. Inform IEC, contractor, SO and EPD;</li> <li>4. Check monitoring data, all plant, equipment and Contractor's working methods;</li> <li>5. Discuss mitigation measures with IEC, SO and Contractor;</li> <li>6. Ensure mitigation measures are implemented;</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by ET and Contractor's working method;</li> <li>2. Discuss with ET and Contractor on possible remedial actions;</li> <li>3. Review the Contractor's mitigation measures whenever necessary to assure their effectiveness and advise the SO accordingly;</li> <li>4. Supervise the implementation of mitigation measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss with IEC, ET and Contractor on the proposed mitigation measures;</li> <li>2. Request Contractor to critically review the working methods;</li> <li>3. Make agreement on the mitigation measures to be implemented;</li> <li>4. Ensure mitigation measures are properly implemented;</li> <li>5. Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the construction activities until no exceedance of Limit level.</li> </ol>	<ol style="list-style-type: none"> <li>1. Take immediate action to avoid further exceedance;</li> <li>2. Submit proposal of mitigation measures to SO within 3 working days of notification and discuss with ET, IEC and SO;</li> <li>3. Implement the agreed mitigation measures;</li> <li>4. Resubmit proposals of mitigation measures if problem still not under control;</li> <li>5. As directed by the Engineer, to slow down or to stop all or part of the construction activities until no exceedance of Limit level.</li> </ol>



## Event and Action Plan for Dolphin Monitoring

Event	ET Leader	IEC	ER / SOR	Contractor
Action Level	<ol style="list-style-type: none"> <li>1. Repeat statistical data analysis to confirm findings;</li> <li>2. Review all available and relevant data, including raw data and statistical analysis results of other parameters covered in the EM&amp;A, to ascertain if differences are as a result of natural variation or previously observed seasonal differences;</li> <li>3. Identify source(s) of impact;</li> <li>4. Inform the IEC, ER/SOR and Contractor;</li> <li>5. Check monitoring data.</li> <li>6. Review to ensure all the dolphin protective measures are fully and properly implemented and advise on additional measures if necessary.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by ET and Contractor;</li> <li>2. Discuss monitoring results and findings with the ET and the Contractor.</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss monitoring with the IEC and any other measures proposed by the ET;</li> <li>2. If ER/SOR is satisfied with the proposal of any other measures, ER/SOR to signify the agreement in writing on the measures to be implemented.</li> </ol>	<ol style="list-style-type: none"> <li>1. Inform the ER/SOR and confirm notification of the non-compliance in writing;</li> <li>2. Discuss with the ET and the IEC and propose measures to the IEC and the ER/SOR;</li> <li>3. Implement the agreed measures.</li> </ol>
Limit Level	<ol style="list-style-type: none"> <li>1. Repeat statistical data analysis to confirm findings;</li> <li>2. Review all available and relevant data, including raw data and statistical analysis results of other parameters covered in the EM&amp;A, to ascertain if differences are as a result of natural variation or previously observed seasonal differences;</li> <li>3. Identify source(s) of impact;</li> <li>4. Inform the IEC, ER/SOR and Contractor of findings;</li> <li>5. Check monitoring data;</li> <li>6. Repeat review to ensure all the dolphin protective measures are fully and properly implemented and advise on additional measures if necessary;</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by ET and Contractor;</li> <li>2. Discuss monitoring results and findings with the ET and the Contractor;</li> <li>3. Attend the meeting to discuss with ET, ER/SOR and Contractor the necessity of additional dolphin monitoring and any other potential mitigation measures;</li> <li>4. Review proposals for additional monitoring and any other mitigation measures submitted by ET and Contractor and advise ER/SOR of the results and findings accordingly;</li> <li>5. Supervise / Audit the</li> </ol>	<ol style="list-style-type: none"> <li>1. Attend the meeting to discuss with ET, IEC and Contractor the necessity of additional dolphin monitoring and any other potential mitigation measures;</li> <li>2. If ER/SOR is satisfied with the proposals for additional dolphin monitoring and/or any other mitigation measures submitted by ET and Contractor and verified by IEC, ER/SOR to signify the agreement in writing on such proposals and any other mitigation measures;</li> <li>3. Supervise the implementation of additional monitoring</li> </ol>	<ol style="list-style-type: none"> <li>1. Inform the ER/SOR and confirm notification of the non-compliance in writing;</li> <li>2. Attend the meeting to discuss with ET, IEC and ER/SOR the necessity of additional dolphin monitoring and any other potential mitigation measures;</li> <li>3. Jointly submit with ET to IEC a proposal of additional dolphin monitoring and/or any other mitigation measures when necessary;</li> <li>4. Implement the agreed additional dolphin monitoring and/or any other mitigation measures.</li> </ol>

Event	ET Leader	IEC	ER / SOR	Contractor
	<p>7. If ET proves that the source of impact is caused by any of the construction activity by the works contract, ET to arrange a meeting to discuss with IEC, ER/SOR and Contractor the necessity of additional dolphin monitoring and/or any other potential mitigation measures (e.g., consider to modify the perimeter silt curtain or consider to control/temporarily stop relevant construction activity etc.) and submit to IEC a proposal of additional dolphin monitoring and/or mitigation measures where necessary.</p>	<p>implementation of additional monitoring and/or any other mitigation measures and advise ER/SOR the results and findings accordingly.</p>	<p>and/or any other mitigation measures.</p>	

## Event and Action Plan for Mudflat Monitoring

Event	ET Leader	IEC	SO	Contractor
Density or the distribution pattern of horseshoe crab, seagrass or intertidal soft shore communities recorded in the impact or post-construction monitoring are significantly lower than or different from those recorded in the baseline monitoring.	<p>Review historical data to ensure differences are as a result of natural variation or previously observed seasonal differences;</p> <p>Identify source(s) of impact;</p> <p>Inform the IEC, SO and Contractor;</p> <p>Check monitoring data;</p> <p>Discuss additional monitoring and any other measures, with the IEC and Contractor.</p>	<p>Discuss monitoring with the ET and the Contractor;</p> <p>Review proposals for additional monitoring and any other measures submitted by the Contractor and advise the SO accordingly.</p>	<p>Discuss with the IEC additional monitoring requirements and any other measures proposed by the ET;</p> <p>Make agreement on the measures to be implemented.</p>	<p>Inform the SO and in writing;</p> <p>Discuss with the ET and the IEC and propose measures to the IEC and the ER;</p> <p>Implement the agreed measures.</p>



## APPENDIX G

---

### Wind Data



Extracted from the weather station at Tung Chung China State Site Office Rooftop

Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction
01/06/2017	00:05	2.2	ENE	01/06/2017	07:15	0.9	NW	01/06/2017	14:25	0.4	ESE
01/06/2017	00:10	0.9	NW	01/06/2017	07:20	0.4	NE	01/06/2017	14:30	2.2	ENE
01/06/2017	00:15	1.3	NNE	01/06/2017	07:25	0.4	SW	01/06/2017	14:35	0.9	W
01/06/2017	00:20	3.1	NNE	01/06/2017	07:30	0.4	ESE	01/06/2017	14:40	0.4	ESE
01/06/2017	00:25	0.4	ESE	01/06/2017	07:35	0.9	ESE	01/06/2017	14:45	1.3	E
01/06/2017	00:30	0.4	ESE	01/06/2017	07:40	0.9	W	01/06/2017	14:50	2.2	ENE
01/06/2017	00:35	0.4	ESE	01/06/2017	07:45	0.9	ESE	01/06/2017	14:55	1.3	N
01/06/2017	00:40	1.8	NE	01/06/2017	07:50	0.9	W	01/06/2017	15:00	0.9	SSW
01/06/2017	00:45	0.9	NW	01/06/2017	07:55	0.4	ESE	01/06/2017	15:05	4.9	NE
01/06/2017	00:50	3.6	NE	01/06/2017	08:00	0.4	ESE	01/06/2017	15:10	1.8	NE
01/06/2017	00:55	1.3	NE	01/06/2017	08:05	1.8	NE	01/06/2017	15:15	4	NE
01/06/2017	01:00	1.3	NNE	01/06/2017	08:10	0.4	ESE	01/06/2017	15:20	5.4	NE
01/06/2017	01:05	0.4	ESE	01/06/2017	08:15	0.9	W	01/06/2017	15:25	0.4	ESE
01/06/2017	01:10	1.3	N	01/06/2017	08:20	0.9	W	01/06/2017	15:30	0.9	NW
01/06/2017	01:15	0.9	NNW	01/06/2017	08:25	1.3	SW	01/06/2017	15:35	1.8	NE
01/06/2017	01:20	0.9	W	01/06/2017	08:30	0.4	ESE	01/06/2017	15:40	1.3	ENE
01/06/2017	01:25	4.5	NE	01/06/2017	08:35	0.4	ENE	01/06/2017	15:45	0.4	ESE
01/06/2017	01:30	1.3	NE	01/06/2017	08:40	0.4	ESE	01/06/2017	15:50	1.8	NNE
01/06/2017	01:35	0.4	ESE	01/06/2017	08:45	0.4	SW	01/06/2017	15:55	0.4	NW
01/06/2017	01:40	1.8	NNE	01/06/2017	08:50	1.3	NE	01/06/2017	16:00	3.1	NNE
01/06/2017	01:45	0.4	ESE	01/06/2017	08:55	0.4	ESE	01/06/2017	16:05	4.5	E
01/06/2017	01:50	0.4	ESE	01/06/2017	09:00	0.4	ESE	01/06/2017	16:10	0.4	ESE
01/06/2017	01:55	0.9	ESE	01/06/2017	09:05	2.7	ENE	01/06/2017	16:15	3.1	NE
01/06/2017	02:00	1.8	NNE	01/06/2017	09:10	1.3	ENE	01/06/2017	16:20	1.8	ENE
01/06/2017	02:05	3.1	ENE	01/06/2017	09:15	0.4	ESE	01/06/2017	16:25	2.7	ENE
01/06/2017	02:10	0.9	NW	01/06/2017	09:20	1.8	E	01/06/2017	16:30	0.9	W
01/06/2017	02:15	1.3	ENE	01/06/2017	09:25	2.7	SSE	01/06/2017	16:35	0.4	ESE
01/06/2017	02:20	0.9	WNW	01/06/2017	09:30	2.2	ENE	01/06/2017	16:40	0.4	ESE
01/06/2017	02:25	3.1	ESE	01/06/2017	09:35	0.4	ESE	01/06/2017	16:45	3.1	ESE
01/06/2017	02:30	1.3	WSW	01/06/2017	09:40	0.4	ESE	01/06/2017	16:50	1.3	ENE
01/06/2017	02:35	2.2	ENE	01/06/2017	09:45	1.8	ENE	01/06/2017	16:55	2.2	ENE
01/06/2017	02:40	2.7	ENE	01/06/2017	09:50	1.3	SW	01/06/2017	17:00	0.4	ESE
01/06/2017	02:45	0.4	ENE	01/06/2017	09:55	0.4	NE	01/06/2017	17:05	1.8	NNE
01/06/2017	02:50	1.8	E	01/06/2017	10:00	0.4	ESE	01/06/2017	17:10	0.4	ESE
01/06/2017	02:55	1.3	NNE	01/06/2017	10:05	0.4	ESE	01/06/2017	17:15	1.8	ENE
01/06/2017	03:00	1.8	NNE	01/06/2017	10:10	4	ENE	01/06/2017	17:20	0.4	ESE
01/06/2017	03:05	3.1	NE	01/06/2017	10:15	0.4	WNW	01/06/2017	17:25	0.4	ESE
01/06/2017	03:10	1.3	NNE	01/06/2017	10:20	4.9	E	01/06/2017	17:30	0.9	SSW
01/06/2017	03:15	0.9	W	01/06/2017	10:25	0.4	ESE	01/06/2017	17:35	0.4	ENE
01/06/2017	03:20	1.8	NE	01/06/2017	10:30	0.4	NNW	01/06/2017	17:40	0.9	W
01/06/2017	03:25	0.9	NW	01/06/2017	10:35	0.9	W	01/06/2017	17:45	0.4	ESE
01/06/2017	03:30	0.4	ESE	01/06/2017	10:40	0.4	ESE	01/06/2017	17:50	2.2	ENE
01/06/2017	03:35	0.9	ESE	01/06/2017	10:45	1.3	ENE	01/06/2017	17:55	0.4	ESE
01/06/2017	03:40	0.4	ENE	01/06/2017	10:50	1.8	ENE	01/06/2017	18:00	3.1	ENE
01/06/2017	03:45	2.2	ENE	01/06/2017	10:55	0.4	SW	01/06/2017	18:05	0.4	ESE
01/06/2017	03:50	1.8	NNE	01/06/2017	11:00	0.9	ESE	01/06/2017	18:10	1.3	E
01/06/2017	03:55	3.6	ENE	01/06/2017	11:05	2.7	E	01/06/2017	18:15	1.3	NNE
01/06/2017	04:00	2.2	NE	01/06/2017	11:10	2.7	ENE	01/06/2017	18:20	1.8	NE
01/06/2017	04:05	0.4	ESE	01/06/2017	11:15	1.3	ENE	01/06/2017	18:25	1.3	ENE
01/06/2017	04:10	0.4	N	01/06/2017	11:20	2.2	E	01/06/2017	18:30	0.4	N
01/06/2017	04:15	2.2	ENE	01/06/2017	11:25	0.9	NW	01/06/2017	18:35	0.9	ESE
01/06/2017	04:20	1.3	NNE	01/06/2017	11:30	0.4	ESE	01/06/2017	18:40	1.3	E
01/06/2017	04:25	0.4	NNE	01/06/2017	11:35	2.7	ENE	01/06/2017	18:45	0.4	NNE
01/06/2017	04:30	0.4	N	01/06/2017	11:40	0.4	ESE	01/06/2017	18:50	1.8	N
01/06/2017	04:35	0.9	SW	01/06/2017	11:45	0.9	NNW	01/06/2017	18:55	0.9	ESE
01/06/2017	04:40	1.8	NE	01/06/2017	11:50	0.4	ESE	01/06/2017	19:00	1.3	W
01/06/2017	04:45	3.1	E	01/06/2017	11:55	0.4	ESE	01/06/2017	19:05	2.2	NE
01/06/2017	04:50	0.9	W	01/06/2017	12:00	1.3	ENE	01/06/2017	19:10	2.2	ENE
01/06/2017	04:55	2.7	ENE	01/06/2017	12:05	0.4	ESE	01/06/2017	19:15	1.8	ENE
01/06/2017	05:00	2.2	NE	01/06/2017	12:10	0.4	ESE	01/06/2017	19:20	3.1	E
01/06/2017	05:05	0.4	ESE	01/06/2017	12:15	2.2	ENE	01/06/2017	19:25	1.8	NE
01/06/2017	05:10	0.4	ESE	01/06/2017	12:20	2.2	E	01/06/2017	19:30	0.4	ESE
01/06/2017	05:15	0.4	ESE	01/06/2017	12:25	0.4	ENE	01/06/2017	19:35	0.9	ENE
01/06/2017	05:20	0.4	ESE	01/06/2017	12:30	4.9	NE	01/06/2017	19:40	0.4	ESE
01/06/2017	05:25	0.4	ESE	01/06/2017	12:35	0.4	ESE	01/06/2017	19:45	0.4	ESE
01/06/2017	05:30	0.9	NW	01/06/2017	12:40	0.4	ESE	01/06/2017	19:50	0.9	NNW
01/06/2017	05:35	0.4	ESE	01/06/2017	12:45	1.3	WNW	01/06/2017	19:55	0.4	ESE
01/06/2017	05:40	1.3	NE	01/06/2017	12:50	1.3	NNE	01/06/2017	20:00	2.2	NE
01/06/2017	05:45	0.9	ENE	01/06/2017	12:55	0.4	ESE	01/06/2017	20:05	1.8	NNE
01/06/2017	05:50	0.9	ESE	01/06/2017	13:00	1.3	N	01/06/2017	20:10	0.9	W
01/06/2017	05:55	0.9	NW	01/06/2017	13:05	0.4	ESE	01/06/2017	20:15	0.4	ESE
01/06/2017	06:00	1.3	NNW	01/06/2017	13:10	0.4	ENE	01/06/2017	20:20	0.9	ESE
01/06/2017	06:05	0.4	ESE	01/06/2017	13:15	1.8	NNE	01/06/2017	20:25	1.3	NNE
01/06/2017	06:10	2.2	ENE	01/06/2017	13:20	1.8	ENE	01/06/2017	20:30	2.7	ENE
01/06/2017	06:15	1.8	NNE	01/06/2017	13:25	0.9	W	01/06/2017	20:35	1.3	ENE
01/06/2017	06:20	3.6	NE	01/06/2017	13:30	1.3	NNE	01/06/2017	20:40	0.9	NW
01/06/2017	06:25	0.9	SW	01/06/2017	13:35	1.8	NNE	01/06/2017	20:45	1.3	ENE
01/06/2017	06:30	1.8	NE	01/06/2017	13:40	0.9	ESE	01/06/2017	20:50	0.4	ESE
01/06/2017	06:35	1.3	ENE	01/06/2017	13:45	4	NE	01/06/2017	20:55	2.7	ENE
01/06/2017	06:40	1.3	W	01/06/2017	13:50	0.9	W	01/06/2017	21:00	0.9	W
01/06/2017	06:45	1.3	NNE	01/06/2017	13:55	0.9	NNE	01/06/2017	21:05	0.4	ESE
01/06/2017	06:50	0.4	W	01/06/2017	14:00	1.8	NE	01/06/2017	21:10	0.9	W
01/06/2017	06:55	0.4	ENE	01/06/2017	14:05	2.7	NE	01/06/2017	21:15	1.3	SW
01/06/2017	07:00	0.4	ESE	01/06/2017	14:10	1.8	E	01/06/2017	21:20	1.3	ENE
01/06/2017	07:05	0.4	SW	01/06/2017	14:15	1.8	N	01/06/2017	21:25	1.8	NNE
01/06/2017	07:10	0.9	ESE	01/06/2017	14:20	1.8	NNE	01/06/2017	21:30	1.3	NE



Extracted from the weather station at Tung Chung China State Site Office Rooftop

Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction
01/06/2017	21:35	0.4	SW	02/06/2017	04:45	4.9	E	02/06/2017	11:55	4.5	ENE
01/06/2017	21:40	0.9	NW	02/06/2017	04:50	5.8	E	02/06/2017	12:00	4.5	ENE
01/06/2017	21:45	1.8	NE	02/06/2017	04:55	5.8	ENE	02/06/2017	12:05	4.5	ENE
01/06/2017	21:50	0.9	SW	02/06/2017	05:00	3.6	NE	02/06/2017	12:10	1.3	WNW
01/06/2017	21:55	0.4	ENE	02/06/2017	05:05	1.8	WNW	02/06/2017	12:15	1.3	NNE
01/06/2017	22:00	5.4	NE	02/06/2017	05:10	5.4	ENE	02/06/2017	12:20	0.4	NE
01/06/2017	22:05	0.4	ESE	02/06/2017	05:15	4.5	ENE	02/06/2017	12:25	4.5	E
01/06/2017	22:10	0.4	NNE	02/06/2017	05:20	1.8	N	02/06/2017	12:30	1.8	NE
01/06/2017	22:15	0.9	SSW	02/06/2017	05:25	1.3	WNW	02/06/2017	12:35	4.5	ENE
01/06/2017	22:20	1.3	ENE	02/06/2017	05:30	4.9	ENE	02/06/2017	12:40	4.5	E
01/06/2017	22:25	0.4	ESE	02/06/2017	05:35	2.2	ENE	02/06/2017	12:45	1.3	WNW
01/06/2017	22:30	1.8	ENE	02/06/2017	05:40	4.9	ENE	02/06/2017	12:50	4.5	NE
01/06/2017	22:35	0.4	SW	02/06/2017	05:45	3.6	ENE	02/06/2017	12:55	3.1	ENE
01/06/2017	22:40	0.4	ESE	02/06/2017	05:50	1.8	NE	02/06/2017	13:00	4.9	E
01/06/2017	22:45	0.9	W	02/06/2017	05:55	3.6	ENE	02/06/2017	13:05	4.5	ENE
01/06/2017	22:50	1.3	WNW	02/06/2017	06:00	7.2	ENE	02/06/2017	13:10	3.1	ENE
01/06/2017	22:55	4	NE	02/06/2017	06:05	2.2	NW	02/06/2017	13:15	4.5	NE
01/06/2017	23:00	0.9	W	02/06/2017	06:10	1.8	W	02/06/2017	13:20	1.3	W
01/06/2017	23:05	2.7	NE	02/06/2017	06:15	2.7	E	02/06/2017	13:25	1.8	N
01/06/2017	23:10	1.3	NNE	02/06/2017	06:20	5.4	E	02/06/2017	13:30	8.5	ENE
01/06/2017	23:15	2.2	ENE	02/06/2017	06:25	6.3	NE	02/06/2017	13:35	1.8	N
01/06/2017	23:20	0.9	SSW	02/06/2017	06:30	1.8	N	02/06/2017	13:40	5.8	ENE
01/06/2017	23:25	0.4	ESE	02/06/2017	06:35	1.3	WNW	02/06/2017	13:45	0.9	NE
01/06/2017	23:30	0.9	NW	02/06/2017	06:40	5.8	ENE	02/06/2017	13:50	2.7	WNW
01/06/2017	23:35	0.9	ESE	02/06/2017	06:45	4.9	E	02/06/2017	13:55	1.3	WNW
01/06/2017	23:40	1.8	ENE	02/06/2017	06:50	5.4	ENE	02/06/2017	14:00	3.6	NE
01/06/2017	23:45	2.2	ENE	02/06/2017	06:55	3.1	NNE	02/06/2017	14:05	4.9	NE
01/06/2017	23:50	0.9	SW	02/06/2017	07:00	2.2	ENE	02/06/2017	14:10	4.5	E
01/06/2017	23:55	1.3	E	02/06/2017	07:05	2.7	E	02/06/2017	14:15	4	E
02/06/2017	00:00	1.8	NE	02/06/2017	07:10	4	ENE	02/06/2017	14:20	4.9	NE
02/06/2017	00:05	6.7	ENE	02/06/2017	07:15	4.5	E	02/06/2017	14:25	4.9	E
02/06/2017	00:10	0.9	NE	02/06/2017	07:20	1.3	NNE	02/06/2017	14:30	4.5	E
02/06/2017	00:15	4	ENE	02/06/2017	07:25	4.9	E	02/06/2017	14:35	1.3	NNE
02/06/2017	00:20	3.1	NNE	02/06/2017	07:30	0.9	NE	02/06/2017	14:40	3.1	ENE
02/06/2017	00:25	4.5	E	02/06/2017	07:35	1.3	WNW	02/06/2017	14:45	4.5	E
02/06/2017	00:30	5.8	ENE	02/06/2017	07:40	1.3	WNW	02/06/2017	14:50	4.9	ENE
02/06/2017	00:35	0.9	NE	02/06/2017	07:45	4.9	ENE	02/06/2017	14:55	5.8	ENE
02/06/2017	00:40	6.7	ENE	02/06/2017	07:50	1.3	NNE	02/06/2017	15:00	4.5	NE
02/06/2017	00:45	4.5	E	02/06/2017	07:55	1.3	WNW	02/06/2017	15:05	4.5	NE
02/06/2017	00:50	2.7	E	02/06/2017	08:00	1.8	N	02/06/2017	15:10	4.9	E
02/06/2017	00:55	6.7	NE	02/06/2017	08:05	6.7	ENE	02/06/2017	15:15	5.8	ENE
02/06/2017	01:00	4.9	ENE	02/06/2017	08:10	3.1	NE	02/06/2017	15:20	1.3	W
02/06/2017	01:05	1.8	NE	02/06/2017	08:15	1.3	W	02/06/2017	15:25	3.6	NE
02/06/2017	01:10	8.5	ENE	02/06/2017	08:20	1.3	SSW	02/06/2017	15:30	1.8	N
02/06/2017	01:15	0.9	NE	02/06/2017	08:25	1.8	WNW	02/06/2017	15:35	1.3	NNE
02/06/2017	01:20	6.3	E	02/06/2017	08:30	2.2	NE	02/06/2017	15:40	6.3	ENE
02/06/2017	01:25	5.8	ENE	02/06/2017	08:35	1.3	NNE	02/06/2017	15:45	6.7	ENE
02/06/2017	01:30	5.4	ENE	02/06/2017	08:40	1.8	N	02/06/2017	15:50	6.3	ENE
02/06/2017	01:35	4.9	E	02/06/2017	08:45	1.8	WNW	02/06/2017	15:55	1.3	W
02/06/2017	01:40	4.9	E	02/06/2017	08:50	3.6	NE	02/06/2017	16:00	2.7	ENE
02/06/2017	01:45	4.9	NE	02/06/2017	08:55	5.8	E	02/06/2017	16:05	2.7	NNE
02/06/2017	01:50	3.6	ENE	02/06/2017	09:00	1.3	W	02/06/2017	16:10	2.2	NE
02/06/2017	01:55	1.8	N	02/06/2017	09:05	1.3	WNW	02/06/2017	16:15	2.2	NE
02/06/2017	02:00	4.9	E	02/06/2017	09:10	1.3	W	02/06/2017	16:20	5.8	ENE
02/06/2017	02:05	1.3	WNW	02/06/2017	09:15	1.3	NNE	02/06/2017	16:25	1.3	W
02/06/2017	02:10	4.9	E	02/06/2017	09:20	1.8	W	02/06/2017	16:30	1.3	NNE
02/06/2017	02:15	1.3	WNW	02/06/2017	09:25	8.5	ENE	02/06/2017	16:35	2.7	NNE
02/06/2017	02:20	4.5	ENE	02/06/2017	09:30	8	ENE	02/06/2017	16:40	7.2	E
02/06/2017	02:25	4.5	ENE	02/06/2017	09:35	1.8	N	02/06/2017	16:45	5.4	E
02/06/2017	02:30	2.2	ENE	02/06/2017	09:40	4.5	ENE	02/06/2017	16:50	3.1	E
02/06/2017	02:35	1.8	N	02/06/2017	09:45	4.5	ENE	02/06/2017	16:55	3.1	NE
02/06/2017	02:40	4.5	E	02/06/2017	09:50	1.3	NNE	02/06/2017	17:00	1.3	WNW
02/06/2017	02:45	1.3	WNW	02/06/2017	09:55	4.9	E	02/06/2017	17:05	2.7	E
02/06/2017	02:50	3.6	ENE	02/06/2017	10:00	7.2	ENE	02/06/2017	17:10	3.1	NNE
02/06/2017	02:55	5.4	E	02/06/2017	10:05	1.3	W	02/06/2017	17:15	2.2	ENE
02/06/2017	03:00	7.2	E	02/06/2017	10:10	0.9	NE	02/06/2017	17:20	8	ENE
02/06/2017	03:05	1.8	N	02/06/2017	10:15	1.8	E	02/06/2017	17:25	1.3	WNW
02/06/2017	03:10	3.1	ENE	02/06/2017	10:20	8	ENE	02/06/2017	17:30	1.8	NE
02/06/2017	03:15	1.8	N	02/06/2017	10:25	4.9	NE	02/06/2017	17:35	2.2	NE
02/06/2017	03:20	4.9	ENE	02/06/2017	10:30	6.3	ENE	02/06/2017	17:40	4.5	E
02/06/2017	03:25	5.4	E	02/06/2017	10:35	4.9	E	02/06/2017	17:45	4.9	E
02/06/2017	03:30	4.5	E	02/06/2017	10:40	7.6	ENE	02/06/2017	17:50	1.3	WNW
02/06/2017	03:35	4.5	E	02/06/2017	10:45	4.9	NE	02/06/2017	17:55	6.7	E
02/06/2017	03:40	5.4	ENE	02/06/2017	10:50	1.8	WNW	02/06/2017	18:00	7.6	ENE
02/06/2017	03:45	4.5	E	02/06/2017	10:55	4.5	E	02/06/2017	18:05	7.2	ENE
02/06/2017	03:50	4.5	NE	02/06/2017	11:00	1.3	NNE	02/06/2017	18:10	4.9	NE
02/06/2017	03:55	4.9	E	02/06/2017	11:05	2.2	ENE	02/06/2017	18:15	6.7	ENE
02/06/2017	04:00	8	E	02/06/2017	11:10	1.8	NE	02/06/2017	18:20	1.3	W
02/06/2017	04:05	5.8	E	02/06/2017	11:15	4.9	NE	02/06/2017	18:25	1.8	N
02/06/2017	04:10	1.3	W	02/06/2017	11:20	4.9	ENE	02/06/2017	18:30	1.3	WNW
02/06/2017	04:15	4.9	NE	02/06/2017	11:25	5.8	E	02/06/2017	18:35	4.5	E
02/06/2017	04:20	4.5	E	02/06/2017	11:30	2.2	NNE	02/06/2017	18:40	1.8	N
02/06/2017	04:25	1.3	W	02/06/2017	11:35	1.3	WNW	02/06/2017	18:45	1.3	NNE
02/06/2017	04:30	5.4	ENE	02/06/2017	11:40	3.1	NE	02/06/2017	18:50	1.8	WNW
02/06/2017	04:35	1.8	NE	02/06/2017	11:45	6.7	E	02/06/2017	18:55	4.9	ENE
02/06/2017	04:40	4.5	E	02/06/2017	11:50	6.7	NE	02/06/2017	19:00	1.8	WNW

Extracted from the weather station at Tung Chung China State Site Office Rooftop

Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction
02/06/2017	19:05	1.3	WNW	03/06/2017	02:15	4.5	E	03/06/2017	09:25	2.7	ENE
02/06/2017	19:10	4.9	ENE	03/06/2017	02:20	2.2	E	03/06/2017	09:30	4.5	E
02/06/2017	19:15	1.3	NNE	03/06/2017	02:25	4.9	E	03/06/2017	09:35	1.3	NNE
02/06/2017	19:20	1.8	NE	03/06/2017	02:30	2.2	ENE	03/06/2017	09:40	2.2	E
02/06/2017	19:25	5.4	E	03/06/2017	02:35	2.7	E	03/06/2017	09:45	0.4	E
02/06/2017	19:30	1.3	NNE	03/06/2017	02:40	3.1	ENE	03/06/2017	09:50	5.4	E
02/06/2017	19:35	1.8	WNW	03/06/2017	02:45	3.6	ENE	03/06/2017	09:55	4.5	ENE
02/06/2017	19:40	7.2	ENE	03/06/2017	02:50	2.2	ENE	03/06/2017	10:00	1.8	NE
02/06/2017	19:45	1.3	WNW	03/06/2017	02:55	5.4	E	03/06/2017	10:05	4.5	E
02/06/2017	19:50	7.6	ENE	03/06/2017	03:00	4.5	E	03/06/2017	10:10	4.9	ENE
02/06/2017	19:55	4.9	NE	03/06/2017	03:05	2.7	E	03/06/2017	10:15	2.2	ENE
02/06/2017	20:00	3.6	NE	03/06/2017	03:10	2.7	ENE	03/06/2017	10:20	3.6	ENE
02/06/2017	20:05	2.2	NW	03/06/2017	03:15	5.4	ENE	03/06/2017	10:25	4	ENE
02/06/2017	20:10	5.8	E	03/06/2017	03:20	1.8	E	03/06/2017	10:30	2.2	E
02/06/2017	20:15	2.7	E	03/06/2017	03:25	4.9	E	03/06/2017	10:35	4.5	E
02/06/2017	20:20	2.7	E	03/06/2017	03:30	4.9	ENE	03/06/2017	10:40	4.9	ENE
02/06/2017	20:25	0.4	NE	03/06/2017	03:35	2.2	E	03/06/2017	10:45	2.7	ENE
02/06/2017	20:30	4.5	ENE	03/06/2017	03:40	4.5	E	03/06/2017	10:50	1.3	NE
02/06/2017	20:35	3.6	ENE	03/06/2017	03:45	4.5	E	03/06/2017	10:55	5.4	ENE
02/06/2017	20:40	2.2	ENE	03/06/2017	03:50	2.2	ENE	03/06/2017	11:00	5.4	ENE
02/06/2017	20:45	4.9	E	03/06/2017	03:55	5.8	E	03/06/2017	11:05	1.8	ENE
02/06/2017	20:50	1.3	NNE	03/06/2017	04:00	4	ENE	03/06/2017	11:10	3.6	E
02/06/2017	20:55	2.7	E	03/06/2017	04:05	2.7	E	03/06/2017	11:15	3.1	E
02/06/2017	21:00	1.8	N	03/06/2017	04:10	1.8	ENE	03/06/2017	11:20	5.4	ENE
02/06/2017	21:05	1.3	WNW	03/06/2017	04:15	4.9	NE	03/06/2017	11:25	2.2	E
02/06/2017	21:10	4.5	NE	03/06/2017	04:20	2.7	E	03/06/2017	11:30	4	ENE
02/06/2017	21:15	1.3	W	03/06/2017	04:25	2.7	ESE	03/06/2017	11:35	4	E
02/06/2017	21:20	1.3	NNE	03/06/2017	04:30	1.8	E	03/06/2017	11:40	6.3	E
02/06/2017	21:25	4.9	E	03/06/2017	04:35	1.3	E	03/06/2017	11:45	1.8	E
02/06/2017	21:30	1.3	W	03/06/2017	04:40	2.2	ENE	03/06/2017	11:50	3.1	E
02/06/2017	21:35	7.6	ENE	03/06/2017	04:45	3.1	E	03/06/2017	11:55	1.8	E
02/06/2017	21:40	4.9	NE	03/06/2017	04:50	2.2	E	03/06/2017	12:00	2.2	NE
02/06/2017	21:45	1.3	W	03/06/2017	04:55	2.7	ENE	03/06/2017	12:05	3.1	E
02/06/2017	21:50	4.9	ENE	03/06/2017	05:00	5.4	ENE	03/06/2017	12:10	4	E
02/06/2017	21:55	4.5	E	03/06/2017	05:05	1.8	ENE	03/06/2017	12:15	5.4	ENE
02/06/2017	22:00	5.8	ENE	03/06/2017	05:10	4.9	ENE	03/06/2017	12:20	5.4	ENE
02/06/2017	22:05	7.2	ENE	03/06/2017	05:15	2.2	NE	03/06/2017	12:25	1.8	E
02/06/2017	22:10	0.9	NE	03/06/2017	05:20	1.8	E	03/06/2017	12:30	5.4	E
02/06/2017	22:15	4.5	E	03/06/2017	05:25	3.6	E	03/06/2017	12:35	2.7	ENE
02/06/2017	22:20	1.3	NNE	03/06/2017	05:30	5.8	E	03/06/2017	12:40	2.2	E
02/06/2017	22:25	2.2	ENE	03/06/2017	05:35	4.5	ENE	03/06/2017	12:45	0.4	E
02/06/2017	22:30	4.9	E	03/06/2017	05:40	4	ENE	03/06/2017	12:50	1.3	E
02/06/2017	22:35	7.2	ENE	03/06/2017	05:45	4.5	ENE	03/06/2017	12:55	5.8	ENE
02/06/2017	22:40	4.5	E	03/06/2017	05:50	4	ENE	03/06/2017	13:00	6.3	ENE
02/06/2017	22:45	1.3	WNW	03/06/2017	05:55	4.5	ENE	03/06/2017	13:05	4.9	ENE
02/06/2017	22:50	5.8	E	03/06/2017	06:00	2.2	E	03/06/2017	13:10	1.8	ENE
02/06/2017	22:55	4.9	E	03/06/2017	06:05	2.7	ENE	03/06/2017	13:15	4.5	E
02/06/2017	23:00	2.7	WNW	03/06/2017	06:10	5.4	E	03/06/2017	13:20	4.5	E
02/06/2017	23:05	1.3	WNW	03/06/2017	06:15	3.1	E	03/06/2017	13:25	5.4	ENE
02/06/2017	23:10	6.3	NE	03/06/2017	06:20	1.8	ENE	03/06/2017	13:30	1.8	E
02/06/2017	23:15	5.4	E	03/06/2017	06:25	1.8	NE	03/06/2017	13:35	4.9	ENE
02/06/2017	23:20	4.9	E	03/06/2017	06:30	2.7	E	03/06/2017	13:40	5.4	ENE
02/06/2017	23:25	5.4	ENE	03/06/2017	06:35	1.8	ENE	03/06/2017	13:45	5.4	NE
02/06/2017	23:30	4.5	ENE	03/06/2017	06:40	5.4	E	03/06/2017	13:50	3.1	ENE
02/06/2017	23:35	6.3	E	03/06/2017	06:45	3.1	ENE	03/06/2017	13:55	6.7	ENE
02/06/2017	23:40	1.3	WNW	03/06/2017	06:50	2.2	NE	03/06/2017	14:00	2.7	ENE
02/06/2017	23:45	8	ENE	03/06/2017	06:55	4.9	E	03/06/2017	14:05	2.2	E
02/06/2017	23:50	4.5	NE	03/06/2017	07:00	6.3	E	03/06/2017	14:10	3.6	E
02/06/2017	23:55	4	ENE	03/06/2017	07:05	5.8	ENE	03/06/2017	14:15	2.7	E
03/06/2017	00:00	3.6	ENE	03/06/2017	07:10	2.2	E	03/06/2017	14:20	1.8	NE
03/06/2017	00:05	5.8	E	03/06/2017	07:15	3.1	ENE	03/06/2017	14:25	2.2	ENE
03/06/2017	00:10	2.2	ENE	03/06/2017	07:20	4.5	E	03/06/2017	14:30	4	ENE
03/06/2017	00:15	5.8	ENE	03/06/2017	07:25	3.6	ENE	03/06/2017	14:35	4.9	E
03/06/2017	00:20	2.7	E	03/06/2017	07:30	2.7	E	03/06/2017	14:40	4.5	ENE
03/06/2017	00:25	3.1	E	03/06/2017	07:35	4.9	ENE	03/06/2017	14:45	5.4	ENE
03/06/2017	00:30	4.9	NE	03/06/2017	07:40	2.2	ENE	03/06/2017	14:50	4	E
03/06/2017	00:35	1.3	ENE	03/06/2017	07:45	3.6	E	03/06/2017	14:55	6.7	E
03/06/2017	00:40	4	ENE	03/06/2017	07:50	5.4	E	03/06/2017	15:00	1.8	NE
03/06/2017	00:45	3.6	E	03/06/2017	07:55	1.3	ENE	03/06/2017	15:05	4	ENE
03/06/2017	00:50	3.1	E	03/06/2017	08:00	5.4	ENE	03/06/2017	15:10	4	E
03/06/2017	00:55	4.9	ENE	03/06/2017	08:05	5.8	E	03/06/2017	15:15	6.3	E
03/06/2017	01:00	2.7	E	03/06/2017	08:10	1.8	E	03/06/2017	15:20	4	E
03/06/2017	01:05	5.8	ENE	03/06/2017	08:15	4.5	E	03/06/2017	15:25	4.9	E
03/06/2017	01:10	6.3	E	03/06/2017	08:20	2.7	NE	03/06/2017	15:30	2.7	E
03/06/2017	01:15	3.6	E	03/06/2017	08:25	1.8	ENE	03/06/2017	15:35	4	ENE
03/06/2017	01:20	6.7	ENE	03/06/2017	08:30	1.8	E	03/06/2017	15:40	2.2	E
03/06/2017	01:25	4.9	E	03/06/2017	08:35	7.2	NE	03/06/2017	15:45	3.6	E
03/06/2017	01:30	6.3	E	03/06/2017	08:40	2.7	NE	03/06/2017	15:50	5.8	E
03/06/2017	01:35	5.4	E	03/06/2017	08:45	3.6	NE	03/06/2017	15:55	1.8	E
03/06/2017	01:40	5.8	ENE	03/06/2017	08:50	4.9	ENE	03/06/2017	16:00	5.8	E
03/06/2017	01:45	4.9	E	03/06/2017	08:55	4	E	03/06/2017	16:05	3.6	ENE
03/06/2017	01:50	4	E	03/06/2017	09:00	1.8	ENE	03/06/2017	16:10	3.1	ENE
03/06/2017	01:55	5.8	E	03/06/2017	09:05	1.8	NE	03/06/2017	16:15	5.8	ENE
03/06/2017	02:00	2.2	NE	03/06/2017	09:10	5.8	ENE	03/06/2017	16:20	5.8	E
03/06/2017	02:05	5.8	ENE	03/06/2017	09:15	1.3	NE	03/06/2017	16:25	2.2	E
03/06/2017	02:10	6.3	E	03/06/2017	09:20	5.8	E	03/06/2017	16:30	2.7	E

Extracted from the weather station at Tung Chung China State Site Office Rooftop

Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction
03/06/2017	16:35	3.6	ENE	03/06/2017	23:45	1.8	E	04/06/2017	06:55	4	NE
03/06/2017	16:40	5.4	ENE	03/06/2017	23:50	4.9	ENE	04/06/2017	07:00	3.1	NE
03/06/2017	16:45	5.8	E	03/06/2017	23:55	4.5	ENE	04/06/2017	07:05	1.8	NNW
03/06/2017	16:50	3.1	NE	04/06/2017	00:00	3.6	E	04/06/2017	07:10	2.7	ENE
03/06/2017	16:55	4.9	ENE	04/06/2017	00:05	2.7	ENE	04/06/2017	07:15	5.4	E
03/06/2017	17:00	2.2	E	04/06/2017	00:10	4.5	ENE	04/06/2017	07:20	3.1	ENE
03/06/2017	17:05	5.4	ENE	04/06/2017	00:15	4	ENE	04/06/2017	07:25	4.9	E
03/06/2017	17:10	6.7	E	04/06/2017	00:20	4.9	NE	04/06/2017	07:30	4	NE
03/06/2017	17:15	4.5	ENE	04/06/2017	00:25	2.7	NE	04/06/2017	07:35	3.6	ENE
03/06/2017	17:20	3.1	E	04/06/2017	00:30	1.8	W	04/06/2017	07:40	4	NE
03/06/2017	17:25	2.2	ENE	04/06/2017	00:35	3.1	ENE	04/06/2017	07:45	5.8	ENE
03/06/2017	17:30	7.2	NE	04/06/2017	00:40	3.1	E	04/06/2017	07:50	1.3	ENE
03/06/2017	17:35	6.3	E	04/06/2017	00:45	5.8	ENE	04/06/2017	07:55	2.2	ENE
03/06/2017	17:40	3.1	ENE	04/06/2017	00:50	1.3	W	04/06/2017	08:00	3.1	E
03/06/2017	17:45	2.2	E	04/06/2017	00:55	4.9	ENE	04/06/2017	08:05	2.2	NNE
03/06/2017	17:50	3.1	E	04/06/2017	01:00	0.9	NNE	04/06/2017	08:10	4.5	E
03/06/2017	17:55	4	E	04/06/2017	01:05	3.1	ENE	04/06/2017	08:15	1.8	WNW
03/06/2017	18:00	5.8	ENE	04/06/2017	01:10	2.2	NW	04/06/2017	08:20	3.1	NE
03/06/2017	18:05	2.7	ENE	04/06/2017	01:15	4	ENE	04/06/2017	08:25	1.8	W
03/06/2017	18:10	4.9	E	04/06/2017	01:20	4	ENE	04/06/2017	08:30	0.9	NW
03/06/2017	18:15	3.6	E	04/06/2017	01:25	3.1	ENE	04/06/2017	08:35	3.6	NE
03/06/2017	18:20	1.8	E	04/06/2017	01:30	5.8	ENE	04/06/2017	08:40	2.2	NW
03/06/2017	18:25	4.9	ENE	04/06/2017	01:35	4.5	ENE	04/06/2017	08:45	1.8	W
03/06/2017	18:30	4.9	E	04/06/2017	01:40	3.6	NE	04/06/2017	08:50	1.3	W
03/06/2017	18:35	2.7	E	04/06/2017	01:45	1.8	ENE	04/06/2017	08:55	4.9	ENE
03/06/2017	18:40	3.6	NE	04/06/2017	01:50	2.7	ENE	04/06/2017	09:00	0.4	E
03/06/2017	18:45	5.8	E	04/06/2017	01:55	5.4	ENE	04/06/2017	09:05	3.6	NNE
03/06/2017	18:50	6.7	E	04/06/2017	02:00	4.9	ENE	04/06/2017	09:10	4.9	NE
03/06/2017	18:55	1.8	E	04/06/2017	02:05	1.8	NW	04/06/2017	09:15	4	NE
03/06/2017	19:00	2.7	ENE	04/06/2017	02:10	3.6	ENE	04/06/2017	09:20	3.6	NE
03/06/2017	19:05	3.1	ENE	04/06/2017	02:15	1.8	ENE	04/06/2017	09:25	3.6	ENE
03/06/2017	19:10	3.1	ENE	04/06/2017	02:20	2.2	NE	04/06/2017	09:30	5.8	E
03/06/2017	19:15	5.4	ENE	04/06/2017	02:25	0.4	NW	04/06/2017	09:35	4	ENE
03/06/2017	19:20	4.9	ENE	04/06/2017	02:30	2.7	ENE	04/06/2017	09:40	1.8	WNW
03/06/2017	19:25	4.9	ENE	04/06/2017	02:35	1.8	WNW	04/06/2017	09:45	3.1	ENE
03/06/2017	19:30	6.3	E	04/06/2017	02:40	2.2	NE	04/06/2017	09:50	5.8	E
03/06/2017	19:35	2.2	ENE	04/06/2017	02:45	4	NE	04/06/2017	09:55	2.7	ENE
03/06/2017	19:40	2.2	E	04/06/2017	02:50	1.3	WNW	04/06/2017	10:00	4	NE
03/06/2017	19:45	6.3	E	04/06/2017	02:55	2.7	ENE	04/06/2017	10:05	4	NE
03/06/2017	19:50	3.1	ENE	04/06/2017	03:00	3.6	NE	04/06/2017	10:10	2.2	NW
03/06/2017	19:55	2.7	E	04/06/2017	03:05	4	ENE	04/06/2017	10:15	4	ENE
03/06/2017	20:00	4.9	ENE	04/06/2017	03:10	4.5	E	04/06/2017	10:20	4	ENE
03/06/2017	20:05	4	E	04/06/2017	03:15	4	ENE	04/06/2017	10:25	4.5	NE
03/06/2017	20:10	4.9	E	04/06/2017	03:20	4	NE	04/06/2017	10:30	6.3	E
03/06/2017	20:15	3.1	ENE	04/06/2017	03:25	6.3	E	04/06/2017	10:35	3.1	NE
03/06/2017	20:20	2.7	E	04/06/2017	03:30	1.8	ESE	04/06/2017	10:40	5.4	E
03/06/2017	20:25	5.4	E	04/06/2017	03:35	4.9	ENE	04/06/2017	10:45	0.4	WNW
03/06/2017	20:30	6.7	E	04/06/2017	03:40	4.5	ENE	04/06/2017	10:50	5.4	ENE
03/06/2017	20:35	3.1	E	04/06/2017	03:45	4.5	ENE	04/06/2017	10:55	4.5	ENE
03/06/2017	20:40	5.8	ENE	04/06/2017	03:50	1.8	NW	04/06/2017	11:00	3.1	NE
03/06/2017	20:45	4	E	04/06/2017	03:55	5.4	E	04/06/2017	11:05	4.5	ENE
03/06/2017	20:50	2.2	E	04/06/2017	04:00	2.7	ENE	04/06/2017	11:10	3.1	ENE
03/06/2017	20:55	4.5	E	04/06/2017	04:05	2.7	ENE	04/06/2017	11:15	1.8	NW
03/06/2017	21:00	4.9	ENE	04/06/2017	04:10	2.2	NW	04/06/2017	11:20	1.3	W
03/06/2017	21:05	4.9	E	04/06/2017	04:15	3.6	E	04/06/2017	11:25	1.8	WNW
03/06/2017	21:10	3.1	E	04/06/2017	04:20	3.6	ENE	04/06/2017	11:30	5.8	ENE
03/06/2017	21:15	4.9	ENE	04/06/2017	04:25	2.7	ENE	04/06/2017	11:35	5.4	E
03/06/2017	21:20	6.7	ENE	04/06/2017	04:30	5.4	ENE	04/06/2017	11:40	4	NE
03/06/2017	21:25	5.8	ENE	04/06/2017	04:35	3.1	NW	04/06/2017	11:45	4.5	ENE
03/06/2017	21:30	5.8	E	04/06/2017	04:40	4.9	NE	04/06/2017	11:50	4	E
03/06/2017	21:35	1.3	E	04/06/2017	04:45	3.6	NE	04/06/2017	11:55	2.2	NNE
03/06/2017	21:40	2.2	ENE	04/06/2017	04:50	4	ENE	04/06/2017	12:00	3.6	NE
03/06/2017	21:45	2.2	E	04/06/2017	04:55	4	ENE	04/06/2017	12:05	4.5	E
03/06/2017	21:50	6.3	E	04/06/2017	05:00	3.6	ENE	04/06/2017	12:10	4.9	ENE
03/06/2017	21:55	6.3	ENE	04/06/2017	05:05	3.6	ENE	04/06/2017	12:15	1.3	NE
03/06/2017	22:00	5.8	ENE	04/06/2017	05:10	5.4	ENE	04/06/2017	12:20	4.9	E
03/06/2017	22:05	1.8	E	04/06/2017	05:15	2.2	NE	04/06/2017	12:25	1.8	S
03/06/2017	22:10	2.7	ENE	04/06/2017	05:20	4.5	ENE	04/06/2017	12:30	1.8	ESE
03/06/2017	22:15	3.1	E	04/06/2017	05:25	4	ENE	04/06/2017	12:35	2.2	WNW
03/06/2017	22:20	5.8	E	04/06/2017	05:30	1.3	W	04/06/2017	12:40	2.7	ENE
03/06/2017	22:25	4.9	E	04/06/2017	05:35	3.1	NE	04/06/2017	12:45	4	NE
03/06/2017	22:30	3.6	ENE	04/06/2017	05:40	4	NE	04/06/2017	12:50	5.8	ENE
03/06/2017	22:35	1.8	E	04/06/2017	05:45	0.9	NNE	04/06/2017	12:55	4.9	ENE
03/06/2017	22:40	6.3	E	04/06/2017	05:50	0.9	NE	04/06/2017	13:00	2.2	E
03/06/2017	22:45	2.7	ENE	04/06/2017	05:55	2.7	WSW	04/06/2017	13:05	6.7	E
03/06/2017	22:50	5.8	ENE	04/06/2017	06:00	2.7	ENE	04/06/2017	13:10	4.9	NE
03/06/2017	22:55	5.4	E	04/06/2017	06:05	3.6	ENE	04/06/2017	13:15	6.3	E
03/06/2017	23:00	3.1	ENE	04/06/2017	06:10	5.4	ENE	04/06/2017	13:20	0.9	SW
03/06/2017	23:05	1.3	ENE	04/06/2017	06:15	4.5	ENE	04/06/2017	13:25	5.4	E
03/06/2017	23:10	0.9	ESE	04/06/2017	06:20	4.9	NE	04/06/2017	13:30	2.7	E
03/06/2017	23:15	2.2	E	04/06/2017	06:25	2.7	ENE	04/06/2017	13:35	3.1	ENE
03/06/2017	23:20	2.7	E	04/06/2017	06:30	1.8	NE	04/06/2017	13:40	1.3	NW
03/06/2017	23:25	4	NE	04/06/2017	06:35	0.4	E	04/06/2017	13:45	6.7	ENE
03/06/2017	23:30	5.4	ENE	04/06/2017	06:40	0.9	NE	04/06/2017	13:50	4.5	NE
03/06/2017	23:35	4.9	E	04/06/2017	06:45	3.6	E	04/06/2017	13:55	3.6	ENE
03/06/2017	23:40	6.7	ENE	04/06/2017	06:50	3.6	ENE	04/06/2017	14:00	4.5	ENE

Extracted from the weather station at Tung Chung China State Site Office Rooftop

Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction
04/06/2017	14:05	2.2	WNW	04/06/2017	21:15	4.5	NE	05/06/2017	04:25	0.4	W
04/06/2017	14:10	3.6	NE	04/06/2017	21:20	3.1	ENE	05/06/2017	04:30	2.2	W
04/06/2017	14:15	3.1	ENE	04/06/2017	21:25	2.7	ENE	05/06/2017	04:35	0.9	E
04/06/2017	14:20	1.8	NNE	04/06/2017	21:30	3.6	NE	05/06/2017	04:40	1.3	SSE
04/06/2017	14:25	4	NE	04/06/2017	21:35	4.9	NE	05/06/2017	04:45	2.2	NE
04/06/2017	14:30	2.7	E	04/06/2017	21:40	4	ENE	05/06/2017	04:50	0.4	WNW
04/06/2017	14:35	4	ENE	04/06/2017	21:45	4	NE	05/06/2017	04:55	2.2	NNW
04/06/2017	14:40	2.2	WSW	04/06/2017	21:50	3.6	ENE	05/06/2017	05:00	0.9	W
04/06/2017	14:45	3.1	NE	04/06/2017	21:55	5.4	ENE	05/06/2017	05:05	0.9	NW
04/06/2017	14:50	4	ENE	04/06/2017	22:00	4	NE	05/06/2017	05:10	0.4	E
04/06/2017	14:55	4	NE	04/06/2017	22:05	4	NE	05/06/2017	05:15	1.3	NNE
04/06/2017	15:00	5.4	ENE	04/06/2017	22:10	1.3	W	05/06/2017	05:20	1.8	NW
04/06/2017	15:05	5.4	ENE	04/06/2017	22:15	4.9	ENE	05/06/2017	05:25	0.9	W
04/06/2017	15:10	2.2	SW	04/06/2017	22:20	2.2	NE	05/06/2017	05:30	1.8	WSW
04/06/2017	15:15	2.2	NE	04/06/2017	22:25	4.5	ENE	05/06/2017	05:35	3.1	ENE
04/06/2017	15:20	1.8	WNW	04/06/2017	22:30	4.5	ENE	05/06/2017	05:40	0.4	WNW
04/06/2017	15:25	3.1	E	04/06/2017	22:35	2.7	ENE	05/06/2017	05:45	1.3	N
04/06/2017	15:30	4.5	NE	04/06/2017	22:40	4	NE	05/06/2017	05:50	0.9	SW
04/06/2017	15:35	0.9	WNW	04/06/2017	22:45	1.8	E	05/06/2017	05:55	1.8	NNW
04/06/2017	15:40	2.7	ENE	04/06/2017	22:50	4.5	ENE	05/06/2017	06:00	0.9	NNW
04/06/2017	15:45	2.7	W	04/06/2017	22:55	3.1	NE	05/06/2017	06:05	0.9	SW
04/06/2017	15:50	0.9	NE	04/06/2017	23:00	4	ENE	05/06/2017	06:10	0.9	SW
04/06/2017	15:55	1.3	W	04/06/2017	23:05	2.2	N	05/06/2017	06:15	0.4	W
04/06/2017	16:00	3.1	ENE	04/06/2017	23:10	4	NE	05/06/2017	06:20	0.9	WNW
04/06/2017	16:05	3.6	ENE	04/06/2017	23:15	0.4	WNW	05/06/2017	06:25	2.2	NNE
04/06/2017	16:10	3.6	ENE	04/06/2017	23:20	4.5	ENE	05/06/2017	06:30	2.2	WSW
04/06/2017	16:15	5.4	E	04/06/2017	23:25	5.8	ENE	05/06/2017	06:35	0.9	WSW
04/06/2017	16:20	2.2	SW	04/06/2017	23:30	3.1	ENE	05/06/2017	06:40	0.9	WSW
04/06/2017	16:25	3.6	NE	04/06/2017	23:35	6.7	ENE	05/06/2017	06:45	0.9	NNE
04/06/2017	16:30	4	NE	04/06/2017	23:40	4.9	E	05/06/2017	06:50	1.3	NNE
04/06/2017	16:35	1.3	E	04/06/2017	23:45	2.2	E	05/06/2017	06:55	0.9	N
04/06/2017	16:40	3.1	NE	04/06/2017	23:50	0.4	E	05/06/2017	07:00	2.2	WNW
04/06/2017	16:45	1.8	W	04/06/2017	23:55	4.9	NE	05/06/2017	07:05	0.9	WSW
04/06/2017	16:50	5.8	ENE	05/06/2017	00:00	4.5	NE	05/06/2017	07:10	1.3	WSW
04/06/2017	16:55	4.5	E	05/06/2017	00:05	1.3	NE	05/06/2017	07:15	0.9	WNW
04/06/2017	17:00	2.7	ENE	05/06/2017	00:10	1.8	NE	05/06/2017	07:20	0.9	W
04/06/2017	17:05	4	NE	05/06/2017	00:15	2.7	ENE	05/06/2017	07:25	2.2	NNE
04/06/2017	17:10	4	ENE	05/06/2017	00:20	1.3	WSW	05/06/2017	07:30	1.3	NW
04/06/2017	17:15	1.8	W	05/06/2017	00:25	1.3	NE	05/06/2017	07:35	0.4	NW
04/06/2017	17:20	1.8	E	05/06/2017	00:30	0.9	WNW	05/06/2017	07:40	1.3	W
04/06/2017	17:25	1.3	WNW	05/06/2017	00:35	2.2	W	05/06/2017	07:45	1.8	W
04/06/2017	17:30	2.7	E	05/06/2017	00:40	0.4	W	05/06/2017	07:50	1.3	W
04/06/2017	17:35	2.2	N	05/06/2017	00:45	0.9	W	05/06/2017	07:55	1.8	WSW
04/06/2017	17:40	3.1	ENE	05/06/2017	00:50	1.8	NNE	05/06/2017	08:00	1.3	SSW
04/06/2017	17:45	3.6	ENE	05/06/2017	00:55	0.4	E	05/06/2017	08:05	0.9	ENE
04/06/2017	17:50	5.8	E	05/06/2017	01:00	0.4	ENE	05/06/2017	08:10	0.9	W
04/06/2017	17:55	0.9	NNE	05/06/2017	01:05	4	WSW	05/06/2017	08:15	0.4	E
04/06/2017	18:00	0.9	NE	05/06/2017	01:10	1.3	ENE	05/06/2017	08:20	0.4	WSW
04/06/2017	18:05	1.8	WNW	05/06/2017	01:15	0.4	W	05/06/2017	08:25	0.4	W
04/06/2017	18:10	1.3	W	05/06/2017	01:20	0.4	ENE	05/06/2017	08:30	0.9	W
04/06/2017	18:15	5.4	E	05/06/2017	01:25	0.4	ENE	05/06/2017	08:35	0.9	E
04/06/2017	18:20	0.9	WSW	05/06/2017	01:30	3.6	NE	05/06/2017	08:40	1.3	ENE
04/06/2017	18:25	1.8	W	05/06/2017	01:35	0.9	WSW	05/06/2017	08:45	0.4	E
04/06/2017	18:30	4	ENE	05/06/2017	01:40	1.3	WSW	05/06/2017	08:50	1.3	W
04/06/2017	18:35	1.3	NE	05/06/2017	01:45	1.8	SW	05/06/2017	08:55	1.3	WSW
04/06/2017	18:40	4	ENE	05/06/2017	01:50	1.3	WSW	05/06/2017	09:00	1.8	NE
04/06/2017	18:45	4.5	ENE	05/06/2017	01:55	0.4	W	05/06/2017	09:05	0.4	ENE
04/06/2017	18:50	4.5	E	05/06/2017	02:00	2.2	ENE	05/06/2017	09:10	0.9	SW
04/06/2017	18:55	2.2	W	05/06/2017	02:05	0.9	WSW	05/06/2017	09:15	0.9	N
04/06/2017	19:00	5.4	ENE	05/06/2017	02:10	0.4	E	05/06/2017	09:20	1.3	WSW
04/06/2017	19:05	0.9	WNW	05/06/2017	02:15	0.4	W	05/06/2017	09:25	0.4	E
04/06/2017	19:10	1.3	ENE	05/06/2017	02:20	0.9	NW	05/06/2017	09:30	1.8	NW
04/06/2017	19:15	4	NE	05/06/2017	02:25	2.7	WSW	05/06/2017	09:35	0.9	SW
04/06/2017	19:20	6.7	E	05/06/2017	02:30	1.8	N	05/06/2017	09:40	1.3	WSW
04/06/2017	19:25	2.2	WNW	05/06/2017	02:35	0.4	WSW	05/06/2017	09:45	1.8	WSW
04/06/2017	19:30	1.8	NNW	05/06/2017	02:40	0.9	WSW	05/06/2017	09:50	0.4	W
04/06/2017	19:35	4.5	NE	05/06/2017	02:45	1.3	N	05/06/2017	09:55	0.9	NW
04/06/2017	19:40	4.5	ENE	05/06/2017	02:50	1.8	NE	05/06/2017	10:00	0.9	WSW
04/06/2017	19:45	3.6	ENE	05/06/2017	02:55	0.9	SW	05/06/2017	10:05	0.4	W
04/06/2017	19:50	3.6	NE	05/06/2017	03:00	0.4	E	05/06/2017	10:10	0.9	N
04/06/2017	19:55	2.7	E	05/06/2017	03:05	1.8	NNE	05/06/2017	10:15	0.9	WSW
04/06/2017	20:00	3.6	NNE	05/06/2017	03:10	1.8	NNE	05/06/2017	10:20	0.9	W
04/06/2017	20:05	2.2	E	05/06/2017	03:15	0.9	W	05/06/2017	10:25	1.8	W
04/06/2017	20:10	4.9	E	05/06/2017	03:20	0.4	W	05/06/2017	10:30	4	E
04/06/2017	20:15	3.6	ENE	05/06/2017	03:25	0.4	N	05/06/2017	10:35	2.7	W
04/06/2017	20:20	0.9	NNE	05/06/2017	03:30	0.4	W	05/06/2017	10:40	0.9	NNE
04/06/2017	20:25	4.5	ENE	05/06/2017	03:35	1.8	ENE	05/06/2017	10:45	3.1	W
04/06/2017	20:30	1.3	SSW	05/06/2017	03:40	1.3	NE	05/06/2017	10:50	1.8	WSW
04/06/2017	20:35	4.9	E	05/06/2017	03:45	0.4	W	05/06/2017	10:55	2.7	WSW
04/06/2017	20:40	3.6	ENE	05/06/2017	03:50	1.8	NNE	05/06/2017	11:00	2.2	NW
04/06/2017	20:45	2.7	ENE	05/06/2017	03:55	0.4	NE	05/06/2017	11:05	0.9	W
04/06/2017	20:50	3.1	NE	05/06/2017	04:00	1.3	WNW	05/06/2017	11:10	1.8	NNE
04/06/2017	20:55	0.9	NW	05/06/2017	04:05	1.8	WNW	05/06/2017	11:15	0.4	NW
04/06/2017	21:00	2.7	W	05/06/2017	04:10	0.9	NNE	05/06/2017	11:20	1.8	WSW
04/06/2017	21:05	4	NE	05/06/2017	04:15	0.4	WSW	05/06/2017	11:25	0.9	W
04/06/2017	21:10	1.8	S	05/06/2017	04:20	0.9	NNE	05/06/2017	11:30	2.2	WSW

Extracted from the weather station at Tung Chung China State Site Office Rooftop

Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction
05/06/2017	11:35	1.3	WSW	05/06/2017	18:45	1.8	NNW	06/06/2017	01:55	0.9	NE
05/06/2017	11:40	0.4	NW	05/06/2017	18:50	0.4	N	06/06/2017	02:00	0.4	SW
05/06/2017	11:45	3.1	W	05/06/2017	18:55	0.4	WNW	06/06/2017	02:05	1.3	WSW
05/06/2017	11:50	1.3	N	05/06/2017	19:00	0.4	E	06/06/2017	02:10	1.3	NE
05/06/2017	11:55	0.4	E	05/06/2017	19:05	0.4	NE	06/06/2017	02:15	3.1	W
05/06/2017	12:00	1.3	N	05/06/2017	19:10	4	NE	06/06/2017	02:20	3.1	W
05/06/2017	12:05	0.4	WSW	05/06/2017	19:15	3.6	ENE	06/06/2017	02:25	0.9	ENE
05/06/2017	12:10	0.4	NW	05/06/2017	19:20	0.4	N	06/06/2017	02:30	1.3	W
05/06/2017	12:15	0.9	WSW	05/06/2017	19:25	0.9	N	06/06/2017	02:35	0.4	ESE
05/06/2017	12:20	1.8	W	05/06/2017	19:30	1.3	N	06/06/2017	02:40	0.4	ESE
05/06/2017	12:25	1.3	NNW	05/06/2017	19:35	3.1	WSW	06/06/2017	02:45	0.9	NE
05/06/2017	12:30	1.3	NE	05/06/2017	19:40	1.3	W	06/06/2017	02:50	3.1	WNW
05/06/2017	12:35	0.9	NW	05/06/2017	19:45	0.9	W	06/06/2017	02:55	3.1	W
05/06/2017	12:40	1.3	W	05/06/2017	19:50	0.4	W	06/06/2017	03:00	0.9	W
05/06/2017	12:45	0.4	W	05/06/2017	19:55	1.3	NW	06/06/2017	03:05	1.8	NNW
05/06/2017	12:50	1.8	WNW	05/06/2017	20:00	0.4	W	06/06/2017	03:10	0.4	SSW
05/06/2017	12:55	1.8	NNE	05/06/2017	20:05	0.4	WSW	06/06/2017	03:15	3.6	W
05/06/2017	13:00	1.8	WSW	05/06/2017	20:10	0.4	E	06/06/2017	03:20	3.1	W
05/06/2017	13:05	0.4	WSW	05/06/2017	20:15	0.4	W	06/06/2017	03:25	3.6	WNW
05/06/2017	13:10	0.9	NNW	05/06/2017	20:20	0	NNW	06/06/2017	03:30	2.2	WNW
05/06/2017	13:15	0.4	W	05/06/2017	20:25	0.9	WSW	06/06/2017	03:35	1.3	E
05/06/2017	13:20	1.3	WSW	05/06/2017	20:30	3.6	WSW	06/06/2017	03:40	0.9	ESE
05/06/2017	13:25	0.9	W	05/06/2017	20:35	0.9	WSW	06/06/2017	03:45	0.9	ESE
05/06/2017	13:30	0.9	W	05/06/2017	20:40	2.7	WNW	06/06/2017	03:50	4.9	WNW
05/06/2017	13:35	0.9	N	05/06/2017	20:45	1.8	NE	06/06/2017	03:55	0.9	N
05/06/2017	13:40	0.9	SW	05/06/2017	20:50	1.3	N	06/06/2017	04:00	0.9	ESE
05/06/2017	13:45	2.2	WSW	05/06/2017	20:55	0.4	W	06/06/2017	04:05	1.8	NE
05/06/2017	13:50	4	NE	05/06/2017	21:00	1.3	W	06/06/2017	04:10	2.7	WNW
05/06/2017	13:55	0.4	W	05/06/2017	21:05	0.9	W	06/06/2017	04:15	2.7	WNW
05/06/2017	14:00	0.9	W	05/06/2017	21:10	1.3	N	06/06/2017	04:20	3.1	W
05/06/2017	14:05	0.9	NNW	05/06/2017	21:15	0.9	WSW	06/06/2017	04:25	0.9	ESE
05/06/2017	14:10	3.1	NE	05/06/2017	21:20	1.8	WSW	06/06/2017	04:30	1.3	E
05/06/2017	14:15	3.6	WSW	05/06/2017	21:25	0.9	WSW	06/06/2017	04:35	2.7	W
05/06/2017	14:20	0.9	NE	05/06/2017	21:30	2.2	WNW	06/06/2017	04:40	1.3	NNW
05/06/2017	14:25	1.3	N	05/06/2017	21:35	0.9	W	06/06/2017	04:45	0.9	NNE
05/06/2017	14:30	1.3	NNW	05/06/2017	21:40	0.4	W	06/06/2017	04:50	0.9	NE
05/06/2017	14:35	0.4	WSW	05/06/2017	21:45	1.3	W	06/06/2017	04:55	3.6	W
05/06/2017	14:40	3.1	W	05/06/2017	21:50	1.8	NNE	06/06/2017	05:00	1.8	W
05/06/2017	14:45	4	W	05/06/2017	21:55	2.2	W	06/06/2017	05:05	0.4	NW
05/06/2017	14:50	1.3	WSW	05/06/2017	22:00	2.2	NE	06/06/2017	05:10	0.9	NE
05/06/2017	14:55	2.2	WNW	05/06/2017	22:05	4	ENE	06/06/2017	05:15	4	NW
05/06/2017	15:00	0.9	WSW	05/06/2017	22:10	2.7	NE	06/06/2017	05:20	4	NW
05/06/2017	15:05	0.9	NW	05/06/2017	22:15	0.9	NW	06/06/2017	05:25	0.4	NW
05/06/2017	15:10	0.9	NW	05/06/2017	22:20	4	NE	06/06/2017	05:30	1.3	NE
05/06/2017	15:15	2.2	WSW	05/06/2017	22:25	0.4	ENE	06/06/2017	05:35	3.1	WNW
05/06/2017	15:20	2.2	NE	05/06/2017	22:30	1.8	NE	06/06/2017	05:40	3.1	W
05/06/2017	15:25	1.3	W	05/06/2017	22:35	0.9	ENE	06/06/2017	05:45	0.4	NE
05/06/2017	15:30	0.4	W	05/06/2017	22:40	2.7	WSW	06/06/2017	05:50	0.4	E
05/06/2017	15:35	0.9	NW	05/06/2017	22:45	1.8	W	06/06/2017	05:55	1.3	NW
05/06/2017	15:40	0.9	ENE	05/06/2017	22:50	0.9	N	06/06/2017	06:00	3.6	W
05/06/2017	15:45	0.4	W	05/06/2017	22:55	1.3	NNE	06/06/2017	06:05	2.7	WNW
05/06/2017	15:50	0.9	NNE	05/06/2017	23:00	2.2	W	06/06/2017	06:10	3.1	W
05/06/2017	15:55	0.4	W	05/06/2017	23:05	3.1	NE	06/06/2017	06:15	3.6	WNW
05/06/2017	16:00	2.7	ENE	05/06/2017	23:10	0.4	NNW	06/06/2017	06:20	1.8	E
05/06/2017	16:05	0.4	WSW	05/06/2017	23:15	1.3	W	06/06/2017	06:25	2.2	W
05/06/2017	16:10	0.9	WNW	05/06/2017	23:20	1.8	N	06/06/2017	06:30	3.1	WNW
05/06/2017	16:15	0.9	NNW	05/06/2017	23:25	1.3	WSW	06/06/2017	06:35	0.9	NE
05/06/2017	16:20	1.8	NW	05/06/2017	23:30	0.4	E	06/06/2017	06:40	1.8	NW
05/06/2017	16:25	0.9	WSW	05/06/2017	23:35	0.4	NE	06/06/2017	06:45	0.9	NNW
05/06/2017	16:30	0	NNW	05/06/2017	23:40	4.9	W	06/06/2017	06:50	0.9	W
05/06/2017	16:35	1.8	WSW	05/06/2017	23:45	0.9	NE	06/06/2017	06:55	2.7	W
05/06/2017	16:40	0.4	ENE	05/06/2017	23:50	1.8	WSW	06/06/2017	07:00	0.4	NW
05/06/2017	16:45	1.8	NNE	05/06/2017	23:55	2.2	NE	06/06/2017	07:05	2.7	W
05/06/2017	16:50	1.8	N	06/06/2017	00:00	4	NE	06/06/2017	07:10	0.4	NNW
05/06/2017	16:55	0.9	ENE	06/06/2017	00:05	1.3	WSW	06/06/2017	07:15	1.3	NE
05/06/2017	17:00	0.9	W	06/06/2017	00:10	3.6	WNW	06/06/2017	07:20	3.1	W
05/06/2017	17:05	1.3	NNE	06/06/2017	00:15	0.4	SW	06/06/2017	07:25	2.7	WNW
05/06/2017	17:10	1.8	NE	06/06/2017	00:20	1.3	WSW	06/06/2017	07:30	2.2	W
05/06/2017	17:15	0.4	E	06/06/2017	00:25	0.9	N	06/06/2017	07:35	0.4	NE
05/06/2017	17:20	0.4	NE	06/06/2017	00:30	0.9	E	06/06/2017	07:40	0.4	ESE
05/06/2017	17:25	0.9	NW	06/06/2017	00:35	0.9	NE	06/06/2017	07:45	1.8	N
05/06/2017	17:30	2.7	E	06/06/2017	00:40	2.7	W	06/06/2017	07:50	2.7	WNW
05/06/2017	17:35	1.3	NE	06/06/2017	00:45	1.3	N	06/06/2017	07:55	2.7	W
05/06/2017	17:40	1.8	NE	06/06/2017	00:50	0.4	SSW	06/06/2017	08:00	2.7	W
05/06/2017	17:45	0.9	WSW	06/06/2017	00:55	3.1	WNW	06/06/2017	08:05	0.4	SW
05/06/2017	17:50	0.9	WSW	06/06/2017	01:00	0.4	NE	06/06/2017	08:10	3.1	W
05/06/2017	17:55	1.3	WSW	06/06/2017	01:05	3.1	W	06/06/2017	08:15	4	W
05/06/2017	18:00	0.4	E	06/06/2017	01:10	0.4	NW	06/06/2017	08:20	2.7	W
05/06/2017	18:05	0.4	W	06/06/2017	01:15	0.4	NE	06/06/2017	08:25	0.4	NE
05/06/2017	18:10	0.4	W	06/06/2017	01:20	0.9	NNW	06/06/2017	08:30	0.4	ESE
05/06/2017	18:15	1.3	N	06/06/2017	01:25	0.4	NNW	06/06/2017	08:35	0.4	NE
05/06/2017	18:20	1.8	NNW	06/06/2017	01:30	2.2	N	06/06/2017	08:40	3.1	WNW
05/06/2017	18:25	0.4	WNW	06/06/2017	01:35	1.3	N	06/06/2017	08:45	1.3	NNW
05/06/2017	18:30	0.9	ENE	06/06/2017	01:40	2.2	W	06/06/2017	08:50	3.1	WNW
05/06/2017	18:35	2.2	E	06/06/2017	01:45	2.7	W	06/06/2017	08:55	1.3	WNW
05/06/2017	18:40	0.9	SSE	06/06/2017	01:50	3.6	NW	06/06/2017	09:00	3.1	WNW



Extracted from the weather station at Tung Chung China State Site Office Rooftop

Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction
06/06/2017	09:05	1.3	E	06/06/2017	16:15	0.4	NE	06/06/2017	23:25	3.1	W
06/06/2017	09:10	1.8	E	06/06/2017	16:20	3.6	WNW	06/06/2017	23:30	3.6	W
06/06/2017	09:15	1.8	NW	06/06/2017	16:25	0.9	NE	06/06/2017	23:35	1.3	WNW
06/06/2017	09:20	0.4	ESE	06/06/2017	16:30	0.9	SW	06/06/2017	23:40	0.4	ESE
06/06/2017	09:25	0.4	NE	06/06/2017	16:35	0.9	WNW	06/06/2017	23:45	0.4	NNW
06/06/2017	09:30	3.1	WNW	06/06/2017	16:40	3.6	WNW	06/06/2017	23:50	3.1	WNW
06/06/2017	09:35	0.9	SSW	06/06/2017	16:45	1.3	WNW	06/06/2017	23:55	4	W
06/06/2017	09:40	1.3	WSW	06/06/2017	16:50	3.1	W	07/06/2017	00:00	1.8	N
06/06/2017	09:45	1.3	E	06/06/2017	16:55	0.9	ESE	07/06/2017	00:05	4.5	WNW
06/06/2017	09:50	0.4	NE	06/06/2017	17:00	3.1	W	07/06/2017	00:10	1.8	NE
06/06/2017	09:55	2.2	NNW	06/06/2017	17:05	3.1	W	07/06/2017	00:15	4	WNW
06/06/2017	10:00	2.7	W	06/06/2017	17:10	0.9	ESE	07/06/2017	00:20	2.2	N
06/06/2017	10:05	1.3	N	06/06/2017	17:15	2.2	N	07/06/2017	00:25	1.3	ENE
06/06/2017	10:10	3.6	WSW	06/06/2017	17:20	4	WNW	07/06/2017	00:30	1.3	ENE
06/06/2017	10:15	3.6	WNW	06/06/2017	17:25	1.3	NE	07/06/2017	00:35	4	W
06/06/2017	10:20	3.1	WNW	06/06/2017	17:30	3.6	W	07/06/2017	00:40	2.2	N
06/06/2017	10:25	0.4	ESE	06/06/2017	17:35	4	W	07/06/2017	00:45	4	WNW
06/06/2017	10:30	3.1	WNW	06/06/2017	17:40	2.2	NNW	07/06/2017	00:50	1.3	W
06/06/2017	10:35	2.7	W	06/06/2017	17:45	1.3	E	07/06/2017	00:55	0.4	NE
06/06/2017	10:40	3.1	W	06/06/2017	17:50	0.9	SW	07/06/2017	01:00	2.2	NE
06/06/2017	10:45	0.9	E	06/06/2017	17:55	1.3	NW	07/06/2017	01:05	2.7	NNE
06/06/2017	10:50	1.8	N	06/06/2017	18:00	0.9	NNW	07/06/2017	01:10	1.3	NE
06/06/2017	10:55	3.6	W	06/06/2017	18:05	0.9	ESE	07/06/2017	01:15	2.7	N
06/06/2017	11:00	0.9	SSW	06/06/2017	18:10	0.4	N	07/06/2017	01:20	1.8	N
06/06/2017	11:05	0.9	SSW	06/06/2017	18:15	0.9	SW	07/06/2017	01:25	1.8	N
06/06/2017	11:10	1.3	NE	06/06/2017	18:20	1.8	N	07/06/2017	01:30	2.2	NW
06/06/2017	11:15	1.3	NE	06/06/2017	18:25	3.6	WNW	07/06/2017	01:35	4.5	W
06/06/2017	11:20	0.9	W	06/06/2017	18:30	2.7	SW	07/06/2017	01:40	1.8	NNW
06/06/2017	11:25	1.8	WSW	06/06/2017	18:35	0.4	NW	07/06/2017	01:45	1.3	ENE
06/06/2017	11:30	0.4	ESE	06/06/2017	18:40	3.6	W	07/06/2017	01:50	2.2	NNW
06/06/2017	11:35	2.2	N	06/06/2017	18:45	2.2	WNW	07/06/2017	01:55	1.8	NNW
06/06/2017	11:40	0.9	NW	06/06/2017	18:50	3.6	W	07/06/2017	02:00	1.8	NW
06/06/2017	11:45	3.6	WNW	06/06/2017	18:55	2.7	WNW	07/06/2017	02:05	2.2	NW
06/06/2017	11:50	0.9	E	06/06/2017	19:00	3.1	W	07/06/2017	02:10	1.8	NW
06/06/2017	11:55	0.4	NE	06/06/2017	19:05	3.6	WNW	07/06/2017	02:15	2.2	NE
06/06/2017	12:00	0.9	WSW	06/06/2017	19:10	0.4	ESE	07/06/2017	02:20	4	WNW
06/06/2017	12:05	4	W	06/06/2017	19:15	0.9	ESE	07/06/2017	02:25	2.2	NNE
06/06/2017	12:10	0.4	ESE	06/06/2017	19:20	0.9	W	07/06/2017	02:30	4.5	WNW
06/06/2017	12:15	3.1	W	06/06/2017	19:25	0.9	ESE	07/06/2017	02:35	1.3	N
06/06/2017	12:20	3.1	W	06/06/2017	19:30	3.6	WNW	07/06/2017	02:40	1.8	ENE
06/06/2017	12:25	0.9	NNW	06/06/2017	19:35	3.6	WNW	07/06/2017	02:45	2.7	NE
06/06/2017	12:30	0.4	ESE	06/06/2017	19:40	2.7	WNW	07/06/2017	02:50	2.2	NW
06/06/2017	12:35	0.4	NNE	06/06/2017	19:45	1.3	NE	07/06/2017	02:55	3.1	W
06/06/2017	12:40	3.1	W	06/06/2017	19:50	3.6	W	07/06/2017	03:00	2.2	NE
06/06/2017	12:45	3.6	WNW	06/06/2017	19:55	1.3	ENE	07/06/2017	03:05	3.1	NNE
06/06/2017	12:50	0.9	WSW	06/06/2017	20:00	0.4	NW	07/06/2017	03:10	2.2	NNW
06/06/2017	12:55	2.7	W	06/06/2017	20:05	1.3	E	07/06/2017	03:15	2.2	ENE
06/06/2017	13:00	0.9	WNW	06/06/2017	20:10	1.8	NE	07/06/2017	03:20	1.3	N
06/06/2017	13:05	0.9	W	06/06/2017	20:15	3.6	WNW	07/06/2017	03:25	1.8	NNW
06/06/2017	13:10	2.7	WNW	06/06/2017	20:20	3.6	W	07/06/2017	03:30	3.6	W
06/06/2017	13:15	3.6	WNW	06/06/2017	20:25	1.3	NNE	07/06/2017	03:35	2.2	ENE
06/06/2017	13:20	1.8	E	06/06/2017	20:30	1.3	WSW	07/06/2017	03:40	0.9	NE
06/06/2017	13:25	3.1	W	06/06/2017	20:35	1.8	N	07/06/2017	03:45	4	W
06/06/2017	13:30	0.4	WSW	06/06/2017	20:40	0.9	NNW	07/06/2017	03:50	2.7	NNW
06/06/2017	13:35	0.9	NE	06/06/2017	20:45	4	WNW	07/06/2017	03:55	1.8	NNW
06/06/2017	13:40	1.8	NW	06/06/2017	20:50	1.3	WSW	07/06/2017	04:00	1.3	N
06/06/2017	13:45	2.7	WNW	06/06/2017	20:55	2.7	SW	07/06/2017	04:05	4	W
06/06/2017	13:50	0.4	ESE	06/06/2017	21:00	0.9	NW	07/06/2017	04:10	1.8	WNW
06/06/2017	13:55	0.9	NNW	06/06/2017	21:05	4	WNW	07/06/2017	04:15	2.2	NNW
06/06/2017	14:00	2.7	WNW	06/06/2017	21:10	2.7	WSW	07/06/2017	04:20	2.2	N
06/06/2017	14:05	1.3	N	06/06/2017	21:15	1.8	N	07/06/2017	04:25	2.2	N
06/06/2017	14:10	2.2	NE	06/06/2017	21:20	3.1	WNW	07/06/2017	04:30	2.2	ENE
06/06/2017	14:15	3.6	W	06/06/2017	21:25	3.1	WNW	07/06/2017	04:35	1.8	ENE
06/06/2017	14:20	0.4	NNW	06/06/2017	21:30	0.4	NNW	07/06/2017	04:40	3.6	W
06/06/2017	14:25	0.9	WSW	06/06/2017	21:35	0.4	NW	07/06/2017	04:45	4.5	W
06/06/2017	14:30	0.9	NE	06/06/2017	21:40	3.1	W	07/06/2017	04:50	2.2	NNW
06/06/2017	14:35	3.6	W	06/06/2017	21:45	1.3	E	07/06/2017	04:55	4.9	W
06/06/2017	14:40	3.6	WNW	06/06/2017	21:50	1.8	N	07/06/2017	05:00	3.6	WNW
06/06/2017	14:45	1.3	NE	06/06/2017	21:55	0.4	NE	07/06/2017	05:05	2.2	NE
06/06/2017	14:50	3.1	W	06/06/2017	22:00	3.1	WNW	07/06/2017	05:10	1.3	ENE
06/06/2017	14:55	0.9	WSW	06/06/2017	22:05	0.4	NE	07/06/2017	05:15	2.2	N
06/06/2017	15:00	2.2	W	06/06/2017	22:10	1.3	WNW	07/06/2017	05:20	1.3	NE
06/06/2017	15:05	0.9	NNW	06/06/2017	22:15	1.8	NE	07/06/2017	05:25	1.8	NW
06/06/2017	15:10	0.9	NNW	06/06/2017	22:20	0.4	SW	07/06/2017	05:30	1.8	NE
06/06/2017	15:15	0.9	NNW	06/06/2017	22:25	2.7	W	07/06/2017	05:35	2.2	NW
06/06/2017	15:20	1.3	NNE	06/06/2017	22:30	3.1	W	07/06/2017	05:40	1.3	NNW
06/06/2017	15:25	2.7	WSW	06/06/2017	22:35	3.6	W	07/06/2017	05:45	1.3	N
06/06/2017	15:30	1.3	NE	06/06/2017	22:40	1.3	N	07/06/2017	05:50	2.2	N
06/06/2017	15:35	0.4	SW	06/06/2017	22:45	2.7	W	07/06/2017	05:55	2.7	NW
06/06/2017	15:40	3.6	WNW	06/06/2017	22:50	2.2	NNW	07/06/2017	06:00	2.2	NNW
06/06/2017	15:45	2.7	W	06/06/2017	22:55	3.6	W	07/06/2017	06:05	1.3	NE
06/06/2017	15:50	1.3	WNW	06/06/2017	23:00	3.6	W	07/06/2017	06:10	4.5	WNW
06/06/2017	15:55	3.1	WNW	06/06/2017	23:05	1.8	NNW	07/06/2017	06:15	2.2	NE
06/06/2017	16:00	0.4	NNW	06/06/2017	23:10	0.4	NW	07/06/2017	06:20	1.8	ENE
06/06/2017	16:05	0.9	WSW	06/06/2017	23:15	1.3	N	07/06/2017	06:25	1.8	N
06/06/2017	16:10	1.8	N	06/06/2017	23:20	3.1	W	07/06/2017	06:30	0.9	NW

Extracted from the weather station at Tung Chung China State Site Office Rooftop

Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction
07/06/2017	06:35	1.3	N	07/06/2017	13:45	2.2	NNW	07/06/2017	20:55	2.2	N
07/06/2017	06:40	2.2	N	07/06/2017	13:50	2.2	NE	07/06/2017	21:00	2.2	NE
07/06/2017	06:45	1.8	NW	07/06/2017	13:55	1.8	NE	07/06/2017	21:05	1.8	NE
07/06/2017	06:50	4	WNW	07/06/2017	14:00	4.5	W	07/06/2017	21:10	1.8	NE
07/06/2017	06:55	0	N	07/06/2017	14:05	4	WNW	07/06/2017	21:15	1.8	ENE
07/06/2017	07:00	1.8	NE	07/06/2017	14:10	1.3	NE	07/06/2017	21:20	2.2	NNW
07/06/2017	07:05	3.6	WNW	07/06/2017	14:15	2.2	NE	07/06/2017	21:25	1.8	NW
07/06/2017	07:10	2.2	N	07/06/2017	14:20	2.2	NNW	07/06/2017	21:30	1.3	NW
07/06/2017	07:15	4	W	07/06/2017	14:25	4	WNW	07/06/2017	21:35	2.7	NNW
07/06/2017	07:20	5.4	WNW	07/06/2017	14:30	2.2	NNE	07/06/2017	21:40	2.2	NNW
07/06/2017	07:25	2.2	N	07/06/2017	14:35	3.6	WNW	07/06/2017	21:45	4.9	WNW
07/06/2017	07:30	1.8	N	07/06/2017	14:40	1.8	N	07/06/2017	21:50	1.3	NE
07/06/2017	07:35	4.5	WNW	07/06/2017	14:45	0.9	NNW	07/06/2017	21:55	2.2	NNW
07/06/2017	07:40	3.1	WNW	07/06/2017	14:50	1.3	NE	07/06/2017	22:00	2.2	ENE
07/06/2017	07:45	2.2	NNW	07/06/2017	14:55	1.3	NE	07/06/2017	22:05	3.6	WNW
07/06/2017	07:50	4.5	W	07/06/2017	15:00	4.5	W	07/06/2017	22:10	4.5	W
07/06/2017	07:55	2.2	NNW	07/06/2017	15:05	2.2	N	07/06/2017	22:15	1.8	ENE
07/06/2017	08:00	2.2	NE	07/06/2017	15:10	2.2	N	07/06/2017	22:20	1.8	NW
07/06/2017	08:05	1.3	NE	07/06/2017	15:15	0.9	NNW	07/06/2017	22:25	1.3	ENE
07/06/2017	08:10	1.3	NNW	07/06/2017	15:20	1.3	NW	07/06/2017	22:30	3.6	WNW
07/06/2017	08:15	3.1	WNW	07/06/2017	15:25	2.2	NW	07/06/2017	22:35	1.3	NNE
07/06/2017	08:20	2.2	NW	07/06/2017	15:30	4.9	W	07/06/2017	22:40	3.6	W
07/06/2017	08:25	2.7	NNE	07/06/2017	15:35	1.3	NNW	07/06/2017	22:45	2.2	NNE
07/06/2017	08:30	1.3	NNE	07/06/2017	15:40	1.3	N	07/06/2017	22:50	2.2	ENE
07/06/2017	08:35	3.6	W	07/06/2017	15:45	1.3	NNE	07/06/2017	22:55	1.3	NE
07/06/2017	08:40	1.8	NNW	07/06/2017	15:50	0.9	NNE	07/06/2017	23:00	1.3	NNW
07/06/2017	08:45	1.8	N	07/06/2017	15:55	2.7	NNW	07/06/2017	23:05	2.2	NNW
07/06/2017	08:50	2.2	NNW	07/06/2017	16:00	2.2	NNW	07/06/2017	23:10	2.2	NW
07/06/2017	08:55	2.2	NNW	07/06/2017	16:05	2.2	ENE	07/06/2017	23:15	0.4	N
07/06/2017	09:00	2.2	NNW	07/06/2017	16:10	0.9	N	07/06/2017	23:20	2.2	NNE
07/06/2017	09:05	1.8	ENE	07/06/2017	16:15	1.8	NE	07/06/2017	23:25	1.3	NNW
07/06/2017	09:10	4.5	WNW	07/06/2017	16:20	0.4	NNE	07/06/2017	23:30	1.8	NNW
07/06/2017	09:15	2.2	ENE	07/06/2017	16:25	1.8	NE	07/06/2017	23:35	0.4	NE
07/06/2017	09:20	0.9	N	07/06/2017	16:30	2.2	N	07/06/2017	23:40	1.8	ENE
07/06/2017	09:25	2.2	W	07/06/2017	16:35	1.8	NE	07/06/2017	23:45	2.2	N
07/06/2017	09:30	0.9	NW	07/06/2017	16:40	1.8	NNW	07/06/2017	23:50	1.3	NNE
07/06/2017	09:35	2.2	N	07/06/2017	16:45	2.2	NW	07/06/2017	23:55	1.3	ENE
07/06/2017	09:40	4.9	WNW	07/06/2017	16:50	1.8	NW	08/06/2017	00:00	1.8	NW
07/06/2017	09:45	1.3	NNE	07/06/2017	16:55	1.3	NNE	08/06/2017	00:05	1.8	NW
07/06/2017	09:50	1.8	NE	07/06/2017	17:00	1.8	N	08/06/2017	00:10	4.9	W
07/06/2017	09:55	3.1	WNW	07/06/2017	17:05	1.8	NE	08/06/2017	00:15	4.9	W
07/06/2017	10:00	2.2	W	07/06/2017	17:10	1.8	N	08/06/2017	00:20	4	WNW
07/06/2017	10:05	4.5	W	07/06/2017	17:15	2.2	ENE	08/06/2017	00:25	5.8	W
07/06/2017	10:10	4.5	W	07/06/2017	17:20	1.8	NNW	08/06/2017	00:30	2.2	N
07/06/2017	10:15	1.8	N	07/06/2017	17:25	0.9	NNE	08/06/2017	00:35	2.7	W
07/06/2017	10:20	1.8	N	07/06/2017	17:30	1.3	ENE	08/06/2017	00:40	2.7	WNW
07/06/2017	10:25	2.2	NW	07/06/2017	17:35	2.2	ENE	08/06/2017	00:45	2.2	N
07/06/2017	10:30	1.3	NE	07/06/2017	17:40	4	WNW	08/06/2017	00:50	2.2	N
07/06/2017	10:35	2.2	NNW	07/06/2017	17:45	4.5	WNW	08/06/2017	00:55	1.8	N
07/06/2017	10:40	1.3	NNW	07/06/2017	17:50	2.2	NNW	08/06/2017	01:00	1.8	NW
07/06/2017	10:45	2.2	NNW	07/06/2017	17:55	1.3	NE	08/06/2017	01:05	4.5	W
07/06/2017	10:50	2.2	N	07/06/2017	18:00	1.8	NNW	08/06/2017	01:10	1.8	N
07/06/2017	10:55	2.2	ENE	07/06/2017	18:05	1.8	ENE	08/06/2017	01:15	4.9	W
07/06/2017	11:00	0.9	N	07/06/2017	18:10	4	W	08/06/2017	01:20	1.8	NE
07/06/2017	11:05	3.1	WNW	07/06/2017	18:15	2.2	NE	08/06/2017	01:25	1.8	NNW
07/06/2017	11:10	1.8	NE	07/06/2017	18:20	1.8	ENE	08/06/2017	01:30	1.3	NW
07/06/2017	11:15	1.8	N	07/06/2017	18:25	4.5	W	08/06/2017	01:35	3.1	W
07/06/2017	11:20	1.3	NNE	07/06/2017	18:30	1.8	ENE	08/06/2017	01:40	1.3	NW
07/06/2017	11:25	4.5	W	07/06/2017	18:35	2.7	NNW	08/06/2017	01:45	2.2	NNE
07/06/2017	11:30	1.8	N	07/06/2017	18:40	2.7	NNW	08/06/2017	01:50	2.2	NW
07/06/2017	11:35	1.3	NE	07/06/2017	18:45	0.4	NE	08/06/2017	01:55	1.8	NW
07/06/2017	11:40	1.8	N	07/06/2017	18:50	2.2	NW	08/06/2017	02:00	3.6	W
07/06/2017	11:45	1.8	NNW	07/06/2017	18:55	4.5	W	08/06/2017	02:05	2.2	NW
07/06/2017	11:50	3.6	WNW	07/06/2017	19:00	4	WNW	08/06/2017	02:10	2.7	N
07/06/2017	11:55	4.9	W	07/06/2017	19:05	1.3	NNE	08/06/2017	02:15	3.1	WNW
07/06/2017	12:00	0.9	NE	07/06/2017	19:10	1.8	ENE	08/06/2017	02:20	2.7	WNW
07/06/2017	12:05	3.6	WNW	07/06/2017	19:15	2.7	NW	08/06/2017	02:25	4	W
07/06/2017	12:10	2.2	NNW	07/06/2017	19:20	2.2	NW	08/06/2017	02:30	1.8	NE
07/06/2017	12:15	2.2	NE	07/06/2017	19:25	1.8	N	08/06/2017	02:35	4.5	W
07/06/2017	12:20	1.3	N	07/06/2017	19:30	1.8	NW	08/06/2017	02:40	1.8	NW
07/06/2017	12:25	2.2	ENE	07/06/2017	19:35	1.8	NE	08/06/2017	02:45	4.5	W
07/06/2017	12:30	1.8	ENE	07/06/2017	19:40	2.7	NNE	08/06/2017	02:50	4	W
07/06/2017	12:35	0.4	NE	07/06/2017	19:45	4.5	W	08/06/2017	02:55	3.6	W
07/06/2017	12:40	2.2	NNW	07/06/2017	19:50	2.2	NW	08/06/2017	03:00	1.8	NNE
07/06/2017	12:45	1.3	N	07/06/2017	19:55	2.2	NW	08/06/2017	03:05	4.9	W
07/06/2017	12:50	1.3	NNE	07/06/2017	20:00	1.3	ENE	08/06/2017	03:10	1.3	N
07/06/2017	12:55	1.3	NE	07/06/2017	20:05	4.9	WNW	08/06/2017	03:15	4.5	WNW
07/06/2017	13:00	1.8	NNW	07/06/2017	20:10	1.8	ENE	08/06/2017	03:20	3.6	W
07/06/2017	13:05	1.8	NW	07/06/2017	20:15	2.2	NW	08/06/2017	03:25	4.5	W
07/06/2017	13:10	1.8	N	07/06/2017	20:20	1.3	NE	08/06/2017	03:30	2.2	NE
07/06/2017	13:15	2.7	N	07/06/2017	20:25	4	W	08/06/2017	03:35	3.1	WNW
07/06/2017	13:20	1.8	NE	07/06/2017	20:30	1.8	NE	08/06/2017	03:40	1.8	NNE
07/06/2017	13:25	2.7	NW	07/06/2017	20:35	2.2	N	08/06/2017	03:45	3.6	W
07/06/2017	13:30	2.7	NE	07/06/2017	20:40	2.7	NE	08/06/2017	03:50	1.8	NW
07/06/2017	13:35	1.8	N	07/06/2017	20:45	1.3	ENE	08/06/2017	03:55	3.1	NNW
07/06/2017	13:40	1.3	NE	07/06/2017	20:50	2.2	NW	08/06/2017	04:00	1.8	WNW

Extracted from the weather station at Tung Chung China State Site Office Rooftop

Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction
08/06/2017	04:05	4	W	08/06/2017	11:15	5.4	WNW	08/06/2017	18:25	1.8	NW
08/06/2017	04:10	4.9	W	08/06/2017	11:20	2.2	NNW	08/06/2017	18:30	1.8	NW
08/06/2017	04:15	2.2	NW	08/06/2017	11:25	2.2	NW	08/06/2017	18:35	1.8	N
08/06/2017	04:20	1.8	NW	08/06/2017	11:30	1.8	NE	08/06/2017	18:40	2.2	NW
08/06/2017	04:25	1.3	NW	08/06/2017	11:35	2.7	WNW	08/06/2017	18:45	4.5	W
08/06/2017	04:30	1.8	NNW	08/06/2017	11:40	1.3	NNE	08/06/2017	18:50	1.3	N
08/06/2017	04:35	2.7	N	08/06/2017	11:45	3.6	W	08/06/2017	18:55	3.6	WNW
08/06/2017	04:40	4	W	08/06/2017	11:50	1.8	NW	08/06/2017	19:00	3.1	WNW
08/06/2017	04:45	2.7	NNE	08/06/2017	11:55	2.2	NNW	08/06/2017	19:05	1.8	N
08/06/2017	04:50	3.6	W	08/06/2017	12:00	2.2	NW	08/06/2017	19:10	2.2	WNW
08/06/2017	04:55	1.3	NNW	08/06/2017	12:05	2.2	NW	08/06/2017	19:15	1.8	NW
08/06/2017	05:00	2.2	NW	08/06/2017	12:10	2.2	WNW	08/06/2017	19:20	3.6	W
08/06/2017	05:05	4.5	W	08/06/2017	12:15	1.8	NW	08/06/2017	19:25	2.7	N
08/06/2017	05:10	2.7	NW	08/06/2017	12:20	1.8	NNW	08/06/2017	19:30	3.6	W
08/06/2017	05:15	2.7	NW	08/06/2017	12:25	3.1	W	08/06/2017	19:35	4	W
08/06/2017	05:20	2.2	NE	08/06/2017	12:30	1.8	NNE	08/06/2017	19:40	4.9	W
08/06/2017	05:25	4	W	08/06/2017	12:35	2.7	N	08/06/2017	19:45	1.8	NW
08/06/2017	05:30	4	WNW	08/06/2017	12:40	1.8	NW	08/06/2017	19:50	1.3	NNE
08/06/2017	05:35	1.8	NW	08/06/2017	12:45	1.3	NNW	08/06/2017	19:55	2.2	NW
08/06/2017	05:40	1.8	N	08/06/2017	12:50	1.3	NNW	08/06/2017	20:00	1.8	NE
08/06/2017	05:45	2.2	N	08/06/2017	12:55	2.7	NW	08/06/2017	20:05	1.8	NNW
08/06/2017	05:50	4	W	08/06/2017	13:00	1.8	ENE	08/06/2017	20:10	1.3	NNE
08/06/2017	05:55	4.5	W	08/06/2017	13:05	4.5	WNW	08/06/2017	20:15	2.7	NW
08/06/2017	06:00	1.3	NW	08/06/2017	13:10	1.8	N	08/06/2017	20:20	1.8	NNW
08/06/2017	06:05	1.8	NNE	08/06/2017	13:15	2.2	NNW	08/06/2017	20:25	1.8	NW
08/06/2017	06:10	2.7	W	08/06/2017	13:20	1.8	NNW	08/06/2017	20:30	2.7	NNE
08/06/2017	06:15	1.8	NW	08/06/2017	13:25	1.8	NW	08/06/2017	20:35	1.8	NNE
08/06/2017	06:20	5.4	W	08/06/2017	13:30	2.2	NNE	08/06/2017	20:40	2.2	NW
08/06/2017	06:25	2.2	NNW	08/06/2017	13:35	4.5	WNW	08/06/2017	20:45	4	WNW
08/06/2017	06:30	1.8	ENE	08/06/2017	13:40	2.2	NW	08/06/2017	20:50	1.8	N
08/06/2017	06:35	1.3	NNW	08/06/2017	13:45	3.6	W	08/06/2017	20:55	1.8	NW
08/06/2017	06:40	1.3	N	08/06/2017	13:50	2.2	NNW	08/06/2017	21:00	1.8	NNW
08/06/2017	06:45	1.8	NW	08/06/2017	13:55	1.8	NW	08/06/2017	21:05	1.8	NE
08/06/2017	06:50	4	WNW	08/06/2017	14:00	1.8	NNE	08/06/2017	21:10	1.8	NW
08/06/2017	06:55	1.8	NW	08/06/2017	14:05	1.8	N	08/06/2017	21:15	1.3	NNE
08/06/2017	07:00	1.8	NNW	08/06/2017	14:10	4.9	W	08/06/2017	21:20	3.6	W
08/06/2017	07:05	1.8	N	08/06/2017	14:15	5.4	W	08/06/2017	21:25	1.3	NW
08/06/2017	07:10	1.8	NW	08/06/2017	14:20	3.6	WNW	08/06/2017	21:30	3.6	W
08/06/2017	07:15	1.8	NW	08/06/2017	14:25	3.1	WNW	08/06/2017	21:35	3.1	W
08/06/2017	07:20	1.8	NW	08/06/2017	14:30	2.2	W	08/06/2017	21:40	1.3	NW
08/06/2017	07:25	2.2	NW	08/06/2017	14:35	1.8	NW	08/06/2017	21:45	4.9	W
08/06/2017	07:30	1.8	NW	08/06/2017	14:40	1.8	NE	08/06/2017	21:50	2.7	NNW
08/06/2017	07:35	0.9	NNE	08/06/2017	14:45	1.3	NNW	08/06/2017	21:55	3.6	W
08/06/2017	07:40	2.2	NW	08/06/2017	14:50	4.5	WNW	08/06/2017	22:00	2.2	N
08/06/2017	07:45	2.7	NW	08/06/2017	14:55	2.2	NW	08/06/2017	22:05	2.2	NW
08/06/2017	07:50	0.9	NW	08/06/2017	15:00	5.4	WNW	08/06/2017	22:10	2.7	WNW
08/06/2017	07:55	1.3	N	08/06/2017	15:05	3.6	W	08/06/2017	22:15	2.2	NW
08/06/2017	08:00	2.7	W	08/06/2017	15:10	4	W	08/06/2017	22:20	4	W
08/06/2017	08:05	1.3	NW	08/06/2017	15:15	2.2	NNW	08/06/2017	22:25	4	W
08/06/2017	08:10	1.8	NNW	08/06/2017	15:20	1.8	NW	08/06/2017	22:30	1.8	NW
08/06/2017	08:15	4.5	W	08/06/2017	15:25	4.9	W	08/06/2017	22:35	3.1	W
08/06/2017	08:20	3.1	WNW	08/06/2017	15:30	1.3	NW	08/06/2017	22:40	4	WNW
08/06/2017	08:25	1.8	N	08/06/2017	15:35	2.2	N	08/06/2017	22:45	2.2	W
08/06/2017	08:30	2.2	NNW	08/06/2017	15:40	1.8	NW	08/06/2017	22:50	2.2	NW
08/06/2017	08:35	2.2	NW	08/06/2017	15:45	4.5	W	08/06/2017	22:55	1.8	NNW
08/06/2017	08:40	2.2	N	08/06/2017	15:50	1.3	NNW	08/06/2017	23:00	2.2	NW
08/06/2017	08:45	2.2	N	08/06/2017	15:55	2.2	WNW	08/06/2017	23:05	4.5	W
08/06/2017	08:50	2.2	NW	08/06/2017	16:00	3.1	WNW	08/06/2017	23:10	2.7	N
08/06/2017	08:55	2.2	NW	08/06/2017	16:05	4.5	W	08/06/2017	23:15	5.4	W
08/06/2017	09:00	4	WNW	08/06/2017	16:10	2.2	N	08/06/2017	23:20	2.2	NW
08/06/2017	09:05	4	WNW	08/06/2017	16:15	4.9	W	08/06/2017	23:25	2.2	NNW
08/06/2017	09:10	4.5	W	08/06/2017	16:20	4	W	08/06/2017	23:30	2.2	NNE
08/06/2017	09:15	2.2	NNW	08/06/2017	16:25	1.8	N	08/06/2017	23:35	5.4	W
08/06/2017	09:20	2.2	N	08/06/2017	16:30	2.2	NNW	08/06/2017	23:40	4	WNW
08/06/2017	09:25	2.2	NW	08/06/2017	16:35	4	W	08/06/2017	23:45	2.7	NW
08/06/2017	09:30	4.9	WNW	08/06/2017	16:40	2.7	N	08/06/2017	23:50	4.9	W
08/06/2017	09:35	1.8	NW	08/06/2017	16:45	1.8	NNW	08/06/2017	23:55	4.5	W
08/06/2017	09:40	4	W	08/06/2017	16:50	1.3	NNE	09/06/2017	00:00	2.2	NW
08/06/2017	09:45	4.5	WNW	08/06/2017	16:55	1.3	N	09/06/2017	00:05	1.3	SSW
08/06/2017	09:50	1.3	NW	08/06/2017	17:00	2.2	N	09/06/2017	00:10	1.3	NW
08/06/2017	09:55	2.2	NW	08/06/2017	17:05	4.5	W	09/06/2017	00:15	6.7	WNW
08/06/2017	10:00	2.2	W	08/06/2017	17:10	2.2	N	09/06/2017	00:20	1.8	NNW
08/06/2017	10:05	1.8	NW	08/06/2017	17:15	1.8	NNW	09/06/2017	00:25	4.5	WNW
08/06/2017	10:10	3.6	W	08/06/2017	17:20	1.3	N	09/06/2017	00:30	1.8	NNW
08/06/2017	10:15	1.8	NNE	08/06/2017	17:25	1.8	NW	09/06/2017	00:35	0.9	NW
08/06/2017	10:20	2.2	NW	08/06/2017	17:30	1.8	NW	09/06/2017	00:40	1.8	WSW
08/06/2017	10:25	2.2	NW	08/06/2017	17:35	1.8	NW	09/06/2017	00:45	4	W
08/06/2017	10:30	2.2	NW	08/06/2017	17:40	2.7	NNW	09/06/2017	00:50	2.7	NW
08/06/2017	10:35	4.9	WNW	08/06/2017	17:45	4.5	WNW	09/06/2017	00:55	3.6	W
08/06/2017	10:40	1.8	NW	08/06/2017	17:50	3.6	N	09/06/2017	01:00	5.8	WNW
08/06/2017	10:45	3.1	N	08/06/2017	17:55	2.2	NW	09/06/2017	01:05	2.2	SW
08/06/2017	10:50	2.2	NW	08/06/2017	18:00	2.7	NW	09/06/2017	01:10	2.2	NW
08/06/2017	10:55	2.2	NNE	08/06/2017	18:05	2.2	N	09/06/2017	01:15	1.3	N
08/06/2017	11:00	2.2	WNW	08/06/2017	18:10	2.2	NW	09/06/2017	01:20	1.3	NNW
08/06/2017	11:05	2.2	NW	08/06/2017	18:15	3.1	WNW	09/06/2017	01:25	4.5	WSW
08/06/2017	11:10	1.8	N	08/06/2017	18:20	2.2	NNW	09/06/2017	01:30	1.8	NNW

Extracted from the weather station at Tung Chung China State Site Office Rooftop

Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction
09/06/2017	01:35	4.9	W	09/06/2017	08:45	4.5	WNW	09/06/2017	15:55	4.5	W
09/06/2017	01:40	4.9	WNW	09/06/2017	08:50	5.4	WNW	09/06/2017	16:00	3.6	NW
09/06/2017	01:45	3.1	WSW	09/06/2017	08:55	4.9	WNW	09/06/2017	16:05	1.3	NNW
09/06/2017	01:50	1.3	NNW	09/06/2017	09:00	2.2	NNW	09/06/2017	16:10	1.3	NW
09/06/2017	01:55	4	SW	09/06/2017	09:05	0.4	WSW	09/06/2017	16:15	1.3	NW
09/06/2017	02:00	0.4	WSW	09/06/2017	09:10	4.9	WNW	09/06/2017	16:20	3.1	W
09/06/2017	02:05	0.9	NNW	09/06/2017	09:15	4.5	W	09/06/2017	16:25	2.2	NW
09/06/2017	02:10	5.8	WNW	09/06/2017	09:20	1.3	NNW	09/06/2017	16:30	4	W
09/06/2017	02:15	1.8	NE	09/06/2017	09:25	2.7	WNW	09/06/2017	16:35	0.4	E
09/06/2017	02:20	1.8	NW	09/06/2017	09:30	1.3	WSW	09/06/2017	16:40	4	W
09/06/2017	02:25	4.5	WNW	09/06/2017	09:35	4.9	WNW	09/06/2017	16:45	0.9	NNW
09/06/2017	02:30	4	WNW	09/06/2017	09:40	0.4	WSW	09/06/2017	16:50	4	W
09/06/2017	02:35	3.6	WNW	09/06/2017	09:45	2.2	NW	09/06/2017	16:55	2.7	SW
09/06/2017	02:40	4.9	W	09/06/2017	09:50	2.7	W	09/06/2017	17:00	4	W
09/06/2017	02:45	4.9	WNW	09/06/2017	09:55	4	W	09/06/2017	17:05	2.7	NW
09/06/2017	02:50	4	WNW	09/06/2017	10:00	0.9	NNW	09/06/2017	17:10	5.8	WNW
09/06/2017	02:55	4	WNW	09/06/2017	10:05	4	W	09/06/2017	17:15	5.4	WNW
09/06/2017	03:00	2.7	WSW	09/06/2017	10:10	4.9	W	09/06/2017	17:20	0.4	WSW
09/06/2017	03:05	3.6	WNW	09/06/2017	10:15	3.1	WNW	09/06/2017	17:25	2.2	NW
09/06/2017	03:10	4.5	WNW	09/06/2017	10:20	1.3	NNW	09/06/2017	17:30	0.9	NNW
09/06/2017	03:15	5.4	WNW	09/06/2017	10:25	0.4	WSW	09/06/2017	17:35	2.7	W
09/06/2017	03:20	1.3	NW	09/06/2017	10:30	4.5	W	09/06/2017	17:40	2.2	NNW
09/06/2017	03:25	1.3	NW	09/06/2017	10:35	0.9	NW	09/06/2017	17:45	6.3	WNW
09/06/2017	03:30	4.5	W	09/06/2017	10:40	1.8	WNW	09/06/2017	17:50	1.8	NNW
09/06/2017	03:35	5.8	WNW	09/06/2017	10:45	6.3	WNW	09/06/2017	17:55	1.8	NW
09/06/2017	03:40	5.4	WNW	09/06/2017	10:50	2.2	NW	09/06/2017	18:00	1.8	NW
09/06/2017	03:45	6.3	WNW	09/06/2017	10:55	2.2	WSW	09/06/2017	18:05	2.7	NW
09/06/2017	03:50	6.3	WNW	09/06/2017	11:00	2.2	NNW	09/06/2017	18:10	2.2	NNW
09/06/2017	03:55	0.4	WSW	09/06/2017	11:05	4.9	W	09/06/2017	18:15	5.4	WNW
09/06/2017	04:00	1.3	NNW	09/06/2017	11:10	0.4	WSW	09/06/2017	18:20	5.4	WNW
09/06/2017	04:05	4.9	W	09/06/2017	11:15	3.1	W	09/06/2017	18:25	0.9	NNE
09/06/2017	04:10	4.9	W	09/06/2017	11:20	2.2	NNW	09/06/2017	18:30	1.8	NW
09/06/2017	04:15	2.2	SW	09/06/2017	11:25	1.8	NW	09/06/2017	18:35	3.1	W
09/06/2017	04:20	4.9	WNW	09/06/2017	11:30	4.5	W	09/06/2017	18:40	1.8	NW
09/06/2017	04:25	2.2	NW	09/06/2017	11:35	1.8	WNW	09/06/2017	18:45	6.3	WNW
09/06/2017	04:30	3.6	W	09/06/2017	11:40	2.2	NW	09/06/2017	18:50	5.4	W
09/06/2017	04:35	4.9	WNW	09/06/2017	11:45	0.9	NNW	09/06/2017	18:55	1.3	NNE
09/06/2017	04:40	3.1	WSW	09/06/2017	11:50	1.3	NW	09/06/2017	19:00	6.3	WNW
09/06/2017	04:45	4.9	W	09/06/2017	11:55	2.2	NNW	09/06/2017	19:05	5.8	WNW
09/06/2017	04:50	1.3	NNW	09/06/2017	12:00	4	W	09/06/2017	19:10	0.9	SW
09/06/2017	04:55	2.7	WNW	09/06/2017	12:05	1.8	NW	09/06/2017	19:15	4	W
09/06/2017	05:00	0.4	WSW	09/06/2017	12:10	1.8	NW	09/06/2017	19:20	1.8	NW
09/06/2017	05:05	1.8	WNW	09/06/2017	12:15	0.9	NNW	09/06/2017	19:25	6.7	WNW
09/06/2017	05:10	3.6	WNW	09/06/2017	12:20	4.5	W	09/06/2017	19:30	1.8	NW
09/06/2017	05:15	3.6	W	09/06/2017	12:25	4	W	09/06/2017	19:35	6.3	WNW
09/06/2017	05:20	1.8	NW	09/06/2017	12:30	1.3	E	09/06/2017	19:40	0.4	WSW
09/06/2017	05:25	5.4	WNW	09/06/2017	12:35	4.5	W	09/06/2017	19:45	5.4	WNW
09/06/2017	05:30	2.2	NW	09/06/2017	12:40	4	W	09/06/2017	19:50	3.6	WNW
09/06/2017	05:35	0.4	WSW	09/06/2017	12:45	0.4	WSW	09/06/2017	19:55	4	W
09/06/2017	05:40	4.5	WNW	09/06/2017	12:50	3.6	WNW	09/06/2017	20:00	1.8	NW
09/06/2017	05:45	1.3	NNW	09/06/2017	12:55	0.4	WSW	09/06/2017	20:05	1.3	WSW
09/06/2017	05:50	1.8	NNW	09/06/2017	13:00	1.8	NW	09/06/2017	20:10	4	W
09/06/2017	05:55	2.2	NNW	09/06/2017	13:05	1.8	WNW	09/06/2017	20:15	3.1	WNW
09/06/2017	06:00	0.9	WNW	09/06/2017	13:10	2.2	NNW	09/06/2017	20:20	2.2	NNW
09/06/2017	06:05	4.9	WNW	09/06/2017	13:15	4	WNW	09/06/2017	20:25	3.6	W
09/06/2017	06:10	1.8	NW	09/06/2017	13:20	4	W	09/06/2017	20:30	4.5	WNW
09/06/2017	06:15	1.8	NNW	09/06/2017	13:25	4.5	W	09/06/2017	20:35	2.2	NNW
09/06/2017	06:20	5.8	WNW	09/06/2017	13:30	4	W	09/06/2017	20:40	2.2	WNW
09/06/2017	06:25	3.1	WNW	09/06/2017	13:35	0.4	SW	09/06/2017	20:45	4.5	WNW
09/06/2017	06:30	4.9	W	09/06/2017	13:40	3.6	W	09/06/2017	20:50	1.3	ENE
09/06/2017	06:35	4	W	09/06/2017	13:45	6.7	WNW	09/06/2017	20:55	5.4	W
09/06/2017	06:40	2.7	NW	09/06/2017	13:50	0.4	WSW	09/06/2017	21:00	1.8	SW
09/06/2017	06:45	1.3	N	09/06/2017	13:55	4.5	W	09/06/2017	21:05	5.4	WNW
09/06/2017	06:50	1.8	NW	09/06/2017	14:00	2.2	NW	09/06/2017	21:10	6.3	WNW
09/06/2017	06:55	4.5	WNW	09/06/2017	14:05	1.3	N	09/06/2017	21:15	5.8	WNW
09/06/2017	07:00	1.8	WNW	09/06/2017	14:10	1.8	NNW	09/06/2017	21:20	3.6	W
09/06/2017	07:05	1.8	NW	09/06/2017	14:15	1.3	SSW	09/06/2017	21:25	4	W
09/06/2017	07:10	0.4	ENE	09/06/2017	14:20	0.9	NNW	09/06/2017	21:30	4	WNW
09/06/2017	07:15	4	W	09/06/2017	14:25	2.2	NNW	09/06/2017	21:35	4.9	W
09/06/2017	07:20	4.5	WNW	09/06/2017	14:30	2.2	WNW	09/06/2017	21:40	3.6	WNW
09/06/2017	07:25	1.8	NNW	09/06/2017	14:35	4.5	W	09/06/2017	21:45	4.5	W
09/06/2017	07:30	3.6	WSW	09/06/2017	14:40	2.2	NNW	09/06/2017	21:50	5.4	WNW
09/06/2017	07:35	4.5	WNW	09/06/2017	14:45	5.8	W	09/06/2017	21:55	4	W
09/06/2017	07:40	2.2	NW	09/06/2017	14:50	1.3	W	09/06/2017	22:00	2.2	NNW
09/06/2017	07:45	4.5	WNW	09/06/2017	14:55	1.8	NNW	09/06/2017	22:05	1.8	NW
09/06/2017	07:50	4.5	W	09/06/2017	15:00	4.5	WNW	09/06/2017	22:10	2.2	NNW
09/06/2017	07:55	2.2	NW	09/06/2017	15:05	2.2	NW	09/06/2017	22:15	1.8	NNW
09/06/2017	08:00	0.4	WSW	09/06/2017	15:10	1.8	NNW	09/06/2017	22:20	0.4	WSW
09/06/2017	08:05	1.3	NW	09/06/2017	15:15	1.3	NW	09/06/2017	22:25	5.8	WNW
09/06/2017	08:10	2.7	W	09/06/2017	15:20	4.5	W	09/06/2017	22:30	4.5	W
09/06/2017	08:15	4.9	WNW	09/06/2017	15:25	4.9	WNW	09/06/2017	22:35	1.8	NW
09/06/2017	08:20	3.1	WSW	09/06/2017	15:30	4	WNW	09/06/2017	22:40	1.8	NW
09/06/2017	08:25	4.9	W	09/06/2017	15:35	3.1	W	09/06/2017	22:45	3.6	W
09/06/2017	08:30	5.8	WNW	09/06/2017	15:40	5.4	WNW	09/06/2017	22:50	4	WNW
09/06/2017	08:35	4.9	WNW	09/06/2017	15:45	5.8	WNW	09/06/2017	22:55	4.5	W
09/06/2017	08:40	0.4	WSW	09/06/2017	15:50	1.8	WNW	09/06/2017	23:00	0.4	WSW

Extracted from the weather station at Tung Chung China State Site Office Rooftop

Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction
09/06/2017	23:05	0.9	WSW	10/06/2017	06:15	5.4	E	10/06/2017	13:25	1.8	WNW
09/06/2017	23:10	3.6	WNW	10/06/2017	06:20	2.2	ENE	10/06/2017	13:30	4.5	E
09/06/2017	23:15	1.8	NW	10/06/2017	06:25	2.7	ENE	10/06/2017	13:35	2.2	WSW
09/06/2017	23:20	1.8	NNW	10/06/2017	06:30	3.1	NE	10/06/2017	13:40	0.4	NE
09/06/2017	23:25	1.8	NNW	10/06/2017	06:35	2.2	NE	10/06/2017	13:45	2.7	E
09/06/2017	23:30	1.3	NNW	10/06/2017	06:40	4.5	E	10/06/2017	13:50	1.8	ENE
09/06/2017	23:35	1.3	NW	10/06/2017	06:45	5.8	E	10/06/2017	13:55	4	E
09/06/2017	23:40	5.4	W	10/06/2017	06:50	2.7	WSW	10/06/2017	14:00	4.9	E
09/06/2017	23:45	4.5	W	10/06/2017	06:55	1.3	NE	10/06/2017	14:05	4.9	E
09/06/2017	23:50	5.8	WNW	10/06/2017	07:00	4.5	E	10/06/2017	14:10	1.3	SSW
09/06/2017	23:55	5.4	WNW	10/06/2017	07:05	5.8	ENE	10/06/2017	14:15	4.5	E
10/06/2017	00:00	4.9	WNW	10/06/2017	07:10	6.7	E	10/06/2017	14:20	2.7	ENE
10/06/2017	00:05	2.7	E	10/06/2017	07:15	3.1	E	10/06/2017	14:25	4.5	E
10/06/2017	00:10	4.5	ENE	10/06/2017	07:20	4.9	E	10/06/2017	14:30	4	ENE
10/06/2017	00:15	1.8	WSW	10/06/2017	07:25	0.4	WSW	10/06/2017	14:35	0.4	N
10/06/2017	00:20	0.9	NNE	10/06/2017	07:30	3.1	E	10/06/2017	14:40	0.9	ENE
10/06/2017	00:25	3.6	E	10/06/2017	07:35	1.8	WSW	10/06/2017	14:45	2.2	E
10/06/2017	00:30	5.8	E	10/06/2017	07:40	2.7	ENE	10/06/2017	14:50	3.6	NE
10/06/2017	00:35	2.7	W	10/06/2017	07:45	4.5	ENE	10/06/2017	14:55	5.4	ENE
10/06/2017	00:40	1.8	E	10/06/2017	07:50	6.3	ENE	10/06/2017	15:00	1.3	E
10/06/2017	00:45	4	E	10/06/2017	07:55	2.2	ENE	10/06/2017	15:05	3.1	E
10/06/2017	00:50	4	E	10/06/2017	08:00	3.1	ENE	10/06/2017	15:10	5.4	E
10/06/2017	00:55	4.5	E	10/06/2017	08:05	7.2	E	10/06/2017	15:15	3.6	E
10/06/2017	01:00	1.3	WNW	10/06/2017	08:10	4	E	10/06/2017	15:20	3.6	E
10/06/2017	01:05	2.7	E	10/06/2017	08:15	4.9	E	10/06/2017	15:25	4	E
10/06/2017	01:10	4	ESE	10/06/2017	08:20	4.5	ENE	10/06/2017	15:30	3.1	E
10/06/2017	01:15	6.3	E	10/06/2017	08:25	1.3	WSW	10/06/2017	15:35	2.7	E
10/06/2017	01:20	4.5	E	10/06/2017	08:30	2.7	ENE	10/06/2017	15:40	4.9	ENE
10/06/2017	01:25	6.3	E	10/06/2017	08:35	4	E	10/06/2017	15:45	2.7	E
10/06/2017	01:30	1.3	ENE	10/06/2017	08:40	1.8	W	10/06/2017	15:50	3.1	E
10/06/2017	01:35	5.8	E	10/06/2017	08:45	3.6	E	10/06/2017	15:55	4.5	E
10/06/2017	01:40	0.4	N	10/06/2017	08:50	1.3	W	10/06/2017	16:00	4.5	ENE
10/06/2017	01:45	4	E	10/06/2017	08:55	4.9	ENE	10/06/2017	16:05	4.9	E
10/06/2017	01:50	2.2	E	10/06/2017	09:00	4	E	10/06/2017	16:10	7.6	E
10/06/2017	01:55	3.6	ENE	10/06/2017	09:05	3.6	E	10/06/2017	16:15	1.3	WNW
10/06/2017	02:00	1.8	WSW	10/06/2017	09:10	4	ENE	10/06/2017	16:20	0.9	SSW
10/06/2017	02:05	2.7	WSW	10/06/2017	09:15	5.8	ENE	10/06/2017	16:25	4.9	E
10/06/2017	02:10	4	E	10/06/2017	09:20	4.9	E	10/06/2017	16:30	0.9	W
10/06/2017	02:15	3.1	E	10/06/2017	09:25	1.8	NW	10/06/2017	16:35	2.2	E
10/06/2017	02:20	2.7	E	10/06/2017	09:30	4.5	E	10/06/2017	16:40	1.3	WNW
10/06/2017	02:25	4.5	ENE	10/06/2017	09:35	1.3	W	10/06/2017	16:45	4	E
10/06/2017	02:30	7.2	E	10/06/2017	09:40	2.2	NE	10/06/2017	16:50	1.8	W
10/06/2017	02:35	5.8	E	10/06/2017	09:45	0.9	ENE	10/06/2017	16:55	5.8	E
10/06/2017	02:40	4.5	E	10/06/2017	09:50	1.3	W	10/06/2017	17:00	0.9	ENE
10/06/2017	02:45	1.8	WSW	10/06/2017	09:55	2.7	ENE	10/06/2017	17:05	1.8	ENE
10/06/2017	02:50	5.4	E	10/06/2017	10:00	5.8	E	10/06/2017	17:10	4.5	ENE
10/06/2017	02:55	1.8	WNW	10/06/2017	10:05	4	E	10/06/2017	17:15	3.6	E
10/06/2017	03:00	0.9	WSW	10/06/2017	10:10	3.1	E	10/06/2017	17:20	5.4	E
10/06/2017	03:05	1.8	E	10/06/2017	10:15	4.5	ENE	10/06/2017	17:25	1.8	SE
10/06/2017	03:10	0.4	N	10/06/2017	10:20	5.8	E	10/06/2017	17:30	2.7	E
10/06/2017	03:15	1.3	NNE	10/06/2017	10:25	1.3	SW	10/06/2017	17:35	4.9	E
10/06/2017	03:20	1.8	E	10/06/2017	10:30	1.8	WSW	10/06/2017	17:40	3.6	E
10/06/2017	03:25	0.9	WNW	10/06/2017	10:35	2.2	WSW	10/06/2017	17:45	0.4	SW
10/06/2017	03:30	2.7	ENE	10/06/2017	10:40	0.4	N	10/06/2017	17:50	1.3	SW
10/06/2017	03:35	3.1	E	10/06/2017	10:45	2.2	E	10/06/2017	17:55	2.7	ENE
10/06/2017	03:40	3.1	E	10/06/2017	10:50	4.5	E	10/06/2017	18:00	2.2	E
10/06/2017	03:45	3.1	NE	10/06/2017	10:55	6.3	ENE	10/06/2017	18:05	1.8	E
10/06/2017	03:50	4	E	10/06/2017	11:00	4.5	ENE	10/06/2017	18:10	1.8	NNE
10/06/2017	03:55	2.2	ENE	10/06/2017	11:05	4.5	ENE	10/06/2017	18:15	5.4	E
10/06/2017	04:00	3.1	E	10/06/2017	11:10	1.3	ENE	10/06/2017	18:20	3.1	E
10/06/2017	04:05	6.7	E	10/06/2017	11:15	1.8	NE	10/06/2017	18:25	2.2	ENE
10/06/2017	04:10	2.7	E	10/06/2017	11:20	2.7	E	10/06/2017	18:30	4.5	E
10/06/2017	04:15	4.5	ENE	10/06/2017	11:25	0.9	E	10/06/2017	18:35	3.1	ENE
10/06/2017	04:20	3.1	E	10/06/2017	11:30	5.4	E	10/06/2017	18:40	3.1	E
10/06/2017	04:25	4.5	E	10/06/2017	11:35	2.2	E	10/06/2017	18:45	2.2	ENE
10/06/2017	04:30	0.9	WSW	10/06/2017	11:40	5.4	E	10/06/2017	18:50	2.2	E
10/06/2017	04:35	4.5	E	10/06/2017	11:45	2.2	W	10/06/2017	18:55	2.7	ENE
10/06/2017	04:40	4.9	E	10/06/2017	11:50	4.9	E	10/06/2017	19:00	0.4	N
10/06/2017	04:45	0.9	WSW	10/06/2017	11:55	2.2	W	10/06/2017	19:05	6.3	E
10/06/2017	04:50	0.9	N	10/06/2017	12:00	2.7	E	10/06/2017	19:10	2.7	ENE
10/06/2017	04:55	2.7	E	10/06/2017	12:05	4.9	E	10/06/2017	19:15	5.8	E
10/06/2017	05:00	1.3	W	10/06/2017	12:10	1.8	WSW	10/06/2017	19:20	1.3	WNW
10/06/2017	05:05	3.1	E	10/06/2017	12:15	5.8	E	10/06/2017	19:25	3.6	NE
10/06/2017	05:10	2.2	E	10/06/2017	12:20	4.9	E	10/06/2017	19:30	3.6	E
10/06/2017	05:15	3.6	E	10/06/2017	12:25	1.3	E	10/06/2017	19:35	4	E
10/06/2017	05:20	4.5	E	10/06/2017	12:30	0.4	N	10/06/2017	19:40	3.6	ENE
10/06/2017	05:25	1.8	WSW	10/06/2017	12:35	4	E	10/06/2017	19:45	1.3	WNW
10/06/2017	05:30	1.3	SW	10/06/2017	12:40	1.3	SW	10/06/2017	19:50	3.1	E
10/06/2017	05:35	4	ENE	10/06/2017	12:45	2.7	ENE	10/06/2017	19:55	2.2	WSW
10/06/2017	05:40	5.4	E	10/06/2017	12:50	2.7	NE	10/06/2017	20:00	3.6	ENE
10/06/2017	05:45	0.9	NNE	10/06/2017	12:55	1.3	WSW	10/06/2017	20:05	2.7	NE
10/06/2017	05:50	4	E	10/06/2017	13:00	1.8	ENE	10/06/2017	20:10	4.5	E
10/06/2017	05:55	6.3	E	10/06/2017	13:05	3.1	E	10/06/2017	20:15	0.4	N
10/06/2017	06:00	1.8	NE	10/06/2017	13:10	6.3	E	10/06/2017	20:20	4	E
10/06/2017	06:05	3.6	E	10/06/2017	13:15	1.8	E	10/06/2017	20:25	2.2	W
10/06/2017	06:10	2.7	NE	10/06/2017	13:20	5.4	E	10/06/2017	20:30	0.4	N



Extracted from the weather station at Tung Chung China State Site Office Rooftop

Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction
10/06/2017	20:35	0.4	N	11/06/2017	03:45	2.7	W	11/06/2017	10:55	1.8	WSW
10/06/2017	20:40	5.4	E	11/06/2017	03:50	3.1	WNW	11/06/2017	11:00	0.4	SW
10/06/2017	20:45	0.9	NE	11/06/2017	03:55	2.2	W	11/06/2017	11:05	0.4	WSW
10/06/2017	20:50	3.6	E	11/06/2017	04:00	0.4	SW	11/06/2017	11:10	1.3	SW
10/06/2017	20:55	1.8	ENE	11/06/2017	04:05	2.7	W	11/06/2017	11:15	0.9	NE
10/06/2017	21:00	5.4	E	11/06/2017	04:10	2.7	W	11/06/2017	11:20	2.7	W
10/06/2017	21:05	2.2	ENE	11/06/2017	04:15	0.4	WSW	11/06/2017	11:25	0.4	SSW
10/06/2017	21:10	5.4	E	11/06/2017	04:20	3.1	W	11/06/2017	11:30	0.4	WSW
10/06/2017	21:15	2.2	ENE	11/06/2017	04:25	2.7	W	11/06/2017	11:35	1.8	WSW
10/06/2017	21:20	1.3	ENE	11/06/2017	04:30	0.4	WSW	11/06/2017	11:40	2.2	SW
10/06/2017	21:25	1.3	ENE	11/06/2017	04:35	2.7	W	11/06/2017	11:45	1.8	SSW
10/06/2017	21:30	4.9	E	11/06/2017	04:40	1.8	W	11/06/2017	11:50	2.7	WNW
10/06/2017	21:35	4.5	E	11/06/2017	04:45	0.9	NE	11/06/2017	11:55	0.4	SSW
10/06/2017	21:40	1.8	W	11/06/2017	04:50	0.4	SSW	11/06/2017	12:00	0.4	WSW
10/06/2017	21:45	1.8	NE	11/06/2017	04:55	0.4	SW	11/06/2017	12:05	0.9	SW
10/06/2017	21:50	1.3	NNE	11/06/2017	05:00	2.7	W	11/06/2017	12:10	1.3	S
10/06/2017	21:55	1.8	ENE	11/06/2017	05:05	3.1	W	11/06/2017	12:15	1.3	WSW
10/06/2017	22:00	1.8	E	11/06/2017	05:10	0.9	SSW	11/06/2017	12:20	1.8	WSW
10/06/2017	22:05	6.3	E	11/06/2017	05:15	3.1	W	11/06/2017	12:25	3.1	WNW
10/06/2017	22:10	1.8	WSW	11/06/2017	05:20	0.9	SW	11/06/2017	12:30	0.4	NE
10/06/2017	22:15	5.8	E	11/06/2017	05:25	2.7	W	11/06/2017	12:35	1.8	W
10/06/2017	22:20	4.9	ENE	11/06/2017	05:30	3.1	W	11/06/2017	12:40	0.9	SSW
10/06/2017	22:25	2.2	ENE	11/06/2017	05:35	0.9	SW	11/06/2017	12:45	3.1	W
10/06/2017	22:30	2.7	ESE	11/06/2017	05:40	0.9	SW	11/06/2017	12:50	2.7	WNW
10/06/2017	22:35	0.9	ENE	11/06/2017	05:45	2.2	WSW	11/06/2017	12:55	3.1	W
10/06/2017	22:40	0.9	E	11/06/2017	05:50	0.4	NE	11/06/2017	13:00	0.9	NE
10/06/2017	22:45	1.3	ENE	11/06/2017	05:55	3.1	W	11/06/2017	13:05	0.9	SW
10/06/2017	22:50	0.4	S	11/06/2017	06:00	1.3	WSW	11/06/2017	13:10	0.4	SW
10/06/2017	22:55	2.2	E	11/06/2017	06:05	0.9	SW	11/06/2017	13:15	1.3	WSW
10/06/2017	23:00	4.5	ENE	11/06/2017	06:10	1.8	WNW	11/06/2017	13:20	0.9	SSW
10/06/2017	23:05	4	E	11/06/2017	06:15	0.9	SW	11/06/2017	13:25	1.8	SW
10/06/2017	23:10	1.3	W	11/06/2017	06:20	1.3	SW	11/06/2017	13:30	0.9	SW
10/06/2017	23:15	4.9	E	11/06/2017	06:25	1.8	SSW	11/06/2017	13:35	1.8	SW
10/06/2017	23:20	1.3	ENE	11/06/2017	06:30	2.7	W	11/06/2017	13:40	2.2	WNW
10/06/2017	23:25	3.6	E	11/06/2017	06:35	0.9	SSE	11/06/2017	13:45	2.7	W
10/06/2017	23:30	0.4	N	11/06/2017	06:40	2.7	WNW	11/06/2017	13:50	0.4	NE
10/06/2017	23:35	0.9	E	11/06/2017	06:45	0.4	WSW	11/06/2017	13:55	3.1	W
10/06/2017	23:40	0.4	N	11/06/2017	06:50	0.4	SW	11/06/2017	14:00	1.3	WSW
10/06/2017	23:45	5.4	E	11/06/2017	06:55	2.7	W	11/06/2017	14:05	1.3	SW
10/06/2017	23:50	5.8	E	11/06/2017	07:00	0.4	W	11/06/2017	14:10	0.4	SW
10/06/2017	23:55	2.2	E	11/06/2017	07:05	3.6	W	11/06/2017	14:15	0.9	WNW
11/06/2017	00:00	5.8	E	11/06/2017	07:10	0.4	SW	11/06/2017	14:20	1.3	W
11/06/2017	00:05	1.3	W	11/06/2017	07:15	0.9	SSW	11/06/2017	14:25	1.3	SW
11/06/2017	00:10	1.8	W	11/06/2017	07:20	0.4	W	11/06/2017	14:30	2.2	WSW
11/06/2017	00:15	0.4	WSW	11/06/2017	07:25	0.9	SSW	11/06/2017	14:35	1.3	W
11/06/2017	00:20	0.9	SW	11/06/2017	07:30	0.9	NE	11/06/2017	14:40	0.9	SSW
11/06/2017	00:25	3.1	W	11/06/2017	07:35	1.3	SW	11/06/2017	14:45	2.7	W
11/06/2017	00:30	0.9	SW	11/06/2017	07:40	1.3	SW	11/06/2017	14:50	2.2	W
11/06/2017	00:35	2.2	SW	11/06/2017	07:45	2.2	WSW	11/06/2017	14:55	0.4	SW
11/06/2017	00:40	0.4	NE	11/06/2017	07:50	1.3	SW	11/06/2017	15:00	1.3	WNW
11/06/2017	00:45	2.7	WNW	11/06/2017	07:55	2.2	WSW	11/06/2017	15:05	1.3	WSW
11/06/2017	00:50	3.1	W	11/06/2017	08:00	0.4	WSW	11/06/2017	15:10	0.9	W
11/06/2017	00:55	2.2	SW	11/06/2017	08:05	2.7	WNW	11/06/2017	15:15	1.8	SW
11/06/2017	01:00	0.9	SSE	11/06/2017	08:10	1.3	SW	11/06/2017	15:20	1.3	NE
11/06/2017	01:05	0.4	SW	11/06/2017	08:15	2.7	WSW	11/06/2017	15:25	3.1	W
11/06/2017	01:10	3.1	W	11/06/2017	08:20	0.4	SW	11/06/2017	15:30	0.4	WSW
11/06/2017	01:15	1.8	SW	11/06/2017	08:25	1.8	SW	11/06/2017	15:35	1.8	SW
11/06/2017	01:20	2.7	WNW	11/06/2017	08:30	2.7	WNW	11/06/2017	15:40	2.7	WSW
11/06/2017	01:25	0.9	SW	11/06/2017	08:35	2.7	W	11/06/2017	15:45	2.7	WNW
11/06/2017	01:30	0.4	NE	11/06/2017	08:40	3.1	W	11/06/2017	15:50	0.4	NE
11/06/2017	01:35	3.1	W	11/06/2017	08:45	1.8	W	11/06/2017	15:55	0.4	NE
11/06/2017	01:40	3.1	W	11/06/2017	08:50	2.2	WSW	11/06/2017	16:00	1.8	SW
11/06/2017	01:45	0.9	SW	11/06/2017	08:55	3.1	W	11/06/2017	16:05	1.8	SW
11/06/2017	01:50	0.4	SW	11/06/2017	09:00	1.3	SW	11/06/2017	16:10	0.4	WSW
11/06/2017	01:55	1.8	W	11/06/2017	09:05	3.1	WNW	11/06/2017	16:15	2.7	WNW
11/06/2017	02:00	2.7	WSW	11/06/2017	09:10	0.4	NE	11/06/2017	16:20	0.4	SW
11/06/2017	02:05	1.8	SW	11/06/2017	09:15	0.9	SSW	11/06/2017	16:25	1.3	SW
11/06/2017	02:10	2.2	W	11/06/2017	09:20	3.1	W	11/06/2017	16:30	0.9	SW
11/06/2017	02:15	1.3	WSW	11/06/2017	09:25	2.7	WNW	11/06/2017	16:35	0.4	WSW
11/06/2017	02:20	0.9	NE	11/06/2017	09:30	2.7	WSW	11/06/2017	16:40	1.8	NE
11/06/2017	02:25	0.9	SSW	11/06/2017	09:35	2.2	SW	11/06/2017	16:45	0.4	WSW
11/06/2017	02:30	0.9	WSW	11/06/2017	09:40	3.1	W	11/06/2017	16:50	2.7	W
11/06/2017	02:35	0.4	SW	11/06/2017	09:45	0.4	SW	11/06/2017	16:55	2.7	WNW
11/06/2017	02:40	0.9	SSW	11/06/2017	09:50	2.2	W	11/06/2017	17:00	0.9	NE
11/06/2017	02:45	2.7	W	11/06/2017	09:55	2.7	WNW	11/06/2017	17:05	1.3	SW
11/06/2017	02:50	2.2	WSW	11/06/2017	10:00	2.2	W	11/06/2017	17:10	0.9	NE
11/06/2017	02:55	0.9	SSW	11/06/2017	10:05	0.9	SSW	11/06/2017	17:15	3.1	W
11/06/2017	03:00	0.4	SW	11/06/2017	10:10	1.8	W	11/06/2017	17:20	2.7	W
11/06/2017	03:05	0.9	SSW	11/06/2017	10:15	3.1	W	11/06/2017	17:25	0.4	SW
11/06/2017	03:10	0.9	SW	11/06/2017	10:20	2.2	W	11/06/2017	17:30	0.9	SSW
11/06/2017	03:15	2.2	W	11/06/2017	10:25	0.4	SW	11/06/2017	17:35	2.7	SW
11/06/2017	03:20	0.9	SW	11/06/2017	10:30	2.7	W	11/06/2017	17:40	2.2	SW
11/06/2017	03:25	3.1	W	11/06/2017	10:35	0.9	SSE	11/06/2017	17:45	2.2	SW
11/06/2017	03:30	0.4	SSW	11/06/2017	10:40	0.4	SW	11/06/2017	17:50	2.2	W
11/06/2017	03:35	2.2	SW	11/06/2017	10:45	1.3	SW	11/06/2017	17:55	1.3	WNW
11/06/2017	03:40	0.9	SSW	11/06/2017	10:50	3.1	W	11/06/2017	18:00	1.8	SSW

Extracted from the weather station at Tung Chung China State Site Office Rooftop

Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction
11/06/2017	18:05	1.8	WSW	12/06/2017	01:15	0.9	NNE	12/06/2017	08:25	0.4	NNE
11/06/2017	18:10	0.9	NE	12/06/2017	01:20	2.2	WSW	12/06/2017	08:30	1.3	SW
11/06/2017	18:15	2.7	W	12/06/2017	01:25	0.9	WSW	12/06/2017	08:35	1.8	NE
11/06/2017	18:20	2.7	WNW	12/06/2017	01:30	1.8	W	12/06/2017	08:40	0.4	E
11/06/2017	18:25	3.1	WNW	12/06/2017	01:35	1.8	NE	12/06/2017	08:45	0.9	NNW
11/06/2017	18:30	0.9	SSW	12/06/2017	01:40	2.2	W	12/06/2017	08:50	1.8	W
11/06/2017	18:35	0.4	NE	12/06/2017	01:45	0.4	NW	12/06/2017	08:55	0.4	SW
11/06/2017	18:40	1.8	WNW	12/06/2017	01:50	2.7	WSW	12/06/2017	09:00	0.9	NE
11/06/2017	18:45	0.9	SW	12/06/2017	01:55	0.4	NW	12/06/2017	09:05	0.4	NNE
11/06/2017	18:50	0.4	NE	12/06/2017	02:00	1.8	WSW	12/06/2017	09:10	0.4	NW
11/06/2017	18:55	0.9	SW	12/06/2017	02:05	0.9	W	12/06/2017	09:15	0.9	ENE
11/06/2017	19:00	3.1	W	12/06/2017	02:10	3.1	SW	12/06/2017	09:20	0.9	NNE
11/06/2017	19:05	0.9	SW	12/06/2017	02:15	0.4	NNE	12/06/2017	09:25	0.4	SW
11/06/2017	19:10	3.6	W	12/06/2017	02:20	0.9	NNE	12/06/2017	09:30	3.1	SW
11/06/2017	19:15	0.4	SW	12/06/2017	02:25	2.2	W	12/06/2017	09:35	0.9	NNE
11/06/2017	19:20	2.2	W	12/06/2017	02:30	0.4	WSW	12/06/2017	09:40	0.9	WSW
11/06/2017	19:25	1.3	SW	12/06/2017	02:35	2.2	WSW	12/06/2017	09:45	0.9	WSW
11/06/2017	19:30	0.4	SW	12/06/2017	02:40	1.3	N	12/06/2017	09:50	2.7	W
11/06/2017	19:35	2.2	WSW	12/06/2017	02:45	0.4	NW	12/06/2017	09:55	0.4	WSW
11/06/2017	19:40	0.9	W	12/06/2017	02:50	2.7	WSW	12/06/2017	10:00	0.9	WSW
11/06/2017	19:45	0.9	SSW	12/06/2017	02:55	0.9	WSW	12/06/2017	10:05	3.1	WSW
11/06/2017	19:50	2.7	WSW	12/06/2017	03:00	0.9	WSW	12/06/2017	10:10	2.2	W
11/06/2017	19:55	0.4	SW	12/06/2017	03:05	0.4	SSW	12/06/2017	10:15	0.9	WSW
11/06/2017	20:00	3.1	W	12/06/2017	03:10	0.9	WNW	12/06/2017	10:20	2.2	WSW
11/06/2017	20:05	3.1	W	12/06/2017	03:15	2.2	WSW	12/06/2017	10:25	1.3	NE
11/06/2017	20:10	0.9	SSW	12/06/2017	03:20	0.4	NNE	12/06/2017	10:30	0.9	WSW
11/06/2017	20:15	1.3	NE	12/06/2017	03:25	0.9	NNE	12/06/2017	10:35	0.9	WSW
11/06/2017	20:20	2.2	W	12/06/2017	03:30	0.4	NNE	12/06/2017	10:40	0.4	NNE
11/06/2017	20:25	2.2	SW	12/06/2017	03:35	1.3	NE	12/06/2017	10:45	1.3	WNW
11/06/2017	20:30	0.9	SW	12/06/2017	03:40	0.9	NE	12/06/2017	10:50	0.4	NW
11/06/2017	20:35	0.9	SW	12/06/2017	03:45	0.9	NE	12/06/2017	10:55	0.4	WSW
11/06/2017	20:40	0.4	WSW	12/06/2017	03:50	1.3	N	12/06/2017	11:00	1.8	W
11/06/2017	20:45	1.3	NE	12/06/2017	03:55	0.9	NNW	12/06/2017	11:05	1.3	WSW
11/06/2017	20:50	0.4	NE	12/06/2017	04:00	0.9	WSW	12/06/2017	11:10	3.1	NE
11/06/2017	20:55	0.4	WSW	12/06/2017	04:05	3.1	WSW	12/06/2017	11:15	0.4	NNE
11/06/2017	21:00	1.3	WNW	12/06/2017	04:10	2.2	NE	12/06/2017	11:20	1.3	N
11/06/2017	21:05	2.7	WNW	12/06/2017	04:15	0.9	ENE	12/06/2017	11:25	0.4	NNE
11/06/2017	21:10	1.8	SW	12/06/2017	04:20	3.1	NE	12/06/2017	11:30	0.4	ENE
11/06/2017	21:15	2.2	SW	12/06/2017	04:25	1.3	NE	12/06/2017	11:35	1.3	N
11/06/2017	21:20	0.9	SW	12/06/2017	04:30	3.1	WSW	12/06/2017	11:40	0.4	NE
11/06/2017	21:25	0.4	NE	12/06/2017	04:35	0.9	NE	12/06/2017	11:45	0.4	WSW
11/06/2017	21:30	0.4	WSW	12/06/2017	04:40	0.9	NE	12/06/2017	11:50	0.9	NNE
11/06/2017	21:35	1.8	SSW	12/06/2017	04:45	1.8	NE	12/06/2017	11:55	0.9	NE
11/06/2017	21:40	0.4	SW	12/06/2017	04:50	1.3	W	12/06/2017	12:00	0.9	WSW
11/06/2017	21:45	1.8	SW	12/06/2017	04:55	2.7	W	12/06/2017	12:05	1.3	NE
11/06/2017	21:50	1.8	WSW	12/06/2017	05:00	1.8	NE	12/06/2017	12:10	0.9	NNE
11/06/2017	21:55	0.9	SSW	12/06/2017	05:05	1.8	W	12/06/2017	12:15	1.3	W
11/06/2017	22:00	2.2	W	12/06/2017	05:10	1.3	NW	12/06/2017	12:20	0.9	WSW
11/06/2017	22:05	0.9	SSW	12/06/2017	05:15	0.4	WNW	12/06/2017	12:25	0.9	NNW
11/06/2017	22:10	0.9	SW	12/06/2017	05:20	1.3	ENE	12/06/2017	12:30	0.9	NE
11/06/2017	22:15	0.9	SSW	12/06/2017	05:25	2.7	WSW	12/06/2017	12:35	0.9	SW
11/06/2017	22:20	0.4	SSW	12/06/2017	05:30	0.9	WSW	12/06/2017	12:40	1.3	N
11/06/2017	22:25	2.7	W	12/06/2017	05:35	2.2	WSW	12/06/2017	12:45	0.4	ENE
11/06/2017	22:30	0.4	SW	12/06/2017	05:40	0.4	NE	12/06/2017	12:50	1.3	ENE
11/06/2017	22:35	0.4	WSW	12/06/2017	05:45	0.9	WSW	12/06/2017	12:55	0.4	NNE
11/06/2017	22:40	0.9	SW	12/06/2017	05:50	0.9	WSW	12/06/2017	13:00	1.3	NE
11/06/2017	22:45	1.3	W	12/06/2017	05:55	1.3	W	12/06/2017	13:05	0.9	ENE
11/06/2017	22:50	2.7	WNW	12/06/2017	06:00	0.4	NNE	12/06/2017	13:10	2.7	NE
11/06/2017	22:55	1.3	SW	12/06/2017	06:05	0.9	WSW	12/06/2017	13:15	1.8	NE
11/06/2017	23:00	1.3	SSW	12/06/2017	06:10	2.2	NE	12/06/2017	13:20	0.4	NNE
11/06/2017	23:05	1.3	S	12/06/2017	06:15	1.8	NE	12/06/2017	13:25	0.9	WSW
11/06/2017	23:10	1.3	SW	12/06/2017	06:20	0.9	ENE	12/06/2017	13:30	0.9	WSW
11/06/2017	23:15	0.9	SSW	12/06/2017	06:25	0.4	NW	12/06/2017	13:35	0.4	ENE
11/06/2017	23:20	0.9	WSW	12/06/2017	06:30	0.4	NNE	12/06/2017	13:40	1.3	N
11/06/2017	23:25	2.2	SW	12/06/2017	06:35	1.3	NNE	12/06/2017	13:45	0.4	NNE
11/06/2017	23:30	1.8	SW	12/06/2017	06:40	2.2	W	12/06/2017	13:50	0.9	NNE
11/06/2017	23:35	1.8	SW	12/06/2017	06:45	1.3	N	12/06/2017	13:55	0.4	N
11/06/2017	23:40	2.7	W	12/06/2017	06:50	3.1	WSW	12/06/2017	14:00	1.3	N
11/06/2017	23:45	0.4	SW	12/06/2017	06:55	1.3	ENE	12/06/2017	14:05	0.9	SW
11/06/2017	23:50	2.7	WSW	12/06/2017	07:00	0.9	WSW	12/06/2017	14:10	1.3	W
11/06/2017	23:55	0.9	WSW	12/06/2017	07:05	0.4	NNE	12/06/2017	14:15	0.9	NE
12/06/2017	00:00	0.4	NE	12/06/2017	07:10	1.8	WSW	12/06/2017	14:20	2.2	WSW
12/06/2017	00:05	0.9	WSW	12/06/2017	07:15	0.9	WSW	12/06/2017	14:25	2.2	W
12/06/2017	00:10	0.9	NNW	12/06/2017	07:20	0.9	NNW	12/06/2017	14:30	2.2	W
12/06/2017	00:15	1.8	WSW	12/06/2017	07:25	2.2	W	12/06/2017	14:35	2.2	NE
12/06/2017	00:20	2.2	WSW	12/06/2017	07:30	1.3	N	12/06/2017	14:40	1.3	SW
12/06/2017	00:25	3.1	WSW	12/06/2017	07:35	3.1	WSW	12/06/2017	14:45	3.1	NE
12/06/2017	00:30	2.2	W	12/06/2017	07:40	2.7	W	12/06/2017	14:50	0.4	WNW
12/06/2017	00:35	0.9	NNE	12/06/2017	07:45	0.9	WNW	12/06/2017	14:55	0.4	NNE
12/06/2017	00:40	3.1	WSW	12/06/2017	07:50	1.8	W	12/06/2017	15:00	1.3	N
12/06/2017	00:45	0.9	NE	12/06/2017	07:55	1.3	N	12/06/2017	15:05	0.9	WSW
12/06/2017	00:50	2.7	W	12/06/2017	08:00	0.9	NNE	12/06/2017	15:10	0.9	ENE
12/06/2017	00:55	1.3	SW	12/06/2017	08:05	0.4	NNE	12/06/2017	15:15	0.4	WSW
12/06/2017	01:00	0.9	ENE	12/06/2017	08:10	1.3	SW	12/06/2017	15:20	2.7	W
12/06/2017	01:05	1.3	SW	12/06/2017	08:15	2.7	W	12/06/2017	15:25	0.4	NW
12/06/2017	01:10	0.9	WSW	12/06/2017	08:20	0.4	NNE	12/06/2017	15:30	0.4	E

Extracted from the weather station at Tung Chung China State Site Office Rooftop

Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction
12/06/2017	15:35	2.2	WSW	12/06/2017	22:45	0.9	NE	13/06/2017	05:55	1.3	NE
12/06/2017	15:40	1.3	W	12/06/2017	22:50	2.7	W	13/06/2017	06:00	0.9	SW
12/06/2017	15:45	2.2	WSW	12/06/2017	22:55	2.7	W	13/06/2017	06:05	3.1	E
12/06/2017	15:50	2.7	WSW	12/06/2017	23:00	1.3	NNE	13/06/2017	06:10	0.4	SSW
12/06/2017	15:55	0.9	WSW	12/06/2017	23:05	0.9	WSW	13/06/2017	06:15	3.1	W
12/06/2017	16:00	0.4	WSW	12/06/2017	23:10	0.4	NW	13/06/2017	06:20	1.3	S
12/06/2017	16:05	1.3	N	12/06/2017	23:15	0.4	WSW	13/06/2017	06:25	2.7	WSW
12/06/2017	16:10	1.3	W	12/06/2017	23:20	0.9	NE	13/06/2017	06:30	2.7	WNW
12/06/2017	16:15	1.8	W	12/06/2017	23:25	0.9	WNW	13/06/2017	06:35	0.9	N
12/06/2017	16:20	1.3	ENE	12/06/2017	23:30	0.4	WSW	13/06/2017	06:40	1.8	WSW
12/06/2017	16:25	1.8	WNW	12/06/2017	23:35	0.9	NW	13/06/2017	06:45	2.7	WNW
12/06/2017	16:30	1.8	NE	12/06/2017	23:40	0.9	WSW	13/06/2017	06:50	2.7	W
12/06/2017	16:35	0.9	NNW	12/06/2017	23:45	2.7	W	13/06/2017	06:55	3.1	W
12/06/2017	16:40	2.2	W	12/06/2017	23:50	0.4	WSW	13/06/2017	07:00	0.9	NNW
12/06/2017	16:45	0.4	WSW	12/06/2017	23:55	0.4	WSW	13/06/2017	07:05	3.6	WNW
12/06/2017	16:50	2.2	NE	13/06/2017	00:00	0.9	WNW	13/06/2017	07:10	0.9	NNW
12/06/2017	16:55	0.4	NNE	13/06/2017	00:05	0.9	ENE	13/06/2017	07:15	1.8	SW
12/06/2017	17:00	2.2	W	13/06/2017	00:10	1.3	SSW	13/06/2017	07:20	4.5	WNW
12/06/2017	17:05	2.2	W	13/06/2017	00:15	4	WNW	13/06/2017	07:25	1.3	SSW
12/06/2017	17:10	1.8	W	13/06/2017	00:20	4.5	WNW	13/06/2017	07:30	3.6	W
12/06/2017	17:15	0.9	WSW	13/06/2017	00:25	0.9	NNE	13/06/2017	07:35	2.7	N
12/06/2017	17:20	0.4	N	13/06/2017	00:30	0.9	S	13/06/2017	07:40	2.7	WNW
12/06/2017	17:25	0.4	NNE	13/06/2017	00:35	2.2	N	13/06/2017	07:45	4.9	E
12/06/2017	17:30	2.2	WSW	13/06/2017	00:40	4.5	ENE	13/06/2017	07:50	1.3	N
12/06/2017	17:35	3.1	WSW	13/06/2017	00:45	0.4	NNW	13/06/2017	07:55	2.2	NW
12/06/2017	17:40	0.9	NE	13/06/2017	00:50	4.5	WNW	13/06/2017	08:00	0.9	WSW
12/06/2017	17:45	2.7	W	13/06/2017	00:55	1.3	N	13/06/2017	08:05	2.2	SW
12/06/2017	17:50	0.4	SW	13/06/2017	01:00	3.1	W	13/06/2017	08:10	2.2	N
12/06/2017	17:55	0.4	SSW	13/06/2017	01:05	1.3	N	13/06/2017	08:15	2.2	SW
12/06/2017	18:00	2.2	NE	13/06/2017	01:10	0.9	ENE	13/06/2017	08:20	1.3	N
12/06/2017	18:05	0.9	NW	13/06/2017	01:15	0.9	WSW	13/06/2017	08:25	2.7	WSW
12/06/2017	18:10	2.7	SW	13/06/2017	01:20	3.1	W	13/06/2017	08:30	2.7	W
12/06/2017	18:15	0.4	SW	13/06/2017	01:25	1.3	ENE	13/06/2017	08:35	0.9	WNW
12/06/2017	18:20	2.7	WSW	13/06/2017	01:30	0.9	NW	13/06/2017	08:40	0.4	SSW
12/06/2017	18:25	3.1	WSW	13/06/2017	01:35	4.5	NW	13/06/2017	08:45	0.9	SSW
12/06/2017	18:30	2.7	WSW	13/06/2017	01:40	1.3	N	13/06/2017	08:50	2.7	NE
12/06/2017	18:35	0.9	WSW	13/06/2017	01:45	4.9	ENE	13/06/2017	08:55	1.3	NNW
12/06/2017	18:40	1.8	W	13/06/2017	01:50	2.7	W	13/06/2017	09:00	0.9	SSW
12/06/2017	18:45	0.9	WSW	13/06/2017	01:55	4.5	WNW	13/06/2017	09:05	0.4	SSW
12/06/2017	18:50	2.7	WSW	13/06/2017	02:00	0.9	NE	13/06/2017	09:10	0.9	NW
12/06/2017	18:55	0.4	WSW	13/06/2017	02:05	1.3	S	13/06/2017	09:15	0.4	WSW
12/06/2017	19:00	0.4	NNE	13/06/2017	02:10	0.9	S	13/06/2017	09:20	0.4	S
12/06/2017	19:05	1.3	NE	13/06/2017	02:15	2.7	W	13/06/2017	09:25	5.4	ENE
12/06/2017	19:10	0.9	WSW	13/06/2017	02:20	2.2	NW	13/06/2017	09:30	0.9	SE
12/06/2017	19:15	0.4	WSW	13/06/2017	02:25	0.4	SE	13/06/2017	09:35	0.9	SSW
12/06/2017	19:20	2.7	WSW	13/06/2017	02:30	4.5	ENE	13/06/2017	09:40	2.7	NE
12/06/2017	19:25	1.3	WSW	13/06/2017	02:35	4.9	WNW	13/06/2017	09:45	0.9	SSW
12/06/2017	19:30	3.1	W	13/06/2017	02:40	0.4	S	13/06/2017	09:50	4.5	WNW
12/06/2017	19:35	0.9	NE	13/06/2017	02:45	1.3	S	13/06/2017	09:55	1.3	NNW
12/06/2017	19:40	2.7	WSW	13/06/2017	02:50	1.3	NNW	13/06/2017	10:00	0.9	SSW
12/06/2017	19:45	0.4	SSW	13/06/2017	02:55	0.9	SSW	13/06/2017	10:05	0.9	ENE
12/06/2017	19:50	2.7	SW	13/06/2017	03:00	0.9	S	13/06/2017	10:10	4.9	W
12/06/2017	19:55	1.8	WSW	13/06/2017	03:05	1.8	N	13/06/2017	10:15	4.5	W
12/06/2017	20:00	0.4	WSW	13/06/2017	03:10	2.2	W	13/06/2017	10:20	0.9	S
12/06/2017	20:05	2.2	WSW	13/06/2017	03:15	3.1	WNW	13/06/2017	10:25	0.9	N
12/06/2017	20:10	0.4	NNE	13/06/2017	03:20	0.4	S	13/06/2017	10:30	1.8	SW
12/06/2017	20:15	1.8	W	13/06/2017	03:25	1.3	WSW	13/06/2017	10:35	0.9	WSW
12/06/2017	20:20	0.4	NNE	13/06/2017	03:30	0.4	SE	13/06/2017	10:40	3.6	W
12/06/2017	20:25	0.4	NW	13/06/2017	03:35	0.4	S	13/06/2017	10:45	0.4	SSW
12/06/2017	20:30	3.1	W	13/06/2017	03:40	3.1	W	13/06/2017	10:50	3.1	W
12/06/2017	20:35	0.9	WSW	13/06/2017	03:45	2.2	E	13/06/2017	10:55	4.5	WNW
12/06/2017	20:40	0.4	NNE	13/06/2017	03:50	4	WNW	13/06/2017	11:00	4.9	WNW
12/06/2017	20:45	1.3	NNE	13/06/2017	03:55	1.3	ENE	13/06/2017	11:05	0.9	S
12/06/2017	20:50	3.1	SW	13/06/2017	04:00	0.4	SSW	13/06/2017	11:10	0.9	SSW
12/06/2017	20:55	0.4	E	13/06/2017	04:05	1.3	W	13/06/2017	11:15	2.2	ENE
12/06/2017	21:00	1.3	NE	13/06/2017	04:10	0.9	WSW	13/06/2017	11:20	2.2	W
12/06/2017	21:05	0.4	NNE	13/06/2017	04:15	1.3	WNW	13/06/2017	11:25	0.9	N
12/06/2017	21:10	0.9	SW	13/06/2017	04:20	3.1	E	13/06/2017	11:30	3.6	W
12/06/2017	21:15	0.4	NNE	13/06/2017	04:25	4	W	13/06/2017	11:35	3.1	W
12/06/2017	21:20	0.4	WSW	13/06/2017	04:30	2.7	SSW	13/06/2017	11:40	0.9	NE
12/06/2017	21:25	0.4	NNE	13/06/2017	04:35	4.9	WNW	13/06/2017	11:45	4.5	WNW
12/06/2017	21:30	2.2	SW	13/06/2017	04:40	0.9	S	13/06/2017	11:50	1.3	NNW
12/06/2017	21:35	0.4	ENE	13/06/2017	04:45	4	W	13/06/2017	11:55	0.4	WSW
12/06/2017	21:40	0.4	NNE	13/06/2017	04:50	0.4	SE	13/06/2017	12:00	2.2	WNW
12/06/2017	21:45	0.9	NE	13/06/2017	04:55	0.9	N	13/06/2017	12:05	1.8	WNW
12/06/2017	21:50	2.7	SW	13/06/2017	05:00	2.2	SSW	13/06/2017	12:10	4	W
12/06/2017	21:55	2.7	W	13/06/2017	05:05	0.9	SSW	13/06/2017	12:15	4.5	W
12/06/2017	22:00	2.7	WSW	13/06/2017	05:10	0.9	NE	13/06/2017	12:20	2.2	W
12/06/2017	22:05	1.3	SW	13/06/2017	05:15	0.9	SSW	13/06/2017	12:25	2.2	N
12/06/2017	22:10	0.4	NW	13/06/2017	05:20	0.9	SSW	13/06/2017	12:30	3.6	W
12/06/2017	22:15	0.9	NE	13/06/2017	05:25	5.4	WNW	13/06/2017	12:35	1.8	NW
12/06/2017	22:20	0.4	NNE	13/06/2017	05:30	4	NW	13/06/2017	12:40	0.4	NW
12/06/2017	22:25	0.4	ENE	13/06/2017	05:35	3.6	ENE	13/06/2017	12:45	1.3	S
12/06/2017	22:30	1.8	WSW	13/06/2017	05:40	0.9	WNW	13/06/2017	12:50	0.9	SSW
12/06/2017	22:35	1.3	NE	13/06/2017	05:45	4	ENE	13/06/2017	12:55	0.9	WSW
12/06/2017	22:40	3.6	WSW	13/06/2017	05:50	0.9	NW	13/06/2017	13:00	1.8	NW

Extracted from the weather station at Tung Chung China State Site Office Rooftop

Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction
13/06/2017	13:05	1.8	E	13/06/2017	20:15	2.7	SSW	14/06/2017	03:25	0.9	SW
13/06/2017	13:10	3.1	NE	13/06/2017	20:20	4.9	WNW	14/06/2017	03:30	1.3	NE
13/06/2017	13:15	2.2	W	13/06/2017	20:25	0.9	SSW	14/06/2017	03:35	3.1	E
13/06/2017	13:20	0.4	NW	13/06/2017	20:30	2.2	WNW	14/06/2017	03:40	1.3	NE
13/06/2017	13:25	1.8	N	13/06/2017	20:35	4.9	WNW	14/06/2017	03:45	3.1	E
13/06/2017	13:30	1.3	NNW	13/06/2017	20:40	0.9	NNW	14/06/2017	03:50	1.8	WSW
13/06/2017	13:35	1.8	N	13/06/2017	20:45	1.3	N	14/06/2017	03:55	1.8	W
13/06/2017	13:40	4.9	WNW	13/06/2017	20:50	0.9	NE	14/06/2017	04:00	2.7	NE
13/06/2017	13:45	3.6	W	13/06/2017	20:55	5.4	WNW	14/06/2017	04:05	0.9	ESE
13/06/2017	13:50	0.9	SSW	13/06/2017	21:00	3.6	W	14/06/2017	04:10	0.4	NNE
13/06/2017	13:55	3.1	W	13/06/2017	21:05	4.9	WNW	14/06/2017	04:15	0.4	SSE
13/06/2017	14:00	4.9	WNW	13/06/2017	21:10	2.2	WNW	14/06/2017	04:20	0.9	S
13/06/2017	14:05	4	ENE	13/06/2017	21:15	0.4	SE	14/06/2017	04:25	2.7	WSW
13/06/2017	14:10	0.9	WSW	13/06/2017	21:20	4.5	ENE	14/06/2017	04:30	0.4	WSW
13/06/2017	14:15	1.3	NNW	13/06/2017	21:25	1.3	SW	14/06/2017	04:35	2.2	ENE
13/06/2017	14:20	4.5	WNW	13/06/2017	21:30	0.4	NNW	14/06/2017	04:40	0.9	N
13/06/2017	14:25	0.4	SSW	13/06/2017	21:35	1.8	NE	14/06/2017	04:45	0.4	SSW
13/06/2017	14:30	1.3	NE	13/06/2017	21:40	0.9	NNW	14/06/2017	04:50	1.8	NE
13/06/2017	14:35	1.3	NE	13/06/2017	21:45	4.9	ENE	14/06/2017	04:55	0.4	ESE
13/06/2017	14:40	1.3	S	13/06/2017	21:50	2.7	WNW	14/06/2017	05:00	4.5	W
13/06/2017	14:45	1.3	NE	13/06/2017	21:55	0.9	S	14/06/2017	05:05	1.3	E
13/06/2017	14:50	4	WNW	13/06/2017	22:00	1.8	N	14/06/2017	05:10	1.3	E
13/06/2017	14:55	1.8	SW	13/06/2017	22:05	3.6	W	14/06/2017	05:15	2.7	W
13/06/2017	15:00	2.2	NNW	13/06/2017	22:10	1.3	SSW	14/06/2017	05:20	4.9	W
13/06/2017	15:05	1.3	S	13/06/2017	22:15	1.3	WSW	14/06/2017	05:25	0.9	SSW
13/06/2017	15:10	2.2	NE	13/06/2017	22:20	2.2	SSW	14/06/2017	05:30	1.8	W
13/06/2017	15:15	1.3	SW	13/06/2017	22:25	3.6	W	14/06/2017	05:35	0.4	E
13/06/2017	15:20	1.3	NE	13/06/2017	22:30	3.6	W	14/06/2017	05:40	0.4	ESE
13/06/2017	15:25	1.8	NE	13/06/2017	22:35	3.6	W	14/06/2017	05:45	3.1	NE
13/06/2017	15:30	2.2	SW	13/06/2017	22:40	2.2	WNW	14/06/2017	05:50	0.4	N
13/06/2017	15:35	0.9	S	13/06/2017	22:45	1.3	W	14/06/2017	05:55	2.2	E
13/06/2017	15:40	0.4	NNE	13/06/2017	22:50	1.3	NNW	14/06/2017	06:00	0.4	WSW
13/06/2017	15:45	2.2	N	13/06/2017	22:55	0.9	WSW	14/06/2017	06:05	0.4	N
13/06/2017	15:50	0.9	SSW	13/06/2017	23:00	2.7	SSW	14/06/2017	06:10	1.3	NW
13/06/2017	15:55	4.9	W	13/06/2017	23:05	4.5	W	14/06/2017	06:15	2.7	W
13/06/2017	16:00	1.3	W	13/06/2017	23:10	0.9	WNW	14/06/2017	06:20	0.9	NE
13/06/2017	16:05	1.8	WNW	13/06/2017	23:15	4	WNW	14/06/2017	06:25	2.2	ENE
13/06/2017	16:10	0.9	S	13/06/2017	23:20	3.1	WNW	14/06/2017	06:30	0.4	N
13/06/2017	16:15	0.9	SSW	13/06/2017	23:25	1.8	NE	14/06/2017	06:35	0.9	SW
13/06/2017	16:20	4.9	WNW	13/06/2017	23:30	2.2	W	14/06/2017	06:40	0.9	NNW
13/06/2017	16:25	2.2	W	13/06/2017	23:35	4	ENE	14/06/2017	06:45	1.3	NNE
13/06/2017	16:30	0.9	WSW	13/06/2017	23:40	5.4	WNW	14/06/2017	06:50	0.4	E
13/06/2017	16:35	1.8	N	13/06/2017	23:45	1.8	NNE	14/06/2017	06:55	0.9	E
13/06/2017	16:40	4.5	ENE	13/06/2017	23:50	1.8	N	14/06/2017	07:00	2.2	SW
13/06/2017	16:45	0.9	NNE	13/06/2017	23:55	4.9	WNW	14/06/2017	07:05	2.7	WSW
13/06/2017	16:50	3.6	WNW	14/06/2017	00:00	4.5	WNW	14/06/2017	07:10	0.9	N
13/06/2017	16:55	2.2	WNW	14/06/2017	00:05	2.2	E	14/06/2017	07:15	0.9	NNW
13/06/2017	17:00	0.9	S	14/06/2017	00:10	0.9	SSE	14/06/2017	07:20	0.9	NNE
13/06/2017	17:05	3.6	E	14/06/2017	00:15	2.2	E	14/06/2017	07:25	5.4	W
13/06/2017	17:10	3.1	W	14/06/2017	00:20	1.3	E	14/06/2017	07:30	4.5	WSW
13/06/2017	17:15	2.7	W	14/06/2017	00:25	0.9	N	14/06/2017	07:35	1.8	E
13/06/2017	17:20	0.4	S	14/06/2017	00:30	2.2	NE	14/06/2017	07:40	0.4	SSW
13/06/2017	17:25	2.2	W	14/06/2017	00:35	1.3	ENE	14/06/2017	07:45	2.2	WSW
13/06/2017	17:30	2.7	W	14/06/2017	00:40	1.3	ESE	14/06/2017	07:50	2.2	WSW
13/06/2017	17:35	2.2	N	14/06/2017	00:45	1.8	W	14/06/2017	07:55	2.2	NE
13/06/2017	17:40	0.9	S	14/06/2017	00:50	1.8	ENE	14/06/2017	08:00	0.4	ESE
13/06/2017	17:45	3.6	WNW	14/06/2017	00:55	1.8	WSW	14/06/2017	08:05	1.3	SW
13/06/2017	17:50	1.8	W	14/06/2017	01:00	0.4	NNE	14/06/2017	08:10	0.9	ESE
13/06/2017	17:55	0.9	SSW	14/06/2017	01:05	4.9	WSW	14/06/2017	08:15	0.9	E
13/06/2017	18:00	0.9	WNW	14/06/2017	01:10	2.2	ENE	14/06/2017	08:20	0.9	ESE
13/06/2017	18:05	1.8	N	14/06/2017	01:15	0.4	WSW	14/06/2017	08:25	1.3	E
13/06/2017	18:10	0.9	ENE	14/06/2017	01:20	0.9	ESE	14/06/2017	08:30	0.9	SW
13/06/2017	18:15	1.3	ESE	14/06/2017	01:25	0.9	E	14/06/2017	08:35	0.9	ESE
13/06/2017	18:20	2.7	W	14/06/2017	01:30	1.3	NE	14/06/2017	08:40	0.9	N
13/06/2017	18:25	2.2	N	14/06/2017	01:35	1.3	ENE	14/06/2017	08:45	1.3	NNW
13/06/2017	18:30	3.1	WNW	14/06/2017	01:40	0.9	NNE	14/06/2017	08:50	0.4	N
13/06/2017	18:35	2.2	NE	14/06/2017	01:45	0.4	SSW	14/06/2017	08:55	2.2	ENE
13/06/2017	18:40	0.4	SSW	14/06/2017	01:50	0.4	SSW	14/06/2017	09:00	0.4	SE
13/06/2017	18:45	0.4	S	14/06/2017	01:55	1.3	WSW	14/06/2017	09:05	3.1	NE
13/06/2017	18:50	0.4	SE	14/06/2017	02:00	2.7	NE	14/06/2017	09:10	0.9	SW
13/06/2017	18:55	0.9	SSW	14/06/2017	02:05	4.5	WSW	14/06/2017	09:15	1.8	NE
13/06/2017	19:00	4	E	14/06/2017	02:10	1.3	E	14/06/2017	09:20	1.8	ENE
13/06/2017	19:05	0.4	NW	14/06/2017	02:15	0.9	SSW	14/06/2017	09:25	0.4	NNE
13/06/2017	19:10	0.9	SSW	14/06/2017	02:20	0.9	NE	14/06/2017	09:30	0.9	SSE
13/06/2017	19:15	3.1	W	14/06/2017	02:25	0.9	NNW	14/06/2017	09:35	2.2	ENE
13/06/2017	19:20	2.2	E	14/06/2017	02:30	0.9	NNE	14/06/2017	09:40	0.9	WNW
13/06/2017	19:25	4.9	WNW	14/06/2017	02:35	0.4	NNE	14/06/2017	09:45	4.9	WSW
13/06/2017	19:30	4.5	WNW	14/06/2017	02:40	0.4	SSW	14/06/2017	09:50	1.8	N
13/06/2017	19:35	2.2	WNW	14/06/2017	02:45	1.3	SSW	14/06/2017	09:55	1.3	NNW
13/06/2017	19:40	5.4	ENE	14/06/2017	02:50	3.1	E	14/06/2017	10:00	0.4	E
13/06/2017	19:45	0.9	N	14/06/2017	02:55	0.9	WNW	14/06/2017	10:05	1.8	E
13/06/2017	19:50	1.8	N	14/06/2017	03:00	0.4	NNE	14/06/2017	10:10	0.4	E
13/06/2017	19:55	4.5	WNW	14/06/2017	03:05	0.4	SSW	14/06/2017	10:15	0.9	SW
13/06/2017	20:00	2.2	WNW	14/06/2017	03:10	4.5	WSW	14/06/2017	10:20	2.2	ENE
13/06/2017	20:05	0.9	SE	14/06/2017	03:15	1.8	E	14/06/2017	10:25	2.7	WSW
13/06/2017	20:10	3.6	E	14/06/2017	03:20	1.3	SW	14/06/2017	10:30	0.4	SSW

Extracted from the weather station at Tung Chung China State Site Office Rooftop

Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction
14/06/2017	10:35	0.9	NNE	14/06/2017	17:45	1.8	W	15/06/2017	00:55	0.9	SSW
14/06/2017	10:40	0.4	ESE	14/06/2017	17:50	0.4	E	15/06/2017	01:00	0.4	SE
14/06/2017	10:45	1.3	WSW	14/06/2017	17:55	2.2	NE	15/06/2017	01:05	2.7	WNW
14/06/2017	10:50	0.4	NNE	14/06/2017	18:00	0.4	N	15/06/2017	01:10	0.4	ESE
14/06/2017	10:55	4.5	W	14/06/2017	18:05	0.9	WSW	15/06/2017	01:15	0.4	SSW
14/06/2017	11:00	2.7	NE	14/06/2017	18:10	1.3	N	15/06/2017	01:20	0.4	WSW
14/06/2017	11:05	1.8	WSW	14/06/2017	18:15	1.8	N	15/06/2017	01:25	1.3	NNE
14/06/2017	11:10	4.5	WSW	14/06/2017	18:20	2.2	E	15/06/2017	01:30	1.3	WSW
14/06/2017	11:15	1.3	SW	14/06/2017	18:25	1.3	SW	15/06/2017	01:35	0.9	S
14/06/2017	11:20	5.4	W	14/06/2017	18:30	2.7	NE	15/06/2017	01:40	1.3	WSW
14/06/2017	11:25	2.2	WSW	14/06/2017	18:35	0.9	ESE	15/06/2017	01:45	1.8	NNE
14/06/2017	11:30	3.1	NE	14/06/2017	18:40	0.9	N	15/06/2017	01:50	1.3	WSW
14/06/2017	11:35	0.9	ENE	14/06/2017	18:45	1.3	SE	15/06/2017	01:55	1.8	N
14/06/2017	11:40	3.1	NE	14/06/2017	18:50	0.4	WSW	15/06/2017	02:00	1.3	E
14/06/2017	11:45	2.2	WSW	14/06/2017	18:55	2.7	NE	15/06/2017	02:05	1.3	NW
14/06/2017	11:50	3.1	E	14/06/2017	19:00	1.8	E	15/06/2017	02:10	0.4	SSW
14/06/2017	11:55	0.9	ENE	14/06/2017	19:05	2.7	NE	15/06/2017	02:15	1.8	NNW
14/06/2017	12:00	0.9	E	14/06/2017	19:10	1.3	ESE	15/06/2017	02:20	0.9	W
14/06/2017	12:05	1.3	ENE	14/06/2017	19:15	0.4	NE	15/06/2017	02:25	1.8	NNE
14/06/2017	12:10	4.9	W	14/06/2017	19:20	1.3	WSW	15/06/2017	02:30	0.9	SSW
14/06/2017	12:15	1.3	E	14/06/2017	19:25	0.4	ENE	15/06/2017	02:35	0.4	SSW
14/06/2017	12:20	1.3	NNE	14/06/2017	19:30	2.2	W	15/06/2017	02:40	2.2	WNW
14/06/2017	12:25	0.4	SE	14/06/2017	19:35	2.2	WSW	15/06/2017	02:45	1.3	WSW
14/06/2017	12:30	0.4	N	14/06/2017	19:40	0.9	E	15/06/2017	02:50	1.3	E
14/06/2017	12:35	3.1	ENE	14/06/2017	19:45	0.4	E	15/06/2017	02:55	0.4	NNW
14/06/2017	12:40	0.4	E	14/06/2017	19:50	1.8	NNE	15/06/2017	03:00	0.9	S
14/06/2017	12:45	0.9	ESE	14/06/2017	19:55	1.8	WSW	15/06/2017	03:05	1.8	ESE
14/06/2017	12:50	0.4	N	14/06/2017	20:00	0.4	SSW	15/06/2017	03:10	0.4	SE
14/06/2017	12:55	0.4	E	14/06/2017	20:05	1.3	ESE	15/06/2017	03:15	0.9	E
14/06/2017	13:00	0.4	E	14/06/2017	20:10	1.3	WSW	15/06/2017	03:20	0.4	WSW
14/06/2017	13:05	1.3	N	14/06/2017	20:15	1.8	WSW	15/06/2017	03:25	0.4	SE
14/06/2017	13:10	1.3	NE	14/06/2017	20:20	0.9	ENE	15/06/2017	03:30	1.8	NE
14/06/2017	13:15	5.4	W	14/06/2017	20:25	2.2	WSW	15/06/2017	03:35	1.8	W
14/06/2017	13:20	0.4	SSW	14/06/2017	20:30	0.9	SSE	15/06/2017	03:40	1.8	NNW
14/06/2017	13:25	0.4	E	14/06/2017	20:35	0.4	E	15/06/2017	03:45	1.3	SSW
14/06/2017	13:30	0.9	NW	14/06/2017	20:40	1.8	ENE	15/06/2017	03:50	1.8	NNE
14/06/2017	13:35	0.9	NE	14/06/2017	20:45	1.3	SW	15/06/2017	03:55	0.9	SSW
14/06/2017	13:40	0.4	ENE	14/06/2017	20:50	0.4	E	15/06/2017	04:00	1.8	NNW
14/06/2017	13:45	0.4	E	14/06/2017	20:55	1.8	N	15/06/2017	04:05	1.8	N
14/06/2017	13:50	1.3	E	14/06/2017	21:00	0.4	E	15/06/2017	04:10	2.7	N
14/06/2017	13:55	0.4	NNE	14/06/2017	21:05	0.4	E	15/06/2017	04:15	0.4	SE
14/06/2017	14:00	1.3	E	14/06/2017	21:10	0.4	SSW	15/06/2017	04:20	0.4	SSW
14/06/2017	14:05	1.8	NE	14/06/2017	21:15	0.4	NW	15/06/2017	04:25	3.6	WSW
14/06/2017	14:10	0.4	ESE	14/06/2017	21:20	0.9	ESE	15/06/2017	04:30	1.8	NNW
14/06/2017	14:15	0.9	SSE	14/06/2017	21:25	3.1	WSW	15/06/2017	04:35	1.8	N
14/06/2017	14:20	0.4	SE	14/06/2017	21:30	0.4	NE	15/06/2017	04:40	1.3	WSW
14/06/2017	14:25	0.4	SE	14/06/2017	21:35	1.3	E	15/06/2017	04:45	0.4	SE
14/06/2017	14:30	2.7	WSW	14/06/2017	21:40	1.3	NE	15/06/2017	04:50	0.9	NNW
14/06/2017	14:35	4	W	14/06/2017	21:45	0.4	SE	15/06/2017	04:55	0.4	E
14/06/2017	14:40	1.3	N	14/06/2017	21:50	0.9	E	15/06/2017	05:00	0.9	SSW
14/06/2017	14:45	1.8	ENE	14/06/2017	21:55	0.4	SSW	15/06/2017	05:05	0.4	ESE
14/06/2017	14:50	2.2	E	14/06/2017	22:00	3.1	E	15/06/2017	05:10	3.1	W
14/06/2017	14:55	0.9	E	14/06/2017	22:05	2.2	WSW	15/06/2017	05:15	2.2	WNW
14/06/2017	15:00	0.9	NNW	14/06/2017	22:10	1.3	ENE	15/06/2017	05:20	2.2	W
14/06/2017	15:05	1.3	SSW	14/06/2017	22:15	0.4	NW	15/06/2017	05:25	2.7	WSW
14/06/2017	15:10	0.9	SW	14/06/2017	22:20	2.7	NE	15/06/2017	05:30	1.8	N
14/06/2017	15:15	2.2	WSW	14/06/2017	22:25	1.8	ENE	15/06/2017	05:35	0.9	E
14/06/2017	15:20	0.9	N	14/06/2017	22:30	4.5	WSW	15/06/2017	05:40	1.3	SSW
14/06/2017	15:25	2.2	ENE	14/06/2017	22:35	0.4	NNE	15/06/2017	05:45	1.8	NNE
14/06/2017	15:30	3.1	NE	14/06/2017	22:40	1.3	NNW	15/06/2017	05:50	0.4	SSW
14/06/2017	15:35	0.9	SE	14/06/2017	22:45	0.4	SE	15/06/2017	05:55	1.3	N
14/06/2017	15:40	0.4	E	14/06/2017	22:50	2.7	NE	15/06/2017	06:00	0.9	SSE
14/06/2017	15:45	0.9	NE	14/06/2017	22:55	0.9	SSW	15/06/2017	06:05	1.8	W
14/06/2017	15:50	0.4	SE	14/06/2017	23:00	1.3	ENE	15/06/2017	06:10	0.4	SSW
14/06/2017	15:55	2.7	WSW	14/06/2017	23:05	1.3	SW	15/06/2017	06:15	3.6	W
14/06/2017	16:00	2.2	ENE	14/06/2017	23:10	1.8	N	15/06/2017	06:20	0.4	NW
14/06/2017	16:05	2.2	E	14/06/2017	23:15	2.2	ENE	15/06/2017	06:25	1.8	NE
14/06/2017	16:10	0.9	NNW	14/06/2017	23:20	0.4	W	15/06/2017	06:30	0.4	SE
14/06/2017	16:15	1.3	N	14/06/2017	23:25	3.1	WSW	15/06/2017	06:35	1.8	NNW
14/06/2017	16:20	2.2	E	14/06/2017	23:30	2.2	E	15/06/2017	06:40	1.8	N
14/06/2017	16:25	0.9	N	14/06/2017	23:35	1.3	SSW	15/06/2017	06:45	1.3	N
14/06/2017	16:30	1.3	SSW	14/06/2017	23:40	2.2	NE	15/06/2017	06:50	0.4	SSW
14/06/2017	16:35	3.1	E	14/06/2017	23:45	4	WSW	15/06/2017	06:55	1.8	NNE
14/06/2017	16:40	0.9	SE	14/06/2017	23:50	0.9	NNW	15/06/2017	07:00	0.9	SSE
14/06/2017	16:45	0.9	WSW	14/06/2017	23:55	1.3	ENE	15/06/2017	07:05	1.8	W
14/06/2017	16:50	0.9	ESE	15/06/2017	00:00	1.8	ENE	15/06/2017	07:10	2.7	WSW
14/06/2017	16:55	0.4	SE	15/06/2017	00:05	0.9	SSE	15/06/2017	07:15	0.4	SSW
14/06/2017	17:00	2.2	WSW	15/06/2017	00:10	0.4	SE	15/06/2017	07:20	1.8	SW
14/06/2017	17:05	0.4	SE	15/06/2017	00:15	1.3	NE	15/06/2017	07:25	0.4	SSW
14/06/2017	17:10	0.9	SSW	15/06/2017	00:20	2.7	W	15/06/2017	07:30	1.8	N
14/06/2017	17:15	1.3	SW	15/06/2017	00:25	2.2	N	15/06/2017	07:35	1.8	NNE
14/06/2017	17:20	0.4	SSW	15/06/2017	00:30	0.4	SSW	15/06/2017	07:40	0.9	E
14/06/2017	17:25	0.9	SW	15/06/2017	00:35	2.2	W	15/06/2017	07:45	0.4	SSW
14/06/2017	17:30	0.9	ENE	15/06/2017	00:40	1.3	E	15/06/2017	07:50	0.4	ESE
14/06/2017	17:35	0.4	NNE	15/06/2017	00:45	0.4	S	15/06/2017	07:55	1.8	ESE
14/06/2017	17:40	2.2	NE	15/06/2017	00:50	0.4	E	15/06/2017	08:00	1.8	W



Extracted from the weather station at Tung Chung China State Site Office Rooftop

Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction
15/06/2017	08:05	0.4	ESE	15/06/2017	15:15	0.4	SW	15/06/2017	22:25	0.4	SE
15/06/2017	08:10	0.9	SSW	15/06/2017	15:20	1.8	NE	15/06/2017	22:30	2.2	N
15/06/2017	08:15	2.7	WSW	15/06/2017	15:25	0.4	SW	15/06/2017	22:35	1.3	N
15/06/2017	08:20	0.4	E	15/06/2017	15:30	0.4	SE	15/06/2017	22:40	0.4	SSW
15/06/2017	08:25	0.9	E	15/06/2017	15:35	2.7	WSW	15/06/2017	22:45	0.9	SE
15/06/2017	08:30	1.8	NNW	15/06/2017	15:40	0.4	S	15/06/2017	22:50	0.4	WSW
15/06/2017	08:35	1.8	N	15/06/2017	15:45	0.4	SSW	15/06/2017	22:55	0.9	NW
15/06/2017	08:40	0.4	SSE	15/06/2017	15:50	0.4	SE	15/06/2017	23:00	0.9	ESE
15/06/2017	08:45	1.3	E	15/06/2017	15:55	0.9	SE	15/06/2017	23:05	1.8	N
15/06/2017	08:50	1.3	ESE	15/06/2017	16:00	0.9	ESE	15/06/2017	23:10	2.2	N
15/06/2017	08:55	2.2	ENE	15/06/2017	16:05	1.3	E	15/06/2017	23:15	1.3	WNW
15/06/2017	09:00	1.3	WNW	15/06/2017	16:10	1.3	WSW	15/06/2017	23:20	0.9	ESE
15/06/2017	09:05	1.3	SSW	15/06/2017	16:15	2.7	WNW	15/06/2017	23:25	1.3	ENE
15/06/2017	09:10	2.7	WNW	15/06/2017	16:20	0.4	SE	15/06/2017	23:30	2.7	W
15/06/2017	09:15	0.4	SSE	15/06/2017	16:25	2.2	W	15/06/2017	23:35	0.4	E
15/06/2017	09:20	2.7	SSW	15/06/2017	16:30	0.4	SSW	15/06/2017	23:40	3.1	SW
15/06/2017	09:25	2.2	WSW	15/06/2017	16:35	0.4	SSW	15/06/2017	23:45	1.3	N
15/06/2017	09:30	0.9	SSW	15/06/2017	16:40	1.8	NNW	15/06/2017	23:50	1.8	NE
15/06/2017	09:35	2.7	WNW	15/06/2017	16:45	0.4	WSW	15/06/2017	23:55	2.7	W
15/06/2017	09:40	1.8	NW	15/06/2017	16:50	3.6	WSW	16/06/2017	00:00	1.3	NNE
15/06/2017	09:45	1.8	N	15/06/2017	16:55	0.9	SSW	16/06/2017	00:05	2.2	NE
15/06/2017	09:50	2.7	WNW	15/06/2017	17:00	0.4	SSW	16/06/2017	00:10	2.2	NE
15/06/2017	09:55	0.4	S	15/06/2017	17:05	1.3	WNW	16/06/2017	00:15	2.2	NE
15/06/2017	10:00	1.3	E	15/06/2017	17:10	1.8	N	16/06/2017	00:20	4.5	E
15/06/2017	10:05	1.8	NNW	15/06/2017	17:15	0.4	SSW	16/06/2017	00:25	3.1	ENE
15/06/2017	10:10	2.7	WNW	15/06/2017	17:20	1.3	N	16/06/2017	00:30	4.9	ENE
15/06/2017	10:15	1.8	NNE	15/06/2017	17:25	1.3	NNE	16/06/2017	00:35	0.9	WSW
15/06/2017	10:20	1.3	S	15/06/2017	17:30	1.3	SW	16/06/2017	00:40	5.4	E
15/06/2017	10:25	2.2	SW	15/06/2017	17:35	1.3	NNE	16/06/2017	00:45	2.7	W
15/06/2017	10:30	0.4	E	15/06/2017	17:40	2.7	SW	16/06/2017	00:50	1.8	SSW
15/06/2017	10:35	0.9	WSW	15/06/2017	17:45	0.9	WSW	16/06/2017	00:55	4.9	ENE
15/06/2017	10:40	0.9	ESE	15/06/2017	17:50	0.9	E	16/06/2017	01:00	2.2	WSW
15/06/2017	10:45	0.9	NNW	15/06/2017	17:55	1.3	SW	16/06/2017	01:05	4.5	ENE
15/06/2017	10:50	1.8	SSW	15/06/2017	18:00	0.9	WSW	16/06/2017	01:10	4	ENE
15/06/2017	10:55	0.4	SSW	15/06/2017	18:05	0.4	SSW	16/06/2017	01:15	1.8	NNW
15/06/2017	11:00	0.9	S	15/06/2017	18:10	0.4	SSW	16/06/2017	01:20	4	NE
15/06/2017	11:05	2.7	WSW	15/06/2017	18:15	2.2	W	16/06/2017	01:25	6.7	ENE
15/06/2017	11:10	0.9	E	15/06/2017	18:20	0.4	S	16/06/2017	01:30	3.6	NE
15/06/2017	11:15	0.4	WNW	15/06/2017	18:25	0.4	SE	16/06/2017	01:35	1.8	ESE
15/06/2017	11:20	1.3	SSW	15/06/2017	18:30	1.3	E	16/06/2017	01:40	4.5	NNE
15/06/2017	11:25	2.7	W	15/06/2017	18:35	0.4	WSW	16/06/2017	01:45	4	NE
15/06/2017	11:30	1.3	NE	15/06/2017	18:40	0.4	SSW	16/06/2017	01:50	3.1	ENE
15/06/2017	11:35	1.3	NW	15/06/2017	18:45	1.3	SSW	16/06/2017	01:55	4.5	ENE
15/06/2017	11:40	1.8	NNE	15/06/2017	18:50	1.3	ESE	16/06/2017	02:00	2.7	ENE
15/06/2017	11:45	1.8	N	15/06/2017	18:55	2.7	W	16/06/2017	02:05	5.4	ENE
15/06/2017	11:50	2.7	W	15/06/2017	19:00	1.8	NNE	16/06/2017	02:10	0.9	NE
15/06/2017	11:55	0.4	ESE	15/06/2017	19:05	1.3	ESE	16/06/2017	02:15	4	ENE
15/06/2017	12:00	1.3	NNE	15/06/2017	19:10	1.3	N	16/06/2017	02:20	5.4	E
15/06/2017	12:05	0.4	SE	15/06/2017	19:15	0.4	SE	16/06/2017	02:25	4	E
15/06/2017	12:10	1.3	NNE	15/06/2017	19:20	0.9	SSW	16/06/2017	02:30	3.6	E
15/06/2017	12:15	1.3	NNE	15/06/2017	19:25	0.4	SE	16/06/2017	02:35	2.7	ENE
15/06/2017	12:20	0.4	ESE	15/06/2017	19:30	0.9	SSW	16/06/2017	02:40	4	ENE
15/06/2017	12:25	0.4	E	15/06/2017	19:35	0.9	SSW	16/06/2017	02:45	3.6	NW
15/06/2017	12:30	0.9	E	15/06/2017	19:40	2.7	W	16/06/2017	02:50	3.6	ENE
15/06/2017	12:35	0.4	SE	15/06/2017	19:45	0.4	NE	16/06/2017	02:55	2.2	NW
15/06/2017	12:40	0.4	E	15/06/2017	19:50	0.9	WSW	16/06/2017	03:00	4	ENE
15/06/2017	12:45	0.4	SSW	15/06/2017	19:55	0.4	SSW	16/06/2017	03:05	2.7	ENE
15/06/2017	12:50	1.8	NE	15/06/2017	20:00	2.2	N	16/06/2017	03:10	3.6	ENE
15/06/2017	12:55	1.8	N	15/06/2017	20:05	1.8	W	16/06/2017	03:15	4.5	ENE
15/06/2017	13:00	2.7	WSW	15/06/2017	20:10	2.2	WNW	16/06/2017	03:20	1.8	ENE
15/06/2017	13:05	1.3	NE	15/06/2017	20:15	0.4	SE	16/06/2017	03:25	1.3	ENE
15/06/2017	13:10	1.8	NNE	15/06/2017	20:20	1.3	ENE	16/06/2017	03:30	5.4	ENE
15/06/2017	13:15	1.8	NE	15/06/2017	20:25	0.4	WSW	16/06/2017	03:35	2.7	W
15/06/2017	13:20	1.3	WSW	15/06/2017	20:30	1.8	NNE	16/06/2017	03:40	3.6	NE
15/06/2017	13:25	2.2	N	15/06/2017	20:35	1.3	E	16/06/2017	03:45	4.5	ENE
15/06/2017	13:30	0.4	SE	15/06/2017	20:40	1.3	WSW	16/06/2017	03:50	4.9	ENE
15/06/2017	13:35	1.8	N	15/06/2017	20:45	2.7	W	16/06/2017	03:55	4	NE
15/06/2017	13:40	0.4	SSW	15/06/2017	20:50	0.4	SSW	16/06/2017	04:00	4.5	E
15/06/2017	13:45	1.3	ENE	15/06/2017	20:55	1.3	ENE	16/06/2017	04:05	3.6	ENE
15/06/2017	13:50	0.9	S	15/06/2017	21:00	1.8	NNE	16/06/2017	04:10	3.1	NE
15/06/2017	13:55	1.3	E	15/06/2017	21:05	0.4	SE	16/06/2017	04:15	4.9	E
15/06/2017	14:00	0.4	ESE	15/06/2017	21:10	1.3	SW	16/06/2017	04:20	5.8	ENE
15/06/2017	14:05	0.4	WSW	15/06/2017	21:15	0.4	SSW	16/06/2017	04:25	2.7	ENE
15/06/2017	14:10	1.3	NNW	15/06/2017	21:20	3.6	SW	16/06/2017	04:30	4.5	NE
15/06/2017	14:15	1.3	NE	15/06/2017	21:25	1.3	WSW	16/06/2017	04:35	3.6	ENE
15/06/2017	14:20	0.9	NW	15/06/2017	21:30	1.3	WSW	16/06/2017	04:40	2.7	NW
15/06/2017	14:25	0.4	SSW	15/06/2017	21:35	1.8	N	16/06/2017	04:45	2.2	NE
15/06/2017	14:30	1.8	WNW	15/06/2017	21:40	1.3	E	16/06/2017	04:50	1.3	SSW
15/06/2017	14:35	1.8	NNE	15/06/2017	21:45	1.8	NNW	16/06/2017	04:55	3.1	E
15/06/2017	14:40	0.9	E	15/06/2017	21:50	1.8	N	16/06/2017	05:00	3.1	E
15/06/2017	14:45	1.8	NNE	15/06/2017	21:55	0.9	NW	16/06/2017	05:05	4.9	E
15/06/2017	14:50	1.3	W	15/06/2017	22:00	0.9	W	16/06/2017	05:10	4	ENE
15/06/2017	14:55	1.3	SW	15/06/2017	22:05	0.4	SSW	16/06/2017	05:15	2.7	ENE
15/06/2017	15:00	0.9	S	15/06/2017	22:10	0.9	N	16/06/2017	05:20	3.1	WSW
15/06/2017	15:05	0.9	SSW	15/06/2017	22:15	1.8	NNE	16/06/2017	05:25	3.1	ENE
15/06/2017	15:10	0.4	SSW	15/06/2017	22:20	1.3	E	16/06/2017	05:30	3.6	NE

Extracted from the weather station at Tung Chung China State Site Office Rooftop

Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction
16/06/2017	05:35	4	ENE	16/06/2017	12:45	3.1	ENE	16/06/2017	19:55	4.5	E
16/06/2017	05:40	3.1	ENE	16/06/2017	12:50	3.6	NNE	16/06/2017	20:00	3.6	ENE
16/06/2017	05:45	5.4	ENE	16/06/2017	12:55	4.5	ENE	16/06/2017	20:05	3.1	WSW
16/06/2017	05:50	5.4	E	16/06/2017	13:00	4.9	ENE	16/06/2017	20:10	4.9	E
16/06/2017	05:55	2.7	ENE	16/06/2017	13:05	3.6	ENE	16/06/2017	20:15	5.8	ENE
16/06/2017	06:00	2.2	WSW	16/06/2017	13:10	4.9	E	16/06/2017	20:20	2.2	W
16/06/2017	06:05	1.8	W	16/06/2017	13:15	1.8	SSW	16/06/2017	20:25	5.4	E
16/06/2017	06:10	1.8	W	16/06/2017	13:20	2.7	ENE	16/06/2017	20:30	4.9	ENE
16/06/2017	06:15	1.8	W	16/06/2017	13:25	2.7	ENE	16/06/2017	20:35	1.8	SSW
16/06/2017	06:20	3.1	ENE	16/06/2017	13:30	5.8	ENE	16/06/2017	20:40	0.9	NNE
16/06/2017	06:25	1.8	ENE	16/06/2017	13:35	3.1	ENE	16/06/2017	20:45	1.8	W
16/06/2017	06:30	4	ENE	16/06/2017	13:40	2.7	ENE	16/06/2017	20:50	2.7	ENE
16/06/2017	06:35	4.5	ENE	16/06/2017	13:45	3.1	WSW	16/06/2017	20:55	3.1	E
16/06/2017	06:40	4.9	ENE	16/06/2017	13:50	1.8	NE	16/06/2017	21:00	2.7	E
16/06/2017	06:45	2.2	NNE	16/06/2017	13:55	2.7	ENE	16/06/2017	21:05	4.5	ENE
16/06/2017	06:50	4.5	ENE	16/06/2017	14:00	2.7	ENE	16/06/2017	21:10	5.8	ENE
16/06/2017	06:55	4.5	ENE	16/06/2017	14:05	1.8	ENE	16/06/2017	21:15	2.7	ENE
16/06/2017	07:00	4.5	ENE	16/06/2017	14:10	3.6	NE	16/06/2017	21:20	3.1	E
16/06/2017	07:05	4.5	E	16/06/2017	14:15	1.3	SSW	16/06/2017	21:25	2.7	ENE
16/06/2017	07:10	2.7	NW	16/06/2017	14:20	2.2	ENE	16/06/2017	21:30	2.7	ENE
16/06/2017	07:15	3.1	ENE	16/06/2017	14:25	4.9	ENE	16/06/2017	21:35	6.7	ENE
16/06/2017	07:20	5.8	ENE	16/06/2017	14:30	1.3	ENE	16/06/2017	21:40	4	ENE
16/06/2017	07:25	5.8	ENE	16/06/2017	14:35	4.5	E	16/06/2017	21:45	1.8	WNW
16/06/2017	07:30	4	ENE	16/06/2017	14:40	4.9	E	16/06/2017	21:50	4.9	E
16/06/2017	07:35	2.2	NE	16/06/2017	14:45	4.9	E	16/06/2017	21:55	4.5	ENE
16/06/2017	07:40	2.7	W	16/06/2017	14:50	2.7	W	16/06/2017	22:00	2.2	WNW
16/06/2017	07:45	3.6	ENE	16/06/2017	14:55	1.8	SSW	16/06/2017	22:05	0.9	NE
16/06/2017	07:50	4	NE	16/06/2017	15:00	0.9	NNE	16/06/2017	22:10	3.1	WSW
16/06/2017	07:55	3.1	ENE	16/06/2017	15:05	3.6	ENE	16/06/2017	22:15	3.6	ENE
16/06/2017	08:00	4	ENE	16/06/2017	15:10	3.1	E	16/06/2017	22:20	2.2	ENE
16/06/2017	08:05	1.8	W	16/06/2017	15:15	0.9	NNE	16/06/2017	22:25	4.5	NE
16/06/2017	08:10	2.7	ENE	16/06/2017	15:20	4.9	ENE	16/06/2017	22:30	4	ENE
16/06/2017	08:15	0.4	NW	16/06/2017	15:25	3.6	NW	16/06/2017	22:35	5.4	E
16/06/2017	08:20	3.6	ENE	16/06/2017	15:30	4	ENE	16/06/2017	22:40	1.8	NNE
16/06/2017	08:25	4.5	ENE	16/06/2017	15:35	3.1	WSW	16/06/2017	22:45	4.5	ENE
16/06/2017	08:30	4	NE	16/06/2017	15:40	3.6	ENE	16/06/2017	22:50	3.6	ENE
16/06/2017	08:35	2.2	E	16/06/2017	15:45	5.4	ENE	16/06/2017	22:55	5.4	ENE
16/06/2017	08:40	4	NE	16/06/2017	15:50	3.6	NE	16/06/2017	23:00	4	NE
16/06/2017	08:45	5.4	ENE	16/06/2017	15:55	5.4	E	16/06/2017	23:05	4	NE
16/06/2017	08:50	4	ENE	16/06/2017	16:00	2.2	E	16/06/2017	23:10	4.9	ENE
16/06/2017	08:55	6.7	ENE	16/06/2017	16:05	4.5	ENE	16/06/2017	23:15	6.3	E
16/06/2017	09:00	6.3	E	16/06/2017	16:10	1.8	W	16/06/2017	23:20	5.4	ENE
16/06/2017	09:05	4.5	ENE	16/06/2017	16:15	2.7	NW	16/06/2017	23:25	4.5	ENE
16/06/2017	09:10	2.2	E	16/06/2017	16:20	1.8	NE	16/06/2017	23:30	1.8	S
16/06/2017	09:15	2.7	ENE	16/06/2017	16:25	2.2	W	16/06/2017	23:35	3.1	ENE
16/06/2017	09:20	2.2	E	16/06/2017	16:30	2.7	ENE	16/06/2017	23:40	2.2	WNW
16/06/2017	09:25	3.1	ENE	16/06/2017	16:35	5.4	ENE	16/06/2017	23:45	3.1	WSW
16/06/2017	09:30	4	NE	16/06/2017	16:40	2.7	ENE	16/06/2017	23:50	6.7	ENE
16/06/2017	09:35	4.9	E	16/06/2017	16:45	1.8	NNE	16/06/2017	23:55	4	ENE
16/06/2017	09:40	4	NE	16/06/2017	16:50	5.4	E	17/06/2017	00:00	4	ENE
16/06/2017	09:45	4.5	ENE	16/06/2017	16:55	3.1	ENE	17/06/2017	00:05	1.3	NNE
16/06/2017	09:50	4.9	E	16/06/2017	17:00	5.4	E	17/06/2017	00:10	1.8	E
16/06/2017	09:55	1.8	W	16/06/2017	17:05	5.4	E	17/06/2017	00:15	2.7	E
16/06/2017	10:00	0.9	WSW	16/06/2017	17:10	2.2	WSW	17/06/2017	00:20	0.9	SW
16/06/2017	10:05	6.7	E	16/06/2017	17:15	1.3	NW	17/06/2017	00:25	2.2	NE
16/06/2017	10:10	5.8	ENE	16/06/2017	17:20	4.5	E	17/06/2017	00:30	0.9	ESE
16/06/2017	10:15	4	ENE	16/06/2017	17:25	4.9	ENE	17/06/2017	00:35	1.3	WSW
16/06/2017	10:20	2.2	NW	16/06/2017	17:30	4	ENE	17/06/2017	00:40	1.8	E
16/06/2017	10:25	4.9	ENE	16/06/2017	17:35	2.2	ENE	17/06/2017	00:45	1.3	ESE
16/06/2017	10:30	2.7	ENE	16/06/2017	17:40	4	ENE	17/06/2017	00:50	0.9	ESE
16/06/2017	10:35	3.6	NW	16/06/2017	17:45	5.4	ENE	17/06/2017	00:55	1.3	N
16/06/2017	10:40	4.5	E	16/06/2017	17:50	3.6	ENE	17/06/2017	01:00	2.2	NE
16/06/2017	10:45	3.6	NW	16/06/2017	17:55	3.1	ENE	17/06/2017	01:05	1.8	ENE
16/06/2017	10:50	1.3	SSW	16/06/2017	18:00	4.5	ENE	17/06/2017	01:10	0.9	WSW
16/06/2017	10:55	1.3	SSW	16/06/2017	18:05	4.5	ENE	17/06/2017	01:15	1.3	ENE
16/06/2017	11:00	4	ENE	16/06/2017	18:10	4.5	ENE	17/06/2017	01:20	0.9	ESE
16/06/2017	11:05	4	ENE	16/06/2017	18:15	2.7	NE	17/06/2017	01:25	0.4	WSW
16/06/2017	11:10	2.7	ENE	16/06/2017	18:20	4	ENE	17/06/2017	01:30	1.8	NE
16/06/2017	11:15	4.9	E	16/06/2017	18:25	2.7	NW	17/06/2017	01:35	0.9	ESE
16/06/2017	11:20	1.3	ENE	16/06/2017	18:30	4.5	ENE	17/06/2017	01:40	0.4	ESE
16/06/2017	11:25	4.9	E	16/06/2017	18:35	4.9	ENE	17/06/2017	01:45	1.8	E
16/06/2017	11:30	4	NE	16/06/2017	18:40	4	ENE	17/06/2017	01:50	2.2	N
16/06/2017	11:35	2.7	ENE	16/06/2017	18:45	2.7	E	17/06/2017	01:55	1.8	ENE
16/06/2017	11:40	4	ENE	16/06/2017	18:50	4	ENE	17/06/2017	02:00	3.1	ENE
16/06/2017	11:45	2.7	ENE	16/06/2017	18:55	2.7	ENE	17/06/2017	02:05	3.6	ENE
16/06/2017	11:50	2.2	W	16/06/2017	19:00	2.7	WSW	17/06/2017	02:10	0.9	SSW
16/06/2017	11:55	3.6	ENE	16/06/2017	19:05	5.4	E	17/06/2017	02:15	2.2	SSW
16/06/2017	12:00	1.3	ENE	16/06/2017	19:10	2.7	ENE	17/06/2017	02:20	1.8	NE
16/06/2017	12:05	4	ENE	16/06/2017	19:15	3.6	NE	17/06/2017	02:25	4.5	E
16/06/2017	12:10	4.9	E	16/06/2017	19:20	1.8	ENE	17/06/2017	02:30	3.1	WSW
16/06/2017	12:15	4.5	E	16/06/2017	19:25	4.5	NE	17/06/2017	02:35	5.8	E
16/06/2017	12:20	3.1	NE	16/06/2017	19:30	4.5	ENE	17/06/2017	02:40	0.9	SW
16/06/2017	12:25	3.1	WSW	16/06/2017	19:35	3.1	ENE	17/06/2017	02:45	1.3	E
16/06/2017	12:30	5.8	ENE	16/06/2017	19:40	2.7	ENE	17/06/2017	02:50	1.8	E
16/06/2017	12:35	3.1	E	16/06/2017	19:45	3.1	WSW	17/06/2017	02:55	1.3	NE
16/06/2017	12:40	6.7	E	16/06/2017	19:50	4	ENE	17/06/2017	03:00	0.4	ESE

Extracted from the weather station at Tung Chung China State Site Office Rooftop

Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction
17/06/2017	03:05	2.7	ENE	17/06/2017	10:15	3.6	E	17/06/2017	17:25	4.9	E
17/06/2017	03:10	0.4	SW	17/06/2017	10:20	0.9	SSE	17/06/2017	17:30	2.7	WSW
17/06/2017	03:15	0.9	SSW	17/06/2017	10:25	1.3	WSW	17/06/2017	17:35	0.9	WSW
17/06/2017	03:20	0.9	E	17/06/2017	10:30	0.9	ESE	17/06/2017	17:40	0.4	SW
17/06/2017	03:25	1.3	NE	17/06/2017	10:35	1.3	WSW	17/06/2017	17:45	2.7	ENE
17/06/2017	03:30	4.5	E	17/06/2017	10:40	2.7	E	17/06/2017	17:50	0.9	WSW
17/06/2017	03:35	4	E	17/06/2017	10:45	2.2	ENE	17/06/2017	17:55	1.3	W
17/06/2017	03:40	2.2	NNE	17/06/2017	10:50	2.2	ESE	17/06/2017	18:00	2.2	E
17/06/2017	03:45	0.9	SSW	17/06/2017	10:55	0.4	ESE	17/06/2017	18:05	2.2	E
17/06/2017	03:50	4	E	17/06/2017	11:00	1.3	SW	17/06/2017	18:10	1.3	SE
17/06/2017	03:55	1.8	W	17/06/2017	11:05	1.8	W	17/06/2017	18:15	0.9	WSW
17/06/2017	04:00	3.6	ENE	17/06/2017	11:10	4	ENE	17/06/2017	18:20	1.3	E
17/06/2017	04:05	0.4	NNE	17/06/2017	11:15	0.4	E	17/06/2017	18:25	0.9	WSW
17/06/2017	04:10	1.3	ENE	17/06/2017	11:20	1.8	SW	17/06/2017	18:30	2.2	W
17/06/2017	04:15	0.9	NNE	17/06/2017	11:25	5.4	E	17/06/2017	18:35	1.3	ESE
17/06/2017	04:20	0.9	ESE	17/06/2017	11:30	4	E	17/06/2017	18:40	0.4	SW
17/06/2017	04:25	2.2	E	17/06/2017	11:35	1.3	E	17/06/2017	18:45	0.9	WSW
17/06/2017	04:30	0.4	ESE	17/06/2017	11:40	0.9	ENE	17/06/2017	18:50	1.3	ESE
17/06/2017	04:35	0.4	SE	17/06/2017	11:45	0.9	WSW	17/06/2017	18:55	2.2	E
17/06/2017	04:40	2.2	E	17/06/2017	11:50	1.3	E	17/06/2017	19:00	1.3	ENE
17/06/2017	04:45	2.2	NE	17/06/2017	11:55	0.9	ESE	17/06/2017	19:05	3.6	E
17/06/2017	04:50	4	E	17/06/2017	12:00	1.3	ENE	17/06/2017	19:10	0.4	SW
17/06/2017	04:55	0.4	ESE	17/06/2017	12:05	3.1	E	17/06/2017	19:15	3.1	ENE
17/06/2017	05:00	0.9	SE	17/06/2017	12:10	1.3	W	17/06/2017	19:20	1.3	E
17/06/2017	05:05	0.4	ESE	17/06/2017	12:15	0.9	ESE	17/06/2017	19:25	4	E
17/06/2017	05:10	0.9	SSE	17/06/2017	12:20	1.8	NNE	17/06/2017	19:30	2.2	ESE
17/06/2017	05:15	0.9	WSW	17/06/2017	12:25	2.2	ENE	17/06/2017	19:35	0.9	NNE
17/06/2017	05:20	3.6	E	17/06/2017	12:30	1.3	NNW	17/06/2017	19:40	4.5	E
17/06/2017	05:25	1.8	ENE	17/06/2017	12:35	4	E	17/06/2017	19:45	0.9	SSW
17/06/2017	05:30	0.4	ESE	17/06/2017	12:40	5.4	E	17/06/2017	19:50	0.9	WNW
17/06/2017	05:35	2.2	NE	17/06/2017	12:45	0.9	SSW	17/06/2017	19:55	1.3	W
17/06/2017	05:40	1.8	ENE	17/06/2017	12:50	0.4	ESE	17/06/2017	20:00	1.3	NNE
17/06/2017	05:45	1.8	NNE	17/06/2017	12:55	1.3	ENE	17/06/2017	20:05	0.9	WSW
17/06/2017	05:50	4.9	E	17/06/2017	13:00	1.3	WSW	17/06/2017	20:10	0.9	WSW
17/06/2017	05:55	1.3	NE	17/06/2017	13:05	0.9	ENE	17/06/2017	20:15	1.3	ENE
17/06/2017	06:00	3.6	ENE	17/06/2017	13:10	2.2	ENE	17/06/2017	20:20	1.3	N
17/06/2017	06:05	2.7	ENE	17/06/2017	13:15	0.4	ESE	17/06/2017	20:25	1.8	W
17/06/2017	06:10	0.9	ESE	17/06/2017	13:20	1.8	ENE	17/06/2017	20:30	2.2	ENE
17/06/2017	06:15	0.9	WSW	17/06/2017	13:25	4	E	17/06/2017	20:35	1.8	E
17/06/2017	06:20	2.7	NE	17/06/2017	13:30	0.9	ESE	17/06/2017	20:40	0.4	ESE
17/06/2017	06:25	0.9	E	17/06/2017	13:35	0.9	ESE	17/06/2017	20:45	2.7	WSW
17/06/2017	06:30	1.8	NE	17/06/2017	13:40	5.4	E	17/06/2017	20:50	0.4	SW
17/06/2017	06:35	1.8	ENE	17/06/2017	13:45	0.9	SSE	17/06/2017	20:55	0.4	ESE
17/06/2017	06:40	2.2	E	17/06/2017	13:50	0.9	NNE	17/06/2017	21:00	0.9	SE
17/06/2017	06:45	0.9	WSW	17/06/2017	13:55	3.6	ENE	17/06/2017	21:05	2.2	ENE
17/06/2017	06:50	2.2	N	17/06/2017	14:00	4	ENE	17/06/2017	21:10	1.3	ENE
17/06/2017	06:55	0.9	ESE	17/06/2017	14:05	0.9	ENE	17/06/2017	21:15	0.9	WSW
17/06/2017	07:00	1.8	E	17/06/2017	14:10	2.7	E	17/06/2017	21:20	0.4	SSW
17/06/2017	07:05	0.9	WSW	17/06/2017	14:15	3.6	E	17/06/2017	21:25	0.9	ESE
17/06/2017	07:10	4	E	17/06/2017	14:20	1.3	W	17/06/2017	21:30	0.9	SSW
17/06/2017	07:15	1.8	NNE	17/06/2017	14:25	0.9	NE	17/06/2017	21:35	0.9	WSW
17/06/2017	07:20	2.7	ENE	17/06/2017	14:30	0.9	SE	17/06/2017	21:40	0.4	ESE
17/06/2017	07:25	1.3	E	17/06/2017	14:35	4.5	E	17/06/2017	21:45	3.1	E
17/06/2017	07:30	1.3	NNW	17/06/2017	14:40	1.3	E	17/06/2017	21:50	0.4	NNE
17/06/2017	07:35	3.6	E	17/06/2017	14:45	4	ENE	17/06/2017	21:55	2.7	E
17/06/2017	07:40	2.2	NNE	17/06/2017	14:50	0.4	SSE	17/06/2017	22:00	3.6	ENE
17/06/2017	07:45	4	ENE	17/06/2017	14:55	3.1	ENE	17/06/2017	22:05	0.9	WSW
17/06/2017	07:50	0.9	NNE	17/06/2017	15:00	4	ENE	17/06/2017	22:10	2.2	ENE
17/06/2017	07:55	0.9	NE	17/06/2017	15:05	1.8	NNE	17/06/2017	22:15	0.4	NE
17/06/2017	08:00	1.3	NE	17/06/2017	15:10	3.6	E	17/06/2017	22:20	1.3	NE
17/06/2017	08:05	0.9	E	17/06/2017	15:15	0.9	WSW	17/06/2017	22:25	1.3	NNW
17/06/2017	08:10	1.3	E	17/06/2017	15:20	2.2	ENE	17/06/2017	22:30	0.4	SW
17/06/2017	08:15	4.5	E	17/06/2017	15:25	2.2	ENE	17/06/2017	22:35	0.9	NNE
17/06/2017	08:20	3.1	ENE	17/06/2017	15:30	0.9	ESE	17/06/2017	22:40	2.7	E
17/06/2017	08:25	0.9	WSW	17/06/2017	15:35	0.9	WSW	17/06/2017	22:45	3.6	NE
17/06/2017	08:30	2.7	SE	17/06/2017	15:40	0.4	SW	17/06/2017	22:50	0.4	E
17/06/2017	08:35	4.5	E	17/06/2017	15:45	0.9	ESE	17/06/2017	22:55	1.3	NE
17/06/2017	08:40	1.8	W	17/06/2017	15:50	0.4	E	17/06/2017	23:00	4	E
17/06/2017	08:45	5.4	E	17/06/2017	15:55	0.9	SSW	17/06/2017	23:05	0.9	ESE
17/06/2017	08:50	0.4	WSW	17/06/2017	16:00	3.6	E	17/06/2017	23:10	2.2	WSW
17/06/2017	08:55	1.3	SSE	17/06/2017	16:05	0.9	ESE	17/06/2017	23:15	0.4	SW
17/06/2017	09:00	1.8	E	17/06/2017	16:10	0.9	SW	17/06/2017	23:20	0.9	ESE
17/06/2017	09:05	0.4	ESE	17/06/2017	16:15	0.9	NE	17/06/2017	23:25	4	ENE
17/06/2017	09:10	1.8	E	17/06/2017	16:20	0.9	SE	17/06/2017	23:30	2.2	WSW
17/06/2017	09:15	4.9	E	17/06/2017	16:25	1.3	ESE	17/06/2017	23:35	0.4	NE
17/06/2017	09:20	0.9	ESE	17/06/2017	16:30	2.7	E	17/06/2017	23:40	1.3	W
17/06/2017	09:25	0.9	WSW	17/06/2017	16:35	1.3	NNE	17/06/2017	23:45	0.9	N
17/06/2017	09:30	3.1	E	17/06/2017	16:40	1.8	NE	17/06/2017	23:50	0.9	E
17/06/2017	09:35	2.2	W	17/06/2017	16:45	1.3	SE	17/06/2017	23:55	1.3	ENE
17/06/2017	09:40	1.8	ENE	17/06/2017	16:50	0.9	WSW	18/06/2017	00:00	1.8	E
17/06/2017	09:45	0.9	ESE	17/06/2017	16:55	0.9	ESE	18/06/2017	00:05	1.8	ENE
17/06/2017	09:50	3.6	ENE	17/06/2017	17:00	0.4	ESE	18/06/2017	00:10	2.2	NE
17/06/2017	09:55	4.5	E	17/06/2017	17:05	0.4	N	18/06/2017	00:15	2.7	E
17/06/2017	10:00	2.2	ESE	17/06/2017	17:10	1.3	E	18/06/2017	00:20	0.4	WSW
17/06/2017	10:05	0.9	NNE	17/06/2017	17:15	0.4	NW	18/06/2017	00:25	3.1	NE
17/06/2017	10:10	0.9	WSW	17/06/2017	17:20	1.8	SW	18/06/2017	00:30	0.4	SSW

Extracted from the weather station at Tung Chung China State Site Office Rooftop

Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction
18/06/2017	00:35	0.9	ENE	18/06/2017	07:45	2.7	NE	18/06/2017	14:55	1.3	ENE
18/06/2017	00:40	0.4	E	18/06/2017	07:50	1.3	NE	18/06/2017	15:00	0.9	E
18/06/2017	00:45	2.2	NE	18/06/2017	07:55	2.7	ENE	18/06/2017	15:05	1.8	NE
18/06/2017	00:50	2.7	E	18/06/2017	08:00	1.3	ENE	18/06/2017	15:10	1.8	ENE
18/06/2017	00:55	2.2	ENE	18/06/2017	08:05	1.8	NNE	18/06/2017	15:15	0.4	NNW
18/06/2017	01:00	2.7	E	18/06/2017	08:10	2.7	NE	18/06/2017	15:20	0.9	NW
18/06/2017	01:05	0.4	ESE	18/06/2017	08:15	1.3	WNW	18/06/2017	15:25	0.9	NE
18/06/2017	01:10	0.4	NNW	18/06/2017	08:20	0.4	NE	18/06/2017	15:30	2.2	ENE
18/06/2017	01:15	3.6	NE	18/06/2017	08:25	2.7	NE	18/06/2017	15:35	1.8	W
18/06/2017	01:20	2.2	WNW	18/06/2017	08:30	1.3	W	18/06/2017	15:40	0.9	NNW
18/06/2017	01:25	2.2	NE	18/06/2017	08:35	1.3	E	18/06/2017	15:45	2.2	NE
18/06/2017	01:30	0.4	ENE	18/06/2017	08:40	0.9	NE	18/06/2017	15:50	0.9	E
18/06/2017	01:35	2.2	ENE	18/06/2017	08:45	1.8	ENE	18/06/2017	15:55	0.9	N
18/06/2017	01:40	2.2	N	18/06/2017	08:50	1.3	W	18/06/2017	16:00	1.3	NE
18/06/2017	01:45	2.2	NE	18/06/2017	08:55	1.8	NE	18/06/2017	16:05	1.8	W
18/06/2017	01:50	0.4	NNE	18/06/2017	09:00	0.9	NNW	18/06/2017	16:10	1.8	NNE
18/06/2017	01:55	0.9	NNE	18/06/2017	09:05	1.8	ENE	18/06/2017	16:15	0.9	SSW
18/06/2017	02:00	1.3	NNE	18/06/2017	09:10	3.1	NE	18/06/2017	16:20	2.7	NE
18/06/2017	02:05	0.4	ENE	18/06/2017	09:15	1.3	E	18/06/2017	16:25	1.3	NNW
18/06/2017	02:10	2.2	NNW	18/06/2017	09:20	2.7	ENE	18/06/2017	16:30	0.4	E
18/06/2017	02:15	0.4	ENE	18/06/2017	09:25	2.2	NNW	18/06/2017	16:35	2.2	ENE
18/06/2017	02:20	3.6	NE	18/06/2017	09:30	1.8	ENE	18/06/2017	16:40	1.8	NE
18/06/2017	02:25	1.3	ENE	18/06/2017	09:35	1.8	E	18/06/2017	16:45	1.8	NNW
18/06/2017	02:30	2.2	NE	18/06/2017	09:40	1.3	W	18/06/2017	16:50	0.9	NE
18/06/2017	02:35	2.2	W	18/06/2017	09:45	1.3	NNW	18/06/2017	16:55	2.7	ENE
18/06/2017	02:40	0.9	SE	18/06/2017	09:50	3.6	ENE	18/06/2017	17:00	1.8	ENE
18/06/2017	02:45	1.3	NE	18/06/2017	09:55	1.8	ENE	18/06/2017	17:05	1.3	W
18/06/2017	02:50	1.3	NE	18/06/2017	10:00	0.4	E	18/06/2017	17:10	1.3	N
18/06/2017	02:55	0.9	WNW	18/06/2017	10:05	1.3	E	18/06/2017	17:15	2.7	ENE
18/06/2017	03:00	0.9	NE	18/06/2017	10:10	0.9	N	18/06/2017	17:20	0.9	ESE
18/06/2017	03:05	2.2	NNE	18/06/2017	10:15	2.2	N	18/06/2017	17:25	1.3	ESE
18/06/2017	03:10	2.2	ENE	18/06/2017	10:20	1.3	WSW	18/06/2017	17:30	1.8	NNW
18/06/2017	03:15	0.4	SSW	18/06/2017	10:25	1.8	ENE	18/06/2017	17:35	3.1	ENE
18/06/2017	03:20	0.9	E	18/06/2017	10:30	3.6	ENE	18/06/2017	17:40	2.2	NNW
18/06/2017	03:25	1.8	WNW	18/06/2017	10:35	0.4	NE	18/06/2017	17:45	2.7	NE
18/06/2017	03:30	0.9	W	18/06/2017	10:40	1.3	WSW	18/06/2017	17:50	2.2	N
18/06/2017	03:35	0.4	WNW	18/06/2017	10:45	1.8	E	18/06/2017	17:55	2.2	NE
18/06/2017	03:40	2.2	E	18/06/2017	10:50	3.6	NE	18/06/2017	18:00	2.7	NE
18/06/2017	03:45	1.3	NNE	18/06/2017	10:55	1.3	ENE	18/06/2017	18:05	1.3	WSW
18/06/2017	03:50	1.3	ESE	18/06/2017	11:00	1.8	ENE	18/06/2017	18:10	1.3	W
18/06/2017	03:55	1.3	NNE	18/06/2017	11:05	3.1	NE	18/06/2017	18:15	2.2	NNW
18/06/2017	04:00	0.4	E	18/06/2017	11:10	0.4	WNW	18/06/2017	18:20	0.4	NNW
18/06/2017	04:05	0.9	E	18/06/2017	11:15	2.2	ENE	18/06/2017	18:25	1.8	NE
18/06/2017	04:10	0.9	ENE	18/06/2017	11:20	0.4	NNE	18/06/2017	18:30	0.4	SSW
18/06/2017	04:15	2.7	ENE	18/06/2017	11:25	2.7	ENE	18/06/2017	18:35	1.3	E
18/06/2017	04:20	0.9	SE	18/06/2017	11:30	0.4	ENE	18/06/2017	18:40	0.9	SE
18/06/2017	04:25	1.8	ESE	18/06/2017	11:35	1.3	W	18/06/2017	18:45	1.8	NE
18/06/2017	04:30	1.8	W	18/06/2017	11:40	2.2	ENE	18/06/2017	18:50	2.2	ENE
18/06/2017	04:35	2.2	N	18/06/2017	11:45	1.3	NNW	18/06/2017	18:55	1.3	NW
18/06/2017	04:40	1.3	ENE	18/06/2017	11:50	0.9	NE	18/06/2017	19:00	1.8	ENE
18/06/2017	04:45	2.2	ENE	18/06/2017	11:55	2.2	NE	18/06/2017	19:05	1.8	ENE
18/06/2017	04:50	1.3	NNE	18/06/2017	12:00	1.8	NNE	18/06/2017	19:10	2.2	N
18/06/2017	04:55	0.9	NNW	18/06/2017	12:05	0.9	NNE	18/06/2017	19:15	0.9	NW
18/06/2017	05:00	0.9	NW	18/06/2017	12:10	1.8	ENE	18/06/2017	19:20	0.9	NNE
18/06/2017	05:05	2.2	ENE	18/06/2017	12:15	0.4	W	18/06/2017	19:25	2.2	NE
18/06/2017	05:10	0.9	NE	18/06/2017	12:20	1.8	ENE	18/06/2017	19:30	1.3	WSW
18/06/2017	05:15	1.3	NE	18/06/2017	12:25	1.3	NE	18/06/2017	19:35	1.8	ENE
18/06/2017	05:20	1.3	WSW	18/06/2017	12:30	0.9	SE	18/06/2017	19:40	2.7	ENE
18/06/2017	05:25	2.7	E	18/06/2017	12:35	0.9	ESE	18/06/2017	19:45	1.3	NNE
18/06/2017	05:30	0.4	E	18/06/2017	12:40	0.9	ESE	18/06/2017	19:50	1.3	E
18/06/2017	05:35	0.4	W	18/06/2017	12:45	0.9	NE	18/06/2017	19:55	2.7	ENE
18/06/2017	05:40	0.9	SE	18/06/2017	12:50	0.4	E	18/06/2017	20:00	0.9	SE
18/06/2017	05:45	2.7	E	18/06/2017	12:55	1.8	ENE	18/06/2017	20:05	2.2	ENE
18/06/2017	05:50	1.3	WSW	18/06/2017	13:00	1.8	E	18/06/2017	20:10	1.3	ENE
18/06/2017	05:55	2.7	E	18/06/2017	13:05	0.4	ENE	18/06/2017	20:15	1.8	WNW
18/06/2017	06:00	1.3	E	18/06/2017	13:10	1.3	E	18/06/2017	20:20	1.8	W
18/06/2017	06:05	2.7	ENE	18/06/2017	13:15	1.8	N	18/06/2017	20:25	1.8	NNW
18/06/2017	06:10	3.1	E	18/06/2017	13:20	1.8	E	18/06/2017	20:30	4	NE
18/06/2017	06:15	0.9	SSW	18/06/2017	13:25	1.8	NNE	18/06/2017	20:35	2.2	ENE
18/06/2017	06:20	1.3	NE	18/06/2017	13:30	2.7	ENE	18/06/2017	20:40	0.4	NNW
18/06/2017	06:25	2.2	ENE	18/06/2017	13:35	0.4	SSW	18/06/2017	20:45	2.2	NE
18/06/2017	06:30	0.9	W	18/06/2017	13:40	1.3	NE	18/06/2017	20:50	1.3	E
18/06/2017	06:35	1.3	W	18/06/2017	13:45	0.9	ENE	18/06/2017	20:55	0.9	ESE
18/06/2017	06:40	1.8	ESE	18/06/2017	13:50	1.8	W	18/06/2017	21:00	2.2	E
18/06/2017	06:45	1.8	ENE	18/06/2017	13:55	2.7	ENE	18/06/2017	21:05	0.4	E
18/06/2017	06:50	1.8	NNE	18/06/2017	14:00	0.9	SE	18/06/2017	21:10	1.3	NNW
18/06/2017	06:55	1.8	ENE	18/06/2017	14:05	0.9	ENE	18/06/2017	21:15	0.4	E
18/06/2017	07:00	3.6	NE	18/06/2017	14:10	2.2	ENE	18/06/2017	21:20	0.4	SSW
18/06/2017	07:05	1.8	WNW	18/06/2017	14:15	0.4	ENE	18/06/2017	21:25	1.3	W
18/06/2017	07:10	1.8	ESE	18/06/2017	14:20	1.3	E	18/06/2017	21:30	0.4	SSW
18/06/2017	07:15	1.8	NE	18/06/2017	14:25	2.2	ENE	18/06/2017	21:35	2.2	ENE
18/06/2017	07:20	1.8	NE	18/06/2017	14:30	1.8	ESE	18/06/2017	21:40	1.3	WNW
18/06/2017	07:25	0.9	NE	18/06/2017	14:35	1.3	NE	18/06/2017	21:45	1.3	N
18/06/2017	07:30	0.4	NNE	18/06/2017	14:40	0.9	E	18/06/2017	21:50	2.7	ENE
18/06/2017	07:35	2.2	W	18/06/2017	14:45	2.2	NNE	18/06/2017	21:55	1.8	NW
18/06/2017	07:40	1.3	W	18/06/2017	14:50	0.9	N	18/06/2017	22:00	1.3	ESE

Extracted from the weather station at Tung Chung China State Site Office Rooftop

Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction
18/06/2017	22:05	0.4	ENE	19/06/2017	05:15	4.9	ENE	19/06/2017	12:25	0.4	WSW
18/06/2017	22:10	2.7	ENE	19/06/2017	05:20	2.7	NE	19/06/2017	12:30	1.8	NNE
18/06/2017	22:15	1.8	W	19/06/2017	05:25	5.4	ENE	19/06/2017	12:35	3.1	NE
18/06/2017	22:20	2.7	ENE	19/06/2017	05:30	3.1	NE	19/06/2017	12:40	1.8	NW
18/06/2017	22:25	1.8	NE	19/06/2017	05:35	3.1	NE	19/06/2017	12:45	4	NE
18/06/2017	22:30	2.2	ENE	19/06/2017	05:40	0.4	WSW	19/06/2017	12:50	0.9	WSW
18/06/2017	22:35	1.8	NE	19/06/2017	05:45	0.9	W	19/06/2017	12:55	0.9	WSW
18/06/2017	22:40	1.3	NNE	19/06/2017	05:50	3.6	NE	19/06/2017	13:00	1.3	NE
18/06/2017	22:45	1.8	ENE	19/06/2017	05:55	1.8	NNE	19/06/2017	13:05	4	NE
18/06/2017	22:50	1.8	W	19/06/2017	06:00	0.9	NE	19/06/2017	13:10	1.8	NW
18/06/2017	22:55	1.8	NE	19/06/2017	06:05	0.9	W	19/06/2017	13:15	1.8	NNW
18/06/2017	23:00	1.8	NE	19/06/2017	06:10	1.8	W	19/06/2017	13:20	0.9	WSW
18/06/2017	23:05	0.4	NE	19/06/2017	06:15	0.4	WSW	19/06/2017	13:25	1.8	NNE
18/06/2017	23:10	1.8	ENE	19/06/2017	06:20	0.4	ENE	19/06/2017	13:30	0.9	WSW
18/06/2017	23:15	2.2	ENE	19/06/2017	06:25	1.3	NE	19/06/2017	13:35	0.9	WNW
18/06/2017	23:20	1.8	NE	19/06/2017	06:30	2.7	NE	19/06/2017	13:40	1.8	NNW
18/06/2017	23:25	0.9	W	19/06/2017	06:35	0.9	WSW	19/06/2017	13:45	4.9	E
18/06/2017	23:30	0.9	E	19/06/2017	06:40	1.3	NE	19/06/2017	13:50	2.2	WNW
18/06/2017	23:35	1.3	ENE	19/06/2017	06:45	4	NE	19/06/2017	13:55	0.4	E
18/06/2017	23:40	0.4	E	19/06/2017	06:50	3.6	NE	19/06/2017	14:00	0.4	WSW
18/06/2017	23:45	0.4	SSW	19/06/2017	06:55	1.3	W	19/06/2017	14:05	1.3	W
18/06/2017	23:50	1.3	NE	19/06/2017	07:00	3.6	NE	19/06/2017	14:10	1.3	NE
18/06/2017	23:55	0.4	ENE	19/06/2017	07:05	0.9	S	19/06/2017	14:15	0.4	W
19/06/2017	00:00	1.8	NNE	19/06/2017	07:10	4	NE	19/06/2017	14:20	3.1	ENE
19/06/2017	00:05	1.3	NE	19/06/2017	07:15	0.9	WSW	19/06/2017	14:25	3.6	E
19/06/2017	00:10	5.4	NE	19/06/2017	07:20	1.3	NE	19/06/2017	14:30	1.8	ENE
19/06/2017	00:15	1.8	NNE	19/06/2017	07:25	1.8	NNE	19/06/2017	14:35	1.8	NE
19/06/2017	00:20	2.7	NNW	19/06/2017	07:30	3.6	E	19/06/2017	14:40	0.9	NNE
19/06/2017	00:25	3.6	NE	19/06/2017	07:35	4	NE	19/06/2017	14:45	2.2	NE
19/06/2017	00:30	3.6	NE	19/06/2017	07:40	2.7	E	19/06/2017	14:50	3.1	E
19/06/2017	00:35	0.9	W	19/06/2017	07:45	4.5	NE	19/06/2017	14:55	0.9	NW
19/06/2017	00:40	1.8	NNE	19/06/2017	07:50	1.8	W	19/06/2017	15:00	1.3	W
19/06/2017	00:45	3.6	NE	19/06/2017	07:55	1.8	WNW	19/06/2017	15:05	2.2	E
19/06/2017	00:50	4.9	NE	19/06/2017	08:00	2.7	WSW	19/06/2017	15:10	4	NE
19/06/2017	00:55	3.1	NE	19/06/2017	08:05	4.5	ENE	19/06/2017	15:15	1.3	ENE
19/06/2017	01:00	1.3	NE	19/06/2017	08:10	1.3	NE	19/06/2017	15:20	1.3	W
19/06/2017	01:05	4.5	NE	19/06/2017	08:15	4	E	19/06/2017	15:25	1.8	ENE
19/06/2017	01:10	1.8	NE	19/06/2017	08:20	1.8	W	19/06/2017	15:30	4.9	NE
19/06/2017	01:15	1.8	NE	19/06/2017	08:25	0.9	W	19/06/2017	15:35	4	NE
19/06/2017	01:20	1.8	NNE	19/06/2017	08:30	0.9	NW	19/06/2017	15:40	1.3	NE
19/06/2017	01:25	3.1	E	19/06/2017	08:35	0.9	WSW	19/06/2017	15:45	4	NE
19/06/2017	01:30	2.2	NE	19/06/2017	08:40	1.3	NE	19/06/2017	15:50	1.3	ENE
19/06/2017	01:35	0.4	WSW	19/06/2017	08:45	1.8	WNW	19/06/2017	15:55	4	E
19/06/2017	01:40	3.1	NE	19/06/2017	08:50	1.3	NNW	19/06/2017	16:00	1.8	NNE
19/06/2017	01:45	1.3	E	19/06/2017	08:55	1.3	NE	19/06/2017	16:05	0.4	W
19/06/2017	01:50	4.9	E	19/06/2017	09:00	4	NE	19/06/2017	16:10	4.5	NE
19/06/2017	01:55	4	NE	19/06/2017	09:05	1.8	N	19/06/2017	16:15	1.3	E
19/06/2017	02:00	0.9	W	19/06/2017	09:10	0.9	WSW	19/06/2017	16:20	2.7	E
19/06/2017	02:05	1.8	W	19/06/2017	09:15	2.2	E	19/06/2017	16:25	1.8	NE
19/06/2017	02:10	0.4	WSW	19/06/2017	09:20	1.8	NNW	19/06/2017	16:30	0.9	N
19/06/2017	02:15	1.3	ENE	19/06/2017	09:25	3.6	ENE	19/06/2017	16:35	3.6	E
19/06/2017	02:20	1.8	NE	19/06/2017	09:30	1.8	W	19/06/2017	16:40	4.5	NE
19/06/2017	02:25	4	ENE	19/06/2017	09:35	4.5	NE	19/06/2017	16:45	1.3	NNE
19/06/2017	02:30	3.6	NE	19/06/2017	09:40	4.5	ENE	19/06/2017	16:50	4	NE
19/06/2017	02:35	3.6	ENE	19/06/2017	09:45	3.1	NE	19/06/2017	16:55	3.1	E
19/06/2017	02:40	2.7	ENE	19/06/2017	09:50	0.9	WNW	19/06/2017	17:00	0.9	NNE
19/06/2017	02:45	1.3	NE	19/06/2017	09:55	1.3	NE	19/06/2017	17:05	0.9	WSW
19/06/2017	02:50	3.1	NE	19/06/2017	10:00	4	ENE	19/06/2017	17:10	3.6	ENE
19/06/2017	02:55	1.3	NE	19/06/2017	10:05	0.9	SW	19/06/2017	17:15	1.3	N
19/06/2017	03:00	1.8	NNE	19/06/2017	10:10	3.1	NNE	19/06/2017	17:20	4	ENE
19/06/2017	03:05	4	NE	19/06/2017	10:15	0.9	WNW	19/06/2017	17:25	4.9	NE
19/06/2017	03:10	4.9	E	19/06/2017	10:20	1.8	NE	19/06/2017	17:30	0.9	ENE
19/06/2017	03:15	1.3	N	19/06/2017	10:25	4.9	ENE	19/06/2017	17:35	4	NE
19/06/2017	03:20	4.5	NE	19/06/2017	10:30	3.6	NE	19/06/2017	17:40	4.9	E
19/06/2017	03:25	4	NE	19/06/2017	10:35	3.6	NE	19/06/2017	17:45	4	NE
19/06/2017	03:30	2.2	WNW	19/06/2017	10:40	4.9	NE	19/06/2017	17:50	1.8	NNW
19/06/2017	03:35	1.3	ENE	19/06/2017	10:45	0.9	WNW	19/06/2017	17:55	1.3	NE
19/06/2017	03:40	3.6	NW	19/06/2017	10:50	4.5	NE	19/06/2017	18:00	3.6	E
19/06/2017	03:45	4.9	NE	19/06/2017	10:55	1.3	ENE	19/06/2017	18:05	2.2	NE
19/06/2017	03:50	1.3	NNE	19/06/2017	11:00	4	NE	19/06/2017	18:10	3.6	ENE
19/06/2017	03:55	1.3	NNE	19/06/2017	11:05	2.2	WNW	19/06/2017	18:15	2.2	NE
19/06/2017	04:00	0.9	WNW	19/06/2017	11:10	4.5	NE	19/06/2017	18:20	0.9	SW
19/06/2017	04:05	4.9	E	19/06/2017	11:15	0.9	N	19/06/2017	18:25	1.8	ENE
19/06/2017	04:10	2.7	NNW	19/06/2017	11:20	0.9	WSW	19/06/2017	18:30	2.2	WNW
19/06/2017	04:15	4.5	NE	19/06/2017	11:25	4.5	ENE	19/06/2017	18:35	0.4	W
19/06/2017	04:20	2.2	WNW	19/06/2017	11:30	3.6	NE	19/06/2017	18:40	3.1	E
19/06/2017	04:25	3.1	NE	19/06/2017	11:35	0.9	W	19/06/2017	18:45	4.9	E
19/06/2017	04:30	1.8	WNW	19/06/2017	11:40	1.8	WNW	19/06/2017	18:50	1.8	NNE
19/06/2017	04:35	4.9	NE	19/06/2017	11:45	0.9	WSW	19/06/2017	18:55	1.3	NNE
19/06/2017	04:40	0.9	W	19/06/2017	11:50	1.3	NE	19/06/2017	19:00	4.5	ENE
19/06/2017	04:45	2.7	ENE	19/06/2017	11:55	4	NE	19/06/2017	19:05	0.9	WNW
19/06/2017	04:50	3.6	E	19/06/2017	12:00	1.3	NE	19/06/2017	19:10	0.9	WSW
19/06/2017	04:55	0.9	ENE	19/06/2017	12:05	3.1	NE	19/06/2017	19:15	3.1	NE
19/06/2017	05:00	0.9	SW	19/06/2017	12:10	4.5	ENE	19/06/2017	19:20	1.3	WNW
19/06/2017	05:05	1.3	NE	19/06/2017	12:15	0.4	WSW	19/06/2017	19:25	3.1	NW
19/06/2017	05:10	4.9	E	19/06/2017	12:20	1.8	W	19/06/2017	19:30	1.3	NNE



Extracted from the weather station at Tung Chung China State Site Office Rooftop

Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction
19/06/2017	19:35	3.1	NW	20/06/2017	02:45	1.8	NE	20/06/2017	09:55	2.7	WSW
19/06/2017	19:40	1.8	W	20/06/2017	02:50	2.2	ENE	20/06/2017	10:00	0.9	WNW
19/06/2017	19:45	3.1	NE	20/06/2017	02:55	1.8	SW	20/06/2017	10:05	1.3	ENE
19/06/2017	19:50	3.1	NE	20/06/2017	03:00	0.4	NNW	20/06/2017	10:10	3.1	E
19/06/2017	19:55	3.6	ENE	20/06/2017	03:05	1.3	W	20/06/2017	10:15	1.3	N
19/06/2017	20:00	0.9	WSW	20/06/2017	03:10	2.2	SSW	20/06/2017	10:20	1.8	W
19/06/2017	20:05	2.2	NE	20/06/2017	03:15	1.3	NW	20/06/2017	10:25	0.9	NE
19/06/2017	20:10	0.4	WSW	20/06/2017	03:20	1.8	SSW	20/06/2017	10:30	2.2	WNW
19/06/2017	20:15	3.6	ENE	20/06/2017	03:25	1.3	N	20/06/2017	10:35	0.9	ENE
19/06/2017	20:20	1.3	NE	20/06/2017	03:30	2.2	W	20/06/2017	10:40	2.2	W
19/06/2017	20:25	1.3	NNW	20/06/2017	03:35	2.7	W	20/06/2017	10:45	1.8	WNW
19/06/2017	20:30	1.3	NE	20/06/2017	03:40	3.6	WNW	20/06/2017	10:50	1.3	NNW
19/06/2017	20:35	4.9	NE	20/06/2017	03:45	1.8	N	20/06/2017	10:55	1.3	NE
19/06/2017	20:40	0.9	E	20/06/2017	03:50	2.2	W	20/06/2017	11:00	0.4	NW
19/06/2017	20:45	0.4	NW	20/06/2017	03:55	1.8	ENE	20/06/2017	11:05	2.2	WSW
19/06/2017	20:50	5.4	ENE	20/06/2017	04:00	1.3	SW	20/06/2017	11:10	1.8	W
19/06/2017	20:55	1.3	NE	20/06/2017	04:05	1.8	WSW	20/06/2017	11:15	1.8	NNE
19/06/2017	21:00	2.7	E	20/06/2017	04:10	0.9	WSW	20/06/2017	11:20	2.7	W
19/06/2017	21:05	0.9	WNW	20/06/2017	04:15	1.3	NNE	20/06/2017	11:25	0.4	NNE
19/06/2017	21:10	3.1	NE	20/06/2017	04:20	2.7	W	20/06/2017	11:30	3.1	W
19/06/2017	21:15	2.2	NE	20/06/2017	04:25	0.9	SSW	20/06/2017	11:35	1.8	NW
19/06/2017	21:20	1.8	NE	20/06/2017	04:30	2.7	SW	20/06/2017	11:40	1.3	SW
19/06/2017	21:25	2.7	E	20/06/2017	04:35	3.1	W	20/06/2017	11:45	1.3	WNW
19/06/2017	21:30	0.9	NW	20/06/2017	04:40	2.2	W	20/06/2017	11:50	2.2	W
19/06/2017	21:35	2.2	NE	20/06/2017	04:45	0.9	W	20/06/2017	11:55	0.9	NW
19/06/2017	21:40	2.7	NE	20/06/2017	04:50	0.9	NW	20/06/2017	12:00	1.3	WNW
19/06/2017	21:45	1.8	W	20/06/2017	04:55	2.7	W	20/06/2017	12:05	1.8	NNW
19/06/2017	21:50	2.7	NE	20/06/2017	05:00	1.8	W	20/06/2017	12:10	1.3	NNE
19/06/2017	21:55	4.5	NE	20/06/2017	05:05	2.2	WNW	20/06/2017	12:15	2.2	W
19/06/2017	22:00	4.9	ENE	20/06/2017	05:10	1.8	NW	20/06/2017	12:20	1.8	S
19/06/2017	22:05	1.8	NE	20/06/2017	05:15	1.3	W	20/06/2017	12:25	0.9	NNW
19/06/2017	22:10	3.6	NE	20/06/2017	05:20	0.9	WNW	20/06/2017	12:30	1.3	ENE
19/06/2017	22:15	1.8	WNW	20/06/2017	05:25	2.2	W	20/06/2017	12:35	2.7	W
19/06/2017	22:20	1.3	NNE	20/06/2017	05:30	3.1	W	20/06/2017	12:40	0.9	W
19/06/2017	22:25	0.4	E	20/06/2017	05:35	0.9	NE	20/06/2017	12:45	2.2	W
19/06/2017	22:30	3.6	ENE	20/06/2017	05:40	2.2	W	20/06/2017	12:50	0.9	NE
19/06/2017	22:35	0.9	NNE	20/06/2017	05:45	3.6	W	20/06/2017	12:55	0.9	ENE
19/06/2017	22:40	1.8	W	20/06/2017	05:50	0.4	E	20/06/2017	13:00	0.9	NE
19/06/2017	22:45	1.8	NE	20/06/2017	05:55	3.1	W	20/06/2017	13:05	2.2	WNW
19/06/2017	22:50	3.6	E	20/06/2017	06:00	3.6	W	20/06/2017	13:10	1.3	WSW
19/06/2017	22:55	0.4	WSW	20/06/2017	06:05	3.1	W	20/06/2017	13:15	1.3	NNE
19/06/2017	23:00	5.4	NE	20/06/2017	06:10	1.3	NNW	20/06/2017	13:20	2.2	W
19/06/2017	23:05	1.3	NE	20/06/2017	06:15	3.6	W	20/06/2017	13:25	0.9	NNE
19/06/2017	23:10	0.9	W	20/06/2017	06:20	0.9	SSE	20/06/2017	13:30	1.8	WNW
19/06/2017	23:15	4	NE	20/06/2017	06:25	2.7	W	20/06/2017	13:35	1.8	NE
19/06/2017	23:20	1.3	W	20/06/2017	06:30	1.8	W	20/06/2017	13:40	1.3	WSW
19/06/2017	23:25	2.2	NE	20/06/2017	06:35	4	W	20/06/2017	13:45	1.8	SW
19/06/2017	23:30	1.3	NNE	20/06/2017	06:40	2.2	WSW	20/06/2017	13:50	2.7	WSW
19/06/2017	23:35	1.3	WNW	20/06/2017	06:45	0.9	WSW	20/06/2017	13:55	3.1	W
19/06/2017	23:40	3.6	E	20/06/2017	06:50	2.2	W	20/06/2017	14:00	3.1	W
19/06/2017	23:45	1.8	NE	20/06/2017	06:55	0.4	E	20/06/2017	14:05	1.3	NE
19/06/2017	23:50	4.5	NE	20/06/2017	07:00	3.6	W	20/06/2017	14:10	1.3	SW
19/06/2017	23:55	1.8	NE	20/06/2017	07:05	2.2	W	20/06/2017	14:15	3.1	W
20/06/2017	00:00	3.1	NE	20/06/2017	07:10	3.1	ENE	20/06/2017	14:20	1.3	WNW
20/06/2017	00:05	2.7	W	20/06/2017	07:15	0.9	E	20/06/2017	14:25	2.7	E
20/06/2017	00:10	1.3	WNW	20/06/2017	07:20	0.4	WNW	20/06/2017	14:30	0.9	NNE
20/06/2017	00:15	2.7	NE	20/06/2017	07:25	1.8	SSW	20/06/2017	14:35	2.7	WSW
20/06/2017	00:20	1.8	ENE	20/06/2017	07:30	0.9	WNW	20/06/2017	14:40	0.9	NE
20/06/2017	00:25	2.2	ENE	20/06/2017	07:35	0.4	NNW	20/06/2017	14:45	1.8	SW
20/06/2017	00:30	2.2	E	20/06/2017	07:40	3.1	W	20/06/2017	14:50	1.8	W
20/06/2017	00:35	0.9	W	20/06/2017	07:45	2.2	NW	20/06/2017	14:55	0.9	SSE
20/06/2017	00:40	1.3	WSW	20/06/2017	07:50	1.3	ENE	20/06/2017	15:00	2.7	SW
20/06/2017	00:45	3.1	W	20/06/2017	07:55	0.9	NW	20/06/2017	15:05	0.9	NE
20/06/2017	00:50	1.8	E	20/06/2017	08:00	0.9	N	20/06/2017	15:10	0.9	SSW
20/06/2017	00:55	2.2	E	20/06/2017	08:05	1.3	W	20/06/2017	15:15	2.2	WNW
20/06/2017	01:00	0.4	NNE	20/06/2017	08:10	1.3	SE	20/06/2017	15:20	0.4	NE
20/06/2017	01:05	1.8	W	20/06/2017	08:15	0.9	NE	20/06/2017	15:25	0.9	ENE
20/06/2017	01:10	2.2	W	20/06/2017	08:20	0.9	NW	20/06/2017	15:30	0.4	E
20/06/2017	01:15	2.2	W	20/06/2017	08:25	1.8	NW	20/06/2017	15:35	2.2	E
20/06/2017	01:20	2.7	W	20/06/2017	08:30	2.7	W	20/06/2017	15:40	0.9	ENE
20/06/2017	01:25	1.8	SW	20/06/2017	08:35	2.2	W	20/06/2017	15:45	1.8	SW
20/06/2017	01:30	1.3	E	20/06/2017	08:40	3.1	W	20/06/2017	15:50	2.2	W
20/06/2017	01:35	1.8	W	20/06/2017	08:45	2.2	WSW	20/06/2017	15:55	0.9	W
20/06/2017	01:40	2.7	W	20/06/2017	08:50	1.3	NE	20/06/2017	16:00	0.9	WNW
20/06/2017	01:45	0.4	WNW	20/06/2017	08:55	2.2	W	20/06/2017	16:05	0.9	N
20/06/2017	01:50	0.9	ENE	20/06/2017	09:00	2.7	ENE	20/06/2017	16:10	3.6	W
20/06/2017	01:55	1.3	SW	20/06/2017	09:05	2.7	W	20/06/2017	16:15	1.3	W
20/06/2017	02:00	1.3	W	20/06/2017	09:10	1.3	W	20/06/2017	16:20	0.9	NE
20/06/2017	02:05	3.1	W	20/06/2017	09:15	0.4	NNE	20/06/2017	16:25	1.8	NE
20/06/2017	02:10	2.7	N	20/06/2017	09:20	2.2	NNW	20/06/2017	16:30	0.9	ENE
20/06/2017	02:15	3.1	W	20/06/2017	09:25	2.7	E	20/06/2017	16:35	1.8	WSW
20/06/2017	02:20	2.2	ENE	20/06/2017	09:30	0.9	NE	20/06/2017	16:40	1.8	W
20/06/2017	02:25	2.2	W	20/06/2017	09:35	0.9	NW	20/06/2017	16:45	0.4	NW
20/06/2017	02:30	1.3	WSW	20/06/2017	09:40	2.7	NW	20/06/2017	16:50	1.3	SW
20/06/2017	02:35	2.7	ESE	20/06/2017	09:45	0.4	WNW	20/06/2017	16:55	1.3	NW
20/06/2017	02:40	0.4	E	20/06/2017	09:50	3.6	WNW	20/06/2017	17:00	4	W

Extracted from the weather station at Tung Chung China State Site Office Rooftop

Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction
20/06/2017	17:05	2.2	W	21/06/2017	00:15	0.4	WNW	21/06/2017	07:25	1.8	W
20/06/2017	17:10	1.8	NE	21/06/2017	00:20	1.8	WNW	21/06/2017	07:30	1.3	N
20/06/2017	17:15	2.7	ESE	21/06/2017	00:25	0.9	NE	21/06/2017	07:35	0.9	NE
20/06/2017	17:20	0.9	N	21/06/2017	00:30	1.8	WSW	21/06/2017	07:40	1.8	NW
20/06/2017	17:25	1.3	NNE	21/06/2017	00:35	0.4	NNE	21/06/2017	07:45	0.4	W
20/06/2017	17:30	1.3	SW	21/06/2017	00:40	1.8	N	21/06/2017	07:50	1.8	NNE
20/06/2017	17:35	0.9	W	21/06/2017	00:45	0.9	NE	21/06/2017	07:55	1.8	W
20/06/2017	17:40	1.3	WSW	21/06/2017	00:50	1.8	SW	21/06/2017	08:00	1.8	NE
20/06/2017	17:45	1.3	NNE	21/06/2017	00:55	2.2	W	21/06/2017	08:05	0.4	WSW
20/06/2017	17:50	0.4	N	21/06/2017	01:00	0.9	NE	21/06/2017	08:10	2.2	W
20/06/2017	17:55	0.4	NNE	21/06/2017	01:05	0.9	NE	21/06/2017	08:15	0.4	NE
20/06/2017	18:00	1.8	W	21/06/2017	01:10	0.9	NW	21/06/2017	08:20	1.8	ENE
20/06/2017	18:05	0.9	NE	21/06/2017	01:15	1.3	NE	21/06/2017	08:25	1.3	WNW
20/06/2017	18:10	2.2	SW	21/06/2017	01:20	2.2	WNW	21/06/2017	08:30	1.3	NW
20/06/2017	18:15	0.4	N	21/06/2017	01:25	1.8	W	21/06/2017	08:35	1.3	W
20/06/2017	18:20	0.9	ENE	21/06/2017	01:30	0.4	SW	21/06/2017	08:40	1.3	N
20/06/2017	18:25	0.9	N	21/06/2017	01:35	2.2	WNW	21/06/2017	08:45	1.8	ENE
20/06/2017	18:30	0.9	NW	21/06/2017	01:40	0.4	NNE	21/06/2017	08:50	0.4	NE
20/06/2017	18:35	0.9	SSW	21/06/2017	01:45	0.4	NNW	21/06/2017	08:55	1.8	NW
20/06/2017	18:40	1.8	SSE	21/06/2017	01:50	1.8	NNW	21/06/2017	09:00	2.2	WNW
20/06/2017	18:45	0.9	E	21/06/2017	01:55	1.8	WSW	21/06/2017	09:05	0.9	N
20/06/2017	18:50	2.2	W	21/06/2017	02:00	2.2	W	21/06/2017	09:10	2.2	N
20/06/2017	18:55	0.4	WNW	21/06/2017	02:05	1.8	W	21/06/2017	09:15	1.3	ENE
20/06/2017	19:00	3.1	W	21/06/2017	02:10	1.8	W	21/06/2017	09:20	0.9	SW
20/06/2017	19:05	0.4	NW	21/06/2017	02:15	2.2	W	21/06/2017	09:25	1.8	W
20/06/2017	19:10	1.3	W	21/06/2017	02:20	1.3	WNW	21/06/2017	09:30	2.2	W
20/06/2017	19:15	2.7	WSW	21/06/2017	02:25	1.3	N	21/06/2017	09:35	1.8	NW
20/06/2017	19:20	0.9	NW	21/06/2017	02:30	2.2	WNW	21/06/2017	09:40	1.3	N
20/06/2017	19:25	1.8	W	21/06/2017	02:35	1.3	NE	21/06/2017	09:45	0.9	SW
20/06/2017	19:30	1.8	W	21/06/2017	02:40	0.4	NNE	21/06/2017	09:50	0.9	WSW
20/06/2017	19:35	1.3	W	21/06/2017	02:45	1.8	W	21/06/2017	09:55	0.4	ENE
20/06/2017	19:40	2.2	W	21/06/2017	02:50	2.2	WSW	21/06/2017	10:00	0.9	ENE
20/06/2017	19:45	1.3	WNW	21/06/2017	02:55	0.4	NE	21/06/2017	10:05	0.9	NE
20/06/2017	19:50	1.3	NW	21/06/2017	03:00	0.9	WNW	21/06/2017	10:10	0.4	NE
20/06/2017	19:55	0.9	NE	21/06/2017	03:05	1.8	W	21/06/2017	10:15	0.9	NNE
20/06/2017	20:00	2.7	W	21/06/2017	03:10	0.4	N	21/06/2017	10:20	1.3	NE
20/06/2017	20:05	1.8	WSW	21/06/2017	03:15	0.9	WSW	21/06/2017	10:25	2.2	WNW
20/06/2017	20:10	1.3	NNE	21/06/2017	03:20	2.2	W	21/06/2017	10:30	0.4	WSW
20/06/2017	20:15	2.2	W	21/06/2017	03:25	0.4	WNW	21/06/2017	10:35	0.9	WNW
20/06/2017	20:20	0.4	NNE	21/06/2017	03:30	0.9	NW	21/06/2017	10:40	2.2	NNW
20/06/2017	20:25	2.7	SW	21/06/2017	03:35	1.8	NW	21/06/2017	10:45	0.4	N
20/06/2017	20:30	2.2	ENE	21/06/2017	03:40	0.9	NW	21/06/2017	10:50	1.3	N
20/06/2017	20:35	2.2	W	21/06/2017	03:45	1.8	WNW	21/06/2017	10:55	0.4	WSW
20/06/2017	20:40	1.3	NE	21/06/2017	03:50	1.3	W	21/06/2017	11:00	0.4	NW
20/06/2017	20:45	1.8	ENE	21/06/2017	03:55	1.8	NNE	21/06/2017	11:05	1.8	N
20/06/2017	20:50	3.6	W	21/06/2017	04:00	1.3	N	21/06/2017	11:10	0.4	W
20/06/2017	20:55	1.3	NW	21/06/2017	04:05	1.3	W	21/06/2017	11:15	1.3	NE
20/06/2017	21:00	1.3	WNW	21/06/2017	04:10	0.4	NE	21/06/2017	11:20	0.4	NW
20/06/2017	21:05	1.3	SW	21/06/2017	04:15	2.2	W	21/06/2017	11:25	0.4	NW
20/06/2017	21:10	0.9	W	21/06/2017	04:20	0.4	N	21/06/2017	11:30	1.3	NE
20/06/2017	21:15	1.8	WSW	21/06/2017	04:25	1.8	N	21/06/2017	11:35	0.4	NNW
20/06/2017	21:20	1.8	ENE	21/06/2017	04:30	1.3	W	21/06/2017	11:40	1.3	WNW
20/06/2017	21:25	0.4	ENE	21/06/2017	04:35	1.3	NE	21/06/2017	11:45	1.8	ENE
20/06/2017	21:30	2.2	N	21/06/2017	04:40	1.8	N	21/06/2017	11:50	2.2	W
20/06/2017	21:35	0.9	NE	21/06/2017	04:45	0.4	NW	21/06/2017	11:55	0.4	N
20/06/2017	21:40	1.3	NNW	21/06/2017	04:50	0.9	NE	21/06/2017	12:00	2.2	W
20/06/2017	21:45	0.9	ENE	21/06/2017	04:55	1.3	E	21/06/2017	12:05	1.3	NNE
20/06/2017	21:50	1.3	ENE	21/06/2017	05:00	2.7	WNW	21/06/2017	12:10	1.8	N
20/06/2017	21:55	1.8	W	21/06/2017	05:05	2.7	W	21/06/2017	12:15	1.8	N
20/06/2017	22:00	0.9	NE	21/06/2017	05:10	1.3	SW	21/06/2017	12:20	2.2	E
20/06/2017	22:05	0.9	N	21/06/2017	05:15	2.2	N	21/06/2017	12:25	1.3	NW
20/06/2017	22:10	1.8	W	21/06/2017	05:20	1.8	W	21/06/2017	12:30	0.9	NE
20/06/2017	22:15	1.8	SW	21/06/2017	05:25	2.2	WNW	21/06/2017	12:35	1.8	ENE
20/06/2017	22:20	1.8	WSW	21/06/2017	05:30	1.3	NW	21/06/2017	12:40	0.9	NE
20/06/2017	22:25	0.9	ENE	21/06/2017	05:35	2.2	WSW	21/06/2017	12:45	1.8	N
20/06/2017	22:30	2.7	W	21/06/2017	05:40	1.3	NNE	21/06/2017	12:50	1.3	NW
20/06/2017	22:35	0.4	NW	21/06/2017	05:45	0.9	N	21/06/2017	12:55	1.3	NNE
20/06/2017	22:40	1.8	NE	21/06/2017	05:50	0.9	NNW	21/06/2017	13:00	0.4	N
20/06/2017	22:45	0.9	WNW	21/06/2017	05:55	1.8	W	21/06/2017	13:05	2.2	W
20/06/2017	22:50	2.2	WSW	21/06/2017	06:00	0.9	SSW	21/06/2017	13:10	0.9	NNE
20/06/2017	22:55	1.3	ENE	21/06/2017	06:05	1.3	NW	21/06/2017	13:15	2.2	W
20/06/2017	23:00	1.3	NE	21/06/2017	06:10	0.9	NNE	21/06/2017	13:20	0.4	ENE
20/06/2017	23:05	2.2	W	21/06/2017	06:15	0.9	NNE	21/06/2017	13:25	0.4	NE
20/06/2017	23:10	1.3	SW	21/06/2017	06:20	1.8	W	21/06/2017	13:30	0.4	ENE
20/06/2017	23:15	0.9	NE	21/06/2017	06:25	1.3	NE	21/06/2017	13:35	1.3	NE
20/06/2017	23:20	3.1	E	21/06/2017	06:30	1.3	ENE	21/06/2017	13:40	2.2	W
20/06/2017	23:25	2.2	W	21/06/2017	06:35	1.8	WSW	21/06/2017	13:45	1.8	N
20/06/2017	23:30	2.7	W	21/06/2017	06:40	0.4	WSW	21/06/2017	13:50	1.8	NW
20/06/2017	23:35	1.3	WNW	21/06/2017	06:45	0.9	NW	21/06/2017	13:55	1.3	WSW
20/06/2017	23:40	0.9	NE	21/06/2017	06:50	0.4	NW	21/06/2017	14:00	0.9	N
20/06/2017	23:45	1.3	NE	21/06/2017	06:55	1.8	W	21/06/2017	14:05	1.3	N
20/06/2017	23:50	2.7	W	21/06/2017	07:00	1.8	ENE	21/06/2017	14:10	1.3	NNW
20/06/2017	23:55	0.9	WNW	21/06/2017	07:05	1.3	NE	21/06/2017	14:15	0.9	N
21/06/2017	00:00	3.6	W	21/06/2017	07:10	1.3	NNW	21/06/2017	14:20	1.3	NE
21/06/2017	00:05	0.9	NE	21/06/2017	07:15	1.3	NE	21/06/2017	14:25	2.2	W
21/06/2017	00:10	0.4	NE	21/06/2017	07:20	0.9	NNE	21/06/2017	14:30	1.3	WNW

Extracted from the weather station at Tung Chung China State Site Office Rooftop

Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction
21/06/2017	14:35	1.8	W	21/06/2017	21:45	1.3	WNW	22/06/2017	04:55	2.7	E
21/06/2017	14:40	1.8	W	21/06/2017	21:50	1.3	WSW	22/06/2017	05:00	1.8	WSW
21/06/2017	14:45	1.3	NE	21/06/2017	21:55	1.3	W	22/06/2017	05:05	1.3	WSW
21/06/2017	14:50	0.9	NW	21/06/2017	22:00	1.8	ENE	22/06/2017	05:10	0.4	ENE
21/06/2017	14:55	1.3	W	21/06/2017	22:05	2.2	NNW	22/06/2017	05:15	0.4	NE
21/06/2017	15:00	1.3	N	21/06/2017	22:10	1.3	WNW	22/06/2017	05:20	5.8	NE
21/06/2017	15:05	1.3	N	21/06/2017	22:15	1.8	NW	22/06/2017	05:25	1.3	E
21/06/2017	15:10	1.3	WSW	21/06/2017	22:20	0.9	WNW	22/06/2017	05:30	4.9	NE
21/06/2017	15:15	0.4	NE	21/06/2017	22:25	0.9	NE	22/06/2017	05:35	2.2	WSW
21/06/2017	15:20	0.4	NW	21/06/2017	22:30	0.4	NE	22/06/2017	05:40	4.9	ENE
21/06/2017	15:25	0.4	WNW	21/06/2017	22:35	1.8	NW	22/06/2017	05:45	1.3	NNE
21/06/2017	15:30	0.4	NNE	21/06/2017	22:40	0.4	W	22/06/2017	05:50	3.6	NE
21/06/2017	15:35	0.9	NW	21/06/2017	22:45	1.3	W	22/06/2017	05:55	2.2	NE
21/06/2017	15:40	1.8	WSW	21/06/2017	22:50	1.3	WSW	22/06/2017	06:00	4	ENE
21/06/2017	15:45	1.8	N	21/06/2017	22:55	1.3	NW	22/06/2017	06:05	4.9	NE
21/06/2017	15:50	0.9	NNW	21/06/2017	23:00	1.3	NNW	22/06/2017	06:10	1.3	SW
21/06/2017	15:55	1.3	NE	21/06/2017	23:05	0.4	NE	22/06/2017	06:15	1.3	ENE
21/06/2017	16:00	0.9	NE	21/06/2017	23:10	1.3	ENE	22/06/2017	06:20	0.9	ENE
21/06/2017	16:05	1.3	NE	21/06/2017	23:15	0.9	NW	22/06/2017	06:25	1.3	SW
21/06/2017	16:10	1.3	W	21/06/2017	23:20	0.9	W	22/06/2017	06:30	2.2	E
21/06/2017	16:15	1.8	WSW	21/06/2017	23:25	1.8	W	22/06/2017	06:35	2.7	ENE
21/06/2017	16:20	0.4	NW	21/06/2017	23:30	1.8	ENE	22/06/2017	06:40	0.4	ENE
21/06/2017	16:25	2.2	N	21/06/2017	23:35	1.8	W	22/06/2017	06:45	5.4	ENE
21/06/2017	16:30	0.4	ENE	21/06/2017	23:40	0.9	SW	22/06/2017	06:50	0.9	NE
21/06/2017	16:35	1.3	NNW	21/06/2017	23:45	0.4	NE	22/06/2017	06:55	0.9	E
21/06/2017	16:40	1.8	W	21/06/2017	23:50	0.9	SW	22/06/2017	07:00	2.7	NE
21/06/2017	16:45	1.8	NE	21/06/2017	23:55	1.8	SW	22/06/2017	07:05	1.8	ENE
21/06/2017	16:50	0.9	WNW	22/06/2017	00:00	1.3	NNW	22/06/2017	07:10	0.9	ENE
21/06/2017	16:55	1.3	W	22/06/2017	00:05	1.3	ENE	22/06/2017	07:15	0.4	ESE
21/06/2017	17:00	1.3	NNW	22/06/2017	00:10	0.4	NNW	22/06/2017	07:20	1.8	NE
21/06/2017	17:05	1.3	W	22/06/2017	00:15	3.6	NE	22/06/2017	07:25	3.1	WSW
21/06/2017	17:10	1.3	WSW	22/06/2017	00:20	2.2	WSW	22/06/2017	07:30	0.9	NNE
21/06/2017	17:15	1.3	E	22/06/2017	00:25	0.4	WNW	22/06/2017	07:35	0.4	ENE
21/06/2017	17:20	0.9	N	22/06/2017	00:30	0.4	SW	22/06/2017	07:40	2.7	ENE
21/06/2017	17:25	0.4	NW	22/06/2017	00:35	4	ENE	22/06/2017	07:45	1.3	NNE
21/06/2017	17:30	0.9	NNW	22/06/2017	00:40	0.9	NE	22/06/2017	07:50	2.7	NE
21/06/2017	17:35	0.4	NW	22/06/2017	00:45	6.7	NE	22/06/2017	07:55	1.8	E
21/06/2017	17:40	0.9	N	22/06/2017	00:50	1.8	NE	22/06/2017	08:00	2.2	NNE
21/06/2017	17:45	1.3	N	22/06/2017	00:55	0.9	NE	22/06/2017	08:05	2.2	E
21/06/2017	17:50	0.9	N	22/06/2017	01:00	0.9	NE	22/06/2017	08:10	2.7	NE
21/06/2017	17:55	1.8	SW	22/06/2017	01:05	0.9	NE	22/06/2017	08:15	2.7	NE
21/06/2017	18:00	1.3	NW	22/06/2017	01:10	4.9	NE	22/06/2017	08:20	5.8	ENE
21/06/2017	18:05	1.8	NNW	22/06/2017	01:15	1.8	WSW	22/06/2017	08:25	1.3	WSW
21/06/2017	18:10	0.9	NNE	22/06/2017	01:20	2.7	NE	22/06/2017	08:30	2.2	E
21/06/2017	18:15	2.2	WSW	22/06/2017	01:25	1.8	NE	22/06/2017	08:35	0.9	ENE
21/06/2017	18:20	0.4	NNE	22/06/2017	01:30	2.7	ENE	22/06/2017	08:40	0.9	ENE
21/06/2017	18:25	1.8	W	22/06/2017	01:35	3.1	NE	22/06/2017	08:45	0.9	W
21/06/2017	18:30	0.4	N	22/06/2017	01:40	1.8	NE	22/06/2017	08:50	2.2	E
21/06/2017	18:35	0.9	WSW	22/06/2017	01:45	0.9	NE	22/06/2017	08:55	4.9	NE
21/06/2017	18:40	0.4	NE	22/06/2017	01:50	2.2	WSW	22/06/2017	09:00	1.8	NE
21/06/2017	18:45	1.8	N	22/06/2017	01:55	0.9	NE	22/06/2017	09:05	1.8	WSW
21/06/2017	18:50	2.2	W	22/06/2017	02:00	2.7	ENE	22/06/2017	09:10	0.9	WNW
21/06/2017	18:55	0.9	N	22/06/2017	02:05	0.9	E	22/06/2017	09:15	1.8	NE
21/06/2017	19:00	1.3	N	22/06/2017	02:10	2.7	ENE	22/06/2017	09:20	3.1	NE
21/06/2017	19:05	1.8	W	22/06/2017	02:15	3.6	ENE	22/06/2017	09:25	0.9	NE
21/06/2017	19:10	0.9	ENE	22/06/2017	02:20	0.9	NE	22/06/2017	09:30	1.8	ENE
21/06/2017	19:15	0.9	NW	22/06/2017	02:25	2.7	E	22/06/2017	09:35	0.4	W
21/06/2017	19:20	2.2	N	22/06/2017	02:30	1.8	WSW	22/06/2017	09:40	2.7	ENE
21/06/2017	19:25	1.8	N	22/06/2017	02:35	2.2	NE	22/06/2017	09:45	0.4	SW
21/06/2017	19:30	0.9	SW	22/06/2017	02:40	2.2	NE	22/06/2017	09:50	1.3	NE
21/06/2017	19:35	1.3	NW	22/06/2017	02:45	0.9	ENE	22/06/2017	09:55	2.7	NE
21/06/2017	19:40	1.8	W	22/06/2017	02:50	3.1	ENE	22/06/2017	10:00	2.7	ENE
21/06/2017	19:45	1.8	SW	22/06/2017	02:55	4.9	ENE	22/06/2017	10:05	3.1	ENE
21/06/2017	19:50	1.3	NW	22/06/2017	03:00	0.9	NNE	22/06/2017	10:10	0.4	WNW
21/06/2017	19:55	0.9	NW	22/06/2017	03:05	2.7	NE	22/06/2017	10:15	1.3	ENE
21/06/2017	20:00	0.4	NE	22/06/2017	03:10	2.7	NE	22/06/2017	10:20	1.8	NE
21/06/2017	20:05	0.9	ENE	22/06/2017	03:15	2.7	ENE	22/06/2017	10:25	5.8	ENE
21/06/2017	20:10	1.8	NNE	22/06/2017	03:20	2.7	ENE	22/06/2017	10:30	1.8	NE
21/06/2017	20:15	0.9	SW	22/06/2017	03:25	0.9	ENE	22/06/2017	10:35	2.2	E
21/06/2017	20:20	1.3	NNW	22/06/2017	03:30	0.9	NNE	22/06/2017	10:40	2.2	NNE
21/06/2017	20:25	1.8	W	22/06/2017	03:35	0.9	NNE	22/06/2017	10:45	0.9	W
21/06/2017	20:30	1.8	W	22/06/2017	03:40	1.3	N	22/06/2017	10:50	3.1	WSW
21/06/2017	20:35	1.8	WSW	22/06/2017	03:45	0.9	SW	22/06/2017	10:55	0.9	NNE
21/06/2017	20:40	0.4	NE	22/06/2017	03:50	0.4	WNW	22/06/2017	11:00	0.9	NE
21/06/2017	20:45	1.3	NW	22/06/2017	03:55	1.8	ENE	22/06/2017	11:05	0.9	ENE
21/06/2017	20:50	1.8	WSW	22/06/2017	04:00	0.4	SW	22/06/2017	11:10	0.9	NNE
21/06/2017	20:55	1.3	W	22/06/2017	04:05	3.1	NE	22/06/2017	11:15	2.2	E
21/06/2017	21:00	1.3	NNE	22/06/2017	04:10	2.2	E	22/06/2017	11:20	2.2	NE
21/06/2017	21:05	1.3	WSW	22/06/2017	04:15	1.3	WSW	22/06/2017	11:25	1.3	NNE
21/06/2017	21:10	0.9	NNW	22/06/2017	04:20	1.8	NNE	22/06/2017	11:30	2.2	ENE
21/06/2017	21:15	1.3	NW	22/06/2017	04:25	3.1	NE	22/06/2017	11:35	1.3	NE
21/06/2017	21:20	0.4	NE	22/06/2017	04:30	3.1	NE	22/06/2017	11:40	2.7	NE
21/06/2017	21:25	1.3	N	22/06/2017	04:35	4.9	ENE	22/06/2017	11:45	0.9	NE
21/06/2017	21:30	1.3	ENE	22/06/2017	04:40	3.1	NE	22/06/2017	11:50	4.9	ENE
21/06/2017	21:35	1.3	WNW	22/06/2017	04:45	4.9	NE	22/06/2017	11:55	2.7	ENE
21/06/2017	21:40	0.4	NNE	22/06/2017	04:50	0.4	WNW	22/06/2017	12:00	0.9	ENE

Extracted from the weather station at Tung Chung China State Site Office Rooftop

Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction
22/06/2017	12:05	0.9	NE	22/06/2017	19:15	2.2	NE	23/06/2017	02:25	0.4	SE
22/06/2017	12:10	0.9	NE	22/06/2017	19:20	3.6	NE	23/06/2017	02:30	1.8	NE
22/06/2017	12:15	1.3	WSW	22/06/2017	19:25	1.8	E	23/06/2017	02:35	0.9	SSE
22/06/2017	12:20	1.8	E	22/06/2017	19:30	0.4	SW	23/06/2017	02:40	5.4	ENE
22/06/2017	12:25	1.8	NE	22/06/2017	19:35	3.6	NE	23/06/2017	02:45	2.2	ENE
22/06/2017	12:30	0.4	ENE	22/06/2017	19:40	5.4	ENE	23/06/2017	02:50	0.4	NE
22/06/2017	12:35	3.1	NE	22/06/2017	19:45	2.7	ENE	23/06/2017	02:55	0.4	NE
22/06/2017	12:40	3.6	NE	22/06/2017	19:50	2.2	NNE	23/06/2017	03:00	5.8	ENE
22/06/2017	12:45	3.1	NE	22/06/2017	19:55	2.2	ENE	23/06/2017	03:05	3.1	E
22/06/2017	12:50	5.4	ENE	22/06/2017	20:00	1.8	NE	23/06/2017	03:10	3.1	E
22/06/2017	12:55	4	ENE	22/06/2017	20:05	1.3	ENE	23/06/2017	03:15	2.2	ENE
22/06/2017	13:00	2.2	ENE	22/06/2017	20:10	2.2	NE	23/06/2017	03:20	1.3	NE
22/06/2017	13:05	5.4	NE	22/06/2017	20:15	1.3	NW	23/06/2017	03:25	2.2	NE
22/06/2017	13:10	2.7	ENE	22/06/2017	20:20	1.8	E	23/06/2017	03:30	4	E
22/06/2017	13:15	1.8	E	22/06/2017	20:25	2.2	NE	23/06/2017	03:35	3.1	E
22/06/2017	13:20	2.7	ENE	22/06/2017	20:30	5.4	NE	23/06/2017	03:40	5.4	E
22/06/2017	13:25	0.9	NE	22/06/2017	20:35	1.3	WNW	23/06/2017	03:45	1.3	E
22/06/2017	13:30	0.9	NE	22/06/2017	20:40	2.7	NE	23/06/2017	03:50	4	E
22/06/2017	13:35	0.9	NE	22/06/2017	20:45	2.7	ENE	23/06/2017	03:55	0.9	ENE
22/06/2017	13:40	2.7	NNE	22/06/2017	20:50	0.9	NE	23/06/2017	04:00	1.3	NE
22/06/2017	13:45	3.1	E	22/06/2017	20:55	0.9	NE	23/06/2017	04:05	3.1	E
22/06/2017	13:50	2.7	ENE	22/06/2017	21:00	0.9	NE	23/06/2017	04:10	1.3	ENE
22/06/2017	13:55	4	ENE	22/06/2017	21:05	0.9	NNE	23/06/2017	04:15	0.9	E
22/06/2017	14:00	1.8	E	22/06/2017	21:10	2.7	E	23/06/2017	04:20	1.3	NNE
22/06/2017	14:05	1.8	NNW	22/06/2017	21:15	0.4	WNW	23/06/2017	04:25	3.1	ENE
22/06/2017	14:10	0.4	SW	22/06/2017	21:20	2.2	ENE	23/06/2017	04:30	1.3	NE
22/06/2017	14:15	0.9	ENE	22/06/2017	21:25	1.8	ENE	23/06/2017	04:35	2.2	NE
22/06/2017	14:20	5.4	NE	22/06/2017	21:30	0.4	W	23/06/2017	04:40	3.6	ENE
22/06/2017	14:25	0.9	NNE	22/06/2017	21:35	3.6	NE	23/06/2017	04:45	6.3	ENE
22/06/2017	14:30	1.3	ENE	22/06/2017	21:40	0.9	NNE	23/06/2017	04:50	4	E
22/06/2017	14:35	0.9	NNE	22/06/2017	21:45	1.8	NE	23/06/2017	04:55	3.1	ENE
22/06/2017	14:40	2.2	E	22/06/2017	21:50	4.9	ENE	23/06/2017	05:00	5.4	ENE
22/06/2017	14:45	0.4	WNW	22/06/2017	21:55	0.9	NE	23/06/2017	05:05	6.3	ENE
22/06/2017	14:50	1.8	NNE	22/06/2017	22:00	0.4	ESE	23/06/2017	05:10	6.3	ENE
22/06/2017	14:55	1.3	NNE	22/06/2017	22:05	1.8	E	23/06/2017	05:15	0.9	NE
22/06/2017	15:00	0.4	W	22/06/2017	22:10	0.9	NE	23/06/2017	05:20	6.3	ENE
22/06/2017	15:05	1.3	SW	22/06/2017	22:15	3.1	NE	23/06/2017	05:25	3.1	E
22/06/2017	15:10	0.4	SW	22/06/2017	22:20	1.3	NE	23/06/2017	05:30	2.7	ENE
22/06/2017	15:15	2.2	NNE	22/06/2017	22:25	2.7	ENE	23/06/2017	05:35	4.5	E
22/06/2017	15:20	1.8	ENE	22/06/2017	22:30	1.3	E	23/06/2017	05:40	1.3	ENE
22/06/2017	15:25	2.7	NE	22/06/2017	22:35	0.9	NNE	23/06/2017	05:45	4.9	ENE
22/06/2017	15:30	5.4	NE	22/06/2017	22:40	1.3	WSW	23/06/2017	05:50	1.8	ENE
22/06/2017	15:35	0.9	ENE	22/06/2017	22:45	1.8	NNE	23/06/2017	05:55	6.3	NE
22/06/2017	15:40	1.8	NE	22/06/2017	22:50	1.8	NE	23/06/2017	06:00	0.9	NE
22/06/2017	15:45	1.3	E	22/06/2017	22:55	2.2	NNE	23/06/2017	06:05	4	E
22/06/2017	15:50	0.9	NE	22/06/2017	23:00	0.4	SW	23/06/2017	06:10	3.6	ENE
22/06/2017	15:55	1.3	WSW	22/06/2017	23:05	2.2	NE	23/06/2017	06:15	4	ENE
22/06/2017	16:00	0.9	NE	22/06/2017	23:10	2.7	ENE	23/06/2017	06:20	5.4	ENE
22/06/2017	16:05	0.4	ENE	22/06/2017	23:15	2.2	NE	23/06/2017	06:25	0.9	ENE
22/06/2017	16:10	2.7	ENE	22/06/2017	23:20	0.9	NNE	23/06/2017	06:30	0.9	ENE
22/06/2017	16:15	5.8	NE	22/06/2017	23:25	0.9	W	23/06/2017	06:35	1.8	ENE
22/06/2017	16:20	2.7	NE	22/06/2017	23:30	0.4	NE	23/06/2017	06:40	2.2	NE
22/06/2017	16:25	2.2	NNE	22/06/2017	23:35	2.7	ENE	23/06/2017	06:45	4	E
22/06/2017	16:30	0.9	NE	22/06/2017	23:40	3.1	ENE	23/06/2017	06:50	2.2	E
22/06/2017	16:35	2.2	NNE	22/06/2017	23:45	0.4	ENE	23/06/2017	06:55	5.8	ENE
22/06/2017	16:40	3.1	NE	22/06/2017	23:50	4.9	ENE	23/06/2017	07:00	0.9	ENE
22/06/2017	16:45	3.1	ENE	22/06/2017	23:55	0.9	NE	23/06/2017	07:05	0.9	ENE
22/06/2017	16:50	1.3	SW	23/06/2017	00:00	0.4	ENE	23/06/2017	07:10	2.2	ENE
22/06/2017	16:55	3.1	E	23/06/2017	00:05	1.3	E	23/06/2017	07:15	1.8	NE
22/06/2017	17:00	0.9	NE	23/06/2017	00:10	1.8	NNE	23/06/2017	07:20	4	ENE
22/06/2017	17:05	1.8	NE	23/06/2017	00:15	0.9	E	23/06/2017	07:25	5.4	ENE
22/06/2017	17:10	2.7	E	23/06/2017	00:20	5.4	ENE	23/06/2017	07:30	0.9	E
22/06/2017	17:15	3.1	NE	23/06/2017	00:25	1.3	ENE	23/06/2017	07:35	1.3	ENE
22/06/2017	17:20	0.9	NE	23/06/2017	00:30	3.1	E	23/06/2017	07:40	3.1	E
22/06/2017	17:25	3.1	WSW	23/06/2017	00:35	3.6	E	23/06/2017	07:45	4	ENE
22/06/2017	17:30	2.2	E	23/06/2017	00:40	3.1	ENE	23/06/2017	07:50	1.8	NNE
22/06/2017	17:35	0.9	NE	23/06/2017	00:45	5.8	ENE	23/06/2017	07:55	4.5	E
22/06/2017	17:40	2.2	WSW	23/06/2017	00:50	2.2	ENE	23/06/2017	08:00	4.9	ENE
22/06/2017	17:45	2.7	NE	23/06/2017	00:55	1.8	NE	23/06/2017	08:05	6.3	ENE
22/06/2017	17:50	1.8	NNE	23/06/2017	01:00	0.4	NE	23/06/2017	08:10	1.3	NE
22/06/2017	17:55	2.2	NE	23/06/2017	01:05	1.3	NE	23/06/2017	08:15	1.8	NE
22/06/2017	18:00	1.3	WSW	23/06/2017	01:10	4.9	E	23/06/2017	08:20	3.6	ENE
22/06/2017	18:05	0.9	NE	23/06/2017	01:15	0.4	ENE	23/06/2017	08:25	4.5	ENE
22/06/2017	18:10	1.3	ENE	23/06/2017	01:20	3.6	E	23/06/2017	08:30	2.7	ENE
22/06/2017	18:15	1.3	N	23/06/2017	01:25	1.3	E	23/06/2017	08:35	1.3	NE
22/06/2017	18:20	2.2	NE	23/06/2017	01:30	5.4	ENE	23/06/2017	08:40	0.4	ENE
22/06/2017	18:25	4	E	23/06/2017	01:35	1.8	NE	23/06/2017	08:45	1.3	NNE
22/06/2017	18:30	3.6	E	23/06/2017	01:40	3.1	ENE	23/06/2017	08:50	1.3	E
22/06/2017	18:35	2.7	NE	23/06/2017	01:45	5.8	ENE	23/06/2017	08:55	1.3	E
22/06/2017	18:40	1.8	NE	23/06/2017	01:50	4.9	E	23/06/2017	09:00	1.3	NNW
22/06/2017	18:45	1.3	E	23/06/2017	01:55	1.3	NE	23/06/2017	09:05	3.6	E
22/06/2017	18:50	0.4	ENE	23/06/2017	02:00	5.8	E	23/06/2017	09:10	5.4	E
22/06/2017	18:55	0.9	NE	23/06/2017	02:05	1.3	NE	23/06/2017	09:15	0.9	ENE
22/06/2017	19:00	3.1	WSW	23/06/2017	02:10	4	ENE	23/06/2017	09:20	0.9	NE
22/06/2017	19:05	1.8	NE	23/06/2017	02:15	4.9	ENE	23/06/2017	09:25	1.8	ENE
22/06/2017	19:10	0.4	WNW	23/06/2017	02:20	5.8	ENE	23/06/2017	09:30	1.8	NE

Extracted from the weather station at Tung Chung China State Site Office Rooftop

Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction
23/06/2017	09:35	5.8	ENE	23/06/2017	16:45	4	ENE	23/06/2017	23:55	5.8	ENE
23/06/2017	09:40	4	ENE	23/06/2017	16:50	3.1	ENE	24/06/2017	00:00	3.1	ENE
23/06/2017	09:45	1.3	NE	23/06/2017	16:55	0.9	ENE	24/06/2017	00:05	0.9	N
23/06/2017	09:50	2.7	NE	23/06/2017	17:00	4	E	24/06/2017	00:10	2.7	W
23/06/2017	09:55	1.8	NE	23/06/2017	17:05	1.8	ENE	24/06/2017	00:15	0.9	N
23/06/2017	10:00	0.9	ENE	23/06/2017	17:10	3.1	E	24/06/2017	00:20	1.8	W
23/06/2017	10:05	5.4	ENE	23/06/2017	17:15	1.3	NE	24/06/2017	00:25	2.2	E
23/06/2017	10:10	2.2	NE	23/06/2017	17:20	1.8	ENE	24/06/2017	00:30	4	ENE
23/06/2017	10:15	2.2	ENE	23/06/2017	17:25	5.4	ENE	24/06/2017	00:35	3.1	W
23/06/2017	10:20	3.1	ENE	23/06/2017	17:30	1.8	NE	24/06/2017	00:40	2.2	NNE
23/06/2017	10:25	0.4	ENE	23/06/2017	17:35	5.4	ENE	24/06/2017	00:45	0.4	NNW
23/06/2017	10:30	5.8	ENE	23/06/2017	17:40	3.6	ENE	24/06/2017	00:50	1.8	NNE
23/06/2017	10:35	4	ENE	23/06/2017	17:45	3.1	E	24/06/2017	00:55	2.7	W
23/06/2017	10:40	0.9	NE	23/06/2017	17:50	1.3	NNE	24/06/2017	01:00	1.3	NW
23/06/2017	10:45	6.7	ENE	23/06/2017	17:55	3.1	E	24/06/2017	01:05	2.2	E
23/06/2017	10:50	6.7	ENE	23/06/2017	18:00	0.4	ENE	24/06/2017	01:10	1.3	ENE
23/06/2017	10:55	1.3	NE	23/06/2017	18:05	5.4	E	24/06/2017	01:15	2.2	NE
23/06/2017	11:00	0.9	ENE	23/06/2017	18:10	1.3	NNE	24/06/2017	01:20	2.2	WSW
23/06/2017	11:05	2.7	ENE	23/06/2017	18:15	0.9	ENE	24/06/2017	01:25	1.8	WNW
23/06/2017	11:10	3.6	E	23/06/2017	18:20	6.3	ENE	24/06/2017	01:30	2.2	NE
23/06/2017	11:15	2.2	E	23/06/2017	18:25	4	E	24/06/2017	01:35	1.8	WNW
23/06/2017	11:20	0.9	NE	23/06/2017	18:30	4.9	E	24/06/2017	01:40	3.6	NE
23/06/2017	11:25	5.8	ENE	23/06/2017	18:35	1.3	NE	24/06/2017	01:45	0.9	NE
23/06/2017	11:30	4.9	E	23/06/2017	18:40	1.3	E	24/06/2017	01:50	1.3	ENE
23/06/2017	11:35	1.8	NE	23/06/2017	18:45	5.4	E	24/06/2017	01:55	2.2	NE
23/06/2017	11:40	1.3	E	23/06/2017	18:50	2.2	ENE	24/06/2017	02:00	4.9	ENE
23/06/2017	11:45	0.4	ENE	23/06/2017	18:55	1.3	ENE	24/06/2017	02:05	1.8	ENE
23/06/2017	11:50	5.8	ENE	23/06/2017	19:00	3.1	E	24/06/2017	02:10	1.3	NE
23/06/2017	11:55	2.7	E	23/06/2017	19:05	0.9	ENE	24/06/2017	02:15	1.3	NE
23/06/2017	12:00	2.2	E	23/06/2017	19:10	0.9	NE	24/06/2017	02:20	0.9	NE
23/06/2017	12:05	5.8	ENE	23/06/2017	19:15	0.9	SSE	24/06/2017	02:25	3.1	NE
23/06/2017	12:10	5.4	ENE	23/06/2017	19:20	1.8	NNE	24/06/2017	02:30	3.6	NE
23/06/2017	12:15	1.3	ENE	23/06/2017	19:25	5.4	NE	24/06/2017	02:35	1.8	NNE
23/06/2017	12:20	3.6	E	23/06/2017	19:30	4.9	ENE	24/06/2017	02:40	2.2	E
23/06/2017	12:25	0.4	ENE	23/06/2017	19:35	5.8	ENE	24/06/2017	02:45	2.2	W
23/06/2017	12:30	0.4	NE	23/06/2017	19:40	0.9	ENE	24/06/2017	02:50	0.9	NNE
23/06/2017	12:35	2.7	ENE	23/06/2017	19:45	1.8	NE	24/06/2017	02:55	1.8	NNE
23/06/2017	12:40	1.3	ENE	23/06/2017	19:50	1.3	ENE	24/06/2017	03:00	1.3	N
23/06/2017	12:45	1.8	ENE	23/06/2017	19:55	2.2	E	24/06/2017	03:05	1.3	WNW
23/06/2017	12:50	1.8	NE	23/06/2017	20:00	4.5	E	24/06/2017	03:10	1.8	NNE
23/06/2017	12:55	2.2	NE	23/06/2017	20:05	3.6	ENE	24/06/2017	03:15	1.8	W
23/06/2017	13:00	2.2	ENE	23/06/2017	20:10	5.4	ENE	24/06/2017	03:20	1.8	WNW
23/06/2017	13:05	1.8	ENE	23/06/2017	20:15	0.9	ENE	24/06/2017	03:25	2.2	W
23/06/2017	13:10	0.4	SE	23/06/2017	20:20	3.6	E	24/06/2017	03:30	0.9	N
23/06/2017	13:15	2.7	NE	23/06/2017	20:25	3.1	E	24/06/2017	03:35	1.3	NNW
23/06/2017	13:20	1.3	ENE	23/06/2017	20:30	2.2	ENE	24/06/2017	03:40	1.8	NE
23/06/2017	13:25	0.9	ENE	23/06/2017	20:35	0.9	E	24/06/2017	03:45	2.2	E
23/06/2017	13:30	2.2	E	23/06/2017	20:40	5.8	ENE	24/06/2017	03:50	2.7	NE
23/06/2017	13:35	3.1	E	23/06/2017	20:45	1.3	NNE	24/06/2017	03:55	0.9	N
23/06/2017	13:40	2.2	ENE	23/06/2017	20:50	0.4	ENE	24/06/2017	04:00	2.7	W
23/06/2017	13:45	1.8	ENE	23/06/2017	20:55	0.9	NE	24/06/2017	04:05	1.3	WNW
23/06/2017	13:50	1.8	NE	23/06/2017	21:00	2.2	E	24/06/2017	04:10	4	ENE
23/06/2017	13:55	2.2	ENE	23/06/2017	21:05	4.5	ENE	24/06/2017	04:15	2.7	NE
23/06/2017	14:00	0.9	ENE	23/06/2017	21:10	0.4	NE	24/06/2017	04:20	2.7	WNW
23/06/2017	14:05	3.1	ENE	23/06/2017	21:15	2.7	ENE	24/06/2017	04:25	1.3	N
23/06/2017	14:10	1.8	NE	23/06/2017	21:20	0.9	NE	24/06/2017	04:30	3.6	W
23/06/2017	14:15	4	ENE	23/06/2017	21:25	5.8	ENE	24/06/2017	04:35	1.3	NE
23/06/2017	14:20	0.4	NE	23/06/2017	21:30	3.1	E	24/06/2017	04:40	1.3	NE
23/06/2017	14:25	2.7	ENE	23/06/2017	21:35	0.9	E	24/06/2017	04:45	1.8	NNE
23/06/2017	14:30	1.3	ENE	23/06/2017	21:40	1.8	NE	24/06/2017	04:50	4	NE
23/06/2017	14:35	3.6	ENE	23/06/2017	21:45	0.9	ENE	24/06/2017	04:55	3.6	E
23/06/2017	14:40	5.8	ENE	23/06/2017	21:50	5.4	ENE	24/06/2017	05:00	0.9	NNW
23/06/2017	14:45	2.2	ENE	23/06/2017	21:55	5.4	ENE	24/06/2017	05:05	0.9	NE
23/06/2017	14:50	0.9	NE	23/06/2017	22:00	2.2	NE	24/06/2017	05:10	1.3	ENE
23/06/2017	14:55	3.1	ENE	23/06/2017	22:05	1.3	NNE	24/06/2017	05:15	1.3	NNE
23/06/2017	15:00	2.7	ENE	23/06/2017	22:10	1.8	NE	24/06/2017	05:20	0.4	W
23/06/2017	15:05	4.5	ENE	23/06/2017	22:15	4.5	E	24/06/2017	05:25	1.8	WNW
23/06/2017	15:10	1.8	NE	23/06/2017	22:20	5.4	E	24/06/2017	05:30	4.5	ENE
23/06/2017	15:15	1.3	ENE	23/06/2017	22:25	5.4	NE	24/06/2017	05:35	1.3	NE
23/06/2017	15:20	0.9	E	23/06/2017	22:30	4.5	E	24/06/2017	05:40	1.3	NNE
23/06/2017	15:25	1.3	ENE	23/06/2017	22:35	1.3	E	24/06/2017	05:45	1.8	WSW
23/06/2017	15:30	5.8	ENE	23/06/2017	22:40	2.2	NE	24/06/2017	05:50	1.8	W
23/06/2017	15:35	4.9	ENE	23/06/2017	22:45	3.1	ENE	24/06/2017	05:55	1.8	NNE
23/06/2017	15:40	0.9	E	23/06/2017	22:50	1.8	E	24/06/2017	06:00	2.7	W
23/06/2017	15:45	4	E	23/06/2017	22:55	5.4	ENE	24/06/2017	06:05	1.3	N
23/06/2017	15:50	5.4	ENE	23/06/2017	23:00	1.8	E	24/06/2017	06:10	0.9	NNE
23/06/2017	15:55	1.3	NE	23/06/2017	23:05	4	E	24/06/2017	06:15	4.5	NNE
23/06/2017	16:00	4	ENE	23/06/2017	23:10	1.3	ENE	24/06/2017	06:20	2.2	NE
23/06/2017	16:05	0.9	ENE	23/06/2017	23:15	0.4	NE	24/06/2017	06:25	0.4	NNW
23/06/2017	16:10	4.9	ENE	23/06/2017	23:20	2.2	ENE	24/06/2017	06:30	3.1	NE
23/06/2017	16:15	0.4	NE	23/06/2017	23:25	0.9	ENE	24/06/2017	06:35	4.5	ENE
23/06/2017	16:20	1.3	NNW	23/06/2017	23:30	2.7	ENE	24/06/2017	06:40	1.3	NE
23/06/2017	16:25	1.8	E	23/06/2017	23:35	0.4	NE	24/06/2017	06:45	2.2	NE
23/06/2017	16:30	2.2	NE	23/06/2017	23:40	2.2	NE	24/06/2017	06:50	2.2	NE
23/06/2017	16:35	0.9	NE	23/06/2017	23:45	5.8	E	24/06/2017	06:55	0.9	NE
23/06/2017	16:40	0.9	NNE	23/06/2017	23:50	1.3	NE	24/06/2017	07:00	1.8	NW



Extracted from the weather station at Tung Chung China State Site Office Rooftop

Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction
24/06/2017	07:05	0.9	NE	24/06/2017	14:15	0.4	NNE	24/06/2017	21:25	0.9	ENE
24/06/2017	07:10	0.4	NNE	24/06/2017	14:20	2.2	E	24/06/2017	21:30	4.9	ENE
24/06/2017	07:15	0.9	W	24/06/2017	14:25	2.2	NE	24/06/2017	21:35	3.1	ENE
24/06/2017	07:20	2.2	NE	24/06/2017	14:30	1.8	W	24/06/2017	21:40	1.3	NNW
24/06/2017	07:25	1.3	ENE	24/06/2017	14:35	2.2	NE	24/06/2017	21:45	2.7	ENE
24/06/2017	07:30	2.7	E	24/06/2017	14:40	2.2	E	24/06/2017	21:50	1.3	NE
24/06/2017	07:35	0.9	NNW	24/06/2017	14:45	0.9	N	24/06/2017	21:55	0.9	ENE
24/06/2017	07:40	3.6	W	24/06/2017	14:50	1.3	NNE	24/06/2017	22:00	1.8	NNE
24/06/2017	07:45	2.7	WNW	24/06/2017	14:55	0.9	NE	24/06/2017	22:05	2.2	NE
24/06/2017	07:50	0.9	N	24/06/2017	15:00	1.3	WNW	24/06/2017	22:10	1.3	W
24/06/2017	07:55	0.9	N	24/06/2017	15:05	2.2	NE	24/06/2017	22:15	1.3	NE
24/06/2017	08:00	3.1	ENE	24/06/2017	15:10	1.3	NNE	24/06/2017	22:20	4.5	NE
24/06/2017	08:05	1.8	W	24/06/2017	15:15	1.3	W	24/06/2017	22:25	1.8	NNE
24/06/2017	08:10	3.6	NE	24/06/2017	15:20	0.9	NE	24/06/2017	22:30	0.9	NW
24/06/2017	08:15	1.8	NNE	24/06/2017	15:25	1.3	ENE	24/06/2017	22:35	1.8	W
24/06/2017	08:20	2.2	NE	24/06/2017	15:30	1.3	NNE	24/06/2017	22:40	1.3	NE
24/06/2017	08:25	1.3	NE	24/06/2017	15:35	1.8	N	24/06/2017	22:45	1.3	NNE
24/06/2017	08:30	1.3	N	24/06/2017	15:40	2.7	WNW	24/06/2017	22:50	0.9	NE
24/06/2017	08:35	1.3	NW	24/06/2017	15:45	0.9	NNE	24/06/2017	22:55	4	NE
24/06/2017	08:40	2.2	NE	24/06/2017	15:50	0.9	NNE	24/06/2017	23:00	4	NE
24/06/2017	08:45	1.3	W	24/06/2017	15:55	1.8	NNE	24/06/2017	23:05	1.8	NNE
24/06/2017	08:50	2.2	NE	24/06/2017	16:00	3.1	NE	24/06/2017	23:10	2.2	E
24/06/2017	08:55	0.9	ENE	24/06/2017	16:05	2.2	E	24/06/2017	23:15	1.8	NNW
24/06/2017	09:00	1.3	NNE	24/06/2017	16:10	4	WSW	24/06/2017	23:20	1.3	NNE
24/06/2017	09:05	0.9	WNW	24/06/2017	16:15	3.1	NE	24/06/2017	23:25	1.8	NE
24/06/2017	09:10	1.3	NE	24/06/2017	16:20	0.9	E	24/06/2017	23:30	2.2	W
24/06/2017	09:15	3.1	W	24/06/2017	16:25	2.7	NE	24/06/2017	23:35	0.9	NE
24/06/2017	09:20	1.8	WNW	24/06/2017	16:30	3.6	NE	24/06/2017	23:40	1.3	NE
24/06/2017	09:25	0.9	WSW	24/06/2017	16:35	2.2	ENE	24/06/2017	23:45	1.3	WNW
24/06/2017	09:30	1.3	WSW	24/06/2017	16:40	0.4	E	24/06/2017	23:50	1.3	W
24/06/2017	09:35	3.1	W	24/06/2017	16:45	1.3	ENE	24/06/2017	23:55	4	NE
24/06/2017	09:40	2.7	W	24/06/2017	16:50	0.9	NNE	25/06/2017	00:00	1.3	ENE
24/06/2017	09:45	1.3	N	24/06/2017	16:55	1.8	NE	25/06/2017	00:05	2.7	NE
24/06/2017	09:50	2.2	NE	24/06/2017	17:00	3.1	NE	25/06/2017	00:10	2.2	ENE
24/06/2017	09:55	1.3	NNE	24/06/2017	17:05	4.5	ENE	25/06/2017	00:15	2.2	W
24/06/2017	10:00	1.3	N	24/06/2017	17:10	2.7	ENE	25/06/2017	00:20	1.3	NE
24/06/2017	10:05	3.1	NE	24/06/2017	17:15	0.9	NNE	25/06/2017	00:25	2.7	NE
24/06/2017	10:10	1.8	W	24/06/2017	17:20	4	W	25/06/2017	00:30	0.9	NE
24/06/2017	10:15	3.6	WNW	24/06/2017	17:25	2.2	E	25/06/2017	00:35	2.2	NE
24/06/2017	10:20	1.3	NE	24/06/2017	17:30	2.7	W	25/06/2017	00:40	0.4	E
24/06/2017	10:25	2.2	E	24/06/2017	17:35	2.2	NE	25/06/2017	00:45	2.2	E
24/06/2017	10:30	1.8	NE	24/06/2017	17:40	2.7	W	25/06/2017	00:50	2.2	E
24/06/2017	10:35	1.8	NNW	24/06/2017	17:45	0.9	NNE	25/06/2017	00:55	1.8	E
24/06/2017	10:40	0.9	NNE	24/06/2017	17:50	1.8	W	25/06/2017	01:00	0.9	NW
24/06/2017	10:45	4	W	24/06/2017	17:55	3.6	E	25/06/2017	01:05	3.1	E
24/06/2017	10:50	0.9	NNE	24/06/2017	18:00	4	WSW	25/06/2017	01:10	2.7	NNE
24/06/2017	10:55	2.7	NE	24/06/2017	18:05	3.6	NE	25/06/2017	01:15	2.7	ENE
24/06/2017	11:00	2.7	WNW	24/06/2017	18:10	3.6	WNW	25/06/2017	01:20	2.2	ENE
24/06/2017	11:05	3.1	W	24/06/2017	18:15	3.6	W	25/06/2017	01:25	0.4	WSW
24/06/2017	11:10	1.3	NE	24/06/2017	18:20	1.8	NW	25/06/2017	01:30	1.8	E
24/06/2017	11:15	1.8	W	24/06/2017	18:25	1.8	W	25/06/2017	01:35	1.8	NW
24/06/2017	11:20	1.3	WNW	24/06/2017	18:30	0.4	NNE	25/06/2017	01:40	0.4	WSW
24/06/2017	11:25	4.5	NNE	24/06/2017	18:35	3.6	NE	25/06/2017	01:45	2.7	NE
24/06/2017	11:30	0.9	ENE	24/06/2017	18:40	3.1	W	25/06/2017	01:50	1.8	NW
24/06/2017	11:35	3.6	NNE	24/06/2017	18:45	1.8	NNE	25/06/2017	01:55	0.4	NNW
24/06/2017	11:40	4.5	ENE	24/06/2017	18:50	1.3	NNE	25/06/2017	02:00	4	ENE
24/06/2017	11:45	3.1	NE	24/06/2017	18:55	2.2	W	25/06/2017	02:05	1.3	E
24/06/2017	11:50	1.3	NNE	24/06/2017	19:00	2.7	E	25/06/2017	02:10	2.2	NNE
24/06/2017	11:55	1.8	NE	24/06/2017	19:05	1.8	NE	25/06/2017	02:15	2.7	ENE
24/06/2017	12:00	1.3	NE	24/06/2017	19:10	2.7	WNW	25/06/2017	02:20	1.3	NNW
24/06/2017	12:05	2.2	WNW	24/06/2017	19:15	1.8	ENE	25/06/2017	02:25	1.8	NE
24/06/2017	12:10	3.6	NNE	24/06/2017	19:20	1.8	NNE	25/06/2017	02:30	0.9	ENE
24/06/2017	12:15	0.4	W	24/06/2017	19:25	2.2	WNW	25/06/2017	02:35	1.8	NNE
24/06/2017	12:20	2.7	E	24/06/2017	19:30	0.4	NNE	25/06/2017	02:40	1.8	ENE
24/06/2017	12:25	2.2	NE	24/06/2017	19:35	1.3	N	25/06/2017	02:45	2.2	ENE
24/06/2017	12:30	1.3	NE	24/06/2017	19:40	1.8	E	25/06/2017	02:50	0.9	WSW
24/06/2017	12:35	3.6	WSW	24/06/2017	19:45	2.2	NE	25/06/2017	02:55	2.2	W
24/06/2017	12:40	1.8	W	24/06/2017	19:50	0.4	ESE	25/06/2017	03:00	1.8	ENE
24/06/2017	12:45	4.5	NE	24/06/2017	19:55	1.8	NNE	25/06/2017	03:05	2.2	ENE
24/06/2017	12:50	2.2	WNW	24/06/2017	20:00	2.2	E	25/06/2017	03:10	2.2	ENE
24/06/2017	12:55	3.6	ENE	24/06/2017	20:05	1.8	ENE	25/06/2017	03:15	0.9	W
24/06/2017	13:00	2.2	NE	24/06/2017	20:10	2.2	NE	25/06/2017	03:20	0.4	WSW
24/06/2017	13:05	3.6	W	24/06/2017	20:15	1.8	W	25/06/2017	03:25	0.9	NNW
24/06/2017	13:10	1.3	NNW	24/06/2017	20:20	1.3	W	25/06/2017	03:30	0.4	WSW
24/06/2017	13:15	1.3	NNE	24/06/2017	20:25	1.3	NNE	25/06/2017	03:35	1.3	N
24/06/2017	13:20	3.6	W	24/06/2017	20:30	2.2	E	25/06/2017	03:40	3.6	NE
24/06/2017	13:25	0.9	NNW	24/06/2017	20:35	2.2	NE	25/06/2017	03:45	0.4	NW
24/06/2017	13:30	0.9	NE	24/06/2017	20:40	4	ENE	25/06/2017	03:50	0.4	WSW
24/06/2017	13:35	4	NE	24/06/2017	20:45	1.3	ENE	25/06/2017	03:55	1.3	ENE
24/06/2017	13:40	1.3	NNE	24/06/2017	20:50	1.3	NE	25/06/2017	04:00	2.7	NE
24/06/2017	13:45	1.8	NNE	24/06/2017	20:55	0.9	NE	25/06/2017	04:05	0.4	NW
24/06/2017	13:50	0.4	ESE	24/06/2017	21:00	1.3	NE	25/06/2017	04:10	0.4	WSW
24/06/2017	13:55	4	W	24/06/2017	21:05	3.6	NNE	25/06/2017	04:15	1.8	NNE
24/06/2017	14:00	4	NE	24/06/2017	21:10	2.2	NE	25/06/2017	04:20	0.4	ENE
24/06/2017	14:05	1.3	NE	24/06/2017	21:15	3.1	NE	25/06/2017	04:25	2.2	E
24/06/2017	14:10	3.1	W	24/06/2017	21:20	1.8	ENE	25/06/2017	04:30	3.1	ENE

Extracted from the weather station at Tung Chung China State Site Office Rooftop

Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction
25/06/2017	04:35	2.2	E	25/06/2017	11:45	2.7	NE	25/06/2017	18:55	2.7	E
25/06/2017	04:40	3.1	ENE	25/06/2017	11:50	2.7	ENE	25/06/2017	19:00	1.8	ENE
25/06/2017	04:45	0.9	ENE	25/06/2017	11:55	1.8	E	25/06/2017	19:05	0.9	NW
25/06/2017	04:50	0.4	WSW	25/06/2017	12:00	0.4	ENE	25/06/2017	19:10	1.3	W
25/06/2017	04:55	2.2	ENE	25/06/2017	12:05	1.3	NNW	25/06/2017	19:15	2.7	NE
25/06/2017	05:00	0.4	WSW	25/06/2017	12:10	2.7	ENE	25/06/2017	19:20	2.7	ENE
25/06/2017	05:05	1.3	NNE	25/06/2017	12:15	0.4	E	25/06/2017	19:25	1.3	WSW
25/06/2017	05:10	1.3	NE	25/06/2017	12:20	2.2	ENE	25/06/2017	19:30	0.4	WSW
25/06/2017	05:15	0.9	W	25/06/2017	12:25	3.1	NE	25/06/2017	19:35	1.3	ENE
25/06/2017	05:20	0.9	WSW	25/06/2017	12:30	2.2	NNE	25/06/2017	19:40	1.8	W
25/06/2017	05:25	1.8	E	25/06/2017	12:35	0.4	E	25/06/2017	19:45	3.6	ENE
25/06/2017	05:30	1.3	E	25/06/2017	12:40	2.2	ENE	25/06/2017	19:50	0.9	WSW
25/06/2017	05:35	2.7	E	25/06/2017	12:45	0.4	WSW	25/06/2017	19:55	2.7	E
25/06/2017	05:40	1.8	E	25/06/2017	12:50	1.8	WNW	25/06/2017	20:00	0.4	ENE
25/06/2017	05:45	3.1	ENE	25/06/2017	12:55	0.4	ENE	25/06/2017	20:05	1.8	E
25/06/2017	05:50	1.8	NNE	25/06/2017	13:00	3.6	E	25/06/2017	20:10	2.2	ENE
25/06/2017	05:55	1.3	E	25/06/2017	13:05	2.2	ENE	25/06/2017	20:15	0.9	WNW
25/06/2017	06:00	0.9	W	25/06/2017	13:10	2.2	ENE	25/06/2017	20:20	1.3	NNE
25/06/2017	06:05	0.4	WSW	25/06/2017	13:15	2.7	ENE	25/06/2017	20:25	3.6	ENE
25/06/2017	06:10	0.9	W	25/06/2017	13:20	0.9	NW	25/06/2017	20:30	2.7	ENE
25/06/2017	06:15	2.7	ENE	25/06/2017	13:25	1.3	W	25/06/2017	20:35	1.3	NE
25/06/2017	06:20	1.8	NNE	25/06/2017	13:30	2.2	ENE	25/06/2017	20:40	0.9	N
25/06/2017	06:25	2.7	ENE	25/06/2017	13:35	2.7	E	25/06/2017	20:45	2.7	WSW
25/06/2017	06:30	1.3	NE	25/06/2017	13:40	2.7	E	25/06/2017	20:50	0.9	NNW
25/06/2017	06:35	2.7	ENE	25/06/2017	13:45	2.2	NE	25/06/2017	20:55	2.7	ENE
25/06/2017	06:40	1.3	NE	25/06/2017	13:50	0.9	NNE	25/06/2017	21:00	2.2	ENE
25/06/2017	06:45	1.8	W	25/06/2017	13:55	0.9	WSW	25/06/2017	21:05	0.4	N
25/06/2017	06:50	1.8	NNE	25/06/2017	14:00	1.3	NNW	25/06/2017	21:10	5.4	E
25/06/2017	06:55	0.9	ENE	25/06/2017	14:05	0.4	WSW	25/06/2017	21:15	1.8	WNW
25/06/2017	07:00	0.9	NE	25/06/2017	14:10	0.4	WSW	25/06/2017	21:20	2.2	E
25/06/2017	07:05	1.8	NNE	25/06/2017	14:15	1.3	NE	25/06/2017	21:25	3.1	ENE
25/06/2017	07:10	0.9	NE	25/06/2017	14:20	2.2	NNE	25/06/2017	21:30	1.8	NW
25/06/2017	07:15	1.3	WNW	25/06/2017	14:25	0.9	W	25/06/2017	21:35	0.4	ENE
25/06/2017	07:20	2.2	NNE	25/06/2017	14:30	2.7	WSW	25/06/2017	21:40	2.7	ENE
25/06/2017	07:25	1.8	NNE	25/06/2017	14:35	1.3	NE	25/06/2017	21:45	0.4	WSW
25/06/2017	07:30	2.2	ENE	25/06/2017	14:40	1.3	ENE	25/06/2017	21:50	2.2	ENE
25/06/2017	07:35	2.7	ENE	25/06/2017	14:45	0.4	SW	25/06/2017	21:55	0.9	WSW
25/06/2017	07:40	2.2	ENE	25/06/2017	14:50	0.4	W	25/06/2017	22:00	2.2	ENE
25/06/2017	07:45	0.4	WSW	25/06/2017	14:55	3.1	NE	25/06/2017	22:05	0.9	WSW
25/06/2017	07:50	2.7	NE	25/06/2017	15:00	1.3	NE	25/06/2017	22:10	2.2	NE
25/06/2017	07:55	1.3	NE	25/06/2017	15:05	2.2	E	25/06/2017	22:15	1.8	NE
25/06/2017	08:00	2.2	ENE	25/06/2017	15:10	1.8	ENE	25/06/2017	22:20	0.9	WSW
25/06/2017	08:05	2.7	ENE	25/06/2017	15:15	1.3	W	25/06/2017	22:25	1.3	ENE
25/06/2017	08:10	1.8	NE	25/06/2017	15:20	1.8	NNE	25/06/2017	22:30	3.1	NE
25/06/2017	08:15	2.2	NE	25/06/2017	15:25	2.7	E	25/06/2017	22:35	2.2	N
25/06/2017	08:20	0.9	NNE	25/06/2017	15:30	2.2	NE	25/06/2017	22:40	2.7	ENE
25/06/2017	08:25	1.8	ENE	25/06/2017	15:35	0.9	NE	25/06/2017	22:45	1.3	NE
25/06/2017	08:30	0.9	NW	25/06/2017	15:40	0.4	ENE	25/06/2017	22:50	2.2	ENE
25/06/2017	08:35	1.8	W	25/06/2017	15:45	1.3	W	25/06/2017	22:55	1.8	NNE
25/06/2017	08:40	2.2	NE	25/06/2017	15:50	1.3	NNW	25/06/2017	23:00	2.7	W
25/06/2017	08:45	0.4	WSW	25/06/2017	15:55	1.3	NE	25/06/2017	23:05	1.3	ENE
25/06/2017	08:50	2.7	ENE	25/06/2017	16:00	3.6	ENE	25/06/2017	23:10	1.3	NNE
25/06/2017	08:55	2.7	NNE	25/06/2017	16:05	2.2	E	25/06/2017	23:15	2.7	E
25/06/2017	09:00	0.9	WSW	25/06/2017	16:10	2.2	NE	25/06/2017	23:20	1.8	E
25/06/2017	09:05	1.3	WSW	25/06/2017	16:15	2.7	ENE	25/06/2017	23:25	1.8	NE
25/06/2017	09:10	0.9	WSW	25/06/2017	16:20	1.8	ENE	25/06/2017	23:30	1.3	NNW
25/06/2017	09:15	1.3	ENE	25/06/2017	16:25	0.9	ENE	25/06/2017	23:35	0.9	WSW
25/06/2017	09:20	2.7	ENE	25/06/2017	16:30	1.3	NE	25/06/2017	23:40	3.6	ENE
25/06/2017	09:25	2.2	E	25/06/2017	16:35	2.7	W	25/06/2017	23:45	1.8	NNE
25/06/2017	09:30	2.2	ENE	25/06/2017	16:40	0.9	ENE	25/06/2017	23:50	0.4	WSW
25/06/2017	09:35	0.9	NNW	25/06/2017	16:45	0.9	NNE	25/06/2017	23:55	3.1	NE
25/06/2017	09:40	1.8	NNE	25/06/2017	16:50	0.9	ENE	26/06/2017	00:00	0.9	ENE
25/06/2017	09:45	2.7	E	25/06/2017	16:55	2.2	ENE	26/06/2017	00:05	0.9	NNE
25/06/2017	09:50	1.3	ENE	25/06/2017	17:00	0.9	NE	26/06/2017	00:10	1.3	WSW
25/06/2017	09:55	2.2	W	25/06/2017	17:05	2.2	ENE	26/06/2017	00:15	1.8	ENE
25/06/2017	10:00	0.4	E	25/06/2017	17:10	1.3	W	26/06/2017	00:20	1.3	WNW
25/06/2017	10:05	2.7	NE	25/06/2017	17:15	1.8	ENE	26/06/2017	00:25	1.3	WNW
25/06/2017	10:10	2.7	E	25/06/2017	17:20	1.3	ENE	26/06/2017	00:30	0.4	ESE
25/06/2017	10:15	0.4	ESE	25/06/2017	17:25	3.1	ENE	26/06/2017	00:35	2.2	E
25/06/2017	10:20	0.9	ENE	25/06/2017	17:30	2.7	NE	26/06/2017	00:40	0.9	NNE
25/06/2017	10:25	0.4	WSW	25/06/2017	17:35	1.3	NE	26/06/2017	00:45	0.9	WNW
25/06/2017	10:30	2.7	E	25/06/2017	17:40	0.9	N	26/06/2017	00:50	1.8	ENE
25/06/2017	10:35	1.3	NNE	25/06/2017	17:45	0.9	E	26/06/2017	00:55	1.3	NNE
25/06/2017	10:40	1.3	NE	25/06/2017	17:50	1.8	E	26/06/2017	01:00	1.3	N
25/06/2017	10:45	2.2	WNW	25/06/2017	17:55	1.3	WNW	26/06/2017	01:05	2.7	NE
25/06/2017	10:50	2.2	E	25/06/2017	18:00	0.9	W	26/06/2017	01:10	3.1	E
25/06/2017	10:55	2.7	ENE	25/06/2017	18:05	2.7	ENE	26/06/2017	01:15	0.9	W
25/06/2017	11:00	0.4	W	25/06/2017	18:10	0.9	ENE	26/06/2017	01:20	3.6	NE
25/06/2017	11:05	2.2	ENE	25/06/2017	18:15	2.2	E	26/06/2017	01:25	1.3	WSW
25/06/2017	11:10	0.4	WSW	25/06/2017	18:20	2.7	ENE	26/06/2017	01:30	3.1	NE
25/06/2017	11:15	0.4	WSW	25/06/2017	18:25	1.8	ENE	26/06/2017	01:35	2.7	NE
25/06/2017	11:20	2.7	NE	25/06/2017	18:30	1.3	NE	26/06/2017	01:40	2.2	NE
25/06/2017	11:25	0.9	WNW	25/06/2017	18:35	0.4	E	26/06/2017	01:45	2.2	NE
25/06/2017	11:30	2.2	NE	25/06/2017	18:40	1.3	N	26/06/2017	01:50	3.1	ENE
25/06/2017	11:35	2.7	E	25/06/2017	18:45	1.8	NW	26/06/2017	01:55	0.4	WSW
25/06/2017	11:40	2.2	NE	25/06/2017	18:50	3.6	ENE	26/06/2017	02:00	2.2	ENE

Extracted from the weather station at Tung Chung China State Site Office Rooftop

Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction
26/06/2017	02:05	3.6	NE	26/06/2017	09:15	2.7	NNE	26/06/2017	16:25	4	E
26/06/2017	02:10	3.6	NE	26/06/2017	09:20	1.3	E	26/06/2017	16:30	2.2	NE
26/06/2017	02:15	2.7	NE	26/06/2017	09:25	2.2	NE	26/06/2017	16:35	1.3	W
26/06/2017	02:20	0.9	W	26/06/2017	09:30	2.7	ENE	26/06/2017	16:40	4	E
26/06/2017	02:25	3.6	ENE	26/06/2017	09:35	3.1	NE	26/06/2017	16:45	2.7	NE
26/06/2017	02:30	3.1	NE	26/06/2017	09:40	0.4	E	26/06/2017	16:50	1.8	E
26/06/2017	02:35	2.2	ENE	26/06/2017	09:45	3.1	ENE	26/06/2017	16:55	1.8	N
26/06/2017	02:40	3.1	NE	26/06/2017	09:50	1.3	WSW	26/06/2017	17:00	3.1	E
26/06/2017	02:45	1.3	W	26/06/2017	09:55	2.7	NE	26/06/2017	17:05	0.4	W
26/06/2017	02:50	0.9	W	26/06/2017	10:00	0.4	NNE	26/06/2017	17:10	0.4	W
26/06/2017	02:55	0.9	W	26/06/2017	10:05	1.3	W	26/06/2017	17:15	2.7	ENE
26/06/2017	03:00	1.8	NE	26/06/2017	10:10	0.9	WNW	26/06/2017	17:20	1.3	NW
26/06/2017	03:05	2.2	NNE	26/06/2017	10:15	3.1	NE	26/06/2017	17:25	0.9	W
26/06/2017	03:10	2.2	E	26/06/2017	10:20	1.8	NNE	26/06/2017	17:30	2.2	NE
26/06/2017	03:15	2.2	N	26/06/2017	10:25	1.3	SW	26/06/2017	17:35	3.1	ENE
26/06/2017	03:20	0.9	W	26/06/2017	10:30	0.4	NNE	26/06/2017	17:40	0.4	WSW
26/06/2017	03:25	3.1	ENE	26/06/2017	10:35	2.7	NE	26/06/2017	17:45	2.7	NNE
26/06/2017	03:30	1.3	E	26/06/2017	10:40	1.3	NNE	26/06/2017	17:50	1.3	ESE
26/06/2017	03:35	2.7	E	26/06/2017	10:45	1.3	WNW	26/06/2017	17:55	4	E
26/06/2017	03:40	3.1	ENE	26/06/2017	10:50	1.8	NNE	26/06/2017	18:00	1.3	WNW
26/06/2017	03:45	3.6	E	26/06/2017	10:55	1.8	W	26/06/2017	18:05	2.7	NE
26/06/2017	03:50	2.7	ENE	26/06/2017	11:00	3.1	NE	26/06/2017	18:10	4	NE
26/06/2017	03:55	0.9	WSW	26/06/2017	11:05	1.3	WNW	26/06/2017	18:15	4	E
26/06/2017	04:00	0.9	W	26/06/2017	11:10	2.2	E	26/06/2017	18:20	2.2	NE
26/06/2017	04:05	1.8	NE	26/06/2017	11:15	1.8	NNW	26/06/2017	18:25	1.8	NE
26/06/2017	04:10	2.7	ENE	26/06/2017	11:20	2.7	NNE	26/06/2017	18:30	3.1	ENE
26/06/2017	04:15	0.9	NE	26/06/2017	11:25	1.8	N	26/06/2017	18:35	2.7	E
26/06/2017	04:20	2.7	ENE	26/06/2017	11:30	2.2	NE	26/06/2017	18:40	1.3	WSW
26/06/2017	04:25	1.3	NE	26/06/2017	11:35	0.9	NE	26/06/2017	18:45	2.2	E
26/06/2017	04:30	0.9	WSW	26/06/2017	11:40	0.9	W	26/06/2017	18:50	0.9	NE
26/06/2017	04:35	0.9	NE	26/06/2017	11:45	1.3	NW	26/06/2017	18:55	3.1	ENE
26/06/2017	04:40	1.8	ESE	26/06/2017	11:50	1.3	W	26/06/2017	19:00	0.9	ENE
26/06/2017	04:45	3.1	NE	26/06/2017	11:55	1.8	NNE	26/06/2017	19:05	2.7	NE
26/06/2017	04:50	3.1	NE	26/06/2017	12:00	3.1	NE	26/06/2017	19:10	1.3	WSW
26/06/2017	04:55	2.7	NE	26/06/2017	12:05	2.2	NNE	26/06/2017	19:15	2.2	ENE
26/06/2017	05:00	3.1	ENE	26/06/2017	12:10	3.1	NE	26/06/2017	19:20	3.1	NE
26/06/2017	05:05	1.8	W	26/06/2017	12:15	0.4	NNW	26/06/2017	19:25	3.1	NE
26/06/2017	05:10	3.6	E	26/06/2017	12:20	1.8	NW	26/06/2017	19:30	3.6	NE
26/06/2017	05:15	0.4	ESE	26/06/2017	12:25	1.8	ENE	26/06/2017	19:35	2.7	NNE
26/06/2017	05:20	2.2	N	26/06/2017	12:30	0.4	WSW	26/06/2017	19:40	2.2	WNW
26/06/2017	05:25	3.6	NE	26/06/2017	12:35	2.2	WNW	26/06/2017	19:45	1.3	W
26/06/2017	05:30	0.4	NNW	26/06/2017	12:40	0.4	E	26/06/2017	19:50	2.7	ENE
26/06/2017	05:35	3.1	NE	26/06/2017	12:45	2.7	NNE	26/06/2017	19:55	2.2	NE
26/06/2017	05:40	1.3	ESE	26/06/2017	12:50	2.7	E	26/06/2017	20:00	2.2	ENE
26/06/2017	05:45	2.2	ENE	26/06/2017	12:55	2.7	NE	26/06/2017	20:05	2.2	NNE
26/06/2017	05:50	3.6	NE	26/06/2017	13:00	2.7	NE	26/06/2017	20:10	0.4	W
26/06/2017	05:55	2.2	N	26/06/2017	13:05	1.3	WSW	26/06/2017	20:15	3.6	E
26/06/2017	06:00	3.6	NE	26/06/2017	13:10	3.6	NE	26/06/2017	20:20	0.9	WSW
26/06/2017	06:05	3.6	E	26/06/2017	13:15	2.2	ENE	26/06/2017	20:25	2.7	N
26/06/2017	06:10	1.8	NE	26/06/2017	13:20	2.2	E	26/06/2017	20:30	2.7	WSW
26/06/2017	06:15	2.7	E	26/06/2017	13:25	1.8	NE	26/06/2017	20:35	2.7	ENE
26/06/2017	06:20	2.2	NNE	26/06/2017	13:30	0.4	W	26/06/2017	20:40	3.1	E
26/06/2017	06:25	1.3	W	26/06/2017	13:35	1.3	W	26/06/2017	20:45	0.4	NE
26/06/2017	06:30	2.2	W	26/06/2017	13:40	1.8	W	26/06/2017	20:50	1.8	ENE
26/06/2017	06:35	1.3	W	26/06/2017	13:45	1.3	WSW	26/06/2017	20:55	0.4	E
26/06/2017	06:40	1.8	WNW	26/06/2017	13:50	4	E	26/06/2017	21:00	2.7	ENE
26/06/2017	06:45	3.6	ENE	26/06/2017	13:55	2.2	W	26/06/2017	21:05	3.1	ENE
26/06/2017	06:50	0.9	NNE	26/06/2017	14:00	1.3	NW	26/06/2017	21:10	1.8	ENE
26/06/2017	06:55	2.2	ENE	26/06/2017	14:05	0.4	W	26/06/2017	21:15	0.9	NE
26/06/2017	07:00	2.2	ENE	26/06/2017	14:10	0.4	NE	26/06/2017	21:20	3.6	ENE
26/06/2017	07:05	1.8	WNW	26/06/2017	14:15	2.7	NE	26/06/2017	21:25	2.7	NE
26/06/2017	07:10	2.7	ENE	26/06/2017	14:20	2.2	NE	26/06/2017	21:30	1.3	N
26/06/2017	07:15	0.4	ESE	26/06/2017	14:25	2.7	NE	26/06/2017	21:35	1.8	W
26/06/2017	07:20	1.3	ENE	26/06/2017	14:30	4	NE	26/06/2017	21:40	0.9	WSW
26/06/2017	07:25	2.7	NE	26/06/2017	14:35	3.1	ENE	26/06/2017	21:45	2.2	ENE
26/06/2017	07:30	2.7	ENE	26/06/2017	14:40	0.4	W	26/06/2017	21:50	3.1	NE
26/06/2017	07:35	1.8	ENE	26/06/2017	14:45	3.1	NE	26/06/2017	21:55	0.4	ESE
26/06/2017	07:40	3.1	NE	26/06/2017	14:50	3.1	ENE	26/06/2017	22:00	1.3	ENE
26/06/2017	07:45	1.8	W	26/06/2017	14:55	0.4	W	26/06/2017	22:05	0.9	NE
26/06/2017	07:50	0.9	SW	26/06/2017	15:00	3.1	ENE	26/06/2017	22:10	4	ENE
26/06/2017	07:55	3.1	ENE	26/06/2017	15:05	2.2	WNW	26/06/2017	22:15	2.7	NE
26/06/2017	08:00	0.9	W	26/06/2017	15:10	3.1	NE	26/06/2017	22:20	2.2	ENE
26/06/2017	08:05	3.1	NE	26/06/2017	15:15	4	NE	26/06/2017	22:25	3.1	ENE
26/06/2017	08:10	1.3	W	26/06/2017	15:20	1.3	NW	26/06/2017	22:30	1.3	NE
26/06/2017	08:15	2.7	NE	26/06/2017	15:25	3.1	ENE	26/06/2017	22:35	2.2	E
26/06/2017	08:20	2.2	ENE	26/06/2017	15:30	2.2	ENE	26/06/2017	22:40	3.1	NE
26/06/2017	08:25	2.7	NNE	26/06/2017	15:35	1.8	E	26/06/2017	22:45	2.2	ENE
26/06/2017	08:30	2.7	NE	26/06/2017	15:40	0.9	NE	26/06/2017	22:50	2.7	ENE
26/06/2017	08:35	0.4	W	26/06/2017	15:45	1.8	E	26/06/2017	22:55	0.4	W
26/06/2017	08:40	0.4	W	26/06/2017	15:50	2.2	ENE	26/06/2017	23:00	2.7	N
26/06/2017	08:45	1.3	NNE	26/06/2017	15:55	4	NE	26/06/2017	23:05	0.4	W
26/06/2017	08:50	0.4	E	26/06/2017	16:00	2.2	E	26/06/2017	23:10	2.2	E
26/06/2017	08:55	2.2	NE	26/06/2017	16:05	2.2	N	26/06/2017	23:15	3.1	NE
26/06/2017	09:00	0.9	NE	26/06/2017	16:10	0.9	WSW	26/06/2017	23:20	0.4	W
26/06/2017	09:05	0.9	NE	26/06/2017	16:15	2.2	NE	26/06/2017	23:25	2.2	ENE
26/06/2017	09:10	0.9	WSW	26/06/2017	16:20	1.3	NE	26/06/2017	23:30	4	NE

Extracted from the weather station at Tung Chung China State Site Office Rooftop

Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction
26/06/2017	23:35	2.2	ENE	27/06/2017	06:45	0.4	WSW	27/06/2017	13:55	2.2	N
26/06/2017	23:40	0.9	NE	27/06/2017	06:50	1.3	N	27/06/2017	14:00	2.2	NNE
26/06/2017	23:45	2.7	E	27/06/2017	06:55	1.8	NW	27/06/2017	14:05	2.7	NE
26/06/2017	23:50	0.4	W	27/06/2017	07:00	0.4	W	27/06/2017	14:10	2.2	NE
26/06/2017	23:55	4	NE	27/06/2017	07:05	1.8	SW	27/06/2017	14:15	2.2	ENE
27/06/2017	00:00	2.7	NE	27/06/2017	07:10	0.4	W	27/06/2017	14:20	0.9	NNW
27/06/2017	00:05	3.6	WSW	27/06/2017	07:15	2.7	NE	27/06/2017	14:25	1.3	NW
27/06/2017	00:10	0.4	NE	27/06/2017	07:20	1.8	NE	27/06/2017	14:30	2.2	WSW
27/06/2017	00:15	1.8	NE	27/06/2017	07:25	2.2	NNE	27/06/2017	14:35	2.7	WNW
27/06/2017	00:20	0.4	SSW	27/06/2017	07:30	2.2	N	27/06/2017	14:40	2.7	ENE
27/06/2017	00:25	0.4	W	27/06/2017	07:35	0.4	NW	27/06/2017	14:45	4	W
27/06/2017	00:30	2.7	NE	27/06/2017	07:40	1.8	WNW	27/06/2017	14:50	3.1	ENE
27/06/2017	00:35	2.2	NE	27/06/2017	07:45	0.4	NNW	27/06/2017	14:55	2.7	E
27/06/2017	00:40	0.4	NE	27/06/2017	07:50	4	WSW	27/06/2017	15:00	1.3	W
27/06/2017	00:45	1.8	SW	27/06/2017	07:55	2.2	NE	27/06/2017	15:05	3.6	NE
27/06/2017	00:50	3.1	NE	27/06/2017	08:00	0.4	SW	27/06/2017	15:10	1.3	NNE
27/06/2017	00:55	4	W	27/06/2017	08:05	0.9	E	27/06/2017	15:15	0.9	SSW
27/06/2017	01:00	1.8	NNE	27/06/2017	08:10	2.2	NNE	27/06/2017	15:20	1.3	N
27/06/2017	01:05	0.9	NNE	27/06/2017	08:15	3.6	NE	27/06/2017	15:25	2.7	ENE
27/06/2017	01:10	3.6	WSW	27/06/2017	08:20	4	W	27/06/2017	15:30	2.2	NE
27/06/2017	01:15	0.9	NE	27/06/2017	08:25	2.2	WSW	27/06/2017	15:35	0.4	WNW
27/06/2017	01:20	1.8	ENE	27/06/2017	08:30	1.8	WNW	27/06/2017	15:40	2.7	WSW
27/06/2017	01:25	2.2	NE	27/06/2017	08:35	4	WSW	27/06/2017	15:45	1.3	WNW
27/06/2017	01:30	1.8	NE	27/06/2017	08:40	1.3	W	27/06/2017	15:50	1.3	E
27/06/2017	01:35	1.8	WSW	27/06/2017	08:45	1.8	NNE	27/06/2017	15:55	2.2	WSW
27/06/2017	01:40	0.4	W	27/06/2017	08:50	1.8	N	27/06/2017	16:00	3.1	NE
27/06/2017	01:45	0.4	NW	27/06/2017	08:55	1.3	NW	27/06/2017	16:05	0.4	SSW
27/06/2017	01:50	3.1	NE	27/06/2017	09:00	0.9	WSW	27/06/2017	16:10	2.2	NNE
27/06/2017	01:55	2.2	NNE	27/06/2017	09:05	0.4	W	27/06/2017	16:15	0.4	WNW
27/06/2017	02:00	0.9	ENE	27/06/2017	09:10	1.8	NE	27/06/2017	16:20	0.4	NE
27/06/2017	02:05	0.9	NNW	27/06/2017	09:15	0.9	W	27/06/2017	16:25	1.3	NE
27/06/2017	02:10	2.2	NE	27/06/2017	09:20	1.3	W	27/06/2017	16:30	0.9	W
27/06/2017	02:15	2.2	NE	27/06/2017	09:25	0.9	NNW	27/06/2017	16:35	0.4	WNW
27/06/2017	02:20	1.8	NW	27/06/2017	09:30	2.7	ENE	27/06/2017	16:40	0.9	NNW
27/06/2017	02:25	2.2	N	27/06/2017	09:35	0.4	WSW	27/06/2017	16:45	4	W
27/06/2017	02:30	1.3	WSW	27/06/2017	09:40	2.2	WNW	27/06/2017	16:50	2.7	W
27/06/2017	02:35	2.2	W	27/06/2017	09:45	1.3	WSW	27/06/2017	16:55	0.4	WNW
27/06/2017	02:40	1.3	WNW	27/06/2017	09:50	2.2	N	27/06/2017	17:00	0.4	W
27/06/2017	02:45	2.7	NE	27/06/2017	09:55	3.1	NE	27/06/2017	17:05	1.3	NNE
27/06/2017	02:50	0.4	SW	27/06/2017	10:00	2.2	NE	27/06/2017	17:10	0.4	W
27/06/2017	02:55	3.1	W	27/06/2017	10:05	2.2	NNE	27/06/2017	17:15	1.3	N
27/06/2017	03:00	1.8	WSW	27/06/2017	10:10	1.8	NNE	27/06/2017	17:20	1.3	N
27/06/2017	03:05	1.3	NW	27/06/2017	10:15	2.2	W	27/06/2017	17:25	1.3	NNE
27/06/2017	03:10	0.4	NE	27/06/2017	10:20	3.6	NE	27/06/2017	17:30	0.4	SW
27/06/2017	03:15	0.4	W	27/06/2017	10:25	1.8	WSW	27/06/2017	17:35	3.6	NE
27/06/2017	03:20	1.3	NE	27/06/2017	10:30	2.2	NNE	27/06/2017	17:40	2.7	NNE
27/06/2017	03:25	1.8	SW	27/06/2017	10:35	1.8	NNE	27/06/2017	17:45	1.8	ENE
27/06/2017	03:30	1.3	NNE	27/06/2017	10:40	1.8	NNE	27/06/2017	17:50	2.2	NE
27/06/2017	03:35	0.9	W	27/06/2017	10:45	0.4	WNW	27/06/2017	17:55	1.8	NNE
27/06/2017	03:40	2.2	N	27/06/2017	10:50	3.6	NE	27/06/2017	18:00	3.6	NE
27/06/2017	03:45	2.2	N	27/06/2017	10:55	0.4	W	27/06/2017	18:05	4	WNW
27/06/2017	03:50	0.4	WNW	27/06/2017	11:00	2.2	NNE	27/06/2017	18:10	0.4	SW
27/06/2017	03:55	1.3	NE	27/06/2017	11:05	0.4	NE	27/06/2017	18:15	3.1	ENE
27/06/2017	04:00	2.2	NE	27/06/2017	11:10	1.8	E	27/06/2017	18:20	1.8	W
27/06/2017	04:05	2.7	NE	27/06/2017	11:15	1.8	N	27/06/2017	18:25	0.9	NNE
27/06/2017	04:10	0.4	SSW	27/06/2017	11:20	3.1	W	27/06/2017	18:30	1.3	NE
27/06/2017	04:15	1.3	WNW	27/06/2017	11:25	2.7	NE	27/06/2017	18:35	0.9	SSW
27/06/2017	04:20	1.3	NE	27/06/2017	11:30	3.1	NE	27/06/2017	18:40	3.6	WSW
27/06/2017	04:25	3.1	NE	27/06/2017	11:35	1.8	W	27/06/2017	18:45	1.3	NE
27/06/2017	04:30	1.8	N	27/06/2017	11:40	0.4	NE	27/06/2017	18:50	1.8	N
27/06/2017	04:35	3.6	NE	27/06/2017	11:45	0.4	SSW	27/06/2017	18:55	0.4	NE
27/06/2017	04:40	2.2	NNE	27/06/2017	11:50	1.8	NE	27/06/2017	19:00	4	W
27/06/2017	04:45	0.9	NNE	27/06/2017	11:55	3.6	WSW	27/06/2017	19:05	2.7	NE
27/06/2017	04:50	1.3	WNW	27/06/2017	12:00	0.4	SW	27/06/2017	19:10	0.4	W
27/06/2017	04:55	1.8	WSW	27/06/2017	12:05	0.4	SSW	27/06/2017	19:15	1.8	WSW
27/06/2017	05:00	0.9	SW	27/06/2017	12:10	1.3	WNW	27/06/2017	19:20	1.3	SW
27/06/2017	05:05	0.9	NE	27/06/2017	12:15	0.9	NW	27/06/2017	19:25	2.2	W
27/06/2017	05:10	1.3	NNW	27/06/2017	12:20	0.4	WSW	27/06/2017	19:30	2.2	NE
27/06/2017	05:15	2.2	NNE	27/06/2017	12:25	0.9	W	27/06/2017	19:35	1.8	NE
27/06/2017	05:20	0.9	E	27/06/2017	12:30	1.3	NNE	27/06/2017	19:40	1.3	SW
27/06/2017	05:25	1.3	N	27/06/2017	12:35	0.9	NW	27/06/2017	19:45	2.2	WNW
27/06/2017	05:30	3.1	NE	27/06/2017	12:40	2.7	N	27/06/2017	19:50	3.1	ENE
27/06/2017	05:35	0.9	SSW	27/06/2017	12:45	2.2	W	27/06/2017	19:55	1.3	WNW
27/06/2017	05:40	1.8	NE	27/06/2017	12:50	3.1	NE	27/06/2017	20:00	1.8	NNW
27/06/2017	05:45	1.3	NNE	27/06/2017	12:55	3.6	NE	27/06/2017	20:05	0.4	SSW
27/06/2017	05:50	0.4	E	27/06/2017	13:00	2.2	WSW	27/06/2017	20:10	1.3	NNE
27/06/2017	05:55	1.3	E	27/06/2017	13:05	0.4	WNW	27/06/2017	20:15	1.3	N
27/06/2017	06:00	0.9	NE	27/06/2017	13:10	1.3	NNE	27/06/2017	20:20	0.4	N
27/06/2017	06:05	1.3	SW	27/06/2017	13:15	1.3	N	27/06/2017	20:25	1.8	N
27/06/2017	06:10	2.7	NE	27/06/2017	13:20	1.3	WNW	27/06/2017	20:30	2.2	NNE
27/06/2017	06:15	2.2	W	27/06/2017	13:25	4	WSW	27/06/2017	20:35	1.3	WSW
27/06/2017	06:20	1.3	NNE	27/06/2017	13:30	0.4	SW	27/06/2017	20:40	0.4	NE
27/06/2017	06:25	1.8	WSW	27/06/2017	13:35	1.8	W	27/06/2017	20:45	1.8	N
27/06/2017	06:30	3.6	NE	27/06/2017	13:40	1.3	ENE	27/06/2017	20:50	2.7	ENE
27/06/2017	06:35	0.4	WSW	27/06/2017	13:45	3.6	NE	27/06/2017	20:55	3.1	NE
27/06/2017	06:40	3.1	NE	27/06/2017	13:50	1.3	NW	27/06/2017	21:00	1.3	W

Extracted from the weather station at Tung Chung China State Site Office Rooftop

Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction
27/06/2017	21:05	0.4	E	28/06/2017	04:15	2.2	WNW	28/06/2017	11:25	0.9	N
27/06/2017	21:10	0.4	WNW	28/06/2017	04:20	0.4	N	28/06/2017	11:30	1.3	NE
27/06/2017	21:15	3.6	WSW	28/06/2017	04:25	1.3	NE	28/06/2017	11:35	0.9	N
27/06/2017	21:20	3.1	NE	28/06/2017	04:30	1.8	ESE	28/06/2017	11:40	1.3	WNW
27/06/2017	21:25	1.3	WSW	28/06/2017	04:35	2.2	W	28/06/2017	11:45	0.4	N
27/06/2017	21:30	2.7	ENE	28/06/2017	04:40	0.4	SW	28/06/2017	11:50	0.9	SW
27/06/2017	21:35	0.4	W	28/06/2017	04:45	2.2	ENE	28/06/2017	11:55	2.7	NE
27/06/2017	21:40	1.3	N	28/06/2017	04:50	3.6	WNW	28/06/2017	12:00	2.2	W
27/06/2017	21:45	3.1	NE	28/06/2017	04:55	0.9	W	28/06/2017	12:05	2.7	W
27/06/2017	21:50	1.8	N	28/06/2017	05:00	1.8	NNE	28/06/2017	12:10	0.4	NNW
27/06/2017	21:55	1.3	NW	28/06/2017	05:05	1.8	NE	28/06/2017	12:15	1.8	W
27/06/2017	22:00	1.3	N	28/06/2017	05:10	0.4	N	28/06/2017	12:20	3.6	W
27/06/2017	22:05	3.1	ENE	28/06/2017	05:15	1.8	NNE	28/06/2017	12:25	0.9	W
27/06/2017	22:10	3.1	NE	28/06/2017	05:20	0.9	SW	28/06/2017	12:30	3.1	E
27/06/2017	22:15	3.1	NE	28/06/2017	05:25	2.2	NE	28/06/2017	12:35	0.9	ESE
27/06/2017	22:20	3.6	NE	28/06/2017	05:30	0.4	WNW	28/06/2017	12:40	1.8	NW
27/06/2017	22:25	2.2	WSW	28/06/2017	05:35	0.4	SW	28/06/2017	12:45	0.4	E
27/06/2017	22:30	3.6	NE	28/06/2017	05:40	3.6	NE	28/06/2017	12:50	1.3	ENE
27/06/2017	22:35	0.4	NNW	28/06/2017	05:45	3.6	NE	28/06/2017	12:55	1.8	WNW
27/06/2017	22:40	1.8	W	28/06/2017	05:50	0.9	N	28/06/2017	13:00	2.2	NNE
27/06/2017	22:45	4	NE	28/06/2017	05:55	0.4	WNW	28/06/2017	13:05	1.3	W
27/06/2017	22:50	2.2	NE	28/06/2017	06:00	2.7	WNW	28/06/2017	13:10	0.4	NNW
27/06/2017	22:55	1.8	W	28/06/2017	06:05	0.9	NE	28/06/2017	13:15	0.4	ENE
27/06/2017	23:00	0.4	SSW	28/06/2017	06:10	0.4	WNW	28/06/2017	13:20	0.4	W
27/06/2017	23:05	2.7	NE	28/06/2017	06:15	2.2	WNW	28/06/2017	13:25	2.2	NE
27/06/2017	23:10	0.9	SSW	28/06/2017	06:20	1.8	W	28/06/2017	13:30	3.1	W
27/06/2017	23:15	4	W	28/06/2017	06:25	0.4	E	28/06/2017	13:35	1.8	ENE
27/06/2017	23:20	1.8	WNW	28/06/2017	06:30	1.3	W	28/06/2017	13:40	2.7	ENE
27/06/2017	23:25	2.2	W	28/06/2017	06:35	1.3	SE	28/06/2017	13:45	3.1	NE
27/06/2017	23:30	0.9	N	28/06/2017	06:40	1.3	ENE	28/06/2017	13:50	0.4	SW
27/06/2017	23:35	0.9	NNE	28/06/2017	06:45	1.3	ENE	28/06/2017	13:55	3.6	NE
27/06/2017	23:40	0.9	SSW	28/06/2017	06:50	0.9	SW	28/06/2017	14:00	0.9	SSW
27/06/2017	23:45	2.2	W	28/06/2017	06:55	3.1	ENE	28/06/2017	14:05	2.2	NE
27/06/2017	23:50	0.9	NW	28/06/2017	07:00	0.9	SW	28/06/2017	14:10	1.8	NNE
27/06/2017	23:55	1.8	NNE	28/06/2017	07:05	3.1	ENE	28/06/2017	14:15	3.6	NE
28/06/2017	00:00	1.8	NNE	28/06/2017	07:10	1.3	E	28/06/2017	14:20	1.8	NE
28/06/2017	00:05	0.9	NE	28/06/2017	07:15	2.7	WSW	28/06/2017	14:25	1.8	ESE
28/06/2017	00:10	2.7	NE	28/06/2017	07:20	0.9	SSW	28/06/2017	14:30	0.9	N
28/06/2017	00:15	2.2	W	28/06/2017	07:25	0.4	SW	28/06/2017	14:35	4	NE
28/06/2017	00:20	2.7	NE	28/06/2017	07:30	1.3	NE	28/06/2017	14:40	0.9	NNE
28/06/2017	00:25	1.8	NNE	28/06/2017	07:35	1.3	NE	28/06/2017	14:45	1.3	SE
28/06/2017	00:30	1.8	W	28/06/2017	07:40	2.7	W	28/06/2017	14:50	2.2	WNW
28/06/2017	00:35	1.3	W	28/06/2017	07:45	2.2	NE	28/06/2017	14:55	1.3	NNE
28/06/2017	00:40	1.8	NNE	28/06/2017	07:50	0.4	WSW	28/06/2017	15:00	1.8	NE
28/06/2017	00:45	1.8	NE	28/06/2017	07:55	0.4	ENE	28/06/2017	15:05	1.8	W
28/06/2017	00:50	2.7	NE	28/06/2017	08:00	1.8	NW	28/06/2017	15:10	0.9	SW
28/06/2017	00:55	3.6	NE	28/06/2017	08:05	2.7	NE	28/06/2017	15:15	1.3	NE
28/06/2017	01:00	0.9	SSW	28/06/2017	08:10	1.8	ENE	28/06/2017	15:20	0.4	ESE
28/06/2017	01:05	1.3	N	28/06/2017	08:15	3.6	ENE	28/06/2017	15:25	2.2	W
28/06/2017	01:10	1.3	NE	28/06/2017	08:20	3.1	W	28/06/2017	15:30	1.8	W
28/06/2017	01:15	3.6	NE	28/06/2017	08:25	2.2	WNW	28/06/2017	15:35	1.3	NNE
28/06/2017	01:20	3.1	W	28/06/2017	08:30	4	NE	28/06/2017	15:40	1.3	NE
28/06/2017	01:25	1.3	NNE	28/06/2017	08:35	2.2	NE	28/06/2017	15:45	1.3	WSW
28/06/2017	01:30	1.3	NE	28/06/2017	08:40	0.9	SW	28/06/2017	15:50	0.9	W
28/06/2017	01:35	1.8	WNW	28/06/2017	08:45	2.7	WNW	28/06/2017	15:55	0.9	NW
28/06/2017	01:40	2.2	WNW	28/06/2017	08:50	1.3	N	28/06/2017	16:00	0.4	WSW
28/06/2017	01:45	0.9	SW	28/06/2017	08:55	0.4	NW	28/06/2017	16:05	0.9	NE
28/06/2017	01:50	3.6	NE	28/06/2017	09:00	1.8	NNE	28/06/2017	16:10	1.3	W
28/06/2017	01:55	1.3	WSW	28/06/2017	09:05	0.4	WSW	28/06/2017	16:15	0.4	SW
28/06/2017	02:00	3.1	NE	28/06/2017	09:10	3.6	NE	28/06/2017	16:20	0.9	NNE
28/06/2017	02:05	1.8	WNW	28/06/2017	09:15	0.4	NNW	28/06/2017	16:25	0.4	E
28/06/2017	02:10	0.9	NNE	28/06/2017	09:20	2.7	NE	28/06/2017	16:30	0.4	ENE
28/06/2017	02:15	1.8	WSW	28/06/2017	09:25	2.2	W	28/06/2017	16:35	2.2	WNW
28/06/2017	02:20	0.4	ENE	28/06/2017	09:30	1.8	N	28/06/2017	16:40	1.8	WNW
28/06/2017	02:25	3.1	W	28/06/2017	09:35	0.9	N	28/06/2017	16:45	3.6	NE
28/06/2017	02:30	1.8	NNE	28/06/2017	09:40	0.9	W	28/06/2017	16:50	2.7	W
28/06/2017	02:35	1.8	ENE	28/06/2017	09:45	3.6	NE	28/06/2017	16:55	1.8	NE
28/06/2017	02:40	1.3	NE	28/06/2017	09:50	1.8	W	28/06/2017	17:00	0.9	SW
28/06/2017	02:45	1.8	NNE	28/06/2017	09:55	0.9	NW	28/06/2017	17:05	3.6	NE
28/06/2017	02:50	0.4	ENE	28/06/2017	10:00	2.7	WNW	28/06/2017	17:10	0.4	NNW
28/06/2017	02:55	1.3	WNW	28/06/2017	10:05	2.7	ENE	28/06/2017	17:15	0.4	WSW
28/06/2017	03:00	0.4	ENE	28/06/2017	10:10	1.8	NW	28/06/2017	17:20	1.8	NE
28/06/2017	03:05	2.2	NE	28/06/2017	10:15	3.1	WSW	28/06/2017	17:25	1.3	NE
28/06/2017	03:10	1.8	NE	28/06/2017	10:20	1.3	ENE	28/06/2017	17:30	1.8	NE
28/06/2017	03:15	3.1	W	28/06/2017	10:25	0.4	WSW	28/06/2017	17:35	2.7	NE
28/06/2017	03:20	0.4	WSW	28/06/2017	10:30	2.7	W	28/06/2017	17:40	2.2	ENE
28/06/2017	03:25	2.7	WSW	28/06/2017	10:35	0.4	SSW	28/06/2017	17:45	2.2	WNW
28/06/2017	03:30	1.8	WNW	28/06/2017	10:40	2.7	ENE	28/06/2017	17:50	2.7	E
28/06/2017	03:35	0.4	NW	28/06/2017	10:45	0.4	SW	28/06/2017	17:55	1.3	W
28/06/2017	03:40	0.4	SW	28/06/2017	10:50	2.2	NE	28/06/2017	18:00	0.9	SSW
28/06/2017	03:45	2.7	E	28/06/2017	10:55	0.4	ESE	28/06/2017	18:05	4	NE
28/06/2017	03:50	1.8	NNE	28/06/2017	11:00	0.4	WSW	28/06/2017	18:10	0.9	NNE
28/06/2017	03:55	1.8	NE	28/06/2017	11:05	1.8	ENE	28/06/2017	18:15	3.1	NE
28/06/2017	04:00	2.2	NE	28/06/2017	11:10	0.4	SW	28/06/2017	18:20	1.8	ENE
28/06/2017	04:05	2.2	NE	28/06/2017	11:15	2.7	NE	28/06/2017	18:25	0.9	NNE
28/06/2017	04:10	1.3	W	28/06/2017	11:20	0.4	WNW	28/06/2017	18:30	0.4	ENE



Extracted from the weather station at Tung Chung China State Site Office Rooftop

Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction
28/06/2017	18:35	0.4	NNW	29/06/2017	01:45	2.2	NE	29/06/2017	08:55	3.6	E
28/06/2017	18:40	2.7	WNW	29/06/2017	01:50	1.3	ENE	29/06/2017	09:00	1.3	NW
28/06/2017	18:45	0.4	NE	29/06/2017	01:55	0.4	NE	29/06/2017	09:05	1.3	E
28/06/2017	18:50	2.7	NE	29/06/2017	02:00	2.7	ENE	29/06/2017	09:10	1.3	ENE
28/06/2017	18:55	0.9	NW	29/06/2017	02:05	2.2	NNE	29/06/2017	09:15	3.1	NE
28/06/2017	19:00	2.7	NE	29/06/2017	02:10	2.2	NNE	29/06/2017	09:20	1.3	E
28/06/2017	19:05	2.7	NE	29/06/2017	02:15	1.3	WSW	29/06/2017	09:25	1.3	NNE
28/06/2017	19:10	3.6	NE	29/06/2017	02:20	1.8	NNE	29/06/2017	09:30	1.8	NNE
28/06/2017	19:15	0.4	SW	29/06/2017	02:25	1.8	ENE	29/06/2017	09:35	0.9	N
28/06/2017	19:20	1.3	NE	29/06/2017	02:30	1.3	NNE	29/06/2017	09:40	0.4	NE
28/06/2017	19:25	0.9	N	29/06/2017	02:35	0.9	NNE	29/06/2017	09:45	3.1	NE
28/06/2017	19:30	1.8	NE	29/06/2017	02:40	2.2	E	29/06/2017	09:50	0.9	W
28/06/2017	19:35	0.4	NNW	29/06/2017	02:45	2.2	NE	29/06/2017	09:55	2.2	NE
28/06/2017	19:40	3.1	W	29/06/2017	02:50	2.7	NE	29/06/2017	10:00	1.8	E
28/06/2017	19:45	1.3	NE	29/06/2017	02:55	0.9	ENE	29/06/2017	10:05	1.3	NNE
28/06/2017	19:50	1.8	W	29/06/2017	03:00	0.9	ENE	29/06/2017	10:10	0.4	WSW
28/06/2017	19:55	1.8	NE	29/06/2017	03:05	2.7	WSW	29/06/2017	10:15	0.4	SSE
28/06/2017	20:00	0.4	W	29/06/2017	03:10	1.3	NE	29/06/2017	10:20	1.8	E
28/06/2017	20:05	3.6	W	29/06/2017	03:15	0.9	ESE	29/06/2017	10:25	1.3	WNW
28/06/2017	20:10	2.7	WNW	29/06/2017	03:20	1.3	N	29/06/2017	10:30	0.9	NE
28/06/2017	20:15	3.1	W	29/06/2017	03:25	0.4	WSW	29/06/2017	10:35	1.3	NNE
28/06/2017	20:20	3.1	ENE	29/06/2017	03:30	2.7	ENE	29/06/2017	10:40	1.3	WNW
28/06/2017	20:25	2.7	NE	29/06/2017	03:35	2.2	NNE	29/06/2017	10:45	2.2	NE
28/06/2017	20:30	0.4	WSW	29/06/2017	03:40	1.8	N	29/06/2017	10:50	2.7	NE
28/06/2017	20:35	2.7	WSW	29/06/2017	03:45	1.8	W	29/06/2017	10:55	0.9	SW
28/06/2017	20:40	2.2	W	29/06/2017	03:50	2.7	ENE	29/06/2017	11:00	0.4	NNE
28/06/2017	20:45	3.6	NE	29/06/2017	03:55	2.2	NE	29/06/2017	11:05	2.2	NE
28/06/2017	20:50	2.2	NE	29/06/2017	04:00	1.8	ENE	29/06/2017	11:10	1.8	N
28/06/2017	20:55	2.7	NE	29/06/2017	04:05	0.4	E	29/06/2017	11:15	0.9	NE
28/06/2017	21:00	0.9	NNE	29/06/2017	04:10	1.3	E	29/06/2017	11:20	1.3	W
28/06/2017	21:05	1.8	WNW	29/06/2017	04:15	0.9	NE	29/06/2017	11:25	1.8	NE
28/06/2017	21:10	3.1	W	29/06/2017	04:20	2.2	NE	29/06/2017	11:30	3.1	NE
28/06/2017	21:15	0.4	NE	29/06/2017	04:25	1.3	ENE	29/06/2017	11:35	0.4	NNE
28/06/2017	21:20	0.4	SSW	29/06/2017	04:30	2.2	ENE	29/06/2017	11:40	2.2	W
28/06/2017	21:25	1.8	WNW	29/06/2017	04:35	1.8	ENE	29/06/2017	11:45	0.9	NE
28/06/2017	21:30	3.1	W	29/06/2017	04:40	1.3	N	29/06/2017	11:50	3.1	NE
28/06/2017	21:35	0.4	WNW	29/06/2017	04:45	2.2	NE	29/06/2017	11:55	1.3	E
28/06/2017	21:40	3.1	ENE	29/06/2017	04:50	2.2	ENE	29/06/2017	12:00	3.1	NE
28/06/2017	21:45	1.3	WNW	29/06/2017	04:55	0.9	NE	29/06/2017	12:05	1.3	W
28/06/2017	21:50	3.6	WNW	29/06/2017	05:00	1.8	NE	29/06/2017	12:10	3.6	NE
28/06/2017	21:55	1.8	W	29/06/2017	05:05	0.9	NE	29/06/2017	12:15	0.4	NNW
28/06/2017	22:00	0.9	NNE	29/06/2017	05:10	0.4	SSW	29/06/2017	12:20	0.9	NW
28/06/2017	22:05	0.4	SW	29/06/2017	05:15	2.7	E	29/06/2017	12:25	0.9	W
28/06/2017	22:10	2.7	WNW	29/06/2017	05:20	1.8	E	29/06/2017	12:30	0.9	NE
28/06/2017	22:15	1.8	WNW	29/06/2017	05:25	0.9	NNE	29/06/2017	12:35	0.4	WSW
28/06/2017	22:20	1.8	W	29/06/2017	05:30	0.4	NE	29/06/2017	12:40	0.9	NE
28/06/2017	22:25	1.8	NW	29/06/2017	05:35	2.7	NE	29/06/2017	12:45	1.8	NE
28/06/2017	22:30	0.4	SSW	29/06/2017	05:40	0.9	NE	29/06/2017	12:50	3.6	E
28/06/2017	22:35	0.4	SSW	29/06/2017	05:45	0.9	ESE	29/06/2017	12:55	1.3	E
28/06/2017	22:40	0.9	WNW	29/06/2017	05:50	0.9	NE	29/06/2017	13:00	0.9	S
28/06/2017	22:45	2.2	W	29/06/2017	05:55	1.8	N	29/06/2017	13:05	2.2	NE
28/06/2017	22:50	0.9	NNE	29/06/2017	06:00	0.4	S	29/06/2017	13:10	1.3	ENE
28/06/2017	22:55	2.2	WNW	29/06/2017	06:05	0.4	ENE	29/06/2017	13:15	0.9	W
28/06/2017	23:00	0.9	SW	29/06/2017	06:10	1.3	NNW	29/06/2017	13:20	2.2	E
28/06/2017	23:05	0.4	SW	29/06/2017	06:15	4	NE	29/06/2017	13:25	3.6	NE
28/06/2017	23:10	1.3	W	29/06/2017	06:20	1.8	N	29/06/2017	13:30	0.4	NE
28/06/2017	23:15	1.3	WSW	29/06/2017	06:25	2.7	NE	29/06/2017	13:35	0.9	NE
28/06/2017	23:20	0.4	WSW	29/06/2017	06:30	1.8	ENE	29/06/2017	13:40	2.2	NNE
28/06/2017	23:25	0.4	SW	29/06/2017	06:35	1.8	NE	29/06/2017	13:45	0.4	NE
28/06/2017	23:30	0.4	W	29/06/2017	06:40	1.8	N	29/06/2017	13:50	2.2	W
28/06/2017	23:35	0.9	NNE	29/06/2017	06:45	0.4	ESE	29/06/2017	13:55	2.2	ENE
28/06/2017	23:40	3.1	NE	29/06/2017	06:50	0.4	NE	29/06/2017	14:00	3.6	NE
28/06/2017	23:45	2.7	NE	29/06/2017	06:55	0.4	SW	29/06/2017	14:05	1.8	E
28/06/2017	23:50	0.9	NNE	29/06/2017	07:00	0.4	WSW	29/06/2017	14:10	1.8	W
28/06/2017	23:55	1.8	WNW	29/06/2017	07:05	0.4	ENE	29/06/2017	14:15	1.3	ENE
29/06/2017	00:00	1.3	NE	29/06/2017	07:10	1.3	W	29/06/2017	14:20	1.8	ENE
29/06/2017	00:05	1.3	WNW	29/06/2017	07:15	0.9	E	29/06/2017	14:25	1.3	W
29/06/2017	00:10	1.8	NW	29/06/2017	07:20	0.9	NE	29/06/2017	14:30	1.8	ENE
29/06/2017	00:15	2.2	NE	29/06/2017	07:25	0.9	E	29/06/2017	14:35	0.9	NE
29/06/2017	00:20	1.3	NE	29/06/2017	07:30	2.2	E	29/06/2017	14:40	1.8	N
29/06/2017	00:25	2.7	NE	29/06/2017	07:35	2.2	NE	29/06/2017	14:45	0.4	ENE
29/06/2017	00:30	2.7	E	29/06/2017	07:40	0.9	W	29/06/2017	14:50	3.6	NE
29/06/2017	00:35	0.4	NNE	29/06/2017	07:45	2.2	NNE	29/06/2017	14:55	2.7	WSW
29/06/2017	00:40	1.8	NE	29/06/2017	07:50	1.3	E	29/06/2017	15:00	1.8	ENE
29/06/2017	00:45	1.8	E	29/06/2017	07:55	1.8	E	29/06/2017	15:05	2.2	NE
29/06/2017	00:50	1.8	ENE	29/06/2017	08:00	0.4	ESE	29/06/2017	15:10	0.9	SSW
29/06/2017	00:55	1.3	W	29/06/2017	08:05	0.9	NNW	29/06/2017	15:15	2.2	NE
29/06/2017	01:00	2.2	E	29/06/2017	08:10	2.7	NE	29/06/2017	15:20	0.9	E
29/06/2017	01:05	1.3	NE	29/06/2017	08:15	1.8	ENE	29/06/2017	15:25	1.8	WSW
29/06/2017	01:10	3.6	NE	29/06/2017	08:20	1.3	E	29/06/2017	15:30	1.8	E
29/06/2017	01:15	0.4	NE	29/06/2017	08:25	1.8	NNE	29/06/2017	15:35	2.7	ENE
29/06/2017	01:20	1.8	NE	29/06/2017	08:30	3.1	ENE	29/06/2017	15:40	0.4	NE
29/06/2017	01:25	1.3	NE	29/06/2017	08:35	1.8	NNE	29/06/2017	15:45	1.3	W
29/06/2017	01:30	1.8	NNE	29/06/2017	08:40	0.4	WSW	29/06/2017	15:50	0.9	W
29/06/2017	01:35	0.4	NNW	29/06/2017	08:45	0.9	W	29/06/2017	15:55	1.8	NE
29/06/2017	01:40	0.9	ENE	29/06/2017	08:50	0.9	NW	29/06/2017	16:00	2.7	WSW

Extracted from the weather station at Tung Chung China State Site Office Rooftop

Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction	Date (dd/mm/yyyy)	Time	Wind Speed (m/s)	Wind Direction
29/06/2017	16:05	2.2	W	29/06/2017	23:15	1.8	NNE	30/06/2017	06:25	2.2	WNW
29/06/2017	16:10	0.4	WSW	29/06/2017	23:20	1.8	NE	30/06/2017	06:30	2.2	W
29/06/2017	16:15	0.4	NE	29/06/2017	23:25	0.4	WNW	30/06/2017	06:35	2.2	ENE
29/06/2017	16:20	0.4	NE	29/06/2017	23:30	1.8	NE	30/06/2017	06:40	2.2	W
29/06/2017	16:25	1.3	NE	29/06/2017	23:35	0.9	NNW	30/06/2017	06:45	0.9	E
29/06/2017	16:30	1.3	ENE	29/06/2017	23:40	0.9	NW	30/06/2017	06:50	0.9	E
29/06/2017	16:35	1.8	WNW	29/06/2017	23:45	0.9	NE	30/06/2017	06:55	2.2	W
29/06/2017	16:40	2.2	ENE	29/06/2017	23:50	0.4	NE	30/06/2017	07:00	2.2	NE
29/06/2017	16:45	1.3	N	29/06/2017	23:55	0.4	WSW	30/06/2017	07:05	1.8	WSW
29/06/2017	16:50	2.7	NE	30/06/2017	00:00	0.4	NNE	30/06/2017	07:10	0.4	SSW
29/06/2017	16:55	1.8	E	30/06/2017	00:05	1.8	NNE	30/06/2017	07:15	0.9	NE
29/06/2017	17:00	2.2	W	30/06/2017	00:10	3.1	W	30/06/2017	07:20	2.2	NE
29/06/2017	17:05	0.9	NNE	30/06/2017	00:15	0.9	WSW	30/06/2017	07:25	0.9	WSW
29/06/2017	17:10	0.9	ENE	30/06/2017	00:20	0.9	E	30/06/2017	07:30	0.4	ESE
29/06/2017	17:15	0.9	NE	30/06/2017	00:25	0.4	SSW	30/06/2017	07:35	0.9	WSW
29/06/2017	17:20	0.9	W	30/06/2017	00:30	0.9	SW	30/06/2017	07:40	0.9	SSW
29/06/2017	17:25	0.4	E	30/06/2017	00:35	1.8	W	30/06/2017	07:45	0.9	SW
29/06/2017	17:30	0.9	ESE	30/06/2017	00:40	2.2	W	30/06/2017	07:50	0.4	ESE
29/06/2017	17:35	1.8	NNE	30/06/2017	00:45	1.8	NE	30/06/2017	07:55	0.9	ENE
29/06/2017	17:40	1.8	NE	30/06/2017	00:50	1.8	SW	30/06/2017	08:00	0.9	SW
29/06/2017	17:45	0.9	N	30/06/2017	00:55	1.8	W	30/06/2017	08:05	0.4	WSW
29/06/2017	17:50	1.3	NNW	30/06/2017	01:00	2.7	NE	30/06/2017	08:10	1.3	WNW
29/06/2017	17:55	0.4	NW	30/06/2017	01:05	2.7	NE	30/06/2017	08:15	1.8	WNW
29/06/2017	18:00	0.9	ESE	30/06/2017	01:10	0.9	SSW	30/06/2017	08:20	0.9	NW
29/06/2017	18:05	0.9	NW	30/06/2017	01:15	2.2	WNW	30/06/2017	08:25	0.9	NNE
29/06/2017	18:10	1.8	NE	30/06/2017	01:20	2.7	NE	30/06/2017	08:30	1.8	NE
29/06/2017	18:15	3.1	NE	30/06/2017	01:25	0.4	ESE	30/06/2017	08:35	1.3	NNE
29/06/2017	18:20	3.1	WSW	30/06/2017	01:30	2.2	W	30/06/2017	08:40	0.4	ESE
29/06/2017	18:25	1.3	N	30/06/2017	01:35	1.3	NE	30/06/2017	08:45	1.8	WNW
29/06/2017	18:30	2.2	NNE	30/06/2017	01:40	2.7	ENE	30/06/2017	08:50	2.2	NNE
29/06/2017	18:35	3.6	NE	30/06/2017	01:45	0.4	NNE	30/06/2017	08:55	1.8	ENE
29/06/2017	18:40	1.8	NE	30/06/2017	01:50	1.8	WNW	30/06/2017	09:00	0.4	SSW
29/06/2017	18:45	2.2	NNE	30/06/2017	01:55	3.6	W	30/06/2017	09:05	0.9	E
29/06/2017	18:50	2.2	NE	30/06/2017	02:00	0.4	SSW	30/06/2017	09:10	2.2	WSW
29/06/2017	18:55	1.3	NE	30/06/2017	02:05	0.4	WSW	30/06/2017	09:15	1.8	NNE
29/06/2017	19:00	0.9	WSW	30/06/2017	02:10	2.7	NE	30/06/2017	09:20	1.8	W
29/06/2017	19:05	1.8	E	30/06/2017	02:15	0.9	NNE	30/06/2017	09:25	0.4	ENE
29/06/2017	19:10	0.4	NE	30/06/2017	02:20	1.3	NE	30/06/2017	09:30	2.2	NNE
29/06/2017	19:15	2.7	NE	30/06/2017	02:25	1.3	NE	30/06/2017	09:35	0.9	SW
29/06/2017	19:20	1.3	W	30/06/2017	02:30	1.3	NNE	30/06/2017	09:40	1.3	NE
29/06/2017	19:25	0.4	WSW	30/06/2017	02:35	1.8	NE	30/06/2017	09:45	1.3	ENE
29/06/2017	19:30	1.8	NNE	30/06/2017	02:40	1.3	WSW	30/06/2017	09:50	2.7	W
29/06/2017	19:35	3.1	NE	30/06/2017	02:45	1.3	NE	30/06/2017	09:55	2.2	NNE
29/06/2017	19:40	1.8	ENE	30/06/2017	02:50	0.4	ESE	30/06/2017	10:00	1.3	NE
29/06/2017	19:45	0.9	NNW	30/06/2017	02:55	2.7	NE	30/06/2017	10:05	0.4	NE
29/06/2017	19:50	1.8	NE	30/06/2017	03:00	0.9	W	30/06/2017	10:10	1.3	E
29/06/2017	19:55	1.3	NNE	30/06/2017	03:05	2.7	NE	30/06/2017	10:15	1.8	W
29/06/2017	20:00	2.2	W	30/06/2017	03:10	2.7	NE	30/06/2017	10:20	1.3	W
29/06/2017	20:05	1.8	WSW	30/06/2017	03:15	2.2	NE	30/06/2017	10:25	1.3	NW
29/06/2017	20:10	1.3	NE	30/06/2017	03:20	0.4	ENE	30/06/2017	10:30	2.7	SW
29/06/2017	20:15	0.9	ENE	30/06/2017	03:25	0.9	SE	30/06/2017	10:35	0.4	WSW
29/06/2017	20:20	3.6	NE	30/06/2017	03:30	0.4	ESE	30/06/2017	10:40	2.2	NE
29/06/2017	20:25	0.9	NNE	30/06/2017	03:35	1.3	NE	30/06/2017	10:45	1.3	NNE
29/06/2017	20:30	1.3	W	30/06/2017	03:40	1.3	NNE	30/06/2017	10:50	0.9	ENE
29/06/2017	20:35	2.7	E	30/06/2017	03:45	2.2	WSW	30/06/2017	10:55	1.3	WSW
29/06/2017	20:40	1.3	W	30/06/2017	03:50	0.4	ESE	30/06/2017	11:00	0.9	NNE
29/06/2017	20:45	2.7	WSW	30/06/2017	03:55	0.4	WSW	30/06/2017	11:05	0.9	SE
29/06/2017	20:50	1.3	NNE	30/06/2017	04:00	1.8	NE	30/06/2017	11:10	0.4	SSW
29/06/2017	20:55	2.7	WSW	30/06/2017	04:05	2.7	NE	30/06/2017	11:15	0.9	WSW
29/06/2017	21:00	0.4	SSW	30/06/2017	04:10	2.2	W	30/06/2017	11:20	1.8	W
29/06/2017	21:05	0.4	NNE	30/06/2017	04:15	0.9	ENE	30/06/2017	11:25	0.9	SE
29/06/2017	21:10	1.3	W	30/06/2017	04:20	0.4	S	30/06/2017	11:30	0.4	WSW
29/06/2017	21:15	0.9	ENE	30/06/2017	04:25	0.4	NNE	30/06/2017	11:35	0.4	ESE
29/06/2017	21:20	3.1	ENE	30/06/2017	04:30	1.8	N	30/06/2017	11:40	2.2	NE
29/06/2017	21:25	3.6	NE	30/06/2017	04:35	1.8	NE	30/06/2017	11:45	1.8	E
29/06/2017	21:30	1.3	NNW	30/06/2017	04:40	2.2	NE	30/06/2017	11:50	2.2	NNE
29/06/2017	21:35	3.6	NE	30/06/2017	04:45	1.8	NNE	30/06/2017	11:55	0.4	SSW
29/06/2017	21:40	2.2	NE	30/06/2017	04:50	0.4	SW	30/06/2017	12:00	2.7	WSW
29/06/2017	21:45	1.8	E	30/06/2017	04:55	0.4	NE	30/06/2017	12:05	0.4	SSW
29/06/2017	21:50	1.8	NE	30/06/2017	05:00	0.4	ESE	30/06/2017	12:10	2.7	WSW
29/06/2017	21:55	1.8	ENE	30/06/2017	05:05	2.7	NE	30/06/2017	12:15	2.7	NE
29/06/2017	22:00	1.8	ENE	30/06/2017	05:10	0.4	ENE	30/06/2017	12:20	0.4	SSW
29/06/2017	22:05	0.4	NE	30/06/2017	05:15	2.2	NE	30/06/2017	12:25	0.9	E
29/06/2017	22:10	2.2	NE	30/06/2017	05:20	2.7	NE	30/06/2017	12:30	2.2	WSW
29/06/2017	22:15	1.3	N	30/06/2017	05:25	0.4	WSW	30/06/2017	12:35	1.8	W
29/06/2017	22:20	1.8	ENE	30/06/2017	05:30	0.4	SSW	30/06/2017	12:40	0.9	WSW
29/06/2017	22:25	2.2	NE	30/06/2017	05:35	0.9	W	30/06/2017	12:45	1.8	ENE
29/06/2017	22:30	1.8	NE	30/06/2017	05:40	2.7	WSW	30/06/2017	12:50	0.9	E
29/06/2017	22:35	2.2	ENE	30/06/2017	05:45	2.7	NE	30/06/2017	12:55	1.8	NE
29/06/2017	22:40	1.8	N	30/06/2017	05:50	3.1	NE	30/06/2017	13:00	0.9	ENE
29/06/2017	22:45	0.9	NNW	30/06/2017	05:55	2.2	NE	30/06/2017	13:05	1.8	NW
29/06/2017	22:50	1.8	NE	30/06/2017	06:00	1.8	W	30/06/2017	13:10	1.8	NE
29/06/2017	22:55	0.4	NNE	30/06/2017	06:05	2.2	ENE	30/06/2017	13:15	0.4	N
29/06/2017	23:00	0.4	NNE	30/06/2017	06:10	3.1	WSW	30/06/2017	13:20	2.2	NE
29/06/2017	23:05	2.2	E	30/06/2017	06:15	2.2	NNE	30/06/2017	13:25	2.2	ENE
29/06/2017	23:10	2.2	NE	30/06/2017	06:20	1.8	W	30/06/2017	13:30	0.9	ENE





## APPENDIX H

---

### Dolphin Monitoring Results



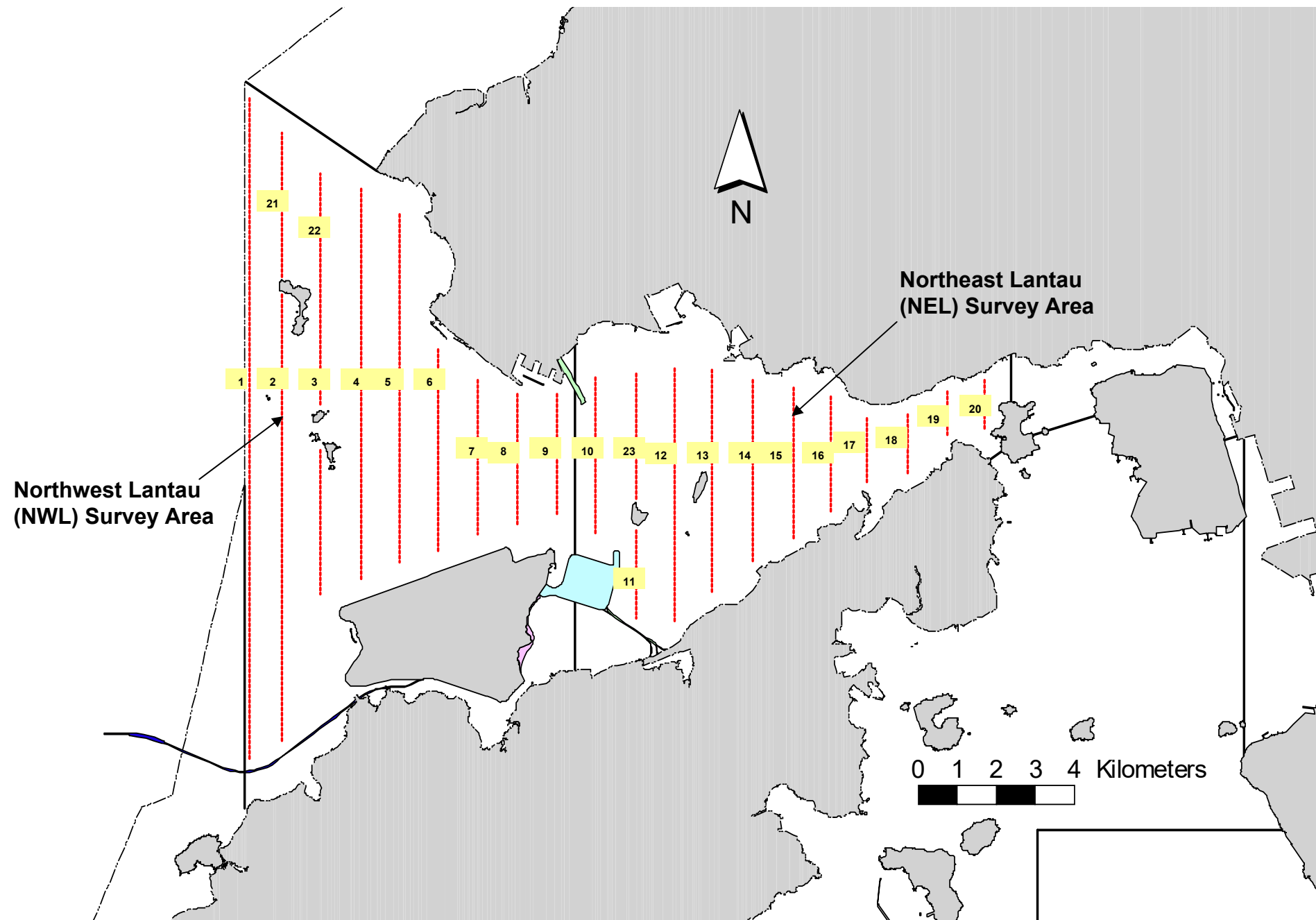


Figure 1. Transect Line Layout in Northwest and Northeast Lantau Survey Areas



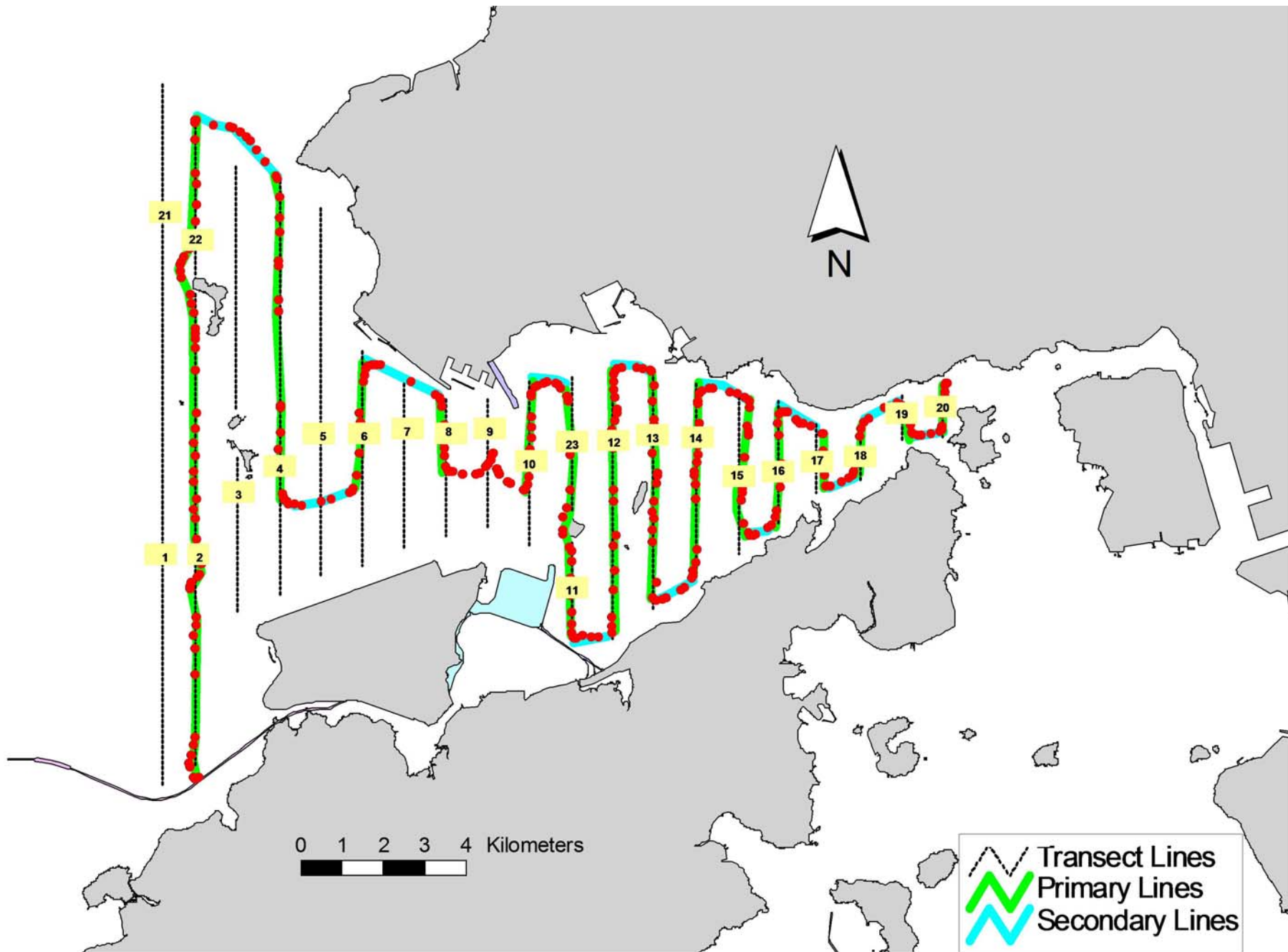


Figure 2. Survey Route on June 14<sup>th</sup>, 2017

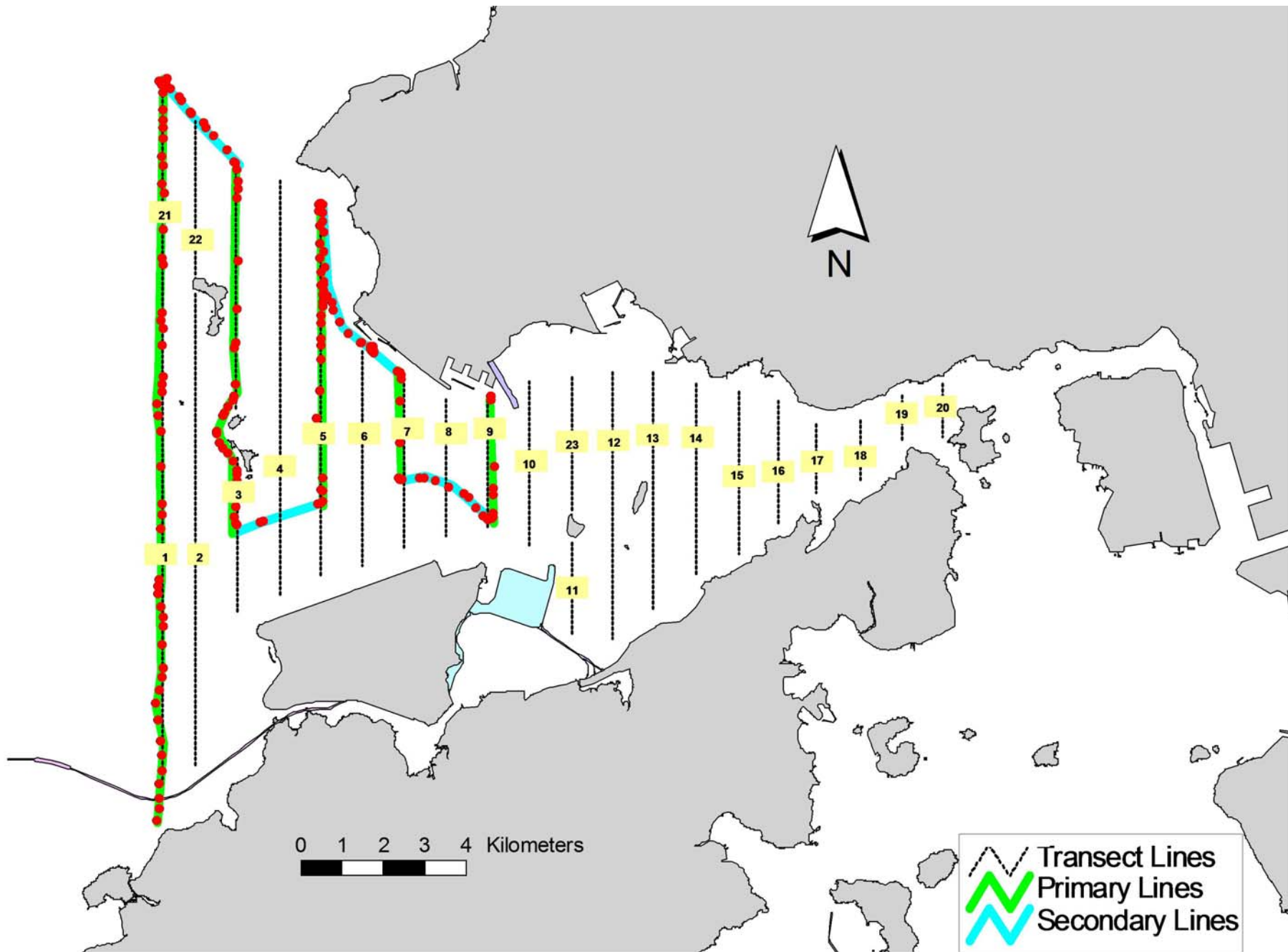


Figure 3. Survey Route on June 15<sup>th</sup>, 2017

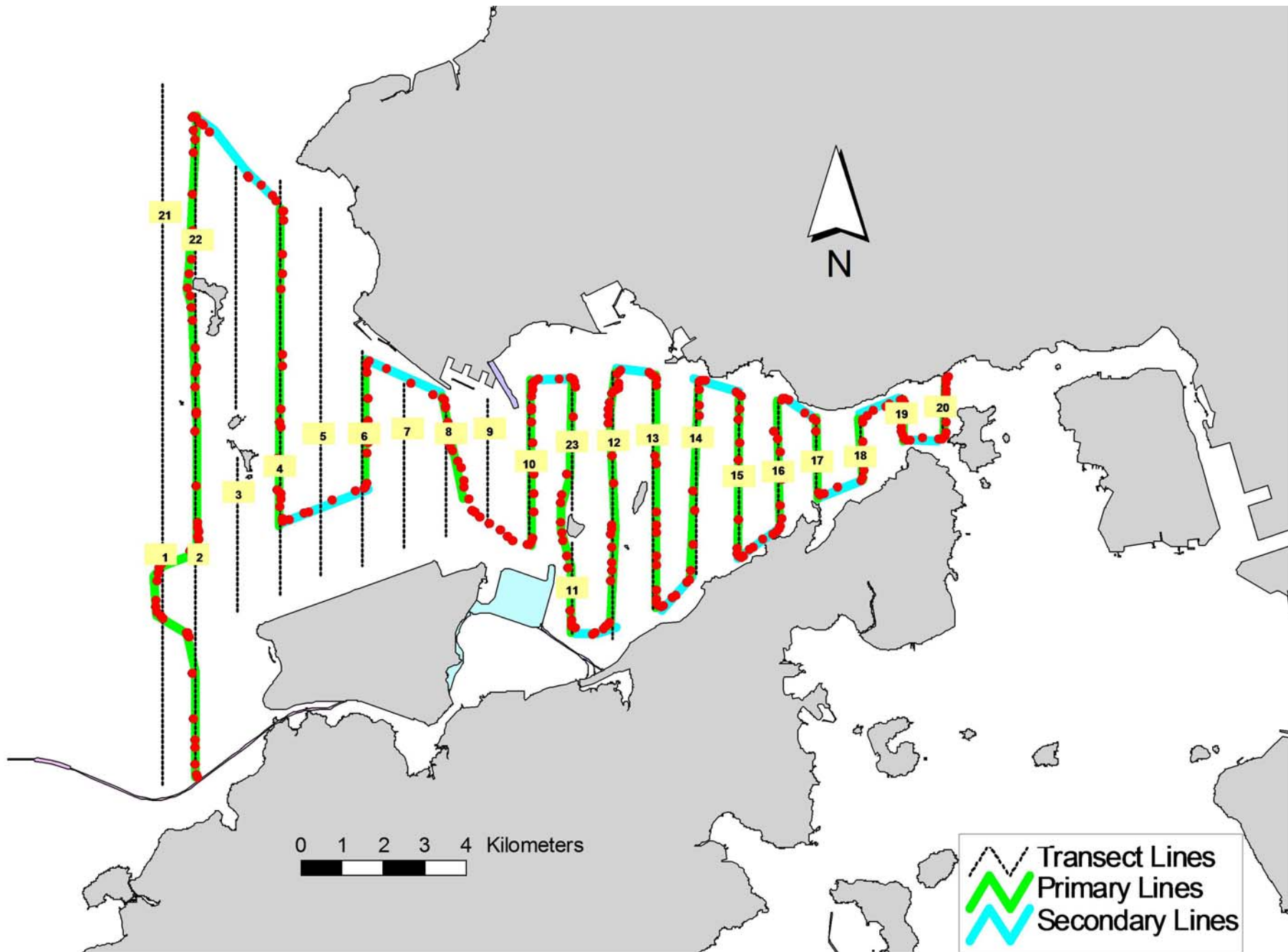


Figure 4. Survey Route on June 20<sup>th</sup>, 2017

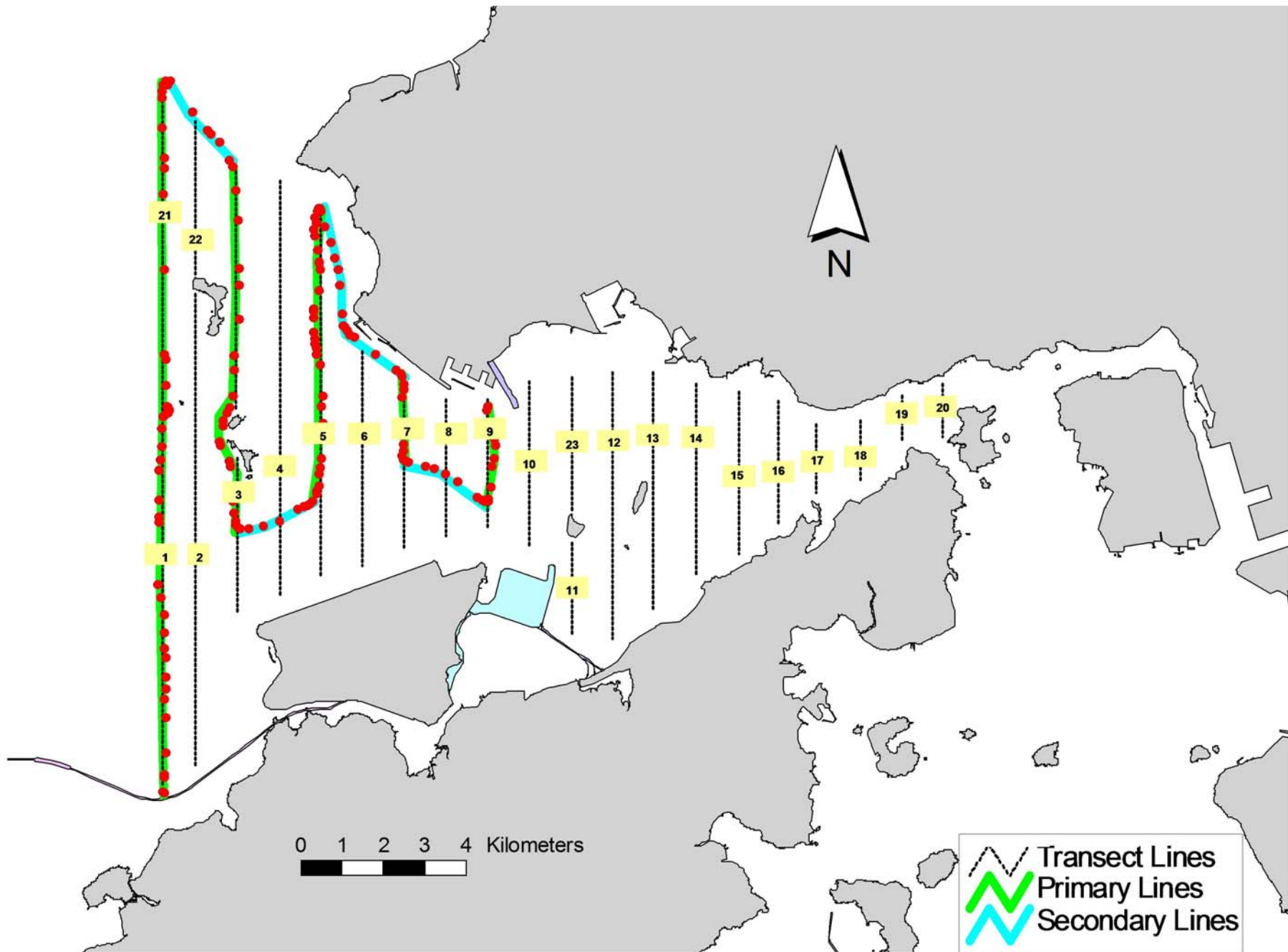


Figure 5. Survey Route on June 26<sup>th</sup>, 2017



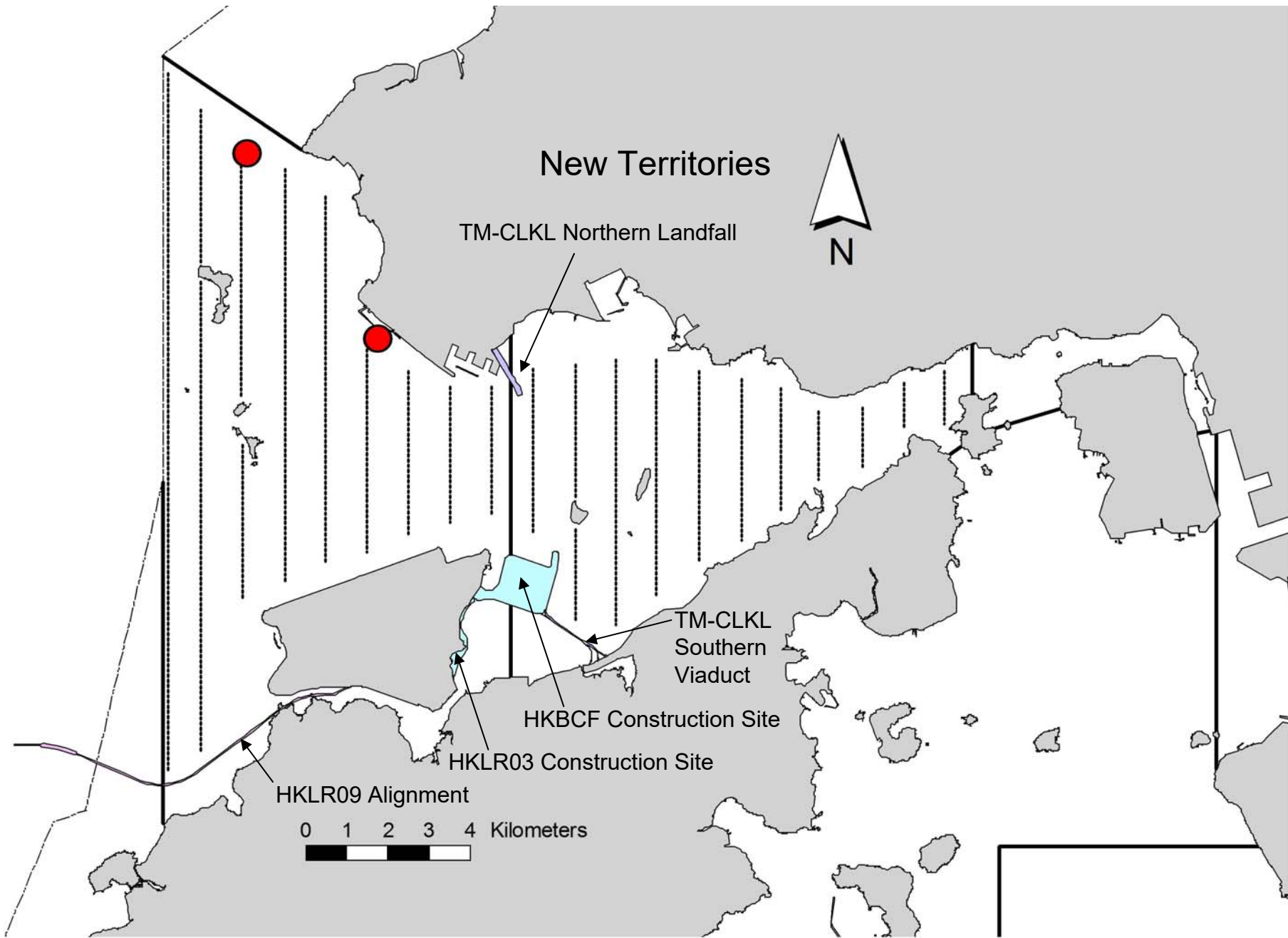


Figure 6. Distribution of Chinese White Dolphin Sightings during June 2017 HKLR03 Monitoring Surveys



## Annex I. HKLR03 Survey Effort Database (June 2017)

(Abbreviations: BEAU = Beaufort Sea State; P = Primary Line Effort; S = Secondary Line Effort)

DATE	AREA	BEAU	EFFORT	SEASON	VESSEL	TYPE	P/S
14-Jun-17	NW LANTAU	1	0.85	SUMMER	STANDARD36826	HKLR	P
14-Jun-17	NW LANTAU	2	25.80	SUMMER	STANDARD36826	HKLR	P
14-Jun-17	NW LANTAU	2	6.95	SUMMER	STANDARD36826	HKLR	S
14-Jun-17	NE LANTAU	1	8.30	SUMMER	STANDARD36826	HKLR	P
14-Jun-17	NE LANTAU	2	22.46	SUMMER	STANDARD36826	HKLR	P
14-Jun-17	NE LANTAU	3	0.39	SUMMER	STANDARD36826	HKLR	P
14-Jun-17	NE LANTAU	1	1.67	SUMMER	STANDARD36826	HKLR	S
14-Jun-17	NE LANTAU	2	10.28	SUMMER	STANDARD36826	HKLR	S
15-Jun-17	NW LANTAU	2	5.91	SUMMER	STANDARD36826	HKLR	P
15-Jun-17	NW LANTAU	3	25.98	SUMMER	STANDARD36826	HKLR	P
15-Jun-17	NW LANTAU	4	3.70	SUMMER	STANDARD36826	HKLR	P
15-Jun-17	NW LANTAU	3	13.14	SUMMER	STANDARD36826	HKLR	S
15-Jun-17	NW LANTAU	4	1.10	SUMMER	STANDARD36826	HKLR	S
20-Jun-17	NW LANTAU	2	7.20	SUMMER	STANDARD36826	HKLR	P
20-Jun-17	NW LANTAU	3	17.13	SUMMER	STANDARD36826	HKLR	P
20-Jun-17	NW LANTAU	4	1.50	SUMMER	STANDARD36826	HKLR	P
20-Jun-17	NW LANTAU	2	0.90	SUMMER	STANDARD36826	HKLR	S
20-Jun-17	NW LANTAU	3	11.18	SUMMER	STANDARD36826	HKLR	S
20-Jun-17	NE LANTAU	1	7.56	SUMMER	STANDARD36826	HKLR	P
20-Jun-17	NE LANTAU	2	28.41	SUMMER	STANDARD36826	HKLR	P
20-Jun-17	NE LANTAU	2	11.63	SUMMER	STANDARD36826	HKLR	S
26-Jun-17	NW LANTAU	2	2.07	SUMMER	STANDARD36826	HKLR	P
26-Jun-17	NW LANTAU	3	25.84	SUMMER	STANDARD36826	HKLR	P
26-Jun-17	NW LANTAU	4	6.35	SUMMER	STANDARD36826	HKLR	P
26-Jun-17	NW LANTAU	3	8.38	SUMMER	STANDARD36826	HKLR	S
26-Jun-17	NW LANTAU	4	3.36	SUMMER	STANDARD36826	HKLR	S

**Annex II. HKLR03 Chinese White Dolphin Sighting Database (June 2017)**

(Abbreviations: STG# = Sighting Number; HRD SZ = Dolphin Herd Size; BEAU = Beaufort Sea State; PSD = Perpendicular Distance; BOAT ASSOC. = Fishing Boat Association; P/S: Sighting Made on Primary/Secondary Line)

DATE	STG #	TIME	HRD SZ	AREA	BEAU	PSD	EFFORT	TYPE	NORTHING	EASTING	SEASON	BOAT ASSOC.	P/S
15-Jun-17	1	1445	4	NW LANTAU	4	109	ON	HKLR	825338	809729	SUMMER	NONE	S
20-Jun-17	1	1131	1	NW LANTAU	3	15	ON	HKLR	829563	806565	SUMMER	NONE	S

**Annex III. Individual dolphins identified during HKLR03 monitoring surveys in June 2017**

<b>ID#</b>	<b>DATE</b>	<b>STG#</b>	<b>AREA</b>
NL12	20/06/17	1	NW LANTAU
NL33	15/06/17	1	NW LANTAU
NL210	15/06/17	1	NW LANTAU
NL322	15/06/17	1	NW LANTAU
NL328	15/06/17	1	NW LANTAU

NL33\_20170615\_1



NL210\_20170615\_1



NL322\_20170615\_1



NL328\_20170615\_1



NL12\_20170620\_1



Annex IV. Photographs of Identified Individual Dolphins in June 2016 (HKLR03)



# APPENDIX I

---

## Mudflat Monitoring Results







**Figure 2.1.** Locations of sampling zones. The study site was divided into three sampling zones (TC1, TC2, TC3) in Tung Chung Bay and one zone in San Tau (ST) (map generated from Google Map).

**TC1**



**TC2**



**TC3**



**ST**



**Figure 2.2.** *Photographic record of the environment in every sampling zone.*



TC1



bike



trash gill net

TC3



boat wreckage

ST



trash gill net and hand trolley



a tangled horseshoe crab on a trash net

**Figure 2.3.** *Examples of photographic record of the big trashes found on the mudflat.*

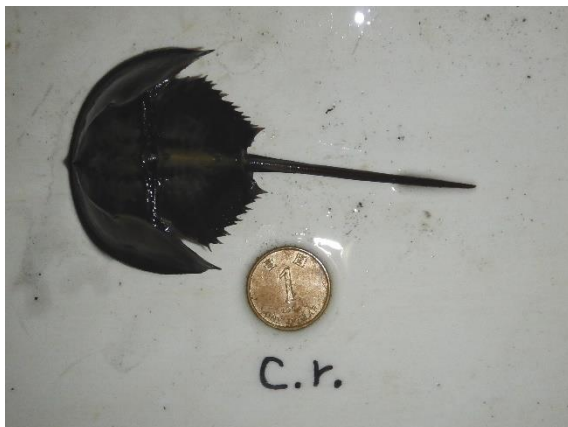
**TC1** *Carcinoscorpius rotundicauda*



**TC1** *Tachypleus tridentatus*



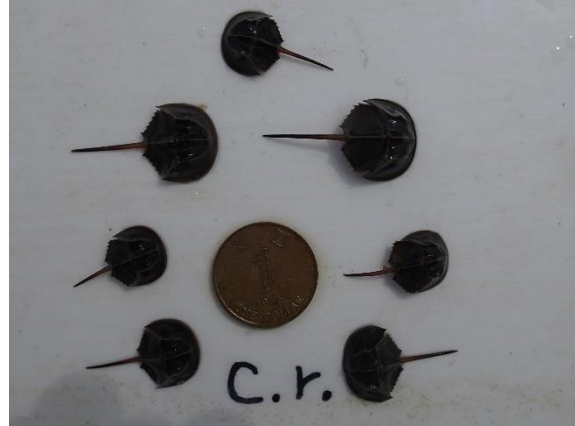
**TC2** *Carcinoscorpius rotundicauda*



**Figure 3.1.** Examples of photographic records of horseshoe crab (Jun. 2017)



**TC3** *Carcinoscorpius rotundicauda*



**TC3** *Tachypleus tridentatus*



**Figure 3.1 (Cont'd).** Examples of photographic records of horseshoe crab (Jun.. 2017)



**ST** *Carcinoscorpius rotundicauda*



**ST** *Tachypleus tridentatus*



**Figure 3.1 (Cont'd).** *Examples of photographic records of horseshoe crab (Jun.. 2017)*

**Table 3.1.** Summary of horseshoe crab survey in every sampling zone

	TC1	TC2	TC3	ST
Search duration (hr)	2	2	3	3
<b><i>Carcinoscorpius rotundicauda</i></b>				
no. of individuals	22		57	54
mean prosomal width (mm)	46.69		38.95	53.94
max. prosomal width (mm)	72.49	N.A.	86.73	83.33
min. prosomal width (mm)	15.72		14.29	38.83
Search record (ind. hr <sup>-1</sup> person <sup>-1</sup> )	5.5		9.5	9.0
<b><i>Tachypleus tridentatus</i></b>				
no. of individuals	2	1	70	52
mean prosomal width (mm)	43.90	67.42	54.24	53.74
max. prosomal width (mm)	51.47	\	93.44	76.37
min. prosomal width (mm)	36.33	\	27.57	40.41
Search record (ind. hr <sup>-1</sup> person <sup>-1</sup> )	0.5	0.3	11.7	8.7

Mar. 2015 - ST



Jun. 2017 – TC2



Female



Male

Figure 3.2. Photographic records of mating pair of *Carcinoscorpius rotundicauda*

Jun. 2017 - TC3



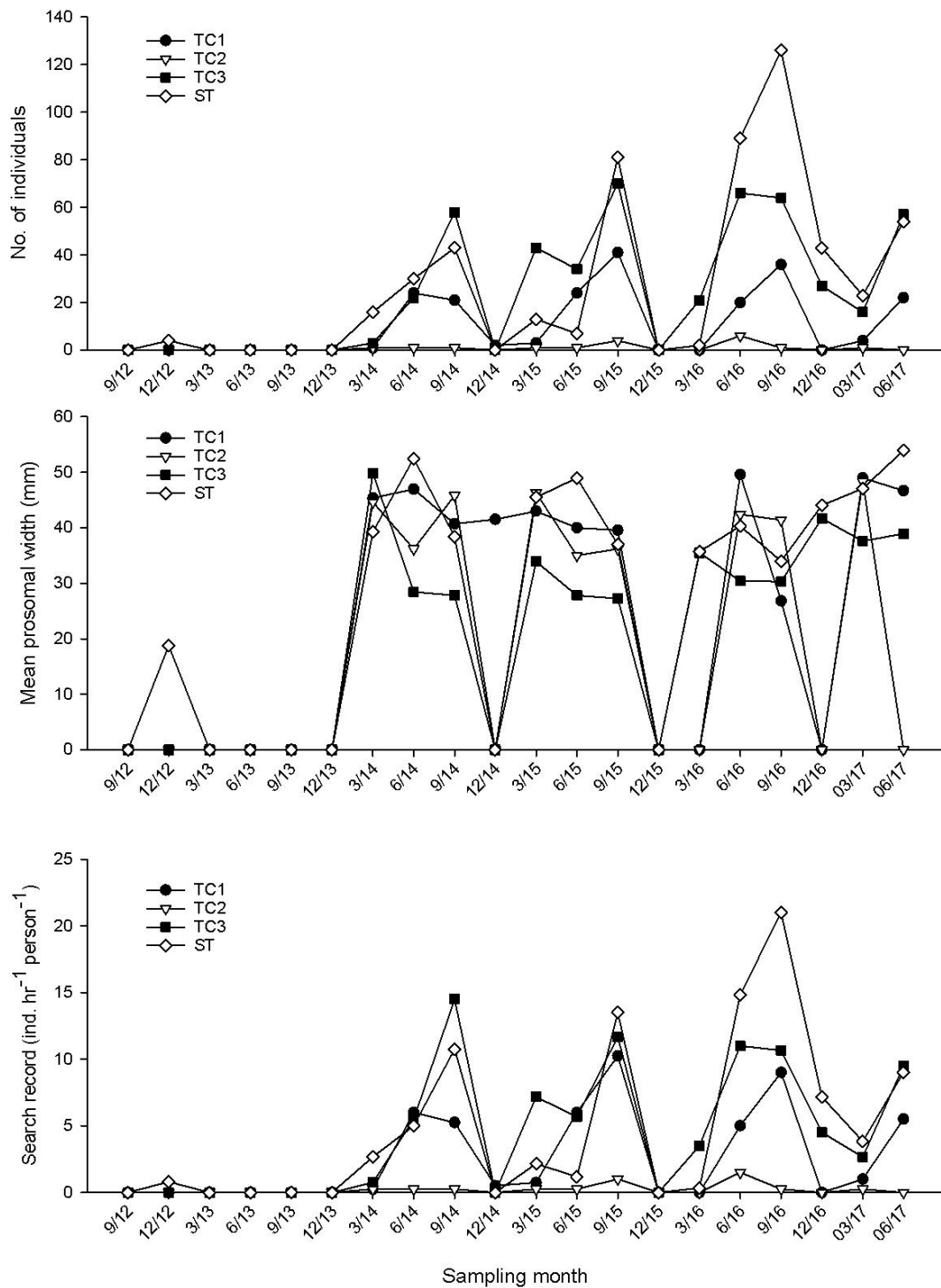
**Figure 3.2 (Cont'd).** *Photographic records of mating pair of Carcinoscorpius rotundicauda*



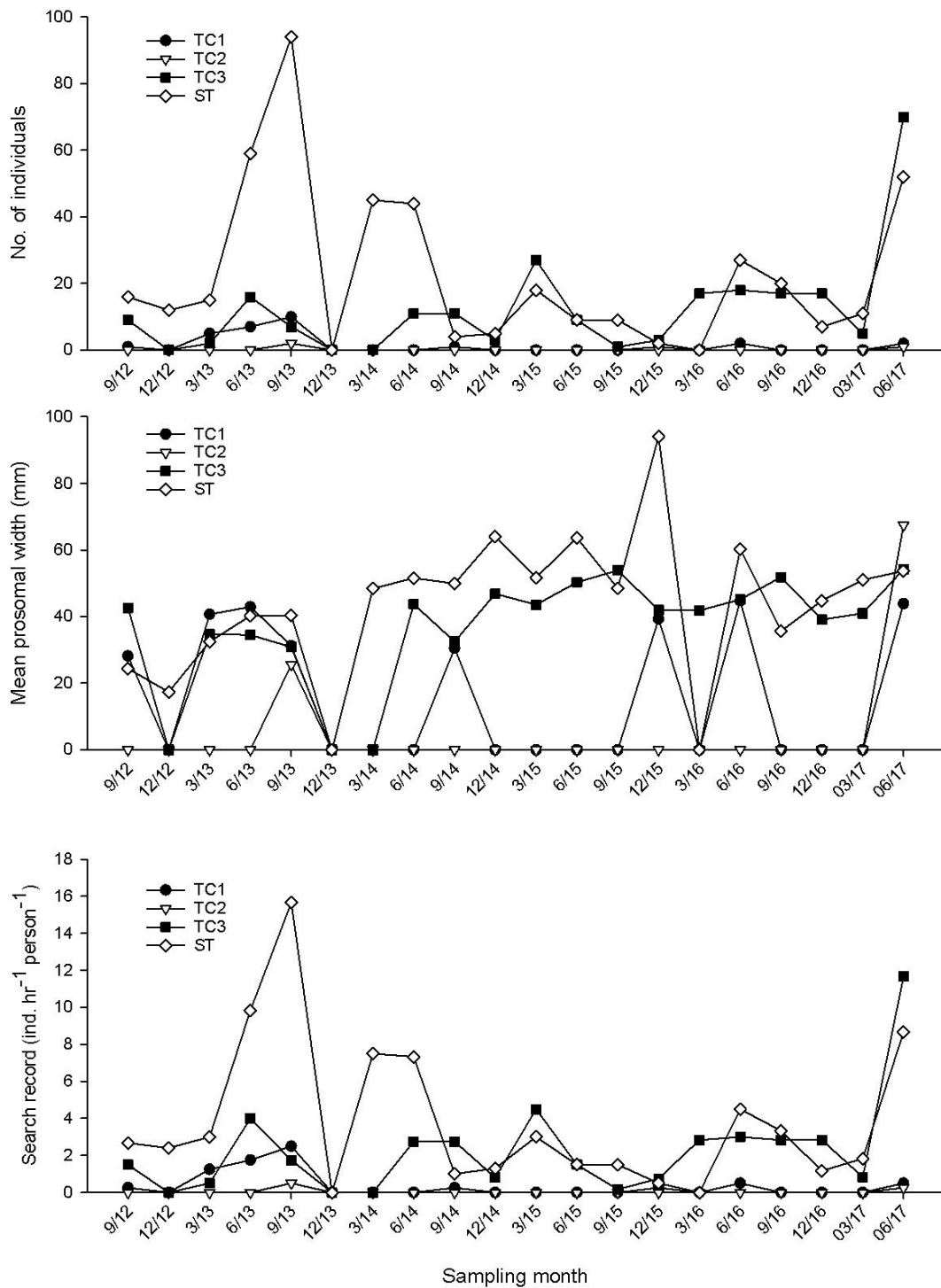


**Figure 3.3.** *Photographic records of a tangled individual of Carcinoscorpius rotundicauda in ST (Jun. 2017)*

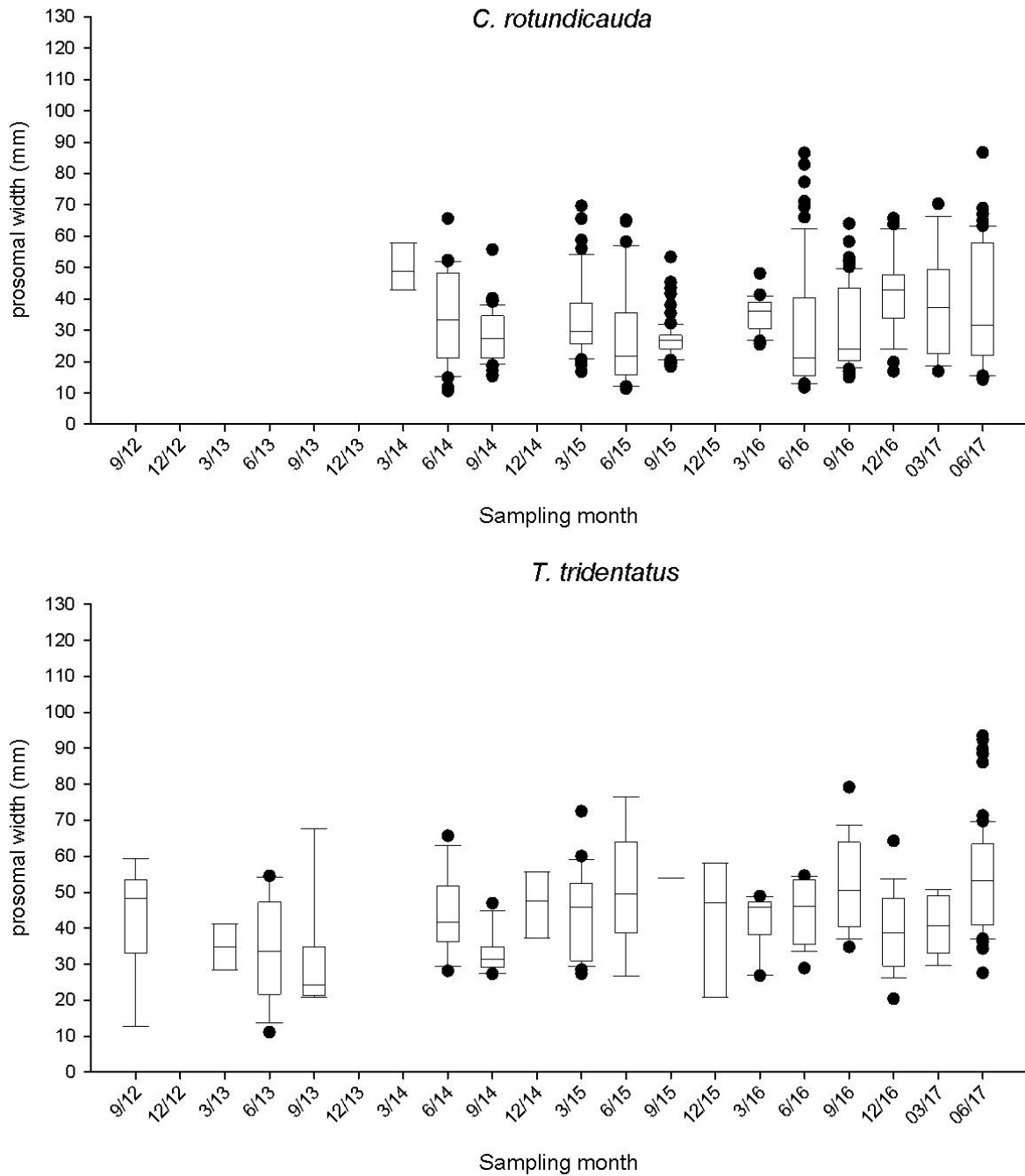




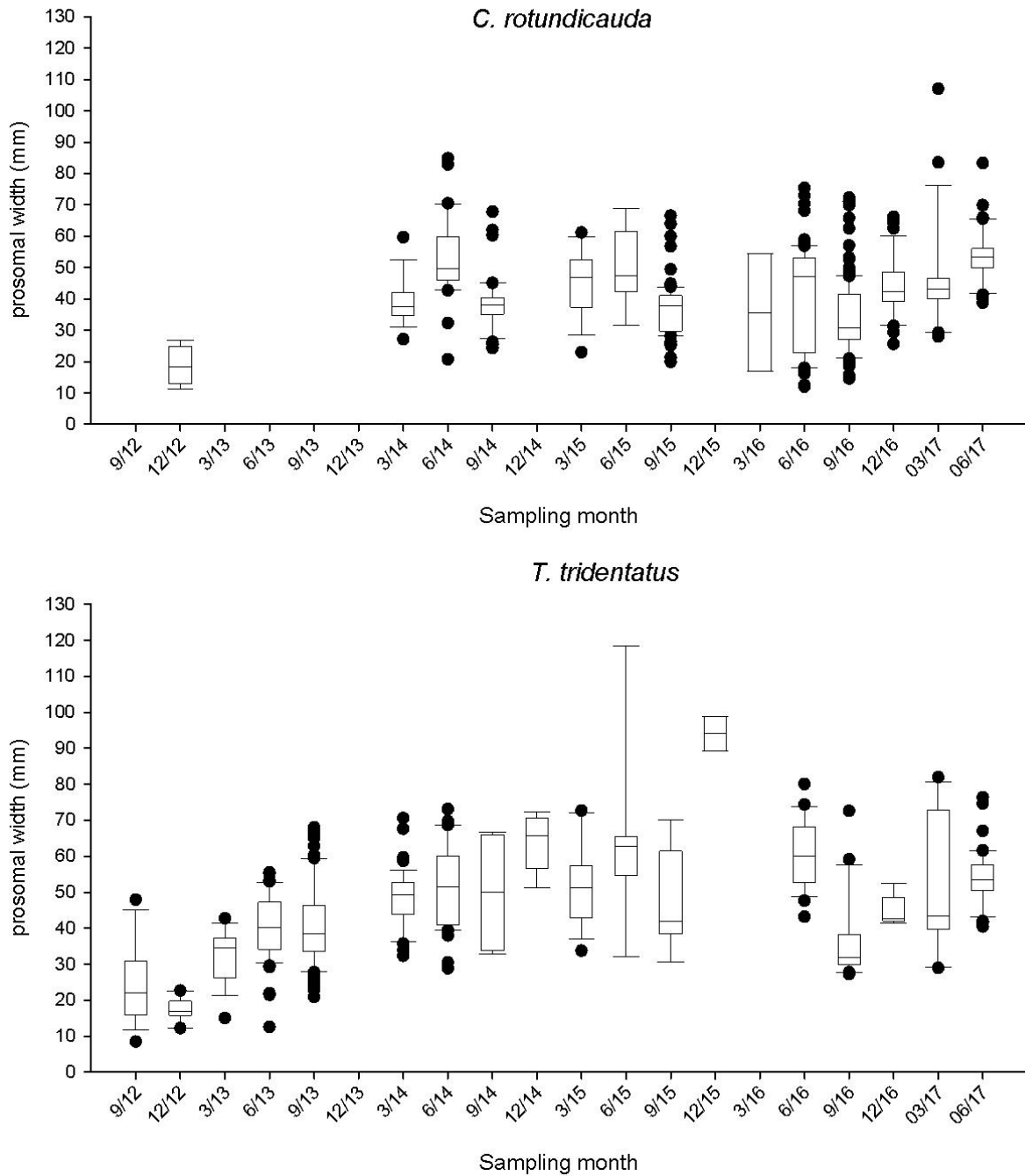
**Figure 3.4.** Changes of number of individuals, mean prosomal width and search record of horseshoe crab *Carcinoscorpis rotundicauda* in every sampling zone along the sampling months



**Figure 3.5.** Changes of number of individuals, mean prosomal width and search record of horseshoe crab *Tachypleus tridentatus* in every sampling zone along the sampling months



**Figure 3.6.** Box plot of prosomal width of horseshoe crab in the sampling zone TC3 along the sampling months. (The box represents 50% of the sample (upper to lower quartile) with a middle line showing the median value. The upper whisker and lower whisker showed the 25% of sample above upper quartile and below the lower quartile respectively. The black circle dots showed the data of outlier.)



**Figure 3.7.** Box plot of prosomal width of horseshoe crab in the sampling zone ST along the sampling months. (The box represents 50% of the sample (upper to lower quartile) with a middle line showing the median value. The upper whisker and lower whisker showed the 25% of sample above upper quartile and below the lower quartile respectively. The black circle dots showed the data of outlier.)

**TC3 *Halophila ovalis***



**ST *Halophila ovalis***



**ST *Zostera japonica***

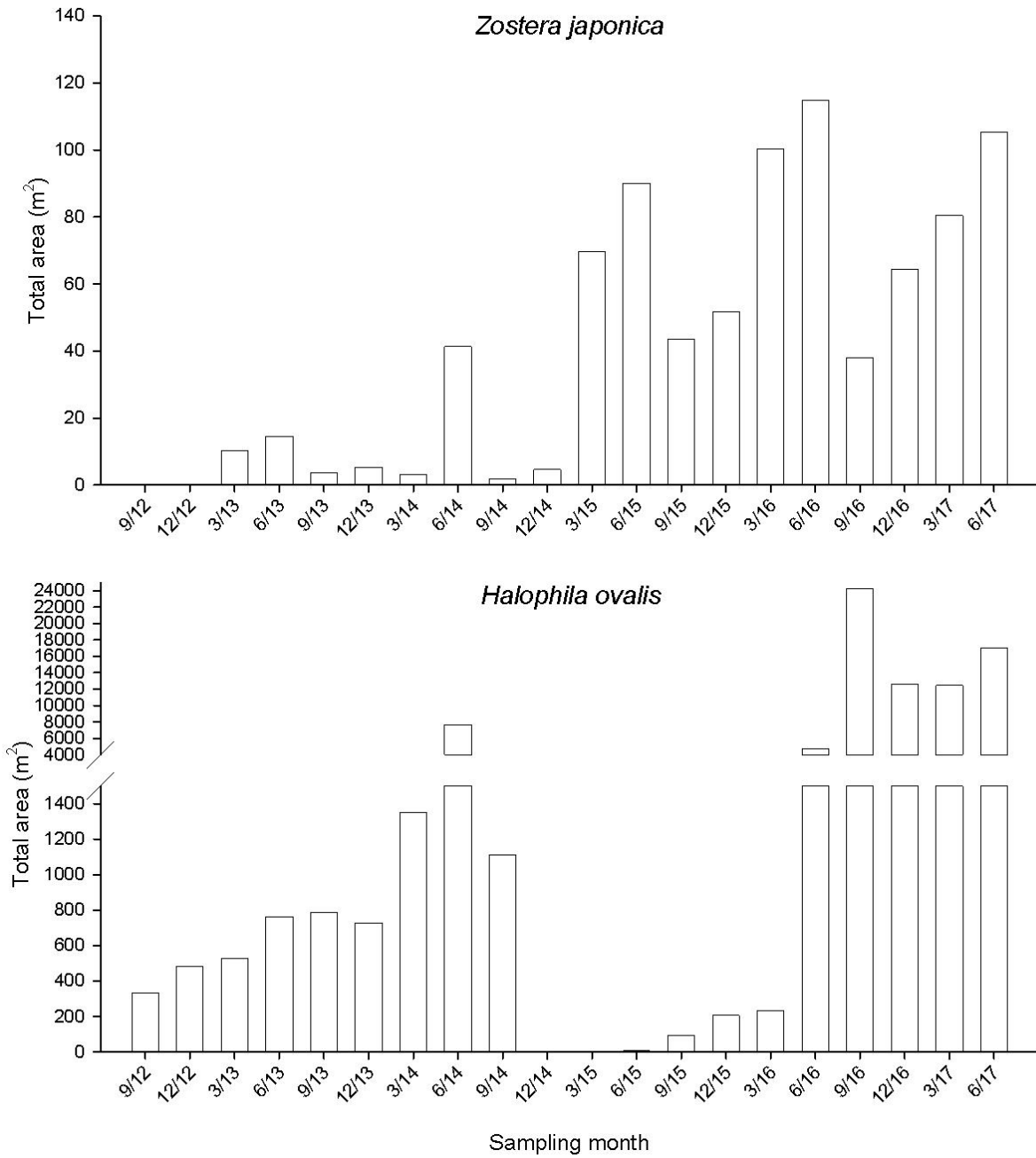


**Figure 3.8.** Examples of photographic records of seagrass beds survey (Jun. 2017)



**Table 3.2.** *Summary of seagrass beds survey*

<b>Sampling zone</b>	TC3	ST	
	<i>Halophila ovalis</i>	<i>Halophila ovalis</i>	<i>Zostera japonica</i>
<b>Number of patches</b>	2	2	1
<b>Total area (m<sup>2</sup>)</b>	140.4	17046.5	105.4
<b>Average area (m<sup>2</sup>)</b>	70.2	8523.2	\



**Figure 3.9.** Temporal changes of estimated total area of seagrass beds in ST

**Jun. 2014**



**Dec. 2014**



**Sep. 2015**



**Mar. 2016**



**Dec. 2016**



**Jun. 2017**



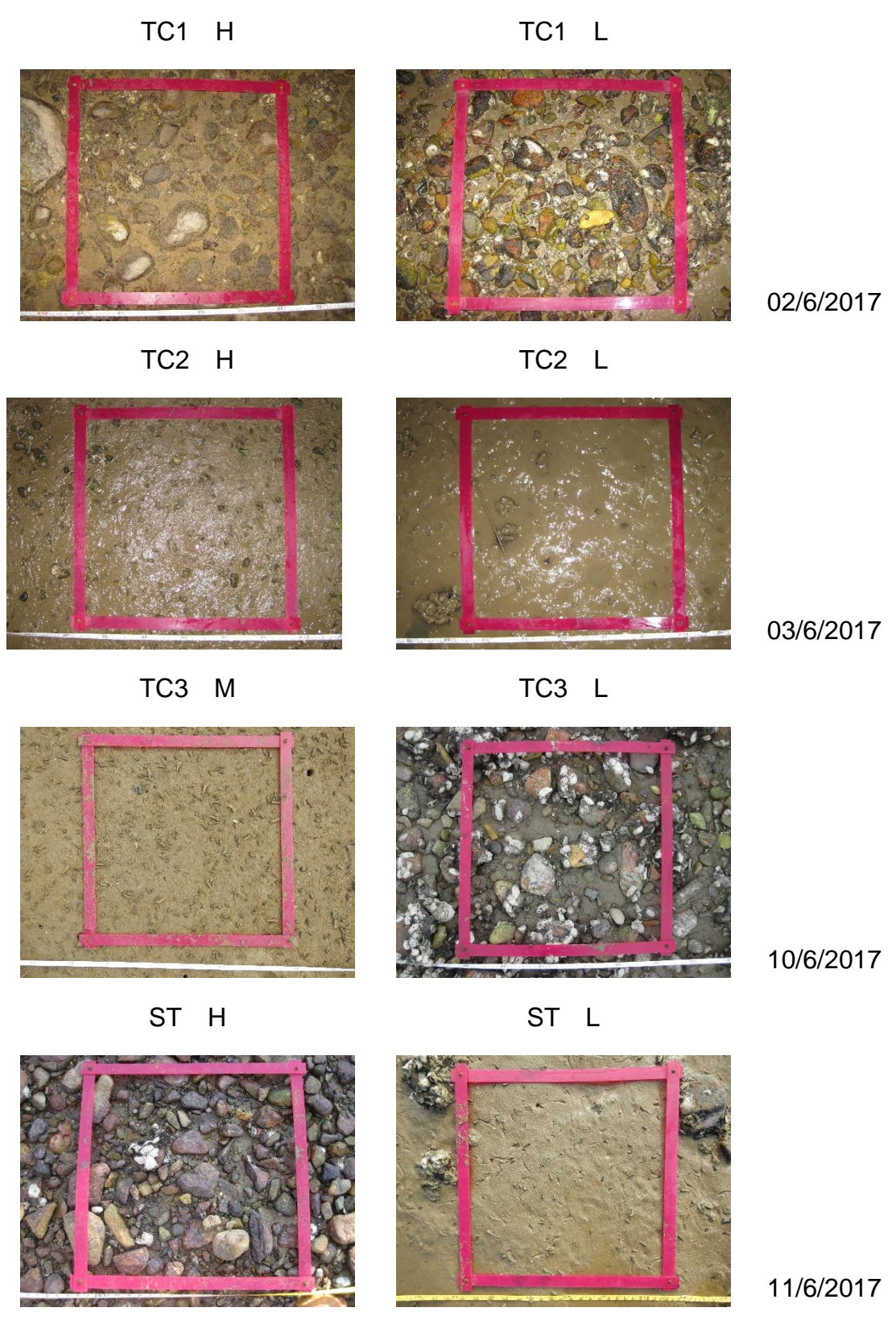
**Figure 3.10.** Comparison of pictures taken in different sampling months shows the disappearance and recolonization of seagrass beds.

**Table 3.3.** *Relative distribution (%) of types of substratum along the horizontal transect at every tidal level and in every sampling zone.*

Sampling zone	Tidal level	Percentage		
		Gravels and Boulders	Sands	Soft mud
TC1	H	80	20	
	M	80		20
	L	70	20	10
TC2	H	30	60	10
	M	30	30	40
	L	20	10	70
TC3	H		100	
	M	10	90	
	L	90		10
ST	H	100		
	M	80	20	
	L	30	40	30

H: 2.0 m above C.D.; M: 1.5 m above C.D.; L: 1.0 m above C.D.





**Figure 3.11.** *Examples of photographic records of quadrat for intertidal soft shore community survey (H: 2.0 m above C.D.; M: 1.5 m above C.D.; L: 1.0 m above C.D.)*



**Table 3.4.** *Total abundance, density and number of taxon of every phylum*

<b>Phylum</b>	<b>Total Abundance</b>	<b>%</b>	<b>Density (ind. m<sup>-2</sup>)</b>	<b>Number of taxon</b>
<i>Jun. 2017</i>				
Mollusca	15648	95.3	522	40
Arthropoda	578	3.5	19	14
Annelida	91	0.6	3	11
Sipuncula	32	0.2	1	1
Nemertea	31	0.2	1	1
Cnidaria	28	0.2	1	1
Chordata	7	0.0	0	3
Echiura	4	0.0	0	1
Platyhelminthes	1	0.0	0	1
<b>Total</b>	<b>16420</b>			

0.0 %: Total abundance of the phylum is less than 0.1% of relative abundance.

0 ind. m<sup>-2</sup>: Density of the phylum is less than 1 ind. m<sup>-2</sup>.

**Table 3.5.** *The number of individuals, relative abundance (percentage) and density of each phylum in every sampling zone*

Phylum	TC1	%	Density (ind. m <sup>-2</sup> )	TC2	%	Density (ind. m <sup>-2</sup> )	TC3	%	Density (ind. m <sup>-2</sup> )	ST	%	Density (ind. m <sup>-2</sup> )
Annelida	6	0.1	1	40	1.4	5	33	0.6	4	12	0.4	2
Arthropoda	123	2.6	16	164	5.8	22	119	2.2	16	172	5.1	23
Chordata	1	0.0	0				3	0.1	0	3	0.1	0
Cnidaria	3	0.1	0	9	0.3	1	2	0.0	0	14	0.4	2
Echiura							4	0.1	1			
Mollusca	4548	97.0	606	2589	91.5	345	5336	96.7	711	3175	93.9	423
Nemertea	5	0.1	1	17	0.6	2	4	0.1	1	5	0.1	1
Platyhelminthes				1	0.0	0						
Sipuncula	5	0.1	1	10	0.4	1	16	0.3	2	1	0.0	0
<b>Sub-total</b>	4691			2830			5517			3382		

0.0 %: Total abundance of the phylum is less than 0.1% of relative abundance of the sampling zone.

0 ind. m<sup>-2</sup>: Density of the phylum is less than 1 ind. m<sup>-2</sup> of the sampling zone.

**Table 3.6.** *The abundant species (relative abundance >10%) in every sampling zone*

Sampling zone TC1	Group	Species	Mean density (ind. m <sup>-2</sup> )	Relative abundance (%)	Cumulative relative abundance (%)
High	G	<i>Batillaria multiformis</i>	291	50	50
	G	<i>Cerithidea djadjariensis</i>	155	26	76
Mid	G	<i>Batillaria multiformis</i>	248	35	35
	G	<i>Monodonta labio</i>	209	29	64
	G	<i>Cerithidea djadjariensis</i>	84	12	75
	Bi	<i>Saccostrea cucullata</i>	78	11	86
Low	G	<i>Monodonta labio</i>	138	24	24
	Bi	<i>Saccostrea cucullata</i>	104	18	42
	G	<i>Cerithidea djadjariensis</i>	94	16	58

Bi = Bivalve, G = Gastropod

**Table 3.6 (Cont'd).** *The abundant species (relative abundance >10%) in every sampling zone*

Sampling zone TC2	Group	Species	Mean density (ind. m <sup>-2</sup> )	Relative abundance (%)	Cumulative relative abundance (%)
High	G	<i>Cerithidea djadjariensis</i>	297	60	60
	G	<i>Batillaria multiformis</i>	50	10	70
Mid	G	<i>Cerithidea djadjariensis</i>	164	42	42
	G	<i>Batillaria zonalis</i>	64	16	59
	Bi	<i>Saccostrea cucullata</i>	44	11	70
Low	G	<i>Cerithidea djadjariensis</i>	62	25	25
	Bi	<i>Saccostrea cucullata</i>	49	20	45
	G	<i>Batillaria zonalis</i>	39	16	61
	Ba	<i>Balanus amphitrite</i>	38	15	76

Ba = Barnacle, Bi = Bivalve, G = Gastropod

**Table 3.6 (Cont'd).** *The abundant species (relative abundance >10%) in every sampling zone*

Sampling zone TC3	Group	Species	Mean density (ind. m <sup>-2</sup> )	Relative abundance (%)	Cumulative relative abundance (%)
High	G	<i>Cerithidea djadjariensis</i>	444	57	57
	G	<i>Batillaria multiformis</i>	185	24	81
	G	<i>Cerithidea cingulata</i>	98	13	94
Mid	G	<i>Cerithidea djadjariensis</i>	412	53	53
	G	<i>Batillaria multiformis</i>	142	18	71
	G	<i>Cerithidea cingulata</i>	130	17	88
Low	Bi	<i>Saccostrea cucullata</i>	265	40	40
	G	<i>Monodonta labio</i>	194	30	70

Bi = Bivalve, G = Gastropod



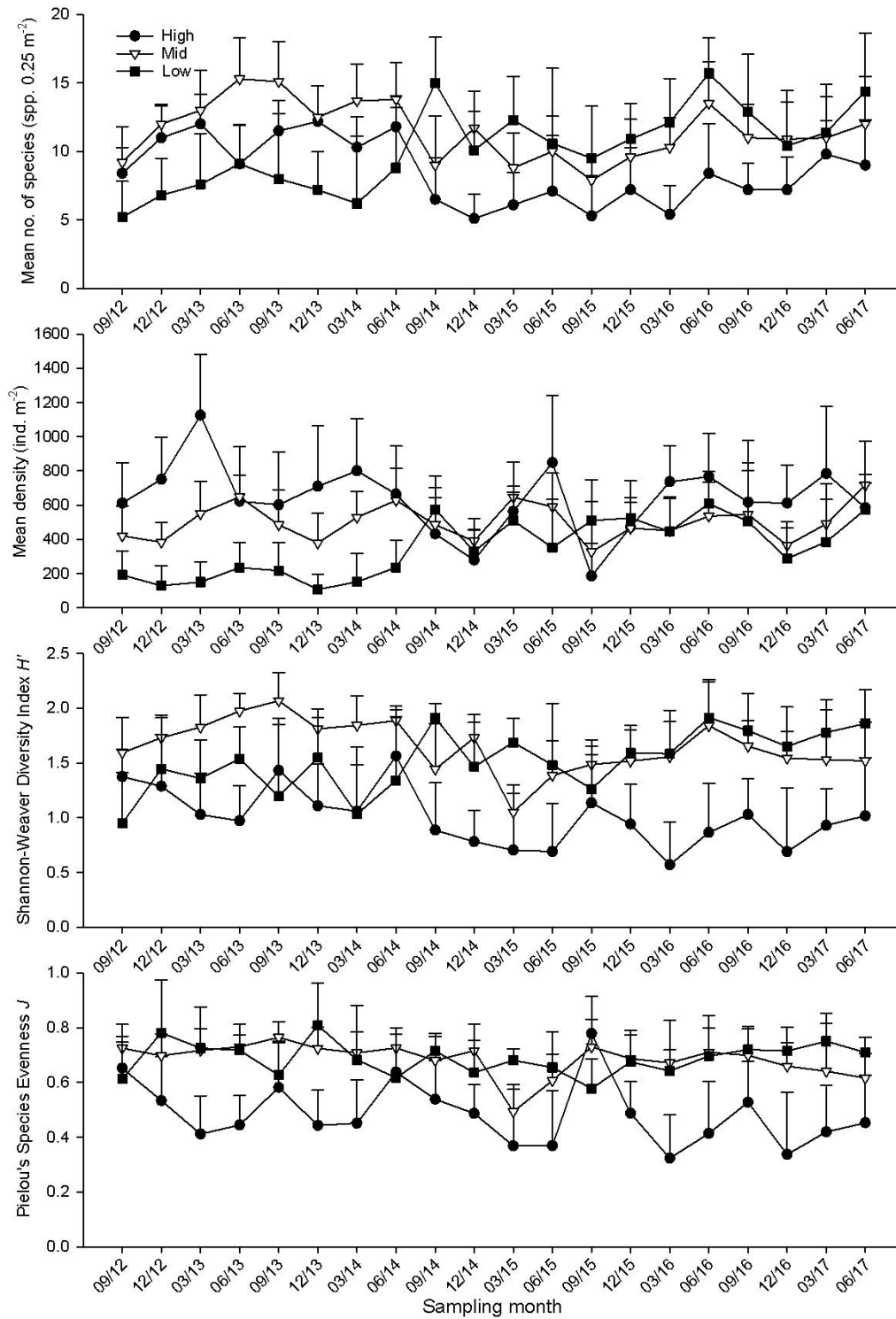
**Table 3.6 (Cont'd).** *The abundant species (relative abundance >10%) in every sampling zone*

Sampling zone ST	Group	Species	Mean density (ind. m <sup>-2</sup> )	Relative abundance (%)	Cumulative relative abundance (%)
High	G	<i>Batillaria multiformis</i>	207	35	35
	G	<i>Monodonta labio</i>	143	24	59
	G	<i>Cellana toreuma</i>	97	16	76
Mid	G	<i>Monodonta labio</i>	90	18	18
	Bi	<i>Saccostrea cucullata</i>	88	18	36
	G	<i>Cerithidea djadjariensis</i>	82	16	52
Low	G	<i>Cerithidea djadjariensis</i>	75	28	28
	G	<i>Lunella coronata</i>	42	16	44
	Bi	<i>Saccostrea cucullata</i>	37	14	58

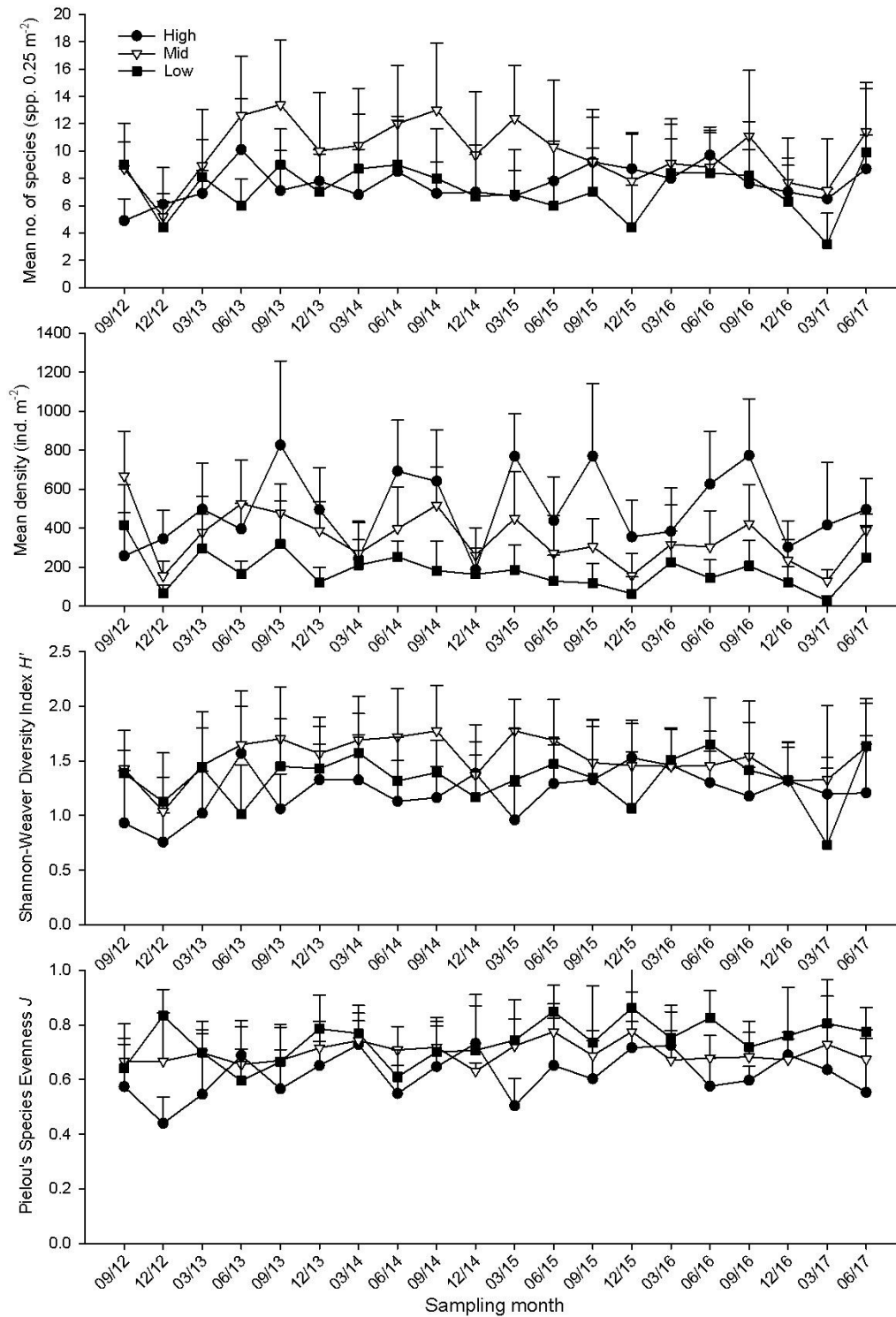
Bi = Bivalve, G = Gastropod

**Table 3.7.** Mean values of species number, density, Shannon-Weaver Diversity Index ( $H'$ ) and Pielou's Species Evenness ( $J$ ) at every tidal level and in every sampling zone

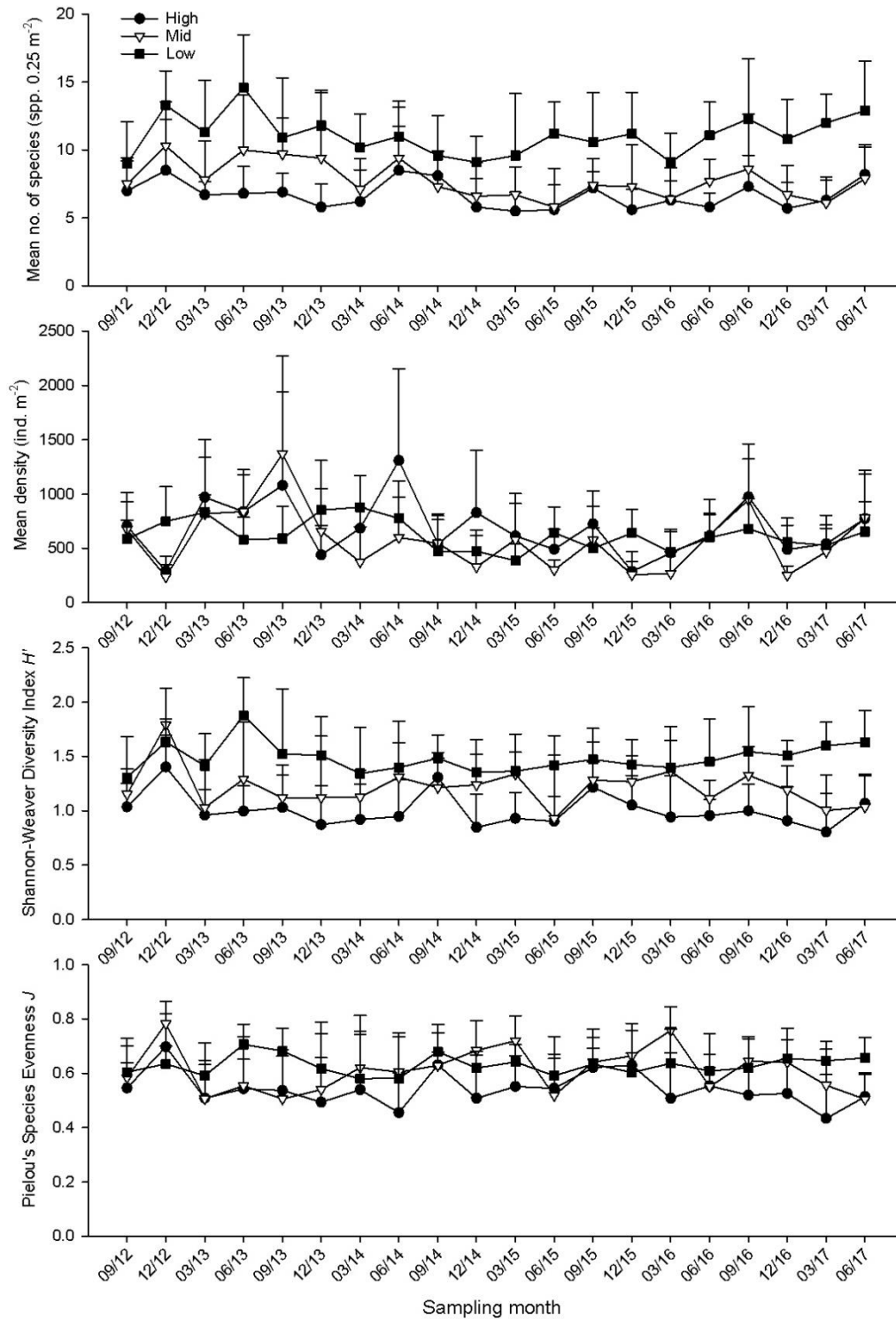
Sampling zone	Tidal level	Mean species number (spp. 0.25 m <sup>-2</sup> )	Mean species number across tidal levels	Mean density (ind. m <sup>-2</sup> )	Mean density across tidal levels	Mean $H'$	Mean $H'$ across tidal levels	Mean $J$	Mean $J$ across tidal levels
TC1	H	9		585		1.0		0.5	
	M	12	12	716	625	1.5	1.5	0.6	0.6
	L	14		575		1.9		0.7	
TC2	H	9		496		1.2		0.6	
	M	11	10	388	377	1.6	1.5	0.7	0.7
	L	10		247		1.6		0.8	
TC3	H	8		773		1.1		0.5	
	M	8	10	780	736	1.0	1.2	0.5	0.6
	L	13		654		1.6		0.7	
ST	H	11		588		1.7		0.7	
	M	14	11	502	451	2.0	1.7	0.8	0.7
	L	9		263		1.5		0.8	



**Figure 3.12.** Temporal changes of mean number of species, mean density, Shannon-Weaver Diversity Index ( $H'$ ) and Pielou's Species Evenness ( $J$ ) (mean + SD) at every tidal level in sampling zone TC1

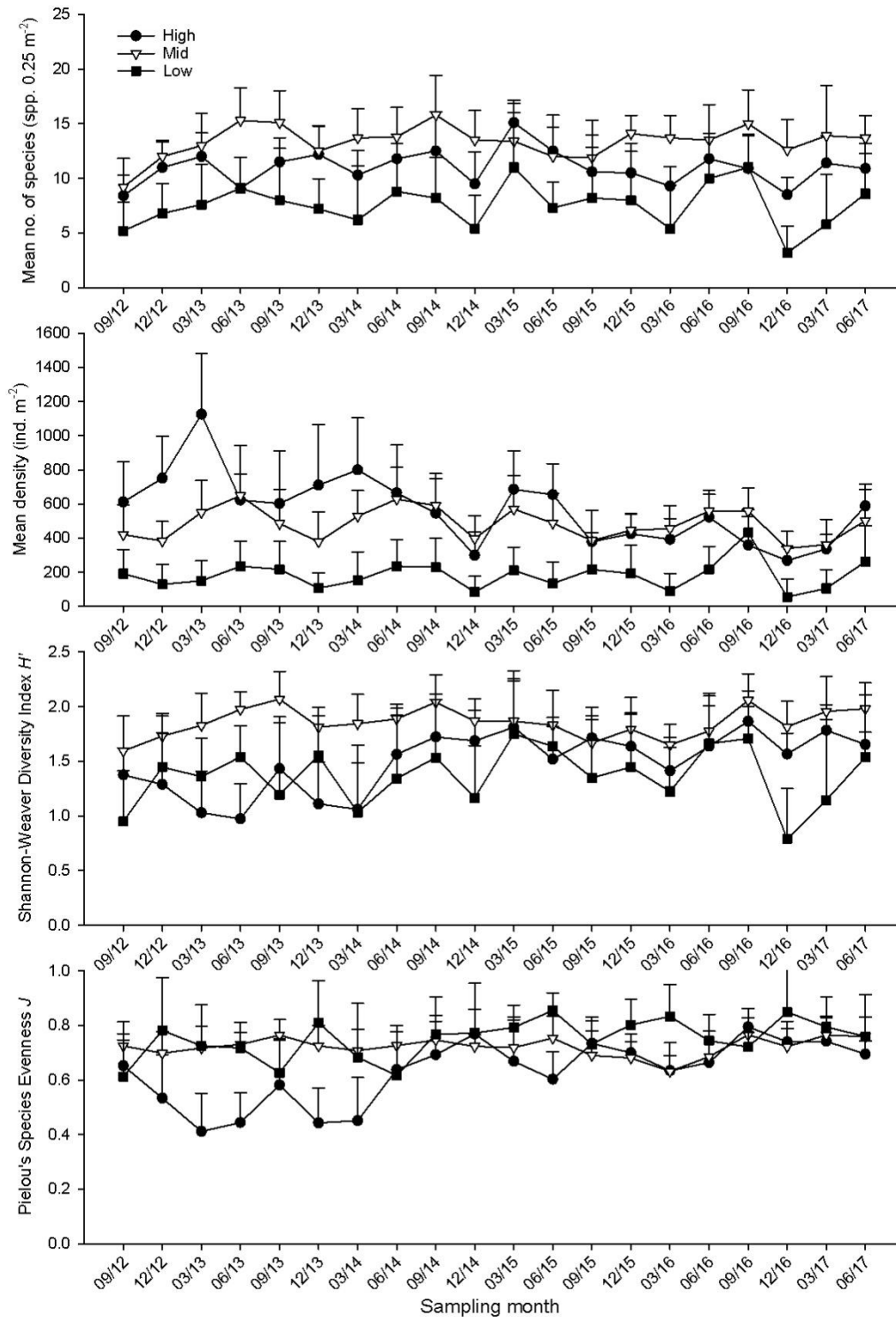


**Figure 3.13.** Temporal changes of mean number of species, mean density, Shannon-Weaver Diversity Index ( $H'$ ) and Pielou's Species Evenness ( $J$ ) (mean + SD) at every tidal level in sampling zone TC2



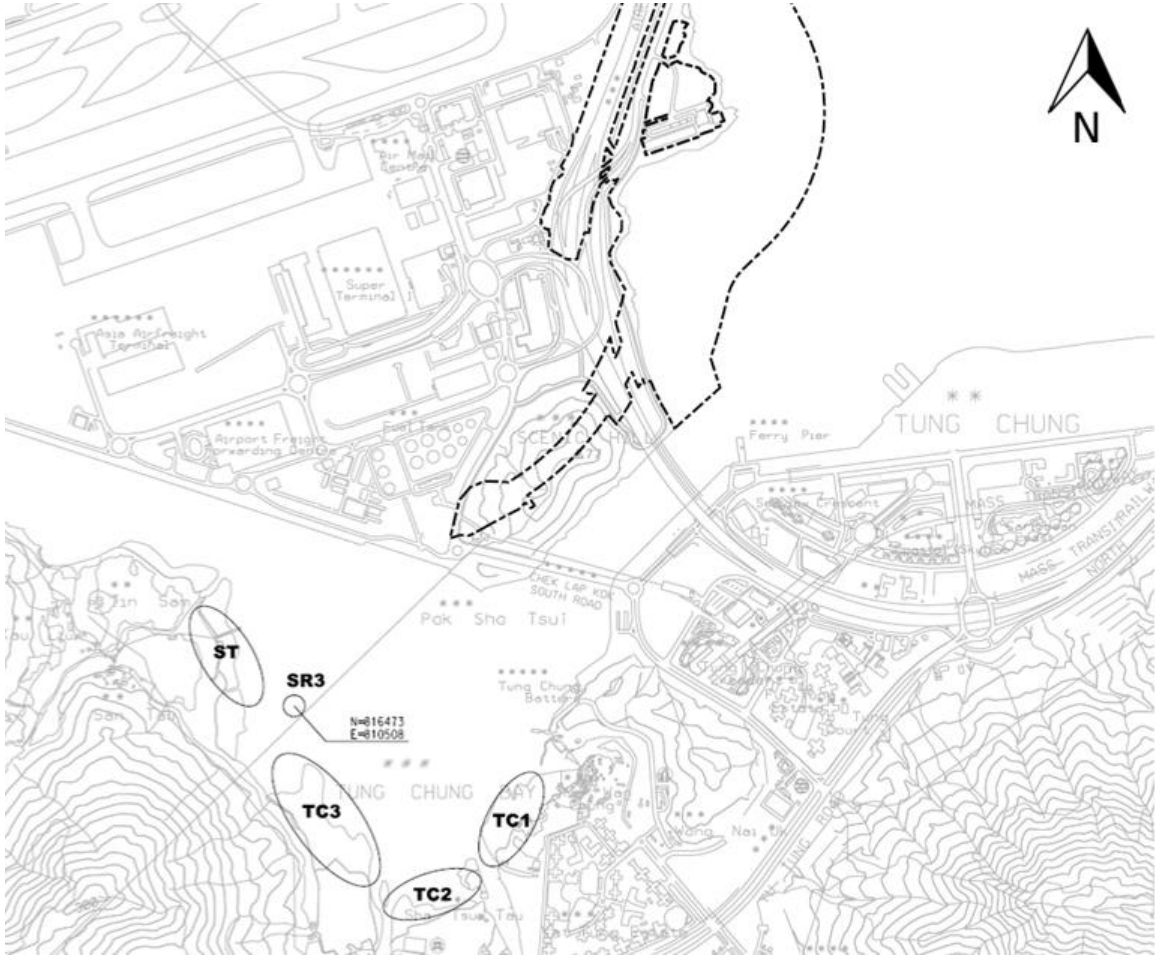
**Figure 3.14.** Temporal changes of mean number of species, mean density, Shannon-Weaver Diversity Index ( $H'$ ) and Pielou's Species Evenness ( $J$ ) (mean + SD) at every tidal level in sampling zone TC3





**Figure 3.15.** Temporal changes of mean number of species, mean density, Shannon-Weaver Diversity Index ( $H'$ ) and Pielou's Species Evenness ( $J$ ) (mean + SD) at every tidal level in sampling zone ST

**Annex I. Location of sampling zones (map from ATKINS China Ltd.)**



**Annex II. Record of horseshoe crab survey in every sampling zone.**

No.	Sub.	GPS coordinate		Record of prosomal width (mm)					
<u>Sampling site TC1 (Search hour = 2 hrs)</u>				<i>Carcinoscorpius rotundicauda</i>				<i>Tachypleus tridentatus</i>	
1	S	22° 16.998' N	113° 55.984' E	23.38	40.85				36.33
2	S	22° 17.008' N	113° 55.986' E	15.72	49.55	54.24	55.46		
3	M	22° 17.026' N	113° 55.970' E	52.74	55.30	57.43			
4	S	22° 17.034' N	113° 55.972' E	49.94	51.70	51.92	72.49		
5	M	22° 17.019' N	113° 55.986' E	36.03					
6	M	22° 17.088' N	113° 56.044' E	32.70	36.08	37.50	44.08	61.82	62.01 64.99
7	S	22° 17.079' N	113° 56.051' E	21.19					51.47
<b>No. of ind.</b>				<b>22</b>					<b>2</b>
<u>Sampling site TC2 (Search hour = 2 hrs)</u>				<i>Carcinoscorpius rotundicauda</i>				<i>Tachypleus tridentatus</i>	
1	M	22° 16.898' N	113° 55.855' E	<u>175.27</u>	<u>143.51</u>				
2	M	22° 16.915' N	113° 55.857' E						67.42
<b>No. of ind.</b>				<b>2</b>					<b>1</b>

Ind. #: number of Individuals (individuals in a group are shown at the same row)

Underlined: size of mating pair (excluded from data analysis)

Sub.: Substratum type; G = Gravel and Boulders, M = Soft mud, S = Sand



No.	Sub.	GPS coordinate		Record of prosomal width (mm)						
<u>Sampling site TC3 (Search hour = 3 hrs)</u>				<i>Carcinoscorpius rotundicauda</i>				<i>Tachypleus tridentatus</i>		
10	S	22° 16.969' N	113° 55.684' E	26.88						34.62
11	S	22° 16.960' N	113° 55.700' E	15.46	21.37	21.86				37.04
12	S	22° 16.956' N	113° 55.713' E	14.29	16.35	18.59	14.31	19.97	19.47	15.62
13	S	22° 16.936' N	113° 55.734' E							50.38
14	S	22° 16.950' N	113° 55.719' E	14.83	15.22	35.90				
<b>No. of ind.</b>				<b>57</b>						<b>70</b>

Ind. #: number of Individuals (individuals in a group are shown at the same row)

Sub.: Substratum type; G = Gravel and Boulders, M = Soft mud, S = Sand





No.	Sub.	GPS coordinate		Record of prosomal width (mm)								
<u>Sampling site ST (Search hour = 3 hrs)</u>				<i>Carcinoscorpius rotundicauda</i>				<i>Tachypleus tridentatus</i>				
12	S	22° 17.387' N	113° 55.460' E	41.59	47.72	41.26	53.92	51.68	59.11	52.67		
				53.28	53.45	53.38	53.14	52.33				
13	S	22° 17.375' N	113° 55.490' E	48.23	53.42	50.26	54.44	52.15	56.33	61.61		
<b>No. of ind.</b>				<b>54</b>					<b>52</b>			

Ind. #: number of Individuals (individuals in a group are shown at the same row)

Sub.: Substratum type; G = Gravel and Boulders, M = Soft mud, S = Sand

**Annex III. Record of seagrass beds survey in every sampling zone**

Estimated area (m <sup>2</sup> )	Estimated coverage (%)		GPS coordinate		Remark
<b>TC1 (search hour = 2 hrs) &amp; TC2 (search hour = 2 hrs)</b>					
No record					
<b>TC3 (search hour = 3 hrs) <i>Halophila ovalis</i></b>					
58.7	100	a single patch	22° 17.081' N	113° 55.603' E	A small patch of seagrass bed at tidal zone 0.5-1.0 m above C.D.
81.7	100	a single patch	22° 17.094' N	113° 55.591' E	A small patch of seagrass bed at tidal zone 0.5-1.0 m above C.D.

**Annex III (Cont'd). Record of seagrass beds survey in every sampling zone**

Estimated area (m <sup>2</sup> )	Estimated coverage (%)		GPS coordinate		Remark
<b>ST (search hour = 3 hrs) <i>Halophila ovalis</i></b>					
12334.4	80-100	horizontal line	22° 17.099' N	113° 55.579' E	--
			22° 17.173' N	113° 55.520' E	An extensive patch of seagrass bed at tidal zone 0.5-2.0 m above C.D.
		vertical line	22° 17.115' N	113° 55.531' E	--
			22° 17.141' N	113° 55.562' E	
4712.1	80-100	horizontal line	22° 17.156' N	113° 55.493' E	--
			22° 17.217' N	113° 55.473' E	An extensive patch of seagrass bed at tidal zone 1.0-2.0 m above C.D.
		vertical line	22° 17.182' N	113° 55.476' E	--
			22° 17.189' N	113° 55.498' E	
<b>ST (search hour = 3 hrs) <i>Zostera japonica</i></b>					
105.4	100	horizontal line	22° 17.199' N	113° 55.471' E	-- A small horizontal strand of seagrass bed nearby the seaward side of
			22° 17.217' N	113° 55.473' E	mangrove area at tidal level 2.0m above C.D.

**Annex IV. Taxonomic resolution of every recorded species of intertidal soft shore community survey**

Kingdom	Phylum	Class	Order	Family	Species
Animalia	Annelida	Clitellata			Marine oligochaete spp.
Animalia	Annelida	Polychaeta	Eunicida	Onuphidae	Onuphidae spp.
Animalia	Annelida	Polychaeta	Phyllodocida	Glyceridae	Glyceridae spp.
Animalia	Annelida	Polychaeta	Phyllodocida	Nereididae	Nereididae spp.
Animalia	Annelida	Polychaeta	Sabellida		Serpulidae spp.
Animalia	Annelida	Polychaeta	Spionida	Spionidae	Spionidae spp.
Animalia	Annelida	Polychaeta	Terebellida	Ampharetidae	Ampharetidae spp.
Animalia	Annelida	Polychaeta	Terebellida	Pectinariidae	Pectinariidae spp.
Animalia	Annelida	Polychaeta	Terebellida	Terebellidae	Terebellidae spp.
Animalia	Annelida	Polychaeta		Capitellidae	Capitellidae spp.
Animalia	Annelida	Polychaeta		Maldanidae	Maldanidae spp.
Animalia	Arthropoda	Malacostraca	Decapoda	Grapsidae	<i>Metopograpsus latifrons</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Ocypodidae	<i>Uca borealis</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Ocypodidae	<i>Uca lactea</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Ocypodidae	<i>Uca</i> sp.
Animalia	Arthropoda	Malacostraca	Decapoda	Ocypodidae	<i>Uca vocans</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Oziidae	<i>Epixanthus</i> sp.
Animalia	Arthropoda	Malacostraca	Decapoda	Paguridae	<i>Pagurus dubius</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Penaeidae	<i>Penaeus</i> sp.
Animalia	Arthropoda	Malacostraca	Decapoda	Portunidae	<i>Scylla serrata</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Sesarmidae	<i>Nanosesarma minutum</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Sesarmidae	<i>Perisesarma bidens</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Varunidae	<i>Hemigrapsus penicillatus</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Xanthidae	<i>Etisus laevimanus</i>
Animalia	Arthropoda	Maxillopoda	Sessilia	Balanidae	<i>Balanus amphitrite</i>
Animalia	Chordata	Actinopterygii	Perciformes	Blenniidae	<i>Omobranchus fasciolatoceps</i>
Animalia	Chordata	Actinopterygii	Perciformes	Gobiidae	<i>Periophthalmus cantonensis</i>
Animalia	Chordata	Actinopterygii	Perciformes	Gobiidae	Unidentified goby spp.
Animalia	Cnidaria	Anthozoa	Actiniaria	Diadumenidae	<i>Diadumene lineata</i>
Animalia	Echiura				Echiura spp.
Animalia	Mollusca	Bivalvia	Anomalodesmata	Laternulidae	<i>Laternula anatina</i>
Animalia	Mollusca	Bivalvia	Arcoida	Arcidae	<i>Barbatia virescens</i>
Animalia	Mollusca	Bivalvia	Euheterodonta	Hiatellidae	<i>Hiatella arctica</i>



**Annex IV (Cont'd).** Taxonomic resolution of every recorded species of intertidal soft shore community survey

Kingdom	Phylum	Class	Order	Family	Species
Animalia	Mollusca	Bivalvia	Mytiloidea	Mytilidae	<i>Xenostrobus atratus</i>
Animalia	Mollusca	Bivalvia	Ostreoida	Ostreidae	<i>Saccostrea cucullata</i>
Animalia	Mollusca	Bivalvia	Veneroidea	Corbiculidae	<i>Geloina erosa</i>
Animalia	Mollusca	Bivalvia	Veneroidea	Glauconomidae	<i>Glaucnome chinensis</i>
Animalia	Mollusca	Bivalvia	Veneroidea	Mesodesmatidae	<i>Caecella chinensis</i>
Animalia	Mollusca	Bivalvia	Veneroidea	Tellinidae	<i>Tellina</i> sp.
Animalia	Mollusca	Bivalvia	Veneroidea	Veneridae	<i>Anomalocardia squamosa</i>
Animalia	Mollusca	Bivalvia	Veneroidea	Veneridae	<i>Circe</i> sp.
Animalia	Mollusca	Bivalvia	Veneroidea	Veneridae	<i>Cyclina sinesis</i>
Animalia	Mollusca	Bivalvia	Veneroidea	Veneridae	<i>Dosinia japonica</i>
Animalia	Mollusca	Bivalvia	Veneroidea	Veneridae	<i>Ruditapes philippinarum</i>
Animalia	Mollusca	Gastropoda	Caenogastropoda	Batillariidae	<i>Batillaria bornii</i>
Animalia	Mollusca	Gastropoda	Caenogastropoda	Batillariidae	<i>Batillaria multiformis</i>
Animalia	Mollusca	Gastropoda	Caenogastropoda	Batillariidae	<i>Batillaria zonalis</i>
Animalia	Mollusca	Gastropoda	Caenogastropoda	Potamididae	<i>Cerithidea cingulata</i>
Animalia	Mollusca	Gastropoda	Caenogastropoda	Potamididae	<i>Cerithidea djadjariensis</i>
Animalia	Mollusca	Gastropoda	Caenogastropoda	Potamididae	<i>Cerithidea rhizophorarum</i>
Animalia	Mollusca	Gastropoda	Caenogastropoda	Potamididae	<i>Terebralia sulcata</i>
Animalia	Mollusca	Gastropoda	Cephalaspidea	Philineidae	<i>Philine vitrea</i>
Animalia	Mollusca	Gastropoda	Cycloneritimorpha	Neritidae	<i>Clithon faba</i>
Animalia	Mollusca	Gastropoda	Cycloneritimorpha	Neritidae	<i>Clithon oualaniensis</i>
Animalia	Mollusca	Gastropoda	Cycloneritimorpha	Neritidae	<i>Nerita polita</i>
Animalia	Mollusca	Gastropoda	Littorinimorpha	Littorinidae	<i>Littoraria articulata</i>
Animalia	Mollusca	Gastropoda	Littorinimorpha	Rissoinidae	<i>Rissoina plicatula</i>
Animalia	Mollusca	Gastropoda	Neogastropoda	Muricidae	<i>Thais luteostoma</i>
Animalia	Mollusca	Gastropoda	Neogastropoda	Nassariidae	<i>Nassarius festivus</i>
Animalia	Mollusca	Gastropoda	Neogastropoda	Nassariidae	<i>Nassarius hepaticus</i>
Animalia	Mollusca	Gastropoda	Systemmatophora	Onchidiidae	<i>Onchidium</i> sp.
Animalia	Mollusca	Gastropoda		Lottiidae	<i>Nipponacmea concinna</i>
Animalia	Mollusca	Gastropoda		Lottiidae	<i>Patelloida pygmaea</i>
Animalia	Mollusca	Gastropoda		Nacellidae	<i>Cellana grata</i>
Animalia	Mollusca	Gastropoda		Nacellidae	<i>Cellana toreuma</i>

**Annex IV (Cont'd).** *Taxonomic resolution of every recorded species of intertidal soft shore community survey*

<b>Kingdom</b>	<b>Phylum</b>	<b>Class</b>	<b>Order</b>	<b>Family</b>	<b>Species</b>
Animalia	Mollusca	Gastropoda		Trochidae	<i>Euchelus scaber</i>
Animalia	Mollusca	Gastropoda		Trochidae	<i>Monodonta labio</i>
Animalia	Mollusca	Gastropoda		Turbinidae	<i>Lunella coronata</i>
Animalia	Mollusca	Polyplacophora	Chitonida	Ischnochitonidae	<i>Lepidozona</i> sp.
Animalia	Mollusca	Scaphopoda	Dentaliida	Dentaliidae	<i>Dentalium sinuosum</i>
Animalia	Nemertea				Nemertea spp.
Animalia	Platyhelminthes				Platyhelminthes spp.
Animalia	Sipuncula	Sipunculidea	Golfingiida	Sipunculidae	<i>Sipunculus nudus</i>

**Annex V. List of recorded fauna of intertidal soft shore community survey in every sampling zone**

Jun 2017 Sampling zone TC 1 High tidal level (2.0 m above C.D.)

Gp	Taxon	1		2		3		4		5		6		7		8		9		10		sub-total
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	
Bi	<i>Geloina erosa</i>																				1	1
Bi	<i>Saccostrea cucullata</i>	1		5		15				1												22
Bi	<i>Xenostrobus atratus</i>									1												1
C	<i>Hemigrapsus penicillatus</i>													1		1		2				4
C	<i>Metopograpsus latifrons</i>							4		4												8
C	<i>Nanosesarma minutum</i>	2		1		2		4		2		1				1						13
C	<i>Perisesarma bidens</i>							1		2						1						4
C	<i>Uca vocans</i>							20														20
G	<i>Batillaria bornii</i>	1																				1
G	<i>Batillaria multiformis</i>	11		13		6		6		78		82		106		131		142		152		727
G	<i>Batillaria zonalis</i>	9																				9
G	<i>Cellana grata</i>			4																		4
G	<i>Cerithidea cingulata</i>	45		7		17				2								15				86
G	<i>Cerithidea djadjariensis</i>	43		104		138		58		5								29		10		387
G	<i>Cerithidea rhizophorarum</i>	4		4		10		1		2		6		8		5		2				42
G	<i>Clithon faba</i>	14						2								1				1		18
G	<i>Clithon oualaniensis</i>	1								3				1		2		5				12
G	<i>Littoraria articulata</i>									1		1		2		2						6
G	<i>Lunella coronata</i>	1		1		2																4

**Annex V (Cont'd).** List of recorded fauna of intertidal soft shore community survey in every sampling zone

Jun 2017 Sampling zone TC 1 High tidal level (2.0 m above C.D.)

Gp	Taxon	1		2		3		4		5		6		7		8		9		10		sub-total
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	
G	<i>Monodonta labio</i>	5		11		9		5		27				2		8		6		1		74
G	<i>Nerita polita</i>																	1				1
G	<i>Nipponacmea concinna</i>	3		3						7												13
G	<i>Philine vitrea</i>							1														1
G	<i>Rissoina plicatula</i>																	1				1
G	<i>Terebralia sulcata</i>							2														2
Ne	Nemertea spp.							1														1
Sp	<i>Sipunculus nudus</i>							1														1
																					<b>Total</b>	<b>1463</b>

**Annex V (Cont'd).** List of recorded fauna of intertidal soft shore community survey in every sampling zone

Jun 2017 Sampling zone TC 1 Mid tidal level (1.5 m above C.D.)

Gp	Taxon	1		2		3		4		5		6		7		8		9		10		sub-total
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	
Ba	<i>Balanus amphitrite</i>	1																		3		4
Bi	<i>Barbatia virescens</i>																			2		2
Bi	<i>Geloina erosa</i>							1														1
Bi	<i>Hiatella arctica</i>			1																		1
Bi	<i>Saccostrea cucullata</i>			9		10		43		32		18		23		16		14		29		194
Bi	<i>Xenostrobus atratus</i>							1		2		1								1		5
C	<i>Hemigrapsus penicillatus</i>															1				1		2
C	<i>Metopograpsus latifrons</i>											1										1
C	<i>Nanosesarma minutum</i>							3		1				2		3		1		3		13
G	<i>Batillaria bornii</i>	4		1																		5
G	<i>Batillaria multiformis</i>	9		100				33		44		155		95		69		36		79		620
G	<i>Batillaria zonalis</i>	3		1																		4
G	<i>Cellana grata</i>							1		1						1						3
G	<i>Cellana toreuma</i>											5				7		8		8		28
G	<i>Cerithidea cingulata</i>	15		3		3				1				1		1		1		2		27
G	<i>Cerithidea djadjariensis</i>	32		40		61		6		17						13		5		36		210
G	<i>Cerithidea rhizophorarum</i>	2		1		3		2		8						1				4		21
G	<i>Clithon faba</i>									2				2				6		2		12
G	<i>Clithon oualaniensis</i>	2				1										3				1		7



**Annex V (Cont'd).** List of recorded fauna of intertidal soft shore community survey in every sampling zone

Jun 2017 Sampling zone TC 1 Mid tidal level (1.5 m above C.D.)

Gp	Taxon	1		2		3		4		5		6		7		8		9		10		sub-total
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	
G	<i>Lepidozona</i> sp.	4						1														5
G	<i>Littoraria articulata</i>									4		14		4				1		2		25
G	<i>Lunella coronata</i>	2		2				3		6						3		6		11		33
G	<i>Monodonta labio</i>	7		17				57		85		28		56		115		56		101		522
G	<i>Nassarius hepaticus</i>					1	1															2
G	<i>Nerita polita</i>							1		1												2
G	<i>Nipponacmea concinna</i>	7		7				9		1										2		26
G	<i>Patelloida pygmaea</i>	1		2														1		2		6
G	<i>Thais luteostoma</i>					1																1
Ne	Nemertea spp.															2		1				3
P	Maldanidae spp.						2															2
P	Nereididae spp.											2										2
Sp	<i>Sipunculus nudus</i>							1		1												2
																					<b>Total</b>	<b>1791</b>

**Annex V (Cont'd).** List of recorded fauna of intertidal soft shore community survey in every sampling zone

Jun 2017 Sampling zone TC 1 Low tidal level (1.0 m above C.D.)

Gp	Taxon	1		2		3		4		5		6		7		8		9		10		sub-total
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	
Ba	<i>Balanus amphitrite</i>	2		18		12		2										1		1		36
Bi	<i>Barbatia virescens</i>	3						10								1		35		2		51
Bi	<i>Hiatella arctica</i>	4		1				4								1		1				11
Bi	<i>Ruditapes philippinarum</i>													8		9						17
Bi	<i>Saccostrea cucullata</i>	40		17		14		92				25		15		12		36		9		260
Bi	<i>Xenostrobus atratus</i>	9						10														19
C	<i>Hemigrapsus penicillatus</i>											1										1
C	<i>Metopograpsus latifrons</i>											1										1
C	<i>Nanosesarma minutum</i>	4		1				4				3		1		1		1		1		16
Cn	<i>Diadumene lineata</i>															2				1		3
F	Unidentified goby spp.															1						1
G	<i>Batillaria bornii</i>			5				10						7		2						24
G	<i>Batillaria multiformis</i>	5		4		9		5				32		10		27		3		2		97
G	<i>Batillaria zonalis</i>	4		4		19		3		16												46
G	<i>Cellana grata</i>											2				2		2		1		7
G	<i>Cellana toreuma</i>											9		5		7		5		17		43
G	<i>Cerithidea cingulata</i>	15		1				5		16	1					2						40
G	<i>Cerithidea djadjariensis</i>	31		103		29		5		44		1				5		9		8		235
G	<i>Cerithidea rhizophorarum</i>	1		3						1												5

**Annex V (Cont'd).** List of recorded fauna of intertidal soft shore community survey in every sampling zone

Jun 2017 Sampling zone TC 1 Low tidal level (1.0 m above C.D.)

Gp	Taxon	1		2		3		4		5		6		7		8		9		10		sub-total
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	
G	<i>Clithon faba</i>					1						1		4		11				5		22
G	<i>Clithon oualaniensis</i>	1								3		2		2				1		1		10
G	<i>Euchelus scaber</i>							1										1				2
G	<i>Lepidozona</i> sp.	1		1																		2
G	<i>Littoraria articulata</i>	1				2		2										2		1		8
G	<i>Lunella coronata</i>	8		5		2		26				8		4		11		9		5		78
G	<i>Monodonta labio</i>	51		6				33				78		52		46		49		29		344
G	<i>Nassarius festivus</i>					1										1						2
G	<i>Nerita polita</i>	1						1										1		1		4
G	<i>Nipponacmea concinna</i>	14		4		1		9														28
G	<i>Patelloida pygmaea</i>	1		4		1		5				4						4				19
Ne	Nemertea spp.							1														1
P	Nereididae spp.																	1				1
P	Onuphidae spp.										1											1
Sp	<i>Sipunculus nudus</i>					1												1				2
																					<b>Total</b>	<b>1437</b>

**Annex V (Cont'd).** List of recorded fauna of intertidal soft shore community survey in every sampling zone

Jun 2017 Sampling zone TC 2 High tidal level (2.0 m above C.D.)

Gp	Taxon	1		2		3		4		5		6		7		8		9		10		sub-total
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	
Ba	<i>Balanus amphitrite</i>	5												1						2		8
Bi	<i>Geloina erosa</i>																1					1
Bi	<i>Hiatella arctica</i>			1																		1
Bi	<i>Laternula anatina</i>																1		1			2
Bi	<i>Saccostrea cucullata</i>							2				2		7		3		3		13		30
Bi	<i>Xenostrobus atratus</i>			1																		1
C	<i>Nanosesarma minutum</i>	1		4						1				1								7
C	<i>Uca lactea</i>					1						1				1		3				6
G	<i>Batillaria bornii</i>																	1		4		5
G	<i>Batillaria multiformis</i>	8		2				1		58		31		6		5	1	5		9		126
G	<i>Batillaria zonalis</i>							1		7	1	8	1	9		14		11		11		63
G	<i>Cellana toreuma</i>	1																		2		3
G	<i>Cerithidea cingulata</i>					4		4		9		7		25		17		9		42		117
G	<i>Cerithidea djadjariensis</i>	19		12		104		90		53		80		154	1	109	2	80		38		742
G	<i>Cerithidea rhizophorarum</i>	6		6		2				1		1				2		2		1		21
G	<i>Littoraria articulata</i>	3		1																		4
G	<i>Lunella coronata</i>																			6		6
G	<i>Monodonta labio</i>	36		20										2		1				3		62
G	<i>Nassarius festivus</i>							1						1								2

**Annex V (Cont'd).** List of recorded fauna of intertidal soft shore community survey in every sampling zone

Jun 2017 Sampling zone TC 2 High tidal level (2.0 m above C.D.)

Gp	Taxon	1		2		3		4		5		6		7		8		9		10		sub-total
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	
G	<i>Nipponacmea concinna</i>	2		5																		7
G	<i>Onchidium</i> sp.	8																				8
G	<i>Patelloida pygmaea</i>																			1		1
Ne	Nemertea spp.			7		6																13
P	Ampharetidae spp.																3		1			4
S	<i>Penaeus</i> sp.															1						1
																					<b>Total</b>	<b>1241</b>

**Annex V (Cont'd).** List of recorded fauna of intertidal soft shore community survey in every sampling zone

Jun 2017 Sampling zone TC 2 Mid tidal level (1.5 m above C.D.)

Gp	Taxon	1		2		3		4		5		6		7		8		9		10		sub-total
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	
Ba	<i>Balanus amphitrite</i>			3				2		1		4										10
Bi	<i>Barbatia virescens</i>											4										4
Bi	<i>Hiatella arctica</i>											1										1
Bi	<i>Laternula anatina</i>																		1			1
Bi	<i>Saccostrea cucullata</i>	39		1		2		19		15		21						3		10		110
C	<i>Hemigrapsus penicillatus</i>																			1		1
C	<i>Nanosesarma minutum</i>							4		3		1								2		10
C	<i>Uca borealis</i>													4		3		2				9
C	<i>Uca lactea</i>					2																2
Cn	<i>Diadumene lineata</i>	2								1		2										5
G	<i>Batillaria bornii</i>							4		3		1										8
G	<i>Batillaria multiformis</i>	2		2		7		3				2		2		2		3		2		25
G	<i>Batillaria zonalis</i>	2		5		14		9		9		18	1	20	1	20		24		34	3	160
G	<i>Cellana toreuma</i>	8						1														9
G	<i>Cerithidea cingulata</i>	4		7		3		1				1		15	2	5	1	9	2	1	1	52
G	<i>Cerithidea djadjariensis</i>	13		52	1	30	1	21		17		29	1	77	1	66		69		30	1	409
G	<i>Cerithidea rhizophorarum</i>	1		1								1		1		2		5	1	1		13
G	<i>Dentalium sinuosum</i>																				1	1
G	<i>Lepidozona sp.</i>											1										1



**Annex V (Cont'd).** List of recorded fauna of intertidal soft shore community survey in every sampling zone

Jun 2017 Sampling zone TC 2 Mid tidal level (1.5 m above C.D.)

Gp	Taxon	1		2		3		4		5		6		7		8		9		10		sub-total
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	
G	<i>Littoraria articulata</i>	2																				2
G	<i>Lunella coronata</i>	1				1		14		7		3										26
G	<i>Monodonta labio</i>	35		1				12		14		1							1			64
G	<i>Nassarius festivus</i>					1						1		1								3
G	<i>Nerita polita</i>	1																				1
G	<i>Nipponacmea concinna</i>	6						1		5												12
G	<i>Patelloida pygmaea</i>	1						1				1										3
Ne	Nemertea spp.	3																				3
P	Ampharetidae spp.						1													1		2
P	Maldanidae spp.				3		2	1				1			2		4			2		15
P	Nereididae spp.						1															1
Sp	<i>Sipunculus nudus</i>				1							3		4								8
																					<b>Total</b>	<b>971</b>

**Annex V (Cont'd).** List of recorded fauna of intertidal soft shore community survey in every sampling zone

Jun 2017 Sampling zone TC 2 Low tidal level (1.0 m above C.D.)

Gp	Taxon	1		2		3		4		5		6		7		8		9		10		sub-total
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	
Ba	<i>Balanus amphitrite</i>			20		5								12		9		48				94
Bi	<i>Anomalocardia squamosa</i>									1												1
Bi	<i>Barbatia virescens</i>													1		2		3				6
Bi	<i>Hiatella arctica</i>			1							1		1									3
Bi	<i>Saccostrea cucullata</i>			37		21				18		1		22		15		9				123
Bi	<i>Tellina</i> sp.														1							1
Bi	<i>Xenostrobus atratus</i>													3								3
C	<i>Hemigrapsus penicillatus</i>													2	2	1						5
C	<i>Nanosesarma minutum</i>			5														3				8
C	<i>Uca borealis</i>																			3		3
Cn	<i>Diadumene lineata</i>			3										1								4
G	<i>Batillaria bornii</i>					1								9				1				11
G	<i>Batillaria multiformis</i>					4		1		2						1		1				9
G	<i>Batillaria zonalis</i>			3		11		10		12		8		12	2	15	2	15		4	3	97
G	<i>Cellana toreuma</i>			1																		1
G	<i>Cerithidea cingulata</i>			2		2								3		1	1	1		2		12
G	<i>Cerithidea djadjariensis</i>	1		6		18		6	2	5		11	3	31		37	3	23		9	1	156
G	<i>Cerithidea rhizophorarum</i>									1			1							1		3
G	<i>Euchelus scaber</i>															3						3

**Annex V (Cont'd).** List of recorded fauna of intertidal soft shore community survey in every sampling zone

Jun 2017 Sampling zone TC 2 Low tidal level (1.0 m above C.D.)

Gp	Taxon	1		2		3		4		5		6		7		8		9		10		sub-total
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	
G	<i>Lunella coronata</i>			16		2				2				5		3		4				32
G	<i>Monodonta labio</i>			4		5																9
G	<i>Nassarius festivus</i>											1		1		1		2				5
G	<i>Nassarius hepaticus</i>									1												1
G	<i>Nerita polita</i>									1				2								3
G	<i>Nipponacmea concinna</i>			1										1								2
G	<i>Patelloida pygmaea</i>													1								1
Ne	Nemertea spp.												1									1
P	Ampharetidae spp.		1																			1
P	Maldanidae spp.						3		1				1				3					8
P	Nereididae spp.								1				1								1	3
P	Onuphidae spp.												3		1						1	5
P	Pectinariidae spp.														1							1
Pl	Platyhelminthes spp.					1																1
Sp	<i>Sipunculus nudus</i>																2					2
																					<b>Total</b>	<b>618</b>

**Annex V (Cont'd).** List of recorded fauna of intertidal soft shore community survey in every sampling zone

Jun 2017 Sampling zone TC 3 High tidal level (2.0 m above C.D.)

Gp	Taxon	1		2		3		4		5		6		7		8		9		10		sub-total
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	
Ba	<i>Balanus amphitrite</i>														2							2
Bi	<i>Circe</i> sp.						1		6		1						1		1			10
Bi	<i>Cyclina sinesis</i>												1									1
Bi	<i>Glauconome chinensis</i>				1																	1
Bi	<i>Laternula anatina</i>																				1	1
Bi	<i>Saccostrea cucullata</i>													4							3	7
C	<i>Nanosesarma minutum</i>	1																			1	2
C	<i>Scylla serrata</i>																1					1
C	<i>Uca borealis</i>													1							3	4
C	<i>Uca lactea</i>	4		3																		7
F	<i>Periophthalmus cantonensis</i>					1																1
G	<i>Batillaria multiformis</i>	7		39	10	77	2	210	7	18	1	5		31				2	3	48	3	463
G	<i>Batillaria zonalis</i>	1				4		1		2		2		4								14
G	<i>Cerithidea cingulata</i>	25		11		48		49		40	1	28		17		5		7		14		245
G	<i>Cerithidea djadjariensis</i>	234		126	1	149	2	107		63	1	45		164		31		36	1	149		1109
G	<i>Cerithidea rhizophorarum</i>	8		3			1			4		2		8				2		6		34
G	<i>Clithon oualaniensis</i>	1						5		1		1	1					1		1		11
G	<i>Monodonta labio</i>													1								1
G	<i>Nassarius hepaticus</i>												1									1

**Annex V (Cont'd).** List of recorded fauna of intertidal soft shore community survey in every sampling zone

Jun 2017 Sampling zone TC 3 High tidal level (2.0 m above C.D.)

Gp	Taxon	1		2		3		4		5		6		7		8		9		10		sub-total
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	
G	<i>Philine vitrea</i>							1														1
Ne	Nemertea spp.									1												1
P	Ampharetidae spp.						2								2				1		1	6
P	Maldanidae spp.												2		1				3			6
P	Nereididae spp.				1								2						1			4
																					<b>Total</b>	<b>1933</b>

**Annex V (Cont'd).** List of recorded fauna of intertidal soft shore community survey in every sampling zone

Jun 2017 Sampling zone TC 3 Mid tidal level (1.5 m above C.D.)

Gp	Taxon	1		2		3		4		5		6		7		8		9		10		sub-total
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	
Bi	<i>Caecella chinensis</i>																				1	1
Bi	<i>Dosinia japonica</i>																1					1
Bi	<i>Laternula anatina</i>													1								1
Bi	<i>Saccostrea cucullata</i>																		42			42
Bi	<i>Xenostrobus atratus</i>																		3			3
C	<i>Uca borealis</i>											7		8		14		4				33
C	<i>Uca lactea</i>	7		5		2		2		1												17
C	<i>Uca sp.</i>											1										1
G	<i>Batillaria bornii</i>	2																				2
G	<i>Batillaria multiformis</i>	8		16		22		5		6		4		1		2		15		256	21	356
G	<i>Batillaria zonalis</i>	9		6		13		5		10		2	1	6		9						61
G	<i>Cellana toreuma</i>																	4				4
G	<i>Cerithidea cingulata</i>	55		159		26		8		11		3				7		1		51	4	325
G	<i>Cerithidea djadjariensis</i>	155		116		145		105		105		89	5	54	6	119	5	56		66	5	1031
G	<i>Cerithidea rhizophorarum</i>	7		4		5				5		3				3		3		2		32
G	<i>Clithon oualaniensis</i>	1														1						2
G	<i>Lunella coronata</i>							1										4				5
G	<i>Monodonta labio</i>	2																14				16
G	<i>Nassarius hepaticus</i>													1								1

**Annex V (Cont'd).** List of recorded fauna of intertidal soft shore community survey in every sampling zone

Jun 2017 Sampling zone TC 3 Mid tidal level (1.5 m above C.D.)



Gp	Taxon	1		2		3		4		5		6		7		8		9		10		sub-total
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	
G	<i>Nipponacmea concinna</i>																		1			1
G	<i>Patelloida pygmaea</i>																		1			1
Ne	Nemertea spp.													1	1							2
Ol	Marine oligochaete spp.																3					3
P	Ampharetidae spp.					3																3
P	Maldanidae spp.											1			1				1			3
P	Terebellidae spp.																				1	1
Sp	<i>Sipunculus nudus</i>																		1			1
																				<b>Total</b>	<b>1949</b>	

**Annex V (Cont'd).** List of recorded fauna of intertidal soft shore community survey in every sampling zone

Jun 2017 Sampling zone TC 3 Low tidal level (1.0 m above C.D.)

Gp	Taxon	1		2		3		4		5		6		7		8		9		10		sub-total
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	
Ba	<i>Balanus amphitrite</i>									7								3				10
Bi	<i>Barbatia virescens</i>	3		15		12		12		8				6				2		3		61
Bi	<i>Cyclina sinesis</i>					1																1
Bi	<i>Hiatella arctica</i>	3						3		1				2						3		12
Bi	<i>Saccostrea cucullata</i>	111		69		72		105		42				96		53		50		64		662
Bi	<i>Tellina</i> sp.												1									1
Bi	<i>Xenostrobus atratus</i>	12						1						1		7		2		1		24
C	<i>Etisus laevimanus</i>					1																1
C	<i>Hemigrapsus penicillatus</i>													2		1						3
C	<i>Nanosesarma minutum</i>	11		4		6		4		10				2		1						38
Cn	<i>Diadumene lineata</i>													2								2
Eh	<i>Echiura</i> spp.			2				2														4
F	<i>Omobranchus fasciolatoceps</i>					2																2
G	<i>Batillaria bornii</i>																			2		2
G	<i>Batillaria multiformis</i>	3		2		22		1						1		2		1		1		33
G	<i>Batillaria zonalis</i>									1								3		1		5
G	<i>Cellana toreuma</i>	2		5		1		12		1				2		1						24
G	<i>Cerithidea cingulata</i>					3				1								3				7
G	<i>Cerithidea djadjariensis</i>					8				12		9	2	1				6		3		41

**Annex V (Cont'd).** List of recorded fauna of intertidal soft shore community survey in every sampling zone

Jun 2017 Sampling zone TC 3 Low tidal level (1.0 m above C.D.)

Gp	Taxon	1		2		3		4		5		6		7		8		9		10		sub-total
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	
G	<i>Cerithidea rhizophorarum</i>					1												3				4
G	<i>Euchelus scaber</i>	1																			1	2
G	<i>Littoraria articulata</i>	1		1		3																5
G	<i>Lunella coronata</i>	8		5		6		6		10				5		6		3		15		64
G	<i>Monodonta labio</i>	85		74		50		77		22				67		29		25		55		484
G	<i>Nerita polita</i>	2				3		3						3		1				1		13
G	<i>Nipponacmea concinna</i>	11		4		2		13		2				3		22		9		6		72
G	<i>Patelloida pygmaea</i>	1		1										4		9		12		8		35
Ne	Nemertea spp.													1								1
P	Capitellidae spp.					1																1
P	Maldanidae spp.												1	5								6
Sp	<i>Sipunculus nudus</i>			1		2		1		4				6		1						15
																					<b>Total</b>	<b>1635</b>

**Annex V (Cont'd).** List of recorded fauna of intertidal soft shore community survey in every sampling zone

Jun 2017 Sampling zone ST High tidal level (2.0 m above C.D.)

Gp	Taxon	1		2		3		4		5		6		7		8		9		10		sub-total
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	
Ba	<i>Balanus amphitrite</i>	2																				2
Bi	<i>Barbatia virescens</i>			1																		1
Bi	<i>Saccostrea cucullata</i>	23		11		35		6				7		14		7		16		6		125
Bi	<i>Xenostrobus atratus</i>	1		1														1				3
C	<i>Nanosesarma minutum</i>	1		1		2				1				4				3		5		17
Cn	<i>Diadumene lineata</i>	1		2																1		4
G	<i>Batillaria bornii</i>			2				1		30		10								1		44
G	<i>Batillaria multiformis</i>	48		64		72		27		38		50		50		99		38		31		517
G	<i>Cellana grata</i>							1								3						4
G	<i>Cellana toreuma</i>	5		7		25		11		8		8		24		46		57		51		242
G	<i>Cerithidea cingulata</i>					1				5		5		5		4						20
G	<i>Cerithidea djadjariensis</i>	1		1		4				5		7		2		7		3		3		33
G	<i>Cerithidea rhizophorarum</i>					1																1
G	<i>Clithon faba</i>			3																1		4
G	<i>Clithon oualaniensis</i>	1				1				2		1										5
G	<i>Lepidozona</i> sp.															1						1
G	<i>Littoraria articulata</i>							7										1				8
G	<i>Lunella coronata</i>			1		6		1		2		1		5		4		4		3		27
G	<i>Monodonta labio</i>	27		36		35		60		22		27		53		39		31		27		357

**Annex V (Cont'd).** List of recorded fauna of intertidal soft shore community survey in every sampling zone

Jun 2017 Sampling zone ST High tidal level (2.0 m above C.D.)

Gp	Taxon	1		2		3		4		5		6		7		8		9		10		sub-total
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	
G	<i>Nerita polita</i>	1		2		1		3				1										8
G	<i>Nipponacmea concinna</i>	13		8						3		5		11								40
G	<i>Patelloida pygmaea</i>													1		2		2				5
G	<i>Philine vitrea</i>											1										1
Ne	Nemertea spp.							1														1
																					<b>Total</b>	<b>1470</b>

**Annex V (Cont'd).** List of recorded fauna of intertidal soft shore community survey in every sampling zone

Jun 2017 Sampling zone ST Mid tidal level (1.5 m above C.D.)

Gp	Taxon	1		2		3		4		5		6		7		8		9		10		sub-total
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	
Ba	<i>Balanus amphitrite</i>					58		12		1						1						72
Bi	<i>Barbatia virescens</i>	1						2		4				1		1		2		3		14
Bi	<i>Circe</i> sp.					1	1															2
Bi	<i>Hiatella arctica</i>			4								1		2		2		2		1		12
Bi	<i>Saccostrea cucullata</i>	23		42		13		6		5		19		13		28		38		33		220
Bi	<i>Xenostrobus atratus</i>			1								1										2
C	<i>Nanosesarma minutum</i>	2		6		2		4		1		5		2		5		6		3		36
Cn	<i>Diadumene lineata</i>			1						2		1				1				4		9
F	Unidentified goby spp.									1								1				2
G	<i>Batillaria bornii</i>	4		1		1				11		3		3		9		1		19		52
G	<i>Batillaria multiformis</i>	26				4		7	1	1		1		2		1		23		30		96
G	<i>Batillaria zonalis</i>					8		12														20
G	<i>Cellana grata</i>																	1		2		3
G	<i>Cellana toreuma</i>	2		1						2		6		11		23		29		18		92
G	<i>Cerithidea cingulata</i>	1		2		15	1	1		5		14				1		1		2		43
G	<i>Cerithidea djadjariensis</i>	10		12		78		57	1	13		11		1		13		7		3		206
G	<i>Cerithidea rhizophorarum</i>	1				1		1								1						4
G	<i>Clithon faba</i>									2										1		3
G	<i>Clithon oualaniensis</i>															1						1



**Annex V (Cont'd).** List of recorded fauna of intertidal soft shore community survey in every sampling zone

Jun 2017 Sampling zone ST Mid tidal level (1.5 m above C.D.)

Gp	Taxon	1		2		3		4		5		6		7		8		9		10		sub-total
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	
G	<i>Euchelus scaber</i>			1				4								5		3		3		16
G	<i>Lunella coronata</i>	5		15				3		11		10		7		12		13		17		93
G	<i>Monodonta labio</i>	4		32						21		17		20		27		70		35		226
G	<i>Nerita polita</i>			2																		2
G	<i>Nipponacmea concinna</i>									2		4		10								16
G	<i>Patelloida pygmaea</i>	2		3												1		2				8
Hc	<i>Pagurus dubius</i>																			1		1
Ne	Nemertea spp.	2																				2
P	Maldanidae spp.							1														1
Sp	<i>Sipunculus nudus</i>					1																1
																					<b>Total</b>	<b>1255</b>

**Annex V (Cont'd).** List of recorded fauna of intertidal soft shore community survey in every sampling zone

Jun 2017 Sampling zone ST Low tidal level (1.0 m above C.D.)

Gp	Taxon	1		2		3		4		5		6		7		8		9		10		sub-total
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	
Ba	<i>Balanus amphitrite</i>							8		3						5		1				17
Bi	<i>Barbatia virescens</i>													1		4		4			22	31
Bi	<i>Dosinia japonica</i>						1															1
Bi	<i>Hiatella arctica</i>													1		1		1				3
Bi	<i>Laternula anatina</i>				1																	1
Bi	<i>Saccostrea cucullata</i>									7				3		7		16			59	92
Bi	<i>Tellina</i> sp.						1															1
C	<i>Epixanthus</i> sp.																				1	1
C	<i>Nanosesarma minutum</i>	2								2				2		7		6			6	25
Cn	<i>Diadumene lineata</i>													1								1
F	<i>Omobranchus fasciolatoceps</i>													1								1
G	<i>Batillaria bornii</i>													5		2		3				10
G	<i>Batillaria multiformis</i>			1						5						1						7
G	<i>Batillaria zonalis</i>	17		2						9		12										40
G	<i>Cellana toreuma</i>													3		1		7			2	13
G	<i>Cerithidea cingulata</i>	16								11		4				10						41
G	<i>Cerithidea djadjariensis</i>	49								21		35		3		63		3			13	187
G	<i>Cerithidea rhizophorarum</i>	1										2		1		1						5
G	<i>Euchelus scaber</i>													7		7		8			11	33

**Annex V (Cont'd).** List of recorded fauna of intertidal soft shore community survey in every sampling zone

Jun 2017 Sampling zone ST Low tidal level (1.0 m above C.D.)

Gp	Taxon	1		2		3		4		5		6		7		8		9		10		sub-total
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	
G	<i>Lepidozona</i> sp.																		1			1
G	<i>Lunella coronata</i>									5				20		5		25		50		105
G	<i>Monodonta labio</i>													12		1		3		6		22
G	<i>Nerita polita</i>																	1				1
G	<i>Nipponacmea concinna</i>													2								2
G	<i>Patelloida pygmaea</i>															1				1		2
Ne	Nemertea spp.									2												2
P	Glyceridae spp.													1								1
P	Maldanidae spp.			1	1		2		1													5
P	Nereididae spp.					1							1									2
P	Onuphidae spp.				1																	1
P	Serpulidae spp.																	1				1
P	Spionidae spp.				1																	1
S	<i>Penaeus</i> sp.			1																		1
																				<b>Total</b>	<b>657</b>	

Key for faunal groups (Gp):

Ba: Barnacle, Bi: Bivalve, C: Crab, Cn: Cnidarin, Eh: Echiuran, F: Fish, G: Gastropod, Hc: Hermit crab, Ne: Nemertean, Ol: Oligochaete, P: Polychaete, Pl: Platyhelminthes, Po: Polyplacophores, S: Shrimp, Sc: Scaphopods, Sp: Sipunculan



## APPENDIX J

---

### Waste Flow Table





Forecast of Total Quantities of C&D Materials to be Generated from the Contract*										
Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in Other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper / Cardboard Packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. general refuse
(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m <sup>3</sup> )
310.805	21.788	224.130	40.265	24.622	1362.000	10.000	4.600	0.500	3.400	2.350

- Notes:
- (1) The performance target are given in ER Appendix 8J Clause 14
  - (2) The waste flow table shall also include C&D materials that are not specified in the Contract to be imported for use at the Site
  - (3) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material
  - (4) The Contractor shall also submit the latest forecast of the amount of C&D materials expected to be generated from the Works, together with a break down of the nature where the total amount of C&D materials expected to be generated from the Works is equal to or exceeding 50,000m<sup>3</sup>.
  - (5) All recyclable materials, including metals, paper / cardboard packaging, plastics, etc. will be collected by registered collector for recycling.
  - (6) Conversion factors for reporting purpose:  
excavated (bulk): rock = 2.0 tonnes/m<sup>3</sup>; soil = 1.8 tonnes/m<sup>3</sup>; sand=1.9 tonnes/m<sup>3</sup> Metal=7.85 tonnes/m<sup>3</sup>
  - (7) Numbers are rounded off to the nearest three decimal places
  - (8) 30T dump truck carries C&D waste of 8.0m<sup>3</sup>; 24T dump truck carries C&D waste of 6.5m<sup>3</sup>
  - (9) The actual quantities of inert C&D materials generated in June 2017 will be updated in Monthly EM&A Report for July 2017.





## APPENDIX K

---

### Cumulative Statistics on Complaints



HyD Contract No.HY/2011/03  
 Hong Kong - Zhuhai - Macao Bridge Hong Kong Link Road  
 Section between Scenic Hill and Hong Kong Boundary Crossing Facilities

**Complaint Register**

Complaint No.	Received Date	Received Time	Source	Category	Complaint Details	Location	Improvement Measures Taken	Status	Remarks
COM-2012-008	22-Oct-2012	16:41	EPD	Environmental (Water Pollution)	X先生投訴東涌機場對出港珠澳大橋地盤，有污水排到海中（懷疑是油污），污染環境，要求跟進及回覆。（Photos attached). The "phenomenon" was observed over the past week. The photos attached were taken on 19.10.2012, 22.10.2012 and 23.10.2012	Portion X	The pelican barge as shown in the photos provided on 24 October 2012 did not belong to the Contractor.	Closed	-
COM-2012-009	05-Nov-2012	-	1823 CASE: 1-391341859	Environmental (Noise and light)	The citizen complained about noise and light pollution from the barges working on the Zhuhai Macau Bridge project. Barge machinery working to about 10pm at night and sometimes can be heard intermittently through the night. The noise is more audible because the machinery is sited on/over the water.	Portion X	The Contractor has adjusted the emission angle of the lights on working vessels with a view to minimizing the glaring effect to the adjoining residential areas	Closed	-
COM-2012-009(2)	11-Nov-2012	-	1823 CASE: 1-391341859	Environmental (Noise, water quality & air quality)	The complainant noted that the barges are still working on a Sunday, up until 10pm at night, very noisy, causing pollution of the water and at times expelling black smoke from their engines. A photograph taken at 10.40am on Sunday 11 November 2012 was attached.	Portion X	-	Closed	-
COM-2012-009(3)	14-Nov-2012	-	1823 CASE: 1-391341859	Environmental (Noise)	The complainant did not accept the reply. He further said that "All staff has to do is come out either at night or a Sunday to check, so easy. If this continues I will have no choice to call the police out."	Portion X	The Contractor has taken the following further mitigation measures for the reclamation works: (a) Mitigation Measures for Noise Nuisance: • Improvement of noise covers onto the generators / motors on barges; and • Increase frequency of applying lubricant to all moving parts and gear wheels of the working barges. (b) Mitigation Measures for Smoke Emission: • Increase frequency of maintenance and checking of engines on barges that may emit smoke; and • Installation/ replacement of smoke suppression device such as air filter, at engines where necessary.	Closed	-
COM-2012-010(1)	06-Nov-2012	-	<hzmberquiry@hyd.gov.hk>	Environmental (Noise)	The complainant stated that lately work has started opposite Le Bleu Deux estate using barges. The work in process is generated high level of noise from powered tools used on those barges. Even if the noise was acceptable on weekdays during daytime, it is definitely creating nuisance to local resident at night (past 7pm) and on Sunday. Basically as 5 November 12 evening, he could not leave his window open as the level of noise prevent his baby to sleep and he could not even hear the TV in his flat. the noise coming from the site is higher than the sounds from my TV. He would like to know what measure you are planning to put in place to address this issue. He did not think that the current level of noise are acceptable past 7pm and on Sunday.	Portion X	-	Closed	-
COM-2012-010(2)	15-Nov-2012	-	<hzmberquiry@hyd.gov.hk>	Environmental (Noise & air quality)	The noise can be very annoying, on days depending of the wind direction, you are making more noise than the plane taking off (I measured it myself), to give you an idea of the disturbance you are creating again. I would also like to bring an other topic beside the noise. Since the beginning of the filling operation, very strong smell of exhaust pipe gas can be smelt in the residential area and I think this is a huge health concern for the local population. On certain days when the wind is blowing towards the residential areas, I have the feeling that there is a diesel engine running in my living room! I would like to know how you are planning to address this?	Portion X	-	Closed	-

HyD Contract No.HY/2011/03  
Hong Kong - Zhuhai - Macao Bridge Hong Kong Link Road  
Section between Scenic Hill and Hong Kong Boundary Crossing Facilities

**Complaint Register**

Complaint No.	Received Date	Received Time	Source	Category	Complaint Details	Location	Improvement Measures Taken	Status	Remarks	
COM-2012-010(3)	15-Nov-2012	-	EPD	Environmental (Noise, water quality & air quality)	The complainant has copied his reply from HyD dated 15 Nov 2012 to EPD and Health Department and he further complained on the following issues: <ul style="list-style-type: none"> <li>Noise nuisance generated by diesel engine;</li> <li>Smell of exhaust pipe gas in his residence; and</li> <li>Suspected marine water pollution (see enclosed photo).</li> </ul> The complainant also requested EPD to install noise and air quality monitoring at Le Bleu Deux estate.	WA6  Portion X	Noise from blowing horn from vessels and barges and Metallic Parts thrown on Ground <ul style="list-style-type: none"> <li>Reminded the Contractor to request the captains of the vessels and barges not blowing the horn except in case of emergency or prevention of ship collisions/serious safety matters;</li> <li>The supervision teams would enhance their tight control on the vessels and barges working at that location, and monitor the situation and take corresponding actions; and</li> <li>To enhance the work force of RSS to supervise each step of construction activities and the use of hand tools until the completion of the site office erection.</li> </ul> Noise from Engines and Cranes of the Barges during Marine Operation <ul style="list-style-type: none"> <li>Installation of noise covers onto the generators / motors on all working barges;</li> <li>Increase frequency of applying lubricant to all moving parts and gear wheels of the working barges to avoid generation of abnormal sound; and</li> <li>Review of working hours for the reclamation works and switching off all unnecessary machinery and plants at night time and Sundays.</li> </ul> Noise from power generators <ul style="list-style-type: none"> <li>All generators shall be either screened or covered by adequate sound reducing materials;</li> <li>All generators situated in front of Le Bleu Deux estate will be switched off at 19:00 hrs, except two generators will be kept running up to 22:00hrs and one generator will be kept running overnight for maintaining minimum power requirement; and</li> <li>Arrangement with CLP Power HK Ltd (CLP) for the permanent power supply to the site offices has been chased in a matter of urgency. The use of power generators will be terminated in phase starting from 6 December 2012.</li> </ul> Exhaust Fume Emission <ul style="list-style-type: none"> <li>Tight control on using the machine and generators in the vicinity of Le Bleu Deux estate; and</li> <li>Closely monitor the frequency on engine cleansing and replacement of dust filter.</li> </ul> Change of Sea Water in Yellow <ul style="list-style-type: none"> <li>The Contractor was reminded to move their vessels and barges at areas with adequate water depth as practically as possible.</li> </ul>	Closed	-	
COM-2012-010(4)	19-Nov-2012	22:25 hrs.	EPD	Environmental (Air quality and Noise)	The complainant filed again a complaint for the strong exhaust pipe fumes smell coming for the construction site in Tung Chung tonight as well as the extremely high level of noise as at 10:30 pm (19/11/12).	WA6				
COM-2012-010(5)	24-Nov-2012	13:42 hrs. 13:49 hrs.	EPD (cc to HyD)	Environmental (Air quality and Noise)	The noise is coming for the following sources: <ul style="list-style-type: none"> <li>power generator</li> <li>engines from the barges used for marine operation</li> <li>noise from the cranes use of the construction barges.</li> <li>engine from the boat used to transport staff in and out</li> <li>boats blowing their horn late in the evening and at night</li> </ul> Gas emissions: <ul style="list-style-type: none"> <li>power generators</li> <li>marine operation</li> </ul> The complainant file again a complaint against the strong exhaust pipe emission flowing towards le Bleu Deux estate this afternoon 24/11/10 at 13:47. I can assure you that is it not "not that bad" whatever that means for you. And again strong noise of metallic parts being thrown on the ground. <i>I thought you have already sorted out that problem according to your multiple replies to my complaints since July???"</i>	WA6				
	25-Nov-2012	22:02 hrs. 22:08 hrs.	EPD (cc to HyD)		A pictures taken this morning (25/11/12) around 9:30am-10am showing the water pollution in different area outside the floating barriers.  At 21:56 hrs., boat used by the Highway Department against blew their horn repetitively at close proximity from the residential estate.	Portion X				
COM-2012-012(1)	13-Nov-2012	22:27 hrs.	HyD	Environmental (Noise)	Once again your site continues to work late. The attached photo was taken at 10.15pm on Tuesday 13 Nov. The machinery used on the barges is very noisy. Why do you continue to work till 10pm and why do you work on a Sunday. Surely this is classified as a construction site for which you are in breach of various ordinances. An early reply is appreciated.	Portion X	The following further mitigation measures during the course of the reclamation works will be taken: <ul style="list-style-type: none"> <li>Installation of noise covers onto the generators / motors on all working barges;</li> <li>Increase frequency of applying lubricant to all moving parts and gear wheels of the working barges to avoid generation of abnormal sound; and</li> <li>Review of working hours for the reclamation works and switching off all unnecessary machinery and plants at nighttime and Sundays.</li> </ul>	Closed	-	
COM-2013-015	17-Jan-2013	-	EPD	Environmental (Air)	The complainant raised that construction dust was arising from construction site of China State Construction Engineering (Hong Kong) Ltd near Siu Ho Wan Sewage Treatment Works due to insufficient dust suppression and inadequate wheel washing.	WA3	The Contractor of HY/2011/03 would take the following actions with immediate effect <ul style="list-style-type: none"> <li>To ensure no loosed earth material exposed at the edges of eth stockpiled earth materials i.e. to prevent erosion by wind and water ;</li> <li>To cover the stockpiled earth material by adequate tarpaulin;</li> <li>To enhance the frequency of watering (3 times per day) onto existing haul road and other area as appropriate; and</li> <li>To install a water sprinkler system to enhance the existing dust suppression measures once the water point is ready for water supply by WSD.</li> </ul>	Closed		

HyD Contract No.HY/2011/03  
 Hong Kong - Zhuhai - Macao Bridge Hong Kong Link Road  
 Section between Scenic Hill and Hong Kong Boundary Crossing Facilities

**Complaint Register**

Complaint No.	Received Date	Received Time	Source	Category	Complaint Details	Location	Improvement Measures Taken	Status	Remarks
COM-2013-016	18-Jan-2013	-	EPD	Environmental (Water)	The complainant advised that turbid water and concrete/cement has been arising from the Hong Kong-Zhuhai-Macao Bridge Hong Kong Projects to marine water. The complainant did not specify the source of the turbid water and concrete/cement.	N/A	-	Closed	-
COM-2013-018	02-Mar-2013	-	HyD	Environmental (Noise)	The complainant advised that "It seems that the Contractor's cranes operating on the barges are again in need of bit of lubricant, as this evening i.e. 2 March 2013, the cranes are again polluting the neighborhood with intolerable noise." The complainant requested Mr. Ng from EPD to take note of this complaint and expected a detailed report.	Portion X	The Contractor has been reminded to continue the process of applying lubricant/ grease to all barges which are to be worked in the site area near Le Bleu Deux.	Closed	-
COM-2013-018 (2)	04-Mar-2013	-	EPD	Environmental (Noise)	The complainant complained that the cranes operating on the barges for the HZMB HK project generating squeak noise in the evening of 1 March 2013 causing an annoyance to him/her.	Portion X	The Contractor implemented the following measures : - Briefing given to the operator for the proper operation of marine vessels; - Keep adequate routine maintenance ; - Minimize the quantities of plant after 7pm; & - Review the working hours of night time works and switch off all unnecessary machinery and plants at night time.	Closed	-
COM-2013-018 (3)	13-Mar-2013	-	HyD	Environmental (Noise)	The complainant asked what noise mitigation the Contractor was taking. The complainant pointed out that the noise in question was so strong that it woke up his baby girl.	Portion X	-	Closed	-
COM-2013-018 (4)	22-Mar-2013 24-Mar-2013	14:19 hrs 10:28 hrs	HyD	Environmental (Noise)	The complainant complained that "the lifting appliance was operated gently and softly to keep the noise emission as low as possible" but the noise still woke up his baby. "Lubricant was regularly applied to smoothen all moving parts and gear wheels of the working barges" that did not seem to be the case at all.  The complainant pointed that the crane operating at 10:27 hrs on 24 March 2012 needed lubricant.	Portion X	The Contractor will keep on closely monitoring the situation and carry out the necessary noise mitigation measures while barges are working in the site area nearby residential area.	Closed	-
COM-2013-018 (5)	31-Mar-2013 1-Apr-2013	10:25 hrs 10:32 hrs	HyD	Environmental (Noise)	The complainant complained that noise emitted from a crane at 10:19 hrs. The complainant further complained that noise was generated from a barge at 07:30 hrs.	Portion Y	-	Closed	-
COM-2013-018 (6), (7) & (9)	15-Apr-2013	15:41 hrs	EPD	Environmental (Noise)	The complainant complained that machinery noise generated from the construction site near Tung Chung Development Pier operating for the Hong Kong-Zhuhai-Macao Bridge Hong Kong during the normal working hours on 6 April 2013 and 13 April 2013 and the late evening of 10 April 2013 causing nuisance to public.	Portion X	The Contractor has been reminded to comply with CNP conditions for construction works undertaken during restricted hours. To minimize the potential noise impact during restricted hours and non-restricted hours, the Contractor has implemented the following additional measures: - Briefing given to the operator of the barges for proper operation of marine vessels; - Operating barge by experienced operators only; - Keeping adequate routine maintenance for barges e.g. application of lubricants into moving parts in order to minimize squeak noise; - Install noise covers onto noisy equipment where practicable. - Remind subcontractor only well-maintained plant should be operated on-site. - Minimized the quantities of plant used after 7pm as far as practicable; - Speed up of construction works in order to shorten the duration (days) of potential noise impact/nuisance to the surrounding environment; and - Regular review of working hours for night time works and switch off all unnecessary machinery and plants at night time.	Closed	-

HyD Contract No.HY/2011/03  
 Hong Kong - Zhuhai - Macao Bridge Hong Kong Link Road  
 Section between Scenic Hill and Hong Kong Boundary Crossing Facilities

**Complaint Register**

Complaint No.	Received Date	Received Time	Source	Category	Complaint Details	Location	Improvement Measures Taken	Status	Remarks
COM-2013-018 (11)	28-Apr-2013	15:44	EPD	Environmental (Noise)	The complainant complained that machinery noise generated from the reclamation site near Tung Chung Development Pier at around 22:00 of 28 April 2013 causing nuisance to public.	Portion X	The Contractor has been reminded to comply with CNP conditions for construction works undertaken during restricted hours. To minimize the potential noise impact during restricted hours, the Contractor has implemented the following additional measures: - Briefing given to the operator of the barges for proper operation of marine vessels; - Operating barge by experienced operators only; - Keeping adequate routine maintenance for barges e.g. application of lubricants into moving parts in order to avoid squeak noise; - Install noise covers onto noisy equipment where practicable. - Remind subcontractor only well-maintained plant should be operated on-site. - Speed up of construction works in order to shorten the duration (days) of potential noise impact/nuisance to the surrounding environment; and - Regular review of working hours for night time works and switch off all unnecessary machinery and plants at night time.	Closed	-
COM-2013-022	08-Apr-2013	--	EPD	Environmental (Water)	The complaint alleged that oil was dumped from various vessels operating for HZMB HK projects near Tung Chung Development Pier over the past few months. Photos were provided by the complainant.	Portion X	The Contractor has checked the photos provided by the complainant and confirmed that the vessels and boats shown in the photos do not belong to Contract No. HY/2011/03. As this complaint is not related to this Contract, no follow up action is required. The Contractor has reminded their subcontractors to implement the measures recommended in the Spill Response Plan (SRP) in case of accidental release of oils from vessel.	Closed	-
COM-2013-022(2)	23-May-2013	09:15 hrs	EPD	Environmental (Water)	This complaint was a follow-up of a previous complaint received by EPD on 8 April 2013 regarding oil slicks caused by vessels. It was alleged that oil was still being dumped from various vessels operating for HZMB HK projects near Tung Chung Development Pier over the past few months. On the other hand, the complainant would also like to know whether the owners of the vessels could present engine oil disposal records for the vessels which supported the HZMB project.	Portion X	The Contractor has reminded their subcontractors to implement the measures recommended in the Spill Response Plan in case of accidental release of oils from vessel and handle the chemical waste (waste oil) in accordance with the requirements provided in the EM&A Manual.	Closed	-
COM-2013-023	02-May-2013	--	HyD	Environmental (Noise)	The complainant alleged that there were metal parts dropped on the ground creating noise at 12:58 on 1 May 2013	WA6	If there are metal handling works, the Contractor will not carry out the metal handling works in early morning in order to minimize potential noise disturbance as far as practicable in future.	Closed	-
COM-2013-024	23-May-2013	09:50 hrs	EPD	Environmental (Noise)	A complaint was received on 23 May 2013 regarding noise generated from dropping metal parts on numerous occasion on the pier opposite Le Blau Deux at around 08:45 to 10:00 hrs of 18 May 2013 and loading/unloading activities creating noise disturbance by the contractor of HY/2011/03.	WA6	If there are metal handling works, the Contractor will not carry out the metal handling works in early morning in order to minimize potential noise disturbance as far as practicable in future.	Closed	-
COM-2013-027	29-Jun-2013	10:02 hrs	RSS	Environmental (Noise)	A complaint was received on 29 June 2013 regarding noise generated from the works area near the site office (WA6) around 10:00 hrs on 29 June 2013	WA6	The Contractor was recommended to minimize the potential noise impacts generated from the construction sites as far as practicable in future.	Closed	-
COM-2013-033	13-Sep-2013	Around 22:00 hrs	RSS	Environmental (Noise)	A complaint was received regarding the noise nuisance from barge at about 22:20 hrs on 13 September 2013 and 02:30 hrs on 14 September 2013.	Portion X	The Contractor has been reminded to comply with CNP conditions for construction works undertaken during restricted hours. To minimize the potential noise impact during restricted hours, the Contractor has implemented the following additional measures: - Minimized the quantities of plant used after 7pm as far as practicable; and - Regular review of working hours for night time works and switch off all unnecessary machinery and plants at night time.	Closed	-
COM-2013-034	17-Sep-2013	--	HyD	Environmental (Noise)	A complaint was received on 17 September 2013 regarding the noise nuisance from tree transplanting activities in the morning of 14 September 2013.	Portion Y	The Contractor has been reminded to comply with CNP conditions for construction works undertaken during restricted hours. To minimize the potential noise impact during restricted hours, the Contractor has implemented the following additional measures: - Minimized the quantities of plant used after 7pm as far as practicable; and - Regular review of working hours for night time works and switch off all unnecessary machinery and plants at night time.	Closed	-
COM-2013-037	8-Oct-2013 9-Oct-2013 16-Oct-2013	--	Supervising Officer's Representative	Environmental (Noise)	The complainant complained the noise from barge operation from 21:30 to 22:30 hrs on 4 October 2013. The complainant complained that several loud bangs were heard starting from 21:00 hrs on 7 October 2013. The complainant complained that it was very noisy at the noon of 14 October 2013.	Portion X	The Contractor has been reminded to comply with CNP conditions for construction works undertaken during restricted hours. To minimize the potential noise impact during restricted hours, the Contractor has implemented the following additional measures: - minimize the quantities of plant used during restricted hours as far as practicable; and - regular review of working duration for restricted hours works and switch off all unnecessary machinery and plants during restricted hours.	Closed	-

HyD Contract No.HY/2011/03  
 Hong Kong - Zhuhai - Macao Bridge Hong Kong Link Road  
 Section between Scenic Hill and Hong Kong Boundary Crossing Facilities

**Complaint Register**

Complaint No.	Received Date	Received Time	Source	Category	Complaint Details	Location	Improvement Measures Taken	Status	Remarks
COM-2013-041	31-Oct-2013	21:52 hrs	EPD	Environmental (Noise)	A complaint was received on 31 October 2013 regarding the noise generated from a barge being moved by a tug boat in the morning of 31 October 2013 (around 05:55).	N/A	The Contractor has been reminded to comply with CNP conditions for construction works undertaken during restricted hours. To minimize the potential noise impact during restricted hours, the Contractor has implemented the following additional measures: - minimize the quantities of plant used during restricted hours as far as practicable; and - regular review of working duration for restricted hours works and switch off all unnecessary machinery and plants during the night-time and early morning period (7pm to 7am).	Closed	-
COM-2013-043	11-Nov-2013	--	EPD	Environmental (Noise)	A complaint was received on 11 November 2013 regarding a barge moving through the southern channel of HyD's construction site after 23:00 hrs on 8 November 2013.	Portion X	The Contractor has been reminded to comply with CNP conditions for construction works undertaken during restricted hours. To minimize the potential noise impact during restricted hours, the Contractor has implemented the following additional measures: - minimize the quantities of plant used during restricted hours as far as practicable; and - regular review of working duration for restricted hours works and switch off all unnecessary machinery and plants during restricted hours.	Closed	-
COM-2013-045	27-Dec-2013	--	HyD	Environmental (Noise)	A complaint was received on 27 December 2013 regarding barges operating at the south channel of Portion X in the afternoon of 26 December 2013.	Portion X	The Contractor has been reminded to comply with CNP conditions for construction works undertaken during restricted hours. To minimize the potential noise impact during restricted hours, the Contractor has implemented the following additional measures: - minimize the quantities of plant used during restricted hours as far as practicable; and - regular review of working duration for restricted hours works and switch off all unnecessary machinery and plants during restricted hours.	Closed	-
COM-2014-046	16-Jan-2014	17:22 hrs	HyD	Environmental (Air Quality)	A complaint was received on 16 January 2014 regarding heavy exhausts generated at around 8 a.m. and 10 a.m. over past few months and or even midnight.	N/A	The Contractor has implemented the following measure to minimize exhaust fumes generated from machinery: - Maintenance for the all machinery regularly.	Closed	-
COM-2014-048	18-Jan-2014	--	EPD	Environmental (Other: Blackish mud)	A complaint was received on 18 January 2014 regarding blackish mud along the edge of the construction site of Hong Kong-Zhuhai-Macao Bridge Hong Kong Project near the airport in the morning of 18 January 2014.	Portion X	Based on the investigation results, it is considered that the blackish mud raised in the complaint was not related to HKLR03 Contract. In this case, no follow up action is required.	Closed	-
COM-2014-050	24-Mar-2014	--	EPD	Environmental (Other: Dredged Marine Sediment)	A complaint was received by EPD on 24 March 2014. The complainant advised that there was dredged material found being mixed with soil in the construction site of Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road Project in the vicinity of CAD headquarters and transported out of the site. The complainant suspected that there was improper disposal of dredged marine sediment.	Portion X	Based on the investigation results, it is considered that the complaint is invalid. In this case, no follow up action is required.	Closed	-
COM-2014-051	29-Apr-2014	--	SOR	Environmental (Noise)	A complaint was received on 29 April 2014 regarding loud bang coming from the site at 21:37 hrs on 28 April 2014.	Portion X	Based on the Contractor's site diary and our investigation, no non-compliance was identified.	Closed	-
COM-2014-053	02-May-2014	--	EPD	Environmental (Noise)	A complaint was received by EPD on 1 May 2014. The complainant advised that there was noise nuisance arising during the evening of 1 May 2014.	Portion X	The Contractor has been reminded to comply with CNP conditions for construction works undertaken during restricted hours. To minimize the potential noise impact during restricted hours, the Contractor has implemented the following additional measures: - minimize the quantities of plant used during restricted hours as far as practicable; and - regular review of working duration for restricted hours works and switch off all unnecessary machinery and plant during restricted hours.	Closed	-
COM-2014-063	03-Dec-14	--	Arup	Environmental (Noise)	According to Arup's email to CSCE and DCVJV on 3 December 2014, "A resident living in Le Bleu Duex addressed a complaint to CE of HyD at about 20:04 hrs last night. He complained about the noise nuisance coming from site office since 19:30 hrs last night. repetitively metal parts had been dropped on the ground by people who seem to be loading or unloading a boat at the pier. Noise was still going on right now at 20:04."	WA6	Based on the investigation results, it is found that the noise complaint is not related to Contract No. HY/2011/03. In this case, no follow up action is required.	Closed	-



HyD Contract No.HY/2011/03  
 Hong Kong - Zhuhai - Macao Bridge Hong Kong Link Road  
 Section between Scenic Hill and Hong Kong Boundary Crossing Facilities

**Complaint Register**

Complaint No.	Received Date	Received Time	Source	Category	Complaint Details	Location	Improvement Measures Taken	Status	Remarks
COM-2014-065	24-Dec-14	Nil	EPD	Environmental (Water Quality)	A complaint was received on 24 December 2014 regarding the increase of marine refuse (water bottles and debris) along the shore from Yat Tung to Tai O, where the complainant considered might be in relation to the HZMB project(s).	Portion X	Based on the investigation results, it is considered that the complaint is unlikely related to HKLR03 Contract. Nevertheless, the Contractor is reminded to implement all recommended mitigation measures for waste management and avoid dumping rubbish into the sea.	Closed	-
COM-2015-066	08-Apr-15	Nil	EPD (An email forwarded by Arup)	Environmental (Dust)	According to Arup's email to CSCE on 8 April 2015, the ET was informed that a complaint had been received by EPD at about 18:29 hrs on 2 Apr 2015 regarding construction dust from construction site (S15) at Kwo Lo Wan Road, Tung Chung."	S15	Based on the Contractor's information and our investigation, no non-compliance was identified. The Contractor is reminded to continuously implement the dust suppression measures to minimize potential dust impact.	Closed	-
COM-2015-068	10-Apr-15	Nil	EPD (An email forwarded by Arup)	Environmental (Noise)	According to Arup's email to CSCE on 10 April 2015, it is noted that EPD received a noise complaint from a resident of Caribbean Coast. According to the complainant, he was disturbed by noise from construction activities of the HZMB Project during weekends and holidays. The complainant was referring to those activities carried out between Scenic Hill and HKBCF because the complainant mentioned the contractor was China State.	N/A	Based on the information provided and our investigation, the Contractor had complied with the conditions laid down in Construction Noise Permit (CNP) Nos. GW-RS0113-15 and GW-RS0356-15. Hence, no non-compliance was identified. The Contractor has been reminded to comply with CNP conditions for construction works undertaken during restricted hours and recommended to implement the following measures to minimize the potential noise impact during restricted hours: minimize the quantities of plant used during restricted hours as far as practicable; and regular review of working duration for restricted hours works and switch off all unnecessary machinery and plant during restricted hours.	Closed	-
COM-2015-074	16-Jul-15	Nil	EPD	Environmental (Wastewater)	According to EPD's email to Highways Department, ET, SOR and ENPO, a complaint was received on 16 July 2015 regarding wastewater splashing from vehicles to pedestrian at Tung Fai Road. The complainant complained that wastewater was splashed to people waiting at the bus stop near Civil Aviation Department Headquarters Office Building when vehicles leaving the HZMB site to Tung Fai Road.	Tung Fai Road	Based on the investigation results, it is considered that the complaint is unlikely related to HKLR03 Contract. The Contractor has been reminded to slow down their vehicles when leaving the concerned construction site.	Closed	-
COM-2015-076	17-Jul-15	Nil	EPD (An email forwarded by ENPO)	Environmental (Noise)	According to EPD's email to ENPO on 17 July 2015, it is noted that EPD received a noise complaint from public. The complainant said that he/she was disturbed by the noise generated from construction sites of the HZMB Project during the daytime period of past few Sundays. Afterwards, EPD contacted the complainant and confirmed that the noise was generated from construction sites along Kwo Lo Wan Road and signs of "China State Construction Engineering (HK) Ltd" were noted.	Kwo Lo Wan Road	Based on the information provided and our investigation, the Contractor complied with the conditions laid down in Construction Noise Permit (CNP) Nos. GW-RS0733-15 and GW-RS0740-15 and no non-compliance was found. The Contractor has been reminded to comply with CNP conditions for construction works undertaken during restricted hours and recommended to implement the following measures to minimize the potential noise impact during restricted hours: - minimize the quantities of plant used during restricted hours as far as practicable; and - regular review of working duration for restricted hours works and switch off all unnecessary machinery and plant during restricted hours.	Closed	-
COM-2015-079	07-Dec-15	Nil	ENPO (EPD referred the email from Complainant to ENPO)	Environmental (Water Quality)	According to ENPO's email to SOR and ET on 7 December 2015, a complaint was received by EPD on 2 December 2015 regarding water quality near HKLR work site. The complainant mentioned that "I moved to Tung Chung since July and it was the second time I saw similar situation polluting the sea. Last time it was even worse in red colour. Please look into this matter and let me know what was being dropped into the sea and whether it was hazardous to the sea.". EPD has contacted the complainant and obtained the additional information from the complainant. EPD suspected that the incident happened in the afternoon on 28 November 2015.	Portion X	According to the information provided by the Contractor, the derrick barge belongs to Contract No. HY/2011/03. The concerned sediment plume was likely to be caused by stirring up of mud in the seabed by the derrick barge sailed at the navigation channel situated at shallow water zone where the water depth ranging from 3.25m – 3.75m. Public fill materials were placed on the derrick barge. The barge was in good conditions with no materials being dumped into the sea. The Contractor has been implementing the mitigation measure as specified in the Implementation Schedule of Environmental Mitigation Measures that is all vessels to be sized such that adequate clearance is maintained between vessels and the sea bed at all states of the tide to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash. The Contractor is recommended to arrange vessels to move out of the site area during high tide to avoid the disturbance to the seabed as far as practicable and deploy marine vessels effectively in order to minimize the number of trips and disturbance to seabed in shallow waters.	Closed	-
COM-2016-087	28-Jun-16	Nil	EPD	Environmental (Water Quality)	According to EPD's email, a complaint was received on 28 June 2016 regarding polluted water discharge incident opposite to Tung Chung Development Pier.	N/A	The Contractor has designated competent persons to operate, check and maintain individual wastewater treatment plant as an existing control measures. In case of breakdown of wastewater treatment plants, no discharge of wastewater will be allowed until repair is completed to resume the normal operation of the treatment plant. Specific toolbox / refreshment training trainings have been providing for the staff and workers for each of the wastewater treatment plants. The Contractor has been reminded to implement the above control measures and ensure no untreated wastewater will be discharged into open channel.	Closed	-
COM-2016-098	11-Nov-16	16:33	ENPO (EPD referred the email from Complainant to ENPO)	Environmental (Water Quality)	According to ENPO's email to the Environmental Team, Supervising Officer's Representative and Contractor on 11 November 2016, it is noted that EPD received a complaint lodged by a member of the public regarding sediment plume generated by a vessel named "昌盛308 (Chang Sheng 308)" during the vessel travelling from construction site of Hong Kong- Zhuhai- Macao Bridge near Scenic Hill to Tung Chung New Development Ferry Pier.	Portion X	The Contractor has been reminded to schedule the vessel to move in / out of the construction site during higher tide and minimize number of trips to avoid the stirring up of the seabed mud when the vessel travelling in very shallow water areas as much as practicable. Also, the Contractor was reminded to implement environmental mitigation measures in accordance with Environmental Mitigation Implementation Schedule (EMIS).	Closed	-

HyD Contract No.HY/2011/03  
Hong Kong - Zhuhai - Macao Bridge Hong Kong Link Road  
Section between Scenic Hill and Hong Kong Boundary Crossing Facilities

**Complaint Register**

Complaint No.	Received Date	Received Time	Source	Category	Complaint Details	Location	Improvement Measures Taken	Status	Remarks
COM-2016-099	02-Dec-16	Nil	ENPO (EPD referred the email from Complainant to ENPO)	Environmental (Other: Slurry on public road)	It was noted from ENPO's email to the Environmental Team, Supervising Officer's Representative and Contractor on 2 December 2016 that EPD received a complaint lodged by a member of the public regarding slurry on East Coast Road. The complainant considered the slurry might relate to the construction site of China Harbour Engineering Company Limited next to a hotel.	East Coast Road	During the weekly site inspection undertaken on 7 December 2016, no slurry was observed at the section of East Coast Road adjoining the site boundary of Contract No. HY/2011/03. The Contractor has constructed wheel washing facilities at all the site accesses, including the one near the site access of China Harbour Engineering Company Limited next to the Marriott Hotel (which is believed to be the hotel mentioned by the complainant), to wash and clean all vehicles before allowing them to leave the construction site to ensure that no mud or other debris would be brought to the public area. In addition, regular watering is conducted by water truck at least twice per day at the section of East Coast Road adjoining the site boundary of Contract No. HY/2011/03 to minimize dust emission. Based on the investigation results, it is considered that the complaint unlikely related to Contract No. HY/2011/03. Notwithstanding that, the Contractor has been reminded to clean wheels and body of vehicles as usual before allowing them to leave construction site.	Closed	-
COM-2016-100	14-Dec-16	Nil	ENPO (Contract No. HY/2010/02 project team received an environmental complaint referred by Government's hotline (1823) on 2 December 2016. ENPO forwarded the Complaint to Contract No. HY/2011/03.)	Environmental (Other: mud/debris on public road)	It was noted from ENPO's email to the Environmental Team, Supervising Officer's Representative and Contractor on 14 December 2016 that EPD received a complaint lodged by a member of the public regarding mud/debris on public road. The complainant complained that "the whole stretch of East Coast Road & Tung Fai Road is truly disgusting. The stone debris big and small and the mud is a nuisance to those who use the road every day. When dry there is a lot of dust and when it rains or when the road washing trucks are out it becomes a muddy mess. Cars and pedestrians are covered in dust or mud, cars are hit by stones is a daily hazard. Washing of construction vehicles is inadequate as the sand and soil is carried out onto the roads. Oversight of road conditions are not carried out by the Airport Authority. An alternative route should be created for the large number of construction vehicles as they drive past."	East Coast Road and Tung Fai Road	During the ET's inspection on 7 December 2016 (weekly routine inspection) and 16 December 2016, no mud or debris was observed at the section of East Coast Road adjoining the site boundary of Contract No. HY/2011/03 as well as the section of Tung Fai Road leading to the site access of Contract No. HY/2011/03. The Contractor provided wheel washing facilities at all the site accesses, including the one accessing East Coast Road and the one accessing Tung Fai Road, to wash and clean all vehicles before allowing them to leave the construction site to ensure that no mud or debris would be brought to the public area. It was observed that the areas of the wheel washing facilities and the respective road section between the wheel washing facilities and the site accesses of East Coast Road and of Tung Fai Road were paved with concrete. High pressure jets were also provided at the wheel washing facilities for cleaning of vehicles before the vehicles were allowed to leave the construction site. In addition, regular watering at the section of East Coast Road adjoining the site boundary of Contract No. HY/2011/03 was conducted by water trucks at least twice per day to minimize dust emission. Based on our investigation result, it is considered that the complaint is unlikely related to Contract No. HY/2011/03. Notwithstanding that, the Contractor has been reminded to clean the wheels and body of vehicles as usual before allowing them to leave construction site.	Closed	-
COM-2016-103	14-Dec-16	Nil	ENPO (EPD referred the email from Complainant to ENPO)	Environmental (Noise)	It was noted from ENPO's email to the Environmental Team, Supervising Officer's Representative and Contractor on 14 December 2016 that EPD received a noise complaint lodged by a member of public. The complaint was about hammering noise generated from construction sites at midnight in the past month. The complainant could not identify the source but suspected that the noise was generated from HZMB Project. It was also noted from ENPO's email on 21 December 2016 that EPD supplemented that the complainant lives in Seaview Crescent. The complainant sometimes heard noise created by impacting metals or metal/ground, particularly in December 2016.	N/A	The Contractor confirmed that no hammering works was conducted and no impact noise was generated at midnight in November 2016 and December 2016. The Contractor complied with the conditions laid down CNP No. GW-RS740-16 and no non-compliance was found. Based on our investigation result, it is considered that the complaint is unlikely related to Contract No. HY/2011/03. In this case, no follow up action is required. However, the Contractor has been reminded to comply with the conditions stipulated in the Construction Noise Permit for construction works undertaken during restricted hours and has been recommended to implement the following measures to minimize the potential noise impact during restricted hours: - minimize the number of machinery and plant used during restricted hours as far as practicable; - regularly review the working duration for restricted hours works; and - switch off all unnecessary machinery and plant during restricted hours.	Closed	-
COM-2017-104	09-Jan-17	Nil	IEC (EPD referred the email from Complainant to IEC)	Environmental (Other: Cleanliness problem at East Coast Road and Tung Fai Road)	It was noted from IEC's email to the Environmental Team, Supervising Officer's Representative and Contractor on 9 January 2017 that EPD received a complaint lodged by a member of the public (a bus operator at the HKIA) regarding cleanliness problem at East Coast Road and Tung Fai Road.	East Coast Road and Tung Fai Road	During the ET's inspection on 10 January 2017, it was observed that the Contractor provided wheel washing facilities at all the site accesses, including the one accessing East Coast Road and the one accessing Tung Fai Road, to wash and clean all vehicles before allowing them to leave the construction site to ensure that no mud or debris would be brought to the public area. No mud was observed at the section of Tung Fai Road leading to the site access of Contract No. HY/2011/03. However, some mud was observed at the section of East Coast Road adjoining the site boundary of Contract No. HY/2011/03. Based on our investigation result, although there is no direct evidence showing that the complaint is related to Contract No. HY/2011/03, the Contractor has been reminded to clean the wheels and body of vehicles as usual before allowing them to leave construction site. Road sweeper will be employed to sweep along the East Coast Road twice per week and remove the deposited mud underneath the water-filled barrier to facilitate the road-washing water to be drained away from the carriageway. It should be of note that the ground level of site boundary of HY/2011/03 adjoining the East Coast Road is lower than that of East Coast Road and the Site of HY/2011/03 receives unidirectional flow of surface runoff from the East Coast Road. In addition, the following measures will be implemented to enhance dust suppression: 1. Stockpile along East Coast Road will be reduced in height and compacted as far as practicable 2. Haul road will be demarcated to prevent vehicles from going into non-wetted surface. 3. Site access S16 will be thoroughly cleaned and all vehicles will be stopped for second washing after being washed in the wheel washing bay. 4. Water sprinklers will be installed and operated at the stockpiles behind the water-filled barriers along East Coast Road.	Closed	-
COM-2017-108	23 February 2017 and 2 March 2017	Nil	Airport Authority Hong Kong (AAHK) via SOR / Referred to ENPO by HyD	Environmental (Air quality, Water quality and Other: Cleanliness problem at East Coast Road)	AAHK stated in their email to SOR on 23 February 2017 that there was sand/muddy water accumulating along the water barriers at East Coast Road Southbound. AAHK also lodged a complaint to HyD, which HyD referred to ENPO on 1 March 2017 (received by ET on 2 March 2017). AAHK reported that the cleanliness of East Coast Road remained unsatisfactory with dust all over the water barriers/traffic aids, and sands accumulating along the carriageway.	East Coast Road	During ET's observation on 3 and 13 March 2017, properly functioning wheel washing facilities were provided to wash all vehicles prior to leaving the site. The section of road between the wheel washing facilities and the site access (S25) was hard paved and no mud/ silt was observed at the concerned road section and the site access. As the ground level of site boundary of HY/2011/03 adjoining the East Coast Road is lower than that of East Coast Road, the possibility of muddy water seepage from S25 to East Coast Road is low. Based on our investigation result, the complaint is unlikely to be related to Contract No. HY/2011/03. Nevertheless, the Contractor has been reminded to strictly upkeep the proper practice of washing all vehicles leaving the site access (S25). Also, the Contractor has raised the majority of the temporary traffic signs to a higher level to avoid muddy water splashing on them. Also, the temporary traffic signs will be cleaned regularly.	Closed	-

HyD Contract No.HY/2011/03  
 Hong Kong - Zhuhai - Macao Bridge Hong Kong Link Road  
 Section between Scenic Hill and Hong Kong Boundary Crossing Facilities

**Complaint Register**

Complaint No.	Received Date	Received Time	Source	Category	Complaint Details	Location	Improvement Measures Taken	Status	Remarks
COM-2017-112	27 March 2017	Nil	ENPO (EPD referred the email from Complainant to ENPO)	Environmental (Noise and Water quality)	It was noted from ENPO's email to the Environmental Team, Supervising Officer's Representative and Contractor on 28 March 2017 that EPD received a noise complaint lodged by a resident of Century Link on 27 March 2017. The complaint was about "昨晚 (i.e. 26 March 2017) 大約十時起，屋外間歇有非常響亮聲音，經觀察應該是從港珠澳大橋近人工島的工程發出，噪音一直至深夜。另今早發現住處對出海面受到一大遍污染（見相片）。以上都應該是橋工程所造成的污染" i.e. "At around ten o'clock last night (i.e. 26 March 2017), there was intermittent very loud voice outside. According to observation, the noise should be from the Hong Kong-Zhuhai-Macao Bridge project near the artificial island, the noise lasted until late at night. In this morning, there was a plume of pollution found on the sea (see photo). These should be caused by the bridge project."	Nil	Based on the information provided by the Contractor and our investigation, it was concluded that the Contractor had complied with the conditions laid down in CNPs No. GW-RS-1135-16 and GW-RS0016-17 and that no non-compliance on water quality was found. It is considered that the complaint is unlikely related to Contract No. HY/2011/03. In this case, no follow up action is required. However, the Contractor has been reminded to comply with the conditions stipulated in the Construction Noise Permit for construction works undertaken during restricted hours and has been recommended to implement the following measures to minimize the potential noise impact during restricted hours: - minimize the number of machinery and plant used during restricted hours as far as practicable; - regularly review the working duration for restricted hours works; and - switch off all unnecessary machinery and plant during restricted hours.  The Contractor was also reminded to schedule, according to the predicted tides of the Hong Kong Observatory, their working vessels to travel to and from work site at high tide in order to reduce the sediment plume at shallow water areas.	Closed	-
COM-2017-113	20-Apr-17	Nil	ENPO (EPD referred the email from Complainant to ENPO)	Environmental (Water quality)	It was noted from ENPO's email to the Environmental Team, Supervising Officer's Representative and Contractor on 20 April 2017 that EPD received a complaint on 19 April 2017 lodged by a green group. The complaint was about "本會XXX投訴港珠澳大橋承辦商於2015年設置隔泥網的方向不當，產生污染，而圖片是由路政署提供，是真確圖片。本會期望環保署調查圖片中的情況，並對承辦商作出警告，以及要求承辦商準確放置現時隔泥網，確保其雙車設計是有效。"	Portion X	Based on the information provided by the Contractor and ET's investigation, it was suspected that the concerned silt plume may be caused by sea current. There was no evidence that the concerned silt plume was caused by any activities arising from the Contract. The Contractor was reminded once again to implement the mitigation measure as specified in the Implementation Schedule of Environmental Mitigation Measures. The Contractor is also recommended to fully and properly maintain the silt curtain throughout the works in accordance with the requirements in the Updated EM&A Manual through undertaking monthly measurement on the overlapping and separation openings for vessels access for prompt rectification.	Closed	-
COM-2017-095(3)	27-May-17	Nil	SOR (HyD referred the email from Complainant to SOR)	Environmental (Noise)	It was noted from SOR's email to the Environmental Team and Contractor on 26 May 2017 that HyD received a complaint on 12 May 2017 lodged by a member of public. The complaint was about "We'd like to follow up on this case. Pls help take pictures & point out to us where your noise barriers are located. If those seen in the attached pics are so-called noise barriers, then we believe the contractor needs a lot of improvement in helping to reduce this noise pollution".	Near Dragonair/ CNAC (Group) Building (HKIA)	Upon the receipt of the complaint in May 2017, the Contractor had been instructed to immediately install additional noise barriers at the appropriate location and cover the breaker tip with acoustic materials as noise mitigation measure against the noise emission associated with the aforesaid construction activities. Moreover, the noise barriers have been located as close as possible to the noise source (rock breaking work). Also, gaps and openings at joints in the barrier material have been minimized.  The rock breaking work was completed on 31 May 2017 and the rock breaking machine had been demobilized off site. According to information from Contractor, removal C&D materials will be carried out at the site near CAD and CNAC buildings in the future. As such, noise nuisance generated from a site will be minimized. Notwithstanding that, the Contractor has been reminded to implement noise mitigation measures on the site to minimize any potential nuisance to the public.  Based on our investigation result, it is considered that the complaint is likely related to Contract No. HY/2011/03. The Contractor has implemented the following measures to minimize the potential noise impact: - Additional noise barriers have been erected in the active working area to further mitigate the associated noise emissions as far as practicable; - Cover the breaker tip with acoustic material. - Noise barriers have been located as close as possible to the noise source. Also, gaps and openings at joints in the barriers material have been minimized. - Speed up of construction works in order to shorten the duration noise impact/nuisance to the surrounding. - Minimize the quantities of noisy plant as far as practicable. - Regular review of working duration and switch off all unnecessary machinery and plant.	Closed	-



## APPENDIX L

---

### Environmental Licenses and Permits





## Summary of Environmental Licences and Permits Application and Status

### **Environmental Permit**

Date Application Submitted	Status	Date EP Issued	EP No.	EP Holder	Expiry Date
04.12.2014	VEP issued	22.12.2014	EP-352/2009/D	Highways Department	N/A
24.03.2016	VEP Issued	11.04.2016	EP-353/2009/K	Highways Department	N/A

### **Notification of Carrying Out Notifiable Works under Air Pollution Control (Construction Dust) Regulation**

Date Notification Submitted	Notification Ref. No.	Valid Since	Expiry Date
25.05.2012	345690	01.06.2012	N/A

### **Notification of Carrying Out Notifiable Works under Air Pollution Control (Construction Dust) Regulation Form NB**

Date Notification Submitted	Notification Ref. No.	Valid Since	Expiry Date
31.07.2015	391702	31.07.2015	N/A

### **Billing Account for Disposal of Construction Waste**

Date Application Submitted	Account No	Valid Since	Expiry Date
01.06.2012	7015313	27.06.2012	N/A

### **Chemical Waste Producer Registration**

Date Registration Submitted	Waste Producer No.	Date Registration Issued	Major Waste Type	Expiry Date
20.06.2012	5213-950-C1169-43	12.07.2012	Spent lubricating oil, spent flammable liquid (diesel), surplus paint, spent organic solvent and their containers, spent batteries, soil containing mineral oil	N/A



### Wastewater Discharge License

Item No.	Date Application Submitted	Area Applied	Status	Expiry Date
1	22.06.2012	Site Office for Supervising Officer (WA6)	Application Ref. No. 346651 Letter from the EPD (Ref: EP/RS/0000346267) dated 19.07.2012 confirming that license under WPCO is not required.	N/A
2	04.07.2012	Site Office for China States (WA6)	Application Ref. No. 346982 Water Discharge License WT00014182-2012 was granted on 20 Sep 2012	Valid until 30/09/2017
3.	31.07.2012	Portion B, Portion X & Portion Y	Application Ref. No. 348019 Water Discharge License WT00014118-2012 was granted on 20 Sep 2012	Valid until 30/09/2017
4.	15.01.2013	WA 3	Application Ref No.356237 Water Discharge License Ref. WT00015423-2013 was granted on 4 Mar 2013	Valid until 31/03/2018
5.	15.01.2013	WA 4	Application Ref No. 356240 Water Discharge License Ref. WT00016158-2013 was granted on 30 Jul 2013	Valid until 31/07/2018
6	02.04.2013	Airport Road (Southern)	Water discharge license Ref. WT00015866-2013 was granted on 29 Apr 2013	Valid until 30/04/2018
7	26.10.2015	Airport Road (Northern)	Water discharge license Ref. WT00023165-2015 was granted on 21 Dec 2015	Valid until 30/04/2018
8	10.03.2017	WA7	Application Ref. No. 414487 Water Discharge License Ref. WT00015865-2013 was granted on 13 Jun 2017	Valid until 30/6/2022





**Construction Noise Permit**

Item No.	Date Application Submitted	Works Area Applied	Description	Status	CNP No.	Validity of CNP	
						From	To
1.	09.01.2017	SHT & HAT	Percussive Piling	CNP issued on 13.01.2017	PP-RS0002-17	23.01.2017 0700	22.07.2017 1900
2.	20.04.2017	Reclamation Area	Marine Works	CNP issued on 08.05.2017	GW-RS0411-17	10.05.2017 1900	02.11.2017 2400
3.	05.04.2017	Airport Road	Road Works	CNP issued on 19.04.2017	GW-RS0361-17	01.05.2017 0000	30.10.2017 0700
4.	24.02.2017	Shaft 4	Tunnel Works	CNP issued on 10.03.2017	GW-RS0186-17	14.03.2017 2400	13.09.2017 1900
5.	10.03.2017	WA4	Loading/Unloading of stockpiles	CNP issued on 24.03.2017	GW-RW0149-17	30.03.2017 0000	29.09.2017 2400
6.	10.03.2017	WA3	Stockpiling/wastewater treatment	CNP issued on 24.03.2017	GW-RS0270-17	28.03.2017 0000	27.09.2017 2400
7.	20.04.2017	West Portal	Tunnel / Building Works	CNP issued on 08.05.2017	GW-RS0410-17	09.05.2017 0000	08.11.2017 2400
8.	18.04.2017	Shaft 1-3	Tunnel works	CNP issued on 08.05.2017	GW-RS0409-17	10.05.2017 1900	02.11.2017 0700



Item No.	Date Application Submitted	Works Area Applied	Description	Status	CNP No.	Validity of CNP	
						From	To
9.	30.12.2016	Shaft 2-3	Box-Jacking	CNP issued on 12.01.2017	GW-RS0016-17	19.01.2017 0000	18.07.2017 0500
10.	30.12.2016	Airport Road	Maintenance Works (Special Case)	CNP issued on 05.01.2017	GW-RS0006-17	05.01.2017 1900	30.06.2017 0700



## APPENDIX M

---

### Implementation Schedule of Environmental Mitigation Measures



EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	Implementation Status
<b>Air Quality</b>							
S5.5.6.1	A1	1) The contractor shall follow the procedures and requirements given in the Air Pollution Control (Construction Dust) Regulation	Good construction site practices to control the dust impact at the nearby sensitive receivers to within the relevant criteria.	Contractor	All construction sites	Construction stage	Partially implemented
S5.5.6.2	A2	2) Proper watering of exposed spoil should be undertaken throughout the construction phase: <ul style="list-style-type: none"> <li>•Any excavated or stockpile of dusty material should be covered entirely by impervious sheeting or sprayed with water to maintain the entire surface wet and then removed or backfilled or reinstated where practicable within 24 hours of the excavation or unloading;</li> <li>•Any dusty materials remaining after a stockpile is removed should be wetted with water and cleared from the surface of roads;</li> <li>•A stockpile of dusty material should not be extend beyond the pedestrian barriers, fencing or traffic cones.</li> <li>•The load of dusty materials on a vehicle leaving a construction site should be covered entirely by impervious sheeting to ensure that the dusty materials do not leak from the vehicle;</li> <li>•Where practicable, vehicle washing facilities with high pressure water jet should be provided at every discernible or designated vehicle exit point. The area where vehicle washing takes place and the road section between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores;</li> </ul>	Good construction site practices to control the dust impact at the nearby sensitive receivers to within the relevant criteria.	Contractor	All construction sites	Construction stage	Partially Implemented
S5.5.6.2	A2	•When there are open excavation and reinstatement works, hoarding of not less than 2.4m high should be provided as far as practicable along the site boundary with provision for public crossing. Good site practice shall also be adopted by the Contractor to ensure the conditions of the hoardings are properly maintained throughout the construction period;	Good construction site practices to control the dust impact at the nearby sensitive receivers to within the relevant criteria.	Contractor	All construction sites	Construction stage	√

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	Implementation Status
S5.5.6.2	A2	<ul style="list-style-type: none"> <li>•The portion of any road leading only to construction site that is within 30m of a vehicle entrance or exit should be kept clear of dusty materials;</li> <li>•Surfaces where any pneumatic or power-driven drilling, cutting, polishing or other mechanical breaking operation takes place should be sprayed with water or a dust suppression chemical continuously;</li> <li>•Any area that involves demolition activities should be sprayed with water or a dust suppression chemical immediately prior to, during and immediately after the activities so as to maintain the entire surface wet;</li> <li>•Where a scaffolding is erected around the perimeter of a building under construction, effective dust screens, sheeting or netting should be provided to enclose the scaffolding from the ground floor level of the building, or a canopy should be provided from the first floor level up to the highest level of the scaffolding;</li> <li>•Any skip hoist for material transport should be totally enclosed by impervious sheeting;</li> <li>•Every stock of more than 20 bags of cement or dry pulverized fuel ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides;</li> </ul>	Good construction site practices to control the dust impact at the nearby sensitive receivers to within the relevant criteria.	Contractor	All construction sites	Construction stage	Partially implemented
S5.5.6.2	A2	<ul style="list-style-type: none"> <li>• Cement or dry PFA delivered in bulk should be stored in a closed silo fitted with an audible high level alarm which is interlocked with the material filling line and no overfilling is allowed;</li> <li>• Loading, unloading, transfer, handling or storage of bulk cement or dry PFA should be carried out in a totally enclosed system or facility, and any vent or exhaust should be fitted with an effective fabric filter or equivalent air pollution control system; and</li> <li>• Exposed earth should be properly treated by compaction, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen, shotcrete or other suitable surface stabiliser within six months after the last construction activity on the construction site or part of the construction site where the exposed earth lies.</li> </ul>	Good construction site practices to control the dust impact at the nearby sensitive receivers to within the relevant criteria.	Contractor	All construction sites	Construction stage	√

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	Implementation Status
S5.5.6.3	A3	3) The Contractor should undertake proper watering on all exposed spoil (with at least 8 times per day) throughout the construction phase.	Control construction dust	Contractor	All construction sites	Construction stage	√
S5.5.6	A5	5) Implement regular dust monitoring under EM&A programme during the construction stage.	Monitor the 24 hr and 1hr TSP levels at the representative dust monitoring stations to ensure compliance with relevant criteria throughout the construction period	Contractor	Selected representative dust monitoring station	Construction stage	√
S5.5.71	A6	<p>The following mitigation measures should be adopted to prevent fugitive dust emissions for concrete batching plant:</p> <ul style="list-style-type: none"> <li>• Loading, unloading, handling, transfer or storage of any dusty materials should be carried out in totally enclosed system;</li> <li>• All dust-laden air or waste gas generated by the process operations should be properly extracted and vented to fabric filtering system to meet the emission limits for TSP;</li> <li>• Vents for all silos and cement/pulverised fuel ash (PFA) weighing scale should be fitted with fabric filtering system;</li> <li>• The materials which may generate airborne dusty emissions should be wetted by water spray system;</li> <li>• All receiving hoppers should be enclosed on three sides up to 3m above unloading point;</li> <li>• All conveyor transfer points should be totally enclosed;</li> <li>• All access and route roads within the premises should be paved and wetted; and</li> <li>• Vehicle cleaning facilities should be provided and used by all concrete trucks before leaving the premises to wash off any dust on the wheels and/or body.</li> </ul>	Monitor the 24 hr and 1hr TSP levels at the representative dust monitoring stations to ensure compliance with relevant criteria throughout the construction period	Contractor	Selected representative dust monitoring station	Construction stage	√



EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	Implementation Status
S5.5.2.7	A7	<p>The following mitigation measures should be adopted to prevent fugitive dust emissions at barging point:</p> <ul style="list-style-type: none"> <li>•All road surface within the barging facilities will be paved;</li> <li>•Dust enclosures will be provided for the loading ramp;</li> <li>•Vehicles will be required to pass through designated wheels wash facilities; and</li> <li>•Continuous water spray at the loading points.</li> </ul>	Control construction dust	Contractor	All construction sites	Construction stage	√
<b>Noise</b>							
S6.4.10	N1	<p>1) Use of good site practices to limit noise emissions by considering the following:</p> <ul style="list-style-type: none"> <li>•only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme;</li> <li>•machines and plant (such as trucks, cranes) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum;</li> <li>•plant known to emit noise strongly in one direction, where possible, be orientated so that the noise is directed away from nearby NSRs;</li> <li>•silencers or mufflers on construction equipment should be properly fitted and maintained during the construction works</li> <li>•mobile plant should be sited as far away from NSRs as possible and practicable;</li> <li>•material stockpiles, mobile container site officer and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities.</li> </ul>	Control construction airborne noise by means of good site practices	Contractor	All construction sites	Construction stage	√

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	Implementation Status
S6.4.11	N2	2) Install temporary hoarding located on the site boundaries between noisy construction activities and NSRs. The conditions of the hoardings shall be properly maintained throughout the construction period.	Reduce the construction noise levels at low-level zone of NSRs through partial screening.	Contractor	All construction sites	Construction stage	√
S6.4.12	N3	3) Install movable noise barriers (typically density @ 14kg/m <sup>2</sup> ), acoustic mat or full enclosure close to noisy plants including air compressor, generators, saw.	Screen the noisy plant items to be used at all construction sites	Contractor	For plant items listed in Appendix 6D of the EIA report at all construction sites	Construction stage	√
S6.4.13	N4	4) Select .Quiet plants. which comply with the BS 5228 Part 1 or TM standards.	Reduce the noise levels of plant items	Contractor	For plant items listed in Appendix 6D of the EIA report at all construction sites	Construction stage	√
S6.4.14	N5	5) Sequencing operation of construction plants where practicable.	Operate sequentially within the same work site to reduce the construction airborne noise	Contractor	All construction sites where practicable	Construction stage	√
	N6	6) Implement a noise monitoring under EM&A programme.	Monitor the construction noise levels at the selected representative locations	Contractor	Selected representative noise monitoring station	Construction stage	√
<b>Waste Management (Construction waste)</b>							
S8.3.8	WM1	<u>Construction and Demolition Material</u> The following mitigation measures should be implemented in handling the waste: <ul style="list-style-type: none"> <li>•Maintain temporary stockpiles and reuse excavated fill material for backfilling and reinstatement;</li> <li>•Carry out on-site sorting;</li> <li>•Make provisions in the Contract documents to allow and promote the use of recycled aggregates where appropriate;</li> <li>•Adopt .Selective Demolition. technique to demolish the existing structures and facilities</li> </ul>	Good site practice to minimize the waste generation and recycle the C&D materials as far as practicable so as to reduce the amount for final disposal	Contractor	All construction sites	Construction stage	√

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	Implementation Status
		<p>with a view to recovering broken concrete effectively for recycling purpose, where possible;</p> <ul style="list-style-type: none"> <li>•Implement a trip-ticket system for each works contract to ensure that the disposal of C&amp;D materials are properly documented and verified; and</li> <li>•Implement an enhanced Waste Management Plan similar to ETWBTC (Works) No. 19/2005. Environmental Management on Construction Sites. to encourage on-site sorting of C&amp;D materials and to minimize their generation during the course of construction.</li> <li>•In addition, disposal of the C&amp;D materials onto any sensitive locations such as agricultural lands, etc. should be avoided. The Contractor shall propose the final disposal sites to the Project Proponent and get its approval before implementation</li> </ul>					
S8.3.9-S8.3.11	WM2	<p>C&amp;D Waste</p> <ul style="list-style-type: none"> <li>•Standard formwork or pre-fabrication should be used as far as practicable in order to minimise the arising of C&amp;D materials. The use of more durable formwork or plastic facing for the construction works should be considered. Use of wooden hoardings should not be used, as in other projects. Metal hoarding should be used to enhance the possibility of recycling. The purchasing of construction materials will be carefully planned in order to avoid over ordering and wastage.</li> <li>•The Contractor should recycle as much of the C&amp;D materials as possible on-site. Public fill and C&amp;D waste should be segregated and stored in different containers or skips to enhance reuse or recycling of materials and their proper disposal. Where practicable, concrete and masonry can be crushed and used as fill. Steel reinforcement bar can be used by scrap steel mills. Different areas of the sites should be considered for such segregation and storage.</li> </ul>	Good site practice to minimize the waste generation and recycle the C&D materials as far as practicable so as to reduce the amount for final disposal	Contractor	All construction sites	Construction stage	√

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	Implementation Status
S8.2.12- S8.3.15	WM3	<p>Chemical Waste</p> <ul style="list-style-type: none"> <li>•Chemical waste that is produced, as defined by Schedule 1 of the Waste Disposal (Chemical Waste) (General) Regulation, should be handled in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes.</li> <li>•Containers used for the storage of chemical wastes should be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed; have a capacity of less than 450 liters unless the specification has been approved by the EPD; and display a label in English and Chinese in accordance with instructions prescribed in Schedule 2 of the regulation..</li> <li>•The storage area for chemical wastes should be clearly labeled and used solely for the storage of chemical waste; enclosed on at least 3 sides; have an impermeable floor and bunding of sufficient capacity to accommodate 110% of the volume of the largest container or 20 % of the total volume of waste stored in that area, whichever is the greatest; have adequate ventilation; covered to prevent rainfall entering; and arranged so that incompatible materials are adequately separated.</li> <li>•Disposal of chemical waste should be via a licensed waste collector; be to a facility licensed to receive chemical waste, such as the Chemical Waste Treatment Centre which also offers a chemical waste collection service and can supply the necessary storage containers; or be to a reuser of the waste, under approval from the EPD.</li> </ul>	Control the chemical waste and ensure proper storage, handling and disposal.	Contractor	All construction sites	Construction stage	√

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	Implementation Status
S8.3.16	WM4	<p><u>Sewage</u></p> <ul style="list-style-type: none"> <li>• Adequate numbers of portable toilets should be provided for the workers. The portable toilets should be maintained in a state, which will not deter the workers from utilizing these portable toilets. Night soil should be collected by licensed collectors regularly.</li> </ul>	Proper handling of sewage from worker to avoid odour, pest and litter impacts	Contractor	All construction sites	Construction stage	√
S8.3.17	WM5	<p><u>General Refuse</u></p> <ul style="list-style-type: none"> <li>• General refuse generated on-site should be stored in enclosed bins or compaction units separately from construction and chemical wastes.</li> <li>• A reputable waste collector should be employed by the Contractor to remove general refuse from the site, separately from construction and chemical wastes, on a daily basis to minimize odour, pest and litter impacts. Burning of refuse on construction sites is prohibited by law.</li> <li>• Aluminium cans are often recovered from the waste stream by individual collectors if they are segregated and made easily accessible. Separate labelled bins for their deposit should be provided if feasible.</li> <li>• Office wastes can be reduced through the recycling of paper if volumes are large enough to warrant collection. Participation in a local collection scheme should be considered by the Contractor. In addition, waste separation facilities for paper, aluminum cans, plastic bottles etc., should be provided.</li> <li>• Training should be provided to workers about the concepts of site cleanliness and appropriate waste management procedure, including reduction, reuse and recycling of wastes.</li> </ul>	Minimize production of the general refuse and avoid odour, pest and litter impacts	Contractor	All construction sites	Construction stage	Partially implemented

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	Implementation Status
<b>Water quality (Construction Phase)</b>							
S9.11.1-S9.11.1.2	W1	<ul style="list-style-type: none"> <li>Mitigation during the marine works to reduce impacts to within acceptable levels have been recommended and will comprise a series of measures that restrict the method and sequencing of filling work, as well as protection measures. Details of the measures are provided below and summarised in the Environmental Mitigation Implementation Schedule in EM&amp;A Manual.</li> <li>Construction of seawalls to be advanced by at least 100-200m before the filling can commence. It should be noted that the protection by advanced seawall is a dynamic process depending on the progress of the construction activities. The part of the works where such measures can be undertaken for the majority of the time includes the following locations: <ul style="list-style-type: none"> <li>- TMCLKL northern reclamation;</li> <li>- TMCLKL southern reclamation (after formation of the nips);</li> <li>- Reclamation filling for Portion 1 of HKLR;</li> </ul> </li> </ul>	To control construction water quality	Contractor	During seawall filling	Construction stage	√
S9.11.1-S9.11.1.2	W1	<ul style="list-style-type: none"> <li>Single layer silt curtains will be applied around all works;</li> <li>silt curtain shall be fully maintained throughout the works.</li> </ul>	To control construction water quality	Contractor	During seawall filling	Construction stage	√



EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	Implementation Status
S9.11.1-S9.11.1.2	W1	<ul style="list-style-type: none"> <li>•excess material shall be cleaned from the decks and exposed fittings of barges before the vessel is moved;</li> <li>•all vessels shall be sized such that adequate clearance is maintained between vessels and the sea bed at all states of the tide to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash; and</li> <li>•the works shall not cause foam, oil, grease, litter or other objectionable matter to be present in the water within and adjacent to the works site.</li> </ul>	To control construction water quality	Contractor	During seawall filling	Construction stage	√
S9.11.1-S9.11.1.2	W1	<ul style="list-style-type: none"> <li>•Mechanical grabs shall be designed and maintained to avoid spillage and should seal tightly while being lifted;</li> <li>•barges shall have tight fitting seals to their bottom openings to prevent leakage of material;</li> <li>• any pipe leakages shall be repaired quickly. Plant should not be operated with leaking pipes;</li> <li>•loading of barges shall be controlled to prevent splashing of filling materials to the surrounding water.</li> <li>•Barges shall not be filled to a level which will cause overflow of materials or pollution of water during loading or transportation;</li> <li>•adequate freeboard shall be maintained on barges to reduce the likelihood of decks being washed by wave action;</li> <li>•all vessels shall be sized such that adequate clearance is maintained between vessels and the sea bed at all states of the tide to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash; and</li> <li>•the works shall not cause foam, oil, grease, litter or other objectionable matter to be present in the water within and adjacent to the works site .</li> </ul>	To control construction water quality	Contractor	During seawall filling	Construction stage	Partially implemented

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	Implementation Status
		into the drainage system, and to prevent storm run-off from getting into foul sewers; <ul style="list-style-type: none"> <li>•discharges of surface run-off into foul sewers must always be prevented in order not to unduly overload the foul sewerage system.</li> </ul>					
S9.14	W3	<ul style="list-style-type: none"> <li>•Implement a water quality monitoring programme</li> </ul>	Control water quality	Contractor	At identified monitoring	During construction	√
<b>Ecology (Construction Phase)</b>							
S10.7	E1	<ul style="list-style-type: none"> <li>•Good site practices to avoid runoff entering woodland habitats in Scenic Hill;</li> <li>•Reinstate works areas in Scenic Hill;</li> <li>•Avoid stream modification in Scenic Hill.</li> </ul>	Avoid potential disturbance on habitat of Romer.s Tree Frog in Scenic Hill	Designer; Contractor	Scenic Hill	During construction	√
S10.7	E2	<ul style="list-style-type: none"> <li>•Install silt curtain during the construction;</li> <li>•Construct seawall prior to reclamation filling where practicable;</li> <li>•Good site practices;</li> <li>•Site runoff control;</li> <li>•Spill response plan.</li> </ul>	Minimise marine water quality impacts	Contractor	Seawall, reclamation area	During construction	√
S10.7	E4	<ul style="list-style-type: none"> <li>•Watering to reduce dust generation; prevention of siltation of freshwater habitats; Site runoff should be desilted, to reduce the potential for suspended sediments, organics and other contaminants to enter streams and standing freshwater.</li> </ul>	Prevent Sedimentation from Land-based works areas	Contractor	Land-based works areas	During construction	√
S10.7	E5	<ul style="list-style-type: none"> <li>•Good site practices, including strictly following the permitted works hours, using quieter machines where practicable, and avoiding excessive lightings during night time</li> </ul>	Prevent disturbance to terrestrial fauna and habitats	Contractor	Land-based works areas	During construction	√

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	Implementation Status
S10.7	E6	<ul style="list-style-type: none"> <li>•Dolphin Exclusion Zone;</li> <li>•Dolphin watching plan .</li> </ul>	Minimize temporary marine habitat loss impact to dolphins	Contractor	Marine works	During marine works	√
S10.7	E7	<ul style="list-style-type: none"> <li>•Decouple compressors and other equipment on working vessels;</li> <li>• Avoidance of percussive piling;</li> <li>•Marine underwater noise monitoring;</li> <li>•Temporal suspension of drilling bored pile casing in rock during peak dolphin calving season in May and June;</li> <li>•Handling with care for the installation of sheet piling for reclamation site</li> </ul>	Minimize temporary marine habitat loss impact to dolphins	Contractor	Marine works	During marine works	√
S10.7	E8	<ul style="list-style-type: none"> <li>•Control vessel speed;</li> <li>•Skipper training;</li> <li>•Predefined and regular routes for working vessels; avoid Brothers Islands.</li> </ul>	Minimise marine traffic disturbance on dolphins	Contractor	Marine traffic	During marine works	√
S10.10	E9	<ul style="list-style-type: none"> <li>•Dolphin vessel monitoring;</li> <li>• Mudflat ecological monitoring.</li> </ul>	Minimise marine traffic disturbance on dolphins	Contractor	North Lantau and West Lantau	Prior to construction, during construction, and 1 year after operation	√
<b>Ecology (Operation Phase)</b>							
S10.7	E10	<ul style="list-style-type: none"> <li>•Preconstruction dive survey for corals</li> </ul>	Minimise impacts on marine ecology	Contractor	The marine pier sites nearest to intertidal zone and along the shore of the HKLR eclamation site	Prior to marine construction works in these locations	√

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	Implementation Status
<b>Fisheries</b>							
S11.7	F2	<ul style="list-style-type: none"> <li>•Reduce re-suspension of sediments</li> <li>•Good site practices</li> <li>•Spill response plan</li> </ul>	Minimise marine water quality impacts	Contractor	Seawall, reclamation area	During construction	√
S11.7	F3	<ul style="list-style-type: none"> <li>•Install silt-grease trap in the drainage system collecting surface runoff</li> </ul>	Minimise impacts on marine water quality impacts	Designer	Reclamation area	During construction	√
S11.7	F4	<ul style="list-style-type: none"> <li>•Maritime Oil Spill Response Plan (MOSRP);</li> <li>•Contingency plan.</li> </ul>	Minimise impacts on marine water quality impacts	Management	HKLR	During operation stage	√
<b>Landscape &amp; Visual (Detailed Design Phase)</b>							
S14.3.3.1	LV1	<p>General design measures include:</p> <ul style="list-style-type: none"> <li>•Roadside planting and planting along the edge of the reclamation is proposed;</li> <li>•Transplanting of mature trees in good health and amenity value where appropriate and reinstatement of areas disturbed during construction by compensatory hydro-seeding and planting;</li> <li>•Protection measures for the trees to be retained during construction activities;</li> <li>•Optimizing the sizes and spacing of the bridge columns;</li> <li>•Fine-tuning the location of the bridge columns to avoid visually sensitive locations;</li> <li>•Aesthetic design of the bridge form and its structural elements for HKLR, e.g. parapet, soffit, columns, lightings and so on;</li> </ul> <p>Considering the decorative urban design elements for HKLR, e.g. decorative road lightings;</p>	Minimise visual & landscape impact	Detailed designer	HKLR	Design stage	.

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	Implementation Status
		<ul style="list-style-type: none"> <li>•Maximizing new tree, shrub and other vegetation planting to compensate tree felled and vegetation removed;</li> <li>•Providing planting area around peripheral of HKLR for tree planting screening effect.</li> </ul>					
S14.3.3.1	LV1	<ul style="list-style-type: none"> <li>•Providing salt-tolerant native trees along the planter strip at affected seawall and newly reclaimed coastline.</li> <li>•Providing salt-tolerant native trees along the planter strip at affected seawall and newly reclaimed coastline.</li> <li>•For HKLR, providing aesthetic design on the viaduct, tunnel portals, at-grade roads and</li> <li>•reclamation (e.g. subtle colour tone and slim form for viaduct to minimize the bulkiness of the structure and to blend the viaduct better with the background environment, featured form of tunnel portals, roadside planting along at-grade roads and landscape berm on &amp; planting along edge of reclamation area) to beautify the HKLR alignment (refer to Figure 14.4.3).</li> </ul>	Minimise visual & landscape impact	Detailed designer	HKLR	Design stage	-
<b>Landscape &amp; Visual (Construction Phase)</b>							
S14.3.3.3	LV2	<p>Mitigate both Landscape and Visual Impacts</p> <p>G1. Grass-hydroseed bare soil surface and stock pile areas.</p> <p>G2. Add planting strip and automatic irrigation system if appropriate at some portions of bridge or footbridge to screen bridge and traffic.</p> <p>G3. For HKLR, providing aesthetic design on the viaduct, tunnel portals, at-grade roads and reclamation (e.g. subtle colour tone and slim form for viaduct, featured form of tunnel portals, roadside planting along at-grade roads and landscape berm on &amp; planting along edge of reclamation area) to beautify the HKLR alignment.</p> <p>G4. Vegetation reinstatement and upgrading to disturbed areas.</p>	Minimise visual & landscape impact	Contractor	HKLR	Construction stage	✓

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	Implementation Status
		<p>G5. Maximize new tree, shrub and other vegetation planting to compensate tree felled and vegetation removed.</p> <p>G6. Provide planting area around peripheral of and within HKLR for tree screening buffer effect.</p> <p>G7. Plant salt tolerant native tree and shrubs etc along the planterstrip at affected seawall.</p> <p>G8. Reserve of loose natural granite rocks for re-use. Provide new coastline to adopt .natural-look. by means of using armour rocks in the form of natural rock materials and planting strip area accommodating screen buffer to enhance .natural-look. of the new coastline (see Figure 14.4.2 for example).</p>					
S14.3.3.3	LV3	<p>Mitigate Visual Impacts</p> <p>V1.Minimize time for construction activities during construction period.</p> <p>V2.Provide screen hoarding at the portion of the project site / works areas / storage areas near VSRs who have close low-level views to the Project during HKLR construction.</p>					√
<b>EM&amp;A</b>							
S15.5-S15.6	EM2	<p>1) An Environmental Team needs to be employed as per the EM&amp;A Manual.</p> <p>2) Prepare a systematic Environmental Management Plan to ensure effective implementation of the mitigation measures.</p> <p>3) An environmental impact monitoring needs to be implementing by the Environmental Team to ensure all the requirements given in the EM&amp;A Manual are fully complied with.</p>	Perform environmental monitoring & auditing	Contractor	All construction sites	Construction stage	√



## APPENDIX N

---

### Record of “Notification of Summons and Prosecutions”





**Summary of Notifications of Summons and Prosecutions**

Total No. of Notifications of Summons / Prosecutions Received	No. of Notifications of Summons / Prosecutions Received during Reporting Period	Status of Notifications of Summons / Prosecutions
0	0	N/A



## APPENDIX O

---

### Location of Works Areas



DO NOT SCALE DRAWING. CHECK ALL DIMENSIONS ON SITE.  
ALL RIGHTS RESERVED.  
© OVE ARUP & PARTNERS HONG KONG LIMITED.



805000 E

810000 E

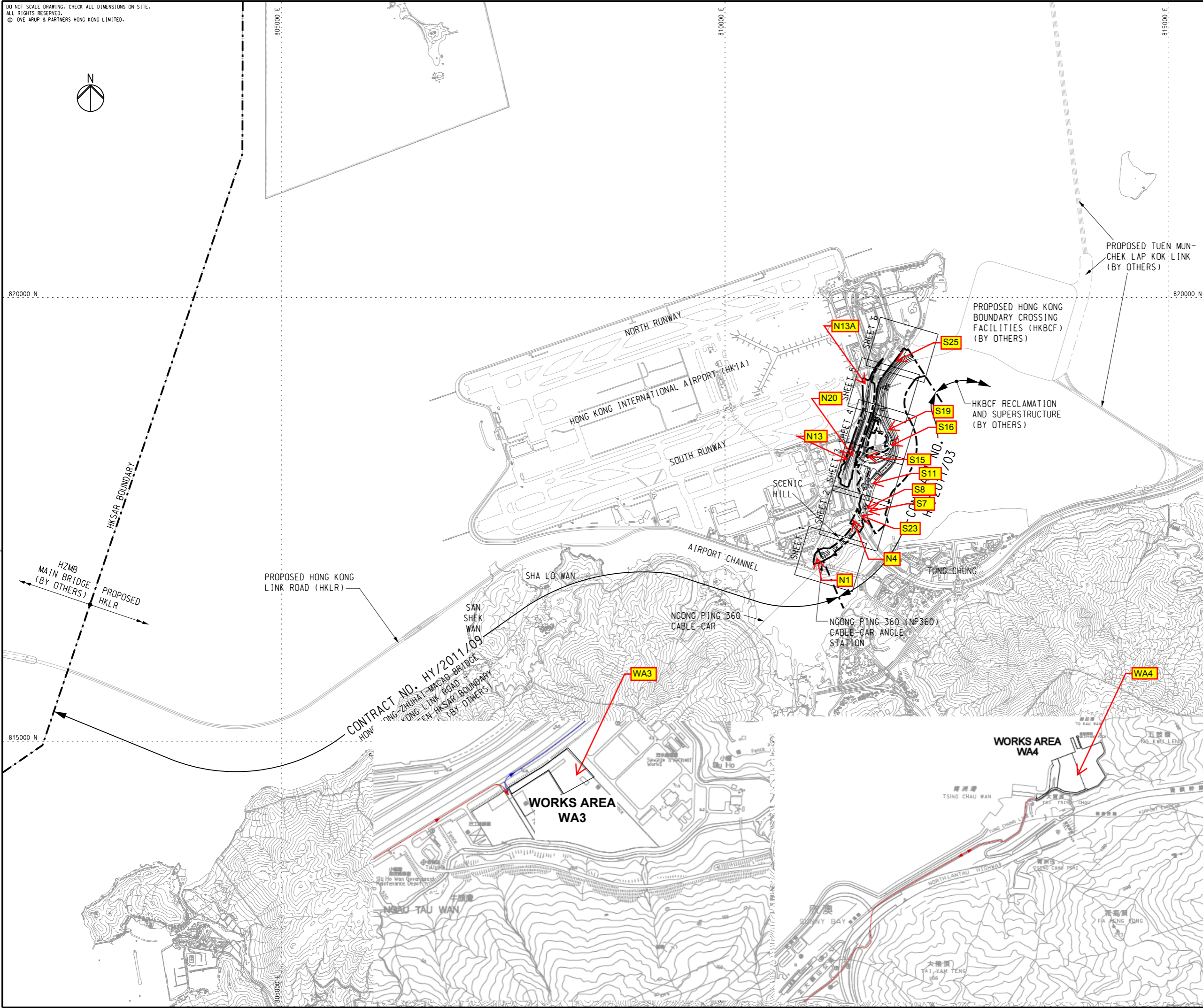
815000 E

820000 N

820000 N

815000 N

Printed by : 13/2/2012  
Filename : J:\214487\Record\HY\_2011\_03\Re-Tender (2012-02-17)\DGN\HY\_2011\_03-DRG\_001-A-10.dgn



**NOTES**

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRG. NOS. 214487/2/T/002 - 007.

**LEGEND**

--- SITE BOUNDARY

A	TENDER ISSUE	IL	02/12
Rev	Description	By	Date

Consultant  
**ARUP** 奧雅納工程顧問  
Ove Arup & Partners Hong Kong Limited

Contract No. and Title:  
Contract No. HY/2011/03  
Hong Kong-Zhuhai-Macao Bridge  
Hong Kong Link Road -  
Section Between Scenic Hill and  
Hong Kong Boundary Crossing Facilities

Drawing title  
**GENERAL LAYOUT  
KEY PLAN**

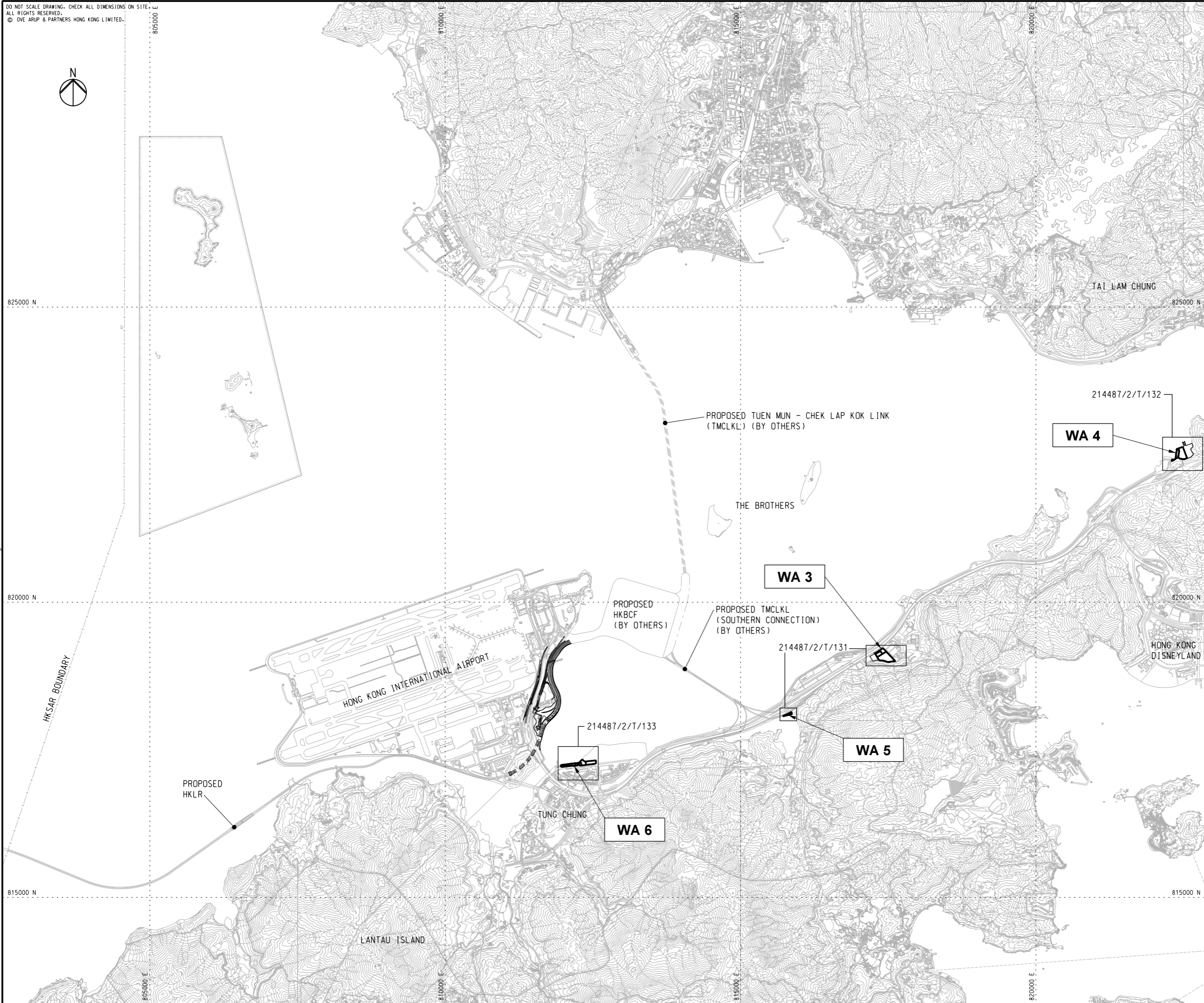
Drawing no.	214487/2/T/001	Rev.	A
Drawn	RY	Date	02/12
Checked	IL	Approved	SK
Scale	1:20000 @A1	Status	TENDER

COPYRIGHT RESERVED

路政署  
**HIGHWAYS DEPARTMENT**  
港珠澳大橋香港工程管理局  
Hong Kong - Zhuhai - Macao Bridge  
Hong Kong Project Management Office



DO NOT SCALE DRAWING. CHECK ALL DIMENSIONS ON SITE.  
 ALL RIGHTS RESERVED.  
 © OVE ARUP & PARTNERS HONG KONG LIMITED.



**NOTES**

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRG. NOS. 214487/2/T/131 - 133.

A	TENDER ISSUE	IL	02/12
Rev	Description	By	Date

Consultant  
**ARUP** 奧雅納工程顧問  
 Ove Arup & Partners Hong Kong Limited

Contract No. and Title:  
 Contract No. HY/2011/03  
 Hong Kong-Zhuhai-Macao Bridge  
 Hong Kong Link Road -  
 Section Between Scenic Hill and  
 Hong Kong Boundary Crossing Facilities

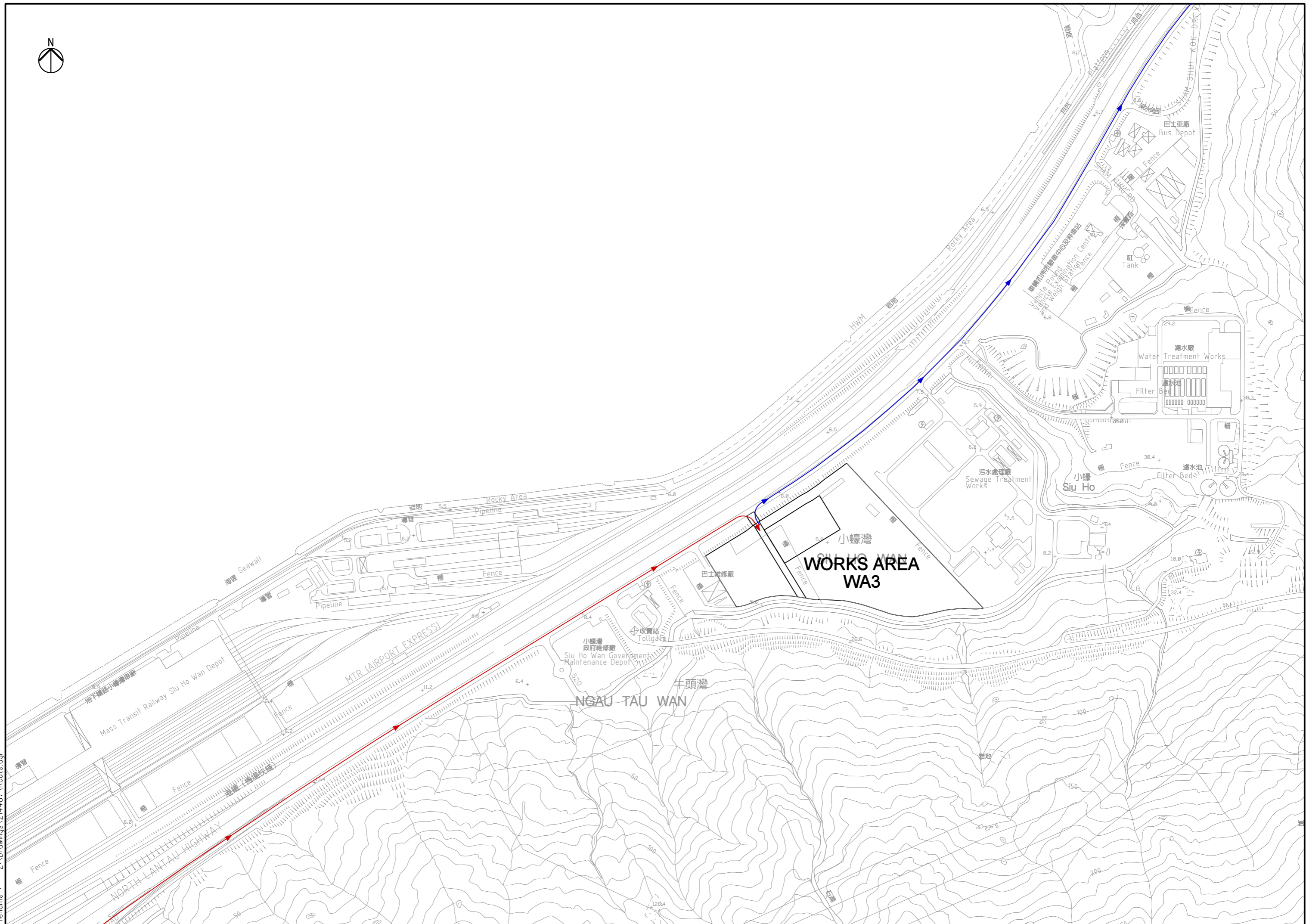
Drawing title  
**WORKS AREAS  
 KEY PLAN**

Drawing no. 214487/2/T/130		Rev. A	
Drawn RY	Date 02/12	Checked IL	Approved SK
Scale 1:30000 @A1	Status	TENDER	

COPYRIGHT RESERVED



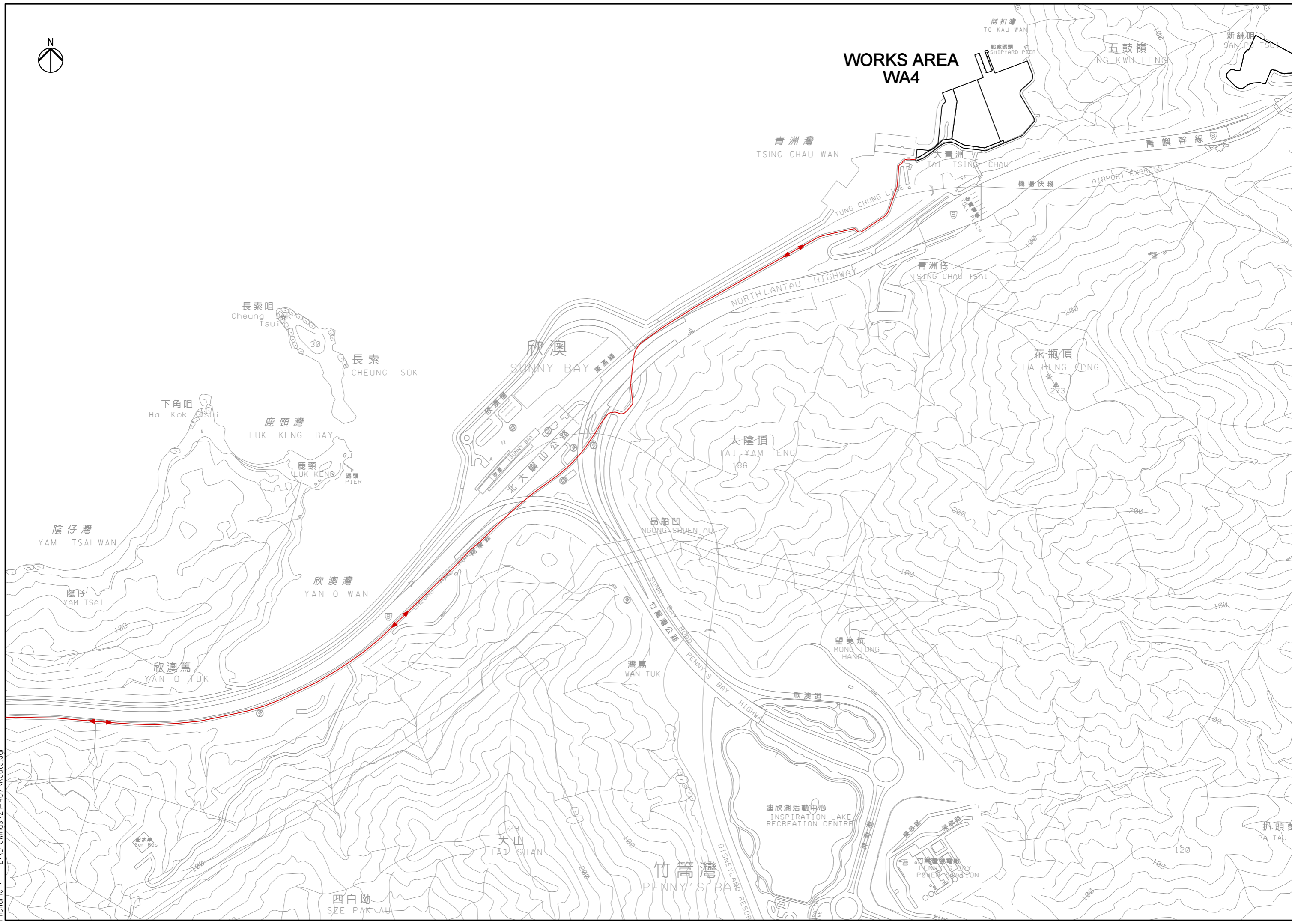
Printed by : 13/2/2012  
 Filename : J:\214487\Record\HY\_2011\_03\Re-Tender (2012-02-17)\DGN\HY\_2011\_03-DRG\_130-A-10.dgn

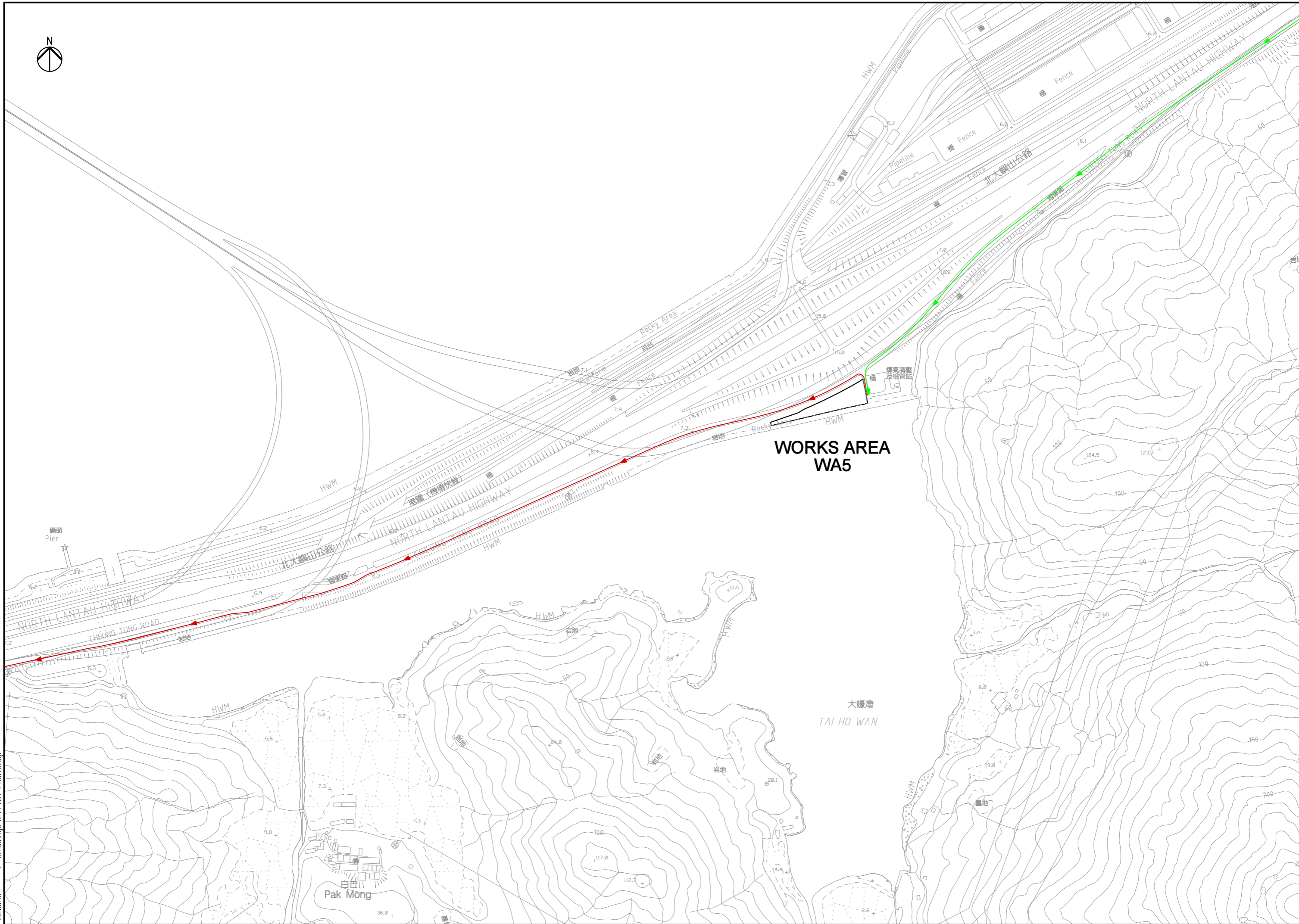




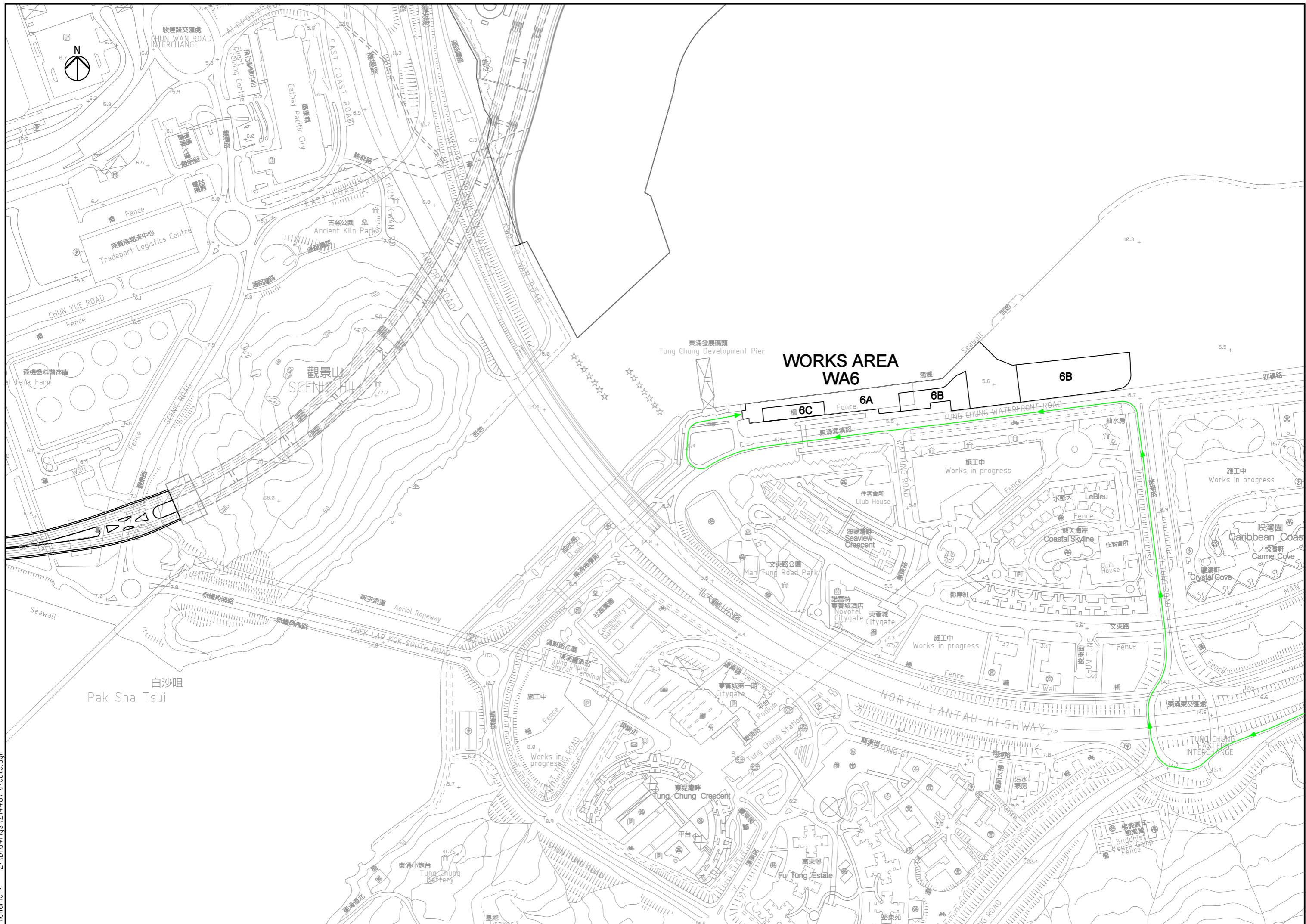


# WORKS AREA WA4









白沙咀  
Pak Sha Tsui

WORKS AREA  
WA6

6B

6C

6A

6B

東涌東交匯處  
TUNG CHUNG EAST INTERCHANGE

東涌東交匯處  
TUNG CHUNG EAST INTERCHANGE

東涌東交匯處  
TUNG CHUNG EAST INTERCHANGE

東涌東交匯處  
TUNG CHUNG EAST INTERCHANGE

東涌東交匯處  
TUNG CHUNG EAST INTERCHANGE

東涌東交匯處  
TUNG CHUNG EAST INTERCHANGE

東涌東交匯處  
TUNG CHUNG EAST INTERCHANGE





DO NOT SCALE DRAWING. CHECK ALL DIMENSIONS ON SITE.  
ALL RIGHTS RESERVED.  
© OVE ARUP & PARTNERS HONG KONG LIMITED.



**NOTES**

- FOR DETAILED DESCRIPTION OF PORTION OF SITE, REFER TO ER PART 2 GENERAL SITE DATA.
- ACCESS ROAD TO NP360 CABLE CAR ANGLE STATION SHALL BE MAINTAINED AT ALL TIMES.

**LEGEND**

- SITE BOUNDARY
- PORTION X
- PORTION Y
- PORTION B
- PORTION C
- PORTION D1

Printed by : 13/2/2012  
Filename : J:\214487\Record\HY\_2011\_03\Re-Tender (2012-02-17)\DGN\HY\_2011\_03-DRG-121-A-10.dgn

A	TENDER ISSUE	IL	02/12
Rev	Description	By	Date

Consultant  
**ARUP** 奧雅納工程顧問  
Ove Arup & Partners Hong Kong Limited

Contract No. and Title:  
Contract No. HY/2011/03  
Hong Kong-Zhuhai-Macao Bridge  
Hong Kong Link Road -  
Section Between Scenic Hill and  
Hong Kong Boundary Crossing Facilities

Drawing title  
**PORTION OF SITE  
(SHEET 1 OF 3)**

Drawing no. 214487/2/T/121		Rev. A	
Drawn RY	Date 02/12	Checked IL	Approved SK
Scale 1:2000 @A1	Status	TENDER	

COPYRIGHT RESERVED

路政署  
**HIGHWAYS DEPARTMENT**  
港珠澳大橋香港工程管理處  
Hong Kong - Zhuhai - Macao Bridge  
Hong Kong Project Management Office

DO NOT SCALE DRAWING. CHECK ALL DIMENSIONS ON SITE.  
ALL RIGHTS RESERVED.  
© OVE ARUP & PARTNERS HONG KONG LIMITED.



HONG KONG INTERNATIONAL AIRPORT  
SOUTH RUNWAY

PORTION Y

CIVIL AVIATION DEPARTMENT  
(CAD) NEW HEADQUARTERS

EXISTING  
DRAGONAIR  
HEADQUARTERS

EXISTING  
CNAC TOWER

FOR CONTINUATION  
SEE DRG 214487/2/T/123  
MATCH LINE

PORTION X

MATCH LINE  
FOR CONTINUATION  
SEE DRG 214487/2/T/121

**NOTES**

1. FOR GENERAL NOTES AND LEGEND, REFER TO  
DRG. NO. 214487/2/T/121.

A	TENDER ISSUE	IL	02/12
Rev	Description	By	Date

Consultant  
**ARUP** 奧雅納工程顧問  
Ove Arup & Partners Hong Kong Limited

Contract No. and Title:  
Contract No. HY/2011/03  
Hong Kong-Zhuhai-Macao Bridge  
Hong Kong Link Road -  
Section Between Scenic Hill and  
Hong Kong Boundary Crossing Facilities

Drawing title  
**PORTION OF SITE  
(SHEET 2 OF 3)**

Drawing no. 214487/2/T/122		Rev. A	
Drawn RY	Date 02/12	Checked IL	Approved SK
Scale 1:2000 @A1	Status	TENDER	

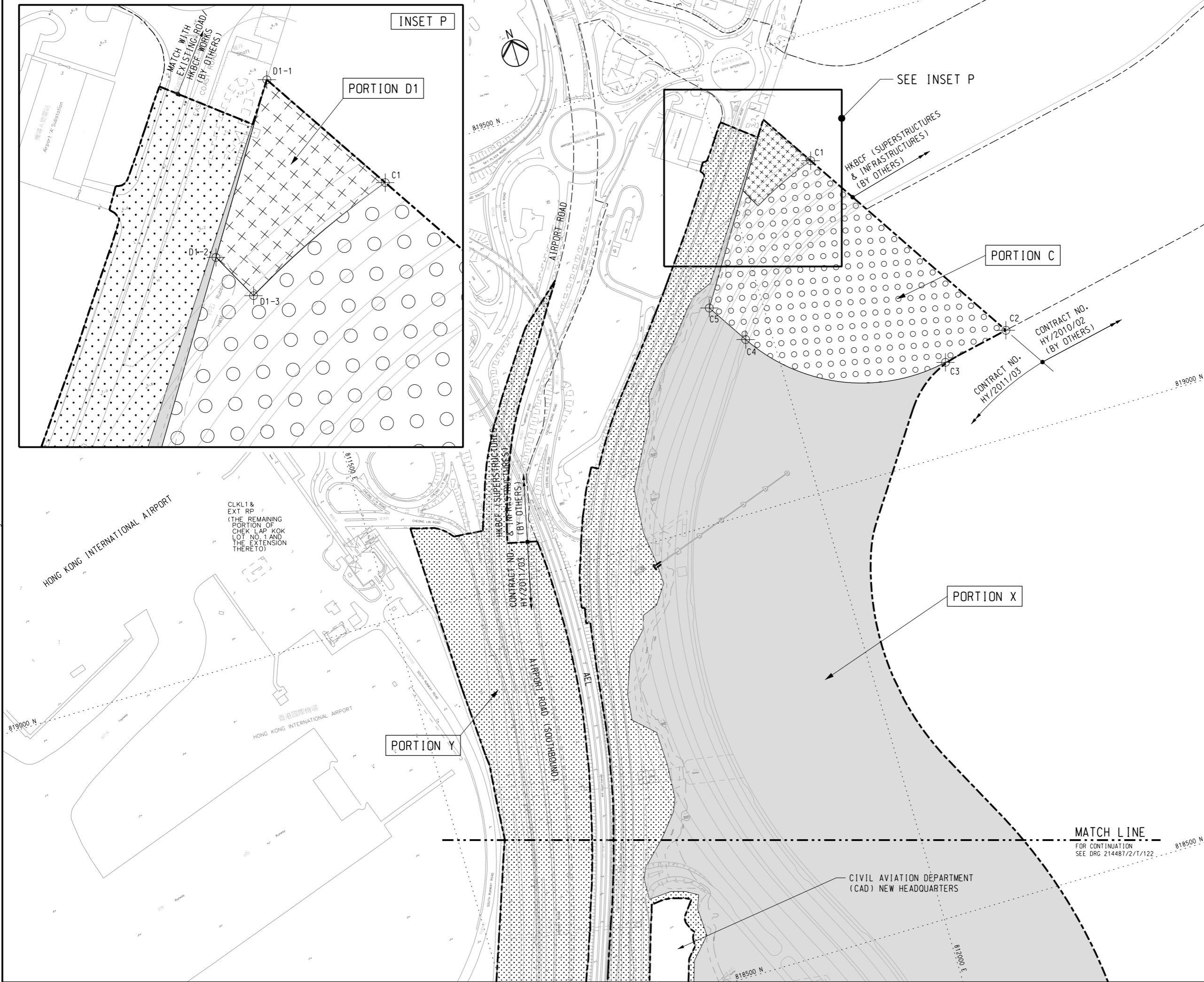
COPYRIGHT RESERVED

路政署  
**HIGHWAYS DEPARTMENT**  
港珠澳大橋香港工程管理局  
Hong Kong - Zhuhai - Macao Bridge  
Hong Kong Project Management Office

Printed by : 13/2/2012  
Filename : J:\214487\Record\HY\_2011\_03\Re-Tender (2012-02-17)\DGN\HY\_2011\_03-DRG\_122-A-10.dgn



DO NOT SCALE DRAWING. CHECK ALL DIMENSIONS ON SITE.  
ALL RIGHTS RESERVED.  
© OVE ARUP & PARTNERS HONG KONG LIMITED.



**NOTES**

1. FOR GENERAL NOTES AND LEGEND, REFER TO DRG. NO. 214487/2/T/121.

**SETTING OUT CO-ORDINATES OF SITE PORTION C**

POINT	CO-ORDINATES	
	EASTING	NORTHING
C1	812097.481	819361.966
C2	812254.199	819116.562
C3	812178.695	819101.208
C4	811970.282	819189.551
C5	811941.125	819235.206

**SETTING OUT CO-ORDINATES OF SITE PORTION D1**

POINT	CO-ORDINATES	
	EASTING	NORTHING
D1-1	812059.460	819421.497
D1-2	812014.853	819351.273
D1-3	812026.200	819329.938

Rev	Description	By	Date
A	TENDER ISSUE	IL	02/12

Consultant  
**ARUP** 奧雅納工程顧問  
Ove Arup & Partners Hong Kong Limited

Contract No. and Title:  
Contract No. HY/2011/03  
Hong Kong-Zhuhai-Macao Bridge  
Hong Kong Link Road -  
Section Between Scenic Hill and  
Hong Kong Boundary Crossing Facilities

Drawing title  
**PORTION OF SITE  
(SHEET 3 OF 3)**

Drawing no. 214487/2/T/123		Rev. A	
Drawn RY	Date 02/12	Checked IL	Approved SK
Scale 1:2000 @A1	Status	TENDER	

COPYRIGHT RESERVED  
**路政署 HIGHWAYS DEPARTMENT**  
港珠澳大橋香港工程處  
Hong Kong - Zhuhai - Macao Bridge  
Hong Kong Project Management Office

Printed by : 13/2/2012  
Filename : J:\214487\Record\HY\_2011\_03\Re-Tender (2012-02-17)\DGN\HY\_2011\_03-DRG-123-A-10.dgn