

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.83 (August 2019)

13 September 2019

Revision 1

Main Contractor



Designer



Contents

Executive Summary

| | | |
|----------|---|-----------|
| 1 | Introduction | 1 |
| 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 |
| 2 | Air Quality Monitoring..... | 4 |
| 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 |
| 3 | Noise Monitoring..... | 9 |
| 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 |
| 4 | Water Quality Monitoring..... | 12 |
| 4.1 | Monitoring Requirements..... | 12 |
| 4.2 | Monitoring Equipment..... | 13 |
| 4.3 | Monitoring Parameters, Frequency and Duration..... | 13 |
| 4.4 | Monitoring Locations..... | 14 |
| 4.5 | Monitoring Methodology..... | 15 |
| 4.6 | Monitoring Schedule for the Reporting Month..... | 16 |
| 4.7 | Monitoring Results | 16 |
| 5 | Dolphin Monitoring | 19 |
| 5.1 | Monitoring Requirements..... | 19 |
| 5.2 | Monitoring Methodology..... | 19 |
| 5.3 | Monitoring Results | 21 |
| 5.4 | Reference | 22 |
| 6 | Environmental Site Inspection and Audit | 24 |
| 6.1 | Site Inspection..... | 24 |

| | | |
|----------|--|-----------|
| 6.2 | Advice on the Solid and Liquid Waste Management Status..... | 25 |
| 6.3 | Environmental Licenses and Permits..... | 26 |
| 6.4 | Implementation Status of Environmental Mitigation Measures..... | 26 |
| 6.5 | Summary of Exceedances of the Environmental Quality Performance Limit... | 26 |
| 6.6 | Summary of Complaints, Notification of Summons and Successful Prosecution | 26 |
| 7 | Future Key Issues | 27 |
| 7.1 | Construction Programme for the Coming Months | 27 |
| 7.2 | Environmental Monitoring Schedule for the Coming Month | 27 |
| 8 | Conclusions..... | 28 |
| 8.1 | Conclusions..... | 28 |

Figures

- Figure 1.1 Location of the Site
Figure 2.1 Environmental Monitoring Stations

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 Waste Flow Table
Appendix J Cumulative Statistics on Complaints
Appendix K Environmental Licenses and Permits
Appendix L Implementation Schedule of Environmental Mitigation Measures
Appendix M Record of “Notification of Summons and Prosecutions”
Appendix N 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 Hong Kong 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 eighty-third 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 31 August 2019.

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 August 2019 |
| 24-hr TSP Monitoring at AMS5 | 6, 12, 16, 26 and 28 August 2019 |
| 24-hr TSP Monitoring at AMS6 | 6, 12, 16, 22 and 28 August 2019 |
| Noise Monitoring | 7, 13, 19 and 29 August 2019 |
| Water Quality Monitoring | 2, 5, 7, 9, 12, 14, 16, 19, 21, 23, 26, 28 and 30 August 2019 |
| Chinese White Dolphin Monitoring | 13, 14, 20, 26 and 29 August 2019 |
| Site Inspection | 1, 7, 14, 21 and 30 August 2019 |

Due to engine problem of the survey boat, the dolphin monitoring on 6 August 2019 was rescheduled to 13 August 2019.

Due to boat unavailability on 21 August 2019, the dolphin monitoring on 21 August 2019 was rescheduled to 20 August 2019.

Due to boat unavailability on 28 August 2019, the dolphin monitoring on 28 August 2019 was rescheduled to 26 August 2019. As the rain was unexpectedly heavy on 26 August 2019, the 2nd dolphin monitoring cannot be completed on 26 August 2019. As such, the dolphin monitoring was rescheduled and completed on 29 August 2019.

Due to malfunction of the high volume sampler (HVS), monitoring time for 24-hr TSP monitoring on 22 August 2019 at AMS5 (Ma Wan Chung Village) was less than 24 hours. The 24-hr TSP monitoring on 22 August 2019 at AMS5 was rescheduled to 26 August 2019.

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 | L _{eq} (30 min) | 0 | 0 |
| Water Quality | Suspended solids level (SS) | 0 | 0 |
| | Turbidity level | 0 | 0 |
| | Dissolved oxygen level (DO) | 8 | 4 |

Complaint Log

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

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.

The water quality monitoring stations at IS10 (Coordinate: 812577E, 820670N) and SR5 (811489E, 820455N) are located inside Hong Kong International Airport (HKIA) Approach Restricted Areas. The previously granted Vessel's Entry Permit for accessing stations IS10 and SR5 were expired on 31 December 2016. During the permit renewing process, the water quality monitoring location was shifted to IS10(N) (Coordinate: 813060E, 820540N) and SR5(N) (Coordinate: 811430E, 820978N) on 2, 4 and 6 January 2017 temporarily. The permit has been granted by Marine Department on 6 January 2017. Thus, the impact water quality monitoring works at original monitoring location of IS10 and SR5 has been resumed since 9 January 2017.

Transect lines 2, 3, 4, 5, 6 and 7 for dolphin monitoring have been revised and transect line 24 has been added due to the presence of a work zone to the north of the airport platform with intense construction activities in association with the construction of the third runway expansion for the Hong Kong International Airport. The EPD issued a memo and confirmed that they had no objection on the revised

transect lines on 28 July 2017. The alternative dolphin transect lines are adopted starting from August's dolphin monitoring.

A new water quality monitoring team has been employed for carrying out water quality monitoring work for the Contract starting from 23 August 2017. 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 CS2, SR5 and IS10 are enclosed by works boundary of 3RS Project. Alternative impact water quality monitoring stations, naming as CS2(A), SR5(N) and IS10(N) was approved on 28 July 2017 and were adopted starting from 23 August 2017 to replace the original locations of water quality monitoring for the Contract.

The role and responsibilities as the ET Leader of the Contract was temporarily taken up by Mr Willie Wong instead of Ms Claudine Lee from 25 September 2017 to 31 December 2017.

Water quality monitoring station SR10A(N) (Coordinate: 823644E, 823484N) was unreachable on 4 October 2017 during flood tide as fishing activities were observed. As such, the water monitoring at station SR10A(N) was conducted at Coordinate: 823484E, 823593N during flood tide on 4 October 2017 temporarily.

The topographical condition of the water monitoring stations SR3 (Coordinate: 810525E, 816456N), SR4 (Coordinate: 814760E, 817867N), SR10A (Coordinate: 823741E, 823495N) and SR10B (Coordinate: 823686E, 823213N) cannot be accessed safely for undertaking water quality monitoring. The water quality monitoring has been temporarily conducted at alternative stations, namely SR3(N) (Coordinate 810689E, 816591N), SR4(N) (Coordinate: 814705E, 817859N) and SR10A(N) (Coordinate: 823644E, 823484N) since 1 September 2017. The water quality monitoring at station SR10B was temporarily conducted at Coordinate: 823683E, 823187N on 1, 4, 6, 8 September 2017 and has been temporarily fine-tuned to alternative station SR10B(N2) (Coordinate: 823689E, 823159N) since 11 September 2017. Proposal for permanently relocating the aforementioned stations was approved by EPD on 8 January 2018.

The works area WA5 was handed over to other party on 22 June 2013.

According to latest information received in July 2018, the works area WA7 was handed over to other party on 28 February 2018 instead of 31 January 2018.

Original WQM stations IS8 and SR4(N) are located within the active work area of TCNTE project and the access to the WQM stations IS8 (Coordinate: E814251, N818412) and SR4(N) (Coordinate: E814705, N817859) are blocked by the silt curtains of the Tung Chung New Town Extension (TCNTE) project. Alternative monitoring stations IS8(N) (Coordinate: E814413, N818570) and SR4(N2) (Coordinate: E814688, N817996) are proposed to replace the original monitoring stations IS8 and SR4(N). Proposal for permanently relocating the aforementioned stations was approved by EPD on 20 August 2019. The water quality monitoring has been conducted at stations IS8(N) and SR4(N2) on 21 August 2019.

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:

- Landscaping works at Portion X and Airport Road;
- E&M works at Airport Road;
- Works for Diversion of Airport Road;
- Establishment of Site Access at Airport Road / Airport Express Line/ East Coast Road;
- Finishing Works for Highway Operation and Maintenance Area Building at Portion X; and
- Finishing 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. The works area WA7 was handed over to other party on 28 February 2018. **Figure 1.1** shows the project site boundary. The works areas are shown in **Appendix N**.
- 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 eighty-third 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 31 August 2019.

- 1.1.6 BMT Hong Kong 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 Hong Kong Limited 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) | Jackson Wong | 3968 4802 | 2109 1882 |
| Environmental Project Office / Independent Environmental Checker (Ramboll Hong Kong Limited) | Environmental Project Office Leader | Y. H. Hui | 3465 2888 | 3465 2899 |
| | Independent Environmental Checker | Ray Yan | 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 Hong Kong Limited) | 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 |
|---|--|
| Loading and unloading of fill materials | Portion X |
| Landscaping works | Portion X and Airport Road |
| Works for diversion | Airport Road |
| Establishment of Site Access | Airport Road / Airport Express Line/ East Coast Road |
| E&M works | Airport Road |
| Finishing works for Highway Operation and Maintenance Area Building | Portion X |
| Finishing 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 Indicator (Model No. LD-5R) |
| 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 ± 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 m³/min, and complied with the range specified in the Updated EM&A Manual for HKLR (Version 1.0) (i.e. 0.6-1.7 m³/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 August 2019 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 | 44 | 11-199 | 352 | 500 |
| AMS6 | 48 | 15-103 | 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 | 33 | 27-50 | 164 | 260 |
| AMS6 | 40 | 25-75 | 173 | 260 |

2.7.2 No Action and Limit Level exceedances of 1-hr TSP and 24-hr TSP were recorded at stations AMS5 and AMS6 during the reporting month. The event action plan is annexed in **Appendix F**.

2.7.3 On-site wind meter was irreparably damaged and the wind data could not be retrieved since August 2019. As the wind data could not be monitored, the wind data during this reporting month

were reference to the wind data obtained from Hong Kong Observatory's Chek Lap Kok weather station. The wind data obtained from Chek Lap Kok weather station are 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 August 2019 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 | 59 | 56 – 65 | 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 aircraft/helicopter noise and nearby construction activities by other parties.

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 and 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 and 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 and 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 and 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 **Table 4.2** summarizes the equipment used in the impact water quality monitoring programme.

Table 4.2 Water Quality Monitoring Equipment

| Equipment | Brand and Model |
|---|--|
| DO and Temperature Meter, Salinity Meter, Turbidimeter and pH Meter | YSI Model 6820 |
| Positioning Equipment | JRC DGPS 224 Model JLR-4341 with J-NAV 500 Model NWZ4551 |
| Water Depth Detector | Eagle Cuda-168 and Lowrance x-4 |
| Water Sampler | Kahlsio Water Sampler (Vertical) 2.2 L with messenger |

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/IS8(N), IS(Mf)9 & IS10(N), Control/Far Field Stations: CS2(A) & CS(Mf)5, Sensitive Receiver Stations: SR3(N), SR4(N)/ SR4(N2), SR5(N), SR10A(N) & SR10B(N2) | <ul style="list-style-type: none"> • Depth, m • Temperature, °C • Salinity, ppt • Dissolved Oxygen (DO), mg/L • DO Saturation, % • Turbidity, NTU • pH • Suspended Solids (SS), mg/L | Three times per week during mid-ebb and mid-flood tides (within ± 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). |

Remark:

1) Original WQM stations IS8 and SR4(N) are located within the active work area of TCNTE project and the access to the WQM stations IS8 (Coordinate: E814251, N818412) and SR4(N) (Coordinate: E814705, N817859) are blocked by the silt curtains of the Tung Chung New Town Extension (TCNTE) project. Alternative monitoring stations IS8(N) (Coordinate: E814413, N818570) and SR4(N2) (Coordinate: E814688, N817996) are proposed to replace the original monitoring stations IS8 and SR4(N). Proposal for permanently relocating the aforementioned stations was approved by EPD on 20 August 2019. The water quality monitoring has been conducted at stations IS8(N) and SR4(N2) on 21 August 2019.

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 A new water quality monitoring team has been employed for carrying out water quality monitoring work for the Contract starting from 23 August 2017. 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 CS2, SR5 and IS10 are enclosed by works boundary of 3RS Project. Alternative impact water quality monitoring stations, naming as CS2(A), SR5(N) and IS10(N) was approved on 28 July 2017 and were adopted starting from 23 August 2017 to replace the original locations of water quality monitoring for the Contract.
- 4.4.3 The topographical condition of the water monitoring stations SR3(N) (Coordinate: 810525E, 816456N), SR4(N) (Coordinate: 814760E, 817867N), SR10A(N) (Coordinate: 823741E, 823495N) and SR10B(N2) (Coordinate: 823686E, 823213N) cannot be accessed safely for undertaking water quality monitoring. The water quality monitoring has been temporarily conducted at alternative stations, namely SR3(N) (Coordinate 810689E, 816591N), SR4(N) (Coordinate: 814705E, 817859N) and SR10A(N) (Coordinate: 823644E, 823484N) since 1 September 2017. The water quality monitoring at station SR10B was temporarily conducted at Coordinate: 823683E, 823187N on 1, 4, 6, 8 September 2017 and has been temporarily fine-tuned to alternative station SR10B(N2) (Coordinate: 823689E, 823159N) since 11 September 2017. Proposal for permanently relocating the aforementioned stations was approved by EPD on 8 January 2018.
- 4.4.4 Original WQM stations IS8 and SR4(N) are located within the active work area of TCNTE project and the access to the WQM stations IS8 (Coordinate: E814251, N818412) and SR4(N) (Coordinate: E814705, N817859) are blocked by the silt curtains of the Tung Chung New Town Extension (TCNTE) project. Alternative monitoring stations IS8(N) (Coordinate: E814413, N818570) and SR4(N2) (Coordinate: E814688, N817996) are proposed to replace the original monitoring stations IS8 and SR4(N). Proposal for permanently relocating the aforementioned stations was approved by EPD on 20 August 2019. The water quality monitoring has been conducted at stations IS8(N) and SR4(N2) on 21 August 2019.
- 4.4.5 The locations of water quality monitoring stations during the reporting period 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 |
| IS8(N) | Impact Station (Close to HKBCF construction site) | 814413 | 818570 |
| IS(Mf)9 | Impact Station (Close to HKBCF construction site) | 813273 | 818850 |
| IS10(N) | Impact Station (Close to HKBCF construction site) | 812942 | 820881 |
| SR3(N) | Sensitive receivers (San Tau SSSI) | 810689 | 816591 |

| Monitoring Stations | Description | Coordinates | |
|---------------------|---|-------------|----------|
| | | Easting | Northing |
| SR4(N) | Sensitive receivers (Tai Ho Inlet) | 814705 | 817859 |
| SR4(N2) | Sensitive receivers (Tai Ho Inlet) | 814688 | 817996 |
| SR5(N) | Sensitive Receivers (Artificial Reef in NE Airport) | 812569 | 821475 |
| SR10A(N) | Sensitive receivers (Ma Wan Fish Culture Zone) | 823644 | 823484 |
| SR10B(N2) | Sensitive receivers (Ma Wan Fish Culture Zone) | 823689 | 823159 |
| CS2(A) | Control Station (Mid-Ebb) | 805232 | 818606 |
| CS(Mf)5 | Control Station (Mid-Flood) | 817990 | 821129 |

Remarks:

- 1) The access to station SR4(N) was blocked by silt curtains in all water monitoring date of August 2019. As such, the water quality monitoring at station SR4(N) was temporarily conducted at a location which is close to the original coordinates of station SR4(N) as far as practicable from 1 Aug to 19 Aug 2019.
- 2) The access to station IS8 was blocked by silt curtains starting from 8 Mar 2019 onwards. As such, the water quality monitoring at station IS8 was temporarily conducted at a location which is close to the original coordinates of station IS8 as far as practicable from 8 Mar 2019 to 19 Aug 2019 onwards.
- 3) Original WQM stations IS8 and SR4(N) are located within the active work area of TCNTE project and the access to the WQM stations IS8 (Coordinate: E814251, N818412) and SR4(N) (Coordinate: E814705, N817859) are blocked by the silt curtains of the Tung Chung New Town Extension (TCNTE) project. Alternative monitoring stations IS8(N) (Coordinate: E814413, N818570) and SR4(N2) (Coordinate: E814688, N817996) are proposed to replace the original monitoring stations IS8 and SR4(N). Proposal for permanently relocating the aforementioned stations was approved by EPD on 20 August 2019. The water quality monitoring has been conducted at stations IS8(N) and SR4(N2) on 21 August 2019.

4.5 Monitoring Methodology

4.5.1 Instrumentation

- (a) The in-situ water quality parameters including dissolved oxygen, temperature, salinity and turbidity, pH were measured by multi-parameter meters.

4.5.2 Operating/Analytical Procedures

- (a) Digital Differential Global Positioning Systems (DGPS) were used to ensure that the correct location was selected prior to sample collection.
- (b) Portable, battery-operated echo sounders were used for the determination of water depth at each designated monitoring station.
- (c) All in-situ measurements were taken at 3 water depths, 1 m below water surface, mid-depth and 1 m above sea bed, except where the water depth was less than 6 m, in which case the mid-depth station was omitted. Should the water depth be less than 3 m, only the mid-depth station was monitored.
- (d) At each measurement/sampling depth, two consecutive in-situ monitoring (DO concentration and saturation, temperature, turbidity, pH, salinity) and water sample for SS. The probes were retrieved out of the water after the first measurement and then re-deployed for the second measurement. Where the difference in the value between the first and second readings of DO or turbidity parameters was more than 25% of the value of the first reading, the reading was discarded and further readings were taken.
- (e) Duplicate samples from each independent sampling event were collected for SS measurement. Water samples were collected using the water samplers and the samples were stored in high-density polythene bottles. Water samples collected were well-mixed in the water sampler prior to pre-rinsing and transferring to sample bottles. Sample bottles were pre-rinsed with the same water samples. The sample bottles were then be packed in cool-boxes (cooled at 4°C without being frozen), and delivered to ALS Technichem (HK) Pty Ltd. for the analysis of suspended solids concentrations.

The laboratory determination work would be started within 24 hours after collection of the water samples. ALS Technichem (HK) Pty Ltd. is a HOKLAS accredited laboratory and has comprehensive quality assurance and quality control programmes.

- (f) The analysis method and detection limit for SS is shown in **Table 4.5**.

Table 4.5 Laboratory Analysis for Suspended Solids

| Parameters | Instrumentation | Analytical Method | Detection Limit |
|----------------------|-----------------|-------------------|-----------------|
| Suspended Solid (SS) | Weighting | APHA 2540-D | 0.5mg/L |

- (g) Other relevant data were recorded, including monitoring location / position, time, water depth, tidal stages, weather conditions and any special phenomena or work underway at the construction site in the field log sheet for information.

4.5.3 Maintenance and Calibrations

- (a) All in situ monitoring instruments would be calibrated by ALS Technichem (HK) Pty Ltd. before use and at 3-monthly intervals throughout all stages of the water quality monitoring programme. The procedures of performance check of sonde and testing results are provided in **Appendix C**.

4.6 Monitoring Schedule for the Reporting Month

- 4.6.1 The schedule for impact water quality monitoring in August 2019 is provided in **Appendix D**.

4.7 Monitoring Results

- 4.7.1 Impact water quality monitoring was conducted at all designated monitoring stations during the reporting month. Impact water quality monitoring results and relevant graphical plots are provided in **Appendix E**.
- 4.7.2 Water quality impact sources during water quality monitoring were nearby construction activities by other parties and nearby operating vessels by other parties.
- 4.7.3 For marine water quality monitoring, no Action Level and Limit Level exceedances of turbidity level and suspended solids level were recorded during the reporting month. No Action/Limit Level exceedances of dissolved oxygen were recorded at bottom level during mid-ebb tide. No Limit Level exceedances of dissolved oxygen were recorded at bottom level during mid-flood tide.
- 4.7.4 On 30 August 2019, 2 Action Level exceedances of dissolved oxygen at stations IS10(N), SR5(N) and 2 Limit Level exceedances of dissolved oxygen were recorded at SR10A(N), SR10B(N2) at surface and middle level during mid-ebb tide. 2 Action Level exceedances of dissolved oxygen at stations IS10(N), SR5(N) and 2 Limit Level exceedances of dissolved oxygen were recorded at SR10A(N), SR10B(N2) at surface and middle level during mid-flood tide. 4 Action Level exceedances of dissolved oxygen were recorded at IS10(N), SR5(N), SR10A(N) and SR10B(N2) at bottom level during mid-flood tide.
- 4.7.5 Number of exceedances recorded during the reporting month at each impact station are summarized in **Table 4.6**.

Table 4.6 Summary of Water Quality Exceedances

| Station | Exceedance Level | DO (S&M) | | DO (Bottom) | | Turbidity | | SS | | Total number of exceedances | |
|--------------------|------------------|------------|------------|-------------|------------|-----------|-------|-----|-------|-----------------------------|-------|
| | | Ebb | Flood | Ebb | Flood | Ebb | Flood | Ebb | Flood | Ebb | Flood |
| IS5 | Action Level | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 0 |
| | Limit Level | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 0 |
| IS(Mf)6 | Action Level | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 0 |
| | Limit Level | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 0 |
| IS7 | Action Level | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 0 |
| | Limit Level | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 0 |
| IS8/ IS8(N) | Action Level | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 0 |
| | Limit Level | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 0 |
| IS(Mf)9 | Action Level | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 0 |
| | Limit Level | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 0 |
| IS10(N) | Action Level | 30-08-2019 | 30-08-2019 | -- | 30-08-2019 | -- | -- | -- | -- | 1 | 2 |
| | Limit Level | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 0 |
| SR3(N) | Action Level | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 0 |
| | Limit Level | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 0 |
| SR4(N)/ SR4(N2) | Action Level | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 0 |
| | Limit Level | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 0 |
| SR5(N) | Action Level | 30-08-2019 | 30-08-2019 | -- | 30-08-2019 | -- | -- | -- | -- | 1 | 2 |
| | Limit Level | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 0 |
| SR10A(N) | Action Level | -- | -- | -- | 30-08-2019 | -- | -- | -- | -- | 0 | 1 |
| | Limit Level | 30-08-2019 | 30-08-2019 | -- | -- | -- | -- | -- | -- | 1 | 1 |
| SR10B(N2) | Action Level | -- | -- | -- | 30-08-2019 | -- | -- | -- | -- | 0 | 1 |
| | Limit Level | 30-08-2019 | 30-08-2019 | -- | -- | -- | -- | -- | -- | 1 | 1 |
| Total | Action | 2 | 2 | 0 | 4 | 0 | 0 | 0 | 0 | 8** | |
| | Limit | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 4** | |

Notes:

S: Surface;

M: Mid-depth;

** The total number of exceedances

4.7.6 Land-based work including construction of maintenance access at Zone 3 were carried out on 30 August 2019. No wastewater was discharged from work areas of this Contract to the open water on 30 August 2019. It is also noted that exceedances were not recorded at stations IS5, IS(Mf)6 and IS7 which are located close to the site boundary of this Contract. As confirmed by the Contractor of this Contract, there were no marine based works and no marine transportation in the vicinity of stations IS10(N), SR5(N), SR10A(N) and SR10B(N2) on 30 August 2019 which are located far away the site boundary of this Contract (over 1.5 km).

4.7.7 There were no specific activities recorded during the monitoring period that would cause any significant impacts on the monitoring results. The exceedances of dissolved oxygen level

recorded during reporting period were considered to be attributed to other external factors such as sea condition, rather than the contract works. Therefore, the exceedances were considered as non-contract related. Records of “Notification of Environmental Quality Limit Exceedances” are provided in **Appendix M**.

4.7.8 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 requirement of the updated EM&A manual, dolphin monitoring programme should cover all transect lines in NEL and NWL survey areas (see **Figure 1 of Appendix H**) twice per month throughout the entire construction period. The co-ordinates of all transect lines are shown in **Table 5.2**. The coordinates of several starting and ending points have been revised due to the presence of a work zone to the north of the airport platform with intense construction activities in association with the construction of the third runway expansion for the Hong Kong International Airport. The EPD issued a memo and confirmed that they had no objection on the revised transect lines on 28 July 2017, 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 | 805476 | 820800* | 14 | Start Point | 817537 | 820220 |
| 2 | End Point | 805476 | 826654 | 14 | End Point | 817537 | 824613 |
| 3 | Start Point | 806464 | 821150* | 15 | Start Point | 818568 | 820735 |
| 3 | End Point | 806464 | 822911 | 15 | End Point | 818568 | 824433 |
| 4 | Start Point | 807518 | 821500* | 16 | Start Point | 819532 | 821420 |
| 4 | End Point | 807518 | 829230 | 16 | End Point | 819532 | 824209 |
| 5 | Start Point | 808504 | 821850* | 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 | 822150* | 18 | Start Point | 821504 822371 |
| 6 | End Point | 809490 | 825352 | 18 | End Point | 821504 823761 |
| 7 | Start Point | 810499 | 822000* | 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 | 821176 | 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 | 24* | Start Point | 805476* 815900* |
| 12 | End Point | 815542 | 824882 | 24* | End Point | 805476* 819100* |

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 20 years of marine mammal monitoring surveys in Hong Kong developed by HKCRP (see Hung 2017). 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* 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 August 2019, two sets of systematic line-transect vessel surveys were conducted on the 13th, 14th, 20th, 26th and 29th 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 6 of Appendix H**.
- 5.3.2 From these surveys, a total of 263.53 km of survey effort was collected, with 96.5% 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**).
- 5.3.3 Among the two survey areas, 94.63 km and 168.90 km of survey effort were collected from NEL and NWL survey areas respectively. Moreover, the total survey effort conducted on primary lines was 195.51 km, while the effort on secondary lines was 68.02 km.
- 5.3.4 During the two sets of monitoring surveys in August 2019, no Chinese White Dolphins were sighted at all. This is the fourth monitoring month during the entire HKLR03 construction period

that no dolphin was sighted in North Lantau waters, with the previous three months occurred in May 2015, May 2016 and May 2018.

- 5.3.5 During the August'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: August 13 th / 14 th | 0.0 | 0.0 |
| | Set 2: August 20 th / 26 th / 29 th | 0.0 | 0.0 |
| NWL | Set 1: August 13 th / 14 th | 0.0 | 0.0 |
| | Set 2: August 20 th / 26 th / 29 th | 0.0 | 0.0 |

Remark:

- Dolphin Encounter Rates Deduced from the Two Sets of Surveys in August 2019 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 | 0.0 | 0.0 | 0.0 |

Remark:

- Overall dolphin encounter rates (sightings per 100 km of survey effort) from the surveys conducted in August 2019 on primary lines only as well as both primary lines and secondary lines in Northeast and Northwest Lantau).

Conclusion

- 5.3.6 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.
- 5.3.7 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 2019) and the 3-month baseline monitoring 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. 2017. Monitoring of Marine Mammals in Hong Kong waters: final report (2016-17). An unpublished report submitted to the Agriculture, Fisheries and Conservation Department, 162 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 Environmental Site Inspection and Audit

6.1 Site Inspection

- 6.1.1 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 August 2019.
- 6.1.2 A summary of observations found during the site inspections and the follow up actions taken by the Contractor are described in **Table 6.1**.

Table 6.1 Summary of Environmental Site Inspections

| Date of Audit | Observations | Actions Taken by Contractor / Recommendation | Date of Observations Closed |
|---------------|---|--|-----------------------------|
| 26 Jul 2019 | <ol style="list-style-type: none"> 1. Stagnant water was observed at S16. 2. Waste was observed at S16. 3. Waste was observed at LCSD Depot. | <ol style="list-style-type: none"> 1. The stagnant water was removed at S16. 2. The waste was removed from S16. 3. The waste was removed from LCSD Depot. | 1 Aug 2019 |
| 1 Aug 2019 | <ol style="list-style-type: none"> 1. Construction waste and general refuse were observed on the ground at LCSD Depot. 2. Waste was scattered on the ground at N4. 3. Waste was observed on the ground at S7. | <ol style="list-style-type: none"> 1. The construction waste and general refuse were removed from LCSD Depot. 2. The waste was removed from N4. 3. The waste was removed from S7. | 7 Aug 2019 |
| 7 Aug 2019 | <ol style="list-style-type: none"> 1. General refuse and an unused chemical container were observed at S15. | <ol style="list-style-type: none"> 1. The general refuse and the unused chemical container were removed from S15. | 21 Aug 2019 |
| | <ol style="list-style-type: none"> 2. Waste was observed at S15. 3. Chemical containers were observed without drip tray at LCSD Depot. | <ol style="list-style-type: none"> 2. The waste was removed from S15. The waste was removed from N4. 3. The chemical containers were removed from LCSD Depot. | 14 Aug 2019 |
| 14 Aug 2019 | <ol style="list-style-type: none"> 1. General refuse and an unused chemical container were observed at S15. 2. Oil stain was observed on the ground at LCSD Depot. 3. Waste was accumulated on the ground at LCSD Depot. | <ol style="list-style-type: none"> 1. The general refuse and the unused chemical container were removed from S15. 2. The oil stain was removed from LCSD Depot. 3. The waste was removed from LCSD Depot. | 21 Aug 2019 |

| | | | |
|-------------|---|--|---|
| 21 Aug 2019 | <ol style="list-style-type: none"> 1. Waste were scattered on the ground at S15. 2. Waste was accumulated on the ground at S15. 3. Waste and unused chemical containers were observed at LCSD Depot. Waste was observed at LCSD Depot. | <ol style="list-style-type: none"> 1. The waste was removed from S15. 2. The waste was removed from S15. 3. The waste and the unused chemical containers were removed from LCSD Depot. | 30 Aug 2019 |
| 30 Aug 2019 | <ol style="list-style-type: none"> 1. Waste was observed at S7. 2. Chemical container without drip tray was observed at S7. 3. Waste was observed at S7. | <p><u>The Contractor was recommended to:</u></p> <ol style="list-style-type: none"> 1. remove the waste from S7. 2. provide drip tray for the chemical containers at S7. 3. remove the waste from S7. | Follow-up actions for the observations issued for the last weekly site inspection of the reporting month will be inspected during the next site inspection. |

6.1.3 Summary of Environmental Site Inspections (Landscape works) for the Contract works area described in **Table 6.2**. The landscape work for the Contract was conducted during the reporting month. The implementation of mitigation measures for landscape and visual resources recommended in the EIA Report were monitored during the reporting period. Landscape and visual mitigation measures in accordance with the EP, EIA and EM&A Manual were implemented by the Contractor.

Table 6.2 Summary of Environmental Site Inspections (Landscape works) for the Contract works area

| Date of Audit | Observations | Actions Taken by Contractor / Recommendation | Date of Observations Closed |
|---------------|--|--|-----------------------------|
| 7 Aug 2019 | No particular environmental issue was recorded during the site inspection. | Nil. | Nil. |
| 21 Aug 2019 | No particular environmental issue was recorded during the site inspection. | Nil. | Nil. |

6.1.4 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 inspection.

6.2 Advice on the Solid and Liquid Waste Management Status

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

6.2.2 Monthly summary of waste flow table is detailed in **Appendix I**.

- 6.2.3 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.

6.3 Environmental Licenses and Permits

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

6.4 Implementation Status of Environmental Mitigation Measures

- 6.4.1 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.
- 6.4.2 A summary of the Implementation Schedule of Environmental Mitigation Measures (EMIS) is presented in **Appendix L**. Most of the necessary mitigation measures were implemented properly.
- 6.4.3 Regular marine travel route for marine vessels were implemented properly in accordance to the submitted plan and relevant records were kept properly.
- 6.4.4 Dolphin Watching Plan was implemented during the reporting month. No dolphins inside the silt curtain were observed. The relevant records were kept properly.

6.5 Summary of Exceedances of the Environmental Quality Performance Limit

- 6.5.1 For air quality, no Action and Limit Level exceedances of 1-hr TSP and 24-hr TSP were recorded at stations AMS5 and AMS6 during the reporting month.
- 6.5.2 For construction noise, no Action and Limit Level exceedances were recorded at station NMS5 during the reporting month.
- 6.5.3 For marine water quality monitoring, no Action Level and Limit Level exceedances of turbidity level and suspended solids level were recorded during the reporting month. No Action/Limit Level exceedances of dissolved oxygen were recorded at bottom level during mid-ebb tide. No Limit Level exceedances of dissolved oxygen were recorded at bottom level during mid-flood tide.
- 6.5.4 On 30 August 2019, 2 Action Level exceedances of dissolved oxygen at stations IS10(N), SR5(N) and 2 Limit Level exceedances of dissolved oxygen were recorded at SR10A(N), SR10B(N2) at surface and middle level during mid-ebb tide. 2 Action Level exceedances of dissolved oxygen at stations IS10(N), SR5(N) and 2 Limit Level exceedances of dissolved oxygen were recorded at SR10A(N), SR10B(N2) at surface and middle level during mid-flood tide. 4 Action Level exceedances of dissolved oxygen were recorded at IS10(N), SR5(N), SR10A(N) and SR10B(N2) at bottom level during mid-flood tide. The exceedances of dissolved oxygen level recorded during reporting period were considered to be attributed to other external factors such as sea condition, rather than the contract works. Therefore, the exceedances were considered as non-contract related.

6.6 Summary of Complaints, Notification of Summons and Successful Prosecution

- 6.6.1 There was no complaint received in relation to the environmental impacts during this reporting month.
- 6.6.2 The details of cumulative statistics of Environmental Complaints are provided in **Appendix J**.
- 6.6.3 No notification of summons and prosecution was received during the reporting period. Statistics on notifications of summons and successful prosecutions are summarized in **Appendix M**.

7 Future Key Issues

7.1 Construction Programme for the Coming Months

- 7.1.1 As informed by the Contractor, the major construction activities for September 2019 are summarized in **Table 7.1**.

Table 7.1 Construction Activities for September 2019

| Site Area | Description of Activities |
|--|---|
| Portion X and Airport Road | Landscaping Works |
| Airport Road | E&M works |
| Airport Road | Works for Diversion |
| Airport Road / Airport Express Line/ East Coast Road | Establishment of Site Access |
| Portion X | Finishing works for Highway Operation and Maintenance Area Building |
| West Portal | Finishing Works for Scenic Hill Tunnel West Portal Ventilation Building |

7.2 Environmental Monitoring Schedule for the Coming Month

- 7.2.1 The tentative schedule for environmental monitoring in September 2019 is provided in **Appendix D**.

8 Conclusions

8.1 Conclusions

- 8.1.1 The construction phase and EM&A programme of the Contract commenced on 17 October 2012. This is the eighty-third 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 31 August 2019.

Air Quality

- 8.1.2 For air quality, no Action Level and Limit Level exceedances of 1-hr TSP and 24-hr TSP were recorded at stations AMS5 and AMS6 during the reporting month.

Noise

- 8.1.3 For construction noise, no Action and Limit Level exceedances were recorded at station NMS5 during the reporting month.

Water Quality

- 8.1.4 For marine water quality monitoring, no Action Level and Limit Level exceedances of turbidity level and suspended solids level were recorded during the reporting month. No Action/Limit Level exceedances of dissolved oxygen were recorded at bottom level during mid-ebb tide. No Limit Level exceedances of dissolved oxygen were recorded at bottom level during mid-flood tide.

- 8.1.5 On 30 August 2019, 2 Action Level exceedances of dissolved oxygen at stations IS10(N), SR5(N) and 2 Limit Level exceedances of dissolved oxygen were recorded at SR10A(N), SR10B(N2) at surface and middle level during mid-ebb tide. 2 Action Level exceedances of dissolved oxygen at stations IS10(N), SR5(N) and 2 Limit Level exceedances of dissolved oxygen were recorded at SR10A(N), SR10B(N2) at surface and middle level during mid-flood tide. 4 Action Level exceedances of dissolved oxygen were recorded at IS10(N), SR5(N), SR10A(N) and SR10B(N2) at bottom level during mid-flood tide. The exceedances of dissolved oxygen level recorded during reporting period were considered to be attributed to other external factors such as sea condition, rather than the contract works. Therefore, the exceedances were considered as non-contract related.

Dolphin

- 8.1.6 During the August'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.
- 8.1.7 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 2019) and the 3-month baseline monitoring period will be made.

Environmental Site Inspection and Audit


- 8.1.8 Environmental site inspections were carried out on 1, 7, 14, 21 and 30 August 2019. Recommendations on remedial actions were given to the Contractors for the deficiencies identified during the site inspections.
- 8.1.9 There was no complaint received in relation to the environmental impact during the reporting period. No notification of summons and prosecution was received during the reporting period.



FIGURES



LEGEND

 Site Boundary of Contract HY/2011/03

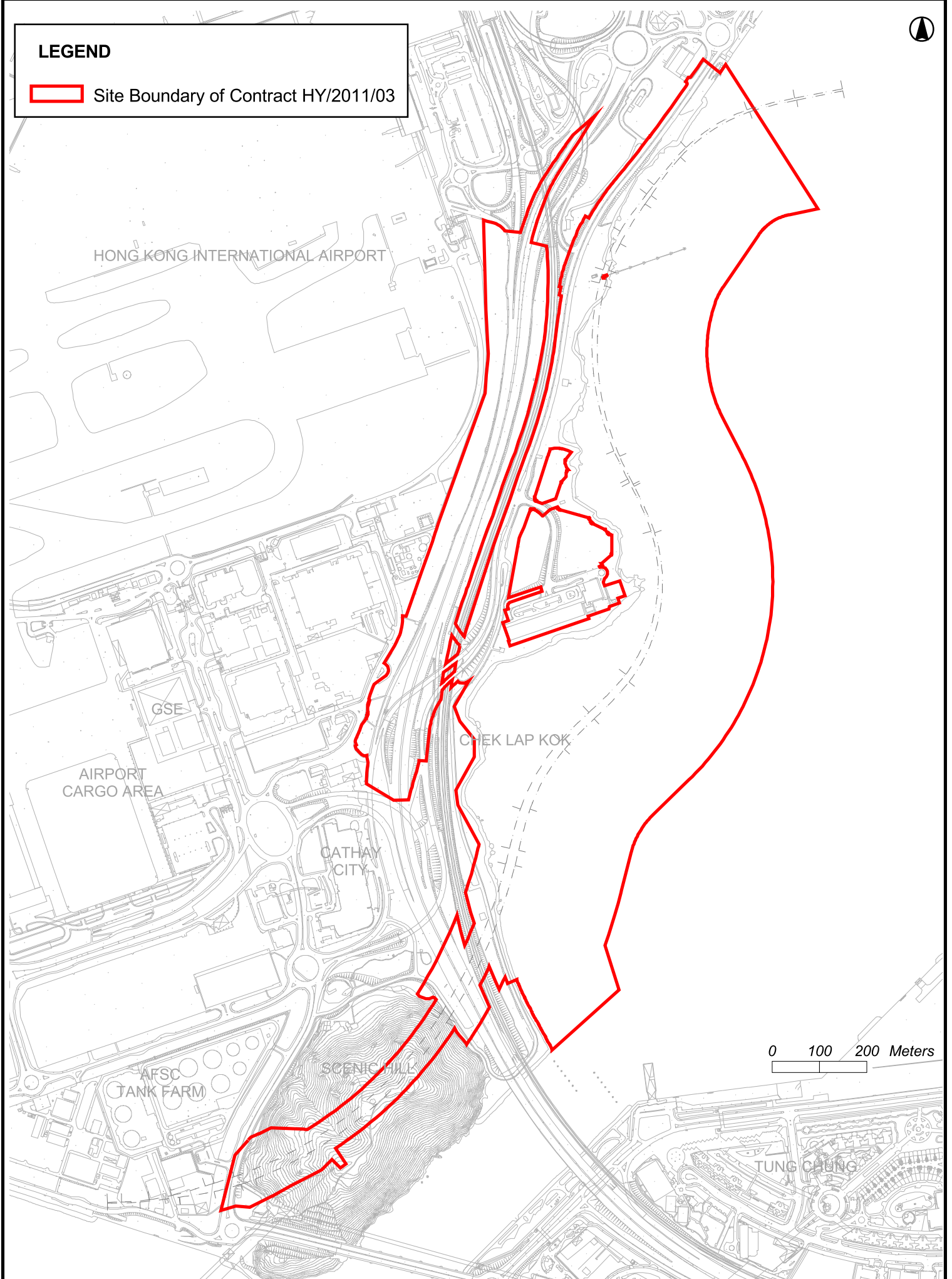
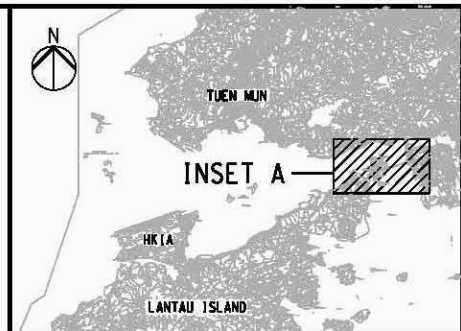
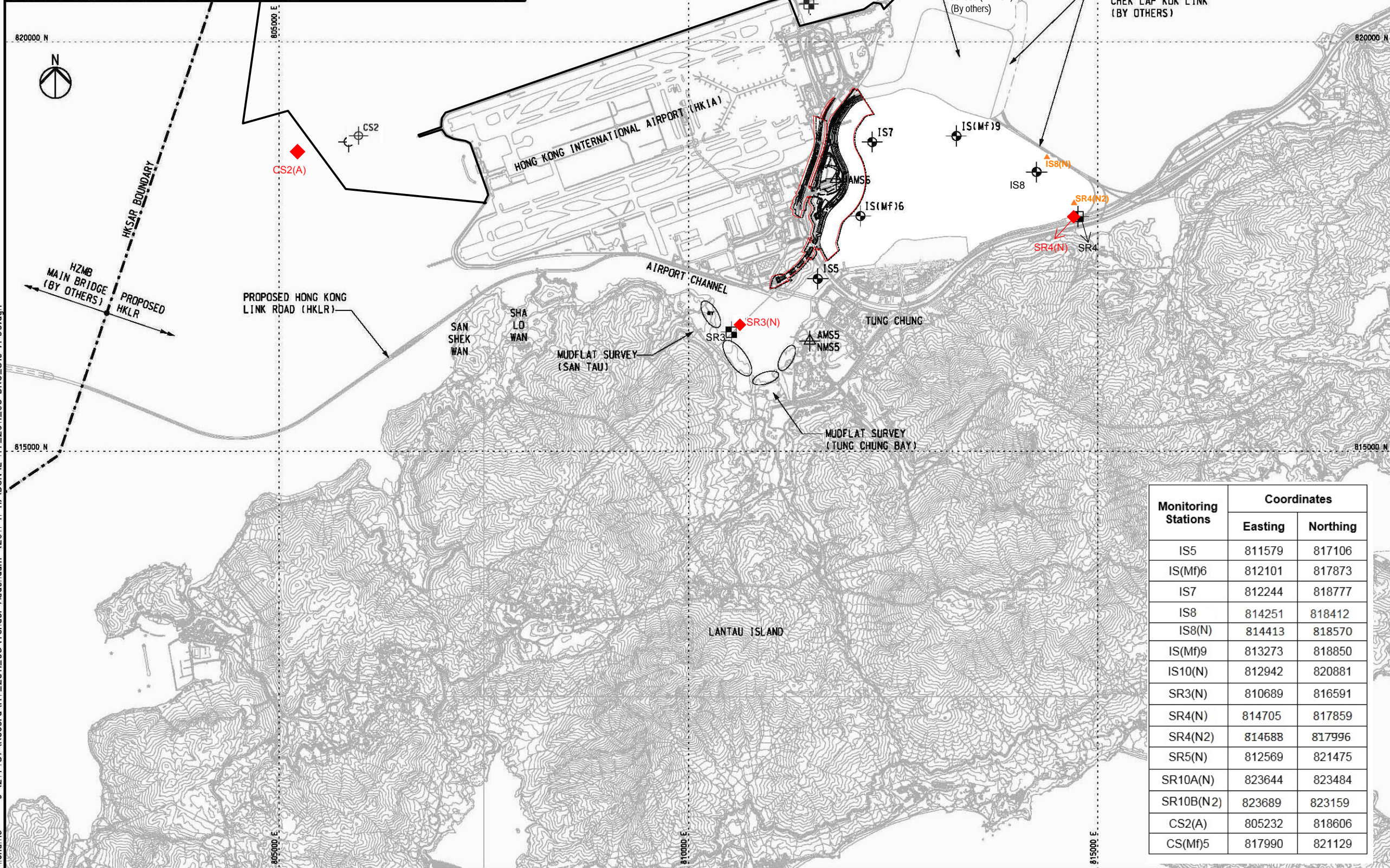
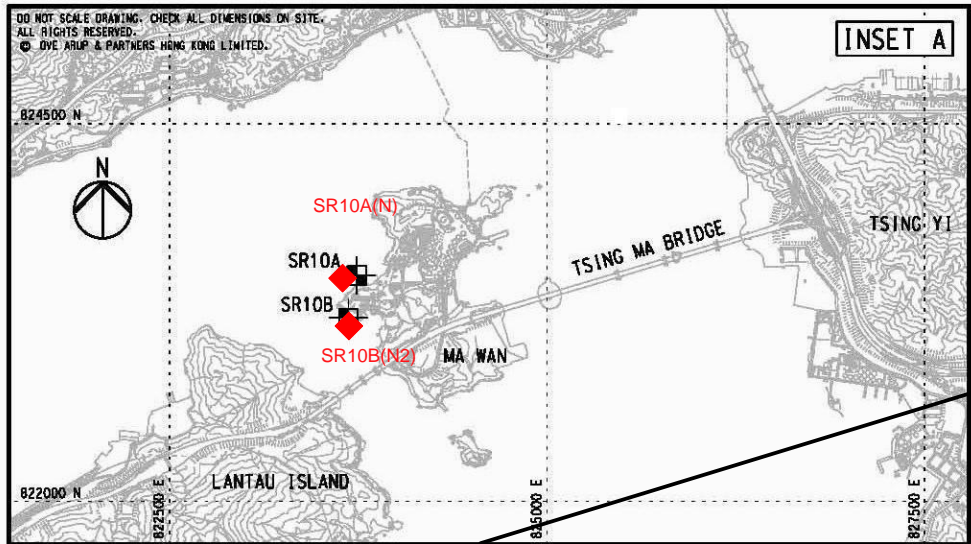


Figure 1.1 Location of the Site



KEY PLAN

- NOTES**
- 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 OFFICE (ENPO) AND APPROVED BY THE SUPERVISING OFFICER FOR THE PROPOSED LOCATION OF THE MONITORING STATIONS.
 - 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, ENPO AND SUPERVISING OFFICER THE DETAILS OF THE MUDFLAT SURVEY IN ACCORDANCE WITH THE REQUIREMENTS STIPULATED IN THE EIA REPORTS AND E&M MANUALS.
 - THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS STIPULATED IN THE E&M MANUALS TO CONDUCT THE ENVIRONMENTAL MONITORING AND AUDIT WORKS.

- LEGEND**
- WORKS BOUNDARY OF CONTRACT HY2011/03
 - IS IMPACT STATIONS (WATER QUALITY)
 - CS CONTROL/FAR 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
 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
ENVIRONMENTAL MONITORING STATIONS

| | | | |
|---------|-------------|----------|-------|
| Drawing | Figure 2.1 | Rev. | A |
| Drawn | RY | Date | 11/11 |
| Checked | AW | Approved | SK |
| Scale | 1:25000 @A1 | Status | |

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

| Monitoring Stations | Coordinates | |
|---------------------|-------------|----------|
| | Easting | Northing |
| IS5 | 811579 | 817106 |
| IS(Mf)6 | 812101 | 817873 |
| IS7 | 812244 | 818777 |
| IS8 | 814251 | 818412 |
| IS8(N) | 814413 | 818570 |
| IS(Mf)9 | 813273 | 818850 |
| IS10(N) | 812942 | 820881 |
| SR3(N) | 810689 | 816591 |
| SR4(N) | 814705 | 817859 |
| SR4(N2) | 814688 | 817996 |
| SR5(N) | 812569 | 821475 |
| SR10A(N) | 823644 | 823484 |
| SR10B(N2) | 823689 | 823159 |
| CS2(A) | 805232 | 818606 |
| CS(Mf)5 | 817990 | 821129 |

Printed by : 10/11/2011
 File name : J:\214487\Record\HY_2011_03\Tender Addendum (2011-11-11)\DGN\E-HY_2011_03-DRG_310-A-00.dgn



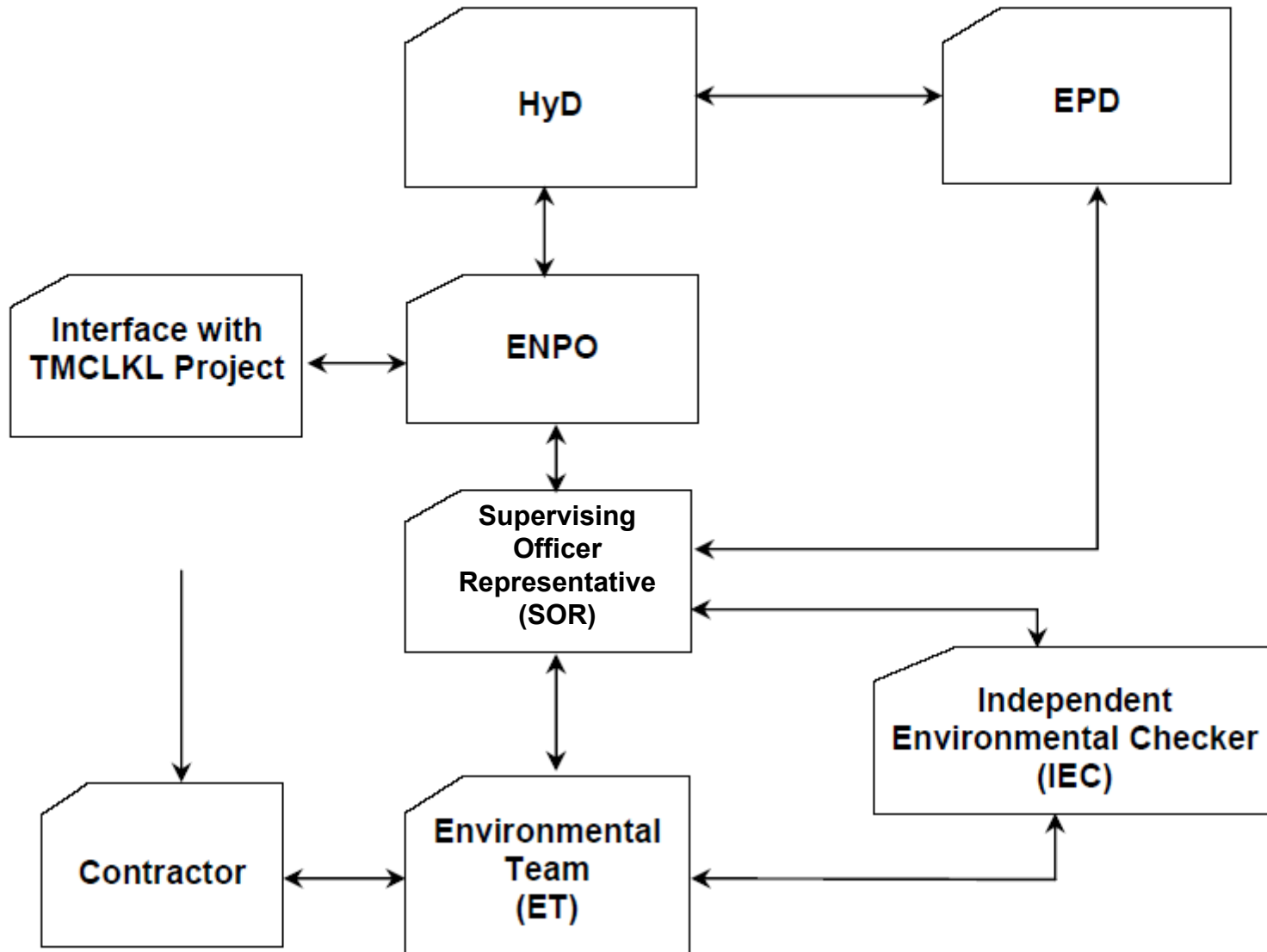
APPENDIX A

Environmental Management Structure



Project Organization for Environmental Works

↔ Line of communication





APPENDIX B

Construction Programme





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

Construction Programme (Sep to Nov 2019)

| Description | Sep-19 | | | | Oct-19 | | | | Nov-19 | | | |
|---|--------|----|----|----|--------|----|----|----|--------|----|----|----|
| | W1 | W2 | W3 | W4 | W1 | W2 | W3 | W4 | W1 | W2 | W3 | W4 |
| Landscaping works at Portion X and Airport Road | █ | | | | | | | | | | | |
| E&M works at Airport Road | █ | | | | | | | | | | | |
| Works for Diversion of Airport Road | █ | | | | | | | | | | | |
| Establishment of Site Access at Airport Road / Airport Express Line / East Coast Road | █ | | | | | | | | | | | |
| Finishing works for Highway Operation and Maintenance Area Building at Portion X | | | | | █ | | | | | | | |
| Finishing works for Scenic Hill Tunnel West Portal Ventilation Building at West Portal | | | | | █ | | | | | | | |



APPENDIX C

Calibration Certificates





輝創工程有限公司

Sun Creation Engineering Limited

Calibration & Testing Laboratory

Certificate of Calibration 校正證書

Certificate No. : C185655
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC18-1966) Date of Receipt / 收件日期 : 27 September 2018

Description / 儀器名稱 : Integrating Sound Level Meter

Manufacturer / 製造商 : Brüel & Kjær

Model No. / 型號 : 2238

Serial No. / 編號 : 2684503

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 : (50 ± 25)%

Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 17 October 2018

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.

The results do not exceed manufacturer's specification.

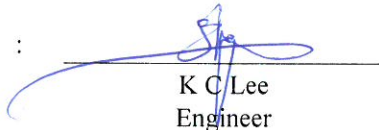
The results are detailed in the subsequent page(s).

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

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

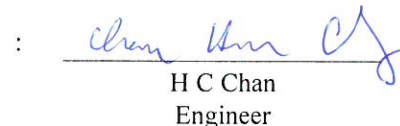
Tested By

測試


K C Lee
Engineer

Certified By

核證


H C Chan
Engineer

Date of Issue

簽發日期

19 October 2018

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。

Sun Creation Engineering Limited – Calibration & Testing Laboratory

c/o 4/F, 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四樓

Tel/電話: (852) 2927 2606

Fax/傳真: (852) 2744 8986

E-mail/電郵: callab@suncreation.com

Website/網址: www.suncreation.com

Certificate of Calibration

校正證書

Certificate No. : C185655
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 :

| <u>Equipment ID</u> | <u>Description</u> | <u>Certificate No.</u> |
|---------------------|-------------------------------------|------------------------|
| CL280 | 40 MHz Arbitrary Waveform Generator | C180024 |
| CL281 | Multifunction Acoustic Calibrator | CDK1806821 |

- 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 _{AFP} | 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 _{AFP} | 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 _{AFP} | A | F | 94.00 | 1 | 94.0 (Ref.) |
| | | | | 104.00 | | 104.0 |
| | | | | 114.00 | | 114.0 |

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所書面批准。

Certificate of Calibration

校正證書

Certificate No. : C185655

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 _{AFP} | A | F | 94.00 | 1 | 94.0 | Ref. |
| | L _{ASP} | | S | | | 94.1 | ± 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 _{AFP} | A | F | 94.00 | 63 Hz | 67.8 | -26.2 ± 1.5 |
| | | | | | 125 Hz | 77.8 | -16.1 ± 1.5 |
| | | | | | 250 Hz | 85.3 | -8.6 ± 1.4 |
| | | | | | 500 Hz | 90.7 | -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 | 89.7 | -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 _{CFP} | C | F | 94.00 | 63 Hz | 93.2 | -0.8 ± 1.5 |
| | | | | | 125 Hz | 93.8 | -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 | 93.8 | -0.2 ± 1.6 |
| | | | | | 4 kHz | 93.1 | -0.8 ± 1.6 |
| | | | | | 8 kHz | 90.9 | -3.0 (+2.1 ; -3.1) |
| | | | | | 12.5 kHz | 87.8 | -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所書面批准。



Certificate of Calibration

校正證書

Certificate No. : C185655
證書編號

Remarks : - UUT Microphone Model No. : 4188 & S/N : 2682524

- 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 :

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.

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。

Sun Creation Engineering Limited – Calibration & Testing Laboratory

c/o 4/F, 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四樓

Tel/電話: (852) 2927 2606

Fax/傳真: (852) 2744 8986

E-mail/電郵: callab@suncreation.com

Website/網址: www.suncreation.com



輝創工程有限公司

Sun Creation Engineering Limited

Calibration & Testing Laboratory

Certificate of Calibration

校正證書

Certificate No. : C183438
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC18-1201)

Date of Receipt / 收件日期 : 12 June 2018

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 : $(23 \pm 2)^{\circ}\text{C}$

Relative Humidity / 相對濕度 : $(50 \pm 25)\%$

Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 23 June 2018

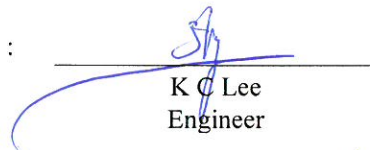
TEST RESULTS / 測試結果

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).

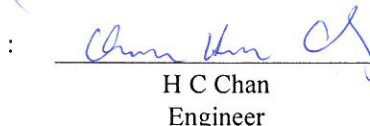
The test equipment used for calibration are traceable to National Standards via :

- 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


K C Lee
Engineer

Certified By
核證


H C Chan
Engineer

Date of Issue
簽發日期

29 June 2018

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, 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四樓

Tel/電話: (852) 2927 2606

Fax/傳真: (852) 2744 8986

E-mail/電郵: callab@suncreation.com

Website/網址: www.suncreation.com



Certificate of Calibration

校正證書

Certificate No. : C183438
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 | C173864 |
| CL281 | Multifunction Acoustic Calibrator | PA160023 |
| TST150A | Measuring Amplifier | C181288 |

- 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.

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。

Sun Creation Engineering Limited – Calibration & Testing Laboratory

c/o 4/F, 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四樓

Tel/電話: (852) 2927 2606

Fax/傳真: (852) 2744 8986

E-mail/電郵: callab@suncreation.com

Website/網址: www.suncreation.com



輝創工程有限公司

Sun Creation Engineering Limited

Calibration & Testing Laboratory

Certificate of Calibration

校正證書

Certificate No. : C192571
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC19-0945)

Date of Receipt / 收件日期 : 14 May 2019

Description / 儀器名稱 : Acoustical Calibrator
Manufacturer / 製造商 : Brüel & Kjær
Model No. / 型號 : 4231
Serial No. / 編號 : 3018753
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 : $(50 \pm 25)\%$

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 19 May 2019


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
- The Bruel & Kjaer Calibration Laboratory, Denmark
- Agilent Technologies / Keysight Technologies
- 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 : 20 May 2019
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室書面批准。

Sun Creation Engineering Limited – Calibration & Testing Laboratory

c/o 4/F, 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四樓

Tel/電話: (852) 2927 2606 Fax/傳真: (852) 2744 8986

E-mail/電郵: callab@suncreation.com

Website/網址: www.suncreation.com

Certificate of Calibration

校正證書

Certificate No. : C192571
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 | C183775 |
| CL281 | Multifunction Acoustic Calibrator | CDK1806821 |
| TST150A | Measuring Amplifier | C181288 |

- 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 : P.F.Yeung
Date : 19/07/2019

Sampler

Model : TE-5170
Serial Number : S/N3640

Calibration Orifice and Standard Calibration Relationship

Serial Number : 2454
Service Date : 25 February 2019
Slope (m) : 2.07076
Intercept (b) : -0.02917
Correlation Coefficient(r) : 1.00000

Standard Condition

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

Calibration Condition

Pa (hpa) : 1001
Ta(K) : 304

| Resistance Plate | dH [green liquid] (inch water) | Z | X=Qstd (cubic meter/min) | IC | Y |
|------------------|--------------------------------|-------|--------------------------|----|-------|
| 1 18 holes | 12.4 | 3.536 | 1.730 | 57 | 57.24 |
| 2 13 holes | 8.8 | 2.979 | 1.458 | 51 | 51.21 |
| 3 10 holes | 6.7 | 2.599 | 1.273 | 44 | 44.18 |
| 4 7 holes | 4.4 | 2.106 | 1.033 | 36 | 36.15 |
| 5 5 holes | 2.4 | 1.556 | 0.765 | 30 | 30.13 |

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): 28.586 Intercept(b): 7.299 Correlation Coefficient(r): 0.9975

Checked by: Magnum Fan

Date: 22/07/2019

ENVIROTECH SERVICES CO.

High-Volume TSP Sampler
5-Point Calibration Record

Location : AMS5(Ma Wan Chung Village)
Calibrated by : P.F.Yeung
Date : 26/08/2019

Sampler

Model : TE-5170
Serial Number : S/N3640

Calibration Orifice and Standard Calibration Relationship

Serial Number : 2454
Service Date : 25 February 2019
Slope (m) : 2.07076
Intercept (b) : -0.02917
Correlation Coefficient(r) : 1.00000

Standard Condition

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

Calibration Condition

Pa (hpa) : 1006
Ta(K) : 303

| Resistance Plate | dH [green liquid] (inch water) | Z | X=Qstd (cubic meter/min) | IC | Y |
|------------------|--------------------------------|-------|--------------------------|----|-------|
| 1 18 holes | 12.0 | 3.424 | 1.667 | 56 | 55.34 |
| 2 13 holes | 9.4 | 3.030 | 1.477 | 51 | 50.40 |
| 3 10 holes | 7.2 | 2.652 | 1.295 | 46 | 45.46 |
| 4 7 holes | 4.5 | 2.096 | 1.027 | 39 | 38.54 |
| 5 5 holes | 2.8 | 1.654 | 0.813 | 32 | 31.63 |

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): 27.466 Intercept(b): 9.785 Correlation Coefficient(r): 0.9991

Checked by: Magnum Fan

Date: 29/08/2019

ENVIROTECH SERVICES CO.

High-Volume TSP Sampler
5-Point Calibration Record

Location : AMS6(Dragonair Building)
Calibrated by : P.F.Yeung
Date : 19/07/2019

Sampler

Model : TE-5170
Serial Number : S/N3639

Calibration Orifice and Standard Calibration Relationship

Serial Number : 2454
Service Date : 25 February 2019
Slope (m) : 2.07076
Intercept (b) : -0.02917
Correlation Coefficient(r) : 1.00000

Standard Condition

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

Calibration Condition

Pa (hpa) : 1001
Ta(K) : 304

| Resistance Plate | dH [green liquid] (inch water) | Z | X=Qstd (cubic meter/min) | IC | Y |
|------------------|--------------------------------|-------|--------------------------|----|-------|
| 1 18 holes | 12.0 | 3.409 | 1.661 | 55 | 54.13 |
| 2 13 holes | 9.2 | 2.985 | 1.456 | 50 | 49.21 |
| 3 10 holes | 7.0 | 2.604 | 1.272 | 45 | 44.29 |
| 4 7 holes | 4.6 | 2.111 | 1.033 | 38 | 37.40 |
| 5 5 holes | 2.7 | 1.617 | 0.795 | 29 | 28.54 |

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): 29.370 Intercept(b): 6.199 Correlation Coefficient(r): 0.9962

Checked by: Magnum Fan

Date: 22/07/2019



RECALIBRATION

DUE DATE:

February 25, 2020

Certificate of Calibration

Calibration Certification Information

Cal. Date: February 25, 2019 Rootsmeter S/N: 438320 Ta: 294 °K
 Operator: Jim Tisch Pa: 762.0 mm Hg
 Calibration Model #: TE-5025A Calibrator S/N: 2454

| Run | Vol. Init (m3) | Vol. Final (m3) | ΔVol. (m3) | ΔTime (min) | ΔP (mm Hg) | ΔH (in H2O) |
|-----|----------------|-----------------|------------|-------------|------------|-------------|
| 1 | 1 | 2 | 1 | 1.4400 | 3.2 | 2.00 |
| 2 | 3 | 4 | 1 | 1.0200 | 6.4 | 4.00 |
| 3 | 5 | 6 | 1 | 0.9120 | 7.9 | 5.00 |
| 4 | 7 | 8 | 1 | 0.8700 | 8.8 | 5.50 |
| 5 | 9 | 10 | 1 | 0.7180 | 12.8 | 8.00 |

Data Tabulation

| Vstd (m3) | Qstd (x-axis) | $\sqrt{\Delta H \left(\frac{Pa}{Pstd} \right) \left(\frac{Tstd}{Ta} \right)}$ (y-axis) | Va | Qa (x-axis) | $\sqrt{\Delta H \left(\frac{Ta}{Pa} \right)}$ (y-axis) |
|-------------|--------------------|--|-----------|--------------------|---|
| 1.0120 | 0.7028 | 1.4257 | 0.9958 | 0.6915 | 0.8784 |
| 1.0077 | 0.9880 | 2.0162 | 0.9916 | 0.9722 | 1.2423 |
| 1.0057 | 1.1028 | 2.2542 | 0.9896 | 1.0851 | 1.3889 |
| 1.0045 | 1.1546 | 2.3642 | 0.9885 | 1.1362 | 1.4567 |
| 0.9992 | 1.3916 | 2.8513 | 0.9832 | 1.3694 | 1.7569 |
| QSTD | m= 2.07076 | | QA | m= 1.29667 | |
| | b= -0.02917 | | | b= -0.01797 | |
| | r= 1.00000 | | | r= 1.00000 | |

Calculations

| | |
|--|---|
| $Vstd = \Delta Vol \left(\frac{Pa - \Delta P}{Pstd} \right) \left(\frac{Tstd}{Ta} \right)$ | $Va = \Delta Vol \left(\frac{Pa - \Delta P}{Pa} \right)$ |
| $Qstd = Vstd / \Delta Time$ | $Qa = Va / \Delta Time$ |
| For subsequent flow rate calculations: | |
| $Qstd = 1/m \left(\left(\sqrt{\Delta H \left(\frac{Pa}{Pstd} \right) \left(\frac{Tstd}{Ta} \right)} \right) - b \right)$ | $Qa = 1/m \left(\left(\sqrt{\Delta H \left(\frac{Ta}{Pa} \right)} \right) - b \right)$ |

Standard Conditions

| | |
|---|-----------|
| Tstd: | 298.15 °K |
| Pstd: | 760 mm Hg |
| Key | |
| ΔH: calibrator manometer reading (in H2O) | |
| ΔP: rootsmeter manometer reading (mm Hg) | |
| Ta: actual absolute temperature (°K) | |
| Pa: actual barometric pressure (mm Hg) | |
| b: intercept | |
| m: slope | |

RECALIBRATION

US EPA recommends annual recalibration per 1998 40 Code of Federal Regulations Part 50 to 51, Appendix B to Part 50, Reference Method for the Determination of Suspended Particulate Matter in the Atmosphere, 9.2.17, page 30

EQUIPMENT CALIBRATION RECORD

Type : Laser Dust Monitor
 Manufacturer / Brand : SIBATA
 Model No.: LD-5R
 Equipment No.: LD-5R-001
 Serial No.: 640595
 Sensitivity Adjustment Scale Setting : 765 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: 12-Jul-2018

Calibration Result

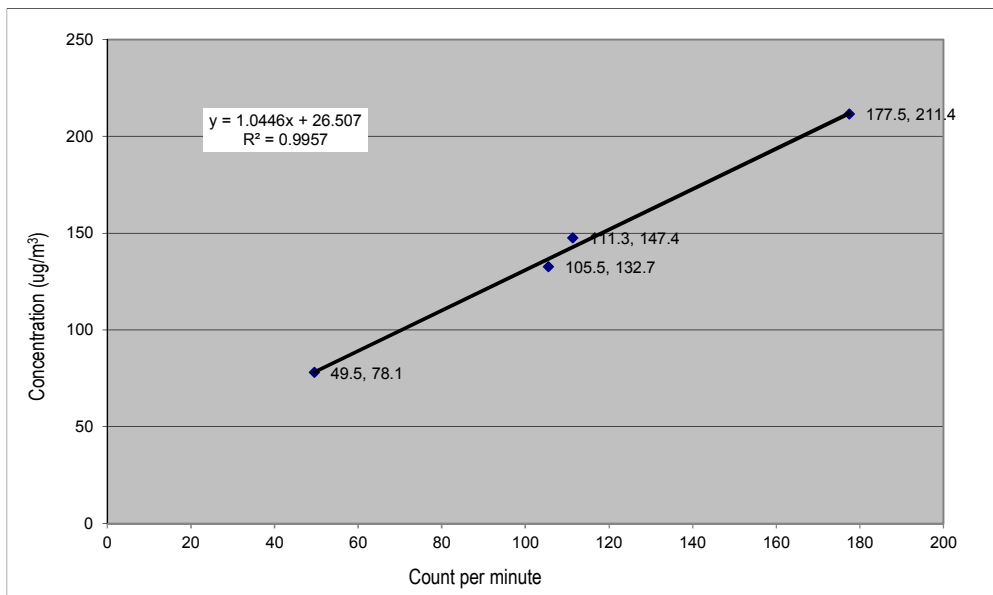
Sensitivity Adjustment Scale Setting (Before Calibration) : 763 CPM
 Sensitivity Adjustment Scale Setting (After Calibration) : 763 CPM

| Hour | Date (dd-mmm-yy) | Time | | Ambient Condition | | Concentration (ug/m ³) Y-axis | Total Count | Count/Minute X-axis |
|------|---------------------|-------|-------|-------------------|----------|---|-------------|------------------------|
| | | | | Temp (°C) | R.H. (%) | | | |
| 1 | 24-Aug-18 | 09:07 | 09:37 | 29.4 | 80% | 78.1 | 1485 | 49.5 |
| 2 | 24-Aug-18 | 10:00 | 11:00 | 30.5 | 76% | 132.7 | 6331 | 105.5 |
| 3 | 24-Aug-18 | 11:12 | 12:42 | 30.6 | 76% | 147.4 | 10017 | 111.3 |
| 4 | 24-Aug-18 | 13:21 | 15:21 | 31.0 | 71% | 211.4 | 21297 | 177.5 |

Be Linear Regression of Y or X

Slope (K-factor): 1.0446 Intercept,b: 26.507
 Correlation coefficient (R): 0.9978

Remark: _____



Recorded by: Shing Mak

Signature: *Shing*

Date: 07-Sep-2018

Checked by: Eva Keung

Signature: *Eva*

Date: 07-Sep-2018

EQUIPMENT CALIBRATION RECORD

Type : Laser Dust Monitor
 Manufacturer / Brand : SIBATA
 Model No.: LD-5R
 Equipment No.: LD-5R-002
 Serial No.: 861988
 Sensitivity Adjustment Scale Setting : 621 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 : 12-Jul-2018

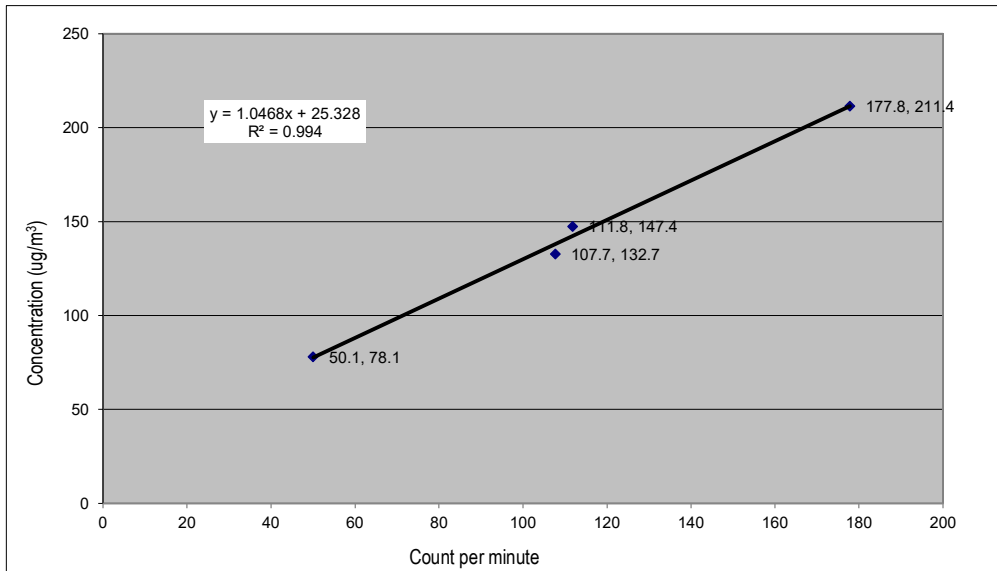
Calibration Result

Sensitivity Adjustment Scale Setting (Before Calibration) : 622 CPM
 Sensitivity Adjustment Scale Setting (After Calibration) : 622 CPM

| Hour | Date (dd-mmm-yy) | Time | | Ambient Condition | | Concentration (ug/m ³) Y-axis | Total Count | Count/Minute X-axis |
|------|---------------------|-------|-------|-------------------|----------|---|-------------|------------------------|
| | | | | Temp (°C) | R.H. (%) | | | |
| 1 | 24-Aug-18 | 09:07 | 09:37 | 29.4 | 80% | 78.1 | 1502 | 50.1 |
| 2 | 24-Aug-18 | 10:00 | 11:00 | 30.5 | 76% | 132.7 | 6460 | 107.7 |
| 3 | 24-Aug-18 | 11:12 | 12:42 | 30.6 | 76% | 147.4 | 10065 | 111.8 |
| 4 | 24-Aug-18 | 13:21 | 15:21 | 31.0 | 71% | 211.4 | 21334 | 177.8 |

Be Linear Regression of Y or X
 Slope (K-factor): 1.0468 Intercept,b: 25.328
 Correlation coefficient (R): 0.9970

Remark: _____



Recorded by: Icy Chan Signature: Icy Date: 07-Sep-2018
 Checked by: Eva Keung Signature: Eva Date: 07-Sep-2018

EQUIPMENT CALIBRATION RECORD

Type : Laser Dust Monitor
 Manufacturer / Brand : SIBATA
 Model No.: LD-5R
 Equipment No.: LD-5R-001
 Serial No.: 640595
 Sensitivity Adjustment Scale Setting : 765 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: 13-Jul-2019

Calibration Result

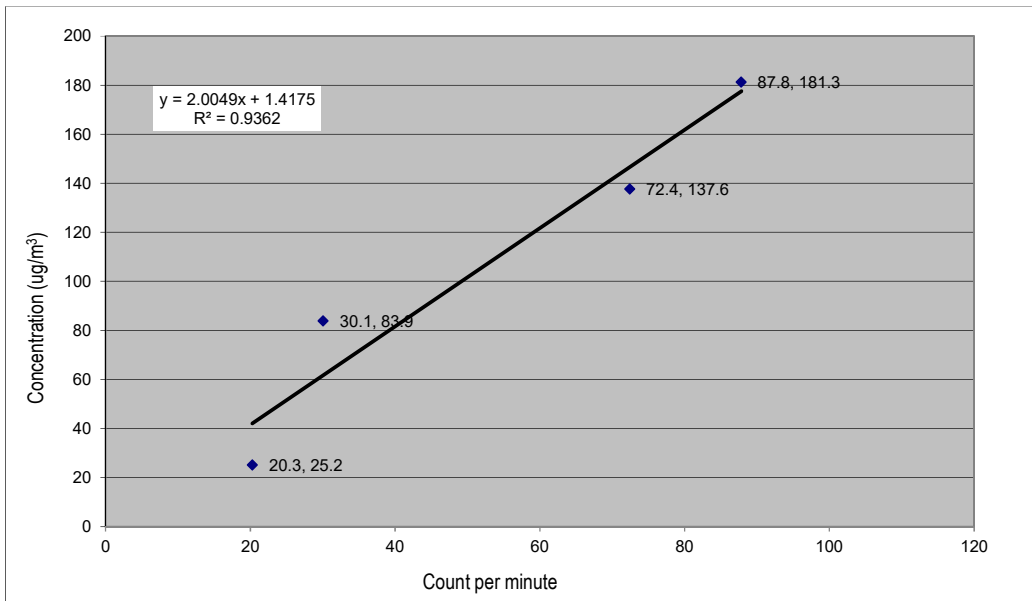
Sensitivity Adjustment Scale Setting (Before Calibration) : 764 CPM
 Sensitivity Adjustment Scale Setting (After Calibration) : 764 CPM

| Date (dd-mmm-yy) | Time | | Ambient Condition | | Concentration (ug/m ³) Y-axis | Total Count | Count/Minute X-axis |
|---------------------|-------|-------|-------------------|----------|---|-------------|------------------------|
| | | | Temp (°C) | R.H. (%) | | | |
| 08-Aug-19 | 09:26 | 09:56 | 30.8 | 74% | 25.2 | 609 | 20.3 |
| 08-Aug-19 | 10:59 | 11:59 | 30.0 | 74% | 83.9 | 1805 | 30.1 |
| 08-Aug-19 | 12:25 | 13:55 | 31.8 | 70% | 137.6 | 6519 | 72.4 |
| 08-Aug-19 | 14:36 | 16:36 | 34.0 | 63% | 181.3 | 10540 | 87.8 |

Be Linear Regression of Y or X

Slope (K-factor): 2.0049 Intercept,b: 1.4175
 Correlation coefficient (R): 0.9676

Remark: Strong Correlation (R>0.8)



Recorded by: Zion Leung

Signature: 

Date: 21-Aug-19

Checked by: Eva Keung

Signature: 

Date: 21-Aug-19

EQUIPMENT CALIBRATION RECORD

Type : Laser Dust Monitor
 Manufacturer / Brand : SIBATA
 Model No.: LD-5R
 Equipment No.: LD-5R-002
 Serial No.: 861988
 Sensitivity Adjustment Scale Setting : 621 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: 13-Jul-2019

Calibration Result

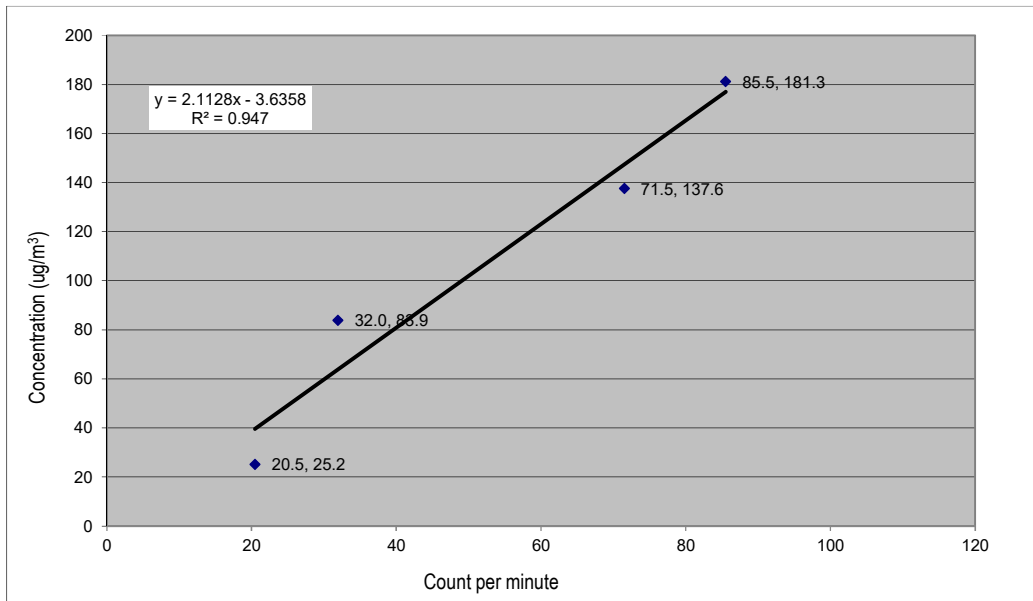
Sensitivity Adjustment Scale Setting (Before Calibration) : 620 CPM
 Sensitivity Adjustment Scale Setting (After Calibration) : 620 CPM

| Date (dd-mmm-yy) | Time | | Ambient Condition | | Concentration (ug/m ³) Y-axis | Total Count | Count/Minute X-axis |
|---------------------|-------|-------|-------------------|----------|---|-------------|------------------------|
| | | | Temp (°C) | R.H. (%) | | | |
| 08-Aug-19 | 09:26 | 09:56 | 30.8 | 74% | 25.2 | 614 | 20.5 |
| 08-Aug-19 | 10:59 | 11:59 | 30.0 | 74% | 83.9 | 1917 | 32.0 |
| 08-Aug-19 | 12:25 | 13:55 | 31.8 | 70% | 137.6 | 6437 | 71.5 |
| 08-Aug-19 | 14:36 | 16:36 | 34.0 | 63% | 181.3 | 10263 | 85.5 |

Be Linear Regression of Y or X

Slope (K-factor): 2.1128 Intercept,b: -3.6358
 Correlation coefficient (R): 0.9732

Remark: Strong Correlation (R>0.8)



Recorded by: Zion Leung

Signature: 

Date: 21-Aug-19

Checked by: Eva Keung

Signature: 

Date: 21-Aug-19



REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

| | | | |
|-----------------|---|-----------------------|-------------|
| CONTACT: | MR MIKE SHEK | WORK ORDER: | HK1929390 |
| CLIENT: | AECOM ASIA COMPANY LIMITED | | |
| ADDRESS: | 1501-10, 15/F, TOWER 1, GRAND CENTRAL PLAZA, 138 SHATIN RURAL COMMITTEE ROAD, SHATIN, NEW TERRITORIES, HONG KONG | SUB- BATCH: | 0 |
| | | LABORATORY: | HONG KONG |
| | | DATE RECEIVED: | 09-Jul-2019 |
| | | DATE OF ISSUE: | 12-Jul-2019 |

COMMENTS

The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.

The "Tolerance Limit" quoted is the acceptance criteria applicable for similar equipment used by the ALS Hong Kong laboratory or quoted from relevant international standards.

The "Next Calibration Date" is recommended according to best practice principle as practised by the ALS Hong Kong laboratory or quoted from relevant international standards.

| | |
|----------------------|---|
| Scope of Test: | Conductivity, Dissolved Oxygen, pH Value, Turbidity, Salinity and Temperature |
| Equipment Type: | Multifunctional Meter |
| Brand Name: | YSI |
| Model No.: | 6820 V2 |
| Serial No.: | 12A101545 |
| Equipment No.: | W.026.35 |
| Date of Calibration: | 09-Jul-2019 |

NOTES

This is the Final Report and supersedes any preliminary report with this batch number.

Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganic

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK1929390
SUB- BATCH: 0
DATE OF ISSUE: 12-Jul-2019
CLIENT: AECOM ASIA COMPANY LIMITED

Equipment Type: Multifunctional Meter
Brand Name: YSI
Model No.: 6820 V2
Serial No.: 12A101545
Equipment No.: W.026.35
Date of Calibration: 09-Jul-2019 **Date of Next Calibration:** 09-Oct-2019

PARAMETERS:

Conductivity

Method Ref: APHA (21st edition), 2510B

| Expected Reading (µS/cm) | Displayed Reading (µS/cm) | Tolerance (%) |
|--------------------------|---------------------------|---------------|
| 146.9 | 148.0 | +0.7 |
| 6667 | 6630 | -0.6 |
| 12890 | 12800 | -0.7 |
| 58670 | 58500 | -0.3 |
| | Tolerance Limit (%) | ±10.0 |

Dissolved Oxygen

Method Ref: APHA (21st edition), 4500- O: G

| Expected Reading (mg/L) | Displayed Reading (mg/L) | Tolerance (mg/L) |
|-------------------------|--------------------------|------------------|
| 3.40 | 3.36 | -0.04 |
| 5.50 | 5.47 | -0.03 |
| 7.40 | 7.41 | +0.01 |
| | Tolerance Limit (mg/L) | ±0.20 |

pH Value

Method Ref: APHA (21st edition), 4500H:B

| Expected Reading (pH unit) | Displayed Reading (pH unit) | Tolerance (pH unit) |
|----------------------------|-----------------------------|---------------------|
| 4.0 | 4.03 | +0.03 |
| 7.0 | 7.03 | +0.03 |
| 10.0 | 10.04 | +0.04 |
| | Tolerance Limit (pH unit) | ±0.20 |

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

Ms. Lin Wai Yu, Iris
 Assistant Manager - Inorganic

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK1929390
SUB- BATCH: 0
DATE OF ISSUE: 12-Jul-2019
CLIENT: AECOM ASIA COMPANY LIMITED

Equipment Type: Multifunctional Meter
Brand Name: YSI
Model No.: 6820 V2
Serial No.: 12A101545
Equipment No.: W.026.35
Date of Calibration: 09-Jul-2019

Date of Next Calibration: 09-Oct-2019

PARAMETERS:

Turbidity

Method Ref: APHA (21st edition), 2130B

| Expected Reading (NTU) | Displayed Reading (NTU) | Tolerance (%) |
|------------------------|-------------------------|---------------|
| 0 | 0.0 | -- |
| 4 | 3.9 | -2.5 |
| 10 | 9.5 | -5.0 |
| 20 | 19.2 | -4.0 |
| 50 | 49.1 | -1.8 |
| 100 | 99.3 | -0.7 |
| | Tolerance Limit (%) | ±10.0 |

Salinity

Method Ref: APHA (21st edition), 2520B

| Expected Reading (ppt) | Displayed Reading (ppt) | Tolerance (%) |
|------------------------|-------------------------|---------------|
| 0 | 0.00 | -- |
| 10 | 10.08 | +0.8 |
| 20 | 19.93 | -0.4 |
| 30 | 29.91 | -0.3 |
| | Tolerance Limit (%) | ±10.0 |

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganic

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK1929390
SUB- BATCH: 0
DATE OF ISSUE: 12-Jul-2019
CLIENT: AECOM ASIA COMPANY LIMITED

Equipment Type: Multifunctional Meter
Brand Name: YSI
Model No.: 6820 V2
Serial No.: 12A101545
Equipment No.: W.026.35
Date of Calibration: 09-Jul-2019

Date of Next Calibration: 09-Oct-2019

PARAMETERS:

Temperature

Method Ref: Section 6 of International Accreditation New Zealand Technical
Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

| Expected Reading (°C) | Displayed Reading (°C) | Tolerance (°C) |
|-----------------------|------------------------|----------------|
| 10.0 | 10.94 | +0.9 |
| 20.0 | 19.93 | -0.1 |
| 40.0 | 39.89 | -0.1 |
| | Tolerance Limit (°C) | ±2.0 |

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganic



REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

| | | | |
|-----------------|--|-----------------------|---------------|
| CONTACT: | MIKE SHEK | WORK ORDER: | HK1919481 |
| CLIENT: | AECOM ASIA COMPANY LIMITED | | |
| ADDRESS: | 1501- 10, 15/F, TOWER 1, GRAND CENTRAL PLAZA, 138 SHATIN RURAL COMMITTEE ROAD, SHATIN, NEW TERRITORIES, HONG KONG | SUB- BATCH: | 0 |
| | | LABORATORY: | HONG KONG |
| | | DATE RECEIVED: | 09- May- 2019 |
| | | DATE OF ISSUE: | 17- May- 2019 |

COMMENTS

The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.

The "Tolerance Limit" quoted is the acceptance criteria applicable for similar equipment used by the ALS Hong Kong laboratory or quoted from relevant international standards.

The "Next Calibration Date" is recommended according to best practice principle as practised by the ALS Hong Kong laboratory or quoted from relevant international standards.

| | |
|----------------------|---|
| Scope of Test: | Conductivity, Dissolved Oxygen, pH Value, Turbidity, Salinity and Temperature |
| Equipment Type: | Multifunctional Meter |
| Brand Name: | YSI |
| Model No.: | 6820 V2 |
| Serial No.: | 00H1019 |
| Equipment No.: | W.026.09 |
| Date of Calibration: | 09- May- 2019 |

NOTES

This is the Final Report and supersedes any preliminary report with this batch number.

Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

Mr Chan Siu Ming, Vico
Manager - Inorganic

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK1919481
SUB- BATCH: 0
DATE OF ISSUE: 17- May- 2019
CLIENT: AECOM ASIA COMPANY LIMITED

Equipment Type: Multifunctional Meter
Brand Name: YSI
Model No.: 6820 V2
Serial No.: 00H1019
Equipment No.: W.026.09
Date of Calibration: 09- May- 2019 **Date of Next Calibration:** 09- Aug- 2019

PARAMETERS:

Conductivity

Method Ref: APHA (21st edition), 2510B

| Expected Reading (µS/cm) | Displayed Reading (µS/cm) | Tolerance (%) |
|--------------------------|---------------------------|---------------|
| 146.9 | 150.0 | + 2.1 |
| 6667 | 6560 | - 1.6 |
| 12890 | 12770 | - 0.9 |
| 58670 | 58420 | - 0.4 |
| Tolerance Limit (%) | | ± 10.0 |

Dissolved Oxygen

Method Ref: APHA (21st edition), 4500- O: G

| Expected Reading (mg/L) | Displayed Reading (mg/L) | Tolerance (mg/L) |
|-------------------------|--------------------------|------------------|
| 3.35 | 3.31 | - 0.04 |
| 5.50 | 5.52 | + 0.02 |
| 7.40 | 7.36 | - 0.04 |
| Tolerance Limit (mg/L) | | ± 0.20 |

pH Value

Method Ref: APHA (21st edition), 4500H:B

| Expected Reading (pH unit) | Displayed Reading (pH unit) | Tolerance (pH unit) |
|----------------------------|-----------------------------|---------------------|
| 4.0 | 4.01 | + 0.01 |
| 7.0 | 7.04 | + 0.04 |
| 10.0 | 10.06 | + 0.06 |
| Tolerance Limit (pH unit) | | ± 0.20 |

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

Mr Chan Siu Ming, Vico
 Manager - Inorganic

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK1919481
SUB- BATCH: 0
DATE OF ISSUE: 17- May- 2019
CLIENT: AECOM ASIA COMPANY LIMITED

Equipment Type: Multifunctional Meter
Brand Name: YSI
Model No.: 6820 V2
Serial No.: 00H1019
Equipment No.: W.026.09
Date of Calibration: 09- May- 2019

Date of Next Calibration: 09- Aug- 2019

PARAMETERS:

Turbidity

Method Ref: APHA (21st edition), 2130B

| Expected Reading (NTU) | Displayed Reading (NTU) | Tolerance (%) |
|------------------------|-------------------------|---------------|
| 0 | 0.0 | -- |
| 4 | 4.1 | +2.5 |
| 10 | 9.6 | -4.0 |
| 20 | 20.2 | +1.0 |
| 50 | 49.5 | -1.0 |
| 100 | 98.5 | -1.5 |
| | Tolerance Limit (%) | ±10.0 |

Salinity

Method Ref: APHA (21st edition), 2520B

| Expected Reading (ppt) | Displayed Reading (ppt) | Tolerance (%) |
|------------------------|-------------------------|---------------|
| 0 | 0.00 | -- |
| 10 | 9.88 | -1.2 |
| 20 | 19.86 | -0.7 |
| 30 | 29.85 | -0.5 |
| | Tolerance Limit (%) | ±10.0 |

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

Mr Chan Siu Ming, Vico
Manager - Inorganic

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK1919481
SUB- BATCH: 0
DATE OF ISSUE: 17- May- 2019
CLIENT: AECOM ASIA COMPANY LIMITED

Equipment Type: Multifunctional Meter
Brand Name: YSI
Model No.: 6820 V2
Serial No.: 00H1019
Equipment No.: W.026.09
Date of Calibration: 09- May- 2019

Date of Next Calibration: 09- Aug- 2019

PARAMETERS: Temperature

Method Ref: Section 6 of International Accreditation New Zealand Technical
Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

| Expected Reading (°C) | Displayed Reading (°C) | Tolerance (°C) |
|-----------------------|------------------------|----------------|
| 10.5 | 10.5 | - 0.0 |
| 21.0 | 21.0 | - 0.0 |
| 39.0 | 38.91 | - 0.1 |
| | Tolerance Limit (°C) | ± 2.0 |

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

A handwritten signature in black ink, appearing to read 'Chan Siu Ming'.

Mr Chan Siu Ming, Vico
Manager - Inorganic



ALS Technichem (HK) Pty Ltd
11/F, Chung Shun Knitting Centre
1-3 Wing Yip Street, Kwai Chung
N.T., Hong Kong
T: +852 2610 1044 | F: +852 2610 2021

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

| | | | |
|-----------------|---|-----------------------|-------------|
| CONTACT: | MR MIKE SHEK | WORK ORDER: | HK1933819 |
| CLIENT: | AECOM ASIA COMPANY LIMITED | | |
| ADDRESS: | 1501-10, 15/F, TOWER 1, GRAND CENTRAL PLAZA, 138 SHATIN RURAL COMMITTEE ROAD, SHATIN, NEW TERRITORIES, HONG KONG | SUB- BATCH: | 0 |
| | | LABORATORY: | HONG KONG |
| | | DATE RECEIVED: | 08-Aug-2019 |
| | | DATE OF ISSUE: | 14-Aug-2019 |

COMMENTS

Equipment information (Brand name, Model No., Serial No. and Equipment No.) is provided by client. The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.

The "Tolerance Limit" quoted is the acceptance criteria applicable for similar equipment used by the ALS Hong Kong laboratory or quoted from relevant international standards.

The "Next Calibration Date" is recommended according to best practice principle as practised by the ALS Hong Kong laboratory or quoted from relevant international standards.

| | |
|----------------------------|---|
| Scope of Test: | Conductivity, Dissolved Oxygen, pH Value, Turbidity, Salinity and Temperature |
| Equipment Type: | Multifunctional Meter |
| Brand Name/ Model No.: | 6820 V2 |
| Serial No./ Equipment No.: | 00H1019/ W.026.09 |
| Date of Calibration: | 08-Aug-2019 |

NOTES

This is the Final Report and supersedes any preliminary report with this batch number.

Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganic

This report may not be reproduced except with prior written approval from ALS Technichem (HK) Pty Ltd.

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK1933819
SUB- BATCH: 0
DATE OF ISSUE: 14-Aug-2019
CLIENT: AECOM ASIA COMPANY LIMITED

Equipment Type: Multifunctional Meter
Brand Name/ 6820 V2
Model No.:
Serial No./ 00H1019/W.026.09
Equipment No.:
Date of Calibration: 08-Aug-2019 **Date of Next Calibration:** 08-Nov-2019

PARAMETERS:

Conductivity

Method Ref: APHA (21st edition), 2510B

| Expected Reading (µS/cm) | Displayed Reading (µS/cm) | Tolerance (%) |
|--------------------------|---------------------------|---------------|
| 146.9 | 145.0 | -1.3 |
| 6667 | 6600 | -1.0 |
| 12890 | 12680 | -1.6 |
| 58670 | 58500 | -0.3 |
| | Tolerance Limit (%) | ±10.0 |

Dissolved Oxygen

Method Ref: APHA (21st edition), 4500- O: G

| Expected Reading (mg/L) | Displayed Reading (mg/L) | Tolerance (mg/L) |
|-------------------------|--------------------------|------------------|
| 3.40 | 3.37 | -0.03 |
| 5.45 | 5.41 | -0.04 |
| 7.50 | 7.47 | -0.03 |
| | Tolerance Limit (mg/L) | ±0.20 |

pH Value

Method Ref: APHA (21st edition), 4500H:B

| Expected Reading (pH unit) | Displayed Reading (pH unit) | Tolerance (pH unit) |
|----------------------------|-----------------------------|---------------------|
| 4.0 | 4.01 | +0.01 |
| 7.0 | 7.04 | +0.04 |
| 10.0 | 9.98 | -0.02 |
| | Tolerance Limit (pH unit) | ±0.20 |

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

Lin

Ms. Lin Wai Yu, Iris
 Assistant Manager - Inorganic

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK1933819
SUB- BATCH: 0
DATE OF ISSUE: 14-Aug-2019
CLIENT: AECOM ASIA COMPANY LIMITED

Equipment Type: Multifunctional Meter
Brand Name/ 6820 V2
Model No.:
Serial No./ 00H1019/W.026.09
Equipment No.:
Date of Calibration: 08-Aug-2019

Date of Next Calibration: 08-Nov-2019

PARAMETERS:

Turbidity

Method Ref: APHA (21st edition), 2130B

| Expected Reading (NTU) | Displayed Reading (NTU) | Tolerance (%) |
|------------------------|-------------------------|---------------|
| 0 | 0.0 | -- |
| 4 | 4.1 | +2.5 |
| 10 | 9.8 | -2.0 |
| 20 | 19.2 | -4.0 |
| 50 | 49.3 | -1.4 |
| 100 | 99.0 | -1.0 |
| | Tolerance Limit (%) | ±10.0 |

Salinity

Method Ref: APHA (21st edition), 2520B

| Expected Reading (ppt) | Displayed Reading (ppt) | Tolerance (%) |
|------------------------|-------------------------|---------------|
| 0 | 0.00 | -- |
| 10 | 9.89 | -1.1 |
| 20 | 19.87 | -0.6 |
| 30 | 29.60 | -1.3 |
| | Tolerance Limit (%) | ±10.0 |

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganic

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK1933819
SUB- BATCH: 0
DATE OF ISSUE: 14-Aug-2019
CLIENT: AECOM ASIA COMPANY LIMITED

Equipment Type: Multifunctional Meter
Brand Name/ 6820 V2
Model No.:
Serial No./ 00H1019/W.026.09
Equipment No.:
Date of Calibration: 08-Aug-2019 **Date of Next Calibration:** 08-Nov-2019

PARAMETERS:

Temperature

Method Ref: Section 6 of International Accreditation New Zealand Technical
Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

| Expected Reading (°C) | Displayed Reading (°C) | Tolerance (°C) |
|-----------------------|------------------------|----------------|
| 10.0 | 10.02 | +0.0 |
| 20.5 | 20.37 | -0.1 |
| 38.0 | 37.89 | -0.1 |
| | Tolerance Limit (°C) | ±2.0 |

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

A handwritten signature in black ink, appearing to read 'Lin Wai Yu'.

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganic



APPENDIX D

Monitoring Schedule



Monitoring Schedule for August 2019

| Date | | | | 1-Aug | 2-Aug | 3-Aug | 4-Aug |
|------|--|--|---------------------------------------|--|---------------------------------|--------|--------|
| | | | | AMS5-1hr Dust, AMS6-1hr Dust | | | |
| | | | | | Water Quality Monitoring | | |
| Date | 5-Aug | 6-Aug | 7-Aug | 8-Aug | 9-Aug | 10-Aug | 11-Aug |
| | | AMS5/AMS6 - 24hr Dust | AMS5-1hr Dust, NMS5, AMS6-1hr Dust | | | | |
| | Water Quality Monitoring | | Water Quality Monitoring | | Water Quality Monitoring | | |
| Date | 12-Aug | 13-Aug | 14-Aug | 15-Aug | 16-Aug | 17-Aug | 18-Aug |
| | AMS5/AMS6 - 24hr Dust | AMS5-1hr Dust, NMS5, AMS6-1hr Dust | | | AMS5/AMS6 - 24hr Dust | | |
| | Water Quality Monitoring | 1 st Dolphin Monitoring (See Remark 1) | 1 st Dolphin Monitoring | | Water Quality Monitoring | | |
| | | | Water Quality Monitoring | | | | |
| Date | 19-Aug | 20-Aug | 21-Aug | 22-Aug | 23-Aug | 24-Aug | 25-Aug |
| | AMS5-1hr Dust, NMS5, AMS6-1hr Dust | | | AMS6 - 24hr Dust | AMS5-1hr Dust, AMS6-1hr Dust | | |
| | Water Quality Monitoring | 2 nd Dolphin Monitoring (See Remark 2) | | | Water Quality Monitoring | | |
| | | | Water Quality Monitoring | | | | |
| Date | 26-Aug | 27-Aug | 28-Aug | 29-Aug | 30-Aug | 31-Aug | |
| | AMS5 - 24hr Dust (See Remark 3) | | AMS5/AMS6 - 24hr Dust | AMS5-1hr Dust, NMS5, AMS6-1hr Dust | | | |
| | 2 nd Dolphin Monitoring (See Remark 4) | | | 2 nd Dolphin Monitoring (See Remark 4) | | | |
| | Water Quality Monitoring | | Water Quality Monitoring | | Water Quality Monitoring | | |

Remarks:

- 1) Due to engine problem of the survey boat, the dolphin monitoring on 6 August 2019 was rescheduled to 13 August 2019.
- 2) Due to boat unavailability on 21 August 2019, the dolphin monitoring on 21 August 2019 was rescheduled to 20 August 2019.
- 3) Due to malfunction of the high volume sampler (HVS), monitoring time for 24-hr TSP monitoring on 22 August 2019 at AMS5 (Ma Wan Chung Village) was less than 24 hours. The 24-hr TSP monitoring on 22 August 2019 at AMS 5 was rescheduled to 26 August 2019.
- 4) Due to boat unavailability on 28 August 2019, the dolphin monitoring on 28 August 2019 was rescheduled to 26 August 2019. As the rain was unexpectedly heavy on 26 Aug 2019, the 2nd dolphin monitoring cannot be completed on 26 August 2019. As such, the dolphin monitoring was rescheduled and completed on 29 August 2019.

Monitoring Schedule for September 2019

| Date | | | | | | | 1-Sep |
|------|---|---------------------------------------|---|---|--|--------|--------|
| Date | 2-Sep | 3-Sep | 4-Sep | 5-Sep | 6-Sep | 7-Sep | 8-Sep |
| | Water Quality Monitoring | AMS5/AMS6 - 24hr Dust | AMS5-1hr Dust, NMS5, AMS6-1hr Dust 1 st Dolphin Monitoring | | | | |
| | | | Water Quality Monitoring | | Water Quality Monitoring | | |
| Date | 9-Sep | 10-Sep | 11-Sep | 12-Sep | 13-Sep | 14-Sep | 15-Sep |
| | AMS5/AMS6 - 24hr Dust Mudflat Monitoring Water Quality Monitoring | AMS5-1hr Dust, NMS5, AMS6-1hr Dust | Mudflat Monitoring 1 st Dolphin Monitoring Water Quality Monitoring | Mudflat Monitoring Sedimentation Rate Monitoring | AMS5/AMS6 - 24hr Dust Mudflat Monitoring Water Quality Monitoring | | |
| Date | 16-Sep | 17-Sep | 18-Sep | 19-Sep | 20-Sep | 21-Sep | 22-Sep |
| | AMS5-1hr Dust, NMS5, AMS6-1hr Dust 2 nd Dolphin Monitoring Water Quality Monitoring | | | | AMS5/AMS6 - 24hr Dust AMS5-1hr Dust, AMS6-1hr Dust Water Quality Monitoring | | |
| | | | Water Quality Monitoring | | | | |
| Date | 23-Sep | 24-Sep | 25-Sep | 26-Sep | 27-Sep | 28-Sep | 29-Sep |
| | Water Quality Monitoring | | AMS5/AMS6 - 24hr Dust 2 nd Dolphin Monitoring Water Quality Monitoring | AMS5-1hr Dust, NMS5, AMS6-1hr Dust | | | |
| | | | | | Water Quality Monitoring | | |
| Date | 30-Sep | | | | | | |
| | AMS5/AMS6 - 24hr Dust Water Quality Monitoring | | | | | | |

APPENDIX E

Monitoring Data and Graphical Plots

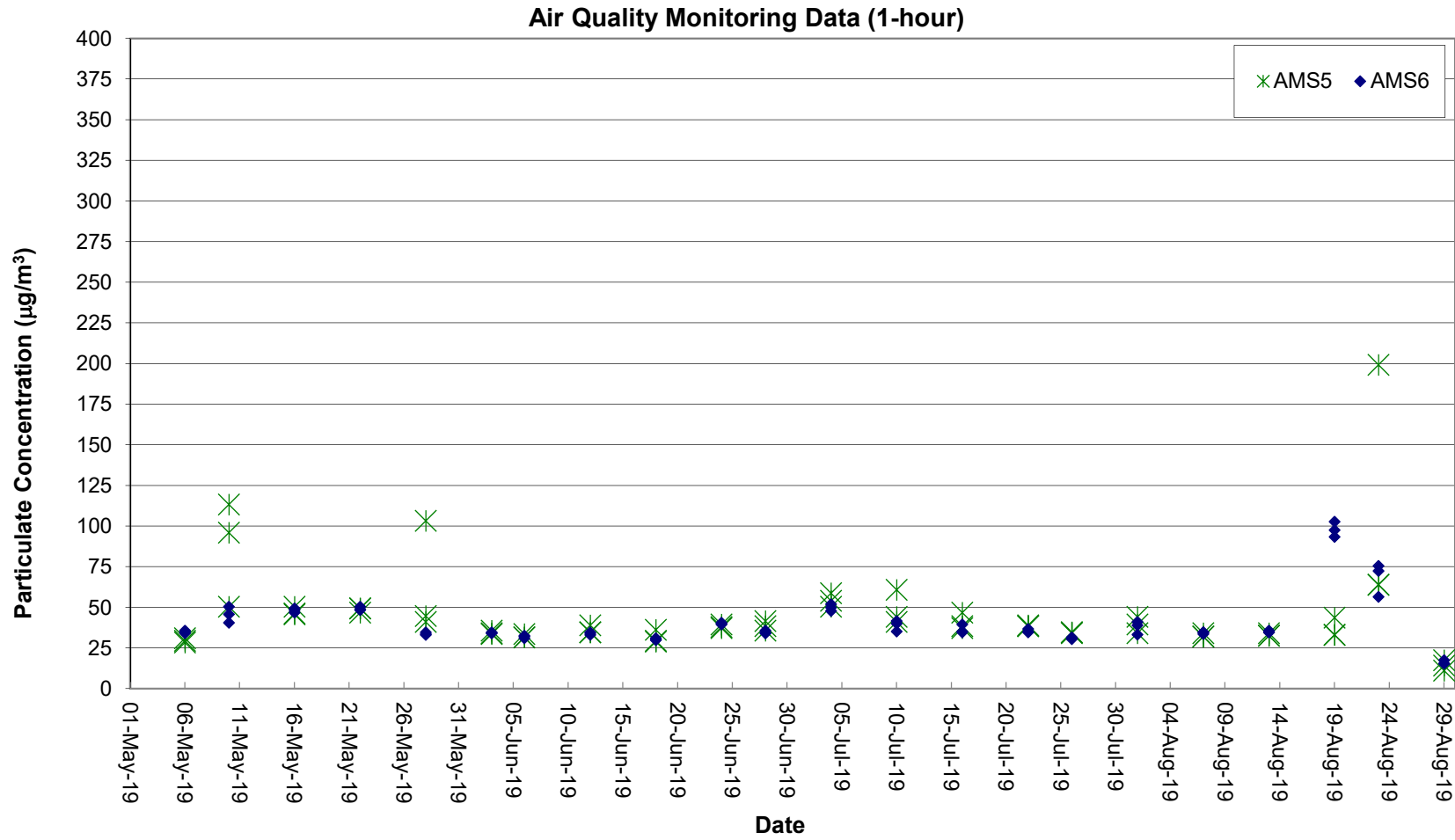
Air Quality Monitoring Data

| Project | Works | Date (yyyy-mm-dd) | Station | Time | Parameter | Results | Unit |
|---------|------------|---------------------------|---------|-------|-----------|---------|-------------------|
| HKLR | HY/2011/03 | 2019-08-01 | AMS5 | 13:15 | 1-hr TSP | 44 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-01 | AMS5 | 14:15 | 1-hr TSP | 39 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-01 | AMS5 | 15:15 | 1-hr TSP | 34 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-07 | AMS5 | 08:50 | 1-hr TSP | 32 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-07 | AMS5 | 09:50 | 1-hr TSP | 32 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-07 | AMS5 | 10:50 | 1-hr TSP | 34 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-13 | AMS5 | 09:00 | 1-hr TSP | 33 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-13 | AMS5 | 10:00 | 1-hr TSP | 33 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-13 | AMS5 | 11:00 | 1-hr TSP | 34 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-19 | AMS5 | 08:50 | 1-hr TSP | 33 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-19 | AMS5 | 09:50 | 1-hr TSP | 33 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-19 | AMS5 | 10:50 | 1-hr TSP | 44 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-23 | AMS5 | 09:00 | 1-hr TSP | 199 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-23 | AMS5 | 10:00 | 1-hr TSP | 64 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-23 | AMS5 | 11:00 | 1-hr TSP | 64 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-29 | AMS5 | 13:00 | 1-hr TSP | 11 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-29 | AMS5 | 14:00 | 1-hr TSP | 17 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-29 | AMS5 | 15:00 | 1-hr TSP | 14 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-06 | AMS5 | 08:00 | 24-hr TSP | 27 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-12 | AMS5 | 08:00 | 24-hr TSP | 27 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-16 | AMS5 | 08:00 | 24-hr TSP | 31 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-26 (See Remrak 1) | AMS5 | 17:15 | 24-hr TSP | 28 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-28 | AMS5 | 11:05 | 24-hr TSP | 50 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-01 | AMS6 | 14:54 | 1-hr TSP | 33 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-01 | AMS6 | 15:54 | 1-hr TSP | 41 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-01 | AMS6 | 16:54 | 1-hr TSP | 39 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-07 | AMS6 | 13:00 | 1-hr TSP | 34 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-07 | AMS6 | 14:00 | 1-hr TSP | 35 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-07 | AMS6 | 15:00 | 1-hr TSP | 35 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-13 | AMS6 | 13:00 | 1-hr TSP | 35 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-13 | AMS6 | 14:00 | 1-hr TSP | 35 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-13 | AMS6 | 15:00 | 1-hr TSP | 36 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-19 | AMS6 | 13:00 | 1-hr TSP | 93 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-19 | AMS6 | 14:00 | 1-hr TSP | 98 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-19 | AMS6 | 15:00 | 1-hr TSP | 103 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-23 | AMS6 | 13:00 | 1-hr TSP | 57 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-23 | AMS6 | 14:00 | 1-hr TSP | 72 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-23 | AMS6 | 15:00 | 1-hr TSP | 76 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-29 | AMS6 | 09:00 | 1-hr TSP | 17 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-29 | AMS6 | 10:00 | 1-hr TSP | 15 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-29 | AMS6 | 11:00 | 1-hr TSP | 15 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-06 | AMS6 | 08:00 | 24-hr TSP | 25 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-12 | AMS6 | 08:00 | 24-hr TSP | 30 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-16 | AMS6 | 08:00 | 24-hr TSP | 28 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-22 | AMS6 | 08:00 | 24-hr TSP | 42 | µg/m ³ |
| HKLR | HY/2011/03 | 2019-08-28 | AMS6 | 08:00 | 24-hr TSP | 75 | µg/m ³ |

Remark:

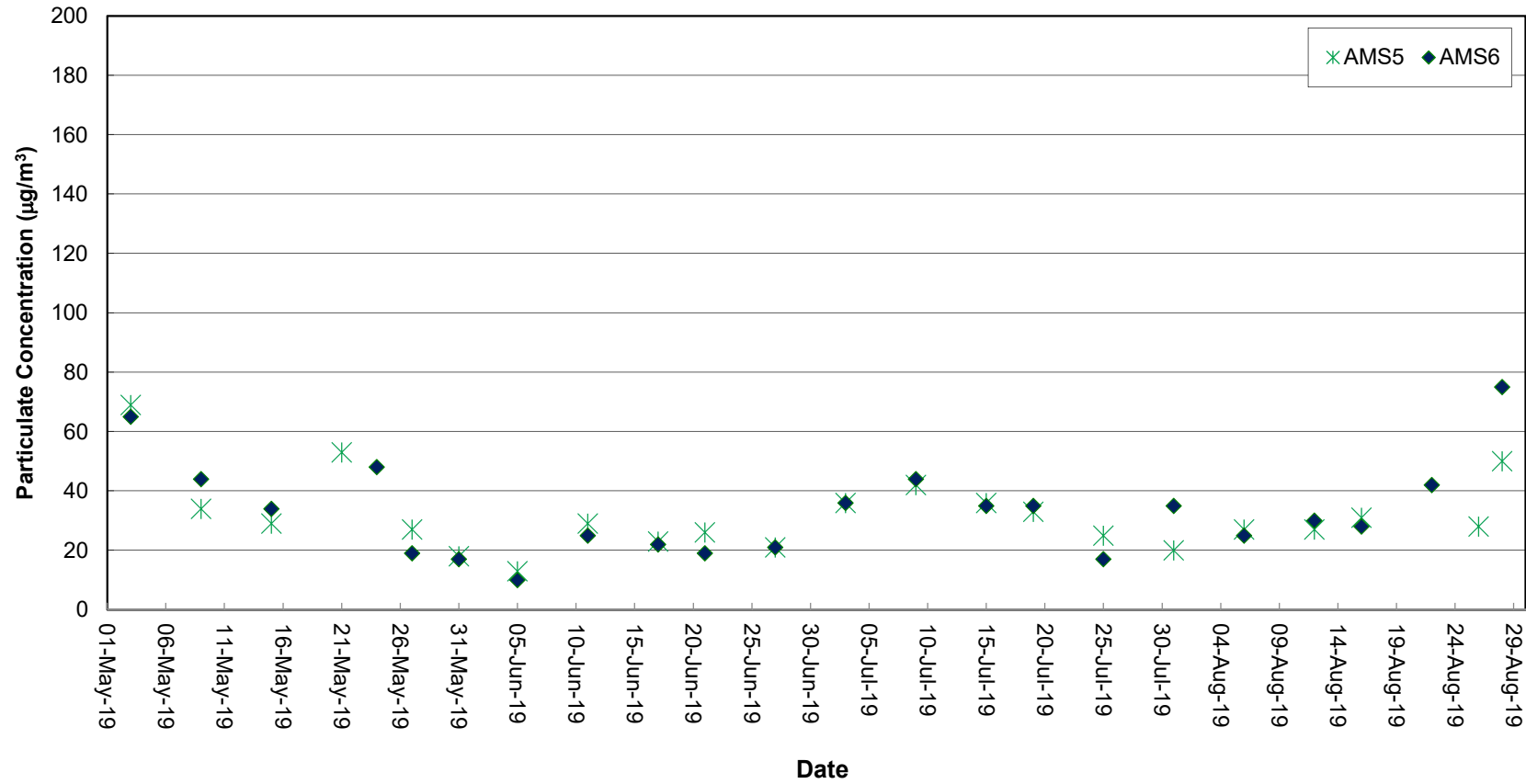
1) Due to malfunction of the high volume sampler (HVS), monitoring time for 24-hr TSP monitoring on 22 August 2019 at AMS5 (Ma Wan Chung Village) was less than 24 hours. The 24-hr TSP monitoring on 22 August 2019 at AMS5 was rescheduled to 26 August 2019.

Graphical Plot of 1-hour TSP at AMS5 and AMS6



Graphical Plot of 24-hour TSP at AMS5 and AMS6

Air Quality Monitoring Data (24-hour)



Remark:

1) Due to malfunction of the high volume sampler (HVS), monitoring time for 24-hr TSP monitoring on 22 August 2019 at AMS5 (Ma Wan Chung Village) was less than 24 hours. The 24-hr TSP monitoring on 22 August 2019 at AMS5 was rescheduled to 26 August 2019.

Noise Monitoring Data

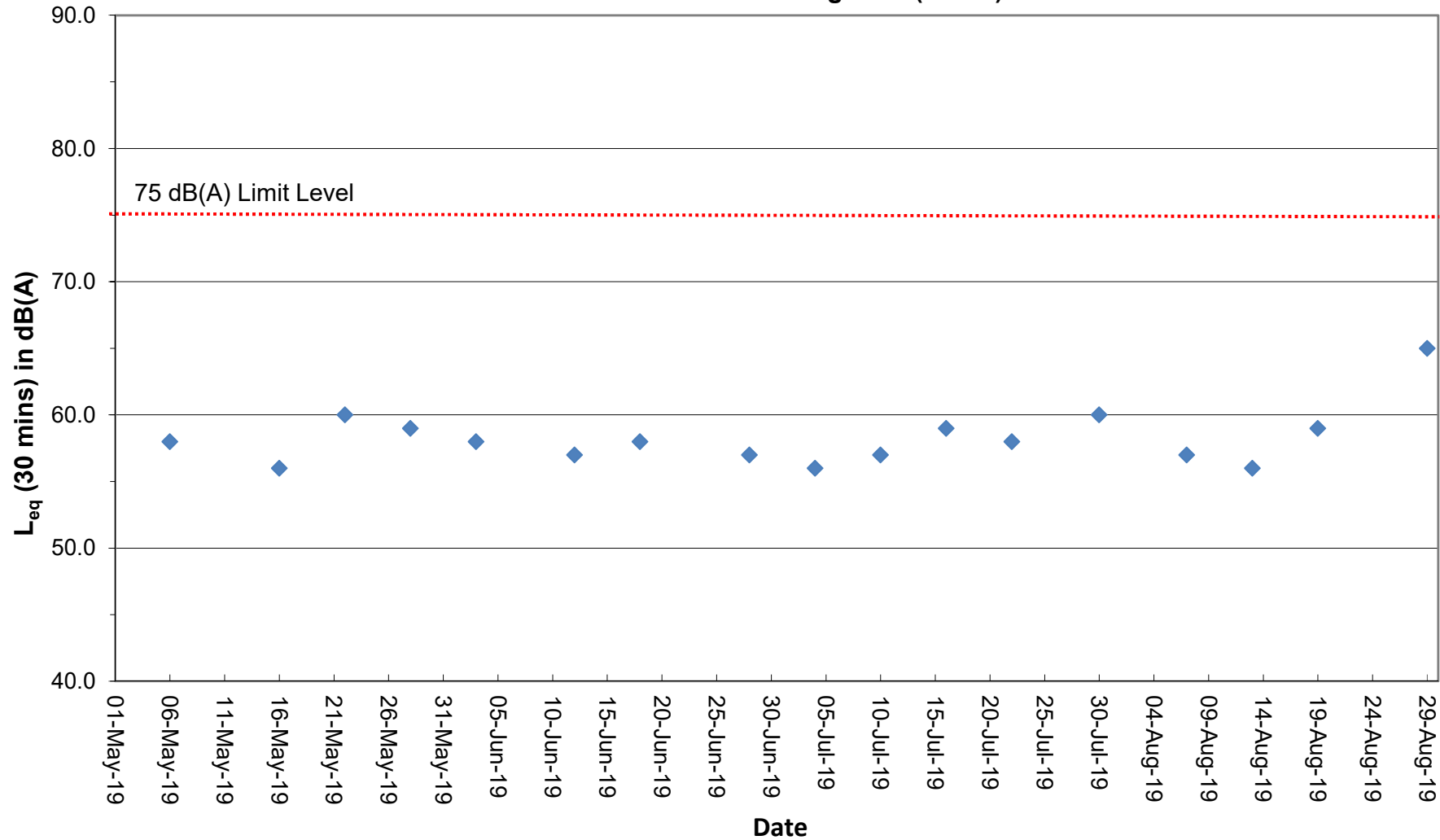
| Project | Works | Date (yyyy-mm-dd) | Station | Start Time | Wind Speed, m/s | 1st set 5mins | 2nd set 5mins | 3rd set 5mins | 4th set 5mins | 5th set 5mins | 6th set 5mins | Overall (30mins)* | Unit |
|---------|------------|-------------------|---------|------------|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|-------------------|-------|
| | | | | | | Leq: | Leq: | Leq: | Leq: | Leq: | Leq: | Leq: | |
| HKLR | HY/2011/03 | 2019-08-07 | NMS5 | 09:45 | <5 | Leq: 54.3 | Leq: 52.9 | Leq: 51.8 | Leq: 54.2 | Leq: 54.5 | Leq: 54.0 | Leq: 57 | dB(A) |
| | | | | | | L10: 57.5 | L10: 55.0 | L10: 53.5 | L10: 56.5 | L10: 57.0 | L10: 55.5 | L10: 59 | |
| | | | | | | L90: 50.5 | L90: 50.0 | L90: 49.5 | L90: 50.5 | L90: 50.5 | L90: 50.0 | L90: 53 | |
| HKLR | HY/2011/03 | 2019-08-13 | NMS5 | 09:30 | <5 | Leq: 52.9 | Leq: 54.3 | Leq: 53.3 | Leq: 53.3 | Leq: 53.2 | Leq: 53.6 | Leq: 56 | dB(A) |
| | | | | | | L10: 54.0 | L10: 56.0 | L10: 54.0 | L10: 54.0 | L10: 54.0 | L10: 54.5 | L10: 57 | |
| | | | | | | L90: 50.5 | L90: 51.0 | L90: 50.5 | L90: 50.5 | L90: 50.5 | L90: 50.5 | L90: 54 | |
| HKLR | HY/2011/03 | 2019-08-19 | NMS5 | 10:05 | <5 | Leq: 54.5 | Leq: 55.2 | Leq: 55.1 | Leq: 54.5 | Leq: 59.2 | Leq: 55.6 | Leq: 59 | dB(A) |
| | | | | | | L10: 55.5 | L10: 56.5 | L10: 56.0 | L10: 55.5 | L10: 61.5 | L10: 56.5 | L10: 61 | |
| | | | | | | L90: 52.0 | L90: 53.0 | L90: 53.0 | L90: 52.5 | L90: 54.0 | L90: 53.5 | L90: 56 | |
| HKLR | HY/2011/03 | 2019-08-29 | NMS5 | 14:57 | <5 | Leq: 64.8 | Leq: 59.4 | Leq: 60.2 | Leq: 63.2 | Leq: 59.9 | Leq: 57.4 | Leq: 65 | dB(A) |
| | | | | | | L10: 65.0 | L10: 60.5 | L10: 62.0 | L10: 64.5 | L10: 63.0 | L10: 58.0 | L10: 66 | |
| | | | | | | L90: 57.5 | L90: 56.5 | L90: 57.0 | L90: 56.5 | L90: 56.5 | L90: 56.5 | L90: 60 | |

Remark:

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

Graphical Plot of Noise Levels at NMS5

Continuous Noise Monitoring Data (NMS5)



Remark:

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

Water Quality Monitoring Data

| Project | Works | Date (yyyy-mm-dd) | Tide | Weather Condition | Station | Time | Depth, m | Level | Level_Code | Replicate | Temperature, °C | pH | Salinity, ppt | DO, % | DO, mg/L | Turbidity, NTU | SS, mg/L |
|---------|------------|-------------------|---------|-------------------|-----------|-------|----------|---------|------------|-----------|-----------------|------|---------------|-------|----------|----------------|----------|
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | IS5 | 12:34 | 1.0 | Surface | 1 | 1 | 25.64 | 8.23 | 23.51 | 81.4 | 5.76 | 7.7 | 10.4 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | IS5 | 12:34 | 1.0 | Surface | 1 | 2 | 25.74 | 8.25 | 23.08 | 85.9 | 6.08 | 7.4 | 9.6 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | IS5 | 12:34 | 4.3 | Middle | 2 | 1 | 25.56 | 8.22 | 24.17 | 78.9 | 5.64 | 7.6 | 10.6 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | IS5 | 12:34 | 4.3 | Middle | 2 | 2 | 25.49 | 8.25 | 25.66 | 83.3 | 5.90 | 7.5 | 9.9 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | IS5 | 12:33 | 7.6 | Bottom | 3 | 1 | 25.50 | 8.25 | 25.81 | 81.6 | 5.84 | 7.4 | 9.8 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | IS5 | 12:34 | 7.6 | Bottom | 3 | 2 | 25.55 | 8.21 | 25.66 | 79.0 | 5.63 | 7.5 | 8.9 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | IS(MF)6 | 12:42 | 1.0 | Surface | 1 | 1 | 25.48 | 8.22 | 24.14 | 91.2 | 6.51 | 6.6 | 11.5 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | IS(MF)6 | 12:41 | 1.0 | Surface | 1 | 2 | 25.57 | 8.24 | 23.27 | 88.4 | 6.34 | 6.3 | 12.6 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | IS(MF)6 | 12:41 | 2.1 | Bottom | 3 | 1 | 25.46 | 8.24 | 24.56 | 86.1 | 6.14 | 6.5 | 11.6 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | IS(MF)6 | 12:41 | 2.1 | Bottom | 3 | 2 | 25.50 | 8.22 | 24.46 | 82.8 | 5.92 | 6.5 | 11.7 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | IS7 | 12:49 | 1.0 | Surface | 1 | 1 | 25.69 | 8.22 | 22.41 | 86.3 | 6.20 | 2.9 | 5.9 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | IS7 | 12:49 | 1.0 | Surface | 1 | 2 | 25.68 | 8.19 | 22.66 | 88.1 | 6.31 | 2.8 | 4.9 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | IS7 | 12:48 | 2.1 | Bottom | 3 | 1 | 25.62 | 8.21 | 23.23 | 85.8 | 6.16 | 3.4 | 6.0 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | IS7 | 12:49 | 2.1 | Bottom | 3 | 2 | 25.68 | 8.21 | 22.78 | 84.1 | 6.04 | 3.5 | 7.9 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | IS8 | 13:16 | 1.0 | Surface | 1 | 1 | 25.75 | 8.20 | 23.59 | 86.6 | 6.17 | 6.9 | 9.8 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | IS8 | 13:16 | 1.0 | Surface | 1 | 2 | 25.74 | 8.20 | 23.66 | 90.1 | 6.41 | 6.9 | 9.9 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | IS8 | 13:16 | 3.0 | Bottom | 3 | 1 | 25.72 | 8.19 | 23.98 | 83.2 | 5.94 | 7.1 | 11.4 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | IS8 | 13:16 | 3.0 | Bottom | 3 | 2 | 25.71 | 8.20 | 24.11 | 84.4 | 6.01 | 7.3 | 10.8 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | IS(MF)9 | 12:56 | 1.0 | Surface | 1 | 1 | 25.62 | 8.19 | 23.16 | 91.8 | 6.58 | 6.0 | 10.2 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | IS(MF)9 | 12:56 | 1.0 | Surface | 1 | 2 | 25.62 | 8.20 | 23.20 | 85.9 | 6.15 | 6.0 | 11.3 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | IS(MF)9 | 12:56 | 2.7 | Bottom | 3 | 1 | 25.61 | 8.19 | 23.27 | 82.5 | 5.91 | 6.2 | 10.2 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | IS(MF)9 | 12:56 | 2.7 | Bottom | 3 | 2 | 25.60 | 8.22 | 23.32 | 83.8 | 6.00 | 5.9 | 9.2 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | IS10(N) | 13:44 | 1.0 | Surface | 1 | 1 | 26.94 | 8.08 | 22.84 | 85.8 | 6.17 | 6.5 | 7.1 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | IS10(N) | 13:43 | 1.0 | Surface | 1 | 2 | 26.93 | 8.09 | 22.84 | 86.2 | 6.20 | 6.3 | 8.7 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | IS10(N) | 13:43 | 5.1 | Middle | 2 | 1 | 26.82 | 8.09 | 23.01 | 84.2 | 6.06 | 7.1 | 8.7 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | IS10(N) | 13:44 | 5.1 | Middle | 2 | 2 | 26.81 | 8.08 | 23.06 | 84.4 | 6.08 | 7.0 | 8.4 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | IS10(N) | 13:43 | 9.2 | Bottom | 3 | 1 | 26.74 | 8.08 | 23.35 | 83.9 | 6.04 | 7.6 | 7.2 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | IS10(N) | 13:42 | 9.2 | Bottom | 3 | 2 | 26.72 | 8.08 | 23.40 | 83.7 | 6.03 | 7.7 | 8.3 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | SR3(N) | 12:25 | 1.0 | Surface | 1 | 1 | 25.64 | 8.35 | 21.95 | 88.7 | 6.33 | 6.6 | 6.0 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | SR3(N) | 12:26 | 1.0 | Surface | 1 | 2 | 25.87 | 8.36 | 19.86 | 81.1 | 5.82 | 6.6 | 7.1 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | SR3(N) | 12:25 | 2.5 | Bottom | 3 | 1 | 25.61 | 8.35 | 23.93 | 82.7 | 5.96 | 6.5 | 5.8 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | SR3(N) | 12:26 | 2.5 | Bottom | 3 | 2 | 25.54 | 8.34 | 23.93 | 80.4 | 5.74 | 6.6 | 6.8 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | SR4(N) | 13:09 | 1.0 | Surface | 1 | 1 | 25.59 | 8.22 | 23.43 | 85.5 | 6.12 | 6.7 | 8.0 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | SR4(N) | 13:09 | 1.0 | Surface | 1 | 2 | 25.58 | 8.20 | 23.93 | 94.1 | 6.69 | 6.9 | 7.2 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | SR4(N) | 13:09 | 2.6 | Bottom | 3 | 1 | 25.58 | 8.20 | 24.45 | 79.7 | 5.69 | 6.9 | 8.9 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | SR4(N) | 13:09 | 2.6 | Bottom | 3 | 2 | 25.68 | 8.24 | 24.50 | 82.2 | 5.85 | 7.0 | 9.0 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | SR5(N) | 13:29 | 1.0 | Surface | 1 | 1 | 26.93 | 8.11 | 22.82 | 85.8 | 6.17 | 5.6 | 8.7 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | SR5(N) | 13:30 | 1.0 | Surface | 1 | 2 | 26.96 | 8.10 | 22.79 | 85.8 | 6.17 | 5.5 | 9.2 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | SR5(N) | 13:29 | 4.0 | Middle | 2 | 1 | 26.80 | 8.11 | 23.06 | 83.7 | 6.03 | 6.5 | 8.5 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | SR5(N) | 13:30 | 4.0 | Middle | 2 | 2 | 26.82 | 8.10 | 23.03 | 83.8 | 6.03 | 6.7 | 8.3 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | SR5(N) | 13:29 | 6.9 | Bottom | 3 | 1 | 26.71 | 8.09 | 23.45 | 83.2 | 5.99 | 7.6 | 7.5 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | SR5(N) | 13:29 | 6.9 | Bottom | 3 | 2 | 26.71 | 8.11 | 23.44 | 83.2 | 5.99 | 7.7 | 6.8 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | SR10A(N) | 14:29 | 1.0 | Surface | 1 | 1 | 26.76 | 8.08 | 23.81 | 84.3 | 6.05 | 7.6 | 12.6 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | SR10A(N) | 14:28 | 1.0 | Surface | 1 | 2 | 26.78 | 8.09 | 23.61 | 84.0 | 6.04 | 7.7 | 13.0 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | SR10A(N) | 14:29 | 6.6 | Middle | 2 | 1 | 26.70 | 8.08 | 24.12 | 83.1 | 5.97 | 7.7 | 9.7 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | SR10A(N) | 14:28 | 6.6 | Middle | 2 | 2 | 26.69 | 8.09 | 23.99 | 82.6 | 5.93 | 7.9 | 10.8 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | SR10A(N) | 14:28 | 12.1 | Bottom | 3 | 1 | 26.59 | 8.09 | 24.64 | 81.3 | 5.83 | 8.0 | 8.7 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | SR10A(N) | 14:29 | 12.1 | Bottom | 3 | 2 | 26.66 | 8.08 | 24.27 | 82.0 | 5.89 | 8.2 | 9.6 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | SR10B(N2) | 14:37 | 1.0 | Surface | 1 | 1 | 26.74 | 8.07 | 23.89 | 84.0 | 6.03 | 8.1 | 10.8 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | SR10B(N2) | 14:38 | 1.0 | Surface | 1 | 2 | 26.74 | 8.07 | 23.85 | 83.6 | 6.00 | 8.1 | 11.7 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | SR10B(N2) | 14:37 | 3.8 | Middle | 2 | 1 | 26.69 | 8.07 | 24.10 | 83.8 | 6.02 | 8.1 | 10.8 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | SR10B(N2) | 14:37 | 3.8 | Middle | 2 | 2 | 26.67 | 8.07 | 24.19 | 83.8 | 6.02 | 8.2 | 11.9 |

Water Quality Monitoring Data

| Project | Works | Date (yyyy-mm-dd) | Tide | Weather Condition | Station | Time | Depth, m | Level | Level_Code | Replicate | Temperature, °C | pH | Salinity, ppt | DO, % | DO, mg/L | Turbidity, NTU | SS, mg/L |
|---------|------------|-------------------|-----------|-------------------|-----------|-------|----------|---------|------------|-----------|-----------------|------|---------------|-------|----------|----------------|----------|
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | SR10B(N2) | 14:37 | 6.6 | Bottom | 3 | 1 | 26.70 | 8.07 | 24.08 | 83.8 | 6.01 | 9.0 | 11.3 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | SR10B(N2) | 14:37 | 6.6 | Bottom | 3 | 2 | 26.69 | 8.07 | 24.05 | 83.7 | 6.01 | 8.7 | 11.5 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | CS2(A) | 12:29 | 1.0 | Surface | 1 | 1 | 26.61 | 8.15 | 25.40 | 85.8 | 6.12 | 12.0 | 11.1 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | CS2(A) | 12:29 | 1.0 | Surface | 1 | 2 | 26.65 | 8.14 | 25.26 | 85.9 | 6.13 | 11.8 | 12.2 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | CS2(A) | 12:29 | 3.7 | Middle | 2 | 1 | 26.61 | 8.14 | 25.59 | 85.3 | 6.08 | 12.5 | 12.4 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | CS2(A) | 12:28 | 3.7 | Middle | 2 | 2 | 26.57 | 8.15 | 25.70 | 85.5 | 6.09 | 12.6 | 11.9 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | CS2(A) | 12:28 | 6.3 | Bottom | 3 | 1 | 26.55 | 8.15 | 25.89 | 85.4 | 6.09 | 12.9 | 11.7 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | CS2(A) | 12:29 | 6.3 | Bottom | 3 | 2 | 26.53 | 8.14 | 25.99 | 85.2 | 6.07 | 12.8 | 11.6 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | CS(Mf)5 | 13:42 | 1.0 | Surface | 1 | 1 | 25.73 | 8.22 | 24.70 | 80.8 | 5.71 | 3.5 | 12.6 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | CS(Mf)5 | 13:43 | 1.0 | Surface | 1 | 2 | 25.85 | 8.20 | 24.37 | 78.8 | 5.58 | 3.6 | 12.7 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | CS(Mf)5 | 13:42 | 5.9 | Middle | 2 | 1 | 25.52 | 8.21 | 25.66 | 78.4 | 5.56 | 3.5 | 13.2 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | CS(Mf)5 | 13:42 | 5.9 | Middle | 2 | 2 | 25.54 | 8.19 | 25.58 | 76.3 | 5.41 | 3.5 | 12.0 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | CS(Mf)5 | 13:42 | 10.7 | Bottom | 3 | 1 | 25.49 | 8.21 | 26.04 | 77.9 | 5.51 | 3.5 | 13.0 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Ebb | Cloudy | CS(Mf)5 | 13:42 | 10.7 | Bottom | 3 | 2 | 25.61 | 8.20 | 25.53 | 75.8 | 5.37 | 3.6 | 13.9 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | IS5 | 6:37 | 1.0 | Surface | 1 | 1 | 25.61 | 8.19 | 25.11 | 81.8 | 5.74 | 5.3 | 8.3 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | IS5 | 6:36 | 1.0 | Surface | 1 | 2 | 25.44 | 8.18 | 25.28 | 77.8 | 5.49 | 5.2 | 9.2 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | IS5 | 6:36 | 4.3 | Middle | 2 | 1 | 25.30 | 8.16 | 27.77 | 71.6 | 5.07 | 5.5 | 8.0 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | IS5 | 6:36 | 4.3 | Middle | 2 | 2 | 25.29 | 8.16 | 27.82 | 75.6 | 5.37 | 5.5 | 7.0 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | IS5 | 6:36 | 7.6 | Bottom | 3 | 1 | 25.26 | 8.16 | 28.13 | 70.7 | 4.96 | 5.6 | 7.1 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | IS5 | 6:35 | 7.6 | Bottom | 3 | 2 | 25.29 | 8.15 | 27.95 | 71.2 | 4.99 | 5.5 | 8.2 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | IS(Mf)6 | 6:25 | 1.0 | Surface | 1 | 1 | 25.65 | 8.18 | 25.15 | 82.8 | 5.87 | 3.1 | 5.9 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | IS(Mf)6 | 6:25 | 1.0 | Surface | 1 | 2 | 25.68 | 8.18 | 25.08 | 82.7 | 5.86 | 3.2 | 6.9 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | IS(Mf)6 | 6:25 | 2.3 | Bottom | 3 | 1 | 25.66 | 8.18 | 25.17 | 82.7 | 5.86 | 3.2 | 7.7 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | IS(Mf)6 | 6:24 | 2.3 | Bottom | 3 | 2 | 25.49 | 8.18 | 25.90 | 81.7 | 5.78 | 3.2 | 8.9 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | IS7 | 6:18 | 1.0 | Surface | 1 | 1 | 25.65 | 8.19 | 25.13 | 82.6 | 5.85 | 3.0 | 8.7 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | IS7 | 6:18 | 1.0 | Surface | 1 | 2 | 25.63 | 8.19 | 25.18 | 82.2 | 5.83 | 3.2 | 7.7 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | IS7 | 6:18 | 2.2 | Bottom | 3 | 1 | 25.51 | 8.18 | 25.72 | 82.3 | 5.82 | 3.3 | 8.3 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | IS7 | 6:18 | 2.2 | Bottom | 3 | 2 | 25.64 | 8.18 | 25.24 | 82.5 | 5.84 | 3.1 | 7.4 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | IS8 | 5:52 | 1.0 | Surface | 1 | 1 | 25.53 | 8.22 | 25.19 | 81.5 | 5.75 | 3.6 | 7.0 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | IS8 | 5:52 | 1.0 | Surface | 1 | 2 | 25.54 | 8.21 | 25.16 | 80.5 | 5.71 | 3.4 | 6.0 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | IS8 | 5:52 | 3.1 | Bottom | 3 | 1 | 25.57 | 8.21 | 26.24 | 79.8 | 5.63 | 3.4 | 6.9 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | IS8 | 5:52 | 3.1 | Bottom | 3 | 2 | 25.53 | 8.21 | 26.37 | 80.2 | 5.69 | 3.5 | 7.9 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | IS(Mf)9 | 6:10 | 1.0 | Surface | 1 | 1 | 25.62 | 8.19 | 25.09 | 85.5 | 6.06 | 3.2 | 7.4 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | IS(Mf)9 | 6:10 | 1.0 | Surface | 1 | 2 | 25.63 | 8.19 | 25.09 | 83.6 | 5.92 | 3.0 | 6.2 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | IS(Mf)9 | 6:10 | 2.7 | Bottom | 3 | 1 | 25.60 | 8.18 | 26.09 | 84.5 | 5.95 | 3.1 | 6.5 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | IS(Mf)9 | 6:10 | 2.7 | Bottom | 3 | 2 | 25.60 | 8.19 | 25.96 | 87.5 | 6.17 | 3.1 | 6.0 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | IS10(N) | 6:09 | 1.0 | Surface | 1 | 1 | 26.44 | 8.13 | 24.05 | 76.2 | 5.51 | 6.2 | 7.5 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | IS10(N) | 6:10 | 1.0 | Surface | 1 | 2 | 26.41 | 8.12 | 24.00 | 76.4 | 5.52 | 6.0 | 8.9 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | IS10(N) | 6:08 | 5.3 | Middle | 2 | 1 | 26.31 | 8.12 | 26.00 | 74.6 | 5.35 | 6.7 | 8.7 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | IS10(N) | 6:09 | 5.3 | Middle | 2 | 2 | 26.35 | 8.12 | 25.32 | 74.9 | 5.39 | 6.7 | 7.7 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | IS10(N) | 6:08 | 9.6 | Bottom | 3 | 1 | 26.22 | 8.12 | 26.90 | 74.5 | 5.32 | 7.0 | 7.6 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | IS10(N) | 6:09 | 9.6 | Bottom | 3 | 2 | 26.19 | 8.11 | 27.08 | 74.2 | 5.31 | 7.1 | 8.5 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | SR3(N) | 6:46 | 1.0 | Surface | 1 | 1 | 25.59 | 8.18 | 25.14 | 80.9 | 5.71 | 3.1 | 6.7 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | SR3(N) | 6:46 | 1.0 | Surface | 1 | 2 | 25.56 | 8.18 | 25.15 | 84.2 | 5.95 | 3.3 | 7.8 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | SR3(N) | 6:46 | 2.6 | Bottom | 3 | 1 | 25.51 | 8.17 | 26.00 | 82.3 | 5.84 | 3.3 | 8.6 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | SR3(N) | 6:46 | 2.6 | Bottom | 3 | 2 | 25.59 | 8.18 | 26.03 | 80.3 | 5.69 | 3.1 | 7.6 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | SR4(N) | 6:00 | 1.0 | Surface | 1 | 1 | 25.65 | 8.20 | 25.13 | 82.4 | 5.83 | 3.0 | 7.4 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | SR4(N) | 5:59 | 1.0 | Surface | 1 | 2 | 25.57 | 8.20 | 25.12 | 82.0 | 5.82 | 2.9 | 8.5 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | SR4(N) | 5:59 | 2.7 | Bottom | 3 | 1 | 25.64 | 8.20 | 25.20 | 82.1 | 5.81 | 2.9 | 5.9 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | SR4(N) | 5:59 | 2.7 | Bottom | 3 | 2 | 25.51 | 8.19 | 25.98 | 82.1 | 5.80 | 3.0 | 4.8 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | SR5(N) | 6:18 | 1.0 | Surface | 1 | 1 | 26.47 | 8.11 | 24.29 | 77.7 | 5.60 | 5.9 | 8.4 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | SR5(N) | 6:19 | 1.0 | Surface | 1 | 2 | 26.46 | 8.10 | 24.52 | 77.8 | 5.61 | 5.8 | 7.3 |

Water Quality Monitoring Data

| Project | Works | Date (yyyy-mm-dd) | Tide | Weather Condition | Station | Time | Depth, m | Level | Level_Code | Replicate | Temperature, °C | pH | Salinity, ppt | DO, % | DO, mg/L | Turbidity, NTU | SS, mg/L |
|---------|------------|-------------------|-----------|-------------------|-----------|-------|----------|---------|------------|-----------|-----------------|------|---------------|-------|----------|----------------|----------|
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | SR5(N) | 6:18 | 4.1 | Middle | 2 | 1 | 26.37 | 8.11 | 25.37 | 75.3 | 5.41 | 6.6 | 7.7 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | SR5(N) | 6:19 | 4.1 | Middle | 2 | 2 | 26.33 | 8.10 | 25.87 | 75.2 | 5.39 | 6.5 | 6.7 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | SR5(N) | 6:18 | 7.2 | Bottom | 3 | 1 | 26.22 | 8.09 | 26.88 | 73.7 | 5.27 | 7.1 | 7.6 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | SR5(N) | 6:17 | 7.2 | Bottom | 3 | 2 | 26.22 | 8.10 | 26.84 | 73.3 | 5.25 | 7.2 | 7.5 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | SR10A(N) | 5:24 | 1.0 | Surface | 1 | 1 | 26.16 | 8.11 | 27.12 | 73.8 | 5.28 | 9.5 | 12.0 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | SR10A(N) | 5:25 | 1.0 | Surface | 1 | 2 | 26.16 | 8.11 | 27.12 | 73.9 | 5.29 | 9.4 | 11.1 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | SR10A(N) | 5:24 | 6.8 | Middle | 2 | 1 | 26.16 | 8.11 | 27.13 | 73.8 | 5.28 | 9.6 | 11.9 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | SR10A(N) | 5:25 | 6.8 | Middle | 2 | 2 | 26.16 | 8.11 | 27.14 | 73.8 | 5.28 | 9.4 | 12.2 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | SR10A(N) | 5:24 | 12.5 | Bottom | 3 | 1 | 26.16 | 8.11 | 27.13 | 73.6 | 5.26 | 9.9 | 11.6 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | SR10A(N) | 5:25 | 12.5 | Bottom | 3 | 2 | 26.16 | 8.11 | 27.13 | 73.6 | 5.27 | 9.8 | 11.0 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | SR10B(N2) | 5:16 | 1.0 | Surface | 1 | 1 | 26.16 | 8.11 | 27.13 | 75.0 | 5.40 | 8.8 | 11.6 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | SR10B(N2) | 5:15 | 1.0 | Surface | 1 | 2 | 26.16 | 8.11 | 27.11 | 74.7 | 5.34 | 8.5 | 11.3 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | SR10B(N2) | 5:15 | 4.1 | Middle | 2 | 1 | 26.16 | 8.11 | 27.14 | 74.1 | 5.30 | 9.0 | 11.1 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | SR10B(N2) | 5:16 | 4.1 | Middle | 2 | 2 | 26.16 | 8.11 | 27.13 | 74.5 | 5.33 | 9.1 | 12.2 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | SR10B(N2) | 5:15 | 7.1 | Bottom | 3 | 1 | 26.16 | 8.11 | 27.14 | 74.1 | 5.30 | 9.5 | 9.0 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | SR10B(N2) | 5:15 | 7.1 | Bottom | 3 | 2 | 26.16 | 8.12 | 27.14 | 74.0 | 5.29 | 9.6 | 10.1 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | CS2(A) | 7:00 | 1.0 | Surface | 1 | 1 | 26.64 | 8.16 | 25.26 | 86.3 | 6.16 | 11.4 | 13.5 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | CS2(A) | 7:00 | 1.0 | Surface | 1 | 2 | 26.63 | 8.17 | 25.29 | 86.3 | 6.16 | 11.6 | 12.6 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | CS2(A) | 7:00 | 3.8 | Middle | 2 | 1 | 26.60 | 8.17 | 25.57 | 86.0 | 6.13 | 11.9 | 12.0 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | CS2(A) | 7:00 | 3.8 | Middle | 2 | 2 | 26.59 | 8.18 | 25.63 | 86.0 | 6.13 | 12.0 | 13.3 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | CS2(A) | 7:00 | 6.6 | Bottom | 3 | 1 | 26.56 | 8.17 | 25.78 | 85.8 | 6.12 | 12.8 | 11.5 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | CS2(A) | 6:59 | 6.6 | Bottom | 3 | 2 | 26.53 | 8.19 | 25.95 | 86.0 | 6.13 | 12.5 | 12.4 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | CS(Mf)5 | 5:27 | 1.0 | Surface | 1 | 1 | 25.51 | 8.24 | 25.20 | 75.7 | 5.30 | 5.5 | 5.2 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | CS(Mf)5 | 5:27 | 1.0 | Surface | 1 | 2 | 25.47 | 8.27 | 25.57 | 80.9 | 5.67 | 5.3 | 6.3 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | CS(Mf)5 | 5:27 | 6.0 | Middle | 2 | 1 | 25.28 | 8.22 | 27.96 | 73.7 | 5.21 | 5.5 | 7.3 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | CS(Mf)5 | 5:26 | 6.0 | Middle | 2 | 2 | 25.29 | 8.27 | 27.94 | 74.5 | 5.28 | 5.4 | 8.4 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | CS(Mf)5 | 5:26 | 11.0 | Bottom | 3 | 1 | 25.27 | 8.32 | 28.14 | 74.3 | 5.27 | 5.3 | 8.2 |
| HKLR | HY/2011/03 | 2019-08-02 | Mid-Flood | Cloudy | CS(Mf)5 | 5:27 | 11.0 | Bottom | 3 | 2 | 25.34 | 8.23 | 28.02 | 73.4 | 5.17 | 5.5 | 9.3 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | IS5 | 14:50 | 1.0 | Surface | 1 | 1 | 27.24 | 8.09 | 21.94 | 83.8 | 5.90 | 4.3 | 8.6 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | IS5 | 14:51 | 1.0 | Surface | 1 | 2 | 27.08 | 8.07 | 22.04 | 78.6 | 5.53 | 4.5 | 8.5 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | IS5 | 14:50 | 4.3 | Middle | 2 | 1 | 27.01 | 8.14 | 22.11 | 81.6 | 5.74 | 8.9 | 10.5 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | IS5 | 14:51 | 4.3 | Middle | 2 | 2 | 27.02 | 8.07 | 22.11 | 77.9 | 5.48 | 9.0 | 9.7 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | IS5 | 14:51 | 7.5 | Bottom | 3 | 1 | 27.07 | 8.08 | 22.08 | 77.5 | 5.45 | 8.9 | 14.9 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | IS5 | 14:50 | 7.5 | Bottom | 3 | 2 | 27.00 | 8.17 | 22.15 | 79.5 | 5.58 | 8.8 | 14.3 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | IS(Mf)6 | 14:58 | 1.0 | Surface | 1 | 1 | 27.84 | 8.06 | 21.81 | 82.0 | 5.70 | 4.5 | 8.1 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | IS(Mf)6 | 14:58 | 1.0 | Surface | 1 | 2 | 27.65 | 8.05 | 21.90 | 80.5 | 5.61 | 4.5 | 7.7 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | IS(Mf)6 | 14:58 | 2.1 | Bottom | 3 | 1 | 27.51 | 8.05 | 21.93 | 81.0 | 5.66 | 5.9 | 6.7 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | IS(Mf)6 | 14:58 | 2.1 | Bottom | 3 | 2 | 27.31 | 8.07 | 22.02 | 83.4 | 5.85 | 6.0 | 6.2 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | IS7 | 15:05 | 1.0 | Surface | 1 | 1 | 27.36 | 8.06 | 21.59 | 78.9 | 5.54 | 7.1 | 7.3 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | IS7 | 15:06 | 1.0 | Surface | 1 | 2 | 27.26 | 8.02 | 21.65 | 76.1 | 5.35 | 7.2 | 7.2 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | IS7 | 15:05 | 2.0 | Bottom | 3 | 1 | 26.84 | 8.09 | 22.01 | 82.8 | 5.85 | 8.5 | 6.0 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | IS7 | 15:05 | 2.0 | Bottom | 3 | 2 | 27.02 | 8.05 | 21.90 | 77.0 | 5.43 | 8.3 | 6.2 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | IS8 | 15:33 | 1.0 | Surface | 1 | 1 | 27.35 | 8.10 | 21.60 | 82.1 | 5.76 | 5.4 | 12.6 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | IS8 | 15:33 | 1.0 | Surface | 1 | 2 | 27.50 | 8.08 | 21.54 | 86.3 | 6.08 | 5.5 | 11.7 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | IS8 | 15:33 | 2.8 | Bottom | 3 | 1 | 27.22 | 8.08 | 21.76 | 79.6 | 5.58 | 5.2 | 9.2 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | IS8 | 15:33 | 2.8 | Bottom | 3 | 2 | 26.92 | 8.11 | 22.15 | 80.1 | 5.63 | 5.5 | 9.8 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | IS(Mf)9 | 15:13 | 1.0 | Surface | 1 | 1 | 27.08 | 8.05 | 21.52 | 87.5 | 6.15 | 4.8 | 7.8 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | IS(Mf)9 | 15:13 | 1.0 | Surface | 1 | 2 | 27.22 | 8.07 | 21.41 | 80.4 | 5.66 | 4.9 | 7.4 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | IS(Mf)9 | 15:13 | 2.7 | Bottom | 3 | 1 | 27.18 | 8.05 | 21.77 | 76.7 | 5.41 | 4.8 | 7.5 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | IS(Mf)9 | 15:13 | 2.7 | Bottom | 3 | 2 | 27.14 | 8.09 | 21.86 | 78.3 | 5.50 | 4.9 | 7.9 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | IS10(N) | 15:22 | 1.0 | Surface | 1 | 1 | 28.08 | 8.02 | 19.75 | 74.1 | 5.25 | 9.1 | 6.0 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | IS10(N) | 15:22 | 1.0 | Surface | 1 | 2 | 28.35 | 8.01 | 19.61 | 75.6 | 5.34 | 8.8 | 6.6 |

Water Quality Monitoring Data

| Project | Works | Date (yyyy-mm-dd) | Tide | Weather Condition | Station | Time | Depth, m | Level | Level_Code | Replicate | Temperature, °C | pH | Salinity, ppt | DO, % | DO, mg/L | Turbidity, NTU | SS, mg/L |
|---------|------------|-------------------|-----------|-------------------|-----------|-------|----------|---------|------------|-----------|-----------------|------|---------------|-------|----------|----------------|----------|
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | IS10(N) | 15:22 | 5.2 | Middle | 2 | 1 | 27.61 | 8.01 | 21.88 | 73.4 | 5.18 | 9.7 | 7.1 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | IS10(N) | 15:22 | 5.2 | Middle | 2 | 2 | 27.51 | 8.00 | 22.01 | 73.0 | 5.17 | 9.5 | 7.1 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | IS10(N) | 15:21 | 9.4 | Bottom | 3 | 1 | 27.51 | 7.99 | 22.07 | 73.8 | 5.22 | 11.3 | 7.1 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | IS10(N) | 15:22 | 9.4 | Bottom | 3 | 2 | 27.78 | 8.00 | 21.88 | 74.3 | 5.23 | 10.7 | 7.4 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | SR3(N) | 14:43 | 1.0 | Surface | 1 | 1 | 27.56 | 8.23 | 22.03 | 79.7 | 5.56 | 6.6 | 10.9 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | SR3(N) | 14:43 | 1.0 | Surface | 1 | 2 | 27.67 | 8.30 | 22.01 | 79.4 | 5.53 | 6.3 | 11.5 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | SR3(N) | 14:43 | 2.4 | Bottom | 3 | 1 | 27.38 | 8.26 | 22.13 | 78.9 | 5.52 | 6.5 | 11.9 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | SR3(N) | 14:42 | 2.4 | Bottom | 3 | 2 | 27.33 | 8.43 | 22.21 | 79.2 | 5.54 | 6.6 | 12.2 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | SR4(N) | 15:26 | 1.0 | Surface | 1 | 1 | 27.17 | 8.12 | 21.22 | 80.0 | 5.64 | 8.1 | 9.7 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | SR4(N) | 15:26 | 1.0 | Surface | 1 | 2 | 26.95 | 8.08 | 21.45 | 85.0 | 6.02 | 8.5 | 9.3 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | SR4(N) | 15:26 | 2.7 | Bottom | 3 | 1 | 26.79 | 8.15 | 21.80 | 76.8 | 5.43 | 8.6 | 8.1 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | SR4(N) | 15:26 | 2.7 | Bottom | 3 | 2 | 26.83 | 8.09 | 21.85 | 75.3 | 5.32 | 8.6 | 8.1 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | SR5(N) | 15:15 | 1.0 | Surface | 1 | 1 | 28.32 | 8.01 | 19.51 | 75.5 | 5.34 | 8.5 | 7.0 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | SR5(N) | 15:16 | 1.0 | Surface | 1 | 2 | 28.16 | 8.01 | 19.85 | 75.1 | 5.31 | 8.7 | 6.7 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | SR5(N) | 15:15 | 4.0 | Middle | 2 | 1 | 27.69 | 8.00 | 21.58 | 73.5 | 5.20 | 8.8 | 7.8 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | SR5(N) | 15:15 | 4.0 | Middle | 2 | 2 | 27.77 | 8.01 | 21.41 | 73.7 | 5.21 | 9.1 | 7.8 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | SR5(N) | 15:15 | 7.0 | Bottom | 3 | 1 | 27.42 | 7.98 | 22.30 | 74.7 | 5.28 | 9.7 | 7.9 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | SR5(N) | 15:15 | 7.0 | Bottom | 3 | 2 | 27.65 | 7.98 | 22.13 | 74.7 | 5.27 | 10.1 | 8.2 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | SR10A(N) | 16:06 | 1.0 | Surface | 1 | 1 | 28.93 | 8.08 | 20.52 | 84.6 | 5.88 | 5.2 | 7.3 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | SR10A(N) | 16:05 | 1.0 | Surface | 1 | 2 | 28.47 | 8.07 | 22.27 | 80.4 | 5.58 | 5.1 | 7.4 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | SR10A(N) | 16:05 | 6.2 | Middle | 2 | 1 | 27.76 | 8.07 | 24.03 | 80.5 | 5.61 | 5.1 | 8.4 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | SR10A(N) | 16:05 | 6.2 | Middle | 2 | 2 | 27.85 | 8.08 | 23.64 | 80.9 | 5.63 | 5.4 | 8.1 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | SR10A(N) | 16:05 | 11.4 | Bottom | 3 | 1 | 27.90 | 8.08 | 23.64 | 79.5 | 5.54 | 6.6 | 9.5 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | SR10A(N) | 16:05 | 11.4 | Bottom | 3 | 2 | 27.71 | 8.09 | 24.38 | 78.0 | 5.43 | 6.3 | 9.5 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | SR10B(N2) | 16:20 | 1.0 | Surface | 1 | 1 | 28.80 | 8.09 | 20.76 | 81.9 | 5.70 | 6.0 | 8.5 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | SR10B(N2) | 16:16 | 1.0 | Surface | 1 | 2 | 28.24 | 8.06 | 20.82 | 79.1 | 5.52 | 6.5 | 8.8 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | SR10B(N2) | 16:16 | 3.2 | Middle | 2 | 1 | 28.21 | 8.06 | 21.99 | 78.8 | 5.51 | 7.0 | 7.1 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | SR10B(N2) | 16:19 | 3.2 | Middle | 2 | 2 | 27.93 | 8.09 | 22.82 | 80.5 | 5.63 | 6.8 | 6.6 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | SR10B(N2) | 16:19 | 5.3 | Bottom | 3 | 1 | 27.86 | 8.08 | 23.72 | 83.7 | 5.83 | 7.1 | 5.9 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | SR10B(N2) | 16:16 | 5.3 | Bottom | 3 | 2 | 28.14 | 8.06 | 22.66 | 80.8 | 5.63 | 7.2 | 6.5 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | CS2(A) | 14:35 | 1.0 | Surface | 1 | 1 | 28.33 | 8.02 | 19.54 | 81.7 | 5.76 | 11.3 | 9.2 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | CS2(A) | 14:35 | 1.0 | Surface | 1 | 2 | 28.20 | 8.01 | 19.54 | 86.0 | 6.05 | 10.4 | 9.4 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | CS2(A) | 14:35 | 3.1 | Middle | 2 | 1 | 27.84 | 8.01 | 20.79 | 78.8 | 5.54 | 11.9 | 8.7 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | CS2(A) | 14:35 | 3.1 | Middle | 2 | 2 | 27.90 | 8.01 | 21.06 | 80.8 | 5.71 | 13.1 | 9.0 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | CS2(A) | 14:35 | 5.2 | Bottom | 3 | 1 | 27.89 | 8.01 | 21.77 | 77.8 | 5.50 | 13.3 | 8.3 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | CS2(A) | 14:35 | 5.2 | Bottom | 3 | 2 | 27.84 | 8.00 | 21.89 | 77.9 | 5.52 | 11.9 | 8.0 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | CS(Mf)5 | 15:56 | 1.0 | Surface | 1 | 1 | 26.99 | 8.09 | 22.28 | 72.0 | 5.07 | 4.8 | 4.9 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | CS(Mf)5 | 15:55 | 1.0 | Surface | 1 | 2 | 26.91 | 8.10 | 22.53 | 75.4 | 5.18 | 4.8 | 5.0 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | CS(Mf)5 | 15:55 | 5.8 | Middle | 2 | 1 | 26.43 | 8.11 | 23.82 | 71.0 | 5.00 | 5.8 | 5.5 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | CS(Mf)5 | 15:55 | 5.8 | Middle | 2 | 2 | 26.40 | 8.09 | 24.01 | 71.4 | 5.03 | 6.1 | 5.2 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | CS(Mf)5 | 15:55 | 10.5 | Bottom | 3 | 1 | 26.41 | 8.05 | 27.83 | 68.6 | 4.83 | 6.2 | 5.9 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Ebb | Sunny | CS(Mf)5 | 15:54 | 10.5 | Bottom | 3 | 2 | 26.50 | 8.09 | 27.81 | 70.7 | 4.87 | 5.9 | 6.2 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | IS5 | 9:34 | 1.0 | Surface | 1 | 1 | 26.53 | 8.09 | 22.00 | 82.5 | 5.86 | 8.0 | 10.4 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | IS5 | 9:35 | 1.0 | Surface | 1 | 2 | 26.56 | 8.07 | 21.97 | 76.6 | 5.44 | 7.5 | 10.8 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | IS5 | 9:35 | 4.4 | Middle | 2 | 1 | 26.51 | 8.07 | 22.06 | 75.9 | 5.39 | 9.6 | 10.4 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | IS5 | 9:34 | 4.4 | Middle | 2 | 2 | 26.50 | 8.10 | 22.07 | 80.1 | 5.69 | 9.5 | 10.9 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | IS5 | 9:34 | 7.8 | Bottom | 3 | 1 | 26.50 | 8.08 | 22.07 | 75.4 | 5.35 | 9.8 | 12.3 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | IS5 | 9:34 | 7.8 | Bottom | 3 | 2 | 26.48 | 8.11 | 22.14 | 78.4 | 5.56 | 9.5 | 12.0 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | IS(Mf)6 | 9:25 | 1.0 | Surface | 1 | 1 | 26.61 | 8.08 | 21.98 | 78.5 | 5.56 | 6.6 | 5.7 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | IS(Mf)6 | 9:25 | 1.0 | Surface | 1 | 2 | 26.60 | 8.07 | 21.99 | 76.9 | 5.45 | 6.3 | 5.8 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | IS(Mf)6 | 9:25 | 2.2 | Bottom | 3 | 1 | 26.59 | 8.07 | 22.12 | 77.5 | 5.49 | 10.1 | 13.9 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | IS(Mf)6 | 9:25 | 2.2 | Bottom | 3 | 2 | 26.53 | 8.09 | 22.24 | 82.6 | 5.86 | 10.0 | 14.5 |

Water Quality Monitoring Data

| Project | Works | Date (yyyy-mm-dd) | Tide | Weather Condition | Station | Time | Depth, m | Level | Level_Code | Replicate | Temperature, °C | pH | Salinity, ppt | DO, % | DO, mg/L | Turbidity, NTU | SS, mg/L |
|---------|------------|-------------------|-----------|-------------------|-----------|------|----------|---------|------------|-----------|-----------------|------|---------------|-------|----------|----------------|----------|
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | IS7 | 9:14 | 1.0 | Surface | 1 | 1 | 26.68 | 8.12 | 21.63 | 80.8 | 5.73 | 5.1 | 8.4 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | IS7 | 9:14 | 1.0 | Surface | 1 | 2 | 26.67 | 8.10 | 21.65 | 78.3 | 5.56 | 4.9 | 8.1 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | IS7 | 9:13 | 2.2 | Bottom | 3 | 1 | 26.68 | 8.13 | 21.69 | 83.7 | 5.94 | 4.8 | 8.5 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | IS7 | 9:14 | 2.2 | Bottom | 3 | 2 | 26.68 | 8.11 | 21.66 | 79.1 | 5.62 | 4.9 | 8.9 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | IS8 | 8:35 | 1.0 | Surface | 1 | 1 | 26.54 | 8.13 | 20.84 | 77.0 | 5.50 | 5.6 | 6.2 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | IS8 | 8:36 | 1.0 | Surface | 1 | 2 | 26.54 | 8.11 | 20.84 | 75.1 | 5.37 | 6.0 | 6.1 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | IS8 | 8:35 | 3.1 | Bottom | 3 | 1 | 26.53 | 8.12 | 20.98 | 76.5 | 5.46 | 6.2 | 9.9 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | IS8 | 8:35 | 3.1 | Bottom | 3 | 2 | 26.49 | 8.15 | 21.12 | 79.7 | 5.69 | 6.0 | 9.5 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | IS(Mf)9 | 9:04 | 1.0 | Surface | 1 | 1 | 26.52 | 8.13 | 21.13 | 78.2 | 5.58 | 12.4 | 15.6 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | IS(Mf)9 | 9:04 | 1.0 | Surface | 1 | 2 | 26.51 | 8.11 | 21.14 | 76.1 | 5.43 | 12.1 | 15.7 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | IS(Mf)9 | 9:04 | 2.6 | Bottom | 3 | 1 | 26.51 | 8.11 | 21.18 | 76.6 | 5.47 | 15.1 | 22.2 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | IS(Mf)9 | 9:04 | 2.6 | Bottom | 3 | 2 | 26.50 | 8.14 | 21.20 | 79.9 | 5.71 | 15.2 | 23.8 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | IS10(N) | 8:49 | 1.0 | Surface | 1 | 1 | 27.72 | 8.08 | 18.51 | 79.2 | 5.68 | 8.9 | 2.9 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | IS10(N) | 8:49 | 1.0 | Surface | 1 | 2 | 27.64 | 8.05 | 18.50 | 82.4 | 5.85 | 9.0 | 3.3 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | IS10(N) | 8:48 | 5.2 | Middle | 2 | 1 | 27.28 | 8.04 | 21.80 | 76.5 | 5.42 | 9.2 | 2.6 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | IS10(N) | 8:49 | 5.2 | Middle | 2 | 2 | 27.28 | 8.04 | 21.86 | 75.3 | 5.35 | 9.7 | 3.0 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | IS10(N) | 8:49 | 9.3 | Bottom | 3 | 1 | 27.32 | 8.03 | 22.22 | 74.1 | 5.30 | 10.5 | 4.2 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | IS10(N) | 8:48 | 9.3 | Bottom | 3 | 2 | 27.31 | 8.08 | 22.12 | 75.7 | 5.44 | 10.2 | 4.5 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | IS10(N) | 9:46 | 1.0 | Surface | 1 | 1 | 26.52 | 8.09 | 21.98 | 76.8 | 5.45 | 8.6 | 11.6 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | SR3(N) | 9:46 | 1.0 | Surface | 1 | 2 | 26.55 | 8.10 | 21.98 | 79.9 | 5.67 | 8.3 | 12.4 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | SR3(N) | 9:46 | 2.3 | Bottom | 3 | 1 | 26.52 | 8.09 | 21.98 | 77.8 | 5.52 | 9.6 | 16.5 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | SR3(N) | 9:45 | 2.3 | Bottom | 3 | 2 | 26.54 | 8.12 | 21.98 | 84.4 | 5.99 | 9.7 | 16.2 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | SR4(N) | 8:45 | 1.0 | Surface | 1 | 1 | 26.51 | 8.10 | 21.19 | 78.5 | 5.60 | 5.2 | 8.8 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | SR4(N) | 8:45 | 1.0 | Surface | 1 | 2 | 26.49 | 8.09 | 21.26 | 76.1 | 5.43 | 5.3 | 9.4 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | SR4(N) | 8:45 | 2.9 | Bottom | 3 | 1 | 26.43 | 8.11 | 21.62 | 80.9 | 5.77 | 5.4 | 8.0 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | SR4(N) | 8:45 | 2.9 | Bottom | 3 | 2 | 26.50 | 8.09 | 21.40 | 77.3 | 5.51 | 5.2 | 8.3 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | SR5(N) | 8:58 | 1.0 | Surface | 1 | 1 | 27.66 | 8.01 | 18.55 | 74.8 | 5.37 | 7.9 | 6.1 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | SR5(N) | 8:58 | 1.0 | Surface | 1 | 2 | 27.65 | 8.01 | 18.86 | 75.2 | 5.39 | 7.4 | 6.3 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | SR5(N) | 8:57 | 3.9 | Middle | 2 | 1 | 27.48 | 8.02 | 20.25 | 74.3 | 5.31 | 8.2 | 5.3 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | SR5(N) | 8:58 | 3.9 | Middle | 2 | 2 | 27.42 | 8.02 | 20.28 | 73.6 | 5.26 | 7.9 | 5.6 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | SR5(N) | 8:57 | 6.8 | Bottom | 3 | 1 | 27.26 | 8.01 | 22.30 | 74.0 | 5.24 | 8.1 | 4.7 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | SR5(N) | 8:58 | 6.8 | Bottom | 3 | 2 | 27.25 | 7.99 | 22.27 | 73.5 | 5.22 | 8.5 | 4.8 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | SR10A(N) | 8:04 | 1.0 | Surface | 1 | 1 | 27.32 | 8.03 | 20.75 | 74.4 | 5.31 | 2.9 | 5.9 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | SR10A(N) | 8:03 | 1.0 | Surface | 1 | 2 | 27.29 | 8.04 | 20.80 | 74.8 | 5.34 | 3.1 | 5.7 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | SR10A(N) | 8:04 | 6.2 | Middle | 2 | 1 | 27.18 | 8.03 | 22.91 | 73.8 | 5.22 | 4.1 | 5.8 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | SR10A(N) | 8:03 | 6.2 | Middle | 2 | 2 | 27.20 | 8.04 | 22.78 | 74.8 | 5.29 | 4.2 | 5.5 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | SR10A(N) | 8:03 | 11.3 | Bottom | 3 | 1 | 27.21 | 8.03 | 22.99 | 75.3 | 5.33 | 4.5 | 5.2 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | SR10A(N) | 8:04 | 11.3 | Bottom | 3 | 2 | 27.19 | 8.03 | 23.01 | 74.1 | 5.24 | 4.4 | 5.5 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | SR10B(N2) | 7:54 | 1.0 | Surface | 1 | 1 | 27.30 | 8.06 | 21.36 | 88.5 | 6.35 | 2.5 | 4.7 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | SR10B(N2) | 7:55 | 1.0 | Surface | 1 | 2 | 27.30 | 8.06 | 20.94 | 87.6 | 6.22 | 2.7 | 5.5 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | SR10B(N2) | 7:55 | 3.3 | Middle | 2 | 1 | 27.24 | 8.07 | 21.90 | 79.3 | 5.61 | 2.4 | 5.3 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | SR10B(N2) | 7:54 | 3.3 | Middle | 2 | 2 | 27.25 | 8.06 | 21.88 | 83.2 | 5.92 | 2.6 | 5.4 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | SR10B(N2) | 7:54 | 5.6 | Bottom | 3 | 1 | 27.23 | 8.07 | 22.80 | 78.1 | 5.55 | 2.9 | 6.6 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | SR10B(N2) | 7:55 | 5.6 | Bottom | 3 | 2 | 27.21 | 8.07 | 22.82 | 77.3 | 5.52 | 2.6 | 6.5 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | CS2(A) | 9:47 | 1.0 | Surface | 1 | 1 | 27.78 | 7.99 | 18.25 | 75.3 | 5.41 | 8.2 | 3.4 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | CS2(A) | 9:47 | 1.0 | Surface | 1 | 2 | 27.67 | 8.01 | 18.25 | 74.7 | 5.38 | 8.3 | 3.6 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | CS2(A) | 9:47 | 3.1 | Middle | 2 | 1 | 27.44 | 8.00 | 19.58 | 74.1 | 5.32 | 9.2 | 4.7 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | CS2(A) | 9:47 | 3.1 | Middle | 2 | 2 | 27.49 | 7.99 | 19.83 | 74.4 | 5.33 | 9.5 | 4.3 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | CS2(A) | 9:47 | 5.2 | Bottom | 3 | 1 | 27.49 | 7.97 | 21.96 | 74.5 | 5.27 | 10.3 | 5.0 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | CS2(A) | 9:46 | 5.2 | Bottom | 3 | 2 | 27.36 | 7.98 | 21.99 | 74.2 | 5.26 | 10.0 | 5.5 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | CS(Mf)5 | 8:10 | 1.0 | Surface | 1 | 1 | 26.59 | 8.12 | 20.26 | 83.5 | 5.82 | 3.8 | 4.4 |
| HKLR | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | CS(Mf)5 | 8:09 | 1.0 | Surface | 1 | 2 | 26.60 | 8.14 | 20.37 | 73.8 | 5.23 | 4.0 | 5.0 |

Water Quality Monitoring Data

| Project | Works | Date (yyyy-mm-dd) | Tide | Weather Condition | Station | Time | Depth, m | Level | Level_Code | Replicate | Temperature, °C | pH | Salinity, ppt | DO, % | DO, mg/L | Turbidity, NTU | SS, mg/L |
|---------|------------|-------------------|-----------|-------------------|----------|------|----------|---------|------------|-----------|-----------------|------|---------------|-------|----------|----------------|----------|
| HKL | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | CS(Mf)5 | 8:08 | 6.6 | Middle | 2 | 1 | 26.38 | 8.14 | 22.91 | 72.3 | 5.18 | 6.5 | 5.3 |
| HKL | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | CS(Mf)5 | 8:10 | 6.6 | Middle | 2 | 2 | 26.36 | 8.10 | 23.13 | 72.2 | 5.17 | 6.4 | 5.1 |
| HKL | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | CS(Mf)5 | 8:09 | 12.2 | Bottom | 3 | 1 | 26.00 | 8.07 | 26.94 | 70.0 | 4.95 | 19.2 | 6.9 |
| HKL | HY/2011/03 | 2019-08-05 | Mid-Flood | Sunny | CS(Mf)5 | 8:08 | 12.2 | Bottom | 3 | 2 | 26.01 | 8.13 | 26.90 | 70.5 | 4.91 | 20.2 | 6.5 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | IS5 | 5:52 | 1.0 | Surface | 1 | 1 | 28.25 | 8.01 | 19.68 | 72.5 | 5.04 | 5.4 | 2.5 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | IS5 | 5:52 | 1.0 | Surface | 1 | 2 | 28.17 | 8.03 | 19.24 | 78.2 | 5.42 | 5.3 | 3.4 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | IS5 | 5:52 | 4.1 | Middle | 2 | 1 | 28.05 | 8.01 | 21.68 | 72.6 | 5.03 | 5.3 | 5.4 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | IS5 | 5:52 | 4.1 | Middle | 2 | 2 | 28.04 | 8.02 | 21.75 | 71.9 | 5.02 | 5.4 | 5.3 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | IS5 | 5:51 | 7.2 | Bottom | 3 | 1 | 28.04 | 8.00 | 21.89 | 70.9 | 4.91 | 5.8 | 4.2 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | IS5 | 5:52 | 7.2 | Bottom | 3 | 2 | 28.04 | 8.01 | 22.14 | 69.5 | 4.82 | 5.8 | 4.9 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | IS(Mf)6 | 5:41 | 1.0 | Surface | 1 | 1 | 28.29 | 8.01 | 19.03 | 74.8 | 5.24 | 5.5 | 6.1 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | IS(Mf)6 | 5:41 | 1.0 | Surface | 1 | 2 | 28.29 | 8.00 | 19.06 | 74.7 | 5.23 | 5.6 | 5.1 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | IS(Mf)6 | 5:41 | 2.0 | Bottom | 3 | 1 | 28.25 | 7.99 | 20.16 | 74.7 | 5.20 | 6.6 | 3.6 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | IS(Mf)6 | 5:40 | 2.0 | Bottom | 3 | 2 | 28.23 | 7.99 | 20.63 | 74.9 | 5.21 | 6.5 | 4.3 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | IS7 | 5:31 | 1.0 | Surface | 1 | 1 | 28.24 | 8.01 | 19.22 | 77.8 | 5.46 | 5.5 | 4.3 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | IS7 | 5:31 | 1.0 | Surface | 1 | 2 | 28.28 | 8.01 | 18.93 | 80.8 | 5.64 | 5.6 | 4.8 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | IS7 | 5:31 | 2.1 | Bottom | 3 | 1 | 28.25 | 8.00 | 20.22 | 75.8 | 5.31 | 5.3 | 4.5 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | IS7 | 5:31 | 2.1 | Bottom | 3 | 2 | 28.20 | 8.00 | 20.20 | 76.6 | 5.34 | 5.6 | 4.7 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | IS8 | 5:05 | 1.0 | Surface | 1 | 1 | 28.23 | 8.03 | 19.26 | 72.3 | 5.07 | 5.3 | 6.3 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | IS8 | 5:04 | 1.0 | Surface | 1 | 2 | 28.18 | 8.03 | 19.28 | 72.0 | 5.05 | 5.1 | 5.5 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | IS8 | 5:05 | 3.0 | Bottom | 3 | 1 | 28.16 | 8.02 | 21.16 | 72.1 | 5.01 | 6.4 | 6.3 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | IS8 | 5:04 | 3.0 | Bottom | 3 | 2 | 28.14 | 8.02 | 21.16 | 72.5 | 5.04 | 6.0 | 5.8 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | IS(Mf)9 | 5:24 | 1.0 | Surface | 1 | 1 | 28.22 | 8.02 | 19.10 | 73.6 | 5.16 | 4.8 | 5.1 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | IS(Mf)9 | 5:24 | 1.0 | Surface | 1 | 2 | 28.26 | 8.02 | 19.09 | 73.8 | 5.17 | 4.6 | 5.3 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | IS(Mf)9 | 5:24 | 2.6 | Bottom | 3 | 1 | 28.22 | 8.00 | 20.49 | 73.8 | 5.14 | 5.1 | 5.0 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | IS(Mf)9 | 5:24 | 2.6 | Bottom | 3 | 2 | 28.21 | 8.00 | 20.61 | 74.3 | 5.17 | 4.8 | 4.5 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | IS10(N) | 5:36 | 1.0 | Surface | 1 | 1 | 27.14 | 8.10 | 19.35 | 76.0 | 5.40 | 3.5 | 5.0 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | IS10(N) | 5:35 | 1.0 | Surface | 1 | 2 | 27.14 | 8.10 | 19.29 | 75.6 | 5.38 | 3.6 | 5.1 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | IS10(N) | 5:36 | 4.9 | Middle | 2 | 1 | 26.92 | 8.09 | 21.80 | 72.5 | 5.12 | 4.6 | 6.2 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | IS10(N) | 5:34 | 4.9 | Middle | 2 | 2 | 26.93 | 8.09 | 21.80 | 73.2 | 5.15 | 4.5 | 6.4 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | IS10(N) | 5:35 | 8.8 | Bottom | 3 | 1 | 26.72 | 8.05 | 24.55 | 69.2 | 4.81 | 5.5 | 4.3 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | IS10(N) | 5:34 | 8.8 | Bottom | 3 | 2 | 26.70 | 8.04 | 24.63 | 69.9 | 4.86 | 5.4 | 5.3 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | SR3(N) | 6:03 | 1.0 | Surface | 1 | 1 | 28.22 | 8.01 | 19.59 | 72.4 | 5.06 | 5.2 | 5.1 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | SR3(N) | 6:03 | 1.0 | Surface | 1 | 2 | 28.22 | 8.01 | 19.74 | 71.9 | 5.02 | 5.3 | 4.0 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | SR3(N) | 6:03 | 2.3 | Bottom | 3 | 1 | 28.18 | 8.00 | 21.15 | 72.3 | 5.02 | 5.4 | 5.2 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | SR3(N) | 6:03 | 2.3 | Bottom | 3 | 2 | 28.12 | 8.01 | 21.23 | 71.6 | 4.97 | 5.3 | 6.2 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | SR4(N) | 5:12 | 1.0 | Surface | 1 | 1 | 28.21 | 8.02 | 19.36 | 74.3 | 5.21 | 4.8 | 5.5 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | SR4(N) | 5:11 | 1.0 | Surface | 1 | 2 | 28.19 | 8.03 | 19.33 | 75.6 | 5.30 | 5.0 | 5.6 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | SR4(N) | 5:11 | 2.8 | Bottom | 3 | 1 | 28.23 | 8.01 | 20.95 | 75.0 | 5.20 | 5.2 | 4.2 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | SR4(N) | 5:11 | 2.8 | Bottom | 3 | 2 | 28.13 | 8.01 | 21.04 | 77.9 | 5.41 | 5.1 | 3.2 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | SR5(N) | 5:47 | 1.0 | Surface | 1 | 1 | 27.16 | 8.09 | 19.35 | 75.3 | 5.36 | 3.5 | 6.3 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | SR5(N) | 5:46 | 1.0 | Surface | 1 | 2 | 27.11 | 8.09 | 19.43 | 75.3 | 5.36 | 3.6 | 5.4 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | SR5(N) | 5:45 | 4.2 | Middle | 2 | 1 | 27.01 | 8.08 | 20.92 | 72.6 | 5.12 | 4.2 | 5.1 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | SR5(N) | 5:47 | 4.2 | Middle | 2 | 2 | 27.00 | 8.08 | 21.00 | 72.2 | 5.09 | 4.3 | 6.2 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | SR5(N) | 5:46 | 7.4 | Bottom | 3 | 1 | 26.92 | 8.05 | 22.72 | 70.2 | 4.92 | 5.0 | 4.5 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | SR5(N) | 5:45 | 7.4 | Bottom | 3 | 2 | 26.93 | 8.05 | 22.75 | 69.8 | 4.89 | 4.9 | 5.1 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | SR10A(N) | 4:43 | 1.0 | Surface | 1 | 1 | 27.04 | 8.12 | 19.17 | 75.4 | 5.37 | 3.2 | 4.5 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | SR10A(N) | 4:42 | 1.0 | Surface | 1 | 2 | 27.08 | 8.11 | 19.17 | 75.2 | 5.36 | 3.3 | 4.8 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | SR10A(N) | 4:43 | 6.9 | Middle | 2 | 1 | 26.81 | 8.10 | 22.44 | 74.5 | 5.22 | 3.6 | 4.6 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | SR10A(N) | 4:41 | 6.9 | Middle | 2 | 2 | 26.79 | 8.09 | 22.39 | 74.3 | 5.22 | 3.8 | 4.6 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | SR10A(N) | 4:42 | 12.8 | Bottom | 3 | 1 | 26.49 | 8.02 | 27.66 | 73.5 | 5.05 | 4.8 | 5.6 |
| HKL | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | SR10A(N) | 4:41 | 12.8 | Bottom | 3 | 2 | 26.46 | 8.01 | 27.66 | 73.7 | 5.11 | 4.9 | 5.1 |

Water Quality Monitoring Data

| Project | Works | Date (yyyy-mm-dd) | Tide | Weather Condition | Station | Time | Depth, m | Level | Level_Code | Replicate | Temperature, °C | pH | Salinity, ppt | DO, % | DO, mg/L | Turbidity, NTU | SS, mg/L |
|---------|------------|-------------------|-----------|-------------------|-----------|-------|----------|---------|------------|-----------|-----------------|------|---------------|-------|----------|----------------|----------|
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | SR10B(N)2 | 4:33 | 1.0 | Surface | 1 | 1 | 27.06 | 8.09 | 19.19 | 77.5 | 5.51 | 3.1 | 4.2 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | SR10B(N)2 | 4:34 | 1.0 | Surface | 1 | 2 | 27.06 | 8.08 | 19.19 | 77.5 | 5.52 | 3.0 | 4.3 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | SR10B(N)2 | 4:32 | 3.6 | Middle | 2 | 1 | 26.95 | 8.09 | 20.46 | 72.5 | 5.13 | 3.4 | 4.6 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | SR10B(N)2 | 4:33 | 3.6 | Middle | 2 | 2 | 26.93 | 8.07 | 20.53 | 72.3 | 5.12 | 3.4 | 3.7 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | SR10B(N)2 | 4:33 | 6.2 | Bottom | 3 | 1 | 26.85 | 8.07 | 22.34 | 70.8 | 4.97 | 3.7 | 4.9 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | SR10B(N)2 | 4:32 | 6.2 | Bottom | 3 | 2 | 26.84 | 8.07 | 22.24 | 70.5 | 4.95 | 3.8 | 5.9 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | SR10B(N)2 | 6:40 | 1.0 | Surface | 1 | 1 | 26.94 | 8.17 | 23.43 | 76.6 | 5.34 | 4.5 | 8.6 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | CS2(A) | 6:39 | 1.0 | Surface | 1 | 2 | 26.93 | 8.15 | 23.51 | 76.9 | 5.35 | 4.6 | 7.6 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | CS2(A) | 6:38 | 3.6 | Middle | 2 | 1 | 26.79 | 8.14 | 24.46 | 75.1 | 5.22 | 5.1 | 7.3 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | CS2(A) | 6:40 | 3.6 | Middle | 2 | 2 | 26.76 | 8.17 | 24.49 | 75.4 | 5.24 | 4.9 | 6.2 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | CS2(A) | 6:39 | 6.2 | Bottom | 3 | 1 | 26.42 | 8.13 | 26.15 | 71.7 | 4.93 | 5.6 | 6.9 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | CS2(A) | 6:38 | 6.2 | Bottom | 3 | 2 | 26.38 | 8.14 | 26.17 | 71.9 | 4.97 | 5.8 | 7.5 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | CS(Mf)5 | 4:32 | 1.0 | Surface | 1 | 1 | 28.25 | 8.05 | 19.33 | 71.7 | 5.02 | 4.9 | 4.5 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | CS(Mf)5 | 4:33 | 1.0 | Surface | 1 | 2 | 28.26 | 8.04 | 19.26 | 71.9 | 5.03 | 4.8 | 5.1 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | CS(Mf)5 | 4:33 | 6.0 | Middle | 2 | 1 | 28.01 | 8.07 | 21.73 | 71.5 | 5.01 | 7.8 | 4.9 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | CS(Mf)5 | 4:32 | 6.0 | Middle | 2 | 2 | 28.01 | 8.07 | 21.74 | 71.4 | 5.00 | 7.6 | 4.6 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | CS(Mf)5 | 4:31 | 11.0 | Bottom | 3 | 1 | 27.61 | 8.04 | 26.31 | 70.4 | 4.86 | 7.7 | 5.7 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Ebb | Cloudy | CS(Mf)5 | 4:32 | 11.0 | Bottom | 3 | 2 | 27.64 | 8.04 | 26.36 | 70.2 | 4.82 | 7.5 | 6.2 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | IS5 | 10:24 | 1.0 | Surface | 1 | 1 | 28.35 | 8.05 | 20.59 | 82.3 | 5.71 | 16.4 | 9.9 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | IS5 | 10:25 | 1.0 | Surface | 1 | 2 | 28.40 | 8.02 | 20.53 | 78.3 | 5.44 | 16.3 | 10.4 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | IS5 | 10:25 | 4.3 | Middle | 2 | 1 | 28.27 | 8.04 | 20.68 | 75.8 | 5.22 | 17.5 | 8.2 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | IS5 | 10:24 | 4.3 | Middle | 2 | 2 | 28.26 | 8.07 | 20.70 | 76.5 | 5.31 | 17.6 | 8.5 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | IS5 | 10:24 | 7.5 | Bottom | 3 | 1 | 28.27 | 8.04 | 20.68 | 75.2 | 5.21 | 18.2 | 6.9 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | IS5 | 10:24 | 7.5 | Bottom | 3 | 2 | 28.27 | 8.11 | 20.71 | 74.8 | 5.19 | 17.5 | 7.9 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | IS(Mf)6 | 10:33 | 1.0 | Surface | 1 | 1 | 28.37 | 8.02 | 20.36 | 75.2 | 5.22 | 10.4 | 5.1 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | IS(Mf)6 | 10:33 | 1.0 | Surface | 1 | 2 | 28.38 | 8.03 | 20.38 | 77.7 | 5.39 | 10.6 | 4.2 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | IS(Mf)6 | 10:33 | 2.1 | Bottom | 3 | 1 | 28.26 | 8.06 | 20.71 | 78.7 | 5.45 | 10.5 | 5.2 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | IS(Mf)6 | 10:33 | 2.1 | Bottom | 3 | 2 | 28.33 | 8.02 | 20.58 | 76.7 | 5.32 | 11.0 | 5.5 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | IS7 | 10:41 | 1.0 | Surface | 1 | 1 | 28.41 | 8.05 | 20.53 | 80.1 | 5.55 | 8.2 | 6.3 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | IS7 | 10:42 | 1.0 | Surface | 1 | 2 | 28.39 | 8.03 | 20.57 | 84.8 | 5.88 | 8.5 | 7.3 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | IS7 | 10:42 | 2.2 | Bottom | 3 | 1 | 28.38 | 8.04 | 20.56 | 76.7 | 5.32 | 11.1 | 6.5 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | IS7 | 10:41 | 2.2 | Bottom | 3 | 2 | 28.43 | 8.09 | 20.53 | 78.1 | 5.42 | 11.1 | 7.6 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | IS8 | 11:11 | 1.0 | Surface | 1 | 1 | 28.47 | 8.04 | 20.19 | 87.3 | 6.06 | 8.8 | 6.2 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | IS8 | 11:11 | 1.0 | Surface | 1 | 2 | 28.46 | 8.05 | 20.20 | 82.3 | 5.71 | 8.9 | 7.6 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | IS8 | 11:11 | 3.1 | Bottom | 3 | 1 | 28.47 | 8.04 | 20.19 | 79.5 | 5.52 | 8.4 | 7.2 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | IS8 | 11:11 | 3.1 | Bottom | 3 | 2 | 28.44 | 8.08 | 20.22 | 80.4 | 5.58 | 8.6 | 7.9 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | IS(Mf)9 | 10:50 | 1.0 | Surface | 1 | 1 | 28.33 | 8.06 | 20.59 | 85.1 | 5.91 | 11.9 | 10.3 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | IS(Mf)9 | 10:50 | 1.0 | Surface | 1 | 2 | 28.29 | 8.03 | 20.59 | 80.7 | 5.60 | 12.2 | 9.8 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | IS(Mf)9 | 10:50 | 2.5 | Bottom | 3 | 1 | 28.30 | 8.08 | 20.59 | 76.7 | 5.33 | 12.3 | 11.3 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | IS(Mf)9 | 10:50 | 2.5 | Bottom | 3 | 2 | 28.32 | 8.04 | 20.59 | 78.2 | 5.43 | 12.3 | 12.4 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | IS10(N) | 11:31 | 1.0 | Surface | 1 | 1 | 27.46 | 8.12 | 21.91 | 75.7 | 5.28 | 2.6 | 20.3 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | IS10(N) | 11:29 | 1.0 | Surface | 1 | 2 | 27.49 | 8.12 | 21.91 | 75.7 | 5.29 | 2.4 | 21.3 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | IS10(N) | 11:29 | 5.0 | Middle | 2 | 1 | 26.99 | 8.11 | 23.43 | 74.3 | 5.18 | 3.3 | 15.3 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | IS10(N) | 11:30 | 5.0 | Middle | 2 | 2 | 26.97 | 8.11 | 23.44 | 73.9 | 5.16 | 3.2 | 16.5 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | IS10(N) | 11:30 | 9.0 | Bottom | 3 | 1 | 26.69 | 8.08 | 25.90 | 73.1 | 5.06 | 3.8 | 11.5 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | IS10(N) | 11:29 | 9.0 | Bottom | 3 | 2 | 26.72 | 8.09 | 25.86 | 73.6 | 5.09 | 3.7 | 13.3 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | SR3(N) | 10:16 | 1.0 | Surface | 1 | 1 | 28.37 | 8.05 | 20.64 | 81.9 | 5.68 | 15.1 | 10.3 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | SR3(N) | 10:15 | 1.0 | Surface | 1 | 2 | 28.44 | 8.07 | 20.59 | 79.2 | 5.49 | 14.4 | 11.4 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | SR3(N) | 10:16 | 2.4 | Bottom | 3 | 1 | 28.34 | 8.06 | 20.68 | 77.0 | 5.34 | 14.8 | 10.2 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | SR3(N) | 10:15 | 2.4 | Bottom | 3 | 2 | 28.31 | 8.11 | 20.73 | 77.8 | 5.39 | 15.0 | 9.2 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | SR4(N) | 11:04 | 1.0 | Surface | 1 | 1 | 28.45 | 8.07 | 20.15 | 76.6 | 5.32 | 7.0 | 4.6 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | SR4(N) | 11:04 | 1.0 | Surface | 1 | 2 | 28.28 | 8.03 | 20.69 | 80.1 | 5.56 | 7.2 | 5.6 |

Water Quality Monitoring Data

| Project | Works | Date (yyyy-mm-dd) | Tide | Weather Condition | Station | Time | Depth, m | Level | Level_Code | Replicate | Temperature, °C | pH | Salinity, ppt | DO, % | DO, mg/L | Turbidity, NTU | SS, mg/L |
|---------|------------|-------------------|-----------|-------------------|-----------|-------|----------|---------|------------|-----------|-----------------|------|---------------|-------|----------|----------------|----------|
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | SR4(N) | 11:04 | 2.8 | Bottom | 3 | 1 | 28.27 | 8.04 | 20.94 | 73.8 | 5.13 | 6.7 | 4.0 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | SR4(N) | 11:04 | 2.8 | Bottom | 3 | 2 | 28.16 | 8.09 | 21.18 | 75.5 | 5.23 | 6.6 | 5.0 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | SR5(N) | 11:19 | 1.0 | Surface | 1 | 1 | 27.66 | 8.11 | 21.53 | 75.2 | 5.25 | 2.7 | 4.4 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | SR5(N) | 11:20 | 1.0 | Surface | 1 | 2 | 27.64 | 8.12 | 21.52 | 74.9 | 5.23 | 2.8 | 4.1 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | SR5(N) | 11:19 | 4.3 | Middle | 2 | 1 | 27.07 | 8.09 | 23.03 | 73.2 | 5.12 | 3.4 | 4.6 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | SR5(N) | 11:20 | 4.3 | Middle | 2 | 2 | 27.05 | 8.10 | 23.02 | 73.5 | 5.14 | 3.3 | 5.3 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | SR5(N) | 11:18 | 7.6 | Bottom | 3 | 1 | 26.90 | 8.09 | 24.34 | 70.9 | 4.94 | 4.2 | 6.1 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | SR5(N) | 11:20 | 7.6 | Bottom | 3 | 2 | 26.93 | 8.09 | 24.30 | 70.9 | 4.95 | 4.3 | 5.5 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | SR10A(N) | 12:31 | 1.0 | Surface | 1 | 1 | 26.77 | 8.17 | 26.97 | 77.7 | 5.34 | 1.8 | 5.4 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | SR10A(N) | 12:29 | 1.0 | Surface | 1 | 2 | 26.76 | 8.15 | 26.91 | 77.9 | 5.36 | 1.9 | 5.7 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | SR10A(N) | 12:30 | 7.0 | Middle | 2 | 1 | 26.54 | 8.17 | 28.16 | 76.2 | 5.22 | 2.5 | 5.7 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | SR10A(N) | 12:29 | 7.0 | Middle | 2 | 2 | 26.53 | 8.14 | 28.16 | 76.4 | 5.24 | 2.7 | 6.7 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | SR10A(N) | 12:29 | 13.0 | Bottom | 3 | 1 | 26.45 | 8.14 | 29.32 | 74.0 | 5.05 | 3.1 | 8.5 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | SR10A(N) | 12:30 | 13.0 | Bottom | 3 | 2 | 26.44 | 8.15 | 29.35 | 74.5 | 5.07 | 3.3 | 7.9 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | SR10B(N2) | 12:36 | 1.0 | Surface | 1 | 1 | 26.69 | 8.17 | 27.19 | 77.1 | 5.31 | 3.0 | 7.0 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | SR10B(N2) | 12:37 | 1.0 | Surface | 1 | 2 | 26.67 | 8.17 | 27.26 | 77.7 | 5.34 | 3.1 | 7.2 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | SR10B(N2) | 12:35 | 3.7 | Middle | 2 | 1 | 26.59 | 8.17 | 27.64 | 75.9 | 5.21 | 3.4 | 6.1 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | SR10B(N2) | 12:37 | 3.7 | Middle | 2 | 2 | 26.62 | 8.17 | 27.64 | 75.8 | 5.21 | 3.4 | 7.2 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | SR10B(N2) | 12:36 | 6.4 | Bottom | 3 | 1 | 26.55 | 8.16 | 28.28 | 75.4 | 5.17 | 3.6 | 5.4 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | SR10B(N2) | 12:35 | 6.4 | Bottom | 3 | 2 | 26.56 | 8.16 | 28.25 | 75.0 | 5.13 | 3.5 | 6.4 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | CS2(A) | 10:19 | 1.0 | Surface | 1 | 1 | 27.15 | 8.20 | 23.16 | 75.4 | 5.26 | 4.4 | 8.9 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | CS2(A) | 10:18 | 1.0 | Surface | 1 | 2 | 27.16 | 8.19 | 23.10 | 74.6 | 5.21 | 4.3 | 8.6 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | CS2(A) | 10:19 | 3.7 | Middle | 2 | 1 | 26.95 | 8.19 | 24.30 | 73.9 | 5.14 | 4.8 | 10.0 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | CS2(A) | 10:18 | 3.7 | Middle | 2 | 2 | 26.96 | 8.18 | 24.41 | 73.1 | 5.09 | 4.9 | 9.0 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | CS2(A) | 10:17 | 6.4 | Bottom | 3 | 1 | 26.55 | 8.14 | 27.62 | 73.2 | 5.04 | 5.5 | 9.9 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | CS2(A) | 10:19 | 6.4 | Bottom | 3 | 2 | 26.56 | 8.15 | 27.63 | 73.3 | 5.03 | 5.6 | 10.8 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | CS(Mf)5 | 11:36 | 1.0 | Surface | 1 | 1 | 28.19 | 8.06 | 21.61 | 75.9 | 5.15 | 7.3 | 7.0 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | CS(Mf)5 | 11:37 | 1.0 | Surface | 1 | 2 | 28.18 | 8.07 | 21.38 | 75.5 | 5.11 | 7.5 | 7.8 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | CS(Mf)5 | 11:36 | 6.1 | Middle | 2 | 1 | 27.42 | 8.08 | 27.00 | 73.3 | 5.05 | 11.5 | 6.8 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | CS(Mf)5 | 11:36 | 6.1 | Middle | 2 | 2 | 27.47 | 8.11 | 27.03 | 72.8 | 5.02 | 11.7 | 7.5 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | CS(Mf)5 | 11:35 | 11.1 | Bottom | 3 | 1 | 27.39 | 8.11 | 28.14 | 71.7 | 4.96 | 11.4 | 6.2 |
| HKLR | HY/2011/03 | 2019-08-07 | Mid-Flood | Sunny | CS(Mf)5 | 11:36 | 11.1 | Bottom | 3 | 2 | 27.56 | 8.05 | 28.04 | 70.6 | 4.89 | 11.5 | 6.1 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | IS5 | 9:18 | 1.0 | Surface | 1 | 1 | 29.36 | 7.82 | 19.06 | 77.3 | 5.32 | 7.6 | 3.8 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | IS5 | 9:18 | 1.0 | Surface | 1 | 2 | 29.33 | 7.83 | 19.23 | 76.2 | 5.24 | 7.8 | 3.5 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | IS5 | 9:18 | 4.1 | Middle | 2 | 1 | 27.82 | 7.76 | 26.26 | 76.4 | 5.24 | 7.8 | 3.6 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | IS5 | 9:17 | 4.1 | Middle | 2 | 2 | 27.93 | 7.79 | 25.31 | 75.9 | 5.14 | 7.8 | 3.5 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | IS5 | 9:17 | 7.2 | Bottom | 3 | 1 | 27.77 | 7.78 | 26.79 | 71.6 | 4.88 | 7.8 | 3.9 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | IS5 | 9:18 | 7.2 | Bottom | 3 | 2 | 27.82 | 7.76 | 26.72 | 73.1 | 4.96 | 7.9 | 3.2 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | IS(Mf)6 | 9:10 | 1.0 | Surface | 1 | 1 | 29.26 | 7.81 | 19.39 | 88.8 | 6.11 | 7.2 | 2.2 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | IS(Mf)6 | 9:10 | 1.0 | Surface | 1 | 2 | 29.23 | 7.80 | 19.59 | 88.3 | 6.07 | 7.2 | 3.1 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | IS(Mf)6 | 9:10 | 2.0 | Bottom | 3 | 1 | 29.04 | 7.79 | 21.20 | 91.4 | 6.25 | 7.1 | 4.3 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | IS(Mf)6 | 9:10 | 2.0 | Bottom | 3 | 2 | 29.23 | 7.79 | 21.06 | 89.1 | 6.08 | 7.3 | 3.7 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | IS7 | 9:01 | 1.0 | Surface | 1 | 1 | 29.09 | 7.77 | 19.85 | 83.0 | 5.71 | 10.7 | 4.2 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | IS7 | 9:01 | 1.0 | Surface | 1 | 2 | 29.10 | 7.76 | 20.08 | 82.1 | 5.64 | 10.8 | 3.4 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | IS7 | 9:01 | 2.1 | Bottom | 3 | 1 | 29.10 | 7.76 | 20.48 | 83.0 | 5.69 | 10.8 | 2.9 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | IS7 | 9:01 | 2.1 | Bottom | 3 | 2 | 29.01 | 7.77 | 20.54 | 86.7 | 5.95 | 10.8 | 3.2 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | IS8 | 8:33 | 1.0 | Surface | 1 | 1 | 28.86 | 7.81 | 19.79 | 81.6 | 5.64 | 6.0 | 5.9 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | IS8 | 8:34 | 1.0 | Surface | 1 | 2 | 28.99 | 7.80 | 20.02 | 80.3 | 5.53 | 6.2 | 5.4 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | IS8 | 8:33 | 2.8 | Bottom | 3 | 1 | 28.76 | 7.80 | 22.14 | 84.8 | 5.80 | 6.5 | 5.4 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | IS8 | 8:34 | 2.8 | Bottom | 3 | 2 | 28.83 | 7.77 | 22.62 | 80.7 | 5.49 | 6.6 | 5.3 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | IS(Mf)9 | 8:54 | 1.0 | Surface | 1 | 1 | 29.19 | 7.79 | 19.02 | 86.9 | 6.00 | 10.4 | 3.7 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | IS(Mf)9 | 8:53 | 1.0 | Surface | 1 | 2 | 29.20 | 7.79 | 19.24 | 84.1 | 5.80 | 10.1 | 4.5 |

Water Quality Monitoring Data

| Project | Works | Date (yyyy-mm-dd) | Tide | Weather Condition | Station | Time | Depth, m | Level | Level_Code | Replicate | Temperature, °C | pH | Salinity, ppt | DO, % | DO, mg/L | Turbidity, NTU | SS, mg/L |
|---------|------------|-------------------|-----------|-------------------|-----------|-------|----------|---------|------------|-----------|-----------------|------|---------------|-------|----------|----------------|----------|
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | IS(Mf)9 | 8:54 | 2.6 | Bottom | 3 | 1 | 29.19 | 7.79 | 19.75 | 87.5 | 6.01 | 10.6 | 11.4 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | IS(Mf)9 | 8:53 | 2.6 | Bottom | 3 | 2 | 29.19 | 7.75 | 20.78 | 85.5 | 5.84 | 10.2 | 11.2 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | IS10(N) | 8:37 | 1.0 | Surface | 1 | 1 | 28.12 | 8.20 | 15.34 | 77.6 | 5.68 | 3.4 | 3.6 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | IS10(N) | 8:38 | 1.0 | Surface | 1 | 2 | 28.22 | 8.20 | 15.41 | 78.4 | 5.72 | 3.5 | 4.2 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | IS10(N) | 8:38 | 5.1 | Middle | 2 | 1 | 27.47 | 8.09 | 22.17 | 76.2 | 5.43 | 3.8 | 3.7 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | IS10(N) | 8:37 | 5.1 | Middle | 2 | 2 | 27.60 | 8.11 | 21.41 | 75.6 | 5.40 | 3.7 | 3.0 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | IS10(N) | 8:37 | 9.2 | Bottom | 3 | 1 | 27.51 | 8.07 | 23.34 | 77.4 | 5.48 | 3.9 | 4.0 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | IS10(N) | 8:38 | 9.2 | Bottom | 3 | 2 | 27.69 | 8.08 | 24.01 | 78.1 | 5.49 | 3.6 | 3.5 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | SR3(N) | 9:26 | 1.0 | Surface | 1 | 1 | 29.40 | 7.78 | 19.87 | 86.1 | 5.89 | 4.7 | 2.9 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | SR3(N) | 9:26 | 1.0 | Surface | 1 | 2 | 29.39 | 7.80 | 19.69 | 87.5 | 5.99 | 4.8 | 3.9 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | SR3(N) | 9:25 | 2.3 | Bottom | 3 | 1 | 29.13 | 7.81 | 20.76 | 90.3 | 6.18 | 5.4 | 3.0 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | SR3(N) | 9:26 | 2.3 | Bottom | 3 | 2 | 29.31 | 7.78 | 20.73 | 86.4 | 5.89 | 5.1 | 2.7 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | SR4(N) | 8:42 | 1.0 | Surface | 1 | 1 | 29.02 | 7.71 | 20.41 | 83.2 | 5.70 | 10.5 | 11.5 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | SR4(N) | 8:41 | 1.0 | Surface | 1 | 2 | 29.00 | 7.73 | 20.66 | 80.1 | 5.42 | 10.3 | 10.0 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | SR4(N) | 8:41 | 2.6 | Bottom | 3 | 1 | 28.84 | 7.70 | 22.11 | 72.2 | 4.96 | 10.8 | 8.6 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | SR4(N) | 8:41 | 2.6 | Bottom | 3 | 2 | 28.67 | 7.74 | 22.16 | 74.1 | 5.06 | 10.5 | 8.8 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | SR5(N) | 8:56 | 1.0 | Surface | 1 | 1 | 27.96 | 8.19 | 15.75 | 75.8 | 5.55 | 3.7 | 3.1 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | SR5(N) | 8:56 | 1.0 | Surface | 1 | 2 | 27.95 | 8.19 | 15.63 | 76.8 | 5.62 | 3.8 | 3.8 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | SR5(N) | 8:56 | 4.1 | Middle | 2 | 1 | 27.60 | 8.11 | 21.28 | 74.8 | 5.35 | 4.0 | 3.0 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | SR5(N) | 8:56 | 4.1 | Middle | 2 | 2 | 27.55 | 8.11 | 21.27 | 73.4 | 5.25 | 3.8 | 2.6 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | SR5(N) | 8:55 | 7.1 | Bottom | 3 | 1 | 27.22 | 8.05 | 24.89 | 75.2 | 5.31 | 4.2 | 3.2 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | SR5(N) | 8:56 | 7.1 | Bottom | 3 | 2 | 27.34 | 8.06 | 24.67 | 74.3 | 5.25 | 4.0 | 2.3 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | SR10A(N) | 6:50 | 1.0 | Surface | 1 | 1 | 28.14 | 8.22 | 15.60 | 77.0 | 5.62 | 3.8 | 2.5 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | SR10A(N) | 6:51 | 1.0 | Surface | 1 | 2 | 28.05 | 8.21 | 15.80 | 75.9 | 5.54 | 3.7 | 3.5 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | SR10A(N) | 6:51 | 6.2 | Middle | 2 | 1 | 27.37 | 8.09 | 23.65 | 74.5 | 5.28 | 3.9 | 2.4 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | SR10A(N) | 6:50 | 6.2 | Middle | 2 | 2 | 27.32 | 8.10 | 23.79 | 74.4 | 5.28 | 4.1 | 3.4 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | SR10A(N) | 6:50 | 11.3 | Bottom | 3 | 1 | 27.24 | 8.07 | 24.70 | 77.1 | 5.44 | 3.9 | 3.4 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | SR10A(N) | 6:50 | 11.3 | Bottom | 3 | 2 | 27.63 | 8.09 | 24.59 | 77.3 | 5.43 | 3.8 | 4.3 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | SR10B(N2) | 6:42 | 1.0 | Surface | 1 | 1 | 28.23 | 8.23 | 15.51 | 85.9 | 6.07 | 3.4 | 3.3 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | SR10B(N2) | 6:41 | 1.0 | Surface | 1 | 2 | 28.24 | 8.20 | 15.62 | 85.1 | 6.19 | 3.3 | 2.6 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | SR10B(N2) | 6:40 | 3.4 | Middle | 2 | 1 | 27.66 | 8.10 | 20.87 | 82.2 | 5.88 | 3.9 | 3.0 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | SR10B(N2) | 6:41 | 3.4 | Middle | 2 | 2 | 27.69 | 8.10 | 17.80 | 80.7 | 5.88 | 3.5 | 3.5 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | SR10B(N2) | 6:41 | 5.8 | Bottom | 3 | 1 | 27.31 | 8.11 | 23.53 | 77.5 | 5.64 | 3.9 | 4.2 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | SR10B(N2) | 6:40 | 5.8 | Bottom | 3 | 2 | 27.33 | 8.12 | 23.71 | 78.5 | 5.57 | 3.5 | 4.6 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | CS2(A) | 9:46 | 1.0 | Surface | 1 | 1 | 28.20 | 8.17 | 15.63 | 81.0 | 5.90 | 3.5 | 4.2 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | CS2(A) | 9:46 | 1.0 | Surface | 1 | 2 | 28.11 | 8.18 | 15.56 | 80.0 | 5.84 | 3.5 | 4.1 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | CS2(A) | 9:46 | 3.2 | Middle | 2 | 1 | 27.90 | 8.14 | 16.90 | 79.2 | 5.76 | 3.6 | 3.9 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | CS2(A) | 9:46 | 3.2 | Middle | 2 | 2 | 27.93 | 8.15 | 17.05 | 78.6 | 5.72 | 3.5 | 3.2 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | CS2(A) | 9:45 | 5.3 | Bottom | 3 | 1 | 27.65 | 8.09 | 21.42 | 78.4 | 5.60 | 3.8 | 4.1 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | CS2(A) | 9:46 | 5.3 | Bottom | 3 | 2 | 27.77 | 8.09 | 21.30 | 79.6 | 5.67 | 3.6 | 3.2 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | CS(Mf)5 | 8:06 | 1.0 | Surface | 1 | 1 | 28.63 | 7.80 | 19.78 | 74.8 | 5.18 | 4.1 | 3.3 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | CS(Mf)5 | 8:06 | 1.0 | Surface | 1 | 2 | 28.74 | 7.78 | 19.68 | 75.5 | 5.23 | 4.2 | 3.6 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | CS(Mf)5 | 8:05 | 5.9 | Middle | 2 | 1 | 27.68 | 7.76 | 28.50 | 72.4 | 5.02 | 4.2 | 4.2 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | CS(Mf)5 | 8:06 | 5.9 | Middle | 2 | 2 | 27.61 | 7.76 | 28.90 | 72.1 | 5.01 | 4.5 | 3.9 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | CS(Mf)5 | 8:05 | 10.7 | Bottom | 3 | 1 | 27.48 | 7.71 | 29.53 | 70.1 | 4.76 | 4.4 | 3.5 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Ebb | Sunny | CS(Mf)5 | 8:06 | 10.7 | Bottom | 3 | 2 | 27.60 | 7.73 | 29.38 | 70.3 | 4.77 | 4.7 | 3.9 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | IS5 | 13:41 | 1.0 | Surface | 1 | 1 | 29.82 | 7.86 | 19.77 | 86.3 | 5.87 | 17.6 | 6.6 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | IS5 | 13:40 | 1.0 | Surface | 1 | 2 | 29.84 | 7.86 | 19.77 | 87.2 | 5.93 | 17.3 | 6.2 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | IS5 | 13:40 | 4.0 | Middle | 2 | 1 | 28.95 | 7.82 | 21.28 | 83.3 | 5.61 | 19.7 | 4.0 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | IS5 | 13:40 | 4.0 | Middle | 2 | 2 | 29.17 | 7.81 | 21.19 | 78.9 | 5.37 | 19.5 | 4.9 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | IS5 | 13:40 | 7.0 | Bottom | 3 | 1 | 28.34 | 7.77 | 25.99 | 78.8 | 5.39 | 19.3 | 4.5 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | IS5 | 13:39 | 7.0 | Bottom | 3 | 2 | 28.02 | 7.77 | 26.20 | 78.2 | 5.33 | 19.5 | 4.6 |

Water Quality Monitoring Data

| Project | Works | Date (yyyy-mm-dd) | Tide | Weather Condition | Station | Time | Depth, m | Level | Level_Code | Replicate | Temperature, °C | pH | Salinity, ppt | DO, % | DO, mg/L | Turbidity, NTU | SS, mg/L |
|---------|------------|-------------------|-----------|-------------------|-----------|-------|----------|---------|------------|-----------|-----------------|------|---------------|-------|----------|----------------|----------|
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | IS(Mf)6 | 13:49 | 1.0 | Surface | 1 | 1 | 29.93 | 7.92 | 19.81 | 93.3 | 6.33 | 12.5 | 3.8 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | IS(Mf)6 | 13:50 | 1.0 | Surface | 1 | 2 | 29.91 | 7.92 | 19.82 | 98.1 | 6.66 | 12.6 | 4.8 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | IS(Mf)6 | 13:49 | 2.0 | Bottom | 3 | 1 | 29.29 | 7.88 | 20.86 | 91.9 | 6.27 | 12.5 | 3.9 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | IS(Mf)6 | 13:49 | 2.0 | Bottom | 3 | 2 | 29.73 | 7.91 | 20.69 | 96.0 | 6.51 | 12.3 | 4.6 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | IS7 | 13:58 | 1.0 | Surface | 1 | 1 | 29.83 | 7.94 | 19.74 | 99.8 | 6.79 | 15.5 | 5.3 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | IS7 | 13:58 | 1.0 | Surface | 1 | 2 | 29.73 | 7.94 | 20.08 | 101.3 | 6.89 | 15.7 | 4.8 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | IS7 | 13:58 | 2.2 | Bottom | 3 | 1 | 29.76 | 7.94 | 20.01 | 95.3 | 6.48 | 16.1 | 4.7 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | IS7 | 13:58 | 2.2 | Bottom | 3 | 2 | 29.44 | 7.91 | 20.64 | 90.8 | 6.19 | 15.9 | 3.9 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | IS8 | 14:28 | 1.0 | Surface | 1 | 1 | 29.54 | 7.93 | 18.21 | 92.4 | 6.28 | 12.6 | 3.7 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | IS8 | 14:28 | 1.0 | Surface | 1 | 2 | 29.59 | 7.96 | 18.21 | 92.6 | 6.33 | 12.8 | 4.7 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | IS8 | 14:28 | 3.0 | Bottom | 3 | 1 | 29.28 | 7.90 | 21.42 | 89.6 | 6.18 | 12.7 | 4.2 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | IS8 | 14:28 | 3.0 | Bottom | 3 | 2 | 28.95 | 7.95 | 21.43 | 89.3 | 6.15 | 12.5 | 4.5 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | IS(Mf)9 | 14:07 | 1.0 | Surface | 1 | 1 | 29.47 | 7.91 | 19.06 | 91.9 | 6.31 | 14.3 | 4.9 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | IS(Mf)9 | 14:07 | 1.0 | Surface | 1 | 2 | 29.60 | 7.91 | 18.89 | 89.6 | 6.15 | 14.1 | 5.9 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | IS(Mf)9 | 14:07 | 2.5 | Bottom | 3 | 1 | 29.08 | 7.87 | 20.92 | 86.9 | 5.94 | 16.8 | 4.3 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | IS(Mf)9 | 14:07 | 2.5 | Bottom | 3 | 2 | 29.12 | 7.86 | 21.24 | 89.7 | 6.12 | 17.6 | 5.0 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | IS10(N) | 14:12 | 1.0 | Surface | 1 | 1 | 28.45 | 8.20 | 17.22 | 75.1 | 5.41 | 7.4 | 3.6 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | IS10(N) | 14:13 | 1.0 | Surface | 1 | 2 | 28.66 | 8.20 | 16.72 | 77.8 | 5.60 | 7.7 | 3.8 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | IS10(N) | 14:13 | 5.2 | Middle | 2 | 1 | 27.20 | 8.06 | 25.07 | 75.9 | 5.32 | 8.0 | 4.8 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | IS10(N) | 14:12 | 5.2 | Middle | 2 | 2 | 27.14 | 8.07 | 25.61 | 73.5 | 5.24 | 7.8 | 4.0 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | IS10(N) | 14:13 | 9.3 | Bottom | 3 | 1 | 27.06 | 8.06 | 26.55 | 71.1 | 5.07 | 8.6 | 4.8 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | IS10(N) | 14:12 | 9.3 | Bottom | 3 | 2 | 27.07 | 8.06 | 26.37 | 72.7 | 5.11 | 8.1 | 3.8 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | SR3(N) | 13:32 | 1.0 | Surface | 1 | 1 | 29.80 | 7.80 | 19.74 | 95.2 | 6.48 | 14.5 | 7.6 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | SR3(N) | 13:32 | 1.0 | Surface | 1 | 2 | 29.67 | 7.79 | 19.80 | 93.4 | 6.37 | 14.0 | 6.6 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | SR3(N) | 13:31 | 2.3 | Bottom | 3 | 1 | 29.38 | 7.80 | 20.77 | 95.3 | 6.49 | 14.2 | 5.7 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | SR3(N) | 13:32 | 2.3 | Bottom | 3 | 2 | 29.60 | 7.78 | 20.61 | 94.1 | 6.39 | 14.5 | 4.8 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | SR4(N) | 14:21 | 1.0 | Surface | 1 | 1 | 30.01 | 7.97 | 18.37 | 104.7 | 7.14 | 7.7 | 4.8 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | SR4(N) | 14:21 | 1.0 | Surface | 1 | 2 | 29.86 | 7.98 | 18.40 | 105.6 | 7.23 | 7.9 | 4.8 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | SR4(N) | 14:21 | 2.8 | Bottom | 3 | 1 | 29.68 | 7.98 | 19.84 | 97.6 | 6.67 | 7.9 | 5.2 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | SR4(N) | 14:21 | 2.8 | Bottom | 3 | 2 | 29.30 | 7.89 | 19.97 | 92.0 | 6.30 | 7.6 | 4.7 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | SR5(N) | 14:02 | 1.0 | Surface | 1 | 1 | 28.42 | 8.24 | 17.01 | 80.8 | 5.82 | 5.9 | 3.4 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | SR5(N) | 14:02 | 1.0 | Surface | 1 | 2 | 28.46 | 8.24 | 17.23 | 84.1 | 6.05 | 5.5 | 2.5 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | SR5(N) | 14:02 | 4.2 | Middle | 2 | 1 | 27.36 | 8.10 | 23.73 | 72.2 | 5.12 | 7.5 | 3.3 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | SR5(N) | 14:02 | 4.2 | Middle | 2 | 2 | 27.52 | 8.13 | 23.42 | 72.0 | 5.10 | 7.4 | 4.3 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | SR5(N) | 14:02 | 7.3 | Bottom | 3 | 1 | 27.02 | 8.07 | 26.79 | 73.8 | 5.18 | 7.3 | 3.6 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | SR5(N) | 14:01 | 7.3 | Bottom | 3 | 2 | 26.99 | 8.09 | 26.74 | 71.8 | 5.05 | 7.8 | 4.4 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | SR10A(N) | 15:03 | 1.0 | Surface | 1 | 1 | 28.19 | 8.22 | 20.76 | 81.5 | 5.78 | 2.7 | 3.6 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | SR10A(N) | 15:04 | 1.0 | Surface | 1 | 2 | 27.78 | 8.23 | 21.61 | 79.9 | 5.68 | 3.0 | 3.9 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | SR10A(N) | 15:03 | 6.2 | Middle | 2 | 1 | 27.30 | 8.20 | 26.59 | 79.9 | 5.58 | 3.2 | 3.6 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | SR10A(N) | 15:03 | 6.2 | Middle | 2 | 2 | 27.31 | 8.20 | 26.44 | 79.3 | 5.54 | 3.5 | 3.3 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | SR10A(N) | 15:03 | 11.4 | Bottom | 3 | 1 | 27.25 | 8.18 | 27.09 | 82.3 | 5.73 | 3.4 | 3.0 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | SR10A(N) | 15:03 | 11.4 | Bottom | 3 | 2 | 27.44 | 8.22 | 26.66 | 83.3 | 5.79 | 3.8 | 2.8 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | SR10B(N2) | 15:16 | 1.0 | Surface | 1 | 1 | 28.09 | 8.22 | 21.55 | 83.7 | 5.92 | 2.5 | 4.5 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | SR10B(N2) | 15:16 | 1.0 | Surface | 1 | 2 | 28.07 | 8.22 | 21.87 | 82.2 | 5.74 | 2.6 | 5.5 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | SR10B(N2) | 15:16 | 3.3 | Middle | 2 | 1 | 27.61 | 8.17 | 25.09 | 81.4 | 5.69 | 2.4 | 4.1 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | SR10B(N2) | 15:16 | 3.3 | Middle | 2 | 2 | 27.57 | 8.18 | 25.18 | 81.6 | 5.77 | 2.6 | 4.2 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | SR10B(N2) | 15:15 | 5.6 | Bottom | 3 | 1 | 27.26 | 8.17 | 26.70 | 77.8 | 5.45 | 2.9 | 3.4 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | SR10B(N2) | 15:16 | 5.6 | Bottom | 3 | 2 | 27.54 | 8.17 | 25.64 | 77.0 | 5.38 | 3.0 | 3.4 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | CS2(A) | 13:25 | 1.0 | Surface | 1 | 1 | 28.49 | 8.31 | 17.15 | 93.6 | 6.72 | 3.2 | 2.9 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | CS2(A) | 13:24 | 1.0 | Surface | 1 | 2 | 28.59 | 8.30 | 16.97 | 94.3 | 6.76 | 3.0 | 3.9 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | CS2(A) | 13:25 | 3.1 | Middle | 2 | 1 | 28.06 | 8.15 | 22.05 | 88.8 | 6.26 | 4.2 | 2.7 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | CS2(A) | 13:24 | 3.1 | Middle | 2 | 2 | 27.66 | 8.16 | 21.87 | 85.0 | 6.04 | 4.5 | 3.7 |

Water Quality Monitoring Data

| Project | Works | Date (yyyy-mm-dd) | Tide | Weather Condition | Station | Time | Depth, m | Level | Level_Code | Replicate | Temperature, °C | pH | Salinity, ppt | DO, % | DO, mg/L | Turbidity, NTU | SS, mg/L |
|---------|------------|-------------------|-----------|-------------------|----------|-------|----------|---------|------------|-----------|-----------------|------|---------------|-------|----------|----------------|----------|
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | CS2(A) | 13:24 | 5.1 | Bottom | 3 | 1 | 27.63 | 8.15 | 24.13 | 86.1 | 6.04 | 4.3 | 2.8 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | CS2(A) | 13:24 | 5.1 | Bottom | 3 | 2 | 27.61 | 8.14 | 24.26 | 90.6 | 6.35 | 4.1 | 2.3 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | CS(Mf)5 | 14:52 | 1.0 | Surface | 1 | 1 | 30.15 | 7.99 | 18.14 | 85.9 | 5.74 | 8.4 | 3.5 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | CS(Mf)5 | 14:52 | 1.0 | Surface | 1 | 2 | 30.18 | 8.00 | 18.10 | 86.8 | 5.85 | 8.6 | 4.1 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | CS(Mf)5 | 14:51 | 6.0 | Middle | 2 | 1 | 27.64 | 7.87 | 28.34 | 82.6 | 5.52 | 8.1 | 4.0 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | CS(Mf)5 | 14:52 | 6.0 | Middle | 2 | 2 | 27.62 | 7.86 | 28.32 | 82.4 | 5.62 | 8.5 | 4.5 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | CS(Mf)5 | 14:52 | 10.9 | Bottom | 3 | 1 | 27.51 | 7.85 | 29.83 | 74.7 | 5.03 | 8.8 | 3.6 |
| HKLR | HY/2011/03 | 2019-08-09 | Mid-Flood | Sunny | CS(Mf)5 | 14:51 | 10.9 | Bottom | 3 | 2 | 27.69 | 7.89 | 29.46 | 75.6 | 5.09 | 8.3 | 3.6 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | IS5 | 11:59 | 1.0 | Surface | 1 | 1 | 30.39 | 8.02 | 16.31 | 94.3 | 6.30 | 10.0 | 17.4 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | IS5 | 11:59 | 1.0 | Surface | 1 | 2 | 30.27 | 7.98 | 16.76 | 91.6 | 6.29 | 10.6 | 16.3 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | IS5 | 11:59 | 4.1 | Middle | 2 | 1 | 29.28 | 7.85 | 21.54 | 87.3 | 5.94 | 12.0 | 15.6 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | IS5 | 11:59 | 4.1 | Middle | 2 | 2 | 29.13 | 7.84 | 21.98 | 88.5 | 6.01 | 11.4 | 15.3 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | IS5 | 11:59 | 7.1 | Bottom | 3 | 1 | 28.56 | 7.82 | 25.18 | 82.3 | 5.65 | 11.5 | 14.1 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | IS5 | 11:58 | 7.1 | Bottom | 3 | 2 | 29.39 | 7.82 | 24.43 | 81.9 | 5.52 | 12.1 | 14.2 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | IS(Mf)6 | 11:50 | 1.0 | Surface | 1 | 1 | 30.66 | 8.08 | 17.35 | 113.5 | 7.71 | 10.4 | 15.2 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | IS(Mf)6 | 11:49 | 1.0 | Surface | 1 | 2 | 30.61 | 8.09 | 17.32 | 113.7 | 7.74 | 10.1 | 15.2 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | IS(Mf)6 | 11:49 | 2.2 | Bottom | 3 | 1 | 30.59 | 8.09 | 17.36 | 113.5 | 7.72 | 10.5 | 13.8 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | IS(Mf)6 | 11:50 | 2.2 | Bottom | 3 | 2 | 30.64 | 8.09 | 17.34 | 114.1 | 7.76 | 10.7 | 14.0 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | IS7 | 11:43 | 1.0 | Surface | 1 | 1 | 30.55 | 8.08 | 17.44 | 110.2 | 7.50 | 9.3 | 15.8 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | IS7 | 11:43 | 1.0 | Surface | 1 | 2 | 30.62 | 8.08 | 17.38 | 111.3 | 7.57 | 8.9 | 16.1 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | IS7 | 11:43 | 2.2 | Bottom | 3 | 1 | 30.57 | 8.08 | 17.44 | 110.9 | 7.55 | 12.2 | 15.1 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | IS7 | 11:43 | 2.2 | Bottom | 3 | 2 | 30.50 | 8.08 | 17.49 | 110.8 | 7.55 | 12.6 | 14.2 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | IS8 | 11:17 | 1.0 | Surface | 1 | 1 | 30.32 | 8.06 | 17.43 | 103.4 | 7.07 | 9.2 | 18.0 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | IS8 | 11:16 | 1.0 | Surface | 1 | 2 | 30.40 | 8.08 | 17.28 | 100.6 | 6.87 | 8.9 | 17.9 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | IS8 | 11:17 | 2.9 | Bottom | 3 | 1 | 30.30 | 8.06 | 17.67 | 103.4 | 7.06 | 9.9 | 16.7 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | IS8 | 11:16 | 2.9 | Bottom | 3 | 2 | 30.48 | 8.10 | 17.51 | 98.2 | 6.69 | 9.5 | 17.5 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | IS(Mf)9 | 11:34 | 1.0 | Surface | 1 | 1 | 30.79 | 8.10 | 17.34 | 111.3 | 7.55 | 8.9 | 13.4 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | IS(Mf)9 | 11:34 | 1.0 | Surface | 1 | 2 | 30.81 | 8.13 | 17.30 | 109.7 | 7.44 | 9.5 | 14.7 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | IS(Mf)9 | 11:33 | 2.5 | Bottom | 3 | 1 | 30.66 | 8.14 | 17.35 | 101.8 | 6.92 | 10.9 | 15.7 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | IS(Mf)9 | 11:34 | 2.5 | Bottom | 3 | 2 | 30.84 | 8.12 | 17.28 | 106.2 | 7.20 | 10.7 | 15.5 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | IS10(N) | 11:36 | 1.0 | Surface | 1 | 1 | 29.16 | 8.34 | 16.10 | 92.0 | 6.46 | 4.6 | 6.2 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | IS10(N) | 11:35 | 1.0 | Surface | 1 | 2 | 29.09 | 8.40 | 16.12 | 91.4 | 6.42 | 4.5 | 6.8 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | IS10(N) | 11:36 | 5.1 | Middle | 2 | 1 | 28.91 | 8.33 | 16.65 | 89.2 | 6.26 | 4.7 | 6.7 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | IS10(N) | 11:35 | 5.1 | Middle | 2 | 2 | 28.89 | 8.40 | 16.60 | 88.5 | 6.22 | 4.6 | 6.9 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | IS10(N) | 11:35 | 9.2 | Bottom | 3 | 1 | 28.74 | 8.39 | 18.55 | 87.0 | 6.06 | 5.1 | 7.0 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | IS10(N) | 11:36 | 9.2 | Bottom | 3 | 2 | 28.77 | 8.31 | 18.41 | 88.2 | 6.15 | 4.9 | 7.3 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | SR3(N) | 12:06 | 1.0 | Surface | 1 | 1 | 30.43 | 8.02 | 16.31 | 99.6 | 6.78 | 10.6 | 14.3 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | SR3(N) | 12:06 | 1.0 | Surface | 1 | 2 | 30.57 | 8.05 | 16.12 | 102.5 | 7.03 | 10.0 | 14.7 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | SR3(N) | 12:06 | 2.2 | Bottom | 3 | 1 | 30.52 | 8.02 | 17.62 | 95.9 | 6.58 | 9.7 | 16.4 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | SR3(N) | 12:06 | 2.2 | Bottom | 3 | 2 | 30.20 | 7.98 | 18.17 | 91.7 | 6.26 | 10.5 | 16.5 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | SR4(N) | 11:22 | 1.0 | Surface | 1 | 1 | 30.47 | 8.07 | 17.13 | 106.3 | 7.26 | 8.8 | 14.7 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | SR4(N) | 11:22 | 1.0 | Surface | 1 | 2 | 30.32 | 8.06 | 17.39 | 106.9 | 7.31 | 8.2 | 15.0 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | SR4(N) | 11:22 | 2.8 | Bottom | 3 | 1 | 30.32 | 8.07 | 17.45 | 107.8 | 7.37 | 10.5 | 14.9 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | SR4(N) | 11:22 | 2.8 | Bottom | 3 | 2 | 30.25 | 8.05 | 17.49 | 106.2 | 7.26 | 9.7 | 14.4 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | SR5(N) | 11:47 | 1.0 | Surface | 1 | 1 | 29.08 | 8.30 | 16.16 | 91.9 | 6.46 | 4.7 | 6.5 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | SR5(N) | 11:46 | 1.0 | Surface | 1 | 2 | 29.20 | 8.32 | 16.02 | 91.7 | 6.43 | 4.6 | 6.1 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | SR5(N) | 11:46 | 3.9 | Middle | 2 | 1 | 28.91 | 8.31 | 16.54 | 89.7 | 6.31 | 4.8 | 6.7 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | SR5(N) | 11:47 | 3.9 | Middle | 2 | 2 | 28.93 | 8.29 | 16.64 | 90.3 | 6.34 | 4.9 | 6.3 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | SR5(N) | 11:47 | 6.8 | Bottom | 3 | 1 | 28.75 | 8.26 | 18.66 | 89.7 | 6.25 | 5.5 | 7.0 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | SR5(N) | 11:46 | 6.8 | Bottom | 3 | 2 | 28.78 | 8.28 | 17.91 | 89.5 | 6.26 | 5.3 | 7.0 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | SR10A(N) | 10:30 | 1.0 | Surface | 1 | 1 | 29.15 | 8.39 | 17.20 | 109.8 | 7.66 | 2.5 | 7.8 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | SR10A(N) | 10:30 | 1.0 | Surface | 1 | 2 | 29.13 | 8.39 | 17.40 | 109.2 | 7.60 | 2.4 | 8.2 |

Water Quality Monitoring Data

| Project | Works | Date (yyyy-mm-dd) | Tide | Weather Condition | Station | Time | Depth, m | Level | Level_Code | Replicate | Temperature, °C | pH | Salinity, ppt | DO, % | DO, mg/L | Turbidity, NTU | SS, mg/L |
|---------|------------|-------------------|-----------|-------------------|-----------|-------|----------|---------|------------|-----------|-----------------|------|---------------|-------|----------|----------------|----------|
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | SR10A(N) | 10:29 | 6.8 | Middle | 2 | 1 | 28.98 | 8.37 | 17.90 | 105.1 | 7.32 | 2.5 | 7.2 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | SR10A(N) | 10:30 | 6.8 | Middle | 2 | 2 | 29.10 | 8.39 | 17.63 | 105.8 | 7.37 | 2.6 | 6.6 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | SR10A(N) | 10:30 | 12.5 | Bottom | 3 | 1 | 29.08 | 8.38 | 17.71 | 104.6 | 7.29 | 2.7 | 6.3 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | SR10A(N) | 10:29 | 12.5 | Bottom | 3 | 2 | 28.94 | 8.37 | 18.15 | 104.3 | 7.26 | 2.6 | 5.7 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | SR10B(N2) | 10:18 | 1.0 | Surface | 1 | 1 | 29.17 | 8.43 | 17.38 | 103.1 | 7.18 | 2.7 | 6.1 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | SR10B(N2) | 10:19 | 1.0 | Surface | 1 | 2 | 29.10 | 8.39 | 17.22 | 103.8 | 7.25 | 2.5 | 6.2 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | SR10B(N2) | 10:19 | 3.8 | Middle | 2 | 1 | 28.96 | 8.37 | 18.00 | 102.9 | 7.17 | 2.6 | 5.8 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | SR10B(N2) | 10:18 | 3.8 | Middle | 2 | 2 | 28.96 | 8.41 | 18.00 | 102.5 | 7.14 | 2.8 | 6.1 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | SR10B(N2) | 10:17 | 6.5 | Bottom | 3 | 1 | 28.93 | 8.41 | 18.20 | 102.2 | 7.11 | 2.8 | 5.8 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | SR10B(N2) | 10:18 | 6.5 | Bottom | 3 | 2 | 28.92 | 8.37 | 18.24 | 102.2 | 7.12 | 2.7 | 5.1 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | CS2(A) | 12:38 | 1.0 | Surface | 1 | 1 | 28.67 | 8.28 | 18.22 | 79.9 | 5.62 | 6.3 | 8.5 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | CS2(A) | 12:37 | 1.0 | Surface | 1 | 2 | 28.29 | 8.28 | 18.60 | 79.5 | 5.61 | 6.5 | 7.8 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | CS2(A) | 12:38 | 3.7 | Middle | 2 | 1 | 28.18 | 8.25 | 21.61 | 73.5 | 5.11 | 7.1 | 9.0 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | CS2(A) | 12:36 | 3.7 | Middle | 2 | 2 | 28.12 | 8.28 | 21.77 | 73.3 | 5.10 | 7.3 | 9.8 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | CS2(A) | 12:37 | 6.4 | Bottom | 3 | 1 | 27.79 | 8.22 | 23.93 | 73.3 | 5.07 | 7.9 | 10.0 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | CS2(A) | 12:36 | 6.4 | Bottom | 3 | 2 | 27.81 | 8.27 | 23.82 | 72.9 | 5.04 | 8.0 | 9.8 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | CS(Mf)5 | 10:50 | 1.0 | Surface | 1 | 1 | 29.88 | 7.97 | 17.06 | 94.7 | 6.53 | 4.2 | 18.0 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | CS(Mf)5 | 10:50 | 1.0 | Surface | 1 | 2 | 29.85 | 7.95 | 17.08 | 97.3 | 6.60 | 4.3 | 18.4 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | CS(Mf)5 | 10:50 | 5.8 | Middle | 2 | 1 | 29.29 | 7.91 | 19.57 | 90.8 | 6.26 | 4.4 | 15.2 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | CS(Mf)5 | 10:50 | 5.8 | Middle | 2 | 2 | 29.45 | 7.93 | 18.94 | 93.8 | 6.45 | 4.7 | 15.7 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | CS(Mf)5 | 10:49 | 10.6 | Bottom | 3 | 1 | 29.60 | 7.93 | 20.90 | 86.9 | 5.97 | 4.8 | 14.7 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Ebb | Sunny | CS(Mf)5 | 10:50 | 10.6 | Bottom | 3 | 2 | 29.05 | 7.88 | 21.88 | 89.5 | 6.09 | 4.7 | 15.1 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | IS5 | 17:21 | 1.0 | Surface | 1 | 1 | 31.28 | 8.18 | 17.54 | 126.1 | 8.48 | 11.2 | 14.5 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | IS5 | 17:21 | 1.0 | Surface | 1 | 2 | 31.17 | 8.17 | 17.61 | 122.5 | 8.25 | 10.9 | 14.5 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | IS5 | 17:21 | 4.1 | Middle | 2 | 1 | 31.13 | 8.17 | 17.67 | 123.0 | 8.28 | 13.0 | 15.5 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | IS5 | 17:20 | 4.1 | Middle | 2 | 2 | 31.03 | 8.16 | 17.88 | 121.4 | 8.18 | 12.7 | 14.7 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | IS5 | 17:20 | 7.2 | Bottom | 3 | 1 | 31.04 | 8.16 | 17.88 | 122.3 | 8.24 | 12.5 | 16.9 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | IS5 | 17:21 | 7.2 | Bottom | 3 | 2 | 31.07 | 8.16 | 17.87 | 122.8 | 8.27 | 12.2 | 16.9 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | IS(Mf)6 | 17:29 | 1.0 | Surface | 1 | 1 | 30.84 | 8.16 | 17.15 | 116.1 | 7.88 | 8.1 | 15.6 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | IS(Mf)6 | 17:28 | 1.0 | Surface | 1 | 2 | 30.77 | 8.18 | 17.22 | 113.1 | 7.68 | 7.6 | 15.9 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | IS(Mf)6 | 17:29 | 2.1 | Bottom | 3 | 1 | 30.84 | 8.16 | 17.19 | 108.3 | 7.36 | 9.7 | 17.9 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | IS(Mf)6 | 17:28 | 2.1 | Bottom | 3 | 2 | 30.73 | 8.20 | 17.23 | 102.3 | 6.95 | 9.5 | 17.1 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | IS7 | 17:39 | 1.0 | Surface | 1 | 1 | 30.89 | 8.15 | 17.15 | 121.3 | 8.22 | 9.8 | 15.6 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | IS7 | 17:39 | 1.0 | Surface | 1 | 2 | 30.81 | 8.14 | 17.15 | 119.8 | 8.13 | 10.7 | 15.3 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | IS7 | 17:39 | 2.1 | Bottom | 3 | 1 | 30.73 | 8.14 | 17.19 | 119.4 | 8.11 | 11.2 | 15.8 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | IS7 | 17:39 | 2.1 | Bottom | 3 | 2 | 30.83 | 8.14 | 17.16 | 120.1 | 8.15 | 11.4 | 16.4 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | IS8 | 18:08 | 1.0 | Surface | 1 | 1 | 30.76 | 8.08 | 16.44 | 114.6 | 7.82 | 9.8 | 13.8 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | IS8 | 18:08 | 1.0 | Surface | 1 | 2 | 30.77 | 8.09 | 16.20 | 117.0 | 7.99 | 9.4 | 14.1 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | IS8 | 18:08 | 2.6 | Bottom | 3 | 1 | 30.77 | 8.08 | 16.55 | 115.5 | 7.87 | 10.7 | 15.6 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | IS8 | 18:08 | 2.6 | Bottom | 3 | 2 | 30.67 | 8.06 | 17.01 | 115.4 | 7.86 | 10.0 | 16.0 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | IS(Mf)9 | 17:49 | 1.0 | Surface | 1 | 1 | 30.87 | 8.13 | 17.16 | 119.8 | 8.13 | 8.1 | 14.7 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | IS(Mf)9 | 17:50 | 1.0 | Surface | 1 | 2 | 30.90 | 8.14 | 17.13 | 121.9 | 8.26 | 8.2 | 14.3 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | IS(Mf)9 | 17:49 | 2.1 | Bottom | 3 | 1 | 30.71 | 8.11 | 17.24 | 119.1 | 8.10 | 7.9 | 14.2 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | IS(Mf)9 | 17:49 | 2.1 | Bottom | 3 | 2 | 30.84 | 8.13 | 17.15 | 120.3 | 8.16 | 8.5 | 13.5 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | IS10(N) | 17:53 | 1.0 | Surface | 1 | 1 | 29.58 | 8.42 | 16.03 | 103.9 | 7.26 | 4.6 | 7.5 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | IS10(N) | 17:52 | 1.0 | Surface | 1 | 2 | 29.69 | 8.44 | 15.10 | 103.4 | 7.14 | 4.5 | 7.4 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | IS10(N) | 17:53 | 5.3 | Middle | 2 | 1 | 29.18 | 8.40 | 16.82 | 100.7 | 7.04 | 4.8 | 6.5 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | IS10(N) | 17:52 | 5.3 | Middle | 2 | 2 | 29.40 | 8.45 | 16.19 | 99.2 | 6.91 | 4.9 | 6.0 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | IS10(N) | 17:52 | 9.6 | Bottom | 3 | 1 | 29.33 | 8.42 | 18.71 | 96.5 | 6.65 | 5.2 | 6.3 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | IS10(N) | 17:53 | 9.6 | Bottom | 3 | 2 | 28.89 | 8.35 | 20.28 | 96.8 | 6.76 | 5.1 | 6.2 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | SR3(N) | 17:14 | 1.0 | Surface | 1 | 1 | 31.15 | 8.18 | 17.50 | 119.8 | 8.07 | 10.3 | 14.6 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | SR3(N) | 17:14 | 1.0 | Surface | 1 | 2 | 31.15 | 8.18 | 17.57 | 122.2 | 8.23 | 11.0 | 15.1 |

Water Quality Monitoring Data

| Project | Works | Date (yyyy-mm-dd) | Tide | Weather Condition | Station | Time | Depth, m | Level | Level_Code | Replicate | Temperature, °C | pH | Salinity, ppt | DO, % | DO, mg/L | Turbidity, NTU | SS, mg/L |
|---------|------------|-------------------|-----------|-------------------|-----------|-------|----------|---------|------------|-----------|-----------------|------|---------------|-------|----------|----------------|----------|
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | SR3(N) | 17:14 | 2.1 | Bottom | 3 | 1 | 31.10 | 8.18 | 17.51 | 111.4 | 7.51 | 11.0 | 13.3 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | SR3(N) | 17:14 | 2.1 | Bottom | 3 | 2 | 31.16 | 8.18 | 17.54 | 117.5 | 7.92 | 10.3 | 13.4 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | SR4(N) | 18:02 | 1.0 | Surface | 1 | 1 | 30.80 | 8.09 | 16.50 | 114.1 | 7.78 | 8.8 | 14.1 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | SR4(N) | 18:01 | 1.0 | Surface | 1 | 2 | 30.79 | 8.08 | 16.58 | 112.5 | 7.66 | 8.6 | 14.2 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | SR4(N) | 18:02 | 2.6 | Bottom | 3 | 1 | 30.75 | 8.07 | 16.86 | 109.7 | 7.48 | 8.5 | 14.0 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | SR4(N) | 18:01 | 2.6 | Bottom | 3 | 2 | 30.68 | 8.05 | 17.01 | 105.2 | 7.17 | 8.4 | 13.7 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | SR5(N) | 17:43 | 1.0 | Surface | 1 | 1 | 29.58 | 8.53 | 15.85 | 101.6 | 7.06 | 6.1 | 5.6 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | SR5(N) | 17:43 | 1.0 | Surface | 1 | 2 | 29.75 | 8.46 | 14.85 | 103.0 | 7.19 | 6.2 | 5.2 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | SR5(N) | 17:43 | 4.1 | Middle | 2 | 1 | 29.29 | 8.48 | 16.53 | 100.9 | 6.91 | 7.0 | 5.3 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | SR5(N) | 17:43 | 4.1 | Middle | 2 | 2 | 29.36 | 8.53 | 17.20 | 100.7 | 7.04 | 7.1 | 5.4 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | SR5(N) | 17:42 | 7.1 | Bottom | 3 | 1 | 29.26 | 8.53 | 18.52 | 100.2 | 6.92 | 7.4 | 4.6 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | SR5(N) | 17:43 | 7.1 | Bottom | 3 | 2 | 29.37 | 8.47 | 19.76 | 100.7 | 6.96 | 7.2 | 4.2 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | SR10A(N) | 18:58 | 1.0 | Surface | 1 | 1 | 29.08 | 8.43 | 19.55 | 103.8 | 7.16 | 2.6 | 6.4 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | SR10A(N) | 18:59 | 1.0 | Surface | 1 | 2 | 29.03 | 8.42 | 20.39 | 104.3 | 7.17 | 2.5 | 6.0 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | SR10A(N) | 18:58 | 6.8 | Middle | 2 | 1 | 28.77 | 8.41 | 22.47 | 101.7 | 6.94 | 2.7 | 5.0 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | SR10A(N) | 18:58 | 6.8 | Middle | 2 | 2 | 28.62 | 8.38 | 23.13 | 101.5 | 6.91 | 2.8 | 5.2 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | SR10A(N) | 18:57 | 12.6 | Bottom | 3 | 1 | 28.44 | 8.38 | 23.72 | 101.2 | 6.88 | 3.1 | 4.3 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | SR10A(N) | 18:58 | 12.6 | Bottom | 3 | 2 | 28.54 | 8.38 | 23.58 | 101.0 | 6.87 | 3.1 | 4.6 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | SR10B(N2) | 19:06 | 1.0 | Surface | 1 | 1 | 28.93 | 8.41 | 21.06 | 102.6 | 7.03 | 2.5 | 3.6 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | SR10B(N2) | 19:06 | 1.0 | Surface | 1 | 2 | 29.06 | 8.42 | 19.16 | 103.5 | 7.15 | 2.5 | 4.1 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | SR10B(N2) | 19:05 | 4.0 | Middle | 2 | 1 | 28.57 | 8.37 | 23.33 | 101.7 | 6.93 | 2.8 | 4.9 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | SR10B(N2) | 19:06 | 4.0 | Middle | 2 | 2 | 28.62 | 8.38 | 22.87 | 102.6 | 6.97 | 2.7 | 5.2 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | SR10B(N2) | 19:06 | 7.0 | Bottom | 3 | 1 | 28.58 | 8.37 | 23.70 | 100.3 | 6.82 | 2.8 | 6.4 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | SR10B(N2) | 19:05 | 7.0 | Bottom | 3 | 2 | 28.52 | 8.36 | 23.76 | 99.8 | 6.80 | 3.0 | 5.6 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | CS2(A) | 16:55 | 1.0 | Surface | 1 | 1 | 29.36 | 8.32 | 17.36 | 86.2 | 6.00 | 5.4 | 9.2 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | CS2(A) | 16:56 | 1.0 | Surface | 1 | 2 | 29.16 | 8.29 | 17.67 | 82.3 | 5.74 | 5.5 | 9.7 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | CS2(A) | 16:55 | 3.8 | Middle | 2 | 1 | 28.28 | 8.23 | 21.28 | 75.6 | 5.25 | 6.6 | 7.6 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | CS2(A) | 16:56 | 3.8 | Middle | 2 | 2 | 28.43 | 8.24 | 20.50 | 76.7 | 5.34 | 6.8 | 8.1 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | CS2(A) | 16:55 | 6.6 | Bottom | 3 | 1 | 27.93 | 8.21 | 23.19 | 74.6 | 5.16 | 7.1 | 7.5 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | CS2(A) | 16:54 | 6.6 | Bottom | 3 | 2 | 27.92 | 8.21 | 23.22 | 74.0 | 5.11 | 7.0 | 6.7 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | CS(Mf)5 | 18:29 | 1.0 | Surface | 1 | 1 | 30.32 | 8.00 | 16.31 | 88.4 | 5.92 | 5.5 | 12.6 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | CS(Mf)5 | 18:29 | 1.0 | Surface | 1 | 2 | 30.32 | 8.01 | 16.33 | 85.5 | 5.78 | 5.7 | 12.8 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | CS(Mf)5 | 18:28 | 6.0 | Middle | 2 | 1 | 27.88 | 7.85 | 28.88 | 77.9 | 5.35 | 5.8 | 12.8 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | CS(Mf)5 | 18:29 | 6.0 | Middle | 2 | 2 | 27.88 | 7.82 | 28.92 | 80.8 | 5.55 | 6.2 | 13.1 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | CS(Mf)5 | 18:28 | 10.9 | Bottom | 3 | 1 | 27.76 | 7.86 | 29.62 | 76.9 | 5.13 | 6.5 | 14.2 |
| HKLR | HY/2011/03 | 2019-08-12 | Mid-Flood | Sunny | CS(Mf)5 | 18:29 | 10.9 | Bottom | 3 | 2 | 27.78 | 7.83 | 29.72 | 77.8 | 5.18 | 7.0 | 14.0 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | IS5 | 11:08 | 1.0 | Surface | 1 | 1 | 30.40 | 7.89 | 17.51 | 78.4 | 5.34 | 11.4 | 6.1 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | IS5 | 11:07 | 1.0 | Surface | 1 | 2 | 30.24 | 7.89 | 17.47 | 81.3 | 5.42 | 11.1 | 6.6 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | IS5 | 11:08 | 4.2 | Middle | 2 | 1 | 29.11 | 7.81 | 21.56 | 77.7 | 5.19 | 11.5 | 7.1 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | IS5 | 11:07 | 4.2 | Middle | 2 | 2 | 29.10 | 7.82 | 21.89 | 74.3 | 5.08 | 11.4 | 7.3 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | IS5 | 11:07 | 7.3 | Bottom | 3 | 1 | 29.25 | 7.83 | 24.96 | 72.1 | 4.91 | 11.5 | 7.5 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | IS5 | 11:08 | 7.3 | Bottom | 3 | 2 | 29.16 | 7.83 | 24.98 | 73.1 | 4.98 | 11.6 | 7.5 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | IS(Mf)6 | 11:17 | 1.0 | Surface | 1 | 1 | 30.56 | 7.91 | 18.47 | 88.6 | 5.99 | 8.5 | 5.6 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | IS(Mf)6 | 11:17 | 1.0 | Surface | 1 | 2 | 30.78 | 7.92 | 18.20 | 90.7 | 6.12 | 8.6 | 6.1 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | IS(Mf)6 | 11:17 | 2.1 | Bottom | 3 | 1 | 30.61 | 7.91 | 18.61 | 89.5 | 6.05 | 8.1 | 6.1 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | IS(Mf)6 | 11:17 | 2.1 | Bottom | 3 | 2 | 30.60 | 7.94 | 18.41 | 91.9 | 6.22 | 8.5 | 6.2 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | IS7 | 11:29 | 1.0 | Surface | 1 | 1 | 30.29 | 7.93 | 18.09 | 91.5 | 6.23 | 5.6 | 4.5 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | IS7 | 11:29 | 1.0 | Surface | 1 | 2 | 30.28 | 7.90 | 18.09 | 89.0 | 6.07 | 5.5 | 5.0 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | IS7 | 11:29 | 2.0 | Bottom | 3 | 1 | 30.22 | 7.91 | 18.20 | 90.6 | 6.17 | 5.9 | 5.7 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | IS7 | 11:29 | 2.0 | Bottom | 3 | 2 | 30.25 | 7.96 | 18.12 | 94.3 | 6.43 | 5.6 | 5.5 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | IS8 | 11:58 | 1.0 | Surface | 1 | 1 | 30.55 | 7.98 | 18.44 | 96.1 | 6.50 | 9.3 | 11.6 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | IS8 | 11:59 | 1.0 | Surface | 1 | 2 | 30.51 | 7.97 | 18.39 | 95.1 | 6.45 | 9.3 | 12.5 |

Water Quality Monitoring Data

| Project | Works | Date (yyyy-mm-dd) | Tide | Weather Condition | Station | Time | Depth, m | Level | Level_Code | Replicate | Temperature, °C | pH | Salinity, ppt | DO, % | DO, mg/L | Turbidity, NTU | SS, mg/L |
|---------|------------|-------------------|-----------|-------------------|-----------|-------|----------|---------|------------|-----------|-----------------|------|---------------|-------|----------|----------------|----------|
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | IS8 | 11:59 | 2.9 | Bottom | 3 | 1 | 30.62 | 7.98 | 18.44 | 96.5 | 6.52 | 9.5 | 11.1 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | IS8 | 11:58 | 2.9 | Bottom | 3 | 2 | 30.67 | 7.99 | 18.44 | 99.7 | 6.74 | 9.6 | 11.8 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | IS(Mf)9 | 11:39 | 1.0 | Surface | 1 | 1 | 30.67 | 7.92 | 18.40 | 91.5 | 6.18 | 5.1 | 11.4 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | IS(Mf)9 | 11:39 | 1.0 | Surface | 1 | 2 | 30.71 | 7.92 | 18.42 | 92.7 | 6.26 | 5.3 | 10.7 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | IS(Mf)9 | 11:39 | 2.5 | Bottom | 3 | 1 | 30.71 | 7.92 | 18.39 | 92.1 | 6.22 | 5.2 | 9.2 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | IS(Mf)9 | 11:39 | 2.5 | Bottom | 3 | 2 | 30.63 | 7.92 | 18.39 | 93.8 | 6.34 | 5.4 | 8.8 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | IS10(N) | 12:16 | 1.0 | Surface | 1 | 1 | 29.10 | 8.25 | 17.90 | 77.5 | 5.39 | 5.5 | 2.7 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | IS10(N) | 12:16 | 1.0 | Surface | 1 | 2 | 28.99 | 8.27 | 17.92 | 76.2 | 5.31 | 5.2 | 2.8 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | IS10(N) | 12:16 | 5.2 | Middle | 2 | 1 | 28.74 | 8.21 | 20.65 | 76.3 | 5.26 | 5.6 | 3.3 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | IS10(N) | 12:15 | 5.2 | Middle | 2 | 2 | 28.67 | 8.23 | 20.74 | 74.4 | 5.13 | 5.5 | 3.5 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | IS10(N) | 12:15 | 9.3 | Bottom | 3 | 1 | 28.24 | 8.21 | 21.11 | 75.2 | 5.22 | 6.7 | 4.1 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | IS10(N) | 12:16 | 9.3 | Bottom | 3 | 2 | 28.72 | 8.21 | 20.94 | 77.5 | 5.34 | 7.0 | 4.4 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | SR3(N) | 11:00 | 1.0 | Surface | 1 | 1 | 30.60 | 7.91 | 17.43 | 91.1 | 6.20 | 5.7 | 7.5 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | SR3(N) | 11:00 | 1.0 | Surface | 1 | 2 | 30.61 | 7.93 | 17.39 | 91.7 | 6.24 | 5.4 | 7.7 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | SR3(N) | 11:00 | 2.4 | Bottom | 3 | 1 | 30.61 | 7.92 | 17.52 | 91.5 | 6.22 | 5.5 | 6.8 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | SR3(N) | 11:00 | 2.4 | Bottom | 3 | 2 | 30.62 | 7.97 | 17.79 | 94.3 | 6.40 | 5.4 | 6.6 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | SR4(N) | 11:51 | 1.0 | Surface | 1 | 1 | 30.27 | 7.87 | 18.20 | 83.2 | 5.66 | 8.6 | 11.4 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | SR4(N) | 11:52 | 1.0 | Surface | 1 | 2 | 30.30 | 7.84 | 18.03 | 80.1 | 5.46 | 8.4 | 11.8 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | SR4(N) | 11:51 | 2.6 | Bottom | 3 | 1 | 30.18 | 7.88 | 18.57 | 87.0 | 5.92 | 8.8 | 12.9 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | SR4(N) | 11:51 | 2.6 | Bottom | 3 | 2 | 30.22 | 7.84 | 19.08 | 81.8 | 5.55 | 8.5 | 13.8 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | SR5(N) | 12:02 | 1.0 | Surface | 1 | 1 | 29.24 | 8.31 | 17.85 | 81.5 | 5.66 | 4.4 | 4.2 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | SR5(N) | 12:03 | 1.0 | Surface | 1 | 2 | 29.34 | 8.28 | 17.81 | 81.5 | 5.65 | 4.6 | 4.0 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | SR5(N) | 12:02 | 3.9 | Middle | 2 | 1 | 28.78 | 8.28 | 19.51 | 79.8 | 5.53 | 4.5 | 3.6 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | SR5(N) | 12:03 | 3.9 | Middle | 2 | 2 | 28.73 | 8.25 | 20.14 | 78.2 | 5.41 | 4.6 | 3.6 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | SR5(N) | 12:02 | 6.8 | Bottom | 3 | 1 | 28.66 | 8.26 | 21.14 | 82.6 | 5.69 | 4.9 | 3.2 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | SR5(N) | 12:03 | 6.8 | Bottom | 3 | 2 | 28.70 | 8.24 | 21.56 | 80.5 | 5.52 | 5.2 | 3.4 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | SR10A(N) | 13:06 | 1.0 | Surface | 1 | 1 | 29.31 | 8.29 | 20.04 | 91.6 | 6.27 | 1.4 | 5.3 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | SR10A(N) | 13:06 | 1.0 | Surface | 1 | 2 | 29.25 | 8.28 | 20.31 | 91.0 | 6.23 | 1.4 | 5.2 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | SR10A(N) | 13:05 | 6.1 | Middle | 2 | 1 | 28.95 | 8.29 | 20.99 | 90.9 | 6.23 | 1.7 | 4.6 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | SR10A(N) | 13:06 | 6.1 | Middle | 2 | 2 | 29.03 | 8.30 | 20.65 | 90.0 | 6.17 | 1.6 | 4.8 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | SR10A(N) | 13:06 | 11.1 | Bottom | 3 | 1 | 28.99 | 8.25 | 20.88 | 91.2 | 6.25 | 1.6 | 4.3 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | SR10A(N) | 13:05 | 11.1 | Bottom | 3 | 2 | 28.98 | 8.27 | 21.13 | 91.4 | 6.26 | 1.7 | 4.0 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | SR10B(N2) | 13:16 | 1.0 | Surface | 1 | 1 | 28.92 | 8.29 | 21.05 | 88.1 | 6.04 | 1.5 | 3.6 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | SR10B(N2) | 13:16 | 1.0 | Surface | 1 | 2 | 28.99 | 8.29 | 20.82 | 87.9 | 6.02 | 1.5 | 3.3 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | SR10B(N2) | 13:16 | 3.3 | Middle | 2 | 1 | 28.95 | 8.29 | 20.90 | 87.4 | 6.00 | 1.6 | 4.1 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | SR10B(N2) | 13:15 | 3.3 | Middle | 2 | 2 | 28.86 | 8.30 | 21.16 | 89.1 | 6.11 | 1.6 | 4.4 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | SR10B(N2) | 13:16 | 5.6 | Bottom | 3 | 1 | 28.94 | 8.29 | 20.93 | 87.5 | 6.00 | 2.0 | 5.0 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | SR10B(N2) | 13:15 | 5.6 | Bottom | 3 | 2 | 28.85 | 8.30 | 21.25 | 88.5 | 6.07 | 1.8 | 4.8 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | CS2(A) | 10:58 | 1.0 | Surface | 1 | 1 | 29.33 | 8.31 | 17.81 | 85.5 | 5.92 | 2.6 | 4.4 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | CS2(A) | 10:59 | 1.0 | Surface | 1 | 2 | 29.28 | 8.31 | 17.87 | 84.8 | 5.88 | 2.4 | 4.6 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | CS2(A) | 10:58 | 3.2 | Middle | 2 | 1 | 28.91 | 8.28 | 18.71 | 83.3 | 5.79 | 2.7 | 3.7 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | CS2(A) | 10:59 | 3.2 | Middle | 2 | 2 | 28.97 | 8.30 | 18.36 | 82.9 | 5.76 | 3.0 | 3.2 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | CS2(A) | 10:58 | 5.3 | Bottom | 3 | 1 | 28.81 | 8.28 | 20.67 | 83.8 | 5.77 | 3.5 | 2.4 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | CS2(A) | 10:58 | 5.3 | Bottom | 3 | 2 | 28.74 | 8.30 | 20.86 | 86.2 | 5.93 | 3.4 | 2.9 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | CS(Mf)5 | 12:20 | 1.0 | Surface | 1 | 1 | 30.23 | 7.88 | 18.52 | 76.3 | 5.19 | 4.3 | 3.4 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | CS(Mf)5 | 12:20 | 1.0 | Surface | 1 | 2 | 30.35 | 7.89 | 18.54 | 81.3 | 5.52 | 4.4 | 4.0 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | CS(Mf)5 | 12:20 | 5.8 | Middle | 2 | 1 | 28.66 | 7.79 | 25.68 | 75.1 | 5.04 | 4.4 | 4.4 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | CS(Mf)5 | 12:19 | 5.8 | Middle | 2 | 2 | 28.25 | 7.81 | 26.01 | 74.0 | 5.03 | 4.5 | 4.4 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | CS(Mf)5 | 12:19 | 10.5 | Bottom | 3 | 1 | 27.74 | 7.80 | 28.50 | 71.8 | 4.85 | 5.2 | 5.0 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Ebb | Sunny | CS(Mf)5 | 12:20 | 10.5 | Bottom | 3 | 2 | 27.61 | 7.77 | 30.80 | 72.4 | 4.95 | 5.3 | 5.3 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | IS5 | 5:46 | 1.0 | Surface | 1 | 1 | 29.21 | 7.87 | 17.33 | 73.8 | 5.05 | 8.7 | 6.0 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | IS5 | 5:45 | 1.0 | Surface | 1 | 2 | 28.96 | 7.86 | 17.54 | 78.6 | 5.26 | 8.4 | 6.2 |

Water Quality Monitoring Data

| Project | Works | Date (yyyy-mm-dd) | Tide | Weather Condition | Station | Time | Depth, m | Level | Level_Code | Replicate | Temperature, °C | pH | Salinity, ppt | DO, % | DO, mg/L | Turbidity, NTU | SS, mg/L |
|---------|------------|-------------------|-----------|-------------------|-----------|------|----------|---------|------------|-----------|-----------------|------|---------------|-------|----------|----------------|----------|
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | IS5 | 5:46 | 4.2 | Middle | 2 | 1 | 28.11 | 7.79 | 21.10 | 75.5 | 5.04 | 8.6 | 6.0 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | IS5 | 5:45 | 4.2 | Middle | 2 | 2 | 28.04 | 7.78 | 21.89 | 73.7 | 5.05 | 8.6 | 6.1 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | IS5 | 5:46 | 7.3 | Bottom | 3 | 1 | 28.20 | 7.81 | 24.95 | 72.2 | 4.93 | 8.6 | 6.0 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | IS5 | 5:45 | 7.3 | Bottom | 3 | 2 | 28.10 | 7.80 | 25.04 | 72.1 | 4.91 | 8.5 | 6.1 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | IS(Mf)6 | 5:34 | 1.0 | Surface | 1 | 1 | 29.28 | 7.86 | 16.86 | 86.3 | 5.92 | 7.7 | 6.0 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | IS(Mf)6 | 5:34 | 1.0 | Surface | 1 | 2 | 29.28 | 7.86 | 16.80 | 86.5 | 5.93 | 7.5 | 5.7 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | IS(Mf)6 | 5:34 | 2.2 | Bottom | 3 | 1 | 29.27 | 7.86 | 16.87 | 86.4 | 5.92 | 7.9 | 4.3 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | IS(Mf)6 | 5:34 | 2.2 | Bottom | 3 | 2 | 29.30 | 7.86 | 17.17 | 86.3 | 5.91 | 7.7 | 3.9 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | IS7 | 5:26 | 1.0 | Surface | 1 | 1 | 29.27 | 7.86 | 16.78 | 86.4 | 5.93 | 8.1 | 6.9 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | IS7 | 5:27 | 1.0 | Surface | 1 | 2 | 29.27 | 7.86 | 16.79 | 86.4 | 5.93 | 8.2 | 6.8 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | IS7 | 5:26 | 2.1 | Bottom | 3 | 1 | 29.25 | 7.86 | 16.87 | 86.5 | 5.94 | 8.1 | 5.9 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | IS7 | 5:26 | 2.1 | Bottom | 3 | 2 | 29.27 | 7.85 | 16.95 | 86.5 | 5.93 | 8.5 | 5.5 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | IS8 | 5:00 | 1.0 | Surface | 1 | 1 | 29.25 | 7.88 | 16.71 | 87.3 | 5.99 | 10.1 | 6.4 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | IS8 | 5:00 | 1.0 | Surface | 1 | 2 | 29.25 | 7.87 | 16.70 | 87.1 | 5.98 | 10.3 | 6.6 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | IS8 | 4:59 | 3.0 | Bottom | 3 | 1 | 29.24 | 7.90 | 16.82 | 87.6 | 6.01 | 10.3 | 7.4 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | IS8 | 5:00 | 3.0 | Bottom | 3 | 2 | 29.24 | 7.88 | 16.80 | 87.2 | 5.99 | 10.1 | 7.7 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | IS(Mf)9 | 5:19 | 1.0 | Surface | 1 | 1 | 29.27 | 7.87 | 16.82 | 86.4 | 5.93 | 9.5 | 8.0 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | IS(Mf)9 | 5:19 | 1.0 | Surface | 1 | 2 | 29.26 | 7.86 | 16.82 | 86.6 | 5.94 | 9.5 | 7.4 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | IS(Mf)9 | 5:19 | 2.8 | Bottom | 3 | 1 | 29.29 | 7.86 | 17.19 | 86.3 | 5.91 | 9.5 | 7.0 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | IS(Mf)9 | 5:18 | 2.8 | Bottom | 3 | 2 | 29.26 | 7.86 | 17.00 | 86.7 | 5.94 | 9.5 | 6.5 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | IS10(N) | 5:03 | 1.0 | Surface | 1 | 1 | 28.75 | 8.25 | 19.55 | 80.5 | 5.71 | 5.2 | 3.8 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | IS10(N) | 5:02 | 1.0 | Surface | 1 | 2 | 28.76 | 8.27 | 17.89 | 79.5 | 5.65 | 5.5 | 3.9 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | IS10(N) | 5:02 | 5.2 | Middle | 2 | 1 | 27.06 | 8.15 | 31.97 | 77.0 | 5.35 | 5.8 | 3.8 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | IS10(N) | 5:01 | 5.2 | Middle | 2 | 2 | 27.08 | 8.16 | 31.77 | 76.5 | 5.32 | 5.7 | 4.0 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | IS10(N) | 5:01 | 9.3 | Bottom | 3 | 1 | 27.05 | 8.14 | 32.13 | 72.8 | 5.09 | 6.5 | 3.2 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | IS10(N) | 5:02 | 9.3 | Bottom | 3 | 2 | 27.12 | 8.17 | 32.05 | 71.8 | 5.02 | 7.0 | 3.3 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | SR3(N) | 5:55 | 1.0 | Surface | 1 | 1 | 29.28 | 7.85 | 16.82 | 87.4 | 5.99 | 6.5 | 8.0 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | SR3(N) | 5:55 | 1.0 | Surface | 1 | 2 | 29.28 | 7.85 | 16.83 | 88.4 | 6.07 | 6.7 | 7.9 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | SR3(N) | 5:55 | 2.4 | Bottom | 3 | 1 | 29.28 | 7.85 | 16.84 | 87.9 | 6.03 | 6.9 | 7.2 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | SR3(N) | 5:55 | 2.4 | Bottom | 3 | 2 | 29.27 | 7.85 | 16.83 | 90.0 | 6.18 | 6.5 | 7.1 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | SR4(N) | 5:08 | 1.0 | Surface | 1 | 1 | 29.25 | 7.87 | 16.72 | 86.9 | 5.97 | 9.6 | 5.8 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | SR4(N) | 5:08 | 1.0 | Surface | 1 | 2 | 29.26 | 7.87 | 16.76 | 86.7 | 5.95 | 9.8 | 5.7 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | SR4(N) | 5:08 | 2.6 | Bottom | 3 | 1 | 29.25 | 7.86 | 16.91 | 86.8 | 5.96 | 9.6 | 4.9 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | SR4(N) | 5:08 | 2.6 | Bottom | 3 | 2 | 29.25 | 7.87 | 16.79 | 87.0 | 5.97 | 9.6 | 4.9 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | SR5(N) | 5:12 | 1.0 | Surface | 1 | 1 | 28.84 | 8.27 | 19.55 | 75.1 | 5.21 | 7.3 | 5.5 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | SR5(N) | 5:11 | 1.0 | Surface | 1 | 2 | 28.95 | 8.28 | 18.14 | 73.7 | 5.12 | 6.8 | 5.8 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | SR5(N) | 5:12 | 4.0 | Middle | 2 | 1 | 27.15 | 8.15 | 29.63 | 73.9 | 5.16 | 7.2 | 5.2 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | SR5(N) | 5:11 | 4.0 | Middle | 2 | 2 | 27.39 | 8.17 | 28.42 | 72.3 | 5.12 | 6.9 | 5.2 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | SR5(N) | 5:11 | 7.0 | Bottom | 3 | 1 | 27.04 | 8.13 | 32.12 | 72.2 | 5.11 | 7.4 | 4.3 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | SR5(N) | 5:12 | 7.0 | Bottom | 3 | 2 | 27.13 | 8.15 | 32.03 | 72.3 | 5.06 | 8.0 | 4.1 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | SR10A(N) | 4:05 | 1.0 | Surface | 1 | 1 | 29.06 | 8.32 | 18.32 | 80.2 | 5.70 | 3.0 | 4.8 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | SR10A(N) | 4:04 | 1.0 | Surface | 1 | 2 | 28.90 | 8.30 | 18.53 | 79.6 | 5.63 | 2.8 | 4.8 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | SR10A(N) | 4:04 | 6.1 | Middle | 2 | 1 | 27.05 | 8.15 | 32.11 | 72.5 | 5.17 | 3.5 | 4.7 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | SR10A(N) | 4:05 | 6.1 | Middle | 2 | 2 | 27.06 | 8.15 | 32.09 | 72.8 | 5.19 | 3.4 | 4.5 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | SR10A(N) | 4:04 | 11.2 | Bottom | 3 | 1 | 27.06 | 8.14 | 32.12 | 74.2 | 5.18 | 3.7 | 4.8 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | SR10A(N) | 4:04 | 11.2 | Bottom | 3 | 2 | 27.19 | 8.15 | 32.00 | 73.7 | 5.14 | 4.0 | 4.8 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | SR10B(N2) | 3:56 | 1.0 | Surface | 1 | 1 | 29.20 | 8.26 | 17.08 | 76.6 | 5.37 | 4.8 | 5.4 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | SR10B(N2) | 3:57 | 1.0 | Surface | 1 | 2 | 29.12 | 8.27 | 17.21 | 77.8 | 5.46 | 4.4 | 4.9 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | SR10B(N2) | 3:56 | 3.3 | Middle | 2 | 1 | 27.61 | 8.23 | 26.69 | 73.3 | 5.08 | 4.6 | 4.4 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | SR10B(N2) | 3:56 | 3.3 | Middle | 2 | 2 | 27.70 | 8.26 | 27.83 | 73.7 | 5.10 | 4.5 | 4.2 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | SR10B(N2) | 3:56 | 5.6 | Bottom | 3 | 1 | 27.07 | 8.23 | 32.03 | 74.4 | 5.11 | 5.2 | 4.0 |
| HKL | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | SR10B(N2) | 3:56 | 5.6 | Bottom | 3 | 2 | 27.14 | 8.20 | 32.06 | 75.2 | 5.17 | 5.5 | 4.0 |

Water Quality Monitoring Data

| Project | Works | Date (yyyy-mm-dd) | Tide | Weather Condition | Station | Time | Depth, m | Level | Level_Code | Replicate | Temperature, °C | pH | Salinity, ppt | DO, % | DO, mg/L | Turbidity, NTU | SS, mg/L |
|---------|------------|-------------------|-----------|-------------------|---------|-------|----------|---------|------------|-----------|-----------------|------|---------------|-------|----------|----------------|----------|
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | CS2(A) | 6:06 | 1.0 | Surface | 1 | 1 | 28.91 | 8.26 | 19.50 | 77.1 | 5.35 | 3.8 | 3.4 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | CS2(A) | 6:06 | 1.0 | Surface | 1 | 2 | 28.76 | 8.27 | 19.02 | 78.3 | 5.52 | 3.7 | 3.7 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | CS2(A) | 6:05 | 3.1 | Middle | 2 | 1 | 27.41 | 8.16 | 24.29 | 73.7 | 5.13 | 4.6 | 4.2 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | CS2(A) | 6:06 | 3.1 | Middle | 2 | 2 | 27.10 | 8.14 | 24.98 | 71.3 | 4.92 | 4.5 | 4.2 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | CS2(A) | 6:05 | 5.2 | Bottom | 3 | 1 | 27.06 | 8.12 | 32.05 | 74.0 | 5.05 | 7.5 | 5.0 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | CS2(A) | 6:06 | 5.2 | Bottom | 3 | 2 | 27.07 | 8.12 | 32.01 | 74.3 | 5.07 | 7.2 | 5.1 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | CS(Mf)5 | 4:26 | 1.0 | Surface | 1 | 1 | 28.97 | 7.86 | 18.83 | 76.2 | 5.08 | 4.9 | 7.7 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | CS(Mf)5 | 4:27 | 1.0 | Surface | 1 | 2 | 29.02 | 7.87 | 18.55 | 76.4 | 5.09 | 4.8 | 7.8 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | CS(Mf)5 | 4:26 | 6.0 | Middle | 2 | 1 | 27.95 | 7.77 | 25.80 | 75.1 | 5.02 | 6.0 | 7.0 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | CS(Mf)5 | 4:27 | 6.0 | Middle | 2 | 2 | 28.86 | 7.78 | 25.28 | 75.8 | 5.06 | 5.8 | 7.0 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | CS(Mf)5 | 4:26 | 11.0 | Bottom | 3 | 1 | 27.16 | 7.75 | 30.95 | 70.8 | 4.83 | 5.9 | 6.1 |
| HKLR | HY/2011/03 | 2019-08-14 | Mid-Flood | Fine | CS(Mf)5 | 4:26 | 11.0 | Bottom | 3 | 2 | 27.87 | 7.75 | 30.36 | 74.4 | 4.97 | 6.0 | 6.4 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | IS5 | 12:25 | 1.0 | Surface | 1 | 1 | 29.35 | 7.83 | 19.58 | 76.0 | 5.13 | 6.5 | 3.6 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | IS5 | 12:25 | 1.0 | Surface | 1 | 2 | 29.56 | 7.84 | 19.36 | 76.1 | 5.15 | 6.5 | 4.7 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | IS5 | 12:25 | 4.2 | Middle | 2 | 1 | 28.61 | 7.76 | 25.56 | 74.9 | 5.05 | 6.6 | 4.8 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | IS5 | 12:24 | 4.2 | Middle | 2 | 2 | 28.59 | 7.76 | 25.76 | 74.5 | 5.03 | 6.4 | 4.5 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | IS5 | 12:25 | 7.4 | Bottom | 3 | 1 | 28.80 | 7.76 | 26.97 | 73.1 | 4.92 | 6.6 | 5.0 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | IS5 | 12:24 | 7.4 | Bottom | 3 | 2 | 29.02 | 7.76 | 26.85 | 72.9 | 4.89 | 6.6 | 5.1 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | IS(Mf)6 | 12:35 | 1.0 | Surface | 1 | 1 | 29.73 | 7.83 | 20.29 | 80.8 | 5.49 | 9.2 | 5.8 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | IS(Mf)6 | 12:35 | 1.0 | Surface | 1 | 2 | 29.71 | 7.85 | 20.28 | 82.8 | 5.63 | 9.0 | 5.7 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | IS(Mf)6 | 12:35 | 2.2 | Bottom | 3 | 1 | 29.78 | 7.84 | 21.45 | 81.9 | 5.53 | 8.8 | 7.1 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | IS(Mf)6 | 12:35 | 2.2 | Bottom | 3 | 2 | 29.50 | 7.86 | 21.68 | 87.3 | 5.90 | 8.4 | 7.0 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | IS7 | 12:44 | 1.0 | Surface | 1 | 1 | 29.56 | 7.79 | 20.66 | 75.1 | 5.11 | 4.6 | 9.7 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | IS7 | 12:45 | 1.0 | Surface | 1 | 2 | 29.70 | 7.79 | 20.74 | 75.3 | 5.10 | 4.6 | 9.2 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | IS7 | 12:45 | 2.1 | Bottom | 3 | 1 | 29.70 | 7.79 | 20.80 | 75.2 | 5.10 | 4.4 | 10.7 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | IS7 | 12:44 | 2.1 | Bottom | 3 | 2 | 29.71 | 7.80 | 21.41 | 77.3 | 5.22 | 4.6 | 11.4 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | IS8 | 13:18 | 1.0 | Surface | 1 | 1 | 29.69 | 7.82 | 21.38 | 76.6 | 5.17 | 10.5 | 7.3 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | IS8 | 13:18 | 1.0 | Surface | 1 | 2 | 29.55 | 7.81 | 21.57 | 79.4 | 5.36 | 10.3 | 7.5 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | IS8 | 13:18 | 3.1 | Bottom | 3 | 1 | 29.71 | 7.82 | 21.39 | 76.0 | 5.13 | 10.8 | 8.1 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | IS8 | 13:17 | 3.1 | Bottom | 3 | 2 | 28.81 | 7.79 | 24.21 | 75.0 | 5.07 | 10.5 | 7.9 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | IS(Mf)9 | 12:53 | 1.0 | Surface | 1 | 1 | 30.21 | 7.86 | 20.32 | 89.9 | 6.06 | 5.0 | 4.3 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | IS(Mf)9 | 12:53 | 1.0 | Surface | 1 | 2 | 30.23 | 7.85 | 20.33 | 87.9 | 5.92 | 5.2 | 4.1 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | IS(Mf)9 | 12:53 | 2.7 | Bottom | 3 | 1 | 30.24 | 7.85 | 20.34 | 89.1 | 6.00 | 7.1 | 4.5 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | IS(Mf)9 | 12:53 | 2.7 | Bottom | 3 | 2 | 30.25 | 7.87 | 20.35 | 92.0 | 6.20 | 7.3 | 4.6 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | IS10(N) | 13:01 | 1.0 | Surface | 1 | 1 | 29.06 | 8.23 | 19.28 | 79.6 | 5.46 | 5.0 | 4.0 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | IS10(N) | 13:02 | 1.0 | Surface | 1 | 2 | 29.17 | 8.23 | 19.28 | 85.0 | 5.86 | 4.8 | 4.0 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | IS10(N) | 13:01 | 5.3 | Middle | 2 | 1 | 28.32 | 8.18 | 22.73 | 75.9 | 5.21 | 7.4 | 3.7 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | IS10(N) | 13:02 | 5.3 | Middle | 2 | 2 | 28.25 | 8.17 | 22.87 | 78.3 | 5.41 | 6.9 | 3.7 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | IS10(N) | 13:02 | 9.6 | Bottom | 3 | 1 | 28.16 | 8.16 | 23.44 | 72.1 | 4.95 | 6.8 | 2.4 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | IS10(N) | 13:01 | 9.6 | Bottom | 3 | 2 | 28.32 | 8.17 | 22.92 | 73.6 | 5.04 | 7.3 | 2.8 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | SR3(N) | 12:14 | 1.0 | Surface | 1 | 1 | 29.98 | 7.88 | 19.74 | 86.3 | 5.86 | 10.5 | 5.1 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | SR3(N) | 12:14 | 1.0 | Surface | 1 | 2 | 29.95 | 7.92 | 19.82 | 87.4 | 5.93 | 10.3 | 5.7 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | SR3(N) | 12:14 | 2.4 | Bottom | 3 | 1 | 29.89 | 7.95 | 20.08 | 89.3 | 6.05 | 10.5 | 6.2 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | SR3(N) | 12:14 | 2.4 | Bottom | 3 | 2 | 29.95 | 7.90 | 19.83 | 86.9 | 5.90 | 10.6 | 6.6 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | SR4(N) | 13:09 | 1.0 | Surface | 1 | 1 | 29.69 | 7.76 | 20.55 | 74.4 | 5.03 | 15.6 | 16.5 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | SR4(N) | 13:09 | 1.0 | Surface | 1 | 2 | 29.89 | 7.76 | 20.42 | 75.1 | 5.06 | 15.8 | 17.2 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | SR4(N) | 13:09 | 2.6 | Bottom | 3 | 1 | 29.73 | 7.75 | 21.61 | 73.4 | 4.95 | 15.4 | 18.4 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | SR4(N) | 13:09 | 2.6 | Bottom | 3 | 2 | 29.79 | 7.76 | 21.72 | 72.8 | 4.93 | 15.2 | 18.2 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | SR5(N) | 12:46 | 1.0 | Surface | 1 | 1 | 29.10 | 8.25 | 19.30 | 82.6 | 5.70 | 3.9 | 4.0 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | SR5(N) | 12:47 | 1.0 | Surface | 1 | 2 | 29.05 | 8.24 | 19.30 | 80.8 | 5.54 | 3.7 | 3.8 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | SR5(N) | 12:47 | 4.0 | Middle | 2 | 1 | 28.31 | 8.19 | 22.37 | 77.4 | 5.35 | 6.3 | 2.4 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | SR5(N) | 12:46 | 4.0 | Middle | 2 | 2 | 28.30 | 8.20 | 22.29 | 75.3 | 5.18 | 6.6 | 2.7 |

Water Quality Monitoring Data

| Project | Works | Date (yyyy-mm-dd) | Tide | Weather Condition | Station | Time | Depth, m | Level | Level_Code | Replicate | Temperature, °C | pH | Salinity, ppt | DO, % | DO, mg/L | Turbidity, NTU | SS, mg/L |
|---------|------------|-------------------|-----------|-------------------|-----------|-------|----------|---------|------------|-----------|-----------------|------|---------------|-------|----------|----------------|----------|
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | SR5(N) | 12:47 | 6.9 | Bottom | 3 | 1 | 28.18 | 8.17 | 23.56 | 77.4 | 5.30 | 6.7 | 2.6 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | SR5(N) | 12:46 | 6.9 | Bottom | 3 | 2 | 28.01 | 8.19 | 23.62 | 73.3 | 5.04 | 6.8 | 2.4 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | SR10A(N) | 13:48 | 1.0 | Surface | 1 | 1 | 28.78 | 8.28 | 22.67 | 85.2 | 5.81 | 1.7 | 5.7 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | SR10A(N) | 13:48 | 1.0 | Surface | 1 | 2 | 28.71 | 8.25 | 22.88 | 87.7 | 5.97 | 1.8 | 5.2 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | SR10A(N) | 13:48 | 6.2 | Middle | 2 | 1 | 28.63 | 8.26 | 23.09 | 85.7 | 5.84 | 2.0 | 4.7 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | SR10A(N) | 13:47 | 6.2 | Middle | 2 | 2 | 28.31 | 8.28 | 24.05 | 84.7 | 5.77 | 1.8 | 4.6 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | SR10A(N) | 13:48 | 11.3 | Bottom | 3 | 1 | 28.64 | 8.26 | 23.06 | 86.4 | 5.88 | 2.2 | 4.5 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | SR10A(N) | 13:47 | 11.3 | Bottom | 3 | 2 | 28.25 | 8.27 | 24.26 | 85.5 | 5.82 | 2.0 | 4.7 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | SR10B(N2) | 14:01 | 1.0 | Surface | 1 | 1 | 28.89 | 8.24 | 22.50 | 91.7 | 6.24 | 2.5 | 5.1 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | SR10B(N2) | 14:01 | 1.0 | Surface | 1 | 2 | 28.88 | 8.24 | 22.56 | 92.4 | 6.29 | 2.5 | 5.4 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | SR10B(N2) | 14:00 | 3.3 | Middle | 2 | 1 | 28.79 | 8.24 | 22.66 | 90.1 | 6.14 | 2.6 | 5.4 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | SR10B(N2) | 14:01 | 3.3 | Middle | 2 | 2 | 28.73 | 8.24 | 22.78 | 89.3 | 6.08 | 2.5 | 5.7 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | SR10B(N2) | 14:00 | 5.6 | Bottom | 3 | 1 | 28.70 | 8.24 | 22.86 | 89.9 | 6.13 | 2.8 | 6.0 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | SR10B(N2) | 14:01 | 5.6 | Bottom | 3 | 2 | 28.69 | 8.23 | 22.95 | 91.2 | 6.21 | 3.0 | 5.8 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | CS2(A) | 12:03 | 1.0 | Surface | 1 | 1 | 29.08 | 8.25 | 19.37 | 86.7 | 5.98 | 2.6 | 7.1 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | CS2(A) | 12:04 | 1.0 | Surface | 1 | 2 | 29.03 | 8.28 | 19.36 | 89.2 | 6.11 | 2.6 | 7.4 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | CS2(A) | 12:03 | 3.1 | Middle | 2 | 1 | 28.49 | 8.25 | 21.77 | 85.9 | 5.88 | 4.3 | 6.5 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | CS2(A) | 12:03 | 3.1 | Middle | 2 | 2 | 28.44 | 8.26 | 22.09 | 84.2 | 5.82 | 4.2 | 6.1 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | CS2(A) | 12:03 | 5.2 | Bottom | 3 | 1 | 28.51 | 8.26 | 22.63 | 80.9 | 5.57 | 4.5 | 5.4 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | CS2(A) | 12:03 | 5.2 | Bottom | 3 | 2 | 28.46 | 8.25 | 22.61 | 81.9 | 5.63 | 4.8 | 5.6 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | CS(Mf)5 | 13:42 | 1.0 | Surface | 1 | 1 | 29.48 | 7.82 | 21.29 | 78.5 | 5.22 | 8.6 | 7.8 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | CS(Mf)5 | 13:43 | 1.0 | Surface | 1 | 2 | 29.65 | 7.82 | 21.22 | 75.6 | 5.12 | 8.8 | 7.2 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | CS(Mf)5 | 13:42 | 6.1 | Middle | 2 | 1 | 29.01 | 7.79 | 24.02 | 74.7 | 5.05 | 8.8 | 9.3 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | CS(Mf)5 | 13:42 | 6.1 | Middle | 2 | 2 | 28.79 | 7.78 | 24.40 | 75.0 | 5.06 | 8.9 | 9.0 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | CS(Mf)5 | 13:42 | 11.1 | Bottom | 3 | 1 | 27.27 | 7.75 | 30.56 | 71.1 | 4.75 | 8.8 | 12.4 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Ebb | Sunny | CS(Mf)5 | 13:42 | 11.1 | Bottom | 3 | 2 | 27.32 | 7.75 | 30.27 | 72.2 | 4.88 | 8.7 | 11.7 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | IS5 | 6:43 | 1.0 | Surface | 1 | 1 | 28.99 | 7.86 | 19.21 | 79.3 | 5.29 | 10.4 | 5.7 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | IS5 | 6:43 | 1.0 | Surface | 1 | 2 | 29.19 | 7.84 | 19.38 | 76.1 | 5.19 | 10.4 | 6.2 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | IS5 | 6:42 | 4.4 | Middle | 2 | 1 | 28.22 | 7.81 | 25.28 | 74.3 | 5.03 | 10.3 | 7.0 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | IS5 | 6:43 | 4.4 | Middle | 2 | 2 | 28.14 | 7.78 | 25.37 | 74.4 | 5.03 | 10.4 | 7.1 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | IS5 | 6:43 | 7.7 | Bottom | 3 | 1 | 28.55 | 7.79 | 26.82 | 73.0 | 4.83 | 10.6 | 8.2 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | IS5 | 6:42 | 7.7 | Bottom | 3 | 2 | 27.99 | 7.82 | 27.07 | 70.5 | 4.83 | 10.2 | 8.2 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | IS(Mf)6 | 6:34 | 1.0 | Surface | 1 | 1 | 29.20 | 7.82 | 20.24 | 78.3 | 5.31 | 8.9 | 9.4 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | IS(Mf)6 | 6:32 | 1.0 | Surface | 1 | 2 | 29.18 | 7.81 | 20.48 | 78.7 | 5.33 | 8.8 | 8.8 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | IS(Mf)6 | 6:33 | 2.4 | Bottom | 3 | 1 | 29.20 | 7.81 | 20.60 | 78.9 | 5.34 | 8.8 | 7.5 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | IS(Mf)6 | 6:34 | 2.4 | Bottom | 3 | 2 | 29.15 | 7.82 | 21.20 | 80.4 | 5.43 | 8.6 | 7.1 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | IS7 | 6:25 | 1.0 | Surface | 1 | 1 | 29.06 | 7.80 | 20.55 | 77.7 | 5.28 | 5.7 | 11.2 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | IS7 | 6:25 | 1.0 | Surface | 1 | 2 | 28.94 | 7.81 | 20.83 | 80.4 | 5.46 | 5.7 | 10.9 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | IS7 | 6:25 | 2.2 | Bottom | 3 | 1 | 29.00 | 7.80 | 21.41 | 79.0 | 5.34 | 5.6 | 8.3 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | IS7 | 6:25 | 2.2 | Bottom | 3 | 2 | 29.00 | 7.83 | 21.55 | 84.9 | 5.74 | 5.5 | 8.8 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | IS8 | 5:58 | 1.0 | Surface | 1 | 1 | 29.00 | 7.81 | 21.21 | 76.8 | 5.13 | 10.5 | 5.3 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | IS8 | 5:59 | 1.0 | Surface | 1 | 2 | 29.06 | 7.82 | 21.11 | 74.3 | 5.03 | 10.1 | 5.5 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | IS8 | 5:58 | 3.1 | Bottom | 3 | 1 | 28.98 | 7.80 | 23.78 | 72.2 | 4.89 | 10.0 | 5.1 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | IS8 | 5:59 | 3.1 | Bottom | 3 | 2 | 29.05 | 7.80 | 23.13 | 74.0 | 4.96 | 10.6 | 5.5 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | IS(Mf)9 | 6:18 | 1.0 | Surface | 1 | 1 | 29.54 | 7.84 | 20.38 | 85.9 | 5.79 | 5.7 | 5.7 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | IS(Mf)9 | 6:19 | 1.0 | Surface | 1 | 2 | 29.59 | 7.84 | 20.37 | 85.9 | 5.79 | 5.6 | 6.2 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | IS(Mf)9 | 6:18 | 2.7 | Bottom | 3 | 1 | 29.63 | 7.85 | 20.34 | 87.7 | 5.91 | 5.5 | 4.9 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | IS(Mf)9 | 6:19 | 2.7 | Bottom | 3 | 2 | 29.57 | 7.84 | 20.40 | 86.0 | 5.80 | 5.8 | 5.5 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | IS10(N) | 6:04 | 1.0 | Surface | 1 | 1 | 29.14 | 8.21 | 19.57 | 82.2 | 5.76 | 3.1 | 3.7 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | IS10(N) | 6:03 | 1.0 | Surface | 1 | 2 | 29.24 | 8.22 | 19.48 | 81.7 | 5.62 | 3.0 | 3.5 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | IS10(N) | 6:02 | 5.3 | Middle | 2 | 1 | 28.32 | 8.16 | 22.39 | 74.8 | 5.13 | 4.6 | 4.0 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | IS10(N) | 6:03 | 5.3 | Middle | 2 | 2 | 28.25 | 8.15 | 22.78 | 75.2 | 5.18 | 4.6 | 4.3 |

Water Quality Monitoring Data

| Project | Works | Date (yyyy-mm-dd) | Tide | Weather Condition | Station | Time | Depth, m | Level | Level_Code | Replicate | Temperature, °C | pH | Salinity, ppt | DO, % | DO, mg/L | Turbidity, NTU | SS, mg/L |
|---------|------------|-------------------|-----------|-------------------|-----------|-------|----------|---------|------------|-----------|-----------------|------|---------------|-------|----------|----------------|----------|
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | IS10(N) | 6:02 | 9.6 | Bottom | 3 | 1 | 28.13 | 8.15 | 23.41 | 72.6 | 4.99 | 4.5 | 4.6 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | IS10(N) | 6:03 | 9.6 | Bottom | 3 | 2 | 28.12 | 8.14 | 23.42 | 73.3 | 5.08 | 4.7 | 4.2 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | SR3(N) | 6:55 | 1.0 | Surface | 1 | 1 | 29.32 | 7.85 | 19.88 | 83.0 | 5.63 | 10.2 | 9.8 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | SR3(N) | 6:55 | 1.0 | Surface | 1 | 2 | 29.36 | 7.84 | 19.79 | 83.2 | 5.65 | 10.4 | 9.0 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | SR3(N) | 6:55 | 2.5 | Bottom | 3 | 1 | 29.36 | 7.84 | 19.87 | 83.2 | 5.64 | 10.4 | 10.8 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | SR3(N) | 6:55 | 2.5 | Bottom | 3 | 2 | 29.23 | 7.85 | 20.36 | 84.5 | 5.73 | 10.1 | 10.2 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | SR4(N) | 6:09 | 1.0 | Surface | 1 | 1 | 29.05 | 7.76 | 20.61 | 84.1 | 5.65 | 9.6 | 11.7 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | SR4(N) | 6:08 | 1.0 | Surface | 1 | 2 | 29.03 | 7.77 | 20.54 | 78.5 | 5.34 | 9.6 | 11.0 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | SR4(N) | 6:09 | 2.7 | Bottom | 3 | 1 | 29.02 | 7.76 | 22.30 | 74.0 | 5.02 | 9.7 | 11.4 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | SR4(N) | 6:08 | 2.7 | Bottom | 3 | 2 | 29.05 | 7.77 | 22.36 | 76.2 | 5.13 | 9.6 | 12.1 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | SR5(N) | 6:11 | 1.0 | Surface | 1 | 1 | 29.12 | 8.20 | 19.52 | 80.7 | 5.70 | 3.0 | 7.1 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | SR5(N) | 6:12 | 1.0 | Surface | 1 | 2 | 28.92 | 8.19 | 19.64 | 81.9 | 5.83 | 3.2 | 7.7 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | SR5(N) | 6:12 | 3.9 | Middle | 2 | 1 | 28.45 | 8.16 | 21.93 | 73.9 | 5.10 | 4.3 | 5.9 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | SR5(N) | 6:11 | 3.9 | Middle | 2 | 2 | 28.48 | 8.16 | 21.91 | 75.5 | 5.21 | 4.0 | 5.0 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | SR5(N) | 6:11 | 6.7 | Bottom | 3 | 1 | 28.04 | 8.13 | 23.87 | 74.8 | 5.12 | 4.7 | 5.2 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | SR5(N) | 6:12 | 6.7 | Bottom | 3 | 2 | 28.18 | 8.14 | 23.44 | 73.9 | 5.06 | 4.5 | 5.2 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | SR10A(N) | 5:16 | 1.0 | Surface | 1 | 1 | 29.20 | 8.23 | 19.48 | 82.2 | 5.72 | 2.0 | 4.7 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | SR10A(N) | 5:15 | 1.0 | Surface | 1 | 2 | 29.03 | 8.22 | 19.54 | 80.7 | 5.61 | 1.9 | 4.2 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | SR10A(N) | 5:15 | 6.4 | Middle | 2 | 1 | 28.11 | 8.16 | 23.42 | 76.5 | 5.22 | 2.2 | 4.3 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | SR10A(N) | 5:16 | 6.4 | Middle | 2 | 2 | 28.12 | 8.16 | 23.39 | 75.9 | 5.22 | 2.0 | 4.0 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | SR10A(N) | 5:15 | 11.7 | Bottom | 3 | 1 | 28.34 | 8.16 | 24.53 | 76.0 | 5.16 | 3.2 | 3.5 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | SR10A(N) | 5:15 | 11.7 | Bottom | 3 | 2 | 28.10 | 8.16 | 24.32 | 73.5 | 5.07 | 3.4 | 3.0 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | SR10B(N2) | 5:09 | 1.0 | Surface | 1 | 1 | 28.77 | 8.23 | 20.03 | 84.2 | 5.77 | 2.1 | 8.2 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | SR10B(N2) | 5:09 | 1.0 | Surface | 1 | 2 | 29.19 | 8.25 | 19.74 | 82.5 | 5.68 | 2.2 | 7.5 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | SR10B(N2) | 5:09 | 3.4 | Middle | 2 | 1 | 28.55 | 8.23 | 21.50 | 77.8 | 5.35 | 2.6 | 5.2 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | SR10B(N2) | 5:09 | 3.4 | Middle | 2 | 2 | 28.45 | 8.24 | 21.92 | 80.0 | 5.46 | 2.5 | 4.9 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | SR10B(N2) | 5:09 | 5.7 | Bottom | 3 | 1 | 28.20 | 8.23 | 23.34 | 77.6 | 5.36 | 2.7 | 4.1 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | SR10B(N2) | 5:09 | 5.7 | Bottom | 3 | 2 | 28.54 | 8.23 | 23.18 | 76.1 | 5.23 | 3.0 | 4.5 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | CS2(A) | 6:58 | 1.0 | Surface | 1 | 1 | 29.31 | 8.21 | 19.48 | 83.9 | 5.76 | 3.0 | 5.5 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | CS2(A) | 6:58 | 1.0 | Surface | 1 | 2 | 29.22 | 8.20 | 19.60 | 81.5 | 5.56 | 2.8 | 5.3 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | CS2(A) | 6:58 | 3.2 | Middle | 2 | 1 | 28.78 | 8.17 | 21.13 | 78.8 | 5.41 | 2.7 | 5.7 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | CS2(A) | 6:58 | 3.2 | Middle | 2 | 2 | 28.65 | 8.17 | 20.81 | 80.0 | 5.50 | 2.6 | 6.0 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | CS2(A) | 6:58 | 5.3 | Bottom | 3 | 1 | 28.60 | 8.16 | 22.85 | 74.7 | 5.15 | 3.5 | 7.0 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | CS2(A) | 6:57 | 5.3 | Bottom | 3 | 2 | 28.19 | 8.14 | 23.13 | 75.1 | 5.15 | 3.4 | 7.0 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | CS(Mf)5 | 5:23 | 1.0 | Surface | 1 | 1 | 28.97 | 7.82 | 21.27 | 77.1 | 5.15 | 8.4 | 11.7 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | CS(Mf)5 | 5:22 | 1.0 | Surface | 1 | 2 | 28.62 | 7.82 | 21.25 | 77.5 | 5.22 | 8.6 | 12.5 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | CS(Mf)5 | 5:23 | 6.0 | Middle | 2 | 1 | 28.61 | 7.78 | 24.33 | 74.5 | 5.03 | 8.4 | 11.3 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | CS(Mf)5 | 5:21 | 6.0 | Middle | 2 | 2 | 27.89 | 7.79 | 24.96 | 74.8 | 5.07 | 8.5 | 11.6 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | CS(Mf)5 | 5:22 | 10.9 | Bottom | 3 | 1 | 27.36 | 7.75 | 30.59 | 72.9 | 4.87 | 8.9 | 9.4 |
| HKLR | HY/2011/03 | 2019-08-16 | Mid-Flood | Fine | CS(Mf)5 | 5:21 | 10.9 | Bottom | 3 | 2 | 27.38 | 7.78 | 29.03 | 72.2 | 4.86 | 8.8 | 9.6 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | IS5 | 13:50 | 1.0 | Surface | 1 | 1 | 28.01 | 8.18 | 22.36 | 81.3 | 5.62 | 9.8 | 6.2 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | IS5 | 13:51 | 1.0 | Surface | 1 | 2 | 28.06 | 8.16 | 22.25 | 73.9 | 5.10 | 9.7 | 6.6 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | IS5 | 13:50 | 4.2 | Middle | 2 | 1 | 27.65 | 8.15 | 22.95 | 73.8 | 5.08 | 10.6 | 6.1 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | IS5 | 13:50 | 4.2 | Middle | 2 | 2 | 27.73 | 8.19 | 22.91 | 75.8 | 5.25 | 10.4 | 6.1 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | IS5 | 13:50 | 7.4 | Bottom | 3 | 1 | 27.60 | 8.15 | 24.27 | 72.4 | 5.02 | 10.6 | 6.1 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | IS5 | 13:50 | 7.4 | Bottom | 3 | 2 | 27.60 | 8.21 | 23.55 | 73.8 | 5.10 | 10.5 | 6.8 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | IS(Mf)6 | 13:58 | 1.0 | Surface | 1 | 1 | 28.33 | 8.19 | 22.37 | 83.4 | 5.73 | 4.6 | 2.9 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | IS(Mf)6 | 13:59 | 1.0 | Surface | 1 | 2 | 28.67 | 8.17 | 22.26 | 85.9 | 5.92 | 4.5 | 3.3 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | IS(Mf)6 | 13:58 | 2.2 | Bottom | 3 | 1 | 28.19 | 8.20 | 22.44 | 81.7 | 5.61 | 4.5 | 3.1 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | IS(Mf)6 | 13:59 | 2.2 | Bottom | 3 | 2 | 28.39 | 8.18 | 22.33 | 80.6 | 5.51 | 4.5 | 2.8 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | IS7 | 14:07 | 1.0 | Surface | 1 | 1 | 28.34 | 8.20 | 22.20 | 80.7 | 5.55 | 4.4 | 2.6 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | IS7 | 14:07 | 1.0 | Surface | 1 | 2 | 28.37 | 8.18 | 22.21 | 84.3 | 5.82 | 4.4 | 2.9 |

Water Quality Monitoring Data

| Project | Works | Date (yyyy-mm-dd) | Tide | Weather Condition | Station | Time | Depth, m | Level | Level_Code | Replicate | Temperature, °C | pH | Salinity, ppt | DO, % | DO, mg/L | Turbidity, NTU | SS, mg/L |
|---------|------------|-------------------|---------|-------------------|-----------|-------|----------|---------|------------|-----------|-----------------|------|---------------|-------|----------|----------------|----------|
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | IS7 | 14:07 | 2.0 | Bottom | 3 | 1 | 28.07 | 8.18 | 22.48 | 77.8 | 5.35 | 4.9 | 3.2 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | IS7 | 14:07 | 2.0 | Bottom | 3 | 2 | 28.04 | 8.21 | 22.54 | 78.2 | 5.40 | 4.8 | 3.6 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | IS8 | 14:34 | 1.0 | Surface | 1 | 1 | 28.26 | 8.22 | 22.69 | 83.5 | 5.74 | 8.3 | 12.0 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | IS8 | 14:34 | 1.0 | Surface | 1 | 2 | 28.42 | 8.21 | 22.63 | 88.7 | 6.04 | 8.5 | 12.5 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | IS8 | 14:34 | 2.9 | Bottom | 3 | 1 | 28.17 | 8.20 | 22.92 | 81.1 | 5.56 | 8.3 | 19.0 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | IS8 | 14:33 | 2.9 | Bottom | 3 | 2 | 28.36 | 8.22 | 23.76 | 81.6 | 5.61 | 8.2 | 18.9 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | IS(Mf)9 | 14:14 | 1.0 | Surface | 1 | 1 | 28.22 | 8.18 | 22.34 | 81.4 | 5.62 | 7.5 | 5.2 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | IS(Mf)9 | 14:14 | 1.0 | Surface | 1 | 2 | 28.12 | 8.19 | 22.47 | 78.4 | 5.41 | 7.5 | 4.9 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | IS(Mf)9 | 14:14 | 2.5 | Bottom | 3 | 1 | 28.00 | 8.20 | 22.70 | 77.1 | 5.31 | 7.5 | 3.7 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | IS(Mf)9 | 14:14 | 2.5 | Bottom | 3 | 2 | 28.14 | 8.18 | 22.54 | 76.2 | 5.25 | 7.4 | 3.6 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | IS10(N) | 14:34 | 1.0 | Surface | 1 | 1 | 29.59 | 7.71 | 19.61 | 78.5 | 5.36 | 8.0 | 2.2 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | IS10(N) | 14:33 | 1.0 | Surface | 1 | 2 | 29.62 | 7.71 | 19.56 | 77.5 | 5.29 | 7.8 | 2.5 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | IS10(N) | 14:34 | 5.0 | Middle | 2 | 1 | 28.41 | 7.69 | 23.11 | 75.5 | 5.17 | 8.9 | 2.7 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | IS10(N) | 14:33 | 5.0 | Middle | 2 | 2 | 28.39 | 7.69 | 23.17 | 74.6 | 5.10 | 8.6 | 3.0 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | IS10(N) | 14:34 | 9.0 | Bottom | 3 | 1 | 26.96 | 7.64 | 28.78 | 72.0 | 4.89 | 9.6 | 4.8 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | IS10(N) | 14:33 | 9.0 | Bottom | 3 | 2 | 26.96 | 7.65 | 28.81 | 71.1 | 4.82 | 9.4 | 5.0 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | SR3(N) | 13:43 | 1.0 | Surface | 1 | 1 | 28.86 | 8.24 | 22.10 | 84.4 | 5.81 | 5.5 | 7.2 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | SR3(N) | 13:42 | 1.0 | Surface | 1 | 2 | 28.65 | 8.30 | 22.17 | 83.2 | 5.69 | 5.6 | 7.1 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | SR3(N) | 13:43 | 2.3 | Bottom | 3 | 1 | 28.34 | 8.26 | 22.16 | 82.0 | 5.60 | 5.6 | 6.4 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | SR3(N) | 13:42 | 2.3 | Bottom | 3 | 2 | 28.31 | 8.37 | 22.15 | 81.5 | 5.61 | 5.6 | 6.2 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | SR4(N) | 14:27 | 1.0 | Surface | 1 | 1 | 28.18 | 8.20 | 22.58 | 83.6 | 5.75 | 7.8 | 5.5 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | SR4(N) | 14:26 | 1.0 | Surface | 1 | 2 | 28.26 | 8.23 | 22.47 | 79.7 | 5.48 | 7.5 | 5.9 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | SR4(N) | 14:26 | 2.5 | Bottom | 3 | 1 | 28.11 | 8.21 | 22.82 | 74.4 | 5.12 | 7.5 | 7.5 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | SR4(N) | 14:26 | 2.5 | Bottom | 3 | 2 | 28.20 | 8.25 | 22.56 | 76.4 | 5.26 | 7.5 | 7.5 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | SR5(N) | 14:18 | 1.0 | Surface | 1 | 1 | 29.65 | 7.70 | 19.54 | 79.5 | 5.42 | 8.5 | 4.6 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | SR5(N) | 14:17 | 1.0 | Surface | 1 | 2 | 29.67 | 7.70 | 19.53 | 80.3 | 5.47 | 8.6 | 4.1 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | SR5(N) | 14:17 | 4.2 | Middle | 2 | 1 | 28.50 | 7.69 | 22.78 | 77.0 | 5.27 | 9.4 | 3.5 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | SR5(N) | 14:18 | 4.2 | Middle | 2 | 2 | 28.51 | 7.68 | 22.86 | 76.8 | 5.27 | 9.2 | 3.1 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | SR5(N) | 14:16 | 7.4 | Bottom | 3 | 1 | 27.34 | 7.64 | 27.47 | 74.7 | 5.07 | 9.9 | 3.0 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | SR5(N) | 14:18 | 7.4 | Bottom | 3 | 2 | 27.35 | 7.65 | 27.38 | 74.2 | 5.04 | 9.7 | 3.1 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | SR10A(N) | 15:19 | 1.0 | Surface | 1 | 1 | 29.48 | 7.77 | 22.13 | 80.0 | 5.40 | 4.7 | 5.4 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | SR10A(N) | 15:17 | 1.0 | Surface | 1 | 2 | 29.52 | 7.79 | 22.04 | 80.8 | 5.45 | 4.6 | 5.2 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | SR10A(N) | 15:16 | 6.8 | Middle | 2 | 1 | 28.60 | 7.78 | 23.58 | 77.6 | 5.27 | 5.2 | 4.5 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | SR10A(N) | 15:18 | 6.8 | Middle | 2 | 2 | 28.63 | 7.76 | 23.54 | 76.7 | 5.21 | 5.3 | 4.0 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | SR10A(N) | 15:16 | 12.6 | Bottom | 3 | 1 | 26.84 | 7.78 | 28.88 | 73.9 | 5.02 | 5.6 | 3.9 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | SR10A(N) | 15:18 | 12.6 | Bottom | 3 | 2 | 26.88 | 7.76 | 28.85 | 73.7 | 5.00 | 5.4 | 3.2 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | SR10B(N2) | 15:29 | 1.0 | Surface | 1 | 1 | 29.17 | 7.76 | 22.86 | 77.7 | 5.25 | 4.3 | 4.2 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | SR10B(N2) | 15:30 | 1.0 | Surface | 1 | 2 | 29.14 | 7.77 | 22.81 | 77.2 | 5.22 | 4.1 | 3.9 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | SR10B(N2) | 15:28 | 3.7 | Middle | 2 | 1 | 28.75 | 7.76 | 23.72 | 76.2 | 5.16 | 4.7 | 3.7 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | SR10B(N2) | 15:29 | 3.7 | Middle | 2 | 2 | 28.76 | 7.76 | 23.78 | 76.1 | 5.15 | 4.6 | 3.7 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | SR10B(N2) | 15:28 | 6.4 | Bottom | 3 | 1 | 28.58 | 7.76 | 24.15 | 75.0 | 5.08 | 5.1 | 2.8 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | SR10B(N2) | 15:29 | 6.4 | Bottom | 3 | 2 | 28.59 | 7.76 | 24.21 | 75.2 | 5.09 | 5.2 | 2.3 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | CS2(A) | 13:35 | 1.0 | Surface | 1 | 1 | 29.49 | 7.72 | 19.64 | 76.7 | 5.29 | 9.0 | 2.7 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | CS2(A) | 13:34 | 1.0 | Surface | 1 | 2 | 29.52 | 7.74 | 19.66 | 76.0 | 5.26 | 9.4 | 2.8 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | CS2(A) | 13:34 | 3.6 | Middle | 2 | 1 | 28.44 | 7.69 | 25.81 | 76.3 | 5.14 | 10.2 | 3.2 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | CS2(A) | 13:33 | 3.6 | Middle | 2 | 2 | 28.45 | 7.70 | 25.87 | 76.7 | 5.17 | 10.1 | 3.5 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | CS2(A) | 13:34 | 6.2 | Bottom | 3 | 1 | 28.32 | 7.66 | 26.80 | 73.7 | 4.95 | 10.8 | 3.9 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | CS2(A) | 13:33 | 6.2 | Bottom | 3 | 2 | 28.29 | 7.68 | 26.85 | 73.5 | 4.94 | 11.0 | 4.5 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | CS(Mf)5 | 14:55 | 1.0 | Surface | 1 | 1 | 27.61 | 8.22 | 23.79 | 74.3 | 5.08 | 2.6 | 4.9 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | CS(Mf)5 | 14:55 | 1.0 | Surface | 1 | 2 | 27.73 | 8.24 | 23.72 | 73.9 | 5.06 | 2.6 | 4.9 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | CS(Mf)5 | 14:55 | 5.9 | Middle | 2 | 1 | 26.57 | 8.19 | 27.74 | 73.1 | 5.01 | 3.0 | 4.6 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | CS(Mf)5 | 14:54 | 5.9 | Middle | 2 | 2 | 26.71 | 8.23 | 27.11 | 73.3 | 5.02 | 3.0 | 4.9 |

Water Quality Monitoring Data

| Project | Works | Date (yyyy-mm-dd) | Tide | Weather Condition | Station | Time | Depth, m | Level | Level_Code | Replicate | Temperature, °C | pH | Salinity, ppt | DO, % | DO, mg/L | Turbidity, NTU | SS, mg/L |
|---------|------------|-------------------|-----------|-------------------|-----------|-------|----------|---------|------------|-----------|-----------------|------|---------------|-------|----------|----------------|----------|
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | CS(Mf)5 | 14:54 | 10.7 | Bottom | 3 | 1 | 25.92 | 8.22 | 30.35 | 69.1 | 4.76 | 3.2 | 5.2 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Ebb | Fine | CS(Mf)5 | 14:55 | 10.7 | Bottom | 3 | 2 | 26.02 | 8.18 | 30.59 | 69.6 | 4.75 | 3.1 | 5.0 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | IS5 | 9:08 | 1.0 | Surface | 1 | 1 | 27.73 | 8.14 | 22.65 | 74.4 | 5.15 | 8.9 | 7.4 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | IS5 | 9:07 | 1.0 | Surface | 1 | 2 | 27.71 | 8.16 | 22.70 | 82.2 | 5.69 | 8.7 | 7.6 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | IS5 | 9:07 | 4.3 | Middle | 2 | 1 | 27.71 | 8.16 | 22.82 | 77.1 | 5.34 | 10.9 | 7.9 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | IS5 | 9:08 | 4.3 | Middle | 2 | 2 | 27.70 | 8.14 | 22.92 | 73.6 | 5.10 | 11.0 | 8.1 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | IS5 | 9:08 | 7.6 | Bottom | 3 | 1 | 27.68 | 8.14 | 23.06 | 73.6 | 5.10 | 10.5 | 9.5 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | IS5 | 9:07 | 7.6 | Bottom | 3 | 2 | 27.67 | 8.17 | 23.17 | 76.0 | 5.27 | 10.5 | 9.8 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | IS(Mf)6 | 9:00 | 1.0 | Surface | 1 | 1 | 27.75 | 8.18 | 22.28 | 82.6 | 5.74 | 7.5 | 5.7 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | IS(Mf)6 | 9:00 | 1.0 | Surface | 1 | 2 | 27.71 | 8.16 | 22.35 | 89.9 | 6.22 | 7.5 | 6.0 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | IS(Mf)6 | 8:59 | 2.5 | Bottom | 3 | 1 | 27.67 | 8.19 | 23.17 | 79.7 | 5.52 | 7.6 | 6.7 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | IS(Mf)6 | 9:00 | 2.5 | Bottom | 3 | 2 | 27.70 | 8.16 | 22.94 | 76.6 | 5.32 | 7.3 | 7.1 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | IS7 | 8:52 | 1.0 | Surface | 1 | 1 | 27.78 | 8.17 | 22.07 | 81.1 | 5.63 | 4.2 | 8.1 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | IS7 | 8:52 | 1.0 | Surface | 1 | 2 | 27.78 | 8.16 | 22.07 | 77.4 | 5.38 | 4.4 | 8.1 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | IS7 | 8:52 | 2.3 | Bottom | 3 | 1 | 27.73 | 8.18 | 22.19 | 78.6 | 5.46 | 4.3 | 8.6 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | IS7 | 8:52 | 2.3 | Bottom | 3 | 2 | 27.77 | 8.16 | 22.11 | 75.4 | 5.24 | 4.3 | 9.2 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | IS8 | 8:25 | 1.0 | Surface | 1 | 1 | 27.82 | 8.20 | 21.47 | 89.1 | 6.21 | 4.7 | 4.8 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | IS8 | 8:24 | 1.0 | Surface | 1 | 2 | 27.81 | 8.25 | 21.49 | 84.5 | 5.89 | 4.7 | 4.4 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | IS8 | 8:24 | 3.2 | Bottom | 3 | 1 | 27.80 | 8.28 | 21.54 | 80.5 | 5.61 | 5.0 | 5.5 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | IS8 | 8:25 | 3.2 | Bottom | 3 | 2 | 27.81 | 8.22 | 21.52 | 79.0 | 5.50 | 4.8 | 6.1 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | IS(Mf)9 | 8:44 | 1.0 | Surface | 1 | 1 | 27.68 | 8.22 | 22.31 | 85.9 | 5.97 | 4.9 | 4.5 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | IS(Mf)9 | 8:45 | 1.0 | Surface | 1 | 2 | 27.70 | 8.19 | 22.07 | 94.0 | 6.53 | 4.7 | 4.8 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | IS(Mf)9 | 8:44 | 2.8 | Bottom | 3 | 1 | 27.64 | 8.24 | 22.54 | 81.5 | 5.66 | 4.7 | 5.6 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | IS(Mf)9 | 8:45 | 2.8 | Bottom | 3 | 2 | 27.67 | 8.19 | 22.44 | 79.8 | 5.55 | 4.8 | 5.2 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | IS10(N) | 9:05 | 1.0 | Surface | 1 | 1 | 28.45 | 7.73 | 22.84 | 75.8 | 5.19 | 7.7 | 7.7 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | IS10(N) | 9:04 | 1.0 | Surface | 1 | 2 | 28.44 | 7.74 | 22.82 | 76.1 | 5.21 | 7.8 | 7.4 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | IS10(N) | 9:05 | 5.1 | Middle | 2 | 1 | 27.89 | 7.72 | 25.36 | 74.8 | 5.08 | 8.6 | 8.6 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | IS10(N) | 9:04 | 5.1 | Middle | 2 | 2 | 27.89 | 7.73 | 25.43 | 74.7 | 5.08 | 8.5 | 8.2 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | IS10(N) | 9:03 | 9.2 | Bottom | 3 | 1 | 27.73 | 7.74 | 26.05 | 71.1 | 4.84 | 9.2 | 11.2 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | IS10(N) | 9:05 | 9.2 | Bottom | 3 | 2 | 27.77 | 7.73 | 26.04 | 70.7 | 4.81 | 8.8 | 10.4 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | SR3(N) | 9:16 | 1.0 | Surface | 1 | 1 | 27.82 | 8.16 | 22.57 | 82.4 | 5.71 | 6.6 | 8.7 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | SR3(N) | 9:16 | 1.0 | Surface | 1 | 2 | 27.81 | 8.17 | 22.52 | 79.4 | 5.50 | 6.7 | 9.0 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | SR3(N) | 9:16 | 2.5 | Bottom | 3 | 1 | 27.79 | 8.18 | 22.61 | 76.5 | 5.30 | 6.8 | 9.3 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | SR3(N) | 9:16 | 2.5 | Bottom | 3 | 2 | 27.80 | 8.16 | 22.58 | 75.6 | 5.24 | 6.8 | 9.4 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | SR4(N) | 8:33 | 1.0 | Surface | 1 | 1 | 27.72 | 8.19 | 22.11 | 82.0 | 5.70 | 3.8 | 5.8 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | SR4(N) | 8:33 | 1.0 | Surface | 1 | 2 | 27.71 | 8.17 | 22.11 | 86.8 | 6.03 | 3.5 | 5.7 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | SR4(N) | 8:33 | 2.8 | Bottom | 3 | 1 | 27.71 | 8.18 | 22.23 | 78.0 | 5.43 | 3.5 | 7.1 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | SR4(N) | 8:32 | 2.8 | Bottom | 3 | 2 | 27.68 | 8.21 | 22.42 | 79.3 | 5.51 | 3.5 | 7.0 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | SR5(N) | 9:16 | 1.0 | Surface | 1 | 1 | 28.43 | 7.73 | 22.83 | 78.7 | 5.38 | 7.3 | 4.5 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | SR5(N) | 9:17 | 1.0 | Surface | 1 | 2 | 28.38 | 7.73 | 22.83 | 78.2 | 5.36 | 7.1 | 4.9 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | SR5(N) | 9:17 | 4.3 | Middle | 2 | 1 | 28.14 | 7.72 | 24.07 | 75.4 | 5.13 | 8.4 | 6.9 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | SR5(N) | 9:16 | 4.3 | Middle | 2 | 2 | 28.12 | 7.72 | 24.13 | 75.3 | 5.15 | 8.3 | 6.6 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | SR5(N) | 9:15 | 7.6 | Bottom | 3 | 1 | 27.88 | 7.71 | 25.48 | 72.7 | 4.95 | 8.6 | 8.6 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | SR5(N) | 9:17 | 7.6 | Bottom | 3 | 2 | 27.86 | 7.71 | 25.56 | 72.3 | 4.92 | 8.7 | 8.7 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | SR10A(N) | 7:45 | 1.0 | Surface | 1 | 1 | 28.59 | 7.79 | 21.79 | 76.9 | 5.27 | 2.1 | 5.8 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | SR10A(N) | 7:47 | 1.0 | Surface | 1 | 2 | 28.58 | 7.77 | 21.76 | 76.6 | 5.25 | 1.8 | 5.3 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | SR10A(N) | 7:45 | 6.9 | Middle | 2 | 1 | 27.56 | 7.79 | 26.35 | 74.7 | 5.09 | 2.3 | 4.4 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | SR10A(N) | 7:46 | 6.9 | Middle | 2 | 2 | 27.58 | 7.78 | 26.24 | 74.6 | 5.07 | 2.5 | 4.2 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | SR10A(N) | 7:44 | 12.8 | Bottom | 3 | 1 | 26.38 | 7.79 | 30.63 | 72.6 | 4.92 | 2.2 | 4.2 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | SR10A(N) | 7:46 | 12.8 | Bottom | 3 | 2 | 26.35 | 7.79 | 30.68 | 73.3 | 4.98 | 2.4 | 4.0 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | SR10B(N2) | 7:57 | 1.0 | Surface | 1 | 1 | 28.47 | 7.78 | 22.13 | 75.4 | 5.18 | 2.3 | 4.3 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | SR10B(N2) | 7:56 | 1.0 | Surface | 1 | 2 | 28.45 | 7.77 | 22.09 | 75.4 | 5.17 | 2.2 | 4.3 |

Water Quality Monitoring Data

| Project | Works | Date (yyyy-mm-dd) | Tide | Weather Condition | Station | Time | Depth, m | Level | Level_Code | Replicate | Temperature, °C | pH | Salinity, ppt | DO, % | DO, mg/L | Turbidity, NTU | SS, mg/L |
|---------|------------|-------------------|-----------|-------------------|-----------|-------|----------|---------|------------|-----------|-----------------|------|---------------|-------|----------|----------------|----------|
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | SR10B(N2) | 7:56 | 3.8 | Middle | 2 | 1 | 27.93 | 7.77 | 24.63 | 74.5 | 5.09 | 2.5 | 3.4 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | SR10B(N2) | 7:57 | 3.8 | Middle | 2 | 2 | 27.89 | 7.76 | 24.64 | 74.4 | 5.07 | 2.6 | 3.7 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | SR10B(N2) | 7:55 | 6.6 | Bottom | 3 | 1 | 27.59 | 7.75 | 26.36 | 71.8 | 4.88 | 2.1 | 3.2 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | SR10B(N2) | 7:57 | 6.6 | Bottom | 3 | 2 | 27.59 | 7.75 | 26.40 | 71.1 | 4.84 | 2.1 | 3.1 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | CS2(A) | 10:14 | 1.0 | Surface | 1 | 1 | 28.62 | 7.76 | 20.12 | 78.5 | 5.44 | 11.7 | 2.6 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | CS2(A) | 10:15 | 1.0 | Surface | 1 | 2 | 28.59 | 7.76 | 20.18 | 79.1 | 5.47 | 11.8 | 2.7 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | CS2(A) | 10:15 | 3.7 | Middle | 2 | 1 | 27.60 | 7.70 | 28.14 | 78.1 | 5.25 | 12.5 | 3.1 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | CS2(A) | 10:13 | 3.7 | Middle | 2 | 2 | 27.61 | 7.72 | 28.21 | 77.9 | 5.24 | 12.2 | 2.7 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | CS2(A) | 10:13 | 6.4 | Bottom | 3 | 1 | 27.41 | 7.74 | 29.36 | 74.9 | 5.02 | 12.8 | 3.0 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | CS2(A) | 10:14 | 6.4 | Bottom | 3 | 2 | 27.42 | 7.73 | 29.29 | 74.6 | 5.01 | 12.7 | 2.9 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | CS(Mf)5 | 8:01 | 1.0 | Surface | 1 | 1 | 27.74 | 8.26 | 21.73 | 74.6 | 5.17 | 3.8 | 4.6 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | CS(Mf)5 | 8:02 | 1.0 | Surface | 1 | 2 | 27.75 | 8.24 | 21.42 | 72.5 | 5.07 | 3.9 | 4.9 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | CS(Mf)5 | 8:01 | 6.0 | Middle | 2 | 1 | 26.99 | 8.27 | 28.21 | 72.1 | 5.05 | 5.8 | 5.1 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | CS(Mf)5 | 8:02 | 6.0 | Middle | 2 | 2 | 26.25 | 8.19 | 27.27 | 71.5 | 5.02 | 5.6 | 4.7 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | CS(Mf)5 | 8:02 | 10.9 | Bottom | 3 | 1 | 25.74 | 8.16 | 31.21 | 70.1 | 4.89 | 5.6 | 6.0 |
| HKLR | HY/2011/03 | 2019-08-19 | Mid-Flood | Fine | CS(Mf)5 | 8:01 | 10.9 | Bottom | 3 | 2 | 25.71 | 8.25 | 31.24 | 70.0 | 4.88 | 5.8 | 6.0 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | ISS | 14:52 | 1.0 | Surface | 1 | 1 | 28.07 | 8.23 | 24.46 | 79.9 | 5.43 | 3.9 | 6.4 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | ISS | 14:51 | 1.0 | Surface | 1 | 2 | 28.10 | 8.26 | 24.39 | 85.6 | 5.82 | 4.0 | 6.5 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | ISS | 14:51 | 4.2 | Middle | 2 | 1 | 27.82 | 8.25 | 24.85 | 79.6 | 5.43 | 5.2 | 4.4 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | ISS | 14:52 | 4.2 | Middle | 2 | 2 | 27.84 | 8.22 | 24.94 | 77.3 | 5.28 | 5.3 | 4.8 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | ISS | 14:52 | 7.3 | Bottom | 3 | 1 | 27.77 | 8.22 | 26.05 | 76.7 | 5.23 | 5.3 | 3.9 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | ISS | 14:51 | 7.3 | Bottom | 3 | 2 | 27.66 | 8.25 | 26.25 | 79.4 | 5.43 | 5.5 | 4.2 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | IS(Mf)6 | 15:01 | 1.0 | Surface | 1 | 1 | 28.50 | 8.23 | 25.27 | 86.5 | 5.84 | 2.9 | 4.5 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | IS(Mf)6 | 15:01 | 1.0 | Surface | 1 | 2 | 28.33 | 8.22 | 25.43 | 90.8 | 6.14 | 3.0 | 4.5 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | IS(Mf)6 | 15:01 | 2.1 | Bottom | 3 | 1 | 28.16 | 8.22 | 25.68 | 81.8 | 5.53 | 3.3 | 4.3 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | IS(Mf)6 | 15:01 | 2.1 | Bottom | 3 | 2 | 28.25 | 8.23 | 25.53 | 83.9 | 5.68 | 3.3 | 3.5 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | IS7 | 15:09 | 1.0 | Surface | 1 | 1 | 28.30 | 8.27 | 25.29 | 88.9 | 6.02 | 2.6 | 4.9 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | IS7 | 15:08 | 1.0 | Surface | 1 | 2 | 28.28 | 8.27 | 25.30 | 90.3 | 6.12 | 2.5 | 4.9 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | IS7 | 15:08 | 2.1 | Bottom | 3 | 1 | 27.73 | 8.27 | 25.58 | 92.4 | 6.30 | 2.5 | 3.4 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | IS7 | 15:09 | 2.1 | Bottom | 3 | 2 | 27.98 | 8.27 | 25.43 | 89.4 | 6.07 | 2.6 | 2.6 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | IS8(N) | 15:38 | 1.0 | Surface | 1 | 1 | 27.94 | 8.28 | 25.71 | 88.4 | 6.00 | 7.0 | 11.2 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | IS8(N) | 15:37 | 1.0 | Surface | 1 | 2 | 28.03 | 8.29 | 25.61 | 86.4 | 5.87 | 7.1 | 9.8 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | IS8(N) | 15:37 | 2.8 | Bottom | 3 | 1 | 28.02 | 8.30 | 25.65 | 84.4 | 5.73 | 7.1 | 10.6 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | IS8(N) | 15:37 | 2.8 | Bottom | 3 | 2 | 27.90 | 8.28 | 25.81 | 83.3 | 5.66 | 7.1 | 10.7 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | IS(Mf)9 | 15:17 | 1.0 | Surface | 1 | 1 | 28.54 | 8.26 | 25.20 | 86.9 | 5.86 | 3.8 | 3.6 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | IS(Mf)9 | 15:17 | 1.0 | Surface | 1 | 2 | 27.98 | 8.27 | 25.49 | 89.2 | 6.06 | 3.8 | 3.5 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | IS(Mf)9 | 15:17 | 2.6 | Bottom | 3 | 1 | 28.10 | 8.28 | 25.39 | 91.5 | 6.21 | 3.7 | 4.8 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | IS(Mf)9 | 15:17 | 2.6 | Bottom | 3 | 2 | 28.33 | 8.26 | 25.32 | 87.5 | 5.92 | 3.7 | 4.3 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | IS10(N) | 15:21 | 1.0 | Surface | 1 | 1 | 29.69 | 7.78 | 21.99 | 79.2 | 5.32 | 7.0 | 2.3 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | IS10(N) | 15:20 | 1.0 | Surface | 1 | 2 | 29.66 | 7.77 | 22.01 | 79.2 | 5.33 | 7.1 | 1.8 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | IS10(N) | 15:21 | 4.9 | Middle | 2 | 1 | 27.86 | 7.72 | 26.30 | 75.1 | 5.10 | 7.6 | 1.7 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | IS10(N) | 15:20 | 4.9 | Middle | 2 | 2 | 27.88 | 7.72 | 26.27 | 75.5 | 5.13 | 7.5 | 2.4 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | IS10(N) | 15:19 | 8.8 | Bottom | 3 | 1 | 26.91 | 7.69 | 28.94 | 71.0 | 4.82 | 8.4 | 2.3 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | IS10(N) | 15:21 | 8.8 | Bottom | 3 | 2 | 26.90 | 7.70 | 28.94 | 71.3 | 4.84 | 8.7 | 2.7 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | SR3(N) | 14:44 | 1.0 | Surface | 1 | 1 | 29.22 | 8.29 | 24.63 | 91.4 | 6.11 | 4.0 | 5.0 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | SR3(N) | 14:43 | 1.0 | Surface | 1 | 2 | 28.81 | 8.30 | 24.78 | 90.7 | 6.12 | 4.1 | 5.7 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | SR3(N) | 14:44 | 2.4 | Bottom | 3 | 1 | 29.18 | 8.29 | 24.62 | 90.0 | 6.02 | 4.1 | 6.0 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | SR3(N) | 14:43 | 2.4 | Bottom | 3 | 2 | 28.56 | 8.33 | 24.88 | 90.2 | 6.07 | 4.2 | 5.8 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | SR4(N2) | 15:30 | 1.0 | Surface | 1 | 1 | 27.98 | 8.28 | 25.35 | 83.3 | 5.66 | 7.8 | 5.6 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | SR4(N2) | 15:30 | 1.0 | Surface | 1 | 2 | 27.80 | 8.26 | 25.58 | 88.9 | 6.05 | 7.7 | 5.7 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | SR4(N2) | 15:30 | 2.6 | Bottom | 3 | 1 | 27.66 | 8.29 | 26.02 | 82.1 | 5.58 | 7.7 | 3.3 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | SR4(N2) | 15:30 | 2.6 | Bottom | 3 | 2 | 27.88 | 8.27 | 25.58 | 80.6 | 5.49 | 7.9 | 3.2 |

Water Quality Monitoring Data

| Project | Works | Date (yyyy-mm-dd) | Tide | Weather Condition | Station | Time | Depth, m | Level | Level_Code | Replicate | Temperature, °C | pH | Salinity, ppt | DO, % | DO, mg/L | Turbidity, NTU | SS, mg/L |
|---------|------------|-------------------|-----------|-------------------|-----------|-------|----------|---------|------------|-----------|-----------------|------|---------------|-------|----------|----------------|----------|
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | SR5(N) | 15:11 | 1.0 | Surface | 1 | 1 | 29.71 | 7.78 | 21.92 | 77.3 | 5.20 | 7.3 | 1.4 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | SR5(N) | 15:13 | 1.0 | Surface | 1 | 2 | 29.68 | 7.77 | 21.98 | 76.3 | 5.14 | 7.5 | 1.2 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | SR5(N) | 15:12 | 4.2 | Middle | 2 | 1 | 28.09 | 7.72 | 25.41 | 74.8 | 5.09 | 8.2 | 1.7 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | SR5(N) | 15:11 | 4.2 | Middle | 2 | 2 | 28.14 | 7.73 | 25.42 | 75.4 | 5.11 | 8.0 | 1.8 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | SR5(N) | 15:12 | 7.4 | Bottom | 3 | 1 | 27.40 | 7.70 | 27.52 | 71.8 | 4.88 | 8.6 | 4.0 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | SR5(N) | 15:11 | 7.4 | Bottom | 3 | 2 | 27.37 | 7.72 | 27.48 | 72.6 | 4.93 | 8.4 | 3.5 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | SR10A(N) | 16:01 | 1.0 | Surface | 1 | 1 | 28.74 | 7.85 | 26.25 | 80.7 | 5.38 | 3.6 | 2.9 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | SR10A(N) | 16:03 | 1.0 | Surface | 1 | 2 | 28.71 | 7.84 | 26.24 | 80.0 | 5.33 | 3.5 | 2.4 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | SR10A(N) | 16:02 | 6.8 | Middle | 2 | 1 | 26.56 | 7.79 | 29.86 | 76.0 | 5.16 | 4.1 | 1.8 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | SR10A(N) | 16:01 | 6.8 | Middle | 2 | 2 | 26.59 | 7.80 | 29.92 | 76.6 | 5.20 | 3.9 | 1.2 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | SR10A(N) | 16:01 | 12.6 | Bottom | 3 | 1 | 25.96 | 7.80 | 31.42 | 74.1 | 5.04 | 4.9 | 4.4 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | SR10A(N) | 16:02 | 12.6 | Bottom | 3 | 2 | 25.97 | 7.78 | 31.35 | 73.5 | 5.00 | 4.7 | 4.6 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | SR10B(N2) | 16:14 | 1.0 | Surface | 1 | 1 | 28.79 | 7.84 | 26.58 | 78.8 | 5.25 | 3.2 | 1.5 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | SR10B(N2) | 16:13 | 1.0 | Surface | 1 | 2 | 28.76 | 7.83 | 26.60 | 77.9 | 5.23 | 3.0 | 1.7 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | SR10B(N2) | 16:13 | 3.6 | Middle | 2 | 1 | 27.69 | 7.82 | 27.24 | 75.5 | 5.10 | 3.4 | 1.4 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | SR10B(N2) | 16:14 | 3.6 | Middle | 2 | 2 | 27.64 | 7.82 | 27.28 | 75.7 | 5.09 | 3.5 | 2.1 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | SR10B(N2) | 16:12 | 6.2 | Bottom | 3 | 1 | 26.92 | 7.80 | 29.37 | 73.0 | 4.94 | 4.1 | 3.5 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | SR10B(N2) | 16:13 | 6.2 | Bottom | 3 | 2 | 26.91 | 7.80 | 29.34 | 72.3 | 4.89 | 3.9 | 4.2 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | CS2(A) | 14:35 | 1.0 | Surface | 1 | 1 | 29.18 | 7.74 | 22.68 | 78.7 | 5.39 | 4.5 | 2.0 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | CS2(A) | 14:37 | 1.0 | Surface | 1 | 2 | 29.19 | 7.74 | 22.65 | 77.9 | 5.33 | 4.5 | 1.8 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | CS2(A) | 14:35 | 3.5 | Middle | 2 | 1 | 28.27 | 7.73 | 26.28 | 76.2 | 5.14 | 4.9 | 1.9 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | CS2(A) | 14:36 | 3.5 | Middle | 2 | 2 | 28.27 | 7.72 | 26.28 | 75.7 | 5.12 | 4.6 | 1.9 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | CS2(A) | 14:36 | 6.0 | Bottom | 3 | 1 | 27.86 | 7.69 | 28.79 | 72.5 | 4.86 | 6.2 | 2.4 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | CS2(A) | 14:34 | 6.0 | Bottom | 3 | 2 | 27.84 | 7.71 | 28.81 | 72.3 | 4.86 | 5.9 | 1.7 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | CS(Mf)5 | 16:00 | 1.0 | Surface | 1 | 1 | 27.85 | 8.27 | 26.42 | 74.2 | 5.09 | 2.7 | 1.2 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | CS(Mf)5 | 16:01 | 1.0 | Surface | 1 | 2 | 27.91 | 8.26 | 26.33 | 74.0 | 5.07 | 2.6 | 0.9 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | CS(Mf)5 | 16:00 | 5.8 | Middle | 2 | 1 | 25.45 | 8.23 | 30.89 | 73.6 | 5.02 | 2.6 | 1.3 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | CS(Mf)5 | 16:00 | 5.8 | Middle | 2 | 2 | 25.49 | 8.22 | 30.69 | 73.8 | 5.05 | 2.6 | 1.5 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | CS(Mf)5 | 16:00 | 10.5 | Bottom | 3 | 1 | 25.25 | 8.22 | 32.13 | 71.1 | 4.89 | 2.5 | 2.3 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Ebb | Sunny | CS(Mf)5 | 16:00 | 10.5 | Bottom | 3 | 2 | 24.97 | 8.23 | 32.76 | 70.6 | 4.85 | 2.6 | 1.9 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | IS5 | 10:35 | 1.0 | Surface | 1 | 1 | 27.79 | 8.24 | 25.01 | 76.6 | 5.25 | 8.4 | 3.4 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | IS5 | 10:35 | 1.0 | Surface | 1 | 2 | 27.88 | 8.22 | 24.89 | 76.1 | 5.22 | 8.6 | 3.1 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | IS5 | 10:35 | 4.4 | Middle | 2 | 1 | 27.54 | 8.21 | 25.65 | 74.2 | 5.07 | 8.5 | 3.2 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | IS5 | 10:35 | 4.4 | Middle | 2 | 2 | 27.50 | 8.23 | 25.56 | 75.1 | 5.13 | 8.4 | 3.6 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | IS5 | 10:35 | 7.7 | Bottom | 3 | 1 | 27.57 | 8.21 | 26.51 | 71.2 | 4.87 | 8.7 | 3.4 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | IS5 | 10:34 | 7.7 | Bottom | 3 | 2 | 27.51 | 8.24 | 26.27 | 74.5 | 5.07 | 8.5 | 2.8 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | IS(Mf)6 | 10:27 | 1.0 | Surface | 1 | 1 | 27.65 | 8.25 | 24.84 | 86.7 | 5.95 | 3.6 | 1.5 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | IS(Mf)6 | 10:27 | 1.0 | Surface | 1 | 2 | 27.58 | 8.25 | 24.92 | 83.5 | 5.73 | 3.6 | 1.5 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | IS(Mf)6 | 10:27 | 2.3 | Bottom | 3 | 1 | 27.63 | 8.25 | 24.88 | 82.1 | 5.63 | 3.6 | 2.7 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | IS(Mf)6 | 10:27 | 2.3 | Bottom | 3 | 2 | 27.47 | 8.26 | 25.07 | 82.8 | 5.68 | 3.5 | 1.7 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | IS7 | 10:20 | 1.0 | Surface | 1 | 1 | 27.65 | 8.23 | 25.35 | 82.4 | 5.63 | 2.5 | 2.1 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | IS7 | 10:20 | 1.0 | Surface | 1 | 2 | 27.74 | 8.24 | 25.16 | 80.6 | 5.51 | 2.4 | 2.3 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | IS7 | 10:20 | 2.1 | Bottom | 3 | 1 | 27.70 | 8.23 | 25.38 | 78.2 | 5.35 | 2.8 | 2.4 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | IS7 | 10:19 | 2.1 | Bottom | 3 | 2 | 27.63 | 8.24 | 25.49 | 79.5 | 5.43 | 3.0 | 1.9 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | IS8(N) | 9:51 | 1.0 | Surface | 1 | 1 | 27.38 | 8.20 | 25.14 | 74.3 | 5.11 | 2.6 | 3.7 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | IS8(N) | 9:52 | 1.0 | Surface | 1 | 2 | 27.38 | 8.20 | 25.15 | 74.3 | 5.11 | 2.8 | 4.5 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | IS8(N) | 9:51 | 3.0 | Bottom | 3 | 1 | 27.37 | 8.20 | 25.18 | 74.1 | 5.10 | 2.9 | 3.2 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | IS8(N) | 9:52 | 3.0 | Bottom | 3 | 2 | 27.36 | 8.20 | 25.19 | 74.1 | 5.10 | 2.8 | 3.4 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | IS(Mf)9 | 10:12 | 1.0 | Surface | 1 | 1 | 27.36 | 8.24 | 25.33 | 81.8 | 5.62 | 4.8 | 1.8 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | IS(Mf)9 | 10:12 | 1.0 | Surface | 1 | 2 | 27.33 | 8.22 | 25.40 | 86.4 | 5.93 | 4.6 | 2.7 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | IS(Mf)9 | 10:12 | 2.5 | Bottom | 3 | 1 | 27.32 | 8.23 | 25.51 | 77.6 | 5.33 | 5.7 | 1.9 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | IS(Mf)9 | 10:11 | 2.5 | Bottom | 3 | 2 | 27.29 | 8.25 | 25.67 | 79.0 | 5.43 | 5.7 | 2.3 |

Water Quality Monitoring Data

| Project | Works | Date (yyyy-mm-dd) | Tide | Weather Condition | Station | Time | Depth, m | Level | Level_Code | Replicate | Temperature, °C | pH | Salinity, ppt | DO, % | DO, mg/L | Turbidity, NTU | SS, mg/L |
|---------|------------|-------------------|-----------|-------------------|-----------|-------|----------|---------|------------|-----------|-----------------|------|---------------|-------|----------|----------------|----------|
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | IS10(N) | 10:00 | 1.0 | Surface | 1 | 1 | 28.64 | 7.76 | 24.51 | 77.6 | 5.26 | 5.5 | 3.6 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | IS10(N) | 9:58 | 1.0 | Surface | 1 | 2 | 28.65 | 7.79 | 24.47 | 78.3 | 5.29 | 5.3 | 3.7 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | IS10(N) | 9:59 | 5.0 | Middle | 2 | 1 | 27.89 | 7.76 | 25.67 | 74.3 | 5.05 | 6.4 | 3.9 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | IS10(N) | 9:58 | 5.0 | Middle | 2 | 2 | 27.92 | 7.78 | 25.66 | 74.8 | 5.09 | 6.1 | 3.4 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | IS10(N) | 9:59 | 9.0 | Bottom | 3 | 1 | 27.40 | 7.75 | 27.30 | 71.7 | 4.86 | 6.6 | 3.5 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | IS10(N) | 9:58 | 9.0 | Bottom | 3 | 2 | 27.37 | 7.77 | 27.34 | 71.7 | 4.88 | 6.7 | 3.4 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | SR3(N) | 10:44 | 1.0 | Surface | 1 | 1 | 27.80 | 8.26 | 25.20 | 82.5 | 5.63 | 4.1 | 4.3 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | SR3(N) | 10:44 | 1.0 | Surface | 1 | 2 | 27.81 | 8.24 | 25.18 | 87.3 | 5.96 | 4.3 | 5.4 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | SR3(N) | 10:44 | 2.6 | Bottom | 3 | 1 | 27.79 | 8.25 | 25.22 | 77.5 | 5.29 | 4.2 | 5.0 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | SR3(N) | 10:43 | 2.6 | Bottom | 3 | 2 | 27.77 | 8.27 | 25.27 | 79.6 | 5.43 | 4.2 | 4.2 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | SR4(N2) | 9:59 | 1.0 | Surface | 1 | 1 | 27.48 | 8.20 | 25.41 | 74.9 | 5.13 | 18.1 | 7.0 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | SR4(N2) | 9:59 | 1.0 | Surface | 1 | 2 | 27.49 | 8.21 | 25.41 | 78.3 | 5.37 | 18.2 | 6.4 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | SR4(N2) | 9:59 | 2.6 | Bottom | 3 | 1 | 27.44 | 8.22 | 25.58 | 83.2 | 5.70 | 20.4 | 8.0 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | SR4(N2) | 9:59 | 2.6 | Bottom | 3 | 2 | 27.47 | 8.21 | 25.51 | 76.0 | 5.21 | 20.7 | 8.7 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | SR5(N) | 10:07 | 1.0 | Surface | 1 | 1 | 28.20 | 7.73 | 25.06 | 78.2 | 5.31 | 5.2 | 5.7 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | SR5(N) | 10:06 | 1.0 | Surface | 1 | 2 | 28.20 | 7.74 | 25.05 | 78.9 | 5.35 | 5.1 | 6.1 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | SR5(N) | 10:06 | 4.3 | Middle | 2 | 1 | 28.00 | 7.74 | 25.43 | 75.9 | 5.15 | 5.5 | 3.7 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | SR5(N) | 10:07 | 4.3 | Middle | 2 | 2 | 27.98 | 7.73 | 25.44 | 75.2 | 5.11 | 5.7 | 4.7 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | SR5(N) | 10:07 | 7.6 | Bottom | 3 | 1 | 27.51 | 7.72 | 26.98 | 70.9 | 4.82 | 6.0 | 4.1 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | SR5(N) | 10:06 | 7.6 | Bottom | 3 | 2 | 27.53 | 7.73 | 26.98 | 70.7 | 4.80 | 5.9 | 5.1 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | SR10A(N) | 9:10 | 1.0 | Surface | 1 | 1 | 27.83 | 7.77 | 25.32 | 78.4 | 5.35 | 4.4 | 2.7 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | SR10A(N) | 9:11 | 1.0 | Surface | 1 | 2 | 27.82 | 7.75 | 25.30 | 78.4 | 5.33 | 4.6 | 4.1 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | SR10A(N) | 9:11 | 7.0 | Middle | 2 | 1 | 27.17 | 7.75 | 27.82 | 74.9 | 5.10 | 5.4 | 2.9 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | SR10A(N) | 9:09 | 7.0 | Middle | 2 | 2 | 27.18 | 7.76 | 27.85 | 75.8 | 5.15 | 5.2 | 1.9 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | SR10A(N) | 9:09 | 13.0 | Bottom | 3 | 1 | 26.78 | 7.75 | 29.16 | 70.5 | 4.79 | 6.1 | 2.3 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | SR10A(N) | 9:10 | 13.0 | Bottom | 3 | 2 | 26.77 | 7.74 | 29.15 | 70.3 | 4.77 | 6.4 | 1.7 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | SR10B(N2) | 9:01 | 1.0 | Surface | 1 | 1 | 27.93 | 7.78 | 25.14 | 76.5 | 5.21 | 5.2 | 3.3 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | SR10B(N2) | 9:00 | 1.0 | Surface | 1 | 2 | 27.94 | 7.78 | 25.09 | 77.1 | 5.24 | 5.3 | 3.3 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | SR10B(N2) | 8:59 | 3.7 | Middle | 2 | 1 | 27.53 | 7.76 | 26.74 | 74.7 | 5.07 | 5.6 | 3.5 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | SR10B(N2) | 9:01 | 3.7 | Middle | 2 | 2 | 27.55 | 7.77 | 26.81 | 74.5 | 5.05 | 5.9 | 2.6 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | SR10B(N2) | 8:59 | 6.4 | Bottom | 3 | 1 | 27.41 | 7.76 | 27.12 | 71.2 | 4.84 | 6.5 | 2.7 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | SR10B(N2) | 9:00 | 6.4 | Bottom | 3 | 2 | 27.43 | 7.77 | 27.15 | 71.2 | 4.84 | 6.3 | 1.9 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | CS2(A) | 10:55 | 1.0 | Surface | 1 | 1 | 28.62 | 7.76 | 22.19 | 77.3 | 5.29 | 4.6 | 2.2 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | CS2(A) | 10:57 | 1.0 | Surface | 1 | 2 | 28.63 | 7.76 | 22.13 | 76.7 | 5.24 | 4.7 | 1.8 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | CS2(A) | 10:56 | 3.6 | Middle | 2 | 1 | 28.08 | 7.75 | 26.28 | 74.8 | 5.05 | 5.1 | 2.3 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | CS2(A) | 10:55 | 3.6 | Middle | 2 | 2 | 28.09 | 7.75 | 26.32 | 75.5 | 5.09 | 5.0 | 2.9 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | CS2(A) | 10:56 | 6.2 | Bottom | 3 | 1 | 27.62 | 7.75 | 28.89 | 71.7 | 4.81 | 5.4 | 1.7 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | CS2(A) | 10:54 | 6.2 | Bottom | 3 | 2 | 27.60 | 7.75 | 28.97 | 71.8 | 4.81 | 5.6 | 1.9 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | CS(Mf)5 | 9:24 | 1.0 | Surface | 1 | 1 | 27.12 | 8.23 | 26.14 | 75.5 | 5.17 | 4.7 | 2.7 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | CS(Mf)5 | 9:23 | 1.0 | Surface | 1 | 2 | 27.20 | 8.26 | 25.72 | 76.4 | 5.23 | 4.5 | 2.2 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | CS(Mf)5 | 9:23 | 6.1 | Middle | 2 | 1 | 25.58 | 8.21 | 29.38 | 73.7 | 5.06 | 8.7 | 2.8 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | CS(Mf)5 | 9:23 | 6.1 | Middle | 2 | 2 | 26.00 | 8.27 | 29.05 | 74.4 | 5.11 | 8.6 | 2.2 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | CS(Mf)5 | 9:22 | 11.1 | Bottom | 3 | 1 | 25.29 | 8.28 | 31.99 | 69.7 | 4.79 | 8.5 | 3.1 |
| HKLR | HY/2011/03 | 2019-08-21 | Mid-Flood | Sunny | CS(Mf)5 | 9:23 | 11.1 | Bottom | 3 | 2 | 25.33 | 8.20 | 31.97 | 70.3 | 4.82 | 8.7 | 2.9 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | IS5 | 5:54 | 1.0 | Surface | 1 | 1 | 28.17 | 8.26 | 19.67 | 75.2 | 5.26 | 3.2 | 3.1 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | IS5 | 5:53 | 1.0 | Surface | 1 | 2 | 28.16 | 8.25 | 19.85 | 75.3 | 5.12 | 3.2 | 3.2 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | IS5 | 5:53 | 4.1 | Middle | 2 | 1 | 26.85 | 8.17 | 26.37 | 73.6 | 5.07 | 3.2 | 2.9 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | IS5 | 5:54 | 4.1 | Middle | 2 | 2 | 27.15 | 8.18 | 26.28 | 73.9 | 5.17 | 3.5 | 3.9 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | IS5 | 5:54 | 7.2 | Bottom | 3 | 1 | 26.67 | 8.16 | 28.69 | 71.6 | 4.91 | 3.3 | 2.7 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | IS5 | 5:53 | 7.2 | Bottom | 3 | 2 | 26.78 | 8.13 | 28.79 | 73.2 | 4.99 | 3.4 | 3.8 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | IS(Mf)6 | 5:41 | 1.0 | Surface | 1 | 1 | 28.34 | 8.21 | 19.40 | 80.5 | 5.62 | 2.5 | 3.2 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | IS(Mf)6 | 5:40 | 1.0 | Surface | 1 | 2 | 28.31 | 8.21 | 19.41 | 80.4 | 5.62 | 2.5 | 3.5 |

Water Quality Monitoring Data

| Project | Works | Date (yyyy-mm-dd) | Tide | Weather Condition | Station | Time | Depth, m | Level | Level_Code | Replicate | Temperature, °C | pH | Salinity, ppt | DO, % | DO, mg/L | Turbidity, NTU | SS, mg/L |
|---------|------------|-------------------|---------|-------------------|-----------|------|----------|---------|------------|-----------|-----------------|------|---------------|-------|----------|----------------|----------|
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | IS(Mf)6 | 5:40 | 2.2 | Bottom | 3 | 1 | 28.05 | 8.17 | 21.73 | 80.3 | 5.56 | 2.5 | 3.0 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | IS(Mf)6 | 5:41 | 2.2 | Bottom | 3 | 2 | 28.30 | 8.18 | 22.69 | 80.8 | 5.55 | 2.4 | 3.3 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | IS7 | 5:34 | 1.0 | Surface | 1 | 1 | 28.37 | 8.21 | 19.53 | 82.4 | 5.75 | 2.6 | 4.6 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | IS7 | 5:34 | 1.0 | Surface | 1 | 2 | 28.34 | 8.21 | 19.54 | 83.4 | 5.82 | 2.8 | 3.6 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | IS7 | 5:33 | 2.1 | Bottom | 3 | 1 | 28.26 | 8.17 | 22.85 | 85.7 | 5.88 | 2.8 | 3.5 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | IS7 | 5:34 | 2.1 | Bottom | 3 | 2 | 28.34 | 8.19 | 22.78 | 83.0 | 5.69 | 2.7 | 4.1 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | IS8(N) | 5:05 | 1.0 | Surface | 1 | 1 | 28.00 | 8.18 | 19.84 | 76.1 | 5.33 | 1.7 | 4.4 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | IS8(N) | 5:05 | 1.0 | Surface | 1 | 2 | 28.20 | 8.19 | 19.70 | 76.5 | 5.35 | 1.6 | 3.5 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | IS8(N) | 5:05 | 3.2 | Bottom | 3 | 1 | 28.13 | 8.16 | 23.87 | 77.0 | 5.27 | 1.8 | 3.1 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | IS8(N) | 5:05 | 3.2 | Bottom | 3 | 2 | 27.55 | 8.13 | 24.90 | 76.8 | 5.27 | 1.9 | 3.8 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | IS(Mf)9 | 5:27 | 1.0 | Surface | 1 | 1 | 28.30 | 8.21 | 19.63 | 78.9 | 5.51 | 2.5 | 3.0 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | IS(Mf)9 | 5:27 | 1.0 | Surface | 1 | 2 | 28.31 | 8.21 | 19.69 | 79.8 | 5.57 | 2.6 | 3.4 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | IS(Mf)9 | 5:27 | 2.6 | Bottom | 3 | 1 | 28.26 | 8.18 | 23.37 | 79.2 | 5.42 | 2.6 | 3.7 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | IS(Mf)9 | 5:27 | 2.6 | Bottom | 3 | 2 | 27.88 | 8.15 | 23.94 | 78.3 | 5.38 | 2.5 | 3.2 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | IS10(N) | 5:25 | 1.0 | Surface | 1 | 1 | 29.49 | 7.68 | 16.25 | 81.6 | 5.99 | 2.4 | 3.4 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | IS10(N) | 5:26 | 1.0 | Surface | 1 | 2 | 29.53 | 7.69 | 16.56 | 82.1 | 6.02 | 2.5 | 3.9 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | IS10(N) | 5:26 | 5.2 | Middle | 2 | 1 | 28.87 | 7.69 | 22.34 | 75.9 | 5.49 | 2.6 | 3.4 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | IS10(N) | 5:25 | 5.2 | Middle | 2 | 2 | 28.71 | 7.69 | 22.52 | 74.9 | 5.43 | 2.5 | 3.8 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | IS10(N) | 5:25 | 9.3 | Bottom | 3 | 1 | 27.97 | 7.65 | 25.29 | 73.2 | 5.30 | 2.9 | 3.6 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | IS10(N) | 5:26 | 9.3 | Bottom | 3 | 2 | 28.32 | 7.65 | 25.12 | 74.6 | 5.37 | 2.8 | 4.5 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | SR3(N) | 6:03 | 1.0 | Surface | 1 | 1 | 28.27 | 8.22 | 19.70 | 81.0 | 5.66 | 2.4 | 3.6 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | SR3(N) | 6:03 | 1.0 | Surface | 1 | 2 | 28.38 | 8.23 | 19.65 | 82.4 | 5.75 | 2.4 | 4.3 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | SR3(N) | 6:02 | 2.4 | Bottom | 3 | 1 | 28.23 | 8.19 | 22.87 | 84.5 | 5.80 | 2.6 | 4.1 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | SR3(N) | 6:03 | 2.4 | Bottom | 3 | 2 | 28.26 | 8.19 | 23.07 | 81.7 | 5.60 | 2.4 | 4.6 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | SR4(N2) | 5:14 | 1.0 | Surface | 1 | 1 | 28.29 | 8.21 | 19.71 | 80.1 | 5.59 | 1.4 | 5.4 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | SR4(N2) | 5:14 | 1.0 | Surface | 1 | 2 | 28.27 | 8.20 | 19.73 | 82.3 | 5.75 | 1.3 | 5.0 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | SR4(N2) | 5:14 | 2.7 | Bottom | 3 | 1 | 28.08 | 8.16 | 23.47 | 80.7 | 5.53 | 1.3 | 5.0 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | SR4(N2) | 5:14 | 2.7 | Bottom | 3 | 2 | 28.22 | 8.16 | 22.98 | 84.3 | 5.78 | 1.3 | 4.4 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | SR5(N) | 5:37 | 1.0 | Surface | 1 | 1 | 29.51 | 7.79 | 15.03 | 83.2 | 6.13 | 2.2 | 6.2 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | SR5(N) | 5:36 | 1.0 | Surface | 1 | 2 | 29.46 | 7.73 | 18.61 | 83.0 | 6.03 | 2.4 | 6.3 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | SR5(N) | 5:36 | 3.8 | Middle | 2 | 1 | 29.01 | 7.70 | 22.01 | 79.0 | 5.70 | 2.6 | 6.2 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | SR5(N) | 5:37 | 3.8 | Middle | 2 | 2 | 29.00 | 7.72 | 21.33 | 78.4 | 5.67 | 2.5 | 6.0 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | SR5(N) | 5:36 | 6.5 | Bottom | 3 | 1 | 28.59 | 7.69 | 23.84 | 77.9 | 5.61 | 2.7 | 5.3 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | SR5(N) | 5:37 | 6.5 | Bottom | 3 | 2 | 28.62 | 7.69 | 23.72 | 77.6 | 5.59 | 2.7 | 6.3 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | SR10A(N) | 4:31 | 1.0 | Surface | 1 | 1 | 29.43 | 7.81 | 16.86 | 86.2 | 6.30 | 2.0 | 2.4 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | SR10A(N) | 4:30 | 1.0 | Surface | 1 | 2 | 29.41 | 7.80 | 17.91 | 85.5 | 6.08 | 2.0 | 1.5 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | SR10A(N) | 4:30 | 6.7 | Middle | 2 | 1 | 29.05 | 7.76 | 21.37 | 84.4 | 6.15 | 2.1 | 2.5 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | SR10A(N) | 4:30 | 6.7 | Middle | 2 | 2 | 28.71 | 7.77 | 22.53 | 84.7 | 6.10 | 2.1 | 2.8 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | SR10A(N) | 4:30 | 12.4 | Bottom | 3 | 1 | 27.82 | 7.72 | 26.92 | 79.8 | 5.72 | 2.2 | 2.3 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | SR10A(N) | 4:30 | 12.4 | Bottom | 3 | 2 | 28.88 | 7.73 | 24.54 | 79.7 | 5.75 | 2.2 | 3.3 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | SR10B(N2) | 4:20 | 1.0 | Surface | 1 | 1 | 29.38 | 7.83 | 17.65 | 90.3 | 6.41 | 2.1 | 3.5 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | SR10B(N2) | 4:20 | 1.0 | Surface | 1 | 2 | 29.39 | 7.83 | 17.87 | 89.2 | 6.39 | 2.0 | 3.1 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | SR10B(N2) | 4:20 | 3.7 | Middle | 2 | 1 | 28.92 | 7.81 | 21.74 | 88.6 | 6.44 | 2.3 | 3.9 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | SR10B(N2) | 4:19 | 3.7 | Middle | 2 | 2 | 29.14 | 7.81 | 21.55 | 87.3 | 6.22 | 2.2 | 3.8 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | SR10B(N2) | 4:19 | 6.3 | Bottom | 3 | 1 | 28.99 | 7.81 | 23.91 | 85.5 | 6.15 | 2.5 | 2.2 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | SR10B(N2) | 4:20 | 6.3 | Bottom | 3 | 2 | 28.76 | 7.81 | 24.44 | 86.2 | 6.28 | 2.4 | 2.7 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | CS2(A) | 6:32 | 1.0 | Surface | 1 | 1 | 28.82 | 7.82 | 20.12 | 81.6 | 5.95 | 3.7 | 3.0 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | CS2(A) | 6:34 | 1.0 | Surface | 1 | 2 | 28.83 | 7.81 | 20.54 | 81.8 | 5.94 | 3.8 | 2.8 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | CS2(A) | 6:32 | 3.7 | Middle | 2 | 1 | 28.54 | 7.80 | 23.27 | 75.7 | 5.48 | 4.2 | 3.8 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | CS2(A) | 6:33 | 3.7 | Middle | 2 | 2 | 28.54 | 7.80 | 23.06 | 75.0 | 5.43 | 4.3 | 2.8 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | CS2(A) | 6:33 | 6.4 | Bottom | 3 | 1 | 27.76 | 7.76 | 28.15 | 72.4 | 5.19 | 4.6 | 3.9 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | CS2(A) | 6:32 | 6.4 | Bottom | 3 | 2 | 27.39 | 7.78 | 29.56 | 70.8 | 5.08 | 4.7 | 3.3 |

Water Quality Monitoring Data

| Project | Works | Date (yyyy-mm-dd) | Tide | Weather Condition | Station | Time | Depth, m | Level | Level_Code | Replicate | Temperature, °C | pH | Salinity, ppt | DO, % | DO, mg/L | Turbidity, NTU | SS, mg/L |
|---------|------------|-------------------|-----------|-------------------|----------|-------|----------|---------|------------|-----------|-----------------|------|---------------|-------|----------|----------------|----------|
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | CS(Mf)5 | 4:34 | 1.0 | Surface | 1 | 1 | 28.37 | 8.19 | 19.63 | 78.6 | 5.48 | 3.3 | 2.0 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | CS(Mf)5 | 4:33 | 1.0 | Surface | 1 | 2 | 28.32 | 8.16 | 19.77 | 78.1 | 5.34 | 3.2 | 2.9 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | CS(Mf)5 | 4:33 | 5.9 | Middle | 2 | 1 | 26.57 | 8.04 | 27.86 | 75.0 | 5.23 | 4.5 | 1.8 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | CS(Mf)5 | 4:33 | 5.9 | Middle | 2 | 2 | 26.52 | 8.09 | 28.27 | 74.7 | 5.10 | 4.5 | 2.8 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | CS(Mf)5 | 4:33 | 10.8 | Bottom | 3 | 1 | 26.50 | 8.08 | 29.24 | 72.9 | 5.00 | 4.6 | 4.1 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Ebb | Cloudy | CS(Mf)5 | 4:32 | 10.8 | Bottom | 3 | 2 | 26.34 | 8.05 | 29.52 | 73.1 | 5.02 | 4.5 | 3.5 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | IS5 | 10:51 | 1.0 | Surface | 1 | 1 | 28.28 | 8.26 | 22.98 | 76.7 | 5.26 | 10.5 | 3.6 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | IS5 | 10:50 | 1.0 | Surface | 1 | 2 | 28.16 | 8.25 | 23.11 | 79.9 | 5.39 | 10.8 | 4.5 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | IS5 | 10:51 | 4.1 | Middle | 2 | 1 | 27.93 | 8.23 | 24.63 | 75.2 | 5.13 | 10.5 | 4.1 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | IS5 | 10:50 | 4.1 | Middle | 2 | 2 | 27.83 | 8.23 | 24.54 | 76.7 | 5.26 | 10.2 | 5.1 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | IS5 | 10:50 | 7.1 | Bottom | 3 | 1 | 27.59 | 8.20 | 28.17 | 76.2 | 5.22 | 10.2 | 7.7 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | IS5 | 10:50 | 7.1 | Bottom | 3 | 2 | 27.70 | 8.20 | 27.84 | 75.1 | 5.13 | 10.9 | 8.7 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | IS(Mf)6 | 11:01 | 1.0 | Surface | 1 | 1 | 28.27 | 8.25 | 22.47 | 90.7 | 6.24 | 15.2 | 5.8 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | IS(Mf)6 | 11:00 | 1.0 | Surface | 1 | 2 | 28.25 | 8.24 | 22.41 | 93.3 | 6.42 | 15.4 | 6.3 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | IS(Mf)6 | 11:00 | 2.1 | Bottom | 3 | 1 | 28.26 | 8.24 | 22.62 | 91.6 | 6.29 | 15.7 | 5.6 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | IS(Mf)6 | 11:00 | 2.1 | Bottom | 3 | 2 | 28.29 | 8.24 | 22.50 | 97.5 | 6.70 | 15.8 | 5.0 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | IS7 | 11:09 | 1.0 | Surface | 1 | 1 | 28.29 | 8.25 | 22.44 | 90.3 | 6.21 | 11.5 | 4.1 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | IS7 | 11:09 | 1.0 | Surface | 1 | 2 | 28.25 | 8.24 | 22.62 | 88.5 | 6.09 | 11.7 | 4.7 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | IS7 | 11:09 | 2.0 | Bottom | 3 | 1 | 28.29 | 8.25 | 22.43 | 90.6 | 6.23 | 11.8 | 5.2 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | IS7 | 11:09 | 2.0 | Bottom | 3 | 2 | 28.27 | 8.24 | 23.36 | 89.9 | 6.15 | 11.9 | 4.2 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | IS8(N) | 11:42 | 1.0 | Surface | 1 | 1 | 28.34 | 8.27 | 21.27 | 89.4 | 6.18 | 4.5 | 3.3 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | IS8(N) | 11:42 | 1.0 | Surface | 1 | 2 | 28.43 | 8.26 | 20.85 | 91.3 | 6.24 | 4.4 | 4.2 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | IS8(N) | 11:42 | 3.3 | Bottom | 3 | 1 | 28.34 | 8.25 | 22.67 | 86.3 | 5.97 | 4.4 | 3.7 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | IS8(N) | 11:42 | 3.3 | Bottom | 3 | 2 | 28.30 | 8.25 | 23.33 | 87.7 | 6.02 | 4.5 | 4.7 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | IS(Mf)9 | 11:18 | 1.0 | Surface | 1 | 1 | 28.19 | 8.24 | 22.50 | 90.4 | 6.17 | 6.5 | 5.8 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | IS(Mf)9 | 11:18 | 1.0 | Surface | 1 | 2 | 28.18 | 8.25 | 22.41 | 86.1 | 5.93 | 6.6 | 4.8 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | IS(Mf)9 | 11:18 | 2.8 | Bottom | 3 | 1 | 28.11 | 8.23 | 24.36 | 84.8 | 5.78 | 6.5 | 4.4 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | IS(Mf)9 | 11:18 | 2.8 | Bottom | 3 | 2 | 28.16 | 8.23 | 24.24 | 82.9 | 5.71 | 6.3 | 4.4 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | IS10(N) | 11:37 | 1.0 | Surface | 1 | 1 | 29.24 | 7.79 | 19.61 | 91.5 | 6.60 | 5.6 | 4.7 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | IS10(N) | 11:39 | 1.0 | Surface | 1 | 2 | 29.28 | 7.79 | 19.24 | 90.8 | 6.56 | 5.4 | 5.6 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | IS10(N) | 11:39 | 5.4 | Middle | 2 | 1 | 28.89 | 7.76 | 22.77 | 85.5 | 6.13 | 5.7 | 3.6 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | IS10(N) | 11:37 | 5.4 | Middle | 2 | 2 | 29.15 | 7.78 | 21.51 | 87.3 | 6.27 | 5.9 | 4.6 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | IS10(N) | 11:38 | 9.7 | Bottom | 3 | 1 | 28.31 | 7.72 | 24.61 | 80.0 | 5.76 | 6.3 | 4.8 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | IS10(N) | 11:37 | 9.7 | Bottom | 3 | 2 | 28.39 | 7.72 | 24.38 | 78.5 | 5.65 | 6.4 | 4.0 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | SR3(N) | 10:42 | 1.0 | Surface | 1 | 1 | 28.34 | 8.26 | 23.62 | 96.6 | 6.59 | 6.9 | 5.8 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | SR3(N) | 10:42 | 1.0 | Surface | 1 | 2 | 28.38 | 8.27 | 23.65 | 90.3 | 6.16 | 6.8 | 5.6 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | SR3(N) | 10:42 | 2.3 | Bottom | 3 | 1 | 28.28 | 8.30 | 23.78 | 88.4 | 6.03 | 6.8 | 5.0 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | SR3(N) | 10:42 | 2.3 | Bottom | 3 | 2 | 28.32 | 8.26 | 23.74 | 87.0 | 5.94 | 6.5 | 4.1 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | SR4(N2) | 11:33 | 1.0 | Surface | 1 | 1 | 28.34 | 8.27 | 21.31 | 91.9 | 6.35 | 2.1 | 3.0 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | SR4(N2) | 11:33 | 1.0 | Surface | 1 | 2 | 28.34 | 8.27 | 21.32 | 90.5 | 6.25 | 2.3 | 3.4 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | SR4(N2) | 11:33 | 2.8 | Bottom | 3 | 1 | 28.34 | 8.26 | 21.53 | 93.5 | 6.46 | 2.2 | 3.4 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | SR4(N2) | 11:33 | 2.8 | Bottom | 3 | 2 | 28.37 | 8.26 | 21.36 | 90.9 | 6.28 | 2.2 | 3.9 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | SR5(N) | 11:26 | 1.0 | Surface | 1 | 1 | 29.15 | 7.79 | 20.22 | 87.1 | 6.29 | 5.5 | 1.9 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | SR5(N) | 11:24 | 1.0 | Surface | 1 | 2 | 29.22 | 7.81 | 19.67 | 87.5 | 6.32 | 5.7 | 2.8 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | SR5(N) | 11:24 | 4.0 | Middle | 2 | 1 | 28.68 | 7.77 | 23.25 | 80.5 | 5.80 | 5.8 | 2.3 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | SR5(N) | 11:26 | 4.0 | Middle | 2 | 2 | 28.52 | 7.75 | 23.66 | 80.3 | 5.78 | 5.7 | 3.3 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | SR5(N) | 11:24 | 6.9 | Bottom | 3 | 1 | 28.05 | 7.73 | 25.61 | 74.6 | 5.38 | 6.1 | 3.2 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | SR5(N) | 11:25 | 6.9 | Bottom | 3 | 2 | 28.14 | 7.71 | 25.37 | 75.4 | 5.43 | 6.0 | 2.2 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | SR10A(N) | 12:33 | 1.0 | Surface | 1 | 1 | 28.16 | 7.82 | 25.11 | 87.4 | 6.25 | 2.0 | 1.9 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | SR10A(N) | 12:34 | 1.0 | Surface | 1 | 2 | 28.18 | 7.82 | 24.93 | 86.9 | 6.22 | 2.1 | 2.8 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | SR10A(N) | 12:34 | 6.8 | Middle | 2 | 1 | 27.44 | 7.81 | 27.32 | 82.4 | 5.91 | 2.2 | 2.3 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | SR10A(N) | 12:33 | 6.8 | Middle | 2 | 2 | 27.48 | 7.81 | 27.13 | 82.5 | 5.92 | 2.1 | 2.2 |

Water Quality Monitoring Data

| Project | Works | Date (yyyy-mm-dd) | Tide | Weather Condition | Station | Time | Depth, m | Level | Level_Code | Replicate | Temperature, °C | pH | Salinity, ppt | DO, % | DO, mg/L | Turbidity, NTU | SS, mg/L |
|---------|------------|-------------------|-----------|-------------------|-----------|-------|----------|---------|------------|-----------|-----------------|------|---------------|-------|----------|----------------|----------|
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | SR10A(N) | 12:34 | 12.6 | Bottom | 3 | 1 | 26.71 | 7.78 | 29.37 | 79.2 | 5.70 | 2.3 | 2.1 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | SR10A(N) | 12:33 | 12.6 | Bottom | 3 | 2 | 26.68 | 7.78 | 29.45 | 78.3 | 5.64 | 2.2 | 1.9 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | SR10B(N2) | 12:45 | 1.0 | Surface | 1 | 1 | 28.30 | 7.82 | 24.74 | 90.3 | 6.45 | 2.2 | 1.9 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | SR10B(N2) | 12:43 | 1.0 | Surface | 1 | 2 | 28.28 | 7.83 | 24.72 | 89.8 | 6.42 | 2.3 | 1.8 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | SR10B(N2) | 12:44 | 3.9 | Middle | 2 | 1 | 27.51 | 7.80 | 27.07 | 84.0 | 6.02 | 2.5 | 1.8 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | SR10B(N2) | 12:43 | 3.9 | Middle | 2 | 2 | 27.58 | 7.81 | 26.87 | 84.2 | 6.04 | 2.4 | 1.6 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | SR10B(N2) | 12:43 | 6.7 | Bottom | 3 | 1 | 26.77 | 7.78 | 29.08 | 80.6 | 5.80 | 2.7 | 2.6 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | SR10B(N2) | 12:44 | 6.7 | Bottom | 3 | 2 | 26.93 | 7.78 | 28.82 | 81.7 | 5.87 | 2.6 | 2.3 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | CS2(A) | 10:37 | 1.0 | Surface | 1 | 1 | 28.82 | 7.79 | 21.16 | 83.4 | 6.04 | 4.6 | 4.3 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | CS2(A) | 10:35 | 1.0 | Surface | 1 | 2 | 28.76 | 7.79 | 21.37 | 82.9 | 6.00 | 4.5 | 5.3 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | CS2(A) | 10:36 | 3.9 | Middle | 2 | 1 | 28.56 | 7.78 | 23.14 | 77.9 | 5.63 | 5.3 | 4.1 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | CS2(A) | 10:35 | 3.9 | Middle | 2 | 2 | 28.53 | 7.78 | 23.44 | 76.3 | 5.51 | 5.3 | 4.8 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | CS2(A) | 10:34 | 6.8 | Bottom | 3 | 1 | 27.75 | 7.76 | 28.26 | 74.0 | 5.30 | 5.4 | 4.6 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | CS2(A) | 10:36 | 6.8 | Bottom | 3 | 2 | 27.88 | 7.77 | 27.72 | 74.6 | 5.34 | 5.5 | 4.2 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | CS(Mf)5 | 12:08 | 1.0 | Surface | 1 | 1 | 28.08 | 8.30 | 21.16 | 80.7 | 5.54 | 2.1 | 3.5 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | CS(Mf)5 | 12:08 | 1.0 | Surface | 1 | 2 | 27.95 | 8.27 | 23.89 | 75.7 | 5.18 | 2.1 | 3.0 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | CS(Mf)5 | 12:08 | 6.2 | Middle | 2 | 1 | 26.03 | 8.21 | 30.19 | 73.4 | 5.03 | 2.2 | 3.7 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | CS(Mf)5 | 12:08 | 6.2 | Middle | 2 | 2 | 25.92 | 8.21 | 30.57 | 73.9 | 5.14 | 2.2 | 4.3 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | CS(Mf)5 | 12:07 | 11.4 | Bottom | 3 | 1 | 24.92 | 8.19 | 32.98 | 70.8 | 4.84 | 2.1 | 3.5 |
| HKLR | HY/2011/03 | 2019-08-23 | Mid-Flood | Cloudy | CS(Mf)5 | 12:08 | 11.4 | Bottom | 3 | 2 | 25.03 | 8.20 | 33.06 | 70.0 | 4.79 | 2.3 | 2.5 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | IS5 | 9:36 | 1.0 | Surface | 1 | 1 | 27.21 | 8.08 | 17.45 | 75.8 | 5.49 | 2.6 | 6.9 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | IS5 | 9:35 | 1.0 | Surface | 1 | 2 | 27.23 | 8.09 | 17.45 | 77.0 | 5.53 | 2.8 | 7.3 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | IS5 | 9:34 | 4.2 | Middle | 2 | 1 | 27.53 | 7.93 | 22.01 | 74.9 | 5.22 | 3.5 | 4.6 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | IS5 | 9:36 | 4.2 | Middle | 2 | 2 | 27.53 | 7.93 | 22.18 | 74.0 | 5.19 | 3.7 | 5.0 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | IS5 | 9:34 | 7.4 | Bottom | 3 | 1 | 27.05 | 7.88 | 27.70 | 71.2 | 4.85 | 4.3 | 5.3 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | IS5 | 9:35 | 7.4 | Bottom | 3 | 2 | 27.22 | 7.84 | 27.62 | 71.1 | 4.87 | 4.5 | 4.8 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | IS(Mf)6 | 9:28 | 1.0 | Surface | 1 | 1 | 27.61 | 8.23 | 21.28 | 81.5 | 5.70 | 2.7 | 4.7 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | IS(Mf)6 | 9:28 | 1.0 | Surface | 1 | 2 | 27.59 | 8.25 | 21.23 | 80.9 | 5.70 | 2.5 | 5.4 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | IS(Mf)6 | 9:28 | 2.1 | Bottom | 3 | 1 | 27.67 | 8.22 | 22.71 | 81.5 | 5.66 | 3.8 | 5.8 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | IS(Mf)6 | 9:27 | 2.1 | Bottom | 3 | 2 | 27.66 | 8.21 | 22.74 | 81.3 | 5.64 | 3.5 | 5.2 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | IS7 | 9:21 | 1.0 | Surface | 1 | 1 | 26.81 | 8.32 | 18.80 | 88.6 | 6.37 | 2.1 | 4.8 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | IS7 | 9:20 | 1.0 | Surface | 1 | 2 | 26.79 | 8.33 | 18.78 | 88.5 | 6.37 | 2.3 | 4.8 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | IS7 | 9:20 | 2.1 | Bottom | 3 | 1 | 27.39 | 8.28 | 21.82 | 89.6 | 6.27 | 2.0 | 6.0 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | IS7 | 9:20 | 2.1 | Bottom | 3 | 2 | 27.39 | 8.28 | 21.76 | 88.6 | 6.25 | 1.9 | 5.6 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | IS8(N) | 8:51 | 1.0 | Surface | 1 | 1 | 27.48 | 8.29 | 22.64 | 76.8 | 5.35 | 4.7 | 6.0 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | IS8(N) | 8:51 | 1.0 | Surface | 1 | 2 | 27.45 | 8.28 | 22.56 | 77.1 | 5.39 | 5.0 | 5.4 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | IS8(N) | 8:50 | 2.9 | Bottom | 3 | 1 | 27.53 | 8.27 | 24.08 | 74.3 | 5.14 | 6.3 | 5.4 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | IS8(N) | 8:51 | 2.9 | Bottom | 3 | 2 | 27.50 | 8.25 | 24.14 | 75.6 | 5.22 | 6.0 | 5.9 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | IS(Mf)9 | 9:11 | 1.0 | Surface | 1 | 1 | 27.32 | 8.28 | 20.40 | 86.0 | 6.08 | 2.8 | 4.5 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | IS(Mf)9 | 9:10 | 1.0 | Surface | 1 | 2 | 27.32 | 8.28 | 20.37 | 86.2 | 6.09 | 2.7 | 4.7 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | IS(Mf)9 | 9:10 | 2.5 | Bottom | 3 | 1 | 27.40 | 8.25 | 21.15 | 84.4 | 5.93 | 2.9 | 6.1 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | IS(Mf)9 | 9:11 | 2.5 | Bottom | 3 | 2 | 27.43 | 8.25 | 21.15 | 84.6 | 5.93 | 3.1 | 6.5 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | IS10(N) | 9:07 | 1.0 | Surface | 1 | 1 | 28.31 | 7.86 | 16.58 | 82.7 | 6.06 | 3.2 | 3.3 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | IS10(N) | 9:07 | 1.0 | Surface | 1 | 2 | 28.32 | 7.83 | 16.59 | 80.6 | 6.03 | 3.2 | 3.8 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | IS10(N) | 9:07 | 5.1 | Middle | 2 | 1 | 27.97 | 7.74 | 25.17 | 75.8 | 5.38 | 3.5 | 3.8 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | IS10(N) | 9:07 | 5.1 | Middle | 2 | 2 | 27.56 | 7.77 | 24.76 | 75.7 | 5.37 | 3.2 | 3.3 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | IS10(N) | 9:06 | 9.2 | Bottom | 3 | 1 | 27.21 | 7.78 | 27.36 | 77.9 | 5.30 | 4.5 | 5.1 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | IS10(N) | 9:07 | 9.2 | Bottom | 3 | 2 | 27.55 | 7.71 | 27.32 | 75.8 | 5.14 | 4.1 | 4.7 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | SR3(N) | 9:50 | 1.0 | Surface | 1 | 1 | 27.35 | 8.20 | 17.07 | 82.8 | 5.98 | 2.5 | 6.3 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | SR3(N) | 9:51 | 1.0 | Surface | 1 | 2 | 27.36 | 8.17 | 17.03 | 83.0 | 5.97 | 2.7 | 6.0 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | SR3(N) | 9:50 | 2.3 | Bottom | 3 | 1 | 27.43 | 8.15 | 20.28 | 79.0 | 5.64 | 3.2 | 6.6 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | SR3(N) | 9:49 | 2.3 | Bottom | 3 | 2 | 27.41 | 8.14 | 20.31 | 80.1 | 5.63 | 3.0 | 6.4 |

Water Quality Monitoring Data

| Project | Works | Date (yyyy-mm-dd) | Tide | Weather Condition | Station | Time | Depth, m | Level | Level_Code | Replicate | Temperature, °C | pH | Salinity, ppt | DO, % | DO, mg/L | Turbidity, NTU | SS, mg/L |
|---------|------------|-------------------|-----------|-------------------|-----------|-------|----------|---------|------------|-----------|-----------------|------|---------------|-------|----------|----------------|----------|
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | SR4(N2) | 8:58 | 1.0 | Surface | 1 | 1 | 27.65 | 8.19 | 19.71 | 75.1 | 5.21 | 7.8 | 21.4 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | SR4(N2) | 8:57 | 1.0 | Surface | 1 | 2 | 27.65 | 8.24 | 19.66 | 73.5 | 5.19 | 7.6 | 20.2 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | SR4(N2) | 8:58 | 2.6 | Bottom | 3 | 1 | 27.70 | 8.18 | 23.83 | 71.5 | 4.93 | 8.5 | 21.1 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | SR4(N2) | 8:57 | 2.6 | Bottom | 3 | 2 | 27.68 | 8.21 | 23.94 | 71.6 | 4.92 | 8.4 | 20.6 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | SR5(N) | 9:17 | 1.0 | Surface | 1 | 1 | 28.38 | 7.82 | 16.50 | 81.1 | 6.07 | 3.8 | 6.0 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | SR5(N) | 9:18 | 1.0 | Surface | 1 | 2 | 28.34 | 7.82 | 16.52 | 82.2 | 6.16 | 4.0 | 5.8 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | SR5(N) | 9:17 | 3.9 | Middle | 2 | 1 | 28.35 | 7.75 | 19.77 | 77.7 | 5.51 | 4.9 | 6.2 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | SR5(N) | 9:18 | 3.9 | Middle | 2 | 2 | 28.19 | 7.78 | 19.56 | 79.1 | 5.89 | 5.0 | 6.4 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | SR5(N) | 9:17 | 6.7 | Bottom | 3 | 1 | 27.21 | 7.67 | 27.81 | 73.5 | 5.32 | 5.0 | 4.3 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | SR5(N) | 9:17 | 6.7 | Bottom | 3 | 2 | 27.56 | 7.69 | 27.78 | 75.0 | 5.45 | 5.3 | 3.7 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | SR10A(N) | 8:07 | 1.0 | Surface | 1 | 1 | 28.11 | 7.85 | 19.80 | 90.0 | 6.17 | 2.0 | 5.5 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | SR10A(N) | 8:06 | 1.0 | Surface | 1 | 2 | 28.20 | 7.84 | 19.78 | 90.1 | 6.29 | 1.8 | 6.1 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | SR10A(N) | 8:06 | 6.2 | Middle | 2 | 1 | 28.32 | 7.83 | 20.79 | 88.0 | 6.10 | 2.1 | 5.2 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | SR10A(N) | 8:07 | 6.2 | Middle | 2 | 2 | 27.46 | 7.81 | 21.08 | 86.2 | 5.95 | 2.3 | 6.0 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | SR10A(N) | 8:07 | 11.3 | Bottom | 3 | 1 | 28.22 | 7.76 | 22.50 | 77.6 | 5.30 | 2.6 | 5.1 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | SR10A(N) | 8:06 | 11.3 | Bottom | 3 | 2 | 28.26 | 7.81 | 22.89 | 77.9 | 5.45 | 2.4 | 5.2 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | SR10B(N2) | 7:58 | 1.0 | Surface | 1 | 1 | 28.19 | 7.85 | 19.76 | 91.1 | 6.37 | 1.5 | 4.5 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | SR10B(N2) | 7:58 | 1.0 | Surface | 1 | 2 | 28.21 | 7.87 | 19.84 | 92.3 | 6.45 | 1.5 | 4.3 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | SR10B(N2) | 7:58 | 3.3 | Middle | 2 | 1 | 28.30 | 7.85 | 20.33 | 90.3 | 6.28 | 1.5 | 5.8 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | SR10B(N2) | 7:58 | 3.3 | Middle | 2 | 2 | 28.33 | 7.88 | 20.51 | 94.0 | 6.53 | 1.6 | 6.4 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | SR10B(N2) | 7:58 | 5.6 | Bottom | 3 | 1 | 28.32 | 7.86 | 20.73 | 97.5 | 6.76 | 2.2 | 6.1 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | SR10B(N2) | 7:58 | 5.6 | Bottom | 3 | 2 | 28.27 | 7.85 | 20.96 | 91.5 | 6.34 | 2.3 | 5.8 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | CS2(A) | 10:06 | 1.0 | Surface | 1 | 1 | 28.37 | 7.80 | 16.58 | 82.7 | 5.87 | 4.1 | 4.3 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | CS2(A) | 10:07 | 1.0 | Surface | 1 | 2 | 28.37 | 7.80 | 16.61 | 82.2 | 5.83 | 4.4 | 3.6 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | CS2(A) | 10:06 | 3.1 | Middle | 2 | 1 | 28.37 | 7.78 | 18.82 | 80.6 | 5.65 | 4.8 | 3.5 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | CS2(A) | 10:06 | 3.1 | Middle | 2 | 2 | 28.38 | 7.78 | 18.77 | 79.4 | 5.57 | 5.1 | 3.9 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | CS2(A) | 10:06 | 5.1 | Bottom | 3 | 1 | 28.22 | 7.71 | 25.74 | 82.6 | 5.58 | 5.8 | 3.3 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | CS2(A) | 10:06 | 5.1 | Bottom | 3 | 2 | 28.28 | 7.72 | 25.28 | 83.7 | 5.67 | 5.5 | 3.5 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | CS(Mf)5 | 8:24 | 1.0 | Surface | 1 | 1 | 27.31 | 8.29 | 21.09 | 84.2 | 5.93 | 0.8 | 3.9 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | CS(Mf)5 | 8:23 | 1.0 | Surface | 1 | 2 | 27.31 | 8.31 | 21.08 | 84.2 | 5.93 | 0.9 | 3.8 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | CS(Mf)5 | 8:22 | 6.0 | Middle | 2 | 1 | 27.34 | 8.31 | 22.35 | 75.5 | 5.28 | 1.3 | 3.9 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | CS(Mf)5 | 8:24 | 6.0 | Middle | 2 | 2 | 27.37 | 8.30 | 22.37 | 75.9 | 5.31 | 1.1 | 3.2 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | CS(Mf)5 | 8:23 | 11.0 | Bottom | 3 | 1 | 23.81 | 8.17 | 34.64 | 69.5 | 4.82 | 1.7 | 4.2 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Ebb | Cloudy | CS(Mf)5 | 8:22 | 11.0 | Bottom | 3 | 2 | 23.77 | 8.21 | 34.59 | 70.3 | 4.88 | 1.8 | 4.1 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | IS5 | 15:34 | 1.0 | Surface | 1 | 1 | 27.63 | 8.28 | 19.45 | 88.9 | 6.29 | 3.5 | 4.3 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | IS5 | 15:33 | 1.0 | Surface | 1 | 2 | 27.63 | 8.28 | 19.51 | 89.7 | 6.34 | 3.4 | 4.1 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | IS5 | 15:33 | 4.1 | Middle | 2 | 1 | 27.53 | 8.25 | 20.71 | 82.4 | 5.79 | 3.9 | 4.3 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | IS5 | 15:34 | 4.1 | Middle | 2 | 2 | 27.53 | 8.26 | 20.57 | 82.9 | 5.84 | 4.0 | 3.9 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | IS5 | 15:32 | 7.2 | Bottom | 3 | 1 | 27.45 | 8.24 | 22.15 | 77.7 | 5.43 | 4.5 | 4.4 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | IS5 | 15:34 | 7.2 | Bottom | 3 | 2 | 27.45 | 8.23 | 22.17 | 78.1 | 5.45 | 4.4 | 4.4 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | IS(Mf)6 | 15:42 | 1.0 | Surface | 1 | 1 | 27.54 | 8.24 | 19.57 | 91.9 | 6.50 | 3.7 | 5.0 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | IS(Mf)6 | 15:41 | 1.0 | Surface | 1 | 2 | 27.56 | 8.23 | 19.58 | 92.7 | 6.55 | 3.9 | 5.0 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | IS(Mf)6 | 15:41 | 2.1 | Bottom | 3 | 1 | 27.53 | 8.22 | 20.58 | 90.5 | 6.38 | 4.5 | 4.0 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | IS(Mf)6 | 15:40 | 2.1 | Bottom | 3 | 2 | 27.53 | 8.20 | 20.62 | 90.5 | 6.37 | 4.4 | 3.6 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | IS7 | 15:56 | 1.0 | Surface | 1 | 1 | 27.53 | 8.25 | 19.89 | 89.3 | 6.31 | 2.9 | 6.2 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | IS7 | 15:55 | 1.0 | Surface | 1 | 2 | 27.53 | 8.24 | 19.82 | 88.8 | 6.28 | 3.0 | 6.8 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | IS7 | 15:54 | 2.2 | Bottom | 3 | 1 | 27.52 | 8.23 | 20.52 | 86.5 | 6.09 | 3.4 | 5.8 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | IS7 | 15:55 | 2.2 | Bottom | 3 | 2 | 27.53 | 8.24 | 20.54 | 86.4 | 6.09 | 3.5 | 6.4 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | IS8(N) | 16:25 | 1.0 | Surface | 1 | 1 | 27.51 | 8.23 | 18.25 | 89.6 | 6.39 | 3.5 | 3.3 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | IS8(N) | 16:24 | 1.0 | Surface | 1 | 2 | 27.52 | 8.24 | 18.26 | 90.5 | 6.46 | 3.2 | 3.9 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | IS8(N) | 16:24 | 3.0 | Bottom | 3 | 1 | 27.50 | 8.22 | 18.93 | 89.1 | 6.32 | 4.0 | 3.5 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | IS8(N) | 16:25 | 3.0 | Bottom | 3 | 2 | 27.49 | 8.23 | 18.90 | 88.5 | 6.28 | 4.3 | 2.9 |

Water Quality Monitoring Data

| Project | Works | Date (yyyy-mm-dd) | Tide | Weather Condition | Station | Time | Depth, m | Level | Level_Code | Replicate | Temperature, °C | pH | Salinity, ppt | DO, % | DO, mg/L | Turbidity, NTU | SS, mg/L |
|---------|------------|-------------------|-----------|-------------------|-----------|-------|----------|---------|------------|-----------|-----------------|------|---------------|-------|----------|----------------|----------|
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | IS(Mf)9 | 16:05 | 1.0 | Surface | 1 | 1 | 27.39 | 8.20 | 18.14 | 89.6 | 6.40 | 3.3 | 4.0 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | IS(Mf)9 | 16:04 | 1.0 | Surface | 1 | 2 | 27.40 | 8.17 | 18.06 | 90.4 | 6.47 | 3.1 | 4.8 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | IS(Mf)9 | 16:04 | 2.5 | Bottom | 3 | 1 | 27.43 | 8.14 | 19.29 | 88.1 | 6.26 | 3.5 | 4.1 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | IS(Mf)9 | 16:04 | 2.5 | Bottom | 3 | 2 | 27.44 | 8.15 | 19.36 | 88.5 | 6.28 | 3.7 | 4.1 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | IS10(N) | 16:07 | 1.0 | Surface | 1 | 1 | 28.56 | 7.75 | 15.88 | 82.2 | 5.88 | 6.8 | 3.5 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | IS10(N) | 16:06 | 1.0 | Surface | 1 | 2 | 28.47 | 7.75 | 15.87 | 80.3 | 5.70 | 6.7 | 4.1 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | IS10(N) | 16:07 | 5.2 | Middle | 2 | 1 | 27.88 | 7.68 | 20.99 | 80.7 | 5.72 | 7.0 | 4.4 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | IS10(N) | 16:06 | 5.2 | Middle | 2 | 2 | 27.54 | 7.66 | 21.55 | 79.0 | 5.37 | 6.8 | 4.0 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | IS10(N) | 16:07 | 9.3 | Bottom | 3 | 1 | 27.38 | 7.65 | 27.16 | 73.9 | 5.16 | 8.3 | 3.8 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | IS10(N) | 16:06 | 9.3 | Bottom | 3 | 2 | 27.21 | 7.60 | 27.56 | 73.8 | 5.25 | 8.0 | 4.3 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | SR3(N) | 15:25 | 1.0 | Surface | 1 | 1 | 27.52 | 8.28 | 19.17 | 88.8 | 6.30 | 3.9 | 10.9 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | SR3(N) | 15:24 | 1.0 | Surface | 1 | 2 | 27.50 | 8.29 | 19.29 | 89.6 | 6.34 | 4.2 | 9.9 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | SR3(N) | 15:23 | 2.4 | Bottom | 3 | 1 | 27.47 | 8.30 | 20.09 | 85.9 | 6.06 | 4.5 | 10.0 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | SR3(N) | 15:24 | 2.4 | Bottom | 3 | 2 | 27.46 | 8.27 | 20.15 | 86.2 | 6.09 | 4.7 | 10.1 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | SR4(N2) | 16:18 | 1.0 | Surface | 1 | 1 | 27.39 | 8.22 | 18.25 | 90.7 | 6.47 | 7.8 | 11.8 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | SR4(N2) | 16:17 | 1.0 | Surface | 1 | 2 | 27.37 | 8.22 | 18.21 | 90.3 | 6.45 | 7.7 | 11.6 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | SR4(N2) | 16:17 | 2.7 | Bottom | 3 | 1 | 27.42 | 8.19 | 19.41 | 89.8 | 6.36 | 8.5 | 13.0 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | SR4(N2) | 16:16 | 2.7 | Bottom | 3 | 2 | 27.42 | 8.19 | 19.36 | 89.8 | 6.37 | 8.2 | 13.8 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | SR5(N) | 15:55 | 1.0 | Surface | 1 | 1 | 28.55 | 7.78 | 15.71 | 82.1 | 5.84 | 4.9 | 2.2 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | SR5(N) | 15:56 | 1.0 | Surface | 1 | 2 | 28.53 | 7.76 | 15.99 | 82.7 | 5.63 | 4.6 | 2.8 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | SR5(N) | 15:55 | 3.9 | Middle | 2 | 1 | 28.30 | 7.74 | 20.43 | 78.3 | 5.33 | 5.9 | 2.2 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | SR5(N) | 15:56 | 3.9 | Middle | 2 | 2 | 27.75 | 7.69 | 20.89 | 80.4 | 5.71 | 6.1 | 2.6 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | SR5(N) | 15:55 | 6.8 | Bottom | 3 | 1 | 27.16 | 7.66 | 27.74 | 73.7 | 5.16 | 7.0 | 2.0 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | SR5(N) | 15:55 | 6.8 | Bottom | 3 | 2 | 27.16 | 7.62 | 27.73 | 75.6 | 5.26 | 6.6 | 2.6 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | SR10A(N) | 16:59 | 1.0 | Surface | 1 | 1 | 28.25 | 7.81 | 20.73 | 83.5 | 6.03 | 2.1 | 2.9 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | SR10A(N) | 16:59 | 1.0 | Surface | 1 | 2 | 28.15 | 7.80 | 20.83 | 85.2 | 6.22 | 2.2 | 2.6 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | SR10A(N) | 16:59 | 6.3 | Middle | 2 | 1 | 26.42 | 7.73 | 28.20 | 81.4 | 5.60 | 2.2 | 3.0 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | SR10A(N) | 16:59 | 6.3 | Middle | 2 | 2 | 26.45 | 7.74 | 27.32 | 80.0 | 5.49 | 2.2 | 2.2 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | SR10A(N) | 16:58 | 11.6 | Bottom | 3 | 1 | 26.08 | 7.72 | 29.55 | 76.4 | 5.31 | 2.7 | 3.7 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | SR10A(N) | 16:59 | 11.6 | Bottom | 3 | 2 | 26.28 | 7.73 | 28.72 | 77.1 | 5.52 | 3.0 | 2.9 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | SR10B(N2) | 17:07 | 1.0 | Surface | 1 | 1 | 27.63 | 7.79 | 21.37 | 77.8 | 5.33 | 2.8 | 3.4 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | SR10B(N2) | 17:07 | 1.0 | Surface | 1 | 2 | 27.79 | 7.80 | 20.91 | 76.7 | 5.25 | 3.0 | 3.6 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | SR10B(N2) | 17:07 | 3.3 | Middle | 2 | 1 | 27.09 | 7.75 | 25.43 | 75.1 | 5.25 | 2.9 | 3.6 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | SR10B(N2) | 17:07 | 3.3 | Middle | 2 | 2 | 27.03 | 7.74 | 25.81 | 72.3 | 5.06 | 3.0 | 3.6 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | SR10B(N2) | 17:07 | 5.6 | Bottom | 3 | 1 | 26.94 | 7.73 | 27.29 | 72.9 | 5.03 | 3.0 | 5.6 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | SR10B(N2) | 17:07 | 5.6 | Bottom | 3 | 2 | 26.99 | 7.73 | 27.18 | 73.0 | 5.00 | 3.3 | 6.0 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | CS2(A) | 15:17 | 1.0 | Surface | 1 | 1 | 28.59 | 7.77 | 15.89 | 88.9 | 6.31 | 3.8 | 3.1 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | CS2(A) | 15:17 | 1.0 | Surface | 1 | 2 | 28.58 | 7.79 | 15.92 | 88.9 | 6.30 | 4.2 | 3.3 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | CS2(A) | 15:17 | 3.1 | Middle | 2 | 1 | 28.48 | 7.77 | 17.58 | 86.4 | 6.08 | 4.7 | 3.1 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | CS2(A) | 15:17 | 3.1 | Middle | 2 | 2 | 28.35 | 7.78 | 18.21 | 86.3 | 6.07 | 4.8 | 2.6 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | CS2(A) | 15:17 | 5.1 | Bottom | 3 | 1 | 28.32 | 7.73 | 20.95 | 87.8 | 6.08 | 6.8 | 2.8 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | CS2(A) | 15:17 | 5.1 | Bottom | 3 | 2 | 28.12 | 7.75 | 21.11 | 88.8 | 6.17 | 6.5 | 2.7 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | CS(Mf)5 | 16:56 | 1.0 | Surface | 1 | 1 | 27.57 | 8.32 | 17.58 | 87.3 | 6.25 | 1.5 | 3.3 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | CS(Mf)5 | 16:58 | 1.0 | Surface | 1 | 2 | 27.56 | 8.29 | 17.54 | 87.0 | 6.22 | 1.7 | 3.6 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | CS(Mf)5 | 16:56 | 6.1 | Middle | 2 | 1 | 25.13 | 8.17 | 31.51 | 81.7 | 5.63 | 2.2 | 3.2 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | CS(Mf)5 | 16:57 | 6.1 | Middle | 2 | 2 | 25.17 | 8.14 | 31.50 | 80.4 | 5.56 | 2.2 | 3.3 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | CS(Mf)5 | 16:57 | 11.2 | Bottom | 3 | 1 | 23.96 | 8.12 | 34.10 | 73.5 | 5.09 | 2.4 | 4.0 |
| HKLR | HY/2011/03 | 2019-08-26 | Mid-Flood | Rainy | CS(Mf)5 | 16:56 | 11.2 | Bottom | 3 | 2 | 23.96 | 8.15 | 34.08 | 74.0 | 5.13 | 2.6 | 3.6 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | IS5 | 12:04 | 1.0 | Surface | 1 | 1 | 27.55 | 8.18 | 22.71 | 76.5 | 5.32 | 3.3 | 3.4 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | IS5 | 12:03 | 1.0 | Surface | 1 | 2 | 27.51 | 8.20 | 22.74 | 76.9 | 5.34 | 3.5 | 3.3 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | IS5 | 12:04 | 4.2 | Middle | 2 | 1 | 26.69 | 8.14 | 26.13 | 74.1 | 5.11 | 4.6 | 4.4 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | IS5 | 12:03 | 4.2 | Middle | 2 | 2 | 26.67 | 8.16 | 26.10 | 74.2 | 5.13 | 4.8 | 4.8 |

Water Quality Monitoring Data

| Project | Works | Date (yyyy-mm-dd) | Tide | Weather Condition | Station | Time | Depth, m | Level | Level_Code | Replicate | Temperature, °C | pH | Salinity, ppt | DO, % | DO, mg/L | Turbidity, NTU | SS, mg/L |
|---------|------------|-------------------|---------|-------------------|-----------|-------|----------|---------|------------|-----------|-----------------|------|---------------|-------|----------|----------------|----------|
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | IS5 | 12:02 | 7.4 | Bottom | 3 | 1 | 26.36 | 8.15 | 28.06 | 70.0 | 4.81 | 5.5 | 3.7 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | IS5 | 12:04 | 7.4 | Bottom | 3 | 2 | 26.38 | 8.12 | 28.09 | 69.9 | 4.81 | 5.2 | 3 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | IS(Mf)6 | 11:54 | 1.0 | Surface | 1 | 1 | 27.74 | 8.18 | 22.70 | 72.6 | 5.03 | 3.1 | 2.9 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | IS(Mf)6 | 11:54 | 1.0 | Surface | 1 | 2 | 27.74 | 8.20 | 22.69 | 73.0 | 5.06 | 3.3 | 3.1 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | IS(Mf)6 | 11:54 | 2.1 | Bottom | 3 | 1 | 27.21 | 8.15 | 24.34 | 68.8 | 4.77 | 3.7 | 3.4 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | IS(Mf)6 | 11:53 | 2.1 | Bottom | 3 | 2 | 27.19 | 8.17 | 24.39 | 68.8 | 4.77 | 4.1 | 3.8 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | IS7 | 11:45 | 1.0 | Surface | 1 | 1 | 27.48 | 8.19 | 22.81 | 74.2 | 5.17 | 2.1 | 3.3 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | IS7 | 11:46 | 1.0 | Surface | 1 | 2 | 27.51 | 8.18 | 22.89 | 73.5 | 5.11 | 2.3 | 3.8 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | IS7 | 11:45 | 2.2 | Bottom | 3 | 1 | 26.99 | 8.18 | 24.12 | 72.4 | 5.04 | 2.3 | 4.2 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | IS7 | 11:46 | 2.2 | Bottom | 3 | 2 | 27.01 | 8.16 | 24.07 | 71.7 | 4.99 | 2.3 | 4.8 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | IS8(N) | 11:15 | 1.0 | Surface | 1 | 1 | 27.50 | 8.26 | 23.04 | 73.9 | 5.13 | 5.1 | 8.6 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | IS8(N) | 11:16 | 1.0 | Surface | 1 | 2 | 27.52 | 8.26 | 23.17 | 72.9 | 5.08 | 5.3 | 7.6 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | IS8(N) | 11:15 | 3.0 | Bottom | 3 | 1 | 26.60 | 8.22 | 24.79 | 71.1 | 4.95 | 5.8 | 7.4 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | IS8(N) | 11:15 | 3.0 | Bottom | 3 | 2 | 26.65 | 8.23 | 24.71 | 71.4 | 4.97 | 5.8 | 6.7 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | IS(Mf)9 | 11:37 | 1.0 | Surface | 1 | 1 | 27.79 | 8.19 | 22.58 | 74.4 | 5.15 | 4.5 | 3.5 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | IS(Mf)9 | 11:36 | 1.0 | Surface | 1 | 2 | 27.78 | 8.19 | 22.66 | 74.0 | 5.12 | 4.5 | 2.6 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | IS(Mf)9 | 11:37 | 2.6 | Bottom | 3 | 1 | 27.41 | 8.16 | 23.68 | 71.4 | 4.95 | 5.4 | 2.6 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | IS(Mf)9 | 11:36 | 2.6 | Bottom | 3 | 2 | 27.36 | 8.17 | 23.79 | 71.6 | 4.96 | 5.6 | 3.6 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | IS10(N) | 11:30 | 1.0 | Surface | 1 | 1 | 28.88 | 7.69 | 19.72 | 80.5 | 5.55 | 4.9 | 2.5 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | IS10(N) | 11:30 | 1.0 | Surface | 1 | 2 | 28.78 | 7.69 | 19.79 | 81.7 | 5.64 | 5.0 | 3.5 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | IS10(N) | 11:29 | 5.3 | Middle | 2 | 1 | 26.83 | 7.70 | 25.85 | 79.5 | 5.62 | 5.0 | 2.6 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | IS10(N) | 11:30 | 5.3 | Middle | 2 | 2 | 26.87 | 7.64 | 25.10 | 82.3 | 5.83 | 5.2 | 2.1 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | IS10(N) | 11:30 | 9.6 | Bottom | 3 | 1 | 26.89 | 7.63 | 26.52 | 80.0 | 5.51 | 5.6 | 1.6 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | IS10(N) | 11:29 | 9.6 | Bottom | 3 | 2 | 27.02 | 7.71 | 26.67 | 78.4 | 5.40 | 5.5 | 2.1 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | SR3(N) | 12:12 | 1.0 | Surface | 1 | 1 | 27.97 | 8.21 | 21.91 | 78.4 | 5.43 | 2.2 | 2.3 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | SR3(N) | 12:13 | 1.0 | Surface | 1 | 2 | 27.93 | 8.20 | 21.90 | 78.2 | 5.43 | 2.4 | 3.3 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | SR3(N) | 12:13 | 2.4 | Bottom | 3 | 1 | 27.49 | 8.19 | 22.91 | 77.3 | 5.36 | 2.8 | 3.7 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | SR3(N) | 12:12 | 2.4 | Bottom | 3 | 2 | 27.48 | 8.19 | 23.44 | 76.8 | 5.33 | 2.9 | 2.8 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | SR4(N2) | 11:23 | 1.0 | Surface | 1 | 1 | 27.31 | 8.16 | 22.64 | 73.6 | 5.13 | 7.4 | 4.4 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | SR4(N2) | 11:24 | 1.0 | Surface | 1 | 2 | 27.32 | 8.14 | 22.71 | 73.5 | 5.14 | 7.7 | 4.3 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | SR4(N2) | 11:22 | 2.6 | Bottom | 3 | 1 | 26.63 | 8.14 | 25.24 | 69.1 | 4.81 | 8.5 | 5.7 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | SR4(N2) | 11:23 | 2.6 | Bottom | 3 | 2 | 26.67 | 8.11 | 25.15 | 68.7 | 4.78 | 8.2 | 6.3 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | SR5(N) | 11:41 | 1.0 | Surface | 1 | 1 | 28.69 | 7.67 | 19.76 | 81.2 | 5.60 | 5.5 | 1.8 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | SR5(N) | 11:42 | 1.0 | Surface | 1 | 2 | 28.72 | 7.67 | 19.76 | 81.0 | 5.68 | 5.8 | 1.1 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | SR5(N) | 11:42 | 4.0 | Middle | 2 | 1 | 27.74 | 7.66 | 22.61 | 81.4 | 5.78 | 6.6 | 2 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | SR5(N) | 11:41 | 4.0 | Middle | 2 | 2 | 27.86 | 7.66 | 22.24 | 81.5 | 5.76 | 6.3 | 2 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | SR5(N) | 11:41 | 7.0 | Bottom | 3 | 1 | 26.87 | 7.62 | 26.60 | 80.7 | 5.56 | 6.9 | 1.4 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | SR5(N) | 11:41 | 7.0 | Bottom | 3 | 2 | 27.05 | 7.62 | 26.39 | 80.8 | 5.57 | 6.3 | 1.7 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | SR10A(N) | 10:14 | 1.0 | Surface | 1 | 1 | 27.66 | 7.78 | 23.44 | 81.7 | 5.65 | 2.6 | 5.2 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | SR10A(N) | 10:14 | 1.0 | Surface | 1 | 2 | 27.79 | 7.78 | 22.71 | 80.6 | 5.58 | 2.7 | 4.3 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | SR10A(N) | 10:14 | 6.1 | Middle | 2 | 1 | 27.35 | 7.77 | 24.33 | 79.7 | 5.51 | 2.5 | 3.4 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | SR10A(N) | 10:13 | 6.1 | Middle | 2 | 2 | 27.51 | 7.78 | 23.88 | 82.0 | 5.67 | 2.5 | 3.3 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | SR10A(N) | 10:14 | 11.2 | Bottom | 3 | 1 | 27.39 | 7.76 | 24.84 | 80.9 | 5.57 | 2.5 | 3.7 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | SR10A(N) | 10:13 | 11.2 | Bottom | 3 | 2 | 27.55 | 7.78 | 23.91 | 82.9 | 5.73 | 2.4 | 2.7 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | SR10B(N2) | 10:05 | 1.0 | Surface | 1 | 1 | 27.82 | 7.80 | 22.81 | 97.1 | 6.71 | 2.8 | 3.5 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | SR10B(N2) | 10:05 | 1.0 | Surface | 1 | 2 | 27.88 | 7.83 | 22.75 | 93.1 | 6.43 | 2.6 | 3.5 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | SR10B(N2) | 10:04 | 3.3 | Middle | 2 | 1 | 27.74 | 7.83 | 23.25 | 91.1 | 6.30 | 2.8 | 3.2 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | SR10B(N2) | 10:05 | 3.3 | Middle | 2 | 2 | 27.50 | 7.80 | 23.35 | 86.2 | 5.94 | 3.0 | 4 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | SR10B(N2) | 10:05 | 5.6 | Bottom | 3 | 1 | 27.35 | 7.79 | 24.68 | 83.9 | 5.82 | 3.3 | 3.4 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | SR10B(N2) | 10:04 | 5.6 | Bottom | 3 | 2 | 27.73 | 7.83 | 23.35 | 84.2 | 5.82 | 3.2 | 4.4 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | CS2(A) | 12:43 | 1.0 | Surface | 1 | 1 | 28.74 | 7.65 | 19.73 | 80.9 | 5.76 | 6.1 | 1.4 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | CS2(A) | 12:42 | 1.0 | Surface | 1 | 2 | 28.69 | 7.66 | 19.75 | 80.8 | 5.72 | 6.3 | 2.4 |

Water Quality Monitoring Data

| Project | Works | Date (yyyy-mm-dd) | Tide | Weather Condition | Station | Time | Depth, m | Level | Level_Code | Replicate | Temperature, °C | pH | Salinity, ppt | DO, % | DO, mg/L | Turbidity, NTU | SS, mg/L |
|---------|------------|-------------------|-----------|-------------------|---------|-------|----------|---------|------------|-----------|-----------------|------|---------------|-------|----------|----------------|----------|
| HKL | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | CS2(A) | 12:42 | 3.2 | Middle | 2 | 1 | 28.03 | 7.66 | 21.47 | 80.8 | 5.57 | 6.6 | 2.2 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | CS2(A) | 12:43 | 3.2 | Middle | 2 | 2 | 28.15 | 7.64 | 21.25 | 80.5 | 5.55 | 6.3 | 2.2 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | CS2(A) | 12:43 | 5.3 | Bottom | 3 | 1 | 28.19 | 7.63 | 22.85 | 81.0 | 5.59 | 7.8 | 1.9 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | CS2(A) | 12:42 | 5.3 | Bottom | 3 | 2 | 27.04 | 7.63 | 23.97 | 81.2 | 5.61 | 7.5 | 2 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | CS(Mf)5 | 10:43 | 1.0 | Surface | 1 | 1 | 26.86 | 8.19 | 23.93 | 77.4 | 5.41 | 2.0 | 4.5 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | CS(Mf)5 | 10:44 | 1.0 | Surface | 1 | 2 | 26.90 | 8.20 | 23.87 | 76.6 | 5.35 | 2.2 | 4.6 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | CS(Mf)5 | 10:44 | 6.0 | Middle | 2 | 1 | 26.11 | 8.16 | 26.73 | 73.8 | 5.16 | 2.9 | 5.6 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | CS(Mf)5 | 10:42 | 6.0 | Middle | 2 | 2 | 26.10 | 8.18 | 26.61 | 74.5 | 5.19 | 2.7 | 5.6 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | CS(Mf)5 | 10:43 | 11.0 | Bottom | 3 | 1 | 24.51 | 8.13 | 31.84 | 68.8 | 4.79 | 2.4 | 5.5 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Ebb | Sunny | CS(Mf)5 | 10:42 | 11.0 | Bottom | 3 | 2 | 24.49 | 8.13 | 31.83 | 69.1 | 4.82 | 2.3 | 4.5 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | IS5 | 17:13 | 1.0 | Surface | 1 | 1 | 27.96 | 8.22 | 23.36 | 81.0 | 5.57 | 7.9 | 9.9 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | IS5 | 17:14 | 1.0 | Surface | 1 | 2 | 27.95 | 8.20 | 23.43 | 80.9 | 5.56 | 7.8 | 9.1 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | IS5 | 17:14 | 4.2 | Middle | 2 | 1 | 27.91 | 8.21 | 23.62 | 77.8 | 5.35 | 8.3 | 8.7 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | IS5 | 17:13 | 4.2 | Middle | 2 | 2 | 27.92 | 8.23 | 23.54 | 78.6 | 5.40 | 8.5 | 8.4 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | IS5 | 17:13 | 7.4 | Bottom | 3 | 1 | 27.84 | 8.24 | 23.79 | 75.4 | 5.18 | 9.6 | 7.7 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | IS5 | 17:14 | 7.4 | Bottom | 3 | 2 | 27.86 | 8.21 | 23.72 | 75.3 | 5.18 | 9.9 | 6.9 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | IS(Mf)6 | 17:29 | 1.0 | Surface | 1 | 1 | 27.92 | 8.26 | 23.58 | 88.1 | 6.06 | 11.2 | 5.6 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | IS(Mf)6 | 17:30 | 1.0 | Surface | 1 | 2 | 27.93 | 8.25 | 23.53 | 87.8 | 6.03 | 11.5 | 4.6 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | IS(Mf)6 | 17:30 | 2.1 | Bottom | 3 | 1 | 27.88 | 8.25 | 23.59 | 86.6 | 5.96 | 12.2 | 4.5 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | IS(Mf)6 | 17:29 | 2.1 | Bottom | 3 | 2 | 27.89 | 8.29 | 23.60 | 86.2 | 5.93 | 12.6 | 3.6 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | IS7 | 17:42 | 1.0 | Surface | 1 | 1 | 27.80 | 8.28 | 23.21 | 90.5 | 6.25 | 5.9 | 7.9 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | IS7 | 17:42 | 1.0 | Surface | 1 | 2 | 27.81 | 8.29 | 23.22 | 90.5 | 6.24 | 5.9 | 8.9 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | IS7 | 17:42 | 2.3 | Bottom | 3 | 1 | 27.81 | 8.27 | 23.33 | 88.8 | 6.12 | 6.8 | 7.6 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | IS7 | 17:41 | 2.3 | Bottom | 3 | 2 | 27.82 | 8.30 | 23.31 | 88.7 | 6.11 | 6.4 | 8.5 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | IS8(N) | 18:17 | 1.0 | Surface | 1 | 1 | 28.11 | 8.23 | 21.50 | 83.4 | 5.78 | 3.5 | 3 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | IS8(N) | 18:17 | 1.0 | Surface | 1 | 2 | 28.13 | 8.24 | 21.51 | 84.1 | 5.83 | 3.7 | 2 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | IS8(N) | 18:16 | 3.1 | Bottom | 3 | 1 | 27.99 | 8.24 | 22.04 | 80.8 | 5.59 | 3.8 | 4.9 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | IS8(N) | 18:17 | 3.1 | Bottom | 3 | 2 | 27.98 | 8.22 | 22.06 | 80.9 | 5.61 | 3.8 | 4.8 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | IS(Mf)9 | 17:56 | 1.0 | Surface | 1 | 1 | 27.84 | 8.26 | 22.64 | 85.3 | 5.90 | 9.4 | 4.9 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | IS(Mf)9 | 17:55 | 1.0 | Surface | 1 | 2 | 27.86 | 8.26 | 22.60 | 85.6 | 5.92 | 9.0 | 5 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | IS(Mf)9 | 17:55 | 2.7 | Bottom | 3 | 1 | 27.79 | 8.29 | 22.74 | 81.1 | 5.61 | 10.5 | 4.4 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | IS(Mf)9 | 17:56 | 2.7 | Bottom | 3 | 2 | 27.81 | 8.26 | 22.72 | 81.3 | 5.63 | 10.2 | 5.4 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | IS10(N) | 17:43 | 1.0 | Surface | 1 | 1 | 29.22 | 7.74 | 19.00 | 78.9 | 5.44 | 9.9 | 6.6 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | IS10(N) | 17:43 | 1.0 | Surface | 1 | 2 | 29.10 | 7.75 | 19.21 | 79.3 | 5.48 | 9.6 | 5.6 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | IS10(N) | 17:43 | 5.3 | Middle | 2 | 1 | 27.80 | 7.69 | 23.28 | 75.4 | 5.20 | 10.1 | 5.3 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | IS10(N) | 17:42 | 5.3 | Middle | 2 | 2 | 28.01 | 7.69 | 23.05 | 76.7 | 5.28 | 10.4 | 4.3 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | IS10(N) | 17:43 | 9.6 | Bottom | 3 | 1 | 27.60 | 7.69 | 25.75 | 80.2 | 5.47 | 11.0 | 5 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | IS10(N) | 17:42 | 9.6 | Bottom | 3 | 2 | 28.28 | 7.68 | 24.88 | 79.9 | 5.42 | 11.8 | 4.6 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | SR3(N) | 17:04 | 1.0 | Surface | 1 | 1 | 28.16 | 8.23 | 23.29 | 80.3 | 5.51 | 10.7 | 14.1 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | SR3(N) | 17:03 | 1.0 | Surface | 1 | 2 | 28.19 | 8.25 | 23.29 | 81.0 | 5.55 | 10.9 | 14.7 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | SR3(N) | 17:04 | 2.4 | Bottom | 3 | 1 | 28.01 | 8.23 | 23.44 | 77.9 | 5.35 | 11.9 | 12.8 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | SR3(N) | 17:03 | 2.4 | Bottom | 3 | 2 | 27.97 | 8.25 | 23.44 | 77.9 | 5.36 | 12.2 | 11.8 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | SR4(N2) | 18:10 | 1.0 | Surface | 1 | 1 | 28.24 | 8.25 | 21.86 | 84.9 | 5.87 | 5.3 | 4.6 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | SR4(N2) | 18:09 | 1.0 | Surface | 1 | 2 | 28.24 | 8.27 | 21.86 | 85.0 | 5.87 | 5.1 | 5.3 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | SR4(N2) | 18:09 | 2.7 | Bottom | 3 | 1 | 27.71 | 8.26 | 22.89 | 82.4 | 5.70 | 6.3 | 6.4 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | SR4(N2) | 18:09 | 2.7 | Bottom | 3 | 2 | 27.69 | 8.24 | 22.83 | 82.3 | 5.69 | 6.7 | 5.7 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | SR5(N) | 17:29 | 1.0 | Surface | 1 | 1 | 29.24 | 7.73 | 18.54 | 76.6 | 5.30 | 9.1 | 5 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | SR5(N) | 17:30 | 1.0 | Surface | 1 | 2 | 29.26 | 7.73 | 19.19 | 80.6 | 5.55 | 8.8 | 4.4 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | SR5(N) | 17:29 | 3.9 | Middle | 2 | 1 | 28.39 | 7.70 | 22.56 | 74.6 | 5.35 | 9.5 | 3 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | SR5(N) | 17:30 | 3.9 | Middle | 2 | 2 | 28.35 | 7.71 | 22.47 | 75.6 | 5.19 | 10.0 | 4 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | SR5(N) | 17:29 | 6.8 | Bottom | 3 | 1 | 27.28 | 7.65 | 26.02 | 73.5 | 5.14 | 12.3 | 2.5 |
| HKL | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | SR5(N) | 17:30 | 6.8 | Bottom | 3 | 2 | 27.64 | 7.67 | 25.66 | 78.1 | 5.33 | 11.7 | 3.1 |

Water Quality Monitoring Data

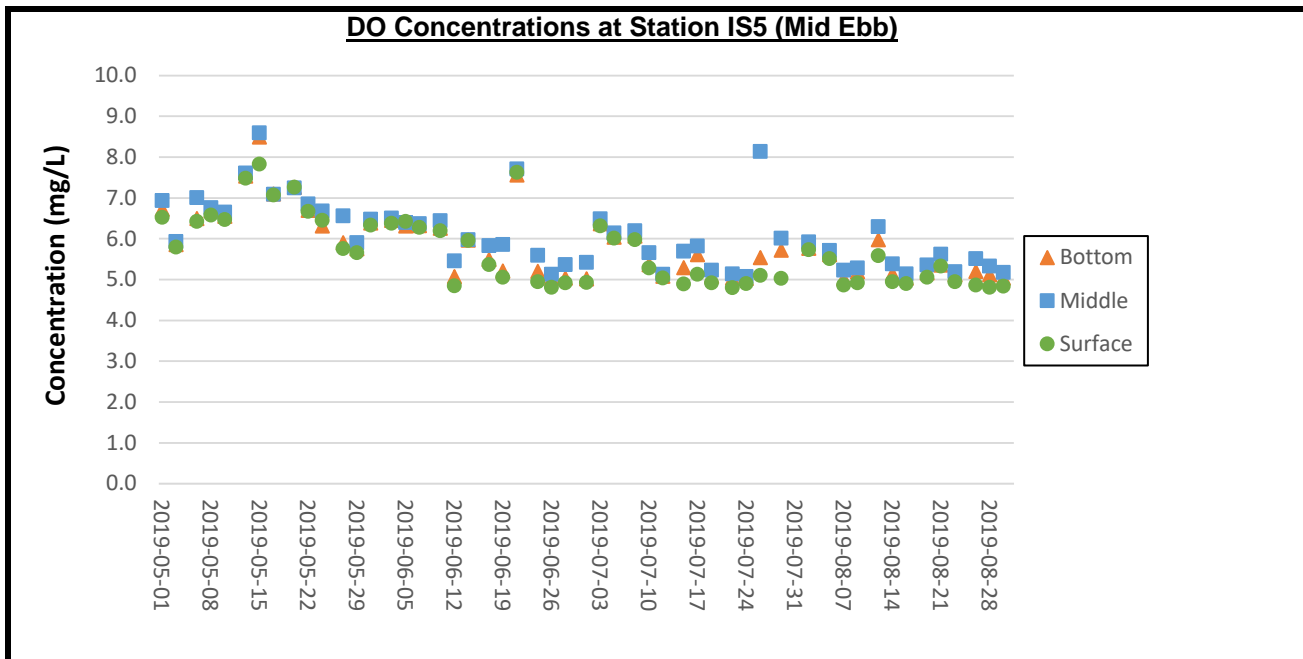
| Project | Works | Date (yyyy-mm-dd) | Tide | Weather Condition | Station | Time | Depth, m | Level | Level_Code | Replicate | Temperature, °C | pH | Salinity, ppt | DO, % | DO, mg/L | Turbidity, NTU | SS, mg/L |
|---------|------------|-------------------|-----------|-------------------|-----------|-------|----------|---------|------------|-----------|-----------------|------|---------------|-------|----------|----------------|----------|
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | SR10A(N) | 18:44 | 1.0 | Surface | 1 | 1 | 29.14 | 7.72 | 19.62 | 73.9 | 5.07 | 5.3 | 3.7 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | SR10A(N) | 18:44 | 1.0 | Surface | 1 | 2 | 29.19 | 7.74 | 19.26 | 74.9 | 5.13 | 5.7 | 2.7 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | SR10A(N) | 18:44 | 6.4 | Middle | 2 | 1 | 27.31 | 7.61 | 25.50 | 75.5 | 5.45 | 6.6 | 2.3 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | SR10A(N) | 18:44 | 6.4 | Middle | 2 | 2 | 27.13 | 7.65 | 26.07 | 75.3 | 5.42 | 6.7 | 2.7 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | SR10A(N) | 18:44 | 11.7 | Bottom | 3 | 1 | 27.57 | 7.68 | 25.87 | 72.5 | 5.07 | 7.4 | 1.9 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | SR10A(N) | 18:43 | 11.7 | Bottom | 3 | 2 | 27.31 | 7.66 | 25.40 | 75.5 | 5.29 | 7.2 | 2.9 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | SR10B(N2) | 18:53 | 1.0 | Surface | 1 | 1 | 28.97 | 7.74 | 19.31 | 78.3 | 5.41 | 6.0 | 2 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | SR10B(N2) | 18:53 | 1.0 | Surface | 1 | 2 | 28.87 | 7.74 | 19.40 | 77.5 | 5.37 | 5.8 | 3 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | SR10B(N2) | 18:53 | 3.4 | Middle | 2 | 1 | 28.29 | 7.71 | 22.24 | 76.3 | 5.25 | 5.9 | 2.2 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | SR10B(N2) | 18:53 | 3.4 | Middle | 2 | 2 | 28.32 | 7.71 | 22.34 | 76.7 | 5.28 | 6.2 | 3.2 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | SR10B(N2) | 18:53 | 5.7 | Bottom | 3 | 1 | 27.88 | 7.70 | 24.48 | 79.3 | 5.43 | 6.8 | 3.3 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | SR10B(N2) | 18:53 | 5.7 | Bottom | 3 | 2 | 27.88 | 7.69 | 24.65 | 79.5 | 5.44 | 6.7 | 3.2 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | CS2(A) | 16:52 | 1.0 | Surface | 1 | 1 | 29.17 | 7.74 | 19.01 | 86.8 | 5.95 | 9.0 | 6.5 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | CS2(A) | 16:51 | 1.0 | Surface | 1 | 2 | 29.14 | 7.75 | 18.67 | 84.2 | 5.83 | 8.9 | 5.6 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | CS2(A) | 16:51 | 3.0 | Middle | 2 | 1 | 28.56 | 7.72 | 22.22 | 81.2 | 5.57 | 9.6 | 5.5 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | CS2(A) | 16:51 | 3.0 | Middle | 2 | 2 | 28.62 | 7.73 | 22.12 | 84.4 | 5.78 | 9.5 | 4.6 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | CS2(A) | 16:51 | 5.0 | Bottom | 3 | 1 | 28.39 | 7.71 | 22.77 | 81.3 | 5.57 | 12.1 | 5.1 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | CS2(A) | 16:51 | 5.0 | Bottom | 3 | 2 | 28.40 | 7.71 | 22.78 | 82.3 | 5.68 | 11.7 | 4.6 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | CS(Mf)5 | 18:46 | 1.0 | Surface | 1 | 1 | 26.79 | 8.24 | 25.32 | 79.4 | 5.49 | 2.7 | 2.8 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | CS(Mf)5 | 18:45 | 1.0 | Surface | 1 | 2 | 26.76 | 8.25 | 25.26 | 79.9 | 5.54 | 3.0 | 2 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | CS(Mf)5 | 18:46 | 6.0 | Middle | 2 | 1 | 24.61 | 8.18 | 31.32 | 74.3 | 5.17 | 3.5 | 3 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | CS(Mf)5 | 18:45 | 6.0 | Middle | 2 | 2 | 24.61 | 8.21 | 31.31 | 74.6 | 5.19 | 3.7 | 2 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | CS(Mf)5 | 18:45 | 11.0 | Bottom | 3 | 1 | 24.50 | 8.18 | 31.51 | 69.9 | 4.86 | 3.9 | 2.4 |
| HKLR | HY/2011/03 | 2019-08-28 | Mid-Flood | Sunny | CS(Mf)5 | 18:44 | 11.0 | Bottom | 3 | 2 | 24.49 | 8.22 | 31.54 | 70.0 | 4.88 | 4.2 | 2.5 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | IS5 | 11:31 | 1.0 | Surface | 1 | 1 | 26.79 | 8.17 | 25.14 | 74.50 | 5.18 | 8.30 | 7.4 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | IS5 | 11:33 | 1.0 | Surface | 1 | 2 | 26.79 | 8.17 | 25.14 | 74.20 | 5.16 | 8.10 | 7.6 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | IS5 | 11:32 | 4.2 | Middle | 2 | 1 | 26.80 | 8.17 | 25.25 | 72.70 | 5.04 | 8.90 | 7.5 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | IS5 | 11:31 | 4.2 | Middle | 2 | 2 | 26.80 | 8.17 | 25.23 | 72.60 | 5.04 | 8.80 | 8.0 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | IS5 | 11:31 | 7.4 | Bottom | 3 | 1 | 26.79 | 8.18 | 25.31 | 69.60 | 4.83 | 9.40 | 8.4 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | IS5 | 11:32 | 7.4 | Bottom | 3 | 2 | 26.80 | 8.17 | 25.29 | 69.70 | 4.84 | 9.30 | 8.9 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | IS(Mf)6 | 11:40 | 1.0 | Surface | 1 | 1 | 26.81 | 8.23 | 24.82 | 77.40 | 5.38 | 4.80 | 4.0 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | IS(Mf)6 | 11:39 | 1.0 | Surface | 1 | 2 | 26.80 | 8.24 | 24.74 | 77.30 | 5.38 | 5.10 | 3.6 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | IS(Mf)6 | 11:40 | 2.1 | Bottom | 3 | 1 | 26.88 | 8.24 | 25.33 | 75.40 | 5.23 | 5.60 | 5.9 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | IS(Mf)6 | 11:39 | 2.1 | Bottom | 3 | 2 | 26.86 | 8.25 | 25.34 | 75.40 | 5.23 | 5.90 | 6.4 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | IS7 | 11:46 | 1.0 | Surface | 1 | 1 | 26.80 | 8.22 | 24.74 | 75.30 | 5.24 | 4.90 | 6.6 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | IS7 | 11:47 | 1.0 | Surface | 1 | 2 | 26.83 | 8.22 | 24.71 | 75.00 | 5.21 | 4.80 | 6.3 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | IS7 | 11:46 | 2.2 | Bottom | 3 | 1 | 26.72 | 8.22 | 25.42 | 73.40 | 5.09 | 6.00 | 5.4 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | IS7 | 11:47 | 2.2 | Bottom | 3 | 2 | 26.75 | 8.21 | 25.38 | 72.70 | 5.05 | 5.60 | 5.8 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | IS8(N) | 12:18 | 1.0 | Surface | 1 | 1 | 26.62 | 8.24 | 25.43 | 76.00 | 5.27 | 12.10 | 5.4 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | IS8(N) | 12:17 | 1.0 | Surface | 1 | 2 | 26.59 | 8.24 | 25.42 | 76.40 | 5.32 | 12.30 | 5.8 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | IS8(N) | 12:17 | 3.1 | Bottom | 3 | 1 | 26.34 | 8.22 | 26.76 | 73.60 | 5.10 | 12.90 | 5.4 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | IS8(N) | 12:18 | 3.1 | Bottom | 3 | 2 | 26.31 | 8.22 | 26.73 | 73.20 | 5.08 | 12.70 | 6.0 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | IS(Mf)9 | 11:56 | 1.0 | Surface | 1 | 1 | 26.82 | 8.23 | 24.97 | 79.00 | 5.49 | 4.40 | 5.2 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | IS(Mf)9 | 11:57 | 1.0 | Surface | 1 | 2 | 26.83 | 8.23 | 24.98 | 78.50 | 5.46 | 4.40 | 6.0 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | IS(Mf)9 | 11:57 | 2.8 | Bottom | 3 | 1 | 26.82 | 8.23 | 25.16 | 75.40 | 5.24 | 5.20 | 8.0 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | IS(Mf)9 | 11:56 | 2.8 | Bottom | 3 | 2 | 26.83 | 8.24 | 25.17 | 75.60 | 5.25 | 5.40 | 7.4 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | IS10(N) | 12:48 | 1.0 | Surface | 1 | 1 | 27.82 | 7.73 | 23.72 | 70.90 | 4.88 | 10.60 | 7.1 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | IS10(N) | 12:47 | 1.0 | Surface | 1 | 2 | 27.79 | 7.73 | 23.93 | 70.60 | 4.85 | 10.70 | 6.9 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | IS10(N) | 12:48 | 5.3 | Middle | 2 | 1 | 27.68 | 7.72 | 24.62 | 68.90 | 4.73 | 10.80 | 8.5 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | IS10(N) | 12:47 | 5.3 | Middle | 2 | 2 | 27.69 | 7.72 | 24.52 | 69.10 | 4.75 | 10.90 | 8.5 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | IS10(N) | 12:47 | 9.5 | Bottom | 3 | 1 | 27.59 | 7.72 | 24.94 | 68.80 | 4.72 | 11.80 | 10.5 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | IS10(N) | 12:47 | 9.5 | Bottom | 3 | 2 | 27.59 | 7.72 | 24.96 | 68.80 | 4.72 | 11.70 | 11.1 |

Water Quality Monitoring Data

| Project | Works | Date (yyyy-mm-dd) | Tide | Weather Condition | Station | Time | Depth, m | Level | Level_Code | Replicate | Temperature, °C | pH | Salinity, ppt | DO, % | DO, mg/L | Turbidity, NTU | SS, mg/L |
|---------|------------|-------------------|-----------|-------------------|-----------|-------|----------|---------|------------|-----------|-----------------|------|---------------|-------|----------|----------------|----------|
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | SR3(N) | 11:22 | 1.0 | Surface | 1 | 1 | 26.81 | 8.12 | 24.68 | 75.40 | 5.25 | 5.50 | 3.0 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | SR3(N) | 11:21 | 1.0 | Surface | 1 | 2 | 26.78 | 8.10 | 24.68 | 74.90 | 5.22 | 5.20 | 2.8 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | SR3(N) | 11:21 | 2.4 | Bottom | 3 | 1 | 26.90 | 8.09 | 25.34 | 72.10 | 5.01 | 6.50 | 5.6 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | SR3(N) | 11:22 | 2.4 | Bottom | 3 | 2 | 26.89 | 8.11 | 25.32 | 72.80 | 5.05 | 6.10 | 5.6 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | SR4(N2) | 12:10 | 1.0 | Surface | 1 | 1 | 26.63 | 8.20 | 24.83 | 76.20 | 5.32 | 10.60 | 9.6 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | SR4(N2) | 12:11 | 1.0 | Surface | 1 | 2 | 26.61 | 8.19 | 24.83 | 75.50 | 5.27 | 10.40 | 9.7 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | SR4(N2) | 12:10 | 2.8 | Bottom | 3 | 1 | 26.39 | 8.21 | 26.59 | 72.40 | 5.03 | 11.80 | 9.4 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | SR4(N2) | 12:09 | 2.8 | Bottom | 3 | 2 | 26.44 | 8.22 | 26.52 | 73.10 | 5.08 | 11.50 | 9.9 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | SR5(N) | 12:38 | 1.0 | Surface | 1 | 1 | 27.83 | 7.74 | 23.60 | 72.40 | 4.99 | 10.00 | 7.6 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | SR5(N) | 12:39 | 1.0 | Surface | 1 | 2 | 27.81 | 7.73 | 23.88 | 72.70 | 5.00 | 10.10 | 7.6 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | SR5(N) | 12:39 | 4.0 | Middle | 2 | 1 | 27.72 | 7.73 | 24.32 | 71.50 | 4.91 | 10.30 | 7.8 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | SR5(N) | 12:38 | 4.0 | Middle | 2 | 2 | 27.65 | 7.74 | 24.62 | 71.00 | 4.87 | 10.10 | 8.2 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | SR5(N) | 12:38 | 7.0 | Bottom | 3 | 1 | 27.61 | 7.73 | 24.86 | 70.80 | 4.86 | 11.50 | 9.2 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | SR5(N) | 12:38 | 7.0 | Bottom | 3 | 2 | 27.63 | 7.74 | 24.76 | 70.40 | 4.84 | 11.30 | 8.9 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | SR10A(N) | 13:28 | 1.0 | Surface | 1 | 1 | 27.40 | 7.75 | 24.96 | 70.50 | 4.85 | 4.50 | 3.9 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | SR10A(N) | 13:29 | 1.0 | Surface | 1 | 2 | 27.45 | 7.75 | 24.68 | 70.70 | 4.87 | 4.60 | 3.8 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | SR10A(N) | 13:28 | 6.7 | Middle | 2 | 1 | 26.92 | 7.75 | 26.52 | 69.60 | 4.78 | 4.90 | 4.6 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | SR10A(N) | 13:29 | 6.7 | Middle | 2 | 2 | 27.13 | 7.74 | 25.89 | 69.70 | 4.79 | 5.00 | 4.7 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | SR10A(N) | 13:28 | 12.4 | Bottom | 3 | 1 | 26.92 | 7.75 | 26.55 | 69.00 | 4.74 | 5.20 | 5.8 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | SR10A(N) | 13:28 | 12.4 | Bottom | 3 | 2 | 27.14 | 7.74 | 25.88 | 69.40 | 4.77 | 5.10 | 6.5 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | SR10B(N2) | 13:37 | 1.0 | Surface | 1 | 1 | 27.45 | 7.74 | 24.89 | 70.70 | 4.86 | 5.40 | 5.7 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | SR10B(N2) | 13:37 | 1.0 | Surface | 1 | 2 | 27.40 | 7.73 | 25.06 | 71.00 | 4.88 | 5.60 | 5.8 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | SR10B(N2) | 13:37 | 3.8 | Middle | 2 | 1 | 27.14 | 7.73 | 25.88 | 70.50 | 4.85 | 5.80 | 7.0 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | SR10B(N2) | 13:36 | 3.8 | Middle | 2 | 2 | 27.19 | 7.73 | 25.75 | 70.30 | 4.83 | 5.60 | 7.1 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | SR10B(N2) | 13:37 | 6.5 | Bottom | 3 | 1 | 27.18 | 7.73 | 25.80 | 70.10 | 4.82 | 5.70 | 8.4 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | SR10B(N2) | 13:36 | 6.5 | Bottom | 3 | 2 | 27.18 | 7.73 | 25.74 | 69.70 | 4.79 | 5.70 | 7.7 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | CS2(A) | 11:41 | 1.0 | Surface | 1 | 1 | 27.64 | 7.78 | 25.68 | 70.50 | 4.81 | 9.60 | 8.8 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | CS2(A) | 11:41 | 1.0 | Surface | 1 | 2 | 27.61 | 7.78 | 25.80 | 70.30 | 4.80 | 9.80 | 8.5 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | CS2(A) | 11:41 | 3.8 | Middle | 2 | 1 | 27.57 | 7.79 | 26.00 | 69.60 | 4.75 | 9.90 | 5.6 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | CS2(A) | 11:41 | 3.8 | Middle | 2 | 2 | 27.57 | 7.79 | 26.01 | 70.20 | 4.79 | 9.80 | 5.4 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | CS2(A) | 11:41 | 6.6 | Bottom | 3 | 1 | 27.57 | 7.78 | 26.27 | 69.60 | 4.75 | 10.80 | 5.6 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | CS2(A) | 11:41 | 6.6 | Bottom | 3 | 2 | 27.56 | 7.78 | 26.24 | 69.50 | 4.73 | 10.90 | 5.4 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | CS(Mf)5 | 12:39 | 1.0 | Surface | 1 | 1 | 26.63 | 8.23 | 25.52 | 78.60 | 5.46 | 6.40 | 8.0 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | CS(Mf)5 | 12:40 | 1.0 | Surface | 1 | 2 | 26.62 | 8.21 | 25.63 | 76.70 | 5.33 | 6.60 | 8.0 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | CS(Mf)5 | 12:39 | 5.9 | Middle | 2 | 1 | 26.03 | 8.23 | 27.42 | 74.30 | 5.16 | 7.10 | 9.5 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | CS(Mf)5 | 12:40 | 5.9 | Middle | 2 | 2 | 26.03 | 8.21 | 27.38 | 74.10 | 5.14 | 7.30 | 10.1 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | CS(Mf)5 | 12:38 | 10.8 | Bottom | 3 | 1 | 25.72 | 8.25 | 28.43 | 70.00 | 4.86 | 7.90 | 15.2 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Ebb | Cloudy | CS(Mf)5 | 12:39 | 10.8 | Bottom | 3 | 2 | 25.71 | 8.24 | 28.46 | 69.60 | 4.84 | 7.80 | 15.0 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | IS5 | 5:55 | 1.0 | Surface | 1 | 1 | 26.28 | 8.24 | 25.14 | 76.30 | 5.32 | 2.40 | 4.9 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | IS5 | 5:54 | 1.0 | Surface | 1 | 2 | 26.32 | 8.24 | 25.20 | 76.90 | 5.36 | 2.20 | 4.9 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | IS5 | 5:55 | 4.3 | Middle | 2 | 1 | 25.34 | 8.21 | 29.03 | 73.50 | 5.11 | 2.70 | 5.1 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | IS5 | 5:54 | 4.3 | Middle | 2 | 2 | 25.35 | 8.21 | 28.95 | 74.40 | 5.17 | 2.80 | 5.6 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | IS5 | 5:54 | 7.6 | Bottom | 3 | 1 | 24.77 | 8.19 | 31.02 | 69.00 | 4.79 | 3.60 | 6.6 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | IS5 | 5:53 | 7.6 | Bottom | 3 | 2 | 24.79 | 8.18 | 30.98 | 69.50 | 4.82 | 3.50 | 6.3 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | IS(Mf)6 | 5:45 | 1.0 | Surface | 1 | 1 | 26.34 | 8.22 | 25.24 | 76.30 | 5.32 | 2.10 | 6.4 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | IS(Mf)6 | 5:45 | 1.0 | Surface | 1 | 2 | 26.38 | 8.22 | 25.33 | 76.60 | 5.34 | 2.00 | 6.8 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | IS(Mf)6 | 5:44 | 2.2 | Bottom | 3 | 1 | 26.25 | 8.21 | 25.99 | 74.80 | 5.20 | 2.50 | 4.1 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | IS(Mf)6 | 5:45 | 2.2 | Bottom | 3 | 2 | 26.28 | 8.21 | 25.86 | 74.00 | 5.15 | 2.40 | 4.6 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | IS7 | 5:36 | 1.0 | Surface | 1 | 1 | 26.35 | 8.22 | 24.97 | 75.40 | 5.27 | 2.90 | 5.6 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | IS7 | 5:36 | 1.0 | Surface | 1 | 2 | 26.36 | 8.22 | 24.95 | 75.00 | 5.24 | 3.10 | 6.0 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | IS7 | 5:36 | 2.3 | Bottom | 3 | 1 | 26.25 | 8.21 | 26.02 | 74.20 | 5.16 | 3.20 | 3.9 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | IS7 | 5:35 | 2.3 | Bottom | 3 | 2 | 26.25 | 8.21 | 25.99 | 74.60 | 5.19 | 3.40 | 4.5 |

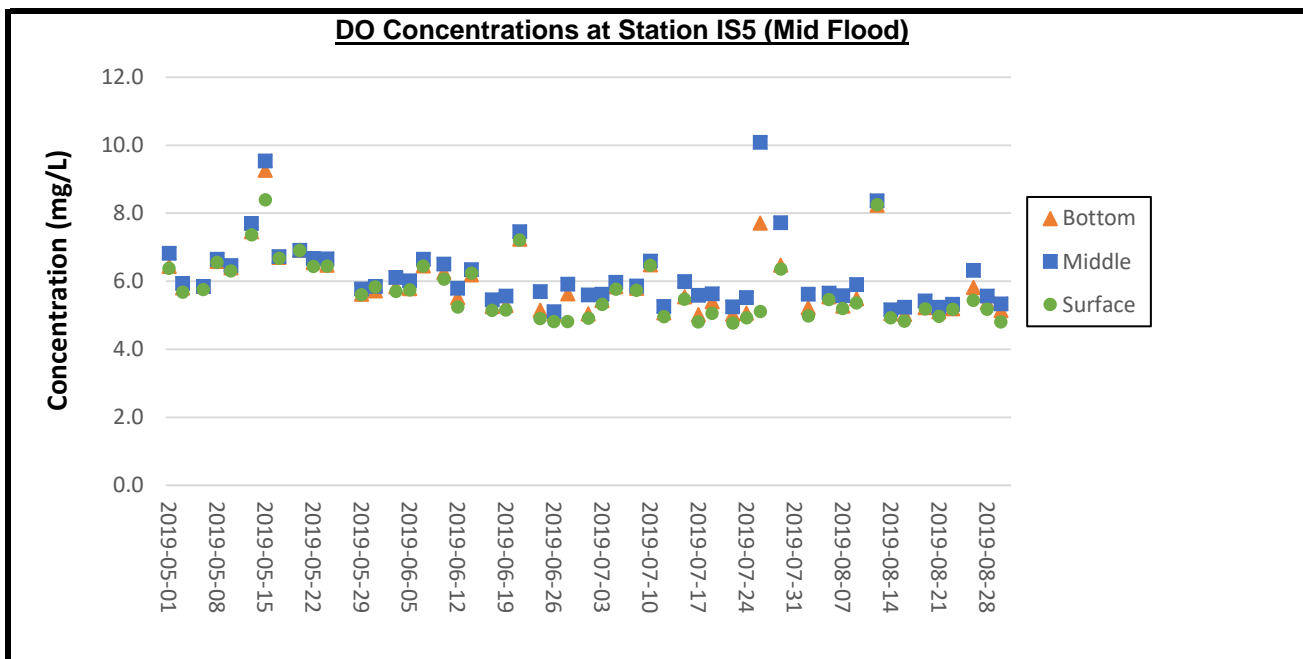
Water Quality Monitoring Data

| Project | Works | Date (yyyy-mm-dd) | Tide | Weather Condition | Station | Time | Depth, m | Level | Level_Code | Replicate | Temperature, °C | pH | Salinity, ppt | DO, % | DO, mg/L | Turbidity, NTU | SS, mg/L |
|---------|------------|-------------------|-----------|-------------------|-----------|------|----------|---------|------------|-----------|-----------------|------|---------------|-------|----------|----------------|----------|
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | IS8(N) | 5:02 | 1.0 | Surface | 1 | 1 | 26.08 | 8.24 | 25.02 | 73.50 | 5.16 | 2.00 | 3.7 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | IS8(N) | 5:03 | 1.0 | Surface | 1 | 2 | 26.05 | 8.24 | 25.04 | 73.70 | 5.15 | 2.00 | 3.5 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | IS8(N) | 5:02 | 3.2 | Bottom | 3 | 1 | 25.70 | 8.22 | 28.07 | 70.80 | 4.91 | 2.10 | 5.4 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | IS8(N) | 5:03 | 3.2 | Bottom | 3 | 2 | 25.72 | 8.22 | 28.09 | 70.70 | 4.90 | 2.10 | 5.7 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | IS(Mf)9 | 5:24 | 1.0 | Surface | 1 | 1 | 26.39 | 8.23 | 24.85 | 72.60 | 5.07 | 2.00 | 6.3 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | IS(Mf)9 | 5:25 | 1.0 | Surface | 1 | 2 | 26.35 | 8.23 | 24.84 | 73.00 | 5.10 | 1.90 | 6.4 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | IS(Mf)9 | 5:24 | 2.9 | Bottom | 3 | 1 | 25.97 | 8.21 | 26.97 | 71.70 | 4.98 | 2.30 | 5.5 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | IS(Mf)9 | 5:25 | 2.9 | Bottom | 3 | 2 | 25.95 | 8.21 | 26.92 | 72.80 | 5.05 | 2.20 | 5.2 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | IS10(N) | 5:26 | 1.0 | Surface | 1 | 1 | 27.87 | 7.72 | 23.78 | 68.40 | 4.70 | 9.10 | 8.1 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | IS10(N) | 5:25 | 1.0 | Surface | 1 | 2 | 27.88 | 7.72 | 23.29 | 68.30 | 4.71 | 9.20 | 7.8 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | IS10(N) | 5:25 | 5.5 | Middle | 2 | 1 | 27.71 | 7.72 | 24.99 | 67.10 | 4.59 | 9.30 | 9.1 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | IS10(N) | 5:26 | 5.5 | Middle | 2 | 2 | 27.64 | 7.72 | 25.10 | 66.80 | 4.56 | 9.30 | 9.8 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | IS10(N) | 5:26 | 9.9 | Bottom | 3 | 1 | 27.25 | 7.71 | 26.11 | 66.10 | 4.53 | 9.60 | 10.4 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | IS10(N) | 5:25 | 9.9 | Bottom | 3 | 2 | 27.31 | 7.71 | 25.95 | 66.90 | 4.59 | 9.50 | 10.5 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | SR3(N) | 6:05 | 1.0 | Surface | 1 | 1 | 26.28 | 8.23 | 25.40 | 74.60 | 5.21 | 1.90 | 6.8 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | SR3(N) | 6:04 | 1.0 | Surface | 1 | 2 | 26.23 | 8.23 | 25.42 | 73.70 | 5.15 | 1.90 | 6.3 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | SR3(N) | 6:05 | 2.5 | Bottom | 3 | 1 | 25.98 | 8.22 | 26.82 | 73.40 | 5.10 | 2.10 | 4.2 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | SR3(N) | 6:04 | 2.5 | Bottom | 3 | 2 | 26.02 | 8.22 | 26.86 | 72.70 | 5.05 | 2.20 | 4.8 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | SR4(N2) | 5:12 | 1.0 | Surface | 1 | 1 | 26.23 | 8.24 | 24.99 | 72.20 | 5.06 | 2.10 | 3.4 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | SR4(N2) | 5:11 | 1.0 | Surface | 1 | 2 | 26.22 | 8.24 | 24.92 | 71.90 | 5.04 | 2.20 | 2.7 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | SR4(N2) | 5:11 | 2.8 | Bottom | 3 | 1 | 25.87 | 8.21 | 27.57 | 72.40 | 5.02 | 2.30 | 4.5 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | SR4(N2) | 5:12 | 2.8 | Bottom | 3 | 2 | 25.84 | 8.21 | 27.55 | 72.00 | 4.99 | 2.40 | 4.1 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | SR5(N) | 5:35 | 1.0 | Surface | 1 | 1 | 27.85 | 7.73 | 23.66 | 67.50 | 4.65 | 9.80 | 10.9 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | SR5(N) | 5:36 | 1.0 | Surface | 1 | 2 | 27.83 | 7.72 | 23.90 | 67.50 | 4.64 | 9.70 | 9.4 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | SR5(N) | 5:35 | 4.2 | Middle | 2 | 1 | 27.38 | 7.72 | 25.68 | 66.30 | 4.54 | 10.00 | 8.9 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | SR5(N) | 5:35 | 4.2 | Middle | 2 | 2 | 27.51 | 7.72 | 25.41 | 65.70 | 4.51 | 9.90 | 8.2 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | SR5(N) | 5:35 | 7.3 | Bottom | 3 | 1 | 27.21 | 7.72 | 26.14 | 65.50 | 4.49 | 10.90 | 8.0 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | SR5(N) | 5:35 | 7.3 | Bottom | 3 | 2 | 27.31 | 7.71 | 26.02 | 65.70 | 4.50 | 10.80 | 7.4 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | SR10A(N) | 4:31 | 1.0 | Surface | 1 | 1 | 26.72 | 7.77 | 26.48 | 64.10 | 4.42 | 3.70 | 5.1 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | SR10A(N) | 4:32 | 1.0 | Surface | 1 | 2 | 26.65 | 7.77 | 25.99 | 63.80 | 4.42 | 3.60 | 4.7 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | SR10A(N) | 4:32 | 6.8 | Middle | 2 | 1 | 26.42 | 7.76 | 28.10 | 62.60 | 4.30 | 3.80 | 5.6 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | SR10A(N) | 4:31 | 6.8 | Middle | 2 | 2 | 26.35 | 7.76 | 28.33 | 62.60 | 4.30 | 3.80 | 6.0 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | SR10A(N) | 4:32 | 12.6 | Bottom | 3 | 1 | 25.83 | 7.75 | 29.82 | 61.20 | 4.21 | 4.00 | 6.4 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | SR10A(N) | 4:31 | 12.6 | Bottom | 3 | 2 | 25.80 | 7.75 | 29.87 | 61.00 | 4.20 | 3.90 | 6.6 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | SR10B(N2) | 4:22 | 1.0 | Surface | 1 | 1 | 27.02 | 7.75 | 26.13 | 66.80 | 4.60 | 3.80 | 5.6 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | SR10B(N2) | 4:23 | 1.0 | Surface | 1 | 2 | 27.08 | 7.76 | 25.92 | 67.10 | 4.62 | 3.60 | 5.6 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | SR10B(N2) | 4:23 | 4 | Middle | 2 | 1 | 26.40 | 7.76 | 28.18 | 64.10 | 4.40 | 4.10 | 5.4 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | SR10B(N2) | 4:22 | 4 | Middle | 2 | 2 | 26.35 | 7.75 | 28.36 | 64.00 | 4.40 | 4.30 | 5.4 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | SR10B(N2) | 4:22 | 6.9 | Bottom | 3 | 1 | 25.78 | 7.74 | 29.87 | 62.60 | 4.31 | 4.80 | 3.2 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | SR10B(N2) | 4:23 | 6.9 | Bottom | 3 | 2 | 25.79 | 7.74 | 29.97 | 62.50 | 4.30 | 4.60 | 3.7 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | CS2(A) | 6:20 | 1.0 | Surface | 1 | 1 | 27.64 | 7.78 | 25.58 | 70.90 | 4.84 | 8.90 | 12.4 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | CS2(A) | 6:20 | 1.0 | Surface | 1 | 2 | 27.64 | 7.77 | 25.42 | 71.30 | 4.86 | 8.80 | 11.7 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | CS2(A) | 6:20 | 4.1 | Middle | 2 | 1 | 27.60 | 7.78 | 25.87 | 70.20 | 4.80 | 8.90 | 11.2 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | CS2(A) | 6:20 | 4.1 | Middle | 2 | 2 | 27.60 | 7.78 | 25.86 | 70.70 | 4.83 | 9.00 | 11.3 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | CS2(A) | 6:20 | 7.1 | Bottom | 3 | 1 | 27.59 | 7.78 | 25.97 | 70.20 | 4.79 | 9.80 | 9.2 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | CS2(A) | 6:19 | 7.1 | Bottom | 3 | 2 | 27.58 | 7.79 | 26.03 | 70.20 | 4.79 | 9.00 | 9.1 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | CS(Mf)5 | 4:41 | 1.0 | Surface | 1 | 1 | 26.40 | 8.27 | 24.79 | 76.50 | 5.34 | 3.00 | 6.3 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | CS(Mf)5 | 4:42 | 1.0 | Surface | 1 | 2 | 26.36 | 8.26 | 24.85 | 76.10 | 5.32 | 3.30 | 6.3 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | CS(Mf)5 | 4:42 | 6 | Middle | 2 | 1 | 25.35 | 8.23 | 29.08 | 73.40 | 5.10 | 3.50 | 5.4 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | CS(Mf)5 | 4:41 | 6 | Middle | 2 | 2 | 25.32 | 8.25 | 29.05 | 73.80 | 5.12 | 3.60 | 5.4 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | CS(Mf)5 | 4:40 | 11 | Bottom | 3 | 1 | 24.48 | 8.24 | 31.61 | 69.50 | 4.83 | 4.40 | 3.6 |
| HKLR | HY/2011/03 | 2019-08-30 | Mid-Flood | Cloudy | CS(Mf)5 | 4:42 | 11 | Bottom | 3 | 2 | 24.48 | 8.21 | 31.62 | 69.90 | 4.85 | 4.30 | 3.6 |



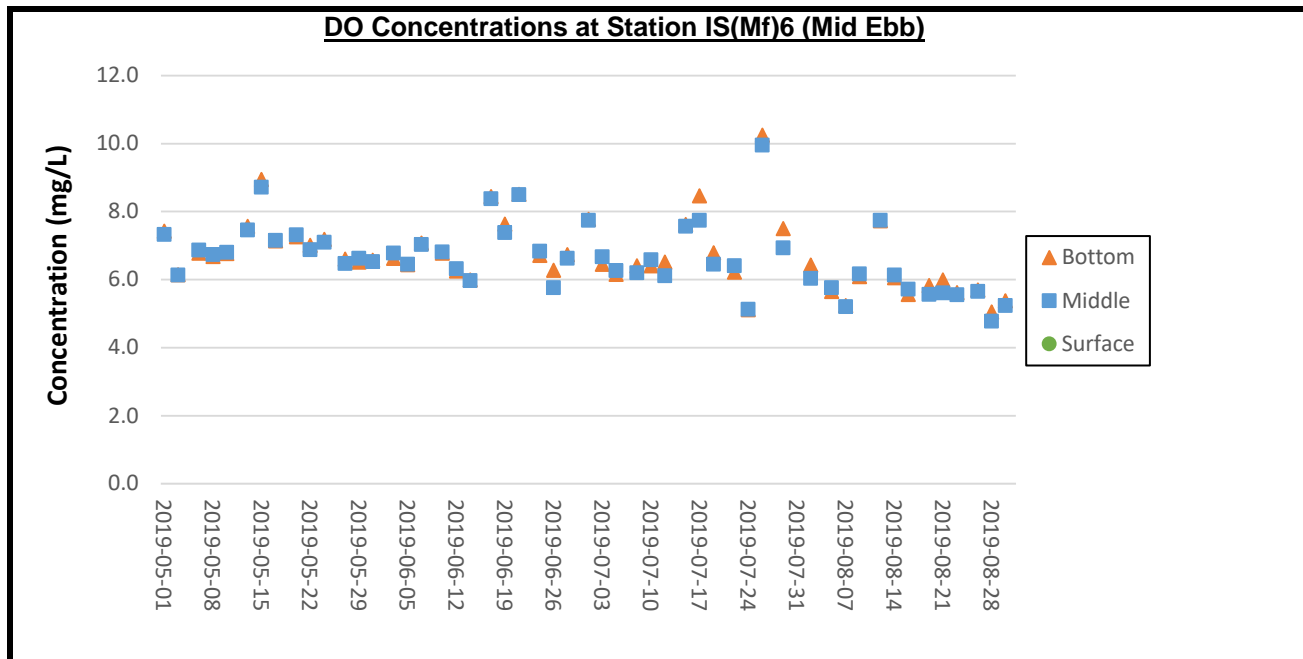
Remark:

1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-ebb tide on 31 July 2019 was cancelled due to safety reason.



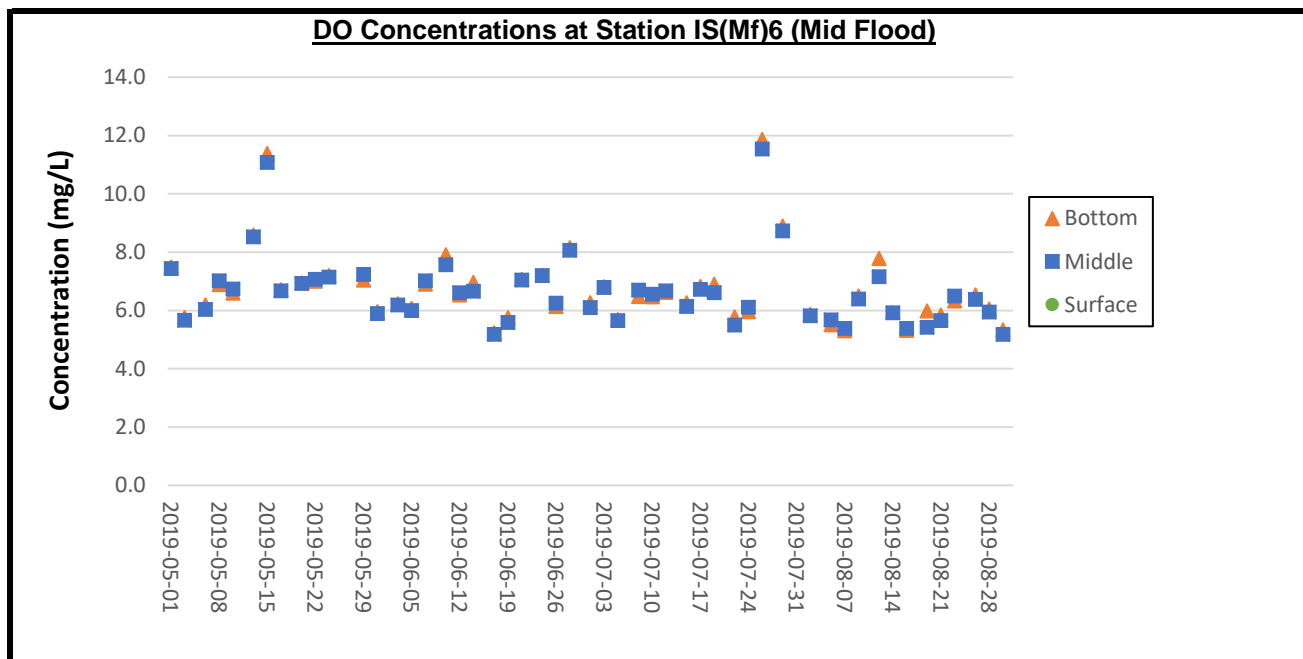
Remark:

1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-flood tide on 31 July 2019 was cancelled due to safety reason.



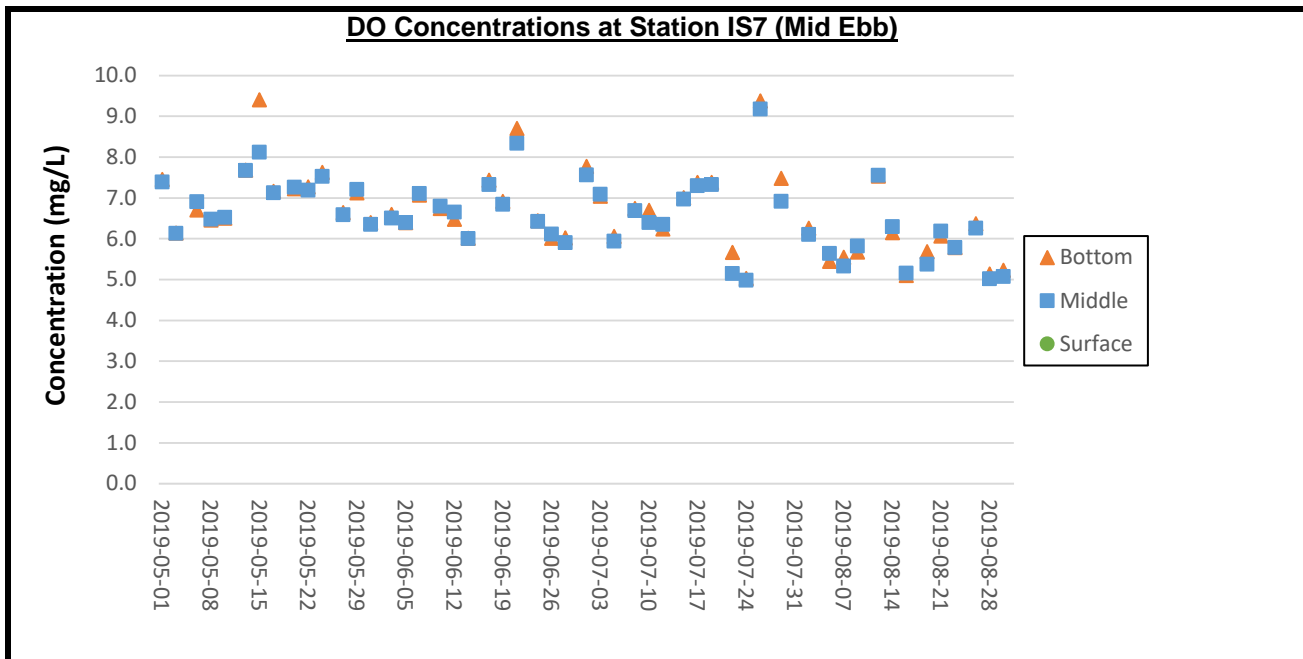
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-ebb tide on 31 July 2019 was cancelled due to safety reason.



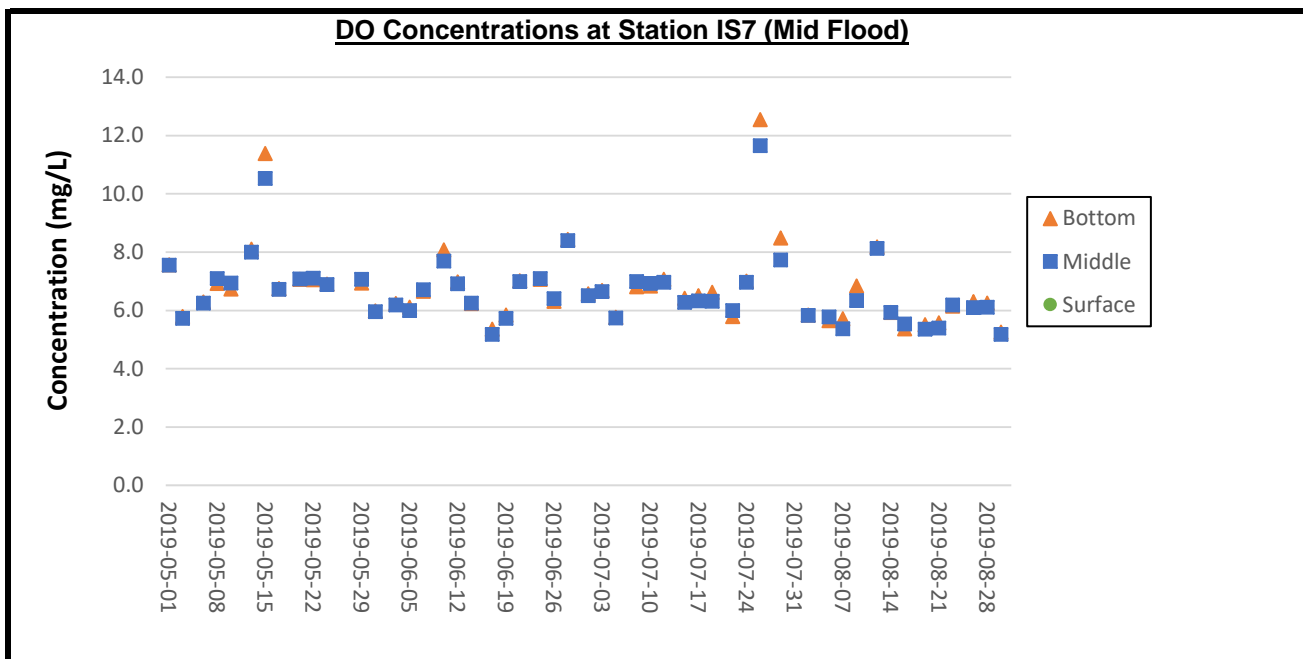
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-flood tide on 31 July 2019 was cancelled due to safety reason.



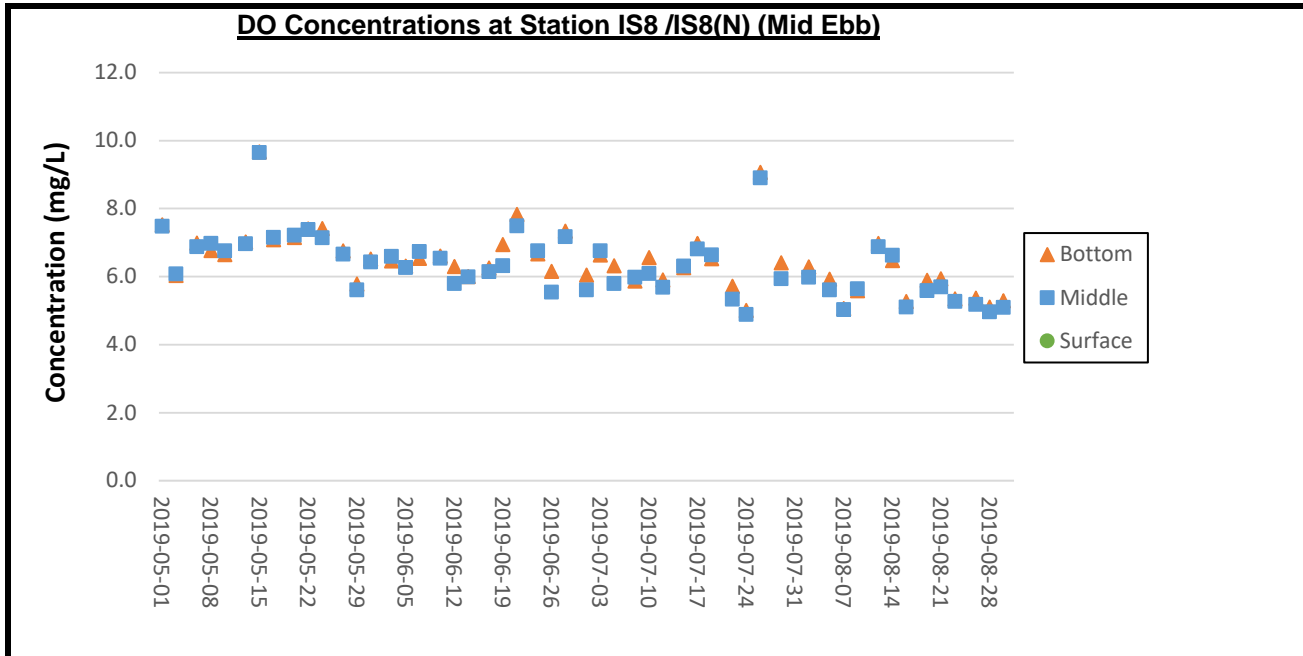
Remark:

1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-ebb tide on 31 July 2019 was cancelled due to safety reason.



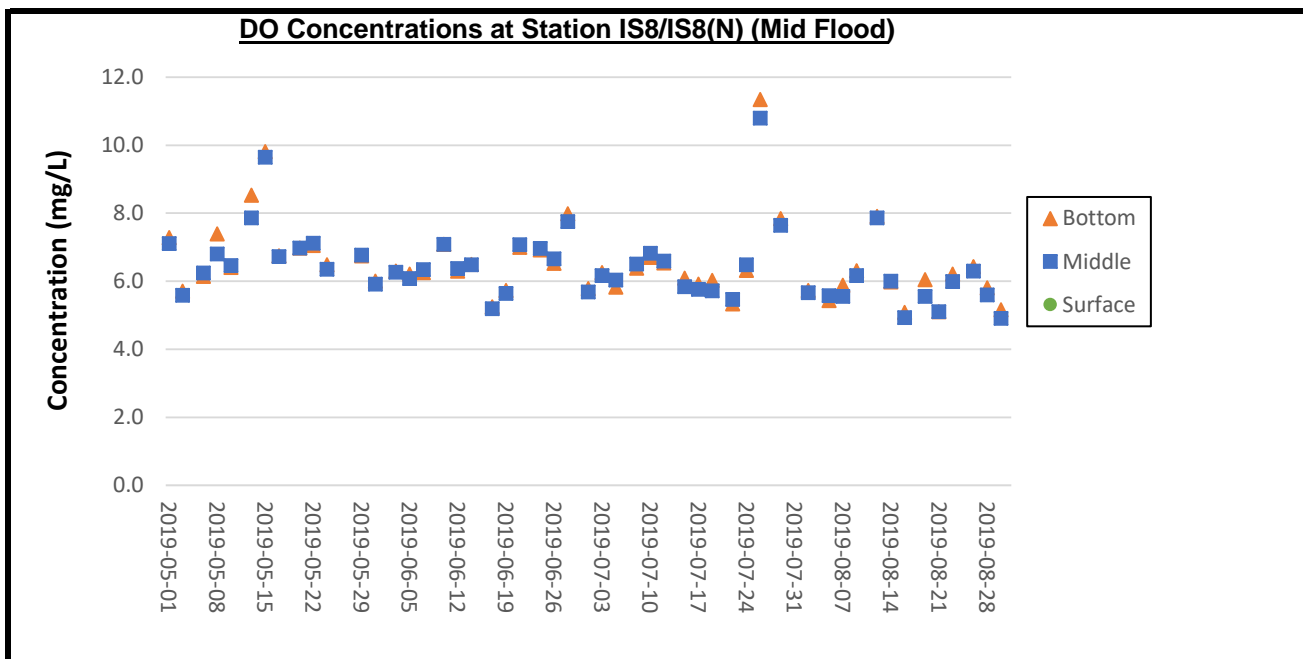
Remark:

1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-flood tide on 31 July 2019 was cancelled due to safety reason.



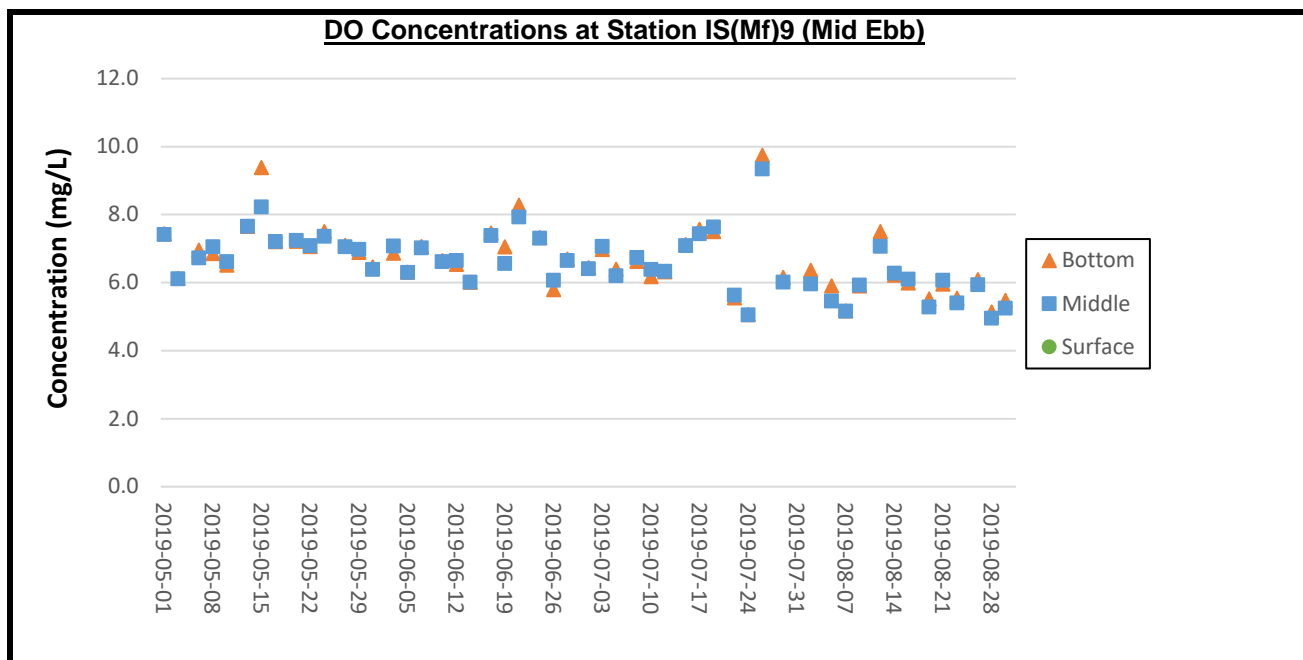
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-ebb tide on 31 July 2019 was cancelled due to safety reason.
- 2) The water quality monitoring has been conducted at station IS8(N) since 21 August 2019.



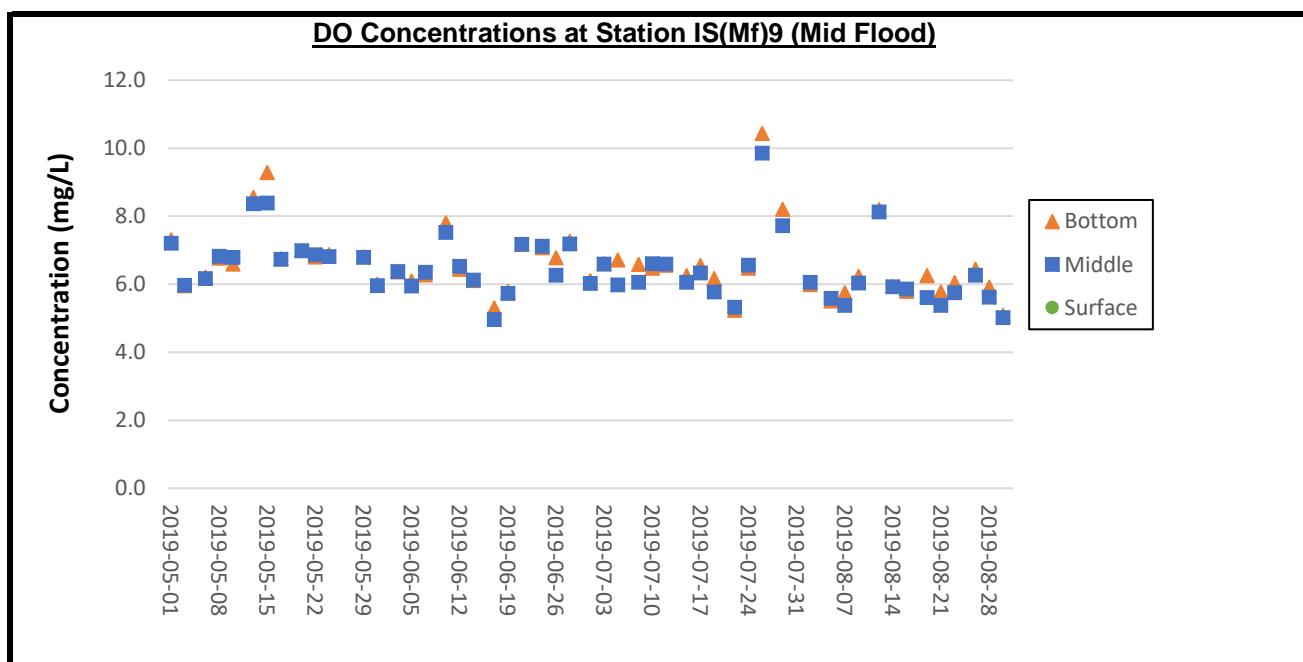
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-flood tide on 31 July 2019 was cancelled due to safety reason.
- 2) The water quality monitoring has been conducted at station IS8(N) since 21 August 2019.



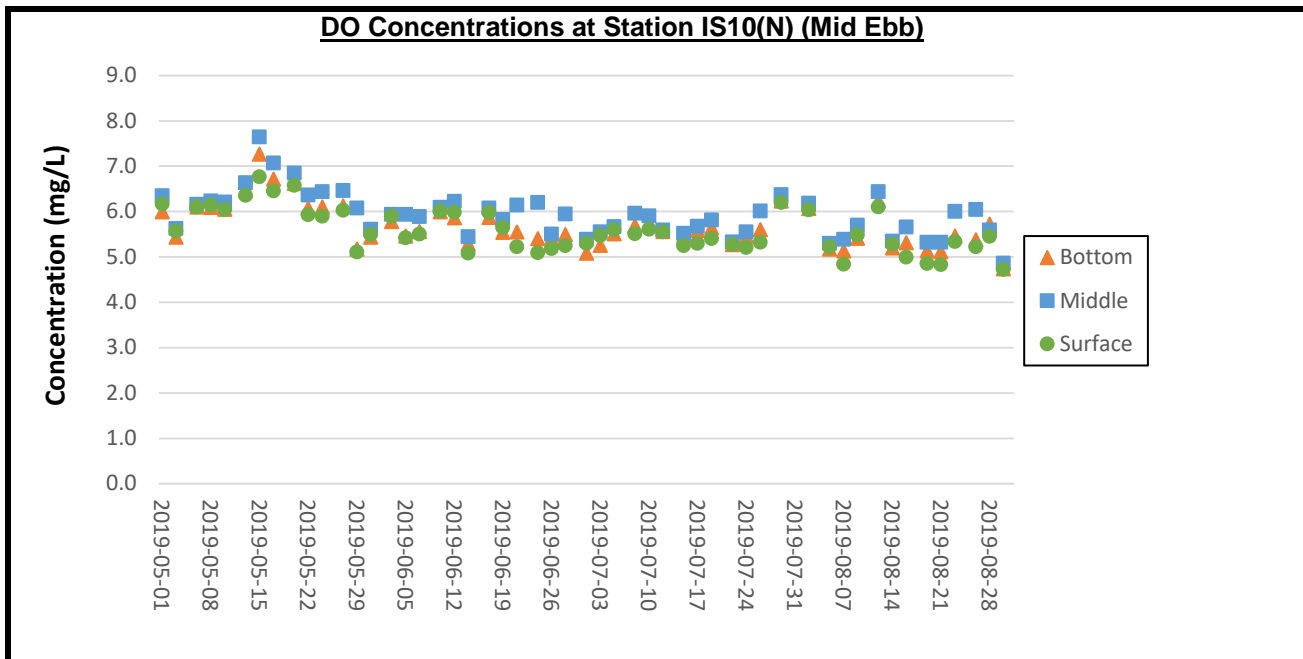
Remark:

1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-ebb tide on 31 July 2019 was cancelled due to safety reason.



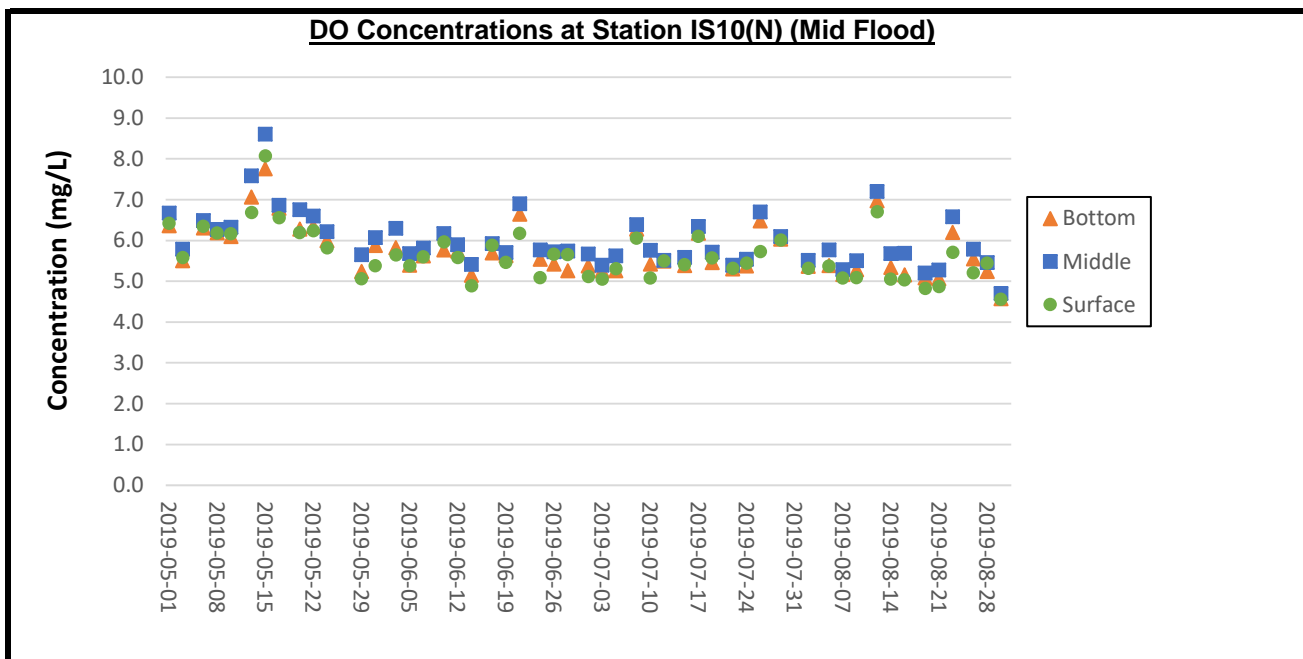
Remark:

1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-flood tide on 31 July 2019 was cancelled due to safety reason.



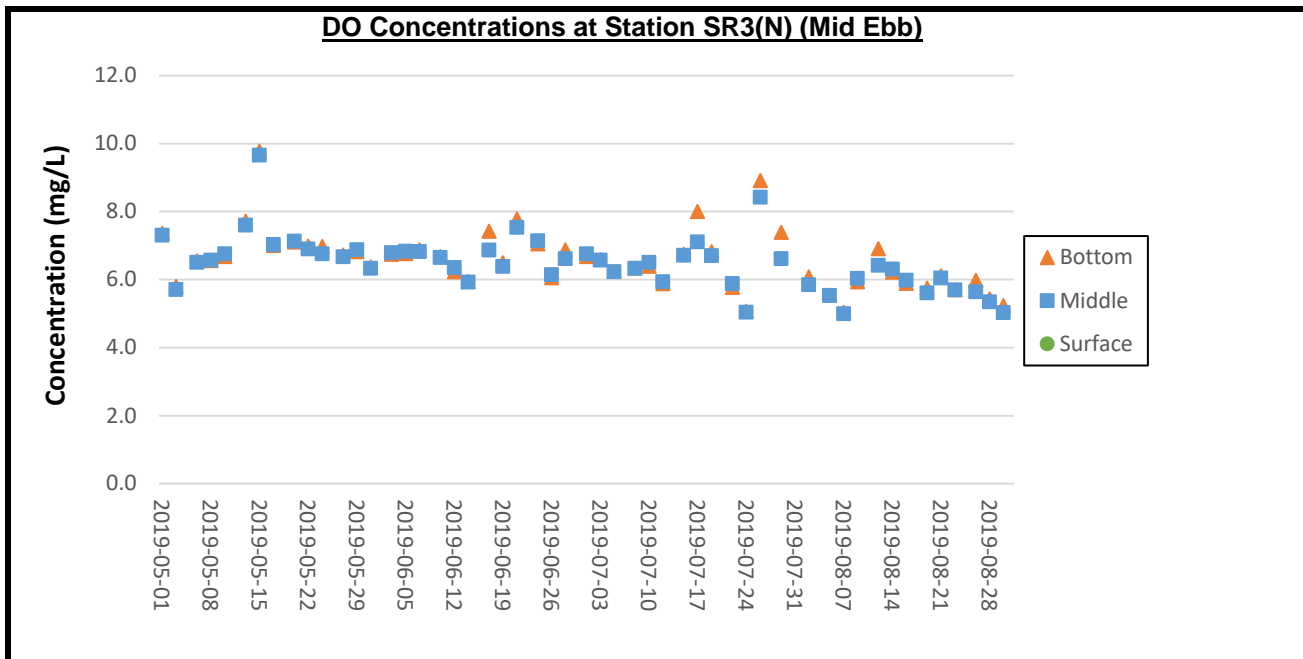
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-ebb tide on 31 July 2019 was cancelled due to safety reason.



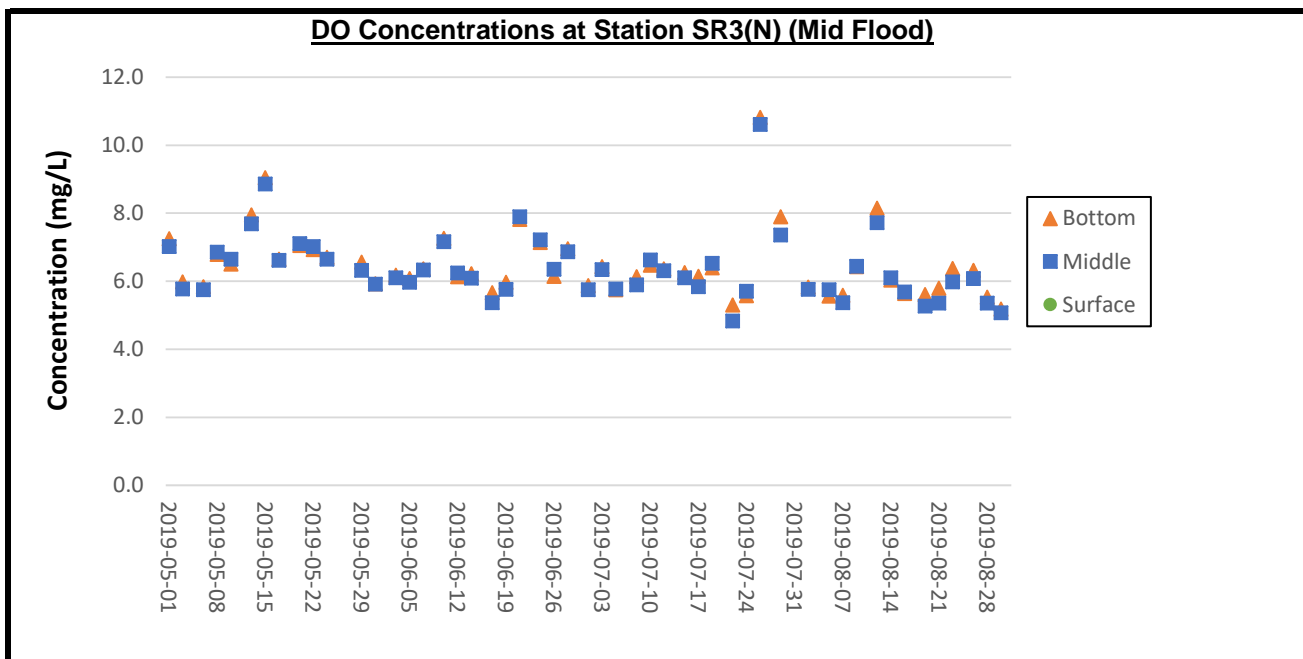
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-flood tide on 31 July 2019 was cancelled due to safety reason.



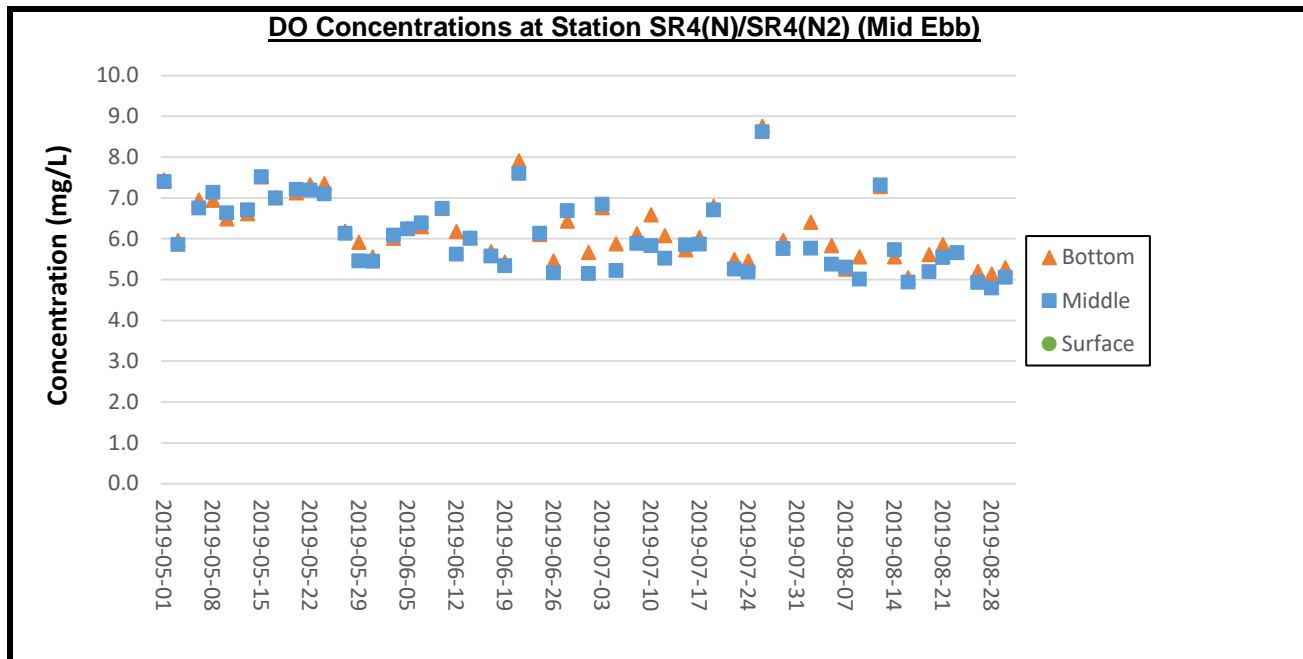
Remark:

1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-ebb tide on 31 July 2019 was cancelled due to safety reason.



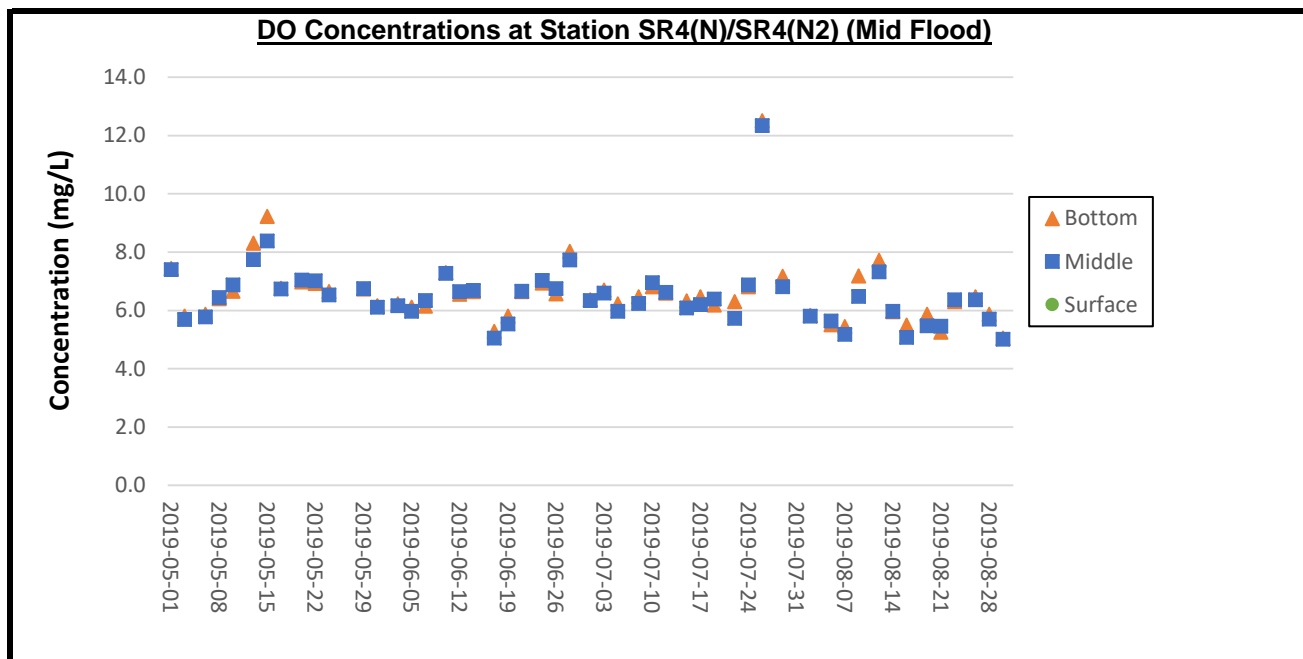
Remark:

1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-flood tide on 31 July 2019 was cancelled due to safety reason.



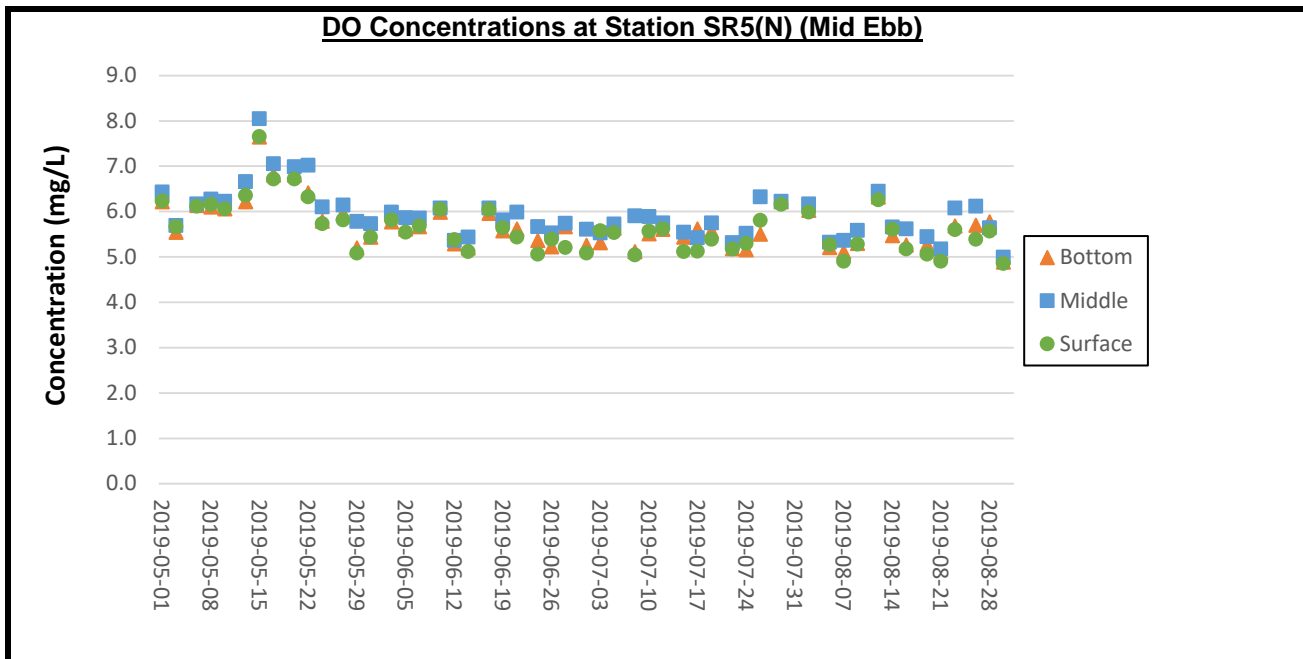
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-ebb tide on 31 July 2019 was cancelled due to safety reason.
- 2) The water quality monitoring has been conducted at station SR4(N2) since 21 August 2019.



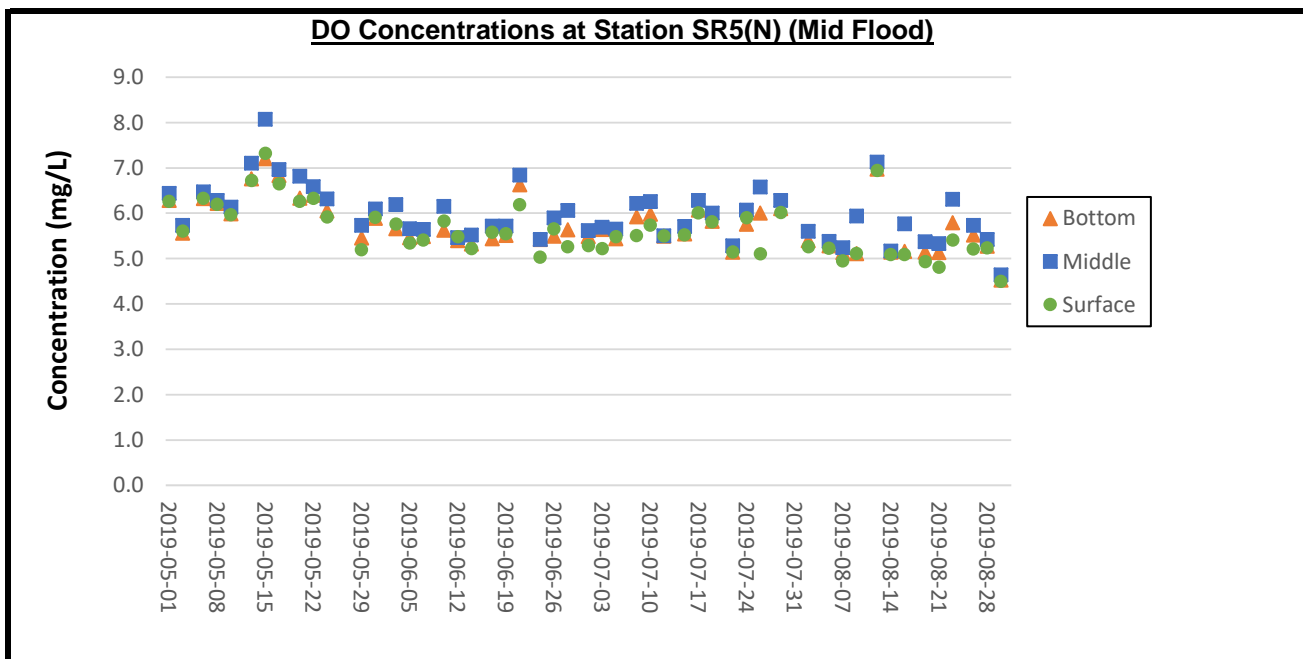
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-flood tide on 31 July 2019 was cancelled due to safety reason.
- 2) The water quality monitoring has been conducted at station SR4(N2) since 21 August 2019.



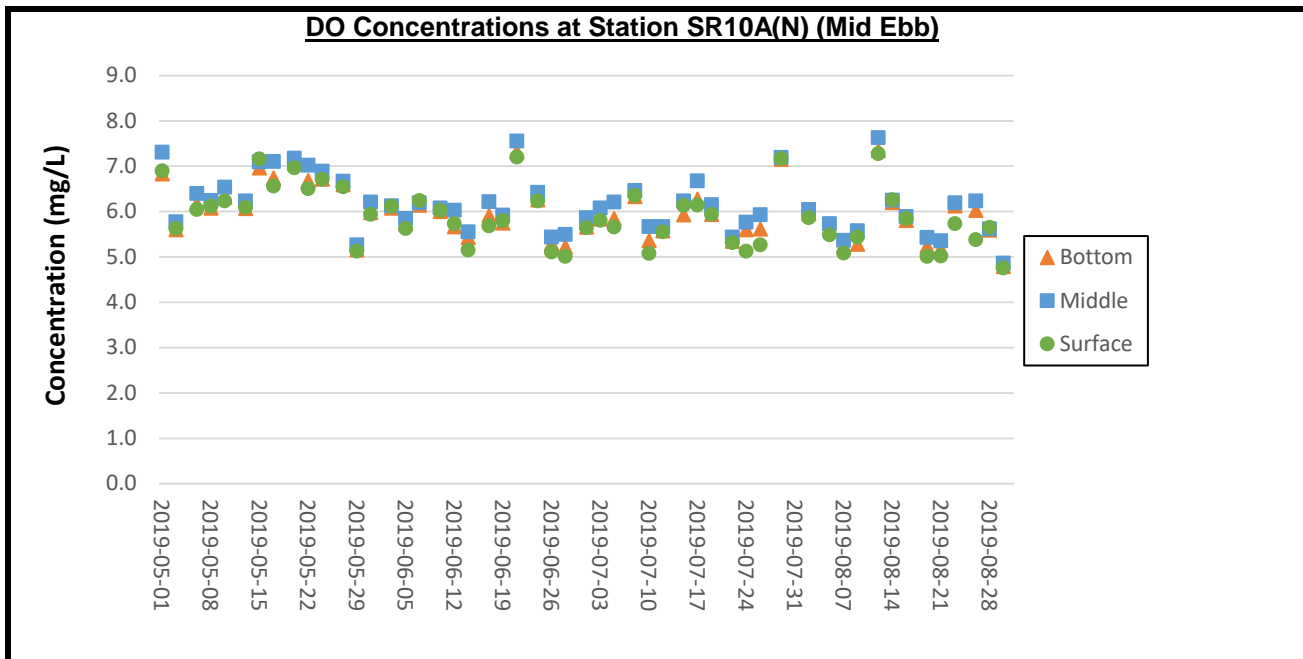
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-ebb tide on 31 July 2019 was cancelled due to safety reason.



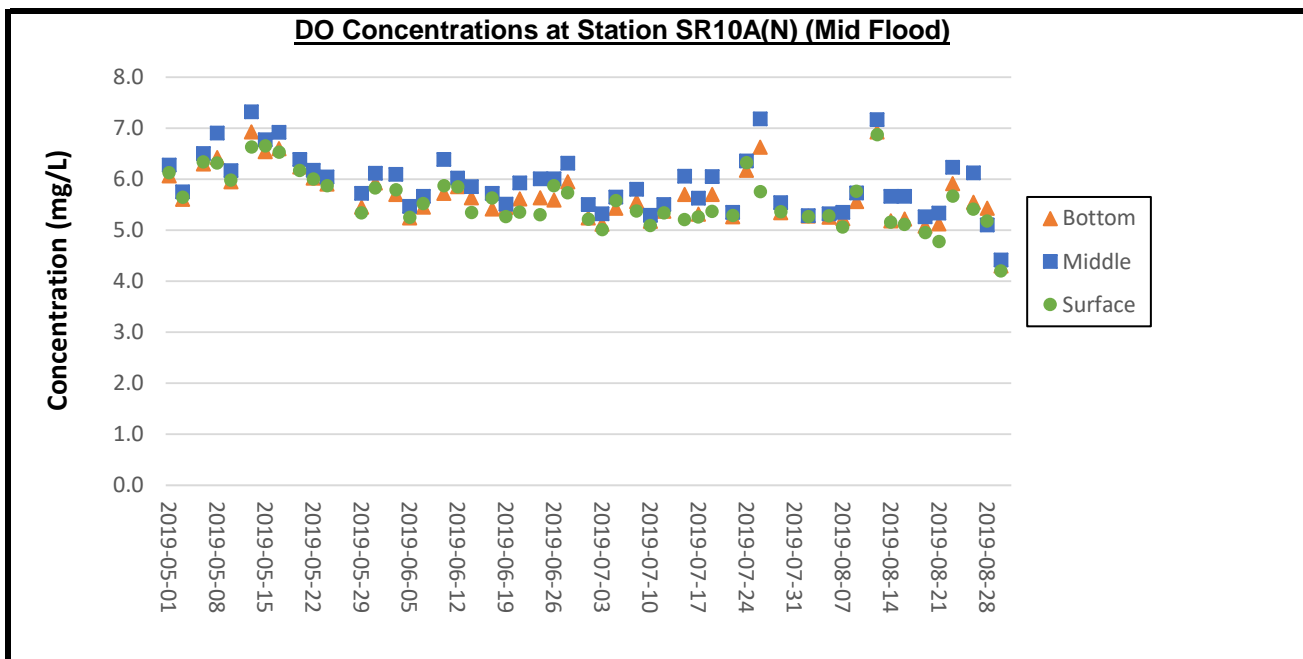
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-flood tide on 31 July 2019 was cancelled due to safety reason.



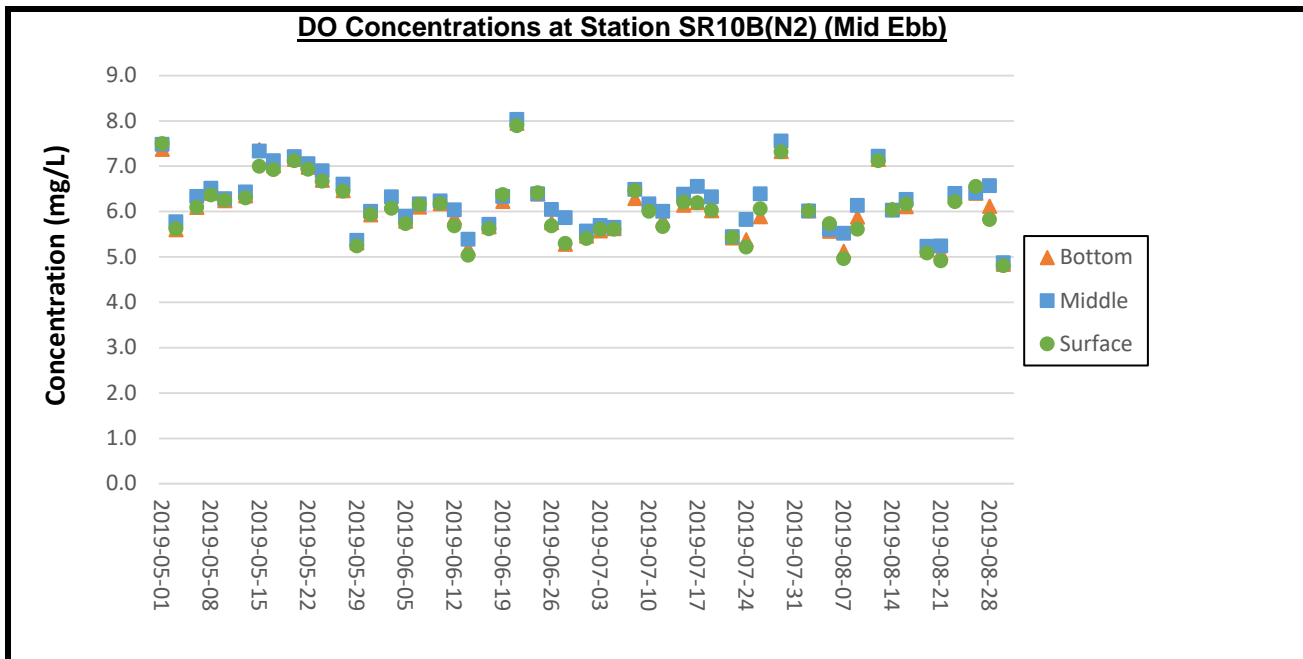
Remark:

1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-ebb tide on 31 July 2019 was cancelled due to safety reason.



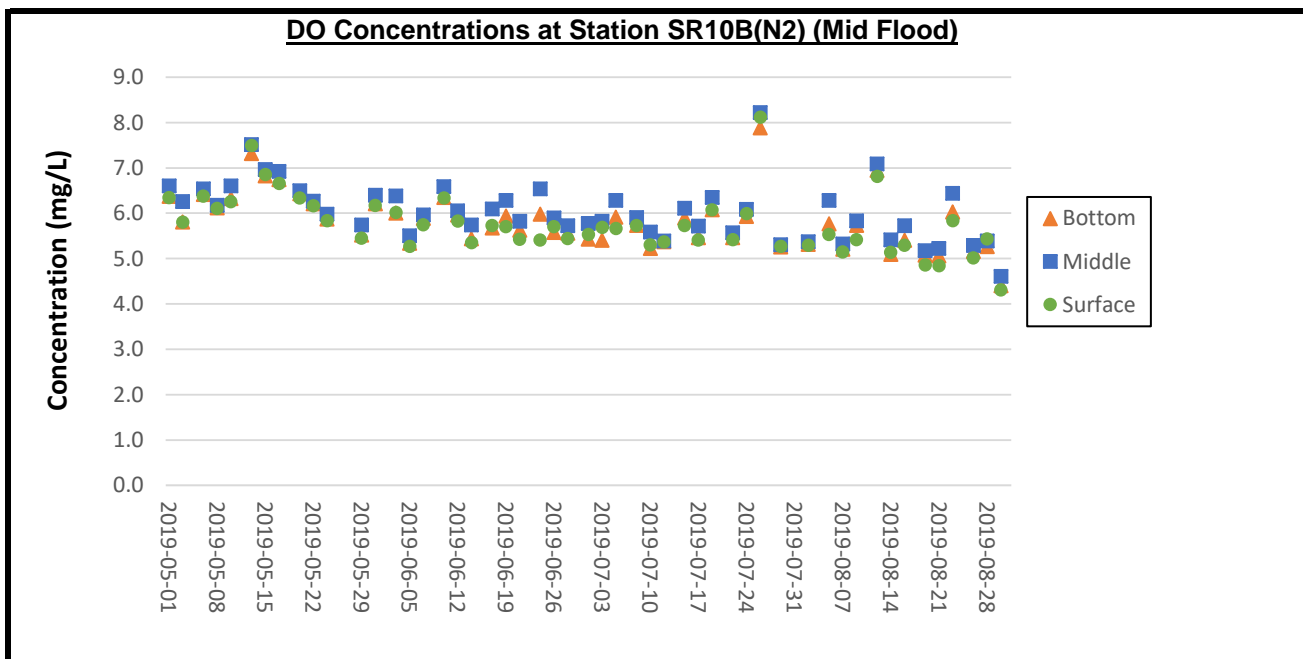
Remark:

1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-flood tide on 31 July 2019 was cancelled due to safety reason.



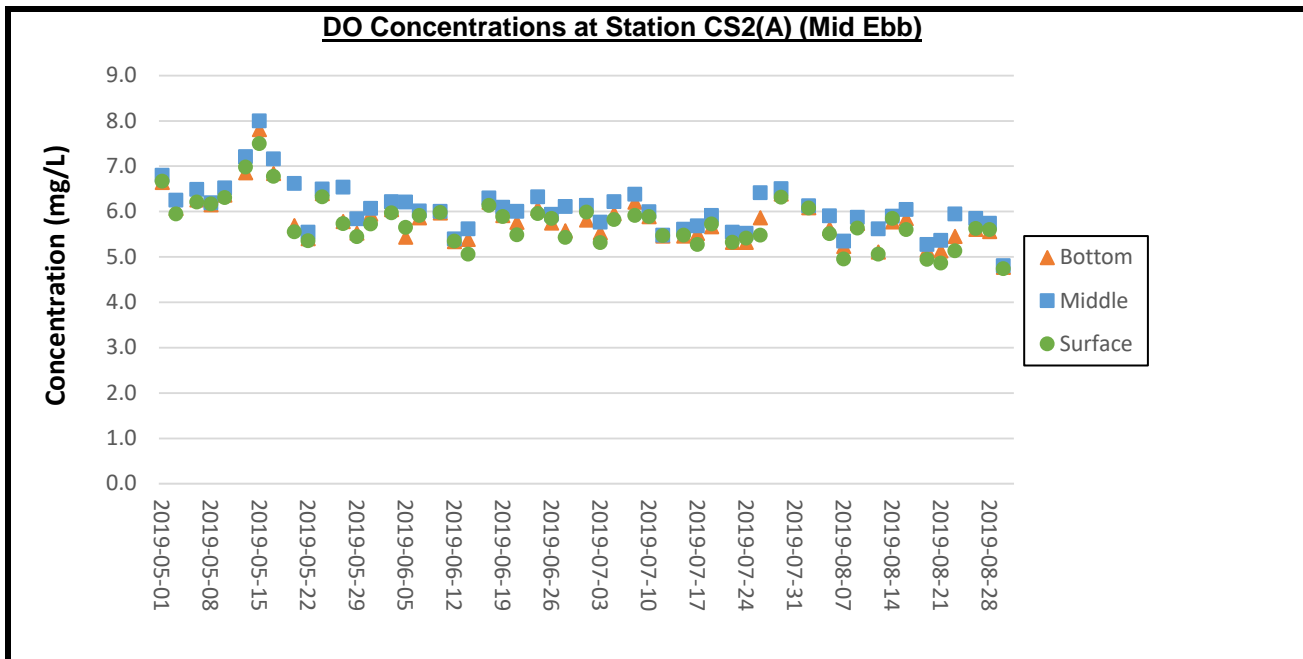
Remark:

1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-ebb tide on 31 July 2019 was cancelled due to safety reason.



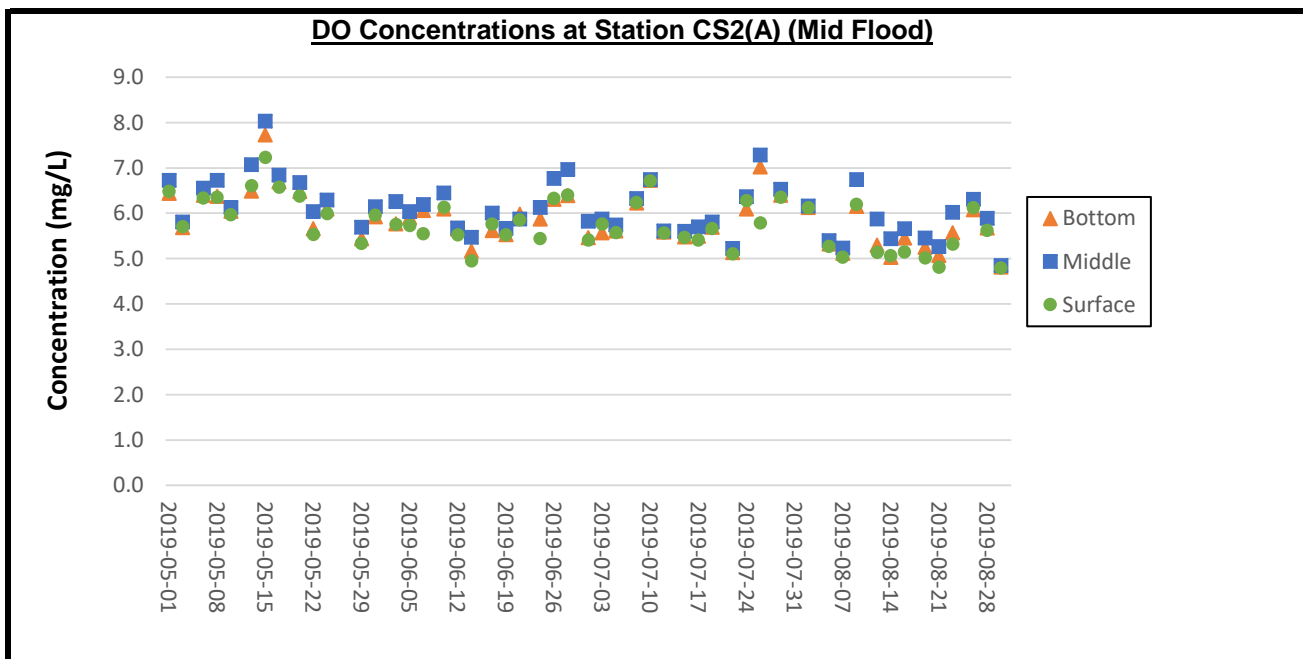
Remark:

1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-flood tide on 31 July 2019 was cancelled due to safety reason.



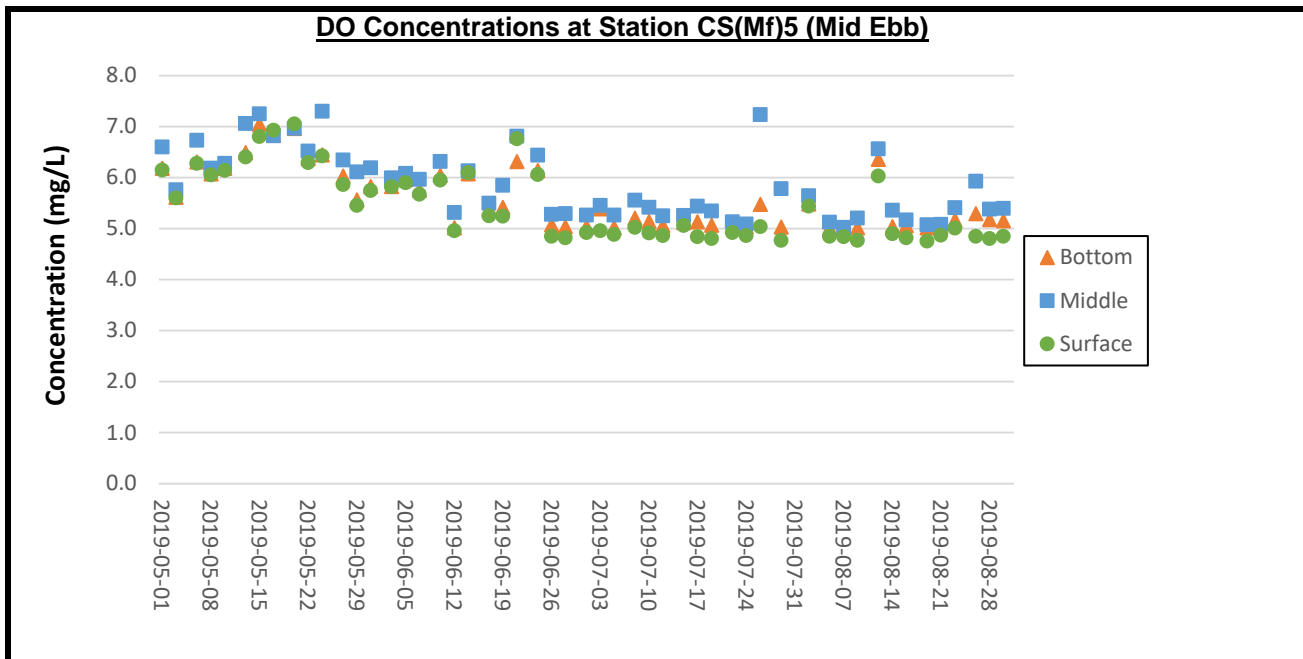
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-ebb tide on 31 July 2019 was cancelled due to safety reason.



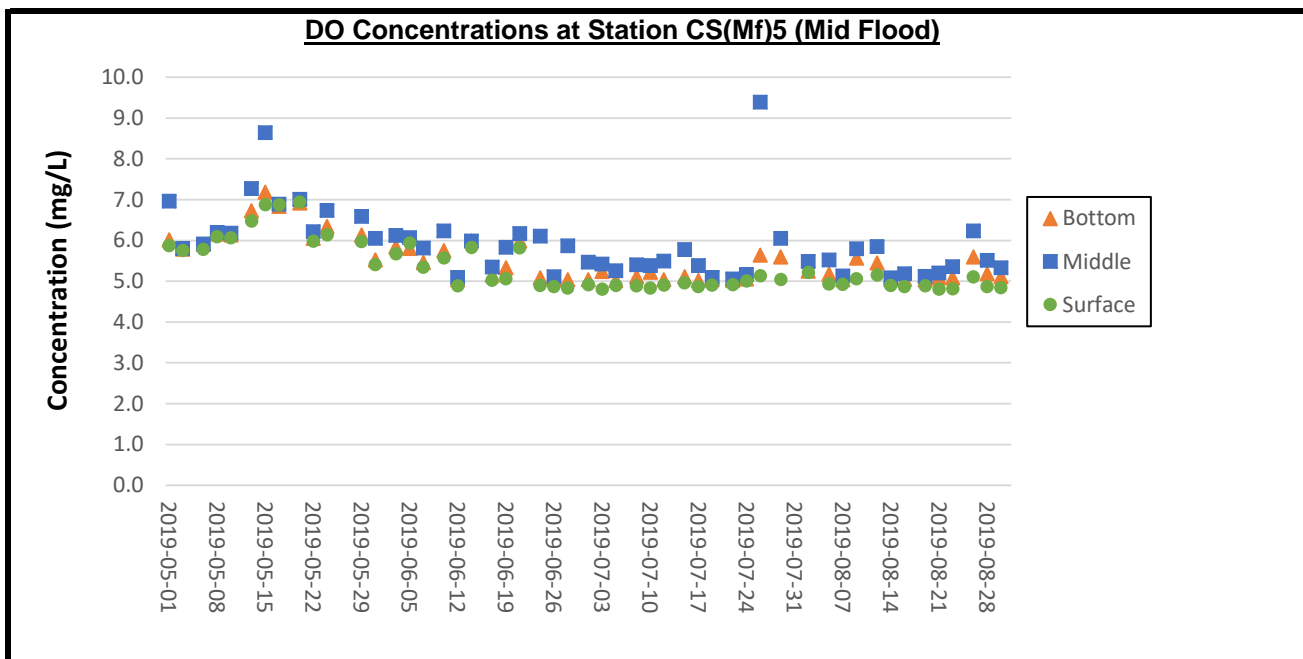
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-flood tide on 31 July 2019 was cancelled due to safety reason.



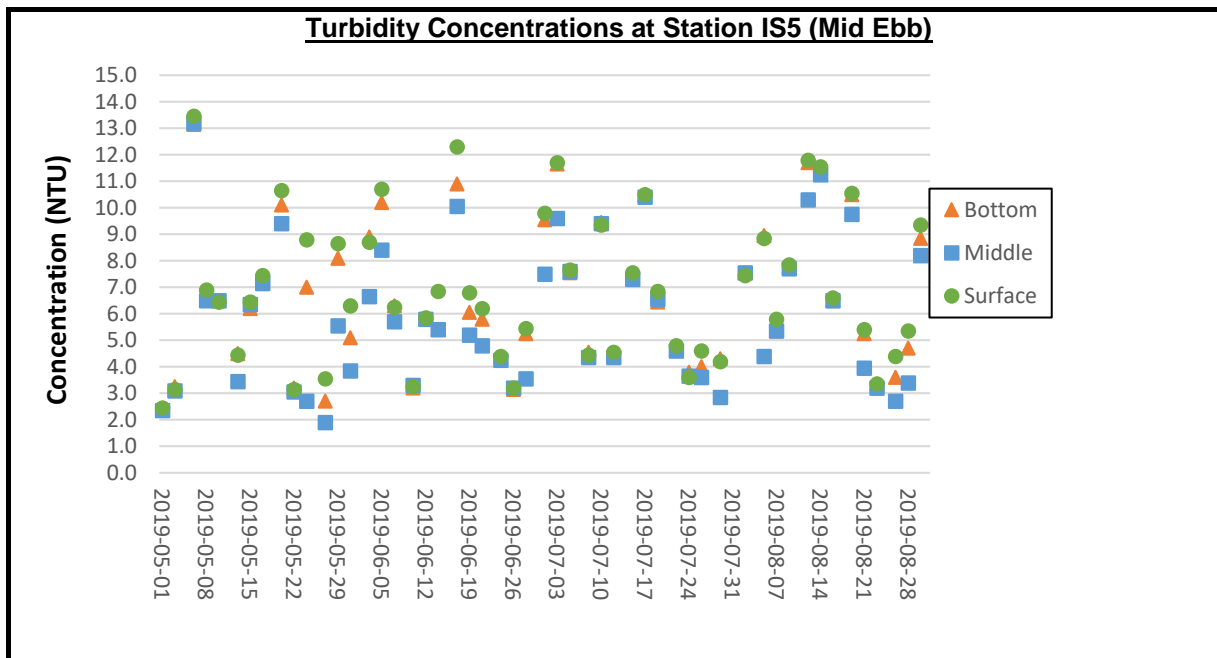
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-ebb tide on 31 July 2019 was cancelled due to safety reason.



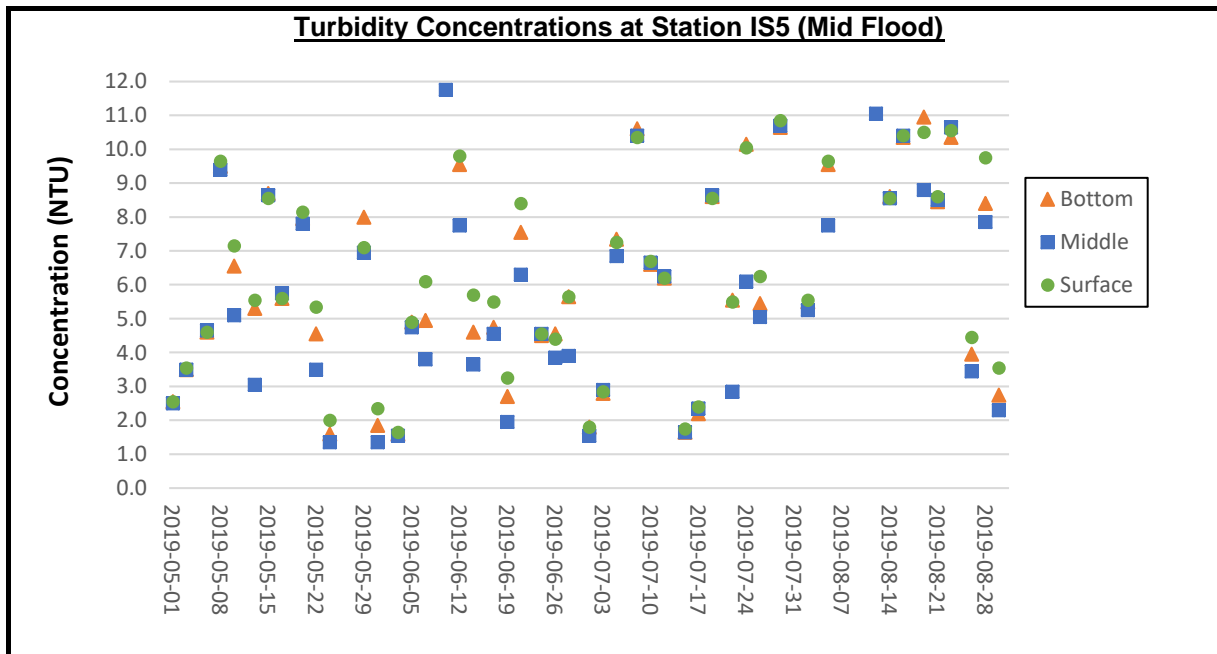
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-flood tide on 31 July 2019 was cancelled due to safety reason.



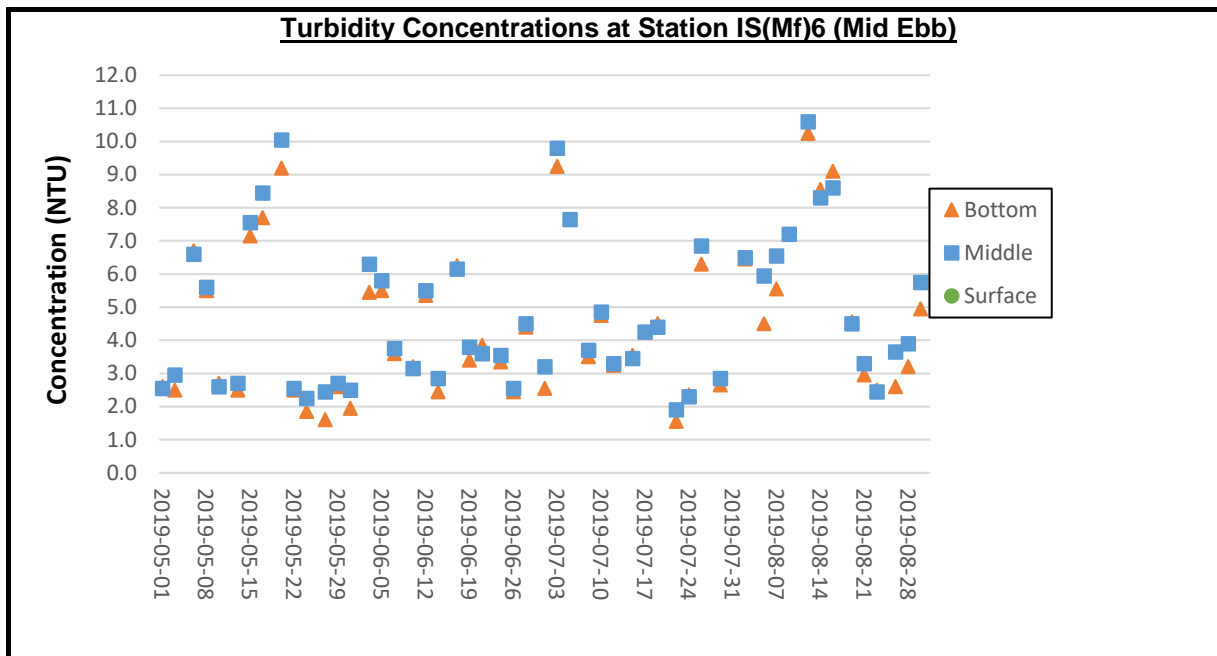
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-ebb tide on 31 July 2019 was cancelled due to safety reason.



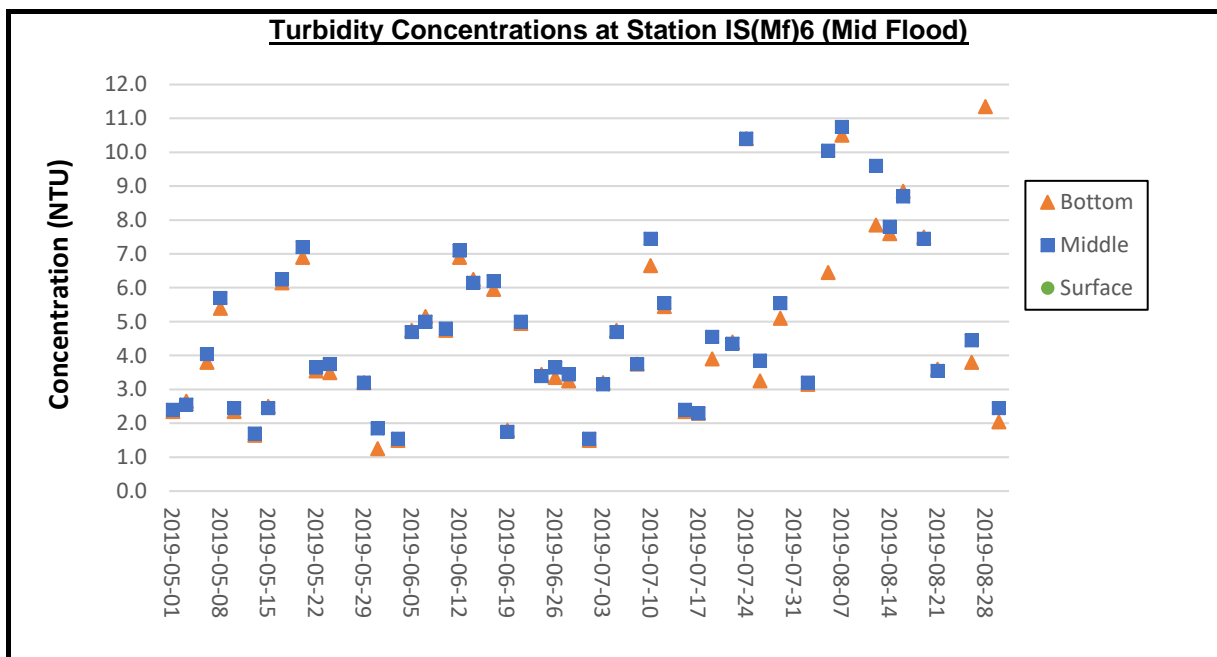
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-flood tide on 31 July 2019 was cancelled due to safety reason.



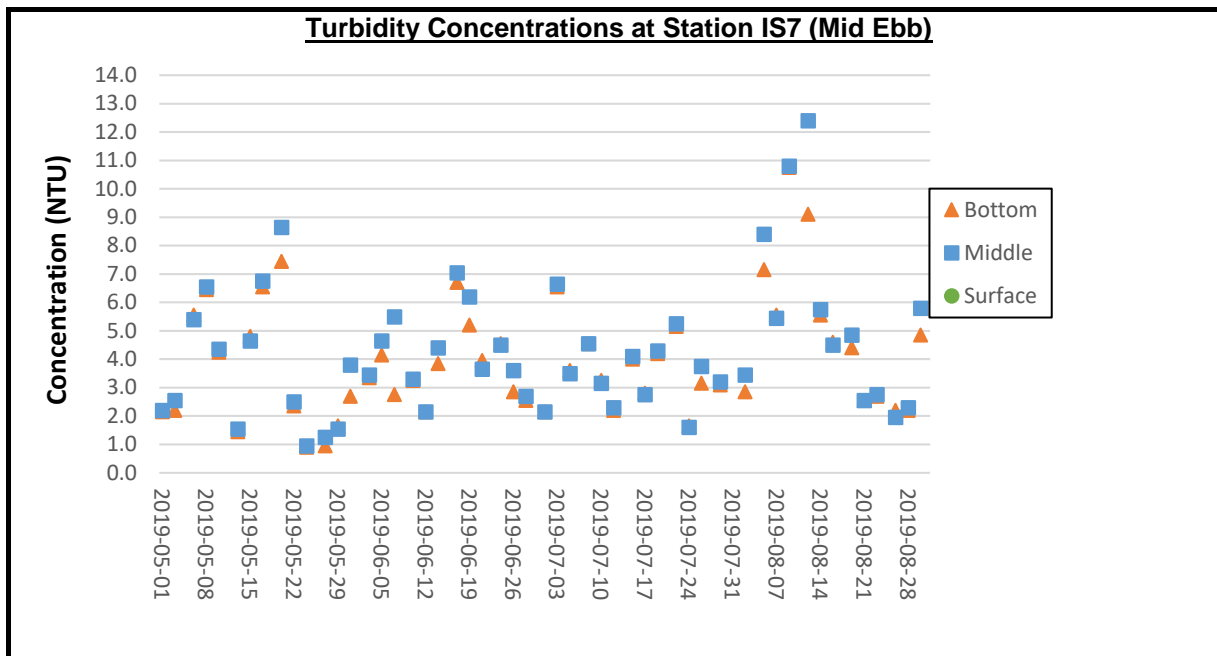
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-ebb tide on 31 July 2019 was cancelled due to safety reason.



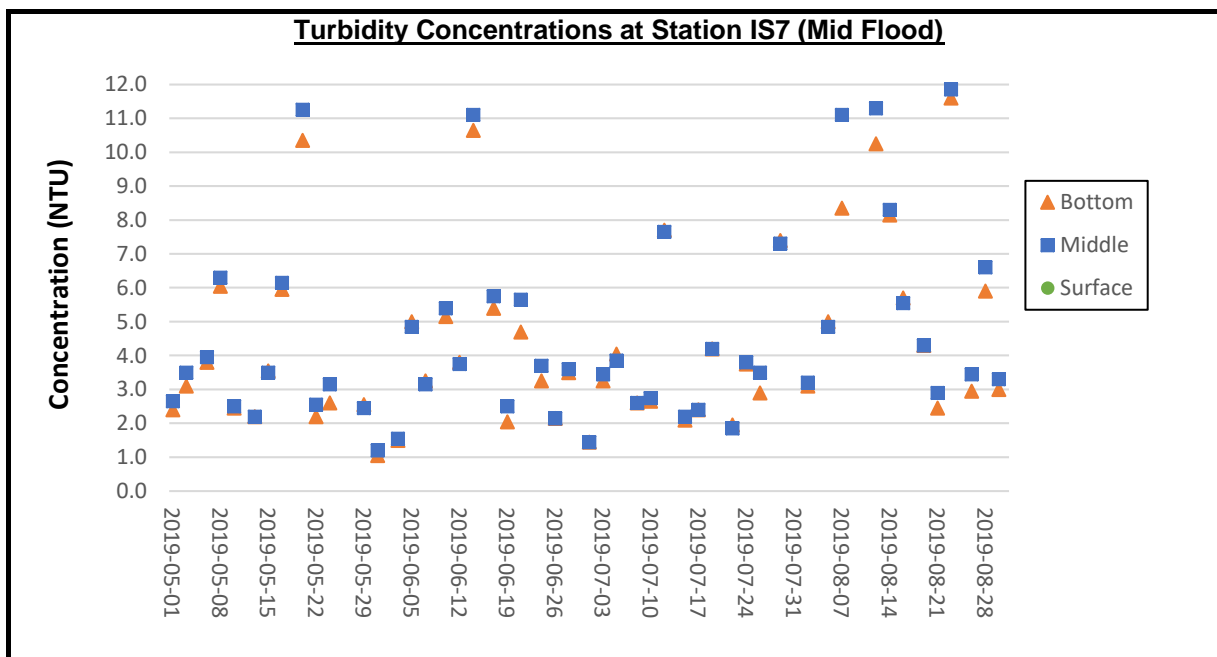
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-flood tide on 31 July 2019 was cancelled due to safety reason.



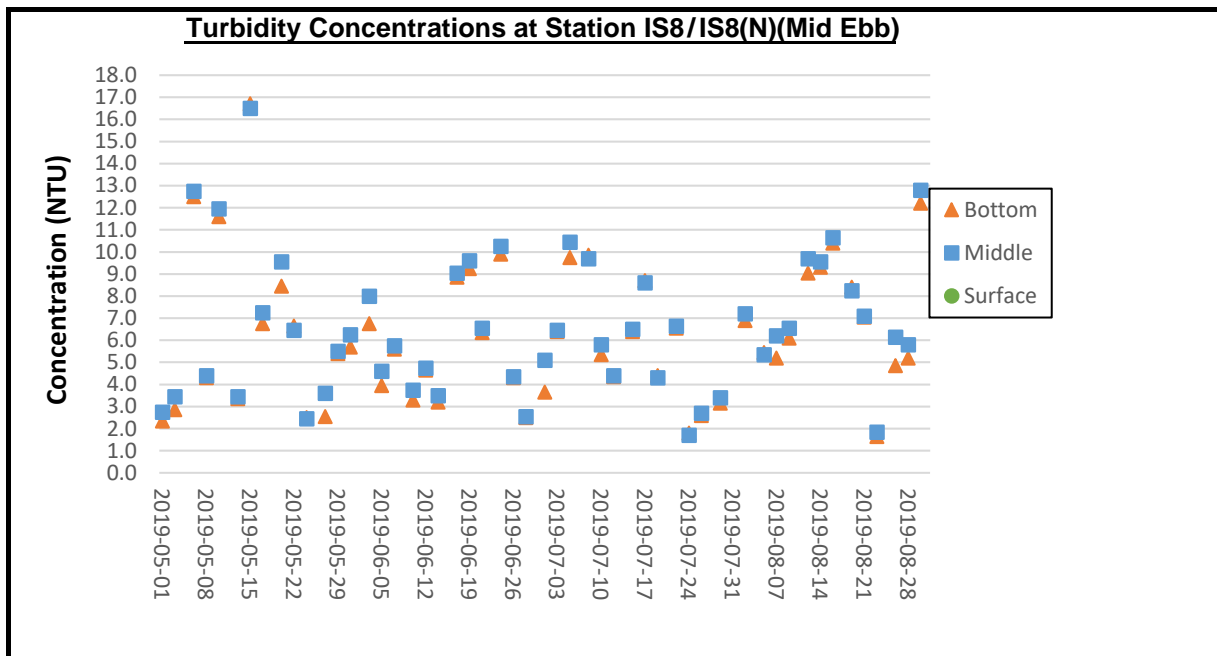
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-ebb tide on 31 July 2019 was cancelled due to safety reason.



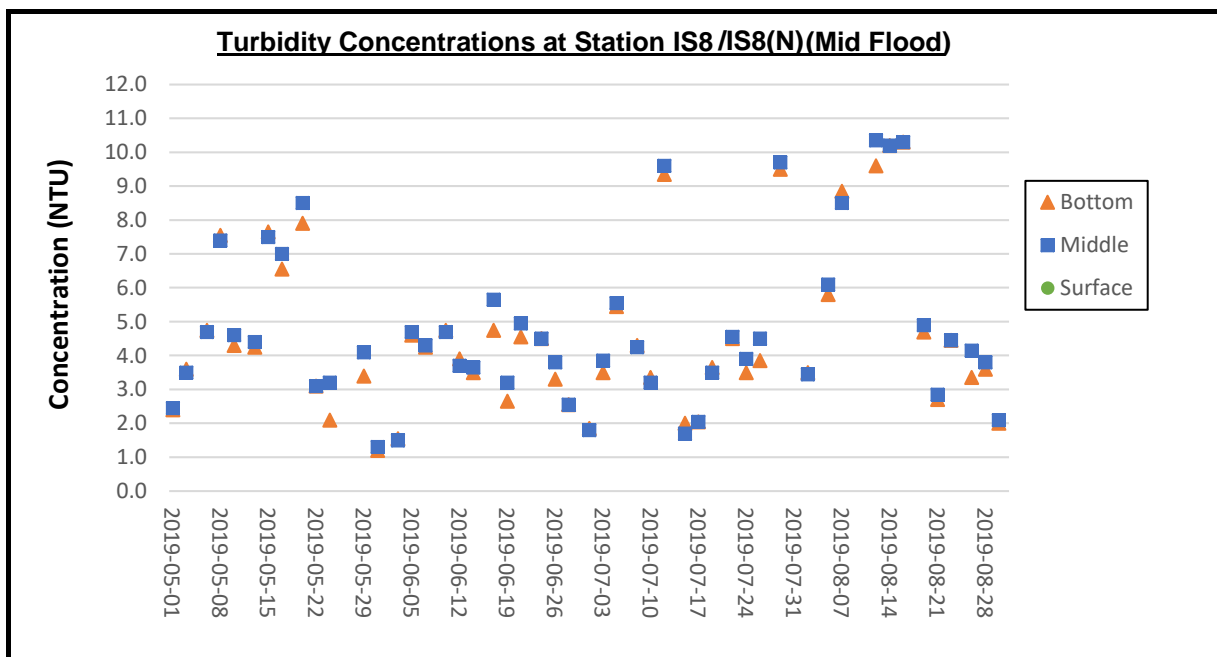
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-flood tide on 31 July 2019 was cancelled due to safety reason.



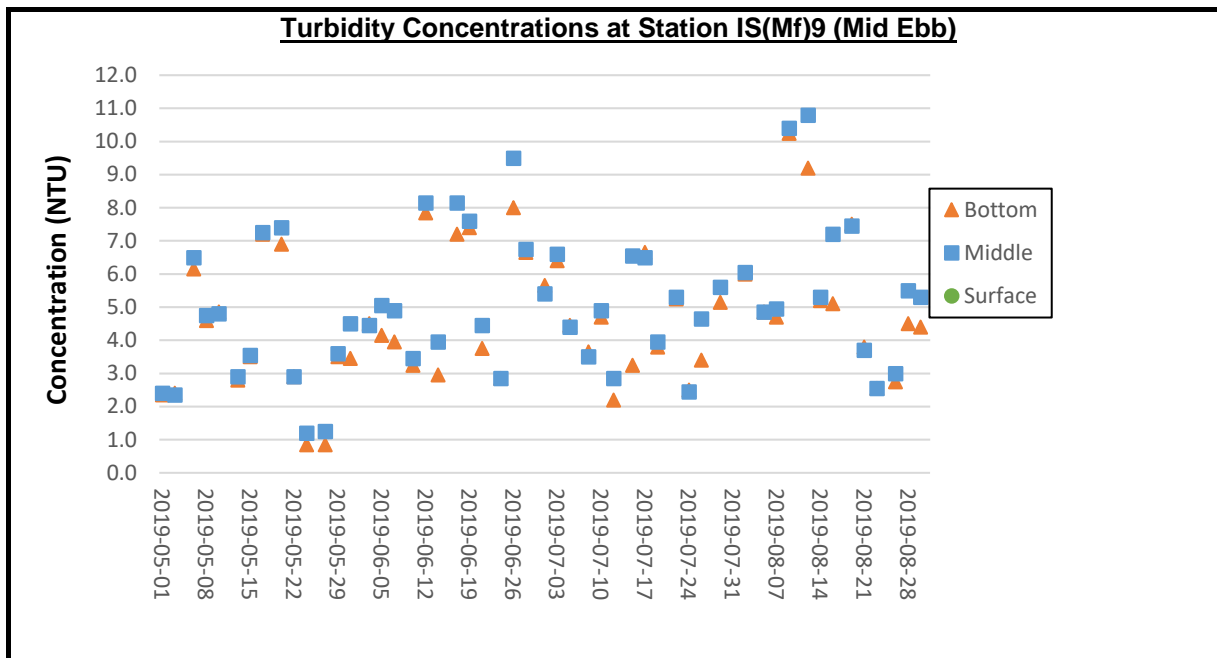
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-ebb tide on 31 July 2019 was cancelled due to safety reason.
- 2) The water quality monitoring has been conducted at station IS8(N) since 21 August 2019.



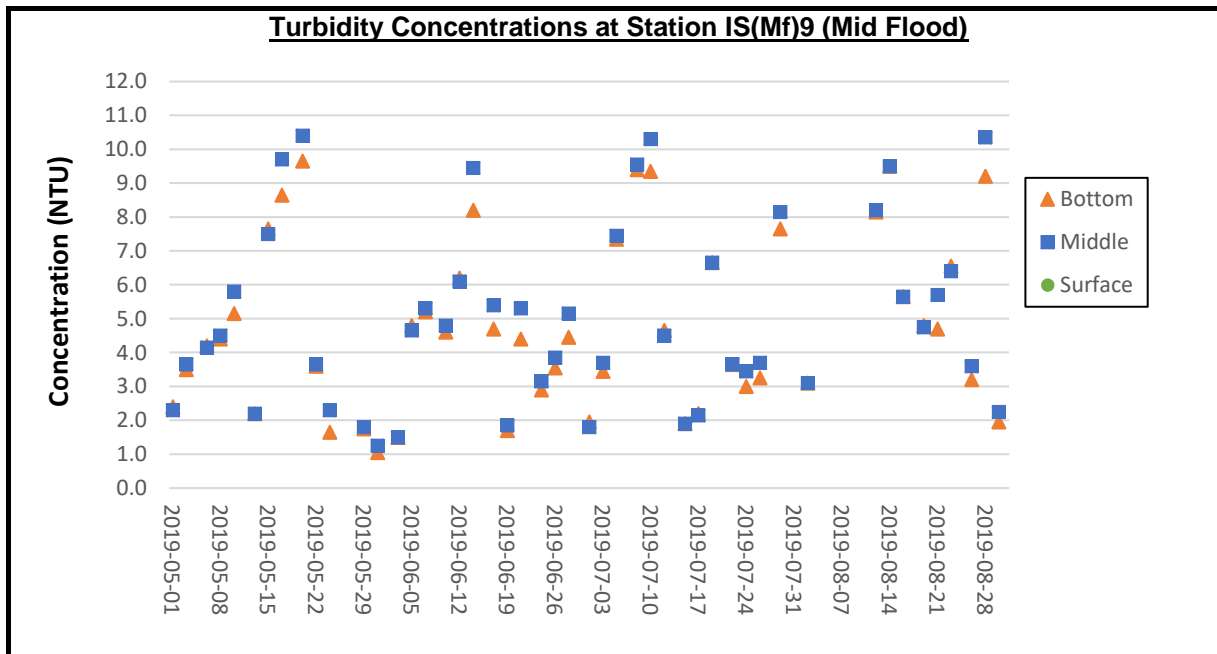
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-flood tide on 31 July 2019 was cancelled due to safety reason.
- 2) The water quality monitoring has been conducted at station IS8(N) since 21 August 2019.



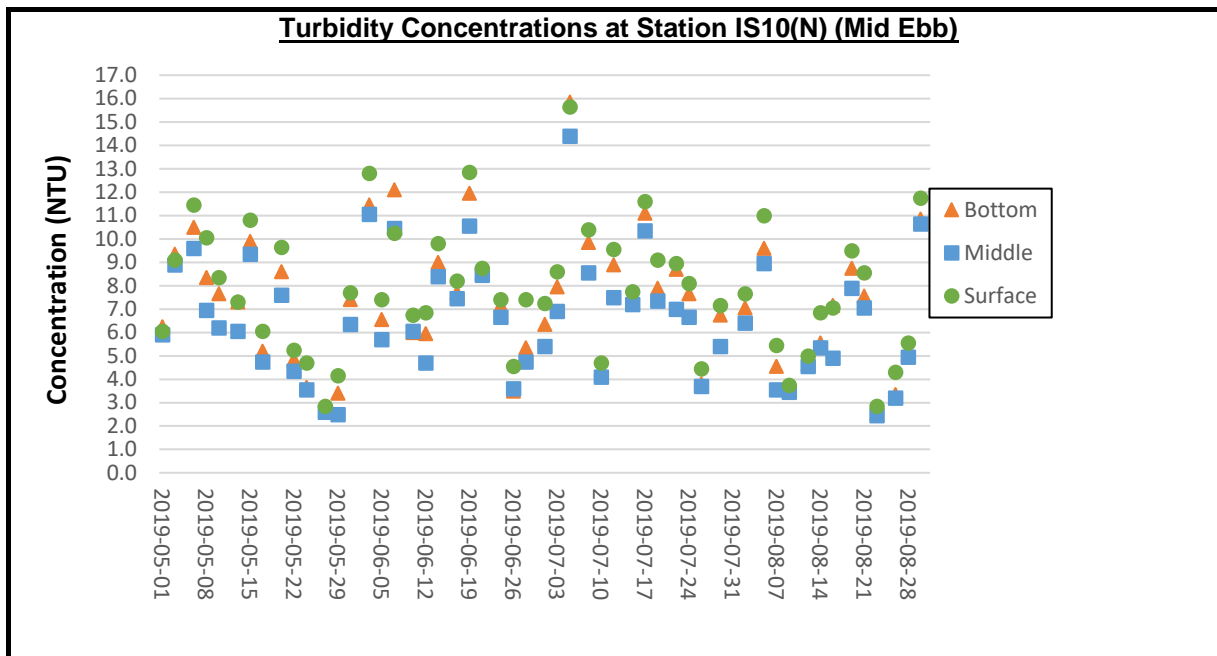
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-ebb tide on 31 July 2019 was cancelled due to safety reason.



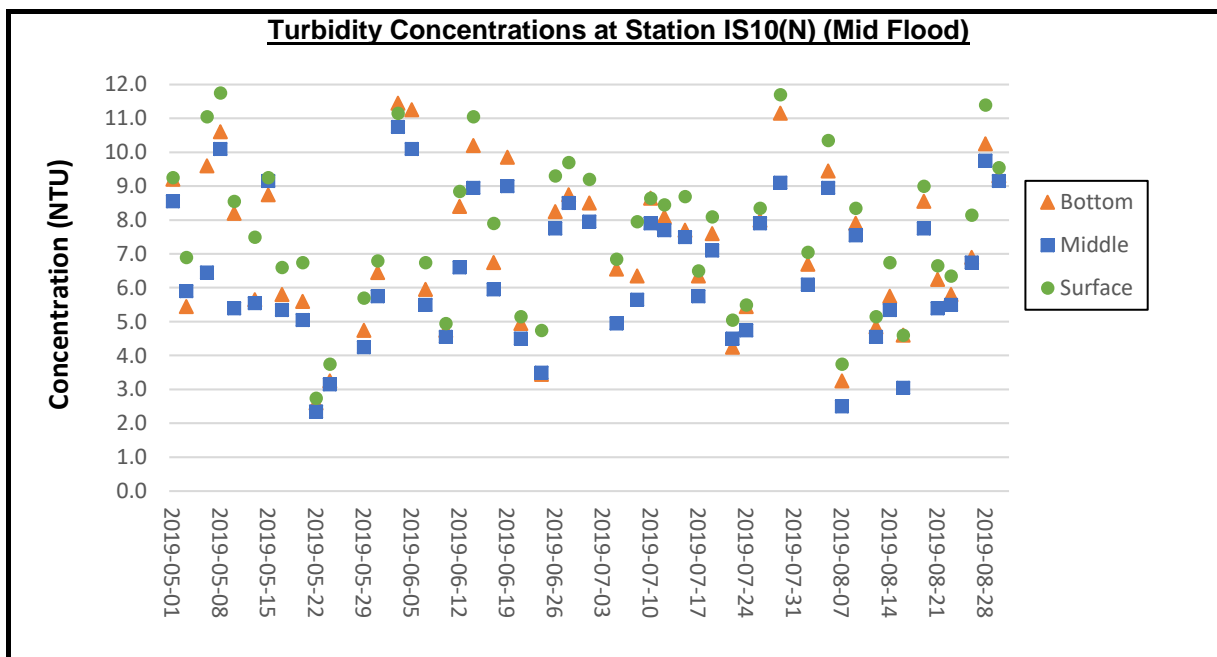
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-flood tide on 31 July 2019 was cancelled due to safety reason.



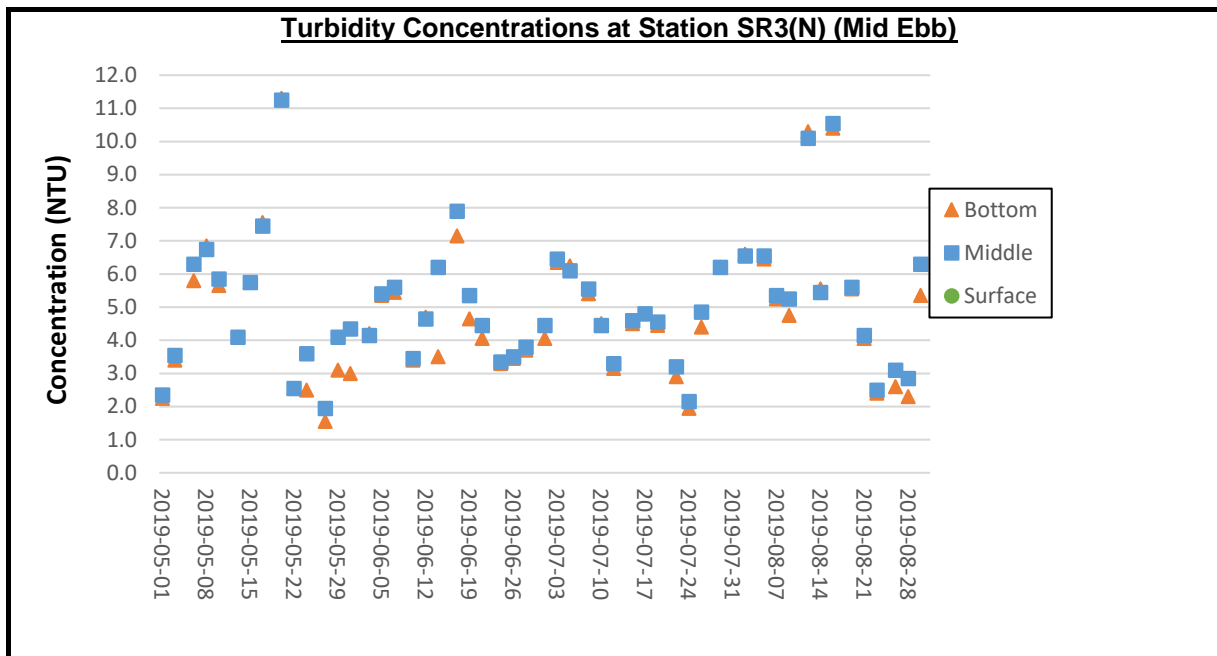
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-ebb tide on 31 July 2019 was cancelled due to safety reason.



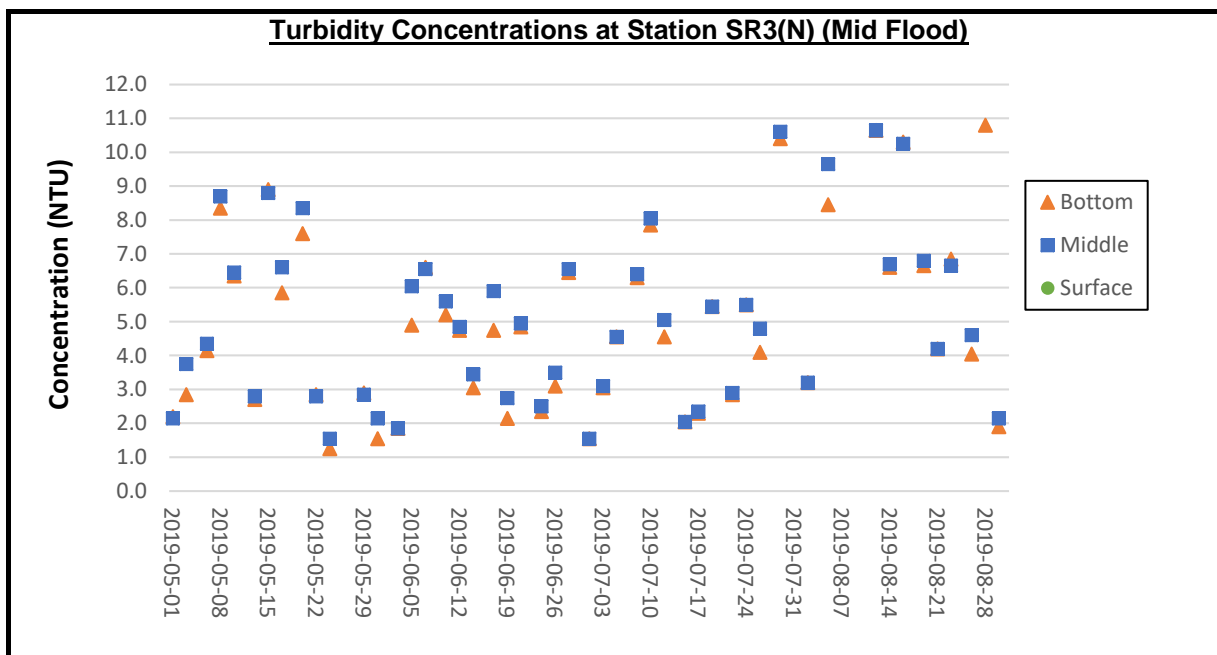
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-flood tide on 31 July 2019 was cancelled due to safety reason.



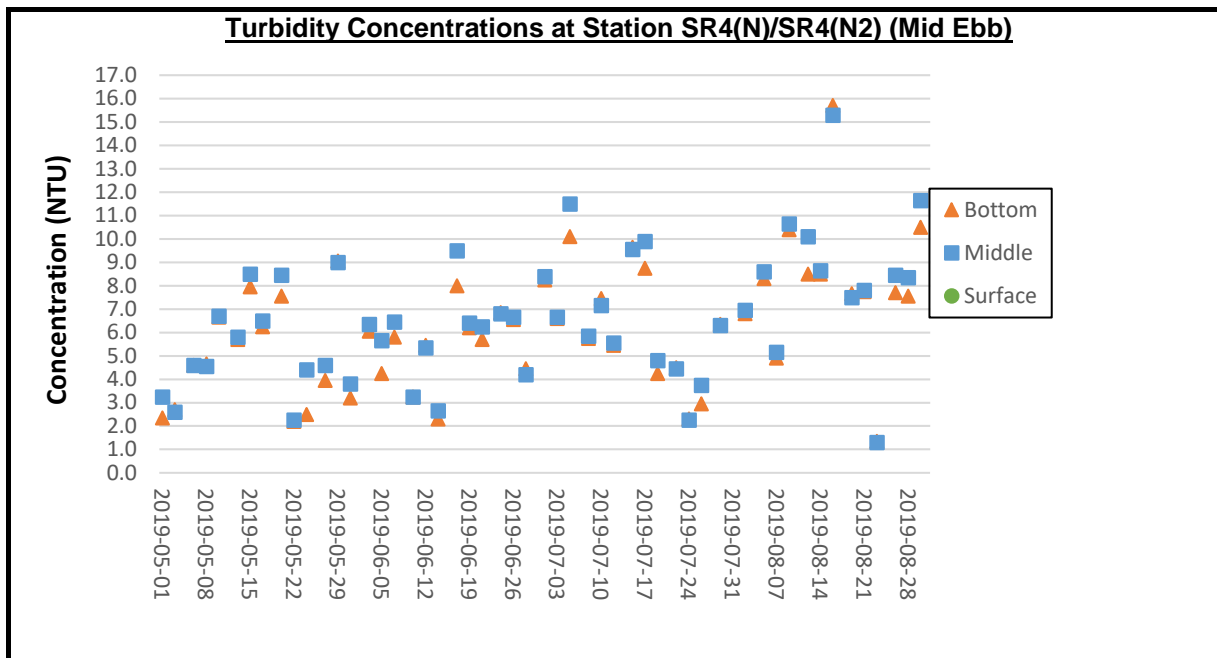
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-ebb tide on 31 July 2019 was cancelled due to safety reason.



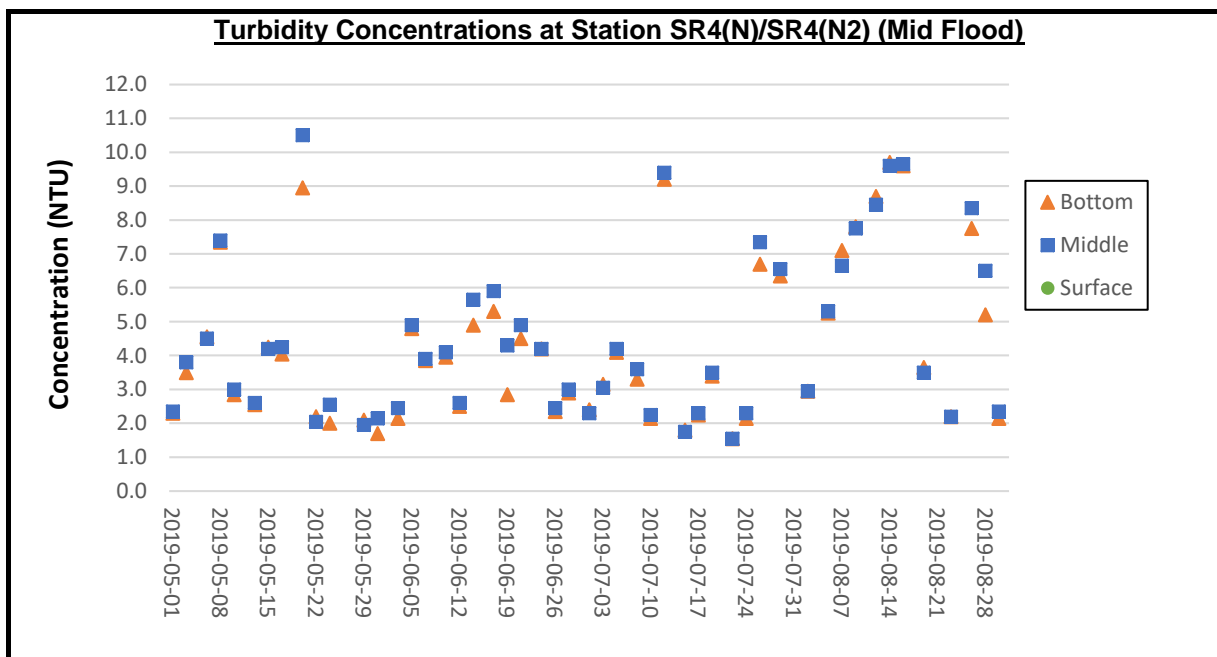
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-flood tide on 31 July 2019 was cancelled due to safety reason.



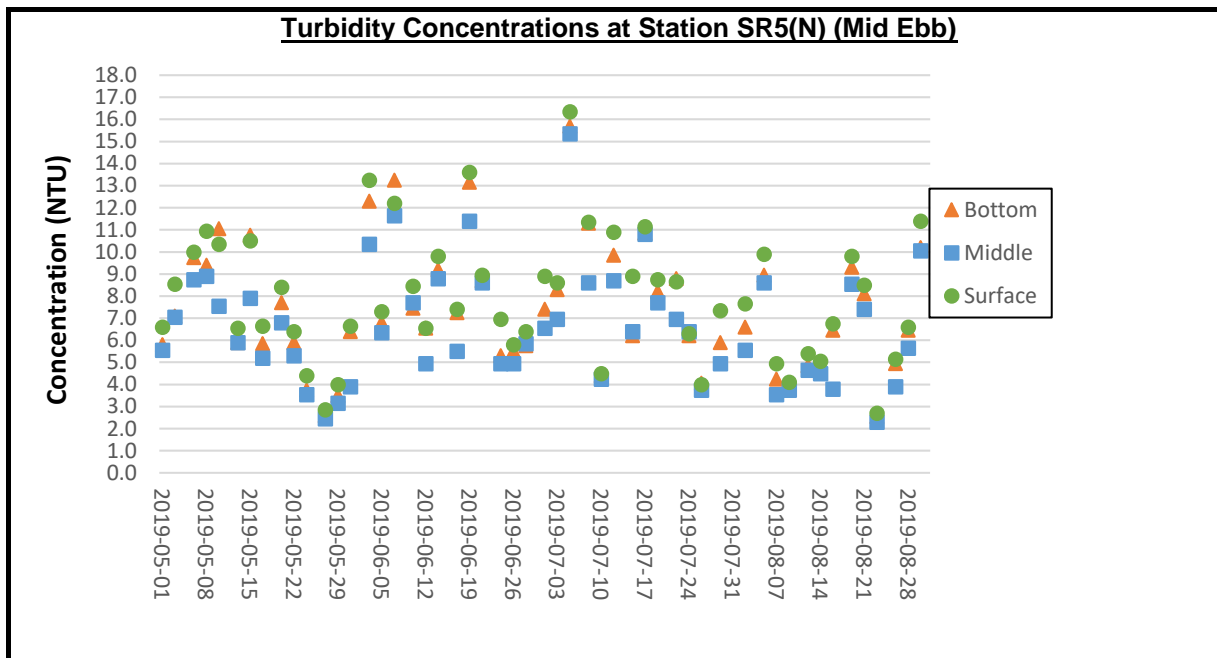
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-ebb tide on 31 July 2019 was cancelled due to safety reason.
- 2) The water quality monitoring has been conducted at station SR4(N2) since 21 August 2019.



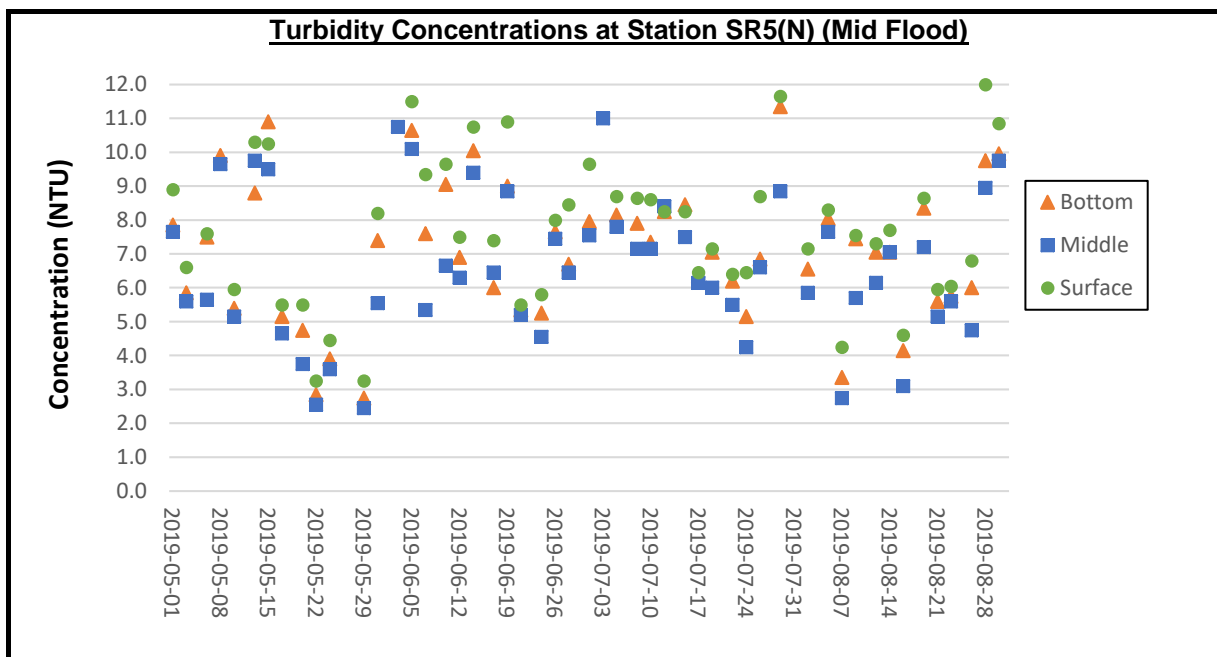
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-flood tide on 31 July 2019 was cancelled due to safety reason.
- 2) The water quality monitoring has been conducted at station SR4(N2) since 21 August 2019.



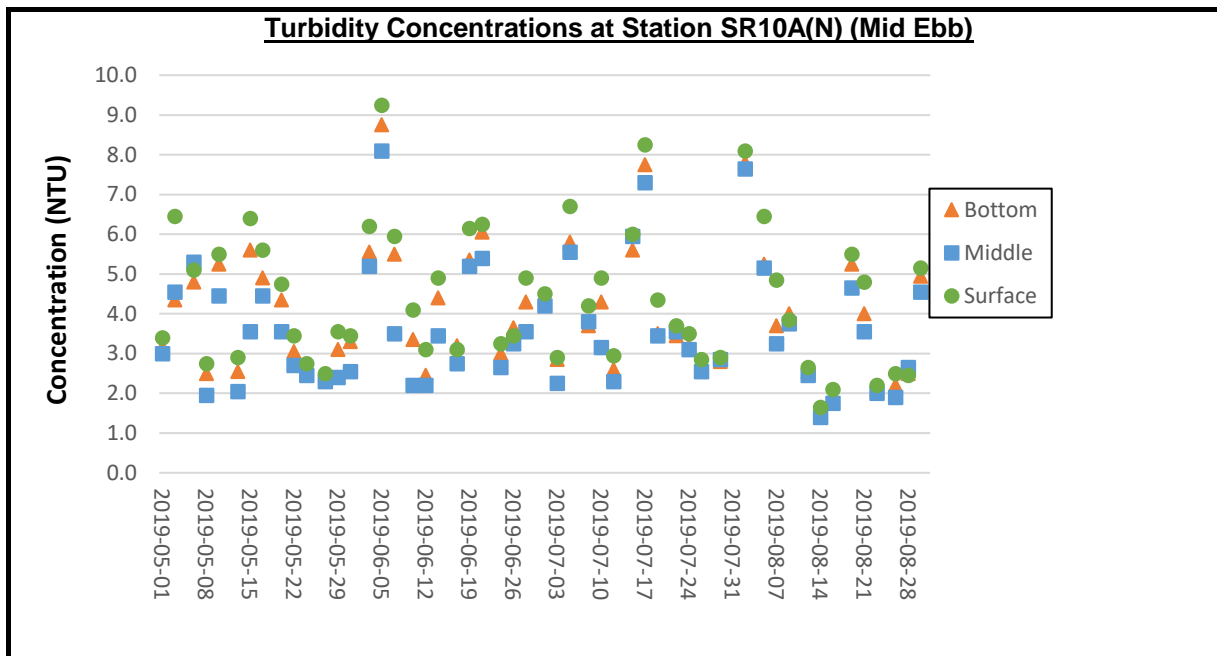
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-ebb tide on 31 July 2019 was cancelled due to safety reason.



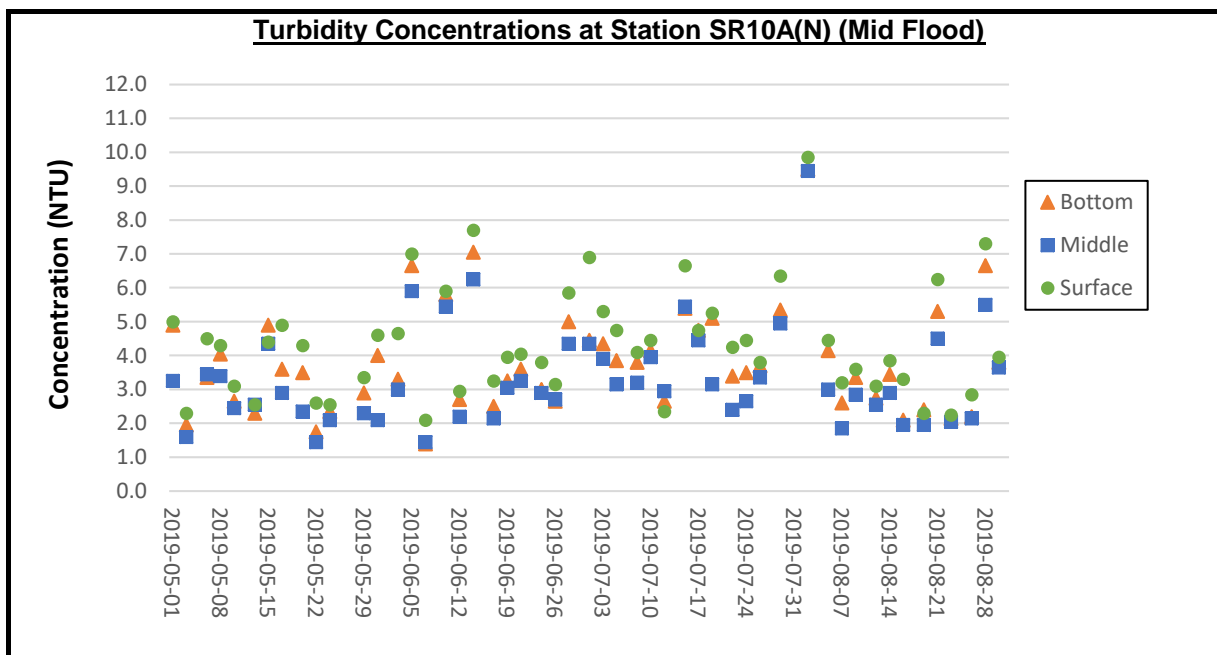
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-flood tide on 31 July 2019 was cancelled due to safety reason.



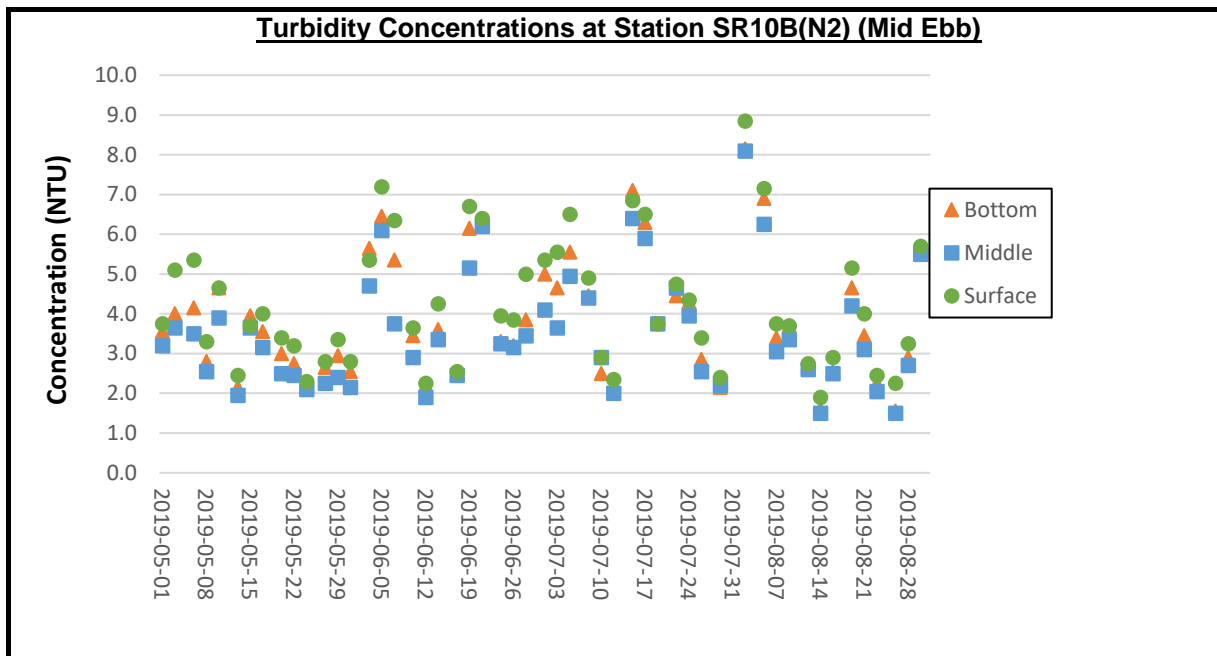
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-ebb tide on 31 July 2019 was cancelled due to safety reason.



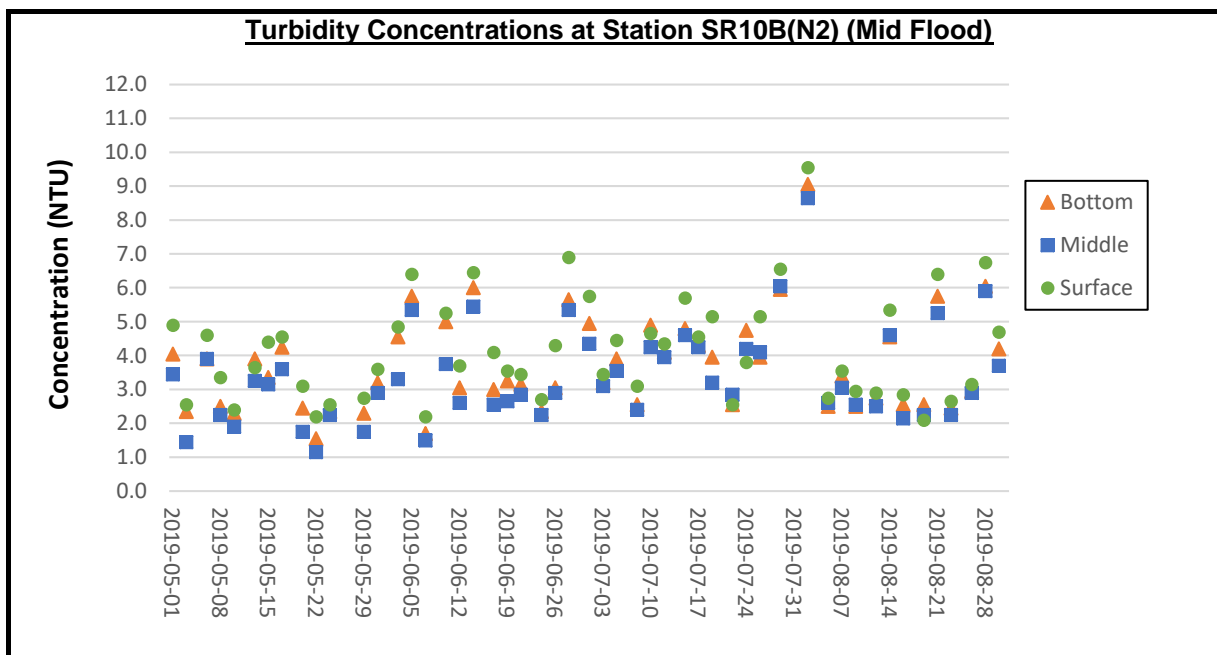
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-flood tide on 31 July 2019 was cancelled due to safety reason.



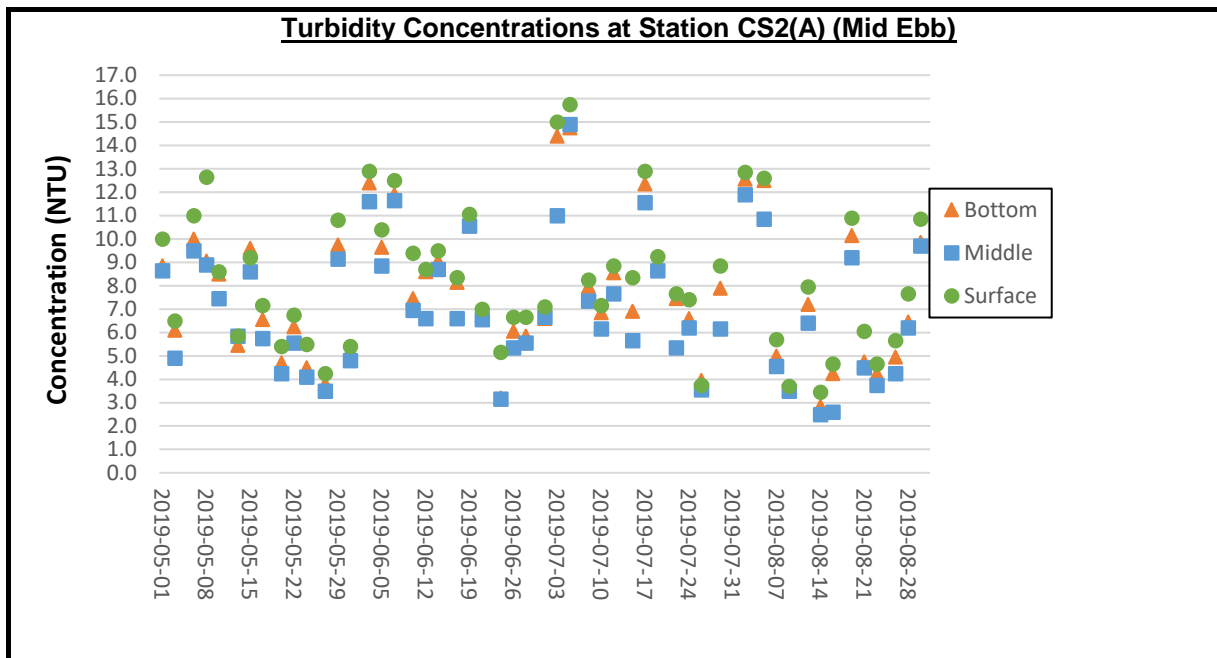
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-ebb tide on 31 July 2019 was cancelled due to safety reason.



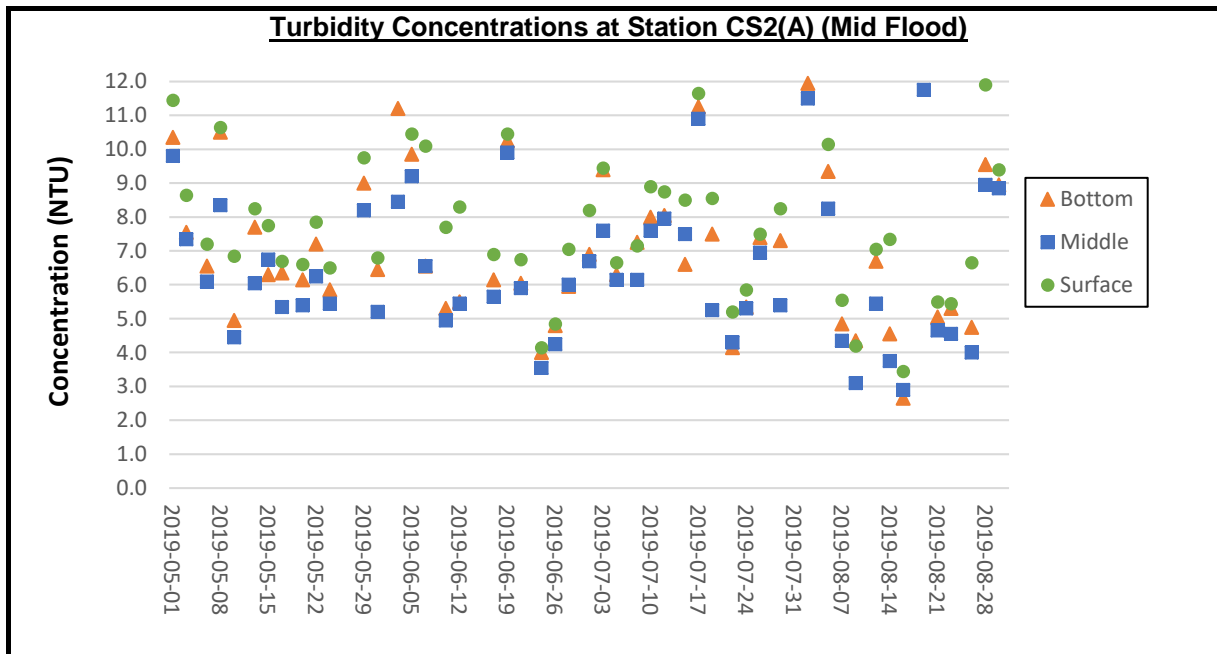
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-flood tide on 31 July 2019 was cancelled due to safety reason.



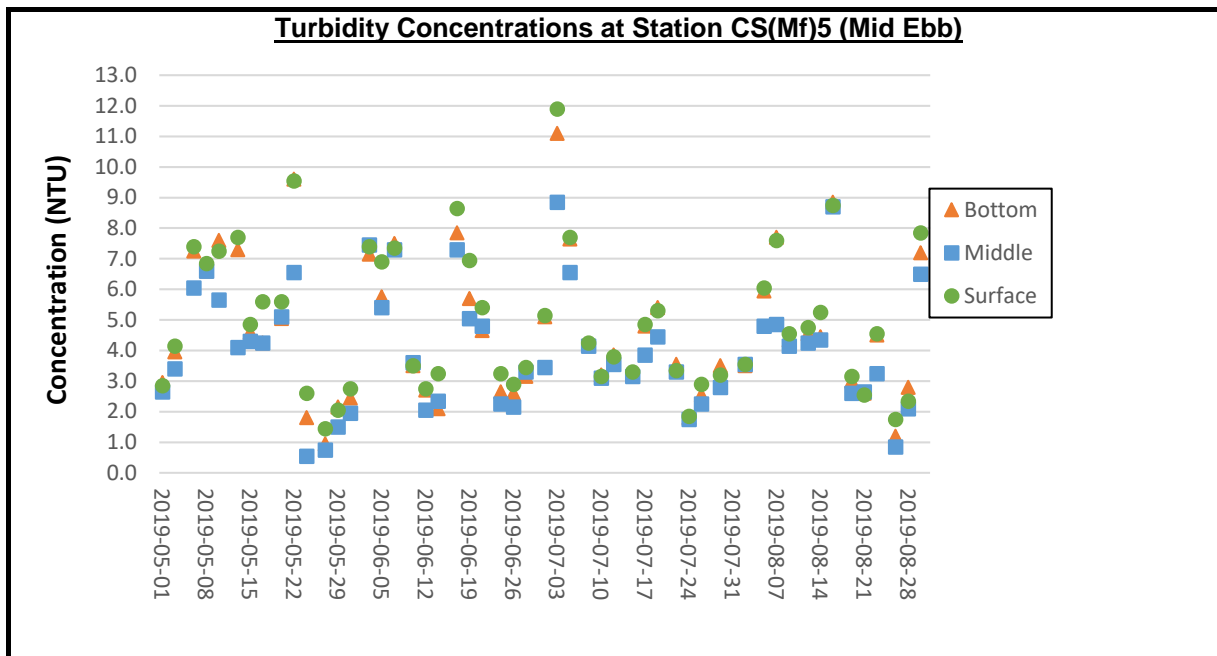
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-ebb tide on 31 July 2019 was cancelled due to safety reason.



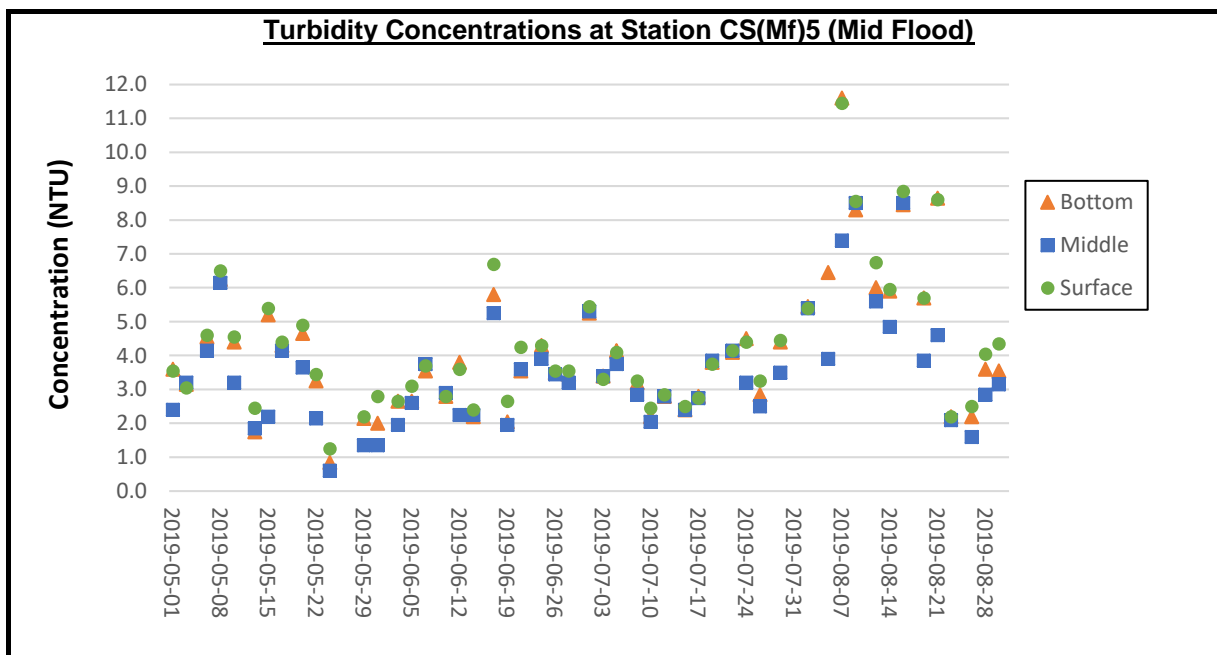
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-flood tide on 31 July 2019 was cancelled due to safety reason.



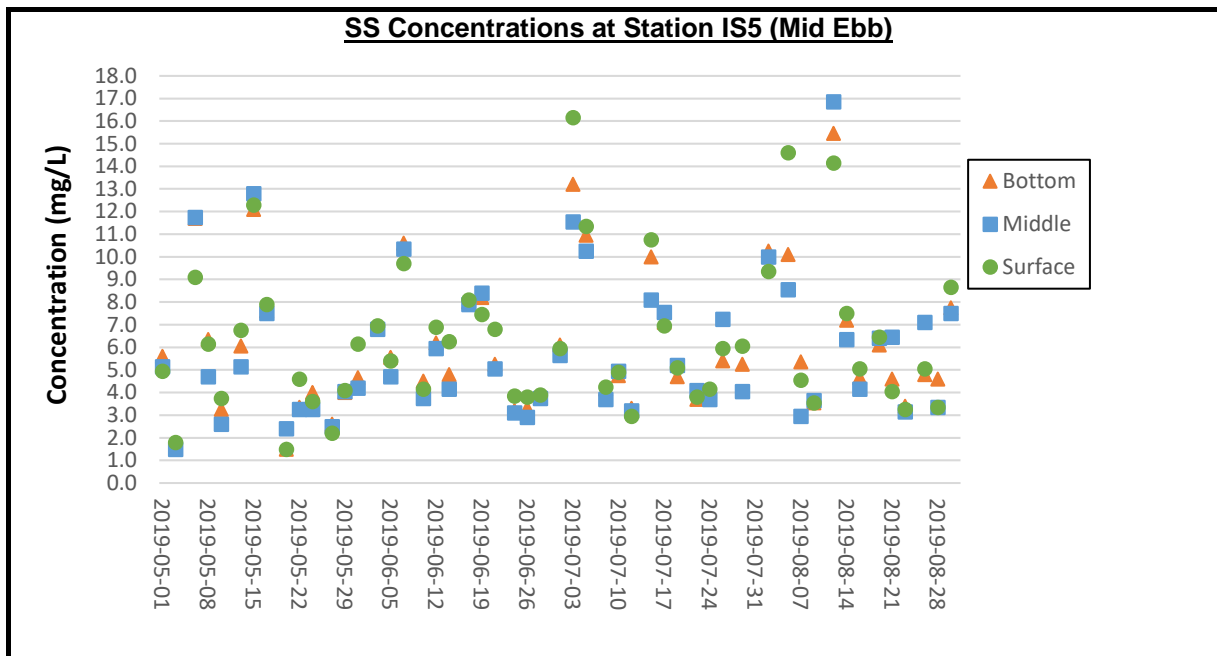
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-ebb tide on 31 July 2019 was cancelled due to safety reason.



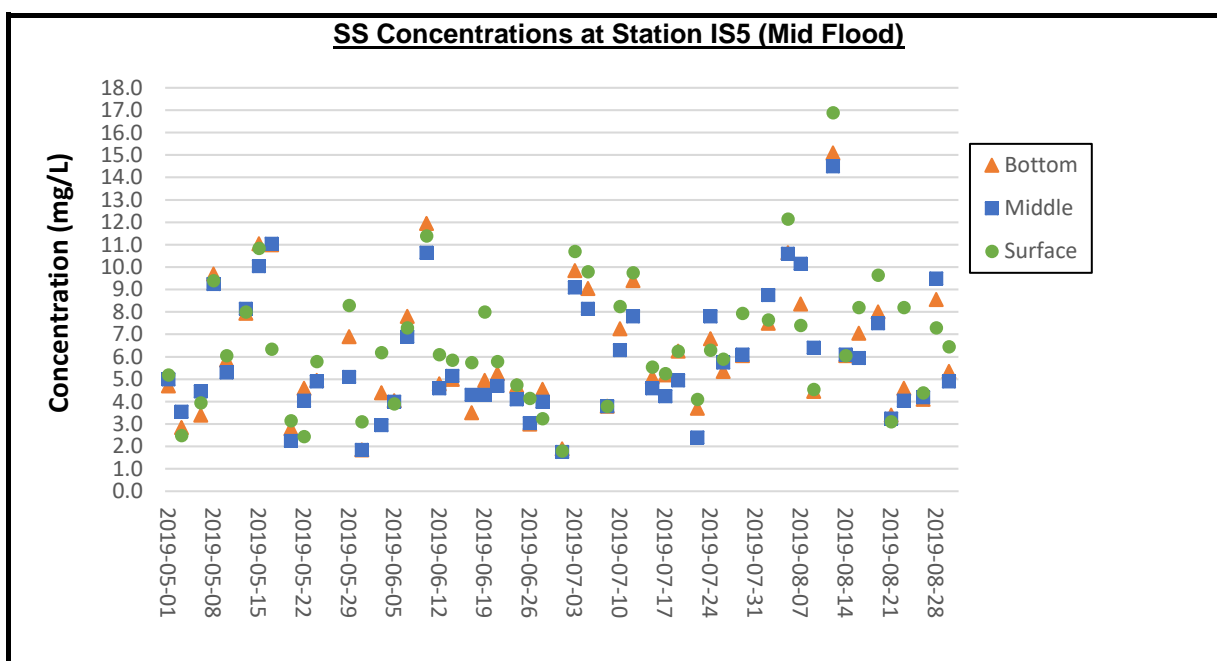
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-flood tide on 31 July 2019 was cancelled due to safety reason.



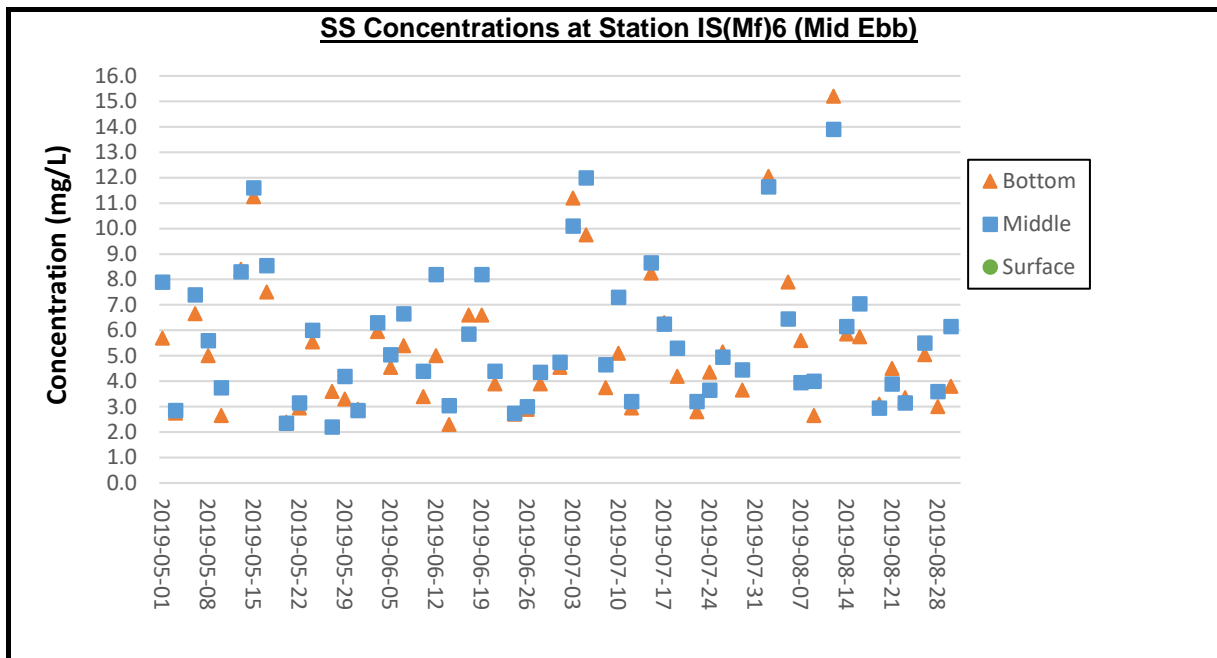
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-ebb tide on 31 July 2019 was cancelled due to safety reason.



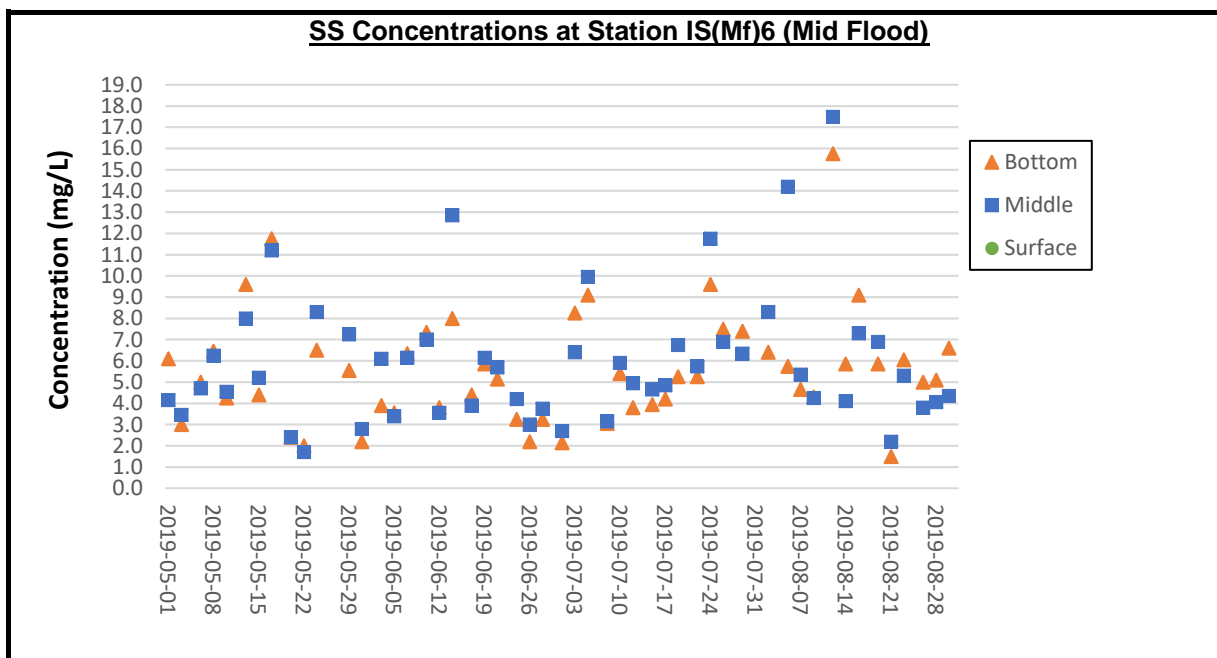
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-flood tide on 31 July 2019 was cancelled due to safety reason.



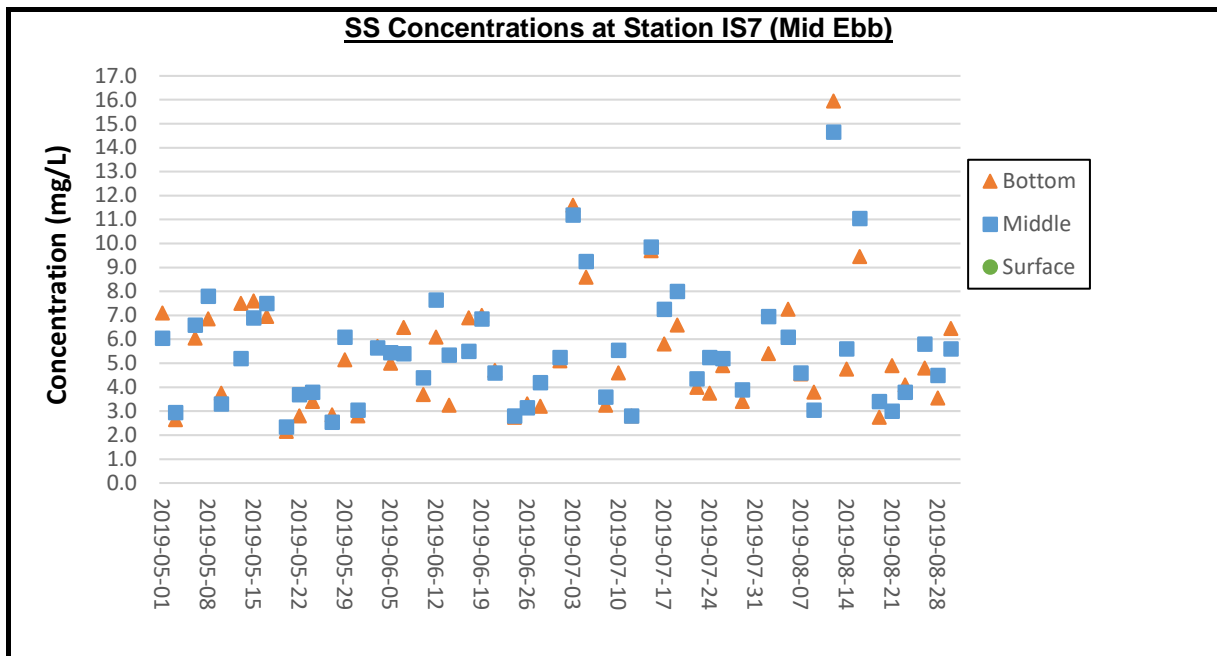
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-ebb tide on 31 July 2019 was cancelled due to safety reason.



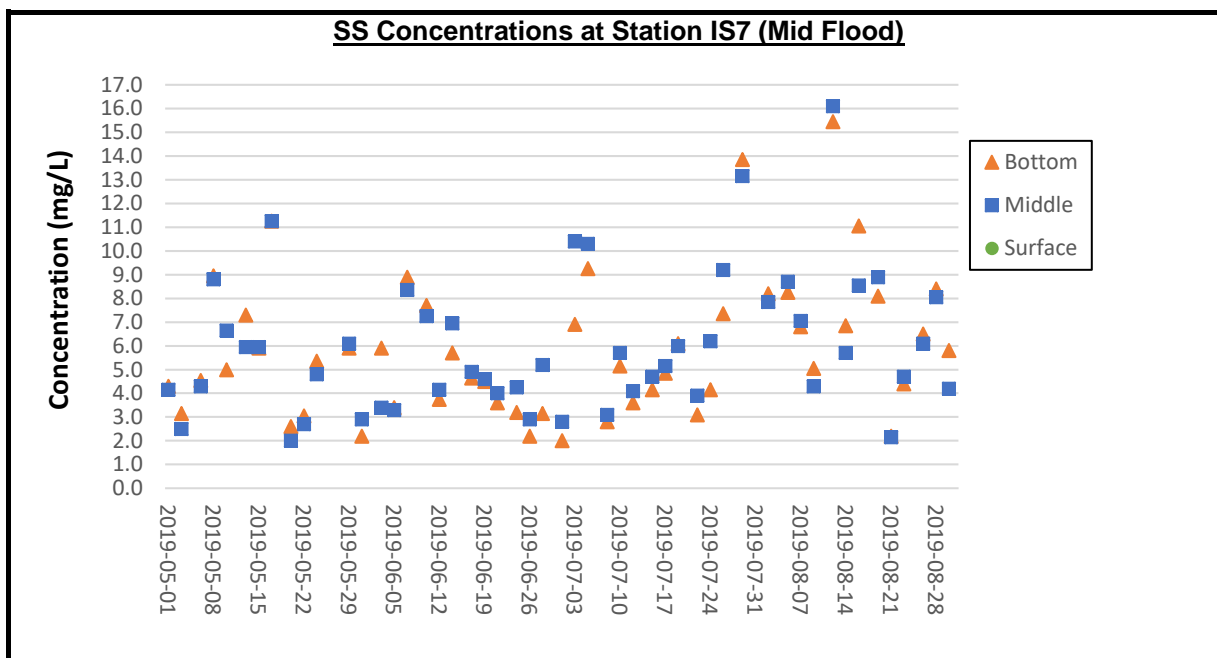
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-flood tide on 31 July 2019 was cancelled due to safety reason.



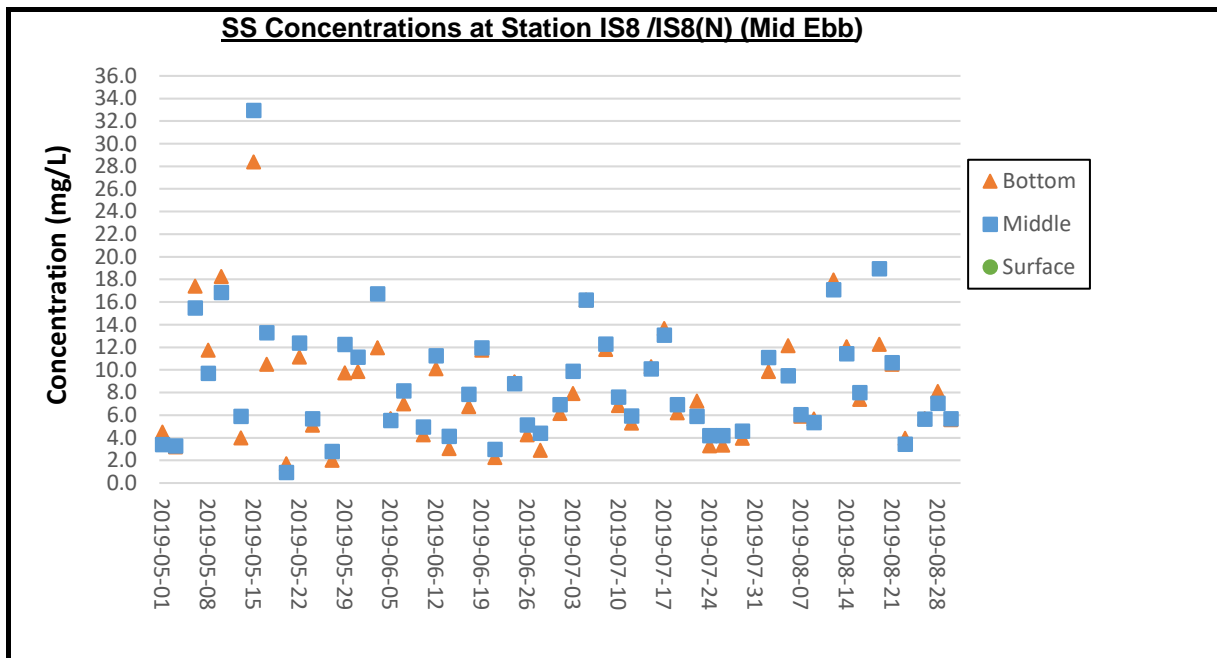
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-ebb tide on 31 July 2019 was cancelled due to safety reason.



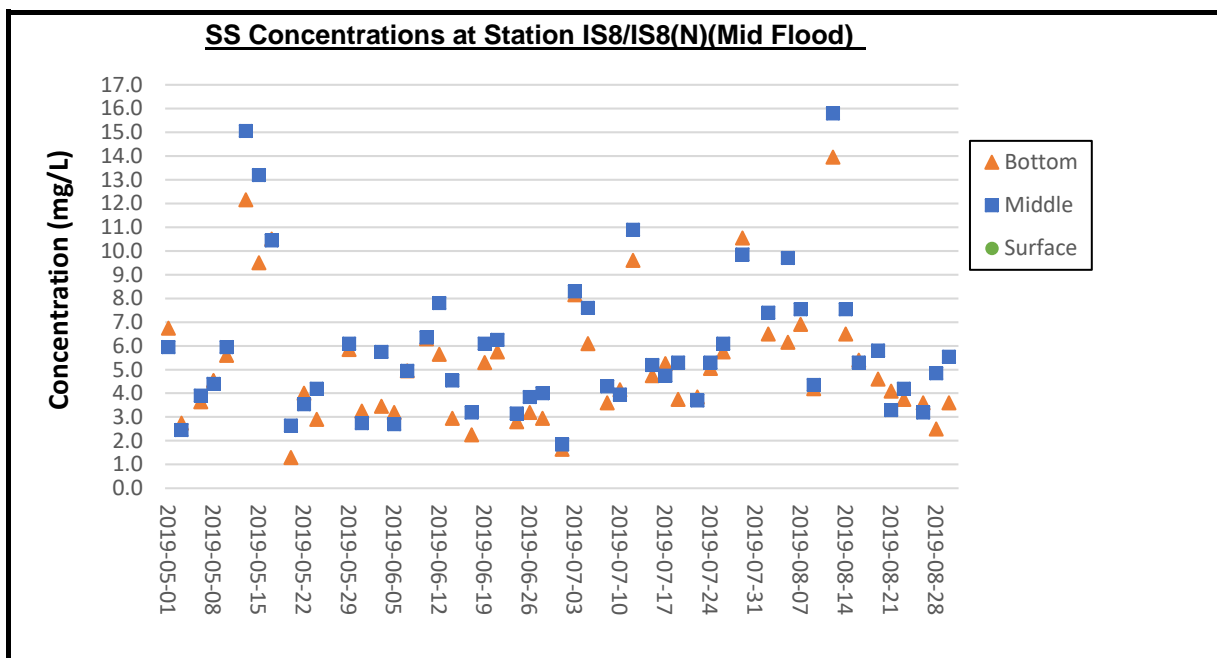
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-flood tide on 31 July 2019 was cancelled due to safety reason.



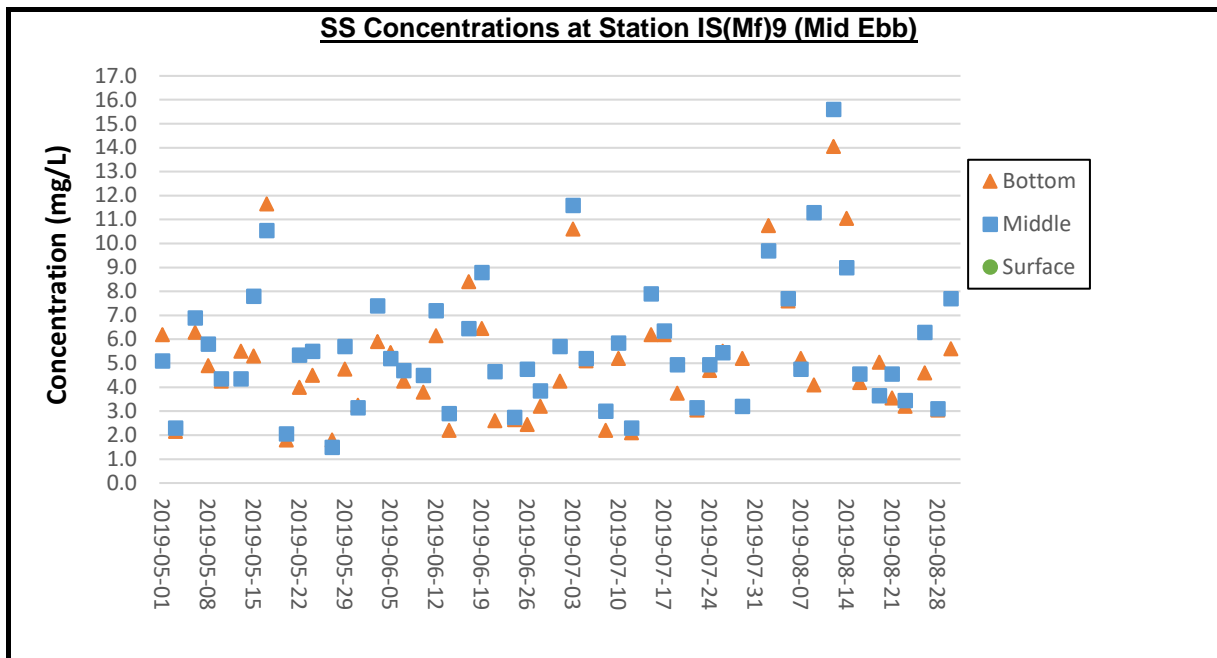
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-ebb tide on 31 July 2019 was cancelled due to safety reason.
- 2) The water quality monitoring has been conducted at station IS8(N) since 21 August 2019.



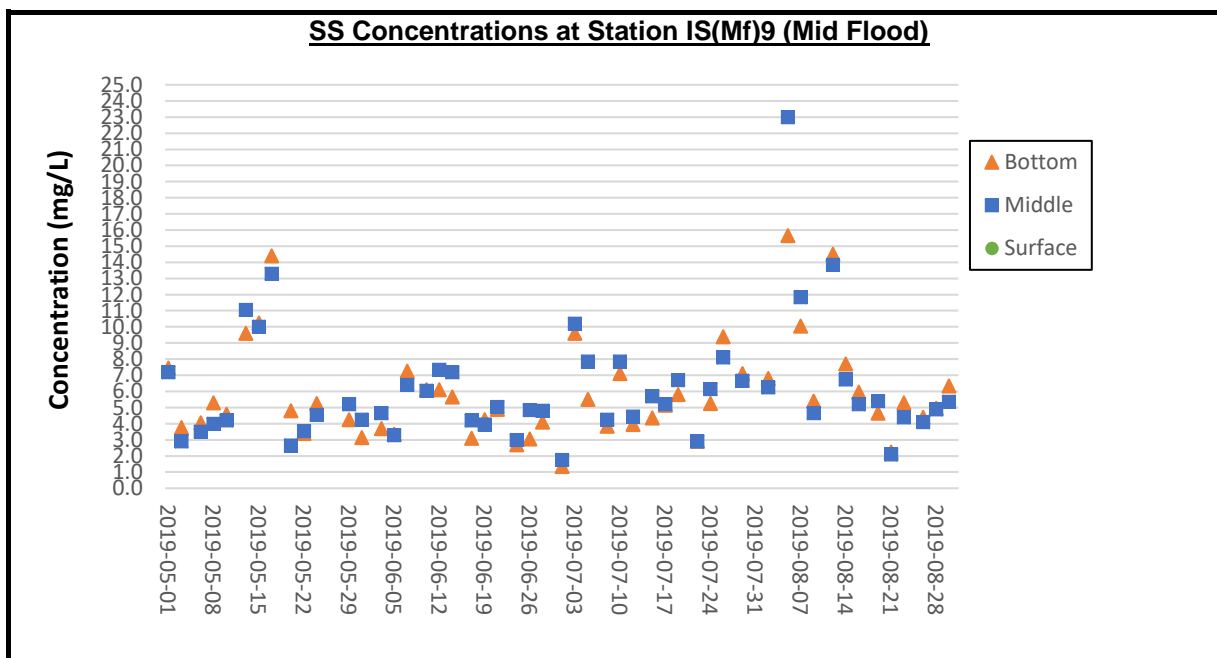
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-flood tide on 31 July 2019 was cancelled due to safety reason.
- 2) The water quality monitoring has been conducted at station IS8(N) since 21 August 2019.



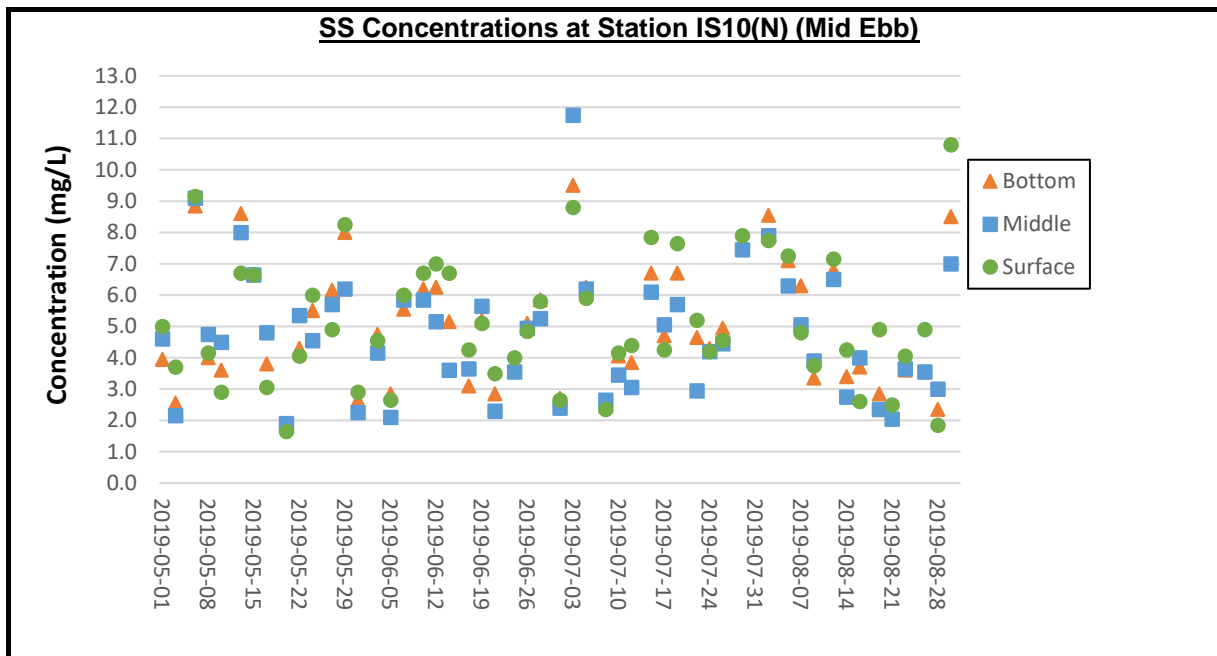
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-ebb tide on 31 July 2019 was cancelled due to safety reason.



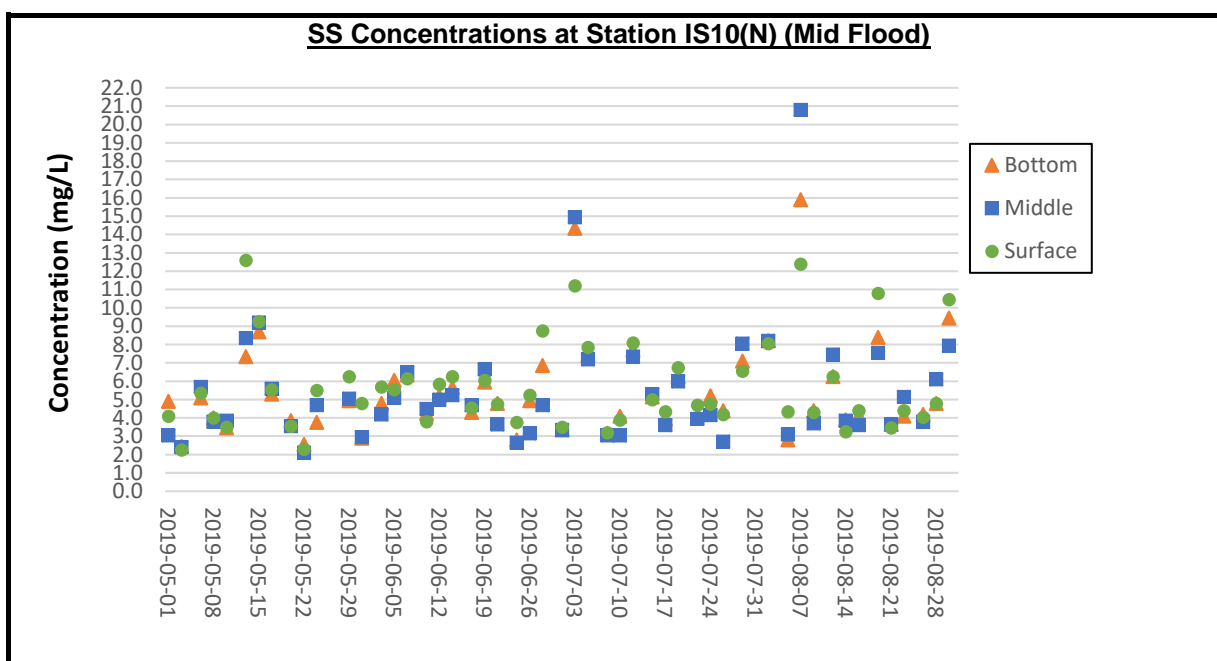
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-flood tide on 31 July 2019 was cancelled due to safety reason.



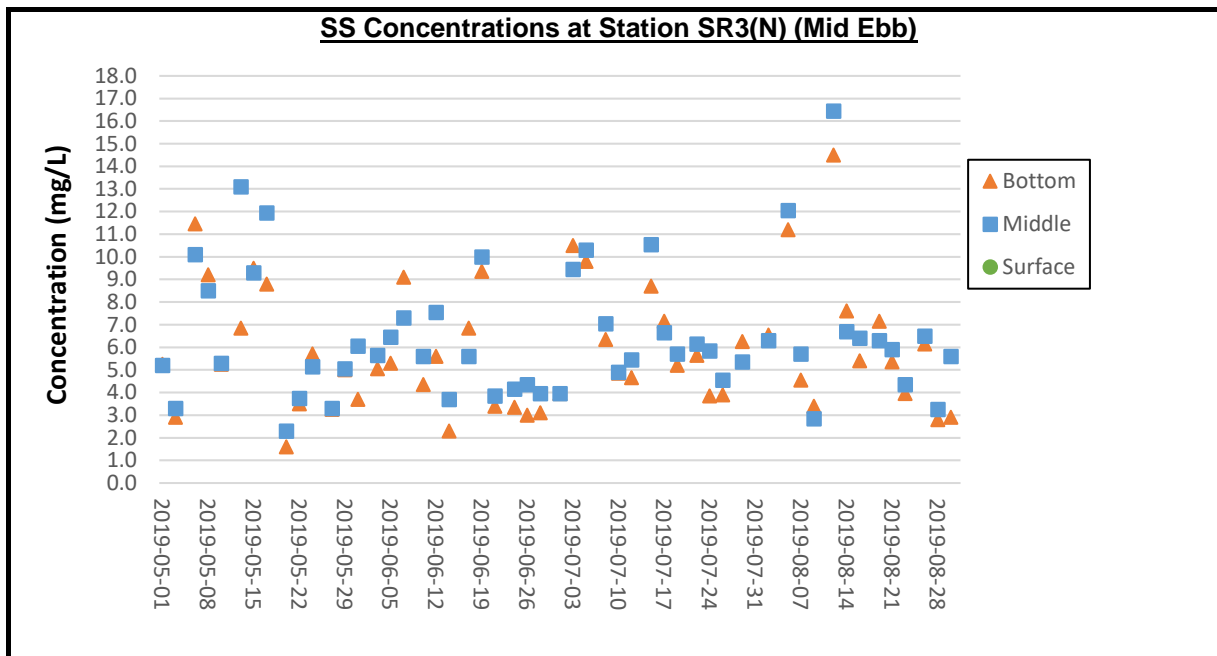
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-ebb tide on 31 July 2019 was cancelled due to safety reason.



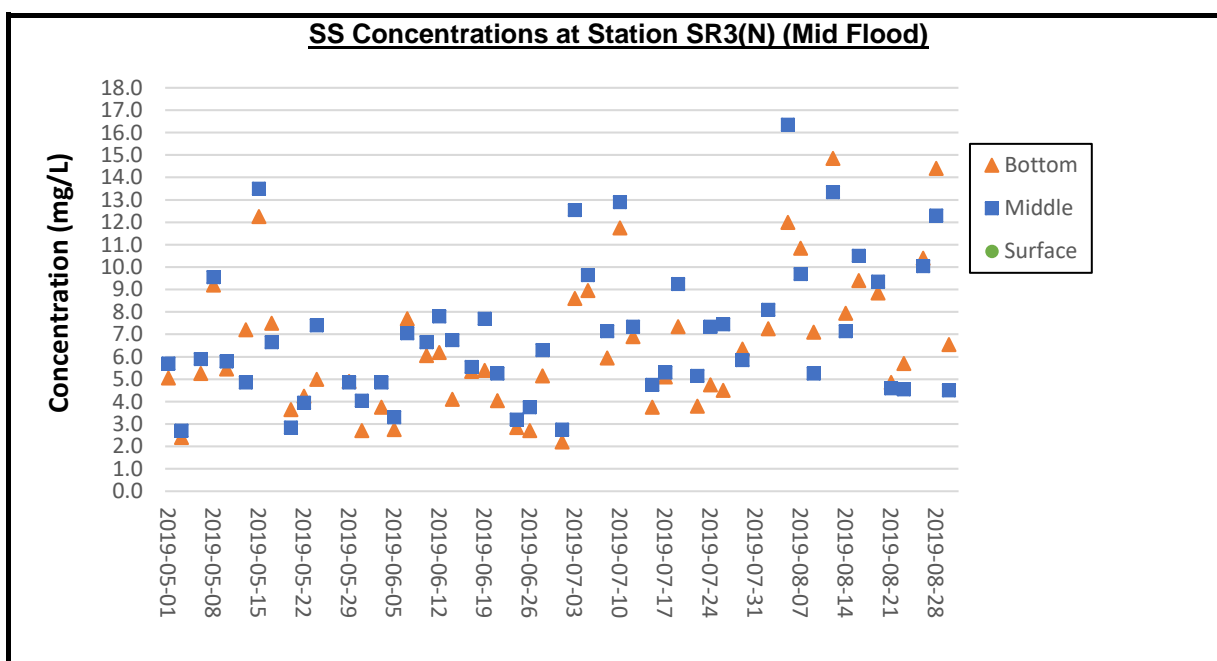
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-flood tide on 31 July 2019 was cancelled due to safety reason.



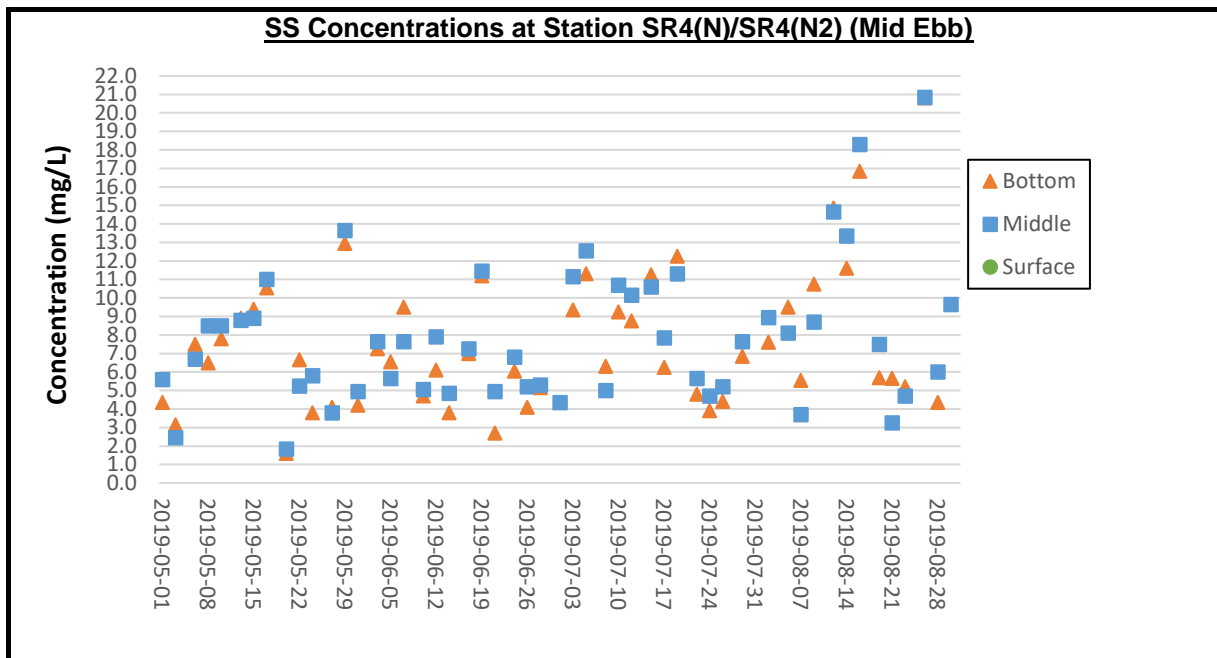
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-ebb tide on 31 July 2019 was cancelled due to safety reason.



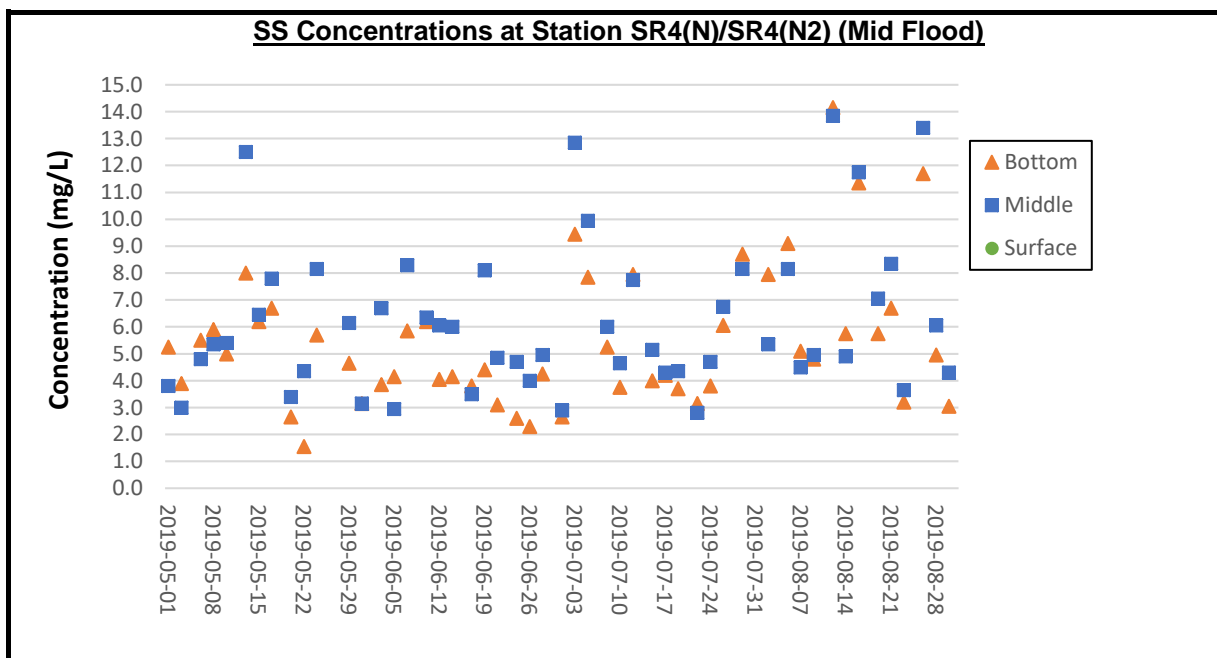
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-flood tide on 31 July 2019 was cancelled due to safety reason.



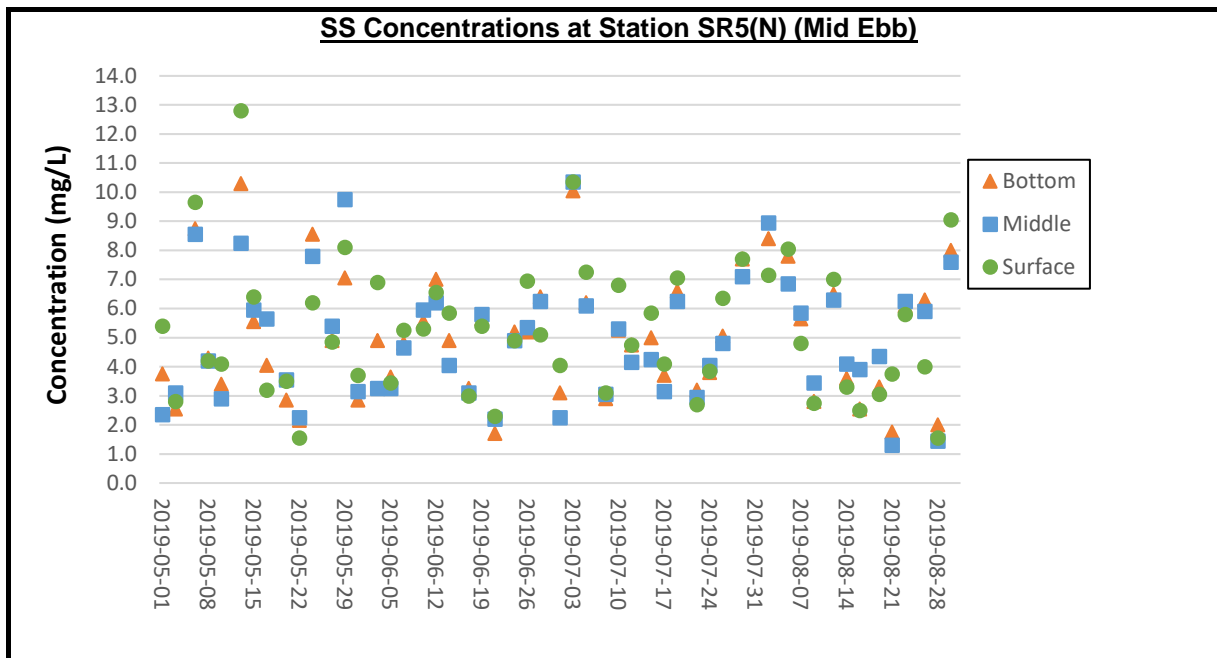
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-ebb tide on 31 July 2019 was cancelled due to safety reason.
- 2) The water quality monitoring has been conducted at station SR4(N2) since 21 August 2019.



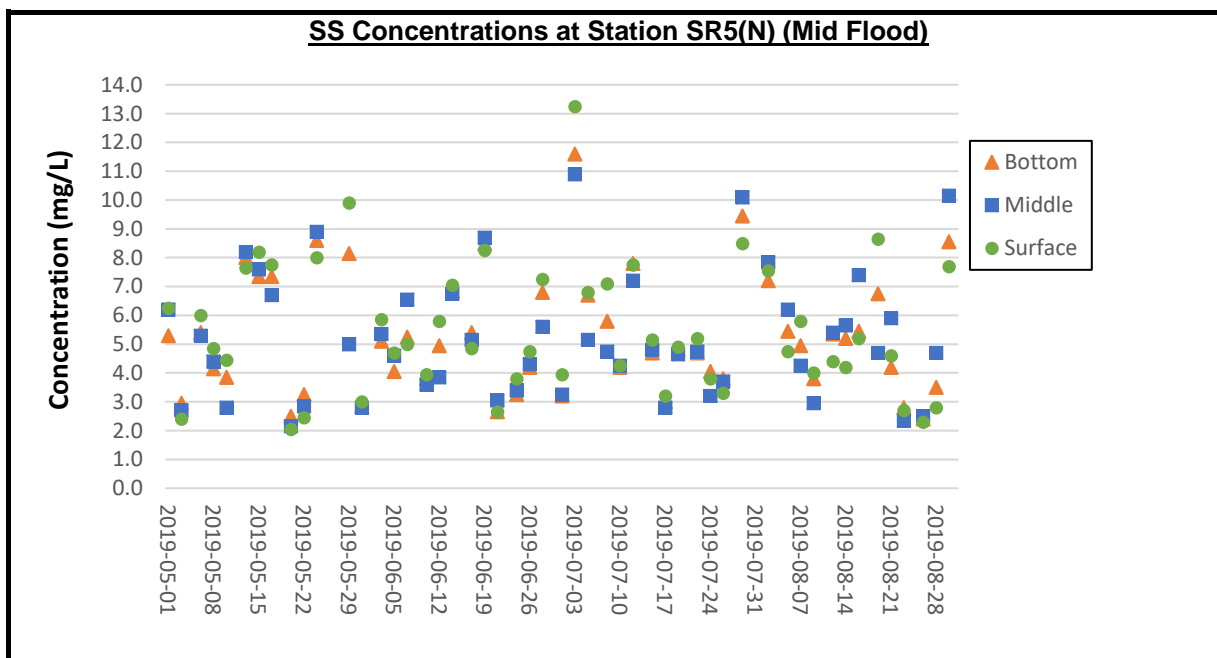
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-flood tide on 31 July 2019 was cancelled due to safety reason.
- 2) The water quality monitoring has been conducted at station SR4(N2) since 21 August 2019.



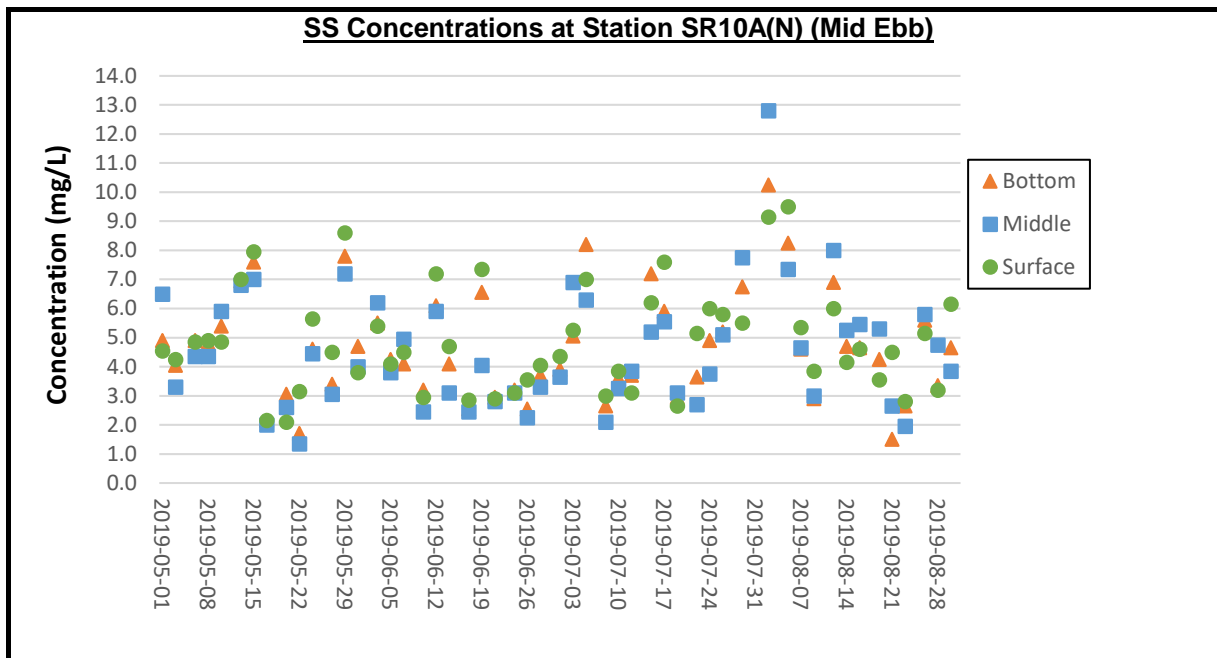
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-ebb tide on 31 July 2019 was cancelled due to safety reason.



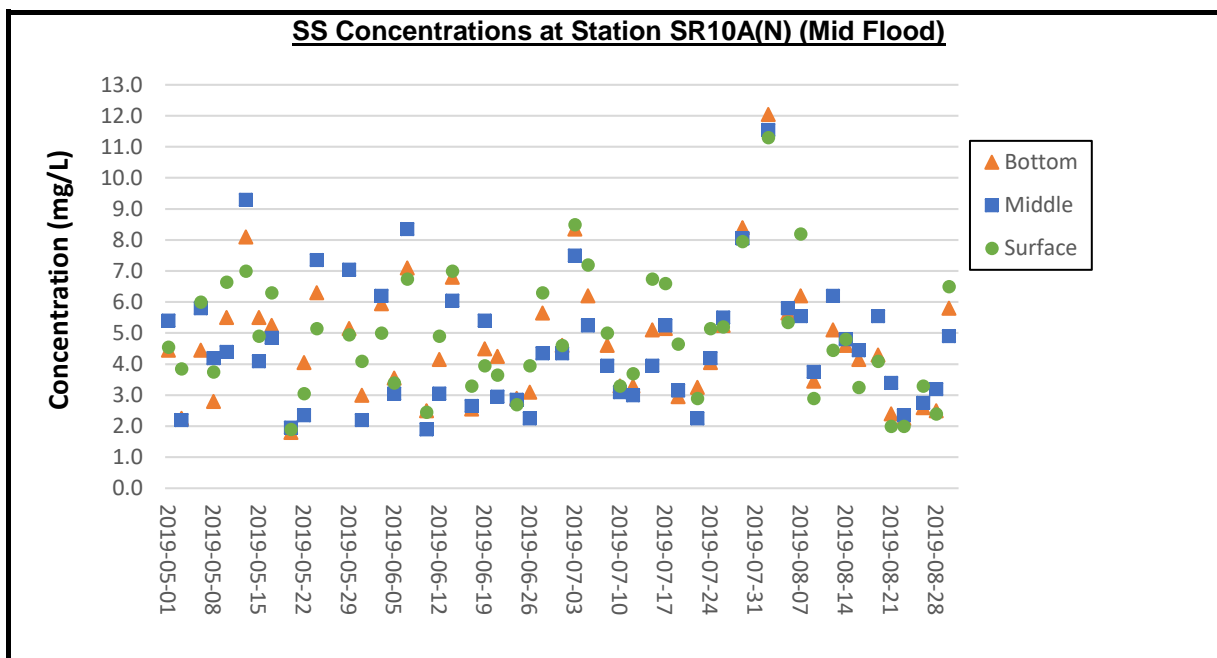
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-flood tide on 31 July 2019 was cancelled due to safety reason.



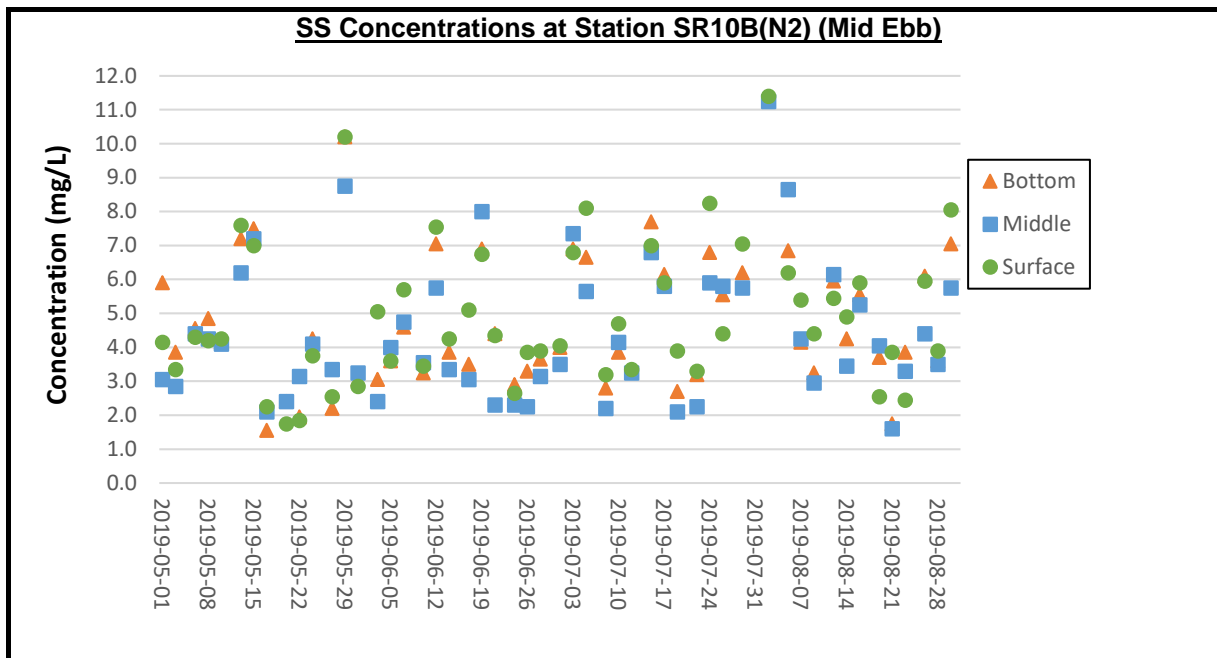
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-ebb tide on 31 July 2019 was cancelled due to safety reason.



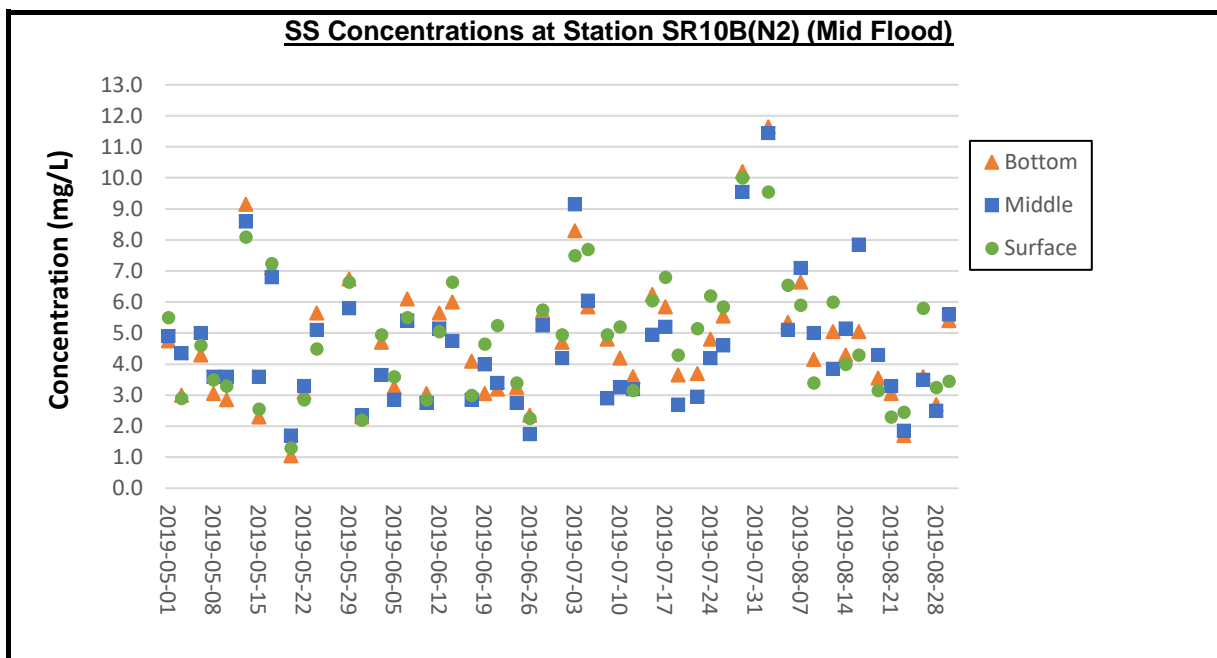
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-flood tide on 31 July 2019 was cancelled due to safety reason.



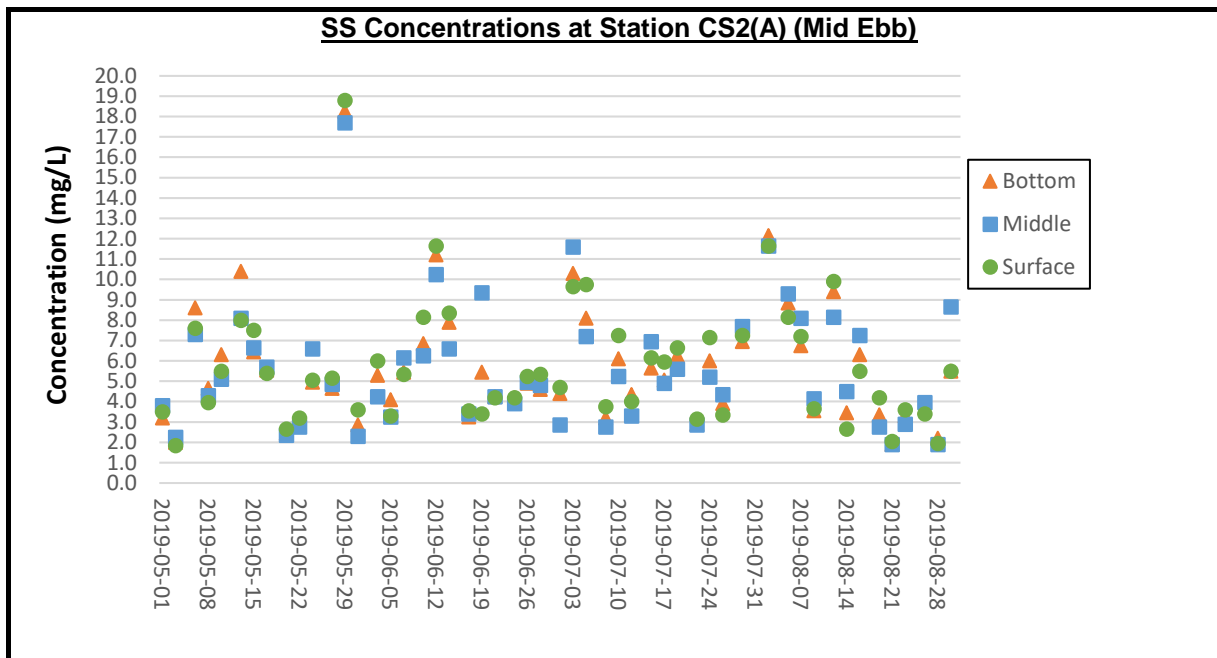
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-ebb tide on 31 July 2019 was cancelled due to safety reason.



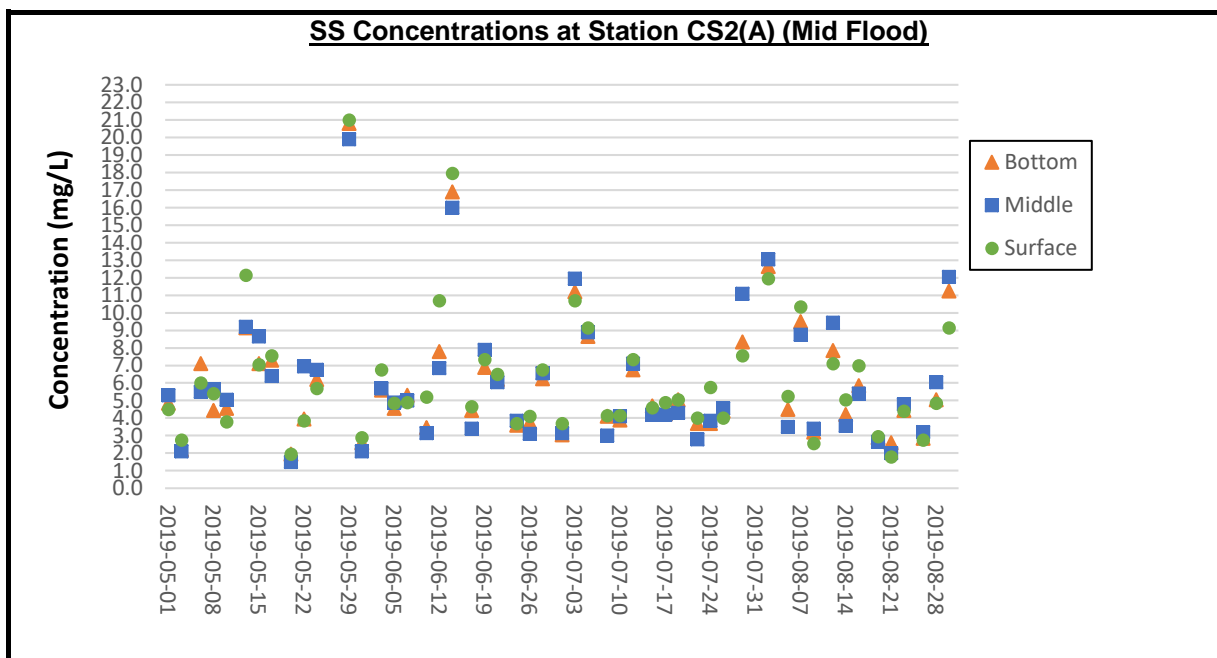
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-flood tide on 31 July 2019 was cancelled due to safety reason.



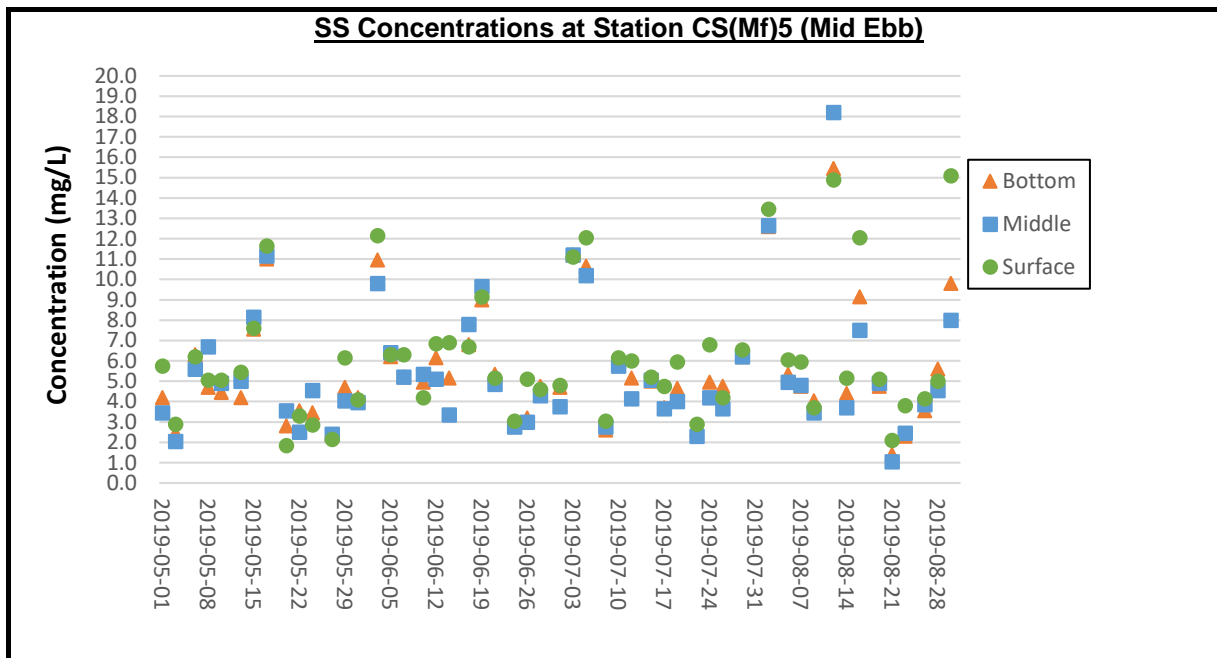
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-ebb tide on 31 July 2019 was cancelled due to safety reason.



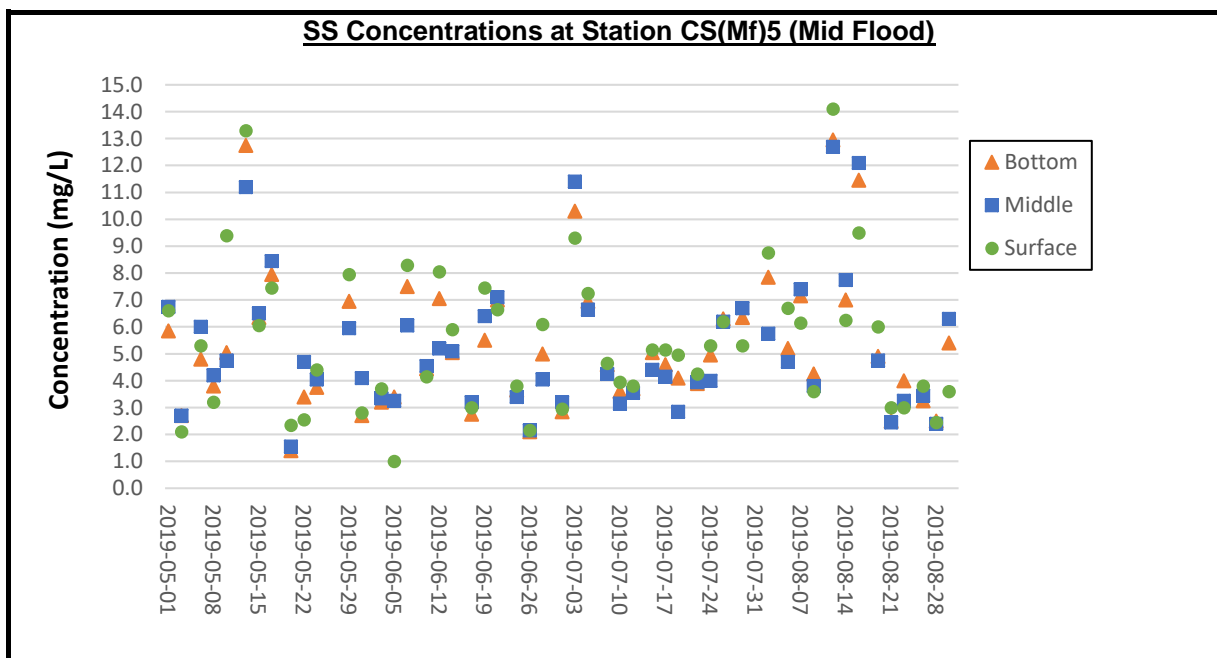
Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-flood tide on 31 July 2019 was cancelled due to safety reason.



Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-ebb tide on 31 July 2019 was cancelled due to safety reason.



Remark:

- 1) As Strong Wind Signal, No. 3 was hoisted by Hong Kong Observatory on 31 July 2019. The water quality monitoring for mid-flood tide on 31 July 2019 was cancelled due to safety reason.

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

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

Event and Action Plan for Noise

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

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

| Event | Action | | | |
|---|---|---|---|---|
| | ET Leader | IEC | SO | Contractor |
| Limit level being exceeded by two or more consecutive sampling days | <ol style="list-style-type: none"> 1. Repeat measurement on next day of exceedance to confirm findings; 2. Identify source(s) of impact; 3. Inform IEC, contractor, SO and EPD; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with IEC, SO and Contractor; 6. Ensure mitigation measures are implemented; | <ol style="list-style-type: none"> 1. Check monitoring data submitted by ET and Contractor's working method; 2. Discuss with ET and Contractor on possible remedial actions; 3. Review the Contractor's mitigation measures whenever necessary to assure their effectiveness and advise the SO accordingly; 4. Supervise the implementation of mitigation measures. | <ol style="list-style-type: none"> 1. Discuss with IEC, ET and Contractor on the proposed mitigation measures; 2. Request Contractor to critically review the working methods; 3. Make agreement on the mitigation measures to be implemented; 4. Ensure mitigation measures are properly implemented; 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. | <ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance; 2. Submit proposal of mitigation measures to SO within 3 working days of notification and discuss with ET, IEC and SO; 3. Implement the agreed mitigation measures; 4. Resubmit proposals of mitigation measures if problem still not under control; 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. |

Event and Action Plan for Dolphin Monitoring

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

| 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> |

Action Plan for Landscape Works

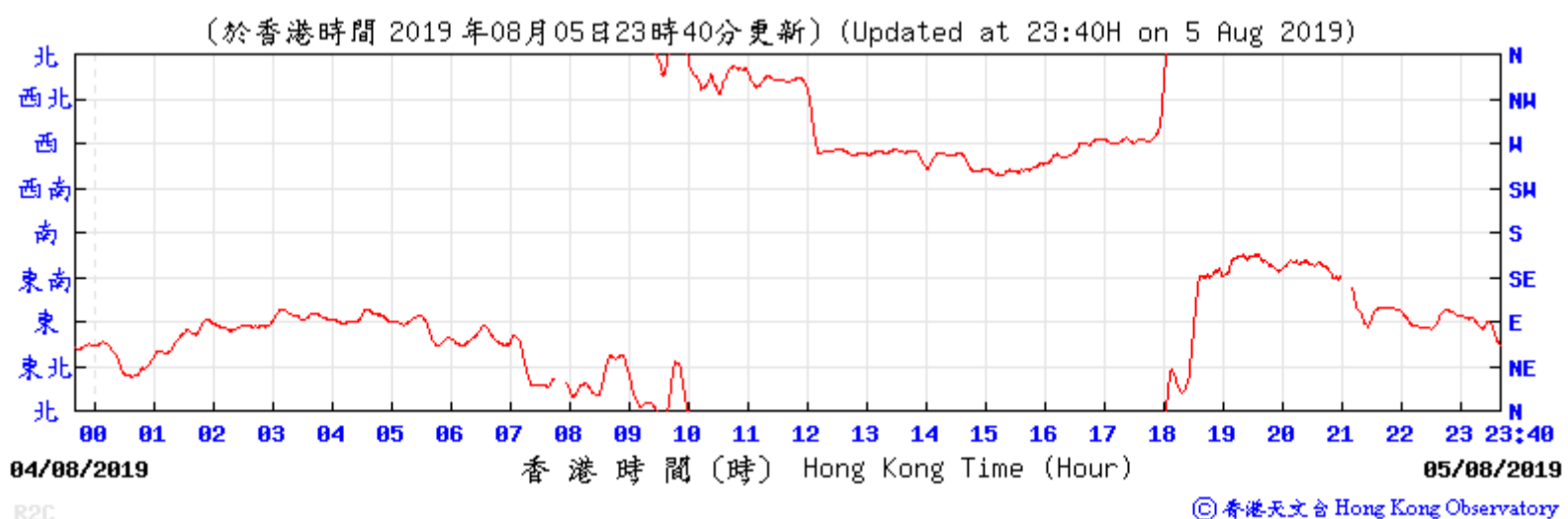
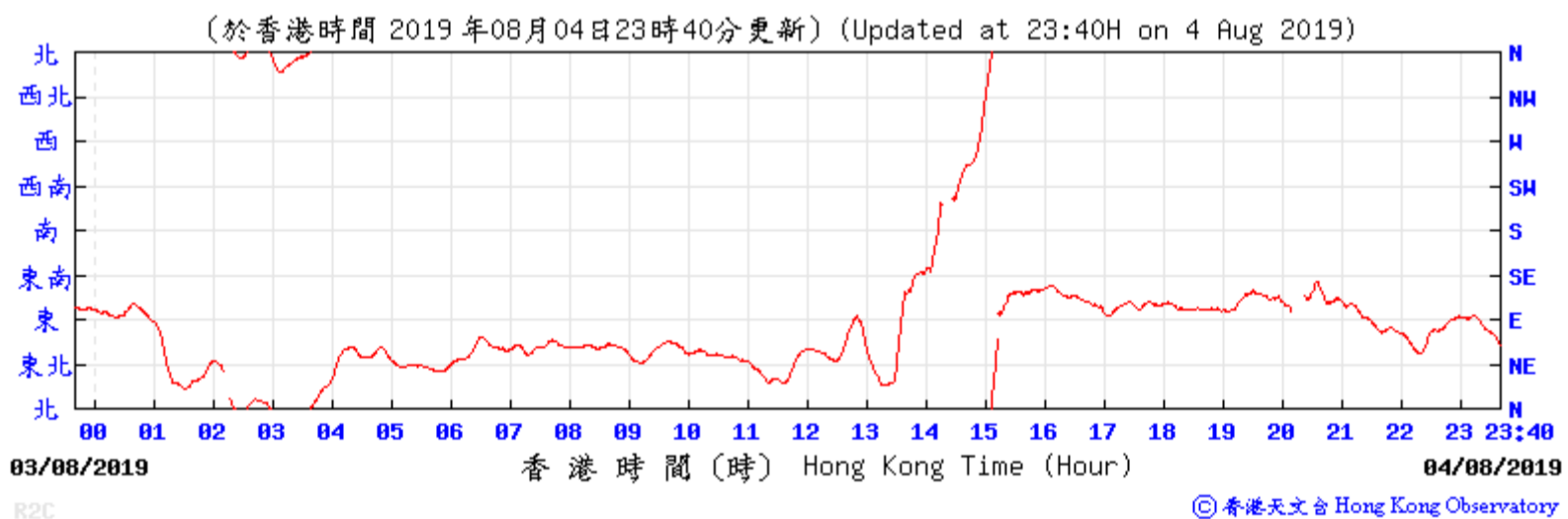
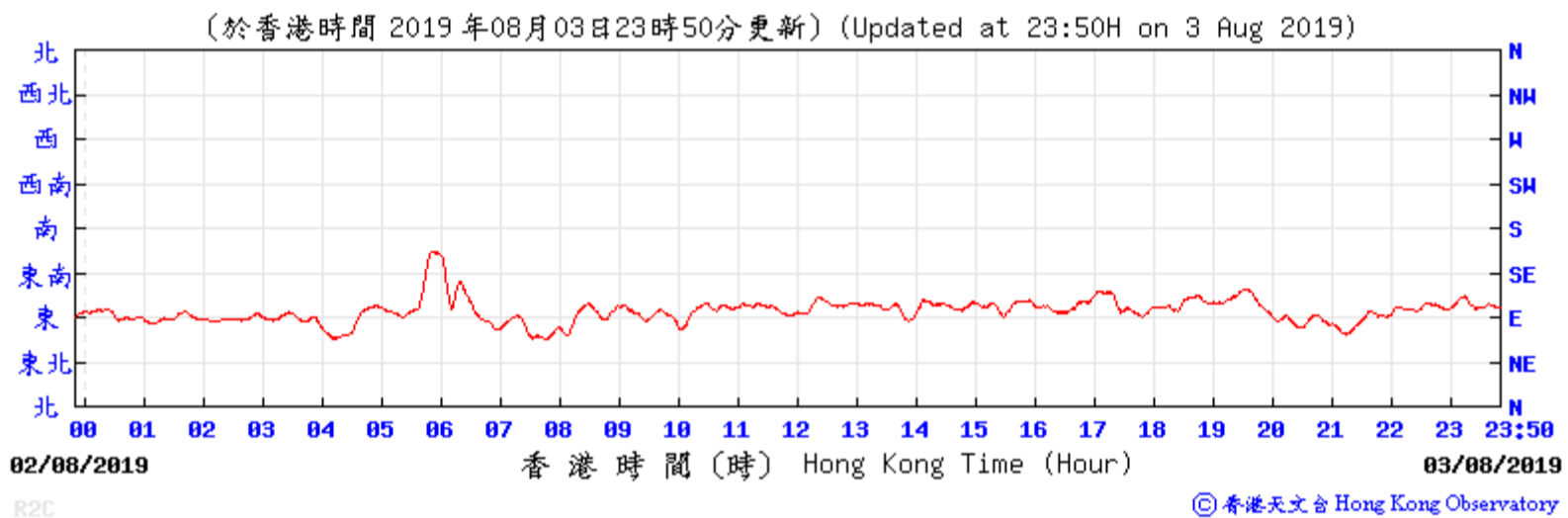
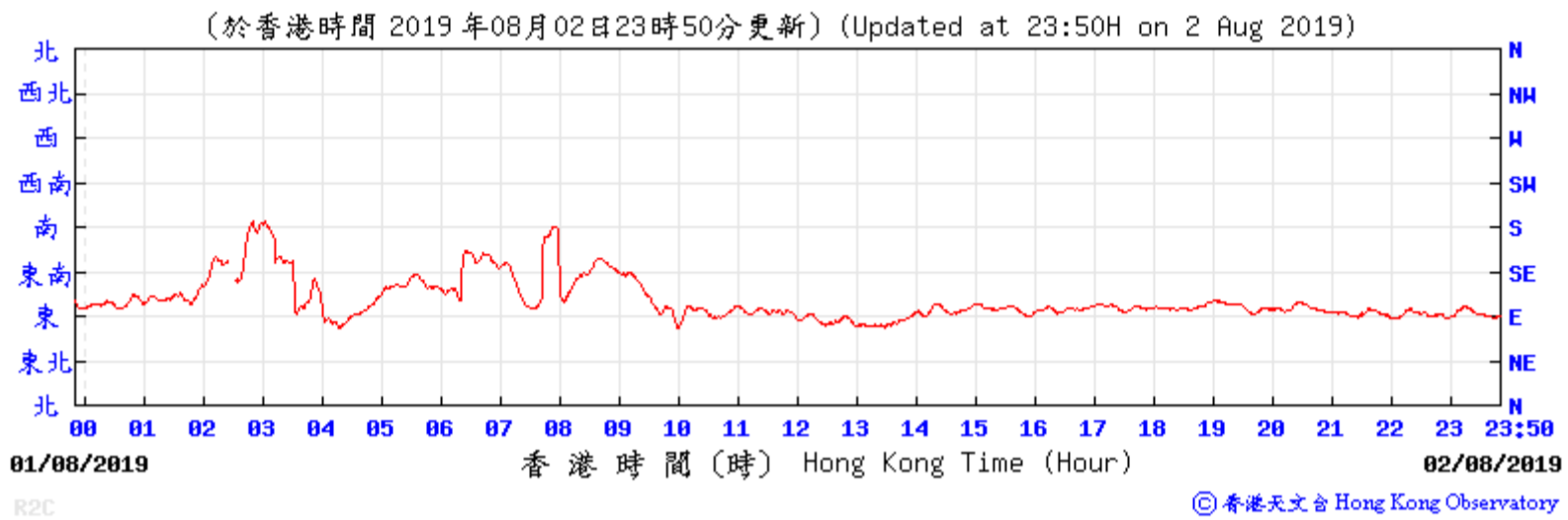
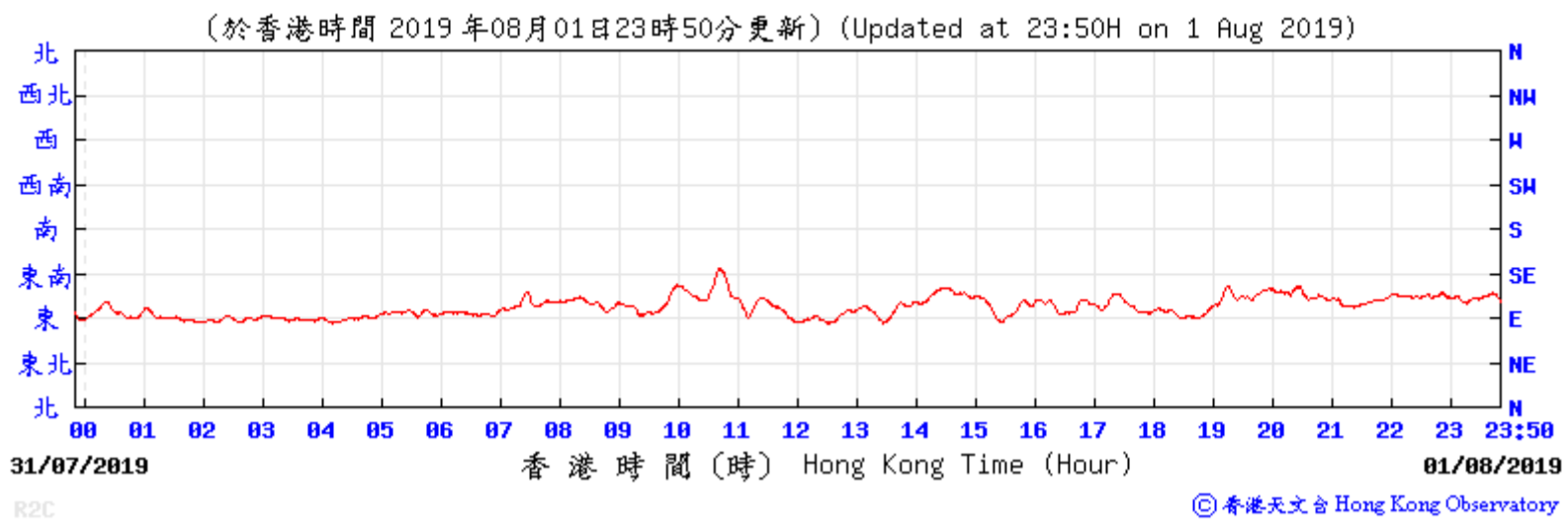
| Event | ACTION | | | |
|-----------------|---|--|---|---|
| | ET Leader | IEC | SO | Contractor |
| Conflicts occur | <ul style="list-style-type: none"> Check Contractor's proposed remedial design conforms to the requirements of EP and prepare checking report(s) | <ul style="list-style-type: none"> Check and endorse ET's report(s). Check and certify Contractor's proposed remedial design | <ul style="list-style-type: none"> Supervise the Contractor to carry out the proposed remediation work | <ul style="list-style-type: none"> Propose remedial design and carry out the proposed work |

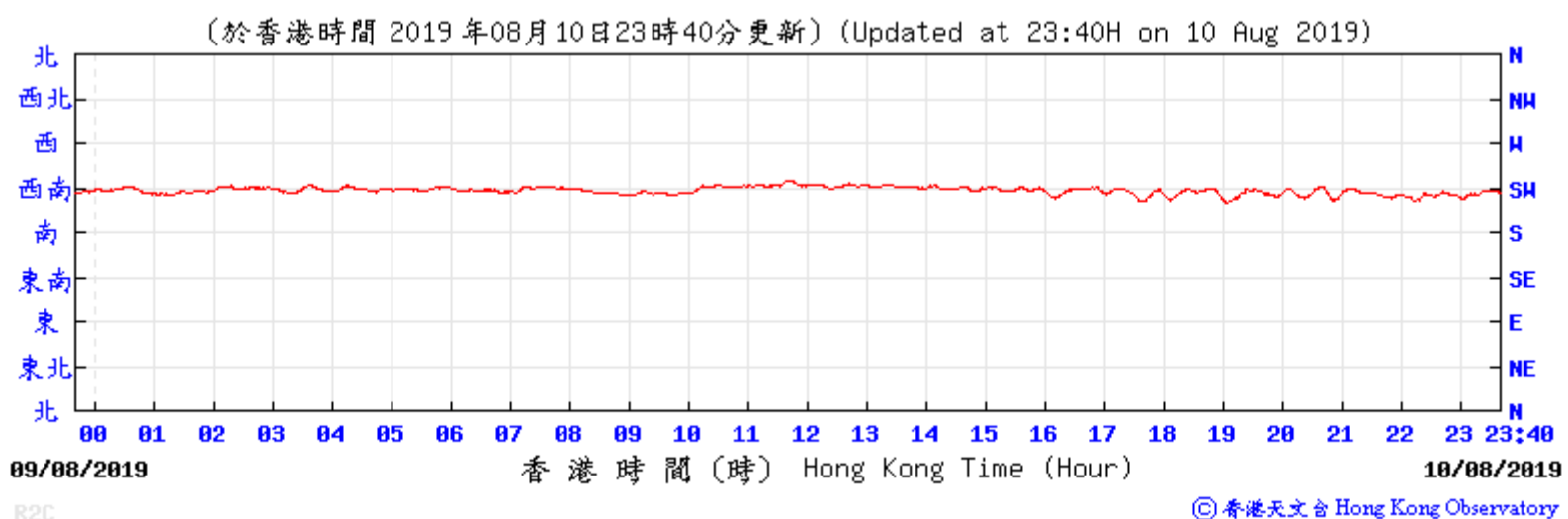
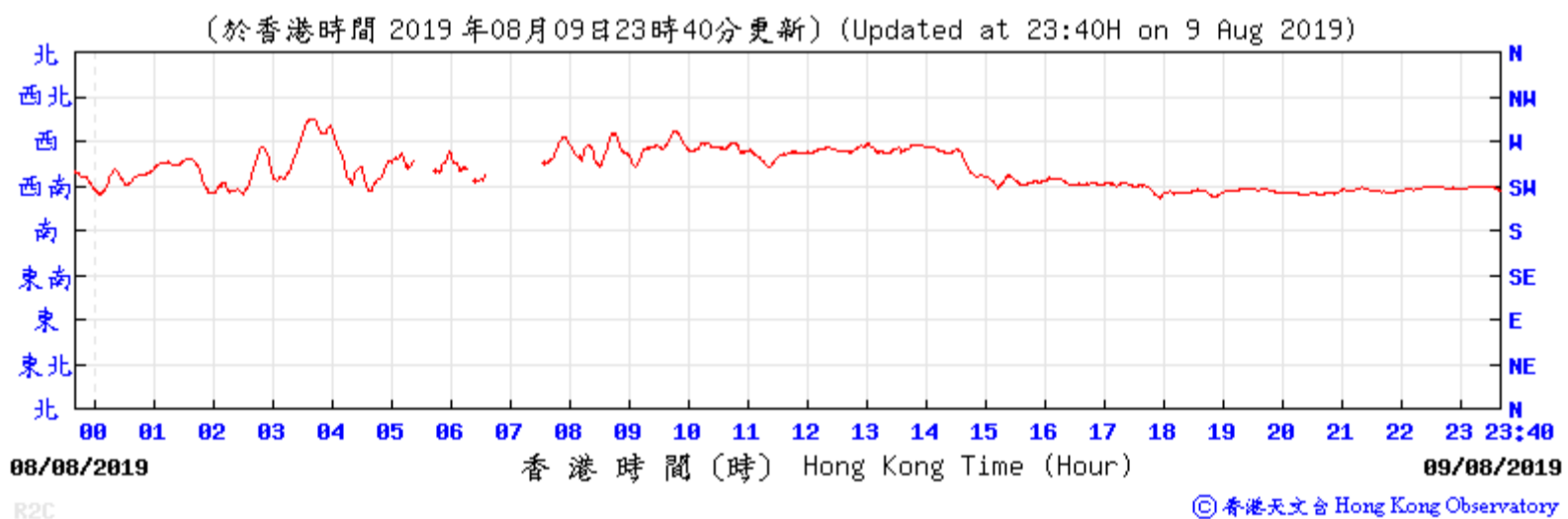
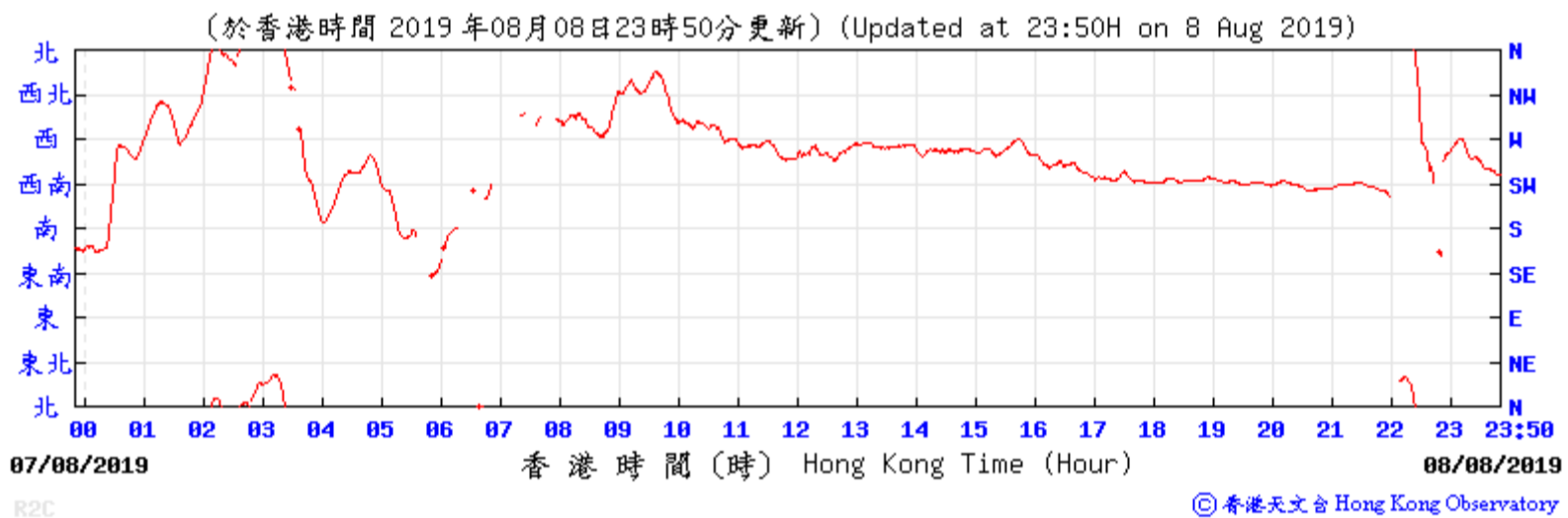
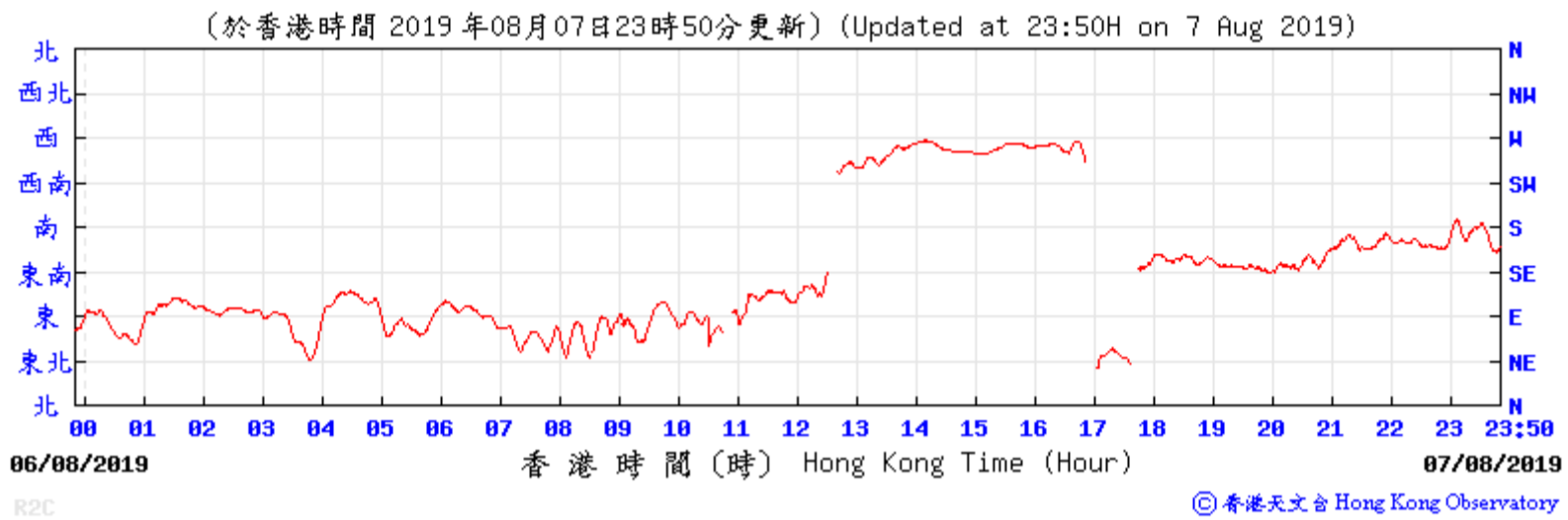
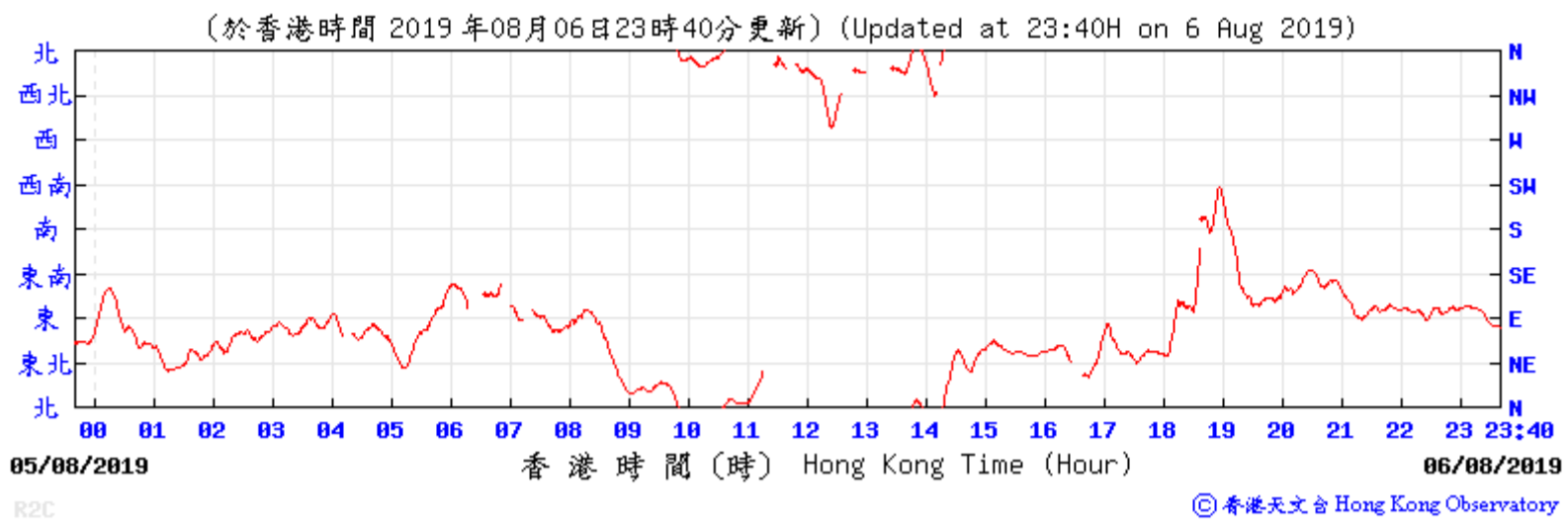


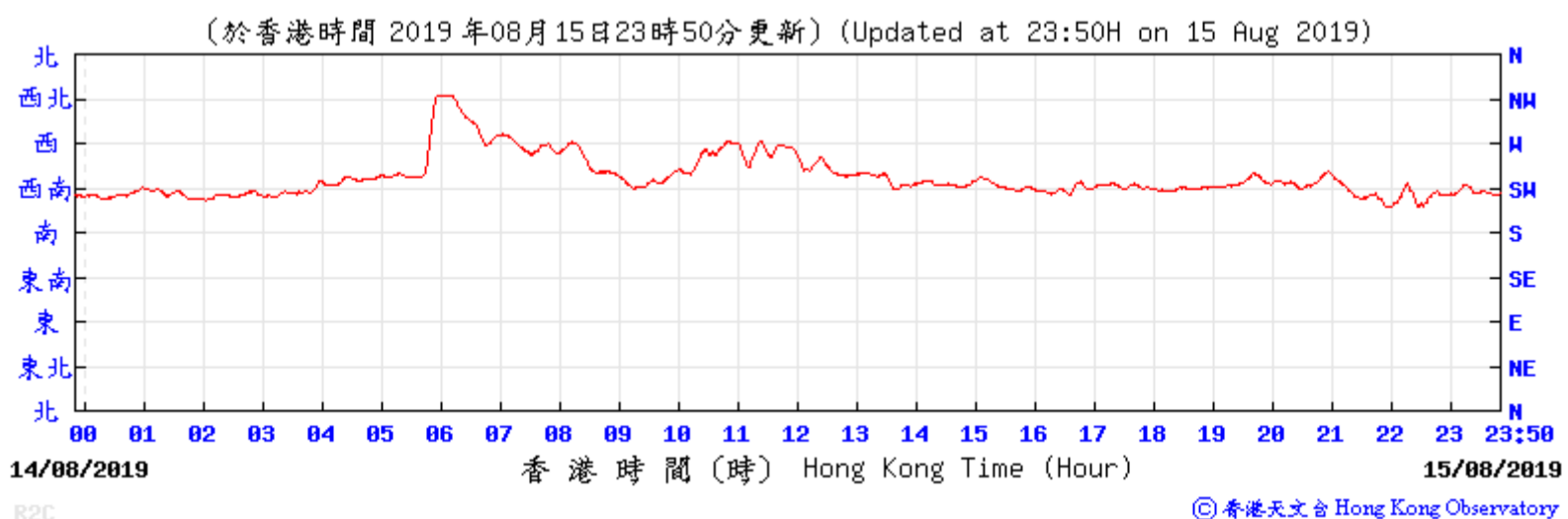
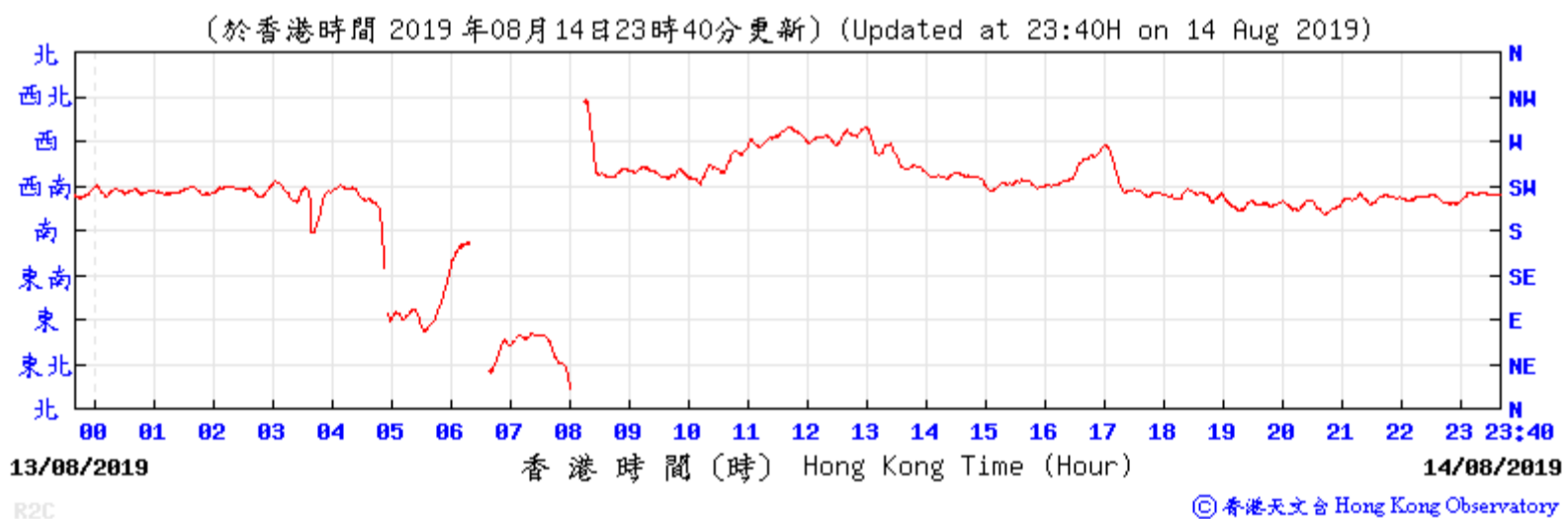
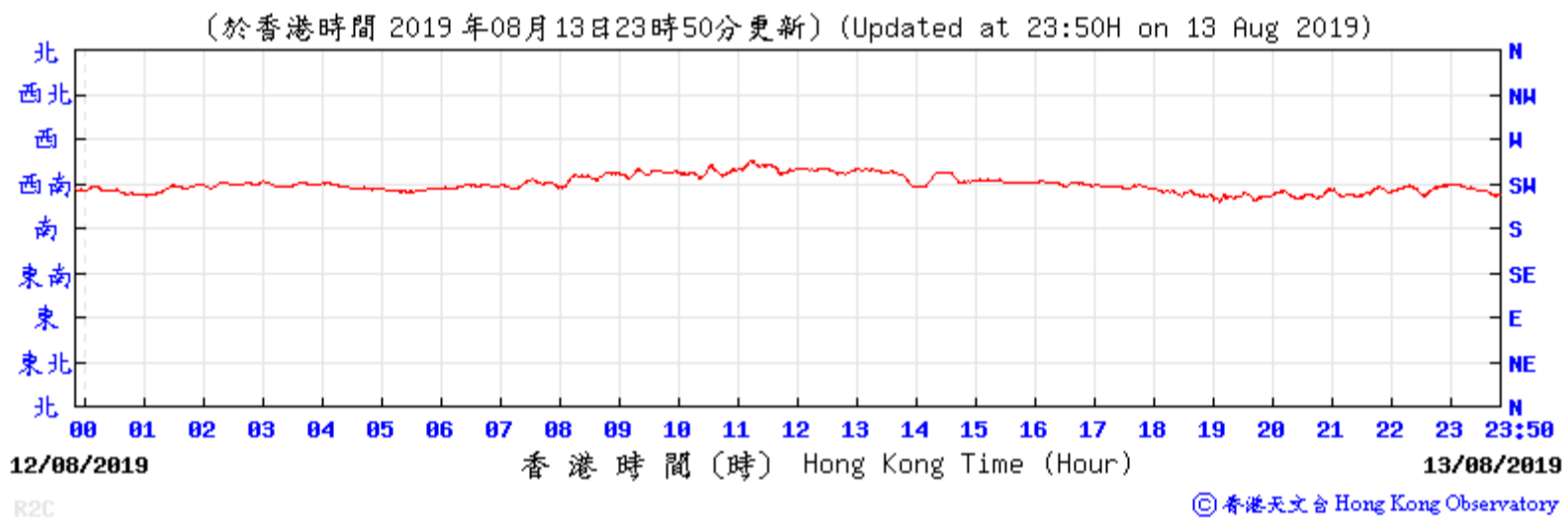
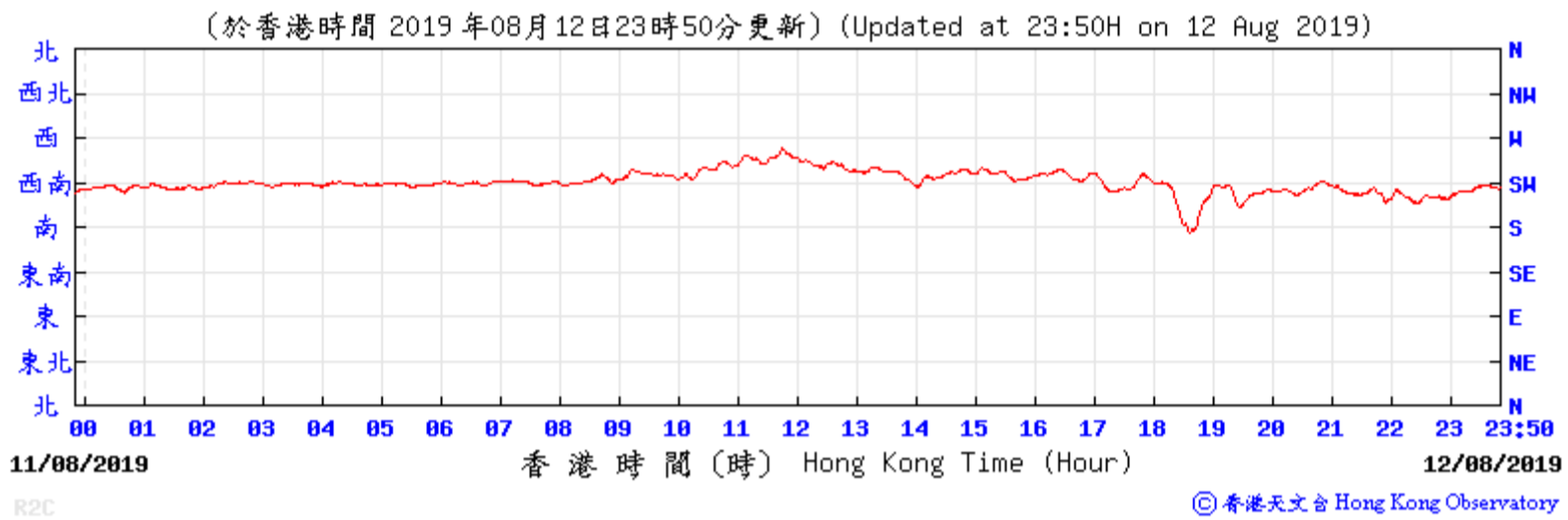
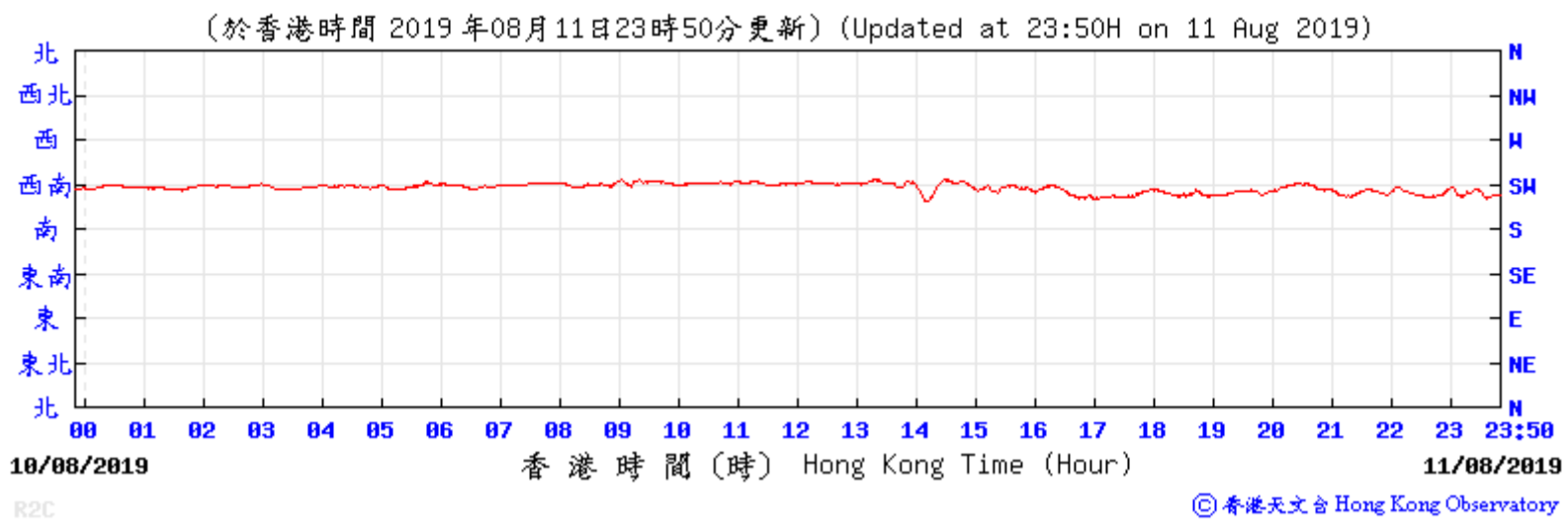
APPENDIX G

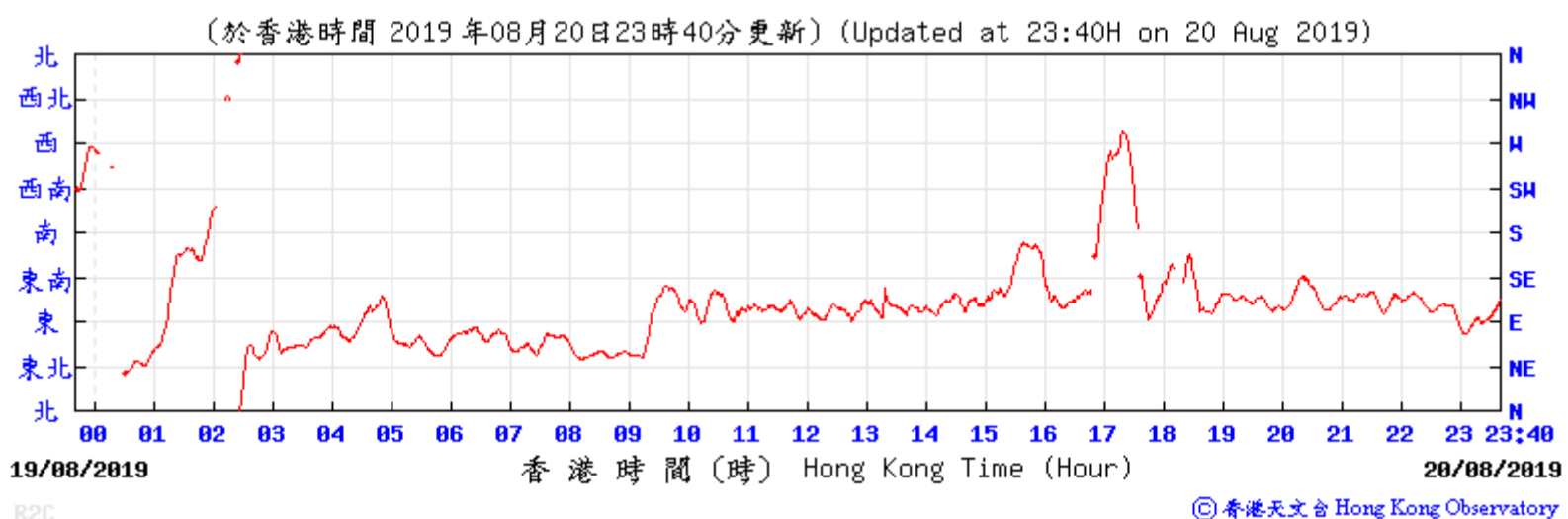
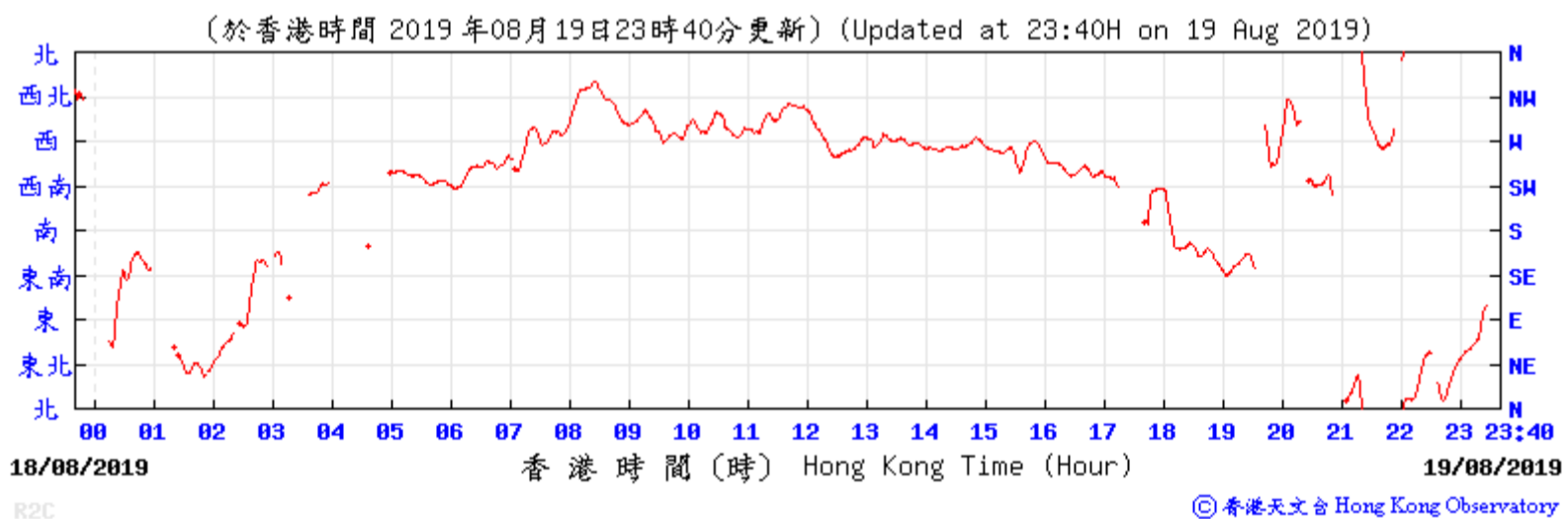
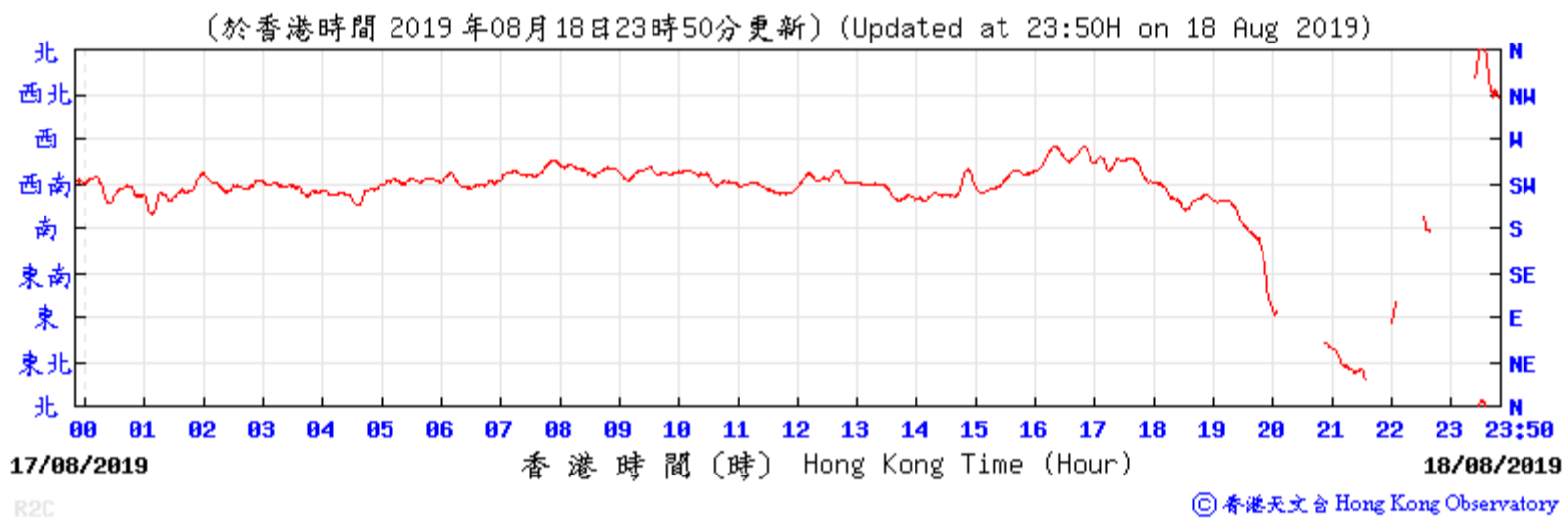
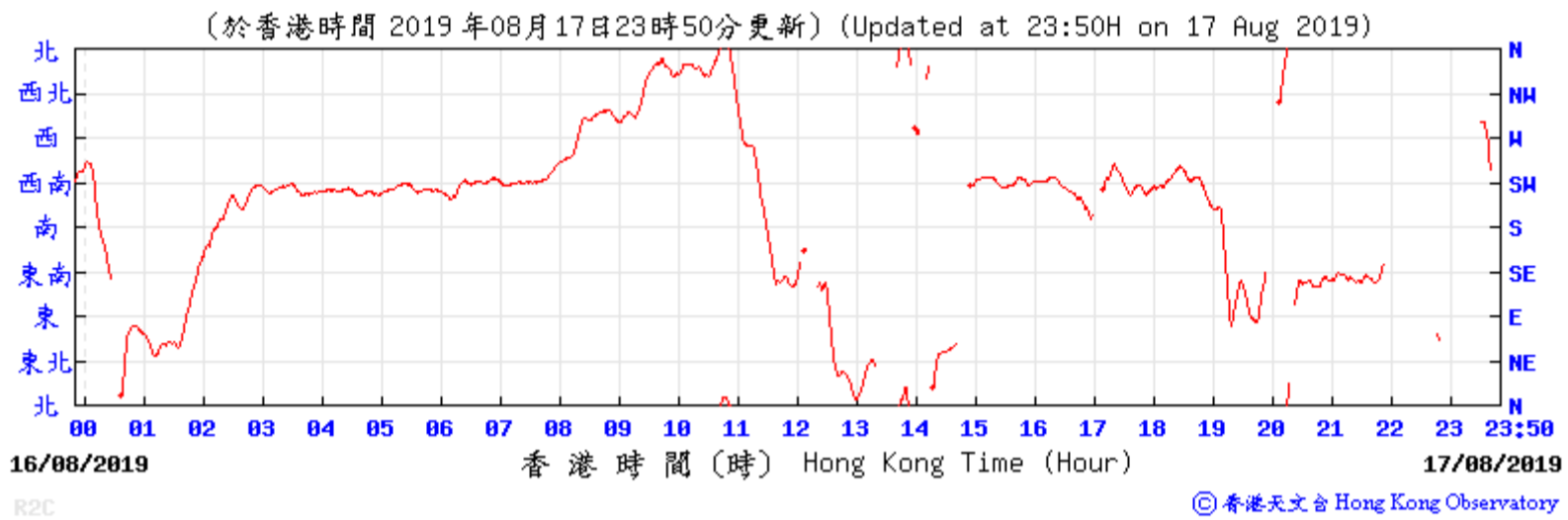
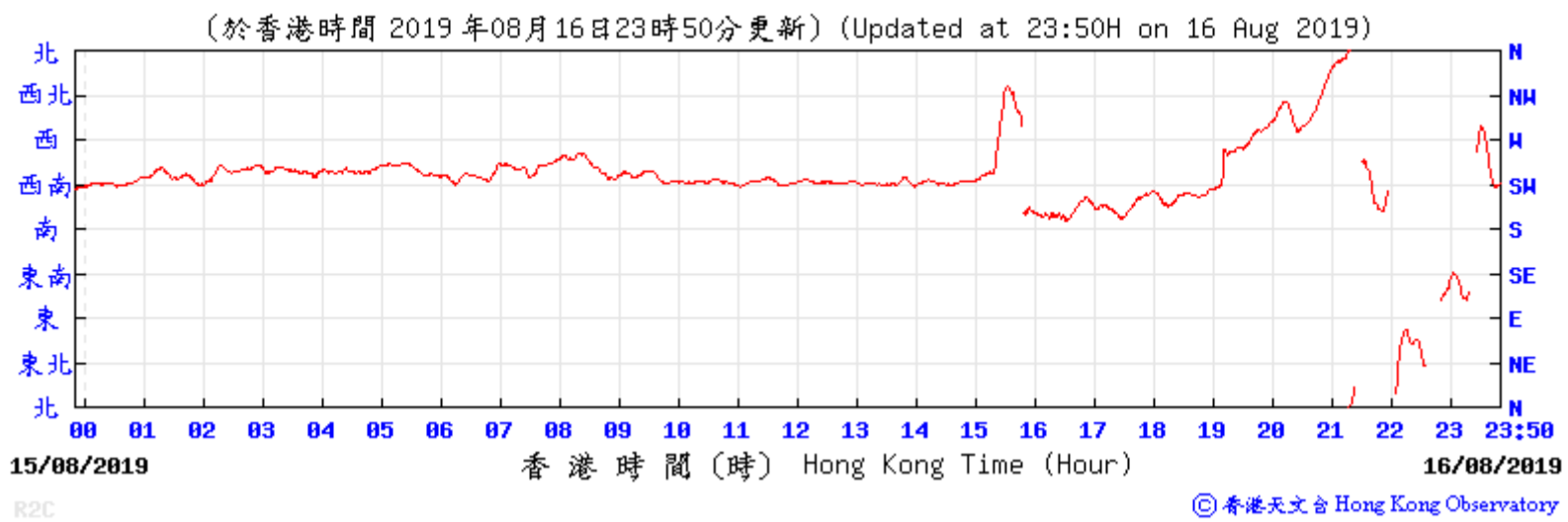
Wind Data

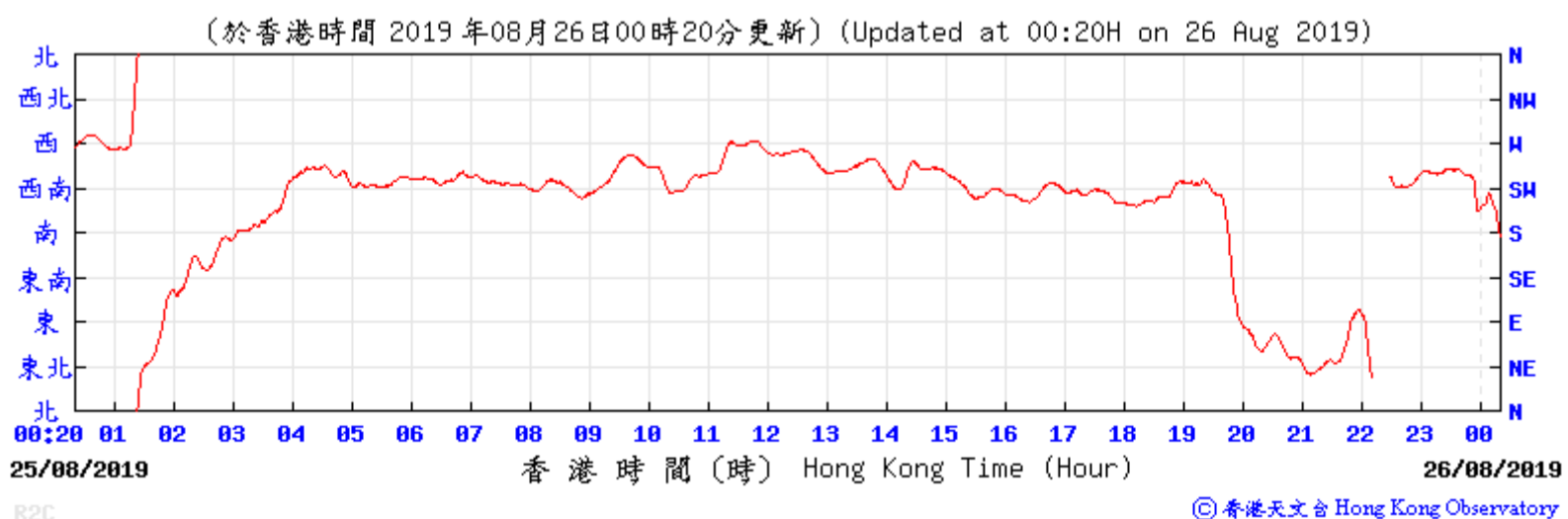
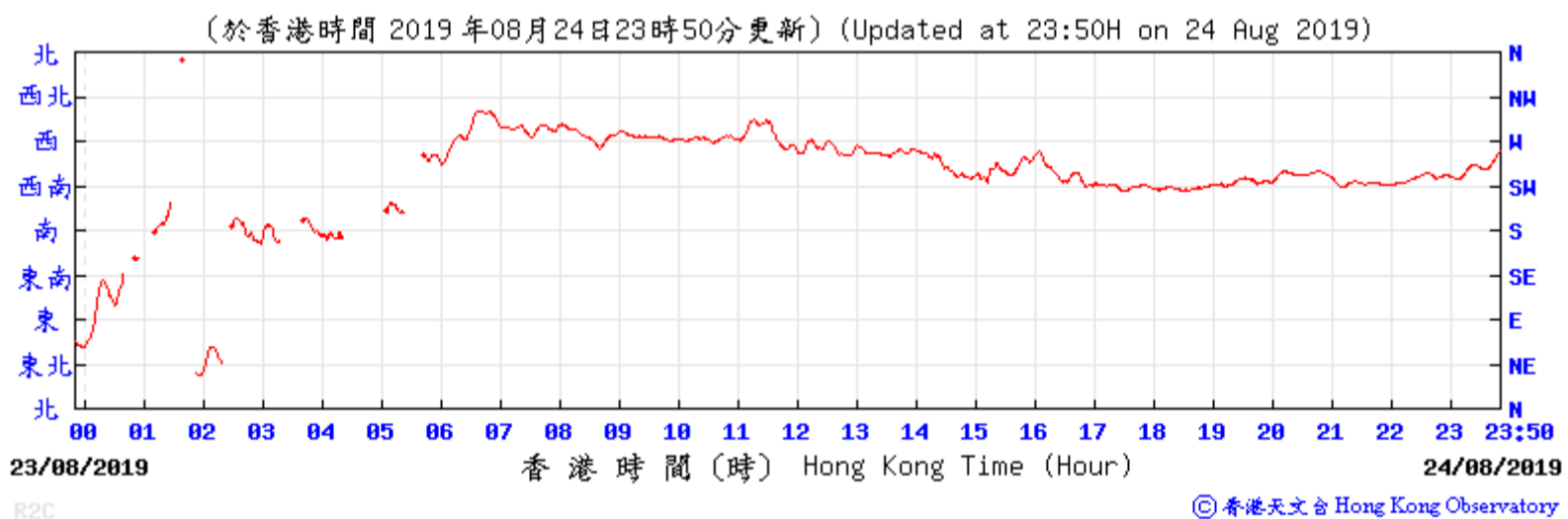
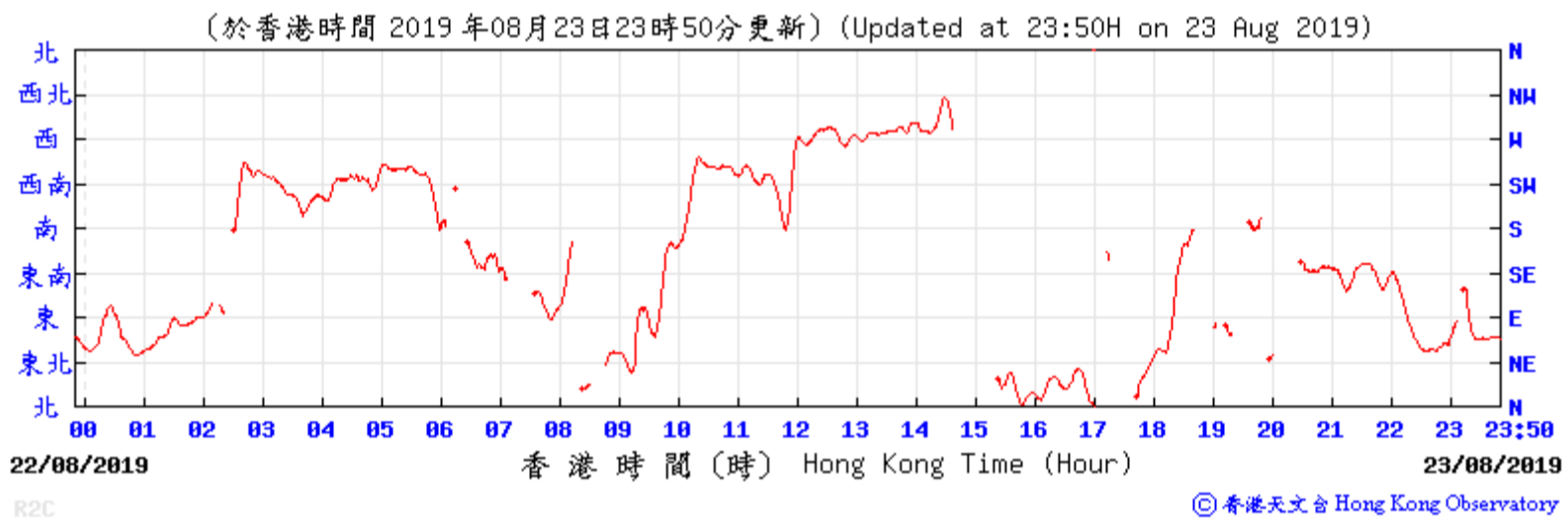
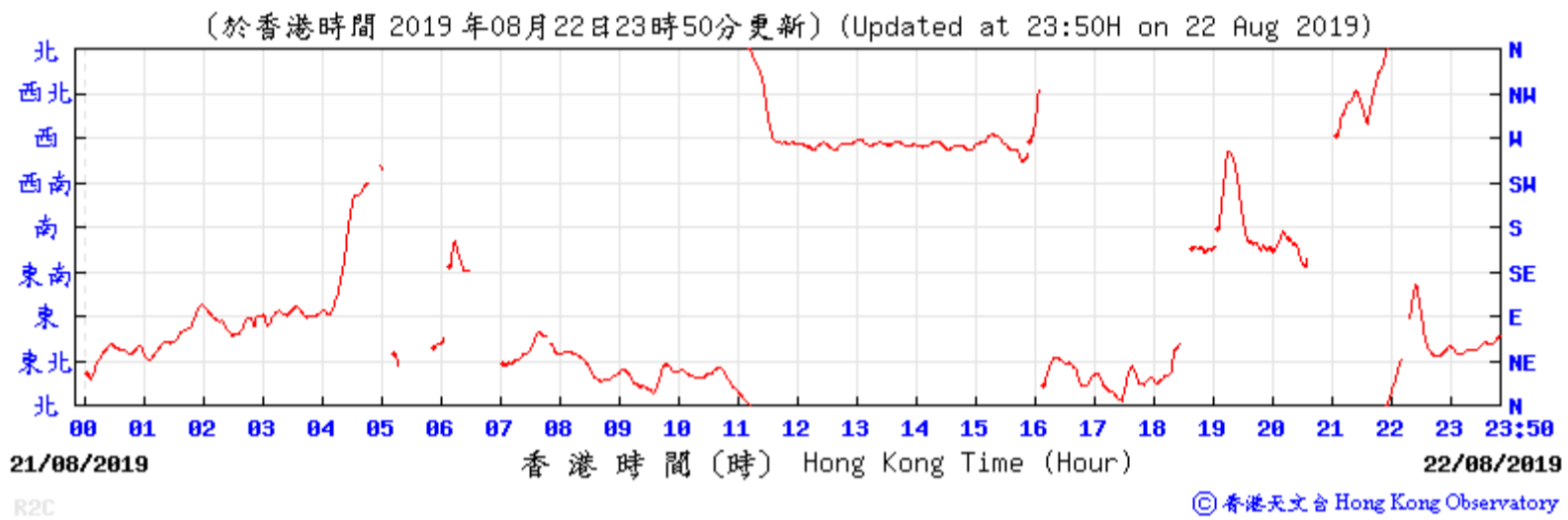
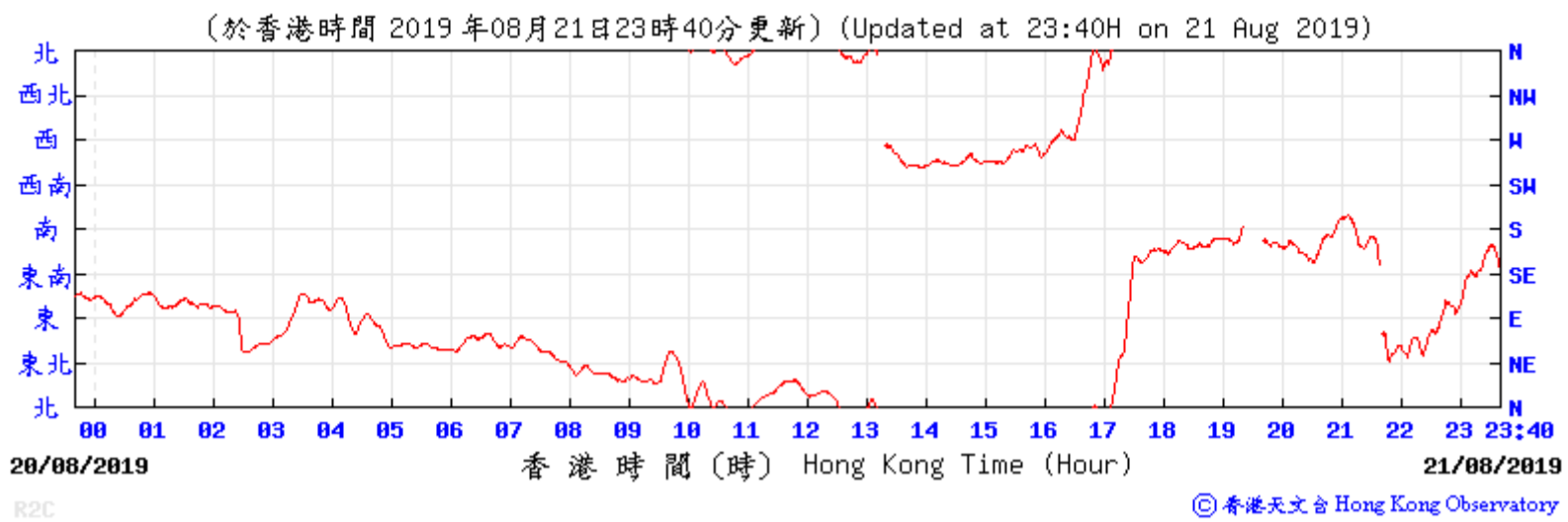




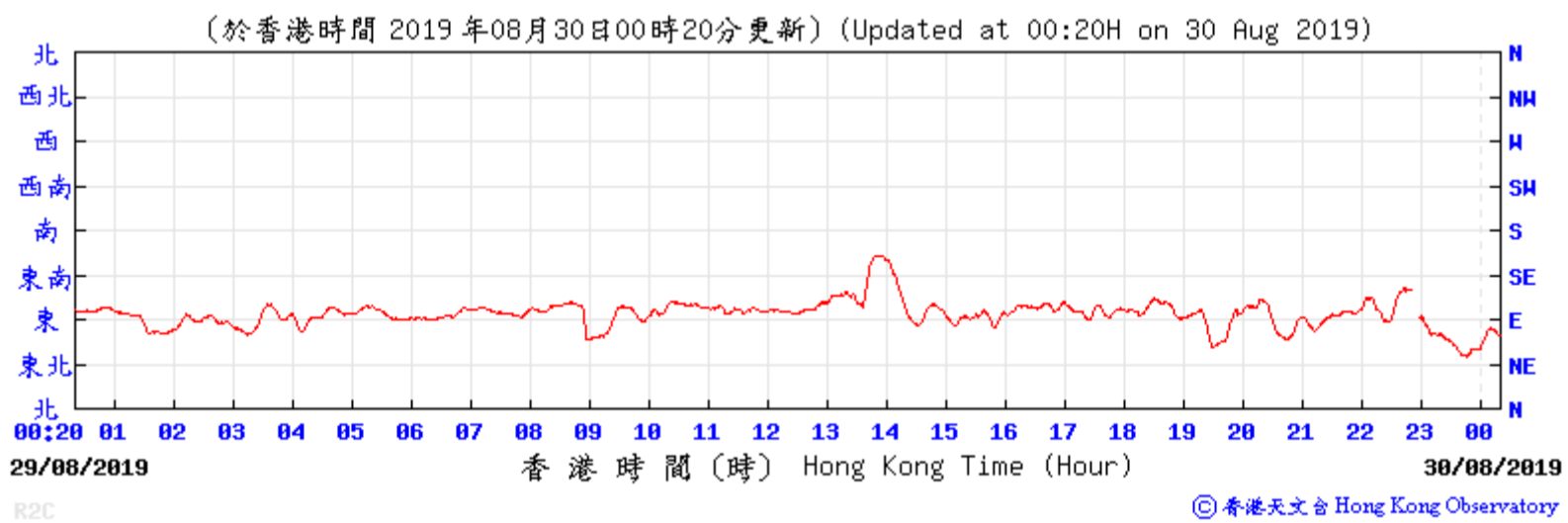
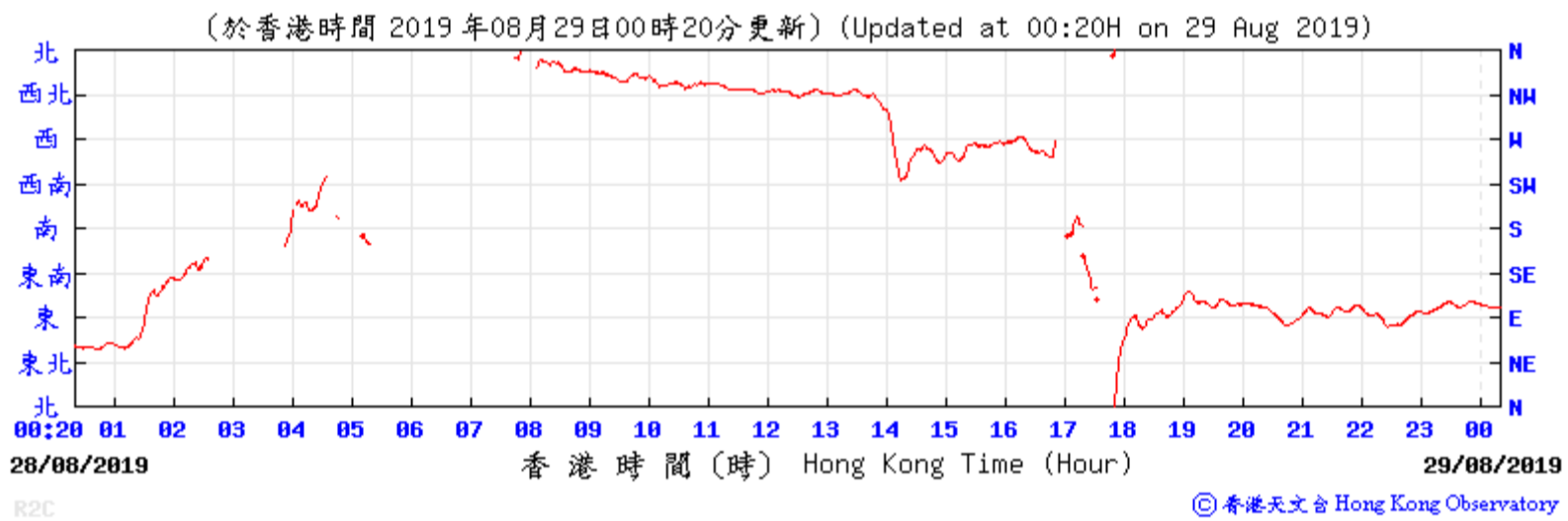
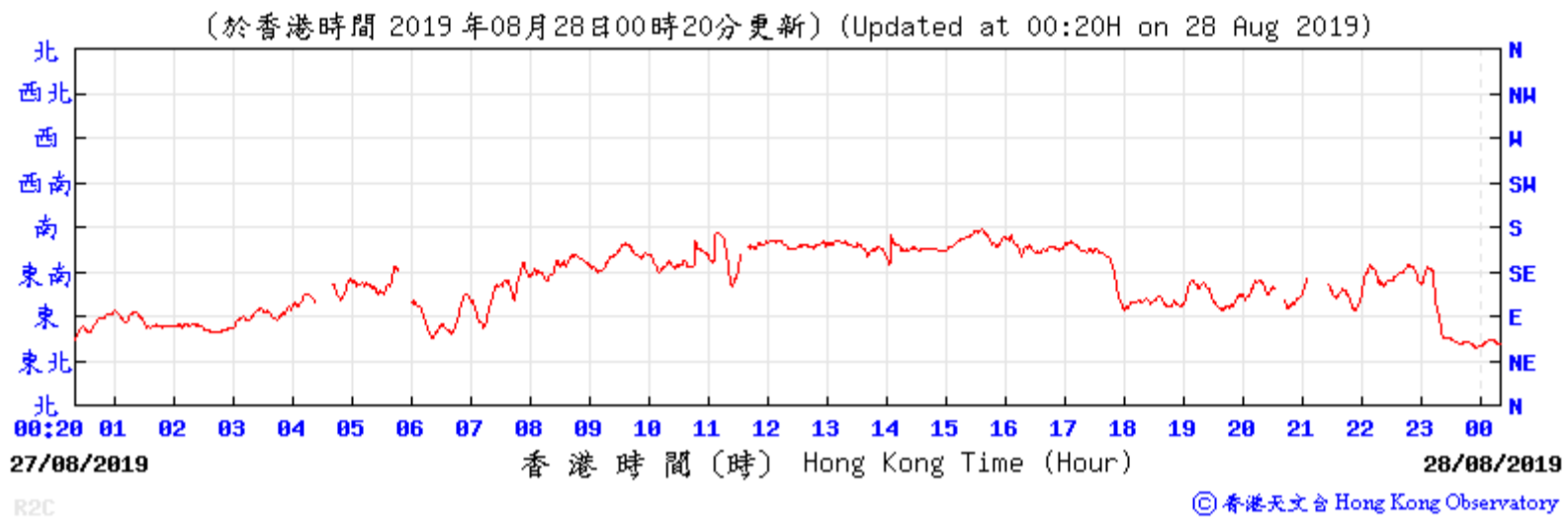
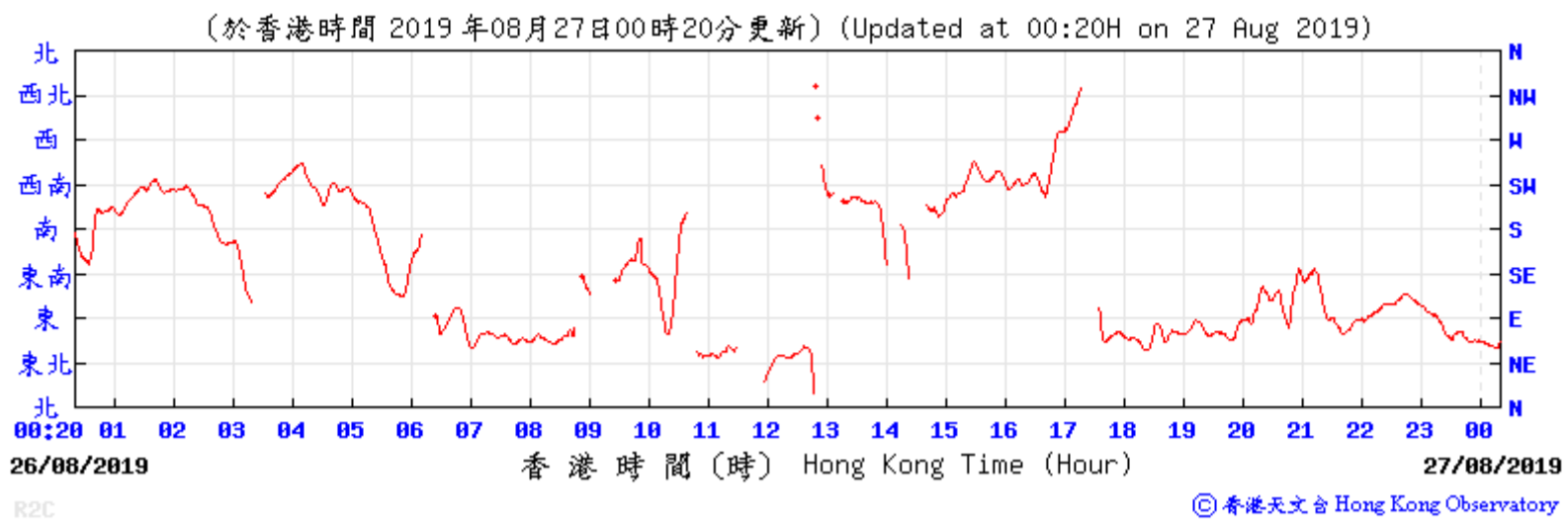


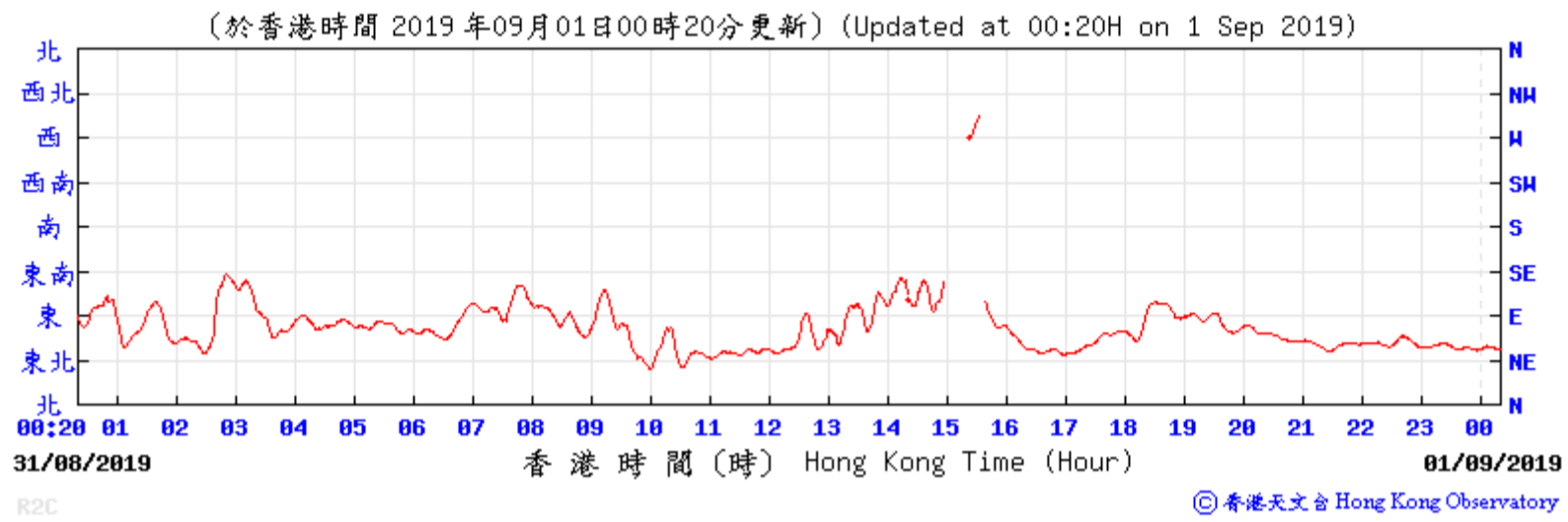
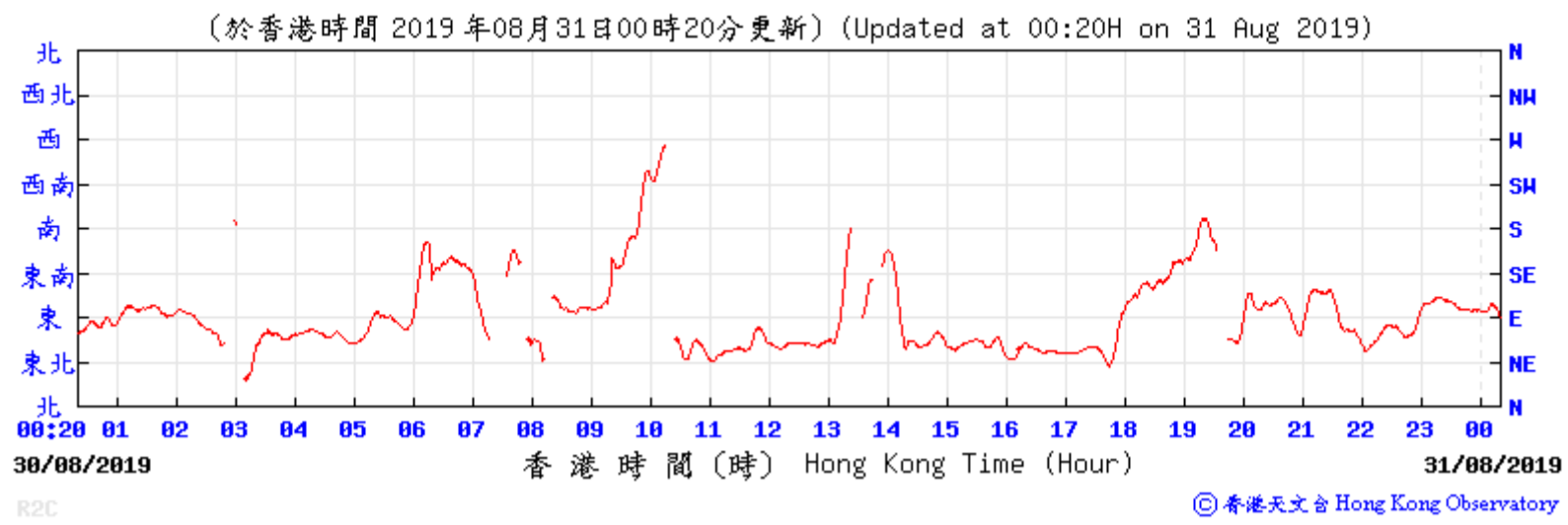




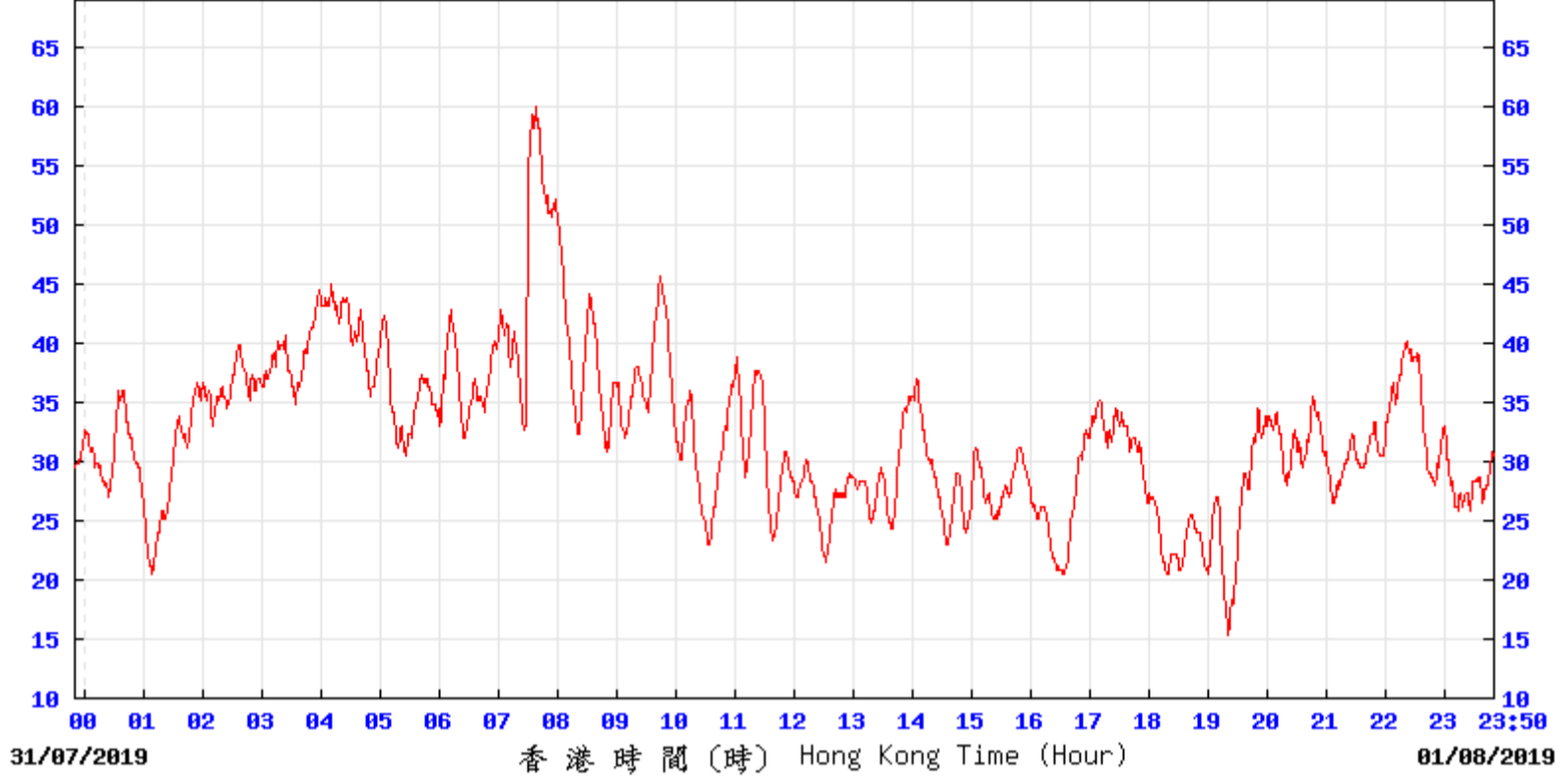


Note: Wind direction data from 23:51 on 24 Aug 2019 to 00:19 on 25 Aug 2019 were not recorded by Chek Lap Kok Weather Station. Wind direction data from 00:20 to 24:00 on 25 Aug 2019 are shown in the above figure.



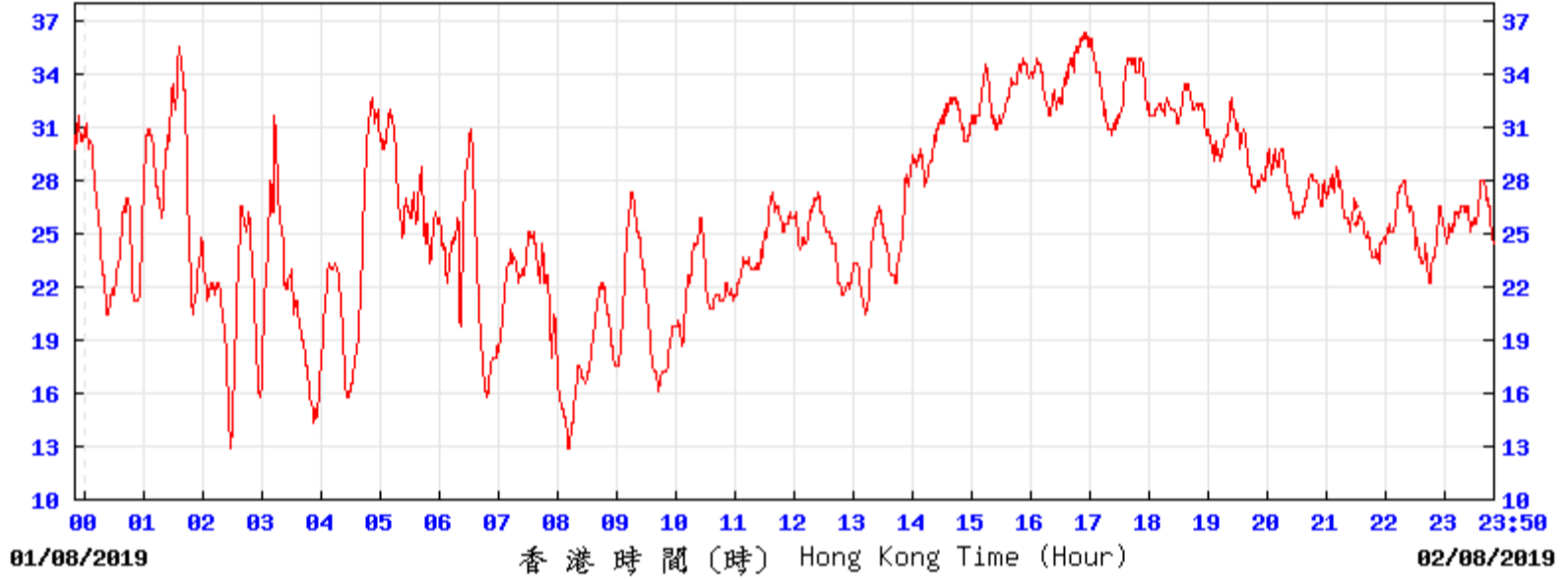


(公里/小時) (於香港時間 2019 年 8 月 1日23時50分更新) (Updated at 23:50H on 1 Aug 2019) (km/h)



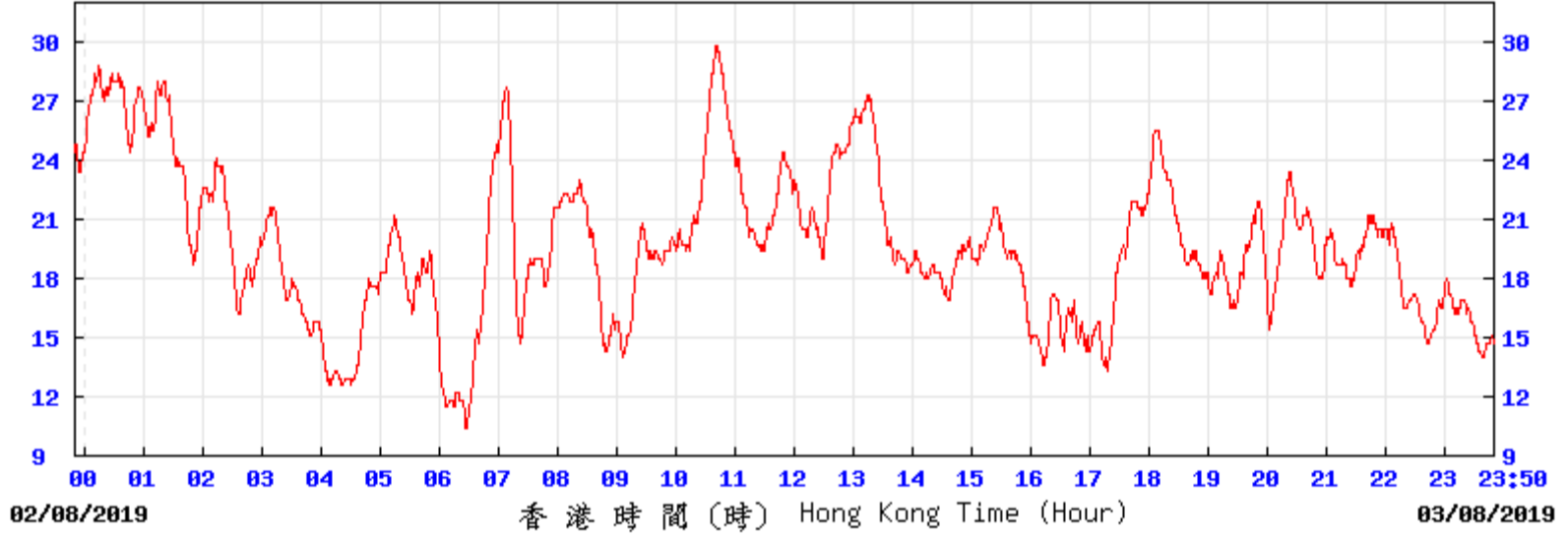
R2C ©香港天文台 Hong Kong Observatory

(公里/小時) (於香港時間 2019 年 8 月 2日23時50分更新) (Updated at 23:50H on 2 Aug 2019) (km/h)

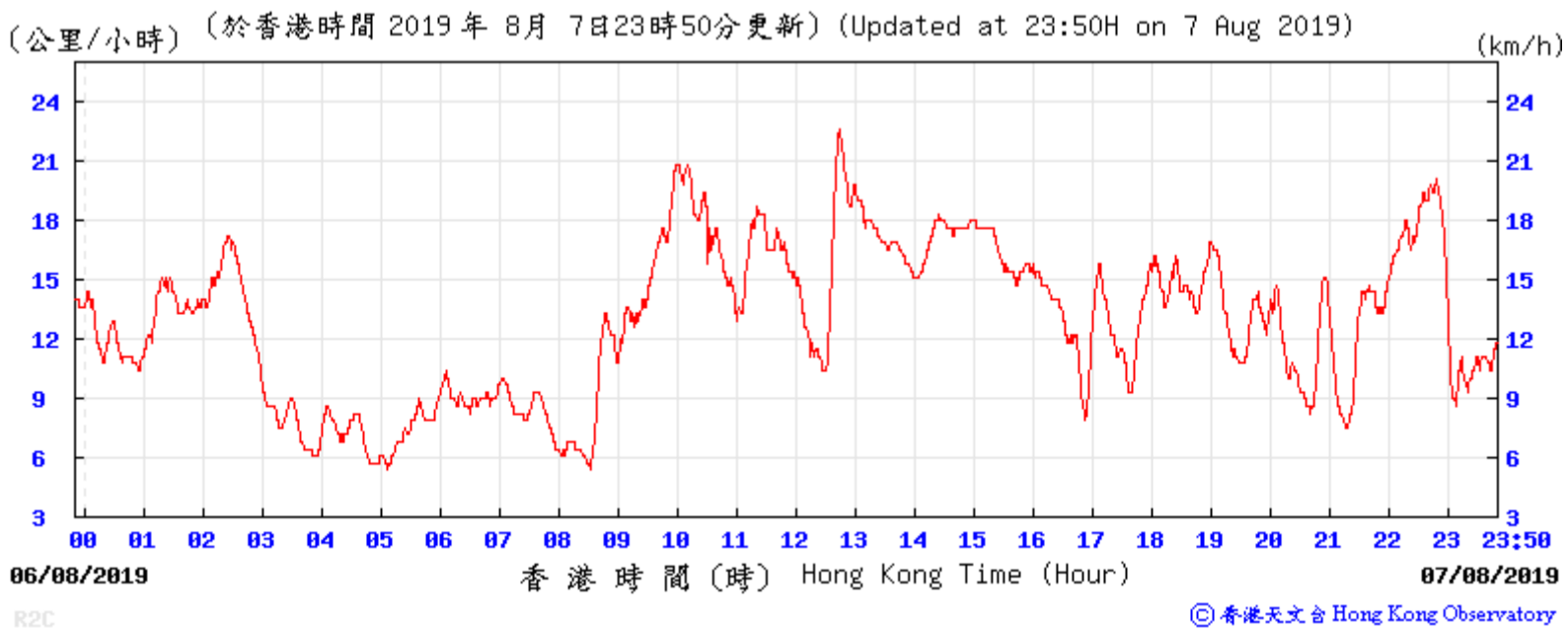
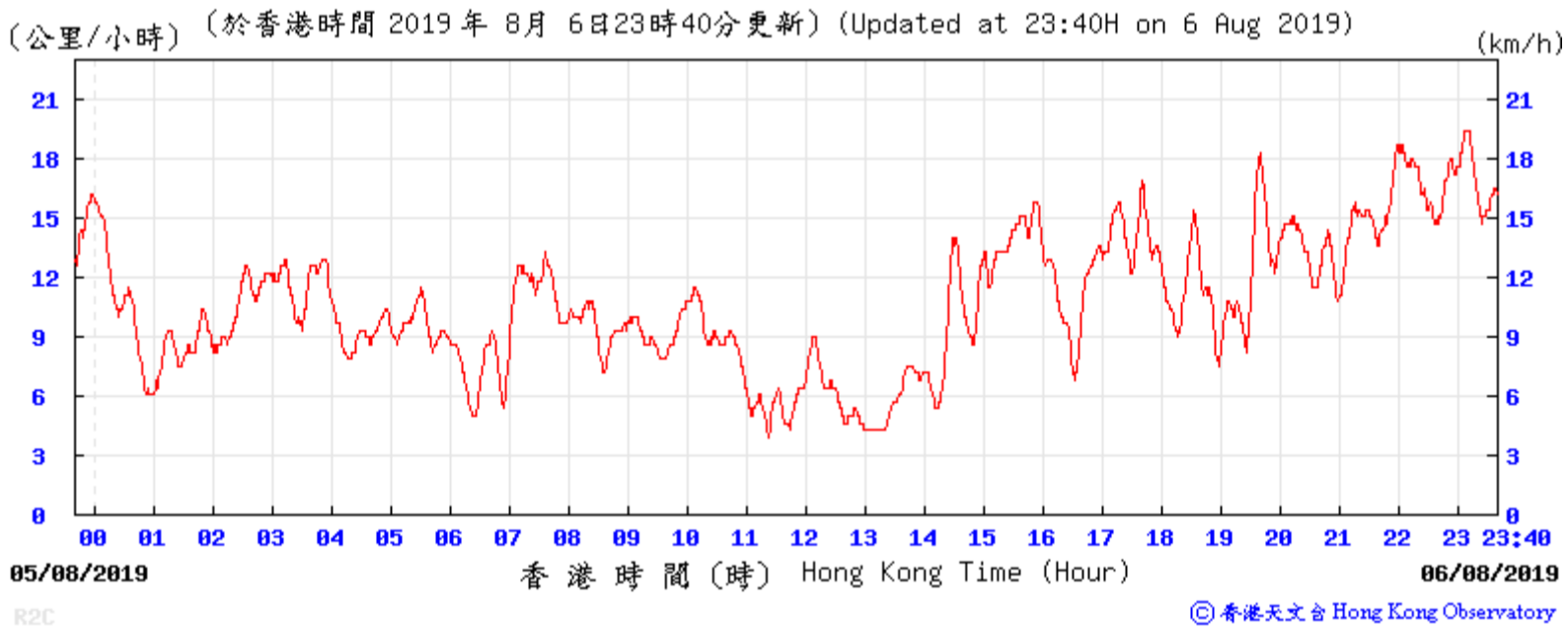
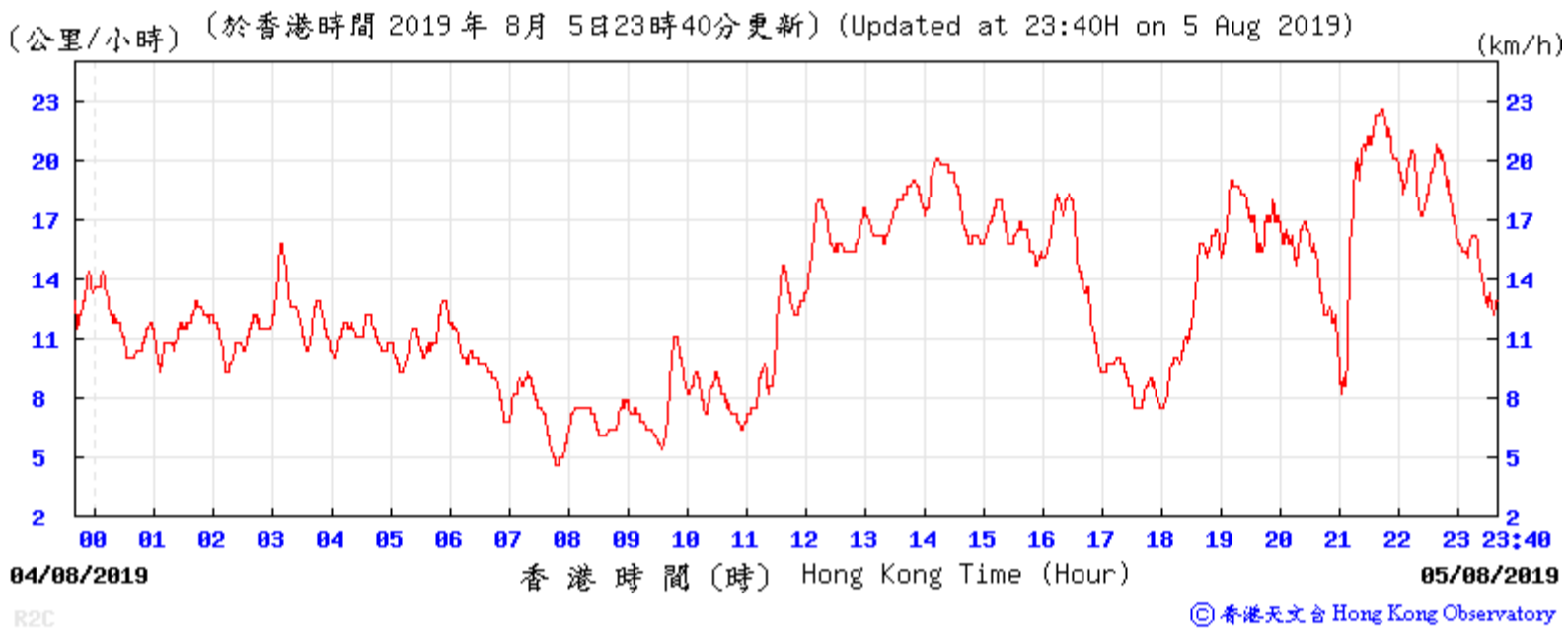
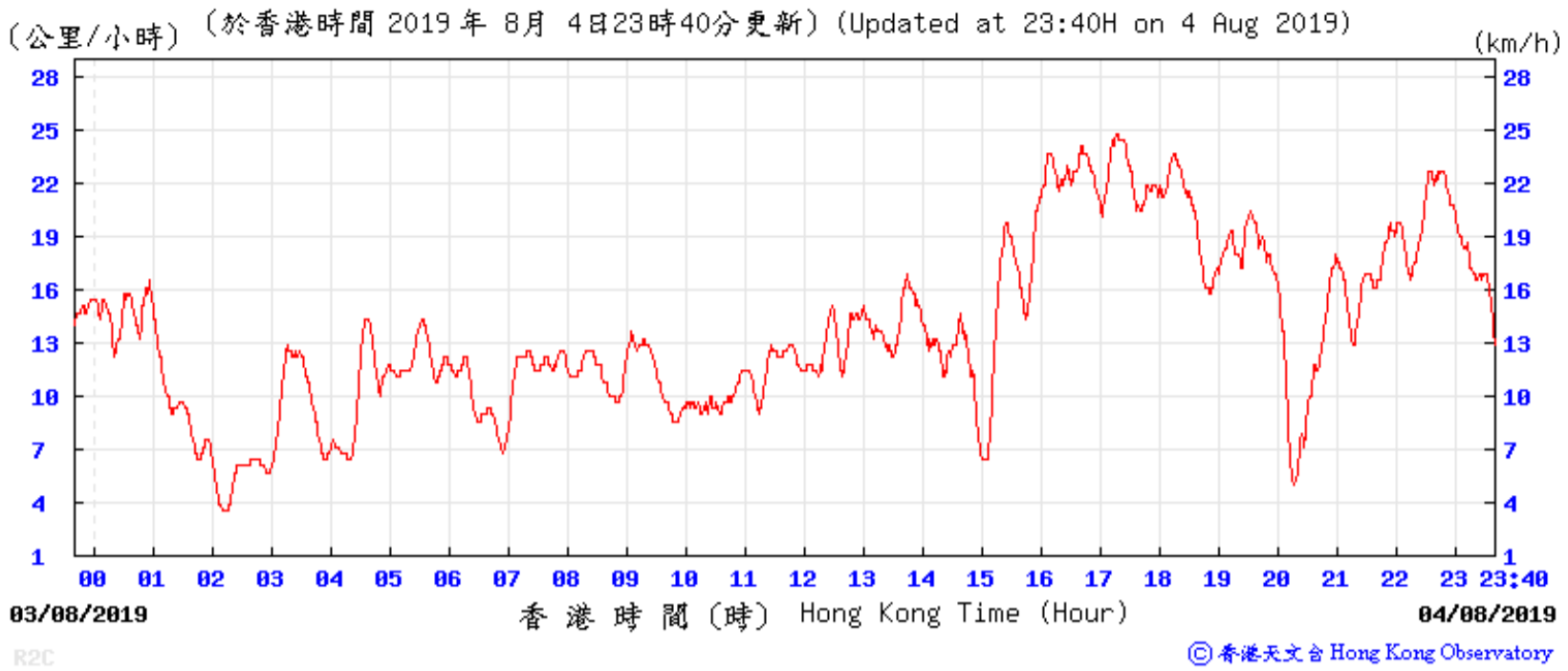


R2C ©香港天文台 Hong Kong Observatory

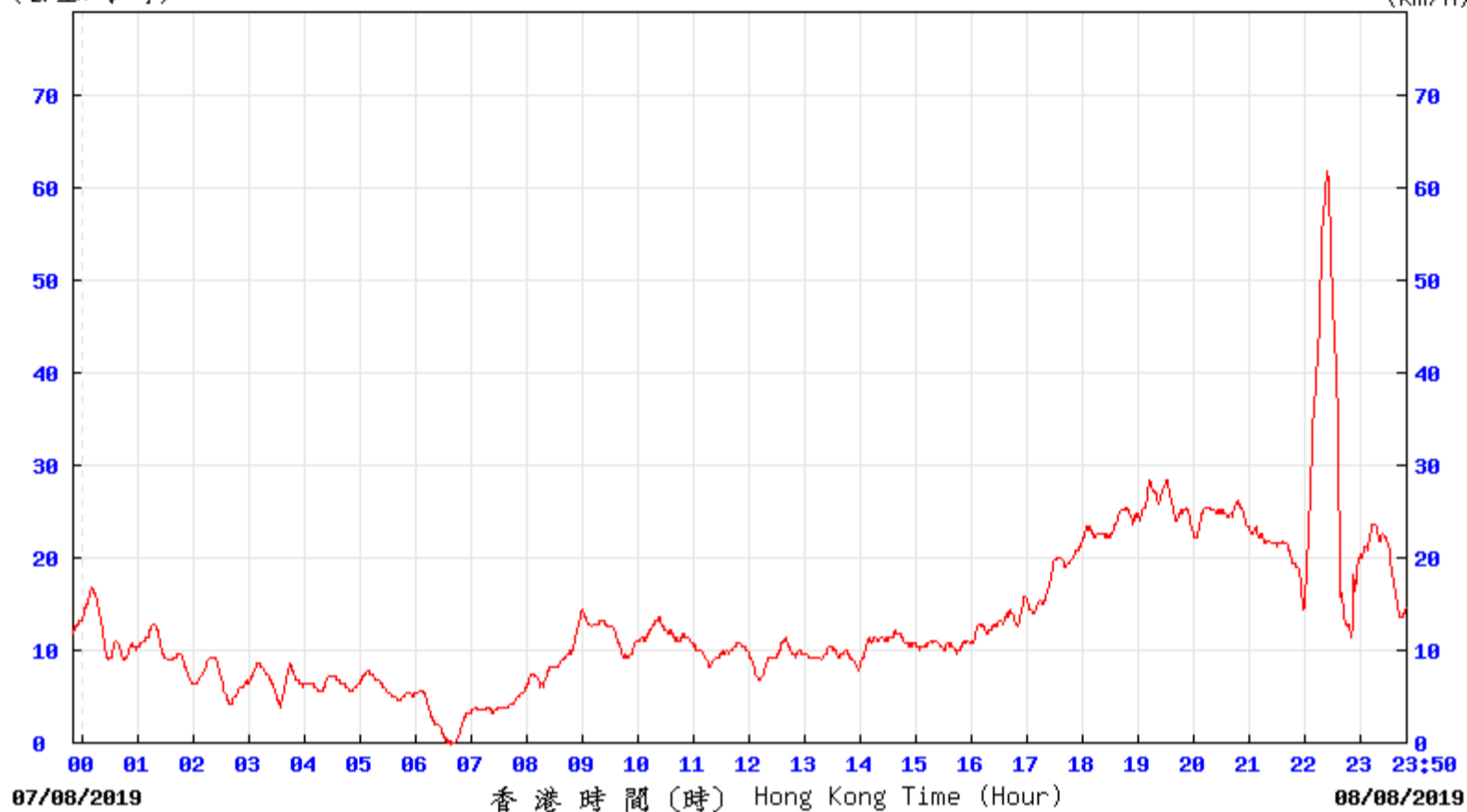
(公里/小時) (於香港時間 2019 年 8 月 3日23時50分更新) (Updated at 23:50H on 3 Aug 2019) (km/h)



R2C ©香港天文台 Hong Kong Observatory



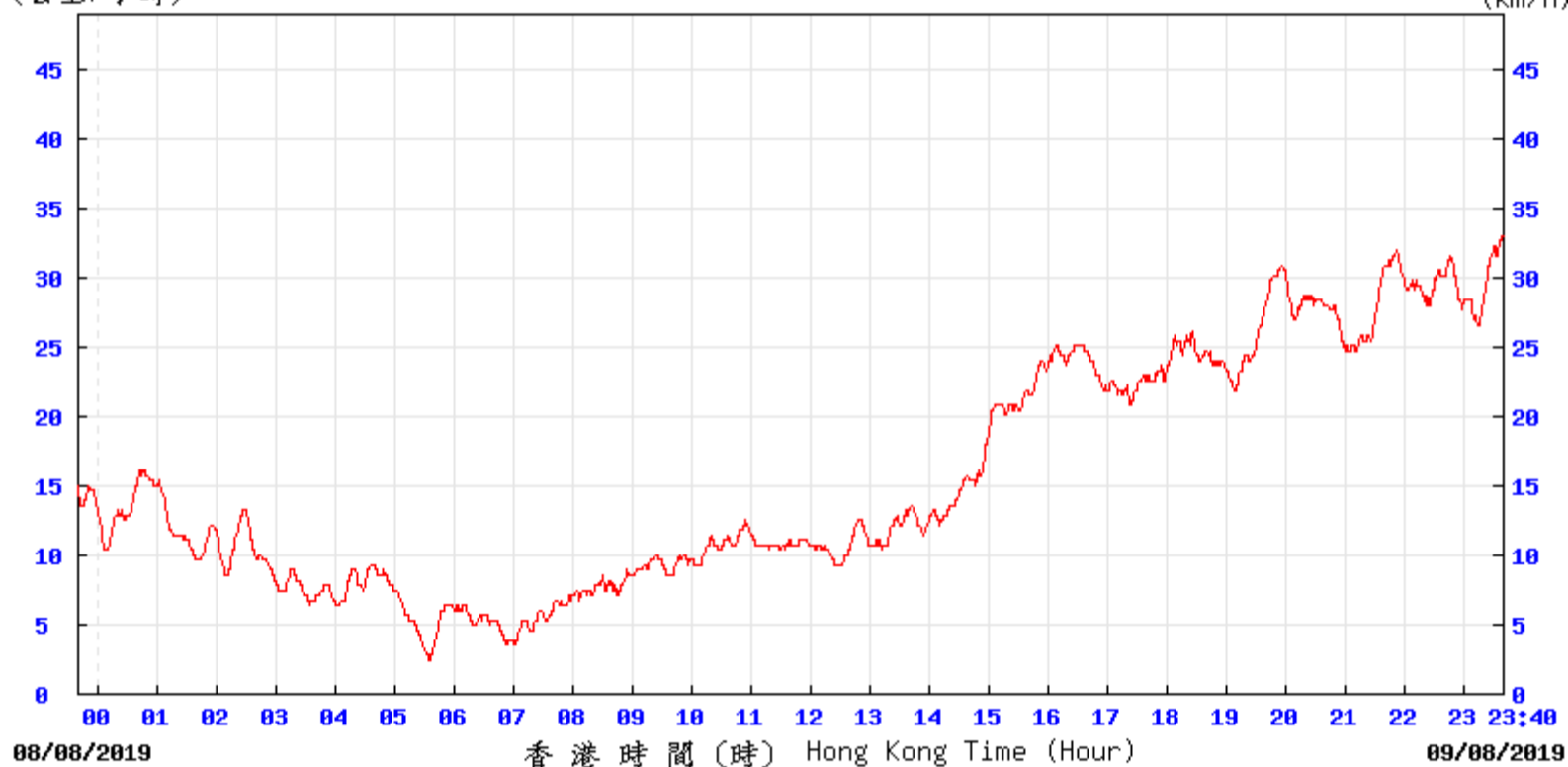
(公里/小時) (於香港時間 2019 年 8 月 8 日 23 時 50 分更新) (Updated at 23:50H on 8 Aug 2019) (km/h)



R2C

© 香港天文台 Hong Kong Observatory

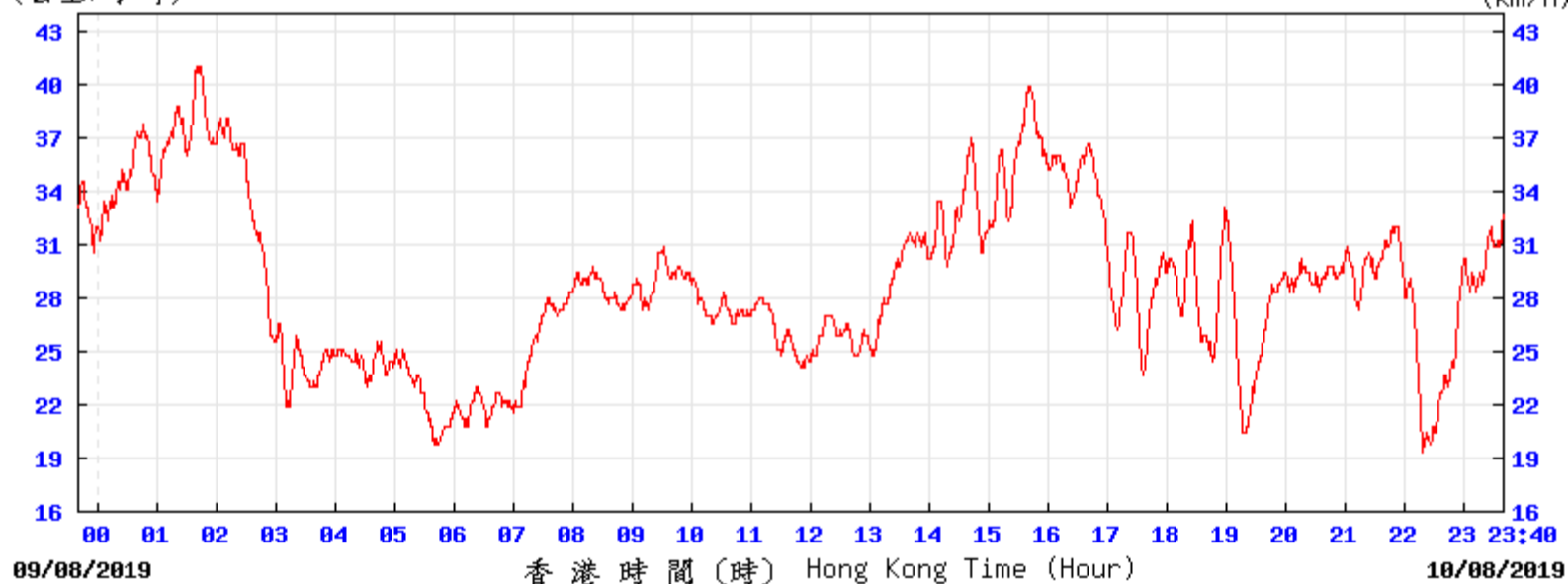
(公里/小時) (於香港時間 2019 年 8 月 9 日 23 時 40 分更新) (Updated at 23:40H on 9 Aug 2019) (km/h)



R2C

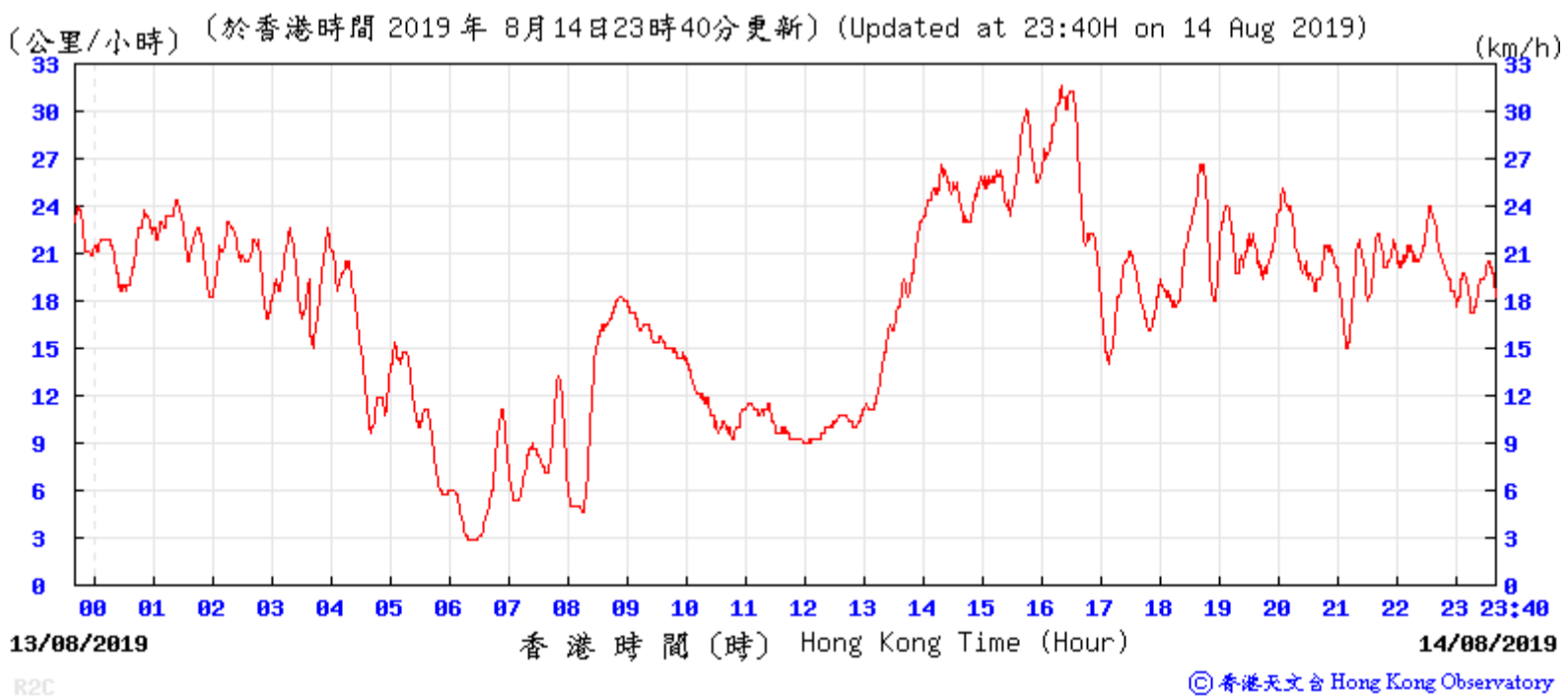
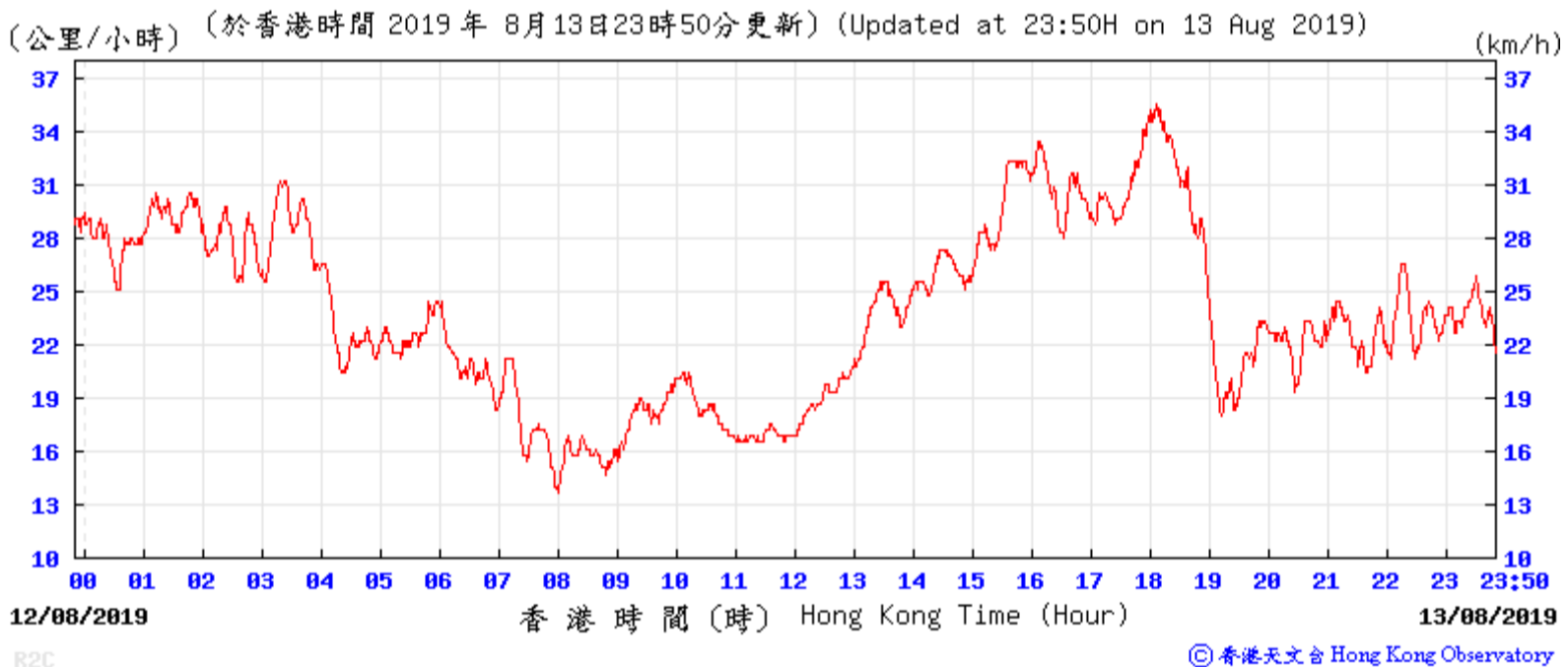
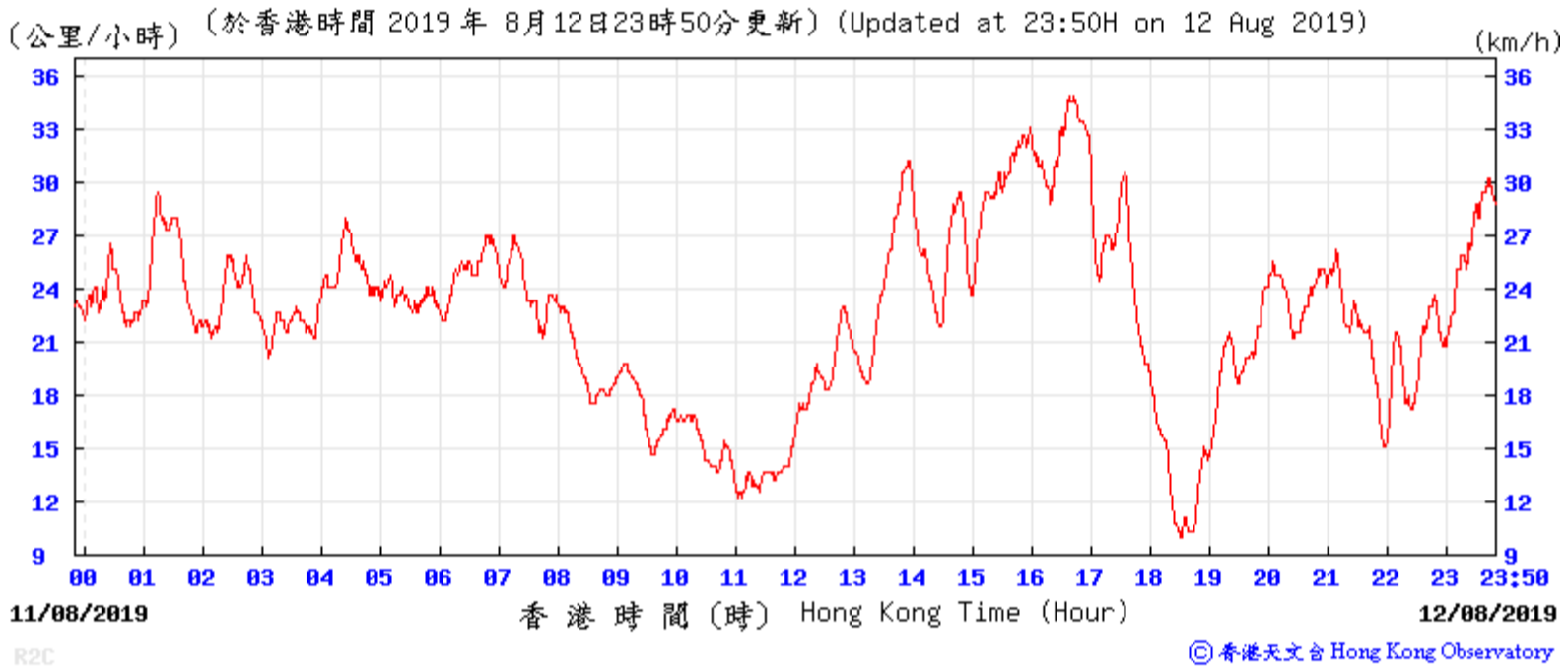
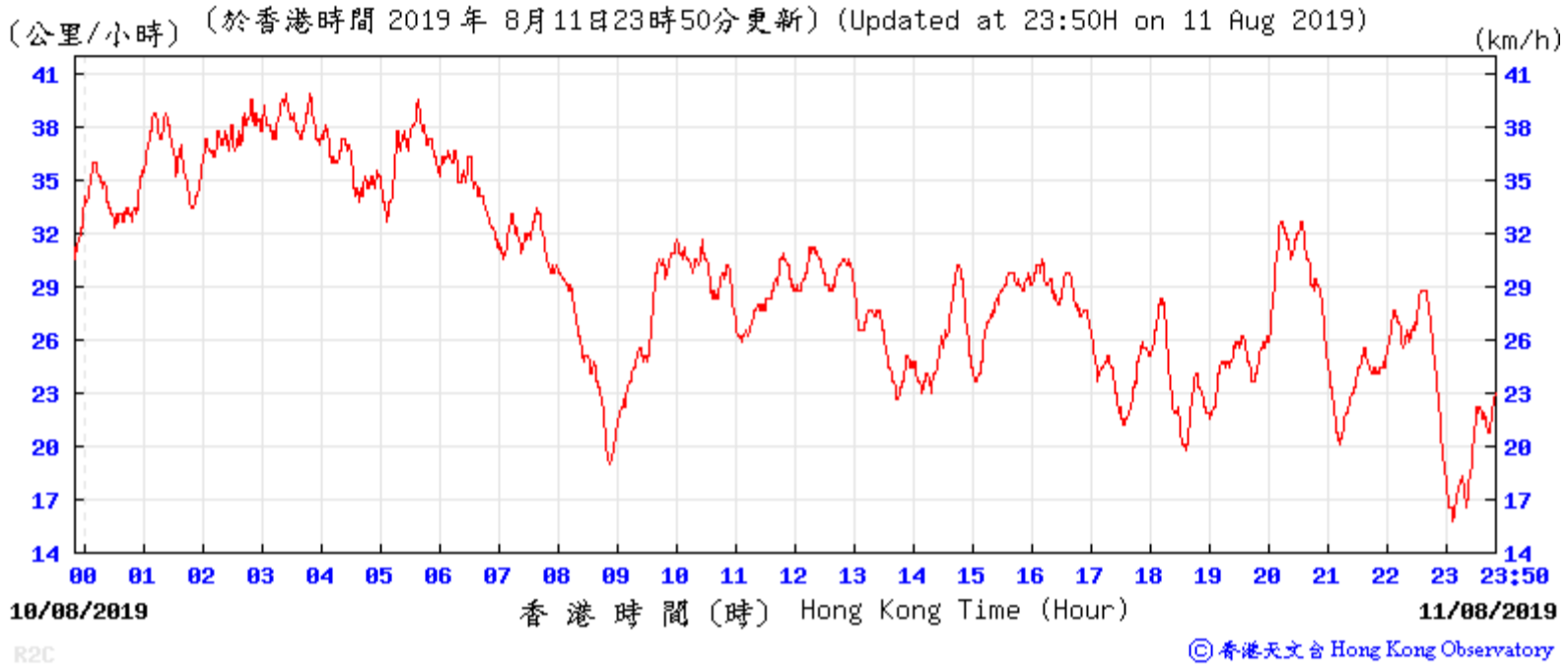
© 香港天文台 Hong Kong Observatory

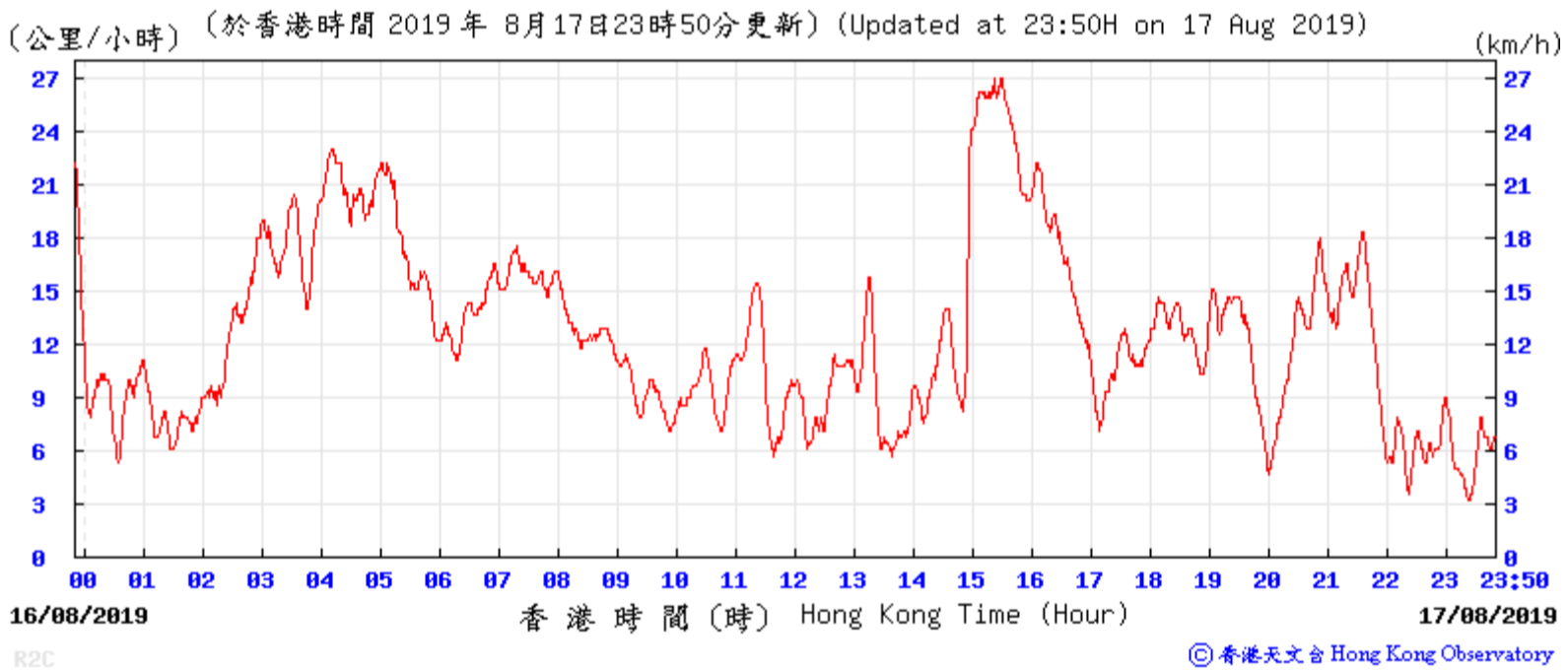
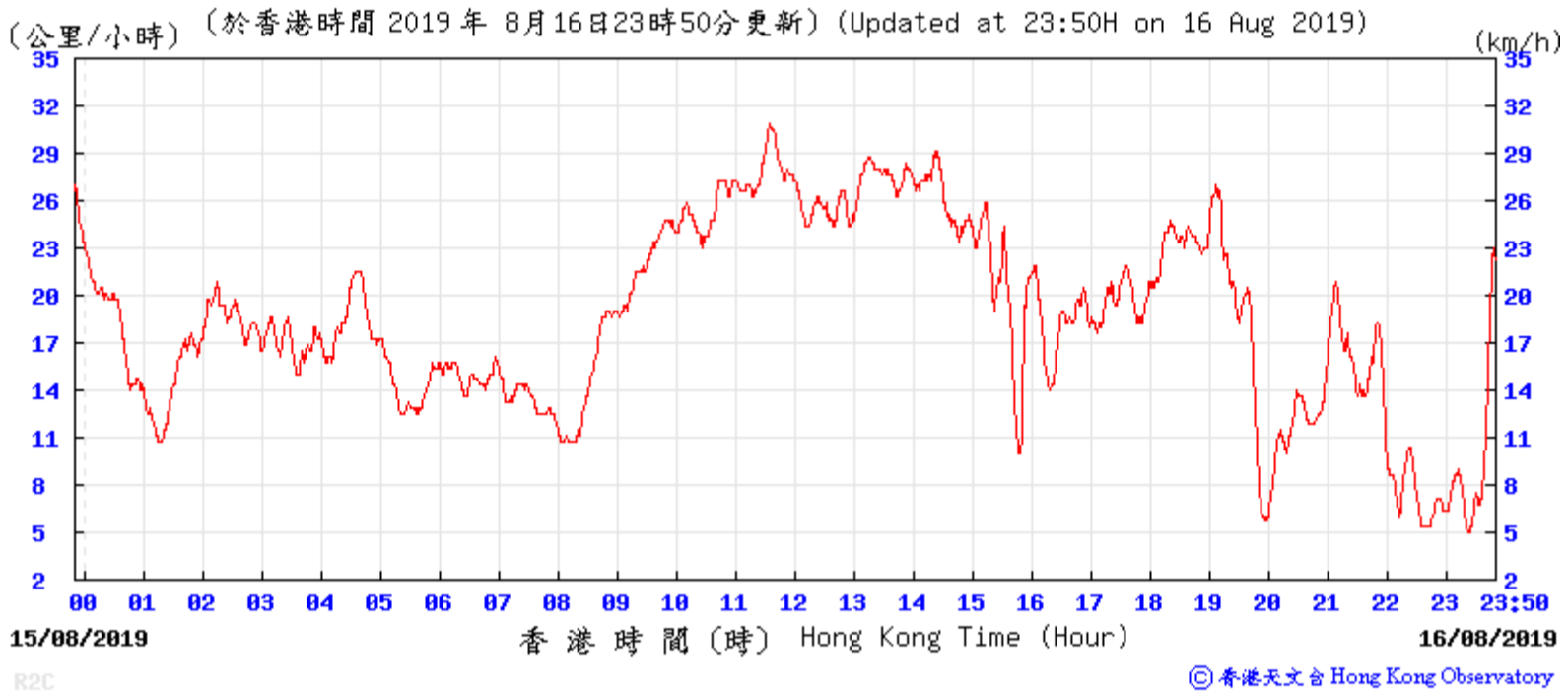
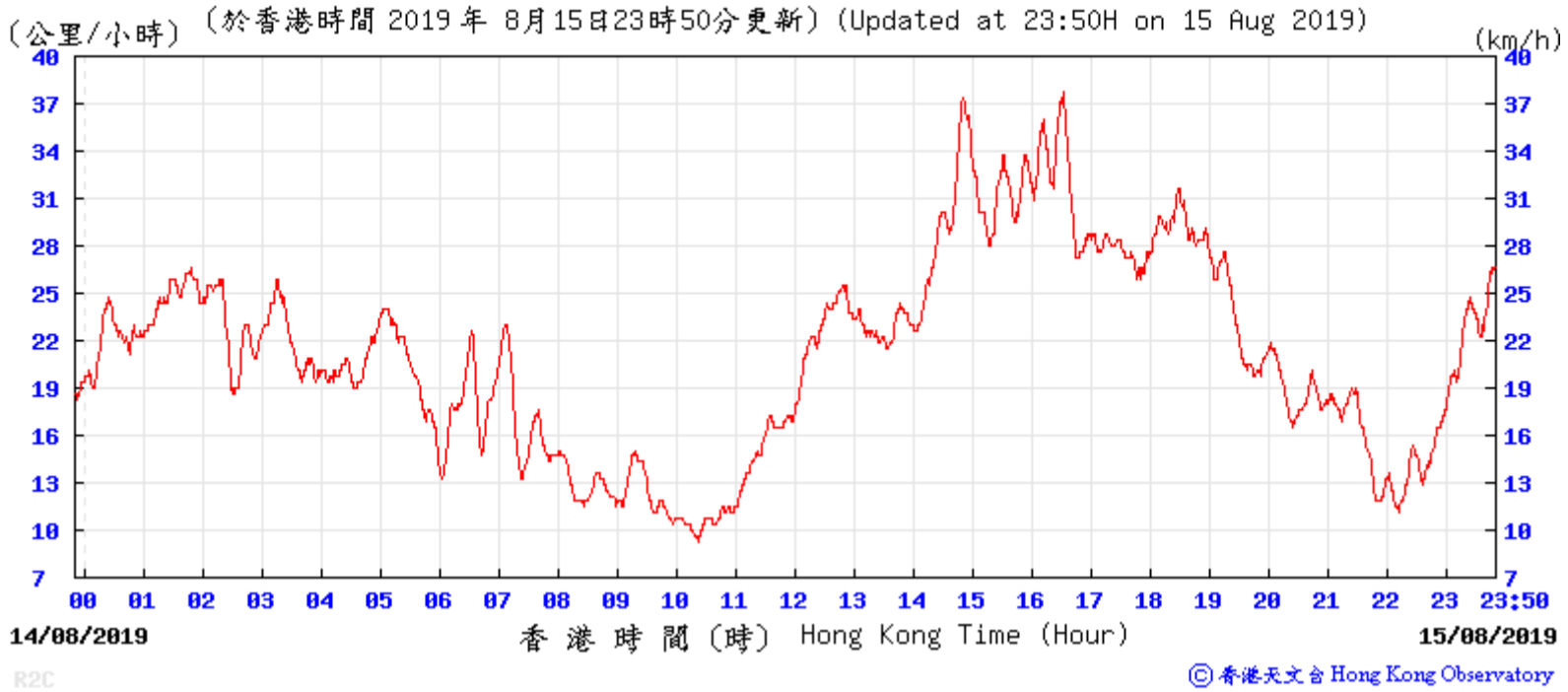
(公里/小時) (於香港時間 2019 年 8 月 10 日 23 時 40 分更新) (Updated at 23:40H on 10 Aug 2019) (km/h)



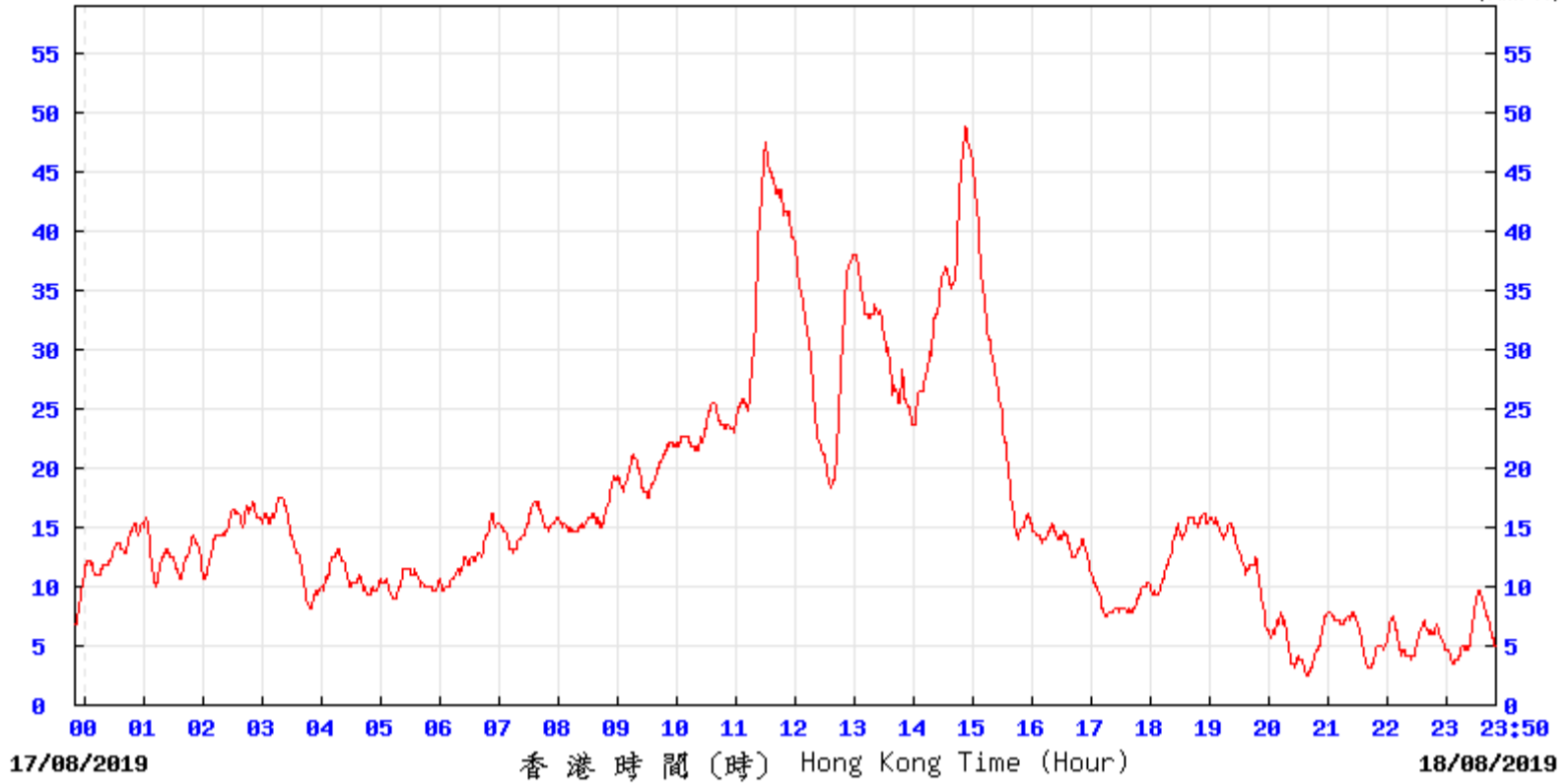
R2C

© 香港天文台 Hong Kong Observatory



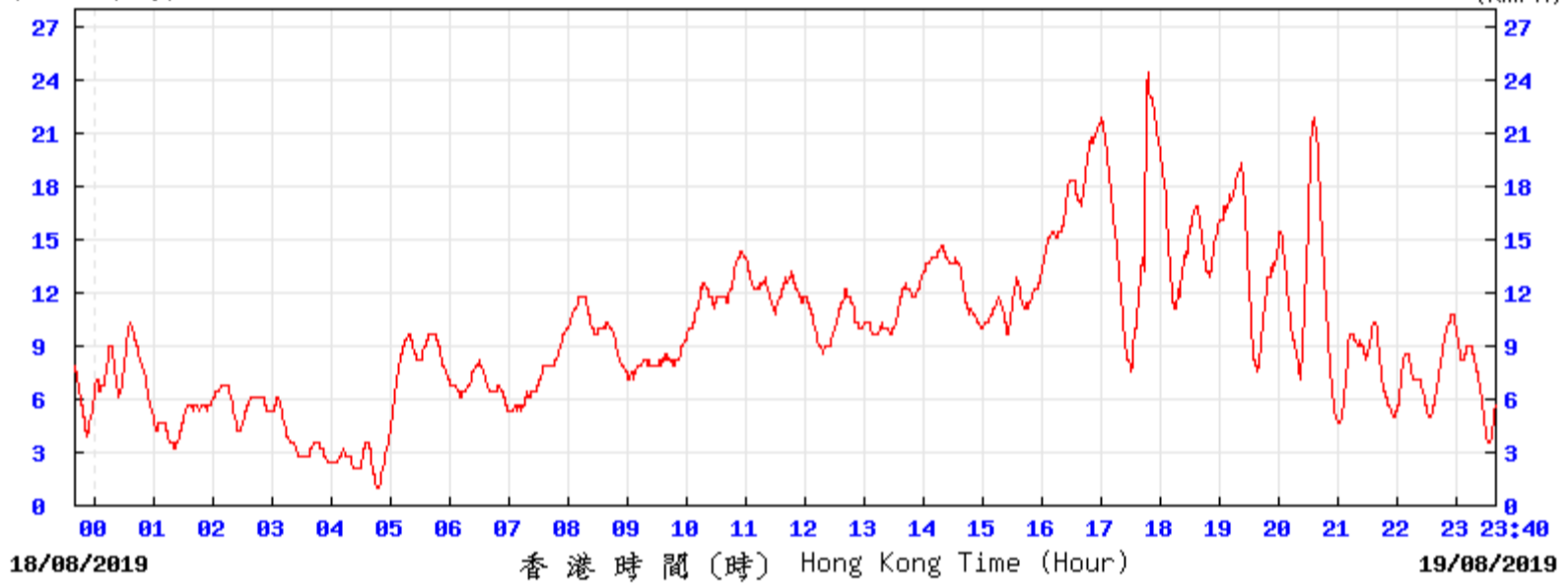


(公里/小時) (於香港時間 2019 年 8 月 18 日 23 時 50 分更新) (Updated at 23:50H on 18 Aug 2019) (km/h)



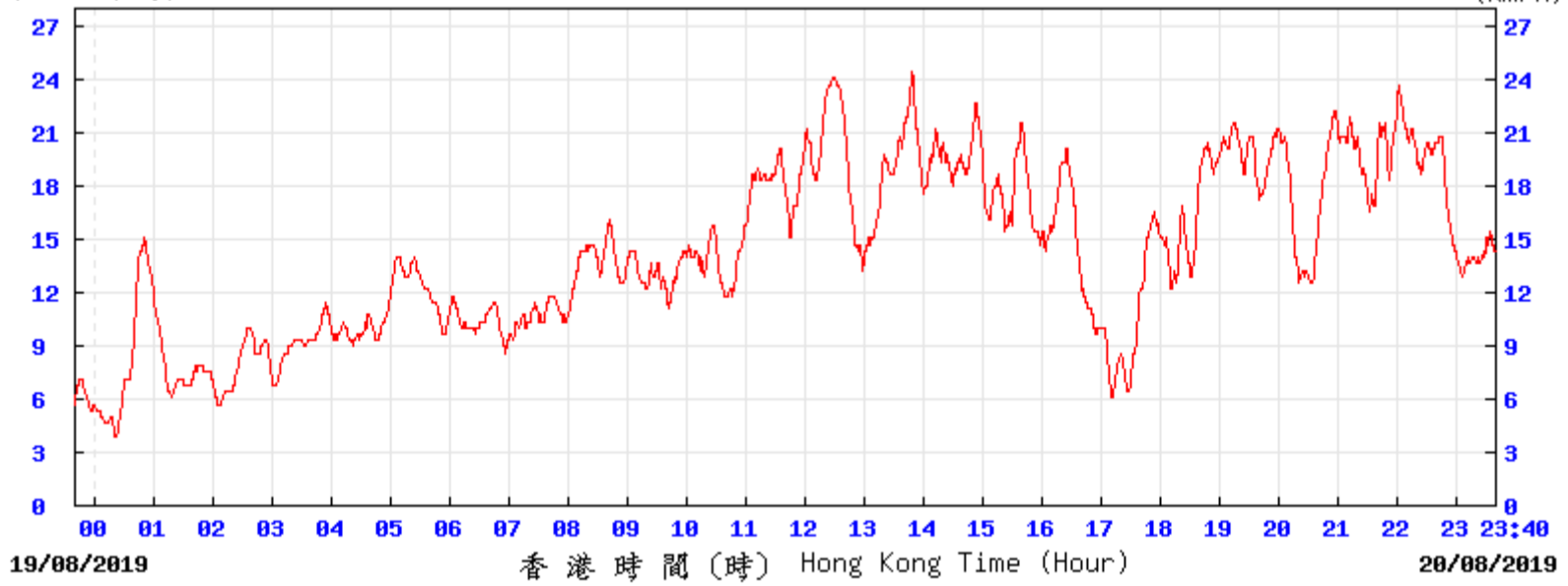
R2C © 香港天文台 Hong Kong Observatory

(公里/小時) (於香港時間 2019 年 8 月 19 日 23 時 40 分更新) (Updated at 23:40H on 19 Aug 2019) (km/h)



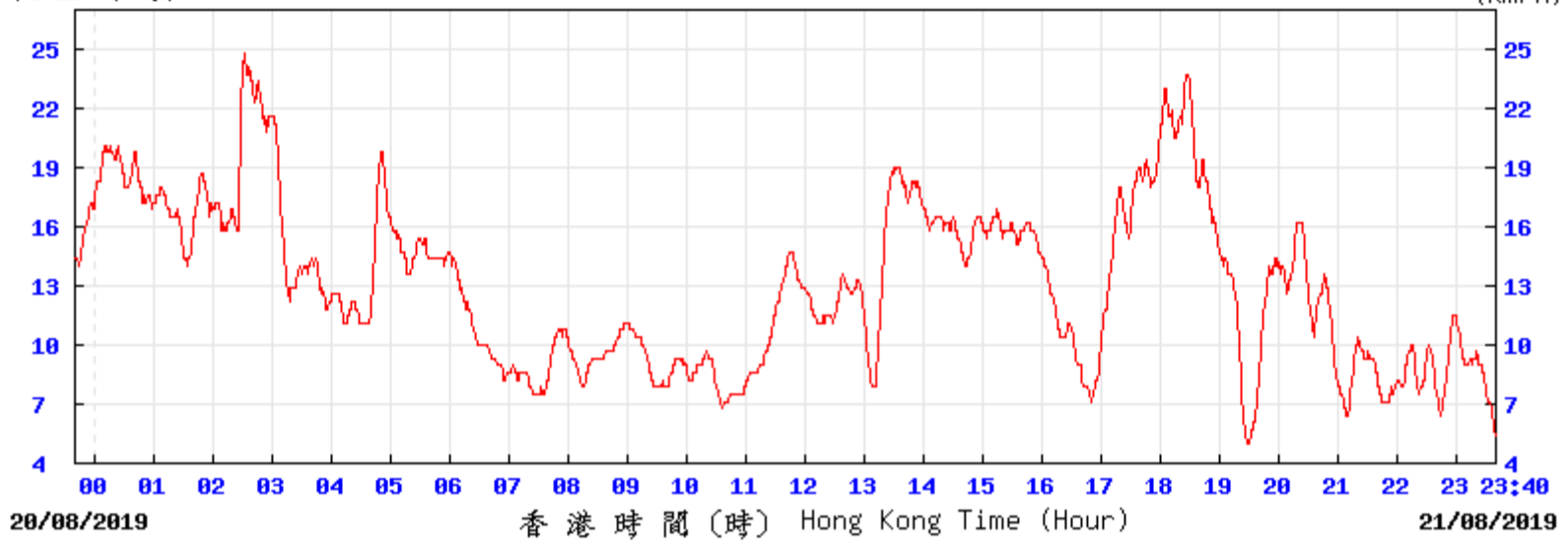
R2C © 香港天文台 Hong Kong Observatory

(公里/小時) (於香港時間 2019 年 8 月 20 日 23 時 40 分更新) (Updated at 23:40H on 20 Aug 2019) (km/h)



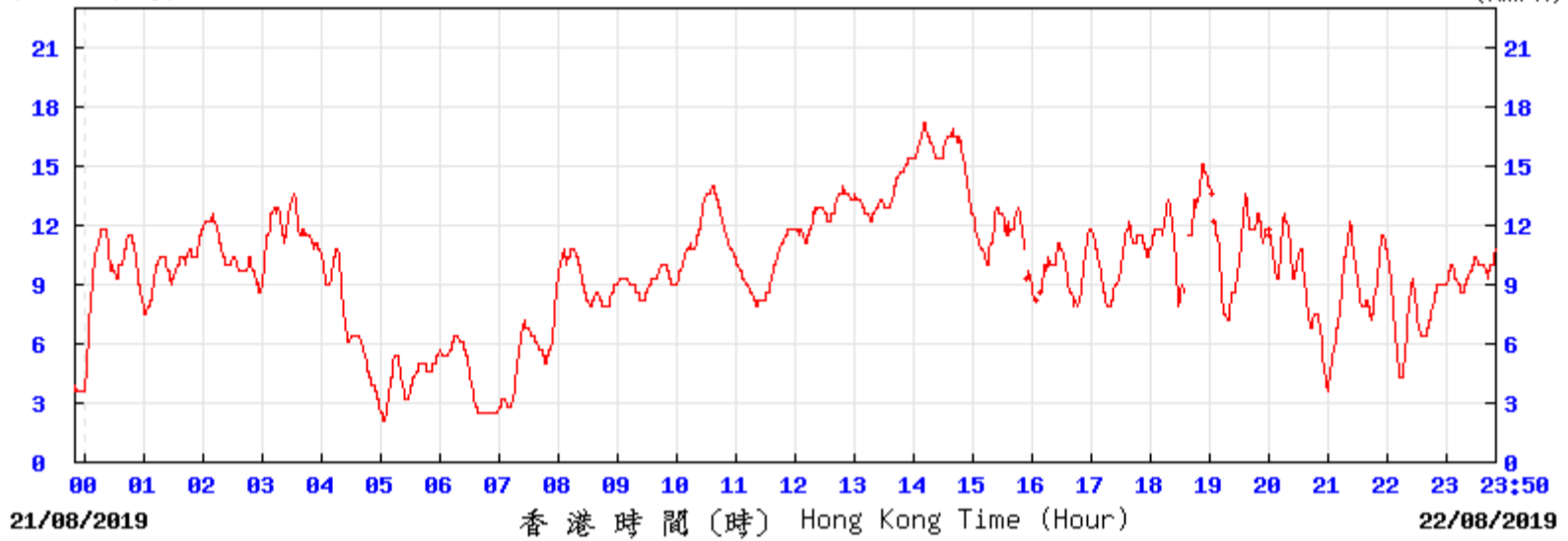
R2C © 香港天文台 Hong Kong Observatory

(公里/小時) (於香港時間 2019 年 8月21日23時40分更新) (Updated at 23:40H on 21 Aug 2019) (km/h)



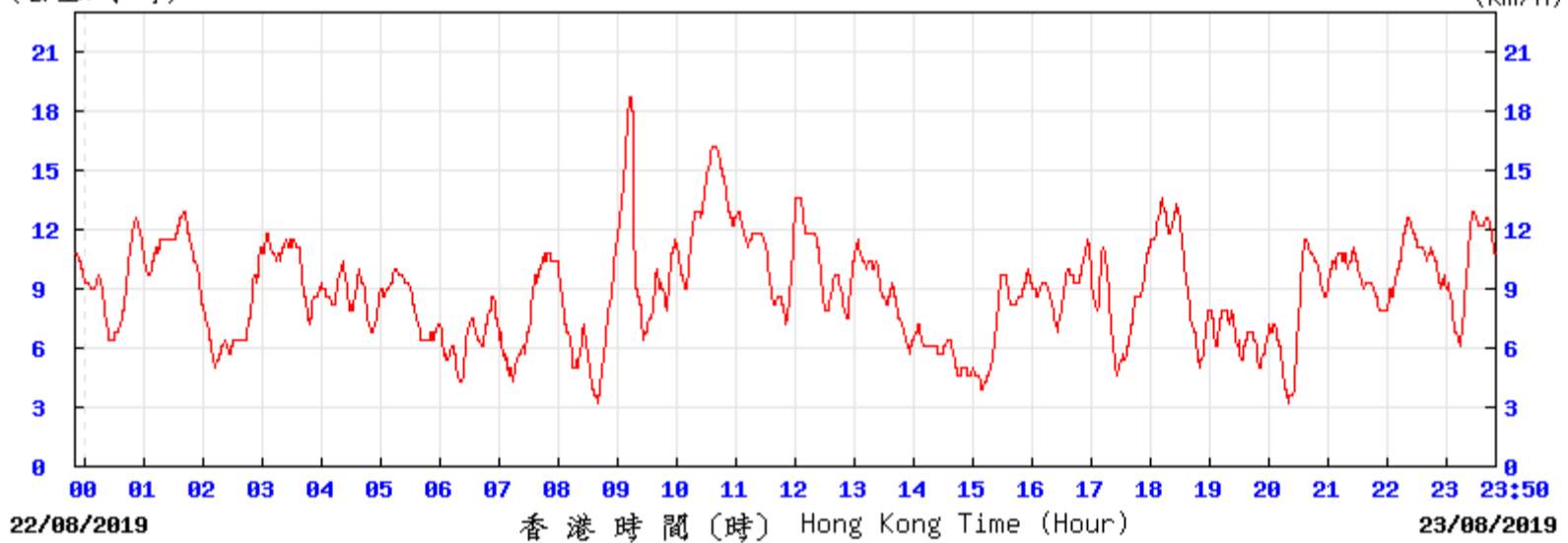
R2C © 香港天文台 Hong Kong Observatory

(公里/小時) (於香港時間 2019 年 8月22日23時50分更新) (Updated at 23:50H on 22 Aug 2019) (km/h)



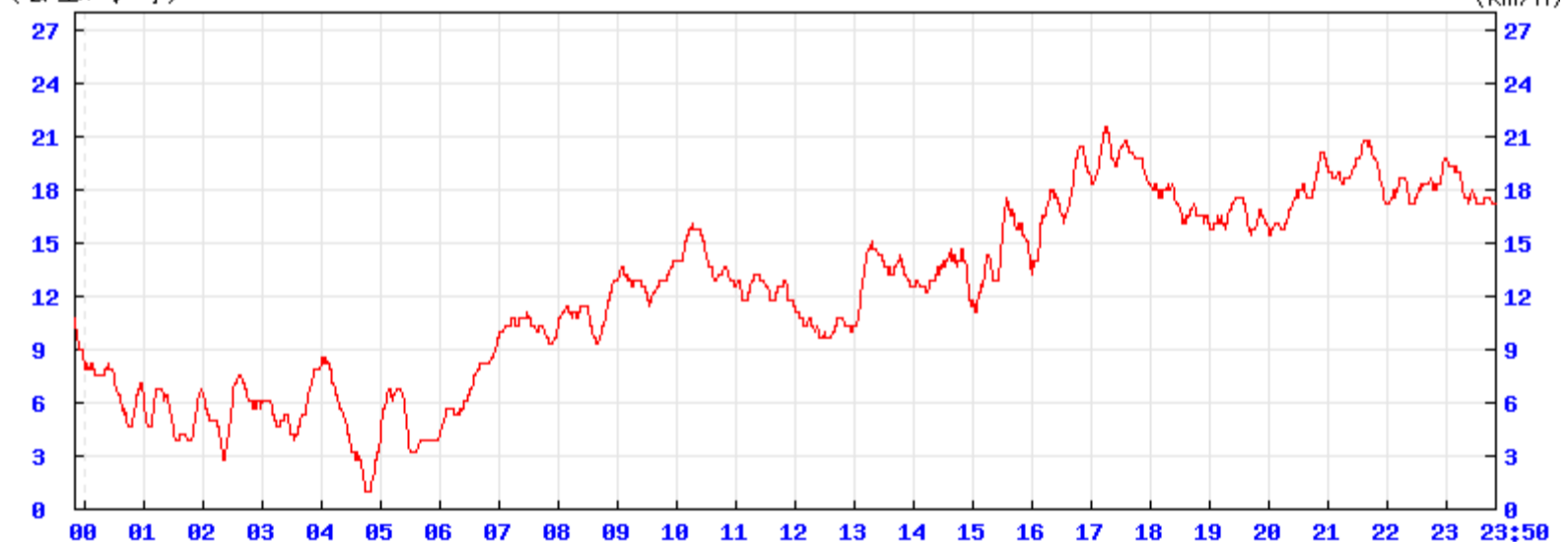
R2C © 香港天文台 Hong Kong Observatory

(公里/小時) (於香港時間 2019 年 8月23日23時50分更新) (Updated at 23:50H on 23 Aug 2019) (km/h)



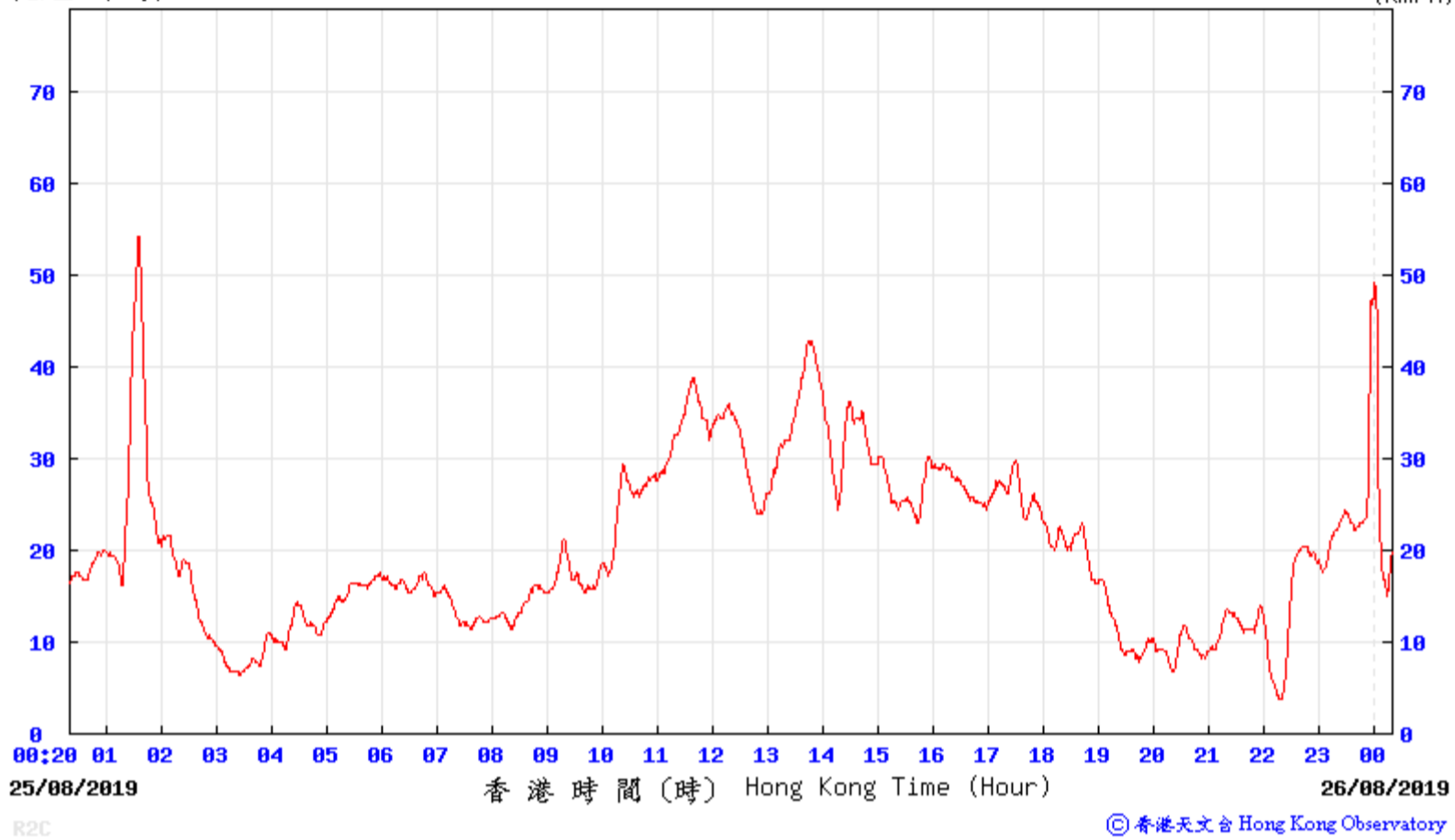
R2C © 香港天文台 Hong Kong Observatory

(公里/小時) (於香港時間 2019 年 8月24日23時50分更新) (Updated at 23:50H on 24 Aug 2019) (km/h)



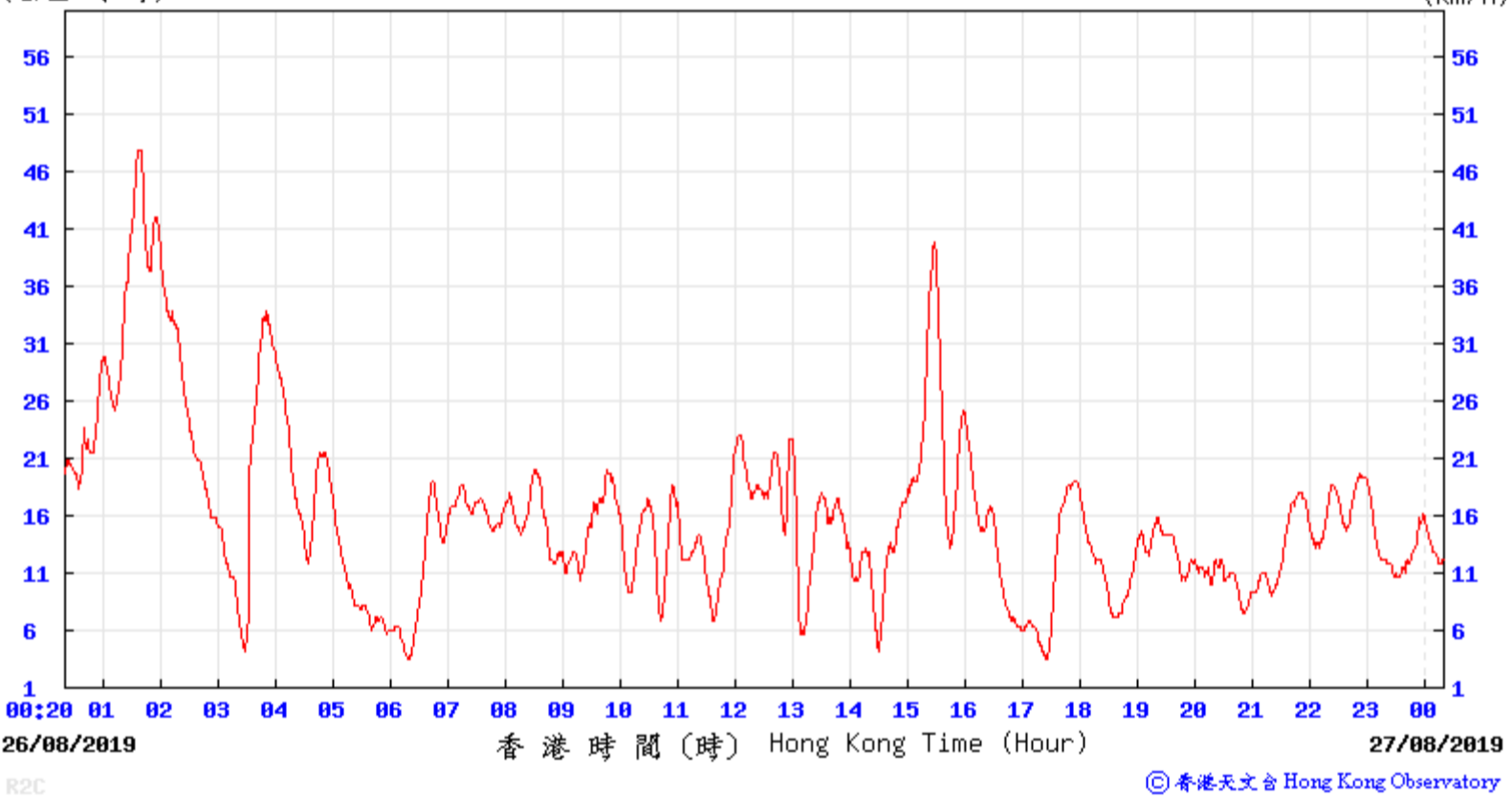
R2C © 香港天文台 Hong Kong Observatory

(公里/小時) (於香港時間 2019 年 8月26日 0時20分更新) (Updated at 00:20H on 26 Aug 2019) (km/h)

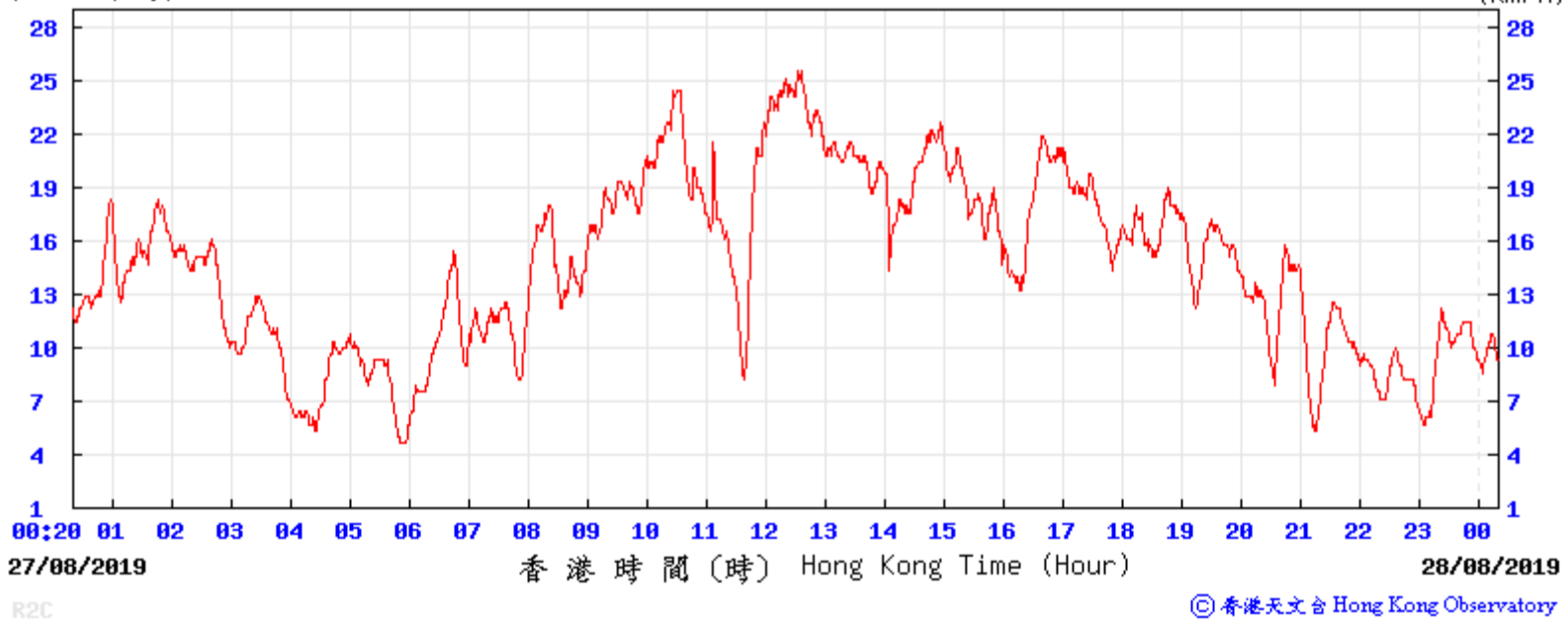


Note: Wind speed data from 23:51 on 24 Aug 2019 to 00:19 on 25 Aug 2019 were not recorded by Chek Lap Kok Weather Station. Wind speed data from 00:20 to 24:00 on 25 Aug 2019 are shown in the above figure.

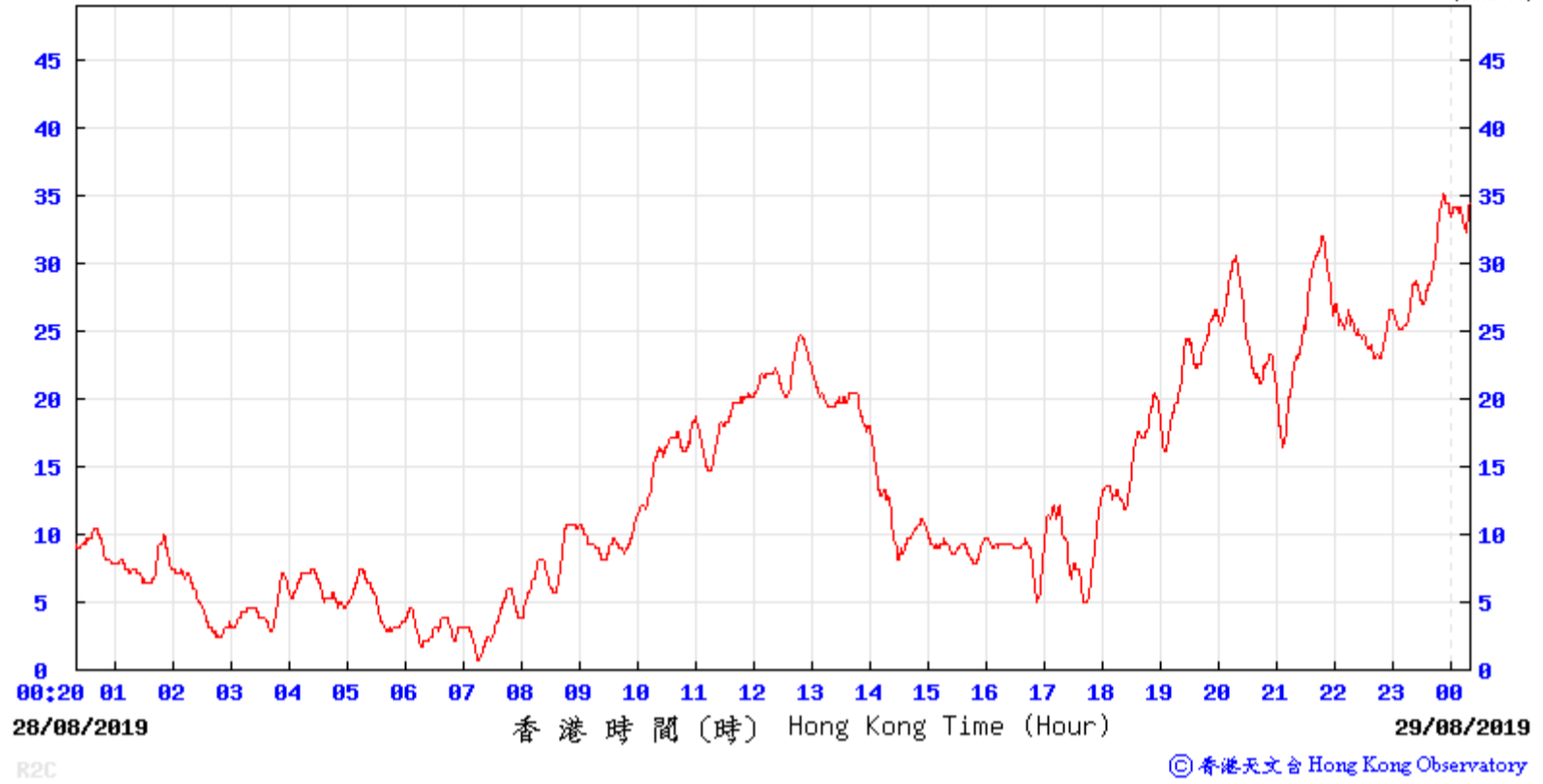
(公里/小時) (於香港時間 2019 年 8月27日 0時20分更新) (Updated at 00:20H on 27 Aug 2019) (km/h)



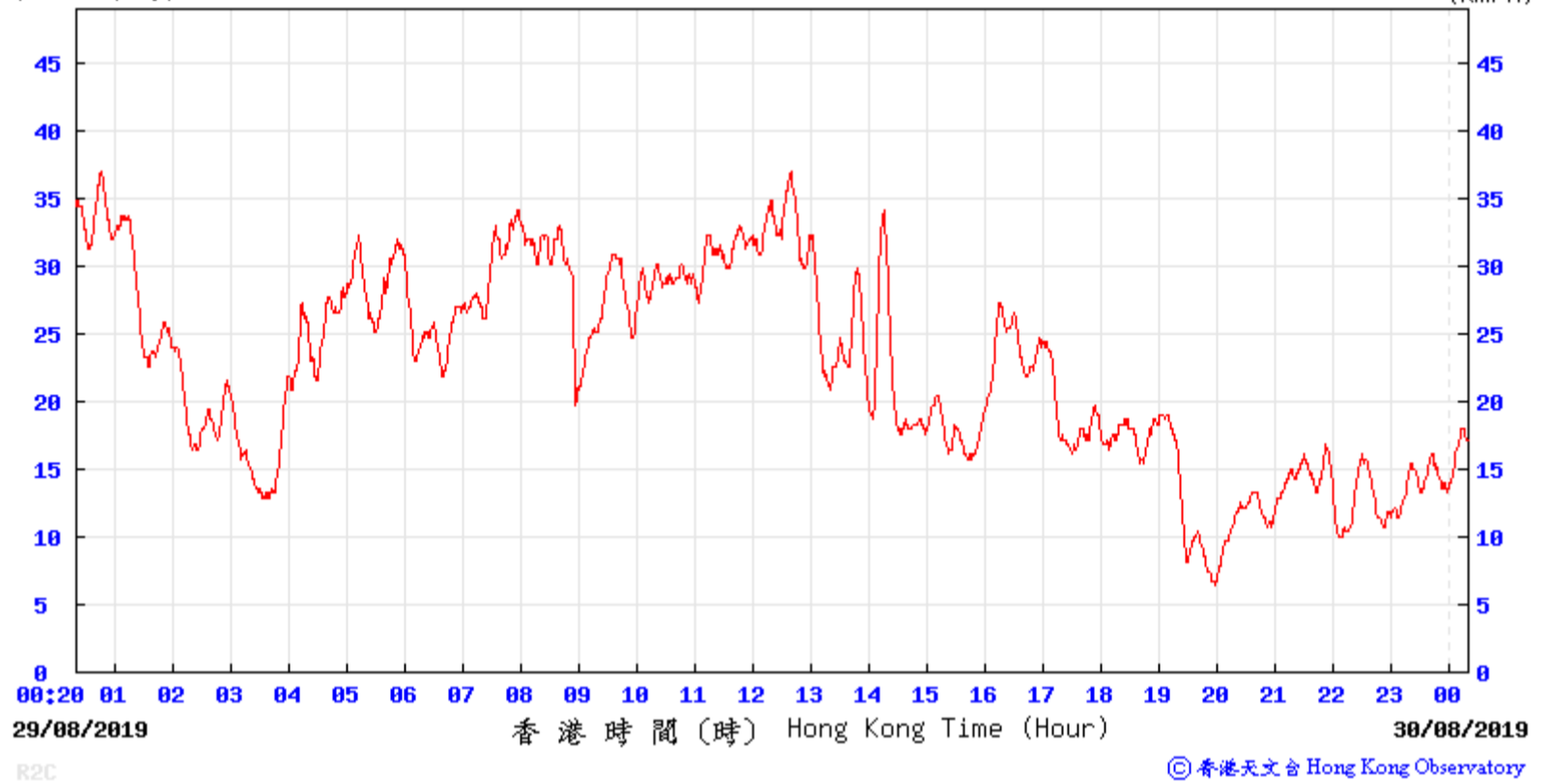
(公里/小時) (於香港時間 2019 年 8月28日 0時20分更新) (Updated at 00:20H on 28 Aug 2019) (km/h)



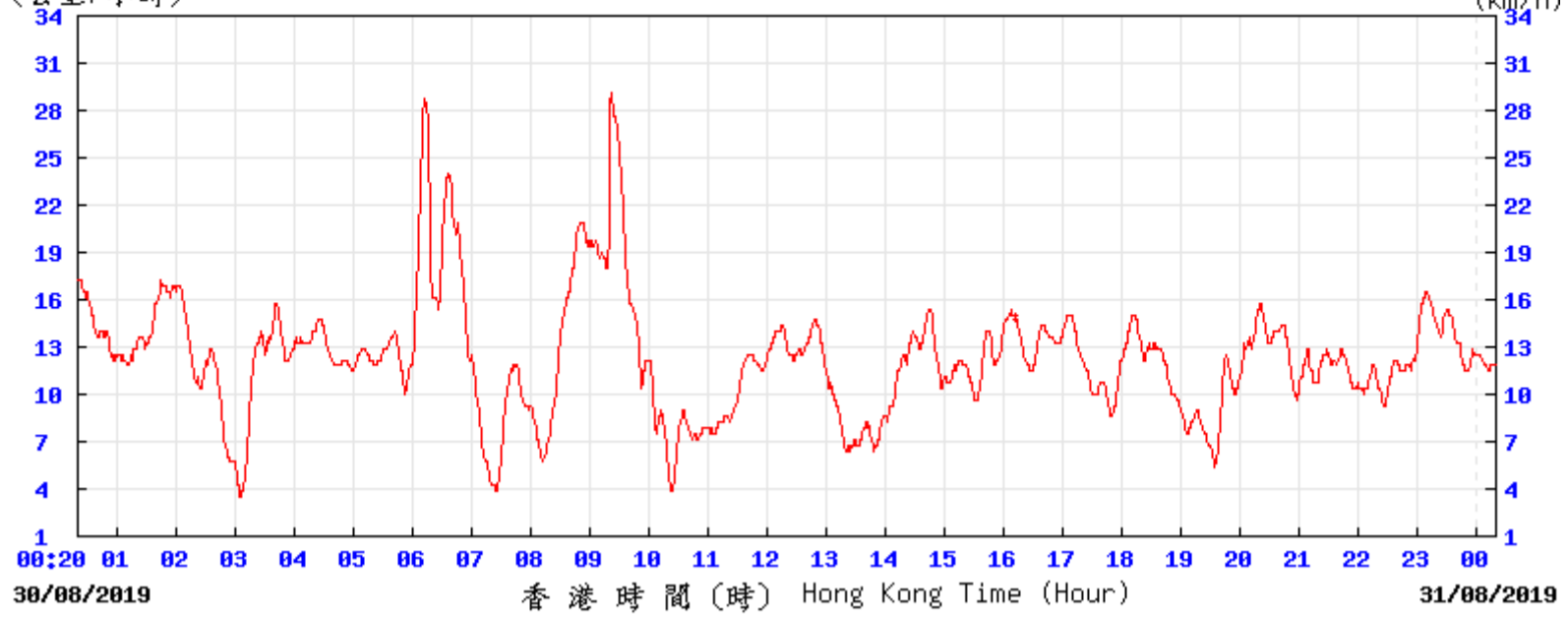
(公里/小時) (於香港時間 2019 年 8月29日 0時20分更新) (Updated at 00:20H on 29 Aug 2019) (km/h)



(公里/小時) (於香港時間 2019 年 8月30日 0時20分更新) (Updated at 00:20H on 30 Aug 2019) (km/h)

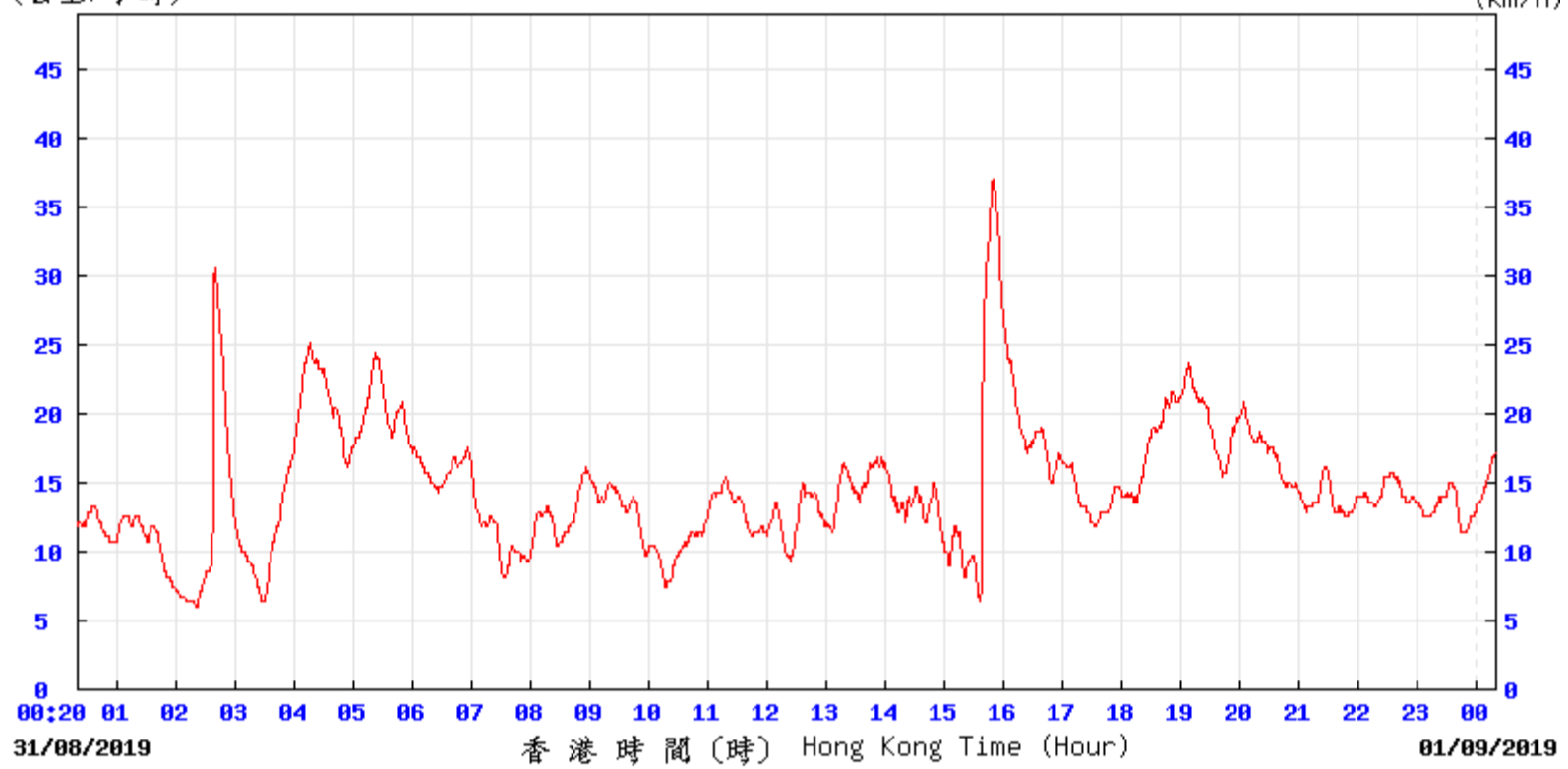


(公里/小時) (於香港時間 2019 年 8 月 31 日 0 時 20 分更新) (Updated at 00:20H on 31 Aug 2019)



R2C © 香港天文台 Hong Kong Observatory

(公里/小時) (於香港時間 2019 年 9 月 1 日 0 時 20 分更新) (Updated at 00:20H on 1 Sep 2019)



R2C © 香港天文台 Hong Kong Observatory



APPENDIX H

Dolphin Monitoring Results

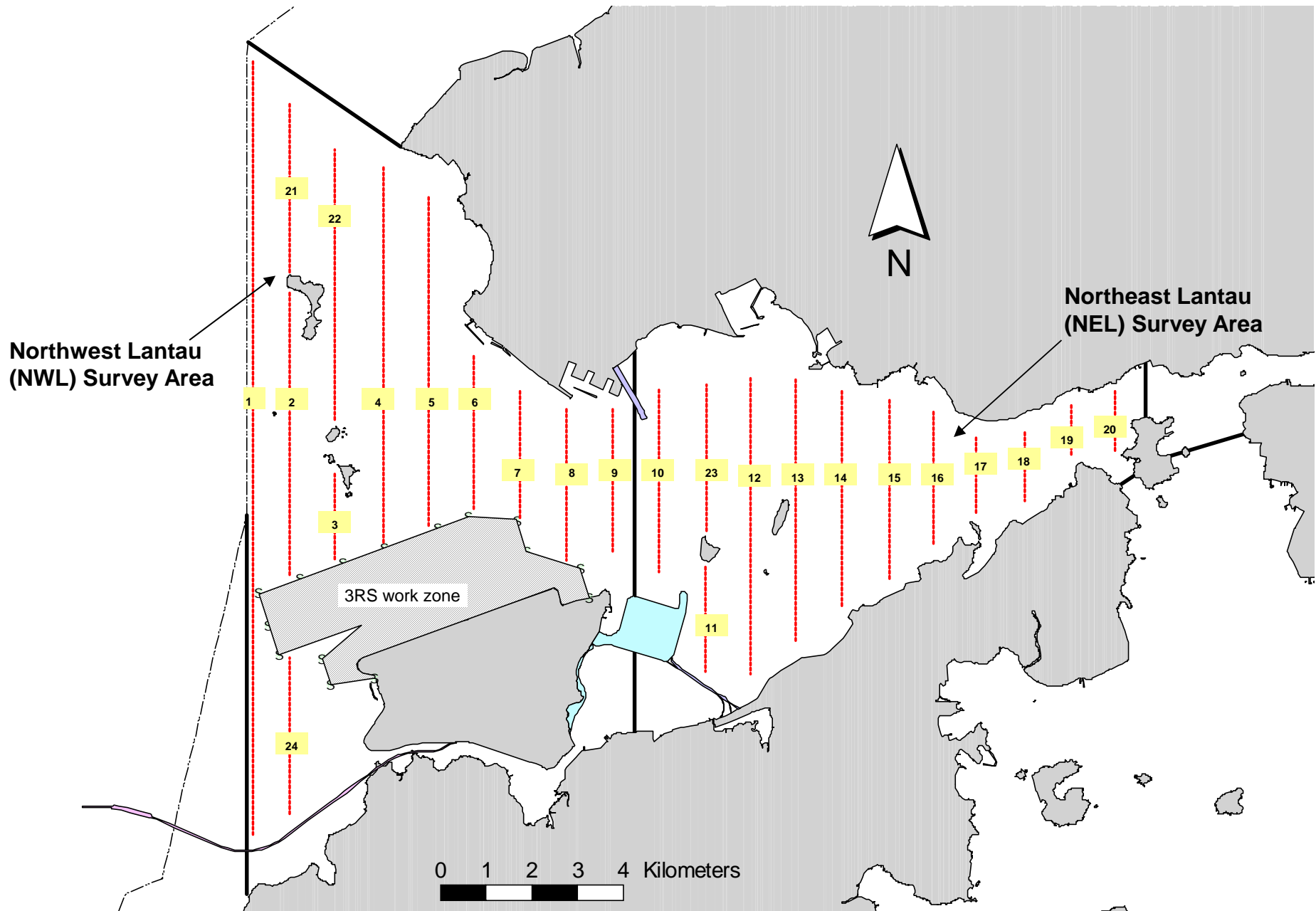


Figure 1. Transect Line Layout in Northwest and Northeast Lantau Survey Areas

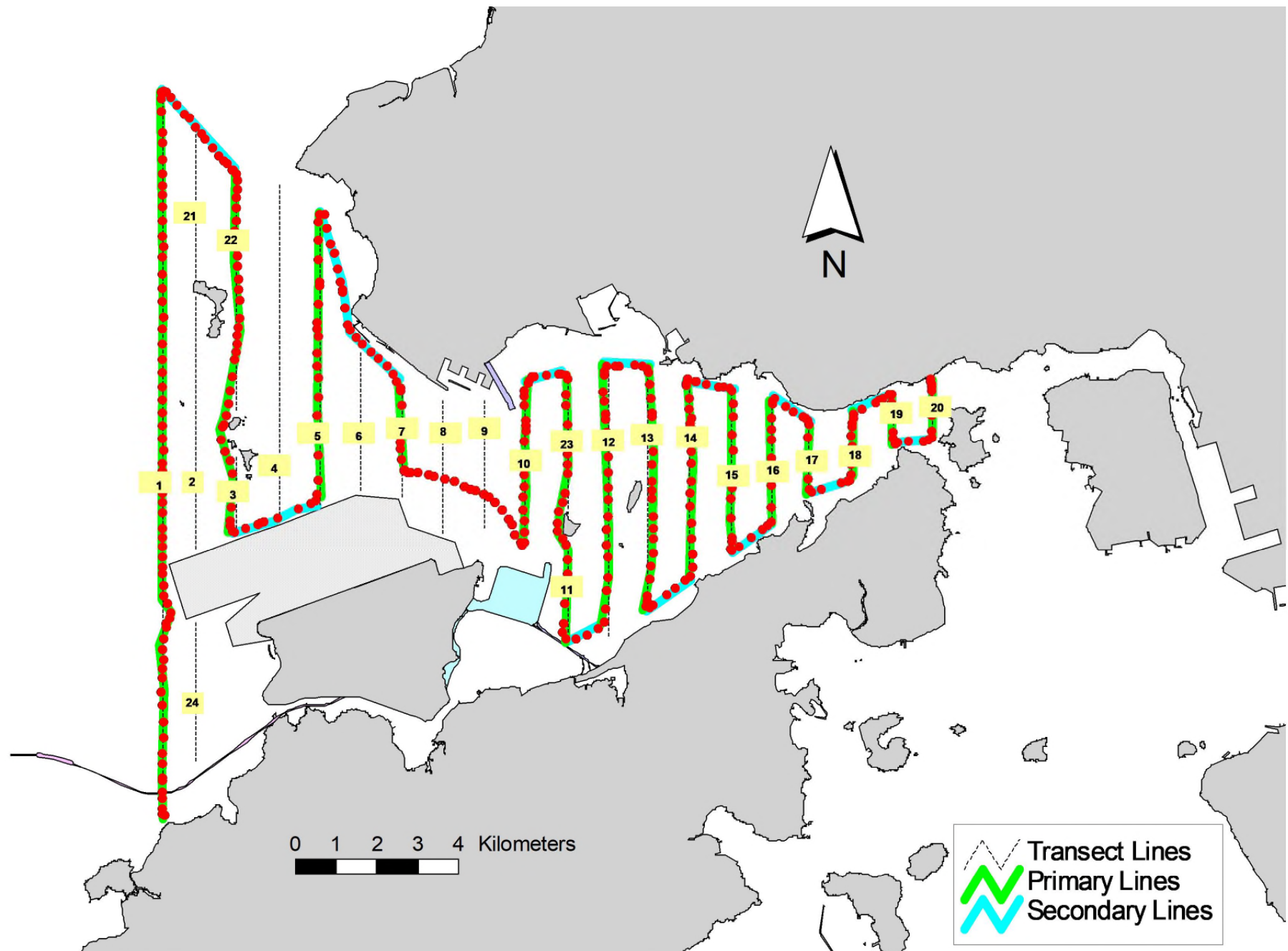


Figure 2. Survey Route on August 13th, 2019

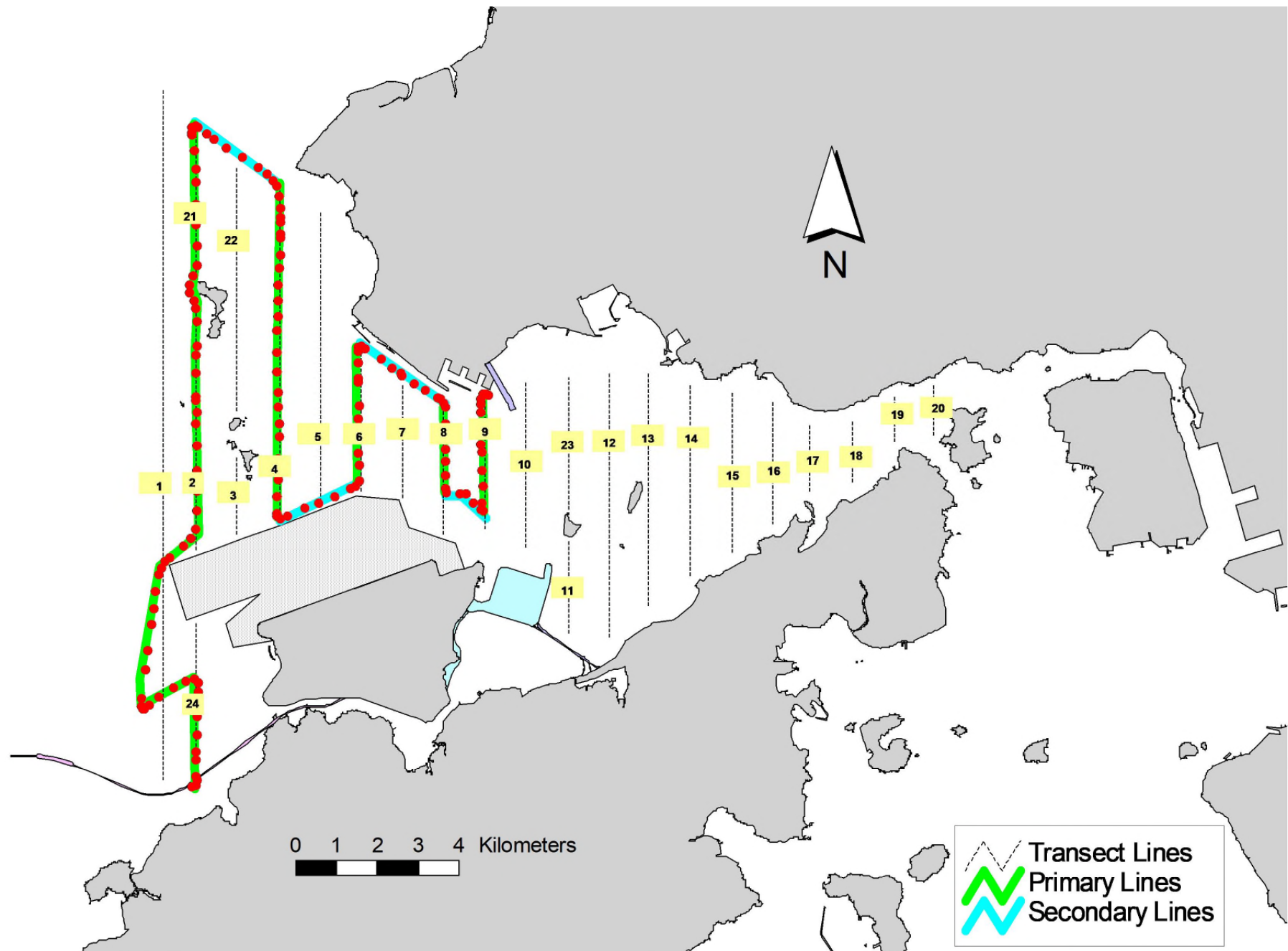


Figure 3. Survey Route on August 14th, 2019

Remark: There were some construction boats working on transect line no.24 during dolphin monitoring on 14 August 2019. As such, the northern end of transect line no. 24 cannot be travelled at all on 14 August 2019.

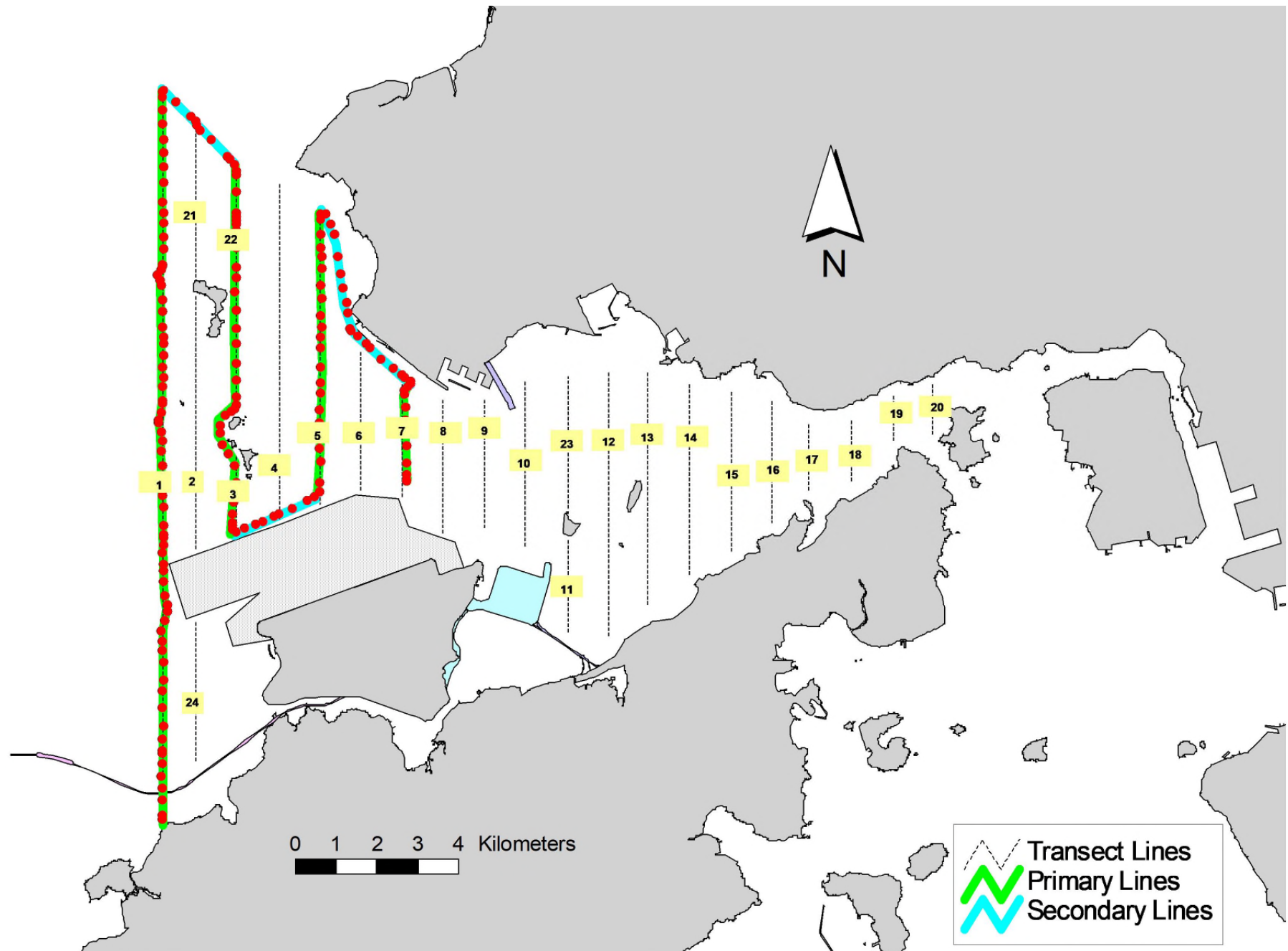


Figure 4. Survey Route on August 20th, 2019

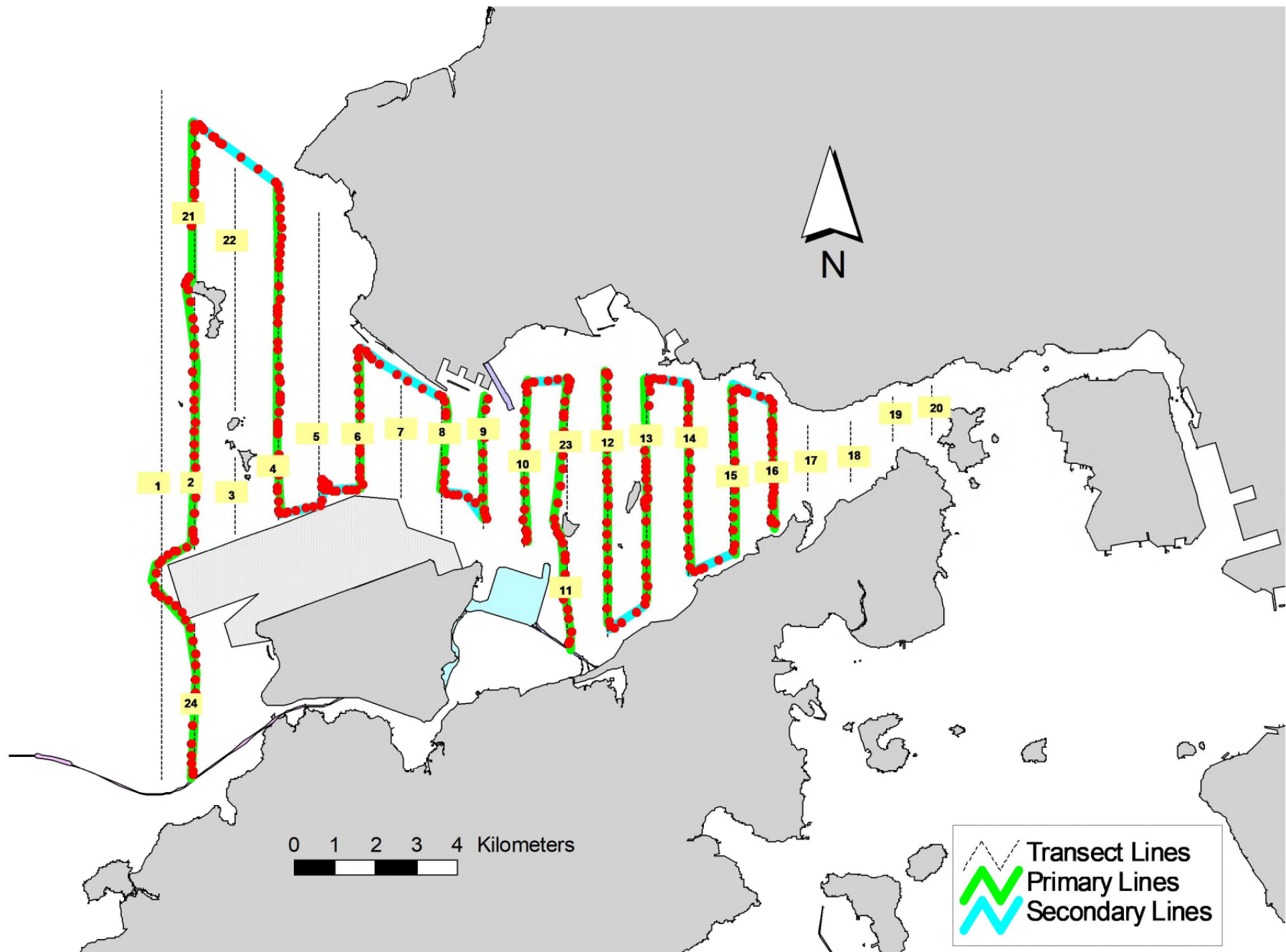


Figure 5. Survey Route on August 26th, 2019

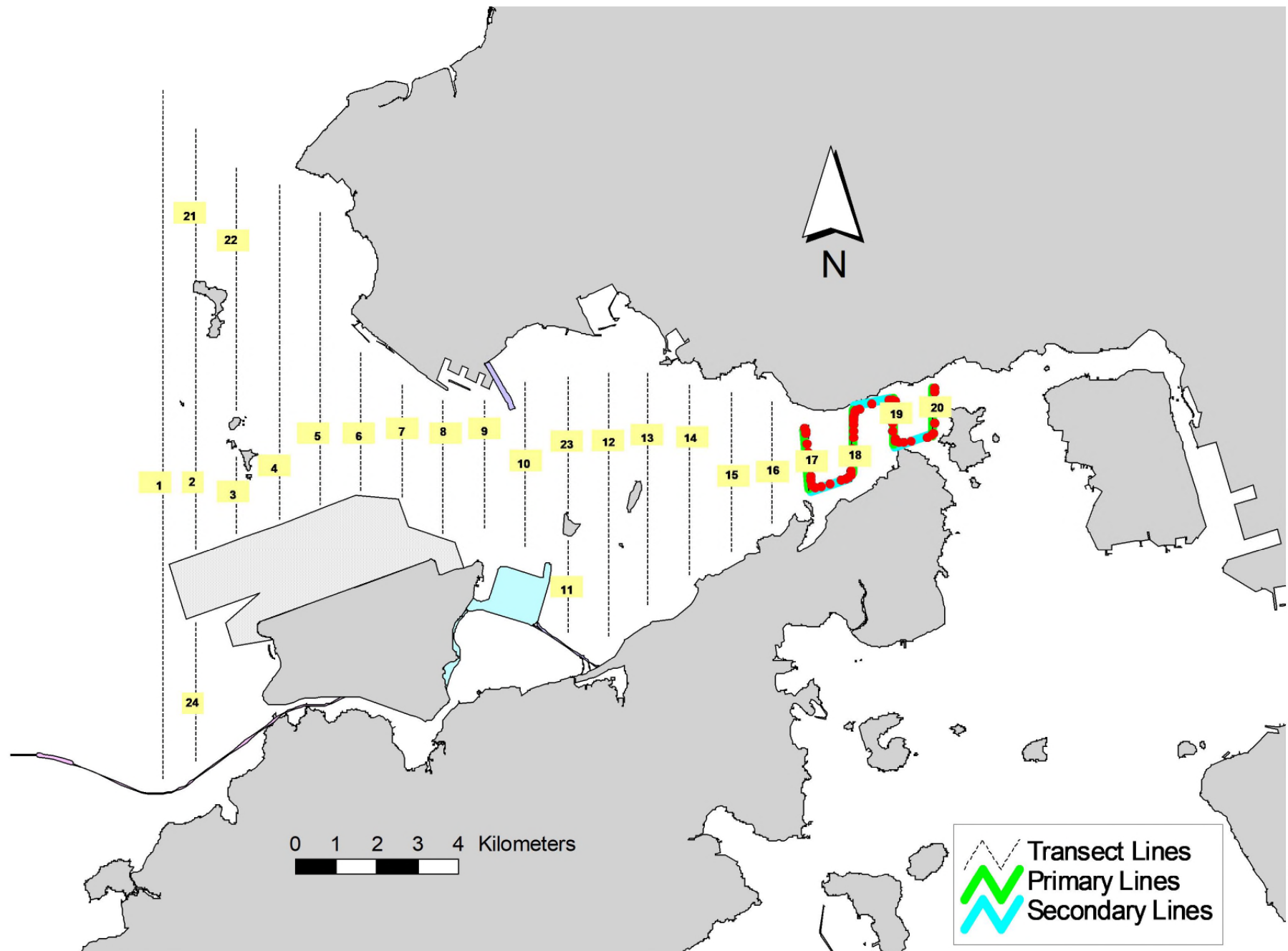


Figure 6. Survey Route on August 29th, 2019

Annex I. HKLR03 Survey Effort Database (August 2019)

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

| DATE | AREA | BEAU | EFFORT | SEASON | VESSEL | TYPE | P/S |
|-----------|-----------|------|--------|--------|----------------|------|-----|
| 13-Aug-19 | NE LANTAU | 2 | 34.82 | SUMMER | STANDARD36826 | HKLR | P |
| 13-Aug-19 | NE LANTAU | 3 | 2.90 | SUMMER | STANDARD36826 | HKLR | P |
| 13-Aug-19 | NE LANTAU | 2 | 9.78 | SUMMER | STANDARD36826 | HKLR | S |
| 13-Aug-19 | NE LANTAU | 3 | 1.90 | SUMMER | STANDARD36826 | HKLR | S |
| 13-Aug-19 | NW LANTAU | 2 | 0.84 | SUMMER | STANDARD36826 | HKLR | P |
| 13-Aug-19 | NW LANTAU | 3 | 24.00 | SUMMER | STANDARD36826 | HKLR | P |
| 13-Aug-19 | NW LANTAU | 4 | 7.90 | SUMMER | STANDARD36826 | HKLR | P |
| 13-Aug-19 | NW LANTAU | 2 | 0.90 | SUMMER | STANDARD36826 | HKLR | S |
| 13-Aug-19 | NW LANTAU | 3 | 8.66 | SUMMER | STANDARD36826 | HKLR | S |
| 13-Aug-19 | NW LANTAU | 4 | 1.40 | SUMMER | STANDARD36826 | HKLR | S |
| 14-Aug-19 | NW LANTAU | 2 | 27.12 | SUMMER | STANDARD36826 | HKLR | P |
| 14-Aug-19 | NW LANTAU | 2 | 14.88 | SUMMER | STANDARD36826 | HKLR | S |
| 20-Aug-19 | NW LANTAU | 2 | 27.37 | SUMMER | STANDARD36826 | HKLR | P |
| 20-Aug-19 | NW LANTAU | 3 | 5.80 | SUMMER | STANDARD36826 | HKLR | P |
| 20-Aug-19 | NW LANTAU | 2 | 11.23 | SUMMER | STANDARD36826 | HKLR | S |
| 26-Aug-19 | NW LANTAU | 2 | 17.21 | SUMMER | STANDARD138716 | HKLR | P |
| 26-Aug-19 | NW LANTAU | 3 | 11.36 | SUMMER | STANDARD138716 | HKLR | P |
| 26-Aug-19 | NW LANTAU | 2 | 6.10 | SUMMER | STANDARD138716 | HKLR | S |
| 26-Aug-19 | NW LANTAU | 3 | 4.13 | SUMMER | STANDARD138716 | HKLR | S |
| 26-Aug-19 | NE LANTAU | 1 | 4.21 | SUMMER | STANDARD138716 | HKLR | P |
| 26-Aug-19 | NE LANTAU | 2 | 26.68 | SUMMER | STANDARD138716 | HKLR | P |
| 26-Aug-19 | NE LANTAU | 3 | 0.27 | SUMMER | STANDARD138716 | HKLR | P |
| 26-Aug-19 | NE LANTAU | 1 | 1.10 | SUMMER | STANDARD138716 | HKLR | S |
| 26-Aug-19 | NE LANTAU | 2 | 4.11 | SUMMER | STANDARD138716 | HKLR | S |
| 26-Aug-19 | NE LANTAU | 3 | 0.97 | SUMMER | STANDARD138716 | HKLR | S |
| 29-Aug-19 | NE LANTAU | 2 | 2.61 | SUMMER | STANDARD36826 | HKLR | P |
| 29-Aug-19 | NE LANTAU | 3 | 2.42 | SUMMER | STANDARD36826 | HKLR | P |
| 29-Aug-19 | NE LANTAU | 2 | 1.90 | SUMMER | STANDARD36826 | HKLR | S |
| 29-Aug-19 | NE LANTAU | 3 | 0.96 | SUMMER | STANDARD36826 | HKLR | S |



APPENDIX I

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 ³) | (in '000m ³) | (in '000m ³) | (in '000m ³) | (in '000m ³) | (in '000m ³) | (in '000kg) | (in '000kg) | (in '000kg) | (in '000kg) | (in '000m ³) |
| 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 50,000m³
 - (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/m³; soil = 1.8 tonnes/m³; sand=1.9 tonnes/m³; Metal=7.85 tonnes/m³
 - (7) Numbers are rounded off to the nearest three decimal places
 - (8) 30T dump truck carries C&D waste of 8.0m³; 24T dump truck carries C&D waste of 6.5m³

APPENDIX J

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先生投訴渠涌排渠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 | - | <hzmbequy@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 | - | <hzmbequy@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"> Noise nuisance generated by diesel engine; Smell of exhaust pipe gas in his residence; and Suspected marine water pollution (see enclosed photo). 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"> 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; 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 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 Noise from Engines and Cranes of the Barges during Marine Operation <ul style="list-style-type: none"> Installation of noise covers onto the generators / motors on all working barges; Increase frequency of applying lubricant to all moving parts and gear wheels of the working barges to avoid generation of abnormal sound; and Review of working hours for the reclamation works and switching off all unnecessary machinery and plants at night time and Sundays. Noise from power generators <ul style="list-style-type: none"> All generators shall be either screened or covered by adequate sound reducing materials; 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 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. Exhaust Fume Emission <ul style="list-style-type: none"> Tight control on using the machine and generators in the vicinity of Le Bleu Deux estate; and Closely monitor the frequency on engine cleansing and replacement of dust filter. Change of Sea Water in Yellow <ul style="list-style-type: none"> The Contractor was reminded to move their vessels and barges at areas with adequate water depth as practically as possible. | 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"> power generator engines from the barges used for marine operation engine from the cranes use of the construction barges. engine from the boat used to transport staff in and out boats blowing their horn late in the evening and at night Gas emissions: <ul style="list-style-type: none"> power generators marine operation The complainant file again a complaint against the strong exhaust pipe emission flowing towards le Bleu Deux estate this afternoon 24/11/12 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 thought you have already sorted out that problem according to your multiple replies to my complaints since July???" 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. | WA6 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"> Installation of noise covers onto the generators / motors on all working barges; Increase frequency of applying lubricant to all moving parts and gear wheels of the working barges to avoid generation of abnormal sound; and Review of working hours for the reclamation works and switching off all unnecessary machinery and plants at nighttime and Sundays. | 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"> To ensure no loosed earth material exposed at the edges of eth stockpiled earth materials i.e. to prevent erosion by wind and water ; To cover the stockpiled earth material by adequate tarpaulin; To enhance the frequency of watering (3 times per day) onto existing haul road and other area as appropriate; and To install a water sprinkler system to enhance the existing dust suppression measures once the water point is ready for water supply by WSD. | 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 09:55). | 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 DCV JV 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. eptively 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-2014-085 | 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 noncompliance 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 dumped 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 provided 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 | - |
| 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 and 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 fast." | 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 | - |

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-2016-103 | 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 caused 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 | - |
| 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 "noise" (i.e. 28 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，另今早發現現處對海面受到一大灘污染（見相片），以上都應該是橋工程所造成的污染”。 "At around ten o'clock last night (i.e. 26 March 2017), there was intermittent very loud noise 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-RS016-17 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XX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時的隔泥網，確保其雙重設計是有效。" | 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 EN&A Manual through undertaking monthly measurement on the overlapping and separation openings for vessels access for prompt rectification. | 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-2016-095(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) | <p>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 afresaid 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.</p> <p>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 CAD 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.</p> <p>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:</p> <ul style="list-style-type: none"> - 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 | - |
| COM-2016-095(4) | 15-Aug-17 | Nil | HyD | Environmental (Noise) | HyD received a complaint concerning the rock breaking works near CNAC Buildings, as described below: "I am writing to let you know re-captioned works interrupted seriously our staff daily office works. Understand the rock encountered was much stronger than the original expected, the rock breaking works near CNAC Tower has been never ending. Recently a bulldozer is working nearby and no noise barriers/sound proofs were set up. Please take corrective action asap. Kindly advise us when this bulldozing work is scheduled to complete." | Near Dragonair / CNAC (Group) Building (HKIA) | <p>The major rock breaking works near CNAC Tower were substantially completed on 31 May 2017. However, survey record revealed that minor rock breaking/trimming work was required at the formation level for the construction of box culvert no. PR14. Hence, the Contractor used a hydraulic breaker for minor rock breaking/trimming work in the afternoon on 15 August 2017. According to the photos provided by the complainant, movable noise barriers were not located near the noise source (rock breaking/trimming work). As such, noise generated by rock breaking/trimming work was not efficiently screened by the noise barriers. According to the Contractor's records and the photos provided by the complainant, no bulldozer was used at PR14 on 15 August 2017. In addition, no bulldozing work is scheduled at PR14 in near future.</p> <p>ET conducted an investigation on 16 August 2017. The minor rock breaking/ rock trimming work was completed. Only one excavator was operating for forming the haul road at the concerned location. No significant noisy activity was observed during the investigation on 16 August 2017. Also, bulldozer was not observed on the site.</p> <p>Based on our investigation result, it was likely that concerned noise emission was due to the minor rock breaking/ trimming works by the hydraulic breaker. It is considered that the complaint is likely related to Contract No. HY/2011/03. According to Contractor's information, no substantial rock breaking works will be conducted at near CNAC Tower. Only minor rock breaking/ trimming work may be occasionally conducted at the concerned work area. The Contractor has been recommended to implement the following measures to minimize the potential noise impact when minor rock breaking/trimming work to be conducted:</p> <ul style="list-style-type: none"> - Schedule noisy work (i.e. rock breaking) during non-office hours as far as practicable subject to actual site progress; - Cover the breaker tip with acoustic material; - Locate noise barriers as close as possible to the noise source. Also, gaps and openings at joints in the barriers material should be minimized; - Regular review of working duration and switch off all unnecessary machinery and plant; - Speed up of construction works in order to shorten the duration noise impact/nuisance to the surrounding; and - Minimize the quantities of noisy plant as far as practicable. | Closed | - |
| COM-2017-122 | 03-Oct-17 | Nil | 1823 Integrated Call Centre received a complaint lodged by a member of the public on 30 September 2017. SOR referred the complaint details from 1823 - HyD to ET on 3 Oct 2017 | Environmental (Other: Cleanliness problem at Tung Fai Road) | 1823 Integrated Call Centre received a complaint lodged by a member of the public regarding cleanliness problem at Tung Fai Road, as described below: "投訴大嶼山赤鱗角東環路11號雅龍大廈對出，巴士站附近，最近珠澳大橋地盤其中一個出入口，經常有大量重型工程車輛進出地盤。每逢有巴士或重型車輛經過時，路面沙塵揚起引起"沙塵暴"，等候巴士的乘客便遭殃。以前有灑水車噴水減低沙塵，現在灑水車都沒有出現。要求部門改善沙塵問題。" | S16 | <p>During the ET's inspection on 3 October 2017, it was observed that the Contractor did provide wheel washing facility with high pressure jets at the site access S16 at 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 also observed that the Contractor did provide water bower to thoroughly clean Tung Fai Road. No mud was observed at the section of Tung Fai Road leading to the site access S16 of Contract No. HY/2011/03. Another inspection was conducted on 12 October 2017, the section of the road between the wheel washing facility and the site access S16 was hard paved and no mud/silt was observed at the concerned road section and the site access S16.</p> <p>Although Contract No. HY/2011/03 is the only construction site connecting to the Tung Fai Road and the mentioned bus stop, wheel washing facility with high pressure jets is provided at the site access S16 to wash and clean all vehicles before allowing them to leave the construction site. No mud or debris would be brought to the public area. Therefore, there is no direct evidence showing that the complaint is related to Contract No. HY/2011/03. Nevertheless, in order to enhance dust suppression measures, the Contractor will increase the frequency of road cleaning by water bower from three times per day to four times per day, subject to regular review with relevant stakeholders in the vicinity.</p> | Closed | - |
| COM-2017-129 | 08-Jan-18 | Nil | ENPO's email to the Supervising Officer's Representative and Contractor on 8 January 2018 that HyD received a complaint lodged by a member of the public regarding cleanliness problem at East Coast Road on 29 December 2017 | Environmental (Other: Cleanliness problem at East Coast Road) | HyD received a complaint lodged by a member of the public regarding cleanliness problem at East Coast Road on 29 December 2017. The complaint details are described below: "投訴人投訴於大嶼山東岸路，因港珠澳大橋工程的沙塵問題，部門安排了有關洗街車及吸塵車處理有關沙塵問題，但有關車輛上述問題的處理成效未如理想。投訴人表示洗街車在清洗有關路面時，只是向路面灑水，令原本的沙塵變成泥漿，但卻沒有清理有關泥漿，道路問題根本沒有根治。另外，有關吸塵車的掃帚亦未如理想，吸塵車吸了地上的沙塵後所噴出來的氣體佈滿沙塵，以致有關沙塵除了未被吸走外，更導致道路沙塵滾滾。要求部門監察有關車輛，填請部門跟進及回覆。" | East Coast Road | <p>Based on our investigation result, there is no direct evidence showing that the complaint is related to Contract No. HY/2011/03. The Contractor has been reminded to implement the following measures to minimize dust impact/ improve cleanliness at East Coast Road:</p> <ul style="list-style-type: none"> - display notice at site access to remind drivers to wash the wheels thoroughly before leaving the site. - manual control by rope stopping vehicles entering public road without wheel washing. - provide training for drivers to ensure that they can use water truck and road sweeper properly for road washing. - close monitor on the proper functioning of the road sweeper and water truck and provide maintenance to water truck and road sweeper if necessary. - implement environmental mitigation measures in accordance with Environmental Mitigation Implementation Schedule as per the EM&A Manual. <p>ET will also step up the site inspections to ensure the cleanliness of the concerned section of East Coast Road is properly maintained.</p> | 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-2018-132 | 13, 14 February 2018 | Nil | HyD (SOR referred the email from HyD to Contractor and ET) and EPD (ENPO referred the email from EPD to SOR. SOR sent the email to Contractor and ET) | Dust, Water Quality, Construction Waste, Noise and vibration | The complaint was received from the SOR's email on 13 February 2018 with the following details: <i>"We have witnessed increased construction activities causing concerns such as nuisance, air and water pollution, construction waste landfill which may cause health and safety to the surroundings.</i> <i>Nuisance – construction noise and vibration</i> <i>Air and Water Pollution – poor dust control causing air pollution</i> <i>Construction Waste Landfill Hill – increased height, size and degree of the slope of the construction waste landfill</i> <i>Moreover, we are particularly concerned with the stability of the construction waste landfill hill, and has grown taller and larger in size with steep slopes which may cause potential danger and hazardous to the surrounding area.</i> <i>It is appreciated that if you can investigate on the issue, and rectify the situation to a safe and healthy condition. Please confirm when and how the rectification will be completed."</i> <p>Another complaint to EPD was received from the SOR's email on 14 February 2018. The complaint was the same as the abovementioned with two figures showing the location of Dragonair & CNAC (Group) Building and Cathay Dragon House.</p> | Near Dragonair / CNAC (Group) Building (HKIA) | Based on our investigation result, the complaint was related to Contract No. HY/2011/03. The Contractor has implemented Environmental Mitigation Implementation Schedule as per the EM&A Manual. Also, the Contractor was reminded to remove the concerned stockpile of the fill materials as soon as possible to minimize the potential nuisance caused to the nearby sensitive receivers. | Closed | - |
| Follow-ups of Complaint No COM-2018-132 | 16 March 2018 and 21 March 2018 | Nil | HyD (SOR referred the email from HyD to the Contractor and ET) and EPD (ENPO referred the email from EPD to SOR, who sent the email to the Contractor and ET) | Dust and Construction Waste. | The complaint of 16 March 2018 was addressed to HyD and its details were as follows: "1) It was observed from daily photos that: a. Inadequate dust suppression measures implemented. b. Green tarp does not cover the entire pile of the waste land fill. c. Dry soil constantly being observed, and constantly picked-up by strong gusty winds within CLK area. d. Large boulders and steep slopes on waste landfill, with inadequate safety measures implemented. 2) It was noted that the open stockpile of construction waste landfill will be removed by the end of March 2018. Please confirm the date of completion of the removal of the stockpile. 3) Please advise if the slope and setting of the piles of earth complies within Building and other relevant Regulations. 4) The works on the site should be within a valid gazetted period, please confirm if the works are within a valid gazetted period, within CLK Lot No1 Land lease or otherwise." <p>The complaint of 21 March 2018 was addressed to EPD and its details were as follows: "Re: Large construction landfill waste outside Cathay Dragon House, CLK, We refer to your letter ref: [EP3/N09/RS00004678-18] dated 09 March 2018, would like to further draw your attention to the open stockpile of construction waste landfill, and the enclosed daily photo. We have continued to observe the following: - Inadequate dust suppression measures implemented. o Green tarp does not cover the whole of the waste landfill. o Dry soil constantly observed, and constantly picked-up strong gusty winds within CLK area. - Large boulders and steep slopes on waste landfill, with inadequate safety measures implemented. - Poor housekeeping of the construction site. Furthermore, we would like to raise the query regarding the validity period for the occupation of the site under the current gazette. It is appreciated that if you can continue to investigate on the issue, provide close monitoring of the situation, and request the contractor to rectify to a safe and healthy condition."</p> | Near Dragonair / CNAC (Group) Building (HKIA) | Based on our investigation result, the complaint was related to Contract No. HY/2011/03. It was noted that no Action and Limit Level exceedances of 1-hr and 24-hr TSP were recorded at air monitoring station AMS6 - Dragonair Building during the period from 1 February 2018 to 30 April 2018. Part of the stockpile was observed dry during ET's site inspection on 27 March 2018. Proper watering on the stockpiles was observed undertaken afterwards. The Contractor has been continuously reminded to properly implement Environmental Mitigation Measures as per the EM&A Manual. The Contractor was also reminded to remove the concerned stockpile of the fill materials as soon as possible to minimize the potential nuisance caused to the nearby sensitive receivers. | Closed | - |
| COM-2018-142 | 29 June 2018 & 6 July 2018 | Nil | EPD (ENPO referred the email to SOR, Contractor and ET) | Noise | The complaint of 29 June 2018 was received from EPD and its details were as follows:- <p>EPD have recently received a complaint regarding frequent noise from construction works next to Cathay Dragon House, facing Tung Chung direction. The complaint details are described as below: <i>"We would like to raise your attention and forward a complaint regarding frequent noise from construction works next to our Cathay Dragon House, facing Tung Chung direction.</i> <i>From the video link below, it seems like the noise is mainly from the breaking of rocks using powered mechanical equipment.</i> https://www.dropbox.com/s/634f2p3op39s9v/IMG_3137.MOV?dl=0 <i>Our colleagues at Cathay Dragon House has complain that such disturbance has been going on for a week and works are carried out throughout the whole day.</i> <i>Please advise whether:</i></p> <ol style="list-style-type: none"> Such noisy works have been carried out with EPD or Highways' "Approved Permit"; The noise level have been limited by your permit; Any regular monitoring works or report have been sent to your department. When will the work/noise stops; <p>Furthermore, 5. Mr Lai mentioned in your previous email 18 April 2018 that the works should have completed end April 2018. Why is the works still going on? 6. Mr Lo mentioned in the letter dated 11 April 2018, you would conduct site inspections. Have you noticed any non-compliance? Your prompt response is appreciated."</p> | Near Dragonair / CNAC (Group) Building (HKIA) | Based on our investigation result, the complaint was related to Contract No. HY/2011/03. The Contractor has implemented Environmental Mitigation Implementation Schedule as per the EM&A Manual, such as cover the breaker tip with muffler, minimize the quantities of noisy plant as far as practicable. Although the rock breaking works outside the Cathay Dragon House/ Dragonair & CNAC (Group) Building were completed on 9 July 2018, the Contractor has been continuously reminded to properly implement Environmental Mitigation Measures as per the EM&A Manual to minimize the potential noise nuisance caused to the public surrounding. | 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 |
|---------------|---------------|---------------|--|--|---|--|--|--------|---------|
| | | | | | <p>"A further complaint was received on 6 July 2018 from EPD and its details were as follows:-</p> <p>"Further to our previous complaints which are in vain, we would like to continue to put forward the complaint against the noise from the construction works next to Cathay Dragon House at CLK, which has never been ceased and been causing great disturbance to the accommodations (aviation control centre) and staff within our Cathay Dragon building and CNAC tower.</p> <p>Below is the time schedule our staff regarding the noise disturbance from the site which is frequent and continuous.</p> <p>Date Time 3 July 2018 8:30am – 11:30am, 1:30pm – 5:30pm 4 July 2018 8:30am – 11:30am, 1:30pm – 5:30pm 5 July 2018 8:30am – 11:30am, 1:30pm – 5:30pm</p> <p>Please advise what has been your action upon this matter. This has been intolerable for months. If there is nothing that your depts., can impose to stop the disturbance, we may need to seek other alternative complain channel.</p> <p>Your immediate action on this matter is highly appreciated."</p> <p>"We would like to get your urgent attention to the noise nuisance matters that is occurring outside Cathay Dragon House (facing seaside Tung Chung). There have been extreme noisy works conducted, without proper noise mitigation matter, with noise DB levels reaching 70-100dB, and is seriously affecting our company operations.</p> <p>Please urgently attend to the matter and advise further on the email below, and implement the proper noise reducing and mitigation procedures.</p> <p>Lastly, we also understand the works should have been completed. Therefore, why are there still construction site works going on?"</p> | | | | |
| COM-2018-158 | 24-Dec-18 | 10:17 AM | HyD (SOR referred the email from HyD to Contractor, ET and IEC/ENPO on 10:17 am, on 24 Dec 2018) | Other: Construction work on Sunday Morning | <p>The details of the complaint were as follows:</p> <p>Email received by HyD on 23 December 2018 at 10:49hrs "How come someone is doing some construction work on sunday morning (23/12/18, 10:30am)??? Looks like your christmas holidays i going to turn into an investigation holiday!!! Looking forwards to hearing from you? I am sure David will be more than happy to assist your investigation over the holidays!!"</p> <p>Email received by HyD on 23 December 2018 at 11:11hrs "by the way have you issue a "permit to annoy people" based on merit to operate a crane this sunday? If not I am looking forwards to know the action you will take. Don't esitate to contact Chief Lam he will surely be very happy to provide any assistance you need to find out who is the rogue employee working under him so you can take the necessary legal action."</p> | N.A. | Based on our investigation result, the concerned work activity complied with the valid CNP. 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. | Closed | - |
| N/A | 03-Apr-19 | Nil | EPD (ENPO referred the email from EPD to HyD, SOR, Contractor and ET) through email | Dust | <p>Email received by EPD on 3 April 2019 ""投訴人表示海墘堤畔對面有港珠澳大橋的地盤正進行工程，工程期間會揚起大量塵土，引起污染，影響海墘堤畔居民，要求部門跟進事宜。"</p> | N.A. | Based on our investigation result, there is no observation of dust emissions arising from the Contract No. HY/2011/03. The Contractor has implemented the Environmental Mitigation Implementation Schedule as per the EM&A Manual, the Contractor has been reminded to strictly maintain the dust mitigation measures during carrying out of their construction works to minimize the dust nuisances to nearby sensitive receivers. | Closed | - |
| COM-2019-163 | 30-Apr-19 | Nil | SOR referred details of complaint to Contractor, ET and IEC/ENPO through email | Waste | <p>The details of the complaint were as follows:- "rubbish and refuse pile up by the road near a bus stop breeding numerous flies and pests. huge annoyance and hygiene problem to the public. pls clean up."</p> | Near Dragonair/ CNAC (Group) Building (HKIA) | Based on our investigation result, there was no observation of works in the area of complaint on issue of general refuse arising from the Contract No. HY/2011/03. The Contractor has implemented the Environmental Mitigation Implementation Schedule as per the EM&A Manual, the Contractor has been reminded to strictly maintain waste management procedures during their construction works to avoid the hygiene impacts to nearby sensitive receivers. | Closed | - |



APPENDIX K

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 | 02.08.2017 | Site Office for China States (WA6) | Application Ref. No. 419562 Water Discharge License WT00029546-2017 was granted on 13 Nov 2017 | Valid until 30 Sept 2022 |
| 3 | 04.01.2018 | WA 3 | Application Ref No.356237 Water Discharge License Ref. WT00030320-2018 was granted on 22 Feb 2018 | Valid until 31/03/2023 |
| 4 | 15.01.2013 | WA 4 | Application Ref No. 356240 Water Discharge License Ref. WT00016158-2013 was surrendered on 24 May 2018 | N/A |
| 5 | 04.01.2018 | Airport Road (Southern) | Application Ref No. EP/RS/0000354266 Water discharge license Ref. WT00032071-2018 was granted on 23 Oct 2018. | Valid until 30/04/2023 |
| 6 | 04.01.2018 | Airport Road (Northern) | Application Ref No. EP/RS/0000354018 Water discharge license Ref. WT00031778-2018 was granted on 23 Oct 2018. | Valid until 30/04/2023 |
| 7 | 10.03.2017 | WA7 | Application Ref. No. 414487 Water Discharge License Ref. WT00027958-2017 was surrendered on 01 Feb 2018 | N/A |

Construction Noise Permit

| Item No. | Date Application Submitted | Works Area Applied | Description | Status | CNP No. | Validity of CNP | |
|----------|----------------------------|--------------------|--------------------------------------|-----------------------------|--------------|--------------------|--------------------|
| | | | | | | From | To |
| 1 | 19.03.2019 | WA3 | Stockpiling/ wastewater treatment | CNP issued on 02.04.2019 | GW-RS0284-19 | 05.04.2019 0000 | 03.10.2019 2400 |
| 3 | 30.04.2019 | All Works Area | All Works | CNP issued on 14.05.2019 | GW-RS0409-19 | 20.05.2019 0000 | 19.11.2019 2400 |

APPENDIX L

Implementation Schedule of Environmental Mitigation Measures

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 |
|--------------------|---------------|--|--|--------------------------------|--------------------------|---------------------------------|-----------------------|
| Air Quality | | | | | | | |
| 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 | √ |
| S5.5.6.2 | A2 | 2) Proper watering of exposed spoil should be undertaken throughout the construction phase: <ul style="list-style-type: none"> 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; Any dusty materials remaining after a stockpile is removed should be wetted with water and cleared from the surface of roads; A stockpile of dusty material should not be extended beyond the pedestrian barriers, fencing or traffic cones. 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; 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; | 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 | √ |
| S5.5.6.2 | A2 | <ul style="list-style-type: none"> 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; Any skip hoist for material transport should be totally enclosed by impervious sheeting; | 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 | √ |

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 |
|----------|---------------|---|--|--------------------------------|--------------------------|---------------------------------|-----------------------|
| S5.5.6.2 | A2 | <ul style="list-style-type: none"> • 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; • 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; • 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; • 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; • 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; | 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 | √ |
| S5.5.6.2 | A2 | <ul style="list-style-type: none"> • 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; • 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 • 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. | 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 | √ |

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 |
|----------|---------------|---|--|--------------------------------|---|---------------------------------|-----------------------|
| 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"> • Loading, unloading, handling, transfer or storage of any dusty materials should be carried out in totally enclosed system; • 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; • Vents for all silos and cement/ pulverised fuel ash (PFA) weighing scale should be fitted with fabric filtering system; • The materials which may generate airborne dusty emissions should be wetted by water spray system; • All receiving hoppers should be enclosed on three sides up to 3m above unloading point; • All conveyor transfer points should be totally enclosed; • All access and route roads within the premises should be paved and wetted; and • 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. | 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 | √ |

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 |
|--------------|---------------|---|---|--------------------------------|--------------------------|---------------------------------|-----------------------|
| 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"> All road surface within the barging facilities will be paved; Dust enclosures will be provided for the loading ramp; Vehicles will be required to pass through designated wheels wash facilities; and Continuous water spray at the loading points. | Control construction dust | Contractor | All construction sites | Construction stage | √ |
| Noise | | | | | | | |
| 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"> only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme; 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; plant known to emit noise strongly in one direction, where possible, be orientated so that the noise is directed away from nearby NSRs; silencers or mufflers on construction equipment should be properly fitted and maintained during the construction works mobile plant should be sited as far away from NSRs as possible and practicable; material stockpiles, mobile container site officer and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities. | Control construction airborne noise by means of good site practices | Contractor | All construction sites | Construction stage | √ |

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 |
|--|---------------|---|---|--------------------------------|---|---------------------------------|-----------------------|
| 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 ²), 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 | √ |
| Waste Management (Construction waste) | | | | | | | |
| 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"> Maintain temporary stockpiles and reuse excavated fill material for backfilling and reinstatement; Carry out on-site sorting; Make provisions in the Contract documents to allow and promote the use of recycled aggregates where appropriate; Adopt 'Selective Demolition' technique to demolish the existing structures and facilities with a view to recovering broken concrete effectively for recycling purpose, where possible; | 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 | √ |

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 |
|------------------|---------------|--|---|--------------------------------|--------------------------|---------------------------------|-----------------------|
| | | <ul style="list-style-type: none"> Implement a trip-ticket system for each works contract to ensure that the disposal of C&D materials are properly documented and verified; and 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&D materials and to minimize their generation during the course of construction. In addition, disposal of the C&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. | | | | | |
| S8.3.9 - S8.3.11 | WM2 | <p><u>C&D Waste</u></p> <ul style="list-style-type: none"> Standard formwork or pre-fabrication should be used as far as practicable in order to minimise the arising of C&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. The Contractor should recycle as much of the C&D materials as possible on-site. Public fill and C&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. | 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 | √ |

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 |
|-----------------|---------------|--|--|--------------------------------|--------------------------|---------------------------------|-----------------------|
| S8.2.12-S8.3.15 | WM3 | <p>Chemical Waste</p> <ul style="list-style-type: none"> • 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. • 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. • 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. • 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. | Control the chemical waste and ensure proper storage, handling and disposal. | Contractor | All construction sites | Construction stage | P |

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 |
|----------|---------------|--|--|--------------------------------|--------------------------|---------------------------------|-----------------------|
| S8.3.16 | WM4 | <p><u>Sewage</u></p> <ul style="list-style-type: none"> 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. | 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"> General refuse generated on-site should be stored in enclosed bins or compaction units separately from construction and chemical wastes. 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. 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. 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. Training should be provided to workers about the concepts of site cleanliness and appropriate waste management procedure, including reduction, reuse and recycling of wastes. | Minimize production of the general refuse and avoid odour, pest and litter impacts | Contractor | All construction sites | Construction stage | P |

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 |
|---|---------------|---|---|--------------------------------|--------------------------|---------------------------------|-----------------------|
| Water quality (Construction Phase) | | | | | | | |
| S9.11.1-S9.11.1.2 | W1 | <ul style="list-style-type: none"> 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&A Manual. 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"> - TMCLKL northern reclamation; -TMCLKL southern reclamation (after formation of the nips); - Reclamation filling for Portion 1 of HKLR. | 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"> Single layer silt curtains will be applied around all works; Silt curtain shall be fully maintained throughout the works. | To control construction water quality | Contractor | During seawall filling | Construction stage | √ |

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 |
|-----------------------|---------------|--|---|--------------------------------|--------------------------|---------------------------------|-----------------------|
| S9.11.1- S9.11.1.2 | W1 | <ul style="list-style-type: none"> Mechanical grabs shall be designed and maintained to avoid spillage and should seal tightly while being lifted; barges shall have tight fitting seals to their bottom openings to prevent leakage of material; any pipe leakages shall be repaired quickly. Plant should not be operated with leaking pipes; loading of barges shall be controlled to prevent splashing of filling materials to the surrounding water. barges shall not be filled to a level which will cause overflow of materials or pollution of water during loading or transportation; adequate freeboard shall be maintained on barges to reduce the likelihood of decks being washed by wave action; 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 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. | To control construction water quality | Contractor | During seawall filling | Construction stage | √ |
| S9.11.1.3 | W2 | <p><u>Land Works</u></p> <p>General construction activities on land should also be governed by standard good working practice. Specific measures to be written into the works contracts should include:</p> <ul style="list-style-type: none"> wastewater from temporary site facilities should be controlled to prevent direct discharge to surface or marine waters; | To control construction water quality | Contractor | During seawall filling | Construction stage | √ |

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 |
|-----------|---------------|---|---|--------------------------------|--------------------------|---------------------------------|-----------------------|
| S9.11.1.3 | W2 | <ul style="list-style-type: none"> • sewage effluent and discharges from on-site kitchen facilities shall be directed to Government sewer in accordance with the requirements of the WPCO or collected for disposal offsite. The use of soakaways shall be avoided; • storm drainage shall be directed to storm drains via adequately designed sand/silt removal facilities such as sand traps, silt traps and sediment basins. Channels, earth bunds or sand bag barriers should be provided on site to properly direct stormwater to such silt removal facilities. Catchpits and perimeter channels should be constructed in advance of site formation works and earthworks; • silt removal facilities, channels and manholes shall be maintained and any deposited silt and grit shall be removed regularly, including specifically at the onset of and after each rainstorm; • temporary access roads should be surfaced with crushed stone or gravel; • rainwater pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities; • measures should be taken to prevent the washout of construction materials, soil, silt or debris into any drainage system; • open stockpiles of construction materials (e.g. aggregates and sand) on site should be covered with tarpaulin or similar fabric during rainstorms; • manholes (including any newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers; • discharges of surface run-off into foul sewers must always be prevented in order not to unduly overload the foul sewerage system; | To control construction water quality | Contractor | During seawall filling | Construction stage | √ |

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 |
|-----------|---------------|---|---|--------------------------------|-----------------------------------|---------------------------------|-----------------------|
| S9.11.1.3 | W2 | <ul style="list-style-type: none"> all vehicles and plant should be cleaned before they leave the construction site to ensure that no earth, mud or debris is deposited by them on roads. A wheel washing bay should be provided at every site exit; wheel wash overflow shall be directed to silt removal facilities before being discharged to the storm drain; the section of construction road between the wheel washing bay and the public road should be surfaced with crushed stone or coarse gravel; wastewater generated from concreting, plastering, internal decoration, cleaning work and other similar activities, shall be screened to remove large objects; vehicle and plant servicing areas, vehicle wash bays and lubrication facilities shall be located under roofed areas. The drainage in these covered areas shall be connected to foul sewers via a petrol interceptor in accordance with the requirements of the WPCO or collected for off site disposal; the contractors shall prepare an oil / chemical cleanup plan and ensure that leakages or spillages are contained and cleaned up immediately; waste oil should be collected and stored for recycling or disposal, in accordance with the Waste Disposal Ordinance; all fuel tanks and chemical storage areas should be provided with locks and be sited on sealed areas. The storage areas should be surrounded by bunds with a capacity equal to 110% of the storage capacity of the largest tank; and surface run-off from bunded areas should pass through oil/ grease traps prior to discharge to the stormwater system. | To control construction water quality | Contractor | During seawall filling | Construction stage | √ |
| S9.14 | W3 | <ul style="list-style-type: none"> Implement a water quality monitoring programme | Control water quality | Contractor | At identified monitoring location | During construction | √ |

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 |
|-------------------------------------|---------------|--|--|--------------------------------|---------------------------|---------------------------------|-----------------------|
| Ecology (Construction Phase) | | | | | | | |
| S10.7 | E1 | <ul style="list-style-type: none"> Good site practices to avoid runoff entering woodland habitats in Scenic Hill; Reinstate works areas in Scenic Hill; Avoid stream modification in Scenic Hill. | 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"> Install silt curtain during the construction; Construct seawall prior to reclamation filling where practicable; Good site practices; Site runoff control; Spill response plan. | Minimise marine water quality impacts | Contractor | Seawall, reclamation area | During construction | √ |
| S10.7 | E4 | <ul style="list-style-type: none"> 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. | Prevent Sedimentation from Land-based works areas | Contractor | Land-based works areas | During construction | √ |
| S10.7 | E5 | <ul style="list-style-type: none"> Good site practices, including strictly following the permitted works hours, using quieter machines where practicable, and avoiding excessive lightings during night time. | Prevent disturbance to terrestrial fauna and habitats | Contractor | Land-based works areas | During construction | √ |
| S10.7 | E6 | <ul style="list-style-type: none"> Dolphin Exclusion Zone; Dolphin watching plan. | Minimize temporary marine habitat loss impact to dolphins | Contractor | Marine works | During marine works | √ |
| S10.7 | E7 | <ul style="list-style-type: none"> Decouple compressors and other equipment on working vessels; Avoidance of percussive piling; Marine underwater noise monitoring; Temporal suspension of drilling bored pile casing in rock during peak dolphin calving season in May and June; Handling with care for the installation of sheet piling for reclamation site. | Minimize temporary marine habitat loss impact to dolphins | Contractor | Marine works | During marine works | √ |

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 |
|----------------------------------|---------------|--|---|--------------------------------|---|--|-----------------------|
| S10.7 | E8 | <ul style="list-style-type: none"> Control vessel speed; Skipper training; Predefined and regular routes for working vessels; avoid Brothers Islands. | Minimise marine traffic disturbance on dolphins | Contractor | Marine traffic | During marine works | √ |
| S10.10 | E9 | <ul style="list-style-type: none"> Dolphin vessel monitoring; Mudflat ecological monitoring. | Minimise marine traffic disturbance on dolphins | Contractor | North Lantau and West Lantau | Prior to construction, during construction, and 1 year after operation | √ |
| Ecology (Operation Phase) | | | | | | | |
| S10.7 | E10 | <ul style="list-style-type: none"> Preconstruction dive survey for corals | Minimise impacts on marine ecology | Contractor | The marine pier sites nearest to intertidal zone and along the shore of the HKLR reclamation site | Prior to marine construction works in these locations | √ |
| Fisheries | | | | | | | |
| S11.7 | F2 | <ul style="list-style-type: none"> Reduce re-suspension of sediments Good site practices Spill response plan | Minimise marine water quality impacts | Contractor | Seawall, reclamation area | During construction | √ |
| S11.7 | F3 | <ul style="list-style-type: none"> Install silt-grease trap in the drainage system collecting surface runoff | Minimise impacts on marine water quality impacts | Designer | Reclamation area | During construction | √ |
| S11.7 | F4 | <ul style="list-style-type: none"> Maritime Oil Spill Response Plan (MOSRP); Contingency plan. | Minimise impacts on marine water quality impacts | Management | HKLR | During operation stage | √ |

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 |
|---|---------------|---|---|--------------------------------|--------------------------|---------------------------------|-----------------------|
| Landscape & Visual (Detailed Design Phase) | | | | | | | |
| S14.3.3. 1 | LV1 | <p>General design measures include:</p> <ul style="list-style-type: none"> • Roadside planting and planting along the edge of the reclamation is proposed; • 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; • Protection measures for the trees to be retained during construction activities; • Optimizing the sizes and spacing of the bridge columns; • Fine-tuning the location of the bridge columns to avoid visually sensitive locations; • Aesthetic design of the bridge form and its structural elements for HKLR, e.g. parapet, soffit, columns, lightings and so on; • Considering the decorative urban design elements for HKLR, e.g. decorative road lightings; • Maximizing new tree, shrub and other vegetation planting to compensate tree felled and vegetation removed; • Providing planting area around peripheral of HKLR for tree planting screening effect. • Providing salt-tolerant native trees along the planter strip at affected seawall and newly reclaimed coastline. • 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 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 & planting along edge of reclamation area) to beautify the HKLR alignment (refer to Figure 14.4.3). | Minimise visual & landscape impact | Detailed designer | HKLR | Design stage | N/A |

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 |
|--|---------------|---|---|--------------------------------|--------------------------|---------------------------------|-----------------------|
| Landscape & Visual (Construction Phase) | | | | | | | |
| 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 & planting along edge of reclamation area) to beautify the HKLR alignment.</p> <p>G4. Not Applicable.</p> <p>G5 Vegetation reinstatement and upgrading to disturbed areas.</p> <p>G6. Maximize new tree, shrub and other vegetation planting to compensate tree felled and vegetation removed.</p> <p>G7. Provide planting area around peripheral of and within HKLR for tree screening buffer effect.</p> <p>G8. Plant salt tolerant native tree and shrubs etc along the planter strip at affected seawall.</p> <p>G9. 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> | Minimise visual & landscape impact | Contractor | HKLR | Construction stage | √ |
| 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> | | | | | |

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 |
|---------------------|---------------|--|---|--------------------------------|--------------------------|---------------------------------|-----------------------|
| EM&A | | | | | | | |
| S15.5 - S15.6 | EM2 | 1) An Environmental Team needs to be employed as per the EM&A Manual. 2) Prepare a systematic Environmental Management Plan to ensure effective implementation of the mitigation measures. 3) An environmental impact monitoring needs to be implementing by the Environmental Team to ensure all the requirements given in the EM&A Manual are fully complied with. | Perform environmental monitoring & auditing | Contractor | All construction sites | Construction stage | √ |

Legends:

- √ Implemented
- X Not Implemented
- P Partially Implemented
- N/A Not Applicable



APPENDIX M

Record of “Notification of Summons and Prosecutions

Date of Notification: 5 September 2019

Works Inspected: Data collected from water sampling works on 30 August 2019 and the results were issued on 4 September 2019

Monitoring Location: Water Quality Monitoring Stations

Parameter: Dissolved Oxygen (DO)/ ~~Suspended Solids (SS)~~/ Turbidity (TURB)

Action & Limit Level (AL & LL) / Measured Level:

| PARAM | STATION | DEPTH | AL (mg/L) | LL (mg/L) | MEASURED AT MID-EBB TIDE (mg/L) | MEASURED AT MID-FLOOD TIDE (mg/L) |
|-------|-----------|--------------------|-----------|-----------|---------------------------------|-----------------------------------|
| DO | IS10(N) | Surface and Middle | 5.0 | 4.2 | 4.8 | 4.6 |
| DO | SR5(N) | Surface and Middle | 5.0 | 4.2 | 4.9 | 4.6 |
| DO | SR10A(N) | Surface and Middle | 5.0 | 5.0 | <u>4.8</u> | <u>4.4</u> |
| DO | SR10B(N2) | Surface and Middle | 5.0 | 5.0 | <u>4.9</u> | <u>4.5</u> |
| DO | IS10(N) | Bottom | 4.7 | 3.6 | 4.7 | 4.6 |
| DO | SR5(N) | Bottom | 4.7 | 3.6 | 4.9 | 4.5 |
| DO | SR10A(N) | Bottom | 4.7 | 3.6 | 4.8 | 4.2 |
| DO | SR10B(N2) | Bottom | 4.7 | 3.6 | 4.8 | 4.3 |

Notes:

- 1) ***Bold Italic*** means AL exceedances.
- 2) ***Bold Italic with underline*** means LL exceedances.

Possible reasons for Action Level / Limit Level Non-compliance:

On 30 August 2019, 2 Action Level exceedances of dissolved oxygen at stations IS10(N), SR5(N) and 2 Limit Level exceedances of dissolved oxygen were recorded at SR10A(N), SR10B(N2) at surface and middle level during mid-ebb tide. 2 Action Level exceedances of dissolved oxygen at stations IS10(N), SR5(N) and 2 Limit Level exceedances of dissolved oxygen were recorded at SR10A(N), SR10B(N2) at surface and middle level during mid-flood tide. 4 Action Level exceedances of dissolved oxygen were recorded at IS10(N), SR5(N), SR10A(N) and SR10B(N2) at bottom level during mid-flood tide. The exceedances have been investigated and are considered unlikely to be related to contract works due to the following reasons:

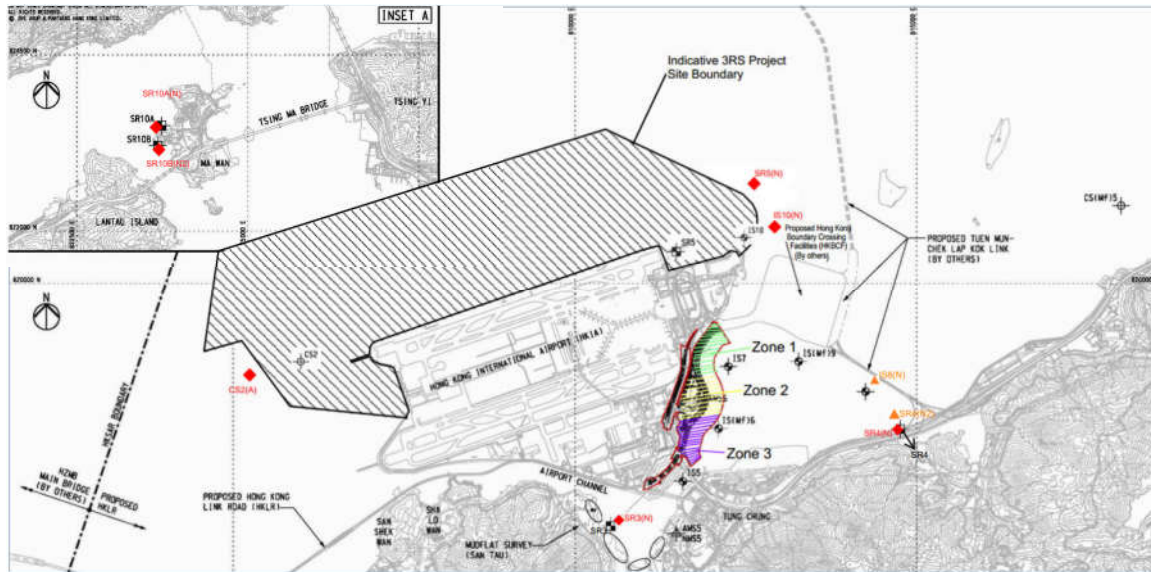
1. Land-based work including construction of maintenance access at Zone 3 were carried out on 30 August 2019. No wastewater was discharged from work areas of this Contract to the open water on 30 August 2019. It is also noted that exceedances were not recorded at stations IS5, IS(Mf)6 and IS7 which are located close to the site boundary of this Contract. As confirmed by the Contractor of this Contract, there were no marine based works and no marine transportation in the vicinity of stations IS10(N), SR5(N), SR10A(N) and SR10B(N2) on 30 August 2019 which are located far away the site boundary of this Contract (over 1.5 km).

2. Water appearance was observed clear at stations IS10(N), SR5(N), SR10A(N) and SR10B(N2) during sampling exercise. No silt plume and no abnormality or malpractice for the contract works were observed in the vicinity of the stations during the sampling exercise.
3. There were no specific activities recorded during the monitoring period that would cause any significant impacts on the monitoring results. As such, the exceedances in DO level are considered to be attributed to other external factors such as sea condition, rather than the contract works.

Actions taken/ to be taken:

As the DO level recorded beyond the water quality criteria was not related to contract works, no immediate actions are considered necessary. However, the Contractor is reminded to ensure the silt curtain is fully maintained throughout the construction works and construction works are under stringer supervision to prevent any water quality impacts to the seawater.

Location Plan:



Reviewed by : Claudine Lee

Title : ET Leader

Date : 10 September 2019

Copied to : Supervising Officer, IEC, EPD, Contractor, ENPO

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 N

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

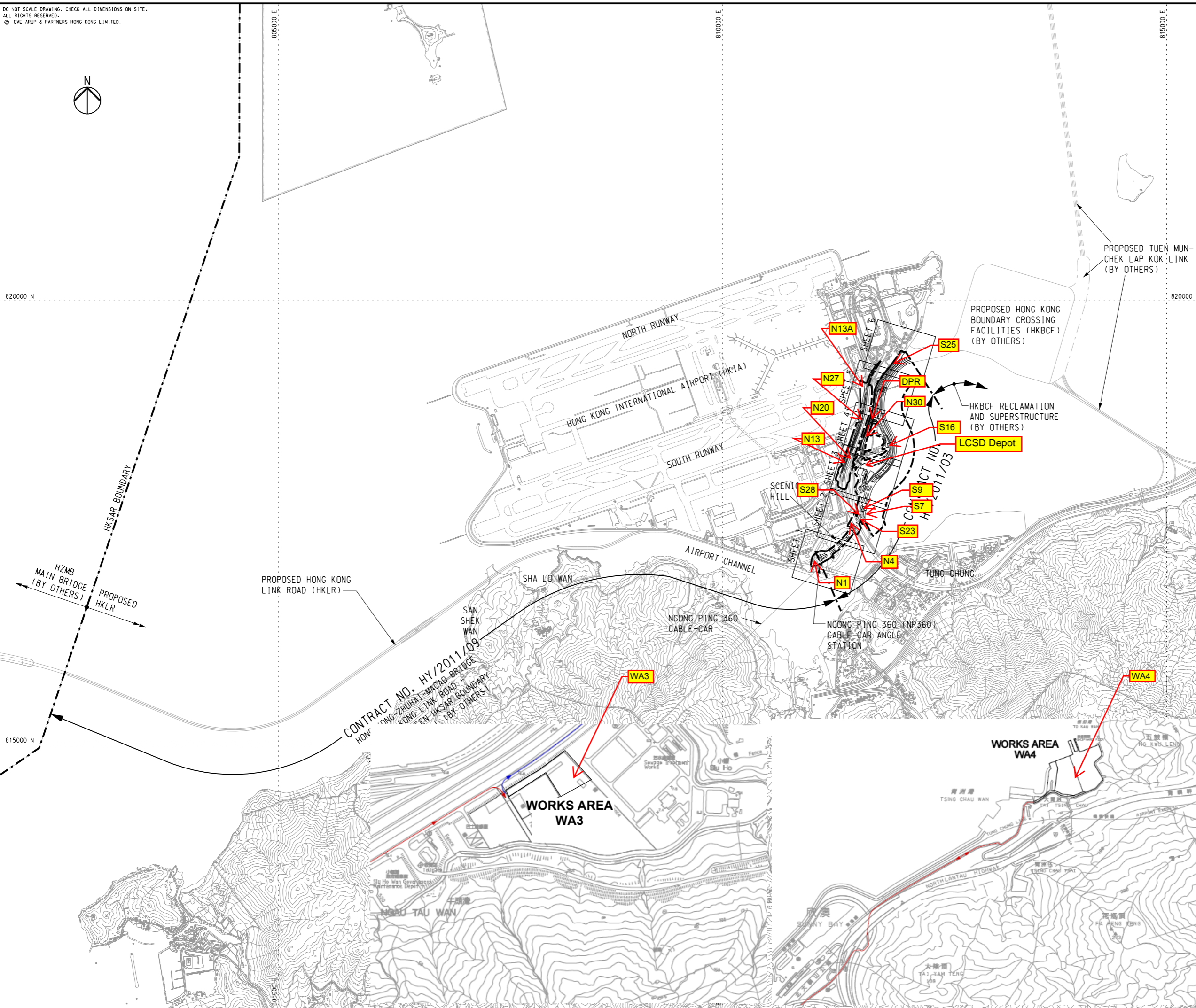
805000 E

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**

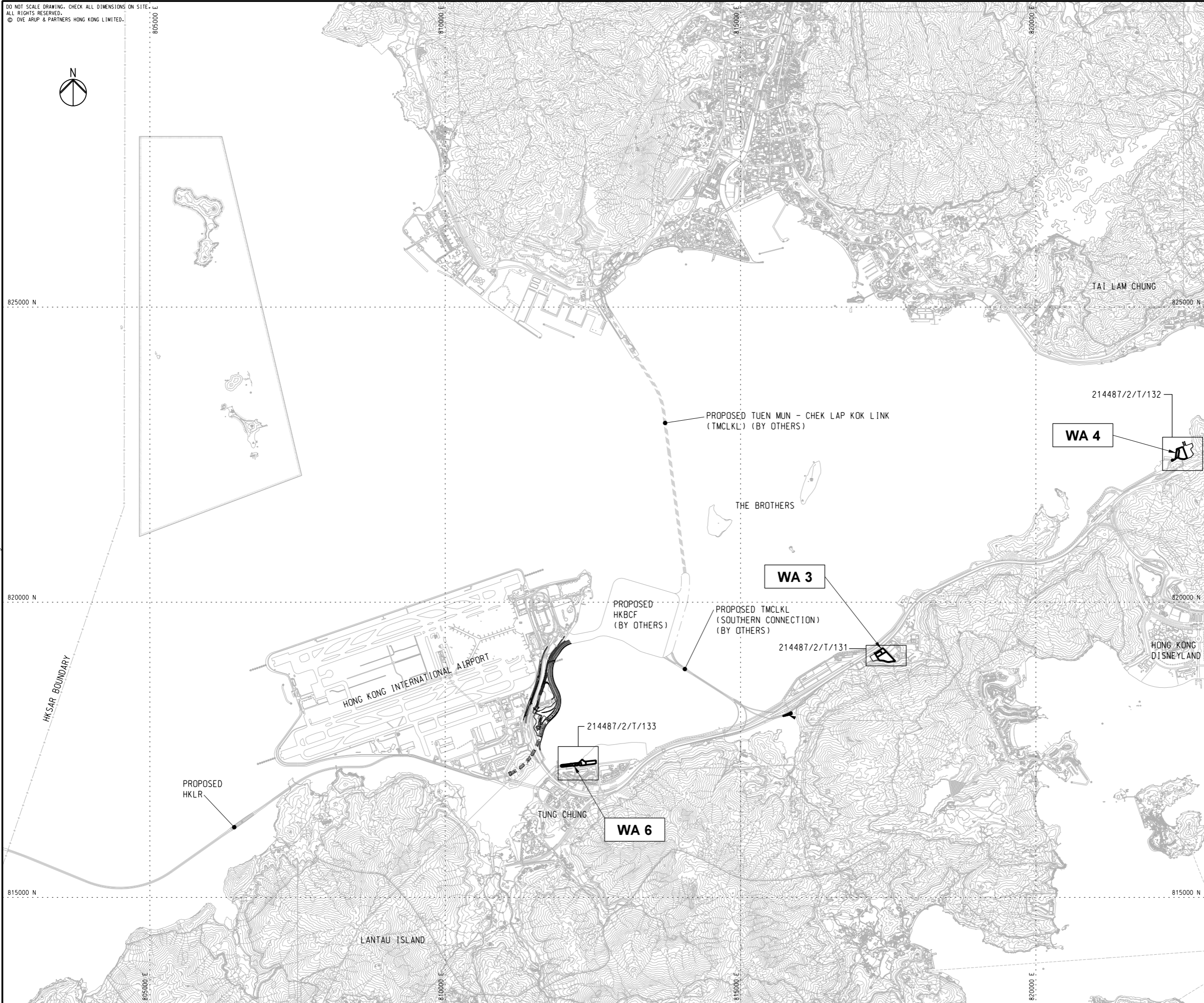
| | | | |
|-------------|----------------|----------|--------|
| Drawing no. | 214487/2/T/001 | Rev. | A |
| Drawn | RY | Date | 02/12 |
| Checked | IL | Approved | SK |
| Scale | 1:20000 @A1 | Status | TENDER |

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

Printed by : 13/2/2012
Filename : J:\214487\Record\HY_2011_03\Re-Tender (2012-02-17)\DGN\E-HY_2011_03-DRG_001-A-10.dgn

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



NOTES

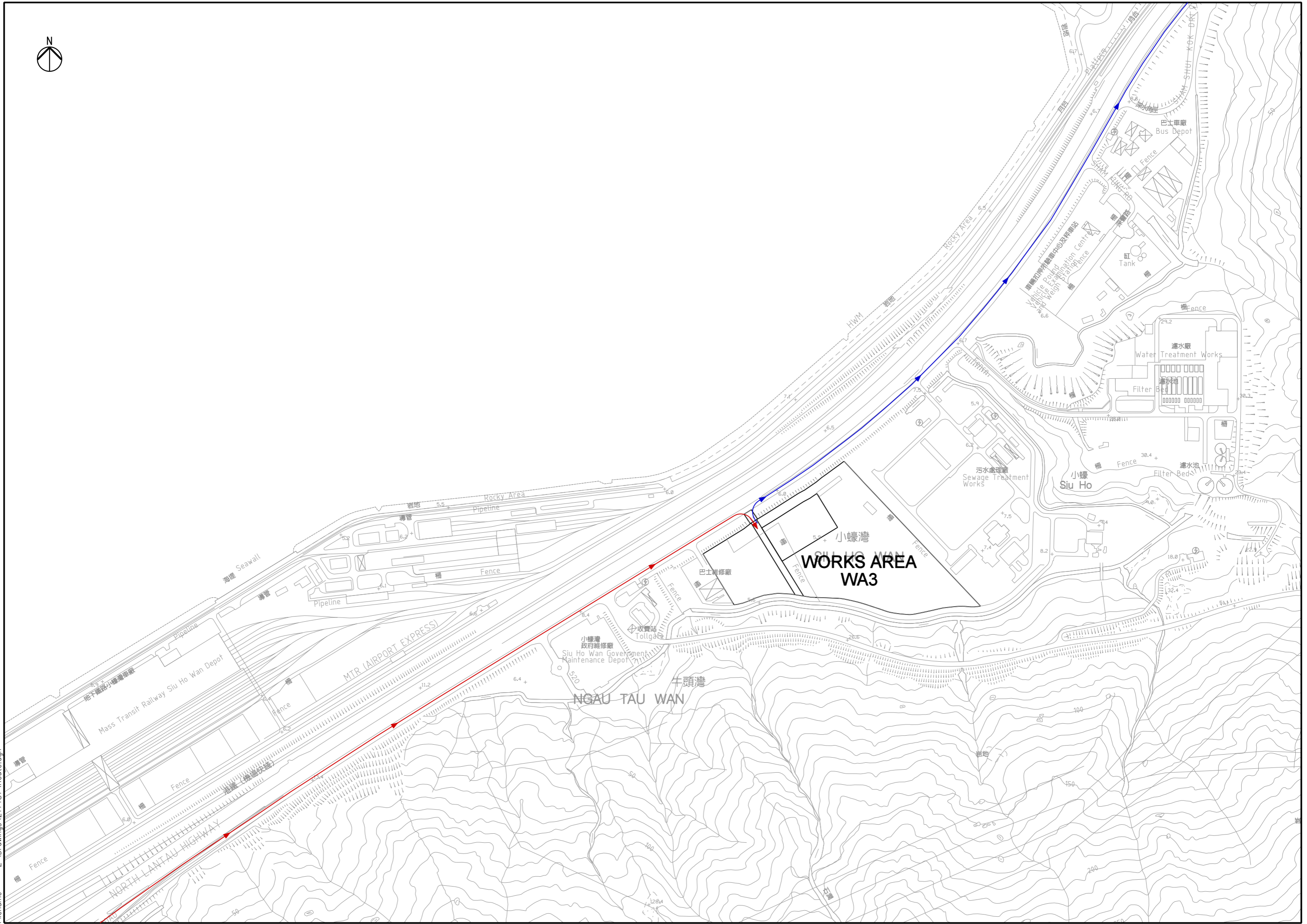
1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRG. NOS. 214487/2/T/131 - 133.

Printed by : 13/2/2012
 Filename : J:\214487\Record\HY_2011_03\Re-Tender (2012-02-17)\DGN\NE-HY_2011_03-DRG_130-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 | | | | | |
| WORKS AREAS KEY PLAN | | | | | |
| Drawing no. | | | | Rev. | |
| 214487/2/T/130 | | | | A | |
| Drawn | Date | Checked | Approved | | |
| RY | 02/12 | IL | SK | | |
| Scale | Status | | TENDER | | |
| 1:30000 @A1 | | | | | |

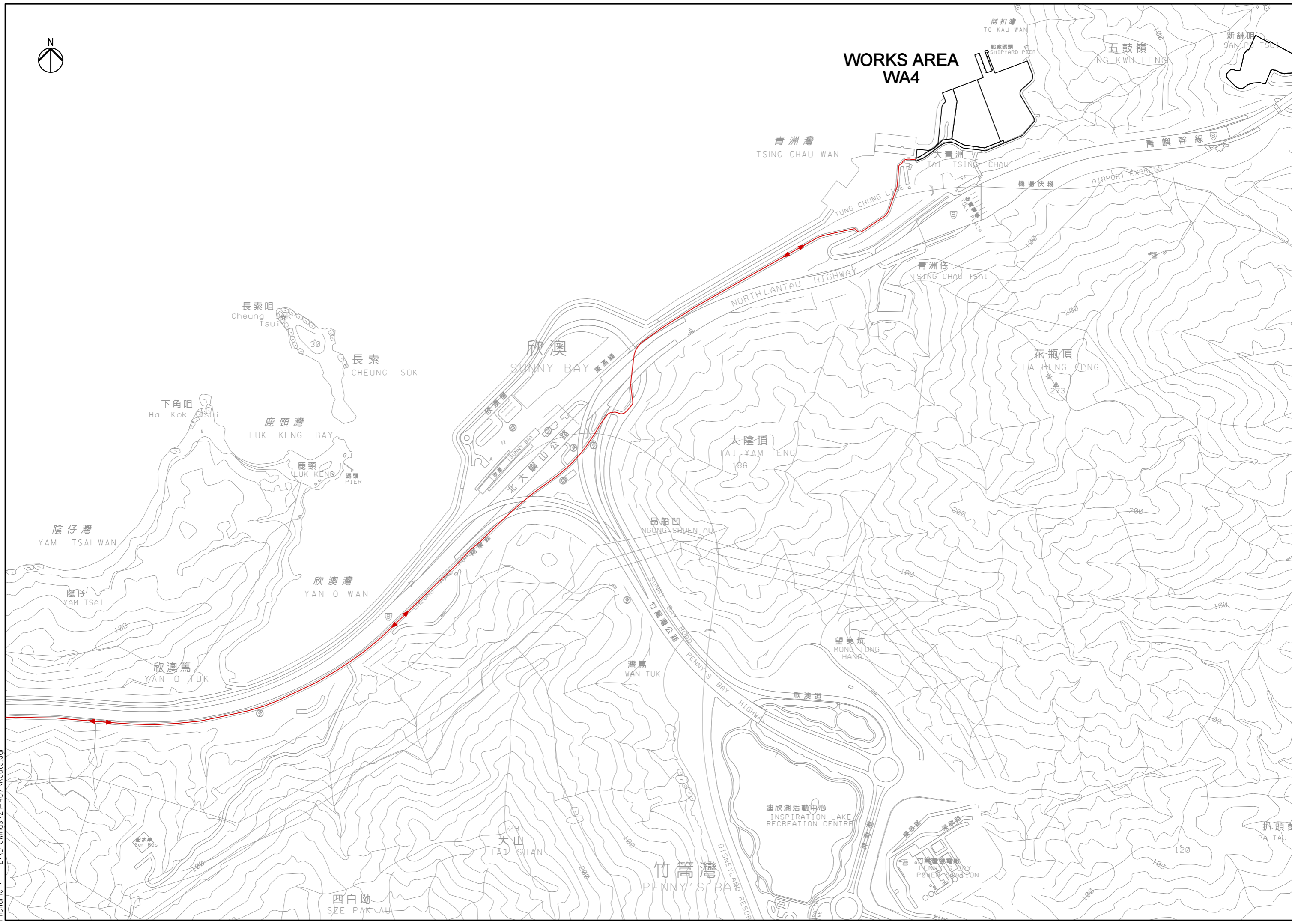
COPYRIGHT RESERVED

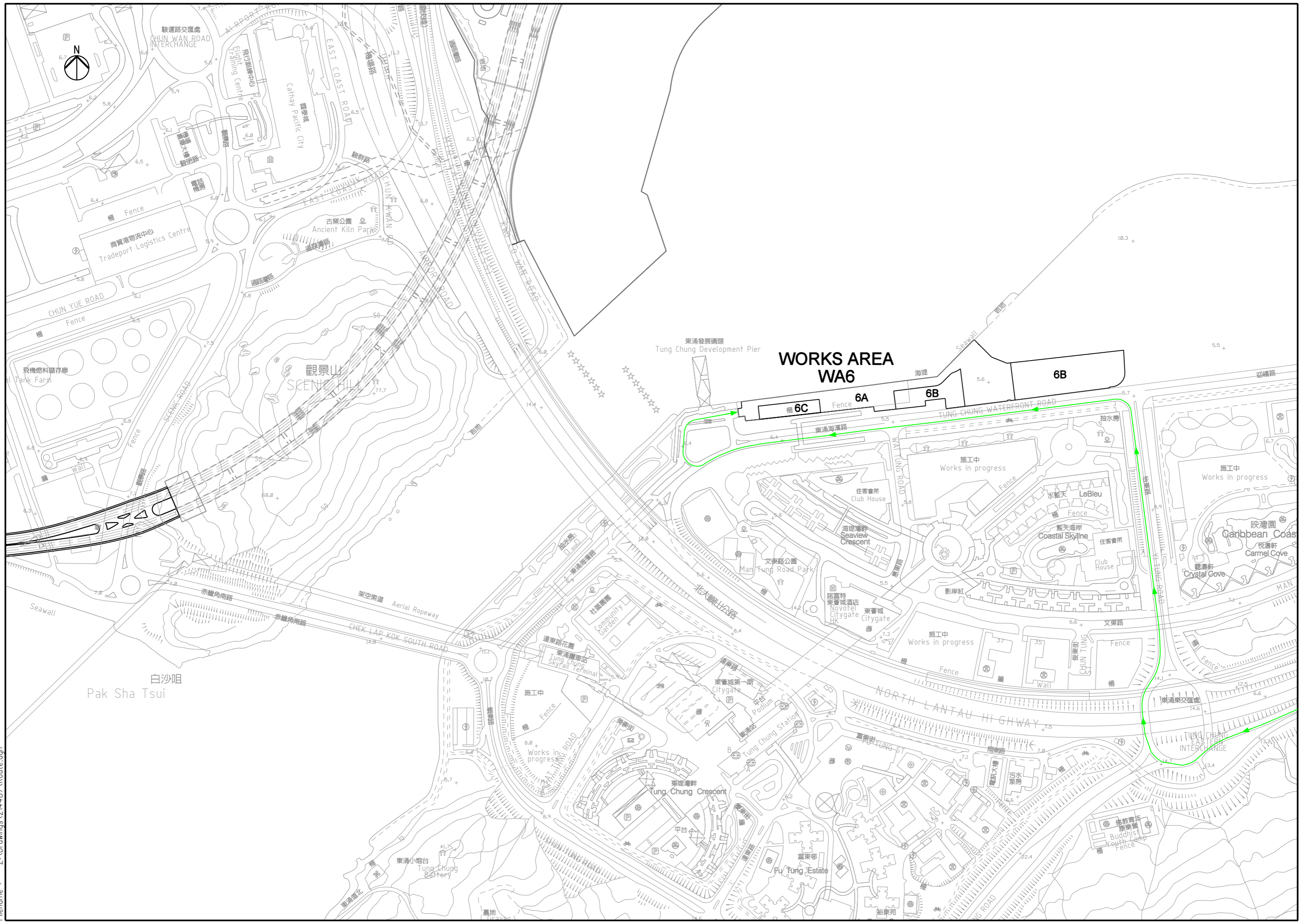
路政署
HIGHWAYS DEPARTMENT
 港珠澳大橋香港工程處
 Hong Kong - Zhuhai - Macao Bridge
 Hong Kong Project Management Office





WORKS AREA WA4





WORKS AREA WA6

6B

6C

6A

6B

白沙咀
Pak Sha Tsui

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\E-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.



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.

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

| | | | |
|-----|--------------|----|-------|
| 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

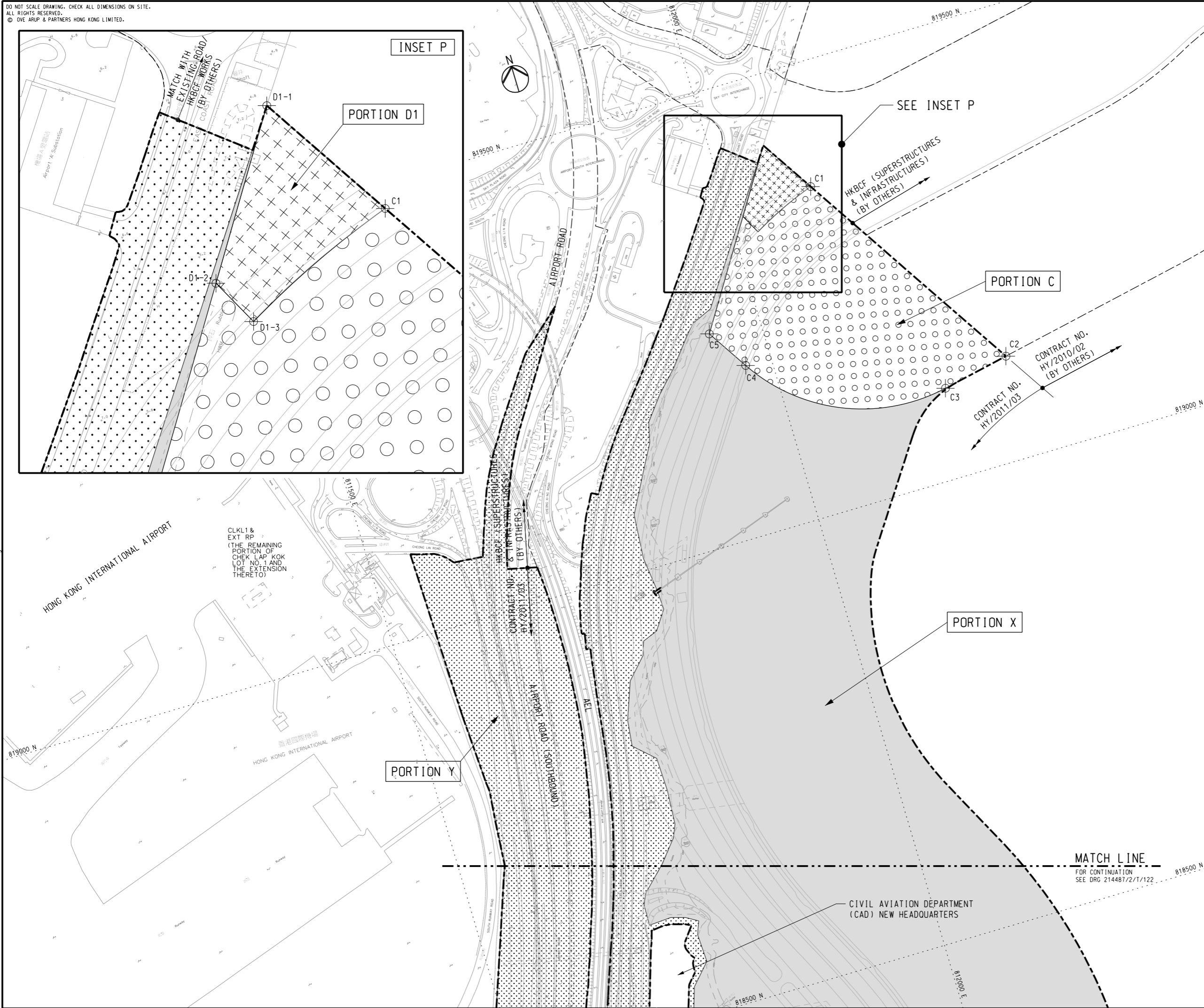
Drawing title
**PORTION OF SITE
(SHEET 2 OF 3)**

| | | | |
|----------------------------|------------|------------|-------------|
| 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.



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管理處
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